FORMER TIFFANY'S STUDIOS SITE
(PROPOSED PUBLIC SCHOOL 315Q)

QUEENS, NEW YORK

Interim Remedial Measure Work Plan

NYSDEC Order on Consent Index Number: R2-0789-12-08;
Site Number 241140

Prepared for:

New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101-3045

Prepared by:

TRC Engineers, Inc.
1430 Broadway, 10th Floor
New York, NY 10018
(212) 221-7822

MARCH 2014

CERTIFICATIONS

I, Jennifer DiPilato, certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measure Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

085404-1 — NYS Professional Engineer #

3/17/14 — Date

Signature

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

FINAL INTERIM REMEDIAL MEASURE WORK PLAN

TABLE OF CONTENTS

Contents

CERTIFICATIONS ii
FINAL INTERIM REMEDIAL MEASURE WORK PLAN iii
TABLE OF CONTENTS iii
LIST OF ACRONYMS ix
Executive Summary 1
Site Description/Physical Setting/Site History 1
Summary of the Remedial Investigation 2
Summary of the IRMs 4
INTERIM REMEDIAL MEASURE WORK PLAN 6
1.0 INTRODUCTION 6
1.1 Site Location and Description 6
1.2 Contemplated Redevelopment Plan 7
1.3 Description of Surrounding Property 7
2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS 8
2.1 Summary of Remedial Investigations Performed 8
2.1.1 Supplemental Site Investigation 8
2.1.2 Supplemental Site Investigation No. 2 10
2.2 Site History 12
2.2.1 Phase I and Phase II Reports 12
2.3 Geological Conditions 16
2.3.1 Topography 16
2.3.2 Geology 17
2.3.3 Soils 17
2.3.4 Hydrogeology 17
2.4 Contamination Conditions 18
2.4.1 Identification of Standards, Criteria and Guidance 18

2.4.2 Soil/Fill Contamination 22
2.4.3 On-Site and Off-Site Groundwater Contamination 22
2.4.4 On-Site and Off-Site Soil Vapor Contamination 22
2.5 Remedial Action Objectives 23
2.5.1 Soil Vapor 23
2.5.2 Groundwater 23
2.5.3 Soil 23
3.0 Description of Interim Remedial Measures 25
3.1 Summary of Selected Interim Remedial Measures 25
4.0 Interim Remedial Measures Program 27
4.1 Governing Documents 27
4.1.1 Site-Specific Health & Safety Plan (HASP) 27
4.1.2 Quality Assurance Project Plan (QAPP) 27
4.1.3 Soil/Materials Management Plan (SoMP) 27
4.1.4 Community Air Monitoring Plan (CAMP) 28
4.2 General IRM Construction Information 28
4.2.1 Project Organization 28
4.2.2 Remedial Engineer 28
4.2.3 IRM Construction Schedule 29
4.2.4 Work Hours 29
4.2.5 Site Security 29
4.2.6 Worker Training and Monitoring 29
4.2.7 Agency Approvals 30
4.2.8 Pre-Construction Meeting with NYSDEC 30
4.2.9 Emergency Contact Information 30
4.3 Site Preparation 30
4.3.1 Utility Marker and Easements Layout 30
4.3.2 Sheeting and Shoring 31
4.3.3 Decontamination Area 31
4.4 Reporting 33
4.4.1 Monthly Reports 33
4.4.2 Deviations from the IRM Work Plan 33

5.0 IRM: Material Removal from Site 35
5.1 Post Excavation End-Point Sampling 35
5.2 Estimated Material Removal Quantities 36
5.3 Soil/Materials Management Plan 36
5.3.1 Stockpile Methods 36
5.3.2 Materials Excavation and Load Out 36
5.3.3 Materials Transport Off-Site 37
5.3.4 Materials Disposal Off-Site 37
5.3.5 Materials Reuse On-Site 38
5.3.6 Fluids Management 38
5.3.7 Backfill from Off-Site Sources 38
5.3.8 Community Air Monitoring Plan 39
5.3.9 Dust Control Plan 42
6.0 Residual Contamination to Remain On-site 44
7.0 Engineering Controls 45
7.1 Composite Cover System 45
7.2 Vapor Barrier and Sub-Slab Depressurization System 45
7.3 Criteria for Termination of Engineering Controls 45
7.3.1 Composite Cover System 45
7.3.2 Vapor Barrier and Sub-Slab Depressurization System (SSDS) 46
8.0 Institutional Controls 47
8.1 Environmental Easement 47
8.2 Site Management Plan 50
9.0 Final Engineering Report 52
9.1 Certifications 52
10.0 Schedule 54

LIST OF TABLES

Table 1 – Emergency Contact Numbers

LIST OF FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Summary of VOC Exceedances of Soil Cleanup Levels and Unrestricted Use SCOs in Soil

Figure 4 – Summary of TCLP Lead Exceedances of RCRA Toxicity Standard in Soil

Figure 5 – Summary of VOC Exceedances of Class GA Values in Groundwater

Figure 6 – Summary of Exceedances of Comparison Criteria in Sub-Slab Soil Vapor

Figure 7 – Geological Cross Section A-A'

Figure 8 – Geological Cross Section B-B'

Figure 9 – Groundwater Surface Elevation Contour Map – December 2012

Figure 10 – Project Organizational Chart

Figure 11– Cross Section of Planned Excavation at Locations with TCLP Lead Concentrations Above Regulatory Limit

Figure 12 – Post-Excavation Monitoring Well Network Map

Figure 13 – Post-Excavation Soil Vapor Probe Network Map

LIST OF APPENDICES

Appendix A – Health and Safety Plan

Appendix B – Quality Assurance Project Plan

Appendix C – Excavated Material Disposal Plan

Appendix D – Community Air Monitoring Plan

Appendix E – Resumes of Key Personnel

Appendix F – Vapor Barrier and SSDS Design Documents

Appendix G – Construction Schedule

LIST OF ACRONYMS

Acronym	Definition
µg/m^3	micrograms per cubic meter
ACM	Asbestos Containing Material
AGV	Air Guideline Value
amsl	above mean sea level
bgs	below ground surface
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
Class GA Values	Class GA Standards and Guidance Values
COC	Contaminant of Concern
CP	Commissioner Policy
CP-51	Soil Cleanup Guidance
DER	Department of Environmental Remediation
DER-10	DER Technical Guidance for Site Investigation and Remediation
DSHM	Division of Solid & Hazardous Materials
EC	Engineering Control
ELAP	Environmental Laboratory Approval Program
EMDP	Excavated Material Disposal Plan
ESA	Environmental Site Assessment
ESI	Environmental Site Investigation
FER	Final Engineering Report
HASP	Health and Safety Plan
IC	Institutional Control
IRM	Interim Remedial Measures
LBP	Lead-Based Paint
LIRR	Long Island Rail Road
LNAPL	Light, non-aqueous phase liquid
mg/kg	milligrams per kilogram

Acronym	Definition
mg/L	milligrams per liter
NPDES	National Pollutant Discharge Elimination System
NYCDCP	New York City Department of City Planning
NYCRR	New York Codes, Rules and Regulations
NYCSCA	New York City School Construction Authority
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSWER	Office of Solid Waste and Emergency Response
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PDF	Portable Document Format
PID	Photo-Ionization Detector
PM-10	Particulate less than 10 microns in size
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objection
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
SCGs	Standards, Criteria and Guidance
SCL	Soil Cleanup Level
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SoMP	Soil/Materials Management Plan
SOP	Site Operations Plan
SPDES	State Pollutant Discharge Elimination System
SPOTS	Spill Prevention Operations Technology Series
SSDS	Sub-Slab Depressurization System
STARS	Spill Technology and Remediation Series
SWPPP	Stormwater Pollution Prevention Plan

Acronym	Definition
SVOC	Semi-Volatile Organic Compound
TAGM	Technical and Administrative Guidance Series
TAL	Target Analyte List
TCE	Trichloroethene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOGS	Technical & Operational Series
TRC	TRC Engineers, Inc.
TWA	Time Weighted Average
UST	Underground Storage Tank
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Site Description/Physical Setting/Site History

On behalf of the New York City School Construction Authority (NYCSCA), TRC Engineers, Inc. (TRC) has prepared this Interim Remedial Measure (IRM) Work Plan for the Former Tiffany Studios Site (also known as the proposed Public School 315Q Site) located at 96-18 43rd Avenue, Corona, Queens, New York (hereafter referred to as the "Site"). Figure 1 presents a Site Location Map. The Site is an approximately 55,000-square-foot lot improved with four contiguous, two- and three-story commercial buildings. The buildings occupy a footprint of approximately 44,000 square feet. There is a concrete-paved courtyard and parking area in the central portion of the Site, and a pedestrian walkway extends from the southwestern portion of the Site to a gated entrance on 44th Avenue. Figure 2 presents a Site Plan. Surrounding properties are primarily characterized by residential and commercial buildings.

The property was purchased by the NYCSCA in May 2012 and in August 2012 the NYCSCA awarded a contract to demolish the existing structures and construct a new school building. Demolition of the Site structures is underway and excavation for the new school is imminent. The NYCSCA's Construction Management Division is overseeing implementation of the construction activities and schedule.

The Site has been occupied by manufacturing facilities including metal working, wood working, and/or garment manufacturing facilities since at least 1902. A Phase I Environmental Site Assessment (ESA) prepared in July 2010 identified on-site recognized environmental conditions (RECs) related to three on-site suspect dry wells; three metal plates covering buried structures in the central courtyard; a potential petroleum storage tank near the northern perimeter of the Site; historical use of the Site for metal working operations and associated structures: including a "benzine" vault, a coal bin, a coal house, a plating and dipping room, two driven wells and an oil house; and use of the Site for manufacturing operations: including garment manufacturing companies, wood working facilities, electronics companies, a lamp manufacturing company, an artificial tree and flower company, and a paper company. Several off-site RECs were also identified, including two potential petroleum storage tanks on adjoining properties; an

abandoned borehole indicative of a previous environmental investigation; an active gasoline filling station; an active vehicle repair facility with a spray booth; multiple historical automobile repair and manufacturing facilities; historical metal and wood working facilities; and the presence of selected volatile organic compounds (VOCs) in groundwater and soil vapor at a property located approximately 200 feet east of the Site.

In 2010 and 2011 the NYCSCA completed due diligence investigations (described in Section 2.2.1) before purchasing the property. The due diligence investigations consisted of geophysical surveys, the advancement of 26 soil borings and collection of 36 soil samples for laboratory analyses, installation of 10 temporary monitoring wells and collection of 10 groundwater samples for laboratory analyses, and the collection 7 soil vapor samples for laboratory analysis. In May 2012, the NYCSCA purchased the Site, in August 2012 the contract was awarded to demolish the existing structures and build a school and in October 2012, the NYCSCA entered into an Order on Consent with the New York State Department of Environmental Conservation (NYSDEC) for the Site (Index No. R2-0789-12-08; Site No. 241140).

Summary of the Remedial Investigation

The Site was investigated in accordance with the scope of work presented in the NYSDEC-approved Supplemental Site Investigation Work Plans. The Supplemental Site Investigations consisted of the advancement of soil borings, installation of groundwater monitoring wells, and collection and laboratory analysis of soil and groundwater samples. The results of the Supplemental Site Investigations were presented to the NYSDEC in reports dated May 16, 2012 and January 25, 2013.

The Supplemental Site Investigations identified the presence of contaminants of concern (COCs) in soil and groundwater beneath and at the perimeter of the Site. A 7,500-gallon underground storage tank (UST) containing approximately 6 inches of sludge was also identified in the courtyard. Laboratory analysis of the sludge indicated that it is comprised of No. 2 fuel oil and crude oil, and contained tetrachloroethene (PCE), which may be associated with historic tank cleaning. Field investigations did not indicate a release from the UST.

Petroleum-related COCs were detected in soil immediately above the groundwater table and/or in saturated soil (refer to Figure 3). PCE was detected in one saturated soil sample collected from the southwestern portion of the Site. No petroleum- or chlorinated solvent-related volatile organic compounds (VOCs) were detected in unsaturated soil beneath the Site at concentrations exceeding the Unrestricted Use Soil Cleanup Objectives (SCOs) or the NYSDEC Commissioner Policy 51 Soil Cleanup Guidance (CP-51) Table 3 listed Soil Cleanup Levels (SCLs). Fill material exhibiting Toxicity Characteristic Leaching Procedures (TCLP) lead concentrations above the regulatory limit was identified in samples collected from two borings (refer to Figure 4).

Groundwater at the Site is impacted by chlorinated solvent- and petroleum-related VOCs (refer to Figure 5). The source(s) of the groundwater contamination has not been positively determined; however, there were no VOCs detected at concentrations above Unrestricted Use SCOs or CP-51 SCLs in unsaturated soil at the Site. Additionally, considering that upgradient monitoring wells contained chlorinated solvent- and/or petroleum-related VOCs above Class GA Values, there is evidence of an off-site source migrating onto the Site. Petroleum-related VOCs were not detected above Class GA Values in groundwater samples collected from downgradient wells. Chlorinated solvent-related VOCs were detected in groundwater collected from only one of four downgradient monitoring wells, indicating that significant off-Site migration of chlorinated solvent-related VOCs is not occurring. Additionally, several metals were detected in filtered groundwater samples. The detected metals concentrations can be attributed to the characteristics of Site soil or to regional conditions.

It should be noted that soil vapor sampling performed as part of initial due diligence investigations identified the presence of PCE, methylene chloride, and trichloroethene (TCE) in soil vapor at concentrations above the New York State Department of Health (NYSDOH) Air Guideline Values (AGVs). Twelve (12) other VOCs were also detected at concentrations above the anticipated regulatory database background levels in one or more of the soil vapor samples. Figure 6 presents the soil vapor concentrations which exceed AGVs or background levels.

The topography of the Site slopes downwards towards the southwest and adjacent lands slope south-southeast. Site investigations have identified fill material throughout the Site between surface grade and depths of approximately 20 feet below ground surface (bgs). Borings

advanced to depths greater than 50 feet bgs did not encounter bedrock. Groundwater was measured at depths ranging from approximately 15 to 36 feet bgs and flows towards the southeast.

Summary of the IRMs

The following IRMs are proposed for the Site:

1. The 7,500-gallon UST, the UST access vault, and associated piping will be closed and removed in accordance with applicable Federal, State and local regulations. The sludge in the bottom of the UST contains PCE; therefore, it will be classified as hazardous waste for disposal.

2. Groundwater monitoring wells located within the Site boundary will be decommissioned in accordance with NYSDEC requirements during the demolition phase of the work.

3. The soil between grade and 15 feet bgs in the vicinity of the two historic borings that exhibited lead concentrations at or above the TCLP regulatory limit will be excavated and removed from the Site in accordance with applicable Federal, State, and local hazardous waste regulations.

4. Collection and analysis of post-excavation end-point samples from hazardous waste and, if encountered, petroleum-contaminated soil excavations to document post-IRM soil conditions.

5. Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal.

6. Construction, operation and maintenance of a vapor barrier and an active sub-slab depressurization system (SSDS) for the new school building.

7. Construction and maintenance of an engineered composite cover system consisting of asphalt or concrete pavement, concrete building slabs, and a minimum of two feet of environmentally clean fill meeting the requirements of 6 NYCRR Part 375-6 Unrestricted Use SCOs in landscaped areas to prevent human exposure to residual

contaminated soils/fill remaining under the Site. Note that the contemplated use of the Site allows for cover material to meet Restricted Residential Use SCOs; however, the NYCSCA's standard specifications for cover material require the use of the more stringent Unrestricted Use SCOs.

8. Import of materials to be used for backfill and cover in compliance with: (1) NYSDEC requirements, and (2) all Federal, State and local rules and regulations for handling and transport of material.

9. Recording an Environmental Easement, including Institutional Controls, to prevent future exposure to any residual contamination at the Site.

10. Publication of a Site Management Plan for long term management of residual contamination as required by the Environmental Easement, including plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.

11. Collection and analysis of groundwater samples from wells located along the Site perimeter for four quarters to document post-IRM groundwater conditions.

12. Collection and analysis of one round of soil vapor samples from temporary soil vapor probes located along the Site perimeter to document post-IRM soil vapor conditions.

The IRMs will be performed at the Site in accordance with this NYSDEC-approved IRM Work Plan. Implementation of the IRM, including all deviations from the IRM Work Plan, will be documented in the Final Engineering Report.

INTERIM REMEDIAL MEASURE WORK PLAN

1.0 INTRODUCTION

The New York City School Construction Authority (NYCSCA) entered into an Order on Consent (Index No. R2-0789-12-08; Site No. 241140) with the New York State Department of Environmental Conservation (NYSDEC) in October 2012, to investigate and remediate an approximately 1.25-acre property located at 96-18 43rd Avenue in Corona, Queens, New York. The NYCSCA will construct a public school at the Site.

This Interim Remedial Measure (IRM) Work Plan summarizes the nature and extent of contamination as determined from data gathered during investigations performed between July 2010 and January 2013, and presents the proposed IRMs. A formal Remedial Design document will not be prepared. The actions described in this document are consistent with the procedures defined in DER-10 and complies with all applicable standards, criteria and guidance. The remedy described in this document also complies with all applicable Federal, State and local laws, regulations and requirements. The investigations for this Site did not identify fish and wildlife resources.

1.1 SITE LOCATION AND DESCRIPTION

The Site is located in the County of Queens, Corona, New York and is identified as Block 1613 and Lot 17 on the New York City Tax Map. A United States Geological Survey (USGS) topographical quadrangle (Figure 1) shows the Site location. The Site is situated on an approximately 1.25-acre area bounded by 43rd Avenue to the north, 44th Avenue to the south, 97th Place to the east, and a commercial office building and an abandoned commercial building to the west (see Figure 2).

1.2 CONTEMPLATED REDEVELOPMENT PLAN

The IRMs to be performed under the IRM Work Plan are intended to make the Site protective of human health and the environment consistent with the contemplated end use. The proposed redevelopment plan and end use is described here to provide the basis for this assessment. However, the IRMs contemplated under this IRM Work Plan may be implemented independent of the proposed redevelopment plan.

The NYCSCA will raze the existing structures and construct a new public school at the Site. The new 5-story school building will comprise approximately 48,000 square feet (footprint) and will have one basement level.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

According to zoning information provided by the New York City Department of City Planning (NYCDCP), the Site is located within an "M1-1" manufacturing district. Neither "E" nor "D" restrictive declarations are associated with the Site or adjoining properties. Four two- and three-story residential buildings and a one-story food distribution facility border the Site to the north across 43rd Avenue; 97th place and three two- and three-story residential buildings border the Site to the east; 44th Avenue and railroad tracks servicing the Long Island Rail Road (LIRR) Port Washington Line border the Site to the south; and a commercial office building and an abandoned commercial building border the Site to the west.

The surrounding area beyond the adjoining properties consists primarily of two- and three-story residential and commercial buildings. A firehouse is located feet east of the Site at 97-36 43rd Avenue, a vehicle repair facility (DVD Auto Repair Inc.) is located approximately 160 feet east of the Site at 97-07 44th Avenue, and a BP gasoline filling station is located approximately 100 feet west of the Site at 43-21 Junction Boulevard. Ground-level retail businesses and restaurants are located in the multiple-story residential buildings along National Street and Junction Boulevard.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The Site was investigated in accordance with the scope of work presented in the NYSDEC-approved Supplemental Site Investigation Work Plan dated February 14, 2012 and the Supplemental Site Investigation No. 2 Work Plan dated October 22, 2012. The investigations were conducted between February 27, 2012 and December 17, 2012. The Supplemental Site Investigation Report and Supplemental Site Investigation No. 2 Report were submitted to NYSDEC on May 16, 2012 and January 25, 2013, respectively.

2.1 SUMMARY OF REMEDIAL INVESTIGATIONS PERFORMED

Two Supplemental Site Investigations were conducted at the Site based on the due diligence investigations prepared before the property was purchased. The following section summarizes the findings of these investigations. Figures 3 and 4 present the soil sample locations containing elevated contaminant of concern (COC) concentrations. Figure 5 presents the groundwater sample locations containing volatile organic compound (VOC) concentrations above comparison criteria.

2.1.1 Supplemental Site Investigation

TRC submitted a Supplemental Site Investigation Scope of Work to the NYSDEC on February 2, 2012, which was conditionally approved by the NYSDEC on February 9, 2012. TRC submitted a revised Supplemental Site Investigation Scope of Work, incorporating the NYSDEC requirements to the NYCSCA on February 14, 2012.

In May 2012, TRC completed the Supplemental Site Investigation. The purpose of the Supplemental Site Investigation was to characterize the contents of the 7,500-gallon abandoned underground storage tank (UST); confirm chlorinated solvent- and petroleum-related impacts to groundwater; collect additional soil samples to confirm that the Site is not a source of the chlorinated solvent- and petroleum-related VOCs previously found in groundwater; further characterize Site geology and hydrogeology; and, delineate the previously identified areas of lead concentrations above Toxicity Characteristic Leaching Procedure (TCLP) regulatory limits in historic fill. Field activities were performed between February 27 and April 2, 2012 and consisted of: two geophysical surveys, advancement of twenty-six (26) soil borings, installation

of eight (8) monitoring wells, the collection of soil and groundwater samples for laboratory analysis, the collection of one sample of the contents of the abandoned UST for laboratory analysis, and the surveying and gauging of monitoring wells to determine groundwater surface elevations and flow direction.

The results of the Supplemental Site Investigation indicated the following:

- The 7,500-gallon UST in the courtyard contained approximately six inches of sludge. Based on the results of the fingerprint analysis, the sludge was a mixture of No. 2 fuel oil and crude oil. Additionally, the sample collected from the UST contained tetrachloroethene (PCE) at a concentration of 35 milligrams per kilogram (mg/kg). The PCE found in the UST sludge may be the result a historic tank cleaning operation. Soil samples collected from soil borings advanced immediately adjacent to the UST did not exhibit visual and/or olfactory evidence of contamination above the observed water table (approximately 23 feet below the UST bottom). Furthermore, there were no VOCs detected at concentrations above the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) in soil samples collected near the UST. Therefore, it does not appear that the UST is a source of contamination at the Site.

- Twenty-six (26) soil borings were advanced on the Site to a maximum depth of 58 feet below ground surface (bgs). Eight soil borings were converted to one- or two-inch diameter monitoring wells. Fill material was observed throughout the Site between surface grade and depths of 7.5 feet to 19 feet. The historic fill generally consisted of brown fine- to medium-grained sand with gravel, silt, clay, and fragments of brick, concrete, coal, glass and wood. Native soil below the historic fill generally consisted of brown fine- to coarse-grained sand with silt, clay, and gravel. Interbedded layers of silt and clay, ranging from one- to nine-feet thick, were identified in the native sand unit in borings, consistent with the borings advanced during the initial due diligence investigation and the Supplemental Phase II Environmental Site Investigation (ESI). Bedrock was not encountered during the installation of soil borings.

- The greatest visual and olfactory evidence of petroleum contamination (i.e., staining, odor, and elevated photo-ionization detector [PID] responses) was in soil samples

collected from the interval immediately above groundwater or in saturated soil from soil borings. VOCs at concentrations exceeding the Unrestricted Use SCOs and the NYSDEC Commissioner Policy 51 Soil Cleanup Guidance (CP-51) Table 3 listed Soil Cleanup Levels (SCLs) were detected in 5 of the 39 soil samples collected from these depth intervals.

- Lead was detected in the TCLP extract of 18 of 20 composite soil samples at concentrations ranging from 0.00871 to 1.96 milligrams per liter (mg/L), which are below the regulatory limit of 5 mg/L. Therefore, the extent of hazardous lead concentrations in fill material was delineated.

- Based on information gathered during the gauging of the monitoring wells, the depth to groundwater in the vicinity of the Site ranged from approximately 22 to 36 feet bgs. The range of groundwater depths reflects the approximately 15-foot variation in elevation between the northeastern and southwestern portions of the Site. Based on groundwater surface elevation measurements, the inferred groundwater flow direction at the Site was southeasterly.

- Groundwater at the Site is impacted by chlorinated solvent- and petroleum-related VOCs. The source(s) of the groundwater contamination could not be positively determined; however, since there were no VOC concentrations detected above Unrestricted Use SCOs in unsaturated soil samples collected adjacent to the UST and upgradient monitoring wells contained chlorinated solvent and/or petroleum-related VOCs above the NYSDEC Technical & Operational Series (TOGS) Class GA Standards and Guidance Values (Class GA Values), there were indications of an off-site source migrating onto the Site.

2.1.2 Supplemental Site Investigation No. 2

Following the execution of the Order on Consent between the NYCSCA and NYSDEC, TRC submitted a Supplemental Site Investigation Scope of Work to the NYSDEC on October 22, 2012, which was approved by the NYSDEC on November 15, 2012. The primary objective of the Supplemental Site Investigation No. 2 was to identify off-site groundwater conditions which may be impacting the Site. The field activities were performed between November 19 and

December 17, 2012 and consisted of: a geophysical survey, advancement of five (5) soil borings, installation of five (5) monitoring wells, the collection of soil and groundwater (from new and existing groundwater wells) samples for laboratory analysis, and the surveying and gauging of monitoring wells to determine groundwater surface elevations and flow direction.

The results of the Supplemental Site Investigation No. 2 indicated the following:

- The geophysical survey did not reveal evidence of significant buried utilities or structures in the vicinity of the sampling locations.
- Five (5) soil borings were advanced at the Site to a maximum depth of 40 feet bgs and each boring was converted to a groundwater monitoring well. Fill material was observed throughout the Site between surface grade and depths of approximately 20 feet. The historic fill generally consisted of brown fine- to medium-grained sand with gravel, silt, and clay. Native soil below the historic fill generally consisted of brown fine- to coarse-grained sand with silt, clay, and gravel. Bedrock was not encountered during the installation of soil borings.
- Evidence of petroleum contamination (i.e., staining, odor, and elevated PID responses) was observed in soil samples collected from only one of the five soil borings (TRC-SB28) advanced on the Site. The evidence of petroleum contamination was encountered in TRC-SB28 (located upgradient of the Site) at and below the water table interface, suggesting an off-site source.
- Petroleum-related VOCs were detected in one of the six soil samples selected for analysis at concentrations exceeding the Unrestricted Use SCOs and the NYSDEC CP-51 Table 3 listed SCLs. This soil sample was collected at the water table interface.
- There were no metals detected in soil above the TCLP regulatory limits.
- Based on information gathered during the gauging of the monitoring wells, the depth to groundwater in the vicinity of the Site ranges from approximately 15 to 36 feet bgs. The range of groundwater depths reflects the approximately 15-foot variation in elevation between the northeastern and southwestern portions of the Site. Based on

groundwater surface elevation measurements, the inferred direction of groundwater flow at the Site is southeasterly.

- Measurable light, non-aqueous phase liquid (LNAPL) was not found in any of the wells when gauged with an oil/water interface probe. Evidence of petroleum contamination (i.e., sheen and/or odor) was identified in groundwater samples collected from TRC-GW6, TRC-GW7 and TRC-GW10.

- Petroleum- and/or chlorinated solvent-related VOCs were detected at concentrations above Class GA Values in groundwater samples collected from monitoring wells upgradient of the Site (TRC-GW1, TRC-GW4, TRC-GW8, and TRC-GW10) and on the Site (TRC-GW5, TRC-GW6, TRC-GW7, and TRC-GW9). The highest concentration of PCE was found in monitoring well TRC-GW4, near the southwestern upgradient property perimeter. It should be noted that, of the four downgradient wells (TRC-GW2, TRC-GW3, TRC-GW12, and TRC-GW13), only monitoring well TRC-GW2 contained chlorinated solvent-related VOCs above Class GA Values.

- Excluding the naturally occurring metals iron, manganese and sodium, five (5) metals, cadmium, copper, nickel, selenium, and zinc, were detected in filtered groundwater above Class GA Values. Lead was not detected in groundwater above the Class GA Value in any of the 13 groundwater monitoring wells.

2.2 SITE HISTORY

2.2.1 Phase I and Phase II Reports

A Phase I Environmental Site Assessment (Phase I ESA), Phase II Environmental Site Investigation (Phase II ESI) and Supplemental Phase II ESI have been prepared for this Site on behalf of the NYCSCA before the property was purchased. Presented below are brief summaries of the results of these investigations. Figures 3 through 6 present the sample locations containing elevated COC concentrations.

Phase I Environmental Site Assessment

In July 2010, Langan Engineering and Environmental Services, P.C. (Langan) conducted a Phase I ESA of the Site. The Langan Phase I ESA Report identified on-site recognized environmental conditions (RECs) related to three potential dry wells including one potential dry well with black staining; evidence of a petroleum UST; and, historical metal working operations and structures including a "bensine" vault, coal bin, coal house, plating and dipping room, two driven wells, and an oil house. The Phase I ESA identified off-site RECs including petroleum storage, a historic borehole, historic use of adjoining properties for industrial and manufacturing uses, a nearby gasoline filling station, a nearby vehicle repair facility, and the presence of VOCs in groundwater and soil vapor at a property located 200 feet east of the Site. Additionally, Langan identified environmental concerns associated with the Site including suspect asbestos containing material (ACM), lead-based paint (LBP), and polychlorinated biphenyl (PCB)-containing building components. Based on the results of the Phase I ESA, Langan recommended the performance of a Phase II ESI.

Phase II Environmental Site Investigation

In October 2010, Langan completed a Phase II ESI for the NYCSCA. The Phase II ESI included field investigation activities within portions of the Site buildings and inner courtyard. Field activities completed as part of the Phase II ESI consisted of a geophysical survey and collection and laboratory analysis of soil vapor, soil, sediment, and groundwater samples.

The results of the Phase II ESI indicated the following:

- The geophysical survey identified an abandoned UST with residual petroleum product underneath the southwestern portion of the courtyard/parking area. The estimated capacity of the UST was 7,500 gallons. A flush-mounted fill port and steel plate-covered access port were found above the UST. The UST access vault was filled with sand and the geophysical survey indicated underground piping exiting the UST entered Building 4 near the cabinet making workshop. The UST was not registered with the NYSDEC.
- The geophysical survey did not identify a UST near the northern perimeter of the Site, as was indicated in a previous Phase I ESA conducted in 2001. Based on the

absence of evidence of a UST and associated piping in the northern portion of the Site, the UST was either erroneously identified in the 2001 Phase I ESA or the UST system was removed. Scattered minor anomalies were identified throughout the Site. None of the anomalies were reported to be consistent with USTs or other buried structures. Anomalies identified inside the footprints of the buildings were reported to be reflections from underground electrical and drainage conduits. No other subsurface anomalies were identified during the survey.

- The asbestos inspection and bulk sampling laboratory analytical results revealed that the asphalt, concrete, and wooden floors were either non-ACM or non-suspect ACM, with the exception of mastic underneath the wood floor in Building 2, which tested positive for asbestos.

- PCE, methylene chloride, and trichloroethene (TCE) were detected in soil vapor at concentrations above the NYSDOH Air Guideline Values (AGVs). Twelve (12) other VOCs were detected at concentrations above the range of anticipated background levels in soil vapor published in Appendix C of the October 2006 NYSDOH Soil Vapor Intrusion Guidance Document (NYSDOH Guidance Document). A comparison of contaminant concentrations to the Matrices in the NYSDOH Guidance Document indicated that vapor intrusion mitigation was the recommended action. Figure 6 presents the soil vapor sample locations containing elevated COC concentrations.

- Catch basin sediment sampling showed several metals at concentrations greater than the corresponding NYSDEC Unrestricted Use SCOs. It should be noted that this catch basin was identified as a dry well in the Phase I ESA Report.

- UST access vault sediment sampling showed semi-volatile organic compounds (SVOCs) at concentrations greater than NYSDEC Unrestricted Use SCOs. It should be noted that this access vault was identified as a dry well in the Phase I ESA Report.

- The soil boring logs indicated a historic fill layer, which ranged in depth from approximately 6 feet to 16 feet bgs, and generally consisted of brown fine- to medium grained sand with gravel, silt, clay, and fragments of brick, concrete, coal, and wood.

The underlying native soil consisted of fine- to coarse-grained sand and silt and clay. No field indications of contamination (i.e., petroleum-related staining, elevated PID readings, and odors) were evident during the Phase II ESI soil sampling.

- SVOCs and metals were detected in soil samples at concentrations greater than the corresponding NYSDEC Unrestricted Use SCOs and/or SCLs. Four (4) samples with elevated concentrations of total lead were analyzed by the TCLP for lead. TCLP lead concentrations in samples SB6 (10-12) and SB15 (10-12) were 11.2 mg/L and 5.0 mg/L, respectively. The regulatory limit is 5.0 mg/L.
- The depth of the observed groundwater table at the Site ranged from 17 to 38 feet bgs. The range of groundwater depths reflects the approximately 15 foot variation in elevation between the northeastern and southwestern portions of the Site. No field indications of contamination (i.e., elevated PID readings, odors, and sheen) were evident during the Phase II ESI groundwater sampling.
- VOCs, one SVOC, and metals, were detected at concentrations above Class GA Values. PCE was detected in five groundwater samples at concentrations above the Class GA Value. Additionally, TCE, methylene chloride, and petroleum-related VOCs were detected in groundwater at concentrations above the Class GA Values.

Supplemental Phase II Environmental Site Investigation

In July 2011, Langan completed a Supplemental Phase II ESI for the NYCSCA. The Supplemental Phase II ESI included investigation beneath the sidewalks north, east, and south of the Site. Field activities completed during the Supplemental Phase II ESI consisted of a geophysical survey and the collection and analysis of soil and groundwater samples.

The results of the Supplemental Phase II ESI indicated the following:

- The results of the geophysical survey did not indicate the presence of USTs beneath the sidewalks north, east, and south of the Site.
- The depth to the observed groundwater table in temporary monitoring wells ranged from 25 to 32 feet beneath the south and north sidewalks, respectively.

- Field indications of contamination (i.e., staining, elevated PID readings, and odor) were observed in saturated soil collected from borings advanced in the sidewalks adjacent to and north and south of the Site (SB-28 and SB-29 from 34 to 45 feet bgs and SB-31 from 25 to 32 feet bgs). Field indications of contamination were observed during groundwater sampling (i.e., petroleum-like odors and sheen) in the temporary monitoring wells (TMW-28 and TMW-29) installed at the same locations. The NYSDEC was notified of a petroleum release and Spill No. 11-04018 was assigned.
- VOCs and metals were detected in soil samples at concentrations greater than the Unrestricted Use SCOs and/or SCLs. The VOCs (1,2,4-trimethylbenzene and total xylenes) were detected in samples collected from soil borings SB-28, SB-29, and SB-31 below the water table where field indications of impacts were observed.
- Chlorinated solvent- and petroleum-related VOCs, a petroleum-related SVOC (naphthalene), and metals were detected at concentrations above Class GA Values in groundwater.

2.3 GEOLOGICAL CONDITIONS

Information regarding topography, geology, site soils, and hydrology was obtained from Site investigation activities and is summarized below.

2.3.1 Topography

The topography of the Site area slopes downwards towards the southwest and adjacent lands slope south-southeast towards Meadow Lake. According to the USGS 7.5-Minute Jamaica, N.Y. Quadrangle Map dated 1967 and revised in 1994 (refer to Figure 1), the elevation of the Site is approximately 50 feet above mean sea level (amsl). Based on a review of the USGS map and Site observations, the eastern and western portions of the Site slope downward towards the south and southwest, respectively. The approximate elevation difference between the southwestern and northeastern portions of the Site is 15 feet.

2.3.2 Geology

Soil and bedrock stratigraphy throughout Queens typically consists of a layer of historic fill above glacial till, decomposed unconsolidated bedrock, and bedrock. Based on a review of the Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties, New York and Parts of Bergen and Hudson Counties New Jersey, by Charles A. Baskerville, dated 1994 (Baskerville Map), the bedrock below the unconsolidated material is of the Cambrian-Ordovician Hartland formation, which consists of inter-bedded mica schist, gneiss, and amphibolite. According to the Baskerville Map, depth to bedrock at the Site is estimated to be approximately 150 feet bgs. Bedrock was not encountered during the Site investigations.

2.3.3 Soils

Site investigations included the advancement of 57 soil borings to a maximum depth of 58 feet bgs. Fill material was observed throughout the Site between surface grade and depths of approximately 20 feet. The historic fill generally consisted of brown fine- to medium-grained sand with gravel, silt, and clay. Native soil below the historic fill generally consisted of brown fine- to coarse-grained sand with silt, clay, and gravel. Geologic cross-sections are shown in Figures 7 and 8.

2.3.4 Hydrogeology

The nearest surface water body is Meadow Lake, which is approximately 5,600 feet southeast of the Site. In December 2012, groundwater was measured at depths ranging from approximately 15 feet bgs at TRC-GW11 to 36 feet bgs at TRC-GW7. Based on calculated groundwater surface elevations, groundwater beneath the Site flows towards the southeast in the unconfined sand, water table aquifer. Groundwater elevation and flow direction may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations. Groundwater surface elevation measurements and inferred groundwater surface elevation contours generated from the groundwater surface elevation measurements collected on December 17, 2012 are shown in Figure 9.

2.4 CONTAMINATION CONDITIONS

2.4.1 Identification of Standards, Criteria and Guidance

This subsection identifies the regulatory standards, criteria and guidance (SCG's) that apply to Site Characterizations and Remedial Investigations, UST Closure, IRMs, and Site Management.

Site Characterizations and Remedial Investigations

The following standards and criteria apply to site characterization and remedial investigations performed at the Site.

- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 375 - Inactive Hazardous Waste Disposal Sites
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- 6 NYCRR Part 608 - Use and Protection of Waters
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- 6 NYCRR Part 257 - Air Quality Standards
- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response
- 6 NYCRR Part 175 - Special Licenses and Permits--Definitions and Uniform Procedures

The following guidance applies to site characterization and remedial investigations performed at the Site.

- CP 51 – Soil Cleanup Guidance (October 2010)
- STARS #1 - Petroleum-Contaminated Soil Guidance Policy
- SPOTS #14 - Site Assessments at Bulk Storage Facilities (August 1994)
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations

- NYSDOH Indoor Air Sampling & Analysis Guidance (August 8, 2001)
- NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006)
- DER Interim Strategy for Groundwater Remediation at Contaminated Sites in New York State

UST Closure

The following standards and criteria apply to UST closures conducted at the Site.

- 6 NYCRR Part 612 - Registration of Petroleum Storage Facilities (February 1992)
- 6 NYCRR Part 613 - Handling and Storage of Petroleum (February 1992)
- 6 NYCRR Part 614 - Standards for New and Substantially Modified Petroleum Storage Tanks (February 1992)
- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes (November 1998)
- 6 NYCRR Subpart 374-2 - Standards for the Management of Used Oil (November 1998)
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- 40 CFR Part 280 - Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks

The following guidance applies to UST closures conducted at the Site.

- CP 51 – Soil Cleanup Guidance (October 2010)
- STARS #1 - Petroleum-Contaminated Soil Guidance Policy
- SPOTS #14 - Site Assessments at Bulk Storage Facilities (August 1994)
- Spill Response Guidance Manual
- Permanent Closure of Petroleum Storage Tanks (July 1988)

- TAGM 3028 - "Contained In" Criteria for Environmental Media: Soil Action Levels (August 1997)
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations
- Air Guide 1 - Guidelines for the Control of Toxic Ambient Air Contaminants

Interim Remedial Measures

The following standards and criteria apply to IRMs conducted at the Site.

- 29 CFR Part 1910.120 - Hazardous Waste Operations and Emergency Response
- 10 NYCRR Part 67 – Lead
- 12 NYCRR Part 56 - Industrial Code Rule 56 (Asbestos)
- 6 NYCRR Part 175 - Special Licenses and Permits--Definitions and Uniform Procedures
- 6 NYCRR Part 361 - Siting of Industrial Hazardous Waste Facilities
- 6 NYCRR Part 371 - Identification and Listing of Hazardous Wastes (November 1998)
- 6 NYCRR Part 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998)
- 6 NYCRR Subpart 373-4 - Facility Standards for the Collection of Household Hazardous Waste and Hazardous Waste from Conditionally Exempt Small Quantity Generators (November 1998)
- 6 NYCRR Subpart 374-1 - Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities (November 1998)
- 6 NYCRR Subpart 374-3 - Standards for Universal Waste (November 1998)

- 6 NYCRR Part 375 - Inactive Hazardous Waste Disposal Sites (as amended January 1998)
- 6 NYCRR Part 376 - Land Disposal Restrictions
- 6 NYCRR Part 608 - Use and Protection of Waters
- 6 NYCRR Parts 700-706 - Water Quality Standards (June 1998)
- 6 NYCRR Part 750 through 758 - Implementation of NPDES Program in NYS ("SPDES Regulations")

The following guidance applies to IRMs conducted at the Site.

- CP 51 – Soil Cleanup Guidance (October 2010)
- TAGM 4013 - Emergency Hazardous Waste Drum Removal/ Surficial Cleanup Procedures (March 1996)
- TAGM 4059 - Making Changes To Selected Remedies (May 1998)
- STARS #1 - Petroleum-Contaminated Soil Guidance Policy
- TAGM 3028 - "Contained In" Criteria for Environmental Media: Soil Action Levels (August 1997)
- Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook (June 1998)
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations
- TOGS 1.3.8 - New Discharges to Publicly Owned Treatment Works
- Air Guide 1 - Guidelines for the Control of Toxic Ambient Air Contaminants
- OSWER Directive 9200.4-17 - Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (November 1997)

Site Management

The following standards and criteria apply to Site Management activities conducted at the Site.

- 6 NYCRR Part 175 - Special Licenses and Permits--Definitions and Uniform Procedures

The following guidance applies to Site Management activities conducted at the Site.

- CP-43: Groundwater Monitoring Well Decommissioning Policy (November 3, 2009)

2.4.2 Soil/Fill Contamination

Investigations conducted at the Site have identified petroleum contamination in soil immediately above the groundwater table and/or in saturated soil and hazardous waste characteristic lead concentrations in fill material. Figure 3 is a spider map that shows the location and summarizes VOCs exceedances of Track 1 Unrestricted SCOs and SCLs for soil/fill prior to implementation of the IRMs. Figure 4 presents the locations of TCLP lead concentrations above the regulatory limit in fill material.

2.4.3 On-Site and Off-Site Groundwater Contamination

Groundwater at the Site is impacted by chlorinated solvent- and petroleum-related VOCs. The source(s) of the groundwater contamination could not be positively determined; however, there were no chlorinated solvent- and/or petroleum-related VOCs detected at concentrations above Unrestricted Use SCOs in unsaturated soil. Additionally, considering that upgradient monitoring wells contained chlorinated solvent- and/or petroleum-related VOCs above Class GA Values, there is evidence of an off-site source migrating onto the Site. A spider map that shows the locations of and summarizes VOC exceedances of Class GA groundwater standards prior to implementation of the IRMs is shown in Figure 5.

2.4.4 On-Site and Off-Site Soil Vapor Contamination

PCE, methylene chloride, and TCE were detected in soil vapor at concentrations above the NYSDOH AGVs. Twelve (12) other VOCs were detected at concentrations above the range of

anticipated background levels in soil vapor published in Appendix C of the NYSDOH Guidance Document. A comparison of contaminant concentrations to the Matrices in the NYSDOH Guidance Document indicated that vapor intrusion mitigation was the recommended action. A spider map that shows the locations of and summarizes soil vapor data prior to implementation of the IRMs is shown in Figure 6. Since there were no VOC concentrations detected above Unrestricted Use SCOs in unsaturated soil samples and upgradient monitoring wells contained chlorinated solvent and/or petroleum-related VOCs above the NYSDEC TOGS Class GA Values, there is evidence of an off-site source migrating onto the Site.

2.5 REMEDIAL ACTION OBJECTIVES

Based on the results of the site investigations, the following Remedial Action Objectives (RAOs) have been identified for this Site.

2.5.1 Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

2.5.2 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

2.5.3 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

3.0 DESCRIPTION OF INTERIM REMEDIAL MEASURES

3.1 SUMMARY OF SELECTED INTERIM REMEDIAL MEASURES

The following IRMs are proposed for the Site:

1. The 7,500-gallon UST, the UST access vault, and associated piping will be closed and removed in accordance with applicable Federal, State, and local regulations. As described in previous investigation reports, the sludge in the bottom of the UST contains PCE; therefore, this material will be classified as hazardous waste for disposal.

2. Groundwater monitoring wells located within the Site boundary will be decommissioned in accordance with NYSDEC requirements during the demolition work.

3. The soil between grade and 15 feet bgs in the vicinity of two historic borings that exhibited lead concentrations at or above the TCLP regulatory limit (an approximately 20-foot by 20-foot area) will be excavated and removed from the Site in accordance with applicable Federal, State, and local hazardous waste regulations.

4. Collection and analysis of post-excavation end-point samples from hazardous waste and, if encountered, petroleum-contaminated soil excavations to document post-IRM soil conditions;

5. Appropriate off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;

6. Construction, operation and maintenance of a vapor barrier and an active sub-slab depressurization system (SSDS) for the new school building;

7. Construction and maintenance of an engineered composite cover consisting of asphalt and concrete pavement, concrete building slabs, and a minimum of two feet of environmentally clean fill meeting the requirements of 6 NYCRR Part 375-6 Unrestricted Use SCOs in landscaped areas to prevent human exposure to residual

contaminated soil/fill remaining under the Site. Note that the contemplated use of the Site allows for cover material to meet Restricted Residential Use SCOs; however, the NYCSCA's standard specifications for cover material require the use of the more stringent Unrestricted Use SCOs;

8. Import of materials to be used for backfill and cover in compliance with: (1) NYSDEC requirements, (2) all Federal, State and local rules and regulations for handling and transport of material;
9. Recording of an Environmental Easement, including Institutional Controls, to prevent future exposure to any residual contamination remaining at the Site;
10. Publication of a Site Management Plan for long term management of residual contamination as required by the Environmental Easement, including plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
11. Collection and analysis of groundwater samples from wells located along the Site perimeter for four quarters to document post-IRM groundwater conditions.
12. Collection and analysis of soil vapor samples from temporary soil vapor probes located along the Site perimeter to document post-IRM soil vapor conditions.

The IRMs will be performed at the Site in accordance with this NYSDEC-approved IRM Work Plan. All deviations from the IRM Work Plan will be promptly reported to NYSDEC for approval and fully explained in the FER.

4.0 INTERIM REMEDIAL MEASURES PROGRAM

4.1 GOVERNING DOCUMENTS

4.1.1 Site-Specific Health & Safety Plan (HASP)

All IRM work performed under this plan will be in full compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA.

The NYCSCA and associated parties preparing the remedial documents submitted to the State and those performing the construction work, are completely responsible for the preparation of an appropriate Health and Safety Plan (HASP) and for the appropriate performance of work according to that plan and applicable laws. The Contractor's Site-Specific HASP is presented in Appendix A.

The HASP and requirements defined in this IRM Work Plan pertain to IRMs performed at the Site.

4.1.2 Quality Assurance Project Plan (QAPP)

Environmental sampling and laboratory analysis will be performed in accordance with the Quality Assurance Project Plan (QAPP) presented in Appendix B. The QAPP presents the organization, planned activities, and specific quality assurance/quality control (QA/QC) procedures associated with field activities. The QAPP also describes specific protocols for field sampling, sampling handling and storage, and laboratory analysis.

4.1.3 Soil/Materials Management Plan (SoMP)

The Contractor's Excavated Materials Disposal Plan (EMDP) presents the methods for managing soil/materials disturbed at the Site. A copy of the Contractor's EMDP is presented in Appendix C and Section 5.3 of the IRM Work Plan includes plans for excavation, handling, storage, transport and disposal of soil/materials. It also includes the controls that will be applied to these efforts to assure effective, nuisance-free performance in compliance with applicable Federal, State and local laws and regulations.

4.1.4 Community Air Monitoring Plan (CAMP)

During excavation activities, the requirements of the Community Air Monitoring Plan (CAMP) presented in Appendix D will be implemented. The CAMP requires real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of the Site. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities do not spread contamination off-site through the air.

4.2 GENERAL IRM CONSTRUCTION INFORMATION

4.2.1 Project Organization

The NYCSCA has contracted TRC Engineers, Inc. to provide IRM design and implementation monitoring and Silverite Construction to implement the IRMs during construction of the new school. An organization chart is included in Figure 10. Resumes of key personnel involved in the IRM are included in Appendix E.

4.2.2 Remedial Engineer

The Remedial Engineer for this project will be Jennifer DiPilato. The Remedial Engineer is a registered professional engineer licensed by the State of New York. The Remedial Engineer will have primary direct responsibility for implementation of the IRM program for the Former Tiffany's Studios Site (NYSDEC Order on Consent Index No. R2-0789-12-08; Site No. 241140). The Remedial Engineer will certify in the Final Engineering Report that the remedial activities were observed by qualified environmental professionals under her supervision and that the remediation requirements set forth in the IRM Work Plan and any other relevant provisions of ECL 27-1419 have been achieved in full conformance with that Plan. Other Remedial Engineer certification requirements are listed later in this IRM Work Plan.

The Remedial Engineer will coordinate the work of other contractors and subcontractors involved in all aspects of remedial construction, including soil excavation, stockpiling, characterization, removal and disposal, air monitoring, emergency spill response services, import of back fill material, and management of waste transport and disposal. The Remedial Engineer will be responsible for all appropriate communication with NYSDEC and NYSDOH.

The Remedial Engineer will review all pre-remedial plans submitted by contractors for compliance with this IRM Work Plan and will certify compliance in the Final Engineering Report.

The Remedial Engineer will provide the certifications listed in Section 9.1 in the Final Engineering Report.

4.2.3 IRM Construction Schedule

Refer to Section 10.

4.2.4 Work Hours

The hours for operation of remedial construction will conform to the New York City Department of Buildings construction code requirements or according to specific variances issued by that agency.

4.2.5 Site Security

A fence will be constructed along the perimeter of the Site. Access to the Site will be through controlled locations that are staffed 24-hours per day. Visitors to the Site will be required to sign-in and will be escorted while on-site.

4.2.6 Worker Training and Monitoring

Any individual working on the Site which could potentially be exposed to site soil or the contents of tanks or drums must have current certifications documenting OSHA 40-hour and 8-hour refresher HAZWOPER training and medical monitoring in accordance with 29 CFR 1910.120 (for work on hazardous waste sites) and in accordance with 29 CFR 1926.62 (Lead Exposure in Construction). The Contractor will maintain a medical monitoring and respiratory

protection program. Documentation that all individuals which will perform work at the Site have appropriate training and that medical monitoring is being performed in accordance with the requirements of OSHA will be included as part of the Contractor's Site-Specific Health and Safety Plan. Additionally, the Contractor's Site-Specific HASP will include a description and documentation of training, respirator fit testing and medical monitoring for each individual proposed for IRM work.

4.2.7 Agency Approvals

The NYCSCA has addressed all SEQRA requirements for this Site. All permits or government approvals required for remedial construction have been, or will be, obtained prior to the start of remedial construction.

The planned end use for the Site is in conformance with the current zoning for the property as determined by New York City Department of Planning.

4.2.8 Pre-Construction Meeting with NYSDEC

A Pre-Construction teleconference between the NYSDEC and NYCSCA was held on April 2, 2012. The purpose of the meeting was to review the environmental conditions present at the Site and establish the scope of the IRM Work Plan. No additional meetings are scheduled prior to implementation of the IRMs, unless specifically requested by the NYSDEC.

4.2.9 Emergency Contact Information

An emergency contact sheet with names and phone numbers is included in Table 1. That document will define the specific project contacts for use by NYSDEC and NYSDOH in the case of a day or night emergency.

4.3 SITE PREPARATION

4.3.1 Utility Marker and Easements Layout

The NYCSCA and its contractors are solely responsible for the identification of utilities that might be affected by work under the IRM Work Plan and implementation of all required,

appropriate, or necessary health and safety measures during performance of work under this IRM Work Plan. The NYCSCA and its contractors are solely responsible for safe execution of all invasive and other work performed under this IRM Work Plan. The NYCSCA and its contractors must obtain any local, State or Federal permits or approvals pertinent to such work that may be required to perform work under this IRM Work Plan. Approval of this IRM Work Plan by NYSDEC does not constitute satisfaction of these requirements.

The presence of utilities and easements on the Site has been investigated by TRC. It has been determined that no risk or impediment to the planned work under this IRM Work Plan is posed by utilities or easements on the Site.

4.3.2 Sheeting and Shoring

Appropriate management of structural stability of on-Site or off-Site structures during on-Site activities including excavation is the sole responsibility of the NYCSCA and its contractors. The NYCSCA and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. The NYCSCA and its contractors must obtain any local, State or Federal permits or approvals that may be required to perform work under this Plan. Further, the NYCSCA and its contractors are solely responsible for the implementation of all required, appropriate, or necessary health and safety measures during performance of work under the approved Plan.

4.3.3 Decontamination Area

Personnel Decontamination

The Contractor will ensure that all workers and authorized persons leaving lead control area(s) proceed directly to the wash or shower facilities provided in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure. Wash facilities will consist of, at least, potable water, towels, soap, and a HEPA vacuum. Upon leaving the work area, each worker will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Removal of lead-containing dust by blowing or shaking of clothing will be prohibited. Wash water will be collected, filtered, and disposed of in accordance with Federal, State and local laws and regulations.

If air monitoring data shows that employee exposure to airborne lead exceeds 50 micrograms per cubic meter ($\mu g/m^3$), the following mandatory showering conditions will apply:

- Street clothes cannot be worn into lead control area(s) and will be stored in the change room. Workers will wear disposable suits over clothing that stays on-Site in the change room, or disposable suits over nylon or Tyvek undergarments, or coveralls that are laundered on-Site.
- Street shoes cannot be worn into lead control area(s) and will be stored in the change room. Dedicated shoes that do not leave the lead control area(s) may be utilized. Work shoes covered by disposable booties may be utilized if the shoes are cleaned after each use and kept in the change room.
- Showers must be utilized. Shower water will be collected, filtered, and disposed of in accordance with Federal, State and local water discharge standards.
- The Contractor will establish and enforce proper entry and exit procedures for all persons who enter and leave the lead control area(s).
- The Contractor will dispose of all contaminated protective clothing as lead contaminated waste.
- The Contractor will implement and enforce procedures that prevent workers from eating, drinking, smoking or chewing gum or tobacco while in the lead control area(s).

Equipment Decontamination

All equipment will be delivered to the work site free of contamination. The NYCSCA's on-site representative will prohibit from the Site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. The Contractor is prohibited from decontaminating equipment on the Site that is not thoroughly decontaminated prior to arrival.

Decontamination will be conducted at an area within the work site that has been approved by the NYCSCA's on-site representative for such use. Frequency of decontamination will be determined by the NYCSCA's on-site representative and will be required prior to equipment and

supplies leaving the Site between stages of the work. All decontamination materials will be collected, containerized, tested, labeled, and disposed in accordance with all applicable laws and regulations.

All transportation vehicles shall be inspected, prior to leaving the Site, to ensure that no material adheres to the wheels, undercarriage, tailgates, covers or other areas of transport vehicles. All vehicles shall be cleaned by washing tires, undercarriage, and any other contaminated parts prior to leaving the Site.

4.4 REPORTING

4.4.1 Monthly Reports

Monthly reports will be submitted to NYSDEC and NYSDOH Project Managers within one week following the end of the month of the reporting period and will include:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed (i.e. tons of material exported and imported, etc.);
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and,
- An update of the IRM schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays. Copies of the monthly reports will be included in the Final Engineering Report.

4.4.2 Deviations from the IRM Work Plan

If site work requires deviation from the IRM Work Plan, the proposed deviations will be identified and presented to the NYSDEC Project Manager. In a formal submission, the NYCSCA will identify the reason(s) for deviating from the approved IRM Work Plan and present the effect

of the deviation(s) on the overall remedy. The NYCSCA will obtain written authorization from the NYSDEC Project Manager prior to deviating from the approved IRM Work Plan.

5.0 IRM: MATERIAL REMOVAL FROM SITE

Construction of the new school will require excavations to remove existing subsurface structures and to construct foundations for the new school building. Soil excavated to construct the new school will be removed and disposed off-site. Soil containing TCLP lead concentrations exceeding regulatory limits and, if encountered, petroleum-contaminated soil located within the planned excavation for the new school will be removed from the Site; however, soil beyond the planned limits of excavation will remain. Soil/material will be excavated to depths of approximately 20 feet bgs along 43rd Avenue and 10 feet along 44th Avenue, corresponding to an approximate elevation of 38 feet above the Borough President of Queens Datum. Figure 11 presents a cross-section illustrating the extent of the planned excavation relative to the TCLP lead concentrations exceeding the regulatory limit.

Although unlikely, if dewatering is necessary during excavation for new school construction, treatment of dewatering effluent will be required prior to discharge. Dewatering required during construction will be minimized to mitigate potential influx of contaminated water from off-site sources toward the Site.

Soil and materials management on-Site and off-Site will be conducted in accordance with the Soil Management Plan as described below.

UST closures will, at a minimum, conform to criteria defined in DER-10.

5.1 POST EXCAVATION END-POINT SAMPLING

Post-excavation end-point sampling will be performed in hazardous waste and, if encountered, petroleum-contaminated soil excavations to document post-IRM soil conditions. Subsurface soil samples will be collected in accordance with DER-10 requirements. The soil samples will be submitted to a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis. Soil sampling methods, analysis and QA/QC requirements are presented in the QAPP (Appendix B).

The FER will provide a tabular and map summary of all soil end-point sample results and exceedances of Unrestricted Use SCOs, CP-51 SCLs and the TCLP lead regulatory limit.

5.2 ESTIMATED MATERIAL REMOVAL QUANTITIES

Soil required to construct the school will be removed to the limits of the planned excavation. The estimated quantity of soil/fill to be removed from the Site is 113,000 cubic yards. In addition, it is estimated that approximately 1,500 cubic yards of hazardous waste will be removed from the planned excavation. Figure 11 presents a cross section illustrating the depth of excavation in the vicinity of the TCLP lead exceedances. No soil/fill will be reused/relocated on Site.

5.3 SOIL/MATERIALS MANAGEMENT PLAN

5.3.1 Stockpile Methods

There will be no stockpiling of material on-site. All excavated material, including hazardous waste, will be direct loaded for off-site disposal.

5.3.2 Materials Excavation and Load Out

The NYCSCA and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

The NYCSCA's Contractor will be responsible for ensuring that all egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during Site remediation and development. The NYCSCA and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

The Remedial Engineer will ensure that Site development activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in this IRM Work Plan.

5.3.3 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site. Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site truck idling will be prohibited.

Material transported by trucks exiting the Site will be secured with tight-fitting covers.

5.3.4 Materials Disposal Off-Site

The disposal locations are presented in the Contractor's Excavated Material Disposal Plan (refer to Appendix C). Disposal locations established at a later date will be reported to the NYSDEC Project Manager.

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be disposed in accordance with all local, State (including 6 NYCRR Part 360) and Federal regulations. Material that does not meet Track 1 Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6 NYCRR Part 360-16 Registration Facility).

Non-hazardous historic fill and contaminated soils taken off-Site will be handled, at minimum, as a Municipal Solid Waste per 6 NYCRR Part 360-1.2.

Historical fill and contaminated soils from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

The Final Engineering Report will include an accounting of the destination of all material removed from the Site as part of this IRM, including excavated soil, contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the FER.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the Final Engineering Report.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

5.3.5 Materials Reuse On-Site

No excavated material will be reused on-site.

5.3.6 Fluids Management

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Liquids discharged into the New York City sewer system will be addressed through approval by NYCDEP.

Dewatered fluids will not be recharged back to the land surface or subsurface of the Site. Dewatering fluids will be managed off-Site.

5.3.7 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by the Remedial Engineer and will be in compliance with provisions in this IRM Work Plan prior to receipt at the Site.

The Final Engineering Report will include the following certification by the Remedial Engineer: “I certify that all import of soils from off-Site, including source evaluation, approval

and sampling, has been performed in a manner that is consistent with the methodology defined in the IRM Work Plan".

Backfill material will be comprised of soil or other unregulated material. Imported material for the composite cover or backfill will meet the requirements of 6 NYCRR Part 375-6 Unrestricted Use SCOs. Note that the contemplated use of the Site allows for all backfill material to meet Restricted Residential Use SCOs; however, the NYCSCA's standard specifications for cover material require the use of the more stringent Unrestricted Use SCOs.

Additionally, the NYCSCA's specifications require that backfill for use below cover material will meet the following requirements:

- No detectable concentrations of VOCs;
- No other organic compounds or inorganic analytes at concentrations above the DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 5, "Allowable Constituent Levels for Imported Fill or Soil" Restricted Residential Use; and
- No other organic compounds or inorganic analytes at concentrations above the lower of the NYSDEC CP-51: Soil Cleanup Guidance Residential Use and Protection of Groundwater Supplemental Soil Cleanup Objectives.

Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved IRM Work Plan or its approval by NYSDEC should be construed as an approval for this purpose.

Solid waste will not be imported onto the Site. Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

5.3.8 Community Air Monitoring Plan

The Contractor, under the oversight of TRC and the NYCSCA, will implement the CAMP presented in Appendix D. TRC will perform periodic unscheduled site inspections to verify that the CAMP is being implemented. Additionally, daily CAMP results will be provided to the NYCSCA and TRC for review. The CAMP was prepared in accordance with the requirements

of the Generic CAMP in Appendix 1A of DER-10 and describes the odor, organic vapor and dust control and monitoring procedures that will be implemented during demolition and other activities that will disturb the site soil. The Contractor will perform the monitoring required by the CAMP for the duration of soil disturbance activities in accordance with the NYCSCA contract documents as described below.

In accordance with the Contract documents for new school construction, the Contractor will furnish full-time, on-site, a minimum of one (1) qualified environmental professional dedicated to implementation of the CAMP. The qualified environmental professional will have a minimum of five (5) current, consecutive years of relevant environmental experience in environmental monitoring, including implementing CAMPs.

The CAMP includes action limits for volatile organic compounds and particulates and provides justification for the proposed action limits.

Dust or odor complaints from any owner of an adjacent or nearby property will be managed by the Contractor in a manner equivalent to an exceedance of an action level in the CAMP.

The CAMP explicitly identifies how air monitoring will be implemented during adverse weather conditions including high humidity, precipitation, strong winds and cold. The CAMP explicitly identifies weather conditions during which it will be necessary to stop work due to the inability to properly implement the CAMP.

Any exceedance of a CAMP threshold or action level will be reported by the Contractor to the NYCSCA IEH Division immediately and additionally in writing within 2 hours of the time it is recorded. The report will include the instrument readings; location of the monitoring station where the exceedance was recorded; readings at upwind locations; date, time and duration of elevated readings (i.e., number of 15 minute time-weighted exceedances); activities being performed at the time of the exceedances; and descriptions of countermeasures implemented to control the exceedance and prevent future occurrences. Exceedances observed in the CAMP will be reported by NYCSCA to NYSDEC and NYSDOH Project Managers.

The Contractor will determine wind direction utilizing a hand held compass and portable velometer and confirm proper positioning of upwind and downwind monitoring stations. Wind direction will be recorded by the Contractor hourly during the work.

At a minimum, prior to the start of work each day two (2) downwind and one (1) upwind air monitoring stations will be established by the Contractor at the Site. The monitoring stations will be properly maintained and operated during all remediation, demolition and soil disturbance activities, including load-out of excavated material.

Two (2) data logging PIDs set to collect readings on a 15-minute time weighted average (TWA) and two (2) data logging particulate meters set to collect readings on a 15-minute TWA will be operated at the downwind air monitoring stations. The particulate meters will be capable of measuring dust particulates that are less than 10 microns in size (PM-10) or respirable dust.

One (1) data logging PID that is set to collect readings on a 15-minute time weighted average (TWA) and one (1) data logging particulate meter that is set to collect readings on a 15-minute TWA will be operated at the upwind air monitoring station. The particulate meter will be capable of measuring dust particulates that are less than 10 microns in size (PM-10) and respirable dust.

The air monitoring equipment will be inspected at least once every 30 minutes and the measurements will be recorded manually in a project CAMP-dedicated bound log book by the Contractor's qualified environmental professional.

The dedicated CAMP monitoring equipment will not be used for personnel health and safety monitoring or soil screening activities. Additional equipment and instrumentation will be furnished by the Contractor for personnel health and safety monitoring and soil screening.

The qualified environmental professional has "stop work authority" and will be responsible for the air monitoring and daily calibration and maintenance of the equipment in accordance with the manufacturers' specifications. The qualified environmental professional is dedicated solely to implementation of the CAMP at the Site. The resume of the proposed qualified environmental monitor is included in the Contractor prepared CAMP (refer to Appendix D). Copies of manufacturers' owner's manuals for instrumentation and equipment are included in the CAMP. All instrumentation and equipment will be maintained at all times in proper operating condition.

The Contractor will maintain at the Site at all times one (1) spare PID and one (1) spare particulate meter in fully operational condition, available for immediate service.

All PIDs used for CAMP will be of the same model and manufacturer. All particulate meters used for CAMP will be of the same model and manufacturer.

At the end of each work day the qualified environmental professional will download the CAMP data collected to a field computer, and organize, review and compare the data to action levels to verify proper controls were in place throughout the work day. Data will be available for inspection without advance notice.

The qualified environmental professional will document in the dedicated project log book each calibration event, any equipment and instrument malfunctions, unusual conditions, air monitoring station locations, any exceedances of action levels and countermeasures implemented.

The Contractor will respond to exceedances of the CAMP action levels immediately and will immediately alert the NYCSCA and TRC following mitigative actions. The Contractor will provide to the NYCSCA and TRC CAMP monitoring data and a detailed summary of the mitigative actions for review.

5.3.9 Dust Control Plan

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that invasive work performed during implementation of the IRMs was conducted in accordance with dust suppression methodology defined in the IRM Work Plan."

Dust suppression measures will include, at a minimum, the items listed below:

- Wetting of the soil prior to disturbance and during disturbance to prevent dust generation. In addition, at all times during the work, open excavations shall be controlled to prevent dust generation overnight and during holidays and weekends and any time when work is not actively being performed.
- Maintaining appropriate low vehicle speeds in unpaved areas.
- Routing vehicles and equipment onto covered surfaces when possible.
- Minimizing traffic and unnecessary disturbances to ground surface in unpaved and unstabilized areas.

- Maintaining existing site ground coverings (e.g., existing pavement) until disturbance is required for construction and stabilizing exposed soil with ground surface covering as soon as practical.
- Discontinuing activities if generation of dust is observed and using alternate methods.
- Removing bulk soil from exteriors of vehicles and construction equipment prior to moving off work areas. Soil will be wetted prior to removal.

5.4 POST IRM GROUNDWATER AND SOIL VAPOR MONITORING

5.4.1 Post Excavation Groundwater Monitoring

Post-excavation groundwater monitoring will be performed to document post-excavation groundwater conditions. Post-excavation groundwater samples will be collected, after all IRMs are completed, from perimeter wells (TRC-GW1, TRC-GW2, TRC-GW3, TRC-GW4, TRC-GW8, TRC-GW10, TRC-GW-11, TRC-GW-12, and TRC-GW-13) on a quarterly basis for one year (4 sampling events). Figure 12 presents the monitoring well locations. Groundwater sampling methods, analysis and QA/QC requirements are presented in the QAPP (Appendix B).

The FER will provide a tabular and map summary of the initial round of groundwater sampling results.

5.4.2 Post IRM Soil Vapor Monitoring

Post-IRM soil vapor monitoring will be performed to document post-IRM soil vapor conditions. Soil vapor samples will be collected after the IRMs are completed from five temporary soil vapor probes installed at depths of 5 feet bgs along the Site perimeter. Figure 13 presents the locations of the soil vapor probes. Soil vapor sampling methods, analysis and QA/QC requirements are presented in the QAPP (Appendix B).

The FER will provide a tabular and map summary of the soil vapor sampling results.

6.0 RESIDUAL CONTAMINATION TO REMAIN ON-SITE

After implementation of the IRMs, residual contaminated soil, groundwater and soil vapor will be documented through the collection of post-excavation samples. Subsurface soil samples will be collected in accordance with the requirements of DER-10 from hazardous waste and, if encountered, petroleum-contaminated soil excavations, as described in Section 5.1.

After completion of the IRMs post-excavation groundwater samples will be collected from perimeter wells (TRC-GW1, TRC-GW2, TRC-GW3, TRC-GW4, TRC-GW8, TRC-GW10, TRC-GW-11, TRC-GW-12, and TRC-GW-13) on a quarterly basis for one year (4 sampling events). Figure 12 presents the monitoring well locations.

After completion of the IRMs, soil vapor samples will be collected from five temporary soil vapor probes installed at depths of 5 feet bgs along the Site perimeter. Figure 13 presents the locations of the soil vapor probes.

Soil, groundwater, and soil vapor sampling methods, analysis and QA/QC requirements are presented in the QAPP (Appendix B).

Since residual contaminated soil, groundwater and soil vapor will exist beneath the Site after the IRMs are complete, Engineering and Institutional Controls (ECs and ICs) are required to protect human health and the environment. These ECs and ICs are described hereafter. Long-term management of EC/ICs and of residual contamination will be executed under a Site-Specific Site Management Plan (SMP) that will be developed and included in the FER.

ECs will be implemented to protect public health and the environment by appropriately managing residual contamination. The Controlled Property (the Site) will have two primary EC systems. These are: (1) a continuous gas vapor barrier and an active sub-slab depressurization system (SSDS); and (2) a composite cover system consisting of asphalt and concrete pavement, concrete building slabs, and a minimum of two feet of environmental clean fill meeting the requirements of 6 NYCRR Part 375-6 Unrestricted Use SCOs in landscaped areas.

The FER will report residual contamination on the Site in tabular and map form.

7.0 ENGINEERING CONTROLS

7.1 COMPOSITE COVER SYSTEM

Exposure to residual contaminated soils will be prevented by an engineered, composite cover system that will be built on the Site. This composite cover system will be comprised of asphalt and concrete pavement, concrete building slabs, and a minimum of two feet of environmental clean fill meeting the requirements of 6 NYCRR Part 375-6 SCOs for unrestricted use in landscaped areas.

A Soil Management Plan will be included in the Site Management Plan and will outline the procedures to be followed in the event that the composite cover system and underlying residual contamination are disturbed after the IRMs are complete.

Maintenance of this composite cover system will be described in the Site Management Plan in the FER.

7.2 VAPOR BARRIER AND SUB-SLAB DEPRESSURIZATION SYSTEM

To prevent VOCs in sub-slab vapor from entering the new school building, engineering controls consisting of a vapor barrier and sub-slab depressurization system (SSDS) will be installed. The gas vapor barrier is a continuous synthetic membrane installed below the school building which is impermeable to vapors. The active SSDS will depressurize the space beneath the gas vapor barrier and lowest level floor slabs of the building.

Design plans and specifications for the vapor barrier and SSDS are presented in Appendix F. As-built drawings (if available based on construction schedule), diagrams, and post-installation pressure field extensions testing will be presented in the FER.

7.3 CRITERIA FOR TERMINATION OF ENGINEERING CONTROLS

7.3.1 Composite Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected on an annual basis in perpetuity.

7.3.2 Vapor Barrier and Sub-Slab Depressurization System (SSDS)

The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. The SSDS will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

8.0 INSTITUTIONAL CONTROLS

After the IRMs are complete, the Site will have residual contamination remaining in place. Engineering Controls (ECs) for the residual contamination have been incorporated into the IRM Work Plan to render the overall Site remedy protective of public health and the environment. Two elements have been designed to ensure continual and proper management of residual contamination in perpetuity: an Environmental Easement and a Site Management Plan. These elements are described in this Section. A Site-Specific Environmental Easement will be recorded with Queens County to provide an enforceable means of ensuring the continual and proper management of residual contamination and protection of public health and the environment in perpetuity or until released in writing by NYSDEC. It requires that the grantor of the Environmental Easement and the grantor's successors and assigns adhere to all Engineering and Institutional Controls (ECs/ICs) placed on this Site by this NYSDEC-approved remedy. ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. The Site Management Plan (SMP) describes appropriate methods and procedures to ensure compliance with all ECs and ICs that are required by the Environmental Easement. Once the SMP has been approved by the NYSDEC, compliance with the SMP is required by the grantor of the Environmental Easement and grantor's successors and assigns.

8.1 ENVIRONMENTAL EASEMENT

An Environmental Easement, as defined in Article 71 Title 36 of the Environmental Conservation Law, is required when residual contamination is left on-Site after the IRMs are complete. If the Site will have residual contamination after completion of all IRMs, an Environmental Easement is required. As part of this remedy, an Environmental Easement approved by NYSDEC will be filed and recorded with the Queens County Clerk. The Environmental Easement will be submitted as part of the Final Engineering Report.

The Environmental Easement renders the Site a Controlled Property. The Environmental Easement must be recorded with the Queens County Clerk. A series of Institutional Controls are required to implement, maintain and monitor the Engineering Control systems, prevent future exposure to residual contamination by controlling disturbances of the subsurface soil and

restricting the use of the Site to Educational and Restricted Residential use only. These Institutional Controls are requirements or restrictions placed on the Site that are listed in, and required by, the Environmental Easement. Institutional Controls can, generally, be subdivided between controls that support Engineering Controls, and those that place general restrictions on Site usage or other requirements. Institutional Controls in both of these groups are closely integrated with the Site Management Plan, which provides all of the methods and procedures to be followed to comply with this remedy.

The Institutional Controls that support Engineering Controls are:

- Compliance with the Environmental Easement by the Grantee and the Grantee's successors and adherence of all elements of the SMP is required;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- A composite cover system consisting of asphalt and concrete pavement, concrete building slabs, and two feet of environmentally clean fill in landscaped areas must be inspected, certified and maintained as required in the SMP;
- A soil vapor mitigation system consisting of a continuous vapor barrier and an active SSDS under all building structures must be inspected, certified, operated and maintained as required by the SMP;
- All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP;
- Groundwater and soil vapor monitoring must be performed as defined in the SMP;
- Data and information pertinent to Site Management for the Controlled Property must be reported at the frequency and in a manner defined in the SMP;
- Engineering Controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

Adherence to these Institutional Controls for the Site is mandated by the Environmental Easement and will be implemented under the Site Management Plan (discussed in the next section). The Controlled Property (Site) will also have a series of Institutional Controls in the

form of Site restrictions and requirements. The Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Controlled Property are prohibited;
- Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose;
- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in the Site Management Plan;
- The Controlled Property may be used for Educational or Restricted Residential use only, provided the long-term Engineering and Institutional Controls included in the Site Management Plan are employed;
- The Controlled Property may not be used for a higher level of use, such as Unrestricted Use without an amendment or extinguishment of this Environmental Easement;
- Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

8.2 SITE MANAGEMENT PLAN

Site Management is the last phase of remediation and begins with the approval of the Final Engineering Report for the IRM. The Site Management Plan is submitted as part of the FER but will be written in a manner that allows its removal and use as a complete and independent document. Site Management continues in perpetuity or until released in writing by NYSDEC.

The property owner is responsible to ensure that all Site Management responsibilities defined in the Environmental Easement and the Site Management Plan are performed.

The SMP is intended to provide a detailed description of the procedures required to manage residual contamination left in place at the Site following completion of the IRM in accordance with the Consent Order with the NYSDEC. This includes: (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; and (3) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC.

To address these needs, this SMP will include four plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for the vapor barrier and SSDS; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC. The SMP will be prepared in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010, and the guidelines provided by NYSDEC.

Site management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be annually for the first year. Following the first year, ECs will be monitored through the building management system and O&M plans. The building management system provides alarms should the SSDS fans become inoperable and the O&M Plan provides procedures for periodic inspections. The Site Management Plan will be based on the calendar year and will be due for submission to NYSDEC by March 1 of the year following the reporting period.

No exclusions for handling of residual contaminated soils will be provided in the Site Management Plan (SMP). All handling of residual contaminated material will be subject to provisions contained in the SMP.

9.0 FINAL ENGINEERING REPORT

A Final Engineering Report (FER) will be submitted to NYSDEC following implementation of the IRMs defined in this IRM Work Plan. The FER provides the documentation that the remedial work required under this IRM Work Plan has been completed and has been performed in compliance with this plan. The FER will provide a comprehensive account of the locations and characteristics of all material removed from the Site including the surveyed map(s) of all sources. The Final Engineering Report will include as-built drawings for all constructed elements, certifications, manifests, bills of lading as well as the complete Site Management Plan. The FER will provide a description of the changes in the IRMs from the elements provided in the IRM Work Plan and associated design documents. The FER will provide a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the IRMs. The FER will provide test results demonstrating that the SSDS is functioning properly. The FER will be prepared in conformance with DER-10.

The Final Engineering Report will include written and photographic documentation of all remedial work performed under this remedy.

The FER will provide a thorough summary of all residual contamination left on the Site after the remedy is complete. Residual contamination includes all contamination that exceeds the Track 1 Unrestricted Use SCO in 6 NYCRR Part 375-6. A table that shows exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the IRMs and a map that shows the location and summarizes exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the IRMs will be included in the FER.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

Before approval of a FER, all project reports must be submitted in digital form on electronic media (PDF).

9.1 CERTIFICATIONS

The following certification will appear in front of the Executive Summary of the Final Engineering Report. The certification will be signed by the Remedial Engineer Jennifer DiPilato who is a Professional Engineer registered in New York State. This certification will be appropriately signed and stamped. The certification will include the following statements:

I, Jennifer DiPilato, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the Former Tiffany's Studios Site (NYSDEC Consent Order Index No. R2-0789-12-08; Site No. 241140).

I certify that the Site description presented in this FER is identical to the Site descriptions presented in the Environmental Easement, the Site Management Plan, and the Consent Order for the Former Tiffany's Studios Site and related amendments.

I certify that the IRM Work Plan dated April 2013 approved by the NYSDEC was implemented and that all requirements in those documents have been substantively complied with.

I certify that the remediation requirements set forth in the IRM Work Plan and any other relevant provisions of ECL 27-1419 have been achieved.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and all operation and maintenance requirements applicable to the Site are contained in an Environmental Easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. A Site Management Plan has been submitted by the NYCSCA for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by the NYSDEC.

I certify that the export of all contaminated soil, fill, water or other material from the property was performed in accordance with the IRM Work Plan, and were taken to facilities licensed to accept this material in full compliance with all Federal, State and local laws.

I certify that all import of soils from off-Site, including source approval and sampling, has been performed in a manner that is consistent with the methodology defined in the IRM Work Plan.

I certify that invasive work performed during implementation of the IRMs was conducted in accordance with dust suppression methodology defined in the IRM Work Plan.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

10.0 SCHEDULE

The IRMs will be implemented during construction of the new school (scheduled to open in September 2015). The NYCSCA has awarded Silverite Construction of Hicksville, New York (Silverite) with a contract to prepare the Site and construct the new school. Silverite's construction schedule is presented in Appendix G.

Table 1

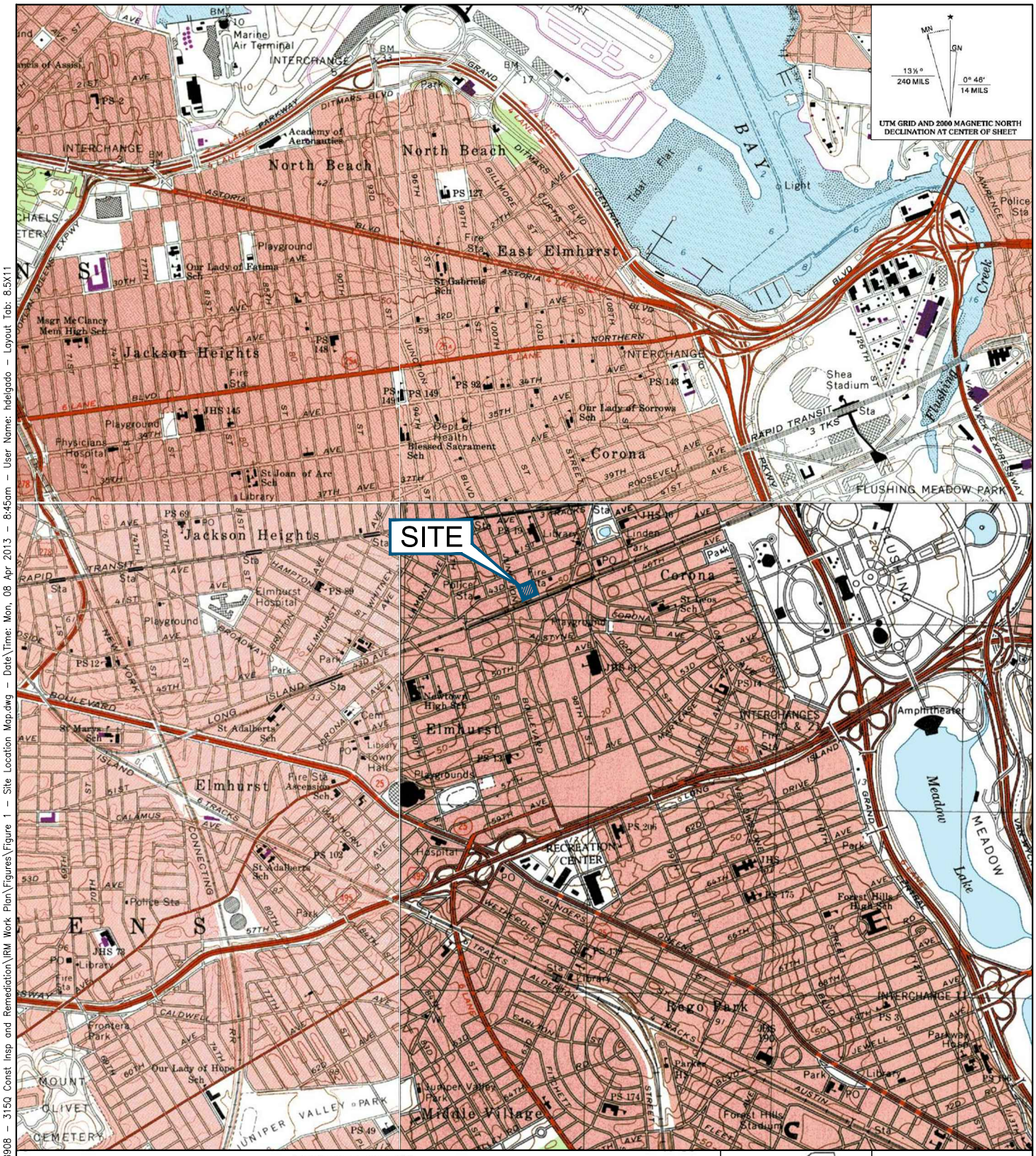
Emergency Contact Numbers

TABLE 1

EMERGENCY CONTACT NUMBERS

Name	Affiliation	Office Telephone	Cell Phone
Lee Guterman	NYCSCA – IEH	718-472-8502	347-386-8533
Anna Rubino	NYCSCA – IEH	718-752-5028	646-262-2089
Charles Guder	TRC	212-221-7822	646-660-1020
Jennifer DiPilato, PE	TRC	212-221-7822	914-806-5719

Figures



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 0 METERS 1000 2000

1 0.5 0 MILES 1

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET

QUADRANGLE LOCATION

JAMAICA, NY

1994

NIMA 6265 III NE-SERIES V821

MAP OBTAINED THROUGH USE OF MAPTECH TERRAIN NAVIGATOR PRO SOFTWARE.

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

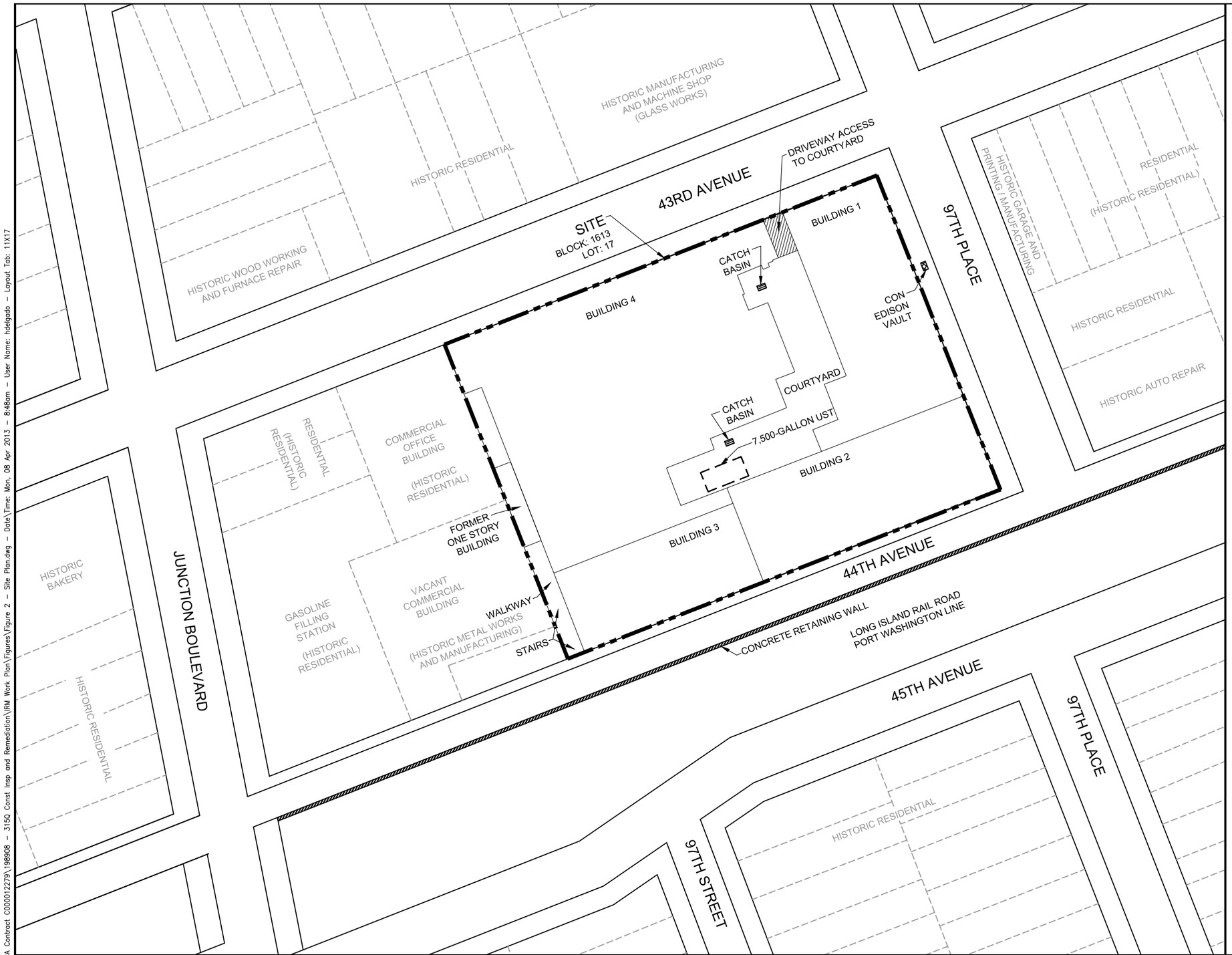
DESIGNED BY: HD	
DRAWN BY: HD	
CHECKED BY: RW	
DATE: APRIL 2013	
SCALE: AS SHOWN	
PROJECT NUMBER: 198908.0000.0000	

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SITE LOCATION MAP

FIGURE
1

Path\Name: i:\Projects\NYCSCA Contract C000012279\198908 – 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 1 – Site Location Map.dwg – Date\Time: Mon, 08 Apr 2013 – 8:45am – User Name: hdelgado – Layout Tab: 8.5X11



LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY

GROUNDWATER FLOW DIRECTION

REVISIONS			
NO.	DESCRIPTION	BY	DATE

0 60 120 FT.

APPROXIMATE SCALE: 1"=60'

PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

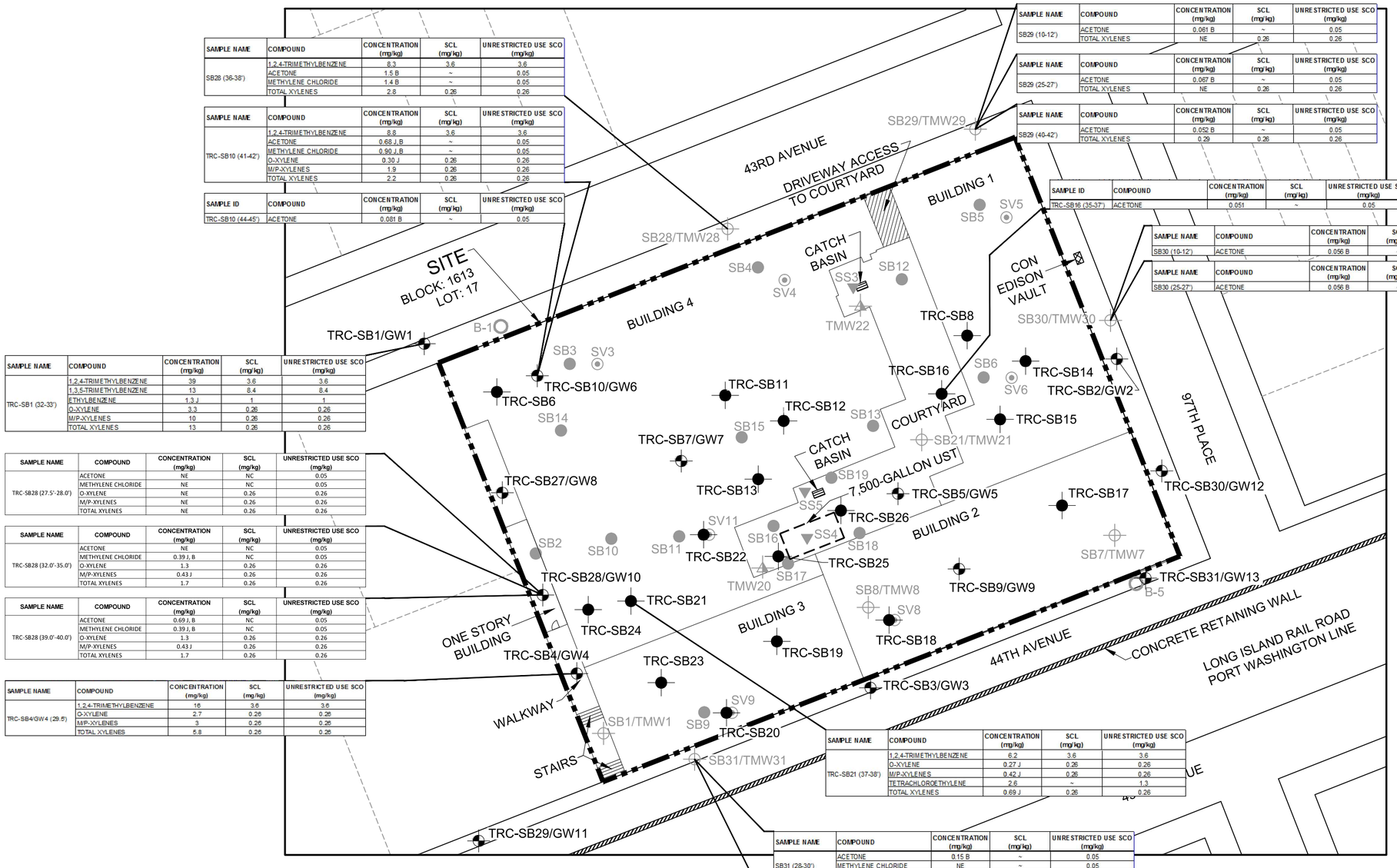
PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SITE PLAN

FIGURE
2

Path\Name: i:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 2 - Site Plan.dwg - Date\Time: Mon, 08 Apr 2013 - 8:48am - User Name: hdelgado - Layout Tab: 11X17

Path\Name: i:\Projects\NYCSCA Contract C00001227G\198908 – 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 3 – Summary of VOC Exceed. of Soil Cleanup Levels and Unrest. Use SCOs in Soil.dwg – Date\Time: Mon, 08 Apr 2013 – 8:54am – User Name: hdelgado – Layout Tab: 17X22



SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB28 (36-38')	1,2,4-TRIMETHYLBENZENE	8.3	3.6	3.6
	ACETONE	1.5 B	~	0.05
	METHYLENE CHLORIDE	1.4 B	~	0.05
	TOTAL XYLENES	2.8	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB10 (41-42')	1,2,4-TRIMETHYLBENZENE	8.8	3.6	3.6
	ACETONE	0.68 J,B	~	0.05
	METHYLENE CHLORIDE	0.90 J,B	~	0.05
	O-XYLENE	0.30 J	0.26	0.26
	M/P-XYLENES	1.9	0.26	0.26
	TOTAL XYLENES	2.2	0.26	0.26

SAMPLE ID	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB10 (44-45')	ACETONE	0.081 B	~	0.05

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB29 (10-12')	ACETONE	0.061 B	~	0.05
	TOTAL XYLENES	NE	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB29 (25-27')	ACETONE	0.067 B	~	0.05
	TOTAL XYLENES	NE	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB29 (40-42')	ACETONE	0.052 B	~	0.05
	TOTAL XYLENES	0.29	0.26	0.26

SAMPLE ID	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB16 (35-37')	ACETONE	0.051	~	0.05

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB30 (10-12')	ACETONE	0.056 B	~	0.05

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB30 (25-27')	ACETONE	0.056 B	~	0.05

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB1 (32-33')	1,2,4-TRIMETHYLBENZENE	39	3.6	3.6
	1,3,5-TRIMETHYLBENZENE	13	8.4	8.4
	ETHYLBENZENE	1.3 J	1	1
	O-XYLENE	3.3	0.26	0.26
	M/P-XYLENES	10	0.26	0.26
	TOTAL XYLENES	13	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB28 (27.5'-28.0')	ACETONE	NE	NC	0.05
	METHYLENE CHLORIDE	NE	NC	0.05
	O-XYLENE	NE	0.26	0.26
	M/P-XYLENES	NE	0.26	0.26
	TOTAL XYLENES	NE	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB28 (32.0'-35.0')	ACETONE	NE	NC	0.05
	METHYLENE CHLORIDE	0.39 J, B	NC	0.05
	O-XYLENE	1.3	0.26	0.26
	M/P-XYLENES	0.43 J	0.26	0.26
	TOTAL XYLENES	1.7	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB28 (39.0'-40.0')	ACETONE	0.69 J, B	NC	0.05
	METHYLENE CHLORIDE	0.39 J, B	NC	0.05
	O-XYLENE	1.3	0.26	0.26
	M/P-XYLENES	0.43 J	0.26	0.26
	TOTAL XYLENES	1.7	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB4/GW4 (29.5')	1,2,4-TRIMETHYLBENZENE	16	3.6	3.6
	O-XYLENE	2.7	0.26	0.26
	M/P-XYLENES	3	0.26	0.26
	TOTAL XYLENES	5.8	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
TRC-SB21 (37-38')	1,2,4-TRIMETHYLBENZENE	6.2	3.6	3.6
	O-XYLENE	0.27 J	0.26	0.26
	M/P-XYLENES	0.42 J	0.26	0.26
	TETRACHLOROETHYLENE	2.6	~	1.3
	TOTAL XYLENES	0.69 J	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB31 (28-30')	ACETONE	0.15 B	~	0.05
	METHYLENE CHLORIDE	NE	~	0.05
	TOTAL XYLENES	NE	0.26	0.26

SAMPLE NAME	COMPOUND	CONCENTRATION (mg/kg)	SCL (mg/kg)	UNRESTRICTED USE SCO (mg/kg)
SB31 (31-33')	ACETONE	1.6 B	~	0.05
	METHYLENE CHLORIDE	1.5 B	~	0.05
	TOTAL XYLENES	0.48 J	0.26	0.26

LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- SBX — HISTORIC SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- SVX — HISTORIC SOIL VAPOR SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SSX — HISTORIC SEDIMENT SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SBX/TMWX — HISTORIC SOIL BORING / TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TMWX — HISTORIC TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- B-X — HISTORIC GEOTECHNICAL BORING / MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX — SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER

NOTES:

- mg/kg - MILLIGRAMS PER KILOGRAM
- ~ - NO CRITERION
- B - ANALYTE FOUND IN ASSOCIATED METHOD BLANK
- J - ESTIMATED VALUE
- NE - DETECTED CONCENTRATIONS DID NOT EXCEED COMPARISON CRITERIA
- SCL - SOIL CLEANUP LEVEL
- SCO - SOIL CLEANUP OBJECTIVE
- THERE IS NO SCO OR SCL FOR M/P XYLENES OR O-XYLENE. THE SCL AND SCO FOR TOTAL XYLENES IS 0.26 mg/kg.

ASSUMED GROUNDWATER FLOW DIRECTION

REVISIONS NO.	DESCRIPTION	BY	DATE

0 40 80 FT.
APPROXIMATE SCALE: 1"=40'
PAPER SIZE: 17" x 22"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

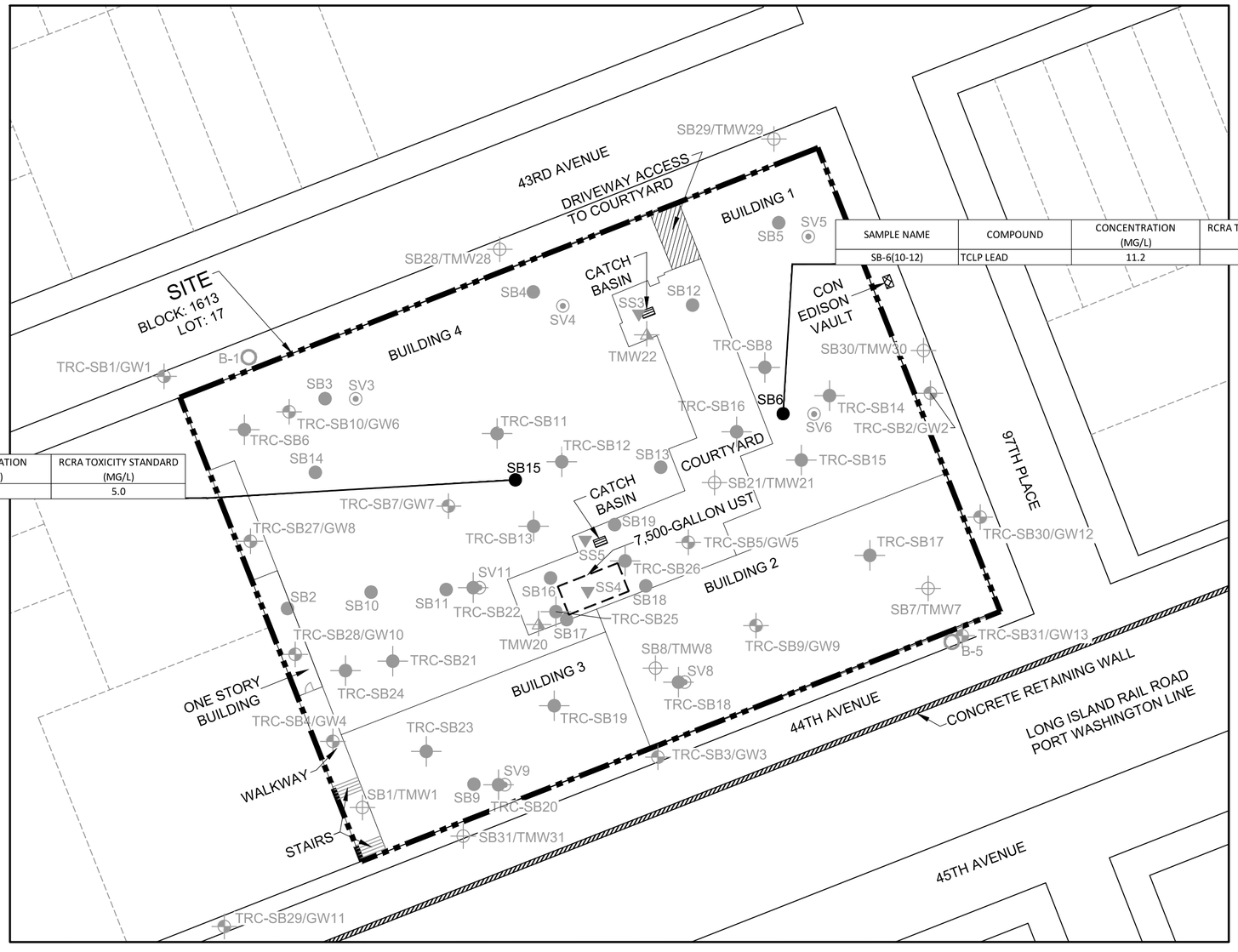
DESIGNED BY: RW
DRAWNED BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SUMMARY OF VOC EXCEEDANCES OF SOIL CLEANUP LEVELS AND UNRESTRICTED USE SCOs IN SOIL

FIGURE
3

Path\Name: i:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 4 - Summary of TCLP Lead Exceed. of RCRA Toxicity Standard in Soil.dwg - Date\Time: Mon, 08 Apr 2013 - 9:17am - User Name: hdelgado - Layout Tab: 17X22



SAMPLE NAME	COMPOUND	CONCENTRATION (MG/L)	RCRA TOXICITY STANDARD (MG/L)
SB-6(10-12)	TCLP LEAD	11.2	5.0

SAMPLE NAME	COMPOUND	CONCENTRATION (MG/L)	RCRA TOXICITY STANDARD (MG/L)
SB-15(10-12)	TCLP LEAD	5.0	5.0

LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- SBX — HISTORIC SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- SVX — HISTORIC SOIL VAPOR SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SSX — HISTORIC SEDIMENT SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SBX/TMWX — HISTORIC SOIL BORING / TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TMWX — HISTORIC TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- B-X — HISTORIC GEOTECHNICAL BORING / MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX — SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER

NOTES:
mg/L - MILLIGRAMS PER LITER
RCRA - RESOURCE CONSERVATION RECOVERY ACT

ASSUMED GROUNDWATER FLOW DIRECTION

REVISIONS

NO.	DESCRIPTION	BY	DATE

0 40 80 FT.
APPROXIMATE SCALE: 1"=40'
PAPER SIZE: 17" x 22"

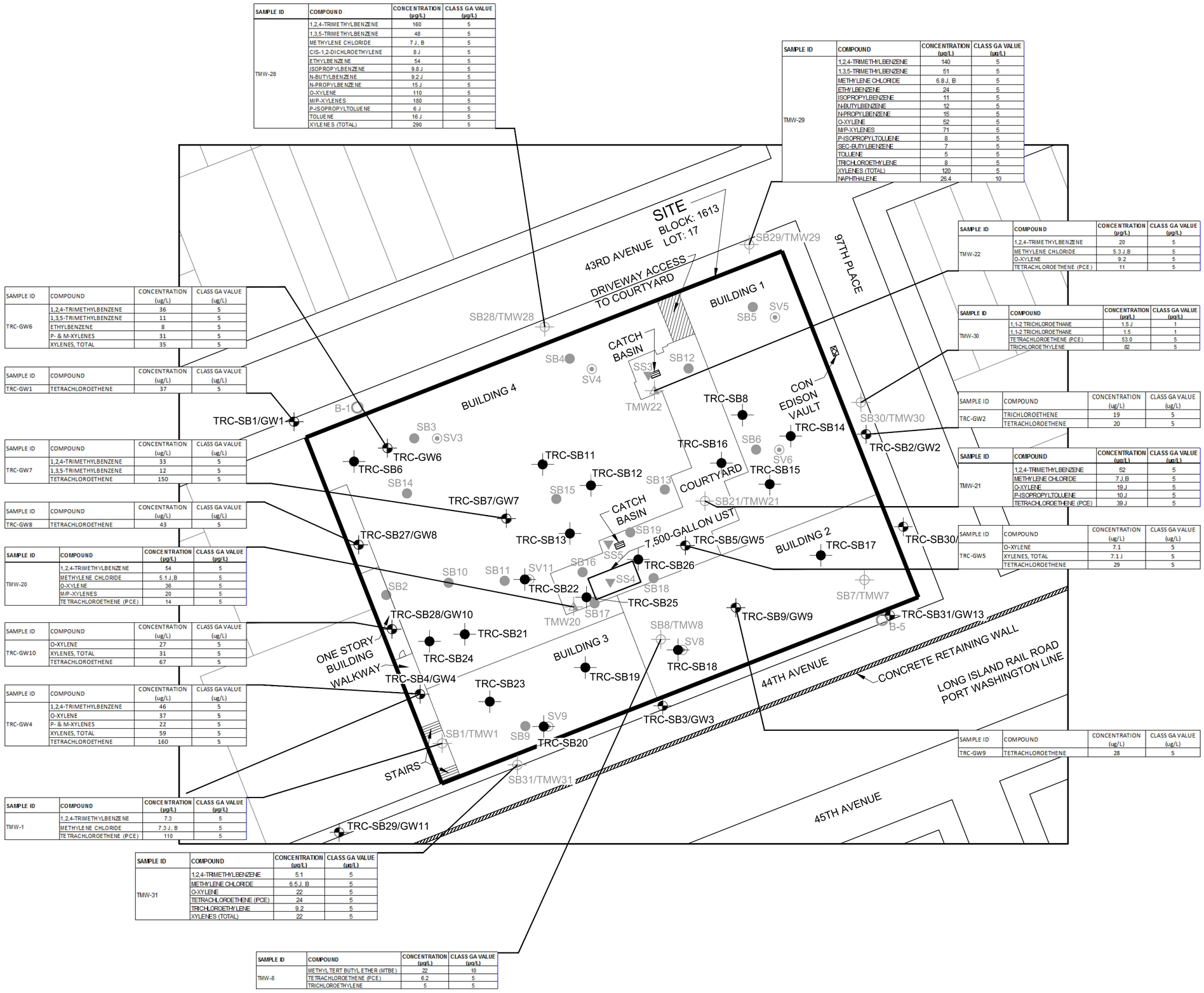
TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

DESIGNED BY: RW
DRAWNED BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SUMMARY OF TCLP LEAD EXCEEDANCES OF RCRA TOXICITY STANDARD IN SOIL

FIGURE
4



SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-28	1,2,4-TRIMETHYLBENZENE	160	5
	1,3,5-TRIMETHYLBENZENE	48	5
	METHYLENE CHLORIDE	7 J, B	5
	CIS-1,2-DICHLROETHYLENE	8 J	5
	ETHYLBENZENE	54	5
	ISOPROPYLBENZENE	9.8 J	5
	N-BUTYLBENZENE	9.2 J	5
	N-PROPYLBENZENE	15 J	5
	O-XYLENE	110	5
	M/P-XYLENES	180	5
	P-ISOPROPYLTOLUENE	6 J	5
	TOLUENE	16 J	5
	XYLENES (TOTAL)	290	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-29	1,2,4-TRIMETHYLBENZENE	140	5
	1,3,5-TRIMETHYLBENZENE	51	5
	METHYLENE CHLORIDE	6.8 J, B	5
	ETHYLBENZENE	24	5
	ISOPROPYLBENZENE	11	5
	N-BUTYLBENZENE	12	5
	N-PROPYLBENZENE	15	5
	O-XYLENE	52	5
	M/P-XYLENES	71	5
	P-ISOPROPYLTOLUENE	8	5
	SEC-BUTYLBENZENE	7	5
	TOLUENE	5	5
	TRICHLOROETHYLENE	8	5
	XYLENES (TOTAL)	120	5
	NAPHTHALENE	26.4	10

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW6	1,2,4-TRIMETHYLBENZENE	36	5
	1,3,5-TRIMETHYLBENZENE	11	5
	ETHYLBENZENE	8	5
	P- & M-XYLENES	31	5
	XYLENES, TOTAL	35	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW1	TETRACHLOROETHENE	37	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW7	1,2,4-TRIMETHYLBENZENE	33	5
	1,3,5-TRIMETHYLBENZENE	12	5
	TETRACHLOROETHENE	150	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW8	TETRACHLOROETHENE	43	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-20	1,2,4-TRIMETHYLBENZENE	54	5
	METHYLENE CHLORIDE	5.1 J, B	5
	O-XYLENE	36	5
	M/P-XYLENES	20	5
	TETRACHLOROETHENE (PCE)	14	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW10	O-XYLENE	27	5
	XYLENES, TOTAL	31	5
	TETRACHLOROETHENE	67	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW4	1,2,4-TRIMETHYLBENZENE	46	5
	O-XYLENE	37	5
	P- & M-XYLENES	22	5
	XYLENES, TOTAL	59	5
	TETRACHLOROETHENE	160	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-1	1,2,4-TRIMETHYLBENZENE	7.3	5
	METHYLENE CHLORIDE	7.3 J, B	5
	TETRACHLOROETHENE (PCE)	110	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-31	1,2,4-TRIMETHYLBENZENE	5.1	5
	METHYLENE CHLORIDE	6.5 J, B	5
	O-XYLENE	22	5
	TETRACHLOROETHENE (PCE)	24	5
	TRICHLOROETHYLENE	9.2	5
	XYLENES (TOTAL)	22	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-8	METHYL TERT BUTYL ETHER (MTBE)	22	10
	TETRACHLOROETHENE (PCE)	6.2	5
	TRICHLOROETHYLENE	5	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-22	1,2,4-TRIMETHYLBENZENE	20	5
	METHYLENE CHLORIDE	5.3 J,B	5
	O-XYLENE	9.2	5
	TETRACHLOROETHENE (PCE)	11	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-30	1,1-2 TRICHLOROETHANE	1.5 J	1
	1,1-2 TRICHLOROETHANE	1.5	1
	TETRACHLOROETHENE (PCE)	53.0	5
	TRICHLOROETHYLENE	82	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW2	TRICHLOROETHENE	19	5
	TETRACHLOROETHENE	20	5

SAMPLE ID	COMPOUND	CONCENTRATION (µg/L)	CLASS GA VALUE (µg/L)
TMW-21	1,2,4-TRIMETHYLBENZENE	52	5
	METHYLENE CHLORIDE	7 J,B	5
	O-XYLENE	19 J	5
	P-ISOPROPYLTOLUENE	10 J	5
	TETRACHLOROETHENE (PCE)	39 J	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW5	O-XYLENE	7.1	5
	XYLENES, TOTAL	7.1 J	5
	TETRACHLOROETHENE	29	5

SAMPLE ID	COMPOUND	CONCENTRATION (ug/L)	CLASS GA VALUE (ug/L)
TRC-GW9	TETRACHLOROETHENE	28	5

LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- SBX — HISTORIC SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- SVX — HISTORIC SOIL VAPOR SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SSX — HISTORIC SEDIMENT SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SBX/TMWX — HISTORIC SOIL BORING / TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TMWX — HISTORIC TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- B-X — HISTORIC GEOTECHNICAL BORING / MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX — SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER

NOTES:

µg/L - MICROGRAMS PER LITER
B - ANALYTE FOUND IN THE ANALYSIS BLANK
J - ESTIMATED VALUE
THERE IS NO STANDARD OR GUIDANCE VALUE FOR TOTAL XYLENES. THE STANDARD FOR O-XYLENE, M-XYLENE, AND P-XYLENE IS 5 µg/L.
DUP IS A DUPLICATE OF TRC-GW7.

REVISIONS

NO.	DESCRIPTION	BY	DATE

0 40 80 FT.
APPROXIMATE SCALE: 1"=40'
PAPER SIZE: 17" x 22"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

DESIGNED BY: RW
DRAWNED BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SUMMARY OF VOC EXCEEDANCES OF CLASS GA VALUES IN GROUNDWATER

FIGURE 5

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 5 - Summary of VOC Exceedances of Class GA Values in GW.dwg - Date\Time: Mon, 08 Apr 2013 - 9:20am - User Name: hdelgado - Layout Tab: 17X22

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 6 - Summary of Exceedences of Comparison Criteria in Sub-Slab Soil Vapor.dwg - Date\Time: Mon, 08 Apr 2013 - 9:24am - User Name: hdelgado - Layout Tab: 17X22

SV4	
Compound	**Result (µg/m3)**
Tetrachloroethene	**170**

SV3	
Compound	**Result (µg/m3)**
1,2,4-Trimethylbenzene	**13**
1,2-Dichloroethane	**170**
Benzene	**67**
Tetrachloroethene	**1300**

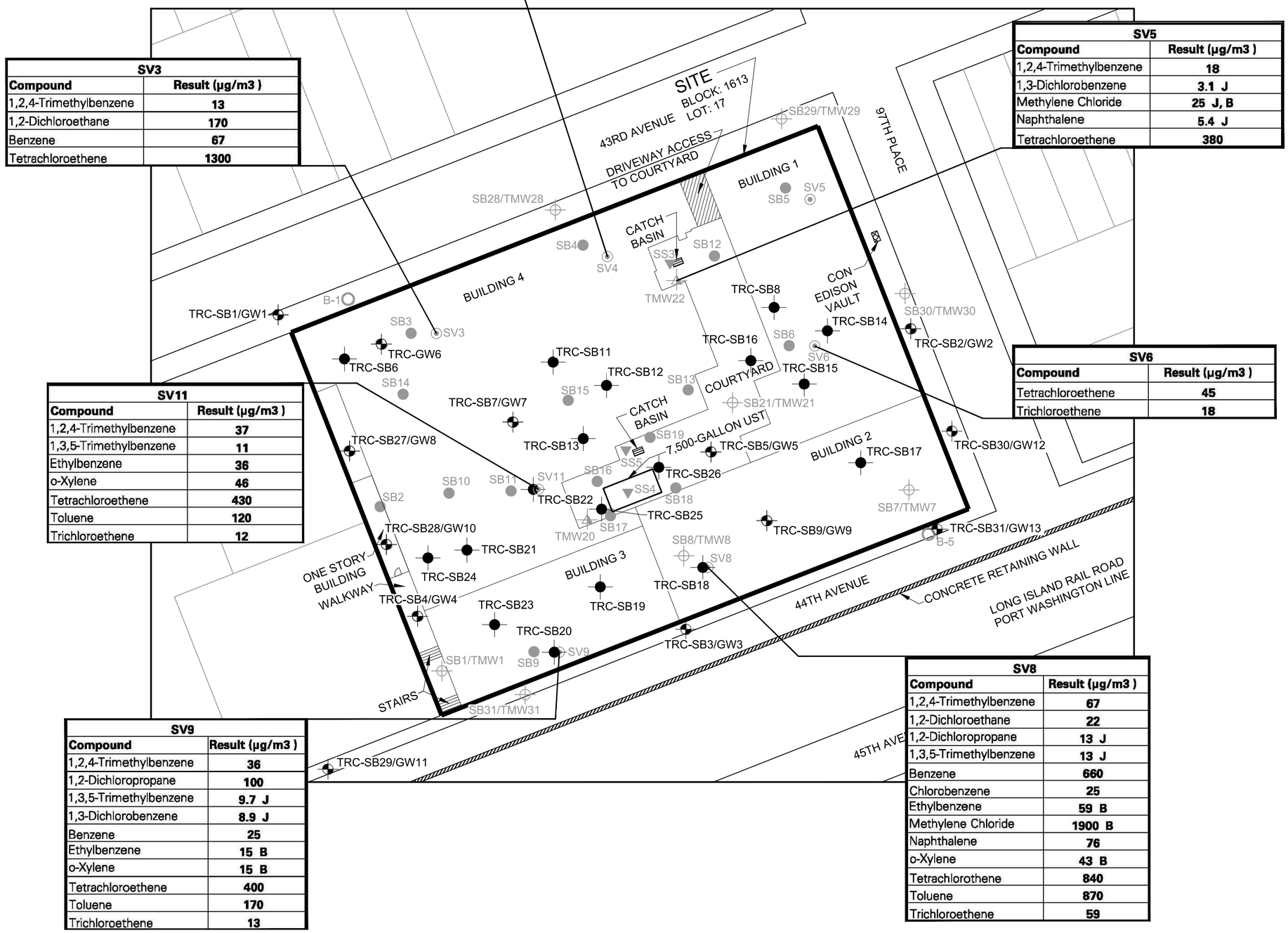
SV5	
Compound	**Result (µg/m3)**
1,2,4-Trimethylbenzene	**18**
1,3-Dichlorobenzene	**3.1 J**
Methylene Chloride	**25 J, B**
Naphthalene	**5.4 J**
Tetrachloroethene	**380**

SV6	
Compound	**Result (µg/m3)**
Tetrachloroethene	**45**
Trichloroethene	**18**

SV11	
Compound	**Result (µg/m3)**
1,2,4-Trimethylbenzene	**37**
1,3,5-Trimethylbenzene	**11**
Ethylbenzene	**36**
o-Xylene	**46**
Tetrachloroethene	**430**
Toluene	**120**
Trichloroethene	**12**

SV9	
Compound	**Result (µg/m3)**
1,2,4-Trimethylbenzene	**36**
1,2-Dichloropropane	**100**
1,3,5-Trimethylbenzene	**9.7 J**
1,3-Dichlorobenzene	**8.9 J**
Benzene	**25**
Ethylbenzene	**15 B**
o-Xylene	**15 B**
Tetrachloroethene	**400**
Toluene	**170**
Trichloroethene	**13**

SV8	
Compound	**Result (µg/m3)**
1,2,4-Trimethylbenzene	**67**
1,2-Dichloroethane	**22**
1,2-Dichloropropane	**13 J**
1,3,5-Trimethylbenzene	**13 J**
Benzene	**660**
Chlorobenzene	**25**
Ethylbenzene	**59 B**
Methylene Chloride	**1900 B**
Naphthalene	**76**
o-Xylene	**43 B**
Tetrachlorothene	**840**
Toluene	**870**
Trichloroethene	**59**



LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- SBX — HISTORIC SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- SVX — HISTORIC SOIL VAPOR SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SSX — HISTORIC SEDIMENT SAMPLE LOCATION AND IDENTIFICATION NUMBER
- SBX/TMWX — HISTORIC SOIL BORING / TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TMWX — HISTORIC TEMPORARY MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- B-X — HISTORIC GEOTECHNICAL BORING / MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX — SOIL BORING LOCATION AND IDENTIFICATION NUMBER
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER

NOTES:
µg/m³ - MICROGRAMS PER METER CUBED
B - ANALYTE FOUND IN THE ANALYSIS BLANK
J - ESTIMATED VALUE
THERE IS NO STANDARD OR GUIDANCE VALUE FOR TOTAL XYLENES. THE STANDARD FOR O-XYLENE, M-XYLENE, AND P-XYLENE IS 5 µg/L.
DUP IS A DUPLICATE OF TRC-GW7.

ASSUMED GROUNDWATER FLOW DIRECTION

REVISIONS				
NO.	DESCRIPTION	BY	DATE	

0 40 80 FT.
APPROXIMATE SCALE: 1"=40'
PAPER SIZE: 17" x 22"

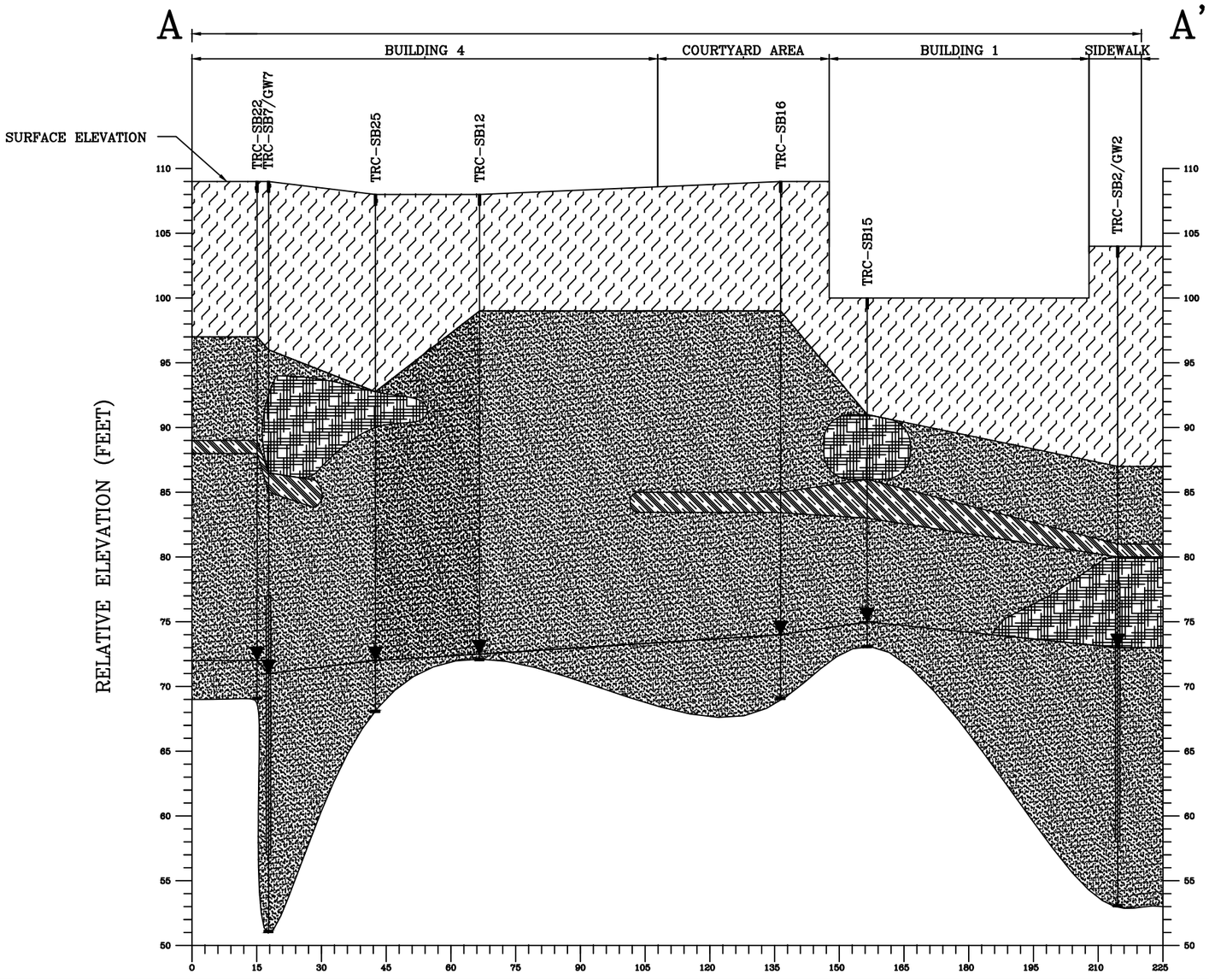
TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

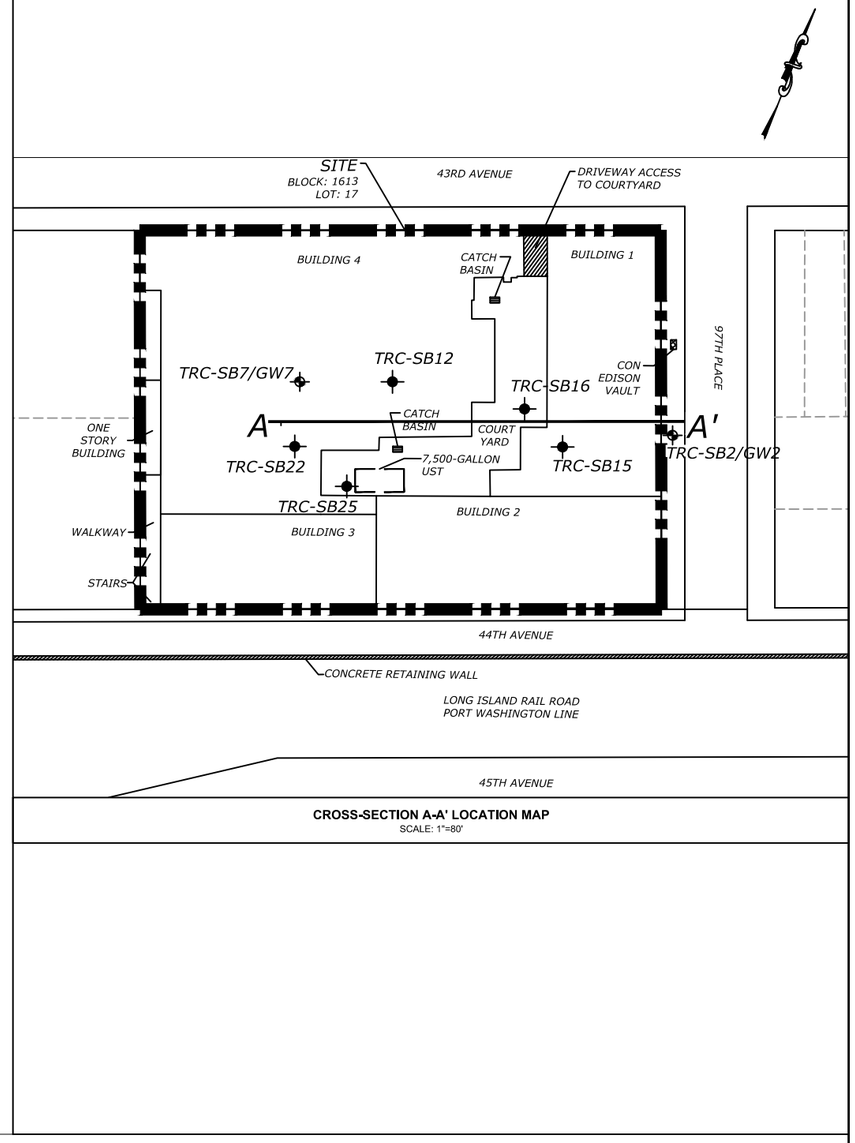
DESIGNED BY: RW
DRAWNED BY: HD
CHECKED BY: CG
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
SUMMARY OF EXCEEDENCES OF COMPARISON CRITERIA IN SUB-SLAB SOIL VAPOR.

FIGURE
6





CROSS-SECTION A-A' LOCATION MAP
SCALE: 1"=80'

LEGEND:

- FILL
- SAND
- SILTY SAND
- CLAYEY SILT
- END OF BORING (BOTTOM)
- WELL SCREEN
- WATER TABLE

0 30 60 FT.
HORIZONTAL SCALE: 1"=30'

0 10 20 FT.
VERTICAL SCALE: 1"=10'

NOTES:

1. LOCATIONS AND GROUND SURFACE ELEVATIONS OF TRC POINTS OF INVESTIGATION SURVEYED BY PERFECT POINT LAND SURVEYING ON APRIL 2, 2012. AN ARBITRARY DATUM (GROUND SURFACE NEAR THE SOUTHEAST CORNER OF THE SITE BUILDING) OF 100 FEET WAS USED TO GENERATE THE CROSS-SECTION.
2. GEOLOGIC DESCRIPTIONS AND DEPTH AND EXTENT OF LAYERS REPRESENT INTERPRETATION AND EXTRAPOLATION OF FIELD DATA AND ARE APPROXIMATE.

REVISIONS

NO.	DESCRIPTION	BY	DATE

PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

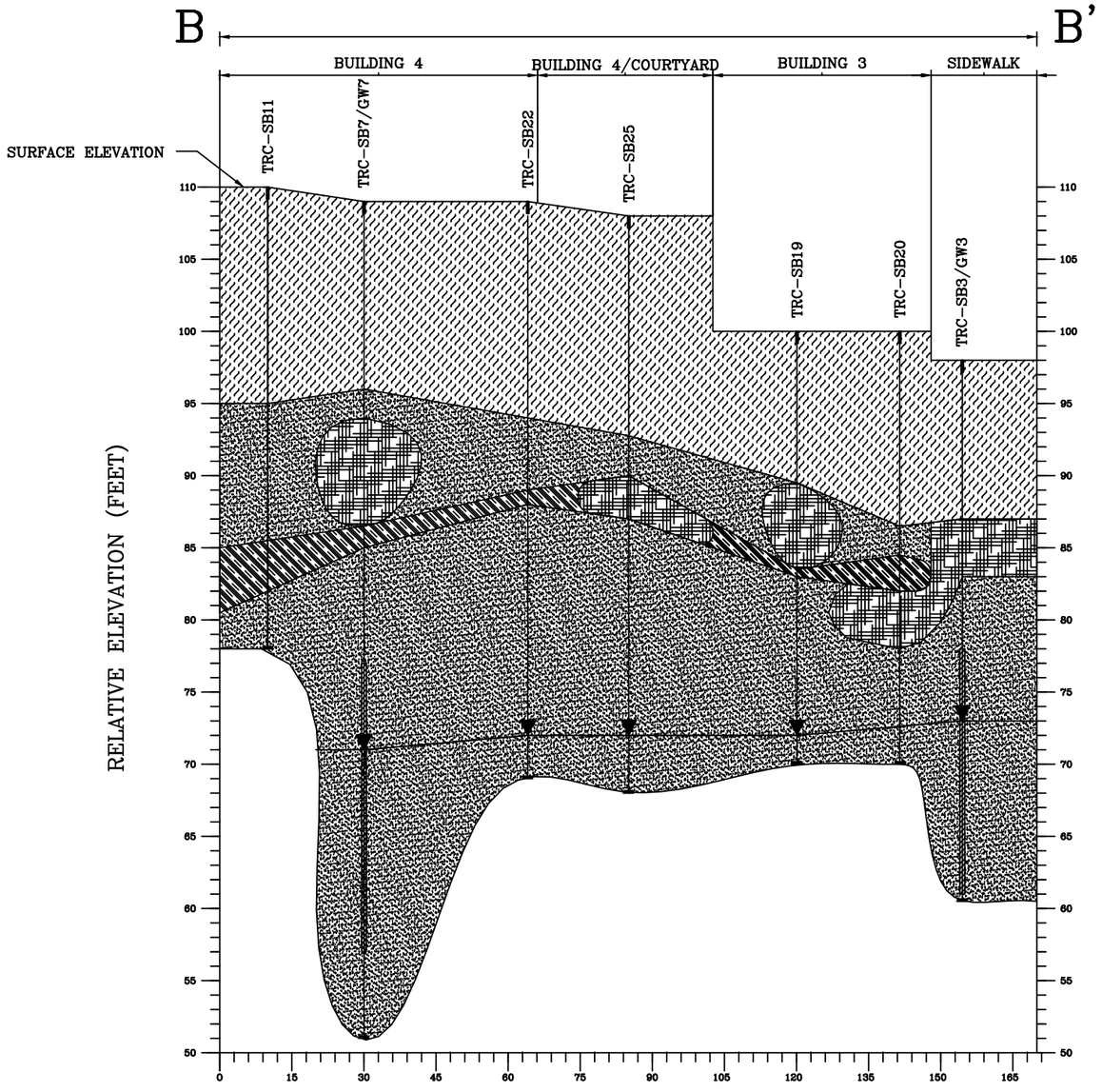
DESIGNED BY: LM	
DRAWN BY: HD	
CHECKED BY: RW	
DATE: APRIL 2013	
SCALE: AS SHOWN	
PROJECT NUMBER: 191011.0000.0000	

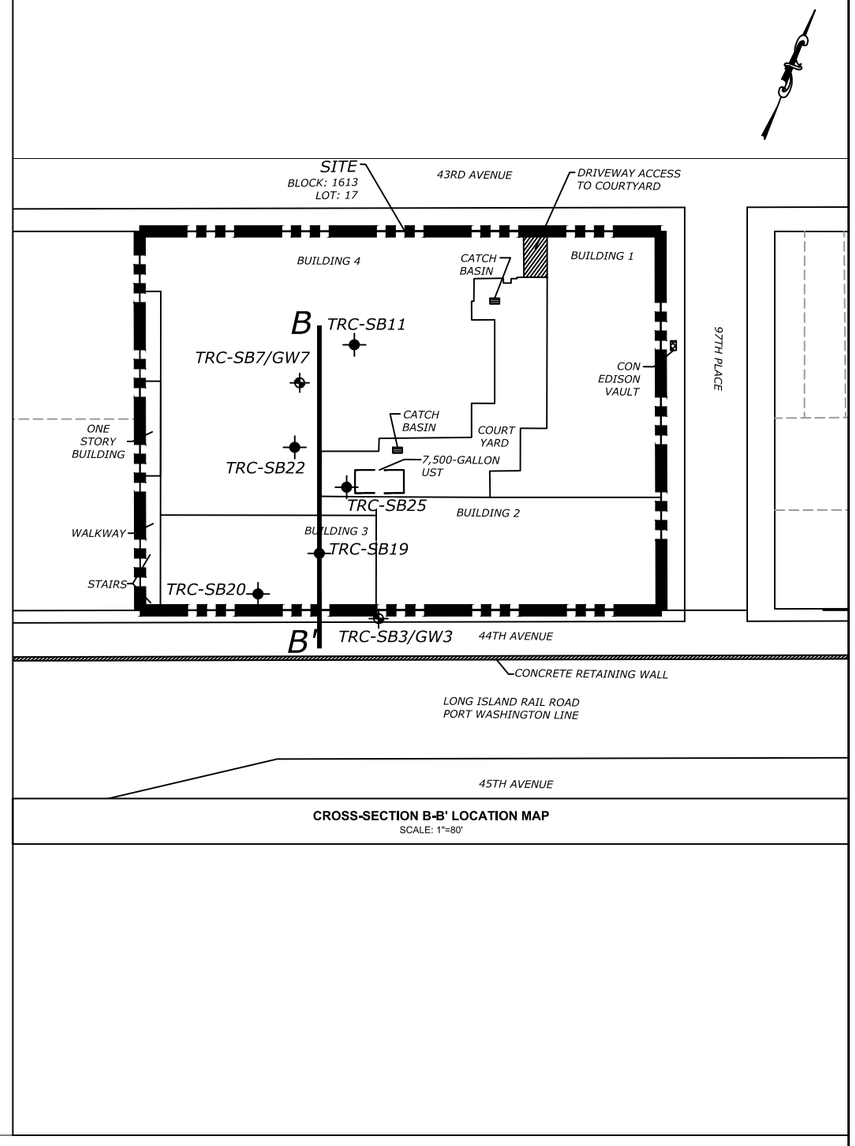
PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
GEOLOGIC CROSS-SECTION A-A'

FIGURE
7

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 7 - Geologic Cross Section A-A'.dwg - Date\Time: Mon, 08 Apr 2013 - 5:02pm - User Name: hdelgado - Layout Tab: 11X17





CROSS-SECTION B-B' LOCATION MAP
SCALE: 1"=80'

LEGEND:

- FILL
- SAND
- SILTY SAND
- CLAYEY SILT
- END OF BORING (BOTTOM)
- WELL SCREEN
- WATER TABLE

0 30 60 FT.
HORIZONTAL SCALE: 1"=30'

0 10 20 FT.
VERTICAL SCALE: 1"=10'

NOTES:

1. LOCATIONS AND GROUND SURFACE ELEVATIONS OF TRC POINTS OF INVESTIGATION SURVEYED BY PERFECT POINT LAND SURVEYING ON APRIL 2, 2012. AN ARBITRARY DATUM (GROUND SURFACE NEAR THE SOUTHEAST CORNER OF THE SITE BUILDING) OF 100 FEET WAS USED TO GENERATE THE CROSS-SECTION.
2. GEOLOGIC DESCRIPTIONS AND DEPTH AND EXTENT OF LAYERS REPRESENT INTERPRETATION AND EXTRAPOLATION OF FIELD DATA AND ARE APPROXIMATE.

REVISIONS				
NO.	DESCRIPTION	BY	DATE	

PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

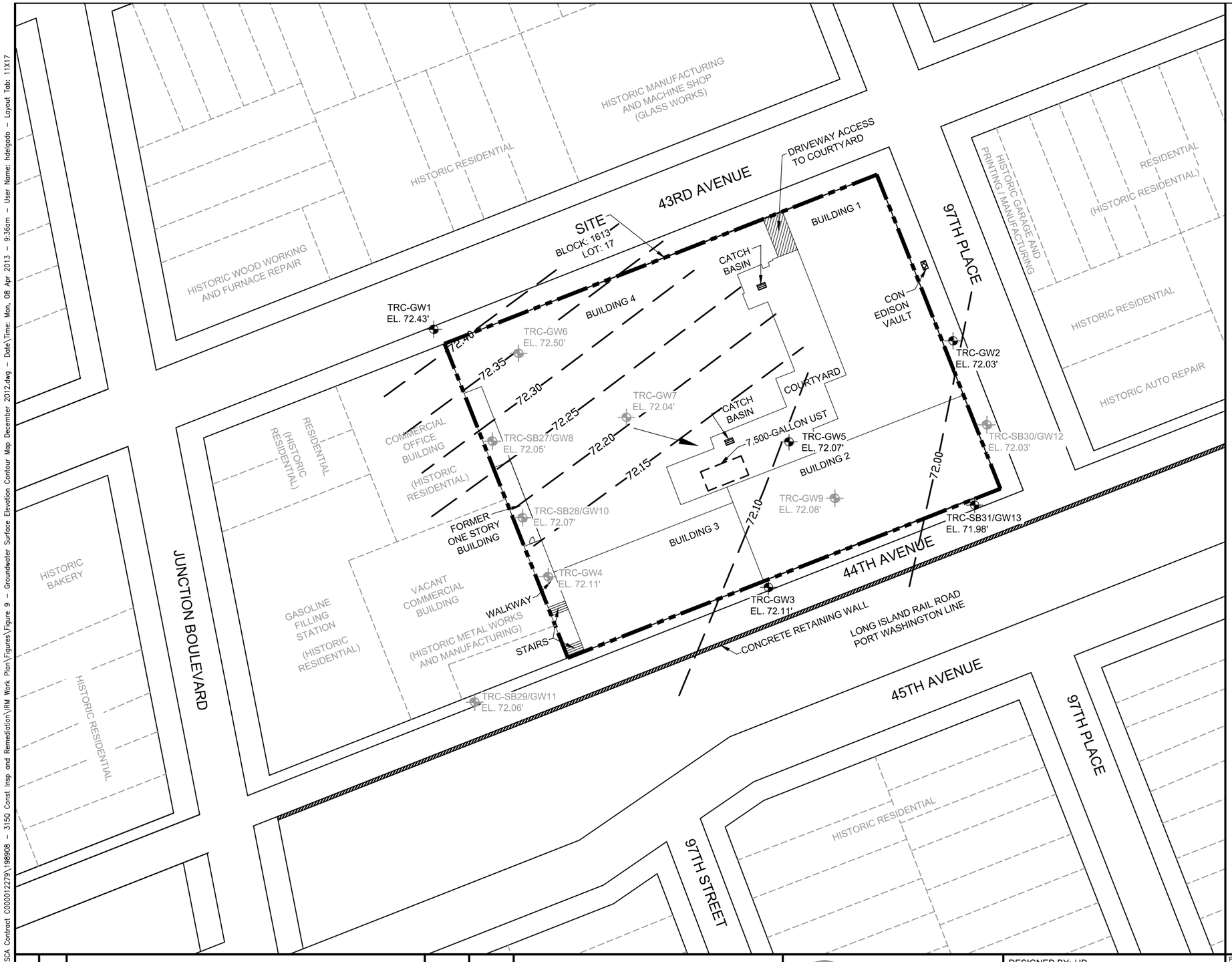
DESIGNED BY: LM
DRAWN BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 191011.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
GEOLOGIC CROSS-SECTION B-B'

FIGURE
8

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 8 - Geologic Cross Section B-B'.dwg - Date\Time: Mon, 08 Apr 2013 - 5:04pm - User Name: hdelgado - Layout Tab: 11X17



LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- EL. 71.98' — GROUNDWATER SURFACE ELEVATION IN FEET MEASURED DECEMBER 17, 2012
- --72.00-- — GROUNDWATER SURFACE ELEVATION CONTOUR (IN FEET)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. LOCATIONS OF MONITORING WELLS SURVEYED BY PERFECT POINT LAND SURVEYING ON DECEMBER 17, 2012. AN ARBITRARY ELEVATION DATUM (GROUND SURFACE NEAR THE SOUTHEAST CORNER OF THE SITE BUILDING) OF 100 FEET WAS USED.
2. 2" DIAMETER MONITORING WELLS TRC-GW1, TRC-GW2, TRC-GW3, TRC-GW5, AND TRC-GW13 WERE USED TO GENERATE THE GROUNDWATER SURFACE ELEVATION CONTOURS.

GROUNDWATER FLOW DIRECTION

REVISIONS NO.	DESCRIPTION	BY	DATE

0 60 120 FT.
APPROXIMATE SCALE: 1"=60'
PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
GROUNDWATER SURFACE ELEVATION CONTOUR MAP
DECEMBER 2012

FIGURE
9

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 – 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 9 – Groundwater Surface Elevation Contour Map December 2012.dwg – Date\Time: Mon, 08 Apr 2013 – 9:36am – User Name: hdelgado – Layout Tab: 11X17

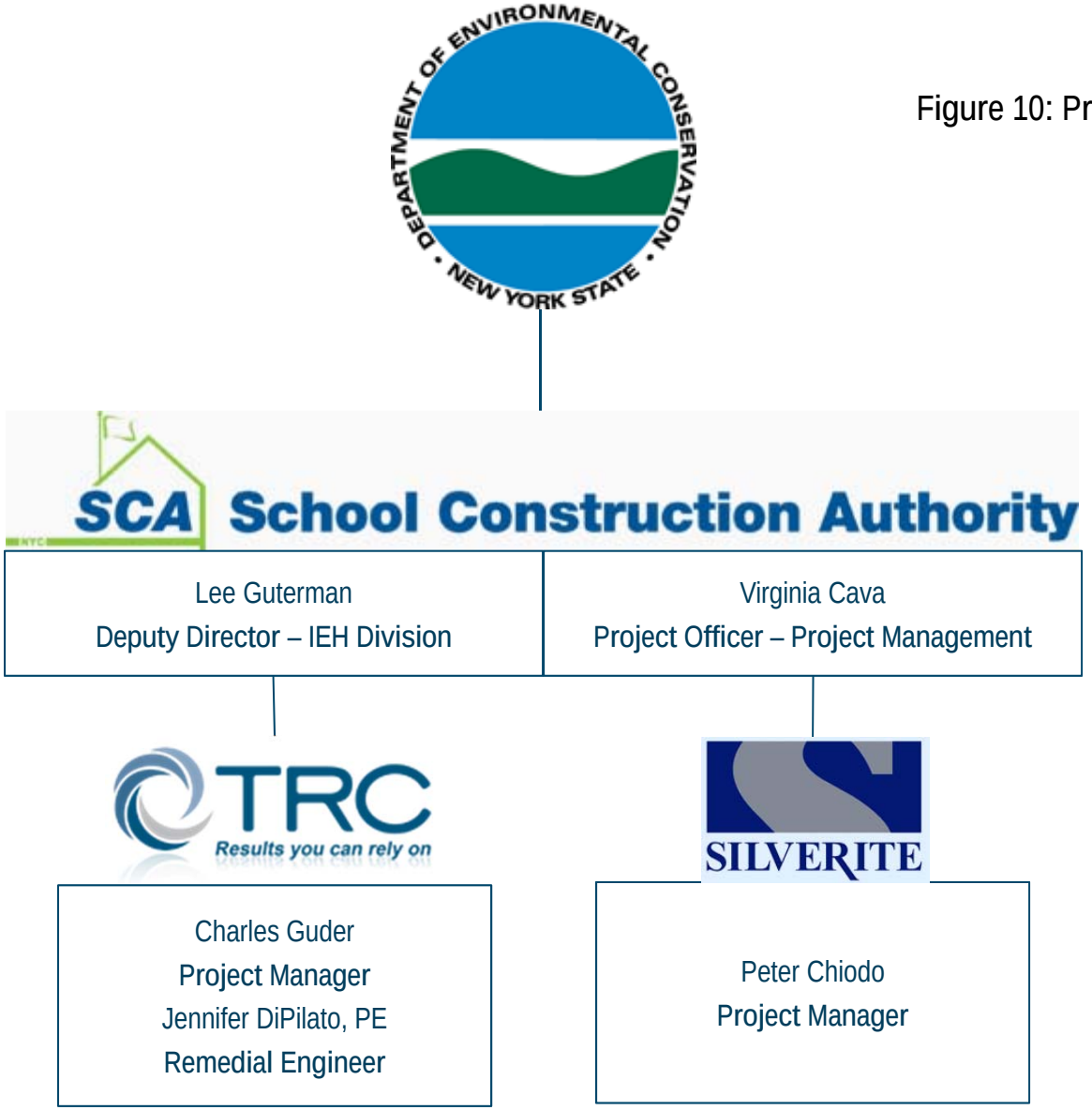
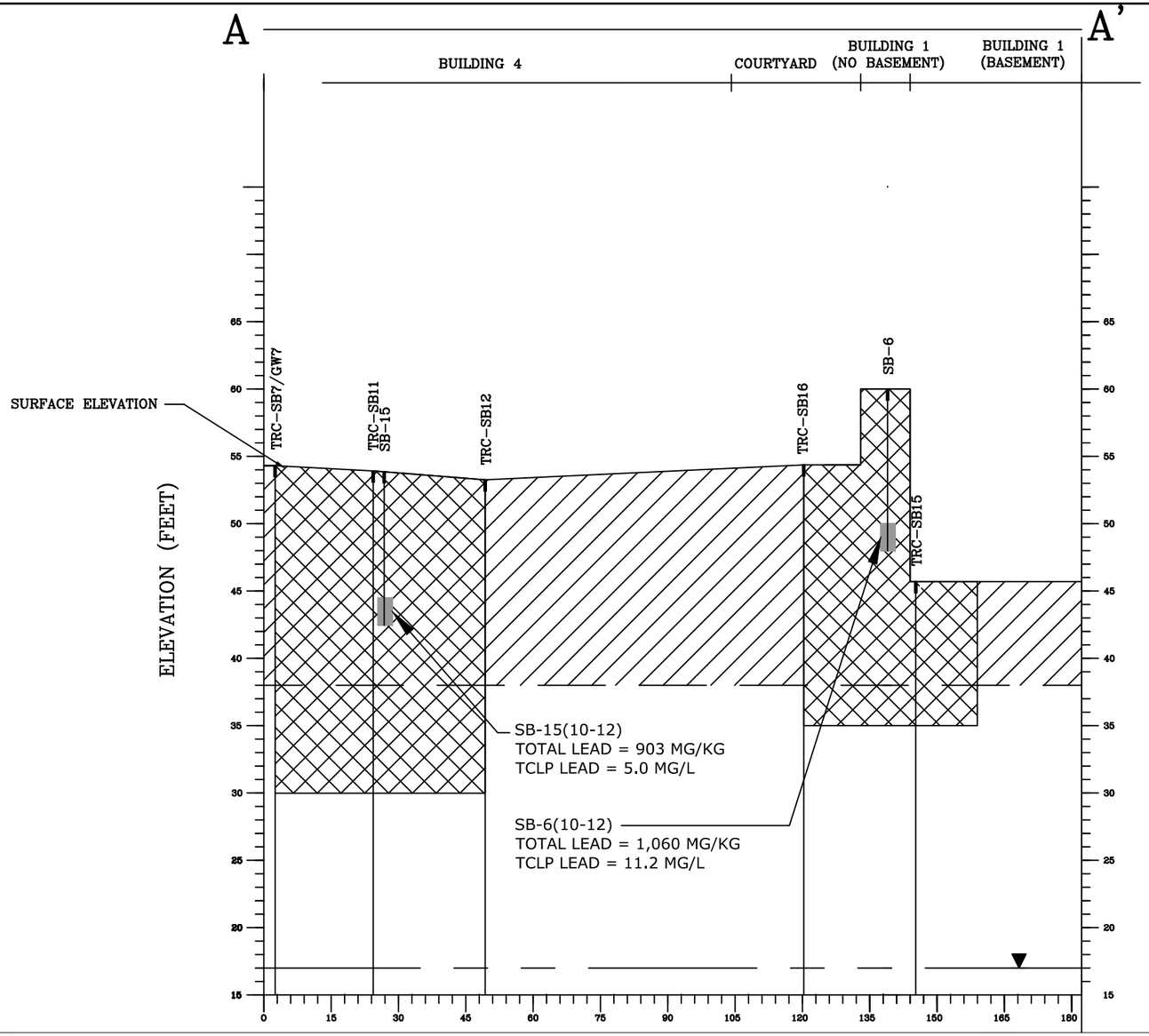
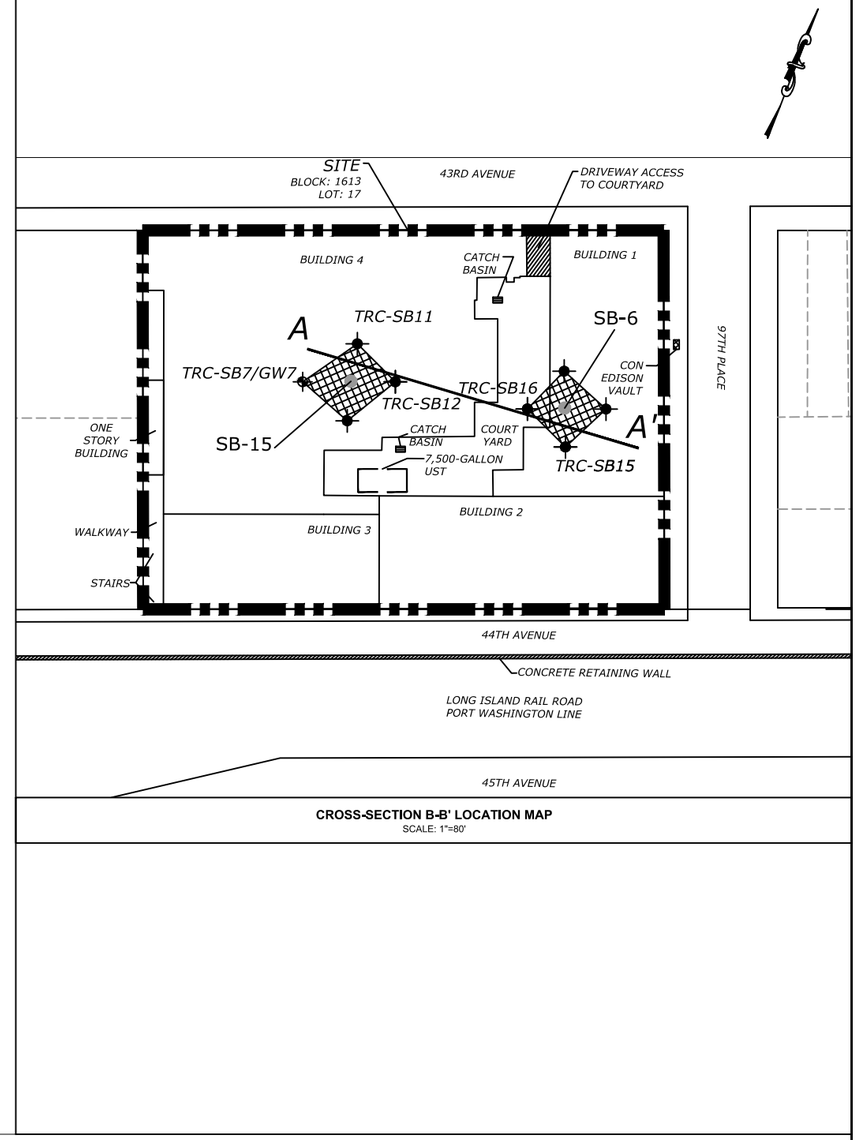


Figure 10: Project Organizational Chart





CROSS-SECTION B-B' LOCATION MAP
SCALE: 1"=80'

LEGEND:

- EXCAVATION AREA
- DESIGN EXCAVATION LIMITS
- APPROXIMATE WATER TABLE
- AREA WHERE HAZARDOUS LEAD IS ASSUMED TO BE PRESENT

NOTES:

1. LOCATIONS AND GROUND SURFACE ELEVATIONS OF TRC POINTS OF INVESTIGATION SURVEYED BY PERFECT POINT LAND SURVEYING ON APRIL 2, 2012. THE BOROUGH PRESIDENT OF QUEENS DATUM WAS USED TO GENERATE THE CROSS-SECTION.

REVISIONS

NO.	DESCRIPTION	BY	DATE

PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

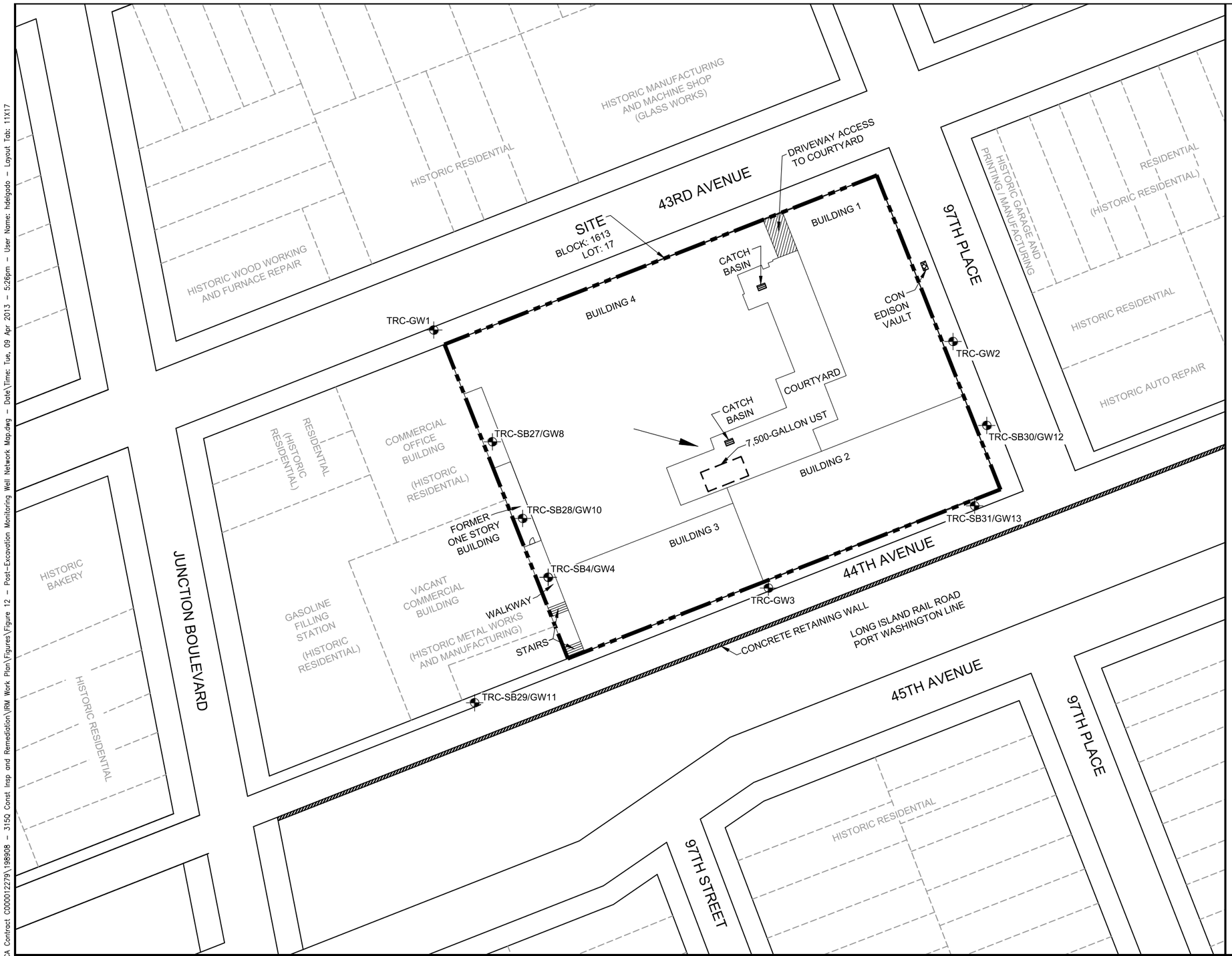
DESIGNED BY: PC	
DRAWN BY: PC/HD	
CHECKED BY: RW	
DATE: APRIL 2013	
SCALE: AS SHOWN	
PROJECT NUMBER: 198908.0000.0000	

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
CROSS SECTION OF PLANNED EXCAVATION AT LOCATIONS WITH TCLP LEAD CONCENTRATIONS ABOVE REGULATORY LIMIT

FIGURE
11

Path\Name: I:\Projects\NYCSCA Contract C000012279\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 11 - Cross Section of Planned Excavation...dwg - Date\Time: Mon, 08 Apr 2013 - 5:21pm - User Name: hdelgado - Layout Tab: 11X17



LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- TRC-SBX/GWX — SOIL BORING / GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION NUMBER
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. LOCATIONS OF MONITORING WELLS SURVEYED BY PERFECT POINT LAND SURVEYING ON DECEMBER 17, 2012. AN ARBITRARY ELEVATION DATUM (GROUND SURFACE NEAR THE SOUTHEAST CORNER OF THE SITE BUILDING) OF 100 FEET WAS USED.

GROUNDWATER FLOW DIRECTION

REVISIONS			
NO.	DESCRIPTION	BY	DATE

0 60 120 FT.

APPROXIMATE SCALE: 1"=60'

PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

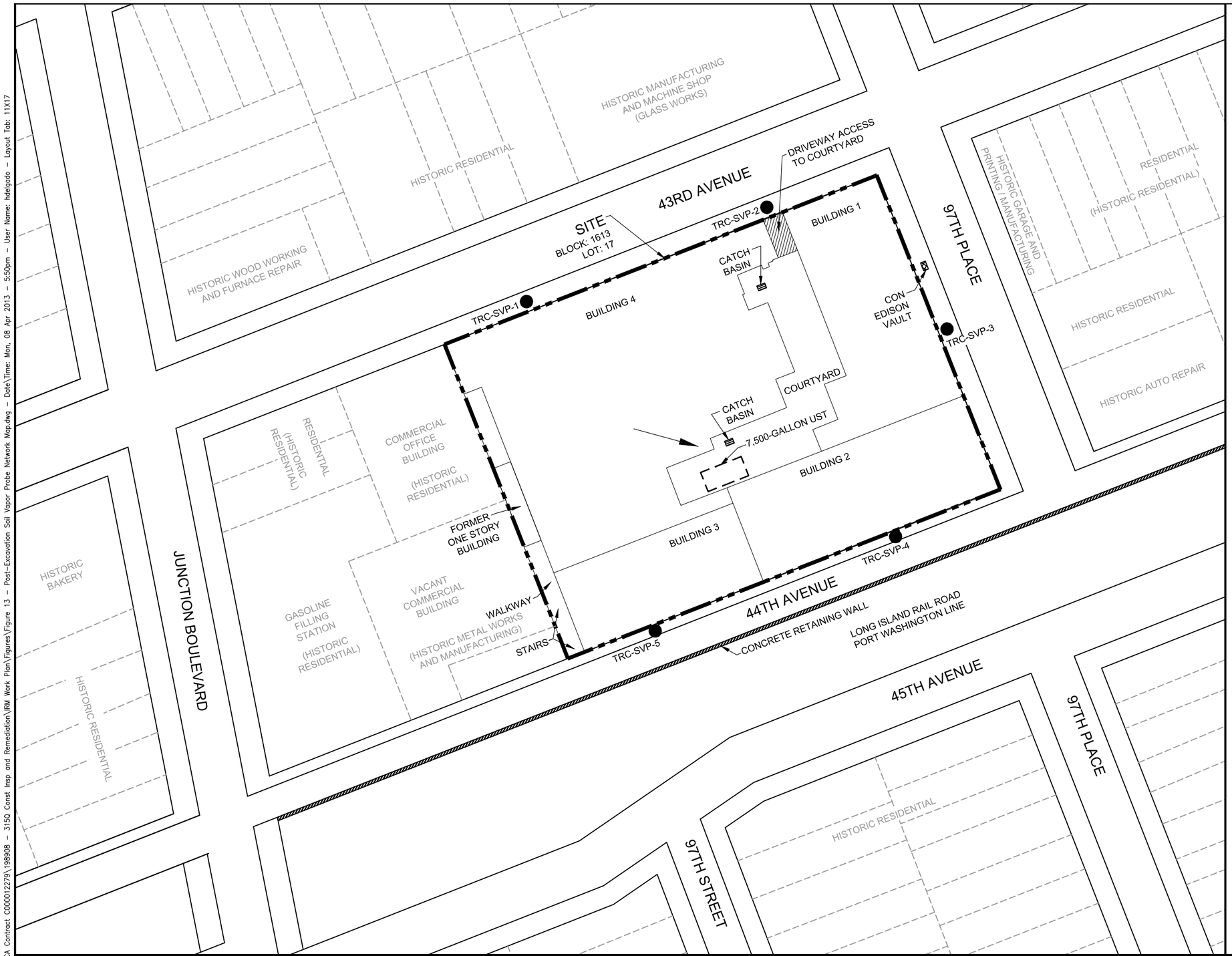
DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
POST-EXCAVATION MONITORING WELL NETWORK MAP

FIGURE
12

Path:\Name: i:\Projects\NYCSCA Contract C0000122791\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 12 - Post-Excavation Monitoring Well Network Map.dwg - Date\Time: Tue, 09 Apr 2013 - 5:26pm - User Name: hdelgado - Layout Tab: 11X17



LEGEND:

- SITE BOUNDARY
- BUILDING FOOTPRINT
- LOT BOUNDARY
- TRC-SVP-X — PROPOSED SOIL VAPOR PROBE LOCATION AND IDENTIFICATION NUMBER
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. LOCATIONS OF MONITORING WELLS SURVEYED BY PERFECT POINT LAND SURVEYING ON DECEMBER 17, 2012. AN ARBITRARY ELEVATION DATUM (GROUND SURFACE NEAR THE SOUTHEAST CORNER OF THE SITE BUILDING) OF 100 FEET WAS USED.

GROUNDWATER FLOW DIRECTION

REVISIONS				
NO.	DESCRIPTION	BY	DATE	

0 60 120 FT.
APPROXIMATE SCALE: 1"=60'
PAPER SIZE: 11" x 17"

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: HD
DRAWN BY: HD
CHECKED BY: RW
DATE: APRIL 2013
SCALE: AS SHOWN
PROJECT NUMBER: 198908.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY
IRM WORK PLAN - BLOCK: 1613, LOT: 17
PROPOSED PS 315Q - 96-18 43RD AVENUE
QUEENS, NEW YORK 11368

DRAWING TITLE:
POST-EXCAVATION SOIL VAPOR PROBE NETWORK MAP

FIGURE
13

Path:\Name: i:\Projects\NYCSCA Contract C0000122791\198908 - 315Q Const Insp and Remediation\IRM Work Plan\Figures\Figure 13 - Post-Excavation Soil Vapor Probe Network Map.dwg - Date\Time: Mon, 08 Apr 2013 - 5:50pm - User Name: hdelgado - Layout Tab: 11X17

Appendix A

Health and Safety Plan

HEALTH AND SAFETY PLAN (HASP)

FOR

EXCAVATED MATERIAL DISPOSAL
AT

PS IS 315

43-18 97th PLACE

QUEENS, NY 11368

PREPARED FOR:	**SILVERITE CONSTRUCTION CORP.** **HICKSVILLE, NY**
PREPARED BY:	**SOUND ENVIRONMENTAL ASSOC. LLC** **WADING RIVER, NY**
DATE:	**October 15, 2012**

PREPARED BY: _____

SHEILA BUBKA, CIH
PRESIDENT

TABLE OF CONTENTS **PAGE #**

1.0 General Information……..... 1
2.0 Line Management/Chain-of-Command…….…… 1
3.0 Training Requirements……... 2
4.0 Underground Storage Tanks……. 3
5.0 Site Control…….. 5
5.1 Dust and Odor Controls…… 6
5.2 Site Communication …… 7
6.0 Personal Protective Equipment…….. 7
6.1 Introduction…… 7
6.2 Description of the Levels of Protection …… 8
6.3 Action Levels for Upgrade/Downgrade of Level of Protection . 9
6.4.1 Total Volatile Organics…… 9
6.4.2 Particulates…… 9
6.5 Respiratory Protection…… 9
6.6 Standard Operating Procedures for Respirators……. 10
7.0 Personal Protective Equipment…….. 10
7.1 Introduction…… 10
7.2 Site Monitoring Equipment for Employee & General Public Protection…… 10
7.3 Air Monitoring Plan……..…… 11
7.3.1 Sampling for Dust……..11
7.3.2 Sampling for VOC's……. 11
7.4 Calibration…….. 11
7.5 Recording Air Monitoring Data…….. 11
7.6 Air Monitoring Responsibilities……. 12

1. General Information

The purpose of this site-specific Health and Safety Plan (HASP) is to establish in detail the procedures and protocols necessary for protecting site workers, on-site personnel, visitors and the general public from hazards associated with site activities during the excavation of soils during site preparation for a new school. The site activities covered under this HASP include site mobilization/demobilization, excavation of soil, soil testing and disposal. This plan has been prepared in accordance with Specification 02081, OSHA Hazardous Waste and Emergency Response (HAZWOPER).

A comprehensive, project Site Safety Plan, as required by Specification S01535-Safety Program, details the health and safety requirements for the entire project. This document should be referenced for overall requirements.

The Phase II report conducted by Langan Engineering in October 2010 was reviewed to evaluate the sampling performed at this site. Based on this report it is anticipated that the potential exists to encounter soils classified as non-hazardous industrial waste and hazardous waste in the central eastern portions of the site.

2.0 Line Management/Chain-of-Command

Silverite will serve as the General Contractor for this project. Peter Chiodo is the Project Manager. The Project Manager has overall accountability for contractual issues, for the selection of subcontractors and for scheduling and timetable for work. The Project Manager also has overall accountability for implementation of the plan by Silverite and subcontractor employees.

The Project Superintendent is accountable for day-to-day operations, for activities of the subcontractors, for implementation of the HASP by subcontractors and to conduct periodic safety meetings and to investigate accidents and near misses on the site.

Site Safety Representative (SSR)

The Site Safety and Health responsibilities for this project will be provided by Silverite. The SSR will monitor work locations for employee health and safety purposes, as well as document any employee exposures and/or substance releases that may occur through the course of this project. The SSR will be trained and experienced to be proficient in the proper use and limitations of all equipment utilized on the site. The SSR is responsible for assisting in implementing the HASP and performing any other duties assigned to him. The SSR is also empowered to deny or restrict access to the site to any persons (under his control), and also has the authority to cease activities on-site if and when conditions present uncontrollable risks to site personnel and off-site receptors. The SSR shall also be responsible for coordinating, conducting and documenting any required training activities, performing and maintaining record keeping duties, and carrying out any other duties specified by site management. The SSR will be the main contact for any on-site emergency situation. Except in an emergency, the SSR may modify the approved HASP only after consultation and concurrence of the CIH. The SSR will be familiar with all matters pertinent to this project and shall assist and represent the CIH in implementation of the HASP as required. This includes field supervision; enforcing safe work practices; ensuring proper use of personal protective equipment; and communicating modified safety requirements to site personnel.

Certified Industrial Hygienist (CIH)

The CIH for this project will be Sheila Bubka, CIH of Sound Environmental Associates. Ms. Bubka is certified by the ABIH as a Certified Industrial Hygienist. The duties of the CIH are to develop, implement, and oversee the Health and Safety program, and the HASP. This plan includes a description for an on-site air-monitoring program, conducting initial site-specific training, and providing continued support for all health and safety activities as required. The CIH will be responsible for directing and approving any changes to the HASP with concurrence of Silverite or their designated representatives. The CIH will be available to be on site at the beginning of construction activities, at the start-up of each new task or operation, to attend meetings and as needed throughout the project for consultation as requested by the client.

3.0 Training Requirements

Predemolition Safety Conference

Prior to the start of soil intrusive work, the Contractor shall conduct a safety conference to discuss the hazards anticipated on the site, training on hazard recognition, response to emergencies, explanation of site activities, identifying safety personnel, levels of PPE required, air monitoring activities, and other topics relevant to the safety of site workers.

Training and Site Briefing/Education

The SSR or his designee will present a safety briefing to inform employees, contractors, subcontractors and visitors who will be performing excavation work. This briefing will cover the special hazards and procedures to control these hazards. All prime and subcontractor employees, Project Engineer's representatives and visitors shall complete this briefing before working in identified portions of the site. A copy of training records for all workers completing this training shall be kept by SSR. The SSR shall keep records of training for all site personnel and site visitors. Copies of the training records for all workers associated with the project will be provided to the SSR and will be available upon request. All workers and visitors shall sign a daily log.

All Silverite personnel or their subcontractors shall receive a minimum of two hours of site-specific training (general awareness) for all persons involved in the excavation. New York requires all workers on active public construction sites to attend a ten-hour, one-day construction safety course. This focuses on general construction site safety. SEA personnel or their subcontractors will be required to provide proof of having received training which meets the initial 40-hour and current annual 8-hour refresher training for hazardous waste site workers as described in 29 CFR 1910.120 and 29 CFR 1926.65.

All affected on-site personnel shall provide evidence of a medical examination when required which meets the requirements of 29 CFR 1910.120(f) and 29 CFR 1926.65(f).

4.0 Underground Storage Tanks

This will be accomplished by using a subcontractor qualified to identify locations of underground installations by means of using pipe and electric line locators, transmitters, receivers and inductive During excavation of the underground storage tank and piping all cave-in protection shall conform to the applicable OSHA requirements. Upon discovery live or dead utilities the work shall be shut down and proper procedures will be implemented to protect human health and the environment.

- Excavations that are less than 5 feet (1.52m) in depth and physical examination of the ground by the qualified competent person provides no indication of any potential cave-in or soil movement, shoring or sloping is not required providing conditions do not change.

- Where the competent person finds there is any potential risk of cave-in, and sloping is to be used solely as cave-in protection, the slopes shall be no greater than one to one and one-half, rise to run, or approximately 34 degrees from the horizontal. Note: Class C soil cannot be benched.

Satisfactory lumber/timber shall be used, i.e. badly cracked/broken timber shall not be used for bracing or support of excavations. An adequate number of ladders shall be present in the excavation for access. OSHA requires no more than 25 feet of lateral travel between ladders. Ladders must extend 36" above the top surface of the excavation and used in accordance with the manufacturer's instructions.

Excavated materials from trenching during shoring installation shall be placed away from excavation cut a minimum of 2' in order to decrease additional loading on the support system as well as decreasing potential for excavated material to slough off into the cut.

Daily, documented, inspections shall be done by the excavation competent person to monitor the condition of the support system.

Proper permits shall be filled out and approved before beginning work (i.e. digging, confined space entry permits, etc.)

There shall be barricading to eliminate the potential of vehicles or personnel from falling into the excavated site. A rigging plan for materials in and around the excavation shall be submitted for review and approval.

Excavations shall be effectively barricaded to prevent unauthorized entry.

Earth ramps shall be constructed in soil so a person can exit the excavation while standing upright.

Work Stoppage will be implemented whenever the competent person(s) determine that the structural integrity of the shoring or sidewall of the excavation has been sacrificed.

The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation. These locations will be marked by using paint or flags along with photos if necessary.

There will be a tolerance line of 24" whereby by only hand, air or pneumatic tools may be used to dig until the exact location of the underground installation is visually observed.

While the excavation is open, underground installations shall be protected, supported or removed as necessary to safeguard employees.

Where high voltage wiring systems or gas lines can be locked out or blocked and flanged, without interfering with an electrical or gas power grid, it shall be done.

Access and Egress

Although not anticipated, if access into the excavation area by persons is necessary appropriate ladders will be used. When a person enters the excavation area ladders will be placed along the perimeter no greater than 25' lateral distance from each other.

All ladders will extend 3' above the land surface.

When the depth of the excavation is greater than 6' deep fall protection will be used by all personnel entering the excavation.

Mobile Equipment

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Hazardous Atmospheres

Due to the nature of the work being performed there is a potential for a hazardous atmosphere to be exist within the excavation. In accordance with Specification 02115, the work site will be continuously monitored for the presence of dust, VOC's and flammable vapors. SEA will conduct the monitoring.

Emergencies

All personnel shall know the emergency stop signal and shall use it in the event of, or potential for, imminent danger or violation. The safety representative shall have an air horn available as an established emergency stop signal for all equipment.

The Safety Representative shall ensure that all project personnel are properly trained on site and facility-specific information.

Water Accumulation

A tarp will be used to cover the excavation area whenever it is anticipated that precipitation will occur.

Protection of Employees from Loose Rock Or Soil

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection. Prior to performing the excavation shoring will be installed to protect the excavation area from sidewall cave in. Employees shall be protected from excavated materials that could pose a hazard by falling or rolling into excavations. Protection shall be provided because the excavated material will be placed into roll off containers upon being excavated.

Inspections

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by the on site competent person(s) for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area, work stoppage will be implemented until the necessary precautions have been taken to ensure their safety.

Cave-In Protection Equipment

The following will apply if this type of equipment is used:

- The shoring system design will be in accordance with OSHA 29CFR 1910.26 Subpart P.
- Cave-in protection equipment shall be provided and an examination of the shoring system by a competent person will be performed to ensure that the structural integrity of the system in not compromised. For excavations greater than 20 feet in depth, the protective systems shall be designed and approved by a registered professional engineer with a specialty in soil mechanics.

5.0 Site Control

Site control zones will be established in order to contain contamination within the smallest area possible. The SSR will ensure that each employee has the proper personal protective equipment for the area or zone in which he or she is to perform work. Only authorized persons will be permitted access to these areas. Only trained, authorized employees are authorized to enter. The purpose of this HASP is to establish in detail the procedures and protocols necessary for

protecting of workers and the general public from potential hazards associated with contaminated soil encountered during the excavation, underground tank removal, backfilling, handling, analysis, and disposing of excavated soils. This section shall define the work zone delineations, site communication, and site access control measures to be employed.
The underground storage tank area is the court yard area where the tank is located. Special precautions will be taken to insure that pedestrians and non-essential persons are not allowed near the excavation equipment during the excavation and trenching operations associated with tank removal. Caution tape and/or traffic cones will be used to delineate the travel lanes for personnel, trucks and heavy equipment. No eating or smoking is allowed anywhere within the area of the Site.

The required protective equipment for use by personnel is specified in Section 5. Access to excavated areas is restricted to On-Site and Contractor personnel who are wearing the proper personal protective equipment and who have received the required site training and medical clearance. All workers will sign in the log book prior to entering the work zone.

5.1 Dust and Odor Controls

Air monitoring and dust and odor control programs are being implemented for this project; the air monitoring program is described in Section 6.0. A dust and odor suppressant program will be in effect as a part of the HASP. In the event odors are encountered during soil excavation, operations will stop temporarily and odor
suppressant foams or other chemicals will be applied on the exposed surface. Products such as Earthbind® or the equivalent are useful for dust suppression and soil stabilization. Water mists, calcium chloride and other recognized dust suppression techniques will be implemented in the event other controls are not effective. The contractor will notify the CIH who will conduct additional monitoring as needed, using a more sensitive monitoring technique. If visible dust is observed outside the excavation, work will be temporarily halted. Visible emissions from non-suspect sources such as vehicle exhaust or road dust will not be considered grounds for work stoppage. All roll-offs, excavators and other heavy equipment used for site excavation and all hand tools used for excavation will be cleaned, decontaminated before leaving the site. Trucks and support vehicles that remain outside the excavation do not have to be decontaminated since they will not come into contact with soil from within the excavation.

Indications of "overt" contamination include but are not limited to the following:
1) staining or unusual color to the soil;
2) unusual or blackish color to trench or excavation water;
3) visible sheen or rainbow on top of the groundwater entering the trench or excavation;
4) smells of gasoline, oils, or solvents coming from the soils or water;
5) buried drums, tanks, or suspicious structures;
6) excavate contains DNAPL or percent levels of oils or hazardous materials.
7) signs or symptoms of hydrogen sulfide or reactive cyanide exposure.

Personnel, vehicles and equipment used during the handling of soils, shall be decontaminated before leaving the site.

5.2 Site Communication

There will be heavy equipment working on site. This creates the potential for accidents, especially as the equipment moves on and off the site and trucks carrying soils exit the site. It is critical to maintain two-way communication on site at all times, to protect the safety of on-site employees, and to expedite the decision making process, in the event contamination is encountered. All requests for emergency services will take place through the Contractor. The SCA will be notified of any requests for emergency services.
The job supervisor(s) will carry a two-way radio or cellular telephone and will be in continuous contact with the site personnel in the event emergency services are required.
Verbal communication and hand signals may be used to communicate among workers on the site. Compressed air horns could also be used to play an integral part in the communication process. They should be used to signal evacuation of a work site in the event of an emergency situation such as a spill, release, uncontrolled fire, or explosion. In addition, visual and voice or radio communications must be maintained at all times while working on-site. The signals used to indicate an emergency situation are as follows:

One long blast repeated three times at five second intervals - Man down
Three short blasts repeated three times at five second intervals - Evacuate site
Alternating short and long blasts - All clear

The evacuation area and rally point are described in the project HASP. In the event of an emergency when evacuation is ordered, ALL employees and subcontractor employees will cease work and will meet at the rally point.

SECTION 6 - PERSONAL PROTECTIVE EQUIPMENT

6.1 Introduction

Personal protective equipment (PPE) is the major method used to minimize potential employee exposure to site contamination. The levels of protection for on-site personnel have been based on OSHA requirements. SEA personnel and their contractors on-site shall have their own personal safety equipment which will be used according to the direction of the SSR. All contractors and subcontractors are required to provide their own PPE. All PPE shall be kept cleaned and maintained in a proper manner. Personnel will have been trained in the proper use and maintenance of PPE. It is the responsibility of the Contractor to supply and maintain all required PPE in a usable fashion. At a minimum, all SEA employees and contractors will be required to have ANSI approved hardhats, steel toe safety shoes or boots and safety glasses whenever on active work sites. Additional PPE as prescribed in this plan shall be worn on-site at all times. Loose sleeves, cuffs, loose clothing, ties, or other objects that may become entangled in machinery are not permitted. Reflective vests will be used at all times. OSHA has implemented a standard on personal protective equipment, 29 CFR 1910.132. This standard defines approved types of PPE for eye and face protection, head, and foot protection. The appropriate types of PPE shall be designated for the hazards of the particular task. All PPE shall comply with the appropriate ANSI designation as referenced in the standard. Based on the information provided in the site characterization reports, controls will be implemented to reduce the potential for personnel to be exposed to contaminants at levels above the OSHA Permissible Exposure Limits (PELs),

ACGIH Threshold Limit Values (TLVs), or encounter conditions that are Immediately Dangerous to Life and Health (IDLH). The greatest potential for exposure will be inhalation of dust containing hazardous materials that may be released to the air as the soil material is excavated.

It is anticipated all of the work by Silverite SEA personnel and contractors will be performed at Level C or Level D, given the site activities and the hazards at the site. All activities will use Level D from the start of intrusive activities.

If levels of VOC's exceed 5 ppm for a period of 15 minutes continuous and/or if levels of airborne dust exceed 0.25 mg/m3 for ten minutes or if visible dust is observed from work or other activities performed then an Upgrade/Downgrade will be triggered.

If any conditions requiring protection above Level C is determined, work will be stopped and the HASP will be reviewed by the Project Manager and the CIH to reflect the more critical requirements of this level of work is prepared. **Any work performed using a PPE Level above Level C will be considered a change in condition.** The SCA will be notified as soon as practical.

6.2 Description of the Levels of Protection

The following is a brief description of levels of protection to be used by site personnel:
The following represents the recommended minimum levels of PPE to be utilized:

Level D

- Work boots;
- Hard hat
- Reflective vest
- Work boots

Level C

- Tyvex outer wear;
- Work boots;
- Hard hat; and,
- Safety glasses that meet ANSI-Z-87.1 requirements
- Gloves (nitrile)/and/or
- Hearing Protection
- Reflective vest
- Half-face respirator with P100/VOC cartridges

Mobilization/Demobilization .....Level D
Excavation Construction ..... Level D
Excavation and Handling of Fill/Natural Soils by Contractor (clean) .....Level D
Soil stockpiling of imported clean soil and handling clean fill .....Level D
Soils sampling and analysis ……. ..... Level D

6.3 Action Levels for Upgrade/Downgrade of Level of Protection

The action levels for the upgrade or downgrade of worker personal protective equipment have been based upon information published by the American Conference of Governmental Industrial Hygienists (ACGIH), the Occupational Safety and Health Administration (OSHA), and the United States Environmental Protection Agency (US EPA).

The action levels are based upon established Permissible Exposure Limits (OSHA), Threshold Limit Values (ACGIH), and Short-Term Exposure Limits (ACGIH). The action levels have been established for each work activity/contaminant present.

6.4.1 Total Volatile Organics

The action level of 10 ppm sustained for ten minutes will be used for upgrade and downgrade of PPE using a level of total volatile organic compounds. If the level of protection will be upgraded above Level C, all work will temporarily cease and the CIH will be notified. Additional engineering controls will be implemented. This will not be performed until the HASP is reviewed and amended to reflect the change in site conditions and controls.

6.4.2 Particulates

Levels of heavy metals and other contaminants in soils are present. In the event that airborne dust levels are elevated, half-face air-purifying respirators equipped with HEPA (P-100) filters and organic vapor cartridges will provide a high level of protection, where Level C is required. HEPA, now called (P-100) filters by definition, remove 99.97 percent of all particulates greater than 0.3 microns in size, and the organic vapor cartridges remove volatile organic compounds up to 1000 ppm in concentration. Airborne dust will be substantially larger sized particles. The protection factor afforded by the respirator will vary from individual to individual based on their ability to fit the respirator, and properly donning the respirator in use. Fit protection factors in excess of 10 are normally associated with half-face air purifying respirators.

Periodic visual observations and monitoring for total suspended particulate will be used as a surrogate measurement for heavy metal exposures during excavation of fill. A limit based on a measurement of total suspended particulate of 0.25 mg/M3 in the breathing zone is suitable to protect employees from exposures to lead and other metals. Using an estimated maximum value of lead of 600 mg/kg, a dust limit of 0.25 mg/M3 will be used as the criteria to upgrade protection to Level C, and a limit of 0.25 mg/M3 will be used to implement dust suppression measures.

6.5 Respiratory Protection

It is unlikely respiratory protection may be required for on-site personnel exposed to suspected hazardous contaminants through inhalation. Initially, excavation activities are assigned a protection level of D. This may be up or downgraded, based on initial monitoring results. In the unlikely event that volatile organic compounds are determined to be present at levels requiring an upgrade, then half-face respirators will be used.

If upgrading the site above Level C is necessary, all work will be stopped temporarily, and the HASP will be reviewed. All employees who are required to wear air purifying respiratory equipment will be required to show proof of medical examination to the SSR that indicates that the employee is capable of wearing such a device. Proof of qualitative or quantitative fit testing for use of air purifying respirators is also necessary.

6.6 Standard Operating Procedures for Respirators

Respirators shall be cleaned daily according to procedures prescribed by the manufacturer. Cartridges will be used and replaced monthly or more often, or at any time breakthrough is detected while in use. Negative and positive pressure fit checks will be performed daily by each individual respirator wearer upon donning the respirator.

SECTION 7 - AIR MONITORING INSTRUMENTATION

7.1 Introduction

The following is a listing of on-site monitoring instrumentation that will be employed during the course of the site work for the determination of the level of protection to be worn by the site workers. Personnel who will be operating this instrumentation shall be fully trained and experienced in its use and operation. Monitoring will be performed by SEA.

7.2 Site Monitoring Equipment for Employee and General Public Protection

- Photoionization Detector with 10.2 ev probe .
- Total Suspended Particulates (Dust-Trak or equivalent) - Used as needed for perimeter measurements and exclusion zone in breathing zone.

The photoionization monitor will be a Multi-RAE or the equivalent. The PID will be equipped with a 10.2 eV lamp to maximize sensitivity for TPH compounds.

At a minimum exposure monitoring and air sampling excavation activities shall be performed during the tank removal activities and at the upwind and downwind locations, and recorded at the following frequencies:

Total Organic Vapors: Continuous monitoring and recorded at least every 30 minutes whenever measurements at the perimeter of the work area exceed 1 ppm above background for ten minutes, or 10 ppm for ten minutes in the excavation.

Total Particulates:
Total Particulates: Surveyed and recorded at least every 30 minutes and whenever measurements exceed 0.25 mg/M3 within the excavation or 0.075 mg/M3 at the perimeter to the excavation zone.

7.3 Air Monitoring Plan

7.3.1 Sampling for Dust

Measurements will be collected for airborne dust throughout the day when soil intrusive activities are underway within the excavation. In addition, monitoring is required when there is visual evidence of dust. This monitoring will be performed visually and using direct reading instrumentation. A meter capable of measuring total suspended particulates (Dust-Trak) will be used to measure airborne particulate levels. Work will be halted if visible dust is observed from work. SEA will perform monitoring for airborne dust around the perimeter of the exclusion zone. A level of 0.25 mg/M3 is established for work within the excavation. A level of 0.075 mg/M3 is used for perimeter monitoring and is based on one-half of the National Ambient Air Quality Standard of 0.15 mg/M3 for a twenty-four hour average concentration. If the dust level is exceeded and the source is from activity within the excavation, work will be temporarily stopped until the dust suppression activities are reviewed. If the source is determined to be from nonwork related activities (i.e. passing traffic or ambient conditions), no corrective actions will be required.

7.3.2 Sampling for VOC's

Monitoring for VOCs will be performed with a 10.2 eV photoionization detector (PID) to measure total volatile organic compounds during excavation of fill during soil intrusive activities. The results of the monitoring will be used to implement engineering and work practice controls and to make upgrade and downgrade decisions in the level of required PPE. A level of 10 ppm for a period of ten minutes will be used for activities inside the excavation. A level of 1 ppm above the background for a period of ten minutes will be used for perimeter monitoring. Monitoring will also be performed in the event that odor complaints are received.

7.4 Calibration

The PIDs will be calibrated using isobutylene. The dust monitors are calibrated at the factory. Typically, no field calibration of the dust meters is required. The direct reading air monitoring instruments used at the site must be returned to the factory calibrated and checked out on an annual basis. T The results of the calibration will be noted in the daily log.

7.5 Recording Air Monitoring Data

All particulate concentrations detected above the action levels at the exclusion zone and work zone boundary shall be recorded. The location, date, time, monitoring device, calibration data, and weather conditions (temperature, wind speed and direction) shall all be recorded on monitoring log sheets. Copies of all monitoring log sheets shall be included in the monthly report to Silverite. A summary of the sampling data, including the actions taken, and their effectiveness shall be included in the report as well.
Information gathered during the air monitoring program shall be used by the SSR to determine appropriate measures to be taken to protect employees, contractors and subcontractors during:
1. Soil excavation, trenching and removal
2. Soil stockpiling
3. Soil classification
4. Soil transport and removal

7.6 Air Monitoring Responsibilities

The CIH will establish air monitoring strategies and sampling frequency to characterize and quantify any airborne release and transport of contaminants during soil excavation. These strategies and protocols address appropriate air monitoring for volatile organic compounds in the active work zones of the site and at the active site perimeter. The program is part of-the HASP. Monitoring will be performed by the SEA.

Appendix B

Quality Assurance Project Plan

QUALITY ASSURANCE PROJECT PLAN

ATTACHMENT A - QUALITY ASSURANCE PROJECT PLAN

This Section presents the organization, objectives, planned activities, and specific quality assurance/quality control (QA/QC) procedures associated with the field activities described in the scope of work. The Section also describes specific protocols for field sampling, sampling handling and storage, and laboratory analysis. The data generated from the analysis of samples will be used to document post-IRM soil, groundwater and soil vapor conditions.

Project Organization and Responsibility

A qualified person will coordinate and manage the sampling and analysis program, data reduction, QA/QC, data validation, analysis, and reporting. TRC will direct the sampling activities and coordinate laboratory and drilling activities. The TRC Project QA Officer will be Elizabeth Denly and will report directly to the project manager, Charles Guder (refer to Appendix G for resumes).

A qualified person will insure that the QAPP is implemented and will oversee data validation. A qualified person will provide oversight and technical support for the sampling and analytical procedures followed in this project. This individual has the broad authority to approve or disapprove project plans, specific analyses, and final reports. The Project QA Officer is independent from the data generation activities. In general, the QA officer will be responsible for reviewing and advising on all QA/QC aspects of this program.

Laboratories used will be NYSDOH ELAP certified laboratories. The laboratories will communicate directly with the sampler regarding the analytical results and reporting and will be responsible for providing all labels, sample containers, trip blanks, shipping coolers, and laboratory documentation.

QA Objectives for Data Management

The analytical data will be provided by the laboratory using the New York State ASP Category B deliverable format.

All analytical measurements will be made so that the results are representative of the media sampled and the conditions measured. Data will be reported in consistent dry weight units for solid samples (i.e., µg/kg and/or mg/kg) and in µg/L or mg/L for aqueous samples. Table 1 presents the proposed samples, sampling and analytical parameters, analytical methods, sample preservation requirements, containers and QA/QC samples.

Quantitation Limits (QLs) are laboratory-specific and reflect those values achievable by the laboratory performing the analyses. Data Quality Levels (DQLs) are those reporting limits required to meet the objectives of the program (i.e., program action levels, cleanup standards, etc.). Data Quality Objectives (DQOs) define the quality of data and documentation required to support decisions made in the various phases of the data collection activities. The DQOs are dependent on the end uses of the data to be collected and are also expressed in terms of objectives for precision, accuracy, representativeness, completeness, and comparability.

The analytical methods to be used at this site provide the highest level of data quality and can be used for purposes of risk assessment, evaluation of remedial alternatives and verification that cleanup standards have been met. However, in order to ensure that the analytical methodologies are capable of achieving

the DQOs, measurement performance criteria have been set for the analytical measurements in terms of accuracy and precision.

The overall QA objective is to develop and implement procedures for field sampling, chain-of-custody, laboratory analysis, and reporting which will provide results that are scientifically valid, and the levels of which are sufficient to meet DQOs.

For quantitation limits for parameters associated with soil samples, the laboratory will be required to attempt to meet or surpass the parameter-specific limits listed in 6 NYCRR Part 375 and CP-51.

For quantitation limits for parameters associated with groundwater samples, the laboratory will be required to attempt to meet or surpass the parameter-specific limits for groundwater from the Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

The QA objectives are defined as follows:

- ***Accuracy*** is the closeness of agreement between an observed value and an accepted reference value. The difference between the observed value and the reference value includes components of both systematic error (bias) and random error.

  Accuracy in the field is assessed through the adherence to all field instrument calibration procedures, sample handling, preservation, and holding time requirements, and through the collection of equipment blanks prior to the collection of samples for each type of equipment being.

  The laboratory will assess the overall accuracy of their instruments and analytical methods (independent of sample or matrix effects) through the measurement of "standards," materials of accepted reference value. Accuracy will vary from analysis to analysis because of individual sample and matrix effects. In an individual analysis, accuracy will be measured in terms of blank results, the percent recovery (%R) of surrogate compounds in organic analyses and/or laboratory control samples (LCSs). This gives an indication of expected recovery for analytes tending to behave chemically like the spiked or surrogate compounds. Tables 2a, 2b, and 2c summarize the laboratory accuracy requirements.

- ***Precision*** is the agreement among a set of replicate measurements without consideration of the "true" or accurate value: i.e., variability between measurements of the same material for the same analyte. Precision is measured in a variety of ways including statistically, such as calculating variance or standard deviation.

  Precision in the field is assessed through the collection and measurement of field duplicates (one extra sample in addition to the original field sample). Field duplicates will be collected at a frequency of one per twenty investigative samples per matrix per analytical parameter. Precision will be measured through the calculation of relative percent differences (RPDs). The resulting information will be used to assess sampling and analytical variability. Field duplicate RPDs must be $\leq$ 50 for soil samples and $\leq$ 30 for aqueous samples. These criteria apply only if the sample and/or duplicate results are >5x the quantitation limit; if both results are $\leq$ 5x the quantitation limit, the criterion will be doubled. Due to the uncertainty of available representative soil gas volume, field duplicates will not be collected for this matrix.

  Precision in the laboratory is assessed through the calculation of RPD for duplicate samples. For organic soil and groundwater analyses, laboratory precision will be assessed through the analysis of field duplicates.

- ***Completeness*** is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions. "Normal conditions" are defined as the conditions expected if the sampling plan was implemented as planned.

  Field completeness is a measure of the amount of (1) valid measurements obtained from all the measurements taken in the project and (2) valid samples collected. The field completeness objective is greater than 90 percent.

  Laboratory completeness is a measure of the amount of valid measurements obtained from all valid samples submitted to the laboratory. The laboratory completeness objective is greater than 95 percent.

- ***Representativeness*** is a qualitative parameter that expresses the degree to which data accurately and precisely represents either a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition within a defined spatial and/or temporal boundary. To ensure representativeness, the sampling locations have been selected to provide coverage over a wide area and to highlight potential trends in the data. In addition, field duplicate samples will provide an additional measure of representativeness at a given location.

  Representativeness is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the Work Plan are followed and that proper sampling, sample handling, and sample preservation techniques are used.

  Representativeness in the laboratory is ensured by using the proper analytical procedures, appropriate methods, and meeting sample holding times.

- ***Comparability*** expresses the confidence with which one data set can be compared to another. Comparability is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the Work Plan are followed and that proper sampling techniques are used. Maximization of comparability with previous data sets is expected because the sampling design and field protocols are consistent with those previously used.

  Comparability is dependent on the use of recognized EPA or equivalent analytical methods and the reporting of data in standardized units. Laboratory procedures are consistent with those used for previous sampling efforts.

Table 1
Analytical Parameters, Methods, Preservation, Holding Time and Container Requirements

Sample Matrix	Analytical Parameter	Sample Type[1]	No. of Samples[2]	No. of QA/QC Samples	EPA Analytical Method	Sample Preservation	Holding Time[3]	Sample Container[4]
Soil	VOCs	Grab	TBD	Trip Blank: as necessary Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Method 8260B	Cool to 4^0 C; no headspace	14 days to analysis	(2) 2-oz. glass jars
Soil	SVOCs	Grab	TBD	Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Methods 8270	Cool to 4^0 C	7 days until extraction; 40 days after extraction.	(1) 8-oz. glass jar
Soil	TCLP Lead	Grab	TBD	Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Methods 1311 and 6010B	Cool to 4^0 C	6 months to analysis (28 days for Mercury)	(2) 8-oz. glass jar
Groundwater	VOCs	Grab	TBD	Trip Blank: as necessary Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Method 8260B	pH<2 with HCl; Cool to 4^0 C; no headspace	14 days to analysis	(3) 40 mL VOA vials
Groundwater	SVOCs	Grab	TBD	Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Methods 8270	Cool to 4^0 C	7 days until extraction; 40 days after extraction.	(1) 1 L amber glass container
Groundwater	Metals	Grab	TBD	Equipment Blank: 1/20 Duplicate: 1/20	SW-846 Methods 3010A, 6010B, and 7470	pH<2 with HNO_3; Cool to 4^0 C	6 months to analysis (28 days for Mercury)	(1) 500 mL poly container
Soil Vapor	VOCs	Grab	5	None	TO-15	None	30 days to analysis	(1) 6 L Summa Canister

Table 1
Analytical Parameters, Methods, Preservation, Holding Time and Container Requirements

Sample Matrix	Analytical Parameter	Sample Type[1]	No. of Samples[2]	No. of QA/QC Samples	EPA Analytical Method	Sample Preservation	Holding Time[3]	Sample Container[4]

[1] For soil samples, a six-inch sampling interval is the preferred sample size; however, sample volume recovery, analytical method requirements, and field conditions can affect the actual sample interval size. For these reasons, the actual sampling interval may change in order to obtain adequate volume.
[2] Actual number of samples may vary depending on field conditions, sample material availability, and field observations.
[3] From date of sample collection
[4] Trip blank bottleware = (3) 40 mL VOA vials
TBD = To Be Determined

Table 2a
Laboratory Data Quality Objectives: Precision and Accuracy: Soil Samples

Parameter	Method	Matrix	Accuracy Control Limits	Accuracy Frequency Requirements	Precision (RPD) Control Limits	Precision Frequency Requirements
VOCs (TCL)	SW-846 Method 8260B	Soil	Surrogates / % Rec. 1,2-Dichloroethane-d4 55-158 4-Bromofluorobenzene 53-156 Dibromofluoromethane 68-122 Toluene-d8 25-144	Surrogates: All samples, standards, QC samples	Field Duplicates RPD ≤50	Field Duplicates: One per 20 per soils
SVOCs (TCL)	SW-846 Method 8270	Soil	Surrogates / % Rec. 2,4,6-Tribromophenol 15-110 2-Fluorobiphenyl 30-130 2-Fluorophenol 15-110 Nitrobenzene-d5 30-130 Phenol-d5 15-110 Terphenyl-d14 30-130	Surrogates: All samples, standards, QC samples	Field Duplicates RPD ≤50	Field Duplicates: One per 20 per matrix
TCLP Lead	SW-846 Method 1311 and 6010B	Soil	Matrix Spikes 75-125% recovery	Matrix Spikes: One per 20 per matrix per batch	Field Duplicates RPD ≤ 30	Field Duplicates: One per 20 per matrix

Laboratory control limits are periodically updated. The latest control limits will be utilized at the time of sample analysis.

Table 2b
Laboratory Data Quality Objectives: Precision and Accuracy: Groundwater Samples

Parameter	Method	Matrix	Accuracy Control Limits	Accuracy Frequency Requirements	Precision (RPD) Control Limits	Precision Frequency Requirements
VOCs (TCL)	SW-846 Method 8260B	Groundwater	Surrogates / % Rec. 1,2-Dichloroethane-d4 66-150 4-Bromofluorobenzene 70-131 Dibromofluoromethane 76-130 Toluene-d8 70-131	Surrogates: All samples, standards, QC samples	Field Duplicates RPD ≤30	Field Duplicates: One per 20
SVOCs (TCL)	SW-846 Method 8270	Groundwater	Surrogates / % Rec. 2,4,6-Tribromophenol 15-110 2-Fluorobiphenyl 30-130 2-Fluorophenol 15-110 Nitrobenzene-d5 30-130 Phenol-d5 15-110 Terphenyl-d14 30-130	Surrogates: All samples, standards, QC samples	Field Duplicates RPD ≤30	Field Duplicates: One per 20 per matrix
Metals (TAL)	SW-846 Methods 3010A, 6010B, and 7470	Groundwater	Matrix Spikes 75-125% recovery	Matrix Spikes: One per 20 per matrix per batch	Field Duplicates RPD ≤ 30 Matrix Duplicates RPD ≤ 30	Field Duplicates: One per 20 per matrix Matrix Duplicates: One per 20 per matrix per batch

Sampling Plan

Environmental sampling will include soil, groundwater and soil vapor. Post-excavation grab soil samples will be collected using disposable or decontaminated sampling equipment. Groundwater samples will be collected from permanent monitoring wells using low flow pumps and new dedicated Teflon tubing. Soil vapor samples will be collected from temporary soil vapor probes using dedicated sampling equipment.

Soil Sampling

The samples will be collected with a disposable scoop and placed in the sample bottles. Samplers will wear phthalate-free gloves such as nitrile (no latex will be used) and will avoid contact of the gloves with the sample. Only clean instruments will be allowed to touch the sample.

Groundwater Sampling

Groundwater samples will be collected from permanent monitoring wells installed on the sidewalk. Groundwater from each well will be purged via a bladder pump (QED SamplePro® MicroPurge 1.75-inch outer diameter pump) lined with a Teflon bladder operated by an air compressor until parameters have stabilized in accordance with USEPA Low-Stress (Low-Flow) sampling procedures. A turbidity level of fifty NTUs or less is the well purging goal, but not an absolute value before sampling. Other field parameters including temperature, conductivity, pH, and dissolved oxygen (DO) will also be monitored. As practical, all field measurements will be taken from the flow cell and will be recorded during and after purging, and before sampling. Field parameters should generally be within ±10 percent for three consecutive readings, prior to sampling.

It is anticipated that no more than three well volumes will be purged in order for turbidity to reach a minimum and the other parameters to stabilize. Ideally, pumping rates will be at a rate maintained between 100 and 500 milliliters per minute (ml/min) so that no drawdown of the groundwater level occurs (i.e., pumping rate is less than recharge rate). During purging, the sampler will actively monitor and track the volume of water purged and the field parameter readings. Data will be recorded in the field logbook. For example, the sampler will record the running total volume purged from each well and note the readings for the corresponding field parameters.

Once groundwater conditions have stabilized and groundwater levels have recovered, samples will be collected. Sampling will be performed with the pump intake at the same location used for purging. Pumping rates for withdrawing the samples will be similar to those followed for well purging.

The samples will be collected in sample bottles (pre-preserved, if appropriate), placed in iced coolers and removed from light immediately after collection. In addition, all sample bottles must be filled to the top so that no aeration of the samples occurs during transport. All bottles will be filled to avoid cascading and aeration of the samples, the goal being to minimize any precipitation of colloidal matter.

Soil Vapor Sampling

Soil gas sampling will be conducted in accordance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006)" and ASTM Standard E 2600-10.

The soil vapor samples will be collected using a direct-drive rig (i.e., Geoprobe) that utilizes drive rods to advance the stainless steel probe to the desired sample depth. The soil vapor samples will be collected at

a depth of approximately five (5) feet below ground surface (bgs). The temporary soil gas probe will then be purged using a photo-ionization detector (PID) to evacuate one to three volumes of soil vapor. The PID will record VOC concentrations from the soil gas probe. Each probe will be connected via Teflon tubing to a laboratory-supplied SUMMA canister with an 8-hour flow controller.

In accordance with the NYSDOH vapor intrusion guidance, tracer gas (i.e., helium) will be used at every soil vapor sampling location to ensure that an adequate surface seal has been created.

After sample collection, the soil vapor samples will be shipped overnight to a the laboratory for analysis for VOCs by Method TO-15 with selective ion monitoring (SIM). Method TO-15 with SIM will provide detection limits of 0.25 micrograms per cubic meter for vinyl chloride, trichloroethene (TCE), and carbon tetrachloride, allowing for comparison with the lowest action levels for these compounds in the New York State Department of Health (NYSDOH) "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York", dated October 2006. All other compounds will have a detection limit of 1 microgram per cubic meter. The soil vapor samples will be analyzed for the compounds listed below.

The proposed compounds of concern are listed in the following table.

	Compound		**Compound**
1	Benzene	14	Ethyl benzene
2	Carbon Tetrachloride	15	Methyl tert-butyl Ether
3	Chlorobenzene	16	Methylene Chloride
4	Chloroethane	17	Naphthalene
5	Chloromethane	18	Tetrachloroethene (PCE)
6	1,2 Dichlorobenzene	19	Toluene
7	1,3 Dichlorobenzene	20	1,1,1-Trichloroethane
8	1,1-Dichloroethane	21	Trichloroethene (TCE)
9	1,2-Dichloroethane	22	1,2,4-Trimethylbenzene
10	1,1-Dichloroethene	23	1,3,5-Trimethylbenzene
11	cis-1,2-Dichloroethene	24	Vinyl chloride
12	trans-1,2-Dichloroethene	25	m.p-Xylenes
13	1,2-Dichloropropane	26	o-Xylene

QC Sample Collection

QC samples will include trip blanks and field duplicates for soil and groundwater samples.

Trip blanks will consist of distilled water (supplied by the laboratory) and will be used to assess the potential for volatile organic compound contamination of soil and groundwater samples due to contaminant migration during sample shipment and storage. Trip blanks will be transported to the site unopened, stored with the investigative samples, and kept closed until analyzed by the laboratory. Trip blanks will be submitted to the laboratory at a frequency of one per cooler that contains soil or groundwater samples for analysis for VOCs.

Equipment blanks will consist of distilled water and will be used to check for potential contamination of the equipment which may cause sample contamination. Equipment blanks will be collected by routing

the distilled water through the sampling equipment prior to sample collection. Equipment blanks will be submitted to the laboratory at a frequency of one per 20 samples per matrix per type of non-dedicated equipment being used per parameter. Equipment blanks will not be collected with samples submitted for TCLP parameters and soil gas samples.

Field duplicates are an additional aliquot of the same sample submitted for the same parameters as the original sample. Field duplicates will be used to assess the sampling and analytical reproducibility. Field duplicates will be collected by alternately filling sample bottles from the source being sampled. Field duplicates will be submitted at a frequency of one per 20 samples for all matrices and all parameters with the exception of soil gas samples.

Refer to Table 1 for a summary of QC sample preservation and container requirements.

Sample Preservation and Containerization

The analytical laboratory will supply the sample containers for the chemical samples. These containers will be cleaned by the manufacturer to meet or exceed all analyte specifications established in the latest U.S. EPA's *Specifications and Guidance for Contaminant-Free Sample Containers*. Certificates of analysis are provided with each bottle lot and maintained on file to document conformance to EPA specifications. Soil vapor samples will be collected in laboratory-provided individually certified clean Summa canisters. Soil and groundwater samples will be placed in iced coolers immediately after collection.

Equipment Decontamination

Re-usable Teflon®, stainless steel, and aluminum sampling equipment shall be cleaned between each use in the following manner:

- Wash and scrub with Alconox and water mixture
- Tap water rinse
- Wash/scrub with a biodegradable degreaser ("ZEP") if there is oily residue on equipment surface
- Tap water rinse
- Distilled/deionized water rinse
- Air dry

Cleaned equipment shall be wrapped in aluminum foil if not used immediately after air-drying.

Groundwater sampling pumps will be cleaned by washing and scrubbing with an Alconox/water mixture, rinsing with tap water and irrigating with deionized water.

Field Custody Procedures

Sample chain-of-custody and packaging procedures are summarized below. These procedures are intended to ensure that the samples will arrive at the laboratory with the chain-of-custody intact.

- The field sampler is personally responsible for the care and custody of the samples until they are transferred or dispatched properly. Field procedures have been designed such that as few people as possible will handle the samples.

- All bottles will be identified by the use of sample labels with sample numbers, sampling locations, date/time of collection, and type of analysis.

- Sample labels will be completed for each sample using waterproof ink unless prohibited by weather conditions. For example, a logbook notation would explain that a pencil was used to fill out the sample label because the pen would not function in wet weather.

- Samples will be accompanied by a properly completed chain-of-custody form. The sample numbers and locations will be listed on the chain-of-custody form. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents the transfer of custody of samples from the sampler to another person, to a mobile laboratory, to the permanent laboratory, or to/from a secure storage location.

- All shipments will be accompanied by the chain-of-custody record identifying the contents. The original record will accompany the shipment, and copies will be retained by the sampler and placed in the project files.

- Samples will be properly packaged for shipment and dispatched to the appropriate laboratory for analysis, with a separate signed custody record enclosed in and secured to the inside top of each sample box or cooler. Shipping containers will be secured with strapping tape and custody seals for shipment to the laboratory. The custody seals will be attached to the front right and back left of the cooler and covered with clear plastic tape after being signed by field personnel. The cooler will be strapped shut with strapping tape in at least two locations.

- If the samples are sent by common carrier, the air bill will be used. Air bills will be retained as part of the permanent documentation. Commercial carriers are not required to sign off on the custody forms since the custody forms will be sealed inside the sample cooler and the custody seals will remain intact.

- Samples remain in the custody of the sampler until transfer of custody is completed. This consists of delivery of samples to the laboratory sample custodian, and signature of the laboratory sample custodian on chain-of-custody document as receiving the samples and signature of sampler as relinquishing samples.

Appendix C

Excavated Material Disposal Plan

TRC
1430 Broadway, 10th Floor
New York, New York, 10018

Main 212.221.7822
Fax 212.221.7840

Transmittal

To: Ms. Anna Rubino
IEH Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101-3045
(718) 752-5609

Date: December 5, 2012

TRC No: 198908.0000.0000

Project: PS 315Q
96-18 43rd Ave.
Queens, New York
LLW #: 066127
IEH #: 41345

We have enclosed:

☐ B/W Prints ☐ Reproducible ☐ Reports ☐ Letter
☐ Specifications ☐ Memorandum X Contractor Submittals

Description	Rev. #	Date

Excavated Material Disposal Plan (Submittal No. 02091-001-002)
Approved As Noted

Sent Via:

☐ Messenger ☐ 1st Class Mail ☐ FedEx [Type] X Email

Copy to: R. Keane (NYCSCA)
C. Guder (TRC)

Very truly yours,
TRC

Kevin Boger

Silverite Construction Co., Inc.

PS 315Q
43-18 97th Place
Queens, NY 11368

TRANSMITTAL
No. 00024

PROJECT: PS 315Q Queens LLW No. 66127

DATE: 11/15/2012

TO: NYC School Construction Authority
30-30 Thompson Avenue
Long Island City, NY 11101

REF: Submittals

ATTN: Virginia Cava, P.E.

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☑ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☑ Attached	☐ Returned for Corrections
☑ Other: Made from Submittal	☐ Separate Cover Via: Mail	☐ Due Date:

ITEM	PACKAGE	SUBMITTAL	DRAWING	REV.	ITEM NO.	COPIES	DATE	DESCRIPTION	STATUS
SUT	02091	02091-001		002	1	1	11/15/2012	Title: Excavated Material Disposal Plan	NEW

Remarks:

CC:

Signed: _____
Paul Tessitore

SILVERITE CONSTRUCTION CO., INC.
NYC SCHOOL CONSTRUCTION AUTHORITY
NEW PUBLIC SCHOOL PS 315Q (LLW# 66127)

DATE:_____11/14/2012_____
CONTRACT NUMBER: _____LLW66127_____
DESCRIPTION / ITEM: _Excavated Material Disposal Plan__
SPECIFICATION SECTION: _____02091_____
SPECIFICATION PAGE NO. : _____08_____
SPECIFICATION PARA NO. : _____1.05A_____
CONTRACT DRAWING NO. : _____N/A_____
LOCATION: _____ Entire Site_____
MANUFACTURER: _____Sound Environmental_____
SUBMITTAL NO. : _____02091-001-002_____
APPROVED BY:_____PT_____

TRC Engineers, Inc. (TRC) has reviewed the Excavated Material Disposal Plan (the "EMDP") submitted for the PS 315Q site. The EMDP was prepared by Sound Environmental Assoc. LLC. and is dated November 15, 2012. TRC received the EMDP electronically on November 19, 2012. Please find TRC's comments to the submittal below.

1. Please note that the Contractor is responsible for providing notification to the proper authorities for all pre-excavation utility mark-outs.

2. Please note that a facility permit for "Staggs Leap, Mullica Hill, NJ" has not been submitted for review and approval by the Authority. This facility is not approved to receive excavated material from the PS 315Q site.

3. Facility permits for "GROWS landfill" and "Middlesex Logistics Center at Mill Road (Formerly ILR Landfill)" have been included in Appendix C of the EMDP. These facilities are not identified in the EMDP document. Please clarify if these facilities will be utilized for disposal of excavated material.

4. The Contractor must provide a revised figure and soil grid descriptions which list the proposed disposal facility for each soil grid identified in the EMDP. The revised figure and associated spreadsheet must be submitted for review prior to the submittal of draft waste profile forms to the Authority and the start of excavation activities.

The EMDP has been stamped "approved as noted."

TRC's review was limited to verifying compliance with the EMDP submittal requirements in the Contract Documents. TRC did not review the EMDP to verify that it was completed in accordance with the requirements of architectural, structural or any other discipline.

The comments should not be construed in any way as intent to limit the Contractor's responsibilities. The absence of a comment with respect to a specific Contract requirement should not be interpreted as a suggestion to change a Contract requirement.

Sound Environmental Associates, LLC
18 Tide Court, Wading River, NY 11792
Phone: 631-414-7198/7199
Fax: 631-514-3697
www.soundny.com

Certified WBE Women's Business Enterprise

SHOP DRAWING REVIEW

Date Reviewer

Approved
X Approved as Noted 12/5/12 KB
Revise and Resubmit
Received No Action Taken
Rejected

Engineer's review is for general conformance with the design concept and general compliance with the Contract Documents. Marking or comments shall not relieve the contractor from compliance with the project plans and specifications, nor departures therefrom. The contractor remains responsible for details and accuracy, for coordinating and correlating all quantities and dimensions, for selecting fabrication process, for techniques of assembly, and performing the work in a safe manner and in accordance with all applicable codes.

TRC ENGINEERS, INC.

Date: November 12, 2012

To: Peter Chiodo

From: Sheila Bubka-Certified Industrial Hygienist

Subject: Response to Comments on Excavated Material Disposal Plan

Comments	Responses
1. The Contractor must use the material definitions for non-hazardous industrial waste and environmentally clean fill and backfill material in accordance with the Contract Documents. Refer to Specification Section 02200, paragraph 1.05.	1. Definitions revised on Pages 3 & 4
2. Delete the following sentence from Section A: "The SCA must provide current as-built drawings to locate all the utilities." Also, confirm the phone number for utility clearance and describe how utility mark-out information will be provided to the Authority.	2. Deleted. See phone number and mark out information in Section A
3. Include in Section B that discrete grab samples will be collected for VOC analysis.	3. Included
4. Information for transporters and disposal facilities required in Section D was not provided. Refer to Template 2 Excavated Material Disposal Plan of Specification Section 02200.	4. Information provided in Section D
5. The Part 364 Permit for J. Scaramella, LTD. is expired. The Contractor must submit a valid Part 364 Permit for approval to use J. Scaramella, LTD. to transport excavated material from the PS 315Q site. Refer to Specification Section 02200, paragraph 3.06(B)(11).	5. See valid permit in Appendix B
6. The EMDP lists Silverite as a proposed waste transporter. Waste transporter permit for Silverite was not included in Appendix B. In order for the Contractor to obtain approval to use Silverite to	6. See Silverite Permit in Appendix B

transport excavated material offsite for disposal, the documentation listed in Specification Section 02200, Paragraph 3.06(B)(11) including a current and valid Part 364 Permit for Silverite must be submitted and approved.	
7. Prior to the work of this plan the Contractor must provide and obtain approval of a list that identifies the make, model, truck number, and license plate number for Shamrock Materials trucks. Refer to Specification Section 02200, Paragraph 3.06(B)(11).	7. Requirement added to Section D
8. The NJDEP General Approval for Clean Earth Carteret is expired. The Contractor must submit a current and valid permit for Clean Earth Carteret for approval. Refer to Specification Section 02200, paragraph 3.06(B)(9).	8. The most recent Clean Earth Carteret permit is included in Section C. This is the most current extension letter.
9. According to the NJDEP the Henry Harris SLF facility is not open or operating. Current, valid permits for soil disposal facilities shall be submitted for approval in accordance with Specification Section 02200 Part 3.06(B)(9).	9. The SLP Facility is operational. A current permit is included in Appendix C.
10. An expired facility permit for "GROWS Landfill" in Pennsylvania was included in the appendices of the EMDP, however the facility is not mentioned in the Plan. Please state if excavated material is proposed to be disposed of at this facility. If so, submit a valid permit in accordance with Specification Section 02200, paragraph 3.06(B)(9) for approval.	10. A current permit is included in Appendix C.
11. Please note that the facility permit for the 110 Sand facility states that the facility is approved to receive environmentally clean fill material only. All excavated material at this site is assumed to be non-hazardous industrial waste or hazardous waste. The NYCSCA IEH Division will not certify excavated material from the PS 315Q as environmentally clean fill material unless it meets the definition of environmentally clean fill and backfill as presented in Section 02200 and it can be demonstrated to the Authority's satisfaction that the material can be segregated.	11. All soil going to 110 Sand is submitted to NYSDEC for approval. Based upon approval, soils will be disposed at this facility.
12. A to-scale drawing signed and sealed by a Professional Engineer showing the planned depth of all excavations must be submitted. Refer to Specification Section 02200, paragraph 3.06(B)(13).	12. Plan drawing attached in Appendix E. The Specification does not state the drawing must be signed by a PE. It states, a Certified Professional must approve and sign the plan. The plan is signed and sealed by a CIH.
13. Provide a description of decontamination procedures and equipment (decontamination pad, etc.), including all information required in Section 02091 and 02222. Refer to Specification Section 02200, paragraph 3.06(B)(15).	13. See Procedures for Decontamination in Appendix F.
14. Prior to excavation activities provide a	4. Section B, last paragraph includes this information

completed waste profile form for the proposed disposal facility(ies) along with a cover letter on Contractor letterhead certifying that the Contractor has provided each disposal facility with all analytical data. Refer to Specification Section 02200, paragraph 3.06(B)(12).	

REPORT

EXCAVATED MATERIAL DISPOSAL PLAN
AT

PS 315

43-18 97th PLACE

QUEENS, NY

PREPARED FOR:	**SILVERITE CONSTRUCTION** **HICKSVILLE, NY**
PREPARED BY:	**SOUND ENVIRONMENTAL ASSOC. LLC** **WADING RIVER, NY**
DATE:	**November 13, 2012**
PREPARED BY:	Sheila Bubka, CIH _____ **SHEILA BUBKA, CIH** **PRESIDENT**

TABLE OF CONTENTS **PAGE #**

Excavated Material Disposal Plan…… 3

A. Pre-Excavation Utility Surveys…… 4

B. Waste Characterization Sampling …….. 5

C. Management of Excavated Soil……... 6

D. Disposal Facilities and Waste Haulers…… 7

E. Quality Assurance/Quality Control……..8

F. Signature of Certified Preparer……9

EXCAVATED MATERIAL DISPOSAL PLAN

Introduction

This Excavated Materials Disposal Plan (EMDP) describes the procedures to be followed for the characterization, excavation, management, transportation and disposal of material excavated at PS 315 located at 43-18 97TH Place, Queens NY, in accordance with SCA Specification Sections 02200,02091, 02115 and Drawing FO-101, 4/5/2012 and H208, 4/5/2012. Project activities associated with this EMDP include the characterization, excavation, management, transportation, and disposal of approximately 113,000 cubic yards containing soil and 1500 cyds of hazardous waste for the construction of a new school building.

Ten percent (10%) of the total excavated soil volume from the entire construction could be classified as hazardous waste. The hazardous waste volume is estimated at 1500 cyds tons.

According to Specification Section 02200, Section 1.05, the following definitions apply to this project:

Non-Hazardous Industrial Waste:

Material includes soil (including natural undisturbed material), debris, concrete and concrete products (including steel or fiberglass reinforcing rods that are embedded in the concrete), ash/ asphalt pavement/ railroad ties, brick, g1ass, and rock that have been contaminated from spills or discharges of materials or wastes from manufacturing or industrial processes including petroleum and its derivatives. Levels of contaminants in the waste will exceed 6 NYCRR Part 375 Soil- Cleanup Objectives and NYSDEC CP-51: Soil Cleanup Guidance Supplemental Soil Cleanup Objectives, Soil Cleanup Levels for Gasoline Contaminated Soils and/or Soil Cleanup Levels for Fuel Oil contaminated Soils but the material does not meet the definition of a hazardous waste as defined below.

Hazardous Waste

Material meeting the definition of a Resource Conservation and Recovery Act hazardous waste as defined in 40 CFR Part 261, New York State ECL Section 27-09 or 6 NYCRR Part 371.

Environmentally Clean Fill and Backfill

For fill- and backfill proposed for use as cover material (landscaped areas of the site within 2 vertical feet of the final surface grade elevation) environmentally clean fill is defined as soil that has been tested utilizing methods which yield laboratory reporting limits that are below the regulatory comparison criteria and found to contain:

a. No detectable concentrations of volatile organic compounds;

b. No other organic compounds or inorganic analytes at concentrations above 6NYCRR 375-6.8 (a) Unrestricted Use Soil Cleanup Objectives; and

c. No other organic compounds or inorganic analytes at concentrations above the lower of the NYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecologica1 Resources, and Protection of Groundwater Supplemental Soil Clean Up Objectives.

For fill- and backfill proposed for use below cover material and underneath areas with no potential for public contact (floor slabs and pavements) environmentally clean fill is defined as soil that has been tested utilizing methods which yield laboratory reporting limits that are below the regulatory comparison criteria and found to contain :

a. No detectable concentrations of volatile organic compounds;

b. No other organic compounds or inorganic analytes at concentrations above the lower of DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 5, Constituent Levels for Imported Fill or Soi1" Restricted Residential- Use and Ecological Resources Soil- Cleanup Objectives;
and

c. No other organic compounds or inorganic analytes at concentrations above the lower of the NYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecologica1 Resources, and Protection of Groundwater Supplemental Soil Clean Up Objectives.

A. Pre-Excavation Utility Surveys

All locations of existing utilities will be confirmed from the respective utility companies. All utilities will be marked out to the property line by calling 1-800-4480. All known site conditions are presented in the revised utility drawings T-1, U-1, and SA-1. Silverite will present certifications for demo of service to the SCA prior to any demo work being performed.

Silverite will contract with a surveyor to mark out all known utilities. The SCA will be notified via email when this is complete.

B. Waste Characterization Sampling

Waste characterization samples will be collected and analyzed in accordance with the proposed disposal facility(ies) requirements, outlined in Section D.

Field sampling will be performed by Sound Environmental Associates using Geoprobe methods provided by Aquifer Drilling & Testing. Samples will be delivered daily after collection to American Analytical Laboratory and/or Environmental Quality Services. Field Sampling Summary Reports (FSSR's) will accompany the analytical results.

A total of 200 soil samples will be collected for analysis. This number of soil samples equates to one sample for every 500 cubic yards (based on disposal facility requirements) of excavated material. Each sample will be analyzed for the following parameters:

- Volatile organic compounds (VOCs) by USEPA Method 8260
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082

- Pesticides via USEPA Method 8081
- Herbicides via USEPA Method 8321
- RCRA Metals via USEPA Method 6010
- Mercury via USEPA Method 747l
- Diesel Range Organics via EPA 8015
- Trivalent and Hexavalent Chromium via EPA Method SM3500
- Total Cyanide Via EPA Method SM 4500
- RCRA Characteristics
- Full TCLP
- Discreet grab samples for VOC analysis

Per the specification, the Contractor shall characterize the proposed excavated soils. SEA is proposing a sampling and analytical program to determine compliance to NYSDEC Part 375 Criteria, selected disposal facility criteria including NJNRDSCC NJ non-residential direct soil contact clean-up criteria, and full TCLP and RIC. A total of one composite sample per 500cyds will be obtained. Figure E shows the Site, the locations on the Site where soil samples will be collected, and which discrete soil samples will make up composite samples. The Figure shows the sampling gridswith estimated average depths of excavation in each grid.

The minimum regulatory requirement is one (1) composite sample analyzed for Full TCLP, reactivity, corrositivity, ignitability and PCBs; which will be taken at 1 per 500cyds. The disposal facility requirements are as follow.

Staggs Leap, Mullica Hill, NJ- Contaminated Non-hazardous

Full New Jersey Soil Clean-up Criteria per 1,000 yards

- VOCs;
- SVOCs;
- Trichlorotrifluoroethane, dichlorodifluoromethane;
- PCBs;
- Total Metals-plus Ba and V not on TAGM;
- Hexavalent Cr;
- Pesticides;
- Cyanide;
- DRO;
- RCRA characteristics (not required unless suspected to be hazardous); and,
- 5 gallon bucket of representative sample for geotechnical analysis collected and analyzed upon request.

Clean Earth of North Jersey- Hazardous & High Metal Concentration

- One (1) grab for 100 cyds composited (for every 500 cyds) into one (1) sample for PP+40, RCRA characteristics (TCLP, R.I.C.), SVOCs; and,
- One (1) grab per 500 cyds for VOCs.

6NYCRR Part 375 table 375-6.8(a) (supercedes TAGM 4046)

- Semi-volatiles, volatiles, herbicides, pesticides, PCBs, Metals (see Appendix A for complete parameter list).

Clean Earth Carteret- Carteret, N.J. – Contaminated Non-Hazardous

- Every 800 cyds:
  - TCLP RCRA Metals
  - VOCs 8260; (GRAB)
  - PCBs 8082;
  - RCRA characteristics (i.e., cor, react);
- Every 100 cyds- DRO

110 Sand- Melville, NY – Non-Contaminated

- Semi-volatiles, volatiles, herbicides, pesticides, PCBs, Metals

* Soil will be reserved for geotechnical analysis if required by any disposal facility

At this writing, the above disposal facilities have been selected. Additional facilities may be added once soil characterization is performed. The disposal facility for water associated with the dewatering process will be selected based on the analytical results.

Samples will be analyzed by American Analytical Laboratory or Environmental Quality Services for all parameters except asbestos. All laboratories are certified in the New York State Department of Health Environmental Laboratory Approval Program (ELAP) program.

After sample collection, the soil samples will be hand delivered to the NYSDOH ELAP certified laboratory in chilled coolers, and accompanied by appropriate chain of custody records. Analytical results will be provided to the proposed disposal facilities for their review and approval. In addition, the results will be submitted to the NYCSCA's IEH Division. A letter on Silverite's letterhead will be provided to the NYCSCA that states that all available analytical data has been provided to the disposal facility. The disposal facility (s) will provide an original signed letter indicating that the soil meets the acceptance criteria for their facility(s) and the excavated material is accepted for disposal. This letter will be forwarded to the NYCSCA upon receipt.

C. Management of Excavated Soil

On-site personnel involved in excavation activities shall comply with applicable Occupational Safety and Health Administration (OSHA) rules and regulations, New York City Department of Buildings (NYCDOB) requirements, and the Health and Safety Plan (HASP) presented as Appendix A to this EMDP.

Excavated soil, must be loaded directly into trucks for transportation and disposal, it cannot be stockpiled on-site. Dust suppression will be performed during all excavation work activities. Water will be used to spray/mist excavation areas. There will be no visible dust emissions from the work areas. Other dust suppression techniques which may be utilized include speed limits for trucks in unpaved areas, maintenance of Site paving as long as practical, and minimization of excavation activities during periods of high winds.

Dust and VOC monitoring will be performed in and around the perimeter of the excavation and at the property line. Baseline measurements will be collected for respirable particulate and VOC prior to the start of soil intrusive activities.

Dust monitoring will be performed when soil intrusive activities are underway using a TSI Dust-Trak respirable particulate monitor or equivalent. Measurements will be collected upwind, downwind and crosswind of the excavation. In the event two consecutive readings for respirable particulate at the perimeter exceed 0.075 mg/m3, additional dust suppression activities will take place. In the event any two hourly readings in a 24 hour period for respirable particulate exceed 0.15 mg/m3, a temporary stoppage of work and review of the dust control practices will commence.

D. Disposal Facilities and Waste Haulers

Excavated material transportation will be performed by licensed transporters with valid NYSDEC 6 NYCRR 364 Waste Transporter Permits. All proposed disposal facilities shall be listed on the waste transporter permits. Loaded vehicles leaving the Site will be appropriately cleaned, lined, and covered in accordance with applicable laws and regulations. This EMDP will be updated with the make, model, truck number and license place number for each of the trucks that will transport the materials to an offsite facility. The proposed licensed transporters with valid 6 NYCRR 364 Permits for this project are as follows:

J. Scaramella, LTD
300 South Avenue
Staten Island, NY 10303
Permit # 2A-644
Expiration Date:10/13/2013
Permitted to dispose of non-hazardous industrial/commercial waste

Shamrock Materials
100 Street Saint Mary's Avenue
3rd Floor
Staten Island, NY 10305
Permit # 2A -502
Expiration Date: 2/19/2013
Permitted to dispose of petroleum contaminated and non-hazardous industrial/commercial waste

Silverite
520 Old Country Rd West
Hicksville, NY
Permit # 1A-839
Expiration Date:
Permitted to dispose of petroleum contaminated and non-hazardous industrial/commercial waste

Please refer to Appendix B for copies of the waste transporter permits.

Non-hazardous industrial waste shall be transported to an offsite disposal facility meeting the requirements of 6 NYCRR Part 360 or equivalent out-of-state facility approved by the appropriate regulatory agency of that State with a permit to receive non-hazardous industrial waste.

The proposed disposal facilities meeting this criteria described above for this project are as follows:

- Staggs Leap, Mullica Hill, NJ- Contaminated Non-hazardous
  283 Mullica Hill Road, Mullica Hill, NJ 08062

- Clean Earth Carteret, NJ- Contaminated Non-Hazardous
  24 Middlesex Avenue, Carteret, NJ

- Clean Earth North Jersey-Hazardous
  115 Jacobus Avenue, Kearny, NJ
  Phone: 973-344-4004
  Fax: 973-344-8652
  EPA ID No: NJD991291105

- 110 Sand
  136 Spagnoli Rd
  Melville, NY
  (631) 694-2822

Please refer to Appendix C for copies of the disposal facility permits and soil testing requirements and acceptance criteria for each proposed disposal facility. Refer to Appendix D for truck routes to these facilities.

Waste characterization data will be provided to the proposed disposal facilities for their review and approval. An original signed approval letter from each disposal facility will be submitted to the NYCSCA IEH Division at least 48 hours prior to transportation and off-site disposal.

If the excavated material is rejected by the above proposed disposal facilities for any reason, an alternate disposal facility (including required documentation) meeting the requirements of the Specification Section 02200 will be proposed for NYCSCA IEH Division's consideration.

E. Quality Assurance/Quality Control

A qualified person will coordinate and manage the sampling and analysis program, management, transportation, and disposal of excavated materials from the Site. Sheila Bubka of SEA in conjunction with Silverite will direct these activities.

Laboratories used will be NYSDOH ELAP certified laboratories. The laboratories will communicate directly with the SEA regarding the analytical results and reporting and will be responsible for providing all labels, sample containers, shipping coolers, and laboratory documentation.

Periodic quality assurance/quality control (QA/QC) audits of the EMDP will be performed by Silverite and may also be performed by the NYCSCA, or the NYCSCA's auditors. Any items noted to be in non-compliance will be documented and audit findings will be presented to Silverite for resolution (with a copy to the NYCSCA IEH Division). Verification of resolution(s) will be determined through re-inspecting or re-auditing the non-compliant item.

All records regarding the removal and disposal of excavated materials shall be maintained by Silverite at the project site. These records will be made available to the NYCSCA or their designated representatives at their request. Copies of shipping manifests and/or bills of ladings for excavated material

will be provided to the NYCSCA on a daily basis. Weigh scale tickets from the disposal facility will be provided with the shipping manifests and/or bill of ladings when received from the disposal facility.

A Closure report containing documentation of the non-hazardous industrial waste and hazardous waste removal activities including but not limited to, a description of field activities; daily work activities, summaries of all CAMP data, photographs showing work completed each day, description of the excavated areas, quantities of excavated materials removed by category, post-excavation soil sample analytical results and laboratory data packages, survey of excavations, waste characterization sampling analytical results and laboratory data packages, photocopies of the federal and State permits allowing the disposal facility to accept the material delivered to by Silverite, copies of waste transporter permits for all waste shipments from the site, bills of lading or shipping manifests, hazardous waste manifests, truck scale tickets, and receipts (with weights, dates and times) provided by the disposal facility, and the weights, by waste classification, of each material delivered to each disposal facility. This report must be submitted to the Authority within three (3) weeks of completion of the on-site work of this section.

F. Decontamination

All transportation vehicles shall be inspected, prior to leaving the site, by the SSR to ensure that no material adheres to the wheels, undercarriage, tailgates, covers or other areas of transport vehicles. A decon area will be set up and all vehicles shall be cleaned by washing the tires, undercarriage or any other contaminated parts before leaving the site.

F. Signature of Certified Preparer

Sheila Bubka, a CIH has prepared this EMDP for the PS315 New School Construction Project located at 43-18 97th Place, Queens, NY in accordance with the requirements of Specification Section 02200.

Additionally, Sheila Bubka hereby certifies that she is currently a licensed/certified Certified Industrial Hygienist.

Sheila Bubka, CIH

Prepared by: Sheila Bubka
Certified Industrial Hygienist, #6111

Appendix A

HEALTH AND SAFETY PLAN (HASP)

FOR

EXCAVATED MATERIAL DISPOSAL
AT

PS IS 315

43-18 97th PLACE

QUEENS, NY 11368

PREPARED FOR:	**SILVERITE CONSTRUCTION CORP.** **HICKSVILLE, NY**
PREPARED BY:	**SOUND ENVIRONMENTAL ASSOC. LLC** **WADING RIVER, NY**
DATE:	**October 15, 2012**

PREPARED BY: _____

SHEILA BUBKA, CIH
PRESIDENT

TABLE OF CONTENTS **PAGE #**

1.0 General Information……..... 1
2.0 Line Management/Chain-of-Command…….…… 1
3.0 Training Requirements……... 2
4.0 Underground Storage Tanks……. 3
5.0 Site Control…….. 5
5.1 Dust and Odor Controls…… 6
5.2 Site Communication …… 7
6.0 Personal Protective Equipment…….. 7
6.1 Introduction…… 7
6.2 Description of the Levels of Protection …… 8
6.3 Action Levels for Upgrade/Downgrade of Level of Protection . 9
6.4.1 Total Volatile Organics…… 9
6.4.2 Particulates…… 9
6.5 Respiratory Protection…… 9
6.6 Standard Operating Procedures for Respirators……. 10
7.0 Personal Protective Equipment…….. 10
7.1 Introduction…… 10
7.2 Site Monitoring Equipment for Employee & General Public Protection…… 10
7.3 Air Monitoring Plan……..…… 11
7.3.1 Sampling for Dust……..11
7.3.2 Sampling for VOC's……. 11
7.4 Calibration…….. 11
7.5 Recording Air Monitoring Data…….. 11
7.6 Air Monitoring Responsibilities……. 12

1. General Information

The purpose of this site-specific Health and Safety Plan (HASP) is to establish in detail the procedures and protocols necessary for protecting site workers, on-site personnel, visitors and the general public from hazards associated with site activities during the excavation of soils during site preparation for a new school. The site activities covered under this HASP include site mobilization/demobilization, excavation of soil, soil testing and disposal. This plan has been prepared in accordance with Specification 02081, OSHA Hazardous Waste and Emergency Response (HAZWOPER).

A comprehensive, project Site Safety Plan, as required by Specification S01535-Safety Program, details the health and safety requirements for the entire project. This document should be referenced for overall requirements.

The Phase II report conducted by Langan Engineering in October 2010 was reviewed to evaluate the sampling performed at this site. Based on this report it is anticipated that the potential exists to encounter soils classified as non-hazardous industrial waste and hazardous waste in the central eastern portions of the site.

2.0 Line Management/Chain-of-Command

Silverite will serve as the General Contractor for this project. Peter Chiodo is the Project Manager. The Project Manager has overall accountability for contractual issues, for the selection of subcontractors and for scheduling and timetable for work. The Project Manager also has overall accountability for implementation of the plan by Silverite and subcontractor employees.

The Project Superintendent is accountable for day-to-day operations, for activities of the subcontractors, for implementation of the HASP by subcontractors and to conduct periodic safety meetings and to investigate accidents and near misses on the site.

Site Safety Representative (SSR)

The Site Safety and Health responsibilities for this project will be provided by Silverite. The SSR will monitor work locations for employee health and safety purposes, as well as document any employee exposures and/or substance releases that may occur through the course of this project. The SSR will be trained and experienced to be proficient in the proper use and limitations of all equipment utilized on the site. The SSR is responsible for assisting in implementing the HASP and performing any other duties assigned to him. The SSR is also empowered to deny or restrict access to the site to any persons (under his control), and also has the authority to cease activities on-site if and when conditions present uncontrollable risks to site personnel and off-site receptors. The SSR shall also be responsible for coordinating, conducting and documenting any required training activities, performing and maintaining record keeping duties, and carrying out any other duties specified by site management. The SSR will be the main contact for any on-site emergency situation. Except in an emergency, the SSR may modify the approved HASP only after consultation and concurrence of the CIH. The SSR will be familiar with all matters pertinent to this project and shall assist and represent the CIH in implementation of the HASP as required. This includes field supervision; enforcing safe work practices; ensuring proper use of personal protective equipment; and communicating modified safety requirements to site personnel.

Certified Industrial Hygienist (CIH)

The CIH for this project will be Sheila Bubka, CIH of Sound Environmental Associates. Ms. Bubka is certified by the ABIH as a Certified Industrial Hygienist. The duties of the CIH are to develop, implement, and oversee the Health and Safety program, and the HASP. This plan includes a description for an on-site air-monitoring program, conducting initial site-specific training, and providing continued support for all health and safety activities as required. The CIH will be responsible for directing and approving any changes to the HASP with concurrence of Silverite or their designated representatives. The CIH will be available to be on site at the beginning of construction activities, at the start-up of each new task or operation, to attend meetings and as needed throughout the project for consultation as requested by the client.

3.0 Training Requirements

Predemolition Safety Conference

Prior to the start of soil intrusive work, the Contractor shall conduct a safety conference to discuss the hazards anticipated on the site, training on hazard recognition, response to emergencies, explanation of site activities, identifying safety personnel, levels of PPE required, air monitoring activities, and other topics relevant to the safety of site workers.

Training and Site Briefing/Education

The SSR or his designee will present a safety briefing to inform employees, contractors, subcontractors and visitors who will be performing excavation work. This briefing will cover the special hazards and procedures to control these hazards. All prime and subcontractor employees, Project Engineer's representatives and visitors shall complete this briefing before working in identified portions of the site. A copy of training records for all workers completing this training shall be kept by SSR. The SSR shall keep records of training for all site personnel and site visitors. Copies of the training records for all workers associated with the project will be provided to the SSR and will be available upon request. All workers and visitors shall sign a daily log.

All Silverite personnel or their subcontractors shall receive a minimum of two hours of site-specific training (general awareness) for all persons involved in the excavation. New York requires all workers on active public construction sites to attend a ten-hour, one-day construction safety course. This focuses on general construction site safety. SEA personnel or their subcontractors will be required to provide proof of having received training which meets the initial 40-hour and current annual 8-hour refresher training for hazardous waste site workers as described in 29 CFR 1910.120 and 29 CFR 1926.65.

All affected on-site personnel shall provide evidence of a medical examination when required which meets the requirements of 29 CFR 1910.120(f) and 29 CFR 1926.65(f).

4.0 Underground Storage Tanks

This will be accomplished by using a subcontractor qualified to identify locations of underground installations by means of using pipe and electric line locators, transmitters, receivers and inductive During excavation of the underground storage tank and piping all cave-in protection shall conform to the applicable OSHA requirements. Upon discovery live or dead utilities the work shall be shut down and proper procedures will be implemented to protect human health and the environment.

- Excavations that are less than 5 feet (1.52m) in depth and physical examination of the ground by the qualified competent person provides no indication of any potential cave-in or soil movement, shoring or sloping is not required providing conditions do not change.

- Where the competent person finds there is any potential risk of cave-in, and sloping is to be used solely as cave-in protection, the slopes shall be no greater than one to one and one-half, rise to run, or approximately 34 degrees from the horizontal. Note: Class C soil cannot be benched.

Satisfactory lumber/timber shall be used, i.e. badly cracked/broken timber shall not be used for bracing or support of excavations. An adequate number of ladders shall be present in the excavation for access. OSHA requires no more than 25 feet of lateral travel between ladders. Ladders must extend 36" above the top surface of the excavation and used in accordance with the manufacturer's instructions.

Excavated materials from trenching during shoring installation shall be placed away from excavation cut a minimum of 2' in order to decrease additional loading on the support system as well as decreasing potential for excavated material to slough off into the cut.

Daily, documented, inspections shall be done by the excavation competent person to monitor the condition of the support system.

Proper permits shall be filled out and approved before beginning work (i.e. digging, confined space entry permits, etc.)

There shall be barricading to eliminate the potential of vehicles or personnel from falling into the excavated site. A rigging plan for materials in and around the excavation shall be submitted for review and approval.

Excavations shall be effectively barricaded to prevent unauthorized entry.

Earth ramps shall be constructed in soil so a person can exit the excavation while standing upright.

Work Stoppage will be implemented whenever the competent person(s) determine that the structural integrity of the shoring or sidewall of the excavation has been sacrificed.

The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation. These locations will be marked by using paint or flags along with photos if necessary.

There will be a tolerance line of 24" whereby by only hand, air or pneumatic tools may be used to dig until the exact location of the underground installation is visually observed.

While the excavation is open, underground installations shall be protected, supported or removed as necessary to safeguard employees.

Where high voltage wiring systems or gas lines can be locked out or blocked and flanged, without interfering with an electrical or gas power grid, it shall be done.

Access and Egress

Although not anticipated, if access into the excavation area by persons is necessary appropriate ladders will be used. When a person enters the excavation area ladders will be placed along the perimeter no greater than 25' lateral distance from each other.

All ladders will extend 3' above the land surface.

When the depth of the excavation is greater than 6' deep fall protection will be used by all personnel entering the excavation.

Mobile Equipment

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Hazardous Atmospheres

Due to the nature of the work being performed there is a potential for a hazardous atmosphere to be exist within the excavation. In accordance with Specification 02115, the work site will be continuously monitored for the presence of dust, VOC's and flammable vapors. SEA will conduct the monitoring.

Emergencies

All personnel shall know the emergency stop signal and shall use it in the event of, or potential for, imminent danger or violation. The safety representative shall have an air horn available as an established emergency stop signal for all equipment.

The Safety Representative shall ensure that all project personnel are properly trained on site and facility-specific information.

Water Accumulation

A tarp will be used to cover the excavation area whenever it is anticipated that precipitation will occur.

Protection of Employees from Loose Rock Or Soil

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection. Prior to performing the excavation shoring will be installed to protect the excavation area from sidewall cave in. Employees shall be protected from excavated materials that could pose a hazard by falling or rolling into excavations. Protection shall be provided because the excavated material will be placed into roll off containers upon being excavated.

Inspections

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by the on site competent person(s) for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area, work stoppage will be implemented until the necessary precautions have been taken to ensure their safety.

Cave-In Protection Equipment

The following will apply if this type of equipment is used:

- The shoring system design will be in accordance with OSHA 29CFR 1910.26 Subpart P.
- Cave-in protection equipment shall be provided and an examination of the shoring system by a competent person will be performed to ensure that the structural integrity of the system in not compromised. For excavations greater than 20 feet in depth, the protective systems shall be designed and approved by a registered professional engineer with a specialty in soil mechanics.

5.0 Site Control

Site control zones will be established in order to contain contamination within the smallest area possible. The SSR will ensure that each employee has the proper personal protective equipment for the area or zone in which he or she is to perform work. Only authorized persons will be permitted access to these areas. Only trained, authorized employees are authorized to enter. The purpose of this HASP is to establish in detail the procedures and protocols necessary for

protecting of workers and the general public from potential hazards associated with contaminated soil encountered during the excavation, underground tank removal, backfilling, handling, analysis, and disposing of excavated soils. This section shall define the work zone delineations, site communication, and site access control measures to be employed.
The underground storage tank area is the court yard area where the tank is located. Special precautions will be taken to insure that pedestrians and non-essential persons are not allowed near the excavation equipment during the excavation and trenching operations associated with tank removal. Caution tape and/or traffic cones will be used to delineate the travel lanes for personnel, trucks and heavy equipment. No eating or smoking is allowed anywhere within the area of the Site.

The required protective equipment for use by personnel is specified in Section 5. Access to excavated areas is restricted to On-Site and Contractor personnel who are wearing the proper personal protective equipment and who have received the required site training and medical clearance. All workers will sign in the log book prior to entering the work zone.

5.1 Dust and Odor Controls

Air monitoring and dust and odor control programs are being implemented for this project; the air monitoring program is described in Section 6.0. A dust and odor suppressant program will be in effect as a part of the HASP. In the event odors are encountered during soil excavation, operations will stop temporarily and odor
suppressant foams or other chemicals will be applied on the exposed surface. Products such as Earthbind® or the equivalent are useful for dust suppression and soil stabilization. Water mists, calcium chloride and other recognized dust suppression techniques will be implemented in the event other controls are not effective. The contractor will notify the CIH who will conduct additional monitoring as needed, using a more sensitive monitoring technique. If visible dust is observed outside the excavation, work will be temporarily halted. Visible emissions from non-suspect sources such as vehicle exhaust or road dust will not be considered grounds for work stoppage. All roll-offs, excavators and other heavy equipment used for site excavation and all hand tools used for excavation will be cleaned, decontaminated before leaving the site. Trucks and support vehicles that remain outside the excavation do not have to be decontaminated since they will not come into contact with soil from within the excavation.

Indications of "overt" contamination include but are not limited to the following:
1) staining or unusual color to the soil;
2) unusual or blackish color to trench or excavation water;
3) visible sheen or rainbow on top of the groundwater entering the trench or excavation;
4) smells of gasoline, oils, or solvents coming from the soils or water;
5) buried drums, tanks, or suspicious structures;
6) excavate contains DNAPL or percent levels of oils or hazardous materials.
7) signs or symptoms of hydrogen sulfide or reactive cyanide exposure.

Personnel, vehicles and equipment used during the handling of soils, shall be decontaminated before leaving the site.

5.2 Site Communication

There will be heavy equipment working on site. This creates the potential for accidents, especially as the equipment moves on and off the site and trucks carrying soils exit the site. It is critical to maintain two-way communication on site at all times, to protect the safety of on-site employees, and to expedite the decision making process, in the event contamination is encountered. All requests for emergency services will take place through the Contractor. The SCA will be notified of any requests for emergency services.
The job supervisor(s) will carry a two-way radio or cellular telephone and will be in continuous contact with the site personnel in the event emergency services are required.
Verbal communication and hand signals may be used to communicate among workers on the site. Compressed air horns could also be used to play an integral part in the communication process. They should be used to signal evacuation of a work site in the event of an emergency situation such as a spill, release, uncontrolled fire, or explosion. In addition, visual and voice or radio communications must be maintained at all times while working on-site. The signals used to indicate an emergency situation are as follows:

One long blast repeated three times at five second intervals - Man down
Three short blasts repeated three times at five second intervals - Evacuate site
Alternating short and long blasts - All clear

The evacuation area and rally point are described in the project HASP. In the event of an emergency when evacuation is ordered, ALL employees and subcontractor employees will cease work and will meet at the rally point.

SECTION 6 - PERSONAL PROTECTIVE EQUIPMENT

6.1 Introduction

Personal protective equipment (PPE) is the major method used to minimize potential employee exposure to site contamination. The levels of protection for on-site personnel have been based on OSHA requirements. SEA personnel and their contractors on-site shall have their own personal safety equipment which will be used according to the direction of the SSR. All contractors and subcontractors are required to provide their own PPE. All PPE shall be kept cleaned and maintained in a proper manner. Personnel will have been trained in the proper use and maintenance of PPE. It is the responsibility of the Contractor to supply and maintain all required PPE in a usable fashion. At a minimum, all SEA employees and contractors will be required to have ANSI approved hardhats, steel toe safety shoes or boots and safety glasses whenever on active work sites. Additional PPE as prescribed in this plan shall be worn on-site at all times. Loose sleeves, cuffs, loose clothing, ties, or other objects that may become entangled in machinery are not permitted. Reflective vests will be used at all times. OSHA has implemented a standard on personal protective equipment, 29 CFR 1910.132. This standard defines approved types of PPE for eye and face protection, head, and foot protection. The appropriate types of PPE shall be designated for the hazards of the particular task. All PPE shall comply with the appropriate ANSI designation as referenced in the standard. Based on the information provided in the site characterization reports, controls will be implemented to reduce the potential for personnel to be exposed to contaminants at levels above the OSHA Permissible Exposure Limits (PELs),

ACGIH Threshold Limit Values (TLVs), or encounter conditions that are Immediately Dangerous to Life and Health (IDLH). The greatest potential for exposure will be inhalation of dust containing hazardous materials that may be released to the air as the soil material is excavated.

It is anticipated all of the work by Silverite SEA personnel and contractors will be performed at Level C or Level D, given the site activities and the hazards at the site. All activities will use Level D from the start of intrusive activities.

If levels of VOC's exceed 5 ppm for a period of 15 minutes continuous and/or if levels of airborne dust exceed 0.25 mg/m3 for ten minutes or if visible dust is observed from work or other activities performed then an Upgrade/Downgrade will be triggered.

If any conditions requiring protection above Level C is determined, work will be stopped and the HASP will be reviewed by the Project Manager and the CIH to reflect the more critical requirements of this level of work is prepared. **Any work performed using a PPE Level above Level C will be considered a change in condition.** The SCA will be notified as soon as practical.

6.2 Description of the Levels of Protection

The following is a brief description of levels of protection to be used by site personnel:
The following represents the recommended minimum levels of PPE to be utilized:

Level D

- Work boots;
- Hard hat
- Reflective vest
- Work boots

Level C

- Tyvex outer wear;
- Work boots;
- Hard hat; and,
- Safety glasses that meet ANSI-Z-87.1 requirements
- Gloves (nitrile)/and/or
- Hearing Protection
- Reflective vest
- Half-face respirator with P100/VOC cartridges

Mobilization/Demobilization .....Level D
Excavation Construction ..... Level D
Excavation and Handling of Fill/Natural Soils by Contractor (clean) .....Level D
Soil stockpiling of imported clean soil and handling clean fill .....Level D
Soils sampling and analysis ……. ..... Level D

6.3 Action Levels for Upgrade/Downgrade of Level of Protection

The action levels for the upgrade or downgrade of worker personal protective equipment have been based upon information published by the American Conference of Governmental Industrial Hygienists (ACGIH), the Occupational Safety and Health Administration (OSHA), and the United States Environmental Protection Agency (US EPA).

The action levels are based upon established Permissible Exposure Limits (OSHA), Threshold Limit Values (ACGIH), and Short-Term Exposure Limits (ACGIH). The action levels have been established for each work activity/contaminant present.

6.4.1 Total Volatile Organics

The action level of 10 ppm sustained for ten minutes will be used for upgrade and downgrade of PPE using a level of total volatile organic compounds. If the level of protection will be upgraded above Level C, all work will temporarily cease and the CIH will be notified. Additional engineering controls will be implemented. This will not be performed until the HASP is reviewed and amended to reflect the change in site conditions and controls.

6.4.2 Particulates

Levels of heavy metals and other contaminants in soils are present. In the event that airborne dust levels are elevated, half-face air-purifying respirators equipped with HEPA (P-100) filters and organic vapor cartridges will provide a high level of protection, where Level C is required. HEPA, now called (P-100) filters by definition, remove 99.97 percent of all particulates greater than 0.3 microns in size, and the organic vapor cartridges remove volatile organic compounds up to 1000 ppm in concentration. Airborne dust will be substantially larger sized particles. The protection factor afforded by the respirator will vary from individual to individual based on their ability to fit the respirator, and properly donning the respirator in use. Fit protection factors in excess of 10 are normally associated with half-face air purifying respirators.

Periodic visual observations and monitoring for total suspended particulate will be used as a surrogate measurement for heavy metal exposures during excavation of fill. A limit based on a measurement of total suspended particulate of 0.25 mg/M3 in the breathing zone is suitable to protect employees from exposures to lead and other metals. Using an estimated maximum value of lead of 600 mg/kg, a dust limit of 0.25 mg/M3 will be used as the criteria to upgrade protection to Level C, and a limit of 0.25 mg/M3 will be used to implement dust suppression measures.

6.5 Respiratory Protection

It is unlikely respiratory protection may be required for on-site personnel exposed to suspected hazardous contaminants through inhalation. Initially, excavation activities are assigned a protection level of D. This may be up or downgraded, based on initial monitoring results. In the unlikely event that volatile organic compounds are determined to be present at levels requiring an upgrade, then half-face respirators will be used.

If upgrading the site above Level C is necessary, all work will be stopped temporarily, and the HASP will be reviewed. All employees who are required to wear air purifying respiratory equipment will be required to show proof of medical examination to the SSR that indicates that the employee is capable of wearing such a device. Proof of qualitative or quantitative fit testing for use of air purifying respirators is also necessary.

6.6 Standard Operating Procedures for Respirators

Respirators shall be cleaned daily according to procedures prescribed by the manufacturer. Cartridges will be used and replaced monthly or more often, or at any time breakthrough is detected while in use. Negative and positive pressure fit checks will be performed daily by each individual respirator wearer upon donning the respirator.

SECTION 7 - AIR MONITORING INSTRUMENTATION

7.1 Introduction

The following is a listing of on-site monitoring instrumentation that will be employed during the course of the site work for the determination of the level of protection to be worn by the site workers. Personnel who will be operating this instrumentation shall be fully trained and experienced in its use and operation. Monitoring will be performed by SEA.

7.2 Site Monitoring Equipment for Employee and General Public Protection

- Photoionization Detector with 10.2 ev probe .
- Total Suspended Particulates (Dust-Trak or equivalent) - Used as needed for perimeter measurements and exclusion zone in breathing zone.

The photoionization monitor will be a Multi-RAE or the equivalent. The PID will be equipped with a 10.2 eV lamp to maximize sensitivity for TPH compounds.

At a minimum exposure monitoring and air sampling excavation activities shall be performed during the tank removal activities and at the upwind and downwind locations, and recorded at the following frequencies:

Total Organic Vapors: Continuous monitoring and recorded at least every 30 minutes whenever measurements at the perimeter of the work area exceed 1 ppm above background for ten minutes, or 10 ppm for ten minutes in the excavation.

Total Particulates:
Total Particulates: Surveyed and recorded at least every 30 minutes and whenever measurements exceed 0.25 mg/M3 within the excavation or 0.075 mg/M3 at the perimeter to the excavation zone.

7.3 Air Monitoring Plan

7.3.1 Sampling for Dust

Measurements will be collected for airborne dust throughout the day when soil intrusive activities are underway within the excavation. In addition, monitoring is required when there is visual evidence of dust. This monitoring will be performed visually and using direct reading instrumentation. A meter capable of measuring total suspended particulates (Dust-Trak) will be used to measure airborne particulate levels. Work will be halted if visible dust is observed from work. SEA will perform monitoring for airborne dust around the perimeter of the exclusion zone. A level of 0.25 mg/M3 is established for work within the excavation. A level of 0.075 mg/M3 is used for perimeter monitoring and is based on one-half of the National Ambient Air Quality Standard of 0.15 mg/M3 for a twenty-four hour average concentration. If the dust level is exceeded and the source is from activity within the excavation, work will be temporarily stopped until the dust suppression activities are reviewed. If the source is determined to be from nonwork related activities (i.e. passing traffic or ambient conditions), no corrective actions will be required.

7.3.2 Sampling for VOC's

Monitoring for VOCs will be performed with a 10.2 eV photoionization detector (PID) to measure total volatile organic compounds during excavation of fill during soil intrusive activities. The results of the monitoring will be used to implement engineering and work practice controls and to make upgrade and downgrade decisions in the level of required PPE. A level of 10 ppm for a period of ten minutes will be used for activities inside the excavation. A level of 1 ppm above the background for a period of ten minutes will be used for perimeter monitoring. Monitoring will also be performed in the event that odor complaints are received.

7.4 Calibration

The PIDs will be calibrated using isobutylene. The dust monitors are calibrated at the factory. Typically, no field calibration of the dust meters is required. The direct reading air monitoring instruments used at the site must be returned to the factory calibrated and checked out on an annual basis. T The results of the calibration will be noted in the daily log.

