Volume I – Report and Appendices B through F

CONSTRUCTION CERTIFICATION REPORT

ALLTIFT LANDFILL SITE
Buffalo, New York
NYSDEC Site No. 9-15-054
and
RAMCO STEEL SITE
Buffalo, New York
NYSDEC Site No. 9-15-046B

SUBMITTED TO:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF HAZARDOUS WASTE REMEDIATION

PREPARED FOR:

Honeywell

Morristown, New Jersey

PREPARED BY:

PARSONS
180 Lawrence Bell Drive, Suite 104
Williamsville, New York 14221

This Document has been appended by NYSDEC (11/15/12) to include:

ALTA Survey dated 6/23/11 by TVGA
Environmental Notice - 302 Abby Street
Deed Restriction - 106 Abby Street
Deed Restriction - Skyway Autos

April 2006

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Alltift Landfill Site and Ramco Steel Site
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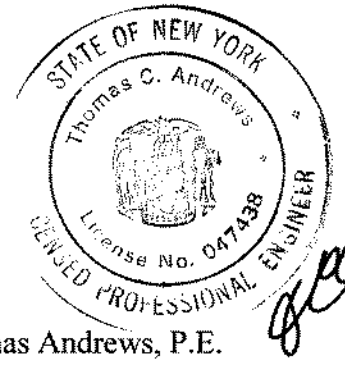
Engineering Certification Statement

I hereby certify that the requirements of the NYSDEC-approved "Final (100%) Remedial Design Report For: Alltift Landfill Site, Buffalo, New York, NYSDEC Site No. 9-15-054 and Ramco Steel Site, Buffalo New York, NYSDEC Site No. 9-15-046B," dated May 2003, have been complied with, and all construction activities have been completed in accordance with the NYSDEC-approved Final Design Report, with the exceptions noted within this Construction Certification Report, and in the attached field changes and field approvals.



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SECTION 1
INTRODUCTION

1.1 PURPOSE

The purpose of this Construction Certification Report is to present the observations and data collected during the remedial construction at the Alltift Landfill Site (NYSDEC No. 9-15-054) and Ramco Steel Site (NYSDEC No. 9-15-046B). The report also documents that the construction was completed in conformance with the New York State Department of Environmental Conservation (NYSDEC) Order on Consent dated December 1997 (NYSDEC, 1997), the NYSDEC-approved Final (100%) Remedial Design Report dated May 2003 (Parsons, 2003a), and the Contract Documents (Parsons, 2003b), with the exceptions noted within this Construction Certification Report.

This Construction Certification Report includes documentation related to construction methods, quality assurance/quality control testing, operational difficulties and resolution thereof, horizontal and vertical control, geotechnical testing, and materials verification. Conformance with the Design Report and requirements and subsequent specifications within the Contract Documents were monitored as well.

Repair, monitoring or maintenance operations, following the construction phase, are not addressed in this report.

1.2 PROJECT LOCATION

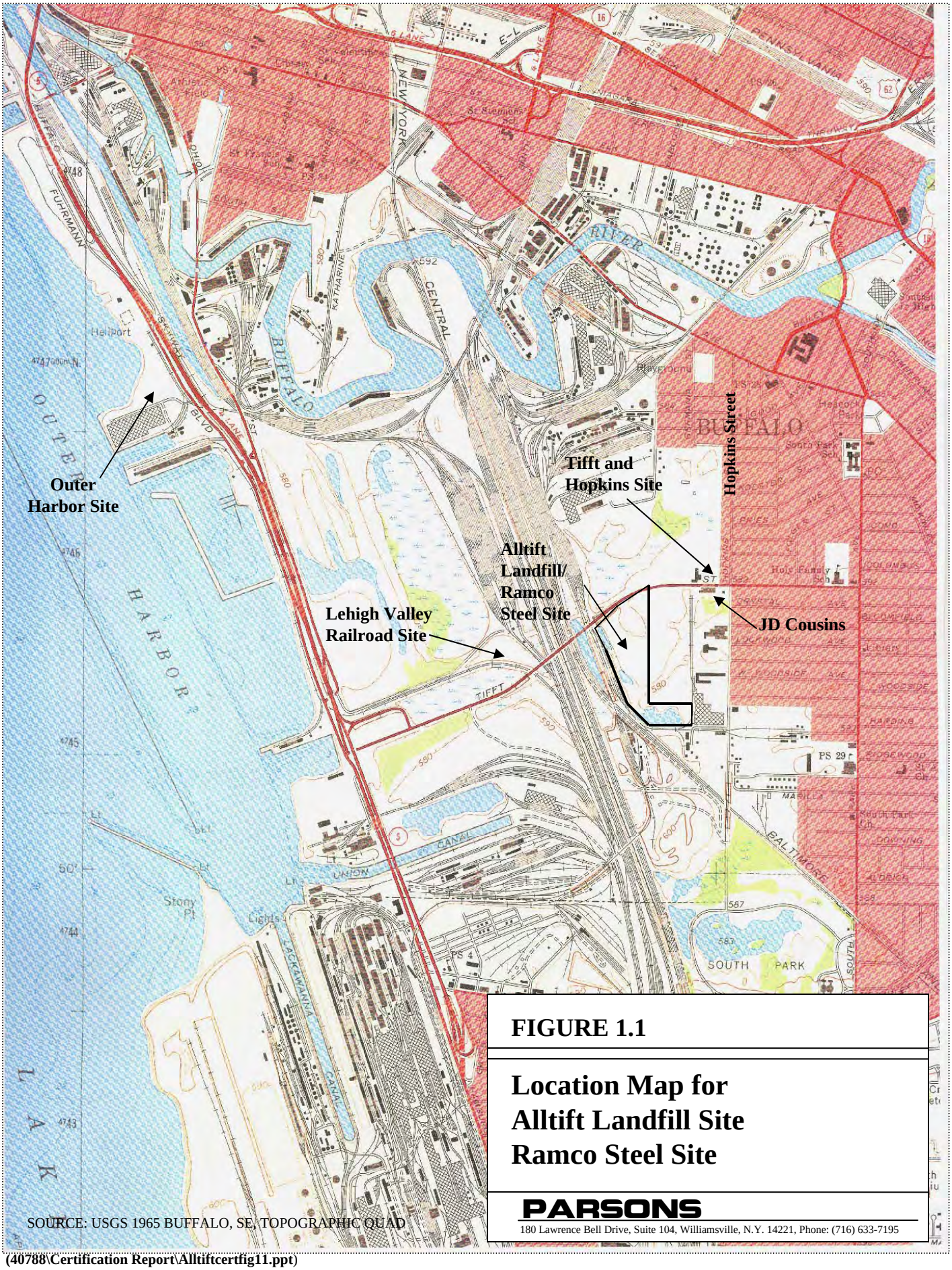
The Alltift Landfill Site is located at 579 Tifft Street in the southern portion of the City of Buffalo, Erie County, New York (Figure 1.1). It is located south of Tifft Street, approximately 1,300 feet west of Hopkins Street and 5,000 feet east of the intersection of Tifft Street and Route 5. It is bounded on the north by Tifft Street; on the west by a railroad right-of-way and tracks; on the south by several ponds and the Ramco Steel Site and on the east by Skyway Auto Parts, Inc. There are wetlands on the southern portion of the Site and along the western edge of the Site. Prior to remedial construction, the landfill was approximately 25 to 30 acres in size and triangular in shape with the surface of the fill rising about 30 feet above the surrounding terrain.

The Ramco Steel Site is adjacent to the southeastern tip of the Alltift Landfill. The Ramco Steel Site is approximately 8.5 acres in size and generally square in shape. It is bounded on the north by the Alltift Landfill and Skyway Auto Parts, Inc.; on the east by Niagara Cold Drawn; on the west by a railroad right-of-way and tracks, and on the south by Republic Steel or LTV (NYSDEC Site. No. 9-15-047) and an abandoned facility, formerly housing Sloan Auto Parts. The Ramco Steel Site encompasses the body of water known as the Ramco Pond.

1.3 PROJECT RESPONSIBILITIES/PARTICIPANTS

The primary active participants in the remedial action, along with their roles and responsibilities, are shown in the table below.

Participant	Role/Responsibility
Honeywell	Project owner. Entered into Consent Order with NYSDEC.
NYSDEC	Lead regulatory agency, responsible to ensure compliance with Consent Order and Record of Decision. Also responsible for citizen's participation activities. Reviews and approves work plans and reports.
NYSDOH	Reviews work plans and reports, works with NYSDEC.
USACE	Responsible for issuing permit to complete remedial action within wetlands, and to create new wetland areas.
de maximis	Construction management, including contractor oversight, budget management, and consultation with outside affected parties including the public and property owners.
City of Buffalo	Owner of majority of the Site property.
Parsons	Design engineer of record, and also responsible for construction quality assurance. Provide construction oversight, reporting to de maximis, and assisting de maximis with items including submittal review, regulatory issues, safety, schedule and cost control compliance.
Tug Hill Construction	Construction contractor, responsible for implementing the remedy in accordance with the Contract Documents and approved changes. Responsible for means, methods, techniques, sequence, and procedures of construction.
GZA Geoenvironmental (subcontractor to Tug Hill)	Responsible for construction quality control (CQC), and health and safety monitoring and oversight. Details of CQC program are contained in the December 2003 CQC Plan (GZA, 2003).



SOURCE: USGS 1965 BUFFALO, SE, TOPOGRAPHIC QUAD

FIGURE 1.1

Location Map for Alltift Landfill Site Ramco Steel Site

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(40788\Certification Report\Alltiftcertfig11.ppt)

SECTION 2
SITE DESCRIPTION AND HISTORY

2.1 SITE DESCRIPTION

The Alltift Landfill/Ramco Steel Site, located in Buffalo, Erie County, New York, is an amalgamation of two historical distinct, yet adjoining sites. The Alltift Landfill Site originally occupied approximately 25 acres (Figure 2.1).

The triangular shaped parcel is bounded by Tifft Street to the north, a paper street known as Abbey Street and the Skyway Auto Parts property to the east, and a railroad corridor on the south and west. The City of Buffalo has identified a paper street (i.e. on paper only – not physically present) known as Colgate Street to the south.

The Ramco Steel Site is an 8.5 acre parcel that was originally part of a larger property, subdivided from what is now the Niagara Cold Drawn property (Niagara LaSalle). It is bounded to the north by the Skyway Auto Parts property and to the west by the South Buffalo Railroad lands and the Alltift Site. It is bounded to the south by the paper street known as Colgate Street, and a railroad corridor.

Due to the proximity of the two sites and the similarity of the remedial actions that were identified in the respective RODs, the sites were combined for remedial purposes.

Land use in the vicinity of the Site is commercial and industrial with residential/light industrial areas to the east. It is located in an urban industrial area of South Buffalo which has been zoned as M2, General Industrial.

2.2 SITE HISTORY

Ramco Steel

The Ramco Steel Site was owned and/or operated by a number of companies from 1929 to the present. Bliss and Laughlin operated the plant from 1929 to 1972. Ramco/Fitzsimmons purchased the property in 1972, and operated there until 1986. In 1986, the property was subdivided into two parcels, consisting of the main building structure and the western pond area. The pond area became the property of Hopkins-Tifft Realty. The western property, containing the pond, is the Ramco Steel Site.

During the manufacturing of steel products, a sulfuric acid bath (also known as a pickling operation) was used to clean the steel. The spent acid, or pickle liquor, and wash-water from the operation, were discharged into the pond until 1979. Occasionally the pond was dredged, with the sediments left on-site.

The Ramco Steel Site was placed on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites as a Class 2a (temporary classification). Based on the results of the Phase I Investigation completed by NYSDEC in June 1989, it was reclassified as a Class 2 (significant threat to public health or the environment – action required) site in 1990.

In 1991, NYSDEC contacted the potentially responsible parties to undertake a remedial investigation and feasibility study. In November 1992, Axia, Inc., the successor

to Bliss and Laughlin, entered into a Consent Order to conduct a remedial investigation. In 1994, Axia entered into a second Order to complete a feasibility study.

The Remedial Investigation Report for the Ramco Steel Site was completed in August 1994 (Dames and Moore), and the Feasibility Study was completed in January 1995 (Dames and Moore).

In March 1996, NYSDEC issued a Record of Decision which identified the selected remedy as excavation of contaminated sediments and soils, with the material to be consolidated under the proposed cap at the Alltift Landfill Site. The pond and wetland areas were to be restored.

Alltift Landfill Site

The Alltift Landfill was operated from at least the 1930s until 1984. It was owned and operated by the City of Buffalo as a municipal landfill until 1957. From 1957 through 1975, Abtift Realty owned and operated it as a landfill, and the landfill was used for the disposal of commercial/industrial wastes. From 1975 to 1992, the Site was owned by Alltift Realty Inc., and wastes, including wastes from an automobile shredder operation, fly ash, foundry sand, and demolition debris were disposed of. Landfilling activities ceased in February 1984. The City of Buffalo took title to the Site in 1992.

The initial environmental investigation was conducted by Alltift Realty in 1978 in support of a Part 360 permit application. (Recra Research, 1980). In 1983, Dames and Moore completed a Phase I Investigation for NYSDEC, with a Phase II Investigation completed in 1986 (Engineering-Science, 1986).

In June 1991, Allied-Signal, Inc., the predecessor to Honeywell, entered into an Order on Consent (Index No. B9-0194-87-07) with NYSDEC to complete a remedial investigation and feasibility study. The Remedial Investigation Report was issued in August 1994 (AFI, 1994) and the Feasibility Study Report was issued in January 1995 (ERM, 1995).

In March 1995, NYSDEC completed a Record of Decision. The ROD selected a remedy consisting of excavation and consolidation of contaminated soil and sediments, capping of the landfill, pond and wetland restoration, construction of a groundwater collection trench, and, if needed, operation of the collection trench.

Joint Remediation of the Alltift Landfill Site and Ramco Steel Site

In December 1997, AlliedSignal, Inc. entered into an Order-on-Consent with NYSDEC for the development and implementation of a joint remedial program for both sites. Pre-design investigation work was completed in 1997, consisting of a groundwater evaluation and treatability study, geotechnical investigation, landfill gas survey and sediment sampling and dewatering. The results of these investigations were included in the Final (100%) Design Report, that was issued in May 2003 (Parsons, 2003a). Remedial construction began in November 2003 and was completed in November 2005.

2.3 PROPERTY OWNERSHIP

To meet the project objectives, work was conducted on various properties. Access to certain properties is required for ongoing operations and maintenance activities. Property ownership and boundaries are shown on Drawing C-1 in Appendix A. Access agreements are presented in Section 6.2.

GRID NORTH

Stone Road

TIFFT STREET

STATE OF NEW YORK PROPERTY (NYSDOT)

ENTRANCE GATE

CONTROL SHED

WEIR

GWR-1

GWCT Sump-1

PZ-1

PZ-4

PZ-15

GV-1

GV-3

PZ-13

MW-1

667 TIFFT STREET (PROCESS WELDING & FABRICATIONS) PROPERTY (JD COUSINS)

LANDS NOW OR FORMERLY OF SKYWAY AUTOPARTS, INC. L.9170/P.229

PZ-12

PZ-14

MW-2

PZ-2

PZ-5

ALLTIFT LANDFILL SITE

GROUNDWATER COLLECTION TRENCH

GWCT Sump-2

PZ-11

GV-2

RELIEF TRENCH

CITY OF BUFFALO L.8769/P.238

PZ-16

WETLANDS

PZ-3

PZ-6

GWR-2

GWCT Sump-3

LIFT STATION

SOUTH BUFFALO RAILWAY/ BUFFALO PITTSBURG RAILROAD, INC.

PZ-7

PZ-8

GWCT Sump-4

PZ-9

FORCE MAIN CONNECTED TO BSA

AREA NOT TO BE MOWED

PZ-10

RAMCO STEEL SITE

CITY OF BUFFALO L.9580/P.710

CSX/ ADRIAN REALTY CO. L.1436/P.446

EXISTING STREET BOUNDARY

ABBY STREET (66' WIDE ROW)

PERMANENT STREET BOUNDARY

WETLANDS

CITY OF SOUTH BUFFALO RAILWAY, CO. L.4019/P.541

CITY OF BUFFALO L.9797/P.392

COLGATE STREET (66' WIDE RIGHT-OF-WAY)

EXISTING STREET BOUNDARY (66' WIDE RIGHT-OF-WAY)

PERMANENT STREET BOUNDARY

GERMANIA STREET (66' WIDE RIGHT-OF-WAY)

BUZZARD CORP.

SOUTH BUFFALO RAILWAY, CO. L.4019/P.541

MH

Hopkins Street

HOPKINS STREET (66' WIDE)

NIAGARA LaSALLE

LEGEND

MW-1	MONITORING WELL
PZ-16	PIEZOMETER
GV-2	GAS VENT
Sump-3	GROUNDWATER COLLECTION SUMP
	SURFACE DRAINAGE FLOW
	RAILROAD TRACKS
	CAP LIMIT LINE
	RELIEF TRENCH
	COLLECTION TRENCH
	DISCHARGE FORCEMAIN
	PROPERTY LINE
	CHAINLINK FENCE

250 0 250 500

SCALE: 1"=250'

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, NEW YORK 14221
716-633-7074

FIGURE 2.1

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

SITE PLAN

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SECTION 3
SITE GEOLOGY AND HYDROGEOLOGY

This section summarizes Site geology and hydrogeology prior to remedial construction activities. The discussions below were excerpted from the Alltift RI Report (AFI, 1994) and the Ramco Steel RI Report (Dames and Moore, 1994).

3.1 GEOLOGY

The bedrock underlying the Site consists of two units: the Skaneateles Formation, and the underlying Marcellus Formation. These formations provide an alternating sequence of shale and dolomite limestone bedrock. The Skaneateles Formation is predominantly composed of shale, with limestone encountered at the base of the formation. The Marcellus Formation, found beneath the Skaneateles Formation, is composed of black shale. The upper shale of the Skaneateles Formation was not encountered during investigation activities. The Skaneateles limestone appears to thin in a northerly direction and pinch out beneath the landfill.

The upper surface of both units is fractured and irregular. The bedrock surface slopes to the north-northwest and has a maximum relief of approximately 50 feet. There is a prominent northeast-southwest trending escarpment which extends through the central portion of the Site, across the Skyway property (east of the Site) and into the IWS property. This escarpment has a maximum relief of about 30 feet. In the vicinity of the escarpment (center of the Site), the bedrock has been identified as black shale. The southern portion of the Site is also underlain by a gray limestone at shallow depths.

Overlying the bedrock is a layer of sand/gravel/silt till, which occurs intermittently. A thick sequence of lacustrine deposits overlies the till (or occurs directly on bedrock in areas where the till is absent). The lacustrine sediments are generally comprised of two units. The lower part of the sequence is predominantly gray clay to silty clay. The lacustrine sediments grade vertically upward into silt and fine sand and silty clay layers.

The silty clay is thickest in the northern portion of the Site, and is locally absent, or very thin, in the southern portion of the Site where the bedrock is near an elevation of approximately 575 feet. The clay ranges in thickness up to 48 feet, and the silty sand deposits range up to 25 feet thick.

Overlying the lacustrine deposits are the recent sediments which consist of a thin (up to 2 feet) layer of black, organic rich silt. This layer is generally present in the areas west, south and east of the landfill. Landfill-related waste materials lie directly on the silty clay over most of the Site, except in the southern end of the Site (near the Ramco Pond), and along the east and west margins of the landfill, where the wastes overlie the silt and fine sand materials.

3.2 HYDROGEOLOGY

Based on the available data, two water-bearing units have been identified beneath the Site: an upper water-bearing unit (shallow aquifer), comprised of the silt/sand unit of the

lacustrine deposits and fill material, and a deeper zone consisting of the upper part of the bedrock, and the overlying till. These two units are believed to be separated by the low hydraulic conductivity silty clay or till confining layers consistently identified across the site and adjacent areas. The upper water-bearing zone is hydraulically connected with the western and southern surface water bodies, and potentially, at the southern end of the Site where the clay is absent, the deep aquifer. The deep aquifer may also be hydraulically connected to the Ramco Pond, due to the absence of clay in portions of the pond.

Prior to remediation, the shallow aquifer exhibited a slight mounding (maximum of 3 to 4 feet) in the immediate vicinity of the landfill area, with radial flow outwards in all directions. Groundwater flowing to the north, west, and south ultimately discharged to the ponds along the western and southern sides of the landfill. An eastward component of flow from the mounded area appeared to turn southerly towards the Ramco Pond.

The piezometric surface in the deep aquifer shows a flow direction to the northwest. The gradient varies considerably due to the presence of the escarpment. Steepest gradients are found in the southern central portion of the Site, in the vicinity of the bedrock escarpment.

3.3 UPDATE

During remedial construction, features and patterns observed during the remedial investigations, and subsequent pre-design investigations, were generally confirmed. The bedrock escarpment was encountered, as predicted. Shallow bedrock, in the vicinity of the Ramco Pond, and the southernmost western pond (Pond C area) resulted in slight modifications to excavation depths. Final elevations within the Ramco Pond vicinity were also modified to some degree to account for the irregular bedrock surface. Initial purging of the groundwater collection trench, after installation, indicated coarser-grained, higher permeability sediments, with greater recharge, in the northern section of the trench, relative to the southern sections.

SECTION 4
NATURE AND EXTENT OF IMPACTS

This section summarizes the nature and extent of pre-remedial impacted media (groundwater, soil, sediment) at the Site. The discussions below were summarized from the March 1996 Ramco Steel Site Record of Decision (NYSDEC, 1996) and the March 1995 Alltift Landfill Site Record of Decision (NYSDEC, 1995). Much of the information in the records of decision was summarized from the Alltift RI report (AFI, 1994) and the Ramco Steel RI Report (Dames and Moore, 1994).

4.1 RAMCO STEEL SITE

The Ramco Pond and soil in the adjacent fill area to the northeast were tested during several preliminary site investigations and the remedial investigation. The chemical analytical results from sediment, soil, groundwater and surface water showed that the major impacts were due to metals, which resulted from the steel manufacturing operations.

Sediment

The sediment from the Ramco Pond was found to contain metals (aluminum, arsenic, chromium, hexavalent chromium, copper, iron, lead, manganese, mercury, nickel, and zinc) at concentrations above the NYSDEC Sediment Criteria (NYSDEC, 1993). Subsequent pre-design sampling conducted in June 1997 confirmed the earlier results. In this event, metals exceeded their respective cleanup goals at most of the sample locations in the pond, in shallow samples within the top two feet. In deeper pond samples (two to four feet), metals concentrations were distinctly lower than in the upper two feet of sediment.

Soil

The levels of chromium, copper, iron, lead, manganese and mercury were found above the NYSDEC-recommended soil cleanup objectives (NYSDEC, 1994) in soils within the fill area. Among the organics, traces of acetone, 2-butanone, ethylbenzene, toluene, xylene, tetrachloroethane, and polycyclic aromatic hydrocarbons (PAHs) were detected. PCBs were detected, but at concentrations below the recommended soil cleanup objectives. Metals, such as aluminum, chromium, copper, and iron, were found in surface soil and/or waste pile samples at concentrations above the cleanup objectives.

Groundwater

During the remedial investigation, one bedrock, three overburden, and two interface wells were sampled and tested for inorganics, volatiles and semivolatile organics. The levels of metals such as chromium, iron, lead, manganese, and zinc exceeded NYSDEC groundwater quality standards (NYSDEC, 1998a). Specifically, the levels of lead were exceeded in two wells while zinc was exceeded in only one well. Phenol was detected in a single well above the groundwater standard, at a concentration of 25 ug/L.

Surface Water

In surface water samples from the Ramco Pond, only iron, magnesium, and manganese were found above NYSDEC surface water standards.

4.2 ALLTIFT LANDFILL SITE

Soil, groundwater, surface water, and sediment each contained constituents related to materials disposed of at the Site.

Soil/Landfill Materials

Chemical constituents detected in landfill soils and materials consisted primarily of SVOCs and metals, with a limited presence of VOCs, PCBs, and pesticides. SVOCs, such as benzo(a)anthracene and benzo(a)pyrene, were detected at some locations above cleanup objectives. Metals, including antimony, arsenic, chromium, cadmium, lead, and mercury were also detected above cleanup objectives. These same materials were also observed to be present at depth on a portion of the adjoining Skyway Auto Parts property.

Groundwater

The shallow groundwater zone was impacted beneath the landfill. Elevated levels of VOCs and SVOCs (above water quality standards) were detected in some locations. Metals were generally elevated in most of the samples, with some samples exceeding water quality standards. Away from the landfill, Site-related impacts to groundwater were limited.

Subsequent groundwater monitoring results obtained in May 2002 and January 2003, as part of the pre-design investigation, were similar to the RI results, and indicated that concentrations of chemicals of concern have remained relatively stable since the time of the remedial investigation. Three wells (MW-4S, MW-6S, and MW-9S) were sampled in January 2003, utilizing low-flow sampling techniques to minimize turbidity and obtain more representative groundwater samples. These results indicated that actual groundwater concentrations, particularly metals and PCBs, may be lower than previously observed. Using the low-flow sampling techniques, the only metals listed as chemicals of concern in the ROD that exceeded the criteria were iron in all three wells, and manganese in MW-4S. PCBs were not detected.

In the deep zone (bedrock), benzene, toluene, ethylbenzene, and xylene (BTEX) exceeded groundwater standards. There is evidence that BTEX in local bedrock aquifers may be naturally occurring due to the petroliferous nature of the shales. (Buehler and Tesmer, 1963). Chlorobenzene was detected slightly above the groundwater standard in one well in the southeast corner of the Site.

Sediments (ponds west of the landfill boundary and downstream of the Ramco Pond)

SVOCs, consisting primarily of PAHs, and metals, were detected at concentrations above NYSDEC sediment criteria in several samples during the remedial investigation phase. Subsequent pre-design sampling was conducted in June 1997. In that event, with the exception of dibenzofuran in one shallow (0 to 2 feet) sample from the northernmost

pond (Pond A), no SVOCs were detected in any of the samples above cleanup goals. As mentioned above for the Ramco Pond, metals exceeded cleanup goals at most of the sample locations within the top two feet. In deeper pond samples (two to four feet), metals concentrations were distinctly lower than in the first two feet of sediment.

Surface Water

No VOCs or SVOCs were detected above surface water standards. Elevated metals, above surface water quality standards, included hexavalent chromium and iron.

SECTION 5
SUMMARY OF SELECTED REMEDY

The remedy selected for the Alltift Landfill/Ramco Steel Site was identified in their respective Records of Decision for the Alltift Landfill Site (March 1995) and the Ramco Steel Site (March 1996).

In accordance with the RODs, and NYSDEC's criteria for protection of human health and the environment, the following remedial action items were implemented:

- **Sediment Management.** Sediments from Ponds A, B, C, and the Ramco Pond were excavated and consolidated onto the landfill. Wetland and pond areas excavated as part of the sediment management task were restored. Restoration included the placement of clay soils to seal the bottom of the restored pond and the placement of substrate soil over the clay and fill areas for revegetation. Disturbed pond and wetland areas were revegetated with wetland plants.
- **Waste Consolidation.** Alltift Landfill material placement that occurred outside the margins of the natural clay layer was consolidated within the boundaries determined appropriate from predesign investigations. Ramco Steel waste located outside of the Ramco Pond was excavated and consolidated with the Alltift Landfill waste. In addition, approximately 37,950 cubic yards of material from the J.D. Cousins Site, Lehigh Valley Railroad Site, the Tifft and Hopkins Site, and the Outer Harbor/Radio Tower Area Site were also consolidated under the capped area (see Section 6.13.)

  Waste material is located on the Skyway Auto Parts property bordering the eastern side of the landfill. The Alltift ROD specified that these materials would not be excavated, since groundwater from the Skyway property is expected to flow westerly, and be intercepted by the groundwater collection trench (see Groundwater Control below). In addition, during construction, a low permeability clay liner was installed through the ditch adjacent to the Skyway property to limit the potential for surface water infiltration through any wastes left in place on the Alltift Site in that area (see Section 6.7.2).
- **Capping.** The landfill was capped in accordance with 6 NYCRR Part 360 - Regulations for Solid Waste Management Facilities. The multi-layer cap consists of a suitable subbase, a geonet composite gas venting system, a geomembrane barrier layer, a geonet composite drainage layer, two feet of cover soil to protect the barrier layer, and a 6-inch topsoil layer to support vegetation. A cap component detail is shown on drawing C-10 included in Appendix A.
- **Water Management**. Appropriate surface water management systems were installed to control Site storm water and provide recharge of Site ponds/wetlands.

- **Groundwater Control.** A groundwater collection trench was installed along the western and southern perimeter of the landfill cap to intercept shallow groundwater, including groundwater from the upgradient Skyway Auto Parts property.

The components of the proposed remedial action were presented on the construction drawings and technical specifications included in the Final (100%) Remedial Design Report, which was approved by NYSDEC on June 6 2003.

SECTION 6
CONSTRUCTION DOCUMENTATION

This section describes the remedial construction work, monitoring activities, and quality assurance/quality controls used to certify each construction element. It also provides an overview of the health and safety program, and presents explanations for deviations made from the original design or contract documents. Record drawings are provided in Appendix A, and a photographic log, giving examples of each primary construction activity, is provided in Appendix B. All other construction documentation, including product submittals, daily field quality assurance reports, field changes and approvals, permits, and well installation logs, are provided in Appendices C through J.

The remedial work began in November 2003, and was completed in November 2005. A schedule, showing key activities completed, is presented below.

Construction Element	Start Date	End Date
Remedial Action Work Plan	10/6/03	12/12/03
Relocate Drums	11/26/03	11/26/03
Mobilization/ Office/Equipment Areas	12/8/03	1/9/04
Waste Relocation	3/8/04	9/1/04
Sediment Relocation (from ponds)	4/19/04	7/29/04
Groundwater Collection Trench	9/22/04	10/15/04
Well Abandonment and Installation	12/15/03	11/15/04
Winter Shutdown	11/1/04	4/15/05
Landfill Capping System	8/12/04	6/24/05
Demobilization	7/18/05	7/29/05
Wetland Restoration/Plantings	6/1/05	November 2005

6.1 SURVEY CONTROL

The design was based on a topographic survey of the Site completed by Erdman Anthony and Associates, Inc. in 1989. This survey was updated in 1999 during the remedial design phase by TVGA Surveying Inc. using aerial photography. The survey was completed with vertical control referenced to National Geodetic Vertical Datum (NGVD 1929) and horizontal control referenced to State Plane Coordinate system (NAD 1983).

Surveying during construction was performed by Clear Creek Land Surveying, LLC. of Springville New York under the direction of William J. Tucker, PLS #50369 and under a subcontract to Tug Hill. Clear Creek was responsible for establishing survey control and for checking and verifying as-built thickness and elevations with those shown on the plans. Clear Creek was also responsible for providing the following survey data:

- Existing topography prior to material and sediment excavation;
- Topography following material and sediment excavation and consolidation;
- Subgrade of the proposed landfill surface;
- Topography following wetland restoration grading (see panel layout in Drawing C-05);
- Location of geomembrane, including seams and repairs;
- Top of topsoil with elevations and thicknesses; and
- Miscellaneous details (drainage features, roads, fences, gas vents monitoring wells).

The survey control used during construction and preparation of the record drawings was referenced to the vertical datum NGVD 1929. The horizontal datum refers to NYS Plane Coordinates, West Zone, NAD 1927.

6.2 PERMITS AND ACCESS AGREEMENTS

6.2.1 Permits

Wetland Permit

On March 24, 2004, The United States Army Corps of Engineers (USACE) issued a verification of the applicability of the Nationwide Permit No (38) as published in the Federal Register, Volume 67, No. 10, Tuesday January 15, 2002. This verification was based upon Application No. 98-976-0162 (0) submitted by Parsons on behalf of Honeywell.

This permit allowed the filling of approximately 8.4 acres of jurisdictional wetland in connection with the remediation of the Site. The permit also required the creation of not less than 11.2 acres of wetland in accordance with the design documents. A copy of the wetland permit has been included as Appendix C. A revised wetland plan and field change form (signed by NYSDEC on October 29, 2004) was submitted to the USACE on March 25, 2005. The revisions documented changes to the created wetlands due to conditions encountered during remedial construction.

SHPO Determination

On February 20, 2004, Parsons sent a request for comments to the New York State Office of Parks, Recreation and Historic Preservation State Historic Preservation Office (SHPO). The SHPO reviewed the project in accordance with Section 106 of the National Historic Preservation Act of 1966. SHPO found that the project will have "No Effect" upon cultural resources in or eligible for inclusion in the National Register of Historic Places. A copy of the request to the SHPO and their determination are included in Appendix C.

New York State Department of Transportation

Honeywell obtained a Highway Work Permit from the New York State Department of Transportation (NYSDOT) in order to excavate and remove impacted soils outside of the cap area along the Tifft Street ROW. The initial permit (5-03-0746) was issued in February 2004 with an April 2004 expiration date. In February 2005, a continuation of the permit was issued (5-04-0721) with an expiration date of December 31, 2005 (Appendix C).

City of Buffalo (and affiliated entities)

Permits were obtained for:

- A connection to the sewer system on Hopkins Street;
- Electrical connections for the trailers (temporary) and for operating pumps (permanent); and
- Water hookup to Tifft Street (temporary).

These permits are provided in Appendix C.

Buffalo Sewer Authority

The Buffalo Sewer Authority (BSA) issued a permit (Permit No. 04-08-BU0908) on November 9, 2004, to discharge wastewater from the Site to the Buffalo Municipal Sewer System. The permit is valid from December 1, 2004 through November 30, 2007. Discharge limitations and monitoring requirements are listed in the permit. Currently, water collected from the groundwater relief trench and the groundwater collection trench are pumped and discharged without treatment to a manhole on the west side of Hopkins Street, approximately 20 feet south of the Niagara LaSalle/Buzzard property line (Appendix A, Drawing C-17).

6.2.2 Access Agreements

A list of access agreements utilized during the course of the remedial action, and in some cases, needed for continued operations and maintenance, is provided in Table 6.1. Property boundaries and ownership are shown on Drawing C-01 in Appendix A.

6.3 CLEARING AND GRUBBING

The Site was cleared of all existing fences, trees, shrubs, and other vegetation. Woody materials were chipped and reused as mulch for erosion control during

construction then consolidated into the landfill. Non-woody material such as fencing was consolidated into the landfill.

During clearing, a water line with three fire hydrants was identified along paper Abby Street extending southward from Tifft Street. The City of Buffalo Water Department confirmed that the line was not in service and had been abandoned. The hydrants were removed to a depth of three feet below the design subgrade elevation and the line was filled with grout. At the northeastern corner of the Site outside of the cap limits, an excavation was opened to expose the line, and remove all pipe bedding material. The excavation was filled with flowable fill (a flyash-grout mixture) to eliminate the potential migration pathway through the pipe bedding.

Prior to clearing and grubbing, 50 intact steel drums were observed on the ground surface, in the northeastern corner of the Site. The NYSDEC agreed that the drums contained investigation-derived wastes from previous investigations. The materials were removed and the drums were crushed. The material and crushed drums were consolidated into the landfill.

6.4 MONITORING WELL DECOMMISSIONING

6.4.1 Decommissioning

A total of 43 existing groundwater monitoring wells and piezometers were decommissioned and abandoned during remedial construction. Well decommissioning and abandonment were completed in accordance with Specification 02085 and the guidance provided in the NYSDEC Groundwater Monitoring Well Decommissioning Procedures, April 2003.

Seventeen points were identified through record searches, but were not located during construction. The points were from the "PZ" series installed by ERM in 1993 or the "W" series installed by Wehran in 1982. Boring logs indicate that the "PZ" points were mainly installed west of the ponds and generally did not exceed 10 feet in depth. Boring logs indicate that the "W" series wells were installed to depths exceeding 50 feet.

