

STATE SUPERFUND WORK ASSIGNMENT

CONTRACT NO. D007622-47



CONSTRUCTION COMPLETION REPORT

FOR

COLLEGE POINT 3 IRM

SITE No. 2-41-122

COLLEGE POINT, NEW YORK

SUBMITTED BY:

URS CORPORATION

257 WEST GENESEE STREET

SUITE 400

BUFFALO, NEW YORK 14203

SEPTEMBER 2019

CERTIFICATION

I, Randolph West, certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Design was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Design.

The data submitted to the Department with this Construction Completion Report demonstrates that the remediation requirements set forth in the Remedial Design and all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

A Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of any remaining monitoring wells, and that such plan will be approved by the DER.



073189-1

**NYS Professional
Engineer #**

09/20/19

Date

Randolph West

Signature

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ACRONYMS AND ABBREVIATIONS

AARCO	AARCO Environmental Services Corporation
CCR	Construction Completion Report
CFR	Code of Federal Regulations
CY	cubic yards
ft.	feet
IRM	Interim Remedial Measure
IRWA	Immediate Response Work Assignment
in.	inches
LNAPL	Light Non-Aqueous Phase Liquid
LKMA	L.K. McClean Associates, P.C.
mg/kg	milligram per kilogram
M/WBE	minority/woman-owned business enterprise
NAPL	Non-Aqueous Phase Liquid
NTP	Notice to Proceed
NJDEP	New Jersey Department of Environmental Protection
NYCDCAS	New York City Department of Citywide Administrative Services
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCDOT	New York City Department of Transportation
NYCRR	New York Code, Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSSSESC	New York State Standards for Soil Erosion and Sediment Control
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCO	proposed change order
POTW	Publicly Owned Treatment Works
PPE	personal protective equipment
ppm	parts per million
PVC	polyvinyl chloride
RCA	recycled concrete aggregate
RFI	Request for Information
SC	Site Characterization
TASCG	Standard, Criteria, or Guidance
SG	Soil Gas
SPDES	State Pollutant Discharge Elimination System
SRS	Soil Remediation Standards
STARS	Spill Technology and Remediation Series
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
SVOC	semivolatile organic compound
SWPPP	Storm Water Pollution Prevention Plan
TAL	Target Analyte List
TCL	Target Compound List
TCLP	toxicity characteristic leaching procedure
µg/kg	microgram per kilogram
URS	URS Corporation
USEPA	United States Environmental Protection Agency
VCP	Voluntary Clean-up Program
VOC	volatile organic compound
WBE	Women-Owned Business Enterprise

1.0 INTRODUCTION

This Construction Completion Report (CCR) documents the construction and implementation of the Interim Remedial Measure (IRM) completed for the New York State Department of Environmental Conservation (NYSDEC) under Contract No. D007622-47 at the College Point 3 site in Queens, New York. URS Corporation (URS) procured the contractor and provided construction oversight services to under that contract.

The IRM design was developed from Alternative 2 of the College Point 3 Feasibility Study Report (January, 2017) prepared for the NYSDEC by URS.

This CCR was prepared in accordance with Work Assignment No. D007622-47, Task 3. This report summarizes construction activities at the Site and identifies significant variations from the Contract Documents. Survey information, as-built drawings, and other project documentation are included as appendices to this report.

1.1 Site Description

The Site is located in an urban/residential area of the College Point section of Queens, NY, adjacent to the East River (Figure 1-1).

As defined by the NYSDEC, the Site consists of a 0.24-acre grassy parcel of land within the Riverview Condominium complex between several condominiums. The area is shown as New York City Department of Citywide Administrative Services (NYC DCAS) Property Lot 3916 LOT 27 on Figure 1-2. The remedial investigation and feasibility study included the Riverview Condominium Properties bounded by the East River to the north, Capstan Court and 121st Street to the east, Ketch Court to the south, and the College Point Properties to the west, as depicted on Figure 1-3.

Therefore, the Site as now defined is a mix of 2 to 3 story condominium buildings, pavement and grassy areas. Grassy areas are found between the condominium buildings (i.e., between Riviera Court, Capstan Court and Cove Court and Cove Court, 121st Street and Ketch Court) and between

Rivera Court and the East River.

The Site was separated into three separate areas, depicted on Figure 1-2, for the purposes of the IRM. The northernmost area is part of Block 3916 Lot 108 on the Queens, NY Tax Map and is owned by the Powells Cove Estates Homeowners Association (Powells Cove). This area is approximately 1.198 acres. The grassy portion of this area was labeled the “North Lawn Area” during the IRM.

The central area is identified as part of Block 3916 Lot 255 on the Queens, NY Tax Map and is owned by the Villas at the Riverview Condominium (Villas). This area is approximately 1.907 acres.

The southernmost area is part of Block 3916 Lot 250 on the Queens Tax Map and is owned by Riverview at College Point Condominiums III (Condo 3). This area is approximately 1.597 acres. The grassy portion of this area was labeled the “South Lawn Area” during the IRM.

1.2 Site History

The Site is located on land that was reclaimed from the East River via unregulated landfilling prior to 1970. Sand, silt, and clay are mixed with varying amounts of construction and demolition (C&D) debris as well as industrial waste. Investigations on the College Point Properties Voluntary Clean-up Program (VCP) Site V00254, located immediately to the west of the Site, identified the presence of floating oil or Light Non-Aqueous Phase Liquid (LNAPL) along its eastern Site boundary, which is shared with the Riverview Condominiums. The LNAPL was found to contain polychlorinated biphenyls (PCBs). As part of the VCP remediation at the College Point Properties VCP Site, a subsurface barrier wall was installed in 2007 to prevent any migration of LNAPL from the adjacent property. The NYSDEC assigned an Immediate Response Work Assignment (IRWA) to URS in 2007 to determine if the PCB contaminated LNAPL was present beneath the Riverview Condominiums property to the east. Based on this IRWA, the College Point 3 (241122) Site was created.

1.3 Summary of the Remedial Investigation and Feasibility Study

The following activities were completed onsite by URS prior to the completion of the RI:

- The first field investigation conducted from March 5, 2007 through April 27, 2007 as

an Immediate Responses Work Assignment (IRWA). A complete description of the field investigation and results may be found in the Immediate Response Work Assignment *Letter Report* (URS, October 2007).

- LNAPL Recovery as an IRM, conducted from July 23, 2007 through August 1, 2007.
- LNAPL Recovery as an IRM, conducted from September 26, 2007 through October 30, 2007.
- LNAPL Recovery as an IRM, conducted from November 2007 through April 2008.
- Bi-Weekly LNAPL Recovery as an IRM, conducted from May 2008 through March 2009.
- The first phase of a Site Characterization (SC) performed from March 1, 2010 through March 31, 2010 on the Powell Cove Estates Property. A complete description of the field investigation and results may be found in the Site Characterization *Data Summary Letter Report* (URS, July 2010).
- A second and third phase of SC fieldwork performed between June 7 and June 16, 2010 and between August 2 and August 10, 2010, respectively, on the Site and the Powell Cove Estates Property. A complete description of the field investigation and results may be found in the Site Characterization *Data Summary Report* (URS, February 2011).
- A soil vapor intrusion investigation was conducted by the NYSDEC in 2009. A complete description of the field investigation and results may be found in *Public Version Immediate Soil Vapor Intrusion Work Assignment Summary Report. Riverview Condominium Complex, College Point Queens, NY* (Earth Tech Northeast, Inc. May 2009).

- Bi-Weekly LNAPL Recovery as an IRM, conducted from January 2012 through June 2012.

The RI defined the horizontal and vertical extent of contamination related to the Site in surface and subsurface soil, overburden groundwater, surface water, groundwater seep, sediment and soil vapor. The results of this investigation, together with data from the previous on-site investigations as part of the area-wide Site Characterization, were used to develop remedial action objectives and support the selection of an appropriate remedial action.

A supplemental groundwater sampling event was completed in October 2013 to obtain analytical data from all existing Site monitoring wells. Previously, only new monitoring wells were sampled after each round of monitoring well installation. Additionally, not all monitoring wells were analyzed for the same parameters.

URS prepared the *Remediation Investigation Report for the College Point 3 Site* in June 2013 and the *Addendum to Remediation Investigation Report October 2013 Supplemental Groundwater Sampling Event* in March 2014, which summarize the results of Phases I and II of the RI and the supplemental groundwater sampling event, respectively.

Based upon the results of the RI and the supplemental groundwater sampling event, URS prepared a *Feasibility Study* (FS) for the NYSDEC under Work Assignment (WA) No. D007622-10.1. The final FS, issued revised in Jan. 2017, presented six alternative designs for achieving the identified remedial objectives. Alternative 2 was the basis for the Remedial Design and this IRM.

Post RI work onsite included the following:

- Soil vapor intrusion (SVI) sampling was conducted at 19 condominium units from February 16 to 27, 2015 following the procedures described in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Sampling for each unit investigated included an indoor air sample from the lowest level and a subslab soil vapor sample. An outdoor air sample

was collected each sampling day. The samples were analyzed for VOCs and methane. The results are discussed in the *Soil Vapor Intrusion Data Summary Report* issued by URS in June 2015. An additional sampling event was conducted on January 20, 2016. The results from 2015 and 2016 showed that no further action was required for the site.

- Soil gas was sampled at 63 locations between March 2007 and April 2015 to investigate and evaluate methane on the site. As part of the methane evaluation, a soil vapor extraction (SVE) pilot test was completed onsite in 2015. Con Edison and the DEC concluded the methane detected on-site is related to the decomposition of organic matter rather than attributable to a natural gas leak. The results of sampling are discussed in the *Soil Gas Summary Report* (URS, February 2016).
- URS has used oil-absorbent socks to recover Non-Aqueous Phase Liquid (NAPL) from select wells onsite since July 2012. Product recovery and well gauging is currently conducted by URS on a bi-monthly basis.

1.4 Remediation Standards

The remediation standard for the Site, as determined by the NYSDEC, is as specified in *40 CFR Part 761 (2005 Edition) Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*. Per that standard, high occupancy areas where bulk PCB remediation waste remains at concentrations >1 ppm and ≤ 10 ppm shall be covered with a cap of compacted soil shall have a minimum thickness of 25 cm (10 inches). The parcels labeled Block 3916 Lot 27, Block 3916 Lot 250, and Block 3916 Lot 255 on Figure 1-2 are zoned restricted-residential and the cap is 24 inches thick. The parcel labeled Block 3916 Lot 108 on Figure 1-2 is zoned commercial and the cap is 12 inches thick.

Parcels Block 3916 Lot 27, Block 3916 Lot 250, and Block 3916 Lot 255 meet the definition of restricted-residential because they have “common ownership or a single owner/managing entity of the site” as described in Paragraph 375-1.8(g)(2)(ii) of *6 NYCRR Part 375 Environmental Remedial*

Programs (Part 375). Parcel Block 3916 Lot 27 meets the definition of commercial because it is used for “passive recreational uses, which are public uses with limited potential for soil contact” as described in Paragraph 375-1.8(g)(2)(iii) of Part 375.

The 24-inch cover for parcels Block 3916 Lot 250, and Block 3916 Lot 255 is the result of Paragraph 375-3.8 (e)(4)(iii)(a)(1) of Part 375 which states: “for residential use: the top two feet of all exposed surface soils which exceed the site background values for contaminants of concern and are not otherwise covered by the components of the development of the site (e.g. buildings, pavement), shall not exceed the applicable contaminant-specific soil cleanup objectives.”

The 12-inch cover for Parcel Block 3916 Lot 27 is the result of Paragraph 375-3.8 (e)(4)(iii)(b)(1) of Part 375 which states: “for commercial use: the top one foot of all exposed surface soils which exceed the site background values for contaminants of concern and are not otherwise covered by the components of the development of the site (e.g. buildings, pavement), shall not exceed the applicable contaminant-specific soil cleanup objectives.”

The design included excavation and backfill as necessary for the construction of the cap noted above. Post-excavation sampling was included in the design to ensure that remaining PCB concentrations were below 10 ppm.

1.5 Selected Remedial Design

URS received notice-to-proceed for remedial design in October 2017. The design Work Assignment was administered by the NYSDEC Bureau of Program Management Contracts and Payments Section. The project corresponded to NYSDEC Work Assignment No. D007622-42. The remedial design (Task 2) included the following:

- Preparation of 60% Design Plans and Specifications
- Preparation of an Engineer’s Estimate for 60% Design Plans and Specifications
- Preparation of a Limited Site Data Document
- Attendance at Community Meetings

- Preparation of the Final Design

To support the remedial design, the work assignment included environmental sampling to further delineate and characterize the soils to be removed from Site.

The environmental sampling included the collection of soil samples from approximately 79 planter boxes and small grass plots located across the Site. The samples were collected via hand auger to a depth up to 2 feet below ground surface or the bottom of the planter box. Soil samples were also collected from approximately 15 locations for waste disposal pre-characterization. The planter box and small grass area soil samples were analyzed for target compound list (TCL) semivolatile organic compounds (SVOCs) by USEPA Method 8270D, TCL polychlorinated biphenyls (PCBs) by USEPA Method 8082A, and Target Analyte List (TAL) metals by USEPA Method 6010C/7471B. The waste disposal pre-characterization samples were analyzed for full toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by USEPA Method 8260C, TCLP SVOCs by USEPA Method 8270D, TCLP Pesticides by USEPA Method 8081B, TCLP herbicides by USEPA Method 8151A, and TCLP metals by USEPA Method 6010C/7470A, PCBs by USEPA Method 8082A, and the Resource Conservation and Recovery Act (RCRA) characteristics of ignitability (flashpoint), corrosivity (pH), and reactivity (reactive cyanide and sulfide).

The design task also included a survey of all the current landscape features of the Site, including drainage features (catch basins, yard drains, etc.), brick walkways, paved surfaces, planter boxes, including construction material and dimensions, shrubs and trees including the type and size, fencing including the type and height, and any other landscape features. All utilities (e.g., storm drains, manholes, etc.) were included in the survey.

The Contract Documents (drawings and specifications) prepared for the IRM are included as Appendix A to this report.

1.6 Description of Remedial Action

The construction contract for remedial action at the Site consisted of the following major elements:

Site Wide:

- Abandonment of selected piezometers, monitoring wells, etc.
- Maintenance of seeded and sodded areas throughout the warranty period.

North and South Lawn Areas:

- Clearing, demolition, and off-site transportation and disposal of cleared trees, woody vegetation, and non-contaminated debris.
- Survey of existing grades and verification/revision of the design subgrade elevations (bottom of the soil cover).
- Excavation of existing soil to those subgrade elevations, including root balls, etc., while preserving selected trees.
- Transportation and off-site disposal of all excavated soils.
- Placement of an orange snow fence demarcation barrier at the bottom of excavation.
- Collection and analysis of documentation samples from the bottom of excavation.
- Placement of and compaction of clean backfill and topsoil to predetermined final grades.
- Installation of new stormwater drainage structures.
- Redesign and replacement of the functional underground irrigation systems.
- Restoration of fences and turf (sod and seed). Installation of revised landscape materials.
- Repair of a significantly heaved reach of a Site walkway at the northwestern corner of the North Lawn area.

Planters and Islands:

- Excavation of approximately 15 inches of soil from approximately 75 planters and islands.
- Replacement of the wood edging on approximately 50 planters.
- Reconstruction of 5 block planters with existing, cleaned blocks.
- Transportation and disposal of waste, soils, and all debris generated from the planter box excavations.
- Collection and analysis of documentation soil samples from excavation areas.
- Restoration of excavated areas with demarcation layer, common backfill, topsoil, and sod or mulch.
- Planting and establishment of trees and shrubs.

1.7 Project Bidding and Award

In December 2017, URS issued bid documents for construction of the IRM. The documents were issued to prequalified subcontractors identified by URS and the NYSDEC. The documents consisted of bidding instructions, specifications, drawings, and the Limited Site Data Document, which are contained in Appendix A to this report.

A mandatory pre-bid meeting was held on the Site on December 19, 2017.

Three addenda to the Contract Documents were prepared and issued prior to bid opening:

- Addendum One included pre-bid meeting minutes, responses to questions from bidders, a pre-bid attendance list, a revised Bid Form, a revised Measurement for Payment, and Revised Contract Drawings C014 and D-001. Meeting minutes are included in Appendix B.
- Addendum Two revised the dates of the Bid Due Date, the last day for questions.
- Addendum Three included responses to questions received from bidders during the Comment Period. Contract Addenda are included in Appendix A.

Six sealed bids were received and opened on January 26, 2018. The approved low bidder was EnviroTrac, Ltd. (EnviroTrac), at \$2,131,232. After AECOM's review and approval of EnviroTrac's preliminary submittals (insurances, etc.), URS and EnviroTrac entered into a Subcontract Agreement for the work on February 26, 2018.

1.8 Pre-Construction Meeting

A pre-construction meeting was held at the NYSDEC Offices in Albany, New York on February 27, 2018. Attendees included representatives from NYSDEC, URS, and EnviroTrac. Minutes from the Pre-Construction Meeting are included in Appendix B.

1.9 Project Schedule

The Notice to Proceed date for the construction contract was established as February 26, 2018. Under the terms of the original contract, 231 days were allotted for Substantial Completion of the work. The date established for project Substantial Completion was October 15, 2018.

The contract was extended by 14 days in Change Order No. 1. Based on these changes the final Substantial Completion date for the project was established as October 29, 2018. Change Orders are included in Appendix C.

1.10 Submittals

Required submittals were received from EnviroTrac, and reviewed by URS in a timely manner.

All submittals were reviewed and ultimately approved by URS. The approved submittals and the submittal log are included as Appendix D. URS approved over 270 submittals during the implementation of the IRM.

1.11 Subcontractors

EnviroTrac used seventeen sub-subcontractors to complete the Contract. Subcontractor information is provided in Table 1-1.

2.0 SUMMARY OF REMEDIAL WORK

URS maintained a resident engineer from its Buffalo, NY office on site during all construction activities. URS's daily inspection reports are included as Appendix E. This section summarizes remedial activities at the Site.

2.1 Schedule of the Remedial Action

EnviroTrac mobilized to Site on March 19, 2018. In accordance with NYSDEC direction, they began construction activities in the South Lawn area. Work subsequently moved to the North Lawn area, then to the Planters and Islands. The project was substantially completed (i.e., except for punch list items) on October 29, 2018. EnviroTrac received Final Completion on June 25, 2019.

2.2 Regulatory Requirements

The following permits or regulatory requirements were issued/established for the Remedial Action. This report documents the project's conformance with those requirements.

- Community Air Monitoring Program
- NYC Department of Environmental Protection Construction Noise Mitigation Plan
- NYC Department of Buildings Permits Nos. 421575655-01-EW-OT, 421575673-01-EW-OT, and 421575673-01-PL
- Monitoring Well Abandonment
- Vibration, Crack, and Settlement Monitoring
- Storm Water Pollution Prevention Plan (SWPPP) General Permit

The following sections describes these requirements in detail.

2.3 Community Air Monitoring

EnviroTrac sub-subcontracted Preferred Environmental Services (Preferred) of North Merrick, New York, a New York State Women-Owned Business Enterprise (WBE), to perform the required air and documentation monitoring services.

Air monitoring was started on April 23, 2018, immediately before the beginning of patio

removal activities in the South Lawn Area, and was completed on October 31, 2018, after completion of ground-disturbing activity in the North Lawn area.

The details of Community Air and Documentation Monitoring are included in the Community Air Monitoring Plan included in Appendix D. Preferred submitted daily and weekly community air monitoring data to the URS on behalf of EnviroTrac. They also packaged the weekly reports together and submitted them to URS on a monthly basis. The weekly community air monitoring reports, monthly community air monitoring data, and documentation monitoring results are included in Appendix F. URS provided the monitoring data to NYSDEC and NYS Department of Health on a weekly basis. URS also noted if there were any exceedances of action levels onsite in their daily inspection reports.

Though there were isolated exceedances of the stop work action limits (downwind PM_{10} particulate levels greater than $150 \mu g/m^3$ above the upwind level for a 15-minute average and downwind VOC levels greater than 5 ppm above the upwind level for a 15-minute average) no sustained exceedances of any of the monitored parameters were recorded.

2.4 Conformance with the New York City Noise Code

In accordance with the City's Noise Code (Chapter 28 of Title 15 of the Rules of the City of New York) EnviroTrac developed and implemented a noise mitigation plan for the project. The Construction Noise Mitigation Plan, was posted in the office trailer at the Site, and included a list of the proposed practices and materials to be used to fulfil the requirements of the City regulations, including proposed noise barriers and/or curtains. On May 14, 2018 URS issued Field Order No. 5, which directed EnviroTrac to install the noise barrier curtains in the South Lawn Area along Buildings 2, 3, 4, and 5 on chain link fencing per the requirements of the New York City Noise Code. Field Orders and the Field Order Log prepared during the implementation of the IRM are included in Appendix G.

EnviroTrac mounted Echo Barrier ® Acoustic Barriers along the perimeter of the excavation areas to mitigate noise during the completion of the Work. The barriers were mounted on 8 ft. x 12 ft. chain-link panel fencing supplied by National Construction Rentals of New York, New York. The Plan identified the make and model of all tools and equipment that were used on the project, affirmed that

they were properly maintained, and stated that each tool and piece of equipment were equipped with the noise reduction devices specified by the manufacturer, in good working order. The Construction Noise Mitigation Plan is included in Appendix D.

2.5 NYCDOB permit

URS filed a New York City Department of Buildings (NYCDOB) Alteration Type 2 Permit for each of the North Lawn and South Lawn Areas. URS subcontracted Walter T. Gorman Engineering (Gorman) of New York, New York to assist them in filing the Permits. They also filed a NYCDOB Plumbing Alteration Type 2 Permit for the South Lawn Area. EnviroTrac pulled the Alteration Type 2 Permits for the project. URS subcontracted McManus Mechanical Maintenance Plumbing & Heating (McManus) of Rockaway Park, New York through Gorman to pull the Plumbing Alteration Type 2 Permit. URS received a Letter of Completion from NYCDOB, closing out the Permits, at the conclusion of the project. The NYCDOB Permits and the Letter of Completion are included in Appendix H.