7.5 Recording Air Monitoring Data

All particulate concentrations detected above the action levels at the exclusion zone and work zone boundary shall be recorded. The location, date, time, monitoring device, calibration data, and weather conditions (temperature, wind speed and direction) shall all be recorded on monitoring log sheets. Copies of all monitoring log sheets shall be included in the monthly report to Silverite. A summary of the sampling data, including the actions taken, and their effectiveness shall be included in the report as well.
Information gathered during the air monitoring program shall be used by the SSR to determine appropriate measures to be taken to protect employees, contractors and subcontractors during:
1. Soil excavation, trenching and removal
2. Soil stockpiling
3. Soil classification
4. Soil transport and removal

7.6 Air Monitoring Responsibilities

The CIH will establish air monitoring strategies and sampling frequency to characterize and quantify any airborne release and transport of contaminants during soil excavation. These strategies and protocols address appropriate air monitoring for volatile organic compounds in the active work zones of the site and at the active site perimeter. The program is part of-the HASP. Monitoring will be performed by the SEA.

Appendix B

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PART 364
WASTE TRANSPORTER PERMIT NO. 1A-839

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

SILVERITE CONTRACTING CORPORATION/DBA
SILVERITE TRUCKING
P.O. BOX 1818
520 OLD COUNTRY ROAD WEST
HICKSVILLE, NY 11802-1818

PERMIT TYPE:

☐ NEW
☐ RENEWAL
☒ MODIFICATION

CONTACT NAME:	GERARD A. SIMS	EFFECTIVE DATE:	06/01/2012
COUNTY:	NASSAU	EXPIRATION DATE:	**03/07/2013**
TELEPHONE NO:	(516)681-0562	US EPA ID NUMBER:	

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
110 SAND COMPANY CLEAN FILL DISPOSAL	MELVILLE , NY	Asbestos Petroleum Contaminated Soil	
CLEAN EARTH - STAGGS	MULLICA HILL , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CLEAN EARTH OF CARTERET	CARTERET , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
LINCOLN PARK WEST LANDFILL	JERSEY CITY , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
MALANKA MILL LANDFILL	SECAUCUS , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
NORTH BERGEN RECYCLING	NORTH BERGEN , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
POSILLICO MATERIALS LLC - 394-1-30	FARMINGDALE , NY	Petroleum Contaminated Soil	
PURE SOIL TECHNOLOGIES	JACKSON , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
SOIL SAFE, INC.	LOGAN TOWNSHIP , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK	ALLENTOWN , PA	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
TRANSMINE INC.	WEST HAMPTON , NY	Non-Hazardous Industrial/Commercial	

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Environmental Remediation - Waste Transporter Program
625 Broadway, 11th Floor
Albany, NY 12233-7020

AUTHORIZED SIGNATURE: Jack A. Aversa Date: 6/1/2012

WASTE TRANSPORTER PERMIT

GENERAL CONDITIONS

The permittee must:

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit to be issued before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. **Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:**

New York State Department of Environmental Conservation
Division of Environmental Remediation, Waste Transporter Program
625 Broadway, 11th Floor
Albany, NY 12233-7020

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PART 364

WASTE TRANSPORTER PERMIT NO. 1A-839

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

SILVERITE CONTRACTING CORPORATION/DBA
SILVERITE TRUCKING
P.O. BOX 1818
520 OLD COUNTRY ROAD WEST
HICKSVILLE, NY 11802-1818

PERMIT TYPE:

☐ NEW
☐ RENEWAL
▣ MODIFICATION

CONTACT NAME:	GERARD A. SIMS	EFFECTIVE DATE:	06/01/2012
COUNTY:	NASSAU	EXPIRATION DATE:	**03/07/2013**
TELEPHONE NO:	(516)681-0562	US EPA ID NUMBER:	

AUTHORIZED VEHICLES:

The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

23 (Twenty Three) Permitted Vehicle(s)

NY 15453PC
NY 17701PB
NY 17951PC
NY 17952PC
NY 17953PC
NY 47932JH
NY 90377PA
NY 90378PA
NY 90379PA
NY 90382PA
NY 90383PA
NY 90384PA
NY AA74242
NY AA74243
NY AA74244
NY AA74245
NY AD83514
NY AD83544
NY AN19333
NY AN22096
NY AW95493
NY BA17641
NY BA17642
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364

WASTE TRANSPORTER PERMIT NO. 2A-844

Pursuant to Article 27, Titles 3 and 19 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

J. SCARAMELLA, LTD.
300 SOUTH AVENUE
STATEN ISLAND, NY 10303

PERMIT TYPE:

☐ NEW
☒ RENEWAL
☐ MODIFICATION

CONTACT NAME:	JOSEPH SCARAMELLA	EFFECTIVE DATE:	10/14/2012
COUNTY:	RICHMOND	EXPIRATION DATE:	10/13/2013
TELEPHONE NO:	(718)983-8855	US EPA ID NUMBER:	

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
110 SAND COMPANY CLEAN FILL DISPOSAL	MELVILLE , NY	Non-Hazardous Industrial/Commercial	
BELLMAWR WATERFRONT DEVELOPMENT	BELLMAWR , NJ	Non-Hazardous Industrial/Commercial	
CARTERET(CLEAN EARTH)	CARTERET , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CLEAN EARTH OF NORTH JERSEY	SOUTH KEARNY , NJ	Non-Hazardous Industrial/Commercial	
HENRY HARRIS SLF (ALHERN, INC.)	MULLICA HILL , NJ	Non-Hazardous Industrial/Commercial	
JERC PARTNERS VII,LLC	EDISON , NJ	Non-Hazardous Industrial/Commercial	
MALANKA MILL LANDFILL	SECAUCUS , NJ	Non-Hazardous Industrial/Commercial	
MIDDLESEX LOGISTIC CENTER	EDISON , NJ	Non-Hazardous Industrial/Commercial	
PROSPECT PARK QUARRY	PROSPECT PARK , NJ	Non-Hazardous Industrial/Commercial	
TETERBORO LANDING	TETERBORO , NJ	Non-Hazardous Industrial/Commercial	

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 10/2/2012

NOTICE

This permit is not valid until the effective date listed on the permit

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364

WASTE TRANSPORTER PERMIT NO. 2A-644

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

J. SCARAMELLA, LTD.
300 SOUTH AVENUE
STATEN ISLAND, NY 10303

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME:	JOSEPH SCARAMELLA	EFFECTIVE DATE:	10/14/2012
COUNTY:	RICHMOND	EXPIRATION DATE:	10/13/2013
TELEPHONE NO:	(718)983-8855	US EPA ID NUMBER:	

AUTHORIZED VEHICLES:

The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

16 (Sixteen) Permitted Vehicle(s)

NY 10317BA
NY 11590PC
NY 12579PC
NY 16013PB
NY 21358PA
NY 21359PA
NY 21362PA
NY 21363PA
NY 21364PA
NY 32208PA
NY 32209PA
NY 64596PA
NY 69596PA
NY 78996PA
NY 84993PA
NY 85466PA
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PART 364
WASTE TRANSPORTER PERMIT NO. 2A-502

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

SHAMROCK MATERIALS LLC
100 ST. MARY'S AVENUE 3RD FLOOR
STATEN ISLAND, NY 10305

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME:	JOHN CORBETT	EFFECTIVE DATE:	02/20/2012
COUNTY:	RICHMOND	EXPIRATION DATE:	**02/19/2013**
TELEPHONE NO:	(718)273-9223	US EPA ID NUMBER:	NYR000136820

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
ALHERN HENRY HARRIS SANITARY LANDFILL	HARRISON TOWNSHIP , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
ARMORED, INC.	NEWARK , NJ	Non-Hazardous Industrial/Commercial	
ATLANTIC COUNTY UTILITIES AUTHORITY	EGG HARBOR , NJ	Non-Hazardous Industrial/Commercial	
BAYSHORE RECYCLING	KEASBEY , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
BELLMAWR WATERFRONT DEVELOPMENT	BELLMAWR , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CASIE ECOLOGY OIL SALVAGE	VINELAND , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial	
CLEAN EARTH OF CARTERET	CARTERET , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CLEAN EARTH OF MARYLAND	HAGERSTOWN , MD	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CLEAN EARTH OF NEW CASTLE, INC.	NEW CASTLE , DE	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
CLEAN EARTH OF NORTH JERSEY	SOUTH KEARNY , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial	

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Environmental Remediation - Waste Transporter Program
625 ~~Broadway~~, ~~11th Floor~~
Albany, NY 12233-7020

AUTHORIZED SIGNATURE: Jack A. Aversa Date: 2/16/2012

NOTICE

This renewed permit is not valid until the effective date listed on the permit

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PART 364
WASTE TRANSPORTER PERMIT NO. 2A-502

Pursuant to Article 27,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

SHAMROCK MATERIALS LLC
100 ST. MARY'S AVENUE 3RD FLOOR
STATEN ISLAND, NY 10305

CONTACT NAME: JOHN CORBETT
COUNTY: RICHMOND
TELEPHONE NO: (718)273-9223

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 02/20/2012
EXPIRATION DATE: **02/19/2013**
US EPA ID NUMBER: NYR000136820

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
CLEAN EARTH OF PHILADELPHIA	PHILADELPHIA , PA	Non-Hazardous Industrial/Commercial Hazardous Industrial/Commercial	
CLEAN EARTH OF SOUTHEAST PENNSYLVANIA	MORRISVILLE , PA	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
COPLAY AGGREGATES	WHITEHALL , PA	Non-Hazardous Industrial/Commercial	
DEEP GREEN OF NEW YORK	NEW WINDSOR , NY	Petroleum Contaminated Soil	
DURAPORT MARINE & RAIL	BAYONNE , NJ	Petroleum Contaminated Soil	
EARLE ASPHALT DBA/PURE SOILS	JACKSON , NJ	Non-Hazardous Industrial/Commercial	
EL DUPONT DENEMOURS & COMPANY	LINDEN , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
ENCAP PHASE 1 REDEVELOPMENT PROJECT	LYNDHURST , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
ESMI OF NEW YORK	FORT EDWARD , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
FERRY POINT PARK.NYCDOS	BRONX , NY	Non-Hazardous Industrial/Commercial	
GRASSELLI POINT INDUSTIRES, INC.	LINDEN , NJ	Non-Hazardous Industrial/Commercial Waste Tires	
GROWS WASTE MGT OF PA (NORTH)	MORRISVILLE , PA	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
ISP ENVIRONMENTAL SERVICES, INC.	LINDEN , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
JERC PARTNERS VII/LLC	EDISON , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
LINCOLN PARK WEST LANDFILL	JERSEY CITY , NJ	Non-Hazardous Industrial/Commercial	
MALANKA MILL LANDFILL	SECAUCUS , NJ	Non-Hazardous Industrial/Commercial	
MID ATLANTIC RECYCLING TECHNOLOGIES	VINELAND NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil Hazardous Industrial/Commercial	
NESHAMINY LAND DEVELOPMENT	LONGHORNE , PA	Non-Hazardous Industrial/Commercial	
NORTH BERGEN RECYCLING	NORTH BERGEN , NJ	Non-Hazardous Industrial/Commercial	
NYS&W RAILWAY NORTH BERGEN NJ	NORTH BERGEN , NJ	Hazardous Industrial/Commercial	
PERRY FILL SITE	STROUDSBURG , PA	Non-Hazardous Industrial/Commercial	

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

PART 364
WASTE TRANSPORTER PERMIT NO. 2A-502

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

SHAMROCK MATERIALS LLC
100 ST. MARY'S AVENUE 3RD FLOOR
STATEN ISLAND, NY 10305

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: JOHN CORBETT
COUNTY: RICHMOND
TELEPHONE NO: (718)273-9223

EFFECTIVE DATE: 02/20/2012
EXPIRATION DATE: **02/19/2013**
US EPA ID NUMBER: NYR000136820

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
PERRY FILL SITE	STROUDSBURG , PA	Petroleum Contaminated Soil	
PROSPECT PARK QUARRY	PROSPECT PARK , NJ	Non-Hazardous Industrial/Commercial	
SLRD COMPANY MULLICA HILL, LLC	MULLICA HILL , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
SOIL SAFE, INC.	LOGAN TOWNSHIP , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
TETERBORO LANDING	TETERBORO , NJ	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
TOTAL RECYCLING CORP.	ALLENTOWN , PA	Non-Hazardous Industrial/Commercial	

Appendix C

Pennsylvania Department of Environmental Protection

2 East Main Street
Norristown, PA 19401
November 15, 2007

Southeast Regional Office

484-250-5960
Fax 484-250-5961

RECEIVED
NOV 15 2007
BY:----------

Mr. Charles Ballod, P.E.
Eastern Market Area Engineering Manager
Waste Management, Inc.
1000 New Ford Mill Road
Morrisville, PA 19067

Re: GROWS North Landfill
Falls Township
Bucks County
ID No. 101680
APS No. 522165, AUTH No. 553256

Dear Mr. Ballod:

The Department has reviewed your application for the construction and operation of a new landfill to be known as GROWS North Landfill, located in Falls Township, Bucks County, and has determined that you have satisfied all applicable requirements necessary to perform this activity. Therefore, we have issued the enclosed permit in accordance with Act 97, the Pa. Solid Waste Management Act.

Compliance with the limitations and stipulations that have been set forth in your permit is mandatory.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 PA C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action, unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statues and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

Thank you for your cooperation.

Sincerely,

James Wentzel, P.E.
Regional Manager
Waste Management Program

Enclosure: Permit

cc: Falls Township (w/enclosure)
Bucks County Health Department (w/enclosure)
Re, 30

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

Under the provisions of the Pennsylvania Solid Waste Management Act of July 7, 1980, Act 97, a permit for a solid waste disposal and/or processing facility at (municipality) Falls Township in the County of Bucks is granted to (applicant) Waste Management Disposal Services of Pennsylvania, Inc. at (address) 1000 New Ford Mill Road, Morrisville, PA 19067

This permit is applicable to the facility named as G.R.O.W.S. North Landfill

and described as:

Latitude - 40°, 09', 44

Longitude - 74°, 46', 35"

This permit is subject to modification, amendment, and supplement by the Department of Environmental Protection (Department) and is further subject to revocation or suspension by the Department for any violation of the applicable laws or the rules and regulations adopted there under, for failure to comply in whole or in part with the conditions of this permit and the provisions set forth in the application No. 101680, which is made a part hereof, or for causing any condition inimical to the public health, safety, or welfare.

See Attachment for waste limitations and/or Special Conditions.

FOR THE DEPARTMENT OF
ENVIRONMENTAL PROTECTION

THIS PERMIT IS NON - TRANSFERABLE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

1. The waste management permit is based upon the Phase I/Phase II application No. 101680 (APS No. 522165, AUTH No. 553256) that was received in the Southeast Regional Office of the Department of Environmental Protection (Department). The Phase I submission was received on July 19, 2004, and the Phase II submission was received on July 29, 2005. This permit is for the 162.4 acres GROWS North Landfill (which includes 117 acres for disposal), located in Falls Township, Bucks County. Any and all approvals granted under this permit are limited to GROWS North Landfill, unless otherwise noted. This approved application for the GROWS North Landfill consists of the following documents:

Phase I

Form GIF received on July 19, 2004
Form A received on July 19, 2004, May 19, 2005, and revised July 26, 2007
Form B received on July 19, 2004
Form B1 received July 19, 2004
Form HW-C received on July 19, 2004
Form D received on July 19, 2004, May 19, 2005, and revised May 26, 2006
Form E received on July 19, 2004, and revised July 26, 2007, and September 24 2007
Form F received on July 19, 2004, and revised May 19, 2005, and May 18, 2005
Form 1 received on July 19, 2004, and revised May 19, 2005, and May 26, 2006
Form 2 received on July 19, 2004
Form 6 received on July 19, 2004
Form 7 received on July 19, 2004
Form 8 received on July 19, 2004
Form 11 received on July 19, 2004
Form 12 received on July 19, 2004
Figure A1, Site Location Map received July 19, 2004, and revised May 19, 2005

Phase II

Form GIF received on July 29, 2005, and revised July 26, 2007
Form B received on July 29, 2005, and revised July 26, 2007
Form B1 received on July 29, 2005, and revised July 26, 2007
Form G (A) received on July 29, 2005, and revised August 7, 2006
Form G (B) received on July 29, 2005
Form H received on July 29, 2005, and revised December 21, 2006

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

Form I received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
From J received on July 29, 2005, and revised December 21, 2006, July 26, 2007, and September 24, 2007 (Table J-2)
Form K received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Form L received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Form Q received on July 29, 2005, and revised July 26, 2007, and November 8, 2007
Form 3 received on July 29, 2005
Form 14 received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Form 18 received on July 29, 2005, and revised July 26, 2007
Form 24 received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Form 25 received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Form 28 received on July 29, 2005, and revised December 21, 2006, and July 26, 2007
Bonding worksheets received on July 29, 2005, and revised December 21, 2006, July 26, 2007, and September 24, 2007
Form 45 received on July 29, 2005, and revised July 2007
Form 46 received on July 29, 2005, and revised July 26, 2007
Drawing Number 1 through 40 received July 26, 2007 (replacing all previous drawings)
Drawing Number 5, 9, 10, 11, 12, 13, 24, 25, 26, 28 and 37 revised on September 24, 2007
Trap Rock Quarry Soils Overburden Review and Certification Report, prepared by Golder Associates, received on November 7, 2007
Additional Information Supplement (Generator List, revised Form Q to add two, processed C&D waste materials to the approved ADCM list), received on November 8, 2007, and revised (Generator List) November 14, 2007

This approved application includes a response to the Department's February 14, 2005, letter received on May 18, 2005; a response to the Department's December 22, 2005, letter received on February 17, 2006; a response to the Department's April 24, 2006, letter received on May 26, 2006; a response to the Department's September 25, 2006, letter received on December 21, 2006; and responses to the Department's February 27, 2007, and March 28, 2007, e-mail comments (MSE Berm issues) and June 12-13, 2007, meeting comments (technical design issues) received on July 26, 2007.

The contents of all the above listed documents are hereby incorporated in the permit as conditions with which the permittee must comply. Where the terms or conditions of this permit differ from the documents incorporated by reference, the terms or conditions of this permit shall govern.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

2. Nothing in this permit shall be construed to supersede, amend or authorize violation of, the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not pre-empted by the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. 6018.101, and Act 101,the Municipal Waste Planning, Recycling and Waste Reduction Act.

3. As a condition of this permit, and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department without advanced notice or a search warrant, upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas on which solid waste management activities are being or will be conducted. The authorization and consent shall include consent to collect samples of waste, water, or gases, to take photographs, to perform measurements, surveys and other tests, to inspect any monitoring equipment, to inspect the methods of operation, and to inspect and/or copy documents, books, or papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Sections 6018.608 and 601 8.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.

4. Form 37, Certification of Facility Construction Activity is to be submitted to the Regional Solid Waste Manager in the Department's Southeast Regional Office after each pad or cell of the landfill is constructed, including the subbase preparation (includes mechanically stabilized earthen berm construction and structural fill placement to establish grades in advance of construction of the subbase itself), preparation of the witness zone, installation of the primary liner, installation of the leachate collection pipes, the preparation of the protective layer for the primary liner prior to the start of landfilling operations, and the leachate recirculation system for each pad or cell of the landfill site. Waste disposal operations may not commence in a pad or cell until the Department has accepted, in writing, the certification report(s) for all of that pad's or cell's components. All certification reports shall identity and explain deviations from the design approved in this permit.

5. Form 37, Certification of Facility Construction Activity, including as-built reports for all construction and closure activities related to the landfill, is to be submitted to the Regional Solid Waste Manager in the Department's Southeast Regional Office for review after the construction of the following major construction activities as these activities are completed in part or in total, including the installation of

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

the groundwater monitoring systems, landfill liner systems, leachate management systems, landfill final cover, landfill gas management systems, major access roads, storm water management structures, and closure and final closure activities. All certification reports shall identity and explain deviations from the design approved in this permit. Systems and structures that are the subject of the certification submittal shall not be utilized until the Department has accepted, in writing, the certification submittal.

6. A daily operational record is to be maintained in accordance with Section 273.311 of the Municipal Waste Rules and Regulations.

7. A quarterly operations report is to be submitted on or before the 20th day of April, July, October, and January for the three-month period ending the last day of March, June, September, and December in accordance with Section 273.312 of the Municipal Waste Rules and Regulations.

8. An annual operation report is to be submitted to the Department's Southeast Regional Office on or before June 30 of each year in accordance with the format indicated in Chapter 273.312 of the Municipal Waste Rules and Regulations. The annual report submitted to the Department is to be accompanied by the annual permit administrative fee.

9. An annual topographic survey is to be conducted and is to be submitted to the Southeast Regional Office concerning the elevation and total volume of area that has been filled. This is due as part of the annual operation report due on June 30 of each year.

10. GROWS Landfill (ID No. 100148) and this facility (GROWS North Landfill, ID No. 101680) and are owned and operated by the same entity – Waste Management Disposal Services of Pennsylvania, Inc. The owner/operator intends to share the maximum daily volume, currently assigned to GROWS Landfill, between the GROWS and GROWS North Landfills. Accordingly, no more than a combined total of 10,000 tons of solid waste may be received at the two facilities (GROWS Landfill and GROWS North Landfill) for disposal on any single operating day. This figure represents the combined maximum daily volume of the facilities, set pursuant to Section 1112 of the Municipal Waste Planning, Recycling, and Waste Reduction Act, 53 P.S. Section 1112 (Act 101 of 1988) and the regulation of the Department. The permittee is advised that this section also provides that a mandatory civil penalty of $100 per ton applies to any excess volume received for disposal at the facility for any reason. A violation of this permit condition shall be treated as a violation at both facilities except that

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

there shall be only a violation at the receiving facility when no waste is received at the other facility during a violation event.

11. GROWS Landfill (ID No. 100148) and this facility (GROWS North Landfill, ID No. 101680) are owned and operated by the same entity – Waste Management Disposal Services of Pennsylvania, Inc. The owner/operator intends to share the average daily volume, currently assigned to GROWS Landfill, between the GROWS and GROWS North Landfills. Accordingly, no more than an average of 10,000 tons of solid waste maybe received at the two facilities (GROWS Landfill and GROWS North Landfill) for disposal per operating day during the standard calendar year quarter. This figure represents the average daily volume of the facility, set pursuant to Section 1112 of the Municipal Waste Planning. Recycling and Waste Reduction Act, 53 P.S. Section 1112(Act 101 of 1988) and the regulation of the Department. The permittee is advised that this section also provides that a mandatory civil penalty of $100 per ton applies to any excess volume received for disposal at the facility for any reason. A violation of this permit condition shall be treated as a violation at both facilities except that there shall be only a violation at the receiving facility when no waste is received at the other facility throughout the entire calendar quarter for which a violation occurs.

12. Compliance with Condition No. 11 above shall be calculated by taking the combined total tons of solid waste received for disposal at GROWS Landfill and GROWS North Landfill during a standard calendar year quarter, divided by the number of days during the quarter that the facilities were permitted to operate, including partial days. In the event Condition No. 11 is modified, compliance during the quarter, when the permit condition is modified, shall be calculated by dividing the total tons of solid waste received during the partial quarter by the number of permitted operating days within that partial quarter.

13. The GROWS North Landfill is permitted to accept waste for disposal Monday through Saturday from 5 a.m. to 6 p.m. Pursuant to an agreement between the permittee and host municipality, the facility may remain open until 7:30 p.m. no more than two times per week with the maximum number of 7:30 p.m. closures per year established at 50 times. Operations may be extended due to extreme weather conditions in accordance with the following procedure. Prior to extending operations, justification for such an extension must be mailed or faxed to the Waste Management Program Manager or his designee. Written concurrence that the extension is justifiable needs to be received by the permittee from the manager or his designee before extended operations may be implemented. All other requests to extend operating hours must be requested in advance of need and be approved, in writing, in

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

advance by the Department. Records documenting the compliance with the above-approved hours shall be provided in the facility's daily, quarterly and annual reports.

14. A) This facility may not operate to receive waste unless the operator has established at least one drop-off center for the collection or sale of at least three (3) recyclable materials chosen from the following: clear glass, colored glass, aluminum, steel and bimetallic cans, high-grade office paper, newsprint, corrugated paper, and plastics. The drop-off center must be located at the facility or at a location that is easily accessible to substantial numbers of persons generating municipal waste that is processed or disposed of at the facility. The drop-off center shall be operated in compliance with Section 1502(b) of the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. Section 4000.1502(b).

B) The center shall be located at the facility or in a place that is easily accessible to persons generating municipal waste that is processed or disposed at the facility.

C) The drop-off center shall contain bins or containers where recyclable materials may be placed and temporarily stored. If the operation of the drop-off center requires attendants, the center shall be open at eight (8) hours including four (4) hours during evenings or weekends.

D) Once every six (6) months, the operator shall provide public notice of the availability of the drop-off center. The operator shall place an advertisement in a newspaper circulating in the municipality or provide notice in another manner approved by the Department in writing.

E) On or before February 15 of each year, the operator shall inform the host municipality, in writing, of the weight and type of materials that were recycled in the previous calendar year, so that the host municipality may comply with the requirements of Section 304(f) of the Municipal Waste Planning. Recycling, and Waste Reduction Act.

15. Except to the extent this permit provides otherwise, the permittee shall conduct solid waste management activities as described in the approved application(s). The permittee shall file an application for a permit modification with the Department and shall receive approval from the Department prior to receiving any waste volumes in excess of the maximum or average daily volume stated in the permit.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

16. The permittee shall not violate, or cause or assist in the violation of any provision of the Municipal Waste Planning, Recycling, and Waste Reduction Act, 53 P.S. Section 4000.101 et seq., or the terms or conditions of any Municipal Waste Management Plan approved by the Department under that Act.

17. The permittee shall not act in a manner contrary to any Municipal Waste Management Plan approval by the Department pursuant to the Municipal Waste Planning, Recycling, and Waste Reduction Act, nor shall the permittee fail to act in a manner that is consistent with any Municipal Waste Plan approved by the Department pursuant to that Act.

18. The permittee shall not allow solid waste generated outside the host county of the permitted facility to be received, disposed, or otherwise managed at the facility if the transportation to, or management at the facility would violate applicable laws in affect in the county or state in which the waste was generated, or state or local solid waste management plan in effect where the waste was generated.

19. This facility may not accept for disposal, or for processing, except for composting, truckloads composed primarily of leaf waste.

20. No lead acid batteries shall be placed into mixed waste or be disposed of at this facility.

21. Form 19, Quarterly and Annual Water Quality Analyses, must be submitted in triplicate for the quarterly and annual testing of monitoring well numbers: MW-1SR, MW-2S, MW-3SR, MW-4SR, MW-5SR, MW-6S, MW-7S, MW-8S, MW-9S, MW-10S, MW-11S, MW-12S, MW-13S, MW-14S, MW-3DR, MW-4DR and MW-5DR; and for surface water quality monitoring points: Sedimentation Basin 1 (SB-1) and Sedimentation Basin 2 (SB-2). The sampling is to be performed on a quarterly basis for analysis and the analytical data for all parameters shall be submitted to the Department within 60 days of the date the last well is sampled for each quarterly sampling event, which end on March 31. June 30, September 30, and December 31, respectively, along with a written evaluation of the sampling results. A surface water sample shall be collected from the outfall of SB-1 and SB-2 or, if no discharge is occurring, from the impounded water in the basin. Surface water sampling shall be scheduled as necessary during the quarter to acquire an appropriate sample from each basin's outfall or impounded water. Failure to collect a sample because the basin(s) is(are) dry at the time that groundwater sampling is being conducted during a calendar quarter shall be considered a violation of this condition unless the permittee can demonstrate that the basin(s) was(were) dry throughout the entire calendar quarter. In addition to the parameters listed on Form 19, each groundwater and surface

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

water monitoring point shall be sampled for Tritium as part of the annual water quality analyses, as a minimum. Sampling requirements for SB-1 and SB-2 shall become effective once each basin becomes operational.

22. The witness zone between the primary and secondary liner must be monitored on a weekly basis to determine the rate of flow, if any. These results must be submitted to the Southeast Regional Office.

23. A report on the sampling of the influent leachate for all parameters on Form 19 shall be presented in tabular form and on a graph, and shall be submitted to the Department quarterly and annually with the monitoring well data. The leachate shall be analyzed for Tritium during the same quarter that the water quality monitoring points are being analyzed for Tritium, per Condition 21 above.

24. All approved sources of residual waste and municipal waste requiring special handling are to be analyzed on an annual basis for parameters included in the approved Form U, Module 1, Form 35, Form 36, or Form 43 submissions.

25. All mixed loads of residual waste and municipal waste are to be managed as municipal waste in accordance with 25 Pa. Code 299.201(b).

26. The sump areas of all landfill cells shall be tested to determine the integrity of the sump areas prior to certification or start of waste disposal operations.

27. Removal or reuse of daily cover from a cell is prohibited, except as may be allowed pursuant to Condition No. 52(F) below.

28. Sediment Basins 1 and 2 must be constructed and operational prior to the commencement of disposal in their respective phase of the GROWS North Landfill construction schedule, which is incorporated into this permit by reference pursuant to Condition No. 1 above.

29. The capping of the landfill must follow the "Cap as you Go" practice. The construction sequence of the landfill must be followed closely, to ensure this practice and to minimize open areas waiting to be capped. Final cover shall be placed within one (1) year after disposal in the final lift ceases or pursuant to Condition 57 below, whichever occurs first. No more than 73 acres of disposal area may be open (not covered by final cover) at any time.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

30. Any substitution of an equivalent material or design, which is not approved by the Department in the permit application for the landfill construction or closure activities, shall be submitted to the Department for approval prior to its use.

31. Progress reports, including work performed, deviations from approved design and future work for construction, filling, and capping activities, shall be submitted to the Department on a weekly basis, unless another frequency is approved by the Department in writing.

32. This permit does not authorize the discharge of air emissions unless the Bureau of Air Quality has approved the discharge of those emissions.

33. Failure to obtain other necessary permits may result in the suspension or revocation of this solid waste permit.

Leachate Recirculation

34. Leachate Recirculation does not count as part of the storage volume required.

35. The facility is approved to construct and operate a leachate recirculation system to the extent authorized by 25 Pa. Code Section 273.274. The design, construction, and operation of the leachate recirculation system shall follow the approved leachate recirculation plan found in Forms 14 and 25 of the Phase II submittal for the GROWS North Landfill application, which is incorporated into this permit by reference pursuant to Condition No. 1 above. No alternate methods of leachate recirculation, should one be allowed under future regulatory revisions, may be implemented without prior written Department approval. This approval may require the submission of a permit modification application. While approved for recirculation under Pennsylvania regulations as outlined above, the permittee is advised to obtain concurrence from the U.S. Environmental Protection Agency (EPA) concerning the extent of compliance of the permittee's liner design with the U.S. EPA's composite liner requirements for leachate recirculation under 40 C.F.R. Chapter 258.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

36. The facility shall install a gas collection network to aid in the collection of gas in the recirculation zone. The design, construction, and operation of the gas collection network shall follow the approved gas collection system plan found in Forms G(B), K, 14 and 25 of the Phase II submittal for the GROWS North Landfill. A gas extraction system may be connected to the leachate recirculation system to enhance gas recovery during periods when recirculation operations are not being conducted.

37. The operator shall develop a program to monitor the impacts and effects of leachate recirculation. A monitoring program must be submitted to, and approved by, the Department prior to the commencement of recirculation. At a minimum, the monitoring program shall consist of the following:

A) Quarterly testing for the parameters listed on the Department's Form 50 of the leachate collected from the sumps in those cells in which leachate is being recirculated. (Sampling must initially be performed quarterly and sample results submitted to the Department. After four quarterly samples have been collected, requests to reduce sampling frequency may be made by the permittee. Any changes to the sampling frequency must be approved by the Department in writing);

B) Quantity of leachate re-circulated back into the landfill during the reporting quarter and recirculation flow rates during the reporting quarter;

C) Information on any treatment of solid and/or liquid waste (including leachate) conducted at the landfill prior to disposal or recirculation;

D) Intracell temperature (to be addressed in the monitoring program submittal – monitor gas well and leachate temperatures);

E) Data on the leachate pressure (head) on the liner;

F) Data on landfill settlement; and,

G) Information on the performance of the landfill cover; and observations, information, or studies made on the physical stability of the landfill.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

38.. Leachate recirculation application rates must take into consideration the hydraulic conductivity of the waste and the particular cover present, as well as waste compaction, surface grade, time of year, and weather conditions. Leachate application shall be at a low enough flow rate to achieve uniform distribution over the proposed recirculation area and must not exceed the holding capacity of the waste and cover soils so as to prevent ponding or runoff.

39. Recirculation practices shall prevent exposure of landfill employees and customers to leachate.

40. Leachate must be prevented from discharging from the landfill, and no leachate run-off or side seepage shall be allowed.

41. Leachate application shall not occur during periods where conditions that are not conducive to worker safety or proper implementation of the recirculation program are present. These conditions include: below freezing temperatures, extremely high temperature, or excessive precipitation.

42. As part of the recirculation program, the operator shall:

A) Insure proper operation and maintenance of the recirculation pump stations;

B) Monitor the horizontal and vertical distribution pipes for effectiveness and clogging; and

C) Monitor landfill gas quantity and composition from the cells where recirculation is practiced.

43. An annual assessment of the leachate recirculation system must be conducted to evaluate the system's performance and to determine if any adverse effects from the practice of recirculation have occurred. This is due as part of the annual operation report due on June 30 of each year (see Condition 8).

44. The leachate recirculation distribution system and monitoring devices shall be properly maintained and calibrated and shall be in proper operating condition at all times when recirculation is practiced.

45. As part of the daily log, the operator shall keep records of the amount of leachate recirculated, the locations of recirculation, and leachate sump flow and temperature data.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

46. The operator shall inspect the area in which leachate recirculation is being performed on a regular basis during the day. Leachate recirculation shall be terminated in the area immediately if one of the following should occur:

    A) Visible leachate seeps;

    B) Visible leachate flow into any storm-water structure;

    C) Visible oversaturated zone in the recireulation area;

    D) Unexpected settlement that could lead to damage to or malfunction of internal landfill components, including recirculation system components;

    E) Over saturation in the waste column;

    F) Unmanageable liquid accumulation within the gas collection well;

    G) Flow of greater than 10 gpad in the underlying leachate detection zone; or

    H) Any malfunction of equipment in the leachate sump house or pump station at the storage tanks that is associated with the implementation of this amended leachate management plan.

47. A) In the event that off-site odors or increased incidences of leachate seeps are confirmed by the Department, the permittee shall eease recirculation of leachate upon notification from the Department. Recirculation shall not recommence until the cause of the odor(s) or seep(s) has been determined and remediate to the satisfaction of the Department, or until the permittee can otherwise demonstrate to the satisfaction of the Department that leachate recirculation is not a causative or contributory factor in the generation of the odor(s) or seep(s).

    B) The "Leachate Seeps and Breakout Control Plan," included in the application, shall be incorporated into the facility 's leachate management plan and is incorporated into this permit. Leachate seep occurrences and repairs shall be reported to the Department at no less a frequency than bi-weekly (i.e. every two weeks) and recorded in the facility's daily operational record.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

Leachate Storage

48. Two (2) 1,600,000-gallon leachate storage tanks shall be utilized for on-site storage of leachate. Except for leachate being recirculated, leachate shall be discharged directly to the leachate force main, then to the GROWS Treatment Plant or as described in Condition 62.

49. A) Secondary containment, consistent with the requirements of 25 Pa. Code 285.122, shall be provided for each tank and/or tank farm.

B) All storm-water collected within the secondary containment area(s), shall be inspected. If there is evidence of leachate present within the containment area(s), storm-water shall be conveyed as required before it is discharged to the environment. If there is no evidence of leachate present in the secondary containment area(s), the storm-water shall be directed to an adjacent storm-water management channel. Standard erosion and sedimentation control measures shall be implemented to control run-off from the disturbed area during and after the construction of leachate storage facilities.

C) Vehicular transportation of leachate to an off-site (a site not within GROWS North Landfill permit area) treatment plant is not authorized pursuant to this permit. In the event that vehicular transportation of leachate becomes necessary due to an emergency circumstance, the permittee shall notify the Department in writing of its intent and basis for violating this condition and include the commencement date of the vehicular transportation of leachate, the specific conditions requiring the vehicular transportation of leachate, and the anticipated duration. Written notification shall be provided by the permittee within forty-eight (48) hours of the commencement of the emergency hauling of leachate. Written updates shall be provided every two weeks during the duration of vehicular transportation (when the event exceeds two weeks) and upon the cessation of vehicular transportation. These written updates shall include the total duration of the event as of the date of the update, the total amount of leachate transported as of the date of the update and the incremental amount of leachate transported since the previous written update, and the available storage capacity in gallons and percent of available storage.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

Waste Acceptance Plan

50. A) The Waste Acceptance Plan for disposal of municipal waste requiring special handling and residual waste is included in Form 14 of the permit application, as incorporated into this permit by reference pursuant to Condition 1.

I) The approved waste acceptance plan allows GROWS North Landfill to accept the following categories of residual waste and municipal waste requiring special handling:

a) Combustion Residues

(1) Coal-Derived Bottom Ash
(2) Coal-Derived Fly Ash
(3) Flue Gas Desulphurization Residue (FGD)
(4) Incinerator Bottom Ash
(5) Incinerator Fly Ash
(6) Incinerator Mixed Ash

b) Process Metallurgical Residues

(1) Foundry Sand
(2) Slag
(3) Refractory Material
(4) Grindings, Shavings
(5) Ferrous Bag-house Dust
(6) Non-Ferrous Bag-house Dust
(7) Ferrous Scrap, including Auto Recycle
(8) Non-Ferrous Scrap

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

c) Sludges Scales

(1) Water Treatment Sludge
(2) Industrial Wastewater Treatment Sludge, including Acid Mine Drainage Sludge
(3) Metallurgical Sludge
(4) Food Processing Sludge
(5) Paint, Coating Sludge, and Scale
(6) Tank Bottoms
(7) Still Bottoms
(8) Oily Sludge, Petroleum Derived
(9) Emission Control Sludge
(10) Lime/Cement Kiln Scale, Residue
(11) Lime-Stabilized Spent Pickle Liquor

d) Chemical Wastes

(1) Acidic Chemicals (pH 2-6)
(2) Basic Chemicals (pH 8-12.5)
(3) Combustible Chemicals (flash point greater than I4O"F)
(4) Chemical Salts
(5) Carbon Residues (e.g., Discoloring, Filtering)
(6) Surface Coatings (e.g., Solid, Semi-Solid Paints, Polishes, Adhesives, and Inks)
(7) Filter Aids (e.g., Diatomaceous Earth, etc.)
(8) Filter Media
(9) Spent Dyes
(10) Detergents, Cleaning Agents
(11) Off-Specifications Products, Intermediates
(12) Pharmaceutical Wastes

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

e) Generic, Manufacturing, or Production Wastes

(1) Leather Wastes
(2) Rubber, Elastomer Wastes
(3) Wood Wastes (including Panicle Board. Sawdust, and Shavings)
(4) Paper and Cardboard Wastes
(5) Textile Wastes (including Yarn, Fabric, Fiber, and Elastic)
(6) Glass Wastes excluding Industrial Refractory Material
(7) Polyethylene, Polystyrene, Polyurethane, and Other Non-Halogenated Plastics
(8) Glass Reinforced Plastics
(9) Halogenated Plastics (PVC, Teflon, and CPB)
(10) Electronic Component Wastes (Off-Spec Semi Conductors, and Circuit Boards)
(11) Agricultural Wastes (Fertilizers, Pesticides, and Feed Supplements)
(12) Photographic Wastes (Film and Photographic Paper)
(13) Asphalt (Bituminous)
(14) Ceramic Wastes
(15) Linoleum Wastes
(16) Thermal Insulation Waste (cellulose, glass, and wool)
(17) Wiring. Conduit, and Electrical Insulation

f) Special Handling Residues

(1) Asbestos-Containing Waste (Insulation and Brake Lining)
(2) PCB–Containing Waste (less than 50 PPM)
(3) Oil-Contaminated Waste (Soils, Spent Absorbent, and Oily Rags)
(4) Paints (solidified)
(5) Spent Catalysts
(6) Spill Residues
(7) Virgin Petroleum Fuel-Contaminated Soil and Debris
(8) Waste Tires

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

g) Industrial Equipment Scrap

(1) Pumping, Piping, Vessels, Instruments, and Storage Tanks
(2) Scrap Materials from Maintenance, Product Turnaround

h) Municipal Sewage Sludge (stabilized or digested)

i) Infectious Waste Incinerator Ash

j) Sterilized Infectious and Chemotherapeutic Waste

k) Incinerator Ash From Captive Incinerators

l) Incinerator Ash From Commercial Resource Recovery Incinerators

m) Friable Asbestos Demolition Waste

n) Non Mining Coal Residues

o) Residual Wastes with Chemical Analysis Waived

(1) Animal Droppings (Manure)
(2) Cured Asphalt (Solidified)
(3) Carpet or Fabric Scraps (Yarn, Fiber, and Elastic)
(4) Ceramic Insulation Waste
(5) Cured Resin Waste
(6) Dead Animals (Non-Experimental)
(7) Empty Containers
(8) Empty (Dried) Commercial Paint Cans
(9) Fencing (Chain-Link and Barbed)
(10) Incandescent Light Tubes/Bulbs
(11) Foam Type Wastes (Rigid Plastic Foam, Expanded Polystyrene Foam, and Polyurethane)
(12) Food Waste

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

(13) Fresh Air Intake Filters
(14) Gaskets - Unused (Rubber and Cork)
(15) Glass Reinforces Plastics (Fiberglass)
(16) Glass Waste
(17) Halogenated Plastics (PVC, CPE, and Teflon)
(18) Labels/Packaging Waste
(19) Leather Scraps
(20) Linoleum Waste
(21) Metal Scrap
(22) Non-Halogenated Plastics
(23) Nylon Materials
(24) Oil Filters, Used (Hot Drained and Non–Terne Plated)
(25) Packing/Shipping Material
(26) Paper and Cardboard Waste
(27) Personal Protective Equipment Waste
(28) Unused Piping Waste
(29) Cured Rubber, Elastomer Waste
(30) Screen Waste
(31) Shingle Scrap
(32) Thermal Insulation Waste (Cellulose, Glass, and Wool)
(33) Wire and Wire Scrap (Conduit and Electrical Insulation)
(34) Non-Treated Wood Waste

p) Stabilized Wastes (soil, sludge, sandblast, and debris)

q) Landfill Leachate Treatment Sludge

r) Paint Filters

s) Sandblast Material and/or Shot or Black Beauty Waste

t) Municipal/Residual Waste Landfill and Transfer Station Leachate to be Deposited at the Head Of the Treatment Plant, not in the Landfill

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

u) Water Softener Resins

v) Quench Scale

w) Filter Sand

x) Wire Drawing Compound

y) RCRA Empty Containers/Raw Material Bags/Storage Tanks

z) Car/Truck Wash-water Grit/Sludge

aa) Grinding Wheels

bb) Animal Bedding and/or Research Animals

cc) Laboratory Waste

dd) Sterilized Laboratory Waste

ee) Non–Asbestos Brake Linings

ff) Pollution Control – Bag-house Dusts, Flue Dusts, etc.

gg) Dredge Material

hh) Railroad Ties/Treated Lumber

ii) Contaminated Soils/Site Clean-up

jj) Inorganic Ore and Raw Product Wastes

kk) Acid Neutralization Sludge

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

ll) Resin Waste

mm) Soil Washing Material

nn) Thermally Treated Soil

oo) Bio Remediated Soil

pp) Industrial Demolition Waste

qq) Fluorescent Light Tubes/Bulbs (Hg analysis only)

rr) Cathode Ray Tubes

ss) Auto Shredder Fluff

tt) Mill Scale Waste

uu) Non–Mining Coal Residue

II) The maximum total concentrations for non-TCLP organics in residual waste, municipal waste, and municipal waste requiring special handling are not to exceed the following limits: 2,500 ppm for aromatic halogenated hydrocarbons; 5,000 ppm for aliphatic halogenated hydrocarbons; 10,000 ppm for aromatic hydrocarbons; and 50,000 ppm for volatile and semi-volatile organics.

III) For acceptance of virgin petroleum contaminated soil and debris, Form U is to be substituted for Form FC-1 if the TPH concentration exceeds ten (10) percent. See also 50(E)(V1) for acceptance procedures for TPH concentrations less than ten (10) percent.

IV) The permittee shall not accept any residual waste or municipal waste requiring special handling whose chemical constituents are not included or are in excess of the maximum acceptance concentrations as delineated in the waste analysis and classification plan, unless a major permit modification is submitted and approved by the Department. Any

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

new waste request not approved in this plan must be submitted as a major permit modification.

V) The permittee shall not accept, receive, dump, discharge, process, or dispose hazardous waste as defined in 25 Pa. Code Chapter 261a or 40 C.F.R. Part 261.

VI) All residual and municipal waste requiring special handling from new generators must be consistent with the requirements stated in the waste analysis and classification plan incorporated by reference pursuant to Condition 1.

VII) The permittee must submit a waste disposal request and source reduction strategy from each individual large quantity residual waste generator. The permittee must submit a waste disposal request from each individual generator of municipal waste requiring special handling. Proof of submission to the Department would be dated certified mail return receipt cards, signed, dated, acceptance receipts for hand-de livered requests, or signed, dated receipt from overnight mail/federal express deliveries. The wastes indicated on Forms U, 35, 36, or 43 may be accepted for disposal by the permittee after fifteen (15) days or pursuant to an electronic Form U submittal process developed by the Department. If, at anytime, after the applicable fifteen (15) day period it is determined by the Department that the waste accepted is not consistent with the waste analysis and classification plan or the design of the landfill, or waste reduction strategy, the permittee shall be notified and acceptance of this waste may be prohibited until deficiencies have been correct ed. The permittee may be subject to any and all applicable enforcement action to the Solid Waste Management Act and the Rules and Regulations promulgated there under, if waste is accepted not consistent with the waste analysis and classification plan. This sub-condition is not applicable to those Residual Wastes with Chemical Analysis Waived as listed in Condition No. 50(A)(I)(o).

VIII) All submissions covered by Condition No. 50(A)(VII) must be sent to the host municipality and the host county at the same time they are submitted to the Department, unless the host municipality/county specifically notifies both the permittee and the Department, in writing that they do not wish to receive the submissions and affirmatively waives their right to receive the submissions. An alternative submittal or notification process for the individual disposal request submittal process that is acceptable to the host

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

municipality/county may be substituted, upon written notification to the Department, in the event the municipality/county does not wish to completely waive their rights under this subcondition.

IX) The permittee shall submit, to the Department ' s Southeast Regional Office, an amended appendix to the permit that lists all residual waste and municipal waste requiring special handling accepted for disposal at the facility. This amended appendix shall be submitted quarterly by April 20, July 20, October 20, and January 20. This amended appendix shall include the information by generator, including the waste type, approved quantity, quantity accepted, generator identification number, and the identification number for each Form U, Form 35, Form 36, and Form 43 for all waste accepted at the landfill during the quarter covered by the report. The appendix must include the anniversary acceptance date for each generator of residual waste and municipal waste requiring special handling.

X) Form 26R, the annual analysis report and annual analysis data from generators of municipal waste requiring special handling (Forms 35, 36, and 43) is to be kept on file for each waste generator at the landfill site. This is due at GROWS North Landfill from the generator one (1) year after the Department receives the Form U, Form 35, Form 36, or Form 43 submissions. For small quantity residual waste generators, analysis data and/or certification pertaining to hazardous waste determination criteria is to be kept on file. The waste cannot continue being accepted if the landfill does not have an annual submission of Form 26R or annual analytic al data from generators of municipal waste requiring special handling on file.

XI) No more than 25 percent by weight of the total amount of waste accepted per day for disposal at the landfill site can be municipal sewage sludge. This must be documented in the quarterly appendix to the permit.

XII) Any new large quantity generator of Residual Wastes with Chemical Analysis Waived as listed in Condition No. 50(A}(I)(o) that proposes to use the Landfill must submit Forms U and 25R to the landfill.

XIII) The landfill must keep certification documents from all small quantity generators on file indicating that their waste streams are not hazardous.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

XIV) The landfill' s annual report, submitted by June 30 of each year, must include documentation that the analysis or certification required under Section 273.313 for chemical analysis of waste for each waste stream from each individual generator utilizing the landfill for disposal is on file.

XV) All Forms U, 35, 36, 43, and FC-1 documents must be kept on file and each assigned a sequential identification number which is to be recorded on all forms submitted to the Department.

XVI) Hazardous waste, as defined under 25 Pa. Code 261a, may not be accepted at the facility for disposal. Any residual waste generator whose analysis reaches 85 percent of the hazardous waste limit shall provide additional analysis and documentation to justify that the waste is below the hazardous waste limit.

XVII) No residual waste is to be accepted from any facility bulking/mixing different categories of residual (Form U) waste, unless such facility is permitted by the Department for this purpose.

XVIII) Form U's from individual generators of friable asbestos waste do not have to be submitted.

XIX) New sources of incinerator residue from resource recovery incinerators shall be tested in accordance with the following procedure. The analysis data shall be submitted to the Southeast Regional Office. Analyses data generated by resource recovery incineration permit requirements can be submitted to comply with Conditions No. 50(A)(XIX)(a), (b), (c) and (d).

a) A grab sample of resource recovery incinerator residue is to be taken from each incoming load of ash residue to be tested for pH. All of this sampling data shall be submitted with the data from the composite sampling below.

b) For a minimum of the first eight (8) weeks of incinerator operation, testing shall be done on a weekly composite sample comprised of at a minimum daily grab sample.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

Each grab sample shall be tested for pH. The weekly composite sample shall be tested for pH, lead, chromium, and cadmium. Also, for the initial sampling period, an analysis for all Form 41 parameters shall be run on each fourth week composite sample. All data from this sampling period shall be submitted to the Department at the conclusion of the eight (8)-week periods.

c) Upon receiving written approval from the Department, testing shall be done on monthly analyses for all Form 41 parameters and reserve alkalinity for a minimum of six (6) months. The monthly composite sample is comprised of a minimum of one (1) random grab sample from each day of operation. All grab samples shall be of an equal amount. Data from this sampling period is to be submitted to the Department on a monthly basis.

d) Upon receiving written approval from the Department, testing shall be done on a quarterly basis for all Form 41 parameters and reserve alkalinity. The quarterly composite sample is comprised of weekly random grab samples. All grab samples shall be of an equal amount. Data from this sampling is to be submitted to the Department on a quarterly basis.

B) Infectious and chemotherapeutic incinerator ash must contain less than five (5) percent volatile solids. Incinerator ash from other sources has no volatile solids limit.

C) Wastes for quantity increase requests for previously approved waste streams from specific generators may be accepted for disposal immediately. Each request must include the most recent generator's annual report and analytical data for submissions more than twelve (12) months old.

D) RCRA empty containers can be accepted as Residual Wastes with Chemical Analysis Waived.

E) I) All solid wastes excluded under 25 Pa. Code 261a.4(b) and 40 C.F.R. 261.4(b) may be accepted for disposal except for waste categories listed under Sections 261.4(a)(4), (6), (8), (10), (18). and (20). The unacceptable waste will read as follows:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

a) Source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954.

b) Household hazardous waste collected by a collection contractor under Section 1512 of Act 101.

c) Coal refuse as defined in the Coal Refuse Disposal Control Act.

d) Treatment sludges from coal mine drainage treatment facilities.

e) Pulping liquors (black liquor) that are reclaimed in a pulping liquor furnace and then are-used in the pulping process.

f) Spent sulfuric acid used to produce virgin sulfuric acid.

II) Corrosively and Ignitability, as defined in 40 C.F.R. 261.21 and 261.22, will replace pH and flashpoint, respectively, as acceptance criteria for disposal.

III) If a specific waste stream has been found to be consistent based on twenty-five (25) standard fingerprint analyses, then the frequency can be reduced to one (1) standard fingerprint analysis per day for each specific waste stream from a specific generator.

IV) Sampling frequencies for oil contaminated waste, contaminated soils, site cleanup waste, oil washing material, thermally treated soil, and bioremediated soil must satisfy the requirements of SW-846 (or equivalent). If the sampling frequency does not meet the requirements of SW-846 (or equivalent), then the sampling frequency must be at least one (1) sample per 500 cubic yards.

V) All municipal sewage sludges must be digested or stabilized.

VI) A Form FC–I is to be submitted for virgin petroleum contaminated soil and debris containing from one (1) percent up to ten (10) percent total petroleum hydrocarbons. A Form U is to be submitted for virgin petroleum contaminated soil and debris containing greater than ten (10) percent total petroleum hydrocarbons. For virgin petroleum

contaminated soil and debris of containing less than one (1) percent total petroleum hydrocarbons, the facility is permitted to accept the waste without written approval from the Department pursuant to and consistent with the provisions of Appendix V of the Waste Acceptance Plan.

F) Only those waste types and volumes, and only for those generators, listed on the Generator List that was received on November 8, 2007, and revised on November 14, 2007, and which is incorporated into this permit pursuant to Condition No. 1, shall be considered as pre-approved for waste acceptance and disposal at GROWS North Landfill. All other generators, and all other waste types or volumes for those generators that are pre-approved pursuant to this sub-condition 50F, shall be accepted at the facility pursuant to Condition 50A-E, above. No generators with a waste stream containing radioactive material that requires approval by, or approval in consultation with, the Department's Bureau of Radiation Protection may be accepted at this landfill unless a specific, written approval is received pursuant to Conditions 50A-E (i.e., no such generators or waste streams are pre-approved pursuant to this sub-condition, 50F.

GAS MANAGEMENT SYSTEM

51. The permittee shall install and operate its Gas Management Plan for the facility as an active gas management system in accordance with the plans and designs contained in the application incorporated by. Additional wells may be installed, if warranted by site conditions, subject to Departmental approval via either the construction certification or permit modification process, the choice of which is at the Department's discretion.

A) Provision for the direct sale of landfill gas to PECO Energy (PECO), or its successor, issued on January 9, 1998, for GROWS and TRRF Landfills is permitted for the management gas from GROWS North Landfill. PECO will utilize the landfill gas at their boilers at the US Steel facility subject to the following sub-conditions:

I) GROWS North Landfill, may implement the "Amended and Restated Landfill Gas Agreement" between PECO and Waste Management Disposal Services of PA, Inc., as part of the facility's landfill gas management plan. The permittee may not implement changes

to the agreement that result in modifications to the landfill gas management design or system without Department's prior approval. The Department reserves the right to determine if the changes constitute a major modification to the landfill gas management plan.

II) The landfill gas flare system located at the GROWS North Landfill may be used only for emergency situations as described in the applications or as maybe authorized by applicable air permits.

B) Alternate gas well boots may be utilized in order to account for settlement around the wells. The alternate gas welt boots must be closely monitored for the first two (2) years for failure due to landfill settlement. Monthly inspection reports on the alternate gas well boots must be maintained on-site in accordance with air and waste permit requirements. The permittee shall perform the necessary correction procedures to maintain a riser cap height of less than six (6) feet as measured from the final cover near the well.

ADCM

52. The following Conditions A through F apply to all approved Alternate Daily Cover Material (ADCM) at the facility, in addition to the specific sub-conditions provided in G through L:

A) All stormwater runoff from ADCM applied at the working face or from ADMC stockpiles must be managed as leachate, unless otherwise approved in writing by the Department. Stormwater runoff from uncontaminated soil from non-specific borrows area and clay loam soils applied as daily cover do not have to be managed as leachate.

B) No ADCM is to be utilized on a side slope, unless runoff from the ADCM is directed into the leachate collection system. Uncontaminated soils from non-specific off-site borrow areas and clay loam soils can be placed on side slopes without directing runoff into the leachate collection system.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

C) The Department is to be notified one (1) week prior to making any changes in types of ADCM utilized at the site.

D) All processed or unprocessed materials consisting of solid waste(s) utilized as ADCM under approvals granted in this permit or subsequent modifications, are wastes and not recyclable materials, and count towards the average daily volume (ADV) of the facility. The wastes are subject to the host municipality benefit fee(s) of Act 101. Waste approved as ADCM is limited to only the amount of waste that is actually used as daily cover.

E) All categories of ADCM approved under Condition 52 of this permit are to be utilized as daily cover only, unless otherwise indicated.

F) ADCM is not to be removed from the previous day' s working face or cell prior to starting operations the following day, or reused, except for the approved use of tarps as ADCM or to cut windows within the ADCM to promote vertical drainage. In the latter case, the windows may be cut prior to the placement of waste that day by scraping with a bulldozer and mixing the scraped cover material into the first loads of waste being placed that day. In no case shall the scraped cover material be stockpiled or reused. While this practice is intended to-enhance leachate and gas collection, should it contribute to or promote nuisances or other operational concerns, the permittee shall cease the practice upon written notice from the Department for the period or duration contained in that notice.

G) The following ADCM previously approved for use at GROWS and TRRF Landfills is approved for use at GROWS North Landfill and is subject to the following sub-conditions:

I) Municipal incinerator ash is approved for use as an ADCM, subject to the following restrictions:

a) pH of the ash must be less than 12.5 standard units.

b) Moisture content must be within the range of 10 to 30 percent.

c) Ash for use as an ADCM must originate from generators with functioning metal recovery operations and shall not contain large metal pieces.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

d) The thickness of the ash layer applied as ADCM must be sufficient to provide adequate coverage of waste to meet the daily cover performance standards, but shall be no more than six (6) inches in depth. Where a six (6)-inch depth is not sufficient to provide adequate coverage, better waste compaction shall be practiced or other approved daily cover materials shall be utilized in place of ash.

e) Storage of ash shall be within the working area such that any runoff from the ash shall be contained within the landfill' s leachate collection system.

f) Testing of incoming ash, whether for disposal or use as an ADCM, shall comply with approved waste acceptance procedures as contained in this permit.

g) This approval is restricted to municipal incinerator ash. The permittee shall provide written notification to the Department of the generator(s) ash being utilized as ADCM. Said notification shall be provided prior to the use of the ash as an ADCM.

II) The following materials have received previous approvals (approving region noted in parentheses) for use as ADCM, and are included on the statewide-approved equivalency list. Based upon the Department's Policy and Procedure for Municipal Waste Facility Equivalency Approvals, the permittee is authorized to utilize these materials, subject to the terms and conditions of their individual approvals, at the GROWS North Landfill. Failure of any of these materials to perform satisfactorily at the GROWS North Landfill, or failure of the permittee to comply with the terms and conditions upon which the original reviewing region based its approval, shall be grounds for revocation of the approval herein granted:

a) Municipal sewage sludge treated with limekiln or cement kiln dust in accordance with the VFL Technology process (SERO).

b) Pasteurized municipal sewage sludge using a lime additive in accordance with the Bio-Gro/Bio-Fix sludge process (SERO).

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

c) Mixture of lime and dewatered sewage sludge cake in accordance with the RDP sludge stabilization process (SERO).

d) Sludge Derived Synthetic Soils comprised of municipal sewage sludges stabilized by a method approved by the Department, which meets the EPA "Process to Further Reduce Pathogens" (NWRO).

e) Fly ash conditioned with cement kiln dust (SERO).

f) Recycled paper deinking sludge (SCRO), subject to the further requirements of Condition 52(I).

g) USDA clay loam soil texture classification (NWRO).

h) Coal Ash, as subject to waste placement within 24 hours (NWRO) and as subject to the following sub-conditions:

i) The testing of incoming ash, whether for disposal or use as ADCM, shall comply with approved waste acceptance procedures and the Form U approved by the Department for that source of coal ash;

ii) Coal ash is not to be utilized as ADCM under adverse weather conditions, including periods of rain, snow or excessive wind;

iii) Coal ash is to be used as ADCM only when it is covered by additional solid waste the next day;

iv) Storage of coal ash shall be within the working area, including the establishment of a berm, such that any runoff from coal ash storage is contained within the landfill's leachate collection system;

v) If, at any time, the coal ash presents a problem related to erosion, dust off-site tracking or traffic ability, its use as ADCM shall be discontinued until such time as the problem(s) are resolved to the satisfaction of the Department;

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

vi) Coal ash approved for use as ADCM shall be analyzed quarterly or when the coal ash source is changed, whichever occurs first, using the chemical parameters contained in the Bureau of Mining and Reclamation Module 25. The Department will consider a reduction in analytical frequency to once annually if, after a minimum of four quarterly analyses, the coal ash demonstrates no significant differences in the analysis of variance (ANOVA) of the total concentrations (mg/kg) for each of the Module 25 metals analyzed, including boron and sodium, and the coal ash's pH shows no significant variances;

vii) Coal ash produced at the U.S. Gen New England, Inc. Brayton Point Station, Somerset, Massachusetts, is approved for use as ADCM conditioned upon continued compliance with this sub-condition. New sources may be approved by the Department in writing based upon sufficient demonstration by the Permittee that the physical and chemical properties of the coal ash from the new source is suitable for both (1) disposal at this landfill and (2) use as ADCM consistent with this sub-condition.

i) Sanifoam (SERO).

j) RUSMAR AC–6454 Long Duration Foam (SWRO).

k) 3ML-9791 Foam (SWRO).

III) Municipal sewage sludges utilized as a component of an ADCM are wastes disposed at the facility and must be included in calculations, determining compliance with the total amount of sewage sludge disposed of at the facility, as required by Condition 50(A)(XI).

H) GROWS North Landfill is permitted for utilization of processed construction and demolition waste, Cormier WP·1440FR geomembrane tarp, and Integra 12FR geomembrane tarp as ADCM subject to the following sub–conditions:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

I) This approval is limited to the following materials that have received separate approvals (approving region noted in parentheses) for use as ADCMs and are included on the statewide approved equivalency list. Based upon the Department' s Policy and Procedure for Municipal Waste Facility Equivalency Approvals, the permittee is authorized to utilize these materials, subject to the terms and conditions of their individual approvals, at the GROWS North Landfill. Failure of any of these materials to perform satisfactorily at the GROWS North Landfill, or failure of the permittee to comply with the terms and conditions upon which the original reviewing region based its approval, shall be grounds for revocation of the approval herein granted. The permittee shall obtain, and keep available at the site for Departmental review, copies of the applicable permit approvals from the original issuing region. The permittee is responsible for demonstrating compliance with the terms and conditions of the original approval for each of the ADCMs listed below:

a) Processed Construction and Demolition (C&D) Material (NWRO). The source of processed C&D material approved in this permit modification will be the STAR ADC materials (sized at two (2) inch minus material) produced at STAR's Vorick II facility in Brooklyn, NY; Recovermat, Waste Management of New Jersey, Inc., Amboy Facility; Karta Industries, Inc., in Peekskill, New York; the Gun Hill Facility located at 620-636 Truxton Street, Bronx, New York; the Mercer Group International of New Jersey Material Recovery Facility, Mercer County, New Jersey; and the Eagle Recycling of New Jersey Materials Recycling Facility, Hudson County, New Jersey.

b) Cormier WP-1440 FR Geomembrane Tarp (SCRO).

c) Integra 12 FR Geomembrane Tarp (SCRO).

II) Areas upon which processed C&D material has been used must be covered with either conventional daily cover (soil) or additional waste within seven (7) days.

III) Areas upon which the geomembrane tarps have been used, a six (6)-inch soil cover meeting the requirements of 25 Pa. Code Section 273.232(c) shall be applied by the permittee whenever the working face is idle for more than forty-eight (48) hours.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

IV) Storage or stockpiling of any approved processed C&D alternate daily cover, as approved by this permit modification, shall not occur off the lined area of the landfill without obtaining written Department approval. In addition, the stockpile areas must have appropriate erosion and sedimentation controls in place before stockpiling is initiated.

V) If Department inspections indicate an alternate daily cover approved by this permit modification is not meeting the daily cover performance standards specified in 25 Pa. Code Section 273.232, the permittee must:

a) Upon notification by the Department, immediately cease the use of the alternate daily cover. Notification can be in the form of an inspection report.

b) Submit a report to the Department which explains why the alternate cover material is not meeting the applicable performance standards, and what steps will be implemented to improve the quality of the alternate daily cover and prevent non-compliance with 25 Pa. Code Section 273.232.

Under the above circumstances, the alternate daily cover may not be utilized until the Department is satisfied that the continued use of the alternate daily cover will not result in non-compliance with 25 Pa. Code Section 273.232. In the event the alternate daily cover cannot meet the required performance standards, the Department reserves the right to revoke approval.

VI) Each source of the processed construction and demolition material must be pre-approved in writing by the Department.

VII) Testing of incoming C&D materials, whether for disposal or use as an ADCM, shall comply with approved waste acceptance procedures.

VIII) The thickness of processed C&D layer applied as ADCM must be sufficient to provide adequate coverage of waste to meet the daily cover performance standards, and shall be between six (6) to twelve (12) inches in depth. Where a twelve (12)-inch depth is not

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

sufficient to provide adequate coverage, better waste compaction shall be practiced or other approved daily cover materials shall be utilized in place of processed C&D.

I) The approval to use recycled paper deinking sludge (RPDS) as an alternative daily cover material is granted under Condition 52(G) and is subject to the following:

I) Approval for use of RPDS as alternate daily cover is limited to the RPDS generated by Hagerstown Fiber Limited and Marcal Paper Mills, Inc. (KAOFIN), at this time. Other sources of RPDS may not be used as alternate daily cover without first obtaining written approval from the Department.

II) If the Department determines, upon inspect ion that the RPDS is not meeting the daily cover performance standards specified in Section 273.232(b), the permittee must:

a) Upon notification from the Department, immediately cease the use of RPDS as landfill alternate daily cover. Notification can be in the form of an inspection report.

b) Submit to the Department a report, which explains why the RPDS is not adequately meeting the performance standard(s), as well as what steps will be taken to improve the quality of the alternate daily cover and prevent noncompliance with Section 273.232(b).

Under the above circumstances, the RPDS may not be utilized until the Department is satisfied that the continued use of RPDS will not result in non-compliance with Sect ion 273.232(b). In the event the alternate daily cover cannot meet the required performance standards, the Department reserves the right to revoke approval.

III) A five (5)-day supply of daily cover soil material shall also be maintained on the site as required by Section 273.232(d), in the event that the RPDS does not comply with the performance standards as outlined in Condition 52(I)(II) above.

IV) RPDS may not be applied as alternate daily cover within forty (40) linear feet of an exterior side slope. If in the judgment of the Department, the RPDS is determined to be a

causative agent in the generation of leachate seeps, the Department may suspend the use of RPDS as landfill daily cover.

V) The RPDS material l should be dewatered to thirty-five (35) percent to sixty (60) percent solids contents. The permittee must verify the solids content of incoming RPDS.

VI) RPDS may not be stored/stockpiled at the landfill for greater than twenty- four (24) hours; i.e., this material is intended to be utilized for daily cover purpose as it is generated on a daily basis. All RPDS must be stored/stockpiled on the lined landfill area.

J) GROWS North Landfill is permitted for the use of Propat (patented processed Auto Shred Material produced by Prolerized Schiabo Neu Company) and Fairo Cover (shredded auto fluff produced by Fairless Iron and Metal, LLC) as an ADCM subject to the following sub-conditions:

I) This approval is limited to the Propat material produced by Prolerized Schiabo Neu Company and Fairo Cover produced by Fairless Iron and Metal, LLC. Failure of either of these products to perform satisfactorily at the GROWS North Landfill, or failure of the permittee to comply with the terms and conditions upon which the original issuing region based its approval, shall be grounds for revocation of the approval here in granted.

II) The ADCM as received must have a moisture content, and contain cementitious material, as described in the manufacturer 's process information, sufficient at all times to allow the material to meet the daily cover performance standards, but at no time shall the moisture content be below fifteen (15) percent.

III) The ADCM as received must be shredded to particle size no greater than two (2) inches.

IV) Prior to utilizing the ADCM, the permittee shall obtain, and keep available at the site for Department review, copies of the applicable permit approvals from the original issuing region. The permittee is responsible for demonstrating compliance with the terms and conditions of the original approval of the ADCM.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

V) Areas upon which the material has been used as an ADCM must be covered with either conventional daily cover (soil) or additional waste within seven (7) days. The material may also be used as an ADCM on the leading edge of the fluff lift layer of waste in newly constructed cells. The ADCM is considered waste received and disposed.

VI) The storm water from this ADCM shall be treated as leachate and be diverted into the landfill' s leachate collection system.

K) GROWS North Landfill is permitted for the use of Posi-Shell as an ADCM subject to the following sub-conditions:

I) This approval is limited to the Posi-Shell material that received approval as an ADCM and is listed on the statewide approved equivalency list. Based upon the Department's Policy and Procedure for Municipal Waste Facility Equivalency Approvals, the permittee is authorized to utilize this product, subject to the terms and conditions of its original approval, at GROWS North Landfill. Failure of this product to perform satisfactorily at GROWS North Landfill or failure of the permittee to comply with the terms and conditions upon which the original issuing region based its approval shall be grounds for revocation of the approval herein granted.

II) Areas where Posi-Shell has been used must be broken up (cracked) before additional waste is placed on top.

III) Posi-Shell may not be used as an alternate daily cover in the following areas:

a) Each partial lift for which the operator intends to place no additional waste for three (3) days.

b) Each partial or completed lift that represents final permitted elevations for that part of the facility.

L) GROWS North Landfill is permitted for the use of Non-Petroleum Contaminated Soil as an ADCM subject to the following sub–conditions:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

I) This approval is limited to the Non-Petroleum Contaminated Soil that received approval as an ADCM from the South Central Regional Office and is listed on the statewide approval equivalency list. Based upon the Department's policy and procedure for municipal waste facility equivalency approvals, this ADCM may be approved via a minor modification for use at GROWS North Landfill. Failure of this material to perform satisfactorily at GROWS North Landfill or failure of the permittee to comply with the terms and conditions upon which the original issuing region based its approval shall be grounds for revocation of the approval herein granted.

II) All ADCM that does not meet the Department' s current Management of Fill policy must be managed and stored on a lined area of the landfill.

III) Soil contaminated with residual waste listed in Attachment I qualifies for use as daily cover, under the following conditions:

a) The primary source of soil contamination is approved for disposal in accordance with the facility's Form R, Waste Analysis and Classification Plan, approval criteria.

b) It can be demonstrated that the soil meets the performance standards and design requirements of Section 273.232 of the Solid Waste Regulations.

c) ADCM consists primarily of soil, meeting the approximate maximum percentage of contaminants listed on Attachment I. Percentage may be calculated if actual quantities are known, or estimated using any available data.

IV) In addition to the residual waste contaminated soils listed in Attachment I, soils containing approximately twenty-five (25) percent or less of Construction and Demolition Waste may be used as daily cover, provided that the daily cover is composed of materials that are primarily six (6) inches in diameter or smaller.

V) All Non-Petroleum Contaminated Soil used as an ADCM is a waste and not a recyclable material, and counts towards the average daily volume (ADV) of the facility. This waste is subject to the host municipality benefit fee(s) of Act 101.

VI) The storm water from this ADCM shall be treated as leachate and be diverted into the landfill's leachate collection system.

NON-SITE SPECIFIC OFF SITE SOURCES SOIL AND AGGREGATE MATERIAL

53. The facility is permitted to use aggregate material with a maximum particle size of 1.5 inches as part of the protective cover layer over the primary landfill liner.

54. The facility is permitted to utilize non-site specific off site sources of soil for construction material and cover material subject to the following sub-conditions:

A) For the use of dredged material, chemical analysis data of the dredged material must be submitted to the Department for approval in accordance with sampling protocol outlined below for each dredge disposal area, or replenished dredge disposal area, at least thirty (30) days prior to excavation:

I) Dredge Sampling Protocol:

Procedures:

- The dredge deposits will be subdivided into 50,000 cubic yard sections.
- For all inorganic parameters: One composite sample will be collected from each 50,000 cubic yard section. Each composite sample will be taken from five (5) locations within each 50,000 cubic yard section.
- For Volatile Organics Compounds (VOCs): Each of the 50,000 cubic yard section (identified above) will be screened with a Photo Ionization Detector (PID). The material will be extracted from ground surface to the total depth of dredge pile using a hand auger or other method acceptable to the Department. Once extracted, the materials will be scanned with a photoionization detector (PID) at one-foot intervals. Field screening will be performed at a location shielded from the wind, and away from gas tanks, or gas-powered equipment. One sample discrete location will be selected and a sample will be

collected from each 50,000 cubic yard section. The sample interval with the highest PID reading will be collected for analysis. If the materials are all non-detect (i.e., do not exceed background PID readings), a minimum of one sample for the 50,000 cubic yard section will be collected.

Laboratory Analysis:

Samples that are collected according to the above sampling procedure shall be analyzed for the following parameters:

- Volatile Organics (EPA Method 8260B),
- Total Metals & TCLP: AG, AS, Ba, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Zn.
- Pesticides (EPA Method 8081A/8082) plus Lindane, Methoxychlor
- Total Petroleum Hydrocarbons (TPH),
- Cyanide,
- Sulfide,
- pH
- Total PCBs (Method 608 GC/ECD), PCBs, 209 congeners (Method 1668A GC/ECD)
- Radioactivity: Radium 226 (EPA 903.1), Gross Alpha (EPA 900.0), Gross Beta (EPA 900.0), Radium 228 (EPA RA-05), Radium Total (EPA RA-05)

B) For the use of dredged material, Physical Test Data of the dredged material consisting of one (l) composite sample in accordance with the sampling protocol outlined in the EPA SW846 Manual for every 10,000 yards of dredge material demonstrating that the dredged material will satisfy the performance standards of the Department thirty (30) days prior to excavation of any dredge disposal site or replenished dredge disposal site.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

C) Unless dewasted pursuant to Chapter 287.7 or otherwise determined by the Department not to be a waste (based upon the data provided pursuant to Conditions 54(A) and 54(B) above), dredged material is regulated as residual waste, is not a recyclable material, and counts towards the daily volume of the facility. These wastes are subject to the host municipality benefit fee(s) of Act 101.

Unless determined by the Department not to be a waste, use of dredged material pursuant to this condition (54) is limited to alternative daily or intermediate cover uses, or structural fill uses located within lined areas of the landfill, subject to the acceptability of the physical and chemical analyses required in Conditions 54(A) and 54(B). If determined not to be a waste, use of dredge material shall be consistent with the dewasting determination.

D) Uncontaminated soil material other than dredge material from non-site specific off site sources (soil material that meets clean fill requirements) shall have no use restriction at the landfill other than the requirements listed below, provided that the material is not placed in or on waters of the Commonwealth.

I) Uncontaminated soil may be used as a source of daily, intermediate and final cover soils as well as structural fill and subgrade fill based on the chemical and physical suitability of the soils for each designated purpose.

II) Uncontaminated soil is further subject to the approved Quality Assurance Program and Testing Protocol for Non-Synthetic Material of Form J. Use of uncontaminated soil from non-site specific off site sources pursuant to this condition shall be adequately described in accordance with Chapter 273.117(a)(2) and (b).

III) Determinations that soil from non-site specific off site sources is suitable for use at the landfill pursuant to this Sub-condition (54(D)) shall also be consistent with the Department's Management of Fill Policy and shall be keep on file by the permittee for the duration of the facility's bond. These records shall be made available to the Department upon request.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

E) Contaminated soil from non-site specific off site sources shall be utilized pursuant to this sub-condition:

I) Soil material that does not meet clean fill requirements shall be considered a waste and not a recyclable material, and shall be used only as daily or intermediate cover pursuant to Condition 52 except as otherwise allowed pursuant to Sub-condition 54(E)(II) below. Material subject to this Sub-condition (54(E)(I)) shall be subject to applicable fees and shall be counted against the facility's daily volume.

II) If the soil material does not meet the clean fill requirements but does meet the regulated fill requirements, then it may be used as structural or subgrade fill at the landfill provided that said soil is chemically and physically suitable for each designated purpose and provided that said use is further authorized by a Department approval pursuant to General Permit No. WMGR096 for the beneficial use of regulated fill. Soil utilized under this Sub-condition (54(E)(II)) shall not be considered a waste for the purposes of fee and daily volume determinations.

F) No material other than soil meeting clean fill requirements or dewasted dredge material, if authorized pursuant to a dewating determination, shall be utilized in the construction of the final cover at the landfill.

55. The facility is permitted for the use of glass cullet material as gas extraction well backfill, gas system header backfill, leachate force main backfill, use in construction of landfill access road subgrades, the use as a general fill material, and utilization of glass cullet beneath the final cap in areas of settlement and in the cap drainage layer subject to the following sub-conditions:

A) Temporary landfill access road subgrades and subbases will utilize no more than a forty (40) percent glass cullet/mixture.

B) Final landfill access roads depicted on final development plans, including subgrades and subbases, will utilize no more than a ten (10) percent glass cullet/soil mixture.

C) For road construction utilizing glass cullet and soil, the ratio of cullet to soil will be done by the use of individual loads during road construction. For a forty (40) percent mixture, three (3) loads of soil must be mixed with two (2) loads of glass cullet utilizing a bulldozer to incorporate

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

the two (2) materials. For a ten (10) percent mixture, nine (9) loads of soil will be mixed with one (1) load of glass cullet utilizing a bulldozer to incorporate the two (2) materials.

D) For use of glass cullet in the landfill cap drainage layer, engineering test must be performed to determine suitability including the permeability and grain size as required by the cap design criteria. As built, documentation must be submitted with Form 37 pertaining to the use of glass cullet in the landfill cap drainage area.

56. The facility is permitted for the utilization of AASHTO No. 8 stone as an alternate protective cover stone, which is already contained in the statewide list for approved alternative designs subject to the following sub–conditions:

A) This approval is to utilize AASHTO No. 8 stone as an alternate protective cover stone, which is included on the statewide approved equivalency list and was originally approved at the Southeast Regional Office. Failure of this material to perform satisfactorily shall be grounds for revocation of the approval herein granted.

B) The permittee shall obtain and keep available at the site for the Department review, a copy of the permit approval from the original issuing region. The permittee is responsible for demonstrating compliance with the terms and conditions of the original approval for AASHTO No.8 stone as an alternate protective cover stone.

C) AASHTO No. 8 stone approved by this permit modification shall incorporate a maximum particle size of ½ inches which is free of deleterious materials and fines (no greater than two (2) percent passing the No. 200 sieve is allowed).

D) One (1) layer of 16 oz/yd^3 non-woven geotextile must be utilized when AASHTO No.8 stone is used as protective cover stone.

57. The facility is permitted for the modification of the angularity of the AASHTO No. 57 Protective Cover stone subject to the following sub–conditions:

A) Under the equivalency approved by this modification, AASHTO No. 57 aggregates may be utilized in the leachate collection system, subject to the following requirements:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

I) The maximum solid waste height shall not exceed 206.5 ft.

II) The maximum particle diameter of the AASHTO No. 57 aggregate shall be dmax=38 mm.

III) Two (2) 16 oz/sy layers of nonwoven geotextile shall be placed under the AASHTO No. 57 aggregates in order to meet the design requirements.

IV) The permittee shall l provide in writing a notification to the Department of each source of the aggregate demonstrating compliance with Condition (b) above.

V) Nothing in this equivalency revises or amends final permitted elevations or s lopes unless specifically approved by the Department in a separate major permit modification.

OTHER PERMIT MODIFICATION INCORPORATIONS

58. Any use of or reference to GM13 or other specifications that may be published by the Geosynthetic Institute or similar organizations is for technical reference purposes only and may be relied on during permit application and construction reviews. Changes to the specifications are not automatically incorporated into the permit as approved specifications. The Department reserves the right to question any alternative geomembrane material specification during the course of its review. See also Condition No. 30.

59. The utilization of the scale house and laboratory facility (scale facility) owned and operated by Waste Management Disposal Services of Pennsylvania, Inc.'s GROWS Landfill jointly with the TRRF Landfill and GROWS North Landfill is hereby incorporated into this permit.

A) The GROWS North Landfill is permitted to use the scale house and laboratory facility (scale facility) that is owned and operated by, and located within the permit area of, Waste Management Disposal Services of Pennsylvania, Inc.'s GROWS Landfill in place of dedicated scale and laboratory facilities located within the GROWS North permit area. Use of the scale

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

shall at all times comply with all applicable requirements of the Solid Waste Management Act, the Municipal Waste Regulations, and the terms and conditions of this permit.

B) The permit modification issued on May 15, 2002, for approval of a protocol for the installation of equipment and collection of meteorological data for GROWS Landfill ,as required by 25 Pa. Code 273.136(b)(3), is hereby incorporated into this permit and shall be applicable for GROWS North Landfill as well.

C) The use of the scale facility shall not modify any other permitted operational activities at GROWS North Landfill with the exception of the required changes to traffic patterns, recordkeeping, and vehicle access control as necessary to implement the shared use of the scale facility.

D) The use of the scale facility by TRRF, GROWS and GROWS North Landfills shall be managed to prevent traffic congestion at the intersections or the approach routes leading to either facility.

E) The special waste laboratory shall serve TRRF, GROWS and GROWS North Landfills. However, the operational procedures and waste acceptance/screening plan requirements contained in each facility's permit shall govern the required operations for each respective facility.

F) The scale facility is located in the GROWS Landfill permit area and GROWS Landfill shall be responsible for ensuring that the scale facility is routinely cleaned and maintained using sweepers and laborers.

G) If GROWS Landfill temporarily or permanently ceases waste disposal operations, and GROWS North Landfill continues operation, GROWS North Landfill may continue to utilize this existing scale facility. In the case of a permanent cessation of waste disposal operations at GROWS, GROWS North Landfill must file an appropriate permit modification to either: (1) include the scale facility in its (GROWS North's) permit area, or (2) provide dedicated scale and laboratory facilities within its permit area. Said permit modification shall be filed within ninety (90) days of written notice from the Department. In the case of a temporary cessation of operations of the scale facility, for whatever reason, GROWS North Landfill shall set up emergency temporary scales and laboratory facilities within the permitted area of GROWS North Landfill. In case of a

permanent closure of the scale facility, GROWS North shall construct permanent replacement scales and laboratory facilities at GROWS North Landfill. In no case shall waste disposal operations be conducted at GROWS North Landfill unless scale and laboratory facilities, whether temporary or permanent, are in operation and GROWS North Landfill is authorized by the Department for use of said facilities.

H) When GROWS, TRRF and GROWS North Landfill waste is directed through the scale facility, individual site access control shall be managed and electronically verified by a swipe card system. All recordkeeping shall be maintained separately for each facility. The form of the recordkeeping shall not be changed without written approval from the Department.

I) Proposed modifications to the scale house facility (redesigned and relocated public convenience center, relocated radiation protection action plan isolation staging area) that are subject to separate permit applications submitted on behalf of GROWS (APS No. 591930, AUTH No. 655208) and TRRF (APS No. 283, AUTH No. 655184) Landfills are reflected in the application incorporated by reference pursuant to Condition 1 of this permit. These proposed modifications shall not be authorized until/unless approved pursuant to final action upon the separate permit modifications referenced herein.

60. The Quality Assurance and Guidance Document for the Installation of Lining Systems (QAGD) as an attachment to Form 24 for use for quality assurance procedures during the construction of geosynthetic lining systems at the facility is incorporated by reference. The QAGD is a technical reference and the Department may rely on it as a reference in the course of permit application and construction certification reviews. The Department reserves the right to question specifics on the site or case-specific quality assurance plans during the course of its review.

OTHER CONDITIONS

61. This permit authorizes the use of pre-settlement elevations as shown in the application incorporated by reference in Condition No. 1. Pre–settlement elevations may be utilized to conduct waste disposal operations above the approved final elevations to facilitate settling and re-grading prior to placement of final cover (pre-settlement mode of operation). However, once final elevations are reached, final cover shall be placed within one (1) year or as soon thereafter as weather permits, regardless of whether pre-settlement elevations are reached or not. It is the permittee's responsibility to plan waste

disposal operations to maximize the benefit to be derived from this mode of operation, and failure to do so shall not constitute grounds for delaying re-grading or the placement of final cover at approved final elevations.

During the year in which this pre-settlement mode of operation may be conducted, the placement of waste above final elevations shall not constitute overfilling and shall not be subject to penalties pursuant to 25 Pa. Code 271.411(c}(1). However, any waste placed above pre-settlement elevations, at any time, shall constitute overfilling and shall be subject to penalties pursuant to 25 Pa. Code 271.411(c)(1). At the end of the one (1)-year period, any waste remaining above final elevations shall constitute overfilling and shall be subject to penalties pursuant to 25 Pa. Code 27 1.411(c)(1). The permittee shall maintain adequate operational controls to determine when final and pre-settlement elevations have been reached and shall record this information in its daily operation log. In addition, the permittee shall notify the Department. in writing, when final elevations in a particular cell or phase of construction have been reached and when the one (1)-year period for the placement of final cover commences. Both final and pre-settlement elevations shall be included in drawings, surveys, and calculations submitted as part of the annual operation report. It is the permittee's responsibility to maintain adequate records and documentation to demonstrate that the temporary staging or stockpiling of cover materials does not constitute overfilling or operations outside the boundaries of this permit, including approved final or pre-settlement elevations.

62. The generic concept of discharge to an off-site POTW is incorporated into the GROWS North leachate management plan. However, the only actual POTW discharge alternative approved at this time is discharge to the Morrisville Pollution Control Facility (Morrisville Plant), owned and operated by the Municipal Authority of the Borough of Morrisville (Authority). Any other off-site POTW discharge alternative will require modification of the GROWS North Landfill's leachate management plan prior to implementation. The type(s) of modification(s) is (are) to be governed by the specifics of each individual request. However, a request to discharge to a POTW other than the Authority's shall not be construed, in and of itself, as a requiring a major modification to the GROWS North Landfill leachate management plan because of the concept approval contained herein unless the specifics of the request would otherwise require the submission of a major modification application.

63. Inclinometers shall be installed to monitor deformation of the mechanically stabilized earthen (MSE) berm. The inclinometers shall be located in the MSE berm at a spacing of no less than one per disposal cell. The permittee shall provide the Department with the proposed installation location of

each inclinometer and shall obtain Department concurrence of each location prior to installation. While the inclinometer(s) cannot be installed until after the pertinent portion of the MSE berm has been constructed, waste disposal operations in the proximate cell may not commence until the inclinometer(s) has(have) been installed and made operational.

64. Sediment elevations in the sedimentation basins shall be surveyed on an annual (calendar year) basis. The results of the annual sediment survey(s) shall be submitted as part of the annual operation report submittal that is due on or before June 30.of each year.

65. The Echo Point Sand and Gravel Facility (EPSGF) is included as an off-site borrow area in the application incorporated by reference pursuant to Condition 1. Specific requirements for the use of the EPSGF are being developed pursuant to pending applications for the GROWS and Tullytown Resource Recovery Facility (TRRF) Landfill permits. Upon action on these pending applications becoming final, the specific terms and conditions placed into the GROWS and TRRF permit modifications shall be automatically incorporated into this permit as conditions with which the Permittee must comply. EPSGF may not be utilized as a borrow source until such time as action on the GROWS and TRRF modifications is finalized and the terms and conditions imposed in those modifications, pertaining to use of EPSGF, are incorporated herein.

66. The Trap Rock Industries, Inc. Moore's Station Quarry (Trap Rock) in Titusville, New Jersey, is included as an additional soil borrow source based on the Permittee's assertion that the overburden from the Trap Rock site satisfies Pennsylvania's Clean Fill requirements, provided that the material used is further subject to the approved Quality Assurance Program and Testing Protocol for Non-Synthetic Material of Form J and associated construction certification documentation.

67. The bond between Waste Management Disposal Services of Pennsylvania, Inc. and the Department for the GROWS North Landfill in the amount of $28,206,061.00 is hereby incorporated as part of this permit. Upon receipt of written notice from the Department, this bond will have to be updated within 90 days in accordance with Chapter 271 of the municipal waste regulations.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No. 101680
Date Issued November 15, 2007
Date Expired November 15, 2014

ATTACHMENT I
(Refer to Condition 52(L))

RWC	Description	Max. Allowable Percent in Soil
001	Coal-derived Bottom Ash	25 Percent
002	Coal-derived Fly Ash	25 Percent
004	Incinerator Bottom Ash	25 Percent
006	Incinerator Mixed Ash	25 Percent
101	Foundry Sand	25 Percent
102	Slag	25 Percent
103	Refractory Material	25 Percent
107	Ferrous Scrap, including Auto Recycle	10 Percent
206	Paint, Coating Sludge, and Scale	10 Percent
306	Surface Coatings (to be individually requested with waste approval)	25 Percent
313	Wax, Paraffin	25 Percent
406	Class Wastes excluding Industrial Refractory Material	25 Percent
413	Asphalt (Bituminous)	25 Percent
414	Ceramic Wastes	25 Percent
504	Paint s (liquids)	10Percent
506	Non-Hazardous Metals Contaminated Soils	25 Percent
902	Non-Hazardous Residual from Treatment of D002-D008 Hazardous Waste	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER	EFFECTIVE DATE
1-4726-00490/00003	October 14, 2009
FACILITY/PROGRAM NUMBER(S)	EXPIRATION DATE(S)
52-D-12	September 13, 2015

PERMIT

Under the Environmental Conservation Law

TYPE OF PERMIT ☐ New ☐ Renewal ■ Modification ■ Permit to Construct ■ Permit to Operate

- ☐ Article 15, Title 5: Protection of Waters
- ☐ Article 15, Title 15: Water Supply
- ☐ Article 15, Title 15: Water Transport
- ☐ Article 15, Title 15: Long Island Wells
- ☐ Article 15, Title 27: Wild, Scenic and Recreational Rivers
- ☐ 6NYCRR 608: Water Quality Certification
- ☐ Article 17, Titles 7, 8: SPDES
- ☐ Article 19: Air Pollution Control
- ☐ Article 23, Title 27: Mined Land Reclamation
- ☐ Article 24: Freshwater Wetlands
- ☐ Article 25: Tidal Wetlands
- ■ Article 27, Title 7; 6NYCRR 360: Solid Waste Management
- ☐ Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
- ☐ Article 34: Coastal Erosion Management
- ☐ Article 36: Floodplain Management
- ☐ Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control

PERMIT ISSUED TO	TELEPHONE NUMBER
Broad Hollow Estates, Inc. and 110 Sand Company	(516) 799-5611
ADDRESS OF PERMITTEE	
Broad Hollow Estates, Inc., c/o 110 Sand Company, 170 Cabot Street, West Babylon, NY 11704	
CONTACT PERSON FOR PERMITTED WORK	TELEPHONE NUMBER
Paul Lapanno, Lockwood, Kessler & Bartlett, Inc.	(516) 938-0600
NAME AND ADDRESS OF PROJECT/FACILITY	
110 Sand Company Clean Fill Disposal Site, 136 Bethpage-Spagnoli Road, Melville, NY 11747	

COUNTY	TOWN	WATERCOURSE	NYTM COORDINATES
Suffolk	Huntington	N/A	E: 631.9 N: 4514.2

DESCRIPTION OF AUTHORIZED ACTIVITY:

Construct and operate an expansion of an existing 58 acre clean fill disposal site by adding 63 acres in four phases (VII through X). The operation will be at the rate of 6,000 tons per day, averaged over 12 months and calculated on a calendar year basis for a maximum of 358 days per year. This facility is authorized to accept no more than 2,148,000 tons per year of clean fill defined as concrete, steel, wood, dirt, soil, glass, construction and demolition debris and other inert material as designated by the Department.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified **(see page 2)** and any **Special Conditions** included as part of this permit.

PERMIT ADMINISTRATOR:	ADDRESS
Susan V. Ackerman (GRZ)	Region 1 Headquarters SUNY @ Stony Brook, 50 Circle Road, Stony Brook, NY 11790 - 3409
AUTHORIZED SIGNATURE	DATE 10/14/2009

Post-it® Fax Note 7671	Date 5/12/2010	# of pages ▶ 23
To Ariel Rance	From Joe Staab	
Co./Dept. CEC	Co. NJDEP	
Phone # (215) 734-1400	Phone # 609 984-2209	
Fax # (267) 803-1782	Fax #	

State of N
DEPARTMENT OF ENVIRON

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

Acting Commissioner

Solid and Hazardous Waste Management Program
Bureau of Transfer Stations & Recycling Facilities
P.O. Box 414 401 East State Street
Trenton, New Jersey 08625-0414
Telephone: (609) 984-5950 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw

May 12, 2010

Thomas J. Kushnir
General Manager
Clean Earth of Carteret, Inc.
24 Middlesex Avenue
Carteret, NJ 07008

Re: Modification of a Class B Recycling Center General Approval
Clean Earth of Carteret, Inc.
Block 1, Lot 302
Borough of Carteret, Middlesex County
Facility ID No: 132310
Permit No.: CBG080002

Dear Mr. Kushnir:

Please be advised that the New Jersey Department of Environmental Protection, Solid & Hazardous Waste Management Program has reached a final determination to modify the Recycling Center General Approval for the referenced facility. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Joseph Staab of my staff at (609) 984-6814, or by email at joseph.staab@dep.state.nj.us.

Sincerely,

Anthony Fontana

Anthony Fontana, Chief
Bureau of Transfer Stations
and Recycling Facilities

Enclosures

C: Rai Belonzi, Chief, County Environmental and Waste Enforcement
Brian Petitt, Supervisor, County Environmental and Waste Enforcement
Bruce Witkowski, Supervisor, Solid Waste Permitting
David Papi, Director, Middlesex County CEHA Agent
Chris Sikorski, Middlesex Recycling Coordinator
Kathleen M. Barney, Borough of Carteret Municipal Clerk
Averil Rance, VP of Envir. Health & Safety, Clean Earth of Carteret, Inc.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Solid & Hazardous Waste Management Program
P.O. Box 414 401 East State Street
Trenton, New Jersey 08625-0414
Telephone: (609) 984-5950 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw

CHRIS J. CHRISTIE
Governor

BOB MARTIN
Acting Commissioner

RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS, STREET SWEEPINGS AND PETROLEUM CONTAMINATED SOIL

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

Clean Earth of Carteret, Inc.

Facility Type:	Recycling Center for Class B Materials
Lot No.:	3.02
Block No.:	1
Municipality:	Borough of Carteret
County:	Middlesex
Facility ID No.:	132310
Permit No.:	CBG100002

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department of Environmental Protection.

March 7, 2007
Issuance Date

May 12, 2010
Modification Date

March 7, 2012
Expiration Date

Anthouy Fontana, Chief
Bureau of Transfer Stations and
Recycling Facilities

Scope of Approval

This General Approval (approval), along with the referenced application documents herein specified, shall constitute the sole approval of Recycling Center operations for Class B Recyclable Material (petroleum contaminated soil, street sweepings, brick, block, concrete, stone, rock, and asphalt) by Clean Earth of Carteret, Inc. located in the Borough of Carteret, Middlesex County, New Jersey. Any registration, approval or permit previously issued by the Solid and Hazardous Waste Management Program, or its predecessor agencies, for the specific activities as described below and as conditioned herein, is hereby superseded.

This approval is a modification of the General Approval issued on March 7, 2007.

May 12, 2010 — This modification allows Clean Earth of Carteret, Inc to receive, process/treat (inside the building) and transfer source separated recyclable materials 24 hours per day, 7 days per week. However, the operation of the Crusher is limited to: Monday through Friday, from 7:00 a.m. to 7:00 p.m., and Saturdays from 7:00 a.m. to 4:00 p.m.

Regulated Activities at the Facility

Items 1 through 39 of this approval contain the general conditions applicable to all recycling centers. Items 40 through 88 of this approval contain the general operating requirements for all recycling centers that receive, store, process, or transfer Class B recyclable materials including non-hazardous petroleum contaminated soils. Items 89 through 92 of this approval are the sampling requirements for testing the street sweepings.

Items 93 through 102 and 103 through 112 of this approval contain the conditions for Phase 1 & 2 of the aggregate crushing operations, respectively. In Phases 1 & 2 of the crushing operations, Clean Earth of Carteret, Inc. will be producing a dense grade aggregate (DGA) in support of the proposed Reichold Chemical remedial capping project for the site that is being completed under an ISRA Site Remedial Action Workplan. To accommodate the construction of the cap, two temporary phases are needed which allows the crushing operations and temporary stockpile areas to be moved within the site.

Items 113 through 120 of this approval contain the conditions for the Final Phase of the aggregate crushing operations. The Final Phase of the crushing operations allows Clean Earth of Carteret, Inc, to continue to accept and process these Class B materials on a permanent basis and marketing the end product offsite.

Facility Description

The recycling center is a Class B facility owned and operated hy Clean Earth of Carteret, Inc. The recycling center is located at 24 Middlesex Avenue on Block 1, Lot 3.02, in Borough of Carteret, Middlesex County. This regional recycling center receives petroleum-contaminated soil from soil remediation contractors and street sweepings from municipalities. The recycling center is authorized to accept petroleum-contaminated soil and street sweepings Monday through Sunday and to process petroleum contaminated soil within their building Monday through Sunday. The recycling center is authorized to receive and transfer brick, block, concrete, stone,

rock, and asphalt Monday through Sunday, but limited in crushing/processing these materials to Monday through Friday from 7:00 a.m. to 7:00 p.m., and Saturdays from 7:00 a.m. to 4:00 p.m..

The recycling center is also utilized for finished product storage and equipment storage as shown on the site plan. The recycling center markets clean soil and DGA from the site.

Approved General Approval Application and Associated Documents

The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq*., the conditions of this Approval, and the following documents:

a) Site plan: Sheets SP1 and A1, prepared by Leonard Busch Associates, signed and sealed by Leonard Busch, P.E., NJ License No. 9531, dated October 13, 2000.

b) S.D.&G. Aggregates, Inc., Application for Recycling Center General Approval, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated March 1, 1996.

c) S.D.&G. Aggregates, Inc., Addendum to the March 1, 1996 recycling center application, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated April 17, 1996.

d) S.D.&G. Aggregates, Inc., Submission of Middlesex County Board of Chosen Freeholders Solid Waste Plan Amendment Resolution, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated August 16, 1996.

e) S.D.&G. Aggregates, Inc., Submission of Waterfront Development Permit, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated September 3, 1996.

f) S.D.&G. Aggregates, Inc., Submittal of revised site plan and calculations, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated November 14, 1996.

g) S.D.&G. Aggregates, Inc., Modification request, prepared by AJV Engineering, signed by Angelo J. Valetutto, P.E., dated February 12, 1997.

h) S.D.&G. Aggregates, Inc., Response to technical requirements for coutaminated soils, prepared by S.D.&G. Aggregates, Inc., signed by Michael Goebner, President, Carteret Biocycle Corporation, dated October 23, 1997.

i) S.D.&G. Aggregates, Inc., Modification request, prepared by S.D.&G. Aggregates, Inc., signed by Michael Goebner, President, Carteret Biocycle Corporation, dated October 29, 1997.

j) S.D.&G. Aggregates, Inc., Submittal of new site plan, prepared by S.D.&G. Aggregates, Inc., signed by Michael Goebner, President, Carteret Biocycle Corporation, dated October 29, 1997.

k) S.D.&G. Aggregates, Inc., Request for modification of sampliug requirements, signed

by Michael Goebner, President, Carteret Biocycle Corporation, dated April 19, 1999.

l) S.D.&G. Aggregates, Inc., Request for modification of sampling requirements, signed by Michael Goebner, President, Carteret Biocycle Corporation, dated December 29, 1999.

m) S.D.&G. Aggregates, Inc., Request for acceptance of street sweepings, signed by Michael Goebner, President, Carteret Biocycle Corporation, dated March 15, 2000.

n) S.D.&G. Aggregates, Inc., Request for site plan modification, signed by Michael Goebner, President, Carteret Biocycle Corporation, dated October 24, 2000.

o) S.D.&G. Aggregates, Inc., Submittal of additional information, signed by Michael Goebner, President, Carteret Biocycle Corporation, dated April 19, 2001.

p) S.D.&G. Aggregates, Inc., Request for renewal, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated October 17, 2001.

q) Clean Earth of Carteret, Request for transfer of ownership, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated November 20, 2002.

r) Clean Earth of Carteret, Request for increase in daily capacity, prepared and signed by Michael Goebner, Vice President, dated January 2, 2003.

s) Clean Earth of Carteret, Submittal of signed transfer agreement, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated May 22, 2003.

t) Clean Earth of Carteret, Submittal of county plan amendment, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated May 30, 2003.

u) Clean Earth of Carteret, Request for corrections to approval, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated August 25, 2003

v) Clean Earth of Carteret, Inc., Request for renewal, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated September 28, 2006.

w) Plan entitled "Floor Plan of Existing Soil Processing Building", prepared by Leonard Busch, P.E., of Leonard Busch Associates, dated February 2, 2005 and last revised March 23, 2006.

x) Clean Earth of Carteret, Inc., Request to utilize cement kiln dust or lime as a drying agent to remove moisture from its treated soils, prepared and signed by Michael D. Logan, Vice President, Compliance Plus Services, dated December 27, 2006.

y) Class B Recycling Center Permit Application, dated February 2006, prepared by Compliance Plus Services, Inc.

z) Class B Recycling Limited Approval Checklist, dated March 2008, prepared by

Compliance Plus Services, Inc.

aa) Updated Information Submission, dated October 14, 2008, prepared by Compliance Plus Services, Inc.

bb) Proposed Features: drawing No. 009, latest revision dated October 10, 2008, prepared by EarthRes Group, Inc., signed and sealed by Thomas G. Pullar, P.E., NJ License No. 24GE03095500.

cc) Existing Features: drawing No. 001, dated August 19, 2005, prepared by EarthRes Group, Inc., signed and sealed by Thomas G. Pullar, P.E., NJ License No. 24GE03095500.

dd) Details: drawing No. 003, latest revision dated January 17, 2006, prepared by EarthRes Group, Inc., signed and sealed by Thomas G. Pullar, P.E., NJ License No. 24GE03095500.

ee) Limited Class B Operations Plan Phase 1: drawing No. 014, latest revision dated March 24, 2008, prepared by EarthRes Group, Inc., signed and sealed by Thomas G. Pullar, P.E., NJ License No. 24GE03095500.

ff) Limited Class B Operations Plan Phase 2: drawing No. 015, latest revision dated March 24, 2008, prepared by EarthRes Group, Inc., signed and sealed by Thomas G. Pullar, P.E., NJ License No. 24GE03095500.

gg) Addendum to Ground Lease (3rd Lease), dated December 19, 2008, submitted via cover letter by Compliance Plus Services, Inc.

hh) Letter dated May 4, 2010, submitted by Averil Rance, VP of Environmental, Health and Safety, Clean Earth of Carteret, Inc., requesting changes in their hours of operation including supporting documentation.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification Requirements Report

Subject Item: PI 132310 -

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10 [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2 [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 and 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification Requirements Report

Subject Item: PI 132310 -

10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Solid and Hazardous Waste Management Program, Bureau of Transfer Stations and Recycling Facilities, P.O. Box 414, Trenton, New Jersey 08625-0414. [N.J.A.C. 7:26A-3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency [N.J.A.C. 7:26A-3.13(a)7]

20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: PI 132310 -

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored, processed or transferred each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling center, including the amounts, in tons, cubic yards, cubic feet or gallons, transported to each end-market. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

30. The holder of this general approval shall retain all Recyclable Material Receipt Forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c) [N.J.A.C. 7:26A-3.17(b)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: PI 132310 -

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Solid and Hazardous Waste Management Program, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A-3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by March 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons. [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26-1.7(a)]

38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26-1.7(b)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: PI 132310 -

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1 [N.J.A.C. 7:26A-4]

Subject Item: RCBG139162 - General Class B & Soil Conditions

40. Recycling centers receiving petroleum contaminated soil, a preparedness and prevention plan and the contingency plan contained in the approved documents must be maintained on-site and updated as necessary. [N.J.A.C. 7:26A-3.5(e)]

41. The preparedness and prevention plan and the contingency plan contained in the approved documents must be maintained on-site and updated as necessary. [N.J.A.C. 7:26A-3.5(e)]

42. Upon detection of a release of contaminants to the environment, the facility shall perform the following cleanup steps: stop the release, contain the released contaminants, clean up and manage properly the released contaminants and other materials and if necessary, repair or replace any leaking soil containment systems prior to returning them to service. [N.J.A.C. 7:26A-3.5(e)]

43. Upon closure of the facility the owner or operator shall remove or decontaminate petroleum contaminated soils, containment system components, and structures and equipment and manage them as hazardous waste, unless the materials are not hazardous waste under NJAC 7:26G-5. [N.J.A.C. 7:26A-3.5(e)]

44. All equipment and portions of the facility designated for the storage or processing of petroleum contaminated soils shall be visually inspected each operating day for integrity and leaks. [N.J.A.C. 7:26A-3.5(e)]

45. Records shall be maintained for all visual inspections. These records shall document that inspections were performed, any problems found, and the subsequent correction of such problems. All records shall be kept for a minimum of three years. [N.J.A.C. 7:26A-3.5(e)]

46. The facility shall keep a record of each shipment of petroleum contaminated soil accepted for processing. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. All tracking records must be kept for a minimum of three years. Records for each shipment shall include the following information: the name and address of the transporter who delivered the soil to the facility, the name and address of the generator from whom the soil was sent, the NJDEP registration number of the transporter, EPA ID number (if applicable) of the generator, the quantity of soil accepted and the date of acceptance. [N.J.A.C. 7:26A-3.5(e)]

47. The facility shall maintain on-site a written operating record showing analysis records, tracking records, and summary reports of incidents requiring implementation of the contingency plan. This information shall be made available to Department personnel upon request and shall be kept for a minimum of three years. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification Requirements Report

Subject Item: RCBG139162 - General Class B & Soil Conditions

48. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored, processed or transferred at this recycling center: NJDOT street sweepings (that meet NJ Non-Residential Direct Contact Soil Cleanup Criteria) and non-hazardous petroleum contaminated soils which otherwise would be ID 27 if not recycled. Only soil contaminated with the following compounds shall be accepted and processed at this facility: gasoline, kerosene, jet fuel, Numbers 1 through 6 fuel oil, and used oil. Used oil shall be defined as any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities. No soils may be accepted that have been contaminated with materials that are other waste materials, or waste by-products, such as sludges. No soils with free petroleum product or other liquids, as determined by USEPA SW-846, Method 9095, Chapter 6.0, shall be accepted at the facility. No hazardous waste, as defined by N.J.A.C. 7:26G-5, shall be accepted hy the facility. [N.J.A.C. 7:26A-3.5(e)]

49. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

50. The recycling center may not receive, store, process, or transfer source separated petroleum contaminated soils and NJDOT street sweepings with any other Class B recyclable materials. The commingling of petroleum contaminated soil and NJDOT street sweepings shall only be allowed after the testing requirements identified in this approval have been met. The commingling of any other materials not described above is prohibited. [N.J.A.C. 7:26A-3.5(e)]

51. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A-3.5(e)]

52. Incidental amounts of rebar, metal, soil, and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

53. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

54. In case of conflict, the conditions of this approval shall have precedence over the general approval application documents, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs. [N.J.A.C. 7:26A-3.5(e)]

55. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG139162 - General Class B & Soil Conditions

56. Hours of operation for the receipt, treatment/processing (inside the building) and transferring source separated recyclable material can occur 24 hours per day, 7 days per week; the operation of the Crusher shall be limited to: 7:00 a.m. to 7:00 p.m., Monday through Friday and Saturdays from 7:00 a.m. to 4:00 p.m. [N.J.A.C. 7:26A-3.5(e)]

57. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A-3.5(e)]

58. The recycling center may receive no more than 2,700 tons per day of peroleum contaminated soils and street sweepings. This condition is contingent upon the traffic on the public roads adjacent to the facility not being adversely affected. Should the traffic be impacted by the facility, the Department reserves the right to reduce the capacity of the facility. [N.J.A.C. 7:26A-3.5(e)]

59. The total amount of unprocessed/processed soil material stored in the "soil storage warehouse" shall not exceed 18,287 cubic yards. Materials stored in the "soil storage warehouse" shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. "Area D" on the approved site plan may be used to store either unprocessed or processed soils. However, unprocessed and processed soils shall not be stored in "Area D" at the same time. "Area E" on the approved site plan may be used for soil mixing prior to introducing the unprocessed soil to the processing equipment. "Area E" shall not be used for the storage of material. [N.J.A.C. 7:26A-3.5(e)]

60. If at any time, the amount of soil material stored inside the building exceeds 18,287 cubic yards, the recycling center shall immediately cease receiving any unprocessed material until the amount of material stored inside on-site falls below 18,287 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

61. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

62. The total amount of processed soil materials stored outside shall not exceed 31,674 cubic yards. Processed material shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawings. [N.J.A.C. 7:26A-3.5(e)]

63. If at any time, the amount of processed soil material stored on-site exceeds 31,674 cubic yards, the recycling center shall immediately cease processing activities until the amount of processed material falls below 31,674 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

64. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

65. By-products shall be stored in the container(s) or area(s) as depicted on the approved site plan and shall be removed off-site to the end markets as referenced in the approved documents. [N.J.A.C. 7:26A-3.5(e)]

66. Horizontal and vertical control points for the unprocessed and processed materials soil stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 18 feet above the existing grade for the stockpile areas located inside the building and 25 feet above the existing grade for the processed stockpile areas located outside. [N.J.A.C. 7:26A-3.5(e)]

67. Ingress and egress of the facility shall be restricted to Middlesex Avenue only. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG139162 - General Class B & Soil Conditions

68. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points. [N.J.A.C. 7:26A-3.5(e)]

69. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

70. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to the Department's enforcement personnel. [N.J.A.C. 7:26A-3.5(e)]

71. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

72. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

73. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

74. The sampling plan, collection, preservation, and handling for the sampling and analysis of unprocessed contaminated soil as required in this Approval must be performed in accordance with the New Jersey Technical Requirements for Site Remediation at N.J.A.C. 7:26E and the latest edition of the New Jersey Department of Environmental Protection, Hazardous Waste Programs, Field Sampling Procedures Manual. The Technical Regulations may be purchased from West Publishing at (800) 808-WEST. The sampling manual may be purchased from: NJDEP Maps and Publications, P.O. Box 402, Trenton, N.J. 08625. All analysis must be performed by a New Jersey certified laboratory. [N.J.A.C. 7:26A-3.5(e)]

75. All soils must be tested using the most current approved test methodology in accordance with USEPA SW-846. [N.J.A.C. 7:26A-3.5(e)]

76. Petroleum contaminated soils shall be sampled either at the point of generation or at the recycling center. Soils from different generation sites shall be segregated at the facility until the sampling results are received. The sampling and analysis shall be implemented as follows: [N.J.A.C. 7:26A-3.5(e)]

77. Every 100 cubic yards of contaminated soil from each site shall be sampled and analyzed for TPH in the following manner: a representative sample from every 20 cubic yards of contaminated soil shall be taken and these five samples shall be composited into one sample and analyzed. When the volume of soil is less than 100 cubic yards, a representative sample of every 20 cubic yards, or a fraction thereof, shall be taken and these samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG139162 - General Class B & Soil Conditions

78. Every 800 cubic yards of contaminated soil shall be sampled and analyzed for total volatile organic compounds (VOC), in the following manner: a representative sample from every 100 cubic yards of contaminated soil shall be taken and these samples shall be composited into one sample and analyzed. When the volume of soil is less than 800 cubic yards, a representative sample of every 100 cubic yards, or fraction thereof, shall be taken and these samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3.5(e)]

79. The sampling results shall be used to determine the maximum contaminant feed rate or maximum contaminant concentration for the processing equipment in accordance with the Air Quality Permit and shall also demonstrate that the material is non-hazardous for the above contaminants in accordance with N.J.A.C. 7:26G-8.5. The processing equipment at the facility uses bioremediation to process petroleum contaminated soils and acheive acceptable contaminent levels for reuse. [N.J.A.C. 7:26A-3.5(e)]

80. Processed material end products, for uses other than as landfill cover material, Department approved Brownfields projects or road construction projects, shall be sampled and analyzed for total petroleum hydrocarbons (TPH), total volatile organic compounds (VOC), and all contaminants listed in the New Jersey Soil Cleanup Criteria (SCC). The sampling procedure shall be implemented as follows: Every 100 cubic yards of processed soil shall be sampled and analyzed for the above contaminants in the following manner: a representative sample from every 20 cubic yards of processed soil shall be taken and these five samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3.5(e)]

81. Processed material end products to be used in road construction projects shall be sampled every 1,000 cubic yards for TPH and VOC in the following manner: a representative sample from every 100 cubic yards of processed soil shall be taken and the samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3.5(e)]

82. Other levels of testing may be allowed on a case-by-case basis as determined by use criteria in accordance with Department guidance and regulations. Applications for case-specific testing requirements must be made to the Bureau of Transfer Stations & Recycling Facilities. [N.J.A.C. 7:26A-3.5(e)]

83. Only approved criteria shall be used to determine the allowable end use of the processed material and the maximum allowable contamination levels for use. [N.J.A.C. 7:26A-3.5(e)]

84. The maximum allowable contamination levels for unrestricted general use are 200 ppm TPH and all individual organic contaminants less than or equal to 50% and inorganic contaminants less than or equal to 75% of the most stringent direct contact soil cleanup criteria (SCC). [N.J.A.C. 7:26A-3.5(e)]

85. For soils being used as landfill cover material: the analytical requirements of the individual landfills shall be complied with. For soils being used as fill material in Brownfields projects, the requirements (including sampling frequency and analytical parameters) shall be approved by the individual Site Remediation Program case manager on a case-by-case basis. [N.J.A.C. 7:26A-3.5(e)]

86. Other levels of contamination may be allowed on a case-by-case basis as determined by use criteria and levels of contamination in accordance with Department guidance and regulations. Certificates of Authority to operate beneficial use projects pursuant to N.J.A.C. 7:26-1.7(g) must be obtained before any use of the processed material end products. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG139162 - General Class B & Soil Conditions

87. Any processed material end products that do not meet the above criteria must be reintroduced to the treatment process for further treatment. After treatment, the processed material end products must be reanalyzed in accordance with the above criteria. [N.J.A.C. 7:26A-3.5(e)]

88. All analysis records must be kept for a minimum of three years and made available for inspection by state and local officials upon request. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG139339 - Street Sweepings Sampling

89. Every 100 cubic yards of street sweepings from each site shall be sampled and analyzed for TPH in the following manner: a representative sample from every 20 cubic yards shall be taken and these five samples shall be composited into one sample and analyzed. When the volume is less than 100 cubic yards, a representative sample of every 20 cubic yards, or a fraction thereof, shall be taken and these samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3]

90. Every 800 cubic yards of street sweepings shall be sampled and analyzed for total volatile organic compounds (VOC), in the following manner: a representative sample from every 100 cubic yards shall be taken and these samples shall be composited into one sample and analyzed. When the volume is less than 800 cubic yards, a representative sample of every 100 cubic yards, or fraction thereof, shall be taken and these samples shall be composited into one sample and analyzed. [N.J.A.C. 7:26A-3]

91. The sampling results shall be used to determine the maximum contaminant feed rate or maximum contaminant concentration for the processing equipment in accordance with the Air Quality Permit and shall also demonstrate that the material is non-hazardous for the above contaminants in accordance with N.J.A.C. 7:26G-5. [N.J.A.C. 7:26A-3]

92. Unprocessed street sweepings shall be sampled either at the point of generation or at the recycling center. Street sweepings from different generation sites shall be segregated at the facility until the sampling results are received. The sampling and analysis shall be implemented as follows: [N.J.A.C. 7:26A-3]

Subject Item: RCBG882028 - Phase 1 Crushing Operations

93. Prior to initiating any crushing operations, as described under the three phases of this General Approval, Clean Earth of Carteret, Inc. shall submit copies of the Waterfront Development Permit and the Remedial Action Workplan to the Bureau of Transfer Stations & Recycling Facilities and to County Environmental and Waste Enforcement (300 Horizon Center, P.O. Box 407, Robbinsville, NJ 08625-0407, Attention: Brian Petitt, Central Region Supervisor). [N.J.A.C. 7:26A-3.5(e)]

94. The recycling center may receive no more than 1000 tons per day of source-separated asphalt, concrete, brick, block, rock, and stone from offsite sources. [N.J.A.C. 7:26A-3.5(e)]

95. Hours of operation for the receipt, treatment/processing (inside the building) and transferring source separated recyclable material can occur 24 hours per day, 7 days per week; the operation of the Crusher shall be limited to: 7:00 a.m. to 7:00 p.m., Monday through Friday and Saturdays from 7:00 a.m. to 4:00 p.m. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG882028 - Phase 1 Crushing Operations

96. The following equipment or equivalent shall be available for site operations and shall be maintained in operable condition:

A. Extec S-5 Screener

B. Extec C-12 Jaw Crusher

c. Extec Impactor or I-C13 Crusher. [N.J.A.C. 7:26A-3.5(e)]

97. If at any time, the amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 24,124 cubic yards, the recycling center shall immediately cease receiving any unprocessed material until the amount of that unprocessed material stored on-site falls below 24,124 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

98. The total amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 24,124 cubic yards. These unprocessed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

99. The total amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 9740 cubic yards. These processed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

100. If at any time, the amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 9740 cubic yards, the recycling center shall immediately cease processing activities until the amount of these processed materials falls below 9740 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

101. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 20 feet above the existing grade for the nnprocessed stockpile area and 20 feet above the existing grade for the processed stockpile area. Within approximately thirty (30) days of the acceptance date of this Approval, a joint site inspection shall be held at the facility between the owner/operator and representatives of the Department for the purpose of establishing the locations of these markers. [N.J.A.C. 7:26A-3.5(e)]

102. All product materials created under this Phase 1 crushing operation shall be utilized exclusively as capping material at the former Reichold Chemical site and shall meet the specifications required in the Department's Remedial Action Workplan. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG882029 - Phase 2 Crushing Operations

103. The recycling center may receive no more than 1000 tons per day of source-separated asphalt, concrete, brick, hlock, rock, and stone from offsite sources. [N.J.A.C. 7:26A-3.5(e)]

104. Hours of operation for the receipt, treatment/processing (inside the building) and transferring source separated recyclable material can occur 24 hours per day, 7 days per week; the operation of the Crusher shall be limited to: 7:00 a.m. to 7:00 p.m., Monday through Friday and Saturdays from 7:00 a.m. to 4:00 p.m. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG882029 - Phase 2 Crushing Operations

105. The following equipment or equivalent shall be available for site operations and shall be maintained in operable condition:

A. Extec S-5 Screener

B. Extec C-12 Jaw Crusher

c. Extec Impactor or l-C13 Crusher. [N.J.A.C. 7:26A-3.5(e)]

106. The total amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 11,252 cubic yards. These unprocessed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

107. If at any time, the amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 11,252 cubic yards, the recycling center shall immediately cease receiving any unprocessed material until the amount of these unprocessed materials stored on-site falls below 11,252 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

108. The total amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 15,962 cubic yards. These processed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

109. If at any time, the amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 15,962 cubic yards, the recycling center shall immediately cease processing activities until the amount of these processed materials falls below 15,962 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

110. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on tbe approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 20 feet above the existing grade for the unprocessed stockpile area and 20 feet above the existing grade for the processed stockpile area. Prior to initiating Phase 2 crushing operations, a joint site inspection shall be held at the facility between tbe owner/operator and representatives of the Department for the purpose of establishing tbe locations of these markers. [N.J.A.C. 7:26A-3.5(e)]

111. All product materials created under this Phase 2 crushing operation shall be utilized exclusively as capping material at the former Reichold Chemical site and sball meet the specifications required in the Department's Remedial Action Workplan. [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG882029 - Phase 2 Crushing Operations

112. The facility shall submit a report after completion of Phase 1 and Phase 2 crushing operations for the Remedial Action Workplan, which contains, at a minimum, the following information:

A. Daily and cumulative breakdowns of the amounts and types of materials received and processed. Differentiate between material brought through the soils facility versus that brought in directly from outside sources;

B. Residue/ recyclables stored on-site for off-site transport;

C. Any rejected materials and materials that do not meet the applicable criteria for materials to be used to construct portions of the remedial cap along with a copy of the disposal receipts as evidence that the material has been disposed of accordingly;

D. All data shall be recorded chronologically by date.

The report shall he submitted to the NJDEP Bureau of Transfer Stations & Recycling Facilities within sixty (60) days of the completion of Phase 2. [N.J.A.C. 7:26A-3.5(e)]

Subject Item: RCBG882032 - Final Phase Crushing Operations

113. The recycling center may receive no more than 2000 tons per day of source-separated asphalt, concrete, brick, block, rock, and stone. [N.J.A.C. 7:26A-3.5(e)]

114. Hours of operation for the receipt, treatment/processing (inside the building) and transferring source separated recyclable material can occur 24 hours per day, 7 days per week; the operation of the Crusher shall be limited to: 7:00 a.m. to 7:00 p.m., Monday through Friday and Saturdays from 7:00 a.m. to 4:00 p.m. [N.J.A.C. 7:26A-3.5(e)]

115. The following equipment or equivalent shall be available for site operations and shall be maintained in operable condition:

A. Extec S-5 Screener

B. Extec C-12 Jaw Crusher

c. Extec Impactor or I-C13 Crushersite. [N.J.A.C. 7:26A-3.5(e)]

116. The total amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 36,580 cubic yards (8,800 cy in area A & 27,780 cy in area B). These unprocessed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

117. If at any time, the amount of unprocessed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 36,580 cubic yards (8,800 cy in area A & 27,780 cy in area B), the recycling center shall immediately cease receiving any unprocessed material until the amount of these uuprocessed materials stored on-site falls below 36,580 cubic yards (8,800 cy in area A & 27,780 cy in area B). [N.J.A.C. 7:26A-3.5(e)]

CLEAN EARTH/CARTERET
132310 CBG100002 Class B Recycling Ctr General Apprv -Modification
Requirements Report

Subject Item: RCBG882032 - Final Phase Crushing Operations

118. The total amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site shall not exceed 24,310 cubic yards (area C). These processed materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A-3.5(e)]

119. If at any time, the amount of processed asphalt, concrete, brick, block, rock, and stone stored on-site exceeds 24,310 cubic yards (area C), the recycling center shall immediately cease processing activities until the amount of these processed materials falls below 24,310 cubic yards. [N.J.A.C. 7:26A-3.5(e)]

120. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 20 feet above the existing grade for the unprocessed stockpile area and 20 feet above the existing grade for the processed stockpile area. Prior to initiating Final Phase crushing operations, a joint site inspection shall be held at the facility between the owner/operator and representatives of the Department for the purpose of establishing the locations of these markers. [N.J.A.C. 7:26A-3.5(e)]

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Solid and Hazardous Waste Management Program
P.O. Box 414
Trenton, New Jersey 08625-0414
Tel: 609-984-3438
Fax: 609-633-1112
www.state.nj.us/recyclenj

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

MAY 11 2010

Richard Hills, Head
County of Middlesex - Division of Solid Waste Management
100 Bayard Street, 2nd Floor
New Brunswick, NJ 08901

Dear Mr. Hills:

The Department of Environmental Protection's (Department) Solid and Hazardous Waste Management Program is in receipt of Administrative Action 005-09, submitted to the Department on May 5, 2010. Administrative Action 005-09 to the Middlesex County District Solid Waste Management Plan (County Plan) proposes County Plan inclusion of a change in operating hours for the Clean Earth of Carteret, Inc. Class B Recycling Center, located on Block 1, Lot 3.02 at 24 Middlesex Avenue in the Borough of Carteret. Specifically, Administrative Action 005-09 proposes to include the subject facility in the County Plan with operating hours (acceptance and processing of Class B recyclables) of twenty-four hours per day, Monday through Sunday.

The above noted change in operating hours will not result in any other operational changes at the subject facility, which is included in the County Plan to accept and process up to 4,000 tons per day of source-separated concrete, asphalt, brick, block, stone, and non-hazardous, petroleum-contaminated soil.

Pursuant to N.J.A.C. 7:26-6.11(b)5, the inclusion of a modification of an existing facility, including a change in operating hours, can be accomplished via an administrative action. In summary, the County Plan inclusion of a change in operating hours for the Clean Earth of Carteret, Inc. Class B Recycling Center in the Borough of Carteret is hereby approved as an administrative action pursuant to N.J.A.C. 7:26-6.11(f).

Please be advised that this approval of Administrative Action 005-09 shall not be construed as an expression of the Department's intent to issue a General Approval Modification to the subject facility for the above noted operational change.

If you have any questions relative to this matter, please contact Ross M. Hull of my staff at (609) 984-5936 or by e-mail at ross.hull@dep.state.nj.us.

Sincerely,

Guy J. Watson

Guy J. Watson, Chief
Bureau of Recycling and Planning

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAIL CODE 401-02C
SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
401 EAST STATE STREET, 2ND FLOOR WEST
P.O. BOX 420
TRENTON, NJ 08625-0420
Telephone: (609) 292-9880 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw

BOB MARTIN
Commissioner

March 14, 2012

Thomas J. Kushnir
General Manager
Clean Earth of Carteret, Inc.
24 Middlesex Avenue
Carteret, NJ 07008

Re: Notice of Administrative Completeness
Application for Renewal with Modifications of a Recycling Center General Approval for a Class B Facility
Clean Earth of Carteret, Inc.
Block 1, Lot 302
Borough of Carteret, Middlesex County
Facility ID No: 132310
Permit No.: CBG120002

Dear Mr. Kushnir:

The Bureau of Transfer Stations & Recycling Facilities (Bureau) is in receipt of a Recycling Center General Approval renewal application received on March 9, 2012 for the above referenced facility. In addition to activities currently permitted, the applicant requests the acceptance of restricted use aggregate and direct reuse soils, and the addition of Storage Area D.

The Bureau has completed a review of the application to determine if the submittal is administratively complete pursuant to N.J.A.C. 7:26A-3.5. Upon review, the Bureau has determined the application for renewal of the Recycling Center General Approval is ADMINISTRATIVELY COMPLETE.

Since the Bureau has determined the renewal application is administratively complete, all conditions of the existing General Approval for the facility will remain effective pursuant to N.J.S.A. 52:14B-11.

If you have any questions concerning this matter, please contact Joseph Staab of my staff at (609) 984-2209, or by email at joseph.staab@dep.state.nj.us.

Sincerely,

Anthony Fontana, Chief
Bureau of Transfer Stations & Recycling Facilities

c: John Barry, SW Compliance & Enforcement Acting Bureau Chief
Brian Petitt, SW Compliance & Enforcement Supervisor
Jim Scully, SW Compliance & Enforcement
Bruce Witkowski, BTSRF Supervisor, Solid Waste Permitting
David Papi, Director, Middlesex County CEHA Agent
Chris Sikorski, Middlesex Recycling Coordinator
Kathleen M. Barney, Borough of Carteret Municipal Clerk
Michael Logan, Compliance Plus Services, Inc.

RECEIVED
BY CPS DATE 8-1-05

Richard J. Codey
Acting Governor

State of New Jersey
Department of Environmental Protection
Division of Solid and Hazardous Waste
401 East State Street
P.O. Box 414
Trenton, New Jersey 08625-0414
Tel. # (609) 292-9880
Fax. # (609)-633-9839
http://www.state.nj.us/dep/dshw/

Bradley M. Campbell
Commissioner

August 1, 2005

Robert Fixter
President
Clean Earth of North Jersey, Inc.
115 Jacobus Avenue
Kearny, New Jersey 07032

Re: Continuation of Expiring Permit, Clean Earth of North Jersey, Inc., Kearny, Hudson County, USEPA ID No. NJD 991 291 105, NJ Hazardous Waste Facility Permit No.: 0907N1HP14

Dear Mr. Fixter:

The purpose of this letter is to clarify the current status of Hazardous Waste Facility Permit No. 0907N1HP14 issued to Clean Earth of North Jersey, Inc. (CENJ) for the above referenced facility.

The current hazardous waste facility permit for the CENJ facility lists an expiration date of August 18, 2004. However, CENJ has submitted an application for renewal of the hazardous waste facility permit that is currently under review by the Division. Therefore, Hazardous Waste Facility Permit No. 0907N1HP14, and any subsequent modifications, shall remain in effect and enforceable until such time as the Division makes a final determination regarding the renewal application.

Should you have any questions regarding this matter, please call John Scott of my staff at 609-984-2040 or e-mail him at john.scott@dep.state.nj.us.

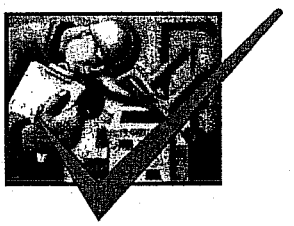
Very truly yours,

Anthony Fontana, Chief
Bureau of Hazardous Waste and Transfer Facilities

C: Barry Tornick, USEPA, Region II
Jeffery Sterling, BHWCE-Northern
Document: Continuation of permit

CPS

COMPLIANCE PLUS SERVICES



June 12, 2007

Robert Fixter
President
Clean Earth of North Jersey, Inc.
105 Jacobus Avenue
Kearny, New Jersey 07032

RE: Status of Submission of Hazardous Waste Storage, Treatment and Transfer Facility Permit Renewal Application for Clean Earth of North Jersey, Inc. and the Administrative Continuation of Existing Permit Conditions

Dear Bob,

Pursuant to our discussions, I am sending you this letter to provide you with the current status of the Hazardous Waste Storage, Treatment and Transfer Facility Permit for Clean Earth of North Jersey, Inc. ("CENJ") site.

On June 23, 2004, the New Jersey Department of Environmental Protection ("NJDEP") issued an extension for the submission of the permit renewal application until August 31, 2004, at our request, to allow us to complete the final negotiations with the Town of Kearny and Hudson County Solid Waste Authority regarding certain open issues related to the management of solid wastes at the facility. These issues included the settlement of historical host municipality fees and the planned modification of the facility under the County Solid Waste Management Plan to revise the design and construction of the proposed MRF/Transfer unit at the site.

Although CENJ has not concluded its final negotiations regarding these solid waste issues related to the facility's operations with the Town of Kearny, CENJ has proceeded with the submission of the Solid and Hazardous Waste Facility renewal application.

Based on our discussions with Mr. Anthony Fontana, Chief, Bureau of Hazardous Waste and Transfer Facilities, (and indicated in the August 1, 2005 letter from the Department), the facility's existing Hazardous Waste Permit and operating conditions are concurrently administratively continued in accordance with the provisions of 40 CFR 270.51(d), which are incorporated by reference under N.J.A.C. 7:26G Chapter 8. Consequently, the facility may continue all existing operations, uninterrupted, until the permit renewal application is acted upon by the Department under a final decision to reissue the permit, issue the permit with modifications, or deny the application.

Moreover, CENJ has received three separate approvals from the Department, issued 1/8/06, 4/5/06 and 10/25/06, that has allowed the Facility to proceed with several significant changes and upgrades to the plant's operating design and waste management/environmental control capabilities. CENJ has been working in concert with the Department to incorporate these changes to the Facility renewal application. As a result, these changes have caused additional delays in receiving the Final Approval of the Facility's renewed permits; however, the State is in agreement with the Facility that this open renewal process is the best course of action for all parties to ensure that the final permit will be both reflective of the current Facility configuration and that the overriding environmental benefits to the Facility improvements that were implemented far exceed the possible administrative concerns over extending the expired permit in the manner described above.

If you have any further questions or comments related to this matter, please do not hesitate to contact me.

Sincerely,

Michael D. Logan

Michael D. Logan
Vice President, Environment Services
Compliance Plus Services, Inc.
Corporate Compliance Consultant to the Clean Earth Companies

New Mailing Address: P.O. Box 186, Hatboro, PA 19040: Phone (215) 734-1414: Fax (215) 734-1424

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOLID & HAZARDOUS WASTE MANAGEMENT PROGRAM
BUREAU OF LANDFILL AND HAZARDOUS WASTE PERMITTING
P.O. BOX 414 401 EAST STATE STREET
TRENTON, NEW JERSEY 08625-0414
Telephone: (609) 984-6985 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Acting Commissioner

OCT 24 2011

Michael D. Logan
Vice President, Environmental Services
Compliance Plus Services, Inc.
P.O. Box 186
Hatboro, PA 19040-0186

Re: Technical Completeness for:

A Hazardous Waste Facility Permit Renewal Application
CLEAN EARTH OF NORTH JERSEY INC
Kearny Town, Hudson County
Facility ID No.: NJD991291105
Permit No.: HWP040002

Dear Mr. Logan:

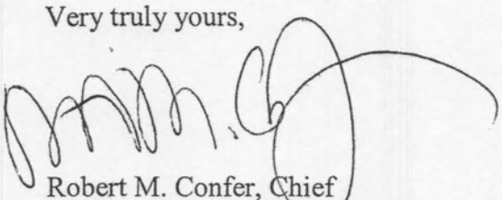
The Bureau of Landfill and Hazardous Waste Permitting (the Bureau) is in receipt of an application for a hazardous waste facility permit renewal for the referenced facility dated August 2009. This initial renewal application was revised through additional submissions dated October 2010, March 24, 2011, May 23, 2011, June 7, 2011, June 29, 2011, July 18, 2011, September 13, 2011, and October 7, 2011.

The Bureau has completed a technical review of the application. Based on this review, the Bureau has determined that the application is technically complete. In accordance with 40 C.F.R. 124, Procedures for Decision Making, the Bureau will prepare a draft permit and fact sheet, and establish a public comment period. The public comment period on the draft permit will be public noticed as required by 40 C.F.R. 124.10. After the close of the public comment period, the Solid and Hazardous Waste Management Program will make a final decision on the permit application and respond to public comments.

If you have any questions regarding this matter, please contact Jennifer Meyer by telephone at

(609) 984-4608 or by email at Jennifer.Meyer@dep.state.nj.us.

Very truly yours,



Robert M. Confer, Chief
Bureau of Landfill and Hazardous Waste Permitting

Adolph Everitt, USEPA - Region 2
Jeff Sterling, BHW&USTCE - Northern Region
Martin Sanchez, BHW&USTCE – Northern Region
Tirza Wahrman, DAG, DOL
Robin Heston, BTSRF
Tom Bryne, BTSRF
Bob Fixter, CENJ

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

Solid and Hazardous Waste Management Program
401 East State Street, P.O. Box 414
Trenton, NJ 08625-0414
Phone # (609) 292-9880
Fax # (609) 633-9839
http://www.state.nj.us/dep/dshw

LISA P. JACKSON
Commissioner

OCT 25 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Robert Fixter
President
Clean Earth of North Jersey, Inc.
115 Jacobus Avenue
Kearny, New Jersey 07032-4597

Re: Modification to Solid and Hazardous Waste Facility Permit
Clean Earth of North Jersey, Inc.
Kearny, Hudson County
Facility ID No.: NJD 991 291 105
Permit No.: HWP050001

Dear Mr. Fixter:

Please be advised that the New Jersey Department of Environmental Protection, Solid and Hazardous Waste Management Program, has reached a final determination to issue a modification to the solid and hazardous waste facility permit that addresses the referenced facility's April 2005, Class 2 permit modification request. The Class 2 modification request dealt with the partial closure, upgrading and construction of various solid and hazardous waste treatment, storage and transfer units including the addition of a rail spur at the referenced facility.

The Department has decided to issue the modifications to the solid and hazardous waste facility permit. A copy of the modified permit is enclosed. It was not the Department's intent in this modified permit to change any substantive authorizations or requirements other than those requested in the modifications. If Clean Earth of North Jersey, Inc. believes that the modified permit has made unintentional changes, please let the Department know as soon as possible.

Should you wish to contest any of the modified conditions of the enclosed permit, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice. The request must include the following information:

1. Facility name and location;

2. Permit number and EPA identification number;

3. Permit issuance date;

4. The date of receipt of the final permit decision by the permittee;

5. A list of specific contested permit conditions;

6. The legal or factual questions at issue for each contested permit condition;

7. A statement as to whether the permittee raised the legal and/or factual issues during the public comment period;

8. The relevance of the legal and/or factual issues to the final permit decision;

9. Suggested revised or alternative permit conditions;

10. Any other information or written documentation supporting the request;

11. An estimate of the time required for the hearing;

12. The name, mailing address and telephone number of the person making the request for a hearing.

The request should be submitted directly to:

Office of Legal Affairs
ATTENTION: Adjudicatory Hearing Requests
Department of Environmental Protection
P.O. Box 402
Trenton, New Jersey 08625-0402

The attached "Administrative Hearing Request Checklist and Tracking Form" must be completed and included with the adjudicatory hearing request.

A copy of the Administrative Hearing Request Checklist and Tracking Form, with attachments should also be mailed to the following address:

Anthony Fontana, Chief
Bureau of Solid and Hazardous Waste Permitting - North
NJDEP, Solid and Hazardous Waste Management Program
P.O. Box 414
Trenton, New Jersey 08625-0414

The adjudicatory hearing shall be conducted in accordance with the Administrative Procedure Act (N.J.S.A. 52:14B-1 et seq.) and the Uniform Administrative Procedure Rules found at N.J.A.C. 1:1.

Should you wish to request a stay for any of the modified conditions of the enclosed permit, you must send a stay request to the following address:

Lisa P. Jackson, Commissioner
Department of Environmental Protection
P.O. Box 402
401 East State Street, Floor 7
Trenton, New Jersey 08625-0402

A copy of the stay request should be mailed to Anthony Fontana at his above address.

Very truly yours,

Anthony Fontana, Chief
Bureau of Solid and Hazardous Waste Permitting - North

DOC: CL Facility Final Mod. (CL2/3)

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

Solid & Hazardous Waste Management Program
P.O. Box 414
Trenton, NJ 08625-0414
Tel. No. (609) 984-5950
Fax. No. (609) 633-9839
http://www.state.nj.us/dep/dshw

Solid and Hazardous Waste Facility Permit

Under the provisions of N.J.S.A. 13:1E-1 et seq. known as the Solid Waste Management Act, this permit is hereby issued to:

CLEAN EARTH OF NORTH JERSEY INC
105 Jacobus Ave
Kearny, New Jersey 07032

For the Purpose of Operating a:	Solid and Hazardous Waste Treatment, Storage and Transfer Facility
Lot & Block Nos:	14,14A, 289
In the Municipality of:	Kearny Town
County:	Hudson
Under Facility Permit No.:	HWP050002
EPA ID No.:	NJD991291105

This permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This permit shall not prejudice any claim the State may have to riparian land, nor does it allow the permittee to fill or alter or allow to be filled or altered in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department of Environmental Protection or the U.S. Environmental Protection Agency.

July 18, 1994
Issuance Date

Anthony Fontana, Chief
Bureau of Solid and Hazardous Waste Permitting – North

October 23, 2006
Latest Modification Date

August 18, 2004
Expiration Date

Scope of Permit

The conditions of this permit are based on the New Jersey hazardous waste regulations at N.J.A.C. 7:26G and on the permit application submitted by the permittee. N.J.A.C. 7:26G "incorporates by reference" (with limited exception) the Federal hazardous waste regulations found at Parts 124, 260-266, 268 and 270, Title 40 of the Code of Federal Regulations (C.F.R.). In order to eliminate confusion, and to clearly describe the precise obligations that are imposed upon the permittee, only the specific Federal regulatory citations are listed in the conditions of this permit. For the applicable State regulatory citations, refer to N.J.A.C. 7:26G.

This permit, along with the referenced permit application documents herein specified, shall constitute the sole Hazardous Waste Facility Permit for the operation of the hazardous waste facility. Any registration, Approval or Permit previously issued by the Division of Solid and Hazardous Waste or its predecessor agencies is hereby superseded. The permittee need not comply with the conditions of this permit to the extent and for the duration such non-compliance is authorized by an emergency permit (40 C.F.R. 270.61)

Description of Solid and Hazardous Waste Activities

The permittee owns and operates a commercial solid and hazardous waste treatment, storage and transfer facility. The facility receives waste streams consisting of various solid and hazardous types from off-site generators. The wastes are stored on-site in containers and tanks, treated on-site in containers, tanks and process equipment or transferred off-site in containers. The facility has an existing hazardous waste storage capacity of 404,879 gallons in containers and 15,000 gallons in tanks. The facility proposes to close, upgrade and construct various solid and hazardous waste treatment, storage and transfer units and install a rail spur. The facility has an existing solid waste storage capacity of 469,919 gallons in containers (which includes hazardous waste container storage areas authorized for dual solid and hazardous waste storage) and 45,000 gallons in tanks. The proposed construction/upgrades, when completed, will increase the facility's container storage capacity by 107,860 gallons to 982,658 gallons.

Existing waste treatment activities at the facility include the blending of wastes in tanks and tankers to meet the specifications of off-site authorized industrial boilers or furnaces, solvent reclamation facilities, hazardous waste incinerators, marketers of hazardous waste fuel and treatment facilities. Additional waste treatment activities include the solidification/stabilization of waste solids, slurries and sludge in concrete cells, containers and containment building, container repackaging and the homogenization of waste in containers.

Modification 11/23/98

In response to the permittee's July 23, 1998, letter contesting the final hazardous waste facility permit issued to S&W Waste, Inc. by the Department on June 30, 1998, the Department has added a new condition that references the July 23, 1998, letter in the permit's referenced Permit Application Documents as Section II, Condition 12(a)22. In addition, the Department has modified Section III, Conditions 3(d)(2)(ii) and 3(d)(3), Waste Analysis and Quality Assurance Requirements of the permit.

Modification 12/30/98

In response to Shanley & Fisher, a Professional Corporation's December 8, 1998, notification in accordance with 40 C.F.R. 270.42(a)(1)(i), in behalf of S&W Waste, Inc., for a Class 1 permit modification, with prior approval from the Department, for the transfer of S&W Waste, Inc.'s hazardous waste facility permit, the Department has transferred hazardous waste facility permit number 0907N1HP10 issued to S&W Waste, Inc. by the Department on July 18, 1994, subsequently reissued on June 30, 1998, to S&W Acquisition Corporation, a wholly owned subsidiary of Clean Earth, Inc. under the name of S&W Waste, Inc. and hazardous waste facility permit number 0907N1HP11. As described in the notification, all of the stock of the existing S&W Waste, Inc. was purchased by Clean Earth, Inc. as part of the merger of existing S&W Waste, Inc. into a newly formed company, S&W Acquisition Corporation. In addition, S&W Acquisition Corporation will change its name to S&W Waste, Inc. and the merged entity will be the owner/operator of the business. This transaction was completed on December 30, 1998.

Modification 8/10/99

In response to the permittee's March 5, 1999, request for a Class 1 permit modification subsequently revised May 27, 1999, the Department has added as new conditions the permittee's January 8, 1999, March 5, 1999, and May 27, 1999, letters to the Department at Section II, Condition 12(a) Referenced Permit Application Documents. Section III, Condition 1(b)(1) has been modified by splitting this condition into two conditions 1(b)(1)(i) for hazardous waste storage/treatment tanks and 1(b)(1)(ii) for non-hazardous waste storage/treatment tanks. Section III, Condition 1(b)(4) has been modified by changing the wording of this condition's title from Operating Requirements for the Storage/Treatment Tanks to Operating Requirements for the Hazardous Waste Storage/Treatment Tanks and a new condition has been added as Section III, Condition 1(b)(5) for the Operating Requirements for the Non-Hazardous Waste Storage/Treatment Tanks. Section III, Condition 1(b)(4)(vii) has been modified by adding the word non-hazardous after the word hazardous. Section III, Condition 1(b)(4)(viii) has been modified to clarify that only hazardous/non-hazardous waste tank storage volume may be substituted for its equivalent hazardous/non-hazardous waste container storage volume. Section III, Condition 4(d)(1) has been modified by changing the wording of this condition's title from Inspection Requirements for the Aboveground Storage/Treatment Tanks to the Inspection Requirements for the Hazardous Waste Aboveground Storage/Treatment Tanks and a new condition has been added as Section III, Condition 4(d)(4) as Inspection Requirements for the Non-Hazardous Waste Aboveground Storage/Treatment Tanks. Section III, Condition 4(d)2, Initial Tank System Assessment has been deleted. Section III, Condition 5(b), has been modified

by changing the wording of this condition's title from Aboveground Storage/Treatment Tanks to Aboveground Hazardous Waste Storage/Treatment Tanks and a new condition has been added at Section III, Condition 5(c) as Non-Hazardous Waste Aboveground Storage/Treatment Tanks.

Modification 09/25/01

In response to S&W Waste, Inc.'s notification of a Class 1 permit modification to construct a roof over container storage pad "B", the Department has added the January 18, 2001, subsequently revised June 22, 2001, application and engineering designs at Section II, Condition 12(a) of the permit. The facility's name was changed from S&W Waste, Inc. to Clean Earth of North Jersey, Inc. pursuant to the facility's August 9, 2001, notification. The facility's revised Contingency and Emergency Response Plan dated June 11, 2001, has been added to Section II, Condition 12(b)(2) of the permit. Section I, Condition 12(f)(4)-Twenty-four Hour Reporting and Section II, Condition 4(c)(1)-Contingency Plan has been modified to update the telephone number of Department's hotline for reporting environmental emergencies or abuse. In addition, Section I, Condition 12(f)(4) has been modified to update the enforcement Bureau's name. Section II, Condition 11-Submission of Documents Required by Permit Compliance Conditions has been modified to update the permitting and enforcement Bureau's names and mailing addresses. Conditions 4(d)(3), 6(f)-(i) and 7 of Section III of the permit have been deleted because these conditions have been satisfied.

Modification 05/22/02

In response to the permittee's October 2, 2000, request for a Class 2 permit modification, the permit has been modified by authorizing construction of a containment building, closure of existing solidification/stabilization area no. 1, construction of a non-hazardous waste container storage pad, storage of non-hazardous waste within the Hockmeyer area, and storage of hazardous waste codes K141, K147 and K148 in containers. The permit has also been modified to amend the current authorization for the repackaging and processing of lab pack containers at Pad "C" and to clarify the authorization and requirements for handling asbestos containing waste.

Modification 12/28/05

In response to the permittee's January 10, 2005, request for a Class1 permit modification, the permit has been modified to authorize a change to the location and construction of the proposed containment building. In addition, in response to the permittee's February 28, 2003, request for a Class 2 permit modification, the permit has been modified to authorize the management of petroleum refinery wastes, K169, K170, K171 and K172, and the use of a new non-hazardous waste profile sheet.

Modification 04/03/06

On October 21, 1996, the Department adopted regulations that repealed all "X" series waste numbers (including the unpublished "X900" series waste numbers). On June 30, 1998, the Department revoked and reissued the permittee's hazardous waste facility permit. The permit revocation and reissuance included the removal of the permit's reference to the unpublished "X910" waste number and replacement with the published waste numbers ID 27 and 27A.

However, the revocation and reissuance did not include any new conditions regarding the management of these wastes. Therefore, by this Department initiated permit action, the Department has modified the permit by adding new conditions that authorize the receipt and processing of these wastes in accordance with all applicable statutes and regulations of the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. In addition, the Department has determined that the permittee accepts household hazardous waste from household hazardous waste collection centers. Therefore, ID 10 (household hazardous waste only) has been added to the permitted waste types in the permit.

Modification 10/23/06

In response to the permittee's April 2005, request for a class 2 permit modification, the permit has been modified by authorizing addition of a railroad track, closures of existing container storage areas A, D, E, G and H, modification of areas B and C, construction of new container storage areas A, D, E and G, relocation of the non-hazardous Regulated Asbestos Containing Materials (RACM) transfer area, adding an extension to the non-hazardous waste container storage pad, addition of an enclosure to container storage area F, and the usage of the west loading/unloading pad of the QA/QC dock and Hockmeyer area as hazardous waste container storage areas.

Referenced Permit Application Documents

The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the regulations contained in 40 C.F.R. Parts 260 through 270, the conditions of this permit, and the following permit application documents:

(1) February 15, 1983, Part A and B permit application for a hazardous waste facility signed by William J. Moscatello, S&W Waste, Inc. subsequently revised May 31, 1983, and August 10, 1984;

(2) October 19, 1984, report containing additional information on the Part A and B permit application signed by William J. Moscatello, S&W Waste, Inc;

(3) February 26, 1985, Soil Sampling and Analysis Plan signed by George A. Leahy, P.E., Wehran Engineering subsequently revised March 20, 1985;

(4) April 3, 1985, report containing additional information on the Part A and B permit application signed by Thomas L. Moran, Director of Environmental Affairs, S&W Waste, Inc.;

(5) July 9, 1987, report containing the operating procedures for the transferring and processing of lab packs, signed by Robert J. Chitron, Environmental Manager, S&W Waste, Inc.;

(6) July 15, 1988, arrangement plan for containerized hazardous waste storage signed by Frank Czigler, Engineering Manager, S&W Waste, Inc.;

(7) November 22, 1988, report containing additional information on auxiliary equipment signed by Frank Czigler, Engineering Manager, S&W Waste, Inc.;

(8) May 15, 1989, report containing additional information on waste types signed by Robert Fixter, Environmental Manager, S&W Waste, Inc., subsequently revised May 17, 1989, and April 27, 1989;

(9) April 3, 1989, report containing additional information on solidification of waste with absorbent agents in drums signed by John S. Costanzo, Vice President, S&W Waste, Inc.;

(10) March 23, 1990, report containing information on the repacking of waste from drums into six (6) gallon pails signed by Robert Fixter, Director of Compliance, S&W Waste, Inc., subsequently revised August 29, 1990;

(11) September 25, 1990, revised Part A permit application listing characteristic wastes D018 through D043 signed by William F. Moscatello, President, S&W Waste, Inc.;

(12) October 25, 1990, report containing information on the storage of ignitable waste at Area B signed by Robert Fixter, Director of Compliance, S&W Waste, Inc.;

(13) February 20, 1990, on-site rainwater collection and storage plan signed by Charu Deolankar, Engineer, S&W Waste, Inc., subsequently revised April 20, 1990;

(14) October 15, 1990, on-site rainwater collection and storage plan signed by Richard Mohlenhoff, Engineer, S&W Waste, Inc., subsequently revised October 30, 1990, June 26, 1991, December 1992 and October 20, 1993;

(15) January 4, 1991, revised Part A permit application signed by Robert Fixter, Vice President of Compliance, S&W Waste, Inc.;

(16) December 19, 1991, report containing information on the storage of waste in areas A and B signed by Richard Mohlenhoff, Engineer, S&W Waste, Inc., subsequently revised April 3, 1992, and June 3, 1992;

(17) September 3, 1992, report containing information on the consolidation of F, K, P and U hazardous waste types, stacking of containers and the blending of spent liquid organic solvents and organic contaminated waste materials for shipment to off-site marketers of hazardous waste fuel signed by Robert Fixter, Vice President of Compliance, S&W Waste, Inc.;

(18) December 23, 1992, Part B permit renewal application signed by Richard Mohlenhoff, Environmental Manager, S&W Waste, Inc. subsequently revised May 10, 1993, and May 14, 1993;

(19) October 14, 1997, Standard Operating Procedure for Asbestos Waste signed by Robert Fixter, Vice President of Compliance, S&W Waste, Inc.;

(20) December 2, 1997, Contingency Plan and Emergency Response Plan signed by Howard M. Syvarth, Safety Manager, S&W Waste, Inc.;

(21) January 1998 Waste Analysis Plan signed by Robert Fixter, Vice President of Compliance, S&W Waste, Inc.;

(22) Engineering designs signed and sealed by Marwan M. Sadat, P.E.:

Drawing Title	Issue or Revision	Drawing Number
As Built Secondary Containment Pad For The S&W Stabilization Pads and Excavation and Back Filling Plan	0	N/A
Existing and Amended S&W Facility Plan	4	N/A
Existing S&W Facility Plan	1	N/A
Proposed S&W Facility Plan	0	N/A

(23) Engineering designs signed and sealed by Michael Disko, P.E.:

Drawing Title	Issue or Revision	Drawing Number
Site Plan (Revised To Show Monitoring Well Locations)	0	1/4
Aerial Photograph of Proposed Waste Transfer Facility	0	2/4
Proposed Waste Transfer Facility	1	3/4

Details, Boring Logs & Storm Drain Profile	0	4/4
South Kearny Waste Transfer Station Concrete Transfer Area	0	1/1
Truck Wash Area 105 Jacobus Avenue	0	1/1
Waste Transfer Facility 105 Jacobus Avenue	0	1/1
Proposed Solidification Area Plan, Elevations & Details	0	1/1
Proposed S&W Waste Facility Location Map	0	1/1
Location Plan & Grading of Concrete Pad Around Loading Dock	1	1/5
Diked Concrete Pad and Fire Protection Area	1	2/5
Proposed Solidification Area Plan, Elevation & Details	0	3/5
Loading Dock Plan & Elevation	0	4/5
Loading Dock Elevation & Construction Details	0	5/5
Waste Transfer Facility 105 Jacobus Avenue Fire Equipment Plan	0	1/1
Diked Concrete Pad Modifications to Existing Construction	4	1/1

(24) Engineering designs signed and sealed by Victor J. Cotz, P.E.:

Drawing Title	Issue or Revision	Drawing Number
Tank Installation	2	84016-1

(25) Engineering designs signed and sealed by Aziz K. Mureebe, P.E.:

Drawing Number	Issue or Revision	Drawing Number
Facility Location Map	1	1/3
Plan and Profile Drum and Roll-Off Storage Areas	1	2/3
Details	0	3/3
Facility Location Plan	0	B-2
Enlarged Facility Location Plan	0	B-3

(26) Engineering designs signed and sealed by Armed Hamidi, P.E.:

Drawing Title	Issue or Revision	Drawing Number
Topographic Survey	0	2/14
General Site Plan Existing	0	3/14
Future Development Plan	4	4/14
Existing Maintenance Building Plan & Elevation	0	5/14

Proposed Storage/ Processing Building Plan, Elevations & Sections	1	6/14
Quality Control Dock Modification Plan & Details	3	7/14
Proposed Loading/ Unloading Tank Farm Plan & Elevations	6	8/14
Loading/Unloading Tank Farm Section & Details	9	9/14
Proposed Tanker Storage (conceptual)	2	10/14
Proposed Processing Building Conceptual Design	1	11/14
Proposed solidification Area #2 (Conceptual)	0	12/14
Existing & Proposed Loading/Unloading Areas	1	13/14
Traffic Plan	0	14/14

(27) Engineering Designs signed and sealed by Walter B.Grossman, P.E.:

Drawing Title	Issue or Revision	Drawing Number
Liquid Waste Storage Tank	5	6850-9

(28) Engineering designs signed and sealed by William A. Truss, P.E.:

Drawing Title	Issue or Revision	Drawing Number
A.P.I - 105 Asbestos Building Fabric Frame Structure	0	N/A

(29) July 23, 1998, letter contesting the final hazardous waste facility permit issued to S&W Waste, Inc. by the Department on June 30, 1998, signed by Robert Fixter, Vice President of Compliance, S&W Waste, Inc.;

(30) December 9, 1998, notification in accordance with 40 C.F.R. 270.42(a)(1)(i) for a Class I permit modification, with prior approval from the Department, for transfer of the S&W Waste, Inc. hazardous waste facility permit submitted by Sean Monaghan, Esq., Shanley & Fisher, A Professional Corporation in behalf of S&W Waste, Inc.;

(31) January 8, 1999, letter containing the June 15, 1998, hydrostatic test report for tanks ST-1, ST-2, ST-3, ST-4 and ST-5, Daily Operating Facility Inspection Report, (Revised 1/99), Response Action For Leaks Or Spills And Disposition Of Leaking Or Unfit For Use Tank Systems, Upgrade Of Secondary Containment For Storage Tanks ST-4 And ST-5, Daily Non-Operating Facility Inspection Report And Tank Waste Check List submitted by Robert Fixter, General Manager, S&W Waste, Inc.;

(32) March 5, 1999, letter containing the March 1999 Engineer's Report For The Design And Installation Of A New Secondary Containment Dike Wall In The Existing Above Ground Storage Tank Farm and a request for a Class I Permit modification to remove Tanks ST-1, ST-2 and ST-3 from the facility's hazardous waste permit as hazardous waste storage/treatment tanks and retain them in the permit as non-hazardous waste (ID 72) storage/treatment tanks submitted by Robert Fixter, General Manager, S&W Waste, Inc.;

(33) May 27, 1999, letter containing the May 10, 1999, letter from the Sherwin-Williams Company regarding the coating material for upgrading the secondary containment of hazardous waste storage/treatment tanks ST-4 and ST-5 submitted by Robert Fixter, General Manager, S&W Waste, Inc.

(34) Engineering design signed and sealed by Lahbib Chibani, Ph.D., P.E.:

Drawing Title	Issue or Revision	Drawing Number
Modifications To Existing Tank Farm	2	86038-040-03

(35) January 18, 2001, subsequently revised June 22, 2001, notification in accordance with 40 C.F.R. 270.42(a)(1)(i) for a Class 1 permit modification for the construction of a roof over hazardous waste container storage pad B;

(36) June 11, 2001, revised Contingency Emergency Response Plan submitted by Michael D. Logan, Vice President, Compliance Plus Services, Inc. in behalf of S&W Waste, Inc.;

(37) August 9, 2001, notification of a change in the facility's name submitted by Robert Fixter, President, Clean Earth of North Jersey, Inc.;

(38) Architectural design signed and sealed by Jon Fellgraff, RA:

Drawing Title	Issue or Revision	Drawing Number
Shed Roof Framing Plan	0	S-1

(39) June 8, 2000, subsequently revised September 25, October 2, and November 27, 2000, March 5 and 22, May 15, August 20, September 20, December 14, 2001, application for a Class 2 permit modification for the construction of a containment building, amendment of the current authorization for the repackaging and processing of lab pack containers at Pad "C", authorization to store non-hazardous waste containers within the Hockmeyer area, construction of a non-hazardous waste container storage pad and the addition of waste codes K141, K147 and K148 for storage in containers.

(40) Engineering designs signed and sealed by Leonard Bush, P.E.:

Drawing Title	Issue or Revision	Drawing Number
Site Plan	7	SP1
Plans and Elevations	12	A1
Roof Plan and Sections	10	A2
Screening Operation Plan	7	A3
Foundation Plan Sections and Details	8	S1
Sections and Details	3	S2

(41) February 28, 2003, application for a class 2 permit modification signed by Michael Logan, Vice President, Environmental Services, Compliance Plus Services, Inc.

(42) January 2005 application for a class 1 permit modification signed by Michael Logan, Vice President, Environmental Services, Compliance Plus Services, Inc.

(43) Engineering designs signed and sealed by Robert Busch, P.E.:

Drawing Title	Issue or Revision	Drawing Number\
New Containment Building Plans And Details	0	A1
New Containment Building Site Plan	0	SP1

(44) Clean Earth of North Jersey, Inc. Revised Permit Modification Application for Container Storage Reconfiguration and Facility Rail Access dated October 12, 2005 signed by Michael D. Logan, Vice President Compliance Plus Services Inc.

(45) Request for Change of Existing Class 2 Permit Modification and Authorization for Temporary Use of the QA/QC West Loading/Unloading Dock Containment Area for Storage of Containers dated June 2, 2006 signed by Michael D. Logan, Vice President, Environmental Services, Compliance Plus Services, Inc. on behalf of Clean Earth of North Jersey, Inc.

(46) Supplemental information on the Building Permit for the Construction of the Asbestos Transfer Concrete Pad at Clean Earth of North Jersey, Inc dated May 23, 2006 signed by Jeffery Smith, Senior Project Engineer, Compliance Plus Services, Inc.

(47) The following drawings:

(i) Topographic Plan dated May 24, 2004 – Drawing No. 2509, signed and sealed by Arthur A. Swallow, PLS.

(ii) Site Plan dated November 2, 2005 – Drawing No. SP1, signed and sealed by Robert Busch, PE

(iii) Various Areas, Plans, Sections & Details dated September 26, 2005 – Drawing No. SP2, signed and sealed by Robert Busch, PE

(iv) Various Areas, Plans, Sections & Details dated October 5, 2005 – Drawing No. SP3, signed and sealed by Robert Busch, PE.

(v) Traffic Flow Diagram dated November 1, 2005 – Drawing No. T1, signed and sealed Robert Busch, PE.

(vi) Rail Car Position Layout dated November 2, 2005 – Drawing No. R1, signed and sealed by Robert Busch, PE.

(vii) Rail Car Position Layout dated November2, 2005 – Drawing No. R2, signed and sealed by Robert Busch, PE.

(viii) Proposed Top of Rail Profile dated October 19, 2005 signed and sealed by Robert F. Hahn, PE.

(ix) Concrete Slab for Railroad Track dated October 19, 2005 signed and sealed by Robert F. Hahn, PE.

(x) Framing Plan 25' x 100' Soft Wall Building dated October 20, 2005 – Drawing No. A-1 signed and sealed by Jon Charles Fellgraff, PE.

In case of conflict, the applicable hazardous waste management regulations contained in 40 C.F.R. shall have precedence over the conditions of this permit, and the conditions of this permit shall have precedence over the Part B permit application documents.

One complete set of the permit application documents listed above, this Solid and Hazardous Waste Facility Permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. The records, reports and plans required pursuant to this permit include the following:

Appendices

Appendix I: Permit requirements, Clean Earth of North Jersey, Inc., NJD 991 291 105
Solid and Hazardous Waste Facility Permit: HWP050002

Subject Item: PI 45910 -

1. The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit (See 40 C.F.R. 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [40 CFR 270.30(a)]
2. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. [40 CFR 270.30(b)]
3. A complete application for a new permit shall be submitted at least one hundred eighty (180) days prior to the expiration date of this permit. [40 CFR 270.10(h)]
4. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR 270.30(c)]
5. In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. [40 CFR 270.30(d)]
6. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. [40 CFR 270.30(e)]
7. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [40 CFR 270.30(f)]
8. The permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 270.30(g)]
9. The permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit. [40 CFR 270.30(h)]
10. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials and other documents as may be required by law, to: (a) enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (b) have access to and copy any records that must be kept under the conditions of this permit; (c) inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and (d) sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location. [40 CFR 270.30(i)]

Subject Item: PI 45910 -

11. The permittee shall retain records of all sampling and monitoring information for a period of at least three (3) years from the date of the sample, measurement, report, or certification. Such records shall include all calibration and maintenance records for monitoring devices, all original strip chart recordings or other data for continuous monitoring instrumentation, and copies of all reports which include results of analyses or monitoring data. All reports required by this permit, the certification required by 40 C.F.R. 264.73(b)(9), and records of all data used to complete the application for this permit shall also be retained for a period of at least three (3) years. This period may be extended by the Department at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations for the active life of the facility; and for disposal facilities throughout the post-closure care period as well. All samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR 270.30(j)(2)]

12. Records for monitoring information shall include the date, exact place, and time of sampling or measurements; the identity of the individual(s) who performed the sampling or measurements; the date(s) analyses were performed; the identity of the individual(s) who performed the analyses; documentation of the analytical techniques or methods used; and the results of such analyses. [40 CFR 270.30(j)(3)]

13. All applications, reports, or information submitted to the Department shall be signed and certified as specified in 40 C.F.R. 270.11. [40 CFR 270.30(k)]

14. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. [40 CFR 270.30(l)(1)]

15. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [40 CFR 270.30(l)(2)]

16. For a new facility, the permittee may not treat, store, or dispose of hazardous waste, and for a facility being modified the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility, except as provided in 40 C.F.R. 270.42, until the permittee has submitted to the Department by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit and the Department has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit. If, within fifteen (15) days of the date of submission of the aforementioned letter the permittee has not received notice from the Department of intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste. [40 CFR 270.30(l)(2)]

17. This permit is not transferable to any person except after notice to the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Resource Conservation and Recovery Act (See 40 C.F.R. 270.40). [40 CFR 270.30(l)(3)]

18. Monitoring results shall be reported at the intervals specified elsewhere in this permit. [40 CFR 270.30(l)(4)]

19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date. [40 CFR 270.30(l)(5)]

Subject Item: PI 45910 -

20. The permittee shall report any noncompliance which may endanger health or the environment orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, including information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies and any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility, which could threaten the environment or human health outside the facility. [40 CFR 270.30(l)(6)(i)]

21. The description of any reported occurrences of noncompliance or release and its cause shall include the name, address, and telephone number of the owner or operator; the name, address, and telephone number of the facility; the date, time, and type of incident; the name and quantity of material(s) involved; the extent of injuries, if any; an assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and the estimated quantity and disposition of recovered material that resulted from the incident. [40 CFR 270.30(l)(6)(ii)]

22. A written submission or report of the noncompliance or release shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Department may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days. [40 CFR 270.30(l)(6)(iii)]

23. All oral notifications of noncompliance or releases shall be provided to the NJDEP Hotline at 1-877-WARN DEP (1-877-9276-337). Written notification shall be provided to the Bureau of Hazardous Waste and Transfer Facilities and the Bureau of Hazardous Waste Compliance and Enforcement at the addresses provided in this permit. [40 CFR 270.30(a)]

24. A biennial report must be submitted covering facility activities during odd numbered calendar years (See 40 C.F.R. 264.75). [40 CFR 270.30(l)(9)]

25. The permittee shall report all instances of noncompliance not reported under 40 C.F.R. 270.30(l)(4), (5), and (6) at the time monitoring reports are submitted. The reports shall contain the information listed in 40 C.F.R. 270.30(l)(6). [40 CFR 270.30(l)(10)]

26. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information. [40 CFR 270.30(l)(11)]

27. The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights or any infringement of applicable Federal, State, or local laws or regulations. [40 CFR 270.4(c)]

28. Cause for, and procedures of, modification, or revocation and reissuance of this permit shall be as provided under 40 C.F.R. 270.41. [40 CFR 270.41]

29. Causes for terminating a permit during its term or for denying a permit renewal application include the permittee's noncompliance with any condition of this permit; the permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or misrepresentation of any relevant facts at any time; or a determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination. [40 CFR 270.43(a)]

Subject Item: PI 45910 -

30. Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that insures the facility's compliance with the requirements of 40 C.F.R. 264.16, as stated in the facility's Part B permit application documents referenced in this permit. New employees shall be trained within six (6) months of the date of employment. [40 CFR 264.16(a)]

31. The permittee shall maintain the following documents and records at the facility: (a) the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; (b) a written job description for each position; (c) a written description of the type and amount of both introductory and continuing training that has been and will be given to each person filling a position; and (d) records that document that the training or job experience required has been given to, and completed by, facility personnel. [40 CFR 264.16(d)]

32. The permittee shall keep the training records on current personnel until closure of the facility; training records on former employees shall be kept for at least three (3) years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company. [40 CFR 264.16(e)]

33. The facility shall be designed, constructed, maintained and operated to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, surface water or groundwater which could threaten human health or the environment. [40 CFR 264.31]

34. The facility shall be equipped with emergency equipment, including but not limited to: (a) an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel; (b) a device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams; (c) portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment; and (d) water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. [40 CFR 264.32]

35. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency. [40 CFR 264.33]

36. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Department has ruled that such a device is not required under 40 C.F.R. 264.32. [40 CFR 264.34(a)]

37. If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Department has ruled that such a device is not required under 40 C.F.R. 264.32. [40 CFR 264.34(b)]

Subject Item: PI 45910 -

38. The permittee must attempt to make arrangements with State and local authorites, as appropriate for the type and scale of facility, to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes. Where State or local authorities decline to enter into such arrangements, the permittee must document the refusal in the operating record and where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and specific fire department, and agreements with any others to provide support to the primary emergency authority must be made. [40 CFR 264.37(a)]

39. The permittee must attempt to make agreements with emergency response teams, emergency response contractors, and equipment suppliers to handle emergencies at the site. [40 CFR 264.37(a)(3)]

40. The permittee must attempt to make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases. [40 CFR 264.37(a)(4)]

41. The provisions of the Contingency Plan included in the hazardous waste facility permit application plus all amendments, revisions and modifications thereof subsequently submitted for review and accepted by the Department shall be carried out immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. [40 CFR 264.51(b)]

42. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel and notify appropriate State or local agencies with designated response roles if their help is needed. [40 CFR 264.56(a)]

43. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment outside the facility, and his assessment indicates that evacuation of local areas may be advisable, the emergency coordinator must immediately notify appropriate local authorities. The emergency coordinator shall be available to help officials decide if local areas should be evacuated. The telephone numbers are: Fire Department (201) 991-1400 or 911, and Police Department:(201) 998-1313 or 911. [40 CFR 264.56(d)(1)]

44. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment, the emergency coordinator must immediately notify the New Jersey Department of Environmental Protection, Communication Center/Trenton Dispatch, Bureau of Communication and Support Services, at 1-877-WARN DEP (24 Hours). If the release, fire, or explosion could threaten human health and the environment outside the facility, the emergency coordinator shall also contact the government official designated as the on-scene coordinator for the area (in the applicable regional contingency plan under Title 40 Part 1510) or the National Response Center (using their twenty-four (24) hour toll free number) at 1-800-424-8802. [40 CFR 264.56(d)(2)]

45. When reporting an emergency to the required agencies, the emergency coordinator shall report: (a) name and telephone number of the reporter; (b) name and address of the facility; (c) time and type of incident (e.g. release, fire); (d) name and quantity of material(s) involved, to the extent known; (e) the extent of injuries, if any; and (f) the possible hazards to human health, or the environment, outside the facility. [40 CFR 264.56(d)(2)]

Subject Item: PI 45910 -

46. The permittee shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen (15) days after the incident, the permittee shall submit a written report on the incident to the Department. The report shall include, but not be limited to: (a) name, address, and telephone number of the permittee; (b) name, address, and telephone number of the facility; (c) date, time, and type of incident (e.g. fire, explosion); (d) name and quantity of material(s) involved; (e) the extent of injuries, if any; (f) an assessment of actual or potential hazards to human health or the environment, where this is applicable; and (g) an estimated quantity and disposition of recovered material that resulted from the incident. [40 CFR 264.56(j)]

47. The permittee must comply with the security procedures described in the facility's Part B permit application plus all amendments, revisions and modifications thereof subsequently submitted and referenced in this permit.

48. The permittee shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility. [40 CFR 264.14(a)]

49. A facility shall have a twenty-four (24) hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or an artificial or natural barrier which completely surrounds the active portion of the facility; and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility. [40 CFR 264.14(b)]

50. The permittee shall post a sign with the legend, "Danger - Unauthorized Personnel Keep Out", at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language prevalent in the area surrounding the facility and must be legible from a distance of at least twenty-five (25) feet. Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. [40 CFR 264.14(c)]

51. The permittee shall keep a written operating record at the facility in which the information required under 40 C.F.R. 264.73(b) shall be recorded. The information shall be recorded as it becomes available and maintained in the operating record until closure of the facility. [40 CFR 264.73]

52. The permittee shall have a detailed written cost estimate of closing the facility in accordance with 40 C.F.R. 264.142(a). [40 CFR 264.142(a)]

53. The permittee shall adjust the closure cost estimate for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 C.F.R. 264.143. If the permittee uses the financial test or corporate guarantee, the closure cost estimate shall be updated for inflation within thirty (30) days after the close of the firm's fiscal year and before submission of the updated information to the Department. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor. [40 CFR 264.142(b)]

Subject Item: PI 45910 -

54. During the active life of the facility, the permittee shall revise the closure cost estimate no later than thirty (30) days after the Department has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in 40 C.F.R. 264.142(b). [40 CFR 264.142(c)]

55. The permittee shall keep at the facility, during the operating life of the facility, the latest closure cost estimate prepared in accordance with 40 C.F.R. 264.142(a) and (c) and, when this estimate has been adjusted in accordance with 40 C.F.R. 264.142(b), the latest adjusted closure cost estimate. [40 CFR 264.142(d)]

56. The permittee shall establish financial assurance for closure of the facility. The permittee shall use a financial assurance mechanism approved by the Department, from the options specified in paragraphs (a) through (f) of 40 C.F.R. 264.143. [40 CFR 264.143]

57. The wording of all financial documents (except for the insurance policy itself) that are submitted to comply with the requirements for financial assurance for closure must be as per 40 C.F.R. 264.151 with the changes specified at N.J.A.C. 7:26G-8.1(c)10. [40 CFR 264.143]

58. The permittee shall maintain financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility. The permittee shall have and maintain liability coverage for sudden occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million exclusive of legal defense costs. The permittee shall demonstrate financial responsibility for sudden accidental occurrences according to the mechanisms given in 40 C.F.R. 264.147 paragraphs (a)(1), (2), (3), (4), (5) or (6). [40 CFR 264.147(a)]

59. The wording of all financial documents (except for the insurance policy itself) that are submitted to comply with the liability coverage requirements must be as per 40 C.F.R. 264.151 with the changes specified at N.J.A.C. 7:26G-8.1(c)10. [40 CFR 264.147]

60. The permittee shall comply with all regulations of the Department of Environmental Protection and other State Statutes applicable to the facility. Regulations are effective upon publication in the New Jersey Register or as otherwise indicated in the Notice of Adoption in the New Jersey Register. [40 CFR 270.32(b)(2)]

61. All documents required to be submitted to the Department by this permit shall be submitted to the following agencies: New Jersey Department of Environmental Protection, Solid and Hazardous Waste Management Program, Bureau of Solid and Hazardous Waste Permitting - North, PO Box 414, Trenton, NJ 08625-0414; and New Jersey Department of Environmental Protection, Solid and Hazardous Waste Enforcement, Bureau of Hazardous Waste Compliance and Enforcement, Northern Region, 1259 Route 46 East, Bldg. # 2 Parsippany, NJ 07054-4191. [40 CFR 270.32(b)(2)]

62. The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the regulations contained in 40 C.F.R. Parts 260 through 270, the conditions of this permit, and the permit application documents referenced in this permit. In case of conflict, the applicable hazardous waste management regulations contained in 40 C.F.R. shall have precedence over the conditions of this permit, and the conditions of this permit shall have precedence over the Part B permit application documents. [40 CFR 270.32(b)(2)]

63. One complete set of the permit application documents referenced in this permit, this Hazardous Waste Facility Permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. [40 CFR 264.74(a)]

Subject Item: PI 45910 -

64. The permittee shall adhere to the provisions of the Waste Analysis Plan cited in this permit, and any subsequent revisions approved by the Solid and Hazardous Waste Management Program. No changes shall be made to the Waste Analysis Plan without prior written approval from the Solid and Hazardous Waste Management Program. [40 CFR 264.13(b)]

65. Each hazardous waste managed at this location shall be fully identified and classified in accordance with 40 C.F.R. 264.13. At a minimum, the permittee shall develop all of the information which must be known to manage the waste in accordance with the provisions of this permit, as well as to treat or dispose of the waste at an authorized facility. [40 CFR 264.13(a)]

66. Waste sampling and analysis shall be in accordance with the procedures outlined in the waste analysis plan cited in this permit and shall employ equipment and methods as described in the latest edition of USEPA Manual SW-846 or as otherwise approved by the USEPA or the Department. All analyses performed to comply with the conditions of this permit shall be conducted by a laboratory that is certified by the Department to conduct the analysis. [40 CFR 264.13(b)]

67. The permittee shall maintain in the written Operating Record required by this permit records and results of all waste analyses performed. Such records and results shall be entered into the written Operating Record as they become available and shall be maintained until closure of the facility. [40 CFR 264.73(b)(3)]

68. All records and results of analyses conducted shall include an identification of the waste sampled, the name of the individual who collected the sample, the date, time, and location of sampling; the date analyses were performed; the name of the individual who performed the analysis; and the results for all test parameters analyzed. [40 CFR 264.73(b)(3)]

69. The permittee shall perform inspections in accordance with the referenced permit application documents and as follows. Internal communication equipment, the telephone system and site gates and gate locks shall be inspected weekly for proper operation. Protective clothing shall be inspected weekly for proper operation and supply. Site fencing, ladders, platforms, stairways and walkways shall be inspected weekly for corrosion or damage. Warning signs shall be inspected weekly for visiblity and damage. Fire extinguishers shall be inspected monthly for adequate pressure and charge. First aid equipment and supplies shall be inspected monthly for adequate supply and operation. Emergency equipment and supplies shall be inspected monthly for adequate supply and proper maintenance. Spill absorbent and overpack drums shall be inspected monthly for adequate supply. Electric motors, fire alarm systems and communications systems shall be inspected monthly for power, wear and wiring deterioration. Fire hydrants shall be inspected annually for adequate pressure. [40 CFR 264.15(b)]

70. The permittee must record the inspections required by this permit in an inspection log or summary. Records of all the required inspections shall be maintained at the facility for a minimum of three (3) years. At a minimum, this log must include the date and time of each inspection, the name of the inspectors, a notation of the observations made, and the date and nature of any repairs or other remedial actions performed. [40 CFR 264.15(d)]

71. The permittee shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately. [40 CFR 264.15(c)]

Subject Item: PI 45910 -

72. At the time of final closure, the permittee shall close the hazardous waste units authorized by this permit in accordance with 40 C.F.R. 264 Subpart G, the closure plan referenced in this permit, and the conditions of this permit. [40 CFR 264.111(c)]

73. The permittee shall keep a copy of the closure plan and all revisions to the plan at the facility until closure is completed. [40 CFR 264.112(a)]

74. The permittee shall amend the closure plan any time changes in operating plans or facility design affect the closure plan or whenever there is a change in the expected year of closure of the facility. The permittee must comply with the requirement cited at 40 C.F.R. 264.112(c)(3) for amendment of closure plan. [40 CFR 264.112(c)]

75. The permittee shall notify the Department at least forty-five (45) days prior to the date the permittee expects to begin closure, except in cases where the facility's permit is terminated or if the facility is otherwise ordered by judicial decrees or compliance order to close. The date when the owner or operator "expects to begin closure" shall be within thirty (30) days after the date on which the owner or operator expects to receive the final volume of wastes. [40 CFR 264.112(d)]

76. Before processing any waste, the permittee shall test a representative sample of the waste to be processed for the parameters listed below: 1) Tank or container storage/treatment - compatibility; 2) Container repacking - pH, reactivity, ignitability and compatibility; 3) Consolidation - ignitability, reactivity and compatibility; 4) Solidification/stabilization - pH, reactivity, ignitability and compatibility; 5) Blending and bulking in containers or tanks - specific gravity, reactivity, ignitability, corrosivity, compatibility, pH, organic chlorine content, BTU content, bottom sediment, water content, type acid or base, and total organic cabon, if applicable; 6) Shredding/screening - pH, reactivity, ignitability and compatibility and 7) Homogenization - compatibility. No testing, except compatibility, is required for solid waste sludges or solids that are visually conforming. [40 CFR 264.13, 40 CFR 270.32(b), 40 CFR 264.17, 40 CFR 264.177]

77. For each outgoing shipment of waste initially accepted from off-site, or mixtures or residues generated by the permittee from the storage, transfer or treatment of waste accepted from off-site, the manifest shall include the identification number(s) assigned by the original off-site generators to the wastes included in the shipment or from which the waste mixture or residue was generated by the permittee, except: where the hazardous waste number assigned by the original generator was a characteristic code and the permittee has treated the waste to no longer exhibit said characteristic, then said characteristic number need not be included on the manifest, but shall instead be identified on a seperate sheet attached to the facility copy of the manifest which shall be kept on file at the facility; and where the hazardous waste number(s) assigned by the original off-site generator was incorrect and the permittee has determined the correct number(s) for the waste and has complied with the manifest discrepancy and unmanifested waste report requirements, then the correct hazardous waste number(s) shall be substituted for the incorrect hazardous waste number(s) originally assigned by the off-site generator. [40 CFR 270.32(b)]

78. During implementation of the waste analysis procedures required by this permit, if the permittee finds a waste to be non-conforming, the permittee may accept the waste if it appears to be other than the quantity and waste type described on the manifest provided performance of the pre-acceptance waste analysis procedures required by the permit indicates that the permittee is authorized to accept such waste and thereafter the permittee complies with 40 C.F.R. 264.72. [40 CFR 264.13]

Subject Item: PI 45910 -

79. For lab pack containers to be accepted for processing, the permittee shall comply with the following pre-acceptance waste analysis procedures. The permittee shall obtain a waste profile sheet (WPS), a chemical waste packing list, and any supporting documentaion in accordance with this permit. The packing list for each lab pack shall list the specific names of all laboratory chemical bottles, jars, jugs, etc. in that lab pack container. The permittee shall review the information on the WPS, packing list and any supporting documentation. If the labortory chemicals are all wastes that the permittee is authorized to accept for on-site processing, the permittee may contract with the generator for the shipment of the waste. Lab pack chemicals in their original containers and bearing original labels need not be analyzed unless the permittee has reason to believe that they are not as represented on the waste profile sheet. If the individual bottles, jars, jugs, etc. are to be removed from the lab pack containers, opened, and blended or bulked with other wastes, then the permittee shall confirm the compatility of the wastes prior to commencing such blending or bulking by performing the compatibilty test identified in the Waste Analysis Plan referenced in this permit. [40 CFR 264.13]

80. For the purposes of classifying the waste and determining compliance with land disposal restrictions of 40 C.F.R. Part 268, the permittee shall collect samples from hazardous waste that has been treated by stabilization. All samples collected shall be analyzed for the parameters necessary to classify the waste and to determine compliance with the land disposal restrictions. A representative composite sample of each treatment batch shall be collected in accordance with the procedures detailed in Sections 3.0 through 3.4.4 of the document titled "Batch Sampling Procedures for Treated Hazardous Wastes," submitted on September 20, 2001. However, Section 3.5, Special Composite Sampling Requirements for Continous Treatment Batches, of the cited document which proposes reduced composite sampling frequencies for specific waste streams and circumstances is not approved. With the exception of the reduced sampling requirements for certain treatment batches described elsewhere in this permit, a representative grab sample of each treatment batch shall be collected in accordance with the procedures detailed in Sections 3.0 through 3.3 and 3.6 of the document titled "Batch Sampling Procedures for Treated Hazardous Wastes," submitted on September 20, 2001. [40 CFR 264.13, 40 CFR 270.32(b), 40 CFR 264.17, 40 CFR 264.177]

81. For wastes to be accepted for container transfer only, the permittee shall comply with the following pre-acceptance waste analysis procedures. The permittee shall obtain a completed generator Waste Profile Sheet (WPS) and any other supporting documents such as, but not limited to, a chemical waste packing list for lab packs. The permittee shall review the information on the WPS and any supporting documentation. If the waste stream(s) are all wastes which the permittee is authorized to accept then the permittee shall review the acceptability of the waste stream(s) at the potential authorized off-site treatment or disposal facilities. Such review shall include the permittee's knowledge of waste acceptability criteria of the potential ultimate facility and, if necessary, shall involve the submittal of the WPS and any supporting documentation to the potential ultimate facility for confirmation of the acceptability of the waste stream. Waste streams accepted for transfer need not be analyzed unless the permittee has reason to believe they are not as represented on the waste profile sheet, but shall undergo testing to meet acceptability criteria of the ultimate treatment or disposal facility, if necassary. The permittee shall only accept lab packs that are accompanied by a packing list that itemizes the individual containers within the lab pack. The permittee shall only accept lab packs that contain individual containers of laboratory chemicals that have been packed at the generator's site by the permittee's Quality Assurance Technicians and/or companies experienced in the identification, segregation and packing laboratory chemicals. The permittee shall require the generator of lab packs to properly identify or analyze the contents of individual containers within a lab pack that do not have the original manufacturer's label. [40 CFR 264.13]

Subject Item: PI 45910 -

82. For stabilization treatment batches that meet the requirements discussed below, the permittee shall be subject to the reduced sampling frequency requirements of this condition for the purpose of waste classification and land disposal restriction determinations. The sampling methodology and analytical requirements for these wastes shall be identical to those for other stabilization treatment batches. Batches subject to the reduced requirements may consist of only the following: sand blast grit contaminated with lead from surface preparation for painting from various sites; contaminated soils from the same remediation site; wastewater treatment filter cake from the same generator; or other waste streams requested by the permittee in writing and approved by the Department. No more than five waste streams may be combined in a single treatment batch. For each new treated batch, the permittee shall collect an initial grab sample. If the analytical results from this initial grab sample indicate that the stabilization process has effectively treated the batch to a solid waste classification and to meet land disposal treatment standards, therefafter, the permittee may elect not to collect a grab sample from the same established batch. However, the permittee shall, at a minimum, collect a grab sample from the first of each such treatment batch processed in a calendar month. A new initial grab sample shall be collected whenever a new waste stream (i.e. contaminated soils from a different remediation site, wastewater treatment filter cake from a different generator) is included in a batch. For sand blast grits, a new initial grab sample shall be collected when a sand blast grit that carries a hazardous waste number other than D008 is included in a treated batch. [40 CFR 264.13, 40 CFR 270.32(b), 40 CFR 264.17, 40 CFR 264.177]

83. The permittee shall require the generator of lab pack containers to properly identify or analyze the contents of the individual containers of waste within a lab pack container that do not contain the original manufacturer's label. [40 CFR 264, 40 CFR 270.32(b), 40 CFR 264.13]

84. The permittee shall perform the following basic mandatory analyses on all representative samples collected from incoming shipments of waste in accordance with the Waste Analysis Plan referenced in this permit: paint filter test, flash point, ignitability, BTU/gallon, percent chlorine, chlorine spot test, specific gravity, miscibility, pH, total organic carbon (aqueous waste only), chemical compatibility, and reactivity. Polychlorinated biphenyl (PCB) analysis shall also be performed on ignitable, combustible and organic wastes that are not 100% aqueous waste streams. The permittee shall base the decision to accept or reject the incoming waste shipment on a comparison of information obtained from analysis of the incoming waste shipment samples to the information obtained from the pre-acceptance waste analysis procedures required by this permit. When a waste shipment is found to be non-conforming, the permittee may comply with the requirements for acceptance of non-conforming waste found elsewhere in this permit. In the event that a representative sample of waste yields a PCB analysis greater than 50 ppm, except for small capacitors that are not regulated as hazardous waste, the permittee shall provide oral notification to the Department, refrain from unloading or processing the waste shipment, return the waste shipment of PCB contaminated waste to the generator as soon as any additional analysis that may be required is completed, and provide written notification to the Department that the waste has been returned to the generator. [40 CFR 264.13, 40 CFR 270.32(b), 40 CFR 264]

85. The permittee shall perform analyses on a representative sample of outgoing waste shipments on an as needed basis to satisfy the requirements of the ultimate storage, transfer, treatment or disposal facility authorized to receive such waste. [40 CFR 264.13]

86. The permittee shall not store or treat hazardous waste at any location at the facility other than those authorized by this permit. The permittee shall obtain prior approval from the Solid and Hazardous Waste Management Program to make any changes or alterations to the authorized activities in this permit. [40 CFR 270.32(b)]

Subject Item: PI 45910 -

87. The permittee shall not exceed a hazardous waste storage volume of 249,500 gallons or its equivalent volume at any one time. [40 CFR 270.32(b)]

88. The permittee shall comply with the following waste analysis procedures for incoming wastes, except for lab packs and containers for transfer. Upon arrival of each waste shipment, the permittee shall perform a visual inspection of the incoming waste shipment and collect representative samples of the waste shipment. Samples shall be taken using a coliwasa or equivalent sampler for liquids or a stainless steel scoop for solids. For bulk shipments at least one sample shall be taken from each transport unit. Bulk shipment samples shall not be composited except for polychlorinated biphenyl (PCB) screening. For containerized shipments the permittee shall collect a seperate representative sample for analysis in accordance with the waste analysis requirements of this permit from each container of each generator's waste stream as described on each manifest line item description with the exception of the following: for heterogeneous hazardous waste, composite samples may be collected from up to ten containers per composite sample; and for homogeneous hazardous waste, separate samples may be collected from as few as 20% of the containers or composite samples may be collected from up to 20 containers per composite sample. For multi-phase wastes, the permittee shall perform a seperate series of analyses on each phase of waste to be subjected to a different activity. For multiple shipments of waste received during the same day, profiled under the same approval code number, generated from the same process(es) and where the waste constituents do not vary in type or quantity in significant amounts, only the first shipment received shall be sampled and analyzed. Subsequent shipments received on the same day shall be visually inspected and compared to the first shipment and the waste profile sheet to determine conformance with the approved waste stream. If found to be visually non-conforming each non-conforming shipment shall be sampled and analyzed. [40 CFR 264.13]

89. The permittee shall comply with the following procedures for incoming shipments of waste lab packs and containers for transfer. Upon arrival of each waste shipment the permittee perform a visual inspection of the incoming waste shipment. The permittee's decision to accept or reject the incoming waste shipment shall be based on a comparison of the information obtained by inspection versus information obtained from the manifest and the pre-acceptance documentation obtained in accordance with this permit. When a waste is found to be non-conforming, the permittee shall comply with the procedures for acceptance of non-conforming wastes found elsewhere in this permit. [40 CFR 264.13]

90. The permittee shall comply with the following pre-acceptance waste analysis procedures for wastes other than lab packs and containers for transfer. Prior to accepting any waste from off-site generators the permittee shall obtain a properly completed generator Waste Profile Sheet (WPS). The WPS shall contain all applicable information identified in the sample WPS form provided in the Waste Analysis Plan referenced in this permit. If the generator fails to provide all of the information requested on the forms listed in this permit that is necessary to safely and properly store, transfer, treat or dispose of the waste, the permittee shall contact the generator and obtain the necessary information to complete the forms. The permittee may make arrangements to accept the waste if a thorough evaluation of the information obtained indicates that the waste is one of the wastes the permittee is authorized by this permit to accept. [40 CFR 264.13]

Subject Item: PI 45910 -

91. The permittee is authorized to modify, extend, and/or reconstruct the following container storage, treatment, and transfer areas in accordance with the permit modification documents referenced in this permit: (a) Area B and (b) Area C. Upon completion of modification of each area, within thirty (30) days, the permittee shall submit to the Department by certified mail or hand delivery a letter signed by the permittee and a licensed professional engineer registered in the State of New Jersey stating that the areas have been constructed in compliance with the permit. The Department will inspect the areas to determine whether or not it is in conformance with the layout and specifications of the design plans set forth in the engineering plans and reports. If within (15) days of the date of submission of the permittee's aforementioned letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the areas meet the design requirements. If any of the area is found not in conformance with the approved design, a schedule shall be submitted within (30) days of the date of the Department's inspection outlining how the area will be brought into conformance. The schedule shall be subject to the Department's approval. The permittee shall implement the approved closure plan for the partial closure of any authorized waste storage treatment, and transfer areas, or portions thereof, as necessary, for the construction work specified in this paragraph. Closure reports and certifications shall be submitted to the Department in accordance with condition of this permit and approved closure plan. [40 CFR 270.32(b)]

92. The permittee is authorized to construct the proposed Rail Spur in accordance with the requirements of this permit. The proposed railroad tracks shall be constructed and installed as shown in the engineering Site Plan Drawing Number SP1 referenced in this permit. Within thirty (30) days after completion of construction, the permittee shall submit to the Department by certified mail or hand delivery a letter signed by the permittee and a licensed professional engineer registered in the State of New Jersey stating that the Rail Spur has been constructed in compliance with the permit. The Department will inspect the Rail Spur to determine whether or not it is in compliance with the layout and specifications of the design plans set forth in the engineering plans and reports. If within fifteen (15) days of the date of submission of the permittee's aforementioned letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the Rail Spur meets the design requirements. If the Rail Spur is found not in conformance with the approved design, a schedule shall be submitted within thirty (30) days of the date of the Department's inspection outlining how the Rail Spur will be brought into conformance. The schedule shall be subject to the Department's approval. The permittee shall not utilize the Rail Spur for waste transportation until the Department approves the construction. [40 CFR 270.32(b)]

93. The permitee, if offered hazardous waste of a type which the facility is not authorized to handle, shall not accept the waste from the hauler, instruct the hauler to contact the generator for further instructions, telephone the generator and inform the generator that the permittee is not authorized to accept the waste and that the permittee has instructed the hauler to contact the generator for further instructions, follow up the telephone call to the generator with a letter verifying the telephone conservation, telephone the Department at (609) 292-8341 and report the unauthorized waste shipment, and follow up the telephone call to the Department with a letter verifying the telephone conversation. [40 CFR 270.32(b)]

Subject Item: HWSG762507 - Containment building

94. All surfaces of the Containment Building to be in contact with waste shall be chemically compatible with those wastes. [40 CFR 264.1101(a)(2)]

Subject Item: HWSG762507 - Containment building

95. If the permittee detects a condition that could lead to or has caused a release of waste, the permittee must repair the condition promptly, in accordance with the following procedures. Upon detection of a condition that has lead to the release of waste, the permittee shall: enter a record of the discovery in the facility operating record; immediately remove the portion of the Containment Building affected by the condition from service; determine what steps must be taken to repair the Containment Building; remove any leakage from the secondary collection system and establish a schedule for accomplishing the cleanup and repairs; within 7 working days after the discovery of the condition, notify the Department of the condition; and within 14 working days, provide a written notice to the Department with a description of the steps taken to repair the Containment Building, and the schedule for accomplishing the work. The Department will review the information submitted, make a determination regarding whether the Containment Building must be removed from service completely or partially until repairs and cleanup are complete, and notify the permittee of the determination and underlying rationale in writing. Upon completing all repairs and cleanup, the permittee must notify the Department in writing and provide a verifcation, signed by a qualified professional engineer registered in New Jersey, that the repairs and cleanup have been completed according to the written plan. [40 CFR 264.1101(c)(3)]

96. If the Department determines that the proposed Containment Building has been constructed in accordance with the application documents and engineering designs referenced in this permit, the permittee will be authorized to utilize the Containment Building to treat, store and transfer solid and hazardous wastes authorized by this permit. Authorized treatment activities include only solidification/stabilization with cement kiln dust or equivalent material, screening and consolidation. The permittee shall operate and maintain the proposed Containment Building in accordance with the application documents and engineering designs referenced in this permit. The maximum solid and hazardous waste capacities of the storage/treatment areas in the Containment Building shall be as follows: Cell 1 - 402 cubic yards; Cells 2, 3 and 4 - 195 cubic yards; and the Process Floor - 453 cubic yards. [40 CFR 270.32(b)]

97. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment, the permittee finds that not all contaminated subsoils can be practicably removed or decontaminated, the permittee must close the Containment Building and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (40 C.F.R. 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, the containment building will then be considered to be a landfill, and the permittee must meet all of the requirements for landfills specified in 40 C.F.R. Part 264 Subparts G and H. [40 CFR 264.1102(b)]

98. Solidification/stabilization shall take place as provided herein. The permittee shall empty the waste to be solidified/stabilized from containers into the secondary containment system of the Containment Building. The permittee shall introduce cement kiln dust or equivalent materials into the waste to be solidified/stabilized by the use of equipment authorized by the Department, as described in the application documents and engineering designs referenced in this permit. The permittee shall mix the waste and cement kiln dust or equivalent material with a backhoe, front end loader or other equipment authorized by the Department. The permittee may place the solidified/stabilized waste in leakproof roll-offs, leak proof dump trailers or intermodal containers in any area authorized by this permit for storage or transfer pending shipment to off-site authorized facilities. [40 CFR 270.32(b)]

Subject Item: HWSG762507 - Containment building

99. Subject to Department approval of the final design and construction of the Contaiment Building, the permittee shall be authorized to use the Containment Building to manage solid, sludges or slurry wastes identified with the following hazardous waste numbers: D002, D004 through D043, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K156 through K161,K169, K170, K171, and K172. Wastes exhibiting the characteristic of ignitability or reactivity as defined at 40 C.F.R. 261.21 and 261.23 are prohibited from being managed in the Containment Building. [40 CFR 270.32(b)]

100. Within 180 days after receiving the final volume of waste at the Containment Building, the permittee shall conduct soil sampling around the Containment Building in accordance with the approved closure plan. Soil sampling shall not be conducted prior to the removal of all waste from the unit. The permittee shall notify the Department in writing at least fourteen (14) calendar days prior to initiation of soil sampling so that an auditor from the Department can be present during the sampling episode. Soil sampling analytical results shall be submitted to the Department either prior to or with the closure report. [40 CFR 264.1102(a)]

101. Within 180 days after receiving the final volume of waste at the Containment Building, the permittee must remove or decontaminate all waste residues, contaminated system components (liner, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 C.F.R. 261.3(d) applies. Decontamination shall take the form of washing with detergent and water at high pressure. [40 CFR 264.1102(a)]

102. Within 180 days after receiving the final volume of waste at the Containment Building, if decontamination has been performed, the permittee shall collect all residues generated during decontamination of the Containment Building and its components and ship these residues off-site to a faciltiy authorized to manage such waste. [40 CFR 264.114]

103. The permittee shall submit to the Department, either prior to or with the closure report, the results of the decontamination verification procedures. The permittee shall retain the equipment and structures that required decontamination on-site until the permittee has received a written determination from the Department that the decontamination levels specified in the closure plan have been achieved and the analytical results are acceptable to the Department, unless the permittee decides to dispose of the equipment and structures as hazardous waste. [40 CFR 264.115]

104. The permittee shall operate the Containment Building in a fashion that assures that waste will not come in contact with door or window openings. [40 CFR 264.1101(a)(2)(ii)]

105. The permittee shall not treat, store or transfer solid or hazardous waste at the gravel surface located along the northern perimeter of the facility by the QA/QC dock authorized by this permit during the construction of the proposed Containment Building. [40 CFR 270.32(b)]

106. The permittee shall not place incompatible hazardous waste or treatment reagents into the Containment Building or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail. [40 CFR 264.1101(a)(3)]

107. The permittee shall maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause waste to be released from the primary barrier. [40 CFR 264.1101(c)(1)(i)]

Subject Item: HWSG762507 - Containment building

108. The permittee shall maintain the level of the stored/treated waste within the containment walls of the Containment Building so that the height of any containment wall is not exceeded. [40 CFR 264.1101(c)(1)(ii)]

109. The permittee shall maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment. [40 CFR 264.1101(d)(3)]

110. The permittee shall inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment as well as the Containment Building and area immediately surrounding the containment building to detect signs of releases of waste. The permittee shall conduct inspections of the following activity/equipment as outlined below: Lighting for proper operation; Primary and Secondary Inspection Sumps for accumulated liquids; Process Floor (visible areas), Joints (visible areas), Secondary Containment and Push Walls, Building Walls, Columns and Supports for significant cracks, gaps, corrosion or other deterioration that could cause waste to be released; Air Pollution Control and Ventilation System for proper operation; General Exterior for signs of release of hazardous waste; and Doors, Windows, Vents and Cracks for visible emissions in accordance with 40 C.F.R. Part 60, Appendix A, Method 22. [40 CFR 264.1101(c)(4), 40 CFR 270.32(b), 40 CFR 264.73]

111. The permittee is prohibited from storing, treating or transferring uncontainerized liquid or semi-liquid waste in the Containment Building or in the truck loading/unloading bay of the Containment Building. [40 CFR 270.32(b)]

112. Within 90 days after receiving the final volume of waste at the Containment Building, the permittee must remove all waste from the Containment Building and ship the waste to an authorized facility. [40 CFR 264.113(a)]

113. Within 60 days of completion of closure of the Containment Building, the permittee shall submit to the Department by registered mail a report of closure activities. The report shall include a certification that the Containment Building has been closed in accordance with the the specifications in the approved closure plan and the requirments of this permit. The certification must be signed by the permittee and signed and sealed by an independent professional engineer registered in the State of New Jersey. The report shall also include supporting documentation. The Department will review the report, including the decontamination verification and soil sampling data, and conduct an ispection of the Containment Building. If the Department determines that the Containment Building was clean closed, the Department will accept the closure certification and closure will be deemed complete. [40 CFR 264.115]

114. Within 180 day after receiving the final volume of waste at the Containment Building, if decontamination has been performed, the permittee must complete decontamination verification procedures for the area. Decontamination shall consist of collecting final wash water and wash water blank samples and testing them for the parameters listed in Table 5.2 of the facility Closure Decontamination Sampling Plan included in the referenced permit application documents. Decontamination methods shall be repeated until the concentrations of the rinse water test parameters are equal to the amount present in a wash water blank. [40 CFR 264.1102(a)]

115. The permittee shall use controls and practices to ensure containment of the waste within the Containment Building. [40 CFR 264.1101(c)(1)]

Subject Item: HWSG762507 - Containment building

116. The permittee shall take measures to prevent the tracking of waste out of the Containment Building by personnel or equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed. [40 CFR 264.1101(c)(1)(iii)]

117. The permittee shall take measures to prevent the release of liquids or wet materials into areas without secondary containment. [40 CFR 264.1101(d)(2)]

118. The permittee shall take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 C.F.R. Part 60, Appendix A, Method 22 - Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices shall be operated and maintained with sound air pollution control practices (see 40 C.F.R. Part 60 Subpart 292). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the Containment Building. [40 CFR 264.1101(c)(1)(iv)]

119. The permittee is authorized to construct the proposed Containment Building in accordance with the conditions of this permit and the application documents referenced in this permit. Within thirty (30) days after completion of construction, the permittee shall submit to the Department by Certified Mail or hand delivery a letter signed by the permittee and a licensed professional engineer registered in the State of New Jersey stating that the Containment Building has been constructed in compliance with the permit and that the Containment Building meets the requirements set forth in 40 C.F.R. 264.1101(a) through (3). The Department will inspect the Containment Building to determine whether or not it is in compliance with the layout and specifications of the design plans set forth in the engineering plans and reports. If within fifteen (15) days of the date of submission of the permittee's aformentioned letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the Containment Building meets the design requirements. If the Containment Building is not in compliance with the approved design, a schedule shall be submitted within thirty (30) days of the date of the Department's inspection outlining how the Containment Building will be brought into compliance. The schedule shall be subject to the Department's approval. The permittee shall not utilize the Containment Building for waste management until the Department approves the construction. [40 CFR 270.32(b)]

120. Subject to Department approval of the final design and construction of the Containment Building, the permittee will be authorized to utilize the following equipment for the solidification/stabilization of wastes: back hoe, fork lift, drum grappler, front end loader, leak proof roll-offs, leak proof dump trailers, leak proof intermodal containers, concrete cells 1, 2, 3 and 4, kiln dust or equivalent material and screening equipment. The permittee may add or delete equipment from the above list provided the permittee has given the Department, at the address listed in this permit, written notification of such addition(s) or deletions(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

121. Rail Car Management and Design: The rail cars entering the facility shall meet the following requirements: (i) All of the rail cars that will enter the facility must meet the design requirements and standards specified under the applicable Federal Rail Road Transportation requirements. (ii) Loading and unloading of the rail cars at the facility will only be conducted in the enclosed truck/rail car bay of the Containment Building. (iii) The rail cars can only be staged onsite for up to 24hours or the next business day. In the event of a need for the rail cars to stay onsite for more than 24hrs or the next business day, the permittee shall report to the Department immediately. [40 CFR 270.32(b)]

Subject Item: HWSG785088 - Hazardous Waste Storage Tanks ST-4 and ST-5

122. The permittee is authorized to store and/or treat hazardous waste authorized by this permit in tank systems ST-4 and ST-5. Treatment shall be limited to blending, bulking, filtration and decanting. Each tank shall have a maximum capacity of 7,500 gallons. Both tanks are 10 feet in diameter, 20 feet high, vertical, aboveground, and constructed of carbon steel. Both tanks are located in the Tank Farm. [40 CFR 270.32(b)(1), 40 CFR 264.13, 40 CFR 264.197]

123. The permittee shall design, construct, operate, and maintain each tank system in accordance with the application documents referenced in this permit. [40 CFR 270.32(b)(1)]

124. Each secondary containment system must be designed, installed, and operated to prevent migration of waste or accumulated liquid out of the system to the soil, ground water, or surface water at any time during use of the tank system. [40 CFR 264.193(b)(1)]

125. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the permittee can demonstrate to the Department that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours. [40 CFR 264.193(c)(4)]

126. Each secondary containment system must be maintained free of cracks and gaps. [40 CFR 264.193(e)(1)(iii)]

127. The permittee must not place hazardous wastes or treatment reagents in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail. [40 CFR 264.194(a)]

128. The permittee must comply with the requirements of 40 C.F.R. 264.196 if a leak or spill occurs in a tank system. [40 CFR 264.194(c)]

129. The permittee must not place ignitable or reactive waste in a tank system unless the permittee complies with 40 C.F.R. 264.198. [40 CFR 264.198]

130. The permittee must not place incompatible wastes, or incompatible wastes and other materials, in the same tank system, unless the permittee complies with 40 C.F.R. 264.17(b). [40 CFR 264.199(a)]

131. The permittee must not place hazardous waste in a tank system that has not been decontaminated if the tank system previously held an incompatible waste or material, unless the permittee complies with 40 C.F.R. 264.17(b). [40 CFR 264.199(b)]

132. The permittee shall manage all hazardous waste placed in a tank system in accordance with the applicable requirements of Subparts AA, BB, and CC of 40 C.F.R. Part 264. [40 CFR 264.200]

133. The permittee shall inspect the following items at least once each operating day: Tank Shells for corrosion, wet seams, bulges, rivets or welds; Tank Supports for corrosion and deterioration; Overfill Prevention Controls for deterioration, damage, and function; Spill Prevention Controls for deterioration, leaks, damage, and function; Tank Ancillary Equipment for deterioration, leaks, damage, and function; Containment System for erosion, wet spots, cracks, gaps, uneven settlement, spalling, spills, and precipitation; Tank Labels and Warning Signs for visibility; and Emergency Equipment for function and unobstructed availability. The permittee shall inspect the following items at least once each month: Tank High Level Alarms for proper operation and maintenance; Tank High Level Automatic Fee Cut-Off Devices for proper operation and maintenance; and Tank Guages for proper operation and maintenance. [40 CFR 264.195]

Subject Item: HWSG785088 - Hazardous Waste Storage Tanks ST-4 and ST-5

134. Within ninety (90) days after receiving the final volume of hazardous waste at a hazardous waste tank system, the permittee shall remove all hazardous waste from the tanks and manifest such waste to an off-site authorized facility. [40 CFR 264.113(a)]

135. Within 180 days after receiving the final volume of hazardous waste at a hazardous waste tank system, the permittee shall complete decontamination of the tanks, their ancillary equipment, and their secondary containment systems. Decontamination procedures shall include power washing with detergent/water. [40 CFR 264.197(a)]

136. Within one hundred eighty (180) days after receiving the final volume of hazardous waste at the tank system, the permittee shall collect all residues generated from the decontamination of the tank system components and ship the material off-site to a facility authorized to manage such waste. [40 CFR 264.197(a)]

137. Within 180 days after receiving the final volume of hazardous waste at a hazardous waste tank system, the permittee shall complete decontamination verification procedures for the tanks, their ancillary equipment and secondary containment systems. Decontamination verification shall consist of collecting samples of the final wash water from the decontamination of the secondary containment units, the tanks, and all tank appurtenances and a wash water blank and analyzing the samples for the parameters listed in Table 5.1 of the Facility Closure Decontamination Sampling Plan referenced in this permit. Decontamination methods shall be repeated until the concentrations of the final waste water test parameters are equal to the amount present in a wash water blank. [40 CFR 264.197(a)]

138. The permittee shall submit to the Department, either prior to or with the closure report, the results of the decontamination verification procedures. The Department will review the results and notify the facility if additional decontamination procedures are required. The permittee shall not remove any equipment or structures requiring decontamination from the site until the Department has made a determination that decontamination was adequate. [40 CFR 264.115]

139. Within sixty (60) days of completion of closure of a hazardous waste tank system, the permitte shall submit to the Department, by registered mail, a report of closure activities. The report shall include a certification that the tank system has been closed in accordance with the specifications of the approved closure plan and this permit and supporting documentation. The certification must be signed by the facility and by an independent registered professional engineer licensed by the State of New Jersey. The Department will review the report and perform an inspection of the facility. Based on the review of the report and the results of the inspection, the Department will notify the facility of the acceptability of the closure certification and of any additional activities which may be required. [40 CFR 264.115]

140. Every day the facility is in operation the permittee shall record in an inspection log or summary the volume of any tank used for the storage of hazardous waste. The permittee shall place the inspection log or summary record of the tank storage volume into the operating record of the facility. [40 CFR 264, 40 CFR 270.32(b), 40 CFR 264.73]

141. The permittee is authorized to use ST-4 and ST-5 to conduct blending, bulking, decanting, filtration and storage of aqueous wastes identified with the following hazardous waste numbers: D001, D002, D004 through D043, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through D052, K060 Through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, and K156 through K161. [40 CFR 270.32(b)]

Subject Item: HWSG785088 - Hazardous Waste Storage Tanks ST-4 and ST-5

142. The permittee is authorized to use ST-4 and ST-5 to conduct blending, bulking, decanting, filtration and storage of organic solvent/aqueous wastes idenified with the following hazardous waste numbers: D001, D002, D004 through D043, F001 through F012, F019, F024, F025, F032, F034, F035, F037, F038, F039, K001 through K011, K013, K014, K015 through K030, K035, K036, K042, K044, K046, K048 through K052, K060, K061, K062,, K079, K081, K083 through K088, K093 through K096, K100 through K105, K156 through K161, P001, P006, P022, P028, P029, P030, P050, P053, P055, P064, P074, P098, P105, P106, P120, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U001 through U012, U014 through U027, U028 through U031, U034 through U039, U041 through U053, U055 through U064, U066 through U099, U101, U102, U103, U105 through U134, U136, U137, U139, U140 through U159, U161 through U174, U177, U179 through U189, U190 through U194, U197, U200 through U228, U230 through U235, U237, U239, U240, U242, U243, U244, U246, U247, U248, U249, U271, U272, U277 through U280, U328, U353, U359, U364 through U367, U372, U373, U375 through U379, U381, U382 through U387, U389 through U396, U400 through U404, U407, U409, U410, and U411. [40 CFR 270.32(b)]

143. The permittee shall operate and maintain the blending and bulking treatment process in accordance with the permit application documents and engineering designs referenced in this permit and as follows. Before treating any waste, the permittee shall test a representative sample of the waste to be treated in accordance with the Waste Analysis and Quality Assurance requirements of this permit. Waste derived fuels and other wastes resulting from the treatment process shall be managed in accordance with the requirements of this permit until shipped off-site to facilities authorized to receive these wastes. The permittee is authorized to utilize the following equipment in the blending and bulking treatment process: Tanks ST-4 and ST-5, a set of filter screens, liquid transfer pumps with explosion proof motors, assorted transfer hoses, ground lines, one 12' x 4' x 4' screen filter box, one 5.83' x 4' x 3' screen filter box and one in-line dispersing grinder with explosion proof motor. The permittee may add or delete equipment from the above list provided the permittee has given the Department written notification of such addition(s) or deletions(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

144. Within 180 days after receiving the final volume of hazardous waste at a tank system, the permittee shall conduct soil sampling around the tank in accordance with the approved closure plan. Soil sampling shall not be conducted prior to the removal of all hazardous waste from the unit. The permittee shall notify the Department in writing at least fourteen (14) calendar days prior to initiation of soil sampling so that an auditor from the Department can be present during the sampling episode. Soil sampling analytical results shall be submitted to the Department either prior to or with the closure report. [40 CFR 264.1102(a)]

145. The permittee shall operate and maintain the tank decanting process in accordance with the permit application documents and the engineering designs referenced in this permit. Before decanting any waste, the permittee shall test a representative sample of the waste to be decanted in accordance with the waste analysis requirements of this permit. The permittee shall decant liquid waste from tanks authorized by this permit by pumping, vacuuming, gravity or other equivalent methods; and the permittee shall perform the decanting of liquid waste and subsequent transfer of such waste within the storage, transfer and treatment areas authorized by this permit. [40 CFR 270.32(b)]

Subject Item: HWSG785088 - Hazardous Waste Storage Tanks ST-4 and ST-5

146. The permittee is authorized to substitute hazardous waste tank storage volume authorized by this permit for its equivalent hazardous waste container storage volume authorized by this permit subject to the following conditions: The permittee has provided to the Department at the address listed in this permit written notification of the proposed substitution describing the affected tank(s) and the length of time the subject tank(s) will be out of service; and the tank(s) to be substituted for container storage volume shall be empty. The tank storage volume substituted for container storage volume in accordance with the conditions of this permit shall not count as authorized storage capacity while the tank(s) remain out of service. [40 CFR 270.32(b)]

147. The permittee is authorized to operate a treatment process to filter wastes authorized by this permit in the Tank Farm. The permittee shall operate and maintain the treatment process in accordance with the application documents and engineering designs referenced in this permit. Liquid or semi-liquid waste may be pumped through the filter screen boxes located within the Tank Farm to remove suspended solids prior to transferring such waste to any storage, transfer or treatment activity authorized by this permit. The permittee is authorized to utilize the following equipment for the filtration process: one 12'X4'X4 screen filter box, one 5.83'X4'X3' screen filter box, assorted transfer hoses, groud lines, portable filtration devices, a set of filter screens, pumps with explosion proof motors, and one in line dispersing grinder with explosion proof motors. The permittee may add or delete equipment from this list provided the permittee has given the Department written notification of such addition(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

Subject Item: HWSG785093 - Solidification/stabilization Area #1

148. Before treating any waste, the permittee shall test a representative sample of the waste to be solidified/stabilized in accordance with the waste analysis requirements of this permit. The permittee shall empty waste from containers into the concrete cells of the solidification/stabilization area. The permittee shall then introduce cement kiln dust or equivalent materials into the waste to be solidified/stabilized with a backhoe, front end loader or other equipment authorized by the Department. The permittee shall mix the waste and cement kiln dust or equivalent material with a backhoe, front end loader or other equipment authorized by the Department. The permittee may place the solidified/stabilized waste in leak-proof roll-offs, leak-proof dump trailers or leak-proof intermodal containers. The permitttee shall manage the solidified/stabilized waste in accordance with the conditions of this permit pending shipment to off-site authorized facilities or transfer the solidified/stabilized waste directly off-site to authorized facilities. [40 CFR 264.601]

149. Within 60 days of completion of closure of Area #1, the permittee shall submit to the Department by registered mail a report of closure activities. The report shall include a certification that the area has been closed in accordance with the the specifications in the approved closure plan and the requirments of this permit. The certification must be signed by the permittee and signed and sealed by an independent professional engineer registered in the State of New Jersey. The report shall also include supporting documentation. The Department will review the report, including the decontamination verification and soil sampling data, and conduct an ispection of the area. If the Department determines that the area was clean closed, the Department will accept the closure certification and closure will be deemed complete. [40 CFR 264.115]

Subject Item: HWSG785093 - Solidification/stabilization Area #1

150. Within 180 days after receiving the final volume of hazardous waste at Area #1, the permittee shall conduct soil sampling around the area in accordance with the approved closure plan. Soil sampling shall not be conducted prior to the removal of all hazardous waste from the unit. The permittee shall notify the Department in writing at least fourteen (14) calendar days prior to initiation of soil sampling so that an auditor from the Department can be present during the sampling episode. Soil sampling analytical results shall be submitted to the Department either prior to or with the closure report. [40 CFR 264.601]

151. Within 180 days after receiving the final volume of hazardous waste at Area #1, the permittee must remove or decontaminate all waste residues, contaminated system components (liner, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 C.F.R. 261.3(d) applies. Decontamination shall take the form of washing with detergent and water at high pressure. [40 CFR 264.601]

152. Within 180 days after receiving the final volume of hazardous waste at Area #1, if decontamination has been performed, the permittee shall collect all residues generated during decontamination of the area and its components and ship these residues off-site to a facility authorized to manage such waste. [40 CFR 264.114]

153. Within 180 day after receiving the final volume of hazardous waste at Area #1, if decontamination has been performed, the permittee must complete decontamination verification procedures for the area. Decontamination shall consist of collecting final wash water and wash water blank samples and testing them for the parameters listed in Table 5.2 of the facility Closure Decontamination Sampling Plan included in the referenced permit application documents. Decontamination methods shall be repeated until the concentrations of the rinse water test parameters are equal to the amount present in a wash water blank. [40 CFR 264.601]

154. Thirty days after the date the Department approves the construction of the proposed Containment Building, the permittee shall be prohibited from treating, storing or transferring waste in Solidification/Stabilization Area #1. Within these 30 days the permittee shall begin closure of Solidification/Stabilitzation Area#1in accordance with the requirements of the approved closure plan and this permit. After the Department accepts closure certification for Solidification/Stabilization Area #1, the area shall only be used for the treatment, storage and transfer of non-hazardous waste authorized by this permit. [40 CFR 264.601]

155. The permittee shall submit to the Department, either prior to or with the closure report, the results of the decontamination verification procedures. The permittee shall retain the equipment and structures that required decontamination on-site until the permittee has received a written determination from the Department that the decontamination levels specified in the closure plan have been achieved and the analytical results are acceptable to the Department, unless the permittee decides to dispose of the equipment and structures as hazardous waste. [40 CFR 264.115]

156. The permittee is authorized to utilize the following equipment in Area #1 for the solidification/stabilization of waste: back hoe, fork lift, drum grappler, front end loader, leak proof roll-offs, leak proof dump trailers, concrete cells 1, 2, 3 and 4, pneumatic tanker and leak proof intermodal containers. The permittee may add or delete equipment from the above list provided the permittee has given the Department at the address listed in this permit written notification of such addition(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 264.601]

Subject Item: HWSG785093 - Solidification/stabilization Area #1

157. The permittee is authorized to use Area #1 for consolidation and solidification/stabilization of solid, sludges or slurry wastes that are identified with the following hazardous waste numbers: D002, D004 through D043, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K156 through K161, K169, K170, K171 and K172. Wastes that exhibit the characteristic of ignitability or reactivity as defined at 40 C.F.R. 261.21 and 261.23 are prohibited from being managed in Area #1. [40 CFR 264.601]

158. Within 90 days after receiving the final volume of hazardous waste at Area #1, the permittee must remove all waste from the area and ship the waste to an authorized facility. [40 CFR 264.113(a)]

159. The permittee is authorized to operate treatment processes in Area #1for the consolidation, solidification/stabilization, and crushing of drums of waste authorized by this permit in accordance with the permit application documents and engineering designs referenced in this permit. These processes shall take place in four concrete cells (Cells 1, 2, 3 and 4). The dimensions of the area shall be 22 feet long X 15 feet wide X 8 feet high. [40 CFR 264.601]

160. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment, the permittee finds that not all contaminated subsoils can be practicably removed or decontaminated, the permittee must close Area #1 and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (40 C.F.R. 264.310). In addition, for the purposes of closure, post-closure, and financial responsibility, Area #1 will then be considered to be a landfill, and the permittee must meet all of the requirements for landfills specified in 40 C.F.R. Part 264 Subparts G and H. [40 CFR 264.601]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

161. The permittee is authorized to store, treat and/or transfer wastes authorized by this permit in the following existing container storage areas: Areas, A, B, C, D, E, F, G, H, the Loading/Unloading Dock and the concrete pad surrounding it, the East Pad of the QA/QC Dock, the West Pad of the QA/QC Dock, the QA/QC Dock, and the Tank Farm Loading/Unloading Pad. Upon completion and Deparment approval of construction, the permittee will be authorized to store, treat and/or transfer hazardous waste authorized by this permit in the following proposed container storage areas: Areas A, B, C, D, E, F, G, the Processing/Storage Building (Areas I, J, K and L), the Tanker Storage Area, and the Processing Building. [40 CFR 270.32(b)]

162. The permittee shall design, construct, operate and maintain each container storage area in accordance with the application documents referenced in this permit. [40 CFR 264]

163. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects, etc.) or if it begins to leak, the permittee must transfer the hazardous waste from this container to a container that is in good condition. [40 CFR 264.171]

164. The permittee must use a container made of, or lined with, materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired. [40 CFR 264.172]

165. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. [40 CFR 264.173(a)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

166. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. [40 CFR 264.173(b)]

167. Each containment system must have a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed. [40 CFR 264.175(b)(1)]

168. The permittee must remove spilled or leaked waste and accumulated precipitation from each containment system in as timely a manner as is necessary to prevent overflow of the collection system. [40 CFR 264.175(b)(5)]

169. The permittee must not place incompatible wastes, or incompatible wastes and other materials, in the same container, unless the permittee complies with 40 C.F.R. 264.17(b). [40 CFR 264.177(a)]

170. The permittee must not place waste in an unwashed container that previously held an incompatible waste or material. [40 CFR 264.177(b)]

171. A storage container holding waste that is incompatible with any waste or other material stored nearby must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. [40 CFR 264.177(c)(1)]

172. The permittee shall manage all hazardous waste placed in a container in accordance with the applicable requirements of Subparts AA, BB, and CC of 40 C.F.R. Part 264. [40 CFR 264.179]

173. The permittee shall inspect each container storage/treatment area on a weekly basis for the following: All containers securely closed, any leaking containers, any containers swollen or bulged, any containers concaved due to internal vacuum build up, any containers with corrosion, all containers properly labeled and identified, all containers compatible with the waste stored in them, adequate aisle space and all containers supported above any standing liquids. [40 CFR 264.174]

174. Within 90 days after receiving the final volume of waste at a hazardous waste container storage area(s), the permittee must remove all waste from the area(s) and ship the waste to an authorized facility. [40 CFR 264.113(a)]

175. Within one hundred eighty (180) days after receiving the final volume of waste at a hazardous waste container storage area, the permittee must complete decontamination of the area. Decontamination procedures shall include washing the containment system with water and detergent at high pressure. [40 CFR 264.178]

176. Within one hundred eighty (180) days after receiving the final volume of waste at the container storage area, the permittee shall collect all residues generated from the decontamination of the container storage area and ship the material off-site to a facility authorized to manage such waste. [40 CFR 264.178]

177. Within one hundred eighty (180) days after receiving the final volume of waste at a hazardous waste container storage area, the permittee must complete decontamination verification procedures for the area. Decontamination verification shall consist of sampling and testing the final rinse water from the hazardous waste container storage area and a wash water blank for the parameters listed in Table 5.1 of the Facility Closure Decontamination Sampling Plan referenced in this permit. Decontaimation methods shall be repeated until the concentrations of the rinse water test parameters are equal to the amount present in a wash water blank. [40 CFR 264.178]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

178. The permittee shall submit to the Department, either prior to or with the closure report, the results of the decontamination verification procedures. The Department will review the results and notify the facility if additional decontamination procedures are required. The permittee shall not remove any equipment or structures requiring decontamination from the site until the Department has made a determination that decontamination was adequate. [40 CFR 264.115]

179. Every day the facility is in operation, the permittee shall record in an inspection log or summary the number and volume of containers in each storage area. [40 CFR 261.7, 40 CFR 264, 40 CFR 270.32(b)]

180. If the Department determines that the proposed Processing Building has been constructed in accordance with the application documents and engineering designs referenced in this permit, the permittee shall be authorized to homogenize, repackage and shred waste in accordance with the requirements of this permit within the concrete containment systems of the proposed Processing Building. The permittee will be authorized to use the following equipment in the proposed Processing Building for these processes: two container homogenizing mixers, three repacking decks, one shredder, and one container fume hood. The permittee may add or delete equipment from the above list provided the permittee has given the Department written notification of such addition(s) or deletion(s), and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

181. If the Department determines that the proposed Tanker Storage Area has been designed and constructed in accordance with the application documents and engineeering designs referenced in this permit, the permittee shall be authorized to store waste authorized by this permit in the Tanker Storage Area. The waste capacity of the Tanker Storage Area shall be limited to a maximum of 27,000 gallons. Tankers and individual rolloff containers shall not be larger than 40 cubic yards. Other containers shall not be larger than 300 gallons. [40 CFR 270.32(b)]

182. The permittee is authorized to treat, store and transfer waste authorized by this permit that does not exhibit the chacteristic(s) of ignitability and/or reactivity at Area "F". The waste capacity of Area "F" shall be limited to a maximum of 20,625 gallons. Individual containers shall not be larger than 300 gallons. In addition, the fabric enclosure at the existing container storage area "C" shall be relocated to area "F". Upon completion and Departmental approval of the installation of the relocated fabric cover, the permittee will be authorized to conduct lab pack repackaging operations in accordance with the conditions of this permit at area "F". [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

183. The permittee is authorized to construct the proposed Processing Building in accordance with the requirements of this permit. The proposed Processing Building shall be constructed as depicted on engineering drawing numbered 11/14 titled "Proposed Processing Building (Conceptual)" and located as depicted on engineering drawing numbered 4/14 titled "Future Development Plan" referenced in this permit. Within 30 days after completion of construction, the permittee shall submit to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the facility has been constructed in compliance with the permit. The Department will inspect the facility to determine whether or not it is in compliance with the permit. If within 15 days of submission of the letter, the permittee has not received notice of intent to inspect from the Department, prior inspection is waived and it is understood that the facility meets the design requirements. If the facility is not in compliance with the approved design, a schedule shall be submitted within 30 days of the Department's inspection outlining how the facility will be brought into compliance. The schedule shall be subject to the Department's approval. After completion of the construction, certification and inspection requirements for the proposed Processing Building in accordance with the conditions of this permit, the proposed Processing Building shall replace Area "C" authorized by this permit. [40 CFR 264, 40 CFR 270.32(b), 40 CFR 270.30(l)]

184. The permittee is authorized to construct four proposed hazardous waste container storage areas desiginated as areas "I", "J", "K" and "L" within the proposed Processing/Storage Building. Proposed hazardous waste container storage areas "I", "J", "K" and "L" shall be constructed as depicted on engineering drawing numbered 6/14 entitled "Proposed Storage/Processing Building, Plan, Elevations & Section" and located as depicted on engineering drawing numbered 4/14 entitled "Future Development Plan" referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at these proposed areas until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in New Jersey stating that the areas have been constructed in compliance with the permit and the Department has inspected the areas and finds them in compliance with the requirments of this permit. If within 15 days of the date of submission of the letter by the permittee, the permittee has not received from the Department notice of intent to inspect, the inspection is waived and it is understood that the areas meet the design requirments. If the facility is not in compliance with the approved design, a schedule shall be submitted outling how the facility will be brought into compliance. The schedule shall be subject to Deparment approval. [40 CFR 270.32(b)]

185. The permittee is authorized to conduct solidification/stabilization with cement kiln dust/sawdust or equivalent materials, staging, transfer, storage, decanting, consolidation, homogenization, screening, loading/unloading and vehicle staging for solid, sludge or slurry wastes identified with the following waste numbers: All "D" hazardous waste listed at 40 C.F.R. 261.21 through 261.24, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K156 through K161, K169, K170, K171, and K172. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

186. The permittee is authorized to conduct repacking, staging, transfer, storage, decanting, consolidation, homogenization, filtration, loading/unloading and vehicle staging of solid, semi-solid and liquid wastes identified with the following waste numbers: All "D" hazardous waste listed at 40 C.F.R. 261.21 through 261.24, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K141, K147, K148, K156 through K161, K169, K170, K171 and K172. [40 CFR 270.32(b)]

187. The permittee is authorized to conduct repackaging, decanting, storage, transfer, staging, loading/unloading and vehicle staging for waste to be shredded identified with the following waste numbers : D001, D002, D004 through D043, F001 through F012, F019, F024, F025, F028, F032, F034, F035, F037, F038, F039, K001 through K062, K064, K065, K066, K069, K071, K073, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K141, K147, K148, K156 through K161, K169, K170, K171 and K172, P001 through P018, P020 through P024, P026 through P031, P033, P034, P036 through P051, P054, P056 through P060, P062 through P078, P081, P082, P084, P085, P087, P088, P089, P092 through P099, P101 through P116, P118 through P123, P127, P128, P185, P188 through P192, P194, P196, P199, P201 through P205, U001 through U009, U014 through U039, U041 through U053, U055 through U099, U101 through U174, U176 through U194, U196, U197, U200 through U211, U213 through U223, U225 through U228, U234 through U240, U243, U244, U246 through U249, U271, U272, U277 through U280, U328, U353 through U359, U364 through U367, U372, U373, U375 through U379, U381, U382 through U387, U389 through U396, U400 through U404, U407, U409, U410, and U411. [40 CFR 270.32(b)]

188. The permittee is authorized to conduct consolidation, homogenization, storage, decanting, staging, transfer, loading/unloading, screening and vehicle staging for solid, sludges or slurry wastes identified with the following waste numbers: D002, D004 through D043, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K156 through K161, K169, K170, K171 and K172. [40 CFR 270.32(b)]

189. The permittee is authorized to conduct blending, bulking, decanting, storage, staging, transfer, filtration, homogenization, loading/unloading and vehicle staging for organic solvent/aqueous wastes identified with the following waste numbers: D001, D002, D004 through D043, F001 through F009, F010, F011, F012, F019, F024, F025, F032, F034, F035, F037, F038, F039, K001 through K011, K013, K014, K015 through K030, K035, K036, K042, K044, K046, K048 through K052, K060, K061, K062, K079, K081, K083 through K088, K093 through K096, K100 through K105, K156 through K161, K169, K170, K171 and K172, P001, P006, P022, P028, P029, P030, P050, P053, P055, P064, P074, P098, P105, P106, P120, P127, P128, P185, P188 through P192, P194, P196 through P199, P201 through P205, U001 through U012, U014 through U027, U028 through U031, U034 through U039, U041 through U053, U055 through U064, U066 through U099, U101, U102, U103, U105 through U134, U136, U137, U139, U140 through U159, U161 through U174, U177, U179 through U189, U190 through U194, U197, U200 through U228, U230 through U235, U237, U239, U240, U242, U243, U244, U246, U247, U248, U249, U271, U272, U277 through U280, U328, U353, U359, U364 through U367, U372, U373, U375 through U379, U381, U382 through U387, U389 through U396, U400 through U404, U407, U409, U410, and U411. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

190. The permittee is authorized to conduct blending, bulking, decanting, storage, staging, transfer, filtration, homogenization, loading/unloading and vehicle staging for aqueous wastes identified with the following waste numbers: D001, D002, D004 through D043, all "P" and "U" hazardous wastes listed at 40 C.F.R. 261.33, F001 through F012, F019 through F024, F025, F026 through F028, F032, F034, F035, F037, F038, F039, K001 through K011, K013 through K052, K060 through K069, K071, K073, K079, K081, K083 through K088, K090, K091, K093 through K118, K123 through K126, K131, K132, K136, K156 through K161, K169, K170, K171 and K172. [40 CFR 270.32(b)]

191. The permittee is authorized to accept the following universal waste in containers: batteries, pesticides and thermostats. [40 CFR 270.32(b)]

192. The permittee is authorized to operate a process for the repackaging of containers of solid and semi-solid wastes authorized by this permit in accordance with the permit application documents and engineering designs referenced in this permit. The permittee shall repackage containerized waste only within the concrete containment system surrounding the Loading/Unloading Dock. Upon completion and Department approval of construction, the permittee may also repackage containerized waste in the proposed Processing Building and proposed Processing/Storage Building. The permittee is authorized to use up to 3 repackaging decks at each of the 3 repackaging locations. Before repackaging a waste, the pemittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The permittee shall emply the waste from 1, 5, 30 and 55 gallon containers and 85 gallon overpacks onto the packing deck containment tray assembly. Under the three openings of the tray, the permittee shall keep 6 and 10 gallon containers/bags whose openings are larger in diameter than the holes in the tray. The waste shall be manually pulled towards the three openings in the tray to drop into the containers below. Ten gallon bags may also be clipped to the side of the repacking containment tray for filling. When a container is filled, sawdust or an equivalent material shall be added with a hand scoop to absorb any free liquids, if necessary. The container shall then be removed, sealed, labeled, palletized, and a new container shall be placed under the opening in the tray. When a pallet is loaded, it shall be placed in an authorized container storage area pending shipment to an authorized off-site facility. [40 CFR 270.32(b)]

193. The permittee is authorized to modify the existing container storage area "C" in accordance with the conditions of this permit and the permit modification documents referenced in this permit. Upon completion and Departmental approval of the partial closure and modification to container storage area "C", the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the modified area C. The waste capacity of the modified area C shall be limited to a maximum of 17,600 gallons. The non roll-off type containers to be stored at this area shall not be larger than 300 gallons and the roll-off type containers shall not be larger than 40 cubic yards. Individual tanker containers at this area shall not be larger than 7,000 gallons. In addition, the fabric enclosure for the existing container storage area "C" will be removed and a new fabric enclosure will be installed to enclose the resized area C. Upon Departmental approval of installation of the new fabric cover to enclose the resized area C, the permittee will be authorized to continue lab pack repacking operations in accordance with the conditions of this permit at area C. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

194. The permittee is authorized to modify the existing container storage area "B" in accordance with the conditions of this permit and the permit modification documents refrenced in this permit. Upon completion and Departmental approval of the partial closure and modification to container storage area "B", the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the modified area B. The waste capacity of the modified area B shall be limited to a maximum of 21,560 gallons. The non roll-off type containers to be stored at this area shall not be larger than 300 gallons and the roll-off type containers shall not be larger than 40 cubic yards. [40 CFR 270.32(b)]

195. The permittee is authorized to construct the proposed container storage area G to replace the existing container storage area "G". The existing container storage area "G" shall be closed in accordance with conditions of this permit and the closure plan of the permit modification documents referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at the proposed container storage area G until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the container storage area has been constructed in compliance with the permit and the Department has inspected the container storage area and finds it in compliance with the permit. Upon completion and Departmental approval of the construction of the proposed container storage area G, the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the proposed area G. The waste capacity of the proposed area G shall be limited to a maximum of 48,000 gallons. Individual roll-off containers shall not be larger than 40 cubic yards. Other type containers shall not be larger than 8,000 gallons. [40 CFR 270.32(b)]

196. The permittee is authorized to construct the proposed container storage area E to replace the existing container storage area "E". The existing container storage area "E" shall be closed in accordance with conditions of this permit and the permit modification documents referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at the proposed container storage area E until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the container storage area has been constructed in compliance with the permit and the Department has inspected the container storage area and finds it in compliance with the permit. Upon completion and Departmental approval of the construction of the proposed container storage area E, the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the proposed area E. The waste capacity of the proposed area E shall be limited to a maximum of 19,500 gallons. Individual rolloff containers shall not be larger than 30 cubic yards. Other type containers shall not be larger than 6,500 gallons. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

197. The permittee is authorized to construct the proposed container storage area D to replace the existing container storage area "D". The existing container storage area "D" shall be closed in accordance with conditions of this permit and the closure plan of the permit modification documents referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at the proposed container storage area D until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the container storage area D has been constructed in compliance with the permit and the Department has inspected the container storage area and finds it in compliance with the permit. Upon completion and Departmental approval of the construction of the proposed container storage area D, the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the proposed area D. The waste capacity of the proposed area D shall be limited to a maximum of 10,560 gallons. Individual containers shall not be larger than 300 gallons. [40 CFR 264, 40 CFR 261.21, 40 CFR 261.22, 40 CFR 261.23, 40 CFR 270.32(b)]

198. The permittee is authorized to construct the proposed container storage area A to replace the existing container storage area "A". The existing container storage area "A" shall be closed in accordance with conditions of this permit and the closure plan of the permit modification documents referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at the proposed container storage area A until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the container storage area has been constructed in compliance with the permit and the Department has inspected the container storage area and finds it in compliance with the permit. Upon completion and Departmental approval of the construction of the proposed container storage area A, the permittee will be authorized to treat, store and or transfer waste authorized by this permit that does not exhibit the characteristic(s) of ignitability and/or reactivity at the proposed area A. The waste capacity of the proposed area A shall be limited to a maximum of 48,000 gallons. Individual roll-off containers shall not be larger than 40 cubic yards. Other type containers shall not be larger than 8,000 gallons. [40 CFR 270.32(a)]

199. The permittee is authorized to construct the proposed Tanker Storage Area in accordance with the conditions of this permit. The proposed tanker stoarge area shall be designed and constructed as depicted on engineering drawing numbered 10/14 entitled "Proposed Tanker Storage (Conceptual)" and located as depicted on engineering drawing numbered 4/14 entitled "Future Development Plan" referenced in this permit. The permittee shall not commence treatment, storage or transfer of waste at the proposed Tanker Storage Area until the permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by the permittee and a professional engineer registered in the State of New Jersey stating that the facility has been constructed in compliance with the permit. The Department shall inspect the facilty to determine whether or not it is compliance with the approved design. If within 15 days of the date of submission of the letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the facility meets the design requirements. If the facility is not in compliance with the approved design, a schedule shall be submitted within 30 days of the date of the Department's inspection outlining how the facility will be brought into compliance. The schedule shall be subject to the Department's approval. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

200. The permittee is authorized to construct the proposed Quality Assurance/Quality Control (QA/QC) West Loading/Unloading Area in accordance with the conditions of this permit. The proposed QA/QC West Loading/Unloading Area shall be designed and constructed as depicted on engineering drawing number 7/14 entitled "Quality Control Dock Modification Plan & Details" and located as depicted in on engineering drawing number 13/14 entitled "Existing & Proposed Loading/Unlaoding Areas" referenced in this permit. The permittee shall not commence waste management activities in this area until the permittee submits a letter, by certified mail or by hand delivery, to the Department signed by the permittee and a professional engineer registered in the State of New Jersey stating that the facility has been constructed in compliance with the permit. The Department shall inspect the facility to determine whether or not it is in compliance with the permit. If within 15 days of the date of submission of the letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the facility meets the design requirements. If the facility is not in compliance with the approved design, a schedule shall be submitted within 30 days of the Department's inspection outlining how the facility will be brought into compliance. The schedule shall be subject to the Depatment's approval. Upon the Department's approval of the construction, the permittee shall be authorized to load/unload waste in this area. [40 CFR 270.32(b)]

201. The permittee is authorized to treat, store and transfer waste authorized by this permit at the Tank Farm Loading/Unloading Pad. The waste capacity at the Tank Farm Loading/Unloading Pad shall be limited to a maximum of 30,879 gallons. Individual tanker containers shall be no larger than 7,000 gallons. [40 CFR 270.32(b)]

202. The permittee is authorized to treat, store and transfer waste authorized by this permit at the QA/QC Dock. The waste capacity of this area shall be limited to a maximum of 11,500 gallons. Individual containers shall not be larger than 300 gallons. [40 CFR 270.32(b)]

203. The permittee is authorized to treat, store and transfer waste authorized by this permit at the Loading/Unloading Dock (the concrete pad surrounding it and one box trailer located on the southwest side of the Loading/Unloading Dock). The waste capacity of this area shall be limited to a maximum of 80,000 gallons. Individual containers shall be no larger than 8,000 gallons. Upon the Department's approval of construction of the proposed Area "I", the existing box trailer located on the southwest side of the Loading/Unloading Dock shall no longer be authorized for hazardous waste storage. [40 CFR 270.32(b)]

204. The permittee is authorized to treat, store and transfer waste authorized by this permit at the East Pad of the QA/QC Dock. The waste capacity of this area shall be limited to a maximum of 20,000 gallons. Individual tanker containers shall not be larger than 7,000 gallons. Individual rolloff containers shall not be larger than 40 cubic yards. Other types of containers shall not be larger than 300 gallons. [40 CFR 270.32(b)]

205. The permittee is authorized to store hazardous waste in roll-off containers authorized by this permit at the West Pad of the QA/QC dock. The waste capacity of this area shall be limited to a maximum of 60,000 gallons. The largest container utilized in this area shall not be larger than 30 cubic yards (approximately 6,000 gallons), except that tank trucks may be held in the containment area while awaiting approval for off-loading. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

206. The permittee is authorized to store hazardous non-bulk containers within the concrete containment system of the Hockmeyer area in accordance with the hazardous waste container management provisions of this permit. The amount of authorized solid and hazardous waste in storage shall not exceed twenty-four thousand six hundred and forty (24,640) gallons and the largest container utilized in the storage area shall be one hundred and nineteen (119) gallons. [40 CFR 270.32(b)]

207. The permittee is authorized to stage vehicles containing waste for parking or loading/unloading in the existing and proposed areas listed below. The permittee shall place all incoming shipments into a treatment or storage area authorized by this permit by the same time of day that the waste shipment originally entered the facility property on the next operating day of the facility. The permittee shall remove from the facility property or place into a storage or treatment area authorized by this permit all outgoing waste shipments by the same time of day that the waste shipment was originally removed from a storage or treatment area authorized by this permit and placed into a vehicle staging or loading/unloading area authorized by this permit on the next operating day of the facility. Waste staged for the purpose of parking or loading/unloading shall not count toward the permitted waste container storage capacities authorized by this permit until the time limits specified above have been exceeded. The permittee shall operate and maintain the vehicle staging and loading/unloading areas in accordance with the application documents referenced in this permit. Vehicles containing wastes shall only be staged at the following locations as identified on the application documents: Asbestos Handling Area in the proposed Processing/Storage Building, the concrete pad adjacent to the Tank Farm, the bermed concrete Truck Wash Pad, the bermed concrete pad adjacent to Solidification/Stabilization Area #1, Solidification/Stabilization Area #1, the West Asphalt Pad adjacent to the QA/QC Dock, the proposed West Loading/Unloading Area adjacent to the QA/QC Dock, and the proposed Storage/Processing Building. [40 CFR 270.32(b)]

208. The permittee is authorized to stage incoming compatible, containerized waste in the existing and proposed locations listed below in accordance with the permit application documents and engineering designs referenced in this permit. The permittee shall place all incoming waste shipments into a treatment or storage area authorized by this permit by the same time of day that the waste shipment originally entered the facility property on the next operating day of the facility. The permittee shall remove from the facility property or place into a storage or treatment area authorized by this permit all outgoing waste shipments by the same time of day that the waste shipment was originally removed from a storage or treatment area authorized by this permit and placed into a container staging or loading/unloading area authorized by this permit on the next operating day of the facility. Staged containerized waste shall not count toward the permitted waste container storage capacities authorized by this permit until the time limits specified above have been exceeded. Containers may be staged at the following locations: the concrete pad adjacent to the Tank Farm, the Loading/Unloading Dock, Solidification/Stabilization Area #1, the bermed concrete pad adjacent to Solidification/Stabilization Area #1, the Hockmeyer Area, the proposed Processing Building, and the proposed Processing/Storage Building. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

209. The permittee is authorized to operate repackaging process for lab packs in accordance with the application documents referenced in this permit. The repacking of lab packs shall be performed within one box trailer located on the southwest side of the Loading/Unloading Dock, on the deck of the Loading/Unloading Dock, proposed container storage Area C and Area F, upon completion and Departmental approval. The pemittee shall only accept sealed lab packs of up to 110 gallon capacity. The permittee shall only open 20 lab packs for repackaging at any one time. From the information on the packing list the permittee's Quality Assurance Technician shall recommend the proposed disposition of each individual container with the lab pack by writing on the packing list either the letter "P" for on-site processing or "T" for transfer to an authorized off-site facility. The packing list with the recommended dispositions shall be filed with the Quality Assurance Supervisor for approval. A copy of this packing list shall be sealed to the bottom of the lid of the lab pack. Upon approval by the Quality Assurance Supervisor, the individual containers in the lab pack shall be removed and placed into other containers designated for specific approved disposition or left in the original container. For repacked lab packs for transfer, the lab pack shall be properly labeled and shall contain the new packing list. For every new addition to a lab pack, the packing list shall be amended. The packing list shall be placed on top of the container and a duplicate copy shall be filed with the Quality Assurance Supervisor with the additions to the lab pack listed. The permittee shall segregate individual bottles, jars, etc. in repacked lab pack containers in accordance with DOT regulations. When the new lab pack is filled, it shall be moved to any container storage or transfer area authorized by this permit pending shipment to an off-site authorized facility. [40 CFR 270.32(b)]

210. The permittee shall maintain a minimum aisle space of 18 inches between double rows of containers except within the lab pack box trailer authorized by this permit where the permittee shall maintain a minimum aisle space of 18 inches between single rows of lab pack containers. Containers smaller than 110 gallons shall be stacked no higher than the equivalent of two 110 gallon containers. One hundred and ten gallon containers shall be stacked no greater than two high. Containers greater than 110 gallons shall not be stacked. [40 CFR 264.35]

211. The permittee shall construct/install the following proposed waste mangement unit(s) authorized by this permit and the application documents and engineering designs referenced in this permit: Processing Building, Tanker Storage Area, Storage/Processing Building, West loading/unloading Area Adjancent to the Existing QA/QC Dock. The permittee may elect not to construct/install any proposed waste management unit(s) authorized by this permit which is not necessary for compliance with 40 C.F.R. et seq. or the conditions of this permit. [40 CFR 270.32(b)]

212. The permittee shall close the existing container storage area "H" in accordance with the conditions of this permit and the closure plan of the permit modification documents referenced in this permit. [40 CFR 270.32(b)]

213. The permittee is authorized to operate as a transfer station for containerized waste authorized by this permit. Containers accepted for transfer shall not be opened by the permittee except for inspection, sampling or analysis in accordance with the waste analysis requirements of this permit, repackaging of the contents of the container as authorized by this permit, or repackaging of a damaged container. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

214. The permittee is authorized to operate a treatment process to filter wastes authorized by this permit in any concrete containment system authorized by this permit. The permittee shall operate and maintain the treatment process in accordance with the application documents and engineering designs referenced in this permit. Liquid or semi-liquid waste may be pumped through portable filtration devices to remove suspended solids prior to transferring such waste to any storage, transfer or treatment activity authorized by this permit. The permittee is authorized to utilize the following equipment for the filtration process: assorted transfer hoses, groud lines, portable filtration devices, and pumps with explosion proof motors. The permittee may add or delete equipment from this list provided the permittee has given the Department written notification of such addition(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

215. The permittee is authorized to operate a treatment process for the solidification/stabilization of waste in containers utilizing cement kiln dust or equivalent materials in accordance with the application documents and engineering designs referenced in this permit. The process shall be performed only within the concrete containment pad surrounding the Loading/Unloading Dock. Upon completion and Department approval of construction, the permittee may also conduct the process in the proposed Processing Building and proposed Processing/Storage Building. Before treating any waste the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The process shall be performed in containers of up to 110 gallon capacity and in rolloff containers and dump trailers of up to 40 cubic yard capacity. Partially filled containers shall be consolidated until a full container is obtained, if necessary. A solidification/stabilization agent such as cement kiln dust or equivalent material shall be added to the top of the container with a hand scoop or other similar equipment to absorb any free liquids, if necessary. Filled containers shall be resealed and labeled pending shipment to an authorized off-site facility. [40 CFR 270.32(b)]

216. The permittee is authorized to operate a treatment process for the solidification/stabilization of waste authorized by this permit in containers with sawdust or equivalent materials in accordance with the application documents and engineering designs referenced in this permit. The process shall be performed only within the concrete containment system surrounding the Loading/Unloading Dock. Upon completion and Department approval of construction, this process may also take place within the proposed Processing Building and proposed Processing/Storage Building . Before treating any waste, the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The process shall be performed in containers of up to 110 gallon capacity. The waste within the container shall be transferred from any non-incinerable container to an incinerable container that meets the specifications of the user of such waste. A solidification/stabilization agent such as sawdust or equivalent material shall be added to the top of the container with a hand scoop or other similar equipment to absorb any free liquids, if necessary. Filled containers shall be resealed and labeled pending shipment to off-site authorized facilities. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

217. The permittee is authorized to operate a treatment process for the homogenization of waste authorized by this permit in accordance with the application documents and engineering designs referenced in this permit. The treatment process shall be conducted only within the concrete containment system of the Hockmeyer Area. Upon completion and Department approval of construction, the permittee may also operate the homogenization process in the proposed Processing Building. The permittee shall empty the contents of the container of waste to be homogenized into another container, if necessary. Before treating any waste the permittee shall test a representative sample of the waste to be treated in accordance with the waste analyis requirements of this permit. Liquid waste shall be decanted into the container to be homogenized, if necessary. The contents of the container shall then be homogenized by high shear mechanical agitation. The permittee is authorized to utilize two container homogenizing mixtures at both the Hockmeyer Area and proposed Processing Building for the homogenization of waste. The permittee may add or delete equipment from the above list provided the permittee has given the Department, at the address listed in this permit, written nitification of such addition(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

218. The permittee is authorized to operate a treatment process for the consolidation of the compatible contents of containers of waste authorized by this permit. The permittee shall consolidate waste only within the existing concrete containment systems authorized by this permit. Upon completion and Department approval of construction, the permittee may also consolidate containers of waste in the proposed Processing Building and proposed Processing/Storage Building. Before consolidating any waste, the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The permittee shall consolidate waste from containers into rolloffs for transfer to the solidification/stabilization treatment processes in Area #1 or the proposed Containment Building or for bulk shipment to an authorized off-site facility. The permittee is authorized to consolidate into rolloffs wastes authorized by this permit that do not exhibit the characteristic of ignitability or reactivity as defined at 40 C.F.R. 261.21 and 261.23. [40 CFR 270.32(b)]

219. The permittee is authorized to operate a treatment process for the blending and bulking of organic solvent waste or aqueous waste authorized by this permit. The permittee shall operate and maintain the treatment process in accordance with the application documents and engineering designs referenced in this permit. Before treating any waste, the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. If necessary, the permittee shall decant liquid waste from containers utilized in the treatment process in accordance with the decanting requirements of this permit. Waste derived fuels, waste solvents and aqueous wastes produced by the treatment process shall be managed in accordance with the requirements of this permit pending shipment to off-site authorized facilities. The permittee is authorized to utilize the following equipment in the blending and bulking treatment process: two 5,000 gallon mobile tankers; one 4,000 gallon mobile tanker; a set of filter screens; liquid transfer pumps with explosion proof motors; assorted transfer hoses; two container homogenizing mixers; ground lines; one 12'X4'X4' screen filter box; one 5.83'X4'X3' screen filter box; and one in-line dispersing grinder with explosion proof motor. The permittee may add or delete equipment from this list provided the permittee has given the Department written notification of such addition(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b)]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

220. The permittee is authorized to operate a treatment process for decanting liquid containerized waste authorized by this permit in accordance with the application documents and engineering designs referened in this permit. The permittee may conduct the decanting process within any of the existing storage, transfer and treatment areas authorized by this permit. Upon completion and Department approval of construction, the permittee may also conduct the decanting process in any proposed storage, treatment and transfer area authorized by this permit. Before decanting any waste, the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The permittee shall decant the waste from containers by aspiring, pouring, pumping or siphoning. [40 CFR 270.32(b)]

221. Within 180 days of receiving the final volume of waste at a container storage area, the permittee shall perform closure soil sampling around the area in accordance with the Revised Soil Sampling and Analytical Closure Plan referenced in this permit. Soil sampling shall not be conducted prior to the removal of all hazardous waste from the units. The permittee shall notify in writing the Department at the address listed in this permit at least 14 calendar days prior to initiation of soil sampling so that an auditor from the Department can be present during the soil sampling episode. Soil sampling analytical results shall be submitted for the Department's review either prior to of with the closure report. [40 CFR 270.32(b)]

222. Upon completion and Department approval of construction of the proposed Processing Building and proposed Processing/Storage Buidling, the permittee shall be authorized to conduct a treatment process for the shredding/size reduction of waste within the concrete containment systems of those buildings. The permittee shall operate and maintain the treatment process in accordance with the application documents and engineering designs referenced in this permit. Before treating any waste, the permittee shall test a representative sample of the waste in accordance with the waste analysis requirements of this permit. The permittee shall empty waste from containers into the shredder feed hopper or place whole containers of waste directly into the feed hopper of the shredder. Shredded waste shall be collected in containers at the discharge of the shredder for transfer to any area authorized for the storage, treatment or transfer of the waste by this permit. [40 CFR 270.32(b)]

223. The permittee will be authorized subject to Departmental approval of the final design and construction in accordance with the conditions of this permit to utilize the following equipment within the proposed Processing Building: two container homogenizing mixers, three repacking decks one shredder and one container fume hood. The permittee may add or delete equipment from the above list provided the permittee has given the Department, at the address listed in this permit, written notification of such addition(s) or deletions(s) and the permittee has received written approval from the Department. [40 CFR 268.32(b)]

224. The permittee shall use the Quality Assurance/Quality Control (QA/QC) Dock or any treatment, storage, transfer, loading/unloading or staging area authorized by this permit for receivng all incoming waste shipments. [40 CFR 270.32(b)]

225. The permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. [40 CFR 270.32(b)]

226. The permittee shall render empty any container that has held hazardous waste before on-site crushing of such container in the permittee's drum crusher. [40 CFR 270.32(b)]

227. The permittee shall record in an inspection log or summary the internal tracking of containers of hazardous waste that have been rejected by the ultimate treatment, storage or disposal facility and subsequently returned to the permittee. The permittee shall place this inspection log or summary into the operating record of the facility. [40 CFR 264, 40 CFR 270.32(b), 40 CFR 264.73]

Subject Item: HWSG787685 - Hazardous Waste Container Storage/Treatment Areas

228. The permittee shall not locate containers holding ignitable or reactive waste within 50 feet of the facility's property boundary. [40 CFR 264.176]

229. If the Department determines that the proposed Processing/Storage Building has been constructed in accordance with the application documents and engineering designs referenced in this permit, the permittee shall be authorized to conduct repackaging and shredding of waste within the concrete containment systems of the building. The permittee shall be authorized to utilize one shredder and 3 repacking decks within the Processing/Storage Building. The permittee may add or delete equipment authorized under this condition provided the permittee has given the Department written notification of such additions(s) or deletion(s) and the permittee has received written approval from the Department. [40 CFR 270.32(b), 40 CFR 264]

230. If the Department determines that proposed Areas "I", "J"," K" or "L" have been constructed in accordance with the application documents and engineering designs referenced in this permit, the permittee will be authorized to treat, store and transfer waste authorized by this permit in the areas. The waste capacity of Area "I" shall be limited to a maximum of 4,400 gallons, and individual containers shall not be larger than 110 gallons. The waste capacity of Area "J" shall be limited to a maximum of 4,400 gallons, and individual containers shall not be larger than 300 gallons. The waste capcity of Area "K" shall be limited to a maximum of 17,325 gallons, and individual containers shall not be larger than 300 gallons. The waste capacity of Area "L" shall be limited to a maximum of 7,700 gallons, and individual containers shall not be larger than 300 gallons. Areas "K" and "L" are prohibited from storing wastes that exhibit the characteristisc of ignitablity or reactivity as defined at 40 C.F.R. 261.21 and 261.23. [40 CFR 270.32(b)]

231. For the lab pack repackaging process, the permittee shall bulk compatible waste to be processed in containers. The processed container shall be assigned a container number and the contents of the container shall be recorded on a consolidation sheet which shall be on file with the Quality Assurance Supervisor. Before bulking a waste, the permittee shall test a representative sample of the waste in accordance with the compatibility test identified in the July 9, 1987, report referenced in this permit. The emptied bottles, jars, jugs, etc. shall be crushed and accumulated in a container authorized for hazardous waste solids which shall be manifested off-site to an authorized facility. The soiled packing media shall also be accumulated in a container authorized for hazardous waste solids which shall be manifested off-site to an authorized facility. Unsoiled packing media may be returned to the lab pack trailer for reuse. [40 CFR 270.32(b)]

Subject Item: SWTG785085 - Solid Waste Activities.