6.4.2 Field Changes

Field Change No. 002 was authorized by NYSDEC in July 2004 to allow the decommissioning of six wells/piezometers (MW-1S, 6256, PZ-6, PZ-11, PZ-12, and PZ-15) through excavation. Wells within areas where waste material or pond sediments were to be excavated were abandoned through over-excavation and removal along with the waste material. Abandonment in accordance with the specification was not required. Well abandonment records are included as Appendix D.

6.5 CONSTRUCTION WATER MANAGEMENT

6.5.1 Erosion Control

A Remedial Action Work Plan (RAWP) completed by Tug Hill in October 2003 (Tug Hill, 2003) and approved by NYSDEC on January 15, 2004, incorporated the requirements of the Stormwater Management and Erosion Control Plan included in the Contract Documents (Parsons, 2003b). The RAWP required the use of erosion controls

to prevent erosion of disturbed areas and to prevent siltation in adjacent wetland areas. Erosion control consisted of silt fencing around the Site perimeter, hay bales around the landfill toe and in drainage ditches, and construction of temporary diversion berms.

Silt fencing was installed around the entire Site perimeter during the clearing and grubbing phase. The silt fence was inspected weekly and following rain events, and repairs were made when needed. Sections of silt fence were removed as construction progressed, and it was no longer needed.

6.5.2 Construction Water Management

A Construction Water Management Plan was completed and included in the construction RAWP. This plan outlined the contractor's method of handling and minimizing the volume of construction water generated during the remedial action.

The ponds were dewatered by pumping prior to sediment excavation. During the initial dewatering, a filter dam was constructed in Pond B to reduce the quantity of sediment in the flow. A filter bag was installed at the pipe outfall, located in the northwest corner of the Site at the northern end of the former Pond A (northernmost pond). Water was then discharged through this outfall, after passing through the filter bag. This process occurred between March 2004 and June 2004.

During discharge of construction water to the outfall, turbidity measurements were recorded every two hours. The discharge requirement for construction water was to have a turbidity less that 100 NTUs. Discharge limits were met throughout the project.

During construction, NYSDEC directed that construction contact water must be managed separately from general runoff. NYSDEC defined construction contact water as runoff or other water that had the potential to come in contact with materials from the Site. To comply with this directive, between March and June 2004, contact water was recycled to the landfill. In June 2004, a temporary water treatment system was mobilized and installed in the northeast corner of the Site to handle contact water. The temporary treatment system consisted of sand filters and granular activated carbon (Appendix H, Submittal No. 60). Water from the wetland sumps was pumped to two modular storage/decanting tanks erected near the southwestern corner of the Skyway property. After settling, decanted water from the tanks was periodically transferred to the treatment system.

Following the initial pond dewatering, sumps were installed with automated pumping systems and level controllers. This system was used to collect and transfer additional water that collected in the ponds. From the sumps, water that was identified as contact water was directed to the treatment system. As excavation was completed within the ponds and other areas of the Site, NYSDEC approved direct discharge of water from those areas to the outfall without treatment.

The temporary settling and treatment system was operated from June 2004 until it was demobilized in December 2004. Following demobilization, contact water was managed through an alternate temporary treatment system consisting of bag filters and granular activated carbon, located in the northwestern corner of the Site.

During the winter of 2004-2005, water was allowed to accumulate in the ponds. Provisions were made to prevent contact water from reaching the pond area during the winter shutdown. Provisions included creating a bermed "bowl area" along the western side of the landfill. The water collecting in the bowl area was subsequently pumped to the water relief trench and through a smaller water treatment plant before being discharged to the Northwest outfall. The second season of pond dewatering did not require water treatment as contact water was not discharged to the ponds. After May 2005, there was no remaining exposed waste in the landfill, and treatment of contact water from the landfill was no longer needed.

6.6 SEDIMENT REMOVAL/STABILIZATION

6.6.1 Sediment Removal

Impacted pond sediment and wetland soils were excavated and consolidated into the Alltift Landfill. The excavation plan in these areas was based on sediment samples and soil borings conducted during the Alltift Landfill and Ramco Steel remedial investigations, and additional sediment sampling conducted as part of the pre-design investigation.

The planned sediment removal volume was based upon removal of all sediments in Ponds A, B, C, and the Ramco Pond to native soils. The subgrade plan in the ponds and wetland areas was developed to preserve the current wetland habitat to the extent practicable, while providing sufficient conveyance of surface water runoff.

Following dewatering of the work area, sediments were excavated to native (soil) materials. Excavation was completed to the elevations shown on Drawings C-2 and C-3. A total of approximately 48,600 cubic yards of soils and sediments were removed. Following excavation, the sediments were stabilized and incorporated under the cap.

During sediment excavation, a 60-inch diameter reinforced concrete pipe was exposed on the western side of the northern ponds. This pipe apparently ran westerly under the railroad embankment. The pipe was filled with the same low-permeability cover soil material used to restore the wetlands (Section 6.11).

6.6.2 Field Changes

The project technical specifications required that excavated sediments be dried or stabilized by mixing with onsite wastefill or lime from the "lime pile" located at 90 Hopkins Street. Upon evaluation, the contractor decided that the characteristics of the offsite lime pile material were not suitable for stabilizing the sediments. In order to achieve the target moisture content (no greater than 23 percent) for placement of material under the cap, a field change was made (Field Change No. 001, Appendix F) permitting the addition of Quick Lime. A total of 2630.97 tons of lime were used for stabilization. Lime use included Cal85, dolomitic Quick Lime fines and 10-mesh high calcium lime. In addition, this field change allowed a visual deflection test to be used to evaluate suitability of the material for placement, rather than a measurement of the moisture content. The visual test consisted of completing three passes with a smooth drum roller with less than three inches of deflection.

A revised wetland subgrade plan was issued in October 2004, and approved by NYSDEC in Field Change No. 007. This revision was necessary due to differing site conditions encountered during the excavation of the pond sediments. A bedrock ridge was exposed during excavation that extended from the proposed southeast toe of the cap trending southeast. This resulted in shallower final excavation depths than anticipated in some areas, particularly the Ramco Pond. Also, because of the fluid nature of the sediments, excavation to greater depths than planned was necessary in other areas, such as Ponds A and B, to reach stable native soils. Additional grading was also performed to provide drainage, smooth out abrupt grade changes and transition to unexcavated areas following material excavation. A clay plug was placed along the entire western and southern limits of the site to control offsite water infiltration into the wetland from the railroad embankment.

The pond areas were inspected by NYSDEC and Parsons Prior to placement of the wetland cover soil. Approvals of all areas for the placement of wetland cover soil are included in Appendix E (Field Approval Forms).

6.7 WASTE CONSOLIDATION

6.7.1 Consolidation

A major component of the remedial action was the excavation and consolidation of materials from the southern part of the Site to the northern cap area. This was located south of the competent underlying clay layer and included material from the Ramco Steel Site. A total of 232,869 cubic yards of material were excavated and consolidated within the footprint of the capped area. Excavation continued until no visual non-native debris, or stained soils were apparent. Field approvals were obtained from NYSDEC prior to final grading (Appendix E).

During the installation of the silt fencing, additional material was identified in two areas along the northern property boundary. The material was identified visually by staining, or a color that was different from the surrounding soils. The material was excavated from both of these areas and consolidated under the cap. The limits of these two additional excavated areas are shown on Drawings C-02 and C-03 in Appendix A.

The first area excavated was located on NYSDOT property near the access road from Tifft Street. The excavation was limited by Tifft Street to the north and the landfill access road to the west. This area was restored to acceptable grades using unclassified fill and topsoil.

The second area excavated was located at the northern end of the wetlands, east of the outfall. The northern extent of this excavation was limited by the need to maintain the stability of the NYSDOT access road. Two analytical samples were collected from the sidewalls of this excavation. One sample consisted of materials that visually appeared to be clean. The second sample was of colored material that could not be excavated, and appeared to continue beneath the road. No VOCs or SVOCs were detected above the Site cleanup objectives in either sample. In the second sample, arsenic, chromium, and mercury were detected above the cleanup objectives (see

summary of results in Table 8.4, with complete results in Appendix G). This area was restored to acceptable grades using unclassified fill and finished with gravel.

6.7.2 Field Changes

Historical fill material was identified during consolidation and construction along the east extent of the Cap area. Field Change No. 003 limited the depth of excavation of waste material along the property boundary near Skyway Auto Parts. In accordance with the criteria established in the Design Report, and following discussions with the NYSDEC, the depth of excavation was limited to that required to achieve the grades necessary for completion of the east-side surface drainage ditch. A low permeability clay liner (18 inches thick) was installed through the ditch in this vicinity to limit the potential for surface water infiltration through any wastes left in place. By limiting the depth of this clay, any impacted groundwater from the Skyway Auto Parts facility would still be collected by the downgradient groundwater collection trench.

6.8 OFF-SITE WASTE CONSOLIDATION

In addition to the consolidation of waste material from the Alltift and Ramco Sites, material from four offsite areas was also consolidated under the Alltift Landfill cap. The approved design and contract documents for the Alltift Site included the consolidation of the material from the J.D. Cousins Site. During remediation, NYSDEC agreed to the additional consolidation of materials from other satellite sites, including the Lehigh Valley Railroad Site, the Tifft and Hopkins Site, and the Outer Harbor/Radio Tower Area under the Alltift Landfill cap.

6.8.1 J.D. Cousins Site

In January 2003, Honeywell completed a pre-design investigation at the J.D. Cousins Site located at 677 Tifft Street. According to NYSDEC, the similarity of the J.D. Cousins and Alltift Site material characteristics, and its proximity to the Alltift Site, suggested a common origin. Based on the results of that investigation, which were included in the Remedial Design Report (Parsons, 2003a), Honeywell agreed to remove a limited amount of impacted material from the J.D. Cousins Site and consolidate it under the Alltift Landfill cap. The plans to transport and consolidate the materials within the Alltift Site were approved by NYSDEC in a letter dated June 6, 2003 (NYSDEC, 2003), which approved the May 2003 Remedial Design Documents.

Materials from the J.D. Cousins Site were excavated and transported to the Alltift Site by Tug Hill in 2004. Approximately 895 cubic yards of material were removed, in addition to 12,500 gallons of water. The water was also transported to the Alltift Site. Restoration was completed by backfilling with unclassified fill and topsoil.

6.8.2 Lehigh Valley Railroad Site

Due to the similarity of materials and physical proximity, Honeywell completed a site investigation in July 2004 to determine the suitability of consolidating the impacted material from the nearby Lehigh Valley Railroad (LVRR) Site (NYSDEC Site No. 9-15-071) into the Alltift Site. Based on the results of that investigation, NYSDEC agreed that the LVRR material was suitable for consolidation under the cap at the Alltift Site (LVRR

Investigation Report, Parsons 2004a). The NYSDEC approved the transport of these materials to the Alltift Site in a letter dated August 13, 2004 (NYSDEC, 2004a).

In September and November 2004, a total of 2,450 cubic yards of material were excavated from the LVRR Site, and consolidated at the Alltift Site. The materials were consolidated under the landfill cap in accordance with the May 2003 Alltift design documents.

Details of this removal and the restoration of the LVRR Site can be found in the January 2005 LVRR Waste Removal Report (Parsons, 2005a). The Proposed Remedial Action Plan (February 2006) concluded that no further action is required at the Site. The Record of Decision is currently in progress.

6.8.3 Tifft and Hopkins Site

In a letter dated December 1998, NYSDEC stated that the materials found at the Tifft and Hopkins Site (NYSDEC No. 9-15-131) likely had the same source as materials identified at the Alltift Landfill (NYSDEC, 1998b).

In September 2004, Honeywell completed a site investigation to determine the suitability of consolidating the impacted material from the Tifft and Hopkins Site into the Alltift Site. Based on the results of that investigation, NYSDEC agreed that the material was suitable for consolidation under the cap at the Alltift Site (Tifft and Hopkins Site Investigation Report, Parsons, 2004b). The NYSDEC approved the January 2005 Remedial Action Work Plan, which included plans to transport the material to the Alltift Site, in a letter to Parsons dated February 16, 2005 (NYSDEC 2004b).

A total of approximately 33,278 cubic yards of material were excavated and consolidated at the Alltift Site between February and April 2005. The materials were consolidated under the landfill cap in accordance with the Alltift design documents (Parsons, 2003a).

Details of this removal and the restoration of the Tifft and Hopkins Site can be found in the Tifft and Hopkins Site Remedial Action Report (Parsons, 2005b).

6.8.4 Buffalo Outer Harbor/Radio Tower Area

NYSDEC approved consolidation of material from this site to the nearby Alltift Site, and incorporation under the landfill cap in accordance with the Alltift design documents. (Letter to Clough Harbour & Associates, NYSDEC, 2004c).

A total of approximately 1,680 cubic yards of treated and stabilized material were excavated and consolidated at the Alltift Site between August 31 and September 3, 2004. The materials were consolidated under the landfill cap in accordance with the Alltift design documents (Parsons, 2003a).

Details of this removal and restoration of the Outer Harbor/Radio Tower Area can be found in the November 2004 Outer Harbor/Radio Tower Area Remedial Action Completion Report (Roux Associates, 2004).

6.9 LANDFILL CAP

In accordance with May 2003 design documents, the landfill cap was constructed in accordance with 6 NYCRR Part 360 - Regulations for Solid Waste Management Facilities. The multi-layer cap consists of, from bottom up, a suitable soil subbase layer, a composite geonet gas venting layer, a geomembrane, a composite geonet underdrain, two feet of cover soil and a 6-inch topsoil layer. The final capped area is approximately 22.94 acres. Details of the cap components can be found on Drawing C-10.

6.9.1 Subgrade Preparation

Following final grading of the materials and sediments, the subgrade was rolled and inspected to ensure that the surface was free of angular stones, debris, sharp objects and materials that could compromise the integrity of the liner. Field approvals were completed by Parsons and NYSDEC prior to placement of the subbase layer. Copies of these field approvals are included in Appendix E.

6.9.2 Subbase Layer

The subgrade was covered with up to 6-inches of approved, imported soil. Following placement and grading of the subbase layer, the surface was proof rolled and inspected by NYSDEC and Parsons. Copies of the field approvals for subbase are included in Appendix E.

Although the design documents allowed for materials excavated from the wetland areas to be used as subbase, it was determined during construction that the sediment material could not be adequately manipulated to provide a stable subbase for liner deployment. Consequently, all of the subbase soils were imported from an approved offsite source.

The imported materials used as subbase, cover soil, and topsoil were sampled in accordance with the requirements of the design specifications, and approved by a Parsons quality control representative and the NYSDEC. Copies of these submittals are included in Appendix H.

6.9.3 Gas Venting System

A manifold loop gas venting system combined with a gas venting layer was constructed to collect and vent gas generated from within the landfill. The system uses hybrid active/passive venting using wind driven turbine ventilators to facilitate the conveyance of landfill gas.

Following approval of the subbase layer, a passive gas venting system consisting of collection trenches, piping and a double-sided geonet composite layer was installed. The collection trenches consisted of both solid and perforated six-inch HDPE piping depending on the location. The geonet composite layer consisted of a double-sided geocomposite of HDPE geonet with non-woven polypropylene geotextile, heat-bonded to both sides. Approved materials were provided by Skaps Industries.

QA/QC testing for the geonet composite was completed in accordance with section 02260 and 02422 of the contract documents. Minor changes to the installation requirements were approved through Submittal No. 45 (Appendix H).

The gas venting geocomposite is linked to the active and passive gas vents through gas vent piping. Three active gas vents were installed through the landfill cap. These vents extend approximately four feet above the landfill surface and are fitted with a wind turbine to assist with gas extraction. Five passive gas vents were also installed.

As landfill grades were changed during construction, the location of the gas collection piping was adjusted to avoid conflicts with the underdrain and surface water collection system. In addition, gas vent piping was installed six inches deeper than shown on the design drawings. The final depth of the top of pipe was 24 inches below the geonet gas venting layer (see gas venting pipe detail on Drawing C-12).

Field Change No. 012 was completed to improve the ease of installation of the gas vents. This change eliminated the coupling between the vent pipe and the collection piping, and permitted the vent to be slipped over the corrugated HDPE collection piping.

6.9.4 Geomembrane Layer

Following installation of the gas venting system, the geomembrane layer was installed. The geomembrane layer was constructed using textured 40-mil linear low density polyethylene (LLDPE) manufactured in accordance with Geosynthetic Research Institute (GRI) GM-17. The geomembrane material was provided by Poly Flex, Inc of Grand Prairie, Texas.

During installation and testing of the liner, Parsons had a representative onsite reviewing the testing results and installation methods. The geomembrane installation QA/QC documentation from the manufacturer is provided in Submittal 115 in Appendix H.

6.9.5 Subdrainage Layer

Following installation and acceptance of the geomembrane layer, the subdrainage layer was installed. The subdrainage system includes the geocomposite drainage layer between the geomembrane liner and the cover soil, the collection piping, and the toe drains. The geocomposite layer consists of double-sided HDPE geonet with non-woven polypropylene geotextile, heat-bonded to both sides. Approved materials were provided by Skaps Industries. Minor changes to the installation requirements were approved through Submittal No. 45. The subdrainage system was generally constructed in accordance with the contract documents. Some changes were made to accommodate revised lines and grades, and conflicts with the gas collection system design (see Section 6.9.9). QA/QC documentation for the geocomposite layer, including destructive and non-destructive testing results, can be found in Submittals 42 (transmissivity results), 43 (certification), and 71, 72, and 75 (laboratory and manufacturing quality control results).

6.9.6 Cover Soil Layer

Following installation and acceptance of the subdrainage layer, the cover soil layer was installed. A minimum of 24 inches of approved cover soil was placed over the

subdrainage layer. The cover soil was graded and compacted to meet the requirements of the approved technical specifications. Confirmation of cap construction was made by observation. Tug Hill placed settlement plates on top of the liner to ensure correct thickness of each lift, and to ensure a 2-foot thickness of cover soil and six inches of topsoil. NYSDEC and Parsons walked the areas and approved the cover soil for placement of topsoil.

6.9.7 Finish Grading, Topsoil, Seeding

Six inches of approved topsoil were placed over the entire cap following the cover soil layer. The surface was then seeded and erosion control was applied. Erosion controls consisted of straw mulch and permanent and temporary erosion control fabrics, depending on slope grade and expected water velocities in given areas. Restoration was also completed in areas outside the limits of the cap, that were disturbed during construction. Primary non-cap restoration areas were northeast and southwest of the cap. The gravel area northeast of the cap, previously used for the construction support zone, was left in place following discussion and approval by the City of Buffalo and concurrence with the NYSDEC. Other areas outside the cap and the limits of the former gravel support zone received six inches of topsoil, and were seeded similarly to the cap.

6.9.8 Surface Drainage

The surface drainage includes the surface water collection/diversion system and down-chutes, and road crossings into the wetlands. The surface drainage system was constructed in accordance with the contract documents, with the changes noted below.

6.9.9 Field Changes

The cap limits and the manner in which the toe of the landfill was changed are documented in Field Change No. 003 (Appendix F). This change included revisions to the lines and grades in the east drainage channel between the Site and Skyway Auto Parts. This change was made to accommodate 18 inches of clay used to line the ditch, and separate it from underlying materials that were not excavated.

Field Change No. 005 made adjustments to the lines and grades to position the north ditch within the Site boundaries. Twelve inches of clay were placed beneath the ditch to seal it from material encountered along the northern boundary.

Field Change No. 010 and Field Change No. 015 revised the down-chutes and drainage outlets and culverts. This change eliminated the gabion baskets and the use of geoweb cellular road crossings included in the design documents.

6.10 GROUNDWATER CONTROL AND RECOVERY SYSTEM

6.10.1 Groundwater Collection Trench

The May 2003 design documents described a groundwater collection trench that would be installed in the surficial aquifer along the western and southern sides of the Site. In accordance with the Groundwater Trigger Plan contained in the Design Report (Parsons, 2003a), activation of the collection system would depend upon post-remedial-

construction monitoring. A plan view and details of the trench as it was constructed are shown on Drawing C-16.

The groundwater collection trench was installed from September 22 through October 15, 2004. An updated version of the Groundwater Trigger Plan (January 2005) was approved by NYSDEC in a letter dated January 31, 2005 (NYSDEC, 2005). Following five rounds of sampling from the groundwater collection trench and background monitoring wells, it was apparent that the concentrations of chlorobenzene exceeded the groundwater quality criterion. Pumping from the groundwater collection trench began on October 13, 2005. Discharge from the groundwater collection trench, as with the water from the groundwater relief trench, is routed to a BSA manhole on Hopkins Street via a lift station in the southeast corner of the Site. Water is discharged without treatment under a BSA permit (Permit No. 04-08-BU098 - Appendix C), which was established in November 2004. Monthly compliance samples are collected from the lift station, and results are submitted to the BSA.

6.10.2 Field Changes to Collection Trench

Several changes were made to the design of the collection trench prior to construction. The changes to the collection trench were approved in a letter from NYSDEC dated September 1, 2004 (NYSDEC, 2004d), and in Field Change No. 009 dated October 27, 2004 (Appendix F). The primary changes to the collection trench included: elimination of the 6-inch diameter horizontal slotted collection piping from the bottom of the collection trench; elimination of the four cleanout manholes and pump station manhole; installation of four pumping points, or sumps, directly in the trench backfill, consisting of 6-inch diameter wire-wound stainless steel well screen and stainless steel casing; and extending the length of the trench.

Electrical and mechanical work to install two pumps in the groundwater collection trench was completed in accordance with the design presented in Field Change No. 013.

6.10.3 Field Change - Groundwater Relief Trench and Force Main

In addition to the changes referenced in Section 6.10.2 above, a shallow groundwater relief trench was added during construction to control seepage emanating from locations along the western toe of the landfill adjacent to the access road. The installation of the shallow groundwater relief trench, parallel to and east of the groundwater collection trench, was approved by NYSDEC in Field Change No. 008, dated November 4, 2004 (Appendix F). The location of the relief trench as it was constructed is shown on Drawing C-16 (Appendix A). The groundwater relief trench was constructed from November 8 to November 11, 2004. During construction, the water extracted from the groundwater relief trench was treated with activated carbon and discharged to the northwest outfall. In July 2005, a decision was made to construct a force main with a permanent connection to the BSA manhole on Hopkins Street, under the BSA permit referenced above. The force main and lift station were constructed outside the southeast corner of the cap to collect water from the groundwater relief trench and the groundwater collection trench. The water collected in the lift station manhole was routed through a force main to the BSA sanitary sewer system, beginning on August 15, 2005.

The force main consists of piping from a lift station to a manhole on Hopkins Street. The force main design, including the manhole connection, lift station, and installation of pumping equipment in the groundwater collection trench, was approved by NYSDEC in Field Change No. 013, dated July 29, 2005. Field Change No. 018 was also implemented to specify the use of pressure test plugs in the force main cleanouts. Water from both the groundwater relief trench and groundwater collection trench are routed through the same pipe system, lift station, and force main, to the BSA sewer system.

This field change also included the addition of two penetrations of the cap for the placement of collection sumps (GWRT S-1 and GWRT S-2).

6.11 WETLAND HABITAT RESTORATION

6.11.1 Restoration

Following sediment excavation and grading, wetland habitat restoration was initiated. Once the subgrade elevations were attained (Drawings C-2 and C-3), and grading was completed, one foot of low permeability wetland cover soil and 0.5 feet of topsoil was placed over the area. The wetland cover soil and the topsoil were "feathered" at the edges to provide a smooth transition to the upland areas. The final grades are shown on Drawings C-6 and C-7 (Appendix A).

The wetland area was re-vegetated with shallow emergent and deep emergent wetland plant species. Shallow emergent (wet meadow) species were seeded, whereas deep emergent zone plants were established with tubers and rhizomes. No planting was conducted in the open water zones. However, cover soil and topsoil were placed throughout these zones.

A woody buffer strip was planted along the western and southern perimeter of the landfill, adjacent to the wetlands and the access road. The woody buffer strip consists of several varieties of moisture tolerant trees and shrubs, typical of similar regional wetland habitats. The area north of the Ramco Pond between the woody buffer strip and the shallow emergent (wet meadow) zone, and outside the landfill limits, was planted with upland zone grasses in accordance with the design. The size of the upland zone area was slightly modified as a result of the changes in the wetland areas.

All plantings were completed by November 2005. In a letter dated March 25, 2005, the USACE was notified of the grade and depth changes, and the resulting changes in the areas of the wetland zones. On November 4, 2005, a representative from the USACE visited the site, and provided verbal approval of the constructed wetlands. Planting lists for the wetlands and woody buffer zones are included as submittals in Appendix H.

6.11.2 Field Changes

As mentioned in Section 6.6.2, due to changed conditions, the final wetland zone areas were modified from the original design by Field Change No. 007. The table below shows a comparison between the wetland zone areas in the original design, and the as-built conditions.

Wetland Type	May 2003 Design (acres)	Restored Conditions (acres)
Shallow Emergent	5.33	6.00
Deep Water Emergent	5.82	4.03
Open Water	1.56	1.37
Total	**12.71**	**11.40**

Following wetland planting, protection measures consisting of posts, snow fencing, and rope barriers were implemented to discourage predation by wild fowl. Due to the large distances between posts, the allowable thickness of the rope was reduced to less than 3/8-inch diameter to minimize tension on the posts (Field Change No. 018).

6.12 GROUNDWATER MONITORING WELL INSTALLATION

A total of sixteen piezometers and two groundwater monitoring wells were installed in accordance with Specification 02015 of the Contract Documents, and Field Changes No. 004, No. 009, and, No. 011. Boring logs for both monitoring wells and piezometers are provided in Appendix D.

6.12.1 Monitoring Wells

Two monitoring wells were installed at offsite locations surrounding the site. MW-1 is located on the J.D. Cousins property (667 Tifft Street) and MW-2 is located on South Buffalo Railway property (Drawing C-1). Both monitoring wells were installed using 4.25-inch hollow stem auger and casing (spin and wash or drive and flush) drilling techniques. The wells were screened as noted on Drawing C-13, and as shown on the boring logs (Appendix D). Drilling equipment was decontaminated prior to drilling, between boreholes, and before leaving the site.

Following the completion of drilling, each well was constructed through the auger casing with 2-inch diameter PVC riser and well screen. The annulus around the outside of the well screen was backfilled with a properly sized clean, inert, silica sand that extends from six inches below the bottom of the well screen to 2 feet or 20 percent of the length of the well screen (whichever was greater) above the top of the well screen. A secondary sand pack, composed of fine grained, clean, inert silica sand was installed to a minimum of six inches above the top of the primary sand pack. Both the primary and secondary sand packs were placed using methods that avoid bridging and ensured accurate placement of filter materials. A 2-foot thick bentonite pellet seal was placed above the secondary sand pack and allowed to swell a minimum of 30 minutes. After allowing the bentonite seal to swell, cement/bentonite grout was installed above the bentonite seal to ground surface. The grout was carefully placed by tremmie pipe to

ensure that it was not diluted by formation water and that any water in the annular space was displaced.

Each monitoring well has a vented cap and a 4-inch square steel casing with a hinged locking cap placed over the monitoring well. The protective casing for each well extends at least two feet above the ground surface and is sealed in place with a concrete pad. Each well has been appropriately labeled with permanent markings for easy identification. All installation activities were observed and recorded in a bound field book and/or on a well log form by a Parsons geologist.

6.12.2 Piezometers

A total of sixteen piezometers were installed onsite. PZ-1 thru PZ-3 were installed in the groundwater collection trench, PZ-4 thru PZ-8 were installed between the collection trench and the wetlands, PZ-14 and 16 were installed through the top of the landfill, and PZ-10 thru 13 and 15 are located around the perimeter of the cap (Drawing C-1).

The piezometers were installed using 4.25-inch or 6.25-inch hollow stem augers and casing (spin and wash or drive and flush) drilling techniques. The piezometers were screened as noted on Drawing C-13 and as shown on the boring logs (Appendix D). Drilling equipment was decontaminated prior to drilling, between boreholes, and before leaving the site.

Following the completion of drilling, the piezometers were constructed through the auger casing. Piezometer risers and appropriate length well screens were constructed of either 4-inch stainless steel or 1.5-inch PVC (refer to installation logs for details). The remainder of the installation was consistent with that of MW-1 and MW-2.

All piezometers are appropriately labeled with permanent markings for easy identification. Installation activities were observed and recorded in a bound field book and/or on a well log form by a Parsons geologist.

6.12.3 Field Changes

Field Change No. 004 specified changes to the protective casing and bentonite seal for wells and piezometers. Field Change No. 009 specified the use of 4-inch stainless steel riser and well screen for PZ-1 thru PZ-4, within the groundwater collection trench, and Field Change No. 11 revised the locations for PZ-1 and PZ-4.

6.13 SITE SECURITY AND ACCESS

6.13.1 Fencing and Access Road Construction

To restrict access in and out of the landfill after construction was completed, a 6-foot high chain link fence was installed around the Site perimeter (refer to Drawings C-06 and C-07 in Appendix A for location and Drawing C-13 for details). A 12-foot wide gravel road was constructed to provide access within the fenced area for future operations and maintenance activities at the Site (see drawing C-07 in Appendix A).

6.13.2 Field Changes

In order to comply with the City of Buffalo zoning requirements, the height of the perimeter fence was changed from 8 feet to 6 feet (see Field Change No. 014). Field Change No. 016 was implemented to extend the ends of the chain link fence on the north side westward into the wetlands of Pond A and on the southeast corner into Ramco Pond. This same field change also allowed for the relocation of the access gate from the southern end of the Site at Colgate Street to the northern end at Tifft Street.

The section of access road from the southeast corner of the landfill, southerly along Skyway Auto Parts, and continuing east along the south end of Skyway Auto Parts was eliminated (see Field Change No. 017 for details.) The original design for the access road had an area for a potential treatment plant. Since water was being discharged to the BSA instead of a treatment plant, this section of road was not needed.

Table 6.1

Access Agreements

Property/Address	Property Owner	Access Rights	Expiration Date	Location	Notes
106 Abby Street, 139 Abby Street, 302 Abby Street, Abby Street, and 90 Hopkins Street.	City of Buffalo	Remedial Access Agreement providing general access to implement, monitor and maintain the remedial action.	April 1, 2006	Alltift Site (landfill area)	
180 Hopkins Street	Buzzard Corporation	Access Agreement to install permanent discharge pipe has been executed.	None.	North of and parallel to Niagara LaSalle property boundary.	Recording of agreement is pending.
Germania Street, North of Tifft Street	City of Buffalo	To complete remedial activities.	February 1, 2007		For Tifft and Hopkins Remedial Action
CSX/Adrian Realty Property	CSX/Adrian Realty	To complete remedial activities.	10-year initial term, with 3 automatic 5-year renewal periods unless otherwise terminated.	Pond/wetland areas west of landfill.	Execution pending.
NYSDOT Property South of Tifft Street	State of New York	State Highway Work Permit No. 5-03-0746 to remove contaminated soil and landscape	December 31, 2005	Two areas: northwest corner of Site, and northern	None.

Property/Address	Property Owner	Access Rights	Expiration Date	Location	Notes
and North of Site.		affected areas (seed and stump removal).		boundary near Tifft Street.	
667 Tifft Street.	Process Welding and Fabrication	Letter agreement for installation, monitoring, maintenance and removal/abandonment of monitoring wells.	None.	East of Skyway property near Tifft Street.	One background monitoring well (MW-1) is on the property. Requires routine monitoring.
637 Tifft Street	Skyway Auto Parts	Temporary Access and License Agreement for general access to implement the remedial action at the Site.	December 23, 2006	Adjacent to eastern boundary of Site.	
South Buffalo Railway	South Buffalo Railway	Right of Entry for monitoring well installation on Germania Street, east of Skyway Auto Parts.	December 31, 2005		Must be renewed annually. Renewal requires a $500 fee. Well MW-2 on property. Requires routine monitoring.
South Buffalo Railway	South Buffalo Railway	License Agreement for installation of sewer line that will connect with a point on Hopkins Street.	June 16, 2006	Sewer discharge pipe crosses RR tracks in Germania St. right-of-way near Buzzard/Niagara LaSalle property	Automatic renewal. A $500 annual fee is due on expiration date.

Property/Address	Property Owner	Access Rights	Expiration Date	Location	Notes
				boundaries.	
South Buffalo Railway/Buffalo Pittsburgh Railroad, Inc.	South Buffalo Railway/Buffalo Pittsburgh Railroad, Inc.	Right of Entry Agreement for general access activities including restoration of the Ramco Pond area, and O&M activities.	December 31, 2005	West of western wetlands/ponds, and south of Ramco Pond.	This agreement, in essence, extends the 2004 agreement.

SECTION 7
COMMUNITY AIR MONITORING PROGRAM/HEALTH AND SAFETY

During the construction of the project, all heath and safety monitoring was conducted by GZA GeoEnvironmental of New York (GZA) under subcontract to Tug Hill. GZA provided a full time Site Safety and Health Officer (SSHO) who was responsible for worker safety, monitoring air quality, and maintaining records related to safety, environmental conditions and air monitoring.

An air monitoring program was conducted as outlined in the Site Specific Health and Safety Plan which was developed in accordance with Specification 01620 Part H-Exposure Monitoring/Air Sampling. Baseline air monitoring was completed over three days during mobilization to the Site. The baseline data was used comparatively with the daily air monitoring data to identify increases in air emissions resulting from construction activities.

Air monitoring stations were established around the perimeter of the site in both upwind and downwind locations. Monitoring was conducted for fugitive dust emissions and total volatile organic compounds (VOCs) with direct reading instruments. A photoionization detector (MiniRAE 2000) was used to screen for organic compounds and MIE Personal DataRam PDR-000 real time particulate monitors were used to measure dust concentrations.

Site perimeter monitoring was performed by the SSHO in accordance with Section 8 of the Site Specific Heath and Safety Plan (GZA, 2003b). The data were reviewed against the action criteria by a Certified Industrial Hygienist. The only exceedance of action limits occurred during stabilization of sediment using lime, in which dust levels were above the limits. Corrective action for this single event included temporarily shutting down the operation, covering the lime, and waiting for winds to subside before continuing the process. A copy of the air monitoring data generated during this project has been included as Appendix J.

SECTION 8
CHEMICAL ANALYTICAL DATA

During the course of the remedial construction at the landfill, soil, groundwater, and solid samples were collected for chemical analysis. The dates and purpose for each sample collected are summarized in Table 8.1 below. Tables 8.2 through 8.4 provide summary results for selected samples. Full analytical results for each sample are contained in Appendix G. The groundwater collection trench was sampled on five occasions. The analytical results for each sampling event were reported to NYSDEC under separate cover. Details on the groundwater collection trench construction and sampling are included in Section 6.10.1.