2.6 Temporary Facilities and Utilities

EnviroTrac mobilized two trailers to the Site and powered them using generators. Cassone Leasing, Inc. (Cassone), a WBE, of Ronkonkoma, New York supplied the trailers to EnviroTrac. The project sign was mounted in the southeastern corner of the North Lawn Area.

Security services were provided by JDC Investigations & Security, Inc. (JDC), of Franklin Square, New York. EnviroTrac maintained security onsite from March, 26 2018 through October, 26 2018. Security was on Site during work days from 5:00 P.M. to 6:30 A.M. They were also onsite on weekends. EnviroTrac prepared a Site Security Plan, which is included in Appendix D.

2.7 Installation of Temporary Perimeter Security Fence

EnviroTrac installed fence posts and chain-link fence fabric around the perimeter of the Site of the Site in areas where no fence existed in order to improve Site Security. EnviroTrac removed all temporary perimeter security fencing by the end of the project, with the exception of the fencing installed alongside the Soundview Lane Property, which was left in place at the request of the Villas Property Management.

2.8 Establishment of Stormwater Pollution Prevention Controls

EnviroTrac prepared a site-specific Erosion and Sediment Control Plan meeting the requirements of NYSDEC SPDES General Permit GP-0-15-002 for Stormwater Discharges from Construction Activities. It is included in Appendix D. All stormwater pollution prevention control materials and activities were implemented in accordance with the “New York State Standards for Soil Erosion and Sediment Control” (NYSSDESC; November 2016), New York Surface Water and Groundwater Quality Standards and Effluent Standards 6 NYCRR 700-705, Federal Water Quality Criteria 40CFR131, and New York Water Pollution Control Regulations 6 NYCRR608, 610-614.

EnviroTrac identified their Site Superintendent as the employee who served as the “trained contractor” and he signed the Certification Statement required by Section III.A.6. of NYSDEC SPDES General Permit GP-0-15-002.

2.9 Abandonment of Monitoring Wells

EnviroTrac abandoned the monitoring wells specified on Contract Drawings C-005A and C-005B on November 7, November 9, November 26, November 27, and November 28, 2018. The wells were abandoned in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy. EnviroTrac prepared and submitted Well Decommissioning Work Plan prior to the completion of the well abandonment, which is included in Appendix D.

The surface of the abandoned wells was restored with pavement by EnviroTrac subcontractor Atlas and Sons Asphalt of Deer Park, New York. The surface of wells in grassy areas was restored with topsoil and seed. Monitoring wells DEC-16R, DEC-18R, DEC-19R, DEC-20R were removed during the North Lawn Area excavation and were not grouted in accordance with direction from the Department. Monitoring well EB-41/DEC-26 was specified to be protected, but was accidentally removed by EnviroTrac with the South Lawn Area excavation. Monitoring well DEC-17R is located on the Rivers Edge at Powell Cove Estates Property and was specified to be abandoned, but was discovered covered with gravel on November 9, 2018 and deemed inaccessible. EnviroTrac restored the curb and collar of wells that were specified to be protected in the South Lawn Area and in the Capstan Court Islands between September 28, 2018 and October 1, 2018, and on November 7,

2018. The well abandonment records were prepared in accordance with *NYSDEC Policy CP-43: Groundwater Monitoring Well Decommissioning Policy* and are included in Appendix I.

2.10 North and South Lawn Areas

2.10.1 Clearing

EnviroTrac completed Site clearing in the North and South Lawn Areas simultaneously from March 26, 2018 through April 5, 2018. They chipped the cleared plants and stockpiled the chips in the North and South Lawn Areas. The chips were disposed of at Bethlehem Earth LP (Clean Earth Bethlehem) of Bethlehem Pennsylvania with soil excavated from the South Lawn Area and the Planter Boxes at a later date.

On April 13, 2018, EnviroTrac submitted Request for Information (RFI) No. 4, a request for permission to use the Riverview at Condo 3 water spigot on Cove Court. URS discussed the matter with the Condo 3 Property Manager, who did not take exception to it. On May 1, 2018, URS granted permission to EnviroTrac to use the water spigot in a response to the RFI. RFIs and the RFI Log are included in Appendix J.

On April 24, 2018, EnviroTrac removed selected brick patios from the South Lawn Area. They were placed in rolloffs and transported offsite for disposal at Liotta Brothers Recycling Corporation (Liotta) with miscellaneous debris collected during Site activities. Weight tickets for all loads sent to Liotta are included in Appendix K.

EnviroTrac performed additional clearing in the North Lawn Area on August 14, 2018 and October 8, 2018. These plants were placed in rolloffs and transported offsite for disposal at Liotta with miscellaneous debris collected during Site activities.

2.10.2 Vibration Monitoring

EnviroTrac's approved Vibration Monitoring Plan is included in Appendix D. EnviroTrac sub-contracted Vanguard Construction Solutions (Vanguard) of New Milford, Connecticut to perform vibration, crack, and settlement monitoring at the Site. Vanguard took pre-construction photos of the Site on March 20 and March 23, 2018. They used those photos to prepare a Pre-Construction Observation Report, which is also included in Appendix D.

On March 19, 2018, Vanguard installed twelve White Industrial Seismology, Inc. Mini-Seis III ® vibration monitors in the South Lawn Area at the locations shown in the Vibration Monitoring Plan. All twelve vibration monitors remained in the South Lawn Area until August 23, 2018, when they were removed. There were occasional vibrations detected above the Warning Action Limit (0.5 inches per second) and Stop Work Action Limit (1.0 inches per second) during construction activity in the South Lawn Area. The monitors were equipped with telemetry and EnviroTrac and Vanguard were notified via e-mail when vibrations above the action limits were detected onsite. They were caused by activity unrelated to the IRM. For example, a vibration reading of 0.989 inches/second was recorded at 8:48 A.M. at Monitor 7299 in South Lawn Area Yard 8 on Saturday April 16, 2018 when no work was being performed onsite. On August 23, 2018, as intrusive work transitioned from the South Lawn Area to the North Lawn Area, Vanguard transferred Vibration Monitors 5867, 7302, 7328, and 7316 from the northern side of Building 5 to the northern side of Building 1. On September 6, 2018, Vanguard permanently removed Vibration Monitors 7473, 7481, 6036, and 7479 from Building 2 and the Riviera Court Platform. The locations of the Vibration Monitors are shown in the Vibration Monitoring Plan, included in Appendix D.

One vibration was detected onsite above the Warning Action Limit (0.5 inches per second) after August 23, 2018. A vibration of 0.505 inches per second was detected on September 17, 2018 during the loadout of North Lawn Area soils. All remaining vibration monitors were removed from the Site on November 1, 2018. Vanguard made weekly visits to the Site to check the vibration monitors. They prepared weekly vibration monitoring reports that were submitted to URS by EnviroTrac. The weekly vibration monitoring reports are included in Appendix L.

2.10.3 Settlement Monitoring

On March 24, 2018 Vanguard surveyed optical marks that they set at the first floor and roof at 38 locations (76 total marks) across the exterior walls of Buildings 1 through 5. The northing, easting, and elevation at each mark was recorded at this time. This set of readings served as the settlement (movement) monitoring baseline for the project. Vanguard collected three additional sets of readings at each mark prior to the beginning of excavation activity onsite. They visited the Site twice per week to collect readings at each mark during excavation of the North Lawn Area, South Lawn Area, and Cove

Court and Capstan Court Planter Boxes. They visited the Site once per week during the remaining activities onsite. On November 2, 2018, the final set of readings was collected. Vanguard prepared settlement monitoring reports that were submitted to URS by EnviroTrac on a weekly basis. The reports are included in Appendix M. The locations of the optical marks are shown in the reports.

There was no movement measured above the Stop Work Action Limit (0.25 inches) during the Work. Beginning on June 15, 2018, movement was measured above the Warning Action Limit (0.125 inches). A summary of those movement readings is presented in Table 2-1. Actions taken upon observing the movements are also presented in the Table.

2.10.4 Crack Monitoring

On April 23, 2018, Vanguard installed twenty total Avongard® Standard Tell Tale crack monitors on the Buildings around the South Lawn Area. Nine crack monitors (Monitors 1 through 9) were installed along the western side of Building 4. Eight crack monitors (Monitors 10 through 17) were installed along the northern side of Building 5. Three crack monitors (monitors 18 through 20) were installed along southern and eastern sides of the Rivera Court loading platform.

During the Site visit on May 17, 2018, Vanguard noted that the epoxy holding Monitors 3, 5, 7, 8, 9, 15, 17, and 18 in place had been compromised. These Monitors were replaced on May 31, 2018. There was no change in the cracks at Monitors 1, 2, 3, 6, 8, 9, 11, 12, 13, 14, 15, and 16 during the course of the project. Changes at the other crack monitors and actions taken upon observing the movements are summarized in Table 2-2.

As intrusive work transitioned from the South Lawn Area to the North Lawn Area, Vanguard installed 10 total crack monitors across Building 1 on August 23, 2018. Six crack monitors (Monitors 5A through 10A) were installed on the eastern wall of Building 1 and four crack monitors (Monitors 1A through 4A) were installed on the western wall of Building 1.

There were no changes to the cracks at monitors 1A, 2A, 3A, and 10A during the course of the project. Changes in the remaining crack monitors are summarized in Table 2-2. Actions taken upon observing the changes are also presented in the Table.

An expansion joint was installed in the brick façade of the eastern wall of Building 1 prior to the IRM construction. The joint was improperly installed, which generated cracks below it. Crack monitor 5A was installed on the expansion joint and crack monitors 6A, 7A, 8A, and 9A were installed on the crack below it. Thermal expansion and contraction of the joint caused crack monitors 5A through 9A to expand and contract. The maximum expansions of the monitors are identified in Table 2-2.

The crack monitors were removed from the North Lawn Area and South Lawn Area on November 1, 2018. Vanguard made weekly visits to the Site to check the crack monitors. They prepared weekly crack monitoring reports that were submitted to URS by EnviroTrac. The Weekly Crack Monitoring Reports are included in Appendix N. The locations of the crack monitors are shown in the Reports.

2.10.5 Excavation of Contaminated Site Soils

2.10.5.1 South Lawn Area

On December 11, 2017, the Department sent a notification letter to the residents at the Site regarding the Work. This letter is included in Appendix O.

EnviroTrac sub-subcontracted L.K. McLean Associates, P.C. (LKMA) of Brookhaven, New York to complete a Pre-Construction Topographic Survey of the South Lawn Area. On April 4, 2018, they completed the survey. They collected additional elevations per URS' comments on the original survey on April 12, 2018. Based on the Pre-Construction Survey, URS revised the South Lawn Area Grading Plans (Contract Drawings C-007 and C-009) on April 17, 2018 and issued them to EnviroTrac. On April 18, 2018, LKMA installed excavation grade stakes across the South Lawn Area. URS discovered an error in the initial revision to the South Lawn Area Grading Plans and reissued the Plans to EnviroTrac on April 25, 2018. On April 30, 2018, LKMA adjusted the excavation grade stakes per the revised Plans. Survey data is included in Appendix P.

EnviroTrac's approved Excavation Work Plan is included in Appendix D. On April 30, 2018, they began excavation in the South Lawn Area. They began in the northwest corner and moved

southward, then eastward. EnviroTrac used a Spectra ® HL450 Precision Laser to monitor grades during the course of the excavation. The majority of the South Lawn Area excavation was completed by June 5, 2018. The very southwestern and southeastern corners of the South Lawn Area were excavated on June 6, 2018 and June 13, 2018, respectively with the Planter Box and Island soils. On June 21, 2018, URS issued Field Order No. 11 to EnviroTrac directing them to excavate the paved section on Cove Court located immediately west of the southeastern entrance to the South Lawn Area and restore it in accordance with the Contract Documents. On June 20, 2018, they completed this excavation. The material excavated from the southern South Lawn Area entrances was also stockpiled with the Planter Box and Island soils. Miscellaneous construction debris that was removed during the excavation was stockpiled separately from the excavated soils. A total of 1,646.40 cubic yards of material were excavated from the South Lawn Area.

On May 22, 2018, while excavating in the northeastern region of the South Lawn Area EnviroTrac struck a buried Spectrum Cable line. Spectrum came to the Site that day to repair the line. Spectrum also re-routed the subsurface path of the line on June 5 and June 11, 2018. Spectrum also routed a cable line from Building 4 at Condo 3 over Riviera Court to a connection point at the northeastern corner of Building 1 at the Villas at Riverview. On May 29, 2018, while excavating in the South Lawn Area to the east of the Riviera Court Platform, EnviroTrac struck the steel pipe exiting an existing drainage inlet there to the north. On June 12, 2018, EnviroTrac repaired the line. EnviroTrac accidentally destroyed monitoring well EB-41/DEC-26 during the course of the excavation. The Department directed EnviroTrac not to replace the well.

URS verified that the required bottom of excavation elevations specified in Contract Documents were reached via survey.

2.10.5.2 North Lawn Area

EnviroTrac completed the North Lawn Area excavation periodically from August 22, 2018 to October 23, 2018. A total of 2,148.42 cubic yards of material were excavated from the North Lawn Area.

Conduits that ran between the North Lawn Area lights along the northern boundary were struck by EnviroTrac during the North Lawn Area excavation. These conduits were repaired by EnviroTrac from October 1, 2018 through October 3, 2018. EnviroTrac struck an underground conduit that ran north to south in the in the North Lawn Area on August 17, 2018 while relocating a soil stockpile. This conduit serviced the lights that border the North Lawn Area. The conduit was repaired on October 23 and October 24, 2018. EnviroTrac also knocked the conduit off of the eastern Building 1 sidewall during the North Lawn Area excavation. The conduit serviced a light on the wall. This conduit was repaired by EnviroTrac on November 15, 2018. The conduits were not energized at the time they were struck.

URS verified that the required bottom of excavation elevations specified in Contract Documents were reached via survey.

2.10.6 Preservation of Selected Trees

The trees that were specified to be protected during the North and South Lawn Area excavations are shown on Contract Drawings C-005A and C-007. On October 5, 2018, EnviroTrac pneumatically excavated around the roots of these trees in the North Lawn Area, with the exception of the trees described in Section 3.14 below. The excavations were promptly backfilled with topsoil and covered with burlap upon completion. The trees that were specified to be protected in the South Lawn Area are also discussed further in Section 3.14 below.

2.10.7 Redesign and Replacement of Underground Irrigation System

The existing underground irrigation system components in the North and South Lawn Areas were excavated from those respective areas and disposed of offsite with the remaining excavated materials. EnviroTrac sub-subcontracted Pacific Lawn Sprinklers of College Point, New York to design and replace the underground irrigation systems in the North and South Lawn Areas. They installed the South Lawn Area Irrigation System from August 8, 2018 through August 10, 2018. On August 10, 2018, they tested the system. On October 22, 2018, the System was winterized.

During the course of the South Lawn Area excavation, URS and EnviroTrac observed that there was no irrigation system in the Condo 3 side of the area. EnviroTrac was only contractually obligated to replace irrigation system components that were in place originally. During Progress Meeting No. 6, EnviroTrac proposed installing a section of irrigation system on the Condo 3 side of the South Lawn Area in order to facilitate the irrigation of the sod there. This section would be fed by the Villas at Riverview Water Supply. The Department discussed the matter with Villas at Riverview Condo Management and they did not take exception to it as long as EnviroTrac paid them for the water that they used. On August 23, 2018, EnviroTrac installed a flowmeter on the Condo 3 leg of the irrigation system to track water usage.

On August 9, 2018, Pacific Lawn Sprinklers discovered that there was no way to isolate the South Lawn Area Irrigation System from the North Lawn Area System during testing. They installed a ball valve in the North Lawn Area to remedy this.

On September 4, 2018, Pacific Lawn Sprinklers repaired an electric isolation valve that malfunctioned at the Irrigation System Control Panel, located in Riviera Court Island RIV ISL 4.

The North Lawn Area Irrigation System was installed periodically from October 11, 2018 through October 31, 2018. The System was tested on October 31 and November 1, 2018. On November 15, 2018, the System was winterized. The irrigation system piping was installed within the clean backfill layer in both areas. The as-built drawings of the Systems in both Areas are included in Appendix D.

There were breaks in both the North and South Lawn Area Irrigation System lines caused by other activities performed during IRM construction. The breaks were immediately repaired and the North and South Lawn Irrigation Systems passed testing performed by Pacific Lawn Sprinklers at the completion of system installation.

2.10.8 Yard Drain Installation

EnviroTrac installed the Yard Drain shown in Contract Drawing C-007 from July 9, 2018 through July 12, 2018. URS' initial design for the Yard Drain consisted of 4" diameter, solid PVC pipe and two 6" drainage inlets. After URS reissued the South Lawn Area Grading Plans to EnviroTrac on April 25, 2018 and saw the condition of the existing western drainage inlets during a Site inspection on May 2, 2018, they redesigned the Yard Drain to include 12" diameter, slotted PVC pipe, 6" diameter, solid PVC pipe, and two 12" drainage inlets. A final revision to the Yard Drain design was issued to EnviroTrac on June 6, 2018 which provided clarification on the type of bedding stone required beneath the Yard Drain pipe. EnviroTrac submitted Proposed Change Order (PCO) No. 4 for the modifications to the Yard Drain. The revised Yard Drain detail is included in Supplemental Drawing South Lawn Area Drainage Plan. Record Drawings are included in Appendix Q. Additional Yard Drains were also installed in the South Lawn Area, which are discussed in Section 3.4.

2.10.9 Restoration of Fences and Landscaping

EnviroTrac removed the existing 3-foot and 6-foot vinyl fencing in the South Lawn Area from March 19, 2018 through March 30, 2018. EnviroTrac sub-subcontracted Keys of Bayshore, New York to install the new vinyl fencing in the South Lawn Area. The new fence was installed from October 8, 2018 through October 26, 2018.

2.11 Planters and Islands

2.11.1 Excavation

EnviroTrac completed excavation of the Planter Boxes and Islands on Cove Court and Capstan Court periodically from June 7, 2018 through July 2, 2018. Island COV 2A was excavated on July 19, 2018. On July 11, 2018 URS issued Field Order No. 14 to EnviroTrac directing them to excavate three Islands in the vicinity of Planter Box COV 3 that were not shown in the Contract Documents and an extension to Planter Box COV 6 that was installed by Condo 3 after the issuance of the Contract Documents. These excavations were completed on June 21, 2018. They were also directed to restore them in accordance with the Contract Documents. The timbers from the excavated planter boxes were

placed into rollofts and transported offsite for disposal at Liotta.

EnviroTrac excavated the Riviera Court Planter Boxes periodically from June 29, 2018 through July 19, 2018. Planter Box RIV 14 was excavated on October 17, 2018. Timbers from the existing Planter Boxes on Riviera Court were placed in rollofts and transported offsite for disposal at Liotta. On June 18, 2018, EnviroTrac hit a low voltage power line in Island COV 17A during excavation. They repaired it on that date. On June 14, 2018, they damaged and repaired a junction box Planter Box COV 3 during excavation. On June 29, 2018, the New York City Fire Department extended a hydrant shut off in Island COV 6A. On June 29, 2018, the gas company extend the gas line present in the southeastern entrance to the South Lawn Area, near Planter Box COV 3.

URS verified that the required bottom of excavation elevations specified in Contract Documents were reached via survey.

2.11.2 Replacement of Wood Edging

EnviroTrac reconstructed the wood edging on Islands COV 5A, COV 6A, and COV 20A and Cove Court, Capstan Court, and Riviera Court Planter Boxes from July 24, 2018 through August 16, 2018. Planter Box RIV 14 was reconstructed on October 31, 2018. Additional course was also installed on the Cove Court and Capstan Court wooden planter boxes, which is discussed in detail in Section 3.18. EnviroTrac used measurements taken prior to the demolition of existing Planter Boxes and Islands and pre-construction photographs as guide for the replacement of the edging.

2.11.3 Block Planters

EnviroTrac excavated the block planters on Capstan Court, CAP 11, CAP 12, CAP 13, CAP 14, and CAP 15, on June 12, June 14, and July 2, 2018. On July 6, 2018, they pressure washed the planters. On November 5, 2018, they tamped the blocks of each planter to pack them more tightly into place.

2.12 Transportation and Disposal of Waste

2.12.1 South Lawn Area

EnviroTrac collected waste characterization samples in the South Lawn Area on April 5, 2018. The locations of the waste characterization samples are shown on Supplemental Drawing Initial Survey (South Lawn Area). The waste characterization samples were collected per the direction of Bethlehem Earth LP (Clean Earth of Bethlehem) of Jenkintown, Pennsylvania, the disposal facility for the South Lawn Area soils. Upon receipt of the analytical results from the waste characterization samples, Clean Earth Bethlehem approved the South Lawn Area soils for disposal on May 9, 2018. The waste characterization sample analytical results and approval letter from the disposal facility are included in Appendix R.

EnviroTrac loaded the miscellaneous C&D debris that they encountered during the South Lawn Area excavation into rolloffs and had it transported offsite for disposal at Liotta. A total of 68 tons of C&D debris from the South Lawn Area was disposed of at Liotta. The weight tickets from the facility are included in Appendix K. Quantities of all waste streams from the Site are presented in Table 1-2.