232. Approved Designs, Plans and Reports : The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26-1 et seq., the conditions of this permit, and the application documents referenced in this permit. In case of conflict, the provisions N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this permit, the conditions of this permit shall have precedence over the permit application documents, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs. One complete set of the permit application documents referenced above, this permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. [N.J.A.C. 7:26-1]

Subject Item: SWTG785085 - Solid Waste Activities.

233. Need to Mitigate : Pursuant to N.J.A.C. 7:26-2.8(p), should the Department determine that the permittee is operating the facility in an environmentally unsound manner, the permittee shall:(a) Within ninety (90) days of notification by the Department, submit a plan to close or environmentally upgrade the facility in conformance with the applicable standards, as determined by the Department and set forth in N.J.A.C. 7:26-1 et seq.; (b) Within ninety (90) days of receipt of written approval by the Department of the submitted plan, begin to close or construct the environmental upgrading at the facility; and (c) Within one (1) year of receipt of written approval by the Department of the submitted plan, complete closure or construction of the environmental upgrading at the facility. Pursuant to N.J.A.C. 7:26-2.8(q), a one time extension of the compliance schedule established by N.J.A.C. 7:26-2.8(p) shall be granted by the Department provided the permittee demonstrates that it has made good faith effort to meet the schedule. Pursuant to N.J.A.C. 7:26-2.8(r), should the environmental upgrading required pursuant to N.J.A.C. 7:26-2.8(p) not be completed or should continued operations be determined by the Department to be environmentally unsound despite the implementation of the plan approved pursuant to N.J.A.C. 7:26-2.8(p), the facility shall temporarily or permanently cease operations and close or enter into receivership, as provided for in N.J.S.A. 13:1E-9, for that period of time necessary to rectify the environmentally unsound conditions. [N.J.A.C. 7:26-2.8]

234. One complete set of the permit application documents referenced in this permit, this permit, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. [N.J.A.C. 7:26-2]

235. Permit Actions : Pursuant to N.J.A.C. 7:26-2.6(a)1, if cause exists, the Department may modify, or revoke and reissue this permit, subject to the limitations of that section, and may require the permittee to submit an updated or new application in accordance with N.J.A.C. 7:26-2.6(e), if appropriate. Pursuant to N.J.A.C. 7:26-2.6(b), the Department may modify or, alternatively, revoke and reissue this permit if cause exists for termination under N.J.A.C. 7:26-2.6(c) and the Department determines that modification or revocation and reissuance is appropriate. Pursuant to N.J.A.C. 7:26-2.6(d), upon the request of the permittee, an interested party or for good cause, the Department may make certain minor modifications to a permit without issuing a tentative approval, providing public notice thereof or holding a public hearing thereon. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information. [N.J.A.C. 7:26-2.6]

236. Registration Statement : Pursuant to N.J.A.C. 7:26-2.8(b), prior to May 1 of each calendar year the permittee shall submit to the Department a statement updating the information contained in the permittee's initial registration statement. This update shall be on forms furnished by the Department. In no case shall submission of an updated statement alter conditions of this permit. Pursuant to N.J.A.C. 7:26-2.8(c), the permittee shall notify the Department in writing within thirty (30) days of any change in the information set forth in the permittee's current registration statement. Pursuant to N.J.A.C. 7:26-2.8(d), failure of the permittee to submit an updated registration statement and to submit all applicable fees, required by N.J.A.C. 7:26-4, on or before July 1 of each calendar year shall be sufficient cause for the Department to revoke this permit or take such other enforcement action as is appropriate. [N.J.A.C. 7:26-2.8]

237. The permittee shall manage non-friable asbestos containing materials in a manner that will not cause these materials to become Regulated Asbestos Containing Materials (RACM). The permittee is prohibited from treating category II non-friable asbestos containing material by any methods that would reduce the size of the material. [N.J.A.C. 7:26-2]

Subject Item: SWTG785085 - Solid Waste Activities.

238. The permittee shall label or mark each container holding solid waste with the words "Non-Hazardous Waste". [N.J.A.C. 7:26-2]

239. The permittee shall inspect the solid waste container and tank storage/treatment areas authorized by this permit and record the results in an inspection log in accordance with the requirements of this permit. [N.J.A.C. 7:26-2]

240. The permittee shall every day the facility is in operation record in an inspection log or summarize the following information for containerized solid waste: (i) Number and volume of containers in each container storage area (ii) The permittee shall place the inspection log or summary record of the container number and volume into the operating record of the facility. [N.J.A.C. 7:26-2]

241. The permittee shall comply with the waste analysis provisions of this permit to determine that each waste stream is adequately classified as a solid waste authorized for acceptance under this Section. [N.J.A.C. 7:26-2]

242. The permittee shall comply with the following for the management of solid waste material consisting of asbestos or asbestos containing waste:(i) The permittee is authorized to consolidate unopened containers and bags of solid waste material consisting of asbestos or asbestos containing waste into containers of capacity up to one hundred (100) cubic yards. (ii) The permittee is authorized to operate as a transfer station for containers and bags of solid waste material consisting of asbestos or asbestos containing waste. Containers or bags shall not be opened unless a damaged container or bag needs to be repackaged. (iii) Disposal of solid waste material consisting of asbestos or asbestos containing waste shall comply with the requirements of N.J.A.C. 7:26-2.12 and 40 C.F.R. 61.150. [N.J.A.C. 7:26-2]

243. The permittee shall accept only containerized solid wastes and the containers shall always be kept closed except when necessary to add or remove waste, in order to maintain compliance with N.J.A.C. 7:26-2B.5(b)2. [N.J.A.C. 7:26-2]

244. The permittee shall accept and process solid waste at the facility in accordance with the following schedules: (a) Solid Waste Acceptance: Monday through Friday: 8:30 a.m. to 5:00 p.m. (b) Solid Waste Processing: Seven (7) days per week, twenty four (24) hours per day. [N.J.A.C. 7:26-2]

245. The permittee may store solid wastes authorized by this permit in permitted hazardous waste container storage areas. Additionally, the permittee is authorized to store only solid waste authorized by this permit in containers in the areas identified in this condition. The permittee shall maintain and operate the solid waste container storage areas in accordance with the application documents and engineering designs referenced in this permit and as follows: (a) Gravel surface located along the northern perimeter of the facility by the QA/QC dock - The amount of authorized solid waste in storage shall not exceed sixty-six thousand (66,000) gallons. The largest container utilized in the storage area shall be up to forty (40) cubic yards. (b) Concrete area surrounding the loading/unloading dock -The amount of authorized solid waste in storage shall not exceed forty thousand and four hundred (40,400) gallons. The largest container utilized in the storage area shall be up to twenty (20) cubic yards. (c) Hockmeyer Area - The amount of authorized solid waste in storage shall not exceed twenty-four thousand six hundred and forty (24,640) gallons. The largest container utilized in the storage area shall be one hundred and nineteen gallons (119) gallons. (d) Upon completion of closure of the existing hazardous waste container storage area "F", the permittee shall be authorized to store containerized solid waste in area "F". The amount of authorized solid waste in storage shall not exceed forty-one thousand two hundred and fifty (41,250) gallons. The largest container utilized in this storage area shall be up to three hundred (300) gallons. [N.J.A.C. 7:26-2]

Subject Item: SWTG785085 - Solid Waste Activities.

246. The quantity of solid waste received by the facility operator shall not exceed the system's designed handling, storage or processing capacity as identified in this permit or other permit certificate. The designed processing and storage capacity approved within this permit, or any other permit certificate or approval conditions as a tons/day operational maximum shall be inclusive of all solid waste received at the facility with the exception of ID 72 waste. [N.J.A.C. 7:26-2.4(g)12]

247. The permittee shall store the containers holding solid wastes authorized under this Section in accordance with the container management provisions of this permit, including but not limited to, the design capacity for each storage area, container size, aisle space, and stacking height. [N.J.A.C. 7:26-2]

248. The permittee shall schedule the solid waste deliveries to the facility in such a manner as to minimize truck queuing on the facility property. Under no circumstances shall delivery trucks and/or transfer trailers accessing or exiting the facility be allowed to park or queue on any public road. [N.J.A.C. 7:26-2]

249. The permittee shall post at the facility, and provide to the users of the facility, a copy of the traffic routes described in the permit application documents referenced in this permit. [N.J.A.C. 7:26-2]

250. The permittee shall notify the Department in writing at least 45 days prior to the date the permittee expects to begin closure of the solid waste storage/treatment unit(s) or area(s), except in cases where the facility's permit is terminated or if the facility is otherwise ordered by judicial decrees or compliance orders to close. The date when the permittee expects to begin closure shall be within 30 days after the date on which the permittee expects to receive the final volume of solid waste. [N.J.A.C. 7:26-2]

251. The permittee may accept a maximum of 250 tons/day of solid waste types authorized by this permit excluding ID 72. All wastes shall be accepted in USDOT approved containers for storage and/or treatment at the facility prior to shipment to an off-site authorized facility. [N.J.A.C. 7:26-2]

252. The permittee is authorized to use only the areas and processes authorized in this permit for the storage and treatment of solid wastes. [N.J.A.C. 7:26-2]

253. The permittee is authorized to store solid waste authorized in this permit in containers in any of the authorized hazardous waste container storage areas, provided the authorized storage capacity of the areas are not exceeded and in the container storage areas authorized for solid waste only. The combined maximum solid and hazardous waste container storage capacity shall not exceed nine hundred eighty-two thousand six hundred and fifty-eight (982,658) gallons. [N.J.A.C. 7:26-2]

Subject Item: SWTG785085 - Solid Waste Activities.

254. The permittee is authorized to relocate the existing Transfer Station Area that is authorized for transferring closed containers and bags of non-hazardous Regulated Asbestos Containing Material (RACM). The interior enclosure unit and operating facilities will be moved to the new Asbestos Transfer Pad that will be newly constructed in accordance with the conditions of this permit and permit modification documents referenced in this permit. The new 25foot by 100foot concrete pad shall be constructed as shown in Engineering Drawing Number SP3 and be affixed with a fabric cover structure. Within thirty (30) days after completion of construction, the permittee shall submit to the Department by Certified Mail or hand delivery a letter signed by the permittee and a licensed professional engineer registered in the State of New Jersey stating that the concrete pad has been constructed in compliance with the permit. The Department will inspect the concrete pad to determine whether or not it is in compliance with the layout and specifications of the design plans set forth in the engineering plans and reports. If within fifteen (15) days of the date of submission of the permittee's aforementioned letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the storage pad meets the design requirements. If the concrete pad is not in compliance with the approved design, a schedule shall be submitted within thirty (30) days of the date of the Department's inspection outlining how the concrete pad will be brought into compliance. The schedule shall be subject to the Department's approval. The permittee shall not utilize the concrete pad for waste transfer until the Department approves the construction. [N.J.A.C. 7:26-2]

255. The permittee is authorized to extend the Non Hazardous Waste Container Storage Pad authorized by this permit in accordance with the requirements of this permit. The storage pad shall be constructed as shown in the Engineering Drawing Number SP2 referenced in this permit. Within thirty (30) days after completion of construction, the permittee shall submit to the Department by Certified Mail or hand delivery a letter signed by the permittee and a licensed professional engineer registered in the State of New Jersey stating that the storage pad has been constructed in compliance with the permit. The Department will inspect the storage pad to determine whether or not it is in compliance with the layout and specifications of the design plans set forth in the engineering plans and reports. If within fifteen (15) days of the date of submission of the permittee's aforementioned letter, the permittee has not received from the Department notice of intent to inspect, prior inspection is waived and it is understood that the storage pad meets the design requirements. If the storage pad is not in compliance with the approved design, a schedule shall be submitted within thirty (30) days of the date of the Department's inspection outlining how the storage pad will be brought into compliance. The schedule shall be subject to the Department's approval. The permittee shall not utilize the storage pad for waste storage or transfer until the Department approves the construction. The amount of authorized solid waste in storage shall not exceed ninety-nine thousand (99,000) gallons. [N.J.A.C. 7:26-2]

256. The Department will inspect the completed construction upgrades of the units referenced in this permit for substantial conformance with the approved plans. If the facility is found not in substantial conformance with the approved plans, a schedule shall be submitted for the Department's review and approval within thirty (30) days of the date of the Department's inspection outlining how the units will be brought into conformance. [N.J.A.C. 7:26-2]

Subject Item: SWTG785085 - Solid Waste Activities.

257. Storage/Treatment of Solid Waste in Tanks : The permittee is authorized to store/treat liquid and semi-liquid solid waste authorized by this permit in three (3) aboveground, vertical, carbon steel tanks; ST-1, ST-2, and ST-3, having a maximum design storage capacity of fifteen thousand (15,000) gallons each. The tanks shall be operated and maintained in accordance with all applicable permit application documents and engineering designs referenced in this permit and as follows :(a) Treatment in tanks shall be limited to blending, bulking and decanting. (b) The tank system shall be operated in compliance with the additional operational requirements for ID 72 wastes provided at N.J.A.C. 7:26-2B.5(g). [N.J.A.C. 7:26-2]

258. Signatory Requirements : All completed registration statements submitted by the permittee shall be signed as specified at N.J.A.C. 7:26-2.4(e)1. All engineering designs and reports, the environmental and health impact statement, other information requested as "addenda" by the Department pursuant to N.J.A.C. 7:26-2.4(f) and (g)4 and documents required to be submitted pursuant to N.J.A.C. 7:26-2.9 and 2.10, submitted on behalf of the permittee, shall be signed by a person described in N.J.A.C. 7:26-2.4(e)1 or by a duly authorized representative of that person, as specified at N.J.A.C. 7:26-2.4(e)2. Any person signing a registration statement, engineering design or report, environmental and health impact statement or addendum mentioned in N.J.A.C. 7:26-2.4(e)1 or (e)2, submitted on behalf of the permittee, shall make the certification specified at N.J.A.C. 7:26-2.4(e)3. [N.J.A.C. 7:26-2.4]

259. The permittee may store solid wastes authorized by this permit in permitted hazardous waste container storage areas. Additionally, the permittee is authorized to store only solid waste authorized by this permit in containers in the areas identified in this condition. The permittee shall maintain and operate the solid waste container storage areas in accordance with the application documents and engineering designs referenced in this permit and as follows: (a) Non-Hazardous concrete storage pad located along the northern perimeter of the facility by the QA/QC dock - The amount of authorized solid waste in storage shall not exceed sixty-six thousand (66,000) gallons. The largest container utilized in the storage area shall be up to forty (40) cubic yards. (b) Concrete area surrounding the loading/unloading dock -The amount of authorized solid waste in storage shall not exceed forty thousand and four hundred (40,400) gallons. The largest container utilized in the storage area shall be up to twenty (20) cubic yards. (c) Hockmeyer Area - The amount of authorized solid waste in storage shall not exceed twenty-four thousand six hundred and forty (24,640) gallons. The largest container utilized in the storage area shall be one hundred and nineteen gallons (119) gallons. [N.J.A.C. 7:26-2]

260. Permitted Waste Types : The permittee is authorized to accept the following solid waste types in addition to the hazardous waste types authorized in this permit: (ID10) household hazardous waste only, (ID27) Dry industrial waste: Waste materials resulting from manufacturing, industrial and research and development processes and operation, and which are not hazardous in accordance with the standards and procedures set forth at N.J.A.C. 7:26G. Also included are non-hazardous oil spill cleanup waste, dry non-hazardous pesticides, dry non-hazardous chemical waste, and residue from the operation of a scrap metal shredding facility, (ID27A) Waste material consisting of asbestos or asbestos containing waste, (ID72) Bulk liquid and semi-liquids: Liquid or a mixture consisting of solid matter suspended in a liquid media which is contained within, or is discharged from, any one vessel, tank or other container which has the capacity of 20 gallons or more. Not included in this waste classification are septic tank clean-out wastes and liquid sewage sludge. The permittee is not authorized to accept any other type or description of solid waste as defined at N.J.A.C. 7:26-2.13(g) and (h), or regulated medical waste as defined at N.J.A.C. 7:26-3A.6(a). [N.J.A.C. 7:26-2]

Subject Item: SWTG785085 - Solid Waste Activities.

261. Operating Record and Reporting Requirements :(a) The permittee shall maintain a daily record of wastes received. The record shall include the information specified at N.J.A.C. 7:26-2.13(a). (b) The daily record shall be maintained, shall be kept, and shall be available for inspection in accordance with N.J.A.C. 7:26-2.13(b). (c) The permittee shall verify, retain and make available for inspection a waste origin/disposal (O and D) form for each load of solid waste received in accordance with N.J.A.C. 7:26-2.13(c). (d) The permittee shall submit monthly summaries of wastes received to the Solid and Hazardous Waste Management Program, Bureau of Recycling and Planning and the Solid Waste Coordinator for the Hudson County District, on forms provided by the Department (or duplicates of same), no later than twenty (20) days after the last day of each month. The monthly summaries shall include the information specified at N.J.A.C. 7:26-2.13(e). (e) Pursuant to N.J.A.C. 7:26-6.4, upon request by the Department, the permittee shall submit, in such form as the Department may deem appropriate, information concerning the sources of wastes received and the transportation or disposal patterns associated with such solid wastes. Pursuant to N.J.A.C. 7:26-2.13(a)8, the permittee shall install and operate computerized scales for the reporting requirements in N.J.A.C. 7:26-2.13. [N.J.A.C. 7:26-2.13]

262. No Change to Waste Identification : Pursuant to N.J.A.C. 7:26-2.13(j), solid waste shall be identified at the point of generation. The facility permitted herein is not the point of generation of solid waste received. Solid waste received by the facility shall retain the ID type identified in the O and D form received by the facility. The type of solid waste shall not change due to processing of the solid waste. Pursuant to N.J.A.C. 7:26-2.13(c) the permittee shall designate waste remaining after processing, within the O and D form and the daily record of the facility, as the same waste type as originally received at the facility. [N.J.A.C. 7:26-2.13]

263. In the event of a facility outage or other significant malfunction which would result in the facility's inability to process solid waste at a rate equal to or exceeding the rate of incoming solid waste, the operator shall immediately report such situation or event to the Department at 1-877-927-6337. [N.J.A.C. 7:26-2]

264. Conformance to the District Solid Waste Management Plan : Pursuant to N.J.A.C. 7:26-6.12(b), the permittee shall operate the facility in compliance with any applicable district solid waste management plan(s) as well as any amendments to and/or approved administrative actions concerning such plan(s). Should the permittee fail to comply with any applicable district solid waste management plan(s) as well as any amendment to or approved administrative actions concerning such plan(s), the permittee shall be deemed in violation of N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. and shall be subject to applicable penalties provided thereunder, and any other applicable laws or regulations. [N.J.A.C. 7:26-2.12]

Subject Item: SWTG785085 - Solid Waste Activities.

265. General Operating Requirements : Pursuant to N.J.A.C. 7:26-2.11, the facility must be operated in compliance with the following general operating requirements: (a)Within each 24-hour period the operator shall clean each area where waste has been processed or stored. (b) Facility property surrounding the actual process/storage area shall be maintained free of litter, debris, and accumulations of unprocessed waste, process residues and effluents. Methods of effectively controlling wind-blown papers and other lightweight materials, such as fencing, shall be implemented at the facility. (c) Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. (d) The operation of the facility shall not result in odors associated with solid waste being detected off site in any area of human occupancy. (e) Only solid waste vehicles properly registered, pursuant to N.J.A.C. 7:26-3, with the Solid and Hazardous Waste Management Program, displaying the appropriate registration number and solid waste decal shall be admitted for loading and unloading of any solid waste at the facility. (f) The operator shall maintain a record of the quantity of each authorized waste type accepted for storage and transfer, in accordance with N.J.A.C. 7:26-2.13 and 3.2. [N.J.A.C. 7:26-2.4]

266. Departmental inspectors shall have the right to enter and inspect any building or other portion of the facility, at any time. This right to inspect includes, but is not limited to: (a) Sampling any materials on site; (b) Photographing any portion of the facility; (c) Investigating an actual or suspected source of pollution of the environment; (d) Ascertaining compliance or non-compliance with any statutes, rules, or regulations of the Department, including conditions of this permit or other permit or certificate issued by the Department; or (e) Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2.11(d)]

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation Program
Office of Brownfield Reuse
P.O. Box 028 401 E. State Street
Trenton, New Jersey 08625-0028
http://www.state.nj.us/dep/srp

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

September 12, 2007

Jim Petrucci, President
JERC VII, LLC
171 Rte 173, Suite 20
Asbury, NJ 08802

Remedial Investigation Report (RIR) / Remediation Action Workplan (RAWP) Approval

Re: RI/RAWP Approval for Middlesex Logistics Center at Mill Road (Formerly Lot 18 of the ILR Sanitary Landfill)
Lot 18, Block 398
Edison Township, Middlesex County, NJ
SRP PI# G000004416
EA ID #: SUB070001

Dear Mr. Petrucci:

The New Jersey Department of Environmental Protection (Department) has completed review of the RIR/RAWP, Volume I, dated June 2006 and the subsequent submittals entitled "RI and RAWP Addendum Report" dated April 2007; "RAWP Addendum Report" dated July 2007; and the "Waste Delineation Outside Core Wall Correspondence and Attachments" dated August 16, 2007. The Department has determined that the RIR/RAWP is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. The Department hereby approves the above referenced documents, effective the date of this letter.

Pursuant to the documents, the following Remedial Actions are proposed for the site:

- Installation of improved cap and landfill gas collection system associated with the construction of a warehouse/office building.
- Excavation and capping of waste material that lies outside of the core wall located on the western side of the property. The owner shall obtain a modification to the Waterfront Development Permit for excavation and capping of waste materials outside of the core wall and any other permits that may be required.

- The installation of 13 monitoring wells, 7 wells will be located outside of the core wall and 6 wells will be located inside the core wall. Six (6) of the monitoring wells will be utilized to evaluate the tidal effect on shallow water levels and establish baseline water level data.
- A post-remedial monitoring plan to evaluate the effectiveness of the cap on the groundwater and surface water quality for a minimum of one year. Quarterly groundwater sampling will be conducted. Prior to sample collection, water quality indicator parameters will be measured. Groundwater samples will be analyzed for volatile organic compounds (VO + 10), semi-volatile organic compounds (BN + 15), ammonia and priority pollutant metals.
- Surface water samples will be collected at 4 locations. During each quarterly sampling event, surface water samples will be collected at both high and low tide levels. Samples will be analyzed for VO+10, BN+15, ammonia, and priority pollutant metals. Water quality indicator parameters will be measured.
- A baseline sampling report will be submitted with subsequent reports submitted quarterly. At the completion of the initial one-year monitoring period, a summary monitoring report will be prepared that includes an evaluation of data trends and recommendations.
- Remedial activities shall commence upon receipt of all required permits and prior to any ground improvements associated with the closure activities on Lot 18, Block 398/

Please submit all reports in a timely manner, or submit a written request for an extension at least 2 weeks prior to the due date. For your convenience, the regulations concerning the Department's remediation requirements can be found at http://www.state.nj.us/dep/srp/regs/ .

Thank you for your cooperation in this matter. If you have any questions, please contact me at (609) 984-2001 or by e-mail at timothy.bartle@dep.state.nj.us.

Sincerely,

Timothy T. Bartle, P.E.
Section Chief
Office of Brownfield Reuse

C: Steve Byrnes, Technical Coordinator, BEERA
Kris Gellar, Geologist, BGWPA
Clerk, Edison Twp
Middlesex County Health Department
Jeffrey Cappola, Esq. , Farer Fersko, Westfield, New Jersey 07091
Behram Turan, P.E., Icon Engineering, 3759 US Highway 1 South, Suite 100, Monmouth Junction, New Jersey 08852

JON S. CORZINE
Governor

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation Program
Office of Brownfield Reuse
P.O. Box 028 401 E. State Street
Trenton, New Jersey 08625-0028
http://www.state.nj.us/dep/srp

LISA P. JACKSON
Commissioner

November 30, 2007

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Jim Petrucci, President
JERC VII, LLC
171 Rte 173, Suite 20
Asbury, NJ 08802

Re: Closure/Post-Closure Approval for JERC PARTNERS VII LLC
Middlesex Logistics Center at Mill Road (Formerly ILR Landfill)
Block 398, Lot 18
Edison Twp, Middlesex County
Facility ID No.: 439682
Permit No.: LCC070003

Dear Mr. Petrucci:

This office received a letter dated September 25, 2007, submitted on your behalf by Jeffery Cappola of Farer Fersko, requesting modification of various requirements of the Closure Plan Approval issued to JERC Partners on September 12, 2007. This office also received a letter dated October 18, 2007, from Behram Turan of Icon Engineering submitting a modification to the Beneficial Use Fill Protocol. This office has completed a review of these requests and has modified the Closure Plan Approval. The request to eliminate a requirement to monitor methane gas at the landfill perimeter is denied. The purpose of the requirement is to determine the effectiveness of the gas extraction system when installed and to ensure that with the impervious capping being placed on the site that off-site gas migration does not become an issue. However, if several weeks of monitoring demonstrate that gas is being sufficiently captured, the frequency of monitoring can be altered in the future. Enclosed please find the modified Closure and Post-Closure Plan Approval (Approval) for JERC PARTNERS VII LLC.

Conditions have been incorporated within this Approval that must be complied with in order for the Approval to remain valid. The Department will consider amendment or modification of the specific terms of this Approval if a written request is submitted by certified mail within twenty (20) calendar days of the date of this Approval. Said written request must clearly state the proposed amendment or modification and the factual basis for the request.

Should you have any questions concerning this matter please contact me 609-984-2001, or by e-mail at timothy.bartle@dep.state.nj.us.

Sincerely,

Timothy T. Bartle, P.E.
Section Chief
Office of Brownfield Reuse

enclosure

c: Rai Belonzai, SW Compliance and Enforcement Bureau Chief
Brian Petitt, SW Compliance and Enforcement Supervisor
Michael Gerchman, Section Chief, Landfill Permitting, SHWMP
Jeffrey Cappola, Esq.,
Farer Fersko, 600 South Avenue, PO Box 580 Westfield, New Jersey 07091
Behram Turan, P.E.,
Icon Engineering, 3759 US Highway 1 South, Suite 100, Monmouth Junction, New Jersey 08852

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation Program
Office of Brownfield Reuse
P.O. Box 028 401 E. State Street
Trenton, New Jersey 08625-0028
http://www.state.nj.us/dep/srp

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

SANITARY LANDFILL CLOSURE/POST-CLOSURE APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 et seq., known as the Solid Waste Management Act, this Solid Waste Closure and Post- Closure Care Plan Approval is hereby issued to:

JERC PARTNERS VII LLC

FACILITY TYPE:	Class C Sanitary Landfill
FACILITY ID NO.:	439682
PERMIT NO.:	LCC070003
LOT & BLOCK NOS.:	Lot 18, Block 398
MUNICIPALITY:	Edison Twp
COUNTY:	Middlesex
CLOSURE YEAR:	2007
POST-CLOSURE PERIOD:	30 years from date of Issuance

This Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This Approval shall not prejudice any claim the State may have to riparian land, nor does it permit the registrant to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

September 12, 2007
Issuance Date

November 30, 2007
Modified Date

Timothy T. Bartle, P.E.
Section Chief
Landfill Remediation and Redevelopment

Approved Closure, Post-Closure Care Plan and Associated Documents

The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the following documents, which are the approved Closure and Post-Closure Care Plan:

1. JERC Partners VII, LLC - Modification to Landfill Closure Plan and Post-Closure Care Plan, Volume I of IV, prepared by Icon Engineering dated July 2006.

2. JERC Partners VII, LLC - Modification to Landfill Closure Plan and Post-Closure Care Plan, Volume II of IV, prepared by Icon Engineering dated July 2006, including the following appendices and/or attachments:

   A. Appendix O – Draft Deed Notice.
   B. Appendix Q – Application for Major Landfill Disruption Permit, prepared by Icon Engineering, dated June 2006.
   C. Appendix R – Solid Waste Facility Application Form, signed by Andrew J. Lotano, Property Owner on May 9, 2006, and Jeffrey A. Cappola, Applicant's Agent on May 4, 2006.
   D. Appendix U – Active Gas Extraction System Design Report, prepared by Icon Engineering, dated June 2006.

3. JERC Partners VII, LLC - Modification to Landfill Closure/Major Landfill Disruption Approval Addendum Report, prepared by Icon Engineering, dated April 2007, including the following appendices and/or attachments:

   A. Appendix B – Correspondence from SESI Consulting Engineers in response to NJDEP comments, signed by Michael St. Pierre, P.E., Principal and William J. St. Pierre, P.E., dated January 2, 2007.
   B. Appendix C - Dynamic Compaction Plan, sheets 1 through 4, prepared by SES Consulting Engineers, signed and sealed by Michael W. St. Pierre, P.E., dated December 20, 2006, last revised on March 16, 2007.
   C. Attachment 1 – Draft Operation and Maintenance Manual, prepared by Icon Engineering, dated May 2006, last revised April 2007.

4. JERC Partners VII, LLC – Site Health and Safety Plan, prepared by Icon Engineering, dated July 2006, last revised April 2007.

5. JERC Partners VII, LLC - Modification to Landfill Closure and Post-Closure Care Plan Addendum Report, prepared by Icon Engineering, dated July 2007, including the following appendices and/or attachments:

A. Attachment 1 – Major Landfill Disruption Permit Drawings, prepared by Icon Engineering, signed and sealed by Behram Turan, P.E., dated June 19, 2006, last revised **September 5, 2007,** including the following:

1. Civil Drawing No. 1 entitled "Overall Landfill Existing Site Plan".
2. Civil Drawing No. 2 entitled "Existing Landfill Leachate Management System".
3. Civil Drawing No. 3 entitled "Subsurface Investigation Plan".
4. Civil Drawing No. 4 entitled "Thickness of Waste Layer".
5. Civil Drawing No. 5 entitled "Approximate Leachate Levels (10/8/05)".
6. Civil Drawing No. 6 entitled "Cross Sections Layout".
7. Civil Drawing No. 7 entitled "Cross Sections A-A' and B-B'".
8. Civil Drawing No. 8 entitled "Cross Sections C-C' and D-D'".
9. Civil Drawing No. 9 entitled "Cross Sections E-E' – J-J'".
10. Civil Drawing No. 10 entitled "Waste Redeposition Plan".
11. Civil Drawing No. 11 entitled "Cross Sections S-S' –T-T'".
12. Civil Drawing No. 12 entitled "Cross Section B1-B2 (Sheet 1 of 2)".
13. Civil Drawing No. 13 entitled "Cross Section B1-B-2 (Sheet 2 of 2)".
14. Civil Drawing No. 14 entitled "Landfill Cover-System Plan".
15. Civil Drawing No. 15 entitled "Landfill Cover-System Plan".

B. Attachment 2 – Landfill Gas Extraction System Design Drawings, prepared by Icon Engineering, signed and sealed by Behram Turan, P.E., dated June 19, 2006, sheets 1 through 8 last revised **September 5, 2007,** including the following:

1. Permit Drawing No. 1 entitled "Existing Landfill Site Plan".
2. Permit Drawing No. 2 entitled "Initial Gas Survey Results".
3. Permit Drawing No. 3 entitled "Landfill Gas Extraction System Layout".
4. Permit Drawing No. 4 entitled "Landfill Gas Extraction System (Sheet 1 of 4)".
5. Permit Drawing No. 5 entitled "Landfill Gas Extraction System (Sheet 2 of 4)
6. Permit Drawing No. 6 entitled "Landfill Gas Extraction System (Sheet 3 of 4)".
7. Permit Drawing No. 7 entitled "Landfill Gas Extraction System (Sheet 4 of 4)".
8. Permit Drawing No. 8 entitled "Gas Extraction Lateral Typical Section".
9. Permit Drawing No. 9 entitled "Landfill Gas Extraction System Details (Sheet 2 of 2)".
10. Permit Drawing No. 10 entitled "Landfill Gas Extraction System Details (Sheet 2 of 2)".

C. Attachment 3 – Beneficial Use Fill Protocol, prepared by Icon Engineering, revised **October 18, 2007.**

D. Attachment 5 – Soil Boring Logs, prepared by Icon Engineering.

E. Attachment 7 – Engineers Report for Sub-Slab Landfill Gas Vent System, prepared by SESI Consulting Engineers, dated May 10, 2006, revised July 16, 2007. The report includes the following design drawings prepared by SESI, signed and sealed by Christopher F. Zwingle, P.E., dated May 9, 2006, last revised July 16, 2007:

1. Permit Drawing No. 1 entitled "Sub-Slab Landfill Gas Vent System Plan (Without Site Elements)".
2. Permit Drawing No. 2 entitled "Sub-Slab Landfill Gas Vent System Plan (With Site Elements)".
3. Permit Drawing No. 3 entitled "Landfill Gas Underslab Process Details".
4. Permit Drawing No. 4 entitled "Sub-Slab Landfill Gas Process and Instrumentation Diagram".

6. JERC Partners VII, LLC – Waste Delineation Outside Core Wall Correspondence, prepared and signed by Behram Turan, P.E., Icon Engineering, dated August 16, 2007, including the following attachments:

   A. Attachment A – Soil Boring Log

   B. Representative Photographs

   C. Attachment C – Waste Delineation Outside the Core Wall & Capping Plan, prepared by Icon Engineering, signed and sealed by Behram Turan, dated July 13, 2007 and last revised on August 16, 2007 including:

      1. Permit Drawing No. 1 entitled "Waste Delineation and Capping Plan:.
      2. Permit Drawing No. 2 entitled "Capping Details and Sections (Sheet 1 of 2)".
      3. Permit Drawing No. 3 entitled "Capping Details and Sections (Sheet 2 of 2)".

7. JERC Partners VII, LLC, Fill Investigation and Corrective Action Plan, prepared and signed by Behram Turan, P.E., Icon Engineering, dated August 20, 2007.

8. JERC Partners VII, LLC, Amended Preliminary and Final Major Site Plan Proposed Middlesex Logistics Center at Mill Road, Sheet 1 and Sheets 3 through 34 B signed and sealed by Steven P. Byszewski, P.E., SESI, last revised or reissued August 28, 2007. Sheet 2 signed and sealed by Robert Gazzale, P.E., dated October 4, 2006, last reissued on August 28, 2007.

   A. Permit Drawing No. 1 entitled " Cover Sheet".
   B. Permit Drawing No. 2 entitled "Title Survey of Lot 18 Block 398".
   C. Permit Drawings Nos. 3 through 7 entitled "Site Plan".
   D. Permit Drawing Nos. 8 through 12 entitled "Grading and Utilities Plan".
   E. Permit Drawing Nos. 13 through 17 entitled " Soil Erosion & Sediment Control Plan".
   F. Permit Drawing Nos. 18 through 22 entitled "Landscape and Signage Plan".
   G. Permit Drawing Nos. 23 through 27 entitled "Lighting Plan".
   H. Permit Drawing Nos. 28 through 32B entitled "Details and Notes".
   I. Permit Drawing No. 33A entitled "Cross Sections of Stormwater Management Facilities".
   J. Permit Drawing No. 33B entitled "Cross Section of Entrance Drive".
   K. Permit Drawing No. 33C entitled "Cross Section of Western Enhanced Swale".
   L. Permit Drawing Nos. 34A and 34B entitled "Proposed Storm Profiles".

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

Submission Schedule

The following information, referenced by permit condition number as found in the Closure Plan Approval Requirements Report, shall be submitted by the permittee to the Department on a timely basis:

1. Soil Erosion and Sediment Control Plan certified by the Freehold Soil Conservation District shall be submitted prior to the start of any closure activities (Condition 10).
2. As-Built Engineering Drawings and Certification by a licensed professional engineer shall be submitted within 6 months of completion of construction (Condition 12).
3. A copy of the Deed Notice filed with the appropriate recording office upon closure of the landfill shall be submitted within 30 days of filing (Condition 14).
4. Methane monitoring results and facility inspection reports shall be submitted on a quarterly basis (February, May, August and November) (Condition 22).
5. Final Purchase Agreement and deed shall be submitted within 30 days of closing (Condition 25).
6. Final blower, flare and condensate system design details shall be submitted within 90 days after the Air Pilot Test has been completed (Condition 27).
7. Application and/or permit for a modification to the Waterfront Development Permit and any other required permits for excavation and capping of waste material outside of the core wall shall be submitted within 120 days of receipt of this Approval (Condition 28).
8. A Closure and Post-Closure Care Financial Plan shall be submitted within 90 days of the issuance date of this document (Condition 29).
9. Monthly indoor air sampling results shall be submitted for a minimum of one year upon completion of the building construction (Condition 30).
10. A final Operations and Maintenance Manual shall be submitted 90 days prior to anticipated building occupancy (Condition 33).
11. Architectural Plans shall be submitted 90 days prior to anticipated building construction (Conditions 34 and 38).
12. Monthly fill reports shall be submitted by the fifteenth day of each month (Condition 47).

Attachment

The conditions of the Approval are found in the attached document entitled "JERC PARTNERS VII LLC, 439682 LCC070003 SW Landfill (Class C) Closure-Closure Plan Approval Requirements Report."

Subject Item: PI 439682 -

1. The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the approved Closure and Post-Closure Care Plan as referenced herein. [N.J.A.C. 7:26-2A.9(d)8]
2. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26-2A.9(d)8]
3. The final cover for this redevelopment project shall completely isolate the landfilled solid waste from the surrounding environment and shall comply with the design standards specified on Permit Drawing designated as Landfill Cover-System Plan, Sheet 14 of 15 prepared by Icon Engineering , dated June 19, 2006 and last revised July 13, 2007. The final cover system will be comprised of approximately: 570,000 square feet of concrete building slab, 480,000 square feet of asphalt and concrete pavement, 75,000 square feet of geosynthetic clay liner that will be utilized on sloped areas, 275,000 square feet of linear low-density polyethylene liner to underlie stormwater basins and landscape areas. Approximately 430,000 square feet of the existing cap will remain undisturbed. Final cover shall be graded in accordance with the approved Closure Plan. The maximum side slopes of the final grades where grading activities are proposed shall not exceed three feet horizontally to one foot vertically. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Department. [N.J.A.C. 7:26-2A.9(e)2ii]
4. The disruption of waste during closure operations shall be conducted in accordance with N.J.A.C.-2.A.8(j). [N.J.A.C. 7:26-2A.8(j)]
5. A minimum of 6 inches of clean soil shall be placed over any exposed waste at the end of each workday or more frequently if odors or vectors are a problem. A minimum of 12 inches of clean soil shall be applied to all waste exposed for any period exceeding 24 hours and extending up to six months. Thereafter, a minimum of 2 feet of final cover shall be applied and maintained over the waste material. [N.J.A.C. 7:26-2A.8(b)7]
6. The disruption activities shall not cause any air contaminant to be emitted in violation of N.J.A.C. 7:27-5.2(a). Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after excavation, unloading or re-deposition with a minimum of six inches of cover material or approved alternative material. [N.J.A.C. 7:26-2A.8(j)4]
7. In the event that chemical or hazardous waste materials are encountered during the disruption, operations shall cease immediately and the area shall be secured. The contractor shall notify the Department by calling the Environmental Action Hot Line at 1-877-WARN DEP and take all necessary precautions for the safe removal and disposal of the waste to an approved facility under the direction of the Department. [N.J.A.C. 7:26-2A.8(b)4]
8. The contractor shall follow the Occupational Safety and Health Administration (OSHA) standards and the Health and Safety Plan submitted as part of the application during all on-site activities for the safety of employees and for others entering the site. A copy of the operating procedures shall be posted on-site. On-site air monitoring (OVA, HNU, etc.) shall be provided to ensure worker safety during all disruption activities. [N.J.A.C. 7:26-2A.9]
9. The Bureau of Solid Waste Compliance and Enforcement shall be notified at (609) 584-4180 at least 72 hours prior to initiation of any disruption activities. [N.J.A.C. 7:26-2A.9]

Subject Item: PI 439682 -

10. Soil erosion and sediment control shall be achieved in accordance with the Soil Erosion and Sediment Control Plan certified by the Freehold Soil Conservation District. The plan shall be certified by the District prior to the start of construction and a copy of the certification shall be submitted to the Department prior to the start of closure activities. [N.J.A.C. 7:26-2A.9(e)]

11. The access road entrance accessible via Nixon Lane shall be fenced with a locked gate that shall be locked at all times when construction is not active. When construction of the warehouse is completed and has entered the operational phase, an additional locked gate shall be installed between Lot 18 and the access road onto the remaining portion of the landfill.

    The facility fencing shall be maintained to prevent unauthorized entry to the landfill. [N.J.A.C. 7:26-2A.8(b)]

12. Within six (6) months of closure of the landfill, the owner and/or operator of the landfill shall obtain and submit to the Department an as-built certification by a New Jersey licensed professional engineer, certifying that the provisions of the Closure and Post-Closure Plan have been implemented as designed and approved, with exceptions noted. [N.J.A.C. 7:26-2A.9(d)10]

13. No work performed under this Approval shall be considered complete until such engineer's certification has been submitted to and accepted by this Office. In the event that said certification is not received or is not accepted, the work shall be considered incomplete. [N.J.A.C. 7:26-2A.9(d)]

14. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and types of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. A copy of the recorded deed description shall be submitted to this Division with thirty (30) days of filing with the recording office. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.9(c)]

15. A methane gas survey shall be performed around the perimeter of the landfill buffer zone on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Sampling shall be performed around the perimeter of all on-site structures. The maximum interval between sampling points for structures shall be 50 feet; however, there shall be at least one sampling point along each side of the structure. Sampling results shall be submitted to this Office in accordance with the schedule specified in Condition 22 of this Approval. [N.J.A.C. 7:26-2A.8(h)9ii]

16. The final cover shall be maintained to minimize infiltration and ponded water. All cracks, erosion swales and rills shall be repaired by the replacement of cover material and reseeding. Settled areas shall be filled to promote run-off. The final cover vegetation shall be fertilized, limed and mowed to promote growth of the planted species and discourage weed infestation. [N.J.A.C. 7:26-2A.9(e)]

17. The issuance of this Approval does not exempt the applicant from obtaining all other permits or approvals required by law or regulations. [N.J.A.C. 7:26-2.8(h)]

Subject Item: PI 439682 -

18. Department inspectors shall have the right to enter and inspect the facility at any time. The right to inspect includes, but is not limited to: (a) Sampling materials on site; (b) Photographing any portion of the facility; (c) Investigating an actual or suspected source of pollution of the environment; (d) Ascertaining compliance or non-compliance with the statues, rules or regulations of the Department, including conditions or any permit or approval issued by the Department; (e) Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2.11(d)]

Subject Item: SWLG850559 - Landfill Closure

19. The methane gas control system that will be installed consists of three separate components:

A. An active vacuum gas extraction system for landfill gas above the groundwater table.

B. An air venting system beneath the building foundation, vertically contained by a vapor barrier. This system will also connect to blowers located on the roof of the building structure.

C. A monitoring system consisting of methane sensors, transmitters, receivers and alarms.

All required air permits shall be obtained prior to installation of the gas system. [N.J.A.C. 7:26-2A.7(f)]

). The owner shall monitor and maintain the landfill in accordance with the Post-Closure Care Plan through implementation of the following maintenance programs: (a) A program for the maintenance of final cover and final cover vegetation; (b) A program for the maintenance of side slopes; (c) A program for the maintenance of run-on and run-off control programs; (d) A program for the maintenance of methane gas venting or evacuation system; (e) A program for the maintenance of the facility access control system; (f) A program for the maintenance of measures to conform the site to the surrounding areas. [N.J.A.C. 7:26-2A.9(e)]

21. Periodic inspections of the facility, as presented in the Closure and Post-Closure Care Plan, shall be conducted on a quarterly basis. Reports of the inspections shall be submitted to this Office as a condition of this Approval. [N.J.A.C. 7:26-2A.9(e)]

22. The following information shall be submitted on a quarterly basis (February, May, August and November of each calendar year) to this Office: methane monitoring results and facility inspection reports. [N.J.A.C. 7:26-2A.9(e)]

23. The Department may reduce the post-closure care period to less than thirty (30) years when it has been adequately demonstrated that the reduced period is sufficient to protect human health and the environment. Prior to the time that the post-closure care period is due to expire, the Department may extend the post-closure care period upon a finding that such extended period is necessary to protect human health and/or the environment. Any aggrieved person may petition the Department for an extension or reduction to the post-closure care period, based on good cause. [N.J.A.C. 7:26-2A.9(e)]

24. A copy of the approved Closure and Post-Closure Care Plan shall be filed with the municipal clerk after closure is complete. [N.J.A.C. 7:26-2A.9(d)]

25. A copy of the final Purchase Agreement and/or deed indicating that JERC Partners is the owner of Block 398, Lot 18 in the Township of Edison, New Jersey, shall be submitted to this Office within 30 days of final purchase. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

26. Access to the property during closure activities shall be restricted and controlled. After closure activities are completed, access to the property shall be allowed in accordance with the plans for redevelopment of the property. [N.J.A.C. 7:26-2A]

27. An active gas collection system shall be installed in accordance with the approved closure plan designs. The components of the system shall be as follows.

A. A network of one hundred sixty-three (163) vertical gas extraction wells installed above the groundwater table. Each well will consist of a 3-inch diameter slotted polyvinyl chloride (PVC) screen connected by a slip joint to a 2-inch high density polyethylene (HDPE) solid riser. The screened piping shall consist of 8-inch long by 0.375-inch wide slots. Well spacing shall be in accordance with the Landfill Gas Extraction System Layout Design, sheets 3 through 7, prepared by Icon Engineering, revised on July 13, 2007.

B. Gas wells will discharge into one of fourteen (14) 4-inch diameter solid HDPE gas extraction laterals. Two (2) 6-inch solid HDPE gas extraction headers will be installed. Each of the fourteen laterals will be connected to the two gas extraction headers in accordance with the connection detail provided on the drawing titled Landfill Gas Extraction System Details Sheet , sheet 9 of 10, prepared by Icon Engineering, dated June 19, 2006. The 4-inch gas extraction lateral shall be sloped 3% toward the extraction wells to avoid condensate drainage to the wellhead. Gas sampling and flow control stations will be located inside a precast concrete vault. Details are shown onthe above referenced drawing and locations are depicted on the Landfill Gas Extraction System Layout, sheet 3 of 10, prepared by Icon Engineering, revised July 13, 2007.

C. Four (4) automatic pump stations are proposed and shall meet the requirements of N.J.A.C. 7:26-2A.7(f)11.

Within ninety (90) days of completion of the Air Pilot Test , the facility shall submit the final blower, flare and condensate system design details to this Office. [N.J.A.C. 7:26-2A]

28. Excavation and capping of the waste material that extends into the wetland areas and the mean high water line that is located outside of the core wall shall not commence until the Waterfront Development Permit has been modified to include such activities and any other applicable permits have been obtained. JERC Partners shall apply for all required permits within one hundred and twenty (120) days of receipt of this approval and copies of correspondences/applications shall be submitted to this Office. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

29. Within 90 days of the issuance of the Closure Plan Approval, the owner shall submit a detailed Closure and Post-Closure Care Financial Plan for the Department for review. The financial plan shall contain the estimated cost for implementing each provision listed in the Closure and Post-Closure Care Plan. These estimates shall be presented in tabular form listing the item, description, estimated quantity, unit price and total cost. Supporting documentation shall be provided for all quantity estimates and costs. The unit prices may be obtained from construction cost estimating guides or quotes from vendors. The exact source of the unit prices should be included in the supporting documentation. Estimates for all closure/post-closure care costs shall be based on the assumption that all work will be performed by outside contractors. The following general and administrative costs shall be included in the financial plan and itemized individually, subject to approval by the Department, as required by N.J.A.C. 7:26-2A.9(f)3: engineering fees; auditing/accounting/banking fees; other miscellaneous costs such as environmental impairment and general liablity insurance, administration, taxes, permit fees and legal fees; inflation rate; and contingencies for cost overruns, reworks, emergencies or unforseen costs. [N.J.A.C. 7:26-2A]

30. The performance of the active methane gas collection and sub slab system shall be monitored by conducting indoor air sampling on a monthly basis for a period of at least one (1) year. Interior samples shall be collected in closed spaces of the building structure to confirm that gas concentrations are less than 20 percent of the Lower Explosive Lime (LEL). The interior air sampling shall be conducted one (1) hour before the building is opened and before any heating, air conditioning or ventilating (HVAC) systems in the building are operated. The indoor air samples shall be analyzed by a NJDEP certified laboratory for methane and hydrogen sulfide. Air sampling shall commence upon completion of the construction of the building. The permittee shall submit monthly gas monitoring reports to the Department within thirty (30) days of sample collection. [N.J.A.C. 7:26-2A]

31. The landfill gas blowers located on the building roof-top and connected to the sub slab ventilation system shall be hardwired with a sensor switch located in the blower discharge piping to prove airflow. The sensor switch shall provide a visual and audible alarm signal to a centrally located methane system enunciator located in the building (location to be determined) should airflow cease indicating mechanical or piping failure. [N.J.A.C. 7:26-2A]

32. The final contract of sale agreement between ILR Landfill and JERC Partners, shall grant ILR representatives access to the site to conduct post-closure care monitoring and maintenance in accordance with the Closure and Post -Closure Care Mainitenance Plan issued to ILR Landfill. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

33. The final Operations and Mainentance manual (O&M) shall be submitted to the Department for review and approval ninety (90) days prior to the anticipated building occupancy. The O&M manual shall include the following inspection schedule: the final cover, final cover vegetation, detention basins, swales and side sloped areas shall be inspected on a quarterly basis (January, April, July and October) and after major storm events.
The landfill gas system sampling, flow control chamber and condensate traps shall be inspected on a weekly basis and pressure, flow rate, gas quality and water levels shall be recorded.
The blower system shall be inspected weekly and flow rates- shall be adjusted as necessary.
The underslab ventilation system shall be inspected weekly and pressure and gas quality shall be measured.
The methane alarm system shall be inspected and tested weekly. The methane sensors shall be tested and calibrated as recommended by the manufacturer.
Should it be determined that the installation of a flare system is required, it shall be inspected on a weekly basis. Gas quality sampling shall be in accordance with the Air Permit issued by the Department's Bureau of New Source Review.
. [N.J.A.C. 7:26-2A]

34. The air space in the buildng shall be continuously monitored for the detection of methane gas by remote methane gas sensors. Each sensor shall be calibrated to detect 1 percent methane (10,000 ppm), which is 20 percent of the Lower Explosive Limit (LEL) of methane (50,000 ppm). Each sensor shall be hardwired and shall be capable of sending three (3) alarm signals - an emergency warning signal and audible alarm when methane concentrations exceed 1 percent methane and the other upon sensor failure. Each of these signals shall be sent to a centrally located methane detector enunciator situated inside the building. The location and number of methane sensors and the location of the enunciator system will be determined upon architectural plans being drafted.
Signed and sealed architectural plans shall be submitted to this Office ninety (90) days prior to anticipated building construction for final approval. [N.J.A.C. 7:26-2A]

35. Prior to the start of fill materials being accepted at the facility, the owner shall install, operate and maintain a truck scale facility at the site which includes inbound and outbound scale offices. [N.J.A.C. 7:26-2A]

36. Inspection records shall be maintained on-site at a location yet to be determined and shall be readily available for Department review. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

37. In order to improve the load supporting capacity of weak foundation soils, a dynamic compaction program will be implemented at the site. Seismic monitoring shall be conducted using a portable seismograph that will be set up at the ground surface at various locations around the site. A field engineer shall be onsite whenever dynamic compaction activities are being conducted to monitor seismic levels. The field engineer shall record the start and stop time, the area being worked, the number of grid points completed, the number of drops per point, approximate crater size and depth, and vibration levels.

In addition to the two (2) existing groundwater monitoring wells , six (6) monitoring wells will be installed inside the core wall and five (5) monitoring wells will be installed outside the core wall as depicted on the approved site plan drawings (revised 2007) to monitor leachate levels during dynamic compaction activities.

Should the vibration levels exceed the acceptable limits that may be detrimental to the existing utilities, infrastructure or core wall, or should monitoring wells indicate that leachate levels near the core wall increase, a cut-off trench will be excavated between the drop area and the area of concern to reduce vibrations. If the vibration levels still exceed acceptable limits, the dynamic compaction program shall be modified as necessary (drop height, weight, etc.).

In the event that it is suspected that damage has occurred to the core wall or to any infrastructure or utilities, dynamic compaction activities shall cease and the NJDEP shall be notified immediately in addition to any other necessary local, state or federal agencies.

The sequence and approximate drop locations shall be completed in accordance with the approved design drawings. [N.J.A.C. 7:26-2A]

38. Engineering designs of the building foundation shall be submitted to the Department for review ninety (90) days prior to the anticipated commencement of building construction. Design of the building foundation shall ensure that the integrity of the sub-sub gas system and the landfill gas venting system is not compromised. [N.J.A.C. 7:26-2A]

39. Approximately 5,000 cubic yards of waste will be excavated from the southeastern end of the site and relocated on the northern side of the proposed building as depicted on the Waste Redeposition Plan prepared by Icon Engineering, dated June 19, 2006 and last revised July 13, 2007. No waste is expected to be removed from the site. [N.J.A.C. 7:26-2A]

40. A total volume of off-site materials to be reused beneficially at the site shall not exceed 500,000 cubic yards. This number includes processed dredge material that will be accepted at the facility under the conditions of the Acceptable Use Determination (AUD) issued by the Department's Office of Dredging and Sediment Technology. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

41. A sub-slab gas ventilation system shall be installed in accordance with the specifications detailed in the Engineers Report Sub-Slab Landfill Gas Vent System prepared by SESI Consulting Engineers, dated May 10, 2006 and revised July 16, 2007 and the approved design drawings. The sub-slab ventilation system will be composed of the following layers (from the bottom up) as shown on the approved site plan drawings:
1) A Geocomposite protective layer.
2) A 60-mil linear low density polyethylene liner.
3) A Geocomposite protective layer.
4) 12-inches of washed 3/4 inch stone conforming to specification at N.J.A.C. 7:26-2A.7(f)14ii. Twenty-seven (27) 4-inch diameter perforated High Density Polyethylene collection (HDPE) laterals will be embedded in this layer.
5) A Geotextile (Mirafi 140 N, or approved equal).
6) 6-inches of recycled dense grade aggregate.
7) Concrete building floor slab.

The 4-inch diameter laterals embedded in the gravel layer will be connected to 4-inch solid HDPE end manifolds. The end manifolds and conveyance piping shall be connected to vertical 4-inch diameter chlorinated poly vinyl chloride (CPVC) risers that extend from the building floor slab upward into the building roof joist and are connecteed to a horizonal 10-inch diameter CPVC looped manifold. The manifold is connected to a roof mounted blower system that consists of two (2) explosion-proof blowers that are set on the roof. Each blower shall be rated to deliver 1,400 cubic feet per minute at 12 inches water gauge static pressure. Each blower will be equipped with a hardwired flow sensor in the blower discharge piping to prove airflow and provide visual and audible alarm signals to a central methane system enunciator if the fan fails to operate. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

42. A record plan identifying the location of all materials in relation to the certification numbers and application forms shall be maintained. To identify the locations and quantities for each specific type of material used, a grid system shall be employed. The vertical and horizontal location of each material shall be delineated. This information shall be presented in the "as built" certfication documents following the completion of all the construction activities. The as built information shall be referred to in the Deed Notice for the entire site. [N.J.A.C. 7:26-2A]

43. An application to beneficially reuse off-site material shall be submitted to a third party Review Engineer. Each package shall include:
Source information, material information, analytical material testing, geotechnical material testing, material source questionnaire, certifications from the owner and sampler, a site map of the location of the site of origin, a sampling plan for all samples from the proposed material and a Bill of Lading referencing the Applicaiton forms which are included as Attachment A of the Benefical Use Fill Protocol Document prepared by Icon Engineering, revised July 2007.

If the material is deemed acceptable, the Review Engineer will issue a certification that will certify the proposed materials meet the established criteria, assign a certification number and sign and seal the review forms. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

44. JERC Partners shall engage the services of a qualified independent environmental professional to peform the duties of third party Review Engineer. A qualified professional is considered to be a registered New Jersey Professional Engineer or Certified Hazardous Materials Manager with relevant experience in the environmental field. The qualified person shall have no affiliations with any person or corporate entity with an ownership interest in JERC Partners or any associated companies/subsidiaries/joint venture partners. [N.J.A.C. 7:26-2A]

45. The following beneficial use materials may be accepted and used below the final cap and shall meet the Department's Non-Residential Contact Soil Cleanup Criteria: Common fill material consisting of soil, recycled masonry or recycled glass; Recycled Concrete Aggregate (RCA); and Slag Materials shall be sampled at a minimum frequency of one composite sample and one discrete sample for every 2,500 cubic yards or less if the material originates from the same source and has similar characteristics. For composite sampling, one discrete sample shall be collected for every 500 cubic yards and homogenized to form one composite sample. Each of the discrete samples shall be subject to immediate screening upon collection using a suitable Photo-Ionization Detector (PID)/Flame Ionization Detector (FID) and be subject to visual inspection. The discrete sample selected for analysis shall be biased towards signs of visual contamination and/or highest equipment readings.

    Each composite sample shall be analyzed for TCLP Metals Analysis and the Target Compound List plus 30/Target Analyte List (TCL +30/TAL), with the exception of the Volatile Organic Compound (VOC) list.

    Each discrete sample shall be analyzed for Priority Pollutant VOCs + 15.

    All samples shall be collected in accordance with the most recent NJDEP Field Sampling Procedures Manual and the Technical Requirements for Site Remediation (TRSR). The sampling and analytical analysis of materials shall be in accordance with the Quality Assurance/Quality Control measures in the TRSR.

    Additionally, processed dredge materials meeting the conditions of the AUD issued by the Department's Office of Dredging and Sediment Technology may be accepted. [N.J.A.C. 7:26-2A]

46. Physical properties of materials, such as gradation, permeability, strength, etc. can vary significantly for each type and source of material. It is the sole responsibility of JERC Partners and the designated engineer to ensure that the materials satisfy the requirements for use as structural/nonstructural fill in both load bearing and non-load bearing design situations. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

47. JERC Partners shall be responsible for submitting monthly reports to the Department. The reports shall provide a detailed narrative describing the previous month's actvities, including, but not limited to:
A site plan/record plan depicting the areas that have been filled;
A listing of all materials received at the site, itemized by volume, type of material and recorded chronologically by date;
A copy of each Certification issued by the Third Party Review Engineer, along with the entire application package for each material;
A breakdown of the source of each material, total amount of material approved by Review Engineer for each specific source, the Certification, the quantity delivered and number of trucks, and the final placement of the material;
A summary of problems encountered.

The monthly reports shall be submitted to the Department by the 15th of each month. [N.J.A.C. 7:26-2A]

48. Hazardous materials and materials containing free product as defined by the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.8 shall not be accepted for use at the landfill. [N.J.A.C. 7:26-2A]

JON S. CORZINE
Governor

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation Program
Office of Brownfield Reuse
P.O. Box 028 401 E. State Street
Trenton, New Jersey 08625-0028
http://www.state.nj.us/dep/srp

LISA P. JACKSON
Commissioner

November 30, 2007

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Jim Petrucci, President
JERC VII, LLC
171 Rte 173, Suite 20
Asbury, NJ 08802

Re: Closure/Post-Closure Approval for JERC PARTNERS VII LLC
Middlesex Logistics Center at Mill Road (Formerly ILR Landfill)
Block 398, Lot 18
Edison Twp, Middlesex County
Facility ID No.: 439682
Permit No.: LCC070003

Dear Mr. Petrucci:

This office received a letter dated September 25, 2007, submitted on your behalf by Jeffery Cappola of Farer Fersko, requesting modification of various requirements of the Closure Plan Approval issued to JERC Partners on September 12, 2007. This office also received a letter dated October 18, 2007, from Behram Turan of Icon Engineering submitting a modification to the Beneficial Use Fill Protocol. This office has completed a review of these requests and has modified the Closure Plan Approval. The request to eliminate a requirement to monitor methane gas at the landfill perimeter is denied. The purpose of the requirement is to determine the effectiveness of the gas extraction system when installed and to ensure that with the impervious capping being placed on the site that off-site gas migration does not become an issue. However, if several weeks of monitoring demonstrate that gas is being sufficiently captured, the frequency of monitoring can be altered in the future. Enclosed please find the modified Closure and Post-Closure Plan Approval (Approval) for JERC PARTNERS VII LLC.

Conditions have been incorporated within this Approval that must be complied with in order for the Approval to remain valid. The Department will consider amendment or modification of the specific terms of this Approval if a written request is submitted by certified mail within twenty (20) calendar days of the date of this Approval. Said written request must clearly state the proposed amendment or modification and the factual basis for the request.

Should you have any questions concerning this matter please contact me 609-984-2001, or by e-mail at timothy.bartle@dep.state.nj.us.

Sincerely,

Timothy T. Bartle, P.E.
Section Chief
Office of Brownfield Reuse

enclosure

c: Rai Belonzai, SW Compliance and Enforcement Bureau Chief
Brian Petitt, SW Compliance and Enforcement Supervisor
Michael Gerchman, Section Chief, Landfill Permitting, SHWMP
Jeffrey Cappola, Esq.,
Farer Fersko, 600 South Avenue, PO Box 580 Westfield, New Jersey 07091
Behram Turan, P.E.,
Icon Engineering, 3759 US Highway 1 South, Suite 100, Monmouth Junction, New Jersey 08852

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation Program
Office of Brownfield Reuse
P.O. Box 028 401 E. State Street
Trenton, New Jersey 08625-0028
http://www.state.nj.us/dep/srp

JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

SANITARY LANDFILL CLOSURE/POST-CLOSURE APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 et seq., known as the Solid Waste Management Act, this Solid Waste Closure and Post- Closure Care Plan Approval is hereby issued to:

JERC PARTNERS VII LLC

FACILITY TYPE:	Class C Sanitary Landfill
FACILITY ID NO.:	439682
PERMIT NO.:	LCC070003
LOT & BLOCK NOS.:	Lot 18, Block 398
MUNICIPALITY:	Edison Twp
COUNTY:	Middlesex
CLOSURE YEAR:	2007
POST-CLOSURE PERIOD:	30 years from date of Issuance

This Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This Approval shall not prejudice any claim the State may have to riparian land, nor does it permit the registrant to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

September 12, 2007
Issuance Date

November 30, 2007
Modified Date

Timothy T. Bartle, P.E.
Section Chief
Landfill Remediation and Redevelopment

Approved Closure, Post-Closure Care Plan and Associated Documents

The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the following documents, which are the approved Closure and Post-Closure Care Plan:

1. JERC Partners VII, LLC - Modification to Landfill Closure Plan and Post-Closure Care Plan, Volume I of IV, prepared by Icon Engineering dated July 2006.

2. JERC Partners VII, LLC - Modification to Landfill Closure Plan and Post-Closure Care Plan, Volume II of IV, prepared by Icon Engineering dated July 2006, including the following appendices and/or attachments:

   A. Appendix O – Draft Deed Notice.
   B. Appendix Q – Application for Major Landfill Disruption Permit, prepared by Icon Engineering, dated June 2006.
   C. Appendix R – Solid Waste Facility Application Form, signed by Andrew J. Lotano, Property Owner on May 9, 2006, and Jeffrey A. Cappola, Applicant's Agent on May 4, 2006.
   D. Appendix U – Active Gas Extraction System Design Report, prepared by Icon Engineering, dated June 2006.

3. JERC Partners VII, LLC - Modification to Landfill Closure/Major Landfill Disruption Approval Addendum Report, prepared by Icon Engineering, dated April 2007, including the following appendices and/or attachments:

   A. Appendix B – Correspondence from SESI Consulting Engineers in response to NJDEP comments, signed by Michael St. Pierre, P.E., Principal and William J. St. Pierre, P.E., dated January 2, 2007.
   B. Appendix C - Dynamic Compaction Plan, sheets 1 through 4, prepared by SES Consulting Engineers, signed and sealed by Michael W. St. Pierre, P.E., dated December 20, 2006, last revised on March 16, 2007.
   C. Attachment 1 – Draft Operation and Maintenance Manual, prepared by Icon Engineering, dated May 2006, last revised April 2007.

4. JERC Partners VII, LLC – Site Health and Safety Plan, prepared by Icon Engineering, dated July 2006, last revised April 2007.

5. JERC Partners VII, LLC - Modification to Landfill Closure and Post-Closure Care Plan Addendum Report, prepared by Icon Engineering, dated July 2007, including the following appendices and/or attachments:

A. Attachment 1 – Major Landfill Disruption Permit Drawings, prepared by Icon Engineering, signed and sealed by Behram Turan, P.E., dated June 19, 2006, last revised **September 5, 2007,** including the following:

1. Civil Drawing No. 1 entitled "Overall Landfill Existing Site Plan".
2. Civil Drawing No. 2 entitled "Existing Landfill Leachate Management System".
3. Civil Drawing No. 3 entitled "Subsurface Investigation Plan".
4. Civil Drawing No. 4 entitled "Thickness of Waste Layer".
5. Civil Drawing No. 5 entitled "Approximate Leachate Levels (10/8/05)".
6. Civil Drawing No. 6 entitled "Cross Sections Layout".
7. Civil Drawing No. 7 entitled "Cross Sections A-A' and B-B'".
8. Civil Drawing No. 8 entitled "Cross Sections C-C' and D-D'".
9. Civil Drawing No. 9 entitled "Cross Sections E-E' – J-J'".
10. Civil Drawing No. 10 entitled "Waste Redeposition Plan".
11. Civil Drawing No. 11 entitled "Cross Sections S-S' –T-T'".
12. Civil Drawing No. 12 entitled "Cross Section B1-B2 (Sheet 1 of 2)".
13. Civil Drawing No. 13 entitled "Cross Section B1-B-2 (Sheet 2 of 2)".
14. Civil Drawing No. 14 entitled "Landfill Cover-System Plan".
15. Civil Drawing No. 15 entitled "Landfill Cover-System Plan".

B. Attachment 2 – Landfill Gas Extraction System Design Drawings, prepared by Icon Engineering, signed and sealed by Behram Turan, P.E., dated June 19, 2006, sheets 1 through 8 last revised **September 5, 2007,** including the following:

1. Permit Drawing No. 1 entitled "Existing Landfill Site Plan".
2. Permit Drawing No. 2 entitled "Initial Gas Survey Results".
3. Permit Drawing No. 3 entitled "Landfill Gas Extraction System Layout".
4. Permit Drawing No. 4 entitled "Landfill Gas Extraction System (Sheet 1 of 4)".
5. Permit Drawing No. 5 entitled "Landfill Gas Extraction System (Sheet 2 of 4)
6. Permit Drawing No. 6 entitled "Landfill Gas Extraction System (Sheet 3 of 4)".
7. Permit Drawing No. 7 entitled "Landfill Gas Extraction System (Sheet 4 of 4)".
8. Permit Drawing No. 8 entitled "Gas Extraction Lateral Typical Section".
9. Permit Drawing No. 9 entitled "Landfill Gas Extraction System Details (Sheet 2 of 2)".
10. Permit Drawing No. 10 entitled "Landfill Gas Extraction System Details (Sheet 2 of 2)".

C. Attachment 3 – Beneficial Use Fill Protocol, prepared by Icon Engineering, revised **October 18, 2007.**

D. Attachment 5 – Soil Boring Logs, prepared by Icon Engineering.

E. Attachment 7 – Engineers Report for Sub-Slab Landfill Gas Vent System, prepared by SESI Consulting Engineers, dated May 10, 2006, revised July 16, 2007. The report includes the following design drawings prepared by SESI, signed and sealed by Christopher F. Zwingle, P.E., dated May 9, 2006, last revised July 16, 2007:

1. Permit Drawing No. 1 entitled "Sub-Slab Landfill Gas Vent System Plan (Without Site Elements)".
2. Permit Drawing No. 2 entitled "Sub-Slab Landfill Gas Vent System Plan (With Site Elements)".
3. Permit Drawing No. 3 entitled "Landfill Gas Underslab Process Details".
4. Permit Drawing No. 4 entitled "Sub-Slab Landfill Gas Process and Instrumentation Diagram".

6. JERC Partners VII, LLC – Waste Delineation Outside Core Wall Correspondence, prepared and signed by Behram Turan, P.E., Icon Engineering, dated August 16, 2007, including the following attachments:

   A. Attachment A – Soil Boring Log

   B. Representative Photographs

   C. Attachment C – Waste Delineation Outside the Core Wall & Capping Plan, prepared by Icon Engineering, signed and sealed by Behram Turan, dated July 13, 2007 and last revised on August 16, 2007 including:

      1. Permit Drawing No. 1 entitled "Waste Delineation and Capping Plan:.
      2. Permit Drawing No. 2 entitled "Capping Details and Sections (Sheet 1 of 2)".
      3. Permit Drawing No. 3 entitled "Capping Details and Sections (Sheet 2 of 2)".

7. JERC Partners VII, LLC, Fill Investigation and Corrective Action Plan, prepared and signed by Behram Turan, P.E., Icon Engineering, dated August 20, 2007.

8. JERC Partners VII, LLC, Amended Preliminary and Final Major Site Plan Proposed Middlesex Logistics Center at Mill Road, Sheet 1 and Sheets 3 through 34 B signed and sealed by Steven P. Byszewski, P.E., SESI, last revised or reissued August 28, 2007. Sheet 2 signed and sealed by Robert Gazzale, P.E., dated October 4, 2006, last reissued on August 28, 2007.

   A. Permit Drawing No. 1 entitled " Cover Sheet".
   B. Permit Drawing No. 2 entitled "Title Survey of Lot 18 Block 398".
   C. Permit Drawings Nos. 3 through 7 entitled "Site Plan".
   D. Permit Drawing Nos. 8 through 12 entitled "Grading and Utilities Plan".
   E. Permit Drawing Nos. 13 through 17 entitled " Soil Erosion & Sediment Control Plan".
   F. Permit Drawing Nos. 18 through 22 entitled "Landscape and Signage Plan".
   G. Permit Drawing Nos. 23 through 27 entitled "Lighting Plan".
   H. Permit Drawing Nos. 28 through 32B entitled "Details and Notes".
   I. Permit Drawing No. 33A entitled "Cross Sections of Stormwater Management Facilities".
   J. Permit Drawing No. 33B entitled "Cross Section of Entrance Drive".
   K. Permit Drawing No. 33C entitled "Cross Section of Western Enhanced Swale".
   L. Permit Drawing Nos. 34A and 34B entitled "Proposed Storm Profiles".

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

Submission Schedule

The following information, referenced by permit condition number as found in the Closure Plan Approval Requirements Report, shall be submitted by the permittee to the Department on a timely basis:

1. Soil Erosion and Sediment Control Plan certified by the Freehold Soil Conservation District shall be submitted prior to the start of any closure activities (Condition 10).
2. As-Built Engineering Drawings and Certification by a licensed professional engineer shall be submitted within 6 months of completion of construction (Condition 12).
3. A copy of the Deed Notice filed with the appropriate recording office upon closure of the landfill shall be submitted within 30 days of filing (Condition 14).
4. Methane monitoring results and facility inspection reports shall be submitted on a quarterly basis (February, May, August and November) (Condition 22).
5. Final Purchase Agreement and deed shall be submitted within 30 days of closing (Condition 25).
6. Final blower, flare and condensate system design details shall be submitted within 90 days after the Air Pilot Test has been completed (Condition 27).
7. Application and/or permit for a modification to the Waterfront Development Permit and any other required permits for excavation and capping of waste material outside of the core wall shall be submitted within 120 days of receipt of this Approval (Condition 28).
8. A Closure and Post-Closure Care Financial Plan shall be submitted within 90 days of the issuance date of this document (Condition 29).
9. Monthly indoor air sampling results shall be submitted for a minimum of one year upon completion of the building construction (Condition 30).
10. A final Operations and Maintenance Manual shall be submitted 90 days prior to anticipated building occupancy (Condition 33).
11. Architectural Plans shall be submitted 90 days prior to anticipated building construction (Conditions 34 and 38).
12. Monthly fill reports shall be submitted by the fifteenth day of each month (Condition 47).

Attachment

The conditions of the Approval are found in the attached document entitled "JERC PARTNERS VII LLC, 439682 LCC070003 SW Landfill (Class C) Closure-Closure Plan Approval Requirements Report."

Subject Item: PI 439682 -

1. The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the approved Closure and Post-Closure Care Plan as referenced herein. [N.J.A.C. 7:26-2A.9(d)8]
2. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26-2A.9(d)8]
3. The final cover for this redevelopment project shall completely isolate the landfilled solid waste from the surrounding environment and shall comply with the design standards specified on Permit Drawing designated as Landfill Cover-System Plan, Sheet 14 of 15 prepared by Icon Engineering , dated June 19, 2006 and last revised July 13, 2007. The final cover system will be comprised of approximately: 570,000 square feet of concrete building slab, 480,000 square feet of asphalt and concrete pavement, 75,000 square feet of geosynthetic clay liner that will be utilized on sloped areas, 275,000 square feet of linear low-density polyethylene liner to underlie stormwater basins and landscape areas. Approximately 430,000 square feet of the existing cap will remain undisturbed. Final cover shall be graded in accordance with the approved Closure Plan. The maximum side slopes of the final grades where grading activities are proposed shall not exceed three feet horizontally to one foot vertically. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Department. [N.J.A.C. 7:26-2A.9(e)2ii]
4. The disruption of waste during closure operations shall be conducted in accordance with N.J.A.C.-2.A.8(j). [N.J.A.C. 7:26-2A.8(j)]
5. A minimum of 6 inches of clean soil shall be placed over any exposed waste at the end of each workday or more frequently if odors or vectors are a problem. A minimum of 12 inches of clean soil shall be applied to all waste exposed for any period exceeding 24 hours and extending up to six months. Thereafter, a minimum of 2 feet of final cover shall be applied and maintained over the waste material. [N.J.A.C. 7:26-2A.8(b)7]
6. The disruption activities shall not cause any air contaminant to be emitted in violation of N.J.A.C. 7:27-5.2(a). Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after excavation, unloading or re-deposition with a minimum of six inches of cover material or approved alternative material. [N.J.A.C. 7:26-2A.8(j)4]
7. In the event that chemical or hazardous waste materials are encountered during the disruption, operations shall cease immediately and the area shall be secured. The contractor shall notify the Department by calling the Environmental Action Hot Line at 1-877-WARN DEP and take all necessary precautions for the safe removal and disposal of the waste to an approved facility under the direction of the Department. [N.J.A.C. 7:26-2A.8(b)4]
8. The contractor shall follow the Occupational Safety and Health Administration (OSHA) standards and the Health and Safety Plan submitted as part of the application during all on-site activities for the safety of employees and for others entering the site. A copy of the operating procedures shall be posted on-site. On-site air monitoring (OVA, HNU, etc.) shall be provided to ensure worker safety during all disruption activities. [N.J.A.C. 7:26-2A.9]
9. The Bureau of Solid Waste Compliance and Enforcement shall be notified at (609) 584-4180 at least 72 hours prior to initiation of any disruption activities. [N.J.A.C. 7:26-2A.9]

Subject Item: PI 439682 -

10. Soil erosion and sediment control shall be achieved in accordance with the Soil Erosion and Sediment Control Plan certified by the Freehold Soil Conservation District. The plan shall be certified by the District prior to the start of construction and a copy of the certification shall be submitted to the Department prior to the start of closure activities. [N.J.A.C. 7:26-2A.9(e)]

11. The access road entrance accessible via Nixon Lane shall be fenced with a locked gate that shall be locked at all times when construction is not active. When construction of the warehouse is completed and has entered the operational phase, an additional locked gate shall be installed between Lot 18 and the access road onto the remaining portion of the landfill.

    The facility fencing shall be maintained to prevent unauthorized entry to the landfill. [N.J.A.C. 7:26-2A.8(b)]

12. Within six (6) months of closure of the landfill, the owner and/or operator of the landfill shall obtain and submit to the Department an as-built certification by a New Jersey licensed professional engineer, certifying that the provisions of the Closure and Post-Closure Plan have been implemented as designed and approved, with exceptions noted. [N.J.A.C. 7:26-2A.9(d)10]

13. No work performed under this Approval shall be considered complete until such engineer's certification has been submitted to and accepted by this Office. In the event that said certification is not received or is not accepted, the work shall be considered incomplete. [N.J.A.C. 7:26-2A.9(d)]

14. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and types of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. A copy of the recorded deed description shall be submitted to this Division with thirty (30) days of filing with the recording office. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.9(c)]

15. A methane gas survey shall be performed around the perimeter of the landfill buffer zone on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Sampling shall be performed around the perimeter of all on-site structures. The maximum interval between sampling points for structures shall be 50 feet; however, there shall be at least one sampling point along each side of the structure. Sampling results shall be submitted to this Office in accordance with the schedule specified in Condition 22 of this Approval. [N.J.A.C. 7:26-2A.8(h)9ii]

16. The final cover shall be maintained to minimize infiltration and ponded water. All cracks, erosion swales and rills shall be repaired by the replacement of cover material and reseeding. Settled areas shall be filled to promote run-off. The final cover vegetation shall be fertilized, limed and mowed to promote growth of the planted species and discourage weed infestation. [N.J.A.C. 7:26-2A.9(e)]

17. The issuance of this Approval does not exempt the applicant from obtaining all other permits or approvals required by law or regulations. [N.J.A.C. 7:26-2.8(h)]

Subject Item: PI 439682 -

18. Department inspectors shall have the right to enter and inspect the facility at any time. The right to inspect includes, but is not limited to: (a) Sampling materials on site; (b) Photographing any portion of the facility; (c) Investigating an actual or suspected source of pollution of the environment; (d) Ascertaining compliance or non-compliance with the statues, rules or regulations of the Department, including conditions or any permit or approval issued by the Department; (e) Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2.11(d)]

Subject Item: SWLG850559 - Landfill Closure

19. The methane gas control system that will be installed consists of three separate components:

A. An active vacuum gas extraction system for landfill gas above the groundwater table.

B. An air venting system beneath the building foundation, vertically contained by a vapor barrier. This system will also connect to blowers located on the roof of the building structure.

C. A monitoring system consisting of methane sensors, transmitters, receivers and alarms.

All required air permits shall be obtained prior to installation of the gas system. [N.J.A.C. 7:26-2A.7(f)]

). The owner shall monitor and maintain the landfill in accordance with the Post-Closure Care Plan through implementation of the following maintenance programs: (a) A program for the maintenance of final cover and final cover vegetation; (b) A program for the maintenance of side slopes; (c) A program for the maintenance of run-on and run-off control programs; (d) A program for the maintenance of methane gas venting or evacuation system; (e) A program for the maintenance of the facility access control system; (f) A program for the maintenance of measures to conform the site to the surrounding areas. [N.J.A.C. 7:26-2A.9(e)]

21. Periodic inspections of the facility, as presented in the Closure and Post-Closure Care Plan, shall be conducted on a quarterly basis. Reports of the inspections shall be submitted to this Office as a condition of this Approval. [N.J.A.C. 7:26-2A.9(e)]

22. The following information shall be submitted on a quarterly basis (February, May, August and November of each calendar year) to this Office: methane monitoring results and facility inspection reports. [N.J.A.C. 7:26-2A.9(e)]

23. The Department may reduce the post-closure care period to less than thirty (30) years when it has been adequately demonstrated that the reduced period is sufficient to protect human health and the environment. Prior to the time that the post-closure care period is due to expire, the Department may extend the post-closure care period upon a finding that such extended period is necessary to protect human health and/or the environment. Any aggrieved person may petition the Department for an extension or reduction to the post-closure care period, based on good cause. [N.J.A.C. 7:26-2A.9(e)]

24. A copy of the approved Closure and Post-Closure Care Plan shall be filed with the municipal clerk after closure is complete. [N.J.A.C. 7:26-2A.9(d)]

25. A copy of the final Purchase Agreement and/or deed indicating that JERC Partners is the owner of Block 398, Lot 18 in the Township of Edison, New Jersey, shall be submitted to this Office within 30 days of final purchase. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

26. Access to the property during closure activities shall be restricted and controlled. After closure activities are completed, access to the property shall be allowed in accordance with the plans for redevelopment of the property. [N.J.A.C. 7:26-2A]

27. An active gas collection system shall be installed in accordance with the approved closure plan designs. The components of the system shall be as follows.

A. A network of one hundred sixty-three (163) vertical gas extraction wells installed above the groundwater table. Each well will consist of a 3-inch diameter slotted polyvinyl chloride (PVC) screen connected by a slip joint to a 2-inch high density polyethylene (HDPE) solid riser. The screened piping shall consist of 8-inch long by 0.375-inch wide slots. Well spacing shall be in accordance with the Landfill Gas Extraction System Layout Design, sheets 3 through 7, prepared by Icon Engineering, revised on July 13, 2007.

B. Gas wells will discharge into one of fourteen (14) 4-inch diameter solid HDPE gas extraction laterals. Two (2) 6-inch solid HDPE gas extraction headers will be installed. Each of the fourteen laterals will be connected to the two gas extraction headers in accordance with the connection detail provided on the drawing titled Landfill Gas Extraction System Details Sheet , sheet 9 of 10, prepared by Icon Engineering, dated June 19, 2006. The 4-inch gas extraction lateral shall be sloped 3% toward the extraction wells to avoid condensate drainage to the wellhead. Gas sampling and flow control stations will be located inside a precast concrete vault. Details are shown onthe above referenced drawing and locations are depicted on the Landfill Gas Extraction System Layout, sheet 3 of 10, prepared by Icon Engineering, revised July 13, 2007.

C. Four (4) automatic pump stations are proposed and shall meet the requirements of N.J.A.C. 7:26-2A.7(f)11.

Within ninety (90) days of completion of the Air Pilot Test , the facility shall submit the final blower, flare and condensate system design details to this Office. [N.J.A.C. 7:26-2A]

28. Excavation and capping of the waste material that extends into the wetland areas and the mean high water line that is located outside of the core wall shall not commence until the Waterfront Development Permit has been modified to include such activities and any other applicable permits have been obtained. JERC Partners shall apply for all required permits within one hundred and twenty (120) days of receipt of this approval and copies of correspondences/applications shall be submitted to this Office. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

29. Within 90 days of the issuance of the Closure Plan Approval, the owner shall submit a detailed Closure and Post-Closure Care Financial Plan for the Department for review. The financial plan shall contain the estimated cost for implementing each provision listed in the Closure and Post-Closure Care Plan. These estimates shall be presented in tabular form listing the item, description, estimated quantity, unit price and total cost. Supporting documentation shall be provided for all quantity estimates and costs. The unit prices may be obtained from construction cost estimating guides or quotes from vendors. The exact source of the unit prices should be included in the supporting documentation. Estimates for all closure/post-closure care costs shall be based on the assumption that all work will be performed by outside contractors. The following general and administrative costs shall be included in the financial plan and itemized individually, subject to approval by the Department, as required by N.J.A.C. 7:26-2A.9(f)3: engineering fees; auditing/accounting/banking fees; other miscellaneous costs such as environmental impairment and general liablity insurance, administration, taxes, permit fees and legal fees; inflation rate; and contingencies for cost overruns, reworks, emergencies or unforseen costs. [N.J.A.C. 7:26-2A]

30. The performance of the active methane gas collection and sub slab system shall be monitored by conducting indoor air sampling on a monthly basis for a period of at least one (1) year. Interior samples shall be collected in closed spaces of the building structure to confirm that gas concentrations are less than 20 percent of the Lower Explosive Lime (LEL). The interior air sampling shall be conducted one (1) hour before the building is opened and before any heating, air conditioning or ventilating (HVAC) systems in the building are operated. The indoor air samples shall be analyzed by a NJDEP certified laboratory for methane and hydrogen sulfide. Air sampling shall commence upon completion of the construction of the building. The permittee shall submit monthly gas monitoring reports to the Department within thirty (30) days of sample collection. [N.J.A.C. 7:26-2A]

31. The landfill gas blowers located on the building roof-top and connected to the sub slab ventilation system shall be hardwired with a sensor switch located in the blower discharge piping to prove airflow. The sensor switch shall provide a visual and audible alarm signal to a centrally located methane system enunciator located in the building (location to be determined) should airflow cease indicating mechanical or piping failure. [N.J.A.C. 7:26-2A]

32. The final contract of sale agreement between ILR Landfill and JERC Partners, shall grant ILR representatives access to the site to conduct post-closure care monitoring and maintenance in accordance with the Closure and Post -Closure Care Mainitenance Plan issued to ILR Landfill. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

33. The final Operations and Mainentance manual (O&M) shall be submitted to the Department for review and approval ninety (90) days prior to the anticipated building occupancy. The O&M manual shall include the following inspection schedule: the final cover, final cover vegetation, detention basins, swales and side sloped areas shall be inspected on a quarterly basis (January, April, July and October) and after major storm events.
The landfill gas system sampling, flow control chamber and condensate traps shall be inspected on a weekly basis and pressure, flow rate, gas quality and water levels shall be recorded.
The blower system shall be inspected weekly and flow rates- shall be adjusted as necessary.
The underslab ventilation system shall be inspected weekly and pressure and gas quality shall be measured.
The methane alarm system shall be inspected and tested weekly. The methane sensors shall be tested and calibrated as recommended by the manufacturer.
Should it be determined that the installation of a flare system is required, it shall be inspected on a weekly basis. Gas quality sampling shall be in accordance with the Air Permit issued by the Department's Bureau of New Source Review.
. [N.J.A.C. 7:26-2A]

34. The air space in the buildng shall be continuously monitored for the detection of methane gas by remote methane gas sensors. Each sensor shall be calibrated to detect 1 percent methane (10,000 ppm), which is 20 percent of the Lower Explosive Limit (LEL) of methane (50,000 ppm). Each sensor shall be hardwired and shall be capable of sending three (3) alarm signals - an emergency warning signal and audible alarm when methane concentrations exceed 1 percent methane and the other upon sensor failure. Each of these signals shall be sent to a centrally located methane detector enunciator situated inside the building. The location and number of methane sensors and the location of the enunciator system will be determined upon architectural plans being drafted.
Signed and sealed architectural plans shall be submitted to this Office ninety (90) days prior to anticipated building construction for final approval. [N.J.A.C. 7:26-2A]

35. Prior to the start of fill materials being accepted at the facility, the owner shall install, operate and maintain a truck scale facility at the site which includes inbound and outbound scale offices. [N.J.A.C. 7:26-2A]

36. Inspection records shall be maintained on-site at a location yet to be determined and shall be readily available for Department review. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

37. In order to improve the load supporting capacity of weak foundation soils, a dynamic compaction program will be implemented at the site. Seismic monitoring shall be conducted using a portable seismograph that will be set up at the ground surface at various locations around the site. A field engineer shall be onsite whenever dynamic compaction activities are being conducted to monitor seismic levels. The field engineer shall record the start and stop time, the area being worked, the number of grid points completed, the number of drops per point, approximate crater size and depth, and vibration levels.

In addition to the two (2) existing groundwater monitoring wells , six (6) monitoring wells will be installed inside the core wall and five (5) monitoring wells will be installed outside the core wall as depicted on the approved site plan drawings (revised 2007) to monitor leachate levels during dynamic compaction activities.

Should the vibration levels exceed the acceptable limits that may be detrimental to the existing utilities, infrastructure or core wall, or should monitoring wells indicate that leachate levels near the core wall increase, a cut-off trench will be excavated between the drop area and the area of concern to reduce vibrations. If the vibration levels still exceed acceptable limits, the dynamic compaction program shall be modified as necessary (drop height, weight, etc.).

In the event that it is suspected that damage has occurred to the core wall or to any infrastructure or utilities, dynamic compaction activities shall cease and the NJDEP shall be notified immediately in addition to any other necessary local, state or federal agencies.

The sequence and approximate drop locations shall be completed in accordance with the approved design drawings. [N.J.A.C. 7:26-2A]

38. Engineering designs of the building foundation shall be submitted to the Department for review ninety (90) days prior to the anticipated commencement of building construction. Design of the building foundation shall ensure that the integrity of the sub-sub gas system and the landfill gas venting system is not compromised. [N.J.A.C. 7:26-2A]

39. Approximately 5,000 cubic yards of waste will be excavated from the southeastern end of the site and relocated on the northern side of the proposed building as depicted on the Waste Redeposition Plan prepared by Icon Engineering, dated June 19, 2006 and last revised July 13, 2007. No waste is expected to be removed from the site. [N.J.A.C. 7:26-2A]

40. A total volume of off-site materials to be reused beneficially at the site shall not exceed 500,000 cubic yards. This number includes processed dredge material that will be accepted at the facility under the conditions of the Acceptable Use Determination (AUD) issued by the Department's Office of Dredging and Sediment Technology. [N.J.A.C. 7:26-2A]

Subject Item: SWLG850559 - Landfill Closure

41. A sub-slab gas ventilation system shall be installed in accordance with the specifications detailed in the Engineers Report Sub-Slab Landfill Gas Vent System prepared by SESI Consulting Engineers, dated May 10, 2006 and revised July 16, 2007 and the approved design drawings. The sub-slab ventilation system will be composed of the following layers (from the bottom up) as shown on the approved site plan drawings:
1) A Geocomposite protective layer.
2) A 60-mil linear low density polyethylene liner.
3) A Geocomposite protective layer.
4) 12-inches of washed 3/4 inch stone conforming to specification at N.J.A.C. 7:26-2A.7(f)14ii. Twenty-seven (27) 4-inch diameter perforated High Density Polyethylene collection (HDPE) laterals will be embedded in this layer.
5) A Geotextile (Mirafi 140 N, or approved equal).
6) 6-inches of recycled dense grade aggregate.
7) Concrete building floor slab.

The 4-inch diameter laterals embedded in the gravel layer will be connected to 4-inch solid HDPE end manifolds. The end manifolds and conveyance piping shall be connected to vertical 4-inch diameter chlorinated poly vinyl chloride (CPVC) risers that extend from the building floor slab upward into the building roof joist and are connecteed to a horizonal 10-inch diameter CPVC looped manifold. The manifold is connected to a roof mounted blower system that consists of two (2) explosion-proof blowers that are set on the roof. Each blower shall be rated to deliver 1,400 cubic feet per minute at 12 inches water gauge static pressure. Each blower will be equipped with a hardwired flow sensor in the blower discharge piping to prove airflow and provide visual and audible alarm signals to a central methane system enunciator if the fan fails to operate. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

42. A record plan identifying the location of all materials in relation to the certification numbers and application forms shall be maintained. To identify the locations and quantities for each specific type of material used, a grid system shall be employed. The vertical and horizontal location of each material shall be delineated. This information shall be presented in the "as built" certfication documents following the completion of all the construction activities. The as built information shall be referred to in the Deed Notice for the entire site. [N.J.A.C. 7:26-2A]

43. An application to beneficially reuse off-site material shall be submitted to a third party Review Engineer. Each package shall include:
Source information, material information, analytical material testing, geotechnical material testing, material source questionnaire, certifications from the owner and sampler, a site map of the location of the site of origin, a sampling plan for all samples from the proposed material and a Bill of Lading referencing the Applicaiton forms which are included as Attachment A of the Benefical Use Fill Protocol Document prepared by Icon Engineering, revised July 2007.

If the material is deemed acceptable, the Review Engineer will issue a certification that will certify the proposed materials meet the established criteria, assign a certification number and sign and seal the review forms. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

44. JERC Partners shall engage the services of a qualified independent environmental professional to peform the duties of third party Review Engineer. A qualified professional is considered to be a registered New Jersey Professional Engineer or Certified Hazardous Materials Manager with relevant experience in the environmental field. The qualified person shall have no affiliations with any person or corporate entity with an ownership interest in JERC Partners or any associated companies/subsidiaries/joint venture partners. [N.J.A.C. 7:26-2A]

45. The following beneficial use materials may be accepted and used below the final cap and shall meet the Department's Non-Residential Contact Soil Cleanup Criteria: Common fill material consisting of soil, recycled masonry or recycled glass; Recycled Concrete Aggregate (RCA); and Slag Materials shall be sampled at a minimum frequency of one composite sample and one discrete sample for every 2,500 cubic yards or less if the material originates from the same source and has similar characteristics. For composite sampling, one discrete sample shall be collected for every 500 cubic yards and homogenized to form one composite sample. Each of the discrete samples shall be subject to immediate screening upon collection using a suitable Photo-Ionization Detector (PID)/Flame Ionization Detector (FID) and be subject to visual inspection. The discrete sample selected for analysis shall be biased towards signs of visual contamination and/or highest equipment readings.

    Each composite sample shall be analyzed for TCLP Metals Analysis and the Target Compound List plus 30/Target Analyte List (TCL +30/TAL), with the exception of the Volatile Organic Compound (VOC) list.

    Each discrete sample shall be analyzed for Priority Pollutant VOCs + 15.

    All samples shall be collected in accordance with the most recent NJDEP Field Sampling Procedures Manual and the Technical Requirements for Site Remediation (TRSR). The sampling and analytical analysis of materials shall be in accordance with the Quality Assurance/Quality Control measures in the TRSR.

    Additionally, processed dredge materials meeting the conditions of the AUD issued by the Department's Office of Dredging and Sediment Technology may be accepted. [N.J.A.C. 7:26-2A]

46. Physical properties of materials, such as gradation, permeability, strength, etc. can vary significantly for each type and source of material. It is the sole responsibility of JERC Partners and the designated engineer to ensure that the materials satisfy the requirements for use as structural/nonstructural fill in both load bearing and non-load bearing design situations. [N.J.A.C. 7:26-2A]

Subject Item: SWLG853377 - Fill Material Requirements

47. JERC Partners shall be responsible for submitting monthly reports to the Department. The reports shall provide a detailed narrative describing the previous month's actvities, including, but not limited to:
A site plan/record plan depicting the areas that have been filled;
A listing of all materials received at the site, itemized by volume, type of material and recorded chronologically by date;
A copy of each Certification issued by the Third Party Review Engineer, along with the entire application package for each material;
A breakdown of the source of each material, total amount of material approved by Review Engineer for each specific source, the Certification, the quantity delivered and number of trucks, and the final placement of the material;
A summary of problems encountered.

The monthly reports shall be submitted to the Department by the 15th of each month. [N.J.A.C. 7:26-2A]

48. Hazardous materials and materials containing free product as defined by the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.8 shall not be accepted for use at the landfill. [N.J.A.C. 7:26-2A]

Appendix D

Directions Report - 61-18 97th Pl, Queens, NY 11374, USA to 24 Middlesex Ave, Carteret, NJ 07008, USA (Route Staggs Leap)

Trip Summary: Total Distance (mi.): 32.7 | Total Hours: 0:42 | Total Revenue: $0.00 | Total Cost: $46.77

Directions	Hours	Distance (mi.)
61-18 97th Pl, Queens, NY 11374, USA, Queens, NY		
Go north on Local		
Drive less than 0.1 miles	0:00	0.1
Turn left on I-495 West - Long Island Expressway		
Drive 2.3 mi (~2 min)	0:02	2.4
Take Exit 17 to Ramp to I-278 West - Brooklyn Queens Expressway		
Drive .9 mi on Exit 17 (~3 min)	0:05	3.3
Drive .5 mi on Ramp	0:07	3.8
Drive .3 mi	0:07	4.1
Take Brooklyn Queens Expressway - I-278 West		
Drive 3.9 mi (~4 min)	0:11	8.1
Take Exit 29 to Tillary Street		
Drive .2 mi on Exit 29	0:11	8.2
Drive .4 mi	0:12	8.6
Turn left on Adams Street		
Drive .5 mi	0:13	9.1
Turn right on Atlantic Avenue		
Drive .5 mi	0:14	9.6
Turn left on Columbia Street		
Drive .1 mi	0:14	9.7
Turn left on ramp to I-278 West - Brooklyn Queens Expressway		
Drive .1 mi on Ramp	0:14	9.8
Drive 5.6 mi (~6 min) (Start toll)	0:20	15.4
Drive .5 mi	0:21	15.9
Take Verrazano-Narrows Bridge - I-278 West		
Drive 1.9 mi (~2 min)	0:22	17.8
Take Verrazano-Narrows Bridge - I-278 West		
Drive .5 mi (End toll)	0:23	18.3
Drive 7.3 mi (~7 min)	0:30	25.6
Take Goethals Bridge - I-278 West		

Drive .2 mi (to NY/NJ State Line)	0:30	25.8
Drive .7 mi	0:31	26.5
Take ramp to I-95 South - NJ Turnpike Car-Truck Lane		
Drive .6 mi on Ramp (~2 min)	0:33	27.1
Drive .1 mi on Ramp	0:33	27.2
Drive .3 mi on Ramp (Start toll)	0:34	27.5
Drive 2.7 mi (~3 min) (End toll)	0:37	30.3
Take Exit 12 and then turn left to Ramp on Roosevelt Avenue - Route 602 East		
Drive .6 mi on Exit 12 (~2 min)	0:39	30.8
Drive .2 mi on Ramp	0:39	31.1
Drive .4 mi	0:40	31.5
Proceed ahead as name changes to Washington Avenue - Route 604 East		
Drive 1 mi (~2 min)	0:42	32.5
Stay on Roosevelt Avenue - Route 604 East as it turns right		
Drive .2 mi	0:42	32.7
24 Middlesex Ave, Carteret, NJ 07008, USA, Carteret, NJ	**0:42**	**32.7**

1986-2012 ALK Technologies.

All drive times are approximate.

('~5 mins' indicates you should be on this segment for 'about 5 minutes'.)

This suggested route is based on various data sources and may be incomplete or inaccurate in some cases. The user assumes full liability for any delay, loss or damage which may occur as a result of its use. Please obey local traffic laws.

© 1997-2012 TruckDown, Inc. All Rights Reserved.

Directions Report - 61-18 97th Pl, Queens, NY 11374, USA to 115 Jacobus Ave, Kearny, NJ 07032, USA (Route Clean Earth North Jersey)

Trip Summary: Total Distance (mi.): 32.3 | Total Hours: 0:44 | Total Revenue: $0.00 | Total Cost: $47.88

Directions	Hours	Distance (mi.)
61-18 97th Pl, Queens, NY 11374, USA, Queens, NY		
Go north on Local		
Drive less than 0.1 miles	0:00	0.1
Turn right on I-495 East - Long Island Expressway		
Drive .6 mi	0:01	0.7
Take ramp to I-678 North - Van Wyck Expressway		
Drive .2 mi on Ramp	0:01	0.8
Drive .2 mi on Ramp	0:02	1.0
Drive .2 mi on Ramp	0:02	1.2
Drive .1 mi on Exit 22D	0:03	1.3
Drive .4 mi on Exit 22D	0:04	1.8
Drive 3.2 mi (~3 min) (Start toll)	0:07	5.0
Drive .3 mi	0:07	5.2
Take Bronx-Whitestone Bridge - I-678 North		
Drive 1.6 mi (~2 min)	0:09	6.9
Take Bronx-Whitestone Bridge - I-678 North		
Drive .3 mi (End toll)	0:09	7.2
Drive .5 mi	0:10	7.6
Take ramp to I-95 North - Cross Bronx Expressway		
Drive .1 mi on Ramp	0:10	7.8
Drive .3 mi on Ramp	0:11	8.1
Drive .3 mi on Ramp	0:12	8.4
Drive 4.8 mi (~5 min)	0:17	13.2
Stay on I-95 South - Cross Bronx Expressway as it bears left		
Drive .7 mi	0:18	13.9
Take George Washington Bridge Upper Level - I-95 South		
Drive .5 mi (to NY/NJ State Line)	0:18	14.4
Drive 1.2 mi	0:20	15.6
Warning: Stay on I-95 South - Express as US-1 splits off		
Drive 2.7 mi (~3 min)	0:22	18.3
Take ramp to I-95 South - New Jersey Turnpike		
Drive .2 mi on Ramp	0:23	18.6
Drive .6 mi (Start toll)	0:23	19.2

Drive 1.5 mi (End toll)	0:25	20.7
Take ramp to I-95 South - New Jersey Turnpike East		
Drive .5 mi on Ramp (~2 min) (Start toll)	0:26	21.2
Drive 3.2 mi (~3 min) (End toll)	0:29	24.4
Take Exit 17 to Ramp to NJ-495 East		
Drive .6 mi on Exit 17 (~2 min)	0:31	25.0
Drive .3 mi on Ramp	0:32	25.3
Drive .1 mi	0:32	25.5
Take ramp and then merge left on US-1 South		
Drive .5 mi on Ramp	0:34	26.0
Drive 2.6 mi (~4 min)	0:37	28.6
At US-1 take first exit on Truck US-1 South		
Drive less than 0.1 miles	0:37	28.6
Drive less than 0.1 miles on Ramp	0:38	28.6
Drive .4 mi	0:38	29.0
Stay on Truck US-1 South as it turns left		
Drive 1.3 mi (~2 min)	0:40	30.4
Turn right on ramp and then merge left on Truck US-1 South		
Drive .2 mi on Ramp	0:41	30.5
Drive 1 mi	0:42	31.5
Turn right on ramp to Central Avenue - Route 659 East		
Drive .1 mi on Ramp	0:43	31.6
Drive .1 mi	0:43	31.8
Turn left on 2nd Street		
Drive .1 mi	0:43	31.9
Turn right on Adams Street		
Drive less than 0.1 miles	0:43	32.0
Turn right on ramp to Local		
Drive less than 0.1 miles on Ramp	0:43	32.0
Keep left on Local		
Drive .3 mi	0:44	32.3
115 Jacobus Ave, Kearny, NJ 07032, USA, Jersey City, NJ	**0:44**	**32.3**

1986-2012 ALK Technologies.

All drive times are approximate.

('~5 mins' indicates you should be on this segment for 'about 5 minutes'.)

This suggested route is based on various data sources and may be incomplete or inaccurate in some cases. The user assumes full liability for any delay, loss

Directions Report - 61-18 97th Pl, Queens, NY 11374, USA to 136 Spagnoli Rd, Melville, NY 11747, USA (Route 110 Sand)

Trip Summary: Total Distance (mi.): 26.7 | Total Hours: 0:26 | Total Revenue: $0.00 | Total Cost: $32.64

Directions	Hours	Distance (mi.)
61-18 97th Pl, Queens, NY 11374, USA, Queens, NY		
Go north on Local		
Drive less than 0.1 miles	0:00	0.1
Turn right on I-495 East - Long Island Expressway		
Drive 24.3 mi (~22 min)	0:23	24.4
Take ramp to S Service Road		
Drive .2 mi on Ramp	0:23	24.6
Drive .6 mi	0:24	25.2
Turn right on NY-110 South		
Drive 1.2 mi (~2 min)	0:25	26.3
Turn left on Local		
Drive .3 mi	0:26	26.7
136 Spagnoli Rd, Melville, NY 11747, USA, Plainview, NY	**0:26**	**26.7**

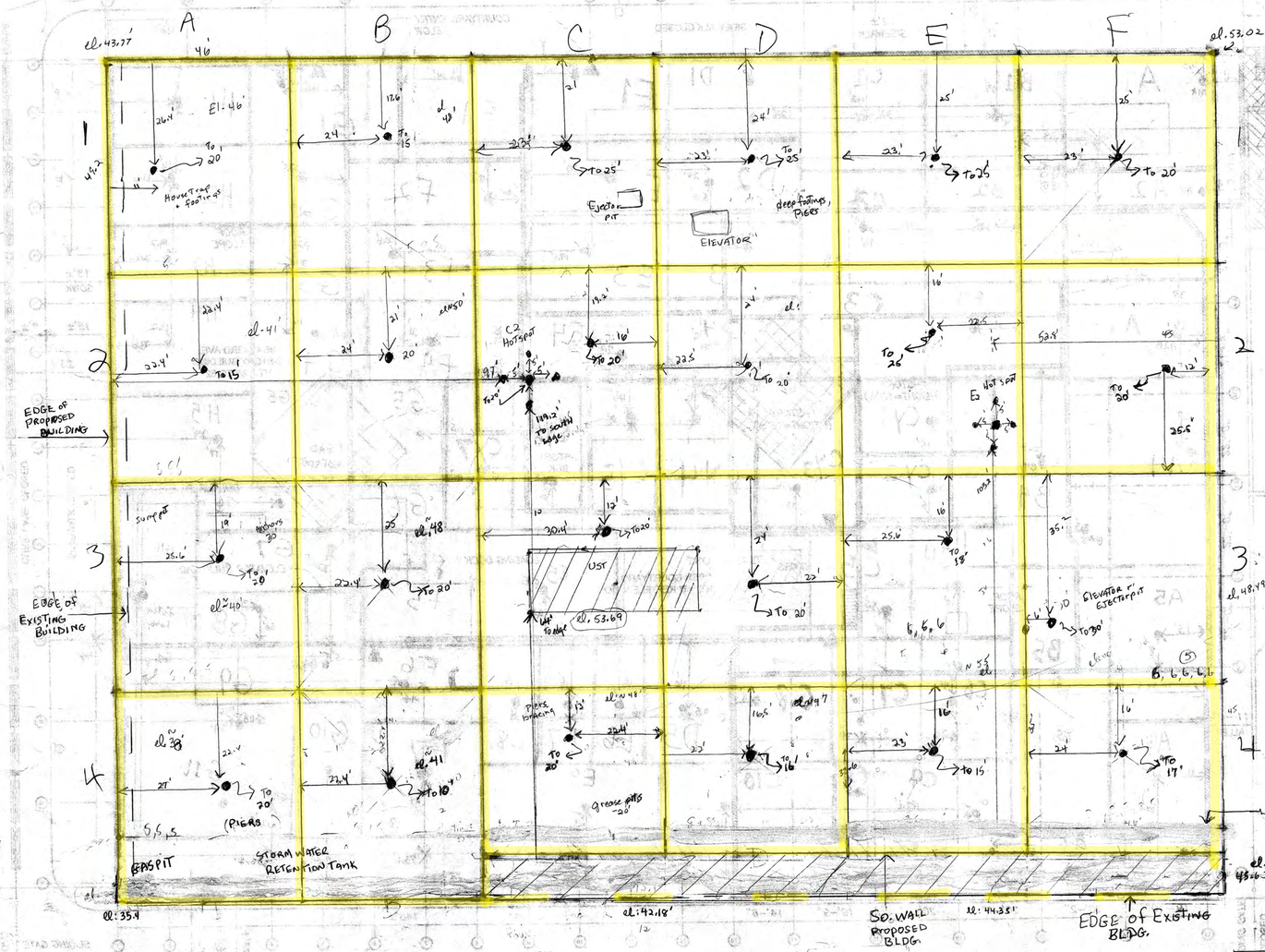
1986-2012 ALK Technologies.
All drive times are approximate.
('~5 mins' indicates you should be on this segment for 'about 5 minutes'.)
This suggested route is based on various data sources and may be incomplete or inaccurate in some cases. The user assumes full liability for any delay, loss or damage which may occur as a result of its use. Please obey local traffic laws.

© 1997-2012 TruckDown, Inc. All Rights Reserved.

Appendix E

Overlay Grid To DM003.00

Match up North, East + South Borders only



SCALE: 1" = 16'

Proposed

PS 315: Corona, Queens

In Situ Soil Sampling Plan

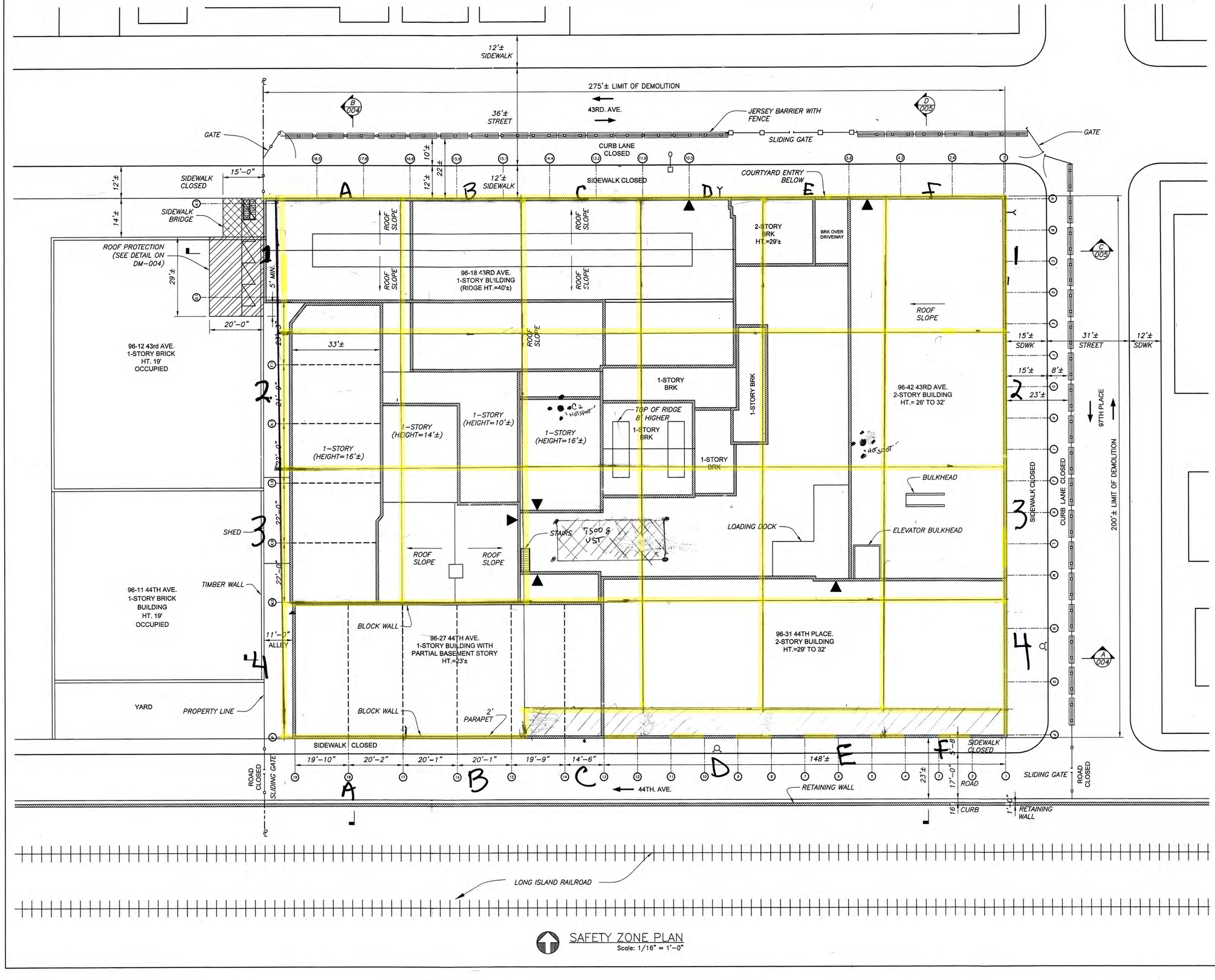
Prepared for Silverite Construction

By

Sound Environmental Assoc. LLC

NOTES

1. ~~Cells in GRID Rows 1-3 and Cell A4~~ 46'W x 49.2'L — Cells C4, D4, E4, F4 are 46'W x 40'L
2. Varying sample depths are a factor of proposed new school sub-basement features + sloping topography
3. ~~Offset~~ Sample ~~points~~ reflect location of deep pits + footings



SAFETY ZONE PLAN
Scale: 1/16" = 1'-0"

LEGEND
- SIDEWALK SHED
- ROOF PROTECTION (SEE DETAIL ON DM-004)
- SCAFFOLD WITH NETTING
- SCAFFOLD STAIR TOWER
- EGRESS AT GROUND FLOOR
- FIRE HYDRANT
- SIAMESE CONNECTION
- CONSTRUCTION FENCE ON JERSEY BARRIER, 8' HEIGHT
- MASONRY WALL

No.	REVISIONS	BY

HOWARD I. SHAPIRO & ASSOCIATES
CONSULTING ENGINEERS, P.C.
303 MERRICK ROAD, SUITE 400,
LYNBROOK, N.Y. 11563
TEL: (516) 791-2600
FAX: (516) 791-5425

COPYRIGHT DESIGN NOT TO BE LENT, COPIED, OR REPRODUCED IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN CONSENT.

THIS OFFICE DISCLAIMS ANY RESPONSIBILITY FOR DRAWINGS OR OTHER DOCUMENTS RELATED TO THIS PROJECT UNLESS THEY BEAR THE SIGNATURE AND SEAL OF A PROFESSIONAL ENGINEER OF THIS OFFICE. THE NEW YORK STATE EDUCATION LAW PROHIBITS ANY ALTERATIONS TO, OR DELETIONS FROM, THIS DRAWING EXCEPT AS MAY BE MADE BY A LICENSED PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT WHO WILL BEAR THE RESPONSIBILITY FOR SUCH CHANGE

CONSTRUCTION MANAGER

SILVERITE CONSTRUCTION COMPANY
520 OLD COUNTRY ROAD
HICKSVILLE, NEW YORK
PH: (516) 938-2259

CONTRACTOR

A. RUSSO WRECKING INC.
67 EAST AVE.
LAWRENCE, NY
PH: (718) 978-5600

PROJECT

FULL DEMOLITION OF
2-STORY MANUFACTURING FACILITY
96-18 43RD AVE., QUEENS NY

ZONING INFORMATION

BLOCK: 1613
LOT: 17
ZONE: M1-1
ZONING MAP: 10B
COMMUNITY BOARD: 404

TITLE

SAFETY ZONE PLAN AND LEGEND

SEAL & SIGNATURE

DATE: 10/10/12
PROJECT NO: 12228.00.00
DRAWING BY: ND
CHK BY: JS
DWG NO: DM-003.00
FILE: V2011\11342.00.00.dwg
SHEET: 3 OF 14 SHEETS

PS 135
Soil Sampling Plan
Grid descriptions

Grid #	Approx size	# of core loc.	Depth	# of samples	Volume in lift (CY)	Vol in grid (CY)	NOTE
A							
1	46' x 49.2'	1	20'	4	420	1680	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
2	46' x 49.2'	1	15'	3	420	1260	(3)-5' intervals (0 -5', 5-10', 10-15',)
3	46' x 49.2'	1	20'	4	420	1680	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
4	46' x 49.2'	1	20'	4	420	1680	(4)--5 ft. intervals.(0-5,5-10,10-15,15-20) gas pit, retention tank, piers, footings
				15			
B							
1	46' x 49.2'	1	15'	3	420	1260	(3)-5' intervals (0 -5', 5-10', 10-15',)
2	46' x 49.2'	1	20'	4	420	1680	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
3	46' x 49.2'	1	20'	4	420	1680	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
4	46' x 49.2'	1	10'	2	420	840	(2) 5' intervals (0-5, 5-10)
				13			
C							
1	46' x 49.2'	1	15'	3	420	1257.33	(3)-5' intervals (0 -5', 5-10', 10-15',)
2	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
3	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
4	46' x 40'	1	20	4	409, 477, 477	1363	(3)-intervals. 0-6', 6-13', 13-20'. deep grease pits.

PS 135
Soil Sampling Plan
Grid descriptions

Grid #	Approx size	# of core loc.	Depth	# of samples	Volume in lift (CY)	Vol in grid (CY)	NOTE
				15			
C2 Hot spot							
Center	Adjacent to Langan SB 15	1	20'	6	*not applicable*		0-3', 3-6', 6-9',9-12', 12-15', 15-20' for delineation of hazardous lead contamination.
North	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' north of center
West	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' west of center
South	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' south of center
East	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' east of center
D							
1	46' x 49.2'	1	25'	5	420	2095.55	(5)-5' intervals (0 -5', 5-10', 10-15', 15' - 20', 20-25)
2	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
3	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
4	46' x 40'	1	16'	2	545	1090	(2)-intervals. 0' to 8' , and 8' to 16'
				15			
E							
1	46' x 49.2'	1	25'	5	420	2095.55	(5)-5' intervals (0 -5', 5-10', 10-15', 15' - 20', 20-25)
2	46' x 49.2'	1	25'	5	420	2095.55	(5)-5' intervals (0 -5', 5-10', 10-15', 15' - 20', 20-25)
3	46' x 49.2'	1	18'	3	503	1509	(3)- 6' intervals. 0' to 6', 6' to 12', and 12' to 18'

PS 135
Soil Sampling Plan
Grid descriptions

Grid #	Approx size	# of core loc.	Depth	# of samples	Volume in lift (CY)	Vol in grid (CY)	NOTE
4	46' x 40'	1	16'	2	511	1022	(2)-intervals. 0' to 7.5', and 7.5' to 15'

PS 135
Soil Sampling Plan
Grid descriptions

Grid #	Approx size	# of core loc.	Depth	# of samples	Volume in lift (CY)	Vol in grid (CY)	NOTE
				15			
E2 Hot spot							
Center	adjacent to Langan SB 6	1	20'	6	*not applicable*		0-3', 3-6', 6-9',9-12', 12-15', 15-
North	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' north of center
West	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' west of center
South	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' south of center
East	*sample and hold*	1	20'	6	*not applicable*		for delineation. 5' east of center
F							
1	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
2	46' x 49.2'	1	20'	4	420	1676.4	(4)-5' intervals (0 -5', 5-10', 10-15', 15' - 20')
3	46' x 49.2'	1	30'	5	503	2515	(5)- 6' intervals. 0' to 6', 6' to 12', 12' to 18', 18' to 24', and 24'-30'
4	46' x 40'	1	17'	2	401, 401, 409	1211	(3)-intervals. 0' to 5.5', 5.5' to 11 and 11' to 17'
				15		38,072.38	Total volume in cubic yard
Total Samples with out the hot spots				88			
	# of sample locations	34					

Appendix D

Community Air Monitoring Plan

TRC
1430 Broadway, 10th Floor
New York, New York, 10018

Main 212.221.7822
Fax 212.221.7840

Transmittal

To: Ms. Lee Guterman
Deputy Director, IEH Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101-3045
(718) 752-5609

Date: October 15, 2012

TRC No: 191011.0000.0000

Project: PS 315Q
96-18 43rd Ave.
Queens, New York
LLW #: 066127
IEH #: 41345

We have enclosed:

☐ B/W Prints ☐ Reproducible ☐ Reports ☐ Letter
☐ Specifications ☐ Memorandum X Contractor Submittals

Description	Rev. #	Date
Community Air Monitoring Plan (Submittal No. 02222-1-2) Approved		

Sent Via:

☐ Messenger ☐ 1st Class Mail ☐ FedEx [Type] X Email

Copy to: C. Guder (TRC)
R. Keane (NYCSCA)

Very truly yours,
TRC

Kevin Boger

Silverite Construction Co., Inc.

PS 315Q
43-18 97th Place
Queens, NY 11368

TRANSMITTAL
No. 00008

PROJECT: PS 315Q Queens LLW66127

DATE: 10/4/2012

TO: NYC School Construction Authority
30-30 Thompson Avenue
Long Island City, NY 11101

REF: Submittals

ATTN: Virginia Cava, P.E.

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☑ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☑ Attached	☐ Returned for Corrections
☑ Other: Made from Submittal	☐ Separate Cover Via: Mail	☐ Due Date:

ITEM NO.	COPIES	DATE	ITEM	NUMBER	REV. NO.	DESCRIPTION	STATUS
1	1	10/4/2012	SUT	02222-001	002	Title: Community Air Monitoring Plan	RNR

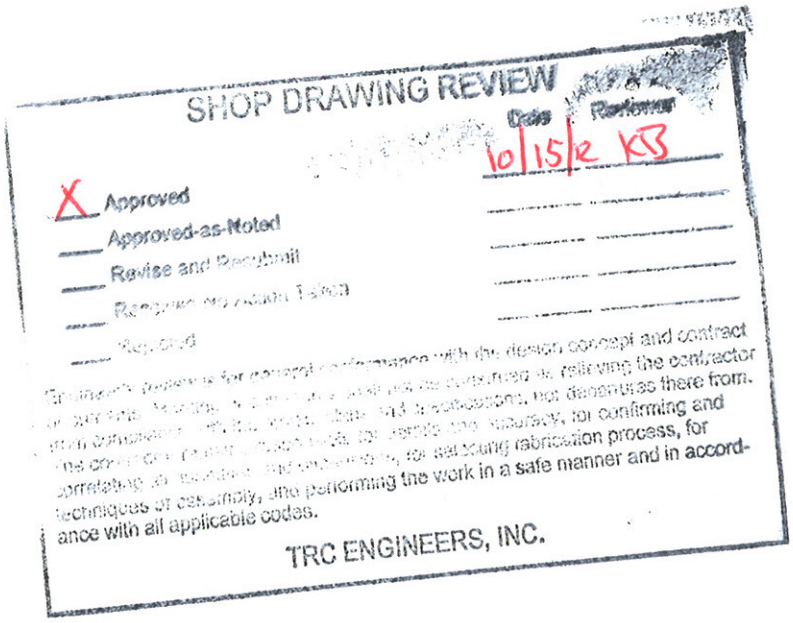
Remarks:

CC:

Signed: _____
Peter Chiodo

SILVERITE CONSTRUCTION CO., INC.
NYC SCHOOL CONSTRUCTION AUTHORITY
NEW PUBLIC SCHOOL PS 315Q

DATE:_____10/4/12_____
CONTRACT NUMBER: _____C00012636_____
DESCRIPTION / ITEM: ____Community Air Monitoring Plan_
SPECIFICATION SECTION: _____02222_____
SPECIFICATION PAGE NO. : _____011_____
SPECIFICATION PARA NO. : _____3.02D_____
CONTRACT DRAWING NO. : _____N/A_____
LOCATION: _____ Throughout the building____
MANUFACTURER: _____Sound Environmental____
SUBMITTAL NO. : _____02222-001-002_____
APPROVED BY:_____PC_____



Sound Environmental Associates, LLC
18 Tide Court, Wading River, NY 11792
Phone: 631-414-7198/7199
Fax: 631-514-3697
www.soundny.com

Peter Chiodo
Silverite Construction
520 Old Country Road West
Hicksville, NY 11801

Subject: Response to Letter Dated September 14, 2012 from TRC to SCA regarding Community Air Monitoring Plan for Project PS315

Comment # 2

2. In accordance with Part 3.02.D.5 of Specification Section 02222, explicitly identify how air monitoring will be implemented during adverse weather conditions including high humidity, precipitation, strong winds and cold. Also, explicitly identify weather conditions during which it will be necessary to stop work due to the inability to properly implement the CAMP.

Response: Addressed in section 3.2

Comment #3

3. Revise Section 3.1 of the CAMP to read: "soil at the site is assumed to be classified as non-hazardous industrial waste or hazardous waste."

Response: Section 3.1 Revised

Comment # 4

4. In addition to the information listed in Section 4.0 in the CAMP submitted by Silverite, wind direction shall be recorded by the Contractor hourly during the work, in accordance with Part 3.02.D.7 of Specification Section 02222. Also, the air monitoring equipment will be inspected at least once every 30 minutes and the measurements shall be recorded manually in a project CAMP- dedicated bound log book by the Contractor's qualified environmental professional, , in accordance with Part 3.02.D.11 of Specification Section 02222. Include this additional information in the CAMP.

Response: Section 4.0 revised to include recording and documentation of wind direction and inspection protocols.

Comment # 5

5. In accordance with Part 3.02.D.8 of Specification Section 02222, at a minimum, prior to the start of work each day two (2) downwind and one (1) upwind air monitoring stations shall be established by the Contractor at the site. The CAMP submitted by Silverite indicates only one downwind monitoring station will be established. Revise the submitted CAMP so that it is written in accordance with Section 02222.

Response: Section 4.0, paragraph 4 revised to include 2 downwind locations

Comment #6

6. Appendices A through C were not included in the submittal. Please submit.

Response: Appendices A-C included in the document.

Sheila Bubka

Sheila Bubka, CIH

Community Air Monitoring Plan

NYCSCA –PS IS – 315 Specification 02200, H

Submitted to: **Silverite Construction Corporation**
Hicksville, NY 11801

Submitted By: **Sound Environmental Associates, LLC**
Wading River, NY 11792

Submitted By: _____

Sheila Bubka, CIH
President

Date: **September 5, 2012**
Rev 1 **October 3, 2012**

TABLE OF CONTENTS **PAGE #**

1.0 Introduction and Purpose…… 3

2.0 Project Personnel …… 3

3.0 Contaminants of Concern & Sampling …….. 3

3.1 Contaminants of Concern……...4
3.2 Sampling Equipment ……4

4.0 Field Monitoring Procedures ……5

5.0 VOC Monitoring, Response and Action Levels……..5

6.0 PM10 Monitoring, Response and Action Levels……6

7.0 Reporting …….6

Appendix
A-Personnel Resumes
B-Equipment Descriptions
C-Site Map

1.0 INTRODUCTION AND PURPOSE

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when intrusive soil activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

In order to protect the public during intrusive activities from possible exposure of site contaminants, Silverite shall implement a community air monitoring program. Sound Environmental Associates (SEA) has been contracted to perform this portion of the work. Sound will utilize Specification 02200, Article 3.02H.1.

2.0 PROJECT PERSONNEL

- **Silverite Construction-Project Manager**

  Name Peter Chiodo
  Phone # 516-779-7090

- **Sound Environmental Associates LLC**

  Sheila Bubka, C.I.H., Project Manager 631-219-6457
  Trish Olori, Environmental Monitor 845-746-6035
  Chris Oak, Environmental Monitor 631-767-4796
  Day to day sampling and reporting

  Resumes for the above personnel can be found in Appendix A.

3.0 CONTAMINANTS OF CONCERN (COC) AND SAMPLING EQUIPMENT

Due to the nature of known and potential contaminants at the site, real-time air monitoring for VOCs and particulate levels at the perimeter of the work area will be necessary. Monitoring will involve VOC and particulate monitoring. Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings.

3.1 COC's

As per Spec, the site soil characteristics are assumed to be classified as non-hazardous industrial waste or hazardous waste. Therefore, this plan will address the following COC's.

- Particulate Matter (PM10)
- Total VOC's

3.2 SAMPLING EQUIPMENT

Particulate Matter

Dust monitoring will be conducted using the DUSTTRAK™ II Aerosol Monitor 8532 which is a handheld battery-operated, data-logging, light-scattering laser photometer that provides real-time aerosol mass readings. It uses a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.

The DUSTTRAK II Aerosol Monitor measures aerosol concentrations corresponding to PM_1, $PM_{2.5}$, or PM_{10} size fractions.

Total VOC

VOC monitoring will be conducted using the MultiRAE which is a wireless portable chemical detector for volatile organic compounds (VOCs). The MultiRAE supports over 30 electrochemical, NDIR, and catalytic sensors to detect up to five additional compounds, including toxic and combustible gases, oxygen deficiency/enrichment, and carbon dioxide.

The MultiRAE's wireless capability provides real-time instrument readings and alarm status from any location for faster incident response.

Appendix B contains a manufacturer's specification and equipment information.

Weather Conditions

Certain weather conditions affect the ability to implement the CAMP.

- High humidity affects both the MultiRae PID and the DustTrak. During high humidity conditions the readings for VOC and particulates will be higher.
- During cold conditions, the warm up time for the instrumentation may be 15 minutes be longer.
- High wind conditions will compromise the ability to effectively perform dust suppression activities

The Environmental Monitor will be will be aware of the weather conditions and the impact on the meter response and will make decisions regarding the ability to properly implement the CAMP.

The weather conditions during which it will be necessary to stop work due to the inability to properly implement the CAMP are as follows:

- High wind conditions (as determined by the Environmental Monitor)
- Heavy Rain Events
- High Humidity Conditions as determined by the Environmental Monitor. The Environmental Monitor will be taking into consideration the instrumentation's response as humidity levels increase.

4.0 FIELD MONITORING PROCEDURES

Continuous monitoring will be employed whenever intrusive activities are being performed. Intrusive activities include trenching, excavation, pile driving, borings, movement of stockpiled soils (if performed) sheeting installation and loading of soils into trucks for disposal.

Sound Environmental will perform upwind and downwind monitoring with monitoring stations located at jobsite perimeter locations. See Appendix C for an example of monitoring stations locations with a northwest wind.

Prior to intrusive activities the Environmental Monitor will determine wind direction utilizing a hand held compass and portable Velometer**.** In addition, a hand held GPS will be used to document each monitoring station location. A CAMP dedicated bound project log book will record the following information on a daily basis and will be available for inspection by the authority. Air monitoring equipment will be inspected every 30 minutes and recorded in the log book.

- Date, weather conditions (general) wind direction.
- Wind direction shall be recorded hourly.
- Description of Intrusive Activities
- Monitoring Station Locations (LAT/LON)
- Zero & calibration data for sampling equipment
- Any exceedenes and concentrations.
- Any other notations, malfunctions and corrective action

The physical locations of the monitoring stations will depend upon wind direction. One (1) upwind & two (2) downwind locations will be used. The monitoring stations will be located at the perimeter of the site. Due to the possible intrusion of contaminants from upwind nearby sources (vehicles, other construction, etc.), the upwind location will be operational in conjuction with the downwind locations.

Each monitoring station will have:

- One real time VOC Instrument
- One real time PM10 sampler (Dust Trak)

Each station will have the following instruments:

- PM10- TSI DustTrak real-time aerosol monitor – integrating over 15 minutes
- VOC- MiniRae/MultiRae – integrating over 15 minutes

5.0 VOC MONTORING, RESPONSE LEVELS AND ACTIONS

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The equipment will be calibrated at least daily for the contaminant(s) of concern. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, intrusive work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings will be recorded and be available for review.

6.0 PM10 MONITORING, RESPONSE LEVELS AND ACTIONS

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during intrusive work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed

leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

The following dust suppression activities are effective for the controlling of the generation and migration of dust during construction activities:
(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

The chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust. When extreme wind conditions make dust control ineffective remedial actions may need to be suspended.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings will be recorded and be available review.

7.0 REPORTING

Sound will provide monitoring reports of all data, calibrations, observations, & results to Silverite and in tern to the authority.

Appendix A
Resumes

Sheila Bubka, CIH
18 Tide Court, Wading River, NY 11791
631-414-7198
email: sbubka@soundny.com

EXPERIENCE:

Sound Environmental Associates, LLC
President **4/2002-Present**

- Conduct indoor air quality and microbial investigations in schools and commercial buildings.
- Conduct noise and industrial hygiene surveys.
- Prepare HASP for lead, mercury and projects containing projects
- Evaluate the efficiency of ventilation systems in buildings
- Manage lead and asbestos removal projects
- Conduct safety inspections for electrical, chemical and physical hazards.
- Communicate results of indoor air and microbial investigations at school board meetings.
- Coordinate EPA SARA reporting for small commercial businesses.
- Develop and implement hazard assessments safety plans
- Develop and implement sampling plans for environmental contaminants in soils at industrial facilities.
- Conduct comprehensive industrial hygiene surveys and environmental monitoring projects
- Conduct LEED Indoor Air Quality Studies
- Conduct Microbial Investigations
- Acquire new project development
- Manage the safety and environmental aspects of construction projects including gas detection, confined space, and safety work.
- Develop and implement safety and environmental training programs
- Coordinate sampling and disposal of hazardous material at industrial facilities

Canon, USA **Lake Success, NY** **3/2007-5/2009**
Corporate Manager of Safety & Environmental Compliance

- Responsible for implementation of Environmental, Safety & Health programs throughout Canon facilities nationally.
- Conduct annual regulatory reviews of Canon operations for compliance with federal, state and local regulation.
- Implement online training programs
- Assist sites in developing programs to comply with Canon Safety and Environmental Management System (EMS) policies.
- Conduct EMS and Safety audits
- Manage the worker compensation committee which drives accident prevention programs at the site level. Measure the performance of these initiatives.
- Conduct indoor air quality and industrial hygiene studies
- Conduct ergonomic assessment of office and distribution spaces.
- Promote Canon Sustainability initiatives through sourcing, recycling, carpooling, energy reductions and LEED Green Building Design for construction and renovation.
- Develop goals and measure performance of green initiatives.

Sheila Bubka, CIH
18 Tide Court, Wading River, NY 11791
631-414-7198
email: sbubka@soundny.com

Honeywell **Syosset, NY** **1/2000 – 3/2007**
Manager of Environmental, Safety & Health

- Directly responsible to manage all HSE programs including program development, implementation and training.
- Reduced accident rates by 65% first year with an overall accident rate reduction of 98% since 2000.
- Conduct accident investigation using C&E and FMEA analysis with supervisory and management teams.
- Develop corrective actions which are tracked to completion in a Corrective Action register. Set goals to close all corrective actions within 60 days.
- Lead team for Honeywell Security & Fire business toward OSHA VPP Star Program. Honeywell El Paso location is in line to achieve this certification early next year.
- Developed partnerships with OSHA at multiple sites.
- Developed and implemented Corporate Injury/Illness Policy & Procedure at multiple Honeywell sites. Managed worker compensation program for over 130 distribution facilities.
- Reduced worker compensation cost to <$ 0.01 per man hour by implementing an aggressive Return to Work Program and case management.
- Manage all worker compensation claims for multiple state and Canada locations.
- Manage environmental permitting, annual EPA SARA reporting and hazardous waste disposal program.
- Managed the due diligence process for the sale of the Syosset facilities which included Phase I, Phase II and Groundwater Impact studies. Worked with county and EPA to achieve closure of structures and signoff of work.
- Manage the annual ESH assurance process which identifies all ESH program elements and any deficiencies. Corrective actions are developed and tracked to completion.
- Established and lead Employee Club to promote community and employee involvement in projects such as “Rebuilding Together”, food and gift drives and science & education initiatives in a local school.
- Established a carpool initiative which resulted in reducing 62 tons of green house gas emissions at one location. Carpool program will be launched to all Security & Fire locations in 2007.
- Conduct industrial hygiene surveys and maintain exposure monitoring database.
- Conduct indoor air quality studies and microbial investigations.
- Develop Corporate IH Standards for all Honeywell locations worldwide.

Brookhaven National Laboratory **Upton, NY** **11/1990 – 1/2000**
Emergency Management Program Manager:

- Developed and implemented emergency preparedness and response capabilities for a multi-use DOE facility operating two nuclear reactors three particle accelerators, light source and major international research facility)
- Maintain hazard assessment which identifies the cause and effects of large scale chemical and radiological releases. Use atmospheric plume modeling programs to determine magnitude of the effect of a release and determine emergency action levels.
- Present results of hazard assessment to community and public agencies.
- Develop and conduct quarterly response drills and annual emergency exercises involving off-site agencies and hospitals and over 7000 employees, visitors, students and scientist families. Emergency scenarios included chemical and radiological releases, bomb threats and security events.
- Train laboratory directors, managers and technical staff in emergency response procedures.
- Conduct site wide audits to evaluate the effectiveness of the emergency management programs.

Chris Oak

PROJECT ROLE: Health & Safety Technician

Chris ensures all OSHA regulations are enforced on various job sites. He is trained in various methods of recognizing atmospheric hazards, and ensuring worker safety and protection of equipment in specific job sites.

YEARS OF EXPERIENCE

5

EDUCATION

PROFESSIONAL CERTIFICATIONS AND TRAINING

10 Hour OSHA 10 Hour Construction Site Health & Safety

OSHA Confined Space Entry

Ambient Air Testing

Selected NIOSH Air testing methods

EPA Lead Inspector

Certified NYS Asbestos Project Monitor

Certified NYS Asbestos Inspector

Relevant Experience

Work Places Include:– Newtown Creek, Bowery Bay, Wards Island, North River, Hunts Point, Tallman Island, Bronx Grit Chamber, Manhattan Grit Chamber WPCP's..

Prior Experience Includes–

Ambient Air Monitoring

Confined Space Operations and Safety Supervision.

Consulting with contractors to establish safe work practices in DEP facilities (WPCP)

Lead, Mercury, CAMP and PCB Air Sample Technician

Asbestos , Lead Inspection and sampling.

Patricia Olori

PROJECT ROLE: Health & Safety Technician

Mrs. Olori ensures all OSHA regulations are enforced on various job sites. She is trained in various methods of recognizing atmospheric hazards, air monitoring for various pollutants, the rescue of entrants in confined spaces and ensuring worker safety and protection of equipment in specific job sites.

YEARS OF EXPERIENCE

5

EDUCATION

Associates/Business Administration
St. Thomas Aquinas College

PROFESSIONAL CERTIFICATIONS AND TRAINING

30 Hour OSHA 30 Hour Construction Site Health & Safety

OSHA Confined Space Entry

OSHA Hazwoper 40 Hour

Ambient Air Testing

Community Air Monitoring

Selected NIOSH Air testing methods

EPA Lead Inspector

Certified NYS Asbestos Project Monitor

Certified NYS Asbestos Inspector

RELEVANT EXPERIENCE

Work Places Include:– Newtown Creek, Bowery Bay, Wards Island, North River, Hunts Point, Tallman Island, Bronx Grit Chamber, Manhattan Grit Chamber WPCP's..

Prior Experience Includes–

Ambient Air Monitoring

Confined Space Operations and Safety Supervision.

Consulting with contractors to establish safe work practices in DEP facilities (WPCP)

Lead, Mercury and PCB Air Sample Technician

Soil Sampling on various construction sites.

Asbestos and Lead Inspection and sampling.

Waste Sampling

Appendix B

HEALTH AND SAFETY

Exposure Monitoring

DustTrak™ II Aerosol Monitor

Models 8530, 8531, and 8532

Desktop or Handheld Units for Any Environment, Any Application

The new DustTrak II Aerosol Monitors are battery-operated, data-logging, light-scattering laser photometers that give you real-time aerosol mass readings. They use a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance. Suitable for clean office settings as well as harsh industrial workplaces, construction and environmental sites and other outdoor applications. DustTrak II monitors measure aerosol contaminants such as dust, smoke, fumes and mists.

Features and Benefits

- Easy to program, easy to operate
- New graphical user interface with color touch-screen
- Perform in-line gravimetric analysis for custom reference calibrations
- Automatic zeroing (with optional zero module) minimizes the effect of zero drift
- Measure aerosol concentrations corresponding to PM_1, $PM_{2.5}$, PM_{10}, or Respirable size fractions

Applications

- Industrial/occupational hygiene surveys
- Indoor air quality investigations
- Outdoor environmental monitoring
- Baseline trending and screening
- Point source monitoring
- Engineering control evaluations
- Engineering studies
- Remote monitoring
- Process monitoring
- Emissions monitoring
- Aerosol research studies

TSI

INNOVATION.

Easy to Program and Operate

The new graphical user interface with color touch-screen puts everything at your fingertips. The easy-to-read display shows real-time mass concentration and graphical data as well as other statistical information along with instrument pump, laser and flow status, and much more. Perform quick walk-through surveys or program the instrument's advanced logging modes for long-term sampling investigations. Program start times, total sampling times, logging intervals, alarm setpoints and many other parameters. You can even set up the instrument for continuous unattended operation.

Desktop Models: Ideal for Long-Term Surveys and Remote Monitoring Applications

Manual and programmable data logging functions also make DustTrak II desktop monitors ideal for unattended applications. They come with USB (device and host), Ethernet, and analog and alarm outputs allowing remote access to real-time aerosol concentration data. User adjustable alarm setpoints for instantaneous or 15-minute short-term excursion limit (STEL) are available on desktop models. The alarm output with user-defined setpoint alerts you when upset or changing conditions occur.

All DustTrak II desktop monitors have three unique features:

- Gravimetric sampling capability using a 37-mm filter cassette which can be inserted in-line with the aerosol stream allowing you to perform an integral gravimetric analysis for custom reference calibrations.
- They can be zeroed automatically using the external zeroing module. This optional accessory is used when sampling over extended periods of time. By zeroing the monitor during sampling, the effect of zero drift is minimized.
- STEL alarm feature for tracking 15-minute average mass concentrations when alarm setpoint has been reached for applications like monitoring fugitive emissions at hazardous waste sites.

Handheld Models: Perfect for Walk-Through Surveys and Single-Point Data Collection Applications

DustTrak II handheld models are lightweight and portable. They're perfect for industrial hygiene surveys, point source location monitoring, indoor air quality investigations, engineering control evaluations/validation, and for baseline trending and screening. Like desktop models, they have manual and programmable data logging functions. In addition, they have single-point data logging capability. Single-point data collection is used for walk-through industrial hygiene surveys and indoor air quality investigations.

New Software Makes Monitoring Easier than Ever

TrakPro™ Data Analysis Software allows you to set up and program directly from a PC. A new feature is the ability for remote programming and data acquisition from your PC via wireless (920 MHz or 2.4 GHz) communications or over an Ethernet network. As always, you can print graphs, raw data tables, and statistical and comprehensive reports for recordkeeping purposes.

DustTrak II Aerosol Monitor Features

All Models

- Li-Ion rechargeable batteries
- Internal and external battery charging capabilities
- Outlet port for isokinetic sampling applications
- User serviceable sheath flow and pump filters
- Logged test pause and restart feature
- Logged test programming
  - Color touch screen—either manual mode or program mode
  - TrakPro™ Data Analysis Software via a PC
- User adjustable custom calibration settings
- Instantaneous alarm settings with visual and audible warnings
- Real-time graph display
- View statistical information during and after sampling
- On-screen instrument status indicators: FLOW, LASER and FILTER
- Filter service indicator for user preventative maintenance

All Desktop Models

- Hot swappable batteries
- Gravimetric reference sample capability
- Long life 10,000-hour internal pump
- TrakPro Data Analysis Software
- Auto zeroing module (optional accessory)
- STEL alarm setpoint

All Handheld Models

- Long life 2,500-hour internal pump
- Single-point data collection for walk through surveys
- TrakPro Data Analysis Software

Battery Performance

Models 8530/8531 (typical) 6600 mAH Li-Ion Battery Pack (P/N 801680)	1 Battery	2 Batteries
Battery Runtime (hours)	up to 6	up to 12
Charge Time * (hours) in DustTrak	4	8
Charge Time* (hours) in external battery charger (P/N 801685)	4	8

Model 8532 (typical) 3600 mAH Li-Ion Battery Pack (P/N 801681)	Battery
Battery Runtime (hours)	up to 6
Charge Time * (hours) in DustTrak	4
Charge Time* (hours) in external battery charger (P/N 801686)	4

*of a fully depleted battery

Exposure Monitoring

Specifications

Models 8530, 8531, and 8532
DustTrak™ II Aerosol Monitor

Sensor Type
90° light scattering

Aerosol Concentration Range

8530 Desktop	0.001 to 150 mg/m³
8531 Desktop HC	0.5 to 400 mg/m³
8532 Handheld	0.001 to 150 mg/m³

Resolution
±0.1% of reading of 0.001 mg/m³, whichever is greater

Zero Stability
±0.002 mg/m³ 24 hours at 10 sec time constant

Particle Size Range
0.1 to 10 µm

Flow Rate
3.0 L/min set at factory, 1.40 to 3.0 L/min, user adjustable

Flow Accuracy
±5% of factory set point, internal flow controlled

Temperature Coefficient
+0.001 mg/m³ per °C

Operational Temp
32 to 120°F (0 to 50°C)

Storage Temp
-4 to 140°F (-20 to 60°C)

Operational Humidity
0 to 95% RH, non-condensing

Time Constant
User adjustable, 1 to 60 seconds

Data Logging
5 MB of on-board memory (>60,000 data points)
45 days at 1 minute logging interval

Log Interval
User adjustable, 1 second to 1 hour

Physical Size (HWD)

Handheld	4.9 x 4.8 x 12.5 in. (12.5 x 12.1 x 31.6 cm)
Desktop	5.3 x 8.5 x 8.8 in. (13.5 x 21.6 x 22.4 cm)

Weight

Handheld	2.9 lb (1.3 kg), 3.3 lb (1.5 kg) with battery
Desktop	3.5 lb (1.6 kg), 4.5 lb (2.0 kg)–1 battery, 5.5 lb (2.5 kg)–2 batteries

Communications

8530/31	USB (host and device) and Ethernet. Stored data accessible using flash memory drive
8532	USB (Hose and device). Stored data accessible using flash memory drive

Power–AC
AC power adapter with universal line cord included, 115–240 VAC

Analog Out

8530/31	User selectable output 0 to 5 V or 2 to 20 mA User selectable scaling range

Alarm Out

8530/31	Relay or audible buzzer Relay Non-latching MOSFET User selectable set point –5% deadband Connector 4-pin, Mini-DIN connectors
8532	Audible buzzer

Screen

8530/31	5.7 in. VGA color touchscreen
8532	3.5 in. VGA color touchscreen

Gravimetric Sampling

8530/31	Removable 37 mm cartridge (user supplied)

CE Rating

Immunity	EN61236-1:2006
Emissions	EN61236-1:2006

Specifications are subject to change without notice. TSI, the TSI logo, DustTrak, and TrakPro are trademarks of TSI Incorporated. Microsoft and Windows are trademarks of Microsoft Corporation.

TSI Incorporated - 500 Cardigan Road, Shoreview, MN 55126-3996 USA

USA	Tel: +1 800 874 2811	E-mail: info@tsi.com	Website: www.tsi.com
UK	Tel: +44 149 4 459200	E-mail: tsiuk@tsi.com	Website: www.tsiinc.co.uk
France	Tel: +33 491 95 21 90	E-mail: tsifrance@tsi.com	Website: www.tsiinc.fr
Germany	Tel: +49 241 523030	E-mail: tsigmbh@tsi.com	Website: www.tsiinc.de
India	Tel: +91 80 41132470	E-mail: tsi-india@tsi.com	
China	Tel: +86 10 8260 1595	E-mail: tsibeijing@tsi.com	

Contact your local TSI Distributor or visit our website **www.tsi.com** for more detailed specifications.

P/N 6001986 Rev A Copyright © 2008 by TSI Incorporated Printed in U.S.A.

INNOVATION.

MultiRAE Plus

One-to-Five Gas Monitor with VOC Detection

The **MultiRAE Plus** combines a PID (Photoionization Detector) with the standard four gases of a confined space monitor (O_2, LEL, and two toxic gas sensors) in one compact monitor with sampling pump. Like the Leatherman™ tool, the **MultiRAE Plus** gets the job done in more circumstances than any other gas detector. With more than 10,000 units in the field today, its versatility makes it the gas meter of choice for some of the highest profile HazMat/WMD teams in the United States. The **MultiRAE Plus** is quickly and easily changed from a sophisticated technician instrument to a simple text-only monitor. The same monitor can be used as a personal monitor, a hand-held sniffer or as a continuous-operation area monitor.

Key Features

- **O_2, LEL, PID and any two plug-in "smart" toxic sensors:** CO, H_2S, SO_2, NO, NO_2, Cl_2, HCN, NH_2, PH_2
- **0-2,000 ppm measurement of VOCs** (volatile organic compounds) with 0.1 ppm resolution
- **Measure more chemicals than with any other PID** With over 60 Correction Factors built into the **MultiRAE Plus** memory and the largest printed list of Correction Factors in the world (300+), RAE Systems offers the ability to accurately measure more ionizable chemicals than any other PID!
- **Drop-in Battery** When work schedules require putting in more than the 14 hours supplied by the advanced Lithium-ion (Li-ion) battery, the drop-in alkaline pack supplied with every **MultiRAE Plus** allows you to finish the job.
- **User friendly** screens make it easy to use for simple applications and flexible enough for sophisticated options.
- **Rugged Rubber Boot** assures that the **MultiRAE Plus** survives the bumps and knocks of tough field use
- **Strong, built-in sample pump** draws up to 100 feet (30m) horizontally or vertically. Large external filter and automatic low flowage
- **Large keys** are operable with 3 layers of gloves
- **Easy-to-read display** with backlight
- **Store up to 80 hours of data** at one minute interval for all 5 sensors for down-load to PC (with the optional datalogging)
- **Loud audible alarm** that varies for different alarm conditions and an optional external vibration alarm for noisy areas
- **Access sensors and battery in seconds** with the new, improved case

Applications

HazMat/Homeland Security

- Initial PPE (personal protective equipment) assessment
- Leak detection
- Perimeter establishment and maintenance
- Spill delineation
- Decontamination
- Remediation

Confined Space Entry

- Aviation/wing tank entry with jet fuel
- Shipyard and maritime confined spaces with diesel fuel
- Pulp and paper industry for confined space entry in turpentine environments

Environmental

- Soil and water headspace analysis
- Leaking underground storage tanks (LUST)
- Landfill monitoring

Industrial Hygiene, Plant Health & Safety

- Confined Space Entry
- Indoor Air Quality (IAQ)

ATEX

RAE Systems Inc.
3775 North First Street, San Jose, CA • 95134 • USA
Tel: 877.723.2878 • Fax: 408.952.8480
Email: raesales@raesystems.com • www.raesystems.com

rev11_ 10.04

RAE Systems Europe
Orestads Boulevard 69, 2300 Copenhagen S • Denmark
Tel: +45.8652.5155

RAE Systems (Hong Kong) Ltd.
Room 8, 6/F, Hong Leong Plaza, 33 Lok Yip Road, Fanling, N.T. • Hong Kong
Tel: 852.2669.0828

Specifications*

Sensor Specifications

Sensor	Range	Resolution
Oxygen	0-30%	0.1%
Combustible Gas	0-100% LEL	1% LEL
VOCs	0-200 ppm	0.1 ppm
	200-2000 ppm	1 ppm
Carbon Monoxide	0-500 ppm	1 ppm
Hydrogen Sulfide	0-100 ppm	1 ppm
Sulfur Dioxide	0-20 ppm	0.1 ppm
Nitric Oxide	0-250 ppm	1 ppm
Nitrogen Dioxide	0-20 ppm	0.1 ppm
Chlorine	0-10 ppm	0.1 ppm
Hydrogen Cyanide	0-100 ppm	1 ppm
Ammonia	0-50 ppm	1 ppm
Phosphine	0-5 ppm	0.1 ppm

Detector Specifications

Size	4.65"L x 3.0"W x 1.9"H (11.8 x 7.6 x 4.8 cm)
Weight	16 oz.with battery (454g)
Sensors	Up to 5 sensors including: • Photoionization detector for VOCs, 10.6 eV lamp standard • Protected catalytic bead for combustible gases • Interchangeable electrochemical sensors for oxygen and toxic gases (2)
Battery	• Interchangeable Li-ion and alkaline battery packs • Rechargeable units include Lithium-ion battery pack with internal smart charging, 120V AC/DC wall adapter, and spare alkaline battery pack
Operating Hours	• 14 hours continuous with Li-ion (typical) • Unit will run and charge simultaneously
Display	2 line, 16 digit LCD with LED backlighting automatically in dim light or alarm condition
Keypads	1 operation and 2 programming keys
Direct Readout	Instantaneous values (up to 5): • Oxygen as percentage by volume • Combustible gas as percentage of lower explosive level (LEL) • Toxic gases and VOCs as parts per million by volume (VOC scaleable using correction factors) • High and low values for all gases • STEL and TWA values of toxic gases and VOCs • Battery and shut down voltage • Date, time, elapsed time, temperature
Alarms	90 dB buzzer and flashing red LED to indicate exceeded preset limits: • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Automatic reset or latching with manual override • Additional diagnostic alarms and display messages for low battery and pump stall
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC
IP Rating	IP-55: protected against dust, protected against low pressure jets of water from all directions
Datalogging & Communication	Optional 80 hours, 5 channels at one minute intervals download to PC with serial number of unit, user ID, site number, and calibration date
Calibration	Two-point field calibration for zero span gas
Sampling Pump	Internal two-speed pump. Flow rates: • Low: ~150 cc/min • High: ~250 cc/min
Low Flow Alarm	Auto shut-off pump at low flow condition

Detector Specifications (continued)

Hazardous Area Approval	• US and Canada: UL, cUL, Classified as Intrinsically Safe for use in Class I, Division I Groups A, B, C, D, T3C • Europe: ATEX II 2G EEx ia d IIC T3 & T4
Temperature	-4° to 113 °F (-20 to 45°C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachment	Durable yellow boot with belt clip and wrist strap; Shoulder strap; optional tripod/wall mounting bracket
Warranty	Lifetime on non-consuming components (per RAE Systems Standard Warranty), 2 years for O_2, LEL, CO, and H_2S sensors, 1 year all other sensors, 1 year pump, 1 year battery, 1 year for 10.6eV PID lamp

*Ongoing projects to enhance our products means that these specifications are subject to change

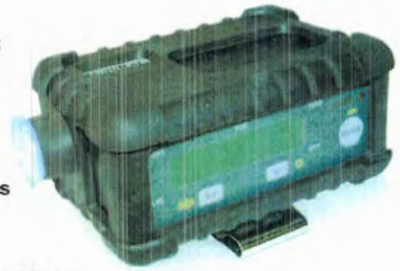
MultiRAE Plus Accessories

Monitor only includes:

- Sensors as specified
- Calibration adapter
- Training CDROM
- Operation and maintenance manual
- Rubber boot with belt clip
- Alkaline battery adapter
- Rechargeable units additionally include:
  - Standard Lithium-ion (Li-ion), optional extended duration Lithium-ion battery, or ATEX-certified charger and barrier kit
  - 120/230 V AC/DC Wall Adapter (if specified)
- 3 external filters
- 3-inch inlet probe

Monitor with accessories kit also includes:

- Hard transport case with pre-cut foam
- Sampling wand with 15 feet (5m) of self-coiling Teflon® tubing
- Tool Kit



Black boot is available for tactical operations (part number 027-3042-000)

Optional calibration kit also includes:

- Four-gas mix in a 34L cylinder; (50% LEL, 20.9% O_2, 25 ppm Hydrogen Sulfide, 50 ppm Carbon Monoxide)
- 100 ppm Isobutylene in 34L cylinder
- Calibration regulator(s) and tubing

Datalogging Monitors also include:

- Software ProRAE Suite Package for Windows 98, NT, 2000 and XP
- Computer interface cable

Optional Guaranteed Cost of Ownership Program:

- 4-year repair and replacement guarantee
- Annual maintenance and servicing

DISTRIBUTED BY:

MultiRAE Plus

RAE Systems Inc.
3775 North First Street, San Jose, CA • 95134 • USA
Tel: 877.723.2878 • Fax: 408.952.8480
Email: raesales@raesystems.com • www.raesystems.com

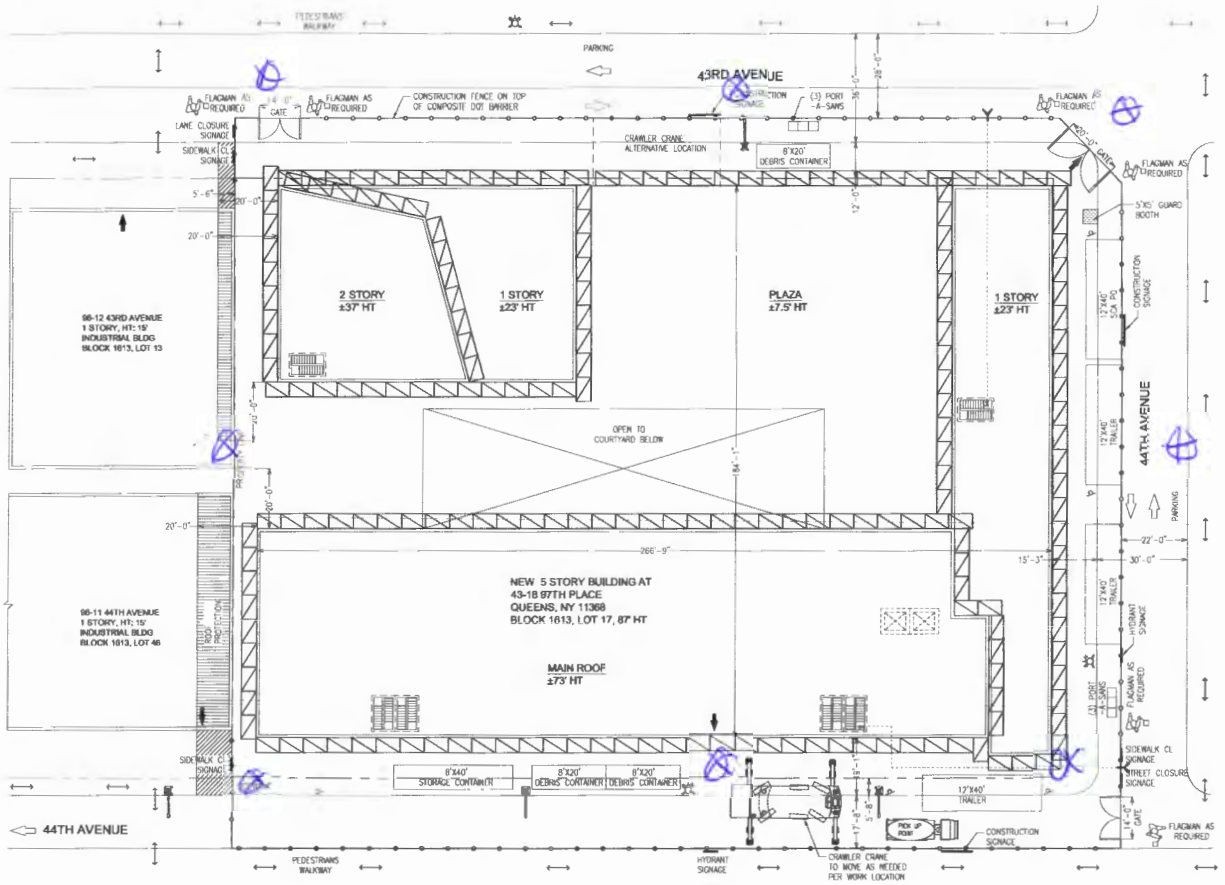
rev11_ 10.04

RAE Systems Europe
Orestads Boulevard 69, 2300 Copenhagen S • Denmark
Tel: +45.8652.5155

RAE Systems (Hong Kong) Ltd.
Room 8, 6/F, Hong Leong Plaza, 33 Lok Yip Road, Fanling, N.T. • Hong Kong
Tel: 852.2669.0828

Appendix C

O:\PE\43-18 97TH PL - NB PS 317\43-18 97TH PL - NB DC.dwg, 8/2/2012 12:12:21 PM



SUPERSTRUCTURE NOTES:
1. FOR GENERAL NOTES, LIST OF DRAWINGS AND LEGEND REFER TO DRAWING SSP 002.00.
2. FOR TYPICAL DETAILS REFER TO SSP 007.00.
3. EQUIPMENT THAT IS PLANNED TO USE FOR SUPERSTRUCTURE ARE:
   a. CRAWLER CRANE
   b. CONCRETE PUMP/TRUCKS
   c. WHEEL DUMP TRUCKS/BOB CATS
4. 2 MEANS OF EGRESS WILL BE MAINTAINED AT ALL TIMES.
5. NEW BUILDING PERMIT HAS BEEN APPROVED BY THE DOB WITH PERMIT # 402885179-01-NB.
6. PIPE SCAFFOLDING IS INSTALLED ON THE EXTERIOR DURING CONSTRUCTION WHICH ELIMINATES THE REQUIREMENT OF HORIZONTAL NETTING.
7. ALL BARRIERS ON STREET SIDE SHALL BE INSTALLED AS PER DOT STIPS.
8. SIZES AND LOCATION OF CONTRACTORS GATES, MAN GATES MAY VARY DEPENDING ON SITE CONSTRUCTION
9. ALL DOT, FDNY PERMITS/VARIANCES SHALL BE OBTAINED BEFORE COMMENCEMENT OF ANY WORK, AS REQUIRED.
10. FLAGMEN SHALL BE PRESENT AS REQUIRED

⊗ - Location of monitors

Site Safety Plan for:

PS. 315Q
43-18 97TH PL, QNS

Owner
NYC SCA
SCHOOL CONSTRUCTION AUTHORITY

Safety Engineer/Designer
MAJOR BUILDING CONSULTING
C/O Safety & Quality Plus
34-27 Steinway st, Ste 300
Long Island City, NY 11101
718-752-9200
Attn: Sandeep Gunnala.

Architect/Engineer
Skidmore, Owings & Merrill LLP
14 Wall Street
New York, NY 10005
212.298.9300
Attn.

Contractor
SILVERITE CONSTRUCTION CO #2114
520 Old Country Road
West Hicksville, NY 11801
516-681-0562
Attn. Andrew Garcia

Site Safety Representative
Safety & Quality Plus
3427 Steinway st, Sts 300
Long Island City, NY 11101
718-752-9000
SSM TO BE DETERMINED

KEY PLAN

PREPARED BY:
34-27 STEINWAY ST,STE 300,
LONG ISLAND CITY, NY 11101
TEL: 718-752-9200
FAX: 718-752-9207

PROJECT: New 5 Story Building at
43-18 97TH PLACE
Queens, NY 11368
Block 1613, Lot 17, 87' HT
Job #402885179

DRAWING TITLE:
SUPERSTRUCTURE PLAN

SEAL & SIGNATURE:

SCALE: 1"=40' (11X17) 1"=20' (24X36)	DWG NO.: SSP-005.00
DATE: 08-01-12	FILE NUMBER: 43-18 97TH PL
DRAWN BY: D.C.	5/7
CHECK BY: S.G.	

Appendix E

Resumes of Key Personnel

CHARLES N. GUDER

EDUCATION
B.S., Chemical Engineering, Manhattan College, 1991

AREAS OF EXPERTISE
Mr. Charles N. Guder has program management and technical experience in the following general areas:

- Project Management
- Environmental Assessment and Remedial Investigation
- Remedial Action Oversight and Management
- Remedial Design
- Brownfields Initiatives
- Industrial Hygiene
- Regulatory Compliance and Auditing
- Permitting
- Equipment Decommissioning
- Structure Demolition Engineering Services

Mr. Guder has over 21 years of experience and has assumed progressively increasing responsibilities in environmental consulting. His qualifications include project scoping, budgeting, management, implementation, reporting, health and safety and close-out of large scale, multi-faceted environmental projects. Mr. Guder's background includes extensive service to public and private-sector clients including the NYCSCA, Avis Budget Group, AIMCO, Consolidated Edison, NYCDOT, Nestle USA, and CSX Transportation. He currently serves in the capacity of Senior Program Director in TRC's Remediation Practice with responsibility for project management and implementation of large scale, diverse environmental projects.

New York City School Construction Authority, IEH Environmental Consulting Hazardous Material Services
Mr. Guder serves as the Project Manager of a comprehensive environmental services multi-year, task order contract providing environmental site assessments and site investigation services to determine the suitability of sites in New York City for use as public school facilities. To date, Mr. Guder has directly managed the assessment of over 50 sites considered for development as New York City schools. Additionally, Mr. Guder has managed the design and construction inspection of over 20 vapor intrusion mitigation engineering control systems consisting of gas vapor barriers and sub-slab depressurization systems. Mr. Guder also manages a wide range of other projects including petroleum bulk storage tank compliance, petroleum-contaminated and RCRA hazardous soil remediation, construction management, hazardous material investigations, dewatering treatment system implementation, and indoor air quality assessments for existing schools as part of this contract.

The Port Authority of New York and New Jersey

Mr. Guder serves as a Senior Project Manager for the Performance of Expert Professional Environmental Design Services contract with the Port Authority. In this capacity Mr. Guder has been responsible for the following in connection with the Port Ivory – Howland Hook Marine Terminal: completion of the Final Engineering Reports and Site Management Plans for Sites 1 and 2 and the Remedial Action Work Plan for Site 3.

Avis Budget Group – New York, New Jersey and Connecticut
Mr. Guder serves as the Project Manager of a comprehensive environmental services task order contract with a nationwide provider of automobile rentals. Mr. Guder has managed numerous projects under this contract including environmental investigations of existing facilities, pre-divestiture assessments, litigation support, indoor air quality surveys, and petroleum bulk storage facility investigation, remediation, closure and compliance.

AIMCO – Nationwide
Mr. Guder serves as the Project Manager of a comprehensive environmental services task order contract with a nationwide investor in multi-family housing. Mr. Guder has managed a wide array of projects including pre-acquisition due diligence assessments, subsurface investigations, lead-based paint and asbestos-containing materials survey, indoor air quality surveys, petroleum spill case investigation, remediation and closure, and vapor intrusion mitigation.

Consolidated Edison Company of New York, First Avenue Properties – New York, NY
Mr. Guder served as the full time Site Manager overseeing and managing the decommissioning, demolition, and site remediation of the 7-acre Waterside Steam Generating Station site located in Midtown Manhattan. Key components of the work directly managed by Mr. Guder included the asbestos abatement of two circa-1900 steam and electric generating station, the removal of a 255,000 gallon fuel oil underground storage tank, decommissioning and removal of acid and caustic tanks, demolition of three 200-foot high steel and brick smokestacks, demolition of six eight-story high boilers, sealing of twelve-foot diameter cooling water tunnels, remedial investigations, excavation and disposal of 20,000 tons of contaminated soil, and sheeting and shoring of the sites to protect adjacent roadways and public right-of-ways. Mr. Guder oversaw a peak work force of two hundred trades-people, enforced health and safety provisions and plans, participated in public meetings and outreach initiatives, developed work plans, and interacted and negotiated with regulatory agencies overseeing the work.

HOK Sport, Pre-Demolition Survey of Shea Stadium – Flushing, New York
Mr. Guder served at the Project Manager for pre-demolition survey activities for Shea Stadium, the home of the New York Mets, in preparation for the new stadium construction. Pre-demolition survey activities consisted of asbestos surveys and hazardous materials inventory preparation and the preparation of biddable plans and specifications for asbestos abatement and hazardous materials removal.

Nestle USA, Inc., **Environmental Site Assessments at Manufacturing Facilities – Various Locations**
Mr. Guder served as the Project Manager responsible for assisting the Nestle USA environmental department in performing Pre-Divestiture and Pre-Acquisition environmental assessments for various properties in the United States. Mr. Guder provided consulting on regulatory implications

and environmental liabilities based on current and historical property usage. Mr. Guder also completed subsurface investigations to define potential environmental conditions.

Metro-North Railroad, Metro-North Croton-Harmon Maintenance Facility Rehabilitation Design – Croton, New York
Mr. Guder functioned as the environmental task leader for a multi-disciplinary design team in the design of the reconstruction of Metro-North Railroad's largest maintenance and repair facility. Mr. Guder was responsible for the oversight and design review of four environmental subconsultant team members. Design work included oil-water separator design, petroleum bulk storage tank decommissioning and fabrication design, and development of a GIS/Key database. Additionally, Mr. Guder negotiated with regulatory agencies on client's behalf to obtain dewatering discharge approvals and the reuse of soils on site.

Consolidated Edison Company of New York, Industrial Hygiene Services – New York, NY
Mr. Guder served as the Project Manager for a multi-year task order contract providing comprehensive industrial hygiene services including indoor air quality and employee exposure assessments. Mr. Guder was responsible for budgeting, health and safety, implementation, report preparation, invoicing, and project closeouts.

New York City Department of Environmental Protection, Underground Storage Tank Program, Various Water Pollution Control Plants – New York, NY
Mr. Guder managed a remedial design program for underground storage tanks at various wastewater treatment plants throughout New York City. Mr. Guder developed sampling plans, performed soil and groundwater investigations, reported and interpreted results, interfaced and negotiated with NYSDEC, and presented a remedial strategy based on the findings.

AMP Circuits, Facility Decommissioning – Riverhead, NY
Mr. Guder functioned as the full-time Site Manager for the decommissioning and dismantling of a 100,000 square foot printed circuit board manufacturing facility. As part of the planning process, Mr. Guder developed specifications and bid documents for the complete facility decommissioning. Mr. Guder managed the eight month duration facility decommissioning two months ahead of schedule and on budget.

Perini Contracting/NYCDOT, Environmental Oversight, Williamsburg Bridge Reconstruction – New York, NY
Mr. Guder functioned as contract-required environmental engineer for the $120 million reconstruction of Williamsburg Bridge south and transit roadways. Mr. Guder supervised the excavation, management, transportation, and disposal of approximately 10,000 tons of lead and petroleum contaminated soil. Mr. Guder was also responsible for the supervision of dewatering operations, contractor health and safety, building decommissioning, and underground storage tank removal.

SPECIALIZED TRAINING

- 40-Hour OSHA Health and Safety Training
- Supervisory OSHA Health and Safety Training

JENNIFER A. DIPILATO, PE

EDUCATION
M. S., Chemical Engineering, Manhattan College, 2004
B.S., Environmental Science, University of Rochester, 1999

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS
Professional Engineer, New York

AREAS OF EXPERTISE
Ms. Jennifer DiPilato serves as a Senior Project Manager/Senior Engineer in TRC's Remediation in the New York City Office and has 14 years of experience providing environmental engineering, investigation, design and construction phase services.

Ms. DiPilato has management and technical experience in the following areas:

- Project Management
- Remedial Design and Construction Inspection
- Remedial Investigation
- Soil Vapor Intrusion Mitigation

New York City School Construction Authority, Industrial & Environmental Hygiene Consulting Services in Connection with Hazardous Materials Contract
Under TRC's contract with the New York City School Construction Authority, Ms. DiPilato has served as the lead design engineer for vapor intrusion mitigation systems, consisting of vapor barriers and sub-slab depressurization systems, for more than ten (10) New York City public schools (new construction). The design efforts included reviewing building plans and foundation drawings, developing design drawings and specifications for public bidding as part of the new school construction bid packages, and coordinating with architects and design engineers. Ms. DiPilato has also been responsible for construction phase services associated with these projects.

Ms. DiPilato also served as the lead design engineer and project manager for installation of a sub-slab depressurization system for an existing school. The efforts included contracting an architect and electrical engineer, developing design drawings and specifications for public bidding, obtaining approval of the design by the Building Code Compliance Division (BCCD), and coordinating the bid phase. After the bid was awarded, Ms. DiPilato was responsible for contracting, obtaining permits, review of contractor submittals, and coordination with the building owner and Department of Education personnel, including Division of School Facilities (DSF), the United Federation of Teachers and school personnel. During construction, Ms. DiPilato oversaw the work of the contractor. Work was performed over the summer break on an expedited schedule. Ms. DiPilato also addressed requests of the DSF made during construction phase including installation of a platform to access elevated equipment installed on the roof. Ms. DiPilato designed the platform, obtained approval of the design with the BCCD, coordinated with the contractor for installation.

Stewart EFI Facility - VCP Site No. V00691, Yonkers, NY
Ms. DiPilato served as project manager for design and engineering services during construction of a sub-slab depressurization system (SSDS) at a former 100,000-square foot metal stamping and electroplating facility in Yonkers, New York. Services provided included reviewing building plans, developing and implementing a pilot test, developing design details, conducting site inspections during construction, supervising pressure field testing during startup of the SSDS, and conducting indoor air sampling to demonstrate improved indoor air quality as a result of the operation of the SSDS. Ms. DiPilato's responsibilities included coordinating subcontractor schedules, client correspondence, and interfacing with the NYSDEC, NYSDOH and the Westchester County Department of Health. The final vapor intrusion mitigation system report prepared by TRC, under Ms. DiPilato's supervision, received the approval of NYSDEC and NYSDOH.

Queens West Development - Stage 2 Site - VCP Site Nos. V00505A and V00505B, Long Island City, NY
Ms. DiPilato served as the project manager for the design and during construction of the sub-slab depressurization systems (SSDSs) for three new residential buildings constructed on the site of a former oil refinery in Long Island City, New York, on the East River. Services provided included reviewing building plans and foundation drawings, developing design details, and conducting site inspections during construction. Ms. DiPilato supervised pilot testing and sized the suction fans. She also conducted sub-slab vapor sampling, smoke tests to inspect for leaks, and carbon monoxide monitoring (for back draft) of appliances which rely on natural draft.

Long Island Rail Road (LIRR) Morris Park Yard (NYSDEC Spill No. 92-12990), Queens, NY
Ms. DiPilato prepared design drawings and specifications for the bioventing, bioamendment, and product recovery remediation systems at the Long Island Rail Road (LIRR) Morris Park Yard. The design tasks included review and revision of drawings and specifications, blower and pump sizing. In addition, Ms. DiPilato provided engineering services during construction, including technical review of contractor submittals.

Exxon Mobil Sludge Lagoon Operable Unit (SLOU) at the Bayway Refinery in Linden, NJ
Ms. DiPilato served as the lead design engineer for the design of the hydraulic control system for the Sludge Lagoon Operable Unit (SLOU) at the Bayway Refinery in Linden, NJ. The hydraulic control system, designed by Ms. DiPilato, includes 21 dual pump extraction wells, thousands of feet of buried piping, and sophisticated instrumentation and controls. The dual pump extraction wells were designed to automatically extract separately groundwater (for hydraulic control) and oil in the SLOU. Ms. DiPilato also served as construction manager during the installation of the hydraulic control system. In this capacity Ms. DiPilato's responsibilities included direct communication with the client and contractor, review of contractor submittals and management of TRC field inspection services.

Mattiace Petrochemical Superfund Site (NYS Site Registry No. 130017) in Glen Cove,

New York
Ms. DiPilato served as the project engineer for the operation, maintenance and monitoring of the soil vapor extraction (SVE) and ground water pump and treat remediation system at the 1.9-acre Mattiace Petrochemical Superfund site. The site had been used for solvent storage and distribution. Responsibilities included evaluating performance of the existing remediation systems, optimizing the current pump and treat groundwater system, and evaluating the performance of the thermal oxidation unit for the treatment of vapors from the SVE system. Ms. DiPilato also evaluated the results of an air sparge pilot test, recommended actions, and summarized the findings in a report which was submitted to USEPA.

Former Deutsche Bank Building located at "Ground Zero"
During deconstruction and decommissioning, Ms. DiPilato provided services relating to hazardous waste management at the former Deutsche Bank Building located at "Ground Zero" and damaged by the collapse of the World Trade Center towers. Ms. DiPilato performed periodic inspections of the hazardous waste storage area and of hazardous waste handling practices, submitted summaries of hazardous waste handling practices and deficiencies, and trained staff on hazardous waste management. Ms. DiPilato also calculated the quantities of hazardous waste generated during demolition/decommissioning and filed an annual hazardous waste report with the NYSDEC Division of Solid and Hazardous Materials.

Consolidated Edison of New York Echo Avenue Site in New Rochelle, NY
In connection with the Consolidated Edison of New York Echo Avenue Site in New Rochelle, Ms. DiPilato oversaw implementation of remediation by means of excavation at the former substation. Prior use had resulted in polychlorinated biphenyl (PCB) impacts to the soil and sediment of Echo Bay. Ms. DiPilato's responsibilities included overseeing implementation of the remedial action plan, health and safety oversight, managing sediment sampling, coordinating subcontractor schedules, client correspondence, subcontractor management, and interfacing with the NYSDEC. Following the close out of the remediation, Ms. DiPilato summarized the remediation activities in a final engineering report.

Golden Horseshoe Shopping Center (NYSDEC VCP Site No. V00309-3), Scarsdale, NY
Ms. DiPilato served as the project manager for the design and construction of a sub-slab depressurization system (SSDS) installed in a United States post office which is part of a shopping center in Scarsdale, New York. The post office is partially situated in an area that was previously occupied by a dry cleaner. As a result of dry cleaning activities, volatile organic compounds are present in the soil vapor. The SSDS design prepared by Ms. DiPilato was approved by the NYSDEC and the NYSDOH and constructed under the supervision of Ms. DiPilato.

Palmer Square, Sub-Slab Depressurization System Design – New Rochelle, NY
Ms. DiPilato designed and tested a SSDS for a commercial building. Subsequent to system startup, Ms. DiPilato performed inspections, measured the pressure differential between the indoor and the sub-slab environments, and tested the ambient air to assess the system effectiveness.

Former Star Facility, Sub-Slab Depressurization System Design – Mountainville, NY

Ms. DiPilato designed an SSDS for a former manufacturing building where activities included metal cold forming, die casting, plastic injection molding, heat-treating, zinc plating, assembly, and packaging. As a result of historical activities, elevated levels of volatile organic compounds were present in the soil. Following the design, Ms. DiPilato performed inspections of the SSDS components.

Solid Waste Permitting and Mitigation System Design, Ferry Point Park – Bronx, NY
Ms. DiPilato was responsible for implementing the Solid Waste Management Permit from the NYSDEC regarding methane monitoring for a former landfill that accepted municipal solid waste from before 1951 to the 1960s, and was closed and covered in the mid-1960s with additional closure operations conducted in the late 1980s. Ms. DiPilato's responsibilities included managing methane monitoring of the landfill vent trench system and assessing if the system was operating properly. She corresponded with the NYSDEC regarding amendments to the permit and implemented the amendments accordingly, creating weekly reports that summarized methane-monitoring results, status of the methane venting system, and any other pertinent site information. Ms. DiPilato also assisted in the design for a sewer pipe that crossed the landfill gas vent trench system and evaluated potential imported soil sources for acceptance onsite. Ms. DiPilato also completed the SSDS and gas vapor barrier design for two of the proposed buildings to be constructed on the landfill, as part of conversion of the landfill to a public golf course, and prepared the pond venting system design.

Con Edison, First Avenue Properties, Hazardous Waste Reporting – Manhattan, NY
Ms. DiPilato was responsible for hazardous waste filings with the NYSDEC for the First Avenue Properties. The site, owned by Con Edison, is composed of four separate properties. Responsibilities included calculating quantities of hazardous waste generated at all four sites, filing quarterly tax forms and annual hazardous waste reports with the Division of Solid and Hazardous Materials for 2002 through 2007. Ms. DiPilato interpreted and implemented NYSDEC regulations regarding hazardous waste filing for tax purposes and annual reporting.

Confidential Client, Groundwater Remediation – Tuckahoe, NY
Ms. DiPilato was the project engineer for the implementation and evaluation of groundwater remediation via enhanced natural degradation. She designed the system for the application of a food-grade solution, reviewed groundwater sampling results to assess the effectiveness of the system, and adjusted the food-grade application rate as necessary.

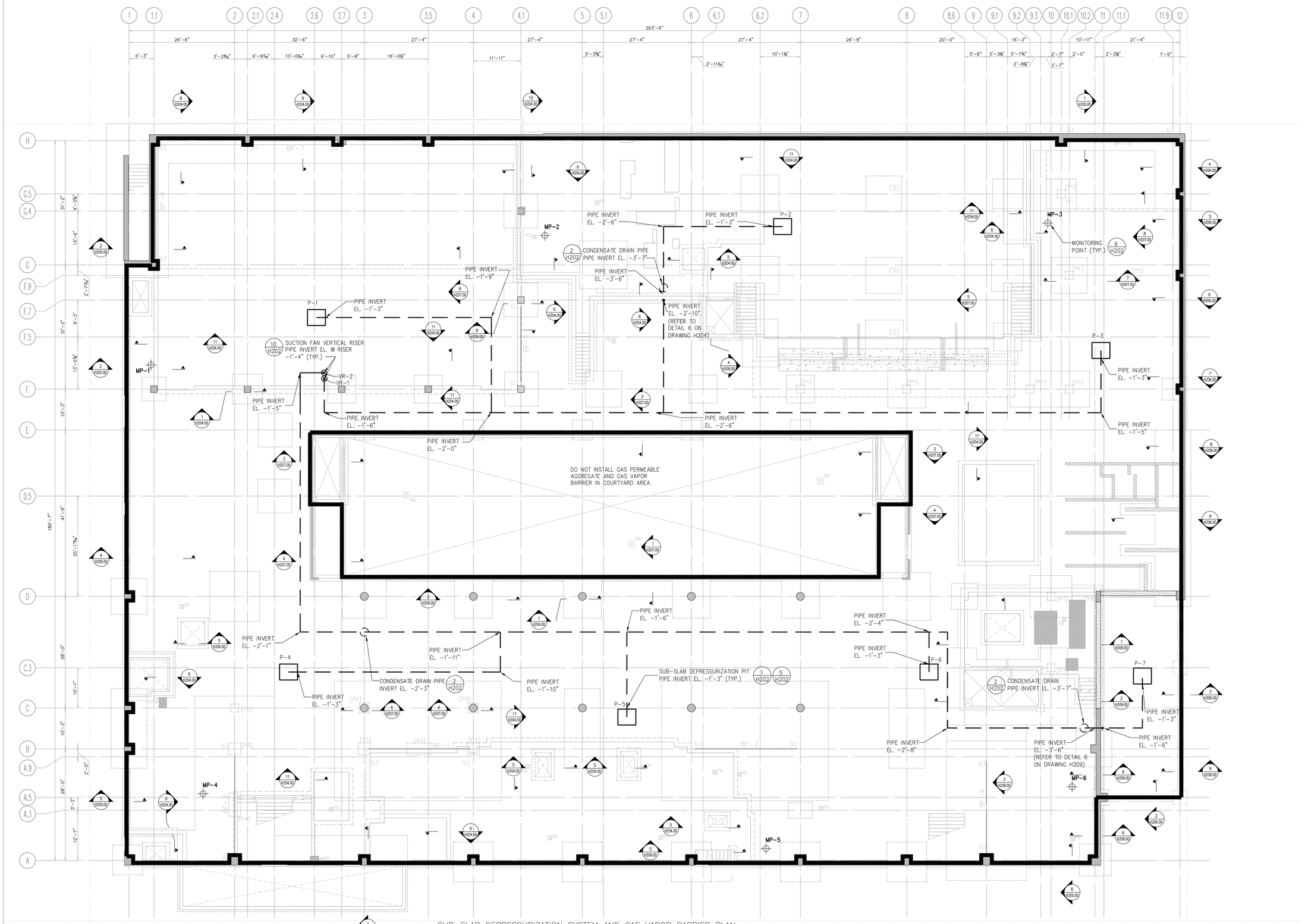
3M, Soil and Groundwater Remediation – Brockport, New York
Ms. DiPilato was responsible for the coordination of a site assessment, feasibility study, remedial design, and remediation implementation. The contaminants of concern included cyanide, chlorinated solvents, and PCBs. Excavation and enhanced natural degradation were selected for soil and groundwater remediation, respectively. Ms. DiPilato provided support in designing the remediation system and operation, maintenance, and monitoring of the remediation system.

SPECIALIZED TRAINING

- 40-Hour OSHA Health and Safety Training

Appendix F

Vapor Barrier and SSDS Design Documents



SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER PLAN

SCALE IN FEET
0 8 16
SCALE: 1/8"=1'-0"

LEGEND (SYMBOLS NOT TO SCALE):

- 6"ø C.I. PIPE BENEATH FLOOR SLAB
- VR-1 — VERTICAL RISER AND IDENTIFICATION NUMBER EXTEND THROUGH ROOF TO SUCTION FAN (REFER TO DETAILS 3 AND 10 ON DWG. NO. H202)
- MP-1 — SUB-SLAB MONITORING POINT AND IDENTIFICATION NUMBER (REFER TO DETAIL 6 ON DWG. NO. H202)
- P-1 — SUB-SLAB DEPRESSURIZATION PIT AND IDENTIFICATION NUMBER (REFER TO DETAILS 1 AND 5 ON DWG. NO. H202)
- HORIZONTAL EXTENT OF GAS VAPOR BARRIER AND MINIMUM 12-INCH THICK GAS PERMEABLE AGGREGATE LAYER
- CONDENSATE DRAIN (REFER TO DETAIL 2 ON DWG. H202)

NOTES:

1. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER.
2. THE EXTENTS OF BUILDING CONSTRUCTION BENEATH THE FLOOR SLABS SHALL BE LINED WITH GAS VAPOR BARRIER. AS PART OF BUILDING CONSTRUCTION, GAS VAPOR BARRIER SHALL ALSO BE APPLIED TO BELOW GRADE WALLS AND BOTTOM SLABS AND WALLS OF PITS AND SUMPS AS SHOWN AND SPECIFIED.
3. SLOPE HORIZONTAL PIPE A MINIMUM OF 1% UNIFORMLY TOWARDS SUB-SLAB DEPRESSURIZATION SYSTEM PITS OR TO CONDENSATE DRAINS.
4. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.
5. REFER TO SPECIFICATION SECTION 02221 FOR ADDITIONAL SUB-SLAB DEPRESSURIZATION SYSTEM REQUIREMENTS.
6. REFER TO SPECIFICATION SECTION 15880 FOR ADDITIONAL SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES REQUIREMENTS.
7. DATUM FOR PIPE INVERT ELEVATIONS IS TOP OF SLAB.
8. INSTALL WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) MIN. 3" ABOVE ALL SUB-SLAB PIPING.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA NYC School Construction Authority

Architecture & Engineering

E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Maria A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thom, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

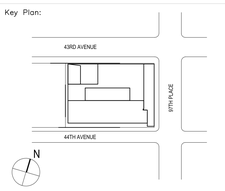
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

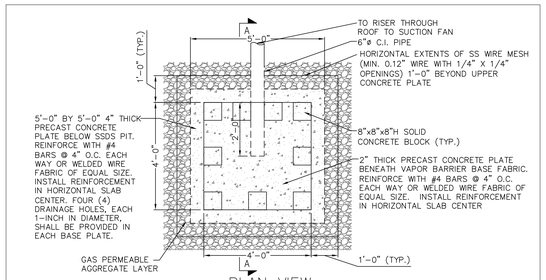
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER PLAN

Drawing No.:
H201.00

Sheets in Contract Set: 41 of 401

Sheets in DOB Set: 27 of 327

L:\Projects\16423 - NYCSCA Haz Mat Contract\0154 - 315Q\SSDS Design\Drawings\H201.00 - SSDS Plan.dwg 04/04/12 - 9:15pm kboger

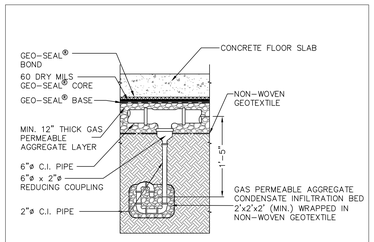


PLAN VIEW

TYPICAL SUB-SLAB DEPRESSURIZATION PIT

NTS

1

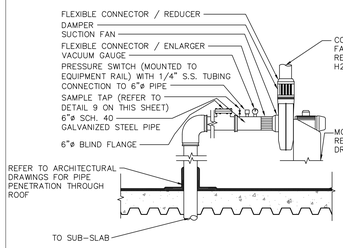


NOTE: INSTALL AT ALL LOW POINTS IN SUB-SLAB DEPRESSURIZATION SYSTEM PIPING WHEN PIPING CAN NOT BE SLOPED TO PIT.

TYPICAL LOW POINT CONDENSATE DRAIN DETAIL

NTS

2



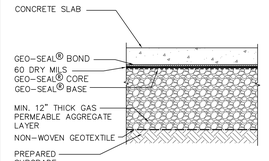
NOTES:

1. NOT ALL REQUIRED ACCESSORIES ARE SHOWN. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ELECTRICAL WIRING AND EQUIPMENT NOT SHOWN. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.
3. PIPE AND EQUIPMENT ARRANGEMENT SHOWN FOR SCHEMATIC PURPOSES ONLY. SUBMIT TO SCALE DRAWING SHOWING PROPOSED ARRANGEMENT. CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF ARRANGEMENT.
4. THE SUCTION FAN EXHAUST MUST BE A MINIMUM OF 25 FEET FROM ANY BUILDING INTAKE OR OPERABLE WINDOW.
5. CONNECT PRESSURE SWITCH TO BMS.

TYPICAL SUCTION FAN DETAIL

NTS

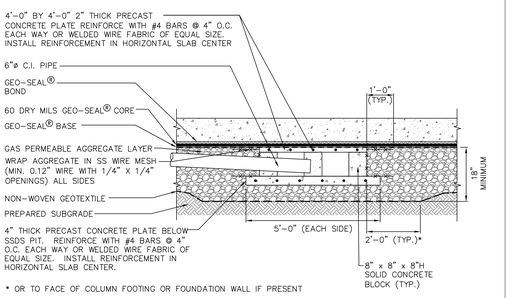
3



TYPICAL SECTION THROUGH SUB-SLAB

NTS

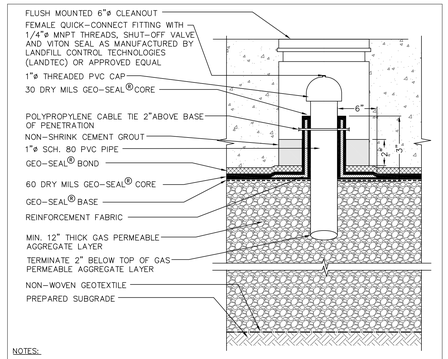
4



SECTION A-A
TYPICAL SUB-SLAB DEPRESSURIZATION PIT

NTS

5



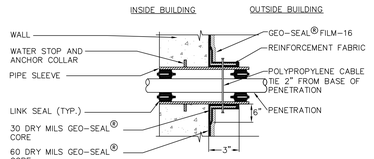
NOTES:

1. ANY DEVIATION FROM THIS INSTALLATION MUST BE SUBMITTED TO THE AUTHORITY FOR APPROVAL.
2. NOT ALL REQUIRED ACCESSORIES ARE SHOWN. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TYPICAL SUB-SLAB MONITORING POINT DETAIL

NTS

6



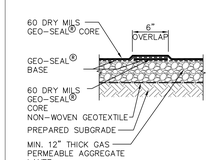
NOTES:

1. CONTRACTOR TO SUPPLY SHOP DRAWINGS OF PROPOSED CONSTRUCTION DETAILS FOR APPROVAL. ALL PENETRATIONS SHALL BE CLEANED PER SPECIFICATIONS BEFORE GEO-SEAL® IS APPLIED.
2. FURNISH ESCUTCHEONS AS SPECIFIED.
3. ANY DEVIATION FROM THIS INSTALLATION MUST BE SUBMITTED TO THE AUTHORITY FOR APPROVAL.

TYPICAL GAS VAPOR BARRIER DETAIL FOR PENETRATION THROUGH WALL BELOW GRADE

NTS

7

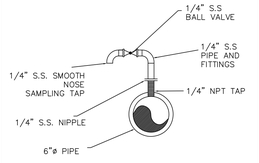


NOTE:
GEO-SEAL® BOND LAYER NOT SHOWN.

DETAIL FOR OVERLAP OF GEO-SEAL® BASE

NTS

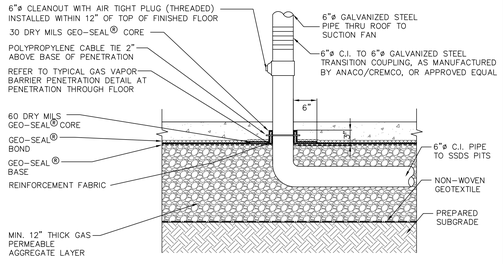
8



TYPICAL SAMPLE TAP ASSEMBLY

NTS

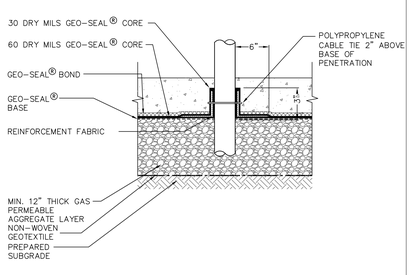
9



TYPICAL SSDS RISER DETAIL AT FLOOR SLAB

NTS

10



TYPICAL GAS VAPOR BARRIER DETAIL AT PENETRATION THRU FLOOR

NTS

11

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA NEW YORK CITY School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Maria A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thom, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

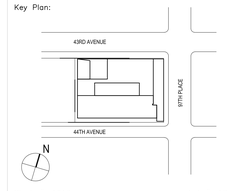
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

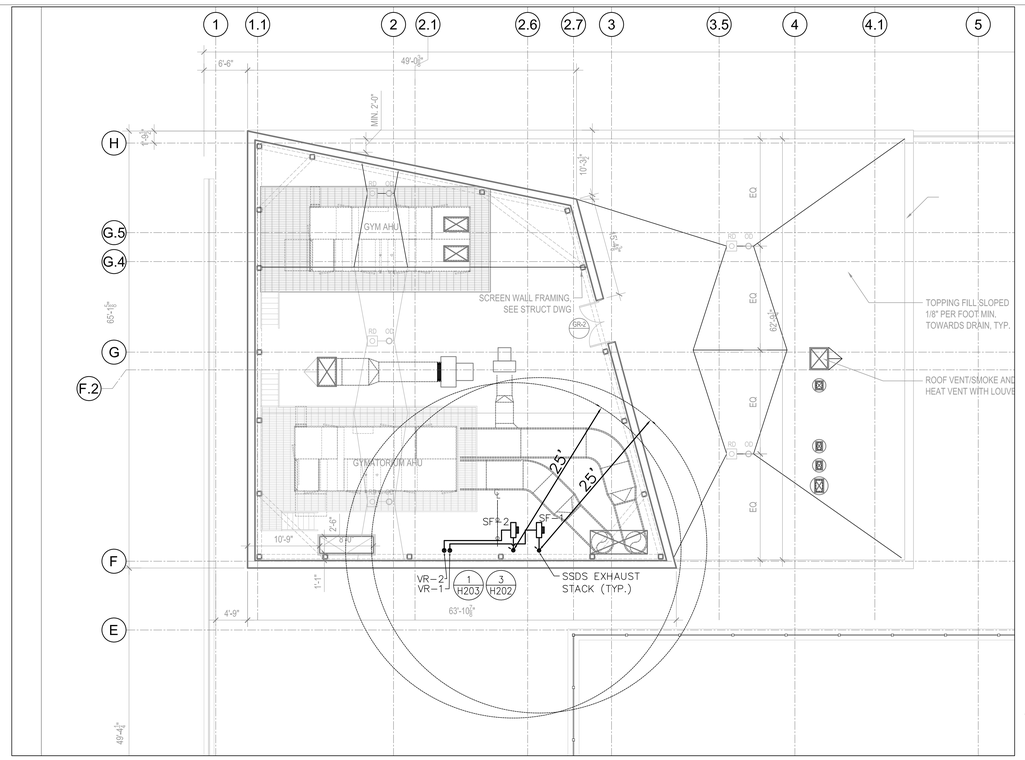
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS I

Drawing No.:
H202.00

Sheets in Contract Set: 42 of 401

Sheets in DOB Set: 28 of 327

I:\Projects\166423 - NYCSCA Haz Mat Contract\0154 - 315Q\SSDS Design\Drawings\H202.00 - SSDS & GVB Details.dwg 04/04/12 - 9:16am kboger



ROOF PARTIAL PLAN

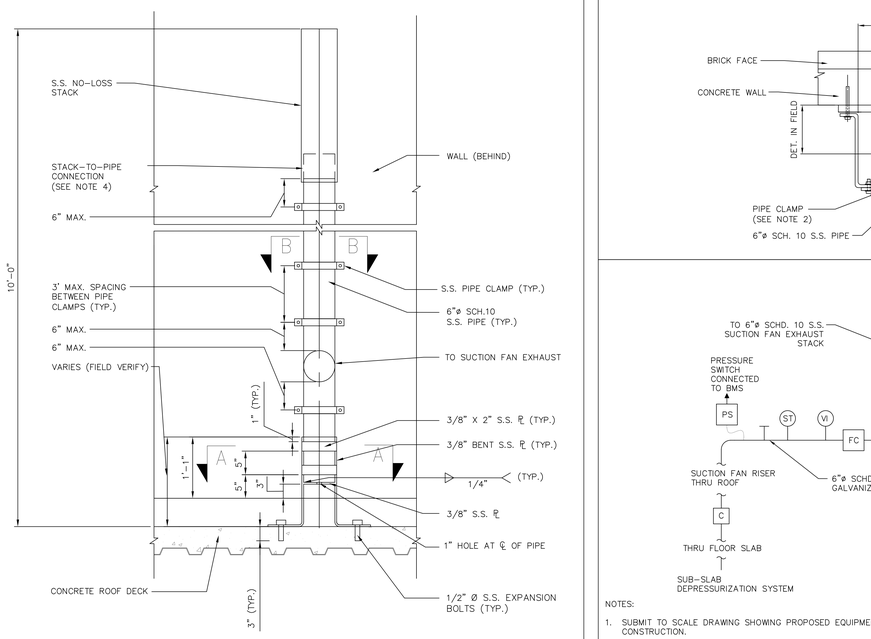
SCALE: 1/8" = 1'-0"
SCALE IN FEET
0 2 4 8 16

LEGEND (SYMBOLS NOT TO SCALE):

- 6"ø GALVANIZED STEEL PIPE ON ROOF (INSTRUMENTATION NOT SHOWN)
- ⊗ VR–X — SUCTION FAN VERTICAL RISER AND IDENTIFICATION NUMBER (COMPLY WITH PIPE SUPPORT SPECIFICATIONS AND DETAILS)
- SF–X — SUCTION FAN AND EXHAUST STACK AND IDENTIFICATION NUMBER (SCHEMATIC SYMBOL)

NOTES:

1. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB–SLAB DEPRESSURIZATION SYSTEM.
2. EACH SUCTION FAN EXHAUST MUST BE A MINIMUM OF 25 FEET FROM ANY BUILDING INTAKE OR OPERABLE WINDOW.
3. COORDINATE ALL WORK FOR SSDS SYSTEM, BMS CONNECTIONS AND ROOF PENETRATIONS WITH OTHER TRADES PRIOR TO INSTALLATION.
4. FURNISH AND INSTALL TWO S.S. EXHAUST STACKS AS SHOWN.



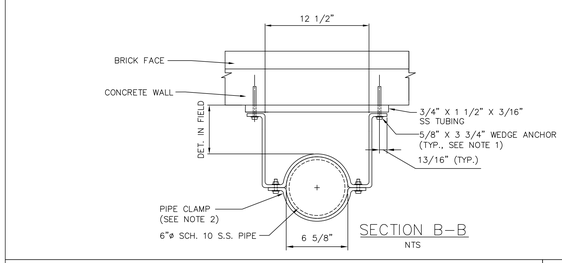
NOTES:

1. ADJUST DIMENSIONS TO PROVIDE A TIGHT FIT BETWEEN THE PIPE AND THE BENT PLATES.
2. ALL PLATES, PIPE, PIPE CLAMPS, AND TUBING SHALL BE ASTM G304 STAINLESS STEEL.
3. PROVIDE CONNECTION PER MANUFACTURER'S RECOMMENDATION OR USE (6) 5/16" ASTM G304 STAINLESS STEEL MACHINE SCREWS, DRILL AND TAP AS REQUIRED.
4. REFER TO ARCHITECTURAL PLANS FOR WALL SECTION DETAILS.

EXHAUST STACK MOUNTING DETAIL

NTS

1



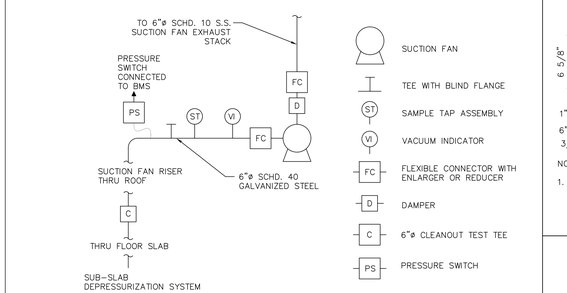
NOTES:

1. ANCHOR BOLTS SHALL BE 5/8" X 3 3/4" 304 SS KWIK–BOLT 3 WEDGE ANCHORS AS MANUFACTURED BY HILTI OR APPROVED EQUAL.
2. PIPE CLAMPS SHALL BE S.S. OFFSET PIPE CLAMP AS MANUFACTURED BY TOLCO OR AN APPROVED EQUAL. CONTRACTOR SHALL SUBMIT CATALOG CUTS FOR APPROVAL.

SECTION B–B

NTS

2



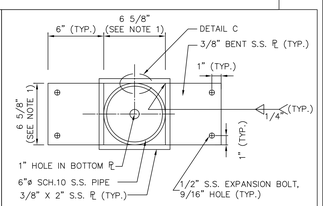
NOTES:

1. SUBMIT TO SCALE DRAWING SHOWING PROPOSED EQUIPMENT AND PIPE ARRANGEMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
2. FURNISH AND INSTALL ALL GASKETS, FITTINGS, ADAPTERS AND COUPLINGS FOR AIR TIGHT CONNECTIONS APPROPRIATE FOR INTENDED SERVICE.
3. CONNECT PRESSURE SWITCH TO BMS.
4. SUB–SLAB DEPRESSURIZATION PIPING ON ROOF–TOP SHALL BE 6" SCHEDULE 40 GALVANIZED STEEL, UNLESS INDICATED OTHERWISE.
5. SLOPE PIPE TO DRAIN CONDENSATION TO THE SUB–SLAB SYSTEM.

TYPICAL SCHEMATIC FOR SUCTION FAN INSTRUMENTATION

NTS

3



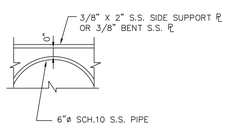
NOTE:

1. ADJUST DIMENSIONS TO PROVIDE A TIGHT FIT BETWEEN THE PIPE AND THE BENT PLATES.

SECTION A–A

NTS

4



DETAIL C

NTS

5

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NEW YORK CITY
School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Mario A. Gómez, P.E., LEED A.P., Director, A&E In–House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann–Thom, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

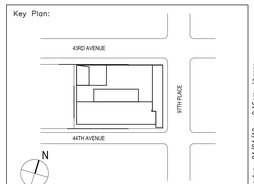
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA	
Project Architect/Engineer:		
Discipline Lead:	DAVID S. GLASS (TRC)	
Designer:	KEVIN BOGER (TRC)	
Drawn by:	HENRY DELGADO (TRC)	
Checked by:	DAVID S. GLASS (TRC)	
Design No or LLW No.: 66127	Facility Code: Q315	Date: 04/05/2012

Project:
P.S. 315, QUEENS

Address:
43–18 97th PLACE
QUEENS, NY 11368

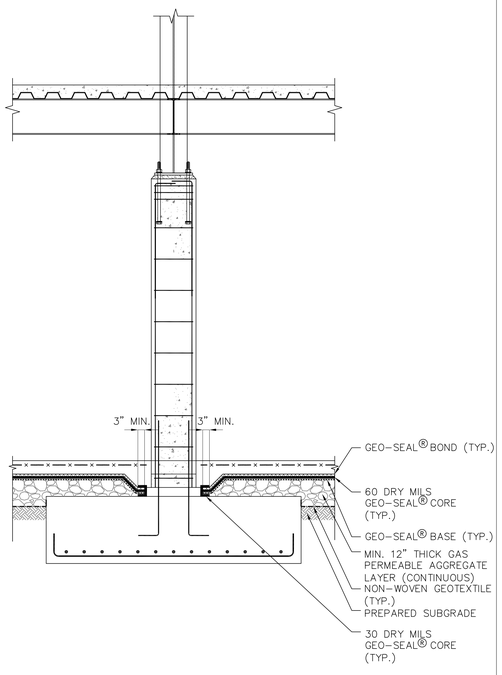
Drawing Title:
SUB–SLAB DEPRESSURIZATION SYSTEM ROOF PLAN AND EXHAUST STACK DETAILS

Drawing No.:
H203.00

Sheets in Contract Set: 43 of 401

Sheets in DOB Set: 29 of 327

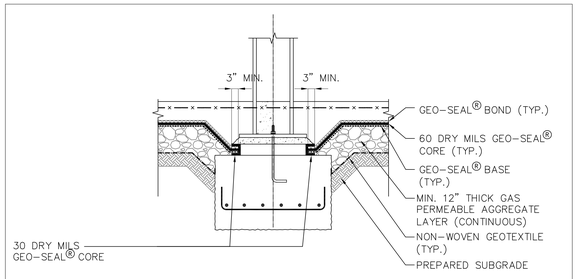
I:\Projects\166403 - NYCSCA Haz Mat Contract\0154 - 315QSSS Design\Drawings\V2\03.00 - SSDS Roof Plan and Exhaust Stack Details.dwg 04/04/12 - 9:16am kloeger



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 9 – TYPICAL REINFORCED CONCRETE COLUMN "PIER"
(INTERIOR): BASEMENT LEVEL
ON DRAWING FO–120.00

NTS

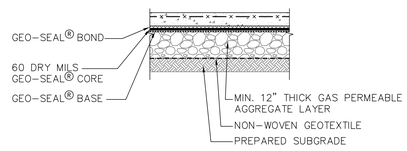
1



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 9 – TYPICAL SPREAD FOOTING SECTION (GRAVITY ONLY
COLUMNS)
ON DRAWING FO–111.00

NTS

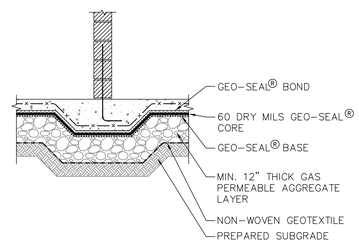
2



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 1 – TYPICAL SLAB ON GRADE DETAIL
ON DRAWING FO–111.00

NTS

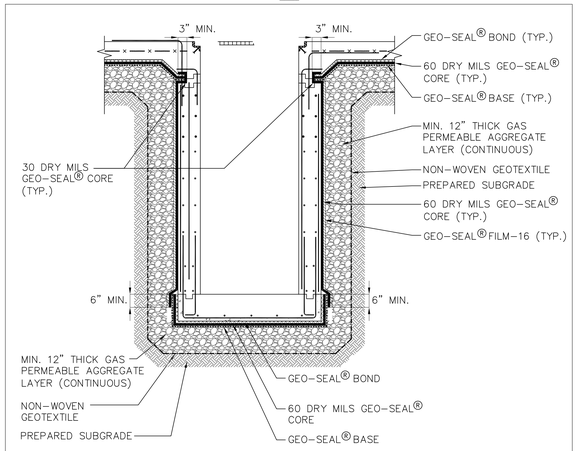
3



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 6 – TYPICAL THICKENED SLAB UNDER
MASONRY PARTITION ON DRAWING FO–111.00

NTS

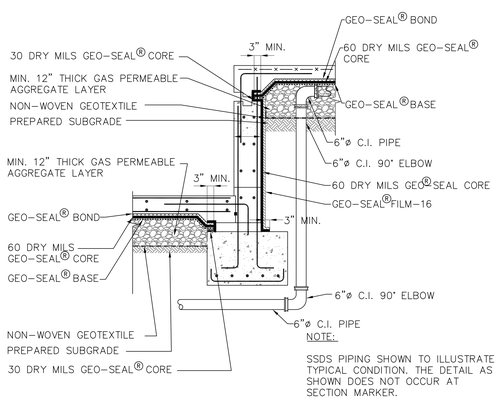
4



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 7 – SINGLE PIT SECTION
ON DRAWING FO–111.00

NTS

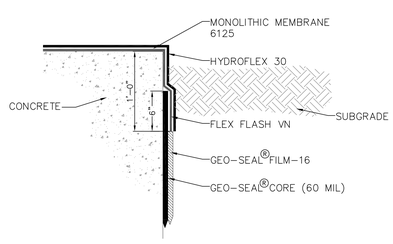
5



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 8 – TYPICAL RETAINING WALL ON DRAWING FO–118.00

NTS

6



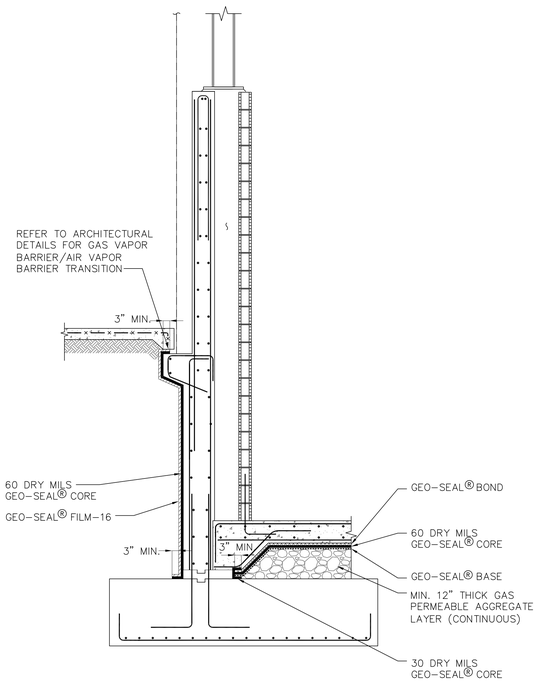
NOTE:

DETAIL FOR HYDROTECH WATERPROOFING PRODUCT. IF ALTERNATE WATERPROOFING IS PROPOSED, THE OVERLAP DETAIL MUST BE DEVELOPED, SUBMITTED, AND APPROVED BY WATERPROOFING MANUFACTURER, LAND SCIENCE TECHNOLOGIES, AND THE AUTHORITY.

TYPICAL GAS VAPOR BARRIER AND WATERPROOFING
OVERLAP DETAIL

NTS

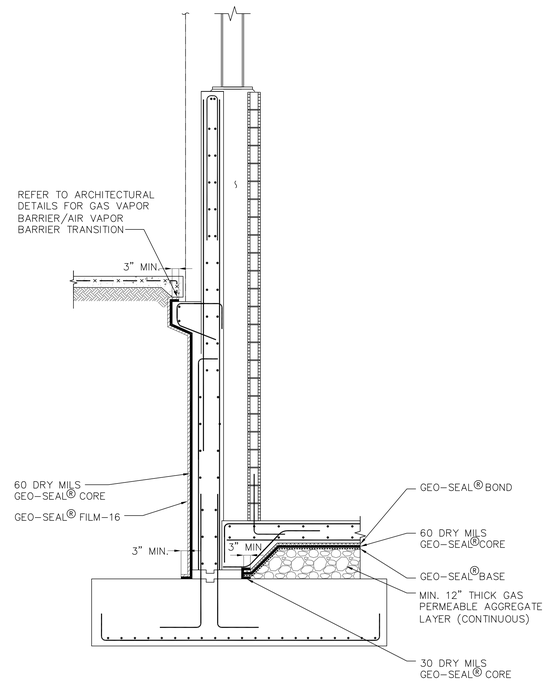
7



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 1 – NORTH RETAINING WALL SECTION
@ GYMNASIUM ON DRAWING FO–112.00

NTS

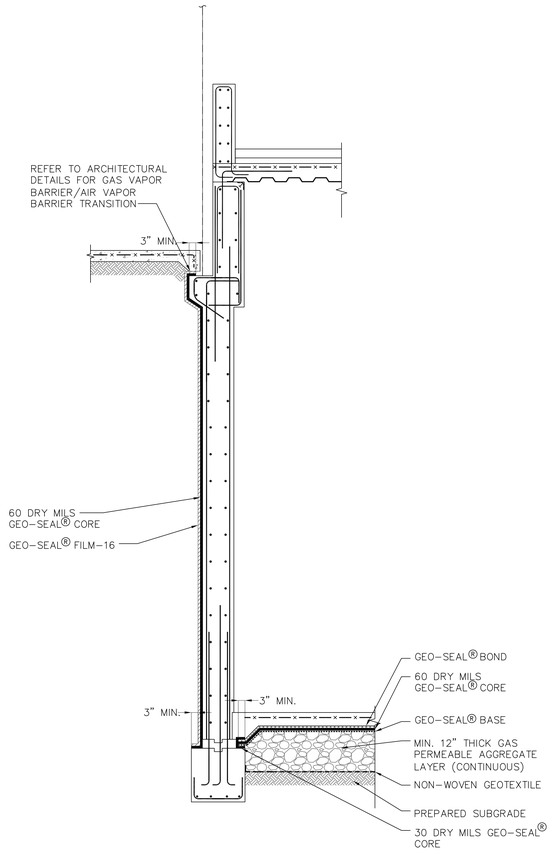
8



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 2 – NORTH FOUNDATION WALL SECTION FOUNDATION WALL
@ PLAY AREA/GYMATORIUM ON DRAWING FO–112.00

NTS

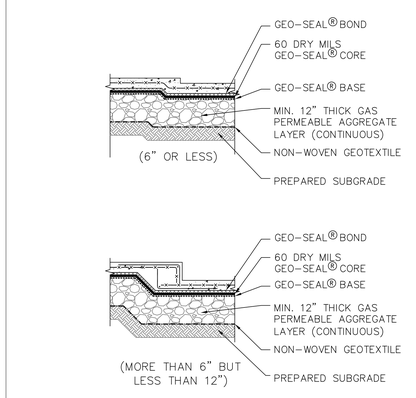
9



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 3 – NORTH FOUNDATION WALL SECTION FOUNDATION WALL
@ PLAY AREA/GYMATORIUM ON DRAWING FO–112.00

NTS

10



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL
15A – TYPICAL SLAB ON GRADE DEPRESSIONS ON
DRAWING FO–111.00

NTS

11

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. IF BLINDSIDE APPLICATION OF GAS VAPOR BARRIER IS PROPOSED DETAILS MUST BE SUBMITTED FOR REVIEW BY THE AUTHORITY. AUTHORITY APPROVAL REQUIRED A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO START OF APPLICATION.
5. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).
6. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dohr, R.A., Director, Quality Control & Construction Support
Marla A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thorn, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

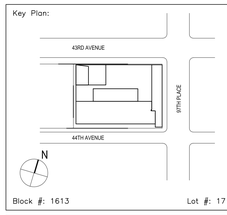
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA	
Project Architect/Engineer:		
Discipline Lead:	DAVID S. GLASS (TRC)	
Designer:	KEVIN BOGER (TRC)	
Drawn by:	HENRY DELGADO (TRC)	
Checked by:	DAVID S. GLASS (TRC)	
Design No or LLW No.: 66127	Facility Code: Q315	Date: 04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

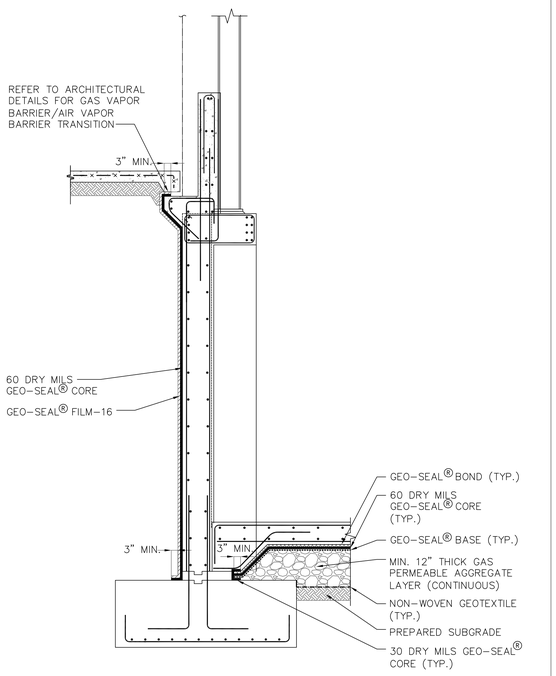
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS II

Drawing No.:
H204.00

Sheets in Contract Set: 44 of 401

Sheets in DOB Set: 30 of 327

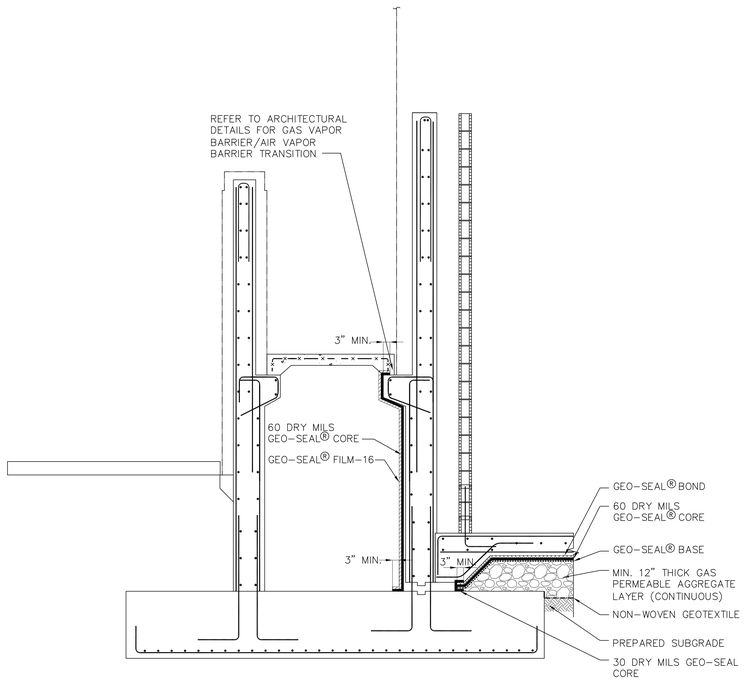
J:\Projects\166403 - NYCSCA Hist Mnt Contract\0154 - 315QSSDS Design\Drawings\H204.00-H205.00 - SSDS & GVB Details a & B.dwg 04/04/12 - 9:18am khoger



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 4 – NORTH FOUNDATION WALL SECTION @ LIBRARY SKYLIGHT
WITH BRACING BEAM ON DRAWING FO-112.00

NTS

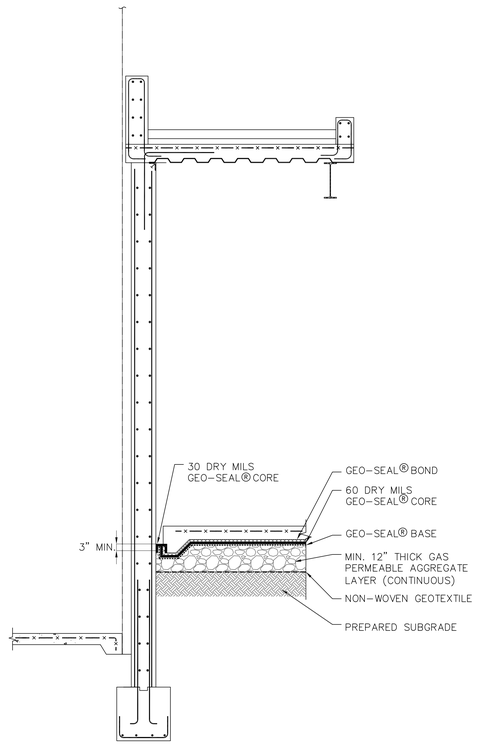
1



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 1 – WEST DUAL RETAINING WALL SECTION @ GYMNASIUM &
EXTERIOR CONCRETE STAIR ON GRADE ON DRAWING FO-113.00

NTS

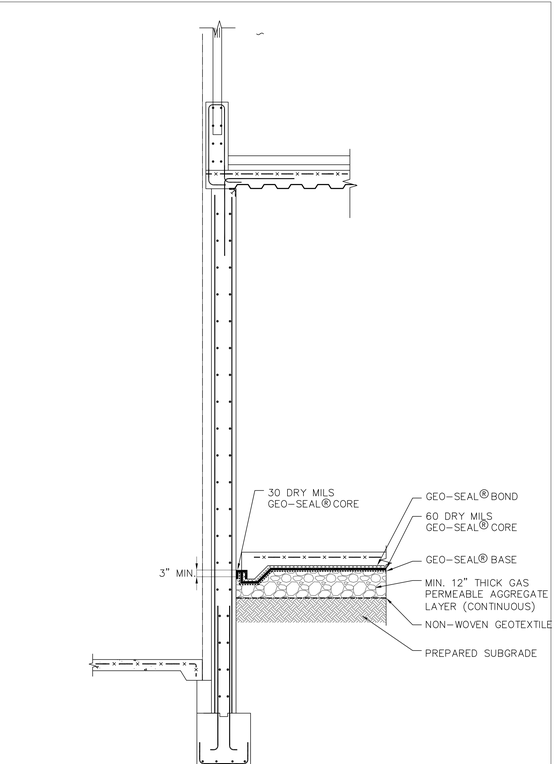
2



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 2 – WEST FOUNDATION WALL SECTION @ GYMNASIUM
ON DRAWING FO-113.00

NTS

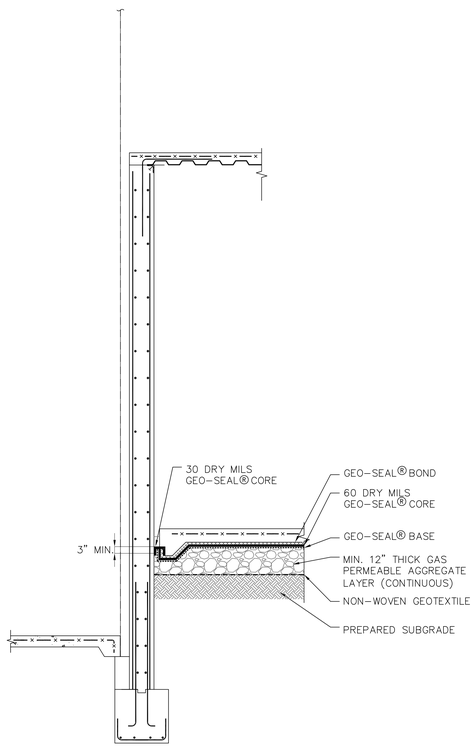
3



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 3 – WEST FOUNDATION WALL SECTION @ PLAY AREA
ON DRAWING FO-113.00

NTS

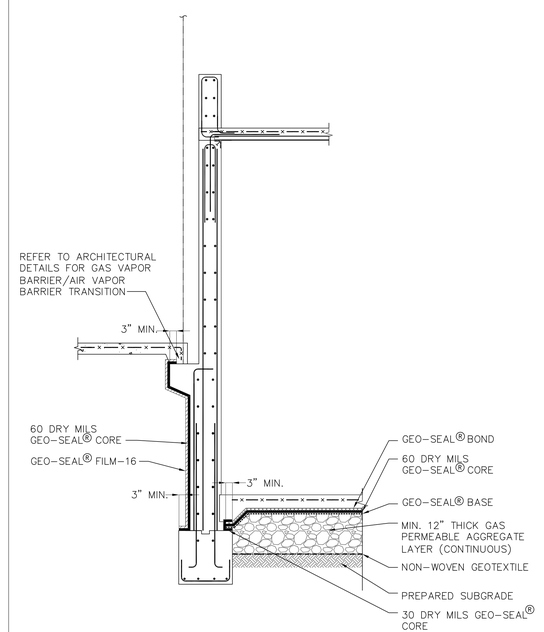
4



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 4 – WEST FOUNDATION WALL SECTION @
CLASSROOM BAR (TOWER) ON DRAWING FO-113.00

NTS

5



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 1 – TYPICAL SOUTH FOUNDATION WALL SECTION
ON DRAWING FO-114.00

NTS

6

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. IF BLINDSIDE APPLICATION OF GAS VAPOR BARRIER IS PROPOSED DETAILS MUST BE SUBMITTED FOR REVIEW BY THE AUTHORITY. AUTHORITY APPROVAL REQUIRED A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO START OF APPLICATION.
5. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).
6. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering

E. Bruce Barrett, R.A. LEED A.P., Vice President
Elon R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Marla A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thorn, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

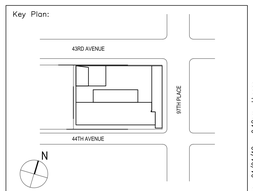
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA		
Project Architect/Engineer:			
Discipline Lead:	DAVID S. GLASS	(TRC)	
Designer:	KEVIN BOGER	(TRC)	
Drawn by:	HENRY DELGADO	(TRC)	
Checked by:	DAVID S. GLASS	(TRC)	
Design No or LLW No.: 66127	Facility Code: Q315	Date: 04/05/2012	

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

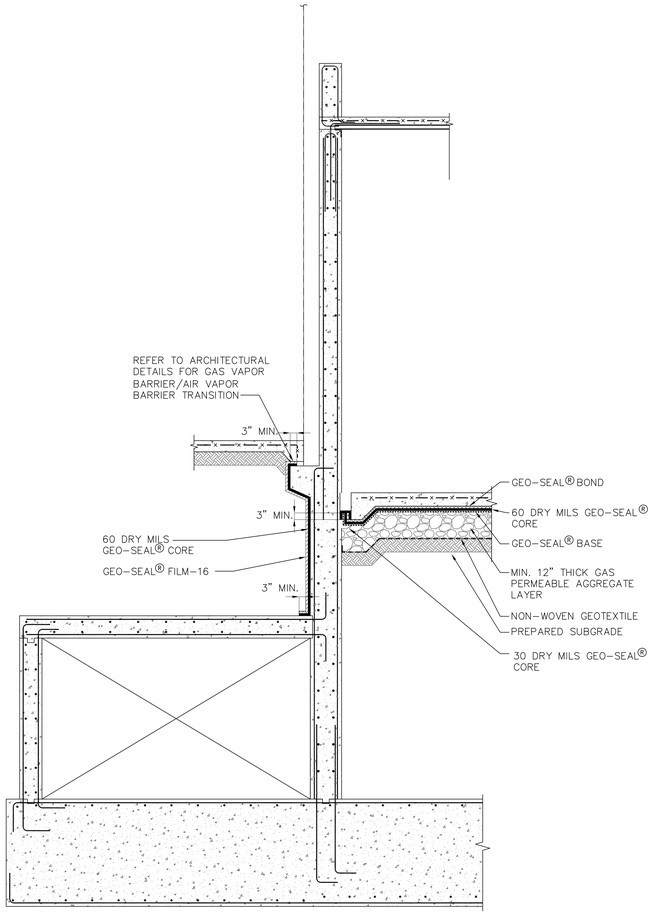
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS III

Drawing No.:
H205.00

Sheets in Contract Set: 45 of 401

Sheets in DOB Set: 31 of 327

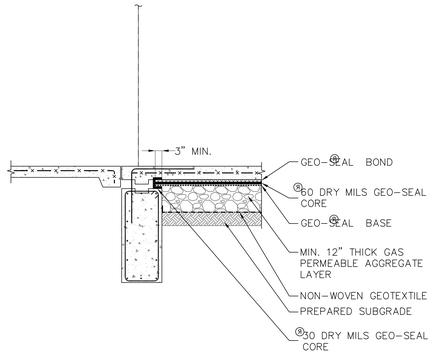
I:\Projects\66423 - NYCSCA Haz Mat Contract\0154 - 315Q\SDS Design\Drawings\H204.00-H205.00 - SDS & GVB Details in #.dwg 04/04/12 - 9:18am kboger



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 2 – SOUTH FOUNDATION WALL SECTION @ DETENTION TANK ON DRAWING FO-114.00

NTS

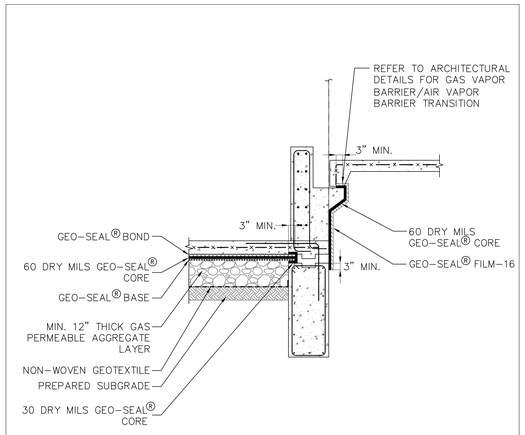
1



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 5 – TYPICAL STRIP FOOTING AT LOBBY ENTRANCE (SOUTH) ON DRAWING FO-114.00

NTS

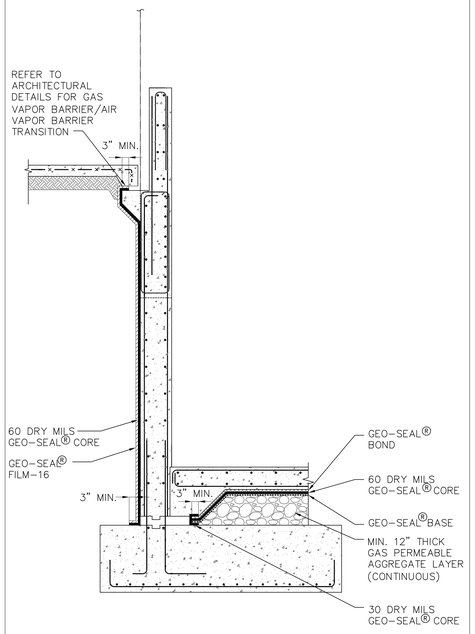
2



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 4 – TYPICAL STRIP FOOTING AT EAST LOBBY w/ RETAINING WALL ON DRAWING FO-114.00

NTS

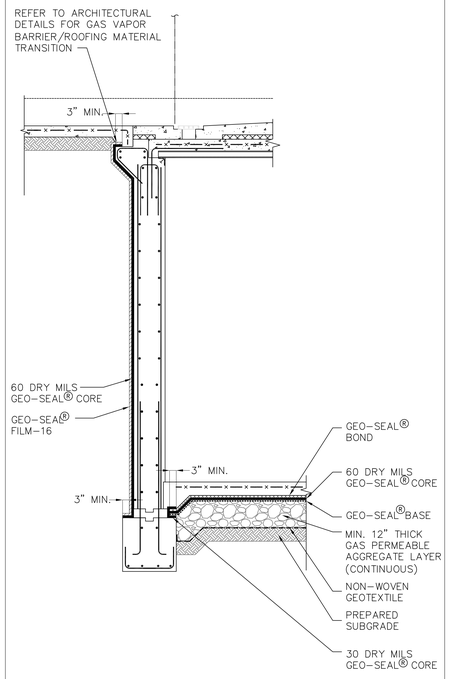
3



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 1 – EAST FOUNDATION WALL SECTION @ LIBRARY SKYLIGHT ON DRAWING FO-115.00

NTS

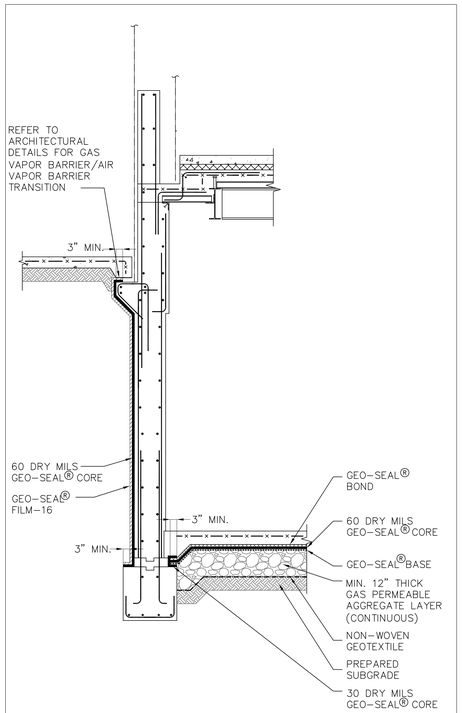
4



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 2 – EAST FOUNDATION WALL SECTION @ EAST ENTRY RAMP ON DRAWING FO-115.00

NTS

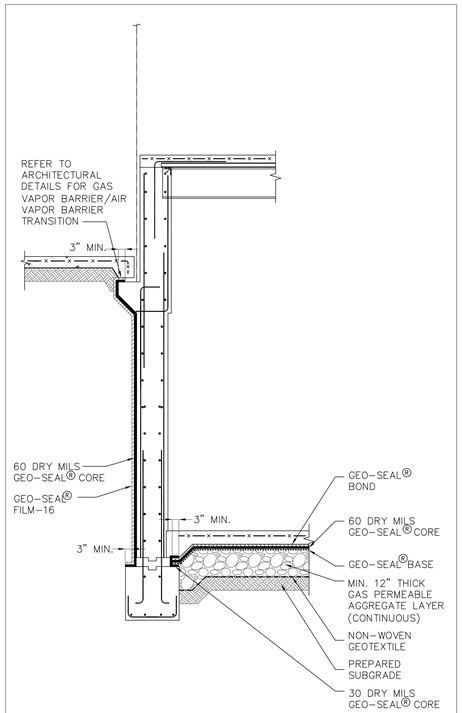
5



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 3 – EAST RETAINING WALL SECTION @ EAST ENTRY GATE/FENCE ON DRAWING FO-115.00

NTS

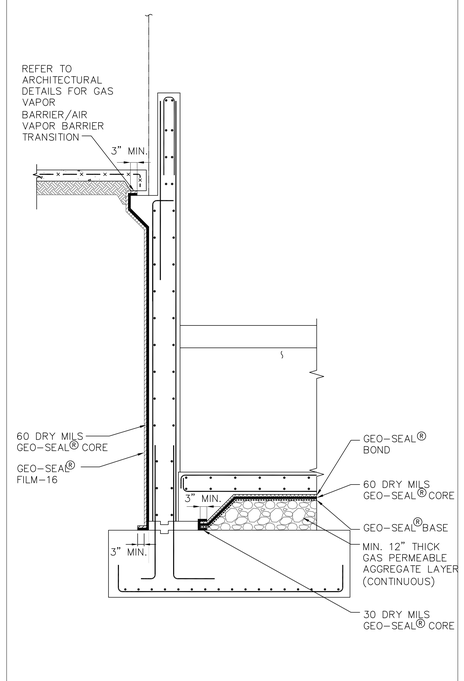
6



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 4 – EAST FOUNDATION WALL SECTION @ LIBRARY ON DRAWING FO-115.00

NTS

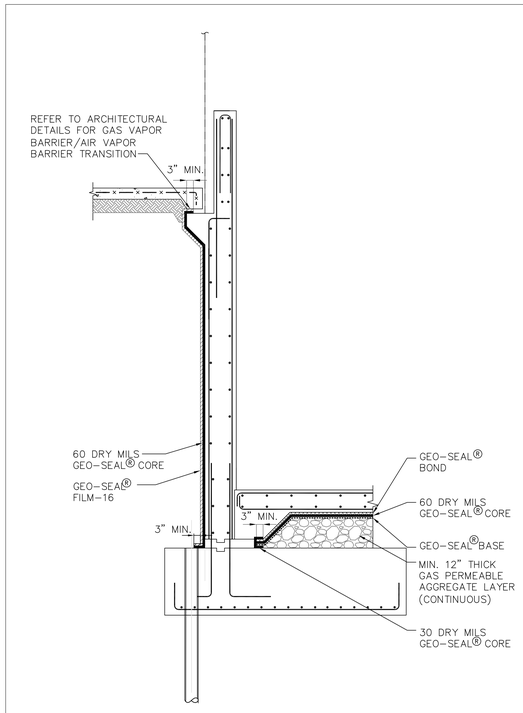
7



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 5 – EAST RETAINING WALL SECTION @ STAIRATORIUM ON DRAWING FO-115.00

NTS

8



TYPICAL GAS VAPOR BARRIER DETAIL FOR DETAIL 6 – EAST RETAINING WALL SECTION @ STAIRATORIUM (WITH TIE DOWN ANCHORS) ON DRAWING FO-115.00

NTS

9

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).
5. IF BLINDSIDE APPLICATION OF GAS VAPOR BARRIER IS PROPOSED DETAILS MUST BE SUBMITTED FOR REVIEW BY THE AUTHORITY. AUTHORITY APPROVAL REQUIRED A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO START OF APPLICATION.
6. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dohr, R.A., Director, Quality Control & Construction Support
Marla A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thorn, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

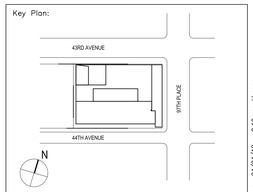
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No. or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

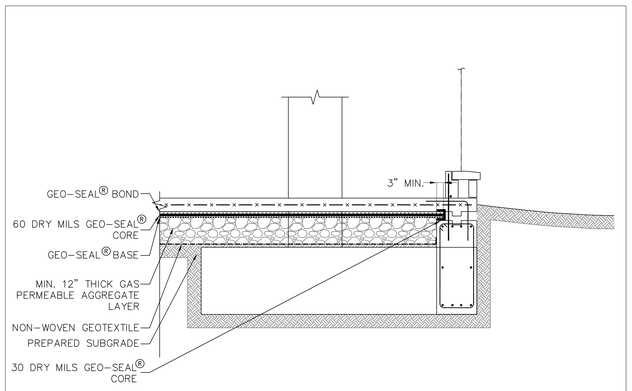
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS IV

Drawing No.:
H206.00

Sheets in Contract Set:
46 of 401

Sheets in DOB Set:
34 of 327

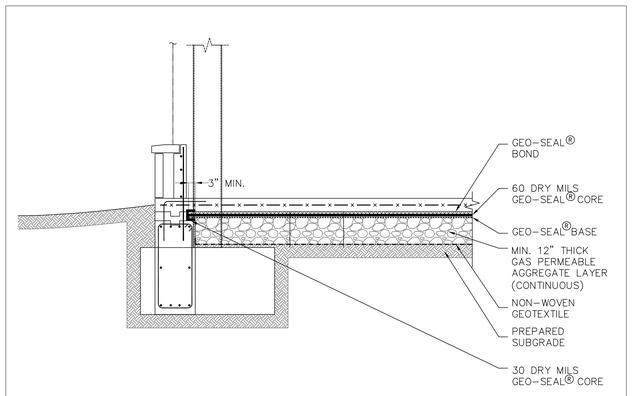
V:\Projects\166423 - NYCSCA Haz Mat Contract\0154 - 3150\SDS Design\Drawings\H206.00-H207.00 - SDS & GVB Details IV & V.dwg 04/04/12 - 8:19am kboger



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 1 – BASEMENT COURTYARD (SOUTH SECTION)
ON DRAWING FO-118.00

NTS

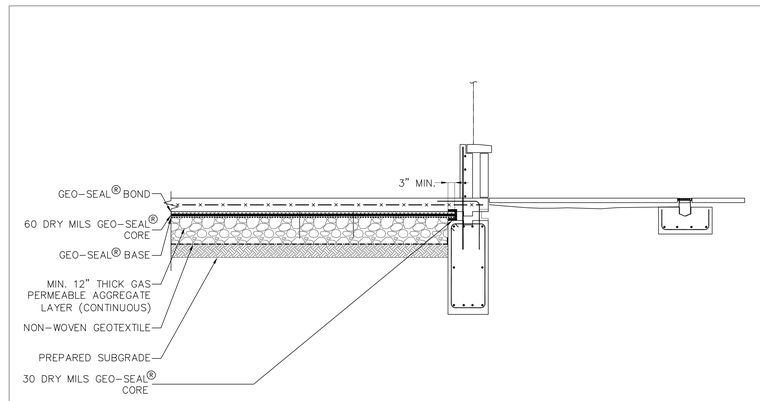
1



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 2 – BASEMENT COURTYARD (NORTH SECTION)
ON DRAWING FO-118.00

NTS

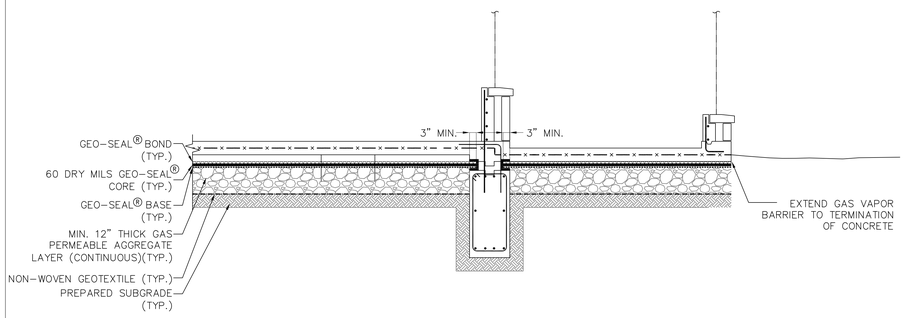
2



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 3 – BASEMENT COURTYARD (EAST SECTION #1, WEST SIMILAR)
ON DRAWING FO-118.00

NTS

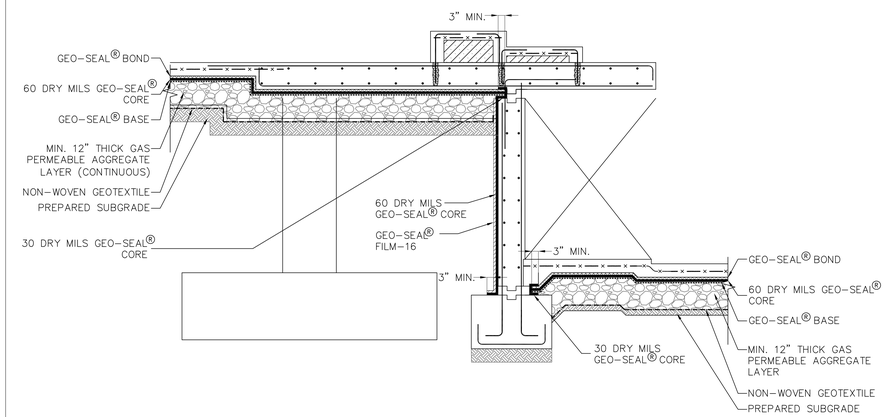
3



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 4 – BASEMENT COURTYARD (EAST SECTION #2, WEST SIMILAR)
ON DRAWING FO-118.00

NTS

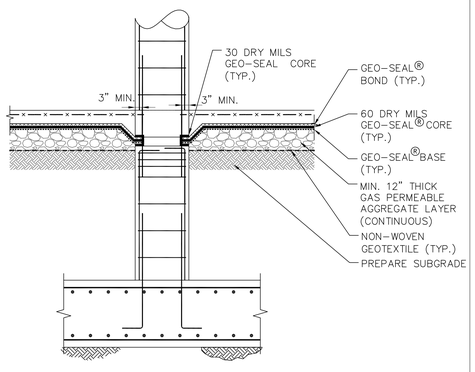
4



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 7 – ON DRAWING FO-118.00

NTS

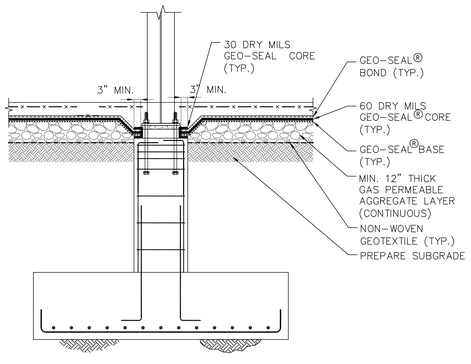
5



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 8 – FOUNDATION PIER "[P2]": CONCRETE PIER COLUMNS
ON DRAWING FO-120.00

NTS

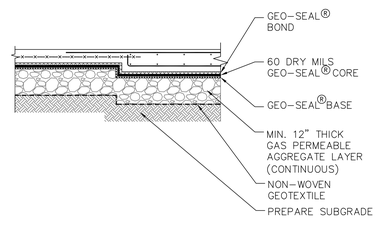
6



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 7 – FOUNDATION PIER "[P1]": GRAVITY STEEL COLUMNS
ON DRAWING FO-120.00

NTS

7



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 15B – TYPICAL SLAB ON GRADE THICKNESS CHANGE
ON DRAWING FO-111.00

NTS

8

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).
5. IF BLINDSIDE APPLICATION OF GAS VAPOR BARRIER IS PROPOSED DETAILS MUST BE SUBMITTED FOR REVIEW BY THE AUTHORITY. AUTHORITY APPROVAL REQUIRED A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO START OF APPLICATION.
6. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering

E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Marlo A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thorn, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

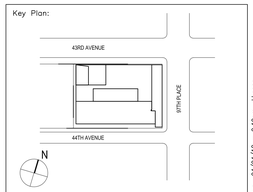
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

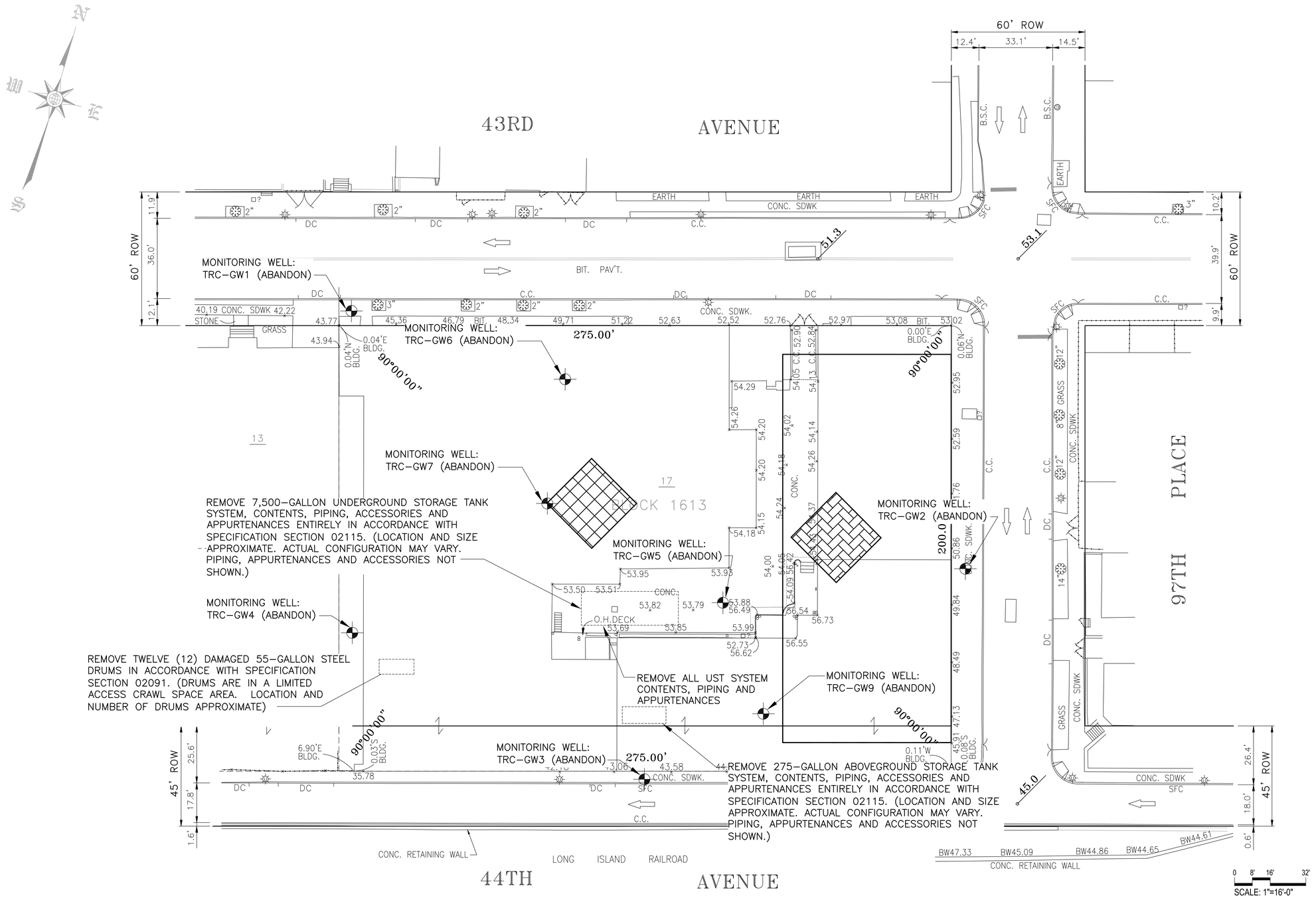
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS V

Drawing No.:
H207.00

Sheets in Contract Set:
47 of 401

Sheets in DOB Set:
33 of 327

S:\Projects\166423 - NYCSCA Haz Mat Contract\0154 - 3150\SSS Design\Drawings\H206.00-H207.00 - SSS & DIB Battles H & V.dwg 04/04/12 - 9:19am kboger



NOTES:

1. COMPLY WITH REQUIREMENTS OF SPECIFICATION SECTION 02200 FOR EARTHWORK.
2. COMPLY WITH REQUIREMENTS OF SPECIFICATION SECTION 02115 FOR REMOVAL OF TANK SYSTEMS.
3. EXCAVATE, TEST, REMOVE, DISPOSE, ETC. OF EXCAVATED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTIONS 02091, 02200, AND 02222.
4. DO NOT USE FOR BUILDING CONSTRUCTION, EXCAVATION SUPPORT DESIGN OR ANY OTHER PURPOSE OTHER THAN ENVIRONMENTAL REMEDIATION.
5. REMOVE CONTENTS (FUEL OIL AND HAZARDOUS WASTE MIXTURE, SLUDGE, TANK BOTTOMS, ETC.) FROM UST, PIPING AND APPURTENANCES; CLEAN UST, PIPING, AND APPURTENANCES; AND REMOVE ONE (1) 7,500 GALLON UNDERGROUND STORAGE TANK AND ALL PIPING AND APPURTENANCES (FILL, VENT, SUPPLY, RETURN LINES, ETC.) IN ACCORDANCE WITH SPECIFICATION SECTION 02115.
6. REMOVE CONTENTS (FUEL OIL, SLUDGE, TANK BOTTOMS, ETC.) FROM AST, PIPING AND APPURTENANCES; CLEAN AST, PIPING, AND APPURTENANCES; AND REMOVE ONE (1) 275 GALLON ABOVEGROUND STORAGE TANK AND ALL PIPING AND APPURTENANCES (FILL, VENT, SUPPLY, RETURN LINES, ETC.) IN ACCORDANCE WITH SPECIFICATION SECTION 02115.
7. CLEAN AND REMOVE ALL ABOVEGROUND PIPING AND APPURTENANCES (I.E., ALL TANK SYSTEM COMPONENTS, PIPING, EQUIPMENT, APPURTENANCES, ETC., INCLUDING TANK SYSTEM COMPONENTS, PIPING, EQUIPMENT AND APPURTENANCES IN PITS, SUMPS, VAULTS, ETC.) IN ACCORDANCE WITH SPECIFICATION SECTION 02115.
8. RESTORE EXCAVATION AREA TO PRE-EXISTING OR SPECIFIED CONDITIONS AFTER UST SYSTEM REMOVAL IS COMPLETED.
9. SUPPORT AND PROTECTION OF EXCAVATIONS AND ADJACENT STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO SPECIFICATION SECTION 02200.
10. CONTRACTOR IS RESPONSIBLE FOR IDENTIFICATION AND PROTECTION OF UNDERGROUND UTILITIES AND STRUCTURES THAT MAY BE AFFECTED BY THE WORK. REFER TO SPECIFICATION SECTION 02200.
11. NO EXITS ARE TO BE CLOSED DURING CONSTRUCTION.
12. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR, OBTAINING AND ADHERING TO THE CONDITIONS OF ALL PERMITS AND APPROVALS REQUIRED FOR THE WORK.
13. SPECIAL INSPECTIONS ARE REQUIRED FOR SHEET PILING, SHEETING, SHORING, BRACING, AND UNDERPINNING FOR UST SYSTEM REMOVAL. SPECIAL INSPECTIONS ARE ALSO REQUIRED FOR OTHER WORK. REFER TO SPECIFICATION SECTION 02200.
14. PROPERLY BARRICADE OPEN EXCAVATIONS TO PREVENT SAFETY HAZARDS.
15. ABANDON MONITORING WELLS IN ACCORDANCE WITH SPECIFICATION SECTION 02011.

LEGEND:

ASSUME ALL EXCAVATED MATERIAL WITHIN THIS AREA WILL BE HAZARDOUS WASTE EXHIBITING THE RCRA CHARACTERISTIC OF TOXICITY FOR LEAD. ASSUME THE HAZARDOUS WASTE EXTENDS FROM BOTTOM OF FLOOR SLABS (OF EXISTING BUILDINGS) AND GROUND SURFACE TO ELEVATION 30.00. EXCAVATED MATERIAL SHALL BE TESTED, MANAGED, REMOVED, ETC. IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTIONS 02200, 02222, AND 02091. DO NOT EXCAVATE BELOW DEPTHS REQUIRED FOR NEW SCHOOL CONSTRUCTION.

ASSUME ALL EXCAVATED MATERIAL WITHIN THIS AREA WILL BE HAZARDOUS WASTE EXHIBITING THE RCRA CHARACTERISTIC OF TOXICITY FOR LEAD. ASSUME THE HAZARDOUS WASTE EXTENDS FROM BOTTOM OF FLOOR SLABS (OF EXISTING BUILDINGS) AND GROUND SURFACE TO ELEVATION 35.00. EXCAVATED MATERIAL SHALL BE TESTED, MANAGED, REMOVED, ETC. IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIFICATION SECTIONS 02200, 02222, AND 02091. DO NOT EXCAVATE BELOW DEPTHS REQUIRED FOR NEW SCHOOL CONSTRUCTION.