Table 8.1
Chronological Sample Summary

Sample Event	Sample Purpose	Sample Parameters	Sample Date	Report Date	Laboratory Report ID
Dewatering sump sample (BSA-1, BSA-2)	To monitor and observe the settlement of suspended solids in groundwater.	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	3/25/2004	3/31/2004	A04-2598
Dewatering sump sample	To monitor and observe the settlement of suspended solids in groundwater.	Filtered Hg, Hg, TSS, Filtered TSS	4/1/2004	4/8/2004	A04-2860/A04-2863
Dewatering sump sample (BSA-3)	To monitor and observe the settlement of suspended solids in groundwater.	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	4/1/2004	4/8/2004	A04-2860/A04-2863
Dewatering sump sample (BSA-2A)	Collected from southern sumps in design for treatment/filtration system for THC/Samco.	Total Hg, Soluble Hg	4/7/2004	4/12/2004	A04-3007
White solids from Ramco	NYSDEC directed, unknown material encountered during sediment excavation. Material determined to be aged lime sludge.	Metals	5/28/2004	6/4/2004	A04-5102
Solids samples	NYSDEC directed, split samples with NYSDEC. Samples were collected from the western banks of Pond A, B, and Ramco.	Metals, PAHs, PCBs	9/22/2004	9/29/2004	A04-9145

Chronological Sample Summary (cont'd)

Sample Event	Sample Purpose	Sample Parameters	Sample Date	Report Date	Laboratory Report ID
Groundwater Collection Trench Solids sample	To obtain analytical data for red/brown staining that was observed at the surface of the native material with an analine odor. (NYSDEC split sample also collected).	TCL VOCs, TCL SVOCs	9/23/2004	9/29/2004	A04-9217
BSA	To evaluate the potential for groundwater discharge to BSA	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	11/9/2004	11/15/2004	A04-B067
BSA	To evaluate the potential for groundwater discharge to BSA	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	12/4/2004	12/30/2004	A04-C437
BSA	To evaluate the potential for groundwater discharge to BSA	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	1/5/2005	1/18/2005	A05-0071
BSA	To evaluate the potential for groundwater discharge to BSA	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	2/5/2005	2/28/2005	A05-1498
NYSDOT Soil sampling	NYSDEC directed, representative sample of red/purple "sludge" in excavation.	TCL VOCs, TCL SVOCs, TAL Metals	4/21/2005	5/11/2005	A05-3936
Bowl Water	To obtain analytical content of surface water in impoundment at top of landfill the water to determine how the discharge should be handled.	VOCs, SVOCs, PEST, PCBs, Metals	5/9/2005	5/22/2005	A05-4672
BSA -monthly	Monthly discharge compliance.	[1]VOCs,[1]SVOCs, PCBs, Cn, P, TSS, Metals, TPH, pH	9/29/2005	10/18/05	A05-A748

[1]selected list; VOCs = volatile organic compounds; SVOCs = semivolatile organic compounds; PEST = pesticides; PCBs = polychlorinated biphenyls; Cn = cyanide, P = phosphorous; TSS = total suspended solids; TPH = total petroleum hydrocarbons; Hg = mercury, TCL = target compound list; TAL = target analyte list PAHs = polycyclic aromatic hydrocarbons

Table 8.2
Groundwater Collection Trench Solids Analytical Summary
(Lab Report No. A04-9217)

Sample ID		Alltift Trench Sample # 1		Alltift Trench Sample # 2	
Lab Sample ID		A4921701		A4921702	
Sample Date		9/23/2004		9/23/2004	
Compound	Units				
VOLATILES (Method 8260)					
Chlorobenzene	ug/kg	3100		2	J
Total Xylenes	ug/kg	550	J	8	B
SEMIVOLATILES (Method 8270)					
Acenaphthene	ug/kg	600		ND	
Bis(2-ethylhexyl) phthalate	ug/kg	190	J	ND	
4-Chloroaniline	ug/kg	170	J	ND	
1,2-Dichlorobenzene	ug/kg	200000	D	ND	
1,4-Dichlorobenzene	ug/kg	30000	D	ND	
2,4-Dichlorophenol	ug/kg	240	J	ND	
Nitrobenzene	ug/kg	1600		ND	
1,2,4-Trichlorobenzene	ug/kg	8000	E	ND	

Table 8.3
Solids Samples Analytical Summary
(Lab Report No. A04-9145)

Sample ID		1	2	3	4	5	6
Lab Sample ID		A4914501	A4914502	A4914503	A4914504	A4914505	A4914506
Sample Date		9/22/2004	9/22/2004	9/22/2004	9/22/2004	9/22/2004	9/22/2004
Compound	Units						
PAHs (Method 8270)							
Benzo(a)anthracene	ug/kg	ND	ND	ND	4600 J	ND	ND
Benzo(a)pyrene	ug/kg	ND	ND	ND	3600 J	ND	ND
Chrysene	ug/kg	ND	ND	ND	8700	ND	250 J
Fluorathene	ug/kg	ND	ND	ND	ND	ND	250 J
Phenanthrene	ug/kg	ND	ND	ND	ND	ND	200 J
Pyrene	ug/kg	ND	ND	ND	12000	ND	300 J
RCRA METALS							
Arsenic - Total	mg/kg	53.3	20.9	4.3	47.1	60.3	43
Barium - Total	mg/kg	370	61.6	116	167	121	92.6
Cadmium - Total	mg/kg	13	ND	ND	5.5	ND	ND
Chromium - Total	mg/kg	25.6	61.9	23.4	118	48.6	23.6
Lead - Total	mg/kg	4760	74.9	17.4	310	146	158
Mercury - Total	mg/kg	0.047	0.14	0.076	0.49	0.13	0.095
Silver - Total	mg/kg	4.4	ND	ND	1.3	0.96	1.1

Table 8.4

NYSDOT Soil Sampling Analytical Summary
(Lab Report No. A05-3936)

Sample ID		DOT 2A		DOT 2B	
Lab Sample ID		A5393601		A5393602	
Sample Date		4/21/2005		4/21/2005	
Compound	Units				
VOLATILES (Method 8260)					
Acetone	ug/kg	ND		100	
2-Butanone	ug/kg	ND		25	J
Tetrachloroethene	ug/kg	3	BJ	3	BJ
RCRA METALS					
Aluminum - Total	mg/kg	35200		5590	
Arsenic - Total	mg/kg	24.4		ND	
Barium - Total	mg/kg	213		24.8	
Beryllium - Total	mg/kg	0.74		0.26	
Cadmium - Total	mg/kg	1.3		ND	
Calcium - Total	mg/kg	61600		666	
Chromium - Total	mg/kg	13500		7	
Iron - Total	mg/kg	30700		6600	
Cobalt - Total	mg/kg	6		2.9	
Copper - Total	mg/kg	207		6.8	
Lead - Total	mg/kg	260		5.1	
Magnesium - Total	mg/kg	7080		923	
Manganese - Total	mg/kg	633		52.8	
Mercury - Total	mg/kg	0.24		ND	
Nickel - Total	mg/kg	31.4		9.4	
Potassium - Total	mg/kg	4320		373	
Sodium - Total	mg/kg	6290		494	
Vanadium - Total	mg/kg	87.7		9.4	
Zinc - Total	mg/kg	530		22.4	

SECTION 9
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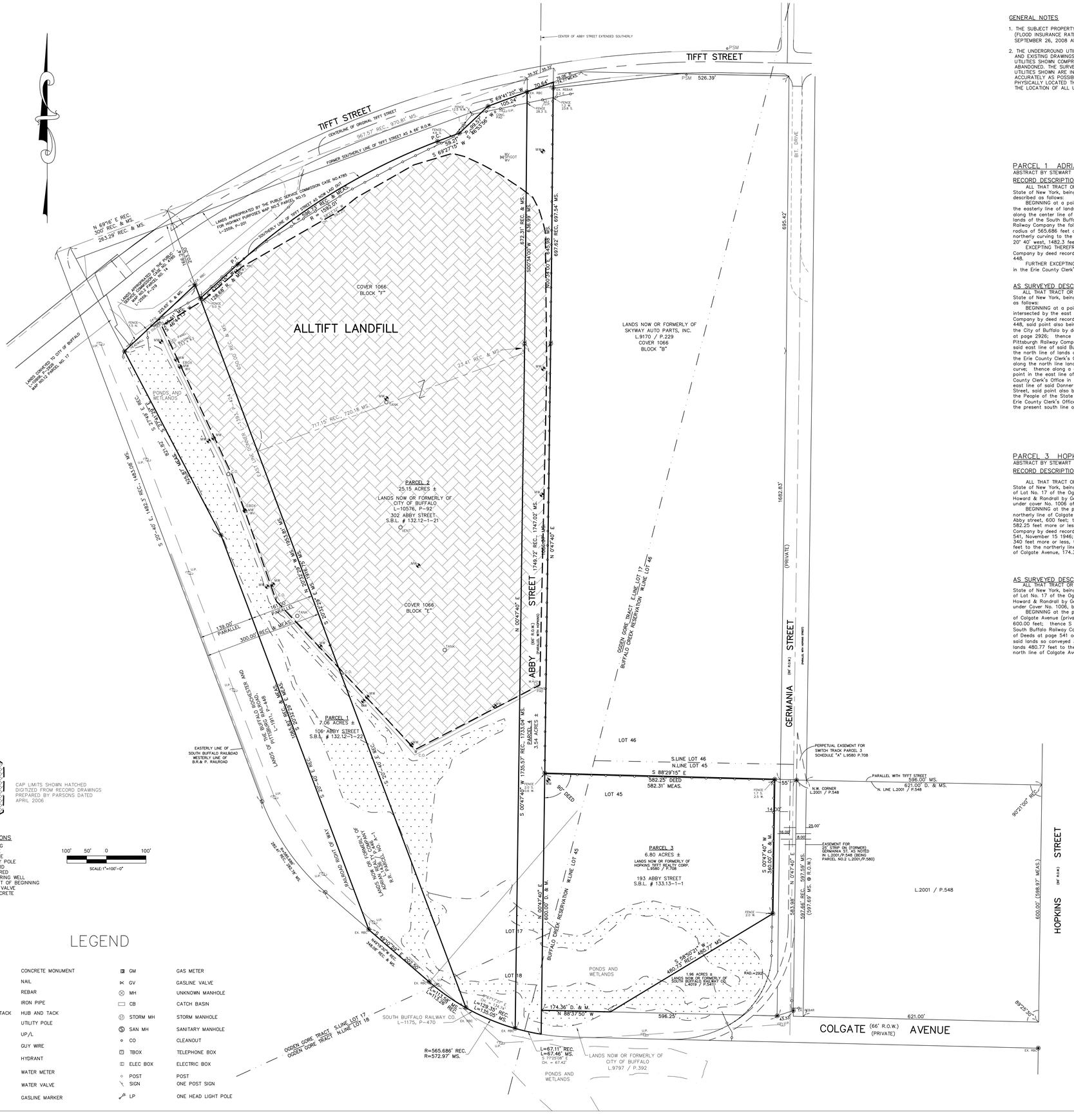


CAP LIMITS SHOWN HATCHED
DIGITIZED FROM RECORD DRAWINGS
PREPARED BY PARSONS DATED
APRIL 2006

ABBREVIATIONS

EX. – EXISTING
FNC. – FENCE
O.L. – ON LINE
U.P. – UTILITY POLE
REC. – RECORD
MS. – MEASURED
MW – MONITORING WELL
P.O.B. – POINT OF BEGINNING
WW – WATER VALVE
CONC. – CONCRETE

LEGEND

△	CONC MON	CONCRETE MONUMENT	▣	GM	GAS METER
⊙	PK	NAIL	⋉	GV	GASLINE VALVE
⊙	REBAR	REBAR	⊗	MH	UNKNOWN MANHOLE
◉	IP	IRON PIPE	▭	CB	CATCH BASIN
□	HUB AND TACK	HUB AND TACK	Ⓢ	STORM MH	STORM MANHOLE
	UP	UTILITY POLE	Ⓢ	SAN MH	SANITARY MANHOLE
	UP/L	UP/L	∘	CO	CLEANOUT
∘	GUY	GUY WIRE	Ⓣ	TBOX	TELEPHONE BOX
	HYD	HYDRANT	Ⓔ	ELEC BOX	ELECTRIC BOX
Ⓦ	WM	WATER METER	○	POST	POST
⋈	WV	WATER VALVE		SIGN	ONE POST SIGN
ϕ	GLM	GASLINE MARKER		LP	ONE HEAD LIGHT POLE

GENERAL NOTES

1. THE SUBJECT PROPERTY IS LOCATED IN ZONE X (AREA OF MINIMAL FLOODING; PER FIRM (FLOOD INSURANCE RATE MAP), COMMUNITY PANEL NO. 36029 C 0327 G, EFFECTIVE DATE SEPTEMBER 26, 2008 AND 36029 C 0329 G PANEL NOT PRINTED (NO SPECIAL FLOOD AREAS).

2. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.

PARCEL 1 ADRIAN REALTY CO.

ABSTRACT BY STEWART TITLE No. 546772, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 17 of the Gore Tract, so–called, bounded and described as follows:

BEGINNING at a point in the center line of Tifft Street where said line is intersected by the easterly line of lands of the South Buffalo Railway Company; thence north 69° 16' east along the center line of said Tifft Street 300 feet; thence south 20° 40' east, 2152.7 feet to lands of the South Buffalo Railway Company; thence along the land of said South Buffalo Railway Company the following courses and distances: northerly curving to the right with a radius of 565.686 feet a distance of 113.26 feet; north 49° 18' 30" west, 348.08 feet; northerly curving to the right with a radius of 565.686 feet a distance of 282.41 feet; north 20° 40' west, 1482.3 feet to the place of beginning.

EXCEPTING THEREFROM that part conveyed to Buffalo, Rochester & Pittsburgh Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1911 of Deeds at page 448.

FURTHER EXCEPTING THEREFROM that part conveyed to City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10906 of Deeds at page 2926.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 17 of the Ogden Gore Tract, bounded and described as follows:

BEGINNING at a point in the present south line of Tifft Street where said line is intersected by the east line of lands conveyed to the Buffalo, Rochester & Pittsburgh Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1911 of Deeds at page 448, said point also being the southwest corner of Parcel No. 17 of Map No. 12 conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10906 of Deeds at page 2926; thence S 27°41'29" E along said east line of said Buffalo, Rochester & Pittsburgh Railway Company lands, 525.87 feet to an angle point; thence S 20°32'29" E along said east line of said Buffalo, Rochester & Pittsburgh Railway Company lands, 1065.82 feet to the north line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence S 49°10'59" E along the north line lands of said South Buffalo Railway Company, 202.50 feet to a point of curve; thence along a curve to the left having a radius of 572.97 feet, 113.58 feet to a point in the east line of lands conveyed to William H. Donner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence N 20°32'29 W along the east line of said Donner lands, 1953.81 feet to a point in the present south line of Tifft Street, said point also being to southeast corner of Parcel No. 14 of Map No. 2 acquired by the People of the State of New York by Notice of Grade Crossing Elimination recorded in the Erie County Clerk's Office in Liber 2559 of Deeds at page 219; thence S 46°44'13" W along the present south line of Tifft Street, 245.51 feet to the Point or Place of Beginning.

PARCEL 3 HOPKINS TIFFT REALTY CORP.

ABSTRACT BY STEWART TITLE No. 546774, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 45 of the Buffalo Creek Indian Reservation and part of Lot No. 17 of the Ogden Gore Tract, so called, as shown on a certain survey map made for Howard & Randrall by George C. Diehl, Civil Engineer, and filed in the Erie County Clerk's Office under cover No. 1006 of Maps, being more particularly described as follows:

BEGINNING at the point of intersection of the easterly line of Abby Street with the northerly line of Colgate Avenue (private street); thence northerly along the easterly line of Abby street, 600 feet; thence easterly at right angles to said easterly line of Abby street, 582.25 feet more or less to the westerly line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 4019 of Deeds at page 541, November 15 1946; thence southerly along said westerly line of said lands so conveyed 340 feet more or less, to an angle point; thence southwesterly, bounding on said lands 480.73 feet to the northerly line of Colgate Avenue, and thence westerly along the said northerly line of Colgate Avenue, 174.36 feet more or less to the point or place of beginning.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 45 of the Buffalo Creek Indian Reservation and part of Lot No. 17 of the Ogden Gore Tract and as shown on a certain survey map made for Howard & Randrall by George C. Diehl, Civil Engineer, and filed in the Erie County Clerk's Office under Cover No. 1006, being more particularly described as follows:

BEGINNING at the point of intersection of the east line of Abby street with the north line of Colgate Avenue (private street); thence N 00°47'40" E along the east line of Abby street, 600.00 feet; thence S 88°29'15" E, 582.31 feet to the west line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 4019 of Deeds at page 541 on November 15 1946; thence S 00°47'40" W along said west line of said lands so conveyed 340.00 feet to an angle point; thence S 58°50'21" W, bounding on said lands 480.77 feet to the north line of Colgate Avenue; thence N 88°37'50" W along the said north line of Colgate Avenue, 174.36 feet to the Point or Place of Beginning.

LOCATION MAP
not to scale

PARCEL 2 CITY OF BUFFALO – PERFECTING TITLE

ABSTRACT BY STEWART TITLE No. 546773, DATED 5/18/10

RECORD DESCRIPTION

PARCEL NO. 1

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State Of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tifft Street where the same would be intersected by an extension southerly of the westerly line of Abby Street as the same is now laid out north of Tifft Street thence southwesterly and along the center line of Tifft Street for a distance of 967.57 feet to the easterly line of lands conveyed to William H. Donner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence southerly and along the said easterly line of lands so conveyed to William H. Donner, by said deed, for a distance of 650 feet to a point; thence northeasterly and parallel with the center line of Tifft Street for a distance of 717.15 feet to the westerly line of the proposed Abby Street hereinbefore described; thence northerly and along the said westerly line of proposed Abby Street for a distance of 23.41 feet to an angle point; thence continuing northerly and along the westerly line of the proposed Abby Street for a distance of 672.31 feet to the center line of Tifft Street and at the place of beginning, containing 11.84 acres exclusive of the lands within the lines of Tifft Street marked, Block "F" on a certain map filed in the Erie County Clerk's Office under Cover No. 1006.

PARCEL NO. 2

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the westerly line of the proposed Abby Street hereinbefore described where the same would be intersected by the southerly line of lands described in Parcel No. I above; thence southerly along the westerly line of the proposed Abby Street for a distance of 1,712.16 feet to the northerly line of lands conveyed to the South Buffalo Railroad Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence northwesterly on a curve with a radius of 565.686 feet for a distance of 129.35 feet to the easterly line of lands conveyed to William H. Donner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence northwesterly and along the said easterly line of the lands so conveyed by said deed to William H. Donner for a distance of 1,509.17 feet to the southerly line of the lands described in parcel No. 1; thence northeasterly parallel with the center line of Tifft Street and along the southerly line of lands described in Parcel No. I for a distance of 717.15 feet to the westerly line of the proposed Abby Street at the place of beginning, containing 14.71 acres marked Block "E" on a certain map filed in the Erie County Clerk's Office under Cover No. 1006.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot Nos. 17 and 18 of the Ogden Gore Tract and as shown on a map filed in the Erie County Clerk's Office under Cover No. 1006 as being Block E and part of Block F, bounded and described as follows:

BEGINNING at a point in the south line of Tifft Street as originally laid out at its intersection with the west line of Abby Street as conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 1593 of Deeds at page 96; thence S 69°41'20" W along the south line of Tifft Street, 105.24 feet to the easterly terminus of Parcel No. 15 of Map No. 3 acquired by the People of the State of New York by Notice of Grade Crossing Elimination recorded in the Erie County Clerk's Office in Liber 2559 of Deeds at page 201; thence along the south line of said Parcel No. 15, also being the present south line of Tifft Street the following courses and distances:
(1) S 46°53'56" W, 99.57 feet to a point; (2) S 69°27'15" W, 59.21 feet to a point of curve; (3) along a curve to the left having a radius of 1592.01 feet, 596.73 feet to a point of tangency; (4) S 47°39'15" W, 128.68 feet to the east line of lands conveyed to William H. Donner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence S 20°32'29" E along the said east line of lands so conveyed to William H. Donner, 1916.75 feet to the north line of lands conveyed to the South Buffalo Railroad Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southeasterly on a curve to the left with a radius of 572.97 feet and a chord bearing S 67°17'37" E, 135.05 feet to the west line of Abby Street; thence N 00°47'40" E along the west line of Abby Street, 1733.04 feet to an angle point; thence N 00°34'00" E along the west line of Abby Street, 636.99 feet to the Point or Place of Beginning.

PARCEL 4 ABBY STREET

ABSTRACT BY STEWART TITLE No. 546775, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tifft Street where the same would be intersected by the extension southerly of the center line of Abby Street as the same is now laid out north of Tifft Street; thence southwesterly and along the said center line of Tifft Street for a distance of 35.32 feet to a point; thence southerly and parallel with Hopkins Street for a distance of 672.31 feet to an angle point: thence continuing southerly and parallel with Hopkins Street for a distance of 1,735.57 feet to the northerly line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southeasterly on a curve with a radius of 565.686 feet for a distance of 67.11 feet to a point; thence northerly and parallel with Hopkins Street for a distance of 1,749.72 feet to an angle point; thence continuing northerly and parallel with Hopkins Street for a distance of 697.62 feet to the center line of Tifft Street; thence southwesterly and along the center line of Tifft Street for a distance of 35.32 feet to the place of beginning.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tifft Street where the same would be intersected by the extension southerly of the center line of Abby Street as the same is now laid out north of Tifft Street; thence southwesterly and along the said center line of Tifft Street, 35.32 feet to a point; thence S 00°34'00" W and parallel with Hopkins Street, 672.31 feet to an angle point; thence S 00°47'40" W and parallel with Hopkins Street, 1,733.04 feet to the north line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southeasterly on a curve to the left with a radius of 572.97 feet and a chord bearing S 77°25'08" E, 67.46 feet to a point; thence N 00°47'40" E and parallel with Hopkins Street, 1,747.02 feet to an angle point; thence N 00°34'00" E and parallel with Hopkins Street, 697.54 feet to the center line of Tifft Street; thence southwesterly and along the center line of Tifft Street, 35.32 feet to the Point or Place of Beginning.

SURVEY CERTIFICATION

TO NEW YORK STATE – DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS." JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 2005 AND PURSUANT TO THE ACCURACY STANDARDS (AS ADOPTED BY ALTA AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION), THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

DATED: June 25, 2010

Latest Revision 6/23/2011

Douglas R. Hager
DOUGLAS R. HAGER
PROFESSIONAL LAND SURVEYOR NO. 050204

ALTA/ACSM LAND TITLE SURVEY

PART OF LOT 45, T 10, R 7
PART OF LOTS 17 & 18 OF THE OGDEN GORE TRACT
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK

ALLTIFT LANDFILL
SITE CODE 9–15–054

PART OF L ______ S ______ T ______ R ______ OF THE ______
VILLAGE OF ______ ; CITY/TOWN OF BUFFALO ; COUNTY OF ERIE ; STATE OF NEW YORK

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN SPECIFICATION PLAN OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

REVISION

DATE	JOB	DESCRIPTION
6/23/11	2010.0229.00	LANDFILL CAP PLOTTED

SBL No. AS SHOWN

TVGA CONSULTANTS
One Thousand Maple Road,
Elma, NY 14059–9530
www.tvga.com
P.716.655.8842 F.716.655.0937

DRAWN BY WNW
SCALE 1"=100'
CHECKED BY DRH
JOB NO. 2010.0229.00
CAD FILE 26055–2010.DWG
FIELD/OFFICE DATE 6/25/10
BOOK 366
PAGE 105
MAP 56055–2010

ERIE COUNTY CLERK'S OFFICE

County Clerk's Recording Page

Return to:
FRONTIER ABSTRACT & RESEARCH SERVICES
30 W BROAD ST
ROCHESTER, NY 14814

Party 1:
NEW YORK STATE DEPT OF ENVIRONMENTAL CONSERVATION

Party 2:

Book Type: D Book: 11219 Page: 1336
Page Count: 6
Doc Type: NT FILING
Rec Date: 03/12/2012
Rec Tim: 10:00:13 AM
Control #: 2012058602
UserID: Diane
Receipt#: 12038669
Document Sequence Number

Consideration Amount:

BASIC	$0.00
SONYMA	$0.00
ADDL	$0.00
NFTA MT	$0.00
TRANSFER	$0.00
NFTA TT	$0.00

Recording Fees:

Fee 1	$50.00
Fee 2	$1.00
COE STATE $14.25 GEN	$14.25
COE STATE $4.75 RM	$4.75

Total: $70.00

STATE OF NEW YORK
ERIE COUNTY CLERK'S OFFICE

WARNING – THIS SHEET CONSTITUTES THE CLERK'S ENDORSEMENT REQUIRED BY SECTION 319&316-a (5) OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. DO NOT DETACH. THIS IS NOT A BILL.

Christopher L. Jacobs
COUNTY CLERK

Site Name: Alltift Landfill
Site No.: 915054
302 Abby Street, Buffalo, New York
County of Erie
Tax Map: 132.12-1-21

ENVIRONMENTAL NOTICE

THIS ENVIRONMENTAL NOTICE is made the 22 day of November 2011, by the New York State Department of Environmental Conservation (Department), having an office for the transaction of business at 625 Broadway, Albany, New York 12233

WHEREAS, that parcel of real property located at 302 Abby Street in the City of Buffalo, County of Erie, State of New York, which is part of lands conveyed to the City of Buffalo by Referee's Deed dated December 9, 1992 and recorded in the Erie County Clerk's Office on December 18, 1992 in Book 10576 of Deeds at Page 92, Tax Map Number 132.12-1-21, and that parcel of real property identified as Abby Street, both parcels being more particularly described as "Parcels 2 and 4" on the survey attached to this Notice and made a part hereof and hereinafter referred to as "the Property", are the subject of a remedial program performed by the Department; and

WHEREAS, the Property is part of an inactive hazardous waste disposal site known as the Alltift Landfill Site (the "Site") which is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915054; and

WHEREAS, the Department approved a cleanup to address contamination disposed at the Property and such cleanup was conditioned upon certain limitations.

NOW, THEREFORE, the Department provides notice that:

FIRST, the part of lands subject to this Environmental Notice is as shown on a map attached to this Notice as Appendix "A" and made a part hereof.

SECOND, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Operations, Maintenance, and Monitoring Manual (OM&M Manual), March 2006, and the Construction Certification Report ("CCR"), April 2006, there shall be no disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results or may result in a significantly increased threat of harm or damage at any site as a result of exposure to soils. The OM&M Manual and CCR are available from the Department. A violation of this provision is a violation of 6 NYCRR 375-1.1(b)(2).

THIRD, no person shall disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, including but not limited to those engineering controls described in the OM&M Manual and the CCR unless in each instance they first obtain a written waiver of such prohibition from the Department or Relevant Agency.

10H-5 - 58602

FOURTH, the remedy was designed to be protective for commercial/industrial use. Therefore, any use for purposes other than commercial/industrial use without the express written waiver of such prohibition by the Relevant Agency may result in a significantly increased threat of harm or damage at any site.

FIFTH, the no person shall use the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or Relevant Agency. Use of the groundwater without appropriate treatment may result in a significantly increased threat of harm or damage at any site.

SIXTH, it is a violation of 6 NYCRR 375-1.11(b) to use the Property in a manner inconsistent with this environmental notice.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

By: _____
Dale A. Desnoyers, Director
Division of Remediation

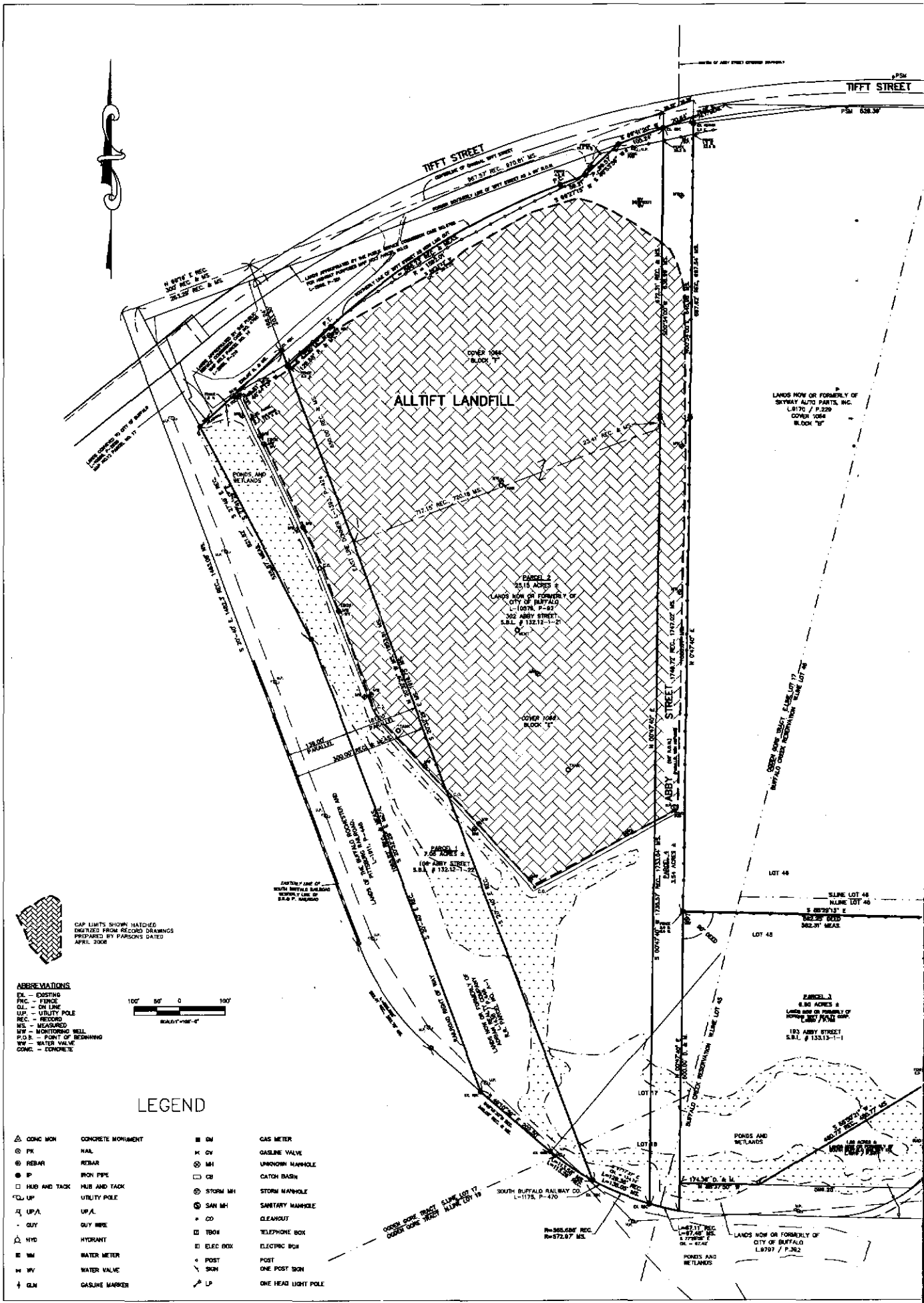
STATE OF NEW YORK) ss:
COUNTY OF ALBANY)

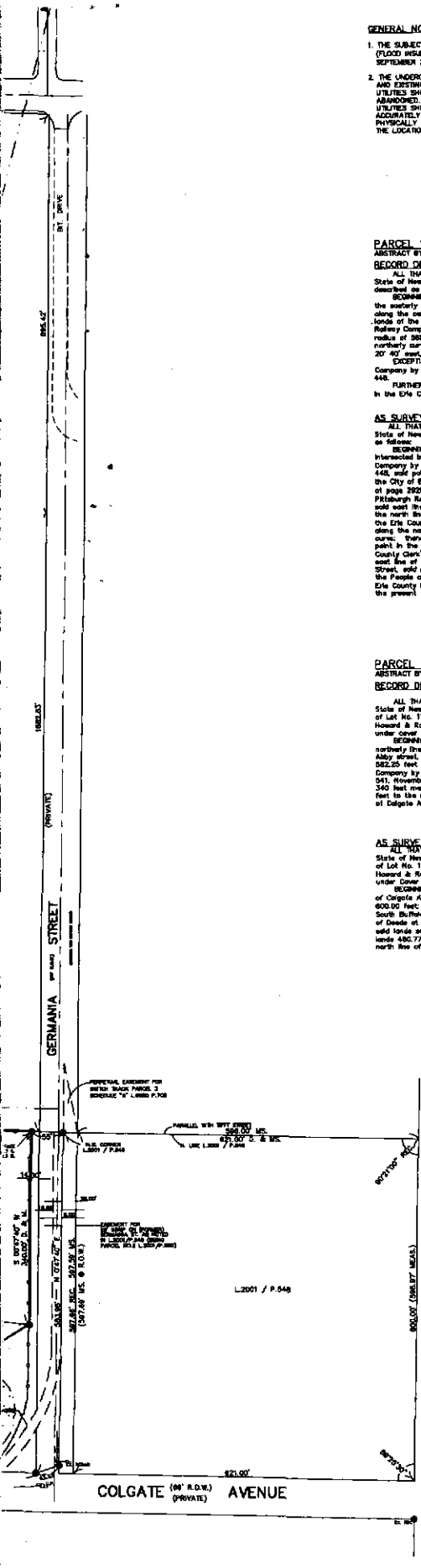
On the 22nd day of November, in the year 2011, before me, the undersigned, personally appeared Dale Desnoyers, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public – State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2014

APPENDIX A

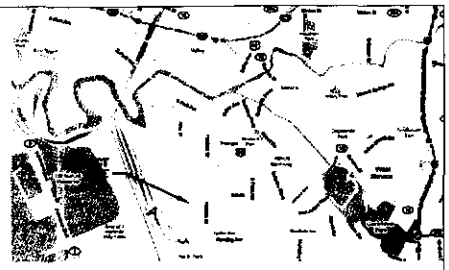

TIFFT STREET
ALLTIFT LANDFILL
PONDS AND WETLANDS
PARCEL 2
25.15 ACRES ±
LANDS NOW OR FORMERLY OF CITY OF BUFFALO
L-10576, P-62
360 ABBY STREET
S.B.L. # 132.12-1-21
PARCEL 1
7.08 ACRES ±
104 ABBY STREET
S.B.L. # 132.12-1-22
PARCEL 3
6.80 ACRES ±
193 ABBY STREET
S.B.L. # 133.13-1-1
ABBY STREET
LANDS NOW OR FORMERLY OF SKYWAY AUTO PARTS, INC.
L-9170 / P-229
COVER 1064
BLOCK "S"
SOUTH BUFFALO RAILWAY CO.
L-1175, P-470
LANDS NOW OR FORMERLY OF CITY OF BUFFALO
L-9797 / P-362
CAP LIMITS SHOWN HATCHED
DIGITIZED FROM RECORD DRAWINGS
PREPARED BY PARSONS DATED
APRIL 2008
ABBREVIATIONS
EX. – EXISTING
FNC. – FENCE
O.L. – ON LINE
U.P. – UTILITY POLE
REC. – RECORD
MS. – MEASURED
MW – MONITORING WELL
P.O.B. – POINT OF BEGINNING
WV – WATER VALVE
CONC. – CONCRETE
LEGEND
CONC MON CONCRETE MONUMENT
PK NAIL
REBAR REBAR
IP IRON PIPE
HUB AND TACK HUB AND TACK
UP UTILITY POLE
GUY GUY WIRE
HYD HYDRANT
WM WATER METER
WV WATER VALVE
GLN GASLINE MARKER
GM GAS METER
GV GASLINE VALVE
MH UNKNOWN MANHOLE
CB CATCH BASIN
STORM MH STORM MANHOLE
SAN MH SANITARY MANHOLE
CO CLEANOUT
TBOX TELEPHONE BOX
ELEC BOX ELECTRIC BOX
POST POST
SIGN ONE POST SIGN
LP ONE HEAD LIGHT POLE



GENERAL NOTES

1. THE SUBJECT PROPERTY IS LOCATED IN ZONE X (AREA OF MINIMAL FLOODING) PER FIRM (FLOOD INSURANCE RATE MAP), COMMUNITY PANEL NO. 36029 C 0327 G, EFFECTIVE DATE SEPTEMBER 29, 2006 AND 36029 C 0329 G PANEL NOT PRINTED (NO SPECIAL FLOOD AREAS).

2. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION.