EnviroTrac's approved Transportation and Disposal Plan is included in Appendix D. The Department and Villas Condo Management granted EnviroTrac permission to load excavated South Lawn Area soils into trucks parked on the Riviera Court Platform that overlooks the South Lawn Area. On May 15, 2018, EnviroTrac installed decontamination pad on the Platform. EnviroTrac loaded out the majority of South Lawn Area soils from May 17, 2018 through June 5, 2018 for disposal at Clean Earth Bethlehem. Soils from the very southwestern and southeastern corners of the South Lawn Area were loaded out at a later date with the Planter Box and Island soils. A total of 2,505 tons of soil were transported offsite from the South Lawn Area for disposal at Clean Earth Bethlehem. The waste manifests and weight tickets from the disposal facility are included in Appendix K.

2.12.2 Planter Boxes and Islands

On April 26, 2018, EnviroTrac collected grab and composite waste characterization samples from

the Planter Boxes and Islands. Upon review of the historical analytical data from the Site, Clean Earth Bethlehem took exception to two Planter Box results: CAP 6 (12-24") (Benzo(a)pyrene detection of 51 mg/kg) and COV20 (12-24") (Lead detection of 1,310 mg/kg). On June 5, 2018, URS prepared a letter for EnviroTrac to submit to Clean Earth Bethlehem, which stated that soils from Planter Boxes CAP 6 and COV 20 would be segregated from the remaining soils. The letter is included in Appendix P. On July 27, 2018, Clean Earth Bethlehem approved Planter Box and Island soils (without the CAP 6 and COV 20 soils) for disposal. The approval letter is included in Appendix R.

EnviroTrac loaded out Planter Box and Island soils for disposal on August 7 and August 8, 2018. They were previously stockpiled in the North Lawn Area after excavation. The soils from the very southeastern and southwestern corners of the South Lawn Area were stockpiled with the Planter Box and Island soils and loaded out for disposal with them. Soils from Planter Boxes CAP 6 and COV 20 and Island COV 20A were stockpiled separately and not loaded out at this time. A total of 470 tons of soil were transported offsite from the Planter Boxes and Islands for disposal at Clean Earth Bethlehem. The waste manifests and weight tickets from the disposal facility are included in Appendix K.

Trees from the Planter Box and Island clearing and the demolished Planter Boxes were loaded into rolloffs and transported offsite for disposal at Liotta. A total of 26 tons of Planter Box and Island debris were disposed of at Liotta. The weight tickets from the facility are included in Appendix K.

2.12.3 North Lawn Area

EnviroTrac collected grab and composite waste characterization samples from the North Lawn Area on April 19, 2018. They split the Area into three, approximately equally sized regions and collected one grab sample and one five-point composite sample from each region. The samples from the three regions were labeled NORTHLAWN-PRECHAR-AREA-1, NORTHLAWN-PRECHAR-AREA-2, and NORTHLAWN-PRECHAR-AREA-3. The sample locations are shown on Supplemental Drawing Initial Survey (North Lawn Area). The initial PCB result for sample NORTHLAWN-PRECHAR-AREA-3 exceeded the calibration range in the instrument and required dilution. The analytical result in the diluted sample for Total PCBs was 3,090 ppm.

URS directed EnviroTrac to re-extract the sample from NORTHLAWN-PRECHAR-AREA-3

at the laboratory to confirm the analytical result for Total PCBs. On May 9, 2018, the laboratory extracted the new sample. The PCB result for sample exceeded the calibration range in the instrument and required dilution. The analytical result for Total PCBs was 990 ppm. URS directed EnviroTrac to collect discrete samples at the five locations that were originally sampled to create composite sample NORTH-LAWN-PRECHAR-AREA-3. This was performed in order to pinpoint the area causing the elevated analytical result for Total PCBs. On May 8, 2018, those samples, labeled N3-1A through N3-5A, were collected. The sample locations are shown on Supplemental Drawing Initial Survey (North Lawn Area). N3-5A was identified as the location with elevated PCBs. The PCB result for sample exceeded the calibration range in the instrument and required dilution. The analytical result for Total PCBs was 3,000 ppm. The extent of the contamination around N3-5A was delineated via a Geoprobe® Sampling program, which is discussed in Section 3.3.

After the location with elevated Total PCB concentrations had been identified, Clean Earth Bethlehem required EnviroTrac to collect an additional waste characterization sample in the region of the North Lawn Area where NORTHLAWN-PRECHAR-AREA-3 was collected. on July 25, 2018, grab and composite waste characterization samples were collected and labeled NORTHLAWN-PRECHAR-AREA-3B. The analytical reports from the North Lawn Area waste characterization sampling are included in Appendix R. URS prepared a letter for EnviroTrac to submit to Clean Earth Bethlehem, which stated that soils in the vicinity of N3-5A and other regions of the concern in the North Lawn Area would be segregated from remaining North Lawn Area soils. Those regions are shown on Figure 2-1. The letter is included in Appendix R. Clean Earth Bethlehem approved the North Lawn Area Soils for disposal on September 5, 2018. Soils in the vicinity of N3-5A and from other North Lawn Areas of concern to the disposal facility were excluded from the approval.

EnviroTrac loaded out the majority of North Lawn Area soils periodically from September 5, 2018 through October 23, 2018. A total of 3,595 tons of soil were transported offsite from the North Lawn Area for disposal at Clean Earth Bethlehem. The waste manifests and weight tickets from the disposal facility are included in Appendix K.

EnviroTrac loaded the miscellaneous C&D debris that they encountered during the North Lawn Area excavation into rolloffs and had it transported offsite for disposal at Liotta. A total of 35 tons of C&D debris from the North Lawn Area was disposed of at Liotta. The weight tickets from the

facility are included in Appendix K.

2.13 Collection and Analysis of Documentation Soil Samples

EnviroTrac collected documentation samples from the South Lawn Area on June 14 and June 19, 2018. They were labeled DOCUMENTATION-1 through DOCUMENTATION-10. On July 17, 2018, EnviroTrac collected documentation samples from the Planter Boxes and Islands. They were labeled PLANTER-DOC-1 through PLANTER-DOC-10. EnviroTrac collected documentation samples from the North Lawn Area on September 4, October 5, and October 24, 2018. They were labeled DOCUMENTATION-11 through DOCUMENTATION-32. On August 30, 2018, a documentation sample was also collected from beneath a storage tank that was discovered in the North Lawn Area. The tank was previously placed there during the unregulated landfilling activity that occurred at the Site. It was labeled DOCUMENTATION-UST. The documentation samples were analyzed for TCL SVOCs by USEPA SW-846 Method 8270D, TAL Metals by USEPA SW-846 6010D/6020B/7000 Series, and TCL PCBs – USEPA SW-846 Method 8082A. The analytical result for Total PCBs for each of the documentation samples is shown on Figures 2-2 through 2-4. The results are depicted for each of the three areas of the Site described in Section 1.1. The analytical result for Total PCBs was below 10 ppm in all of the samples collected, except for DOCUMENTATION-19, which is discussed in detail in Section 3.9 below.

2.14 Restoration of Excavated Areas

2.14.1 Backfill

EnviroTrac's source of clean backfill material for the Site was the Pinelawn Memorial Park in Farmingdale, New York. On May 22, 2018, they traveled to the borrow pit and sampled the proposed backfill material. The material met the analytical criteria specified in the Contract Documents. The analytical report is included in Appendix R. EnviroTrac placed clean backfill in the South Lawn Area periodically from June 13, 2018 to July 17, 2018. A total of 1,345 cubic yards of clean backfill material was placed in the South Lawn Area.

EnviroTrac placed clean backfill in the Planter Boxes and Islands periodically from July 17, 2018 through August 8, 2018. On August 10, 2018, CAP 2A was backfilled. On October 31, 2018, Planter

Box RIV 14 was backfilled. A total of 236 cubic yards of backfill was placed in the Planter Boxes and Islands.

EnviroTrac placed clean backfill in the North Lawn Area periodically from September 5, 2018 through October 24, 2018. A total of 1,496 cubic yards of clean backfill was placed in the North Lawn Area.

URS verified via survey that the required backfill grades had been achieved.

2.14.2 Topsoil

EnviroTrac's source of topsoil for the Site was the BGLJ Servicing Corp. (BGLJ) in Baiting Hollow, New York. On June 12, 2018, they traveled to the BGLJ facility and sampled the proposed topsoil. The material met the analytical criteria specified in the Contract Documents. The analytical report is included in Appendix R. EnviroTrac placed topsoil in the South Lawn Area periodically from July 30, 2018 through August 20, 2018. LKMA surveyed the topsoil on August 8, 2018 and August 21, 2018. A total of 2,898 square yards of topsoil were placed in the South Lawn Area.

EnviroTrac placed topsoil in the Planter Boxes and Islands periodically from August 9, 2018 through August 29, 2018. On September 14, 2018, Additional topsoil was placed in Islands COV 6A, COV 5A, COV 20A, and CAP 4A. On September 24, 2018, Island CAP 4A received additional topsoil. On October 31, 2018, Island RIV 14 was backfilled with clean fill and topsoil. A total of 740 square yards of topsoil were placed in the Planter Boxes and Islands at a thickness of 4 inches.

EnviroTrac placed the majority of topsoil in the North Lawn Area periodically from October 1, 2018 through October 29, 2018. A total of 5,553 square yards of topsoil were placed in the North Lawn Area.

URS verified via survey that the required topsoil grades had been achieved.

2.14.3 Hydroseed

EnviroTrac's source of seed for the hydroseed mix was DeLea Sod Farms (DeLea) of East Northport, New York. The seed mix included 24.76% Banfield Perennial Ryegrass, 19.85% Blazer 4 Perennial Ryegrass, 19.71% Palmer III Perennial Ryegrass, 14.89% Action Kentucky Bluegrass, 9.97% Cascade Chewings Fescue, and 9.86% Boreal Creeping Red Fescue. The other component of the mix was Hydro Mulch ® 1000 Wood Fiber Mulch. The hydroseed met the requirements specified in the Contract Documents. A total of 4,436 square yards of hydroseed was applied in the North Lawn Area.

2.14.4 Mulch

EnviroTrac installed mulch in the Cove Court, Capstan Court, and Riviera Court Planter Boxes from September 13, 2018 through September 24, 2018. On October 31, 2018 Planter Box RIV 14 was mulched. They installed mulch in the North Lawn Area Planting Beds on November 1, 2018 and November 2, 2018. EnviroTrac used Howe Products ® Canadian Cedar Mulch onsite. A total of 6.50 tons of mulch was placed onsite between the Cove Court, Capstan Court, and Riviera Court Planter Boxes and the North Lawn Area Planting Beds.

2.14.5 Sod

DeLea was also EnviroTrac's source for sod. On August 21, 2018, EnviroTrac traveled to DeLea and collected a sample of the sod. The soil component of the sod met the analytical criteria specified in the Contract Documents. The analytical report is included in Appendix R. On September 4, 2018, DeLea installed sod in the South Lawn Area. A total of 2,916 square yards of sod were placed in the South Lawn Area.

The Department and the Engineer directed EnviroTrac to place 26 total square yards of sod in Cove Court Islands COV 5A, COV 6A, and COV 20A, per the request of the Condo 3 President. On September 25, 2018, the sod was installed. Per the request of the resident at 2-08 Capstan Court, the

Department and the Engineer directed EnviroTrac to install 2 square yards of sod at the southern portion of Island CAP 4A. On November 1, 2018, the sod was installed.

DeLea also installed the sod in the North Lawn Area on November 1, 2018. A total of 8,829 square feet of sod were placed in the North Lawn Area.

EnviroTrac verified that the final grades specified in the Contract Documents had been achieved via survey.

2.15 Planting and Establishment of Trees and Shrubs

EnviroTrac received the first delivery of trees and shrubs onsite on September 10, 2018 and immediately began installing Thundercloud Plum (*Prunus cerasifera*) trees in the Cove Court and Capstan Court Planter Boxes. The invoices from all of the plant deliveries onsite are included in Appendix D. The installation of plants in the Cove Court and Capstan Court Planter Boxes continued through September 17, 2018. Per the request of the Condo 3 Property Management, the Department and the Engineer directed EnviroTrac to install additional English Ivy (*Hedera helix*) plants in the Cove Court and Capstan Court Planter Boxes. The plants were installed on September 25, 2018 and September 26, 2018. Also, per the request of Condo 3 Property Management, the Department and the Engineer directed EnviroTrac to install four Arborvitae (*Thuja occidentalis*) each in Cove Court Islands COV 1 and COV 24. The plants were installed on November 1, 2018 and November 2, 2018.

EnviroTrac installed the majority of the plants in the Riviera Court Planter Boxes and Islands periodically from September 17, 2018 through September 28, 2018. Arborvitae (*Thuja occidentalis*) were installed in Island RIV ENT S1, located in the on Riviera Court in the South Lawn Area, during this time. On October 31, 2018, plants were installed in Planter Box RIV 14. The Department and URS directed EnviroTrac to make slight modifications to the plantings on Riviera Court, per the request of Villas at Riverview Condo Management. The actual plantings on Riviera Court are shown on Supplemental Drawing Riviera Court Plantings.

EnviroTrac installed the plants in the North Lawn Area periodically from October 22, 2018 through November 9, 2018. The Department and URS directed EnviroTrac to make slight modifications to the plantings in the North Lawn Area, per the request of Villas Management. The actual North Lawn Area Plantings are shown on Supplemental Drawing As-Built Survey (North Lawn Area).

EnviroTrac installed the plants in the South Lawn Area periodically from October 31, 2018 through November 5, 2018. The Department and URS directed EnviroTrac to make slight modifications to the plantings in the South Lawn Area, per the request of Condo 3 Property Management. The actual South Lawn Area Plantings are shown on Supplemental Drawing As-Built Survey (South Lawn Area).

2.16 North Lawn Area Walkway Restoration

EnviroTrac completed the restoration of the heaved portion of the North Lawn Area Walkway periodically from September 26, 2018 through November 14, 2018. The two benches on the heaved portion of the Walkway were reconstructed and cemented back into place on the restored walkway. A small eastern section of Walkway was also restored.

2.17 Demobilization

EnviroTrac demobilized equipment from the Site periodically from November 1, 2018 through November 29, 2018. They had to remobilize equipment to the Site to complete a small excavation around documentation sample location DOCUMENTATION-19. The equipment associated with that operation was demobilized from the Site on December 19, 2018 and December 20, 2018. EnviroTrac remobilized personnel to the Site on January 14, 2019 to install a yard drain in South Lawn Area Yard 11 and complete repairs of select North Lawn Area lights. EnviroTrac remobilized personnel to the Site on April 15, 2019 to complete additional landscaping. EnviroTrac permanently demobilized from the Site on April 18, 2019.

3.0 CONTRACT MODIFICATIONS

This section discusses significant variations from the Contract Documents. All modifications were included in executed Change Orders No. 1, No. 2, and No. 3 (Appendix C).

3.1 Additional Survey

As discussed in Section 2.10.5.1, URS issued multiple Subgrade and Final Grading Plans to EnviroTrac. URS revised the Subgrade and Final Grading Plans for the South Lawn Area after reviewing the pre-construction survey data collected by LKMA and reissued them to EnviroTrac on April 17, 2018. LKMA installed excavation stakes in the South Lawn Area based on the revised Plans. URS revised the Subgrade and Final Grading Plans again after an error was discovered in the first revision to the Plans and reissued them to EnviroTrac on April 25, 2018. LKMA made adjustments to the previously installed grade stakes based on the revised Plans. EnviroTrac incurred additional survey costs based on the modifications to the Plans and the beginning of the South Lawn Area excavation was delayed while survey data was being evaluated. EnviroTrac was granted a 5-day extension to the Contract Time for this modification. This modification is included in Change Order No. 1.

3.2 Additional Waste Characterization Sampling

As discussed in Section 2.12.3, multiple waste characterization samples had to be collected in the North Lawn Area. The original composite waste characterization sample that EnviroTrac collected from the region of the North Lawn Area adjacent to the Villas patios (called North Lawn Area No. 3), labeled NORTHLAWN-PRECHARAREA-3, contained an analytical result for Total PCBs of 3,090 ppm. URS directed EnviroTrac to perform additional sampling and analysis to pinpoint the source of the exceedance. EnviroTrac incurred additional costs for the sampling and analysis. This modification is included in Change Order No. 1.

3.3 Geoprobe ® Sampling Program

As discussed in Section 2.12.3, a Geoprobe ® sampling program was performed to delineate

the extent of the contamination around sample location N3-5A. URS issued Field Order No. 3 to EnviroTrac on May 14, 2018 directing them to use direct push technology to advance 2- inch macrocore borings to 6 feet below ground surface (bgs) at 20 locations (SB-01 through SB-20), at 10 foot intervals on a 30x40-foot grid centered on Sample Location N3-5A (SB-01). This was performed to delineate the extent of PCB contamination around Sample Location N3-5A. This area is shown on Figure 2-1.

The analytical results from the Geoprobe ® sampling served as a basis for the excavation plan for the soils in the vicinity of sample N3-5A, discussed below in Section 3.6. EnviroTrac incurred additional costs for the sampling and analysis. This modification is included in Change Order No. 1.

3.4 Additional Yard Drain Installations

As discussed in Section 2.10.8, the original scope for the Yard Drain in the Contract Documents changed with the revisions to the South Lawn Area Grading Plans and additional Yard Drains were installed in the South Lawn Area. Per the request of Villas Property Management, URS issued Field Order No. 13 to EnviroTrac on July 6, 2018 directing them to install a Yard Drain with 20 ft. of piping in the western end of the South Lawn Area in order to improve drainage. On July 16, 2018, EnviroTrac installed one 12-inch x 12-inch NDS ® Catch Basin Kit and 20 ft. of NDS ® EZ-Drain ® 4” perforated, corrugated, French drain pipe. EnviroTrac incurred additional costs for the installation of this yard drain. This modification is included in Change Order No. 1.

On January 2, 2019, Condo 3 Property Management notified the Department that 2-16 Capstan Court (South Lawn Area Yard 11) was flooded. Significant rain had recently fallen in the area. URS issued Field Order No. 23 to EnviroTrac on January 4, 2019 directing them to install a drain in the Yard. EnviroTrac manually installed the yard drain from January 14, 2019 through January 17, 2019. The yard drain consisted of 80 ft. of 6-inch diameter, Schedule 40 PVC pipe in a gravel bed. Two, NDS ® 9-inch drainage inlets with galvanized steel covers were installed in the drain line. The Yard 11 drain pipe was tied into the 12-inch diameter, slotted PVC pipe of the yard drain that appeared in the Contract Documents. This modification is included in Change Order No. 3.

3.5 North Lawn Area Mowing

Villas at Riverview Condo Management elected to cancel their landscaping service until IRM construction was completed. The North Lawn Area vegetation had become overgrown as a result. On June 29, 2018 URS issued Field Order No. 12, directing EnviroTrac to mow the lawn in the North Lawn Area. EnviroTrac mowed and landscaped the North Lawn Area on July 5, 2018 and July 6, 2018. EnviroTrac incurred additional costs for the completion of the lawn mowing. This modification is included in Change Order No. 1.

3.6 PCB Remediation Waste Excavation and Disposal

As discussed in Section 2.10.3, the soils in the vicinity of sample location N3-5A were handled separately from the remaining soils in the North Lawn Area. The results of the delineation and Geoprobe ® sampling discussed in Sections 3.2 and 3.3 provided a basis for a plan to excavate the soils in the vicinity of Sample Location N3-5A (Geoprobe ® Sample Location SB-01). This area is shown on Figure 2-1. URS issued Field Order No. 9 to EnviroTrac on June 15, 2018 directing them to excavate the soils.

The excavator used to complete the operation had to be decontaminated prior to demobilization from the Site. Due to the nature of the contamination that it was used to excavate, EnviroTrac retained a specialty sub-subcontractor to complete the operation. EnviroTrac sub-subcontracted Innovative Recycling Technologies, Inc. (Innovative) of Lindennhurst, New York to decontaminate the excavator. On September 6, 2018, they performed the decontamination and containerized the decontamination materials into one drum. EnviroTrac incurred additional costs for performing the excavation and decontaminating the equipment. EnviroTrac was also granted a 5-day extension to the Contract Time for these tasks. This modification is included in Change Order No. 1.

Innovative brokered the transportation and disposal of the drum for EnviroTrac. On October 18, 2018, the drum was transported offsite and disposed of at Clean Earth of North Jersey (Clean Earth North Jersey) in South Kearney, New Jersey. The waste manifest for the drum is included in Appendix K.

On August 28, 2018, EnviroTrac uncovered a storage tank while excavating in the North Lawn Area. The tank was previously placed there during the unregulated landfilling activity that occurred at the Site. On August 30, 2018, they removed the tank and collected a documentation sample. On September 6, 2018, Innovative emptied and cleaned the UST for EnviroTrac while they were onsite. The contents of the tank were containerized in seven drums. Innovative brokered the transportation and disposal of the drums for EnviroTrac. The drums were transported offsite and disposed of at Clean Earth of North Jersey. The waste manifests for the drums are included in Appendix K. On October 12, 2018, the tank was transported offsite for recycling by EnviroTrac.

A total of 268.10 tons PCB remediation waste, as defined in 40 CFR Part 761, from the vicinity of Sample Location N3-5A were transported offsite and disposed of at Chemical Waste Management, Inc. in Emelle, Alabama (CWM Emelle). EnviroTrac incurred additional costs for disposing of the soil and drums. This modification is included in Change Order No. 2.