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abrahi, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Mario A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thom, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

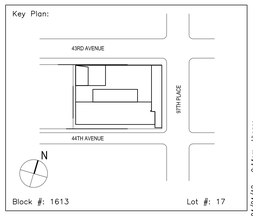
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA	
Project Architect/Engineer:		
Discipline Lead:	DAVID S. GLASS (TRC)	
Designer:	KEVIN BOGER (TRC)	
Drawn by:	HENRY DELGADO (TRC)	
Checked by:	DAVID S. GLASS (TRC)	
Design No or LLW No.: 66127	Facility Code: Q315	Date: 04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

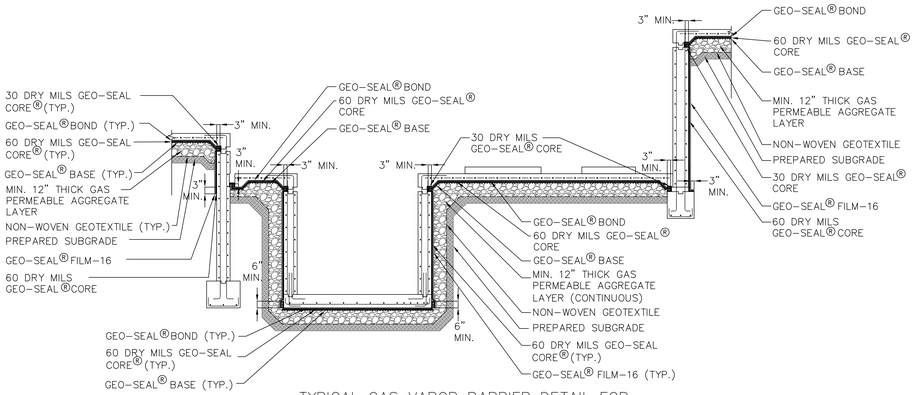
Drawing Title:
REMEDIAL EXCAVATION AND STORAGE TANK SYSTEMS REMOVAL PLAN

Drawing No.: H208.00

Sheets in Contract Set: 48 of 401

Sheets in DOB Set: 34 of 327

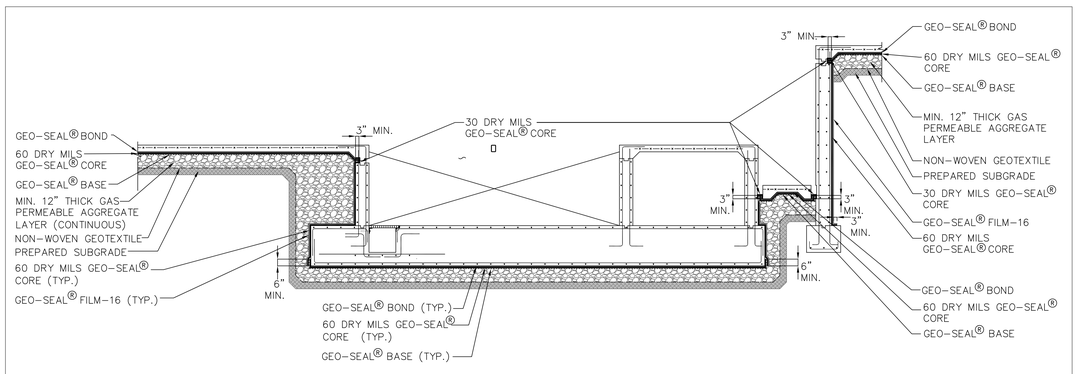
I:\Projects\166423 - NYCSCA Haz Mat Contract\0154 - 315QS\SDS Design\Drawings\H208.00 - Remedial Excavation Plan.dwg 04/04/12 - 9:14am kboger



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 3 – SECTION THROUGH SUMP / EJECTOR PITS LOOKING NORTH ON DRAWING FO-102.00

NTS

1



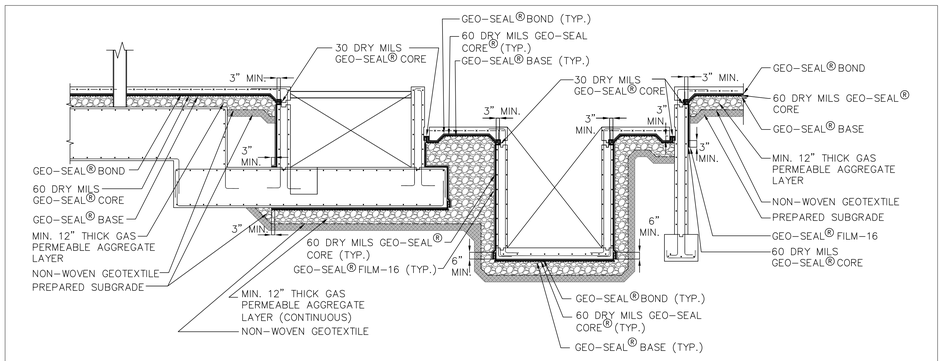
TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 4 – SECTION THROUGH CLASSROOM BAR ELEVATOR PIT LOOKING NORTH ON DRAWING FO-102.00

NTS

2

GENERAL NOTES:

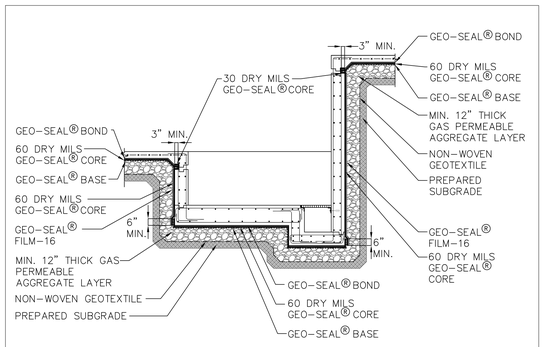
1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).
5. IF BLINDSIDE APPLICATION OF GAS VAPOR BARRIER IS PROPOSED DETAILS MUST BE SUBMITTED FOR REVIEW BY THE AUTHORITY. AUTHORITY APPROVAL REQUIRED A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO START OF APPLICATION.
6. REFER TO SPECIFICATION SECTION 02220 FOR ADDITIONAL GAS VAPOR BARRIER REQUIREMENTS.



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 5 – SECTION THROUGH CLASSROOM BAR ELEVATOR PIT LOOKING WEST ON DRAWING FO-102.00

NTS

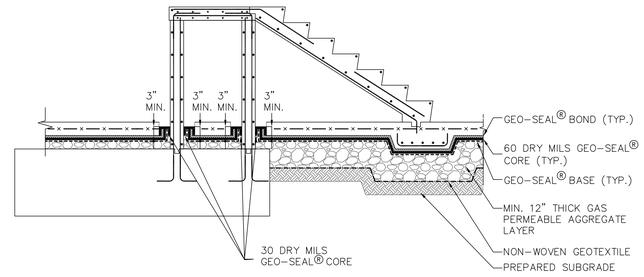
3



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 6 – SECTION THROUGH HYDRAULIC ELEVATOR PIT
ON DRAWING FO-102.00

NTS

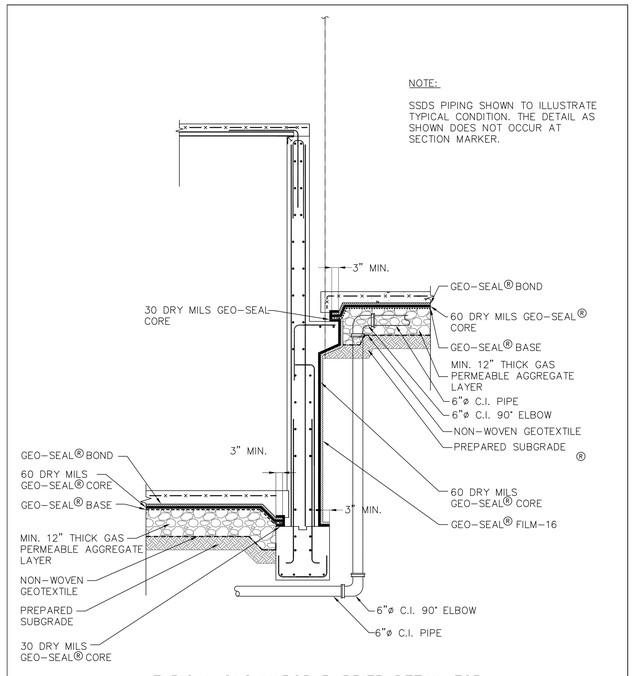
4



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 9 – SOUTH BASEMENT ENTRANCE STAIR "J": REINFORCED CONCRETE
ON DRAWING FO-118.00

NTS

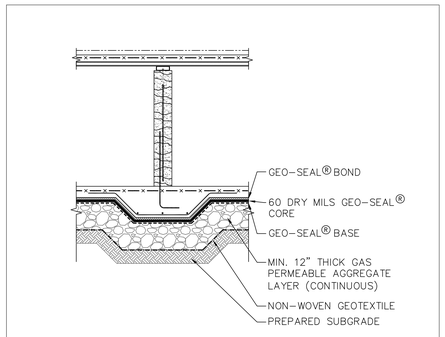
5



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 6 – FOUNDATION WALL SECTION ADJACENT TO LOBBY CANOPY
ON DRAWING FO-114.00

NTS

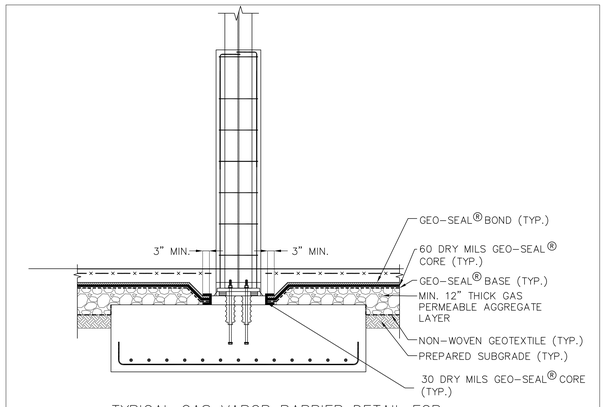
6



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 2 – SECTION THRU THICKENED SLAB
ON DRAWING FO-119.00

NTS

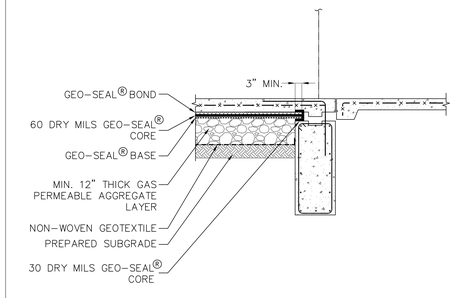
7



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 6 – CONCRETE ENCASED STEEL COLUMN
AT GYM ON DRAWING FO-120.00

NTS

8



TYPICAL GAS VAPOR BARRIER DETAIL FOR
DETAIL 3 – TYPICAL STRIP FOOTING AT
LOBBY ENTRANCE (EAST) ON DRAWING FO-114.00

NTS

9

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA
NYC School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Marla A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thorn, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING
& ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

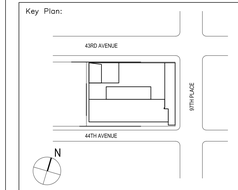
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

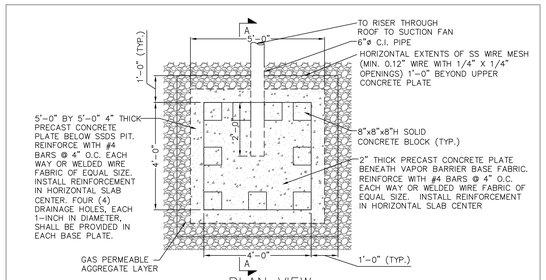
Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS VI

Drawing No.:
H209.00

Sheets in Contract Set:
49 of 401

Sheets in DOB Set:
35 of 327

S:\Projects\66423 - NYCSCA Haz Mat Contract\0154 - 315Q\SSDS Design\Drawings\H209.00 - SSDS & GVB Details VI.dwg 04/04/12 - 9:15am kboger

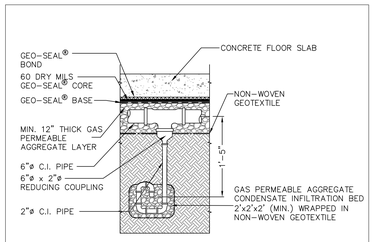


PLAN VIEW

TYPICAL SUB-SLAB DEPRESSURIZATION PIT

NTS

1

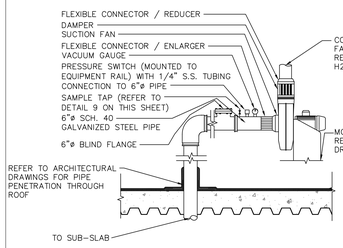


NOTE: INSTALL AT ALL LOW POINTS IN SUB-SLAB DEPRESSURIZATION SYSTEM PIPING WHEN PIPING CAN NOT BE SLOPED TO PIT.

TYPICAL LOW POINT CONDENSATE DRAIN DETAIL

NTS

2



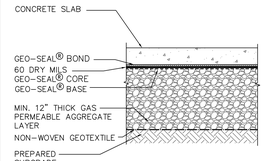
NOTES:

1. NOT ALL REQUIRED ACCESSORIES ARE SHOWN. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. ELECTRICAL WIRING AND EQUIPMENT NOT SHOWN. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.
3. PIPE AND EQUIPMENT ARRANGEMENT SHOWN FOR SCHEMATIC PURPOSES ONLY. SUBMIT TO SCALE DRAWING SHOWING PROPOSED ARRANGEMENT. CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF ARRANGEMENT.
4. THE SUCTION FAN EXHAUST MUST BE A MINIMUM OF 25 FEET FROM ANY BUILDING INTAKE OR OPERABLE WINDOW.
5. CONNECT PRESSURE SWITCH TO BMS.

TYPICAL SUCTION FAN DETAIL

NTS

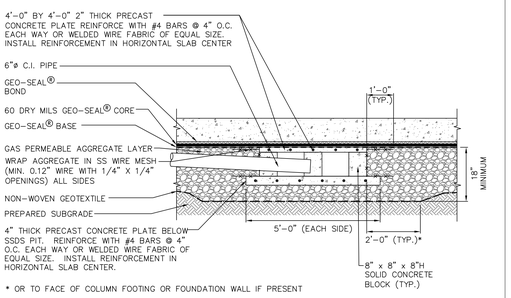
3



TYPICAL SECTION THROUGH SUB-SLAB

NTS

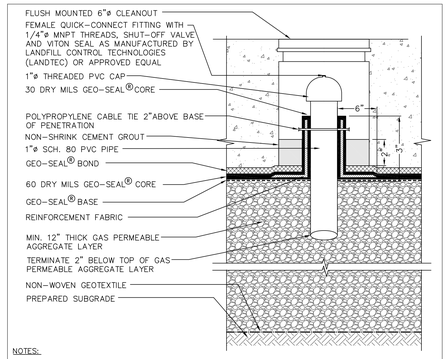
4



SECTION A-A
TYPICAL SUB-SLAB DEPRESSURIZATION PIT

NTS

5



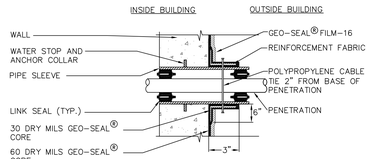
NOTES:

1. ANY DEVIATION FROM THIS INSTALLATION MUST BE SUBMITTED TO THE AUTHORITY FOR APPROVAL.
2. NOT ALL REQUIRED ACCESSORIES ARE SHOWN. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TYPICAL SUB-SLAB MONITORING POINT DETAIL

NTS

6



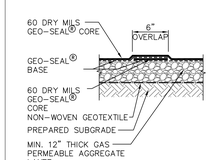
NOTES:

1. CONTRACTOR TO SUPPLY SHOP DRAWINGS OF PROPOSED CONSTRUCTION DETAILS FOR APPROVAL. ALL PENETRATIONS SHALL BE CLEANED PER SPECIFICATIONS BEFORE GEO-SEAL® IS APPLIED.
2. FURNISH ESCUTCHEONS AS SPECIFIED.
3. ANY DEVIATION FROM THIS INSTALLATION MUST BE SUBMITTED TO THE AUTHORITY FOR APPROVAL.

TYPICAL GAS VAPOR BARRIER DETAIL FOR PENETRATION THROUGH WALL BELOW GRADE

NTS

7

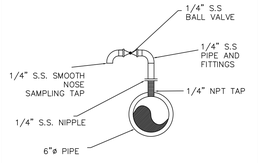


NOTE:
GEO-SEAL® BOND LAYER NOT SHOWN.

DETAIL FOR OVERLAP OF GEO-SEAL® BASE

NTS

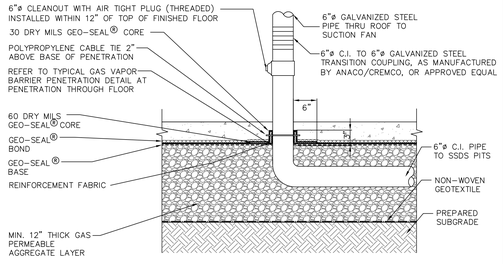
8



TYPICAL SAMPLE TAP ASSEMBLY

NTS

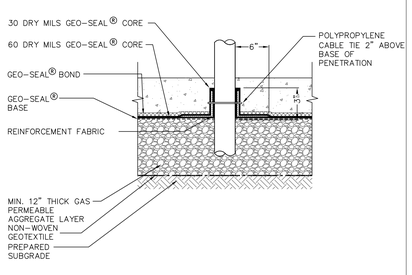
9



TYPICAL SSDS RISER DETAIL AT FLOOR SLAB

NTS

10



TYPICAL GAS VAPOR BARRIER DETAIL AT PENETRATION THRU FLOOR

NTS

11

GENERAL NOTES:

1. RELATIVE THICKNESS OF GAS VAPOR BARRIER SHOWN IS EXAGGERATED FOR ILLUSTRATIVE PURPOSES.
2. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS.
3. SUBMIT DETAIL OF ANY VAPOR BARRIER PENETRATIONS NOT SHOWN TO THE AUTHORITY FOR APPROVAL.
4. A WARNING BARRIER (1-FOOT WIDE STRIP OF SAFETY ORANGE PLASTIC FENCE) SHALL BE PLACED ABOVE ALL SUB-SLAB PIPING (NOT SHOWN).

President & CEO
Lorraine Grillo

Board of Trustees
Chancellor Dennis M. Walcott, Chairman
Curtis A. Harris
Emily A. Youssouf

SCA NEW YORK CITY School Construction Authority

Architecture & Engineering
E. Bruce Barrett, R.A. LEED A.P., Vice President
Elan R. Abneri, P.E., Director, Consultant Management
Stanley Dahir, R.A., Director, Quality Control & Construction Support
Maria A. Gómez, P.E., LEED A.P., Director, A&E In-House Design
George D. Roussey, P.E., LEED A.P., Director, Technical Standards
Stacey Spann-Thom, Director, Operations Support

Architect:
SOM
SKIDMORE, OWINGS & MERRILL LLP
14 Wall Street
New York, NY 10005

Structural Engineer:
DESIMONE
DESIMONE CONSULTING ENGINEERS
18 West 18th Street, 10th Floor
New York, NY 10011

Civil Engineer:
PHILIP HABIB & ASSOCIATES
226 West 26th Street
New York, NY 10001

MEP Engineer:
AKF ENGINEERS, LLP
330 West 42nd Street
New York, NY 10036

Geotechnical Engineer:
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC PC
360 West 31st Street
New York, NY 10001

AV / Telecommunications Consultant:
SHEN MILSON WILKE
417 Fifth Avenue
New York, NY 10016

Vertical Transportation Engineer:
VAN DEUSEN ASSOCIATES
5 Regent Street
Livingston, NJ 07039

Lighting Design:
DOMINGO GONZALEZ ASSOCIATES
25 Park Place, 5th Floor
New York, NY 10007

Kitchen Consultant:
HOPKINS FOOD SERVICE SPECIALIST, INC.
27 West 24th Street
New York, NY 10010

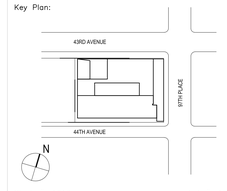
Theater Consultant:
HARVEY MARSHALL BERLING ASSOCIATES
173 West 81st Street, Suite 2
New York, NY 10024

Contracted by The New York City School Construction Authority, IEH Division:
TRC ENGINEERS, INC.
1430 Broadway, 10th Floor
New York, NY 10018

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
1	4/05/2012	ISSUED FOR BID

Key Plan:



Block #: 1613 Lot #: 17

SCA Design Manager:	P. MALHOTRA
Project Architect/Engineer:	
Discipline Lead:	DAVID S. GLASS (TRC)
Designer:	KEVIN BOGER (TRC)
Drawn by:	HENRY DELGADO (TRC)
Checked by:	DAVID S. GLASS (TRC)

Design No or LLW No.:	Facility Code:	Date:
66127	Q315	04/05/2012

Project:
P.S. 315, QUEENS

Address:
43-18 97th PLACE
QUEENS, NY 11368

Drawing Title:
SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER DETAILS I

Drawing No.:
H202.00

Sheets in Contract Set: 42 of 401

Sheets in DOB Set: 28 of 327

I:\Projects\166423 - NYCSCA Haz Mat Contract\0154 - 315Q\SSDS Design\Drawings\H202.00 - SSDS & GVB Details.dwg 04/04/12 - 9:16am kboger

SECTION 02010
ENVIRONMENTAL SITE ASSESSMENT REPORTS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Perform Work in conjunction with Specification Sections.

1.02 RELATED SECTIONS

A. Storage, Handling, Transportation and Disposal of Non-Hazardous Industrial Waste and Hazardous Waste.....Section 02091

B. Site Preparation.....Section 02100

C. Petroleum Bulk Storage Tank Removal.....Section 02115

D. Earthwork.....Section 02200

E. Gas Vapor Barrier (Fluid Applied).....Section 02220

F. Sub-Slab Depressurization System.....Section 02221

G. Coordination for Environmental Remediation..Section 02222

H. Sub-Slab Depressurization System Accessories.....Section 15880

1.03 REFERENCES

A. The following reports are available and can be reviewed at the Authority's offices upon written request:

1. Langan Engineering and Environmental Services, P.C., Phase I Environmental Site Assessment, 96-18 43rd Avenue (Block 1613, Lot 17), Corona, New York, July 23, 2010.

2. Langan Engineering and Environmental Services, P.C., Phase II Environmental Site Investigation, 96-18 43rd Avenue (Block 1613, Lot 17), Corona, New York, October 28, 2010.

3. Langan Engineering and Environmental Services, P.C., Supplemental Site Investigation, 96-18 43rd Avenue (Block 1613, Lot 17), Corona, New York, July 21, 2011.

4. *Supplemental Site Investigation Report [to be performed]*

B. These reports are for informational purposes only and do not change the scope of work as described in the construction specifications and shown on the Contract Drawings.

C. Depth to water measurements in the reports listed above shall not be relied upon for bidding purposes.

END OF SECTION

SECTION 02011
MONITORING WELL ABANDONMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. As one of the first tasks under this Contract, the Contractor shall provide all materials, labor and equipment to perform the Work specified in this Section.

B. This Section specifies the abandonment of existing 1-inch and 2-inch diameter monitoring wells. The table below lists the monitoring wells that shall be abandoned by the Contractor.

Monitoring Well ID	Well Diameter (in.)	Well Depth (ft.)
TRC-GW4	1	38
TRC-GW5	2	51
TRC-GW6	1	43
TRC-GW7	1	52
TRC-GW9	1	44

C. The Contractor shall be responsible for protecting and maintaining the above monitoring wells until the Authority provides written direction to proceed with the well abandonment.

D. Each monitoring well must be abandoned within sixty (60) days of receipt of written direction from the Authority to abandon the monitoring well.

1.02 REFERENCES AND RELATED SECTIONS

A. Environmental Site Assessment Reports...Section 02010

B. The publication listed below forms a part of this Specification to the extent referenced. The publication is referred to in the text by basic designation only. In case of contradiction, the most stringent code applies.

1. New York State Department of Environmental Conservation, CP-43 Groundwater Monitoring Well Decommissioning Policy, November 3, 2009, as amended and revised.

1.03 SUBMITTALS

A. The Contractor shall submit to the Authority the following information prior to Monitoring Well Abandonment:

1. Drilling Contractor information, including:

a. Name and address of the drilling company;

b. Name of Driller; and

c. Copy of Drilling Company's New York Drilling Certification

B. The Contractor shall submit to the Authority the following information within (3) weeks of abandoning the monitoring wells:

1. The driller's well sealing records for each well and the amount of grout used to seal each well.

PART 2 - PRODUCTS

A. Grout Mix - a cement-bentonite slurry in the ratio of 8.3 gallons of water to 5.0 pounds of dry bentonite to 94 pounds of dry Portland cement.

PART 3 - EXECUTION

3.01 MONITORING WELL ABANDONMENT

A. The Contractor's New York certified licensed well driller shall furnish all materials, labor and equipment to perform the abandonment of the monitoring wells in accordance with the NYSDEC Groundwater Monitoring Well Decommissioning Procedures.

B. Portions of wells within limits of specified excavations shall be removed entirely. Portions of wells within excavation areas which extend vertically beyond limits of excavations shall be abandoned as specified.

C. Remove outer protective casings, manhole frames and covers, and concrete pads entirely. Cut down casings and remove to Contract grade.

D. Remove from the Site and dispose in accordance with applicable laws and regulations all waste generated.

LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
1. Drilling Contactor Information		
2. Well Abandonment Records		

END OF SECTION

* * *

SECTION 02091
STORAGE, HANDLING, TRANSPORTATION AND DISPOSAL OF NON-HAZARDOUS INDUSTRIAL WASTE AND HAZARDOUS WASTE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Contractor shall furnish all labor, materials (concrete, soil, etc.), equipment and incidentals required to excavate, segregate, test, load, transport, handle, and dispose all material deemed to be non-hazardous industrial waste and hazardous waste in accordance with all applicable city, State, and Federal laws and regulations.

B. Environmental investigations performed at the site on behalf of the Authority identified concentrations of lead in soil exhibiting the Resource Conservation and Recovery Act (RCRA) hazardous waste characteristic of toxicity for lead when compared to the United States Environmental Protection Agency Toxicity Characteristic Leaching Procedure (TCLP) regulatory limit. Excavated material originating from the areas shown on Drawing H208.00 shall be assumed to be hazardous waste exhibiting the characteristic of toxicity for lead. All other excavated material shall be assumed to be non-hazardous industrial waste.

C. The Contractor shall remove steel drums located in a crawl space on the site (refer to Drawing H208.00 for approximate number and location of drums). The drums and contents of the drums shall be characterized, removed and disposed of in accordance with the requirements of this Section. The drums are in poor condition and may have punctures. Bidders shall include in their bids all costs for collecting one liquid sample from each drum, and removal and off-site disposal of the drums, but shall also assume for bidding that it is determined that the drums can be disposed of as empty containers. An allowance is included in Section S01010 for analysis of the contents of drums, if the drums are found to be not empty; disposal of the contents of drums, if the drums are found to contain waste; sampling, removal and disposal of additional drums above the amount indicated on the Drawings, if discovered; and, closure, removal, and disposal of additional buried containers (e.g., tanks) and the sampling and disposal of the contents of such containers, if discovered.

D. Elevated concentrations of tetrachloroethene were detected in the tank bottoms of the on-site underground

storage tank (UST) system. As such, material in the UST system is classified as a hazardous waste and must be handled and disposed of in accordance with the requirements of this Section. Tank closure and removal shall be performed in accordance with the requirements of Specification Section 02115.

E. All non-hazardous industrial waste shall be transported to an Authority-approved off-site disposal facility.

F. All hazardous waste shall be transported to an Authority-approved off-site disposal facility.

G. There shall be no stockpiling of excavated material on-site. All excavated material shall be direct loaded for disposal. Waste characterization sampling, as required to obtain disposal facility approvals for excavated hazardous waste and non-hazardous industrial waste, shall be performed in-situ, prior to excavation.

H. There shall be no reuse on site of excavated material.

I. All work shall be performed in accordance with the applicable requirements of Sections 02010, 02115, 02200, and 02222.

J. All soil originating from the areas shown on Drawing H208.00 shall be assumed to exhibit the hazardous waste characteristic of toxicity for lead and shall be transported and disposed of at an Authority-approved facility. However, the Authority makes no predictions or representations regarding the waste characteristics or extent of soil, rock, or other subsurface conditions to be encountered during the work.

K. The Contractor shall perform waste characterization sampling and analysis to obtain disposal facility acceptance of all excavated material, the contents of the UST and the contents of the drums. The Contractor shall furnish to the Authority copies of all permits, licenses and regulatory agency approvals, as required for disposal facilities to lawfully accept the wastes. Contractor shall submit to the Authority a certification from each proposed disposal facility certifying that the facility holds all permits required to accept the material. Applicable permits for each disposal facility are required throughout the Contract Time. The Contractor shall provide copies of the appropriate waste transporter permits to transport all wastes.

L. Environmental site assessments and site investigation reports have been prepared by environmental consultants for the Site. Areas of soil exhibiting the RCRA

hazardous waste toxicity characteristic for lead have been identified. Additionally, indications of a petroleum product release (i.e., petroleum-related staining and odors) were identified at the site and New York State Department of Environmental Conservation (NYSDEC) Spill Case No. 11-04018 was assigned. A list of environmental documents is provided in Section 02010 and the documents are available for review at the Authority's offices on written request. The reports are made available for informational purposes only and do not change the scope of work as described in the Specifications and the Contract Drawings. Depth to water measurements provided in the site investigation reports shall not be relied upon for bidding purposes.

M. The Contractor shall remove hazardous waste and properly dispose of the material in accordance with all applicable local, State, and Federal requirements, including, but not limited to, the RCRA and the Toxic Substance Control Act (TSCA). The areas of soil exhibiting the RCRA hazardous waste toxicity characteristic for lead are shown on Drawing H208.00. The materials must be tested and removed in the presence of the Authority's IEH Division onsite representative, in accordance with the Authority-approved Excavated Material Disposal Plan. The Authority reserves the right to additionally characterize any waste by sampling or other means.

N. The Contractor, as part of the Work under this Contract, shall remove non-hazardous industrial waste in accordance with the requirements of this section and Sections 02200 and 02222. All excavated material shall be characterized, and properly disposed, in accordance with the requirements of this section and Section 02200.

O. All material shall be transported under bills of lading or manifests approved by the Authority. All hazardous waste shall be transported under a manifest consistent with the requirements of 6 NYCRR Part 372. Hazardous waste and non-hazardous industrial waste shall only be transported by a hauler with a valid 6 NYCRR Part 364 Waste Transporter Permit, approved for the specific waste being hauled and the approved destination facility. The transporter shall also have all required New York City permits and licenses, and any additional permits, licenses, authorizations, etc. required by other government agencies having jurisdiction.

P. The work of this section shall also include obtaining and paying for permits, and paying all fees, surcharges, tariffs, taxes, etc. required to perform the work. All

work of this section at the Site must be performed in the presence of a representative of the Authority's IEH Division.

Q. The health and safety of the Contractor's employees and subcontractor employees shall be the sole responsibility of the Contractor during performance of the Work. All work must be completed in accordance with applicable requirements of Federal, State, local regulatory agencies and the Authority's Health and Safety requirements. The Contractor shall maintain a medical monitoring and respiratory protection program.

R. Upon completion of the work of this section, the Contractor shall prepare a Closure Report documenting the non-hazardous industrial waste and hazardous waste excavation and disposal activities. This Closure Report shall be acceptable to the Authority and regulatory agencies. The documentation in the Closure Report shall, at a minimum, contain a description of field activities, daily activity logs, photographs showing work completed each day, description of the excavated areas, quantities of excavated materials removed by category, post-excavation soil sample analytical results and laboratory data packages, survey of excavations, waste characterization sampling analytical results and laboratory data packages, photocopies of the federal and state permits allowing the disposal facility to accept the material delivered to it by the Contractor, copies of waste transporter permits for all waste shipments from the site, bills of lading or shipping manifests, hazardous waste manifests, truck scale tickets, and receipts (with weights, dates and times) provided by the disposal facility, and the weights, by waste classification, of each material delivered to each disposal facility. This report must be submitted to the Authority within three (3) weeks of completion of the on-site work of this section. (Refer to Section 02222 for additional requirements.)

S. If, at any time, the Authority's representative notifies the Contractor that operations must cease until corrective action is taken by the Contractor, the Contractor shall take such corrective action before proceeding with the Work.

T. Loss or damage due to Stop Work Order(s) shall be the Contractor's responsibility.

U. The Contractor shall implement a Community Air Monitoring Plan (CAMP) during the work of this Section. The CAMP shall be prepared in accordance with the

requirements of Section 02222. Remedial measures shall be implemented by the Contractor based on monitoring results or as directed by the Authority.

V. In the case of a conflict between the requirements of this section and Section 02200 or Section 02222, the more stringent requirement shall apply as determined by the Authority.

1.02 RELATED SECTIONS

A. Environmental Site Assessment Reports.....Section 02010

B. Site Preparation.....Section 02100

C. Petroleum Bulk Storage Tank Removal.....Section 02115

D. Earthwork.....Section 02200

E. Coordination for Environmental Remediation. .....Section 02222

1.03 REFERENCES

References and standards listed in this section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.

A. New York Standards – New York Code of Rules and Regulations (NYCRR)

6 NYCRR Part 360	Solid Waste Management Facilities
6 NYCRR Part 364	Waste Transporter Permits
6 NYCRR Part 370	Hazardous Waste Management System - General
6 NYCRR Part 371	Identification and Listing of Hazardous Wastes
6 NYCRR Part 372	Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities

6 NYCRR Part 373 Hazardous Waste Management Facilities

6 NYCRR Part 375 Environmental Remediation Programs

B. New York State Department of Environmental Conservation (NYSDEC)Guidance

STARS Memo #1 Petroleum - Contaminated Soil Guidance Policy (entire part except Sections III and IV)

NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, June 2010

NYSDEC CP-51: Soil Cleanup Guidance Policy, 12/3/2010

C. United States Department of Transportation

49 CFR 172 Subpart C Shipping Papers

49 CFR 172 Subpart D Marking

49 CFR 172 Subpart F Placarding

49 CFR 172 Subpart G Emergency Response Information

49 CFR 173 General Requirements for Shipments and Packagings

49 CFR 177 Carriage by Public Highway

D. United States Environmental Protection Agency

40 CFR Part 50 National Ambient Air Quality Standards for Particulate Matter

40 CFR Part 257 Criteria for Classification of Solid Waste Disposal Facilities and Practices

40 CFR Part 258 Criteria for Municipal Solid Waste Landfills

40 CFR Part 261 Identification and Listing of Hazardous Waste

40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste

40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste

40 CFR Part 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR Part 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

E. All applicable New York City Department of Transportation, Department of Buildings and Department of Sanitation Rules and Regulations

F. United States Department of Labor (USDOL), Occupational Safety and Health Administration (OSHA), Title 29, Code of Federal Regulations (CFR):

29 CFR 1910: Occupational and Health Standards

29 CFR 1926: Safety and Health Regulations for Construction

G. New York State Environmental Conservation Law (ECL) Section 27-09

1.04 DEFINITIONS

A. Excavation

Excavation consists of removal of material encountered to contract level, loading, handling and subsequent legal disposal of such.

B. Non-Hazardous Industrial Waste

Material includes soil (including natural undisturbed material), debris, concrete and concrete products (including steel or fiberglass reinforcing rods that are embedded in the concrete), ash, asphalt pavement, railroad ties, brick, glass, and/or rock that have been contaminated from spills or discharges of materials or wastes from manufacturing or industrial processes including petroleum and its derivatives. Levels of contaminants in the waste will exceed 6 NYCRR Part 375 Soil Cleanup Objectives and NYSDEC CP-51: Soil Cleanup Guidance Supplemental Soil Cleanup Objectives, Soil Cleanup Levels for Gasoline Contaminated Soils and Soil Cleanup Levels for Fuel Oil Contaminated Soils, but the material does not meet the definition of a hazardous waste as defined below.

All material excavated from the site is assumed to meet the definition of non-hazardous industrial waste, except for the areas of hazardous waste identified on Drawing H208.00.

C. Hazardous Waste

Material meeting the definition of a Resource Conservation and Recovery Act hazardous waste as defined in 40 CFR Part 261, New York State ECL Section 27-09 or 6 NYCRR Part 371.

D. Environmentally Clean Fill and Backfill

Refer to Section 02200 for definition of environmentally clean fill and backfill.

1.05 SUBMITTALS

The Contractor shall provide the following:

A. A detailed Excavated Material Disposal Plan (EMDP) for the removal, testing, storage, handling, transportation, and disposal of hazardous waste and non-hazardous industrial waste, a minimum of two (2) weeks prior to the start of any excavation activities at the site. The Excavated Material Disposal Plan shall be prepared in accordance with Section 02200 and Section 02222 and shall incorporate all material to be excavated. Approval of the Excavated Material Disposal Plan by the Authority's IEH Division shall be required prior to start of excavation.

B. Prior to backfilling, the Contractor shall provide the Authority with analytical results from the collection and analysis of post-excavation soil samples from areas where hazardous waste was present.

Backfilling may only commence upon Contractor's receipt of written authorization from the Authority.

C. As part of the EMDP, list that identifies the make, model, truck number, and license plate number of each of the trucks that will transport the materials to the off-site facilities. Any change of trucks, or additional trucks, must have prior approval at least 24-hours in advance. Furnish a list of the water-level volume of each truck for approval by the Authority.

D. Results of all analytical sampling (i.e., laboratory data packages) and complete copies of all chain-of-

custody forms shall be provided to the Authority at the completion of the Work, unless specified otherwise.

E. A Site-Specific Health and Safety Plan for all activities which include the potential for exposure to site soils, and tank and drum contents shall be prepared and maintained at the site during the work in accordance with 29 CFR Part 1910, the requirements of this section, Section 02200 and Section 02222. Documentation that all individuals which will perform work at the Site have appropriate training and that medical monitoring is being performed in accordance with the requirements of OSHA shall be included as part of the Site-Specific Health and Safety Plan. The HASP shall include, but not be limited to, specific health and safety requirements for sampling of soil, tanks and drums, land surveying, site preparation, installation of excavation supports, excavation and trenching, removal and installation of utilities, loading out of excavated material, backfilling and subgrade preparation, placing reinforcing steel, forming and pouring footings and foundations, cleaning, closure and removal of tanks and drums, and any and all other activities which could result in exposure to site soils and hazardous materials.

F. The Contractor shall identify, in the Excavated Material Disposal Plan, for use on this project, at least three properly permitted off-site disposal facilities to receive non-hazardous industrial waste and hazardous waste. In addition to the documentation required in Sections 02115, 02200 and 02222, for each proposed facility, including facilities proposed for disposal of liquid waste, sludge and drums, the following information shall be submitted:

1. Name, address, and location of the facility, including the owner’s name, address, telephone number, and fax number and the name of the contact person at the facility.

2. The EPA Identification Number.

3. The amounts and types of hazardous waste and non-hazardous industrial waste that can be accepted at the facility on a daily basis from the site.

4. Facility testing requirements and acceptance criteria.

5. The EPA region, State regulatory agencies, and the local regulatory agencies from which permits are

required, as well as a contact name and number for each agency.

6. Copies of valid, existing, operating permits for each disposal facility from the applicable regulatory agencies.

7. Copies of current valid permits from all applicable regulatory agencies indicating the types of excavated material that can be accepted at the facility.

8. Copies of Environmental Insurance for Sudden and Non-sudden releases.

G. As part of the EMDP, copies of all licenses and permits that apply to the transportation of hazardous waste and non-hazardous industrial waste, including, but not limited to, 6 NYCRR Part 364 Waste Transporter Permits, hazardous waste transporter permits issued under 6 NYCRR Part 372.3, New York City Department of Consumer Affairs (NYCDCA) permits, and vehicle and hauling permits.

H. Copies of manifests for hazardous wastes and manifests or bills of lading for non-hazardous industrial waste.

I. Names and addresses of each subcontractor performing work under this section.

J. Weigh scale tickets from the disposal facilities. Tickets must be provided for each load removed from the site and shall indicate net weight of each load of material transported. Weight shall be measured by a certified scale which is operated in accordance with the requirements of the authority having jurisdiction as applicable to weigh scales used for commerce.

K. Disposal facility invoices.

L. NYCDEP wastewater discharge permit.

M. Provide proof of Contractor, Certified Hazardous Materials Manager, and Worker qualifications specified under “Quality Assurance”.

N. A dewatering plan (if applicable) in order to maintain the continuous dewatering of the open excavation, which shall be made available upon Authority’s request. Refer to Section 02200 for additional requirements for dewatering plan.

O. A primary truck route and alternate routes from the nearest Interstate or primary highway to the Site.

P. Documentation for subcontractors in accordance with Article 1.06C of this section.

Q. Prepare and submit a site-specific Contingency Plan to describe the procedures to be implemented in complete detail in the event of fire, spill, major dust release or other emergency. The Contractor shall be required to obtain approval by the IEH Division of the Authority of the Contingency Plan. The Contingency Plan shall be a bound document with a table of contents and shall be maintained at the site during the work of this section.

The Contingency Plan shall include a description of the following:

1. Plans for cleanup of spills and releases.

2. Names and telephone numbers of government agencies to be contacted in the event of an emergency.

3. Names and telephone numbers of emergency response contractor(s) to be contacted in the event of a spill or release.

4. Training program for site personnel in spill and fire prevention.

R. The Contractor shall provide to the Authority a Closure Report containing documentation of non-hazardous industrial waste and hazardous waste removal activities, including, but not limited to, a description of field activities, daily activity logs, summaries of all CAMP data, photographs showing work completed each day, description of the excavated areas, quantities of excavated materials removed by category, post-excavation soil sample analytical results and laboratory data packages, a survey of excavations, waste characterization sampling analytical results and laboratory data packages, photocopies of the federal and state permits allowing the disposal facility to accept the material delivered to it by the Contractor, copies of waste transporter permits for all waste shipments from the site, bills of lading or shipping manifests, hazardous waste manifests, truck scale tickets, and receipts (with weights, dates and times) provided by the disposal facility, and the weights, by waste classification, of each material delivered to each disposal facility. Copies of certifications of analytical laboratory proposed for analysis of waste

characterization samples and post-excavation samples shall be submitted prior to use of laboratory. Laboratories must be approved for each of the analyses to be performed by the New York State Department of Health. This documentation must be submitted to the Authority within three (3) weeks of completion of the on-site work of this section. Refer to Section 02222 for additional requirements.

1.06 QUALITY ASSURANCE

A. Qualifications

1. Company specializing in performing the Work of this section shall have a minimum of 3 years experience and shall have successfully completed 3 projects of similar nature and size (or larger).

2. The Excavated Material Disposal Plan for non-hazardous industrial waste and hazardous waste as defined in Paragraphs 1.04B and C, shall be prepared and submitted by the Contractor for approval. Approval by the Authority's IEH Division shall be required prior to start of excavation. The Excavated Material Disposal Plan shall be prepared and signed by a Certified Hazardous Materials Manager approved by the Institute of Hazardous Materials Management in Rockville, Maryland, Qualified Environmental Professional, approved by the Institute of Professional Environmental Practice, Pittsburgh, Pennsylvania, Professional Engineer, licensed to practice in the State of New York, or similar board-certified professions with professional experience in testing, handling and disposal of non-hazardous industrial waste and hazardous waste, and the preparation of Excavated Material Disposal Plans.

3. The work shall be performed by workers trained in accordance with the requirements of OSHA, who are experienced in handling non-hazardous industrial waste and hazardous waste.

B. Regulatory Requirements

1. Work of this section shall conform to all requirements of the NYC Building Code and all applicable regulations of governmental authorities having jurisdiction, including safety, health, and anti-pollution regulations. Where more severe requirements than those contained in the Building Code or other applicable regulations are required

in this section, the requirements of this Section shall govern.

2. Work outside the property line shall conform to the requirements of the governmental and utility authorities having jurisdiction (i.e., DOT, DEP, etc.). Where more stringent requirements than those contained in the applicable governmental authority specifications are required in this section, the requirements of this section shall govern.

3. Conform to requirements of "Hazardous Waste Operations and Emergency Response" 29 CFR 1910.120.

4. All regulations and guidelines identified in Article 1.03 of this section.

C. Subcontractors for Work of this section

1. Approval by the IEH Division of the Authority shall be required for any subcontractor retained by the Contractor to perform the work of this section.

2. The Contractor shall be required to submit to the IEH Division of the Authority for each subcontractor proposed for the work of this section the following:

a. Statement of qualifications and experience.

b. List of all licenses and certifications maintained by the subcontractor and individuals proposed for work of this section.

c. Description and documentation of training, respirator fit testing and medical monitoring for each individual proposed for work of this section.

d. Description of proposed subcontractor scope of work.

D. Apply for and obtain USEPA hazardous waste generator identification number. Submit application to IEH Division of the Authority for review prior to submittal to USEPA. Only submit application to USEPA after approved by IEH Division of the Authority.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 PROTECTION

A. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection required for this work as specified by OSHA and the site specific health and safety plan. Any individual working on the site which could potentially be exposed to site soil or the contents of tanks or drums must have current certifications documenting OSHA 40-hr and 8-hour refresher HAZWOPER training and medical monitoring in accordance with 29 CFR 1910.120 (for work on hazardous waste sites) and in accordance with 29 CFR 1926.62 (Lead Exposure in Construction).

B. The Contractor shall be responsible for the safety of their and their subcontractor's operation, and for any damage that may result from the Contractor's and subcontractors' work. Erect and properly maintain at all times, as required by the conditions and progress of the Work, proper safeguards for the protection of Workers and the public and post danger warnings as required by law or otherwise required by the Contract Documents against hazards created by the Contractor's operation. Furnish, install and remove after completion of the work, all signs, lights, barricades, fencing and other equipment installed for the safe execution of the Work.

C. Maintain safe sidewall slopes or provide adequate shoring. The excavation shoring shall meet all applicable requirements, including, but not necessarily limited to, New York City Department of Building Codes, OSHA requirements at 29 CFR 1926, and the requirements in Section 02200.

D. The Contractor shall control dust and vapors during each phase of work in accordance with the requirements of this Section and Sections 02200 and 02222.

E. Each day after completion of soil disturbance within the delineated hazardous waste areas, the Contractor shall high efficiency particulate air (HEPA) vacuum adjacent ground, building and other surfaces as directed by the Authority until no visible accumulations of dust, soil and debris are present. Waste generated shall be disposed of in accordance with the requirements of this section for hazardous waste.

3.02 DISPOSAL OF NON-HAZARDOUS INDUSTRIAL WASTE AND HAZARDOUS WASTE

A. Description of Work

All non-hazardous industrial waste shall be transported to a 6 NYCRR Part 360 permitted disposal facility approved for such and permitted waste or a similar out of state facility, approved by the appropriate regulatory agency of that state. Hazardous waste shall be transported to a permitted off-site disposal facility, as specified in 40 CFR Part 265 and 6 NYCRR Parts 370-373, which is acceptable to the Authority.

1. Non-Hazardous Industrial Waste and Hazardous Waste – These materials shall meet the definitions in Paragraphs 1.04 B and C of this section. The Contractor shall provide the NYCSCA with a copy of the off-site disposal facilities' permits to receive non-hazardous industrial waste and hazardous waste.

2. The Contractor shall load excavated material directly into approved transport vehicles for off-site disposal. The Contractor shall contract with permitted and approved off-site disposal facilities meeting the requirements of 40 CFR 265, 6 NYCRR Parts 360 and 373. The Contractor shall provide the Authority with original copies of all shipping manifests, weigh scale tickets, and original disposal facility invoices.

3. The Contractor shall provide all labor, equipment and material necessary to excavate, stage, load, handle, and transport hazardous waste and non-hazardous industrial waste from the site to the designated facility(ies), as described herein, and in accordance with the following requirements:

   a. Comply with all applicable local, State, and Federal rules and regulations pertaining to the transport and disposal of hazardous waste and non-hazardous industrial waste.

   b. Identify off-site disposal facilities that can properly manage hazardous waste and non-hazardous industrial waste.

   c. Prior to commencing off-site disposal, furnish a list to be approved by the Authority that identifies the make, model, truck number and license plate number of each of the trucks

that shall transport the material to the off-site facilities. Any change of trucks, or additional trucks, must have prior approval at least 24 hours in advance. Furnish a list, approved by the Authority, of the water-level volume of each truck.

4. The Contractor shall prepare and submit to the Authority for approval a dewatering plan, if applicable. The dewatering plan shall be prepared in accordance with the requirements specified in Section 02200.

B. Payment

1. All labor, materials, equipment, and incidentals to perform all work under this section shall be included in the base bid. No separate payment will be made for any Work associated with the management, transport and disposal of hazardous waste and non-hazardous industrial waste, as the cost of said work shall be deemed included in the Contract.

2. Reimbursement of payment for transport and disposal of any additional hazardous waste encountered (beyond the areas shown on Drawing H208.00), and approved by the Authority, shall be at negotiated unit rates. The payment shall be limited to the incremental increase above the cost for disposal of non-hazardous industrial waste.

3. Payment for the transportation and disposal of additional hazardous wastes (in excess of the quantity shown on Drawing H208.00) shall be contingent upon the Authority’s receipt of manifests, original shipping documents (e.g., manifests and bills of lading), weigh tickets, and original invoices. No additional payment will be made for excavating/removing and loading and other requirements of this section for these materials because it is covered under the Base Bid.

4. A credit shall be issued by the Contractor to the Authority according to the negotiated unit rates if excavated material in the areas shown on Drawing H208.00 is not disposed of as hazardous waste. Prior approval from the IEH Division of the Authority would be required for not disposing of excavated material in the designated areas as hazardous waste.

3.03 FILL AND BACKFILL

Any excavation where non-hazardous industrial waste and/or hazardous waste are removed as part of the Work shall be backfilled as required by the Contract Documents with environmentally clean fill, as defined in Section 02200. A minimum of two (2) feet of environmentally clean fill shall be used on exposed ground surfaces, including landscaped areas.

3.04 TRANSPORTATION AND DISPOSAL

A. All transportation vehicles shall be inspected, prior to leaving the site, by the Contractor to ensure that no material adheres to the wheels, undercarriage, tailgates, covers or other areas of transport vehicles. All vehicles shall be cleaned by washing tires, undercarriage, and any other contaminated parts prior to leaving the site.

B. Vehicles transporting non-hazardous industrial waste and hazardous waste must have a valid 6 NYCRR Part 364 Waste Transporter Permit and be approved to ship the wastes being transported to the Authority-approved facilities. Transporter vehicles must have approval from appropriate New York City agency(ies).

C. There shall be no stockpiling of excavated material on-site. All excavated material shall be direct loaded for disposal. In-situ sampling and analysis required to obtain disposal facility acceptance shall be performed on material prior to excavation for direct load out.

D. Transport and deliver the material only to disposal facilities approved by the Authority. Each disposal facility must be approved for the wastes to be delivered by all regulatory agencies having jurisdiction.

E. Provide for appropriate measurement of unit quantity of material removed from the site. Coordinate vehicle inspection and recording of quantities leaving the site with the Authority’s on-site representative. These quantities shall be compared to recorded quantities received at the disposal facilities. Recorded amounts of material removed from the Site and arriving at each disposal facility shall be reported to the Authority on a daily basis. If any discrepancies occur the probable cause for the discrepancy must be determined immediately.

F. The Contractor shall be solely responsible for any and all actions necessary to remedy situations involving material spilled in transit.

G. Use only approved truck routes to transport material from the site to the expressways. En route, the Contractor shall use only Interstate or officially approved truck routes. All truck routes from the Interstate or officially approved truck routes to the disposal facility shall be subject to approval by the Authority. To the maximum extent possible, no vehicles shall travel on any local streets or through any residential areas. To the extent possible and in conformance with all applicable regulations, all vehicles shall be routed away from environmentally sensitive areas such as parks, schools, historic sites, wetlands, etc. For long distance hauling, all vehicles shall remain on primary highways. Idling shall be kept to a minimum in accordance with applicable laws and regulations.

H. Procure a sufficient number of containers and container handling equipment such that the material can be managed in accordance with the requirements of this section. The Contractor shall have access to back-up vehicles and equipment to ensure that there is no downtime in connection with operations. The Authority will determine the maximum amount of time that it will permit the Contractor to allow excavated material to remain on Site, but in no event shall excavated hazardous waste be stored on site overnight. All other excavated material designated for off-site disposal shall not be stored on site for longer than 5 business days.

I. The disposal containers for excavated material shall be ISO type, dump trailers, or approved equal, constructed of steel, with watertight bodies and sealed and gasketed tailgates equipped with positive locking devices and provisions for controlled drainage of free liquids. No liquid shall leak from any part of the loaded container or trailer. Each container shall be covered whenever material is not being added. Covers shall be secured in an approved manner and shall remain in place until the container has reached the disposal facility, all in accordance with applicable laws and regulations for transport of hazardous waste.

J. All trucks and containers shall be washed clean before leaving the disposal facility and shall be maintained in clean, sanitary condition by the Contractor at all times. Furnish and utilize equipment manufactured for the intended use for the cleaning operations. Wastewater

must be containerized and characterized for proper disposal, and transported and disposed of off-site in accordance with the requirements of the specifications.

K. The Contractor is responsible for transportation safety. All vehicles shall be properly maintained, be driven safely, follow all rules and regulations, observe all speed limits, etc. All vehicles shall be inspected before every trip as part of the Contractor’s preventive maintenance program. Inspect each vehicle to ensure that all doors, covers, etc. are secure and that no material can spill or otherwise be released or leak. Each vehicle shall bear, at a minimum, the name and phone number of the Contractor plainly visible. The Authority will refuse any waste transport vehicle that does not satisfy the specifications. Costs associated with the refusal of a specific vehicle will be the Contractor’s responsibility.

L. The Contractor will be allowed to stage empty and loaded containers temporarily on the grounds at a location approved by the Authority's onsite representative. However, under no circumstances shall a container loaded with hazardous waste be staged on site overnight or a container loaded with any other waste designated for off-site disposal be staged on site for a period greater than 5 business days after it has been loaded.

M. All transportation equipment shall be weighed before and after loading to ensure the highway weight restrictions are not exceeded. Weighing of transport vehicles leaving the site shall occur at a truck scale certified by the State of New York. Weighing of transport vehicles outside the State of New York shall occur at the appropriate state or governing body certified scale.

N. Submit the completed manifest for each container, all weigh scale tickets, and all disposal facility receipts. No payments shall be made until these documents have been furnished.

1. Each shipping manifest shall include the following information:

   a) Waste stream source and location description

   b) Truck license plate number

   c) Trailer license plate number

d) Container number

e) Contractor’s name, address, contact person name and phone number

f) Transporter’s name, address, contact person name and phone number

g) Printed name and signature of the Contractor and date that the load was completed

h) Printed name and signature of the disposal facility representative and date that the load was received at the facility.

2. Each disposal facility scale ticket shall include the following information:

a) Disposal facility name, address, and telephone number

b) Material source and location description

c) Scale ticket number

d) Associated manifest number

e) Truck license plate number

f) Trailer license plate number

g) Container number

h) Transporter’s name

i) Gross, net and tare weight of the load

O. Ensure that the transport containers are decontaminated prior to any use other than hauling contaminated materials.

3.05 SAMPLING

A. Post-Excavation Sampling

1. The Contractor shall collect and analyze post-excavation soil and/or water samples. Post-excavation sampling will be required from the bottom and sidewalls of the excavation at several locations to be determined by the Authority’s IEH Division representative. (Post-excavation samples will not be collected from sidewalls that are

shored or sheeted.) Post-excavation samples shall be collected and analyzed in accordance with STARS Memo #1 and DER-10 from areas where non-hazardous industrial waste and hazardous waste were removed. The Contractor shall be required to collect and analyze up to 50 samples for Target Analyte List metals. The Contractor shall be required to collect and analyze up to 10 samples for CP-51 Listed VOCs and SVOCs. The Contractor shall make provisions for leaving the excavation open until the Authority and/or NYSDEC deems the excavation work complete. No claims of delay will be permitted for keeping the excavation open until the Authority's and/or NYSDEC's requirements are met. Prior to backfilling the excavation, the Authority shall be notified and shall be given a minimum of two (2) business days' notice to inspect the excavation. Contractor shall not communicate with government officials without explicit authorization of the Authority in each instance.

2. Analysis shall be performed by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory utilizing laboratory reporting limits which are acceptable to the Authority. Copies of the laboratory data packages shall be submitted directly to the Authority's IEH Division for review prior to backfilling of underground storage tank (UST) excavations and hazardous waste excavation areas.

B. Sampling for Disposal Facility Permits

1. The Contractor shall, for the life of the Contract, sample and analyze material as necessary to satisfy acceptance requirements for disposal facilities. The Contractor must also ensure that disposal characterization sampling is in conformance with existing and/or new disposal facility permit requirements throughout the life of the Contract. The Contractor must obtain Authority approval of all sampling protocols, prior to sample collection. The Authority may randomly sample and analyze.

2. All analyses shall be performed by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory utilizing laboratory reporting limits which are acceptable to the Authority.

3.06 DECONTAMINATION OF EQUIPMENT AND MATERIALS

A. All equipment shall be delivered to the work site free of contamination. The Authority's on-site representative may prohibit from the site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. Decontamination of the Contractor's equipment prior to arrival at the site shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the project site that is not thoroughly decontaminated prior to arrival.

B. The Contractor shall furnish labor, materials, tools and equipment for decontamination of all equipment and supplies. Decontamination shall be conducted at an area within the work site that has been approved by the Authority's onsite representative for such use. Frequency of decontamination shall be determined by the Authority's onsite representative and shall be required prior to equipment and supplies leaving the project site between stages of the work. All decontamination materials shall be collected, containerized, tested, labeled, and disposed in accordance with all applicable laws and regulations and the requirements of the Contract Documents.

C. Contact with potentially contaminated materials shall be kept to a minimum. Personal protective equipment shall be properly disposed of off-site or decontaminated.

D. Refer to additional requirements in Section 02222.

3.07 DOCUMENTATION

A. The Contractor shall prepare and furnish to the Authority the Closure Report as described in paragraph 1.01(Q) of this specification section. This report must be submitted to the Authority within three (3) weeks of completion of the on-site work of this section. (Refer to Section 02222 for additional requirements.)

END OF SECTION

LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Excavated Material Disposal Plan		
1. Non-Hazardous Industrial Waste	_____	_____
2. Hazardous Waste	_____	_____
NYCDEP Wastewater Discharge Permit	_____	_____
Health and Safety Plan	_____	_____
Contractor Qualifications		
1. Contractor	_____	_____
2. CHMM	_____	_____
3. HAZWOPER Training and Medical Surveillance Certifications	_____	_____
Names and Addresses of Subcontractors and Documentation	_____	_____
List of Off-site Disposal Facilities		
1. Non-Hazardous Industrial Waste	_____	_____
2. Hazardous Waste	_____	_____
Disposal Facility Information & Permits:		
1. Non-Hazardous Industrial Waste	_____	_____
2. Hazardous Waste	_____	_____
Waste Transporter Permits	_____	_____
List of Trucks for Off-Site Disposal	_____	_____
List of Water-Level Volume Of Trucks for Off-Site Disposal	_____	_____
Copies of Completed Manifests	_____	_____
Disposal Facility Scale Tickets	_____	_____
Original Invoices from Disposal Facility	_____	_____
Post Excavation Soil Sample Results & Completed		

Chain of Custody	_____	_____
Dewatering Plan	_____	_____
Closure Report	_____	_____
Truck Routes	_____	_____
Contingency Plan	_____	_____
Certifications for Analytical Laboratories	_____	_____

END OF SECTION

SECTION 02115

PETROLEUM BULK STORAGE TANK REMOVAL

PART 1 – GENERAL

1.01 BACKGROUND

A. The Contractor shall comply with all requirements of the Contract Documents. The term the “Authority" shall mean the New York City School Construction Authority or its authorized representative. No work under this section shall be performed without the supervision of a representative from the Authority’s Industrial and Environmental Hygiene (IEH) Division.

B. For the purpose of this section aboveground means all tank system components, piping, equipment, appurtenances, etc. which are exposed and can be removed without excavation or demolition of concrete, including tank system components, piping, equipment and appurtenances in pits, sumps, vaults, etc.

C. There is one (1) 7,500-gallon underground storage tank (UST) system on the Site and one (1) 275-gallon aboveground storage tank (AST) system on the Site. Refer to Drawing H208.00 for the locations of the tank systems. The tank systems, tank access vault, contents, concrete encasements, slabs, piping, and appurtenances are to be removed in their entirety in accordance with this specification section and the Contract Drawings. The tank systems are not registered with the New York State Department of Environmental Conservation (NYSDEC) under the Petroleum Bulk Storage (PBS) Program.

D. The Contractor shall assume for bidding purposes that the UST contains 1,000 gallons in aggregate of fuel oil, oil-water mixtures, sludges and tank bottoms and the AST contains 150 gallons in aggregate of fuel oil, oil-water mixtures, sludges and tank bottoms. Elevated levels of tetrachloroethene were detected in the UST contents. As such, material in the UST system is classified as a hazardous waste and must be handled and disposed of in accordance with the requirements of Specification Section 02091 and this Section.

E. Removal and disposal of all waste and debris generated from draining and cleaning of the tank systems and associated appurtenances is part of the work of this section.

F. Removal of sediment and debris in the tank access vault in accordance with the requirements of this section and Section 02091 is part of the work.

1.02 SCOPE OF WORK

The UST and AST, including associated piping and appurtenances, shall be cleaned and removed in accordance with all applicable laws and regulations and the requirements of this section, the Contract Specifications and Contract Drawings.

Major elements of the work include, but are not limited to, the following:

A. The Contractor shall submit all plans specified in this section (i.e., Health and Safety Plan, Tank Closure Plan, etc.). The plans shall be written to meet all the requirements of the Contract Documents. The plans must be submitted to and approved by the IEH Division of the Authority prior to start of on-site work of this section. No claims of delay will be permitted due to the Contractor's failure to obtain approval of the plans by the Authority's IEH Division.

B. The Contractor shall provide proper notification to all City and State agencies [i.e., the New York State Department of Environmental Conservation (NYSDEC)], including preparing and submitting to the IEH Division a NYSDEC PBS registration for the tank systems. The PBS registration form must be signed by the New York City Department of Education, DSF's Fuel and Violations Unit. The Contractor shall provide notification to the utility companies, obtain all necessary permits and approvals, and furnish all labor, materials, equipment and incidentals required for the proper removal and disposal of the contents of the tank systems, cleaning, and removal of the tanks, and associated electrical, structural, process piping and product equipment and appurtenances including, but not limited to, pumps, fill and vent lines, supply and return lines, manways, heating coils and heat exchangers, steel cylinders, gauges, etc. to complete the Work as specified herein. As stated above, the tanks and all tank system components shall be removed entirely. Additional excavation and disposal

requirements for non-hazardous industrial waste and hazardous waste are specified in Sections 02091, 02200 and 02222.

C. The Contractor shall pay all fees for licenses, insurance, permits, registration and approvals.

D. The Contractor shall be certified to perform UST closure work by the FDNY. Copies of FDNY certification shall be provided to the IEH Division representative prior to commencement of work. The Contractor shall be responsible for providing closure certification in accordance with FDNY provision 3 RCNY 3404-1. The IEH Division representative will be responsible for preparing the closure report for tank closure in accordance with NYSDEC guidance and regulatory requirements. The Contractor shall provide access for the IEH Division representative for the purpose of inspection and sampling, as directed.

E. The Contractor shall perform all torching/cutting operations in accordance with the references defined in this section as well as Authority Hotwork Permit Procedure and Hotwork Checklist, the requirements of OSHA, the HASP and all applicable laws and regulations.

F. The location and configuration of the tank system shall be confirmed by the Contractor.

G. It is anticipated that the work will be performed using the existing accesses to the tank systems; however, the Contractor is responsible for creating alternate access for cleaning and closure if existing access is not sufficient.

H. The Contractor shall measure contents (oil, water and sludge) in the tanks separately with a gauging stick (and oil/water indicating paste). Results shall be reported to the Authority and included with the submittals. This information will be used by the Authority to document the condition of the tanks prior to tank cleaning.

I. The Contractor shall sample the contents of the tanks as required by the disposal facility and as directed by the Authority, and have the samples analyzed by a

New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for disposal facility classification.

J. The Contractor shall remove from the site, characterize and properly dispose of all contents of the UST, AST, piping, and appurtenances: including oil, sludge, water and wastewater generated during cleaning.

K. All material shall be transported under bills of lading or manifests approved by the Authority. Hazardous wastes must be transported under a manifest, consistent with 6 NYCRR Part 372. The transporter of waste generated by the work of this section must have a valid 6 NYCRR Part 364 Waste Transporter permit, approved for the specific waste being transported (e.g., petroleum containing waste and hazardous waste generated from tank closure) and the destination facility(ies). The transporter must also have the appropriate New York City hauling permits.

L. The Contractor shall clean and remove the tanks and all associated piping and appurtenances.

M. The Contractor shall implement a Community Air Monitoring Plan (CAMP) during the work of this Section. The CAMP shall be prepared in accordance with the requirements of Section 02222. Remedial measures shall be implemented by the Contractor based on monitoring results or as directed by the Authority.

N. The Contractor shall be responsible for the safety of its operation, and for any damage that may result from the Contractor’s work to site improvements or utilities. Erect and properly maintain at all times, as required by the conditions and progress of the Work, proper safeguards for the protection of workers and the public and post danger warnings as required by law or otherwise required by the Contract Documents against hazards created by the Contractor’s operation. Furnish, install and remove after completion of the work, signs, lights, barricades, fencing and other equipment for the safe execution of the Work.

O. Upon completion of the work, the Contractor shall submit to the Authority documentation that is required to be incorporated into the Closure Report. This documentation shall include, but not be limited to, the items listed in 3.07C.

P. No work shall be performed under this Contract without the on-site presence of an IEH Division representative. The Contractor shall provide minimum 5 business days notice prior to start of on-site work of this section.

Q. The health and safety of the Contractor's employees shall be the sole responsibility of the Contractor during performance of the Work. All work must be completed in accordance with applicable Federal, State, Local agency and the Authority's Health and Safety requirements and regulations.

R. After acceptance by the Authority of the work, the Contractor shall proceed with the site work in accordance with the Contract Documents including, as applicable, filling the UST excavation to contract grade with environmentally clean fill as defined in Section 02200. The Contractor shall restore any improvements (e.g., sidewalks, streetlights, landscaping, etc.) damaged or removed during tank removal activities, as directed by the Authority.

1.03 ESTIMATED QUANTITIES

The Contractor shall include in the base bid the costs for the following:

A. Cleaning and removal of one (1) 7,500-gallon underground tank system and one (1) 275-gallon aboveground tank system, and all associated tank system piping and appurtenances.

B. Characterization, removal, transportation and disposal of the contents of the tank systems (e.g., hazardous waste, petroleum, contaminated wastewater and sludge, fuel oil, oil-water mixture and sludge) in accordance with the requirements of this section and all applicable laws and regulations. For the purpose of the base bid the Contractor shall assume that the

volume stored in the UST system is 1,000 gallons in aggregate of hazardous waste and the volume stored in the AST system is 150 gallons in aggregate of fuel oil, oil-water mixtures, sludges and tank bottoms. The stated volume does not include waste generated by the Work (e.g., wash water).

C. Testing, removal, transportation and disposal of all sludges, solids (e.g., scrapings), wash and rinse waters generated by the Work.

D. All other work specified in this section and on the Contract Drawings.

1.04 RELATED SECTIONS AND WORK

A. Environmental Site Assessment Reports.....Section 02010

B. Storage, Handling, Transportation and Disposal of Non-Hazardous Industrial Waste and Hazardous Waste.....Section 02091

C. Site Preparation.....Section 02100

D. Earthwork ..... Section 02200

E. Coordination for Environmental Remediation. .....Section 02222

1.05 QUALIFICATIONS

A. Contractor selection: Contractor selected to perform the work specified in the Contract Documents shall be approved by the Authority, licensed by the City of New York, and NYSDEC approved. NYSDEC approval shall mean the following:

Any person, or persons, corporation, or proprietorship competent and experienced to perform work involving tank closure and the handling, disposal, transportation, and abatement of non-hazardous industrial waste and hazardous waste. For the purposes of this Contract, the approved Contractor shall possess the following:

1. A valid 6 NYCRR 364 waste transporter permit for transport and disposal of the wastes generated by the work of this section.

2. Agreements with facilities to accept for disposal the wastes generated by the work of this section.

3. Documentation that verifies adequate training of Contractor employees.

4. Proper equipment to execute the work in this Contract.

5. Labor and materials to execute the work under this Contract.

6. Experience directly related to the work described in this Contract.

7. Certification issued by the Fire Department of New York to perform tank removal/closure. Contractor must provide a copy of current certification to the Authority.

B. The Contractor shall submit evidence of the successful completion of at least three (3) projects similar in scope and execution and/or a minimum of three (3) years experience of the same. Verification shall include letters of recommendation, references, contact information for owners/clients for whom the work was performed, dates, duration of the projects, project costs, and experience of Contractor employees, licenses, and certifications.

C. Subcontractor: Any Subcontractor that is proposed to perform the work of this section shall meet the requirements of this section. The identity of the Subcontractor(s) shall be submitted for approval by the Authority.

1. The Contractor shall submit evidence of the Subcontractor's successful completion of at least three (3) projects similar in scope and execution and/or a minimum of three (3) years experience of the same. Verification shall include letters of

recommendation, references, contact information for owners/clients for whom the work was performed, dates, duration of the projects, project costs, and experience of employees, licenses, and certification.

D. All laboratory analyses for disposal characterization of all materials shall be performed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

1.06 REFERENCE STANDARDS

References and industry standards listed in this section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.

A. The following are applicable standards and regulations, incorporated herein by reference:

1. National Fire Protection Association (NFPA) Standard 327: Cleaning and Safeguarding Small Tanks and Containers.

2. American Petroleum Institute (API), Bulletin No. 1604, Recommended Practice for Abandonment and Removal of Used Underground Storage Tanks.

3. American Petroleum Institute (API), Bulletin No. 2015, Cleaning Petroleum Storage Tanks.

4. American Society for Testing and Materials, ASTM D 5088, Decontamination of Field Equipment Used at Non-radioactive Waste Sites.

5. Resource Conservation and Recovery Act, 40 CFR Parts 260-265, Solid Wastes.

6. 6 NYCRR Part 360, Solid Waste Management Facilities

7. 6 NYCRR Part 364, Waste Transporter Permits

8. 6 NYCRR Part 370, Hazardous Waste Management System – General

9. 6 NYCRR Part 371, Identification and Listing of Hazardous Wastes

10. 6 NYCRR Part 372, Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities

11. 6 NYCRR Part 373, Hazardous Waste Management Facilities

12. 6 NYCRR Part 375, Environmental Remediation Program

13. 6 NYCRR Parts 612-614, Petroleum Bulk Storage Regulations

14. The City of New York Building Code

15. US Department of Transportation (US DOT) 49 CFR Section 172.500 et seq.

16. New York State Department of Environmental Conservation (NYSDEC), STARS Memo #1 Petroleum - Contaminated Soil Guidance Policy (except Sections III and IV)

17. NYSDEC, Ambient Water Quality Standards and Guidance Values

18. NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, June 2010

19. NYSDEC CP-51: Soil Cleanup Guidance Policy, 12/3/2010

20. United States Environmental Protection Agency (USEPA), 40 CFR 280, Underground Storage Tanks: Technical Requirements Final Rule

21. United States Department of Transportation, 49 CFR 172, Subpart C Shipping Papers

22. United States Department of Transportation, 49

CFR 172, Subpart D Marking

23. United States Department of Transportation, 49 CFR 172, Subpart F Placarding

24. United States Department of Transportation, 49 CFR 172, Subpart G Emergency Response Information

25. United States Department of Transportation, 49 CFR 173, General Requirements for Shipments and Packagings

26. United States Department of Transportation, 49 CFR 177, Carriage by Public Highway

27. New York City Fire Department, FP Directive 3-73 Division of Fire Protection

28. New York City Fire Department, NYCAC Title 27, New York City Fire Prevention Code, Chapter 4 et seq.

29. New York City Fire Department, Rule 21-02 of the City of New York

30. New York City Department of Environmental Protection, 15 RCNY 19-01 et seq, Sewer Use Regulations and Sewer Use Permit

31. US Department of Labor, Occupational Safety and Health Administration (OSHA), 29 CFR 1910, Occupational Safety and Health Standards

32. US Department of Labor, OSHA 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

33. EPA, Office of Emergency and Remedial Response, Standard Operating Safety Guides, PB92-983414

34. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health (NIOSH), Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities

35. US Department of Labor, OSHA 29 CFR 1910.146, Permit-Required Confined Spaces

36. US Department of Labor, OSHA 29 CFR 1926 Safety and Health Regulations for Construction

37. New York State Department of Labor

1.07 SUBMITTALS

A. The Contractor shall submit to the Authority the following for review within two (2) weeks of Notice to Proceed. A checklist of the submittals is provided in Article 3.09 of this section. Contractor is required to obtain approval from the IEH Division of the submittals prior to start of the work of this section.

1. A detailed Tank Closure Plan shall be prepared by the Contractor, submitted and approved by the Authority two (2) weeks prior to the start of the on-site work of this section. No claims of delay will be permitted due to the Contractor's failure to obtain approval from the Authority's IEH Division of the Tank Closure Plan. The Tank Closure Plan must include at a minimum the following:

a. Measured contents of each tank system.

b. The name and address of the company(s) that will accept the contents of the tank systems. The Contractor is encouraged to recycle materials where feasible.

c. Provide the name and address of the licensed transporters and disposal/recycling facilities that will accept the tank systems contents and all other materials to be removed from the site by the Contractor. Also submit applicable permits and written confirmation that these facilities will accept the waste/materials throughout the duration of the Contract.

d. A copy of the certification that the Contractor closing the petroleum bulk storage

tanks is certified for the work by the Fire Department of New York.

e. Submit all pertinent information relating to the transport of materials specified herein. The information submitted shall include at a minimum:

1) Name and address of all transporters.

2) NYSDEC 6 NYCRR Part 364 Permit and expiration date.

3) Proof of permit, license or authorization to transport waste in all affected states.

f. Obtain and submit all local, State, and Federal permits and approvals required for the transport and disposal of all waste resulting from the performance of the Work of this section.

g. Document that the disposal facility(ies) proposed have all certifications and permits required by local, State, and Federal regulatory agencies to receive and dispose of the liquid and solid waste resulting from performance of the Work.

h. The Contractor shall indicate how underground utilities (e.g., electric, gas, water, sewers, telephone, etc.) will be located and provide copies of the resulting information to the Authority.

i. Sketch of the proposed cleaning area showing sufficient detail to demonstrate to the Authority how the cleaning operation will be contained, and the materials used in its construction.

j. Before transport to the disposal facility(ies), the Contractor is responsible for collection and analysis of disposal characterization samples in accordance with the approved and permitted Disposal Facility requirements. Disposal Facility requirements

shall be documented and submitted with the Tank Closure Plan. Requirements may include but are not limited to: number of samples, types of analyses and methods of sampling.

k. The Contractor shall identify the parameters and methods for analyzing all the collected samples in accordance with Disposal Facility requirements.

l. The Contractor shall identify how the sample chain-of-custody will be maintained and recorded.

m. The Contractor shall describe how the Quality Assurance/Quality Control (QA/QC) of the Tank Closure Plan will be maintained and how it will be subject to audit by both the Authority and the Contractor.

n. The Contractor shall provide a listing of the off-site disposal facility(ies) meeting the specified requirements, for each specific material to be disposed and a copy of each facility’s permit and a complete listing of each facility’s disposal requirements for each specific material.

o. Site Specific Health and Safety Plan (HASP).

p. Spill prevention and response procedures.

q. Material Safety Data Sheets for any products proposed for use on site.

r. Documentation of qualifications requirements specified in Article 1.05 of this section.

2. The Site Specific HASP shall meet all the referenced OSHA standards and shall include at a minimum:

a. Name of Contractor's Health and Safety Officer.

b. Copies of all training certificates for the employees proposed for this project.

Employees must have completed the training and medical requirements required for hazardous waste and confined space projects.

c. Confined Space Entry Procedures, which address the required procedures for performance of the work in accordance with the reference standards.

d. Certification of Health and Safety Officer's authority.

e. Name of Health and Safety Professional, employed by the Contractor, responsible for project safety management and the safety representative who will work under his/her direction.

f. Name of site health and safety coordinator.

g. Personal protection (including respiratory) programs, as applicable.

B. Post-Construction Submittals - Submit all documents identified as "Post-Construction" submittals on the List of Submittals, Article 3.09, within 14 calendar days after completion of the on-site work of this section.

1.08 NOTIFICATION

A. The Contractor shall notify the Authority, and the NYSDEC thirty (30) calendar days prior to commencement of any tank removal work and shall obtain all required permits and approvals. The Contractor shall notify the aforementioned parties in writing on prescribed forms.

B. The Contractor shall notify all utilities prior to the work, and arrange for mark-outs of underground utilities in accordance with all applicable local, State and Federal regulations. The Contractor is solely responsible for identifying utilities which will be adjacent to and in the locations of the Work.

1.09 EXISTING CONDITIONS

A. It is required that the Contractor visit the project site prior to bidding. The Contractor shall document all conditions that exist prior to commencement of the Work.

B. Existing conditions are reflected to the best of the Authority's knowledge. Should minor conditions be encountered which are not exactly as indicated, modifications to the Work shall be made as required at no additional expense to the Authority.

C. The Contractor is advised that existing subsurface conditions may not be clearly known and that he shall proceed with caution and extreme care in all phases of the Work.

1.10 CORRECTION OF DAMAGE TO PROPERTY

A. Contractor is responsible for site security during business and non-business hours and shall consider any damage to the property not identified in the pre-job damage survey as having resulted from execution of this Contract and will correct at no additional expense to the Authority.

B. If the Contractor damages a utility, the Contractor shall repair all damage at no expense to the Authority. All damage shall be immediately reported to the Authority.

1.11 UTILITIES

A. The Contractor shall provide and generate all necessary utilities. If utilities are available from the Authority, the cost of the installation of any metering devices and the actual cost of the power, water, etc. consumed shall be paid to the Authority by the Contractor.

1.12 SIGN IN/OUT LOG

A. All Contractor personnel, subcontractor personnel and Project Site visitors shall sign in and out on a daily basis for the duration of the project on a bound log book maintained by the Contractor. The Contractor shall be responsible for establishing and maintaining the log.

PART 2: PRODUCTS – NOT APPLICABLE

PART 3: EXECUTION

3.01 GENERAL

A. The Contractor shall have available at all times on site a site-specific Health and Safety Plan (HASP), prepared in accordance with the referenced OSHA standards. A "Safety Officer" shall be identified in the HASP and shall be present at all times during the Work. The Safety Officer shall test excavations for the presence of explosive, oxygen rich, oxygen deficient, and/or asphyxiating (i.e., confined space entry) conditions using portable combustible gas indicators (CGIs), photoionization detectors (PIDs) and percent oxygen indicators in accordance with the HASP. The Safety Officer shall continuously monitor the atmosphere of the work site for the presence of dust and organic vapors. Flammable or combustible vapors are likely to be present in the work area. The concentration of vapors in the tanks, the excavation, or the work area may reach flammable (explosive) range before venting is completed and a safe atmosphere is reached. Therefore, precautions must be taken to: (a) eliminate all potential sources of ignition from the area (for example, smoking materials, open flame and spark-producing equipment, non-explosion-proof electrical and internal combustion equipment), (b) prevent the discharge of static electricity during venting of flammable vapors, (c) prevent the accumulation of vapors at ground level, and (d) use only intrinsically safe communication equipment in the construction zone. Refer to API Publication 2015 and Recommended Practice 2003 for general precautionary measures to follow during the vapor-freeing procedure. The Contractor shall implement preventive measures, if dust or organic vapors are produced during the performance of the Work. The Contractor shall properly calibrate, thoroughly check and maintain all instrumentation (CGIs, PIDs, and percent oxygen indicators) according to the manufacturers' instructions. Persons responsible for testing must be completely familiar with the use of the instrument and the interpretation of the instrument's readings. The above description is not a comprehensive description of potential hazards and required precautions.

B. The Contractor shall protect the work area with warning tape, and install visible barricades around the work area to assure unauthorized personnel and other trades do not enter the work zone. Protection shall be maintained throughout the entire Contract duration.

C. The Contractor shall verify that all appropriate utilities are disconnected, locked out, and tagged prior to starting work on or near that utility.

D. The Contractor shall perform all site preparation, restoration, security and control including but not limited to temporary fencing, lighting, backfilling and shoring to protect adjacent structures, workers and the public. Maintain safe sidewall slopes or provide adequate shoring. Excavation shoring shall meet all applicable New York City Department of Building Codes, OSHA requirements (29 CFR 1926), and the requirements in Section 02200.

E. The Contractor shall segregate non-hazardous industrial waste and hazardous waste as directed by the IEH Division representative.

F. The Contractor shall deploy sorbent pads, pillows, booms and blankets to prevent surface water or oil run-off from encroaching upon the work area and into any drains and sumps.

G. Contractor shall provide a surface impoundment area for on-site storage of waste generated by the work of this section, as follows:

1. Construct a nominal curb of wood (12″ high) or hay bales around the perimeter of the impoundment area.

2. Place 20-mil polyethylene sheet barrier membrane of the largest practical size to cover the impoundment area and extend over the perimeter curb with a minimum of joints. Overlap sheet joints at least 8″ and seal with a double layer of duct tape. Secure polyethylene sheet to the perimeter curb.

3. Completely cover impounded soils and materials with a heavy-duty tarp manufactured specifically

for the intended purpose and secure tarp with sand bags.

4. When stored within the same impoundment area, soils and drums shall be separated from each other by an impervious barrier.

5. Remove daily, test, containerize, and properly transport and dispose offsite of all liquids, including stormwater, which collects in impoundment area, in accordance with applicable laws and regulations.

H. Dust and organic vapor shall be continuously monitored by the Contractor and remedial measures shall be implemented by the Contractor in accordance with the CAMP, refer to Section 02222.

I. The Contractor shall make provisions for leaving the excavation(s) open for inspection as directed by the Authority.

J. The Contractor shall obtain approval from the Authority to proceed at all stages of the project as identified in the Specifications. The Contractor shall use an approved biodegradable cleaning solution suitable for removal of petroleum (Contractor to submit descriptive manufacturer's literature, and Material Safety Data Sheets (MSDS) sheets to the Authority and obtain approval for the cleaning solution in advance - note that solutions containing chlorinated solvents or volatile organic compounds are not acceptable) and clean the interior and exterior surfaces of tank systems, piping, and appurtenances to remove all residual material and soil from the surfaces.

K. Cleaning shall be done in an area specifically set up by the Contractor for that purpose, curbed, and lined with an impermeable membrane, to contain the used cleaning solution, including any overspray, and any contaminated debris removed during the cleaning process. The Contractor shall submit a sketch of the proposed cleaning area showing sufficient detail to demonstrate to the Authority how the cleaning operation will be contained, and the materials used in its construction, and obtain the Authority's approval prior to implementing the cleaning process. Used

cleaning solution and contaminated materials removed during the cleaning process shall be collected and containerized by the Contractor in drums that meet USDOT requirements for transportation of hazardous materials, and disposed by the Contractor at an approved disposal facility. Prior to transportation for disposal, drums shall be labeled and stored as described below. All cleaning related materials and operations, and disposal of used cleaning solution and contaminated debris, shall be provided and performed at no additional cost to the Authority.

L. The Contractor shall provide the Authority with a communication record that includes the name(s), phone number(s) and copies of correspondence with any NYSDEC and other officials that were contacted or who visited the site.

M. The Contractor shall provide a "Shoring and Sheeting Plan" signed and sealed by a Professional Engineer licensed in the State of New York as specified in Section 02200, as required to ensure that movement, settling or damage to existing adjacent construction or structures does not occur.

3.02 PRE-CLOSURE ACTIVITIES

A. Prior to tank systems removal the contents (e.g., petroleum, water, sludge, etc.) in the tanks shall be measured separately with a gauging stick (and oil/water indicating paste) and reported to the Authority. This information will be used by the Authority to document the condition of the tanks prior to removal.

B. Sample and characterize the contents in the tanks in accordance with the approved disposal facility requirements. To avoid the staging of tank systems materials at the site, it is required that disposal facility samples be collected and analyzed prior to the cleaning of the tank systems.

C. The Contractor shall remove drop tubes and check valves from the tanks, if present. The Contractor shall drain and flush with water all piping and appurtenances back into the tanks, as applicable.

D. The Contractor shall remove the entire contents from the tank systems, piping and appurtenances (e.g.,

chlorinated solvents, petroleum, water, sludge, etc.) and convey it via a temporary closed system directly into a vacuum truck (preferred) or into USDOT approved drums or containers. Do not mix chlorinated solvent waste with other waste. After filling the drums or containers, seal closed, identify contents and store in an area approved by the Authority for no more than five (5) calendar days.

1. Drums or containers (if used) shall be labeled as follows:

   a. Specific work site (e.g., PS 315Q-UST)

   b. Drum (container) number (in increasing sequence as filled)

   c. Contents (e.g., rinse water from tank system cleaning)

   d. Date filled

2. The Contractor shall maintain a written inventory of drums and containers.

E. Contractor shall disconnect, clean, and remove all piping and appurtenances.

F. Remove all overlying materials for access to the UST and underground piping and appurtenance. Perform work in accordance with requirements of the Contract Documents.

G. Dewater excavations as specified in Section 02200 (as needed).

3.03 TANK REMOVAL

A. The tank systems shall be completely and entirely removed in accordance with all applicable local, state, and federal laws and regulations. Completely remove all aboveground support (e.g., cradles, stilts, saddles, racks, etc.) exposed and underground fill, supply, vent, gauge, suction, return, etc. lines and appurtenances (e.g., pumps, valves, monitoring devices, conduit, wire, etc.), anchoring, concrete encasements, and top and bottom slab(s).

B. The Contractor shall remove cover (e.g., landscaping, pavement, etc.) materials to perform cleaning and removal in accordance with Sections 02091 and 02200, and the requirements of the Contract Documents.

C. The Contractor shall purge the tanks of vapors and oxygen through displacement by appropriate methods recognized by a national standards issuing organization (i.e., American Petroleum Institute or National Fire Protection Association).

D. The Contractor shall gain access to the interior of the tanks (of non-enterable tanks) by careful use of a cold cut with a pneumatic rivet-buster, or equivalent. The cut shall be wetted with water to reduce the potential for sparks. The Contractor shall perform all torching/cutting operations in accordance with the references listed in this section as well as Authority Hotwork Permit Procedure and Hotwork Checklist, OSHA and the HASP.

E. The Contractor shall plan accordingly for control of tank vapors during closure and cleaning activities. Comply with the provisions of the CAMP and HASP.

F. The Contractor shall clean the inside of the tank systems and associated piping and appurtenances in accordance with API 2015 using high-pressure water rinse. Use as little water as possible for proper cleaning. Remove and containerize wash water, solids, liquids and debris. After filling containers, seal the containers closed, mark and placard contents on the containers and place the containers in the impoundment area. The tanks, piping and appurtenances will be clean when all petroleum has been removed.

G. The Contractor shall clean and remove all piping and appurtenances associated with the tank systems, including, but not limited to, supply piping, return piping, petrometer, gauges, pumps, heat piping, remote fill piping, vent piping and the vent risers, monitoring systems, probes, conduit and wiring.

H. Tank, piping, and appurtenances shall be inspected for signs of corrosion, cracks, structural damage, or leakage. Tank inspections shall be documented in

writing and by photographs, with particular emphasis on any evidence of corrosion, cracks, structural damage, or leakage. Submit photographs and documentation to the Authority.

I. After removal of the steel drums from the crawlspace the Contractor shall clean floors, walls, and ceilings, via power-washing or scarification in the area of the drums. Power-washing or scarification shall be performed to remove residual contamination to the satisfaction of the Authority. Floor drains and sumps shall be temporarily sealed to prevent wash water from entering the sewer system. Remove, containerize, characterize, and dispose wash water and residual liquids and debris in accordance with this Section. An IEH Division representative will inspect the power washing and/or scarification to determine if additional cleaning is required. Power washing and/or scarification shall not be considered complete until visible contamination has been removed to the satisfaction of the Authority.

3.04 SAMPLING

A. The Contractor shall collect and analyze post-excavation soil and/or water samples. Post-excavation sampling will be required in accordance with NYSDEC protocols from the bottom and sidewalls of the UST excavation at several locations to be determined in the field by a representative of the Authority's IEH Division. The results of the post-excavation sampling shall be submitted to the Authority's IEH Division. The Contractor shall maintain the open excavation for safe inspection until the Authority authorizes closure of the excavation. All open excavations shall be properly barricaded in accordance with applicable regulations. No claims of delay will be permitted for maintaining excavation open until the Authority's requirements are met. Prior to backfilling the excavations, the Authority shall be notified and shall be given a minimum of two (2) working days notice to inspect the excavation. Backfilling may only commence upon Contractor's receipt of written authorization from the Authority's IEH Division.

3.05 DISPOSAL OF CONTAMINATED MATERIALS

A. Characterize, remove, transport and dispose of the tanks, all aboveground and below ground piping, pumps, and other appurtenances (e.g., anchoring straps, level monitoring and control equipment, transmitters, indicators, conduit, wiring, pump and equipment pads and supports) associated with the tanks, concrete encasement, and top and bottom slabs. The Contractor shall provide the IEH Division representative with certification that all items removed were properly disposed at an approved and permitted disposal facility.

B. The waste generated as a result of the work shall be sampled, analyzed and classified by the Contractor in accordance with the approved disposal facilities' requirements. Whenever possible, waste generated by the work of this section shall be characterized prior to loading so that staging trucks and containers at the site is not required. The Contractor shall provide the IEH Division onsite representative with two (2) copies of the analytical results prior to transporting to the approved disposal facility. Once classified and accepted by the approved facility in accordance with all Federal, State and local laws and regulations, the Contractor shall provide the IEH Division onsite representative with two (2) copies of all waste manifests. The Contractor shall obtain all permits and approvals necessary to conform to laws and regulations. The Contractor shall identify, in writing, the facility(ies) at which all material will be disposed. After disposal the Contractor shall provide a certificate of disposal to the Authority’s on-site representative.

3.06 DECONTAMINATION OF EQUIPMENT AND MATERIALS

A. All decontamination procedures for equipment and materials shall conform to the requirements of applicable USEPA and NYSDEC regulations.

B. All recoverable equipment and materials, which have been in contact with petroleum product(s), shall be decontaminated prior to removal from the site. As used herein “recoverable” shall mean all items which are non-absorptive in nature and which can successfully be decontaminated. All items for which decontamination is difficult or uncertain shall be considered non-recoverable, as determined by the Authority.

C. Provide 20-mil polyethylene sheeting of appropriate size under items being decontaminated to catch and hold rinse fluids and protect adjacent grade area. This barrier membrane and the rinse fluids shall be considered non-recoverable.

D. Decontaminate recoverable Contractor owned equipment and materials with pressurized steam. Do not utilize any detergent agents.

E. Deposit non-liquid non-recoverable materials into USDOT containers as directed by the Authority.

F. Mark and placard containerized materials and place in the impoundment area. The waste shall be sampled, analyzed and classified by the Contractor in accordance with the approved disposal facilities' requirements. Once classified and accepted by the approved facility(ies) in accordance with all Federal, State, and local laws and regulations, the Contractor shall provide the IEH Division onsite representative with two (2) copies of all manifests. After filling the drums or containers, store in an area approved by the Authority for no more than five (5) calendar days.

3.07 CLOSE-OUT

A. At the direction of the Authority and if applicable, the Contractor shall place backfill in excavation and compact in accordance with Section 02200, "Earthwork". Backfill material shall be environmentally clean fill, as defined in Section 02200. Documentation that the material is environmentally clean shall be provided by the Contractor prior to delivery to the site.

B. The Contractor shall restore to pre-existing or specified conditions, as directed by the Authority, all areas which were damaged or removed during the work of this section.

C. Upon completion of all work of this section, the Contractor shall provide to the Authority all documentation necessary to prepare a written Closure Report acceptable to NYSDEC. The documentation, provided by the Contractor, shall include, but not be limited to:

1. Copies of waste bills of lading and manifests

2. Waste profiles

3. Daily logs

4. Closure affidavit to the FDNY from the licensed tank contractor

5. Description of tank contents and volume

6. Observed conditions of tanks and piping

7. Sample results

8. Photographs

9. Truck weigh tickets

10. Disposal facility receipts

11. Description of tank dismantling and cleaning procedures

12. Post excavation sample results

13. Copies of any communications with and submittals to regulatory agencies

14. NYSDEC PBS registration

This documentation shall be submitted to the Authority no later than 21 calendar days from completion of the on-site work of this Section.

D. Contractor shall acquire all permits and shall complete all manifests for signature by a representative of the IEH Division. The Contractor shall return all completed manifests to the Authority.

3.08 PAYMENT

A. All labor, materials, incidentals and equipment shall be furnished and installed by the Contractor, and all waste shall be properly characterized and disposed of by the Contractor, for the Work under this section and

is included in the base bid for this Contract. No additional payment shall be made to the Contractor for the Work specified in this section.

B. In the event that the contents of either tank system exceeds the specified amounts, the Contractor shall notify the Authority. The Contractor shall proceed with the additional work only at the written direction of the Authority.

C. Reimbursement of payment for transport and disposal of any additional waste, tank systems or similar structures (in excess of the quantity specified in this section), and approved by the Authority, shall be at negotiated unit rates. Payment for additional transportation and disposal shall be contingent upon the Authority's receipt of original shipping documents (e.g., manifests and bills of lading), disposal facility receipts and original invoices.

D. Contractor shall submit all Tank Closure Documentation before final payments are issued.

3.09 LIST OF SUBMITTALS

The Contractor shall provide the required submittals as listed below and identified in this section.

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Pre-Construction		
1. Tank Closure Plan		
2. Confirmation that utility lines have been identified, marked, locked/tagged out		
3. Contractor Qualifications (including FDNY certificate of fitness)		
4. Health and Safety Plan (HASP)		
5. Copy of NYSDEC PBS notification of substantial modification (submit 30 days prior to work)		
6. MSDSs for all proposed cleaning solutions		
7. Sketch of proposed cleaning area		

Post-Construction

8. NYSDEC Petroleum Bulk Storage (PBS)Registration Form		
9. Properly executed FDNY Closure Affidavit		
10. Signed waste and material disposal manifests from disposal/recycling facility(ies)		
11. Other required documentation associated with the Closure Report (per 3.07 C.)		

END OF SECTION

*** * ***

SECTION 02220
GAS VAPOR BARRIER (FLUID APPLIED)

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Install a fluid applied gas vapor barrier, under concrete slabs and on vertical sub-surface walls as indicated, specified and required in the Contract Documents and shown on the Drawings. The entire extent of new construction beneath finished grade, including floor slabs and vertical walls of subsurface pits and sumps, shall be lined with gas vapor barrier.

B. This section specifically references products manufactured by CETCO Liquid Boot Company (LIQUID BOOT®) and Land Science Technologies (Geo-Seal®). Another Authority approved product may be substituted provided it satisfies the project requirements, the Drawings and Specifications, and the material properties, test and application procedures defined in Part 2 and Part 3 of this section. For bidding purposes Geo-Seal® is specified on the Contract Drawings. If the Contractor proposes to use LIQUID BOOT® or another equal product, the Contractor shall prepare and submit shop drawings showing all site-specific details and application conditions, including, but not limited to, details for each and every condition shown on the H-Series Contract Drawings. The shop drawings must be signed and sealed by a Professional Engineer licensed to practice in the State of New York. Included with the submittal shall be a certification from the Contractor's Professional Engineer stating that the proposed vapor barrier design is consistent with the requirements and intent of Specification Section 02220 of the Contract Documents. Approval of the shop drawings by the IEH Division of the Authority shall be required prior to start of the on-site work of this section.

C. The gas vapor barrier shall be applied to create a continuous vapor tight barrier beneath the entire new construction, with durable seals to every footing and penetration to ensure a single impermeable membrane layer. Gas vapor barrier shall be installed on top of

the gas permeable aggregate layer and immediately below the poured concrete floor slabs and directly on vertical sub-surface walls as specified and shown on the Drawings. The gas vapor barrier shall be applied horizontally and vertically to all subsurface pits and sumps forming a barrier on all sides and bottoms of pits and sumps as specified and shown on the Drawings.

D. Perform and certify results of inspections and tests as specified.

E. The intent of this section is to specify materials and installation procedures for a gas vapor barrier and not a water-proofing material. If water-proofing is required in addition to a gas vapor barrier, comply with special requirements at transitions from gas vapor barrier to water-proofing material as to not void the warranty of either material.

F. Do not combine products from different manufacturers. All gas vapor barrier products furnished and installed shall be from one single manufacturer.

1.02 RELATED SECTIONS

A. Environmental Site Assessment Reports. . Section 02010

B. Earthwork . . . . . .Section 02200

C. Sub-Slab Depressurization System . . . . .Section 02221

D. Coordination for Environmental Remediation. . . . . Section 02222

E. Foundation and Other Change Adjustments. . . . . Section 02250

F. Storm Drainage Systems . . . . . Section 02723

G. Concrete Work. . . . . Section 03005

H. Thermal and Moisture Protection. . . . . .Division 7

I. Mechanical. . . . . .Division 15

J. Electrical. . . . . Division 16

1.03 STANDARDS AND REGULATIONS

A. American Society for Testing and Materials (ASTM) Standards

ASTM D882 - Tensile Properties of Thin Plastic Sheeting

ASTM D1709 - Impact Resistance of Plastic Film by the Free-Falling Dart Method

ASTM D2582 - Puncture-Propagation Tear Resistance of Plastic Film and Thin Sheeting

ASTM D3776 - Mass per Unit Area (Weight) of Woven Fabric

ASTM D4258 - Standard Practice for Surface Cleaning Concrete for Coating

ASTM D4833 – Index Puncture Resistance of Geotextiles, Geomembranes and Related Products

ASTM E84 – Surface Burning Characteristics of Building Materials

ASTM E96 - Water Vapor Transmission of Materials

ASTM E1643 - Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

ASTM E1745 - Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs

B. National Fire Protection Association, latest editions

701 – Fire Tests for Flame-Resistant Textiles and Films

1.04 RESTRICTIONS AND QUALITY CONTROL

A. Pre-installation Meeting: The Contractor shall arrange for and convene a pre-installation meeting prior to the start of work of this section to review installation procedures, protection, and coordination with other work. Attendance of parties directly affecting work of this section, including representatives of the Construction Inspection Division (CID), the Industrial and Environmental Hygiene Division (IEH), designer of the gas vapor barrier, Contractor, Contractor's Professional Engineer, and Contractor's installer shall be required. The Contractor shall schedule the pre-installation meeting at a time and at a location that is agreeable to CID, the Architect/Engineer and IEH Division. The meeting shall be held on a date which is a minimum of ten (10) business days prior to start of the work of this section.

B. General Performance Requirements: It is required that the gas vapor barrier be vapor tight for twenty (20) years. Failure to comply with this requirement will be considered a failure of materials and workmanship. The Contractor shall be required to demonstrate and certify that the gas vapor barrier passes all applicable tests specified in Article 3.04 of this section.

C. This section specifies requirements for vapor intrusion barriers not water-proofing. If water-proofing is required for portions of the construction and waterproofing products will contact vapor barrier products, installation of vapor barrier and water-proofing materials must be coordinated at all transitions so that the warranties for both products are not voided.

D. Installer: Gas vapor barrier installer shall be trained and approved by gas vapor barrier manufacturer, CETCO Liquid Boot Company, Land Science Technologies or Authority approved equal.

The following is a list of approved installers:

Liquid Boot	**Geo-Seal**
Debrino Caulking Contact: Al Poole Phone: 518-732-7234	Debrino Caulking Contact: Larry Alvaro Phone: 518-732-7234
EAI Contact: Mike Li Phone: 201-395-0010, ext. 227	Remcon Services, LLC Contact: Josh Jackson Phone: 888-457-2368
Edgeboro International Contact: Jack Whitman, Jr. Phone: 732-227-1356	Northend Barriers Contact: Bari Harvey Phone: 888-457-2368
RESTOR Contact: Frank Morisco, Jr. Phone: 631-385-8400	Griffith Roofing Contact: Donnie Griffith Phone: 302-275-7120
Terrafix Environmental Contact: Blu Alexander Phone: 416-674-0363	Contractors Waterproofing, LLC Contact: Mike Downey Phone: 316-650-1999

E. Inspection: Contractor shall provide a New York State licensed Professional Engineer with experience and qualifications to approve the work, independent of the installer, to conduct the inspection of the gas vapor barrier installation. This is not the Authority's responsibility. Authority approval of qualifications of licensed Professional Engineer shall be required prior to the inspections. Approval of the work by an engineer does not relieve the manufacturer and/or the installer of their responsibility to produce and install the vapor protection system to achieve the performance requirements stated above.

F. The installer shall perform tests in accordance with Article 3.04 of this section and shall document successful completion of the tests. A representative of CID must be present during the tests.

1.05 SUBMITTALS

A. Approval by the IEH Division of the Authority of submittals of this section shall be required prior to start of the related work, as applicable.

B. The Contractor shall submit to the Authority within ten (10) business days of Notice to Proceed a schedule showing the following for each submittal of this section: date of delivery of submittal to the Authority, anticipated time period for Authority review, and required date of Authority approval in order to maintain project schedule. Approval by the IEH Division of the submittal schedule shall be required. The IEH Division must be notified of any changes in the schedule at least 24 hours prior to the change.

C. The Contractor shall submit to the Authority a schedule showing dates for each inspection specified in Article 3.01(A) of this section.

D. Product Data and Shop Drawings: Submit manufacturer's product data, including installation instructions and termination shop drawings and shop drawings for each type of penetration. The shop drawings must be product and project specific and show each and every condition of the project. Geo-Seal® is specified on the Contract Drawings. If the Contractor proposes to use LIQUID BOOT® or another equal product, the Contractor shall prepare and submit shop drawings showing all site-specific details and application conditions, including, but not limited to, details for each and every condition shown on the H-Series Contract Drawings. The shop drawings must be signed and sealed by a Professional Engineer licensed to practice in the State of New York. Included with the submittal shall be a certification from the Contractor's Professional Engineer stating that the proposed vapor barrier design is consistent with the requirements and intent of Specification Section 02220 of the Contract Documents. Approval of the shop drawings by the IEH Division of the Authority shall be required prior to start of the on-site work of this section. (The IEH Division of the Authority will make available to the Contractor AutoCAD files of the H-Series Contract Drawings on request.)

E. Samples: Submit representative samples of the following for approval:

Liquid Boot	Geo-Seal
1. Gas vapor barrier membrane material	1. Vapor intrusion barrier system sample
2. Protection materials	2.Geo-Seal BOND layer
	3.Geo-Seal FILM-16
3. Geotextiles and fabrics	4Geo-Seal BASE layer

F. Material Test Reports: Indicate and interpret test results for compliance of gas vapor barrier with requirements specified, as applicable.

G. Certification: Submit manufacturer's Certification of Compliance indicating that materials delivered and used in the work are in strict compliance with specified requirements (see Articles 1.06 and 2.01 in this section).

H. Documentation of successful test completion as required in Article 3.04 of this section.

I. Resume of Professional Engineer, licensed to practice in the State of New York, to perform milestone inspections, and certify proper installation of gas vapor barrier. The Contractor’s Professional Engineer shall perform each of the milestone inspections identified in 3.01(A) of this section.

J. Report on Professional Engineer’s inspection and approval of the work of this section. The Professional Engineer shall provide a certification, signed and sealed, stating that all work was performed in accordance with the requirements of this section and the Contract Drawings. The certification shall explicitly state that the Professional Engineer supervised inspections of tests which demonstrated installation of a gas-tight barrier for preventing intrusion of vapors into the entire new construction.

K. Manufacturer’s and Installer’s Warranties as required in Article 1.08 of this section.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in original unbroken packages bearing manufacturer’s label showing brand, weight, volume, and batch number. Deliver materials to the site only after the Authority has reviewed and approved the required submittals.

B. Store materials at the site in strict compliance with manufacturer’s instructions. Store materials in a clean, dry area on-site. Do not allow materials to freeze in containers.

C. Protect materials during handling and installation to prevent damage. Replace any damaged materials at no cost to the Authority unless the damaged material can be repaired in accordance with the manufacturer's requirements and to the satisfaction of the Authority and such that vapor protection is not compromised.

1.07 PROJECT/SITE CONDITIONS

A. Protect all adjacent areas not to receive gas vapor barrier. Apply temporary masking to prevent staining of surfaces to remain exposed wherever membrane abuts other finished surfaces.

B. Perform work only when existing and forecasted weather conditions are within manufacturer’s recommendations for the material and product used.

C. Minimum clearance required for application of product:

Liquid Boot	Geo-Seal
90 degree spray wand – 2 feet.	All applications minimum of 2 feet.
Conventional spray wand – 4 feet.	

D. Ambient temperature shall be within manufacturer’s specifications.

1. For Liquid Boot applications during winter conditions, the Contractor shall use space heaters and necessary cover (i.e., visqueen) to

bring the ambient temperature to +45◦F until the protection course and structural slab rebar have been placed.

2. Geo-Seal may be installed in ambient temperatures lower than 45°F. Contact Land Science Technologies for proprietary application techniques and applicator approval for cold weather applications.

E. The Contractor shall coordinate with all trades involved in the scheduling of excavation and backfill to ensure that all necessary components of work, due to be buried, are installed, thus avoiding duplication of excavation work unless otherwise shown on the Contract Drawings or noted in other sections of the Contract Documents. No other work shall be performed in areas above an installed vapor barrier section until the vapor barrier protection layer has been installed and the vapor barrier installer approves it. The Contractor shall verify there are no interferences with other existing or proposed subsurface systems. Aggregate layer must be rolled flat and non-angular.

F. All plumbing, electrical, mechanical and structural items to be under or passing through the gas vapor barrier shall be positively secured in their proper positions and appropriately protected prior to membrane application.

G. Gas vapor barrier shall be installed before placement of reinforcing steel. When not possible, all exposed reinforcing steel shall be masked by Contractor prior to membrane application.

H. Expansion joints must be filled with a conventional waterproof expansion joint material.

I. Surface preparation shall be per manufacturer’s specification.

1.08 EXTENDED WARRANTIES

A. Submit a warranty, signed by the manufacturer of the gas vapor barrier system, agreeing to replace/repair defective materials including all work required to correct leakage of vapors within the warranty period.

The warranty period is 20 years after date of acceptance by the Authority.

B. Submit a separate warranty, signed by the installer of the gas vapor barrier system, agreeing to replace/repair defective materials and workmanship, including corrective actions for leakage of vapor within warranty period. The installer's warranty period is 5 years after date of acceptance by the Authority. For the Authority to accept the 5-year warranty from the installer, the following shall be performed:

1. The installer shall comply with the Contract Documents (this Specification Section and the Drawings) for installation requirements.

2. The requirements of Article 3.04 of this section shall be met, including, but not limited to, "Once the membrane has passed the smoke test inspection, the successful completion shall be documented and the documentation signed and sealed by the Contractor's Professional Engineer shall be furnished to the Authority."

C. Refer to Article 1.04(C) for restrictions/limitations for joining gas vapor barrier with water-proofing materials to protect the warranties of each product.

PART 2 - PRODUCTS

2.01 MATERIALS

Material product requirements are specified for both Authority approved products (i.e., products manufactured by CETCO Liquid Boot Company [LIQUID BOOT®] and Land Science Technologies [Geo-Seal®]). The Contractor shall comply with the requirements specified for the product used.

A. Liquid Boot

1. Fluid applied gas vapor barrier system - LIQUID BOOT® or approved equivalent; a single course, high build, polymer modified asphaltic emulsion. Water borne and spray applied at ambient temperatures within manufacturer's recommended range. A minimum thickness of 60 dry mils is

required, unless otherwise shown or specified. Non-toxic and odorless. LIQUID BOOT® Trowel Grade has similar properties with greater viscosity and is trowel applied. Manufactured by CETCO Liquid Boot Company, Santa Ana, CA (714) 384-0111.

2. Liquid Boot physical properties:

GAS VAPOR MEMBRANE	**TEST METHOD**	**VALUE**
Hydrogen Sulfide Gas Permeability	ASTM D1434	None Detected
Benzene, Toluene, Ethylene, Xylene, Gasoline, Hexane, Perchloroethylene, Diesel, Ethylbenzene, Napthalene, Acetone	ASTM D543, D412, D1434 (tested at 20,000 ppm)	Passed in gas permeability and weight change
Acid Exposure (10% H_2SO_4 for 90 days)	ASTM D543	Less than 1% weight change
Radon Permeability	Tested by US Dept. of Energy	Zero permeability to Radon (222Rn)
Bonded Seam Strength Tests	ASTM D6392	Passed
Micro Organism Resistance (Soil Burial)average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability	ASTM D4068-88	Passed
Methane Permeability	ASTM D1434-82	Passed
Oil Resistance Test average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability	ASTM D543-87	Passed
Heat Aging average tensile strength change, average tensile stress change, average elongation change, bonded seams	ASTM D4068-88	Passed
Dead Load Seam Strength	City of Los Angeles	Passed
Environmental Stress-Cracking	ASTM D1693-78	Passed
PCE Diffusion Coefficient	Tested at 6,000 mg/m^3	2.74×10^{-14} m^2/sec
TCE Diffusion Coefficient	Tested at 20,000 mg/m^3	8.04×10^{-14} m^2/sec
WATERPROOFING	**TEST METHOD**	**VALUE**
Soil Burial	ASTM E154-88	Passed
Water Penetration Rate	ASTM D2434	$<7.75 \times 10^{-9}$ cm/sec
Water Vapor Permeability	ASTM E96	0.24 perms
Water Vapor Transmission	ASTM E96	0.10 grains/h-ft^2

GENERAL INFORMATION	TEST METHOD	VALUE
Coefficient of Friction (with geotextile both sides)	ASTM D5321	0.72
Cold Bend Test	ASTM D146	Passed. No cracking at –25°F
Freeze-Thaw Resistance (100 Cycles)	ASTM A742	Meets criteria. No spalling or disbondment
Accelerated Weathering and Ultraviolet Exposure	ASTM D822	No adverse effect after 500 hours
Hydrostatic Head Resistance	ASTM D751	Tested to 138 feet or 60 p.s.i
Elongation	ASTM D412	1,332% without reinforcement, 90% recovery
Elongation with 8oz. non-woven geotextile both sides	ASTM D751	100% (same as geotextile tested separately)
Tensile Strength	ASTM D412	58 p.s.i. without reinforcement
Tensile Strength with 8oz. non-woven geotextile both sides	ASTM D751	196 p.s.i. (same as geotextile tested separately)
Tensile Bond Strength to Concrete	ASTM D413	2,556 lbs/ft^2 uplift force
Puncture Resistance with 8oz. non-woven geotextile both sides	ASTM D4833	286 lbs. (travel of probe = 0.756 inches) (same as geotextile tested separately)
Flame Spread	ASTM E108	Class A with top coat (comparable to UL790)
Electric Volume Resistivity	ASTM D257	1.91 x 10^{10} ohms-cm

3. Protection - On vertical surfaces, use: LIQUID BOOT® UltraShield P-100 or other protections as approved by the Authority.

   On horizontal surfaces, use: LIQUID BOOT® UltraShield G-1000 above the 60 mil LIQUID BOOT® vapor barrier or other protections as approved by the Authority.

   All protection materials must be approved by the membrane manufacturer, including the use of the LIQUID BOOT® UltraShield products.

4. Geotextile - LIQUID BOOT® Base Fabric T-60 non-woven geotextile as a cushion layer on base aggregate, unless otherwise specified and approved by membrane manufacturer and the Authority. The heat-rolled side shall be used as the application surface.

5. Adhesive system for LIQUID BOOT® UltraShield: Use LIQUID BOOT® UltraGrip.

6. Cold Joints, Cracks, Form Tie Holes: Covered with Hardcast CRT 1602 Tape 3" wide.

7. General: Provide additional installation accessories as necessary. Ensure accessories are from same manufacturer as vapor barrier.

B. Geo-Seal

1. Vapor intrusion barrier is comprised of the following items:

a. HDPE/Geotextile Sheet: Geo-Seal BASE layer

b. Spray applied membrane: Geo-Seal CORE spray layer and Geo-Seal CORE Detail

c. HDPE/Geotextile Sheet: Geo-Seal BOND protection layer

d. HDPE Sheet: Geo-Seal FILM-16 protection layer

e. Fluid applied vapor intrusion barrier system - GEO-SEAL or approved equivalent; a single course, high build, polymer modified asphaltic emulsion encapsulated by two HDPE/geotextile membranes. Spray membrane is water borne and applied at ambient temperatures within manufacturer’s recommended range. A minimum thickness of 60 dry mils of Geo-Seal CORE is required, unless otherwise shown or specified. Non-toxic and odorless. Manufactured by Land Science Technologies, San Clemente, CA (949) 481.8118.

f. Vapor intrusion spray membrane physical properties:

Geo-Seal CORE – TYPICAL CURED PROPERTIES

PROPERTIES	TEST METHOD	RESULTS
Tensile Strength - CORE only	ASTM 412	32 psi
Tensile Strength - Geo-Seal System	ASTM 412	662 psi
Elongation	ASTM 412	4140%
Resistance to Decay	ASTM E 154 Section 13	4% Perm Loss
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	0.026 g/ft2/hr
Hydrostatic Water Pressure	ASTM D 751	26 psi
Perm Rating	ASTM E 96 (US Perms)	0.21
Methane Transmission Rate	ASTM D 1434	Passed
Adhesion to Concrete & Masonry	ASTM C 836 & ASTM C 704	11 lbf./inch
Hardness	ASTM C 836	80
Crack Bridging	ASTM C 836	No Cracking
Heat Aging	ASTM D 4068	Passed
Environmental Stress Cracking	ASTM D 1693	Passed
Oil Resistance	ASTM D543	Passed
Soil Burial	ASTM D 4068	Passed
Low Temp. Flexibility	ASTM C 836-00	No Cracking at –20°C
Resistance to Acids:		
Acetic		30%
Sulfuric and Hydrochloric		13%
Temperature Effect:		
Stable		248°F
Flexible		13°F
Tensile Strength	ASTM 412	32 psi
Elongation	ASTM 412	3860%
Resistance to Decay	ASTM E 154 Section 13	9% Perm Loss
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	0.026 g/ft2/hr
Hydrostatic Water Pressure	ASTM D 751	28 psi
Perm rating (US Perms)	ASTM E 96	0.17
Methane transmission rate	ASTM D 1434	Passed
Adhesion to Concrete & Masonry	ASTM C 836	7 lbf./inch
Hardness	ASTM C 836	85
Crack Bridging	ASTM C 836	No Cracking
Low Temp. Flexibility	ASTM C 836-00	No Cracking at –20ºC
Resistance to Acids:		
Acetic		30%
Sulfuric and Hydrochloric		13%
Temperature Effect:		
Stable		248°F
Flexible		13°F

2. Vapor Intrusion Barrier Sheet Materials

   a. Geo-Seal BASE layer and Geo-Seal BOND layers are chemically resistant sheets comprised of a 5 mil high density polyethylene sheet thermally bonded to a 3 ounce non-woven geotextile.

   b. Geo-Seal FILM-16 protective layer is comprised of a high strength, cross laminated HDPE membrane 16 mils thick.

3. Sheet Course Usage

   As foundation base layer, use Geo-Seal BASE course. The HDPE side shall be used as application surface.

   Protection:
   On vertical surfaces, use: Geo-Seal FILM-16, or other protections as approved by the Authority.

   On horizontal surfaces, use: Geo-Seal BOND or other protections as approved by the Authority.

4. Geo-Seal BOND and Geo-Seal BASE physical properties.

PROPERTIES	TEST METHOD	RESULTS
Film Thickness		5 mil
Composite Thickness		18 mil
Water Vapor Permeability	ASTM E 96	0.214
Adhesion to Concrete	ASTM D 1970	9.2 lbs/inch^2
Dart Impact	ASTM D 1790	>1070 gms, method A
		594 gms, method B
Puncture Properties Tear	ASTM B 2582 MD	11,290 gms
Puncture Properties Tear	ASTM B 2582 TD	13,150 gms

5. Geo-Seal FILM-16 physical properties.

PROPERTIES	TEST METHOD	GEO-SEAL FILM-16
Film Thickness		16 mil
Classification	ASTM E 1745-09	Exceed Class A,B and C
Tensile	ASTM E 154-93	63 lbf / in
Puncture Resistance	ASTM D 1709	2750 grams
Water Vapor Permeance	ASTM E 96	0.009 Perms
Life Expectancy	ASTM E 154-93	Indefinite
Chemical Resistance	ASTM E 154-93	Excellent

6. Adhesive system for the Geo-Seal system on cast in place walls: Use Stay-Put adhesive or other adhesives approved by the manufacturer

7. Reinforcing Strip: Manufacturer's polyester fabric.

8. Cold Joints, Cracks, Form Tie Holes: Use Geo-Seal CORE Detail with reinforcing strip (Geo-Seal Reinforcement fabric).

9. General: Provide additional installation accessories as necessary. Ensure accessories are from same manufacturer as vapor barrier.

PART 3 - EXECUTION

3.01 EXAMINATION

The Contractor's Professional Engineer shall perform all milestone inspections. Smoke testing as described in Article 3.04 must be performed in the presence of a representative of CID. Additional inspections, examinations and quality control measures may be required in accordance with manufacturers' recommendations and are the responsibility of the Contractor. The Authority reserves the right to perform additional inspections or quality control tests as deemed necessary by the Authority at any point during the construction process at no additional cost to the Authority.

A. INSPECTION SCHEDULE

#	**Inspection Schedule – Milestone Description**
1	Completion of installation of base fabric/layer above aggregate layer
2	Completion of all fluid applied gas vapor barrier appurtenances and seals following the specified curing time.
3	Application of fluid applied gas vapor barrier at all penetrations, base fabric overlaps and foundation contact points.
4	Coating thickness inspection and testing. At a minimum testing shall be performed as per Article 3.04.
5	Completion of installation of all subsurface

#	**Inspection Schedule – Milestone Description**
	components prior to installation of gas vapor barrier protection layer.
6	Completion of all components of gas vapor barrier prior to concrete pour.

All surfaces to receive gas vapor barrier shall be inspected and approved by the Contractor's Professional Engineer prior to commencing work.

3.02 SURFACE PREPARATION

Provide 24-inch minimum clearance out from surfaces to receive the gas vapor barrier. The application surface shall be prepared and provided to the applicator in accordance with manufacturer's specifications listed below:

A. Liquid Boot

1. CONCRETE/SHOTCRETE/MASONRY

a. Concrete surfaces shall be light broom finish or smoother, free of any dirt, debris, loose material, release agents or curing compounds. Fill all voids more than 1/4 inch deep and 1/4 inch wide. Masonry joints, cold joints, and form joints shall be struck smooth.

b. All penetrations shall be prepared in accordance with manufacturer's specifications. Provide a 3/4 inch minimum cant of LIQUID BOOT®, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of LIQUID BOOT®.**

c. All cracks or cold joints greater than 1/16 inch must be completely grouted with non-shrink grout as directed by the Authority.

d. Install Hardcast reinforcing tape over all cold joints, cracks and form tie holes (after holes and cracks are grouted).

2. SOIL AND GRAVEL

a. The subgrade shall be moisture conditioned and compacted as specified (refer to Earthwork Section 02200). The surfaces to be lined shall be free of all other rocks, stones, sticks, roots, sharp objects, or construction debris of any kind. No standing water, excessive moisture or frozen ground shall be allowed. Remove all stones or dirt clods greater than 1/4 inch. (NOTE: Aggregate sub-bases shall be rolled flat). All penetrations shall be prepared in accordance with manufacturer's specifications. All form stakes that penetrate the membrane shall be of rebar which shall be bent over and left in the slab. Approval shall be required from the Authority of the subgrade on which the membrane is to be installed prior to commencing work.

b. Trenches shall be cut oversize to accommodate gas vapor barrier membrane and protection course with perpendicular to sloped sides and maximum obtainable compaction. Adjoining grade shall be finish graded and compacted. Excavated walls shall be vertical or sloped back, free of roots and protruding rocks. Specific sub-grade preparation shall be as specified.

c. If organic materials with potential for growth (i.e., seeds or grasses) exist within the subbase, spray apply soil sterilant at the sterilant manufacturer's recommended rate.

B. Geo-Seal

1. CONCRETE/SHOTCRETE/MASONRY

a. Clean and prepare concrete surface to manufacturer's recommendations. Only apply the Geo-Seal CORE material to dry, clean and uniform substrates. Concrete surfaces must be a light trowel, light broom or equivalent

finish. Remove fins, ridges and other projections and fill honeycomb, aggregate pockets, grout joints and tie holes, and other voids with hydraulic cement or rapid-set grout. It is the applicator's responsibility to point out unacceptable substrate conditions to the general contractor and ensure the proper repairs are made.

b. All penetrations shall be prepared in accordance with manufacturer's specifications.

c. At all horizontal to vertical transitions, or corners 120° and less, apply two coats of Geo-Seal CORE Detail (30 mil each) and embed a joint reinforcing polyester in preparation coat and apply a second coat over embedded joint reinforcing strip ensuring its complete saturation and covering.

d. Prepare, treat, grout, and fill joints and cracks in substrate. Remove dust and dirt from joints and cracks complying with ASTM D 4258 prior to coating surfaces.

e. Vertical Cold Joints - Apply two coats of Geo-Seal CORE Detail (30-mil wet) membrane, 3-inches on each side of joint and embed a joint reinforcing strip in preparation coat and apply a second coat over embedded joint reinforcing strip ensuring to complete saturation and covering.

2. SOIL AND GRAVEL

a. The subgrade shall be moisture conditioned and compacted as specified (refer to Earthwork Section 02200). The surfaces to be lined shall be free of all other rocks, stones, sticks, roots, sharp objects, or construction debris of any kind. No standing water, excessive moisture or frozen ground shall be allowed. Aggregate sub-bases shall be compacted and rolled flat. All penetrations shall be prepared in

accordance with manufacturer's specifications. All form stakes that penetrate the membrane shall be of rebar which shall be bent over and left in the slab. Approval shall be required from the Authority of the subgrade on which the membrane is to be installed prior to commencing work.

b. Trenches shall be cut oversize to accommodate gas vapor barrier membrane and protection course with perpendicular to sloped sides and maximum obtainable compaction. Adjoining grade shall be finish graded and compacted. Excavated walls shall be vertical or sloped back, free of roots and protruding rocks. Specific sub-grade preparation shall be as specified.

c. If organic materials with potential for growth (i.e., seeds or grasses) exist within the subbase, spray apply soil sterilant at the sterilant manufacturer's recommended rate.

3.03 INSTALLATION

A. Liquid Boot **Follow the procedures below carefully.**

1. INSTALLATION ON CONCRETE/SHOTCRETE/MASONRY

a. Refer to Article 3.03.A.4, "Sealing Around Penetrations", for procedures to seal around penetrations.

b. Provide a 3/4 inch minimum cant of LIQUID BOOT®, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of LIQUID BOOT®.**

c. Delineate a test area **on site** with a minimum dimension of 10 feet by 10 feet (3m by 3m). Apply LIQUID BOOT® to a thickness of 60 mils and let cure for **24 hours**. Observe for

blisters. If minor or no blistering occurs, proceed to the next step. (See note regarding blisters.) If significant blistering does occur, apply a thin (10 mil) tack coat of LIQUID BOOT® "A" side without catalyst to the entire concrete surface and allow to cure before proceeding. (See also information regarding blister repair.)

d. Spray apply LIQUID BOOT® to a 60 mil minimum dry thickness. Increase thickness to 100 dry mils if shotcrete is to be applied directly to membrane. If a second coat is required, remove any standing water from the membrane before proceeding with the second application.

e. Do not penetrate membrane. Keep membrane free of dirt and debris and traffic until a protective cover is in place. **It is the responsibility of the Contractor to insure that the membrane and the protection system are not penetrated.**

f. After membrane has cured and has been checked and approved by the Contractor's Professional Engineer for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

NOTE: All testing or inspection to be performed prior to placing protection course.

g. **NON-HORIZONTAL SURFACES:** Spray on non-horizontal surfaces shall begin at the bottom and work towards the top. This method allows the product to adhere to the surface before hitting catalyst runoff.

NOTE: Due to the nature of concrete as a substrate, it is normal for some blistering to occur. This is caused by either concrete's tendency to off-gas or water that is temporarily trapped between the concrete and the membrane. With time and the applied pressure of backfill, blisters will absorb into the concrete without detriment to the

membrane.

A small number of blister heads should be sampled and checked for proper membrane thickness. If the samples have the minimum required membrane thickness (60 mils), then the remaining blisters should not be punctured or cut. If the samples have less than the minimum 60 mil required membrane thickness, then the area can either be resprayed to obtain the proper thickness, or the blisters can be cut out and the area resprayed or patched with LIQUID BOOT® Trowel Grade.

2. INSTALLATION ON SOIL AND GRAVEL

a. After approval, roll out geotextile on sub-grade with the heat-rolled side facing up. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of LIQUID BOOT® “A” side without catalyst within the seam overlap.

Line trenches with geotextile extending at least six inches (6") onto adjoining sub-grade if slab and footings are to be sprayed separately. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of LIQUID BOOT® “A” side without catalyst within the seam overlap.

b. Minimize the use of nails to secure the geotextile to the subgrade. Remove all nails before spraying membrane, if possible. Nails that cannot be removed from the subgrade are to be patched with geotextile or Hardcast reinforcing tape overlapping the nail head by a minimum of two inches (2"). Apply a thin tack coat of LIQUID BOOT® under the geotextile patch, when patching with geotextile.

c. Refer to Article 3.03.A.4 "Sealing Around Penetrations", for procedures to seal around

penetrations.

d. Spray apply LIQUID BOOT® onto geotextile to a 60 mil minimum dry thickness. Increase thickness to 100 dry mils if shotcrete is to be applied directly to membrane. If a second coat is required, remove any standing water from the membrane before proceeding with the second application.

e. Do not penetrate membrane. Keep membrane free of dirt, debris and traffic until a protective cover is in place. **It is the responsibility of the Contractor to insure that the membrane and the protection system are not penetrated.**

f. After membrane has cured and has been checked and approved by the Contractor's Professional Engineer for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

NOTE: All testing or inspection to be performed prior to placing protection course.

3. BLIND SIDE INSTALLATION (If Necessary)

a. Attach subsurface drain mat or, securely nail 8 oz. non-woven geotextile over lagging and soldier piles keeping geotextile tight to lagging wall. Overlap seams a minimum of six inches (6").

b. Roll out specified geotextile vertically with the heat-rolled side facing out and staple to lagging using 3/8" long staples 12" on center. Overlap seams a minimum of six inches (6"). Spray LIQUID BOOT® within the seam overlap to a thickness of 60 mils minimum. Do not staple top layer of geotextile at overlap.

c. Refer to Article 3.03.A.4 "Sealing Around Penetrations", for procedures to seal around penetrations.

d. Provide a 3/4 inch minimum cant of LIQUID BOOT®, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of LIQUID BOOT® membrane.**

e. Spray apply LIQUID BOOT® to a minimum thickness of 60 mils (100 mils if installing shotcrete walls). Remove any standing water.

f. Do not penetrate membrane. Keep membrane free of dirt and debris until concrete is in place. **It is the responsibility of the Contractor to insure that the membrane and the protection system are not penetrated.**

4. SEALING AROUND PENETRATIONS

a. Option 1

1. Clean all penetrations. All metal penetrations shall be sanded clean with emery cloth.

2. For applications requiring geotextile, roll out geotextile on sub-grade with the heat-rolled side facing up, overlapping seams a minimum of six inches (6"). Cut the geotextile around penetrations so that it lays flat on the sub-grade. Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of LIQUID BOOT® “A” side without catalyst within the seam overlap.

3. At the base of penetration install a minimum ¾ inch thick membrane cant of LIQUID BOOT®, or other suitable material as approved by manufacturer. Extend the membrane at a 60 mil thickness three inches (3") around the

base of penetration and up the penetration a minimum of three inches (3"). **Allow to cure overnight before the application of LIQUID BOOT® membrane (Refer to Details on Contract Drawings).**

4. Spray apply LIQUID BOOT® to a 60 mils minimum dry thickness around the penetration, completely encapsulating the collar assembly and to a height of one and one half inches (1 1/2") minimum above the membrane as described in step “c” above. Spray apply LIQUID BOOT® to surrounding areas as specified for the particular application **(Refer to Details on Contract Drawings).**

5. Allow LIQUID BOOT® to cure completely before proceeding to step "6".

6. Wrap penetration with polypropylene cable tie at a point two inches (2") above the base of the penetration. Tighten the cable tie firmly so as to squeeze, but not cut, the cured membrane collar.

b. Option 2

1. Clean all penetrations. All metal penetrations shall be sanded clean with emery cloth.

2. For applications requiring geotextile, roll out geotextile on sub-grade with the heat-rolled side facing up, overlapping seams a minimum of six inches (6"). Cut the geotextile around penetrations so that it lays flat on the sub-grade. Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of LIQUID BOOT® “A” side without catalyst within the seam overlap.

3. Spray apply LIQUID BOOT® to surrounding areas as specified for the particular application to a 60 mil minimum dry thickness. At the base of penetration install a minimum 3/4 inch thick membrane cant of LIQUID BOOT®, or other suitable material as approved by manufacturer. Extend the membrane at 60 mil thickness up the penetration a minimum of three inches (3"). **Allow to cure overnight before proceeding to step "4" (Refer to details on Contract Drawings).**

4. Spray apply LIQUID BOOT® at a 60 mil thickness three inches (3") around the base of penetration and up the penetration, completely encapsulating the collar assembly, to a height of one and one half inches (1 1/2") minimum above the membrane as described in step "3" above. **(Refer to details on Contract Drawings).**

5. Allow LIQUID BOOT® to cure completely before proceeding to step "6".

6. Wrap penetration with polypropylene cable tie at a point two inches (2") above the base of the penetration. Tighten the cable tie firmly so as to squeeze, but not cut, the cured membrane collar.

B. Geo-Seal **Follow the procedures below carefully.**

1. INSTALLATION ON CONCRETE/SHOTCRETE/MASONRY

a. Refer to Article 3.03.B.4, "Sealing Around Penetrations", for procedures to seal around penetrations.

b. At all horizontal to vertical transitions, or corners 120° and less, apply two coats of Geo-Seal CORE Detail (30 mil each) and embed a joint reinforcing polyester in preparation coat and apply a second coat over embedded

joint reinforcing strip ensuring its complete saturation and covering.

c. Applying the Geo-Seal CORE to "green" concrete (i.e. not fully cured) is acceptable and can be advantageous in creating a superior bond to the concrete surface. To help reduce blistering, apply a primer coat of only the asphalt component of the Geo-Seal CORE system and allow to set, then apply 60 mils of Geo-Seal CORE. Some blistering of the membrane will occur and may be more severe on walls exposed to direct sunlight. Blistering is normal and will subside over time. Using a needle nose depth gauge confirm that the specified mil thickness has been applied, and mark testing area for repair.

d. Set up spray equipment according to manufacturer's instructions. Mix and prepare materials according to manufacturer's instructions. Spray apply GEO-SEAL CORE to a 60 mil minimum dry thickness. Verify thickness every 100 ft^2 on a vertical concrete surface.

e. Do not penetrate membrane. Keep membrane free of dirt and debris and traffic until a protective cover is in place. **It is the responsibility of the Contractor to insure that the membrane and the protection system are not penetrated.**

f. After membrane has cured and has been checked and approved by the Contractor's Professional Engineer for proper thickness and flaws, install Geo-Seal BOND protection material pursuant to manufacturer's instructions.

NOTE: All testing or inspection to be performed prior to placing protection course.

g. **Vertical Surfaces:** Spray on vertical surfaces shall begin at the bottom and work towards the top. This method allows the

product to adhere to the surface before hitting catalyst runoff.

NOTE: Due to the nature of concrete as a substrate, it is normal for some blistering to occur. This is caused by either concrete's tendency to off-gas or water that is temporarily trapped between the concrete and the membrane. With time and the applied pressure of backfill, blisters will absorb into the concrete without detriment to the membrane.

A small number of blister heads should be sampled and checked for proper membrane thickness. If the samples have the minimum required membrane thickness (60 dry mils), then the remaining blisters should not be punctured or cut. If the samples have less than the minimum 60 dry mil required membrane thickness, then the area can either be resprayed to obtain the proper thickness, or the blisters can be cut out and the area resprayed or patched with Geo-Seal CORE Detail.

Spray Geo-Seal CORE to a 60 mil minimum dry thickness. After inspection, apply Geo-Seal FILM-16.

2. INSTALLATION ON SOIL AND GRAVEL

a. After approval, install the Geo-Seal BASE layer over substrate material in one direction with six-inch overlaps and the geotextile (fuzzy side) facing down. Secure the Geo-Seal BASE seams by applying 60 mils of Geo-Seal CORE between the 6” overlapped sheets and pressing the geotextile down.

Visually verify there are no gaps/fish-mouths in seams.

Install an equal amount of Geo-Seal BASE and Geo-Seal CORE in one day. Leaving unsprayed Geo-Seal BASE overnight might allow excess moisture to collect on the Geo-Seal BASE. If moisture collects it shall be removed.

NOTE: In windy conditions encapsulate the seam by spraying the Geo-Seal CORE layer over the completed Geo-Seal BASE seam.

b. Minimize the use of nails to secure the Geo-Seal Base Layer to the subgrade. Remove all nails before spraying membrane, if possible. Nails that cannot be removed from the subgrade are to be patched with Geo-Seal BASE layer overlapping the nail head by a minimum of two inches (2"). Apply a thin tack coat of Geo-Seal CORE under patch, when patching with Base Layer.

c. Refer to Article 3.03.B.4, "Sealing Around Penetrations", for procedures to seal around penetrations.

d. GEO-SEAL CORE APPLICATION

1. Set up spray equipment according to manufacturer’s instructions.

2. Mix and prepare materials according to manufacturer’s instructions.

3. Apply one spray coat of Geo-Seal CORE to obtain a seamless membrane free from pinholes or shadows, with a minimum dry film thickness of 60 mils (1.52 mm).

4. Apply the Geo-Seal CORE layer in a spray pattern that is perpendicular to the application surface.

5. Verify film thickness of gas vapor barrier every 500 ft^2 (46.45 m^2), for information regarding Geo-Seal quality control measures, refer to the Geo-Seal Applicator Training Manual QA/QC developed by the manufacturer.

6. The membrane will generally cure in 24 to 48 hours. As a rule, when temperature decreases or humidity increases, the curing of the membrane

will be prolonged. The membrane does not need to be fully cured prior the placement of the Geo-Seal BOND layer, provided mil thickness has been verified and a smoke test has been completed.

7. **Do not penetrate** membrane after it has been installed. If membrane is penetrated after the membrane is installed, it is the responsibility of the Contractor to notify the certified installer to make repairs.

8. If applying to a vertical concrete wall, apply Geo-Seal CORE directly to concrete surface and use manufacturer's recommended protection material based on site specific conditions. If applying Geo-Seal against shoring, contact manufacturer for site specific installation instructions.

   NOTE: Care should be taken to not trap moisture between the layers of the spray applied membrane. Trapping moisture may occur from applying a second coat prior to the membrane curing. Repairs and detailing may be done over the Geo-Seal CORE layer when not fully cured when using Geo-Seal CORE Detail.

9. After membrane has been checked and approved by the Contractor's Professional Engineer for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

   NOTE: All testing and inspection to be performed prior to placing the Geo-Seal BOND.

3. BLIND SIDE INSTALLATION (If Necessary)

If applying Geo-Seal against shoring (blindside), the Geo-Seal DRAIN must first be attached to the shoring surface using specialty nails, such as

Delta Fasteners coupled with 1″ or ½″ galvanized or stainless steel nails, provided by the manufacturer. The Geo-Seal CORE is then applied to a 60 mil minimum dry thickness. Shotcrete may be applied directly to the membrane or concrete may be cast in place. Job specific details are generally developed to address job specific conditions as shoring methods and conditions can vary.

4. SEALING AROUND PENETRATIONS

   a. All pipe penetrations shall be securely in place prior to the installation of the Geo-Seal system. Loose penetrations shall be secured prior to Geo-Seal application, as loose penetrations could potentially exert pressure on the membrane and damage the membrane after installation.

   b. To properly seal around penetrations, cut a piece of the Geo-Seal BASE layer that will extend 6″ beyond the outside perimeter of the penetration. Cut a hole in the Geo-Seal BASE layer just large enough to slide over the penetration, ensuring the Geo-Seal BASE layer fits snug against the penetration, this can be done by cutting an “X” no larger than the inside diameter of the penetration. There shall not be a gap larger than a 1/8″ between the Geo-Seal BASE layer and the penetration. Other methods can also be utilized, provided, there is not a gap larger than 1/8″ between the Geo-Seal BASE layer and the penetration.

   c. Seal the Geo-Seal BASE layer using Geo-Seal CORE or Geo-Seal CORE Detail to the underlying Geo-Seal BASE layer.

   d. Apply one coat of Geo-Seal CORE Detail or Geo-Seal CORE spray to the Geo-Seal BASE layer and around the penetration at a thickness of 30 mils. Penetrations should be treated in a 6-inch radius around penetration and 3 inches onto penetrating object.

e. Embed a Geo-Seal reinforcing fabric strip after the first application of the Geo-Seal CORE spray or Geo-Seal CORE Detail material and then apply a second 30 mil coat over the embedded joint reinforcing strip ensuring its complete saturation of the embedded strip and tight seal around the penetration.

f. After the placement of the Geo-Seal BOND layer, a cable tie should then be placed around the finished penetration. The cable tie should be snug, but not overly tight so as to slice into the finished seal.

A final application of Geo-Seal CORE shall be used to provide a finishing seal after the Geo-Seal BOND layer has been installed.

Use Geo-Seal FILM-16 for vertical applications as shown on Drawing H202.00.

NOTE: Metal or other slick penetration surfaces may require treatment in order to achieve proper adhesion. For plastic pipes, sand paper may be used to achieve a profile, an emery cloth is more appropriate for metal surfaces. An emery cloth should also be used to remove any rust on metal surfaces.

5. PREPARATIONS AND TREATMENT OF TERMINATIONS

a. Prepare the substrate surface in accordance with Article 3.02.B of this section. Concrete surfaces that are not a light trowel, light broom or equivalent finish, shall be repaired to achieve the necessary light trowel, light broom or equivalent finish. A cementitous non-shrink grout or other concrete repair material approved by the manufacturer may be used to achieve specified concrete finish.

b. Terminations on horizontal and vertical surfaces shall extend 6″ onto the termination surface. Job specific conditions may prevent a 6″ termination. In these conditions, contact manufacturer for recommendations.

c. Apply 30 mils of Geo-Seal CORE to the terminating surface and then embed the Geo-Seal BASE layer by pressing it firmly into the Geo-Seal CORE layer. Next, apply 60 mils of Geo-Seal CORE to the BASE layer. When complete, apply the Geo-Seal BOND layer. After the placement of the Geo-Seal BOND layer is complete, apply a final 30 mil seal of the Geo-Seal CORE layer over the edge of the termination. For further clarification, refer to the termination detail provided by manufacturer.

d. The stated termination process is appropriate for terminating the membrane onto exterior footings, pile caps, interior footings and grade beams. When terminating the membrane to stem walls or vertical surfaces the same process should be used.

3.04 FIELD QUALITY CONTROL

Field Quality Control is a very important part of all fluid applied gas vapor barrier system applications. Applicators should check their own work for coverage, thickness, and all around good workmanship before calling for inspections.

All fluid applied gas vapor barrier systems must be installed by a certified installer as defined in Section 1.04

For Liquid Boot applications, the membrane must be cured at least overnight before inspecting for dry-thickness, holes, shadow shrinkage, and any other membrane damage. If water testing is to be performed, allow the membrane to cure at least 72 hours prior to the water test.

When thickness or integrity is in question the membrane should be tested in the proper manner as described below. However, over-sampling defeats the intent of inspections. Inspectors should always use visual and tactile measurement to guide them. Areas suspected of being too thin to the touch should be measured with the gauges to determine the exact thickness.

A minimum of one (1) sample per five hundred square feet of applied material shall be observed by the Contractor's Professional Engineer.

A. Liquid Boot

1. ON CONCRETE/SHOTCRETE/MASONRY & OTHER HARD SURFACES

   a. Membrane shall be checked for proper thickness with a blunt-nose depth gauge, taking one reading every 500 square feet. Record the readings. Mark the test area for repair, if necessary.

   b. Test areas are to be patched over with LIQUID BOOT® to a 60 mils minimum dry thickness, extending a minimum of one inch (1") beyond the test perimeter.

2. ON SOIL, GRAVEL AND SOFT SUBSTRATES

   a. Coupon samples shall be cut from the membrane and geotextile sandwich to a maximum area of 2 square inches. Measure the thickness with a mil-reading caliper, minimum once per every 500 square feet. Deduct the plain geotextile thickness to determine the thickness of LIQUID BOOT® membrane. Mark the test area for repair. Readings shall be recorded on the Coupon Sampling and Smoke Testing Log by Contractor's Professional Engineer.

   b. Voids left by sampling are to be patched with geotextile overlapping the void by a minimum of two inches (2") in all directions. Apply a thin tack coat of LIQUID BOOT® under the geotextile patch. Then spray or trowel apply LIQUID BOOT® to a 60 mils minimum dry thickness, extending at least three inches (3") beyond geotextile patch.

3. SMOKE TESTING FOR HOLES

All Gas Vapor Barriers shall be Smoke Tested in accordance with the following protocol:

a. The gas vapor membrane shall be visually inspected. Any apparent deficiencies and/or installation problems shall be corrected prior to Smoke Testing.

b. Smoke Testing of the LIQUID BOOT® membrane shall be conducted by Approved LIQUID BOOT® Installer and observed by the Contractor's Professional Engineer and by a representative of the CID.

c. The date, time, testing reference area, temperature, wind speed/direction, and cloud cover shall be recorded on the Smoke Testing Record. The ambient air temperature at the time of testing should be in excess of 45° F and the wind speed at ground level should be 15 mph or less. (Note: visual identification of leaks becomes more difficult with increasing wind speed.)

d. Delineate a smoke testing area of 2,000 to 5,000 square feet (maximum). Assemble and situate smoke testing system to inject smoke beneath membrane. Only inert, non-toxic smoke is to be utilized for membrane Smoke Test.

e. Designate testing control areas by cutting openings in an "X" pattern (min. 4" X 4") in the membrane at selected locations. Mark testing control areas for identification prior to conducting the smoke test.

f. Activate smoke generator / blower system (nominal 150 – 950 cfm). Apply sufficient pressure as to ensure that smoke will permeate the designated testing area. For verification, ensure that smoke is leaking through testing control areas.

g. Pump smoke beneath the membrane (minimum 1 to 2 minutes). Observe for leaks in the

membrane. Reduce pressure / flow rate if excessive lifting of the membrane occurs.

h. Thoroughly inspect entire membrane surface within area delineated for testing. Use marking device as approved by CETCO Liquid Boot Company to mark / label any leak locations. Mark / label leak locations on floor plan and corresponding testing reference area.

i. Repair leak locations marked in step h by spraying LIQUID BOOT® or using trowel grade LIQUID BOOT®.

j. Repeat step #’s g, h, and i, as necessary to confirm integrity of the membrane.

k. Readings shall be recorded on the Coupon Sampling and Smoke Testing Log by the Contractor’s Professional Engineer. Once the membrane has passed the smoke test inspection, the successful completion shall be documented and documentation signed and sealed by the Contractor’s Professional Engineer shall be furnished to the Authority. Approval by the Authority’s Construction Inspection Division shall also be required.

B. Geo-Seal

To expedite construction, the membrane may be inspected for thickness and smoke tested before the CORE is fully cured.

1. ON CONCRETE/SHOTCRETE/MASONRY

a. Membrane shall be checked for proper thickness with a needle-nose depth gauge, taking one reading every 500 square feet. Record the readings. Mark the test area for repair.

b. Test areas are to be patched over with Geo-Seal CORE to a 60 mils minimum dry thickness, extending a minimum of two inches (2") beyond the test perimeter.

2. ON SOIL AND GRAVEL

   a. Coupon samples shall be cut from the membrane and geotextile sandwich to a maximum area of 3 square inches. Measure the thickness with a mil-reading caliper, minimum once per every 500 square feet. Deduct the Geo-Seal BASE layer to determine the thickness of Geo-Seal CORE layer. Mark the test area for repair. Readings shall be recorded on the Coupon Sampling and Smoke Testing Log by Contractor's Professional Engineer.

   b. Voids left by sampling are to be repaired by applying a Geo-Seal CORE tack coat 9" around the void. Cut a square piece of Geo-Seal BASE that extends 6" beyond the void and place GEO-SEAL BASE (fabric side down) into the tack coat of Geo-Seal CORE by pressing firmly. Apply a minimum 60 mil dry thickness Geo-Seal CORE layer to the Geo-Seal BASE, thus encapsulating the Geo-Seal BASE layer.

   c. Thickness readings may be taken while the membrane is still wet and before full cured. To obtain a proper wet mil thickness reading, take into account the up to 10 percent shrinkage that will occur as the membrane fully cures. Not taking into account the thickness of the sheet layers, a freshly sprayed membrane should have a minimum wet thickness of 66 (10%) mils.

   d. Methods on how to properly conduct Geo-Seal CORE thickness sampling can be obtained by reviewing literature prepared by Land Science Technologies.

3. SMOKE TESTING FOR HOLES

   All Vapor intrusion Barriers shall be Smoke Tested in accordance with the following protocol:

   This test is intended to visually verify and confirm the proper installation of the Geo-Seal

system. Land Science Technologies requires a smoke test on all projects in order to obtain a warranty.

Smoke testing should occur after the Geo-Seal CORE layer has been installed and mil thickness verified. Smoke testing may occur after the Geo-Seal BOND layer is installed, if approved by the Authority. Follow these steps:

a. Smoke Testing of the membrane to be observed by the Contractor's Professional Engineer and by a representative of the CID.

b. One smoke test can cover between 2000-3000 square feet per test. However, coverage will greatly depend on the permeability of the subgrade under the membrane. Use the first couple of smoke tests to help determine how much area each smoke test will cover.

c. Visual verification of soundness of seams, terminations and penetrations should be performed. Identify/correct any apparent deficiencies and/or installation problems.

d. Note time, date, project name, inspector name, temperature and weather conditions on testing log. In addition, record humidity, barometric pressure, and wind speed/direction. Confirm wind speed is below 15 mph. Visual identification of leaks becomes more difficult with increasing wind speed.

e. Assemble/connect smoke testing system to the sub-slab vent riser. Cap other vent outlet(s) not being used. If the installation has no sub-slab vent system or the membrane is isolated from the vent system, connect the smoke testing system directly to the membrane using a temporary boot collar or other method. Insert the smoke test hose into coupon sampling locations, creating a seal around the smoke test hose with a rag.

f. Activate the smoke generator/blower system and connect to sub-slab vent riser or directly to the membrane.

g. To confirm the adequate flow of smoke under the membrane cut a 2″ vent in the membrane to facilitate the purging of air pockets under it. If working properly, smoke will consistently flow though the 2″ vent. If a low rate of smoke flow is observed it is an indication of poor smoke flow under the membrane. If low flow does occur, insert the smoke testing hose into the 2″ membrane vent.

h. Mark sampling locations with fluorescent paint or chalk for repair.

i. Maintain operation of smoke generator/blower system for at least 15 minutes following purging of membrane. Thoroughly inspect entire membrane surface. Use fluorescent paint or chalk to mark/label any leak locations. Mark/label leak locations on testing log. NOTE: The duration of the smoke test will vary depending on the size of the area being tested. To help determine the duration, monitor the pressure building up under the membrane. If excessive lifting of the membrane occurs, decrease the duration or pressure of the smoke test.

j. Prepare membrane inspection log. Identify the type of leak found, i.e. poor seal around penetration, fish-mouth, puncture, etc.

k. Repair leak locations marked in step h and step i.

l. Repeat steps d through j as necessary to confirm the integrity of the membrane.

m. Complete the smoke testing inspection form indicating the successful completion of the smoke test.

n. Readings shall be recorded on the Coupon Sampling and Smoke Testing Log by the Contractor's Professional Engineer. Once the membrane has passed the smoke test inspection, the successful completion shall be documented and documentation signed and sealed by the Contractor's Professional Engineer shall be furnished to the Authority. Approval by the Authority's Construction Inspection Division shall also be required.

4. Post Installation Inspection

After inspector signs off on the membrane installation and workers begin to install the rebar, it is recommended to conduct a visual inspection prior to the pouring of concrete. Damages are most likely to occur during this time and it is imperative that punctures are indentified prior to the placement of the slab. The system configuration of Geo-Seal, the top white Geo-Seal BOND layer with a middle black layer, will make rebar punctures easy to identify when conducting a visual inspection.

3.05 PROTECTION

A. Liquid Boot

1. The gas vapor barrier shall be protected in accordance with manufacturer's recommendations to prevent disturbance, damage or deterioration by work of other trades or environmental conditions. Protect gas vapor barrier from damage during installation of reinforcing steel and utilities and during placement of concrete slab or granular materials. Sharp angular backfill materials shall not be placed immediately against the vapor barrier.

2. Contractor's Professional Engineer shall visually inspect the condition of the gas vapor barrier immediately prior to placing the overlying protective layer or below-grade wall backfill. All damage to the installed gas vapor barrier shall be repaired in accordance with

manufacturer’s recommendations at the Contractor's expense prior to placement of concrete or backfill.

3. Ensure there is no moisture entrapment by vapor barrier due to rainfall or ground water intrusion. If moisture entrapment is present Contractor shall implement procedures for removal of moisture and to prevent re-occurrence. Contractor’s Professional Engineer’s approval of drying procedures shall be required prior to implementation.

4. Protect reinforced vapor barrier from damage until covered by finish wall, floor, etc.

5. Immediately repair damaged vapor barrier and components of vapor barrier system in accordance with manufacturer’s instructions. Contractor’s Professional Engineer’s approval of repair procedures shall be required prior to implementation.

B. Geo-Seal

1. Install Geo-Seal BOND protection course perpendicular to the direction of the Geo-Seal BASE course with overlapped seams over nominally cured membrane after membrane has been inspected and before starting subsequent construction operations. Use Geo-Seal FILM-16 as protection course for vertical applications as shown on the Contract Drawings.

2. Sweep off any water that has collected on the surface of the Geo-Seal CORE layer, prior to the placement of the Geo-Seal BOND or FILM-16 layer.

3. Overlap and seam the protection layer in a similar manner as specified for the Geo-Seal BASE layer by spraying over the seam of the overlap.

4. To expedite the construction process, the Geo-Seal BOND or FILM-16 layer can be placed over the Geo-Seal CORE immediately after the spray application is complete, provided the Geo-Seal CORE mil thickness has been verified (and smoke

testing at horizontal applications) has been satisfactorily completed.

5. Immediately repair damaged vapor barrier and components of vapor barrier system in accordance with manufacturer's instructions. Contractor's Professional Engineer's approval of repair procedures shall be required prior to implementation.

3.06 WARRANTY

A. The manufacturer and installer shall provide separate written warranties to the Authority as specified in Article 1.08 of this section.

3.07 LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Submittal Schedule		
Inspection Schedule		
Product Data and Installation Instructions:		
Shop Drawings		
PE Certification		
Samples:		
Liquid Boot		
1. Gas Vapor Barrier Membrane Material		
2. Protection Materials		
3. Geotextiles and Fabrics		
Geo-Seal		
1. Vapor Intrusion Barrier System Sample		
2. Geo-Seal Base Layer		
3. Geo-Seal Bond Layer		
4. Geo-Seal FILM-16		
Material Test Reports		
Certification of Compliance		
Inspection Certification Reports (Coupon Sampling and Smoke Testing Log)		
Resume of Professional Engineer		
Professional Engineer’s Report on Inspection and Approval of Work		
Warranties:		
Manufacturer’s Warranty		
Installer’s Warranty		

END OF SECTION

* * *

SECTION 02221
SUB-SLAB DEPRESSURIZATION SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Furnish and install a sub-slab depressurization system (SSDS) as specified, as shown on the Drawings, and as directed by the Authority. The Contractor shall furnish and install a SSDS complete and ready for use. The SSDS shall depressurize the entire gas permeable aggregate-filled space beneath the building floor slabs (as shown on the Drawings), creating a differential pressure: lower pressure in the gas permeable aggregate layer below the floor slabs than in the building interior. The SSDS shall be connected to and monitored by the Building Management System (BMS) in accordance with Specification Sections 15970 and 15880.

B. Furnish and install a geotextile placed directly on the compacted subbase, and a minimum 12-inch thick gas permeable aggregate layer beneath the entire floor slabs with seven (7) sub-slab depressurization pits. Each sub-slab depressurization pit ("sub-slab pit") shall connect to a 6-inch diameter vertical riser extending through the building and above the roof. One suction fan shall be installed above the roof at the termination of each vertical riser. (A total of two vertical risers and two suction fans shall be furnished and installed, and one additional spare suction fan shall be delivered to the Authority.)

C. The Contractor shall furnish and install as part of the SSDS, six (6) sub-slab monitoring points.

D. Furnish, install, and test all system components as indicated, specified and required in the Contract Documents, as shown on the Drawings and as directed by the Authority.

E. All materials and equipment furnished under this section shall be new, in first-class condition, supplied directly from original equipment manufacturers, and installed in accordance with the manufacturers' recommendations.

F. Perform and certify results of inspections and tests as specified.

1.02 RELATED SECTIONS

A. Environmental Site Assessment Reports.....Section 02010

B. Earthwork.....Section 02200

C. Gas Vapor Barrier (Fluid Applied).....Section 02220

D. Coordination for Environmental Remediation.....Section 02222

E. Tags, Charts and Identification.....Section 15431

F. Sub-Slab Depressurization System Accessories .....Section 15880

G. Temperature Control System (LonWorks BMS/DDC with School Operating Console).....Section 15970

H. Mechanical.....Division 15

I. Electrical.....Division 16

1.03 STANDARDS AND REGULATIONS

A. Comply with applicable portions of the Building Code of the City of New York. Where requirements for products, materials, equipment, methods and other portions of the work specified herein exceed minimum requirements of New York City Building Code, Contractor shall comply with such requirements specified herein, unless specifically approved otherwise by the Authority.

B. Standards issued by the organizations listed below may be referenced in this section.

1. American Society for Testing and Materials (ASTM)

2. American Standards Association (ASA)

3. American National Standards Institute (ANSI)

1.04 RESTRICTIONS AND QUALITY CONTROL

A. Pre-installation Meeting: The Contractor shall arrange for and convene a pre-installation meeting prior to the start of work of this section to review installation procedures, protection, and coordination with other work.

Attendance of parties directly affecting work of this section, including representatives of the Construction Inspection Division (CID), Industrial and Environmental Hygiene Division (IEH), designer of the SSDS, Contractor, Contractor's Professional Engineer, and Contractor's installer shall be required. The Contractor shall schedule the pre-installation meeting at a time and at a location that is agreeable to the Architect/Engineer, CID and IEH Division. The meeting shall be held on a date which is a minimum of ten (10) business days prior to start of the work of this section.

B. Inspection: Contractor shall provide a New York licensed Professional Engineer with experience and qualifications to approve the work, independent of the installer, to conduct the inspection of the SSDS installation. This is not the Authority's responsibility. Authority approval of qualifications of licensed Professional Engineer shall be required prior to the inspection.

C. Quality Control Inspections may be performed throughout the installation by the Authority or its authorized representative as deemed necessary or appropriate by the Authority.

D. Contractor to verify that all SSDS stack exhaust locations are a distance of 25 feet or more from any air intakes and operable windows (including those of adjoining properties). Final locations and heights of exhaust stacks shall be in accordance with NYC Building Code requirements and the requirements of the Contract Documents.

1.05 SUBMITTALS

A. Approval by the IEH Division of the Authority of submittals of this section shall be required prior to start of the related work of this section, as applicable.

B. The Contractor shall submit to the Authority within ten (10) business days of Notice to Proceed a schedule showing the following for each submittal of this section: date of delivery of submittal to the Authority, anticipated time for Authority review, and required date of Authority approval in order to maintain project schedule. Approval by the IEH Division of the submittal schedule shall be required. Any changes in the schedule must be provided to the IEH Division at least 24 hours prior to the change.

C. The Contractor shall submit to the Authority a schedule showing dates for each inspection specified in Article 3.01(A) of this section.

D. Product Data: Submit manufacturers' product data, including installation instructions for:

1. Cleanout Test Tee
2. Non-woven geotextile
3. Pipes and fittings
4. Pipe sleeve seals
5. SSDS pipe warning barrier

E. Samples - Submit representative samples of the following for approval:

1. Non-woven Geotextile

F. Submit Shop Drawings for monitoring points and all piping installations. A to-scale plan showing locations of all sub-slab pits and piping, pipe and pit invert elevations, and condensate drains shall be submitted. Materials of construction for all parts of monitoring points shall be shown on shop drawings. Details for installation of cleanout test tees shall be submitted.

G. Pipe Schedule: Itemize pipe and fitting materials for each specified application.

H. Material Test Reports: Indicate and interpret test results for compliance of materials with requirements indicated, as applicable.

I. Resume of Professional Engineer, licensed to practice in the State of New York, to perform milestone inspections, and certify proper installation of SSDS. The Contractor's Professional Engineer shall perform each of the milestone inspections identified in 3.01(A) of this section.

J. Report on Professional Engineer's inspection and approval of the work of this section. The Professional Engineer shall provide a certification, signed and sealed, stating that all work was performed in accordance with the requirements of this section and the Contract Drawings. The certification shall explicitly state that the Professional Engineer: (i) supervised inspections of tests which demonstrated installation of an SSDS for preventing intrusion of vapors into the entire new

construction and (ii) confirmed that the pressure switches operate properly and notify the BMS when the sub-slab depressurization system is not operating as designed. The certification shall include photographs and field logs as attachments along with documentation of all milestone inspections.

K. Warranties from manufacturers for all products.

L. Certification prepared by the Contractor that states that SSDS suction fan exhaust stacks have been installed a minimum of 25 feet away from any building air intake and operable window.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturers' original, unopened container and packaging, with labels clearly identifying product and manufacturer.

B. Store materials in a clean, dry area in accordance with manufacturers' instructions.

C. Protect materials during handling and installation to prevent damage.

D. Delivery, Storage and Handling of Pipe Materials:

1. Deliver pipe materials properly protected, and undamaged.

2. Properly protect all piping to prevent damage to the pipe and the introduction of foreign material into the pipe. For protecting piping from pre-installation contamination, all piping shall be shipped to job site with suitable caps, sheet metal covers or plugs. Pipe caps shall not be removed until just before installation.

3. Examine all pipe and fittings before laying pipe. Do not install any piece that is found to be defective. Protect all materials during handling and installation to prevent damage.

PART 2 - PRODUCTS

2.01 MATERIALS AND ACCESSORIES

A. NON-WOVEN GEOTEXTILE

Geotextile material to be placed on prepared subgrade below the gas permeable aggregate layer shall be a non-woven polypropylene type, such as Mirafi N-Series product type 140NL or approved equal and having the following properties:

Property/Test Method	Units	Value
MECHANICAL PROPERTIES		
Grab Tensile Strength		
ASTM D 4632	kN (lbs)	0.40 (90)
Grab Tensile Elongation		
ASTM D 4632	%	50
Mullen Burst Strength		
ASTM D 3786	kPa (psi)	1205 (175)
Trapezoidal Tear Strength		
ASTM D 4533	kN (lbs)	0.18 (40)
Puncture Strength		
ASTM D 4833	kN (lbs)	0.2 (55)
UV Resistance at 500 hrs.		
ASTM D 4355	% Strength retained	70
HYDRAULIC PROPERTIES		
Apparent Opening Size (AOS)		
ASTM D 4751	mm (US Sieve)	0.25 (60)
Permittivity		
ASTM D 4491	sec-1	2.0
Flow Rate		
ASTM D 4491	L/min/m2 (Gal/min/ft2)	5907 (145)
NOTE: All Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV).		

B. Cold Joints, Cracks, Form Tie Holes: Use Geo-Seal CORE Detail with reinforcing strip (Geo-Seal Reinforcement fabric**)**.

C. GAS PERMEABLE AGGREGATE LAYER

Gas permeable aggregate layer shall be as specified in Section 02200.

D. SUB-SLAB PITS, PIPE, AND APPURTENANCES

1. Install sub-slab depressurization pits as shown on the Contract Drawings. The sub-slab depressurization pits shall be 4-foot by 4-foot in area. Pits shall be constructed with solid concrete blocks supporting and covered by 2-inch thick precast concrete plates reinforced with No. 4 rebar 4-inches on center each way, or an equivalent welded wire fabric of equal size, throughout the center of the plate.

2. Pits shall be constructed with 4-inch thick and 5-foot by 5-foot in area precast concrete base plates as shown on the Contract Drawings. Four (4) drainage holes, each 1-inch in diameter, shall be provided in each base plate. One drainage hole shall be near the inlet of each suction pipe. Each plate shall be reinforced with No. 4 rebar 4-inches on center each way, or an equivalent welded wire fabric of equal size, throughout the center of the plate.

3. Pipe shall be installed as shown on the Drawings and shall terminate in and slope uniformly to each of the sub-slab depressurization pits. Condensate drains must be installed at all low points in the piping not sloped directly to sub-slab depressurization pits.

E. MONITORING POINTS

1. Monitoring points shall be installed through the floor slabs and shall be constructed with 1-inch diameter solid-wall Schedule 80 PVC pipe as shown on the Drawings. Penetrations through floor slabs for monitoring points shall be air-tight and completed monitoring points shall be air-tight, preventing the potential for migration of gas from the sub-slab into the building.

2. Sub-slab monitoring points shall terminate two (2) inches below the top of the gas permeable aggregate layer.

3. Access cover shall be flush mounted 6-inch diameter cast iron cleanout manufactured by Jay R. Smith Manufacturing Co. #4231L or approved equal.

4. One-inch diameter PVC pipe shall be completed with 1-inch diameter threaded PVC cap with quick connect fitting as shown on the Drawings.

5. Quick-connect fitting with ¼-inch threads, shut off valve and viton seal as manufactured by Landfill Control Technologies (Landtec) or approved equal shall be installed in PVC caps.

6. Label each monitoring point with engraved metal tag on chain around PVC pipe with: “SSDS MONITORING POINT”. Letter height shall be 1/4-inch minimum.

F. GAS VAPOR BARRIER (FLUID APPLIED)

Fluid Applied Gas Vapor Barrier System shall be as specified in Section 02220 Gas Vapor Barrier (Fluid Applied).

G. PIPE AND RELATED ACCESSORIES

1. Pipe, fittings, unions, cleanouts, sleeves, supports, and related accessories shall be furnished in accordance with the requirements for plumbing sanitary vent piping in Division 15, unless otherwise specified.

2. SSDS pipe warning barrier shall be 1-foot wide strip of safety orange plastic fence.

H. SUCTION FANS

Refer to Section 15880 Sub-Slab Depressurization System Accessories for suction fan requirements. A total of two (2) suction fans and related accessories shall be furnished and installed. Additionally one (1) spare fan in manufacturer’s original packaging shall be delivered to the site as directed by the Authority.

I. GENERAL

Provide additional installation accessories as necessary for a complete SSDS, ready for use. Ensure accessories are from same manufacturers as specified products. Furnish all manufacturer recommended accessories.

J. CONDENSATE DRAINS

1. Condensate drains shall be installed at all low

points in SSDS piping not sloped to pits.

2. Condensate drains shall be of the same construction as SSDS piping and shall be constructed as shown on the Contract Drawings.

PART 3 - EXECUTION

3.01 EXAMINATION/INSPECTION

At a minimum, inspection by and approval from the Contractor's Professional Engineer at all milestones identified on the following Inspection Schedule shall be required prior to commencing each subsequent phase of work. The interior riser pressure testing as described in Article 3.01(B) must be performed in the presence of a representative of the Authority's CID Department. Additional inspections, examinations and quality control measures may be required in accordance with manufacturers' recommendations and are the responsibility of the Contractor. The Authority reserves the right to perform additional inspections or quality control tests as deemed necessary by the Authority at any point during the construction process at no additional cost to the Authority.

A. INSPECTION SCHEDULE

#	**Inspection Schedule – Milestone Description**
1	Completion of Subbase preparation following foundation and footing installation and installation of geotextile.
2	Delivery to the site of gas permeable aggregate layer, prior to use.
3	Installation of sub-slab depressurization pit and riser "stub-out" prior to completion of gas permeable aggregate layer.
4	Completion of installation of gas permeable aggregate layer.
5	Completion of all SSDS subsurface components prior to installation of base fabric above gas permeable aggregate layer.
6	Completion of installation of all portions of interior risers prior to enclosure within sheetrock/interior walls.
7	Implementation of pressure tests of completed interior riser pipes. **See Article 3.01(B) regarding test requirements.**
8	Installation of suction fans and accessories in accordance with Section 15880.

#	**Inspection Schedule – Milestone Description**
9	Start-up of completed system.
10	Connection of pressure switches to BMS and testing.
11	Confirmation of BMS programming and testing.

MATERIALS COVERED WITHOUT CONTRACTOR'S PROFESSIONAL ENGINEER INSPECTION AND APPROVAL SHALL BE UNCOVERED FOR PROPER INSPECTION AT NO COST TO THE AUTHORITY. NOTE: DEPENDING ON CONSTRUCTION SEQUENCE, MULTIPLE SITE VISITS MAY BE REQUIRED FOR EACH INSPECTION.

B. INTERIOR RISER PRESSURE TESTING

1. The interior vertical risers shall be subject to a pressure test to ensure all components of the SSDS that pass through the building interior are airtight at 5.0 psig air pressure.

2. A cleanout shall be permanently installed on each riser pipe with invert 12-inches above finished floor of the pipe entry into the building interior and below the cleanout shall be an uninterrupted straight pipe run, without couplings, joints or fittings. A pressure-stop balloon shall be inflated within the riser between the foundation floor and the cleanout creating an airtight seal. A temporary airtight seal shall be placed at the riser termination. A static pressure of at least 5.0 psig shall be applied to the pipe at the cleanout locations and maintained for a minimum of 30 minutes. All materials, gauges and equipment for this test shall be provided by the Contractor. All test equipment provided must be certified in accordance with Section 15414 Article 2.01(B). Pressure testing must be witnessed by controlled inspection and the Authority.

3. If any pipe riser does not successfully maintain pressure, it is the responsibility of the Contractor to identify and seal all leaks. The test shall be performed until results satisfactory to the inspector are demonstrated.

4. Caution: Materials under pressure can explode, causing serious injury or death. Extreme care should be exercised in conducting any air test. Persons conducting an air test must exercise care to avoid application of pressure above 6 psig to the system under test by using appropriate pressure

regulation and relief devices. Persons conducting the test are cautioned to inspect for tightness of all system components prior to beginning the test and to avoid adjustment of the system while under pressure. Proper protective equipment should be worn by individuals in any area where an air test is being conducted.

C. BMS TESTING

Prior to Authority acceptance of the SSDS the Contractor must demonstrate to the satisfaction of the Authority that the SSDS pressure switches are operating properly and properly connected to the BMS. In the presence of a representative of the Authority's IEH Division, each suction fan must be individually manually switched on and off and the BMS must show that when the suction fan is switched off each pressure switch is indicating an alarm signal, corresponding to the appropriate fan, on the BMS.

3.02 SURFACE PREPARATION

Preparation of all surfaces prior to the installation of the SSDS shall be as specified in the Contract Documents and Plans.

3.03 INSTALLATION

All components of the SSDS shall be installed as specified in the Contract Documents, as shown on the Drawings and as directed by the Authority.

A. INSTALLATION OF THE GEOTEXTILE ABOVE PREPARED SOIL SUBGRADE

Following the completion of the building foundation walls and footings, the subbase shall be excavated to the depth required to install the gas permeable aggregate layer below the elevation of the bottom of the floor slabs to the extent of the SSDS, as shown on the Contract Drawings. The non-woven geotextile shall be placed on the subbase, overlapped and secured in accordance with the manufacturer's recommendations.

B. INSTALLATION OF THE GAS PERMEABLE AGGREGATE AND SUB-SLAB DEPRESSURIZATION SYSTEM PITS

1. The gas permeable aggregate layer shall be placed

and compacted directly below the lowest level concrete slabs as shown on the Contract Drawings.

2. The sub-slab pits and pipe shall be assembled and installed as shown on the Contract Drawings.

3. Following inspection, gas permeable aggregate shall be placed and compacted to the bottom of the lowest level slabs, as shown on the Drawings.

C. APPLICATION OF THE FLUID APPLIED GAS VAPOR BARRIER

The fluid applied gas vapor barrier shall be installed as specified in Section 02220 Gas Vapor Barrier (Fluid Applied).

D. INSTALLATION OF PIPING, RISERS AND RELATED WORK

1. The risers shall be as identified in the Contract Documents and Drawings. The risers shall be installed, tested, labeled and enclosed in the interior wall cavities.

2. The installation of piping, fittings, joints, supports and related accessories shall be in accordance with the requirements of Division 15, unless specified otherwise.

3. Each suction fan exhaust shall be completed with a no-loss stack. The no-loss stacks shall be installed in accordance with the Contract Drawings.

4. Interior pipe shall be identified in accordance with the requirements of Section 15431. Background shall be safety blue with white lettering and shall be provided on all interior riser pipes beginning at the floor slab elevation and continuing to the installation of the suction fan above the roof. The lettering shall read:

CAUTION: DO NOT ALTER
SUBSURFACE VAPOR VENT PIPE

5. Piping (General)

a. The run and arrangements of all pipes shall be approximately as shown on drawings or specified and as directed during installation, and shall be as straight and direct as

possible, forming right angles or parallel lines with building walls and other pipes, and neatly spaced.

b. Roughing underground or concealed in the floor or wall construction shall be properly installed and inspected before any of the roughing is covered up. Should any work be covered up before being inspected and tested as specified, it shall be uncovered and recovered at the expense of the Contractor.

c. SSDS pipe warning barrier shall be installed above all SSDS piping.

6. Cleanout

The cleanout installed on each sub-slab depressurization riser shall be equivalent size of the riser diameter to facilitate pressure testing. The cleanout shall be gas tight. Provide access panel for each cleanout.

7. Sleeves for Pipes and Escutcheon Plates

Install pipe sleeves and escutcheon plates in accordance with requirements of Division 15.

8. Riser Piping

Each riser pipe shall be equipped with a vacuum gauge, sample tap, cleanout and pressure switch as indicated on the Drawings and installed in accordance with Section 15880. Install access panel for cleanout near bottom of each vertical riser as shown on the Contract Drawings.

3.04 PROTECTION

It is the responsibility of the Contractor to ensure that no damage occurs to components of the SSDS prior to, during or following installation of the system, or during any subsequent performance of construction for the facility. This includes the installation of all subsurface utilities required for building systems. Contractor's Professional Engineer shall visually inspect the condition of the SSDS immediately prior to enclosing/covering. Any damages to the SSDS during performance of the Work shall be repaired and tested at no additional cost to the Authority.

LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Submittal Schedule		
Inspection Schedule		
Product Data:		
1. Cleanout Test Tees		
2. Non-Woven Geotextile		
3. Pipes and Fittings		
4. Pipe Sleeve Seals		
Samples:		
1. Non-Woven Geotextile		
Shop Drawings:		
1. Sub-Slab Pits		
2. Monitoring Points		
3. Piping Installations		
4. Cleanout Test Tee Installation		
Schedule:		
Pipe and Fittings		
Material Test Reports		
Resume of Professional Engineer		
Professional Engineer’s Report on Inspection and Approval of Work		
Manufacturers’ Warranties		
Certification that SSDS exhaust stack is a minimum of 25 feet from building air intake or operable window.		

END OF SECTION

* * *

THIS PAGE LEFT INTENTIONALLY BLANK

SECTION 02222
COORDINATION FOR ENVIRONMENTAL REMEDIATION

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

A. Environmental investigations performed at the site on behalf of the NYCSCA identified lead in soil at concentrations above the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limit. Excavated material originating from the areas shown on Drawing H208.00 shall be assumed to be hazardous waste exhibiting the characteristic of toxicity for lead unless testing by the Contractor, approved by the IEH Division of the Authority, shows otherwise. Additionally, indications of a petroleum product release (i.e., petroleum-related staining and odors) were identified at the site and New York State Department of Environmental Conservation (NYSDEC) Spill Case No. 11-04018 was assigned.

B. All Contractor prepared documents and submittals related to environmental remediation and health and safety shall be subject to review and approval by the IEH Division of the Authority.

D. The Authority’s environmental consultants will perform on-site monitoring of the work. These consultants are retained by the Authority, separate from this Contract. Close coordination will be required between the Contractor and the Authority’s environmental consultants for the duration of the Contract. The Authority and the Authority’s environmental consultants shall have full and immediate access to the site and all available documents and records. No delay claims shall be made by the Contractor regarding coordination with Authority’s environmental consultants.

1.02 SEQUENCING

A. No excavation work shall be performed at the site prior to the Authority’s IEH Division approval of the

plans required in this Section. Plans requiring approval include, but are not limited to, the following:

1. Excavated Material Disposal Plan,
2. Community Air Monitoring Plan (CAMP),
3. Dewatering Plan,
4. Health and Safety Plan (HASP), and
5. Qualifications of the Contractor.

B. Construction activities shall be coordinated with any investigation and remediation activities required by the Authority, NYSDEC and/or NYSDOH.

C. The Contractor shall provide to the Authority an Excavated Material Disposal Plan (also refer to Sections 02091 and 02200) for review and must obtain approval by the IEH Division of the Authority of the Excavated Material Disposal Plan a minimum of two (2) weeks prior to the start of any excavation activities at the site.

Odor, vapor and dust control measures shall be implemented in accordance with the requirements of this Section, Section 02091, and Section 02200, and are the responsibility of the Contractor.

E. The Contractor shall notify the IEH Division of the Authority a minimum of ten (10) business days prior to the start of any excavation activities.

F. The health and safety of the Contractor’s employees shall be the sole responsibility of the Contractor during performance of the Work. All work must be completed in accordance with the applicable laws and regulations of federal, state, and local government agencies and the Authority’s Health and Safety requirements and regulations. The Contractor shall also maintain a medical monitoring and personal protection and training program in compliance with applicable laws and regulations.

G. Erosion and sediment controls shall be implemented in accordance with the requirements of Section 02200, other requirements of the Contract and the

requirements of federal, state and local guidance, laws and regulations.

1.03 RELATED SECTIONS

A. Environmental Site Assessment Reports..... Section 02010

B. Building Demolition.....Section 02060

C. Storage, Handling, Transportation and Disposal of Non-Hazardous Industrial Waste and Hazardous Waste.....Section 02091

D. Site Preparation.....Section 02100

E. Petroleum Bulk Storage Tank Removal....Section 02115

F. Earthwork.....Section 02200

G. Gas Vapor Barrier (Fluid Applied).....Section 02220

H. Sub-Slab Depressurization System.....Section 02221

1.04 REFERENCES

References and industry standards listed in this Section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.

A. New York State Department of Environmental Conservation NYSDEC):

1. STARS Memo #1 Petroleum - Contaminated Soil Guidance Policy (entire part except Sections III and IV)

2. NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, June 2010

3. NYSDEC CP-51: Soil Cleanup Guidance Policy, 12/3/2010

B. New York Code of Rules and Regulations (NYCRR):

1. 6 NYCRR Part 360, Solid Waste Management Facilities

2. 6 NYCRR Part 364, Waste Transporter Permits

3. 6 NYCRR Part 370, Hazardous Waste Management System – General

4. 6 NYCRR Part 371, Identification and Listing of Hazardous Wastes

5. 6 NYCRR Part 372, Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities

6. 6 NYCRR Part 373, Hazardous Waste Management Facilities

7. 6 NYCRR Part 375, Environmental Remediation Programs

C. United States Department of Transportation (USDOT):

1. 49 CFR 172, Subpart C - Shipping Papers

2. 49 CFR 172, Subpart D – Marking

3. 49 CFR 172, Subpart E - Labeling

4. 49 CFR 172, Subpart F - Placarding

5. 49 CFR 172, Subpart G - Emergency Response Information

6. 49 CFR 173, General Requirements for Shipments and Packagings

7. 49 CFR 177, Carriage by Public Highway

D. United States Environmental Protection Agency (USEPA):

1. 40 CFR Part 50, National Ambient Air Quality Standards for Particulate Matter

2. 40 CFR Part 261, Identification and Listing of Hazardous Waste

3. 40 CFR Part 262, Standards Applicable to Generators of Hazardous Waste

4. 40 CFR Part 263, Standards Applicable to Transporters of Hazardous Waste

5. 40 CFR Part 264 , Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

6. 40 CFR Part 265, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

E. United States Department of Labor (USDOL), Occupational Safety and Health Administration (OSHA):

1. 29 CFR 1910, Occupational Safety and Health Standards

2. 29 CFR 1926, Safety and Health Regulations for Construction

F. All Applicable New York City Department of Environmental Protection (NYCDEP) Rules and Regulations

G. All applicable New York City Department of Transportation (NYCDOT), Department of Buildings and Department of Sanitation (NYCDOS) Rules and Regulations

1.05 SUBMITTALS

A. Product Data

1. Decontamination Pad

B. Plans and Drawings

1. Community Air Monitoring Plan (CAMP)

Comply with the requirements of this Section and Sections 02091 and 02200.

2. Health and Safety Plan (HASP)

Comply with requirements of this Section and Sections 02091 and 02200.

3. Excavated Material Disposal Plan

Comply with requirements of this Section and Sections 02091 and 02200.

4. Dewatering Procedures

Comply with requirements of this Section and Sections 02091 and 02200.

5. Survey of Excavations

A drawing sealed and signed by a land surveyor licensed to practice in the State of New York showing the depths and horizontal limits of all hazardous waste excavations and the elevations and locations of all post-excavation samples collected from all parts of the site. The survey shall show the in-place (surveyed) volumes of materials removed from each hazardous waste excavation. The survey map shall include nearby property boundaries and physical features extending in all directions 25 feet beyond the limits of excavation.

PART 2 – PRODUCTS

NOT APPLICABLE

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verification of Conditions

1. Verify existing site conditions match those of the survey or pre-bid inspections. Notify the Authority in writing prior to commencement of Work of any discrepancies.

2. Carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all Drawings of physical conditions in or relating to existing subsurface structures at or contiguous to the Site which have been identified in the Contract Documents, and Reports and Drawings of hazardous environmental conditions at the Site identified in the Contract Documents (refer to Section 02010) as provided for in the General Conditions of these Specifications.

B. Preparation

1. Before starting any excavation work for new construction, ascertain the exact locations of any existing monitoring wells, recovery wells, underground drain lines, electrical wiring, piping, utilities, conduits and recognized anomalies. Consult with Authority's environmental consultants and contractors.

2. At locations where any of the above subsurface anomalies interfere with the excavation work, notify the Authority, Mechanical Trade and the Authority's environmental consultants and contractors under whose jurisdiction such work falls before continuing excavation.

3.02 PROTECTION

A. Health and Safety

1. All Contractor personnel shall be properly trained in working at hazardous waste remediation sites

and shall wear personal protective equipment and protective clothing consistent with the levels of protection required for this work as specified by OSHA and the site specific HASP.

2. The Contractor shall prepare and implement a written Site-Specific Health and Safety Plan (HASP). The Contractor shall review all environmental reports and be aware of the identified contaminants. The health and safety of the Contractor's employees shall be the sole responsibility of the Contractor during performance of the Work. All Contractor and subcontractor personnel on-site during any and all activities which include disturbance of soil, closure of tanks and removal of drums shall be subject to a medical monitoring and respiratory training and protection program, and must have current training in hazardous waste operations and emergency response in accordance with the requirements of 29 CFR 1910.120 for work on hazardous waste sites. Proper training and implementation of proper procedures are also required for confined space entry. All work must be performed in accordance with the applicable requirements of federal, state, and local government agencies and the Authority's Health and Safety requirements and regulations.

3. In all areas where airborne exposures may exceed the OSHA Permissible Exposure Limit (PEL), the Contractor shall post warning signs in accordance with the requirements of 29 CFR 1926.62. Also, signs shall be posted at all approaches to regulated areas so that an individual will receive appropriate notification and implement appropriate protective measures before entering the area. The signs shall read: "WARNING – LEAD WORK AREA – POISON – NO SMOKING OR EATING".

4. The Contractor shall establish regulated lead control area(s) through the use of appropriate barriers such as barrier tape and shall control unauthorized access into such areas throughout hazardous waste excavation.

B. Decontamination of Vehicles and Equipment

1. Provisions shall be made for decontamination of vehicles and equipment at the site. The Contractor shall furnish, operate and maintain at the site a decontamination pad to remove material on the tires, tracks, undercarriage and other parts of vehicle exteriors and equipment. The procedures for vehicle and equipment decontamination, including the location and construction of the decontamination pad, shall be described and shown in the Excavated Material Disposal Plan. Vehicles and equipment shall be washed with potable water and a detergent and rinsed with potable water. All wastewater and sediment shall be contained, collected, tested and removed from the site.

2. The minimum requirements shall include:

   a. The Contractor shall furnish, operate and maintain a field-erected equipment decontamination pad constructed with 10-inch by 10-inch timber perimeter and a minimum 20-mil thick high density polyethylene liner (HDPE). The HDPE liner shall be covered with a minimum 6-inch thick layer of 2½-inch stone and minimum 12-inch thick layer of sand. The liner shall be constructed to drain to one corner and into a watertight sump for wastewater containment and recovery. The Contractor shall maintain the minimum 6-inch thick stone cover and minimum 12-inch thick sand layer to assure that the decontamination pad HDPE liner is not damaged. The decontamination pad shall be constructed of adequate size to provide for proper decontamination of the largest excavation equipment used by the Contractor, without release of wash water to ground surface.

   b. The Contractor shall clean and remove all decontamination materials and equipment from the site after completion of excavation and

dispose of all waste generated in accordance with applicable federal, state and local laws and regulations. The decontamination pad shall not be removed from the Site without the approval of the Authority.

3. All excavated material shall be removed from equipment and the exterior of vehicles prior to exiting the Contractor established decontamination zone.

4. The Contractor shall furnish a source of clean potable water to be used for decontamination. Authority approval of the source of water shall be required. The Contractor shall obtain all required permits and approvals for connection to and use of the source of water.

C. Vapors, Odors and Dust Control

The Contractor shall furnish, operate and maintain equipment and employ methods to prevent migration of vapors, odors and dust beyond the boundaries of the active work area.

The Contractor shall conduct exposure assessments for the tasks which represent the potential for exposure to lead in accordance with OSHA 29 CFR 1926.62(d) and shall implement appropriate personal protective equipment until negative exposure assessments are developed.

Dust suppression measures shall at a minimum include:

a. Wetting of the soil prior to disturbance and during disturbance to prevent dust generation. In addition, at all times during the work, open excavations shall be controlled to prevent dust generation overnight and during holidays and weekends and any time when work is not actively being performed, at no additional cost to the Authority,

b. Maintaining appropriate low vehicle speeds in unpaved areas,

c. Routing vehicles and equipment onto covered surfaces when possible,

d. Minimizing traffic and unnecessary disturbances to ground surface in unpaved and unstabilized areas,

e. Maintaining existing site ground coverings (e.g., existing pavement) until disturbance is required for construction and stabilizing exposed soil with ground surface covering as soon as practical,

f. Discontinuing activities if generation of dust is observed and using alternate methods,

g. Removing bulk soil from exteriors of vehicles and construction equipment prior to moving off work areas. Soil must be wetted prior to removal, and

h. Complying with additional requirements of the Contract Documents and guidance, laws and regulations of federal, state and local government agencies.

A source of clean, potable water must be made continuously available to wet down exposed soil surfaces.

D. Community Air Monitoring Plan (CAMP)

1. The Contractor shall prepare and implement a CAMP. The CAMP shall be prepared in accordance with the requirements of the Generic CAMP in Appendix 1A of DER-10. The CAMP shall be prepared to describe odor, organic vapor and dust control and monitoring procedures that will be implemented during all demolition and all activities that will disturb the site soil. Disturbance includes all work associated with installation of excavation supports (e.g., soldier pile installation), excavation (including containerizing soil) and trenching for any purpose, utility installation and any other

activity that disturbs the soil. The Contractor shall perform the monitoring required by the CAMP for the duration of soil disturbance and demolition activities.

2. The Contractor shall furnish full-time on-site a minimum of one (1) qualified environmental professional to be dedicated to implementation of the CAMP. The qualified environmental professional must have a minimum of five (5) current, consecutive years of relevant environmental experience in environmental monitoring, including implementing CAMPs.

3. The CAMP shall include action limits for volatile organic compounds and particulates and provide justification for the proposed action limits.

4. Dust or odor complaints from any owner of an adjacent or nearby property shall be managed by the Contractor in a manner equivalent to an exceedance of an action level in the CAMP.

5. The CAMP shall explicitly identify how air monitoring will be implemented during adverse weather conditions including high humidity, precipitation, strong winds and cold. The CAMP shall explicitly identify weather conditions during which it will be necessary to stop work due to the inability to properly implement the CAMP.

6. Any exceedance of a CAMP threshold or action level shall be reported to the NYCSCA IEH Division immediately and additionally in writing within 2 hours of the time it is recorded. The report shall include the instrument readings; location of the monitoring station where the exceedance was recorded; readings at upwind locations; date, time and duration of elevated readings (i.e., number of 15 minute time-weighted exceedances); activities being performed at the time of the exceedances; and descriptions of countermeasures implemented to control the exceedance and prevent future occurrences.

7. The Contractor shall maintain a wind sock (or approved alternate) at the site to determine the predominant wind direction and confirm proper positioning of upwind and downwind monitoring stations. Wind direction shall be recorded by the Contractor hourly during the work.

8. At a minimum, prior to the start of work each day two (2) downwind and one (1) upwind air monitoring stations shall be established by the Contractor at the site. The monitoring stations shall be properly maintained and operated during all remediation, demolition and soil disturbance activities, including load-out of excavated material.

9. Two (2) data logging photoionization detectors (PIDs) set to collect readings on a 15-minute time weighted average (TWA) and two (2) data logging particulate meters set to collect readings on a 15-minute TWA shall be operated at the downwind air monitoring stations. The particulate meters shall be capable of measuring dust particulates that are less than 10 microns in size (PM-10) or respirable dust.

10. One (1) data logging photoionization detector (PID) that is set to collect readings on a 15-minute time weighted average (TWA) and one (1) data logging particulate meter that is set to collect readings on a 15-minute TWA shall be operated at the upwind air monitoring station. The particulate meter shall be capable of measuring dust particulates that are less than 10 microns in size (PM-10) and respirable dust.

11. The air monitoring equipment shall be inspected at least once every 30 minutes and the measurements shall be recorded manually in a project CAMP-dedicated bound log book by the Contractor’s qualified environmental professional.

12. The dedicated CAMP monitoring equipment shall not

be used for personnel health and safety monitoring or soil screening activities. Additional equipment and instrumentation shall be furnished by the Contractor for personnel health and safety monitoring and soil screening.

13. The qualified environmental professional shall have “stop work authority” and shall be responsible for the air monitoring and daily calibration and maintenance of the equipment in accordance with the manufacturers’ specifications. The qualified environmental professional shall be dedicated solely to implementation of the CAMP at the site. The resume of the proposed qualified environmental monitor shall be included in the Contractor prepared CAMP. Copies of manufacturers’ owner’s manuals for instrumentation and equipment shall be included in the CAMP. All instrumentation and equipment shall be maintained at all times in proper operating condition.

14. The Contractor shall maintain at the site at all times one (1) spare PID and one (1) spare particulate meter in fully operational condition, available for immediate service.

15. All PIDs used for CAMP shall be of the same model and manufacturer. All particulate meters used for CAMP shall be of the same model and manufacturer.

16. At the end of each work day the qualified environmental professional shall download the CAMP data collected to a field computer, and organize, review and compare the data to action levels to verify proper controls were in place throughout the work day. Data shall be available for inspection without advance notice.

17. The qualified environmental professional shall document in the dedicated project log book each calibration event, any equipment and instrument malfunctions, unusual conditions, air monitoring station locations, any exceedances of action

levels and countermeasures implemented.

18. The Contractor shall respond to exceedances of the CAMP action levels immediately.

19. The requirements above are in addition to personnel monitoring requirements pursuant to the regulations of OSHA.

E. Personnel Decontamination for Areas Containing Hazardous Lead

1. The Contractor shall ensure that all workers and authorized persons leaving lead control area(s) proceed directly to the wash or shower facilities.

2. The Contractor shall provide personnel wash facilities in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure. Wash facilities will consist of, at least, potable water, towels, soap, and a HEPA vacuum. Upon leaving the work area, each worker will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Removal of lead-containing dust by blowing or shaking of clothing shall be prohibited. Wash water shall be collected, filtered, and disposed of in accordance with federal, state and local laws and regulations.

3. If air monitoring data shows that employee exposure to airborne lead exceeds 50 $\mu g/m^3$, the following *mandatory* showering conditions, operated by the Contractor, apply:

   a. Street clothes cannot be worn into lead control area(s) and shall be stored in the change room. Workers shall wear disposable suits over clothing that stays on site in the change room, or disposable suits over nylon or Tyvek undergarments, or coveralls that are laundered on site.

b. Street shoes cannot be worn into lead control area(s) and shall be stored in the change room. Dedicated shoes that do not leave the lead control area(s) may be utilized. Work shoes covered by disposable booties may be utilized if the shoes are cleaned after each use and kept in the change room.

c. Showers must be utilized. Shower water shall be collected, filtered, and disposed of in accordance with federal, state and local water discharge standards.

4. The Contractor shall establish and enforce proper entry and exit procedures for all persons who enter and leave the lead control area(s).

5. The Contractor shall dispose of all contaminated protective clothing as lead contaminated waste.

6. The Contractor shall implement and enforce procedures that prevent workers from eating, drinking, smoking or chewing gum or tobacco while in the lead control area(s).

END OF SECTION

LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
Product Data:		
1. Decontamination Pad	_____	_____
Plans and Shop Drawings:		
1. Community Air Monitoring Plan	_____	_____
2. Health and Safety Plan	_____	_____
Notification Documents:	_____	_____
1. DEC/DOH Notifications and Schedule		
2. Start of Work		
3. Schedule for Construction Activities affecting Adjoining Property		
4. Proposed Ground Intrusive Activities		
Survey of Excavation	_____	_____
Qualifications	_____	_____
1. Contractor		
Daily Summary of CAMP Data	_____	_____

END OF SECTION
*** * ***

NO TEXT THIS PAGE

SECTION 15880
SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Furnish and install suction fans, with all specified accessories and options, connecting to vertical risers, in order to create vacuum in the sub-slab gas permeable aggregate layer. Provide a fully-functional sub-slab depressurization system (SSDS) with specified and required accessories complete and ready for use. The specified pressure switches shall be connected to the Building Management System (BMS) in accordance with this Section and Section 15970.

B. Furnish and install vacuum gauges, pressure switches and volume controlling dampers. Furnish and install all parts and materials necessary to connect the suction fan risers to the suction fans. A total of two (2) suction fan risers and two (2) suction fans shall be furnished and installed. Additionally one (1) spare fan in manufacturer's original packaging shall be delivered to the site as directed by the Authority.

C. Furnish and install stainless steel suction fan exhaust stacks as shown on Drawings.

D. Each suction fan shall be provided with a local power disconnect switch.

E. One (1) pressure switch shall be installed on each suction fan riser. An indicator shall be provided in the BMS to show separately for each pressure switch the following condition in each suction fan riser: low vacuum.

F. Provide portable pressure gauges to monitor vacuum pressure at monitoring points installed in the building floor slab, as shown on the Drawings. Provide parts to connect portable pressure gauges to monitoring points.

G. Furnish, install, and test all system components as indicated, specified and required in the Contract Documents, as shown on the Drawings and as directed by the Authority.

H. All materials and equipment furnished under this section shall be new, in first-class condition, supplied directly from original equipment manufacturers and installed in accordance with manufacturers' recommendations.

1.02 RELATED SECTIONS

A. Environmental Site Assessment Reports. . Section 02010

B. Site Preparation . . . . . Section 02100

C. Sub-Slab Depressurization System . . . . Section 02221

D. Temperature Control System (LonWorks BMS/DDC with School Operating Console) . . . . . Section 15970

E. Mechanical. . . . . .Division 15

F. Electrical . . . . . Division 16

1.03 STANDARDS AND REGULATIONS

A. Comply with applicable portions of the Building Code of the City of New York. Where requirements for products, materials, equipment, methods and other portions of the work specified herein exceed minimum requirements of New York City Building Code, Contractor shall comply with such requirements specified herein, unless specifically approved otherwise by the Authority.

B. Standards issued by the organizations listed below may be referenced in this section.

1. American Society for Testing and Materials (ASTM)

2. American Standards Association (ASA)

3. American National Standards Institute (ANSI)

4. National Fire Protection Association (NFPA)

1.04 RESTRICTIONS AND QUALITY CONTROL

A. Pre-installation Meeting: The Contractor shall arrange for and convene a pre-installation meeting prior to the start of work of this section to review installation procedures, protection, and coordination with other work. Attendance of parties directly affecting work of this section, including representatives of the Construction Inspection Division (CID), Industrial and Environmental Hygiene Division (IEH), designer of the SSDS, Contractor, Contractor's Professional Engineer and Contractor's installer shall be required. The Contractor shall schedule the pre-installation meeting at a time and at a location that is agreeable to the Architect/Engineer, CID and IEH Division. The meeting shall be held on a date which is a minimum of ten (10) business days prior to start of the work of this section.

B. Inspection: Contractor shall provide a New York licensed Professional Engineer with experience and qualifications to approve the work, independent of the installer, to conduct the inspections of the SSDS installation. This is not the Authority's responsibility. Authority approval of qualifications of licensed Professional Engineer shall be required prior to start of inspections.

C. Quality Control Inspections may be performed throughout the installation by the Authority or its authorized representative and as deemed necessary or appropriate by the Authority.

1.05 SUBMITTALS

A. Approval by the Authority's IEH Division of submittals of this section shall be required prior to start of the related work of this section, as applicable.

B. The Contractor shall submit to the Authority within ten (10) business days of Notice to Proceed a schedule showing the following for each submittal of this section: date of delivery of submittal to the Authority, anticipated time period for Authority review, and required date of Authority approval in order to maintain project schedule. Approval by the IEH Division of the submittal schedule shall be required. The IEH Division must be notified at least 24 hours in advance of any change to the schedule.

C. Product Data: Submit manufacturer product data, including installation instructions and mounting details for the suction fans, pressure switches, dampers, pressure gauges, vibration isolators, flexible connectors and no-loss stacks.

D. Submit complete shop drawings of all work related to installation of the suction fans and exhaust stacks showing dimensions and locations of all items including clearance requirements. For suction fans submit manufacturer's performance curve, noise data and list of accessories. Submit elementary electric control schematic diagrams, interconnecting wiring diagrams, and electric motor data sheets.

E. Submit complete shop drawings of all work related to installation of the pressure switches showing dimensions and locations of all items. The shop drawings shall show details for mounting of switches and connection of switches to suction fan risers. Provide wiring diagrams showing connection of pressure switches to BMS.

F. Submit resume of Professional Engineer for approval.

G. Submit Professional Engineer's Certification: Submit certification prepared, signed, and sealed by a New York State licensed Professional Engineer. Certification shall state that Professional Engineer certifies that all components installed are properly constructed and installed, and properly supported for anticipated loads, including wind loads for roof mounted equipment and piping.

H. Submit owner's manuals/operations and maintenance manuals for suction fans, pressure switches, and pressure gauges.

I. Submit name, address, and telephone number of manufacturer authorized service technician for suction fans.

J. Submit manufacturers' warranties for all equipment and accessories.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in manufacturer's original packaging, with labels clearly identifying product and manufacturer.

B. Store materials in a clean, dry area in accordance with manufacturers' instructions.

C. Protect materials during handling and installation to prevent damage.

D. Examine all equipment before installation. Do not install any unit that is found to be defective. Protect all materials during handling and installation to prevent damage.

PART 2 - PRODUCTS

2.01 ACCESSORIES

A. SUCTION FANS

1. Suction fans shall be belt-drive medium-pressure radial fans capable of: flow rate of 600 CFM at a static pressure of 16.0 inches water column.

2. Impeller shall be a single-width centrifugal fan, capable of clockwise or counterclockwise rotation. Impeller shall be injection-molded in fire-retardant PPEL. There shall be no metal in the air stream and the fans shall be dynamic and statically balanced.

3. The fan housing shall be self-supporting thermoformed and mechanically welded PVC, PPs (fire-retardant) and PVDF with no exposed metal parts. Provide manufacturer supplied weather cover and housing drain.

4. Fan bearings shall be two permanently lubricated flange bearings and a rubberized sleeve enclosed in an injection-molded fiberglass case. Shaft shall be carbon-steel.

5. The suction fans shall be furnished with a stainless steel motor plate and base by the manufacturer, and shall be installed securely to roof on top of building.

6. The motor, supplied by the suction fan manufacturer, shall be three phase, 3.0 HP, 60 Hz, 230 V, totally enclosed and fan cooled with appropriate NEMA mounting. The motor shall be explosion-proof.

7. The suction fans shall be installed with flexible connectors on the fan inlets and the damper discharges. Flexible connectors shall be as supplied by the suction fan manufacturer.

8. Install floor mounted steel vibration isolators for the suction fans and related equipment as manufactured by the suction fan manufacturer or approved equivalent and pursuant to the recommendations of the suction fan manufacturer.

9. Provide local power disconnect switch for manual termination of each suction fan.

10. Suction fans shall:

    a. Be designed and manufactured for use in NEC Class 1, Division 2, Type D hazardous locations.

    b. Be designed and manufactured for outdoor continuous service and shall be all-weather resistant.

    c. Be fireproof, spark resistant, and corrosion resistant.

    d. Be installed with a vacuum gauge at suction fan inlet. Vacuum gauge shall be Wika pressure indicator Model 612.20 Part 9747724 or approved equivalent with range of 0 to 30 inches water column vacuum and maximum minor division increments of one inch w.c.

11. Fan and motor shall be provided as one unit by the manufacturer with a minimum five (5) year warranty on parts and service.

12. Suction fan operating at full capacity shall not generate noise levels greater than 65 dB at 10 meters.

13. Each suction fan shall be provided with all manufacturer’s recommended spare parts (replacement fan belt, etc.). The recommended spare parts shall be delivered by the Contractor to the Authority.

B. DAMPERS

Dampers shall be Volume Controlling Damper with Continuous Adjustment Lock. Material shall be PPs – Flame Retardant Polypropylene as supplied by manufacturer of the suction fan.

C. PRESSURE SWITCHES

1. A pressure switch shall be provided for each suction fan riser to detect low vacuum in each suction fan riser. Each pressure switch shall have a field adjustable set point, which can be adjusted before and after installation, within the range of 0.40 to 1.6 inches water column vacuum.

2. Pressure switch shall be UL listed and provided with explosion-proof housing. Pressure switch housing shall be designed and manufactured for outdoor continuous service and shall be all-weather resistant.

3. Pressure switch type shall be single-pole double-throw. Pressure switch operating limit shall be 45 inches w.c. continuous, 10 psig surge.

4. Furnish and install 1/4-inch diameter stainless steel tubing from each switch to each corresponding suction fan riser.

5. Label each pressure switch with a stainless steel plate which identifies the riser and corresponds with the identification system used in the BMS.

6. Each pressure switch, connected to the BMS, shall signal notification on low vacuum conditions in each corresponding suction fan riser. Notification shall be indicated on the BMS.

D. PORTABLE PRESSURE GAUGES

1. One (1) digital manometer to measure the pressure (vacuum) at each sub-slab monitoring point shall be furnished to the Authority or designated representative.

2. The gauge shall be accurate within 1.5% and indicate directly in inches water column positive or negative pressure in the following range at the specified increment:

Range (in. water)	Minor Divisions (in. water)
-20.0 to 20.0	0.02

3. Each gauge shall be furnished with carrying case and 9 feet of 3/16-inch inner diameter (ID) polyethylene tubing. Supply tubing with quick-connect fittings, compatible with quick-connect fittings for monitoring points.

E. GENERAL

Provide additional installation accessories as necessary for a complete SSDS ready for use. Ensure accessories are from same manufacturers as products.

F. APPROVED MANUFACTURERS/EQUIPMENT

1. Suction fans shall be:

Model CHVS 160, furnished and installed with the optional equipment, accessories, and additional and ancillary equipment specified above.

As manufactured by:
Industrial Plastic Fan
128 New Boston Street
Woburn, MA 01801
1-800-891-3656
www.ipfcolasit.com

or approved equal.

2. Pressure switches shall be:

Series 1900, Model 1911-1-EXPL

As manufactured by:
Dwyer Instruments Inc.
102 Indiana Highway
Michigan City, IN 46361
219-879-8000
www.dwyer-inst.com

or approved equal.

3. Portable Pressure Gauges shall be:

Series 476A-0 Single Pressure Digital Manometer

As manufactured by:
Dwyer Instruments Inc.
102 Indiana Hwy
Michigan City, IN 46361
219-879-8000
www.dwyer-inst.com

or approved equal.

G. On discharge of exhaust stack, install a stainless steel no-loss stack as shown on the Drawings.

PART 3 - EXECUTION

3.01 EXAMINATION/INSPECTION

The Contractor's Professional Engineer shall inspect all components of the suction fans and accessories and certify all components of the suction fan systems have been properly constructed and installed and are properly secured and supported upon completion of installation. Additional inspections, examinations and quality control measures may be required in accordance with manufacturers' recommendations and are the responsibility of the Contractor. The Authority reserves the right to perform additional inspections or quality control tests as deemed necessary by the Authority at any point during the installation process at no additional cost to the Authority.

3.02 INSTALLATION

All components of the suction fan systems and accessories shall be installed in accordance with the manufacturers' recommendations and applicable Building Code requirements.

A. INSTALLATION OF SUCTION FANS AND ACCESSORIES

1. Suction fans, installed with all accessories, shall be connected to the suction fan risers on the roof of the building. Contractor shall start up SSDS and demonstrate satisfactory operation, including operation of instrumentation, in the presence of Authority designated representative.

2. The suction fans shall be electrically grounded.

3. Contractor shall permanently support all system components in accordance with New York City

Building Code requirements.

4. Perform all required mechanical work not explicitly specified in this section in accordance with Specification Section 02221 and Division 15. Perform all required wiring and electrical work for fully-functional system in accordance with Division 16.

5. Install connections for portable pressure gauges on monitoring points as shown on Drawings. Deliver portable gauges with tubing and quick connect fittings to Authority designated representatives.

6. Install in-line pressure gauges with threaded air-tight connections. The pressure gauges shall be installed in rooftop piping and such that gauges can be easily removed and replaced.

7. Install one (1) pressure switch with specified labeling for each suction fan riser. Connect each pressure switch to the BMS so that the following condition is indicated at the set point: low vacuum.

8. Install pressure switches in locations free from excessive vibration.

9. Each switch shall be calibrated by the Contractor and the set point of each switch shall be field adjusted after the SSDS is fully operational.

3.03 BMS REMOTE ALARM NOTIFICATION SEQUENCE

A. Each sub-slab depressurization system suction fan shall be provided with a pressure switch installed in the piping prior to the inlet of each SSDS suction fan. Each individual switch shall be monitored and alarmed at the BMS system as specified in Section 15970.

B. The SSDS Remote Alarm Notification/Transmission work described in this Section will be implemented by FMSI (NYCSCA BMS consultant) and a description of the alarm notification/transmission work is included herein only for information.

C. For loss of vacuum at the inlet to one or both exhaust fans (as indicated by the pressure switches), the alarm notification/transmission sequence will be as follows:

1. During occupied school hours (as defined by the iLon-100 schedule or set by the Custodian), the Priority 100 Alarm will be routed to the SOC and an e-mail will be simultaneously sent to the Custodian. If unacknowledged for more than 10 minutes, an email will be sent by SCAD Alarm (BMS) to the Regional Facilities Manager (Dy. Director of Facilities) and the Borough Maintenance Planner simultaneously.

2. During unoccupied school hours (as defined by the iLon-100 schedule or set by the Custodian), the priority 100 SSDS alarm will be routed to the SOC and an e-mail will be simultaneously sent to the Custodian. If unacknowledged for more than 10 minutes, an e-mail will be sent by SCAD Alarm (BMS) to the Regional Facilities Manager (Dy. Director of Facilities) and the Borough Maintenance. The SSDS Alarm will also be routed to the iLon-100/Smartserver 2.0 which in turn will send a dry contact signal to the auto-dialer. The auto dialer will capture the next available ("seize" any) phone line via an RJ-31X module and will call the Central Monitoring Station (212-979-3300 or 212-979–3333 located at 600 East 6th Street, New York, NY 10009). The critical Alarm will be identified via a voice message as the "School Name" and "BMS alarm".

3.04 PROTECTION AND CLOSE OUT

A. It is the responsibility of the Contractor to ensure that no damage occurs to components of the SSDS or building prior to, during or following installation of suction fan systems, or during any subsequent performance of construction for the facility as identified on the Contract Documents and Drawings. Any damages to the SSDS or building during performance of the Work shall be repaired and tested at no additional cost to the Authority.

B. Provide service training by a qualified representative of the suction fan manufacturer. Four (4) hours of on-site training shall be provided at a time designated by the Authority up to one (1) year after the date of completion of installation of the suction fans.

C. Prior to Authority acceptance of the SSDS the Contractor must demonstrate to the satisfaction of the Authority

that the SSDS pressure switches are operating properly and are properly connected to the BMS. In the presence of a representative of the IEH Division of the Authority, each suction fan must be individually manually switched on and off and the BMS must show that when the suction fan is switched off each pressure switch is indicating an alarm signal, corresponding to the appropriate suction fan riser, on the BMS.

LIST OF SUBMITTALS

SUBMITTAL	DATE SUBMITTED	DATE APPROVED
1. Submittal Schedule		
2. Mfs's product data for suction fans and accessories		
3. Manufacturers' owner's manuals/operations and maintenance manuals		
4. PE Resume		
5. PE certifications for support of SSDS components on roof and proper construction and installation of suction fans and accessories		
6. Shop drawings showing location and arrangement of suction fans, pressure switches, equipment and accessories, and connections to riser and exhaust		
7. Electrical Diagrams		
8. Mfs's product data and directions for pressure gauges		
9. Mfs's product data and directions for pressure switch		
10. Mf's authorized tech. for suction fan service		

11. Mf’s warranties _____ _____

END OF SECTION

* * *

Appendix G

Construction Schedule

SILVERITE CONSTRUCTION CO., INC.

PS315 New School

43-18 97th Place Corona, NY 11368

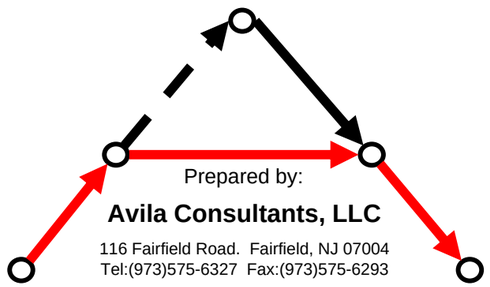
SCHOOL CONSTRUCTION AUTHORITY

SOLICITATION NO.: SCA12-010675-1

SCHEDULE UPDATE #02

DD:04/08/13

File name PQ02.prx



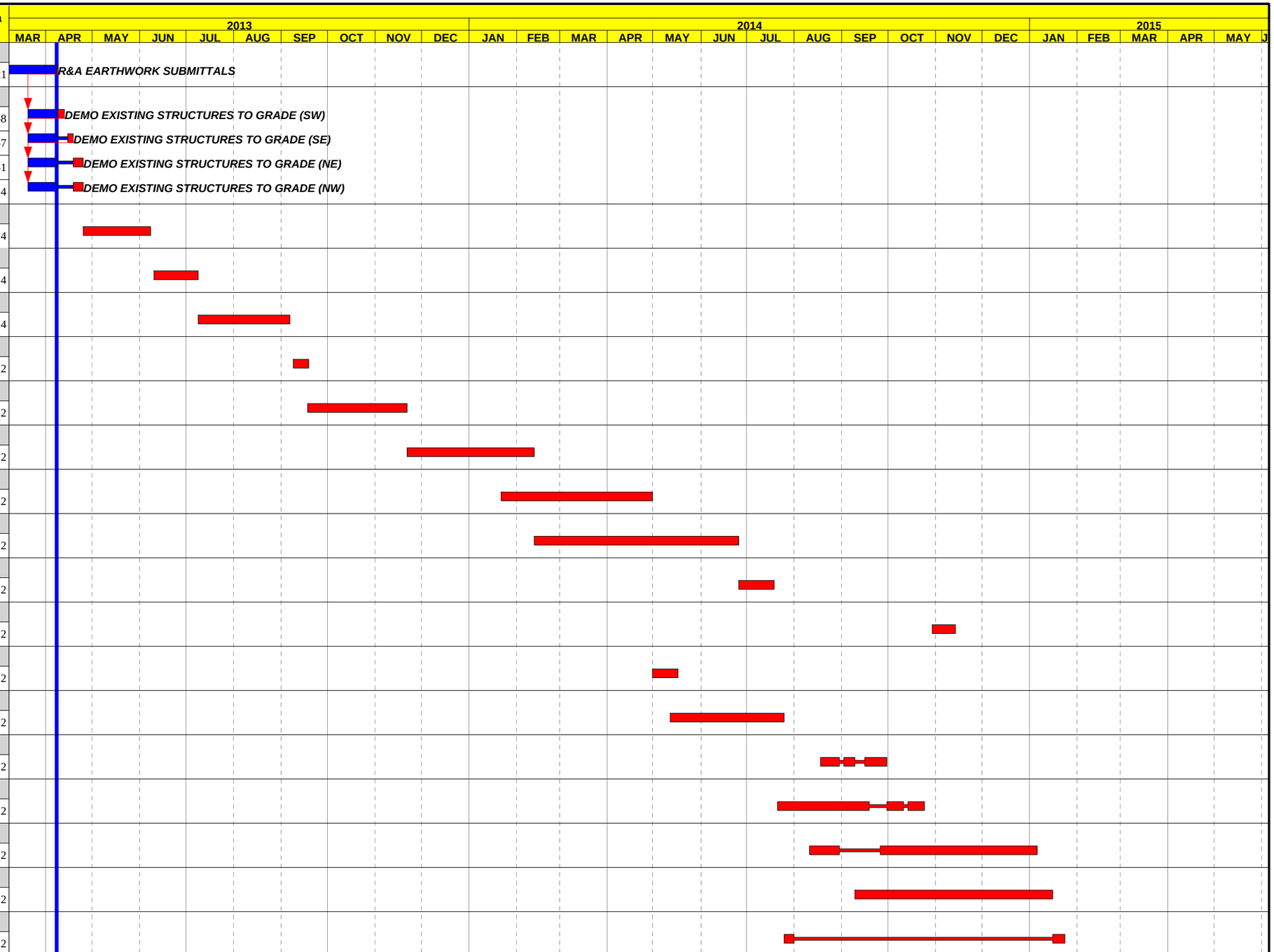
Prepared by:

Avila Consultants, LLC

116 Fairfield Road. Fairfield, NJ 07004

Tel:(973)575-6327 Fax:(973)575-6293

Activity ID	Orig Dur	Rem Dur	%	Early Start	Early Finish	Up01 ES	Up01 EF	Total Float	Delta EF
Approvals									
02-02085	10	1	90	20FEB13A	08APR13	20FEB13A	08MAR13	-2	-21
Demo Existing Structures to Grade									
BS-00275	10	4	65	20MAR13A	12APR13	20MAR13	02APR13	-2	-8
BS-00280	10	4	65	20MAR13A	18APR13	27MAR13	09APR13	-2	-7
BS-00285	10	4	65	20MAR13A	24APR13	10APR13	23APR13	-2	-1
BS-00290	10	4	65	20MAR13A	24APR13	17APR13	30APR13	-2	4
+ Support of Excavation									
	31	31	0	25APR13	07JUN13	01MAY13	13JUN13	-2	4
+ Demo Existing Foundations									
	20	20	0	10JUN13	08JUL13	14JUN13	12JUL13	-2	4
+ Soil Sampling									
	60	60	0	09JUL13	06SEP13	13JUL13	10SEP13	-4	4
+ Excavate to Subgrade									
	8	8	0	09SEP13	18SEP13	11SEP13	20SEP13	-4	2
+ Concrete Fdn Wall & Interior Footings									
	45	45	0	18SEP13	21NOV13	20SEP13	25NOV13	-4	2
+ Structural Steel									
	55	55	0	22NOV13	12FEB14	26NOV13	14FEB14	-4	2
+ Elevated CIP Decks & Slab On Grade									
	70	70	0	22JAN14	30APR14	24JAN14	02MAY14	-4	2
+ Exterior Masonry & Stone									
	93	93	0	13FEB14	25JUN14	18FEB14	27JUN14	-4	2
+ Curtainwall & Windows									
	16	16	0	26JUN14	18JUL14	30JUN14	22JUL14	-4	2
+ Interior Masonry									
	10	10	0	30OCT14	13NOV14	03NOV14	17NOV14	-4	2
+ Duct Rough-In									
	12	12	0	01MAY14	16MAY14	05MAY14	20MAY14	-4	2
+ Sprinkler Rough-In									
	52	52	0	12MAY14	24JUL14	14MAY14	28JUL14	-4	2
+ Miscellaneous Steel									
	30	30	0	18AUG14	29SEP14	20AUG14	01OCT14	-4	2
+ Drywall									
	68	68	0	21JUL14	24OCT14	23JUL14	28OCT14	-4	2
+ Electrical Finishes									
	100	100	0	11AUG14	05JAN15	13AUG14	07JAN15	-4	2
+ Architectural Finishes									
	88	88	0	09SEP14	15JAN15	11SEP14	20JAN15	-4	2
+ Inspections									
	124	124	0	25JUL14	23JAN15	29JUL14	27JAN15	-4	2



Start Date 01AUG12
Finish Date 23MAY15
Data Date 08APR13
Run Date 25APR13 13:54

Early Bar
Progress Bar
Critical Activity

© Primavera Systems, Inc.

PQ02

Silverite Construction Co., Inc.

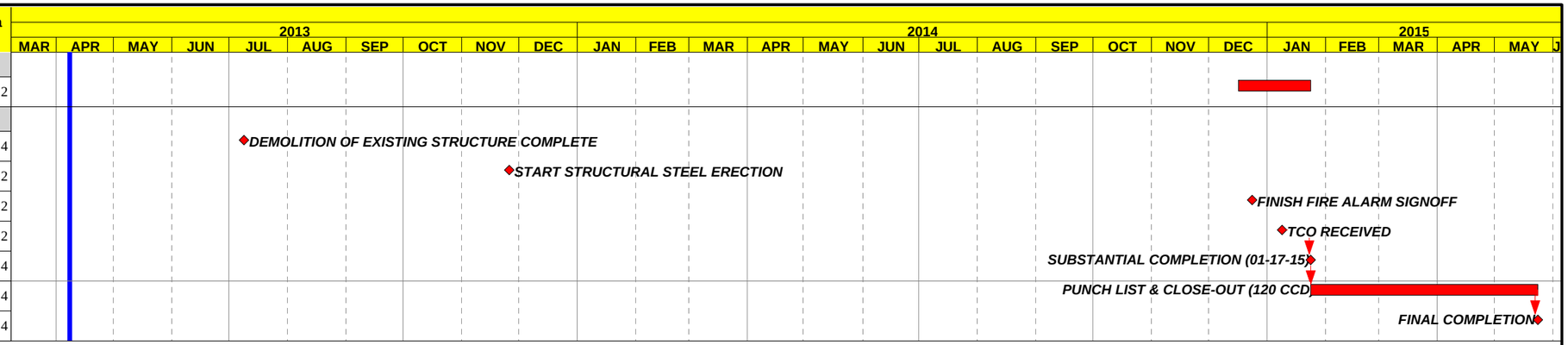
PS315, 43-18 97th Place, NY 11368

Update 02 dd: 04-08-13
Longest Path

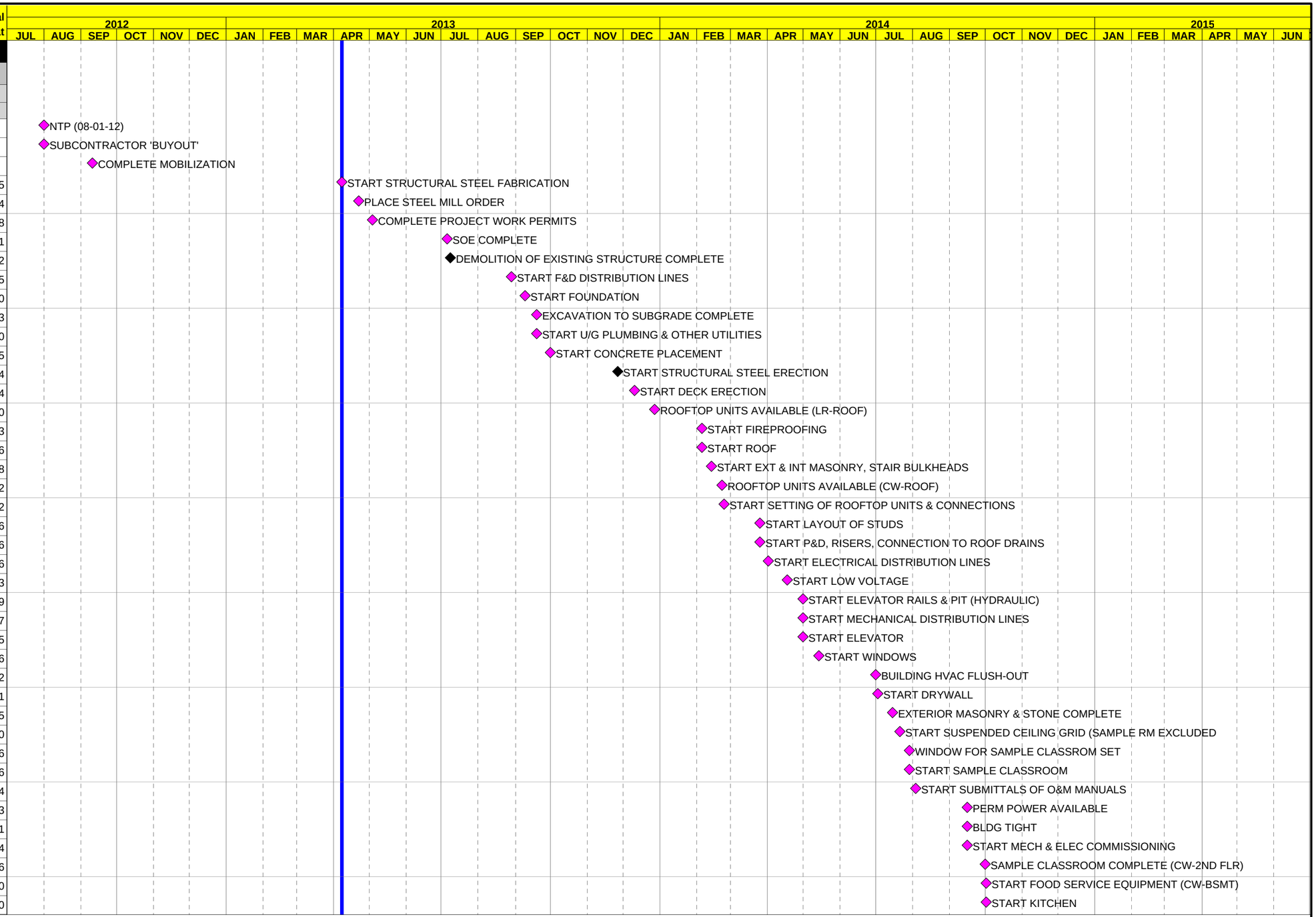
Prepared by Avila Consultants, LLC.

Date	Revision	Checked	Approved
25APR13	Longest Path - Update 02	PC/LPM	

Activity ID	Orig Dur	Rem Dur	%	Early Start	Early Finish	Up01 ES	Up01 EF	Total Float	Delta EF
+ Start Up & testing									
	25	25	0	17DEC14	23JAN15	19DEC14	27JAN15	-4	2
Overview									
BS-00330	0	0	0		08JUL13		12JUL13	-2	4
BS-05000	0	0	0	26NOV13		29NOV13		-4	2
BS-16999	0	0	0		23DEC14		26DEC14	-4	2
BS-99990	0	0	0		08JAN15		12JAN15	-4	2
BS-99995	0	0	0		23JAN15		27JAN15	-7	4
BS-99998	120	120	0	24JAN15	23MAY15	28JAN15	27MAY15	-7	4
BS-99999	0	0	0		23MAY15		27MAY15	-7	4



Activity ID	DIV	SECT	Orig Dur	Early Start	Early Finish	Total Float
MILESTONE						
Building Structure & Others						
Overview						
All						
BS-00000	01	01010S	0	01AUG12A		
BS-00049	01	01015G	0	01AUG12A		
BS-00199	01	01015G	0		10SEP12A	
BS-00029	05	05120	0	08APR13		95
BS-00019	05	05120	0	23APR13		84
BS-00009	01	01060S	0		03MAY13	-148
BS-00319	02	02200	0		05JUL13	-1
BS-00330	02	02115	0		08JUL13	-2
BS-00039	16	16130	0	29AUG13		165
BS-00329	02	02250	0	09SEP13		0
BS-00399	02	02200	0		18SEP13	23
BS-00034	15	15410	0	19SEP13		30
BS-00339	03	03300	0	01OCT13		15
BS-05000	05	05120	0	26NOV13		-4
BS-05006	05	05300	0	10DEC13		44
BS-15059	15	15933	0		26DEC13	110
BS-07009	07	07260	0	05FEB14		23
BS-07069	07	07560	0	05FEB14		126
BS-04019	04	04200	0	13FEB14		68
BS-15069	15	15933	0		21FEB14	72
BS-07019	15	15933	0	24FEB14		82
BS-09009	09	09260	0	26MAR14		16
BS-50000	15	15401	0	26MAR14		76
BS-07049	16	16010	0	02APR14		56
BS-15039	15	15970	0	18APR14		83
BS-04039	14	14240	0	01MAY14		169
BS-05049	15	15501	0	01MAY14		7
BS-14069	14	14211	0	01MAY14		55
BS-0678	08	08525	0	14MAY14		26
BS-15399	15	15510	0		30JUN14	42
BS-09019	09	09260	0	03JUL14		11
BS-06499	04	04200	0		14JUL14	45
BS-09029	09	09510	0	21JUL14		20
BS-06799	08	08525	0		28JUL14	36
BS-1S000	01	01426S	0	29JUL14		36
01-01060	01	01650S	0	04AUG14*		54
BS-16599	16	16010	0		15SEP14	23
BS-08099	08	08920	0	16SEP14		1
BS-90199	01	01015G	0	16SEP14		64
BS-1S999	01	01426S	0		30SEP14	36
BS-09049	11	11400	0	02OCT14		0
BS-11039	11	11400	0	02OCT14		0



Start Date	01AUG12
Finish Date	23MAY15
Data Date	08APR13

© Primavera Systems, Inc.

Early Bar
Progress Bar
Critical Activity

PQ02

Silverite Construction Co., Inc.

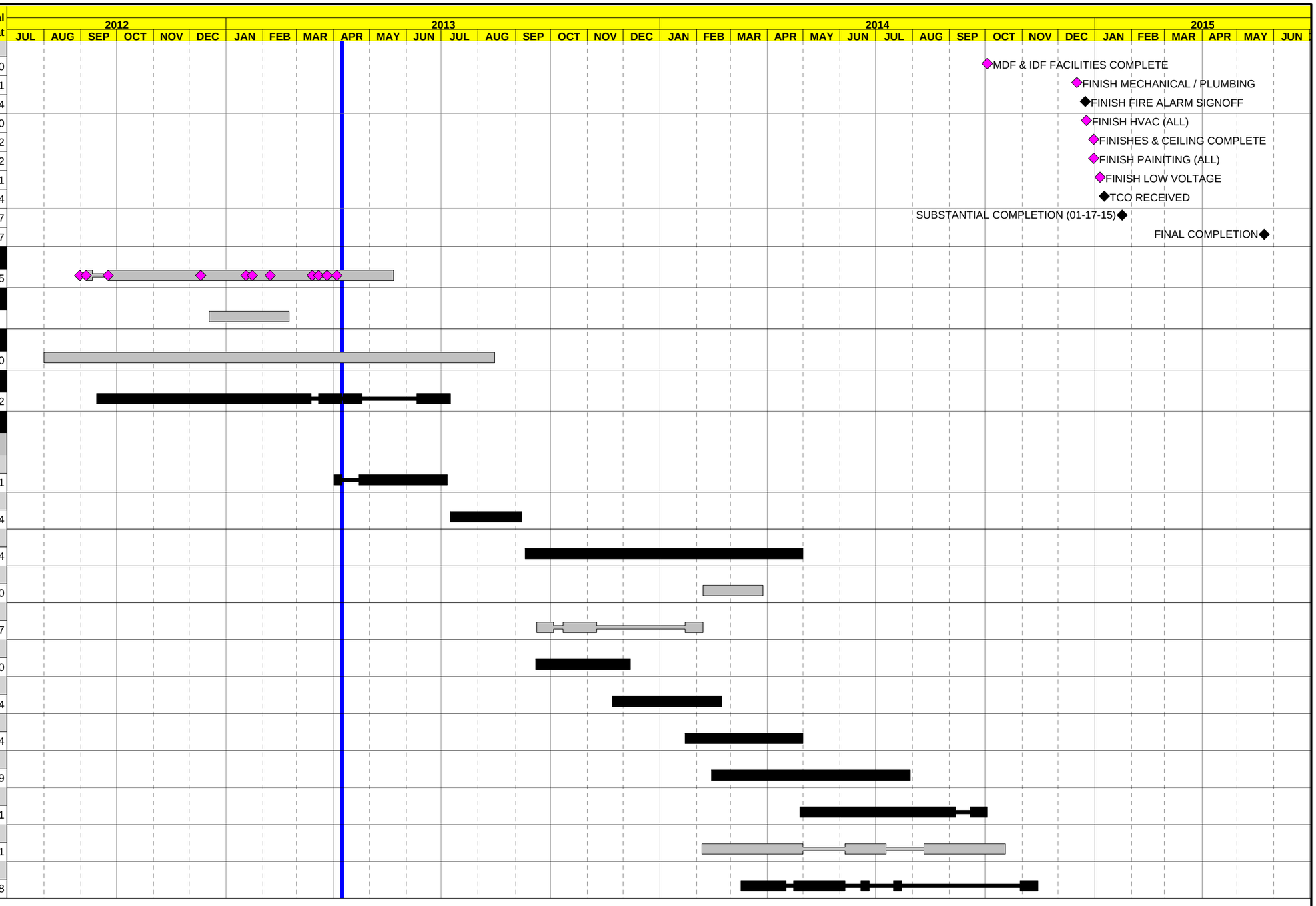
PS315, 43-18 97th Place, NY 11368

Schedule Update 02
Summary

Prepared by Avila Consultants, LLC.

Date	Revision	Checked	Approved
25APR13	Schedule Update 02	LPM/PC/REK	

Activity ID	DIV	SECT	Orig Dur	Early Start	Early Finish	Total Float
All						
BS-15604	16	16725	0		02OCT14	10
BS-15499	15	15401	0		16DEC14	11
BS-16999	16	16720	0		23DEC14	-4
BS-15599	15	15501	0		24DEC14	10
BS-09298	08	08710	0		30DEC14	2
BS-09299	09	09900	0		30DEC14	2
BS-16995	16	16010	0		05JAN15	-1
BS-99990	01	01700G	0		08JAN15	-4
BS-99995	01	01700G	0		23JAN15	-7
BS-99999	01	01700G	0		23MAY15	-7
+ CHANGE ORDER &/IMPACTS						
			180	31AUG12A	21MAY13	415
+ ASBESTOS ABATEMENT						
	02		45	18DEC12A	22FEB13A	
+ PRE-CONSTRUCTION						
			261	01AUG12A	14AUG13	60
+ DEMOLISHING						
	02		203	14SEP12A	08JUL13	-2
NEW CONSTRUCTION						
Building Structure & Others						
+ Support of Excavation						
	02		68	01APR13A	05JUL13	-1
+ Soil Sampling						
	02	02010	60	09JUL13	06SEP13	-4
+ Excavate to Subgrade						
	02	02200	161	09SEP13	30APR14	-4
+ Sub-Slub Depressurization System						
			35	06FEB14	27MAR14	10
+ Plumbing & Elecrtical Underslab						
			94	19SEP13	05FEB14	177
+ Concrete Fdn Wall & Interior Footings						
			55	18SEP13	06DEC13	0
+ Structural Steel						
	05		61	22NOV13	21FEB14	4
+ Elevated CIP Decks & Slab On Grade						
	03	03300	70	22JAN14	30APR14	-4
+ Exterior Masonry & Stone						
	04		116	13FEB14	29JUL14	29
+ Curtainwall & Windows						
			111	28APR14	02OCT14	71
+ Fireprrofing						
	07		178	05FEB14	17OCT14	41
+ Interior Masonry						
	04	04200	174	10MAR14	13NOV14	8



Start Date 01AUG12
Finish Date 23MAY15
Data Date 08APR13

Early Bar
Progress Bar
Critical Activity

© Primavera Systems, Inc.

PQ02

Silverite Construction Co., Inc.

PS315, 43-18 97th Place, NY 11368

Schedule Update 02
Summary

Prepared by Avila Consultants, LLC.

Date	Revision	Checked	Approved
25APR13	Schedule Update 02	LPM/PC/REK	

Activity ID	DIV	SECT	Orig Dur	Early Start	Early Finish	Total Float
+ Concrete Stairs						
	05	05710	40	06AUG14	01OCT14	37
+ Steel Stairs						
	05	05710	150	24FEB14	24SEP14	37
+ Duct Rough-In						
	15	15891	66	06MAR14	06JUN14	29
+ HVAC Rough-In						
	15	15510	65	17MAR14	16JUN14	52
+ Plumbing Rough-In						
	15		75	26MAR14	10JUL14	83
+ Sprinkler Rough-In						
	15	15332	90	16APR14	21AUG14	-1
+ Electrical Rough-In						
	16		77	02APR14	21JUL14	57
+ Miscellaneous Steel						
			327	14AUG13	03DEC14	30
+ Roofing & Rooftop Units						
			155	05FEB14	15SEP14	1
+ MEP Equipment						
			147	31MAR14	27OCT14	27
+ Sample Classroom						
			137	26MAR14	07OCT14	36
+ Drywall						
	09	09260	156	26MAR14	04NOV14	0
+ Mechanical Finishes						
			90	01JUL14	06NOV14	42
+ HVAC Instruments & Controls						
	15		153	18APR14	25NOV14	15
+ Plumbing Finishes						
			161	28APR14	16DEC14	1
+ Sprinkler Finishes						
	15	15332	81	29JUL14	21NOV14	7
+ Electrical Finishes						
			120	14JUL14	05JAN15	4
+ Doors						
	08		47	16OCT14	23DEC14	11
+ Architectural Finishes						
			123	21JUL14	15JAN15	-4
+ Kitchen Equipment						
			72	02OCT14	16JAN15	0
+ Gym Equipment						
			36	20NOV14	13JAN15	-2
+ Traction Elevator						
			152	20MAR14	23OCT14	47
+ Hydraulic Passenger Elevator						
			137	07MAR14	18SEP14	64

Start Date	01AUG12
Finish Date	23MAY15
Data Date	08APR13

© Primavera Systems, Inc.

Early Bar
Progress Bar
Critical Activity

PQ02

Silverite Construction Co., Inc.

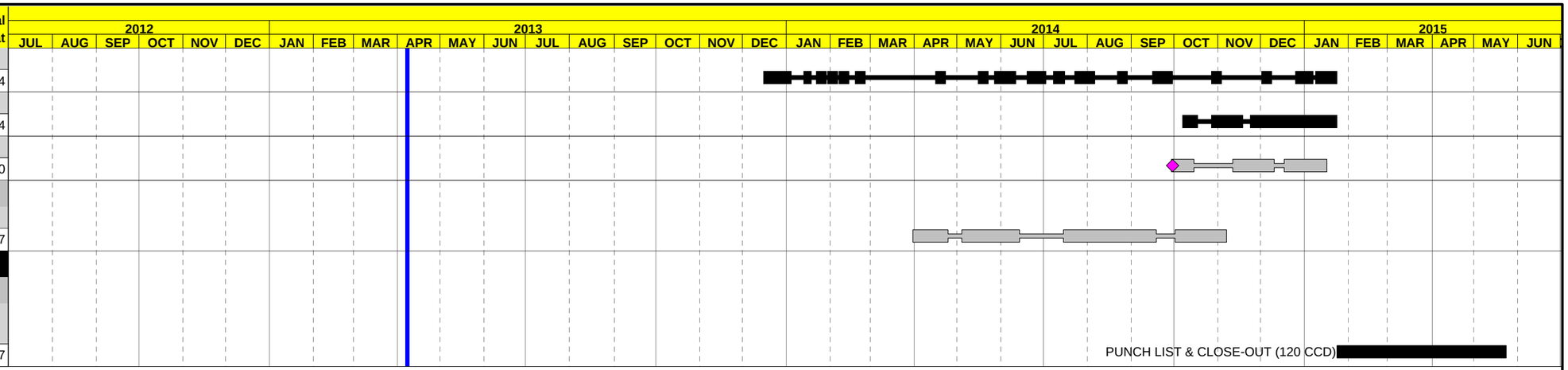
PS315, 43-18 97th Place, NY 11368

Schedule Update 02
Summary

Prepared by Avila Consultants, LLC.

Date	Revision	Checked	Approved
25APR13	Schedule Update 02	LPM/PC/REK	

Activity ID	DIV	SECT	Orig Dur	Early Start	Early Finish	Total Float
+ Inspections						
			277	16DEC13	23JAN15	-4
+ Start Up & testing						
			73	07OCT14	23JAN15	-4
+ Training						
			75	29SEP14	16JAN15	0
Outside Area						
+ Sitework						
			155	31MAR14	06NOV14	37
CLOSE-OUT						
Building Structure & Others						
Overview						
All						
BS-99998	01	01700G	120	24JAN15	23MAY15	-7



Start Date 01AUG12
Finish Date 23MAY15
Data Date 08APR13

Early Bar
Progress Bar
Critical Activity

© Primavera Systems, Inc.

PQ02

Silverite Construction Co., Inc.

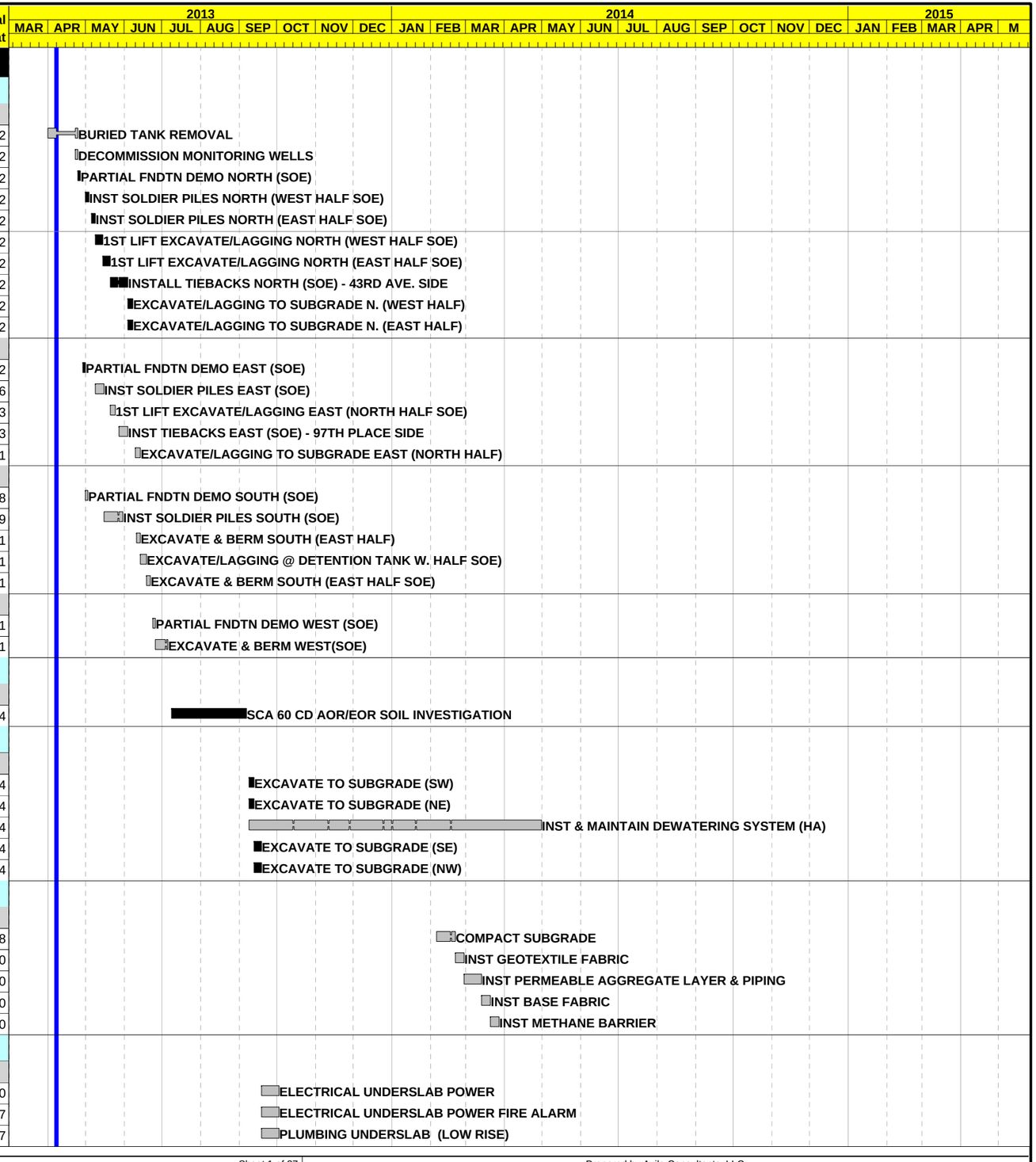
PS315, 43-18 97th Place, NY 11368

Schedule Update 02
Summary

Prepared by Avila Consultants, LLC.

Date	Revision	Checked	Approved
25APR13	Schedule Update 02	LPM/PC/REK	

Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
PS315, 43-18 97th Place, NY 11368											
Support of Excavation											
North											
BS-00186	BURIED TANK REMOVAL	BS	NORTH	02	02250	4	2	50	01APR13A	24APR13	42
BS-00188	DECOMMISSION MONITORING WELLS	BS	NORTH	02	02250	2	2	0	23APR13	24APR13	42
BS-00190	PARTIAL FNDTN DEMO NORTH (SOE)	BS	NORTH	02	02250	2	2	0	25APR13	26APR13	-2
BS-00192	INST SOLDIER PILES NORTH (WEST HALF SOE)	BS	NORTH	02	02250	3	3	0	01MAY13	03MAY13	-2
BS-00195	INST SOLDIER PILES NORTH (EAST HALF SOE)	BS	NORTH	02	02250	3	3	0	06MAY13	08MAY13	-2
BS-00200	1ST LIFT EXCAVATE/LAGGING NORTH (WEST HALF SOE)	BS	NORTH	02	02250	4	4	0	09MAY13	14MAY13	-2
BS-00203	1ST LIFT EXCAVATE/LAGGING NORTH (EAST HALF SOE)	BS	NORTH	02	02250	4	4	0	15MAY13	20MAY13	-2
BS-00205	INSTALL TIEBACKS NORTH (SOE) - 43RD AVE. SIDE	BS	NORTH	02	02250	9	9	0	21MAY13	03JUN13	-2
BS-00207	EXCAVATE/LAGGING TO SUBGRADE N. (WEST HALF)	BS	NORTH	02	02250	4	4	0	04JUN13	07JUN13	-2
BS-00209	EXCAVATE/LAGGING TO SUBGRADE N. (EAST HALF)	BS	NORTH	02	02250	4	4	0	04JUN13	07JUN13	-2
East											
BS-00211	PARTIAL FNDTN DEMO EAST (SOE)	BS	EAST	02	02250	2	2	0	29APR13	30APR13	-2
BS-00213	INST SOLDIER PILES EAST (SOE)	BS	EAST	02	02250	5	5	0	09MAY13	15MAY13	6
BS-00215	1ST LIFT EXCAVATE/LAGGING EAST (NORTH HALF SOE)	BS	EAST	02	02250	4	4	0	21MAY13	24MAY13	3
BS-00217	INST TIEBACKS EAST (SOE) - 97TH PLACE SIDE	BS	EAST	02	02250	5	5	0	28MAY13	03JUN13	3
BS-00219	EXCAVATE/LAGGING TO SUBGRADE EAST (NORTH HALF)	BS	EAST	02	02250	4	4	0	10JUN13	13JUN13	-1
South											
BS-00223	PARTIAL FNDTN DEMO SOUTH (SOE)	BS	SOUTH	02	02250	2	2	0	01MAY13	02MAY13	18
BS-00225	INST SOLDIER PILES SOUTH (SOE)	BS	SOUTH	02	02250	10	10	0	16MAY13	30MAY13	9
BS-00221	EXCAVATE & BERM SOUTH (EAST HALF)	BS	SOUTH	02	02250	3	3	0	11JUN13	13JUN13	-1
BS-00227	EXCAVATE/LAGGING @ DETENTION TANK W. HALF SOE)	BS	SOUTH	02	02250	3	3	0	14JUN13	18JUN13	-1
BS-00231	EXCAVATE & BERM SOUTH (EAST HALF SOE)	BS	SOUTH	02	02250	3	3	0	19JUN13	21JUN13	-1
West											
BS-00295	PARTIAL FNDTN DEMO WEST (SOE)	BS	WEST	02	02200	2	2	0	24JUN13	25JUN13	-1
BS-00300	EXCAVATE & BERM WEST(SOE)	BS	WEST	02	02200	7	7	0	26JUN13	05JUL13	-1
Soil Sampling											
All											
BS-00175	SCA 60 CD AOR/EOR SOIL INVESTIGATION	BS	00	02	02010	60	60	0	09JUL13	06SEP13	-4
Excavate to Subgrade											
All											
BS-00350	EXCAVATE TO SUBGRADE (SW)	BS	00	02	02200	4	4	0	09SEP13	12SEP13	-4
BS-00380	EXCAVATE TO SUBGRADE (NE)	BS	00	02	02200	4	4	0	09SEP13	12SEP13	-4
BS-00351	INST & MAINTAIN DEWATERING SYSTEM (HA)	BS	00	02	02200	161*	161*	0	09SEP13	30APR14	-4
BS-00360	EXCAVATE TO SUBGRADE (SE)	BS	00	02	02200	4	4	0	13SEP13	18SEP13	-4
BS-00390	EXCAVATE TO SUBGRADE (NW)	BS	00	02	02200	4	4	0	13SEP13	18SEP13	-4
Sub-Slub Depressurization System											
Underground											
BS-00500	COMPACT SUBGRADE	BS	U/G	02	02221	10	10	0	06FEB14	20FEB14	8
BS-00510	INST GEOTEXTILE FABRIC	BS	U/G	15	15880	5	5	0	21FEB14	27FEB14	10
BS-00520	INST PERMEABLE AGGREGATE LAYER & PIPING	BS	U/G	15	02221	10	10	0	28FEB14	13MAR14	10
BS-00530	INST BASE FABRIC	BS	U/G	15	15880	5	5	0	14MAR14	20MAR14	10
BS-00540	INST METHANE BARRIER	BS	U/G	15	15880	5	5	0	21MAR14	27MAR14	10
Plumbing & Elecrtical Underslab											
Underground											
BS-00410	ELECTRICAL UNDERSLAB POWER	BS	U/G	16	16010	10	10	0	19SEP13	02OCT13	30
BS-00420	ELECTRICAL UNDERSLAB POWER FIRE ALARM	BS	U/G	16	16010	10	10	0	19SEP13	02OCT13	87
BS-00440	PLUMBING UNDERSLAB (LOW RISE)	BS	U/G	15	15410	10	10	0	19SEP13	02OCT13	87



Start Date 01AUG12
Finish Date 23MAY15
Data Date 08APR13
Run Date 25APR13 14:08

Early Bar
Progress Bar
Critical Activity

© Primavera Systems, Inc.

PQ02

Silverite Construction Co., Inc.