LOCATION MAP
not to scale

PARCEL 1 ADRIAN REALTY CO.
ABSTRACT BY STEWART TITLE No. 546772, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 17 of the Gore Tract, so-called, bounded and described as follows:

BEGINNING at a point in the center line of Tift Street where said line is intersected by the easterly line of lands of the South Buffalo Railway Company; thence north 69° 16' east along the center line of said Tift Street 300 feet; thence south 20° 40' east, 2132.7 feet to lands of the South Buffalo Railway Company; thence along the land of said South Buffalo Railway Company the following courses and distances: northerly curving to the right with a radius of 365.688 feet a distance of 113.28 feet; north 49° 16' 30" west, 348.08 feet; northerly curving to the right with a radius of 583.688 feet a distance of 282.41 feet; north 20° 40' west, 1462.3 feet to the place of beginning.

EXCEPTING THEREFROM that part conveyed to Buffalo, Rochester & Pittsburgh Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1811 of Deeds at page 448.

FURTHER EXCEPTING THEREFROM that part conveyed to City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10805 of Deeds at page 2926.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 17 of the Ogden Gore Tract, bounded and described as follows:

BEGINNING at a point in the present south line of Tift Street where said line is intersected by the west line of lands conveyed to the Buffalo, Rochester & Pittsburgh Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1811 of Deeds at page 448, said point also being the southeast corner of Parcel No. 17 of Map No. 12 conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 10805 of Deeds at page 2926; thence S 27°41'29" E along said west line of said Buffalo, Rochester & Pittsburgh Railway Company lands, 255.67 feet to an angle point; thence S 20°32'29" E along said west line of said Buffalo, Rochester & Pittsburgh Railway Company lands, 1065.82 feet to the north line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence S 48°10'06" E along the north line lands of said South Buffalo Railway Company, 202.50 feet to a point of curve; thence along a curve to the left having a radius of 572.97 feet, 113.88 feet to a point in the east line of lands conveyed to William H. Danner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence N 20°32'29" W along the east line of said Danner lands, 1853.81 feet to a point in the present south line of Tift Street, said point also being to southeast corner of Parcel No. 14 of Map No. 2 acquired by the People of the State of New York by Notice of Grade Crossing Elimination recorded in the Erie County Clerk's Office in Liber 2568 of Deeds at page 218; thence S 48°44'13" W along the present south line of Tift Street, 245.51 feet to the Point or Place of Beginning.

PARCEL 2 CITY OF BUFFALO – PERFECTING TITLE
ABSTRACT BY STEWART TITLE No. 546773, DATED 5/18/10

RECORD DESCRIPTION

PARCEL NO. 1

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State Of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tift Street where the same would be intersected by an extension southerly of the easterly line of Abby Street as the same is now laid out north of Tift Street; thence southeasterly along the center line of Tift Street for a distance of 867.27 feet to the easterly line of lands conveyed to William H. Danner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence southerly and along the said easterly line of lands as conveyed to William H. Danner, by said deed, for a distance of 850 feet to a point; thence northeasterly and parallel with the center line of Tift Street for a distance of 717.15 feet to the westerly line of the proposed Abby Street hereinafter described; thence northerly and along the said westerly line of proposed Abby Street for a distance of 23.41 feet to an angle point; thence continuing northerly and along the westerly line of the proposed Abby Street for a distance of 1172.31 feet to the center line of Tift Street and of the place of beginning, containing 11.84 acres exclusive of the lands within the lines of Tift Street marked, Block "F" on a certain map filed in the Erie County Clerk's Office under Cover No. 1008.

PARCEL NO. 2

ALSO ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the westerly line of the proposed Abby Street hereinbefore described where the same would be intersected by the southerly line of lands described in Parcel No. 1 above; thence southerly along the westerly line of the proposed Abby Street for a distance of 1,712.18 feet to the northerly line of lands conveyed to the South Buffalo Railroad Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence northwesterly on a curve with a radius of 565.688 feet for a distance of 128.35 feet to the easterly line of lands conveyed to William H. Danner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence northeasterly and along the said easterly line of the lands as conveyed by said deed to William H. Danner for a distance of 1,868.17 feet to the southerly line of the lands described in parcel No. 1; thence northeasterly parallel with the center line of Tift Street and along the southerly line of lands described in Parcel No. 1 for a distance of 717.15 feet to the westerly line of the proposed Abby Street, the place of beginning, containing 14.71 acres marked Block "E" on a certain map filed in the Erie County Clerk's Office under Cover No. 1008.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot Nos. 17 and 18 of the Ogden Gore Tract and as shown on a map filed in the Erie County Clerk's Office under Cover No. 1008 as being Block E and part of Block F, bounded and described as follows:

BEGINNING at a point in the south line of Tift Street as originally laid out at its intersection with the west line of Abby Street as conveyed to the City of Buffalo by deed recorded in the Erie County Clerk's Office in Liber 1093 of Deeds at page 98; thence S 69°41'20" W along the south line of Tift Street, 105.14 feet to the easterly terminus of Parcel No. 10 of Map No. 3 acquired by the People of the State of New York by Notice of Grade Crossing Elimination recorded in the Erie County Clerk's Office in Liber 2556 of Deeds at page 201; thence along the south line of said Parcel No. 10, also being the present south line of Tift Street the following courses and distances:
(1) S 48°53'56" W, 99.57 feet to a point; (2) S 69°27'15" W, 56.21 feet to a point of curve; (3) along a curve to the left having a radius of 1592.01 feet, 986.73 feet to a point of tangency; (4) S 47°39'15" W, 128.66 feet to the east line of lands conveyed to William H. Danner by deed recorded in the Erie County Clerk's Office in Liber 1393 of Deeds at page 424; thence S 20°32'29" E along the said east line of lands as conveyed to William H. Danner, 1816.75 feet to the north line of lands conveyed to the South Buffalo Railroad Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southeasterly on a curve to the left with a radius of 572.97 feet and a chord bearing S 67°17'37" E, 135.06 feet to the east line of Abby Street; thence N 00°47'40" E along the west line of Abby Street, 1733.04 feet to an angle point; thence N 00°34'00" E along the west line of Abby Street, 838.89 feet to the Point or Place of Beginning.

PARCEL 3 HOPKINS TIEFT REALTY CORP.
ABSTRACT BY STEWART TITLE No. 546774, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 45 of the Buffalo Creek Indian Reservation and part of Lot No. 17 of the Ogden Gore Tract, as called, as shown on a certain survey map made for Howard A Rambrell by George C. Diehl, Civil Engineer, and filed in the Erie County Clerk's Office under Cover No. 1006 of Maps, being more particularly described as follows:

BEGINNING at the point of intersection of the easterly line of Abby Street with the northerly line of Colgate Avenue (private street); thence northerly along the easterly line of Abby street, 605 feet; thence easterly at right angles to said easterly line of Abby street, 582.25 feet more or less to the westerly line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 4019 of Deeds at page 541, November 15 1946; thence southerly along said westerly line of said lands as conveyed 340 feet more or less, to an angle point; thence southwesterly bounding on said lands 480.73 feet to the northerly line of Colgate Avenue, and thence easterly along the said northerly line of Colgate Avenue, 174.38 feet more or less to the point or place of beginning.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 45 of the Buffalo Creek Indian Reservation and part of Lot No. 17 of the Ogden Gore Tract and as shown on a certain survey map made for Howard A Rambrell by George C. Diehl, Civil Engineer, and filed in the Erie County Clerk's Office under Cover No. 1006, being more particularly described as follows:

BEGINNING at the point of intersection of the east line of Abby street with the north line of Colgate Avenue (private street); thence N 00°47'40" E along the east line of Abby street, 600.00 feet; thence S 88°28'15" E, 582.31 feet to the west line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 4019 of Deeds at page 541 in November 15 1946; thence S 00°47'40" W along said west line of said lands as conveyed 340.00 feet to an angle point; thence S 58°50'21" W, bounding on said lands 480.77 feet to the north line of Colgate Avenue; thence N 88°37'50" W along the said north line of Colgate Avenue, 174.38 feet to the Point or Place of Beginning.

PARCEL 4 ABBY STREET
ABSTRACT BY STEWART TITLE No. 546775, DATED 5/18/10

RECORD DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tift Street where the same would be intersected by the extension southerly of the center line of Abby Street as the same is now laid out north of Tift Street; thence southeasterly and along the said center line of Tift Street for a distance of 35.32 feet to a point; thence southerly and parallel with Hopkins Street for a distance of 873.31 feet to an angle point; thence continuing southerly and parallel with Hopkins Street for a distance of 1,735.57 feet to the northerly line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southwesterly on a curve with a radius of 565.688 feet for a distance of 67.11 feet to a point; thence northerly and parallel with Hopkins Street for a distance of 1,746.72 feet to an angle point; thence northerly and parallel with Hopkins Street for a distance of 897.82 feet to the center line of Tift Street; thence southeasterly and along the center line of Tift Street for a distance of 35.32 feet to the place of beginning.

AS SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, bounded and described as follows:

BEGINNING at a point in the center line of Tift Street where the same would be intersected by the extension southerly of the center line of Abby Street as the same is now laid out north of Tift Street; thence southeasterly and along the said center line of Tift Street, 35.32 feet to a point; thence S 00°34'00" W and parallel with Hopkins Street, 872.31 feet to an angle point; thence S 00°47'40" W and parallel with Hopkins Street, 1,733.04 feet to the north line of lands conveyed to the South Buffalo Railway Company by deed recorded in the Erie County Clerk's Office in Liber 1175 of Deeds at page 470; thence southeasterly on a curve to the left with a radius of 572.97 feet and a chord bearing S 77°22'08" E, 67.46 feet to a point; thence N 00°47'40" E and parallel with Hopkins Street, 1,747.02 feet to an angle point; thence N 00°34'00" E and parallel with Hopkins Street, 897.54 feet to the center line of Tift Street; thence southeasterly and along the center line of Tift Street, 35.32 feet to the Point or Place of Beginning.

SURVEY CERTIFICATION

TO NEW YORK STATE – DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 2005 AND PURSUANT TO THE ACCURACY STANDARDS (AS ADOPTED BY ALTA AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION). THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

DATED: June 25, 2010
Latest Revision 6/23/2011

DOUGLAS R. HAGER
PROFESSIONAL LAND SURVEYOR NO. 050204

ALTA/ACSM LAND TITLE SURVEY

PART OF LOT 45, T 10, R 7
PART OF LOTS 17 & 18 OF THE OGDEN GORE TRACT
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK

ALLTIFT LANDFILL
SITE CODE 9-15-054

PART OF ____ I ____ OF THE ____
VILLAGE OF ____ CITY/TOWN OF BUFFALO COUNTY OF ERIE STATE OF NEW YORK

DATE	JOB	REVISION DESCRIPTION
6/23/11	2010.0238.00	LANDFILL CAP PLOTTED

TVGA CONSULTANTS

DRAWN BY: MWR SCALE: 1"=100'
CHECKED BY: DRH JOB NO.: 2010.0238.00
CAD FILE: 28055-2010.DWG FIELD/OFFICE DATE: 6/23/10
SHL No.: AS SHOWN BOOK: 368 PAGE: 105 MAP: 28055-2010

Donna Walker

From: Donna Walker
Sent: Thursday, August 11, 2011 4:08 PM
To: Jones, Betty (Betty_D_Jones@CSX.com)
Subject: NY-Erie-Declaration of Restrictions
Attachments: Scanned COPY of Document Recorded 081011.pdf; Recording Receipt 11206-9804.pdf

Your document has been recorded. The book and page information is printed on the attached recording receipt. Attached is a scan of the COPY provided by the recorder's office, marked FILED. The Erie County recorder is at least 2 months behind in filing original documents. I've been told not expect to receive the original document until sometime in October. I have it on my calendar to follow up toward the end of that month. It will be returned directly to me and I will forward to you at that time.

Donna M. Walker
Office Manager

Walker Title, LLC
and Jeffrey J. Walker, P. A.
118A West Main Street
Mountain City, TN 37683
423-727-0207 Toll Free: 866-727-0207
Fax: 423-727-0212
Email dwalker@walkertitleTN.com
VISIT US ON THE WEB AT: www.walkertitleTN.com

"EVERYTHING COUNTS"

JOHN J. CRANGLE, JR., INTERIM ERIE COUNTY CL
ERK

PARALEGAL SERVICES/WALTER TITLE
ACCOUNT #:
RECEIPT: 11114512
DATE: 8/10/2011 TIME: 11:42:52 AM

ITEM - 01 774
RECD: 8/10/2011 11:42:52 AM
FILE: 2011162340 BK/PG D 11206/9804
CSX TRANSPORTATION INC SUC
Recording Fees 90.50
Sub. Total 90.50

TOTAL DUE	$90.50
PAID TOTAL	$90.50
PAID CHECK	90.00
Check #2330:	90.00
PAID CASH	0.50

REC BY: Francine
COUNTY RECORDER

Return to: Norma Walker
Walker Title LLC
118 A West Main St
Mountain City TN 37683

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT, made the 5th day of August 2011, by CSX Transportation, Inc., a Virginia corporation, successor by merger to Adrian Realty Co., a corporation organized and existing under the laws of the State of Virginia and having an office for the transaction of business at 500 Water Street, Jacksonville, Florida 32202;

WHEREAS, CSX Transportation, Inc. is the owner of property at 106 Abby Street in the City of Buffalo which is part of lands conveyed by William H. Donner and Dora B. Donner to Adrian Realty Company by deed dated November 18, 1919 and recorded in the Erie County Clerk's Office in Book 1436 of Deeds at Page 446, and which is identified by tax parcel number 132.12-1-22, hereinafter referred to as "the Property"; and

WHEREAS, the Property is part of an inactive hazardous waste disposal site which is known as the Alltift Landfill which is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915054 (the "Site"); and

WHEREAS, the New York State Department of Environmental Conservation (the "Department") set forth a remedy to eliminate or mitigate all significant threats to the environment presented by hazardous waste disposal at the Alltift Landfill Site in a Record of Decision ("ROD") dated March 27, 1995, and at the adjacent Ramco Steel Site Number 915046B in a ROD dated March 21, 1996, and such RODs required that the Property be subject to restrictive covenants.

WHEREAS, the Site and the adjacent Ramco Steel Site are the subjects of a consent order issued by the Department on January 28, 1998 pursuant to which a Department approved remedial program was conducted; and

NOW, THEREFORE, CSX Transportation, Inc., for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is identified as "Parcel 1"on a survey attached to this declaration as Appendix "A" and made a part hereof;

Second, unless prior written approval by the New York State Department of Environmental Conservation or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, no person shall engage in any activity that will, or that reasonably is anticipated to, prevent or interfere significantly with any proposed, ongoing or completed program at the Property or that will, or is reasonably foreseeable to, expose the public health or the environment to a significantly increased threat of harm or damage.

Third, the owner of the Property shall not impede the maintenance of the cap covering the Property and shall not impair the cap's grass cover, barrier protection layer or synthetic liner.

Fourth, the owner of the Property shall prohibit any new use of the Property without the express written waiver of such prohibition by the Department or the Relevant Agency.

Fifth, the owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Department or the Relevant Agency.

Sixth, the owner of the Property shall allow access to the Property for maintenance of the components of the remedy and shall allow access by the Department or the Relevant Agency to evaluate maintenance of the required controls.

Seventh, the owner of the Property shall not interfere with and shall allow the maintenance of all surface wetlands, as required, in accordance with wetland permit "Application No. 98-976-0162(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 67, No. 10, on Tuesday January 15, 2002," issued by the United States Army Corps of Engineers on March 24, 2004.

Eighth, the owner of the Property shall not impede the maintenance of the wetlands water elevation control structure ("HEADWALL" on survey) and the associated discharge area.

Ninth, the owner of the Property shall not interfere with and shall continue in full force and effect any institutional and engineering controls the Department required to be put into place and maintained as set forth in relevant site documentation including the Operations, Maintenance, and Monitoring Manual (OM&M Manual), March 2006, and the Construction Certification Report, April 2006.

Tenth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property and shall provide that the owner, and its successors and assigns, consents to the enforcement by the Department or the Relevant Agency of the prohibitions and restrictions that are required to be recorded, and hereby covenants not to contest the authority of the Department to seek enforcement.

Eleventh, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Relevant Agency has consented to the termination of such covenants and restrictions that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

CSX TRANSPORTATION, INC.,
Successor by merger to Adrian Realty Co.

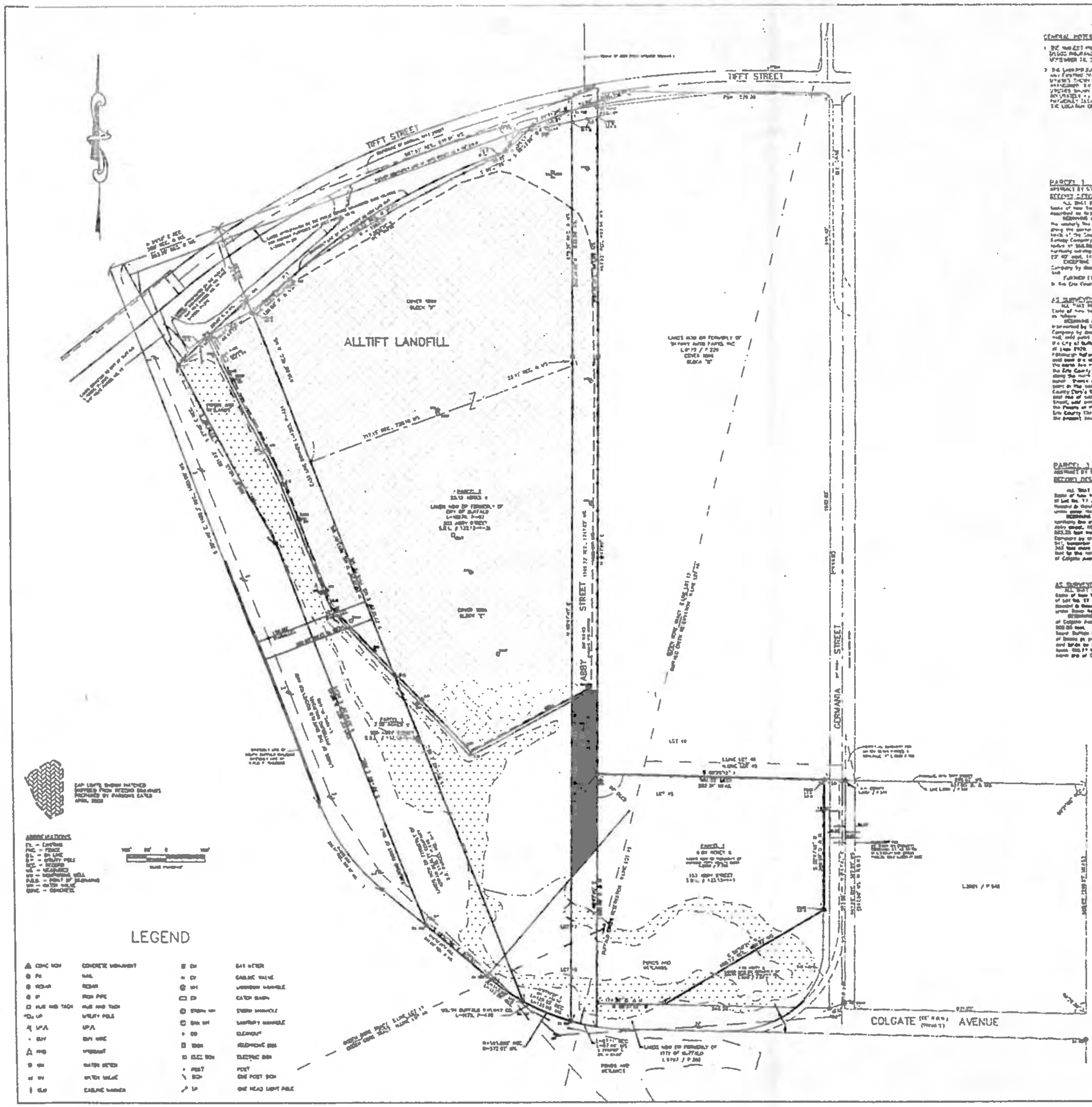
By: _____
Stephen A. Crosby
President – CSX Real Property, Inc.,
signing on behalf of CSX Transportation, Inc.

STATE OF FLORIDA)
) ss:
COUNTY OF DUVAL)

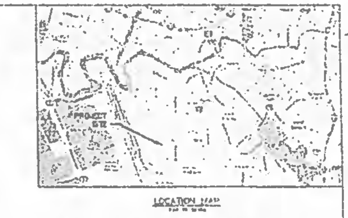
On the 5th day of August, in the year 2011, before me the undersigned, personally appeared STEPHEN A. CROSBY, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of FLORIDA

Notary Public State of Florida
Carmen E Benitez
My Commission DD912898
Expires 10/16/2013



GENERAL NOTES



LOCATION MAP

PARCEL 1 ADRIAN REALTY CO.

RECORD DESCRIPTION

AS SURVEYED DESCRIPTION

PARCEL 2 CITY OF BUFFALO – PERFECTING TITLE

RECORD DESCRIPTION

AS SURVEYED DESCRIPTION

PARCEL 3 HOPKINS TIFFT REALTY CORP.

RECORD DESCRIPTION

AS SURVEYED DESCRIPTION

PARCEL 4 ABBY STREET

RECORD DESCRIPTION

AS SURVEYED DESCRIPTION

SURVEY CERTIFICATION

DATED: ____________________

ALTA/ACSM LAND TITLE SURVEY

PART OF LOT 45, T 10 R 7
PART OF LOTS 17 & 18 OF THE OGDEN GORE TRACT
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK

ALLTIFT LANDFILL
SITE CODE 9–15–054

TVGA

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS." JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 2005 AND PURSUANT TO THE ACCURACY STANDARDS (AS ADOPTED BY ALTA AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION), THE UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN.

DATED: June 25, 2010

Latest Revision 6/23/2011

DOUGLAS R. HAGER
PROFESSIONAL LAND SURVEYOR NO. 050204

ALTA/ACSM LAND TITLE SURVEY

PART OF LOT 45, T 10, R 7
PART OF LOTS 17 & 18 OF THE OGDEN GORE TRACT
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK

ALLTIFT LANDFILL
SITE CODE 9-15-054

PART OF L ____ S ____ T ____ R ____ OF THE ____

VILLAGE OF ____; CITY/TOWN OF BUFFALO; COUNTY OF ERIE; STATE OF NEW YORK

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN SPECIFICATION PLAN OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

REVISION		
DATE	JOB	DESCRIPTION
6/23/11	2010.0229.00	LANDFILL CAP PLOTTED

SBL No. AS SHOWN

TVGA CONSULTANTS
One Thousand Maple Road,
Elma, NY 14059-9530
www.tvga.com
P.716.655.8842 F.716.655.0937

DRAWN BY WNW SCALE 1"=100'
CHECKED BY DRH JOB NO. 2010.0229.00
CAD FILE 26055-2010.DWG FIELD/OFFICE DATE 6/25/10

BOOK 366 PAGE 105 MAP 56055-2010

ARTICLES OF MERGER
OF
ADRIAN REALTY COMPANY
(A Pennsylvania corporation) NON-DOM
(the "Subsidiary Corporation")

INTO

CSX TRANSPORTATION, INC.
(A Virginia corporation)
("CSXT")

Pursuant to the provisions of Sections 13.1-719 and 720 of the Code of Virginia.

1. The Plan of Merger is attached as Exhibit A ("Plan of Merger").

2. No shareholder approval of the Plan of Merger is required by the Subsidiary Corporation or CSXT as CSXT owns 100% of the outstanding shares of the Subsidiary Corporation. .

3. This merger is permitted by Section 13.1-719 of the Code of Virginia. All conditions required by such laws, and any other applicable provisions, have been satisfied.

4. CSXT, the surviving corporation, will continue to be a domestic corporation.

5. There is no change in the stated capital of CSXT as the surviving corporation.

The undersigned declares that the facts herein are true as of the 22nd day of December, 1995.

CSX TRANSPORTATION, INC.

By: _____
Vice President

By: _____
Assistant Corporate Secretary

ADRIAN REALTY COMPANY

By: _____
Vice President

By: _____
Assistant Corporate Secretary

PLAN OF MERGER
OF
ADRIAN REALTY COMPANY

INTO

CSX TRANSPORTATION, INC.

Plan of Merger dated as of the December 22, 1995, by and between CSX TRANSPORTATION, INC., a Virginia corporation ("Parent Corporation") and ADRIAN REALTY COMPANY, a Pennsylvania corporation ("Subsidiary Corporation"), such corporations being herein sometimes collectively called the "Constituent Corporations."

WHEREAS, the Parent Corporation owns 100% of the outstanding shares of stock of the Subsidiary Corporation and the Board of Directors of the Parent Corporation deemed it advisable that the Subsidiary Corporation be merged into the Parent Corporation, which shall also be called the "Surviving Corporation";

NOW, THEREFORE, the Subsidiary Corporation shall be merged with and into the Parent Corporation under and subject to the terms hereinafter set forth:

I. Terms, Conditions and Effective Date of Merger

1.1 Following adoption of this Plan of Merger by the Boards of Directors of the Constituent Corporations, the parties hereto shall cause Articles of Merger to be filed with the State Corporation Commission of the Commonwealth of Virginia and Articles of Merger to be filed with the Secretary of State of the Commonwealth of Pennsylvania. The separate existence of the Subsidiary Corporation shall cease as of the close of business on the Effective Date (as hereinafter defined) and the Subsidiary Corporation shall thereupon be merged into the Surviving Corporation.

1.2 The Effective Date of the Merger shall be December 29, 1995.

II. Conversion and Cancellation of Shares

2.1 The manner and basis of converting, cancelling or exchanging shares of capital stock of the Constituent Corporations on the Effective Date shall be as follows:

(a) Each share of the Parent Corporation's common stock and preferred stock which is issued and outstanding on the Effective Date shall remain issued and outstanding as capital stock of the Surviving Corporation.

(b) Each share of the Subsidiary Corporation's common stock shall be cancelled and no new shares or other securities or obligations or cash shall be issuable in respect thereto.

III. Effect of the Merger

3.1 Upon the Effective Date the assets and liabilities of Subsidiary Corporation shall be taken on the books of the Surviving Corporation at the amount at which they shall at the time be carried

on the books of Subsidiary Corporation, subject to such adjustments, if any, as may be necessary to conform to the accounting procedures of the Surviving Corporation.

3.2 After the Effective Date, the Surviving Corporation shall thereupon and thereafter possess all the rights, privileges, immunities, powers, franchises and authority, both public and private, of each of the Constituent Corporations. All property of every description, including every interest therein and all obligations of or belonging or due to each of the Constituent Corporations, shall thereafter be taken and deemed to be transferred to and vested in the Surviving Corporation without further act or deed. The officers of the Surviving Corporation, on behalf of Subsidiary Corporation, shall execute and deliver or cause to be executed and delivered after the Effective Date all such deeds and other instruments and shall take or cause to be taken such further action as the Surviving Corporation may deem necessary or desirable in order to confirm the transfer to and vesting in the Surviving Corporation of title to and possession of all such rights, privileges, immunities, franchises and authority. All rights of creditors of each Constituent Corporation shall be preserved unimpaired, limited in lien to the property affected by such liens immediately prior to the Effective Date, and the Surviving Corporation shall thereafter be liable for all the obligations of each of the Constituent Corporations.

3.3 The Articles of Incorporation of the Parent Corporation shall not be amended in any respect by reason of this Plan of Merger, and said Articles of Incorporation shall constitute the Articles of Incorporation of the Surviving Corporation until further amended in the manner provided by law.

0050336 - 7

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

December 29, 1995

The State Corporation Commission finds the accompanying articles submitted on behalf of

CSX TRANSPORTATION, INC.

to comply with the requirements of law. Therefore, it is ORDERED that this

CERTIFICATE OF MERGER

be issued and admitted to record with the articles in the office of the Clerk of the Commission. Each of the following:

ADRIAN REALTY COMPANY (A PA CORPORATION NOT QUALIFIED IN VA)

is merged into CSX TRANSPORTATION, INC., which continues to exist under the laws of VIRGINIA with the name CSX TRANSPORTATION, INC.. The existence of each non-surviving entity ceases, according to the plan of merger.

The certificate is effective on December 29, 1995.

STATE CORPORATION COMMISSION

By T. V. Morrison

Commissioner

MERGACPT
CIS20436
95-12-29-0089

CHRISTOPHER L. JACOBS, ERIE COUNTY CLERK

ROBERT BILTEKOFF
ACCOUNT #:
RECEIPT: 12033141
DATE: 3/1/2012 TIME: 2:55:15 PM

DUPLICATE RECEIPT

ITEM - 01 774
RECD: 3/1/2012 2:55:15 PM
FILE: 2012050389 BK/PG D 11218/5702
SKYWAY AUTO PARTS INC
Recording Fees 65.50
Sub. Total 65.50

TOTAL DUE	$65.50
PAID TOTAL	$65.50
PAID CHECK	65.50
Check #1511:	65.50

REC BY: Francine
COUNTY RECORDER

Return to Box 277

DECLARATION OF COVENANTS AND RESTRICTIONS

THIS COVENANT, is made the 15th day of February 2012, by **Skyway Auto Parts, Inc.**, a corporation organized and existing under the laws of the State of New York and having an office for the transaction of business at 637 Tifft Street, Buffalo, New York.

WHEREAS, Skyway Auto Parts, Inc. ("Skyway") is the owner of property at 637 Tifft Street in the City of Buffalo which is part of lands conveyed by Samuel P. Redino, Nicholas J. Redino and Wayne Rosen to Skyway Auto Parts by deed recorded in the Erie County Clerk's Office on October 25, 1982 in Book 09170 of Deeds at Page 00229, and which is identified by tax parcel number 133.09-1-17, hereinafter referred to as "the Skyway Property"; and

WHEREAS, the Skyway Property is adjacent to an inactive hazardous waste disposal site which is known as the Alltift Landfill Site which is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 915054; and

WHEREAS, the New York State Department of Environmental Conservation (the "Department") set forth a remedy to eliminate or mitigate all significant threats to the environment presented by hazardous waste disposal at the Alltift Landfill Site in a Record of Decision ("ROD") dated March 27, 1995, and such ROD also required that the Skyway Property be subject to certain restrictive covenants.

WHEREAS, the Alltift Landfill Site is the subject of a consent order issued by the New York State Department of Environmental Conservation on January 28, 1998; and

NOW, THEREFORE, Skyway, for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on the Erie County Tax Map Number 133.09-1-17 attached to this Declaration as Appendix A and made a part hereof.

Second, unless prior written approval by the New York State Department of Environmental Conservation or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency", is first obtained, no person shall engage in any activity that will, or that reasonably is anticipated to, prevent or interfere significantly with any proposed, ongoing or completed program at the Alltift Landfill Site or that will, or is reasonably foreseeable to, expose the public health or the environment to a significantly increased threat of harm or damage.

Third, the owner of the Skyway Property shall provide notice of any change of use of the Skyway Property to the Department or the Relevant Agency at least 60 days before the change of use.

Fourth, the owner of the Skyway Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the owner first obtains permission to do so from the Department or

the Relevant Agency.

Fifth, the owner of the Skyway Property shall allow access to the Skyway Property for maintenance of the components of the remedy and shall allow access by the Department or the Relevant Agency to evaluate maintenance of required controls.

Sixth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Skyway Property and shall provide that the owner, and its successors and assigns, consents to the enforcement by the Department or the Relevant Agency of the prohibitions and restrictions that are required to be recorded, and hereby covenants not to contest the authority of the Department or the Relevant Agency to seek enforcement.

Seventh, any deed of conveyance of the Skyway Property, or any portion thereof, shall recite, unless the Department or the Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

Skyway Auto Parts Inc.