3.7 Delineation (Orphan) Pile Transportation and Disposal

The areas of concern for Clean Earth Bethlehem in the North Lawn Area identified in Section 2.12.3 were excavated and the soils were segregated from the remaining North Lawn Area soils. On August 24, 2018, soils from SS-06, SS-11, and Geoprobe ® Location 13 were excavated. They were stockpiled with the Planter Box and Island soils from CAP 6, COV 20, and COV 20A, additional areas of concern for Clean Earth Bethlehem. The pile was classified as “The Orphan Pile” by project parties. URS had previously issued Field Order No. 15 to EnviroTrac on July 16, 2018 directing them to identify disposal facilities that would accept all excavated soils from the North Lawn Area and the Planter Boxes and Islands. Innovative identified Bayshore Recycling Corporation (Bayshore) in Keasbey, New Jersey as a disposal facility for the Orphan Pile. On August 24, 2018, EnviroTrac collected a waste characterization sample from the Orphan Pile. The analytical report is included in Appendix R. The approval letter from Bayshore is also included in Appendix R. Innovative brokered the transportation and disposal of the Orphan Pile for EnviroTrac. On October 17, 2018, EnviroTrac loaded out the Orphan Pile. The waste manifests and weight tickets from the disposal facility are included in Appendix K. A total of 155 tons of soil from the Orphan Pile were disposed of at Bayshore. EnviroTrac incurred additional costs for characterizing, transporting, and disposing of the Orphan Pile. This modification is included in Change Order No. 2.

3.8 PCO-16 - Miscellaneous Punchlist Items

The Department requested that EnviroTrac arrange for the transportation and disposal of investigation derived waste (IDW) that had been staged onsite from work unrelated to the IRM construction. The cost for this work was included in PCO No. 16. URS issued Field Order No. 20 to EnviroTrac on October 26, 2018 directing them to dispose of three drums stored in the fenced-in enclosure located near the Capstan Court entrance to the North Lawn Area. One drum was a bulging drum containing water with a sheen that was unfit to ship. The other two drums were overpack drums. One of the overpacks contained a drum full of oily absorbent socks. The other overpack contained a drum that was 1/3 filled with PCB-contaminated oil. The contents of the bulging drum were emptied into the drum containing the PCB-contaminated oil. Innovative brokered the transportation and disposal of the drums for EnviroTrac. On November 6, 2018, the drums were transported offsite by Innovative. They were disposed of at Clean Earth North Jersey as Hazardous Waste. The manifests for the drums are included in Appendix K. EnviroTrac also cleaned the enclosure per the Department's request.

There other tasks included in PCO No. 16 are discussed below:

- Per the request of Villas Property Management, URS and the Department directed EnviroTrac to install Condo-supplied drip lines at select residences on Riviera Court. On November 13, 2018, EnviroTrac installed drip lines Planter Boxes RIV 1 through RIV 12.
- Per the request of Villas at Riverview Property Management, URS and the Department directed EnviroTrac to secure the grate on the drainage inlet at the western end of the South Lawn Area, near the Riviera Court platform. On November 15, 2018, EnviroTrac completed this task.
- Per the request of the Department, EnviroTrac removed the leaves that had fallen in the North Lawn Area and performed some additional mowing. These tasks were

completed on November 29, 2018 and November 30, 2018.

- Per the request of Villas Property Management, URS and the Department directed EnviroTrac to re-stencil the faded parking space numbers on the Riviera Court platform. On November 30, 2018, EnviroTrac completed this task on spaces 19, 21, and 22.

EnviroTrac incurred additional costs for completing these punchlist items. This modification is included in Change Order No. 2.

3.9 Excavation, Transportation, and Disposal of DOCUMENTATION-19 Soils

As discussed in Section 2.14, The analytical result for Total PCBs at the documentation sample location DOCUMENTATION-19 was 17.9 ppm. On November 21, 2018 URS issued Field Order No. 21 to EnviroTrac directing them to characterize the soils from 1 ft. to 2 ft. below existing grade in a 20 ft. x 20 ft. Area around DOCUMENTATION-19 for disposal and excavate the area after receipt of waste characterization analytical results and approval from the disposal facility. On November 12, 2018, EnviroTrac completed the waste characterization sampling. The analytical report is included in Appendix R. The approval letter from the disposal facility is included in Appendix R.

EnviroTrac completed the excavation from December 17, 2018 through December 19, 2018. The rolloffs containing the excavated materials were transported offsite on December 19, 2018 and December 20, 2018. A total of 30 tons of soil were disposed of at Republic Services, Inc. Conestoga Landfill in Morgantown, Pennsylvania (Conestoga). The waste manifests and weight tickets for the soils are included in Appendix K. EnviroTrac incurred additional costs for completing these tasks. This modification is included in Change Order No. 3.

3.10 Abandonment of Soil Gas Points

Per the request of the Department, URS issued Field Order No. 7 to EnviroTrac on June 22, 2018 directing them to abandon the Soil Gas (SG) points that were located in the pavement at the Site. EnviroTrac completed this task on November 26, November 27, and November 28, 2018. EnviroTrac

abandoned 30 total SG points. Some of the points had been abandoned prior to the beginning of IRM construction. A figure showing the SG point abandonments is included in Appendix I. EnviroTrac incurred additional costs for abandoning the SG points. This modification is included in Change Order No. 3.

3.11 Additional Paving

Per the Department's request, URS directed EnviroTrac to pave two sections of Capstan Court. One section was approximately 15 ft. x 80 ft. and the other was approximately 10 ft. x 15 ft. EnviroTrac sub-subcontracted Atlas and Sons Asphalt (Atlas) of Deer Park, New York to perform the work. On November 28, 2018, Atlas completed the paving. EnviroTrac incurred additional costs for this task. This modification is included in Change Order No. 3.

3.12 Irrigation System Isolation Valve Installation

As discussed in Section 2.10.7, Pacific Lawn Sprinklers had to repair a broken electrical isolation valve at the Irrigation System Control Panel in Riviera Court Island RIV ISL 4. EnviroTrac incurred additional costs for this task. This modification is included in Change Order No. 3.

3.13 Documentation Monitoring

Contract Specification Section 00003 – Minimum Requirements for Health and Safety specifies that personnel documentation samples be analyzed for dust, metals, and pesticides. On June 8, 2018, EnviroTrac's Health and Safety Department submitted a request to waive the requirement for metals and pesticide analysis. URS and the Department granted that request. These samples are distinct from post-excavation soil documentation sampling, which were also collected and discussed in detail in Section 2.13.

3.14 Protection of Selected Trees

As discussed in Section 2.10.6, there were trees that were originally specified to be protected in the Contract Documents that were removed. On August 15, 2018, URS received permission from Mr. Clinton Haynes, the Villas Condo President, to remove the tree that is shown in the center of the North Lawn Area in Contract Drawing C-005A that is specified to be protected. EnviroTrac

requested that the tree be removed in order to facilitate the excavation. URS issued Field Order No. 18 on August 17, 2018 directing them to remove the tree. On August 17, 2018, EnviroTrac removed the tree. URS received a request from the resident at 2-16 Capstan Court (Yard 11) to remove the Japanese Maple Tree from her Yard. After receiving permission from the Condo 3 Property Manager, URS directed EnviroTrac to remove the tree. On April 5, 2018, EnviroTrac removed the tree. Per the request of the Department, URS directed EnviroTrac to cut the trees on the western side of the South Lawn Area that are specified to be protected on Contract Drawing C-007 and cut the stumps flush. EnviroTrac cut the trees on May 3, 2018 and cut the stumps flush on November 7, 2018.

3.15 South Lawn Area Patio Removal

Due to requests from Condo 3 Property Management, patios that were originally specified to be preserved in the Contract Documents were removed. In addition, select patios that were originally specified to be removed were preserved. URS issued Field Clarification Memorandum No. 2 to EnviroTrac on April 30, 2018 clarifying which patios were to be removed and which required protection. Field Clarification Memoranda are included in Appendix S. The South Lawn Area patios that were actually removed and preserved are shown on Record Drawing C-004.

3.16 Reconstruction of Block Planters

As discussed in Section 2.11.3, URS granted permission to EnviroTrac to clean and tamp the blocks on the block planters on Capstan Court in-place rather than removing the coping and upper tier of block, cleaning them, completing the excavation and backfill, and then re-assembling the coping and upper tier of block as specified in Contract Drawing D-001.

3.17 North Lawn Area Lights

Per the request of the Villas Property Management and the Department, URS issued Field Order No. 22 to EnviroTrac on January 8, 2018 directing them to repair the five non-functional lights in the North Lawn Area. They had previously replaced the light bulbs in the lights and performed troubleshooting on the five non-working lights on December 3, December 6, and December 7, 2018. EnviroTrac performed the light repairs on January 15, 2018. One light remained off at the end of IRM Construction, due to a broken lens. Per the request of Villas at Riverview Condo President on January 16, 2018, the light was not repaired. EnviroTrac incurred additional costs for these tasks. This

modification is included in Change Order No. 3.

3.18 Accent Course Installation

As discussed in Section 2.11.2, EnviroTrac installed additional wooden course on Cove Court and Capstan Court Planter Boxes and on Islands COV 5A, COV 6A, and COV 20A. Per the request of Condo 3 Property Management, URS issued Field Order No. 17 to EnviroTrac on August 2, 2018 directing them to install accent courses on reconstructed planter boxes CAP 1, CAP 3, CAP 5, CAP 6, CAP 8, CAP 10, COV 3, COV 5, COV 8, COV 10, COV 15, COV 17, COV 19, COV 20, COV 21, and COV 24A. The accent courses were present on the original Planter Boxes, but not included in the Contract Documents. EnviroTrac was also directed to install an additional full course on Islands COV 5A, COV 6A, and COV 20A. EnviroTrac installed additional topsoil in Islands COV 5A, COV 6A, COV 20A, and CAP 4A. They also installed sod in Islands COV 5A, COV 6A, COV 20A, and CAP 4A. The additional course installation was completed periodically between August 14, 2018 and August 20, 2018. The additional topsoil was installed September 14, 2018 and September 24, 2018. The sod was installed on September 25, 2018 and November 1, 2018.

Prior to the beginning of IRM construction, Condo 3 extended Planter Box COV 6. The Planter Box was reconstructed as shown on Record Drawing C-012. Condo 3 removed Planter Box COV 12 prior to the beginning of IRM Construction. There was a Planter Box onsite located to the west of Island COV 16.1 that was installed prior to the beginning of IRM Construction. It was removed per the request of the Condo 3 Property Management and the Department. EnviroTrac incurred additional costs for completing these Planter Box and Island tasks. This modification is included in Change Order No. 2.

3.19 North Lawn Area Excavation

Due to readings obtained on nearby crack monitors, URS issued Field Order No. 19 to EnviroTrac on September 27, 2018, directing them to clear and grub the area to the west of Grade Stakes 1106, 1111, 1116, and 1121 (shown on the North Grid Stakeout Plan in Appendix P), in accordance with the Contract Documents and place 1 ft. of clean fill material rather than excavate it. This work was completed periodically between October 8, 2018 and October 22, 2018. The fill

material was graded to tie into the surrounding contours and existing decorative boulders were placed in the area.

3.20 Final Contract Prices and Change Orders

The original Contract Price for the Work was \$2,131,232.00.

Change Order No. 1 included nine items. This change order increased contract amount by \$104,999.46 and extended the contract time by 14 days.

Change Order No. 2 included four items. This change order increased the contract amount by \$120,697.37 and extended the contract time by 0 days.

Change Order No. 3 included seven items. This change order increased the contract amount by \$54,726.78 and extended the contract time by 0 days.

There were a total of \$275,627.82 in credits to the Contract due to unused Contract Bid Quantities.

The Final Contract Price for the Work was \$2,136,027.79.

Table 3-1 summarizes both the bid and actual quantities and costs for the project.

TABLES

TABLE 1-1
LIST OF SUBCONTRACTORS

Company	Service	Address	Contact	Telephone
Associated Environmental Services	Drilling	25 Central Avenue # 2 Hauppauge, NY 11788	John Schretzmayer	631-234-4280
AARCO Environmental	Guzzler ® Truck Services	50 Gear Avenue Lindenhurst, NY 11757	Rick Spadalik	631-586-5900
Innovative Recycling Technologies	PCB Soils Disposal, Orphan Pile Disposal, Drum Disposal, DOC #19 Soils Disposal	690 N Queens Ave, Lindenhurst, NY 11757	John Dull	631-225-3044
Clean Earth Environmental Services	Non-Hazardous Soil Transportation and Disposal	3000 Commerce Center Blvd, Bethlehem, PA 18015	Rich Crawford	484-241-9694
Preferred Environmental dBa. Spectrum Coverage Corp.	Community Air Monitoring	323 Merrick Avenue Merrick, NY 11566-2729	Bill Schlageter	516-546-1100

TABLE 1-1
LIST OF SUBCONTRACTORS

Company	Service	Address	Contact	Telephone
Cassone Leasing Inc.	Field Office Trailer Supplier	1950 Lakeland Ave., Ronkonkoma, NY	Mary Borg	631-585-7800
Herc Equipment Rental	Herc Equipment Rental	206 Route 109, Farmingdale, NY 11735	Jacob Pawlak	631-694-4422
Vanguard Construction Solutions	Vibration, Crack, and Settlement Monitoring	1A Winston Way, New Milford, CT 06776	Donna M. Pepe	845-803-0295
JDC Investigations & Security, Inc	Security Services	925 Hempstead Turnpike Franklin Square, NY 11010	John Celentano	516-354-4280
Pacific Lawn Sprinklers	Sprinkler Installations	22-42 129th Street, College Point NY	John Blaskovik	888-438-7224
Chemtech	Analytical Services	284 Sheffield St. Mountainside, NJ 07092	Jordan Hedvat	908-728-3144

TABLE 1-1
LIST OF SUBCONTRACTORS

Company	Service	Address	Contact	Telephone
Trio Testing Corp	Geotechnical Analysis	247A Cortland St, Lindenhurst, NY 11757	Christine Danielo	631-531-9777
Walter T. Gorman Engineering	Permit Expedition	420 West 45th St, 6th Floor, New York, NY 10036	Daniel Ashe, P.E.	212-532-5970
Keys, Fence and Gate, Inc.	Fence Installation	9 Gateway Drive Bayshore, NY 11706	Phil Courtney	631-481-7775
L.K. McLean Associates, P.C	Surveying	437 South Country Road, Brookhaven, New York 11719	Tamara Stillman	631-286-8668
Atlas and Sons Asphalt	Paving	117 Brook Avenue, Deer Park, NY 11729	Melissa Brocco	631-242-5100
DeLea Sod Farms	Sod Placement	444 Elwood Road, East Northport, NY 11731	Dylan Watt	631-368-8022

TABLE 1-2
WASTE STREAM SUMMARY

Area	Matrix	Waste Type	Quantity	Units	Disposal Facility
South Lawn Area	Solid	C&D Debris	68.43	Tons	Liotta Brothers Recycling Corporation
Planter Boxes	Solid	C&D Debris	26.32	Tons	Liotta Brothers Recycling Corporation
North Lawn Area	Solid	C&D Debris	35.24	Tons	Liotta Brothers Recycling Corporation
South Lawn Area	Soil	Non-Hazardous Soil	2,505	Tons	Clean Earth Bethlehem
Planter Boxes	Soil	Non-Hazardous Soil	470	Tons	Clean Earth Bethlehem
North Lawn Area	Soil	Non-Hazardous Soil	3,595	Tons	Clean Earth Bethlehem
North Lawn Area	Soil	Hazardous Soil (PCB Soils)	268	Tons	CWM Emelle
North Lawn Area	Soil	Non-Hazardous Soil (DOC #19 Soils)	30	Tons	Conestoga
North Lawn Prea, Planter Boxes	Soil	Non-Hazardous Soil (Orphan Pile)	155	Tons	Bayshore
NYSDEC Enclosure	Liquid	Hazardous Liquid Waste (Oily Water)	1	Drum	Clean Earth North Jersey
NYSDEC Enclosure	Liquid	Hazardous Liquid Waste (Oily Absorbent Socks)	1	Drum	Clean Earth North Jersey
NYSDEC Enclosure	Empty	C&D Debris	1	Drum	Innovative Recycling Technologies
North Lawn Area	Liquid	Non-Hazardous Liquid Waste (Oily Water)	7	Drum	Clean Earth North Jersey
North Lawn Area	Liquid	Hazardous Liquid Waste (PCB Decon Materials)	1	Drum	Clean Earth North Jersey

TABLE 2-1
SETTLEMENT (MOVEMENT) READINGS ABOVE THE WARNING ACTION LIMIT (0.125 INCHES)

Optical Mark Number	Location of Optical Mark	Date Reading First Observed	First Reading (Inches)	Date Highest Reading Observed	Highest Reading (Inches)	Last Reading Date	Last Reading (Inches)	Resolution
100	SE Corner of Building 1 (Ground)	9/11/2018	0.168	9/11/2018	0.168	11/2/2018	0.072	Work was not being performed near Mark at the time of observation. Continue monitoring.
101	SE Corner of Building 1 (Roof)	9/11/2018	0.192	9/11/2018	0.192	11/2/2018	0.12	Work was not being performed near Mark at the time of observation. Continue monitoring.
103	NE Corner of Building 1 (Roof)	9/22/2018	0.144	9/22/2018	0.144	11/2/2018	0.036	Work was not being performed near Mark at the time of observation. Continue monitoring.
210	SW Corner of Building 2 (Ground)	7/6/2018	0.144	7/6/2018	0.144	11/2/2018	0.144	Work was not being performed near Mark at the time of observation. Continue monitoring.
211	SW Corner of Building 2 (Roof)	7/6/2018	0.144	8/3/2018	0.18	11/2/2018	0.18	Work was not being performed near Mark at the time of observation. Continue monitoring.
212	SE Corner of Building 2 (Ground)	6/27/2018	0.132	8/10/2018	0.144	11/2/2018	0.144	Work was not being performed near Mark at the time of observation. Continue monitoring.
213	SE Corner of Building 2 (Roof)	6/15/2018	0.144	6/22/2018	0.18	11/2/2018	0.156	Work was not being performed near Mark at the time of observation. Continue monitoring.
402	Middle of Building 4 (Roof)	7/27/2018	0.144	8/3/2018	0.18	11/2/2018	0.156	Work was not being performed near Mark at the time of observation. Continue monitoring.
404	Middle of Building 4 (Roof)	9/15/2018	0.132	9/15/2018	0.132	11/2/2018	0.132	Work was not being performed near Mark at the time of observation. Continue monitoring.
500	NW Section of Building 5 (Ground)	6/22/2018	0.144	7/6/2018	0.18	11/2/2018	0.084	Backfilling near Building 5 on 06/22/18. No work being performed near Mark on 07/06/18. Continue monitoring.
502	NW Section of Building 5 (Ground)	6/22/2018	0.132	7/6/2018	0.168	11/2/2018	0.132	Backfilling near Building 5 on 06/22/18. No work being performed near Mark on 07/06/18. Continue monitoring.
503	NW Section of Building 5 (Roof)	6/22/2018	0.132	6/22/2018	0.132	11/2/2018	0.132	Backfilling near Building 5 on 06/22/18. Continue monitoring.
504	Middle of Building 5 (Ground)	6/22/2018	0.132	6/22/2018	0.132	11/2/2018	0.096	Backfilling near Building 5 on 06/22/18. Continue monitoring.
507	Middle of Building 5 (Roof)	8/17/2018	0.132	8/17/2018	0.132	11/2/2018	0.096	Work was not being performed near Mark at the time of observation. Continue monitoring.
508	NE Section of Building 5 (Ground)	8/17/2018	0.132	8/17/2018	0.132	11/2/2018	0.084	Work was not being performed near Mark at the time of observation. Continue monitoring.
510	NE Section of Building 5 (Ground)	8/10/2018	0.132	8/10/2018	0.132	11/2/2018	0.096	Work was not being performed near Mark at the time of observation. Continue monitoring.