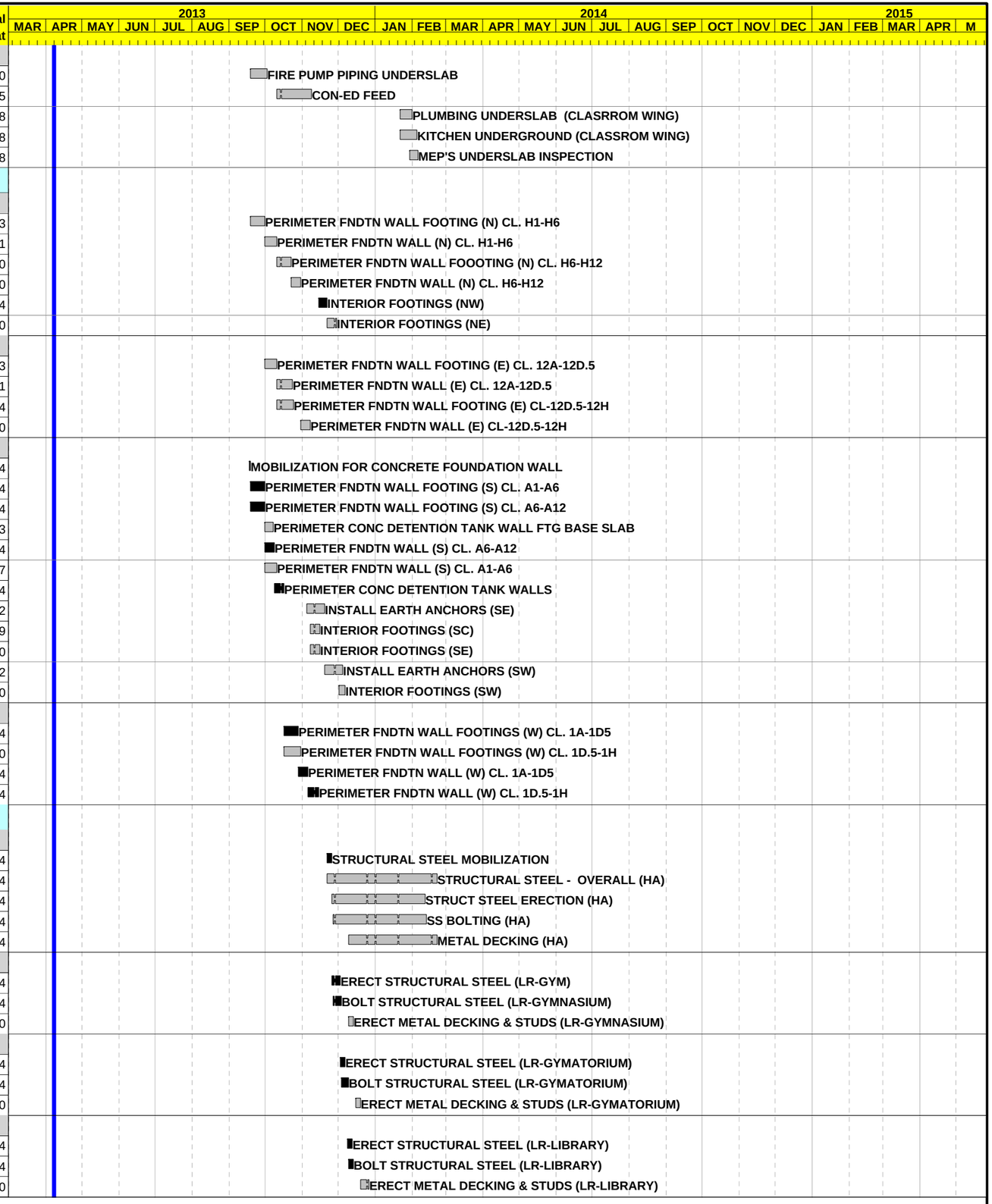
PS315, 43-18 97th Place, NY 11368

Schedule Update 02
Construction Activities

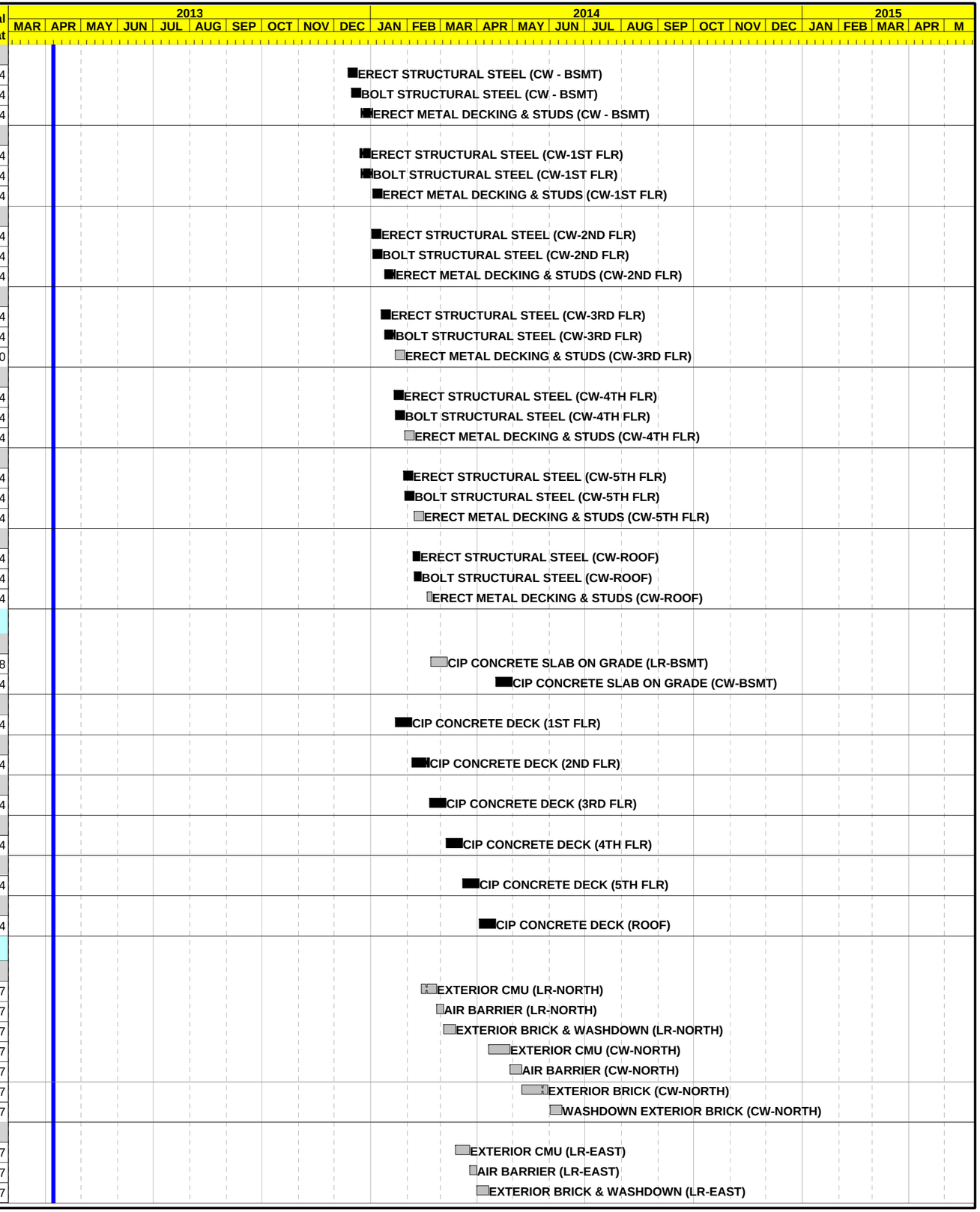
Prepared by Avila Consultants, LLC

Date	Revision	Checked	Approved
25APR13	Schedule Update 02		

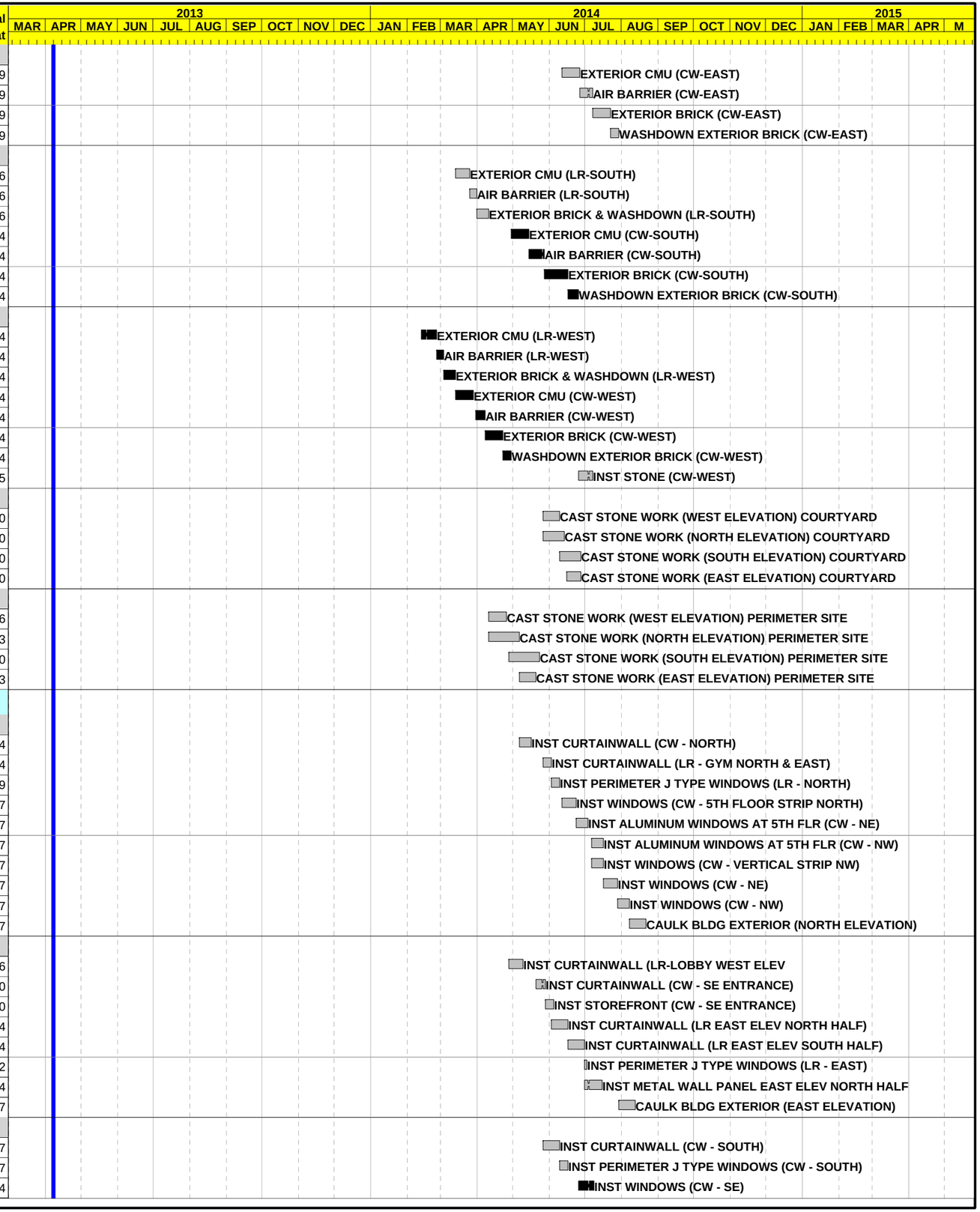
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Underground											
BS-00460	FIRE PUMP PIPING UNDERSLAB	BS	U/G	15	15333	10	10	0	19SEP13	02OCT13	30
BS-00560	CON-ED FEED	BS	U/G	16	16010	20	20	0	11OCT13	08NOV13	235
BS-00430	PLUMBING UNDERSLAB (CLASRROM WING)	BS	U/G	15	15410	8	8	0	22JAN14	31JAN14	8
BS-00450	KITCHEN UNDERGROUND (CLASSROM WING)	BS	U/G	15	11400	10	10	0	22JAN14	04FEB14	8
BS-00441	MEP'S UNDERSLAB INSPECTION	BS	U/G	15	NA	5	5	0	30JAN14	05FEB14	8
Concrete Fdn Wall & Interior Footings											
North											
BS-02885	PERIMETER FNDTN WALL FOOTING (N) CL. H1-H6	BS	NORTH	03	03300	8	8	0	19SEP13	30SEP13	-3
BS-02790	PERIMETER FNDTN WALL (N) CL. H1-H6	BS	NORTH	03	03300	8	8	0	01OCT13	10OCT13	11
BS-02778	PERIMETER FNDTN WALL FOOOTING (N) CL. H6-H12	BS	NORTH	03	03300	7	7	0	11OCT13	22OCT13	0
BS-02780	PERIMETER FNDTN WALL (N) CL. H6-H12	BS	NORTH	03	03300	6	6	0	23OCT13	30OCT13	0
BS-02815	INTERIOR FOOTINGS (NW)	BS	NORTH	02	02250	5	5	0	15NOV13	21NOV13	-4
BS-02810	INTERIOR FOOTINGS (NE)	BS	NORTH	02	02250	5	5	0	22NOV13	29NOV13	0
East											
BS-02793	PERIMETER FNDTN WALL FOOTING (E) CL. 12A-12D.5	BS	EAST	03	03300	8	8	0	01OCT13	10OCT13	-3
BS-02795	PERIMETER FNDTN WALL (E) CL. 12A-12D.5	BS	EAST	03	03300	8	8	0	11OCT13	23OCT13	11
BS-02798	PERIMETER FNDTN WALL FOOTING (E) CL-12D.5-12H	BS	EAST	03	03300	9	9	0	11OCT13	24OCT13	4
BS-02800	PERIMETER FNDTN WALL (E) CL-12D.5-12H	BS	EAST	03	03300	6	6	0	31OCT13	07NOV13	0
South											
BS-02750	MOBILIZATION FOR CONCRETE FOUNDATION WALL	BS	SOUTH	03	03300	1	1	0	18SEP13	18SEP13	-4
BS-02753	PERIMETER FNDTN WALL FOOTING (S) CL. A1-A6	BS	SOUTH	03	03300	8	8	0	19SEP13	30SEP13	-4
BS-02758	PERIMETER FNDTN WALL FOOTING (S) CL. A6-A12	BS	SOUTH	03	03300	8	8	0	19SEP13	30SEP13	-4
BS-02763	PERIMETER CONC DETENTION TANK WALL FTG BASE SLAB	BS	SOUTH	03	03300	5	5	0	01OCT13	07OCT13	-3
BS-02760	PERIMETER FNDTN WALL (S) CL. A6-A12	BS	SOUTH	03	03300	6	6	0	01OCT13	08OCT13	-4
BS-02755	PERIMETER FNDTN WALL (S) CL. A1-A6	BS	SOUTH	03	03300	8	8	0	01OCT13	10OCT13	7
BS-02765	PERIMETER CONC DETENTION TANK WALLS	BS	SOUTH	03	03300	5	5	0	09OCT13	16OCT13	-4
BS-02830	INSTALL EARTH ANCHORS (SE)	BS	SOUTH	02	02200	10	10	0	05NOV13	19NOV13	2
BS-02805	INTERIOR FOOTINGS (SC)	BS	SOUTH	02	02250	5	5	0	08NOV13	15NOV13	9
BS-02820	INTERIOR FOOTINGS (SE)	BS	SOUTH	02	02250	5	5	0	08NOV13	15NOV13	0
BS-02840	INSTALL EARTH ANCHORS (SW)	BS	SOUTH	02	02200	10	10	0	20NOV13	04DEC13	2
BS-02825	INTERIOR FOOTINGS (SW)	BS	SOUTH	02	02250	5	5	0	02DEC13	06DEC13	0
West											
BS-02768	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1A-1D5	BS	WEST	03	03300	8	8	0	17OCT13	28OCT13	-4
BS-02773	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1D.5-1H	BS	WEST	03	03300	10	10	0	17OCT13	30OCT13	0
BS-02770	PERIMETER FNDTN WALL (W) CL. 1A-1D5	BS	WEST	03	03300	6	6	0	29OCT13	05NOV13	-4
BS-02775	PERIMETER FNDTN WALL (W) CL. 1D.5-1H	BS	WEST	03	03300	6	6	0	06NOV13	14NOV13	-4
Structural Steel											
All											
BS-05001	STRUCTURAL STEEL MOBILIZATION	BS	00	05	05120	2	2	0	22NOV13	25NOV13	-4
BS-050L1	STRUCTURAL STEEL - OVERALL (HA)	BS	00	05	05120	61*	61*	0	22NOV13	21FEB14	4
BS-050L2	STRUCT STEEL ERECTION (HA)	BS	00	05	05120	52*	52*	0	26NOV13	11FEB14	-4
BS-050L3	SS BOLTING (HA)	BS	00	05	05120	52*	52*	0	27NOV13	12FEB14	-4
BS-050L4	METAL DECKING (HA)	BS	00	05	05300	50*	50*	0	10DEC13	21FEB14	4
Basement & Gymnasium											
BS-05003	ERECT STRUCTURAL STEEL (LR-GYM)	BS	CRG	05	05120	4	4	0	26NOV13	02DEC13	-4
BS-05005	BOLT STRUCTURAL STEEL (LR-GYMNASIUM)	BS	CRG	05	05120	4	4	0	27NOV13	03DEC13	-4
BS-05017	ERECT METAL DECKING & STUDS (LR-GYMNASIUM)	BS	CRG	05	05300	4	4	0	10DEC13	13DEC13	40
Gymatorium											
BS-05013	ERECT STRUCTURAL STEEL (LR-GYMATORIUM)	BS	CRA	05	05120	4	4	0	03DEC13	06DEC13	-4
BS-05015	BOLT STRUCTURAL STEEL (LR-GYMATORIUM)	BS	CRA	05	05120	4	4	0	04DEC13	09DEC13	-4
BS-05027	ERECT METAL DECKING & STUDS (LR-GYMATORIUM)	BS	CRA	05	05300	4	4	0	16DEC13	19DEC13	40
Library											
BS-05023	ERECT STRUCTURAL STEEL (LR-LIBRARY)	BS	CRL	05	05120	4	4	0	09DEC13	12DEC13	-4
BS-05025	BOLT STRUCTURAL STEEL (LR-LIBRARY)	BS	CRL	05	05120	4	4	0	10DEC13	13DEC13	-4
BS-05057	ERECT METAL DECKING & STUDS (LR-LIBRARY)	BS	CRL	05	05300	4	4	0	20DEC13	26DEC13	40



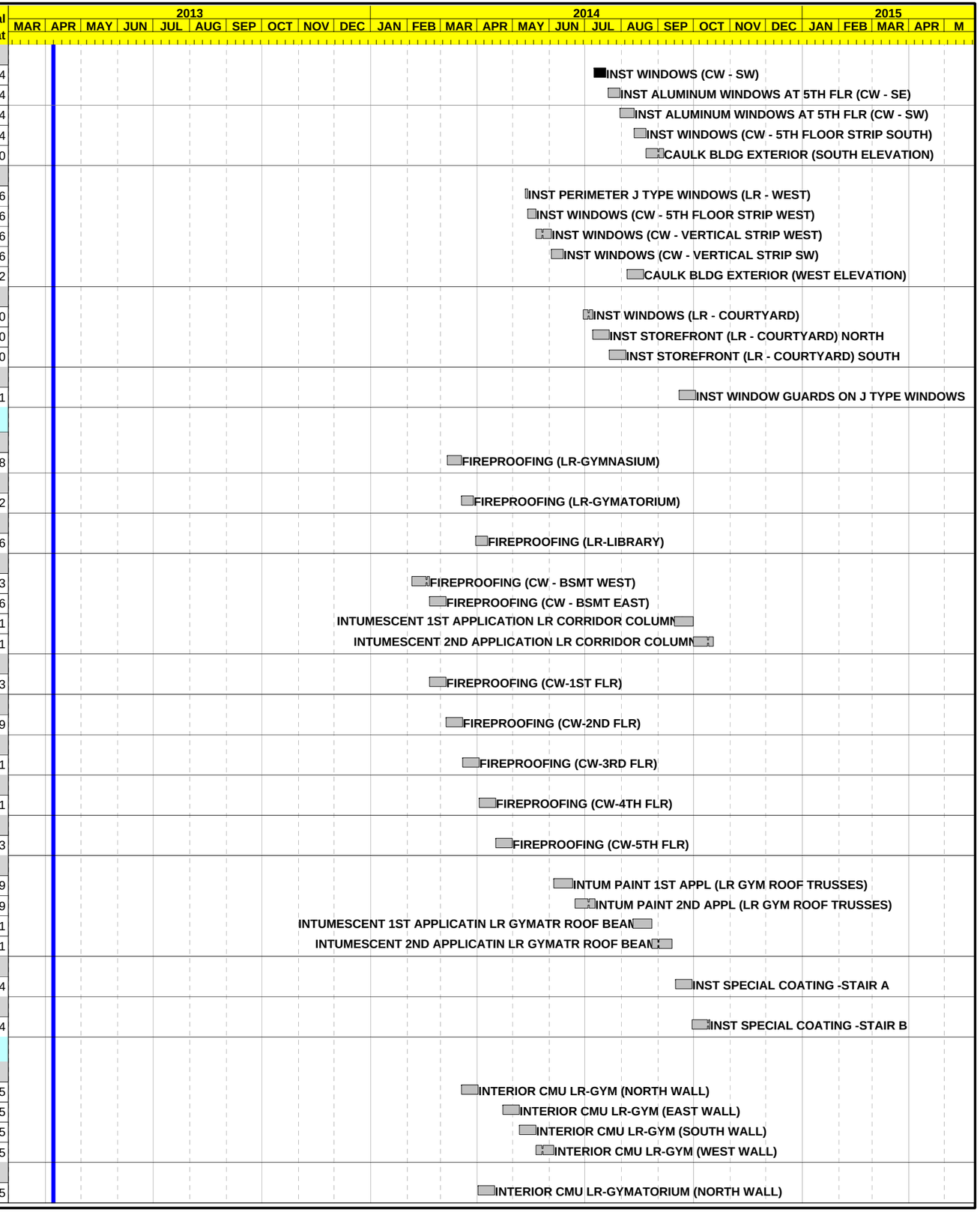
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Basement											
BS-05063	ERECT STRUCTURAL STEEL (CW - BSMT)	BS	CR	05	05120	6	6	0	13DEC13	20DEC13	-4
BS-05065	BOLT STRUCTURAL STEEL (CW - BSMT)	BS	CR	05	05120	6	6	0	16DEC13	23DEC13	-4
BS-05067	ERECT METAL DECKING & STUDS (CW - BSMT)	BS	CR	05	05300	6	6	0	24DEC13	02JAN14	-4
1st Floor											
BS-05073	ERECT STRUCTURAL STEEL (CW-1ST FLR)	BS	01	05	05120	6	6	0	23DEC13	31DEC13	-4
BS-05075	BOLT STRUCTURAL STEEL (CW-1ST FLR)	BS	01	05	05120	6	6	0	24DEC13	02JAN14	-4
BS-05077	ERECT METAL DECKING & STUDS (CW-1ST FLR)	BS	01	05	05300	6	6	0	03JAN14	10JAN14	-4
2nd Floor											
BS-05083	ERECT STRUCTURAL STEEL (CW-2ND FLR)	BS	02	05	05120	6	6	0	02JAN14	09JAN14	-4
BS-05085	BOLT STRUCTURAL STEEL (CW-2ND FLR)	BS	02	05	05120	6	6	0	03JAN14	10JAN14	-4
BS-05087	ERECT METAL DECKING & STUDS (CW-2ND FLR)	BS	02	05	05300	6	6	0	13JAN14	21JAN14	-4
3rd Floor											
BS-05093	ERECT STRUCTURAL STEEL (CW-3RD FLR)	BS	03	05	05120	6	6	0	10JAN14	17JAN14	-4
BS-05095	BOLT STRUCTURAL STEEL (CW-3RD FLR)	BS	03	05	05120	6	6	0	13JAN14	21JAN14	-4
BS-05097	ERECT METAL DECKING & STUDS (CW-3RD FLR)	BS	03	05	05300	6	6	0	22JAN14	29JAN14	0
4th Floor											
BS-05103	ERECT STRUCTURAL STEEL (CW-4TH FLR)	BS	04	05	05120	6	6	0	21JAN14	28JAN14	-4
BS-04105	BOLT STRUCTURAL STEEL (CW-4TH FLR)	BS	04	05	05120	6	6	0	22JAN14	29JAN14	-4
BS-05107	ERECT METAL DECKING & STUDS (CW-4TH FLR)	BS	04	05	05300	6	6	0	30JAN14	06FEB14	4
5th Floor											
BS-05203	ERECT STRUCTURAL STEEL (CW-5TH FLR)	BS	05	05	05120	6	6	0	29JAN14	05FEB14	-4
BS-05205	BOLT STRUCTURAL STEEL (CW-5TH FLR)	BS	05	05	05120	6	6	0	30JAN14	06FEB14	-4
BS-05207	ERECT METAL DECKING & STUDS (CW-5TH FLR)	BS	05	05	05300	6	6	0	07FEB14	14FEB14	4
Upper Roof											
BS-05303	ERECT STRUCTURAL STEEL (CW-ROOF)	BS	RF	05	05120	4	4	0	06FEB14	11FEB14	-4
BS-05305	BOLT STRUCTURAL STEEL (CW-ROOF)	BS	RF	05	05120	4	4	0	07FEB14	12FEB14	-4
BS-05307	ERECT METAL DECKING & STUDS (CW-ROOF)	BS	RF	05	05300	4	4	0	18FEB14	21FEB14	4
Elevated CIP Decks & Slab On Grade											
Basement											
BS-05500	CIP CONCRETE SLAB ON GRADE (LR-BSMT)	BS	CR	03	03300	10	10	0	21FEB14	06MAR14	8
BS-05505	CIP CONCRETE SLAB ON GRADE (CW-BSMT)	BS	CR	03	03300	10	10	0	17APR14	30APR14	-4
1st Floor											
BS-05510	CIP CONCRETE DECK (1ST FLR)	BS	01	03	03300	10	10	0	22JAN14	04FEB14	-4
2nd Floor											
BS-05520	CIP CONCRETE DECK (2ND FLR)	BS	02	03	03300	10	10	0	05FEB14	19FEB14	-4
3rd Floor											
BS-05530	CIP CONCRETE DECK (3RD FLR)	BS	03	03	03300	10	10	0	20FEB14	05MAR14	-4
4th Floor											
BS-05540	CIP CONCRETE DECK (4TH FLR)	BS	04	03	03300	10	10	0	06MAR14	19MAR14	-4
5th Floor											
BS-05550	CIP CONCRETE DECK (5TH FLR)	BS	05	03	03300	10	10	0	20MAR14	02APR14	-4
Upper Roof											
BS-05560	CIP CONCRETE DECK (ROOF)	BS	RF	03	03300	10	10	0	03APR14	16APR14	-4
Exterior Masonry & Stone											
North											
BS-06270	EXTERIOR CMU (LR-NORTH)	BS	NORTH	04	04200	8	8	0	13FEB14	25FEB14	17
BS-06440	AIR BARRIER (LR-NORTH)	BS	NORTH	04	04200	4	4	0	26FEB14	03MAR14	17
BS-06470	EXTERIOR BRICK & WASHDOWN (LR-NORTH)	BS	NORTH	04	04200	8	8	0	04MAR14	13MAR14	17
BS-06800	EXTERIOR CMU (CW-NORTH)	BS	NORTH	04	04200	12	12	0	11APR14	28APR14	17
BS-06810	AIR BARRIER (CW-NORTH)	BS	NORTH	04	04200	8	8	0	29APR14	08MAY14	17
BS-06820	EXTERIOR BRICK (CW-NORTH)	BS	NORTH	04	04200	15	15	0	09MAY14	30MAY14	17
BS-06830	WASHDOWN EXTERIOR BRICK (CW-NORTH)	BS	NORTH	04	04200	8	8	0	02JUN14	11JUN14	17
East											
BS-06015	EXTERIOR CMU (LR-EAST)	BS	EAST	04	04200	8	8	0	14MAR14	25MAR14	17
BS-06035	AIR BARRIER (LR-EAST)	BS	EAST	04	04200	4	4	0	26MAR14	31MAR14	17
BS-06045	EXTERIOR BRICK & WASHDOWN (LR-EAST)	BS	EAST	04	04200	8	8	0	01APR14	10APR14	17



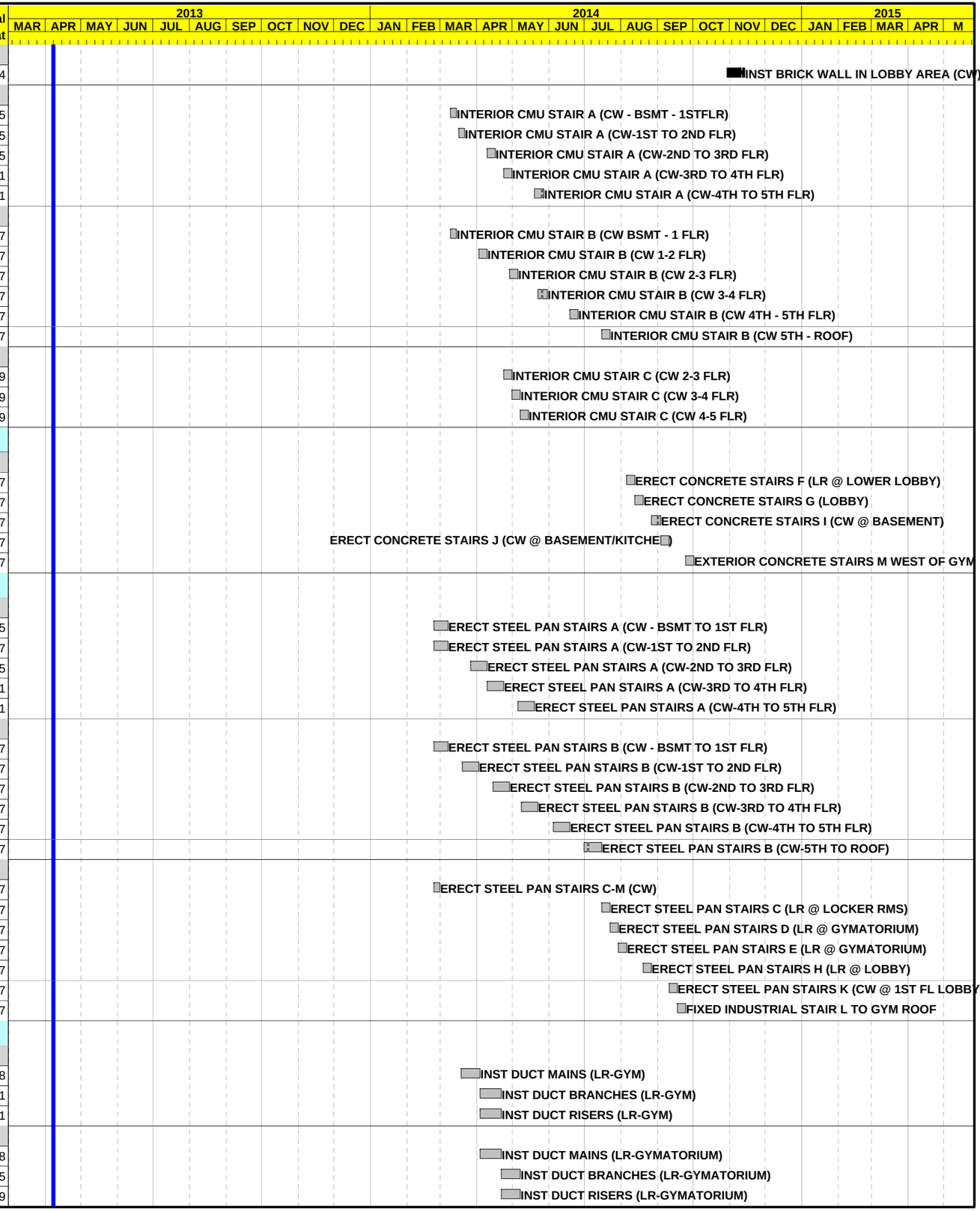
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
East											
BS-06880	EXTERIOR CMU (CW-EAST)	BS	EAST	04	04200	11	11	0	12JUN14	26JUN14	29
BS-06890	AIR BARRIER (CW-EAST)	BS	EAST	04	04200	6	6	0	27JUN14	07JUL14	29
BS-06900	EXTERIOR BRICK (CW-EAST)	BS	EAST	04	04200	11	11	0	08JUL14	22JUL14	29
BS-06910	WASHDOWN EXTERIOR BRICK (CW-EAST)	BS	EAST	04	04200	5	5	0	23JUL14	29JUL14	29
South											
BS-06020	EXTERIOR CMU (LR-SOUTH)	BS	SOUTH	04	04200	8	8	0	14MAR14	25MAR14	26
BS-06040	AIR BARRIER (LR-SOUTH)	BS	SOUTH	04	04200	4	4	0	26MAR14	31MAR14	26
BS-06050	EXTERIOR BRICK & WASHDOWN (LR-SOUTH)	BS	SOUTH	04	04200	8	8	0	01APR14	10APR14	26
BS-06920	EXTERIOR CMU (CW-SOUTH)	BS	SOUTH	04	04200	11	11	0	30APR14	14MAY14	-4
BS-06930	AIR BARRIER (CW-SOUTH)	BS	SOUTH	04	04200	8	8	0	15MAY14	27MAY14	-4
BS-06940	EXTERIOR BRICK (CW-SOUTH)	BS	SOUTH	04	04200	14	14	0	28MAY14	16JUN14	-4
BS-06950	WASHDOWN EXTERIOR BRICK (CW-SOUTH)	BS	SOUTH	04	04200	7	7	0	17JUN14	25JUN14	-4
West											
BS-06480	EXTERIOR CMU (LR-WEST)	BS	WEST	04	04200	8	8	0	13FEB14	25FEB14	-4
BS-06490	AIR BARRIER (LR-WEST)	BS	WEST	04	04200	4	4	0	26FEB14	03MAR14	-4
BS-06790	EXTERIOR BRICK & WASHDOWN (LR-WEST)	BS	WEST	04	04200	8	8	0	04MAR14	13MAR14	-4
BS-06840	EXTERIOR CMU (CW-WEST)	BS	WEST	04	04200	11	11	0	14MAR14	28MAR14	-4
BS-06850	AIR BARRIER (CW-WEST)	BS	WEST	04	04200	6	6	0	31MAR14	07APR14	-4
BS-06860	EXTERIOR BRICK (CW-WEST)	BS	WEST	04	04200	11	11	0	08APR14	22APR14	-4
BS-06870	WASHDOWN EXTERIOR BRICK (CW-WEST)	BS	WEST	04	04200	5	5	0	23APR14	29APR14	-4
BS-06025	INST STONE (CW-WEST)	BS	WEST	04	04200	7	7	0	26JUN14	07JUL14	45
Courtyard											
BS-06355	CAST STONE WORK (WEST ELEVATION) COURTYARD	BS	CY	04	04435	10	10	0	27MAY14	09JUN14	30
BS-06351	CAST STONE WORK (NORTH ELEVATION) COURTYARD	BS	CY	04	04435	14	14	0	27MAY14	13JUN14	30
BS-06357	CAST STONE WORK (SOUTH ELEVATION) COURTYARD	BS	CY	04	04435	14	14	0	10JUN14	27JUN14	30
BS-06353	CAST STONE WORK (EAST ELEVATION) COURTYARD	BS	CY	04	04435	10	10	0	16JUN14	27JUN14	30
Perimeter site											
BS-06347	CAST STONE WORK (WEST ELEVATION) PERIMETER SITE	BS	PS	04	04435	11	11	0	11APR14	25APR14	26
BS-06343	CAST STONE WORK (NORTH ELEVATION) PERIMETER SITE	BS	PS	04	04435	18	18	0	11APR14	06MAY14	33
BS-06349	CAST STONE WORK (SOUTH ELEVATION) PERIMETER SITE	BS	PS	04	04435	20	20	0	28APR14	23MAY14	30
BS-06345	CAST STONE WORK (EAST ELEVATION) PERIMETER SITE	BS	PS	04	04435	10	10	0	07MAY14	20MAY14	33
Curtainwall & Windows											
North											
BS-06510	INST CURTAINWALL (CW - NORTH)	BS	NORTH	08	08920	8	8	0	07MAY14	16MAY14	74
BS-06580	INST CURTAINWALL (LR - GYM NORTH & EAST)	BS	NORTH	08	08920	5	5	0	27MAY14	02JUN14	44
BS-06770	INST PERIMETER J TYPE WINDOWS (LR - NORTH)	BS	NORTH	08	08525	5	5	0	03JUN14	09JUN14	59
BS-06640	INST WINDOWS (CW - 5TH FLOOR STRIP NORTH)	BS	NORTH	08	08525	8	8	0	12JUN14	23JUN14	17
BS-06520	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NE)	BS	NORTH	08	08525	8	8	0	24JUN14	03JUL14	17
BS-06530	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NW)	BS	NORTH	08	08525	8	8	0	07JUL14	16JUL14	17
BS-06710	INST WINDOWS (CW - VERTICAL STRIP NW)	BS	NORTH	08	08525	8	8	0	07JUL14	16JUL14	17
BS-06670	INST WINDOWS (CW - NE)	BS	NORTH	08	08525	8	8	0	17JUL14	28JUL14	17
BS-06680	INST WINDOWS (CW - NW)	BS	NORTH	08	08525	8	8	0	29JUL14	07AUG14	17
BS-06465	CAULK BLDG EXTERIOR (NORTH ELEVATION)	BS	NORTH	07	07900	10	10	0	08AUG14	21AUG14	17
East											
BS-06740	INST CURTAINWALL (LR-LOBBY WEST ELEV	BS	EAST	08	08400	10	10	0	28APR14	09MAY14	26
BS-06560	INST CURTAINWALL (CW - SE ENTRANCE)	BS	EAST	08	08920	5	5	0	21MAY14	28MAY14	140
BS-06570	INST STOREFRONT (CW - SE ENTRANCE)	BS	EAST	08	08400	5	5	0	29MAY14	04JUN14	140
BS-06610	INST CURTAINWALL (LR EAST ELEV NORTH HALF)	BS	EAST	08	08400	10	10	0	03JUN14	16JUN14	44
BS-06620	INST CURTAINWALL (LR EAST ELEV SOUTH HALF)	BS	EAST	08	08400	10	10	0	17JUN14	30JUN14	44
BS-06750	INST PERIMETER J TYPE WINDOWS (LR - EAST)	BS	EAST	08	08525	2	2	0	01JUL14	02JUL14	52
BS-06615	INST METAL WALL PANEL EAST ELEV NORTH HALF	BS	EAST	07	07421	10	10	0	01JUL14	15JUL14	44
BS-06455	CAULK BLDG EXTERIOR (EAST ELEVATION)	BS	EAST	07	07900	10	10	0	30JUL14	12AUG14	107
South											
BS-06500	INST CURTAINWALL (CW - SOUTH)	BS	SOUTH	08	08920	10	10	0	27MAY14	09JUN14	137
BS-06780	INST PERIMETER J TYPE WINDOWS (CW - SOUTH)	BS	SOUTH	08	08525	5	5	0	10JUN14	16JUN14	137
BS-06690	INST WINDOWS (CW - SE)	BS	SOUTH	08	08525	8	8	0	26JUN14	08JUL14	-4



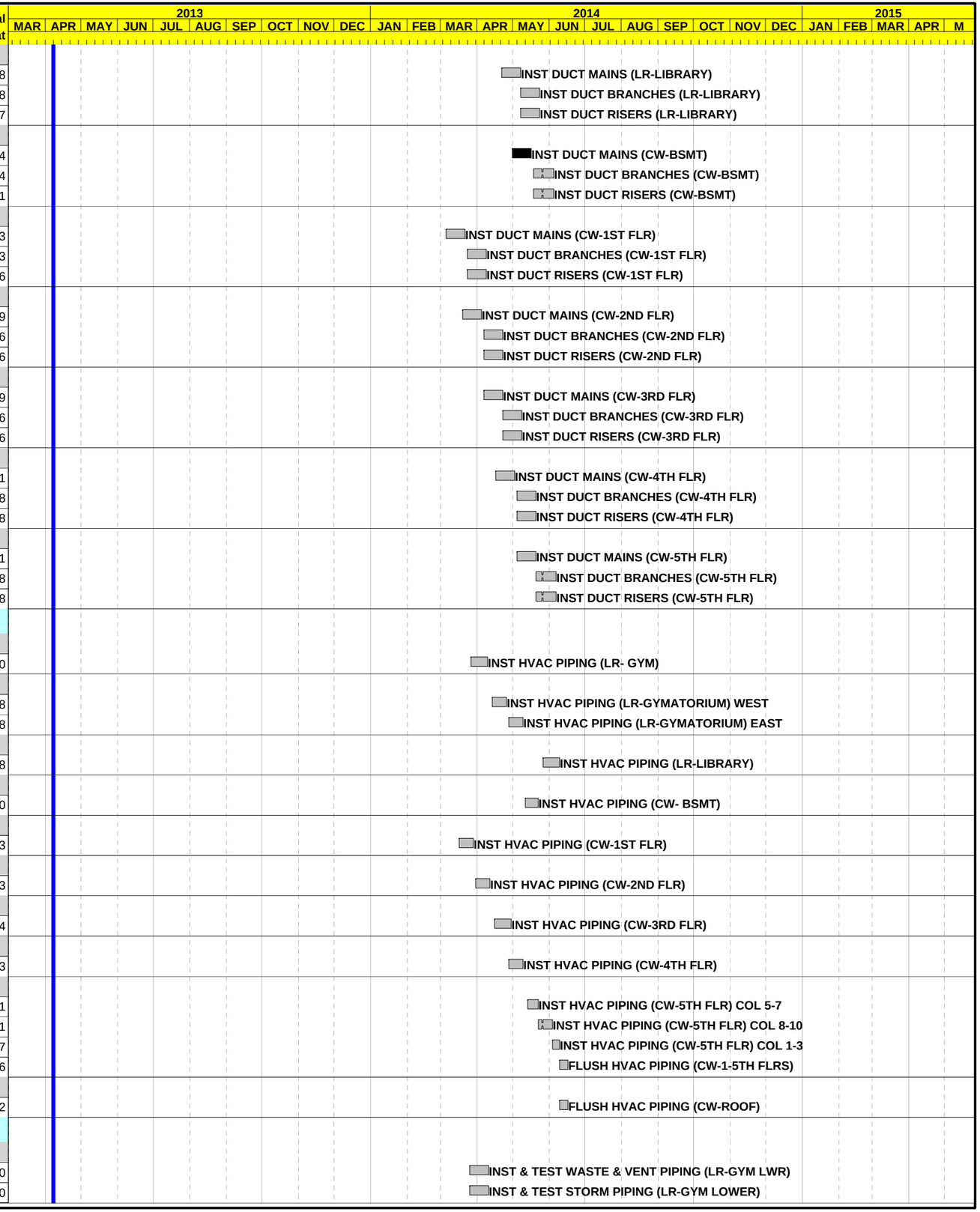
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
South											
BS-06700	INST WINDOWS (CW - SW)	BS	SOUTH	08	08525	8	8	0	09JUL14	18JUL14	-4
BS-06540	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SE)	BS	SOUTH	08	08525	8	8	0	21JUL14	30JUL14	4
BS-06550	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SW)	BS	SOUTH	08	08525	8	8	0	31JUL14	11AUG14	4
BS-06650	INST WINDOWS (CW - 5TH FLOOR STRIP SOUTH)	BS	SOUTH	08	08525	8	8	0	12AUG14	21AUG14	4
BS-06460	CAULK BLDG EXTERIOR (SOUTH ELEVATION)	BS	SOUTH	07	07900	10	10	0	22AUG14	05SEP14	90
West											
BS-06760	INST PERIMETER J TYPE WINDOWS (LR - WEST)	BS	WEST	08	08525	2	2	0	12MAY14	13MAY14	26
BS-06630	INST WINDOWS (CW - 5TH FLOOR STRIP WEST)	BS	WEST	08	08525	5	5	0	14MAY14	20MAY14	66
BS-06660	INST WINDOWS (CW - VERTICAL STRIP WEST)	BS	WEST	08	08525	8	8	0	21MAY14	02JUN14	66
BS-06720	INST WINDOWS (CW - VERTICAL STRIP SW)	BS	WEST	08	08525	8	8	0	03JUN14	12JUN14	66
BS-06450	CAULK BLDG EXTERIOR (WEST ELEVATION)	BS	WEST	07	07900	10	10	0	06AUG14	19AUG14	102
Courtyard											
BS-06730	INST WINDOWS (LR - COURTYARD)	BS	CY	08	08525	5	5	0	30JUN14	07JUL14	30
BS-06590	INST STOREFRONT (LR - COURTYARD) NORTH	BS	CY	08	08400	10	10	0	08JUL14	21JUL14	30
BS-06600	INST STOREFRONT (LR - COURTYARD) SOUTH	BS	CY	08	08400	10	10	0	22JUL14	04AUG14	30
Perimeter site											
BS-02270	INST WINDOW GUARDS ON J TYPE WINDOWS	BS	PS	10	10720	10	10	0	19SEP14	02OCT14	71
Fireprrofing											
Basement & Gymnasium											
LR-00215	FIREPROOFING (LR-GYMNASIUM)	BS	CRG	07	07250	8	8	0	07MAR14	18MAR14	8
Gymatorium											
LR-02220	FIREPROOFING (LR-GYMATORIUM)	BS	CRA	07	07250	8	8	0	19MAR14	28MAR14	12
Library											
LR-03230	FIREPROOFING (LR-LIBRARY)	BS	CRL	07	07250	8	8	0	31MAR14	09APR14	16
Basement											
CW-30100	FIREPROOFING (CW - BSMT WEST)	BS	CR	07	07250	10	10	0	05FEB14	19FEB14	23
CW-30105	FIREPROOFING (CW - BSMT EAST)	BS	CR	07	07250	10	10	0	20FEB14	05MAR14	36
LR-02377	INTUMESCENT 1ST APPLICATION LR CORRIDOR COLUMNS	BS	CR	07	07260	12	12	0	15SEP14	30SEP14	-1
LR-02382	INTUMESCENT 2ND APPLICATION LR CORRIDOR COLUMNS	BS	CR	07	07260	12	12	0	01OCT14	17OCT14	-1
1st Floor											
CW-31100	FIREPROOFING (CW-1ST FLR)	BS	01	07	07250	10	10	0	20FEB14	05MAR14	13
2nd Floor											
CW-32100	FIREPROOFING (CW-2ND FLR)	BS	02	07	07250	10	10	0	06MAR14	19MAR14	9
3rd Floor											
CW-33100	FIREPROOFING (CW-3RD FLR)	BS	03	07	07250	10	10	0	20MAR14	02APR14	11
4th Floor											
CW-34100	FIREPROOFING (CW-4TH FLR)	BS	04	07	07250	10	10	0	03APR14	16APR14	1
5th Floor											
CW-35100	FIREPROOFING (CW-5TH FLR)	BS	05	07	07250	10	10	0	17APR14	30APR14	3
Upper Roof											
LR-02370	INTUM PAINT 1ST APPL (LR GYM ROOF TRUSSES)	BS	RF	07	07260	12	12	0	05JUN14	20JUN14	89
LR-02373	INTUM PAINT 2ND APPL (LR GYM ROOF TRUSSES)	BS	RF	07	07260	12	12	0	23JUN14	09JUL14	89
LR-02375	INTUMESCENT 1ST APPLICATIN LR GYMATR ROOF BEAMS	BS	RF	07	07260	12	12	0	11AUG14	26AUG14	-1
LR-02380	INTUMESCENT 2ND APPLICATIN LR GYMATR ROOF BEAMS	BS	RF	07	07260	12	12	0	27AUG14	12SEP14	-1
Stair A											
CW-02230	INST SPECIAL COATING -STAIR A	BS	SA	07	07260	10	10	0	16SEP14	29SEP14	44
Stair B											
CW-00088	INST SPECIAL COATING -STAIR B	BS	SB	07	07260	10	10	0	30SEP14	14OCT14	44
Interior Masonry											
Basement & Gymnasium											
BS-07000	INTERIOR CMU LR-GYM (NORTH WALL)	BS	CRG	04	04200	10	10	0	19MAR14	01APR14	45
BS-07010	INTERIOR CMU LR-GYM (EAST WALL)	BS	CRG	04	04200	10	10	0	23APR14	06MAY14	45
BS-07020	INTERIOR CMU LR-GYM (SOUTH WALL)	BS	CRG	04	04200	10	10	0	07MAY14	20MAY14	45
BS-07030	INTERIOR CMU LR-GYM (WEST WALL)	BS	CRG	04	04200	10	10	0	21MAY14	04JUN14	45
Gymatorium											
BS-07040	INTERIOR CMU LR-GYMATORIUM (NORTH WALL)	BS	CRA	04	04200	10	10	0	02APR14	15APR14	45



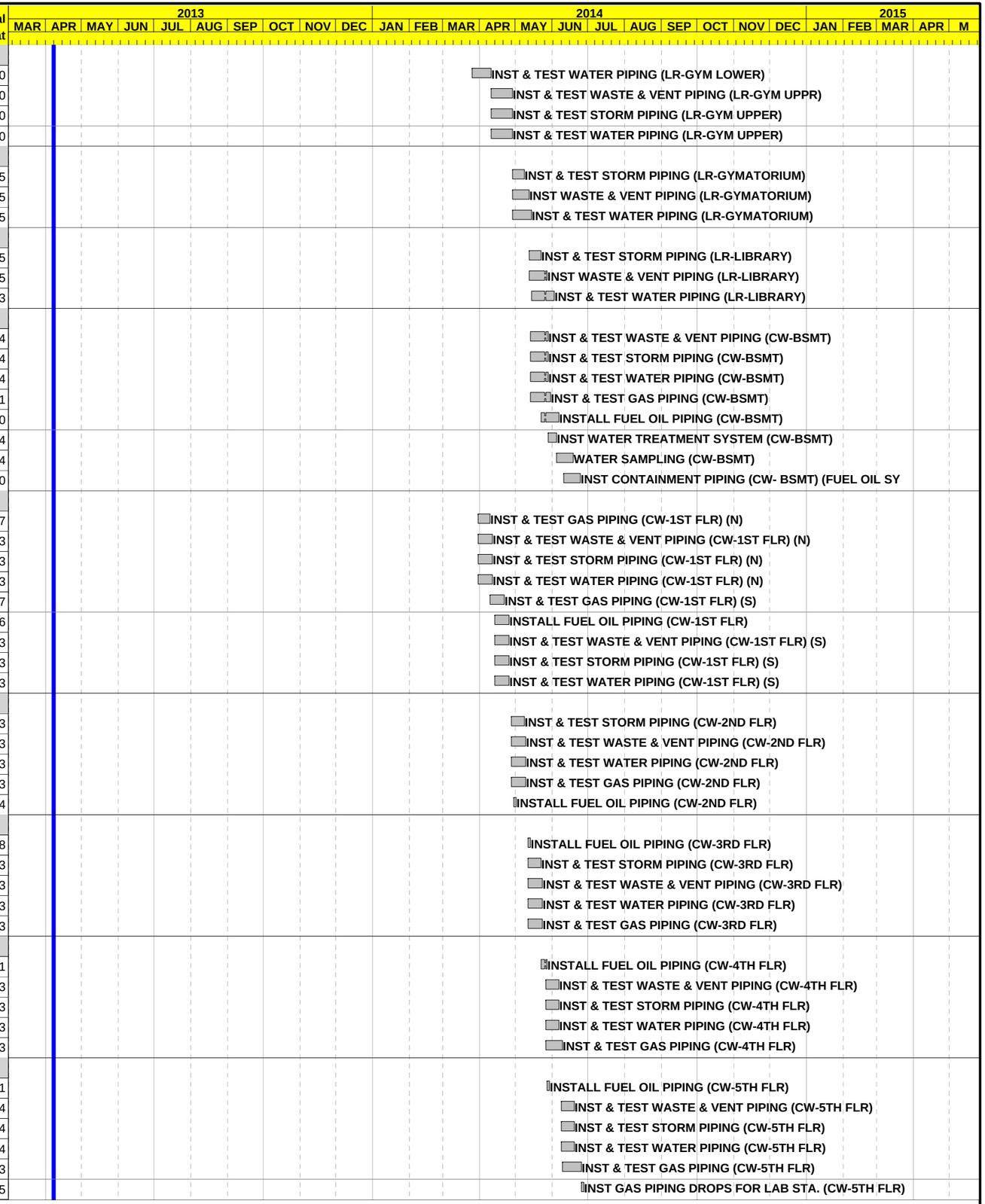
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
1st Floor											
CW-11183	INST BRICK WALL IN LOBBY AREA (CW)	BS	01	04	04200	10	10	0	30OCT14	13NOV14	-4
Stair A											
CW-01445	INTERIOR CMU STAIR A (CW - BSMT - 1STFLR)	BS	SA	04	04200	5	5	0	10MAR14	14MAR14	65
CW-01447	INTERIOR CMU STAIR A (CW-1ST TO 2ND FLR)	BS	SA	04	04200	5	5	0	17MAR14	21MAR14	65
CW-02212	INTERIOR CMU STAIR A (CW-2ND TO 3RD FLR)	BS	SA	04	04200	5	5	0	10APR14	16APR14	65
CW-02218	INTERIOR CMU STAIR A (CW-3RD TO 4TH FLR)	BS	SA	04	04200	5	5	0	24APR14	30APR14	91
CW-02224	INTERIOR CMU STAIR A (CW-4TH TO 5TH FLR)	BS	SA	04	04200	5	5	0	20MAY14	27MAY14	91
Stair B											
CW-00053	INTERIOR CMU STAIR B (CW BSMT - 1 FLR)	BS	SB	04	04200	5	5	0	10MAR14	14MAR14	37
CW-00060	INTERIOR CMU STAIR B (CW 1-2 FLR)	BS	SB	04	04200	5	5	0	03APR14	09APR14	37
CW-00066	INTERIOR CMU STAIR B (CW 2-3 FLR)	BS	SB	04	04200	5	5	0	29APR14	05MAY14	37
CW-00072	INTERIOR CMU STAIR B (CW 3-4 FLR)	BS	SB	04	04200	5	5	0	23MAY14	30MAY14	37
CW-00080	INTERIOR CMU STAIR B (CW 4TH - 5TH FLR)	BS	SB	04	04200	5	5	0	19JUN14	25JUN14	37
CW-00086	INTERIOR CMU STAIR B (CW 5TH - ROOF)	BS	SB	04	04200	5	5	0	16JUL14	22JUL14	87
Stair C-M											
CW-01455	INTERIOR CMU STAIR C (CW 2-3 FLR)	BS	SC	04	04200	5	5	0	24APR14	30APR14	59
CW-01460	INTERIOR CMU STAIR C (CW 3-4 FLR)	BS	SC	04	04200	5	5	0	01MAY14	07MAY14	59
CW-10465	INTERIOR CMU STAIR C (CW 4-5 FLR)	BS	SC	04	04200	5	5	0	08MAY14	14MAY14	59
Concrete Stairs											
Stair C-M											
LR-10450	ERECT CONCRETE STAIRS F (LR @ LOWER LOBBY)	BS	SC	05	05710	5	5	0	06AUG14	12AUG14	37
LR-10452	ERECT CONCRETE STAIRS G (LOBBY)	BS	SC	05	05710	5	5	0	13AUG14	19AUG14	37
CW-10456	ERECT CONCRETE STAIRS I (CW @ BASEMENT)	BS	SC	05	05710	5	5	0	27AUG14	03SEP14	37
CW-10290	ERECT CONCRETE STAIRS J (CW @ BASEMENT/KITCHEN)	BS	SC	05	05710	5	5	0	04SEP14	10SEP14	37
LR-10296	EXTERIOR CONCRETE STAIRS M WEST OF GYM	BS	SC	05	05710	5	5	0	25SEP14	01OCT14	37
Steel Stairs											
Stair A											
CW-00212	ERECT STEEL PAN STAIRS A (CW - BSMT TO 1ST FLR)	BS	SA	05	05710	10	10	0	24FEB14	07MAR14	65
CW-01210	ERECT STEEL PAN STAIRS A (CW-1ST TO 2ND FLR)	BS	SA	05	05710	10	10	0	24FEB14	07MAR14	37
CW-02210	ERECT STEEL PAN STAIRS A (CW-2ND TO 3RD FLR)	BS	SA	05	05710	10	10	0	27MAR14	09APR14	65
CW-02214	ERECT STEEL PAN STAIRS A (CW-3RD TO 4TH FLR)	BS	SA	05	05710	10	10	0	10APR14	23APR14	91
CW-02222	ERECT STEEL PAN STAIRS A (CW-4TH TO 5TH FLR)	BS	SA	05	05710	10	10	0	06MAY14	19MAY14	91
Stair B											
CW-01215	ERECT STEEL PAN STAIRS B (CW - BSMT TO 1ST FLR)	BS	SB	05	05710	10	10	0	24FEB14	07MAR14	37
CW-00058	ERECT STEEL PAN STAIRS B (CW-1ST TO 2ND FLR)	BS	SB	05	05710	10	10	0	20MAR14	02APR14	37
CW-00064	ERECT STEEL PAN STAIRS B (CW-2ND TO 3RD FLR)	BS	SB	05	05710	10	10	0	15APR14	28APR14	37
CW-00070	ERECT STEEL PAN STAIRS B (CW-3RD TO 4TH FLR)	BS	SB	05	05710	10	10	0	09MAY14	22MAY14	37
CW-00074	ERECT STEEL PAN STAIRS B (CW-4TH TO 5TH FLR)	BS	SB	05	05710	10	10	0	05JUN14	18JUN14	37
CW-00084	ERECT STEEL PAN STAIRS B (CW-5TH TO ROOF)	BS	SB	05	05710	10	10	0	01JUL14	15JUL14	37
Stair C-M											
CW-00210	ERECT STEEL PAN STAIRS C-M (CW)	BS	SC	05	05710	5	5	0	24FEB14	28FEB14	97
LR-10212	ERECT STEEL PAN STAIRS C (LR @ LOCKER RMS)	BS	SC	05	05710	5	5	0	16JUL14	22JUL14	37
LR-10222	ERECT STEEL PAN STAIRS D (LR @ GYMATORIUM)	BS	SC	05	05710	5	5	0	23JUL14	29JUL14	37
LR-10445	ERECT STEEL PAN STAIRS E (LR @ GYMATORIUM)	BS	SC	05	05710	5	5	0	30JUL14	05AUG14	37
LR-10454	ERECT STEEL PAN STAIRS H (LR @ LOBBY)	BS	SC	05	05710	5	5	0	20AUG14	26AUG14	37
CW-10292	ERECT STEEL PAN STAIRS K (CW @ 1ST FL LOBBY)	BS	SC	05	05710	5	5	0	11SEP14	17SEP14	37
LR-10294	FIXED INDUSTRIAL STAIR L TO GYM ROOF	BS	SC	05	05710	5	5	0	18SEP14	24SEP14	37
Duct Rough-In											
Basement & Gymnasium											
LR-40100	INST DUCT MAINS (LR-GYM)	BS	CRG	15	15891	12	12	0	19MAR14	03APR14	8
LR-40105	INST DUCT BRANCHES (LR-GYM)	BS	CRG	15	15891	12	12	0	04APR14	21APR14	41
LR-40110	INST DUCT RISERS (LR-GYM)	BS	CRG	15	15891	12	12	0	04APR14	21APR14	41
Gymatorium											
LR-42100	INST DUCT MAINS (LR-GYMATORIUM)	BS	CRA	15	15891	12	12	0	04APR14	21APR14	8
LR-42105	INST DUCT BRANCHES (LR-GYMATORIUM)	BS	CRA	15	15891	12	12	0	22APR14	07MAY14	25
LR-42110	INST DUCT RISERS (LR-GYMATORIUM)	BS	CRA	15	15891	12	12	0	22APR14	07MAY14	29



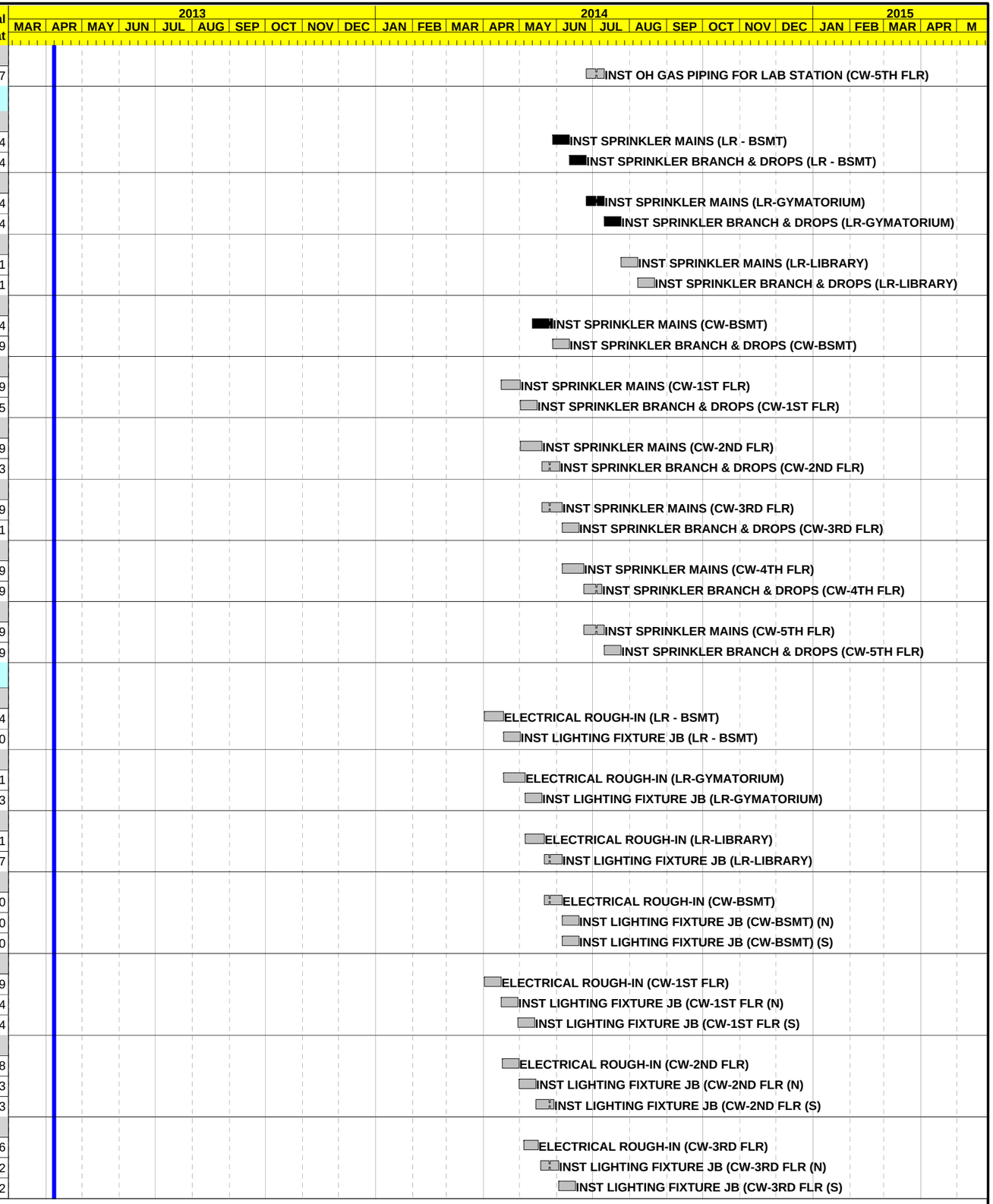
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Library											
LR-43100	INST DUCT MAINS (LR-LIBRARY)	BS	CRL	15	15891	12	12	0	22APR14	07MAY14	8
LR-43105	INST DUCT BRANCHES (LR-LIBRARY)	BS	CRL	15	15891	12	12	0	08MAY14	23MAY14	8
LR-43110	INST DUCT RISERS (LR-LIBRARY)	BS	CRL	15	15891	12	12	0	08MAY14	23MAY14	17
Basement											
CW-40100	INST DUCT MAINS (CW-BSMT)	BS	CR	15	15891	12	12	0	01MAY14	16MAY14	-4
CW-40105	INST DUCT BRANCHES (CW-BSMT)	BS	CR	15	15891	12	12	0	19MAY14	04JUN14	14
CW-40110	INST DUCT RISERS (CW-BSMT)	BS	CR	15	15891	12	12	0	19MAY14	04JUN14	31
1st Floor											
CW-41100	INST DUCT MAINS (CW-1ST FLR)	BS	01	15	15891	12	12	0	06MAR14	21MAR14	13
CW-41105	INST DUCT BRANCHES (CW-1ST FLR)	BS	01	15	15891	12	12	0	24MAR14	08APR14	23
CW-41110	INST DUCT RISERS (CW-1ST FLR)	BS	01	15	15891	12	12	0	24MAR14	08APR14	26
2nd Floor											
CW-42100	INST DUCT MAINS (CW-2ND FLR)	BS	02	15	15891	12	12	0	20MAR14	04APR14	9
CW-42105	INST DUCT BRANCHES (CW-2ND FLR)	BS	02	15	15891	12	12	0	07APR14	22APR14	16
CW-42110	INST DUCT RISERS (CW-2ND FLR)	BS	02	15	15891	12	12	0	07APR14	22APR14	16
3rd Floor											
CW-43100	INST DUCT MAINS (CW-3RD FLR)	BS	03	15	15891	12	12	0	07APR14	22APR14	9
CW-43105	INST DUCT BRANCHES (CW-3RD FLR)	BS	03	15	15891	12	12	0	23APR14	08MAY14	16
CW-43110	INST DUCT RISERS (CW-3RD FLR)	BS	03	15	15891	12	12	0	23APR14	08MAY14	16
4th Floor											
CW-44100	INST DUCT MAINS (CW-4TH FLR)	BS	04	15	15891	12	12	0	17APR14	02MAY14	1
CW-44105	INST DUCT BRANCHES (CW-4TH FLR)	BS	04	15	15891	12	12	0	05MAY14	20MAY14	8
CW-44110	INST DUCT RISERS (CW-4TH FLR)	BS	04	15	15891	12	12	0	05MAY14	20MAY14	8
5th Floor											
CW-45100	INST DUCT MAINS (CW-5TH FLR)	BS	05	15	15891	12	12	0	05MAY14	20MAY14	1
CW-45105	INST DUCT BRANCHES (CW-5TH FLR)	BS	05	15	15891	12	12	0	21MAY14	06JUN14	8
CW-45110	INST DUCT RISERS (CW-5TH FLR)	BS	05	15	15891	12	12	0	21MAY14	06JUN14	8
HVAC Rough-In											
Basement & Gymnasium											
LR-50500	INST HVAC PIPING (LR- GYM)	BS	CRG	15	15510	10	10	0	27MAR14	09APR14	20
Gymatorium											
LR-52500	INST HVAC PIPING (LR-GYMATORIUM) WEST	BS	CRA	15	15510	10	10	0	14APR14	25APR14	18
LR-52502	INST HVAC PIPING (LR-GYMATORIUM) EAST	BS	CRA	15	15510	10	10	0	28APR14	09MAY14	18
Library											
LR-53500	INST HVAC PIPING (LR-LIBRARY)	BS	CRL	15	15510	10	10	0	27MAY14	09JUN14	8
Basement											
CW-50500	INST HVAC PIPING (CW- BSMT)	BS	CR	15	15510	9	9	0	12MAY14	22MAY14	0
1st Floor											
CW-51500	INST HVAC PIPING (CW-1ST FLR)	BS	01	15	15510	10	10	0	17MAR14	28MAR14	13
2nd Floor											
CW-52500	INST HVAC PIPING (CW-2ND FLR)	BS	02	15	15510	10	10	0	31MAR14	11APR14	13
3rd Floor											
CW-53500	INST HVAC PIPING (CW-3RD FLR)	BS	03	15	15510	10	10	0	16APR14	29APR14	14
4th Floor											
CW-54500	INST HVAC PIPING (CW-4TH FLR)	BS	04	15	15510	10	10	0	28APR14	09MAY14	3
5th Floor											
CW-55500	INST HVAC PIPING (CW-5TH FLR) COL 5-7	BS	05	15	15510	7	7	0	14MAY14	22MAY14	1
CW-55501	INST HVAC PIPING (CW-5TH FLR) COL 8-10	BS	05	15	15510	7	7	0	23MAY14	03JUN14	1
CW-55502	INST HVAC PIPING (CW-5TH FLR) COL 1-3	BS	05	15	15510	4	4	0	04JUN14	09JUN14	7
CW-55505	FLUSH HVAC PIPING (CW-1-5TH FLRS)	BS	05	15	15510	5	5	0	10JUN14	16JUN14	46
Upper Roof											
CW-56505	FLUSH HVAC PIPING (CW-ROOF)	BS	RF	15	15510	5	5	0	10JUN14	16JUN14	52
Plumbing Rough-In											
Basement & Gymnasium											
LR-50100	INST & TEST WASTE & VENT PIPING (LR-GYM LWR)	BS	CRG	15	15410	12	12	0	26MAR14	10APR14	20
LR-50105	INST & TEST STORM PIPING (LR-GYM LOWER)	BS	CRG	15	15410	12	12	0	26MAR14	10APR14	20



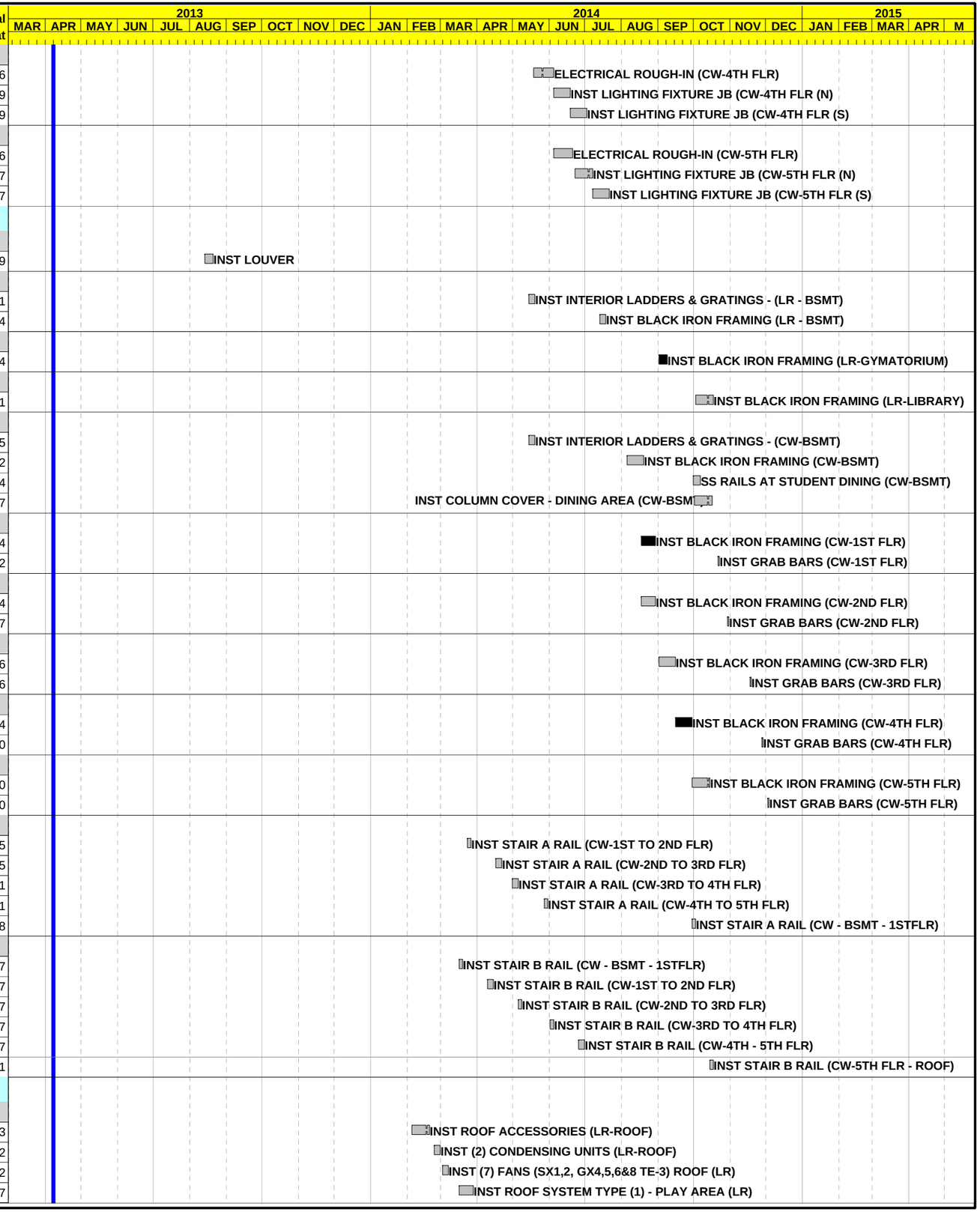
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Basement & Gymnasium											
LR-50110	INST & TEST WATER PIPING (LR-GYM LOWER)	BS	CRG	15	15410	12	12	0	26MAR14	10APR14	20
LR-50125	INST & TEST WASTE & VENT PIPING (LR-GYM UPPR)	BS	CRG	15	15410	12	12	0	11APR14	28APR14	20
LR-50130	INST & TEST STORM PIPING (LR-GYM UPPER)	BS	CRG	15	15410	12	12	0	11APR14	28APR14	20
LR-50135	INST & TEST WATER PIPING (LR-GYM UPPER)	BS	CRG	15	15410	12	12	0	11APR14	28APR14	20
Gymatorium											
LR-52105	INST & TEST STORM PIPING (LR-GYMATORIUM)	BS	CRA	15	15410	8	8	0	29APR14	08MAY14	25
LR-52100	INST WASTE & VENT PIPING (LR-GYMATORIUM)	BS	CRA	15	15410	10	10	0	29APR14	12MAY14	25
LR-52110	INST & TEST WATER PIPING (LR-GYMATORIUM)	BS	CRA	15	15410	12	12	0	29APR14	14MAY14	25
Library											
LR-53105	INST & TEST STORM PIPING (LR-LIBRARY)	BS	CRL	15	15410	8	8	0	13MAY14	22MAY14	35
LR-53100	INST WASTE & VENT PIPING (LR-LIBRARY)	BS	CRL	15	15410	10	10	0	13MAY14	27MAY14	35
LR-53110	INST & TEST WATER PIPING (LR-LIBRARY)	BS	CRL	15	15410	12	12	0	15MAY14	02JUN14	33
Basement											
CW-50100	INST & TEST WASTE & VENT PIPING (CW-BSMT)	BS	CR	15	15410	10	10	0	14MAY14	28MAY14	4
CW-50105	INST & TEST STORM PIPING (CW-BSMT)	BS	CR	15	15410	10	10	0	14MAY14	28MAY14	4
CW-50110	INST & TEST WATER PIPING (CW-BSMT)	BS	CR	15	15410	10	10	0	14MAY14	28MAY14	4
CW-50115	INST & TEST GAS PIPING (CW-BSMT)	BS	CR	15	15416	12	12	0	14MAY14	30MAY14	111
CW-40550	INSTALL FUEL OIL PIPING (CW-BSMT)	BS	CR	15	15590	10	10	0	23MAY14	06JUN14	0
CW-10500	INST WATER TREATMENT SYSTEM (CW-BSMT)	BS	CR	15	15417	5	5	0	29MAY14	04JUN14	4
CW-10510	WATER SAMPLING (CW-BSMT)	BS	CR	15	15417	10	10	0	05JUN14	18JUN14	4
CW-46560	INST CONTAINMENT PIPING (CW- BSMT) (FUEL OIL SY	BS	CR	15	15590	10	10	0	11JUN14	24JUN14	0
1st Floor											
CW-51115	INST & TEST GAS PIPING (CW-1ST FLR) (N)	BS	01	15	15416	8	8	0	31MAR14	09APR14	27
CW-51100	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (N)	BS	01	15	15410	10	10	0	31MAR14	11APR14	23
CW-51105	INST & TEST STORM PIPING (CW-1ST FLR) (N)	BS	01	15	15410	10	10	0	31MAR14	11APR14	23
CW-51110	INST & TEST WATER PIPING (CW-1ST FLR) (N)	BS	01	15	15410	10	10	0	31MAR14	11APR14	23
CW-51116	INST & TEST GAS PIPING (CW-1ST FLR) (S)	BS	01	15	15416	8	8	0	10APR14	21APR14	27
CW-41550	INSTALL FUEL OIL PIPING (CW-1ST FLR)	BS	01	15	15590	10	10	0	14APR14	25APR14	16
CW-51102	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (S)	BS	01	15	15410	10	10	0	14APR14	25APR14	23
CW-51107	INST & TEST STORM PIPING (CW-1ST FLR) (S)	BS	01	15	15410	10	10	0	14APR14	25APR14	23
CW-51112	INST & TEST WATER PIPING (CW-1ST FLR) (S)	BS	01	15	15410	10	10	0	14APR14	25APR14	23
2nd Floor											
CW-52105	INST & TEST STORM PIPING (CW-2ND FLR)	BS	02	15	15410	9	9	0	28APR14	08MAY14	23
CW-52100	INST & TEST WASTE & VENT PIPING (CW-2ND FLR)	BS	02	15	15410	10	10	0	28APR14	09MAY14	23
CW-52110	INST & TEST WATER PIPING (CW-2ND FLR)	BS	02	15	15410	10	10	0	28APR14	09MAY14	23
CW-52115	INST & TEST GAS PIPING (CW-2ND FLR)	BS	02	15	15416	10	10	0	28APR14	09MAY14	23
CW-42550	INSTALL FUEL OIL PIPING (CW-2ND FLR)	BS	02	15	15590	2	2	0	30APR14	01MAY14	14
3rd Floor											
CW-43550	INSTALL FUEL OIL PIPING (CW-3RD FLR)	BS	03	15	15590	2	2	0	12MAY14	13MAY14	8
CW-53105	INST & TEST STORM PIPING (CW-3RD FLR)	BS	03	15	15410	9	9	0	12MAY14	22MAY14	23
CW-53100	INST & TEST WASTE & VENT PIPING (CW-3RD FLR)	BS	03	15	15410	10	10	0	12MAY14	23MAY14	23
CW-53110	INST & TEST WATER PIPING (CW-3RD FLR)	BS	03	15	15410	10	10	0	12MAY14	23MAY14	23
CW-53115	INST & TEST GAS PIPING (CW-3RD FLR)	BS	03	15	15416	10	10	0	12MAY14	23MAY14	23
4th Floor											
CW-44550	INSTALL FUEL OIL PIPING (CW-4TH FLR)	BS	04	15	15590	2	2	0	23MAY14	27MAY14	1
CW-54100	INST & TEST WASTE & VENT PIPING (CW-4TH FLR)	BS	04	15	15410	9	9	0	27MAY14	06JUN14	23
CW-54105	INST & TEST STORM PIPING (CW-4TH FLR)	BS	04	15	15410	9	9	0	27MAY14	06JUN14	23
CW-54110	INST & TEST WATER PIPING (CW-4TH FLR)	BS	04	15	15410	9	9	0	27MAY14	06JUN14	23
CW-54115	INST & TEST GAS PIPING (CW-4TH FLR)	BS	04	15	15416	10	10	0	27MAY14	09JUN14	23
5th Floor											
CW-45550	INSTALL FUEL OIL PIPING (CW-5TH FLR)	BS	05	15	15590	2	2	0	28MAY14	29MAY14	1
CW-55100	INST & TEST WASTE & VENT PIPING (CW-5TH FLR)	BS	05	15	15410	9	9	0	09JUN14	19JUN14	24
CW-55105	INST & TEST STORM PIPING (CW-5TH FLR)	BS	05	15	15410	9	9	0	09JUN14	19JUN14	24
CW-55110	INST & TEST WATER PIPING (CW-5TH FLR)	BS	05	15	15410	9	9	0	09JUN14	19JUN14	24
CW-55115	INST & TEST GAS PIPING (CW-5TH FLR)	BS	05	15	15416	12	12	0	10JUN14	25JUN14	23
CW-55019	INST GAS PIPING DROPS FOR LAB STA. (CW-5TH FLR)	BS	05	15	15416	2	2	0	26JUN14	27JUN14	55



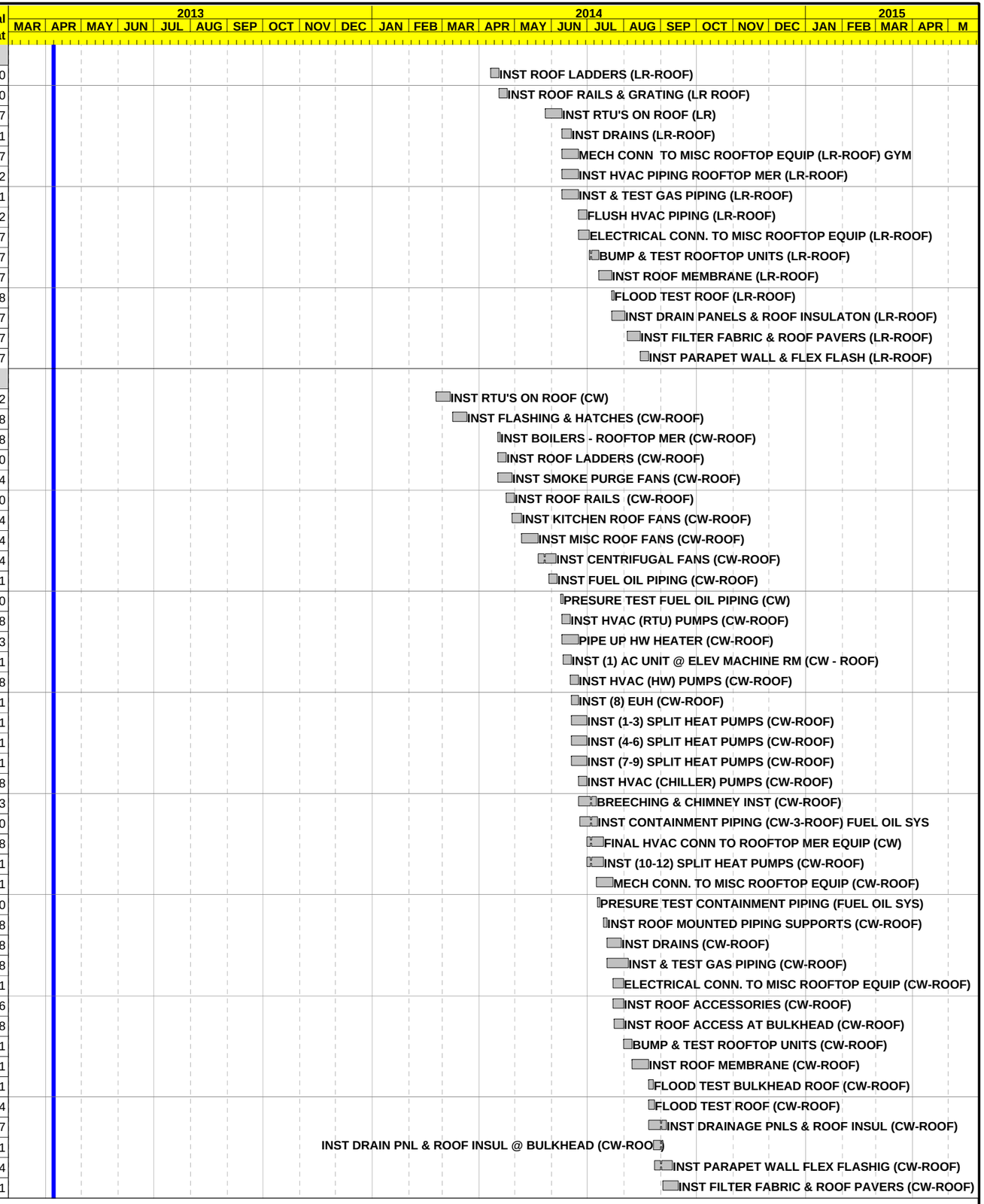
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
5th Floor											
CW-04040	INST OH GAS PIPING FOR LAB STATION (CW-5TH FLR)	BS	05	15	15416	10	10	0	26JUN14	10JUL14	47
Sprinkler Rough-In											
Basement & Gymnasium											
LR-60110	INST SPRINKLER MAINS (LR - BSMT)	BS	CRG	15	15332	10	10	0	29MAY14	11JUN14	-4
LR-60120	INST SPRINKLER BRANCH & DROPS (LR - BSMT)	BS	CRG	15	15332	10	10	0	12JUN14	25JUN14	-4
Gymatorium											
LR-62110	INST SPRINKLER MAINS (LR-GYMATORIUM)	BS	CRA	15	15332	10	10	0	26JUN14	10JUL14	-4
LR-62120	INST SPRINKLER BRANCH & DROPS (LR-GYMATORIUM)	BS	CRA	15	15332	10	10	0	11JUL14	24JUL14	-4
Library											
LR-63110	INST SPRINKLER MAINS (LR-LIBRARY)	BS	CRL	15	15332	10	10	0	25JUL14	07AUG14	-1
LR-63120	INST SPRINKLER BRANCH & DROPS (LR-LIBRARY)	BS	CRL	15	15332	10	10	0	08AUG14	21AUG14	-1
Basement											
CW-60110	INST SPRINKLER MAINS (CW-BSMT)	BS	CR	15	15332	12	12	0	12MAY14	28MAY14	-4
CW-60120	INST SPRINKLER BRANCH & DROPS (CW-BSMT)	BS	CR	15	15332	10	10	0	29MAY14	11JUN14	9
1st Floor											
CW-61110	INST SPRINKLER MAINS (CW-1ST FLR)	BS	01	15	15332	12	12	0	16APR14	01MAY14	19
CW-61120	INST SPRINKLER BRANCH & DROPS (CW-1ST FLR)	BS	01	15	15332	10	10	0	02MAY14	15MAY14	35
2nd Floor											
CW-62110	INST SPRINKLER MAINS (CW-2ND FLR)	BS	02	15	15332	12	12	0	02MAY14	19MAY14	19
CW-62120	INST SPRINKLER BRANCH & DROPS (CW-2ND FLR)	BS	02	15	15332	10	10	0	20MAY14	03JUN14	23
3rd Floor											
CW-63110	INST SPRINKLER MAINS (CW-3RD FLR)	BS	03	15	15332	12	12	0	20MAY14	05JUN14	19
CW-63120	INST SPRINKLER BRANCH & DROPS (CW-3RD FLR)	BS	03	15	15332	10	10	0	06JUN14	19JUN14	21
4th Floor											
CW-64110	INST SPRINKLER MAINS (CW-4TH FLR)	BS	04	15	15332	12	12	0	06JUN14	23JUN14	19
CW-64120	INST SPRINKLER BRANCH & DROPS (CW-4TH FLR)	BS	04	15	15332	10	10	0	24JUN14	08JUL14	19
5th Floor											
CW-65110	INST SPRINKLER MAINS (CW-5TH FLR)	BS	05	15	15332	12	12	0	24JUN14	10JUL14	19
CW-65120	INST SPRINKLER BRANCH & DROPS (CW-5TH FLR)	BS	05	15	15332	10	10	0	11JUL14	24JUL14	19
Electrical Rough-In											
Basement & Gymnasium											
LR-70100	ELECTRICAL ROUGH-IN (LR - BSMT)	BS	CRG	16	16130	12	12	0	02APR14	17APR14	24
LR-70115	INST LIGHTING FIXTURE JB (LR - BSMT)	BS	CRG	16	16500	10	10	0	18APR14	01MAY14	60
Gymatorium											
LR-72100	ELECTRICAL ROUGH-IN (LR-GYMATORIUM)	BS	CRA	16	16130	12	12	0	18APR14	05MAY14	41
LR-72115	INST LIGHTING FIXTURE JB (LR-GYMATORIUM)	BS	CRA	16	16500	10	10	0	06MAY14	19MAY14	53
Library											
LR-73100	ELECTRICAL ROUGH-IN (LR-LIBRARY)	BS	CRL	16	16130	12	12	0	06MAY14	21MAY14	41
LR-73115	INST LIGHTING FIXTURE JB (LR-LIBRARY)	BS	CRL	16	16500	10	10	0	22MAY14	05JUN14	87
Basement											
CW-70100	ELECTRICAL ROUGH-IN (CW-BSMT)	BS	CR	16	16130	10	10	0	22MAY14	05JUN14	20
CW-70113	INST LIGHTING FIXTURE JB (CW-BSMT) (N)	BS	CR	16	16500	10	10	0	06JUN14	19JUN14	20
CW-70115	INST LIGHTING FIXTURE JB (CW-BSMT) (S)	BS	CR	16	16500	10	10	0	06JUN14	19JUN14	20
1st Floor											
CW-71100	ELECTRICAL ROUGH-IN (CW-1ST FLR)	BS	01	16	16130	10	10	0	02APR14	15APR14	19
CW-71114	INST LIGHTING FIXTURE JB (CW-1ST FLR (N)	BS	01	16	16500	10	10	0	16APR14	29APR14	64
CW-71115	INST LIGHTING FIXTURE JB (CW-1ST FLR (S)	BS	01	16	16500	10	10	0	30APR14	13MAY14	64
2nd Floor											
CW-72100	ELECTRICAL ROUGH-IN (CW-2ND FLR)	BS	02	16	16130	10	10	0	17APR14	30APR14	18
CW-72113	INST LIGHTING FIXTURE JB (CW-2ND FLR (N)	BS	02	16	16500	10	10	0	01MAY14	14MAY14	63
CW-72115	INST LIGHTING FIXTURE JB (CW-2ND FLR (S)	BS	02	16	16500	10	10	0	15MAY14	29MAY14	63
3rd Floor											
CW-73100	ELECTRICAL ROUGH-IN (CW-3RD FLR)	BS	03	16	16130	10	10	0	05MAY14	16MAY14	16
CW-73114	INST LIGHTING FIXTURE JB (CW-3RD FLR (N)	BS	03	16	16500	10	10	0	19MAY14	02JUN14	52
CW-73115	INST LIGHTING FIXTURE JB (CW-3RD FLR (S)	BS	03	16	16500	10	10	0	03JUN14	16JUN14	52



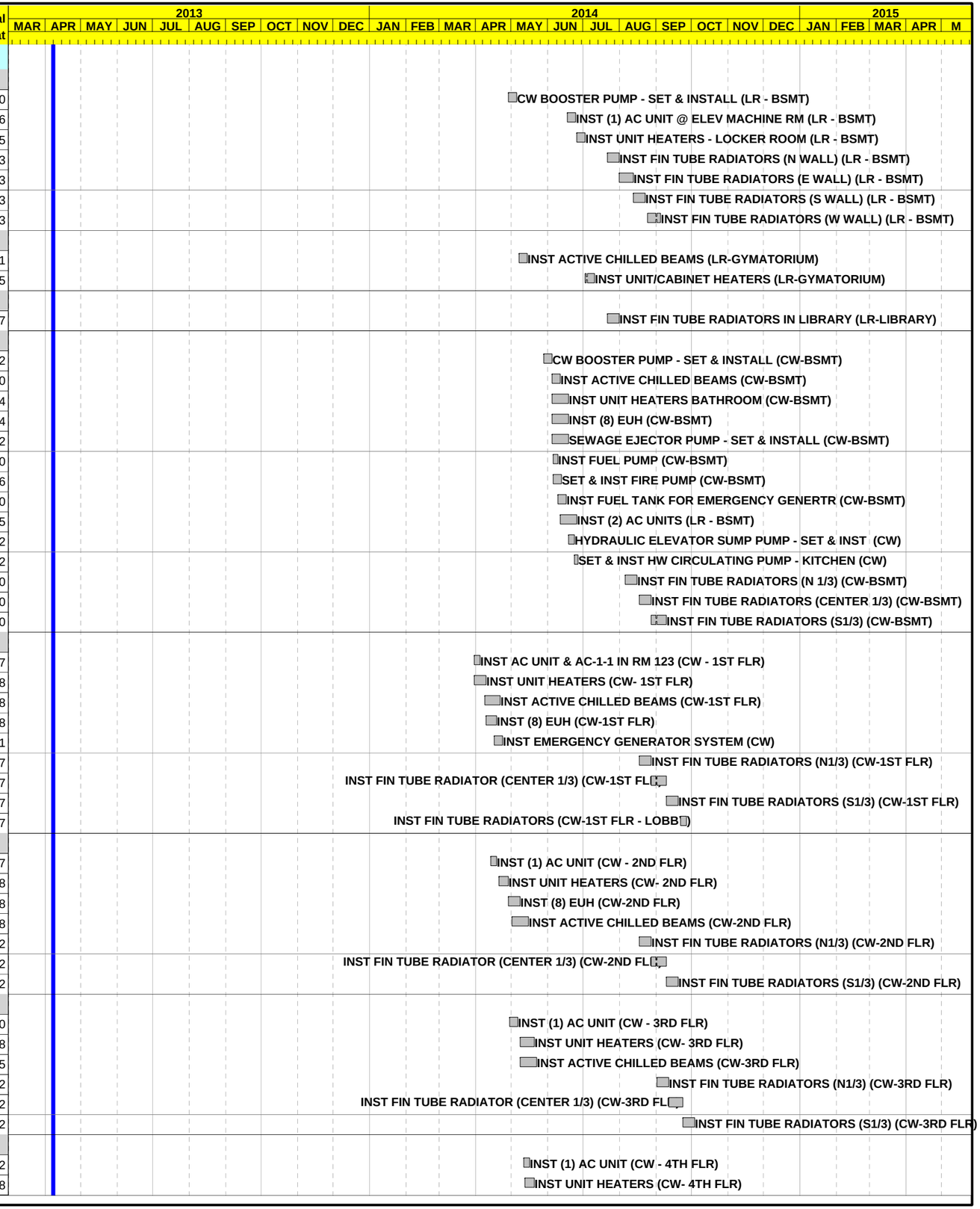
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
4th Floor											
CW-74100	ELECTRICAL ROUGH-IN (CW-4TH FLR)	BS	04	16	16130	12	12	0	19MAY14	04JUN14	16
CW-74114	INST LIGHTING FIXTURE JB (CW-4TH FLR (N)	BS	04	16	16500	10	10	0	05JUN14	18JUN14	59
CW-74115	INST LIGHTING FIXTURE JB (CW-4TH FLR (S)	BS	04	16	16500	10	10	0	19JUN14	02JUL14	59
5th Floor											
CW-75100	ELECTRICAL ROUGH-IN (CW-5TH FLR)	BS	05	16	16130	12	12	0	05JUN14	20JUN14	16
CW-75114	INST LIGHTING FIXTURE JB (CW-5TH FLR (N)	BS	05	16	16500	10	10	0	23JUN14	07JUL14	57
CW-75115	INST LIGHTING FIXTURE JB (CW-5TH FLR (S)	BS	05	16	16500	10	10	0	08JUL14	21JUL14	57
Miscellaneous Steel											
All											
BS-11285	INST LOUVER	BS	00	10	10214	5	5	0	14AUG13	20AUG13	269
Basement & Gymnasium											
LR-00660	INST INTERIOR LADDERS & GRATINGS - (LR - BSMT)	BS	CRG	05	05500	3	3	0	15MAY14	19MAY14	161
LR-00100	INST BLACK IRON FRAMING (LR - BSMT)	BS	CRG	05	05170	5	5	0	14JUL14	18JUL14	14
Gymatorium											
LR-02100	INST BLACK IRON FRAMING (LR-GYMATORIUM)	BS	CRA	05	05170	5	5	0	02SEP14	08SEP14	-4
Library											
LR-03100	INST BLACK IRON FRAMING (LR-LIBRARY)	BS	CRL	05	05170	10	10	0	03OCT14	17OCT14	-1
Basement											
CW-10670	INST INTERIOR LADDERS & GRATINGS - (CW-BSMT)	BS	CR	05	05700	3	3	0	15MAY14	19MAY14	135
CW-10100	INST BLACK IRON FRAMING (CW-BSMT)	BS	CR	05	05170	10	10	0	06AUG14	19AUG14	2
CW-10815	SS RAILS AT STUDENT DINING (CW-BSMT)	BS	CR	05	05700	4	4	0	01OCT14	06OCT14	64
CW-10187	INST COLUMN COVER - DINING AREA (CW-BSMT)	BS	CR	05	05700	10	10	0	02OCT14	16OCT14	37
1st Floor											
CW-11100	INST BLACK IRON FRAMING (CW-1ST FLR)	BS	01	05	05170	10	10	0	18AUG14	29AUG14	-4
CW-14670	INST GRAB BARS (CW-1ST FLR)	BS	01	10	10840	1	1	0	22OCT14	22OCT14	42
2nd Floor											
CW-12100	INST BLACK IRON FRAMING (CW-2ND FLR)	BS	02	05	05170	10	10	0	18AUG14	29AUG14	4
CW-24670	INST GRAB BARS (CW-2ND FLR)	BS	02	10	10840	1	1	0	30OCT14	30OCT14	37
3rd Floor											
CW-13100	INST BLACK IRON FRAMING (CW-3RD FLR)	BS	03	05	05170	10	10	0	02SEP14	15SEP14	6
CW-34670	INST GRAB BARS (CW-3RD FLR)	BS	03	10	10840	1	1	0	18NOV14	18NOV14	26
4th Floor											
CW-14100	INST BLACK IRON FRAMING (CW-4TH FLR)	BS	04	05	05170	10	10	0	16SEP14	29SEP14	-4
CW-44670	INST GRAB BARS (CW-4TH FLR)	BS	04	10	10840	1	1	0	28NOV14	28NOV14	20
5th Floor											
CW-15100	INST BLACK IRON FRAMING (CW-5TH FLR)	BS	05	05	05170	10	10	0	30SEP14	14OCT14	0
CW-54670	INST GRAB BARS (CW-5TH FLR)	BS	05	10	10840	1	1	0	03DEC14	03DEC14	10
Stair A											
CW-01057	INST STAIR A RAIL (CW-1ST TO 2ND FLR)	BS	SA	10	10605	3	3	0	24MAR14	26MAR14	65
CW-02216	INST STAIR A RAIL (CW-2ND TO 3RD FLR)	BS	SA	10	10605	3	3	0	17APR14	21APR14	65
CW-02220	INST STAIR A RAIL (CW-3RD TO 4TH FLR)	BS	SA	10	10605	3	3	0	01MAY14	05MAY14	91
CW-02226	INST STAIR A RAIL (CW-4TH TO 5TH FLR)	BS	SA	10	10605	3	3	0	28MAY14	30MAY14	91
CW-10298	INST STAIR A RAIL (CW - BSMT - 1STFLR)	BS	SA	10	10605	3	3	0	30SEP14	02OCT14	68
Stair B											
CW-00056	INST STAIR B RAIL (CW - BSMT - 1STFLR)	BS	SB	10	10605	3	3	0	17MAR14	19MAR14	37
CW-00062	INST STAIR B RAIL (CW-1ST TO 2ND FLR)	BS	SB	10	10605	3	3	0	10APR14	14APR14	37
CW-00068	INST STAIR B RAIL (CW-2ND TO 3RD FLR)	BS	SB	10	10605	3	3	0	06MAY14	08MAY14	37
CW-00078	INST STAIR B RAIL (CW-3RD TO 4TH FLR)	BS	SB	10	10605	3	3	0	02JUN14	04JUN14	37
CW-00082	INST STAIR B RAIL (CW-4TH - 5TH FLR)	BS	SB	10	10605	3	3	0	26JUN14	30JUN14	37
CW-00090	INST STAIR B RAIL (CW-5TH FLR - ROOF)	BS	SB	10	10605	3	3	0	15OCT14	17OCT14	61
Roofing & Rooftop Units											
Lower Roof											
LR-16510	INST ROOF ACCESSORIES (LR-ROOF)	BS	RFL	07	07560	10	10	0	05FEB14	19FEB14	123
LR-46600	INST (2) CONDENSING UNITS (LR-ROOF)	BS	RFL	11	11400	5	5	0	24FEB14	28FEB14	82
LR-46305	INST (7) FANS (SX1,2, GX4,5,6&8 TE-3) ROOF (LR)	BS	RFL	15	15934	5	5	0	03MAR14	07MAR14	82
LR-16500	INST ROOF SYSTEM TYPE (1) - PLAY AREA (LR)	BS	RFL	07	07560	10	10	0	17MAR14	28MAR14	107



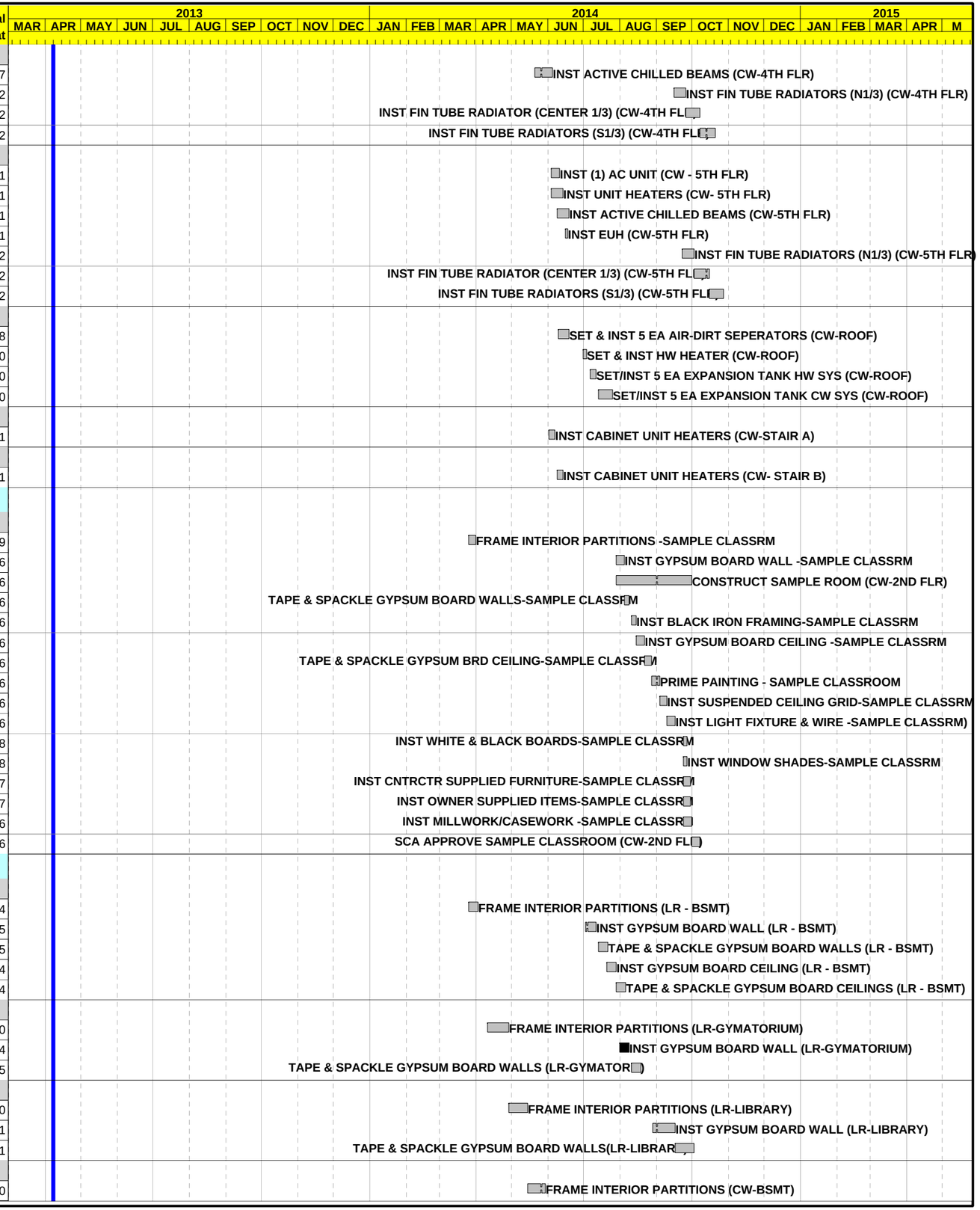
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Lower Roof											
LR-06130	INST ROOF LADDERS (LR-ROOF)	BS	RFL	05	05700	5	5	0	11APR14	17APR14	70
LR-06180	INST ROOF RAILS & GRATING (LR ROOF)	BS	RFL	05	05700	5	5	0	18APR14	24APR14	70
LR-46300	INST RTU'S ON ROOF (LR)	BS	RFL	15	15934	10	10	0	27MAY14	09JUN14	17
LR-56105	INST DRAINS (LR-ROOF)	BS	RFL	15	15440	6	6	0	10JUN14	17JUN14	41
LR-06120	MECH CONN TO MISC ROOFTOP EQUIP (LR-ROOF) GYM	BS	RFL	15	15933	10	10	0	10JUN14	23JUN14	17
LR-14525	INST HVAC PIPING ROOFTOP MER (LR-ROOF)	BS	RFL	15	15510	10	10	0	10JUN14	23JUN14	22
LR-56102	INST & TEST GAS PIPING (LR-ROOF)	BS	RFL	15	15416	10	10	0	10JUN14	23JUN14	41
LR-14526	FLUSH HVAC PIPING (LR-ROOF)	BS	RFL	15	15510	5	5	0	24JUN14	30JUN14	42
LR-06125	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (LR-ROOF)	BS	RFL	15	15933	7	7	0	24JUN14	02JUL14	17
LR-06117	BUMP & TEST ROOFTOP UNITS (LR-ROOF)	BS	RFL	15	15933	5	5	0	03JUL14	10JUL14	17
LR-16560	INST ROOF MEMBRANE (LR-ROOF)	BS	RFL	07	07560	7	7	0	11JUL14	21JUL14	17
LR-16520	FLOOD TEST ROOF (LR-ROOF)	BS	RFL	07	07560	2	2	0	22JUL14	23JUL14	18
LR-16570	INST DRAIN PANELS & ROOF INSULATON (LR-ROOF)	BS	RFL	07	07560	9	9	0	22JUL14	01AUG14	17
LR-16530	INST FILTER FABRIC & ROOF PAVERS (LR-ROOF)	BS	RFL	07	07560	9	9	0	04AUG14	14AUG14	17
LR-16620	INST PARAPET WALL & FLEX FLASH (LR-ROOF)	BS	RFL	07	07560	5	5	0	15AUG14	21AUG14	17
Upper Roof											
CW-46300	INST RTU'S ON ROOF (CW)	BS	RF	15	15933	10	10	0	24FEB14	07MAR14	72
CW-16035	INST FLASHING & HATCHES (CW-ROOF)	BS	RF	07	07600	10	10	0	10MAR14	21MAR14	98
CW-06590	INST BOILERS - ROOFTOP MER (CW-ROOF)	BS	RF	15	15565	2	2	0	17APR14	18APR14	68
CW-14640	INST ROOF LADDERS (CW-ROOF)	BS	RF	05	05700	5	5	0	17APR14	23APR14	70
CW-46450	INST SMOKE PURGE FANS (CW-ROOF)	BS	RF	15	15860	8	8	0	17APR14	28APR14	24
CW-16690	INST ROOF RAILS (CW-ROOF)	BS	RF	05	05700	5	5	0	24APR14	30APR14	70
CW-46460	INST KITCHEN ROOF FANS (CW-ROOF)	BS	RF	15	15860	6	6	0	29APR14	06MAY14	24
CW-46470	INST MISC ROOF FANS (CW-ROOF)	BS	RF	15	15860	10	10	0	07MAY14	20MAY14	24
CW-46480	INST CENTRIFUGAL FANS (CW-ROOF)	BS	RF	15	15860	10	10	0	21MAY14	04JUN14	24
CW-46550	INST FUEL OIL PIPING (CW-ROOF)	BS	RF	15	15590	5	5	0	30MAY14	05JUN14	1
CW-46555	PRESURE TEST FUEL OIL PIPING (CW)	BS	RF	15	15590	2	2	0	09JUN14	10JUN14	0
CW-45400	INST HVAC (RTU) PUMPS (CW-ROOF)	BS	RF	15	15540	5	5	0	10JUN14	16JUN14	8
CW-55130	PIPE UP HW HEATER (CW-ROOF)	BS	RF	15	15451	10	10	0	10JUN14	23JUN14	23
CW-46400	INST (1) AC UNIT @ ELEV MACHINE RM (CW - ROOF)	BS	RF	15	15783	5	5	0	11JUN14	17JUN14	1
CW-46410	INST HVAC (HW) PUMPS (CW-ROOF)	BS	RF	15	15540	5	5	0	17JUN14	23JUN14	8
CW-44610	INST (8) EUH (CW-ROOF)	BS	RF	15	15836	4	4	0	18JUN14	23JUN14	11
CW-46402	INST (1-3) SPLIT HEAT PUMPS (CW-ROOF)	BS	RF	15	15783	9	9	0	18JUN14	30JUN14	1
CW-46405	INST (4-6) SPLIT HEAT PUMPS (CW-ROOF)	BS	RF	15	15783	9	9	0	18JUN14	30JUN14	1
CW-46412	INST (7-9) SPLIT HEAT PUMPS (CW-ROOF)	BS	RF	15	15783	9	9	0	18JUN14	30JUN14	1
CW-45420	INST HVAC (CHILLER) PUMPS (CW-ROOF)	BS	RF	15	15540	5	5	0	24JUN14	30JUN14	8
CW-06595	BREECHING & CHIMNEY INST (CW-ROOF)	BS	RF	15	15565	10	10	0	24JUN14	08JUL14	23
CW-46565	INST CONTAINMENT PIPING (CW-3-ROOF) FUEL OIL SYS	BS	RF	15	15590	10	10	0	25JUN14	09JUL14	20
CW-14535	FINAL HVAC CONN TO ROOFTOP MER EQUIP (CW)	BS	RF	15	15510	9	9	0	01JUL14	14JUL14	8
CW-46415	INST (10-12) SPLIT HEAT PUMPS (CW-ROOF)	BS	RF	15	15783	9	9	0	01JUL14	14JUL14	1
CW-16020	MECH CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	BS	RF	15	15933	10	10	0	09JUL14	22JUL14	1
CW-46570	PRESURE TEST CONTAINMENT PIPING (FUEL OIL SYS)	BS	RF	15	15590	2	2	0	10JUL14	11JUL14	20
CW-14037	INST ROOF MOUNTED PIPING SUPPORTS (CW-ROOF)	BS	RF	15	15510	3	3	0	15JUL14	17JUL14	8
CW-56105	INST DRAINS (CW-ROOF)	BS	RF	15	15440	8	8	0	18JUL14	29JUL14	8
CW-56100	INST & TEST GAS PIPING (CW-ROOF)	BS	RF	15	15416	12	12	0	18JUL14	04AUG14	8
CW-16025	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	BS	RF	15	15933	7	7	0	23JUL14	31JUL14	1
CW-16691	INST ROOF ACCESSORIES (CW-ROOF)	BS	RF	07	07560	7	7	0	23JUL14	31JUL14	6
CW-16580	INST ROOF ACCESS AT BULKHEAD (CW-ROOF)	BS	RF	07	07560	6	6	0	24JUL14	31JUL14	18
CW-16015	BUMP & TEST ROOFTOP UNITS (CW-ROOF)	BS	RF	15	15933	5	5	0	01AUG14	07AUG14	1
CW-16550	INST ROOF MEMBRANE (CW-ROOF)	BS	RF	07	07560	10	10	0	08AUG14	21AUG14	1
CW-16540	FLOOD TEST BULKHEAD ROOF (CW-ROOF)	BS	RF	07	07560	2	2	0	22AUG14	25AUG14	1
CW-16600	FLOOD TEST ROOF (CW-ROOF)	BS	RF	07	07560	3	3	0	22AUG14	26AUG14	4
CW-16650	INST DRAINAGE PNLS & ROOF INSUL (CW-ROOF)	BS	RF	07	07560	10	10	0	22AUG14	05SEP14	7
CW-16590	INST DRAIN PNL & ROOF INSUL @ BULKHEAD (CW-ROOF)	BS	RF	07	07560	5	5	0	26AUG14	02SEP14	1
CW-16610	INST PARAPET WALL FLEX FLASHIG (CW-ROOF)	BS	RF	07	07560	10	10	0	27AUG14	10SEP14	4
CW-16700	INST FILTER FABRIC & ROOF PAVERS (CW-ROOF)	BS	RF	07	07560	9	9	0	03SEP14	15SEP14	1



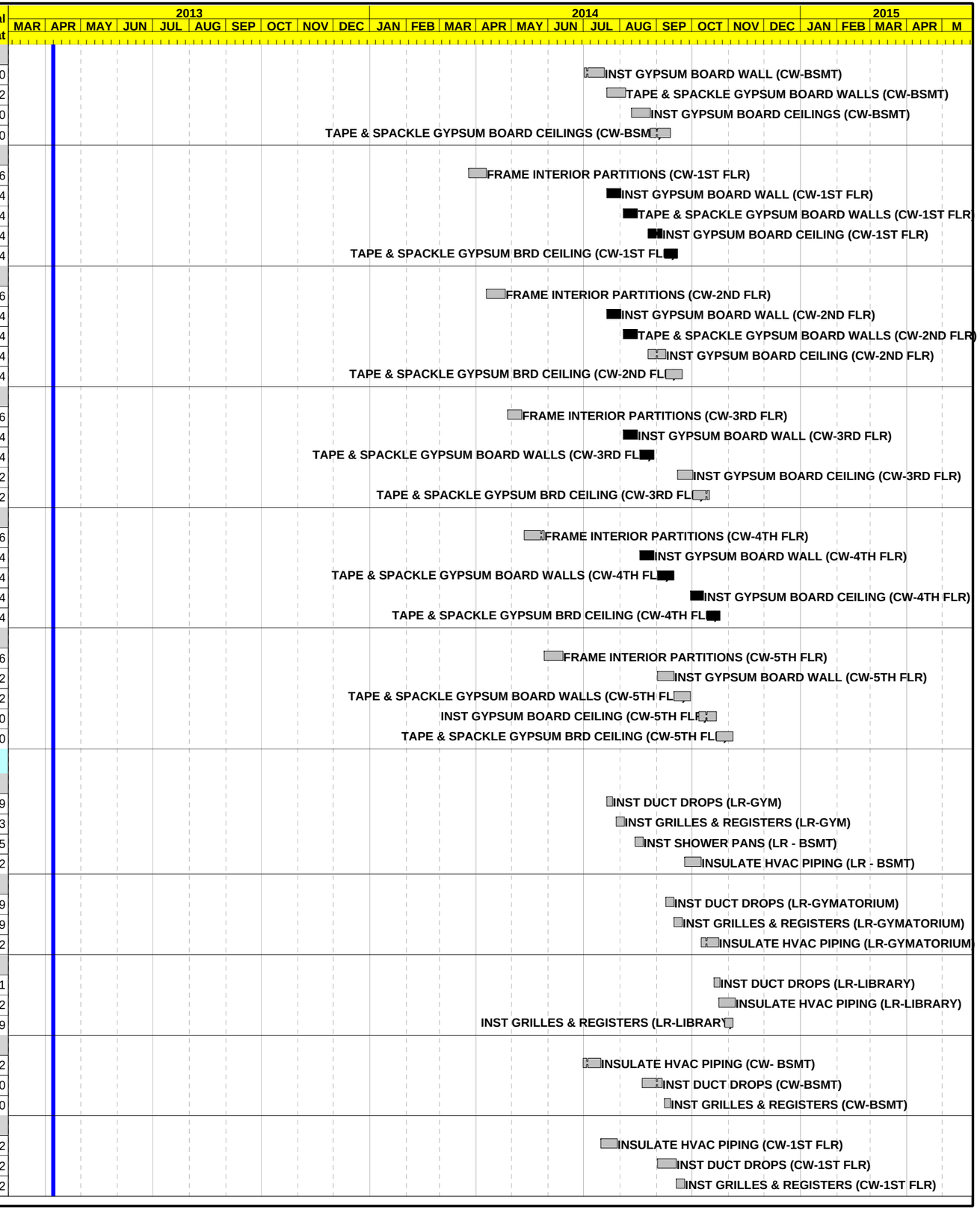
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
MEP Equipment											
Basement & Gymnasium											
LR-50150	CW BOOSTER PUMP - SET & INSTALL (LR - BSMT)	BS	CRG	15	15453	5	5	0	29APR14	05MAY14	20
LR-40410	INST (1) AC UNIT @ ELEV MACHINE RM (LR - BSMT)	BS	CRG	15	15783	5	5	0	18JUN14	24JUN14	76
LR-40400	INST UNIT HEATERS - LOCKER ROOM (LR - BSMT)	BS	CRG	15	15836	5	5	0	26JUN14	02JUL14	95
LR-40300	INST FIN TUBE RADIATORS (N WALL) (LR - BSMT)	BS	CRG	15	15835	8	8	0	22JUL14	31JUL14	63
LR-40310	INST FIN TUBE RADIATORS (E WALL) (LR - BSMT)	BS	CRG	15	15835	8	8	0	01AUG14	12AUG14	63
LR-40320	INST FIN TUBE RADIATORS (S WALL) (LR - BSMT)	BS	CRG	15	15835	8	8	0	13AUG14	22AUG14	63
LR-40330	INST FIN TUBE RADIATORS (W WALL) (LR - BSMT)	BS	CRG	15	15835	8	8	0	25AUG14	04SEP14	63
Gymatorium											
LR-42470	INST ACTIVE CHILLED BEAMS (LR-GYMATORIUM)	BS	CRA	15	15932	5	5	0	08MAY14	14MAY14	71
LR-42460	INST UNIT/CABINET HEATERS (LR-GYMATORIUM)	BS	CRA	15	15836	5	5	0	03JUL14	10JUL14	95
Library											
LR-43300	INST FIN TUBE RADIATORS IN LIBRARY (LR-LIBRARY)	BS	CRL	15	15835	8	8	0	22JUL14	31JUL14	87
Basement											
CW-50150	CW BOOSTER PUMP - SET & INSTALL (CW-BSMT)	BS	CR	15	15453	5	5	0	29MAY14	04JUN14	82
CW-40470	INST ACTIVE CHILLED BEAMS (CW-BSMT)	BS	CR	15	15932	5	5	0	05JUN14	11JUN14	40
CW-40395	INST UNIT HEATERS BATHROOM (CW-BSMT)	BS	CR	15	15836	10	10	0	05JUN14	18JUN14	14
CW-40610	INST (8) EUH (CW-BSMT)	BS	CR	15	15836	10	10	0	05JUN14	18JUN14	14
CW-50155	SEWAGE EJECTOR PUMP - SET & INSTALL (CW-BSMT)	BS	CR	15	15453	10	10	0	05JUN14	18JUN14	82
CW-46580	INST FUEL PUMP (CW-BSMT)	BS	CR	15	15590	2	2	0	06JUN14	09JUN14	90
CW-60105	SET & INST FIRE PUMP (CW-BSMT)	BS	CR	15	15333	5	5	0	06JUN14	12JUN14	26
CW-46590	INST FUEL TANK FOR EMERGENCY GENERTR (CW-BSMT)	BS	CR	15	15590	5	5	0	10JUN14	16JUN14	90
LR-40405	INST (2) AC UNITS (LR - BSMT)	BS	CR	15	15783	10	10	0	12JUN14	25JUN14	95
CW-50160	HYDRAULIC ELEVATOR SUMP PUMP - SET & INST (CW)	BS	CR	15	15453	3	3	0	19JUN14	23JUN14	82
CW-50165	SET & INST HW CIRCULATING PUMP - KITCHEN (CW)	BS	CR	15	15453	3	3	0	24JUN14	26JUN14	82
CW-40300	INST FIN TUBE RADIATORS (N 1/3) (CW-BSMT)	BS	CR	15	15835	8	8	0	06AUG14	15AUG14	60
CW-40310	INST FIN TUBE RADIATORS (CENTER 1/3) (CW-BSMT)	BS	CR	15	15835	8	8	0	18AUG14	27AUG14	60
CW-40320	INST FIN TUBE RADIATORS (S1/3) (CW-BSMT)	BS	CR	15	15835	8	8	0	28AUG14	09SEP14	60
1st Floor											
CW-41410	INST AC UNIT & AC-1-1 IN RM 123 (CW - 1ST FLR)	BS	01	15	15783	5	5	0	31MAR14	04APR14	37
CW-41450	INST UNIT HEATERS (CW- 1ST FLR)	BS	01	15	15836	8	8	0	31MAR14	09APR14	28
CW-41470	INST ACTIVE CHILLED BEAMS (CW-1ST FLR)	BS	01	15	15932	9	9	0	09APR14	21APR14	78
CW-41610	INST (8) EUH (CW-1ST FLR)	BS	01	15	15836	7	7	0	10APR14	18APR14	28
CW-70170	INST EMERGENCY GENERATOR SYSTEM (CW)	BS	01	16	16231	5	5	0	17APR14	23APR14	21
CW-41300	INST FIN TUBE RADIATORS (N1/3) (CW-1ST FLR)	BS	01	15	15835	8	8	0	18AUG14	27AUG14	47
CW-41310	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-1ST FLR)	BS	01	15	15835	8	8	0	28AUG14	09SEP14	47
CW-41320	INST FIN TUBE RADIATORS (S1/3) (CW-1ST FLR)	BS	01	15	15835	8	8	0	10SEP14	19SEP14	47
CW-41400	INST FIN TUBE RADIATORS (CW-1ST FLR - LOBBY)	BS	01	15	15835	5	5	0	22SEP14	26SEP14	47
2nd Floor											
CW-42410	INST (1) AC UNIT (CW - 2ND FLR)	BS	02	15	15783	5	5	0	14APR14	18APR14	27
CW-42460	INST UNIT HEATERS (CW- 2ND FLR)	BS	02	15	15836	6	6	0	21APR14	28APR14	28
CW-42610	INST (8) EUH (CW-2ND FLR)	BS	02	15	15836	8	8	0	29APR14	08MAY14	28
CW-42470	INST ACTIVE CHILLED BEAMS (CW-2ND FLR)	BS	02	15	15932	10	10	0	02MAY14	15MAY14	68
CW-42300	INST FIN TUBE RADIATORS (N1/3) (CW-2ND FLR)	BS	02	15	15835	8	8	0	18AUG14	27AUG14	52
CW-42310	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-2ND FLR)	BS	02	15	15835	8	8	0	28AUG14	09SEP14	52
CW-42320	INST FIN TUBE RADIATORS (S1/3) (CW-2ND FLR)	BS	02	15	15835	8	8	0	10SEP14	19SEP14	52
3rd Floor											
CW-43410	INST (1) AC UNIT (CW - 3RD FLR)	BS	03	15	15783	5	5	0	30APR14	06MAY14	20
CW-43470	INST UNIT HEATERS (CW- 3RD FLR)	BS	03	15	15836	8	8	0	09MAY14	20MAY14	28
CW-43471	INST ACTIVE CHILLED BEAMS (CW-3RD FLR)	BS	03	15	15932	10	10	0	09MAY14	22MAY14	75
CW-43300	INST FIN TUBE RADIATORS (N1/3) (CW-3RD FLR)	BS	03	15	15835	8	8	0	02SEP14	11SEP14	42
CW-43310	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-3RD FLR)	BS	03	15	15835	8	8	0	12SEP14	23SEP14	42
CW-43320	INST FIN TUBE RADIATORS (S1/3) (CW-3RD FLR)	BS	03	15	15835	8	8	0	24SEP14	03OCT14	42
4th Floor											
CW-44410	INST (1) AC UNIT (CW - 4TH FLR)	BS	04	15	15783	5	5	0	12MAY14	16MAY14	12
CW-44480	INST UNIT HEATERS (CW- 4TH FLR)	BS	04	15	15836	6	6	0	13MAY14	20MAY14	28



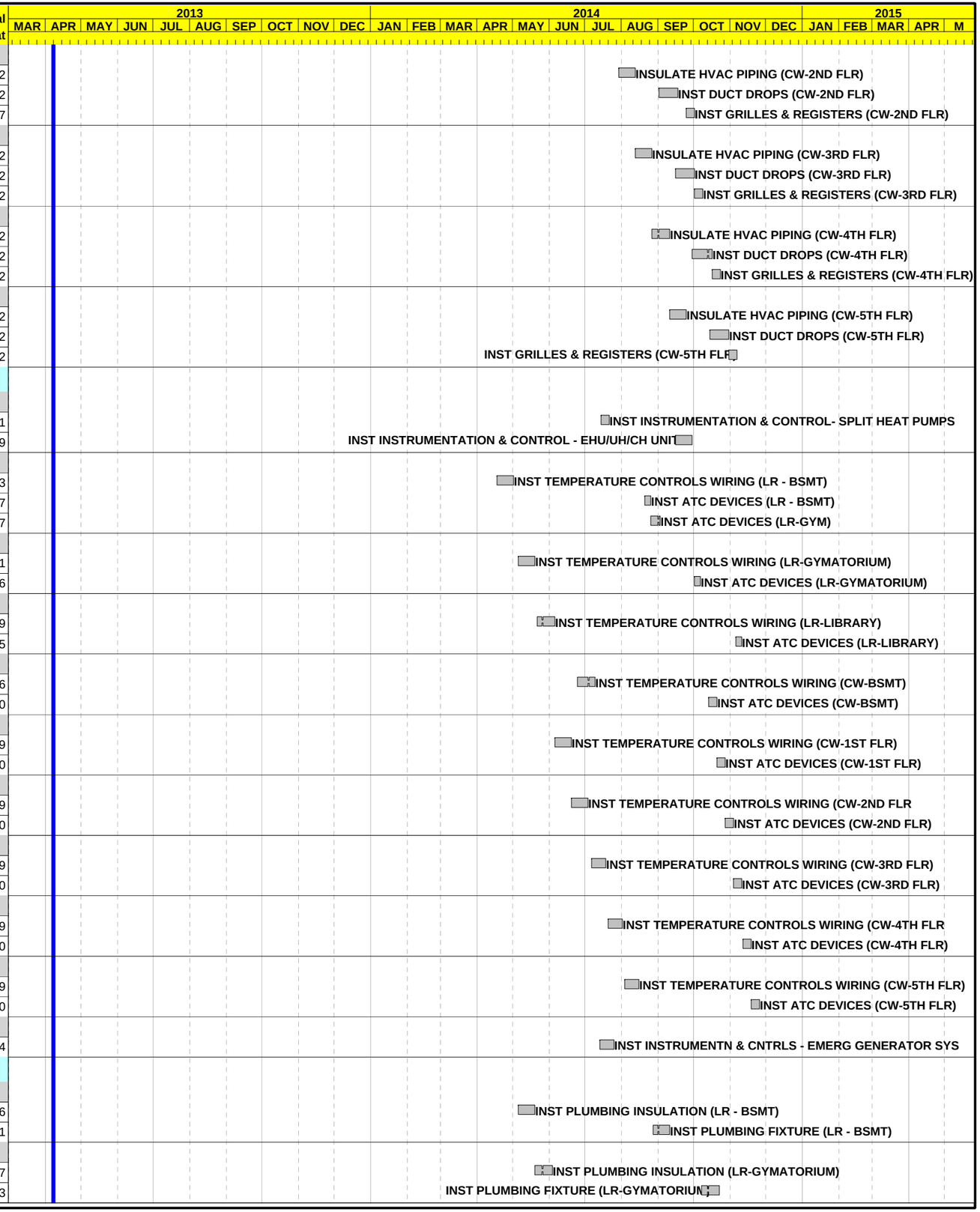
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
4th Floor											
CW-44470	INST ACTIVE CHILLED BEAMS (CW-4TH FLR)	BS	04	15	15932	10	10	0	21MAY14	04JUN14	67
CW-44300	INST FIN TUBE RADIATORS (N1/3) (CW-4TH FLR)	BS	04	15	15835	8	8	0	16SEP14	25SEP14	32
CW-44310	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-4TH FLR)	BS	04	15	15835	8	8	0	26SEP14	07OCT14	32
CW-44320	INST FIN TUBE RADIATORS (S1/3) (CW-4TH FLR)	BS	04	15	15835	8	8	0	08OCT14	20OCT14	32
5th Floor											
CW-45410	INST (1) AC UNIT (CW - 5TH FLR)	BS	05	15	15783	5	5	0	04JUN14	10JUN14	1
CW-44580	INST UNIT HEATERS (CW- 5TH FLR)	BS	05	15	15836	8	8	0	04JUN14	13JUN14	11
CW-45470	INST ACTIVE CHILLED BEAMS (CW-5TH FLR)	BS	05	15	15932	8	8	0	09JUN14	18JUN14	71
CW-43610	INST EUH (CW-5TH FLR)	BS	05	15	15836	2	2	0	16JUN14	17JUN14	11
CW-45300	INST FIN TUBE RADIATORS (N1/3) (CW-5TH FLR)	BS	05	15	15835	8	8	0	23SEP14	02OCT14	-2
CW-45310	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-5TH FLR)	BS	05	15	15835	8	8	0	03OCT14	15OCT14	-2
CW-45320	INST FIN TUBE RADIATORS (S1/3) (CW-5TH FLR)	BS	05	15	15835	8	8	0	16OCT14	27OCT14	-2
Upper Roof											
CW-45471	SET & INST 5 EA AIR-DIRT SEPERATORS (CW-ROOF)	BS	RF	15	15515	7	7	0	10JUN14	18JUN14	18
CW-55125	SET & INST HW HEATER (CW-ROOF)	BS	RF	15	15451	3	3	0	01JUL14	03JUL14	10
CW-45430	SET/INST 5 EA EXPANSION TANK HW SYS (CW-ROOF)	BS	RF	15	15451	5	5	0	07JUL14	11JUL14	10
CW-45440	SET/INST 5 EA EXPANSION TANK CW SYS (CW-ROOF)	BS	RF	15	15451	10	10	0	14JUL14	25JUL14	10
Stair A											
CW-02228	INST CABINET UNIT HEATERS (CW-STAIR A)	BS	SA	15	15836	5	5	0	02JUN14	06JUN14	91
Stair B											
CW-B0390	INST CABINET UNIT HEATERS (CW- STAIR B)	BS	SB	15	15836	5	5	0	09JUN14	13JUN14	91
Sample Classroom											
2nd Floor											
CW-1S001	FRAME INTERIOR PARTITIONS -SAMPLE CLASSRM	BS	02	09	09260	4	4	0	26MAR14	31MAR14	119
CW-1S095	INST GYPSUM BOARD WALL -SAMPLE CLASSRM	BS	02	09	09260	5	5	0	29JUL14	04AUG14	36
CW-1S005	CONSTRUCT SAMPLE ROOM (CW-2ND FLR)	BS	02	09	09260	45*	45*	0	29JUL14	30SEP14	36
CW-1S125	TAPE & SPACKLE GYPSUM BOARD WALLS-SAMPLE	BS	02	09	09260	4	4	0	05AUG14	08AUG14	36
CW-1S100	INST BLACK IRON FRAMING-SAMPLE CLASSRM	BS	02	05	05170	4	4	0	11AUG14	14AUG14	36
CW-1S120	INST GYPSUM BOARD CEILING -SAMPLE CLASSRM	BS	02	09	09260	5	5	0	15AUG14	21AUG14	36
CW-1S130	TAPE & SPACKLE GYPSUM BRD CEILING-SAMPLE CLASSRM	BS	02	09	09260	4	4	0	22AUG14	27AUG14	36
CW-1S150	PRIME PAINTING - SAMPLE CLASSROOM	BS	02	09	09900	4	4	0	28AUG14	03SEP14	36
CW-1S135	INST SUSPENDED CEILING GRID-SAMPLE CLASSRM	BS	02	09	09510	4	4	0	04SEP14	09SEP14	36
CW-1S140	INST LIGHT FIXTURE & WIRE -SAMPLE CLASSRM)	BS	02	16	16500	5	5	0	10SEP14	16SEP14	46
CW-1S215	INST WHITE & BLACK BOARDS-SAMPLE CLASSRM	BS	02	10	10100	3	3	0	24SEP14	26SEP14	38
CW-1S221	INST WINDOW SHADES-SAMPLE CLASSRM	BS	02	12	12501	3	3	0	24SEP14	26SEP14	38
CW-1S223	INST CNTRCTR SUPPLIED FURNITURE-SAMPLE CLASSRM	BS	02	12	12302	4	4	0	24SEP14	29SEP14	37
CW-1S227	INST OWNER SUPPLIED ITEMS-SAMPLE CLASSRM	BS	02	12	12302	4	4	0	24SEP14	29SEP14	37
CW-1S225	INST MILLWORK/CASEWORK -SAMPLE CLASSRM	BS	02	06	06410	5	5	0	24SEP14	30SEP14	36
CW-1S199	SCA APPROVE SAMPLE CLASSROOM (CW-2ND FLR)	BS	02	01	01426S	5	5	0	01OCT14	07OCT14	36
Drywall											
Basement & Gymnasium											
LR-00065	FRAME INTERIOR PARTITIONS (LR - BSMT)	BS	CRG	09	09260	6	6	0	26MAR14	02APR14	24
LR-00095	INST GYPSUM BOARD WALL (LR - BSMT)	BS	CRG	09	09260	6	6	0	03JUL14	11JUL14	5
LR-00125	TAPE & SPACKLE GYPSUM BOARD WALLS (LR - BSMT)	BS	CRG	09	09260	6	6	0	14JUL14	21JUL14	5
LR-00120	INST GYPSUM BOARD CEILING (LR - BSMT)	BS	CRG	09	09260	6	6	0	21JUL14	28JUL14	14
LR-00130	TAPE & SPACKLE GYPSUM BOARD CEILINGS (LR - BSMT)	BS	CRG	09	09260	6	6	0	29JUL14	05AUG14	14
Gymatorium											
LR-02065	FRAME INTERIOR PARTITIONS (LR-GYMATORIUM)	BS	CRA	09	09260	12	12	0	11APR14	28APR14	20
LR-02095	INST GYPSUM BOARD WALL (LR-GYMATORIUM)	BS	CRA	09	09260	6	6	0	01AUG14	08AUG14	-4
LR-02125	TAPE & SPACKLE GYPSUM BOARD WALLS (LR-GYMATORM)	BS	CRA	09	09260	6	6	0	11AUG14	18AUG14	5
Library											
LR-03065	FRAME INTERIOR PARTITIONS (LR-LIBRARY)	BS	CRL	09	09260	12	12	0	29APR14	14MAY14	20
LR-03095	INST GYPSUM BOARD WALL (LR-LIBRARY)	BS	CRL	09	09260	12	12	0	29AUG14	16SEP14	-1
LR-03125	TAPE & SPACKLE GYPSUM BOARD WALLS(LR-LIBRARY)	BS	CRL	09	09260	12	12	0	17SEP14	02OCT14	-1
Basement											
CW-10065	FRAME INTERIOR PARTITIONS (CW-BSMT)	BS	CR	09	09260	10	10	0	15MAY14	29MAY14	20



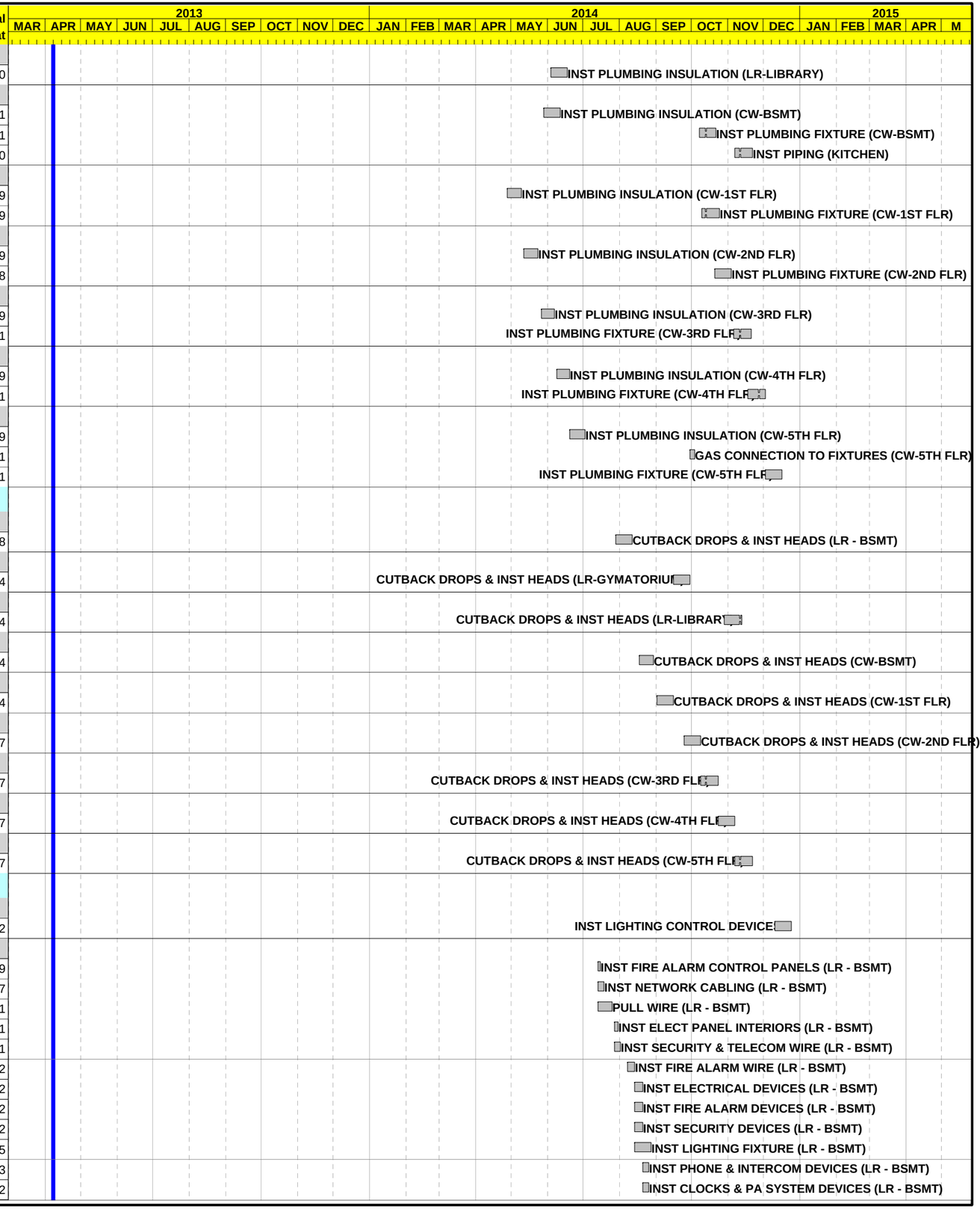
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Basement											
CW-10095	INST GYPSUM BOARD WALL (CW-BSMT)	BS	CR	09	09260	12	12	0	02JUL14	18JUL14	0
CW-10125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-BSMT)	BS	CR	09	09260	12	12	0	21JUL14	05AUG14	2
CW-10120	INST GYPSUM BOARD CEILINGS (CW-BSMT)	BS	CR	09	09260	12	12	0	11AUG14	26AUG14	0
CW-10130	TAPE & SPACKLE GYPSUM BOARD CEILINGS (CW-BSMT)	BS	CR	09	09260	12	12	0	27AUG14	12SEP14	0
1st Floor											
CW-11065	FRAME INTERIOR PARTITIONS (CW-1ST FLR)	BS	01	09	09260	11	11	0	26MAR14	09APR14	16
CW-11095	INST GYPSUM BOARD WALL (CW-1ST FLR)	BS	01	09	09260	10	10	0	21JUL14	01AUG14	-4
CW-11125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-1ST FLR)	BS	01	09	09260	10	10	0	04AUG14	15AUG14	-4
CW-11120	INST GYPSUM BOARD CEILING (CW-1ST FLR)	BS	01	09	09260	9	9	0	25AUG14	05SEP14	-4
CW-11130	TAPE & SPACKLE GYPSUM BRD CEILING (CW-1ST FLR)	BS	01	09	09260	9	9	0	08SEP14	18SEP14	-4
2nd Floor											
CW-12065	FRAME INTERIOR PARTITIONS (CW-2ND FLR)	BS	02	09	09260	12	12	0	10APR14	25APR14	16
CW-12095	INST GYPSUM BOARD WALL (CW-2ND FLR)	BS	02	09	09260	10	10	0	21JUL14	01AUG14	-4
CW-12125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-2ND FLR)	BS	02	09	09260	10	10	0	04AUG14	15AUG14	-4
CW-12120	INST GYPSUM BOARD CEILING (CW-2ND FLR)	BS	02	09	09260	10	10	0	25AUG14	08SEP14	4
CW-12130	TAPE & SPACKLE GYPSUM BRD CEILING (CW-2ND FLR)	BS	02	09	09260	10	10	0	09SEP14	22SEP14	4
3rd Floor											
CW-13065	FRAME INTERIOR PARTITIONS (CW-3RD FLR)	BS	03	09	09260	10	10	0	28APR14	09MAY14	16
CW-13095	INST GYPSUM BOARD WALL (CW-3RD FLR)	BS	03	09	09260	10	10	0	04AUG14	15AUG14	-4
CW-13125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-3RD FLR)	BS	03	09	09260	10	10	0	18AUG14	29AUG14	-4
CW-13120	INST GYPSUM BOARD CEILING (CW-3RD FLR)	BS	03	09	09260	9	9	0	19SEP14	01OCT14	-2
CW-13130	TAPE & SPACKLE GYPSUM BRD CEILING (CW-3RD FLR)	BS	03	09	09260	9	9	0	02OCT14	15OCT14	-2
4th Floor											
CW-14065	FRAME INTERIOR PARTITIONS (CW-4TH FLR)	BS	04	09	09260	12	12	0	12MAY14	28MAY14	16
CW-14095	INST GYPSUM BOARD WALL (CW-4TH FLR)	BS	04	09	09260	10	10	0	18AUG14	29AUG14	-4
CW-14125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-4TH FLR)	BS	04	09	09260	10	10	0	02SEP14	15SEP14	-4
CW-14120	INST GYPSUM BOARD CEILING (CW-4TH FLR)	BS	04	09	09260	9	9	0	30SEP14	10OCT14	-4
CW-14130	TAPE & SPACKLE GYPSUM BRD CEILING (CW-4TH FLR)	BS	04	09	09260	9	9	0	14OCT14	24OCT14	-4
5th Floor											
CW-15065	FRAME INTERIOR PARTITIONS (CW-5TH FLR)	BS	05	09	09260	12	12	0	29MAY14	13JUN14	16
CW-15095	INST GYPSUM BOARD WALL (CW-5TH FLR)	BS	05	09	09260	10	10	0	02SEP14	15SEP14	-2
CW-15125	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-5TH FLR)	BS	05	09	09260	10	10	0	16SEP14	29SEP14	-2
CW-15120	INST GYPSUM BOARD CEILING (CW-5TH FLR)	BS	05	09	09260	10	10	0	07OCT14	21OCT14	0
CW-15130	TAPE & SPACKLE GYPSUM BRD CEILING (CW-5TH FLR)	BS	05	09	09260	10	10	0	22OCT14	04NOV14	0
Mechanical Finishes											
Basement & Gymnasium											
LR-40115	INST DUCT DROPS (LR-GYM)	BS	CRG	15	15910	5	5	0	21JUL14	25JUL14	89
LR-40120	INST GRILLES & REGISTERS (LR-GYM)	BS	CRG	15	15910	5	5	0	29JUL14	04AUG14	93
LR-00067	INST SHOWER PANS (LR - BSMT)	BS	CRG	10	10810	5	5	0	14AUG14	20AUG14	65
LR-50700	INSULATE HVAC PIPING (LR - BSMT)	BS	CRG	15	15510	10	10	0	25SEP14	08OCT14	42
Gymatorium											
LR-42115	INST DUCT DROPS (LR-GYMATORIUM)	BS	CRA	15	15910	5	5	0	09SEP14	15SEP14	59
LR-42120	INST GRILLES & REGISTERS (LR-GYMATORIUM)	BS	CRA	15	15910	5	5	0	16SEP14	22SEP14	59
LR-52700	INSULATE HVAC PIPING (LR-GYMATORIUM)	BS	CRA	15	15510	10	10	0	09OCT14	23OCT14	42
Library											
LR-43115	INST DUCT DROPS (LR-LIBRARY)	BS	CRL	15	15910	5	5	0	20OCT14	24OCT14	31
LR-53700	INSULATE HVAC PIPING (LR-LIBRARY)	BS	CRL	15	15510	10	10	0	24OCT14	06NOV14	42
LR-43120	INST GRILLES & REGISTERS (LR-LIBRARY)	BS	CRL	15	15910	5	5	0	29OCT14	04NOV14	29
Basement											
CW-50700	INSULATE HVAC PIPING (CW- BSMT)	BS	CR	15	15510	10	10	0	01JUL14	15JUL14	42
CW-40115	INST DUCT DROPS (CW-BSMT)	BS	CR	15	15910	12	12	0	20AUG14	05SEP14	70
CW-40120	INST GRILLES & REGISTERS (CW-BSMT)	BS	CR	15	15910	5	5	0	08SEP14	12SEP14	70
1st Floor											
CW-51700	INSULATE HVAC PIPING (CW-1ST FLR)	BS	01	15	15510	10	10	0	16JUL14	29JUL14	42
CW-41115	INST DUCT DROPS (CW-1ST FLR)	BS	01	15	15910	12	12	0	02SEP14	17SEP14	62
CW-41120	INST GRILLES & REGISTERS (CW-1ST FLR)	BS	01	15	15910	5	5	0	18SEP14	24SEP14	62



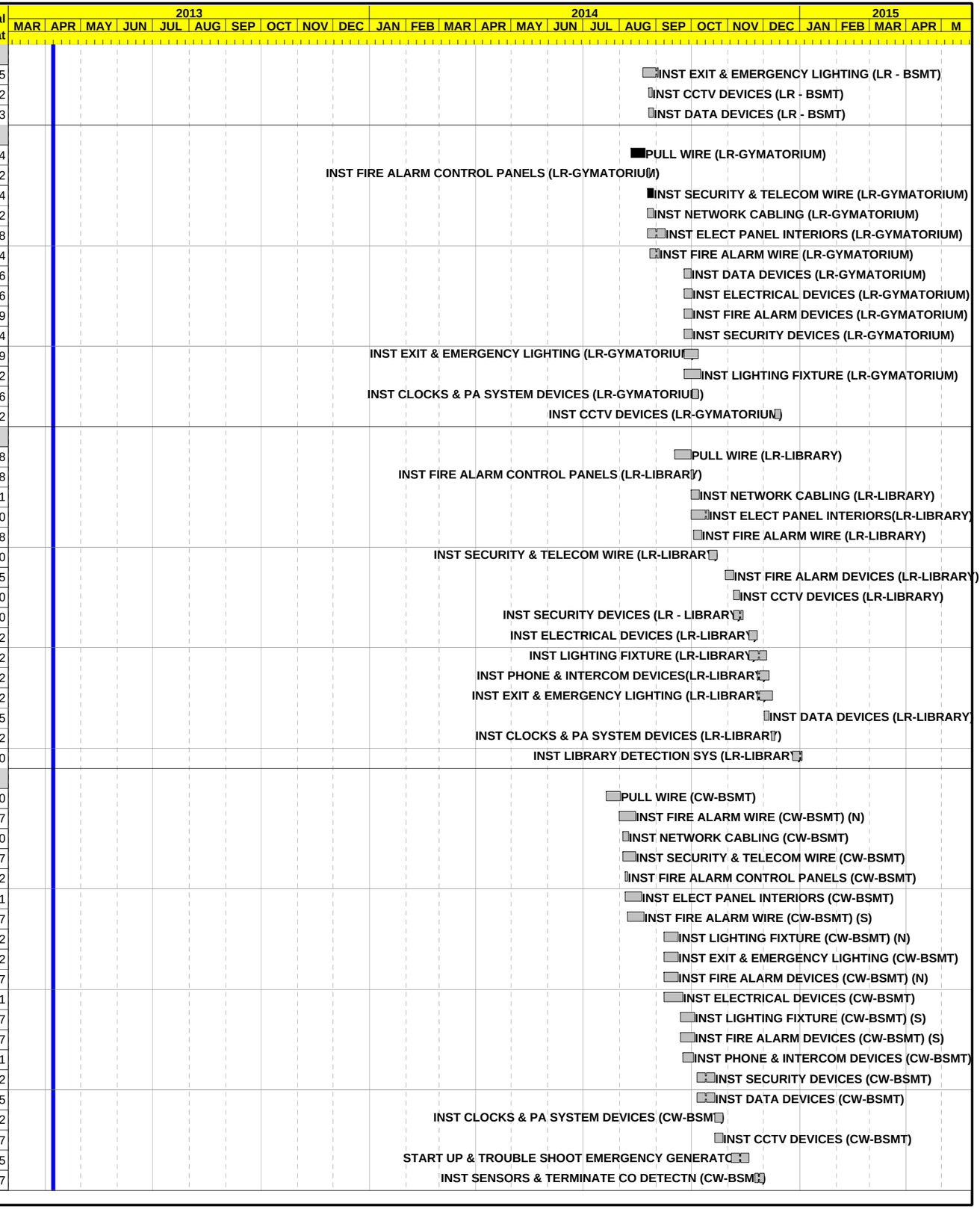
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
2nd Floor											
CW-52700	INSULATE HVAC PIPING (CW-2ND FLR)	BS	02	15	15510	10	10	0	30JUL14	12AUG14	42
CW-42115	INST DUCT DROPS (CW-2ND FLR)	BS	02	15	15910	12	12	0	02SEP14	17SEP14	62
CW-42120	INST GRILLES & REGISTERS (CW-2ND FLR)	BS	02	15	15910	5	5	0	25SEP14	01OCT14	57
3rd Floor											
CW-53700	INSULATE HVAC PIPING (CW-3RD FLR)	BS	03	15	15510	10	10	0	13AUG14	26AUG14	42
CW-43115	INST DUCT DROPS (CW-3RD FLR)	BS	03	15	15910	12	12	0	16SEP14	01OCT14	52
CW-43120	INST GRILLES & REGISTERS (CW-3RD FLR)	BS	03	15	15910	5	5	0	02OCT14	08OCT14	52
4th Floor											
CW-54700	INSULATE HVAC PIPING (CW-4TH FLR)	BS	04	15	15510	10	10	0	27AUG14	10SEP14	42
CW-44115	INST DUCT DROPS (CW-4TH FLR)	BS	04	15	15910	12	12	0	30SEP14	16OCT14	42
CW-44120	INST GRILLES & REGISTERS (CW-4TH FLR)	BS	04	15	15910	5	5	0	17OCT14	23OCT14	42
5th Floor											
CW-55700	INSULATE HVAC PIPING (CW-5TH FLR)	BS	05	15	15510	10	10	0	11SEP14	24SEP14	42
CW-15105	INST DUCT DROPS (CW-5TH FLR)	BS	05	15	15910	12	12	0	15OCT14	30OCT14	32
CW-15140	INST GRILLES & REGISTERS (CW-5TH FLR)	BS	05	15	15910	5	5	0	31OCT14	06NOV14	32
HVAC Instruments & Controls											
All											
CW-50395	INST INSTRUMENTATION & CONTROL- SPLIT HEAT PUMPS	BS	00	15	15783	5	5	0	15JUL14	21JUL14	71
BS-50999	INST INSTRUMENTATION & CONTROL - EHU/UH/CH UNITS	BS	00	15	15836	10	10	0	16SEP14	29SEP14	49
Basement & Gymnasium											
LR-00480	INST TEMPERATURE CONTROLS WIRING (LR - BSMT)	BS	CRG	15	15970	10	10	0	18APR14	01MAY14	53
LR-40485	INST ATC DEVICES (LR - BSMT)	BS	CRG	15	15970	3	3	0	21AUG14	25AUG14	47
LR-00485	INST ATC DEVICES (LR-GYM)	BS	CRG	15	15970	5	5	0	26AUG14	02SEP14	47
Gymatorium											
LR-02480	INST TEMPERATURE CONTROLS WIRING	BS	CRA	15	15970	10	10	0	06MAY14	19MAY14	51
LR-42485	INST ATC DEVICES (LR-GYMATORIUM)	BS	CRA	15	15970	3	3	0	02OCT14	06OCT14	46
Library											
LR-03480	INST TEMPERATURE CONTROLS WIRING (LR-LIBRARY)	BS	CRL	15	15970	10	10	0	22MAY14	05JUN14	49
LR-43485	INST ATC DEVICES (LR-LIBRARY)	BS	CRL	15	15970	3	3	0	06NOV14	10NOV14	25
Basement											
CW-10480	INST TEMPERATURE CONTROLS WIRING (CW-BSMT)	BS	CR	15	15970	10	10	0	25JUN14	09JUL14	76
CW-40485	INST ATC DEVICES (CW-BSMT)	BS	CR	15	15970	5	5	0	14OCT14	20OCT14	10
1st Floor											
CW-11480	INST TEMPERATURE CONTROLS WIRING (CW-1ST FLR)	BS	01	15	15970	10	10	0	06JUN14	19JUN14	49
CW-41485	INST ATC DEVICES (CW-1ST FLR)	BS	01	15	15970	5	5	0	21OCT14	27OCT14	10
2nd Floor											
CW-12480	INST TEMPERATURE CONTROLS WIRING (CW-2ND FLR	BS	02	15	15970	10	10	0	20JUN14	03JUL14	49
CW-42485	INST ATC DEVICES (CW-2ND FLR)	BS	02	15	15970	5	5	0	28OCT14	03NOV14	10
3rd Floor											
CW-13480	INST TEMPERATURE CONTROLS WIRING (CW-3RD FLR)	BS	03	15	15970	10	10	0	07JUL14	18JUL14	49
CW-43485	INST ATC DEVICES (CW-3RD FLR)	BS	03	15	15970	5	5	0	04NOV14	10NOV14	10
4th Floor											
CW-14480	INST TEMPERATURE CONTROLS WIRING (CW-4TH FLR	BS	04	15	15970	10	10	0	21JUL14	01AUG14	49
CW-44485	INST ATC DEVICES (CW-4TH FLR)	BS	04	15	15970	5	5	0	12NOV14	18NOV14	10
5th Floor											
CW-15480	INST TEMPERATURE CONTROLS WIRING (CW-5TH FLR)	BS	05	15	15970	10	10	0	04AUG14	15AUG14	49
CW-45485	INST ATC DEVICES (CW-5TH FLR)	BS	05	15	15970	5	5	0	19NOV14	25NOV14	10
Upper Roof											
CW-46585	INST INSTRUMENTN & CNTRLS - EMERG GENERATOR SYS	BS	RF	15	15590	10	10	0	14JUL14	25JUL14	84
Plumbing Finishes											
Basement & Gymnasium											
LR-50300	INST PLUMBING INSULATION (LR - BSMT)	BS	CRG	15	15413	10	10	0	06MAY14	19MAY14	36
LR-50120	INST PLUMBING FIXTURE (LR - BSMT)	BS	CRG	15	15440	9	9	0	28AUG14	10SEP14	51
Gymatorium											
LR-52300	INST PLUMBING INSULATION (LR-GYMATORIUM)	BS	CRA	15	15413	10	10	0	20MAY14	03JUN14	37
LR-52120	INST PLUMBING FIXTURE (LR-GYMATORIUM)	BS	CRA	15	15440	10	10	0	08OCT14	22OCT14	33



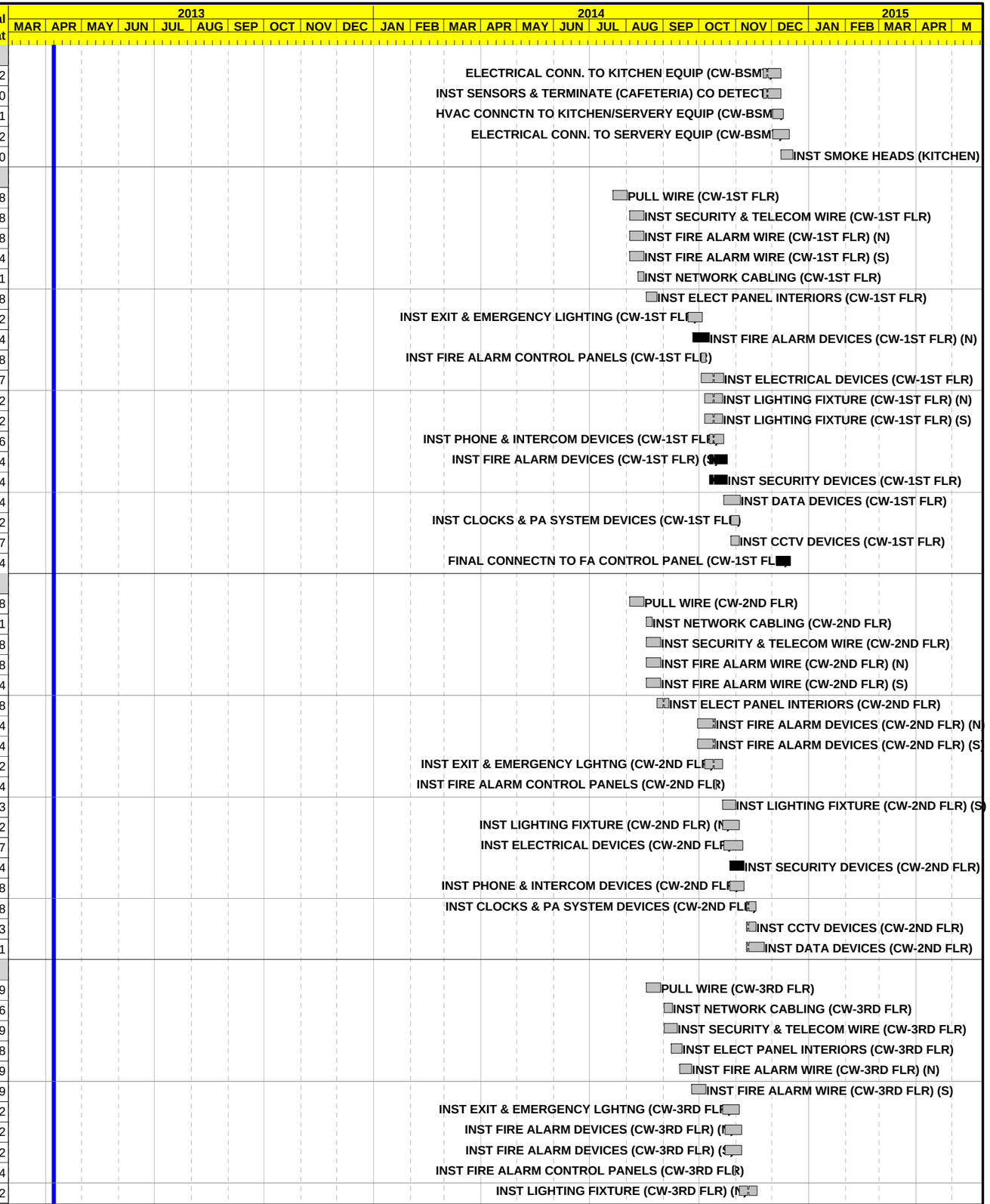
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Library											
LR-53300	INST PLUMBING INSULATION (LR-LIBRARY)	BS	CRL	15	15413	10	10	0	04JUN14	17JUN14	50
Basement											
CW-50300	INST PLUMBING INSULATION (CW-BSMT)	BS	CR	15	15413	10	10	0	29MAY14	11JUN14	21
CW-50120	INST PLUMBING FIXTURE (CW-BSMT)	BS	CR	15	15440	9	9	0	08OCT14	21OCT14	31
CW-40500	INST PIPING (KITCHEN)	BS	CR	11	11400	10	10	0	07NOV14	21NOV14	0
1st Floor											
CW-51300	INST PLUMBING INSULATION (CW-1ST FLR)	BS	01	15	15413	10	10	0	28APR14	09MAY14	39
CW-51120	INST PLUMBING FIXTURE (CW-1ST FLR)	BS	01	15	15440	10	10	0	10OCT14	24OCT14	9
2nd Floor											
CW-52300	INST PLUMBING INSULATION (CW-2ND FLR)	BS	02	15	15413	10	10	0	12MAY14	23MAY14	39
CW-52120	INST PLUMBING FIXTURE (CW-2ND FLR)	BS	02	15	15440	10	10	0	21OCT14	03NOV14	8
3rd Floor											
CW-53300	INST PLUMBING INSULATION (CW-3RD FLR)	BS	03	15	15413	9	9	0	27MAY14	06JUN14	39
CW-53120	INST PLUMBING FIXTURE (CW-3RD FLR)	BS	03	15	15440	10	10	0	06NOV14	20NOV14	1
4th Floor											
CW-54300	INST PLUMBING INSULATION (CW-4TH FLR)	BS	04	15	15413	9	9	0	09JUN14	19JUN14	39
CW-54120	INST PLUMBING FIXTURE (CW-4TH FLR)	BS	04	15	15440	10	10	0	18NOV14	02DEC14	1
5th Floor											
CW-55300	INST PLUMBING INSULATION (CW-5TH FLR)	BS	05	15	15413	9	9	0	20JUN14	02JUL14	39
CW-55039	GAS CONNECTION TO FIXTURES (CW-5TH FLR)	BS	05	15	15416	4	4	0	30SEP14	03OCT14	1
CW-55120	INST PLUMBING FIXTURE (CW-5TH FLR)	BS	05	15	15440	10	10	0	03DEC14	16DEC14	1
Sprinkler Finishes											
Basement & Gymnasium											
LR-60130	CUTBACK DROPS & INST HEADS (LR - BSMT)	BS	CRG	15	15332	10	10	0	29JUL14	11AUG14	78
Gymatorium											
LR-62130	CUTBACK DROPS & INST HEADS (LR-GYMATORIUM)	BS	CRA	15	15332	10	10	0	16SEP14	29SEP14	34
Library											
LR-63130	CUTBACK DROPS & INST HEADS (LR-LIBRARY)	BS	CRL	15	15332	10	10	0	29OCT14	12NOV14	14
Basement											
CW-60130	CUTBACK DROPS & INST HEADS (CW-BSMT)	BS	CR	15	15332	10	10	0	18AUG14	29AUG14	14
1st Floor											
CW-61130	CUTBACK DROPS & INST HEADS (CW-1ST FLR)	BS	01	15	15332	10	10	0	02SEP14	15SEP14	14
2nd Floor											
CW-62130	CUTBACK DROPS & INST HEADS (CW-2ND FLR)	BS	02	15	15332	10	10	0	25SEP14	08OCT14	7
3rd Floor											
CW-63130	CUTBACK DROPS & INST HEADS (CW-3RD FLR)	BS	03	15	15332	10	10	0	09OCT14	23OCT14	7
4th Floor											
CW-64130	CUTBACK DROPS & INST HEADS (CW-4TH FLR)	BS	04	15	15332	10	10	0	24OCT14	06NOV14	7
5th Floor											
CW-65130	CUTBACK DROPS & INST HEADS (CW-5TH FLR)	BS	05	15	15332	10	10	0	07NOV14	21NOV14	7
Electrical Finishes											
All											
BS-70210	INST LIGHTING CONTROL DEVICES	BS	00	16	16145	10	10	0	11DEC14	24DEC14	2
Basement & Gymnasium											
LR-70080	INST FIRE ALARM CONTROL PANELS (LR - BSMT)	BS	CRG	16	16720	2	2	0	14JUL14	15JUL14	59
LR-70097	INST NETWORK CABLING (LR - BSMT)	BS	CRG	16	16728	5	5	0	14JUL14	18JUL14	97
LR-70110	PULL WIRE (LR - BSMT)	BS	CRG	16	16120	10	10	0	14JUL14	25JUL14	11
LR-70090	INST ELECT PANEL INTERIORS (LR - BSMT)	BS	CRG	16	16470	3	3	0	28JUL14	30JUL14	11
LR-70092	INST SECURITY & TELECOM WIRE (LR - BSMT)	BS	CRG	16	16726	5	5	0	28JUL14	01AUG14	11
LR-70094	INST FIRE ALARM WIRE (LR - BSMT)	BS	CRG	16	16720	4	4	0	08AUG14	13AUG14	42
LR-70148	INST ELECTRICAL DEVICES (LR - BSMT)	BS	CRG	16	16140	5	5	0	14AUG14	20AUG14	42
LR-70195	INST FIRE ALARM DEVICES (LR - BSMT)	BS	CRG	16	16720	5	5	0	14AUG14	20AUG14	42
LR-70197	INST SECURITY DEVICES (LR - BSMT)	BS	CRG	16	16724	5	5	0	14AUG14	20AUG14	42
LR-70116	INST LIGHTING FIXTURE (LR - BSMT)	BS	CRG	16	16500	10	10	0	14AUG14	27AUG14	55
LR-70198	INST PHONE & INTERCOM DEVICES (LR - BSMT)	BS	CRG	16	16726	3	3	0	21AUG14	25AUG14	73
LR-70200	INST CLOCKS & PA SYSTEM DEVICES (LR - BSMT)	BS	CRG	16	16791	3	3	0	21AUG14	25AUG14	42



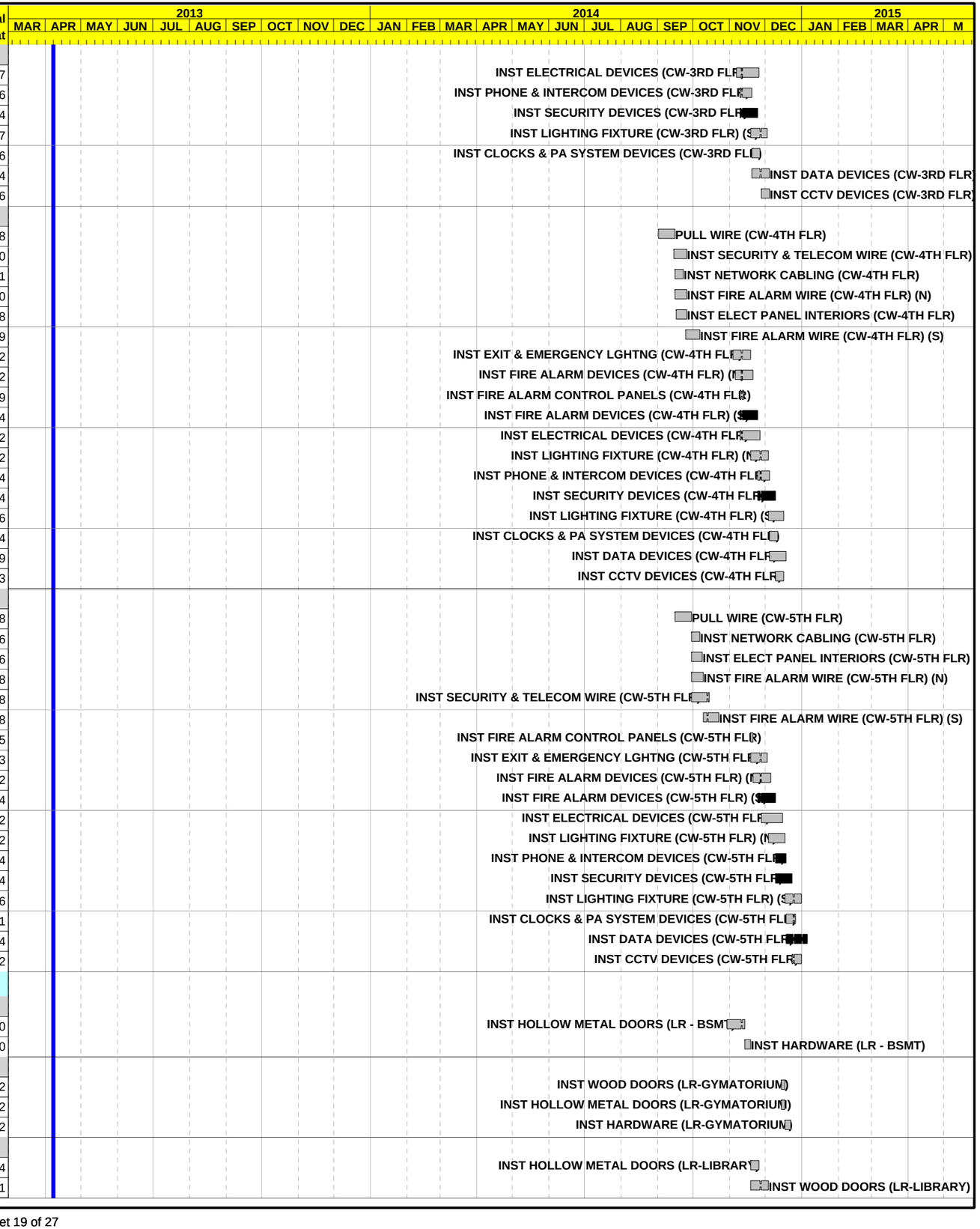
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Basement & Gymnasium											
LR-70190	INST EXIT & EMERGENCY LIGHTING (LR - BSMT)	BS	CRG	16	16520	8	8	0	21AUG14	02SEP14	55
LR-70205	INST CCTV DEVICES (LR - BSMT)	BS	CRG	16	16783	3	3	0	26AUG14	28AUG14	42
LR-70203	INST DATA DEVICES (LR - BSMT)	BS	CRG	16	16727	4	4	0	26AUG14	29AUG14	73
Gymatorium											
LR-72110	PULL WIRE (LR-GYMATORIUM)	BS	CRA	16	16120	10	10	0	11AUG14	22AUG14	-4
LR-72080	INST FIRE ALARM CONTROL PANELS (LR-GYMATORIUM)	BS	CRA	16	16720	2	2	0	25AUG14	26AUG14	52
LR-72092	INST SECURITY & TELECOM WIRE (LR-GYMATORIUM)	BS	CRA	16	16726	5	5	0	25AUG14	29AUG14	-4
LR-72097	INST NETWORK CABLING (LR-GYMATORIUM)	BS	CRA	16	16728	5	5	0	25AUG14	29AUG14	72
LR-72090	INST ELECT PANEL INTERIORS (LR-GYMATORIUM)	BS	CRA	16	16470	10	10	0	25AUG14	08SEP14	38
LR-72094	INST FIRE ALARM WIRE (LR-GYMATORIUM)	BS	CRA	16	16720	5	5	0	27AUG14	03SEP14	54
LR-72203	INST DATA DEVICES (LR-GYMATORIUM)	BS	CRA	16	16727	4	4	0	25SEP14	30SEP14	56
LR-72148	INST ELECTRICAL DEVICES (LR-GYMATORIUM)	BS	CRA	16	16140	5	5	0	25SEP14	01OCT14	26
LR-72195	INST FIRE ALARM DEVICES (LR-GYMATORIUM)	BS	CRA	16	16720	5	5	0	25SEP14	01OCT14	39
LR-72197	INST SECURITY DEVICES (LR-GYMATORIUM)	BS	CRA	16	16724	5	5	0	25SEP14	01OCT14	54
LR-72190	INST EXIT & EMERGENCY LIGHTING (LR-GYMATORIUM)	BS	CRA	16	16520	8	8	0	25SEP14	06OCT14	39
LR-72116	INST LIGHTING FIXTURE (LR-GYMATORIUM)	BS	CRA	16	16500	10	10	0	25SEP14	08OCT14	62
LR-72200	INST CLOCKS & PA SYSTEM DEVICES (LR-GYMATORIUM)	BS	CRA	16	16791	3	3	0	02OCT14	06OCT14	26
LR-73205	INST CCTV DEVICES (LR-GYMATORIUM)	BS	CRA	16	16783	3	3	0	11DEC14	15DEC14	12
Library											
LR-73110	PULL WIRE (LR-LIBRARY)	BS	CRL	16	16120	10	10	0	17SEP14	30SEP14	28
LR-73080	INST FIRE ALARM CONTROL PANELS (LR-LIBRARY)	BS	CRL	16	16720	2	2	0	01OCT14	02OCT14	28
LR-73097	INST NETWORK CABLING (LR-LIBRARY)	BS	CRL	16	16728	5	5	0	01OCT14	07OCT14	51
LR-73090	INST ELECT PANEL INTERIORS(LR-LIBRARY)	BS	CRL	16	16470	10	10	0	01OCT14	15OCT14	40
LR-73094	INST FIRE ALARM WIRE (LR-LIBRARY)	BS	CRL	16	16720	5	5	0	03OCT14	09OCT14	28
LR-73092	INST SECURITY & TELECOM WIRE (LR-LIBRARY)	BS	CRL	16	16726	5	5	0	16OCT14	22OCT14	40
LR-73195	INST FIRE ALARM DEVICES (LR-LIBRARY)	BS	CRL	16	16720	5	5	0	30OCT14	05NOV14	15
LR-72205	INST CCTV DEVICES (LR-LIBRARY)	BS	CRL	16	16783	3	3	0	06NOV14	10NOV14	30
LR-73197	INST SECURITY DEVICES (LR - LIBRARY)	BS	CRL	16	16724	5	5	0	06NOV14	13NOV14	30
LR-73148	INST ELECTRICAL DEVICES (LR-LIBRARY)	BS	CRL	16	16140	5	5	0	19NOV14	25NOV14	12
LR-73116	INST LIGHTING FIXTURE (LR-LIBRARY)	BS	CRL	16	16500	10	10	0	19NOV14	03DEC14	22
LR-73198	INST PHONE & INTERCOM DEVICES(LR-LIBRARY)	BS	CRL	16	16726	7	7	0	26NOV14	05DEC14	12
LR-73190	INST EXIT & EMERGENCY LIGHTING (LR-LIBRARY)	BS	CRL	16	16520	8	8	0	26NOV14	08DEC14	22
LR-73203	INST DATA DEVICES (LR-LIBRARY)	BS	CRL	16	16727	4	4	0	02DEC14	05DEC14	15
LR-73200	INST CLOCKS & PA SYSTEM DEVICES (LR-LIBRARY)	BS	CRL	16	16791	3	3	0	08DEC14	10DEC14	12
LR-73207	INST LIBRARY DETECTION SYS (LR-LIBRARY)	BS	CRL	16	16724	5	5	0	26DEC14	02JAN15	0
Basement											
CW-70110	PULL WIRE (CW-BSMT)	BS	CR	16	16120	10	10	0	21JUL14	01AUG14	0
CW-70094	INST FIRE ALARM WIRE (CW-BSMT) (N)	BS	CR	16	16720	10	10	0	01AUG14	14AUG14	27
CW-70097	INST NETWORK CABLING (CW-BSMT)	BS	CR	16	16728	5	5	0	04AUG14	08AUG14	0
CW-70092	INST SECURITY & TELECOM WIRE (CW-BSMT)	BS	CR	16	16726	9	9	0	04AUG14	14AUG14	27
CW-70088	INST FIRE ALARM CONTROL PANELS (CW-BSMT)	BS	CR	16	16720	2	2	0	06AUG14	07AUG14	42
CW-70090	INST ELECT PANEL INTERIORS (CW-BSMT)	BS	CR	16	16470	10	10	0	06AUG14	19AUG14	41
CW-70095	INST FIRE ALARM WIRE (CW-BSMT) (S)	BS	CR	16	16720	10	10	0	08AUG14	21AUG14	27
CW-70116	INST LIGHTING FIXTURE (CW-BSMT) (N)	BS	CR	16	16500	10	10	0	08SEP14	19SEP14	2
CW-70190	INST EXIT & EMERGENCY LIGHTING (CW-BSMT)	BS	CR	16	16520	10	10	0	08SEP14	19SEP14	2
CW-70194	INST FIRE ALARM DEVICES (CW-BSMT) (N)	BS	CR	16	16720	10	10	0	08SEP14	19SEP14	7
CW-70148	INST ELECTRICAL DEVICES (CW-BSMT)	BS	CR	16	16140	12	12	0	08SEP14	23SEP14	21
CW-70117	INST LIGHTING FIXTURE (CW-BSMT) (S)	BS	CR	16	16500	10	10	0	22SEP14	03OCT14	57
CW-70195	INST FIRE ALARM DEVICES (CW-BSMT) (S)	BS	CR	16	16720	10	10	0	22SEP14	03OCT14	7
CW-70198	INST PHONE & INTERCOM DEVICES (CW-BSMT)	BS	CR	16	16726	7	7	0	24SEP14	02OCT14	21
CW-70197	INST SECURITY DEVICES (CW-BSMT)	BS	CR	16	16724	10	10	0	06OCT14	20OCT14	12
CW-70203	INST DATA DEVICES (CW-BSMT)	BS	CR	16	16727	10	10	0	06OCT14	20OCT14	45
CW-70200	INST CLOCKS & PA SYSTEM DEVICES (CW-BSMT)	BS	CR	16	16791	5	5	0	21OCT14	27OCT14	12
CW-70205	INST CCTV DEVICES (CW-BSMT)	BS	CR	16	16783	5	5	0	21OCT14	27OCT14	17
CW-46575	START UP & TROUBLE SHOOT EMERGENCY GENERATOR	BS	CR	15	15590	10	10	0	04NOV14	18NOV14	15
CW-70515	INST SENSORS & TERMINATE CO DETECTN (CW-BSMT)	BS	CR	16	16720	5	5	0	24NOV14	01DEC14	7



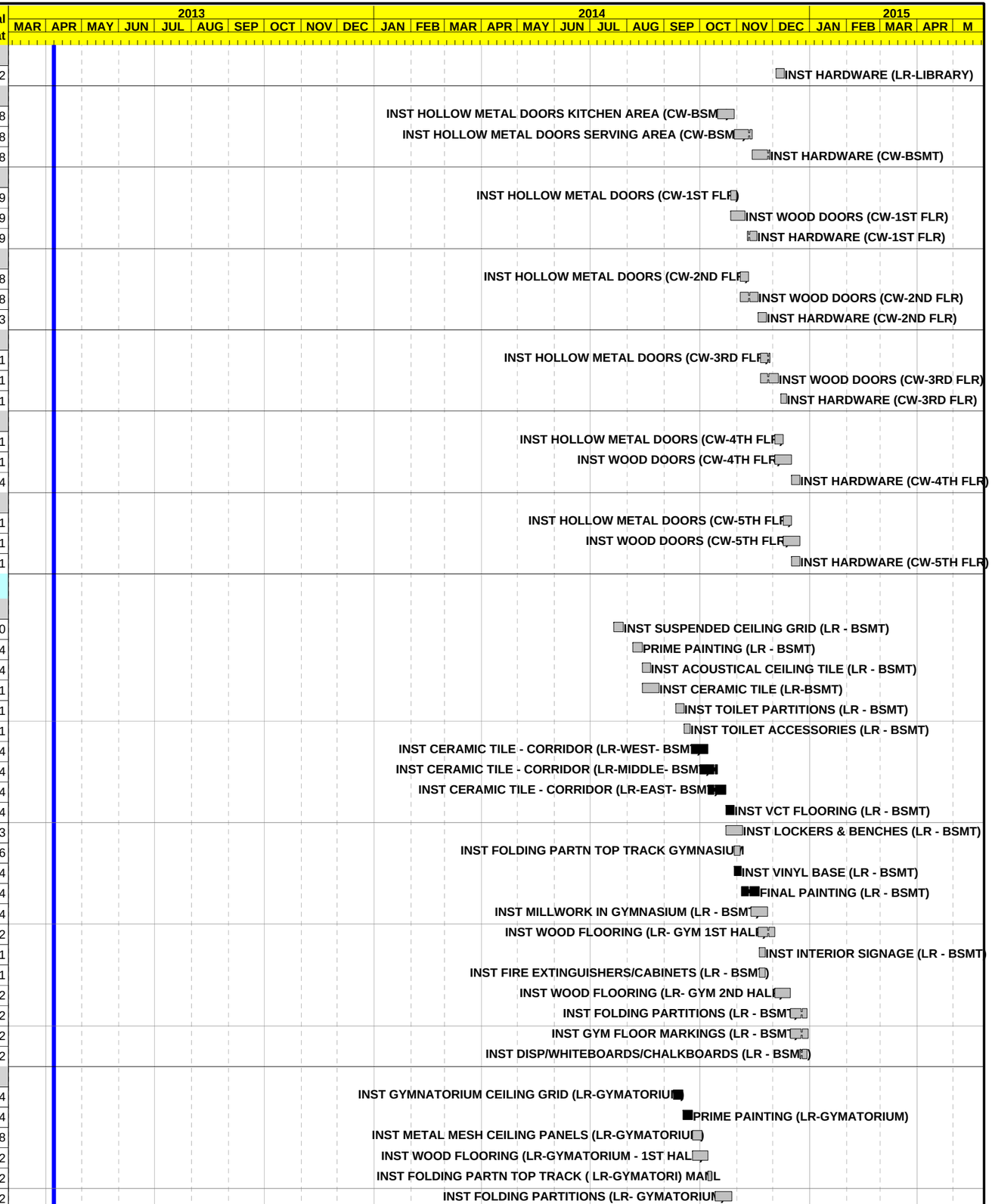
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Basement											
CW-10269	ELECTRICAL CONN. TO KITCHEN EQUIP (CW-BSMT)	BS	CR	11	11400	10	10	0	24NOV14	08DEC14	2
CW-70510	INST SENSORS & TERMINATE (CAFETERIA) CO DETECTN	BS	CR	16	16720	10	10	0	24NOV14	08DEC14	0
CW-10268	HVAC CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	BS	CR	11	11400	7	7	0	02DEC14	10DEC14	1
CW-10254	ELECTRICAL CONN. TO SERVERY EQUIP (CW-BSMT)	BS	CR	11	11400	10	10	0	02DEC14	15DEC14	2
CW-40520	INST SMOKE HEADS (KITCHEN)	BS	CR	11	11400	8	8	0	09DEC14	18DEC14	0
1st Floor											
CW-71110	PULL WIRE (CW-1ST FLR)	BS	01	16	16120	10	10	0	21JUL14	01AUG14	18
CW-71092	INST SECURITY & TELECOM WIRE (CW-1ST FLR)	BS	01	16	16726	10	10	0	04AUG14	15AUG14	18
CW-71094	INST FIRE ALARM WIRE (CW-1ST FLR) (N)	BS	01	16	16720	10	10	0	04AUG14	15AUG14	18
CW-71095	INST FIRE ALARM WIRE (CW-1ST FLR) (S)	BS	01	16	16720	10	10	0	04AUG14	15AUG14	24
CW-71097	INST NETWORK CABLING (CW-1ST FLR)	BS	01	16	16728	5	5	0	11AUG14	15AUG14	61
CW-71090	INST ELECT PANEL INTERIORS (CW-1ST FLR)	BS	01	16	16470	7	7	0	18AUG14	26AUG14	48
CW-71190	INST EXIT & EMERGENCY LIGHTING (CW-1ST FLR)	BS	01	16	16520	10	10	0	22SEP14	03OCT14	2
CW-71194	INST FIRE ALARM DEVICES (CW-1ST FLR) (N)	BS	01	16	16720	10	10	0	26SEP14	09OCT14	-4
CW-71088	INST FIRE ALARM CONTROL PANELS (CW-1ST FLR)	BS	01	16	16720	2	2	0	03OCT14	06OCT14	28
CW-71148	INST ELECTRICAL DEVICES (CW-1ST FLR)	BS	01	16	16140	12	12	0	03OCT14	21OCT14	7
CW-71116	INST LIGHTING FIXTURE (CW-1ST FLR) (N)	BS	01	16	16500	10	10	0	06OCT14	20OCT14	2
CW-71117	INST LIGHTING FIXTURE (CW-1ST FLR) (S)	BS	01	16	16500	10	10	0	06OCT14	20OCT14	2
CW-71198	INST PHONE & INTERCOM DEVICES (CW-1ST FLR)	BS	01	16	16726	7	7	0	10OCT14	21OCT14	16
CW-71195	INST FIRE ALARM DEVICES (CW-1ST FLR) (S)	BS	01	16	16720	10	10	0	10OCT14	24OCT14	-4
CW-71197	INST SECURITY DEVICES (CW-1ST FLR)	BS	01	16	16724	10	10	0	10OCT14	24OCT14	-4
CW-71203	INST DATA DEVICES (CW-1ST FLR)	BS	01	16	16727	10	10	0	22OCT14	04NOV14	44
CW-71200	INST CLOCKS & PA SYSTEM DEVICES (CW-1ST FLR)	BS	01	16	16791	5	5	0	28OCT14	03NOV14	12
CW-71205	INST CCTV DEVICES (CW-1ST FLR)	BS	01	16	16783	5	5	0	28OCT14	03NOV14	17
CW-72199	FINAL CONNECTN TO FA CONTROL PANEL (CW-1ST FLR)	BS	01	16	16720	8	8	0	05DEC14	16DEC14	-4
2nd Floor											
CW-72110	PULL WIRE (CW-2ND FLR)	BS	02	16	16120	10	10	0	04AUG14	15AUG14	18
CW-72097	INST NETWORK CABLING (CW-2ND FLR)	BS	02	16	16728	5	5	0	18AUG14	22AUG14	61
CW-72092	INST SECURITY & TELECOM WIRE (CW-2ND FLR)	BS	02	16	16726	10	10	0	18AUG14	29AUG14	18
CW-72094	INST FIRE ALARM WIRE (CW-2ND FLR) (N)	BS	02	16	16720	10	10	0	18AUG14	29AUG14	18
CW-72095	INST FIRE ALARM WIRE (CW-2ND FLR) (S)	BS	02	16	16720	10	10	0	18AUG14	29AUG14	24
CW-72090	INST ELECT PANEL INTERIORS (CW-2ND FLR)	BS	02	16	16470	7	7	0	27AUG14	05SEP14	48
CW-72194	INST FIRE ALARM DEVICES (CW-2ND FLR) (N)	BS	02	16	16720	10	10	0	30SEP14	14OCT14	4
CW-72195	INST FIRE ALARM DEVICES (CW-2ND FLR) (S)	BS	02	16	16720	10	10	0	30SEP14	14OCT14	4
CW-72190	INST EXIT & EMERGENCY LGHTNG (CW-2ND FLR)	BS	02	16	16520	10	10	0	06OCT14	20OCT14	2
CW-72088	INST FIRE ALARM CONTROL PANELS (CW-2ND FLR)	BS	02	16	16720	2	2	0	14OCT14	15OCT14	24
CW-72117	INST LIGHTING FIXTURE (CW-2ND FLR) (S)	BS	02	16	16500	9	9	0	21OCT14	31OCT14	3
CW-72116	INST LIGHTING FIXTURE (CW-2ND FLR) (N)	BS	02	16	16500	10	10	0	21OCT14	03NOV14	2
CW-72148	INST ELECTRICAL DEVICES (CW-2ND FLR)	BS	02	16	16140	12	12	0	22OCT14	06NOV14	7
CW-72197	INST SECURITY DEVICES (CW-2ND FLR)	BS	02	16	16724	10	10	0	27OCT14	07NOV14	-4
CW-72198	INST PHONE & INTERCOM DEVICES (CW-2ND FLR)	BS	02	16	16726	10	10	0	27OCT14	07NOV14	8
CW-72200	INST CLOCKS & PA SYSTEM DEVICES (CW-2ND FLR)	BS	02	16	16791	5	5	0	10NOV14	17NOV14	8
CW-72205	INST CCTV DEVICES (CW-2ND FLR)	BS	02	16	16783	5	5	0	10NOV14	17NOV14	13
CW-72203	INST DATA DEVICES (CW-2ND FLR)	BS	02	16	16727	10	10	0	10NOV14	24NOV14	31
3rd Floor											
CW-73110	PULL WIRE (CW-3RD FLR)	BS	03	16	16120	10	10	0	18AUG14	29AUG14	9
CW-73097	INST NETWORK CABLING (CW-3RD FLR)	BS	03	16	16728	5	5	0	02SEP14	08SEP14	56
CW-73092	INST SECURITY & TELECOM WIRE (CW-3RD FLR)	BS	03	16	16726	9	9	0	02SEP14	12SEP14	9
CW-73090	INST ELECT PANEL INTERIORS (CW-3RD FLR)	BS	03	16	16470	7	7	0	08SEP14	16SEP14	48
CW-73094	INST FIRE ALARM WIRE (CW-3RD FLR) (N)	BS	03	16	16720	8	8	0	15SEP14	24SEP14	9
CW-73095	INST FIRE ALARM WIRE (CW-3RD FLR) (S)	BS	03	16	16720	8	8	0	25SEP14	06OCT14	9
CW-73190	INST EXIT & EMERGENCY LGHTNG (CW-3RD FLR)	BS	03	16	16520	10	10	0	21OCT14	03NOV14	2
CW-73194	INST FIRE ALARM DEVICES (CW-3RD FLR) (N)	BS	03	16	16720	10	10	0	23OCT14	05NOV14	-2
CW-73195	INST FIRE ALARM DEVICES (CW-3RD FLR) (S)	BS	03	16	16720	10	10	0	23OCT14	05NOV14	-2
CW-73088	INST FIRE ALARM CONTROL PANELS (CW-3RD FLR)	BS	03	16	16720	2	2	0	30OCT14	31OCT14	14
CW-73116	INST LIGHTING FIXTURE (CW-3RD FLR) (N)	BS	03	16	16500	10	10	0	04NOV14	18NOV14	2



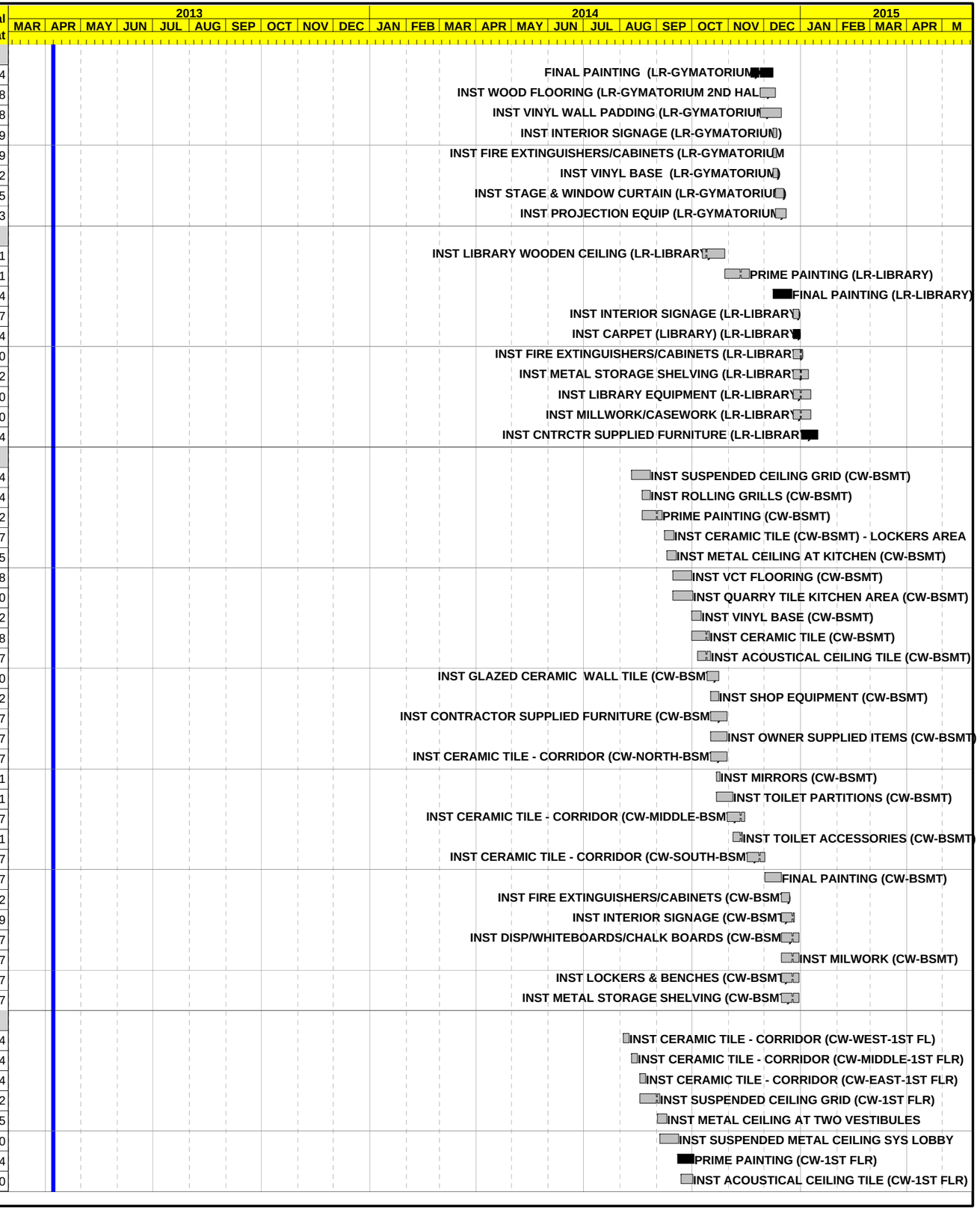
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
3rd Floor											
CW-73148	INST ELECTRICAL DEVICES (CW-3RD FLR)	BS	03	16	16140	12	12	0	07NOV14	25NOV14	7
CW-73198	INST PHONE & INTERCOM DEVICES (CW-3RD FLR)	BS	03	16	16726	7	7	0	10NOV14	19NOV14	6
CW-73197	INST SECURITY DEVICES (CW-3RD FLR)	BS	03	16	16724	10	10	0	10NOV14	24NOV14	-4
CW-73117	INST LIGHTING FIXTURE (CW-3RD FLR) (S)	BS	03	16	16500	9	9	0	19NOV14	02DEC14	7
CW-73200	INST CLOCKS & PA SYSTEM DEVICES (CW-3RD FLR)	BS	03	16	16791	5	5	0	20NOV14	26NOV14	6
CW-73203	INST DATA DEVICES (CW-3RD FLR)	BS	03	16	16727	10	10	0	20NOV14	04DEC14	24
CW-73205	INST CCTV DEVICES (CW-3RD FLR)	BS	03	16	16783	5	5	0	28NOV14	04DEC14	6
4th Floor											
CW-74110	PULL WIRE (CW-4TH FLR)	BS	04	16	16120	10	10	0	02SEP14	15SEP14	18
CW-74092	INST SECURITY & TELECOM WIRE (CW-4TH FLR)	BS	04	16	16726	9	9	0	15SEP14	25SEP14	20
CW-74097	INST NETWORK CABLING (CW-4TH FLR)	BS	04	16	16728	5	5	0	16SEP14	22SEP14	51
CW-74093	INST FIRE ALARM WIRE (CW-4TH FLR) (N)	BS	04	16	16720	8	8	0	16SEP14	25SEP14	20
CW-74090	INST ELECT PANEL INTERIORS (CW-4TH FLR)	BS	04	16	16470	7	7	0	17SEP14	25SEP14	48
CW-74094	INST FIRE ALARM WIRE (CW-4TH FLR) (S)	BS	04	16	16720	8	8	0	25SEP14	06OCT14	19
CW-74190	INST EXIT & EMERGENCY LGHTNG (CW-4TH FLR)	BS	04	16	16520	10	10	0	04NOV14	18NOV14	2
CW-74195	INST FIRE ALARM DEVICES (CW-4TH FLR) (N)	BS	04	16	16720	10	10	0	06NOV14	20NOV14	-2
CW-74088	INST FIRE ALARM CONTROL PANELS (CW-4TH FLR)	BS	04	16	16720	2	2	0	10NOV14	12NOV14	9
CW-74196	INST FIRE ALARM DEVICES (CW-4TH FLR) (S)	BS	04	16	16720	10	10	0	10NOV14	24NOV14	-4
CW-74148	INST ELECTRICAL DEVICES (CW-4TH FLR)	BS	04	16	16140	12	12	0	10NOV14	26NOV14	2
CW-74116	INST LIGHTING FIXTURE (CW-4TH FLR) (N)	BS	04	16	16500	10	10	0	19NOV14	03DEC14	2
CW-74198	INST PHONE & INTERCOM DEVICES (CW-4TH FLR)	BS	04	16	16726	7	7	0	25NOV14	04DEC14	4
CW-74197	INST SECURITY DEVICES (CW-4TH FLR)	BS	04	16	16724	10	10	0	25NOV14	09DEC14	-4
CW-74117	INST LIGHTING FIXTURE (CW-4TH FLR) (S)	BS	04	16	16500	9	9	0	04DEC14	16DEC14	6
CW-74200	INST CLOCKS & PA SYSTEM DEVICES (CW-4TH FLR)	BS	04	16	16791	5	5	0	05DEC14	11DEC14	4
CW-74203	INST DATA DEVICES (CW-4TH FLR)	BS	04	16	16727	10	10	0	05DEC14	18DEC14	9
CW-74205	INST CCTV DEVICES (CW-4TH FLR)	BS	04	16	16783	5	5	0	10DEC14	16DEC14	3
5th Floor											
CW-75110	PULL WIRE (CW-5TH FLR)	BS	05	16	16120	10	10	0	16SEP14	29SEP14	18
CW-75097	INST NETWORK CABLING (CW-5TH FLR)	BS	05	16	16728	5	5	0	30SEP14	06OCT14	46
CW-75090	INST ELECT PANEL INTERIORS (CW-5TH FLR)	BS	05	16	16470	7	7	0	30SEP14	08OCT14	46
CW-75094	INST FIRE ALARM WIRE (CW-5TH FLR) (N)	BS	05	16	16720	8	8	0	30SEP14	09OCT14	18
CW-75092	INST SECURITY & TELECOM WIRE (CW-5TH FLR)	BS	05	16	16726	10	10	0	30SEP14	14OCT14	18
CW-75095	INST FIRE ALARM WIRE (CW-5TH FLR) (S)	BS	05	16	16720	8	8	0	10OCT14	22OCT14	18
CW-75088	INST FIRE ALARM CONTROL PANELS (CW-5TH FLR)	BS	05	16	16720	2	2	0	19NOV14	20NOV14	5
CW-75190	INST EXIT & EMERGENCY LGHTNG (CW-5TH FLR)	BS	05	16	16520	9	9	0	19NOV14	02DEC14	3
CW-75195	INST FIRE ALARM DEVICES (CW-5TH FLR) (N)	BS	05	16	16720	10	10	0	21NOV14	05DEC14	-2
CW-75196	INST FIRE ALARM DEVICES (CW-5TH FLR) (S)	BS	05	16	16720	10	10	0	25NOV14	09DEC14	-4
CW-75148	INST ELECTRICAL DEVICES (CW-5TH FLR)	BS	05	16	16140	12	12	0	28NOV14	15DEC14	2
CW-75116	INST LIGHTING FIXTURE (CW-5TH FLR) (N)	BS	05	16	16500	10	10	0	04DEC14	17DEC14	2
CW-75198	INST PHONE & INTERCOM DEVICES (CW-5TH FLR)	BS	05	16	16726	7	7	0	10DEC14	18DEC14	-4
CW-75197	INST SECURITY DEVICES (CW-5TH FLR)	BS	05	16	16724	10	10	0	10DEC14	23DEC14	-4
CW-75117	INST LIGHTING FIXTURE (CW-5TH FLR) (S)	BS	05	16	16500	9	9	0	18DEC14	31DEC14	6
CW-75200	INST CLOCKS & PA SYSTEM DEVICES (CW-5TH FLR)	BS	05	16	16791	5	5	0	19DEC14	26DEC14	-1
CW-75203	INST DATA DEVICES (CW-5TH FLR)	BS	05	16	16727	10	10	0	19DEC14	05JAN15	-4
CW-75205	INST CCTV DEVICES (CW-5TH FLR)	BS	05	16	16783	5	5	0	24DEC14	31DEC14	-2
Doors											
Basement & Gymnasium											
LR-00237	INST HOLLOW METAL DOORS (LR - BSMT)	BS	CRG	08	08110	10	10	0	30OCT14	13NOV14	30
LR-00240	INST HARDWARE (LR - BSMT)	BS	CRG	08	08710	3	3	0	14NOV14	18NOV14	30
Gymatorium											
LR-02235	INST WOOD DOORS (LR-GYMATORIUM)	BS	CRA	08	08210	3	3	0	15DEC14	17DEC14	12
LR-02237	INST HOLLOW METAL DOORS (LR-GYMATORIUM)	BS	CRA	08	08110	3	3	0	15DEC14	17DEC14	12
LR-02240	INST HARDWARE (LR-GYMATORIUM)	BS	CRA	08	08710	3	3	0	18DEC14	22DEC14	12
Library											
LR-03237	INST HOLLOW METAL DOORS (LR-LIBRARY)	BS	CRL	08	08110	5	5	0	19NOV14	25NOV14	4
LR-03235	INST WOOD DOORS (LR-LIBRARY)	BS	CRL	08	08210	10	10	0	19NOV14	03DEC14	-1



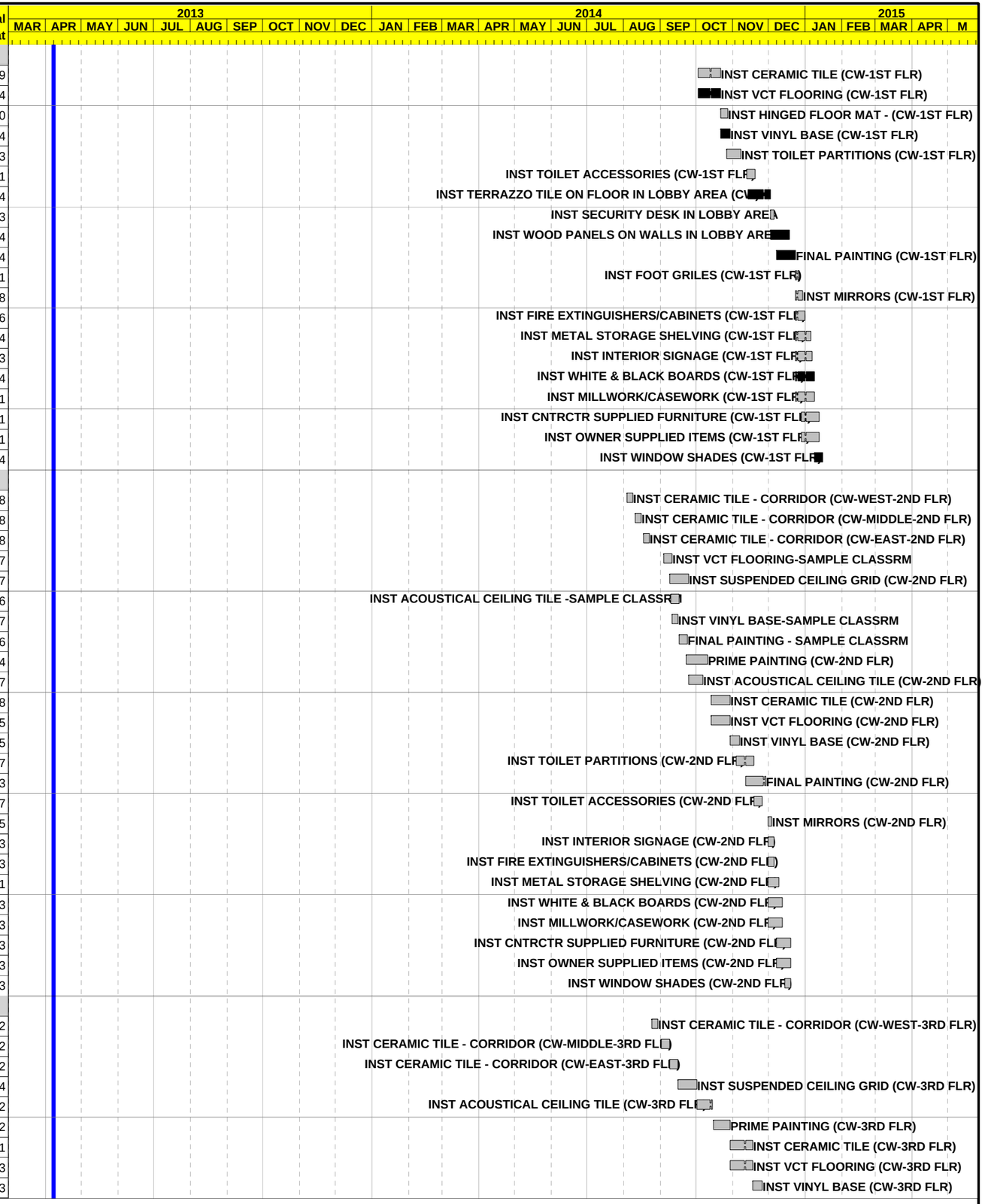
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Library											
LR-03240	INST HARDWARE (LR-LIBRARY)	BS	CRL	08	08710	5	5	0	04DEC14	10DEC14	12
Basement											
CW-10237	INST HOLLOW METAL DOORS KITCHEN AREA (CW-BSMT)	BS	CR	08	08110	10	10	0	16OCT14	29OCT14	8
CW-10238	INST HOLLOW METAL DOORS SERVING AREA (CW-BSMT)	BS	CR	08	08110	10	10	0	30OCT14	13NOV14	8
CW-10240	INST HARDWARE (CW-BSMT)	BS	CR	08	08710	10	10	0	14NOV14	28NOV14	8
1st Floor											
CW-11237	INST HOLLOW METAL DOORS (CW-1ST FLR)	BS	01	08	08110	5	5	0	27OCT14	31OCT14	9
CW-11235	INST WOOD DOORS (CW-1ST FLR)	BS	01	08	08210	10	10	0	27OCT14	07NOV14	9
CW-11240	INST HARDWARE (CW-1ST FLR)	BS	01	08	08710	5	5	0	10NOV14	17NOV14	29
2nd Floor											
CW-12237	INST HOLLOW METAL DOORS (CW-2ND FLR)	BS	02	08	08110	5	5	0	04NOV14	10NOV14	8
CW-12236	INST WOOD DOORS (CW-2ND FLR)	BS	02	08	08210	10	10	0	04NOV14	18NOV14	8
CW-12240	INST HARDWARE (CW-2ND FLR)	BS	02	08	08710	5	5	0	19NOV14	25NOV14	23
3rd Floor											
CW-13237	INST HOLLOW METAL DOORS (CW-3RD FLR)	BS	03	08	08110	5	5	0	21NOV14	28NOV14	1
CW-13235	INST WOOD DOORS (CW-3RD FLR)	BS	03	08	08210	10	10	0	21NOV14	05DEC14	1
CW-13240	INST HARDWARE (CW-3RD FLR)	BS	03	08	08710	5	5	0	08DEC14	12DEC14	11
4th Floor											
CW-14237	INST HOLLOW METAL DOORS (CW-4TH FLR)	BS	04	08	08110	5	5	0	03DEC14	09DEC14	1
CW-14235	INST WOOD DOORS (CW-4TH FLR)	BS	04	08	08210	10	10	0	03DEC14	16DEC14	1
CW-14240	INST HARDWARE (CW-4TH FLR)	BS	04	08	08710	5	5	0	17DEC14	23DEC14	4
5th Floor											
CW-15237	INST HOLLOW METAL DOORS (CW-5TH FLR)	BS	05	08	08110	5	5	0	10DEC14	16DEC14	1
CW-15235	INST WOOD DOORS (CW-5TH FLR)	BS	05	08	08210	10	10	0	10DEC14	23DEC14	1
CW-15241	INST HARDWARE (CW-5TH FLR)	BS	05	08	08710	5	5	0	17DEC14	23DEC14	1
Architectural Finishes											
Basement & Gymnasium											
LR-00135	INST SUSPENDED CEILING GRID (LR - BSMT)	BS	CRG	09	09510	6	6	0	21JUL14	28JUL14	20
LR-00150	PRIME PAINTING (LR - BSMT)	BS	CRG	09	09900	6	6	0	06AUG14	13AUG14	14
LR-00175	INST ACOUSTICAL CEILING TILE (LR - BSMT)	BS	CRG	09	09510	5	5	0	14AUG14	20AUG14	14
LR-00155	INST CERAMIC TILE (LR-BSMT)	BS	CRG	09	09310	10	10	0	14AUG14	27AUG14	51
LR-00165	INST TOILET PARTITIONS (LR - BSMT)	BS	CRG	10	10810	5	5	0	11SEP14	17SEP14	51
LR-00170	INST TOILET ACCESSORIES (LR - BSMT)	BS	CRG	10	10810	3	3	0	18SEP14	22SEP14	51
LR-01555	INST CERAMIC TILE - CORRIDOR (LR-WEST- BSMT)	BS	CRG	09	09310	10	10	0	24SEP14	07OCT14	-4
LR-01560	INST CERAMIC TILE - CORRIDOR (LR-MIDDLE- BSMT)	BS	CRG	09	09310	10	10	0	01OCT14	15OCT14	-4
LR-03155	INST CERAMIC TILE - CORRIDOR (LR-EAST- BSMT)	BS	CRG	09	09310	10	10	0	08OCT14	22OCT14	-4
LR-00180	INST VCT FLOORING (LR - BSMT)	BS	CRG	09	09650	5	5	0	23OCT14	29OCT14	-4
LR-00245	INST LOCKERS & BENCHES (LR - BSMT)	BS	CRG	10	10505	10	10	0	23OCT14	05NOV14	33
LR-00265	INST FOLDING PARTN TOP TRACK GYMNASIUM	BS	CRG	10	10652	3	3	0	30OCT14	03NOV14	26
LR-00182	INST VINYL BASE (LR - BSMT)	BS	CRG	09	09650	4	4	0	30OCT14	04NOV14	-4
LR-00210	FINAL PAINTING (LR - BSMT)	BS	CRG	09	09900	10	10	0	05NOV14	19NOV14	-4
LR-00225	INST MILLWORK IN GYMNASIUM (LR - BSMT)	BS	CRG	06	06410	10	10	0	13NOV14	26NOV14	24
LR-00771	INST WOOD FLOORING (LR- GYM 1ST HALF)	BS	CRG	09	09590	9	9	0	19NOV14	02DEC14	-2
LR-00220	INST INTERIOR SIGNAGE (LR - BSMT)	BS	CRG	10	10440	3	3	0	20NOV14	24NOV14	31
LR-00230	INST FIRE EXTINGUISHERS/CABINETS (LR - BSMT)	BS	CRG	10	10522	3	3	0	20NOV14	24NOV14	31
LR-00773	INST WOOD FLOORING (LR- GYM 2ND HALF)	BS	CRG	09	09590	9	9	0	03DEC14	15DEC14	-2
LR-00782	INST FOLDING PARTITIONS (LR - BSMT)	BS	CRG	10	10652	9	9	0	16DEC14	29DEC14	-2
LR-00255	INST GYM FLOOR MARKINGS (LR - BSMT)	BS	CRG	09	09900	10	10	0	16DEC14	30DEC14	2
LR-00214	INST DISP/WHITEBOARDS/CHALKBOARDS (LR - BSMT)	BS	CRG	10	10100	3	3	0	24DEC14	29DEC14	-2
Gymatorium											
LR-02135	INST GYMNATORIUM CEILING GRID (LR-GYMATORIUM)	BS	CRA	09	09510	6	6	0	09SEP14	16SEP14	-4
LR-02150	PRIME PAINTING (LR-GYMATORIUM)	BS	CRA	09	09900	6	6	0	17SEP14	24SEP14	-4
LR-02120	INST METAL MESH CEILING PANELS (LR-GYMATORIUM)	BS	CRA	09	09510	6	6	0	25SEP14	02OCT14	28
LR-02180	INST WOOD FLOORING (LR-GYMATORIUM - 1ST HALF)	BS	CRA	09	09650	9	9	0	25SEP14	07OCT14	12
LR-02265	INST FOLDING PARTN TOP TRACK (LR-GYMATORI) MANL	BS	CRA	10	10653	3	3	0	08OCT14	10OCT14	12
LR-02782	INST FOLDING PARTITIONS (LR- GYMATORIUM)	BS	CRA	10	10653	10	10	0	14OCT14	27OCT14	12



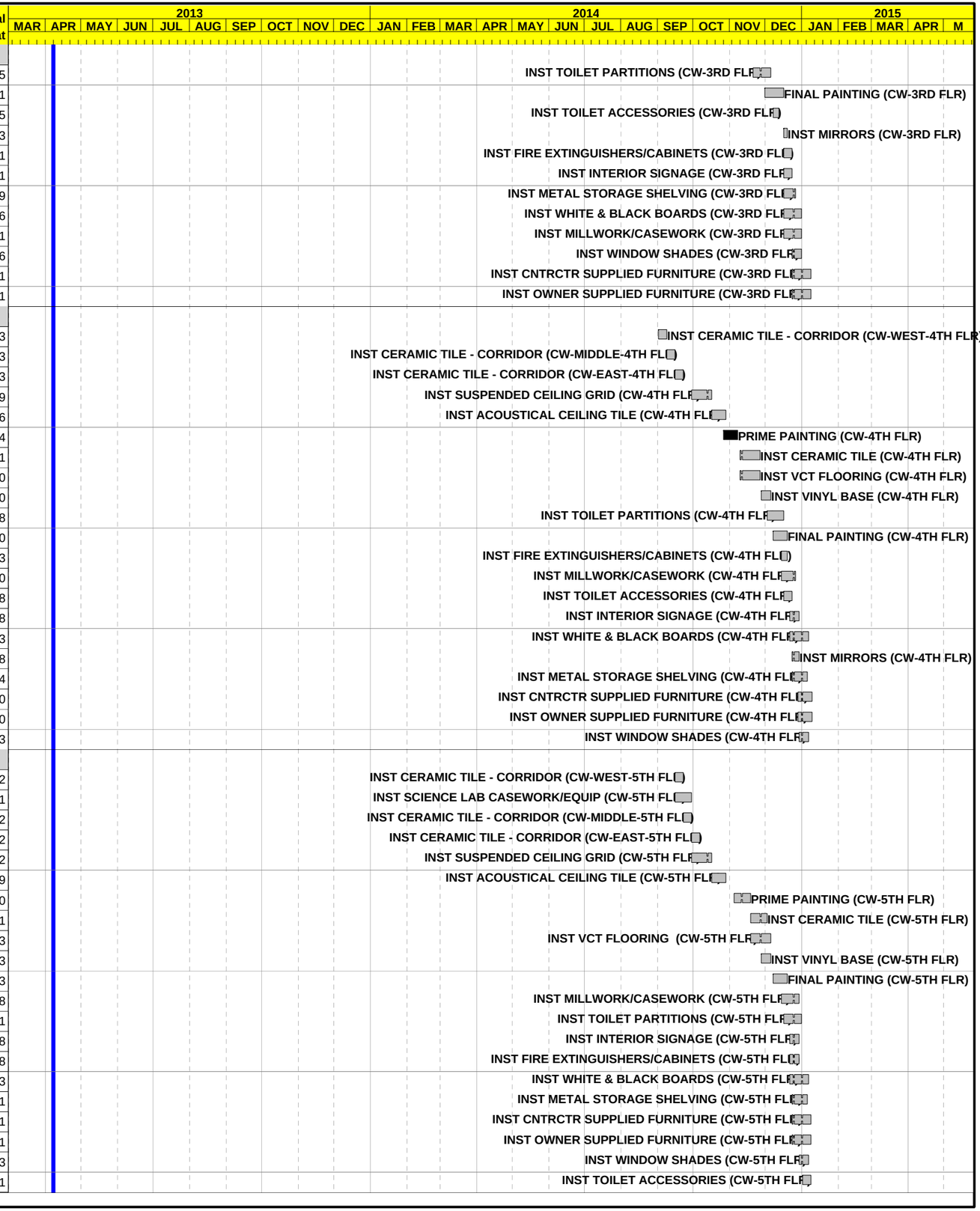
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Gymatorium											
LR-02210	FINAL PAINTING (LR-GYMATORIUM)	BS	CRA	09	09900	12	12	0	20NOV14	08DEC14	-4
LR-02217	INST WOOD FLOORING (LR-GYMATORIUM 2ND HALF)	BS	CRA	09	09590	9	9	0	28NOV14	10DEC14	8
LR-02213	INST VINYL WALL PADDING (LR-GYMATORIUM)	BS	CRA	09	09840	12	12	0	28NOV14	15DEC14	8
LR-02221	INST INTERIOR SIGNAGE (LR-GYMATORIUM)	BS	CRA	10	10440	3	3	0	09DEC14	11DEC14	19
LR-02230	INST FIRE EXTINGUISHERS/CABINETS (LR-GYMATORIUM	BS	CRA	10	10522	3	3	0	09DEC14	11DEC14	19
LR-02182	INST VINYL BASE (LR-GYMATORIUM)	BS	CRA	09	09650	4	4	0	09DEC14	12DEC14	12
LR-02250	INST STAGE & WINDOW CURTAIN (LR-GYMATORIUM)	BS	CRA	11	11061	5	5	0	11DEC14	17DEC14	15
LR-02227	INST PROJECTION EQUIP (LR-GYMATORIUM)	BS	CRA	11	11061	7	7	0	11DEC14	19DEC14	13
Library											
LR-03120	INST LIBRARY WOODEN CEILING (LR-LIBRARY)	BS	CRL	09	09260	12	12	0	10OCT14	28OCT14	-1
LR-03150	PRIME PAINTING (LR-LIBRARY)	BS	CRL	09	09900	14	14	0	29OCT14	18NOV14	-1
LR-03210	FINAL PAINTING (LR-LIBRARY)	BS	CRL	09	09900	12	12	0	09DEC14	24DEC14	-4
LR-03220	INST INTERIOR SIGNAGE (LR-LIBRARY)	BS	CRL	10	10440	3	3	0	26DEC14	30DEC14	7
LR-03222	INST CARPET (LIBRARY) (LR-LIBRARY)	BS	CRL	09	09680	4	4	0	26DEC14	31DEC14	-4
LR-03231	INST FIRE EXTINGUISHERS/CABINETS (LR-LIBRARY)	BS	CRL	10	10522	5	5	0	26DEC14	02JAN15	0
LR-03250	INST METAL STORAGE SHELVING (LR-LIBRARY)	BS	CRL	10	10675	8	8	0	26DEC14	07JAN15	2
LR-03207	INST LIBRARY EQUIPMENT (LR-LIBRARY)	BS	CRL	11	11050	10	10	0	26DEC14	09JAN15	0
LR-03225	INST MILLWORK/CASEWORK (LR-LIBRARY)	BS	CRL	06	06410	10	10	0	26DEC14	09JAN15	0
LR-03255	INST CNTRCTR SUPPLIED FURNITURE (LR-LIBRARY)	BS	CRL	12	12302	10	10	0	02JAN15	15JAN15	-4
Basement											
CW-10135	INST SUSPENDED CEILING GRID (CW-BSMT)	BS	CR	09	09510	12	12	0	11AUG14	26AUG14	14
CW-10650	INST ROLLING GRILLS (CW-BSMT)	BS	CR	08	08330	5	5	0	20AUG14	26AUG14	64
CW-10150	PRIME PAINTING (CW-BSMT)	BS	CR	09	09900	12	12	0	20AUG14	05SEP14	2
CW-00155	INST CERAMIC TILE (CW-BSMT) - LOCKERS AREA	BS	CR	09	09310	6	6	0	08SEP14	15SEP14	47
CW-10767	INST METAL CEILING AT KITCHEN (CW-BSMT)	BS	CR	09	09550	6	6	0	10SEP14	17SEP14	55
CW-10180	INST VCT FLOORING (CW-BSMT)	BS	CR	09	09650	12	12	0	15SEP14	30SEP14	8
CW-10182	INST QUARRY TILE KITCHEN AREA (CW-BSMT)	BS	CR	09	09705	13	13	0	15SEP14	01OCT14	0
CW-10181	INST VINYL BASE (CW-BSMT)	BS	CR	09	09650	6	6	0	01OCT14	08OCT14	42
CW-10155	INST CERAMIC TILE (CW-BSMT)	BS	CR	09	09310	10	10	0	01OCT14	15OCT14	8
CW-10175	INST ACOUSTICAL CEILING TILE (CW-BSMT)	BS	CR	09	09510	8	8	0	06OCT14	16OCT14	7
CW-10277	INST GLAZED CERAMIC WALL TILE (CW-BSMT)	BS	CR	09	09310	8	8	0	14OCT14	23OCT14	0
CW-10252	INST SHOP EQUIPMENT (CW-BSMT)	BS	CR	11	11500	5	5	0	17OCT14	23OCT14	52
CW-10270	INST CONTRACTOR SUPPLIED FURNITURE (CW-BSMT)	BS	CR	12	12302	10	10	0	17OCT14	30OCT14	47
CW-10274	INST OWNER SUPPLIED ITEMS (CW-BSMT)	BS	CR	12	12302	10	10	0	17OCT14	30OCT14	47
CW-N0155	INST CERAMIC TILE - CORRIDOR (CW-NORTH-BSMT)	BS	CR	09	09310	10	10	0	17OCT14	30OCT14	7
CW-10217	INST MIRRORS (CW-BSMT)	BS	CR	10	10830	3	3	0	22OCT14	24OCT14	51
CW-10165	INST TOILET PARTITIONS (CW-BSMT)	BS	CR	10	10810	10	10	0	22OCT14	04NOV14	31
CW-M0155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-BSMT)	BS	CR	09	09310	10	10	0	31OCT14	14NOV14	7
CW-10170	INST TOILET ACCESSORIES (CW-BSMT)	BS	CR	10	10810	5	5	0	05NOV14	12NOV14	31
CW-S0155	INST CERAMIC TILE - CORRIDOR (CW-SOUTH-BSMT)	BS	CR	09	09310	10	10	0	17NOV14	01DEC14	7
CW-10210	FINAL PAINTING (CW-BSMT)	BS	CR	09	09900	10	10	0	02DEC14	15DEC14	7
CW-10230	INST FIRE EXTINGUISHERS/CABINETS (CW-BSMT)	BS	CR	10	10522	5	5	0	16DEC14	22DEC14	12
CW-10220	INST INTERIOR SIGNAGE (CW-BSMT)	BS	CR	10	10440	8	8	0	16DEC14	26DEC14	9
CW-10214	INST DISP/WHITEBOARDS/CHALK BOARDS (CW-BSMT)	BS	CR	10	10100	10	10	0	16DEC14	30DEC14	7
CW-10225	INST MILWORK (CW-BSMT)	BS	CR	06	06410	10	10	0	16DEC14	30DEC14	7
CW-10245	INST LOCKERS & BENCHES (CW-BSMT)	BS	CR	10	10505	10	10	0	16DEC14	30DEC14	7
CW-10250	INST METAL STORAGE SHELVING (CW-BSMT)	BS	CR	10	10675	10	10	0	16DEC14	30DEC14	7
1st Floor											
CW-W1155	INST CERAMIC TILE - CORRIDOR (CW-WEST-1ST FL)	BS	01	09	09310	5	5	0	04AUG14	08AUG14	24
CW-M1155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-1ST FLR)	BS	01	09	09310	5	5	0	11AUG14	15AUG14	24
CW-E1155	INST CERAMIC TILE - CORRIDOR (CW-EAST-1ST FLR)	BS	01	09	09310	5	5	0	18AUG14	22AUG14	24
CW-11135	INST SUSPENDED CEILING GRID (CW-1ST FLR)	BS	01	09	09510	12	12	0	18AUG14	03SEP14	12
CW-11769	INST METAL CEILING AT TWO VESTIBULES	BS	01	09	09550	6	6	0	02SEP14	09SEP14	55
CW-11137	INST SUSPENDED METAL CEILING SYS LOBBY	BS	01	09	09550	12	12	0	04SEP14	19SEP14	40
CW-11150	PRIME PAINTING (CW-1ST FLR)	BS	01	09	09900	10	10	0	19SEP14	02OCT14	-4
CW-11175	INST ACOUSTICAL CEILING TILE (CW-1ST FLR)	BS	01	09	09510	8	8	0	22SEP14	01OCT14	40



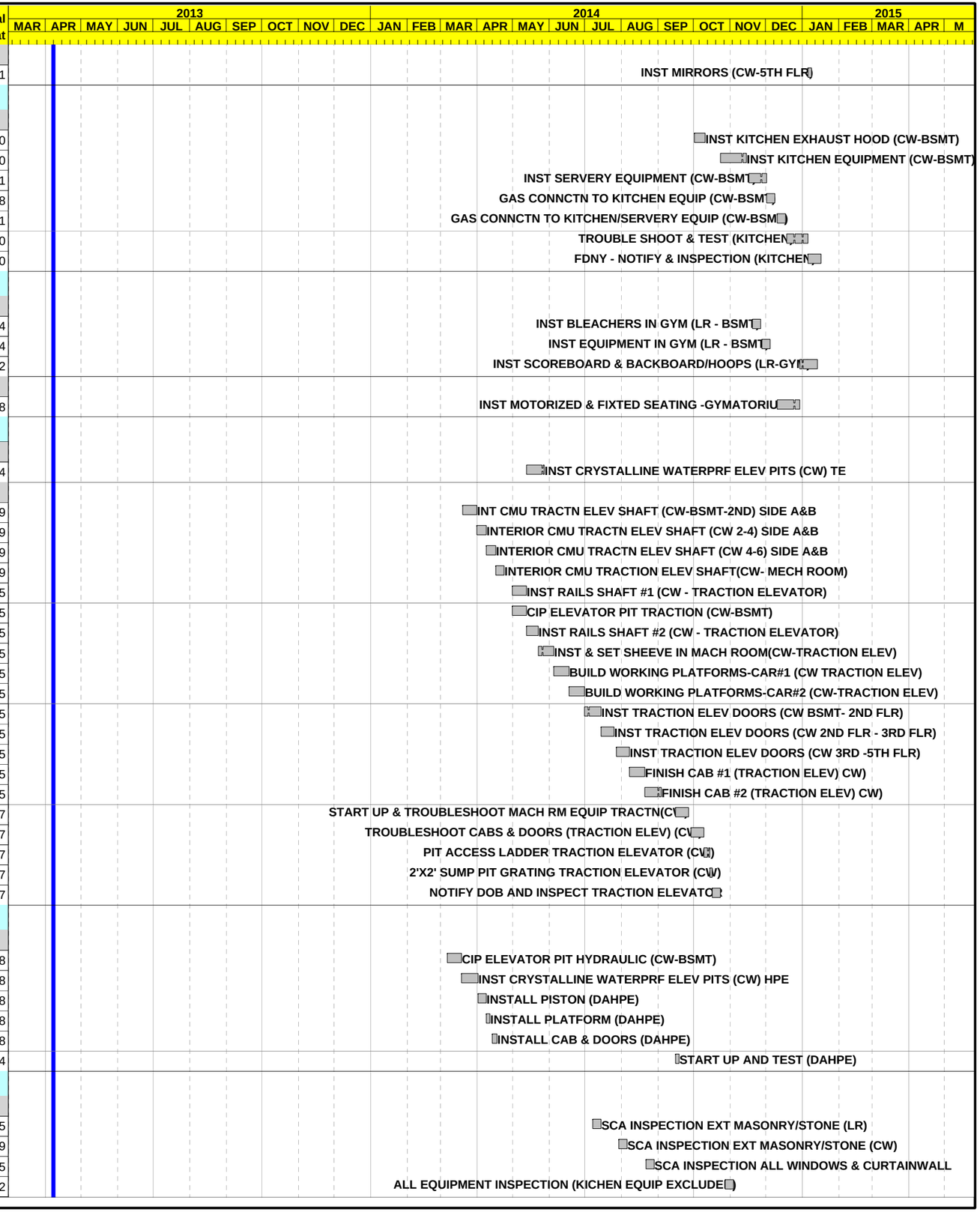
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
1st Floor											
CW-11155	INST CERAMIC TILE (CW-1ST FLR)	BS	01	09	09310	12	12	0	03OCT14	21OCT14	9
CW-11180	INST VCT FLOORING (CW-1ST FLR)	BS	01	09	09650	12	12	0	03OCT14	21OCT14	-4
CW-11625	INST HINGED FLOOR MAT - (CW-1ST FLR)	BS	01	12	12485	4	4	0	22OCT14	27OCT14	50
CW-11181	INST VINYL BASE (CW-1ST FLR)	BS	01	09	09650	6	6	0	22OCT14	29OCT14	-4
CW-11265	INST TOILET PARTITIONS (CW-1ST FLR)	BS	01	10	10151	10	10	0	27OCT14	07NOV14	33
CW-11170	INST TOILET ACCESSORIES (CW-1ST FLR)	BS	01	10	10810	5	5	0	13NOV14	19NOV14	31
CW-11186	INST TERRAZZO TILE ON FLOOR IN LOBBY AREA (CW)	BS	01	09	09310	12	12	0	14NOV14	02DEC14	-4
CW-11196	INST SECURITY DESK IN LOBBY AREA	BS	01	06	06410	3	3	0	03DEC14	05DEC14	13
CW-11191	INST WOOD PANELS ON WALLS IN LOBBY AREA	BS	01	09	09840	12	12	0	03DEC14	18DEC14	-4
CW-11210	FINAL PAINTING (CW-1ST FLR)	BS	01	09	09900	12	12	0	08DEC14	23DEC14	-4
CW-11252	INST FOOT GRILES (CW-1ST FLR)	BS	01	12	12485	2	2	0	24DEC14	26DEC14	-1
CW-11217	INST MIRRORS (CW-1ST FLR)	BS	01	10	10830	3	3	0	24DEC14	29DEC14	8
CW-11230	INST FIRE EXTINGUISHERS/CABINETS (CW-1ST FLR)	BS	01	10	10522	5	5	0	24DEC14	31DEC14	6
CW-11250	INST METAL STORAGE SHELVING (CW-1ST FLR)	BS	01	10	10675	7	7	0	24DEC14	05JAN15	4
CW-11220	INST INTERIOR SIGNAGE (CW-1ST FLR)	BS	01	10	10440	8	8	0	24DEC14	06JAN15	3
CW-11215	INST WHITE & BLACK BOARDS (CW-1ST FLR)	BS	01	10	10100	10	10	0	24DEC14	08JAN15	-4
CW-11225	INST MILLWORK/CASEWORK (CW-1ST FLR)	BS	01	06	06410	10	10	0	24DEC14	08JAN15	1
CW-11255	INST CNTRCTR SUPPLIED FURNITURE (CW-1ST FLR)	BS	01	12	12302	10	10	0	29DEC14	12JAN15	-1
CW-11274	INST OWNER SUPPLIED ITEMS (CW-1ST FLR)	BS	01	12	12302	10	10	0	29DEC14	12JAN15	-1
CW-11221	INST WINDOW SHADES (CW-1ST FLR)	BS	01	12	12501	5	5	0	09JAN15	15JAN15	-4
2nd Floor											
CW-W2155	INST CERAMIC TILE - CORRIDOR (CW-WEST-2ND FLR)	BS	02	09	09310	5	5	0	04AUG14	08AUG14	38
CW-M2155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-2ND FLR)	BS	02	09	09310	5	5	0	11AUG14	15AUG14	38
CW-E2155	INST CERAMIC TILE - CORRIDOR (CW-EAST-2ND FLR)	BS	02	09	09310	5	5	0	18AUG14	22AUG14	38
CW-1S180	INST VCT FLOORING-SAMPLE CLASSRM	BS	02	09	09650	5	5	0	04SEP14	10SEP14	37
CW-12135	INST SUSPENDED CEILING GRID (CW-2ND FLR)	BS	02	09	09510	12	12	0	09SEP14	24SEP14	7
CW-1S175	INST ACOUSTICAL CEILING TILE -SAMPLE CLASSRM	BS	02	09	09510	5	5	0	10SEP14	16SEP14	36
CW-1S181	INST VINYL BASE-SAMPLE CLASSRM	BS	02	09	09650	3	3	0	11SEP14	15SEP14	37
CW-1S210	FINAL PAINTING - SAMPLE CLASSRM	BS	02	09	09900	5	5	0	17SEP14	23SEP14	36
CW-12150	PRIME PAINTING (CW-2ND FLR)	BS	02	09	09900	14	14	0	23SEP14	10OCT14	4
CW-12175	INST ACOUSTICAL CEILING TILE (CW-2ND FLR)	BS	02	09	09510	8	8	0	25SEP14	06OCT14	37
CW-12155	INST CERAMIC TILE (CW-2ND FLR)	BS	02	09	09310	12	12	0	14OCT14	29OCT14	8
CW-12180	INST VCT FLOORING (CW-2ND FLR)	BS	02	09	09650	12	12	0	14OCT14	29OCT14	15
CW-12181	INST VINYL BASE (CW-2ND FLR)	BS	02	09	09650	6	6	0	30OCT14	06NOV14	15
CW-12265	INST TOILET PARTITIONS (CW-2ND FLR)	BS	02	10	10151	10	10	0	04NOV14	18NOV14	27
CW-12210	FINAL PAINTING (CW-2ND FLR)	BS	02	09	09900	12	12	0	12NOV14	28NOV14	13
CW-12170	INST TOILET ACCESSORIES (CW-2ND FLR)	BS	02	10	10810	5	5	0	19NOV14	25NOV14	27
CW-12217	INST MIRRORS (CW-2ND FLR)	BS	02	10	10830	3	3	0	01DEC14	03DEC14	25
CW-12220	INST INTERIOR SIGNAGE (CW-2ND FLR)	BS	02	10	10440	5	5	0	01DEC14	05DEC14	23
CW-12230	INST FIRE EXTINGUISHERS/CABINETS (CW-2ND FLR)	BS	02	10	10522	5	5	0	01DEC14	05DEC14	23
CW-12250	INST METAL STORAGE SHELVING (CW-2ND FLR)	BS	02	10	10675	7	7	0	01DEC14	09DEC14	21
CW-12215	INST WHITE & BLACK BOARDS (CW-2ND FLR)	BS	02	10	10100	10	10	0	01DEC14	12DEC14	13
CW-12225	INST MILLWORK/CASEWORK (CW-2ND FLR)	BS	02	06	06410	10	10	0	01DEC14	12DEC14	13
CW-12255	INST CNTRCTR SUPPLIED FURNITURE (CW-2ND FLR)	BS	02	12	12302	10	10	0	08DEC14	19DEC14	13
CW-12274	INST OWNER SUPPLIED ITEMS (CW-2ND FLR)	BS	02	12	12302	10	10	0	08DEC14	19DEC14	13
CW-12221	INST WINDOW SHADES (CW-2ND FLR)	BS	02	12	12501	5	5	0	15DEC14	19DEC14	13
3rd Floor											
CW-W3155	INST CERAMIC TILE - CORRIDOR (CW-WEST-3RD FLR)	BS	03	09	09310	5	5	0	25AUG14	29AUG14	32
CW-M3155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-3RD FLR)	BS	03	09	09310	5	5	0	02SEP14	08SEP14	32
CW-E3155	INST CERAMIC TILE - CORRIDOR (CW-EAST-3RD FLR)	BS	03	09	09310	5	5	0	09SEP14	15SEP14	32
CW-13135	INST SUSPENDED CEILING GRID (CW-3RD FLR)	BS	03	09	09510	12	12	0	16SEP14	01OCT14	14
CW-13175	INST ACOUSTICAL CEILING TILE (CW-3RD FLR)	BS	03	09	09510	8	8	0	02OCT14	14OCT14	32
CW-13150	PRIME PAINTING (CW-3RD FLR)	BS	03	09	09900	10	10	0	16OCT14	29OCT14	-2
CW-13155	INST CERAMIC TILE (CW-3RD FLR)	BS	03	09	09310	12	12	0	30OCT14	17NOV14	1
CW-13180	INST VCT FLOORING (CW-3RD FLR)	BS	03	09	09650	12	12	0	30OCT14	17NOV14	3
CW-13181	INST VINYL BASE (CW-3RD FLR)	BS	03	09	09650	6	6	0	18NOV14	25NOV14	3



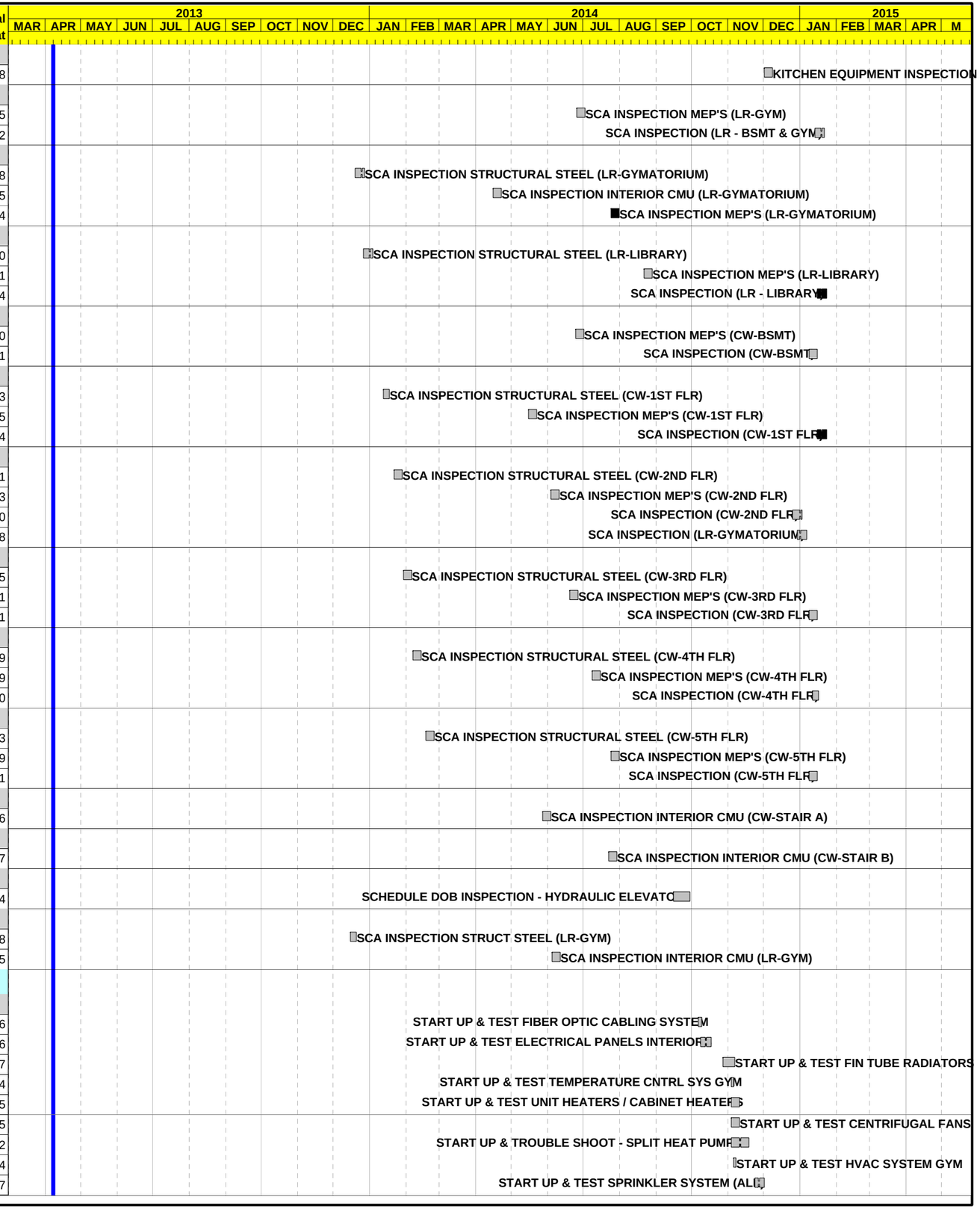
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
3rd Floor											
CW-13265	INST TOILET PARTITIONS (CW-3RD FLR)	BS	03	10	10151	10	10	0	21NOV14	05DEC14	15
CW-13210	FINAL PAINTING (CW-3RD FLR)	BS	03	09	09900	12	12	0	01DEC14	16DEC14	1
CW-13170	INST TOILET ACCESSORIES (CW-3RD FLR)	BS	03	10	10810	5	5	0	08DEC14	12DEC14	15
CW-13217	INST MIRRORS (CW-3RD FLR)	BS	03	10	10830	3	3	0	17DEC14	19DEC14	13
CW-12235	INST FIRE EXTINGUISHERS/CABINETS (CW-3RD FLR)	BS	03	10	10522	5	5	0	17DEC14	23DEC14	11
CW-13220	INST INTERIOR SIGNAGE (CW-3RD FLR)	BS	03	10	10440	5	5	0	17DEC14	23DEC14	11
CW-13250	INST METAL STORAGE SHELVING (CW-3RD FLR)	BS	03	10	10675	7	7	0	17DEC14	26DEC14	9
CW-13215	INST WHITE & BLACK BOARDS (CW-3RD FLR)	BS	03	10	10100	10	10	0	17DEC14	31DEC14	6
CW-13225	INST MILLWORK/CASEWORK (CW-3RD FLR)	BS	03	06	06410	10	10	0	17DEC14	31DEC14	1
CW-13221	INST WINDOW SHADES (CW-3RD FLR)	BS	03	12	12501	5	5	0	24DEC14	31DEC14	6
CW-13255	INST CNTRCTR SUPPLIED FURNITURE (CW-3RD FLR)	BS	03	12	12302	10	10	0	24DEC14	08JAN15	1
CW-13326	INST OWNER SUPPLIED FURNITURE (CW-3RD FLR)	BS	03	12	12302	10	10	0	24DEC14	08JAN15	1
4th Floor											
CW-W4155	INST CERAMIC TILE - CORRIDOR (CW-WEST-4TH FLR)	BS	04	09	09310	5	5	0	02SEP14	08SEP14	33
CW-M4155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-4TH FLR)	BS	04	09	09310	5	5	0	09SEP14	15SEP14	33
CW-E4155	INST CERAMIC TILE - CORRIDOR (CW-EAST-4TH FLR)	BS	04	09	09310	5	5	0	16SEP14	22SEP14	33
CW-14135	INST SUSPENDED CEILING GRID (CW-4TH FLR)	BS	04	09	09510	12	12	0	30SEP14	16OCT14	19
CW-14175	INST ACOUSTICAL CEILING TILE (CW-4TH FLR)	BS	04	09	09510	8	8	0	17OCT14	28OCT14	26
CW-14150	PRIME PAINTING (CW-4TH FLR)	BS	04	09	09900	10	10	0	27OCT14	07NOV14	-4
CW-14155	INST CERAMIC TILE (CW-4TH FLR)	BS	04	09	09310	12	12	0	10NOV14	26NOV14	1
CW-14180	INST VCT FLOORING (CW-4TH FLR)	BS	04	09	09650	12	12	0	10NOV14	26NOV14	0
CW-14181	INST VINYL BASE (CW-4TH FLR)	BS	04	09	09650	6	6	0	28NOV14	05DEC14	0
CW-14265	INST TOILET PARTITIONS (CW-4TH FLR)	BS	04	10	10151	10	10	0	03DEC14	16DEC14	8
CW-14210	FINAL PAINTING (CW-4TH FLR)	BS	04	09	09900	10	10	0	08DEC14	19DEC14	0
CW-14230	INST FIRE EXTINGUISHERS/CABINETS (CW-4TH FLR)	BS	04	10	10522	5	5	0	15DEC14	19DEC14	13
CW-14225	INST MILLWORK/CASEWORK (CW-4TH FLR)	BS	04	06	06410	9	9	0	15DEC14	26DEC14	0
CW-14170	INST TOILET ACCESSORIES (CW-4TH FLR)	BS	04	10	10810	5	5	0	17DEC14	23DEC14	8
CW-14220	INST INTERIOR SIGNAGE (CW-4TH FLR)	BS	04	10	10440	5	5	0	22DEC14	29DEC14	8
CW-14215	INST WHITE & BLACK BOARDS (CW-4TH FLR)	BS	04	10	10100	10	10	0	22DEC14	06JAN15	3
CW-14217	INST MIRRORS (CW-4TH FLR)	BS	04	10	10830	3	3	0	24DEC14	29DEC14	8
CW-14250	INST METAL STORAGE SHELVING (CW-4TH FLR)	BS	04	10	10675	7	7	0	24DEC14	05JAN15	4
CW-14255	INST CNTRCTR SUPPLIED FURNITURE (CW-4TH FLR)	BS	04	12	12302	9	9	0	29DEC14	09JAN15	0
CW-14261	INST OWNER SUPPLIED FURNITURE (CW-4TH FLR)	BS	04	12	12302	9	9	0	29DEC14	09JAN15	0
CW-14221	INST WINDOW SHADES (CW-4TH FLR)	BS	04	12	12501	5	5	0	30DEC14	06JAN15	3
5th Floor											
CW-W5155	INST CERAMIC TILE - CORRIDOR (CW-WEST-5TH FLR)	BS	05	09	09310	5	5	0	16SEP14	22SEP14	32
CW-55029	INST SCIENCE LAB CASEWORK/EQUIP (CW-5TH FLR)	BS	05	11	11600	10	10	0	16SEP14	29SEP14	1
CW-M5155	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-5TH FLR)	BS	05	09	09310	5	5	0	23SEP14	29SEP14	32
CW-E5155	INST CERAMIC TILE - CORRIDOR (CW-EAST-5TH FLR)	BS	05	09	09310	5	5	0	30SEP14	06OCT14	32
CW-15135	INST SUSPENDED CEILING GRID (CW-5TH FLR)	BS	05	09	09510	12	12	0	30SEP14	16OCT14	22
CW-15175	INST ACOUSTICAL CEILING TILE (CW-5TH FLR)	BS	05	09	09510	8	8	0	17OCT14	28OCT14	29
CW-15150	PRIME PAINTING (CW-5TH FLR)	BS	05	09	09900	9	9	0	05NOV14	18NOV14	0
CW-15155	INST CERAMIC TILE (CW-5TH FLR)	BS	05	09	09310	9	9	0	19NOV14	02DEC14	1
CW-15180	INST VCT FLOORING (CW-5TH FLR)	BS	05	09	09650	12	12	0	19NOV14	05DEC14	3
CW-15181	INST VINYL BASE (CW-5TH FLR)	BS	05	09	09650	6	6	0	28NOV14	05DEC14	3
CW-15210	FINAL PAINTING (CW-5TH FLR)	BS	05	09	09900	10	10	0	08DEC14	19DEC14	3
CW-15225	INST MILLWORK/CASEWORK (CW-5TH FLR)	BS	05	06	06410	10	10	0	15DEC14	29DEC14	8
CW-15265	INST TOILET PARTITIONS (CW-5TH FLR)	BS	05	10	10151	10	10	0	17DEC14	31DEC14	1
CW-15220	INST INTERIOR SIGNAGE (CW-5TH FLR)	BS	05	10	10440	5	5	0	22DEC14	29DEC14	8
CW-15230	INST FIRE EXTINGUISHERS/CABINETS (CW-5TH FLR)	BS	05	10	10522	5	5	0	22DEC14	29DEC14	8
CW-15215	INST WHITE & BLACK BOARDS (CW-5TH FLR)	BS	05	10	10100	10	10	0	22DEC14	06JAN15	3
CW-15250	INST METAL STORAGE SHELVING (CW-5TH FLR)	BS	05	10	10675	7	7	0	24DEC14	05JAN15	1
CW-15255	INST CNTRCTR SUPPLIED FURNITURE (CW-5TH FLR)	BS	05	12	12302	10	10	0	24DEC14	08JAN15	1
CW-15261	INST OWNER SUPPLIED FURNITURE (CW-5TH FLR)	BS	05	12	12302	10	10	0	24DEC14	08JAN15	1
CW-15221	INST WINDOW SHADES (CW-5TH FLR)	BS	05	12	12501	5	5	0	30DEC14	06JAN15	3
CW-15171	INST TOILET ACCESSORIES (CW-5TH FLR)	BS	05	10	10810	5	5	0	02JAN15	08JAN15	1



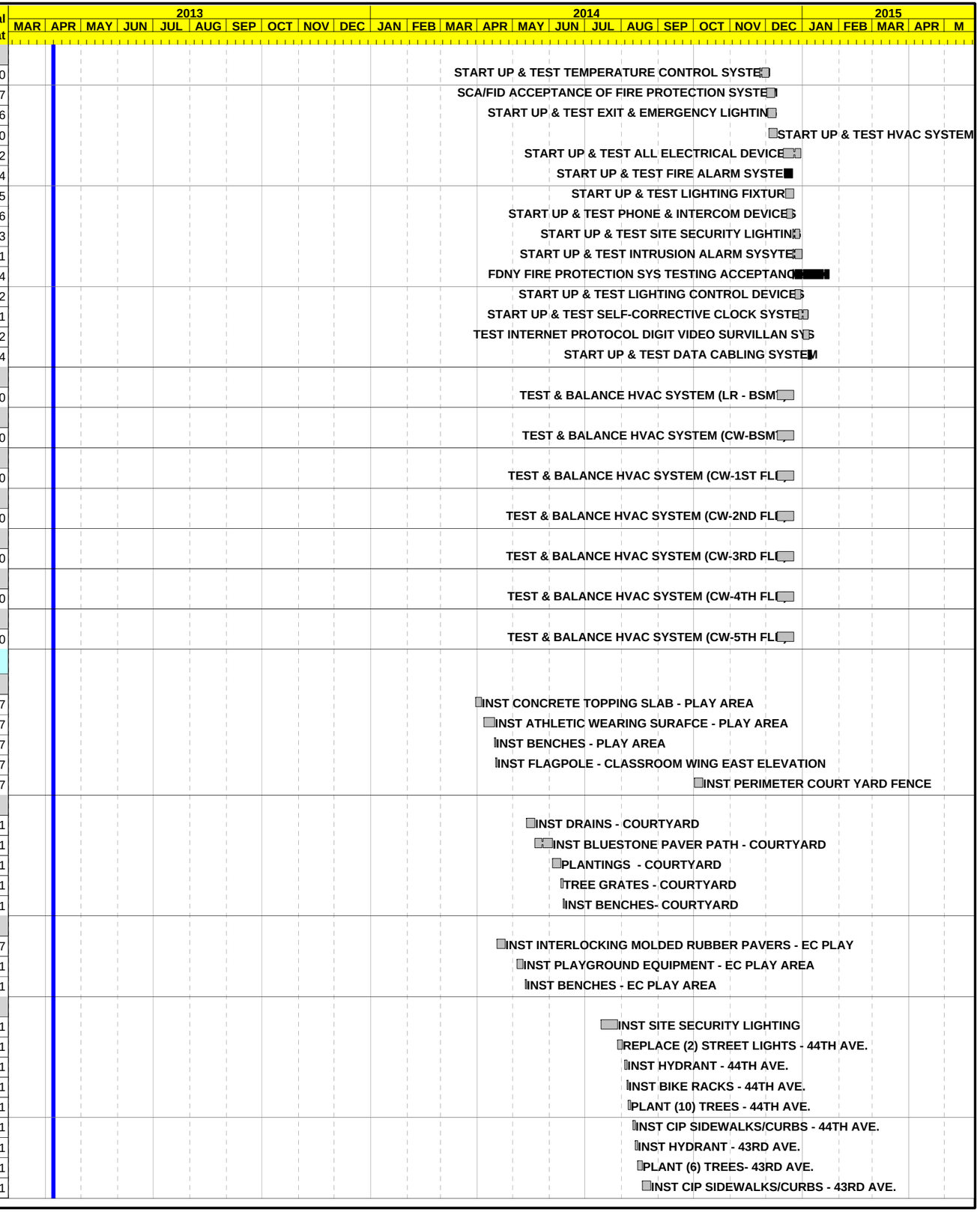
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
5th Floor											
CW-15217	INST MIRRORS (CW-5TH FLR)	BS	05	10	10830	3	3	0	06JAN15	08JAN15	1
Kitchen Equipment											
Basement											
CW-10262	INST KITCHEN EXHAUST HOOD (CW-BSMT)	BS	CR	11	11400	7	7	0	02OCT14	10OCT14	0
CW-10267	INST KITCHEN EQUIPMENT (CW-BSMT)	BS	CR	11	11400	15	15	0	24OCT14	14NOV14	0
CW-10272	INST SERVERY EQUIPMENT (CW-BSMT)	BS	CR	11	11400	10	10	0	17NOV14	01DEC14	1
CW-10259	GAS CONNCTN TO KITCHEN EQUIP (CW-BSMT)	BS	CR	11	11400	5	5	0	02DEC14	08DEC14	8
CW-10271	GAS CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	BS	CR	15	15416	5	5	0	11DEC14	17DEC14	1
CW-40530	TROUBLE SHOOT & TEST (KITCHEN)	BS	CR	11	11400	10	10	0	19DEC14	05JAN15	0
CW-40540	FDNY - NOTIFY & INSPECTION (KITCHEN)	BS	CR	11	11400	9	9	0	06JAN15	16JAN15	0
Gym Equipment											
Basement & Gymnasium											
LR-00247	INST BLEACHERS IN GYM (LR - BSMT)	BS	CRG	11	11480	5	5	0	20NOV14	26NOV14	24
LR-00248	INST EQUIPMENT IN GYM (LR - BSMT)	BS	CRG	11	11480	5	5	0	28NOV14	04DEC14	24
LR-01150	INST SCOREBOARD & BACKBOARD/HOOPS (LR-GYM)	BS	CRG	11	11480	10	10	0	30DEC14	13JAN15	-2
Gymatorium											
LR-02215	INST MOTORIZED & FIXTED SEATING -GYMATORIUM	BS	CRA	12	12762	12	12	0	11DEC14	29DEC14	8
Traction Elevator											
Basement											
CW-36886	INST CRYSTALLINE WATERPRF ELEV PITS (CW) TE	BS	CR	07	07147	10	10	0	13MAY14	27MAY14	144
Elevator											
CW-30390	INT CMU TRACTN ELEV SHAFT (CW-BSMT-2ND) SIDE A&B	BS	ELEV	04	04200	8	8	0	20MAR14	31MAR14	59
CW-30395	INTERIOR CMU TRACTN ELEV SHAFT (CW 2-4) SIDE A&B	BS	ELEV	04	04200	6	6	0	01APR14	08APR14	59
CW-30400	INTERIOR CMU TRACTN ELEV SHAFT (CW 4-6) SIDE A&B	BS	ELEV	04	04200	6	6	0	09APR14	16APR14	59
CW-30415	INTERIOR CMU TRACTION ELEV SHAFT(CW- MECH ROOM)	BS	ELEV	04	04200	5	5	0	17APR14	23APR14	59
CW-31370	INST RAILS SHAFT #1 (CW - TRACTION ELEVATOR)	BS	ELEV	14	14211	8	8	0	01MAY14	12MAY14	55
CW-31445	CIP ELEVATOR PIT TRACTION (CW-BSMT)	BS	ELEV	03	03300	8	8	0	01MAY14	12MAY14	55
CW-31380	INST RAILS SHAFT #2 (CW - TRACTION ELEVATOR)	BS	ELEV	14	14211	8	8	0	13MAY14	22MAY14	55
CW-31390	INST & SET SHEEVE IN MACH ROOM(CW-TRACTION ELEV)	BS	ELEV	14	14211	8	8	0	23MAY14	04JUN14	55
CW-31400	BUILD WORKING PLATFORMS-CAR#1 (CW TRACTION ELEV)	BS	ELEV	14	14211	9	9	0	05JUN14	17JUN14	55
CW-31410	BUILD WORKING PLATFORMS-CAR#2 (CW-TRACTION ELEV)	BS	ELEV	14	14211	9	9	0	18JUN14	30JUN14	55
CW-31420	INST TRACTION ELEV DOORS (CW BSMT- 2ND FLR)	BS	ELEV	14	14211	9	9	0	01JUL14	14JUL14	55
CW-31430	INST TRACTION ELEV DOORS (CW 2ND FLR - 3RD FLR)	BS	ELEV	14	14211	9	9	0	15JUL14	25JUL14	55
CW-31440	INST TRACTION ELEV DOORS (CW 3RD -5TH FLR)	BS	ELEV	14	14211	9	9	0	28JUL14	07AUG14	55
CW-31450	FINISH CAB #1 (TRACTION ELEV) CW)	BS	ELEV	14	14211	9	9	0	08AUG14	20AUG14	55
CW-31460	FINISH CAB #2 (TRACTION ELEV) CW)	BS	ELEV	14	14211	9	9	0	21AUG14	03SEP14	55
CW-34595	START UP & TROUBLESHOOT MACH RM EQUIP	BS	ELEV	14	14211	9	9	0	16SEP14	26SEP14	47
CW-31480	TROUBLESHOOT CABS & DOORS (TRACTION ELEV) (CW)	BS	ELEV	14	14211	9	9	0	29SEP14	09OCT14	47
CW-36880	PIT ACCESS LADDER TRACTION ELEVATOR (CW)	BS	ELEV	05	05500	2	2	0	10OCT14	14OCT14	47
CW-36885	2'X2' SUMP PIT GRATING TRACTION ELEVATOR (CW)	BS	ELEV	05	05500	2	2	0	15OCT14	16OCT14	47
CW-36889	NOTIFY DOB AND INSPECT TRACTION ELEVATOR	BS	ELEV	14	14211	5	5	0	17OCT14	23OCT14	47
Hydraulic Passenger Elevator											
Elevator											
CW-11445	CIP ELEVATOR PIT HYDRAULIC (CW-BSMT)	BS	ELEV	03	03300	8	8	0	07MAR14	18MAR14	168
CW-11455	INST CRYSTALLINE WATERPRF ELEV PITS (CW) HPE	BS	ELEV	07	07147	10	10	0	19MAR14	01APR14	168
CW-11456	INSTALL PISTON (DAHPE)	BS	ELEV	14	14240	5	5	0	02APR14	08APR14	168
CW-11457	INSTALL PLATFORM (DAHPE)	BS	ELEV	14	14240	3	3	0	09APR14	11APR14	168
CW-11458	INSTALL CAB & DOORS (DAHPE)	BS	ELEV	14	14240	4	4	0	14APR14	17APR14	168
CW-11459	START UP AND TEST (DAHPE)	BS	ELEV	14	14240	3	3	0	16SEP14	18SEP14	64
Inspections											
All											
BS-06101	SCA INSPECTION EXT MASONRY/STONE (LR)	BS	00	04	04200	5	5	0	08JUL14	14JUL14	45
BS-06341	SCA INSPECTION EXT MASONRY/STONE (CW)	BS	00	04	04200	5	5	0	30JUL14	05AUG14	29
BS-06781	SCA INSPECTION ALL WINDOWS & CURTAINWALL	BS	00	08	08920	5	5	0	22AUG14	28AUG14	85
BS-09059	ALL EQUIPMENT INSPECTION (KICHEN EQUIP EXCLUDED)	BS	00	01	01015G	5	5	0	28OCT14	03NOV14	-2



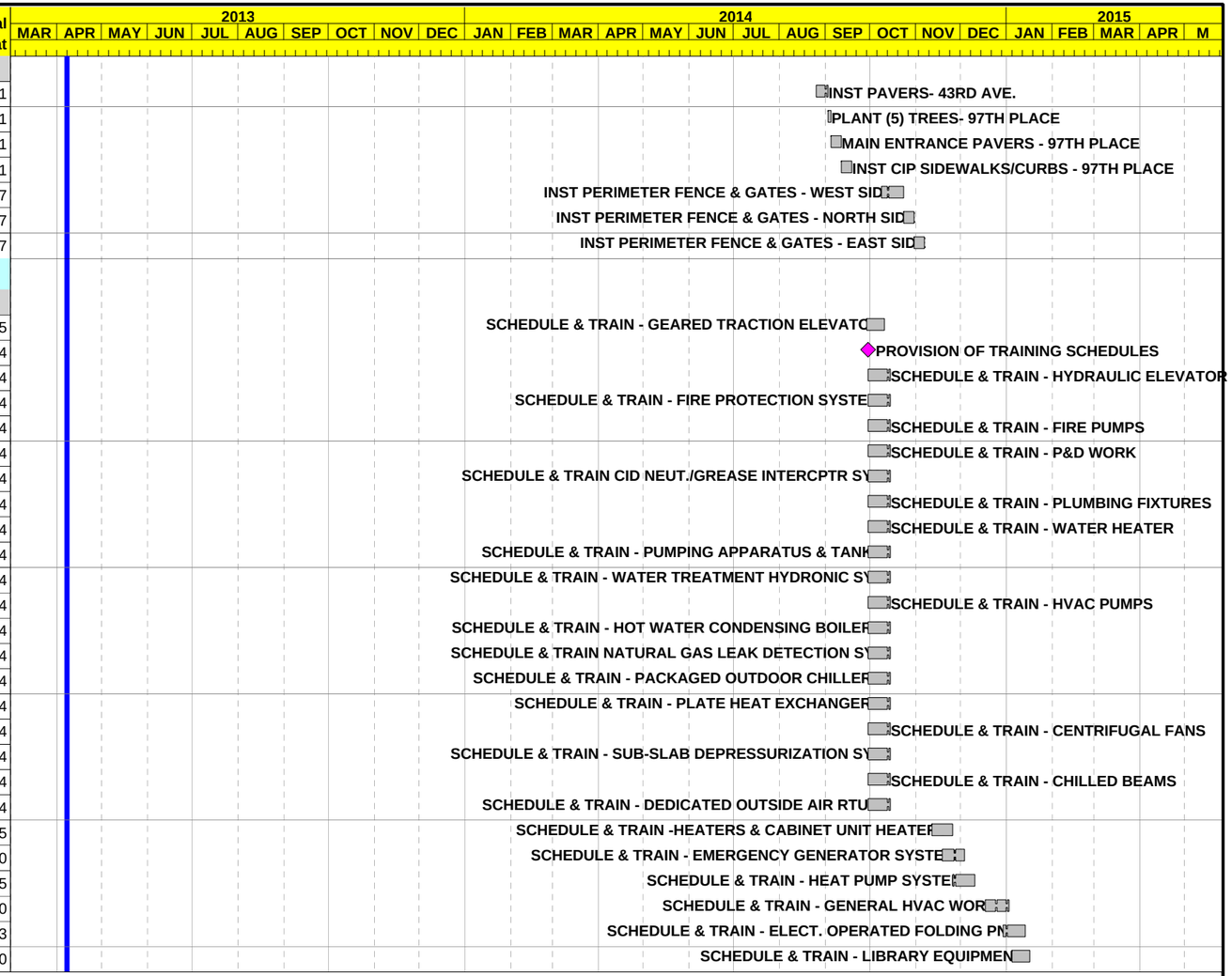
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
All											
BS-09060	KITCHEN EQUIPMENT INSPECTION	BS	00	11	11400	5	5	0	02DEC14	08DEC14	8
Basement & Gymnasium											
LR-40111	SCA INSPECTION MEP'S (LR-GYM)	BS	CRG	01	NA	5	5	0	26JUN14	02JUL14	5
LR-90999	SCA INSPECTION (LR - BSMT & GYM)	BS	CRG	01	01700G	5	5	0	14JAN15	21JAN15	-2
Gymatorium											
BS-05028	SCA INSPECTION STRUCTURAL STEEL (LR-GYMATORIUM)	BS	CRA	05	05120	5	5	0	20DEC13	27DEC13	48
BS-07041	SCA INSPECTION INTERIOR CMU (LR-GYMATORIUM)	BS	CRA	04	04200	5	5	0	16APR14	22APR14	45
LR-42111	SCA INSPECTION MEP'S (LR-GYMATORIUM)	BS	CRA	01	NA	5	5	0	25JUL14	31JUL14	-4
Library											
BS-05058	SCA INSPECTION STRUCTURAL STEEL (LR-LIBRARY)	BS	CRL	05	05120	5	5	0	27DEC13	03JAN14	40
LR-43111	SCA INSPECTION MEP'S (LR-LIBRARY)	BS	CRL	01	NA	5	5	0	22AUG14	28AUG14	-1
LR-91999	SCA INSPECTION (LR - LIBRARY)	BS	CRL	01	01700G	5	5	0	16JAN15	23JAN15	-4
Basement											
CW-40111	SCA INSPECTION MEP'S (CW-BSMT)	BS	CR	01	NA	5	5	0	25JUN14	01JUL14	0
CW-90999	SCA INSPECTION (CW-BSMT)	BS	CR	01	01700G	5	5	0	09JAN15	15JAN15	1
1st Floor											
BS-05078	SCA INSPECTION STRUCTURAL STEEL (CW-1ST FLR)	BS	01	05	05120	5	5	0	13JAN14	17JAN14	-3
CW-41111	SCA INSPECTION MEP'S (CW-1ST FLR)	BS	01	01	NA	5	5	0	16MAY14	22MAY14	35
CW-91999	SCA INSPECTION (CW-1ST FLR)	BS	01	01	01700G	5	5	0	16JAN15	23JAN15	-4
2nd Floor											
BS-05088	SCA INSPECTION STRUCTURAL STEEL (CW-2ND FLR)	BS	02	05	05120	5	5	0	22JAN14	28JAN14	1
CW-42111	SCA INSPECTION MEP'S (CW-2ND FLR)	BS	02	01	NA	5	5	0	04JUN14	10JUN14	23
CW-92999	SCA INSPECTION (CW-2ND FLR)	BS	02	01	01700G	5	5	0	26DEC14	02JAN15	10
LR-92999	SCA INSPECTION (LR-GYMATORIUM)	BS	02	01	01700G	5	5	0	30DEC14	06JAN15	8
3rd Floor											
BS-05098	SCA INSPECTION STRUCTURAL STEEL (CW-3RD FLR)	BS	03	05	05120	5	5	0	30JAN14	05FEB14	5
CW-43111	SCA INSPECTION MEP'S (CW-3RD FLR)	BS	03	01	NA	5	5	0	20JUN14	26JUN14	21
CW-93999	SCA INSPECTION (CW-3RD FLR)	BS	03	01	01700G	5	5	0	09JAN15	15JAN15	1
4th Floor											
BS-05108	SCA INSPECTION STRUCTURAL STEEL (CW-4TH FLR)	BS	04	05	05120	5	5	0	07FEB14	13FEB14	9
CW-44111	SCA INSPECTION MEP'S (CW-4TH FLR)	BS	04	01	NA	5	5	0	09JUL14	15JUL14	19
CW-94999	SCA INSPECTION (CW-4TH FLR)	BS	04	01	01700G	5	5	0	12JAN15	16JAN15	0
5th Floor											
BS-05208	SCA INSPECTION STRUCTURAL STEEL (CW-5TH FLR)	BS	05	05	05120	5	5	0	18FEB14	24FEB14	13
CW-45111	SCA INSPECTION MEP'S (CW-5TH FLR)	BS	05	01	NA	5	5	0	25JUL14	31JUL14	19
CW-95999	SCA INSPECTION (CW-5TH FLR)	BS	05	01	01700G	5	5	0	09JAN15	15JAN15	1
Stair A											
CW-02225	SCA INSPECTION INTERIOR CMU (CW-STAIR A)	BS	SA	04	04200	5	5	0	28MAY14	03JUN14	116
Stair B											
CW-00087	SCA INSPECTION INTERIOR CMU (CW-STAIR B)	BS	SB	04	04200	5	5	0	23JUL14	29JUL14	87
Elevator											
CW-14580	SCHEDULE DOB INSPECTION - HYDRAULIC ELEVATOR	BS	ELEV	01	01060S	10	10	0	16SEP14	29SEP14	74
Gymnasium											
BS-05018	SCA INSPECTION STRUCT STEEL (LR-GYM)	BS	GYM	05	05120	5	5	0	16DEC13	20DEC13	48
BS-07031	SCA INSPECTION INTERIOR CMU (LR-GYM)	BS	GYM	04	04200	5	5	0	05JUN14	11JUN14	95
Start Up & testing											
All											
BS-79025	START UP & TEST FIBER OPTIC CABLING SYSTEM	BS	00	16	16728	3	3	0	07OCT14	09OCT14	66
BS-79020	START UP & TEST ELECTRICAL PANELS INTERIORS	BS	00	16	16470	6	6	0	09OCT14	17OCT14	46
BS-90110	START UP & TEST FIN TUBE RADIATORS	BS	00	15	15835	8	8	0	28OCT14	06NOV14	27
LR-00490	START UP & TEST TEMPERATURE CNTRL SYS GYM	BS	00	15	15970	2	2	0	04NOV14	05NOV14	4
BS-90011	START UP & TEST UNIT HEATERS / CABINET HEATERS	BS	00	15	15836	5	5	0	04NOV14	10NOV14	25
BS-90140	START UP & TEST CENTRIFUGAL FANS	BS	00	15	15860	5	5	0	04NOV14	10NOV14	45
BS-50400	START UP & TROUBLE SHOOT - SPLIT HEAT PUMPS	BS	00	15	15783	10	10	0	04NOV14	18NOV14	-2
LR-04991	START UP & TEST HVAC SYSTEM GYM	BS	00	15	15933	2	2	0	06NOV14	07NOV14	4
BS-69990	START UP & TEST SPRINKLER SYSTEM (ALL)	BS	00	15	15332	5	5	0	24NOV14	01DEC14	7



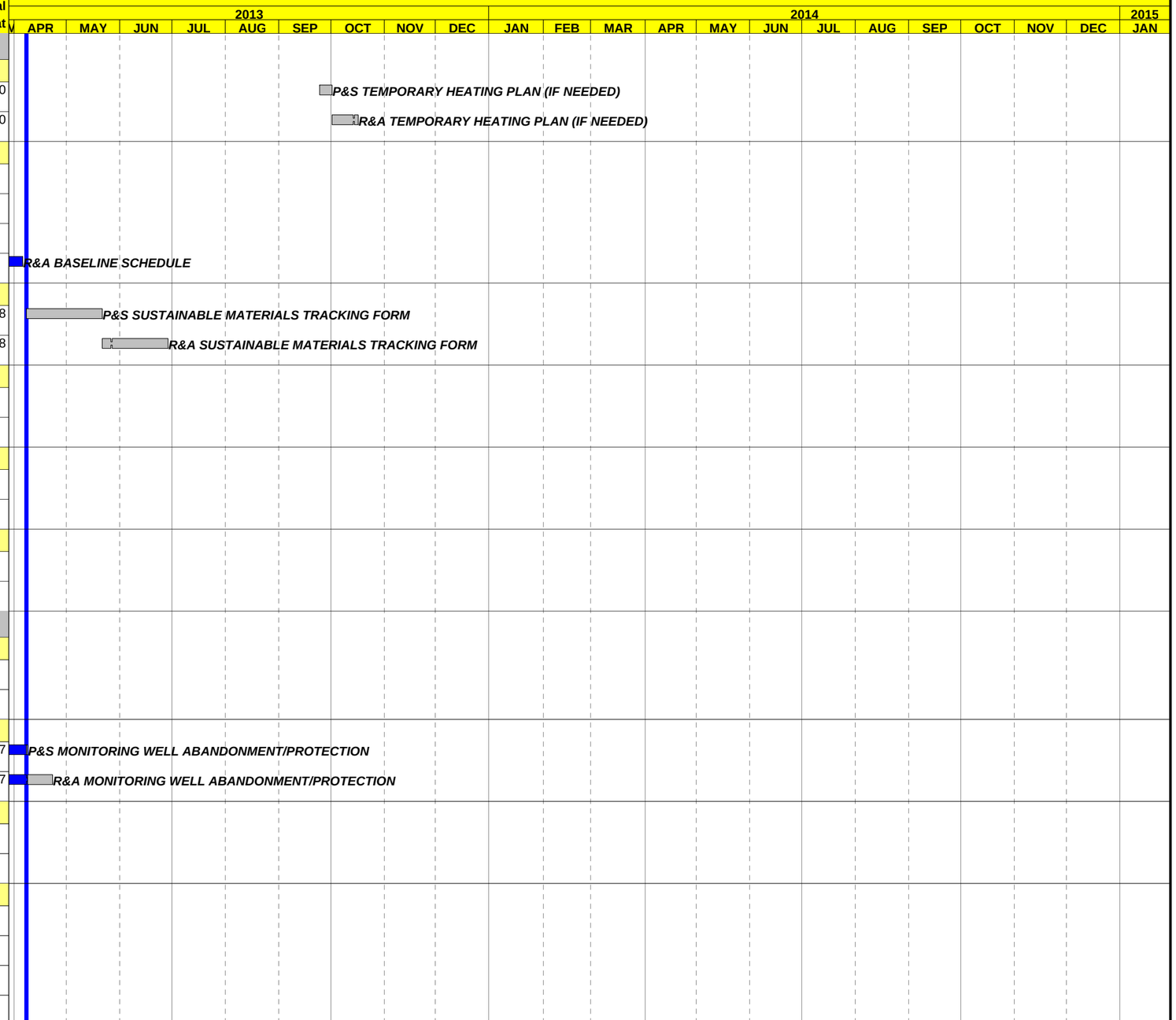
Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
All											
BS-90100	START UP & TEST TEMPERATURE CONTROL SYSTEM	BS	00	15	15970	5	5	0	26NOV14	03DEC14	10
BS-90999	SCA/FID ACCEPTANCE OF FIRE PROTECTION SYSTEM	BS	00	16	16720	5	5	0	02DEC14	08DEC14	7
BS-79000	START UP & TEST EXIT & EMERGENCY LIGHTING	BS	00	16	16520	5	5	0	03DEC14	09DEC14	16
BS-51999	START UP & TEST HVAC SYSTEM	BS	00	15	15933	5	5	0	04DEC14	10DEC14	10
BS-79010	START UP & TEST ALL ELECTRICAL DEVICES	BS	00	16	16140	10	10	0	16DEC14	30DEC14	2
BS-79060	START UP & TEST FIRE ALARM SYSTEM	BS	00	16	16720	5	5	0	17DEC14	23DEC14	-4
BS-79040	START UP & TEST LIGHTING FIXTURE	BS	00	16	16500	5	5	0	18DEC14	24DEC14	5
BS-79045	START UP & TEST PHONE & INTERCOM DEVICES	BS	00	16	16726	3	3	0	19DEC14	23DEC14	6
BS-79055	START UP & TEST SITE SECURITY LIGHTING	BS	00	16	16530	3	3	0	24DEC14	29DEC14	3
BS-79030	START UP & TEST INTRUSION ALARM SYSYTEM	BS	00	16	16724	5	5	0	24DEC14	31DEC14	1
BS-79999	FDNY FIRE PROTECTION SYS TESTING ACCEPTANCE	BS	00	16	16720	20	20	0	24DEC14	23JAN15	-4
BS-79035	START UP & TEST LIGHTING CONTROL DEVICES	BS	00	16	16145	3	3	0	26DEC14	30DEC14	2
BS-79050	START UP & TEST SELF-CORRECTIVE CLOCK SYSTEM	BS	00	16	16791	5	5	0	29DEC14	05JAN15	-1
BS-79005	TEST INTERNET PROTOCOL DIGIT VIDEO SURVILLAN SYS	BS	00	16	16783	3	3	0	02JAN15	06JAN15	-2
BS-79015	START UP & TEST DATA CABLING SYSTEM	BS	00	16	16727	3	3	0	06JAN15	08JAN15	-4
Basement & Gymnasium											
LR-00280	TEST & BALANCE HVAC SYSTEM (LR - BSMT)	BS	CRG	15	15993	10	10	0	11DEC14	24DEC14	10
Basement											
CW-10281	TEST & BALANCE HVAC SYSTEM (CW-BSMT)	BS	CR	15	15993	10	10	0	11DEC14	24DEC14	10
1st Floor											
CW-11280	TEST & BALANCE HVAC SYSTEM (CW-1ST FLR)	BS	01	15	15993	10	10	0	11DEC14	24DEC14	10
2nd Floor											
CW-12280	TEST & BALANCE HVAC SYSTEM (CW-2ND FLR)	BS	02	15	15993	10	10	0	11DEC14	24DEC14	10
3rd Floor											
CW-13280	TEST & BALANCE HVAC SYSTEM (CW-3RD FLR)	BS	03	15	15993	10	10	0	11DEC14	24DEC14	10
4th Floor											
CW-14280	TEST & BALANCE HVAC SYSTEM (CW-4TH FLR)	BS	04	15	15993	10	10	0	11DEC14	24DEC14	10
5th Floor											
CW-15280	TEST & BALANCE HVAC SYSTEM (CW-5TH FLR)	BS	05	15	15993	10	10	0	11DEC14	24DEC14	10
Sitework											
Play Area											
OS-02020	INST CONCRETE TOPPING SLAB - PLAY AREA	OS	PA	02	02521	5	5	0	31MAR14	04APR14	107
OS-02030	INST ATHLETIC WEARING SURAFCE - PLAY AREA	OS	PA	02	02533	7	7	0	07APR14	15APR14	107
OS-02040	INST BENCHES - PLAY AREA	OS	PA	02	02870	1	1	0	16APR14	16APR14	107
OS-02050	INST FLAGPOLE - CLASSROOM WING EAST ELEVATION	OS	PA	02	02870	1	1	0	17APR14	17APR14	107
OS-02140	INST PERIMETER COURT YARD FENCE	OS	PA	02	02825	5	5	0	02OCT14	08OCT14	37
Courtyard											
OS-02090	INST DRAINS - COURTYARD	OS	CY	02	02721	5	5	0	13MAY14	19MAY14	101
OS-02100	INST BLUESTONE PAVER PATH - COURTYARD	OS	CY	02	02513	10	10	0	20MAY14	03JUN14	101
OS-02110	PLANTINGS - COURTYARD	OS	CY	02	02900	5	5	0	04JUN14	10JUN14	101
OS-02120	TREE GRATES - COURTYARD	OS	CY	02	02870	2	2	0	11JUN14	12JUN14	101
OS-02130	INST BENCHES- COURTYARD	OS	CY	02	02870	1	1	0	13JUN14	13JUN14	101
Early Childhood Play Area											
OS-02060	INST INTERLOCKING MOLDED RUBBER PAVERS - EC PLAY	OS	EC	02	02860	5	5	0	18APR14	24APR14	107
OS-02070	INST PLAYGROUND EQUIPMENT - EC PLAY AREA	OS	EC	02	02860	5	5	0	05MAY14	09MAY14	101
OS-02080	INST BENCHES - EC PLAY AREA	OS	EC	02	02870	1	1	0	12MAY14	12MAY14	101
Perimeter site											
OS-73193	INST SITE SECURITY LIGHTING	OS	PS	16	16530	10	10	0	15JUL14	28JUL14	71
OS-02150	REPLACE (2) STREET LIGHTS - 44TH AVE.	OS	PS	02	02870	4	4	0	29JUL14	01AUG14	71
OS-02160	INST HYDRANT - 44TH AVE.	OS	PS	15	15406	2	2	0	04AUG14	05AUG14	71
OS-02170	INST BIKE RACKS - 44TH AVE.	OS	PS	02	02870	1	1	0	06AUG14	06AUG14	71
OS-02180	PLANT (10) TREES - 44TH AVE.	OS	PS	02	02900	2	2	0	07AUG14	08AUG14	71
OS-02190	INST CIP SIDEWALKS/CURBS - 44TH AVE.	OS	PS	02	02870	2	2	0	11AUG14	12AUG14	71
OS-02200	INST HYDRANT - 43RD AVE.	OS	PS	15	15406	2	2	0	13AUG14	14AUG14	71
OS-02210	PLANT (6) TREES- 43RD AVE.	OS	PS	02	02900	2	2	0	15AUG14	18AUG14	71
OS-02220	INST CIP SIDEWALKS/CURBS - 43RD AVE.	OS	PS	02	02521	5	5	0	19AUG14	25AUG14	71



Activity ID	Activity Description	AREA	LOCN	DIV	SECT	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Perimeter site											
OS-02230	INST PAVERS- 43RD AVE.	OS	PS	02	02515	5	5	0	26AUG14	02SEP14	71
OS-02240	PLANT (5) TREES- 97TH PLACE	OS	PS	02	02900	2	2	0	03SEP14	04SEP14	71
OS-02250	MAIN ENTRANCE PAVERS - 97TH PLACE	OS	PS	02	02515	5	5	0	05SEP14	11SEP14	71
OS-02260	INST CIP SIDEWALKS/CURBS - 97TH PLACE	OS	PS	02	02515	5	5	0	12SEP14	18SEP14	71
OS-02300	INST PERIMETER FENCE & GATES - WEST SIDE	OS	PS	02	02825	10	10	0	09OCT14	23OCT14	37
OS-02310	INST PERIMETER FENCE & GATES - NORTH SIDE	OS	PS	02	02825	5	5	0	24OCT14	30OCT14	37
OS-02320	INST PERIMETER FENCE & GATES - EAST SIDE	OS	PS	02	02825	5	5	0	31OCT14	06NOV14	37
Training											
All											
BS-10720	SCHEDULE & TRAIN - GEARED TRACTION ELEVATOR	BS	00	14	14211	10	10	0	29SEP14	10OCT14	65
BS-10745	PROVISION OF TRAINING SCHEDULES	BS	00	01	01650S	0	0	0	30SEP14		74
BS-10730	SCHEDULE & TRAIN - HYDRAULIC ELEVATOR	BS	00	14	14240	10	10	0	30SEP14	14OCT14	64
BS-10750	SCHEDULE & TRAIN - FIRE PROTECTION SYSTEM	BS	00	15	15301	10	10	0	30SEP14	14OCT14	64
BS-10760	SCHEDULE & TRAIN - FIRE PUMPS	BS	00	15	15333	10	10	0	30SEP14	14OCT14	64
BS-10770	SCHEDULE & TRAIN - P&D WORK	BS	00	15	15401	10	10	0	30SEP14	14OCT14	64
BS-10780	SCHEDULE & TRAIN CID NEUT./GREASE INTERCPTR SYS	BS	00	15	15415	10	10	0	30SEP14	14OCT14	64
BS-10790	SCHEDULE & TRAIN - PLUMBING FIXTURES	BS	00	15	15440	10	10	0	30SEP14	14OCT14	64
BS-10800	SCHEDULE & TRAIN - WATER HEATER	BS	00	15	15451	10	10	0	30SEP14	14OCT14	64
BS-10810	SCHEDULE & TRAIN - PUMPING APPARATUS & TANKS	BS	00	15	15453	10	10	0	30SEP14	14OCT14	64
BS-10830	SCHEDULE & TRAIN - WATER TREATMENT HYDRONIC SYS	BS	00	15	15517	10	10	0	30SEP14	14OCT14	64
BS-10840	SCHEDULE & TRAIN - HVAC PUMPS	BS	00	15	15540	10	10	0	30SEP14	14OCT14	64
BS-10850	SCHEDULE & TRAIN - HOT WATER CONDENSING BOILERS	BS	00	15	15565	10	10	0	30SEP14	14OCT14	64
BS-10870	SCHEDULE & TRAIN NATURAL GAS LEAK DETECTION SYS	BS	00	15	15596	10	10	0	30SEP14	14OCT14	64
BS-10880	SCHEDULE & TRAIN - PACKAGED OUTDOOR CHILLERS	BS	00	15	15660	10	10	0	30SEP14	14OCT14	64
BS-10890	SCHEDULE & TRAIN - PLATE HEAT EXCHANGERS	BS	00	15	15670	10	10	0	30SEP14	14OCT14	64
BS-10920	SCHEDULE & TRAIN - CENTRIFUGAL FANS	BS	00	15	15860	10	10	0	30SEP14	14OCT14	64
BS-10930	SCHEDULE & TRAIN - SUB-SLAB DEPRESSURIZATION SYS	BS	00	15	15880	10	10	0	30SEP14	14OCT14	64
BS-10950	SCHEDULE & TRAIN - CHILLED BEAMS	BS	00	15	15932	10	10	0	30SEP14	14OCT14	64
BS-10960	SCHEDULE & TRAIN - DEDICATED OUTSIDE AIR RTU'S	BS	00	15	15933	10	10	0	30SEP14	14OCT14	64
BS-10910	SCHEDULE & TRAIN -HEATERS & CABINET UNIT HEATERS	BS	00	15	15836	10	10	0	12NOV14	25NOV14	25
BS-10860	SCHEDULE & TRAIN - EMERGENCY GENERATOR SYSTEM	BS	00	15	15590	10	10	0	19NOV14	03DEC14	30
BS-10900	SCHEDULE & TRAIN - HEAT PUMP SYSTEM	BS	00	15	15783	10	10	0	26NOV14	10DEC14	25
BS-10820	SCHEDULE & TRAIN - GENERAL HVAC WORK	BS	00	15	15501	10	10	0	18DEC14	02JAN15	10
BS-10700	SCHEDULE & TRAIN - ELECT. OPERATED FOLDING PNL	BS	00	10	10652	10	10	0	30DEC14	13JAN15	3
BS-10710	SCHEDULE & TRAIN - LIBRARY EQUIPMENT	BS	00	11	11050	10	10	0	05JAN15	16JAN15	0



Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Div. 01 General								
Miscellaneous Provisions								
01-01100	SCC	P&S TEMPORARY HEATING PLAN (IF NEEDED)	5	5	0	25SEP13	01OCT13*	10
01-01110	SCA	R&A TEMPORARY HEATING PLAN (IF NEEDED)	10	10	0	02OCT13	16OCT13	10
Progress Schedule								
01-01000	SCC	P&S PRELIMINARY SCHEDULE	16	0	100	27AUG12A	11SEP12A	
01-01005	SCA	R&A PRELIMINARY SCHEDULE	10	0	100	11SEP12A	01OCT12A	
01-01010	SCC	P&S BASELINE SCHEDULE	20	0	100	02OCT12A	26MAR13A	
01-01015	SCA	R&A BASELINE SCHEDULE	10	0	100	26NOV12A	05APR13A	
Sustainability Requirements								
01-01020	SCC	P&S SUSTAINABLE MATERIALS TRACKING FORM	32	32	0	08APR13	21MAY13	158
01-01025	SCA	R&A SUSTAINABLE MATERIALS TRACKING FORM	27	27	0	22MAY13	28JUN13	158
Quality Control Plan								
01-01030	SCC	P&S QUALITY CONTROL PLAN	22	0	100	05OCT12A	16NOV12A	
01-01035	SCA	R&A QUALITY CONTROL PLAN	10	0	100	16NOV12A	15JAN13A	
Construction Waste Management								
01-01040	SCC	P&S CONSTRUCTION WASTE MANAGEMENT PLAN	11	0	100	20AUG12A	30AUG12A	
01-01045	SCA	R&A CONSTRUCTION WASTE MANAGEMENT PLAN	10	0	100	30AUG12A	04JAN13A	
Safety Program								
01-01050	SCC	P&S SITE SAFETY PLAN	5	0	100	03AUG12A	08AUG12A	
01-01055	SCA	R&A SITE SAFETY PLAN	10	0	100	08AUG12A	28DEC12A	
Div. 02 - Sitework								
Environmental Site Assessment Reports								
02-02000	SCC	P&S ENVIRONMENTAL SITE ASSESSMENT REPORTS	5	0	100	27SEP12A	02OCT12A	
02-02005	SCA	SCA ISUUE ENVIRONMENTAL SITE ASSESSMENT REPORTS	10	0	100	02OCT12A	02OCT12A	
Monitoring Well Abandonment & Protection								
02-02010	SCC	P&S MONITORING WELL ABANDONMENT/PROTECTION	5	1	80	06MAR13A	08APR13	127
02-02015	SCA	R&A MONITORING WELL ABANDONMENT/PROTECTION	10	10	0	07MAR13A	22APR13	127
Building Demolition								
02-02020	SCC	P&S BUILDING DEMOLITION PLAN	60	0	100	13OCT12A	13DEC12A	
02-02025	SCA	R&A BUILDING DEMOLITION PLAN	10	0	100	13DEC12A	26DEC12A	
Asbestos Abatement								
02-02030	SCC	SUBMIT ACM SUBCONTRACTOR	20	0	100	01NOV12A	12NOV12A	
02-02035	SCA	R&A ACM SUBCONTRACTOR	10	0	100	12NOV12A	19NOV12A	
02-02040	SCC	P&S ASBESTOS ABATEMENT	5	0	100	07DEC12A	13DEC12A	
02-02045	SCA	R&A ASBESTOS ABATEMENT	10	0	100	13DEC12A	19DEC12A	



© Primavera Systems, Inc.