By: Frank L. Dragone

Frank L. Dragone, Secretary/Treasurer

STATE OF NEW YORK)
) ss:
COUNTY OF ERIE)

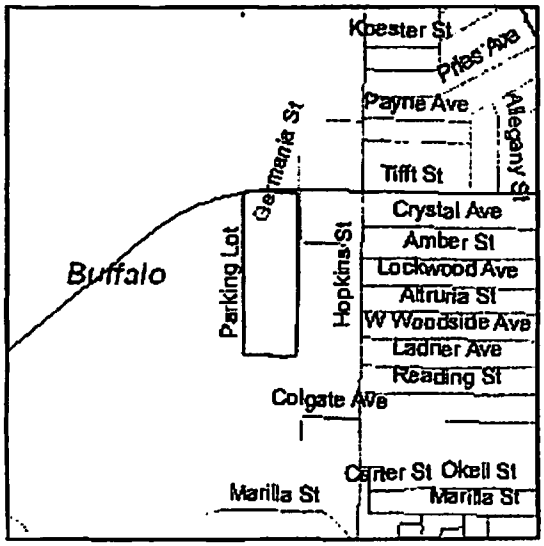
On the 15 day of February, in the year 2012, before me the undersigned, personally appeared Frank L. Dragone, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by hi/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public State of New York

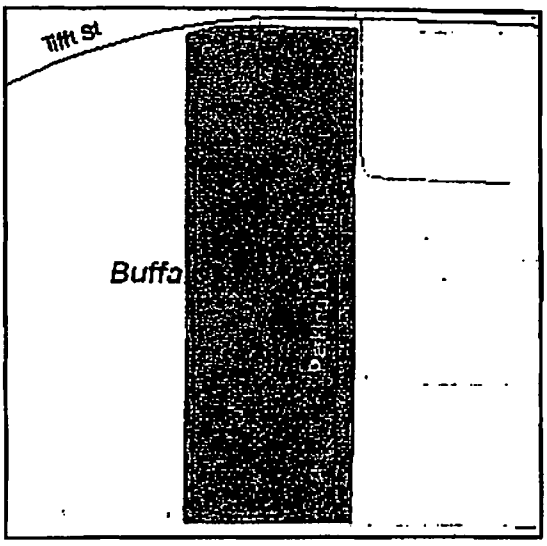
ROBERT A. BILTEKOFF
Notary Public, State of New York
Qualified in Erie County
My Commission Expires 02/12/20 14

Erie County On-Line Mapping System
Parcel Detail Report

Address: 637 TIFFT
SBL: 133.09-1-17
Report generated: 10/19/2011 4:15:20 PM



Parcel Overview Map



Parcel Detail Map

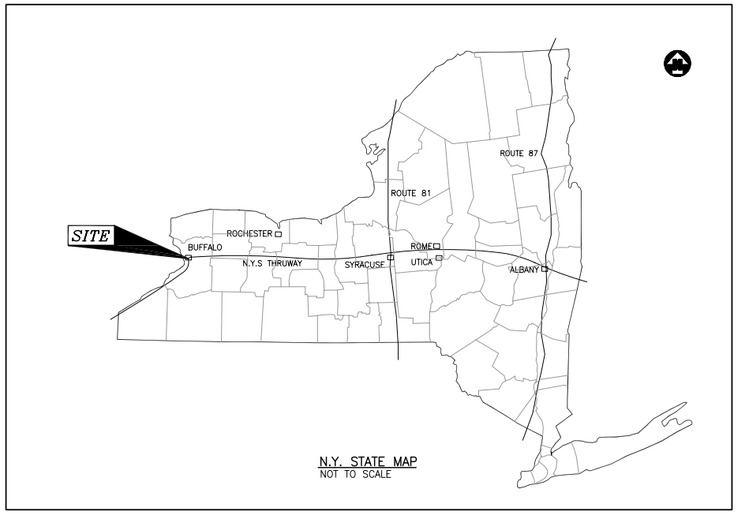
APPENDIX A
RECORD DRAWINGS

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION
RECORD DRAWINGS
BUFFALO, NEW YORK

SITE No 9-15-054
and
SITE No 9-15-046B

Prepared for:

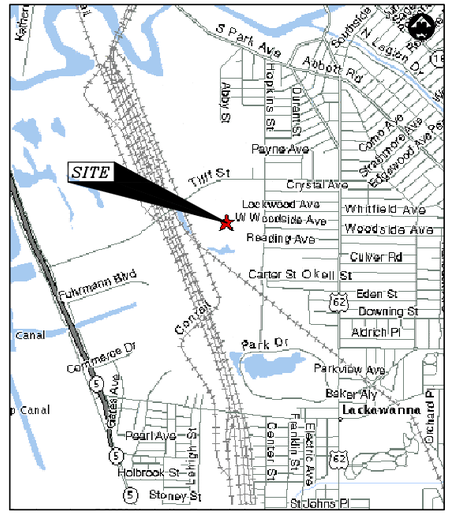
HONEYWELL
Morristown, New Jersey



SITE VICINITY MAP

INDEX OF DRAWINGS

DRAWING No.	TITLE
G-01	TITLE SHEET AND SITE LOCATION MAP
C-01	EXISTING CONDITIONS SITE MAP
C-02	SUBGRADE EXCAVATION/DREDGING PLAN (1 OF 2)
C-03	SUBGRADE EXCAVATION/DREDGING PLAN (2 OF 2)
C-04	GAS VENTING LAYOUT PLAN
C-05	CAP PANEL LAYOUT
C-06	FINAL GRADE PLAN (1 OF 2)
C-07	FINAL GRADE PLAN (2 OF 2)
C-08	WETLAND HABITAT RESTORATION PLAN
C-09	GROUNDWATER COLLECTION TRENCH PROFILE
C-10	SECTIONS AND DETAILS
C-11	SECTIONS AND DETAILS
C-12	SECTIONS AND DETAILS
C-13	SECTIONS AND DETAILS
C-14	SECTIONS AND DETAILS
C-15	SECTIONS AND DETAILS
C-16	PUMP DISCHARGE TO SEWER SITE PLAN AND DETAILS
C-17	PUMP DISCHARGE TO SEWER SITE PLAN AND DETAILS
C-18	PUMP DISCHARGE TO SEWER SYSTEM P&ID AND DETAILS
C-19	PUMP DISCHARGE TO SEWER SHED LOCATION AND DETAILS
E-01	PUMP DISCHARGE TO SEWER ELECTRICAL SCHEMATIC WIRING DIAGRAM AND DETAILS
E-02	PUMP DISCHARGE TO SEWER ELECTRICAL SECTIONS AND DETAILS



SITE LOCATION MAP

No XREFs
P:\Honeywell\440788 Alltift Landfill\Cad (From Buffalo)\AS-BUILT\41821G01.DWG; 12/8/05; Steve

Rev	Date	Description	By
1	12/05	RECORD DRAWING	WJL
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 741821
Designed EWM
Drawn MAB
Checked EWM
Reviewed WJL
Approved ____
Reg. No. ____
Date ____

Issue Certification

PARSONS
100 LAWRENCE BELL DRIVE, SUITE 104
AMHERST, NEW YORK 14221
PHONE: (716) 633-3470
FAX: (716) 633-3474

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

TITLE SHEET AND SITE LOCATION MAP

DRAWING NO. G-01 | REV. 2

NOTES:

1. VERTICAL ACCURACIES CAN BE EXPECTED TO BE +/− ONE HALF CONTOUR INTERVAL FOR CONTOUR LINES, SPOT ELEVATIONS +/− 0.01 FEET.
2. GROUND SURVEY DATA USED AS THE BASIS FOR THE PHOTOGRAMMETRIC MAPPING, WAS PROVIDED BY MCINTOSH & MCINTOSH P.C., LOCKPORT, NEW YORK ON 5/8/89. VERTICAL DATUM IS NGVD 1929.
3. ALL RAILROAD TRACKS DEPICTED ADJACENT TO THE WESTERN SITE BOUNDARY MAY NOT EXIST.
4. VERTICAL DATUM REFERS TO NGVD 1929.
5. HORIZONTAL DATUM IS NEW YORK STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD1927.
6. THIS MAP BASED ON PHOTOGRAMMETRIC MAPPING BY ERDMAN, ANTHONY ASSOCIATES 1989, GROUND SURVEY DATA USED FOR THE PHOTOGRAMMETRIC MAPPING PROVIDED BY McINTOSH & McINTOSH, P.C. 1989,. BASE MAPPING AUGMENTED BY PROPERTY SURVEY DATA PROVIDED BY TVGA, 1997. EXISTING SITE CONTOURS BASED ON POST CLEARING INSTRUMENT SURVEY COMPLETED MARCH 10, 2005 BY CLEAR CREEK LAND SURVEYING, L.L.C.

LEGEND

PROPERTY LINE
EXISTING FENCING
RAILROAD TRACKS
SHRUBS AND BRUSH
POWER POLE
600 EXISTING 10FT. CONTOUR
EXISTING 1FT. CONTOUR
600.9 SPOT ELEVATION
SB 9 SOIL BORING LOCATION
MW 13D MONITORING WELL LOCATION
PZ 1 PIEZOMETER LOCATION
MW-1 NEW MONITORING WELL

100 50 0 100 200
SCALE: 1"=100'

RECORD DRAWING

Rev	Date	Description	By
3	3/06	RECORD DRAWING	TCA
2	10/28/04	REVISED MONITORING WELL LOCATIONS	WGS
1	10/19/04	NYSDEC SUBMITTAL	WJL
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, N.Y. 14221
PHONE: (716) 633-7074
FAX: (716) 633-7195

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

EXISTING CONDITIONS SITE PLAN

DRAWING NO. C-01
REV. 3

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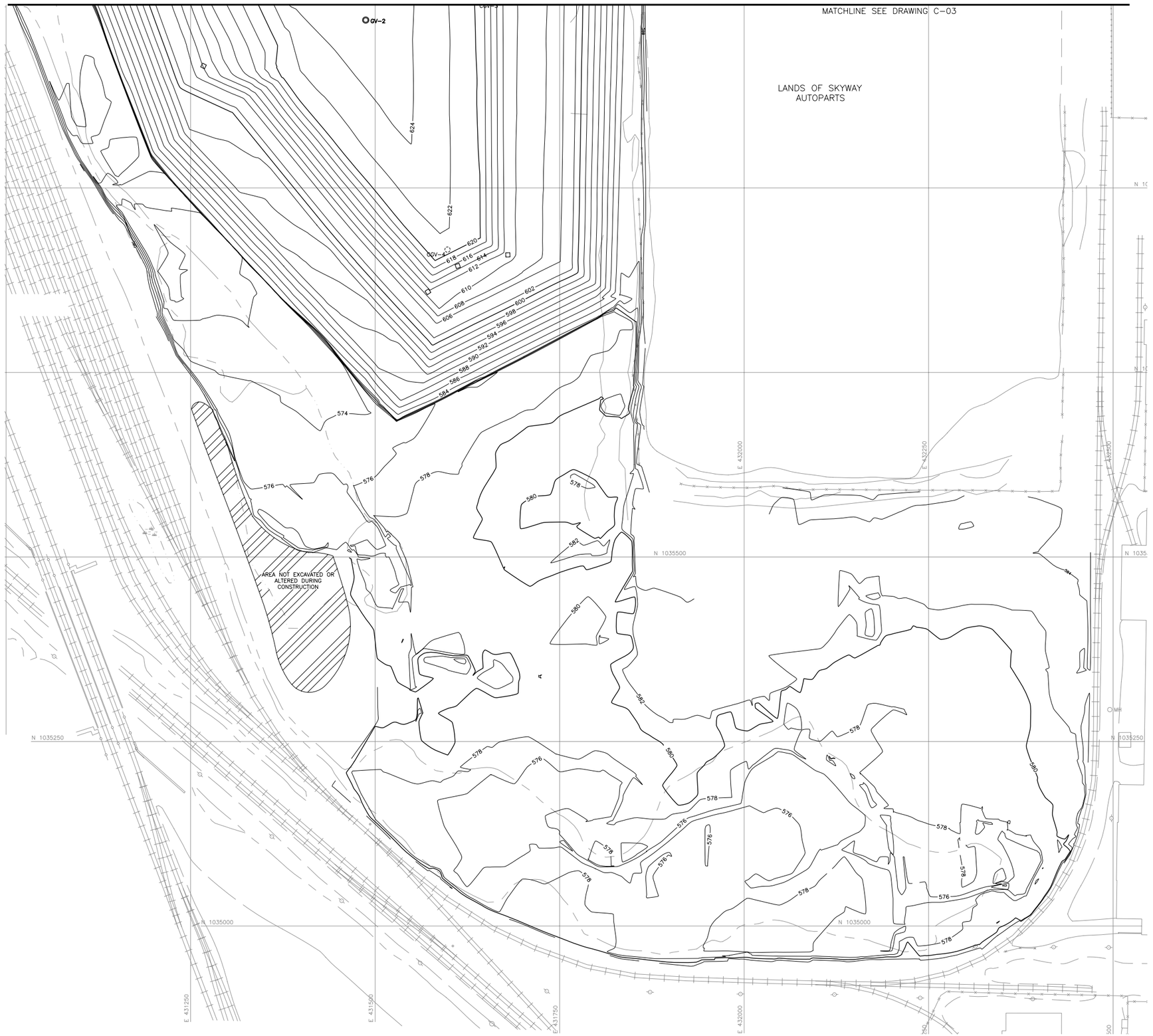
No XREFs



GRID NORTH

NOTES:

1. REFER TO DRAWING C-1 FOR GENERAL NOTES AND LEGEND.
2. WETLAND CONTOURS ARE ACTUAL FOLLOWING THE EXCAVATION OF WASTE.
3. LANDFILL CONTOURS SHOWNARE ACTUAL FOLLOWING FINAL SUBGRADE PREPARATION.

LEGEND

580 — 20FT. CONTOUR LINE

576 — 2FT. CONTOUR LINE

50 25 0 50 100

SCALE: 1"=50'

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Req. No. 0477438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

PARSONS

100 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, NEW YORK
PHONE: (716) 633-3463
FAX: (716) 633-1818

Honeywell

HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

SUBGRADE EXCAVATION/DREDGING PLAN (1 OF 2)

DRAWING NO. C-02

REV. 1

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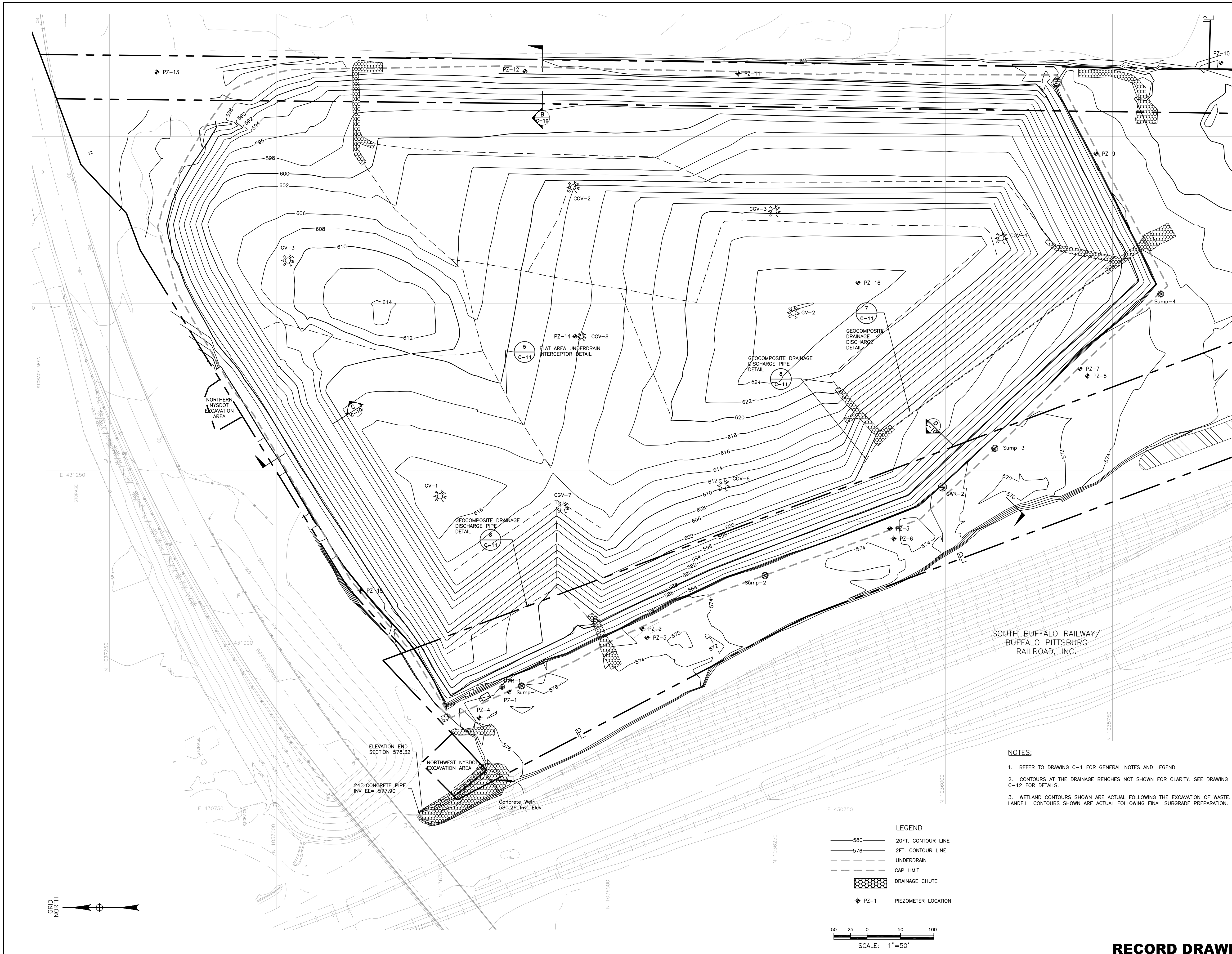
No. XREFs



NOTES:

1. REFER TO DRAWING C-1 FOR GENERAL NOTES AND LEGEND.

2. CONTOURS AT THE DRAINAGE BENCHES NOT SHOWN FOR CLARITY. SEE DRAWING C-12 FOR DETAILS.

3. WETLAND CONTOURS SHOWN ARE ACTUAL FOLLOWING THE EXCAVATION OF WASTE. LANDFILL CONTOURS SHOWN ARE ACTUAL FOLLOWING FINAL SUBGRADE PREPARATION.

LEGEND

580	20FT. CONTOUR LINE
576	2FT. CONTOUR LINE
	UNDERDRAIN
	CAP LIMIT
	DRAINAGE CHUTE
PZ-1	PIEZOMETER LOCATION

50 25 0 50 100

SCALE: 1"=50'

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed EWM/RD
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, N.Y. 14221
PHONE: (716) 633-7074
FAX: (716) 633-7195

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

SUBGRADE EXCAVATION/DREDGING PLAN
(2 OF 2)

DRAWING NO. C-03 | REV. 1

P:\440788\CAD\Record Drawings\41821C03.dwg, 03/23/06 at 11:41, MAB, 1=1
No XREFs

STONE AREA

ALLTIFT STREET

STONE ROAD

STORAGE AREA

CGV-2

CGV-3

CGV-4

CGV-8

CGV-7

CGV-6

GV-1

GV-2

GV-3

CAPPED GAS VENT DETAIL 16 C-12

ACTIVE GAS VENT (TYP.) SEE DETAIL 15 C-12

CONDENSATE TRAP DETAIL 21 C-12

GWCT Sump-1

GWCT Sump-2

GWCT Sump-3

GWCT Sump-4

GWR-1

GWR-2

Concrete Weir 580.26 Inv. Elev.

E 431250

E 431000

E 430750

N 1037250

N 1037000

N 1036750

N 1036500

N 1036250

N 1036000

N 1035750

LEGEND

- SUBBASE CONTOURS
- GAS VENT PIPE
- CAP LIMIT
- GV-2 6" ACTIVE GAS VENT
- CGV-1 4" CAPPED GAS VENT
- CONDENSATE TRAP

50 25 0 50 100

SCALE: 1"=50'

GRID NORTH

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/01	ISSUED FOR BIDDING	EWM

Job No. 44078B
Designed EWM
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 0474338
Date APRIL 2006

Issue Certification for Record Drawing Purposes

PARSONS

100 LAWRENCE MILL DRIVE, SUITE 104
WILMINGTON, MA 01887
PHONE: (978) 657-0075
FAX: (978) 657-0076

Honeywell

HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

GAS VENTING LAYOUT PLAN

DRAWING NO. C-04

REV. 1

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No XREFs

0	3/06	RECORD DRAWING	TCA
Rev	Date	Description	By

Job No. 440788
Designed EWM
Drawn JAR
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

PARSONS

100 LAWRENCE BELL DRIVE, SUITE 104
AMHERST, NEW YORK 14221
PHONE: (716) 633-3500
FAX: (716) 633-3508

Honeywell

HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

CAP PANEL LAYOUT PLAN

DRAWING NO. C-05

REV. 0

RECORD DRAWING

LEGEND

CAP LIMIT

LINER REPAIR LOCATION

SCALE: 1"=50'

GRID NORTH

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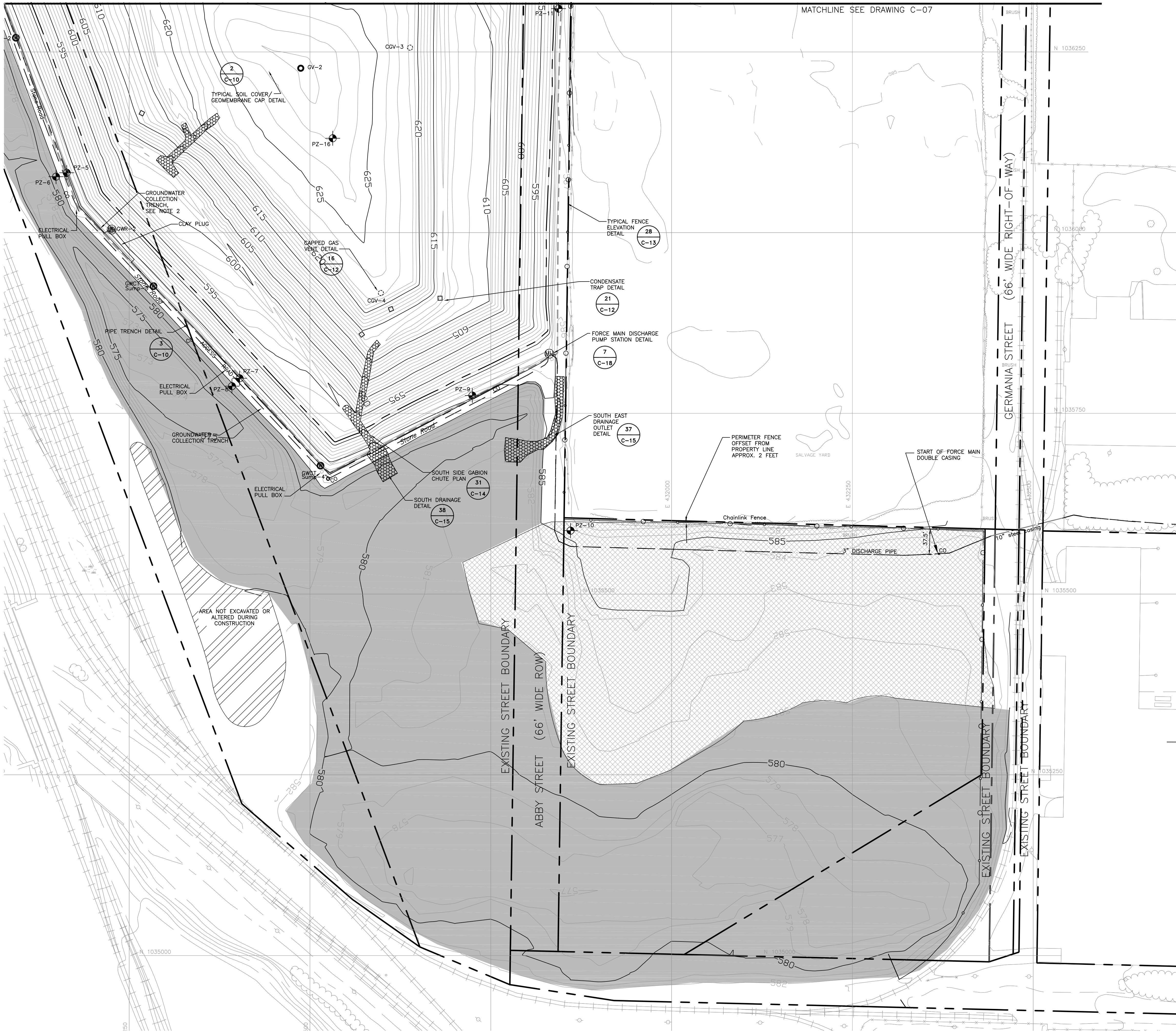

NOTES:

1. REFER TO DRAWING C-01 FOR GENERAL NOTES AND LEGEND.
2. REFER TO DRAWING C-16 FOR GROUNDWATER COLLECTION TRENCH/ DISCHARGE PIPE LOCATION AND DETAILS.
3. REFER TO DRAWING C-01 FOR LOCATIONS OF BACKGROUND MONITORING WELLS MW-1 AND MW-2.

GRID NORTH

LEGEND

- MW-6 — NEW MONITORING WELL
- PZ-3 — NEW PIEZOMETER WELL
- GV-1 — GAS VENT WITH TURBINE VENTILATOR
- CGV-1 — CAPPED GAS VENT
- CONDENSATE TRAP
- DRAINAGE CHUTE
- CAP LIMIT
- AREA COVERED WITH COVER SOIL AND 6 INCHES TOPSOIL
- AREA COVERED WITH 6 INCHES OF TOPSOIL

SCALE: 1"=50'

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed EWM
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, N.Y. 14221
PHONE: (716) 633-7074
FAX: (716) 633-7195

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

FINAL GRADE PLAN
(1 OF 2)

DRAWING NO. C-06 | REV. 1

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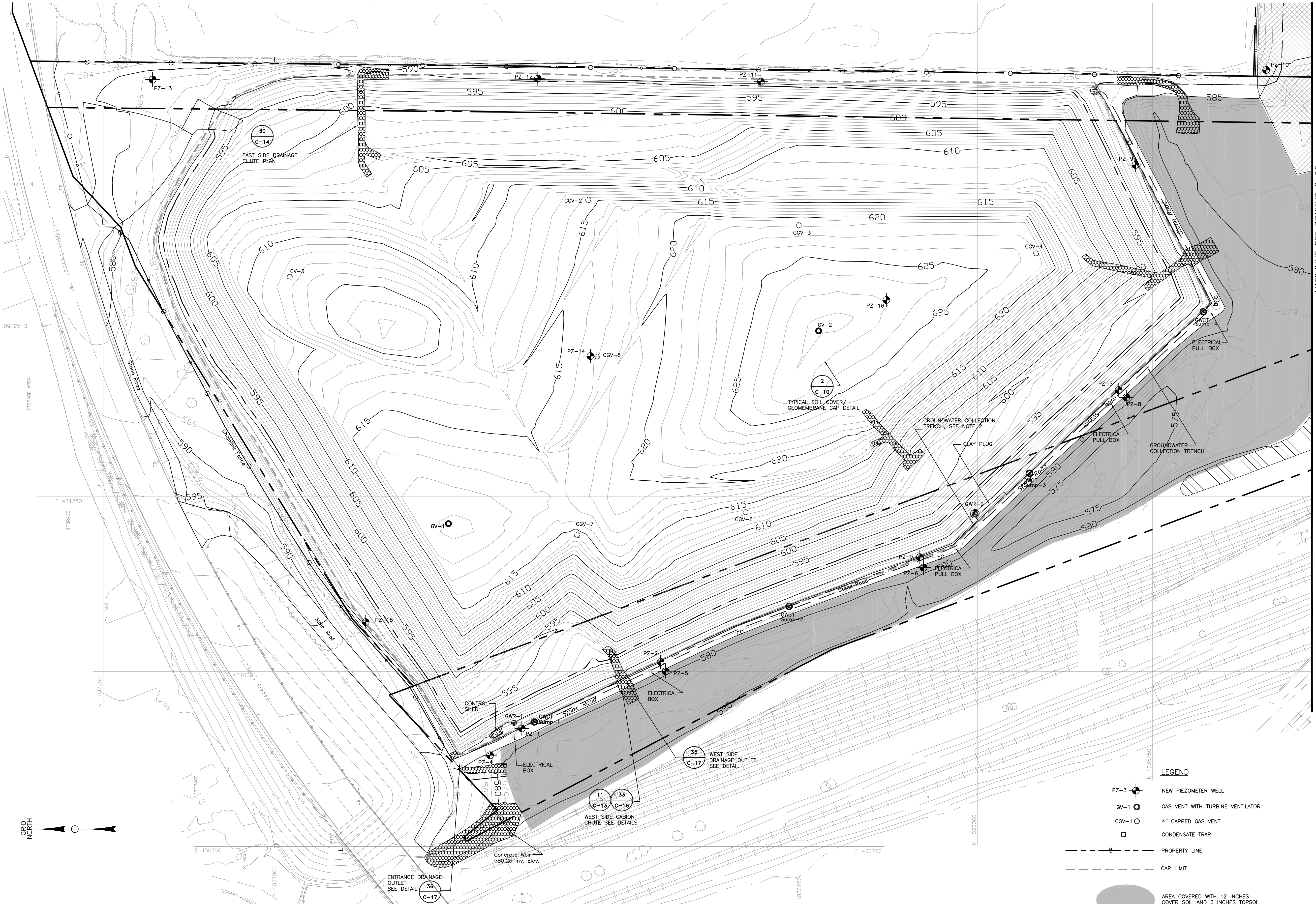


SCALE: 1"=50'

50 25 0 50 100

LEGEND

PZ-3	NEW PIEZOMETER WELL
GV-1	GAS VENT WITH TURBINE VENTILATOR
CGV-1	4" CAPPED GAS VENT
	CONDENSATE TRAP
	PROPERTY LINE
	CAP LIMIT
	AREA COVERED WITH 12 INCHES COVER SOIL AND 6 INCHES TOPSOIL
	AREA COVERED WITH 6 INCHES OF TOPSOIL

NOTES:

1. REFER TO DRAWING C-01 FOR GENERAL NOTES AND LEGEND.
2. REFER TO DRAWING C-16 FOR GROUNDWATER COLLECTION TRENCH/DISCHARGE PIPE LOCATION AND DETAILS.
3. REFER TO DRAWING C-01 FOR LOCATIONS OF MONITORING WELLS MW-1 AND MW-2.
4. CONTOURS ARE FINAL SURFACE ELEVATIONS.

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM/TF
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, N.Y. 14221
PHONE: (716) 633-7074
FAX: (716) 633-7195

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

FINAL GRADE PLAN
(2 OF 2)

DRAWING NO. C-07 REV. 1

NOTES:

1. REFER TO DRAWING C–1 FOR GENERAL NOTES AND LEGEND.
2. SEED LANDFILL CAP AREA WITH GRASS SEED MIX PER SECTION 02990.
3. CONTOURS SHOWN ARE FINAL GRADES.

GRID NORTH

WETLAND PLANTING NOTES:

THE FOLLOWING IS A PLANTING GUIDE FOR THE WETLAND RESTORATION OF THE ALLTIFT/RAMCO SITE.

PLANTING:
The planting of bare root herbaceous vegetation is most suitable in the fall or spring. Plant replacement wetland plantings during the most suitable season following construction after the hydrology has been established.

Within each planting area, the specified plant species should be planted in spaced groupings. Each plant species must be established in the shallow range of its known tolerance. Plant material planted too deep may break dormancy and grow, but will not survive to establish as planned.

Seeding and mulching of the wet meadow and upland areas must be completed prior to inundation of the wet meadow area. Seeding and mulching should be conducted in the early fall, prior to the first killing frost. Wet meadow seed locations should be broadcast seeded (not hydroseeded) Hydroseeding is acceptable for the upland areas.

ZONE	HABITAT	ELEVATION	INUNDATION	SPECIES	PLANTING RATE
1	UPLAND	581 – 585	NONE	Smooth brome grass Timothy grass Perennial rye grass Birdfoot trefoil	15 lb/acre 15 lb/acre 15 lb/acre 8 lb/acre
2	WET MEADOW EMERGENT MARSH	579 – 581	0 IN – 1 FT	Fox sedge Rice cut–grass Bull rush Soft rush Wool grass Bearded sedge	Seed rate of 3.25 lb/acre
				Smart weed Reed canary grass Fowl manna grass Meadow fescue Red Top grass	15 lb/acre 10 lb/acre 15 lb/acre 20 lb/acre 3 lb/acre
3	DEEP WATER EMERGENT	577 – 579	1.0 FT – 3 FT	SEE SPECIAL PLANTING NOTES:	
4	OPEN WATER	575 – 577	3 FT – 5 FT	NONE	NA

SPECIAL PLANTING NOTES:

PLANTS (TUBERS AND RHIZOMES) CAN BE BUOYANT. PERSONNEL PLANTING THE FOLLOWING SPECIES MUST INSURE THAT THIS MATERIAL IS PLANTED AT THE PROPER DEPTH. TO PREVENT FLOATING, THE TUBERS OR RHIZOMES MUST BE EITHER WEIGHTED (HOG CLIPS OR OTHER SUCH WEIGHT) OR SECURELY PLACED INTO THE SUBSTRATE.

SPECIES:

PLANTING SUBZONE 3A: ELEVATION 578.50–579.00 (APPROX. 18 TO 24 INCHES OF WATER)

CATTAIL –
Plants grown from sprouted rhizomes.
Rhizomes should be planted in spring (March through July).
Secure plants into substrate by either weights or shoving firmly into mud.
Plant rhizomes at a rate of 6 foot on center.

GIANT BUR–REED –
Plants grown from sprouted rhizomes.
Rhizomes should be planted in spring (March through July).
Secure plants into substrate by either weights or shoving firmly into mud.
Plant rhizomes at a rate of 6 foot on centers (offset 3ft from cattail).

PLANTING SUBZONE 3B: ELEVATION 578.00–578.50 (APPROX. 12 TO 18 INCHES OF WATER)

PICKEREL WEED –
Plants grown from sprouted rhizomes.
Rhizomes should be planted in the fall (before November).
Secure plants into substrate by either weights or shoving firmly into mud.
Plant rhizomes at a rate of 6 foot on center intervals for uniformed cover over desired areas.

DUCK POTATO –
Plants grown from tubers.
Tubers should be planted in the spring (March through July) or fall before freeze–up.
Secure plants into substrate by either weights or shoving firmly into mud.
Plant at a rate of 6 foot on center (offset 3ft from pickerel weed).

PLANTING SUBZONE 3C: ELEVATION 577.00–578.00 (APPROX. 24 TO 36 INCHES OF WATER)

SAGO PONDWEED –
Plants grown from tubers.
Tubers should be planted in the spring (March – July) or before fall freeze–up.
Tubers can be pre–weighted with hog clip or fence staple to prevent floating.
Plant at a rate of 6 feet on center for uniform cover over desired areas.

SPATTERDOCK –
Plants grown from sprouted rhizomes.
Rhizomes should be planted in fall (before November).
Secure plants into substrate by either weights or shoving firmly into mud.
Plant rhizomes at a rate of 6 foot on center (offset 3ft from sago pondweed).

LEGEND

RAILROAD TRACKS

575 5FT. CONTOUR LINE

576 1FT. CONTOUR LINE

CAP LIMIT LINE

ZONE 1 ELEVATIONS BETWEEN 581 TO 585

ZONE 2 ELEVATIONS BETWEEN 579 TO 581 – 6.00 ACRES

ZONE 3 ELEVATIONS BETWEEN 577 TO 579 – 4.03 ACRES

ZONE 4 ELEVATIONS BETWEEN 575 TO 577 – 1.37 ACRES

WOODY BUFFER ZONE

80 40 0 80 160
SCALE: 1"=80'

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed EWM
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

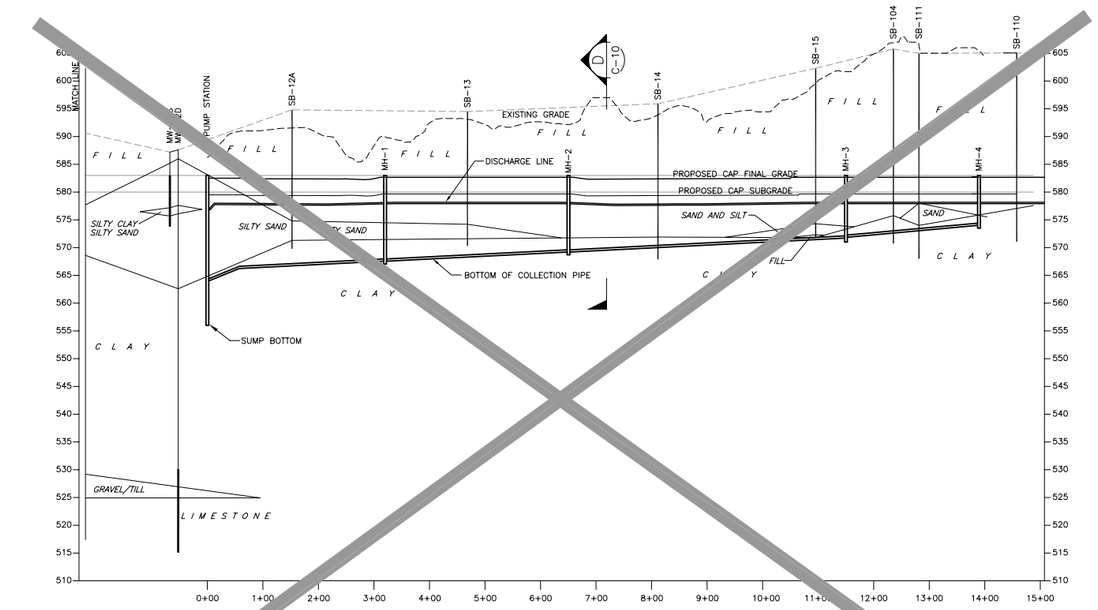
PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104
WILLIAMSVILLE, N.Y. 14221
PHONE: (716) 633-7074
FAX: (716) 633-7195

Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

WETLAND HABITAT RESTORATION PLAN

DRAWING NO. C–08
REV. 1



COLLECTION TRENCH SCHEDULE			
STATION	DESCRIPTION	INVERT	RIM EL
0+00	SUMP BOTTOM	556.00	584.00
0+00	COLLECTION PIPE	564.00	584.00
0+55	COLLECTION PIPE	566.23	–
3+	CLEANOUT MH-1	567.53	584.00
50	CLEANOUT MH-2	569.20	584.00
11+10	CLEANOUT MH-3	571.50	584.00
13+55	CLEANOUT MH-4	574.00	584.00

GROUNDWATER COLLECTION TRENCH PROFILE

SCALE AS SHOWN

LEGEND

CO CLEAN OUT

MW-12S MONITORING WELL AND SCREEN

SB-14 SOIL BORING

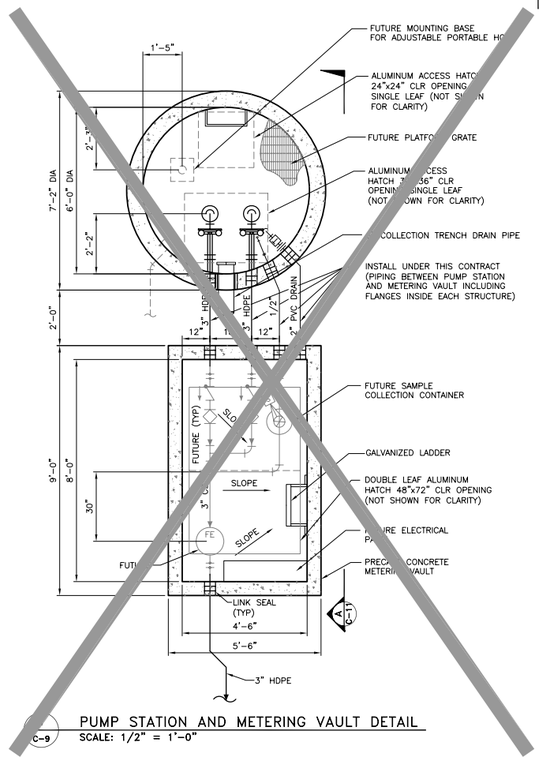
10 5 0 10 20

SCALE: 1"=10' VERTICAL SCALE

100 50 0 100 200

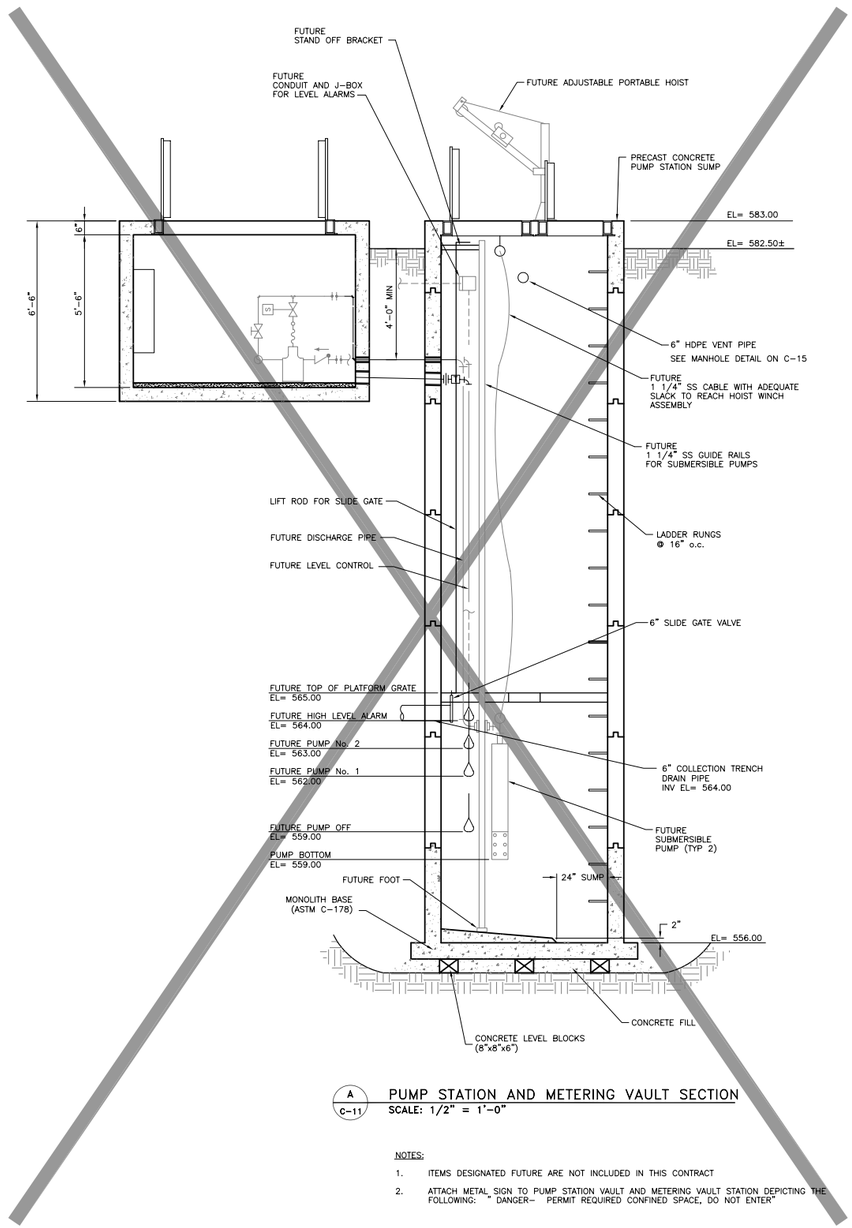
SCALE: 1"=100' HORIZONTAL SCALE

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.