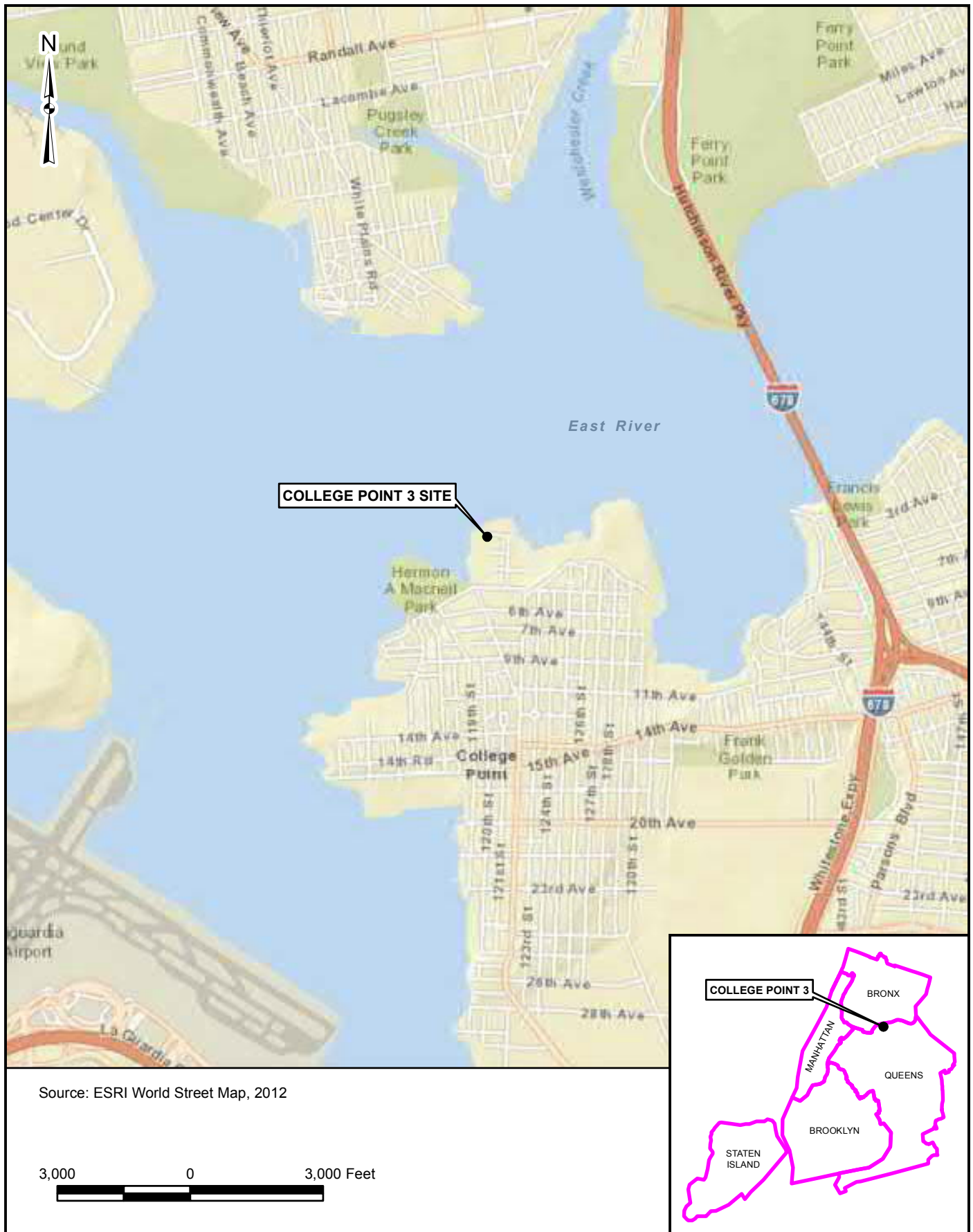
TABLE 2-2
CRACK MONITOR EXPANSION READINGS

Crack Monitor Number	Location of Monitor	Date Horizontal Expansion First Observed	Horizontal Reading (mm)	Date Vertical Expansion First Observed	Vertical Reading (mm)	Date of Highest Horizontal Expansion	Highest Horizontal Expansion Reading (mm)	Date of Highest Vertical Expansion	Highest Vertical Expansion Reading (mm)	Last Reading Date	Horizontal Reading (mm)	Vertical Reading (mm)	Resolution
1	Yard 1 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
2	Yard 5 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
3	Yard 5 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
4	Yard 6 (Top of First Floor Building Wall)	-	-	5/17/2018	+0.5	-	-	5/17/2018	+0.5	11/1/2018	0.0	0.0	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
5	Yard 5 (Bottom of First Floor Building Wall)	6/27/2018	+0.25	-	-	6/27/2018	+0.25	-	-	11/1/2018	+0.25	0.0	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
6	Yard 11 (Bottom of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
7	Yard 7 (Top of First Floor Building Wall)	-	-	6/14/2018	+0.25	-	-	6/14/2018	+0.25	11/1/2018	0.0	+0.25	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
8	Yard 7 (Bottom of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
9	Yard 7 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
10	Yard 16 (Top of First Floor Building Wall)	-	-	5/3/2018	+0.75	-	-	5/10/2018	+1.00	11/1/2018	0.0	+1.00	Work was not being performed near monitor on 05/3/18. Excavation at neighboring yard on 05/10/18. Continue monitoring.
11	Yard 19 (Bottom of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
12	Yard 20 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
13	Yard 21 (Bottom of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
14	Yard 21 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
15	Yard 22 (Top of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
16	Yard 24 (Bottom of First Floor Building Wall)	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
17	Yard 24 (Top of First Floor Building Wall)	9/6/2018	-0.75	6/7/2018	-0.75	6/7/2018	-0.75	9/6/2018	-0.75	11/1/2018	0.0	0.0	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
18	Riviera Court Platform (Southern Face, West Middle)	8/2/2018	-0.25	7/26/2018	+0.25	8/2/2018	-0.25	7/26/2018	+0.25	11/1/2018	-0.25	+0.25	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
19	Riviera Court Platform (Southern Face, East Middle)	-	-	6/14/2018	-0.75	-	-	8/2/2018	-1.00	11/1/2018	0.0	-0.75	Work was not being performed near monitor on 08/02/18. Backfill Delivery off of Riviera Court Platform on 06/14/18. Continue monitoring.
20	Riviera Court Platform (Eastern Face, Center Middle)	6/7/2018	+0.25	-	-	6/7/2018	+0.25	-	-	11/1/2018	0.0	0.0	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
1-A	Western Side of Building 1	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
2-A	Western Side of Building 1	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
3-A	Western Side of Building 1	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.
4-A	Western Side of Building 1	10/25/2018	+0.25	-	-	10/25/2018	+0.25	-	-	11/1/2018	+0.25	0.0	Work was not being performed near monitor at the time expansion observed. Continue monitoring.
5-A	Eastern Side of Building 1	9/6/2018	+0.75	-	-	9/14/2018	+1.25	-	-	11/1/2018	+0.75	0.0	Monitor installed on expansion joint in building wall. Joint expanded and contracted during the completion of the Work.
6-A	Eastern Side of Building 1	10/25/2018	-0.25	9/6/2018	+0.50	10/25/2018	-0.25	9/14/2018	+1.00	11/1/2018	-0.50	-0.25	Monitor installed on expansion joint in building wall. Joint expanded and contracted during the completion of the Work.
7-A	Eastern Side of Building 1	9/6/2018	+0.50	9/20/2018	-0.25	9/14/2018	+0.75	10/11/2018	-0.75	11/1/2018	+0.75	-0.75	Monitor installed on expansion joint in building wall. Joint expanded and contracted during the completion of the Work.
8-A	Eastern Side of Building 1	9/14/2018	+0.75	9/6/2018	-0.50	9/14/2018	+0.75	10/11/2018	-0.75	11/1/2018	+0.25	-0.50	Monitor installed on expansion joint in building wall. Joint expanded and contracted during the completion of the Work.
9-A	Eastern Side of Building 1	-	-	9/14/2018	-0.25	-	-	10/11/2018	-0.50	11/1/2018	0.0	-0.25	Monitor installed on expansion joint in building wall. Joint expanded and contracted during the completion of the Work.
10-A	Eastern Side of Building 1	-	-	-	-	-	-	-	-	11/1/2018	0.0	0.0	No expansion observed during the completion of the Work.

TABLE 3-1
Comparison of Bid Quantities and Costs to Actual Quantities and Costs

Item No.	Description	Units	Bid Quantity	Bid Unit Price	Original Contract Price/Budget	Quantity Increases	Price Increases	Bid Quantity + Increases	Final Price
1	Mobilization/Demobilization	Lump Sum	1	\$ 200,000.00	\$ 200,000.00	0	\$ -	1	\$ 200,000.00
2	Site Facilities and Services	Lump Sum	1	\$ 110,000.00	\$ 110,000.00	0	\$ -	1	\$ 110,000.00
3	Health and Safety	Lump Sum	1	\$ 113,000.00	\$ 113,000.00	0	\$ -	1	\$ 113,000.00
4	Community Air Monitoring	Lump Sum	1	\$ 71,500.00	\$ 71,500.00	0	\$ -	1	\$ 71,500.00
5	Vibration and Structure Monitoring	Lump Sum	1	\$ 153,000.00	\$ 153,000.00	0	\$ -	1	\$ 153,000.00
6	Survey	Lump Sum	1	\$ 82,500.00	\$ 82,500.00	0	\$ -	1	\$ 82,500.00
7	Erosion and Sediment Control	Lump Sum	1	\$ 18,000.00	\$ 18,000.00	0	\$ -	1	\$ 18,000.00
8	Construction Water Management	Lump Sum	1	\$ 22,000.00	\$ 22,000.00	(0.21)	\$ (4,588.93)	0.79	\$ 17,411.07
9	Clearing and Demolition of Vegetation and Above Grade	Lump Sum	1	\$ 35,000.00	\$ 35,000.00	0	\$ -	1	\$ 35,000.00
10a	Excavation - North Lawn Area	Unit Price	2,640	\$ 42.00	\$ 110,880.00	(491.58)	\$ (20,646.36)	2,148.42	\$ 90,233.64
10b	Excavation - South Lawn Area	Unit Price	2,250	\$ 42.00	\$ 94,500.00	(603.60)	\$ (25,351.20)	1,646.40	\$ 69,148.80
10c	Excavation - Planters, Islands	Unit Price	530	\$ 87.00	\$ 46,110.00	(230.64)	\$ (20,065.68)	299.36	\$ 26,044.32
11	Post Excavation Compliance Sampling and Analysis	Unit Price	42	\$ 495.00	\$ 20,790.00	0	\$ -	42	\$ 20,790.00
12	Walkway Restoration	Lump Sum	1	\$ 12,000.00	\$ 12,000.00	0	\$ -	1	\$ 12,000.00
13a	Transportation and Disposal Contaminated Soil and Debris	Unit Price	9,000	\$ 44.00	\$ 396,000.00	(2,430.42)	\$ (106,938.48)	6,569.58	\$ 289,061.52
13b	Transportation and Disposal Non-Contaminated Debris	Unit Price	200	\$ 60.00	\$ 12,000.00	(70.01)	\$ (4,200.60)	129.99	\$ 7,799.40
14	Planter Reconstruction	Lump Sum	1	\$ 58,000.00	\$ 58,000.00	0	\$ -	1	\$ 58,000.00
15	Miscellaneous Structures	Lump Sum	1	\$ 45,000.00	\$ 45,000.00	0	\$ -	1	\$ 45,000.00
16	Ornamental Plantings	Lump Sum	1	\$ 45,000.00	\$ 45,000.00	0	\$ -	1	\$ 45,000.00
17a	Clean Fill North Lawn Area	Unit Price	2,000	\$ 55.00	\$ 110,000.00	(504.40)	\$ (27,742.00)	1,495.60	\$ 82,258.00
17b	Clean Fill South Lawn Area	Unit Price	1,900	\$ 55.00	\$ 104,500.00	(554.69)	\$ (30,507.95)	1,345.31	\$ 73,992.05
17c	Clean Fill Planters, Islands	Unit Price	500	\$ 67.00	\$ 33,500.00	(263.68)	\$ (17,666.56)	236.32	\$ 15,833.44
18a	Topsoil North Lawn Area	Unit Price	6,440	\$ 10.00	\$ 64,400.00	(887.42)	\$ (8,874.20)	5,552.58	\$ 55,525.80
18b	Topsoil South Lawn Area	Unit Price	3,370	\$ 12.00	\$ 40,440.00	(472.11)	\$ (5,665.32)	2,897.89	\$ 34,774.68
18c	Topsoil Planters, Islands	Unit Price	410	\$ 25.00	\$ 10,250.00	330.47	\$ 8,261.75	740.47	\$ 18,511.75
19a	Sodding North Lawn Area	Unit Price	1,020	\$ 14.00	\$ 14,280.00	(39.00)	\$ (546.00)	981	\$ 13,734.00
19b	Sodding South Lawn Area	Unit Price	3,370	\$ 11.00	\$ 37,070.00	(453.89)	\$ (4,992.79)	2,916.11	\$ 32,077.21
20a	Seeding North Lawn Area	Unit Price	4,950	\$ 1.70	\$ 8,415.00	(514)	\$ (873.80)	4,436	\$ 7,541.20
20b	Seeding Planters, Islands	Unit Price	310	\$ 1.70	\$ 527.00	111	\$ 188.70	421	\$ 715.70
21	Bark Mulch	Unit Price	25.8	\$ 100.00	\$ 2,580.00	(19.30)	\$ (1,930.00)	25.80	\$ 650.00
22	Fence Restoration	Lump Sum	1	\$ 50,000.00	\$ 50,000.00	0	\$ -	1	\$ 50,000.00
23	Monitoring Well Decommissioning	Unit Price	499.5	\$ 20.00	\$ 9,990.00	(174.42)	\$ (3,488.40)	325.08	\$ 6,501.60
Base Contract Totals					\$ 2,131,232.00		\$ (275,627.82)		\$ 1,855,604.18
	Change Order No. 1								\$ 104,999.46
	Change Order No. 2								\$ 120,697.37
	Change Order No. 3								\$ 54,726.78
Change Order Totals					\$ 280,423.61				
Overall Totals					\$ 2,131,232.00		\$ 4,795.79		\$ 2,136,027.79

FIGURES

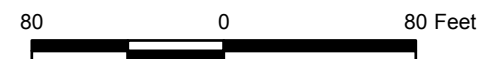




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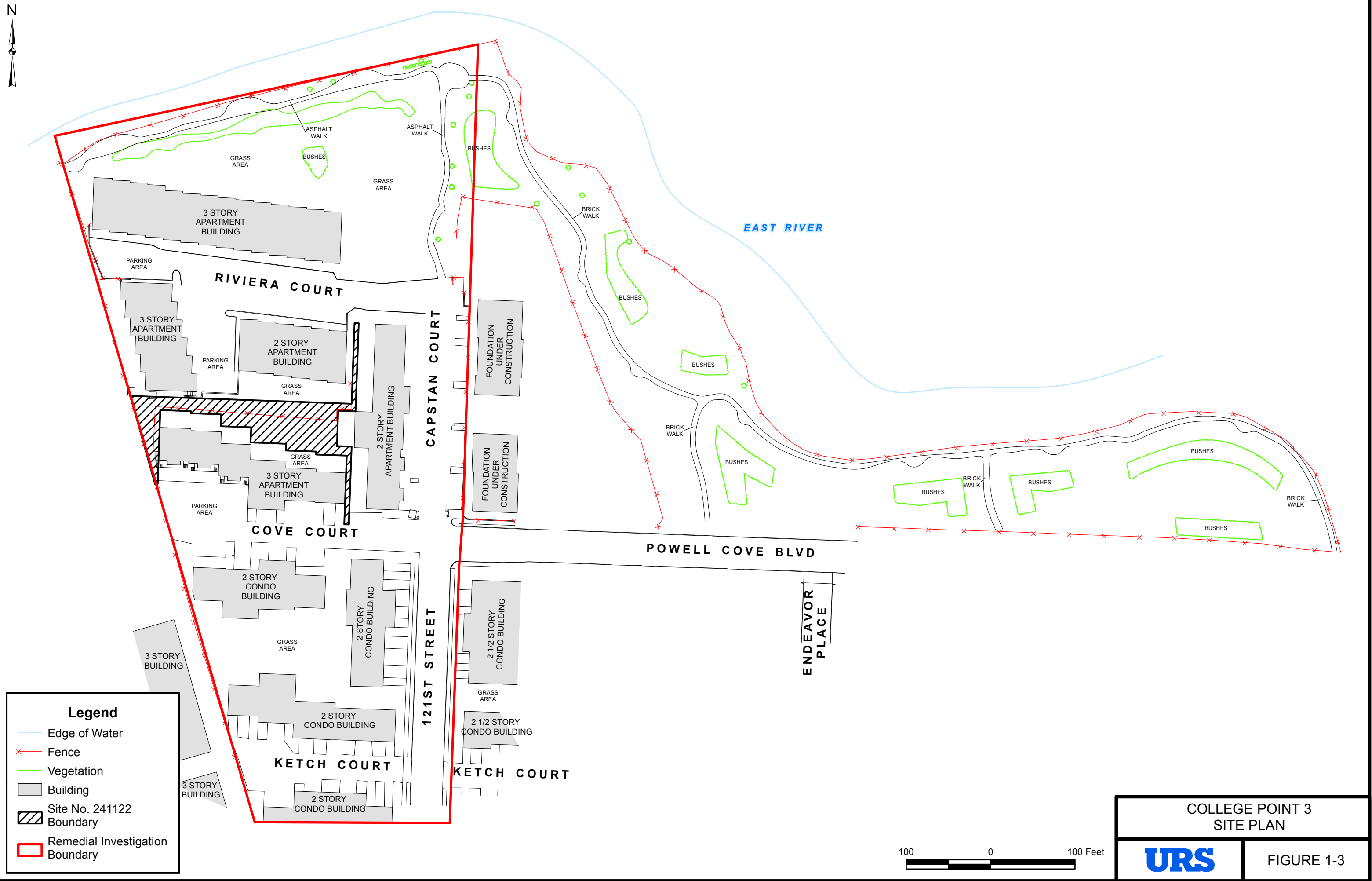
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— World Imagery



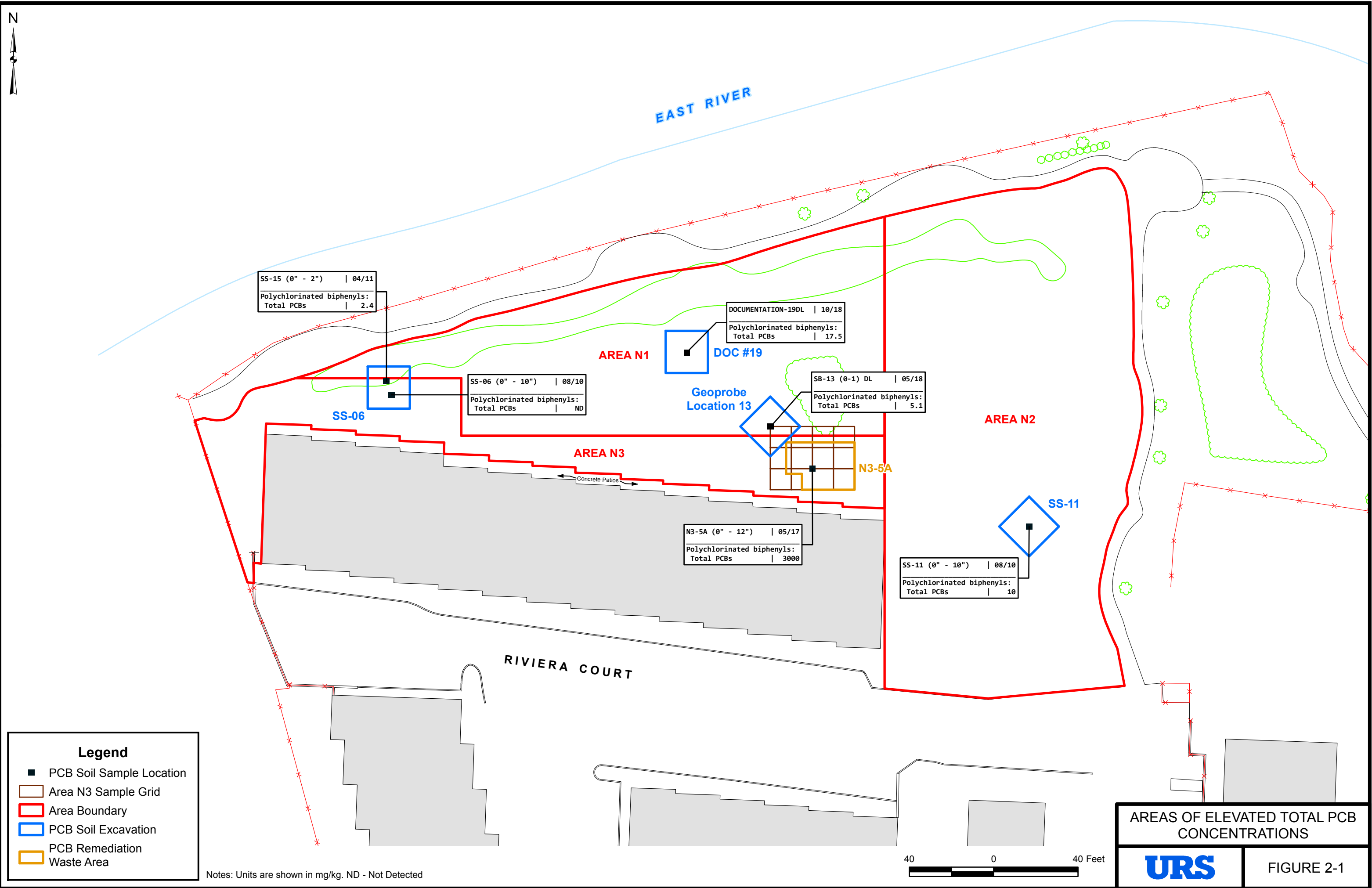
COLLEGE POINT 3
SITE PARCELS



FIGURE 1-2



J:\Projects\1174994.00000\DB\GIS\PCB SOIL SAMPLES (REV2).mxd 9/25/2019



J:\Projects\1174984.00000\DB\GIS\SMPS\REMAINING SOIL ANALYTICAL (LOT 108).mxd 4/3/2019



EAST RIVER

DOC 23 | 10/18
PCBs:
Total PCBs | 0.21

DOC 18 | 10/18
PCBs:
Total PCBs | 0.158

BLOCK 3916
LOT 108

DOC 16 | 09/18
PCBs:
Total PCBs | 0.78

DOC 21 | 10/18
PCBs:
Total PCBs | 0.44

DOC 24 | 10/18
PCBs:
Total PCBs | 0.24

DOC 14 | 09/18
PCBs:
Total PCBs | 0.87

DOC 22 | 10/18
PCBs:
Total PCBs | 0.37

DOC 25 | 10/18
PCBs:
Total PCBs | 0.3105

DOC 26 | 10/18
PCBs:
Total PCBs | ND

DOC 27 | 10/18
PCBs:
Total PCBs | 1.21

DOC 28 | 10/18
PCBs:
Total PCBs | 0.23

DOC 29 | 10/18
PCBs:
Total PCBs | 0.78

DOC 30 | 10/18
PCBs:
Total PCBs | ND

DOC 32 | 10/18
PCBs:
Total PCBs | 0.0735

DOC 31 | 10/18
PCBs:
Total PCBs | 0.21

3 STORY
APARTMENT
BUILDING

RIVIERA COURT

3 STORY
APARTMENT
BUILDING

2 STORY
APARTMENT
BUILDING

PARKING
AREA

BUSHES

ASPHALT
WALK

Legend

- Soil Sample
- Building
- Environmental Easement Boundary

Sample ID	Sample Date
DOC 14	09/18
PCBs:	
Total PCBs | 0.87	
Compound	Result (MG/KG)