Silverite Construction Co., Inc.

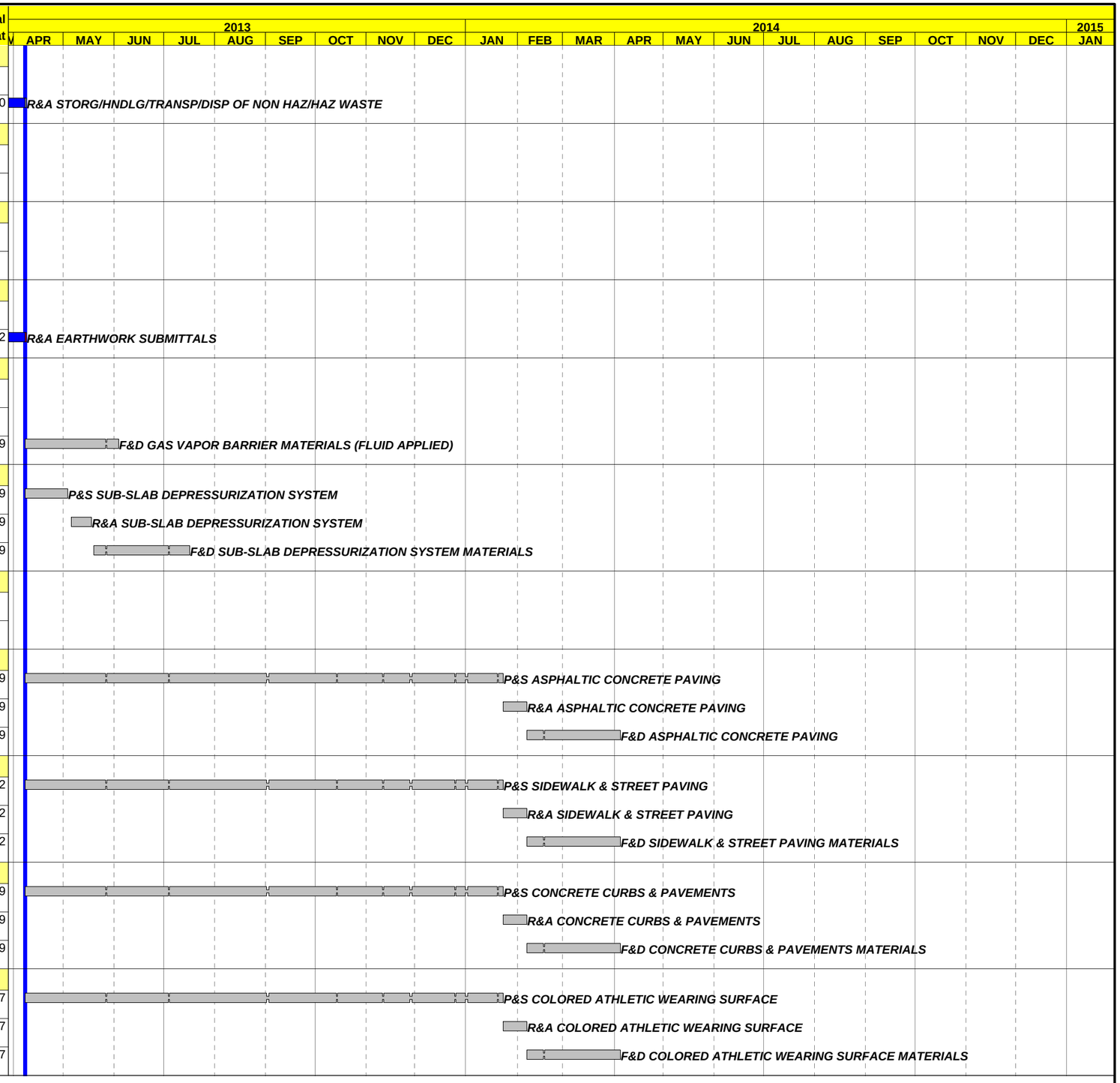
PS315, 43-18 97th Place, NY 11368

Schedule Update 02 Procurement

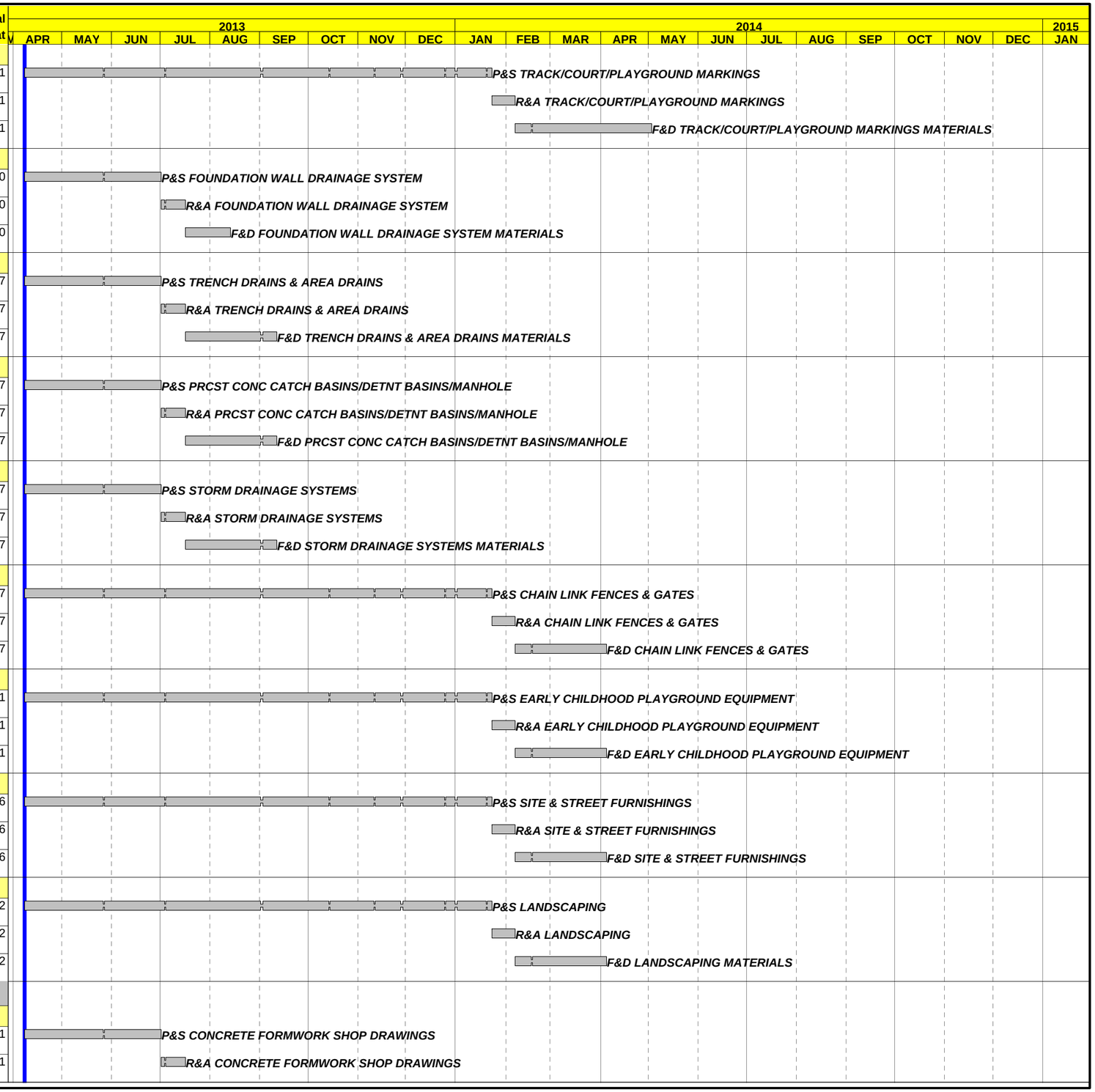
Prepared by Avila Consultants, LLC

Date	Revision	Checked	Approved
25APR13	Schedule Update 02		

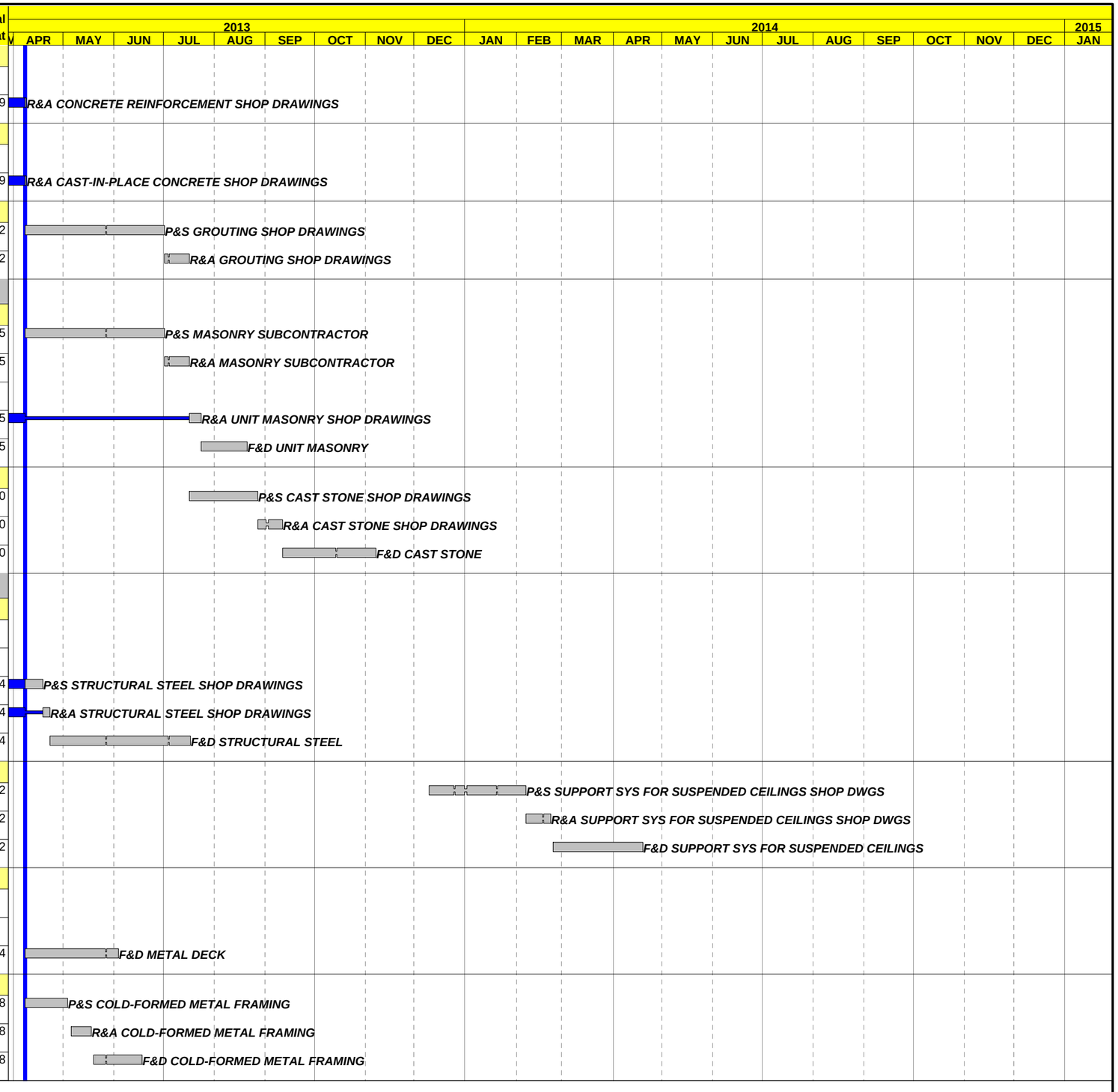
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Storage/Handling/Transp/Disp of Non-Haz/Haz Wast								
02-02050	SCC	P&S STORG/HNDLG/TRANSP/DISP OF NON HAZ/HAZ WASTE	5	0	100	15NOV12A	08MAR13A	
02-02055	SCA	R&A STORG/HNDLG/TRANSP/DISP OF NON HAZ/HAZ WASTE	10	1	90	06DEC12A	08APR13	10
Site Preparation								
02-02060	SCC	P&S SITE PREPARATION	5	0	100	15FEB13A	15FEB13A	
02-02065	SCA	R&A SITE PREPARATION	10	0	100	15FEB13A	15FEB13A	
Underground Storage Tank Removal								
02-02070	SCC	P&S UNDERGROUND TANK REMOVAL PLAN	60	0	100	07SEP12A	07NOV12A	
02-02075	SCA	R&A UNDERGROUND TANK REMOVAL PLAN	10	0	100	07NOV12A	06DEC12A	
Earthwork								
02-02080	SCC	P&S EARTHWORK SUBMITTALS	40	0	100	15NOV12A	20FEB13A	
02-02085	SCA	R&A EARTHWORK SUBMITTALS	10	1	90	20FEB13A	08APR13	-2
Gas Vapor Barrier (Fluid Applied)								
02-02090	SCC	P&S GAS VAPOR BARRIER (FLUID APPLIED)	20	0	100	08FEB13A	11MAR13A	
02-02095	SCA	R&A GAS VAPOR BARRIER (FLUID APPLIED)	10	0	100	11MAR13A	25MAR13A	
02-02100	SCC	F&D GAS VAPOR BARRIER MATERIALS (FLUID APPLIED)	40	40	0	08APR13	03JUN13	189
Sub-Slab Depressurization System								
02-02110	SCC	P&S SUB-SLAB DEPRESSURIZATION SYSTEM	20	20	0	08APR13	03MAY13	159
02-02115	SCA	R&A SUB-SLAB DEPRESSURIZATION SYSTEM	10	10	0	06MAY13	17MAY13	159
02-02120	SCC	F&D SUB-SLAB DEPRESSURIZATION SYSTEM MATERIALS	40	40	0	20MAY13	16JUL13	159
Foundation & Other Change Adjustments								
02-02125	SCC	P&S FOUNDATION & OTHER CHANGE ADJUSTMENTS	20	0	100	19FEB13A	19FEB13A	
02-02130	SCA	R&A FOUNDATION & OTHER CHANGE ADJUSTMENTS	10	0	100	19FEB13A	19FEB13A	
Asphaltic Concrete Paving								
02-02135	SCC	P&S ASPHALTIC CONCRETE PAVING	200	200	0	08APR13	23JAN14	159
02-02140	SCA	R&A ASPHALTIC CONCRETE PAVING	10	10	0	24JAN14	06FEB14	159
02-02145	SCC	F&D ASPHALTIC CONCRETE PAVING	40	40	0	07FEB14	04APR14	159
Sidewalk & Street Paving								
02-02150	SCC	P&S SIDEWALK & STREET PAVING	200	200	0	08APR13	23JAN14	132
02-02155	SCA	R&A SIDEWALK & STREET PAVING	10	10	0	24JAN14	06FEB14	132
02-02160	SCC	F&D SIDEWALK & STREET PAVING MATERIALS	40	40	0	07FEB14	04APR14	132
Concrete Curbs & Pavements								
02-02165	SCC	P&S CONCRETE CURBS & PAVEMENTS	200	200	0	08APR13	23JAN14	159
02-02170	SCA	R&A CONCRETE CURBS & PAVEMENTS	10	10	0	24JAN14	06FEB14	159
02-02175	SCC	F&D CONCRETE CURBS & PAVEMENTS MATERIALS	40	40	0	07FEB14	04APR14	159
Colored Athletic Wearing Surface								
02-02180	SCC	P&S COLORED ATHLETIC WEARING SURFACE	200	200	0	08APR13	23JAN14	107
02-02185	SCA	R&A COLORED ATHLETIC WEARING SURFACE	10	10	0	24JAN14	06FEB14	107
02-02190	SCC	F&D COLORED ATHLETIC WEARING SURFACE MATERIALS	40	40	0	07FEB14	04APR14	107



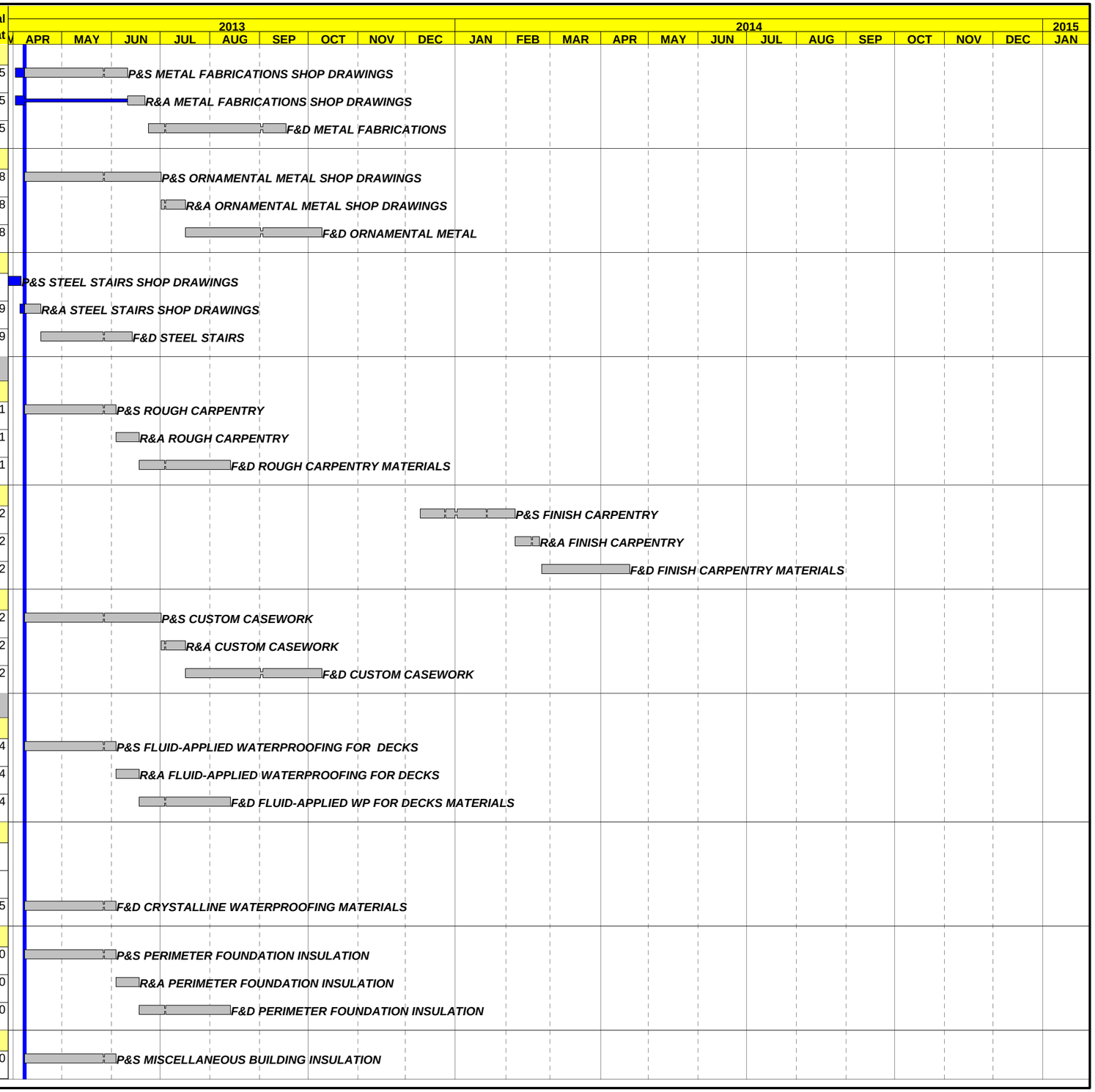
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Track/Court/Playground Markings								
02-02195	SCC	P&S TRACK/COURT/PLAYGROUND MARKINGS	200	200	0	08APR13	23JAN14	101
02-02200	SCA	R&A TRACK/COURT/PLAYGROUND MARKINGS	10	10	0	24JAN14	06FEB14	101
02-02205	SCC	F&D TRACK/COURT/PLAYGROUND MARKINGS MATERIALS	60	60	0	07FEB14	02MAY14	101
Foundation Wall Drainage System								
02-02210	SCC	P&S FOUNDATION WALL DRAINAGE SYSTEM	60	60	0	08APR13	01JUL13	20
02-02215	SCA	R&A FOUNDATION WALL DRAINAGE SYSTEM	10	10	0	02JUL13	16JUL13	20
02-02220	SCC	F&D FOUNDATION WALL DRAINAGE SYSTEM MATERIALS	20	20	0	17JUL13	13AUG13	20
Trench Drains & Area Drains								
02-02225	SCC	P&S TRENCH DRAINS & AREA DRAINS	60	60	0	08APR13	01JUL13	267
02-02230	SCA	R&A TRENCH DRAINS & AREA DRAINS	10	10	0	02JUL13	16JUL13	267
02-02235	SCC	F&D TRENCH DRAINS & AREA DRAINS MATERIALS	40	40	0	17JUL13	11SEP13	267
Precast Conc Catch Basins/Detent Basins/Manholes								
02-02240	SCC	P&S PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	60	60	0	08APR13	01JUL13	267
02-02245	SCA	R&A PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	10	10	0	02JUL13	16JUL13	267
02-02250	SCC	F&D PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	40	40	0	17JUL13	11SEP13	267
Storm Drainage Systems								
02-02255	SCC	P&S STORM DRAINAGE SYSTEMS	60	60	0	08APR13	01JUL13	267
02-02260	SCA	R&A STORM DRAINAGE SYSTEMS	10	10	0	02JUL13	16JUL13	267
02-02265	SCC	F&D STORM DRAINAGE SYSTEMS MATERIALS	40	40	0	17JUL13	11SEP13	267
Chain Link Fence & Gates								
02-02270	SCC	P&S CHAIN LINK FENCES & GATES	200	200	0	08APR13	23JAN14	167
02-02275	SCA	R&A CHAIN LINK FENCES & GATES	10	10	0	24JAN14	06FEB14	167
02-02280	SCC	F&D CHAIN LINK FENCES & GATES	40	40	0	07FEB14	04APR14	167
Early Childhood Playground Equipment								
02-02285	SCC	P&S EARLY CHILDHOOD PLAYGROUND EQUIPMENT	200	200	0	08APR13	23JAN14	121
02-02290	SCA	R&A EARLY CHILDHOOD PLAYGROUND EQUIPMENT	10	10	0	24JAN14	06FEB14	121
02-02295	SCC	F&D EARLY CHILDHOOD PLAYGROUND EQUIPMENT	40	40	0	07FEB14	04APR14	121
Site & Street Furnishings								
02-02300	SCC	P&S SITE & STREET FURNISHINGS	200	200	0	08APR13	23JAN14	126
02-02305	SCA	R&A SITE & STREET FURNISHINGS	10	10	0	24JAN14	06FEB14	126
02-02310	SCC	F&D SITE & STREET FURNISHINGS	40	40	0	07FEB14	04APR14	126
Landscaping								
02-02315	SCC	P&S LANDSCAPING	200	200	0	08APR13	23JAN14	142
02-02320	SCA	R&A LANDSCAPING	10	10	0	24JAN14	06FEB14	142
02-02325	SCC	F&D LANDSCAPING MATERIALS	40	40	0	07FEB14	04APR14	142
Div. 03 - Concrete								
Concrete Formwork								
03-03000	SCC	P&S CONCRETE FORMWORK SHOP DRAWINGS	60	60	0	08APR13	01JUL13	41
03-03005	SCA	R&A CONCRETE FORMWORK SHOP DRAWINGS	10	10	0	02JUL13	16JUL13	41



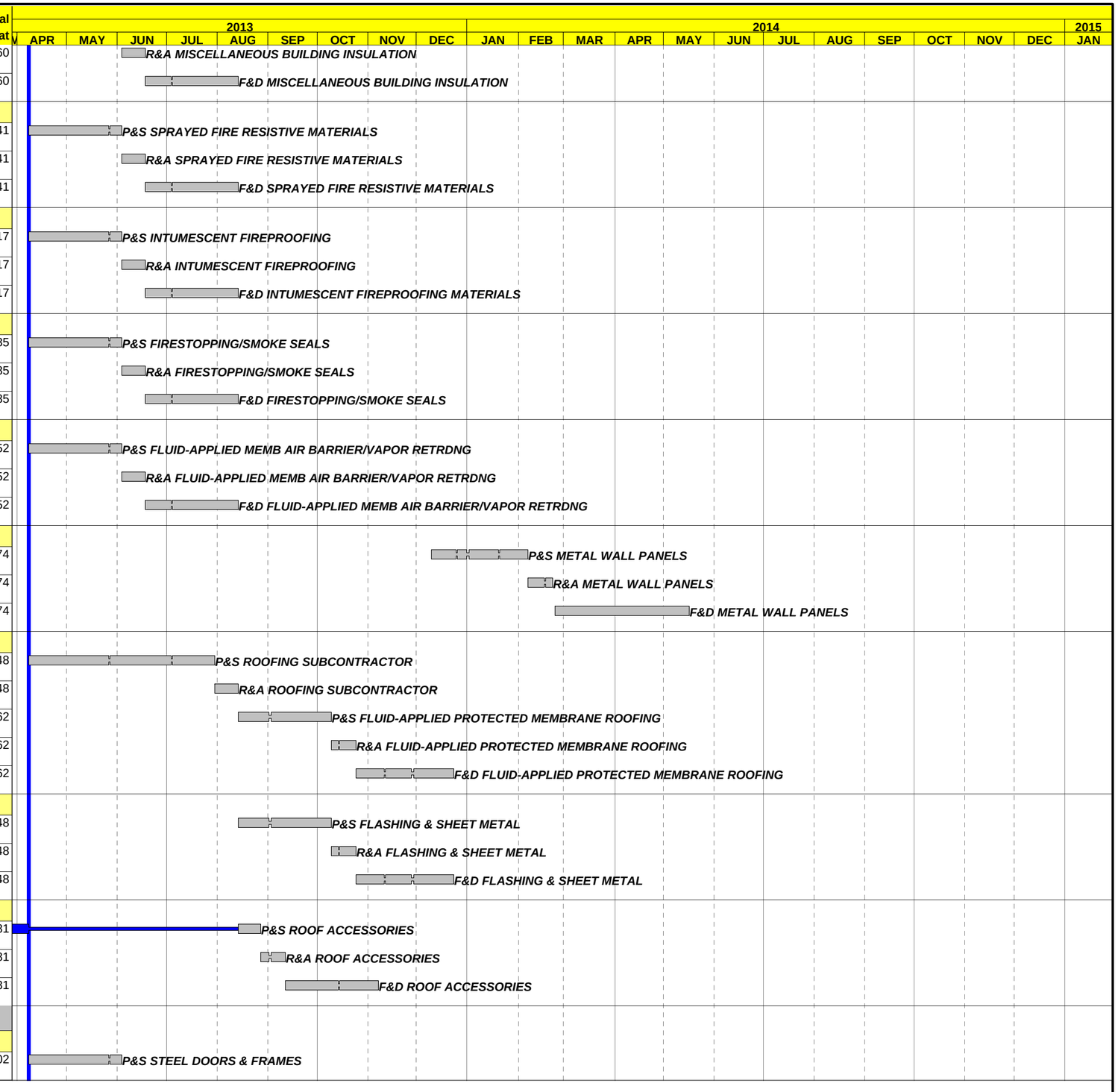
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Concrete Reinforcement								
03-03010	SCC	P&S CONCRETE REINFORCEMENT SHOP DRAWINGS	60	0	100	29OCT12A	28DEC12A	
03-03015	SCA	R&A CONCRETE REINFORCEMENT SHOP DRAWINGS	10	1	90	28DEC12A	08APR13	19
Cast-In-Place Concrete								
03-03020	SCC	P&S CAST-IN-PLACE CONCRETE SHOP DRAWINGS	60	0	100	19FEB13A	19FEB13A	
03-03025	SCA	R&A CAST-IN-PLACE CONCRETE SHOP DRAWINGS	10	1	90	27FEB13A	08APR13	19
Grouting								
03-03030	SCC	P&S GROUTING SHOP DRAWINGS	60	60	0	08APR13	01JUL13	212
03-03035	SCA	R&A GROUTING SHOP DRAWINGS	10	10	0	02JUL13	16JUL13	212
Div. 04 - Masonry								
Unit Masonry								
04-04000	SCC	P&S MASONRY SUBCONTRACTOR	60	60	0	08APR13	01JUL13	115
04-04005	SCA	R&A MASONRY SUBCONTRACTOR	10	10	0	02JUL13	16JUL13	115
04-04010	SCC	P&S UNIT MASONRY SHOP DRAWINGS	30	0	100	25MAR13A	25MAR13A	
04-04015	SCA	R&A UNIT MASONRY SHOP DRAWINGS	10	5	50	25MAR13A	23JUL13	115
04-04020	SCC	F&D UNIT MASONRY	20	20	0	24JUL13	20AUG13	115
Cast Stone								
04-04025	SCC	P&S CAST STONE SHOP DRAWINGS	30	30	0	17JUL13	27AUG13	130
04-04030	SCA	R&A CAST STONE SHOP DRAWINGS	10	10	0	28AUG13	11SEP13	130
04-04035	SCC	F&D CAST STONE	40	40	0	12SEP13	07NOV13	130
Div. 05 - Metals								
Structural Steel								
05-05000	SCC	P&S STRUCTURAL-MISCELLANEOUS STEEL SUBCONTRACTOR	95	0	100	10DEC12A	21DEC12A	
05-05005	SCA	R&A STRUCTURAL-MISCELLANEOUS STEEL SUBCONTRACTOR	10	0	100	21DEC12A	27DEC12A	
05-05010	SCC	P&S STRUCTURAL STEEL SHOP DRAWINGS	60	9	85	18OCT12A	18APR13	84
05-05015	SCA	R&A STRUCTURAL STEEL SHOP DRAWINGS	10	2	85	18DEC12A	22APR13	84
05-05020	SCC	F&D STRUCTURAL STEEL	60	60	0	23APR13	17JUL13	84
Support System for Suspended Ceiling								
05-05025	SCC	P&S SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	40	40	0	10DEC13	06FEB14	72
05-05030	SCA	R&A SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	10	10	0	07FEB14	21FEB14	72
05-05035	SCC	F&D SUPPORT SYS FOR SUSPENDED CEILINGS	40	40	0	24FEB14	18APR14	72
Metal Deck								
05-05040	SCC	P&S METAL DECK SHOP DRAWINGS	60	0	100	28NOV12A	28JAN13A	
05-05045	SCA	R&A METAL DECK SHOP DRAWINGS	10	0	100	28JAN13A	26FEB13A	
05-05050	SCC	F&D METAL DECK	40	40	0	08APR13	03JUN13	174
Cold-Formed Metal Framing								
05-05055	SCC	P&S COLD-FORMED METAL FRAMING	20	20	0	08APR13	03MAY13	208
05-05060	SCA	R&A COLD-FORMED METAL FRAMING	10	10	0	06MAY13	17MAY13	208
05-05065	SCC	F&D COLD-FORMED METAL FRAMING	20	20	0	20MAY13	17JUN13	208



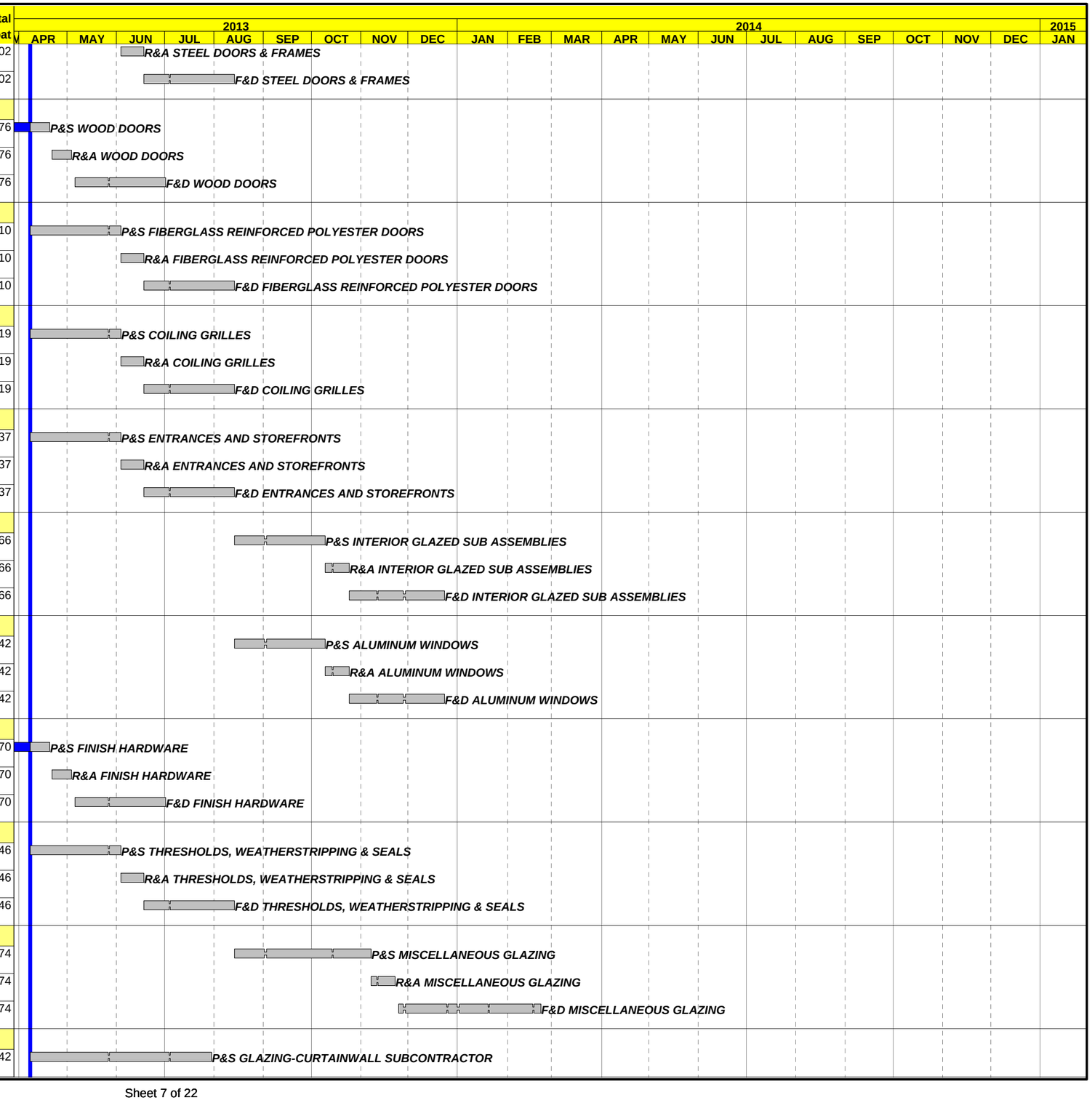
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Metal Fabrications								
05-05070	SCC	P&S METAL FABRICATIONS SHOP DRAWINGS	60	45	25	02APR13A	10JUN13	325
05-05075	SCA	R&A METAL FABRICATIONS SHOP DRAWINGS	10	9	15	02APR13A	21JUN13	325
05-05080	SCC	F&D METAL FABRICATIONS	60	60	0	24JUN13	17SEP13	325
Ornamental Metal								
05-05085	SCC	P&S ORNAMENTAL METAL SHOP DRAWINGS	60	60	0	08APR13	01JUL13	308
05-05090	SCA	R&A ORNAMENTAL METAL SHOP DRAWINGS	10	10	0	02JUL13	16JUL13	308
05-05095	SCC	F&D ORNAMENTAL METAL	60	60	0	17JUL13	09OCT13	308
Steel Stairs								
05-05100	SCC	P&S STEEL STAIRS SHOP DRAWINGS	40	0	100	15FEB13A	05APR13A	
05-05105	SCA	R&A STEEL STAIRS SHOP DRAWINGS	10	8	20	05APR13A	17APR13	209
05-05110	SCC	F&D STEEL STAIRS	40	40	0	18APR13	13JUN13	209
Div. 06 - Wood and Plastics								
Rough Carpentry								
06-06000	SCC	P&S ROUGH CARPENTRY	40	40	0	08APR13	03JUN13	21
06-06005	SCA	R&A ROUGH CARPENTRY	10	10	0	04JUN13	17JUN13	21
06-06010	SCC	F&D ROUGH CARPENTRY MATERIALS	40	40	0	18JUN13	13AUG13	21
Finish Carpentry								
06-06015	SCC	P&S FINISH CARPENTRY	40	40	0	10DEC13	06FEB14	172
06-06020	SCA	R&A FINISH CARPENTRY	10	10	0	07FEB14	21FEB14	172
06-06025	SCC	F&D FINISH CARPENTRY MATERIALS	40	40	0	24FEB14	18APR14	172
Custom Casework								
06-06030	SCC	P&S CUSTOM CASEWORK	60	60	0	08APR13	01JUL13	302
06-06035	SCA	R&A CUSTOM CASEWORK	10	10	0	02JUL13	16JUL13	302
06-06040	SCC	F&D CUSTOM CASEWORK	60	60	0	17JUL13	09OCT13	302
Div. 07 - Thermal and Moisture Protection								
Fluid-Applied Waterproofing for Plaza Decks								
07-07000	SCC	P&S FLUID-APPLIED WATERPROOFING FOR DECKS	40	40	0	08APR13	03JUN13	104
07-07005	SCA	R&A FLUID-APPLIED WATERPROOFING FOR DECKS	10	10	0	04JUN13	17JUN13	104
07-07010	SCC	F&D FLUID-APPLIED WP FOR DECKS MATERIALS	40	40	0	18JUN13	13AUG13	104
Crystalline Waterproofing								
07-07015	SCC	P&S CRYSTALLINE WATERPROOFING	40	0	100	03DEC12A	11JAN13A	
07-07020	SCA	R&A CRYSTALLINE WATERPROOFING	10	0	100	11JAN13A	15FEB13A	
07-07025	SCC	F&D CRYSTALLINE WATERPROOFING MATERIALS	40	40	0	08APR13	03JUN13	365
Perimeter Foundation Insulation								
07-07030	SCC	P&S PERIMETER FOUNDATION INSULATION	40	40	0	08APR13	03JUN13	20
07-07035	SCA	R&A PERIMETER FOUNDATION INSULATION	10	10	0	04JUN13	17JUN13	20
07-07040	SCC	F&D PERIMETER FOUNDATION INSULATION	40	40	0	18JUN13	13AUG13	20
Miscellaneous Building Insulation								
07-07045	SCC	P&S MISCELLANEOUS BUILDING INSULATION	40	40	0	08APR13	03JUN13	260



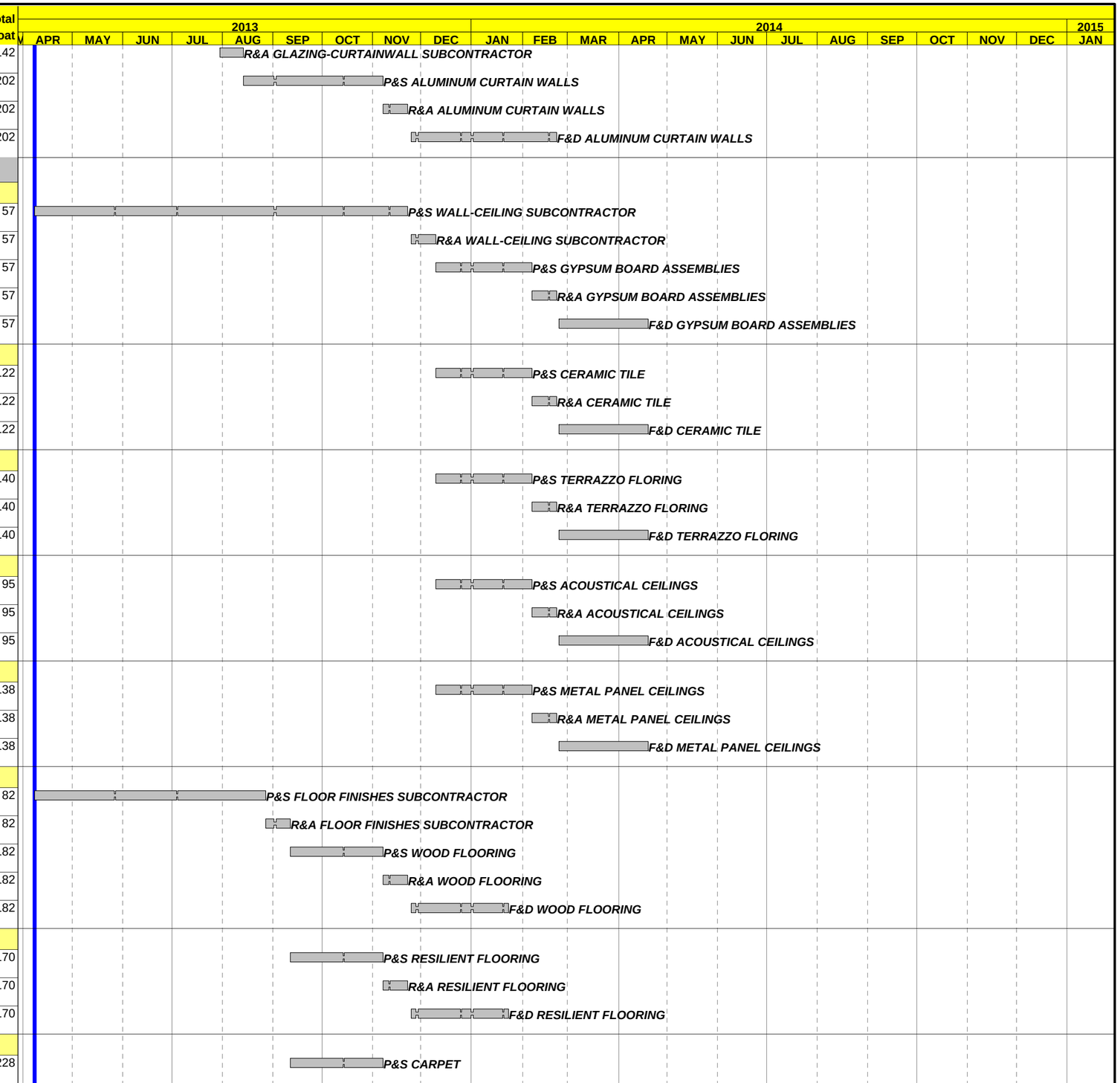
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
07-07050	SCA	R&A MISCELLANEOUS BUILDING INSULATION	10	10	0	04JUN13	17JUN13	260
07-07055	SCC	F&D MISCELLANEOUS BUILDING INSULATION	40	40	0	18JUN13	13AUG13	260
Sprayed Fire Resistive Materials								
07-07060	SCC	P&S SPRAYED FIRE RESISTIVE MATERIALS	40	40	0	08APR13	03JUN13	141
07-07065	SCA	R&A SPRAYED FIRE RESISTIVE MATERIALS	10	10	0	04JUN13	17JUN13	141
07-07070	SCC	F&D SPRAYED FIRE RESISTIVE MATERIALS	40	40	0	18JUN13	13AUG13	141
Intumescent Fireproofing								
07-07075	SCC	P&S INTUMESCENT FIREPROOFING	40	40	0	08APR13	03JUN13	317
07-07080	SCA	R&A INTUMESCENT FIREPROOFING	10	10	0	04JUN13	17JUN13	317
07-07085	SCC	F&D INTUMESCENT FIREPROOFING MATERIALS	40	40	0	18JUN13	13AUG13	317
Firestopping/Smoke Seals								
07-07090	SCC	P&S FIRESTOPPING/SMOKE SEALS	40	40	0	08APR13	03JUN13	185
07-07095	SCA	R&A FIRESTOPPING/SMOKE SEALS	10	10	0	04JUN13	17JUN13	185
07-07100	SCC	F&D FIRESTOPPING/SMOKE SEALS	40	40	0	18JUN13	13AUG13	185
Fluid-Applied Membr Air Barrier/Vapor Retarding								
07-07105	SCC	P&S FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	40	40	0	08APR13	03JUN13	252
07-07110	SCA	R&A FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	10	10	0	04JUN13	17JUN13	252
07-07115	SCC	F&D FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	40	40	0	18JUN13	13AUG13	252
Metal Wall Panels								
07-07120	SCC	P&S METAL WALL PANELS	40	40	0	10DEC13	06FEB14	74
07-07125	SCA	R&A METAL WALL PANELS	10	10	0	07FEB14	21FEB14	74
07-07130	SCC	F&D METAL WALL PANELS	60	60	0	24FEB14	16MAY14	74
Fluid Applied Protected Membrane Roofing								
07-07135	SCC	P&S ROOFING SUBCONTRACTOR	80	80	0	08APR13	30JUL13	148
07-07140	SCA	R&A ROOFING SUBCONTRACTOR	10	10	0	31JUL13	13AUG13	148
07-07145	SCC	P&S FLUID-APPLIED PROTECTED MEMBRANE ROOFING	40	40	0	14AUG13	09OCT13	162
07-07150	SCA	R&A FLUID-APPLIED PROTECTED MEMBRANE ROOFING	10	10	0	10OCT13	24OCT13	162
07-07155	SCC	F&D FLUID-APPLIED PROTECTED MEMBRANE ROOFING	40	40	0	25OCT13	23DEC13	162
Flashing & Sheet Metal								
07-07160	SCC	P&S FLASHING & SHEET METAL	40	40	0	14AUG13	09OCT13	148
07-07165	SCA	R&A FLASHING & SHEET METAL	10	10	0	10OCT13	24OCT13	148
07-07170	SCC	F&D FLASHING & SHEET METAL	40	40	0	25OCT13	23DEC13	148
Roof Accessories								
07-07175	SCC	P&S ROOF ACCESSORIES	40	10	75	11FEB13A	27AUG13	181
07-07180	SCA	R&A ROOF ACCESSORIES	10	10	0	28AUG13	11SEP13	181
07-07185	SCC	F&D ROOF ACCESSORIES	40	40	0	12SEP13	07NOV13	181
Div. 08 - Doors and Windows								
Steel Doors & Frames								
08-08000	SCC	P&S STEEL DOORS & FRAMES	40	40	0	08APR13	03JUN13	302



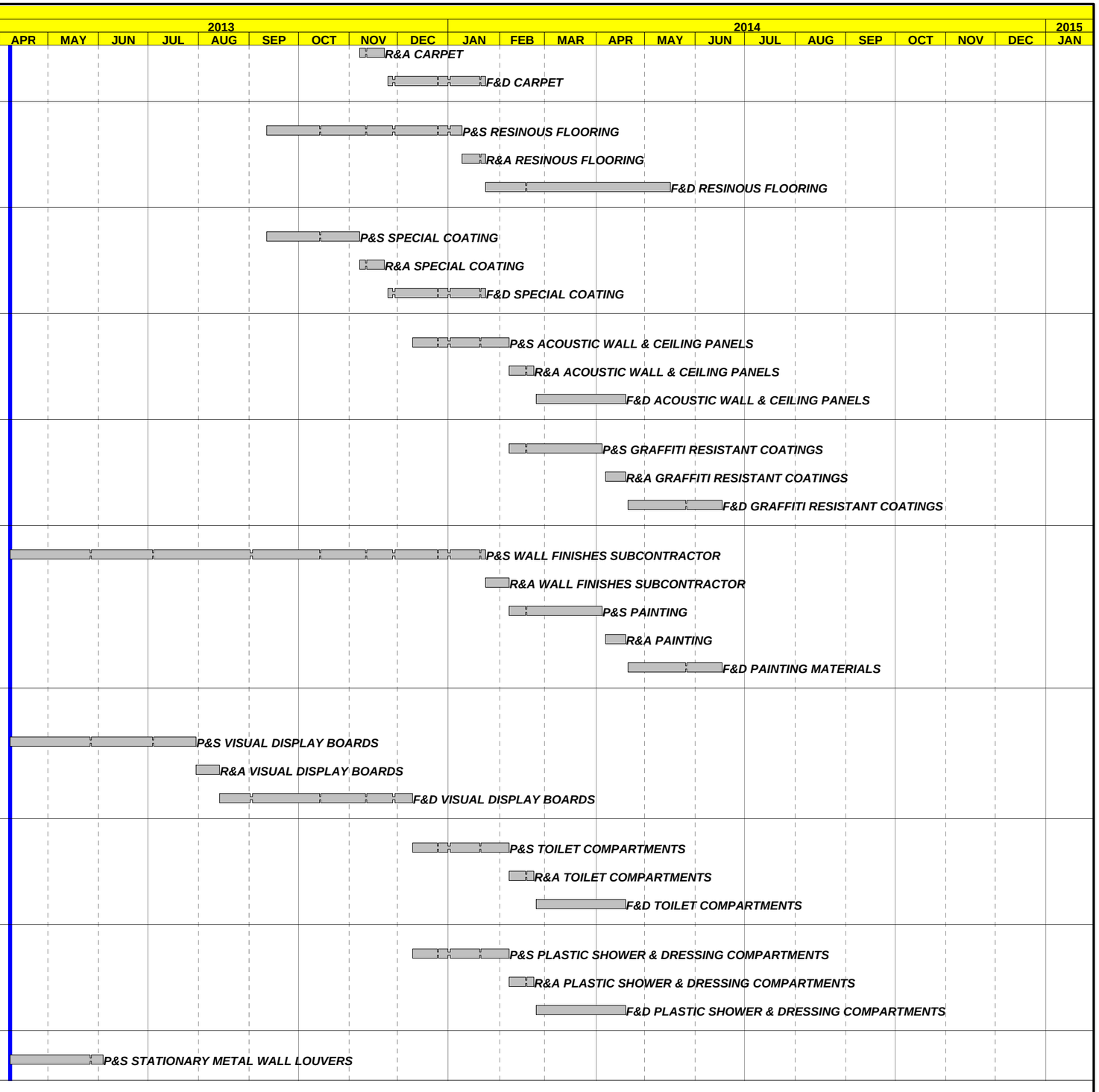
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
08-08005	SCA	R&A STEEL DOORS & FRAMES	10	10	0	04JUN13	17JUN13	302
08-08010	SCC	F&D STEEL DOORS & FRAMES	40	40	0	18JUN13	13AUG13	302
Wood Doors								
08-08015	SCC	P&S WOOD DOORS	40	10	75	11FEB13A	19APR13	376
08-08020	SCA	R&A WOOD DOORS	10	10	0	22APR13	03MAY13	376
08-08025	SCC	F&D WOOD DOORS	40	40	0	06MAY13	01JUL13	376
Fiberglass Reinforced Polyester Doors								
08-08030	SCC	P&S FIBERGLASS REINFORCED POLYESTER DOORS	40	40	0	08APR13	03JUN13	310
08-08035	SCA	R&A FIBERGLASS REINFORCED POLYESTER DOORS	10	10	0	04JUN13	17JUN13	310
08-08040	SCC	F&D FIBERGLASS REINFORCED POLYESTER DOORS	40	40	0	18JUN13	13AUG13	310
Coiling Grilles								
08-08045	SCC	P&S COILING GRILLES	40	40	0	08APR13	03JUN13	319
08-08050	SCA	R&A COILING GRILLES	10	10	0	04JUN13	17JUN13	319
08-08055	SCC	F&D COILING GRILLES	40	40	0	18JUN13	13AUG13	319
Entrances and Storefronts								
08-08060	SCC	P&S ENTRANCES AND STOREFRONTS	40	40	0	08APR13	03JUN13	337
08-08065	SCA	R&A ENTRANCES AND STOREFRONTS	10	10	0	04JUN13	17JUN13	337
08-08070	SCC	F&D ENTRANCES AND STOREFRONTS	40	40	0	18JUN13	13AUG13	337
Interior Glazed Sub Assemblies								
08-08075	SCC	P&S INTERIOR GLAZED SUB ASSEMBLIES	40	40	0	14AUG13	09OCT13	166
08-08080	SCA	R&A INTERIOR GLAZED SUB ASSEMBLIES	10	10	0	10OCT13	24OCT13	166
08-08085	SCC	F&D INTERIOR GLAZED SUB ASSEMBLIES	40	40	0	25OCT13	23DEC13	166
Aluminum Windows								
08-08090	SCC	P&S ALUMINUM WINDOWS	40	40	0	14AUG13	09OCT13	142
08-08095	SCA	R&A ALUMINUM WINDOWS	10	10	0	10OCT13	24OCT13	142
08-08100	SCC	F&D ALUMINUM WINDOWS	40	40	0	25OCT13	23DEC13	142
Finish Hardware								
08-08105	SCC	P&S FINISH HARDWARE	40	10	75	11FEB13A	19APR13	370
08-08110	SCA	R&A FINISH HARDWARE	10	10	0	22APR13	03MAY13	370
08-08115	SCC	F&D FINISH HARDWARE	40	40	0	06MAY13	01JUL13	370
Thresholds, Weatherstripping & Seals								
08-08120	SCC	P&S THRESHOLDS, WEATHERSTRIPPING & SEALS	40	40	0	08APR13	03JUN13	346
08-08125	SCA	R&A THRESHOLDS, WEATHERSTRIPPING & SEALS	10	10	0	04JUN13	17JUN13	346
08-08130	SCC	F&D THRESHOLDS, WEATHERSTRIPPING & SEALS	40	40	0	18JUN13	13AUG13	346
Miscellaneous Glazing								
08-08135	SCC	P&S MISCELLANEOUS GLAZING	60	60	0	14AUG13	07NOV13	174
08-08140	SCA	R&A MISCELLANEOUS GLAZING	10	10	0	08NOV13	22NOV13	174
08-08145	SCC	F&D MISCELLANEOUS GLAZING	60	60	0	25NOV13	21FEB14	174
Aluminum Curtain Walls								
08-08150	SCC	P&S GLAZING-CURTAINWALL SUBCONTRACTOR	80	80	0	08APR13	30JUL13	142



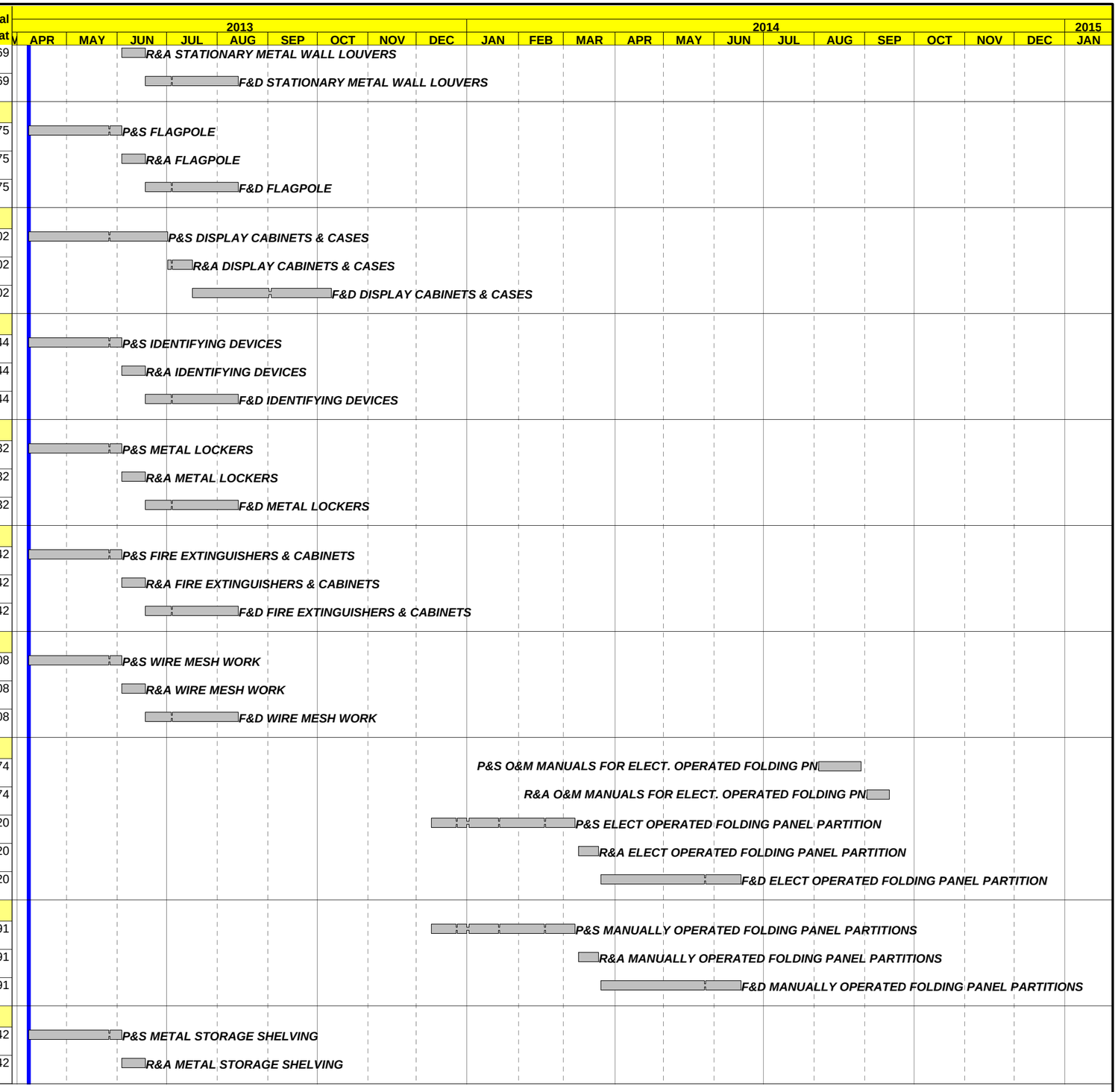
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
08-08155	SCA	R&A GLAZING-CURTAINWALL SUBCONTRACTOR	10	10	0	31JUL13	13AUG13	142
08-08160	SCC	P&S ALUMINUM CURTAIN WALLS	60	60	0	14AUG13	07NOV13	202
08-08165	SCA	R&A ALUMINUM CURTAIN WALLS	10	10	0	08NOV13	22NOV13	202
08-08170	SCC	F&D ALUMINUM CURTAIN WALLS	60	60	0	25NOV13	21FEB14	202
Div. 09 - Finishes								
Gypsum Board Assemblies								
09-09000	SCC	P&S WALL-CEILING SUBCONTRACTOR	160	160	0	08APR13	22NOV13	57
09-09005	SCA	R&A WALL-CEILING SUBCONTRACTOR	10	10	0	25NOV13	09DEC13	57
09-09010	SCC	P&S GYPSUM BOARD ASSEMBLIES	40	40	0	10DEC13	06FEB14	57
09-09015	SCA	R&A GYPSUM BOARD ASSEMBLIES	10	10	0	07FEB14	21FEB14	57
09-09020	DRYW	F&D GYPSUM BOARD ASSEMBLIES	40	40	0	24FEB14	18APR14	57
Ceramic Tile								
09-09025	SCC	P&S CERAMIC TILE	40	40	0	10DEC13	06FEB14	122
09-09030	SCA	R&A CERAMIC TILE	10	10	0	07FEB14	21FEB14	122
09-09035	SCC	F&D CERAMIC TILE	40	40	0	24FEB14	18APR14	122
Terrazzo Floring								
09-09040	SCC	P&S TERRAZZO FLORING	40	40	0	10DEC13	06FEB14	140
09-09045	SCA	R&A TERRAZZO FLORING	10	10	0	07FEB14	21FEB14	140
09-09050	SCC	F&D TERRAZZO FLORING	40	40	0	24FEB14	18APR14	140
Acoustical Ceilings								
09-09055	SCC	P&S ACOUSTICAL CEILINGS	40	40	0	10DEC13	06FEB14	95
09-09060	SCA	R&A ACOUSTICAL CEILINGS	10	10	0	07FEB14	21FEB14	95
09-09065	SCC	F&D ACOUSTICAL CEILINGS	40	40	0	24FEB14	18APR14	95
Metal Panel Ceilings								
09-09070	SCC	P&S METAL PANEL CEILINGS	40	40	0	10DEC13	06FEB14	138
09-09075	SCA	R&A METAL PANEL CEILINGS	10	10	0	07FEB14	21FEB14	138
09-09080	SCC	F&D METAL PANEL CEILINGS	40	40	0	24FEB14	18APR14	138
Wood Flooring								
09-09085	SCC	P&S FLOOR FINISHES SUBCONTRACTOR	100	100	0	08APR13	27AUG13	82
09-09090	SCA	R&A FLOOR FINISHES SUBCONTRACTOR	10	10	0	28AUG13	11SEP13	82
09-09095	SCC	P&S WOOD FLOORING	40	40	0	12SEP13	07NOV13	182
09-09100	SCA	R&A WOOD FLOORING	10	10	0	08NOV13	22NOV13	182
09-09105	SCC	F&D WOOD FLOORING	40	40	0	25NOV13	23JAN14	182
Resilient Flooring								
09-09110	SCC	P&S RESILIENT FLOORING	40	40	0	12SEP13	07NOV13	170
09-09115	SCA	R&A RESILIENT FLOORING	1	10	0	08NOV13	22NOV13	170
09-09120	SCC	F&D RESILIENT FLOORING	40	40	0	25NOV13	23JAN14	170
Carpet								
09-09125	SCC	P&S CARPET	40	40	0	12SEP13	07NOV13	228



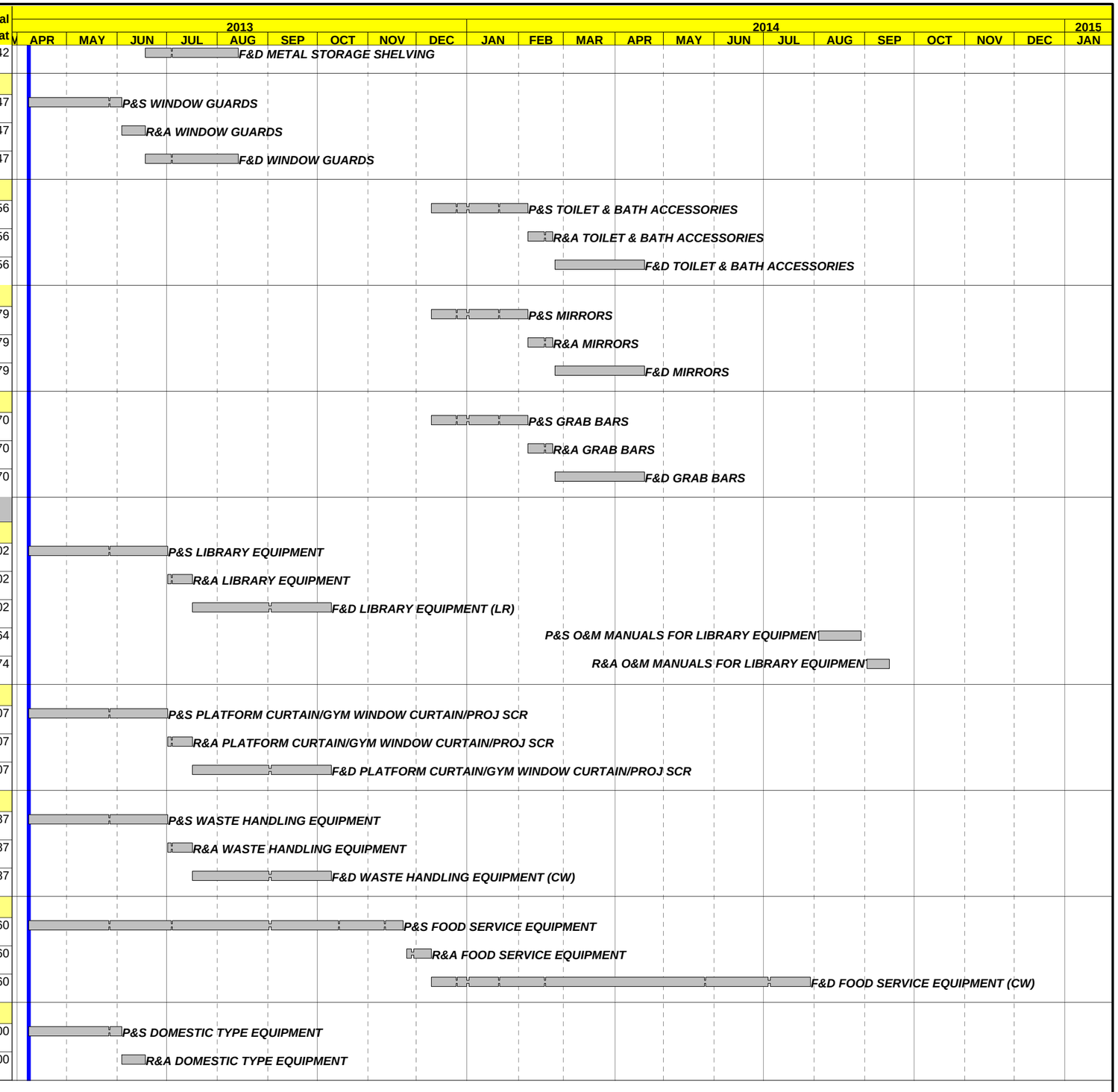
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
09-09130	SCA	R&A CARPET	10	10	0	08NOV13	22NOV13	228
09-09135	SCC	F&D CARPET	40	40	0	25NOV13	23JAN14	228
Resinous Flooring								
09-09140	SCC	P&S RESINOUS FLOORING	80	80	0	12SEP13	08JAN14	82
09-09145	SCA	R&A RESINOUS FLOORING	10	10	0	09JAN14	23JAN14	82
09-09150	SCC	F&D RESINOUS FLOORING	80	80	0	24JAN14	16MAY14	82
Special Coating								
09-09155	SCC	P&S SPECIAL COATING	40	40	0	12SEP13	07NOV13	207
09-09160	SCA	R&A SPECIAL COATING	10	10	0	08NOV13	22NOV13	207
09-09165	SCC	F&D SPECIAL COATING	40	40	0	25NOV13	23JAN14	207
Acoustical Wall & Ceiling Panels								
09-09170	SCC	P&S ACOUSTIC WALL & CEILING PANELS	40	40	0	10DEC13	06FEB14	95
09-09175	SCA	R&A ACOUSTIC WALL & CEILING PANELS	10	10	0	07FEB14	21FEB14	95
09-09180	SCC	F&D ACOUSTIC WALL & CEILING PANELS	40	40	0	24FEB14	18APR14	95
Graffiti Resistant Coatings								
09-09185	SCC	P&S GRAFFITI RESISTANT COATINGS	40	40	0	07FEB14	04APR14	64
09-09190	SCA	R&A GRAFFITI RESISTANT COATINGS	10	10	0	07APR14	18APR14	64
09-09195	SCC	F&D GRAFFITI RESISTANT COATINGS	40	40	0	21APR14	16JUN14	64
Painting								
09-09200	SCC	P&S WALL FINISHES SUBCONTRACTOR	200	200	0	08APR13	23JAN14	64
09-09205	SCA	R&A WALL FINISHES SUBCONTRACTOR	10	10	0	24JAN14	06FEB14	64
09-09210	SCC	P&S PAINTING	40	40	0	07FEB14	04APR14	87
09-09215	SCA	R&A PAINTING	10	10	0	07APR14	18APR14	87
09-09220	SCC	F&D PAINTING MATERIALS	40	40	0	21APR14	16JUN14	87
Div. 10 - Specialties								
Visual Display Boards								
10-10000	SCC	P&S VISUAL DISPLAY BOARDS	80	80	0	08APR13	30JUL13	262
10-10005	SCA	R&A VISUAL DISPLAY BOARDS	10	10	0	31JUL13	13AUG13	262
10-10010	SCC	F&D VISUAL DISPLAY BOARDS	80	80	0	14AUG13	09DEC13	262
Toilet Compartments								
10-10015	SCC	P&S TOILET COMPARTMENTS	40	40	0	10DEC13	06FEB14	159
10-10020	SCA	R&A TOILET COMPARTMENTS	10	10	0	07FEB14	21FEB14	159
10-10025	SCC	F&D TOILET COMPARTMENTS	40	40	0	24FEB14	18APR14	159
Plastic Shower & Dressing Compartments								
10-10030	SCC	P&S PLASTIC SHOWER & DRESSING COMPARTMENTS	40	40	0	10DEC13	06FEB14	146
10-10035	SCA	R&A PLASTIC SHOWER & DRESSING COMPARTMENTS	10	10	0	07FEB14	21FEB14	146
10-10040	SCC	F&D PLASTIC SHOWER & DRESSING COMPARTMENTS	40	40	0	24FEB14	18APR14	146
Stationary Metal Wall Louvers								
10-10045	SCC	P&S STATIONARY METAL WALL LOUVERS	40	40	0	08APR13	03JUN13	269



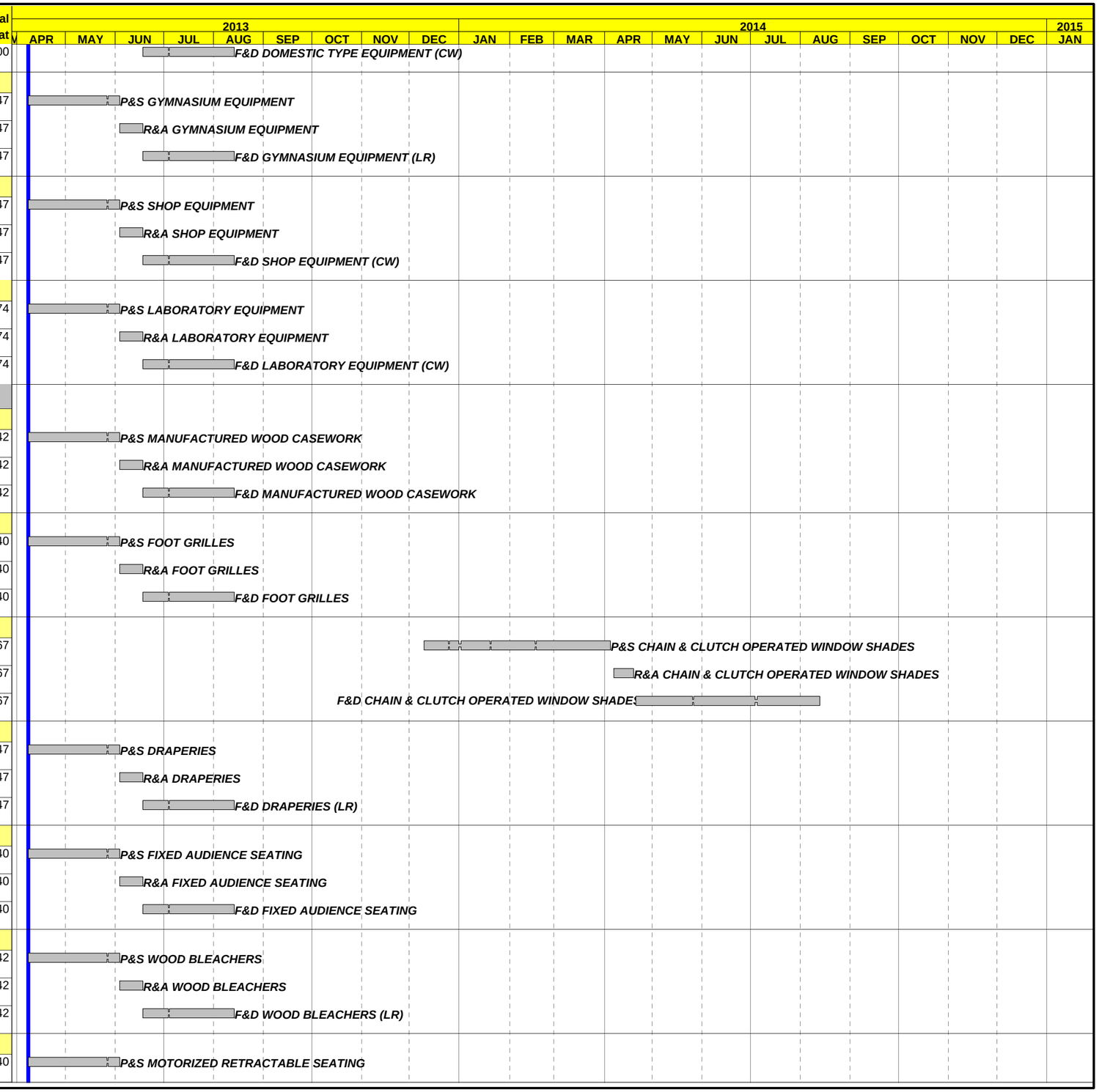
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
10-10050	SCA	R&A STATIONARY METAL WALL LOUVERS	10	10	0	04JUN13	17JUN13	269
10-10055	SCC	F&D STATIONARY METAL WALL LOUVERS	40	40	0	18JUN13	13AUG13	269
Flagpole								
10-10060	SCC	P&S FLAGPOLE	40	40	0	08APR13	03JUN13	275
10-10065	SCA	R&A FLAGPOLE	10	10	0	04JUN13	17JUN13	275
10-10070	SCC	F&D FLAGPOLE	40	40	0	18JUN13	13AUG13	275
Display Cabinets & Cases								
10-10075	SCC	P&S DISPLAY CABINETS & CASES	60	60	0	08APR13	01JUL13	302
10-10080	SCA	R&A DISPLAY CABINETS & CASES	10	10	0	02JUL13	16JUL13	302
10-10085	SCC	F&D DISPLAY CABINETS & CASES	60	60	0	17JUL13	09OCT13	302
Identifying Devices								
10-10090	SCC	P&S IDENTIFYING DEVICES	40	40	0	08APR13	03JUN13	344
10-10095	SCA	R&A IDENTIFYING DEVICES	10	10	0	04JUN13	17JUN13	344
10-10100	SCC	F&D IDENTIFYING DEVICES	40	40	0	18JUN13	13AUG13	344
Metal Lockers								
10-10105	SCC	P&S METAL LOCKERS	40	40	0	08APR13	03JUN13	332
10-10110	SCA	R&A METAL LOCKERS	10	10	0	04JUN13	17JUN13	332
10-10115	SCC	F&D METAL LOCKERS	40	40	0	18JUN13	13AUG13	332
Fire Extinguishers & Cabinets								
10-10120	SCC	P&S FIRE EXTINGUISHERS & CABINETS	40	40	0	08APR13	03JUN13	342
10-10125	SCA	R&A FIRE EXTINGUISHERS & CABINETS	10	10	0	04JUN13	17JUN13	342
10-10130	SCC	F&D FIRE EXTINGUISHERS & CABINETS	40	40	0	18JUN13	13AUG13	342
Wire Mesh Work								
10-10135	SCC	P&S WIRE MESH WORK	40	40	0	08APR13	03JUN13	308
10-10140	SCA	R&A WIRE MESH WORK	10	10	0	04JUN13	17JUN13	308
10-10145	SCC	F&D WIRE MESH WORK	40	40	0	18JUN13	13AUG13	308
Electrically Operated Folding Panel Partitions								
10-10150	SCC	P&S O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	20	20	0	04AUG14	29AUG14	74
10-10155	SCA	R&A O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	10	10	0	02SEP14	15SEP14	74
10-10160	SCC	P&S ELECT OPERATED FOLDING PANEL PARTITION	60	60	0	10DEC13	07MAR14	120
10-10165	SCA	R&A ELECT OPERATED FOLDING PANEL PARTITION	10	10	0	10MAR14	21MAR14	120
10-10170	SCC	F&D ELECT OPERATED FOLDING PANEL PARTITION	60	60	0	24MAR14	16JUN14	120
Manually Operated Folding Panel Partitions								
10-10175	SCC	P&S MANUALLY OPERATED FOLDING PANEL PARTITIONS	60	60	0	10DEC13	07MAR14	91
10-10180	SCA	R&A MANUALLY OPERATED FOLDING PANEL PARTITIONS	10	10	0	10MAR14	21MAR14	91
10-10185	SCC	F&D MANUALLY OPERATED FOLDING PANEL PARTITIONS	60	60	0	24MAR14	16JUN14	91
Metal Storage Shelving								
10-10190	SCC	P&S METAL STORAGE SHELVING	40	40	0	08APR13	03JUN13	342
10-10195	SCA	R&A METAL STORAGE SHELVING	10	10	0	04JUN13	17JUN13	342



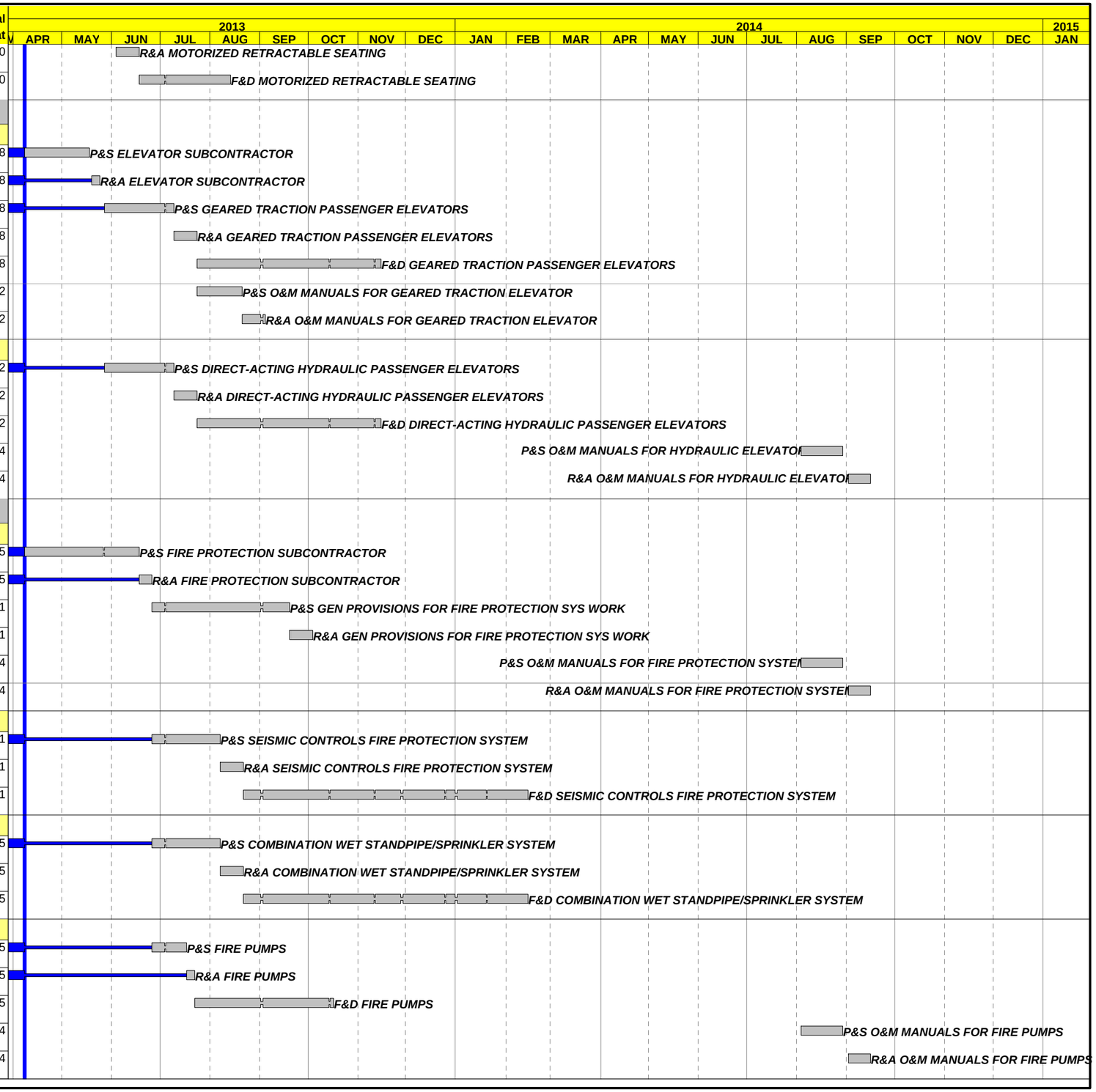
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
10-10200	SCC	F&D METAL STORAGE SHELVING	40	40	0	18JUN13	13AUG13	342
Window Guards								
10-10205	SCC	P&S WINDOW GUARDS	40	40	0	08APR13	03JUN13	347
10-10210	SCA	R&A WINDOW GUARDS	10	10	0	04JUN13	17JUN13	347
10-10215	SCC	F&D WINDOW GUARDS	40	40	0	18JUN13	13AUG13	347
Toilet & Bath Accessories								
10-10220	SCC	P&S TOILET & BATH ACCESSORIES	40	40	0	10DEC13	06FEB14	156
10-10225	SCA	R&A TOILET & BATH ACCESSORIES	10	10	0	07FEB14	21FEB14	156
10-10230	SCC	F&D TOILET & BATH ACCESSORIES	40	40	0	24FEB14	18APR14	156
Mirrors								
10-10235	SCC	P&S MIRRORS	40	40	0	10DEC13	06FEB14	179
10-10240	SCA	R&A MIRRORS	10	10	0	07FEB14	21FEB14	179
10-10245	SCC	F&D MIRRORS	40	40	0	24FEB14	18APR14	179
Grab Bars								
10-10250	SCC	P&S GRAB BARS	40	40	0	10DEC13	06FEB14	170
10-10255	SCA	R&A GRAB BARS	10	10	0	07FEB14	21FEB14	170
10-10260	SCC	F&D GRAB BARS	40	40	0	24FEB14	18APR14	170
Div. 11 - Equipment								
Library Equipment								
11-11000	SCC	P&S LIBRARY EQUIPMENT	60	60	0	08APR13	01JUL13	302
11-11005	SCA	R&A LIBRARY EQUIPMENT	10	10	0	02JUL13	16JUL13	302
11-11010	SCC	F&D LIBRARY EQUIPMENT (LR)	60	60	0	17JUL13	09OCT13	302
11-11015	SCC	P&S O&M MANUALS FOR LIBRARY EQUIPMENT	20	20	0	04AUG14	29AUG14	64
11-11020	SCA	R&A O&M MANUALS FOR LIBRARY EQUIPMENT	10	10	0	02SEP14	15SEP14	74
Platform Curtains/Gym Window Curtain/Proj Screen								
11-11025	SCC	P&S PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	60	60	0	08APR13	01JUL13	307
11-11030	SCA	R&A PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	10	10	0	02JUL13	16JUL13	307
11-11035	SCC	F&D PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	60	60	0	17JUL13	09OCT13	307
Waste Handling Equipment								
11-11040	SCC	P&S WASTE HANDLING EQUIPMENT	60	60	0	08APR13	01JUL13	287
11-11045	SCA	R&A WASTE HANDLING EQUIPMENT	10	10	0	02JUL13	16JUL13	287
11-11050	SCC	F&D WASTE HANDLING EQUIPMENT (CW)	60	60	0	17JUL13	09OCT13	287
Food Service Equipment								
11-11055	SCC	P&S FOOD SERVICE EQUIPMENT	160	160	0	08APR13	22NOV13	60
11-11060	SCA	R&A FOOD SERVICE EQUIPMENT	10	10	0	25NOV13	09DEC13	60
11-11065	SCC	F&D FOOD SERVICE EQUIPMENT (CW)	160	160	0	10DEC13	29JUL14	60
Domestic Type Equipment								
11-11070	SCC	P&S DOMESTIC TYPE EQUIPMENT	40	40	0	08APR13	03JUN13	300
11-11075	SCA	R&A DOMESTIC TYPE EQUIPMENT	10	10	0	04JUN13	17JUN13	300



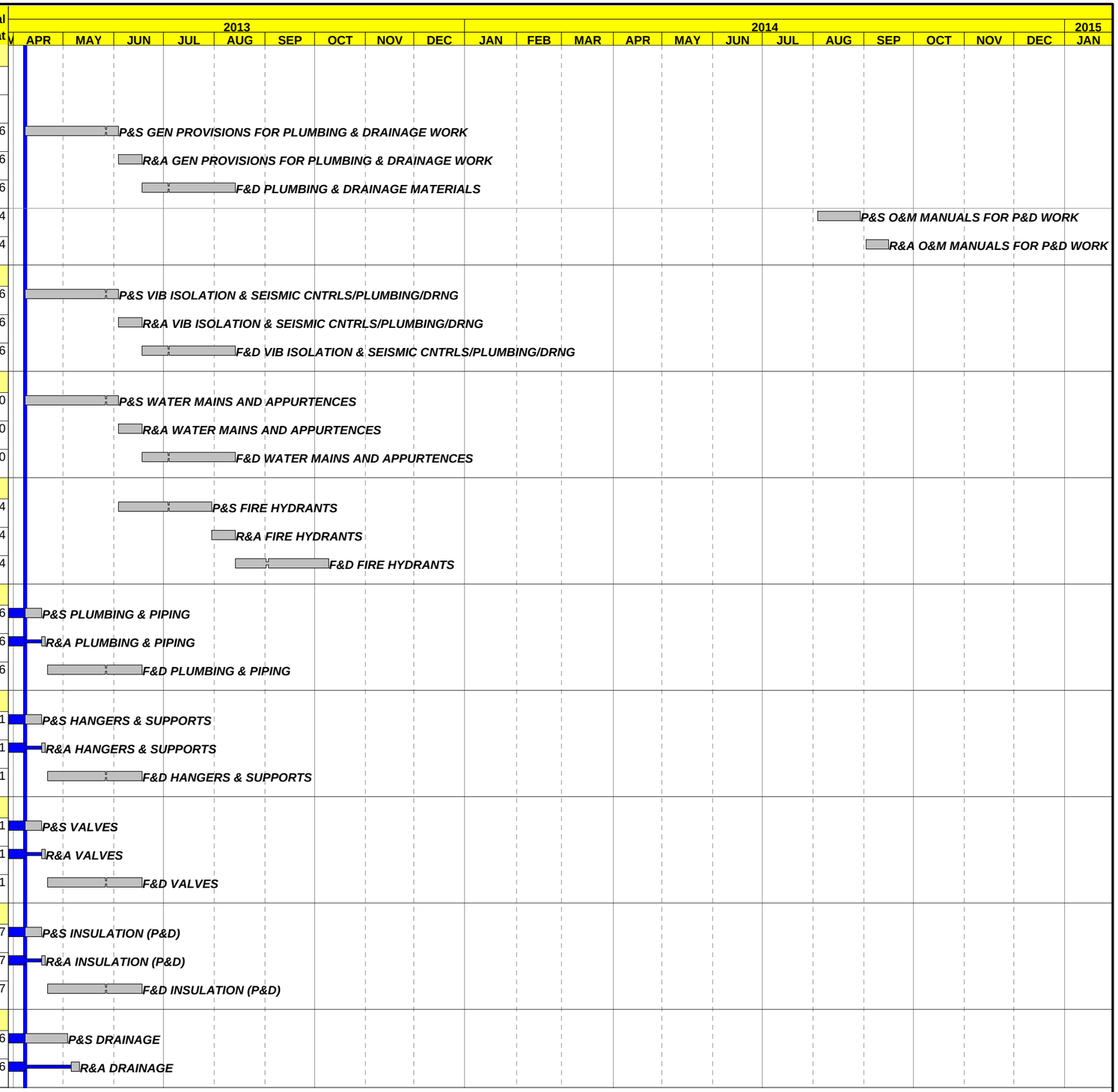
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
11-11080	SCC	F&D DOMESTIC TYPE EQUIPMENT (CW)	40	40	0	18JUN13	13AUG13	300
Gymnasium Equipment								
11-11085	SCC	P&S GYMNASIUM EQUIPMENT	40	40	0	08APR13	03JUN13	347
11-11090	SCA	R&A GYMNASIUM EQUIPMENT	10	10	0	04JUN13	17JUN13	347
11-11095	SCC	F&D GYMNASIUM EQUIPMENT (LR)	40	40	0	18JUN13	13AUG13	347
Shop Equipment								
11-11100	SCC	P&S SHOP EQUIPMENT	40	40	0	08APR13	03JUN13	347
11-11105	SCA	R&A SHOP EQUIPMENT	10	10	0	04JUN13	17JUN13	347
11-11110	SCC	F&D SHOP EQUIPMENT (CW)	40	40	0	18JUN13	13AUG13	347
Laboratory Equipment								
11-11115	SCC	P&S LABORATORY EQUIPMENT	40	40	0	08APR13	03JUN13	274
11-11120	SCA	R&A LABORATORY EQUIPMENT	10	10	0	04JUN13	17JUN13	274
11-11125	SCC	F&D LABORATORY EQUIPMENT (CW)	40	40	0	18JUN13	13AUG13	274
Div. 12 - Furnishings								
Manufactured Wood Casework								
12-12000	SCC	P&S MANUFACTURED WOOD CASEWORK	40	40	0	08APR13	03JUN13	342
12-12005	SCA	R&A MANUFACTURED WOOD CASEWORK	10	10	0	04JUN13	17JUN13	342
12-12010	SCC	F&D MANUFACTURED WOOD CASEWORK	40	40	0	18JUN13	13AUG13	342
Foot Grilles								
12-12015	SCC	P&S FOOT GRILLES	40	40	0	08APR13	03JUN13	340
12-12020	SCA	R&A FOOT GRILLES	10	10	0	04JUN13	17JUN13	340
12-12025	SCC	F&D FOOT GRILLES	40	40	0	18JUN13	13AUG13	340
Chain & Clutch Operated Window Shades								
12-12030	SCC	P&S CHAIN & CLUTCH OPERATED WINDOW SHADES	80	80	0	10DEC13	04APR14	67
12-12035	SCA	R&A CHAIN & CLUTCH OPERATED WINDOW SHADES	10	10	0	07APR14	18APR14	67
12-12045	SCC	F&D CHAIN & CLUTCH OPERATED WINDOW SHADES	80	80	0	21APR14	12AUG14	67
Draperies								
12-12050	SCC	P&S DRAPERIES	40	40	0	08APR13	03JUN13	347
12-12055	SCA	R&A DRAPERIES	10	10	0	04JUN13	17JUN13	347
12-12060	SCC	F&D DRAPERIES (LR)	40	40	0	18JUN13	13AUG13	347
Fixed Audience Seating								
12-12065	SCC	P&S FIXED AUDIENCE SEATING	40	40	0	08APR13	03JUN13	340
12-12070	SCA	R&A FIXED AUDIENCE SEATING	10	10	0	04JUN13	17JUN13	340
12-12075	SCC	F&D FIXED AUDIENCE SEATING	40	40	0	18JUN13	13AUG13	340
Wood Bleachers								
12-12080	SCC	P&S WOOD BLEACHERS	40	40	0	08APR13	03JUN13	342
12-12085	SCA	R&A WOOD BLEACHERS	10	10	0	04JUN13	17JUN13	342
12-12090	SCC	F&D WOOD BLEACHERS (LR)	40	40	0	18JUN13	13AUG13	342
Motorized Retractable Seating								
12-12095	SCC	P&S MOTORIZED RETRACTABLE SEATING	40	40	0	08APR13	03JUN13	340



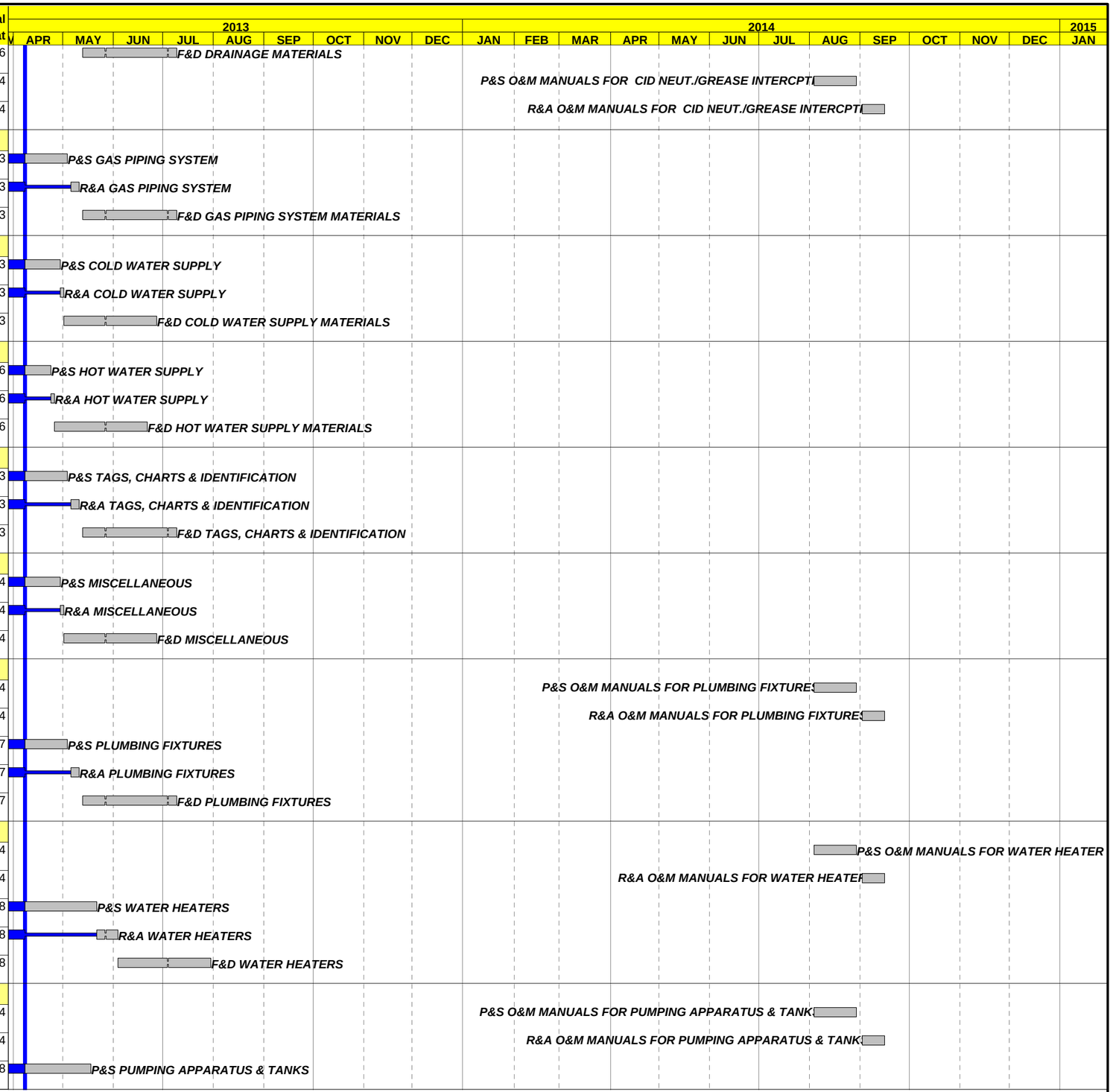
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
12-12100	SCA	R&A MOTORIZED RETRACTABLE SEATING	10	10	0	04JUN13	17JUN13	340
12-12105	SCC	F&D MOTORIZED RETRACTABLE SEATING	40	40	0	18JUN13	13AUG13	340
Div. 14 - Conveying System								
Geared Traction Passenger Elevators								
14-14000	SCC	P&S ELEVATOR SUBCONTRACTOR	60	30	50	26MAR13A	17MAY13	168
14-14005	SCA	R&A ELEVATOR SUBCONTRACTOR	10	5	50	26MAR13A	24MAY13	168
14-14010	SCC	P&S GEARED TRACTION PASSENGER ELEVATORS	60	30	50	15MAR13A	09JUL13	168
14-14015	SCA	R&A GEARED TRACTION PASSENGER ELEVATORS	10	10	0	10JUL13	23JUL13	168
14-14020	SCC	F&D GEARED TRACTION PASSENGER ELEVATORS	80	80	0	24JUL13	15NOV13	168
14-14210	SCC	P&S O&M MANUALS FOR GEARED TRACTION ELEVATOR	20	20	0	24JUL13	20AUG13	322
14-14215	SCA	R&A O&M MANUALS FOR GEARED TRACTION ELEVATOR	10	10	0	21AUG13	04SEP13	332
Direct-Acting Hydraulic Passenger Elevators								
14-14035	SCC	P&S DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	60	30	50	15MAR13A	09JUL13	282
14-14040	SCA	R&A DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	10	10	0	10JUL13	23JUL13	282
14-14045	SCC	F&D DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	80	80	0	24JUL13	15NOV13	282
14-14050	SCC	P&S O&M MANUALS FOR HYDRAULIC ELEVATOR	20	20	0	04AUG14	29AUG14	64
14-14055	SCA	R&A O&M MANUALS FOR HYDRAULIC ELEVATOR	10	10	0	02SEP14	15SEP14	74
Div. 15 - Mechanical								
General Provisions for Fire Protection Sys Work								
15-15000	SCC	P&S FIRE PROTECTION SUBCONTRACTOR	100	50	50	03DEC12A	17JUN13	55
15-15005	SCA	R&A FIRE PROTECTION SUBCONTRACTOR	10	6	40	25FEB13A	25JUN13	55
15-15010	SCC	P&S GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	60	60	0	26JUN13	19SEP13	271
15-15015	SCA	R&A GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	10	10	0	20SEP13	03OCT13	271
15-15020	SCC	P&S O&M MANUALS FOR FIRE PROTECTION SYSTEM	20	20	0	04AUG14	29AUG14	64
15-15025	SCA	R&A O&M MANUALS FOR FIRE PROTECTION SYSTEM	10	10	0	02SEP14	15SEP14	74
Seismic Controls Fire Protection System								
15-15030	SCC	P&S SEISMIC CONTROLS FIRE PROTECTION SYSTEM	120	30	75	18MAR13A	07AUG13	231
15-15035	SCA	R&A SEISMIC CONTROLS FIRE PROTECTION SYSTEM	10	10	0	08AUG13	21AUG13	231
15-15040	SCC	F&D SEISMIC CONTROLS FIRE PROTECTION SYSTEM	120	120	0	22AUG13	14FEB14	231
Combination Wet Standpipe/Spinkler System								
15-15045	SCC	P&S COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	120	30	75	06MAR13A	07AUG13	55
15-15050	SCA	R&A COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	10	10	0	08AUG13	21AUG13	55
15-15055	SCC	F&D COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	120	120	0	22AUG13	14FEB14	55
Fire Pumps								
15-15060	SCC	P&S FIRE PUMPS	60	15	75	13MAR13A	17JUL13	185
15-15065	SCA	R&A FIRE PUMPS	10	3	75	15MAR13A	22JUL13	185
15-15070	SCC	F&D FIRE PUMPS	60	60	0	23JUL13	16OCT13	185
15-15075	SCC	P&S O&M MANUALS FOR FIRE PUMPS	20	20	0	04AUG14	29AUG14	64
15-15080	SCA	R&A O&M MANUALS FOR FIRE PUMPS	10	10	0	02SEP14	15SEP14	74



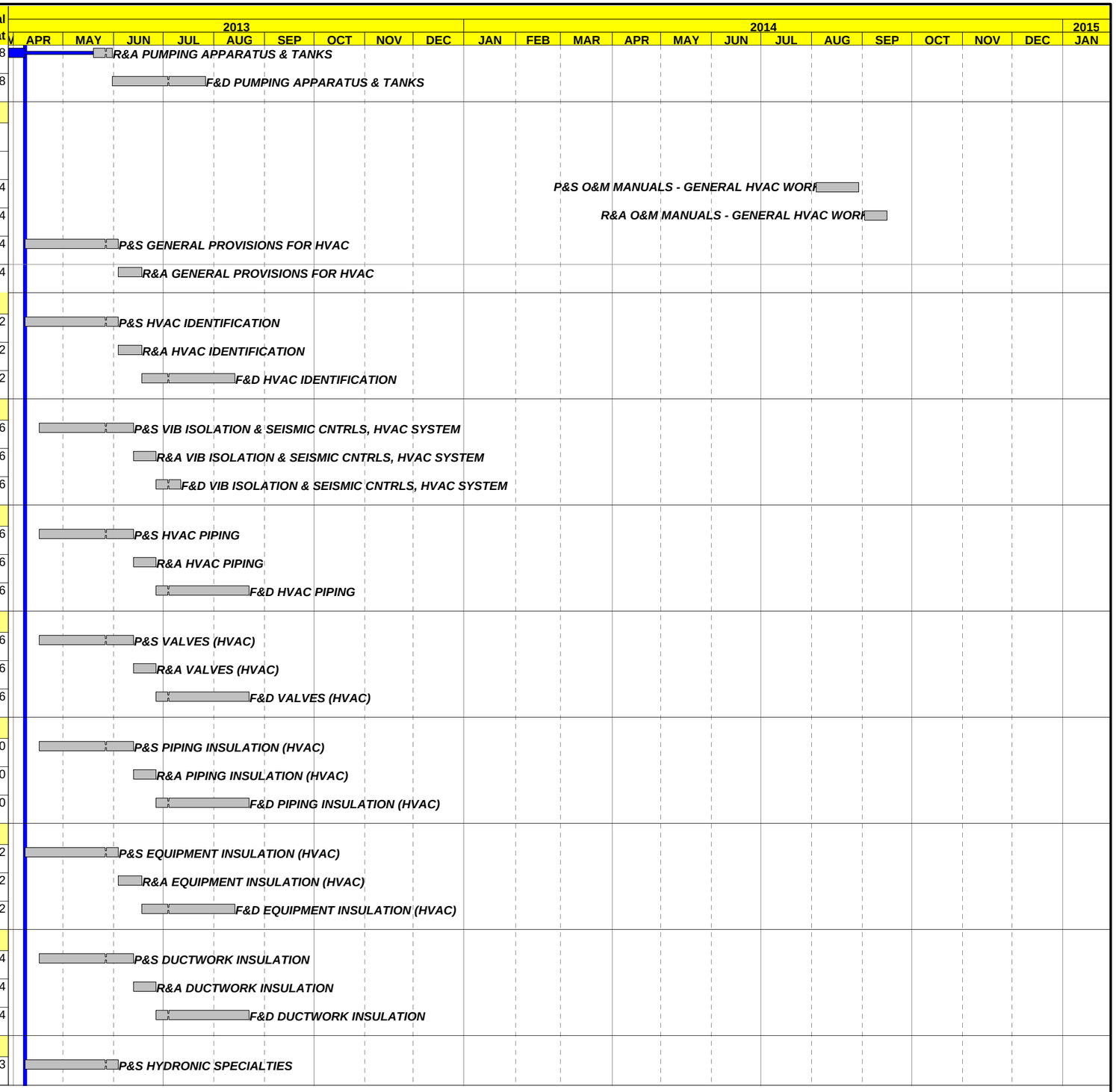
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
General Provisions for Plumbing & Drainage Work								
15-15085	SCC	P&S PLUMBING SUBCONTRACTOR	20	0	100	20AUG12A	28AUG12A	
15-15090	SCA	R&A PLUMBING SUBCONTRACTOR	10	0	100	29AUG12A	10SEP12A	
15-15095	SCC	P&S GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	40	40	0	08APR13	03JUN13	116
15-15100	SCA	R&A GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	10	10	0	04JUN13	17JUN13	116
15-15105	SCC	F&D PLUMBING & DRAINAGE MATERIALS	40	40	0	18JUN13	13AUG13	116
15-15110	SCC	P&S O&M MANUALS FOR P&D WORK	20	20	0	04AUG14	29AUG14	64
15-15115	SCA	R&A O&M MANUALS FOR P&D WORK	10	10	0	02SEP14	15SEP14	74
Vib Isolation & Seismic Cntrls/Plumbing/Drainage								
15-15120	SCC	P&S VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	40	40	0	08APR13	03JUN13	196
15-15125	SCA	R&A VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	10	10	0	04JUN13	17JUN13	196
15-15130	SCC	F&D VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	40	40	0	18JUN13	13AUG13	196
Installation of water Mains & Appurtenances								
15-15135	SCC	P&S WATER MAINS AND APPURTENCES	40	40	0	08APR13	03JUN13	240
15-15140	SCA	R&A WATER MAINS AND APPURTENCES	10	10	0	04JUN13	17JUN13	240
15-15145	SCC	F&D WATER MAINS AND APPURTENCES	40	40	0	18JUN13	13AUG13	240
Fire Hydrants								
15-15150	SCC	P&S FIRE HYDRANTS	40	40	0	04JUN13	30JUL13	274
15-15155	SCA	R&A FIRE HYDRANTS	10	10	0	31JUL13	13AUG13	274
15-15160	SCC	F&D FIRE HYDRANTS	40	40	0	14AUG13	09OCT13	274
Plumbing & Piping								
15-15165	SCC	P&S PLUMBING & PIPING	40	8	80	05OCT12A	17APR13	156
15-15170	SCA	R&A PLUMBING & PIPING	10	2	80	15NOV12A	19APR13	156
15-15175	SCC	F&D PLUMBING & PIPING	40	40	0	22APR13	17JUN13	156
Hangers & Supports								
15-15180	SCC	P&S HANGERS & SUPPORTS	40	8	80	05OCT12A	17APR13	231
15-15185	SCA	R&A HANGERS & SUPPORTS	10	2	80	15NOV12A	19APR13	231
15-15190	SCC	F&D HANGERS & SUPPORTS	40	40	0	22APR13	17JUN13	231
Valves								
15-15195	SCC	P&S VALVES	40	8	80	05OCT12A	17APR13	231
15-15200	SCA	R&A VALVES	10	2	80	15NOV12A	19APR13	231
15-15205	SCC	F&D VALVES	40	40	0	22APR13	17JUN13	231
Insulation (P&D)								
15-15210	SCC	P&S INSULATION (P&D)	40	8	80	05OCT12A	17APR13	257
15-15215	SCA	R&A INSULATION (P&D)	10	2	80	15NOV12A	19APR13	257
15-15220	SCC	F&D INSULATION (P&D)	40	40	0	22APR13	17JUN13	257
Drainage								
15-15225	SCC	P&S DRAINAGE	40	20	50	05OCT12A	03MAY13	216
15-15230	SCA	R&A DRAINAGE	10	5	50	15NOV12A	10MAY13	216



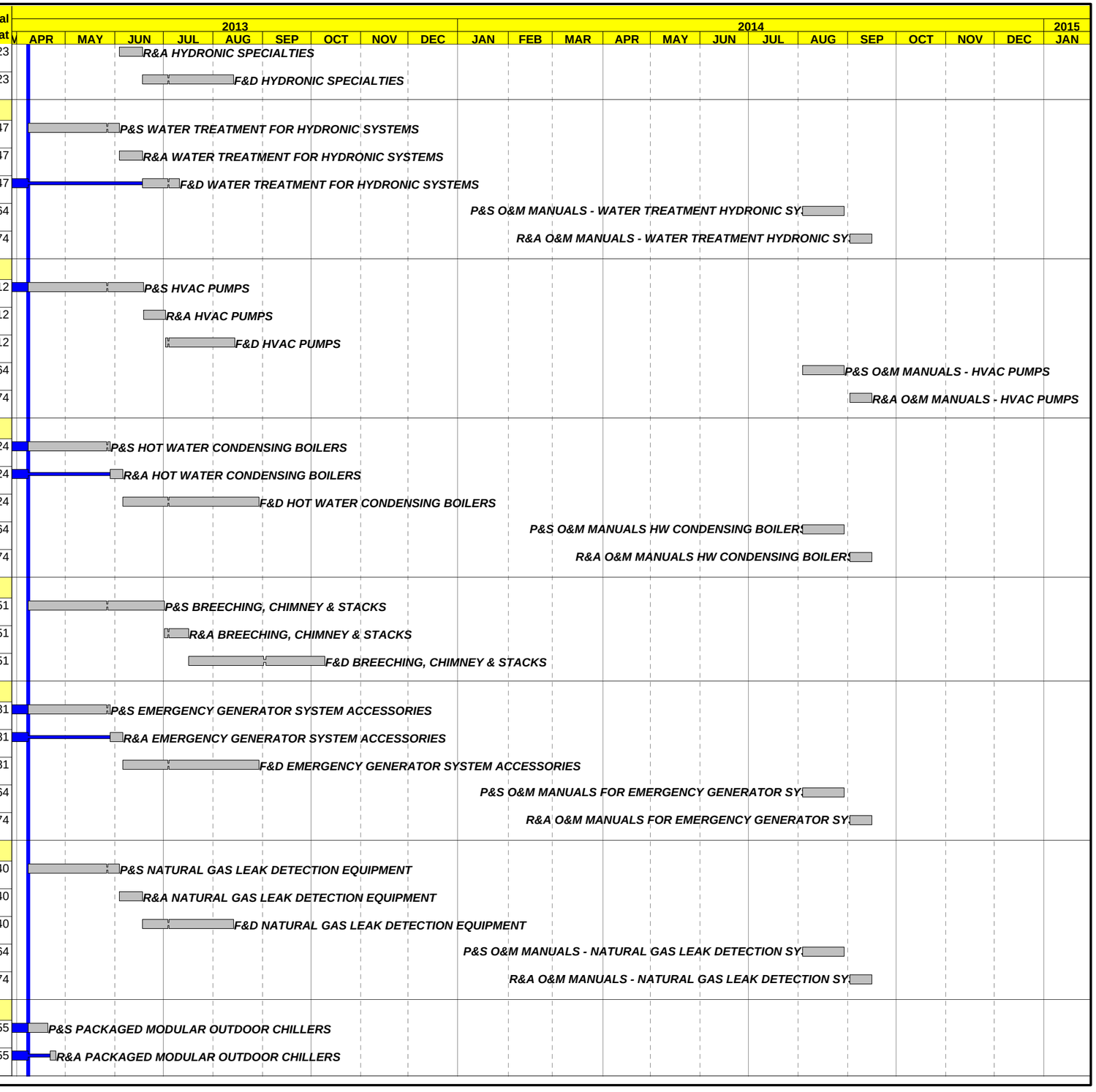
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
15-15235	SCC	F&D DRAINAGE MATERIALS	40	40	0	13MAY13	09JUL13	216
15-15240	SCC	P&S O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	20	20	0	04AUG14	29AUG14	64
15-15245	SCA	R&A O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	10	10	0	02SEP14	15SEP14	74
Gas Piping System								
15-15250	SCC	P&S GAS PIPING SYSTEM	40	20	50	05OCT12A	03MAY13	323
15-15255	SCA	R&A GAS PIPING SYSTEM	10	5	50	15NOV12A	10MAY13	323
15-15260	SCC	F&D GAS PIPING SYSTEM MATERIALS	40	40	0	13MAY13	09JUL13	323
Cold Water Supply								
15-15265	SCC	P&S COLD WATER SUPPLY	40	16	60	05OCT12A	29APR13	223
15-15270	SCA	R&A COLD WATER SUPPLY	10	2	80	15NOV12A	01MAY13	223
15-15275	SCC	F&D COLD WATER SUPPLY MATERIALS	40	40	0	02MAY13	27JUN13	223
Hot Water Supply								
15-15280	SCC	P&S HOT WATER SUPPLY	40	12	70	05OCT12A	23APR13	356
15-15285	SCA	R&A HOT WATER SUPPLY	10	2	80	15NOV12A	25APR13	356
15-15290	SCC	F&D HOT WATER SUPPLY MATERIALS	40	40	0	26APR13	21JUN13	356
Tags, Charts & Identification								
15-15295	SCC	P&S TAGS, CHARTS & IDENTIFICATION	40	20	50	05OCT12A	03MAY13	313
15-15300	SCA	R&A TAGS, CHARTS & IDENTIFICATION	10	5	50	15NOV12A	10MAY13	313
15-15305	SCC	F&D TAGS, CHARTS & IDENTIFICATION	40	40	0	13MAY13	09JUL13	313
Miscellaneous								
15-15310	SCC	P&S MISCELLANEOUS	40	16	60	15OCT12A	29APR13	344
15-15315	SCA	R&A MISCELLANEOUS	10	2	80	15NOV12A	01MAY13	344
15-15320	SCC	F&D MISCELLANEOUS	40	40	0	02MAY13	27JUN13	344
Plumbing Fixtures								
15-15325	SCC	P&S O&M MANUALS FOR PLUMBING FIXTURES	20	20	0	04AUG14	29AUG14	64
15-15330	SCA	R&A O&M MANUALS FOR PLUMBING FIXTURES	10	10	0	02SEP14	15SEP14	74
15-15335	SCC	P&S PLUMBING FIXTURES	40	20	50	05OCT12A	03MAY13	337
15-15340	SCA	R&A PLUMBING FIXTURES	10	5	50	15NOV12A	10MAY13	337
15-15345	SCC	F&D PLUMBING FIXTURES	40	40	0	13MAY13	09JUL13	337
Water Heaters								
15-15350	SCC	P&S O&M MANUALS FOR WATER HEATER	20	20	0	04AUG14	29AUG14	64
15-15355	SCA	R&A O&M MANUALS FOR WATER HEATER	10	10	0	02SEP14	15SEP14	74
15-15360	SCC	P&S WATER HEATERS	40	32	20	16OCT12A	21MAY13	238
15-15365	SCA	R&A WATER HEATERS	10	8	20	16NOV12A	03JUN13	238
15-15370	SCC	F&D WATER HEATERS	40	40	0	04JUN13	30JUL13	238
Pumping Apparatus & Tanks								
15-15375	SCC	P&S O&M MANUALS FOR PUMPING APPARATUS & TANKS	20	20	0	04AUG14	29AUG14	64
15-15380	SCA	R&A O&M MANUALS FOR PUMPING APPARATUS & TANKS	10	10	0	02SEP14	15SEP14	74
15-15385	SCC	P&S PUMPING APPARATUS & TANKS	40	30	25	05OCT12A	17MAY13	208



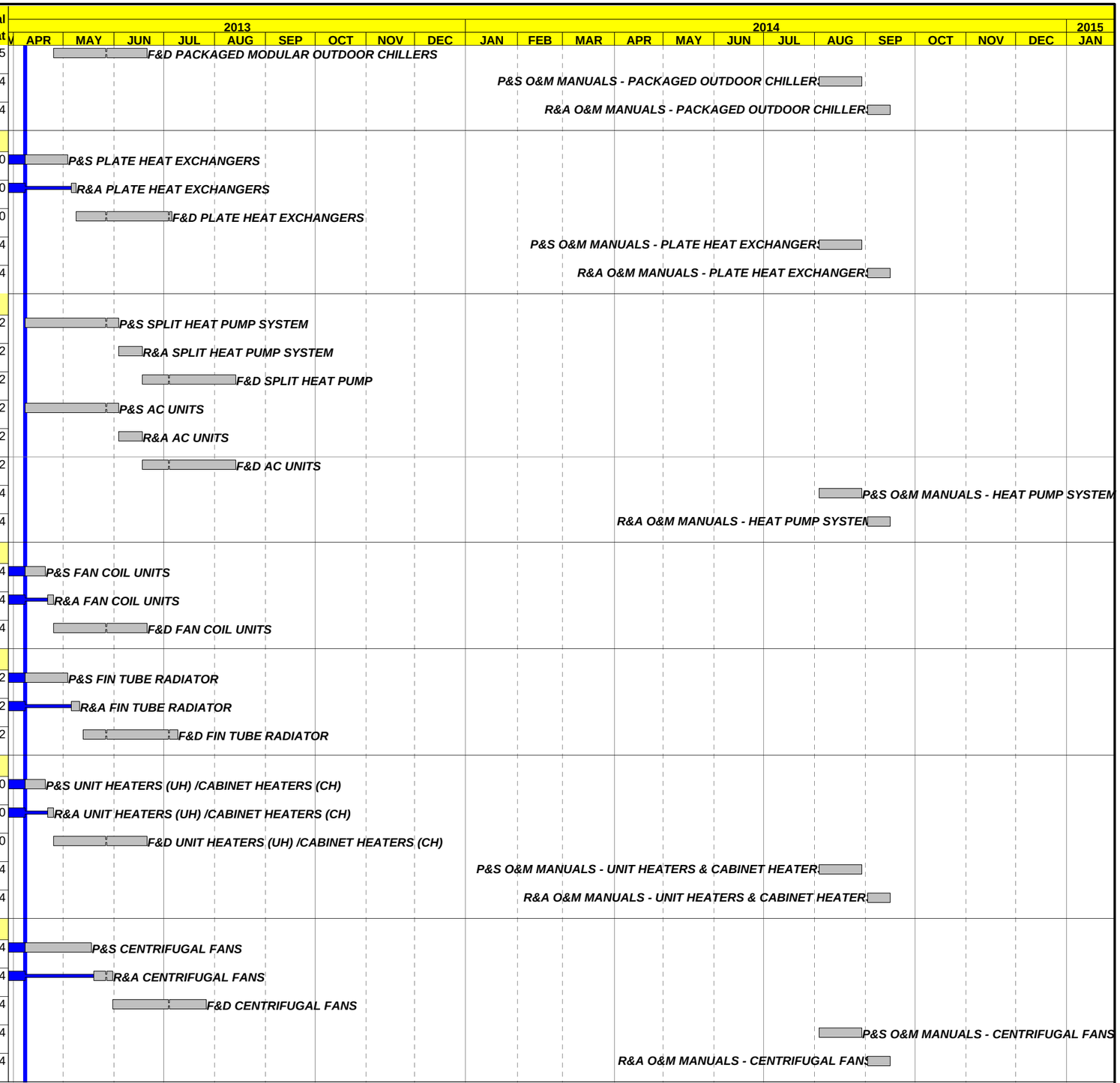
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
15-15390	SCA	R&A PUMPING APPARATUS & TANKS	10	8	20	16NOV12A	30MAY13	208
15-15395	SCC	F&D PUMPING APPARATUS & TANKS	40	40	0	31MAY13	26JUL13	208
General Provisions for HVAC								
15-15400	SCC	P&S HVAC SUBCONTRACTOR	80	0	100	01AUG12A	01AUG12A	
15-15405	SCA	R&A HVAC SUBCONTRACTOR	10	0	100	01AUG12A	01AUG12A	
15-15410	SCC	P&S O&M MANUALS - GENERAL HVAC WORK	20	20	0	04AUG14	29AUG14	64
15-15415	SCA	R&A O&M MANUALS - GENERAL HVAC WORK	10	10	0	02SEP14	15SEP14	74
15-15420	SCC	P&S GENERAL PROVISIONS FOR HVAC	40	40	0	08APR13	03JUN13	214
15-15425	SCA	R&A GENERAL PROVISIONS FOR HVAC	10	10	0	04JUN13	17JUN13	214
HVAC Identification								
15-15430	SCC	P&S HVAC IDENTIFICATION	40	40	0	08APR13	03JUN13	312
15-15435	SCA	R&A HVAC IDENTIFICATION	10	10	0	04JUN13	17JUN13	312
15-15440	SCC	F&D HVAC IDENTIFICATION	40	40	0	18JUN13	13AUG13	312
Vibration Isolation & Seismic Controls, HVAC Sys								
15-15445	SCC	P&S VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	40	40	0	17APR13	12JUN13	236
15-15450	SCA	R&A VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	10	10	0	13JUN13	26JUN13	236
15-15455	SCC	F&D VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	10	10	0	27JUN13	11JUL13	236
HVAC Piping								
15-15460	SCC	P&S HVAC PIPING	40	40	0	17APR13	12JUN13	166
15-15465	SCA	R&A HVAC PIPING	10	10	0	13JUN13	26JUN13	166
15-15470	SCC	F&D HVAC PIPING	40	40	0	27JUN13	22AUG13	166
Valves (HVAC)								
15-15475	SCC	P&S VALVES (HVAC)	40	40	0	17APR13	12JUN13	166
15-15480	SCA	R&A VALVES (HVAC)	10	10	0	13JUN13	26JUN13	166
15-15485	SCC	F&D VALVES (HVAC)	40	40	0	27JUN13	22AUG13	166
Piping Insulation								
15-15490	SCC	P&S PIPING INSULATION (HVAC)	40	40	0	17APR13	12JUN13	210
15-15495	SCA	R&A PIPING INSULATION (HVAC)	10	10	0	13JUN13	26JUN13	210
15-15500	SCC	F&D PIPING INSULATION (HVAC)	40	40	0	27JUN13	22AUG13	210
Equipment Insulation								
15-15505	SCC	P&S EQUIPMENT INSULATION (HVAC)	40	40	0	08APR13	03JUN13	262
15-15510	SCA	R&A EQUIPMENT INSULATION (HVAC)	10	10	0	04JUN13	17JUN13	262
15-15515	SCC	F&D EQUIPMENT INSULATION (HVAC)	40	40	0	18JUN13	13AUG13	262
Ductwork Insulation								
15-15520	SCC	P&S DUCTWORK INSULATION	40	40	0	17APR13	12JUN13	184
15-15525	SCA	R&A DUCTWORK INSULATION	10	10	0	13JUN13	26JUN13	184
15-15530	SCC	F&D DUCTWORK INSULATION	40	40	0	27JUN13	22AUG13	184
Hydronic Specialties								
15-15545	SCC	P&S HYDRONIC SPECIALTIES	40	40	0	08APR13	03JUN13	223



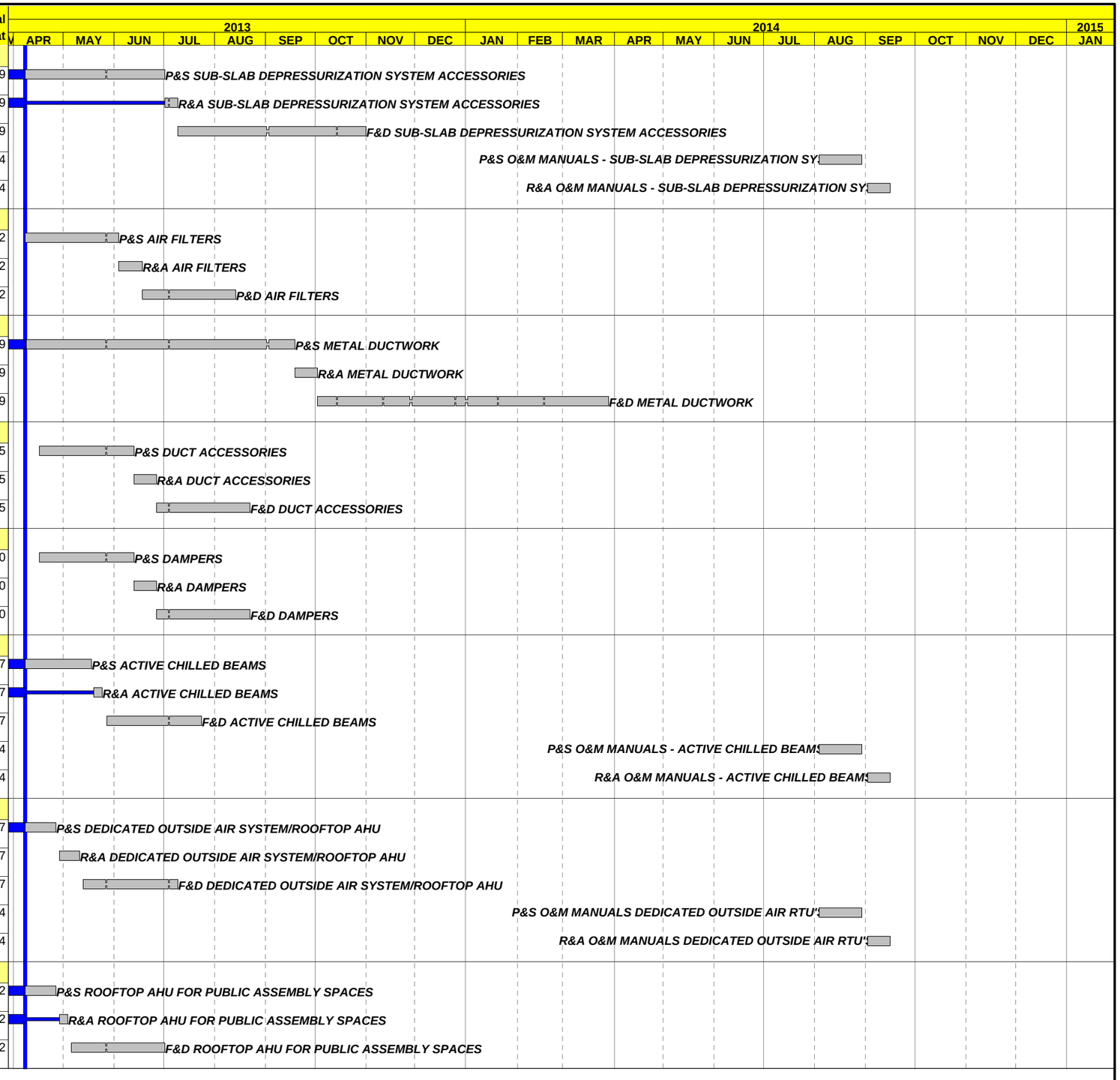
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
15-15550	SCA	R&A HYDRONIC SPECIALTIES	10	10	0	04JUN13	17JUN13	223
15-15555	SCC	F&D HYDRONIC SPECIALTIES	40	40	0	18JUN13	13AUG13	223
Water Treatment for Hydronic Systems								
15-15575	SCC	P&S WATER TREATMENT FOR HYDRONIC SYSTEMS	40	40	0	08APR13	03JUN13	247
15-15580	SCA	R&A WATER TREATMENT FOR HYDRONIC SYSTEMS	10	10	0	04JUN13	17JUN13	247
15-15585	SCC	F&D WATER TREATMENT FOR HYDRONIC SYSTEMS	40	16	60	19FEB13A	10JUL13	247
15-15590	SCC	P&S O&M MANUALS - WATER TREATMENT HYDRONIC SYS	20	20	0	04AUG14	29AUG14	64
15-15595	SCA	R&A O&M MANUALS - WATER TREATMENT HYDRONIC SYS	10	10	0	02SEP14	15SEP14	74
HVAC Pumps								
15-15600	SCC	P&S HVAC PUMPS	60	51	15	19FEB13A	18JUN13	212
15-15605	SCA	R&A HVAC PUMPS	10	10	0	19JUN13	02JUL13	212
15-15610	SCC	F&D HVAC PUMPS	30	30	0	03JUL13	14AUG13	212
15-15615	SCC	P&S O&M MANUALS - HVAC PUMPS	20	20	0	04AUG14	29AUG14	64
15-15620	SCA	R&A O&M MANUALS - HVAC PUMPS	10	10	0	02SEP14	15SEP14	74
Hot Water Condensing Boilers								
15-15630	SCC	P&S HOT WATER CONDENSING BOILERS	60	36	40	05NOV12A	28MAY13	224
15-15640	SCA	R&A HOT WATER CONDENSING BOILERS	10	6	40	14JAN13A	05JUN13	224
15-15650	SCC	F&D HOT WATER CONDENSING BOILERS	60	60	0	06JUN13	29AUG13	224
15-15655	SCC	P&S O&M MANUALS HW CONDENSING BOILERS	20	20	0	04AUG14	29AUG14	64
15-15666	SCA	R&A O&M MANUALS HW CONDENSING BOILERS	10	10	0	02SEP14	15SEP14	74
Breeching, Chimney & Stacks								
15-15670	SCC	P&S BREECHING, CHIMNEY & STACKS	60	60	0	08APR13	01JUL13	151
15-15675	SCA	R&A BREECHING, CHIMNEY & STACKS	10	10	0	02JUL13	16JUL13	151
15-15680	SCC	F&D BREECHING, CHIMNEY & STACKS	60	60	0	17JUL13	09OCT13	151
Emergency Generator System- Accessories								
15-15690	SCC	P&S EMERGENCY GENERATOR SYSTEM ACCESSORIES	60	36	40	15NOV12A	28MAY13	281
15-15700	SCA	R&A EMERGENCY GENERATOR SYSTEM ACCESSORIES	10	6	40	28DEC12A	05JUN13	281
15-15710	SCC	F&D EMERGENCY GENERATOR SYSTEM ACCESSORIES	60	60	0	06JUN13	29AUG13	281
15-15715	SCC	P&S O&M MANUALS FOR EMERGENCY GENERATOR SYS	20	20	0	04AUG14	29AUG14	64
15-15725	SCA	R&A O&M MANUALS FOR EMERGENCY GENERATOR SYS	10	10	0	02SEP14	15SEP14	74
Natural Gas Leak Detection Equipment								
15-15730	SCC	P&S NATURAL GAS LEAK DETECTION EQUIPMENT	40	40	0	08APR13	03JUN13	240
15-15735	SCA	R&A NATURAL GAS LEAK DETECTION EQUIPMENT	10	10	0	04JUN13	17JUN13	240
15-15740	SCC	F&D NATURAL GAS LEAK DETECTION EQUIPMENT	40	40	0	18JUN13	13AUG13	240
15-15750	SCC	P&S O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	20	20	0	04AUG14	29AUG14	64
15-15760	SCA	R&A O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	10	10	0	02SEP14	15SEP14	74
Packaged Modular Outdoor Chillers								
15-15770	SCC	P&S PACKAGED MODULAR OUTDOOR CHILLERS	40	10	75	19FEB13A	19APR13	255
15-15775	SCA	R&A PACKAGED MODULAR OUTDOOR CHILLERS	10	3	75	19FEB13A	24APR13	255



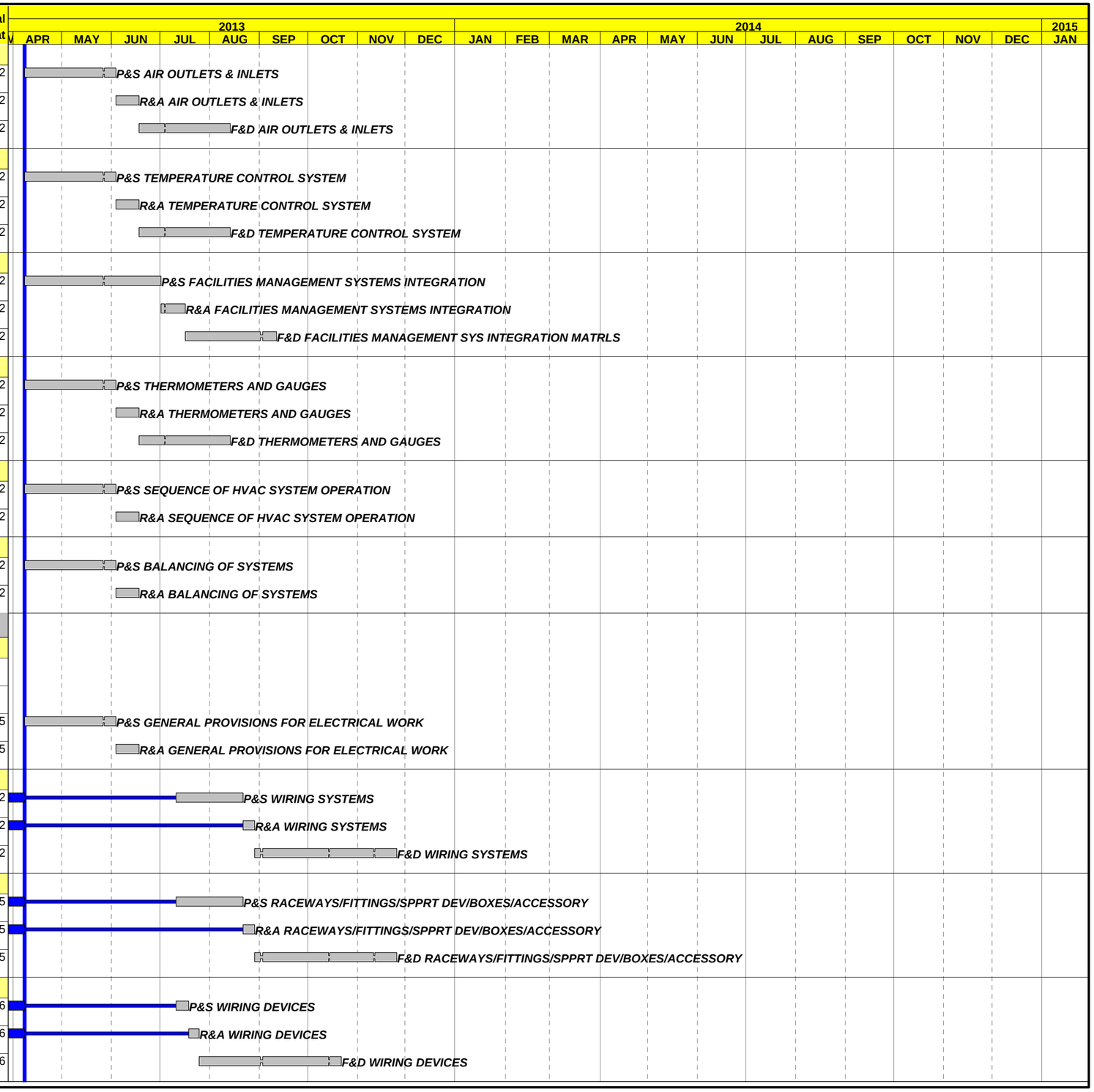
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
15-15780	SCC	F&D PACKAGED MODULAR OUTDOOR CHILLERS	40	40	0	25APR13	20JUN13	255
15-15785	SCC	P&S O&M MANUALS - PACKAGED OUTDOOR CHILLERS	20	20	0	04AUG14	29AUG14	64
15-15790	SCA	R&A O&M MANUALS - PACKAGED OUTDOOR CHILLERS	10	10	0	02SEP14	15SEP14	74
Plate Heat Exchangers								
15-15800	SCC	P&S PLATE HEAT EXCHANGERS	40	20	50	19FEB13A	03MAY13	250
15-15805	SCA	R&A PLATE HEAT EXCHANGERS	10	3	75	19FEB13A	08MAY13	250
15-15810	SCC	F&D PLATE HEAT EXCHANGERS	40	40	0	09MAY13	05JUL13	250
15-15815	SCC	P&S O&M MANUALS - PLATE HEAT EXCHANGERS	20	20	0	04AUG14	29AUG14	64
15-15820	SCA	R&A O&M MANUALS - PLATE HEAT EXCHANGERS	10	10	0	02SEP14	15SEP14	74
Split Heat Pump System								
15-15825	SCC	P&S SPLIT HEAT PUMP SYSTEM	40	40	0	08APR13	03JUN13	212
15-15830	SCA	R&A SPLIT HEAT PUMP SYSTEM	10	10	0	04JUN13	17JUN13	212
15-15835	SCC	F&D SPLIT HEAT PUMP	40	40	0	18JUN13	13AUG13	212
15-15840	SCC	P&S AC UNITS	40	40	0	08APR13	03JUN13	302
15-15845	SCA	R&A AC UNITS	10	10	0	04JUN13	17JUN13	302
15-15850	SCC	F&D AC UNITS	40	40	0	18JUN13	13AUG13	302
15-15855	SCC	P&S O&M MANUALS - HEAT PUMP SYSTEM	20	20	0	04AUG14	29AUG14	64
15-15861	SCA	R&A O&M MANUALS - HEAT PUMP SYSTEM	10	10	0	02SEP14	15SEP14	74
Fan Coil Units								
15-15870	SCC	P&S FAN COIL UNITS	40	10	75	07NOV12A	19APR13	204
15-15875	SCA	R&A FAN COIL UNITS	10	3	70	07DEC12A	24APR13	204
15-15880	SCC	F&D FAN COIL UNITS	40	40	0	25APR13	20JUN13	204
Convectors								
15-15890	SCC	P&S FIN TUBE RADIATOR	40	20	50	18OCT12A	03MAY13	322
15-15895	SCA	R&A FIN TUBE RADIATOR	10	5	50	28NOV12A	10MAY13	322
15-15900	SCC	F&D FIN TUBE RADIATOR	40	40	0	13MAY13	09JUL13	322
Unit Heaters/Cabinet Heaters								
15-15905	SCC	P&S UNIT HEATERS (UH) /CABINET HEATERS (CH)	40	10	75	18OCT12A	19APR13	220
15-15910	SCA	R&A UNIT HEATERS (UH) /CABINET HEATERS (CH)	10	3	75	31DEC12A	24APR13	220
15-15915	SCC	F&D UNIT HEATERS (UH) /CABINET HEATERS (CH)	40	40	0	25APR13	20JUN13	220
15-15920	SCC	P&S O&M MANUALS - UNIT HEATERS & CABINET HEATERS	20	20	0	04AUG14	29AUG14	54
15-15925	SCA	R&A O&M MANUALS - UNIT HEATERS & CABINET HEATERS	10	10	0	02SEP14	15SEP14	64
Centrifugal Fans								
15-15930	SCC	P&S CENTRIFUGAL FANS	40	30	25	05OCT12A	17MAY13	204
15-15935	SCA	R&A CENTRIFUGAL FANS	10	8	20	15NOV12A	30MAY13	204
15-15940	SCC	F&D CENTRIFUGAL FANS	40	40	0	31MAY13	26JUL13	204
15-15945	SCC	P&S O&M MANUALS - CENTRIFUGAL FANS	20	20	0	04AUG14	29AUG14	64
15-15950	SCA	R&A O&M MANUALS - CENTRIFUGAL FANS	10	10	0	02SEP14	15SEP14	74



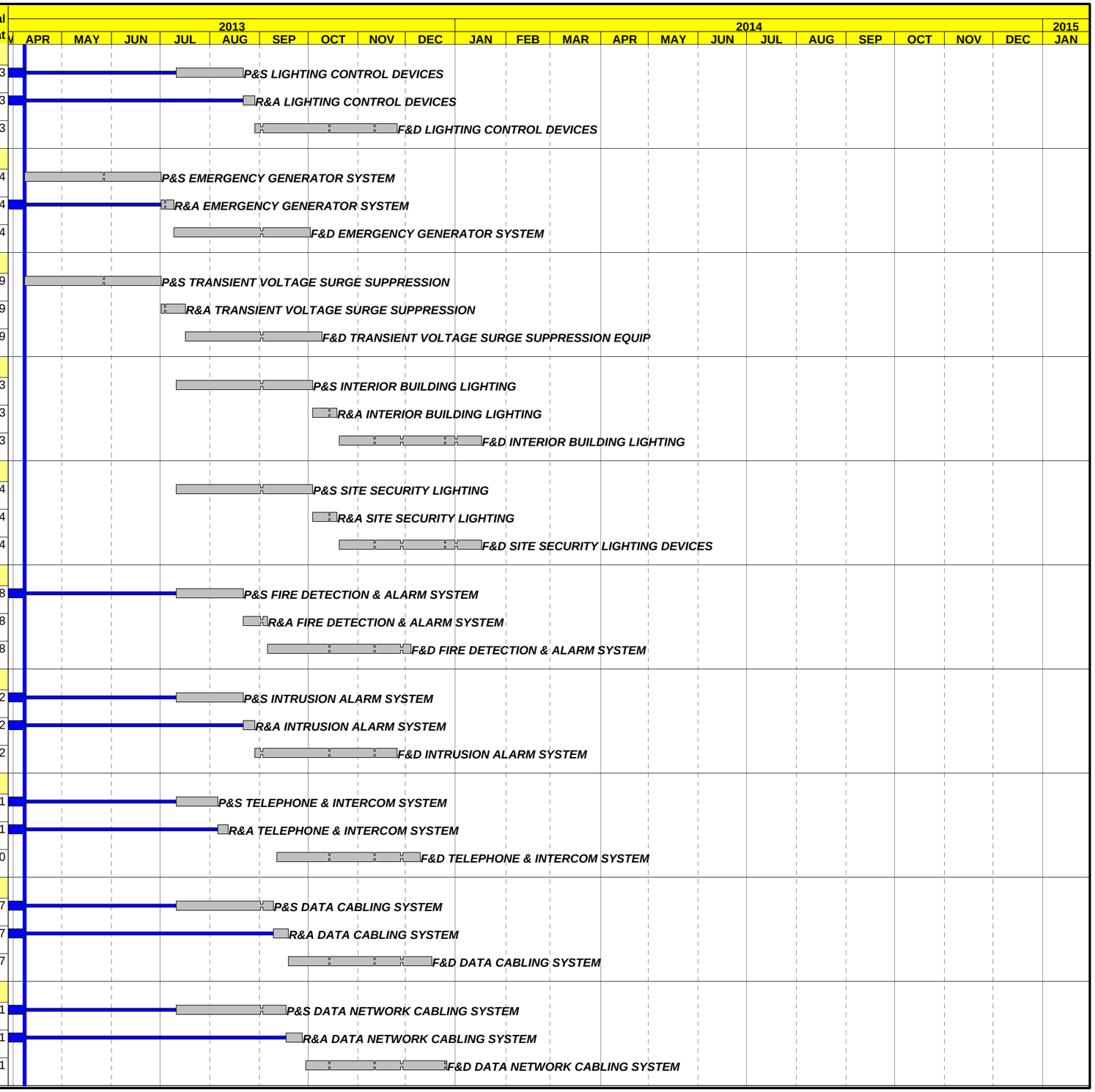
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Sub-Slab Depressurization System Accessories								
15-15955	SCC	P&S SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	120	60	50	15NOV12A	01JUL13	89
15-15960	SCA	R&A SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	10	5	50	13DEC12A	09JUL13	89
15-15965	SCC	F&D SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	80	80	0	10JUL13	31OCT13	89
15-15970	SCC	P&S O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	20	20	0	04AUG14	29AUG14	64
15-15975	SCA	R&A O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	10	10	0	02SEP14	15SEP14	74
Air Filters								
15-15980	SCC	P&S AIR FILTERS	40	40	0	08APR13	03JUN13	212
15-15985	SCA	R&A AIR FILTERS	10	10	0	04JUN13	17JUN13	212
15-15990	SCC	P&D AIR FILTERS	40	40	0	18JUN13	13AUG13	212
Metal Ductwork								
15-15995	SCC	P&S METAL DUCTWORK	120	114	5	15NOV12A	18SEP13	19
15-16000	SCA	R&A METAL DUCTWORK	10	10	0	19SEP13	02OCT13	19
15-16005	SCC	F&D METAL DUCTWORK	120	120	0	03OCT13	28MAR14	19
Duct Accessories								
15-16010	SCC	P&S DUCT ACCESSORIES	40	40	0	17APR13	12JUN13	325
15-16015	SCA	R&A DUCT ACCESSORIES	10	10	0	13JUN13	26JUN13	325
15-16020	SCC	F&D DUCT ACCESSORIES	40	40	0	27JUN13	22AUG13	325
Dampers								
15-16030	SCC	P&S DAMPERS	40	40	0	17APR13	12JUN13	160
15-16035	SCA	R&A DAMPERS	10	10	0	13JUN13	26JUN13	160
15-16040	SCC	F&D DAMPERS	40	40	0	27JUN13	22AUG13	160
Active Chilled Beams								
15-16050	SCC	P&S ACTIVE CHILLED BEAMS	60	30	50	05OCT12A	17MAY13	257
15-16060	SCA	R&A ACTIVE CHILLED BEAMS	10	5	50	04JAN13A	24MAY13	257
15-16065	SCC	F&D ACTIVE CHILLED BEAMS	40	40	0	28MAY13	23JUL13	257
15-16070	SCC	P&S O&M MANUALS - ACTIVE CHILLED BEAMS	20	20	0	04AUG14	29AUG14	64
15-16080	SCA	R&A O&M MANUALS - ACTIVE CHILLED BEAMS	10	10	0	02SEP14	15SEP14	74
Dedicated Outside Air System/Rooftop AHU Units								
15-16085	SCC	P&S DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	60	15	75	13DEC12A	26APR13	227
15-16090	SCA	R&A DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	10	10	0	29APR13	10MAY13	227
15-16095	SCC	F&D DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	40	40	0	13MAY13	09JUL13	227
15-16100	SCC	P&S O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	20	20	0	04AUG14	29AUG14	64
15-16110	SCA	R&A O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	10	10	0	02SEP14	15SEP14	74
Rooftop Air Handling Units for Public Assembly								
15-16120	SCC	P&S ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	60	15	75	14JAN13A	26APR13	242
15-16130	SCA	R&A ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	10	5	50	14JAN13A	03MAY13	242
15-16135	SCC	F&D ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	40	40	0	06MAY13	01JUL13	242



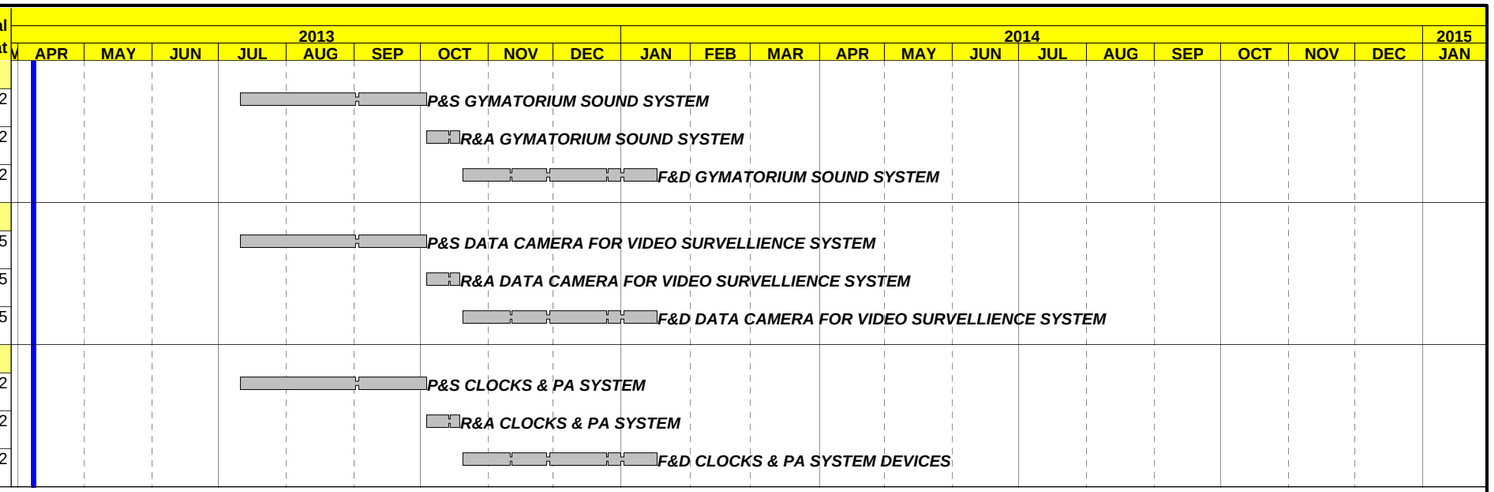
Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Air Outlets & Inlets								
15-16140	SCC	P&S AIR OUTLETS & INLETS	40	40	0	08APR13	03JUN13	322
15-16145	SCA	R&A AIR OUTLETS & INLETS	10	10	0	04JUN13	17JUN13	322
15-16150	SCC	F&D AIR OUTLETS & INLETS	40	40	0	18JUN13	13AUG13	322
Temperature Control System								
15-16155	SCC	P&S TEMPERATURE CONTROL SYSTEM	40	40	0	08APR13	03JUN13	252
15-16160	SCA	R&A TEMPERATURE CONTROL SYSTEM	10	10	0	04JUN13	17JUN13	252
15-16165	SCC	F&D TEMPERATURE CONTROL SYSTEM	40	40	0	18JUN13	13AUG13	252
Facility Management Systems Integration								
15-16175	SCC	P&S FACILITIES MANAGEMENT SYSTEMS INTEGRATION	60	60	0	08APR13	01JUL13	202
15-16180	SCA	R&A FACILITIES MANAGEMENT SYSTEMS INTEGRATION	10	10	0	02JUL13	16JUL13	202
15-16185	SCC	F&D FACILITIES MANAGEMENT SYS INTEGRATION MATRLS	40	40	0	17JUL13	11SEP13	202
Thermometers & Gauges								
15-16190	SCC	P&S THERMOMETERS AND GAUGES	40	40	0	08APR13	03JUN13	302
15-16195	SCA	R&A THERMOMETERS AND GAUGES	10	10	0	04JUN13	17JUN13	302
15-16200	SCC	F&D THERMOMETERS AND GAUGES	40	40	0	18JUN13	13AUG13	302
Sequence of HVAC System Operation								
15-16205	SCC	P&S SEQUENCE OF HVAC SYSTEM OPERATION	40	40	0	08APR13	03JUN13	382
15-16210	SCA	R&A SEQUENCE OF HVAC SYSTEM OPERATION	10	10	0	04JUN13	17JUN13	382
Balancing of Systems								
15-16220	SCC	P&S BALANCING OF SYSTEMS	40	40	0	08APR13	03JUN13	382
15-16230	SCA	R&A BALANCING OF SYSTEMS	10	10	0	04JUN13	17JUN13	382
Div. 16 - Electrical								
General Provisions for Electrical Work								
16-16000	SCC	P&S ELECTRICAL SUBCONTRACTOR	10	0	100	01AUG12A	01AUG12A	
16-16005	SCA	R&A ELECTRICAL SUBCONTRACTOR	10	0	100	01AUG12A	01AUG12A	
16-16010	SCC	P&S GENERAL PROVISIONS FOR ELECTRICAL WORK	40	40	0	08APR13	03JUN13	95
16-16020	SCA	R&A GENERAL PROVISIONS FOR ELECTRICAL WORK	10	10	0	04JUN13	17JUN13	95
Wiring Systems								
16-16030	SCC	P&S WIRING SYSTEMS	60	30	50	10SEP12A	21AUG13	162
16-16040	SCA	R&A WIRING SYSTEMS	10	5	50	13NOV12A	28AUG13	162
16-16050	SCC	F&D WIRING SYSTEMS	60	60	0	29AUG13	25NOV13	162
Raceways/Fittings/Supp Devices/Boxes/Accessories								
16-16060	SCC	P&S RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	60	30	50	10SEP12A	21AUG13	165
16-16070	SCA	R&A RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	10	5	50	09NOV12A	28AUG13	165
16-16080	SCC	F&D RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	60	60	0	29AUG13	25NOV13	165
Wiring Devices								
16-16090	SCC	P&S WIRING DEVICES	60	6	90	10SEP12A	18JUL13	186
16-16100	SCA	R&A WIRING DEVICES	10	5	50	19NOV12A	25JUL13	186
16-16110	SCC	F&D WIRING DEVICES	60	60	0	26JUL13	21OCT13	186



Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Lighting Control Devices								
16-16120	SCC	P&S LIGHTING CONTROL DEVICES	60	30	50	03DEC12A	21AUG13	263
16-16130	SCA	R&A LIGHTING CONTROL DEVICES	10	5	50	01FEB13A	28AUG13	263
16-16140	SCC	F&D LIGHTING CONTROL DEVICES	60	60	0	29AUG13	25NOV13	263
Emergency Generator System								
16-16150	SCC	P&S EMERGENCY GENERATOR SYSTEM	60	60	0	08APR13	01JUL13	154
16-16160	SCA	R&A EMERGENCY GENERATOR SYSTEM	10	5	50	14MAR13A	09JUL13	154
16-16170	SCC	F&D EMERGENCY GENERATOR SYSTEM	60	60	0	10JUL13	02OCT13	154
Transient Voltage Surge Suppression								
16-16180	SCC	P&S TRANSIENT VOLTAGE SURGE SUPPRESSION	60	60	0	08APR13	01JUL13	209
16-16190	SCA	R&A TRANSIENT VOLTAGE SURGE SUPPRESSION	10	10	0	02JUL13	16JUL13	209
16-16200	SCC	F&D TRANSIENT VOLTAGE SURGE SUPPRESSION EQUIP	60	60	0	17JUL13	09OCT13	209
Illuminated Exit Sign & Emergency Lighting Fixt								
16-16210	SCC	P&S INTERIOR BUILDING LIGHTING	60	60	0	11JUL13	03OCT13	163
16-16220	SCA	R&A INTERIOR BUILDING LIGHTING	10	10	0	04OCT13	18OCT13	163
16-16230	SCC	F&D INTERIOR BUILDING LIGHTING	60	60	0	21OCT13	16JAN14	163
Site/Security Lighting								
16-16240	SCC	P&S SITE SECURITY LIGHTING	60	60	0	11JUL13	03OCT13	194
16-16250	SCA	R&A SITE SECURITY LIGHTING	10	10	0	04OCT13	18OCT13	194
16-16260	SCC	F&D SITE SECURITY LIGHTING DEVICES	60	60	0	21OCT13	16JAN14	194
Fire Detection/Alarm Sys w/ Central Office Conn.								
16-16270	SCC	P&S FIRE DETECTION & ALARM SYSTEM	60	30	50	24AUG12A	21AUG13	198
16-16280	SCA	R&A FIRE DETECTION & ALARM SYSTEM	10	10	0	22AUG13	05SEP13	198
16-16290	SCC	F&D FIRE DETECTION & ALARM SYSTEM	60	60	0	06SEP13	03DEC13	198
Intrusion Alarm System								
16-16300	SCC	P&S INTRUSION ALARM SYSTEM	60	30	50	10SEP12A	21AUG13	222
16-16310	SCA	R&A INTRUSION ALARM SYSTEM	10	5	50	15NOV12A	28AUG13	222
16-16320	SCC	F&D INTRUSION ALARM SYSTEM	60	60	0	29AUG13	25NOV13	222
Intercom System for Fire Rescue Areas/Elevators								
16-16330	SCC	P&S TELEPHONE & INTERCOM SYSTEM	60	18	70	24NOV12A	05AUG13	241
16-16340	SCA	R&A TELEPHONE & INTERCOM SYSTEM	10	5	50	25OCT12A	12AUG13	241
16-16350	SCC	F&D TELEPHONE & INTERCOM SYSTEM	60	60	0	12SEP13	09DEC13	220
Data Cabling System								
16-16360	SCC	P&S DATA CABLING SYSTEM	60	42	30	10AUG12A	09SEP13	247
16-16370	SCA	R&A DATA CABLING SYSTEM	10	7	30	11OCT12A	18SEP13	247
16-16380	SCC	F&D DATA CABLING SYSTEM	60	60	0	19SEP13	16DEC13	247
Fiber Optic Cabling System								
16-16400	SCC	P&S DATA NETWORK CABLING SYSTEM	60	48	20	10SEP12A	17SEP13	151
16-16410	SCA	R&A DATA NETWORK CABLING SYSTEM	10	8	20	09NOV12A	27SEP13	151
16-16420	SCC	F&D DATA NETWORK CABLING SYSTEM	60	60	0	30SEP13	26DEC13	151



Activity ID	RESP	Activity Description	Orig Dur	Rem Dur	%	Early Start	Early Finish	Total Float
Gymatorium Sound System								
16-16500	SCC	P&S GYMATORIUM SOUND SYSTEM	60	60	0	11JUL13	03OCT13	182
16-16510	SCA	R&A GYMATORIUM SOUND SYSTEM	10	10	0	04OCT13	18OCT13	182
16-16520	SCC	F&D GYMATORIUM SOUND SYSTEM	60	60	0	21OCT13	16JAN14	182
Internet Protocol Digital Video Surveillance Sys								
16-16550	SCC	P&S DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	60	60	0	11JUL13	03OCT13	195
16-16560	SCA	R&A DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	10	10	0	04OCT13	18OCT13	195
16-16570	SCC	F&D DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	60	60	0	21OCT13	16JAN14	195
Self-Corrective Clock System								
16-16580	SCC	P&S CLOCKS & PA SYSTEM	60	60	0	11JUL13	03OCT13	192
16-16590	SCA	R&A CLOCKS & PA SYSTEM	10	10	0	04OCT13	18OCT13	192
16-16600	SCC	F&D CLOCKS & PA SYSTEM DEVICES	60	60	0	21OCT13	16JAN14	192



SILVERITE CONSTRUCTION CO., INC.

PS315 43-18 97th Place Corona, NY 11368

New School

SCHOOL CONSTRUCTION AUTHORITY

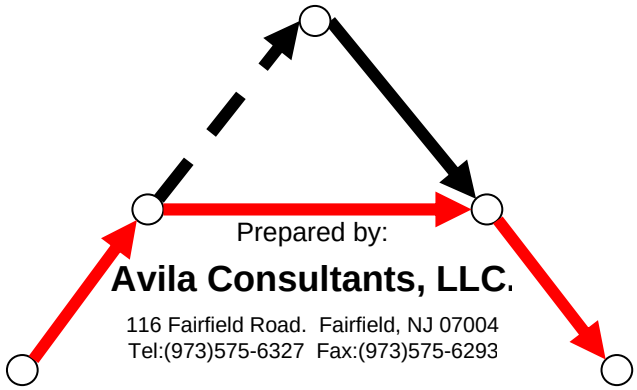
SOLICITATION NO.: SCA12-010675-1

SCHEDULE UPDATE #02

DD: 04/08/13

FILE NAME: PQ02.prx

Tabular Reports



Prepared by:

Avila Consultants, LLC.

116 Fairfield Road. Fairfield, NJ 07004

Tel:(973)575-6327 Fax:(973)575-6293

Silverite Construction Company, Inc.

SOLICITATION NO.: SCA12-010675-1
PS-315Q

Key Schedule Information

Baseline Schedule

File Name:	315C
Data Date:	08-01-12
Location:	43-18 97th Place Corona, NY 11368
Contractor:	Silverite Construction Company, Inc.
Notice to Proceed (NTP) Date:	08-01-12
Substantial Completion Date:	01-16-15 (Friday) TF=0 (5-day working cal)
Contractual Substantial Completion Date	01-17-15 (Saturday)
Contract Completion Date:	05-16-15

Project Overview

PS315Q is a (5) five story school building located at 43-18 97th Place, Corona, NY. The site has a large complex of buildings which will be demolished and ACM abatement which will precede the building demolition. The construction of the new school is comprised of a (5) five story Classroom Wing (CW) and Low-Rise Wing (LW). The Classroom Wing's south face is along 44th Avenue while the Low-Rise Wing area covers the area along the north (43rd Avenue) and is essentially the north portion of the site. The Classroom Wing contains the classrooms, labs, offices, MER room, majority of the ITC rooms, cafeteria and kitchen complex, etc. The Low-Rise Wing contains the Gymnasium, Gymatorium, Library, lockers rooms. North of the Classroom Wing and centrally located on the site is a sunken Courtyard. West of the courtyard area is the Early Childhood Playground (EPC). The level above the Gymatorium and Library are an open area called the Play Area.

Schedule Status
Update #02 Data Date: 04-08-13
Project PQ02
Current Substantial Completion Date (as of update #02) January 23, 2015, 2 wd behind contractual milestone.

Schedule update #02 is based on update 01 (PQ01.prx). Schedule Update #02 covers the time period from 03-08-13 to 04-07-13 (21 working days). During this period 105 activities were completed. 105 activities are currently underway and 145 activities are scheduled to begin the next reporting period. Refer to attached detailed listing.

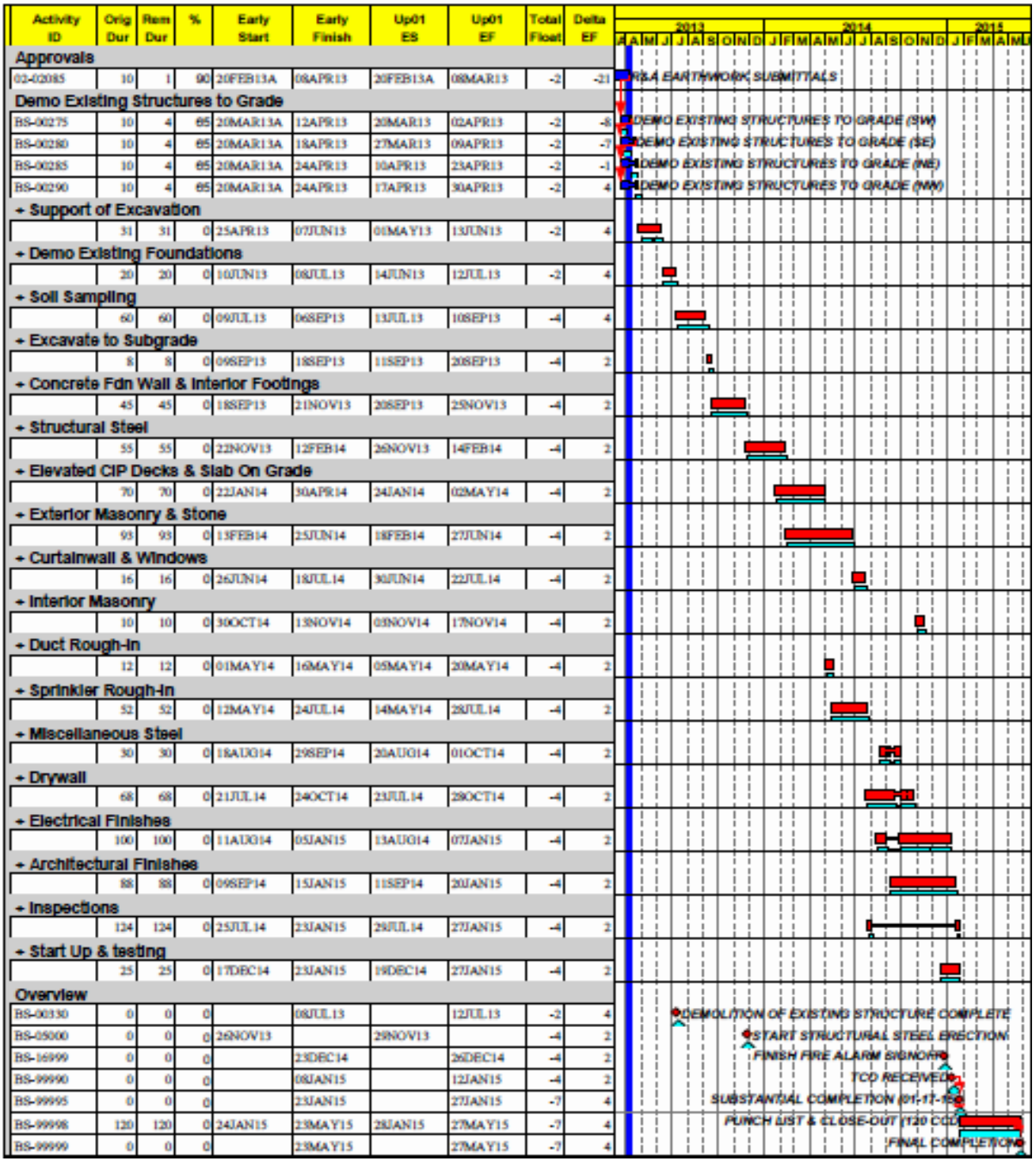
Substantial Completion

The Schedule Update 02 projects this milestone occur on 01-23-15 (Friday), which is 7 cal days behind contractual milestone of 01-16-15. In comparison to update 01 a gain of 4 ccd has occurred.

Final Completion

The Schedule Update 02 projects this milestone occur on 05-27-15.

Critical Path:



Activity ID	Orig Dur	Rem Dur	%	Early Start	Early Finish	Up01 ES	Up01 EF	Total Float	Delta EF
Approvals									
02-02085	10	1	90	20FEB13A	08APR13	20FEB13A	08MAR13	-2	-21
Demo Existing Structures to Grade									
BS-00275	10	4	65	20MAR13A	12APR13	20MAR13	02APR13	-2	-8
BS-00280	10	4	65	20MAR13A	18APR13	27MAR13	09APR13	-2	-7
BS-00285	10	4	65	20MAR13A	24APR13	10APR13	23APR13	-2	-1
BS-00290	10	4	65	20MAR13A	24APR13	17APR13	30APR13	-2	4
+ Support of Excavation									
	31	31	0	25APR13	07JUN13	01MAY13	13JUN13	-2	4
+ Demo Existing Foundations									
	20	20	0	10JUN13	08JUL13	14JUN13	12JUL13	-2	4
+ Soil Sampling									
	60	60	0	09JUL13	06SEP13	13JUL13	10SEP13	-4	4
+ Excavate to Subgrade									
	8	8	0	09SEP13	18SEP13	11SEP13	20SEP13	-4	2
+ Concrete Fdn Wall & Interior Footings									
	45	45	0	18SEP13	21NOV13	20SEP13	25NOV13	-4	2
+ Structural Steel									
	55	55	0	22NOV13	12FEB14	26NOV13	14FEB14	-4	2
+ Elevated CIP Decks & Slab On Grade									
	70	70	0	22JAN14	30APR14	24JAN14	02MAY14	-4	2
+ Exterior Masonry & Stone									
	93	93	0	13FEB14	25JUN14	18FEB14	27JUN14	-4	2
+ Curtainwall & Windows									
	16	16	0	26JUN14	18JUL14	30JUN14	22JUL14	-4	2
+ Interior Masonry									
	10	10	0	30OCT14	13NOV14	03NOV14	17NOV14	-4	2
+ Duct Rough-In									
	12	12	0	01MAY14	16MAY14	05MAY14	20MAY14	-4	2
+ Sprinkler Rough-In									
	52	52	0	12MAY14	24JUL14	14MAY14	28JUL14	-4	2
+ Miscellaneous Steel									
	30	30	0	18AUG14	29SEP14	20AUG14	01OCT14	-4	2
+ Drywall									
	68	68	0	21JUL14	24OCT14	23JUL14	28OCT14	-4	2
+ Electrical Finishes									
	100	100	0	11AUG14	05JAN15	13AUG14	07JAN15	-4	2
+ Architectural Finishes									
	88	88	0	09SEP14	15JAN15	11SEP14	20JAN15	-4	2
+ Inspections									
	124	124	0	25JUL14	23JAN15	29JUL14	27JAN15	-4	2
+ Start Up & testing									
	25	25	0	17DEC14	23JAN15	19DEC14	27JAN15	-4	2
Overview									
BS-00330	0	0	0		08JUL13		12JUL13	-2	4
BS-05000	0	0	0	26NOV13		29NOV13		-4	2
BS-16999	0	0	0		23DEC14		26DEC14	-4	2
BS-99990	0	0	0		08JAN15		12JAN15	-4	2
BS-99995	0	0	0		23JAN15		27JAN15	-7	4
BS-99998	120	120	0	24JAN15	23MAY15	28JAN15	27MAY15	-7	4
BS-99999	0	0	0		23MAY15		27MAY15	-7	4

Refer to critical path report attached.

Milestones:

	Rev.1 Baseline Schedule 315A.prx	Schedule Update 01 PQ01	Schedule Update 02 PQ02	Total Float	Gain/Slippage
Data Date	08-01-12	03-08-13	04-08-13		
Substantial Completion	01-16-15 (Friday)	01-27-15 (Tuesday)	01-23-15 (Friday)	-7	+4 cd
Project Final Completion	05-16-15	05-27-15	05-23-15	-7	+4 cd

Refer to milestone report attached.

Schedule Update #02 Forecasts completion of the following areas:

Act Id in CPM	Description	Baseline Schedule	Schedule Update #01	Schedule Update #02	Total Float
BS-00330	Complete Demolition Of Existing Structure	07-03-13	07-12-13	07-08-13	-2
BS-00175	Start Soil Sampling	07-04-13	07-13-13	07-09-13	-4
BS-00329	Start Foundation	09-03-13	09-11-13	09-09-13	0
BS-00339	Start Concrete Placement	09-25-13	10-03-13	10-01-13	15
BS-05000	**Start Structural Steel Erection**	**11-20-13**	**11-29-13**	**11-26-13**	**-4**
BS-07069	Start Roof	01-30-14	02-07-14	02-05-14	126
BS-08099	Building Tight	09-10-14	09-18-14	09-16-14	1

Progress and Goals

The update covers period from March 09, 2013 thru April 8, 2013, 21 working days.
During this reporting period the following major work was performed:

- Con Edison cutoff certificate was received this period.
- All Demolition Permits were approved and received this period.
- The Excavation and Shoring Permit was approved and received this period.
- The construction fence was modified to accommodate National Grid's Gas Line Relocation work. T&M's were submitted for this additional work.
- Coordination continued this period.
- Shop drawings submissions continued this period.
- Demolition to grade of the existing building began this period.

- Vibration and settlement monitoring began this period.
- Demolition of the existing fie standpipe took place this period.
- Cleaning (a portion of the removal of the contents were performed per NOD#7) of the buried tank took place this period and removal of the buried tank will be performed in the next period.
- Removal of demolition debris from site began this period.
- Partial demolition in preparation for Soldier Pile installation will take place next period.
- SOE installation will take place in the next period.
- Excavation and removal of excavated materials from site will commence in the next period.
- Truck wash station installation will take place in the next period.
- Closure of 44th Avenue took place this period with the erection of gates and appropriate signage.
- The sidewalk shed along 44th Avenue was removed this period.

Current & Potential Impacts

1. **Stop Work Order #1** issued 08/23/12 and rescinded 08/24/12 was a stop work order for all contract related activities.

2. **Delays due to Sandy Hurricane** (10/27/12) and outlined in memos; SCCI-003, -005, -0010. As a result of Hurricane Sandy and the Nor'easter the following week, all utilities became unresponsive as they addressed emergencies in the hardest hit areas of NY/NJ/Long Island. As a result of this the utility cutoffs required for demolition permitting (water, sewer, gas, electric) and requested in September of 2012 were delayed as outlined in the referenced memos.

3. **Con Ed cutoffs delaying issuance of demo permits** SCCI-0012. Due to the extremely long period of time it took from our September 2012 request for the cutoff of the existing electric service for the buildings to the time that con Edison finally came to site to perform the work, we had begun abatement of the existing building. On 01/15/13 con Ed's field crew came to site to perform the demo of service. I was told the work was completed but they could not remove the meters because of visible abatement notices seen (this abatement was on the roof as the building interior had been completed), when I went to verify service was cut I saw that only one (1) of the two (2) feeds were cut and service was still active to half of the site. con Ed only came back to site after the ACP-21(abatement closeout). The ACP-21 was sent to con Ed on 02/22/13. The cutoff was performed on 03/08/13 and the cutoff cert was provided to us on 03/13/13. All other cutoff certs had been previously received but **the con Ed cutoff delayed the issuance of the demolition permits with demolition commencing on 03/20/13** (permits were approved on 03/15/13). Demolition is ongoing but its commencement was delayed by the con Ed cutoffs which were also affected/delayed due to the effects of Hurricane Sandy etc.

4. **Bulletin #1 Delays due to National Grid gas line relocation.** (issued 09/05/12). A revised utility survey was issued after bid showing the gas lines in the sidewalks

closer to the Support of Excavation (SOE) line than at time of bid. A cost proposal was submitted for a re-engineered system to support the excavation but was not accepted by the SCA who elected to have National Grid relocate these gas lines around the perimeter of the jobsite. After a long period of waiting the utility began this relocation and we have had to accommodate (performing additional work on T&M) the construction of our construction fence and 44th Avenue road closure to accommodate. In the next period we will confirm whether the SOE installation is delayed or impacted as National Grid's work is ongoing.

5. **Bulletin #4(RFP/NOD #8). (Issued 03/15/13) –** Due to the issuance of this bulletin the dimensions of the detention tank in the southwest corner of the jobsite changed and the SOE design was modified (adding 4 additional soldier piles). This was due to the de-mapping of 44th Avenue. As a result of this we have had to modify approved rebar drawings and approved SOE drawings. We have also had to file an amendment (approved 04/25/13) to the SOE permit for these changes as we await the start of the SOE installation in the next period.
6. **Bulletin #2 issued 01/23/13 (RFP/NOD #5 issued 01/28/13) –** Spec and Drawing revisions affecting Plumbing, Fire Protection and Electrical. We and our subcontractors are currently evaluating the revisions/additions for potential impacts.

7. **Bulletin #3 issued 04/04/13 (RFP #11 issued 04/04/13)-** Spec and Drawing Changes affecting Fire Protection, Plumbing, Electrical, HVAC dampers, and Instrumentation. We and our subcontractors are currently evaluating the revisions/additions for potential impacts.

8. **Bulletin #5 issued 03/11/13 (RFP/NOD #9 issued 03/15/13& 03/20/13)- (**Electrical)Engineering Directive Spec and Drawing Changes affecting Electrical. We and our subcontractor are currently evaluating the revisions/additions for potential impacts and have submitted various RFI's regarding this.

Modification to the previously submitted schedule
Impact activities were added:

Refer to Logic Changes report

Scheduling Assumptions and Criteria:
Schedule calculation mode is retained logic. This project contains 2040 activities with 3963 relationships. There are 148 activities in the longest path. The start date is 08-01-12. The latest calculated early finish is 05-23-15.

PS315 43-18 97th Place Corona, NY 11368 - New School
SCHOOL CONSTRUCTION AUTHORITY
SOLICITATION NO.: SCA12-010675-1
Comparison Report Between Update 02 (PQ02.prx) and Update 01 (PQ01.prx)

SECTION 1 - These activities have been added in update #02 (PQ02.prx).

Act ID	Description	OD	TF
BS-00930	PIPING OVERLAY (BSMT - CW & LR)	10	80
BS-01000	PIPING OVERLAY (1ST FLOOR)	10	80
BS-01010	PIPING OVERLAY (2ND FLOOR)	10	80
BS-01020	PIPING OVERLAY (3RD FLOOR)	10	80
BS-01030	PIPING OVERLAY (4TH FLOOR)	10	80
BS-01040	PIPING OVERLAY (5TH FLOOR)	10	80

SECTION 2 - These original durations have been changed in update #02 (PQ02.prx).

Act ID	Description	Old OD	New OD	Change
09-09085	P&S FLOOR FINISHES SUBCONTRACTOR	200	100	-100

SECTION 3 - These descriptions have been changed in update #02 (PQ02.prx).

Act ID	Old Description	New Description
N08-0015	REQUEST FOR COST PROPOSAL RFP/NOD #04	REQUEST FOR COST PROPOSAL RFP/NOD #08
N08-0020	RECEIVE NOTICE OF DIRECTION RFP/NOD #04	RECEIVE NOTICE OF DIRECTION RFP/NOD #08
N08-0025	SUBMIT COST PROPOSAL FOR RFP/NOD #04	SUBMIT COST PROPOSAL FOR RFP/NOD #08
N08-0030	RFP/NOD #04 NEGOTIATE & SIGN OFF	RFP/NOD #08 NEGOTIATE & SIGN OFF
N09-0015	REQUEST FOR COST PROPOSAL RFP/NOD #05	REQUEST FOR COST PROPOSAL RFP/NOD #09
N09-0020	RECEIVE NOTICE OF DIRECTION RFP/NOD #05	RECEIVE NOTICE OF DIRECTION RFP/NOD #09
N09-0025	SUBMIT COST PROPOSAL FOR RFP/NOD #05	SUBMIT COST PROPOSAL FOR RFP/NOD #09
N09-0030	RFP/NOD #05 NEGOTIATE & SIGN OFF	RFP/NOD #0 NEGOTIATE & SIGN OFF

SECTION 4 - These relationships have been deleted in update #02 (PQ02.prx).

Pred ID	Description	Succ ID	Description	Link	Lag
02-02015	R&A MONITORING WELL ABANDONMENT/PROTECTION				
		BS-00190	PARTIAL FNDTN DEMO NORTH (SOE)	FS	0
BS-00045	APPROVE DOB PERMIT APPLICATION FOR NEW BUILDING				
		BS-00275	DEMO EXISTING STRUCTURES TO GRADE (SW)	FS	0
BS-00065	APPROVE DEP PERMIT APPLICATION FOR SEWER CONN.				
		BS-00275	DEMO EXISTING STRUCTURES TO GRADE (SW)	FS	0
BS-00275	DEMO EXISTING STRUCTURES TO GRADE (SW)				
		BS-00280	DEMO EXISTING STRUCTURES TO GRADE (SE)	SS	5

SECTION 5 - These relationships have been added in update #02 (PQ02.prx).

Pred ID	Description	Succ ID	Description	Link	Lag
BS-00275	DEMO EXISTING STRUCTURES TO GRADE (SW)				
		BS-00280	DEMO EXISTING STRUCTURES TO GRADE (SE)	FS	0
02-02015	R&A MONITORING WELL ABANDONMENT/PROTECTION				
		BS-00339	START CONCRETE PLACEMENT	FS	0
BS-00900	PLUMBING OVERLAY (BSMT - CW & LR)				
		BS-00930	PIPING OVERLAY (BSMT - CW & LR)	FS	0

Comparison Report Between Update 02 (PQ02.prx) and Update 01 (PQ01.prx)

Pred ID	Description		
Succ ID	Description	Link	Lag
BS-00930	PIPING OVERLAY (BSMT - CW & LR)		
BS-00935	ELECTRICAL OVERLAY (BSMT - CW& LR)	FS	0
BS-01000	PIPING OVERLAY (1ST FLOOR)		
BS-00940	ELECTRICAL OVERLAY (1ST FLOOR)	FS	0
BS-01010	PIPING OVERLAY (2ND FLOOR)		
BS-00945	ELECTRICAL OVERLAY (2ND FLOOR)	FS	0
BS-01020	PIPING OVERLAY (3RD FLOOR)		
BS-00950	ELECTRICAL OVERLAY (3RD FLOOR)	FS	0
BS-01030	PIPING OVERLAY (4TH FLOOR)		
BS-00955	ELECTRICAL OVERLAY (4TH FLOOR)	FS	0
BS-01040	PIPING OVERLAY (5TH FLOOR)		
BS-00960	ELECTRICAL OVERLAY (5TH FLOOR)	FS	0
BS-00905	PLUMBING OVERLAY (1ST FLOOR)		
BS-01000	PIPING OVERLAY (1ST FLOOR)	FS	0
BS-00930	PIPING OVERLAY (BSMT - CW & LR)		
BS-01000	PIPING OVERLAY (1ST FLOOR)	FS	0
BS-00910	PLUMBING OVERLAY (2ND FLOOR)		
BS-01010	PIPING OVERLAY (2ND FLOOR)	FS	0
BS-01000	PIPING OVERLAY (1ST FLOOR)		
BS-01010	PIPING OVERLAY (2ND FLOOR)	FS	0
BS-00915	PLUMBING OVERLAY (3RD FLOOR)		
BS-01020	PIPING OVERLAY (3RD FLOOR)	FS	0
BS-01010	PIPING OVERLAY (2ND FLOOR)		
BS-01020	PIPING OVERLAY (3RD FLOOR)	FS	0
BS-00920	PLUMBING OVERLAY (4TH FLOOR)		
BS-01030	PIPING OVERLAY (4TH FLOOR)	FS	0
BS-01020	PIPING OVERLAY (3RD FLOOR)		
BS-01030	PIPING OVERLAY (4TH FLOOR)	FS	0
BS-00925	PLUMBING OVERLAY (5TH FLOOR)		
BS-01040	PIPING OVERLAY (5TH FLOOR)	FS	0
BS-01030	PIPING OVERLAY (4TH FLOOR)		
BS-01040	PIPING OVERLAY (5TH FLOOR)	FS	0
BS-00045	APPROVE DOB PERMIT APPLICATION FOR NEW BUILDING		
BS-05001	STRUCTURAL STEEL MOBILIZATION	FS	0

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-00000	0	0	1	100	NTP (08-01-12)	1AUG12A				
BS-00049	0	0	1	100	SUBCONTRACTOR 'BUYOUT'	1AUG12A				
BS-00199	0	0	1	100	COMPLETE MOBILIZATION		10SEP12A			
BS-00029	0	0	1	0	START STRUCTURAL STEEL FABRICATION	8APR13		21AUG13		95
BS-00019	0	0	1	0	PLACE STEEL MILL ORDER	23APR13		21AUG13		84
BS-00009	0	0	1	0	COMPLETE PROJECT WORK PERMITS		3MAY13		28SEP12*	-148
BS-00319	0	0	1	0	SOE COMPLETE		5JUL13		3JUL13	-1
BS-00330	0	0	1	0	DEMOLITION OF EXISTING STRUCTURE COMPLETE		8JUL13		3JUL13	-2
BS-00039	0	0	1	0	START F&D DISTRIBUTION LINES	29AUG13		29APR14		165
BS-00329	0	0	1	0	START FOUNDATION	9SEP13		9SEP13		0
BS-00399	0	0	1	0	EXCAVATION TO SUBGRADE COMPLETE		18SEP13		22OCT13	23
BS-00034	0	0	1	0	START U/G PLUMBING & OTHER UTILITIES	19SEP13		1NOV13		30
BS-00339	0	0	1	0	START CONCRETE PLACEMENT	1OCT13		23OCT13		15
BS-05000	0	0	1	0	START STRUCTURAL STEEL ERECTION	26NOV13		20NOV13		-4
BS-05006	0	0	1	0	START DECK ERECTION	10DEC13		13FEB14		44
BS-15059	0	0	1	0	ROOFTOP UNITS AVAILABLE (LR-ROOF)		26DEC13		4JUN14	110
BS-07009	0	0	1	0	START FIREPROOFING	5FEB14		11MAR14		23
BS-07069	0	0	1	0	START ROOF	5FEB14		5AUG14		126
BS-04019	0	0	1	0	START EXT & INT MASONRY, STAIR BULKHEADS	13FEB14		21MAY14		68
BS-15069	0	0	1	0	ROOFTOP UNITS AVAILABLE (CW-ROOF)		21FEB14		4JUN14	72
BS-07019	0	0	1	0	START SETTING OF ROOFTOP UNITS & CONNECTIONS	24FEB14		19JUN14		82
BS-09009	0	0	1	0	START LAYOUT OF STUDS	26MAR14		17APR14		16
BS-50000	0	0	1	0	START P&D, RISERS, CONNECTION TO ROOF DRAINS	26MAR14		14JUL14		76
BS-07049	0	0	1	0	START ELECTRICAL DISTRIBUTION LINES	2APR14		20JUN14		56
BS-15039	0	0	1	0	START LOW VOLTAGE	18APR14		15AUG14		83
BS-04039	0	0	1	0	START ELEVATOR RAILS & PIT (HYDRAULIC)	1MAY14		5JAN15		169
BS-05049	0	0	1	0	START MECHANICAL DISTRIBUTION LINES	1MAY14		12MAY14		7
BS-14069	0	0	1	0	START ELEVATOR	1MAY14		21JUL14		55
BS-0678	0	0	1	0	START WINDOWS	14MAY14		20JUN14		26
BS-15399	0	0	1	0	BUILDING HVAC FLUSH-OUT		30JUN14		28AUG14	42
BS-09019	0	0	1	0	START DRYWALL	3JUL14		21JUL14		11
BS-06499	0	0	1	0	EXTERIOR MASONRY & STONE COMPLETE		14JUL14		16SEP14	45
BS-09029	0	0	1	0	START SUSPENDED CEILING GRID (SAMPLE RM EXCLUDED	21JUL14		18AUG14		20
BS-06799	0	0	1	0	WINDOW FOR SAMPLE CLASSROM SET		28JUL14		17SEP14	36
BS-1S000	0	0	1	0	START SAMPLE CLASSROOM	29JUL14		18SEP14		36
01-01060	0	0	1	0	START SUBMITTALS OF O&M MANUALS	4AUG14*		21OCT14		54
BS-16599	0	0	1	0	PERM POWER AVAILABLE		15SEP14		17OCT14	23
BS-08099	0	0	1	0	BLDG TIGHT	16SEP14		17SEP14		1
BS-90199	0	0	1	0	START MECH & ELEC COMMISSIONING	16SEP14		18DEC14		64
BS-1S999	0	0	1	0	SAMPLE CLASSROOM COMPLETE (CW-2ND FLR)		30SEP14		21NOV14	36
BS-09049	0	0	1	0	START FOOD SERVICE EQUIPMENT (CW-BSMT)	2OCT14		2OCT14		0
BS-11039	0	0	1	0	START KITCHEN	2OCT14		2OCT14		0
BS-15604	0	0	1	0	MDF & IDF FACILITIES COMPLETE		2OCT14		17OCT14*	10
BS-15499	0	0	1	0	FINISH MECHANICAL / PLUMBING		16DEC14		2JAN15	11
BS-16999	0	0	1	0	FINISH FIRE ALARM SIGNOFF		23DEC14		17DEC14	-4
BS-15599	0	0	1	0	FINISH HVAC (ALL)		24DEC14		9JAN15	10
BS-09298	0	0	1	0	FINISHES & CEILING COMPLETE		30DEC14		2JAN15	2
BS-09299	0	0	1	0	FINISH PAINITING (ALL)		30DEC14		2JAN15	2
BS-16995	0	0	1	0	FINISH LOW VOLTAGE		5JAN15		2JAN15	-1
BS-99990	0	0	1	0	TCO RECEIVED		8JAN15		2JAN15	-4
BS-99995	0	0	2	0	SUBSTANTIAL COMPLETION (01-17-15)		23JAN15		16JAN15*	-7
BS-99999	0	0	2	0	FINAL COMPLETION		23MAY15		16MAY15*	-7

ACTIVITY ID	TAR DUR	CUR DUR	CAL	%	ACTIVITY DESCRIPTION	CURRENT START	EARLY FINISH	TARGET START	EARLY FINISH	VAR.
BS-00000	0	0	1	100	NTP (08-01-12)	1AUG12A		1AUG12A		0
BS-00049	0	0	1	100	SUBCONTRACTOR 'BUYOUT'	1AUG12A		1AUG12A		0
BS-00199	0	0	1	100	COMPLETE MOBILIZATION		10SEP12A		10SEP12A	0
BS-00029	0	0	1	0	START STRUCTURAL STEEL FABRICATION	8APR13		8MAR13		-21
BS-00019	0	0	1	0	PLACE STEEL MILL ORDER	23APR13		28MAR13		-18
BS-00009	0	0	1	0	COMPLETE PROJECT WORK PERMITS		3MAY13		4APR13	-21
BS-00319	0	0	1	0	SOE COMPLETE		5JUL13		11JUL13	4
BS-00330	0	0	1	0	DEMOLITION OF EXISTING STRUCTURE COMPLETE		8JUL13		12JUL13	4
BS-00039	0	0	1	0	START F&D DISTRIBUTION LINES	29AUG13		21AUG13		-6
BS-00329	0	0	1	0	START FOUNDATION	9SEP13		11SEP13		2
BS-00399	0	0	1	0	EXCAVATION TO SUBGRADE COMPLETE		18SEP13		20SEP13	2
BS-00034	0	0	1	0	START U/G PLUMBING & OTHER UTILITIES	19SEP13		23SEP13		2
BS-00339	0	0	1	0	START CONCRETE PLACEMENT	1OCT13		3OCT13		2
BS-05000	0	0	1	0	START STRUCTURAL STEEL ERECTION	26NOV13		29NOV13		2
BS-05006	0	0	1	0	START DECK ERECTION	10DEC13		12DEC13		2
BS-15059	0	0	1	0	ROOFTOP UNITS AVAILABLE (LR-ROOF)		26DEC13		30DEC13	2
BS-07009	0	0	1	0	START FIREPROOFING	5FEB14		7FEB14		2
BS-07069	0	0	1	0	START ROOF	5FEB14		7FEB14		2
BS-04019	0	0	1	0	START EXT & INT MASONRY, STAIR BULKHEADS	13FEB14		18FEB14		2
BS-15069	0	0	1	0	ROOFTOP UNITS AVAILABLE (CW-ROOF)		21FEB14		25FEB14	2
BS-07019	0	0	1	0	START SETTING OF ROOFTOP UNITS & CONNECTIONS	24FEB14		26FEB14		2
BS-09009	0	0	1	0	START LAYOUT OF STUDS	26MAR14		28MAR14		2
BS-50000	0	0	1	0	START P&D, RISERS, CONNECTION TO ROOF DRAINS	26MAR14		28MAR14		2
BS-07049	0	0	1	0	START ELECTRICAL DISTRIBUTION LINES	2APR14		4APR14		2
BS-15039	0	0	1	0	START LOW VOLTAGE	18APR14		22APR14		2
BS-04039	0	0	1	0	START ELEVATOR RAILS & PIT (HYDRAULIC)	1MAY14		5MAY14		2
BS-05049	0	0	1	0	START MECHANICAL DISTRIBUTION LINES	1MAY14		5MAY14		2
BS-14069	0	0	1	0	START ELEVATOR	1MAY14		5MAY14		2
BS-0678	0	0	1	0	START WINDOWS	14MAY14		16MAY14		2
BS-15399	0	0	1	0	BUILDING HVAC FLUSH-OUT		30JUN14		2JUL14	2
BS-09019	0	0	1	0	START DRYWALL	3JUL14		8JUL14		2
BS-06499	0	0	1	0	EXTERIOR MASONRY & STONE COMPLETE		14JUL14		16JUL14	2
BS-09029	0	0	1	0	START SUSPENDED CEILING GRID (SAMPLE RM EXCLUDED	21JUL14		23JUL14		2
BS-06799	0	0	1	0	WINDOW FOR SAMPLE CLASSROM SET		28JUL14		30JUL14	2
BS-1S000	0	0	1	0	START SAMPLE CLASSROOM	29JUL14		31JUL14		2
01-01060	0	0	1	0	START SUBMITTALS OF O&M MANUALS	4AUG14*		4AUG14*		0
BS-16599	0	0	1	0	PERM POWER AVAILABLE		15SEP14		17SEP14	2
BS-08099	0	0	1	0	BLDG TIGHT	16SEP14		18SEP14		2
BS-90199	0	0	1	0	START MECH & ELEC COMMISSIONING	16SEP14		18SEP14		2
BS-1S999	0	0	1	0	SAMPLE CLASSROOM COMPLETE (CW-2ND FLR)		30SEP14		2OCT14	2
BS-09049	0	0	1	0	START FOOD SERVICE EQUIPMENT (CW-BSMT)	2OCT14		6OCT14		2
BS-11039	0	0	1	0	START KITCHEN	2OCT14		6OCT14		2
BS-15604	0	0	1	0	MDF & IDF FACILITIES COMPLETE		2OCT14		6OCT14	2
BS-15499	0	0	1	0	FINISH MECHANICAL / PLUMBING		16DEC14		18DEC14	2
BS-16999	0	0	1	0	FINISH FIRE ALARM SIGNOFF		23DEC14		26DEC14	2
BS-15599	0	0	1	0	FINISH HVAC (ALL)		24DEC14		29DEC14	2
BS-09298	0	0	1	0	FINISHES & CEILING COMPLETE		30DEC14		2JAN15	2
BS-09299	0	0	1	0	FINISH PAINITING (ALL)		30DEC14		2JAN15	2
BS-16995	0	0	1	0	FINISH LOW VOLTAGE		5JAN15		7JAN15	2
BS-99990	0	0	1	0	TCO RECEIVED		8JAN15		12JAN15	2
BS-99995	0	0	2	0	SUBSTANTIAL COMPLETION (01-17-15)		23JAN15		27JAN15	4
BS-99999	0	0	2	0	FINAL COMPLETION		23MAY15		27MAY15	4

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
02-02085	10	1	1	90	02200	R&A EARTHWORK SUBMITTALS	20FEB13A	8APR13		4APR13	-2
BS-00275	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SW)	20MAR13A	12APR13		10APR13	-2
BS-00280	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SE)	20MAR13A	18APR13		16APR13	-2
BS-00285	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NE)	20MAR13A	24APR13		22APR13	-2
BS-00290	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NW)	20MAR13A	24APR13		22APR13	-2
BS-00190	2	2	1	0	02250	PARTIAL FNDTN DEMO NORTH (SOE)	25APR13	26APR13	23APR13	24APR13	-2
BS-00211	2	2	1	0	02250	PARTIAL FNDTN DEMO EAST (SOE)	29APR13	30APR13	25APR13	26APR13	-2
BS-00192	3	3	1	0	02250	INST SOLDIER PILES NORTH (WEST HALF SOE)	1MAY13	3MAY13	29APR13	1MAY13	-2
BS-00195	3	3	1	0	02250	INST SOLDIER PILES NORTH (EAST HALF SOE)	6MAY13	8MAY13	2MAY13	6MAY13	-2
BS-00200	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (WEST HALF SOE)	9MAY13	14MAY13	7MAY13	10MAY13	-2
BS-00203	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (EAST HALF SOE)	15MAY13	20MAY13	13MAY13	16MAY13	-2
BS-00205	9	9	1	0	02250	INSTALL TIEBACKS NORTH (SOE) - 43RD AVE. SIDE	21MAY13	3JUN13	17MAY13	30MAY13	-2
BS-00207	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (WEST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00209	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (EAST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00310	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SW & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00320	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NE & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00315	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SE & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00325	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NW & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00330	0	0	1	0	02115	DEMOLITION OF EXISTING STRUCTURE COMPLETE		8JUL13		3JUL13	-2
BS-00175	60	60	2	0	02010	SCA 60 CD AOR/EOR SOIL INVESTIGATION	9JUL13	6SEP13	5JUL13	2SEP13	-4
BS-00350	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SW)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00380	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NE)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00360	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SE)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-00390	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NW)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-02750	1	1	1	0	03300	MOBILIZATION FOR CONCRETE FOUNDATION WALL	18SEP13	18SEP13	12SEP13	12SEP13	-4
BS-02753	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A1-A6	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02758	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A6-A12	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02760	6	6	1	0	03300	PERIMETER FNDTN WALL (S) CL. A6-A12	1OCT13	8OCT13	25SEP13	2OCT13	-4
BS-02765	5	5	1	0	03300	PERIMETER CONC DETENTION TANK WALLS	9OCT13	16OCT13	3OCT13	9OCT13	-4
BS-02768	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1A-1D5	17OCT13	28OCT13	10OCT13	22OCT13	-4
BS-02770	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1A-1D5	29OCT13	5NOV13	23OCT13	30OCT13	-4
BS-02775	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1D.5-1H	6NOV13	14NOV13	31OCT13	7NOV13	-4
BS-02815	5	5	1	0	02250	INTERIOR FOOTINGS (NW)	15NOV13	21NOV13	8NOV13	15NOV13	-4
BS-05001	2	2	1	0	05120	STRUCTURAL STEEL MOBILIZATION	22NOV13	25NOV13	18NOV13	19NOV13	-4
BS-05000	0	0	1	0	05120	START STRUCTURAL STEEL ERECTION	26NOV13		20NOV13		-4
BS-05003	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYM)	26NOV13	2DEC13	20NOV13	25NOV13	-4
BS-05005	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMNASIUM)	27NOV13	3DEC13	21NOV13	26NOV13	-4
BS-05013	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYMATORIUM)	3DEC13	6DEC13	26NOV13	2DEC13	-4
BS-05015	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMATORIUM)	4DEC13	9DEC13	27NOV13	3DEC13	-4
BS-05023	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-LIBRARY)	9DEC13	12DEC13	3DEC13	6DEC13	-4
BS-05025	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-LIBRARY)	10DEC13	13DEC13	4DEC13	9DEC13	-4
BS-05063	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW - BSMT)	13DEC13	20DEC13	9DEC13	16DEC13	-4
BS-05065	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW - BSMT)	16DEC13	23DEC13	10DEC13	17DEC13	-4
BS-05073	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-1ST FLR)	23DEC13	31DEC13	17DEC13	24DEC13	-4
BS-05067	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW - BSMT)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05075	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-1ST FLR)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05083	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-2ND FLR)	2JAN14	9JAN14	26DEC13	3JAN14	-4
BS-05077	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-1ST FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05085	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-2ND FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05093	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-3RD FLR)	10JAN14	17JAN14	6JAN14	13JAN14	-4
BS-05087	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-2ND FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05095	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-3RD FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05103	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-4TH FLR)	21JAN14	28JAN14	14JAN14	22JAN14	-4
BS-04105	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-4TH FLR)	22JAN14	29JAN14	15JAN14	23JAN14	-4
BS-05510	10	10	1	0	03300	CIP CONCRETE DECK (1ST FLR)	22JAN14	4FEB14	15JAN14	29JAN14	-4
BS-05203	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-5TH FLR)	29JAN14	5FEB14	23JAN14	30JAN14	-4
BS-05205	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-5TH FLR)	30JAN14	6FEB14	24JAN14	31JAN14	-4
BS-05520	10	10	1	0	03300	CIP CONCRETE DECK (2ND FLR)	5FEB14	19FEB14	30JAN14	12FEB14	-4
BS-05303	4	4	1	0	05120	ERECT STRUCTURAL STEEL (CW-ROOF)	6FEB14	11FEB14	31JAN14	5FEB14	-4
BS-05305	4	4	1	0	05120	BOLT STRUCTURAL STEEL (CW-ROOF)	7FEB14	12FEB14	3FEB14	6FEB14	-4
BS-06480	8	8	1	0	04200	EXTERIOR CMU (LR-WEST)	13FEB14	25FEB14	7FEB14	19FEB14	-4
BS-05530	10	10	1	0	03300	CIP CONCRETE DECK (3RD FLR)	20FEB14	5MAR14	13FEB14	27FEB14	-4
BS-06490	4	4	1	0	04200	AIR BARRIER (LR-WEST)	26FEB14	3MAR14	20FEB14	25FEB14	-4
BS-06790	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-WEST)	4MAR14	13MAR14	26FEB14	7MAR14	-4
BS-05540	10	10	1	0	03300	CIP CONCRETE DECK (4TH FLR)	6MAR14	19MAR14	28FEB14	13MAR14	-4
BS-06840	11	11	1	0	04200	EXTERIOR CMU (CW-WEST)	14MAR14	28MAR14	10MAR14	24MAR14	-4
BS-05550	10	10	1	0	03300	CIP CONCRETE DECK (5TH FLR)	20MAR14	2APR14	14MAR14	27MAR14	-4
BS-06850	6	6	1	0	04200	AIR BARRIER (CW-WEST)	31MAR14	7APR14	25MAR14	1APR14	-4
BS-05560	10	10	1	0	03300	CIP CONCRETE DECK (ROOF)	3APR14	16APR14	28MAR14	10APR14	-4
BS-06860	11	11	1	0	04200	EXTERIOR BRICK (CW-WEST)	8APR14	22APR14	2APR14	16APR14	-4
BS-05505	10	10	1	0	03300	CIP CONCRETE SLAB ON GRADE (CW-BSMT)	17APR14	30APR14	11APR14	24APR14	-4
BS-06870	5	5	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-WEST)	23APR14	29APR14	17APR14	23APR14	-4
BS-06920	11	11	1	0	04200	EXTERIOR CMU (CW-SOUTH)	30APR14	14MAY14	24APR14	8MAY14	-4
CW-40100	12	12	1	0	15891	INST DUCT MAINS (CW-BSMT)	1MAY14	16MAY14	25APR14	12MAY14	-4
CW-60110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-BSMT)	12MAY14	28MAY14	6MAY14	21MAY14	-4
BS-06930	8	8	1	0	04200	AIR BARRIER (CW-SOUTH)	15MAY14	27MAY14	9MAY14	20MAY14	-4
BS-06940	14	14	1	0	04200	EXTERIOR BRICK (CW-SOUTH)	28MAY14	16JUN14	21MAY14	10JUN14	-4
LR-60110	10	10	1	0	15332	INST SPRINKLER MAINS (LR - BSMT)	29MAY14	11JUN14	22MAY14	5JUN14	-4
LR-60120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR - BSMT)	12JUN14	25JUN14	6JUN14	19JUN14	-4
BS-06950	7	7	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-SOUTH)	17JUN14	25JUN14	11JUN14	19JUN14	-4
BS-06690	8	8	1	0	08525	INST WINDOWS (CW - SE)	26JUN14	8JUL14	20JUN14	1JUL14	-4
LR-62110	10	10	1	0	15332	INST SPRINKLER MAINS (LR-GYMATORIUM)	26JUN14	10JUL14	20JUN14	3JUL14	-4
BS-06700	8	8	1	0	08525	INST WINDOWS (CW - SW)	9JUL14	18JUL14	2JUL14	14JUL14	-4
LR-62120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR-GYMATORIUM)	11JUL14	24JUL14	7JUL14	18JUL14	-4
CW-11095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-1ST FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
CW-12095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-2ND FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
LR-42111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-GYMATORIUM)	25JUL14	31JUL14	21JUL14	25JUL14	-4
LR-02095	6	6	1	0	09260	INST GYPSUM BOARD WALL (LR-GYMATORIUM)	1AUG14	8AUG14	28JUL14	4AUG14	-4

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-11125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-1ST FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-12125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-2ND FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-13095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-3RD FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
LR-72110	10	10	1	0	16120	PULL WIRE (LR-GYMATORIUM)	11AUG14	22AUG14	5AUG14	18AUG14	-4
CW-11100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-1ST FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-13125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-3RD FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-14095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-4TH FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
LR-72092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR-GYMATORIUM)	25AUG14	29AUG14	19AUG14	25AUG14	-4
CW-11120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-1ST FLR)	25AUG14	5SEP14	19AUG14	29AUG14	-4
LR-02100	5	5	1	0	05170	INST BLACK IRON FRAMING (LR-GYMATORIUM)	2SEP14	8SEP14	26AUG14	2SEP14	-4
CW-14125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-4TH FLR)	2SEP14	15SEP14	26AUG14	9SEP14	-4
CW-11130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-1ST FLR)	8SEP14	18SEP14	2SEP14	12SEP14	-4
LR-02135	6	6	1	0	09510	INST GYMNATORIUM CEILING GRID (LR-GYMATORIUM)	9SEP14	16SEP14	3SEP14	10SEP14	-4
CW-14100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-4TH FLR)	16SEP14	29SEP14	10SEP14	23SEP14	-4
LR-02150	6	6	1	0	09900	PRIME PAINTING (LR-GYMATORIUM)	17SEP14	24SEP14	11SEP14	18SEP14	-4
CW-11150	10	10	1	0	09900	PRIME PAINTING (CW-1ST FLR)	19SEP14	2OCT14	15SEP14	26SEP14	-4
LR-01555	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-WEST- BSMT)	24SEP14	7OCT14	18SEP14	1OCT14	-4
CW-71194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (N)	26SEP14	9OCT14	22SEP14	3OCT14	-4
CW-14120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-4TH FLR)	30SEP14	10OCT14	24SEP14	6OCT14	-4
LR-01560	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-MIDDLE- BSMT)	1OCT14	15OCT14	25SEP14	8OCT14	-4
CW-11180	12	12	1	0	09650	INST VCT FLOORING (CW-1ST FLR)	3OCT14	21OCT14	29SEP14	15OCT14	-4
LR-03155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-EAST- BSMT)	8OCT14	22OCT14	2OCT14	16OCT14	-4
CW-71195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (S)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-71197	10	10	1	0	16724	INST SECURITY DEVICES (CW-1ST FLR)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-14130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-4TH FLR)	14OCT14	24OCT14	7OCT14	20OCT14	-4
CW-11181	6	6	1	0	09650	INST VINYL BASE (CW-1ST FLR)	22OCT14	29OCT14	16OCT14	23OCT14	-4
LR-00180	5	5	1	0	09650	INST VCT FLOORING (LR - BSMT)	23OCT14	29OCT14	17OCT14	23OCT14	-4
CW-14150	10	10	1	0	09900	PRIME PAINTING (CW-4TH FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
CW-72197	10	10	1	0	16724	INST SECURITY DEVICES (CW-2ND FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
LR-00182	4	4	1	0	09650	INST VINYL BASE (LR - BSMT)	30OCT14	4NOV14	24OCT14	29OCT14	-4
CW-11183	10	10	1	0	04200	INST BRICK WALL IN LOBBY AREA (CW)	30OCT14	13NOV14	24OCT14	6NOV14	-4
LR-00210	10	10	1	0	09900	FINAL PAINTING (LR - BSMT)	5NOV14	19NOV14	30OCT14	13NOV14	-4
CW-73197	10	10	1	0	16724	INST SECURITY DEVICES (CW-3RD FLR)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-74196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-4TH FLR) (S)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-11186	12	12	1	0	09310	INST TERRAZZO TILE ON FLOOR IN LOBBY AREA (CW)	14NOV14	2DEC14	7NOV14	25NOV14	-4
LR-02210	12	12	1	0	09900	FINAL PAINTING (LR-GYMATORIUM)	20NOV14	8DEC14	14NOV14	2DEC14	-4
CW-74197	10	10	1	0	16724	INST SECURITY DEVICES (CW-4TH FLR)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-75196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-5TH FLR) (S)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-11191	12	12	1	0	09840	INST WOOD PANELS ON WALLS IN LOBBY AREA	3DEC14	18DEC14	26NOV14	12DEC14	-4
CW-72199	8	8	1	0	16720	FINAL CONNECTN TO FA CONTROL PANEL (CW-1ST FLR)	5DEC14	16DEC14	1DEC14	10DEC14	-4
CW-11210	12	12	1	0	09900	FINAL PAINTING (CW-1ST FLR)	8DEC14	23DEC14	2DEC14	17DEC14	-4
LR-03210	12	12	1	0	09900	FINAL PAINTING (LR-LIBRARY)	9DEC14	24DEC14	3DEC14	18DEC14	-4
CW-75198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-5TH FLR)	10DEC14	18DEC14	4DEC14	12DEC14	-4
CW-75197	10	10	1	0	16724	INST SECURITY DEVICES (CW-5TH FLR)	10DEC14	23DEC14	4DEC14	17DEC14	-4
BS-79060	5	5	1	0	16720	START UP & TEST FIRE ALARM SYSTEM	17DEC14	23DEC14	11DEC14	17DEC14	-4
CW-75203	10	10	1	0	16727	INST DATA DEVICES (CW-5TH FLR)	19DEC14	5JAN15	15DEC14	29DEC14	-4
BS-16999	0	0	1	0	16720	FINISH FIRE ALARM SIGNOFF		23DEC14		17DEC14	-4
CW-11215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-1ST FLR)	24DEC14	8JAN15	18DEC14	2JAN15	-4
BS-79999	20	20	1	0	16720	FDNY FIRE PROTECTION SYS TESTING ACCEPTANCE	24DEC14	23JAN15	18DEC14	16JAN15	-4
LR-03222	4	4	1	0	09680	INST CARPET (LIBRARY) (LR-LIBRARY)	26DEC14	31DEC14	19DEC14	24DEC14	-4
LR-03255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (LR-LIBRARY)	2JAN15	15JAN15	26DEC14	9JAN15	-4
BS-79015	3	3	1	0	16727	START UP & TEST DATA CABLING SYSTEM	6JAN15	8JAN15	30DEC14	2JAN15	-4
BS-99990	0	0	1	0	01700G	TCO RECEIVED		8JAN15		2JAN15	-4
CW-11221	5	5	1	0	12501	INST WINDOW SHADES (CW-1ST FLR)	9JAN15	15JAN15	5JAN15	9JAN15	-4
CW-91999	5	5	1	0	01700G	SCA INSPECTION (CW-1ST FLR)	16JAN15	23JAN15	12JAN15	16JAN15	-4
LR-91999	5	5	1	0	01700G	SCA INSPECTION (LR - LIBRARY)	16JAN15	23JAN15	12JAN15	16JAN15	-4
BS-99995	0	0	2	0	01700G	SUBSTANTIAL COMPLETION (01-17-15)		23JAN15		16JAN15*	-7
BS-99998	120	120	2	0	01700G	PUNCH LIST & CLOSE-OUT (120 CCD)	24JAN15	23MAY15	17JAN15	16MAY15	-7
BS-99999	0	0	2	0	01700G	FINAL COMPLETION		23MAY15		16MAY15*	-7

Activity ID Report

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
01-01000	16	0	1	100	01311S	P&S PRELIMINARY SCHEDULE	27AUG12A	11SEP12A			
01-01005	10	0	1	100	01311S	R&A PRELIMINARY SCHEDULE	11SEP12A	1OCT12A			
01-01010	20	0	1	100	01311S	P&S BASELINE SCHEDULE	2OCT12A	26MAR13A			
01-01015	10	0	1	100	01311S	R&A BASELINE SCHEDULE	26NOV12A	5APR13A			
01-01020	32	32	1	0	01352S	P&S SUSTAINABLE MATERIALS TRACKING FORM	8APR13	21MAY13	21NOV13	8JAN14	158
01-01025	27	27	1	0	01352S	R&A SUSTAINABLE MATERIALS TRACKING FORM	22MAY13	28JUN13	9JAN14	18FEB14	158
01-01030	22	0	1	100	01400S	P&S QUALITY CONTROL PLAN	5OCT12A	16NOV12A			
01-01035	10	0	1	100	01400S	R&A QUALITY CONTROL PLAN	16NOV12A	15JAN13A			
01-01040	11	0	1	100	01524S	P&S CONSTRUCTION WASTE MANAGEMENT PLAN	20AUG12A	30AUG12A			
01-01045	10	0	1	100	01524S	R&A CONSTRUCTION WASTE MANAGEMENT PLAN	30AUG12A	4JAN13A			
01-01050	5	0	1	100	01535S	P&S SITE SAFETY PLAN	3AUG12A	8AUG12A			
01-01055	10	0	1	100	01535S	R&A SITE SAFETY PLAN	8AUG12A	28DEC12A			
01-01060	0	0	1	0	01650S	START SUBMITTALS OF O&M MANUALS	4AUG14*		21OCT14		54
01-01100	5	5	1	0	01015G	P&S TEMPORARY HEATING PLAN (IF NEEDED)	25SEP13	1OCT13*	9OCT13	16OCT13	10
01-01110	10	10	1	0	01015G	R&A TEMPORARY HEATING PLAN (IF NEEDED)	2OCT13	16OCT13	17OCT13	30OCT13*	10
02-02000	5	0	1	100	02010	P&S ENVIRONMENTAL SITE ASSESSMENT REPORTS	27SEP12A	2OCT12A			
02-02005	10	0	1	100	02010	SCA ISUUE ENVIRONMENTAL SITE ASSESSMENT REPORTS	2OCT12A	2OCT12A			
02-02010	5	1	1	80	02011	P&S MONITORING WELL ABANDONMENT/PROTECTION	6MAR13A	8APR13		7OCT13	127
02-02015	10	10	1	0	02011	R&A MONITORING WELL ABANDONMENT/PROTECTION	7MAR13A	22APR13		22OCT13	127
02-02020	60	0	1	100	02060	P&S BUILDING DEMOLITION PLAN	13OCT12A	13DEC12A			
02-02025	10	0	1	100	02060	R&A BUILDING DEMOLITION PLAN	13DEC12A	26DEC12A			
02-02030	20	0	1	100	02081	SUBMIT ACM SUBCONTRACTOR	1NOV12A	12NOV12A			
02-02035	10	0	1	100	02081	R&A ACM SUBCONTRACTOR	12NOV12A	19NOV12A			
02-02040	5	0	1	100	02081	P&S ASBESTOS ABATEMENT	7DEC12A	13DEC12A			
02-02045	10	0	1	100	02081	R&A ASBESTOS ABATEMENT	13DEC12A	19DEC12A			
02-02050	5	0	1	100	02091	P&S STORG/HNDLG/TRANSP/DISP OF NON HAZ/HAZ WASTE	15NOV12A	8MAR13A			
02-02055	10	1	1	90	02091	R&A STORG/HNDLG/TRANSP/DISP OF NON HAZ/HAZ WASTE	6DEC12A	8APR13		22APR13	10
02-02060	5	0	1	100	02100	P&S SITE PREPARATION	15FEB13A	15FEB13A			
02-02065	10	0	1	100	02100	R&A SITE PREPARATION	15FEB13A	15FEB13A			
02-02070	60	0	1	100	02115	P&S UNDERGROUND TANK REMOVAL PLAN	7SEP12A	7NOV12A			
02-02075	10	0	1	100	02115	R&A UNDERGROUND TANK REMOVAL PLAN	7NOV12A	6DEC12A			
02-02080	40	0	1	100	02200	P&S EARTHWORK SUBMITTALS	15NOV12A	20FEB13A			
02-02085	10	1	1	90	02200	R&A EARTHWORK SUBMITTALS	20FEB13A	8APR13		4APR13	-2
02-02090	20	0	1	100	02220	P&S GAS VAPOR BARRIER (FLUID APPLIED)	8FEB13A	11MAR13A			
02-02095	10	0	1	100	02220	R&A GAS VAPOR BARRIER (FLUID APPLIED)	11MAR13A	25MAR13A			
02-02100	40	40	1	0	02220	F&D GAS VAPOR BARRIER MATERIALS (FLUID APPLIED)	8APR13	3JUN13	8JAN14	6MAR14	189
02-02110	20	20	1	0	02221	P&S SUB-SLAB DEPRESSURIZATION SYSTEM	8APR13	3MAY13	22NOV13	20DEC13	159
02-02115	10	10	1	0	02221	R&A SUB-SLAB DEPRESSURIZATION SYSTEM	6MAY13	17MAY13	23DEC13	7JAN14	159
02-02120	40	40	1	0	02221	F&D SUB-SLAB DEPRESSURIZATION SYSTEM MATERIALS	20MAY13	16JUL13	8JAN14	6MAR14	159
02-02125	20	0	1	100	02250	P&S FOUNDATION & OTHER CHANGE ADJUSTMENTS	19FEB13A	19FEB13A			
02-02130	10	0	1	100	02250	R&A FOUNDATION & OTHER CHANGE ADJUSTMENTS	19FEB13A	19FEB13A			
02-02135	200	200	1	0	02511	P&S ASPHALTIC CONCRETE PAVING	8APR13	23JAN14	22NOV13	9SEP14	159
02-02140	10	10	1	0	02511	R&A ASPHALTIC CONCRETE PAVING	24JAN14	6FEB14	10SEP14	23SEP14	159
02-02145	40	40	1	0	02511	F&D ASPHALTIC CONCRETE PAVING	7FEB14	4APR14	24SEP14	20NOV14	159
02-02150	200	200	1	0	02513	P&S SIDEWALK & STREET PAVING	8APR13	23JAN14	15OCT13	31JUL14	132
02-02155	10	10	1	0	02513	R&A SIDEWALK & STREET PAVING	24JAN14	6FEB14	1AUG14	14AUG14	132
02-02160	40	40	1	0	02513	F&D SIDEWALK & STREET PAVING MATERIALS	7FEB14	4APR14	15AUG14	10OCT14	132
02-02165	200	200	1	0	02521	P&S CONCRETE CURBS & PAVEMENTS	8APR13	23JAN14	22NOV13	9SEP14	159
02-02170	10	10	1	0	02521	R&A CONCRETE CURBS & PAVEMENTS	24JAN14	6FEB14	10SEP14	23SEP14	159
02-02175	40	40	1	0	02521	F&D CONCRETE CURBS & PAVEMENTS MATERIALS	7FEB14	4APR14	24SEP14	20NOV14	159
02-02180	200	200	1	0	02533	P&S COLORED ATHLETIC WEARING SURFACE	8APR13	23JAN14	9SEP13	25JUN14	107
02-02185	10	10	1	0	02533	R&A COLORED ATHLETIC WEARING SURFACE	24JAN14	6FEB14	26JUN14	10JUL14	107
02-02190	40	40	1	0	02533	F&D COLORED ATHLETIC WEARING SURFACE MATERIALS	7FEB14	4APR14	11JUL14	5SEP14	107
02-02195	200	200	1	0	02580	P&S TRACK/COURT/PLAYGROUND MARKINGS	8APR13	23JAN14	29AUG13	17JUN14	101
02-02200	10	10	1	0	02580	R&A TRACK/COURT/PLAYGROUND MARKINGS	24JAN14	6FEB14	18JUN14	1JUL14	101
02-02205	60	60	1	0	02580	F&D TRACK/COURT/PLAYGROUND MARKINGS MATERIALS	7FEB14	2MAY14	2JUL14	25SEP14	101
02-02210	60	60	1	0	02711	P&S FOUNDATION WALL DRAINAGE SYSTEM	8APR13	1JUL13	6MAY13	30JUL13	20
02-02215	10	10	1	0	02711	R&A FOUNDATION WALL DRAINAGE SYSTEM	2JUL13	16JUL13	31JUL13	13AUG13	20
02-02220	20	20	1	0	02711	F&D FOUNDATION WALL DRAINAGE SYSTEM MATERIALS	17JUL13	13AUG13	14AUG13	11SEP13	20
02-02225	60	60	1	0	02721	P&S TRENCH DRAINS & AREA DRAINS	8APR13	1JUL13	30APR14	24JUL14	267
02-02230	10	10	1	0	02721	R&A TRENCH DRAINS & AREA DRAINS	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02235	40	40	1	0	02721	F&D TRENCH DRAINS & AREA DRAINS MATERIALS	17JUL13	11SEP13	8AUG14	3OCT14	267
02-02240	60	60	1	0	02722	P&S PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	8APR13	1JUL13	30APR14	24JUL14	267
02-02245	10	10	1	0	02722	R&A PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02250	40	40	1	0	02722	F&D PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	17JUL13	11SEP13	8AUG14	3OCT14	267
02-02255	60	60	1	0	02723	P&S STORM DRAINAGE SYSTEMS	8APR13	1JUL13	30APR14	24JUL14	267
02-02260	10	10	1	0	02723	R&A STORM DRAINAGE SYSTEMS	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02265	40	40	1	0	02723	F&D STORM DRAINAGE SYSTEMS MATERIALS	17JUL13	11SEP13	8AUG14	3OCT14	267
02-02270	200	200	1	0	02825	P&S CHAIN LINK FENCES & GATES	8APR13	23JAN14	5DEC13	19SEP14	167
02-02275	10	10	1	0	02825	R&A CHAIN LINK FENCES & GATES	24JAN14	6FEB14	22SEP14	3OCT14	167
02-02280	40	40	1	0	02825	F&D CHAIN LINK FENCES & GATES	7FEB14	4APR14	6OCT14	3DEC14	167
02-02285	200	200	1	0	02860	P&S EARLY CHILDHOOD PLAYGROUND EQUIPMENT	8APR13	23JAN14	27SEP13	16JUL14	121
02-02290	10	10	1	0	02860	R&A EARLY CHILDHOOD PLAYGROUND EQUIPMENT	24JAN14	6FEB14	17JUL14	30JUL14	121
02-02295	40	40	1	0	02860	F&D EARLY CHILDHOOD PLAYGROUND EQUIPMENT	7FEB14	4APR14	31JUL14	25SEP14	121
02-02300	200	200	1	0	02870	P&S SITE & STREET FURNISHINGS	8APR13	23JAN14	4OCT13	23JUL14	126
02-02305	10	10	1	0	02870	R&A SITE & STREET FURNISHINGS	24JAN14	6FEB14	24JUL14	6AUG14	126
02-02310	40	40	1	0	02870	F&D SITE & STREET FURNISHINGS	7FEB14	4APR14	7AUG14	2OCT14	126
02-02315	200	200	1	0	02900	P&S LANDSCAPING	8APR13	23JAN14	29OCT13	14AUG14	142
02-02320	10	10	1	0	02900	R&A LANDSCAPING	24JAN14	6FEB14	15AUG14	28AUG14	142
02-02325	40	40	1	0	02900	F&D LANDSCAPING MATERIALS	7FEB14	4APR14	29AUG14	27OCT14	142
03-03000	60	60	1	0	03100	P&S CONCRETE FORMWORK SHOP DRAWINGS	8APR13	1JUL13	5JUN13	28AUG13	41
03-03005	10	10	1	0	03100	R&A CONCRETE FORMWORK SHOP DRAWINGS	2JUL13	16JUL13	29AUG13	12SEP13	41
03-03010	60	0	1	100	03200	P&S CONCRETE REINFORCEMENT SHOP DRAWINGS	29OCT12A	28DEC12A			
03-03015	10	1	1	90	03200	R&A CONCRETE REINFORCEMENT SHOP DRAWINGS	28DEC12A	8APR13		3MAY13	19
03-03020	60	0	1	100	03300	P&S CAST-IN-PLACE CONCRETE SHOP DRAWINGS	19FEB13A	19FEB13A			
03-03025	10	1	1	90	03300	R&A CAST-IN-PLACE CONCRETE SHOP DRAWINGS	27FEB13A	8APR13		3MAY13	19
03-03030	60	60	1	0	03610	P&S GROUTING SHOP DRAWINGS	8APR13	1JUL13	11FEB14	6MAY14	212
03-03035	10	10	1	0	03610	R&A GROUTING SHOP DRAWINGS	2JUL13	16JUL13	7MAY14	20MAY14	212

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
04-04000	60	60	1	0	04200	P&S MASONRY SUBCONTRACTOR	8APR13	1JUL13	19SEP13	16DEC13	115
04-04005	10	10	1	0	04200	R&A MASONRY SUBCONTRACTOR	2JUL13	16JUL13	17DEC13	31DEC13	115
04-04010	30	0	1	100	04200	P&S UNIT MASONRY SHOP DRAWINGS	25MAR13A	25MAR13A			
04-04015	10	5	1	50	04200	R&A UNIT MASONRY SHOP DRAWINGS	25MAR13A	23JUL13		8JAN14	115
04-04020	20	20	1	0	04200	F&D UNIT MASONRY	24JUL13	20AUG13	9JAN14	6FEB14	115
04-04025	30	30	1	0	04435	P&S CAST STONE SHOP DRAWINGS	17JUL13	27AUG13	24JAN14	7MAR14	130
04-04030	10	10	1	0	04435	R&A CAST STONE SHOP DRAWINGS	28AUG13	11SEP13	10MAR14	21MAR14	130
04-04035	40	40	1	0	04435	F&D CAST STONE	12SEP13	7NOV13	24MAR14	16MAY14	130
05-05000	95	0	1	100	05120	P&S STRUCTURAL-MISCELLANEOUS STEEL SUBCONTRACTOR	10DEC12A	21DEC12A			
05-05005	10	0	1	100	05120	R&A STRUCTURAL-MISCELLANEOUS STEEL SUBCONTRACTOR	21DEC12A	27DEC12A			
05-05010	60	9	1	85	05120	P&S STRUCTURAL STEEL SHOP DRAWINGS	18OCT12A	18APR13		16AUG13	84
05-05015	10	2	1	85	05120	R&A STRUCTURAL STEEL SHOP DRAWINGS	18DEC12A	22APR13		20AUG13	84
05-05020	60	60	1	0	05120	F&D STRUCTURAL STEEL	23APR13	17JUL13	21AUG13	15NOV13	84
05-05025	40	40	1	0	05170	P&S SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	10DEC13	6FEB14	26MAR14	20MAY14	72
05-05030	10	10	1	0	05170	R&A SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	7FEB14	21FEB14	21MAY14	4JUN14	72
05-05035	40	40	1	0	05170	F&D SUPPORT SYS FOR SUSPENDED CEILINGS	24FEB14	18APR14	5JUN14	31JUL14	72
05-05040	60	0	1	100	05300	P&S METAL DECK SHOP DRAWINGS	28NOV12A	28JAN13A			
05-05045	10	0	1	100	05300	R&A METAL DECK SHOP DRAWINGS	28JAN13A	26FEB13A			
05-05050	40	40	1	0	05300	F&D METAL DECK	8APR13	3JUN13	16DEC13	12FEB14	174
05-05055	20	20	1	0	05400	P&S COLD-FORMED METAL FRAMING	8APR13	3MAY13	5FEB14	5MAR14	208
05-05060	10	10	1	0	05400	R&A COLD-FORMED METAL FRAMING	6MAY13	17MAY13	6MAR14	19MAR14	208
05-05065	20	20	1	0	05400	F&D COLD-FORMED METAL FRAMING	20MAY13	17JUN13	20MAR14	16APR14	208
05-05070	60	45	1	25	05500	P&S METAL FABRICATIONS SHOP DRAWINGS	2APR13A	10JUN13		24SEP14	325
05-05075	10	9	1	15	05500	R&A METAL FABRICATIONS SHOP DRAWINGS	2APR13A	21JUN13		7OCT14	325
05-05080	60	60	1	0	05500	F&D METAL FABRICATIONS	24JUN13	17SEP13	8OCT14	6JAN15	325
05-05085	60	60	1	0	05700	P&S ORNAMENTAL METAL SHOP DRAWINGS	8APR13	1JUL13	27JUN14	22SEP14	308
05-05090	10	10	1	0	05700	R&A ORNAMENTAL METAL SHOP DRAWINGS	2JUL13	16JUL13	23SEP14	6OCT14	308
05-05095	60	60	1	0	05700	F&D ORNAMENTAL METAL	17JUL13	9OCT13	7OCT14	5JAN15	308
05-05100	40	0	1	100	05710	P&S STEEL STAIRS SHOP DRAWINGS	15FEB13A	5APR13A			
05-05105	10	8	1	20	05710	R&A STEEL STAIRS SHOP DRAWINGS	5APR13A	17APR13		18FEB14	209
05-05110	40	40	1	0	05710	F&D STEEL STAIRS	18APR13	13JUN13	19FEB14	15APR14	209
06-06000	40	40	1	0	06100	P&S ROUGH CARPENTRY	8APR13	3JUN13	7MAY13	2JUL13	21
06-06005	10	10	1	0	06100	R&A ROUGH CARPENTRY	4JUN13	17JUN13	3JUL13	17JUL13	21
06-06010	40	40	1	0	06100	F&D ROUGH CARPENTRY MATERIALS	18JUN13	13AUG13	18JUL13	12SEP13	21
06-06015	40	40	1	0	06200	P&S FINISH CARPENTRY	10DEC13	6FEB14	15AUG14	10OCT14	172
06-06020	10	10	1	0	06200	R&A FINISH CARPENTRY	7FEB14	21FEB14	14OCT14	27OCT14	172
06-06025	40	40	1	0	06200	F&D FINISH CARPENTRY MATERIALS	24FEB14	18APR14	28OCT14	24DEC14	172
06-06030	60	60	1	0	06410	P&S CUSTOM CASEWORK	8APR13	1JUL13	19JUN14	12SEP14	302
06-06035	10	10	1	0	06410	R&A CUSTOM CASEWORK	2JUL13	16JUL13	15SEP14	26SEP14	302
06-06040	60	60	1	0	06410	F&D CUSTOM CASEWORK	17JUL13	9OCT13	29SEP14	24DEC14	302
07-07000	40	40	1	0	07120	P&S FLUID-APPLIED WATERPROOFING FOR DECKS	8APR13	3JUN13	4SEP13	30OCT13	104
07-07005	10	10	1	0	07120	R&A FLUID-APPLIED WATERPROOFING FOR DECKS	4JUN13	17JUN13	31OCT13	14NOV13	104
07-07010	40	40	1	0	07120	F&D FLUID-APPLIED WP FOR DECKS MATERIALS	18JUN13	13AUG13	15NOV13	14JAN14	104
07-07015	40	0	1	100	07147	P&S CRYSTALLINE WATERPROOFING	3DEC12A	11JAN13A			
07-07020	10	0	1	100	07147	R&A CRYSTALLINE WATERPROOFING	11JAN13A	15FEB13A			
07-07025	40	40	1	0	07147	F&D CRYSTALLINE WATERPROOFING MATERIALS	8APR13	3JUN13	18SEP14	14NOV14	365
07-07030	40	40	1	0	07211	P&S PERIMETER FOUNDATION INSULATION	8APR13	3JUN13	6MAY13	1JUL13	20
07-07035	10	10	1	0	07211	R&A PERIMETER FOUNDATION INSULATION	4JUN13	17JUN13	2JUL13	16JUL13	20
07-07040	40	40	1	0	07211	F&D PERIMETER FOUNDATION INSULATION	18JUN13	13AUG13	17JUL13	11SEP13	20
07-07045	40	40	1	0	07212	P&S MISCELLANEOUS BUILDING INSULATION	8APR13	3JUN13	21APR14	16JUN14	260
07-07050	10	10	1	0	07212	R&A MISCELLANEOUS BUILDING INSULATION	4JUN13	17JUN13	17JUN14	30JUN14	260
07-07055	40	40	1	0	07212	F&D MISCELLANEOUS BUILDING INSULATION	18JUN13	13AUG13	1JUL14	26AUG14	260
07-07060	40	40	1	0	07250	P&S SPRAYED FIRE RESISTIVE MATERIALS	8APR13	3JUN13	28OCT13	24DEC13	141
07-07065	10	10	1	0	07250	R&A SPRAYED FIRE RESISTIVE MATERIALS	4JUN13	17JUN13	26DEC13	9JAN14	141
07-07070	40	40	1	0	07250	F&D SPRAYED FIRE RESISTIVE MATERIALS	18JUN13	13AUG13	10JAN14	10MAR14	141
07-07075	40	40	1	0	07260	P&S INTUMESCENT FIREPROOFING	8APR13	3JUN13	11JUL14	5SEP14	317
07-07080	10	10	1	0	07260	R&A INTUMESCENT FIREPROOFING	4JUN13	17JUN13	8SEP14	19SEP14	317
07-07085	40	40	1	0	07260	F&D INTUMESCENT FIREPROOFING MATERIALS	18JUN13	13AUG13	22SEP14	18NOV14	317
07-07090	40	40	1	0	07270	P&S FIRESTOPPING/SMOKE SEALS	8APR13	3JUN13	2JAN14	28FEB14	185
07-07095	10	10	1	0	07270	R&A FIRESTOPPING/SMOKE SEALS	4JUN13	17JUN13	3MAR14	14MAR14	185
07-07100	40	40	1	0	07270	F&D FIRESTOPPING/SMOKE SEALS	18JUN13	13AUG13	17MAR14	9MAY14	185
07-07105	40	40	1	0	07272	P&S FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	8APR13	3JUN13	9APR14	4JUN14	252
07-07110	10	10	1	0	07272	R&A FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	4JUN13	17JUN13	5JUN14	18JUN14	252
07-07115	40	40	1	0	07272	F&D FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	18JUN13	13AUG13	19JUN14	14AUG14	252
07-07120	40	40	1	0	07421	P&S METAL WALL PANELS	10DEC13	6FEB14	28MAR14	22MAY14	74
07-07125	10	10	1	0	07421	R&A METAL WALL PANELS	7FEB14	21FEB14	23MAY14	6JUN14	74
07-07130	60	60	1	0	07421	F&D METAL WALL PANELS	24FEB14	16MAY14	9JUN14	2SEP14	74
07-07135	80	80	1	0	07560	P&S ROOFING SUBCONTRACTOR	8APR13	30JUL13	6NOV13	5MAR14	148
07-07140	10	10	1	0	07560	R&A ROOFING SUBCONTRACTOR	31JUL13	13AUG13	6MAR14	19MAR14	148
07-07145	40	40	1	0	07560	P&S FLUID-APPLIED PROTECTED MEMBRANE ROOFING	14AUG13	9OCT13	9APR14	4JUN14	162
07-07150	10	10	1	0	07560	R&A FLUID-APPLIED PROTECTED MEMBRANE ROOFING	10OCT13	24OCT13	5JUN14	18JUN14	162
07-07155	40	40	1	0	07560	F&D FLUID-APPLIED PROTECTED MEMBRANE ROOFING	25OCT13	23DEC13	19JUN14	14AUG14	162
07-07160	40	40	1	0	07600	P&S FLASHING & SHEET METAL	14AUG13	9OCT13	20MAR14	14MAY14	148
07-07165	10	10	1	0	07600	R&A FLASHING & SHEET METAL	10OCT13	24OCT13	15MAY14	29MAY14	148
07-07170	40	40	1	0	07600	F&D FLASHING & SHEET METAL	25OCT13	23DEC13	30MAY14	25JUL14	148
07-07175	40	10	1	75	07720	P&S ROOF ACCESSORIES	11FEB13A	27AUG13		19MAY14	181
07-07180	10	10	1	0	07720	R&A ROOF ACCESSORIES	28AUG13	11SEP13	20MAY14	3JUN14	181
07-07185	40	40	1	0	07720	F&D ROOF ACCESSORIES	12SEP13	7NOV13	4JUN14	30JUL14	181
08-08000	40	40	1	0	08110	P&S STEEL DOORS & FRAMES	8APR13	3JUN13	19JUN14	14AUG14	302
08-08005	10	10	1	0	08110	R&A STEEL DOORS & FRAMES	4JUN13	17JUN13	15AUG14	28AUG14	302
08-08010	40	40	1	0	08110	F&D STEEL DOORS & FRAMES	18JUN13	13AUG13	29AUG14	27OCT14	302
08-08015	40	10	1	75	08210	P&S WOOD DOORS	11FEB13A	19APR13		17OCT14	376
08-08020	10	10	1	0	08210	R&A WOOD DOORS	22APR13	3MAY13	20OCT14	31OCT14	376
08-08025	40	40	1	0	08210	F&D WOOD DOORS	6MAY13	1JUL13	3NOV14	31DEC14	376
08-08030	40	40	1	0	08220	P&S FIBERGLASS REINFORCED POLYESTER DOORS	8APR13	3JUN13	1JUL14	26AUG14	310
08-08035	10	10	1	0	08220	R&A FIBERGLASS REINFORCED POLYESTER DOORS	4JUN13	17JUN13	27AUG14	10SEP14	310
08-08040	40	40	1	0	08220	F&D FIBERGLASS REINFORCED POLYESTER DOORS	18JUN13	13AUG13	11SEP14	6NOV14	310
08-08045	40	40	1	0	08330	P&S COILING GRILLES	8APR13	3JUN13	15JUL14	9SEP14	319