C-9 PUMP STATION AND METERING VAULT DETAIL
SCALE: 1/2" = 1'-0"

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.



A C-11 PUMP STATION AND METERING VAULT SECTION
SCALE: 1/2" = 1'-0"

NOTES:

1. ITEMS DESIGNATED FUTURE ARE NOT INCLUDED IN THIS CONTRACT
2. ATTACH METAL SIGN TO PUMP STATION VAULT AND METERING VAULT STATION DEPICTING THE FOLLOWING: " DANGER- PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER"

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.

2 1 0 2 4

SCALE: 1/2"=1'-0"

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	6/03	MODIFIED WARNING SIGN AND MH VENT	TF
0	5/03	ISSUED FOR BIDDING	EMM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed WCS
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

PARSONS
100 LAWRENCE BELL DRIVE, SUITE 104
AMHERST, NEW YORK 14221
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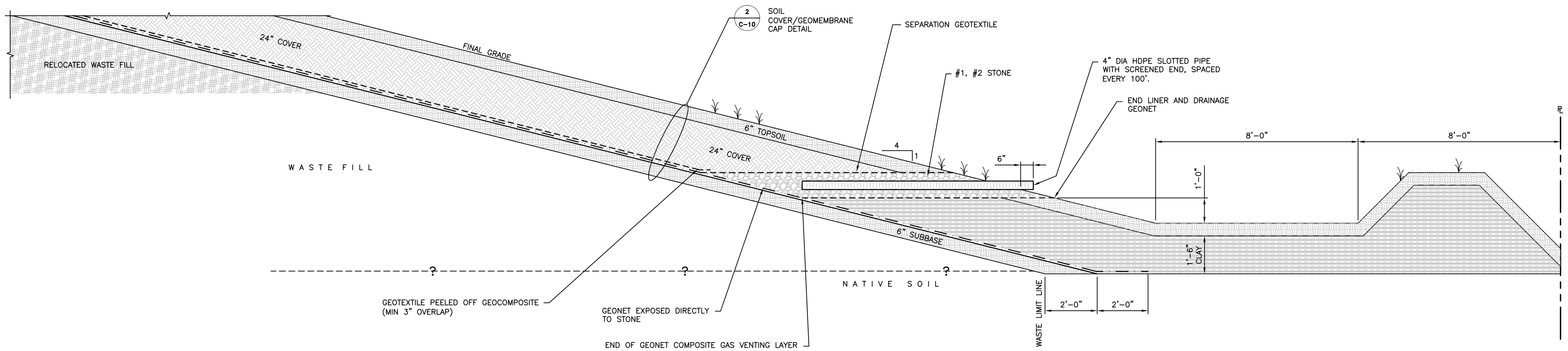
Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

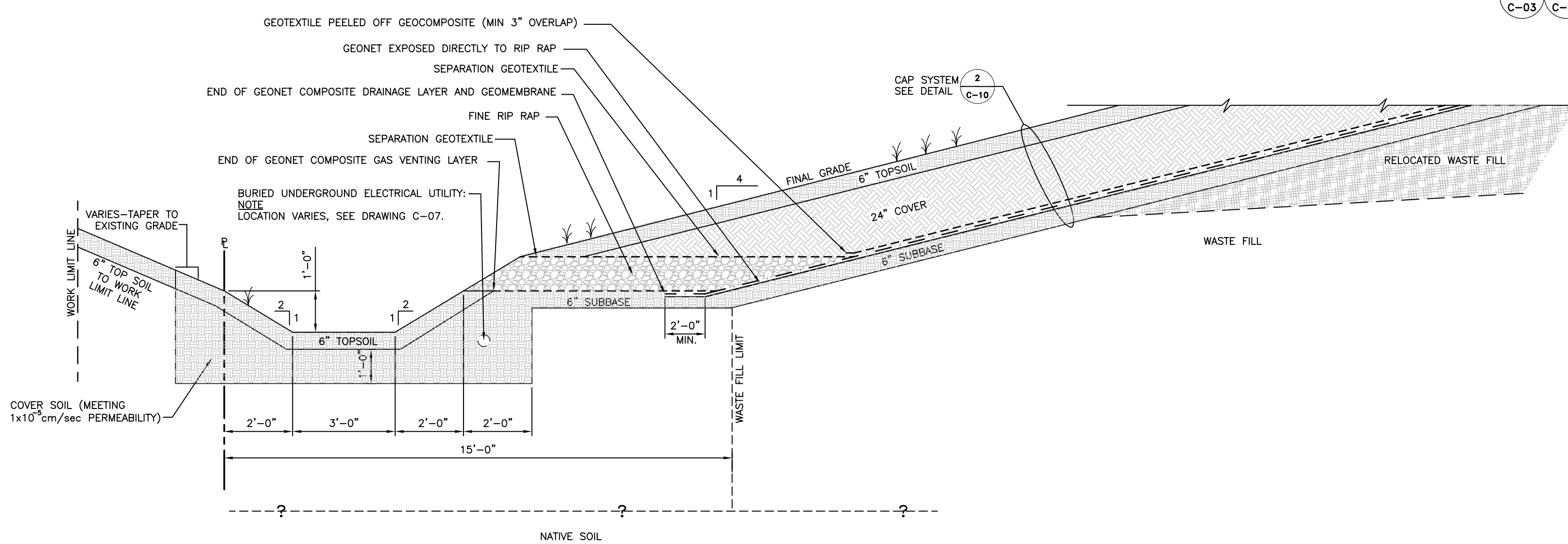
GROUNDWATER COLLECTION TRENCH PROFILE

DRAWING NO. C-09
REV. 2

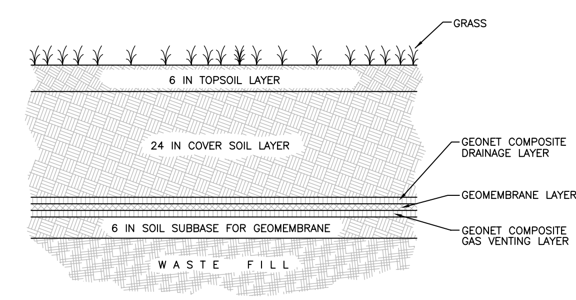
P:\440788\CAD\Record Drawings\41821C11.dwg, 03/23/06 at 14:03, mab, 1=1
No XREFs



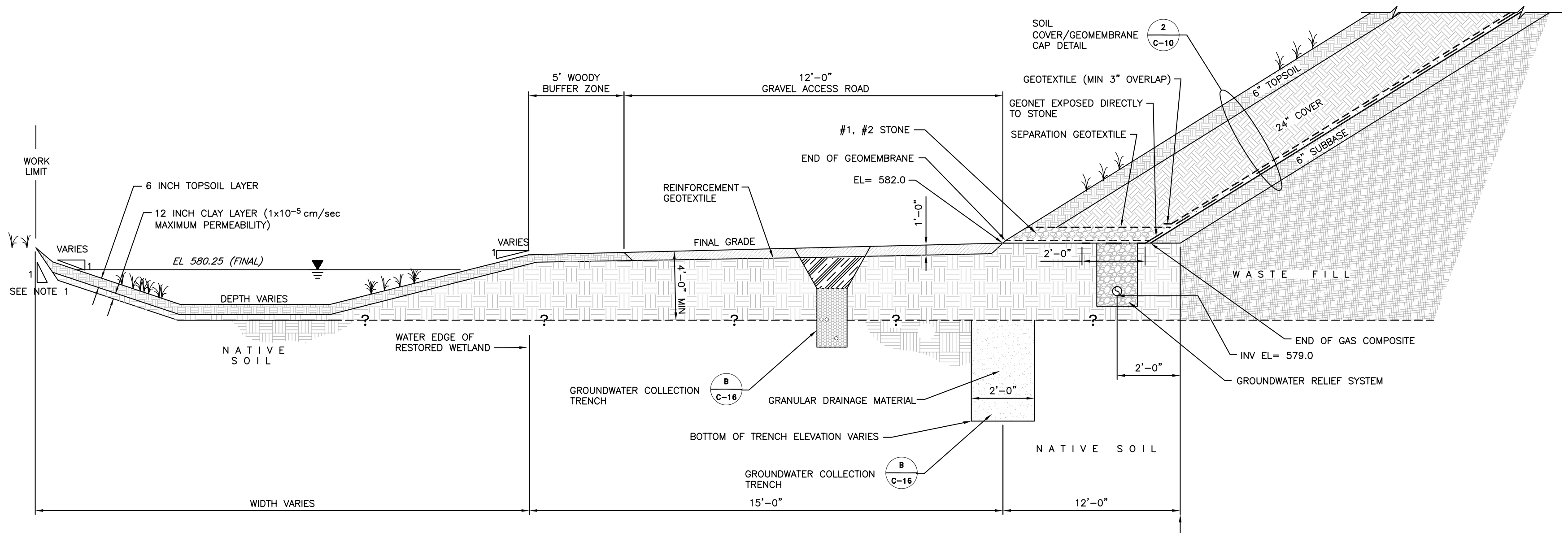
B C-03 B C-07 **CROSS SECTION NEAR SKYWAY AUTO PARTS**
NOT TO SCALE



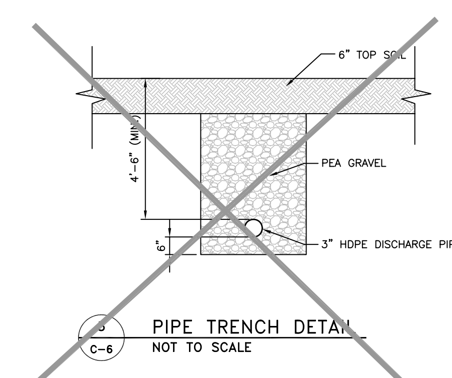
C C-03 C C-07 **TIFFT STREET SIDE OF LANDFILL SECTION**
NOT TO SCALE



2 C-06 2 C-07 2 C-10 **TYPICAL SOIL COVER/GEOMEMBRANE CAP DETAIL**
NOT TO SCALE



D C-03 D C-07 D C-09 **CROSS SECTION ALONG WETLANDS**
NOT TO SCALE



SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWINGS	TCA
1	6/03	MODIFIED GROUNDWATER COLLECTION TRENCH DETAIL	TF
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM/RD
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

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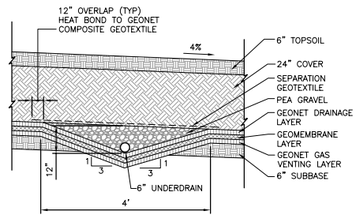
ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

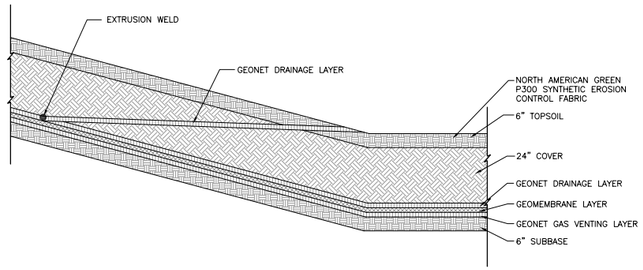
SECTIONS AND DETAILS

DRAWING NO. C-10 REV. 2



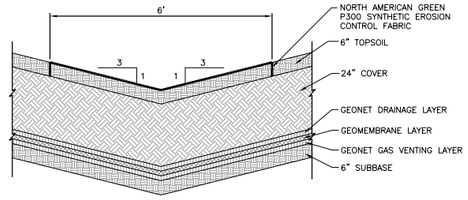
5 C-03 FLAT AREA UNDERDRAIN INTERCEPTOR DETAIL
NOT TO SCALE

NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

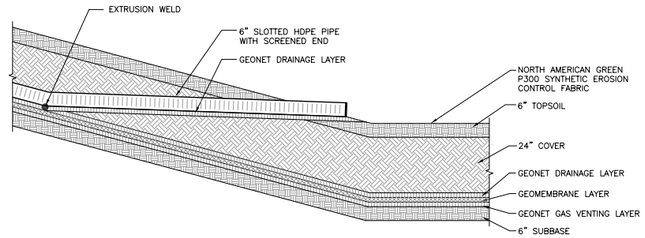


7 C-03 GEOCOMPOSITE DRAINAGE DISCHARGE DETAIL
NOT TO SCALE

NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

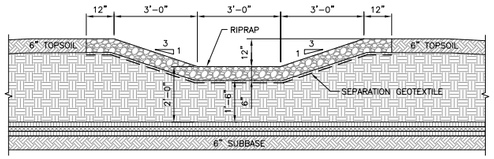


6 C-08 SURFACE DRAINAGE DETAIL
NOT TO SCALE



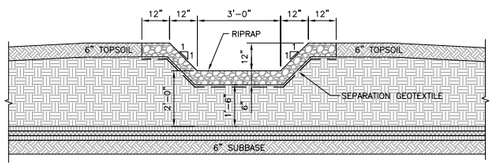
8 C-03 GEOCOMPOSITE DRAINAGE DISCHARGE PIPE DETAIL
NOT TO SCALE

NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.



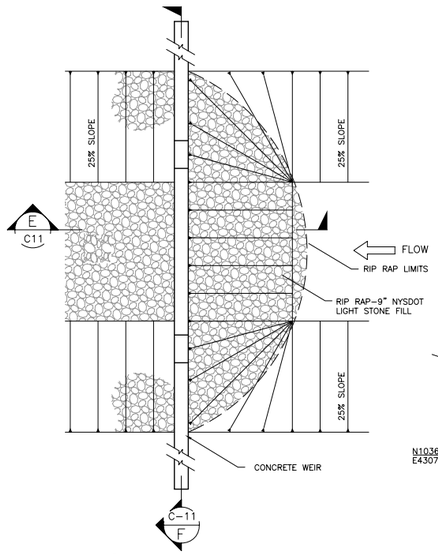
A C-14 EAST SIDE DRAINAGE CHUTE SECTION
NOT TO SCALE

NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

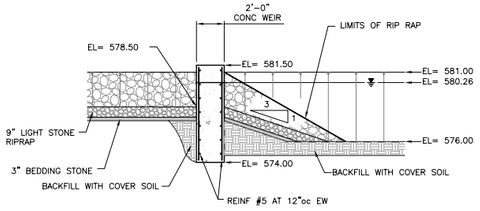


B C-14 TYPICAL DRAINAGE SECTION
NOT TO SCALE

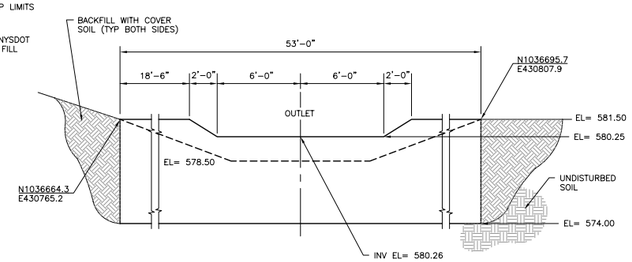
NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.



12 C-07 OUTLET WEIR DETAIL
SCALE: 1/4" = 1'-0"



E C-11 WEIR SECTION
SCALE: 1/4" = 1'-0"



F C-11 WEIR SECTION
NOT TO SCALE

4 2 0 4 8
SCALE: 1/4"=1'-0"

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWINGS	TCA
1	7/04	AS-BUILT DRAWING	MJL
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM/RD
Drawn MAB
Checked JSP
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Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

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ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

SECTIONS AND DETAILS

DRAWING NO. C-11
REV. 2

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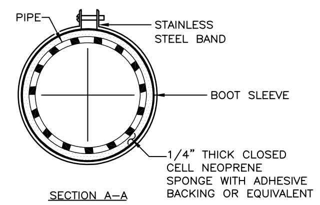
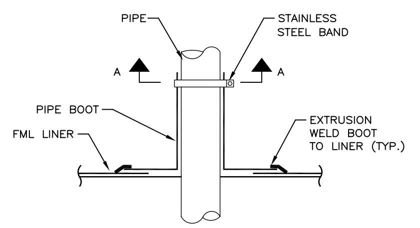
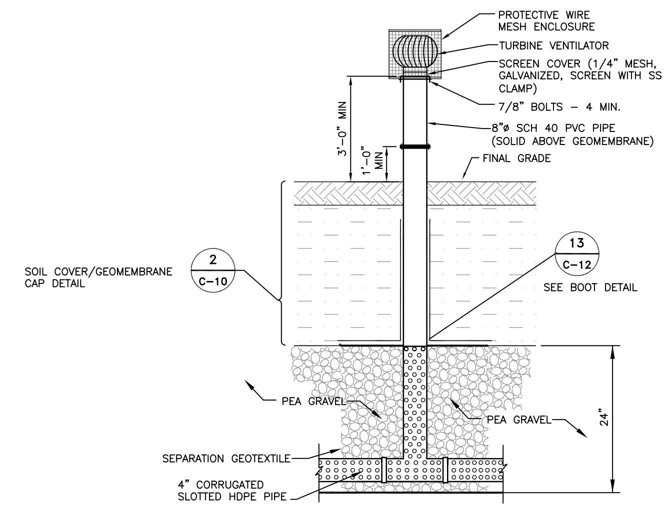
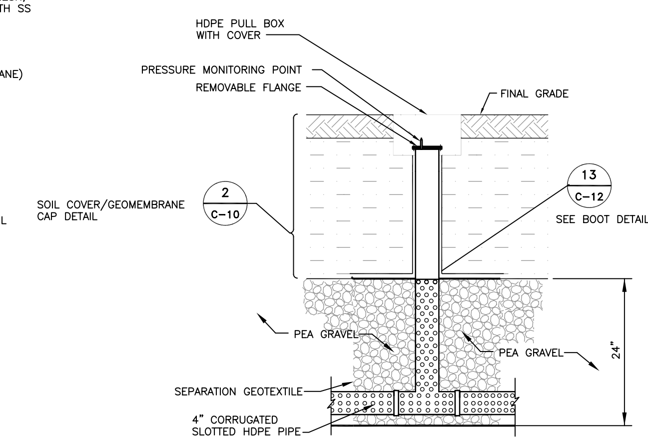




13 / C-12 BOOT DETAIL
NOT TO SCALE

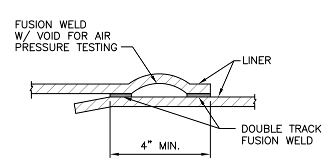


15 / C-04, 15 / C-06, 15 / C-07 ACTIVE GAS VENT DETAIL
NOT TO SCALE

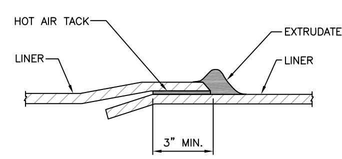


16 / C-04, 16 / C-06, 16 / C-07 CAPPED GAS VENT DETAIL
NOT TO SCALE

NOTE: THE VENTS SHALL BE KEPT OPEN DURING CONSTRUCTION. CONTRACTOR SHALL PREVENT THE VENTS FROM DAMAGE AND BLOCKAGE BY EXTENDING THE VENT AND PLACING A SCREEN ON THE END.

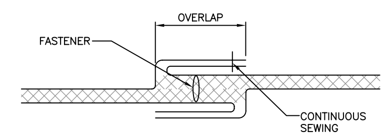


17 / C-12 FUSION DETAIL
NOT TO SCALE



NOTE: GRIND LINER PRIOR TO WELDING

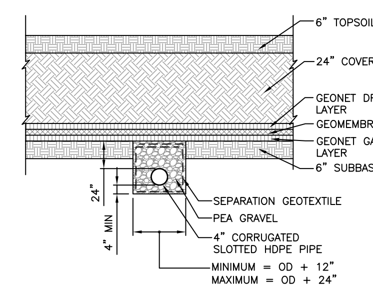
18 / C-12 EXTRUSION DETAIL
NOT TO SCALE



NOTES:

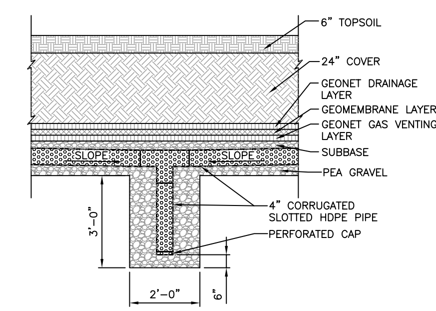
1. GEONET SIDE SEAM OVERLAP SHOULD BE A MINIMUM OF 4 INCHES.
2. GEONET SIDE SEAM FASTENER SPACING SHOULD BE A MAXIMUM OF 5 FEET.
3. GEONET END SEAMS SHOULD BE OVERLAPPED A MINIMUM OF 12 INCHES.
4. GEONET END SEAM FASTENER SPACING SHOULD BE A MAXIMUM OF 12 INCHES ACROSS THE ROLL WIDTH AND A MAXIMUM OF 6 INCHES IN THE PERIMETER CAP DRAIN TRENCH AND THE LEACHATE INTERCEPTION TRENCH.
5. END SEAMS ARE NOT ALLOWED ON SIDE SLOPES GREATER THAN 4 HORIZONTAL TO 1 VERTICAL.

19 / C-12 COMPOSITE SEAM CONNECTION DETAIL
NOT TO SCALE

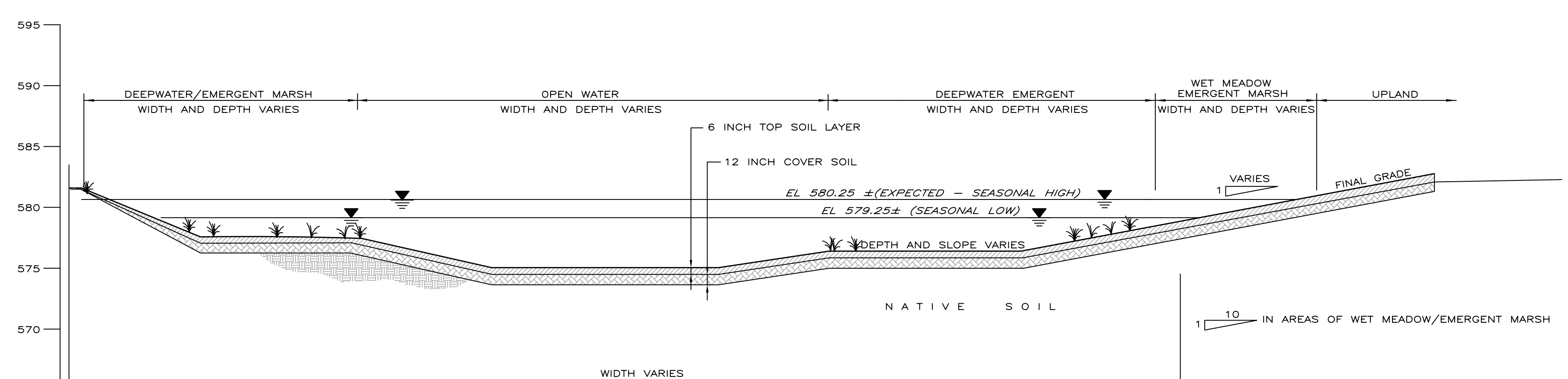


20 / C-12 GAS VENTING PIPE DETAIL
NOT TO SCALE

NOTE: GEOSYNTHETICS ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.



21 / C-04, 21 / C-06 CONDENSATE TRAP DETAIL
NOT TO SCALE



TYPICAL CROSS SECTION ALONG PROPOSED RESTORATION /MITIGATION AREA NOTES:

REFER TO DRAWING C-08 FOR DETAILED SEED AND PLANTING NOTES.

FINAL ELEVATION ACHIEVED AFTER THE PLACEMENT OF 12 INCHES COVER SOIL 6 INCHES OF CLEAN TOP SOIL MATERIAL IN THOSE AREAS WHICH ARE TO BE PLANTED.

22 / C-08 TYPICAL RESTORATION DETAIL
NOT TO SCALE

Rev	Date	Description	By
1	3/06	RECORD DRAWINGS	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed EWM/TF
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

PARSONS

Honeywell
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MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE REMEDIATION CONSTRUCTION

SECTIONS AND DETAILS

RECORD DRAWING

DRAWING NO. C–12 REV. 1

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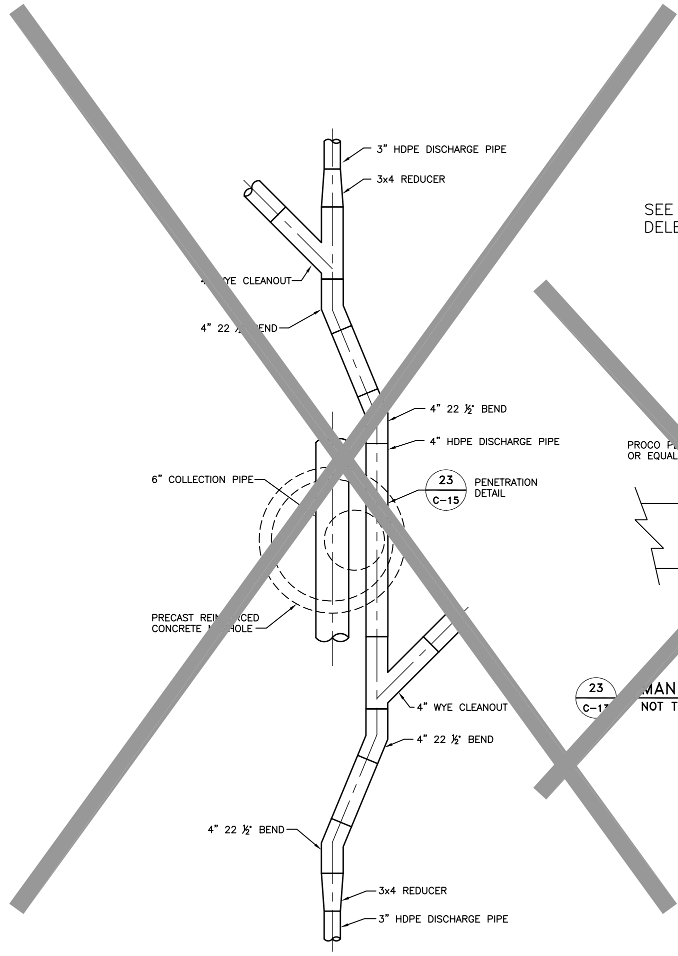
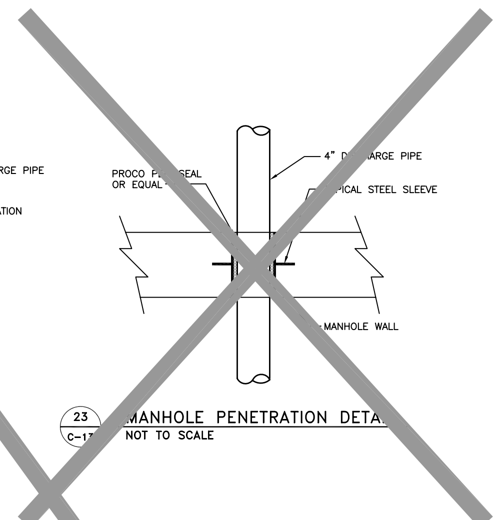
No XREFs

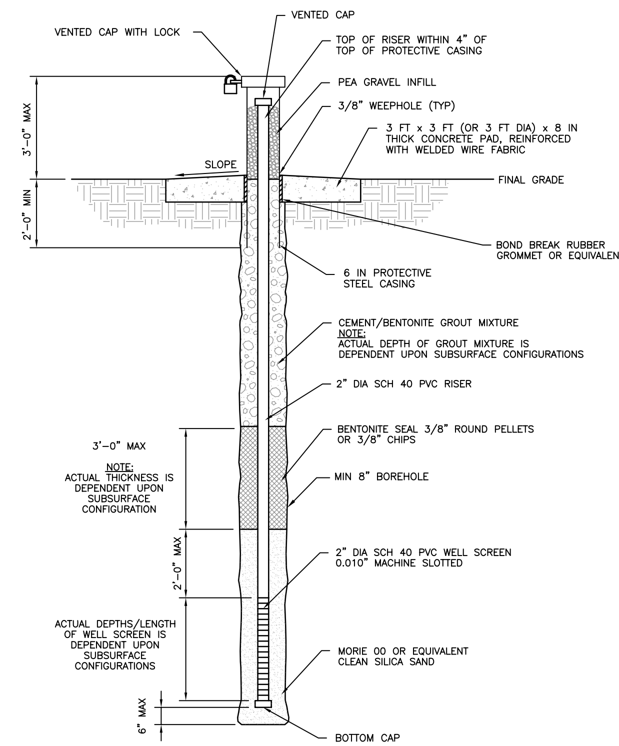


PLAN

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.



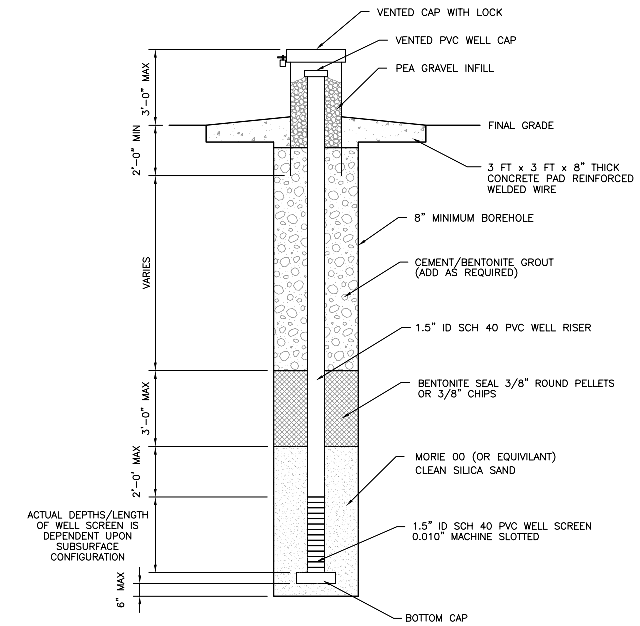
23 C-17 MANHOLE PENETRATION DETAIL
NOT TO SCALE



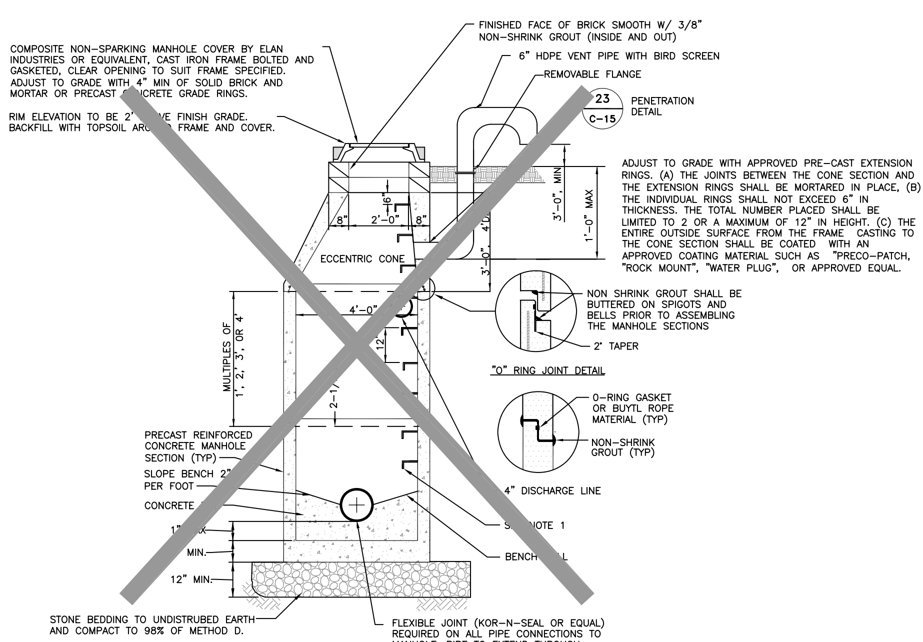
*PURSUANT TO NYSDEC PART 360 REGULATIONS, 10/93

24 C-09 OVERBURDEN MONITORING WELL DETAIL*
NOT TO SCALE
(TYPICAL FOR MONITORING WELLS MW-1 AND MW-2)

NOTE:
1. ACTUAL DEPTH OF WELLS AND LENGTHS OF SCREEN VARIES DEPENDING ON FIELD CONDITIONS. SEE FIELD BORING LOGS FOR SPECIFICS.