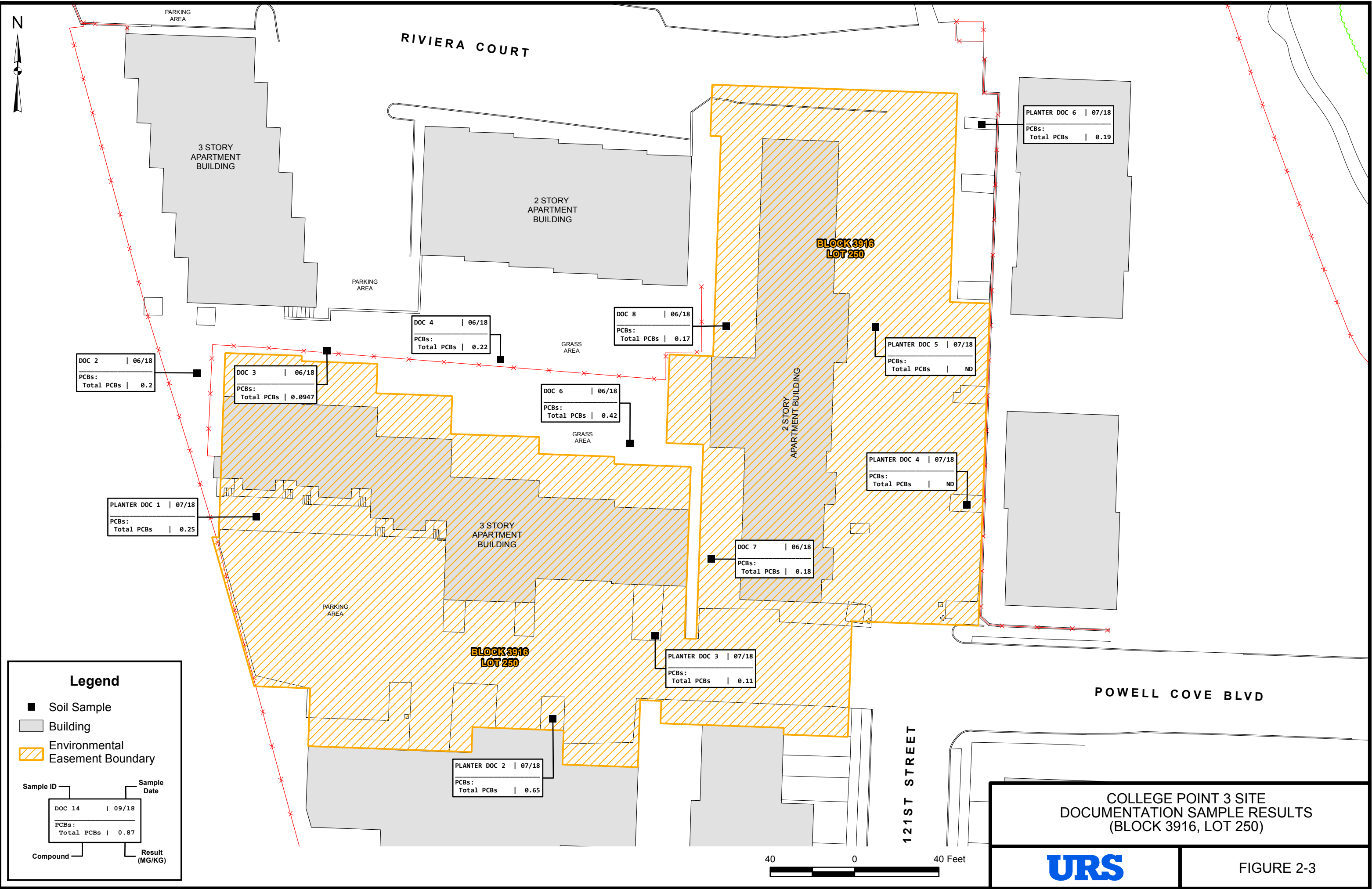
40 0 40 Feet

COLLEGE POINT 3 SITE
DOCUMENTATION SAMPLE RESULTS
(BLOCK 3916, LOT 108)

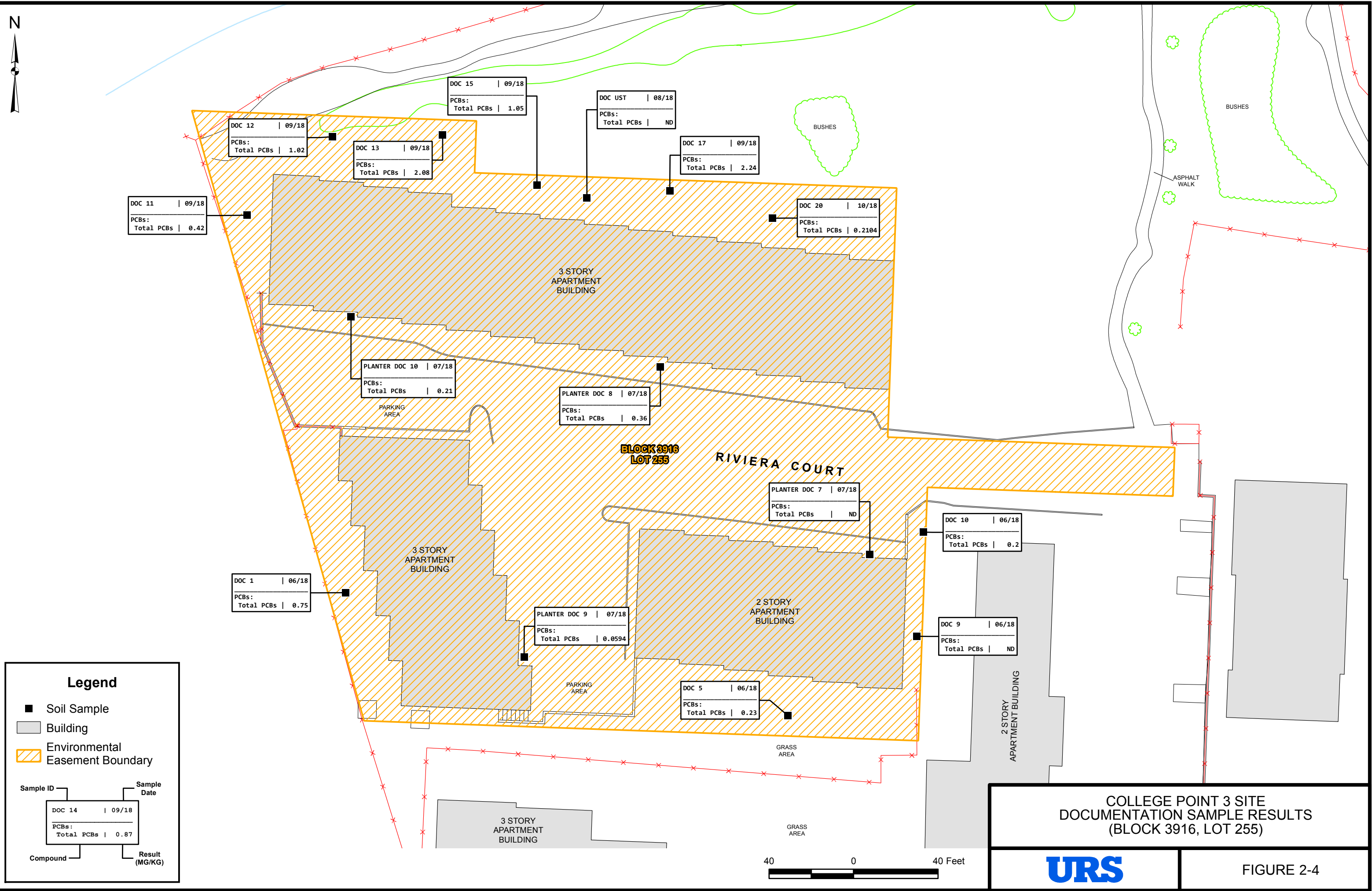
URS

FIGURE 2-2

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J:\Projects\1174984.00000\DB\GIS\SMPS\REMAINING SOIL ANALYTICAL (LOT 255).mxd 2/13/2019 MDL



APPENDIX A:

CONTRACT DOCUMENTS

(ON DVD)

APPENDIX B:

MEETING MINUTES

(ON DVD)

APPENDIX C:

CHANGE ORDERS

(ON DVD)

APPENDIX D:

SUBMITTALS (ON DVD)

APPENDIX E:

DAILY INSPECTION REPORTS

(ON DVD)

APPENDIX F:

AIR MONITORING DATA

(ON DVD)

APPENDIX G:

FIELD ORDERS

(ON DVD)

APPENDIX H:

PERMITS (ON DVD)

APPENDIX I:

WELL ABANDONMENT RECORDS

(ON DVD)

APPENDIX J:

REQUEST FOR INFORMATION

(ON DVD)

APPENDIX K:

MANIFESTS AND WEIGHT TICKETS

(ON DVD)

APPENDIX L:

VIBRATION MONITORING REPORTS

(ON DVD)

APPENDIX M:

SETTLEMENT MONITORING REPORTS

(ON DVD)

APPENDIX N:

CRACK MONITORING REPORTS

(ON DVD)

APPENDIX O:

**NOTIFICATION LETTERS TO PROPERTY OWNERS
(ON DVD)**

APPENDIX P:

SURVEY DATA

(ON DVD)

APPENDIX Q:

RECORD DRAWINGS

(ON DVD)

REMEDIAL ACTION
CONTRACT DRAWINGS

FOR THE
COLLEGE POINT 3
INTERIM REMEDIAL MEASURE DESIGN
NYSDEC SITE NO. 241122
COLLEGE POINT, QUEENS COUNTY, NEW YORK
CONTRACT D007622-42



**Department of
Environmental
Conservation**

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

DIVISION OF ENVIRONMENTAL REMEDIATION

DECEMBER 2017
URS Corporation
New York

257 West Genesee Street, Suite 400
Buffalo, New York 14202
(716)856-5636 phone - (716)856-2545 fax



RECORD DRAWING

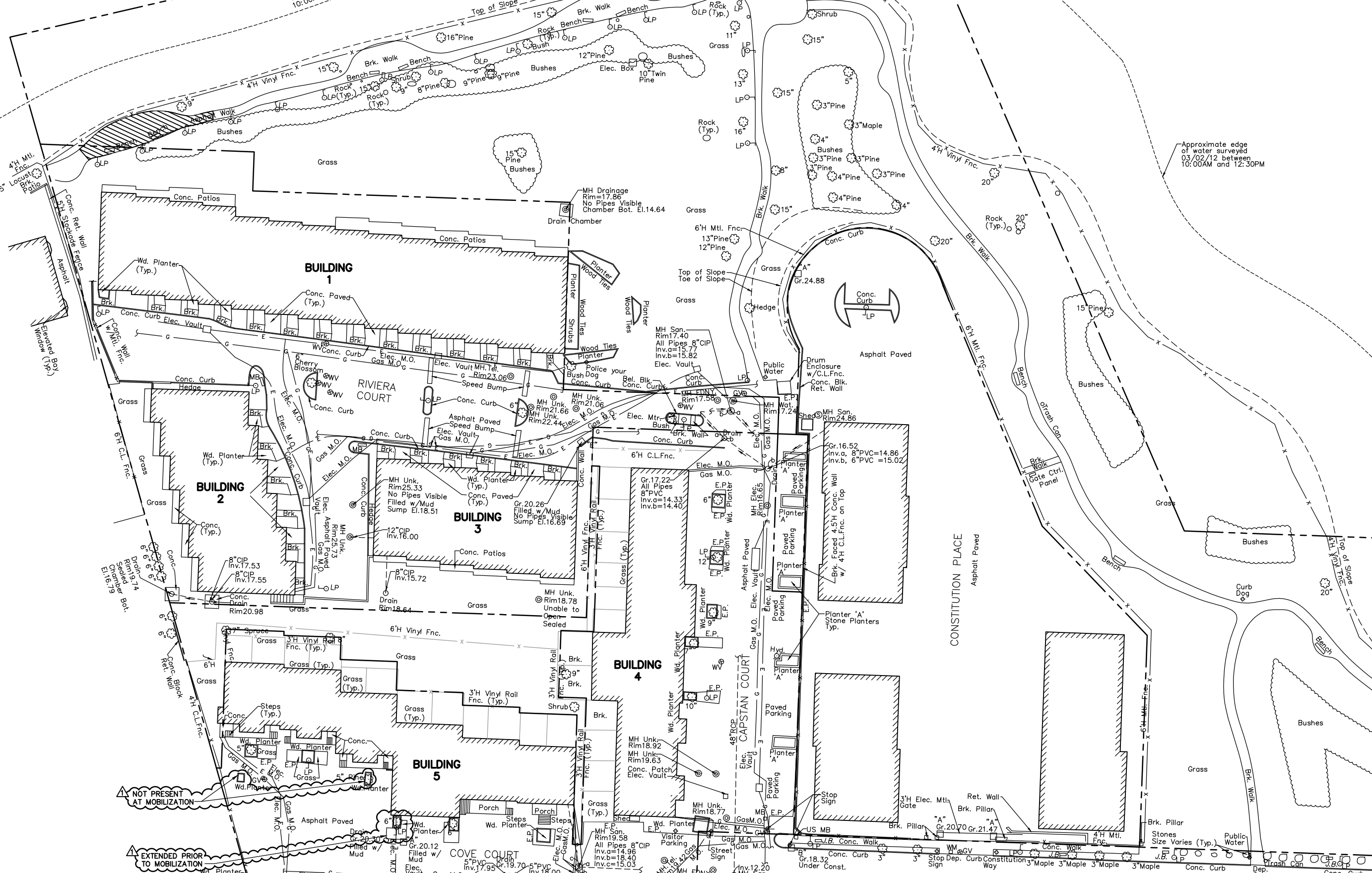


EAST RIVER

Approximate edge
of water surveyed
03/02/12 between
00AM and 12:30PM

NOTES:

1. BUILDINGS NUMBERED FOR EASE OF REFERENCE.
2. EXISTING IRRIGATION SYSTEM NOT SHOWN.



Approximate edge
of water surveyed
03/02/12 between
10:00AM and 12:30PM

[illegible]

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NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION

625 BROADWAY
NEW YORK, NEW YORK 10022

COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

EXISTING SITE CONDITIONS PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-001A
CHECKED BY CED	
ARCH/ENGR. RW	

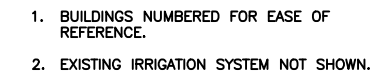
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MATCH LINE - FOR CONTINUATION SEE PAGE 2, THIS DWG

RECORD DRAWING

30' 0 30'

SCALE IN FEET



MATCH LINE - FOR CONTINUATION SEE PAGE 1, THIS DWG.

POWELL COVE BLVD.

**BUILDING
6**

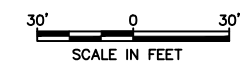
**BUILDING
7**

BUILDING
8

KETCH COURT

49 KETCH COURT

RECORD DRAWING



REVISIONS



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NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION

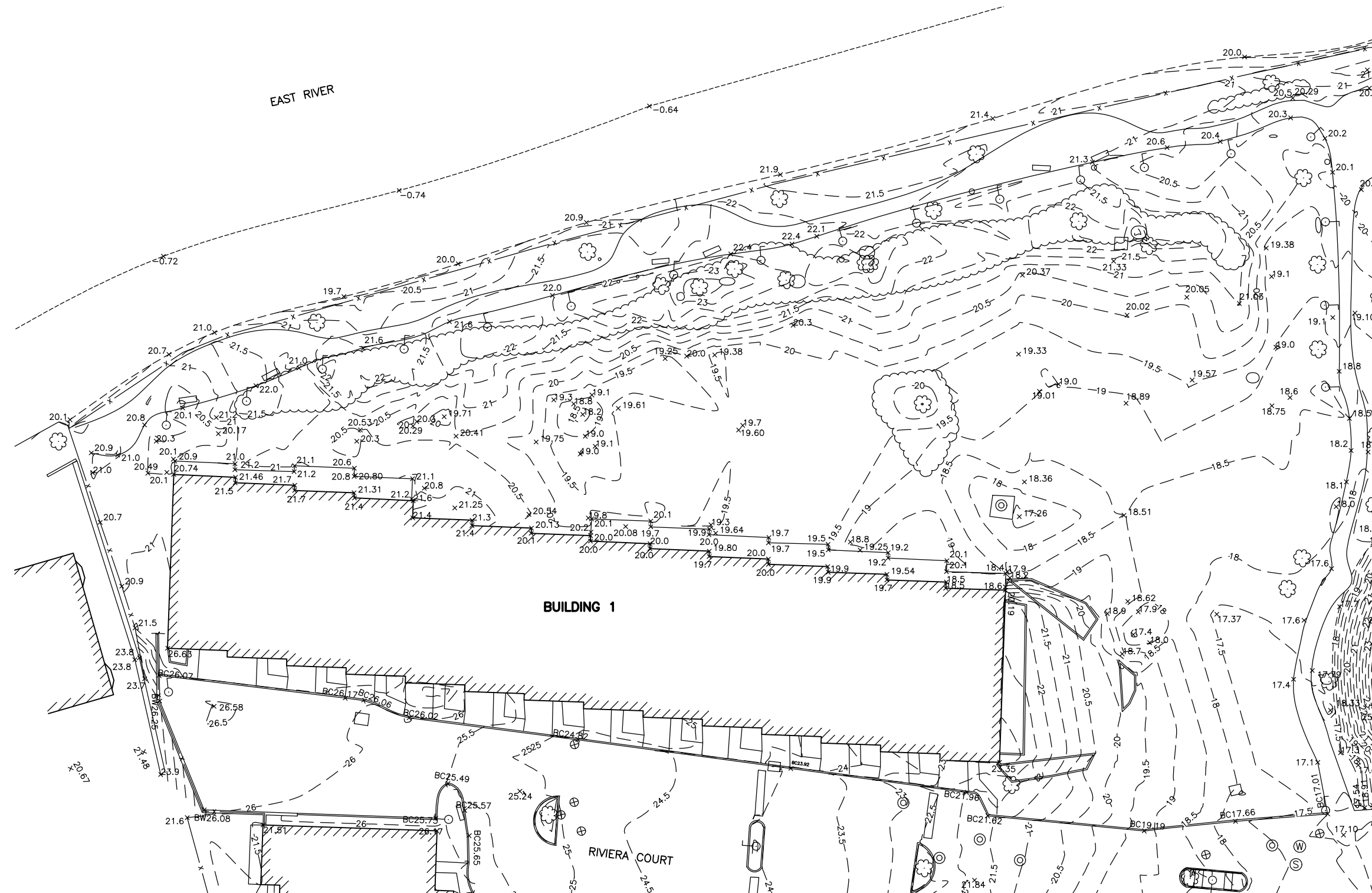
625 BROADWAY
ALBANY, NEW YORK 12233

COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

EXISTING SITE CONDITIONS PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-001B
CHECKED BY CED	
ARCH/ENGR. RW	



RECORD DRAWING

20' 0 20'

SCALE IN FEET

NOTE:

1. THIS DRAWING HAS NOT BEEN MODIFIED
TO REFLECT ACTUAL CONDITIONS AT
THE BEGINNING OF CONSTRUCTION.
REFER TO SUPPLEMENTAL DRAWING
"INITIAL SURVEY (NORTH LAWN AREA)"
FOR RECORD CONDITIONS.

[illegible]

REVISIONS



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NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION

625 BROADWAY
ALBANY, NEW YORK 12233

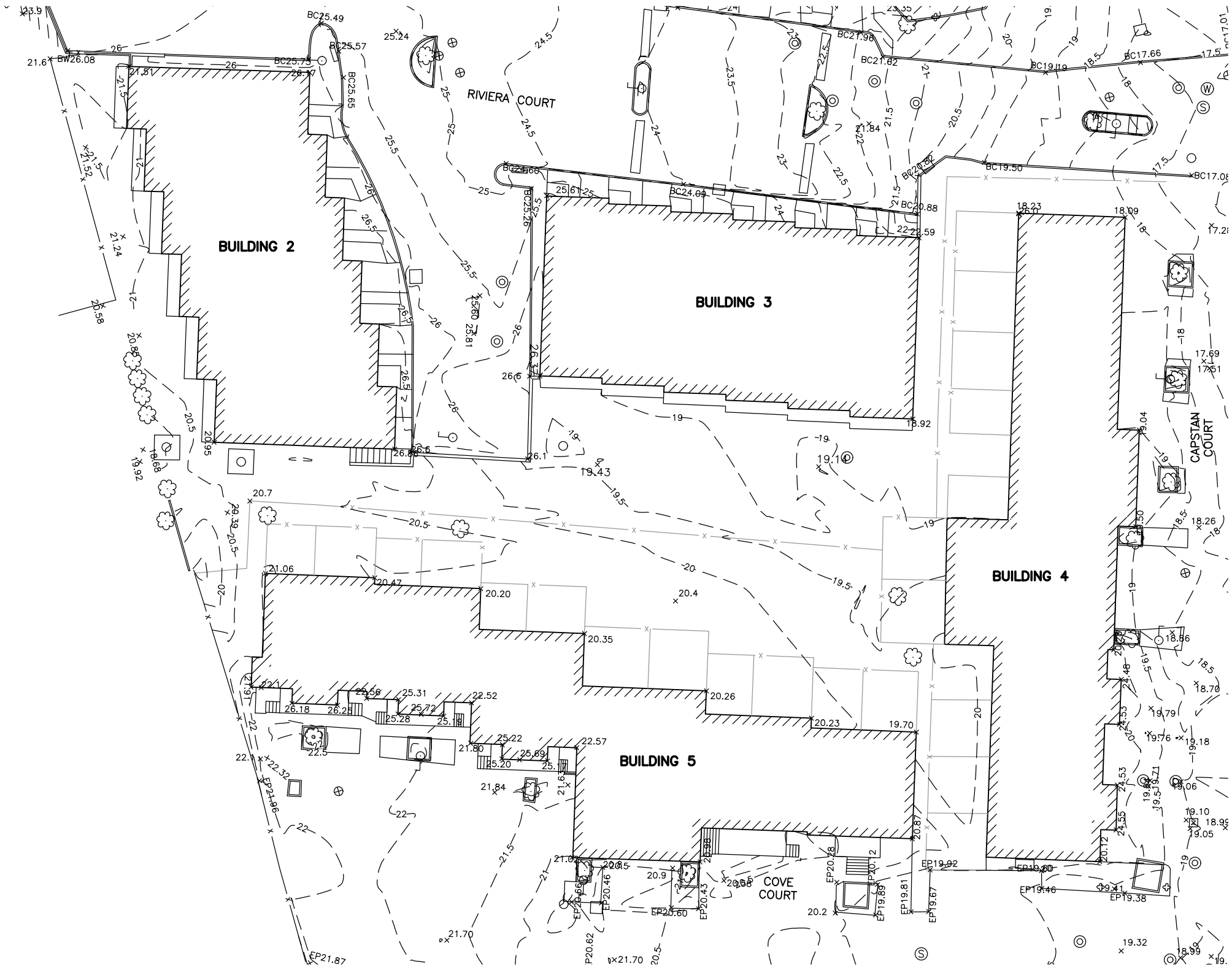
COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

AS SHOWN

INTERIM REMEDIAL MEASURE DESIGN

EXISTING
SITE CONDITIONS
TOPOGRAPHY
1 OF 2

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-002
CHECKED BY CED	
ARCH/ENGR. RW	



NOTE:

1. THIS DRAWING HAS NOT BEEN MODIFIED TO REFLECT ACTUAL CONDITIONS AT THE BEGINNING OF CONSTRUCTION. REFER TO SUPPLEMENTAL DRAWING "INITIAL SURVEY (SOUTH LAWN AREA)" FOR RECORD CONDITIONS.