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
08-08050	10	10	1	0	08330	R&A COILING GRILLES	4JUN13	17JUN13	10SEP14	23SEP14	319
08-08055	40	40	1	0	08330	F&D COILING GRILLES	18JUN13	13AUG13	24SEP14	20NOV14	319
08-08060	40	40	1	0	08400	P&S ENTRANCES AND STOREFRONTS	8APR13	3JUN13	8AUG14	3OCT14	337
08-08065	10	10	1	0	08400	R&A ENTRANCES AND STOREFRONTS	4JUN13	17JUN13	6OCT14	20OCT14	337
08-08070	40	40	1	0	08400	F&D ENTRANCES AND STOREFRONTS	18JUN13	13AUG13	21OCT14	17DEC14	337
08-08075	40	40	1	0	08410	P&S INTERIOR GLAZED SUB ASSEMBLIES	14AUG13	9OCT13	15APR14	10JUN14	166
08-08080	10	10	1	0	08410	R&A INTERIOR GLAZED SUB ASSEMBLIES	10OCT13	24OCT13	11JUN14	24JUN14	166
08-08085	40	40	1	0	08410	F&D INTERIOR GLAZED SUB ASSEMBLIES	25OCT13	23DEC13	25JUN14	20AUG14	166
08-08090	40	40	1	0	08525	P&S ALUMINUM WINDOWS	14AUG13	9OCT13	12MAR14	6MAY14	142
08-08095	10	10	1	0	08525	R&A ALUMINUM WINDOWS	10OCT13	24OCT13	7MAY14	20MAY14	142
08-08100	40	40	1	0	08525	F&D ALUMINUM WINDOWS	25OCT13	23DEC13	21MAY14	17JUL14	142
08-08105	40	10	1	75	08710	P&S FINISH HARDWARE	11FEB13A	19APR13		8OCT14	370
08-08110	10	10	1	0	08710	R&A FINISH HARDWARE	22APR13	3MAY13	9OCT14	23OCT14	370
08-08115	40	40	1	0	08710	F&D FINISH HARDWARE	6MAY13	1JUL13	24OCT14	22DEC14	370
08-08120	40	40	1	0	08730	P&S THRESHOLDS, WEATHERSTRIPPING & SEALS	8APR13	3JUN13	21AUG14	17OCT14	346
08-08125	10	10	1	0	08730	R&A THRESHOLDS, WEATHERSTRIPPING & SEALS	4JUN13	17JUN13	20OCT14	31OCT14	346
08-08130	40	40	1	0	08730	F&D THRESHOLDS, WEATHERSTRIPPING & SEALS	18JUN13	13AUG13	3NOV14	31DEC14	346
08-08135	60	60	1	0	08800	P&S MISCELLANEOUS GLAZING	14AUG13	7NOV13	25APR14	21JUL14	174
08-08140	10	10	1	0	08800	R&A MISCELLANEOUS GLAZING	8NOV13	22NOV13	22JUL14	4AUG14	174
08-08145	60	60	1	0	08800	F&D MISCELLANEOUS GLAZING	25NOV13	21FEB14	5AUG14	29OCT14	174
08-08150	80	80	1	0	08920	P&S GLAZING-CURTAINWALL SUBCONTRACTOR	8APR13	30JUL13	29OCT13	25FEB14	142
08-08155	10	10	1	0	08920	R&A GLAZING-CURTAINWALL SUBCONTRACTOR	31JUL13	13AUG13	26FEB14	11MAR14	142
08-08160	60	60	1	0	08920	P&S ALUMINUM CURTAIN WALLS	14AUG13	7NOV13	5JUN14	28AUG14	202
08-08165	10	10	1	0	08920	R&A ALUMINUM CURTAIN WALLS	8NOV13	22NOV13	29AUG14	12SEP14	202
08-08170	60	60	1	0	08920	F&D ALUMINUM CURTAIN WALLS	25NOV13	21FEB14	15SEP14	10DEC14	202
09-09000	160	160	1	0	09260	P&S WALL-CEILING SUBCONTRACTOR	8APR13	22NOV13	27JUN13	18FEB14	57
09-09005	10	10	1	0	09260	R&A WALL-CEILING SUBCONTRACTOR	25NOV13	9DEC13	19FEB14	4MAR14	57
09-09010	40	40	1	0	09260	P&S GYPSUM BOARD ASSEMBLIES	10DEC13	6FEB14	5MAR14	29APR14	57
09-09015	10	10	1	0	09260	R&A GYPSUM BOARD ASSEMBLIES	7FEB14	21FEB14	30APR14	13MAY14	57
09-09020	40	40	1	0	09260	F&D GYPSUM BOARD ASSEMBLIES	24FEB14	18APR14	14MAY14	10JUL14	57
09-09025	40	40	1	0	09310	P&S CERAMIC TILE	10DEC13	6FEB14	5JUN14	31JUL14	122
09-09030	10	10	1	0	09310	R&A CERAMIC TILE	7FEB14	21FEB14	1AUG14	14AUG14	122
09-09035	40	40	1	0	09310	F&D CERAMIC TILE	24FEB14	18APR14	15AUG14	10OCT14	122
09-09040	40	40	1	0	09415	P&S TERRAZZO FLORING	10DEC13	6FEB14	1JUL14	26AUG14	140
09-09045	10	10	1	0	09415	R&A TERRAZZO FLORING	7FEB14	21FEB14	27AUG14	10SEP14	140
09-09050	40	40	1	0	09415	F&D TERRAZZO FLORING	24FEB14	18APR14	11SEP14	6NOV14	140
09-09055	40	40	1	0	09510	P&S ACOUSTICAL CEILINGS	10DEC13	6FEB14	28APR14	23JUN14	95
09-09060	10	10	1	0	09510	R&A ACOUSTICAL CEILINGS	7FEB14	21FEB14	24JUN14	8JUL14	95
09-09065	40	40	1	0	09510	F&D ACOUSTICAL CEILINGS	24FEB14	18APR14	9JUL14	3SEP14	95
09-09070	40	40	1	0	09550	P&S METAL PANEL CEILINGS	10DEC13	6FEB14	27JUN14	22AUG14	138
09-09075	10	10	1	0	09550	R&A METAL PANEL CEILINGS	7FEB14	21FEB14	25AUG14	8SEP14	138
09-09080	40	40	1	0	09550	F&D METAL PANEL CEILINGS	24FEB14	18APR14	9SEP14	4NOV14	138
09-09085	100	100	1	0	09590	P&S FLOOR FINISHES SUBCONTRACTOR	8APR13	27AUG13	2AUG13	26DEC13	82
09-09090	10	10	1	0	09590	R&A FLOOR FINISHES SUBCONTRACTOR	28AUG13	11SEP13	27DEC13	10JAN14	82
09-09095	40	40	1	0	09590	P&S WOOD FLOORING	12SEP13	7NOV13	5JUN14	31JUL14	182
09-09100	10	10	1	0	09590	R&A WOOD FLOORING	8NOV13	22NOV13	1AUG14	14AUG14	182
09-09105	40	40	1	0	09590	F&D WOOD FLOORING	25NOV13	23JAN14	15AUG14	10OCT14	182
09-09110	40	40	1	0	09650	P&S RESILIENT FLOORING	12SEP13	7NOV13	19MAY14	15JUL14	170
09-09115	1	10	1	0	09650	R&A RESILIENT FLOORING	8NOV13	22NOV13	16JUL14	29JUL14	170
09-09120	40	40	1	0	09650	F&D RESILIENT FLOORING	25NOV13	23JAN14	30JUL14	24SEP14	170
09-09125	40	40	1	0	09680	P&S CARPET	12SEP13	7NOV13	11AUG14	6OCT14	228
09-09130	10	10	1	0	09680	R&A CARPET	8NOV13	22NOV13	7OCT14	21OCT14	228
09-09135	40	40	1	0	09680	F&D CARPET	25NOV13	23JAN14	22OCT14	18DEC14	228
09-09140	80	80	1	0	09705	P&S RESINOUS FLOORING	12SEP13	8JAN14	13JAN14	6MAY14	82
09-09145	10	10	1	0	09705	R&A RESINOUS FLOORING	9JAN14	23JAN14	7MAY14	20MAY14	82
09-09150	80	80	1	0	09705	F&D RESINOUS FLOORING	24JAN14	16MAY14	21MAY14	12SEP14	82
09-09155	40	40	1	0	09800	P&S SPECIAL COATING	12SEP13	7NOV13	11JUL14	5SEP14	207
09-09160	10	10	1	0	09800	R&A SPECIAL COATING	8NOV13	22NOV13	8SEP14	19SEP14	207
09-09165	40	40	1	0	09800	F&D SPECIAL COATING	25NOV13	23JAN14	22SEP14	18NOV14	207
09-09170	40	40	1	0	09840	P&S ACOUSTIC WALL & CEILING PANELS	10DEC13	6FEB14	28APR14	23JUN14	95
09-09175	10	10	1	0	09840	R&A ACOUSTIC WALL & CEILING PANELS	7FEB14	21FEB14	24JUN14	8JUL14	95
09-09180	40	40	1	0	09840	F&D ACOUSTIC WALL & CEILING PANELS	24FEB14	18APR14	9JUL14	3SEP14	95
09-09185	40	40	1	0	09860	P&S GRAFFITI RESISTANT COATINGS	7FEB14	4APR14	9MAY14	7JUL14	64
09-09190	10	10	1	0	09860	R&A GRAFFITI RESISTANT COATINGS	7APR14	18APR14	8JUL14	21JUL14	64
09-09195	40	40	1	0	09860	F&D GRAFFITI RESISTANT COATINGS	21APR14	16JUN14	22JUL14	16SEP14	64
09-09200	200	200	1	0	09900	P&S WALL FINISHES SUBCONTRACTOR	8APR13	23JAN14	9JUL13	24APR14	64
09-09205	10	10	1	0	09900	R&A WALL FINISHES SUBCONTRACTOR	24JAN14	6FEB14	25APR14	8MAY14	64
09-09210	40	40	1	0	09900	P&S PAINTING	7FEB14	4APR14	12JUN14	7AUG14	87
09-09215	10	10	1	0	09900	R&A PAINTING	7APR14	18APR14	8AUG14	21AUG14	87
09-09220	40	40	1	0	09900	F&D PAINTING MATERIALS	21APR14	16JUN14	22AUG14	20OCT14	87
10-10000	80	80	1	0	10100	P&S VISUAL DISPLAY BOARDS	8APR13	30JUL13	23APR14	14AUG14	262
10-10005	10	10	1	0	10100	R&A VISUAL DISPLAY BOARDS	31JUL13	13AUG13	15AUG14	28AUG14	262
10-10010	80	80	1	0	10100	F&D VISUAL DISPLAY BOARDS	14AUG13	9DEC13	29AUG14	24DEC14	262
10-10015	40	40	1	0	10151	P&S TOILET COMPARTMENTS	10DEC13	6FEB14	29JUL14	23SEP14	159
10-10020	10	10	1	0	10151	R&A TOILET COMPARTMENTS	7FEB14	21FEB14	24SEP14	7OCT14	159
10-10025	40	40	1	0	10151	F&D TOILET COMPARTMENTS	24FEB14	18APR14	8OCT14	5DEC14	159
10-10030	40	40	1	0	10185	P&S PLASTIC SHOWER & DRESSING COMPARTMENTS	10DEC13	6FEB14	10JUL14	4SEP14	146
10-10035	10	10	1	0	10185	R&A PLASTIC SHOWER & DRESSING COMPARTMENTS	7FEB14	21FEB14	5SEP14	18SEP14	146
10-10040	40	40	1	0	10185	F&D PLASTIC SHOWER & DRESSING COMPARTMENTS	24FEB14	18APR14	19SEP14	17NOV14	146
10-10045	40	40	1	0	10214	P&S STATIONARY METAL WALL LOUVERS	8APR13	3JUN13	2MAY14	27JUN14	269
10-10050	10	10	1	0	10214	R&A STATIONARY METAL WALL LOUVERS	4JUN13	17JUN13	30JUN14	14JUL14	269
10-10055	40	40	1	0	10214	F&D STATIONARY METAL WALL LOUVERS	18JUN13	13AUG13	15JUL14	9SEP14	269
10-10060	40	40	1	0	10350	P&S FLAGPOLE	8APR13	3JUN13	12MAY14	8JUL14	275
10-10065	10	10	1	0	10350	R&A FLAGPOLE	4JUN13	17JUN13	9JUL14	22JUL14	275
10-10070	40	40	1	0	10350	F&D FLAGPOLE	18JUN13	13AUG13	23JUL14	17SEP14	275
10-10075	60	60	1	0	10415	P&S DISPLAY CABINETS & CASES	8APR13	1JUL13	19JUN14	12SEP14	302
10-10080	10	10	1	0	10415	R&A DISPLAY CABINETS & CASES	2JUL13	16JUL13	15SEP14	26SEP14	302
10-10085	60	60	1	0	10415	F&D DISPLAY CABINETS & CASES	17JUL13	9OCT13	29SEP14	24DEC14	302

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
10-10090	40	40	1	0	10440	P&S IDENTIFYING DEVICES	8APR13	3JUN13	19AUG14	15OCT14	344
10-10095	10	10	1	0	10440	R&A IDENTIFYING DEVICES	4JUN13	17JUN13	16OCT14	29OCT14	344
10-10100	40	40	1	0	10440	F&D IDENTIFYING DEVICES	18JUN13	13AUG13	30OCT14	29DEC14	344
10-10105	40	40	1	0	10505	P&S METAL LOCKERS	8APR13	3JUN13	1AUG14	26SEP14	332
10-10110	10	10	1	0	10505	R&A METAL LOCKERS	4JUN13	17JUN13	29SEP14	10OCT14	332
10-10115	40	40	1	0	10505	F&D METAL LOCKERS	18JUN13	13AUG13	14OCT14	10DEC14	332
10-10120	40	40	1	0	10522	P&S FIRE EXTINGUISHERS & CABINETS	8APR13	3JUN13	15AUG14	10OCT14	342
10-10125	10	10	1	0	10522	R&A FIRE EXTINGUISHERS & CABINETS	4JUN13	17JUN13	14OCT14	27OCT14	342
10-10130	40	40	1	0	10522	F&D FIRE EXTINGUISHERS & CABINETS	18JUN13	13AUG13	28OCT14	24DEC14	342
10-10135	40	40	1	0	10605	P&S WIRE MESH WORK	8APR13	3JUN13	27JUN14	22AUG14	308
10-10140	10	10	1	0	10605	R&A WIRE MESH WORK	4JUN13	17JUN13	25AUG14	8SEP14	308
10-10145	40	40	1	0	10605	F&D WIRE MESH WORK	18JUN13	13AUG13	9SEP14	4NOV14	308
10-10150	20	20	1	0	10652	P&S O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	4AUG14	29AUG14	19NOV14	17DEC14	74
10-10155	10	10	1	0	10652	R&A O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	2SEP14	15SEP14	18DEC14	2JAN15	74
10-10160	60	60	1	0	10652	P&S ELECT OPERATED FOLDING PANEL PARTITION	10DEC13	7MAR14	3JUN14	26AUG14	120
10-10165	10	10	1	0	10652	R&A ELECT OPERATED FOLDING PANEL PARTITION	10MAR14	21MAR14	27AUG14	10SEP14	120
10-10170	60	60	1	0	10652	F&D ELECT OPERATED FOLDING PANEL PARTITION	24MAR14	16JUN14	11SEP14	8DEC14	120
10-10175	60	60	1	0	10653	P&S MANUALLY OPERATED FOLDING PANEL PARTITIONS	10DEC13	7MAR14	22APR14	16JUL14	91
10-10180	10	10	1	0	10653	R&A MANUALLY OPERATED FOLDING PANEL PARTITIONS	10MAR14	21MAR14	17JUL14	30JUL14	91
10-10185	60	60	1	0	10653	F&D MANUALLY OPERATED FOLDING PANEL PARTITIONS	24MAR14	16JUN14	31JUL14	24OCT14	91
10-10190	40	40	1	0	10675	P&S METAL STORAGE SHELVING	8APR13	3JUN13	15AUG14	10OCT14	342
10-10195	10	10	1	0	10675	R&A METAL STORAGE SHELVING	4JUN13	17JUN13	14OCT14	27OCT14	342
10-10200	40	40	1	0	10675	F&D METAL STORAGE SHELVING	18JUN13	13AUG13	28OCT14	24DEC14	342
10-10205	40	40	1	0	10720	P&S WINDOW GUARDS	8APR13	3JUN13	22AUG14	20OCT14	347
10-10210	10	10	1	0	10720	R&A WINDOW GUARDS	4JUN13	17JUN13	21OCT14	3NOV14	347
10-10215	40	40	1	0	10720	F&D WINDOW GUARDS	18JUN13	13AUG13	4NOV14	2JAN15	347
10-10220	40	40	1	0	10810	P&S TOILET & BATH ACCESSORIES	10DEC13	6FEB14	24JUL14	18SEP14	156
10-10225	10	10	1	0	10810	R&A TOILET & BATH ACCESSORIES	7FEB14	21FEB14	19SEP14	2OCT14	156
10-10230	40	40	1	0	10810	F&D TOILET & BATH ACCESSORIES	24FEB14	18APR14	3OCT14	2DEC14	156
10-10235	40	40	1	0	10830	P&S MIRRORS	10DEC13	6FEB14	26AUG14	22OCT14	179
10-10240	10	10	1	0	10830	R&A MIRRORS	7FEB14	21FEB14	23OCT14	5NOV14	179
10-10245	40	40	1	0	10830	F&D MIRRORS	24FEB14	18APR14	6NOV14	6JAN15	179
10-10250	40	40	1	0	10840	P&S GRAB BARS	10DEC13	6FEB14	13AUG14	8OCT14	170
10-10255	10	10	1	0	10840	R&A GRAB BARS	7FEB14	21FEB14	9OCT14	23OCT14	170
10-10260	40	40	1	0	10840	F&D GRAB BARS	24FEB14	18APR14	24OCT14	22DEC14	170
11-11000	60	60	1	0	11050	P&S LIBRARY EQUIPMENT	8APR13	1JUL13	19JUN14	12SEP14	302
11-11005	10	10	1	0	11050	R&A LIBRARY EQUIPMENT	2JUL13	16JUL13	15SEP14	26SEP14	302
11-11010	60	60	1	0	11050	F&D LIBRARY EQUIPMENT (LR)	17JUL13	9OCT13	29SEP14	24DEC14	302
11-11015	20	20	1	0	11050	P&S O&M MANUALS FOR LIBRARY EQUIPMENT	4AUG14	29AUG14	4NOV14	3DEC14	64
11-11020	10	10	1	0	11050	R&A O&M MANUALS FOR LIBRARY EQUIPMENT	2SEP14	15SEP14	18DEC14	2JAN15	74
11-11025	60	60	1	0	11061	P&S PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	8APR13	1JUL13	26JUN14	19SEP14	307
11-11030	10	10	1	0	11061	R&A PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	2JUL13	16JUL13	22SEP14	3OCT14	307
11-11035	60	60	1	0	11061	F&D PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	17JUL13	9OCT13	6OCT14	2JAN15	307
11-11040	60	60	1	0	11172	P&S WASTE HANDLING EQUIPMENT	8APR13	1JUL13	29MAY14	21AUG14	287
11-11045	10	10	1	0	11172	R&A WASTE HANDLING EQUIPMENT	2JUL13	16JUL13	22AUG14	5SEP14	287
11-11050	60	60	1	0	11172	F&D WASTE HANDLING EQUIPMENT (CW)	17JUL13	9OCT13	8SEP14	3DEC14	287
11-11055	160	160	1	0	11400	P&S FOOD SERVICE EQUIPMENT	8APR13	22NOV13	2JUL13	21FEB14	60
11-11060	10	10	1	0	11400	R&A FOOD SERVICE EQUIPMENT	25NOV13	9DEC13	24FEB14	7MAR14	60
11-11065	160	160	1	0	11400	F&D FOOD SERVICE EQUIPMENT (CW)	10DEC13	29JUL14	10MAR14	23OCT14	60
11-11070	40	40	1	0	11450	P&S DOMESTIC TYPE EQUIPMENT	8APR13	3JUN13	17JUN14	12AUG14	300
11-11075	10	10	1	0	11450	R&A DOMESTIC TYPE EQUIPMENT	4JUN13	17JUN13	13AUG14	26AUG14	300
11-11080	40	40	1	0	11450	F&D DOMESTIC TYPE EQUIPMENT (CW)	18JUN13	13AUG13	27AUG14	23OCT14	300
11-11085	40	40	1	0	11480	P&S GYMNASIUM EQUIPMENT	8APR13	3JUN13	22AUG14	20OCT14	347
11-11090	10	10	1	0	11480	R&A GYMNASIUM EQUIPMENT	4JUN13	17JUN13	21OCT14	3NOV14	347
11-11095	40	40	1	0	11480	F&D GYMNASIUM EQUIPMENT (LR)	18JUN13	13AUG13	4NOV14	2JAN15	347
11-11100	40	40	1	0	11500	P&S SHOP EQUIPMENT	8APR13	3JUN13	22AUG14	20OCT14	347
11-11105	10	10	1	0	11500	R&A SHOP EQUIPMENT	4JUN13	17JUN13	21OCT14	3NOV14	347
11-11110	40	40	1	0	11500	F&D SHOP EQUIPMENT (CW)	18JUN13	13AUG13	4NOV14	2JAN15	347
11-11115	40	40	1	0	11600	P&S LABORATORY EQUIPMENT	8APR13	3JUN13	9MAY14	7JUL14	274
11-11120	10	10	1	0	11600	R&A LABORATORY EQUIPMENT	4JUN13	17JUN13	8JUL14	21JUL14	274
11-11125	40	40	1	0	11600	F&D LABORATORY EQUIPMENT (CW)	18JUN13	13AUG13	22JUL14	16SEP14	274
12-12000	40	40	1	0	12302	P&S MANUFACTURED WOOD CASEWORK	8APR13	3JUN13	15AUG14	10OCT14	342
12-12005	10	10	1	0	12302	R&A MANUFACTURED WOOD CASEWORK	4JUN13	17JUN13	14OCT14	27OCT14	342
12-12010	40	40	1	0	12302	F&D MANUFACTURED WOOD CASEWORK	18JUN13	13AUG13	28OCT14	24DEC14	342
12-12015	40	40	1	0	12485	P&S FOOT GRILLES	8APR13	3JUN13	13AUG14	8OCT14	340
12-12020	10	10	1	0	12485	R&A FOOT GRILLES	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12025	40	40	1	0	12485	F&D FOOT GRILLES	18JUN13	13AUG13	24OCT14	22DEC14	340
12-12030	80	80	1	0	12501	P&S CHAIN & CLUTCH OPERATED WINDOW SHADES	10DEC13	4APR14	19MAR14	10JUL14	67
12-12035	10	10	1	0	12501	R&A CHAIN & CLUTCH OPERATED WINDOW SHADES	7APR14	18APR14	11JUL14	24JUL14	67
12-12045	80	80	1	0	12501	F&D CHAIN & CLUTCH OPERATED WINDOW SHADES	21APR14	12AUG14	25JUL14	18NOV14	67
12-12050	40	40	1	0	12545	P&S DRAPERIES	8APR13	3JUN13	22AUG14	20OCT14	347
12-12055	10	10	1	0	12545	R&A DRAPERIES	4JUN13	17JUN13	21OCT14	3NOV14	347
12-12060	40	40	1	0	12545	F&D DRAPERIES (LR)	18JUN13	13AUG13	4NOV14	2JAN15	347
12-12065	40	40	1	0	12710	P&S FIXED AUDIENCE SEATING	8APR13	3JUN13	13AUG14	8OCT14	340
12-12070	10	10	1	0	12710	R&A FIXED AUDIENCE SEATING	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12075	40	40	1	0	12710	F&D FIXED AUDIENCE SEATING	18JUN13	13AUG13	24OCT14	22DEC14	340
12-12080	40	40	1	0	12761	P&S WOOD BLEACHERS	8APR13	3JUN13	15AUG14	10OCT14	342
12-12085	10	10	1	0	12761	R&A WOOD BLEACHERS	4JUN13	17JUN13	14OCT14	27OCT14	342
12-12090	40	40	1	0	12761	F&D WOOD BLEACHERS (LR)	18JUN13	13AUG13	28OCT14	24DEC14	342
12-12095	40	40	1	0	12762	P&S MOTORIZED RETRACTABLE SEATING	8APR13	3JUN13	13AUG14	8OCT14	340
12-12100	10	10	1	0	12762	R&A MOTORIZED RETRACTABLE SEATING	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12105	40	40	1	0	12762	F&D MOTORIZED RETRACTABLE SEATING	18JUN13	13AUG13	24OCT14	22DEC14	340
14-14000	60	30	1	50	14211	P&S ELEVATOR SUBCONTRACTOR	26MAR13A	17MAY13		21JAN14	168
14-14005	10	5	1	50	14211	R&A ELEVATOR SUBCONTRACTOR	26MAR13A	24MAY13		28JAN14	168
14-14010	60	30	1	50	14211	P&S GEARED TRACTION PASSENGER ELEVATORS	15MAR13A	9JUL13		12MAR14	168
14-14015	10	10	1	0	14211	R&A GEARED TRACTION PASSENGER ELEVATORS	10JUL13	23JUL13	13MAR14	26MAR14	168
14-14020	80	80	1	0	14211	F&D GEARED TRACTION PASSENGER ELEVATORS	24JUL13	15NOV13	27MAR14	18JUL14	168
14-14035	60	30	1	50	14240	P&S DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	15MAR13A	9JUL13		21AUG14	282

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
14-14040	10	10	1	0	14240	R&A DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	10JUL13	23JUL13	22AUG14	5SEP14	282
14-14045	80	80	1	0	14240	F&D DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	24JUL13	15NOV13	8SEP14	2JAN15	282
14-14050	20	20	1	0	14240	P&S O&M MANUALS FOR HYDRAULIC ELEVATOR	4AUG14	29AUG14	4NOV14	3DEC14	64
14-14055	10	10	1	0	14240	R&A O&M MANUALS FOR HYDRAULIC ELEVATOR	2SEP14	15SEP14	18DEC14	2JAN15	74
14-14210	20	20	1	0	14211	P&S O&M MANUALS FOR GEARED TRACTION ELEVATOR	24JUL13	20AUG13	4NOV14	3DEC14	322
14-14215	10	10	1	0	14211	R&A O&M MANUALS FOR GEARED TRACTION ELEVATOR	21AUG13	4SEP13	18DEC14	2JAN15	332
15-15000	100	50	1	50	15301	P&S FIRE PROTECTION SUBCONTRACTOR	3DEC12A	17JUN13		4SEP13	55
15-15005	10	6	1	40	15301	R&A FIRE PROTECTION SUBCONTRACTOR	25FEB13A	25JUN13		12SEP13	55
15-15010	60	60	1	0	15301	P&S GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	26JUN13	19SEP13	25JUL14	20OCT14	271
15-15015	10	10	1	0	15301	R&A GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	20SEP13	3OCT13	21OCT14	3NOV14	271
15-15020	20	20	1	0	15301	P&S O&M MANUALS FOR FIRE PROTECTION SYSTEM	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15025	10	10	1	0	15301	R&A O&M MANUALS FOR FIRE PROTECTION SYSTEM	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15030	120	30	1	75	15303	P&S SEISMIC CONTROLS FIRE PROTECTION SYSTEM	18MAR13A	7AUG13		10JUL14	231
15-15035	10	10	1	0	15303	R&A SEISMIC CONTROLS FIRE PROTECTION SYSTEM	8AUG13	21AUG13	11JUL14	24JUL14	231
15-15040	120	120	1	0	15303	F&D SEISMIC CONTROLS FIRE PROTECTION SYSTEM	22AUG13	14FEB14	25JUL14	16JAN15	231
15-15045	120	30	1	75	15332	P&S COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	6MAR13A	7AUG13		25OCT13	55
15-15050	10	10	1	0	15332	R&A COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	8AUG13	21AUG13	28OCT13	8NOV13	55
15-15055	120	120	1	0	15332	F&D COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	22AUG13	14FEB14	12NOV13	5MAY14	55
15-15060	60	15	1	75	15333	P&S FIRE PUMPS	13MAR13A	17JUL13		14APR14	185
15-15065	10	3	1	75	15333	R&A FIRE PUMPS	15MAR13A	22JUL13		17APR14	185
15-15070	60	60	1	0	15333	F&D FIRE PUMPS	23JUL13	16OCT13	18APR14	14JUL14	185
15-15075	20	20	1	0	15333	P&S O&M MANUALS FOR FIRE PUMPS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15080	10	10	1	0	15333	R&A O&M MANUALS FOR FIRE PUMPS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15085	20	0	1	100	15401	P&S PLUMBING SUBCONTRACTOR	20AUG12A	28AUG12A			
15-15090	10	0	1	100	15401	R&A PLUMBING SUBCONTRACTOR	29AUG12A	10SEP12A			
15-15095	40	40	1	0	15401	P&S GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	8APR13	3JUN13	20SEP13	18NOV13	116
15-15100	10	10	1	0	15401	R&A GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	4JUN13	17JUN13	19NOV13	3DEC13	116
15-15105	40	40	1	0	15401	F&D PLUMBING & DRAINAGE MATERIALS	18JUN13	13AUG13	4DEC13	31JAN14	116
15-15110	20	20	1	0	15401	P&S O&M MANUALS FOR P&D WORK	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15115	10	10	1	0	15401	R&A O&M MANUALS FOR P&D WORK	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15120	40	40	1	0	15403	P&S VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	8APR13	3JUN13	17JAN14	17MAR14	196
15-15125	10	10	1	0	15403	R&A VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	4JUN13	17JUN13	18MAR14	31MAR14	196
15-15130	40	40	1	0	15403	F&D VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	18JUN13	13AUG13	1APR14	27MAY14	196
15-15135	40	40	1	0	15405	P&S WATER MAINS AND APPURTENCES	8APR13	3JUN13	24MAR14	16MAY14	240
15-15140	10	10	1	0	15405	R&A WATER MAINS AND APPURTENCES	4JUN13	17JUN13	19MAY14	2JUN14	240
15-15145	40	40	1	0	15405	F&D WATER MAINS AND APPURTENCES	18JUN13	13AUG13	3JUN14	29JUL14	240
15-15150	40	40	1	0	15406	P&S FIRE HYDRANTS	4JUN13	30JUL13	8JUL14	2SEP14	274
15-15155	10	10	1	0	15406	R&A FIRE HYDRANTS	31JUL13	13AUG13	3SEP14	16SEP14	274
15-15160	40	40	1	0	15406	F&D FIRE HYDRANTS	14AUG13	9OCT13	17SEP14	13NOV14	274
15-15165	40	8	1	80	15410	P&S PLUMBING & PIPING	5OCT12A	17APR13		29NOV13	156
15-15170	10	2	1	80	15410	R&A PLUMBING & PIPING	15NOV12A	19APR13		3DEC13	156
15-15175	40	40	1	0	15410	F&D PLUMBING & PIPING	22APR13	17JUN13	4DEC13	31JAN14	156
15-15180	40	8	1	80	15411	P&S HANGERS & SUPPORTS	5OCT12A	17APR13		20MAR14	231
15-15185	10	2	1	80	15411	R&A HANGERS & SUPPORTS	15NOV12A	19APR13		24MAR14	231
15-15190	40	40	1	0	15411	F&D HANGERS & SUPPORTS	22APR13	17JUN13	25MAR14	19MAY14	231
15-15195	40	8	1	80	15412	P&S VALVES	5OCT12A	17APR13		20MAR14	231
15-15200	10	2	1	80	15412	R&A VALVES	15NOV12A	19APR13		24MAR14	231
15-15205	40	40	1	0	15412	F&D VALVES	22APR13	17JUN13	25MAR14	19MAY14	231
15-15210	40	8	1	80	15413	P&S INSULATION (P&D)	5OCT12A	17APR13		25APR14	257
15-15215	10	2	1	80	15413	R&A INSULATION (P&D)	15NOV12A	19APR13		29APR14	257
15-15220	40	40	1	0	15413	F&D INSULATION (P&D)	22APR13	17JUN13	30APR14	25JUN14	257
15-15225	40	20	1	50	15415	P&S DRAINAGE	5OCT12A	3MAY13		17MAR14	216
15-15230	10	5	1	50	15415	R&A DRAINAGE	15NOV12A	10MAY13		24MAR14	216
15-15235	40	40	1	0	15415	F&D DRAINAGE MATERIALS	13MAY13	9JUL13	25MAR14	19MAY14	216
15-15240	20	20	1	0	15415	P&S O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15245	10	10	1	0	15415	R&A O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15250	40	20	1	50	15416	P&S GAS PIPING SYSTEM	5OCT12A	3MAY13		15AUG14	323
15-15255	10	5	1	50	15416	R&A GAS PIPING SYSTEM	15NOV12A	10MAY13		22AUG14	323
15-15260	40	40	1	0	15416	F&D GAS PIPING SYSTEM MATERIALS	13MAY13	9JUL13	25AUG14	21OCT14	323
15-15265	40	16	1	60	15417	P&S COLD WATER SUPPLY	5OCT12A	29APR13		20MAR14	223
15-15270	10	2	1	80	15417	R&A COLD WATER SUPPLY	15NOV12A	1MAY13		24MAR14	223
15-15275	40	40	1	0	15417	F&D COLD WATER SUPPLY MATERIALS	2MAY13	27JUN13	25MAR14	19MAY14	223
15-15280	40	12	1	70	15418	P&S HOT WATER SUPPLY	5OCT12A	23APR13		22SEP14	356
15-15285	10	2	1	80	15418	R&A HOT WATER SUPPLY	15NOV12A	25APR13		24SEP14	356
15-15290	40	40	1	0	15418	F&D HOT WATER SUPPLY MATERIALS	26APR13	21JUN13	25SEP14	21NOV14	356
15-15295	40	20	1	50	15431	P&S TAGS, CHARTS & IDENTIFICATION	5OCT12A	3MAY13		1AUG14	313
15-15300	10	5	1	50	15431	R&A TAGS, CHARTS & IDENTIFICATION	15NOV12A	10MAY13		8AUG14	313
15-15305	40	40	1	0	15431	F&D TAGS, CHARTS & IDENTIFICATION	13MAY13	9JUL13	11AUG14	6OCT14	313
15-15310	40	16	1	60	15432	P&S MISCELLANEOUS	15OCT12A	29APR13		10SEP14	344
15-15315	10	2	1	80	15432	R&A MISCELLANEOUS	15NOV12A	1MAY13		12SEP14	344
15-15320	40	40	1	0	15432	F&D MISCELLANEOUS	2MAY13	27JUN13	15SEP14	10NOV14	344
15-15325	20	20	1	0	15440	P&S O&M MANUALS FOR PLUMBING FIXTURES	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15330	10	10	1	0	15440	R&A O&M MANUALS FOR PLUMBING FIXTURES	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15335	40	20	1	50	15440	P&S PLUMBING FIXTURES	5OCT12A	3MAY13		5SEP14	337
15-15340	10	5	1	50	15440	R&A PLUMBING FIXTURES	15NOV12A	10MAY13		12SEP14	337
15-15345	40	40	1	0	15440	F&D PLUMBING FIXTURES	13MAY13	9JUL13	15SEP14	10NOV14	337
15-15350	20	20	1	0	15451	P&S O&M MANUALS FOR WATER HEATER	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15355	10	10	1	0	15451	R&A O&M MANUALS FOR WATER HEATER	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15360	40	32	1	20	15451	P&S WATER HEATERS	16OCT12A	21MAY13		2MAY14	238
15-15365	10	8	1	20	15451	R&A WATER HEATERS	16NOV12A	3JUN13		14MAY14	238
15-15370	40	40	1	0	15451	F&D WATER HEATERS	4JUN13	30JUL13	15MAY14	11JUL14	238
15-15375	20	20	1	0	15453	P&S O&M MANUALS FOR PUMPING APPARATUS & TANKS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15380	10	10	1	0	15453	R&A O&M MANUALS FOR PUMPING APPARATUS & TANKS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15385	40	30	1	25	15453	P&S PUMPING APPARATUS & TANKS	5OCT12A	17MAY13		19MAR14	208
15-15390	10	8	1	20	15453	R&A PUMPING APPARATUS & TANKS	16NOV12A	30MAY13		31MAR14	208
15-15395	40	40	1	0	15453	F&D PUMPING APPARATUS & TANKS	31MAY13	26JUL13	1APR14	27MAY14	208
15-15400	80	0	1	100	15501	P&S HVAC SUBCONTRACTOR	1AUG12A	1AUG12A			
15-15405	10	0	1	100	15501	R&A HVAC SUBCONTRACTOR	1AUG12A	1AUG12A			

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
15-15410	20	20	1	0	15501	P&S O&M MANUALS - GENERAL HVAC WORK	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15415	10	10	1	0	15501	R&A O&M MANUALS - GENERAL HVAC WORK	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15420	40	40	1	0	15501	P&S GENERAL PROVISIONS FOR HVAC	8APR13	3JUN13	13FEB14	10APR14	214
15-15425	10	10	1	0	15501	R&A GENERAL PROVISIONS FOR HVAC	4JUN13	17JUN13	11APR14	24APR14	214
15-15430	40	40	1	0	15502	P&S HVAC IDENTIFICATION	8APR13	3JUN13	3JUL14	28AUG14	312
15-15435	10	10	1	0	15502	R&A HVAC IDENTIFICATION	4JUN13	17JUN13	29AUG14	12SEP14	312
15-15440	40	40	1	0	15502	F&D HVAC IDENTIFICATION	18JUN13	13AUG13	15SEP14	10NOV14	312
15-15445	40	40	1	0	15503	P&S VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	17APR13	12JUN13	27MAR14	21MAY14	236
15-15450	10	10	1	0	15503	R&A VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	13JUN13	26JUN13	22MAY14	5JUN14	236
15-15455	10	10	1	0	15503	F&D VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	27JUN13	11JUL13	6JUN14	19JUN14	236
15-15460	40	40	1	0	15510	P&S HVAC PIPING	17APR13	12JUN13	13DEC13	11FEB14	166
15-15465	10	10	1	0	15510	R&A HVAC PIPING	13JUN13	26JUN13	12FEB14	26FEB14	166
15-15470	40	40	1	0	15510	F&D HVAC PIPING	27JUN13	22AUG13	27FEB14	23APR14	166
15-15475	40	40	1	0	15511	P&S VALVES (HVAC)	17APR13	12JUN13	13DEC13	11FEB14	166
15-15480	10	10	1	0	15511	R&A VALVES (HVAC)	13JUN13	26JUN13	12FEB14	26FEB14	166
15-15485	40	40	1	0	15511	F&D VALVES (HVAC)	27JUN13	22AUG13	27FEB14	23APR14	166
15-15490	40	40	1	0	15512	P&S PIPING INSULATION (HVAC)	17APR13	12JUN13	19FEB14	15APR14	210
15-15495	10	10	1	0	15512	R&A PIPING INSULATION (HVAC)	13JUN13	26JUN13	16APR14	29APR14	210
15-15500	40	40	1	0	15512	F&D PIPING INSULATION (HVAC)	27JUN13	22AUG13	30APR14	25JUN14	210
15-15505	40	40	1	0	15513	P&S EQUIPMENT INSULATION (HVAC)	8APR13	3JUN13	23APR14	18JUN14	262
15-15510	10	10	1	0	15513	R&A EQUIPMENT INSULATION (HVAC)	4JUN13	17JUN13	19JUN14	2JUL14	262
15-15515	40	40	1	0	15513	F&D EQUIPMENT INSULATION (HVAC)	18JUN13	13AUG13	3JUL14	28AUG14	262
15-15520	40	40	1	0	15514	P&S DUCTWORK INSULATION	17APR13	12JUN13	10JAN14	10MAR14	184
15-15525	10	10	1	0	15514	R&A DUCTWORK INSULATION	13JUN13	26JUN13	11MAR14	24MAR14	184
15-15530	40	40	1	0	15514	F&D DUCTWORK INSULATION	27JUN13	22AUG13	25MAR14	19MAY14	184
15-15545	40	40	1	0	15515	P&S HYDRONIC SPECIALTIES	8APR13	3JUN13	27FEB14	23APR14	223
15-15550	10	10	1	0	15515	R&A HYDRONIC SPECIALTIES	4JUN13	17JUN13	24APR14	7MAY14	223
15-15555	40	40	1	0	15515	F&D HYDRONIC SPECIALTIES	18JUN13	13AUG13	8MAY14	3JUL14	223
15-15575	40	40	1	0	15517	P&S WATER TREATMENT FOR HYDRONIC SYSTEMS	8APR13	3JUN13	2APR14	28MAY14	247
15-15580	10	10	1	0	15517	R&A WATER TREATMENT FOR HYDRONIC SYSTEMS	4JUN13	17JUN13	29MAY14	11JUN14	247
15-15585	40	16	1	60	15517	F&D WATER TREATMENT FOR HYDRONIC SYSTEMS	19FEB13A	10JUL13		3JUL14	247
15-15590	20	20	1	0	15517	P&S O&M MANUALS - WATER TREATMENT HYDRONIC SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15595	10	10	1	0	15517	R&A O&M MANUALS - WATER TREATMENT HYDRONIC SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15600	60	51	1	15	15540	P&S HVAC PUMPS	19FEB13A	18JUN13		23APR14	212
15-15605	10	10	1	0	15540	R&A HVAC PUMPS	19JUN13	2JUL13	24APR14	7MAY14	212
15-15610	30	30	1	0	15540	F&D HVAC PUMPS	3JUL13	14AUG13	8MAY14	19JUN14	212
15-15615	20	20	1	0	15540	P&S O&M MANUALS - HVAC PUMPS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15620	10	10	1	0	15540	R&A O&M MANUALS - HVAC PUMPS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15630	60	36	1	40	15565	P&S HOT WATER CONDENSING BOILERS	5NOV12A	28MAY13		18APR14	224
15-15640	10	6	1	40	15565	R&A HOT WATER CONDENSING BOILERS	14JAN13A	5JUN13		28APR14	224
15-15650	60	60	1	0	15565	F&D HOT WATER CONDENSING BOILERS	6JUN13	29AUG13	29APR14	23JUL14	224
15-15655	20	20	1	0	15565	P&S O&M MANUALS HW CONDENSING BOILERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15666	10	10	1	0	15565	R&A O&M MANUALS HW CONDENSING BOILERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15670	60	60	1	0	15575	P&S BREECHING, CHIMNEY & STACKS	8APR13	1JUL13	12NOV13	7FEB14	151
15-15675	10	10	1	0	15575	R&A BREECHING, CHIMNEY & STACKS	2JUL13	16JUL13	10FEB14	24FEB14	151
15-15680	60	60	1	0	15575	F&D BREECHING, CHIMNEY & STACKS	17JUL13	9OCT13	25FEB14	19MAY14	151
15-15690	60	36	1	40	15590	P&S EMERGENCY GENERATOR SYSTEM ACCESSORIES	15NOV12A	28MAY13		10JUL14	281
15-15700	10	6	1	40	15590	R&A EMERGENCY GENERATOR SYSTEM ACCESSORIES	28DEC12A	5JUN13		18JUL14	281
15-15710	60	60	1	0	15590	F&D EMERGENCY GENERATOR SYSTEM ACCESSORIES	6JUN13	29AUG13	21JUL14	14OCT14	281
15-15715	20	20	1	0	15590	P&S O&M MANUALS FOR EMERGENCY GENERATOR SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15725	10	10	1	0	15590	R&A O&M MANUALS FOR EMERGENCY GENERATOR SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15730	40	40	1	0	15596	P&S NATURAL GAS LEAK DETECTION EQUIPMENT	8APR13	3JUN13	24MAR14	16MAY14	240
15-15735	10	10	1	0	15596	R&A NATURAL GAS LEAK DETECTION EQUIPMENT	4JUN13	17JUN13	19MAY14	2JUN14	240
15-15740	40	40	1	0	15596	F&D NATURAL GAS LEAK DETECTION EQUIPMENT	18JUN13	13AUG13	3JUN14	29JUL14	240
15-15750	20	20	1	0	15596	P&S O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15760	10	10	1	0	15596	R&A O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15770	40	10	1	75	15660	P&S PACKAGED MODULAR OUTDOOR CHILLERS	19FEB13A	19APR13		25APR14	255
15-15775	10	3	1	75	15660	R&A PACKAGED MODULAR OUTDOOR CHILLERS	19FEB13A	24APR13		30APR14	255
15-15780	40	40	1	0	15660	F&D PACKAGED MODULAR OUTDOOR CHILLERS	25APR13	20JUN13	1MAY14	26JUN14	255
15-15785	20	20	1	0	15660	P&S O&M MANUALS - PACKAGED OUTDOOR CHILLERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15790	10	10	1	0	15660	R&A O&M MANUALS - PACKAGED OUTDOOR CHILLERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15800	40	20	1	50	15670	P&S PLATE HEAT EXCHANGERS	19FEB13A	3MAY13		2MAY14	250
15-15805	10	3	1	75	15670	R&A PLATE HEAT EXCHANGERS	19FEB13A	8MAY13		7MAY14	250
15-15810	40	40	1	0	15670	F&D PLATE HEAT EXCHANGERS	9MAY13	5JUL13	8MAY14	3JUL14	250
15-15815	20	20	1	0	15670	P&S O&M MANUALS - PLATE HEAT EXCHANGERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15820	10	10	1	0	15670	R&A O&M MANUALS - PLATE HEAT EXCHANGERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15825	40	40	1	0	15783	P&S SPLIT HEAT PUMP SYSTEM	8APR13	3JUN13	11FEB14	8APR14	212
15-15830	10	10	1	0	15783	R&A SPLIT HEAT PUMP SYSTEM	4JUN13	17JUN13	9APR14	22APR14	212
15-15835	40	40	1	0	15783	F&D SPLIT HEAT PUMP	18JUN13	13AUG13	23APR14	18JUN14	212
15-15840	40	40	1	0	15783	P&S AC UNITS	8APR13	3JUN13	19JUN14	14AUG14	302
15-15845	10	10	1	0	15783	R&A AC UNITS	4JUN13	17JUN13	15AUG14	28AUG14	302
15-15850	40	40	1	0	15783	F&D AC UNITS	18JUN13	13AUG13	29AUG14	27OCT14	302
15-15855	20	20	1	0	15783	P&S O&M MANUALS - HEAT PUMP SYSTEM	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15861	10	10	1	0	15783	R&A O&M MANUALS - HEAT PUMP SYSTEM	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15870	40	10	1	75	15830	P&S FAN COIL UNITS	7NOV12A	19APR13		12FEB14	204
15-15875	10	3	1	70	15830	R&A FAN COIL UNITS	7DEC12A	24APR13		18FEB14	204
15-15880	40	40	1	0	15830	F&D FAN COIL UNITS	25APR13	20JUN13	19FEB14	15APR14	204
15-15890	40	20	1	50	15835	P&S FIN TUBE RADIATOR	18OCT12A	3MAY13		14AUG14	322
15-15895	10	5	1	50	15835	R&A FIN TUBE RADIATOR	28NOV12A	10MAY13		21AUG14	322
15-15900	40	40	1	0	15835	F&D FIN TUBE RADIATOR	13MAY13	9JUL13	22AUG14	20OCT14	322
15-15905	40	10	1	75	15836	P&S UNIT HEATERS (UH) /CABINET HEATERS (CH)	18OCT12A	19APR13		7MAR14	220
15-15910	10	3	1	75	15836	R&A UNIT HEATERS (UH) /CABINET HEATERS (CH)	31DEC12A	24APR13		12MAR14	220
15-15915	40	40	1	0	15836	F&D UNIT HEATERS (UH) /CABINET HEATERS (CH)	25APR13	20JUN13	13MAR14	7MAY14	220
15-15920	20	20	1	0	15836	P&S O&M MANUALS - UNIT HEATERS & CABINET HEATERS	4AUG14	29AUG14	21OCT14	18NOV14	54
15-15925	10	10	1	0	15836	R&A O&M MANUALS - UNIT HEATERS & CABINET HEATERS	2SEP14	15SEP14	4DEC14	17DEC14	64
15-15930	40	30	1	25	15860	P&S CENTRIFUGAL FANS	5OCT12A	17MAY13		13MAR14	204
15-15935	10	8	1	20	15860	R&A CENTRIFUGAL FANS	15NOV12A	30MAY13		25MAR14	204
15-15940	40	40	1	0	15860	F&D CENTRIFUGAL FANS	31MAY13	26JUL13	26MAR14	20MAY14	204

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
15-15945	20	20	1	0	15860	P&S O&M MANUALS - CENTRIFUGAL FANS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15950	10	10	1	0	15860	R&A O&M MANUALS - CENTRIFUGAL FANS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15955	120	60	1	50	15880	P&S SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	15NOV12A	1JUL13		6NOV13	89
15-15960	10	5	1	50	15880	R&A SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	13DEC12A	9JUL13		14NOV13	89
15-15965	80	80	1	0	15880	F&D SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	10JUL13	31OCT13	15NOV13	13MAR14	89
15-15970	20	20	1	0	15880	P&S O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15975	10	10	1	0	15880	R&A O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15980	40	40	1	0	15885	P&S AIR FILTERS	8APR13	3JUN13	11FEB14	8APR14	212
15-15985	10	10	1	0	15885	R&A AIR FILTERS	4JUN13	17JUN13	9APR14	22APR14	212
15-15990	40	40	1	0	15885	P&D AIR FILTERS	18JUN13	13AUG13	23APR14	18JUN14	212
15-15995	120	114	1	5	15891	P&S METAL DUCTWORK	15NOV12A	18SEP13		16OCT13	19
15-16000	10	10	1	0	15891	R&A METAL DUCTWORK	19SEP13	2OCT13	17OCT13	30OCT13	19
15-16005	120	120	1	0	15891	F&D METAL DUCTWORK	3OCT13	28MAR14	31OCT13	24APR14	19
15-16010	40	40	1	0	15910	P&S DUCT ACCESSORIES	17APR13	12JUN13	1AUG14	26SEP14	325
15-16015	10	10	1	0	15910	R&A DUCT ACCESSORIES	13JUN13	26JUN13	29SEP14	10OCT14	325
15-16020	40	40	1	0	15910	F&D DUCT ACCESSORIES	27JUN13	22AUG13	14OCT14	10DEC14	325
15-16030	40	40	1	0	15915	P&S DAMPERS	17APR13	12JUN13	5DEC13	3FEB14	160
15-16035	10	10	1	0	15915	R&A DAMPERS	13JUN13	26JUN13	4FEB14	18FEB14	160
15-16040	40	40	1	0	15915	F&D DAMPERS	27JUN13	22AUG13	19FEB14	15APR14	160
15-16050	60	30	1	50	15932	P&S ACTIVE CHILLED BEAMS	5OCT12A	17MAY13		28MAY14	257
15-16060	10	5	1	50	15932	R&A ACTIVE CHILLED BEAMS	4JAN13A	24MAY13		4JUN14	257
15-16065	40	40	1	0	15932	F&D ACTIVE CHILLED BEAMS	28MAY13	23JUL13	5JUN14	31JUL14	257
15-16070	20	20	1	0	15932	P&S O&M MANUALS - ACTIVE CHILLED BEAMS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-16080	10	10	1	0	15932	R&A O&M MANUALS - ACTIVE CHILLED BEAMS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-16085	60	15	1	75	15933	P&S DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	13DEC12A	26APR13		25MAR14	227
15-16090	10	10	1	0	15933	R&A DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	29APR13	10MAY13	26MAR14	8APR14	227
15-16095	40	40	1	0	15933	F&D DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	13MAY13	9JUL13	9APR14	4JUN14	227
15-16100	20	20	1	0	15933	P&S O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	4AUG14	29AUG14	4NOV14	3DEC14	64
15-16110	10	10	1	0	15933	R&A O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	2SEP14	15SEP14	18DEC14	2JAN15	74
15-16120	60	15	1	75	15934	P&S ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	14JAN13A	26APR13		15APR14	242
15-16130	10	5	1	50	15934	R&A ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	14JAN13A	3MAY13		22APR14	242
15-16135	40	40	1	0	15934	F&D ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	6MAY13	1JUL13	23APR14	18JUN14	242
15-16140	40	40	1	0	15940	P&S AIR OUTLETS & INLETS	8APR13	3JUN13	18JUL14	12SEP14	322
15-16145	10	10	1	0	15940	R&A AIR OUTLETS & INLETS	4JUN13	17JUN13	15SEP14	26SEP14	322
15-16150	40	40	1	0	15940	F&D AIR OUTLETS & INLETS	18JUN13	13AUG13	29SEP14	25NOV14	322
15-16155	40	40	1	0	15970	P&S TEMPERATURE CONTROL SYSTEM	8APR13	3JUN13	9APR14	4JUN14	252
15-16160	10	10	1	0	15970	R&A TEMPERATURE CONTROL SYSTEM	4JUN13	17JUN13	5JUN14	18JUN14	252
15-16165	40	40	1	0	15970	F&D TEMPERATURE CONTROL SYSTEM	18JUN13	13AUG13	19JUN14	14AUG14	252
15-16175	60	60	1	0	15973	P&S FACILITIES MANAGEMENT SYSTEMS INTEGRATION	8APR13	1JUL13	28JAN14	22APR14	202
15-16180	10	10	1	0	15973	R&A FACILITIES MANAGEMENT SYSTEMS INTEGRATION	2JUL13	16JUL13	23APR14	6MAY14	202
15-16185	40	40	1	0	15973	F&D FACILITIES MANAGEMENT SYS INTEGRATION MATRLS	17JUL13	11SEP13	7MAY14	2JUL14	202
15-16190	40	40	1	0	15980	P&S THERMOMETERS AND GAUGES	8APR13	3JUN13	19JUN14	14AUG14	302
15-16195	10	10	1	0	15980	R&A THERMOMETERS AND GAUGES	4JUN13	17JUN13	15AUG14	28AUG14	302
15-16200	40	40	1	0	15980	F&D THERMOMETERS AND GAUGES	18JUN13	13AUG13	29AUG14	27OCT14	302
15-16205	40	40	1	0	15985	P&S SEQUENCE OF HVAC SYSTEM OPERATION	8APR13	3JUN13	14OCT14	10DEC14	382
15-16210	10	10	1	0	15985	R&A SEQUENCE OF HVAC SYSTEM OPERATION	4JUN13	17JUN13	11DEC14	24DEC14	382
15-16220	40	40	1	0	15993	P&S BALANCING OF SYSTEMS	8APR13	3JUN13	14OCT14	10DEC14	382
15-16230	10	10	1	0	15993	R&A BALANCING OF SYSTEMS	4JUN13	17JUN13	11DEC14	24DEC14	382
16-16000	10	0	1	100	16010	P&S ELECTRICAL SUBCONTRACTOR	1AUG12A	1AUG12A			
16-16005	10	0	1	100	16010	R&A ELECTRICAL SUBCONTRACTOR	1AUG12A	1AUG12A			
16-16010	40	40	1	0	16010	P&S GENERAL PROVISIONS FOR ELECTRICAL WORK	8APR13	3JUN13	21AUG13	17OCT13	95
16-16020	10	10	1	0	16010	R&A GENERAL PROVISIONS FOR ELECTRICAL WORK	4JUN13	17JUN13	18OCT13	31OCT13	95
16-16030	60	30	1	50	16120	P&S WIRING SYSTEMS	10SEP12A	21AUG13		16APR14	162
16-16040	10	5	1	50	16120	R&A WIRING SYSTEMS	13NOV12A	28AUG13		23APR14	162
16-16050	60	60	1	0	16120	F&D WIRING SYSTEMS	29AUG13	25NOV13	24APR14	18JUL14	162
16-16060	60	30	1	50	16130	P&S RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	10SEP12A	21AUG13		21APR14	165
16-16070	10	5	1	50	16130	R&A RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	9NOV12A	28AUG13		28APR14	165
16-16080	60	60	1	0	16130	F&D RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	29AUG13	25NOV13	29APR14	23JUL14	165
16-16090	60	6	1	90	16140	P&S WIRING DEVICES	10SEP12A	18JUL13		16APR14	186
16-16100	10	5	1	50	16140	R&A WIRING DEVICES	19NOV12A	25JUL13		23APR14	186
16-16110	60	60	1	0	16140	F&D WIRING DEVICES	26JUL13	21OCT13	24APR14	18JUL14	186
16-16120	60	30	1	50	16145	P&S LIGHTING CONTROL DEVICES	3DEC12A	21AUG13		9SEP14	263
16-16130	10	5	1	50	16145	R&A LIGHTING CONTROL DEVICES	1FEB13A	28AUG13		16SEP14	263
16-16140	60	60	1	0	16145	F&D LIGHTING CONTROL DEVICES	29AUG13	25NOV13	17SEP14	12DEC14	263
16-16150	60	60	1	0	16231	P&S EMERGENCY GENERATOR SYSTEM	8APR13	1JUL13	15NOV13	12FEB14	154
16-16160	10	5	1	50	16231	R&A EMERGENCY GENERATOR SYSTEM	14MAR13A	9JUL13		20FEB14	154
16-16170	60	60	1	0	16231	F&D EMERGENCY GENERATOR SYSTEM	10JUL13	2OCT13	21FEB14	15MAY14	154
16-16180	60	60	1	0	16289	P&S TRANSIENT VOLTAGE SURGE SUPPRESSION	8APR13	1JUL13	6FEB14	1MAY14	209
16-16190	10	10	1	0	16289	R&A TRANSIENT VOLTAGE SURGE SUPPRESSION	2JUL13	16JUL13	2MAY14	15MAY14	209
16-16200	60	60	1	0	16289	F&D TRANSIENT VOLTAGE SURGE SUPPRESSION EQUIP	17JUL13	9OCT13	16MAY14	11AUG14	209
16-16210	60	60	1	0	16520	P&S INTERIOR BUILDING LIGHTING	11JUL13	3OCT13	7MAR14	30MAY14	163
16-16220	10	10	1	0	16520	R&A INTERIOR BUILDING LIGHTING	4OCT13	18OCT13	2JUN14	13JUN14	163
16-16230	60	60	1	0	16520	F&D INTERIOR BUILDING LIGHTING	21OCT13	16JAN14	16JUN14	9SEP14	163
16-16240	60	60	1	0	16530	P&S SITE SECURITY LIGHTING	11JUL13	3OCT13	21APR14	15JUL14	194
16-16250	10	10	1	0	16530	R&A SITE SECURITY LIGHTING	4OCT13	18OCT13	16JUL14	29JUL14	194
16-16260	60	60	1	0	16530	F&D SITE SECURITY LIGHTING DEVICES	21OCT13	16JAN14	30JUL14	23OCT14	194
16-16270	60	30	1	50	16720	P&S FIRE DETECTION & ALARM SYSTEM	24AUG12A	21AUG13		6JUN14	198
16-16280	10	10	1	0	16720	R&A FIRE DETECTION & ALARM SYSTEM	22AUG13	5SEP13	9JUN14	20JUN14	198
16-16290	60	60	1	0	16720	F&D FIRE DETECTION & ALARM SYSTEM	6SEP13	3DEC13	23JUN14	16SEP14	198
16-16300	60	30	1	50	16724	P&S INTRUSION ALARM SYSTEM	10SEP12A	21AUG13		11JUL14	222
16-16310	10	5	1	50	16724	R&A INTRUSION ALARM SYSTEM	15NOV12A	28AUG13		18JUL14	222
16-16320	60	60	1	0	16724	F&D INTRUSION ALARM SYSTEM	29AUG13	25NOV13	21JUL14	14OCT14	222
16-16330	60	18	1	70	16726	P&S TELEPHONE & INTERCOM SYSTEM	24NOV12A	5AUG13		22JUL14	241
16-16340	10	5	1	50	16726	R&A TELEPHONE & INTERCOM SYSTEM	25OCT12A	12AUG13		29JUL14	241
16-16350	60	60	1	0	16726	F&D TELEPHONE & INTERCOM SYSTEM	12SEP13	9DEC13	30JUL14	23OCT14	220
16-16360	60	42	1	30	16727	P&S DATA CABLING SYSTEM	10AUG12A	9SEP13		3SEP14	247
16-16370	10	7	1	30	16727	R&A DATA CABLING SYSTEM	11OCT12A	18SEP13		12SEP14	247
16-16380	60	60	1	0	16727	F&D DATA CABLING SYSTEM	19SEP13	16DEC13	15SEP14	10DEC14	247

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
16-16400	60	48	1	20	16728	P&S DATA NETWORK CABLING SYSTEM	10SEP12A	17SEP13		25APR14	151
16-16410	10	8	1	20	16728	R&A DATA NETWORK CABLING SYSTEM	9NOV12A	27SEP13		7MAY14	151
16-16420	60	60	1	0	16728	F&D DATA NETWORK CABLING SYSTEM	30SEP13	26DEC13	8MAY14	1AUG14	151
16-16500	60	60	1	0	16775	P&S GYMATORIUM SOUND SYSTEM	11JUL13	3OCT13	3APR14	26JUN14	182
16-16510	10	10	1	0	16775	R&A GYMATORIUM SOUND SYSTEM	4OCT13	18OCT13	27JUN14	11JUL14	182
16-16520	60	60	1	0	16775	F&D GYMATORIUM SOUND SYSTEM	21OCT13	16JAN14	14JUL14	6OCT14	182
16-16550	60	60	1	0	16783	P&S DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	11JUL13	3OCT13	22APR14	16JUL14	195
16-16560	10	10	1	0	16783	R&A DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	4OCT13	18OCT13	17JUL14	30JUL14	195
16-16570	60	60	1	0	16783	F&D DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	21OCT13	16JAN14	31JUL14	24OCT14	195
16-16580	60	60	1	0	16791	P&S CLOCKS & PA SYSTEM	11JUL13	3OCT13	17APR14	11JUL14	192
16-16590	10	10	1	0	16791	R&A CLOCKS & PA SYSTEM	4OCT13	18OCT13	14JUL14	25JUL14	192
16-16600	60	60	1	0	16791	F&D CLOCKS & PA SYSTEM DEVICES	21OCT13	16JAN14	28JUL14	21OCT14	192
B01-0010	0	0	1	100	01060S	ISSUE BULLETIN #1	5SEP12A				
B01-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL - BULLETIN #1	5SEP12A	5SEP12A			
B01-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION - BULLETIN #1 n/a	5SEP12A	5SEP12A			
B01-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR - BULLETIN #1	9OCT12A	9OCT12A			
B01-0030	30	0	1	100	01060S	BULLETIN #1 NEGOTIATE & SIGN OFF	10OCT12A	22OCT12A			
B03-0010	0	0	1	100	01060S	ISSUE BULLETIN #3	4APR13A				
B03-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL BULLETIN #3	4APR13A	4APR13A			
B03-0020	1	1	1	0	01060S	RECEIVE NOTICE OF DIRECTION (NOD) - BULLETIN #03	8APR13	8APR13	2DEC14	2DEC14	415
B03-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR NOD - BULLETIN #03	9APR13	9APR13	3DEC14	3DEC14	415
B03-0030	30	30	1	0	01060S	NOD - BULLETIN #03 NEGOTIATE & SIGN OFF	10APR13	21MAY13	4DEC14	16JAN15	415
BS-00000	0	0	1	100	01010S	NTP (08-01-12)	1AUG12A				
BS-00005	10	0	1	100	02100	MAKE APC7 FILING	1DEC12A	11DEC12A			
BS-00009	0	0	1	0	01060S	COMPLETE PROJECT WORK PERMITS		3MAY13		28SEP12*	-148
BS-00010	20	20	1	0	01060S	SECURE DEWATERING PERMIT	8APR13	3MAY13	31AUG12	28SEP12	-148
BS-00019	0	0	1	0	05120	PLACE STEEL MILL ORDER	23APR13		21AUG13		84
BS-00020	1	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR DEMO	24SEP12A	24SEP12A			
BS-00025	5	0	1	100	01060S	APPROVE DOB PERMIT APPLICATION FOR DEMO	25SEP12A	15MAR13A			
BS-00029	0	0	1	0	05120	START STRUCTURAL STEEL FABRICATION	8APR13		21AUG13		95
BS-00030	1	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR EXCAVATION	13FEB13A	13FEB13A			
BS-00034	0	0	1	0	15410	START U/G PLUMBING & OTHER UTILITIES	19SEP13		1NOV13		30
BS-00035	5	0	1	100	01060S	APPROVE DOB PERMIT APPLICATION FOR EXCAVATION	13MAR13A	14MAR13A			
BS-00039	0	0	1	0	16130	START F&D DISTRIBUTION LINES	29AUG13		29APR14		165
BS-00040	1	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR NEW BUILDING	13FEB13A	13FEB13A			
BS-00045	5	5	1	0	01060S	APPROVE DOB PERMIT APPLICATION FOR NEW BUILDING	14FEB13A	12APR13		28SEP12	-133
BS-00049	0	0	1	100	01015G	SUBCONTRACTOR 'BUYOUT'	1AUG12A				
BS-00050	1	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR CONST. FENCE	9OCT12A	10OCT12A			
BS-00055	5	0	1	100	01060S	APPROVE DOB PERMIT APPLICATION FOR CONST. FENCE	16OCT12A	26OCT12A			
BS-00060	1	1	1	0	01060S	SUBMIT DEP PERMIT APPLICATION FOR SEWER CONN.	8APR13	8APR13	21SEP12	21SEP12	-134
BS-00065	5	5	1	0	01060S	APPROVE DEP PERMIT APPLICATION FOR SEWER CONN.	9APR13	15APR13	24SEP12	28SEP12	-134
BS-00070	1	1	1	0	01060S	SUBMIT DOB PERMIT APPLICATION FOR DOMESTIC WATER	8APR13	8APR13	21SEP12	21SEP12	-134
BS-00075	5	5	1	0	01060S	APPRV DOB PERMIT APPLICATION FOR DOMESTIC WATER	9APR13	15APR13	24SEP12	28SEP12	-134
BS-00080	5	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR ACM	1DEC12A	11DEC12A			
BS-00085	5	0	1	100	01060S	APPROVE DOB PERMIT APPLICATION FOR ACM	11DEC12A	14DEC12A			
BS-00090	5	0	1	100	01060S	SUBMIT DOB PERMIT APPLICATION FOR ACM VARIANCE	15FEB13A	15FEB13A			
BS-00095	5	0	1	100	01060S	APPROVE DOB PERMIT APPLICATION FOR ACM VARIANCE	15FEB13A	15FEB13A			
BS-00100	10	0	1	100	01060S	SECURE DOT FENCE PERMIT	16OCT12A	26OCT12A			
BS-00105	180	0	2	100	02100	SCA 180 CD BLOCKOUT	1AUG12A	27JAN13A			
BS-00110	23	0	1	100	01500S	SUBMIT PLAN FOR SCA FIELD OFFICE	26SEP12A	23OCT12A			
BS-00115	10	0	1	100	01500S	APPROVE PLAN FOR SCA FIELD OFFICE	23OCT12A	26OCT12A			
BS-00120	5	0	1	100	02100	SET UP SCA FIELD OFFICE	17DEC12A	22JAN13A			
BS-00125	10	0	1	100	01500S	INSTALL TEMPORARY UTILITIES FOR SCA FIELD OFFICE	1FEB13A	15MAR13A			
BS-00130	5	0	1	100	01015G	GC MOBILIZATION	5SEP12A	5SEP12A			
BS-00140	10	0	1	100	02100	CONSTRUCT TEMPORARY CONSTRUCTION FENCE	3DEC12A	17DEC12A			
BS-00145	5	0	1	100	02100	CONSTRUCT CONTAINMENT FENCE	3DEC12A	17DEC12A			
BS-00150	5	0	1	100	02100	INST TEMPORARY SANITARY & WATER	1FEB13A	13FEB13A			
BS-00155	5	0	1	100	02100	INST TEMPORARY ELECTRIC	1FEB13A	15MAR13A			
BS-00160	5	0	1	100	01015G	ELECTRICAL SUB MOBILIZATION	1AUG12A	1AUG12A			
BS-00165	5	0	1	100	01015G	PLUMBING SUB MOBILIZATION	28AUG12A	10SEP12A			
BS-00170	5	0	1	100	02100	INITIAL SITE DEMOLITION	11DEC12A	17DEC12A			
BS-00175	60	60	2	0	02010	SCA 60 CD AOR/EOR SOIL INVESTIGATION	9JUL13	6SEP13	5JUL13	2SEP13	-4
BS-00186	4	2	1	50	02250	BURIED TANK REMOVAL	1APR13A	24APR13		24JUN13	42
BS-00188	2	2	1	0	02250	DECOMMISSION MONITORING WELLS	23APR13	24APR13	21JUN13	24JUN13	42
BS-00190	2	2	1	0	02250	PARTIAL FNDTN DEMO NORTH (SOE)	25APR13	26APR13	23APR13	24APR13	-2
BS-00192	3	3	1	0	02250	INST SOLDIER PILES NORTH (WEST HALF SOE)	1MAY13	3MAY13	29APR13	1MAY13	-2
BS-00195	3	3	1	0	02250	INST SOLDIER PILES NORTH (EAST HALF SOE)	6MAY13	8MAY13	2MAY13	6MAY13	-2
BS-00199	0	0	1	100	01015G	COMPLETE MOBILIZATION		10SEP12A			
BS-00200	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (WEST HALF SOE)	9MAY13	14MAY13	7MAY13	10MAY13	-2
BS-00203	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (EAST HALF SOE)	15MAY13	20MAY13	13MAY13	16MAY13	-2
BS-00205	9	9	1	0	02250	INSTALL TIEBACKS NORTH (SOE) - 43RD AVE. SIDE	21MAY13	3JUN13	17MAY13	30MAY13	-2
BS-00207	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (WEST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00209	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (EAST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00211	2	2	1	0	02250	PARTIAL FNDTN DEMO EAST (SOE)	29APR13	30APR13	25APR13	26APR13	-2
BS-00213	5	5	1	0	02250	INST SOLDIER PILES EAST (SOE)	9MAY13	15MAY13	17MAY13	23MAY13	6
BS-00215	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING EAST (NORTH HALF SOE)	21MAY13	24MAY13	24MAY13	30MAY13	3
BS-00217	5	5	1	0	02250	INST TIEBACKS EAST (SOE) - 97TH PLACE SIDE	28MAY13	3JUN13	31MAY13	6JUN13	3
BS-00219	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE EAST (NORTH HALF)	10JUN13	13JUN13	7JUN13	12JUN13	-1
BS-00221	3	3	1	0	02250	EXCAVATE & BERM SOUTH (EAST HALF)	11JUN13	13JUN13	10JUN13	12JUN13	-1
BS-00223	2	2	1	0	02250	PARTIAL FNDTN DEMO SOUTH (SOE)	1MAY13	2MAY13	28MAY13	29MAY13	18
BS-00225	10	10	1	0	02250	INST SOLDIER PILES SOUTH (SOE)	16MAY13	30MAY13	30MAY13	12JUN13	9
BS-00227	3	3	1	0	02250	EXCAVATE/LAGGING @ DETENTION TANK W. HALF SOE)	14JUN13	18JUN13	13JUN13	17JUN13	-1
BS-00231	3	3	1	0	02250	EXCAVATE & BERM SOUTH (EAST HALF SOE)	19JUN13	21JUN13	18JUN13	20JUN13	-1
BS-00241	15	0	1	100	02060	REQUEST UTILITY CUTOFF (ELECTRIC CON-ED)	9OCT12A	9OCT12A			
BS-00242	10	0	1	100	02060	CUTOFF PERFORMED (ELECTRIC CON-ED)	15SEP12A	8MAR13A			
BS-00243	5	0	1	100	02060	CUTOFF CERTIFICATE ISSUED (ELECTRIC-CONED)	8MAR13A	13MAR13A			
BS-00248	15	0	1	100	02060	REQUEST UTILITY CUTOFF (WATER-DEP)	14SEP12A	14SEP12A			
BS-00249	10	0	1	100	02060	CUTOFF PERFORMED (WATER-DEP)	2OCT12A	2OCT12A			

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-00250	5	0	1	100	02060	CUTOFF CERTIFICATE ISSUED (WATER-DEP)	3OCT12A	3OCT12A			
BS-00251	15	0	1	100	02060	REQUEST UTILITY CUTOFF (SEWER-DEP)	14SEP12A	14SEP12A			
BS-00252	10	0	1	100	02060	CUTOFF PERFORMED (SEWER-DEP)	1FEB13A	1FEB13A			
BS-00253	5	0	1	100	02060	CUTOFF CERTIFICATE ISSUED (SEWER-DEP)	1FEB13A	1FEB13A			
BS-00254	15	0	1	100	02060	REQUEST UTILITY CUTOFF (GAS-NATIONAL GRID)	21SEP12A	21SEP12A			
BS-00255	10	0	1	100	02081	ACM ABATEMENT (NW & SW QUADRANT)	18DEC12A	14FEB13A			
BS-00256	10	0	1	100	02060	CUTOFF PERFORMED (GAS-NATIONAL GRID)	3JAN13A	3JAN13A			
BS-00257	5	0	1	100	02060	CUTOFF CERTIFICATE ISSUED (GAS-NATIONAL GRID)	7JAN13A	7JAN13A			
BS-00265	10	0	1	100	02081	ACM ABATEMENT (NE & SE QUADRANT)	18DEC12A	14FEB13A			
BS-00270	10	0	1	100	02081	ACM ABATEMENT (CAULKING ON WINDOWS)	18DEC12A	14FEB13A			
BS-00273	10	0	1	100	02060	CLOSE OUT ACM ABATEMENT FILING FOR DEMO PERMIT	15FEB13A	22FEB13A			
BS-00275	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SW)	20MAR13A	12APR13		10APR13	-2
BS-00280	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SE)	20MAR13A	18APR13		16APR13	-2
BS-00285	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NE)	20MAR13A	24APR13		22APR13	-2
BS-00290	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NW)	20MAR13A	24APR13		22APR13	-2
BS-00295	2	2	1	0	02200	PARTIAL FNDTN DEMO WEST (SOE)	24JUN13	25JUN13	21JUN13	24JUN13	-1
BS-00300	7	7	1	0	02200	EXCAVATE & BERM WEST(SOE)	26JUN13	5JUL13	25JUN13	3JUL13	-1
BS-00310	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SW & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00315	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SE & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00319	0	0	1	0	02200	SOE COMPLETE		5JUL13		3JUL13	-1
BS-00320	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NE & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00325	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NW & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00329	0	0	1	0	02250	START FOUNDATION	9SEP13		9SEP13		0
BS-00330	0	0	1	0	02115	DEMOLITION OF EXISTING STRUCTURE COMPLETE		8JUL13		3JUL13	-2
BS-00339	0	0	1	0	03300	START CONCRETE PLACEMENT	1OCT13		23OCT13		15
BS-00350	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SW)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00351	161*	161*	1	0	02200	INST & MAINTAIN DEWATERING SYSTEM (HA)	9SEP13	30APR14	3SEP13	24APR14	-4
BS-00360	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SE)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-00380	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NE)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00390	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NW)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-00399	0	0	1	0	02200	EXCAVATION TO SUBGRADE COMPLETE		18SEP13		22OCT13	23
BS-00410	10	10	1	0	16010	ELECTRICAL UNDERSLAB POWER	19SEP13	2OCT13	1NOV13	15NOV13	30
BS-00420	10	10	1	0	16010	ELECTRICAL UNDERSLAB POWER FIRE ALARM	19SEP13	2OCT13	28JAN14	10FEB14	87
BS-00430	8	8	1	0	15410	PLUMBING UNDERSLAB (CLASRROM WING)	22JAN14	31JAN14	3FEB14	12FEB14	8
BS-00440	10	10	1	0	15410	PLUMBING UNDERSLAB (LOW RISE)	19SEP13	2OCT13	28JAN14	10FEB14	87
BS-00441	5	5	1	0	NA	MEP'S UNDERSLAB INSPECTION	30JAN14	5FEB14	11FEB14	18FEB14	8
BS-00450	10	10	1	0	11400	KITCHEN UNDERGROUND (CLASSROM WING)	22JAN14	4FEB14	3FEB14	14FEB14	8
BS-00460	10	10	1	0	15333	FIRE PUMP PIPING UNDERSLAB	19SEP13	2OCT13	1NOV13	15NOV13	30
BS-00500	10	10	1	0	02221	COMPACT SUBGRADE	6FEB14	20FEB14	19FEB14	4MAR14	8
BS-00510	5	5	1	0	15880	INST GEOTEXTILE FABRIC	21FEB14	27FEB14	7MAR14	13MAR14	10
BS-00520	10	10	1	0	02221	INST PERMEABLE AGGREGATE LAYER & PIPING	28FEB14	13MAR14	14MAR14	27MAR14	10
BS-00530	5	5	1	0	15880	INST BASE FABRIC	14MAR14	20MAR14	28MAR14	3APR14	10
BS-00540	5	5	1	0	15880	INST METHANE BARRIER	21MAR14	27MAR14	4APR14	10APR14	10
BS-00560	20	20	1	0	16010	CON-ED FEED	11OCT13	8NOV13	19SEP14	17OCT14	235
BS-00830	20	0	1	100	01015G	GC PREPARE BASE LAYER (BSMT - CW & LR)	11JAN13A	8FEB13A			
BS-00835	5	0	1	100	01015G	GC PREPARE BASE LAYER (1ST FLOOR)	4FEB13A	7FEB13A			
BS-00840	5	0	1	100	01015G	GC PREPARE BASE LAYER (2ND FLOOR)	4FEB13A	7FEB13A			
BS-00845	5	0	1	100	01015G	GC PREPARE BASE LAYER (3RD FLOOR)	4FEB13A	7FEB13A			
BS-00850	5	0	1	100	01015G	GC PREPARE BASE LAYER (4TH FLOOR)	4FEB13A	7FEB13A			
BS-00855	5	1	1	80	01015G	GC PREPARE BASE LAYER (5TH FLOOR)	1APR13A	9APR13		10SEP13	107
BS-00865	10	0	1	100	01015G	HVAC OVERLAY (BSMT - CW & LR)	19FEB13A	5MAR13A			
BS-00870	5	0	1	100	01015G	HVAC OVERLAY (1ST FLOOR)	5MAR13A	12MAR13A			
BS-00875	5	0	1	100	01015G	HVAC OVERLAY (2ND FLOOR)	14MAR13A	21MAR13A			
BS-00880	5	0	1	100	01015G	HVAC OVERLAY (3RD FLOOR)	25MAR13A	1APR13A			
BS-00885	5	0	1	100	01015G	HVAC OVERLAY (4TH FLOOR)	25MAR13A	1APR13A			
BS-00890	5	5	1	0	01015G	HVAC OVERLAY (5TH FLOOR)	10APR13	16APR13	11SEP13	17SEP13	107
BS-00900	10	0	1	100	01015G	PLUMBING OVERLAY (BSMT - CW & LR)	4MAR13A	18MAR13A			
BS-00905	5	0	1	100	01015G	PLUMBING OVERLAY (1ST FLOOR)	25MAR13A	1APR13A			
BS-00910	5	4	1	20	01015G	PLUMBING OVERLAY (2ND FLOOR)	5APR13A	12APR13		28AUG13	96
BS-00915	5	5	1	0	01015G	PLUMBING OVERLAY (3RD FLOOR)	15APR13	19APR13	6SEP13	12SEP13	101
BS-00920	5	5	1	0	01015G	PLUMBING OVERLAY (4TH FLOOR)	22APR13	26APR13	20SEP13	26SEP13	106
BS-00925	5	5	1	0	01015G	PLUMBING OVERLAY (5TH FLOOR)	29APR13	3MAY13	4OCT13	10OCT13	111
BS-00930	10	10	1	0	01015G	PIPING OVERLAY (BSMT - CW & LR)	9APR13	22APR13	1AUG13	14AUG13	80
BS-00935	10	10	1	0	01015G	ELECTRICAL OVERLAY (BSMT - CW& LR)	23APR13	6MAY13	6SEP13	19SEP13	95
BS-00940	5	5	1	0	01015G	ELECTRICAL OVERLAY (1ST FLOOR)	7MAY13	13MAY13	27SEP13	3OCT13	100
BS-00945	5	5	1	0	01015G	ELECTRICAL OVERLAY (2ND FLOOR)	21MAY13	28MAY13	4OCT13	10OCT13	95
BS-00950	5	5	1	0	01015G	ELECTRICAL OVERLAY (3RD FLOOR)	5JUN13	11JUN13	11OCT13	18OCT13	90
BS-00955	5	5	1	0	01015G	ELECTRICAL OVERLAY (4TH FLOOR)	19JUN13	25JUN13	21OCT13	25OCT13	85
BS-00960	5	5	1	0	01015G	ELECTRICAL OVERLAY (5TH FLOOR)	3JUL13	10JUL13	28OCT13	1NOV13	80
BS-00970	10	10	1	0	01015G	SPRINKLER OVERLAY (BSMT - CW & LR)	26JUN13	10JUL13	20SEP13	3OCT13	60
BS-00975	5	5	1	0	01015G	SPRINKLER OVERLAY (1ST FLOOR)	11JUL13	17JUL13	4OCT13	10OCT13	60
BS-00980	5	5	1	0	01015G	SPRINKLER OVERLAY (2ND FLOOR)	18JUL13	24JUL13	11OCT13	18OCT13	60
BS-00985	5	5	1	0	01015G	SPRINKLER OVERLAY (3RD FLOOR)	25JUL13	31JUL13	21OCT13	25OCT13	60
BS-00990	5	5	1	0	01015G	SPRINKLER OVERLAY (4TH FLOOR)	1AUG13	7AUG13	28OCT13	1NOV13	60
BS-00995	5	5	1	0	01015G	SPRINKLER OVERLAY (5TH FLOOR)	8AUG13	14AUG13	4NOV13	8NOV13	60
BS-01000	10	10	1	0	01015G	PIPING OVERLAY (1ST FLOOR)	23APR13	6MAY13	15AUG13	28AUG13	80
BS-01010	10	10	1	0	01015G	PIPING OVERLAY (2ND FLOOR)	7MAY13	20MAY13	29AUG13	12SEP13	80
BS-01020	10	10	1	0	01015G	PIPING OVERLAY (3RD FLOOR)	21MAY13	4JUN13	13SEP13	26SEP13	80
BS-01030	10	10	1	0	01015G	PIPING OVERLAY (4TH FLOOR)	5JUN13	18JUN13	27SEP13	10OCT13	80
BS-01040	10	10	1	0	01015G	PIPING OVERLAY (5TH FLOOR)	19JUN13	2JUL13	11OCT13	25OCT13	80
BS-02270	10	10	1	0	10720	INST WINDOW GUARDS ON J TYPE WINDOWS	19SEP14	2OCT14	5JAN15	16JAN15	71
BS-02750	1	1	1	0	03300	MOBILIZATION FOR CONCRETE FOUNDATION WALL	18SEP13	18SEP13	12SEP13	12SEP13	-4
BS-02753	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A1-A6	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02755	8	8	1	0	03300	PERIMETER FNDTN WALL (S) CL. A1-A6	1OCT13	10OCT13	10OCT13	22OCT13	7
BS-02758	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A6-A12	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02760	6	6	1	0	03300	PERIMETER FNDTN WALL (S) CL. A6-A12	1OCT13	8OCT13	25SEP13	2OCT13	-4
BS-02763	5	5	1	0	03300	PERIMETER CONC DETENTION TANK WALL FTG BASE SLAB	1OCT13	7OCT13	26SEP13	2OCT13	-3
BS-02765	5	5	1	0	03300	PERIMETER CONC DETENTION TANK WALLS	9OCT13	16OCT13	3OCT13	9OCT13	-4

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-02768	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1A-1D5	17OCT13	28OCT13	10OCT13	22OCT13	-4
BS-02770	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1A-1D5	29OCT13	5NOV13	23OCT13	30OCT13	-4
BS-02773	10	10	1	0	03300	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1D.5-1H	17OCT13	30OCT13	17OCT13	30OCT13	0
BS-02775	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1D.5-1H	6NOV13	14NOV13	31OCT13	7NOV13	-4
BS-02778	7	7	1	0	03300	PERIMETER FNDTN WALL FOOOTING (N) CL. H6-H12	11OCT13	22OCT13	11OCT13	22OCT13	0
BS-02780	6	6	1	0	03300	PERIMETER FNDTN WALL (N) CL. H6-H12	23OCT13	30OCT13	23OCT13	30OCT13	0
BS-02790	8	8	1	0	03300	PERIMETER FNDTN WALL (N) CL. H1-H6	1OCT13	10OCT13	17OCT13	28OCT13	11
BS-02793	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (E) CL. 12A-12D.5	1OCT13	10OCT13	26SEP13	7OCT13	-3
BS-02795	8	8	1	0	03300	PERIMETER FNDTN WALL (E) CL. 12A-12D.5	11OCT13	23OCT13	29OCT13	7NOV13	11
BS-02798	9	9	1	0	03300	PERIMETER FNDTN WALL FOOTING (E) CL-12D.5-12H	11OCT13	24OCT13	18OCT13	30OCT13	4
BS-02800	6	6	1	0	03300	PERIMETER FNDTN WALL (E) CL-12D.5-12H	31OCT13	7NOV13	31OCT13	7NOV13	0
BS-02805	5	5	1	0	02250	INTERIOR FOOTINGS (SC)	8NOV13	15NOV13	22NOV13	29NOV13	9
BS-02810	5	5	1	0	02250	INTERIOR FOOTINGS (NE)	22NOV13	29NOV13	22NOV13	29NOV13	0
BS-02815	5	5	1	0	02250	INTERIOR FOOTINGS (NW)	15NOV13	21NOV13	8NOV13	15NOV13	-4
BS-02820	5	5	1	0	02250	INTERIOR FOOTINGS (SE)	8NOV13	15NOV13	8NOV13	15NOV13	0
BS-02825	5	5	1	0	02250	INTERIOR FOOTINGS (SW)	2DEC13	6DEC13	2DEC13	6DEC13	0
BS-02830	10	10	1	0	02200	INSTALL EARTH ANCHORS (SE)	5NOV13	19NOV13	7NOV13	21NOV13	2
BS-02840	10	10	1	0	02200	INSTALL EARTH ANCHORS (SW)	20NOV13	4DEC13	22NOV13	6DEC13	2
BS-02885	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (N) CL. H1-H6	19SEP13	30SEP13	16SEP13	25SEP13	-3
BS-04019	0	0	1	0	04200	START EXT & INT MASONRY, STAIR BULKHEADS	13FEB14		21MAY14		68
BS-04039	0	0	1	0	14240	START ELEVATOR RAILS & PIT (HYDRAULIC)	1MAY14		5JAN15		169
BS-04105	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-4TH FLR)	22JAN14	29JAN14	15JAN14	23JAN14	-4
BS-05000	0	0	1	0	05120	START STRUCTURAL STEEL ERECTION	26NOV13		20NOV13		-4
BS-05001	2	2	1	0	05120	STRUCTURAL STEEL MOBILIZATION	22NOV13	25NOV13	18NOV13	19NOV13	-4
BS-05003	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYM)	26NOV13	2DEC13	20NOV13	25NOV13	-4
BS-05005	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMNASIUM)	27NOV13	3DEC13	21NOV13	26NOV13	-4
BS-05006	0	0	1	0	05300	START DECK ERECTION	10DEC13		13FEB14		44
BS-05013	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYMATORIUM)	3DEC13	6DEC13	26NOV13	2DEC13	-4
BS-05015	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMATORIUM)	4DEC13	9DEC13	27NOV13	3DEC13	-4
BS-05017	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-GYMNASIUM)	10DEC13	13DEC13	7FEB14	12FEB14	40
BS-05018	5	5	1	0	05120	SCA INSPECTION STRUCT STEEL (LR-GYM)	16DEC13	20DEC13	26FEB14	4MAR14	48
BS-05023	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-LIBRARY)	9DEC13	12DEC13	3DEC13	6DEC13	-4
BS-05025	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-LIBRARY)	10DEC13	13DEC13	4DEC13	9DEC13	-4
BS-05027	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-GYMATORIUM)	16DEC13	19DEC13	13FEB14	19FEB14	40
BS-05028	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (LR-GYMATORIUM)	20DEC13	27DEC13	4MAR14	10MAR14	48
BS-05049	0	0	1	0	15501	START MECHANICAL DISTRIBUTION LINES	1MAY14		12MAY14		7
BS-05057	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-LIBRARY)	20DEC13	26DEC13	20FEB14	25FEB14	40
BS-05058	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (LR-LIBRARY)	27DEC13	3JAN14	26FEB14	4MAR14	40
BS-05063	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW - BSMT)	13DEC13	20DEC13	9DEC13	16DEC13	-4
BS-05065	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW - BSMT)	16DEC13	23DEC13	10DEC13	17DEC13	-4
BS-05067	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW - BSMT)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05073	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-1ST FLR)	23DEC13	31DEC13	17DEC13	24DEC13	-4
BS-05075	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-1ST FLR)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05077	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-1ST FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05078	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-1ST FLR)	13JAN14	17JAN14	8JAN14	14JAN14	-3
BS-05083	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-2ND FLR)	2JAN14	9JAN14	26DEC13	3JAN14	-4
BS-05085	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-2ND FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05087	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-2ND FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05088	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-2ND FLR)	22JAN14	28JAN14	23JAN14	29JAN14	1
BS-05093	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-3RD FLR)	10JAN14	17JAN14	6JAN14	13JAN14	-4
BS-05095	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-3RD FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05097	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-3RD FLR)	22JAN14	29JAN14	22JAN14	29JAN14	0
BS-05098	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-3RD FLR)	30JAN14	5FEB14	6FEB14	12FEB14	5
BS-050L1	61*	61*1		0	05120	STRUCTURAL STEEL - OVERALL (HA)	22NOV13	21FEB14	18NOV13	27FEB14	4
BS-050L2	52*	52*1		0	05120	STRUCT STEEL ERECTION (HA)	26NOV13	11FEB14	20NOV13	5FEB14	-4
BS-050L3	52*	52*1		0	05120	SS BOLTING (HA)	27NOV13	12FEB14	21NOV13	6FEB14	-4
BS-050L4	50*	50*1		0	05300	METAL DECKING (HA)	10DEC13	21FEB14	7FEB14	27FEB14	4
BS-05103	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-4TH FLR)	21JAN14	28JAN14	14JAN14	22JAN14	-4
BS-05107	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-4TH FLR)	30JAN14	6FEB14	5FEB14	12FEB14	4
BS-05108	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-4TH FLR)	7FEB14	13FEB14	21FEB14	27FEB14	9
BS-05203	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-5TH FLR)	29JAN14	5FEB14	23JAN14	30JAN14	-4
BS-05205	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-5TH FLR)	30JAN14	6FEB14	24JAN14	31JAN14	-4
BS-05207	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-5TH FLR)	7FEB14	14FEB14	13FEB14	21FEB14	4
BS-05208	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-5TH FLR)	18FEB14	24FEB14	7MAR14	13MAR14	13
BS-05303	4	4	1	0	05120	ERECT STRUCTURAL STEEL (CW-ROOF)	6FEB14	11FEB14	31JAN14	5FEB14	-4
BS-05305	4	4	1	0	05120	BOLT STRUCTURAL STEEL (CW-ROOF)	7FEB14	12FEB14	3FEB14	6FEB14	-4
BS-05307	4	4	1	0	05300	ERECT METAL DECKING & STUDS (CW-ROOF)	18FEB14	21FEB14	24FEB14	27FEB14	4
BS-05500	10	10	1	0	03300	CIP CONCRETE SLAB ON GRADE (LR-BSMT)	21FEB14	6MAR14	5MAR14	18MAR14	8
BS-05505	10	10	1	0	03300	CIP CONCRETE SLAB ON GRADE (CW-BSMT)	17APR14	30APR14	11APR14	24APR14	-4
BS-05510	10	10	1	0	03300	CIP CONCRETE DECK (1ST FLR)	22JAN14	4FEB14	15JAN14	29JAN14	-4
BS-05520	10	10	1	0	03300	CIP CONCRETE DECK (2ND FLR)	5FEB14	19FEB14	30JAN14	12FEB14	-4
BS-05530	10	10	1	0	03300	CIP CONCRETE DECK (3RD FLR)	20FEB14	5MAR14	13FEB14	27FEB14	-4
BS-05540	10	10	1	0	03300	CIP CONCRETE DECK (4TH FLR)	6MAR14	19MAR14	28FEB14	13MAR14	-4
BS-05550	10	10	1	0	03300	CIP CONCRETE DECK (5TH FLR)	20MAR14	2APR14	14MAR14	27MAR14	-4
BS-05560	10	10	1	0	03300	CIP CONCRETE DECK (ROOF)	3APR14	16APR14	28MAR14	10APR14	-4
BS-06015	8	8	1	0	04200	EXTERIOR CMU (LR-EAST)	14MAR14	25MAR14	8APR14	17APR14	17
BS-06020	8	8	1	0	04200	EXTERIOR CMU (LR-SOUTH)	14MAR14	25MAR14	21APR14	30APR14	26
BS-06025	7	7	1	0	04200	INST STONE (CW-WEST)	26JUN14	7JUL14	29AUG14	9SEP14	45
BS-06035	4	4	1	0	04200	AIR BARRIER (LR-EAST)	26MAR14	31MAR14	18APR14	23APR14	17
BS-06040	4	4	1	0	04200	AIR BARRIER (LR-SOUTH)	26MAR14	31MAR14	1MAY14	6MAY14	26
BS-06045	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-EAST)	1APR14	10APR14	24APR14	5MAY14	17
BS-06050	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-SOUTH)	1APR14	10APR14	7MAY14	16MAY14	26
BS-06101	5	5	1	0	04200	SCA INSPECTION EXT MASONRY/STONE (LR)	8JUL14	14JUL14	10SEP14	16SEP14	45
BS-06270	8	8	1	0	04200	EXTERIOR CMU (LR-NORTH)	13FEB14	25FEB14	11MAR14	20MAR14	17
BS-06341	5	5	1	0	04200	SCA INSPECTION EXT MASONRY/STONE (CW)	30JUL14	5AUG14	10SEP14	16SEP14	29
BS-06343	18	18	1	0	04435	CAST STONE WORK (NORTH ELEVATION) PERIMETER SITE	11APR14	6MAY14	29MAY14	23JUN14	33
BS-06345	10	10	1	0	04435	CAST STONE WORK (EAST ELEVATION) PERIMETER SITE	7MAY14	20MAY14	24JUN14	8JUL14	33
BS-06347	11	11	1	0	04435	CAST STONE WORK (WEST ELEVATION) PERIMETER SITE	11APR14	25APR14	19MAY14	3JUN14	26

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-06349	20	20	1	0	04435	CAST STONE WORK (SOUTH ELEVATION) PERIMETER SITE	28APR14	23MAY14	10JUN14	8JUL14	30
BS-06351	14	14	1	0	04435	CAST STONE WORK (NORTH ELEVATION) COURTYARD	27MAY14	13JUN14	9JUL14	28JUL14	30
BS-06353	10	10	1	0	04435	CAST STONE WORK (EAST ELEVATION) COURTYARD	16JUN14	27JUN14	29JUL14	11AUG14	30
BS-06355	10	10	1	0	04435	CAST STONE WORK (WEST ELEVATION) COURTYARD	27MAY14	9JUN14	9JUL14	22JUL14	30
BS-06357	14	14	1	0	04435	CAST STONE WORK (SOUTH ELEVATION) COURTYARD	10JUN14	27JUN14	23JUL14	11AUG14	30
BS-06440	4	4	1	0	04200	AIR BARRIER (LR-NORTH)	26FEB14	3MAR14	21MAR14	26MAR14	17
BS-06450	10	10	1	0	07900	CAULK BLDG EXTERIOR (WEST ELEVATION)	6AUG14	19AUG14	5JAN15	16JAN15	102
BS-06455	10	10	1	0	07900	CAULK BLDG EXTERIOR (EAST ELEVATION)	30JUL14	12AUG14	5JAN15	16JAN15	107
BS-06460	10	10	1	0	07900	CAULK BLDG EXTERIOR (SOUTH ELEVATION)	22AUG14	5SEP14	5JAN15	16JAN15	90
BS-06465	10	10	1	0	07900	CAULK BLDG EXTERIOR (NORTH ELEVATION)	8AUG14	21AUG14	3SEP14	16SEP14	17
BS-06470	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-NORTH)	4MAR14	13MAR14	27MAR14	7APR14	17
BS-06480	8	8	1	0	04200	EXTERIOR CMU (LR-WEST)	13FEB14	25FEB14	7FEB14	19FEB14	-4
BS-06490	4	4	1	0	04200	AIR BARRIER (LR-WEST)	26FEB14	3MAR14	20FEB14	25FEB14	-4
BS-06499	0	0	1	0	04200	EXTERIOR MASONRY & STONE COMPLETE		14JUL14		16SEP14	45
BS-06500	10	10	1	0	08920	INST CURTAINWALL (CW - SOUTH)	27MAY14	9JUN14	11DEC14	24DEC14	137
BS-06510	8	8	1	0	08920	INST CURTAINWALL (CW - NORTH)	7MAY14	16MAY14	21AUG14	2SEP14	74
BS-06520	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NE)	24JUN14	3JUL14	18JUL14	29JUL14	17
BS-06530	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NW)	7JUL14	16JUL14	30JUL14	8AUG14	17
BS-06540	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SE)	21JUL14	30JUL14	25JUL14	5AUG14	4
BS-06550	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SW)	31JUL14	11AUG14	6AUG14	15AUG14	4
BS-06560	5	5	1	0	08920	INST CURTAINWALL (CW - SE ENTRANCE)	21MAY14	28MAY14	11DEC14	17DEC14	140
BS-06570	5	5	1	0	08400	INST STOREFRONT (CW - SE ENTRANCE)	29MAY14	4JUN14	18DEC14	24DEC14	140
BS-06580	5	5	1	0	08920	INST CURTAINWALL (LR - GYM NORTH & EAST)	27MAY14	2JUN14	29JUL14	4AUG14	44
BS-06590	10	10	1	0	08400	INST STOREFRONT (LR - COURTYARD) NORTH	8JUL14	21JUL14	19AUG14	2SEP14	30
BS-06600	10	10	1	0	08400	INST STOREFRONT (LR - COURTYARD) SOUTH	22JUL14	4AUG14	3SEP14	16SEP14	30
BS-06610	10	10	1	0	08400	INST CURTAINWALL (LR EAST ELEV NORTH HALF)	3JUN14	16JUN14	5AUG14	18AUG14	44
BS-06615	10	10	1	0	07421	INST METAL WALL PANEL EAST ELEV NORTH HALF	1JUL14	15JUL14	3SEP14	16SEP14	44
BS-06620	10	10	1	0	08400	INST CURTAINWALL (LR EAST ELEV SOUTH HALF)	17JUN14	30JUN14	19AUG14	2SEP14	44
BS-06630	5	5	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP WEST)	14MAY14	20MAY14	18AUG14	22AUG14	66
BS-06640	8	8	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP NORTH)	12JUN14	23JUN14	8JUL14	17JUL14	17
BS-06650	8	8	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP SOUTH)	12AUG14	21AUG14	18AUG14	27AUG14	4
BS-06660	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP WEST)	21MAY14	2JUN14	25AUG14	4SEP14	66
BS-06670	8	8	1	0	08525	INST WINDOWS (CW - NE)	17JUL14	28JUL14	11AUG14	20AUG14	17
BS-06680	8	8	1	0	08525	INST WINDOWS (CW - NW)	29JUL14	7AUG14	21AUG14	2SEP14	17
BS-06690	8	8	1	0	08525	INST WINDOWS (CW - SE)	26JUN14	8JUL14	20JUN14	1JUL14	-4
BS-06700	8	8	1	0	08525	INST WINDOWS (CW - SW)	9JUL14	18JUL14	2JUL14	14JUL14	-4
BS-06710	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP NW)	7JUL14	16JUL14	30JUL14	8AUG14	17
BS-06720	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP SW)	3JUN14	12JUN14	5SEP14	16SEP14	66
BS-06730	5	5	1	0	08525	INST WINDOWS (LR - COURTYARD)	30JUN14	7JUL14	12AUG14	18AUG14	30
BS-06740	10	10	1	0	08400	INST CURTAINWALL (LR-LOBBY WEST ELEV	28APR14	9MAY14	4JUN14	17JUN14	26
BS-06750	2	2	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - EAST)	1JUL14	2JUL14	15SEP14	16SEP14	52
BS-06760	2	2	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - WEST)	12MAY14	13MAY14	18JUN14	19JUN14	26
BS-06770	5	5	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - NORTH)	3JUN14	9JUN14	26AUG14	2SEP14	59
BS-0678	0	0	1	0	08525	START WINDOWS	14MAY14		20JUN14		26
BS-06780	5	5	1	0	08525	INST PERIMETER J TYPE WINDOWS (CW - SOUTH)	10JUN14	16JUN14	26DEC14	2JAN15	137
BS-06781	5	5	1	0	08920	SCA INSPECTION ALL WINDOWS & CURTAINWALL	22AUG14	28AUG14	26DEC14	2JAN15	85
BS-06790	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-WEST)	4MAR14	13MAR14	26FEB14	7MAR14	-4
BS-06799	0	0	1	0	08525	WINDOW FOR SAMPLE CLASSROM SET		28JUL14		17SEP14	36
BS-06800	12	12	1	0	04200	EXTERIOR CMU (CW-NORTH)	11APR14	28APR14	6MAY14	21MAY14	17
BS-06810	8	8	1	0	04200	AIR BARRIER (CW-NORTH)	29APR14	8MAY14	22MAY14	3JUN14	17
BS-06820	15	15	1	0	04200	EXTERIOR BRICK (CW-NORTH)	9MAY14	30MAY14	4JUN14	24JUN14	17
BS-06830	8	8	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-NORTH)	2JUN14	11JUN14	25JUN14	7JUL14	17
BS-06840	11	11	1	0	04200	EXTERIOR CMU (CW-WEST)	14MAR14	28MAR14	10MAR14	24MAR14	-4
BS-06850	6	6	1	0	04200	AIR BARRIER (CW-WEST)	31MAR14	7APR14	25MAR14	1APR14	-4
BS-06860	11	11	1	0	04200	EXTERIOR BRICK (CW-WEST)	8APR14	22APR14	2APR14	16APR14	-4
BS-06870	5	5	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-WEST)	23APR14	29APR14	17APR14	23APR14	-4
BS-06880	11	11	1	0	04200	EXTERIOR CMU (CW-EAST)	12JUN14	26JUN14	24JUL14	7AUG14	29
BS-06890	6	6	1	0	04200	AIR BARRIER (CW-EAST)	27JUN14	7JUL14	8AUG14	15AUG14	29
BS-06900	11	11	1	0	04200	EXTERIOR BRICK (CW-EAST)	8JUL14	22JUL14	18AUG14	2SEP14	29
BS-06910	5	5	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-EAST)	23JUL14	29JUL14	3SEP14	9SEP14	29
BS-06920	11	11	1	0	04200	EXTERIOR CMU (CW-SOUTH)	30APR14	14MAY14	24APR14	8MAY14	-4
BS-06930	8	8	1	0	04200	AIR BARRIER (CW-SOUTH)	15MAY14	27MAY14	9MAY14	20MAY14	-4
BS-06940	14	14	1	0	04200	EXTERIOR BRICK (CW-SOUTH)	28MAY14	16JUN14	21MAY14	10JUN14	-4
BS-06950	7	7	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-SOUTH)	17JUN14	25JUN14	11JUN14	19JUN14	-4
BS-07000	10	10	1	0	04200	INTERIOR CMU LR-GYM (NORTH WALL)	19MAR14	1APR14	21MAY14	4JUN14	45
BS-07009	0	0	1	0	07260	START FIREPROOFING	5FEB14		11MAR14		23
BS-07010	10	10	1	0	04200	INTERIOR CMU LR-GYM (EAST WALL)	23APR14	6MAY14	26JUN14	10JUL14	45
BS-07019	0	0	1	0	15933	START SETTING OF ROOFTOP UNITS & CONNECTIONS	24FEB14		19JUN14		82
BS-07020	10	10	1	0	04200	INTERIOR CMU LR-GYM (SOUTH WALL)	7MAY14	20MAY14	11JUL14	24JUL14	45
BS-07030	10	10	1	0	04200	INTERIOR CMU LR-GYM (WEST WALL)	21MAY14	4JUN14	25JUL14	7AUG14	45
BS-07031	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (LR-GYM)	5JUN14	11JUN14	21OCT14	27OCT14	95
BS-07040	10	10	1	0	04200	INTERIOR CMU LR-GYMATORIUM (NORTH WALL)	2APR14	15APR14	5JUN14	18JUN14	45
BS-07041	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (LR-GYMATORIUM)	16APR14	22APR14	19JUN14	25JUN14	45
BS-07049	0	0	1	0	16010	START ELECTRICAL DISTRIBUTION LINES	2APR14		20JUN14		56
BS-07069	0	0	1	0	07560	START ROOF	5FEB14		5AUG14		126
BS-08099	0	0	1	0	08920	BLDG TIGHT	16SEP14		17SEP14		1
BS-09009	0	0	1	0	09260	START LAYOUT OF STUDS	26MAR14		17APR14		16
BS-09019	0	0	1	0	09260	START DRYWALL	3JUL14		21JUL14		11
BS-09029	0	0	1	0	09510	START SUSPENDED CEILING GRID (SAMPLE RM EXCLUDED	21JUL14		18AUG14		20
BS-09049	0	0	1	0	11400	START FOOD SERVICE EQUIPMENT (CW-BSMT)	2OCT14		2OCT14		0
BS-09059	5	5	1	0	01015G	ALL EQUIPMENT INSPECTION (KICHEN EQUIP EXCLUDED)	28OCT14	3NOV14	24OCT14	30OCT14	-2
BS-09060	5	5	1	0	11400	KITCHEN EQUIPMENT INSPECTION	2DEC14	8DEC14	12DEC14	18DEC14	8
BS-09298	0	0	1	0	08710	FINISHES & CEILING COMPLETE		30DEC14		2JAN15	2
BS-09299	0	0	1	0	09900	FINISH PAINITING (ALL)		30DEC14		2JAN15	2
BS-10700	10	10	1	0	10652	SCHEDULE & TRAIN - ELECT. OPERATED FOLDING PNL	30DEC14	13JAN15	5JAN15	16JAN15	3
BS-10710	10	10	1	0	11050	SCHEDULE & TRAIN - LIBRARY EQUIPMENT	5JAN15	16JAN15	5JAN15	16JAN15	0
BS-10720	10	10	1	0	14211	SCHEDULE & TRAIN - GEARED TRACTION ELEVATOR	29SEP14	10OCT14	5JAN15	16JAN15	65
BS-10730	10	10	1	0	14240	SCHEDULE & TRAIN - HYDRAULIC ELEVATOR	30SEP14	14OCT14	5JAN15	16JAN15	64

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-10745	0	0	1	0	01650S	PROVISION OF TRAINING SCHEDULES	30SEP14		20JAN15		74
BS-10750	10	10	1	0	15301	SCHEDULE & TRAIN - FIRE PROTECTION SYSTEM	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10760	10	10	1	0	15333	SCHEDULE & TRAIN - FIRE PUMPS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10770	10	10	1	0	15401	SCHEDULE & TRAIN - P&D WORK	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10780	10	10	1	0	15415	SCHEDULE & TRAIN CID NEUT./GREASE INTERCPTR SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10790	10	10	1	0	15440	SCHEDULE & TRAIN - PLUMBING FIXTURES	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10800	10	10	1	0	15451	SCHEDULE & TRAIN - WATER HEATER	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10810	10	10	1	0	15453	SCHEDULE & TRAIN - PUMPING APPARATUS & TANKS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10820	10	10	1	0	15501	SCHEDULE & TRAIN - GENERAL HVAC WORK	18DEC14	2JAN15	5JAN15	16JAN15	10
BS-10830	10	10	1	0	15517	SCHEDULE & TRAIN - WATER TREATMENT HYDRONIC SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10840	10	10	1	0	15540	SCHEDULE & TRAIN - HVAC PUMPS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10850	10	10	1	0	15565	SCHEDULE & TRAIN - HOT WATER CONDENSING BOILERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10860	10	10	1	0	15590	SCHEDULE & TRAIN - EMERGENCY GENERATOR SYSTEM	19NOV14	3DEC14	5JAN15	16JAN15	30
BS-10870	10	10	1	0	15596	SCHEDULE & TRAIN NATURAL GAS LEAK DETECTION SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10880	10	10	1	0	15660	SCHEDULE & TRAIN - PACKAGED OUTDOOR CHILLERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10890	10	10	1	0	15670	SCHEDULE & TRAIN - PLATE HEAT EXCHANGERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10900	10	10	1	0	15783	SCHEDULE & TRAIN - HEAT PUMP SYSTEM	26NOV14	10DEC14	5JAN15	16JAN15	25
BS-10910	10	10	1	0	15836	SCHEDULE & TRAIN -HEATERS & CABINET UNIT HEATERS	12NOV14	25NOV14	18DEC14	2JAN15	25
BS-10920	10	10	1	0	15860	SCHEDULE & TRAIN - CENTRIFUGAL FANS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10930	10	10	1	0	15880	SCHEDULE & TRAIN - SUB-SLAB DEPRESSURIZATION SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10950	10	10	1	0	15932	SCHEDULE & TRAIN - CHILLED BEAMS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10960	10	10	1	0	15933	SCHEDULE & TRAIN - DEDICATED OUTSIDE AIR RTU'S	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-11039	0	0	1	0	11400	START KITCHEN	2OCT14		2OCT14		0
BS-11285	5	5	1	0	10214	INST LOUVER	14AUG13	20AUG13	10SEP14	16SEP14	269
BS-14069	0	0	1	0	14211	START ELEVATOR	1MAY14		21JUL14		55
BS-15039	0	0	1	0	15970	START LOW VOLTAGE	18APR14		15AUG14		83
BS-15059	0	0	1	0	15933	ROOFTOP UNITS AVAILABLE (LR-ROOF)		26DEC13		4JUN14	110
BS-15069	0	0	1	0	15933	ROOFTOP UNITS AVAILABLE (CW-ROOF)		21FEB14		4JUN14	72
BS-15399	0	0	1	0	15510	BUILDING HVAC FLUSH-OUT		30JUN14		28AUG14	42
BS-15499	0	0	1	0	15401	FINISH MECHANICAL / PLUMBING		16DEC14		2JAN15	11
BS-15599	0	0	1	0	15501	FINISH HVAC (ALL)		24DEC14		9JAN15	10
BS-15604	0	0	1	0	16725	MDF & IDF FACILITIES COMPLETE		2OCT14		17OCT14*	10
BS-16599	0	0	1	0	16010	PERM POWER AVAILABLE		15SEP14		17OCT14	23
BS-16995	0	0	1	0	16010	FINISH LOW VOLTAGE		5JAN15		2JAN15	-1
BS-16999	0	0	1	0	16720	FINISH FIRE ALARM SIGNOFF		23DEC14		17DEC14	-4
BS-1S000	0	0	1	0	01426S	START SAMPLE CLASSROOM	29JUL14		18SEP14		36
BS-1S999	0	0	1	0	01426S	SAMPLE CLASSROOM COMPLETE (CW-2ND FLR)		30SEP14		21NOV14	36
BS-50000	0	0	1	0	15401	START P&D, RISERS, CONNECTION TO ROOF DRAINS	26MAR14		14JUL14		76
BS-50400	10	10	1	0	15783	START UP & TROUBLE SHOOT - SPLIT HEAT PUMPS	4NOV14	18NOV14	31OCT14	14NOV14	-2
BS-50999	10	10	1	0	15836	INST INSTRUMENTATION & CONTROL - EHU/UH/CH UNITS	16SEP14	29SEP14	26NOV14	10DEC14	49
BS-51999	5	5	1	0	15933	START UP & TEST HVAC SYSTEM	4DEC14	10DEC14	18DEC14	24DEC14	10
BS-69990	5	5	1	0	15332	START UP & TEST SPRINKLER SYSTEM (ALL)	24NOV14	1DEC14	4DEC14	10DEC14	7
BS-70210	10	10	1	0	16145	INST LIGHTING CONTROL DEVICES	11DEC14	24DEC14	15DEC14	29DEC14	2
BS-79000	5	5	1	0	16520	START UP & TEST EXIT & EMERGENCY LIGHTING	3DEC14	9DEC14	26DEC14	2JAN15	16
BS-79005	3	3	1	0	16783	TEST INTERNET PROTOCOL DIGIT VIDEO SURVILLAN SYS	2JAN15	6JAN15	30DEC14	2JAN15	-2
BS-79010	10	10	1	0	16140	START UP & TEST ALL ELECTRICAL DEVICES	16DEC14	30DEC14	18DEC14	2JAN15	2
BS-79015	3	3	1	0	16727	START UP & TEST DATA CABLING SYSTEM	6JAN15	8JAN15	30DEC14	2JAN15	-4
BS-79020	6	6	1	0	16470	START UP & TEST ELECTRICAL PANELS INTERIORS	9OCT14	17OCT14	17DEC14	24DEC14	46
BS-79025	3	3	1	0	16728	START UP & TEST FIBER OPTIC CABLING SYSTEM	7OCT14	9OCT14	14JAN15	16JAN15	66
BS-79030	5	5	1	0	16724	START UP & TEST INTRUSION ALARM SYSYTEM	24DEC14	31DEC14	26DEC14	2JAN15	1
BS-79035	3	3	1	0	16145	START UP & TEST LIGHTING CONTROL DEVICES	26DEC14	30DEC14	30DEC14	2JAN15	2
BS-79040	5	5	1	0	16500	START UP & TEST LIGHTING FIXTURE	18DEC14	24DEC14	26DEC14	2JAN15	5
BS-79045	3	3	1	0	16726	START UP & TEST PHONE & INTERCOM DEVICES	19DEC14	23DEC14	30DEC14	2JAN15	6
BS-79050	5	5	1	0	16791	START UP & TEST SELF-CORRECTIVE CLOCK SYSTEM	29DEC14	5JAN15	26DEC14	2JAN15	-1
BS-79055	3	3	1	0	16530	START UP & TEST SITE SECURITY LIGHTING	24DEC14	29DEC14	30DEC14	2JAN15	3
BS-79060	5	5	1	0	16720	START UP & TEST FIRE ALARM SYSTEM	17DEC14	23DEC14	11DEC14	17DEC14	-4
BS-79999	20	20	1	0	16720	FDNY FIRE PROTECTION SYS TESTING ACCEPTANCE	24DEC14	23JAN15	18DEC14	16JAN15	-4
BS-90011	5	5	1	0	15836	START UP & TEST UNIT HEATERS / CABINET HEATERS	4NOV14	10NOV14	11DEC14	17DEC14	25
BS-90100	5	5	1	0	15970	START UP & TEST TEMPERATURE CONTROL SYSTEM	26NOV14	3DEC14	11DEC14	17DEC14	10
BS-90110	8	8	1	0	15835	START UP & TEST FIN TUBE RADIATORS	28OCT14	6NOV14	8DEC14	17DEC14	27
BS-90140	5	5	1	0	15860	START UP & TEST CENTRIFUGAL FANS	4NOV14	10NOV14	12JAN15	16JAN15	45
BS-90199	0	0	1	0	01015G	START MECH & ELEC COMMISSIONING	16SEP14		18DEC14		64
BS-90999	5	5	1	0	16720	SCA/FID ACCEPTANCE OF FIRE PROTECTION SYSTEM	2DEC14	8DEC14	11DEC14	17DEC14	7
BS-99990	0	0	1	0	01700G	TCO RECEIVED		8JAN15		2JAN15	-4
BS-99995	0	0	2	0	01700G	SUBSTANTIAL COMPLETION (01-17-15)		23JAN15		16JAN15*	-7
BS-99998	120	120	2	0	01700G	PUNCH LIST & CLOSE-OUT (120 CCD)	24JAN15	23MAY15	17JAN15	16MAY15	-7
BS-99999	0	0	2	0	01700G	FINAL COMPLETION		23MAY15		16MAY15*	-7
BS-IM000	1	0	1	100	01015G	SANDY HURRICANE EMBARGO	29OCT12A	2NOV12A			
BS-IM001	0	0	1	100	01015G	POST HURRICANE IMPACT -CALL FROM CON ED SETTING	11DEC12A				
BS-IM002	14	0	1	100	01015G	WAITING FOR SITE VISIT & SITE VISIT	12DEC12A	2JAN13A			
BS-IM003	14	0	1	100	01015G	CUT OFF SERVICE FROM STREET-CON ED (1/2/SERVICE)	15JAN13A	15JAN13A			
BS-IM010	13	0	1	100	02060	WAITING FOR CON ED CUTOFF & CUTOFF CERTIFICATION	25FEB13A	13MAR13A			
CW-00053	5	5	1	0	04200	INTERIOR CMU STAIR B (CW BSMT - 1 FLR)	10MAR14	14MAR14	30APR14	6MAY14	37
CW-00056	3	3	1	0	10605	INST STAIR B RAIL (CW - BSMT - 1STFLR)	17MAR14	19MAR14	7MAY14	9MAY14	37
CW-00058	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-1ST TO 2ND FLR)	20MAR14	2APR14	12MAY14	23MAY14	37
CW-00060	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 1-2 FLR)	3APR14	9APR14	27MAY14	2JUN14	37
CW-00062	3	3	1	0	10605	INST STAIR B RAIL (CW-1ST TO 2ND FLR)	10APR14	14APR14	3JUN14	5JUN14	37
CW-00064	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-2ND TO 3RD FLR)	15APR14	28APR14	6JUN14	19JUN14	37
CW-00066	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 2-3 FLR)	29APR14	5MAY14	20JUN14	26JUN14	37
CW-00068	3	3	1	0	10605	INST STAIR B RAIL (CW-2ND TO 3RD FLR)	6MAY14	8MAY14	27JUN14	1JUL14	37
CW-00070	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-3RD TO 4TH FLR)	9MAY14	22MAY14	2JUL14	16JUL14	37
CW-00072	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 3-4 FLR)	23MAY14	30MAY14	17JUL14	23JUL14	37
CW-00074	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-4TH TO 5TH FLR)	5JUN14	18JUN14	29JUL14	11AUG14	37
CW-00078	3	3	1	0	10605	INST STAIR B RAIL (CW-3RD TO 4TH FLR)	2JUN14	4JUN14	24JUL14	28JUL14	37
CW-00080	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 4TH - 5TH FLR)	19JUN14	25JUN14	12AUG14	18AUG14	37
CW-00082	3	3	1	0	10605	INST STAIR B RAIL (CW-4TH - 5TH FLR)	26JUN14	30JUN14	19AUG14	21AUG14	37
CW-00084	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-5TH TO ROOF)	1JUL14	15JUL14	22AUG14	5SEP14	37
CW-00086	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 5TH - ROOF)	16JUL14	22JUL14	19NOV14	25NOV14	87

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-00087	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (CW-STAIR B)	23JUL14	29JUL14	26NOV14	3DEC14	87
CW-00088	10	10	1	0	07260	INST SPECIAL COATING -STAIR B	30SEP14	14OCT14	4DEC14	17DEC14	44
CW-00090	3	3	1	0	10605	INST STAIR B RAIL (CW-5TH FLR - ROOF)	15OCT14	17OCT14	14JAN15	16JAN15	61
CW-00155	6	6	1	0	09310	INST CERAMIC TILE (CW-BSMT) - LOCKERS AREA	8SEP14	15SEP14	14NOV14	21NOV14	47
CW-00210	5	5	1	0	05710	ERECT STEEL PAN STAIRS C-M (CW)	24FEB14	28FEB14	11JUL14	17JUL14	97
CW-00212	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW - BSMT TO 1ST FLR)	24FEB14	7MAR14	27MAY14	9JUN14	65
CW-01057	3	3	1	0	10605	INST STAIR A RAIL (CW-1ST TO 2ND FLR)	24MAR14	26MAR14	24JUN14	26JUN14	65
CW-01210	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-1ST TO 2ND FLR)	24FEB14	7MAR14	16APR14	29APR14	37
CW-01215	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW - BSMT TO 1ST FLR)	24FEB14	7MAR14	16APR14	29APR14	37
CW-01445	5	5	1	0	04200	INTERIOR CMU STAIR A (CW - BSMT - 1STFLR)	10MAR14	14MAR14	10JUN14	16JUN14	65
CW-01447	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-1ST TO 2ND FLR)	17MAR14	21MAR14	17JUN14	23JUN14	65
CW-01455	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 2-3 FLR)	24APR14	30APR14	18JUL14	24JUL14	59
CW-01460	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 3-4 FLR)	1MAY14	7MAY14	25JUL14	31JUL14	59
CW-02210	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-2ND TO 3RD FLR)	27MAR14	9APR14	27JUN14	11JUL14	65
CW-02212	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-2ND TO 3RD FLR)	10APR14	16APR14	14JUL14	18JUL14	65
CW-02214	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-3RD TO 4TH FLR)	10APR14	23APR14	19AUG14	2SEP14	91
CW-02216	3	3	1	0	10605	INST STAIR A RAIL (CW-2ND TO 3RD FLR)	17APR14	21APR14	21JUL14	23JUL14	65
CW-02218	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-3RD TO 4TH FLR)	24APR14	30APR14	3SEP14	9SEP14	91
CW-02220	3	3	1	0	10605	INST STAIR A RAIL (CW-3RD TO 4TH FLR)	1MAY14	5MAY14	10SEP14	12SEP14	91
CW-02222	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-4TH TO 5TH FLR)	6MAY14	19MAY14	15SEP14	26SEP14	91
CW-02224	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-4TH TO 5TH FLR)	20MAY14	27MAY14	29SEP14	3OCT14	91
CW-02225	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (CW-STAIR A)	28MAY14	3JUN14	12NOV14	18NOV14	116
CW-02226	3	3	1	0	10605	INST STAIR A RAIL (CW-4TH TO 5TH FLR)	28MAY14	30MAY14	6OCT14	8OCT14	91
CW-02228	5	5	1	0	15836	INST CABINET UNIT HEATERS (CW-STAIR A)	2JUN14	6JUN14	9OCT14	16OCT14	91
CW-02230	10	10	1	0	07260	INST SPECIAL COATING -STAIR A	16SEP14	29SEP14	19NOV14	3DEC14	44
CW-04040	10	10	1	0	15416	INST OH GAS PIPING FOR LAB STATION (CW-5TH FLR)	26JUN14	10JUL14	3SEP14	16SEP14	47
CW-06590	2	2	1	0	15565	INST BOILERS - ROOFTOP MER (CW-ROOF)	17APR14	18APR14	24JUL14	25JUL14	68
CW-06595	10	10	1	0	15565	BREECHING & CHIMNEY INST (CW-ROOF)	24JUN14	8JUL14	28JUL14	8AUG14	23
CW-10065	10	10	1	0	09260	FRAME INTERIOR PARTITIONS (CW-BSMT)	15MAY14	29MAY14	13JUN14	26JUN14	20
CW-10095	12	12	1	0	09260	INST GYPSUM BOARD WALL (CW-BSMT)	2JUL14	18JUL14	2JUL14	18JUL14	0
CW-10100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-BSMT)	6AUG14	19AUG14	8AUG14	21AUG14	2
CW-10120	12	12	1	0	09260	INST GYPSUM BOARD CEILINGS (CW-BSMT)	11AUG14	26AUG14	11AUG14	26AUG14	0
CW-10125	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-BSMT)	21JUL14	5AUG14	23JUL14	7AUG14	2
CW-10130	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD CEILINGS (CW-BSMT)	27AUG14	12SEP14	27AUG14	12SEP14	0
CW-10135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-BSMT)	11AUG14	26AUG14	29AUG14	16SEP14	14
CW-10150	12	12	1	0	09900	PRIME PAINTING (CW-BSMT)	20AUG14	5SEP14	22AUG14	9SEP14	2
CW-10155	10	10	1	0	09310	INST CERAMIC TILE (CW-BSMT)	1OCT14	15OCT14	14OCT14	27OCT14	8
CW-10165	10	10	1	0	10810	INST TOILET PARTITIONS (CW-BSMT)	22OCT14	4NOV14	8DEC14	19DEC14	31
CW-10170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-BSMT)	5NOV14	12NOV14	22DEC14	29DEC14	31
CW-10175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-BSMT)	6OCT14	16OCT14	16OCT14	27OCT14	7
CW-10180	12	12	1	0	09650	INST VCT FLOORING (CW-BSMT)	15SEP14	30SEP14	25SEP14	10OCT14	8
CW-10181	6	6	1	0	09650	INST VINYL BASE (CW-BSMT)	1OCT14	8OCT14	3DEC14	10DEC14	42
CW-10182	13	13	1	0	09705	INST QUARRY TILE KITCHEN AREA (CW-BSMT)	15SEP14	1OCT14	15SEP14	1OCT14	0
CW-10187	10	10	1	0	05700	INST COLUMN COVER - DINING AREA (CW-BSMT)	2OCT14	16OCT14	26NOV14	10DEC14	37
CW-10210	10	10	1	0	09900	FINAL PAINTING (CW-BSMT)	2DEC14	15DEC14	11DEC14	24DEC14	7
CW-10214	10	10	1	0	10100	INST DISP/WHITEBOARDS/CHALK BOARDS (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10217	3	3	1	0	10830	INST MIRRORS (CW-BSMT)	22OCT14	24OCT14	7JAN15	9JAN15	51
CW-10220	8	8	1	0	10440	INST INTERIOR SIGNAGE (CW-BSMT)	16DEC14	26DEC14	30DEC14	9JAN15	9
CW-10225	10	10	1	0	06410	INST MILWORK (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-BSMT)	16DEC14	22DEC14	5JAN15	9JAN15	12
CW-10237	10	10	1	0	08110	INST HOLLOW METAL DOORS KITCHEN AREA (CW-BSMT)	16OCT14	29OCT14	28OCT14	10NOV14	8
CW-10238	10	10	1	0	08110	INST HOLLOW METAL DOORS SERVING AREA (CW-BSMT)	30OCT14	13NOV14	12NOV14	25NOV14	8
CW-10240	10	10	1	0	08710	INST HARDWARE (CW-BSMT)	14NOV14	28NOV14	26NOV14	10DEC14	8
CW-10245	10	10	1	0	10505	INST LOCKERS & BENCHES (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10250	10	10	1	0	10675	INST METAL STORAGE SHELVING (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10252	5	5	1	0	11500	INST SHOP EQUIPMENT (CW-BSMT)	17OCT14	23OCT14	5JAN15	9JAN15	52
CW-10254	10	10	1	0	11400	ELECTRICAL CONN. TO SERVERY EQUIP (CW-BSMT)	2DEC14	15DEC14	4DEC14	17DEC14	2
CW-10259	5	5	1	0	11400	GAS CONNCTN TO KITCHEN EQUIP (CW-BSMT)	2DEC14	8DEC14	12DEC14	18DEC14	8
CW-10262	7	7	1	0	11400	INST KITCHEN EXHAUST HOOD (CW-BSMT)	2OCT14	10OCT14	2OCT14	10OCT14	0
CW-10267	15	15	1	0	11400	INST KITCHEN EQUIPMENT (CW-BSMT)	24OCT14	14NOV14	24OCT14	14NOV14	0
CW-10268	7	7	1	0	11400	HVAC CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	2DEC14	10DEC14	3DEC14	11DEC14	1
CW-10269	10	10	1	0	11400	ELECTRICAL CONN. TO KITCHEN EQUIP (CW-BSMT)	24NOV14	8DEC14	26NOV14	10DEC14	2
CW-10270	10	10	1	0	12302	INST CONTRACTOR SUPPLIED FURNITURE (CW-BSMT)	17OCT14	30OCT14	26DEC14	9JAN15	47
CW-10271	5	5	1	0	15416	GAS CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	11DEC14	17DEC14	12DEC14	18DEC14	1
CW-10272	10	10	1	0	11400	INST SERVERY EQUIPMENT (CW-BSMT)	17NOV14	1DEC14	18NOV14	2DEC14	1
CW-10274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-BSMT)	17OCT14	30OCT14	26DEC14	9JAN15	47
CW-10277	8	8	1	0	09310	INST GLAZED CERAMIC WALL TILE (CW-BSMT)	14OCT14	23OCT14	14OCT14	23OCT14	0
CW-10281	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-BSMT)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-10290	5	5	1	0	05710	ERECT CONCRETE STAIRS J (CW @ BASEMENT/KITCHEN)	4SEP14	10SEP14	28OCT14	3NOV14	37
CW-10292	5	5	1	0	05710	ERECT STEEL PAN STAIRS K (CW @ 1ST FL LOBBY)	11SEP14	17SEP14	4NOV14	10NOV14	37
CW-10298	3	3	1	0	10605	INST STAIR A RAIL (CW - BSMT - 1STFLR)	30SEP14	2OCT14	9JAN15	13JAN15	68
CW-10456	5	5	1	0	05710	ERECT CONCRETE STAIRS I (CW @ BASEMENT)	27AUG14	3SEP14	21OCT14	27OCT14	37
CW-10465	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 4-5 FLR)	8MAY14	14MAY14	1AUG14	7AUG14	59
CW-10480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-BSMT)	25JUN14	9JUL14	14OCT14	27OCT14	76
CW-10500	5	5	1	0	15417	INST WATER TREATMENT SYSTEM (CW-BSMT)	29MAY14	4JUN14	4JUN14	10JUN14	4
CW-10510	10	10	1	0	15417	WATER SAMPLING (CW-BSMT)	5JUN14	18JUN14	11JUN14	24JUN14	4
CW-10650	5	5	1	0	08330	INST ROLLING GRILLS (CW-BSMT)	20AUG14	26AUG14	21NOV14	28NOV14	64
CW-10670	3	3	1	0	05700	INST INTERIOR LADDERS & GRATINGS - (CW-BSMT)	15MAY14	19MAY14	28NOV14	2DEC14	135
CW-10767	6	6	1	0	09550	INST METAL CEILING AT KITCHEN (CW-BSMT)	10SEP14	17SEP14	1DEC14	8DEC14	55
CW-10815	4	4	1	0	05700	SS RAILS AT STUDENT DINING (CW-BSMT)	1OCT14	6OCT14	6JAN15	9JAN15	64
CW-11065	11	11	1	0	09260	FRAME INTERIOR PARTITIONS (CW-1ST FLR)	26MAR14	9APR14	17APR14	1MAY14	16
CW-11095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-1ST FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
CW-11100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-1ST FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-11120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-1ST FLR)	25AUG14	5SEP14	19AUG14	29AUG14	-4
CW-11125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-1ST FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-11130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-1ST FLR)	8SEP14	18SEP14	2SEP14	12SEP14	-4
CW-11135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-1ST FLR)	18AUG14	3SEP14	4SEP14	19SEP14	12
CW-11137	12	12	1	0	09550	INST SUSPENDED METAL CEILING SYS LOBBY	4SEP14	19SEP14	31OCT14	18NOV14	40

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-11150	10	10	1	0	09900	PRIME PAINTING (CW-1ST FLR)	19SEP14	2OCT14	15SEP14	26SEP14	-4
CW-11155	12	12	1	0	09310	INST CERAMIC TILE (CW-1ST FLR)	3OCT14	21OCT14	17OCT14	3NOV14	9
CW-11170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-1ST FLR)	13NOV14	19NOV14	30DEC14	6JAN15	31
CW-11175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-1ST FLR)	22SEP14	1OCT14	19NOV14	1DEC14	40
CW-11180	12	12	1	0	09650	INST VCT FLOORING (CW-1ST FLR)	3OCT14	21OCT14	29SEP14	15OCT14	-4
CW-11181	6	6	1	0	09650	INST VINYL BASE (CW-1ST FLR)	22OCT14	29OCT14	16OCT14	23OCT14	-4
CW-11183	10	10	1	0	04200	INST BRICK WALL IN LOBBY AREA (CW)	30OCT14	13NOV14	24OCT14	6NOV14	-4
CW-11186	12	12	1	0	09310	INST TERRAZZO TILE ON FLOOR IN LOBBY AREA (CW)	14NOV14	2DEC14	7NOV14	25NOV14	-4
CW-11191	12	12	1	0	09840	INST WOOD PANELS ON WALLS IN LOBBY AREA	3DEC14	18DEC14	26NOV14	12DEC14	-4
CW-11196	3	3	1	0	06410	INST SECURITY DESK IN LOBBY AREA	3DEC14	5DEC14	22DEC14	24DEC14	13
CW-11210	12	12	1	0	09900	FINAL PAINTING (CW-1ST FLR)	8DEC14	23DEC14	2DEC14	17DEC14	-4
CW-11215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-1ST FLR)	24DEC14	8JAN15	18DEC14	2JAN15	-4
CW-11217	3	3	1	0	10830	INST MIRRORS (CW-1ST FLR)	24DEC14	29DEC14	7JAN15	9JAN15	8
CW-11220	8	8	1	0	10440	INST INTERIOR SIGNAGE (CW-1ST FLR)	24DEC14	6JAN15	30DEC14	9JAN15	3
CW-11221	5	5	1	0	12501	INST WINDOW SHADES (CW-1ST FLR)	9JAN15	15JAN15	5JAN15	9JAN15	-4
CW-11225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-1ST FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-11230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-1ST FLR)	24DEC14	31DEC14	5JAN15	9JAN15	6
CW-11235	10	10	1	0	08210	INST WOOD DOORS (CW-1ST FLR)	27OCT14	7NOV14	7NOV14	21NOV14	9
CW-11237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-1ST FLR)	27OCT14	31OCT14	7NOV14	14NOV14	9
CW-11240	5	5	1	0	08710	INST HARDWARE (CW-1ST FLR)	10NOV14	17NOV14	23DEC14	30DEC14	29
CW-11250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-1ST FLR)	24DEC14	5JAN15	31DEC14	9JAN15	4
CW-11252	2	2	1	0	12485	INST FOOT GRILES (CW-1ST FLR)	24DEC14	26DEC14	23DEC14	24DEC14	-1
CW-11255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-1ST FLR)	29DEC14	12JAN15	26DEC14	9JAN15	-1
CW-11265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-1ST FLR)	27OCT14	7NOV14	15DEC14	29DEC14	33
CW-11274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-1ST FLR)	29DEC14	12JAN15	26DEC14	9JAN15	-1
CW-11280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-1ST FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-11445	8	8	1	0	03300	CIP ELEVATOR PIT HYDRAULIC (CW-BSMT)	7MAR14	18MAR14	4NOV14	14NOV14	168
CW-11455	10	10	1	0	07147	INST CRYSTALLINE WATERPRF ELEV PITS (CW) HPE	19MAR14	1APR14	17NOV14	1DEC14	168
CW-11456	5	5	1	0	14240	INSTALL PISTON (DAHPE)	2APR14	8APR14	2DEC14	8DEC14	168
CW-11457	3	3	1	0	14240	INSTALL PLATFORM (DAHPE)	9APR14	11APR14	9DEC14	11DEC14	168
CW-11458	4	4	1	0	14240	INSTALL CAB & DOORS (DAHPE)	14APR14	17APR14	12DEC14	17DEC14	168
CW-11459	3	3	1	0	14240	START UP AND TEST (DAHPE)	16SEP14	18SEP14	18DEC14	22DEC14	64
CW-11480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-1ST FLR)	6JUN14	19JUN14	15AUG14	28AUG14	49
CW-11625	4	4	1	0	12485	INST HINGED FLOOR MAT - (CW-1ST FLR)	22OCT14	27OCT14	6JAN15	9JAN15	50
CW-11769	6	6	1	0	09550	INST METAL CEILING AT TWO VESTIBULES	2SEP14	9SEP14	20NOV14	28NOV14	55
CW-12065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-2ND FLR)	10APR14	25APR14	2MAY14	19MAY14	16
CW-12095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-2ND FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
CW-12100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-2ND FLR)	18AUG14	29AUG14	22AUG14	5SEP14	4
CW-12120	10	10	1	0	09260	INST GYPSUM BOARD CEILING (CW-2ND FLR)	25AUG14	8SEP14	29AUG14	12SEP14	4
CW-12125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-2ND FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-12130	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-2ND FLR)	9SEP14	22SEP14	15SEP14	26SEP14	4
CW-12135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-2ND FLR)	9SEP14	24SEP14	18SEP14	3OCT14	7
CW-12150	14	14	1	0	09900	PRIME PAINTING (CW-2ND FLR)	23SEP14	10OCT14	29SEP14	17OCT14	4
CW-12155	12	12	1	0	09310	INST CERAMIC TILE (CW-2ND FLR)	14OCT14	29OCT14	24OCT14	10NOV14	8
CW-12170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-2ND FLR)	19NOV14	25NOV14	30DEC14	6JAN15	27
CW-12175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-2ND FLR)	25SEP14	6OCT14	19NOV14	1DEC14	37
CW-12180	12	12	1	0	09650	INST VCT FLOORING (CW-2ND FLR)	14OCT14	29OCT14	4NOV14	20NOV14	15
CW-12181	6	6	1	0	09650	INST VINYL BASE (CW-2ND FLR)	30OCT14	6NOV14	21NOV14	1DEC14	15
CW-12210	12	12	1	0	09900	FINAL PAINTING (CW-2ND FLR)	12NOV14	28NOV14	2DEC14	17DEC14	13
CW-12215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-2ND FLR)	1DEC14	12DEC14	18DEC14	2JAN15	13
CW-12217	3	3	1	0	10830	INST MIRRORS (CW-2ND FLR)	1DEC14	3DEC14	7JAN15	9JAN15	25
CW-12220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-2ND FLR)	1DEC14	5DEC14	5JAN15	9JAN15	23
CW-12221	5	5	1	0	12501	INST WINDOW SHADES (CW-2ND FLR)	15DEC14	19DEC14	5JAN15	9JAN15	13
CW-12225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-2ND FLR)	1DEC14	12DEC14	18DEC14	2JAN15	13
CW-12230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-2ND FLR)	1DEC14	5DEC14	5JAN15	9JAN15	23
CW-12235	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-3RD FLR)	17DEC14	23DEC14	5JAN15	9JAN15	11
CW-12236	10	10	1	0	08210	INST WOOD DOORS (CW-2ND FLR)	4NOV14	18NOV14	17NOV14	1DEC14	8
CW-12237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-2ND FLR)	4NOV14	10NOV14	17NOV14	21NOV14	8
CW-12240	5	5	1	0	08710	INST HARDWARE (CW-2ND FLR)	19NOV14	25NOV14	23DEC14	30DEC14	23
CW-12250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-2ND FLR)	1DEC14	9DEC14	31DEC14	9JAN15	21
CW-12255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-2ND FLR)	8DEC14	19DEC14	26DEC14	9JAN15	13
CW-12265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-2ND FLR)	4NOV14	18NOV14	15DEC14	29DEC14	27
CW-12274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-2ND FLR)	8DEC14	19DEC14	26DEC14	9JAN15	13
CW-12280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-2ND FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-12480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-2ND FLR	20JUN14	3JUL14	29AUG14	12SEP14	49
CW-13065	10	10	1	0	09260	FRAME INTERIOR PARTITIONS (CW-3RD FLR)	28APR14	9MAY14	20MAY14	3JUN14	16
CW-13095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-3RD FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-13100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-3RD FLR)	2SEP14	15SEP14	10SEP14	23SEP14	6
CW-13120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-3RD FLR)	19SEP14	1OCT14	17SEP14	29SEP14	-2
CW-13125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-3RD FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-13130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-3RD FLR)	2OCT14	15OCT14	30SEP14	10OCT14	-2
CW-13135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-3RD FLR)	16SEP14	1OCT14	6OCT14	22OCT14	14
CW-13150	10	10	1	0	09900	PRIME PAINTING (CW-3RD FLR)	16OCT14	29OCT14	14OCT14	27OCT14	-2
CW-13155	12	12	1	0	09310	INST CERAMIC TILE (CW-3RD FLR)	30OCT14	17NOV14	31OCT14	18NOV14	1
CW-13170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-3RD FLR)	8DEC14	12DEC14	30DEC14	6JAN15	15
CW-13175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-3RD FLR)	2OCT14	14OCT14	19NOV14	1DEC14	32
CW-13180	12	12	1	0	09650	INST VCT FLOORING (CW-3RD FLR)	30OCT14	17NOV14	4NOV14	20NOV14	3
CW-13181	6	6	1	0	09650	INST VINYL BASE (CW-3RD FLR)	18NOV14	25NOV14	21NOV14	1DEC14	3
CW-13210	12	12	1	0	09900	FINAL PAINTING (CW-3RD FLR)	1DEC14	16DEC14	2DEC14	17DEC14	1
CW-13215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-3RD FLR)	17DEC14	31DEC14	26DEC14	9JAN15	6
CW-13217	3	3	1	0	10830	INST MIRRORS (CW-3RD FLR)	17DEC14	19DEC14	7JAN15	9JAN15	13
CW-13220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-3RD FLR)	17DEC14	23DEC14	5JAN15	9JAN15	11
CW-13221	5	5	1	0	12501	INST WINDOW SHADES (CW-3RD FLR)	24DEC14	31DEC14	5JAN15	9JAN15	6
CW-13225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-3RD FLR)	17DEC14	31DEC14	18DEC14	2JAN15	1
CW-13235	10	10	1	0	08210	INST WOOD DOORS (CW-3RD FLR)	21NOV14	5DEC14	24NOV14	8DEC14	1
CW-13237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-3RD FLR)	21NOV14	28NOV14	24NOV14	1DEC14	1
CW-13240	5	5	1	0	08710	INST HARDWARE (CW-3RD FLR)	8DEC14	12DEC14	23DEC14	30DEC14	11
CW-13250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-3RD FLR)	17DEC14	26DEC14	31DEC14	9JAN15	9

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-13255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-3RD FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-13265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-3RD FLR)	21NOV14	5DEC14	15DEC14	29DEC14	15
CW-13280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-3RD FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-13326	10	10	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-3RD FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-13480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-3RD FLR)	7JUL14	18JUL14	15SEP14	26SEP14	49
CW-14037	3	3	1	0	15510	INST ROOF MOUNTED PIPING SUPPORTS (CW-ROOF)	15JUL14	17JUL14	25JUL14	29JUL14	8
CW-14065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-4TH FLR)	12MAY14	28MAY14	4JUN14	19JUN14	16
CW-14095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-4TH FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-14100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-4TH FLR)	16SEP14	29SEP14	10SEP14	23SEP14	-4
CW-14120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-4TH FLR)	30SEP14	10OCT14	24SEP14	6OCT14	-4
CW-14125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-4TH FLR)	2SEP14	15SEP14	26AUG14	9SEP14	-4
CW-14130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-4TH FLR)	14OCT14	24OCT14	7OCT14	20OCT14	-4
CW-14135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-4TH FLR)	30SEP14	16OCT14	28OCT14	13NOV14	19
CW-14150	10	10	1	0	09900	PRIME PAINTING (CW-4TH FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
CW-14155	12	12	1	0	09310	INST CERAMIC TILE (CW-4TH FLR)	10NOV14	26NOV14	12NOV14	28NOV14	1
CW-14170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-4TH FLR)	17DEC14	23DEC14	30DEC14	6JAN15	8
CW-14175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-4TH FLR)	17OCT14	28OCT14	25NOV14	5DEC14	26
CW-14180	12	12	1	0	09650	INST VCT FLOORING (CW-4TH FLR)	10NOV14	26NOV14	10NOV14	26NOV14	0
CW-14181	6	6	1	0	09650	INST VINYL BASE (CW-4TH FLR)	28NOV14	5DEC14	28NOV14	5DEC14	0
CW-14210	10	10	1	0	09900	FINAL PAINTING (CW-4TH FLR)	8DEC14	19DEC14	8DEC14	19DEC14	0
CW-14215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-4TH FLR)	22DEC14	6JAN15	26DEC14	9JAN15	3
CW-14217	3	3	1	0	10830	INST MIRRORS (CW-4TH FLR)	24DEC14	29DEC14	7JAN15	9JAN15	8
CW-14220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-4TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-14221	5	5	1	0	12501	INST WINDOW SHADES (CW-4TH FLR)	30DEC14	6JAN15	5JAN15	9JAN15	3
CW-14225	9	9	1	0	06410	INST MILLWORK/CASEWORK (CW-4TH FLR)	15DEC14	26DEC14	15DEC14	26DEC14	0
CW-14230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-4TH FLR)	15DEC14	19DEC14	5JAN15	9JAN15	13
CW-14235	10	10	1	0	08210	INST WOOD DOORS (CW-4TH FLR)	3DEC14	16DEC14	4DEC14	17DEC14	1
CW-14237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-4TH FLR)	3DEC14	9DEC14	4DEC14	10DEC14	1
CW-14240	5	5	1	0	08710	INST HARDWARE (CW-4TH FLR)	17DEC14	23DEC14	23DEC14	30DEC14	4
CW-14250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-4TH FLR)	24DEC14	5JAN15	31DEC14	9JAN15	4
CW-14255	9	9	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-4TH FLR)	29DEC14	9JAN15	29DEC14	9JAN15	0
CW-14261	9	9	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-4TH FLR)	29DEC14	9JAN15	29DEC14	9JAN15	0
CW-14265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-4TH FLR)	3DEC14	16DEC14	15DEC14	29DEC14	8
CW-14280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-4TH FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-14480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-4TH FLR	21JUL14	1AUG14	29SEP14	10OCT14	49
CW-14535	9	9	1	0	15510	FINAL HVAC CONN TO ROOFTOP MER EQUIP (CW)	1JUL14	14JUL14	14JUL14	24JUL14	8
CW-14580	10	10	1	0	01060S	SCHEDULE DOB INSPECTION - HYDRAULIC ELEVATOR	16SEP14	29SEP14	5JAN15	16JAN15	74
CW-14640	5	5	1	0	05700	INST ROOF LADDERS (CW-ROOF)	17APR14	23APR14	28JUL14	1AUG14	70
CW-14670	1	1	1	0	10840	INST GRAB BARS (CW-1ST FLR)	22OCT14	22OCT14	23DEC14	23DEC14	42
CW-15065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-5TH FLR)	29MAY14	13JUN14	20JUN14	8JUL14	16
CW-15095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-5TH FLR)	2SEP14	15SEP14	28AUG14	11SEP14	-2
CW-15100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-5TH FLR)	30SEP14	14OCT14	30SEP14	14OCT14	0
CW-15105	12	12	1	0	15910	INST DUCT DROPS (CW-5TH FLR)	15OCT14	30OCT14	2DEC14	17DEC14	32
CW-15120	10	10	1	0	09260	INST GYPSUM BOARD CEILING (CW-5TH FLR)	7OCT14	21OCT14	7OCT14	21OCT14	0
CW-15125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-5TH FLR)	16SEP14	29SEP14	12SEP14	25SEP14	-2
CW-15130	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-5TH FLR)	22OCT14	4NOV14	22OCT14	4NOV14	0
CW-15135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-5TH FLR)	30SEP14	16OCT14	31OCT14	18NOV14	22
CW-15140	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-5TH FLR)	31OCT14	6NOV14	18DEC14	24DEC14	32
CW-15150	9	9	1	0	09900	PRIME PAINTING (CW-5TH FLR)	5NOV14	18NOV14	5NOV14	18NOV14	0
CW-15155	9	9	1	0	09310	INST CERAMIC TILE (CW-5TH FLR)	19NOV14	2DEC14	20NOV14	3DEC14	1
CW-15171	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-5TH FLR)	2JAN15	8JAN15	5JAN15	9JAN15	1
CW-15175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-5TH FLR)	17OCT14	28OCT14	1DEC14	10DEC14	29
CW-15180	12	12	1	0	09650	INST VCT FLOORING (CW-5TH FLR)	19NOV14	5DEC14	24NOV14	10DEC14	3
CW-15181	6	6	1	0	09650	INST VINYL BASE (CW-5TH FLR)	28NOV14	5DEC14	3DEC14	10DEC14	3
CW-15210	10	10	1	0	09900	FINAL PAINTING (CW-5TH FLR)	8DEC14	19DEC14	11DEC14	24DEC14	3
CW-15215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-5TH FLR)	22DEC14	6JAN15	26DEC14	9JAN15	3
CW-15217	3	3	1	0	10830	INST MIRRORS (CW-5TH FLR)	6JAN15	8JAN15	7JAN15	9JAN15	1
CW-15220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-5TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-15221	5	5	1	0	12501	INST WINDOW SHADES (CW-5TH FLR)	30DEC14	6JAN15	5JAN15	9JAN15	3
CW-15225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-5TH FLR)	15DEC14	29DEC14	26DEC14	9JAN15	8
CW-15230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-5TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-15235	10	10	1	0	08210	INST WOOD DOORS (CW-5TH FLR)	10DEC14	23DEC14	11DEC14	24DEC14	1
CW-15237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-5TH FLR)	10DEC14	16DEC14	11DEC14	17DEC14	1
CW-15241	5	5	1	0	08710	INST HARDWARE (CW-5TH FLR)	17DEC14	23DEC14	18DEC14	24DEC14	1
CW-15250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-5TH FLR)	24DEC14	5JAN15	26DEC14	6JAN15	1
CW-15255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-5TH FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-15261	10	10	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-5TH FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-15265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-5TH FLR)	17DEC14	31DEC14	18DEC14	2JAN15	1
CW-15280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-5TH FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-15480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-5TH FLR)	4AUG14	15AUG14	14OCT14	27OCT14	49
CW-16015	5	5	1	0	15933	BUMP & TEST ROOFTOP UNITS (CW-ROOF)	1AUG14	7AUG14	4AUG14	8AUG14	1
CW-16020	10	10	1	0	15933	MECH CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	9JUL14	22JUL14	10JUL14	23JUL14	1
CW-16025	7	7	1	0	15933	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	23JUL14	31JUL14	24JUL14	1AUG14	1
CW-16035	10	10	1	0	07600	INST FLASHING & HATCHES (CW-ROOF)	10MAR14	21MAR14	28JUL14	8AUG14	98
CW-16540	2	2	1	0	07560	FLOOD TEST BULKHEAD ROOF (CW-ROOF)	22AUG14	25AUG14	25AUG14	26AUG14	1
CW-16550	10	10	1	0	07560	INST ROOF MEMBRANE (CW-ROOF)	8AUG14	21AUG14	11AUG14	22AUG14	1
CW-16580	6	6	1	0	07560	INST ROOF ACCESS AT BULKHEAD (CW-ROOF)	24JUL14	31JUL14	19AUG14	26AUG14	18
CW-16590	5	5	1	0	07560	INST DRAIN PNL & ROOF INSUL @ BULKHEAD (CW-ROOF)	26AUG14	2SEP14	27AUG14	3SEP14	1
CW-16600	3	3	1	0	07560	FLOOD TEST ROOF (CW-ROOF)	22AUG14	26AUG14	28AUG14	2SEP14	4
CW-16610	10	10	1	0	07560	INST PARAPET WALL FLEX FLASHIG (CW-ROOF)	27AUG14	10SEP14	3SEP14	16SEP14	4
CW-16650	10	10	1	0	07560	INST DRAINAGE PNLS & ROOF INSUL (CW-ROOF)	22AUG14	5SEP14	3SEP14	16SEP14	7
CW-16690	5	5	1	0	05700	INST ROOF RAILS (CW-ROOF)	24APR14	30APR14	4AUG14	8AUG14	70
CW-16691	7	7	1	0	07560	INST ROOF ACCESSORIES (CW-ROOF)	23JUL14	31JUL14	31JUL14	8AUG14	6
CW-16700	9	9	1	0	07560	INST FILTER FABRIC & ROOF PAVERS (CW-ROOF)	3SEP14	15SEP14	4SEP14	16SEP14	1
CW-1S001	4	4	1	0	09260	FRAME INTERIOR PARTITIONS -SAMPLE CLASSRM	26MAR14	31MAR14	12SEP14	17SEP14	119
CW-1S005	45*	45*1		0	09260	CONSTRUCT SAMPLE ROOM (CW-2ND FLR)	29JUL14	30SEP14	18SEP14	21NOV14	36
CW-1S095	5	5	1	0	09260	INST GYPSUM BOARD WALL -SAMPLE CLASSRM	29JUL14	4AUG14	18SEP14	24SEP14	36
CW-1S100	4	4	1	0	05170	INST BLACK IRON FRAMING-SAMPLE CLASSRM	11AUG14	14AUG14	1OCT14	6OCT14	36

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-1S120	5	5	1	0	09260	INST GYPSUM BOARD CEILING -SAMPLE CLASSRM	15AUG14	21AUG14	7OCT14	14OCT14	36
CW-1S125	4	4	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS-SAMPLE CLASSRM	5AUG14	8AUG14	25SEP14	30SEP14	36
CW-1S130	4	4	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING-SAMPLE CLASSRM	22AUG14	27AUG14	15OCT14	20OCT14	36
CW-1S135	4	4	1	0	09510	INST SUSPENDED CEILING GRID-SAMPLE CLASSRM	4SEP14	9SEP14	27OCT14	30OCT14	36
CW-1S140	5	5	1	0	16500	INST LIGHT FIXTURE & WIRE -SAMPLE CLASSRM)	10SEP14	16SEP14	17NOV14	21NOV14	46
CW-1S150	4	4	1	0	09900	PRIME PAINTING - SAMPLE CLASSROOM	28AUG14	3SEP14	21OCT14	24OCT14	36
CW-1S175	5	5	1	0	09510	INST ACOUSTICAL CEILING TILE -SAMPLE CLASSRM	10SEP14	16SEP14	31OCT14	6NOV14	36
CW-1S180	5	5	1	0	09650	INST VCT FLOORING-SAMPLE CLASSRM	4SEP14	10SEP14	28OCT14	3NOV14	37
CW-1S181	3	3	1	0	09650	INST VINYL BASE-SAMPLE CLASSRM	11SEP14	15SEP14	4NOV14	6NOV14	37
CW-1S199	5	5	1	0	01426S	SCA APPROVE SAMPLE CLASSROOM (CW-2ND FLR)	1OCT14	7OCT14	24NOV14	1DEC14	36
CW-1S210	5	5	1	0	09900	FINAL PAINTING - SAMPLE CLASSRM	17SEP14	23SEP14	7NOV14	14NOV14	36
CW-1S215	3	3	1	0	10100	INST WHITE & BLACK BOARDS-SAMPLE CLASSRM	24SEP14	26SEP14	19NOV14	21NOV14	38
CW-1S221	3	3	1	0	12501	INST WINDOW SHADES-SAMPLE CLASSRM	24SEP14	26SEP14	19NOV14	21NOV14	38
CW-1S223	4	4	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE-SAMPLE CLASSRM	24SEP14	29SEP14	18NOV14	21NOV14	37
CW-1S225	5	5	1	0	06410	INST MILLWORK/CASEWORK -SAMPLE CLASSRM	24SEP14	30SEP14	17NOV14	21NOV14	36
CW-1S227	4	4	1	0	12302	INST OWNER SUPPLIED ITEMS-SAMPLE CLASSRM	24SEP14	29SEP14	18NOV14	21NOV14	37
CW-24670	1	1	1	0	10840	INST GRAB BARS (CW-2ND FLR)	30OCT14	30OCT14	24DEC14	24DEC14	37
CW-30100	10	10	1	0	07250	FIREPROOFING (CW - BSMT WEST)	5FEB14	19FEB14	11MAR14	24MAR14	23
CW-30105	10	10	1	0	07250	FIREPROOFING (CW - BSMT EAST)	20FEB14	5MAR14	11APR14	24APR14	36
CW-30390	8	8	1	0	04200	INT CMU TRACTN ELEV SHAFT (CW-BSMT-2ND) SIDE A&B	20MAR14	31MAR14	12JUN14	23JUN14	59
CW-30395	6	6	1	0	04200	INTERIOR CMU TRACTN ELEV SHAFT (CW 2-4) SIDE A&B	1APR14	8APR14	24JUN14	1JUL14	59
CW-30400	6	6	1	0	04200	INTERIOR CMU TRACTN ELEV SHAFT (CW 4-6) SIDE A&B	9APR14	16APR14	2JUL14	10JUL14	59
CW-30415	5	5	1	0	04200	INTERIOR CMU TRACTION ELEV SHAFT(CW- MECH ROOM)	17APR14	23APR14	11JUL14	17JUL14	59
CW-31100	10	10	1	0	07250	FIREPROOFING (CW-1ST FLR)	20FEB14	5MAR14	11MAR14	24MAR14	13
CW-31370	8	8	1	0	14211	INST RAILS SHAFT #1 (CW - TRACTION ELEVATOR)	1MAY14	12MAY14	21JUL14	30JUL14	55
CW-31380	8	8	1	0	14211	INST RAILS SHAFT #2 (CW - TRACTION ELEVATOR)	13MAY14	22MAY14	31JUL14	11AUG14	55
CW-31390	8	8	1	0	14211	INST & SET SHEEVE IN MACH ROOM(CW-TRACTION ELEV)	23MAY14	4JUN14	12AUG14	21AUG14	55
CW-31400	9	9	1	0	14211	BUILD WORKING PLATFORMS-CAR#1 (CW TRACTION ELEV)	5JUN14	17JUN14	22AUG14	4SEP14	55
CW-31410	9	9	1	0	14211	BUILD WORKING PLATFORMS-CAR#2 (CW-TRACTION ELEV)	18JUN14	30JUN14	5SEP14	17SEP14	55
CW-31420	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW BSMT- 2ND FLR)	1JUL14	14JUL14	18SEP14	30SEP14	55
CW-31430	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW 2ND FLR - 3RD FLR)	15JUL14	25JUL14	1OCT14	14OCT14	55
CW-31440	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW 3RD -5TH FLR)	28JUL14	7AUG14	15OCT14	27OCT14	55
CW-31445	8	8	1	0	03300	CIP ELEVATOR PIT TRACTION (CW-BSMT)	1MAY14	12MAY14	21JUL14	30JUL14	55
CW-31450	9	9	1	0	14211	FINISH CAB #1 (TRACTION ELEV) CW)	8AUG14	20AUG14	28OCT14	7NOV14	55
CW-31460	9	9	1	0	14211	FINISH CAB #2 (TRACTION ELEV) CW)	21AUG14	3SEP14	10NOV14	21NOV14	55
CW-31480	9	9	1	0	14211	TROUBLESHOOT CABS & DOORS (TRACTION ELEV) (CW)	29SEP14	9OCT14	8DEC14	18DEC14	47
CW-32100	10	10	1	0	07250	FIREPROOFING (CW-2ND FLR)	6MAR14	19MAR14	19MAR14	1APR14	9
CW-33100	10	10	1	0	07250	FIREPROOFING (CW-3RD FLR)	20MAR14	2APR14	4APR14	17APR14	11
CW-34100	10	10	1	0	07250	FIREPROOFING (CW-4TH FLR)	3APR14	16APR14	4APR14	17APR14	1
CW-34595	9	9	1	0	14211	START UP & TROUBLESHOOT MACH RM EQUIP TRACTN(CW)	16SEP14	26SEP14	24NOV14	5DEC14	47
CW-34670	1	1	1	0	10840	INST GRAB BARS (CW-3RD FLR)	18NOV14	18NOV14	26DEC14	26DEC14	26
CW-35100	10	10	1	0	07250	FIREPROOFING (CW-5TH FLR)	17APR14	30APR14	22APR14	5MAY14	3
CW-36880	2	2	1	0	05500	PIT ACCESS LADDER TRACTION ELEVATOR (CW)	10OCT14	14OCT14	19DEC14	22DEC14	47
CW-36885	2	2	1	0	05500	2'X2' SUMP PIT GRATING TRACTION ELEVATOR (CW)	15OCT14	16OCT14	23DEC14	24DEC14	47
CW-36886	10	10	1	0	07147	INST CRYSTALLINE WATERPRF ELEV PITS (CW) TE	13MAY14	27MAY14	9DEC14	22DEC14	144
CW-36889	5	5	1	0	14211	NOTIFY DOB AND INSPECT TRACTION ELEVATOR	17OCT14	23OCT14	26DEC14	2JAN15	47
CW-40100	12	12	1	0	15891	INST DUCT MAINS (CW-BSMT)	1MAY14	16MAY14	25APR14	12MAY14	-4
CW-40105	12	12	1	0	15891	INST DUCT BRANCHES (CW-BSMT)	19MAY14	4JUN14	9JUN14	24JUN14	14
CW-40110	12	12	1	0	15891	INST DUCT RISERS (CW-BSMT)	19MAY14	4JUN14	2JUL14	18JUL14	31
CW-40111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-BSMT)	25JUN14	1JUL14	25JUN14	1JUL14	0
CW-40115	12	12	1	0	15910	INST DUCT DROPS (CW-BSMT)	20AUG14	5SEP14	2DEC14	17DEC14	70
CW-40120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-BSMT)	8SEP14	12SEP14	18DEC14	24DEC14	70
CW-40300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N 1/3) (CW-BSMT)	6AUG14	15AUG14	31OCT14	12NOV14	60
CW-40310	8	8	1	0	15835	INST FIN TUBE RADIATORS (CENTER 1/3) (CW-BSMT)	18AUG14	27AUG14	13NOV14	24NOV14	60
CW-40320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-BSMT)	28AUG14	9SEP14	25NOV14	5DEC14	60
CW-40395	10	10	1	0	15836	INST UNIT HEATERS BATHROOM (CW-BSMT)	5JUN14	18JUN14	25JUN14	9JUL14	14
CW-40470	5	5	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-BSMT)	5JUN14	11JUN14	1AUG14	7AUG14	40
CW-40485	5	5	1	0	15970	INST ATC DEVICES (CW-BSMT)	14OCT14	20OCT14	28OCT14	3NOV14	10
CW-40500	10	10	1	0	11400	INST PIPING (KITCHEN)	7NOV14	21NOV14	7NOV14	21NOV14	0
CW-40520	8	8	1	0	11400	INST SMOKE HEADS (KITCHEN)	9DEC14	18DEC14	9DEC14	18DEC14	0
CW-40530	10	10	1	0	11400	TROUBLE SHOOT & TEST (KITCHEN)	19DEC14	5JAN15	19DEC14	5JAN15	0
CW-40540	9	9	1	0	11400	FDNY - NOTIFY & INSPECTION (KITCHEN)	6JAN15	16JAN15	6JAN15	16JAN15	0
CW-40550	10	10	1	0	15590	INSTALL FUEL OIL PIPING (CW-BSMT)	23MAY14	6JUN14	23MAY14	6JUN14	0
CW-40610	10	10	1	0	15836	INST (8) EUH (CW-BSMT)	5JUN14	18JUN14	25JUN14	9JUL14	14
CW-41100	12	12	1	0	15891	INST DUCT MAINS (CW-1ST FLR)	6MAR14	21MAR14	25MAR14	9APR14	13
CW-41105	12	12	1	0	15891	INST DUCT BRANCHES (CW-1ST FLR)	24MAR14	8APR14	24APR14	9MAY14	23
CW-41110	12	12	1	0	15891	INST DUCT RISERS (CW-1ST FLR)	24MAR14	8APR14	29APR14	14MAY14	26
CW-41111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-1ST FLR)	16MAY14	22MAY14	8JUL14	14JUL14	35
CW-41115	12	12	1	0	15910	INST DUCT DROPS (CW-1ST FLR)	2SEP14	17SEP14	2DEC14	17DEC14	62
CW-41120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-1ST FLR)	18SEP14	24SEP14	18DEC14	24DEC14	62
CW-41300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-1ST FLR)	18AUG14	27AUG14	24OCT14	4NOV14	47
CW-41310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-1ST FLR)	28AUG14	9SEP14	5NOV14	17NOV14	47
CW-41320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-1ST FLR)	10SEP14	19SEP14	18NOV14	28NOV14	47
CW-41400	5	5	1	0	15835	INST FIN TUBE RADIATORS (CW-1ST FLR - LOBBY)	22SEP14	26SEP14	1DEC14	5DEC14	47
CW-41410	5	5	1	0	15783	INST AC UNIT & AC-1-1 IN RM 123 (CW - 1ST FLR)	31MAR14	4APR14	21MAY14	28MAY14	37
CW-41450	8	8	1	0	15836	INST UNIT HEATERS (CW- 1ST FLR)	31MAR14	9APR14	8MAY14	19MAY14	28
CW-41470	9	9	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-1ST FLR)	9APR14	21APR14	30JUL14	11AUG14	78
CW-41485	5	5	1	0	15970	INST ATC DEVICES (CW-1ST FLR)	21OCT14	27OCT14	4NOV14	10NOV14	10
CW-41550	10	10	1	0	15590	INSTALL FUEL OIL PIPING (CW-1ST FLR)	14APR14	25APR14	6MAY14	19MAY14	16
CW-41610	7	7	1	0	15836	INST (8) EUH (CW-1ST FLR)	10APR14	18APR14	20MAY14	29MAY14	28
CW-42100	12	12	1	0	15891	INST DUCT MAINS (CW-2ND FLR)	20MAR14	4APR14	2APR14	17APR14	9
CW-42105	12	12	1	0	15891	INST DUCT BRANCHES (CW-2ND FLR)	7APR14	22APR14	29APR14	14MAY14	16
CW-42110	12	12	1	0	15891	INST DUCT RISERS (CW-2ND FLR)	7APR14	22APR14	29APR14	14MAY14	16
CW-42111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-2ND FLR)	4JUN14	10JUN14	8JUL14	14JUL14	23
CW-42115	12	12	1	0	15910	INST DUCT DROPS (CW-2ND FLR)	2SEP14	17SEP14	2DEC14	17DEC14	62
CW-42120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-2ND FLR)	25SEP14	1OCT14	18DEC14	24DEC14	57
CW-42300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-2ND FLR)	18AUG14	27AUG14	31OCT14	12NOV14	52
CW-42310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-2ND FLR)	28AUG14	9SEP14	13NOV14	24NOV14	52

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-42320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-2ND FLR)	10SEP14	19SEP14	25NOV14	5DEC14	52
CW-42410	5	5	1	0	15783	INST (1) AC UNIT (CW - 2ND FLR)	14APR14	18APR14	21MAY14	28MAY14	27
CW-42460	6	6	1	0	15836	INST UNIT HEATERS (CW- 2ND FLR)	21APR14	28APR14	30MAY14	6JUN14	28
CW-42470	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-2ND FLR)	2MAY14	15MAY14	8AUG14	21AUG14	68
CW-42485	5	5	1	0	15970	INST ATC DEVICES (CW-2ND FLR)	28OCT14	3NOV14	12NOV14	18NOV14	10
CW-42550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-2ND FLR)	30APR14	1MAY14	20MAY14	21MAY14	14
CW-42610	8	8	1	0	15836	INST (8) EUH (CW-2ND FLR)	29APR14	8MAY14	9JUN14	18JUN14	28
CW-43100	12	12	1	0	15891	INST DUCT MAINS (CW-3RD FLR)	7APR14	22APR14	18APR14	5MAY14	9
CW-43105	12	12	1	0	15891	INST DUCT BRANCHES (CW-3RD FLR)	23APR14	8MAY14	15MAY14	2JUN14	16
CW-43110	12	12	1	0	15891	INST DUCT RISERS (CW-3RD FLR)	23APR14	8MAY14	15MAY14	2JUN14	16
CW-43111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-3RD FLR)	20JUN14	26JUN14	22JUL14	28JUL14	21
CW-43115	12	12	1	0	15910	INST DUCT DROPS (CW-3RD FLR)	16SEP14	1OCT14	2DEC14	17DEC14	52
CW-43120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-3RD FLR)	2OCT14	8OCT14	18DEC14	24DEC14	52
CW-43300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-3RD FLR)	2SEP14	11SEP14	31OCT14	12NOV14	42
CW-43310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-3RD FLR)	12SEP14	23SEP14	13NOV14	24NOV14	42
CW-43320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-3RD FLR)	24SEP14	3OCT14	25NOV14	5DEC14	42
CW-43410	5	5	1	0	15783	INST (1) AC UNIT (CW - 3RD FLR)	30APR14	6MAY14	29MAY14	4JUN14	20
CW-43470	8	8	1	0	15836	INST UNIT HEATERS (CW- 3RD FLR)	9MAY14	20MAY14	19JUN14	30JUN14	28
CW-43471	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-3RD FLR)	9MAY14	22MAY14	26AUG14	9SEP14	75
CW-43485	5	5	1	0	15970	INST ATC DEVICES (CW-3RD FLR)	4NOV14	10NOV14	19NOV14	25NOV14	10
CW-43550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-3RD FLR)	12MAY14	13MAY14	22MAY14	23MAY14	8
CW-43610	2	2	1	0	15836	INST EUH (CW-5TH FLR)	16JUN14	17JUN14	1JUL14	2JUL14	11
CW-44100	12	12	1	0	15891	INST DUCT MAINS (CW-4TH FLR)	17APR14	2MAY14	18APR14	5MAY14	1
CW-44105	12	12	1	0	15891	INST DUCT BRANCHES (CW-4TH FLR)	5MAY14	20MAY14	15MAY14	2JUN14	8
CW-44110	12	12	1	0	15891	INST DUCT RISERS (CW-4TH FLR)	5MAY14	20MAY14	15MAY14	2JUN14	8
CW-44111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-4TH FLR)	9JUL14	15JUL14	5AUG14	11AUG14	19
CW-44115	12	12	1	0	15910	INST DUCT DROPS (CW-4TH FLR)	30SEP14	16OCT14	2DEC14	17DEC14	42
CW-44120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-4TH FLR)	17OCT14	23OCT14	18DEC14	24DEC14	42
CW-44300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-4TH FLR)	16SEP14	25SEP14	31OCT14	12NOV14	32
CW-44310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-4TH FLR)	26SEP14	7OCT14	13NOV14	24NOV14	32
CW-44320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-4TH FLR)	8OCT14	20OCT14	25NOV14	5DEC14	32
CW-44410	5	5	1	0	15783	INST (1) AC UNIT (CW - 4TH FLR)	12MAY14	16MAY14	29MAY14	4JUN14	12
CW-44470	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-4TH FLR)	21MAY14	4JUN14	26AUG14	9SEP14	67
CW-44480	6	6	1	0	15836	INST UNIT HEATERS (CW- 4TH FLR)	13MAY14	20MAY14	23JUN14	30JUN14	28
CW-44485	5	5	1	0	15970	INST ATC DEVICES (CW-4TH FLR)	12NOV14	18NOV14	26NOV14	3DEC14	10
CW-44550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-4TH FLR)	23MAY14	27MAY14	27MAY14	28MAY14	1
CW-44580	8	8	1	0	15836	INST UNIT HEATERS (CW- 5TH FLR)	4JUN14	13JUN14	19JUN14	30JUN14	11
CW-44610	4	4	1	0	15836	INST (8) EUH (CW-ROOF)	18JUN14	23JUN14	3JUL14	9JUL14	11
CW-44670	1	1	1	0	10840	INST GRAB BARS (CW-4TH FLR)	28NOV14	28NOV14	29DEC14	29DEC14	20
CW-45100	12	12	1	0	15891	INST DUCT MAINS (CW-5TH FLR)	5MAY14	20MAY14	6MAY14	21MAY14	1
CW-45105	12	12	1	0	15891	INST DUCT BRANCHES (CW-5TH FLR)	21MAY14	6JUN14	3JUN14	18JUN14	8
CW-45110	12	12	1	0	15891	INST DUCT RISERS (CW-5TH FLR)	21MAY14	6JUN14	3JUN14	18JUN14	8
CW-45111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-5TH FLR)	25JUL14	31JUL14	21AUG14	27AUG14	19
CW-45300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-5TH FLR)	23SEP14	2OCT14	19SEP14	30SEP14	-2
CW-45310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-5TH FLR)	3OCT14	15OCT14	1OCT14	10OCT14	-2
CW-45320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-5TH FLR)	16OCT14	27OCT14	14OCT14	23OCT14	-2
CW-45400	5	5	1	0	15540	INST HVAC (RTU) PUMPS (CW-ROOF)	10JUN14	16JUN14	20JUN14	26JUN14	8
CW-45410	5	5	1	0	15783	INST (1) AC UNIT (CW - 5TH FLR)	4JUN14	10JUN14	5JUN14	11JUN14	1
CW-45420	5	5	1	0	15540	INST HVAC (CHILLER) PUMPS (CW-ROOF)	24JUN14	30JUN14	7JUL14	11JUL14	8
CW-45430	5	5	1	0	15451	SET/INST 5 EA EXPANSION TANK HW SYS (CW-ROOF)	7JUL14	11JUL14	21JUL14	25JUL14	10
CW-45440	10	10	1	0	15451	SET/INST 5 EA EXPANSION TANK CW SYS (CW-ROOF)	14JUL14	25JUL14	28JUL14	8AUG14	10
CW-45470	8	8	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-5TH FLR)	9JUN14	18JUN14	18SEP14	29SEP14	71
CW-45471	7	7	1	0	15515	SET & INST 5 EA AIR-DIRT SEPERATORS (CW-ROOF)	10JUN14	18JUN14	7JUL14	15JUL14	18
CW-45485	5	5	1	0	15970	INST ATC DEVICES (CW-5TH FLR)	19NOV14	25NOV14	4DEC14	10DEC14	10
CW-45550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-5TH FLR)	28MAY14	29MAY14	29MAY14	30MAY14	1
CW-46300	10	10	1	0	15933	INST RTU'S ON ROOF (CW)	24FEB14	7MAR14	5JUN14	18JUN14	72
CW-46400	5	5	1	0	15783	INST (1) AC UNIT @ ELEV MACHINE RM (CW - ROOF)	11JUN14	17JUN14	12JUN14	18JUN14	1
CW-46402	9	9	1	0	15783	INST (1-3) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46405	9	9	1	0	15783	INST (4-6) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46410	5	5	1	0	15540	INST HVAC (HW) PUMPS (CW-ROOF)	17JUN14	23JUN14	27JUN14	3JUL14	8
CW-46412	9	9	1	0	15783	INST (7-9) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46415	9	9	1	0	15783	INST (10-12) SPLIT HEAT PUMPS (CW-ROOF)	1JUL14	14JUL14	2JUL14	15JUL14	1
CW-46450	8	8	1	0	15860	INST SMOKE PURGE FANS (CW-ROOF)	17APR14	28APR14	21MAY14	2JUN14	24
CW-46460	6	6	1	0	15860	INST KITCHEN ROOF FANS (CW-ROOF)	29APR14	6MAY14	3JUN14	10JUN14	24
CW-46470	10	10	1	0	15860	INST MISC ROOF FANS (CW-ROOF)	7MAY14	20MAY14	11JUN14	24JUN14	24
CW-46480	10	10	1	0	15860	INST CENTRIFUGAL FANS (CW-ROOF)	21MAY14	4JUN14	25JUN14	9JUL14	24
CW-46550	5	5	1	0	15590	INST FUEL OIL PIPING (CW-ROOF)	30MAY14	5JUN14	2JUN14	6JUN14	1
CW-46555	2	2	1	0	15590	PRESURE TEST FUEL OIL PIPING (CW)	9JUN14	10JUN14	9JUN14	10JUN14	0
CW-46560	10	10	1	0	15590	INST CONTAINMENT PIPING (CW- BSMT) (FUEL OIL SY	11JUN14	24JUN14	11JUN14	24JUN14	0
CW-46565	10	10	1	0	15590	INST CONTAINMENT PIPING (CW-3-ROOF) FUEL OIL SYS	25JUN14	9JUL14	24JUL14	6AUG14	20
CW-46570	2	2	1	0	15590	PRESURE TEST CONTAINMENT PIPING (FUEL OIL SYS)	10JUL14	11JUL14	7AUG14	8AUG14	20
CW-46575	10	10	1	0	15590	START UP & TROUBLE SHOOT EMERGENCY GENERATOR	4NOV14	18NOV14	26NOV14	10DEC14	15
CW-46580	2	2	1	0	15590	INST FUEL PUMP (CW-BSMT)	6JUN14	9JUN14	15OCT14	16OCT14	90
CW-46585	10	10	1	0	15590	INST INSTRUMENTN & CNTRLS - EMERG GENERATOR SYS	14JUL14	25JUL14	12NOV14	25NOV14	84
CW-46590	5	5	1	0	15590	INST FUEL TANK FOR EMERGENCY GENERTR (CW-BSMT)	10JUN14	16JUN14	17OCT14	23OCT14	90
CW-50100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-50105	10	10	1	0	15410	INST & TEST STORM PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-50110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-50115	12	12	1	0	15416	INST & TEST GAS PIPING (CW-BSMT)	14MAY14	30MAY14	22OCT14	6NOV14	111
CW-50120	9	9	1	0	15440	INST PLUMBING FIXTURE (CW-BSMT)	8OCT14	21OCT14	24NOV14	5DEC14	31
CW-50150	5	5	1	0	15453	CW BOOSTER PUMP - SET & INSTALL (CW-BSMT)	29MAY14	4JUN14	24SEP14	30SEP14	82
CW-50155	10	10	1	0	15453	SEWAGE EJECTOR PUMP - SET & INSTALL (CW-BSMT)	5JUN14	18JUN14	1OCT14	15OCT14	82
CW-50160	3	3	1	0	15453	HYDRAULIC ELEVATOR SUMP PUMP - SET & INST (CW)	19JUN14	23JUN14	16OCT14	20OCT14	82
CW-50165	3	3	1	0	15453	SET & INST HW CIRCULATING PUMP - KITCHEN (CW)	24JUN14	26JUN14	21OCT14	23OCT14	82
CW-50300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-BSMT)	29MAY14	11JUN14	27JUN14	11JUL14	21
CW-50395	5	5	1	0	15783	INST INSTRUMENTATION & CONTROL- SPLIT HEAT PUMPS	15JUL14	21JUL14	24OCT14	30OCT14	71
CW-50500	9	9	1	0	15510	INST HVAC PIPING (CW- BSMT)	12MAY14	22MAY14	12MAY14	22MAY14	0
CW-50700	10	10	1	0	15510	INSULATE HVAC PIPING (CW- BSMT)	1JUL14	15JUL14	29AUG14	12SEP14	42

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-51100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51102	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-51105	10	10	1	0	15410	INST & TEST STORM PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51107	10	10	1	0	15410	INST & TEST STORM PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-51110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51112	10	10	1	0	15410	INST & TEST WATER PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-51115	8	8	1	0	15416	INST & TEST GAS PIPING (CW-1ST FLR) (N)	31MAR14	9APR14	7MAY14	16MAY14	27
CW-51116	8	8	1	0	15416	INST & TEST GAS PIPING (CW-1ST FLR) (S)	10APR14	21APR14	19MAY14	29MAY14	27
CW-51120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-1ST FLR)	10OCT14	24OCT14	24OCT14	6NOV14	9
CW-51300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-1ST FLR)	28APR14	9MAY14	23JUN14	7JUL14	39
CW-51500	10	10	1	0	15510	INST HVAC PIPING (CW-1ST FLR)	17MAR14	28MAR14	3APR14	16APR14	13
CW-51700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-1ST FLR)	16JUL14	29JUL14	15SEP14	26SEP14	42
CW-52100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-52105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-2ND FLR)	28APR14	8MAY14	30MAY14	11JUN14	23
CW-52110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-52115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-52120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-2ND FLR)	21OCT14	3NOV14	31OCT14	14NOV14	8
CW-52300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-2ND FLR)	12MAY14	23MAY14	8JUL14	21JUL14	39
CW-52500	10	10	1	0	15510	INST HVAC PIPING (CW-2ND FLR)	31MAR14	11APR14	17APR14	30APR14	13
CW-52700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-2ND FLR)	30JUL14	12AUG14	29SEP14	10OCT14	42
CW-53100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-53105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-3RD FLR)	12MAY14	22MAY14	13JUN14	25JUN14	23
CW-53110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-53115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-53120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-3RD FLR)	6NOV14	20NOV14	7NOV14	21NOV14	1
CW-53300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-3RD FLR)	27MAY14	6JUN14	22JUL14	1AUG14	39
CW-53500	10	10	1	0	15510	INST HVAC PIPING (CW-3RD FLR)	16APR14	29APR14	6MAY14	19MAY14	14
CW-53700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-3RD FLR)	13AUG14	26AUG14	14OCT14	27OCT14	42
CW-54100	9	9	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54110	9	9	1	0	15410	INST & TEST WATER PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-4TH FLR)	27MAY14	9JUN14	27JUN14	11JUL14	23
CW-54120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-4TH FLR)	18NOV14	2DEC14	19NOV14	3DEC14	1
CW-54300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-4TH FLR)	9JUN14	19JUN14	4AUG14	14AUG14	39
CW-54500	10	10	1	0	15510	INST HVAC PIPING (CW-4TH FLR)	28APR14	9MAY14	1MAY14	14MAY14	3
CW-54670	1	1	1	0	10840	INST GRAB BARS (CW-5TH FLR)	3DEC14	3DEC14	17DEC14	17DEC14	10
CW-54700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-4TH FLR)	27AUG14	10SEP14	28OCT14	10NOV14	42
CW-55019	2	2	1	0	15416	INST GAS PIPING DROPS FOR LAB STA. (CW-5TH FLR)	26JUN14	27JUN14	15SEP14	16SEP14	55
CW-55029	10	10	1	0	11600	INST SCIENCE LAB CASEWORK/EQUIP (CW-5TH FLR)	16SEP14	29SEP14	17SEP14	30SEP14	1
CW-55039	4	4	1	0	15416	GAS CONNECTION TO FIXTURES (CW-5TH FLR)	30SEP14	3OCT14	1OCT14	6OCT14	1
CW-55100	9	9	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-55105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-55110	9	9	1	0	15410	INST & TEST WATER PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-55115	12	12	1	0	15416	INST & TEST GAS PIPING (CW-5TH FLR)	10JUN14	25JUN14	14JUL14	29JUL14	23
CW-55120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-5TH FLR)	3DEC14	16DEC14	4DEC14	17DEC14	1
CW-55125	3	3	1	0	15451	SET & INST HW HEATER (CW-ROOF)	1JUL14	3JUL14	16JUL14	18JUL14	10
CW-55130	10	10	1	0	15451	PIPE UP HW HEATER (CW-ROOF)	10JUN14	23JUN14	14JUL14	25JUL14	23
CW-55300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-5TH FLR)	20JUN14	2JUL14	15AUG14	27AUG14	39
CW-55500	7	7	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 5-7	14MAY14	22MAY14	15MAY14	23MAY14	1
CW-55501	7	7	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 8-10	23MAY14	3JUN14	27MAY14	4JUN14	1
CW-55502	4	4	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 1-3	4JUN14	9JUN14	13JUN14	18JUN14	7
CW-55505	5	5	1	0	15510	FLUSH HVAC PIPING (CW-1-5TH FLRS)	10JUN14	16JUN14	14AUG14	20AUG14	46
CW-55700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-5TH FLR)	11SEP14	24SEP14	12NOV14	25NOV14	42
CW-56100	12	12	1	0	15416	INST & TEST GAS PIPING (CW-ROOF)	18JUL14	4AUG14	30JUL14	14AUG14	8
CW-56105	8	8	1	0	15440	INST DRAINS (CW-ROOF)	18JUL14	29JUL14	30JUL14	8AUG14	8
CW-56505	5	5	1	0	15510	FLUSH HVAC PIPING (CW-ROOF)	10JUN14	16JUN14	22AUG14	28AUG14	52
CW-60105	5	5	1	0	15333	SET & INST FIRE PUMP (CW-BSMT)	6JUN14	12JUN14	15JUL14	21JUL14	26
CW-60110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-BSMT)	12MAY14	28MAY14	6MAY14	21MAY14	-4
CW-60120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-BSMT)	29MAY14	11JUN14	11JUN14	24JUN14	9
CW-60130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-BSMT)	18AUG14	29AUG14	8SEP14	19SEP14	14
CW-61110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-1ST FLR)	16APR14	1MAY14	13MAY14	29MAY14	19
CW-61120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-1ST FLR)	2MAY14	15MAY14	23JUN14	7JUL14	35
CW-61130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-1ST FLR)	2SEP14	15SEP14	22SEP14	3OCT14	14
CW-62110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-2ND FLR)	2MAY14	19MAY14	30MAY14	16JUN14	19
CW-62120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-2ND FLR)	20MAY14	3JUN14	23JUN14	7JUL14	23
CW-62130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-2ND FLR)	25SEP14	8OCT14	6OCT14	20OCT14	7
CW-63110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-3RD FLR)	20MAY14	5JUN14	17JUN14	2JUL14	19
CW-63120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-3RD FLR)	6JUN14	19JUN14	8JUL14	21JUL14	21
CW-63130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-3RD FLR)	9OCT14	23OCT14	21OCT14	3NOV14	7
CW-64110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-4TH FLR)	6JUN14	23JUN14	3JUL14	21JUL14	19
CW-64120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-4TH FLR)	24JUN14	8JUL14	22JUL14	4AUG14	19
CW-64130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-4TH FLR)	24OCT14	6NOV14	4NOV14	18NOV14	7
CW-65110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-5TH FLR)	24JUN14	10JUL14	22JUL14	6AUG14	19
CW-65120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-5TH FLR)	11JUL14	24JUL14	7AUG14	20AUG14	19
CW-65130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-5TH FLR)	7NOV14	21NOV14	19NOV14	3DEC14	7
CW-70088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-BSMT)	6AUG14	7AUG14	6OCT14	7OCT14	42
CW-70090	10	10	1	0	16470	INST ELECT PANEL INTERIORS (CW-BSMT)	6AUG14	19AUG14	3OCT14	17OCT14	41
CW-70092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-BSMT)	4AUG14	14AUG14	11SEP14	23SEP14	27
CW-70094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-BSMT) (N)	1AUG14	14AUG14	10SEP14	23SEP14	27
CW-70095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-BSMT) (S)	8AUG14	21AUG14	17SEP14	30SEP14	27
CW-70097	5	5	1	0	16728	INST NETWORK CABLING (CW-BSMT)	4AUG14	8AUG14	4AUG14	8AUG14	0
CW-70100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-BSMT)	22MAY14	5JUN14	20JUN14	3JUL14	20
CW-70110	10	10	1	0	16120	PULL WIRE (CW-BSMT)	21JUL14	1AUG14	21JUL14	1AUG14	0
CW-70113	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-BSMT) (N)	6JUN14	19JUN14	7JUL14	18JUL14	20
CW-70115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-BSMT) (S)	6JUN14	19JUN14	7JUL14	18JUL14	20
CW-70116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-BSMT) (N)	8SEP14	19SEP14	10SEP14	23SEP14	2
CW-70117	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-BSMT) (S)	22SEP14	3OCT14	15DEC14	29DEC14	57
CW-70148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-BSMT)	8SEP14	23SEP14	7OCT14	23OCT14	21

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-70170	5	5	1	0	16231	INST EMERGENCY GENERATOR SYSTEM (CW)	17APR14	23APR14	16MAY14	22MAY14	21
CW-70190	10	10	1	0	16520	INST EXIT & EMERGENCY LIGHTING (CW-BSMT)	8SEP14	19SEP14	10SEP14	23SEP14	2
CW-70194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-BSMT) (N)	8SEP14	19SEP14	17SEP14	30SEP14	7
CW-70195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-BSMT) (S)	22SEP14	3OCT14	1OCT14	15OCT14	7
CW-70197	10	10	1	0	16724	INST SECURITY DEVICES (CW-BSMT)	6OCT14	20OCT14	23OCT14	5NOV14	12
CW-70198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-BSMT)	24SEP14	2OCT14	24OCT14	3NOV14	21
CW-70200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-BSMT)	21OCT14	27OCT14	6NOV14	13NOV14	12
CW-70203	10	10	1	0	16727	INST DATA DEVICES (CW-BSMT)	6OCT14	20OCT14	11DEC14	24DEC14	45
CW-70205	5	5	1	0	16783	INST CCTV DEVICES (CW-BSMT)	21OCT14	27OCT14	14NOV14	20NOV14	17
CW-70510	10	10	1	0	16720	INST SENSORS & TERMINATE (CAFETERIA) CO DETECTN	24NOV14	8DEC14	24NOV14	8DEC14	0
CW-70515	5	5	1	0	16720	INST SENSORS & TERMINATE CO DETECTN (CW-BSMT)	24NOV14	1DEC14	4DEC14	10DEC14	7
CW-71088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-1ST FLR)	3OCT14	6OCT14	14NOV14	17NOV14	28
CW-71090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-1ST FLR)	18AUG14	26AUG14	27OCT14	4NOV14	48
CW-71092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-1ST FLR)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-71094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-1ST FLR) (N)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-71095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-1ST FLR) (S)	4AUG14	15AUG14	8SEP14	19SEP14	24
CW-71097	5	5	1	0	16728	INST NETWORK CABLING (CW-1ST FLR)	11AUG14	15AUG14	6NOV14	13NOV14	61
CW-71100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-1ST FLR)	2APR14	15APR14	29APR14	12MAY14	19
CW-71110	10	10	1	0	16120	PULL WIRE (CW-1ST FLR)	21JUL14	1AUG14	14AUG14	27AUG14	18
CW-71114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-1ST FLR (N)	16APR14	29APR14	17JUL14	30JUL14	64
CW-71115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-1ST FLR (S)	30APR14	13MAY14	31JUL14	13AUG14	64
CW-71116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-1ST FLR) (N)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-71117	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-1ST FLR) (S)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-71148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-1ST FLR)	3OCT14	21OCT14	15OCT14	30OCT14	7
CW-71190	10	10	1	0	16520	INST EXIT & EMERGENCY LIGHTING (CW-1ST FLR)	22SEP14	3OCT14	24SEP14	7OCT14	2
CW-71194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (N)	26SEP14	9OCT14	22SEP14	3OCT14	-4
CW-71195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (S)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-71197	10	10	1	0	16724	INST SECURITY DEVICES (CW-1ST FLR)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-71198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-1ST FLR)	10OCT14	21OCT14	4NOV14	13NOV14	16
CW-71200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-1ST FLR)	28OCT14	3NOV14	14NOV14	20NOV14	12
CW-71203	10	10	1	0	16727	INST DATA DEVICES (CW-1ST FLR)	22OCT14	4NOV14	26DEC14	9JAN15	44
CW-71205	5	5	1	0	16783	INST CCTV DEVICES (CW-1ST FLR)	28OCT14	3NOV14	21NOV14	28NOV14	17
CW-72088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-2ND FLR)	14OCT14	15OCT14	18NOV14	19NOV14	24
CW-72090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-2ND FLR)	27AUG14	5SEP14	5NOV14	14NOV14	48
CW-72092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-2ND FLR)	18AUG14	29AUG14	12SEP14	25SEP14	18
CW-72094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-2ND FLR) (N)	18AUG14	29AUG14	12SEP14	25SEP14	18
CW-72095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-2ND FLR) (S)	18AUG14	29AUG14	22SEP14	3OCT14	24
CW-72097	5	5	1	0	16728	INST NETWORK CABLING (CW-2ND FLR)	18AUG14	22AUG14	14NOV14	20NOV14	61
CW-72100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-2ND FLR)	17APR14	30APR14	13MAY14	27MAY14	18
CW-72110	10	10	1	0	16120	PULL WIRE (CW-2ND FLR)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-72113	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-2ND FLR (N)	1MAY14	14MAY14	31JUL14	13AUG14	63
CW-72115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-2ND FLR (S)	15MAY14	29MAY14	14AUG14	27AUG14	63
CW-72116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-2ND FLR) (N)	21OCT14	3NOV14	23OCT14	5NOV14	2
CW-72117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-2ND FLR) (S)	21OCT14	31OCT14	24OCT14	5NOV14	3
CW-72148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-2ND FLR)	22OCT14	6NOV14	31OCT14	18NOV14	7
CW-72190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-2ND FLR)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-72194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-2ND FLR) (N)	30SEP14	14OCT14	6OCT14	20OCT14	4
CW-72195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-2ND FLR) (S)	30SEP14	14OCT14	6OCT14	20OCT14	4
CW-72197	10	10	1	0	16724	INST SECURITY DEVICES (CW-2ND FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
CW-72198	10	10	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-2ND FLR)	27OCT14	7NOV14	6NOV14	20NOV14	8
CW-72199	8	8	1	0	16720	FINAL CONNECTN TO FA CONTROL PANEL (CW-1ST FLR)	5DEC14	16DEC14	1DEC14	10DEC14	-4
CW-72200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-2ND FLR)	10NOV14	17NOV14	21NOV14	28NOV14	8
CW-72203	10	10	1	0	16727	INST DATA DEVICES (CW-2ND FLR)	10NOV14	24NOV14	26DEC14	9JAN15	31
CW-72205	5	5	1	0	16783	INST CCTV DEVICES (CW-2ND FLR)	10NOV14	17NOV14	1DEC14	5DEC14	13
CW-73088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-3RD FLR)	30OCT14	31OCT14	20NOV14	21NOV14	14
CW-73090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-3RD FLR)	8SEP14	16SEP14	17NOV14	25NOV14	48
CW-73092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-3RD FLR)	2SEP14	12SEP14	15SEP14	25SEP14	9
CW-73094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-3RD FLR) (N)	15SEP14	24SEP14	26SEP14	7OCT14	9
CW-73095	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-3RD FLR) (S)	25SEP14	6OCT14	8OCT14	20OCT14	9
CW-73097	5	5	1	0	16728	INST NETWORK CABLING (CW-3RD FLR)	2SEP14	8SEP14	21NOV14	28NOV14	56
CW-73100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-3RD FLR)	5MAY14	16MAY14	28MAY14	10JUN14	16
CW-73110	10	10	1	0	16120	PULL WIRE (CW-3RD FLR)	18AUG14	29AUG14	29AUG14	12SEP14	9
CW-73114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-3RD FLR (N)	19MAY14	2JUN14	1AUG14	14AUG14	52
CW-73115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-3RD FLR (S)	3JUN14	16JUN14	15AUG14	28AUG14	52
CW-73116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-3RD FLR) (N)	4NOV14	18NOV14	6NOV14	20NOV14	2
CW-73117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-3RD FLR) (S)	19NOV14	2DEC14	1DEC14	11DEC14	7
CW-73148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-3RD FLR)	7NOV14	25NOV14	19NOV14	5DEC14	7
CW-73190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-3RD FLR)	21OCT14	3NOV14	23OCT14	5NOV14	2
CW-73194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-3RD FLR) (N)	23OCT14	5NOV14	21OCT14	3NOV14	-2
CW-73195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-3RD FLR) (S)	23OCT14	5NOV14	21OCT14	3NOV14	-2
CW-73197	10	10	1	0	16724	INST SECURITY DEVICES (CW-3RD FLR)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-73198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-3RD FLR)	10NOV14	19NOV14	19NOV14	28NOV14	6
CW-73200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-3RD FLR)	20NOV14	26NOV14	1DEC14	5DEC14	6
CW-73203	10	10	1	0	16727	INST DATA DEVICES (CW-3RD FLR)	20NOV14	4DEC14	26DEC14	9JAN15	24
CW-73205	5	5	1	0	16783	INST CCTV DEVICES (CW-3RD FLR)	28NOV14	4DEC14	8DEC14	12DEC14	6
CW-74088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-4TH FLR)	10NOV14	12NOV14	24NOV14	25NOV14	9
CW-74090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-4TH FLR)	17SEP14	25SEP14	26NOV14	5DEC14	48
CW-74092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-4TH FLR)	15SEP14	25SEP14	14OCT14	24OCT14	20
CW-74093	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-4TH FLR) (N)	16SEP14	25SEP14	15OCT14	24OCT14	20
CW-74094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-4TH FLR) (S)	25SEP14	6OCT14	23OCT14	3NOV14	19
CW-74097	5	5	1	0	16728	INST NETWORK CABLING (CW-4TH FLR)	16SEP14	22SEP14	1DEC14	5DEC14	51
CW-74100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (CW-4TH FLR)	19MAY14	4JUN14	11JUN14	26JUN14	16
CW-74110	10	10	1	0	16120	PULL WIRE (CW-4TH FLR)	2SEP14	15SEP14	26SEP14	9OCT14	18
CW-74114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-4TH FLR (N)	5JUN14	18JUN14	28AUG14	11SEP14	59
CW-74115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-4TH FLR (S)	19JUN14	2JUL14	12SEP14	25SEP14	59
CW-74116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-4TH FLR) (N)	19NOV14	3DEC14	21NOV14	5DEC14	2
CW-74117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-4TH FLR) (S)	4DEC14	16DEC14	12DEC14	24DEC14	6
CW-74148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-4TH FLR)	10NOV14	26NOV14	13NOV14	1DEC14	2

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-74190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-4TH FLR)	4NOV14	18NOV14	6NOV14	20NOV14	2
CW-74195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-4TH FLR) (N)	6NOV14	20NOV14	4NOV14	18NOV14	-2
CW-74196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-4TH FLR) (S)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-74197	10	10	1	0	16724	INST SECURITY DEVICES (CW-4TH FLR)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-74198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-4TH FLR)	25NOV14	4DEC14	2DEC14	10DEC14	4
CW-74200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-4TH FLR)	5DEC14	11DEC14	11DEC14	17DEC14	4
CW-74203	10	10	1	0	16727	INST DATA DEVICES (CW-4TH FLR)	5DEC14	18DEC14	18DEC14	2JAN15	9
CW-74205	5	5	1	0	16783	INST CCTV DEVICES (CW-4TH FLR)	10DEC14	16DEC14	15DEC14	19DEC14	3
CW-75088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-5TH FLR)	19NOV14	20NOV14	26NOV14	28NOV14	5
CW-75090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-5TH FLR)	30SEP14	8OCT14	8DEC14	16DEC14	46
CW-75092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-5TH FLR)	30SEP14	14OCT14	27OCT14	7NOV14	18
CW-75094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-5TH FLR) (N)	30SEP14	9OCT14	27OCT14	5NOV14	18
CW-75095	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-5TH FLR) (S)	10OCT14	22OCT14	6NOV14	18NOV14	18
CW-75097	5	5	1	0	16728	INST NETWORK CABLING (CW-5TH FLR)	30SEP14	6OCT14	8DEC14	12DEC14	46
CW-75100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (CW-5TH FLR)	5JUN14	20JUN14	27JUN14	15JUL14	16
CW-75110	10	10	1	0	16120	PULL WIRE (CW-5TH FLR)	16SEP14	29SEP14	10OCT14	24OCT14	18
CW-75114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-5TH FLR (N)	23JUN14	7JUL14	12SEP14	25SEP14	57
CW-75115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-5TH FLR (S)	8JUL14	21JUL14	26SEP14	9OCT14	57
CW-75116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-5TH FLR) (N)	4DEC14	17DEC14	8DEC14	19DEC14	2
CW-75117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-5TH FLR) (S)	18DEC14	31DEC14	29DEC14	9JAN15	6
CW-75148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-5TH FLR)	28NOV14	15DEC14	2DEC14	17DEC14	2
CW-75190	9	9	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-5TH FLR)	19NOV14	2DEC14	24NOV14	5DEC14	3
CW-75195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-5TH FLR) (N)	21NOV14	5DEC14	19NOV14	3DEC14	-2
CW-75196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-5TH FLR) (S)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-75197	10	10	1	0	16724	INST SECURITY DEVICES (CW-5TH FLR)	10DEC14	23DEC14	4DEC14	17DEC14	-4
CW-75198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-5TH FLR)	10DEC14	18DEC14	4DEC14	12DEC14	-4
CW-75200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-5TH FLR)	19DEC14	26DEC14	18DEC14	24DEC14	-1
CW-75203	10	10	1	0	16727	INST DATA DEVICES (CW-5TH FLR)	19DEC14	5JAN15	15DEC14	29DEC14	-4
CW-75205	5	5	1	0	16783	INST CCTV DEVICES (CW-5TH FLR)	24DEC14	31DEC14	22DEC14	29DEC14	-2
CW-90999	5	5	1	0	01700G	SCA INSPECTION (CW-BSMT)	9JAN15	15JAN15	12JAN15	16JAN15	1
CW-91999	5	5	1	0	01700G	SCA INSPECTION (CW-1ST FLR)	16JAN15	23JAN15	12JAN15	16JAN15	-4
CW-92999	5	5	1	0	01700G	SCA INSPECTION (CW-2ND FLR)	26DEC14	2JAN15	12JAN15	16JAN15	10
CW-93999	5	5	1	0	01700G	SCA INSPECTION (CW-3RD FLR)	9JAN15	15JAN15	12JAN15	16JAN15	1
CW-94999	5	5	1	0	01700G	SCA INSPECTION (CW-4TH FLR)	12JAN15	16JAN15	12JAN15	16JAN15	0
CW-95999	5	5	1	0	01700G	SCA INSPECTION (CW-5TH FLR)	9JAN15	15JAN15	12JAN15	16JAN15	1
CW-B0390	5	5	1	0	15836	INST CABINET UNIT HEATERS (CW- STAIR B)	9JUN14	13JUN14	17OCT14	23OCT14	91
CW-E1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-1ST FLR)	18AUG14	22AUG14	22SEP14	26SEP14	24
CW-E2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-2ND FLR)	18AUG14	22AUG14	10OCT14	17OCT14	38
CW-E3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-3RD FLR)	9SEP14	15SEP14	24OCT14	30OCT14	32
CW-E4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-4TH FLR)	16SEP14	22SEP14	3NOV14	7NOV14	33
CW-E5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-5TH FLR)	30SEP14	6OCT14	17NOV14	21NOV14	32
CW-M0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-BSMT)	31OCT14	14NOV14	12NOV14	25NOV14	7
CW-M1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-1ST FLR)	11AUG14	15AUG14	15SEP14	19SEP14	24
CW-M2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-2ND FLR)	11AUG14	15AUG14	3OCT14	9OCT14	38
CW-M3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-3RD FLR)	2SEP14	8SEP14	17OCT14	23OCT14	32
CW-M4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-4TH FLR)	9SEP14	15SEP14	27OCT14	31OCT14	33
CW-M5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-5TH FLR)	23SEP14	29SEP14	7NOV14	14NOV14	32
CW-N0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-NORTH-BSMT)	17OCT14	30OCT14	28OCT14	10NOV14	7
CW-S0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-SOUTH-BSMT)	17NOV14	1DEC14	26NOV14	10DEC14	7
CW-W1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-1ST FL)	4AUG14	8AUG14	8SEP14	12SEP14	24
CW-W2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-2ND FLR)	4AUG14	8AUG14	26SEP14	2OCT14	38
CW-W3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-3RD FLR)	25AUG14	29AUG14	9OCT14	16OCT14	32
CW-W4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-4TH FLR)	2SEP14	8SEP14	20OCT14	24OCT14	33
CW-W5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-5TH FLR)	16SEP14	22SEP14	31OCT14	6NOV14	32
LR-00065	6	6	1	0	09260	FRAME INTERIOR PARTITIONS (LR - BSMT)	26MAR14	2APR14	29APR14	6MAY14	24
LR-00067	5	5	1	0	10810	INST SHOWER PANS (LR - BSMT)	14AUG14	20AUG14	18NOV14	24NOV14	65
LR-00095	6	6	1	0	09260	INST GYPSUM BOARD WALL (LR - BSMT)	3JUL14	11JUL14	11JUL14	18JUL14	5
LR-00100	5	5	1	0	05170	INST BLACK IRON FRAMING (LR - BSMT)	14JUL14	18JUL14	1AUG14	7AUG14	14
LR-00120	6	6	1	0	09260	INST GYPSUM BOARD CEILING (LR - BSMT)	21JUL14	28JUL14	8AUG14	15AUG14	14
LR-00125	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (LR - BSMT)	14JUL14	21JUL14	21JUL14	28JUL14	5
LR-00130	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD CEILINGS (LR - BSMT)	29JUL14	5AUG14	18AUG14	25AUG14	14
LR-00135	6	6	1	0	09510	INST SUSPENDED CEILING GRID (LR - BSMT)	21JUL14	28JUL14	18AUG14	25AUG14	20
LR-00150	6	6	1	0	09900	PRIME PAINTING (LR - BSMT)	6AUG14	13AUG14	26AUG14	3SEP14	14
LR-00155	10	10	1	0	09310	INST CERAMIC TILE (LR-BSMT)	14AUG14	27AUG14	28OCT14	10NOV14	51
LR-00165	5	5	1	0	10810	INST TOILET PARTITIONS (LR - BSMT)	11SEP14	17SEP14	25NOV14	2DEC14	51
LR-00170	3	3	1	0	10810	INST TOILET ACCESSORIES (LR - BSMT)	18SEP14	22SEP14	3DEC14	5DEC14	51
LR-00175	5	5	1	0	09510	INST ACOUSTICAL CEILING TILE (LR - BSMT)	14AUG14	20AUG14	4SEP14	10SEP14	14
LR-00180	5	5	1	0	09650	INST VCT FLOORING (LR - BSMT)	23OCT14	29OCT14	17OCT14	23OCT14	-4
LR-00182	4	4	1	0	09650	INST VINYL BASE (LR - BSMT)	30OCT14	4NOV14	24OCT14	29OCT14	-4
LR-00210	10	10	1	0	09900	FINAL PAINTING (LR - BSMT)	5NOV14	19NOV14	30OCT14	13NOV14	-4
LR-00214	3	3	1	0	10100	INST DISP/WHITEBOARDS/CHALKBOARDS (LR - BSMT)	24DEC14	29DEC14	22DEC14	24DEC14	-2
LR-00215	8	8	1	0	07250	FIREPROOFING (LR-GYMNASIUM)	7MAR14	18MAR14	19MAR14	28MAR14	8
LR-00220	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR - BSMT)	20NOV14	24NOV14	7JAN15	9JAN15	31
LR-00225	10	10	1	0	06410	INST MILLWORK IN GYMNASIUM (LR - BSMT)	13NOV14	26NOV14	18DEC14	2JAN15	24
LR-00230	3	3	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR - BSMT)	20NOV14	24NOV14	7JAN15	9JAN15	31
LR-00237	10	10	1	0	08110	INST HOLLOW METAL DOORS (LR - BSMT)	30OCT14	13NOV14	15DEC14	29DEC14	30
LR-00240	3	3	1	0	08710	INST HARDWARE (LR - BSMT)	14NOV14	18NOV14	30DEC14	2JAN15	30
LR-00245	10	10	1	0	10505	INST LOCKERS & BENCHES (LR - BSMT)	23OCT14	5NOV14	11DEC14	24DEC14	33
LR-00247	5	5	1	0	11480	INST BLEACHERS IN GYM (LR - BSMT)	20NOV14	26NOV14	26DEC14	2JAN15	24
LR-00248	5	5	1	0	11480	INST EQUIPMENT IN GYM (LR - BSMT)	28NOV14	4DEC14	5JAN15	9JAN15	24
LR-00255	10	10	1	0	09900	INST GYM FLOOR MARKINGS (LR - BSMT)	16DEC14	30DEC14	18DEC14	2JAN15	2
LR-00265	3	3	1	0	10652	INST FOLDING PARTN TOP TRACK GYMNASIUM	30OCT14	3NOV14	9DEC14	11DEC14	26
LR-00280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (LR - BSMT)	11DEC14	24DEC14	26DEC14	9JAN15	10
LR-00480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR - BSMT)	18APR14	1MAY14	3JUL14	17JUL14	53
LR-00485	5	5	1	0	15970	INST ATC DEVICES (LR-GYM)	26AUG14	2SEP14	3NOV14	7NOV14	47
LR-00490	2	2	1	0	15970	START UP & TEST TEMPERATURE CNTRL SYS GYM	4NOV14	5NOV14	10NOV14	12NOV14	4
LR-00660	3	3	1	0	05500	INST INTERIOR LADDERS & GRATINGS - (LR - BSMT)	15MAY14	19MAY14	7JAN15	9JAN15	161
LR-00771	9	9	1	0	09590	INST WOOD FLOORING (LR- GYM 1ST HALF)	19NOV14	2DEC14	17NOV14	28NOV14	-2

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-00773	9	9	1	0	09590	INST WOOD FLOORING (LR- GYM 2ND HALF)	3DEC14	15DEC14	1DEC14	11DEC14	-2
LR-00782	9	9	1	0	10652	INST FOLDING PARTITIONS (LR - BSMT)	16DEC14	29DEC14	12DEC14	24DEC14	-2
LR-01150	10	10	1	0	11480	INST SCOREBOARD & BACKBOARD/HOOPS (LR-GYM)	30DEC14	13JAN15	26DEC14	9JAN15	-2
LR-01555	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-WEST- BSMT)	24SEP14	7OCT14	18SEP14	1OCT14	-4
LR-01560	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-MIDDLE- BSMT)	1OCT14	15OCT14	25SEP14	8OCT14	-4
LR-02065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (LR-GYMATORIUM)	11APR14	28APR14	9MAY14	27MAY14	20
LR-02095	6	6	1	0	09260	INST GYPSUM BOARD WALL (LR-GYMATORIUM)	1AUG14	8AUG14	28JUL14	4AUG14	-4
LR-02100	5	5	1	0	05170	INST BLACK IRON FRAMING (LR-GYMATORIUM)	2SEP14	8SEP14	26AUG14	2SEP14	-4
LR-02120	6	6	1	0	09510	INST METAL MESH CEILING PANELS (LR-GYMATORIUM)	25SEP14	2OCT14	5NOV14	13NOV14	28
LR-02125	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (LR-GYMATORM)	11AUG14	18AUG14	18AUG14	25AUG14	5
LR-02135	6	6	1	0	09510	INST GYMNATORIUM CEILING GRID (LR-GYMATORIUM)	9SEP14	16SEP14	3SEP14	10SEP14	-4
LR-02150	6	6	1	0	09900	PRIME PAINTING (LR-GYMATORIUM)	17SEP14	24SEP14	11SEP14	18SEP14	-4
LR-02180	9	9	1	0	09650	INST WOOD FLOORING (LR-GYMATORIUM - 1ST HALF)	25SEP14	7OCT14	14OCT14	24OCT14	12
LR-02182	4	4	1	0	09650	INST VINYL BASE (LR-GYMATORIUM)	9DEC14	12DEC14	26DEC14	31DEC14	12
LR-02210	12	12	1	0	09900	FINAL PAINTING (LR-GYMATORIUM)	20NOV14	8DEC14	14NOV14	2DEC14	-4
LR-02213	12	12	1	0	09840	INST VINYL WALL PADDING (LR-GYMATORIUM)	28NOV14	15DEC14	10DEC14	26DEC14	8
LR-02215	12	12	1	0	12762	INST MOTORIZED & FIXTED SEATING -GYMATORIUM	11DEC14	29DEC14	23DEC14	9JAN15	8
LR-02217	9	9	1	0	09590	INST WOOD FLOORING (LR-GYMATORIUM 2ND HALF)	28NOV14	10DEC14	10DEC14	22DEC14	8
LR-02220	8	8	1	0	07250	FIREPROOFING (LR-GYMATORIUM)	19MAR14	28MAR14	4APR14	15APR14	12
LR-02221	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR-GYMATORIUM)	9DEC14	11DEC14	7JAN15	9JAN15	19
LR-02227	7	7	1	0	11061	INST PROJECTION EQUIP (LR-GYMATORIUM)	11DEC14	19DEC14	31DEC14	9JAN15	13
LR-02230	3	3	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR-GYMATORIUM	9DEC14	11DEC14	7JAN15	9JAN15	19
LR-02235	3	3	1	0	08210	INST WOOD DOORS (LR-GYMATORIUM)	15DEC14	17DEC14	2JAN15	6JAN15	12
LR-02237	3	3	1	0	08110	INST HOLLOW METAL DOORS (LR-GYMATORIUM)	15DEC14	17DEC14	2JAN15	6JAN15	12
LR-02240	3	3	1	0	08710	INST HARDWARE (LR-GYMATORIUM)	18DEC14	22DEC14	7JAN15	9JAN15	12
LR-02250	5	5	1	0	11061	INST STAGE & WINDOW CURTAIN (LR-GYMATORIUM)	11DEC14	17DEC14	5JAN15	9JAN15	15
LR-02265	3	3	1	0	10653	INST FOLDING PARTN TOP TRACK (LR-GYMATORI) MANL	8OCT14	10OCT14	27OCT14	29OCT14	12
LR-02370	12	12	1	0	07260	INTUM PAINT 1ST APPL (LR GYM ROOF TRUSSES)	5JUN14	20JUN14	10OCT14	28OCT14	89
LR-02373	12	12	1	0	07260	INTUM PAINT 2ND APPL (LR GYM ROOF TRUSSES)	23JUN14	9JUL14	29OCT14	14NOV14	89
LR-02375	12	12	1	0	07260	INTUMESCENT 1ST APPLICATIN LR GYMATR ROOF BEAMS	11AUG14	26AUG14	8AUG14	25AUG14	-1
LR-02377	12	12	1	0	07260	INTUMESCENT 1ST APPLICATION LR CORRIDOR COLUMNS	15SEP14	30SEP14	12SEP14	29SEP14	-1
LR-02380	12	12	1	0	07260	INTUMESCENT 2ND APPLICATIN LR GYMATR ROOF BEAMS	27AUG14	12SEP14	26AUG14	11SEP14	-1
LR-02382	12	12	1	0	07260	INTUMESCENT 2ND APPLICATION LR CORRIDOR COLUMNS	1OCT14	17OCT14	30SEP14	16OCT14	-1
LR-02480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR-GYMATORIUM)	6MAY14	19MAY14	18JUL14	31JUL14	51
LR-02782	10	10	1	0	10653	INST FOLDING PARTITIONS (LR- GYMATORIUM)	14OCT14	27OCT14	30OCT14	13NOV14	12
LR-03065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (LR-LIBRARY)	29APR14	14MAY14	28MAY14	12JUN14	20
LR-03095	12	12	1	0	09260	INST GYPSUM BOARD WALL (LR-LIBRARY)	29AUG14	16SEP14	28AUG14	15SEP14	-1
LR-03100	10	10	1	0	05170	INST BLACK IRON FRAMING (LR-LIBRARY)	3OCT14	17OCT14	2OCT14	16OCT14	-1
LR-03120	12	12	1	0	09260	INST LIBRARY WOODEN CEILING (LR-LIBRARY)	10OCT14	28OCT14	9OCT14	27OCT14	-1
LR-03125	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS(LR-LIBRARY)	17SEP14	2OCT14	16SEP14	1OCT14	-1
LR-03150	14	14	1	0	09900	PRIME PAINTING (LR-LIBRARY)	29OCT14	18NOV14	28OCT14	17NOV14	-1
LR-03155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-EAST- BSMT)	8OCT14	22OCT14	2OCT14	16OCT14	-4
LR-03207	10	10	1	0	11050	INST LIBRARY EQUIPMENT (LR-LIBRARY)	26DEC14	9JAN15	26DEC14	9JAN15	0
LR-03210	12	12	1	0	09900	FINAL PAINTING (LR-LIBRARY)	9DEC14	24DEC14	3DEC14	18DEC14	-4
LR-03220	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR-LIBRARY)	26DEC14	30DEC14	7JAN15	9JAN15	7
LR-03222	4	4	1	0	09680	INST CARPET (LIBRARY) (LR-LIBRARY)	26DEC14	31DEC14	19DEC14	24DEC14	-4
LR-03225	10	10	1	0	06410	INST MILLWORK/CASEWORK (LR-LIBRARY)	26DEC14	9JAN15	26DEC14	9JAN15	0
LR-03230	8	8	1	0	07250	FIREPROOFING (LR-LIBRARY)	31MAR14	9APR14	22APR14	1MAY14	16
LR-03231	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR-LIBRARY)	26DEC14	2JAN15	26DEC14	2JAN15	0
LR-03235	10	10	1	0	08210	INST WOOD DOORS (LR-LIBRARY)	19NOV14	3DEC14	18NOV14	2DEC14	-1
LR-03237	5	5	1	0	08110	INST HOLLOW METAL DOORS (LR-LIBRARY)	19NOV14	25NOV14	25NOV14	2DEC14	4
LR-03240	5	5	1	0	08710	INST HARDWARE (LR-LIBRARY)	4DEC14	10DEC14	22DEC14	29DEC14	12
LR-03250	8	8	1	0	10675	INST METAL STORAGE SHELVING (LR-LIBRARY)	26DEC14	7JAN15	30DEC14	9JAN15	2
LR-03255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (LR-LIBRARY)	2JAN15	15JAN15	26DEC14	9JAN15	-4
LR-03480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR-LIBRARY)	22MAY14	5JUN14	1AUG14	14AUG14	49
LR-04991	2	2	1	0	15933	START UP & TEST HVAC SYSTEM GYM	6NOV14	7NOV14	13NOV14	14NOV14	4
LR-06117	5	5	1	0	15933	BUMP & TEST ROOFTOP UNITS (LR-ROOF)	3JUL14	10JUL14	29JUL14	4AUG14	17
LR-06120	10	10	1	0	15933	MECH CONN TO MISC ROOFTOP EQUIP (LR-ROOF) GYM	10JUN14	23JUN14	3JUL14	17JUL14	17
LR-06125	7	7	1	0	15933	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (LR-ROOF)	24JUN14	2JUL14	18JUL14	28JUL14	17
LR-06130	5	5	1	0	05700	INST ROOF LADDERS (LR-ROOF)	11APR14	17APR14	22JUL14	28JUL14	70
LR-06180	5	5	1	0	05700	INST ROOF RAILS & GRATING (LR ROOF)	18APR14	24APR14	29JUL14	4AUG14	70
LR-10212	5	5	1	0	05710	ERECT STEEL PAN STAIRS C (LR @ LOCKER RMS)	16JUL14	22JUL14	8SEP14	12SEP14	37
LR-10222	5	5	1	0	05710	ERECT STEEL PAN STAIRS D (LR @ GYMATORIUM)	23JUL14	29JUL14	15SEP14	19SEP14	37
LR-10294	5	5	1	0	05710	FIXED INDUSTRIAL STAIR L TO GYM ROOF	18SEP14	24SEP14	12NOV14	18NOV14	37
LR-10296	5	5	1	0	05710	EXTERIOR CONCRETE STAIRS M WEST OF GYM	25SEP14	1OCT14	19NOV14	25NOV14	37
LR-10445	5	5	1	0	05710	ERECT STEEL PAN STAIRS E (LR @ GYMATORIUM)	30JUL14	5AUG14	22SEP14	26SEP14	37
LR-10450	5	5	1	0	05710	ERECT CONCRETE STAIRS F (LR @ LOWER LOBBY)	6AUG14	12AUG14	29SEP14	3OCT14	37
LR-10452	5	5	1	0	05710	ERECT CONCRETE STAIRS G (LOBBY)	13AUG14	19AUG14	6OCT14	10OCT14	37
LR-10454	5	5	1	0	05710	ERECT STEEL PAN STAIRS H (LR @ LOBBY)	20AUG14	26AUG14	14OCT14	20OCT14	37
LR-14525	10	10	1	0	15510	INST HVAC PIPING ROOFTOP MER (LR-ROOF)	10JUN14	23JUN14	11JUL14	24JUL14	22
LR-14526	5	5	1	0	15510	FLUSH HVAC PIPING (LR-ROOF)	24JUN14	30JUN14	22AUG14	28AUG14	42
LR-16500	10	10	3	0	07560	INST ROOF SYSTEM TYPE (1) - PLAY AREA (LR)	17MAR14	28MAR14	15AUG14	28AUG14	107
LR-16510	10	10	1	0	07560	INST ROOF ACCESSORIES (LR-ROOF)	5FEB14	19FEB14	31JUL14	13AUG14	123
LR-16520	2	2	1	0	07560	FLOOD TEST ROOF (LR-ROOF)	22JUL14	23JUL14	15AUG14	18AUG14	18
LR-16530	9	9	1	0	07560	INST FILTER FABRIC & ROOF PAVERS (LR-ROOF)	4AUG14	14AUG14	27AUG14	9SEP14	17
LR-16560	7	7	1	0	07560	INST ROOF MEMBRANE (LR-ROOF)	11JUL14	21JUL14	5AUG14	13AUG14	17
LR-16570	9	9	1	0	07560	INST DRAIN PANELS & ROOF INSULATON (LR-ROOF)	22JUL14	1AUG14	14AUG14	26AUG14	17
LR-16620	5	5	1	0	07560	INST PARAPET WALL & FLEX FLASH (LR-ROOF)	15AUG14	21AUG14	10SEP14	16SEP14	17
LR-40100	12	12	1	0	15891	INST DUCT MAINS (LR-GYM)	19MAR14	3APR14	31MAR14	15APR14	8
LR-40105	12	12	1	0	15891	INST DUCT BRANCHES (LR-GYM)	4APR14	21APR14	3JUN14	18JUN14	41
LR-40110	12	12	1	0	15891	INST DUCT RISERS (LR-GYM)	4APR14	21APR14	3JUN14	18JUN14	41
LR-40111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-GYM)	26JUN14	2JUL14	3JUL14	10JUL14	5
LR-40115	5	5	1	0	15910	INST DUCT DROPS (LR-GYM)	21JUL14	25JUL14	26NOV14	3DEC14	89
LR-40120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-GYM)	29JUL14	4AUG14	11DEC14	17DEC14	93
LR-40300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N WALL) (LR - BSMT)	22JUL14	31JUL14	21OCT14	30OCT14	63
LR-40310	8	8	1	0	15835	INST FIN TUBE RADIATORS (E WALL) (LR - BSMT)	1AUG14	12AUG14	31OCT14	12NOV14	63
LR-40320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S WALL) (LR - BSMT)	13AUG14	22AUG14	13NOV14	24NOV14	63
LR-40330	8	8	1	0	15835	INST FIN TUBE RADIATORS (W WALL) (LR - BSMT)	25AUG14	4SEP14	25NOV14	5DEC14	63

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-40400	5	5	1	0	15836	INST UNIT HEATERS - LOCKER ROOM (LR - BSMT)	26JUN14	2JUL14	12NOV14	18NOV14	95
LR-40405	10	10	1	0	15783	INST (2) AC UNITS (LR - BSMT)	12JUN14	25JUN14	28OCT14	10NOV14	95
LR-40410	5	5	1	0	15783	INST (1) AC UNIT @ ELEV MACHINE RM (LR - BSMT)	18JUN14	24JUN14	6OCT14	10OCT14	76
LR-40485	3	3	1	0	15970	INST ATC DEVICES (LR - BSMT)	21AUG14	25AUG14	29OCT14	31OCT14	47
LR-42100	12	12	1	0	15891	INST DUCT MAINS (LR-GYMATORIUM)	4APR14	21APR14	16APR14	1MAY14	8
LR-42105	12	12	1	0	15891	INST DUCT BRANCHES (LR-GYMATORIUM)	22APR14	7MAY14	28MAY14	12JUN14	25
LR-42110	12	12	1	0	15891	INST DUCT RISERS (LR-GYMATORIUM)	22APR14	7MAY14	3JUN14	18JUN14	29
LR-42111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-GYMATORIUM)	25JUL14	31JUL14	21JUL14	25JUL14	-4
LR-42115	5	5	1	0	15910	INST DUCT DROPS (LR-GYMATORIUM)	9SEP14	15SEP14	4DEC14	10DEC14	59
LR-42120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-GYMATORIUM)	16SEP14	22SEP14	11DEC14	17DEC14	59
LR-42460	5	5	1	0	15836	INST UNIT/CABINET HEATERS (LR-GYMATORIUM)	3JUL14	10JUL14	19NOV14	25NOV14	95
LR-42470	5	5	1	0	15932	INST ACTIVE CHILLED BEAMS (LR-GYMATORIUM)	8MAY14	14MAY14	19AUG14	25AUG14	71
LR-42485	3	3	1	0	15970	INST ATC DEVICES (LR-GYMATORIUM)	2OCT14	6OCT14	10DEC14	12DEC14	46
LR-43100	12	12	1	0	15891	INST DUCT MAINS (LR-LIBRARY)	22APR14	7MAY14	2MAY14	19MAY14	8
LR-43105	12	12	1	0	15891	INST DUCT BRANCHES (LR-LIBRARY)	8MAY14	23MAY14	20MAY14	5JUN14	8
LR-43110	12	12	1	0	15891	INST DUCT RISERS (LR-LIBRARY)	8MAY14	23MAY14	3JUN14	18JUN14	17
LR-43111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-LIBRARY)	22AUG14	28AUG14	21AUG14	27AUG14	-1
LR-43115	5	5	1	0	15910	INST DUCT DROPS (LR-LIBRARY)	20OCT14	24OCT14	4DEC14	10DEC14	31
LR-43120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-LIBRARY)	29OCT14	4NOV14	11DEC14	17DEC14	29
LR-43300	8	8	1	0	15835	INST FIN TUBE RADIATORS IN LIBRARY (LR-LIBRARY)	22JUL14	31JUL14	25NOV14	5DEC14	87
LR-43485	3	3	1	0	15970	INST ATC DEVICES (LR-LIBRARY)	6NOV14	10NOV14	15DEC14	17DEC14	25
LR-46300	10	10	1	0	15934	INST RTU'S ON ROOF (LR)	27MAY14	9JUN14	19JUN14	2JUL14	17
LR-46305	5	5	1	0	15934	INST (7) FANS (SX1,2, GX4,5,6&8 TE-3) ROOF (LR)	3MAR14	7MAR14	26JUN14	2JUL14	82
LR-46600	5	5	1	0	11400	INST (2) CONDENSING UNITS (LR-ROOF)	24FEB14	28FEB14	19JUN14	25JUN14	82
LR-50100	12	12	1	0	15410	INST & TEST WASTE & VENT PIPING (LR-GYM LWR)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50105	12	12	1	0	15410	INST & TEST STORM PIPING (LR-GYM LOWER)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYM LOWER)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50120	9	9	1	0	15440	INST PLUMBING FIXTURE (LR - BSMT)	28AUG14	10SEP14	12NOV14	24NOV14	51
LR-50125	12	12	1	0	15410	INST & TEST WASTE & VENT PIPING (LR-GYM UPPR)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50130	12	12	1	0	15410	INST & TEST STORM PIPING (LR-GYM UPPER)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50135	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYM UPPER)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50150	5	5	1	0	15453	CW BOOSTER PUMP - SET & INSTALL (LR - BSMT)	29APR14	5MAY14	28MAY14	3JUN14	20
LR-50300	10	10	1	0	15413	INST PLUMBING INSULATION (LR - BSMT)	6MAY14	19MAY14	26JUN14	10JUL14	36
LR-50500	10	10	1	0	15510	INST HVAC PIPING (LR- GYM)	27MAR14	9APR14	24APR14	7MAY14	20
LR-50700	10	10	1	0	15510	INSULATE HVAC PIPING (LR - BSMT)	25SEP14	8OCT14	26NOV14	10DEC14	42
LR-52100	10	10	1	0	15410	INST WASTE & VENT PIPING (LR-GYMATORIUM)	29APR14	12MAY14	4JUN14	17JUN14	25
LR-52105	8	8	1	0	15410	INST & TEST STORM PIPING (LR-GYMATORIUM)	29APR14	8MAY14	4JUN14	13JUN14	25
LR-52110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYMATORIUM)	29APR14	14MAY14	4JUN14	19JUN14	25
LR-52120	10	10	1	0	15440	INST PLUMBING FIXTURE (LR-GYMATORIUM)	8OCT14	22OCT14	26NOV14	10DEC14	33
LR-52300	10	10	1	0	15413	INST PLUMBING INSULATION (LR-GYMATORIUM)	20MAY14	3JUN14	14JUL14	25JUL14	37
LR-52500	10	10	1	0	15510	INST HVAC PIPING (LR-GYMATORIUM) WEST	14APR14	25APR14	8MAY14	21MAY14	18
LR-52502	10	10	1	0	15510	INST HVAC PIPING (LR-GYMATORIUM) EAST	28APR14	9MAY14	22MAY14	5JUN14	18
LR-52700	10	10	1	0	15510	INSULATE HVAC PIPING (LR-GYMATORIUM)	9OCT14	23OCT14	11DEC14	24DEC14	42
LR-53100	10	10	1	0	15410	INST WASTE & VENT PIPING (LR-LIBRARY)	13MAY14	27MAY14	2JUL14	16JUL14	35
LR-53105	8	8	1	0	15410	INST & TEST STORM PIPING (LR-LIBRARY)	13MAY14	22MAY14	2JUL14	14JUL14	35
LR-53110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-LIBRARY)	15MAY14	2JUN14	2JUL14	18JUL14	33
LR-53300	10	10	1	0	15413	INST PLUMBING INSULATION (LR-LIBRARY)	4JUN14	17JUN14	14AUG14	27AUG14	50
LR-53500	10	10	1	0	15510	INST HVAC PIPING (LR-LIBRARY)	27MAY14	9JUN14	6JUN14	19JUN14	8
LR-53700	10	10	1	0	15510	INSULATE HVAC PIPING (LR-LIBRARY)	24OCT14	6NOV14	26DEC14	9JAN15	42
LR-56102	10	10	1	0	15416	INST & TEST GAS PIPING (LR-ROOF)	10JUN14	23JUN14	7AUG14	20AUG14	41
LR-56105	6	6	1	0	15440	INST DRAINS (LR-ROOF)	10JUN14	17JUN14	7AUG14	14AUG14	41
LR-60110	10	10	1	0	15332	INST SPRINKLER MAINS (LR - BSMT)	29MAY14	11JUN14	22MAY14	5JUN14	-4
LR-60120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR - BSMT)	12JUN14	25JUN14	6JUN14	19JUN14	-4
LR-60130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR - BSMT)	29JUL14	11AUG14	19NOV14	3DEC14	78
LR-62110	10	10	1	0	15332	INST SPRINKLER MAINS (LR-GYMATORIUM)	26JUN14	10JUL14	20JUN14	3JUL14	-4
LR-62120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR-GYMATORIUM)	11JUL14	24JUL14	7JUL14	18JUL14	-4
LR-62130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR-GYMATORIUM)	16SEP14	29SEP14	4NOV14	18NOV14	34
LR-63110	10	10	1	0	15332	INST SPRINKLER MAINS (LR-LIBRARY)	25JUL14	7AUG14	24JUL14	6AUG14	-1
LR-63120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR-LIBRARY)	8AUG14	21AUG14	7AUG14	20AUG14	-1
LR-63130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR-LIBRARY)	29OCT14	12NOV14	19NOV14	3DEC14	14
LR-70080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR - BSMT)	14JUL14	15JUL14	6OCT14	7OCT14	59
LR-70090	3	3	1	0	16470	INST ELECT PANEL INTERIORS (LR - BSMT)	28JUL14	30JUL14	12AUG14	14AUG14	11
LR-70092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR - BSMT)	28JUL14	1AUG14	12AUG14	18AUG14	11
LR-70094	4	4	1	0	16720	INST FIRE ALARM WIRE (LR - BSMT)	8AUG14	13AUG14	8OCT14	14OCT14	42
LR-70097	5	5	1	0	16728	INST NETWORK CABLING (LR - BSMT)	14JUL14	18JUL14	2DEC14	8DEC14	97
LR-70100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR - BSMT)	2APR14	17APR14	6MAY14	21MAY14	24
LR-70110	10	10	1	0	16120	PULL WIRE (LR - BSMT)	14JUL14	25JUL14	29JUL14	11AUG14	11
LR-70115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR - BSMT)	18APR14	1MAY14	15JUL14	28JUL14	60
LR-70116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR - BSMT)	14AUG14	27AUG14	3NOV14	17NOV14	55
LR-70148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR - BSMT)	21AUG14	2SEP14	10NOV14	20NOV14	55
LR-70195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70197	5	5	1	0	16724	INST SECURITY DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70198	3	3	1	0	16726	INST PHONE & INTERCOM DEVICES (LR - BSMT)	21AUG14	25AUG14	8DEC14	10DEC14	73
LR-70200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR - BSMT)	21AUG14	25AUG14	22OCT14	24OCT14	42
LR-70203	4	4	1	0	16727	INST DATA DEVICES (LR - BSMT)	26AUG14	29AUG14	11DEC14	16DEC14	73
LR-70205	3	3	1	0	16783	INST CCTV DEVICES (LR - BSMT)	26AUG14	28AUG14	27OCT14	29OCT14	42
LR-72080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR-GYMATORIUM)	25AUG14	26AUG14	7NOV14	10NOV14	52
LR-72090	10	10	1	0	16470	INST ELECT PANEL INTERIORS (LR-GYMATORIUM)	25AUG14	8SEP14	20OCT14	31OCT14	38
LR-72092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR-GYMATORIUM)	25AUG14	29AUG14	19AUG14	25AUG14	-4
LR-72094	5	5	1	0	16720	INST FIRE ALARM WIRE (LR-GYMATORIUM)	27AUG14	3SEP14	14NOV14	20NOV14	54
LR-72097	5	5	1	0	16728	INST NETWORK CABLING (LR-GYMATORIUM)	25AUG14	29AUG14	9DEC14	15DEC14	72
LR-72100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR-GYMATORIUM)	18APR14	5MAY14	17JUN14	2JUL14	41
LR-72110	10	10	1	0	16120	PULL WIRE (LR-GYMATORIUM)	11AUG14	22AUG14	5AUG14	18AUG14	-4
LR-72115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR-GYMATORIUM)	6MAY14	19MAY14	22JUL14	4AUG14	53
LR-72116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR-GYMATORIUM)	25SEP14	8OCT14	26DEC14	9JAN15	62
LR-72148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	3NOV14	7NOV14	26
LR-72190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR-GYMATORIUM)	25SEP14	6OCT14	21NOV14	3DEC14	39

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-72195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	21NOV14	28NOV14	39
LR-72197	5	5	1	0	16724	INST SECURITY DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	15DEC14	19DEC14	54
LR-72200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR-GYMATORIUM)	2OCT14	6OCT14	10NOV14	13NOV14	26
LR-72203	4	4	1	0	16727	INST DATA DEVICES (LR-GYMATORIUM)	25SEP14	30SEP14	17DEC14	22DEC14	56
LR-72205	3	3	1	0	16783	INST CCTV DEVICES (LR-LIBRARY)	6NOV14	10NOV14	22DEC14	24DEC14	30
LR-73080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR-LIBRARY)	1OCT14	2OCT14	12NOV14	13NOV14	28
LR-73090	10	10	1	0	16470	INST ELECT PANEL INTERIORS(LR-LIBRARY)	1OCT14	15OCT14	1DEC14	12DEC14	40
LR-73092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR-LIBRARY)	16OCT14	22OCT14	15DEC14	19DEC14	40
LR-73094	5	5	1	0	16720	INST FIRE ALARM WIRE (LR-LIBRARY)	3OCT14	9OCT14	14NOV14	20NOV14	28
LR-73097	5	5	1	0	16728	INST NETWORK CABLING (LR-LIBRARY)	1OCT14	7OCT14	16DEC14	22DEC14	51
LR-73100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR-LIBRARY)	6MAY14	21MAY14	3JUL14	21JUL14	41
LR-73110	10	10	1	0	16120	PULL WIRE (LR-LIBRARY)	17SEP14	30SEP14	28OCT14	10NOV14	28
LR-73115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR-LIBRARY)	22MAY14	5JUN14	25SEP14	8OCT14	87
LR-73116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR-LIBRARY)	19NOV14	3DEC14	22DEC14	6JAN15	22
LR-73148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR-LIBRARY)	19NOV14	25NOV14	8DEC14	12DEC14	12
LR-73190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR-LIBRARY)	26NOV14	8DEC14	30DEC14	9JAN15	22
LR-73195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR-LIBRARY)	30OCT14	5NOV14	21NOV14	28NOV14	15
LR-73197	5	5	1	0	16724	INST SECURITY DEVICES (LR - LIBRARY)	6NOV14	13NOV14	22DEC14	29DEC14	30
LR-73198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES(LR-LIBRARY)	26NOV14	5DEC14	15DEC14	23DEC14	12
LR-73200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR-LIBRARY)	8DEC14	10DEC14	24DEC14	29DEC14	12
LR-73203	4	4	1	0	16727	INST DATA DEVICES (LR-LIBRARY)	2DEC14	5DEC14	23DEC14	29DEC14	15
LR-73205	3	3	1	0	16783	INST CCTV DEVICES (LR-GYMATORIUM)	11DEC14	15DEC14	30DEC14	2JAN15	12
LR-73207	5	5	1	0	16724	INST LIBRARY DETECTION SYS (LR-LIBRARY)	26DEC14	2JAN15	26DEC14	2JAN15	0
LR-90999	5	5	1	0	01700G	SCA INSPECTION (LR - BSMT & GYM)	14JAN15	21JAN15	12JAN15	16JAN15	-2
LR-91999	5	5	1	0	01700G	SCA INSPECTION (LR - LIBRARY)	16JAN15	23JAN15	12JAN15	16JAN15	-4
LR-92999	5	5	1	0	01700G	SCA INSPECTION (LR-GYMATORIUM)	30DEC14	6JAN15	12JAN15	16JAN15	8
N01-0010	0	0	1	100	01060S	ISSUE RFP/NOD #01	31AUG12A				
N01-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #01	31AUG12A	31AUG12A			
N01-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #01 n/a	31AUG12A	31AUG12A			
N01-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #01	3OCT12A	3OCT12A			
N01-0030	30	0	1	100	01060S	RFP/NOD #01 NEGOTIATE & SIGN OFF	4OCT12A	26FEB13A			
N01-0035	1	0	1	100	01060S	SHED DEMOLITION	5SEP12A	10SEP12A			
N03-0010	0	0	1	100	01060S	ISSUE RFP/NOD #03	24SEP12A				
N03-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #03	24SEP12A	24SEP12A			
N03-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #03	25SEP12A	27SEP12A			
N03-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #03	28SEP12A	28SEP12A			
N03-0030	30	14	1	53	01060S	RFP/NOD #03 NEGOTIATE & SIGN OFF	1OCT12A	25APR13		16JAN15	433
N04-0010	0	0	1	100	01060S	ISSUE RFP/NOD #04	18JAN13A				
N04-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #04	18JAN13A	18JAN13A			
N04-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #04	18JAN13A	18JAN13A			
N04-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #04	17JAN13A	17JAN13A			
N04-0030	30	0	1	100	01060S	RFP/NOD #04 NEGOTIATE & SIGN OFF	4MAR13A	26MAR13A			
N05-0010	0	0	1	100	01060S	ISSUE RFP/NOD - BULLETIN #02	23JAN13A				
N05-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD - BULLETIN #02	28JAN13A	28JAN13A			
N05-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTN RFP/NOD - BULLETIN #02	28JAN13A	28JAN13A			
N05-0025	30	0	1	100	01060S	SUBMIT COST PROPOSAL FOR BULLETIN #02	18FEB13A	18FEB13A			
N05-0027	1	0	1	100	01060S	SCC RECEIVED SCA FRE - BULLETIN #02	12MAR13A	12MAR13A			
N05-0030	30	15	1	50	01060S	BULLETIN #02 NEGOTIATE & SIGN OFF	18MAR13A	26APR13		16JAN15	432
N06-0010	0	0	1	100	01060S	ISSUE RFP/NOD #06	7FEB13A				
N06-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #06	7FEB13A	7FEB13A			
N06-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #06	7FEB13A	7FEB13A			
N06-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #06	11FEB13A	11FEB13A			
N06-0027	1	0	1	100	01060S	SCC RECEIVED SCA FRE - RFP/NOD #06	8MAR13A	8MAR13A			
N06-0030	1	0	1	100	01060S	RFP/NOD #06 NEGOTIATE & SIGN OFF	11MAR13A	12MAR13A			
N07-0010	0	0	1	100	01060S	ISSUE NOD #07	20MAR13A				
N07-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL NOD #07	15MAR13A	15MAR13A			
N07-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION NOD #07	20MAR13A	20MAR13A			
N07-0022	1	0	1	100	01060S	CONTRACTOR CLEAN TANK UNDER NOD#7	1APR13A	1APR13A			
N07-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #07	2APR13A	2APR13A			
N07-0030	30	0	1	100	01060S	RFP/NOD #07 NEGOTIATE & SIGN OFF	1APR13A	1APR13A			
N08-0010	0	0	1	100	01060S	ISSUE RFP/NOD - BULLETIN #04	15MAR13A				
N08-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #08	15MAR13A	15MAR13A			
N08-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #08	20MAR13A	20MAR13A			
N08-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #08	8APR13	8APR13	3DEC14	3DEC14	416
N08-0030	30	30	1	0	01060S	RFP/NOD #08 NEGOTIATE & SIGN OFF	9APR13	20MAY13	4DEC14	16JAN15	416
N09-0010	0	0	1	100	01060S	ISSUE RFP/NOD - BULLETIN #05	15MAR13A				
N09-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #09	15MAR13A	15MAR13A			
N09-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #09	20MAR13A	20MAR13A			
N09-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #09	8APR13	8APR13	3DEC14	3DEC14	416
N09-0030	30	30	1	0	01060S	RFP/NOD #0 NEGOTIATE & SIGN OFF	9APR13	20MAY13	4DEC14	16JAN15	416
N10-0010	0	0	1	100	01060S	ISSUE RFP/NOD - BULLETIN #10	27MAR13A				
N10-0015	1	0	1	100	01060S	REQUEST FOR COST PROPOSAL RFP/NOD #10	27MAR13A	27MAR13A			
N10-0020	1	0	1	100	01060S	RECEIVE NOTICE OF DIRECTION RFP/NOD #10	27MAR13A	27MAR13A			
N10-0025	1	0	1	100	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #10	27MAR13A	27MAR13A			
N10-0030	30	0	1	100	01060S	RFP/NOD #10 NEGOTIATE & SIGN OFF	1APR13A	1APR13A			
OS-02020	5	5	1	0	02521	INST CONCRETE TOPPING SLAB - PLAY AREA	31MAR14	4APR14	29AUG14	5SEP14	107
OS-02030	7	7	1	0	02533	INST ATHLETIC WEARING SURAFCE - PLAY AREA	7APR14	15APR14	8SEP14	16SEP14	107
OS-02040	1	1	1	0	02870	INST BENCHES - PLAY AREA	16APR14	16APR14	17SEP14	17SEP14	107
OS-02050	1	1	1	0	02870	INST FLAGPOLE - CLASSROOM WING EAST ELEVATION	17APR14	17APR14	18SEP14	18SEP14	107
OS-02060	5	5	1	0	02860	INST INTERLOCKING MOLDED RUBBER PAVERS - EC PLAY	18APR14	24APR14	19SEP14	25SEP14	107
OS-02070	5	5	1	0	02860	INST PLAYGROUND EQUIPMENT - EC PLAY AREA	5MAY14	9MAY14	26SEP14	2OCT14	101
OS-02080	1	1	1	0	02870	INST BENCHES - EC PLAY AREA	12MAY14	12MAY14	3OCT14	3OCT14	101
OS-02090	5	5	1	0	02721	INST DRAINS - COURTYARD	13MAY14	19MAY14	6OCT14	10OCT14	101
OS-02100	10	10	1	0	02513	INST BLUESTONE PAVER PATH - COURTYARD	20MAY14	3JUN14	14OCT14	27OCT14	101
OS-02110	5	5	1	0	02900	PLANTINGS - COURTYARD	4JUN14	10JUN14	28OCT14	3NOV14	101
OS-02120	2	2	1	0	02870	TREE GRATES - COURTYARD	11JUN14	12JUN14	4NOV14	5NOV14	101
OS-02130	1	1	1	0	02870	INST BENCHES- COURTYARD	13JUN14	13JUN14	6NOV14	6NOV14	101
OS-02140	5	5	1	0	02825	INST PERIMETER COURT YARD FENCE	2OCT14	8OCT14	26NOV14	3DEC14	37

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
OS-02150	4	4	1	0	02870	REPLACE (2) STREET LIGHTS - 44TH AVE.	29JUL14	1AUG14	7NOV14	13NOV14	71
OS-02160	2	2	1	0	15406	INST HYDRANT - 44TH AVE.	4AUG14	5AUG14	14NOV14	17NOV14	71
OS-02170	1	1	1	0	02870	INST BIKE RACKS - 44TH AVE.	6AUG14	6AUG14	18NOV14	18NOV14	71
OS-02180	2	2	1	0	02900	PLANT (10) TREES - 44TH AVE.	7AUG14	8AUG14	19NOV14	20NOV14	71
OS-02190	2	2	1	0	02870	INST CIP SIDEWALKS/CURBS - 44TH AVE.	11AUG14	12AUG14	21NOV14	24NOV14	71
OS-02200	2	2	1	0	15406	INST HYDRANT - 43RD AVE.	13AUG14	14AUG14	25NOV14	26NOV14	71
OS-02210	2	2	1	0	02900	PLANT (6) TREES- 43RD AVE.	15AUG14	18AUG14	28NOV14	1DEC14	71
OS-02220	5	5	1	0	02521	INST CIP SIDEWALKS/CURBS - 43RD AVE.	19AUG14	25AUG14	2DEC14	8DEC14	71
OS-02230	5	5	1	0	02515	INST PAVERS- 43RD AVE.	26AUG14	2SEP14	9DEC14	15DEC14	71
OS-02240	2	2	1	0	02900	PLANT (5) TREES- 97TH PLACE	3SEP14	4SEP14	16DEC14	17DEC14	71
OS-02250	5	5	1	0	02515	MAIN ENTRANCE PAVERS - 97TH PLACE	5SEP14	11SEP14	18DEC14	24DEC14	71
OS-02260	5	5	1	0	02515	INST CIP SIDEWALKS/CURBS - 97TH PLACE	12SEP14	18SEP14	26DEC14	2JAN15	71
OS-02300	10	10	1	0	02825	INST PERIMETER FENCE & GATES - WEST SIDE	9OCT14	23OCT14	4DEC14	17DEC14	37
OS-02310	5	5	1	0	02825	INST PERIMETER FENCE & GATES - NORTH SIDE	24OCT14	30OCT14	18DEC14	24DEC14	37
OS-02320	5	5	1	0	02825	INST PERIMETER FENCE & GATES - EAST SIDE	31OCT14	6NOV14	26DEC14	2JAN15	37
OS-73193	10	10	1	0	16530	INST SITE SECURITY LIGHTING	15JUL14	28JUL14	24OCT14	6NOV14	71