25 C-08 25 C-09 PIEZOMETER DETAIL
NOT TO SCALE
(TYPICAL FOR PIEZOMETERS PZ-1 THROUGH PZ-14)

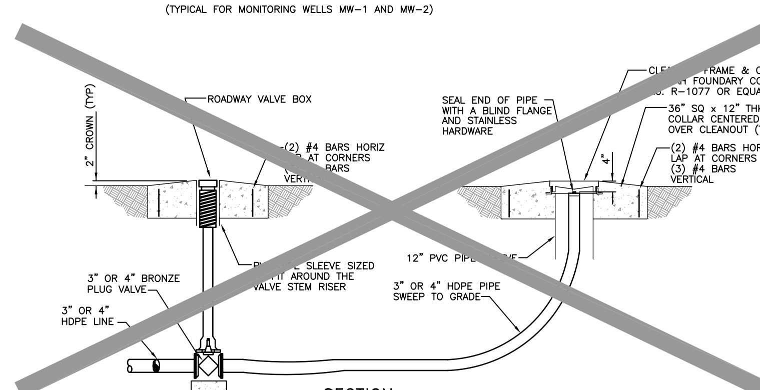


PROFILE

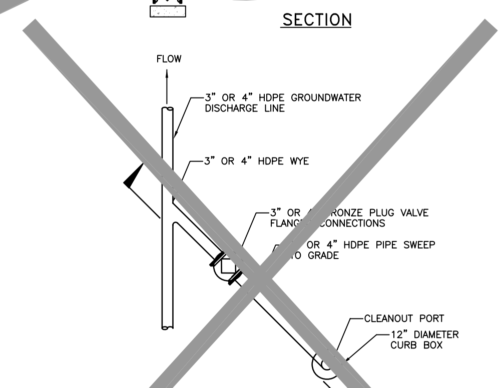
NOTE:
1. MANHOLE STEPS SHALL BE INSTALLED BY PRECAST MANHOLE MANUFACTURER.
2. PIPE SHALL NOT BE CLOSER THAN 6" TO MANHOLE JOINT SURFACES FOR BASE AND BARREL SECTIONS.
3. ATTACH METAL SIGN TO MANHOLE COVER DEPICTING THE FOLLOWING: "DANGER - PERMIT REQUIRED CONFINED SPACE, DO NOT ENTER"

26 C-7 TYPICAL MANHOLE DETAIL
NOT TO SCALE

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.



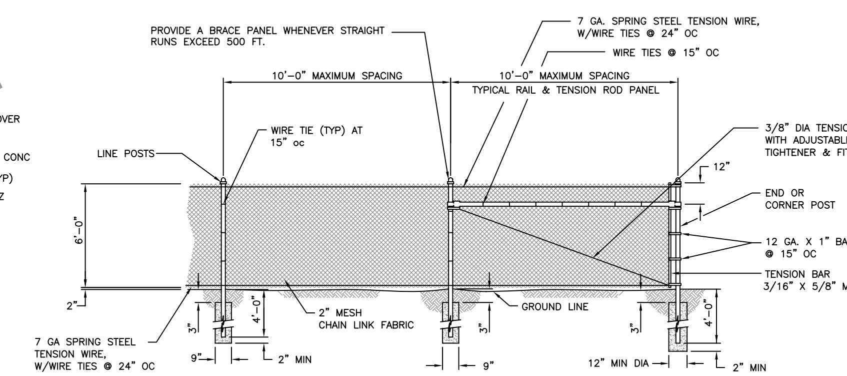
SECTION



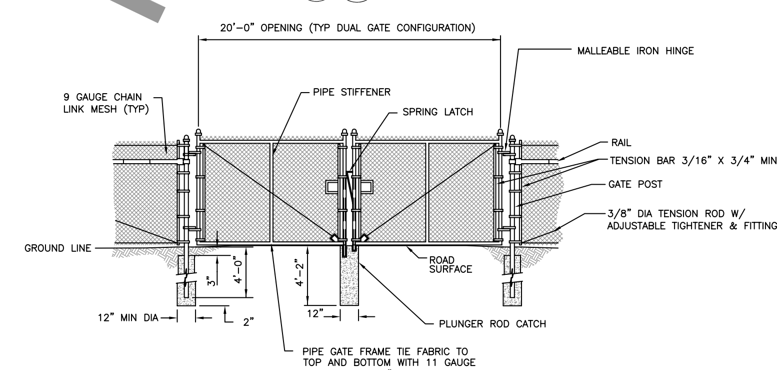
PLAN

C-9 TYPICAL DISCHARGE LINE CLEANOUT
NOT TO SCALE

SEE C-16 FOR REVISED DETAILS.
DELETED PER FIELD CHANGE FC009.



28 C-06 28 C-07 TYPICAL FENCE ELEVATION DETAIL
NOT TO SCALE



29 C-06 29 C-07 TYPICAL ENTRANCE GATE DETAIL
NOT TO SCALE

Rev	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	6/03	MODIFIED WARNING SIGN AND VENT PIPE	TF
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
Designed EWM/TF
Drawn MAB
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MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

SECTIONS AND DETAILS

RECORD DRAWING

DRAWING NO. C-13
REV. 2

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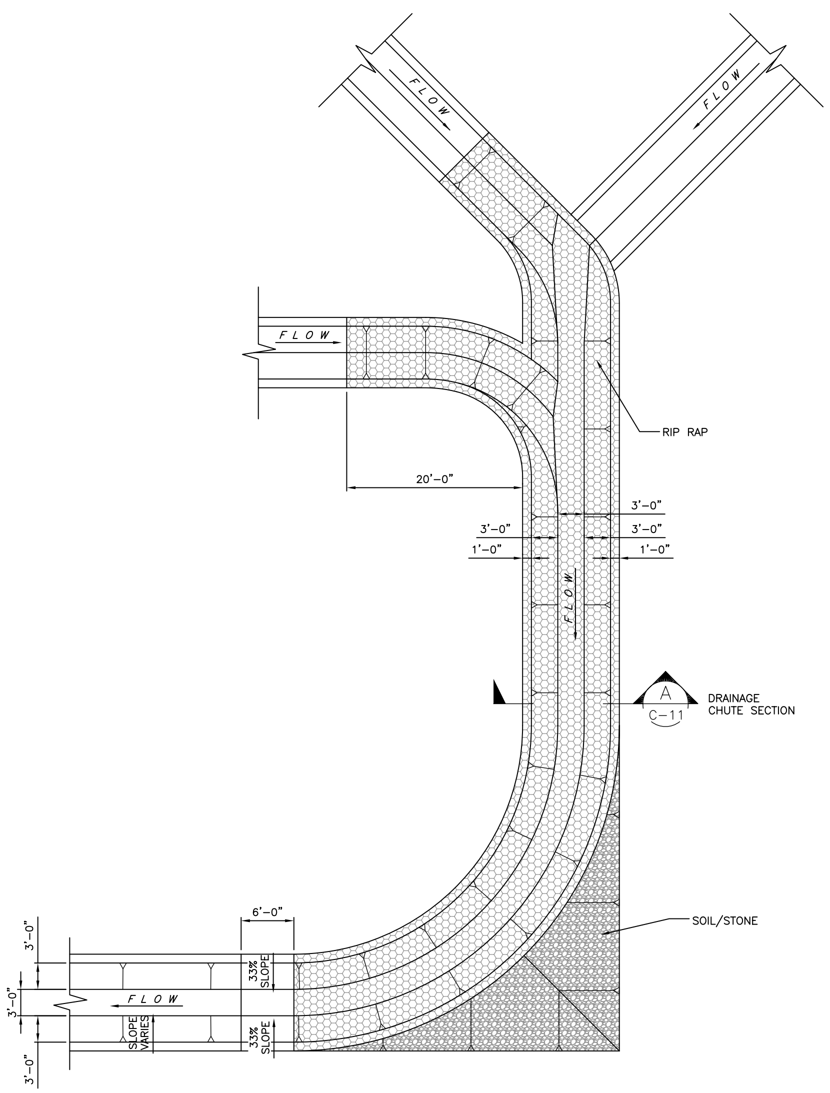
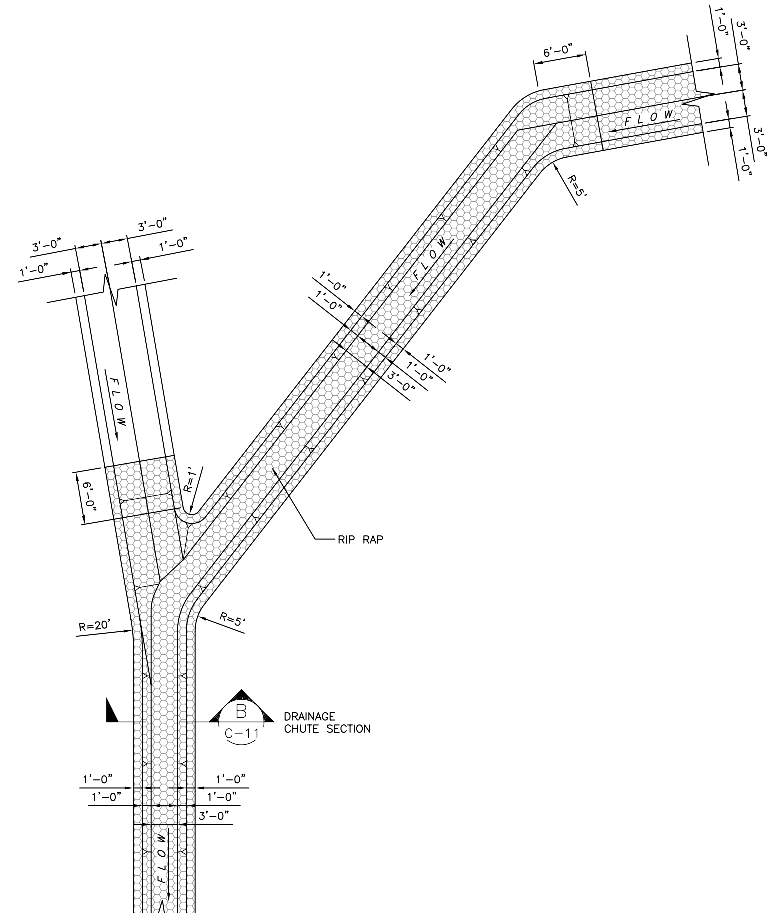
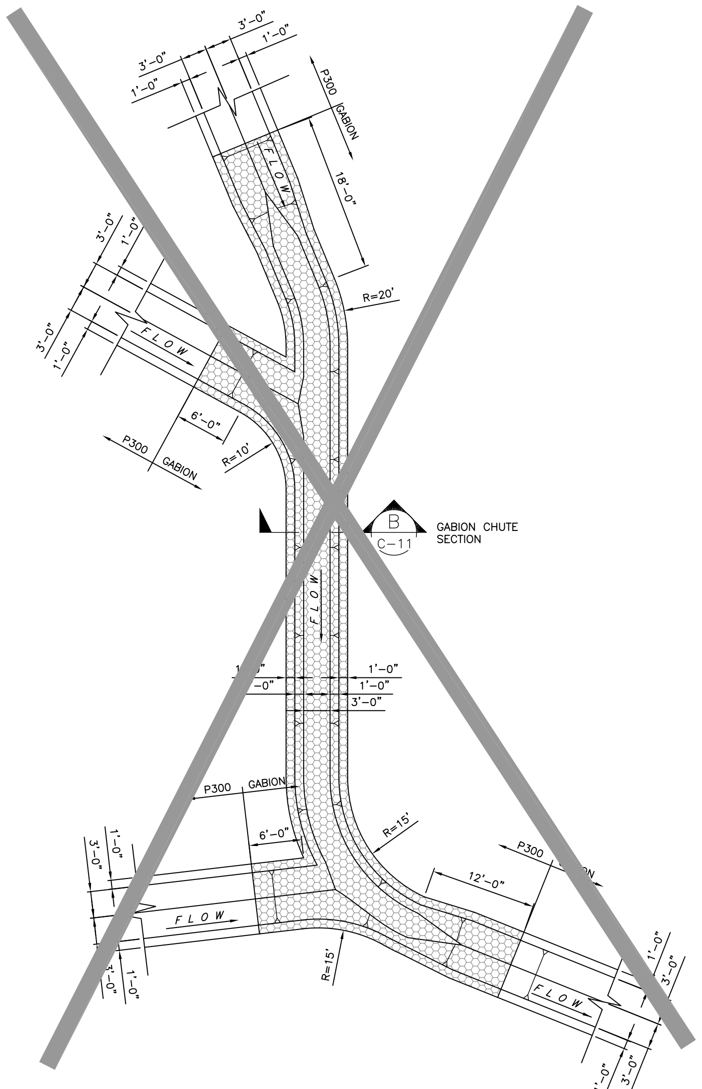
No XREFs



30 C-09 EAST SIDE DRAINAGE CHUTE PLAN
NOT TO SCALE

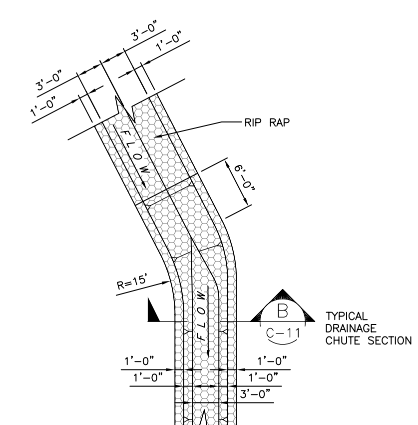


31 C-07 SOUTH SIDE CAP DRAINAGE CHUTE PLAN
NOT TO SCALE



32 C-7 CAP GABION CHANNEL PLAN
NOT TO SCALE

DELETED PER FIELD CHANGE FC010 AND/OR FC015..



33 C-07 WEST SIDE CAP DRAINAGE CHUTE PLAN
NOT TO SCALE

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Job No. 440788
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REMEDIATION CONSTRUCTION

SECTIONS AND DETAILS

RECORD DRAWING

DRAWING NO. C-14 REV. 1

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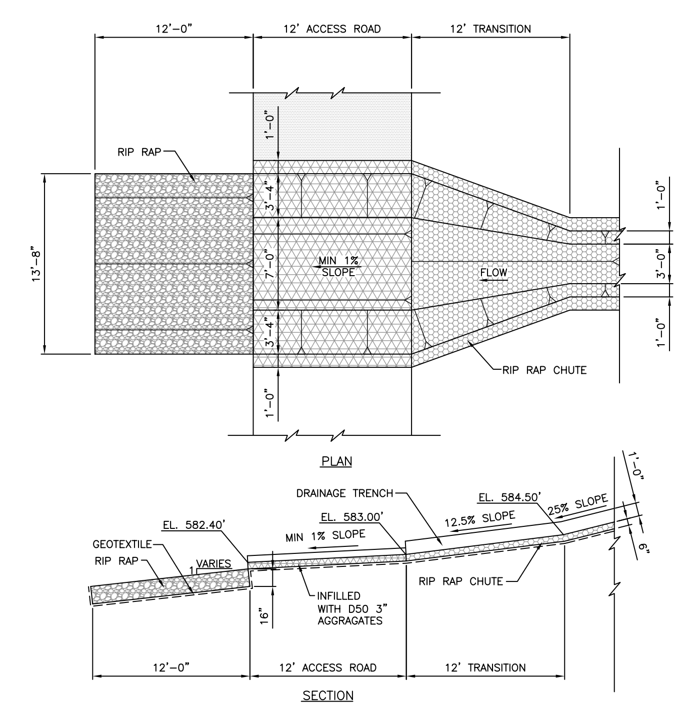
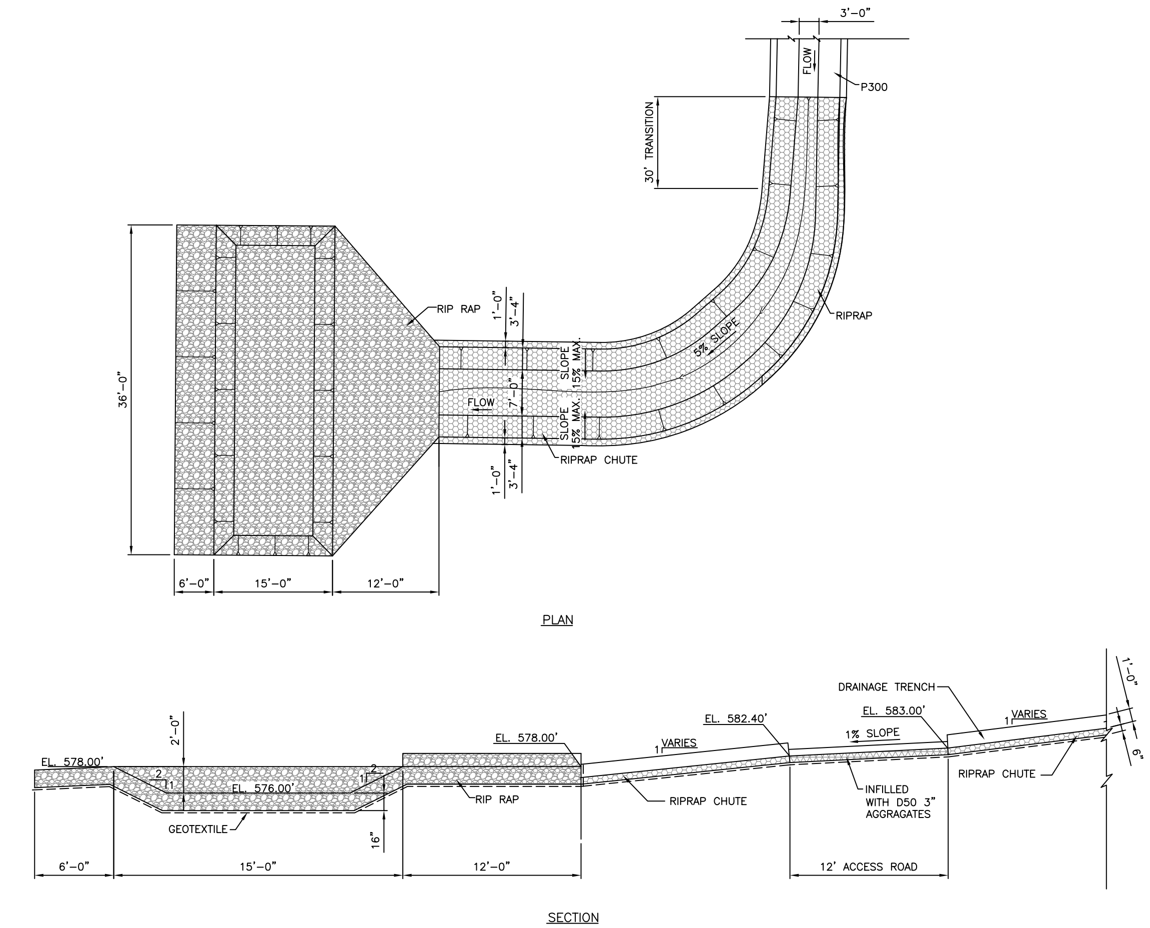


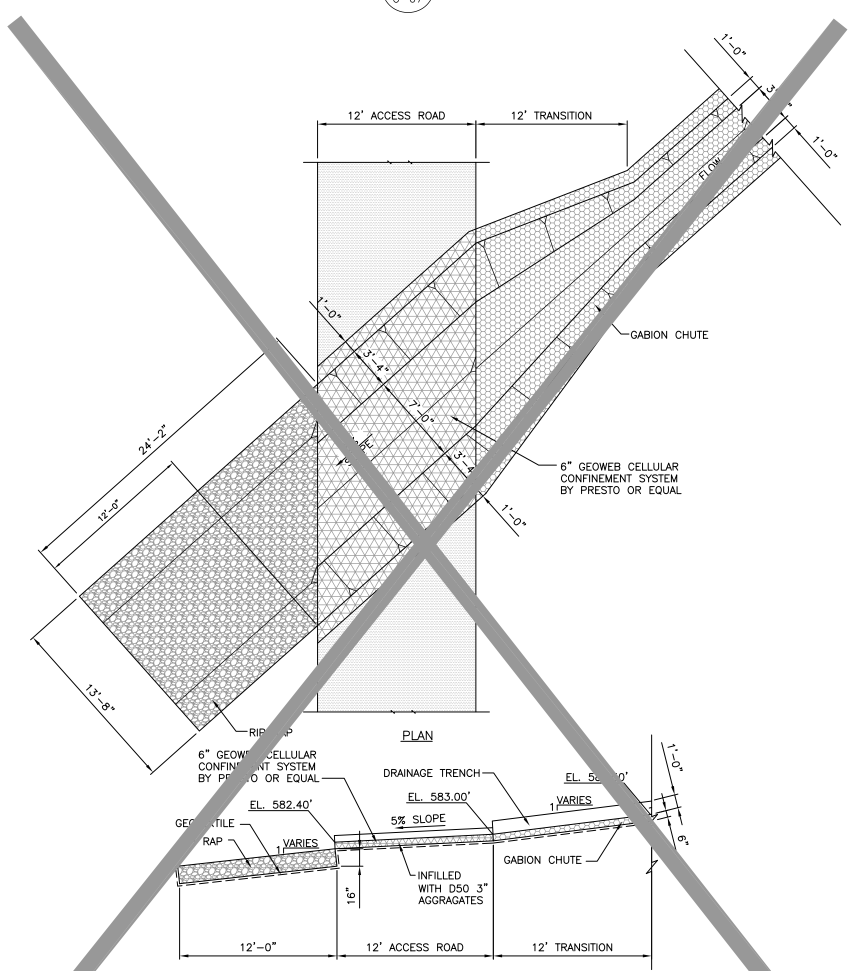
TYPICAL DRAINAGE OUTLET

DETAIL 35 / C-07

SCALE: NTS

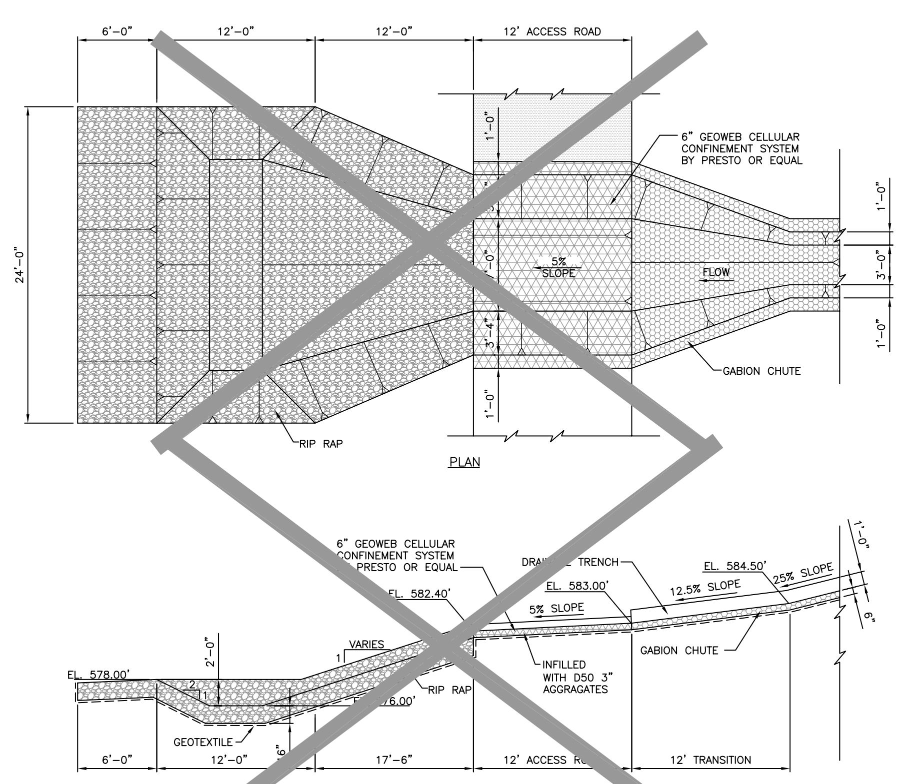


37 / C-6 — 37 / C-7 SOUTH EAST DRAINAGE OUTLET DETAIL
NOT TO SCALE

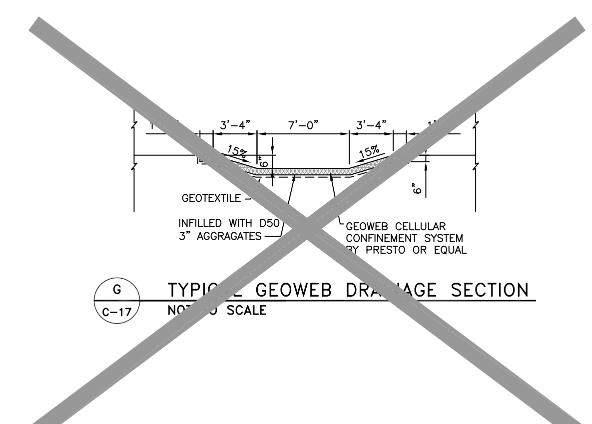


36 / C-7 ENTRANCE DRAINAGE DETAIL
NOT TO SCALE

DELETED PER FIELD CHANGE FC010 AND/OR FC015..



38 / C-6 — 38 / C-7 SOUTH DRAINAGE OUTLET DETAIL
NOT TO SCALE



G / C-17 TYPICAL GEOWEB DRAINAGE SECTION
NOT TO SCALE

DELETED PER FIELD CHANGE FC010 AND/OR FC015..

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	5/03	ISSUED FOR BIDDING	EWM

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed TF
Drawn MAB
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

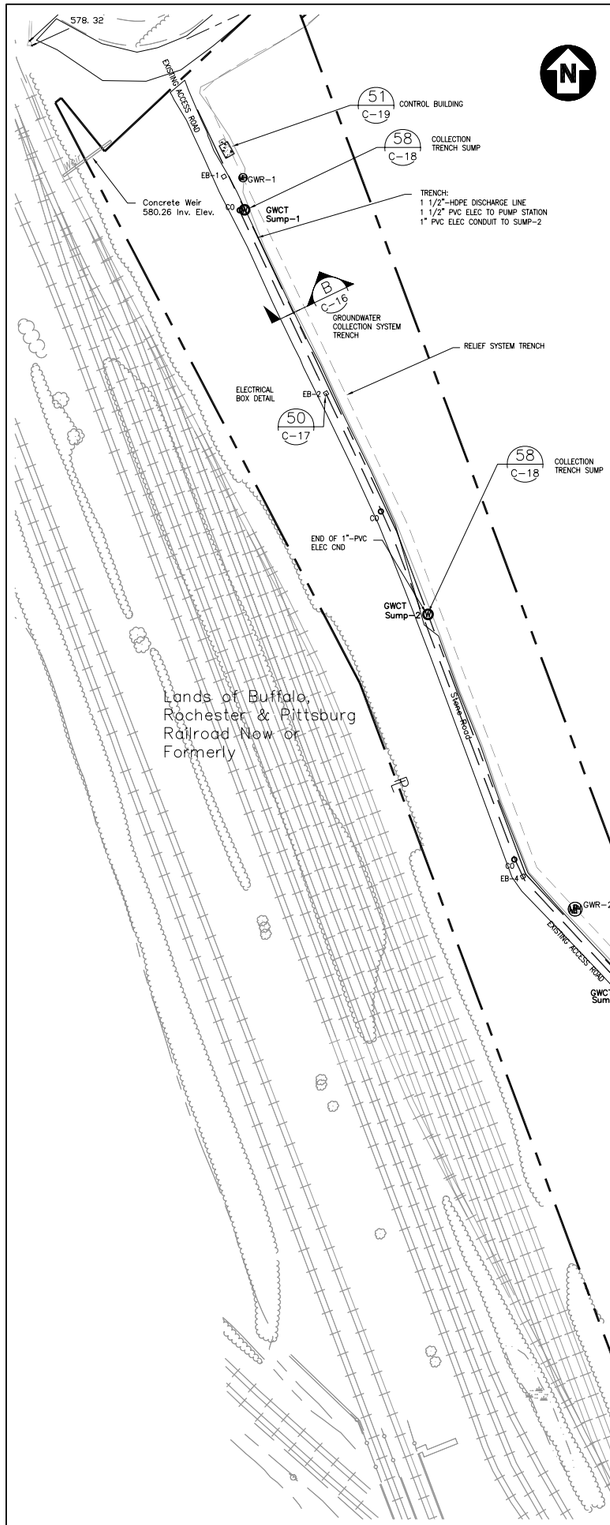
PARSONS

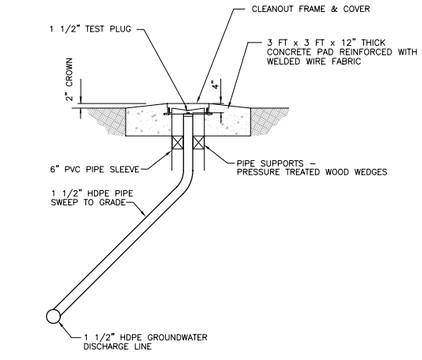
Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO HDPE SITE REMEDIATION CONSTRUCTION

SECTIONS AND DETAILS

DRAWING NO. C-15 REV. 1





SECTION A C-16
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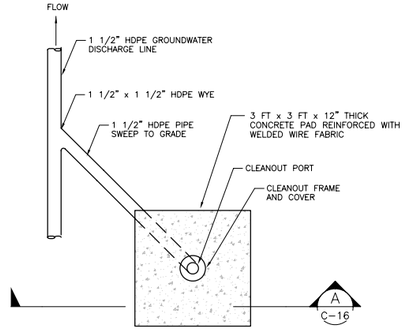
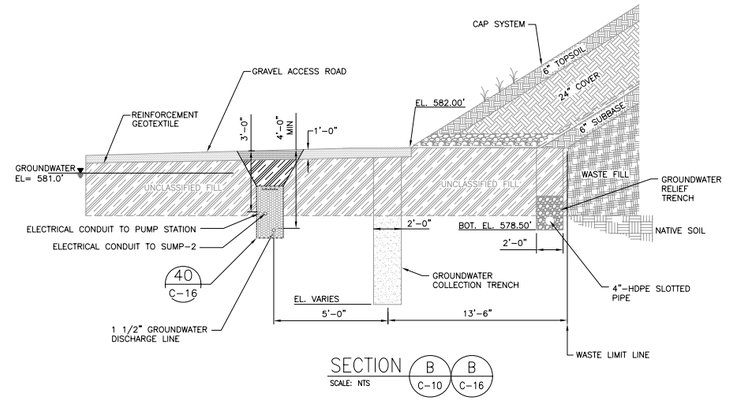


PLAN

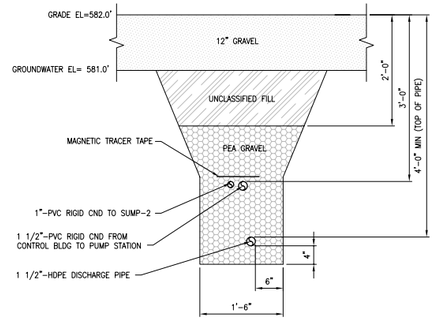
TYPICAL CLEANOUT LINE



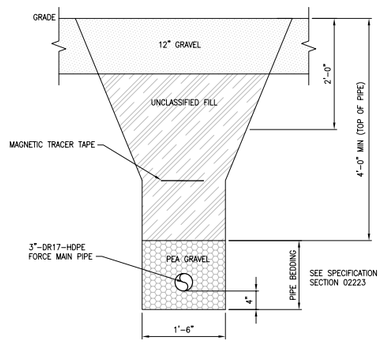
SECTION B B
C-10 C-16
SCALE: NTS

SKYWAY AUTOPARTS

MATCHLINE DWG: C-16 DWG: C-17



DETAIL 40
C-16
SCALE: 1" = 1'-0"



SECTION D
C-16
SCALE: NOT TO SCALE

LEGEND

℄ PROPERTY LINE

NOTES:

1. SEE MATERIAL LIST ON C-18.

50 25 0 50 100
SCALE: 1"=50'

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	7/21/05	TRENCH DETAIL REVISIONS	WCS
0	7/18/05	ISSUED FOR CONSTRUCTION	WCS

Job No. 440788
Designed WCS
Drawn CLW
Checked JSP
Reviewed SA
Approved TCA
Rep. No. 047438
Date APRIL 2006

Issued for Record Drawing Purposes

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Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

PUMP DISCHARGE TO SEWER
SITE PLAN AND DETAILS

DRAWING NO. C-16
REV. 2

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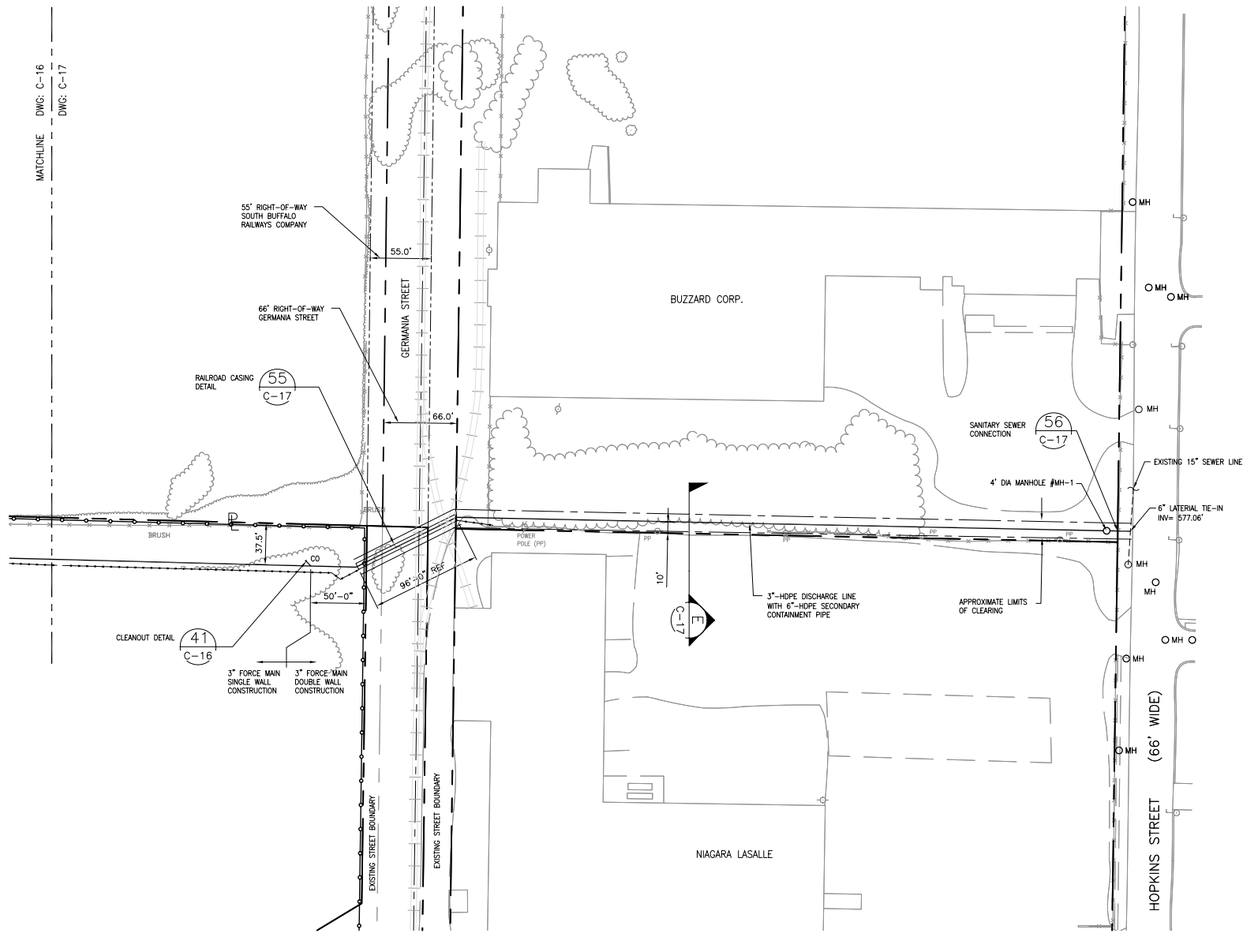
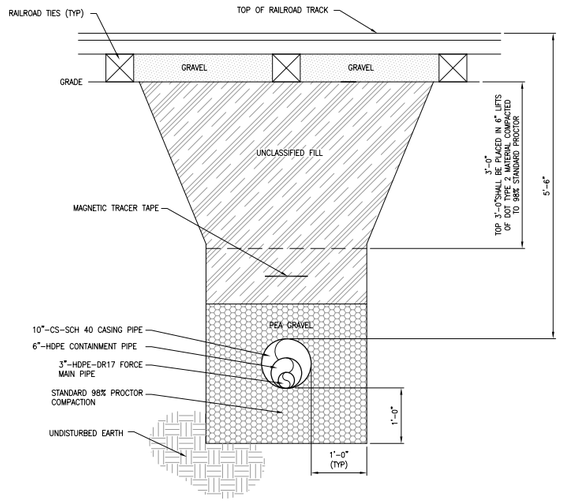
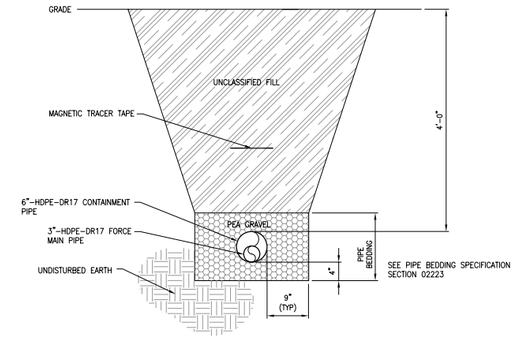
No 36576