[illegible]

1	3/20/19	RAL	RW	CED
0	12/12/17	HAP	RW	CED
NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. MGR/SUPR APPROVAL

REVISIONS



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NEW YORK STATE
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CONSERVATION

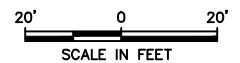
625 BROADWAY
ALBANY, NEW YORK 12233

COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

EXISTING
SITE CONDITIONS
TOPOGRAPHY
2 OF 2

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-003
CHECKED BY CED	
ARCH/ENGR. RW	





—X—X—

- TEMPORARY SECURITY FENCE AND NOISE BARRIER. PROTECT WITH TRAFFIC CONES ALONG DRIVEWAYS AND ROADS. GATES SHALL BE LOCATED AS REQUIRED BY THE SUBCONTRACTOR.

- TEMPORARY NOISE BARRIER/SOUND CURTAIN, SHALL ALSO DISCOURAGE ACCESS TO DISTURBED AREAS BY RESIDENCES. (SHOWN IN APPROXIMATE LOCATION)

1. PLANTER AND ISLAND REMEDIATION NOT SHOWN ON THIS DRAWING. SEE DRAWING C-012 FOR THE REQUIRED EXTENT OF THAT REMEDIATION.
2. MISCELLANEOUS OTHER BRICK, CONCRETE, AND WOOD STRUCTURES THAT ARE TO BE PRESERVED ARE NOT SHOWN. TREES TO BE PRESERVED ARE SHOWN ON DWG. C-005. SEE ALSO DWG. C-005 FOR OTHER ITEMS TO BE PROTECTED. THE SUBCONTRACTOR SHALL IDENTIFY ALL SUCH ITEMS AND DEMARCATÉ WITH TAPE PRIOR TO ANY EXCAVATION.

[illegible]

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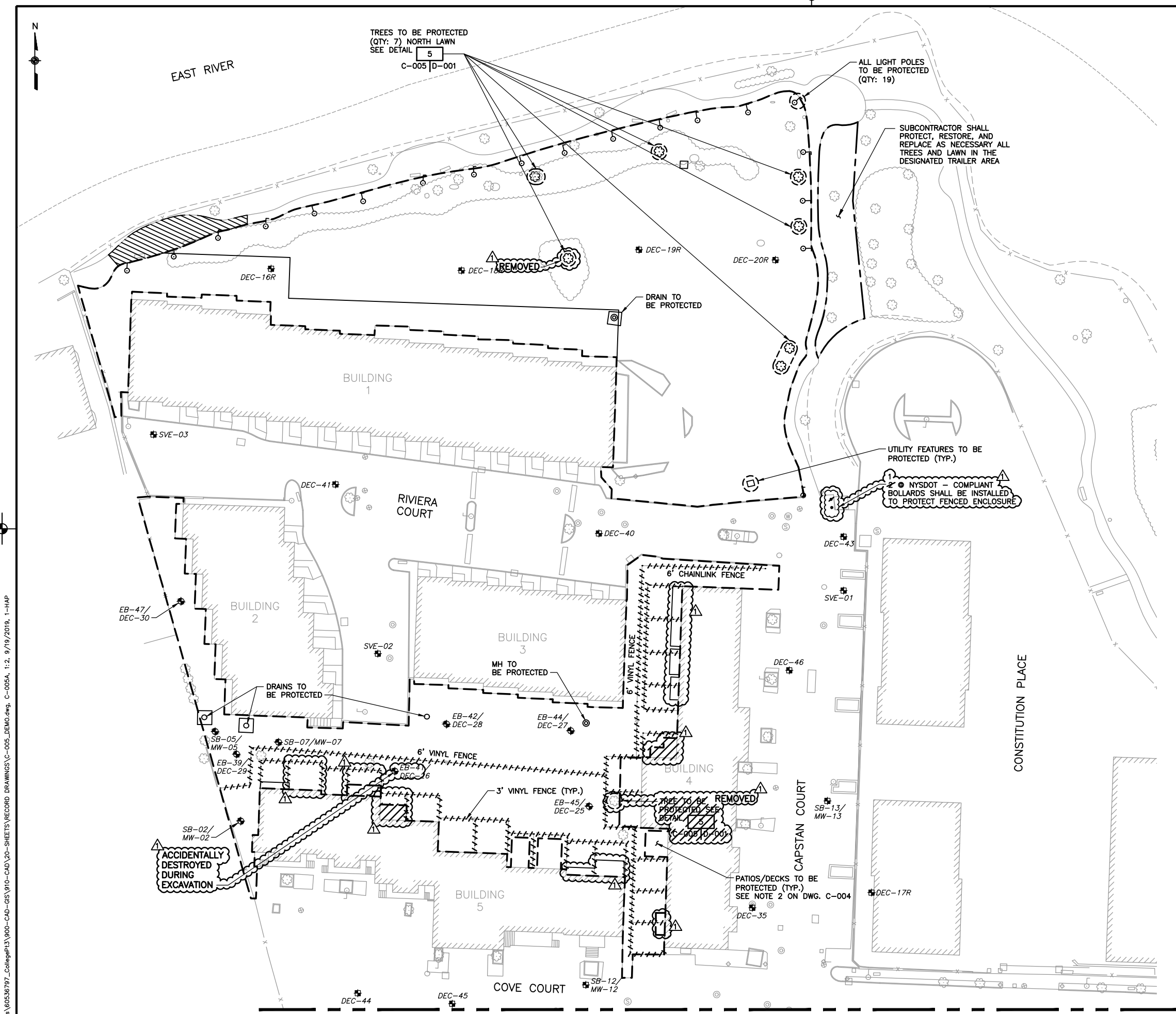
625 BROADWAY
ALBANY, NEW YORK 12233

COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

LAWN AREA REMEDIATION PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-004
CHECKED BY CED	
ARCH/ENGR. RW	

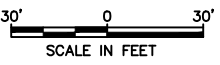


DEMOLITION QUANTITIES		
ITEM	QUANTITY	RESTORATION
3' VINYL FENCE	913'	RESTORE IN KIND
6' VINYL FENCE	401.5'	RESTORE IN KIND
6' CHAINLINK FENCE	74.5'	RESTORE IN KIND

- NOTES:**
- ALL TREES, SHRUBS, ROCKS, PLANTERS, ETC. WITHIN LIMITS OF EXCAVATION SHOWN ON DRAWING C-004 SHALL BE REMOVED, EXCEPT THOSE IDENTIFIED TO BE PROTECTED.
 - ALL FOOTINGS, POSTS, ETC. THAT SUPPORT DECKS, PORCHES, ETC. SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL 1. NOTE THAT THESE ARE NOT SHOWN ON THE DRAWINGS.
C-005 | D-001
 - PATHS, LIGHT POLES, MANHOLES, DECKS, AND PATIOS SHALL BE PROTECTED WHEN REQUIRED IN ACCORDANCE WITH DETAIL 2.
C-005 | D-001
 - NOTE THAT POURED CONCRETE PATIOS, WALKWAYS, STOOPS, ETC. SHALL BE PROTECTED, THOUGH NOT ALL ARE SHOWN.
 - PROTECTION OF SELECTED TREES SHALL BE IN ACCORDANCE WITH DETAIL 5.
C-005 | D-001

- LEGEND:**
- EXISTING MONITORING WELLS TO BE ABANDONED
DEC-43
 - FENCE TO BE REMOVED (AND REPLACED DURING RESTORATION)
+++++
 - EXISTING MONITORING WELLS TO BE PROTECTED
EB-42/DEC-28

RECORD DRAWING



NO.	DATE	BY	PROJECT ARCHT	DEPT	MARK/SUPR	APPROVAL
1	3/20/19	RAL	RW	CE		
0	12/12/17	HAP	RW	CE		

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INTERIM REMEDIAL MEASURE DESIGN

DEMOLITION, PROTECTION, AND CLEARING PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	
HAP	
CHECKED BY	
CE	
ARCH/ENGR.	
RW	

C-005A



MATCH LINE - FOR CONTINUATION SEE DWG. C-005A

POWELL COVE BLVD.

121st ST.

KETCH COURT

KETCH COURT

DEC-48

SVE-04

DEC-49

DEC-50

Hyd.

NOTES:

1. ALL TREES, SHRUBS, ROCKS, PLANTERS, ETC. WITHIN LIMITS OF EXCAVATION SHOWN ON DRAWING C-004 SHALL BE REMOVED, EXCEPT THOSE IDENTIFIED TO BE PROTECTED.
2. ALL FOOTINGS, POSTS, ETC. THAT SUPPORT DECKS, PORCHES, ETC. SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL

1

 NOTE THAT THESE ARE NOT SHOWN ON THE DRAWINGS.
C-005 | D-001
3. PATHS, LIGHT POLES, MANHOLES, DECKS, AND PATIOS SHALL BE PROTECTED WHEN REQUIRED IN ACCORDANCE WITH DETAIL

2

 NOTE THAT AND POURED CONCRETE
C-005 | D-001

PATIOS, WALKWAYS, STOOPS, ETC. SHALL BE PROTECTED,
THOUGH NOT ALL ARE SHOWN.

4. PROTECTION OF SELECTED TREES SHALL BE IN ACCORDANCE WITH DETAIL 5
C-005 | D-001

LEGEND:

-  EXISTING MONITORING WELLS
TO BE ABANDONED
- DEC-43
-  FENCE TO BE REMOVED
(AND REPLACED DURING RESTORATION)
- +++++
-  EXISTING MONITORING WELLS
TO BE PROTECTED
- EB-42/
DEC-28



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COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

DEMOLITION, PROTECTION, AND CLEARING PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-005B
CHECKED BY CED	
ARCH/ENGR. RW	



30' 0 30'

SCALE IN FEET



NOTE:

1. THIS DRAWING HAS NOT BEEN MODIFIED TO REFLECT RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "EXCAVATION SURVEY (NORTH LAWN AREA)" FOR RECORD TOPOGRAPHY.

PROTECT CONCRETE STRUCTURES,
WALKWAYS, ETC. IN ACCORDANCE
WITH DETAIL 2

C-005 | D-001

PROTECT TREES (TYP. 7) AS
SHOWN ON DETAIL 5
C-005 | D-001

C-005 | D-001

EAST RIVER

LIMIT OF REMEDIAL
EXCAVATION - NORTH LAWN AREA

AREA OF WALKWAY RESTORATION: SUBCONTRACTOR SHALL REMOVE AND SALVAGE BENCHES, HEXAGONAL PAVERS, AND METAL EDGING FROM HEAVED PORTION OF THE PATH, SHALL RESTORE A LEVEL AND UNIFORM SUBGRADE, AND SHALL REPLACE THE GEOTEXTILE, BEDDING, PAVERS, BENCHES (WITH NEW FOOTINGS) AND METAL EDGING TO MATCH THE GRADE OF THE SURROUNDING, EXISTING WALKWAY AND FINAL GRADES OF ADJACENT LAWN AREA.

N 715417.24
E 672711.50

BUILDING 1

1-FT. WIDE AT 1V:1H TRANSITION
ZONE BETWEEN 1-FT. AND 2-FT.
DEPTHS OF REMEDIATION

RIVIERA COURT

STRUCTURE HOUSES
CONTROLS FOR EXISTING
NORTHERN IRRIGATION SYSTEM

ON SYSTEM

RECORD DRAWING

A horizontal scale bar with a central point labeled '0'. To the left of '0' is a tick mark labeled '20'', and to the right is another tick mark labeled '20''. Below the bar, the text 'SCALE IN FEET' is centered.

EXCAVATION LAYOUT TABLE
- BOUNDARY OF 2-FT.
DEPTH OF REMEDIATION

POINT	NORTHING	EASTING
Ⓐ	715,375.8	672,964.3
Ⓑ	715,383.0	672,764.5
Ⓒ	715,407.6	672,765.3
Ⓓ	715,410.4	672,688.7

NOTES:

1. THE DEPTH OF EXCAVATION NECESSARY TO PLANT TREES AND SHRUBS SHOWN ON C-010 SHALL BE DETERMINED BY THE SUBCONTRACTOR BASED ON THE SIZES OF THE ROOT BALLS OF THE TREES AND SHRUBS ACTUALLY PROVIDED.

LEGEND:

- | | | |
|---|---|---|
| — 20.5 — | PROPOSED SUBGRADE CONTOUR | |
| — 20.5 — | EXISTING GRADE CONTOUR | |
| 16.50 | PROPOSED SUBGRADE SPOT ELEVATION
ON A 20-FT GRID |  |
| + -1.00 | DEPTH OF CUT FROM EXISTING TO PROPOSED
SUBGRADE ELEVATIONS AT THAT LOCATION | |
|  | PLANTING BED AREAS, WHICH MAY REQUIRE DEEPER
EXCAVATION FOR PLANTINGS (SEE NOTE 1) | |
|  | EXCAVATION LAYOUT POINT (SEE TABLE THIS DRAWING) | |



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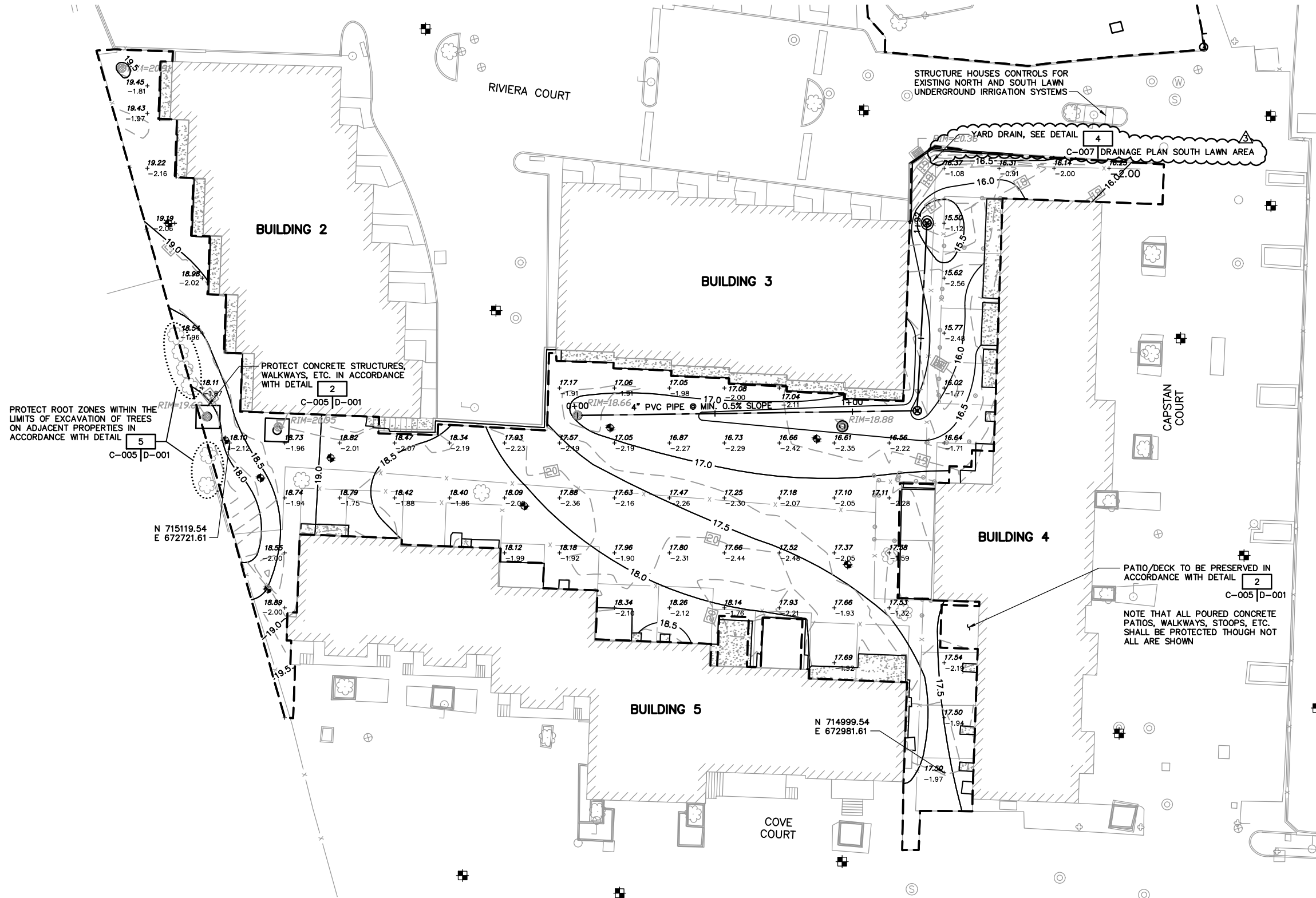
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SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

SUBGRADE
GRADING PLAN
NORTH LAWN AREA

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-006
CHECKED BY CED	
ARCH/ENGR. RW	



NOTE:
1. THIS DRAWING HAS NOT BEEN MODIFIED TO REFLECT RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "EXCAVATION SURVEY (SOUTH LAWN AREA)" FOR RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "DRAINAGE PLAN SOUTH LAWN AREA" FOR RECORD DRAINAGE STRUCTURES.

NOTES:

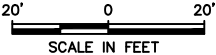
- THE DEPTH OF EXCAVATION NECESSARY TO PLANT TREES AND SHRUBS SHOWN ON C-011 SHALL BE DETERMINED BY THE SUBCONTRACTOR BASED ON THE SIZES OF THE ROOT BALLS OF THE TREES AND SHRUBS ACTUALLY PROVIDED.
- EXISTING GRADES AND REQUIRED DEPTH OF CUT IN CERTAIN AREAS SHOWN ON THIS DRAWING, ARE UNKNOWN. ONLY THE REQUIRED SUBGRADE ELEVATIONS ARE SHOWN IN THOSE AREAS.
- NUMEROUS FOOTINGS, ETC. ARE PRESENT IN THIS AREA BUT ARE NOT SHOWN ON THIS DRAWING. THEY SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL 1

C-005 | D-001

LEGEND:

- 20.5 — PROPOSED SUBGRADE CONTOUR
- - 20.5 - - EXISTING GRADE CONTOUR
- + 16.50 + PROPOSED SUBGRADE SPOT ELEVATION ON A 20'-FT GRID
- + -1.00 DEPTH OF CUT FROM EXISTING TO PROPOSED SUBGRADE ELEVATIONS AT THAT LOCATION

RECORD DRAWING



NO.	DATE	BY	PROJECT ARCHT	DEPT MARK/SUPR	ENGR APPROVAL
3	3/20/19	RAL	RW		CED
2	04/24/18	HAP	RW		CED
1	06/02/18	RAE	RW		CED
0	12/12/17	HAP	RW		CED

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SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

SUBGRADE GRADING PLAN
SOUTH LAWN AREA

OWNER'S PROJECT NUMBER	PROJECT NUMBER
	60536797
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	

C-007

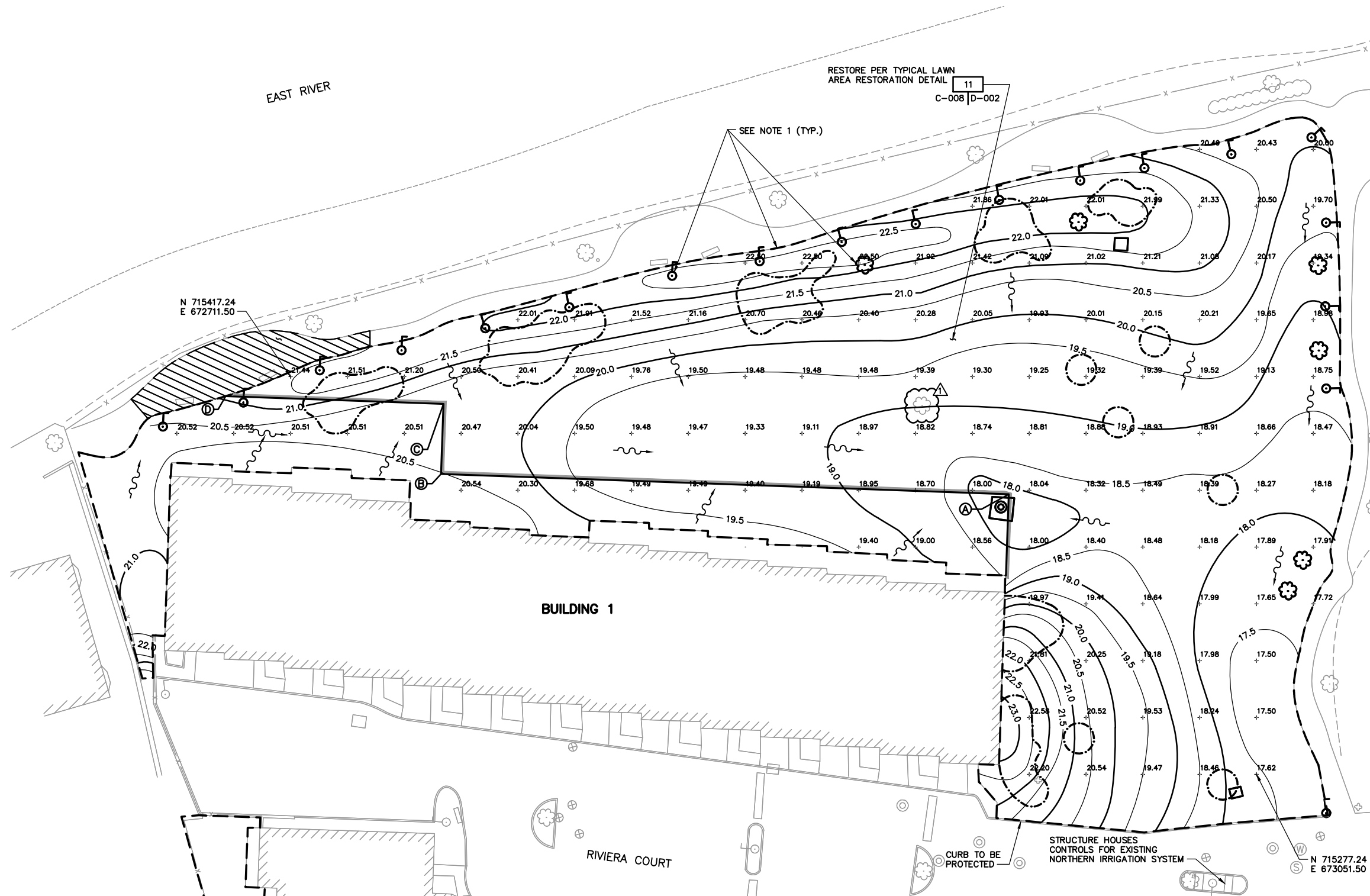
J:\Projects\60536797_CollegePt3\900-CAD-CAD\20-SHEETS\RECORD DRAWINGS\C-006_C-008_TOPO - PROPOSED GRADING-NEW.dwg, C-008, 1:2, 9/24/2013, 1-HAP



PROJECT NO.