Total Float Report

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-00010	20	20	1	0	01060S	SECURE DEWATERING PERMIT	8APR13	3MAY13	31AUG12	28SEP12	-148
BS-00009	0	0	1	0	01060S	COMPLETE PROJECT WORK PERMITS		3MAY13		28SEP12*	-148
BS-00060	1	1	1	0	01060S	SUBMIT DEP PERMIT APPLICATION FOR SEWER CONN.	8APR13	8APR13	21SEP12	21SEP12	-134
BS-00070	1	1	1	0	01060S	SUBMIT DOB PERMIT APPLICATION FOR DOMESTIC WATER	8APR13	8APR13	21SEP12	21SEP12	-134
BS-00065	5	5	1	0	01060S	APPROVE DEP PERMIT APPLICATION FOR SEWER CONN.	9APR13	15APR13	24SEP12	28SEP12	-134
BS-00075	5	5	1	0	01060S	APPRV DOB PERMIT APPLICATION FOR DOMESTIC WATER	9APR13	15APR13	24SEP12	28SEP12	-134
BS-00045	5	5	1	0	01060S	APPROVE DOB PERMIT APPLICATION FOR NEW BUILDING	14FEB13A	12APR13		28SEP12	-133
BS-99995	0	0	2	0	01700G	SUBSTANTIAL COMPLETION (01-17-15)		23JAN15		16JAN15*	-7
BS-99998	120	120	2	0	01700G	PUNCH LIST & CLOSE-OUT (120 CCD)	24JAN15	23MAY15	17JAN15	16MAY15	-7
BS-99999	0	0	2	0	01700G	FINAL COMPLETION		23MAY15		16MAY15*	-7
BS-00175	60	60	2	0	02010	SCA 60 CD AOR/EOR SOIL INVESTIGATION	9JUL13	6SEP13	5JUL13	2SEP13	-4
BS-00350	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SW)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00351	161*	161*	1	0	02200	INST & MAINTAIN DEWATERING SYSTEM (HA)	9SEP13	30APR14	3SEP13	24APR14	-4
BS-00380	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NE)	9SEP13	12SEP13	3SEP13	6SEP13	-4
BS-00360	4	4	1	0	02200	EXCAVATE TO SUBGRADE (SE)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-00390	4	4	1	0	02200	EXCAVATE TO SUBGRADE (NW)	13SEP13	18SEP13	9SEP13	12SEP13	-4
BS-02750	1	1	1	0	03300	MOBILIZATION FOR CONCRETE FOUNDATION WALL	18SEP13	18SEP13	12SEP13	12SEP13	-4
BS-02753	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A1-A6	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02758	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (S) CL. A6-A12	19SEP13	30SEP13	13SEP13	24SEP13	-4
BS-02760	6	6	1	0	03300	PERIMETER FNDTN WALL (S) CL. A6-A12	1OCT13	8OCT13	25SEP13	2OCT13	-4
BS-02765	5	5	1	0	03300	PERIMETER CONC DETENTION TANK WALLS	9OCT13	16OCT13	3OCT13	9OCT13	-4
BS-02768	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1A-1D5	17OCT13	28OCT13	10OCT13	22OCT13	-4
BS-02770	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1A-1D5	29OCT13	5NOV13	23OCT13	30OCT13	-4
BS-02775	6	6	1	0	03300	PERIMETER FNDTN WALL (W) CL. 1D.5-1H	6NOV13	14NOV13	31OCT13	7NOV13	-4
BS-02815	5	5	1	0	02250	INTERIOR FOOTINGS (NW)	15NOV13	21NOV13	8NOV13	15NOV13	-4
BS-05001	2	2	1	0	05120	STRUCTURAL STEEL MOBILIZATION	22NOV13	25NOV13	18NOV13	19NOV13	-4
BS-05000	0	0	1	0	05120	START STRUCTURAL STEEL ERECTION	26NOV13		20NOV13		-4
BS-05003	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYM)	26NOV13	2DEC13	20NOV13	25NOV13	-4
BS-050L2	52*	52*	1	0	05120	STRUCT STEEL ERECTION (HA)	26NOV13	11FEB14	20NOV13	5FEB14	-4
BS-05005	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMNASIUM)	27NOV13	3DEC13	21NOV13	26NOV13	-4
BS-050L3	52*	52*	1	0	05120	SS BOLTING (HA)	27NOV13	12FEB14	21NOV13	6FEB14	-4
BS-05013	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-GYMATORIUM)	3DEC13	6DEC13	26NOV13	2DEC13	-4
BS-05015	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-GYMATORIUM)	4DEC13	9DEC13	27NOV13	3DEC13	-4
BS-05023	4	4	1	0	05120	ERECT STRUCTURAL STEEL (LR-LIBRARY)	9DEC13	12DEC13	3DEC13	6DEC13	-4
BS-05025	4	4	1	0	05120	BOLT STRUCTURAL STEEL (LR-LIBRARY)	10DEC13	13DEC13	4DEC13	9DEC13	-4
BS-05063	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW - BSMT)	13DEC13	20DEC13	9DEC13	16DEC13	-4
BS-05065	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW - BSMT)	16DEC13	23DEC13	10DEC13	17DEC13	-4
BS-05073	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-1ST FLR)	23DEC13	31DEC13	17DEC13	24DEC13	-4
BS-05067	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW - BSMT)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05075	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-1ST FLR)	24DEC13	2JAN14	18DEC13	26DEC13	-4
BS-05083	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-2ND FLR)	2JAN14	9JAN14	26DEC13	3JAN14	-4
BS-05077	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-1ST FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05085	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-2ND FLR)	3JAN14	10JAN14	27DEC13	6JAN14	-4
BS-05093	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-3RD FLR)	10JAN14	17JAN14	6JAN14	13JAN14	-4
BS-05087	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-2ND FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05095	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-3RD FLR)	13JAN14	21JAN14	7JAN14	14JAN14	-4
BS-05103	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-4TH FLR)	21JAN14	28JAN14	14JAN14	22JAN14	-4
BS-04105	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-4TH FLR)	22JAN14	29JAN14	15JAN14	23JAN14	-4
BS-05510	10	10	1	0	03300	CIP CONCRETE DECK (1ST FLR)	22JAN14	4FEB14	15JAN14	29JAN14	-4
BS-05203	6	6	1	0	05120	ERECT STRUCTURAL STEEL (CW-5TH FLR)	29JAN14	5FEB14	23JAN14	30JAN14	-4
BS-05205	6	6	1	0	05120	BOLT STRUCTURAL STEEL (CW-5TH FLR)	30JAN14	6FEB14	24JAN14	31JAN14	-4
BS-05520	10	10	1	0	03300	CIP CONCRETE DECK (2ND FLR)	5FEB14	19FEB14	30JAN14	12FEB14	-4
BS-05303	4	4	1	0	05120	ERECT STRUCTURAL STEEL (CW-ROOF)	6FEB14	11FEB14	31JAN14	5FEB14	-4
BS-05305	4	4	1	0	05120	BOLT STRUCTURAL STEEL (CW-ROOF)	7FEB14	12FEB14	3FEB14	6FEB14	-4
BS-06480	8	8	1	0	04200	EXTERIOR CMU (LR-WEST)	13FEB14	25FEB14	7FEB14	19FEB14	-4
BS-05530	10	10	1	0	03300	CIP CONCRETE DECK (3RD FLR)	20FEB14	5MAR14	13FEB14	27FEB14	-4
BS-06490	4	4	1	0	04200	AIR BARRIER (LR-WEST)	26FEB14	3MAR14	20FEB14	25FEB14	-4
BS-06790	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-WEST)	4MAR14	13MAR14	26FEB14	7MAR14	-4
BS-05540	10	10	1	0	03300	CIP CONCRETE DECK (4TH FLR)	6MAR14	19MAR14	28FEB14	13MAR14	-4
BS-06840	11	11	1	0	04200	EXTERIOR CMU (CW-WEST)	14MAR14	28MAR14	10MAR14	24MAR14	-4
BS-05550	10	10	1	0	03300	CIP CONCRETE DECK (5TH FLR)	20MAR14	2APR14	14MAR14	27MAR14	-4
BS-06850	6	6	1	0	04200	AIR BARRIER (CW-WEST)	31MAR14	7APR14	25MAR14	1APR14	-4
BS-05560	10	10	1	0	03300	CIP CONCRETE DECK (ROOF)	3APR14	16APR14	28MAR14	10APR14	-4
BS-06860	11	11	1	0	04200	EXTERIOR BRICK (CW-WEST)	8APR14	22APR14	2APR14	16APR14	-4
BS-05505	10	10	1	0	03300	CIP CONCRETE SLAB ON GRADE (CW-BSMT)	17APR14	30APR14	11APR14	24APR14	-4
BS-06870	5	5	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-WEST)	23APR14	29APR14	17APR14	23APR14	-4
BS-06920	11	11	1	0	04200	EXTERIOR CMU (CW-SOUTH)	30APR14	14MAY14	24APR14	8MAY14	-4
CW-40100	12	12	1	0	15891	INST DUCT MAINS (CW-BSMT)	1MAY14	16MAY14	25APR14	12MAY14	-4
CW-60110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-BSMT)	12MAY14	28MAY14	6MAY14	21MAY14	-4
BS-06930	8	8	1	0	04200	AIR BARRIER (CW-SOUTH)	15MAY14	27MAY14	9MAY14	20MAY14	-4
BS-06940	14	14	1	0	04200	EXTERIOR BRICK (CW-SOUTH)	28MAY14	16JUN14	21MAY14	10JUN14	-4
LR-60110	10	10	1	0	15332	INST SPRINKLER MAINS (LR - BSMT)	29MAY14	11JUN14	22MAY14	5JUN14	-4
LR-60120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR - BSMT)	12JUN14	25JUN14	6JUN14	19JUN14	-4
BS-06950	7	7	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-SOUTH)	17JUN14	25JUN14	11JUN14	19JUN14	-4
BS-06690	8	8	1	0	08525	INST WINDOWS (CW - SE)	26JUN14	8JUL14	20JUN14	1JUL14	-4
LR-62110	10	10	1	0	15332	INST SPRINKLER MAINS (LR-GYMATORIUM)	26JUN14	10JUL14	20JUN14	3JUL14	-4
BS-06700	8	8	1	0	08525	INST WINDOWS (CW - SW)	9JUL14	18JUL14	2JUL14	14JUL14	-4
LR-62120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR-GYMATORIUM)	11JUL14	24JUL14	7JUL14	18JUL14	-4
CW-11095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-1ST FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
CW-12095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-2ND FLR)	21JUL14	1AUG14	15JUL14	28JUL14	-4
LR-42111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-GYMATORIUM)	25JUL14	31JUL14	21JUL14	25JUL14	-4
LR-02095	6	6	1	0	09260	INST GYPSUM BOARD WALL (LR-GYMATORIUM)	1AUG14	8AUG14	28JUL14	4AUG14	-4
CW-11125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-1ST FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-12125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-2ND FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
CW-13095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-3RD FLR)	4AUG14	15AUG14	29JUL14	11AUG14	-4
LR-72110	10	10	1	0	16120	PULL WIRE (LR-GYMATORIUM)	11AUG14	22AUG14	5AUG14	18AUG14	-4
CW-11100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-1ST FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-13125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-3RD FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-14095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-4TH FLR)	18AUG14	29AUG14	12AUG14	25AUG14	-4
CW-11120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-1ST FLR)	25AUG14	5SEP14	19AUG14	29AUG14	-4
LR-72092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR-GYMATORIUM)	25AUG14	29AUG14	19AUG14	25AUG14	-4
CW-14125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-4TH FLR)	2SEP14	15SEP14	26AUG14	9SEP14	-4
LR-02100	5	5	1	0	05170	INST BLACK IRON FRAMING (LR-GYMATORIUM)	2SEP14	8SEP14	26AUG14	2SEP14	-4
CW-11130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-1ST FLR)	8SEP14	18SEP14	2SEP14	12SEP14	-4
LR-02135	6	6	1	0	09510	INST GYMNATORIUM CEILING GRID (LR-GYMATORIUM)	9SEP14	16SEP14	3SEP14	10SEP14	-4
CW-14100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-4TH FLR)	16SEP14	29SEP14	10SEP14	23SEP14	-4
LR-02150	6	6	1	0	09900	PRIME PAINTING (LR-GYMATORIUM)	17SEP14	24SEP14	11SEP14	18SEP14	-4
CW-11150	10	10	1	0	09900	PRIME PAINTING (CW-1ST FLR)	19SEP14	2OCT14	15SEP14	26SEP14	-4
LR-01555	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-WEST- BSMT)	24SEP14	7OCT14	18SEP14	1OCT14	-4
CW-71194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (N)	26SEP14	9OCT14	22SEP14	3OCT14	-4
CW-14120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-4TH FLR)	30SEP14	10OCT14	24SEP14	6OCT14	-4
LR-01560	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-MIDDLE- BSMT)	1OCT14	15OCT14	25SEP14	8OCT14	-4
CW-11180	12	12	1	0	09650	INST VCT FLOORING (CW-1ST FLR)	3OCT14	21OCT14	29SEP14	15OCT14	-4
LR-03155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (LR-EAST- BSMT)	8OCT14	22OCT14	2OCT14	16OCT14	-4
CW-71195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-1ST FLR) (S)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-71197	10	10	1	0	16724	INST SECURITY DEVICES (CW-1ST FLR)	10OCT14	24OCT14	6OCT14	20OCT14	-4
CW-14130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-4TH FLR)	14OCT14	24OCT14	7OCT14	20OCT14	-4
CW-11181	6	6	1	0	09650	INST VINYL BASE (CW-1ST FLR)	22OCT14	29OCT14	16OCT14	23OCT14	-4
LR-00180	5	5	1	0	09650	INST VCT FLOORING (LR - BSMT)	23OCT14	29OCT14	17OCT14	23OCT14	-4
CW-14150	10	10	1	0	09900	PRIME PAINTING (CW-4TH FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
CW-72197	10	10	1	0	16724	INST SECURITY DEVICES (CW-2ND FLR)	27OCT14	7NOV14	21OCT14	3NOV14	-4
CW-11183	10	10	1	0	04200	INST BRICK WALL IN LOBBY AREA (CW)	30OCT14	13NOV14	24OCT14	6NOV14	-4
LR-00182	4	4	1	0	09650	INST VINYL BASE (LR - BSMT)	30OCT14	4NOV14	24OCT14	29OCT14	-4
LR-00210	10	10	1	0	09900	FINAL PAINTING (LR - BSMT)	5NOV14	19NOV14	30OCT14	13NOV14	-4
CW-73197	10	10	1	0	16724	INST SECURITY DEVICES (CW-3RD FLR)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-74196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-4TH FLR) (S)	10NOV14	24NOV14	4NOV14	18NOV14	-4
CW-11186	12	12	1	0	09310	INST TERRAZZO TILE ON FLOOR IN LOBBY AREA (CW)	14NOV14	2DEC14	7NOV14	25NOV14	-4
LR-02210	12	12	1	0	09900	FINAL PAINTING (LR-GYMATORIUM)	20NOV14	8DEC14	14NOV14	2DEC14	-4
CW-74197	10	10	1	0	16724	INST SECURITY DEVICES (CW-4TH FLR)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-75196	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-5TH FLR) (S)	25NOV14	9DEC14	19NOV14	3DEC14	-4
CW-11191	12	12	1	0	09840	INST WOOD PANELS ON WALLS IN LOBBY AREA	3DEC14	18DEC14	26NOV14	12DEC14	-4
CW-72199	8	8	1	0	16720	FINAL CONNECTN TO FA CONTROL PANEL (CW-1ST FLR)	5DEC14	16DEC14	1DEC14	10DEC14	-4
CW-11210	12	12	1	0	09900	FINAL PAINTING (CW-1ST FLR)	8DEC14	23DEC14	2DEC14	17DEC14	-4
LR-03210	12	12	1	0	09900	FINAL PAINTING (LR-LIBRARY)	9DEC14	24DEC14	3DEC14	18DEC14	-4
CW-75197	10	10	1	0	16724	INST SECURITY DEVICES (CW-5TH FLR)	10DEC14	23DEC14	4DEC14	17DEC14	-4
CW-75198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-5TH FLR)	10DEC14	18DEC14	4DEC14	12DEC14	-4
BS-79060	5	5	1	0	16720	START UP & TEST FIRE ALARM SYSTEM	17DEC14	23DEC14	11DEC14	17DEC14	-4
CW-75203	10	10	1	0	16727	INST DATA DEVICES (CW-5TH FLR)	19DEC14	5JAN15	15DEC14	29DEC14	-4
BS-16999	0	0	1	0	16720	FINISH FIRE ALARM SIGNOFF		23DEC14		17DEC14	-4
BS-79999	20	20	1	0	16720	FDNY FIRE PROTECTION SYS TESTING ACCEPTANCE	24DEC14	23JAN15	18DEC14	16JAN15	-4
CW-11215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-1ST FLR)	24DEC14	8JAN15	18DEC14	2JAN15	-4
LR-03222	4	4	1	0	09680	INST CARPET (LIBRARY) (LR-LIBRARY)	26DEC14	31DEC14	19DEC14	24DEC14	-4
LR-03255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (LR-LIBRARY)	2JAN15	15JAN15	26DEC14	9JAN15	-4
BS-79015	3	3	1	0	16727	START UP & TEST DATA CABLING SYSTEM	6JAN15	8JAN15	30DEC14	2JAN15	-4
BS-99990	0	0	1	0	01700G	TCO RECEIVED		8JAN15		2JAN15	-4
CW-11221	5	5	1	0	12501	INST WINDOW SHADES (CW-1ST FLR)	9JAN15	15JAN15	5JAN15	9JAN15	-4
CW-91999	5	5	1	0	01700G	SCA INSPECTION (CW-1ST FLR)	16JAN15	23JAN15	12JAN15	16JAN15	-4
LR-91999	5	5	1	0	01700G	SCA INSPECTION (LR - LIBRARY)	16JAN15	23JAN15	12JAN15	16JAN15	-4
BS-02885	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (N) CL. H1-H6	19SEP13	30SEP13	16SEP13	25SEP13	-3
BS-02763	5	5	1	0	03300	PERIMETER CONC DETENTION TANK WALL FTG BASE SLAB	1OCT13	7OCT13	26SEP13	2OCT13	-3
BS-02793	8	8	1	0	03300	PERIMETER FNDTN WALL FOOTING (E) CL. 12A-12D.5	1OCT13	10OCT13	26SEP13	7OCT13	-3
BS-05078	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-1ST FLR)	13JAN14	17JAN14	8JAN14	14JAN14	-3
02-02085	10	1	1	90	02200	R&A EARTHWORK SUBMITTALS	20FEB13A	8APR13		4APR13	-2
BS-00275	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SW)	20MAR13A	12APR13		10APR13	-2
BS-00280	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (SE)	20MAR13A	18APR13		16APR13	-2
BS-00285	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NE)	20MAR13A	24APR13		22APR13	-2
BS-00290	10	4	1	65	02060	DEMO EXISTING STRUCTURES TO GRADE (NW)	20MAR13A	24APR13		22APR13	-2
BS-00190	2	2	1	0	02250	PARTIAL FNDTN DEMO NORTH (SOE)	25APR13	26APR13	23APR13	24APR13	-2
BS-00211	2	2	1	0	02250	PARTIAL FNDTN DEMO EAST (SOE)	29APR13	30APR13	25APR13	26APR13	-2
BS-00192	3	3	1	0	02250	INST SOLDIER PILES NORTH (WEST HALF SOE)	1MAY13	3MAY13	29APR13	1MAY13	-2
BS-00195	3	3	1	0	02250	INST SOLDIER PILES NORTH (EAST HALF SOE)	6MAY13	8MAY13	2MAY13	6MAY13	-2
BS-00200	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (WEST HALF SOE)	9MAY13	14MAY13	7MAY13	10MAY13	-2
BS-00203	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING NORTH (EAST HALF SOE)	15MAY13	20MAY13	13MAY13	16MAY13	-2
BS-00205	9	9	1	0	02250	INSTALL TIEBACKS NORTH (SOE) - 43RD AVE. SIDE	21MAY13	3JUN13	17MAY13	30MAY13	-2
BS-00207	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (WEST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00209	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE N. (EAST HALF)	4JUN13	7JUN13	31MAY13	5JUN13	-2
BS-00310	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SW & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00320	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NE & UG TANK RMVL)	10JUN13	21JUN13	6JUN13	19JUN13	-2
BS-00315	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (SE & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00325	10	10	1	0	02115	DEMO EXISTING FOUNDATIONS (NW & UG TANK RMVL)	24JUN13	8JUL13	20JUN13	3JUL13	-2
BS-00330	0	0	1	0	02115	DEMOLITION OF EXISTING STRUCTURE COMPLETE		8JUL13		3JUL13	-2
CW-15095	10	10	1	0	09260	INST GYPSUM BOARD WALL (CW-5TH FLR)	2SEP14	15SEP14	28AUG14	11SEP14	-2
CW-15125	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-5TH FLR)	16SEP14	29SEP14	12SEP14	25SEP14	-2
CW-13120	9	9	1	0	09260	INST GYPSUM BOARD CEILING (CW-3RD FLR)	19SEP14	1OCT14	17SEP14	29SEP14	-2
CW-45300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-5TH FLR)	23SEP14	2OCT14	19SEP14	30SEP14	-2
CW-13130	9	9	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-3RD FLR)	2OCT14	15OCT14	30SEP14	10OCT14	-2
CW-45310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-5TH FLR)	3OCT14	15OCT14	1OCT14	10OCT14	-2
CW-13150	10	10	1	0	09900	PRIME PAINTING (CW-3RD FLR)	16OCT14	29OCT14	14OCT14	27OCT14	-2
CW-45320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-5TH FLR)	16OCT14	27OCT14	14OCT14	23OCT14	-2
CW-73194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-3RD FLR) (N)	23OCT14	5NOV14	21OCT14	3NOV14	-2
CW-73195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-3RD FLR) (S)	23OCT14	5NOV14	21OCT14	3NOV14	-2
BS-09059	5	5	1	0	01015G	ALL EQUIPMENT INSPECTION (KICHEN EQUIP EXCLUDED)	28OCT14	3NOV14	24OCT14	30OCT14	-2
BS-50400	10	10	1	0	15783	START UP & TROUBLE SHOOT - SPLIT HEAT PUMPS	4NOV14	18NOV14	31OCT14	14NOV14	-2
CW-74195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-4TH FLR) (N)	6NOV14	20NOV14	4NOV14	18NOV14	-2
LR-00771	9	9	1	0	09590	INST WOOD FLOORING (LR- GYM 1ST HALF)	19NOV14	2DEC14	17NOV14	28NOV14	-2
CW-75195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-5TH FLR) (N)	21NOV14	5DEC14	19NOV14	3DEC14	-2

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-00773	9	9	1	0	09590	INST WOOD FLOORING (LR- GYM 2ND HALF)	3DEC14	15DEC14	1DEC14	11DEC14	-2
LR-00782	9	9	1	0	10652	INST FOLDING PARTITIONS (LR - BSMT)	16DEC14	29DEC14	12DEC14	24DEC14	-2
CW-75205	5	5	1	0	16783	INST CCTV DEVICES (CW-5TH FLR)	24DEC14	31DEC14	22DEC14	29DEC14	-2
LR-00214	3	3	1	0	10100	INST DISP/WHITEBOARDS/CHALKBOARDS (LR - BSMT)	24DEC14	29DEC14	22DEC14	24DEC14	-2
LR-01150	10	10	1	0	11480	INST SCOREBOARD & BACKBOARD/HOOPS (LR-GYM)	30DEC14	13JAN15	26DEC14	9JAN15	-2
BS-79005	3	3	1	0	16783	TEST INTERNET PROTOCOL DIGIT VIDEO SURVILLAN SYS	2JAN15	6JAN15	30DEC14	2JAN15	-2
LR-90999	5	5	1	0	01700G	SCA INSPECTION (LR - BSMT & GYM)	14JAN15	21JAN15	12JAN15	16JAN15	-2
BS-00219	4	4	1	0	02250	EXCAVATE/LAGGING TO SUBGRADE EAST (NORTH HALF)	10JUN13	13JUN13	7JUN13	12JUN13	-1
BS-00221	3	3	1	0	02250	EXCAVATE & BERM SOUTH (EAST HALF)	11JUN13	13JUN13	10JUN13	12JUN13	-1
BS-00227	3	3	1	0	02250	EXCAVATE/LAGGING @ DETENTION TANK W. HALF SOE)	14JUN13	18JUN13	13JUN13	17JUN13	-1
BS-00231	3	3	1	0	02250	EXCAVATE & BERM SOUTH (EAST HALF SOE)	19JUN13	21JUN13	18JUN13	20JUN13	-1
BS-00295	2	2	1	0	02200	PARTIAL FNDTN DEMO WEST (SOE)	24JUN13	25JUN13	21JUN13	24JUN13	-1
BS-00300	7	7	1	0	02200	EXCAVATE & BERM WEST(SOE)	26JUN13	5JUL13	25JUN13	3JUL13	-1
BS-00319	0	0	1	0	02200	SOE COMPLETE		5JUL13		3JUL13	-1
LR-63110	10	10	1	0	15332	INST SPRINKLER MAINS (LR-LIBRARY)	25JUL14	7AUG14	24JUL14	6AUG14	-1
LR-63120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (LR-LIBRARY)	8AUG14	21AUG14	7AUG14	20AUG14	-1
LR-02375	12	12	1	0	07260	INTUMESCENT 1ST APPLICATIN LR GYMATR ROOF BEAMS	11AUG14	26AUG14	8AUG14	25AUG14	-1
LR-43111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-LIBRARY)	22AUG14	28AUG14	21AUG14	27AUG14	-1
LR-02380	12	12	1	0	07260	INTUMESCENT 2ND APPLICATIN LR GYMATR ROOF BEAMS	27AUG14	12SEP14	26AUG14	11SEP14	-1
LR-03095	12	12	1	0	09260	INST GYPSUM BOARD WALL (LR-LIBRARY)	29AUG14	16SEP14	28AUG14	15SEP14	-1
LR-02377	12	12	1	0	07260	INTUMESCENT 1ST APPLICATION LR CORRIDOR COLUMNS	15SEP14	30SEP14	12SEP14	29SEP14	-1
LR-03125	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS(LR-LIBRARY)	17SEP14	2OCT14	16SEP14	1OCT14	-1
LR-02382	12	12	1	0	07260	INTUMESCENT 2ND APPLICATION LR CORRIDOR COLUMNS	1OCT14	17OCT14	30SEP14	16OCT14	-1
LR-03100	10	10	1	0	05170	INST BLACK IRON FRAMING (LR-LIBRARY)	3OCT14	17OCT14	2OCT14	16OCT14	-1
LR-03120	12	12	1	0	09260	INST LIBRARY WOODEN CEILING (LR-LIBRARY)	10OCT14	28OCT14	9OCT14	27OCT14	-1
LR-03150	14	14	1	0	09900	PRIME PAINTING (LR-LIBRARY)	29OCT14	18NOV14	28OCT14	17NOV14	-1
LR-03235	10	10	1	0	08210	INST WOOD DOORS (LR-LIBRARY)	19NOV14	3DEC14	18NOV14	2DEC14	-1
CW-75200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-5TH FLR)	19DEC14	26DEC14	18DEC14	24DEC14	-1
CW-11252	2	2	1	0	12485	INST FOOT GRILES (CW-1ST FLR)	24DEC14	26DEC14	23DEC14	24DEC14	-1
BS-79050	5	5	1	0	16791	START UP & TEST SELF-CORRECTIVE CLOCK SYSTEM	29DEC14	5JAN15	26DEC14	2JAN15	-1
CW-11255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-1ST FLR)	29DEC14	12JAN15	26DEC14	9JAN15	-1
CW-11274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-1ST FLR)	29DEC14	12JAN15	26DEC14	9JAN15	-1
BS-16995	0	0	1	0	16010	FINISH LOW VOLTAGE		5JAN15		2JAN15	-1
BS-00329	0	0	1	0	02250	START FOUNDATION	9SEP13		9SEP13		0
BS-02778	7	7	1	0	03300	PERIMETER FNDTN WALL FOOOTING (N) CL. H6-H12	11OCT13	22OCT13	11OCT13	22OCT13	0
BS-02773	10	10	1	0	03300	PERIMETER FNDTN WALL FOOTINGS (W) CL. 1D.5-1H	17OCT13	30OCT13	17OCT13	30OCT13	0
BS-02780	6	6	1	0	03300	PERIMETER FNDTN WALL (N) CL. H6-H12	23OCT13	30OCT13	23OCT13	30OCT13	0
BS-02800	6	6	1	0	03300	PERIMETER FNDTN WALL (E) CL-12D.5-12H	31OCT13	7NOV13	31OCT13	7NOV13	0
BS-02820	5	5	1	0	02250	INTERIOR FOOTINGS (SE)	8NOV13	15NOV13	8NOV13	15NOV13	0
BS-02810	5	5	1	0	02250	INTERIOR FOOTINGS (NE)	22NOV13	29NOV13	22NOV13	29NOV13	0
BS-02825	5	5	1	0	02250	INTERIOR FOOTINGS (SW)	2DEC13	6DEC13	2DEC13	6DEC13	0
BS-05097	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-3RD FLR)	22JAN14	29JAN14	22JAN14	29JAN14	0
CW-50500	9	9	1	0	15510	INST HVAC PIPING (CW- BSMT)	12MAY14	22MAY14	12MAY14	22MAY14	0
CW-40550	10	10	1	0	15590	INSTALL FUEL OIL PIPING (CW-BSMT)	23MAY14	6JUN14	23MAY14	6JUN14	0
CW-46555	2	2	1	0	15590	PRESURE TEST FUEL OIL PIPING (CW)	9JUN14	10JUN14	9JUN14	10JUN14	0
CW-46560	10	10	1	0	15590	INST CONTAINMENT PIPING (CW- BSMT) (FUEL OIL SY	11JUN14	24JUN14	11JUN14	24JUN14	0
CW-40111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-BSMT)	25JUN14	1JUL14	25JUN14	1JUL14	0
CW-10095	12	12	1	0	09260	INST GYPSUM BOARD WALL (CW-BSMT)	2JUL14	18JUL14	2JUL14	18JUL14	0
CW-70110	10	10	1	0	16120	PULL WIRE (CW-BSMT)	21JUL14	1AUG14	21JUL14	1AUG14	0
CW-70097	5	5	1	0	16728	INST NETWORK CABLING (CW-BSMT)	4AUG14	8AUG14	4AUG14	8AUG14	0
CW-10120	12	12	1	0	09260	INST GYPSUM BOARD CEILINGS (CW-BSMT)	11AUG14	26AUG14	11AUG14	26AUG14	0
CW-10130	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD CEILINGS (CW-BSMT)	27AUG14	12SEP14	27AUG14	12SEP14	0
CW-10182	13	13	1	0	09705	INST QUARRY TILE KITCHEN AREA (CW-BSMT)	15SEP14	1OCT14	15SEP14	1OCT14	0
CW-15100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-5TH FLR)	30SEP14	14OCT14	30SEP14	14OCT14	0
BS-09049	0	0	1	0	11400	START FOOD SERVICE EQUIPMENT (CW-BSMT)	2OCT14		2OCT14		0
BS-11039	0	0	1	0	11400	START KITCHEN	2OCT14		2OCT14		0
CW-10262	7	7	1	0	11400	INST KITCHEN EXHAUST HOOD (CW-BSMT)	2OCT14	10OCT14	2OCT14	10OCT14	0
CW-15120	10	10	1	0	09260	INST GYPSUM BOARD CEILING (CW-5TH FLR)	7OCT14	21OCT14	7OCT14	21OCT14	0
CW-10277	8	8	1	0	09310	INST GLAZED CERAMIC WALL TILE (CW-BSMT)	14OCT14	23OCT14	14OCT14	23OCT14	0
CW-15130	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-5TH FLR)	22OCT14	4NOV14	22OCT14	4NOV14	0
CW-10267	15	15	1	0	11400	INST KITCHEN EQUIPMENT (CW-BSMT)	24OCT14	14NOV14	24OCT14	14NOV14	0
CW-15150	9	9	1	0	09900	PRIME PAINTING (CW-5TH FLR)	5NOV14	18NOV14	5NOV14	18NOV14	0
CW-40500	10	10	1	0	11400	INST PIPING (KITCHEN)	7NOV14	21NOV14	7NOV14	21NOV14	0
CW-14180	12	12	1	0	09650	INST VCT FLOORING (CW-4TH FLR)	10NOV14	26NOV14	10NOV14	26NOV14	0
CW-70510	10	10	1	0	16720	INST SENSORS & TERMINATE (CAFETERIA) CO DETECTN	24NOV14	8DEC14	24NOV14	8DEC14	0
CW-14181	6	6	1	0	09650	INST VINYL BASE (CW-4TH FLR)	28NOV14	5DEC14	28NOV14	5DEC14	0
CW-14210	10	10	1	0	09900	FINAL PAINTING (CW-4TH FLR)	8DEC14	19DEC14	8DEC14	19DEC14	0
CW-40520	8	8	1	0	11400	INST SMOKE HEADS (KITCHEN)	9DEC14	18DEC14	9DEC14	18DEC14	0
CW-14225	9	9	1	0	06410	INST MILLWORK/CASEWORK (CW-4TH FLR)	15DEC14	26DEC14	15DEC14	26DEC14	0
CW-40530	10	10	1	0	11400	TROUBLE SHOOT & TEST (KITCHEN)	19DEC14	5JAN15	19DEC14	5JAN15	0
LR-03207	10	10	1	0	11050	INST LIBRARY EQUIPMENT (LR-LIBRARY)	26DEC14	9JAN15	26DEC14	9JAN15	0
LR-03225	10	10	1	0	06410	INST MILLWORK/CASEWORK (LR-LIBRARY)	26DEC14	9JAN15	26DEC14	9JAN15	0
LR-03231	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR-LIBRARY)	26DEC14	2JAN15	26DEC14	2JAN15	0
LR-73207	5	5	1	0	16724	INST LIBRARY DETECTION SYS (LR-LIBRARY)	26DEC14	2JAN15	26DEC14	2JAN15	0
CW-14255	9	9	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-4TH FLR)	29DEC14	9JAN15	29DEC14	9JAN15	0
CW-14261	9	9	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-4TH FLR)	29DEC14	9JAN15	29DEC14	9JAN15	0
BS-10710	10	10	1	0	11050	SCHEDULE & TRAIN - LIBRARY EQUIPMENT	5JAN15	16JAN15	5JAN15	16JAN15	0
CW-40540	9	9	1	0	11400	FDNY - NOTIFY & INSPECTION (KITCHEN)	6JAN15	16JAN15	6JAN15	16JAN15	0
CW-94999	5	5	1	0	01700G	SCA INSPECTION (CW-4TH FLR)	12JAN15	16JAN15	12JAN15	16JAN15	0
BS-05088	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-2ND FLR)	22JAN14	28JAN14	23JAN14	29JAN14	1
CW-34100	10	10	1	0	07250	FIREPROOFING (CW-4TH FLR)	3APR14	16APR14	4APR14	17APR14	1
CW-44100	12	12	1	0	15891	INST DUCT MAINS (CW-4TH FLR)	17APR14	2MAY14	18APR14	5MAY14	1
CW-45100	12	12	1	0	15891	INST DUCT MAINS (CW-5TH FLR)	5MAY14	20MAY14	6MAY14	21MAY14	1
CW-55500	7	7	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 5-7	14MAY14	22MAY14	15MAY14	23MAY14	1
CW-44550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-4TH FLR)	23MAY14	27MAY14	27MAY14	28MAY14	1
CW-55501	7	7	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 8-10	23MAY14	3JUN14	27MAY14	4JUN14	1
CW-45550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-5TH FLR)	28MAY14	29MAY14	29MAY14	30MAY14	1
CW-46550	5	5	1	0	15590	INST FUEL OIL PIPING (CW-ROOF)	30MAY14	5JUN14	2JUN14	6JUN14	1

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-45410	5	5	1	0	15783	INST (1) AC UNIT (CW - 5TH FLR)	4JUN14	10JUN14	5JUN14	11JUN14	1
CW-46400	5	5	1	0	15783	INST (1) AC UNIT @ ELEV MACHINE RM (CW - ROOF)	11JUN14	17JUN14	12JUN14	18JUN14	1
CW-46402	9	9	1	0	15783	INST (1-3) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46405	9	9	1	0	15783	INST (4-6) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46412	9	9	1	0	15783	INST (7-9) SPLIT HEAT PUMPS (CW-ROOF)	18JUN14	30JUN14	19JUN14	1JUL14	1
CW-46415	9	9	1	0	15783	INST (10-12) SPLIT HEAT PUMPS (CW-ROOF)	1JUL14	14JUL14	2JUL14	15JUL14	1
CW-16020	10	10	1	0	15933	MECH CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	9JUL14	22JUL14	10JUL14	23JUL14	1
CW-16025	7	7	1	0	15933	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (CW-ROOF)	23JUL14	31JUL14	24JUL14	1AUG14	1
CW-16015	5	5	1	0	15933	BUMP & TEST ROOFTOP UNITS (CW-ROOF)	1AUG14	7AUG14	4AUG14	8AUG14	1
CW-16550	10	10	1	0	07560	INST ROOF MEMBRANE (CW-ROOF)	8AUG14	21AUG14	11AUG14	22AUG14	1
CW-16540	2	2	1	0	07560	FLOOD TEST BULKHEAD ROOF (CW-ROOF)	22AUG14	25AUG14	25AUG14	26AUG14	1
CW-16590	5	5	1	0	07560	INST DRAIN PNL & ROOF INSUL @ BULKHEAD (CW-ROOF)	26AUG14	2SEP14	27AUG14	3SEP14	1
CW-16700	9	9	1	0	07560	INST FILTER FABRIC & ROOF PAVERS (CW-ROOF)	3SEP14	15SEP14	4SEP14	16SEP14	1
BS-08099	0	0	1	0	08920	BLDG TIGHT	16SEP14		17SEP14		1
CW-55029	10	10	1	0	11600	INST SCIENCE LAB CASEWORK/EQUIP (CW-5TH FLR)	16SEP14	29SEP14	17SEP14	30SEP14	1
CW-55039	4	4	1	0	15416	GAS CONNECTION TO FIXTURES (CW-5TH FLR)	30SEP14	3OCT14	1OCT14	6OCT14	1
CW-13155	12	12	1	0	09310	INST CERAMIC TILE (CW-3RD FLR)	30OCT14	17NOV14	31OCT14	18NOV14	1
CW-53120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-3RD FLR)	6NOV14	20NOV14	7NOV14	21NOV14	1
CW-14155	12	12	1	0	09310	INST CERAMIC TILE (CW-4TH FLR)	10NOV14	26NOV14	12NOV14	28NOV14	1
CW-10272	10	10	1	0	11400	INST SERVERY EQUIPMENT (CW-BSMT)	17NOV14	1DEC14	18NOV14	2DEC14	1
CW-54120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-4TH FLR)	18NOV14	2DEC14	19NOV14	3DEC14	1
CW-15155	9	9	1	0	09310	INST CERAMIC TILE (CW-5TH FLR)	19NOV14	2DEC14	20NOV14	3DEC14	1
CW-13235	10	10	1	0	08210	INST WOOD DOORS (CW-3RD FLR)	21NOV14	5DEC14	24NOV14	8DEC14	1
CW-13237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-3RD FLR)	21NOV14	28NOV14	24NOV14	1DEC14	1
CW-13210	12	12	1	0	09900	FINAL PAINTING (CW-3RD FLR)	1DEC14	16DEC14	2DEC14	17DEC14	1
CW-10268	7	7	1	0	11400	HVAC CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	2DEC14	10DEC14	3DEC14	11DEC14	1
CW-14235	10	10	1	0	08210	INST WOOD DOORS (CW-4TH FLR)	3DEC14	16DEC14	4DEC14	17DEC14	1
CW-14237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-4TH FLR)	3DEC14	9DEC14	4DEC14	10DEC14	1
CW-55120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-5TH FLR)	3DEC14	16DEC14	4DEC14	17DEC14	1
CW-15235	10	10	1	0	08210	INST WOOD DOORS (CW-5TH FLR)	10DEC14	23DEC14	11DEC14	24DEC14	1
CW-15237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-5TH FLR)	10DEC14	16DEC14	11DEC14	17DEC14	1
CW-10271	5	5	1	0	15416	GAS CONNCTN TO KITCHEN/SERVERY EQUIP (CW-BSMT)	11DEC14	17DEC14	12DEC14	18DEC14	1
CW-13225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-3RD FLR)	17DEC14	31DEC14	18DEC14	2JAN15	1
CW-15241	5	5	1	0	08710	INST HARDWARE (CW-5TH FLR)	17DEC14	23DEC14	18DEC14	24DEC14	1
CW-15265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-5TH FLR)	17DEC14	31DEC14	18DEC14	2JAN15	1
BS-79030	5	5	1	0	16724	START UP & TEST INTRUSION ALARM SYSYTEM	24DEC14	31DEC14	26DEC14	2JAN15	1
CW-11225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-1ST FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-13255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-3RD FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-13326	10	10	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-3RD FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-15250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-5TH FLR)	24DEC14	5JAN15	26DEC14	6JAN15	1
CW-15255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-5TH FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-15261	10	10	1	0	12302	INST OWNER SUPPLIED FURNITURE (CW-5TH FLR)	24DEC14	8JAN15	26DEC14	9JAN15	1
CW-15171	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-5TH FLR)	2JAN15	8JAN15	5JAN15	9JAN15	1
CW-15217	3	3	1	0	10830	INST MIRRORS (CW-5TH FLR)	6JAN15	8JAN15	7JAN15	9JAN15	1
CW-90999	5	5	1	0	01700G	SCA INSPECTION (CW-BSMT)	9JAN15	15JAN15	12JAN15	16JAN15	1
CW-93999	5	5	1	0	01700G	SCA INSPECTION (CW-3RD FLR)	9JAN15	15JAN15	12JAN15	16JAN15	1
CW-95999	5	5	1	0	01700G	SCA INSPECTION (CW-5TH FLR)	9JAN15	15JAN15	12JAN15	16JAN15	1
BS-02830	10	10	1	0	02200	INSTALL EARTH ANCHORS (SE)	5NOV13	19NOV13	7NOV13	21NOV13	2
BS-02840	10	10	1	0	02200	INSTALL EARTH ANCHORS (SW)	20NOV13	4DEC13	22NOV13	6DEC13	2
CW-10125	12	12	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (CW-BSMT)	21JUL14	5AUG14	23JUL14	7AUG14	2
CW-10100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-BSMT)	6AUG14	19AUG14	8AUG14	21AUG14	2
CW-10150	12	12	1	0	09900	PRIME PAINTING (CW-BSMT)	20AUG14	5SEP14	22AUG14	9SEP14	2
CW-70116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-BSMT) (N)	8SEP14	19SEP14	10SEP14	23SEP14	2
CW-70190	10	10	1	0	16520	INST EXIT & EMERGENCY LIGHTING (CW-BSMT)	8SEP14	19SEP14	10SEP14	23SEP14	2
CW-71190	10	10	1	0	16520	INST EXIT & EMERGENCY LIGHTING (CW-1ST FLR)	22SEP14	3OCT14	24SEP14	7OCT14	2
CW-71116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-1ST FLR) (N)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-71117	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-1ST FLR) (S)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-72190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-2ND FLR)	6OCT14	20OCT14	8OCT14	22OCT14	2
CW-72116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-2ND FLR) (N)	21OCT14	3NOV14	23OCT14	5NOV14	2
CW-73190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-3RD FLR)	21OCT14	3NOV14	23OCT14	5NOV14	2
CW-73116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-3RD FLR) (N)	4NOV14	18NOV14	6NOV14	20NOV14	2
CW-74190	10	10	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-4TH FLR)	4NOV14	18NOV14	6NOV14	20NOV14	2
CW-74148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-4TH FLR)	10NOV14	26NOV14	13NOV14	1DEC14	2
CW-74116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-4TH FLR) (N)	19NOV14	3DEC14	21NOV14	5DEC14	2
CW-10269	10	10	1	0	11400	ELECTRICAL CONN. TO KITCHEN EQUIP (CW-BSMT)	24NOV14	8DEC14	26NOV14	10DEC14	2
CW-75148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-5TH FLR)	28NOV14	15DEC14	2DEC14	17DEC14	2
CW-10254	10	10	1	0	11400	ELECTRICAL CONN. TO SERVERY EQUIP (CW-BSMT)	2DEC14	15DEC14	4DEC14	17DEC14	2
CW-75116	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-5TH FLR) (N)	4DEC14	17DEC14	8DEC14	19DEC14	2
BS-70210	10	10	1	0	16145	INST LIGHTING CONTROL DEVICES	11DEC14	24DEC14	15DEC14	29DEC14	2
BS-79010	10	10	1	0	16140	START UP & TEST ALL ELECTRICAL DEVICES	16DEC14	30DEC14	18DEC14	2JAN15	2
LR-00255	10	10	1	0	09900	INST GYM FLOOR MARKINGS (LR - BSMT)	16DEC14	30DEC14	18DEC14	2JAN15	2
BS-79035	3	3	1	0	16145	START UP & TEST LIGHTING CONTROL DEVICES	26DEC14	30DEC14	30DEC14	2JAN15	2
LR-03250	8	8	1	0	10675	INST METAL STORAGE SHELVING (LR-LIBRARY)	26DEC14	7JAN15	30DEC14	9JAN15	2
BS-09298	0	0	1	0	08710	FINISHES & CEILING COMPLETE		30DEC14		2JAN15	2
BS-09299	0	0	1	0	09900	FINISH PAINITING (ALL)		30DEC14		2JAN15	2
BS-00215	4	4	1	0	02250	1ST LIFT EXCAVATE/LAGGING EAST (NORTH HALF SOE)	21MAY13	24MAY13	24MAY13	30MAY13	3
BS-00217	5	5	1	0	02250	INST TIEBACKS EAST (SOE) - 97TH PLACE SIDE	28MAY13	3JUN13	31MAY13	6JUN13	3
CW-35100	10	10	1	0	07250	FIREPROOFING (CW-5TH FLR)	17APR14	30APR14	22APR14	5MAY14	3
CW-54500	10	10	1	0	15510	INST HVAC PIPING (CW-4TH FLR)	28APR14	9MAY14	1MAY14	14MAY14	3
CW-72117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-2ND FLR) (S)	21OCT14	31OCT14	24OCT14	5NOV14	3
CW-13180	12	12	1	0	09650	INST VCT FLOORING (CW-3RD FLR)	30OCT14	17NOV14	4NOV14	20NOV14	3
CW-13181	6	6	1	0	09650	INST VINYL BASE (CW-3RD FLR)	18NOV14	25NOV14	21NOV14	1DEC14	3
CW-15180	12	12	1	0	09650	INST VCT FLOORING (CW-5TH FLR)	19NOV14	5DEC14	24NOV14	10DEC14	3
CW-75190	9	9	1	0	16520	INST EXIT & EMERGENCY LGHTNG (CW-5TH FLR)	19NOV14	2DEC14	24NOV14	5DEC14	3
CW-15181	6	6	1	0	09650	INST VINYL BASE (CW-5TH FLR)	28NOV14	5DEC14	3DEC14	10DEC14	3
CW-15210	10	10	1	0	09900	FINAL PAINTING (CW-5TH FLR)	8DEC14	19DEC14	11DEC14	24DEC14	3
CW-74205	5	5	1	0	16783	INST CCTV DEVICES (CW-4TH FLR)	10DEC14	16DEC14	15DEC14	19DEC14	3
CW-14215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-4TH FLR)	22DEC14	6JAN15	26DEC14	9JAN15	3

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-15215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-5TH FLR)	22DEC14	6JAN15	26DEC14	9JAN15	3
BS-79055	3	3	1	0	16530	START UP & TEST SITE SECURITY LIGHTING	24DEC14	29DEC14	30DEC14	2JAN15	3
CW-11220	8	8	1	0	10440	INST INTERIOR SIGNAGE (CW-1ST FLR)	24DEC14	6JAN15	30DEC14	9JAN15	3
BS-10700	10	10	1	0	10652	SCHEDULE & TRAIN - ELECT. OPERATED FOLDING PNL	30DEC14	13JAN15	5JAN15	16JAN15	3
CW-14221	5	5	1	0	12501	INST WINDOW SHADES (CW-4TH FLR)	30DEC14	6JAN15	5JAN15	9JAN15	3
CW-15221	5	5	1	0	12501	INST WINDOW SHADES (CW-5TH FLR)	30DEC14	6JAN15	5JAN15	9JAN15	3
BS-02798	9	9	1	0	03300	PERIMETER FNDTN WALL FOOTING (E) CL-12D.5-12H	11OCT13	24OCT13	18OCT13	30OCT13	4
BS-050L1	61*	61*	1	0	05120	STRUCTURAL STEEL - OVERALL (HA)	22NOV13	21FEB14	18NOV13	27FEB14	4
BS-050L4	50*	50*	1	0	05300	METAL DECKING (HA)	10DEC13	21FEB14	7FEB14	27FEB14	4
BS-05107	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-4TH FLR)	30JAN14	6FEB14	5FEB14	12FEB14	4
BS-05207	6	6	1	0	05300	ERECT METAL DECKING & STUDS (CW-5TH FLR)	7FEB14	14FEB14	13FEB14	21FEB14	4
BS-05307	4	4	1	0	05300	ERECT METAL DECKING & STUDS (CW-ROOF)	18FEB14	21FEB14	24FEB14	27FEB14	4
CW-50100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-50105	10	10	1	0	15410	INST & TEST STORM PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-50110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-BSMT)	14MAY14	28MAY14	20MAY14	3JUN14	4
CW-10500	5	5	1	0	15417	INST WATER TREATMENT SYSTEM (CW-BSMT)	29MAY14	4JUN14	4JUN14	10JUN14	4
CW-10510	10	10	1	0	15417	WATER SAMPLING (CW-BSMT)	5JUN14	18JUN14	11JUN14	24JUN14	4
BS-06540	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SE)	21JUL14	30JUL14	25JUL14	5AUG14	4
BS-06550	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - SW)	31JUL14	11AUG14	6AUG14	15AUG14	4
BS-06650	8	8	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP SOUTH)	12AUG14	21AUG14	18AUG14	27AUG14	4
CW-12100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-2ND FLR)	18AUG14	29AUG14	22AUG14	5SEP14	4
CW-16600	3	3	1	0	07560	FLOOD TEST ROOF (CW-ROOF)	22AUG14	26AUG14	28AUG14	2SEP14	4
CW-12120	10	10	1	0	09260	INST GYPSUM BOARD CEILING (CW-2ND FLR)	25AUG14	8SEP14	29AUG14	12SEP14	4
CW-16610	10	10	1	0	07560	INST PARAPET WALL FLEX FLASHIG (CW-ROOF)	27AUG14	10SEP14	3SEP14	16SEP14	4
CW-12130	10	10	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING (CW-2ND FLR)	9SEP14	22SEP14	15SEP14	26SEP14	4
CW-12150	14	14	1	0	09900	PRIME PAINTING (CW-2ND FLR)	23SEP14	10OCT14	29SEP14	17OCT14	4
CW-72194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-2ND FLR) (N)	30SEP14	14OCT14	6OCT14	20OCT14	4
CW-72195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-2ND FLR) (S)	30SEP14	14OCT14	6OCT14	20OCT14	4
LR-00490	2	2	1	0	15970	START UP & TEST TEMPERATURE CNTRL SYS GYM	4NOV14	5NOV14	10NOV14	12NOV14	4
LR-04991	2	2	1	0	15933	START UP & TEST HVAC SYSTEM GYM	6NOV14	7NOV14	13NOV14	14NOV14	4
LR-03237	5	5	1	0	08110	INST HOLLOW METAL DOORS (LR-LIBRARY)	19NOV14	25NOV14	25NOV14	2DEC14	4
CW-74198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-4TH FLR)	25NOV14	4DEC14	2DEC14	10DEC14	4
CW-74200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-4TH FLR)	5DEC14	11DEC14	11DEC14	17DEC14	4
CW-14240	5	5	1	0	08710	INST HARDWARE (CW-4TH FLR)	17DEC14	23DEC14	23DEC14	30DEC14	4
CW-11250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-1ST FLR)	24DEC14	5JAN15	31DEC14	9JAN15	4
CW-14250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-4TH FLR)	24DEC14	5JAN15	31DEC14	9JAN15	4
BS-05098	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-3RD FLR)	30JAN14	5FEB14	6FEB14	12FEB14	5
LR-40111	5	5	1	0	NA	SCA INSPECTION MEP'S (LR-GYM)	26JUN14	2JUL14	3JUL14	10JUL14	5
LR-00095	6	6	1	0	09260	INST GYPSUM BOARD WALL (LR - BSMT)	3JUL14	11JUL14	11JUL14	18JUL14	5
LR-00125	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (LR - BSMT)	14JUL14	21JUL14	21JUL14	28JUL14	5
LR-02125	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS (LR-GYMATORM)	11AUG14	18AUG14	18AUG14	25AUG14	5
CW-75088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-5TH FLR)	19NOV14	20NOV14	26NOV14	28NOV14	5
BS-79040	5	5	1	0	16500	START UP & TEST LIGHTING FIXTURE	18DEC14	24DEC14	26DEC14	2JAN15	5
BS-00213	5	5	1	0	02250	INST SOLDIER PILES EAST (SOE)	9MAY13	15MAY13	17MAY13	23MAY13	6
CW-16691	7	7	1	0	07560	INST ROOF ACCESSORIES (CW-ROOF)	23JUL14	31JUL14	31JUL14	8AUG14	6
CW-13100	10	10	1	0	05170	INST BLACK IRON FRAMING (CW-3RD FLR)	2SEP14	15SEP14	10SEP14	23SEP14	6
CW-73198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-3RD FLR)	10NOV14	19NOV14	19NOV14	28NOV14	6
CW-73200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-3RD FLR)	20NOV14	26NOV14	1DEC14	5DEC14	6
CW-73205	5	5	1	0	16783	INST CCTV DEVICES (CW-3RD FLR)	28NOV14	4DEC14	8DEC14	12DEC14	6
CW-74117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-4TH FLR) (S)	4DEC14	16DEC14	12DEC14	24DEC14	6
CW-13215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-3RD FLR)	17DEC14	31DEC14	26DEC14	9JAN15	6
CW-75117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-5TH FLR) (S)	18DEC14	31DEC14	29DEC14	9JAN15	6
BS-79045	3	3	1	0	16726	START UP & TEST PHONE & INTERCOM DEVICES	19DEC14	23DEC14	30DEC14	2JAN15	6
CW-11230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-1ST FLR)	24DEC14	31DEC14	5JAN15	9JAN15	6
CW-13221	5	5	1	0	12501	INST WINDOW SHADES (CW-3RD FLR)	24DEC14	31DEC14	5JAN15	9JAN15	6
BS-02755	8	8	1	0	03300	PERIMETER FNDTN WALL (S) CL. A1-A6	1OCT13	10OCT13	10OCT13	22OCT13	7
BS-05049	0	0	1	0	15501	START MECHANICAL DISTRIBUTION LINES	1MAY14		12MAY14		7
CW-55502	4	4	1	0	15510	INST HVAC PIPING (CW-5TH FLR) COL 1-3	4JUN14	9JUN14	13JUN14	18JUN14	7
CW-16650	10	10	1	0	07560	INST DRAINAGE PNLS & ROOF INSUL (CW-ROOF)	22AUG14	5SEP14	3SEP14	16SEP14	7
CW-70194	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-BSMT) (N)	8SEP14	19SEP14	17SEP14	30SEP14	7
CW-12135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-2ND FLR)	9SEP14	24SEP14	18SEP14	3OCT14	7
CW-70195	10	10	1	0	16720	INST FIRE ALARM DEVICES (CW-BSMT) (S)	22SEP14	3OCT14	1OCT14	15OCT14	7
CW-62130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-2ND FLR)	25SEP14	8OCT14	6OCT14	20OCT14	7
CW-71148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-1ST FLR)	3OCT14	21OCT14	15OCT14	30OCT14	7
CW-10175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-BSMT)	6OCT14	16OCT14	16OCT14	27OCT14	7
CW-63130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-3RD FLR)	9OCT14	23OCT14	21OCT14	3NOV14	7
CW-N0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-NORTH-BSMT)	17OCT14	30OCT14	28OCT14	10NOV14	7
CW-72148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-2ND FLR)	22OCT14	6NOV14	31OCT14	18NOV14	7
CW-64130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-4TH FLR)	24OCT14	6NOV14	4NOV14	18NOV14	7
CW-M0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-BSMT)	31OCT14	14NOV14	12NOV14	25NOV14	7
CW-65130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-5TH FLR)	7NOV14	21NOV14	19NOV14	3DEC14	7
CW-73148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-3RD FLR)	7NOV14	25NOV14	19NOV14	5DEC14	7
CW-S0155	10	10	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-SOUTH-BSMT)	17NOV14	1DEC14	26NOV14	10DEC14	7
CW-73117	9	9	1	0	16500	INST LIGHTING FIXTURE (CW-3RD FLR) (S)	19NOV14	2DEC14	1DEC14	11DEC14	7
BS-69990	5	5	1	0	15332	START UP & TEST SPRINKLER SYSTEM (ALL)	24NOV14	1DEC14	4DEC14	10DEC14	7
CW-70515	5	5	1	0	16720	INST SENSORS & TERMINATE CO DETECTN (CW-BSMT)	24NOV14	1DEC14	4DEC14	10DEC14	7
BS-90999	5	5	1	0	16720	SCA/FID ACCEPTANCE OF FIRE PROTECTION SYSTEM	2DEC14	8DEC14	11DEC14	17DEC14	7
CW-10210	10	10	1	0	09900	FINAL PAINTING (CW-BSMT)	2DEC14	15DEC14	11DEC14	24DEC14	7
CW-10214	10	10	1	0	10100	INST DISP/WHITEBOARDS/CHALK BOARDS (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10225	10	10	1	0	06410	INST MILWORK (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10245	10	10	1	0	10505	INST LOCKERS & BENCHES (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
CW-10250	10	10	1	0	10675	INST METAL STORAGE SHELVING (CW-BSMT)	16DEC14	30DEC14	26DEC14	9JAN15	7
LR-03220	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR-LIBRARY)	26DEC14	30DEC14	7JAN15	9JAN15	7
BS-00430	8	8	1	0	15410	PLUMBING UNDERSLAB (CLASRROM WING)	22JAN14	31JAN14	3FEB14	12FEB14	8
BS-00450	10	10	1	0	11400	KITCHEN UNDERGROUND (CLASSROM WING)	22JAN14	4FEB14	3FEB14	14FEB14	8
BS-00441	5	5	1	0	NA	MEP'S UNDERSLAB INSPECTION	30JAN14	5FEB14	11FEB14	18FEB14	8
BS-00500	10	10	1	0	02221	COMPACT SUBGRADE	6FEB14	20FEB14	19FEB14	4MAR14	8
BS-05500	10	10	1	0	03300	CIP CONCRETE SLAB ON GRADE (LR-BSMT)	21FEB14	6MAR14	5MAR14	18MAR14	8

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-00215	8	8	1	0	07250	FIREPROOFING (LR-GYMNASIUM)	7MAR14	18MAR14	19MAR14	28MAR14	8
LR-40100	12	12	1	0	15891	INST DUCT MAINS (LR-GYM)	19MAR14	3APR14	31MAR14	15APR14	8
LR-42100	12	12	1	0	15891	INST DUCT MAINS (LR-GYMATORIUM)	4APR14	21APR14	16APR14	1MAY14	8
LR-43100	12	12	1	0	15891	INST DUCT MAINS (LR-LIBRARY)	22APR14	7MAY14	2MAY14	19MAY14	8
CW-44105	12	12	1	0	15891	INST DUCT BRANCHES (CW-4TH FLR)	5MAY14	20MAY14	15MAY14	2JUN14	8
CW-44110	12	12	1	0	15891	INST DUCT RISERS (CW-4TH FLR)	5MAY14	20MAY14	15MAY14	2JUN14	8
LR-43105	12	12	1	0	15891	INST DUCT BRANCHES (LR-LIBRARY)	8MAY14	23MAY14	20MAY14	5JUN14	8
CW-43550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-3RD FLR)	12MAY14	13MAY14	22MAY14	23MAY14	8
CW-45105	12	12	1	0	15891	INST DUCT BRANCHES (CW-5TH FLR)	21MAY14	6JUN14	3JUN14	18JUN14	8
CW-45110	12	12	1	0	15891	INST DUCT RISERS (CW-5TH FLR)	21MAY14	6JUN14	3JUN14	18JUN14	8
LR-53500	10	10	1	0	15510	INST HVAC PIPING (LR-LIBRARY)	27MAY14	9JUN14	6JUN14	19JUN14	8
CW-45400	5	5	1	0	15540	INST HVAC (RTU) PUMPS (CW-ROOF)	10JUN14	16JUN14	20JUN14	26JUN14	8
CW-46410	5	5	1	0	15540	INST HVAC (HW) PUMPS (CW-ROOF)	17JUN14	23JUN14	27JUN14	3JUL14	8
CW-45420	5	5	1	0	15540	INST HVAC (CHILLER) PUMPS (CW-ROOF)	24JUN14	30JUN14	7JUL14	11JUL14	8
CW-14535	9	9	1	0	15510	FINAL HVAC CONN TO ROOFTOP MER EQUIP (CW)	1JUL14	14JUL14	14JUL14	24JUL14	8
CW-14037	3	3	1	0	15510	INST ROOF MOUNTED PIPING SUPPORTS (CW-ROOF)	15JUL14	17JUL14	25JUL14	29JUL14	8
CW-56100	12	12	1	0	15416	INST & TEST GAS PIPING (CW-ROOF)	18JUL14	4AUG14	30JUL14	14AUG14	8
CW-56105	8	8	1	0	15440	INST DRAINS (CW-ROOF)	18JUL14	29JUL14	30JUL14	8AUG14	8
CW-10180	12	12	1	0	09650	INST VCT FLOORING (CW-BSMT)	15SEP14	30SEP14	25SEP14	10OCT14	8
CW-10155	10	10	1	0	09310	INST CERAMIC TILE (CW-BSMT)	1OCT14	15OCT14	14OCT14	27OCT14	8
CW-12155	12	12	1	0	09310	INST CERAMIC TILE (CW-2ND FLR)	14OCT14	29OCT14	24OCT14	10NOV14	8
CW-10237	10	10	1	0	08110	INST HOLLOW METAL DOORS KITCHEN AREA (CW-BSMT)	16OCT14	29OCT14	28OCT14	10NOV14	8
CW-52120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-2ND FLR)	21OCT14	3NOV14	31OCT14	14NOV14	8
CW-72198	10	10	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-2ND FLR)	27OCT14	7NOV14	6NOV14	20NOV14	8
CW-10238	10	10	1	0	08110	INST HOLLOW METAL DOORS SERVING AREA (CW-BSMT)	30OCT14	13NOV14	12NOV14	25NOV14	8
CW-12236	10	10	1	0	08210	INST WOOD DOORS (CW-2ND FLR)	4NOV14	18NOV14	17NOV14	1DEC14	8
CW-12237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-2ND FLR)	4NOV14	10NOV14	17NOV14	21NOV14	8
CW-72200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-2ND FLR)	10NOV14	17NOV14	21NOV14	28NOV14	8
CW-10240	10	10	1	0	08710	INST HARDWARE (CW-BSMT)	14NOV14	28NOV14	26NOV14	10DEC14	8
LR-02213	12	12	1	0	09840	INST VINYL WALL PADDING (LR-GYMATORIUM)	28NOV14	15DEC14	10DEC14	26DEC14	8
LR-02217	9	9	1	0	09590	INST WOOD FLOORING (LR-GYMATORIUM 2ND HALF)	28NOV14	10DEC14	10DEC14	22DEC14	8
BS-09060	5	5	1	0	11400	KITCHEN EQUIPMENT INSPECTION	2DEC14	8DEC14	12DEC14	18DEC14	8
CW-10259	5	5	1	0	11400	GAS CONNCTN TO KITCHEN EQUIP (CW-BSMT)	2DEC14	8DEC14	12DEC14	18DEC14	8
CW-14265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-4TH FLR)	3DEC14	16DEC14	15DEC14	29DEC14	8
LR-02215	12	12	1	0	12762	INST MOTORIZED & FIXTED SEATING -GYMATORIUM	11DEC14	29DEC14	23DEC14	9JAN15	8
CW-15225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-5TH FLR)	15DEC14	29DEC14	26DEC14	9JAN15	8
CW-14170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-4TH FLR)	17DEC14	23DEC14	30DEC14	6JAN15	8
CW-14220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-4TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-15220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-5TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-15230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-5TH FLR)	22DEC14	29DEC14	5JAN15	9JAN15	8
CW-11217	3	3	1	0	10830	INST MIRRORS (CW-1ST FLR)	24DEC14	29DEC14	7JAN15	9JAN15	8
CW-14217	3	3	1	0	10830	INST MIRRORS (CW-4TH FLR)	24DEC14	29DEC14	7JAN15	9JAN15	8
LR-92999	5	5	1	0	01700G	SCA INSPECTION (LR-GYMATORIUM)	30DEC14	6JAN15	12JAN15	16JAN15	8
BS-00225	10	10	1	0	02250	INST SOLDIER PILES SOUTH (SOE)	16MAY13	30MAY13	30MAY13	12JUN13	9
BS-02805	5	5	1	0	02250	INTERIOR FOOTINGS (SC)	8NOV13	15NOV13	22NOV13	29NOV13	9
BS-05108	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-4TH FLR)	7FEB14	13FEB14	21FEB14	27FEB14	9
CW-32100	10	10	1	0	07250	FIREPROOFING (CW-2ND FLR)	6MAR14	19MAR14	19MAR14	1APR14	9
CW-42100	12	12	1	0	15891	INST DUCT MAINS (CW-2ND FLR)	20MAR14	4APR14	2APR14	17APR14	9
CW-43100	12	12	1	0	15891	INST DUCT MAINS (CW-3RD FLR)	7APR14	22APR14	18APR14	5MAY14	9
CW-60120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-BSMT)	29MAY14	11JUN14	11JUN14	24JUN14	9
CW-73110	10	10	1	0	16120	PULL WIRE (CW-3RD FLR)	18AUG14	29AUG14	29AUG14	12SEP14	9
CW-73092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-3RD FLR)	2SEP14	12SEP14	15SEP14	25SEP14	9
CW-73094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-3RD FLR) (N)	15SEP14	24SEP14	26SEP14	7OCT14	9
CW-73095	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-3RD FLR) (S)	25SEP14	6OCT14	8OCT14	20OCT14	9
CW-11155	12	12	1	0	09310	INST CERAMIC TILE (CW-1ST FLR)	3OCT14	21OCT14	17OCT14	3NOV14	9
CW-51120	10	10	1	0	15440	INST PLUMBING FIXTURE (CW-1ST FLR)	10OCT14	24OCT14	24OCT14	6NOV14	9
CW-11235	10	10	1	0	08210	INST WOOD DOORS (CW-1ST FLR)	27OCT14	7NOV14	7NOV14	21NOV14	9
CW-11237	5	5	1	0	08110	INST HOLLOW METAL DOORS (CW-1ST FLR)	27OCT14	31OCT14	7NOV14	14NOV14	9
CW-74088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-4TH FLR)	10NOV14	12NOV14	24NOV14	25NOV14	9
CW-74203	10	10	1	0	16727	INST DATA DEVICES (CW-4TH FLR)	5DEC14	18DEC14	18DEC14	2JAN15	9
CW-10220	8	8	1	0	10440	INST INTERIOR SIGNAGE (CW-BSMT)	16DEC14	26DEC14	30DEC14	9JAN15	9
CW-13250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-3RD FLR)	17DEC14	26DEC14	31DEC14	9JAN15	9
02-02055	10	1	1	90	02091	R&A STORG/HNDLG/TRANSP/DISP OF NON HAZ/HAZ WASTE	6DEC12A	8APR13		22APR13	10
01-01100	5	5	1	0	01015G	P&S TEMPORARY HEATING PLAN (IF NEEDED)	25SEP13	1OCT13*	9OCT13	16OCT13	10
01-01110	10	10	1	0	01015G	R&A TEMPORARY HEATING PLAN (IF NEEDED)	2OCT13	16OCT13	17OCT13	30OCT13*	10
BS-00510	5	5	1	0	15880	INST GEOTEXTILE FABRIC	21FEB14	27FEB14	7MAR14	13MAR14	10
BS-00520	10	10	1	0	02221	INST PERMEABLE AGGREGATE LAYER & PIPING	28FEB14	13MAR14	14MAR14	27MAR14	10
BS-00530	5	5	1	0	15880	INST BASE FABRIC	14MAR14	20MAR14	28MAR14	3APR14	10
BS-00540	5	5	1	0	15880	INST METHANE BARRIER	21MAR14	27MAR14	4APR14	10APR14	10
CW-55125	3	3	1	0	15451	SET & INST HW HEATER (CW-ROOF)	1JUL14	3JUL14	16JUL14	18JUL14	10
CW-45430	5	5	1	0	15451	SET/INST 5 EA EXPANSION TANK HW SYS (CW-ROOF)	7JUL14	11JUL14	21JUL14	25JUL14	10
CW-45440	10	10	1	0	15451	SET/INST 5 EA EXPANSION TANK CW SYS (CW-ROOF)	14JUL14	25JUL14	28JUL14	8AUG14	10
BS-15604	0	0	1	0	16725	MDF & IDF FACILITIES COMPLETE		2OCT14		17OCT14*	10
CW-40485	5	5	1	0	15970	INST ATC DEVICES (CW-BSMT)	14OCT14	20OCT14	28OCT14	3NOV14	10
CW-41485	5	5	1	0	15970	INST ATC DEVICES (CW-1ST FLR)	21OCT14	27OCT14	4NOV14	10NOV14	10
CW-42485	5	5	1	0	15970	INST ATC DEVICES (CW-2ND FLR)	28OCT14	3NOV14	12NOV14	18NOV14	10
CW-43485	5	5	1	0	15970	INST ATC DEVICES (CW-3RD FLR)	4NOV14	10NOV14	19NOV14	25NOV14	10
CW-44485	5	5	1	0	15970	INST ATC DEVICES (CW-4TH FLR)	12NOV14	18NOV14	26NOV14	3DEC14	10
CW-45485	5	5	1	0	15970	INST ATC DEVICES (CW-5TH FLR)	19NOV14	25NOV14	4DEC14	10DEC14	10
BS-90100	5	5	1	0	15970	START UP & TEST TEMPERATURE CONTROL SYSTEM	26NOV14	3DEC14	11DEC14	17DEC14	10
CW-54670	1	1	1	0	10840	INST GRAB BARS (CW-5TH FLR)	3DEC14	3DEC14	17DEC14	17DEC14	10
BS-51999	5	5	1	0	15933	START UP & TEST HVAC SYSTEM	4DEC14	10DEC14	18DEC14	24DEC14	10
CW-10281	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-BSMT)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-11280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-1ST FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-12280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-2ND FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-13280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-3RD FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-14280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-4TH FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10
CW-15280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (CW-5TH FLR)	11DEC14	24DEC14	26DEC14	9JAN15	10

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-00280	10	10	1	0	15993	TEST & BALANCE HVAC SYSTEM (LR - BSMT)	11DEC14	24DEC14	26DEC14	9JAN15	10
BS-10820	10	10	1	0	15501	SCHEDULE & TRAIN - GENERAL HVAC WORK	18DEC14	2JAN15	5JAN15	16JAN15	10
BS-15599	0	0	1	0	15501	FINISH HVAC (ALL)		24DEC14		9JAN15	10
CW-92999	5	5	1	0	01700G	SCA INSPECTION (CW-2ND FLR)	26DEC14	2JAN15	12JAN15	16JAN15	10
BS-02790	8	8	1	0	03300	PERIMETER FNDTN WALL (N) CL. H1-H6	1OCT13	10OCT13	17OCT13	28OCT13	11
BS-02795	8	8	1	0	03300	PERIMETER FNDTN WALL (E) CL. 12A-12D.5	11OCT13	23OCT13	29OCT13	7NOV13	11
CW-33100	10	10	1	0	07250	FIREPROOFING (CW-3RD FLR)	20MAR14	2APR14	4APR14	17APR14	11
CW-44580	8	8	1	0	15836	INST UNIT HEATERS (CW- 5TH FLR)	4JUN14	13JUN14	19JUN14	30JUN14	11
CW-43610	2	2	1	0	15836	INST EUH (CW-5TH FLR)	16JUN14	17JUN14	1JUL14	2JUL14	11
CW-44610	4	4	1	0	15836	INST (8) EUH (CW-ROOF)	18JUN14	23JUN14	3JUL14	9JUL14	11
BS-09019	0	0	1	0	09260	START DRYWALL	3JUL14		21JUL14		11
LR-70110	10	10	1	0	16120	PULL WIRE (LR - BSMT)	14JUL14	25JUL14	29JUL14	11AUG14	11
LR-70090	3	3	1	0	16470	INST ELECT PANEL INTERIORS (LR - BSMT)	28JUL14	30JUL14	12AUG14	14AUG14	11
LR-70092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR - BSMT)	28JUL14	1AUG14	12AUG14	18AUG14	11
CW-13240	5	5	1	0	08710	INST HARDWARE (CW-3RD FLR)	8DEC14	12DEC14	23DEC14	30DEC14	11
BS-15499	0	0	1	0	15401	FINISH MECHANICAL / PLUMBING		16DEC14		2JAN15	11
CW-12235	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-3RD FLR)	17DEC14	23DEC14	5JAN15	9JAN15	11
CW-13220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-3RD FLR)	17DEC14	23DEC14	5JAN15	9JAN15	11
LR-02220	8	8	1	0	07250	FIREPROOFING (LR-GYMATORIUM)	19MAR14	28MAR14	4APR14	15APR14	12
CW-44410	5	5	1	0	15783	INST (1) AC UNIT (CW - 4TH FLR)	12MAY14	16MAY14	29MAY14	4JUN14	12
CW-11135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-1ST FLR)	18AUG14	3SEP14	4SEP14	19SEP14	12
LR-02180	9	9	1	0	09650	INST WOOD FLOORING (LR-GYMATORIUM - 1ST HALF)	25SEP14	7OCT14	14OCT14	24OCT14	12
CW-70197	10	10	1	0	16724	INST SECURITY DEVICES (CW-BSMT)	6OCT14	20OCT14	23OCT14	5NOV14	12
LR-02265	3	3	1	0	10653	INST FOLDING PARTN TOP TRACK (LR-GYMATORI) MANL	8OCT14	10OCT14	27OCT14	29OCT14	12
LR-02782	10	10	1	0	10653	INST FOLDING PARTITIONS (LR- GYMATORIUM)	14OCT14	27OCT14	30OCT14	13NOV14	12
CW-70200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-BSMT)	21OCT14	27OCT14	6NOV14	13NOV14	12
CW-71200	5	5	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (CW-1ST FLR)	28OCT14	3NOV14	14NOV14	20NOV14	12
LR-73148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR-LIBRARY)	19NOV14	25NOV14	8DEC14	12DEC14	12
LR-73198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES(LR-LIBRARY)	26NOV14	5DEC14	15DEC14	23DEC14	12
LR-03240	5	5	1	0	08710	INST HARDWARE (LR-LIBRARY)	4DEC14	10DEC14	22DEC14	29DEC14	12
LR-73200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR-LIBRARY)	8DEC14	10DEC14	24DEC14	29DEC14	12
LR-02182	4	4	1	0	09650	INST VINYL BASE (LR-GYMATORIUM)	9DEC14	12DEC14	26DEC14	31DEC14	12
LR-73205	3	3	1	0	16783	INST CCTV DEVICES (LR-GYMATORIUM)	11DEC14	15DEC14	30DEC14	2JAN15	12
LR-02235	3	3	1	0	08210	INST WOOD DOORS (LR-GYMATORIUM)	15DEC14	17DEC14	2JAN15	6JAN15	12
LR-02237	3	3	1	0	08110	INST HOLLOW METAL DOORS (LR-GYMATORIUM)	15DEC14	17DEC14	2JAN15	6JAN15	12
CW-10230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-BSMT)	16DEC14	22DEC14	5JAN15	9JAN15	12
LR-02240	3	3	1	0	08710	INST HARDWARE (LR-GYMATORIUM)	18DEC14	22DEC14	7JAN15	9JAN15	12
BS-05208	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (CW-5TH FLR)	18FEB14	24FEB14	7MAR14	13MAR14	13
CW-31100	10	10	1	0	07250	FIREPROOFING (CW-1ST FLR)	20FEB14	5MAR14	11MAR14	24MAR14	13
CW-41100	12	12	1	0	15891	INST DUCT MAINS (CW-1ST FLR)	6MAR14	21MAR14	25MAR14	9APR14	13
CW-51500	10	10	1	0	15510	INST HVAC PIPING (CW-1ST FLR)	17MAR14	28MAR14	3APR14	16APR14	13
CW-52500	10	10	1	0	15510	INST HVAC PIPING (CW-2ND FLR)	31MAR14	11APR14	17APR14	30APR14	13
CW-72205	5	5	1	0	16783	INST CCTV DEVICES (CW-2ND FLR)	10NOV14	17NOV14	1DEC14	5DEC14	13
CW-12210	12	12	1	0	09900	FINAL PAINTING (CW-2ND FLR)	12NOV14	28NOV14	2DEC14	17DEC14	13
CW-12215	10	10	1	0	10100	INST WHITE & BLACK BOARDS (CW-2ND FLR)	1DEC14	12DEC14	18DEC14	2JAN15	13
CW-12225	10	10	1	0	06410	INST MILLWORK/CASEWORK (CW-2ND FLR)	1DEC14	12DEC14	18DEC14	2JAN15	13
CW-11196	3	3	1	0	06410	INST SECURITY DESK IN LOBBY AREA	3DEC14	5DEC14	22DEC14	24DEC14	13
CW-12255	10	10	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE (CW-2ND FLR)	8DEC14	19DEC14	26DEC14	9JAN15	13
CW-12274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-2ND FLR)	8DEC14	19DEC14	26DEC14	9JAN15	13
LR-02227	7	7	1	0	11061	INST PROJECTION EQUIP (LR-GYMATORIUM)	11DEC14	19DEC14	31DEC14	9JAN15	13
CW-12221	5	5	1	0	12501	INST WINDOW SHADES (CW-2ND FLR)	15DEC14	19DEC14	5JAN15	9JAN15	13
CW-14230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-4TH FLR)	15DEC14	19DEC14	5JAN15	9JAN15	13
CW-13217	3	3	1	0	10830	INST MIRRORS (CW-3RD FLR)	17DEC14	19DEC14	7JAN15	9JAN15	13
CW-53500	10	10	1	0	15510	INST HVAC PIPING (CW-3RD FLR)	16APR14	29APR14	6MAY14	19MAY14	14
CW-42550	2	2	1	0	15590	INSTALL FUEL OIL PIPING (CW-2ND FLR)	30APR14	1MAY14	20MAY14	21MAY14	14
CW-40105	12	12	1	0	15891	INST DUCT BRANCHES (CW-BSMT)	19MAY14	4JUN14	9JUN14	24JUN14	14
CW-40395	10	10	1	0	15836	INST UNIT HEATERS BATHROOM (CW-BSMT)	5JUN14	18JUN14	25JUN14	9JUL14	14
CW-40610	10	10	1	0	15836	INST (8) EUH (CW-BSMT)	5JUN14	18JUN14	25JUN14	9JUL14	14
LR-00100	5	5	1	0	05170	INST BLACK IRON FRAMING (LR - BSMT)	14JUL14	18JUL14	1AUG14	7AUG14	14
LR-00120	6	6	1	0	09260	INST GYPSUM BOARD CEILING (LR - BSMT)	21JUL14	28JUL14	8AUG14	15AUG14	14
LR-00130	6	6	1	0	09260	TAPE & SPACKLE GYPSUM BOARD CEILINGS (LR - BSMT)	29JUL14	5AUG14	18AUG14	25AUG14	14
LR-00150	6	6	1	0	09900	PRIME PAINTING (LR - BSMT)	6AUG14	13AUG14	26AUG14	3SEP14	14
CW-10135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-BSMT)	11AUG14	26AUG14	29AUG14	16SEP14	14
LR-00175	5	5	1	0	09510	INST ACOUSTICAL CEILING TILE (LR - BSMT)	14AUG14	20AUG14	4SEP14	10SEP14	14
CW-60130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-BSMT)	18AUG14	29AUG14	8SEP14	19SEP14	14
CW-61130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (CW-1ST FLR)	2SEP14	15SEP14	22SEP14	3OCT14	14
CW-13135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-3RD FLR)	16SEP14	1OCT14	6OCT14	22OCT14	14
LR-63130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR-LIBRARY)	29OCT14	12NOV14	19NOV14	3DEC14	14
CW-73088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-3RD FLR)	30OCT14	31OCT14	20NOV14	21NOV14	14
BS-00339	0	0	1	0	03300	START CONCRETE PLACEMENT	1OCT13		23OCT13		15
CW-12180	12	12	1	0	09650	INST VCT FLOORING (CW-2ND FLR)	14OCT14	29OCT14	4NOV14	20NOV14	15
CW-12181	6	6	1	0	09650	INST VINYL BASE (CW-2ND FLR)	30OCT14	6NOV14	21NOV14	1DEC14	15
LR-73195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR-LIBRARY)	30OCT14	5NOV14	21NOV14	28NOV14	15
CW-46575	10	10	1	0	15590	START UP & TROUBLE SHOOT EMERGENCY GENERATOR	4NOV14	18NOV14	26NOV14	10DEC14	15
CW-13265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-3RD FLR)	21NOV14	5DEC14	15DEC14	29DEC14	15
LR-73203	4	4	1	0	16727	INST DATA DEVICES (LR-LIBRARY)	2DEC14	5DEC14	23DEC14	29DEC14	15
CW-13170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-3RD FLR)	8DEC14	12DEC14	30DEC14	6JAN15	15
LR-02250	5	5	1	0	11061	INST STAGE & WINDOW CURTAIN (LR-GYMATORIUM)	11DEC14	17DEC14	5JAN15	9JAN15	15
BS-09009	0	0	1	0	09260	START LAYOUT OF STUDS	26MAR14		17APR14		16
CW-11065	11	11	1	0	09260	FRAME INTERIOR PARTITIONS (CW-1ST FLR)	26MAR14	9APR14	17APR14	1MAY14	16
LR-03230	8	8	1	0	07250	FIREPROOFING (LR-LIBRARY)	31MAR14	9APR14	22APR14	1MAY14	16
CW-42105	12	12	1	0	15891	INST DUCT BRANCHES (CW-2ND FLR)	7APR14	22APR14	29APR14	14MAY14	16
CW-42110	12	12	1	0	15891	INST DUCT RISERS (CW-2ND FLR)	7APR14	22APR14	29APR14	14MAY14	16
CW-12065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-2ND FLR)	10APR14	25APR14	2MAY14	19MAY14	16
CW-41550	10	10	1	0	15590	INSTALL FUEL OIL PIPING (CW-1ST FLR)	14APR14	25APR14	6MAY14	19MAY14	16
CW-43105	12	12	1	0	15891	INST DUCT BRANCHES (CW-3RD FLR)	23APR14	8MAY14	15MAY14	2JUN14	16
CW-43110	12	12	1	0	15891	INST DUCT RISERS (CW-3RD FLR)	23APR14	8MAY14	15MAY14	2JUN14	16
CW-13065	10	10	1	0	09260	FRAME INTERIOR PARTITIONS (CW-3RD FLR)	28APR14	9MAY14	20MAY14	3JUN14	16

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-73100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-3RD FLR)	5MAY14	16MAY14	28MAY14	10JUN14	16
CW-14065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-4TH FLR)	12MAY14	28MAY14	4JUN14	19JUN14	16
CW-74100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (CW-4TH FLR)	19MAY14	4JUN14	11JUN14	26JUN14	16
CW-15065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (CW-5TH FLR)	29MAY14	13JUN14	20JUN14	8JUL14	16
CW-75100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (CW-5TH FLR)	5JUN14	20JUN14	27JUN14	15JUL14	16
CW-71198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-1ST FLR)	10OCT14	21OCT14	4NOV14	13NOV14	16
BS-79000	5	5	1	0	16520	START UP & TEST EXIT & EMERGENCY LIGHTING	3DEC14	9DEC14	26DEC14	2JAN15	16
BS-06270	8	8	1	0	04200	EXTERIOR CMU (LR-NORTH)	13FEB14	25FEB14	11MAR14	20MAR14	17
BS-06440	4	4	1	0	04200	AIR BARRIER (LR-NORTH)	26FEB14	3MAR14	21MAR14	26MAR14	17
BS-06470	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-NORTH)	4MAR14	13MAR14	27MAR14	7APR14	17
BS-06015	8	8	1	0	04200	EXTERIOR CMU (LR-EAST)	14MAR14	25MAR14	8APR14	17APR14	17
BS-06035	4	4	1	0	04200	AIR BARRIER (LR-EAST)	26MAR14	31MAR14	18APR14	23APR14	17
BS-06045	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-EAST)	1APR14	10APR14	24APR14	5MAY14	17
BS-06800	12	12	1	0	04200	EXTERIOR CMU (CW-NORTH)	11APR14	28APR14	6MAY14	21MAY14	17
BS-06810	8	8	1	0	04200	AIR BARRIER (CW-NORTH)	29APR14	8MAY14	22MAY14	3JUN14	17
LR-43110	12	12	1	0	15891	INST DUCT RISERS (LR-LIBRARY)	8MAY14	23MAY14	3JUN14	18JUN14	17
BS-06820	15	15	1	0	04200	EXTERIOR BRICK (CW-NORTH)	9MAY14	30MAY14	4JUN14	24JUN14	17
LR-46300	10	10	1	0	15934	INST RTU'S ON ROOF (LR)	27MAY14	9JUN14	19JUN14	2JUL14	17
BS-06830	8	8	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-NORTH)	2JUN14	11JUN14	25JUN14	7JUL14	17
LR-06120	10	10	1	0	15933	MECH CONN TO MISC ROOFTOP EQUIP (LR-ROOF) GYM	10JUN14	23JUN14	3JUL14	17JUL14	17
BS-06640	8	8	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP NORTH)	12JUN14	23JUN14	8JUL14	17JUL14	17
BS-06520	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NE)	24JUN14	3JUL14	18JUL14	29JUL14	17
LR-06125	7	7	1	0	15933	ELECTRICAL CONN. TO MISC ROOFTOP EQUIP (LR-ROOF)	24JUN14	2JUL14	18JUL14	28JUL14	17
LR-06117	5	5	1	0	15933	BUMP & TEST ROOFTOP UNITS (LR-ROOF)	3JUL14	10JUL14	29JUL14	4AUG14	17
BS-06530	8	8	1	0	08525	INST ALUMINUM WINDOWS AT 5TH FLR (CW - NW)	7JUL14	16JUL14	30JUL14	8AUG14	17
BS-06710	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP NW)	7JUL14	16JUL14	30JUL14	8AUG14	17
LR-16560	7	7	1	0	07560	INST ROOF MEMBRANE (LR-ROOF)	11JUL14	21JUL14	5AUG14	13AUG14	17
BS-06670	8	8	1	0	08525	INST WINDOWS (CW - NE)	17JUL14	28JUL14	11AUG14	20AUG14	17
LR-16570	9	9	1	0	07560	INST DRAIN PANELS & ROOF INSULATON (LR-ROOF)	22JUL14	1AUG14	14AUG14	26AUG14	17
BS-06680	8	8	1	0	08525	INST WINDOWS (CW - NW)	29JUL14	7AUG14	21AUG14	2SEP14	17
LR-16530	9	9	1	0	07560	INST FILTER FABRIC & ROOF PAVERS (LR-ROOF)	4AUG14	14AUG14	27AUG14	9SEP14	17
BS-06465	10	10	1	0	07900	CAULK BLDG EXTERIOR (NORTH ELEVATION)	8AUG14	21AUG14	3SEP14	16SEP14	17
LR-16620	5	5	1	0	07560	INST PARAPET WALL & FLEX FLASH (LR-ROOF)	15AUG14	21AUG14	10SEP14	16SEP14	17
CW-70205	5	5	1	0	16783	INST CCTV DEVICES (CW-BSMT)	21OCT14	27OCT14	14NOV14	20NOV14	17
CW-71205	5	5	1	0	16783	INST CCTV DEVICES (CW-1ST FLR)	28OCT14	3NOV14	21NOV14	28NOV14	17
BS-00223	2	2	1	0	02250	PARTIAL FNDTN DEMO SOUTH (SOE)	1MAY13	2MAY13	28MAY13	29MAY13	18
LR-52500	10	10	1	0	15510	INST HVAC PIPING (LR-GYMATORIUM) WEST	14APR14	25APR14	8MAY14	21MAY14	18
CW-72100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-2ND FLR)	17APR14	30APR14	13MAY14	27MAY14	18
LR-52502	10	10	1	0	15510	INST HVAC PIPING (LR-GYMATORIUM) EAST	28APR14	9MAY14	22MAY14	5JUN14	18
CW-45471	7	7	1	0	15515	SET & INST 5 EA AIR-DIRT SEPERATORS (CW-ROOF)	10JUN14	18JUN14	7JUL14	15JUL14	18
CW-71110	10	10	1	0	16120	PULL WIRE (CW-1ST FLR)	21JUL14	1AUG14	14AUG14	27AUG14	18
LR-16520	2	2	1	0	07560	FLOOD TEST ROOF (LR-ROOF)	22JUL14	23JUL14	15AUG14	18AUG14	18
CW-16580	6	6	1	0	07560	INST ROOF ACCESS AT BULKHEAD (CW-ROOF)	24JUL14	31JUL14	19AUG14	26AUG14	18
CW-71092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-1ST FLR)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-71094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-1ST FLR) (N)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-72110	10	10	1	0	16120	PULL WIRE (CW-2ND FLR)	4AUG14	15AUG14	28AUG14	11SEP14	18
CW-72092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-2ND FLR)	18AUG14	29AUG14	12SEP14	25SEP14	18
CW-72094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-2ND FLR) (N)	18AUG14	29AUG14	12SEP14	25SEP14	18
CW-74110	10	10	1	0	16120	PULL WIRE (CW-4TH FLR)	2SEP14	15SEP14	26SEP14	9OCT14	18
CW-75110	10	10	1	0	16120	PULL WIRE (CW-5TH FLR)	16SEP14	29SEP14	10OCT14	24OCT14	18
CW-75092	10	10	1	0	16726	INST SECURITY & TELECOM WIRE (CW-5TH FLR)	30SEP14	14OCT14	27OCT14	7NOV14	18
CW-75094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-5TH FLR) (N)	30SEP14	9OCT14	27OCT14	5NOV14	18
CW-75095	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-5TH FLR) (S)	10OCT14	22OCT14	6NOV14	18NOV14	18
15-15995	120	114	1	5	15891	P&S METAL DUCTWORK	15NOV12A	18SEP13		16OCT13	19
03-03015	10	1	1	90	03200	R&A CONCRETE REINFORCEMENT SHOP DRAWINGS	28DEC12A	8APR13		3MAY13	19
03-03025	10	1	1	90	03300	R&A CAST-IN-PLACE CONCRETE SHOP DRAWINGS	27FEB13A	8APR13		3MAY13	19
15-16000	10	10	1	0	15891	R&A METAL DUCTWORK	19SEP13	2OCT13	17OCT13	30OCT13	19
15-16005	120	120	1	0	15891	F&D METAL DUCTWORK	3OCT13	28MAR14	31OCT13	24APR14	19
CW-71100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-1ST FLR)	2APR14	15APR14	29APR14	12MAY14	19
CW-61110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-1ST FLR)	16APR14	1MAY14	13MAY14	29MAY14	19
CW-62110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-2ND FLR)	2MAY14	19MAY14	30MAY14	16JUN14	19
CW-63110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-3RD FLR)	20MAY14	5JUN14	17JUN14	2JUL14	19
CW-64110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-4TH FLR)	6JUN14	23JUN14	3JUL14	21JUL14	19
CW-64120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-4TH FLR)	24JUN14	8JUL14	22JUL14	4AUG14	19
CW-65110	12	12	1	0	15332	INST SPRINKLER MAINS (CW-5TH FLR)	24JUN14	10JUL14	22JUL14	6AUG14	19
CW-44111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-4TH FLR)	9JUL14	15JUL14	5AUG14	11AUG14	19
CW-65120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-5TH FLR)	11JUL14	24JUL14	7AUG14	20AUG14	19
CW-45111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-5TH FLR)	25JUL14	31JUL14	21AUG14	27AUG14	19
CW-74094	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-4TH FLR) (S)	25SEP14	6OCT14	23OCT14	3NOV14	19
CW-14135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-4TH FLR)	30SEP14	16OCT14	28OCT14	13NOV14	19
LR-02221	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR-GYMATORIUM)	9DEC14	11DEC14	7JAN15	9JAN15	19
LR-02230	3	3	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR-GYMATORIUM	9DEC14	11DEC14	7JAN15	9JAN15	19
02-02210	60	60	1	0	02711	P&S FOUNDATION WALL DRAINAGE SYSTEM	8APR13	1JUL13	6MAY13	30JUL13	20
07-07030	40	40	1	0	07211	P&S PERIMETER FOUNDATION INSULATION	8APR13	3JUN13	6MAY13	1JUL13	20
07-07035	10	10	1	0	07211	R&A PERIMETER FOUNDATION INSULATION	4JUN13	17JUN13	2JUL13	16JUL13	20
07-07040	40	40	1	0	07211	F&D PERIMETER FOUNDATION INSULATION	18JUN13	13AUG13	17JUL13	11SEP13	20
02-02215	10	10	1	0	02711	R&A FOUNDATION WALL DRAINAGE SYSTEM	2JUL13	16JUL13	31JUL13	13AUG13	20
02-02220	20	20	1	0	02711	F&D FOUNDATION WALL DRAINAGE SYSTEM MATERIALS	17JUL13	13AUG13	14AUG13	11SEP13	20
LR-50100	12	12	1	0	15410	INST & TEST WASTE & VENT PIPING (LR-GYM LWR)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50105	12	12	1	0	15410	INST & TEST STORM PIPING (LR-GYM LOWER)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYM LOWER)	26MAR14	10APR14	23APR14	8MAY14	20
LR-50500	10	10	1	0	15510	INST HVAC PIPING (LR- GYM)	27MAR14	9APR14	24APR14	7MAY14	20
LR-02065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (LR-GYMATORIUM)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50125	12	12	1	0	15410	INST & TEST WASTE & VENT PIPING (LR-GYM UPPR)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50130	12	12	1	0	15410	INST & TEST STORM PIPING (LR-GYM UPPER)	11APR14	28APR14	9MAY14	27MAY14	20
LR-50135	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYM UPPER)	11APR14	28APR14	9MAY14	27MAY14	20
LR-03065	12	12	1	0	09260	FRAME INTERIOR PARTITIONS (LR-LIBRARY)	29APR14	14MAY14	28MAY14	12JUN14	20
LR-50150	5	5	1	0	15453	CW BOOSTER PUMP - SET & INSTALL (LR - BSMT)	29APR14	5MAY14	28MAY14	3JUN14	20

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-43410	5	5	1	0	15783	INST (1) AC UNIT (CW - 3RD FLR)	30APR14	6MAY14	29MAY14	4JUN14	20
CW-10065	10	10	1	0	09260	FRAME INTERIOR PARTITIONS (CW-BSMT)	15MAY14	29MAY14	13JUN14	26JUN14	20
CW-70100	10	10	1	0	16130	ELECTRICAL ROUGH-IN (CW-BSMT)	22MAY14	5JUN14	20JUN14	3JUL14	20
CW-70113	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-BSMT) (N)	6JUN14	19JUN14	7JUL14	18JUL14	20
CW-70115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-BSMT) (S)	6JUN14	19JUN14	7JUL14	18JUL14	20
CW-46565	10	10	1	0	15590	INST CONTAINMENT PIPING (CW-3-ROOF) FUEL OIL SYS	25JUN14	9JUL14	24JUL14	6AUG14	20
CW-46570	2	2	1	0	15590	PRESURE TEST CONTAINMENT PIPING (FUEL OIL SYS)	10JUL14	11JUL14	7AUG14	8AUG14	20
BS-09029	0	0	1	0	09510	START SUSPENDED CEILING GRID (SAMPLE RM EXCLUDED	21JUL14		18AUG14		20
LR-00135	6	6	1	0	09510	INST SUSPENDED CEILING GRID (LR - BSMT)	21JUL14	28JUL14	18AUG14	25AUG14	20
CW-74092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-4TH FLR)	15SEP14	25SEP14	14OCT14	24OCT14	20
CW-74093	8	8	1	0	16720	INST FIRE ALARM WIRE (CW-4TH FLR) (N)	16SEP14	25SEP14	15OCT14	24OCT14	20
CW-44670	1	1	1	0	10840	INST GRAB BARS (CW-4TH FLR)	28NOV14	28NOV14	29DEC14	29DEC14	20
06-06000	40	40	1	0	06100	P&S ROUGH CARPENTRY	8APR13	3JUN13	7MAY13	2JUL13	21
06-06005	10	10	1	0	06100	R&A ROUGH CARPENTRY	4JUN13	17JUN13	3JUL13	17JUL13	21
06-06010	40	40	1	0	06100	F&D ROUGH CARPENTRY MATERIALS	18JUN13	13AUG13	18JUL13	12SEP13	21
CW-70170	5	5	1	0	16231	INST EMERGENCY GENERATOR SYSTEM (CW)	17APR14	23APR14	16MAY14	22MAY14	21
CW-50300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-BSMT)	29MAY14	11JUN14	27JUN14	11JUL14	21
CW-63120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-3RD FLR)	6JUN14	19JUN14	8JUL14	21JUL14	21
CW-43111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-3RD FLR)	20JUN14	26JUN14	22JUL14	28JUL14	21
CW-70148	12	12	1	0	16140	INST ELECTRICAL DEVICES (CW-BSMT)	8SEP14	23SEP14	7OCT14	23OCT14	21
CW-70198	7	7	1	0	16726	INST PHONE & INTERCOM DEVICES (CW-BSMT)	24SEP14	2OCT14	24OCT14	3NOV14	21
CW-12250	7	7	1	0	10675	INST METAL STORAGE SHELVING (CW-2ND FLR)	1DEC14	9DEC14	31DEC14	9JAN15	21
LR-14525	10	10	1	0	15510	INST HVAC PIPING ROOFTOP MER (LR-ROOF)	10JUN14	23JUN14	11JUL14	24JUL14	22
CW-15135	12	12	1	0	09510	INST SUSPENDED CEILING GRID (CW-5TH FLR)	30SEP14	16OCT14	31OCT14	18NOV14	22
LR-73116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR-LIBRARY)	19NOV14	3DEC14	22DEC14	6JAN15	22
LR-73190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR-LIBRARY)	26NOV14	8DEC14	30DEC14	9JAN15	22
BS-00399	0	0	1	0	02200	EXCAVATION TO SUBGRADE COMPLETE		18SEP13		22OCT13	23
BS-07009	0	0	1	0	07260	START FIREPROOFING	5FEB14		11MAR14		23
CW-30100	10	10	1	0	07250	FIREPROOFING (CW - BSMT WEST)	5FEB14	19FEB14	11MAR14	24MAR14	23
CW-41105	12	12	1	0	15891	INST DUCT BRANCHES (CW-1ST FLR)	24MAR14	8APR14	24APR14	9MAY14	23
CW-51100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51105	10	10	1	0	15410	INST & TEST STORM PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-1ST FLR) (N)	31MAR14	11APR14	1MAY14	14MAY14	23
CW-51102	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-51107	10	10	1	0	15410	INST & TEST STORM PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-51112	10	10	1	0	15410	INST & TEST WATER PIPING (CW-1ST FLR) (S)	14APR14	25APR14	15MAY14	29MAY14	23
CW-52100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-52105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-2ND FLR)	28APR14	8MAY14	30MAY14	11JUN14	23
CW-52110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-52115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-2ND FLR)	28APR14	9MAY14	30MAY14	12JUN14	23
CW-53100	10	10	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-53105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-3RD FLR)	12MAY14	22MAY14	13JUN14	25JUN14	23
CW-53110	10	10	1	0	15410	INST & TEST WATER PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-53115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-3RD FLR)	12MAY14	23MAY14	13JUN14	26JUN14	23
CW-62120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-2ND FLR)	20MAY14	3JUN14	23JUN14	7JUL14	23
CW-54100	9	9	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54110	9	9	1	0	15410	INST & TEST WATER PIPING (CW-4TH FLR)	27MAY14	6JUN14	27JUN14	10JUL14	23
CW-54115	10	10	1	0	15416	INST & TEST GAS PIPING (CW-4TH FLR)	27MAY14	9JUN14	27JUN14	11JUL14	23
CW-42111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-2ND FLR)	4JUN14	10JUN14	8JUL14	14JUL14	23
CW-55115	12	12	1	0	15416	INST & TEST GAS PIPING (CW-5TH FLR)	10JUN14	25JUN14	14JUL14	29JUL14	23
CW-55130	10	10	1	0	15451	PIPE UP HW HEATER (CW-ROOF)	10JUN14	23JUN14	14JUL14	25JUL14	23
CW-06595	10	10	1	0	15565	BREECHING & CHIMNEY INST (CW-ROOF)	24JUN14	8JUL14	28JUL14	8AUG14	23
BS-16599	0	0	1	0	16010	PERM POWER AVAILABLE		15SEP14		17OCT14	23
CW-12240	5	5	1	0	08710	INST HARDWARE (CW-2ND FLR)	19NOV14	25NOV14	23DEC14	30DEC14	23
CW-12220	5	5	1	0	10440	INST INTERIOR SIGNAGE (CW-2ND FLR)	1DEC14	5DEC14	5JAN15	9JAN15	23
CW-12230	5	5	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (CW-2ND FLR)	1DEC14	5DEC14	5JAN15	9JAN15	23
LR-00065	6	6	1	0	09260	FRAME INTERIOR PARTITIONS (LR - BSMT)	26MAR14	2APR14	29APR14	6MAY14	24
LR-70100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR - BSMT)	2APR14	17APR14	6MAY14	21MAY14	24
CW-46450	8	8	1	0	15860	INST SMOKE PURGE FANS (CW-ROOF)	17APR14	28APR14	21MAY14	2JUN14	24
CW-46460	6	6	1	0	15860	INST KITCHEN ROOF FANS (CW-ROOF)	29APR14	6MAY14	3JUN14	10JUN14	24
CW-46470	10	10	1	0	15860	INST MISC ROOF FANS (CW-ROOF)	7MAY14	20MAY14	11JUN14	24JUN14	24
CW-46480	10	10	1	0	15860	INST CENTRIFUGAL FANS (CW-ROOF)	21MAY14	4JUN14	25JUN14	9JUL14	24
CW-55100	9	9	1	0	15410	INST & TEST WASTE & VENT PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-55105	9	9	1	0	15410	INST & TEST STORM PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-55110	9	9	1	0	15410	INST & TEST WATER PIPING (CW-5TH FLR)	9JUN14	19JUN14	14JUL14	24JUL14	24
CW-71095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-1ST FLR) (S)	4AUG14	15AUG14	8SEP14	19SEP14	24
CW-W1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-1ST FL)	4AUG14	8AUG14	8SEP14	12SEP14	24
CW-M1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-1ST FLR)	11AUG14	15AUG14	15SEP14	19SEP14	24
CW-72095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-2ND FLR) (S)	18AUG14	29AUG14	22SEP14	3OCT14	24
CW-E1155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-1ST FLR)	18AUG14	22AUG14	22SEP14	26SEP14	24
CW-72088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-2ND FLR)	14OCT14	15OCT14	18NOV14	19NOV14	24
LR-00225	10	10	1	0	06410	INST MILLWORK IN GYMNASIUM (LR - BSMT)	13NOV14	26NOV14	18DEC14	2JAN15	24
CW-73203	10	10	1	0	16727	INST DATA DEVICES (CW-3RD FLR)	20NOV14	4DEC14	26DEC14	9JAN15	24
LR-00247	5	5	1	0	11480	INST BLEACHERS IN GYM (LR - BSMT)	20NOV14	26NOV14	26DEC14	2JAN15	24
LR-00248	5	5	1	0	11480	INST EQUIPMENT IN GYM (LR - BSMT)	28NOV14	4DEC14	5JAN15	9JAN15	24
LR-42105	12	12	1	0	15891	INST DUCT BRANCHES (LR-GYMATORIUM)	22APR14	7MAY14	28MAY14	12JUN14	25
LR-52100	10	10	1	0	15410	INST WASTE & VENT PIPING (LR-GYMATORIUM)	29APR14	12MAY14	4JUN14	17JUN14	25
LR-52105	8	8	1	0	15410	INST & TEST STORM PIPING (LR-GYMATORIUM)	29APR14	8MAY14	4JUN14	13JUN14	25
LR-52110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-GYMATORIUM)	29APR14	14MAY14	4JUN14	19JUN14	25
BS-90011	5	5	1	0	15836	START UP & TEST UNIT HEATERS / CABINET HEATERS	4NOV14	10NOV14	11DEC14	17DEC14	25
LR-43485	3	3	1	0	15970	INST ATC DEVICES (LR-LIBRARY)	6NOV14	10NOV14	15DEC14	17DEC14	25
BS-10910	10	10	1	0	15836	SCHEDULE & TRAIN -HEATERS & CABINET UNIT HEATERS	12NOV14	25NOV14	18DEC14	2JAN15	25
BS-10900	10	10	1	0	15783	SCHEDULE & TRAIN - HEAT PUMP SYSTEM	26NOV14	10DEC14	5JAN15	16JAN15	25
CW-12217	3	3	1	0	10830	INST MIRRORS (CW-2ND FLR)	1DEC14	3DEC14	7JAN15	9JAN15	25
BS-06020	8	8	1	0	04200	EXTERIOR CMU (LR-SOUTH)	14MAR14	25MAR14	21APR14	30APR14	26
CW-41110	12	12	1	0	15891	INST DUCT RISERS (CW-1ST FLR)	24MAR14	8APR14	29APR14	14MAY14	26
BS-06040	4	4	1	0	04200	AIR BARRIER (LR-SOUTH)	26MAR14	31MAR14	1MAY14	6MAY14	26

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-06050	8	8	1	0	04200	EXTERIOR BRICK & WASHDOWN (LR-SOUTH)	1APR14	10APR14	7MAY14	16MAY14	26
BS-06347	11	11	1	0	04435	CAST STONE WORK (WEST ELEVATION) PERIMETER SITE	11APR14	25APR14	19MAY14	3JUN14	26
BS-06740	10	10	1	0	08400	INST CURTAINWALL (LR-LOBBY WEST ELEV	28APR14	9MAY14	4JUN14	17JUN14	26
BS-06760	2	2	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - WEST)	12MAY14	13MAY14	18JUN14	19JUN14	26
BS-0678	0	0	1	0	08525	START WINDOWS	14MAY14		20JUN14		26
CW-60105	5	5	1	0	15333	SET & INST FIRE PUMP (CW-BSMT)	6JUN14	12JUN14	15JUL14	21JUL14	26
LR-72148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	3NOV14	7NOV14	26
LR-72200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR-GYMATORIUM)	2OCT14	6OCT14	10NOV14	13NOV14	26
CW-14175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-4TH FLR)	17OCT14	28OCT14	25NOV14	5DEC14	26
LR-00265	3	3	1	0	10652	INST FOLDING PARTN TOP TRACK GYMNASIUM	30OCT14	3NOV14	9DEC14	11DEC14	26
CW-34670	1	1	1	0	10840	INST GRAB BARS (CW-3RD FLR)	18NOV14	18NOV14	26DEC14	26DEC14	26
CW-51115	8	8	1	0	15416	INST & TEST GAS PIPING (CW-1ST FLR) (N)	31MAR14	9APR14	7MAY14	16MAY14	27
CW-51116	8	8	1	0	15416	INST & TEST GAS PIPING (CW-1ST FLR) (S)	10APR14	21APR14	19MAY14	29MAY14	27
CW-42410	5	5	1	0	15783	INST (1) AC UNIT (CW - 2ND FLR)	14APR14	18APR14	21MAY14	28MAY14	27
CW-70094	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-BSMT) (N)	1AUG14	14AUG14	10SEP14	23SEP14	27
CW-70092	9	9	1	0	16726	INST SECURITY & TELECOM WIRE (CW-BSMT)	4AUG14	14AUG14	11SEP14	23SEP14	27
CW-70095	10	10	1	0	16720	INST FIRE ALARM WIRE (CW-BSMT) (S)	8AUG14	21AUG14	17SEP14	30SEP14	27
BS-90110	8	8	1	0	15835	START UP & TEST FIN TUBE RADIATORS	28OCT14	6NOV14	8DEC14	17DEC14	27
CW-12265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-2ND FLR)	4NOV14	18NOV14	15DEC14	29DEC14	27
CW-12170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-2ND FLR)	19NOV14	25NOV14	30DEC14	6JAN15	27
CW-41450	8	8	1	0	15836	INST UNIT HEATERS (CW- 1ST FLR)	31MAR14	9APR14	8MAY14	19MAY14	28
CW-41610	7	7	1	0	15836	INST (8) EUH (CW-1ST FLR)	10APR14	18APR14	20MAY14	29MAY14	28
CW-42460	6	6	1	0	15836	INST UNIT HEATERS (CW- 2ND FLR)	21APR14	28APR14	30MAY14	6JUN14	28
CW-42610	8	8	1	0	15836	INST (8) EUH (CW-2ND FLR)	29APR14	8MAY14	9JUN14	18JUN14	28
CW-43470	8	8	1	0	15836	INST UNIT HEATERS (CW- 3RD FLR)	9MAY14	20MAY14	19JUN14	30JUN14	28
CW-44480	6	6	1	0	15836	INST UNIT HEATERS (CW- 4TH FLR)	13MAY14	20MAY14	23JUN14	30JUN14	28
LR-73110	10	10	1	0	16120	PULL WIRE (LR-LIBRARY)	17SEP14	30SEP14	28OCT14	10NOV14	28
LR-02120	6	6	1	0	09510	INST METAL MESH CEILING PANELS (LR-GYMATORIUM)	25SEP14	2OCT14	5NOV14	13NOV14	28
LR-73080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR-LIBRARY)	1OCT14	2OCT14	12NOV14	13NOV14	28
CW-71088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-1ST FLR)	3OCT14	6OCT14	14NOV14	17NOV14	28
LR-73094	5	5	1	0	16720	INST FIRE ALARM WIRE (LR-LIBRARY)	3OCT14	9OCT14	14NOV14	20NOV14	28
LR-42110	12	12	1	0	15891	INST DUCT RISERS (LR-GYMATORIUM)	22APR14	7MAY14	3JUN14	18JUN14	29
BS-06880	11	11	1	0	04200	EXTERIOR CMU (CW-EAST)	12JUN14	26JUN14	24JUL14	7AUG14	29
BS-06890	6	6	1	0	04200	AIR BARRIER (CW-EAST)	27JUN14	7JUL14	8AUG14	15AUG14	29
BS-06900	11	11	1	0	04200	EXTERIOR BRICK (CW-EAST)	8JUL14	22JUL14	18AUG14	2SEP14	29
BS-06910	5	5	1	0	04200	WASHDOWN EXTERIOR BRICK (CW-EAST)	23JUL14	29JUL14	3SEP14	9SEP14	29
BS-06341	5	5	1	0	04200	SCA INSPECTION EXT MASONRY/STONE (CW)	30JUL14	5AUG14	10SEP14	16SEP14	29
CW-15175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-5TH FLR)	17OCT14	28OCT14	1DEC14	10DEC14	29
LR-43120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-LIBRARY)	29OCT14	4NOV14	11DEC14	17DEC14	29
CW-11240	5	5	1	0	08710	INST HARDWARE (CW-1ST FLR)	10NOV14	17NOV14	23DEC14	30DEC14	29
BS-00034	0	0	1	0	15410	START U/G PLUMBING & OTHER UTILITIES	19SEP13		1NOV13		30
BS-00410	10	10	1	0	16010	ELECTRICAL UNDERSLAB POWER	19SEP13	2OCT13	1NOV13	15NOV13	30
BS-00460	10	10	1	0	15333	FIRE PUMP PIPING UNDERSLAB	19SEP13	2OCT13	1NOV13	15NOV13	30
BS-06349	20	20	1	0	04435	CAST STONE WORK (SOUTH ELEVATION) PERIMETER SITE	28APR14	23MAY14	10JUN14	8JUL14	30
BS-06351	14	14	1	0	04435	CAST STONE WORK (NORTH ELEVATION) COURTYARD	27MAY14	13JUN14	9JUL14	28JUL14	30
BS-06355	10	10	1	0	04435	CAST STONE WORK (WEST ELEVATION) COURTYARD	27MAY14	9JUN14	9JUL14	22JUL14	30
BS-06357	14	14	1	0	04435	CAST STONE WORK (SOUTH ELEVATION) COURTYARD	10JUN14	27JUN14	23JUL14	11AUG14	30
BS-06353	10	10	1	0	04435	CAST STONE WORK (EAST ELEVATION) COURTYARD	16JUN14	27JUN14	29JUL14	11AUG14	30
BS-06730	5	5	1	0	08525	INST WINDOWS (LR - COURTYARD)	30JUN14	7JUL14	12AUG14	18AUG14	30
BS-06590	10	10	1	0	08400	INST STOREFRONT (LR - COURTYARD) NORTH	8JUL14	21JUL14	19AUG14	2SEP14	30
BS-06600	10	10	1	0	08400	INST STOREFRONT (LR - COURTYARD) SOUTH	22JUL14	4AUG14	3SEP14	16SEP14	30
LR-00237	10	10	1	0	08110	INST HOLLOW METAL DOORS (LR - BSMT)	30OCT14	13NOV14	15DEC14	29DEC14	30
LR-72205	3	3	1	0	16783	INST CCTV DEVICES (LR-LIBRARY)	6NOV14	10NOV14	22DEC14	24DEC14	30
LR-73197	5	5	1	0	16724	INST SECURITY DEVICES (LR - LIBRARY)	6NOV14	13NOV14	22DEC14	29DEC14	30
LR-00240	3	3	1	0	08710	INST HARDWARE (LR - BSMT)	14NOV14	18NOV14	30DEC14	2JAN15	30
BS-10860	10	10	1	0	15590	SCHEDULE & TRAIN - EMERGENCY GENERATOR SYSTEM	19NOV14	3DEC14	5JAN15	16JAN15	30
CW-40110	12	12	1	0	15891	INST DUCT RISERS (CW-BSMT)	19MAY14	4JUN14	2JUL14	18JUL14	31
CW-50120	9	9	1	0	15440	INST PLUMBING FIXTURE (CW-BSMT)	8OCT14	21OCT14	24NOV14	5DEC14	31
LR-43115	5	5	1	0	15910	INST DUCT DROPS (LR-LIBRARY)	20OCT14	24OCT14	4DEC14	10DEC14	31
CW-10165	10	10	1	0	10810	INST TOILET PARTITIONS (CW-BSMT)	22OCT14	4NOV14	8DEC14	19DEC14	31
CW-10170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-BSMT)	5NOV14	12NOV14	22DEC14	29DEC14	31
CW-72203	10	10	1	0	16727	INST DATA DEVICES (CW-2ND FLR)	10NOV14	24NOV14	26DEC14	9JAN15	31
CW-11170	5	5	1	0	10810	INST TOILET ACCESSORIES (CW-1ST FLR)	13NOV14	19NOV14	30DEC14	6JAN15	31
LR-00220	3	3	1	0	10440	INST INTERIOR SIGNAGE (LR - BSMT)	20NOV14	24NOV14	7JAN15	9JAN15	31
LR-00230	3	3	1	0	10522	INST FIRE EXTINGUISHERS/CABINETS (LR - BSMT)	20NOV14	24NOV14	7JAN15	9JAN15	31
CW-W3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-3RD FLR)	25AUG14	29AUG14	9OCT14	16OCT14	32
CW-M3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-3RD FLR)	2SEP14	8SEP14	17OCT14	23OCT14	32
CW-E3155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-3RD FLR)	9SEP14	15SEP14	24OCT14	30OCT14	32
CW-44300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-4TH FLR)	16SEP14	25SEP14	31OCT14	12NOV14	32
CW-W5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-5TH FLR)	16SEP14	22SEP14	31OCT14	6NOV14	32
CW-M5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-5TH FLR)	23SEP14	29SEP14	7NOV14	14NOV14	32
CW-44310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-4TH FLR)	26SEP14	7OCT14	13NOV14	24NOV14	32
CW-E5155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-5TH FLR)	30SEP14	6OCT14	17NOV14	21NOV14	32
CW-13175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-3RD FLR)	2OCT14	14OCT14	19NOV14	1DEC14	32
CW-44320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-4TH FLR)	8OCT14	20OCT14	25NOV14	5DEC14	32
CW-15105	12	12	1	0	15910	INST DUCT DROPS (CW-5TH FLR)	15OCT14	30OCT14	2DEC14	17DEC14	32
CW-15140	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-5TH FLR)	31OCT14	6NOV14	18DEC14	24DEC14	32
BS-06343	18	18	1	0	04435	CAST STONE WORK (NORTH ELEVATION) PERIMETER SITE	11APR14	6MAY14	29MAY14	23JUN14	33
BS-06345	10	10	1	0	04435	CAST STONE WORK (EAST ELEVATION) PERIMETER SITE	7MAY14	20MAY14	24JUN14	8JUL14	33
LR-53110	12	12	1	0	15410	INST & TEST WATER PIPING (LR-LIBRARY)	15MAY14	2JUN14	2JUL14	18JUL14	33
CW-W4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-4TH FLR)	2SEP14	8SEP14	20OCT14	24OCT14	33
CW-M4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-4TH FLR)	9SEP14	15SEP14	27OCT14	31OCT14	33
CW-E4155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-4TH FLR)	16SEP14	22SEP14	3NOV14	7NOV14	33
LR-52120	10	10	1	0	15440	INST PLUMBING FIXTURE (LR-GYMATORIUM)	8OCT14	22OCT14	26NOV14	10DEC14	33
LR-00245	10	10	1	0	10505	INST LOCKERS & BENCHES (LR - BSMT)	23OCT14	5NOV14	11DEC14	24DEC14	33
CW-11265	10	10	1	0	10151	INST TOILET PARTITIONS (CW-1ST FLR)	27OCT14	7NOV14	15DEC14	29DEC14	33
LR-62130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR-GYMATORIUM)	16SEP14	29SEP14	4NOV14	18NOV14	34
CW-61120	10	10	1	0	15332	INST SPRINKLER BRANCH & DROPS (CW-1ST FLR)	2MAY14	15MAY14	23JUN14	7JUL14	35

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-53100	10	10	1	0	15410	INST WASTE & VENT PIPING (LR-LIBRARY)	13MAY14	27MAY14	2JUL14	16JUL14	35
LR-53105	8	8	1	0	15410	INST & TEST STORM PIPING (LR-LIBRARY)	13MAY14	22MAY14	2JUL14	14JUL14	35
CW-41111	5	5	1	0	NA	SCA INSPECTION MEP'S (CW-1ST FLR)	16MAY14	22MAY14	8JUL14	14JUL14	35
CW-30105	10	10	1	0	07250	FIREPROOFING (CW - BSMT EAST)	20FEB14	5MAR14	11APR14	24APR14	36
LR-50300	10	10	1	0	15413	INST PLUMBING INSULATION (LR - BSMT)	6MAY14	19MAY14	26JUN14	10JUL14	36
BS-06799	0	0	1	0	08525	WINDOW FOR SAMPLE CLASSROM SET		28JUL14		17SEP14	36
BS-1S000	0	0	1	0	01426S	START SAMPLE CLASSROOM	29JUL14		18SEP14		36
CW-1S005	45*	45*	1	0	09260	CONSTRUCT SAMPLE ROOM (CW-2ND FLR)	29JUL14	30SEP14	18SEP14	21NOV14	36
CW-1S095	5	5	1	0	09260	INST GYPSUM BOARD WALL -SAMPLE CLASSRM	29JUL14	4AUG14	18SEP14	24SEP14	36
CW-1S125	4	4	1	0	09260	TAPE & SPACKLE GYPSUM BOARD WALLS-SAMPLE CLASSRM	5AUG14	8AUG14	25SEP14	30SEP14	36
CW-1S100	4	4	1	0	05170	INST BLACK IRON FRAMING-SAMPLE CLASSRM	11AUG14	14AUG14	1OCT14	6OCT14	36
CW-1S120	5	5	1	0	09260	INST GYPSUM BOARD CEILING -SAMPLE CLASSRM	15AUG14	21AUG14	7OCT14	14OCT14	36
CW-1S130	4	4	1	0	09260	TAPE & SPACKLE GYPSUM BRD CEILING-SAMPLE CLASSRM	22AUG14	27AUG14	15OCT14	20OCT14	36
CW-1S150	4	4	1	0	09900	PRIME PAINTING - SAMPLE CLASSROOM	28AUG14	3SEP14	21OCT14	24OCT14	36
CW-1S135	4	4	1	0	09510	INST SUSPENDED CEILING GRID-SAMPLE CLASSRM	4SEP14	9SEP14	27OCT14	30OCT14	36
CW-1S175	5	5	1	0	09510	INST ACOUSTICAL CEILING TILE -SAMPLE CLASSRM	10SEP14	16SEP14	31OCT14	6NOV14	36
CW-1S210	5	5	1	0	09900	FINAL PAINTING - SAMPLE CLASSRM	17SEP14	23SEP14	7NOV14	14NOV14	36
CW-1S225	5	5	1	0	06410	INST MILLWORK/CASEWORK -SAMPLE CLASSRM	24SEP14	30SEP14	17NOV14	21NOV14	36
BS-1S999	0	0	1	0	01426S	SAMPLE CLASSROOM COMPLETE (CW-2ND FLR)		30SEP14		21NOV14	36
CW-1S199	5	5	1	0	01426S	SCA APPROVE SAMPLE CLASSROOM (CW-2ND FLR)	1OCT14	7OCT14	24NOV14	1DEC14	36
CW-01210	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-1ST TO 2ND FLR)	24FEB14	7MAR14	16APR14	29APR14	37
CW-01215	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW - BSMT TO 1ST FLR)	24FEB14	7MAR14	16APR14	29APR14	37
CW-00053	5	5	1	0	04200	INTERIOR CMU STAIR B (CW BSMT - 1 FLR)	10MAR14	14MAR14	30APR14	6MAY14	37
CW-00056	3	3	1	0	10605	INST STAIR B RAIL (CW - BSMT - 1STFLR)	17MAR14	19MAR14	7MAY14	9MAY14	37
CW-00058	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-1ST TO 2ND FLR)	20MAR14	2APR14	12MAY14	23MAY14	37
CW-41410	5	5	1	0	15783	INST AC UNIT & AC-1-1 IN RM 123 (CW - 1ST FLR)	31MAR14	4APR14	21MAY14	28MAY14	37
CW-00060	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 1-2 FLR)	3APR14	9APR14	27MAY14	2JUN14	37
CW-00062	3	3	1	0	10605	INST STAIR B RAIL (CW-1ST TO 2ND FLR)	10APR14	14APR14	3JUN14	5JUN14	37
CW-00064	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-2ND TO 3RD FLR)	15APR14	28APR14	6JUN14	19JUN14	37
CW-00066	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 2-3 FLR)	29APR14	5MAY14	20JUN14	26JUN14	37
CW-00068	3	3	1	0	10605	INST STAIR B RAIL (CW-2ND TO 3RD FLR)	6MAY14	8MAY14	27JUN14	1JUL14	37
CW-00070	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-3RD TO 4TH FLR)	9MAY14	22MAY14	2JUL14	16JUL14	37
LR-52300	10	10	1	0	15413	INST PLUMBING INSULATION (LR-GYMATORIUM)	20MAY14	3JUN14	14JUL14	25JUL14	37
CW-00072	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 3-4 FLR)	23MAY14	30MAY14	17JUL14	23JUL14	37
CW-00078	3	3	1	0	10605	INST STAIR B RAIL (CW-3RD TO 4TH FLR)	2JUN14	4JUN14	24JUL14	28JUL14	37
CW-00074	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-4TH TO 5TH FLR)	5JUN14	18JUN14	29JUL14	11AUG14	37
CW-00080	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 4TH - 5TH FLR)	19JUN14	25JUN14	12AUG14	18AUG14	37
CW-00082	3	3	1	0	10605	INST STAIR B RAIL (CW-4TH - 5TH FLR)	26JUN14	30JUN14	19AUG14	21AUG14	37
CW-00084	10	10	1	0	05710	ERECT STEEL PAN STAIRS B (CW-5TH TO ROOF)	1JUL14	15JUL14	22AUG14	5SEP14	37
LR-10212	5	5	1	0	05710	ERECT STEEL PAN STAIRS C (LR @ LOCKER RMS)	16JUL14	22JUL14	8SEP14	12SEP14	37
LR-10222	5	5	1	0	05710	ERECT STEEL PAN STAIRS D (LR @ GYMATORIUM)	23JUL14	29JUL14	15SEP14	19SEP14	37
LR-10445	5	5	1	0	05710	ERECT STEEL PAN STAIRS E (LR @ GYMATORIUM)	30JUL14	5AUG14	22SEP14	26SEP14	37
LR-10450	5	5	1	0	05710	ERECT CONCRETE STAIRS F (LR @ LOWER LOBBY)	6AUG14	12AUG14	29SEP14	3OCT14	37
LR-10452	5	5	1	0	05710	ERECT CONCRETE STAIRS G (LOBBY)	13AUG14	19AUG14	6OCT14	10OCT14	37
LR-10454	5	5	1	0	05710	ERECT STEEL PAN STAIRS H (LR @ LOBBY)	20AUG14	26AUG14	14OCT14	20OCT14	37
CW-10456	5	5	1	0	05710	ERECT CONCRETE STAIRS I (CW @ BASEMENT)	27AUG14	3SEP14	21OCT14	27OCT14	37
CW-10290	5	5	1	0	05710	ERECT CONCRETE STAIRS J (CW @ BASEMENT/KITCHEN)	4SEP14	10SEP14	28OCT14	3NOV14	37
CW-1S180	5	5	1	0	09650	INST VCT FLOORING-SAMPLE CLASSRM	4SEP14	10SEP14	28OCT14	3NOV14	37
CW-10292	5	5	1	0	05710	ERECT STEEL PAN STAIRS K (CW @ 1ST FL LOBBY)	11SEP14	17SEP14	4NOV14	10NOV14	37
CW-1S181	3	3	1	0	09650	INST VINYL BASE-SAMPLE CLASSRM	11SEP14	15SEP14	4NOV14	6NOV14	37
LR-10294	5	5	1	0	05710	FIXED INDUSTRIAL STAIR L TO GYM ROOF	18SEP14	24SEP14	12NOV14	18NOV14	37
CW-1S223	4	4	1	0	12302	INST CNTRCTR SUPPLIED FURNITURE-SAMPLE CLASSRM	24SEP14	29SEP14	18NOV14	21NOV14	37
CW-1S227	4	4	1	0	12302	INST OWNER SUPPLIED ITEMS-SAMPLE CLASSRM	24SEP14	29SEP14	18NOV14	21NOV14	37
CW-12175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-2ND FLR)	25SEP14	6OCT14	19NOV14	1DEC14	37
LR-10296	5	5	1	0	05710	EXTERIOR CONCRETE STAIRS M WEST OF GYM	25SEP14	1OCT14	19NOV14	25NOV14	37
CW-10187	10	10	1	0	05700	INST COLUMN COVER - DINING AREA (CW-BSMT)	2OCT14	16OCT14	26NOV14	10DEC14	37
OS-02140	5	5	1	0	02825	INST PERIMETER COURT YARD FENCE	2OCT14	8OCT14	26NOV14	3DEC14	37
OS-02300	10	10	1	0	02825	INST PERIMETER FENCE & GATES - WEST SIDE	9OCT14	23OCT14	4DEC14	17DEC14	37
OS-02310	5	5	1	0	02825	INST PERIMETER FENCE & GATES - NORTH SIDE	24OCT14	30OCT14	18DEC14	24DEC14	37
CW-24670	1	1	1	0	10840	INST GRAB BARS (CW-2ND FLR)	30OCT14	30OCT14	24DEC14	24DEC14	37
OS-02320	5	5	1	0	02825	INST PERIMETER FENCE & GATES - EAST SIDE	31OCT14	6NOV14	26DEC14	2JAN15	37
CW-W2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-WEST-2ND FLR)	4AUG14	8AUG14	26SEP14	2OCT14	38
CW-M2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-MIDDLE-2ND FLR)	11AUG14	15AUG14	3OCT14	9OCT14	38
CW-E2155	5	5	1	0	09310	INST CERAMIC TILE - CORRIDOR (CW-EAST-2ND FLR)	18AUG14	22AUG14	10OCT14	17OCT14	38
LR-72090	10	10	1	0	16470	INST ELECT PANEL INTERIORS (LR-GYMATORIUM)	25AUG14	8SEP14	20OCT14	31OCT14	38
CW-1S215	3	3	1	0	10100	INST WHITE & BLACK BOARDS-SAMPLE CLASSRM	24SEP14	26SEP14	19NOV14	21NOV14	38
CW-1S221	3	3	1	0	12501	INST WINDOW SHADES-SAMPLE CLASSRM	24SEP14	26SEP14	19NOV14	21NOV14	38
CW-51300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-1ST FLR)	28APR14	9MAY14	23JUN14	7JUL14	39
CW-52300	10	10	1	0	15413	INST PLUMBING INSULATION (CW-2ND FLR)	12MAY14	23MAY14	8JUL14	21JUL14	39
CW-53300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-3RD FLR)	27MAY14	6JUN14	22JUL14	1AUG14	39
CW-54300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-4TH FLR)	9JUN14	19JUN14	4AUG14	14AUG14	39
CW-55300	9	9	1	0	15413	INST PLUMBING INSULATION (CW-5TH FLR)	20JUN14	2JUL14	15AUG14	27AUG14	39
LR-72190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR-GYMATORIUM)	25SEP14	6OCT14	21NOV14	3DEC14	39
LR-72195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	21NOV14	28NOV14	39
BS-05017	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-GYMNASIUM)	10DEC13	13DEC13	7FEB14	12FEB14	40
BS-05027	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-GYMATORIUM)	16DEC13	19DEC13	13FEB14	19FEB14	40
BS-05057	4	4	1	0	05300	ERECT METAL DECKING & STUDS (LR-LIBRARY)	20DEC13	26DEC13	20FEB14	25FEB14	40
BS-05058	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (LR-LIBRARY)	27DEC13	3JAN14	26FEB14	4MAR14	40
CW-40470	5	5	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-BSMT)	5JUN14	11JUN14	1AUG14	7AUG14	40
CW-11137	12	12	1	0	09550	INST SUSPENDED METAL CEILING SYS LOBBY	4SEP14	19SEP14	31OCT14	18NOV14	40
CW-11175	8	8	1	0	09510	INST ACOUSTICAL CEILING TILE (CW-1ST FLR)	22SEP14	1OCT14	19NOV14	1DEC14	40
LR-73090	10	10	1	0	16470	INST ELECT PANEL INTERIORS(LR-LIBRARY)	1OCT14	15OCT14	1DEC14	12DEC14	40
LR-73092	5	5	1	0	16726	INST SECURITY & TELECOM WIRE (LR-LIBRARY)	16OCT14	22OCT14	15DEC14	19DEC14	40
03-03000	60	60	1	0	03100	P&S CONCRETE FORMWORK SHOP DRAWINGS	8APR13	1JUL13	5JUN13	28AUG13	41
03-03005	10	10	1	0	03100	R&A CONCRETE FORMWORK SHOP DRAWINGS	2JUL13	16JUL13	29AUG13	12SEP13	41
LR-40105	12	12	1	0	15891	INST DUCT BRANCHES (LR-GYM)	4APR14	21APR14	3JUN14	18JUN14	41
LR-40110	12	12	1	0	15891	INST DUCT RISERS (LR-GYM)	4APR14	21APR14	3JUN14	18JUN14	41
LR-72100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR-GYMATORIUM)	18APR14	5MAY14	17JUN14	2JUL14	41

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-73100	12	12	1	0	16130	ELECTRICAL ROUGH-IN (LR-LIBRARY)	6MAY14	21MAY14	3JUL14	21JUL14	41
LR-56102	10	10	1	0	15416	INST & TEST GAS PIPING (LR-ROOF)	10JUN14	23JUN14	7AUG14	20AUG14	41
LR-56105	6	6	1	0	15440	INST DRAINS (LR-ROOF)	10JUN14	17JUN14	7AUG14	14AUG14	41
CW-70090	10	10	1	0	16470	INST ELECT PANEL INTERIORS (CW-BSMT)	6AUG14	19AUG14	3OCT14	17OCT14	41
BS-00186	4	2	1	50	02250	BURIED TANK REMOVAL	1APR13A	24APR13		24JUN13	42
BS-00188	2	2	1	0	02250	DECOMMISSION MONITORING WELLS	23APR13	24APR13	21JUN13	24JUN13	42
LR-14526	5	5	1	0	15510	FLUSH HVAC PIPING (LR-ROOF)	24JUN14	30JUN14	22AUG14	28AUG14	42
BS-15399	0	0	1	0	15510	BUILDING HVAC FLUSH-OUT		30JUN14		28AUG14	42
CW-50700	10	10	1	0	15510	INSULATE HVAC PIPING (CW- BSMT)	1JUL14	15JUL14	29AUG14	12SEP14	42
CW-51700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-1ST FLR)	16JUL14	29JUL14	15SEP14	26SEP14	42
CW-52700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-2ND FLR)	30JUL14	12AUG14	29SEP14	10OCT14	42
CW-70088	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (CW-BSMT)	6AUG14	7AUG14	6OCT14	7OCT14	42
LR-70094	4	4	1	0	16720	INST FIRE ALARM WIRE (LR - BSMT)	8AUG14	13AUG14	8OCT14	14OCT14	42
CW-53700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-3RD FLR)	13AUG14	26AUG14	14OCT14	27OCT14	42
LR-70148	5	5	1	0	16140	INST ELECTRICAL DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70195	5	5	1	0	16720	INST FIRE ALARM DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70197	5	5	1	0	16724	INST SECURITY DEVICES (LR - BSMT)	14AUG14	20AUG14	15OCT14	21OCT14	42
LR-70200	3	3	1	0	16791	INST CLOCKS & PA SYSTEM DEVICES (LR - BSMT)	21AUG14	25AUG14	22OCT14	24OCT14	42
LR-70205	3	3	1	0	16783	INST CCTV DEVICES (LR - BSMT)	26AUG14	28AUG14	27OCT14	29OCT14	42
CW-54700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-4TH FLR)	27AUG14	10SEP14	28OCT14	10NOV14	42
CW-43300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-3RD FLR)	2SEP14	11SEP14	31OCT14	12NOV14	42
CW-55700	10	10	1	0	15510	INSULATE HVAC PIPING (CW-5TH FLR)	11SEP14	24SEP14	12NOV14	25NOV14	42
CW-43310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-3RD FLR)	12SEP14	23SEP14	13NOV14	24NOV14	42
CW-43320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-3RD FLR)	24SEP14	3OCT14	25NOV14	5DEC14	42
LR-50700	10	10	1	0	15510	INSULATE HVAC PIPING (LR - BSMT)	25SEP14	8OCT14	26NOV14	10DEC14	42
CW-44115	12	12	1	0	15910	INST DUCT DROPS (CW-4TH FLR)	30SEP14	16OCT14	2DEC14	17DEC14	42
CW-10181	6	6	1	0	09650	INST VINYL BASE (CW-BSMT)	1OCT14	8OCT14	3DEC14	10DEC14	42
LR-52700	10	10	1	0	15510	INSULATE HVAC PIPING (LR-GYMATORIUM)	9OCT14	23OCT14	11DEC14	24DEC14	42
CW-44120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-4TH FLR)	17OCT14	23OCT14	18DEC14	24DEC14	42
CW-14670	1	1	1	0	10840	INST GRAB BARS (CW-1ST FLR)	22OCT14	22OCT14	23DEC14	23DEC14	42
LR-53700	10	10	1	0	15510	INSULATE HVAC PIPING (LR-LIBRARY)	24OCT14	6NOV14	26DEC14	9JAN15	42
BS-05006	0	0	1	0	05300	START DECK ERECTION	10DEC13		13FEB14		44
BS-06580	5	5	1	0	08920	INST CURTAINWALL (LR - GYM NORTH & EAST)	27MAY14	2JUN14	29JUL14	4AUG14	44
BS-06610	10	10	1	0	08400	INST CURTAINWALL (LR EAST ELEV NORTH HALF)	3JUN14	16JUN14	5AUG14	18AUG14	44
BS-06620	10	10	1	0	08400	INST CURTAINWALL (LR EAST ELEV SOUTH HALF)	17JUN14	30JUN14	19AUG14	2SEP14	44
BS-06615	10	10	1	0	07421	INST METAL WALL PANEL EAST ELEV NORTH HALF	1JUL14	15JUL14	3SEP14	16SEP14	44
CW-02230	10	10	1	0	07260	INST SPECIAL COATING -STAIR A	16SEP14	29SEP14	19NOV14	3DEC14	44
CW-00088	10	10	1	0	07260	INST SPECIAL COATING -STAIR B	30SEP14	14OCT14	4DEC14	17DEC14	44
CW-71203	10	10	1	0	16727	INST DATA DEVICES (CW-1ST FLR)	22OCT14	4NOV14	26DEC14	9JAN15	44
BS-07000	10	10	1	0	04200	INTERIOR CMU LR-GYM (NORTH WALL)	19MAR14	1APR14	21MAY14	4JUN14	45
BS-07040	10	10	1	0	04200	INTERIOR CMU LR-GYMATORIUM (NORTH WALL)	2APR14	15APR14	5JUN14	18JUN14	45
BS-07041	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (LR-GYMATORIUM)	16APR14	22APR14	19JUN14	25JUN14	45
BS-07010	10	10	1	0	04200	INTERIOR CMU LR-GYM (EAST WALL)	23APR14	6MAY14	26JUN14	10JUL14	45
BS-07020	10	10	1	0	04200	INTERIOR CMU LR-GYM (SOUTH WALL)	7MAY14	20MAY14	11JUL14	24JUL14	45
BS-07030	10	10	1	0	04200	INTERIOR CMU LR-GYM (WEST WALL)	21MAY14	4JUN14	25JUL14	7AUG14	45
BS-06025	7	7	1	0	04200	INST STONE (CW-WEST)	26JUN14	7JUL14	29AUG14	9SEP14	45
BS-06101	5	5	1	0	04200	SCA INSPECTION EXT MASONRY/STONE (LR)	8JUL14	14JUL14	10SEP14	16SEP14	45
BS-06499	0	0	1	0	04200	EXTERIOR MASONRY & STONE COMPLETE		14JUL14		16SEP14	45
CW-70203	10	10	1	0	16727	INST DATA DEVICES (CW-BSMT)	6OCT14	20OCT14	11DEC14	24DEC14	45
BS-90140	5	5	1	0	15860	START UP & TEST CENTRIFUGAL FANS	4NOV14	10NOV14	12JAN15	16JAN15	45
CW-55505	5	5	1	0	15510	FLUSH HVAC PIPING (CW-1-5TH FLRS)	10JUN14	16JUN14	14AUG14	20AUG14	46
CW-1S140	5	5	1	0	16500	INST LIGHT FIXTURE & WIRE -SAMPLE CLASSRM)	10SEP14	16SEP14	17NOV14	21NOV14	46
CW-75090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-5TH FLR)	30SEP14	8OCT14	8DEC14	16DEC14	46
CW-75097	5	5	1	0	16728	INST NETWORK CABLING (CW-5TH FLR)	30SEP14	6OCT14	8DEC14	12DEC14	46
LR-42485	3	3	1	0	15970	INST ATC DEVICES (LR-GYMATORIUM)	2OCT14	6OCT14	10DEC14	12DEC14	46
BS-79020	6	6	1	0	16470	START UP & TEST ELECTRICAL PANELS INTERIORS	9OCT14	17OCT14	17DEC14	24DEC14	46
CW-04040	10	10	1	0	15416	INST OH GAS PIPING FOR LAB STATION (CW-5TH FLR)	26JUN14	10JUL14	3SEP14	16SEP14	47
CW-41300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-1ST FLR)	18AUG14	27AUG14	24OCT14	4NOV14	47
LR-40485	3	3	1	0	15970	INST ATC DEVICES (LR - BSMT)	21AUG14	25AUG14	29OCT14	31OCT14	47
LR-00485	5	5	1	0	15970	INST ATC DEVICES (LR-GYM)	26AUG14	2SEP14	3NOV14	7NOV14	47
CW-41310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-1ST FLR)	28AUG14	9SEP14	5NOV14	17NOV14	47
CW-00155	6	6	1	0	09310	INST CERAMIC TILE (CW-BSMT) - LOCKERS AREA	8SEP14	15SEP14	14NOV14	21NOV14	47
CW-41320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-1ST FLR)	10SEP14	19SEP14	18NOV14	28NOV14	47
CW-34595	9	9	1	0	14211	START UP & TROUBLESHOOT MACH RM EQUIP TRACTN(CW)	16SEP14	26SEP14	24NOV14	5DEC14	47
CW-41400	5	5	1	0	15835	INST FIN TUBE RADIATORS (CW-1ST FLR - LOBBY)	22SEP14	26SEP14	1DEC14	5DEC14	47
CW-31480	9	9	1	0	14211	TROUBLESHOOT CABS & DOORS (TRACTION ELEV) (CW)	29SEP14	9OCT14	8DEC14	18DEC14	47
CW-36880	2	2	1	0	05500	PIT ACCESS LADDER TRACTION ELEVATOR (CW)	10OCT14	14OCT14	19DEC14	22DEC14	47
CW-36885	2	2	1	0	05500	2'X2' SUMP PIT GRATING TRACTION ELEVATOR (CW)	15OCT14	16OCT14	23DEC14	24DEC14	47
CW-10270	10	10	1	0	12302	INST CONTRACTOR SUPPLIED FURNITURE (CW-BSMT)	17OCT14	30OCT14	26DEC14	9JAN15	47
CW-10274	10	10	1	0	12302	INST OWNER SUPPLIED ITEMS (CW-BSMT)	17OCT14	30OCT14	26DEC14	9JAN15	47
CW-36889	5	5	1	0	14211	NOTIFY DOB AND INSPECT TRACTION ELEVATOR	17OCT14	23OCT14	26DEC14	2JAN15	47
BS-05018	5	5	1	0	05120	SCA INSPECTION STRUCT STEEL (LR-GYM)	16DEC13	20DEC13	26FEB14	4MAR14	48
BS-05028	5	5	1	0	05120	SCA INSPECTION STRUCTURAL STEEL (LR-GYMATORIUM)	20DEC13	27DEC13	4MAR14	10MAR14	48
CW-71090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-1ST FLR)	18AUG14	26AUG14	27OCT14	4NOV14	48
CW-72090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-2ND FLR)	27AUG14	5SEP14	5NOV14	14NOV14	48
CW-73090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-3RD FLR)	8SEP14	16SEP14	17NOV14	25NOV14	48
CW-74090	7	7	1	0	16470	INST ELECT PANEL INTERIORS (CW-4TH FLR)	17SEP14	25SEP14	26NOV14	5DEC14	48
LR-03480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR-LIBRARY)	22MAY14	5JUN14	1AUG14	14AUG14	49
CW-11480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-1ST FLR)	6JUN14	19JUN14	15AUG14	28AUG14	49
CW-12480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-2ND FLR	20JUN14	3JUL14	29AUG14	12SEP14	49
CW-13480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-3RD FLR)	7JUL14	18JUL14	15SEP14	26SEP14	49
CW-14480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-4TH FLR	21JUL14	1AUG14	29SEP14	10OCT14	49
CW-15480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-5TH FLR)	4AUG14	15AUG14	14OCT14	27OCT14	49
BS-50999	10	10	1	0	15836	INST INSTRUMENTATION & CONTROL - EHU/UH/CH UNITS	16SEP14	29SEP14	26NOV14	10DEC14	49
LR-53300	10	10	1	0	15413	INST PLUMBING INSULATION (LR-LIBRARY)	4JUN14	17JUN14	14AUG14	27AUG14	50
CW-11625	4	4	1	0	12485	INST HINGED FLOOR MAT - (CW-1ST FLR)	22OCT14	27OCT14	6JAN15	9JAN15	50
LR-02480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR-GYMATORIUM)	6MAY14	19MAY14	18JUL14	31JUL14	51
LR-00155	10	10	1	0	09310	INST CERAMIC TILE (LR-BSMT)	14AUG14	27AUG14	28OCT14	10NOV14	51

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
LR-50120	9	9	1	0	15440	INST PLUMBING FIXTURE (LR - BSMT)	28AUG14	10SEP14	12NOV14	24NOV14	51
LR-00165	5	5	1	0	10810	INST TOILET PARTITIONS (LR - BSMT)	11SEP14	17SEP14	25NOV14	2DEC14	51
CW-74097	5	5	1	0	16728	INST NETWORK CABLING (CW-4TH FLR)	16SEP14	22SEP14	1DEC14	5DEC14	51
LR-00170	3	3	1	0	10810	INST TOILET ACCESSORIES (LR - BSMT)	18SEP14	22SEP14	3DEC14	5DEC14	51
LR-73097	5	5	1	0	16728	INST NETWORK CABLING (LR-LIBRARY)	1OCT14	7OCT14	16DEC14	22DEC14	51
CW-10217	3	3	1	0	10830	INST MIRRORS (CW-BSMT)	22OCT14	24OCT14	7JAN15	9JAN15	51
CW-73114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-3RD FLR (N)	19MAY14	2JUN14	1AUG14	14AUG14	52
CW-73115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-3RD FLR (S)	3JUN14	16JUN14	15AUG14	28AUG14	52
CW-56505	5	5	1	0	15510	FLUSH HVAC PIPING (CW-ROOF)	10JUN14	16JUN14	22AUG14	28AUG14	52
BS-06750	2	2	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - EAST)	1JUL14	2JUL14	15SEP14	16SEP14	52
CW-42300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N1/3) (CW-2ND FLR)	18AUG14	27AUG14	31OCT14	12NOV14	52
LR-72080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR-GYMATORIUM)	25AUG14	26AUG14	7NOV14	10NOV14	52
CW-42310	8	8	1	0	15835	INST FIN TUBE RADIATOR (CENTER 1/3) (CW-2ND FLR)	28AUG14	9SEP14	13NOV14	24NOV14	52
CW-42320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-2ND FLR)	10SEP14	19SEP14	25NOV14	5DEC14	52
CW-43115	12	12	1	0	15910	INST DUCT DROPS (CW-3RD FLR)	16SEP14	1OCT14	2DEC14	17DEC14	52
CW-43120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-3RD FLR)	2OCT14	8OCT14	18DEC14	24DEC14	52
CW-10252	5	5	1	0	11500	INST SHOP EQUIPMENT (CW-BSMT)	17OCT14	23OCT14	5JAN15	9JAN15	52
LR-00480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (LR - BSMT)	18APR14	1MAY14	3JUL14	17JUL14	53
LR-72115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR-GYMATORIUM)	6MAY14	19MAY14	22JUL14	4AUG14	53
01-01060	0	0	1	0	01650S	START SUBMITTALS OF O&M MANUALS	4AUG14*		21OCT14		54
15-15920	20	20	1	0	15836	P&S O&M MANUALS - UNIT HEATERS & CABINET HEATERS	4AUG14	29AUG14	21OCT14	18NOV14	54
LR-72094	5	5	1	0	16720	INST FIRE ALARM WIRE (LR-GYMATORIUM)	27AUG14	3SEP14	14NOV14	20NOV14	54
LR-72197	5	5	1	0	16724	INST SECURITY DEVICES (LR-GYMATORIUM)	25SEP14	1OCT14	15DEC14	19DEC14	54
15-15000	100	50	1	50	15301	P&S FIRE PROTECTION SUBCONTRACTOR	3DEC12A	17JUN13		4SEP13	55
15-15005	10	6	1	40	15301	R&A FIRE PROTECTION SUBCONTRACTOR	25FEB13A	25JUN13		12SEP13	55
15-15045	120	30	1	75	15332	P&S COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	6MAR13A	7AUG13		25OCT13	55
15-15050	10	10	1	0	15332	R&A COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	8AUG13	21AUG13	28OCT13	8NOV13	55
15-15055	120	120	1	0	15332	F&D COMBINATION WET STANDPIPE/SPRINKLER SYSTEM	22AUG13	14FEB14	12NOV13	5MAY14	55
BS-14069	0	0	1	0	14211	START ELEVATOR	1MAY14		21JUL14		55
CW-31370	8	8	1	0	14211	INST RAILS SHAFT #1 (CW - TRACTION ELEVATOR)	1MAY14	12MAY14	21JUL14	30JUL14	55
CW-31445	8	8	1	0	03300	CIP ELEVATOR PIT TRACTION (CW-BSMT)	1MAY14	12MAY14	21JUL14	30JUL14	55
CW-31380	8	8	1	0	14211	INST RAILS SHAFT #2 (CW - TRACTION ELEVATOR)	13MAY14	22MAY14	31JUL14	11AUG14	55
CW-31390	8	8	1	0	14211	INST & SET SHEEVE IN MACH ROOM(CW-TRACTION ELEV)	23MAY14	4JUN14	12AUG14	21AUG14	55
CW-31400	9	9	1	0	14211	BUILD WORKING PLATFORMS-CAR#1 (CW TRACTION ELEV)	5JUN14	17JUN14	22AUG14	4SEP14	55
CW-31410	9	9	1	0	14211	BUILD WORKING PLATFORMS-CAR#2 (CW-TRACTION ELEV)	18JUN14	30JUN14	5SEP14	17SEP14	55
CW-55019	2	2	1	0	15416	INST GAS PIPING DROPS FOR LAB STA. (CW-5TH FLR)	26JUN14	27JUN14	15SEP14	16SEP14	55
CW-31420	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW BSMT- 2ND FLR)	1JUL14	14JUL14	18SEP14	30SEP14	55
CW-31430	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW 2ND FLR - 3RD FLR)	15JUL14	25JUL14	1OCT14	14OCT14	55
CW-31440	9	9	1	0	14211	INST TRACTION ELEV DOORS (CW 3RD -5TH FLR)	28JUL14	7AUG14	15OCT14	27OCT14	55
CW-31450	9	9	1	0	14211	FINISH CAB #1 (TRACTION ELEV) CW)	8AUG14	20AUG14	28OCT14	7NOV14	55
LR-70116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR - BSMT)	14AUG14	27AUG14	3NOV14	17NOV14	55
CW-31460	9	9	1	0	14211	FINISH CAB #2 (TRACTION ELEV) CW)	21AUG14	3SEP14	10NOV14	21NOV14	55
LR-70190	8	8	1	0	16520	INST EXIT & EMERGENCY LIGHTING (LR - BSMT)	21AUG14	2SEP14	10NOV14	20NOV14	55
CW-11769	6	6	1	0	09550	INST METAL CEILING AT TWO VESTIBULES	2SEP14	9SEP14	20NOV14	28NOV14	55
CW-10767	6	6	1	0	09550	INST METAL CEILING AT KITCHEN (CW-BSMT)	10SEP14	17SEP14	1DEC14	8DEC14	55
BS-07049	0	0	1	0	16010	START ELECTRICAL DISTRIBUTION LINES	2APR14		20JUN14		56
CW-73097	5	5	1	0	16728	INST NETWORK CABLING (CW-3RD FLR)	2SEP14	8SEP14	21NOV14	28NOV14	56
LR-72203	4	4	1	0	16727	INST DATA DEVICES (LR-GYMATORIUM)	25SEP14	30SEP14	17DEC14	22DEC14	56
09-09000	160	160	1	0	09260	P&S WALL-CEILING SUBCONTRACTOR	8APR13	22NOV13	27JUN13	18FEB14	57
09-09005	10	10	1	0	09260	R&A WALL-CEILING SUBCONTRACTOR	25NOV13	9DEC13	19FEB14	4MAR14	57
09-09010	40	40	1	0	09260	P&S GYPSUM BOARD ASSEMBLIES	10DEC13	6FEB14	5MAR14	29APR14	57
09-09015	10	10	1	0	09260	R&A GYPSUM BOARD ASSEMBLIES	7FEB14	21FEB14	30APR14	13MAY14	57
09-09020	40	40	1	0	09260	F&D GYPSUM BOARD ASSEMBLIES	24FEB14	18APR14	14MAY14	10JUL14	57
CW-75114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-5TH FLR (N)	23JUN14	7JUL14	12SEP14	25SEP14	57
CW-75115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-5TH FLR (S)	8JUL14	21JUL14	26SEP14	9OCT14	57
CW-70117	10	10	1	0	16500	INST LIGHTING FIXTURE (CW-BSMT) (S)	22SEP14	3OCT14	15DEC14	29DEC14	57
CW-42120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-2ND FLR)	25SEP14	1OCT14	18DEC14	24DEC14	57
CW-30390	8	8	1	0	04200	INT CMU TRACTN ELEV SHAFT (CW-BSMT-2ND) SIDE A&B	20MAR14	31MAR14	12JUN14	23JUN14	59
CW-30395	6	6	1	0	04200	INTERIOR CMU TRACTN ELEV SHAFT (CW 2-4) SIDE A&B	1APR14	8APR14	24JUN14	1JUL14	59
CW-30400	6	6	1	0	04200	INTERIOR CMU TRACTN ELEV SHAFT (CW 4-6) SIDE A&B	9APR14	16APR14	2JUL14	10JUL14	59
CW-30415	5	5	1	0	04200	INTERIOR CMU TRACTION ELEV SHAFT(CW- MECH ROOM)	17APR14	23APR14	11JUL14	17JUL14	59
CW-01455	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 2-3 FLR)	24APR14	30APR14	18JUL14	24JUL14	59
CW-01460	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 3-4 FLR)	1MAY14	7MAY14	25JUL14	31JUL14	59
CW-10465	5	5	1	0	04200	INTERIOR CMU STAIR C (CW 4-5 FLR)	8MAY14	14MAY14	1AUG14	7AUG14	59
BS-06770	5	5	1	0	08525	INST PERIMETER J TYPE WINDOWS (LR - NORTH)	3JUN14	9JUN14	26AUG14	2SEP14	59
CW-74114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-4TH FLR (N)	5JUN14	18JUN14	28AUG14	11SEP14	59
CW-74115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-4TH FLR (S)	19JUN14	2JUL14	12SEP14	25SEP14	59
LR-70080	2	2	1	0	16720	INST FIRE ALARM CONTROL PANELS (LR - BSMT)	14JUL14	15JUL14	6OCT14	7OCT14	59
LR-42115	5	5	1	0	15910	INST DUCT DROPS (LR-GYMATORIUM)	9SEP14	15SEP14	4DEC14	10DEC14	59
LR-42120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-GYMATORIUM)	16SEP14	22SEP14	11DEC14	17DEC14	59
11-11055	160	160	1	0	11400	P&S FOOD SERVICE EQUIPMENT	8APR13	22NOV13	2JUL13	21FEB14	60
BS-00970	10	10	1	0	01015G	SPRINKLER OVERLAY (BSMT - CW & LR)	26JUN13	10JUL13	20SEP13	3OCT13	60
BS-00975	5	5	1	0	01015G	SPRINKLER OVERLAY (1ST FLOOR)	11JUL13	17JUL13	4OCT13	10OCT13	60
BS-00980	5	5	1	0	01015G	SPRINKLER OVERLAY (2ND FLOOR)	18JUL13	24JUL13	11OCT13	18OCT13	60
BS-00985	5	5	1	0	01015G	SPRINKLER OVERLAY (3RD FLOOR)	25JUL13	31JUL13	21OCT13	25OCT13	60
BS-00990	5	5	1	0	01015G	SPRINKLER OVERLAY (4TH FLOOR)	1AUG13	7AUG13	28OCT13	1NOV13	60
BS-00995	5	5	1	0	01015G	SPRINKLER OVERLAY (5TH FLOOR)	8AUG13	14AUG13	4NOV13	8NOV13	60
11-11060	10	10	1	0	11400	R&A FOOD SERVICE EQUIPMENT	25NOV13	9DEC13	24FEB14	7MAR14	60
11-11065	160	160	1	0	11400	F&D FOOD SERVICE EQUIPMENT (CW)	10DEC13	29JUL14	10MAR14	23OCT14	60
LR-70115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR - BSMT)	18APR14	1MAY14	15JUL14	28JUL14	60
CW-40300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N 1/3) (CW-BSMT)	6AUG14	15AUG14	31OCT14	12NOV14	60
CW-40310	8	8	1	0	15835	INST FIN TUBE RADIATORS (CENTER 1/3) (CW-BSMT)	18AUG14	27AUG14	13NOV14	24NOV14	60
CW-40320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S1/3) (CW-BSMT)	28AUG14	9SEP14	25NOV14	5DEC14	60
CW-71097	5	5	1	0	16728	INST NETWORK CABLING (CW-1ST FLR)	11AUG14	15AUG14	6NOV14	13NOV14	61
CW-72097	5	5	1	0	16728	INST NETWORK CABLING (CW-2ND FLR)	18AUG14	22AUG14	14NOV14	20NOV14	61
CW-00090	3	3	1	0	10605	INST STAIR B RAIL (CW-5TH FLR - ROOF)	15OCT14	17OCT14	14JAN15	16JAN15	61
CW-41115	12	12	1	0	15910	INST DUCT DROPS (CW-1ST FLR)	2SEP14	17SEP14	2DEC14	17DEC14	62
CW-42115	12	12	1	0	15910	INST DUCT DROPS (CW-2ND FLR)	2SEP14	17SEP14	2DEC14	17DEC14	62

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-41120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-1ST FLR)	18SEP14	24SEP14	18DEC14	24DEC14	62
LR-72116	10	10	1	0	16500	INST LIGHTING FIXTURE (LR-GYMATORIUM)	25SEP14	8OCT14	26DEC14	9JAN15	62
CW-72113	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-2ND FLR (N)	1MAY14	14MAY14	31JUL14	13AUG14	63
CW-72115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-2ND FLR (S)	15MAY14	29MAY14	14AUG14	27AUG14	63
LR-40300	8	8	1	0	15835	INST FIN TUBE RADIATORS (N WALL) (LR - BSMT)	22JUL14	31JUL14	21OCT14	30OCT14	63
LR-40310	8	8	1	0	15835	INST FIN TUBE RADIATORS (E WALL) (LR - BSMT)	1AUG14	12AUG14	31OCT14	12NOV14	63
LR-40320	8	8	1	0	15835	INST FIN TUBE RADIATORS (S WALL) (LR - BSMT)	13AUG14	22AUG14	13NOV14	24NOV14	63
LR-40330	8	8	1	0	15835	INST FIN TUBE RADIATORS (W WALL) (LR - BSMT)	25AUG14	4SEP14	25NOV14	5DEC14	63
09-09200	200	200	1	0	09900	P&S WALL FINISHES SUBCONTRACTOR	8APR13	23JAN14	9JUL13	24APR14	64
09-09205	10	10	1	0	09900	R&A WALL FINISHES SUBCONTRACTOR	24JAN14	6FEB14	25APR14	8MAY14	64
09-09185	40	40	1	0	09860	P&S GRAFFITI RESISTANT COATINGS	7FEB14	4APR14	9MAY14	7JUL14	64
09-09190	10	10	1	0	09860	R&A GRAFFITI RESISTANT COATINGS	7APR14	18APR14	8JUL14	21JUL14	64
CW-71114	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-1ST FLR (N)	16APR14	29APR14	17JUL14	30JUL14	64
09-09195	40	40	1	0	09860	F&D GRAFFITI RESISTANT COATINGS	21APR14	16JUN14	22JUL14	16SEP14	64
CW-71115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (CW-1ST FLR (S)	30APR14	13MAY14	31JUL14	13AUG14	64
11-11015	20	20	1	0	11050	P&S O&M MANUALS FOR LIBRARY EQUIPMENT	4AUG14	29AUG14	4NOV14	3DEC14	64
14-14050	20	20	1	0	14240	P&S O&M MANUALS FOR HYDRAULIC ELEVATOR	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15020	20	20	1	0	15301	P&S O&M MANUALS FOR FIRE PROTECTION SYSTEM	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15075	20	20	1	0	15333	P&S O&M MANUALS FOR FIRE PUMPS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15110	20	20	1	0	15401	P&S O&M MANUALS FOR P&D WORK	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15240	20	20	1	0	15415	P&S O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15325	20	20	1	0	15440	P&S O&M MANUALS FOR PLUMBING FIXTURES	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15350	20	20	1	0	15451	P&S O&M MANUALS FOR WATER HEATER	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15375	20	20	1	0	15453	P&S O&M MANUALS FOR PUMPING APPARATUS & TANKS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15410	20	20	1	0	15501	P&S O&M MANUALS - GENERAL HVAC WORK	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15590	20	20	1	0	15517	P&S O&M MANUALS - WATER TREATMENT HYDRONIC SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15615	20	20	1	0	15540	P&S O&M MANUALS - HVAC PUMPS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15655	20	20	1	0	15565	P&S O&M MANUALS HW CONDENSING BOILERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15715	20	20	1	0	15590	P&S O&M MANUALS FOR EMERGENCY GENERATOR SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15750	20	20	1	0	15596	P&S O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15785	20	20	1	0	15660	P&S O&M MANUALS - PACKAGED OUTDOOR CHILLERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15815	20	20	1	0	15670	P&S O&M MANUALS - PLATE HEAT EXCHANGERS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15855	20	20	1	0	15783	P&S O&M MANUALS - HEAT PUMP SYSTEM	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15945	20	20	1	0	15860	P&S O&M MANUALS - CENTRIFUGAL FANS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-15970	20	20	1	0	15880	P&S O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-16070	20	20	1	0	15932	P&S O&M MANUALS - ACTIVE CHILLED BEAMS	4AUG14	29AUG14	4NOV14	3DEC14	64
15-16100	20	20	1	0	15933	P&S O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	4AUG14	29AUG14	4NOV14	3DEC14	64
CW-10650	5	5	1	0	08330	INST ROLLING GRILLS (CW-BSMT)	20AUG14	26AUG14	21NOV14	28NOV14	64
15-15925	10	10	1	0	15836	R&A O&M MANUALS - UNIT HEATERS & CABINET HEATERS	2SEP14	15SEP14	4DEC14	17DEC14	64
BS-90199	0	0	1	0	01015G	START MECH & ELEC COMMISSIONING	16SEP14		18DEC14		64
CW-11459	3	3	1	0	14240	START UP AND TEST (DAHPE)	16SEP14	18SEP14	18DEC14	22DEC14	64
BS-10730	10	10	1	0	14240	SCHEDULE & TRAIN - HYDRAULIC ELEVATOR	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10750	10	10	1	0	15301	SCHEDULE & TRAIN - FIRE PROTECTION SYSTEM	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10760	10	10	1	0	15333	SCHEDULE & TRAIN - FIRE PUMPS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10770	10	10	1	0	15401	SCHEDULE & TRAIN - P&D WORK	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10780	10	10	1	0	15415	SCHEDULE & TRAIN CID NEUT./GREASE INTERCPTR SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10790	10	10	1	0	15440	SCHEDULE & TRAIN - PLUMBING FIXTURES	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10800	10	10	1	0	15451	SCHEDULE & TRAIN - WATER HEATER	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10810	10	10	1	0	15453	SCHEDULE & TRAIN - PUMPING APPARATUS & TANKS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10830	10	10	1	0	15517	SCHEDULE & TRAIN - WATER TREATMENT HYDRONIC SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10840	10	10	1	0	15540	SCHEDULE & TRAIN - HVAC PUMPS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10850	10	10	1	0	15565	SCHEDULE & TRAIN - HOT WATER CONDENSING BOILERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10870	10	10	1	0	15596	SCHEDULE & TRAIN NATURAL GAS LEAK DETECTION SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10880	10	10	1	0	15660	SCHEDULE & TRAIN - PACKAGED OUTDOOR CHILLERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10890	10	10	1	0	15670	SCHEDULE & TRAIN - PLATE HEAT EXCHANGERS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10920	10	10	1	0	15860	SCHEDULE & TRAIN - CENTRIFUGAL FANS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10930	10	10	1	0	15880	SCHEDULE & TRAIN - SUB-SLAB DEPRESSURIZATION SYS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10950	10	10	1	0	15932	SCHEDULE & TRAIN - CHILLED BEAMS	30SEP14	14OCT14	5JAN15	16JAN15	64
BS-10960	10	10	1	0	15933	SCHEDULE & TRAIN - DEDICATED OUTSIDE AIR RTU'S	30SEP14	14OCT14	5JAN15	16JAN15	64
CW-10815	4	4	1	0	05700	SS RAILS AT STUDENT DINING (CW-BSMT)	1OCT14	6OCT14	6JAN15	9JAN15	64
CW-00212	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW - BSMT TO 1ST FLR)	24FEB14	7MAR14	27MAY14	9JUN14	65
CW-01445	5	5	1	0	04200	INTERIOR CMU STAIR A (CW - BSMT - 1STFLR)	10MAR14	14MAR14	10JUN14	16JUN14	65
CW-01447	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-1ST TO 2ND FLR)	17MAR14	21MAR14	17JUN14	23JUN14	65
CW-01057	3	3	1	0	10605	INST STAIR A RAIL (CW-1ST TO 2ND FLR)	24MAR14	26MAR14	24JUN14	26JUN14	65
CW-02210	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-2ND TO 3RD FLR)	27MAR14	9APR14	27JUN14	11JUL14	65
CW-02212	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-2ND TO 3RD FLR)	10APR14	16APR14	14JUL14	18JUL14	65
CW-02216	3	3	1	0	10605	INST STAIR A RAIL (CW-2ND TO 3RD FLR)	17APR14	21APR14	21JUL14	23JUL14	65
LR-00067	5	5	1	0	10810	INST SHOWER PANS (LR - BSMT)	14AUG14	20AUG14	18NOV14	24NOV14	65
BS-10720	10	10	1	0	14211	SCHEDULE & TRAIN - GEARED TRACTION ELEVATOR	29SEP14	10OCT14	5JAN15	16JAN15	65
BS-06630	5	5	1	0	08525	INST WINDOWS (CW - 5TH FLOOR STRIP WEST)	14MAY14	20MAY14	18AUG14	22AUG14	66
BS-06660	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP WEST)	21MAY14	2JUN14	25AUG14	4SEP14	66
BS-06720	8	8	1	0	08525	INST WINDOWS (CW - VERTICAL STRIP SW)	3JUN14	12JUN14	5SEP14	16SEP14	66
BS-79025	3	3	1	0	16728	START UP & TEST FIBER OPTIC CABLING SYSTEM	7OCT14	9OCT14	14JAN15	16JAN15	66
12-12030	80	80	1	0	12501	P&S CHAIN & CLUTCH OPERATED WINDOW SHADES	10DEC13	4APR14	19MAR14	10JUL14	67
12-12035	10	10	1	0	12501	R&A CHAIN & CLUTCH OPERATED WINDOW SHADES	7APR14	18APR14	11JUL14	24JUL14	67
12-12045	80	80	1	0	12501	F&D CHAIN & CLUTCH OPERATED WINDOW SHADES	21APR14	12AUG14	25JUL14	18NOV14	67
CW-44470	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-4TH FLR)	21MAY14	4JUN14	26AUG14	9SEP14	67
BS-04019	0	0	1	0	04200	START EXT & INT MASONRY, STAIR BULKHEADS	13FEB14		21MAY14		68
CW-06590	2	2	1	0	15565	INST BOILERS - ROOFTOP MER (CW-ROOF)	17APR14	18APR14	24JUL14	25JUL14	68
CW-42470	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-2ND FLR)	2MAY14	15MAY14	8AUG14	21AUG14	68
CW-10298	3	3	1	0	10605	INST STAIR A RAIL (CW - BSMT - 1STFLR)	30SEP14	2OCT14	9JAN15	13JAN15	68
LR-06130	5	5	1	0	05700	INST ROOF LADDERS (LR-ROOF)	11APR14	17APR14	22JUL14	28JUL14	70
CW-14640	5	5	1	0	05700	INST ROOF LADDERS (CW-ROOF)	17APR14	23APR14	28JUL14	1AUG14	70
LR-06180	5	5	1	0	05700	INST ROOF RAILS & GRATING (LR ROOF)	18APR14	24APR14	29JUL14	4AUG14	70
CW-16690	5	5	1	0	05700	INST ROOF RAILS (CW-ROOF)	24APR14	30APR14	4AUG14	8AUG14	70
CW-40115	12	12	1	0	15910	INST DUCT DROPS (CW-BSMT)	20AUG14	5SEP14	2DEC14	17DEC14	70
CW-40120	5	5	1	0	15910	INST GRILLES & REGISTERS (CW-BSMT)	8SEP14	12SEP14	18DEC14	24DEC14	70
LR-42470	5	5	1	0	15932	INST ACTIVE CHILLED BEAMS (LR-GYMATORIUM)	8MAY14	14MAY14	19AUG14	25AUG14	71

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-45470	8	8	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-5TH FLR)	9JUN14	18JUN14	18SEP14	29SEP14	71
CW-50395	5	5	1	0	15783	INST INSTRUMENTATION & CONTROL- SPLIT HEAT PUMPS	15JUL14	21JUL14	24OCT14	30OCT14	71
OS-73193	10	10	1	0	16530	INST SITE SECURITY LIGHTING	15JUL14	28JUL14	24OCT14	6NOV14	71
OS-02150	4	4	1	0	02870	REPLACE (2) STREET LIGHTS - 44TH AVE.	29JUL14	1AUG14	7NOV14	13NOV14	71
OS-02160	2	2	1	0	15406	INST HYDRANT - 44TH AVE.	4AUG14	5AUG14	14NOV14	17NOV14	71
OS-02170	1	1	1	0	02870	INST BIKE RACKS - 44TH AVE.	6AUG14	6AUG14	18NOV14	18NOV14	71
OS-02180	2	2	1	0	02900	PLANT (10) TREES - 44TH AVE.	7AUG14	8AUG14	19NOV14	20NOV14	71
OS-02190	2	2	1	0	02870	INST CIP SIDEWALKS/CURBS - 44TH AVE.	11AUG14	12AUG14	21NOV14	24NOV14	71
OS-02200	2	2	1	0	15406	INST HYDRANT - 43RD AVE.	13AUG14	14AUG14	25NOV14	26NOV14	71
OS-02210	2	2	1	0	02900	PLANT (6) TREES- 43RD AVE.	15AUG14	18AUG14	28NOV14	1DEC14	71
OS-02220	5	5	1	0	02521	INST CIP SIDEWALKS/CURBS - 43RD AVE.	19AUG14	25AUG14	2DEC14	8DEC14	71
OS-02230	5	5	1	0	02515	INST PAVERS- 43RD AVE.	26AUG14	2SEP14	9DEC14	15DEC14	71
OS-02240	2	2	1	0	02900	PLANT (5) TREES- 97TH PLACE	3SEP14	4SEP14	16DEC14	17DEC14	71
OS-02250	5	5	1	0	02515	MAIN ENTRANCE PAVERS - 97TH PLACE	5SEP14	11SEP14	18DEC14	24DEC14	71
OS-02260	5	5	1	0	02515	INST CIP SIDEWALKS/CURBS - 97TH PLACE	12SEP14	18SEP14	26DEC14	2JAN15	71
BS-02270	10	10	1	0	10720	INST WINDOW GUARDS ON J TYPE WINDOWS	19SEP14	2OCT14	5JAN15	16JAN15	71
05-05025	40	40	1	0	05170	P&S SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	10DEC13	6FEB14	26MAR14	20MAY14	72
05-05030	10	10	1	0	05170	R&A SUPPORT SYS FOR SUSPENDED CEILINGS SHOP DWGS	7FEB14	21FEB14	21MAY14	4JUN14	72
BS-15069	0	0	1	0	15933	ROOFTOP UNITS AVAILABLE (CW-ROOF)		21FEB14		4JUN14	72
05-05035	40	40	1	0	05170	F&D SUPPORT SYS FOR SUSPENDED CEILINGS	24FEB14	18APR14	5JUN14	31JUL14	72
CW-46300	10	10	1	0	15933	INST RTU'S ON ROOF (CW)	24FEB14	7MAR14	5JUN14	18JUN14	72
LR-72097	5	5	1	0	16728	INST NETWORK CABLING (LR-GYMATORIUM)	25AUG14	29AUG14	9DEC14	15DEC14	72
LR-70198	3	3	1	0	16726	INST PHONE & INTERCOM DEVICES (LR - BSMT)	21AUG14	25AUG14	8DEC14	10DEC14	73
LR-70203	4	4	1	0	16727	INST DATA DEVICES (LR - BSMT)	26AUG14	29AUG14	11DEC14	16DEC14	73
07-07120	40	40	1	0	07421	P&S METAL WALL PANELS	10DEC13	6FEB14	28MAR14	22MAY14	74
07-07125	10	10	1	0	07421	R&A METAL WALL PANELS	7FEB14	21FEB14	23MAY14	6JUN14	74
07-07130	60	60	1	0	07421	F&D METAL WALL PANELS	24FEB14	16MAY14	9JUN14	2SEP14	74
BS-06510	8	8	1	0	08920	INST CURTAINWALL (CW - NORTH)	7MAY14	16MAY14	21AUG14	2SEP14	74
10-10150	20	20	1	0	10652	P&S O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	4AUG14	29AUG14	19NOV14	17DEC14	74
10-10155	10	10	1	0	10652	R&A O&M MANUALS FOR ELECT. OPERATED FOLDING PNL	2SEP14	15SEP14	18DEC14	2JAN15	74
11-11020	10	10	1	0	11050	R&A O&M MANUALS FOR LIBRARY EQUIPMENT	2SEP14	15SEP14	18DEC14	2JAN15	74
14-14055	10	10	1	0	14240	R&A O&M MANUALS FOR HYDRAULIC ELEVATOR	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15025	10	10	1	0	15301	R&A O&M MANUALS FOR FIRE PROTECTION SYSTEM	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15080	10	10	1	0	15333	R&A O&M MANUALS FOR FIRE PUMPS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15115	10	10	1	0	15401	R&A O&M MANUALS FOR P&D WORK	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15245	10	10	1	0	15415	R&A O&M MANUALS FOR CID NEUT./GREASE INTERCPTR	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15330	10	10	1	0	15440	R&A O&M MANUALS FOR PLUMBING FIXTURES	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15355	10	10	1	0	15451	R&A O&M MANUALS FOR WATER HEATER	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15380	10	10	1	0	15453	R&A O&M MANUALS FOR PUMPING APPARATUS & TANKS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15415	10	10	1	0	15501	R&A O&M MANUALS - GENERAL HVAC WORK	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15595	10	10	1	0	15517	R&A O&M MANUALS - WATER TREATMENT HYDRONIC SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15620	10	10	1	0	15540	R&A O&M MANUALS - HVAC PUMPS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15666	10	10	1	0	15565	R&A O&M MANUALS HW CONDENSING BOILERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15725	10	10	1	0	15590	R&A O&M MANUALS FOR EMERGENCY GENERATOR SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15760	10	10	1	0	15596	R&A O&M MANUALS - NATURAL GAS LEAK DETECTION SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15790	10	10	1	0	15660	R&A O&M MANUALS - PACKAGED OUTDOOR CHILLERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15820	10	10	1	0	15670	R&A O&M MANUALS - PLATE HEAT EXCHANGERS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15861	10	10	1	0	15783	R&A O&M MANUALS - HEAT PUMP SYSTEM	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15950	10	10	1	0	15860	R&A O&M MANUALS - CENTRIFUGAL FANS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-15975	10	10	1	0	15880	R&A O&M MANUALS - SUB-SLAB DEPRESSURIZATION SYS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-16080	10	10	1	0	15932	R&A O&M MANUALS - ACTIVE CHILLED BEAMS	2SEP14	15SEP14	18DEC14	2JAN15	74
15-16110	10	10	1	0	15933	R&A O&M MANUALS DEDICATED OUTSIDE AIR RTU'S	2SEP14	15SEP14	18DEC14	2JAN15	74
CW-14580	10	10	1	0	01060S	SCHEDULE DOB INSPECTION - HYDRAULIC ELEVATOR	16SEP14	29SEP14	5JAN15	16JAN15	74
BS-10745	0	0	1	0	01650S	PROVISION OF TRAINING SCHEDULES	30SEP14		20JAN15		74
CW-43471	10	10	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-3RD FLR)	9MAY14	22MAY14	26AUG14	9SEP14	75
BS-50000	0	0	1	0	15401	START P&D, RISERS, CONNECTION TO ROOF DRAINS	26MAR14		14JUL14		76
LR-40410	5	5	1	0	15783	INST (1) AC UNIT @ ELEV MACHINE RM (LR - BSMT)	18JUN14	24JUN14	6OCT14	10OCT14	76
CW-10480	10	10	1	0	15970	INST TEMPERATURE CONTROLS WIRING (CW-BSMT)	25JUN14	9JUL14	14OCT14	27OCT14	76
CW-41470	9	9	1	0	15932	INST ACTIVE CHILLED BEAMS (CW-1ST FLR)	9APR14	21APR14	30JUL14	11AUG14	78
LR-60130	10	10	1	0	15332	CUTBACK DROPS & INST HEADS (LR - BSMT)	29JUL14	11AUG14	19NOV14	3DEC14	78
BS-00930	10	10	1	0	01015G	PIPING OVERLAY (BSMT - CW & LR)	9APR13	22APR13	1AUG13	14AUG13	80
BS-01000	10	10	1	0	01015G	PIPING OVERLAY (1ST FLOOR)	23APR13	6MAY13	15AUG13	28AUG13	80
BS-01010	10	10	1	0	01015G	PIPING OVERLAY (2ND FLOOR)	7MAY13	20MAY13	29AUG13	12SEP13	80
BS-01020	10	10	1	0	01015G	PIPING OVERLAY (3RD FLOOR)	21MAY13	4JUN13	13SEP13	26SEP13	80
BS-01030	10	10	1	0	01015G	PIPING OVERLAY (4TH FLOOR)	5JUN13	18JUN13	27SEP13	10OCT13	80
BS-01040	10	10	1	0	01015G	PIPING OVERLAY (5TH FLOOR)	19JUN13	2JUL13	11OCT13	25OCT13	80
BS-00960	5	5	1	0	01015G	ELECTRICAL OVERLAY (5TH FLOOR)	3JUL13	10JUL13	28OCT13	1NOV13	80
09-09085	100	100	1	0	09590	P&S FLOOR FINISHES SUBCONTRACTOR	8APR13	27AUG13	2AUG13	26DEC13	82
09-09090	10	10	1	0	09590	R&A FLOOR FINISHES SUBCONTRACTOR	28AUG13	11SEP13	27DEC13	10JAN14	82
09-09140	80	80	1	0	09705	P&S RESINOUS FLOORING	12SEP13	8JAN14	13JAN14	6MAY14	82
09-09145	10	10	1	0	09705	R&A RESINOUS FLOORING	9JAN14	23JAN14	7MAY14	20MAY14	82
09-09150	80	80	1	0	09705	F&D RESINOUS FLOORING	24JAN14	16MAY14	21MAY14	12SEP14	82
BS-07019	0	0	1	0	15933	START SETTING OF ROOFTOP UNITS & CONNECTIONS	24FEB14		19JUN14		82
LR-46600	5	5	1	0	11400	INST (2) CONDENSING UNITS (LR-ROOF)	24FEB14	28FEB14	19JUN14	25JUN14	82
LR-46305	5	5	1	0	15934	INST (7) FANS (SX1,2, GX4,5,6&8 TE-3) ROOF (LR)	3MAR14	7MAR14	26JUN14	2JUL14	82
CW-50150	5	5	1	0	15453	CW BOOSTER PUMP - SET & INSTALL (CW-BSMT)	29MAY14	4JUN14	24SEP14	30SEP14	82
CW-50155	10	10	1	0	15453	SEWAGE EJECTOR PUMP - SET & INSTALL (CW-BSMT)	5JUN14	18JUN14	1OCT14	15OCT14	82
CW-50160	3	3	1	0	15453	HYDRAULIC ELEVATOR SUMP PUMP - SET & INST (CW)	19JUN14	23JUN14	16OCT14	20OCT14	82
CW-50165	3	3	1	0	15453	SET & INST HW CIRCULATING PUMP - KITCHEN (CW)	24JUN14	26JUN14	21OCT14	23OCT14	82
BS-15039	0	0	1	0	15970	START LOW VOLTAGE	18APR14		15AUG14		83
05-05010	60	9	1	85	05120	P&S STRUCTURAL STEEL SHOP DRAWINGS	18OCT12A	18APR13		16AUG13	84
05-05015	10	2	1	85	05120	R&A STRUCTURAL STEEL SHOP DRAWINGS	18DEC12A	22APR13		20AUG13	84
05-05020	60	60	1	0	05120	F&D STRUCTURAL STEEL	23APR13	17JUL13	21AUG13	15NOV13	84
BS-00019	0	0	1	0	05120	PLACE STEEL MILL ORDER	23APR13		21AUG13		84
CW-46585	10	10	1	0	15590	INST INSTRUMENTN & CNTRLS - EMERG GENERATOR SYS	14JUL14	25JUL14	12NOV14	25NOV14	84
BS-00955	5	5	1	0	01015G	ELECTRICAL OVERLAY (4TH FLOOR)	19JUN13	25JUN13	21OCT13	25OCT13	85
BS-06781	5	5	1	0	08920	SCA INSPECTION ALL WINDOWS & CURTAINWALL	22AUG14	28AUG14	26DEC14	2JAN15	85
BS-00420	10	10	1	0	16010	ELECTRICAL UNDERSLAB POWER FIRE ALARM	19SEP13	2OCT13	28JAN14	10FEB14	87

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
BS-00440	10	10	1	0	15410	PLUMBING UNDERSLAB (LOW RISE)	19SEP13	2OCT13	28JAN14	10FEB14	87
09-09210	40	40	1	0	09900	P&S PAINTING	7FEB14	4APR14	12JUN14	7AUG14	87
09-09215	10	10	1	0	09900	R&A PAINTING	7APR14	18APR14	8AUG14	21AUG14	87
09-09220	40	40	1	0	09900	F&D PAINTING MATERIALS	21APR14	16JUN14	22AUG14	20OCT14	87
LR-73115	10	10	1	0	16500	INST LIGHTING FIXTURE JB (LR-LIBRARY)	22MAY14	5JUN14	25SEP14	8OCT14	87
CW-00086	5	5	1	0	04200	INTERIOR CMU STAIR B (CW 5TH - ROOF)	16JUL14	22JUL14	19NOV14	25NOV14	87
LR-43300	8	8	1	0	15835	INST FIN TUBE RADIATORS IN LIBRARY (LR-LIBRARY)	22JUL14	31JUL14	25NOV14	5DEC14	87
CW-00087	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (CW-STAIR B)	23JUL14	29JUL14	26NOV14	3DEC14	87
15-15955	120	60	1	50	15880	P&S SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	15NOV12A	1JUL13		6NOV13	89
15-15960	10	5	1	50	15880	R&A SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	13DEC12A	9JUL13		14NOV13	89
15-15965	80	80	1	0	15880	F&D SUB-SLAB DEPRESSURIZATION SYSTEM ACCESSORIES	10JUL13	31OCT13	15NOV13	13MAR14	89
LR-02370	12	12	1	0	07260	INTUM PAINT 1ST APPL (LR GYM ROOF TRUSSES)	5JUN14	20JUN14	10OCT14	28OCT14	89
LR-02373	12	12	1	0	07260	INTUM PAINT 2ND APPL (LR GYM ROOF TRUSSES)	23JUN14	9JUL14	29OCT14	14NOV14	89
LR-40115	5	5	1	0	15910	INST DUCT DROPS (LR-GYM)	21JUL14	25JUL14	26NOV14	3DEC14	89
BS-00950	5	5	1	0	01015G	ELECTRICAL OVERLAY (3RD FLOOR)	5JUN13	11JUN13	11OCT13	18OCT13	90
CW-46580	2	2	1	0	15590	INST FUEL PUMP (CW-BSMT)	6JUN14	9JUN14	15OCT14	16OCT14	90
CW-46590	5	5	1	0	15590	INST FUEL TANK FOR EMERGENCY GENERTR (CW-BSMT)	10JUN14	16JUN14	17OCT14	23OCT14	90
BS-06460	10	10	1	0	07900	CAULK BLDG EXTERIOR (SOUTH ELEVATION)	22AUG14	5SEP14	5JAN15	16JAN15	90
10-10175	60	60	1	0	10653	P&S MANUALLY OPERATED FOLDING PANEL PARTITIONS	10DEC13	7MAR14	22APR14	16JUL14	91
10-10180	10	10	1	0	10653	R&A MANUALLY OPERATED FOLDING PANEL PARTITIONS	10MAR14	21MAR14	17JUL14	30JUL14	91
10-10185	60	60	1	0	10653	F&D MANUALLY OPERATED FOLDING PANEL PARTITIONS	24MAR14	16JUN14	31JUL14	24OCT14	91
CW-02214	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-3RD TO 4TH FLR)	10APR14	23APR14	19AUG14	2SEP14	91
CW-02218	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-3RD TO 4TH FLR)	24APR14	30APR14	3SEP14	9SEP14	91
CW-02220	3	3	1	0	10605	INST STAIR A RAIL (CW-3RD TO 4TH FLR)	1MAY14	5MAY14	10SEP14	12SEP14	91
CW-02222	10	10	1	0	05710	ERECT STEEL PAN STAIRS A (CW-4TH TO 5TH FLR)	6MAY14	19MAY14	15SEP14	26SEP14	91
CW-02224	5	5	1	0	04200	INTERIOR CMU STAIR A (CW-4TH TO 5TH FLR)	20MAY14	27MAY14	29SEP14	3OCT14	91
CW-02226	3	3	1	0	10605	INST STAIR A RAIL (CW-4TH TO 5TH FLR)	28MAY14	30MAY14	6OCT14	8OCT14	91
CW-02228	5	5	1	0	15836	INST CABINET UNIT HEATERS (CW-STAIR A)	2JUN14	6JUN14	9OCT14	16OCT14	91
CW-B0390	5	5	1	0	15836	INST CABINET UNIT HEATERS (CW- STAIR B)	9JUN14	13JUN14	17OCT14	23OCT14	91
LR-40120	5	5	1	0	15910	INST GRILLES & REGISTERS (LR-GYM)	29JUL14	4AUG14	11DEC14	17DEC14	93
16-16010	40	40	1	0	16010	P&S GENERAL PROVISIONS FOR ELECTRICAL WORK	8APR13	3JUN13	21AUG13	17OCT13	95
BS-00029	0	0	1	0	05120	START STRUCTURAL STEEL FABRICATION	8APR13		21AUG13		95
BS-00935	10	10	1	0	01015G	ELECTRICAL OVERLAY (BSMT - CW& LR)	23APR13	6MAY13	6SEP13	19SEP13	95
BS-00945	5	5	1	0	01015G	ELECTRICAL OVERLAY (2ND FLOOR)	21MAY13	28MAY13	4OCT13	10OCT13	95
16-16020	10	10	1	0	16010	R&A GENERAL PROVISIONS FOR ELECTRICAL WORK	4JUN13	17JUN13	18OCT13	31OCT13	95
09-09055	40	40	1	0	09510	P&S ACOUSTICAL CEILINGS	10DEC13	6FEB14	28APR14	23JUN14	95
09-09170	40	40	1	0	09840	P&S ACOUSTIC WALL & CEILING PANELS	10DEC13	6FEB14	28APR14	23JUN14	95
09-09060	10	10	1	0	09510	R&A ACOUSTICAL CEILINGS	7FEB14	21FEB14	24JUN14	8JUL14	95
09-09175	10	10	1	0	09840	R&A ACOUSTIC WALL & CEILING PANELS	7FEB14	21FEB14	24JUN14	8JUL14	95
09-09065	40	40	1	0	09510	F&D ACOUSTICAL CEILINGS	24FEB14	18APR14	9JUL14	3SEP14	95
09-09180	40	40	1	0	09840	F&D ACOUSTIC WALL & CEILING PANELS	24FEB14	18APR14	9JUL14	3SEP14	95
BS-07031	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (LR-GYM)	5JUN14	11JUN14	21OCT14	27OCT14	95
LR-40405	10	10	1	0	15783	INST (2) AC UNITS (LR - BSMT)	12JUN14	25JUN14	28OCT14	10NOV14	95
LR-40400	5	5	1	0	15836	INST UNIT HEATERS - LOCKER ROOM (LR - BSMT)	26JUN14	2JUL14	12NOV14	18NOV14	95
LR-42460	5	5	1	0	15836	INST UNIT/CABINET HEATERS (LR-GYMATORIUM)	3JUL14	10JUL14	19NOV14	25NOV14	95
BS-00910	5	4	1	20	01015G	PLUMBING OVERLAY (2ND FLOOR)	5APR13A	12APR13		28AUG13	96
CW-00210	5	5	1	0	05710	ERECT STEEL PAN STAIRS C-M (CW)	24FEB14	28FEB14	11JUL14	17JUL14	97
LR-70097	5	5	1	0	16728	INST NETWORK CABLING (LR - BSMT)	14JUL14	18JUL14	2DEC14	8DEC14	97
CW-16035	10	10	1	0	07600	INST FLASHING & HATCHES (CW-ROOF)	10MAR14	21MAR14	28JUL14	8AUG14	98
BS-00940	5	5	1	0	01015G	ELECTRICAL OVERLAY (1ST FLOOR)	7MAY13	13MAY13	27SEP13	3OCT13	100
02-02195	200	200	1	0	02580	P&S TRACK/COURT/PLAYGROUND MARKINGS	8APR13	23JAN14	29AUG13	17JUN14	101
BS-00915	5	5	1	0	01015G	PLUMBING OVERLAY (3RD FLOOR)	15APR13	19APR13	6SEP13	12SEP13	101
02-02200	10	10	1	0	02580	R&A TRACK/COURT/PLAYGROUND MARKINGS	24JAN14	6FEB14	18JUN14	1JUL14	101
02-02205	60	60	1	0	02580	F&D TRACK/COURT/PLAYGROUND MARKINGS MATERIALS	7FEB14	2MAY14	2JUL14	25SEP14	101
OS-02070	5	5	1	0	02860	INST PLAYGROUND EQUIPMENT - EC PLAY AREA	5MAY14	9MAY14	26SEP14	2OCT14	101
OS-02080	1	1	1	0	02870	INST BENCHES - EC PLAY AREA	12MAY14	12MAY14	3OCT14	3OCT14	101
OS-02090	5	5	1	0	02721	INST DRAINS - COURTYARD	13MAY14	19MAY14	6OCT14	10OCT14	101
OS-02100	10	10	1	0	02513	INST BLUESTONE PAVER PATH - COURTYARD	20MAY14	3JUN14	14OCT14	27OCT14	101
OS-02110	5	5	1	0	02900	PLANTINGS - COURTYARD	4JUN14	10JUN14	28OCT14	3NOV14	101
OS-02120	2	2	1	0	02870	TREE GRATES - COURTYARD	11JUN14	12JUN14	4NOV14	5NOV14	101
OS-02130	1	1	1	0	02870	INST BENCHES- COURTYARD	13JUN14	13JUN14	6NOV14	6NOV14	101
BS-06450	10	10	1	0	07900	CAULK BLDG EXTERIOR (WEST ELEVATION)	6AUG14	19AUG14	5JAN15	16JAN15	102
07-07000	40	40	1	0	07120	P&S FLUID-APPLIED WATERPROOFING FOR DECKS	8APR13	3JUN13	4SEP13	30OCT13	104
07-07005	10	10	1	0	07120	R&A FLUID-APPLIED WATERPROOFING FOR DECKS	4JUN13	17JUN13	31OCT13	14NOV13	104
07-07010	40	40	1	0	07120	F&D FLUID-APPLIED WP FOR DECKS MATERIALS	18JUN13	13AUG13	15NOV13	14JAN14	104
BS-00920	5	5	1	0	01015G	PLUMBING OVERLAY (4TH FLOOR)	22APR13	26APR13	20SEP13	26SEP13	106
BS-00855	5	1	1	80	01015G	GC PREPARE BASE LAYER (5TH FLOOR)	1APR13A	9APR13		10SEP13	107
02-02180	200	200	1	0	02533	P&S COLORED ATHLETIC WEARING SURFACE	8APR13	23JAN14	9SEP13	25JUN14	107
BS-00890	5	5	1	0	01015G	HVAC OVERLAY (5TH FLOOR)	10APR13	16APR13	11SEP13	17SEP13	107
02-02185	10	10	1	0	02533	R&A COLORED ATHLETIC WEARING SURFACE	24JAN14	6FEB14	26JUN14	10JUL14	107
02-02190	40	40	1	0	02533	F&D COLORED ATHLETIC WEARING SURFACE MATERIALS	7FEB14	4APR14	11JUL14	5SEP14	107
LR-16500	10	10	3	0	07560	INST ROOF SYSTEM TYPE (1) - PLAY AREA (LR)	17MAR14	28MAR14	15AUG14	28AUG14	107
OS-02020	5	5	1	0	02521	INST CONCRETE TOPPING SLAB - PLAY AREA	31MAR14	4APR14	29AUG14	5SEP14	107
OS-02030	7	7	1	0	02533	INST ATHLETIC WEARING SURAFCE - PLAY AREA	7APR14	15APR14	8SEP14	16SEP14	107
OS-02040	1	1	1	0	02870	INST BENCHES - PLAY AREA	16APR14	16APR14	17SEP14	17SEP14	107
OS-02050	1	1	1	0	02870	INST FLAGPOLE - CLASSROOM WING EAST ELEVATION	17APR14	17APR14	18SEP14	18SEP14	107
OS-02060	5	5	1	0	02860	INST INTERLOCKING MOLDED RUBBER PAVERS - EC PLAY	18APR14	24APR14	19SEP14	25SEP14	107
BS-06455	10	10	1	0	07900	CAULK BLDG EXTERIOR (EAST ELEVATION)	30JUL14	12AUG14	5JAN15	16JAN15	107
BS-15059	0	0	1	0	15933	ROOFTOP UNITS AVAILABLE (LR-ROOF)		26DEC13		4JUN14	110
BS-00925	5	5	1	0	01015G	PLUMBING OVERLAY (5TH FLOOR)	29APR13	3MAY13	4OCT13	10OCT13	111
CW-50115	12	12	1	0	15416	INST & TEST GAS PIPING (CW-BSMT)	14MAY14	30MAY14	22OCT14	6NOV14	111
04-04015	10	5	1	50	04200	R&A UNIT MASONRY SHOP DRAWINGS	25MAR13A	23JUL13		8JAN14	115
04-04000	60	60	1	0	04200	P&S MASONRY SUBCONTRACTOR	8APR13	1JUL13	19SEP13	16DEC13	115
04-04005	10	10	1	0	04200	R&A MASONRY SUBCONTRACTOR	2JUL13	16JUL13	17DEC13	31DEC13	115
04-04020	20	20	1	0	04200	F&D UNIT MASONRY	24JUL13	20AUG13	9JAN14	6FEB14	115
15-15095	40	40	1	0	15401	P&S GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	8APR13	3JUN13	20SEP13	18NOV13	116
15-15100	10	10	1	0	15401	R&A GEN PROVISIONS FOR PLUMBING & DRAINAGE WORK	4JUN13	17JUN13	19NOV13	3DEC13	116
15-15105	40	40	1	0	15401	F&D PLUMBING & DRAINAGE MATERIALS	18JUN13	13AUG13	4DEC13	31JAN14	116

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
CW-02225	5	5	1	0	04200	SCA INSPECTION INTERIOR CMU (CW-STAIR A)	28MAY14	3JUN14	12NOV14	18NOV14	116
CW-1S001	4	4	1	0	09260	FRAME INTERIOR PARTITIONS -SAMPLE CLASSRM	26MAR14	31MAR14	12SEP14	17SEP14	119
10-10160	60	60	1	0	10652	P&S ELECT OPERATED FOLDING PANEL PARTITION	10DEC13	7MAR14	3JUN14	26AUG14	120
10-10165	10	10	1	0	10652	R&A ELECT OPERATED FOLDING PANEL PARTITION	10MAR14	21MAR14	27AUG14	10SEP14	120
10-10170	60	60	1	0	10652	F&D ELECT OPERATED FOLDING PANEL PARTITION	24MAR14	16JUN14	11SEP14	8DEC14	120
02-02285	200	200	1	0	02860	P&S EARLY CHILDHOOD PLAYGROUND EQUIPMENT	8APR13	23JAN14	27SEP13	16JUL14	121
02-02290	10	10	1	0	02860	R&A EARLY CHILDHOOD PLAYGROUND EQUIPMENT	24JAN14	6FEB14	17JUL14	30JUL14	121
02-02295	40	40	1	0	02860	F&D EARLY CHILDHOOD PLAYGROUND EQUIPMENT	7FEB14	4APR14	31JUL14	25SEP14	121
09-09025	40	40	1	0	09310	P&S CERAMIC TILE	10DEC13	6FEB14	5JUN14	31JUL14	122
09-09030	10	10	1	0	09310	R&A CERAMIC TILE	7FEB14	21FEB14	1AUG14	14AUG14	122
09-09035	40	40	1	0	09310	F&D CERAMIC TILE	24FEB14	18APR14	15AUG14	10OCT14	122
LR-16510	10	10	1	0	07560	INST ROOF ACCESSORIES (LR-ROOF)	5FEB14	19FEB14	31JUL14	13AUG14	123
02-02300	200	200	1	0	02870	P&S SITE & STREET FURNISHINGS	8APR13	23JAN14	4OCT13	23JUL14	126
02-02305	10	10	1	0	02870	R&A SITE & STREET FURNISHINGS	24JAN14	6FEB14	24JUL14	6AUG14	126
BS-07069	0	0	1	0	07560	START ROOF	5FEB14		5AUG14		126
02-02310	40	40	1	0	02870	F&D SITE & STREET FURNISHINGS	7FEB14	4APR14	7AUG14	2OCT14	126
02-02010	5	1	1	80	02011	P&S MONITORING WELL ABANDONMENT/PROTECTION	6MAR13A	8APR13		7OCT13	127
02-02015	10	10	1	0	02011	R&A MONITORING WELL ABANDONMENT/PROTECTION	7MAR13A	22APR13		22OCT13	127
04-04025	30	30	1	0	04435	P&S CAST STONE SHOP DRAWINGS	17JUL13	27AUG13	24JAN14	7MAR14	130
04-04030	10	10	1	0	04435	R&A CAST STONE SHOP DRAWINGS	28AUG13	11SEP13	10MAR14	21MAR14	130
04-04035	40	40	1	0	04435	F&D CAST STONE	12SEP13	7NOV13	24MAR14	16MAY14	130
02-02150	200	200	1	0	02513	P&S SIDEWALK & STREET PAVING	8APR13	23JAN14	15OCT13	31JUL14	132
02-02155	10	10	1	0	02513	R&A SIDEWALK & STREET PAVING	24JAN14	6FEB14	1AUG14	14AUG14	132
02-02160	40	40	1	0	02513	F&D SIDEWALK & STREET PAVING MATERIALS	7FEB14	4APR14	15AUG14	10OCT14	132
CW-10670	3	3	1	0	05700	INST INTERIOR LADDERS & GRATINGS - (CW-BSMT)	15MAY14	19MAY14	28NOV14	2DEC14	135
BS-06500	10	10	1	0	08920	INST CURTAINWALL (CW - SOUTH)	27MAY14	9JUN14	11DEC14	24DEC14	137
BS-06780	5	5	1	0	08525	INST PERIMETER J TYPE WINDOWS (CW - SOUTH)	10JUN14	16JUN14	26DEC14	2JAN15	137
09-09070	40	40	1	0	09550	P&S METAL PANEL CEILINGS	10DEC13	6FEB14	27JUN14	22AUG14	138
09-09075	10	10	1	0	09550	R&A METAL PANEL CEILINGS	7FEB14	21FEB14	25AUG14	8SEP14	138
09-09080	40	40	1	0	09550	F&D METAL PANEL CEILINGS	24FEB14	18APR14	9SEP14	4NOV14	138
09-09040	40	40	1	0	09415	P&S TERRAZZO FLORING	10DEC13	6FEB14	1JUL14	26AUG14	140
09-09045	10	10	1	0	09415	R&A TERRAZZO FLORING	7FEB14	21FEB14	27AUG14	10SEP14	140
09-09050	40	40	1	0	09415	F&D TERRAZZO FLORING	24FEB14	18APR14	11SEP14	6NOV14	140
BS-06560	5	5	1	0	08920	INST CURTAINWALL (CW - SE ENTRANCE)	21MAY14	28MAY14	11DEC14	17DEC14	140
BS-06570	5	5	1	0	08400	INST STOREFRONT (CW - SE ENTRANCE)	29MAY14	4JUN14	18DEC14	24DEC14	140
07-07060	40	40	1	0	07250	P&S SPRAYED FIRE RESISTIVE MATERIALS	8APR13	3JUN13	28OCT13	24DEC13	141
07-07065	10	10	1	0	07250	R&A SPRAYED FIRE RESISTIVE MATERIALS	4JUN13	17JUN13	26DEC13	9JAN14	141
07-07070	40	40	1	0	07250	F&D SPRAYED FIRE RESISTIVE MATERIALS	18JUN13	13AUG13	10JAN14	10MAR14	141
02-02315	200	200	1	0	02900	P&S LANDSCAPING	8APR13	23JAN14	29OCT13	14AUG14	142
08-08150	80	80	1	0	08920	P&S GLAZING-CURTAINWALL SUBCONTRACTOR	8APR13	30JUL13	29OCT13	25FEB14	142
08-08155	10	10	1	0	08920	R&A GLAZING-CURTAINWALL SUBCONTRACTOR	31JUL13	13AUG13	26FEB14	11MAR14	142
08-08090	40	40	1	0	08525	P&S ALUMINUM WINDOWS	14AUG13	9OCT13	12MAR14	6MAY14	142
08-08095	10	10	1	0	08525	R&A ALUMINUM WINDOWS	10OCT13	24OCT13	7MAY14	20MAY14	142
08-08100	40	40	1	0	08525	F&D ALUMINUM WINDOWS	25OCT13	23DEC13	21MAY14	17JUL14	142
02-02320	10	10	1	0	02900	R&A LANDSCAPING	24JAN14	6FEB14	15AUG14	28AUG14	142
02-02325	40	40	1	0	02900	F&D LANDSCAPING MATERIALS	7FEB14	4APR14	29AUG14	27OCT14	142
CW-36886	10	10	1	0	07147	INST CRYSTALLINE WATERPRF ELEV PITS (CW) TE	13MAY14	27MAY14	9DEC14	22DEC14	144
10-10030	40	40	1	0	10185	P&S PLASTIC SHOWER & DRESSING COMPARTMENTS	10DEC13	6FEB14	10JUL14	4SEP14	146
10-10035	10	10	1	0	10185	R&A PLASTIC SHOWER & DRESSING COMPARTMENTS	7FEB14	21FEB14	5SEP14	18SEP14	146
10-10040	40	40	1	0	10185	F&D PLASTIC SHOWER & DRESSING COMPARTMENTS	24FEB14	18APR14	19SEP14	17NOV14	146
07-07135	80	80	1	0	07560	P&S ROOFING SUBCONTRACTOR	8APR13	30JUL13	6NOV13	5MAR14	148
07-07140	10	10	1	0	07560	R&A ROOFING SUBCONTRACTOR	31JUL13	13AUG13	6MAR14	19MAR14	148
07-07160	40	40	1	0	07600	P&S FLASHING & SHEET METAL	14AUG13	9OCT13	20MAR14	14MAY14	148
07-07165	10	10	1	0	07600	R&A FLASHING & SHEET METAL	10OCT13	24OCT13	15MAY14	29MAY14	148
07-07170	40	40	1	0	07600	F&D FLASHING & SHEET METAL	25OCT13	23DEC13	30MAY14	25JUL14	148
16-16400	60	48	1	20	16728	P&S DATA NETWORK CABLING SYSTEM	10SEP12A	17SEP13		25APR14	151
16-16410	10	8	1	20	16728	R&A DATA NETWORK CABLING SYSTEM	9NOV12A	27SEP13		7MAY14	151
15-15670	60	60	1	0	15575	P&S BREECHING, CHIMNEY & STACKS	8APR13	1JUL13	12NOV13	7FEB14	151
15-15675	10	10	1	0	15575	R&A BREECHING, CHIMNEY & STACKS	2JUL13	16JUL13	10FEB14	24FEB14	151
15-15680	60	60	1	0	15575	F&D BREECHING, CHIMNEY & STACKS	17JUL13	9OCT13	25FEB14	19MAY14	151
16-16420	60	60	1	0	16728	F&D DATA NETWORK CABLING SYSTEM	30SEP13	26DEC13	8MAY14	1AUG14	151
16-16160	10	5	1	50	16231	R&A EMERGENCY GENERATOR SYSTEM	14MAR13A	9JUL13		20FEB14	154
16-16150	60	60	1	0	16231	P&S EMERGENCY GENERATOR SYSTEM	8APR13	1JUL13	15NOV13	12FEB14	154
16-16170	60	60	1	0	16231	F&D EMERGENCY GENERATOR SYSTEM	10JUL13	2OCT13	21FEB14	15MAY14	154
15-15165	40	8	1	80	15410	P&S PLUMBING & PIPING	5OCT12A	17APR13		29NOV13	156
15-15170	10	2	1	80	15410	R&A PLUMBING & PIPING	15NOV12A	19APR13		3DEC13	156
15-15175	40	40	1	0	15410	F&D PLUMBING & PIPING	22APR13	17JUN13	4DEC13	31JAN14	156
10-10220	40	40	1	0	10810	P&S TOILET & BATH ACCESSORIES	10DEC13	6FEB14	24JUL14	18SEP14	156
10-10225	10	10	1	0	10810	R&A TOILET & BATH ACCESSORIES	7FEB14	21FEB14	19SEP14	2OCT14	156
10-10230	40	40	1	0	10810	F&D TOILET & BATH ACCESSORIES	24FEB14	18APR14	3OCT14	2DEC14	156
01-01020	32	32	1	0	01352S	P&S SUSTAINABLE MATERIALS TRACKING FORM	8APR13	21MAY13	21NOV13	8JAN14	158
01-01025	27	27	1	0	01352S	R&A SUSTAINABLE MATERIALS TRACKING FORM	22MAY13	28JUN13	9JAN14	18FEB14	158
02-02110	20	20	1	0	02221	P&S SUB-SLAB DEPRESSURIZATION SYSTEM	8APR13	3MAY13	22NOV13	20DEC13	159
02-02135	200	200	1	0	02511	P&S ASPHALTIC CONCRETE PAVING	8APR13	23JAN14	22NOV13	9SEP14	159
02-02165	200	200	1	0	02521	P&S CONCRETE CURBS & PAVEMENTS	8APR13	23JAN14	22NOV13	9SEP14	159
02-02115	10	10	1	0	02221	R&A SUB-SLAB DEPRESSURIZATION SYSTEM	6MAY13	17MAY13	23DEC13	7JAN14	159
02-02120	40	40	1	0	02221	F&D SUB-SLAB DEPRESSURIZATION SYSTEM MATERIALS	20MAY13	16JUL13	8JAN14	6MAR14	159
10-10015	40	40	1	0	10151	P&S TOILET COMPARTMENTS	10DEC13	6FEB14	29JUL14	23SEP14	159
02-02140	10	10	1	0	02511	R&A ASPHALTIC CONCRETE PAVING	24JAN14	6FEB14	10SEP14	23SEP14	159
02-02170	10	10	1	0	02521	R&A CONCRETE CURBS & PAVEMENTS	24JAN14	6FEB14	10SEP14	23SEP14	159
02-02145	40	40	1	0	02511	F&D ASPHALTIC CONCRETE PAVING	7FEB14	4APR14	24SEP14	20NOV14	159
02-02175	40	40	1	0	02521	F&D CONCRETE CURBS & PAVEMENTS MATERIALS	7FEB14	4APR14	24SEP14	20NOV14	159
10-10020	10	10	1	0	10151	R&A TOILET COMPARTMENTS	7FEB14	21FEB14	24SEP14	7OCT14	159
10-10025	40	40	1	0	10151	F&D TOILET COMPARTMENTS	24FEB14	18APR14	8OCT14	5DEC14	159
15-16030	40	40	1	0	15915	P&S DAMPERS	17APR13	12JUN13	5DEC13	3FEB14	160
15-16035	10	10	1	0	15915	R&A DAMPERS	13JUN13	26JUN13	4FEB14	18FEB14	160
15-16040	40	40	1	0	15915	F&D DAMPERS	27JUN13	22AUG13	19FEB14	15APR14	160
LR-00660	3	3	1	0	05500	INST INTERIOR LADDERS & GRATINGS - (LR - BSMT)	15MAY14	19MAY14	7JAN15	9JAN15	161

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
16-16030	60	30	1	50	16120	P&S WIRING SYSTEMS	10SEP12A	21AUG13		16APR14	162
16-16040	10	5	1	50	16120	R&A WIRING SYSTEMS	13NOV12A	28AUG13		23APR14	162
07-07145	40	40	1	0	07560	P&S FLUID-APPLIED PROTECTED MEMBRANE ROOFING	14AUG13	9OCT13	9APR14	4JUN14	162
16-16050	60	60	1	0	16120	F&D WIRING SYSTEMS	29AUG13	25NOV13	24APR14	18JUL14	162
07-07150	10	10	1	0	07560	R&A FLUID-APPLIED PROTECTED MEMBRANE ROOFING	10OCT13	24OCT13	5JUN14	18JUN14	162
07-07155	40	40	1	0	07560	F&D FLUID-APPLIED PROTECTED MEMBRANE ROOFING	25OCT13	23DEC13	19JUN14	14AUG14	162
16-16210	60	60	1	0	16520	P&S INTERIOR BUILDING LIGHTING	11JUL13	3OCT13	7MAR14	30MAY14	163
16-16220	10	10	1	0	16520	R&A INTERIOR BUILDING LIGHTING	4OCT13	18OCT13	2JUN14	13JUN14	163
16-16230	60	60	1	0	16520	F&D INTERIOR BUILDING LIGHTING	21OCT13	16JAN14	16JUN14	9SEP14	163
16-16060	60	30	1	50	16130	P&S RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	10SEP12A	21AUG13		21APR14	165
16-16070	10	5	1	50	16130	R&A RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	9NOV12A	28AUG13		28APR14	165
16-16080	60	60	1	0	16130	F&D RACEWAYS/FITTINGS/SPPRT DEV/BOXES/ACCESSORY	29AUG13	25NOV13	29APR14	23JUL14	165
BS-00039	0	0	1	0	16130	START F&D DISTRIBUTION LINES	29AUG13		29APR14		165
15-15460	40	40	1	0	15510	P&S HVAC PIPING	17APR13	12JUN13	13DEC13	11FEB14	166
15-15475	40	40	1	0	15511	P&S VALVES (HVAC)	17APR13	12JUN13	13DEC13	11FEB14	166
15-15465	10	10	1	0	15510	R&A HVAC PIPING	13JUN13	26JUN13	12FEB14	26FEB14	166
15-15480	10	10	1	0	15511	R&A VALVES (HVAC)	13JUN13	26JUN13	12FEB14	26FEB14	166
15-15470	40	40	1	0	15510	F&D HVAC PIPING	27JUN13	22AUG13	27FEB14	23APR14	166
15-15485	40	40	1	0	15511	F&D VALVES (HVAC)	27JUN13	22AUG13	27FEB14	23APR14	166
08-08075	40	40	1	0	08410	P&S INTERIOR GLAZED SUB ASSEMBLIES	14AUG13	9OCT13	15APR14	10JUN14	166
08-08080	10	10	1	0	08410	R&A INTERIOR GLAZED SUB ASSEMBLIES	10OCT13	24OCT13	11JUN14	24JUN14	166
08-08085	40	40	1	0	08410	F&D INTERIOR GLAZED SUB ASSEMBLIES	25OCT13	23DEC13	25JUN14	20AUG14	166
02-02270	200	200	1	0	02825	P&S CHAIN LINK FENCES & GATES	8APR13	23JAN14	5DEC13	19SEP14	167
02-02275	10	10	1	0	02825	R&A CHAIN LINK FENCES & GATES	24JAN14	6FEB14	22SEP14	3OCT14	167
02-02280	40	40	1	0	02825	F&D CHAIN LINK FENCES & GATES	7FEB14	4APR14	6OCT14	3DEC14	167
14-14010	60	30	1	50	14211	P&S GEARED TRACTION PASSENGER ELEVATORS	15MAR13A	9JUL13		12MAR14	168
14-14000	60	30	1	50	14211	P&S ELEVATOR SUBCONTRACTOR	26MAR13A	17MAY13		21JAN14	168
14-14005	10	5	1	50	14211	R&A ELEVATOR SUBCONTRACTOR	26MAR13A	24MAY13		28JAN14	168
14-14015	10	10	1	0	14211	R&A GEARED TRACTION PASSENGER ELEVATORS	10JUL13	23JUL13	13MAR14	26MAR14	168
14-14020	80	80	1	0	14211	F&D GEARED TRACTION PASSENGER ELEVATORS	24JUL13	15NOV13	27MAR14	18JUL14	168
CW-11445	8	8	1	0	03300	CIP ELEVATOR PIT HYDRAULIC (CW-BSMT)	7MAR14	18MAR14	4NOV14	14NOV14	168
CW-11455	10	10	1	0	07147	INST CRYSTALLINE WATERPRF ELEV PITS (CW) HPE	19MAR14	1APR14	17NOV14	1DEC14	168
CW-11456	5	5	1	0	14240	INSTALL PISTON (DAHPE)	2APR14	8APR14	2DEC14	8DEC14	168
CW-11457	3	3	1	0	14240	INSTALL PLATFORM (DAHPE)	9APR14	11APR14	9DEC14	11DEC14	168
CW-11458	4	4	1	0	14240	INSTALL CAB & DOORS (DAHPE)	14APR14	17APR14	12DEC14	17DEC14	168
BS-04039	0	0	1	0	14240	START ELEVATOR RAILS & PIT (HYDRAULIC)	1MAY14		5JAN15		169
09-09110	40	40	1	0	09650	P&S RESILIENT FLOORING	12SEP13	7NOV13	19MAY14	15JUL14	170
09-09115	1	10	1	0	09650	R&A RESILIENT FLOORING	8NOV13	22NOV13	16JUL14	29JUL14	170
09-09120	40	40	1	0	09650	F&D RESILIENT FLOORING	25NOV13	23JAN14	30JUL14	24SEP14	170
10-10250	40	40	1	0	10840	P&S GRAB BARS	10DEC13	6FEB14	13AUG14	8OCT14	170
10-10255	10	10	1	0	10840	R&A GRAB BARS	7FEB14	21FEB14	9OCT14	23OCT14	170
10-10260	40	40	1	0	10840	F&D GRAB BARS	24FEB14	18APR14	24OCT14	22DEC14	170
06-06015	40	40	1	0	06200	P&S FINISH CARPENTRY	10DEC13	6FEB14	15AUG14	10OCT14	172
06-06020	10	10	1	0	06200	R&A FINISH CARPENTRY	7FEB14	21FEB14	14OCT14	27OCT14	172
06-06025	40	40	1	0	06200	F&D FINISH CARPENTRY MATERIALS	24FEB14	18APR14	28OCT14	24DEC14	172
05-05050	40	40	1	0	05300	F&D METAL DECK	8APR13	3JUN13	16DEC13	12FEB14	174
08-08135	60	60	1	0	08800	P&S MISCELLANEOUS GLAZING	14AUG13	7NOV13	25APR14	21JUL14	174
08-08140	10	10	1	0	08800	R&A MISCELLANEOUS GLAZING	8NOV13	22NOV13	22JUL14	4AUG14	174
08-08145	60	60	1	0	08800	F&D MISCELLANEOUS GLAZING	25NOV13	21FEB14	5AUG14	29OCT14	174
10-10235	40	40	1	0	10830	P&S MIRRORS	10DEC13	6FEB14	26AUG14	22OCT14	179
10-10240	10	10	1	0	10830	R&A MIRRORS	7FEB14	21FEB14	23OCT14	5NOV14	179
10-10245	40	40	1	0	10830	F&D MIRRORS	24FEB14	18APR14	6NOV14	6JAN15	179
07-07175	40	10	1	75	07720	P&S ROOF ACCESSORIES	11FEB13A	27AUG13		19MAY14	181
07-07180	10	10	1	0	07720	R&A ROOF ACCESSORIES	28AUG13	11SEP13	20MAY14	3JUN14	181
07-07185	40	40	1	0	07720	F&D ROOF ACCESSORIES	12SEP13	7NOV13	4JUN14	30JUL14	181
16-16500	60	60	1	0	16775	P&S GYMATORIUM SOUND SYSTEM	11JUL13	3OCT13	3APR14	26JUN14	182
09-09095	40	40	1	0	09590	P&S WOOD FLOORING	12SEP13	7NOV13	5JUN14	31JUL14	182
16-16510	10	10	1	0	16775	R&A GYMATORIUM SOUND SYSTEM	4OCT13	18OCT13	27JUN14	11JUL14	182
16-16520	60	60	1	0	16775	F&D GYMATORIUM SOUND SYSTEM	21OCT13	16JAN14	14JUL14	6OCT14	182
09-09100	10	10	1	0	09590	R&A WOOD FLOORING	8NOV13	22NOV13	1AUG14	14AUG14	182
09-09105	40	40	1	0	09590	F&D WOOD FLOORING	25NOV13	23JAN14	15AUG14	10OCT14	182
15-15520	40	40	1	0	15514	P&S DUCTWORK INSULATION	17APR13	12JUN13	10JAN14	10MAR14	184
15-15525	10	10	1	0	15514	R&A DUCTWORK INSULATION	13JUN13	26JUN13	11MAR14	24MAR14	184
15-15530	40	40	1	0	15514	F&D DUCTWORK INSULATION	27JUN13	22AUG13	25MAR14	19MAY14	184
15-15060	60	15	1	75	15333	P&S FIRE PUMPS	13MAR13A	17JUL13		14APR14	185
15-15065	10	3	1	75	15333	R&A FIRE PUMPS	15MAR13A	22JUL13		17APR14	185
07-07090	40	40	1	0	07270	P&S FIRESTOPPING/SMOKE SEALS	8APR13	3JUN13	2JAN14	28FEB14	185
07-07095	10	10	1	0	07270	R&A FIRESTOPPING/SMOKE SEALS	4JUN13	17JUN13	3MAR14	14MAR14	185
07-07100	40	40	1	0	07270	F&D FIRESTOPPING/SMOKE SEALS	18JUN13	13AUG13	17MAR14	9MAY14	185
15-15070	60	60	1	0	15333	F&D FIRE PUMPS	23JUL13	16OCT13	18APR14	14JUL14	185
16-16090	60	6	1	90	16140	P&S WIRING DEVICES	10SEP12A	18JUL13		16APR14	186
16-16100	10	5	1	50	16140	R&A WIRING DEVICES	19NOV12A	25JUL13		23APR14	186
16-16110	60	60	1	0	16140	F&D WIRING DEVICES	26JUL13	21OCT13	24APR14	18JUL14	186
02-02100	40	40	1	0	02220	F&D GAS VAPOR BARRIER MATERIALS (FLUID APPLIED)	8APR13	3JUN13	8JAN14	6MAR14	189
16-16580	60	60	1	0	16791	P&S CLOCKS & PA SYSTEM	11JUL13	3OCT13	17APR14	11JUL14	192
16-16590	10	10	1	0	16791	R&A CLOCKS & PA SYSTEM	4OCT13	18OCT13	14JUL14	25JUL14	192
16-16600	60	60	1	0	16791	F&D CLOCKS & PA SYSTEM DEVICES	21OCT13	16JAN14	28JUL14	21OCT14	192
16-16240	60	60	1	0	16530	P&S SITE SECURITY LIGHTING	11JUL13	3OCT13	21APR14	15JUL14	194
16-16250	10	10	1	0	16530	R&A SITE SECURITY LIGHTING	4OCT13	18OCT13	16JUL14	29JUL14	194
16-16260	60	60	1	0	16530	F&D SITE SECURITY LIGHTING DEVICES	21OCT13	16JAN14	30JUL14	23OCT14	194
16-16550	60	60	1	0	16783	P&S DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	11JUL13	3OCT13	22APR14	16JUL14	195
16-16560	10	10	1	0	16783	R&A DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	4OCT13	18OCT13	17JUL14	30JUL14	195
16-16570	60	60	1	0	16783	F&D DATA CAMERA FOR VIDEO SURVELLIENCE SYSTEM	21OCT13	16JAN14	31JUL14	24OCT14	195
15-15120	40	40	1	0	15403	P&S VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	8APR13	3JUN13	17JAN14	17MAR14	196
15-15125	10	10	1	0	15403	R&A VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	4JUN13	17JUN13	18MAR14	31MAR14	196
15-15130	40	40	1	0	15403	F&D VIB ISOLATION & SEISMIC CNTRLS/PLUMBING/DRNG	18JUN13	13AUG13	1APR14	27MAY14	196
16-16270	60	30	1	50	16720	P&S FIRE DETECTION & ALARM SYSTEM	24AUG12A	21AUG13		6JUN14	198
16-16280	10	10	1	0	16720	R&A FIRE DETECTION & ALARM SYSTEM	22AUG13	5SEP13	9JUN14	20JUN14	198

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
16-16290	60	60	1	0	16720	F&D FIRE DETECTION & ALARM SYSTEM	6SEP13	3DEC13	23JUN14	16SEP14	198
15-16175	60	60	1	0	15973	P&S FACILITIES MANAGEMENT SYSTEMS INTEGRATION	8APR13	1JUL13	28JAN14	22APR14	202
15-16180	10	10	1	0	15973	R&A FACILITIES MANAGEMENT SYSTEMS INTEGRATION	2JUL13	16JUL13	23APR14	6MAY14	202
15-16185	40	40	1	0	15973	F&D FACILITIES MANAGEMENT SYS INTEGRATION MATRLS	17JUL13	11SEP13	7MAY14	2JUL14	202
08-08160	60	60	1	0	08920	P&S ALUMINUM CURTAIN WALLS	14AUG13	7NOV13	5JUN14	28AUG14	202
08-08165	10	10	1	0	08920	R&A ALUMINUM CURTAIN WALLS	8NOV13	22NOV13	29AUG14	12SEP14	202
08-08170	60	60	1	0	08920	F&D ALUMINUM CURTAIN WALLS	25NOV13	21FEB14	15SEP14	10DEC14	202
15-15930	40	30	1	25	15860	P&S CENTRIFUGAL FANS	5OCT12A	17MAY13		13MAR14	204
15-15870	40	10	1	75	15830	P&S FAN COIL UNITS	7NOV12A	19APR13		12FEB14	204
15-15935	10	8	1	20	15860	R&A CENTRIFUGAL FANS	15NOV12A	30MAY13		25MAR14	204
15-15875	10	3	1	70	15830	R&A FAN COIL UNITS	7DEC12A	24APR13		18FEB14	204
15-15880	40	40	1	0	15830	F&D FAN COIL UNITS	25APR13	20JUN13	19FEB14	15APR14	204
15-15940	40	40	1	0	15860	F&D CENTRIFUGAL FANS	31MAY13	26JUL13	26MAR14	20MAY14	204
09-09155	40	40	1	0	09800	P&S SPECIAL COATING	12SEP13	7NOV13	11JUL14	5SEP14	207
09-09160	10	10	1	0	09800	R&A SPECIAL COATING	8NOV13	22NOV13	8SEP14	19SEP14	207
09-09165	40	40	1	0	09800	F&D SPECIAL COATING	25NOV13	23JAN14	22SEP14	18NOV14	207
15-15385	40	30	1	25	15453	P&S PUMPING APPARATUS & TANKS	5OCT12A	17MAY13		19MAR14	208
15-15390	10	8	1	20	15453	R&A PUMPING APPARATUS & TANKS	16NOV12A	30MAY13		31MAR14	208
05-05055	20	20	1	0	05400	P&S COLD-FORMED METAL FRAMING	8APR13	3MAY13	5FEB14	5MAR14	208
05-05060	10	10	1	0	05400	R&A COLD-FORMED METAL FRAMING	6MAY13	17MAY13	6MAR14	19MAR14	208
05-05065	20	20	1	0	05400	F&D COLD-FORMED METAL FRAMING	20MAY13	17JUN13	20MAR14	16APR14	208
15-15395	40	40	1	0	15453	F&D PUMPING APPARATUS & TANKS	31MAY13	26JUL13	1APR14	27MAY14	208
05-05105	10	8	1	20	05710	R&A STEEL STAIRS SHOP DRAWINGS	5APR13A	17APR13		18FEB14	209
16-16180	60	60	1	0	16289	P&S TRANSIENT VOLTAGE SURGE SUPPRESSION	8APR13	1JUL13	6FEB14	1MAY14	209
05-05110	40	40	1	0	05710	F&D STEEL STAIRS	18APR13	13JUN13	19FEB14	15APR14	209
16-16190	10	10	1	0	16289	R&A TRANSIENT VOLTAGE SURGE SUPPRESSION	2JUL13	16JUL13	2MAY14	15MAY14	209
16-16200	60	60	1	0	16289	F&D TRANSIENT VOLTAGE SURGE SUPPRESSION EQUIP	17JUL13	9OCT13	16MAY14	11AUG14	209
15-15490	40	40	1	0	15512	P&S PIPING INSULATION (HVAC)	17APR13	12JUN13	19FEB14	15APR14	210
15-15495	10	10	1	0	15512	R&A PIPING INSULATION (HVAC)	13JUN13	26JUN13	16APR14	29APR14	210
15-15500	40	40	1	0	15512	F&D PIPING INSULATION (HVAC)	27JUN13	22AUG13	30APR14	25JUN14	210
15-15600	60	51	1	15	15540	P&S HVAC PUMPS	19FEB13A	18JUN13		23APR14	212
03-03030	60	60	1	0	03610	P&S GROUTING SHOP DRAWINGS	8APR13	1JUL13	11FEB14	6MAY14	212
15-15825	40	40	1	0	15783	P&S SPLIT HEAT PUMP SYSTEM	8APR13	3JUN13	11FEB14	8APR14	212
15-15980	40	40	1	0	15885	P&S AIR FILTERS	8APR13	3JUN13	11FEB14	8APR14	212
15-15830	10	10	1	0	15783	R&A SPLIT HEAT PUMP SYSTEM	4JUN13	17JUN13	9APR14	22APR14	212
15-15985	10	10	1	0	15885	R&A AIR FILTERS	4JUN13	17JUN13	9APR14	22APR14	212
15-15835	40	40	1	0	15783	F&D SPLIT HEAT PUMP	18JUN13	13AUG13	23APR14	18JUN14	212
15-15990	40	40	1	0	15885	P&D AIR FILTERS	18JUN13	13AUG13	23APR14	18JUN14	212
15-15605	10	10	1	0	15540	R&A HVAC PUMPS	19JUN13	2JUL13	24APR14	7MAY14	212
03-03035	10	10	1	0	03610	R&A GROUTING SHOP DRAWINGS	2JUL13	16JUL13	7MAY14	20MAY14	212
15-15610	30	30	1	0	15540	F&D HVAC PUMPS	3JUL13	14AUG13	8MAY14	19JUN14	212
15-15420	40	40	1	0	15501	P&S GENERAL PROVISIONS FOR HVAC	8APR13	3JUN13	13FEB14	10APR14	214
15-15425	10	10	1	0	15501	R&A GENERAL PROVISIONS FOR HVAC	4JUN13	17JUN13	11APR14	24APR14	214
15-15225	40	20	1	50	15415	P&S DRAINAGE	5OCT12A	3MAY13		17MAR14	216
15-15230	10	5	1	50	15415	R&A DRAINAGE	15NOV12A	10MAY13		24MAR14	216
15-15235	40	40	1	0	15415	F&D DRAINAGE MATERIALS	13MAY13	9JUL13	25MAR14	19MAY14	216
15-15905	40	10	1	75	15836	P&S UNIT HEATERS (UH) /CABINET HEATERS (CH)	18OCT12A	19APR13		7MAR14	220
15-15910	10	3	1	75	15836	R&A UNIT HEATERS (UH) /CABINET HEATERS (CH)	31DEC12A	24APR13		12MAR14	220
15-15915	40	40	1	0	15836	F&D UNIT HEATERS (UH) /CABINET HEATERS (CH)	25APR13	20JUN13	13MAR14	7MAY14	220
16-16350	60	60	1	0	16726	F&D TELEPHONE & INTERCOM SYSTEM	12SEP13	9DEC13	30JUL14	23OCT14	220
16-16300	60	30	1	50	16724	P&S INTRUSION ALARM SYSTEM	10SEP12A	21AUG13		11JUL14	222
16-16310	10	5	1	50	16724	R&A INTRUSION ALARM SYSTEM	15NOV12A	28AUG13		18JUL14	222
16-16320	60	60	1	0	16724	F&D INTRUSION ALARM SYSTEM	29AUG13	25NOV13	21JUL14	14OCT14	222
15-15265	40	16	1	60	15417	P&S COLD WATER SUPPLY	5OCT12A	29APR13		20MAR14	223
15-15270	10	2	1	80	15417	R&A COLD WATER SUPPLY	15NOV12A	1MAY13		24MAR14	223
15-15545	40	40	1	0	15515	P&S HYDRONIC SPECIALTIES	8APR13	3JUN13	27FEB14	23APR14	223
15-15275	40	40	1	0	15417	F&D COLD WATER SUPPLY MATERIALS	2MAY13	27JUN13	25MAR14	19MAY14	223
15-15550	10	10	1	0	15515	R&A HYDRONIC SPECIALTIES	4JUN13	17JUN13	24APR14	7MAY14	223
15-15555	40	40	1	0	15515	F&D HYDRONIC SPECIALTIES	18JUN13	13AUG13	8MAY14	3JUL14	223
15-15630	60	36	1	40	15565	P&S HOT WATER CONDENSING BOILERS	5NOV12A	28MAY13		18APR14	224
15-15640	10	6	1	40	15565	R&A HOT WATER CONDENSING BOILERS	14JAN13A	5JUN13		28APR14	224
15-15650	60	60	1	0	15565	F&D HOT WATER CONDENSING BOILERS	6JUN13	29AUG13	29APR14	23JUL14	224
15-16085	60	15	1	75	15933	P&S DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	13DEC12A	26APR13		25MAR14	227
15-16090	10	10	1	0	15933	R&A DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	29APR13	10MAY13	26MAR14	8APR14	227
15-16095	40	40	1	0	15933	F&D DEDICATED OUTSIDE AIR SYSTEM/ROOFTOP AHU	13MAY13	9JUL13	9APR14	4JUN14	227
09-09125	40	40	1	0	09680	P&S CARPET	12SEP13	7NOV13	11AUG14	6OCT14	228
09-09130	10	10	1	0	09680	R&A CARPET	8NOV13	22NOV13	7OCT14	21OCT14	228
09-09135	40	40	1	0	09680	F&D CARPET	25NOV13	23JAN14	22OCT14	18DEC14	228
15-15180	40	8	1	80	15411	P&S HANGERS & SUPPORTS	5OCT12A	17APR13		20MAR14	231
15-15195	40	8	1	80	15412	P&S VALVES	5OCT12A	17APR13		20MAR14	231
15-15185	10	2	1	80	15411	R&A HANGERS & SUPPORTS	15NOV12A	19APR13		24MAR14	231
15-15200	10	2	1	80	15412	R&A VALVES	15NOV12A	19APR13		24MAR14	231
15-15030	120	30	1	75	15303	P&S SEISMIC CONTROLS FIRE PROTECTION SYSTEM	18MAR13A	7AUG13		10JUL14	231
15-15190	40	40	1	0	15411	F&D HANGERS & SUPPORTS	22APR13	17JUN13	25MAR14	19MAY14	231
15-15205	40	40	1	0	15412	F&D VALVES	22APR13	17JUN13	25MAR14	19MAY14	231
15-15035	10	10	1	0	15303	R&A SEISMIC CONTROLS FIRE PROTECTION SYSTEM	8AUG13	21AUG13	11JUL14	24JUL14	231
15-15040	120	120	1	0	15303	F&D SEISMIC CONTROLS FIRE PROTECTION SYSTEM	22AUG13	14FEB14	25JUL14	16JAN15	231
BS-00560	20	20	1	0	16010	CON-ED FEED	11OCT13	8NOV13	19SEP14	17OCT14	235
15-15445	40	40	1	0	15503	P&S VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	17APR13	12JUN13	27MAR14	21MAY14	236
15-15450	10	10	1	0	15503	R&A VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	13JUN13	26JUN13	22MAY14	5JUN14	236
15-15455	10	10	1	0	15503	F&D VIB ISOLATION & SEISMIC CNTRLS, HVAC SYSTEM	27JUN13	11JUL13	6JUN14	19JUN14	236
15-15360	40	32	1	20	15451	P&S WATER HEATERS	16OCT12A	21MAY13		2MAY14	238
15-15365	10	8	1	20	15451	R&A WATER HEATERS	16NOV12A	3JUN13		14MAY14	238
15-15370	40	40	1	0	15451	F&D WATER HEATERS	4JUN13	30JUL13	15MAY14	11JUL14	238
15-15135	40	40	1	0	15405	P&S WATER MAINS AND APPURTENCES	8APR13	3JUN13	24MAR14	16MAY14	240
15-15730	40	40	1	0	15596	P&S NATURAL GAS LEAK DETECTION EQUIPMENT	8APR13	3JUN13	24MAR14	16MAY14	240
15-15140	10	10	1	0	15405	R&A WATER MAINS AND APPURTENCES	4JUN13	17JUN13	19MAY14	2JUN14	240
15-15735	10	10	1	0	15596	R&A NATURAL GAS LEAK DETECTION EQUIPMENT	4JUN13	17JUN13	19MAY14	2JUN14	240

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
15-15145	40	40	1	0	15405	F&D WATER MAINS AND APPURTENCES	18JUN13	13AUG13	3JUN14	29JUL14	240
15-15740	40	40	1	0	15596	F&D NATURAL GAS LEAK DETECTION EQUIPMENT	18JUN13	13AUG13	3JUN14	29JUL14	240
16-16340	10	5	1	50	16726	R&A TELEPHONE & INTERCOM SYSTEM	25OCT12A	12AUG13		29JUL14	241
16-16330	60	18	1	70	16726	P&S TELEPHONE & INTERCOM SYSTEM	24NOV12A	5AUG13		22JUL14	241
15-16120	60	15	1	75	15934	P&S ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	14JAN13A	26APR13		15APR14	242
15-16130	10	5	1	50	15934	R&A ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	14JAN13A	3MAY13		22APR14	242
15-16135	40	40	1	0	15934	F&D ROOFTOP AHU FOR PUBLIC ASSEMBLY SPACES	6MAY13	1JUL13	23APR14	18JUN14	242
16-16360	60	42	1	30	16727	P&S DATA CABLING SYSTEM	10AUG12A	9SEP13		3SEP14	247
16-16370	10	7	1	30	16727	R&A DATA CABLING SYSTEM	11OCT12A	18SEP13		12SEP14	247
15-15585	40	16	1	60	15517	F&D WATER TREATMENT FOR HYDRONIC SYSTEMS	19FEB13A	10JUL13		3JUL14	247
15-15575	40	40	1	0	15517	P&S WATER TREATMENT FOR HYDRONIC SYSTEMS	8APR13	3JUN13	2APR14	28MAY14	247
15-15580	10	10	1	0	15517	R&A WATER TREATMENT FOR HYDRONIC SYSTEMS	4JUN13	17JUN13	29MAY14	11JUN14	247
16-16380	60	60	1	0	16727	F&D DATA CABLING SYSTEM	19SEP13	16DEC13	15SEP14	10DEC14	247
15-15800	40	20	1	50	15670	P&S PLATE HEAT EXCHANGERS	19FEB13A	3MAY13		2MAY14	250
15-15805	10	3	1	75	15670	R&A PLATE HEAT EXCHANGERS	19FEB13A	8MAY13		7MAY14	250
15-15810	40	40	1	0	15670	F&D PLATE HEAT EXCHANGERS	9MAY13	5JUL13	8MAY14	3JUL14	250
07-07105	40	40	1	0	07272	P&S FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	8APR13	3JUN13	9APR14	4JUN14	252
15-16155	40	40	1	0	15970	P&S TEMPERATURE CONTROL SYSTEM	8APR13	3JUN13	9APR14	4JUN14	252
07-07110	10	10	1	0	07272	R&A FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	4JUN13	17JUN13	5JUN14	18JUN14	252
15-16160	10	10	1	0	15970	R&A TEMPERATURE CONTROL SYSTEM	4JUN13	17JUN13	5JUN14	18JUN14	252
07-07115	40	40	1	0	07272	F&D FLUID-APPLIED MEMB AIR BARRIER/VAPOR RETRDNG	18JUN13	13AUG13	19JUN14	14AUG14	252
15-16165	40	40	1	0	15970	F&D TEMPERATURE CONTROL SYSTEM	18JUN13	13AUG13	19JUN14	14AUG14	252
15-15770	40	10	1	75	15660	P&S PACKAGED MODULAR OUTDOOR CHILLERS	19FEB13A	19APR13		25APR14	255
15-15775	10	3	1	75	15660	R&A PACKAGED MODULAR OUTDOOR CHILLERS	19FEB13A	24APR13		30APR14	255
15-15780	40	40	1	0	15660	F&D PACKAGED MODULAR OUTDOOR CHILLERS	25APR13	20JUN13	1MAY14	26JUN14	255
15-15210	40	8	1	80	15413	P&S INSULATION (P&D)	5OCT12A	17APR13		25APR14	257
15-16050	60	30	1	50	15932	P&S ACTIVE CHILLED BEAMS	5OCT12A	17MAY13		28MAY14	257
15-15215	10	2	1	80	15413	R&A INSULATION (P&D)	15NOV12A	19APR13		29APR14	257
15-16060	10	5	1	50	15932	R&A ACTIVE CHILLED BEAMS	4JAN13A	24MAY13		4JUN14	257
15-15220	40	40	1	0	15413	F&D INSULATION (P&D)	22APR13	17JUN13	30APR14	25JUN14	257
15-16065	40	40	1	0	15932	F&D ACTIVE CHILLED BEAMS	28MAY13	23JUL13	5JUN14	31JUL14	257
07-07045	40	40	1	0	07212	P&S MISCELLANEOUS BUILDING INSULATION	8APR13	3JUN13	21APR14	16JUN14	260
07-07050	10	10	1	0	07212	R&A MISCELLANEOUS BUILDING INSULATION	4JUN13	17JUN13	17JUN14	30JUN14	260
07-07055	40	40	1	0	07212	F&D MISCELLANEOUS BUILDING INSULATION	18JUN13	13AUG13	1JUL14	26AUG14	260
10-10000	80	80	1	0	10100	P&S VISUAL DISPLAY BOARDS	8APR13	30JUL13	23APR14	14AUG14	262
15-15505	40	40	1	0	15513	P&S EQUIPMENT INSULATION (HVAC)	8APR13	3JUN13	23APR14	18JUN14	262
15-15510	10	10	1	0	15513	R&A EQUIPMENT INSULATION (HVAC)	4JUN13	17JUN13	19JUN14	2JUL14	262
15-15515	40	40	1	0	15513	F&D EQUIPMENT INSULATION (HVAC)	18JUN13	13AUG13	3JUL14	28AUG14	262
10-10005	10	10	1	0	10100	R&A VISUAL DISPLAY BOARDS	31JUL13	13AUG13	15AUG14	28AUG14	262
10-10010	80	80	1	0	10100	F&D VISUAL DISPLAY BOARDS	14AUG13	9DEC13	29AUG14	24DEC14	262
16-16120	60	30	1	50	16145	P&S LIGHTING CONTROL DEVICES	3DEC12A	21AUG13		9SEP14	263
16-16130	10	5	1	50	16145	R&A LIGHTING CONTROL DEVICES	1FEB13A	28AUG13		16SEP14	263
16-16140	60	60	1	0	16145	F&D LIGHTING CONTROL DEVICES	29AUG13	25NOV13	17SEP14	12DEC14	263
02-02225	60	60	1	0	02721	P&S TRENCH DRAINS & AREA DRAINS	8APR13	1JUL13	30APR14	24JUL14	267
02-02240	60	60	1	0	02722	P&S PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	8APR13	1JUL13	30APR14	24JUL14	267
02-02255	60	60	1	0	02723	P&S STORM DRAINAGE SYSTEMS	8APR13	1JUL13	30APR14	24JUL14	267
02-02230	10	10	1	0	02721	R&A TRENCH DRAINS & AREA DRAINS	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02245	10	10	1	0	02722	R&A PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02260	10	10	1	0	02723	R&A STORM DRAINAGE SYSTEMS	2JUL13	16JUL13	25JUL14	7AUG14	267
02-02235	40	40	1	0	02721	F&D TRENCH DRAINS & AREA DRAINS MATERIALS	17JUL13	11SEP13	8AUG14	3OCT14	267
02-02250	40	40	1	0	02722	F&D PRCST CONC CATCH BASINS/DETNT BASINS/MANHOLE	17JUL13	11SEP13	8AUG14	3OCT14	267
02-02265	40	40	1	0	02723	F&D STORM DRAINAGE SYSTEMS MATERIALS	17JUL13	11SEP13	8AUG14	3OCT14	267
10-10045	40	40	1	0	10214	P&S STATIONARY METAL WALL LOUVERS	8APR13	3JUN13	2MAY14	27JUN14	269
10-10050	10	10	1	0	10214	R&A STATIONARY METAL WALL LOUVERS	4JUN13	17JUN13	30JUN14	14JUL14	269
10-10055	40	40	1	0	10214	F&D STATIONARY METAL WALL LOUVERS	18JUN13	13AUG13	15JUL14	9SEP14	269
BS-11285	5	5	1	0	10214	INST LOUVER	14AUG13	20AUG13	10SEP14	16SEP14	269
15-15010	60	60	1	0	15301	P&S GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	26JUN13	19SEP13	25JUL14	20OCT14	271
15-15015	10	10	1	0	15301	R&A GEN PROVISIONS FOR FIRE PROTECTION SYS WORK	20SEP13	3OCT13	21OCT14	3NOV14	271
11-11115	40	40	1	0	11600	P&S LABORATORY EQUIPMENT	8APR13	3JUN13	9MAY14	7JUL14	274
11-11120	10	10	1	0	11600	R&A LABORATORY EQUIPMENT	4JUN13	17JUN13	8JUL14	21JUL14	274
15-15150	40	40	1	0	15406	P&S FIRE HYDRANTS	4JUN13	30JUL13	8JUL14	2SEP14	274
11-11125	40	40	1	0	11600	F&D LABORATORY EQUIPMENT (CW)	18JUN13	13AUG13	22JUL14	16SEP14	274
15-15155	10	10	1	0	15406	R&A FIRE HYDRANTS	31JUL13	13AUG13	3SEP14	16SEP14	274
15-15160	40	40	1	0	15406	F&D FIRE HYDRANTS	14AUG13	9OCT13	17SEP14	13NOV14	274
10-10060	40	40	1	0	10350	P&S FLAGPOLE	8APR13	3JUN13	12MAY14	8JUL14	275
10-10065	10	10	1	0	10350	R&A FLAGPOLE	4JUN13	17JUN13	9JUL14	22JUL14	275
10-10070	40	40	1	0	10350	F&D FLAGPOLE	18JUN13	13AUG13	23JUL14	17SEP14	275
15-15690	60	36	1	40	15590	P&S EMERGENCY GENERATOR SYSTEM ACCESSORIES	15NOV12A	28MAY13		10JUL14	281
15-15700	10	6	1	40	15590	R&A EMERGENCY GENERATOR SYSTEM ACCESSORIES	28DEC12A	5JUN13		18JUL14	281
15-15710	60	60	1	0	15590	F&D EMERGENCY GENERATOR SYSTEM ACCESSORIES	6JUN13	29AUG13	21JUL14	14OCT14	281
14-14035	60	30	1	50	14240	P&S DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	15MAR13A	9JUL13		21AUG14	282
14-14040	10	10	1	0	14240	R&A DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	10JUL13	23JUL13	22AUG14	5SEP14	282
14-14045	80	80	1	0	14240	F&D DIRECT-ACTING HYDRAULIC PASSENGER ELEVATORS	24JUL13	15NOV13	8SEP14	2JAN15	282
11-11040	60	60	1	0	11172	P&S WASTE HANDLING EQUIPMENT	8APR13	1JUL13	29MAY14	21AUG14	287
11-11045	10	10	1	0	11172	R&A WASTE HANDLING EQUIPMENT	2JUL13	16JUL13	22AUG14	5SEP14	287
11-11050	60	60	1	0	11172	F&D WASTE HANDLING EQUIPMENT (CW)	17JUL13	9OCT13	8SEP14	3DEC14	287
11-11070	40	40	1	0	11450	P&S DOMESTIC TYPE EQUIPMENT	8APR13	3JUN13	17JUN14	12AUG14	300
11-11075	10	10	1	0	11450	R&A DOMESTIC TYPE EQUIPMENT	4JUN13	17JUN13	13AUG14	26AUG14	300
11-11080	40	40	1	0	11450	F&D DOMESTIC TYPE EQUIPMENT (CW)	18JUN13	13AUG13	27AUG14	23OCT14	300
06-06030	60	60	1	0	06410	P&S CUSTOM CASEWORK	8APR13	1JUL13	19JUN14	12SEP14	302
08-08000	40	40	1	0	08110	P&S STEEL DOORS & FRAMES	8APR13	3JUN13	19JUN14	14AUG14	302
10-10075	60	60	1	0	10415	P&S DISPLAY CABINETS & CASES	8APR13	1JUL13	19JUN14	12SEP14	302
11-11000	60	60	1	0	11050	P&S LIBRARY EQUIPMENT	8APR13	1JUL13	19JUN14	12SEP14	302
15-15840	40	40	1	0	15783	P&S AC UNITS	8APR13	3JUN13	19JUN14	14AUG14	302
15-16190	40	40	1	0	15980	P&S THERMOMETERS AND GAUGES	8APR13	3JUN13	19JUN14	14AUG14	302
08-08005	10	10	1	0	08110	R&A STEEL DOORS & FRAMES	4JUN13	17JUN13	15AUG14	28AUG14	302
15-15845	10	10	1	0	15783	R&A AC UNITS	4JUN13	17JUN13	15AUG14	28AUG14	302
15-16195	10	10	1	0	15980	R&A THERMOMETERS AND GAUGES	4JUN13	17JUN13	15AUG14	28AUG14	302

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
08-08010	40	40	1	0	08110	F&D STEEL DOORS & FRAMES	18JUN13	13AUG13	29AUG14	27OCT14	302
15-15850	40	40	1	0	15783	F&D AC UNITS	18JUN13	13AUG13	29AUG14	27OCT14	302
15-16200	40	40	1	0	15980	F&D THERMOMETERS AND GAUGES	18JUN13	13AUG13	29AUG14	27OCT14	302
06-06035	10	10	1	0	06410	R&A CUSTOM CASEWORK	2JUL13	16JUL13	15SEP14	26SEP14	302
10-10080	10	10	1	0	10415	R&A DISPLAY CABINETS & CASES	2JUL13	16JUL13	15SEP14	26SEP14	302
11-11005	10	10	1	0	11050	R&A LIBRARY EQUIPMENT	2JUL13	16JUL13	15SEP14	26SEP14	302
06-06040	60	60	1	0	06410	F&D CUSTOM CASEWORK	17JUL13	9OCT13	29SEP14	24DEC14	302
10-10085	60	60	1	0	10415	F&D DISPLAY CABINETS & CASES	17JUL13	9OCT13	29SEP14	24DEC14	302
11-11010	60	60	1	0	11050	F&D LIBRARY EQUIPMENT (LR)	17JUL13	9OCT13	29SEP14	24DEC14	302
11-11025	60	60	1	0	11061	P&S PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	8APR13	1JUL13	26JUN14	19SEP14	307
11-11030	10	10	1	0	11061	R&A PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	2JUL13	16JUL13	22SEP14	3OCT14	307
11-11035	60	60	1	0	11061	F&D PLATFORM CURTAIN/GYM WINDOW CURTAIN/PROJ SCR	17JUL13	9OCT13	6OCT14	2JAN15	307
05-05085	60	60	1	0	05700	P&S ORNAMENTAL METAL SHOP DRAWINGS	8APR13	1JUL13	27JUN14	22SEP14	308
10-10135	40	40	1	0	10605	P&S WIRE MESH WORK	8APR13	3JUN13	27JUN14	22AUG14	308
10-10140	10	10	1	0	10605	R&A WIRE MESH WORK	4JUN13	17JUN13	25AUG14	8SEP14	308
10-10145	40	40	1	0	10605	F&D WIRE MESH WORK	18JUN13	13AUG13	9SEP14	4NOV14	308
05-05090	10	10	1	0	05700	R&A ORNAMENTAL METAL SHOP DRAWINGS	2JUL13	16JUL13	23SEP14	6OCT14	308
05-05095	60	60	1	0	05700	F&D ORNAMENTAL METAL	17JUL13	9OCT13	7OCT14	5JAN15	308
08-08030	40	40	1	0	08220	P&S FIBERGLASS REINFORCED POLYESTER DOORS	8APR13	3JUN13	1JUL14	26AUG14	310
08-08035	10	10	1	0	08220	R&A FIBERGLASS REINFORCED POLYESTER DOORS	4JUN13	17JUN13	27AUG14	10SEP14	310
08-08040	40	40	1	0	08220	F&D FIBERGLASS REINFORCED POLYESTER DOORS	18JUN13	13AUG13	11SEP14	6NOV14	310
15-15430	40	40	1	0	15502	P&S HVAC IDENTIFICATION	8APR13	3JUN13	3JUL14	28AUG14	312
15-15435	10	10	1	0	15502	R&A HVAC IDENTIFICATION	4JUN13	17JUN13	29AUG14	12SEP14	312
15-15440	40	40	1	0	15502	F&D HVAC IDENTIFICATION	18JUN13	13AUG13	15SEP14	10NOV14	312
15-15295	40	20	1	50	15431	P&S TAGS, CHARTS & IDENTIFICATION	5OCT12A	3MAY13		1AUG14	313
15-15300	10	5	1	50	15431	R&A TAGS, CHARTS & IDENTIFICATION	15NOV12A	10MAY13		8AUG14	313
15-15305	40	40	1	0	15431	F&D TAGS, CHARTS & IDENTIFICATION	13MAY13	9JUL13	11AUG14	6OCT14	313
07-07075	40	40	1	0	07260	P&S INTUMESCENT FIREPROOFING	8APR13	3JUN13	11JUL14	5SEP14	317
07-07080	10	10	1	0	07260	R&A INTUMESCENT FIREPROOFING	4JUN13	17JUN13	8SEP14	19SEP14	317
07-07085	40	40	1	0	07260	F&D INTUMESCENT FIREPROOFING MATERIALS	18JUN13	13AUG13	22SEP14	18NOV14	317
08-08045	40	40	1	0	08330	P&S COILING GRILLES	8APR13	3JUN13	15JUL14	9SEP14	319
08-08050	10	10	1	0	08330	R&A COILING GRILLES	4JUN13	17JUN13	10SEP14	23SEP14	319
08-08055	40	40	1	0	08330	F&D COILING GRILLES	18JUN13	13AUG13	24SEP14	20NOV14	319
15-15890	40	20	1	50	15835	P&S FIN TUBE RADIATOR	18OCT12A	3MAY13		14AUG14	322
15-15895	10	5	1	50	15835	R&A FIN TUBE RADIATOR	28NOV12A	10MAY13		21AUG14	322
15-16140	40	40	1	0	15940	P&S AIR OUTLETS & INLETS	8APR13	3JUN13	18JUL14	12SEP14	322
15-15900	40	40	1	0	15835	F&D FIN TUBE RADIATOR	13MAY13	9JUL13	22AUG14	20OCT14	322
15-16145	10	10	1	0	15940	R&A AIR OUTLETS & INLETS	4JUN13	17JUN13	15SEP14	26SEP14	322
15-16150	40	40	1	0	15940	F&D AIR OUTLETS & INLETS	18JUN13	13AUG13	29SEP14	25NOV14	322
14-14210	20	20	1	0	14211	P&S O&M MANUALS FOR GEARED TRACTION ELEVATOR	24JUL13	20AUG13	4NOV14	3DEC14	322
15-15250	40	20	1	50	15416	P&S GAS PIPING SYSTEM	5OCT12A	3MAY13		15AUG14	323
15-15255	10	5	1	50	15416	R&A GAS PIPING SYSTEM	15NOV12A	10MAY13		22AUG14	323
15-15260	40	40	1	0	15416	F&D GAS PIPING SYSTEM MATERIALS	13MAY13	9JUL13	25AUG14	21OCT14	323
05-05070	60	45	1	25	05500	P&S METAL FABRICATIONS SHOP DRAWINGS	2APR13A	10JUN13		24SEP14	325
05-05075	10	9	1	15	05500	R&A METAL FABRICATIONS SHOP DRAWINGS	2APR13A	21JUN13		7OCT14	325
15-16010	40	40	1	0	15910	P&S DUCT ACCESSORIES	17APR13	12JUN13	1AUG14	26SEP14	325
15-16015	10	10	1	0	15910	R&A DUCT ACCESSORIES	13JUN13	26JUN13	29SEP14	10OCT14	325
05-05080	60	60	1	0	05500	F&D METAL FABRICATIONS	24JUN13	17SEP13	8OCT14	6JAN15	325
15-16020	40	40	1	0	15910	F&D DUCT ACCESSORIES	27JUN13	22AUG13	14OCT14	10DEC14	325
10-10105	40	40	1	0	10505	P&S METAL LOCKERS	8APR13	3JUN13	1AUG14	26SEP14	332
10-10110	10	10	1	0	10505	R&A METAL LOCKERS	4JUN13	17JUN13	29SEP14	10OCT14	332
10-10115	40	40	1	0	10505	F&D METAL LOCKERS	18JUN13	13AUG13	14OCT14	10DEC14	332
14-14215	10	10	1	0	14211	R&A O&M MANUALS FOR GEARED TRACTION ELEVATOR	21AUG13	4SEP13	18DEC14	2JAN15	332
15-15335	40	20	1	50	15440	P&S PLUMBING FIXTURES	5OCT12A	3MAY13		5SEP14	337
15-15340	10	5	1	50	15440	R&A PLUMBING FIXTURES	15NOV12A	10MAY13		12SEP14	337
08-08060	40	40	1	0	08400	P&S ENTRANCES AND STOREFRONTS	8APR13	3JUN13	8AUG14	3OCT14	337
15-15345	40	40	1	0	15440	F&D PLUMBING FIXTURES	13MAY13	9JUL13	15SEP14	10NOV14	337
08-08065	10	10	1	0	08400	R&A ENTRANCES AND STOREFRONTS	4JUN13	17JUN13	6OCT14	20OCT14	337
08-08070	40	40	1	0	08400	F&D ENTRANCES AND STOREFRONTS	18JUN13	13AUG13	21OCT14	17DEC14	337
12-12015	40	40	1	0	12485	P&S FOOT GRILLES	8APR13	3JUN13	13AUG14	8OCT14	340
12-12065	40	40	1	0	12710	P&S FIXED AUDIENCE SEATING	8APR13	3JUN13	13AUG14	8OCT14	340
12-12095	40	40	1	0	12762	P&S MOTORIZED RETRACTABLE SEATING	8APR13	3JUN13	13AUG14	8OCT14	340
12-12020	10	10	1	0	12485	R&A FOOT GRILLES	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12070	10	10	1	0	12710	R&A FIXED AUDIENCE SEATING	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12100	10	10	1	0	12762	R&A MOTORIZED RETRACTABLE SEATING	4JUN13	17JUN13	9OCT14	23OCT14	340
12-12025	40	40	1	0	12485	F&D FOOT GRILLES	18JUN13	13AUG13	24OCT14	22DEC14	340
12-12075	40	40	1	0	12710	F&D FIXED AUDIENCE SEATING	18JUN13	13AUG13	24OCT14	22DEC14	340
12-12105	40	40	1	0	12762	F&D MOTORIZED RETRACTABLE SEATING	18JUN13	13AUG13	24OCT14	22DEC14	340
10-10120	40	40	1	0	10522	P&S FIRE EXTINGUISHERS & CABINETS	8APR13	3JUN13	15AUG14	10OCT14	342
10-10190	40	40	1	0	10675	P&S METAL STORAGE SHELVING	8APR13	3JUN13	15AUG14	10OCT14	342
12-12000	40	40	1	0	12302	P&S MANUFACTURED WOOD CASEWORK	8APR13	3JUN13	15AUG14	10OCT14	342
12-12080	40	40	1	0	12761	P&S WOOD BLEACHERS	8APR13	3JUN13	15AUG14	10OCT14	342
10-10125	10	10	1	0	10522	R&A FIRE EXTINGUISHERS & CABINETS	4JUN13	17JUN13	14OCT14	27OCT14	342
10-10195	10	10	1	0	10675	R&A METAL STORAGE SHELVING	4JUN13	17JUN13	14OCT14	27OCT14	342
12-12005	10	10	1	0	12302	R&A MANUFACTURED WOOD CASEWORK	4JUN13	17JUN13	14OCT14	27OCT14	342
12-12085	10	10	1	0	12761	R&A WOOD BLEACHERS	4JUN13	17JUN13	14OCT14	27OCT14	342
10-10130	40	40	1	0	10522	F&D FIRE EXTINGUISHERS & CABINETS	18JUN13	13AUG13	28OCT14	24DEC14	342
10-10200	40	40	1	0	10675	F&D METAL STORAGE SHELVING	18JUN13	13AUG13	28OCT14	24DEC14	342
12-12010	40	40	1	0	12302	F&D MANUFACTURED WOOD CASEWORK	18JUN13	13AUG13	28OCT14	24DEC14	342
12-12090	40	40	1	0	12761	F&D WOOD BLEACHERS (LR)	18JUN13	13AUG13	28OCT14	24DEC14	342
15-15310	40	16	1	60	15432	P&S MISCELLANEOUS	15OCT12A	29APR13		10SEP14	344
15-15315	10	2	1	80	15432	R&A MISCELLANEOUS	15NOV12A	1MAY13		12SEP14	344
10-10090	40	40	1	0	10440	P&S IDENTIFYING DEVICES	8APR13	3JUN13	19AUG14	15OCT14	344
15-15320	40	40	1	0	15432	F&D MISCELLANEOUS	2MAY13	27JUN13	15SEP14	10NOV14	344
10-10095	10	10	1	0	10440	R&A IDENTIFYING DEVICES	4JUN13	17JUN13	16OCT14	29OCT14	344
10-10100	40	40	1	0	10440	F&D IDENTIFYING DEVICES	18JUN13	13AUG13	30OCT14	29DEC14	344
08-08120	40	40	1	0	08730	P&S THRESHOLDS, WEATHERSTRIPPING & SEALS	8APR13	3JUN13	21AUG14	17OCT14	346
08-08125	10	10	1	0	08730	R&A THRESHOLDS, WEATHERSTRIPPING & SEALS	4JUN13	17JUN13	20OCT14	31OCT14	346

ACTIVITY ID	ORIG DUR	REM DUR	CAL	%	CODE	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	LATE START	LATE FINISH	TOTAL FLOAT
08-08130	40	40	1	0	08730	F&D THRESHOLDS, WEATHERSTRIPPING & SEALS	18JUN13	13AUG13	3NOV14	31DEC14	346
10-10205	40	40	1	0	10720	P&S WINDOW GUARDS	8APR13	3JUN13	22AUG14	20OCT14	347
11-11085	40	40	1	0	11480	P&S GYMNASIUM EQUIPMENT	8APR13	3JUN13	22AUG14	20OCT14	347
11-11100	40	40	1	0	11500	P&S SHOP EQUIPMENT	8APR13	3JUN13	22AUG14	20OCT14	347
12-12050	40	40	1	0	12545	P&S DRAPERIES	8APR13	3JUN13	22AUG14	20OCT14	347
10-10210	10	10	1	0	10720	R&A WINDOW GUARDS	4JUN13	17JUN13	21OCT14	3NOV14	347
11-11090	10	10	1	0	11480	R&A GYMNASIUM EQUIPMENT	4JUN13	17JUN13	21OCT14	3NOV14	347
11-11105	10	10	1	0	11500	R&A SHOP EQUIPMENT	4JUN13	17JUN13	21OCT14	3NOV14	347
12-12055	10	10	1	0	12545	R&A DRAPERIES	4JUN13	17JUN13	21OCT14	3NOV14	347
10-10215	40	40	1	0	10720	F&D WINDOW GUARDS	18JUN13	13AUG13	4NOV14	2JAN15	347
11-11095	40	40	1	0	11480	F&D GYMNASIUM EQUIPMENT (LR)	18JUN13	13AUG13	4NOV14	2JAN15	347
11-11110	40	40	1	0	11500	F&D SHOP EQUIPMENT (CW)	18JUN13	13AUG13	4NOV14	2JAN15	347
12-12060	40	40	1	0	12545	F&D DRAPERIES (LR)	18JUN13	13AUG13	4NOV14	2JAN15	347
15-15280	40	12	1	70	15418	P&S HOT WATER SUPPLY	5OCT12A	23APR13		22SEP14	356
15-15285	10	2	1	80	15418	R&A HOT WATER SUPPLY	15NOV12A	25APR13		24SEP14	356
15-15290	40	40	1	0	15418	F&D HOT WATER SUPPLY MATERIALS	26APR13	21JUN13	25SEP14	21NOV14	356
07-07025	40	40	1	0	07147	F&D CRYSTALLINE WATERPROOFING MATERIALS	8APR13	3JUN13	18SEP14	14NOV14	365
08-08105	40	10	1	75	08710	P&S FINISH HARDWARE	11FEB13A	19APR13		8OCT14	370
08-08110	10	10	1	0	08710	R&A FINISH HARDWARE	22APR13	3MAY13	9OCT14	23OCT14	370
08-08115	40	40	1	0	08710	F&D FINISH HARDWARE	6MAY13	1JUL13	24OCT14	22DEC14	370
08-08015	40	10	1	75	08210	P&S WOOD DOORS	11FEB13A	19APR13		17OCT14	376
08-08020	10	10	1	0	08210	R&A WOOD DOORS	22APR13	3MAY13	20OCT14	31OCT14	376
08-08025	40	40	1	0	08210	F&D WOOD DOORS	6MAY13	1JUL13	3NOV14	31DEC14	376
15-16205	40	40	1	0	15985	P&S SEQUENCE OF HVAC SYSTEM OPERATION	8APR13	3JUN13	14OCT14	10DEC14	382
15-16220	40	40	1	0	15993	P&S BALANCING OF SYSTEMS	8APR13	3JUN13	14OCT14	10DEC14	382
15-16210	10	10	1	0	15985	R&A SEQUENCE OF HVAC SYSTEM OPERATION	4JUN13	17JUN13	11DEC14	24DEC14	382
15-16230	10	10	1	0	15993	R&A BALANCING OF SYSTEMS	4JUN13	17JUN13	11DEC14	24DEC14	382
B03-0020	1	1	1	0	01060S	RECEIVE NOTICE OF DIRECTION (NOD) - BULLETIN #03	8APR13	8APR13	2DEC14	2DEC14	415
B03-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR NOD - BULLETIN #03	9APR13	9APR13	3DEC14	3DEC14	415
B03-0030	30	30	1	0	01060S	NOD - BULLETIN #03 NEGOTIATE & SIGN OFF	10APR13	21MAY13	4DEC14	16JAN15	415
N08-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #08	8APR13	8APR13	3DEC14	3DEC14	416
N09-0025	1	1	1	0	01060S	SUBMIT COST PROPOSAL FOR RFP/NOD #09	8APR13	8APR13	3DEC14	3DEC14	416
N08-0030	30	30	1	0	01060S	RFP/NOD #08 NEGOTIATE & SIGN OFF	9APR13	20MAY13	4DEC14	16JAN15	416
N09-0030	30	30	1	0	01060S	RFP/NOD #0 NEGOTIATE & SIGN OFF	9APR13	20MAY13	4DEC14	16JAN15	416
N05-0030	30	15	1	50	01060S	BULLETIN #02 NEGOTIATE & SIGN OFF	18MAR13A	26APR13		16JAN15	432
N03-0030	30	14	1	53	01060S	RFP/NOD #03 NEGOTIATE & SIGN OFF	1OCT12A	25APR13		16JAN15	433