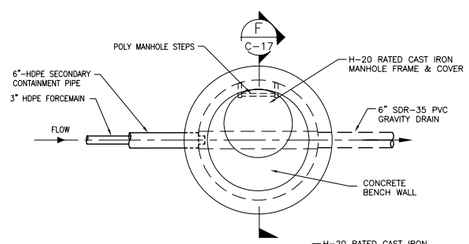
RAILROAD CASING DETAIL 55 C-17

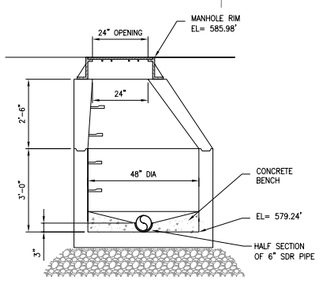
SCALE: 1" = 1'-0"



SECTION E C-17

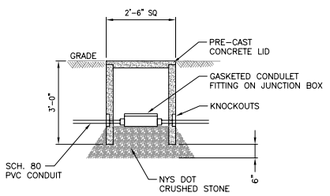
SCALE: 1" = 1'-0"





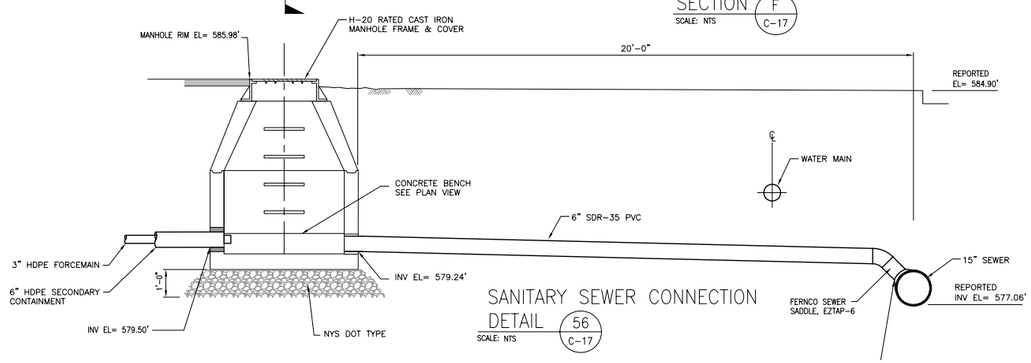
SECTION F C-17

SCALE: NTS



TYPICAL 30x30x36 PRE-CAST ELECTRICAL BOX DETAIL 50 C-16

SCALE: NTS



SANITARY SEWER CONNECTION DETAIL 56 C-17

SCALE: NTS

LEGEND

PROPERTY LINE

DISCHARGE PIPE

CHAINLINK FENCE

50 25 0 50 100

SCALE: 1"=50'

RECORD DRAWING

No.	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	7/21/05	TRENCH DETAIL REVISIONS	WKS
0	7/18/05	ISSUED FOR CONSTRUCTION	WKS
Rev	Date	Description	By

Job No. 440788
Designed WKS
Drawn CLW
Checked JSP
Reviewed SA
Approved TCA
Rep. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

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Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

PUMP DISCHARGE TO SEWER PARTIAL SITE PLAN AND DETAILS

DRAWING NO. C-17

REV. 2

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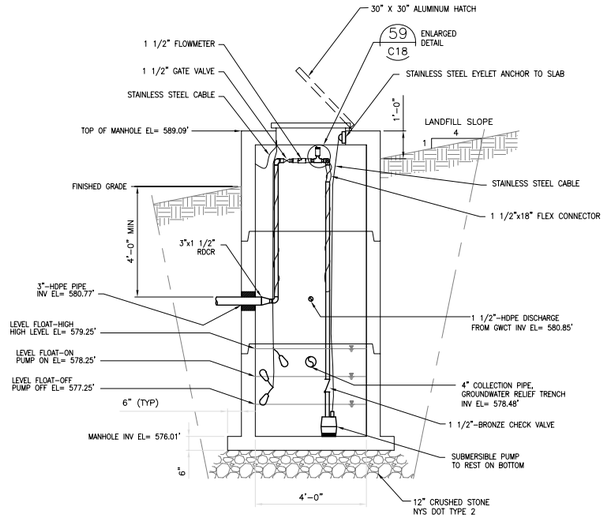
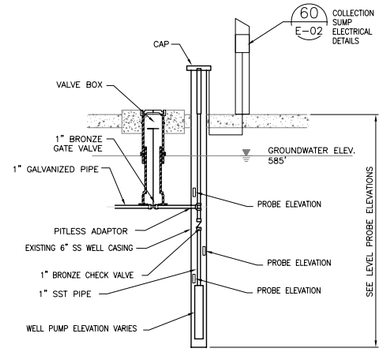
No XREFs



LIFT STATION

DETAIL 57 C-16

SCALE: NTS



COLLECTION TRENCH SUMPS #1 AND #2

DETAIL 58 C-16

SCALE: NTS

LEVEL PROBE ELEVATIONS

	SUMP #1	SUMP #2
ON	571.7'	571.7'
OFF	570.8'	570.7'
HIGH ALARM	578.6'	579.7'
WELL BOTTOM	567.73'	560.27'

MATERIAL LIST

DESCRIPTION	QTY	MANUFACTURER	MODEL No.	TYPE FUNCTION
WELL PUMP (COLLECTION SUMPS 1 & 2)	2	GRUNDFOS-SQ	5 SQ03A-90	3" SUBMERSIBLE WELL PUMP, 7 GPM AT 58FT TDH /4.4 AT 112FT TDH, 1PH, 200-240V, MS3 MOTOR, 4.9 FLA; STAINLESS STEEL PUMP HOUSING, MULTI-STAGE POLYETHYLENE IMPELLER, 1" NPT CONNECTION
T108 1" CHECK VALVE	2	WATTS B5300T	106287	CLASS 150, THREADED ENDS, BRONZE BODY, TEFLON, SCREWED CAP
1" GATE VALVE	2	NIBCO	T154A	CLASS 200, THREADED ENDS, BRONZED BODY, BRONZE SOLID WEDGE, THREADED BONNET
DISCHARGE SUMP PUMP T103 (RELIEF TRENCH	2	GRUNDFOS KP150	96001517	VERTICAL STAINLESS STEEL SUBMERSIBLE PUMP, SUCTION STRAINER, LIFTING HANDLE, 1PH, 115V, OIL FILLED MOTOR, 2.9 FLA, SEMI-OPEN IMPELLER, PASS 10 MM SOLID, 25 GPM AT 10FT TDH
T103 1 1/2" CHECK VALVE	1	NIBCO	T433B	CLASS 150, THREADED ENDS, BRONZE BODY, BRONZE DISC, SCREWED CAP
T103 1 1/2" GATE VALVE	1	NIBCO	T154A	CLASS 200, THREADED ENDS, BRONZED BODY, BRONZE SOLID WEDGE, THREADED BONNET.
3/4" AIR VENT VALVE	1	HONEYWELL	EA 79A1004 INDUSTRIAL AIR BREAK	BRASS SHELL WITH REMOVABLE FLOAT VALVE FOR SERVICING 3/4" NPT-M CONNECTION
T103 1" PITLESS ADAPTOR	2	MIDWEST MANUFACTURING	LD-S-10-N	CAST FROM RED BRASS, VITON O-RING, MATING FEMALE FUNNEL TOP AND MALE TAPERED SLIDE
1 1/2" FLOW METER	1	DANIEL J. JERMAN Co. 150 MAGNETIC DRIVE PROPELLER METER	DJL 150 WITH REMOTE BATTERY POWERED LCD READOUT	EPOXY COATED BODY INTEGRAL STRAINER, MAGNETIC COUPLED REGISTERED ASSEMBLY. PULSE OUTPUT 1 1/2" STRAIGHT THREADED ENDS, 799988-110 MITE TOTALIZER, NEMA 4 WITH TEN YEAR LITHIUM BATTERY
HEAT TRACE	1	GARDIAN	W51-18P	SELF-REGULATING PIPE HEATING CABLE, WITH 30" LEADS AND PLUG.
STAINLESS STEEL PIPE (SST) TP3	AS REQ'D		SCHEDULE 40	ASTM A-312 TYPE 304L, JOINTS SHALL BE NPT WITH SST COUPLINGS.
T-93 PRE-CAST MANHOLE #MH-1	1	KISTNER PRECAST	4' DIA SANITARY MANHOLE (SEE DETAILS)	REINFORCED CONCRETE CONFORMING TO ASTM C-475, 4,000 PSI CONCRETE, CONCENTRIC TOP WITH 24" DIA OPENING, MONOLITHIC POURED BASE WITH 6" SLAB, A.A.S.H.T.O. HS-20-44 LOAD RATING, POLY STEPS 12"oc
T-94 MH FRAME AND COVER	1	MUNICIPAL CASTINGS, INC.	326A	CAST IRON, DOT HEAVY DUTY, STRAIGHT SIDED MANHOLE FRAME AND PARABOLIC COVERS. A.A.S.H.T.O. HS-20-44 LOAD RATING
T101 CLEAN-OUT COVER	AS REQ'D	SYRACUSE CASTINGS	PATTERN 4155C FRAME AND COVER	CAST IRON, DOT HEAVY DUTY, FRAME FLANGED FOR CASTING IN CONCRETE APRON, 8 1/2" INTERIOR DIAMETER
BURIED VALVE BOX	2	HANDLEY INDUSTRIES, INC.	'C' MODEL MULTI-BOX	ABS PLASTIC, 4" DIA, MEETS DOT 192, 181 ADJUSTABLE THROAT, 6" VALVE BOX, LOCKABLE LID.
#93 PRE-CAST PUMP STATION	1	KISTNER PRECAST	4' DIA SANITARY MANHOLE (SEE DETAILS)	REINFORCED CONCRETE CONFORMING TO ASTM C475, 4,000 PSI CONCRETE, FLAT TOP WITH 30" SQUARE ALUMINUM HATCH, MONOLITHIC POURED LANGED BASE WITH 6" SLAB, A.A.S.H.T.O. HS-20-44 LOAD RATING, POLY STEPS AT 12"oc
SUB #94 ALUMINUM HATCH	1	SYRACUSE CASTINGS	EC-4HD 30"x30"	6061T6 GRADE ALUMINUM ANGLES, GRAD5086, 1/4" DIAMOND PLATE; H-20 RATED, 1 1/2" ANCHOR FRAME, HOLD OPEN ARM, LIFT SPRING ASSIST, FLUSH LIFT HANDLE
1 1/2" HDPE PIPE	AS REQ'D	DRISCO PIPE	DRISCO PLEX 4100 SERIES	PE3408 HDPE, SDR-11, 130 PSI, HEAT FUSED JOINTS, HYDRO TEST TO 100 PSI
3" HDPE PIPE	AS REQ'D	DRISCO PIPE	DRISCO PLEX 4100 SERIES	PE3408 HDPE, SDR-11, 130 PSI, HEAT FUSED JOINTS, HYDRO TEST TO 100 PSI
6" HDPE PIPE	AS REQ'D	DRISCO PIPE	DRISCO PLEX 4100 SERIES	PE3408 HDPE, SDR-11, 130 PSI, HEAT FUSED JOINTS, HYDRO TEST TO 100 PSI
SEWER PIPE SADDLE	1	FERNCO	EZTAP6	CAST IRON HUB WITH NEOPRENE GASKET, CAST IRON NIPPLE 12" LONG S/S STAMPS
6" PVC SEWER PIPE	AS REQ'D	NATIONAL PIPE AND PLASTICS, INC.	SDR-35 GASKETED PVC SEWER PIPE	ASTM D 3034 WITH INTEGRAL BELL GASKETED JOINTS

DETAIL 59 C-18

SCALE: 1"=1'-0"

RECORD DRAWING

Rev	Date	Description	By
1	3/06	RECORD DRAWING	TCA
0	7/18/05	ISSUED FOR CONSTRUCTION	WCS

Job No. 447288
Designed WCS
Drawn CLW
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

Issue Certification for Record Drawing Purposes

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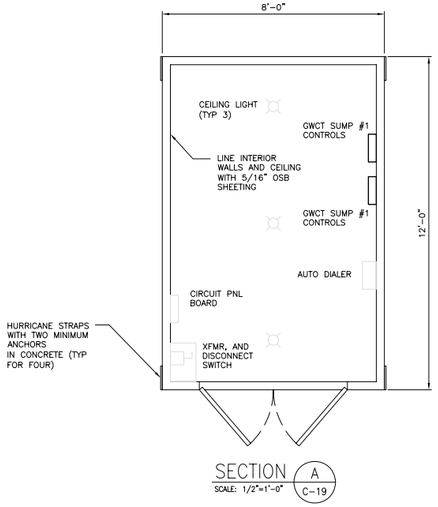
Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

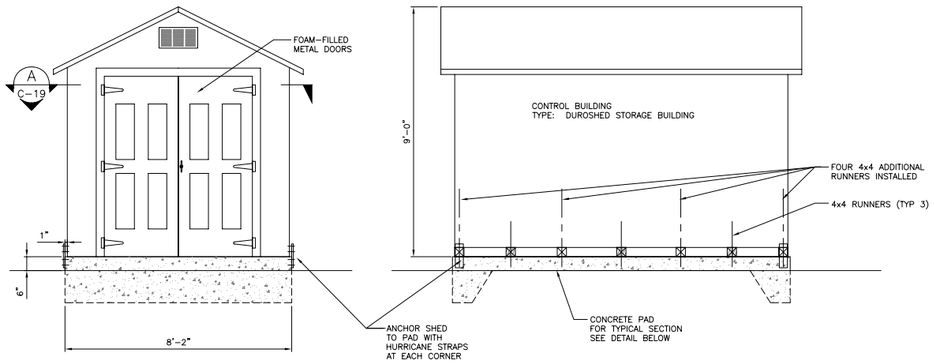
PUMP DISCHARGE TO SEWER
SYSTEM P&ID AND DETAILS

DRAWING NO. C-18

REV. 1



SECTION A / C-19
SCALE: 1/2"=1'-0"



DETAIL 51 / C-16
SCALE: 1/2"=1'-0"

ABBREVIATIONS:

GWCT	GROUNDWATER COLLECTION TRENCH
PNL	PANEL
XFMR	TRANSFORMER

2 1 0 2 4
SCALE: 1/2"=1'-0"

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	7/21/05	ADDED BUILDING PAD	WKS
0	7/18/05	ISSUED FOR CONSTRUCTION	WKS

Date APRIL 2006
Rep. No. 047438
Approved TCA
Reviewed SA
Checked JSP
Drawn CLW
Designed WKS
Job No. 440788

Issue Certification for Record Drawing Purposes

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MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

PUMP DISCHARGE TO SEWER
SHED LOCATION AND DETAILS

DRAWING NO. C-19
REV. 2

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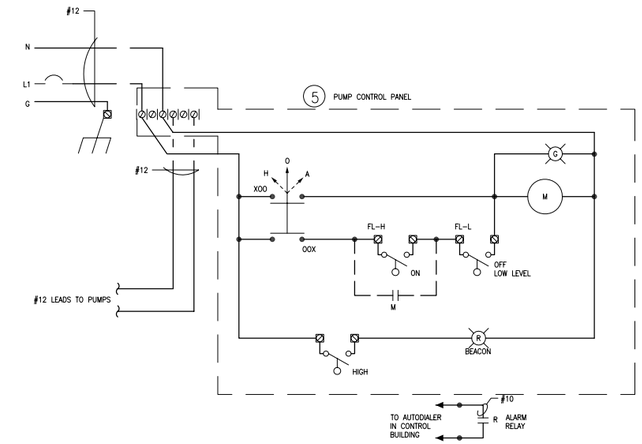
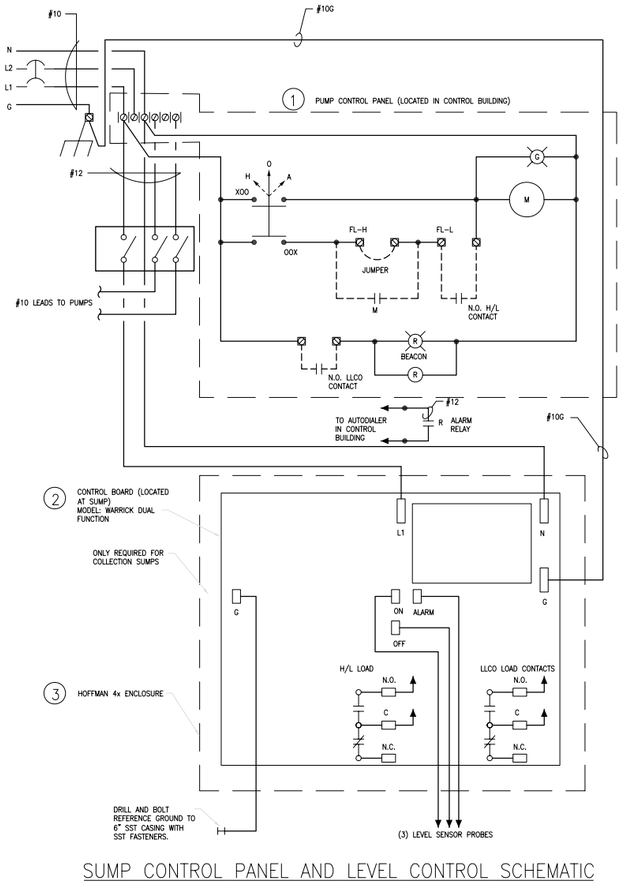
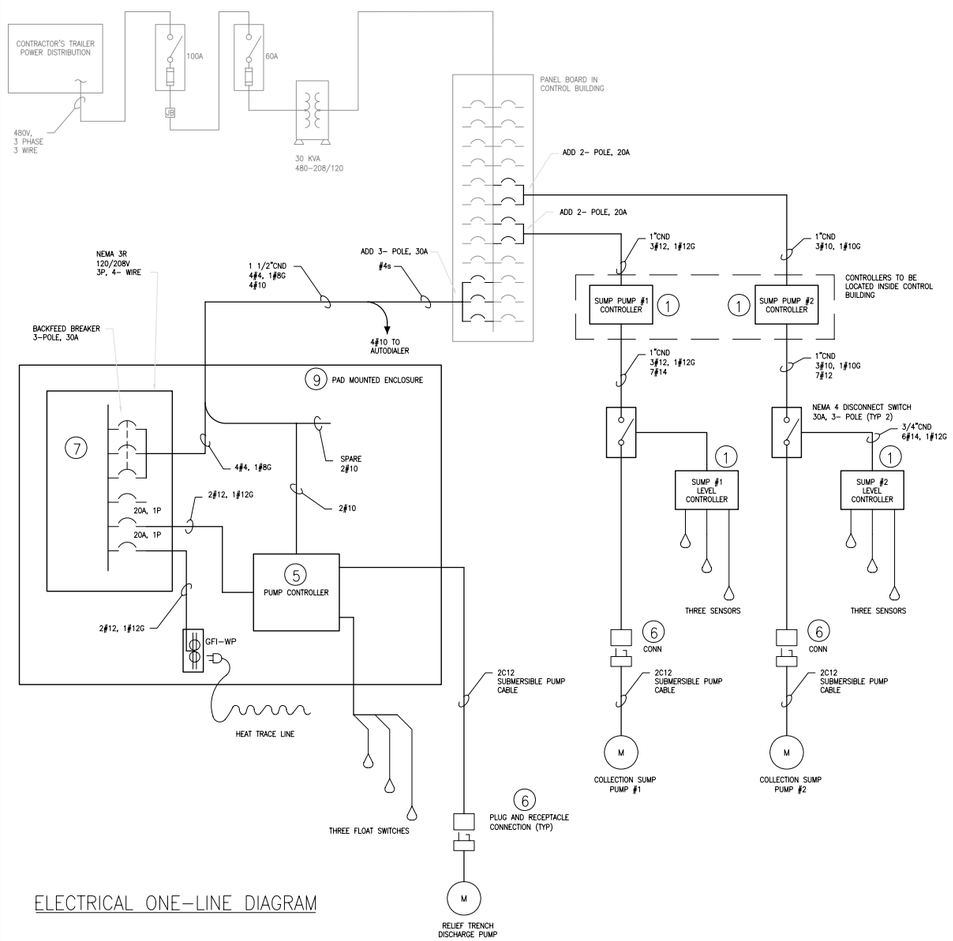


PUMP STATION CONTROL PANEL AND LEVEL CONTROL SCHEMATIC



SUMP CONTROL PANEL AND LEVEL CONTROL SCHEMATIC



ELECTRICAL ONE-LINE DIAGRAM

LEGEND:

FIELD WIRING

ABBREVIATIONS:

CIR	CIRCUIT
CND	CONDUIT
DISC	DISCONNECT
EB	ELECTRICAL BOX
PVC	POLY VINYL CHLORIDE
RGD	RIGID
SNSR	SENSOR
SS or SST	STAINLESS STEEL

ELECTRICAL MATERIAL LIST

ITEM NO.	DESCRIPTION	QTY	MANUFACTURER MODEL	MODEL No.	TYPE OF FUNCTION
1	COLLECTION SUMP PUMP CONTROL PANEL	2	SJE RHOMBUS CONTROLS MODEL 112	MODEL 1121W100X 1A (208/240V, NO FLOATS)	SINGLE PUMP CONTROL; RATED FOR 120/208/240V, 1-PH; ALARM TEST SWITCH, RED LIGHT, NO HORN, ALARM RELAY; NEMA 4X ENCLOSURE; H-O-A SWITCH; GREEN RUN LIGHT; 208/240V CONTACTOR; 0-7 FLA; PUMP DOWN APPLICATION; NO FLOATS;
2 T108	WELL LEVEL CONTROLLER	2 + 1 SPARE	WARRICK SERIES DF	DF-D1C0 10 03 C	CIRCUIT BOARD MICROPROCESSOR 50K OHM SENSITIVITY; 120VOLT;SCREW MNT.;OPEN; 10 SEC. DELAY ON INCREASING LEVEL; 3 SEC. DELAY ON DECREASING LEVEL; DIRTY PROBE DETECTION W/ 60 SEC. TIMEOUT.
3 T108	LEVEL ENCLOSURE	2	HOFFMAN ENCLOSURES	Q LINE Q1818ELSABE	6"X6"X4" ABS NEMA 4X ENCLOSURE; OPAQUE COVER; S.S. SCREW FASTENERS;
4 T108	SENSOR PROBES	6	WARRICK SERIES 3Y	3Y1C3	316 STAINLESS STEEL PROBE W/ PVC SHIELD CASING; 20 FEET OF SUSPENSION WIRE.
5	DISCHARGE PUMP CONTROL PANEL	1	SJE RHOMBUS CONTROLS MODEL 112	MODEL 1121W100XH	SINGLE PUMP CONTROL; RATED FOR 120V, 1-PHASE; ALARM TEST SWITCH, THREE LEVEL FLOATS; NEMA 4X ENCLOSURE; H-O-A SWITCH; GREEN RUN LIGHT; 120/208/240V CONTACTOR; 7-15 FLA; PUMP DOWN APPLICATION; ALARM RELAY; ALARM FLOAT.
6	220V TWIST LOCK CONNECTOR	3	HUBBELL WIRING DEVICES	HBL2310SW	WEATHER-PROOF, 20A, 2 POLE 3-WIRE GROUNDING BOX MOUNTED RECEPTACLE AND MATCHING CORD PLUG. MOUNT IN HUBBELL ANGLE WALL BOX.
7	CIRCUIT BREAKER PANEL	1	SQUARE D	QO312L125G	12 CIRCUIT, 125 MAIN LUGS 65,000 RMS SYM. AMPS, 30 A BACKFEED MAIN BREAKER TYPE QO330VH 22,000 RMS SYM. AMPS, PK1MB RETAINER ON MAIN, BRANCH BREAKERS TYPE QO, 10,000 RMS SYM. AMPS, NEUTRAL AND GROUND BARS, INDOOR COVER W/ DOOR.
8	ELECTRICAL PULL BOX	7	KISTNER PRECAST	RECTANGULAR PULLBOX 30" X 30" X 36"	REINFORCED CONCRETE CONFORMING TO ASTM C475, 4000 PSI CONCRETE, FLAT CONCRETE TOP, NO BASE SLAB REQUIRED ; KNOCKOUTS ON EACH WALL
9	PAD MOUNTED ELECTRICAL ENCLOSURE	1	DDB UNLIMITED	TR-336XL	NEMA 3R ENCLOSURE, FRONT AND REAR DOORS, THREE-POINT LATCHES WITH PADLOCKING HANDLES, ALUMINUM CONSTRUCTION, NOMINAL 39"H X 27"D X 25"W, 110V FAN AND THERMOSTAT.
10	DISCONNECT SWITCH	2	SQUARE D	HU361DS	NEMA 4, 3-POLE HEAVY DUTY SAFETY SWITCH

RECORD DRAWING

By	Description	Date	Rev
TCA	RECORD DRAWING	3/06	2
WKS	GENERAL REVISION	1/21/05	1
WKS	ISSUED FOR CONSTRUCTION	7/18/05	0

Job No. 440788
Designed WKS
Drawn SEH
Checked JSP
Reviewed SA
Approved TCA
Reg. No. 047438
Date APRIL 2006

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Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

PUMP DISCHARGE TO SEWER
ELECTRICAL SCHEMATIC WIRING DIAGRAM AND DETAILS

DRAWING NO. E-01
REV. 2

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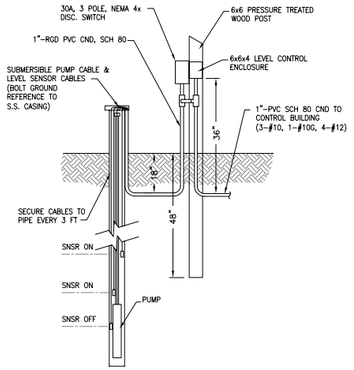
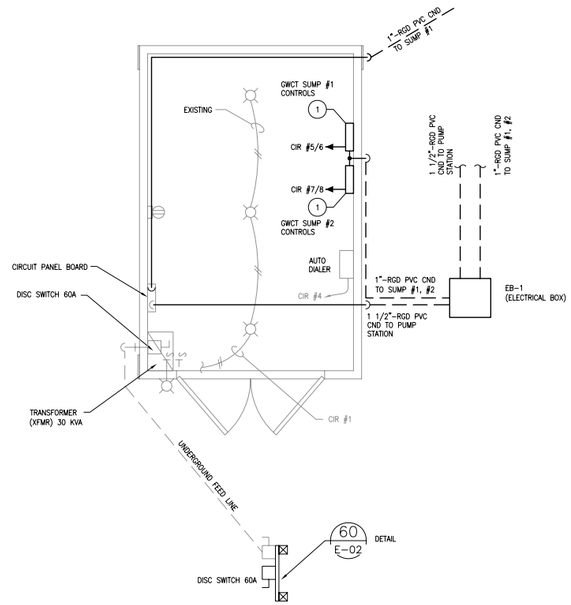
No XREFs



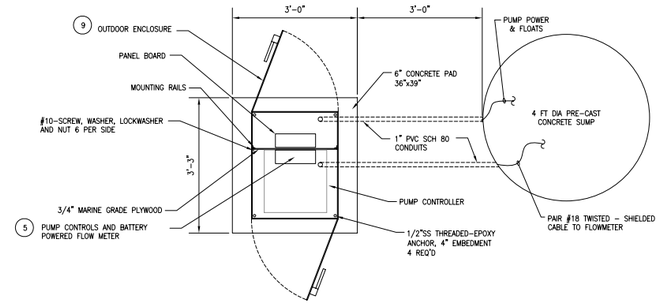
COLLECTION SUMP ELECTRICAL DETAIL 60 C-18 / 60 E-02

SCALE: NTS



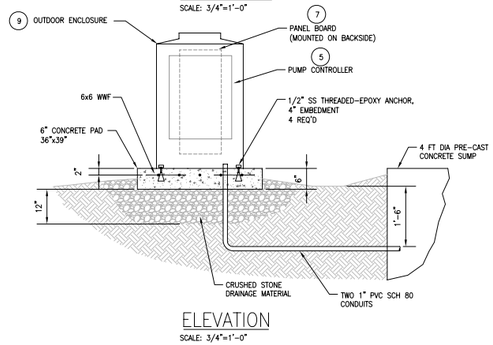
SHED ELECTRICAL PLAN

NOT TO SCALE



PLAN VIEW

SCALE: 3/4"=1'-0"



ELEVATION

SCALE: 3/4"=1'-0"

OUTDOOR ENCLOSURE ASSEMBLY
FOR DISCHARGE PUMP STATION

ABBREVIATIONS:

CIR	CIRCUIT
CND	CONDUIT
DISC	DISCONNECT
EB	ELECTRICAL BOX
PVC	POLY VINYL CHLORIDE
RGD	RIGID
SNSR	SENSOR
SS or SST	STAINLESS STEEL

ELECTRICAL MATERIAL LIST

ITEM NO.	DESCRIPTION	QTY	MANUFACTURER MODEL	MODEL No.	TYPE OF FUNCTION
1	COLLECTION SUMP PUMP CONTROL PANEL	2	SJE RHOMBUS CONTROLS MODEL 112	MODEL 1121W100X 1A (208/240V, NO FLOATS)	SINGLE PUMP CONTROL; RATED FOR 120/208/240V, 1-PH; ALARM TEST SWITCH, RED LIGHT, NO HORN, ALARM RELAY; NEMA 4X ENCLOSURE; H-O-A SWITCH; GREEN RUN LIGHT; 208/240V CONTACTOR; 0-7 FLA; PUMP DOWN APPLICATION; NO FLOATS:
2 T108	WELL LEVEL CONTROLLER	2 + 1 SPARE	WARRICK SERIES DF	DF-D1C0 10 03 C	CIRCUIT BOARD MICROPROCESSOR 50K OHM SENSITIVITY; 120VOLT;SCREW MNT.;OPEN; 10 SEC. DELAY ON INCREASING LEVEL; 3 SEC. DELAY ON DECREASING LEVEL; DIRTY PROBE DETECTION W/ 60 SEC. TIMEOUT.
3 T108	LEVEL ENCLOSURE	2	HOFFMAN ENCLOSURES	Q LINE Q181813ABE	6"X6"X4" ABS NEMA 4X ENCLOSURE; OPAQUE COVER; S.S. SCREW FASTENERS;
4 T108	SENSOR PROBES	6	WARRICK SERIES 3Y	3Y1C3	316 STAINLESS STEEL PROBE W/ PVC SHIELD CASING; 20 FEET OF SUSPENSION WIRE.
5	DISCHARGE PUMP CONTROL PANEL	1	SJE RHOMBUS CONTROLS MODEL 112	MODEL 1121W100XH	SINGLE PUMP CONTROL; RATED FOR 120V, 1-PHASE; ALARM TEST SWITCH, THREE LEVEL FLOATS; NEMA 4X ENCLOSURE; H-O-A SWITCH; GREEN RUN LIGHT; 120/208/240V CONTACTOR; 7-15 FLA; PUMP DOWN APPLICATION; ALARM RELAY; ALARM FLOAT.
6	220V TWIST LOCK CONNECTOR	3	HUBBELL WIRING DEVICES	HBL2310SW	WEATHER-PROOF, 20A, 2 POLE 3-WIRE GROUNDING BOX MOUNTED RECEPTACLE AND MATCHING CORD PLUG. MOUNT IN HUBBELL ANGLE WALL BOX.
7	CIRCUIT BREAKER PANEL	1	SQUARE D	QO312L125G	12 CIRCUIT, 125 MAIN LUGS 65,000 RMS SYM. AMPS, 30 A BACKFEED MAIN BREAKER TYPE QO330VH 22,000 RMS SYM. AMPS, PK1MB RETAINER ON MAIN, BRANCH BREAKERS TYPE QO, 10,000 RMS SYM. AMPS, NEUTRAL AND GROUND BARS, INDOOR COVER W/ DOOR.
8	ELECTRICAL PULL BOX	7	KISTNER PRECAST	RECTANGULAR PULLBOX 30" X 30" X 36"	REINFORCED CONCRETE CONFORMING TO ASTM C475, 4000 PSI CONCRETE, FLAT CONCRETE TOP, NO BASE SLAB REQUIRED ; KNOCKOUTS ON EACH WALL.
9	PAD MOUNTED ELECTRICAL ENCLOSURE	1	DDB UNLIMITED	TR-336XL	NEMA 3R ENCLOSURE, FRONT AND REAR DOORS, THREE-POINT LATCHES WITH PADLOCKING HANDLES; ALUMINUM CONSTRUCTION, NOMINAL 39"H X 27"D X 25"W, 110V FAN AND THERMOSTAT.
10	DISCONNECT SWITCH	2	SQUARE D	HU361DS	NEMA 4, 3-POLE HEAVY DUTY SAFETY SWITCH

RECORD DRAWING

Rev	Date	Description	By
2	3/06	RECORD DRAWING	TCA
1	7/21/05	GENERAL REVISION	WKS
0	7/19/05	ISSUED FOR CONSTRUCTION	WKS
		Date APRIL 2006	

Issue Certification for Record Drawing Purposes

Job No. 440788
Designed WKS
Drawn SEH
Checked JSP
Reviewed SA
Approved TCA
Rep. No. 0417438
Date APRIL 2006

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Honeywell
HONEYWELL
MORRISTOWN, NEW JERSEY

ALLTIFT LANDFILL/RAMCO STEEL SITE
REMEDIATION CONSTRUCTION

PUMP DISCHARGE TO SEWER
ELECTRICAL SECTIONS AND DETAILS

DRAWING NO. E-02 | REV. 2

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No XREFs

APPENDIX B
PHOTOGRAPHIC DOCUMENTATION