SHEET NO.

NOTE:
1. THIS DRAWING HAS NOT BEEN MODIFIED TO REFLECT RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "AS-BUILT SURVEY (NORTH LAWN AREA)" FOR RECORD TOPOGRAPHY.



NOTES:

1. RESTORED GRADES SHALL MATCH PRE-EXISTING GRADES AT ALL FEATURES SHOWN TO BE PRESERVED INCLUDING TREES, AND ALONG EDGES OF EXCAVATION AREA (PATHS AND BUILDINGS).
2. FINAL GRADES SHALL DRAIN AWAY FROM BUILDINGS.
3. PROPOSED PLANTING FROM DWG. C-010 NOT SHOWN.
4. THE SUBCONTRACTOR SHALL REPLACE THE EXISTING UNDERGROUND IRRIGATION SYSTEM WITH A NEW SYSTEM THAT PROVIDES EQUAL SERVICE TO THE NORTH LAWN AREA.

LEGEND:

- TREE TO BE PRESERVED (SEE DRAWING C-004)
- FINAL GRADE CONTOUR
- FINAL GRADE SPOT ELEVATION ON GRID SHOWN (20'-FT SPACING)
- PLANTING BED AREAS
- DIRECTION OF OVERLAND FLOW

RECORD DRAWING

20' 0 20'
SCALE IN FEET

NO.	DATE	BY	PROJECT ARCHT	DEPT MARK/SUPR	ENGR APPROVAL
1	3/20/19	RAL	RW	CED	
0	12/12/17	HAP	RW	CED	

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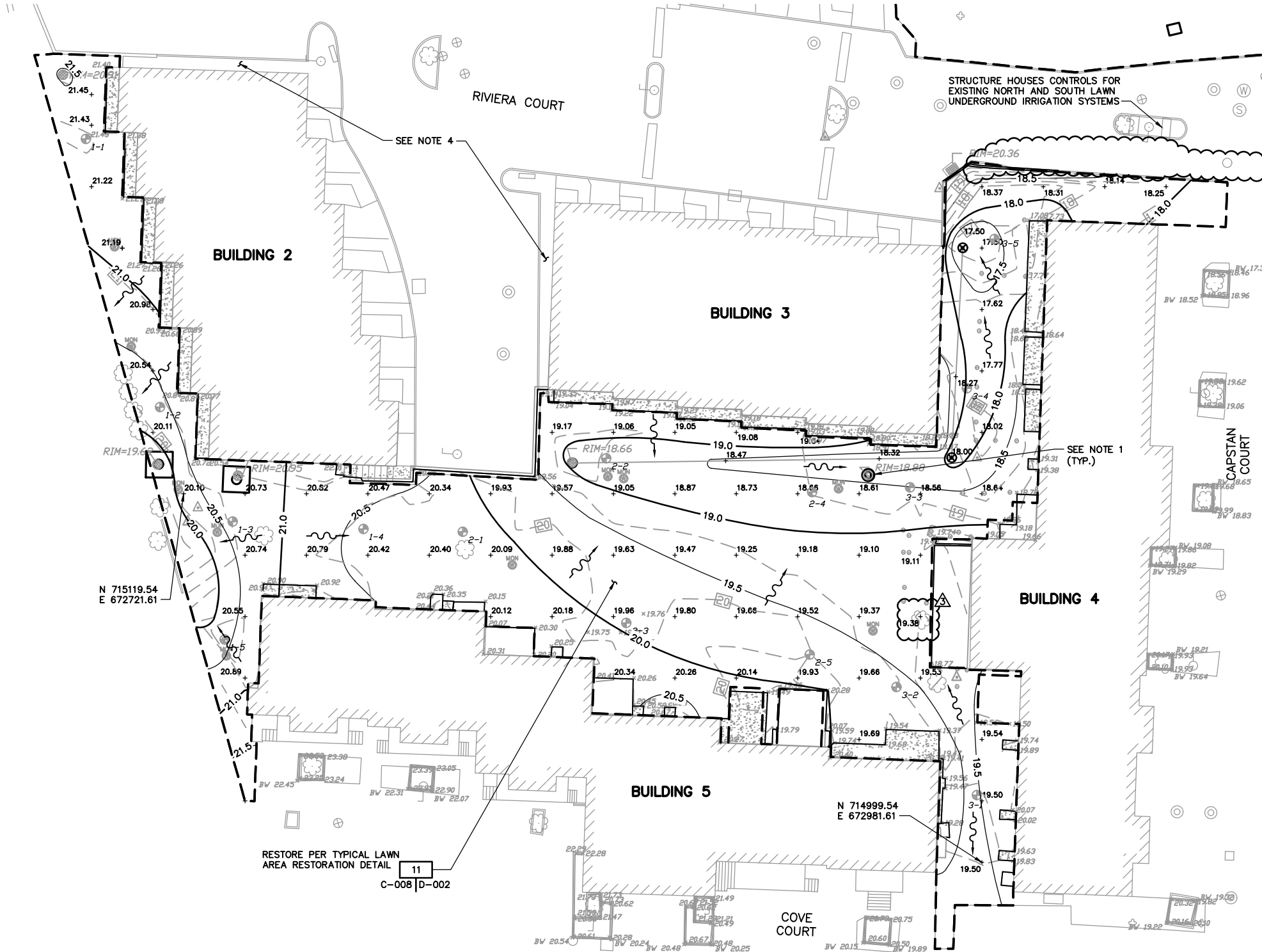
**COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122**

**INTERIM REMEDIAL
MEASURE DESIGN**

**FINAL GRADING PLAN
NORTH LAWN AREA**

OWNER'S PROJECT NUMBER	PROJECT NUMBER
	60536797
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	

C-008



NOTE:
1. THIS DRAWING HAS NOT BEEN MODIFIED TO REFLECT RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "AS-BUILT SURVEY (SOUTH LAWN AREA)" FOR RECORD TOPOGRAPHY. REFER TO SUPPLEMENTAL DRAWING "DRAINAGE PLAN SOUTH LAWN AREA" FOR RECORD DRAINAGE STRUCTURES.

NO.	DATE	BY	PROJECT ARCHT	DEPT MARK/SUPR	ENGR APPROVAL
3	3/20/19	RAL	RW		CED
2	04/24/18	HAP	RW		CED
1	06/02/18	RAE	RW		CED
0	12/12/17	HAP	RW		CED

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COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

FINAL GRADING PLAN
SOUTH LAWN AREA

OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	60536797
DECEMBER 2017	SCALE
DRAWN BY	AS SHOWN
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	

C-009

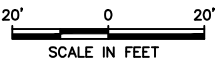
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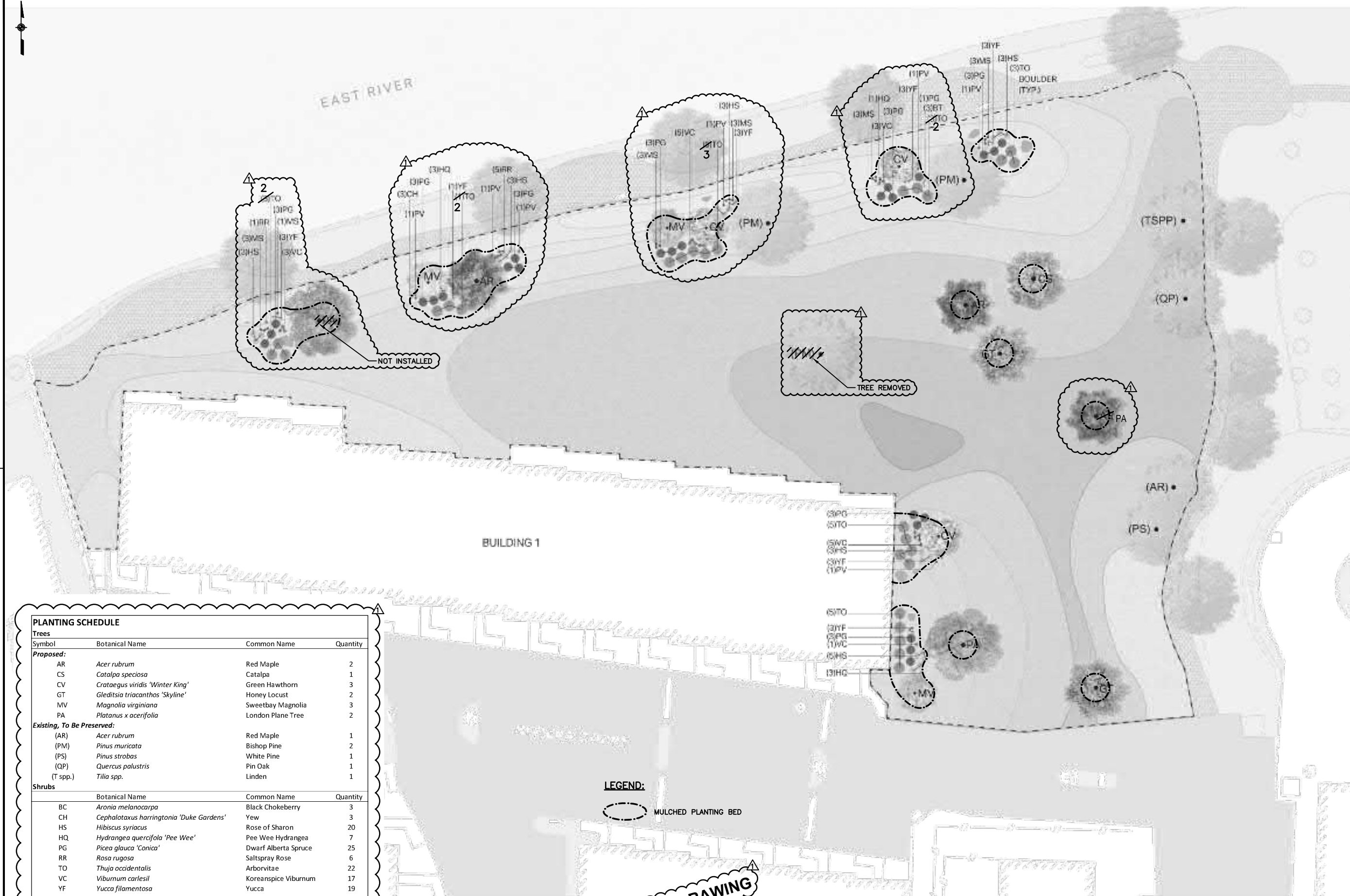
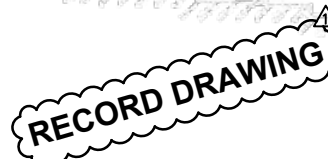
- RESTORED GRADES SHALL MATCH PRE-EXISTING GRADES AT ALL FEATURES TO BE PRESERVED INCLUDING TREES, AND ALONG EDGES OF EXCAVATION AREA (PATHS AND BUILDINGS).
- FINAL GRADES SHALL DRAIN AWAY FROM BUILDINGS.
- PROPOSED PLANTINGS AND RESTORED FENCES FROM DWG. C-011 NOT SHOWN.
- THE SUBCONTRACTOR SHALL REPLACE IN-KIND ALL PIPING, VALVES, SPRINKLER HEADS, ETC. OF THE EXISTING UNDERGROUND IRRIGATION SYSTEM LOCATED IN THE ISLANDS SHOWN AND IN THE SOUTH LAWN AREA.

LEGEND:

- TREE TO BE PRESERVED (SEE DRAWING C-004)
- FINAL GRADE CONTOUR
- FINAL GRADE SPOT ELEVATION ON GRID SHOWN (20-FT SPACING)
- DIRECTION OF OVERLAND FLOW

RECORD DRAWING





Trees			
Symbol	Botanical Name	Common Name	Quantity
Proposed:			
AR	<i>Acer rubrum</i>	Red Maple	2
CS	<i>Catalpa speciosa</i>	Catalpa	1
CV	<i>Crataegus viridis</i> 'Winter King'	Green Hawthorn	3
GT	<i>Gleditsia triacanthos</i> 'Skyline'	Honey Locust	2
MV	<i>Magnolia virginiana</i>	Sweetbay Magnolia	3
PA	<i>Platanus x acerifolia</i>	London Plane Tree	2
Existing, To Be Preserved:			
(AR)	<i>Acer rubrum</i>	Red Maple	1
(PM)	<i>Pinus muricata</i>	Bishop Pine	2
(PS)	<i>Pinus strobus</i>	White Pine	1
(QP)	<i>Quercus palustris</i>	Pin Oak	1
(T spp.)	<i>Tilia spp.</i>	Linden	1
Shrubs			
	Botanical Name	Common Name	Quantity
BC	<i>Aronia melanocarpa</i>	Black Chokeberry	3
CH	<i>Cephalotaxus harringtonia</i> 'Duke Gardens'	Yew	3
HS	<i>Hibiscus syriacus</i>	Rose of Sharon	20
HQ	<i>Hydrangea quercifolia</i> 'Pee Wee'	Pee Wee Hydrangea	7
PG	<i>Picea glauca</i> 'Conica'	Dwarf Alberta Spruce	25
RR	<i>Rosa rugosa</i>	Saltspray Rose	6
TO	<i>Thuja occidentalis</i>	Arborvitae	22
VC	<i>Viburnum carlesil</i>	Koreanspice Viburnum	17
YF	<i>Yucca filamentosa</i>	Yucca	19
Grasses			
	Botanical Name	Common Name	Quantity
MS	<i>Miscanthus sinensis</i>	Maiden Grass	16
PV	<i>Panicum virgatum</i>	Switch Grass	7

[illegible]

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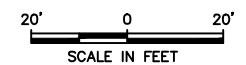
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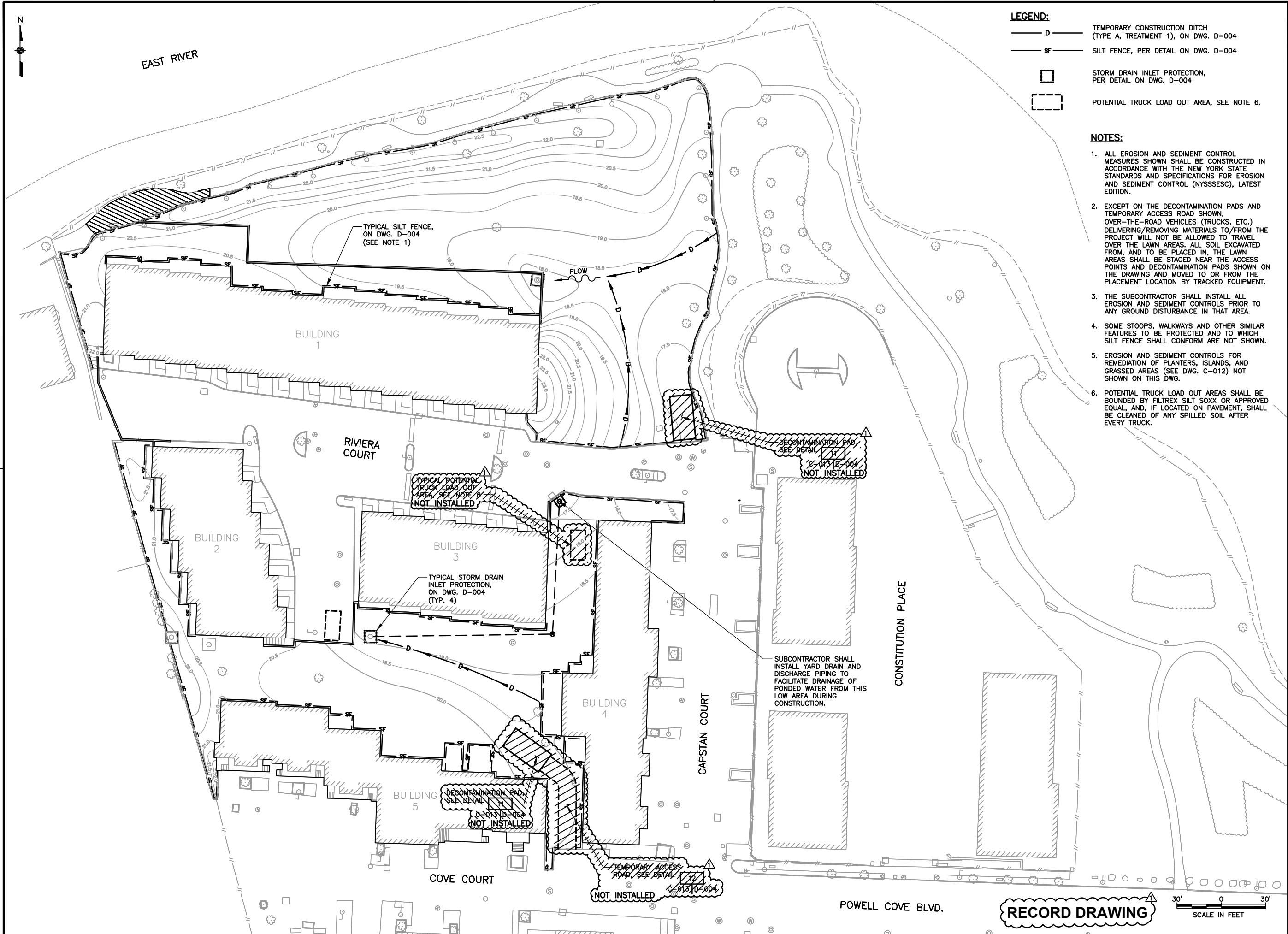
INTERIM REMEDIAL
MEASURE DESIGNLANDSCAPE PLAN
NORTH LAWN AREA

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-010
CHECKED BY CED	
ARCH/ENGR. RW	



Yard Area	REPLACEMENT ORNAMENTAL PLANTINGS		
	Quantities	Species	Common Name
1	As Needed	Sod	
2	As Needed	Sod	
3	6	Hibiscus Syriacus	Rose of Sharon
4	2	Thuja Occidentalis	Arborvitae
	2	Rosa Rugosa	Saltspray Rose
5	As Needed	Sod	
	6	Thuja Occidentalis	Arborvitae
6	1	Hydrangea quercifolia "Pee Wee"	Pee Wee Hydrangea
	3	Rosa Rugosa	Saltspray Rose
7	1	Gleditsia Triacanthos	Honey Locust
8	As Needed	Sod	
	1	Gleditsia Triacanthos	Honey Locust
9	1	Rosa Rugosa	Saltspray Rose
10	1	Gleditsia Triacanthos	Honey Locust
11	As Needed	Sod	
12	As Needed	Sod	
	1	Prunus cerasifera "Thundercloud"	Thundercloud Plum
13	1	Hibiscus Syriacus	Rose of Sharon
	1	Rosa Rugosa	Saltspray Rose
14	2	Gleditsia Triacanthos	Honey Locust
15	20	Thuja Occidentalis	Arborvitae
16	As Needed	Sod	
17	As Needed	Sod	
18	As Needed	Sod	
	2	Hydrangea quercifolia "Pee Wee"	Pee Wee Hydrangea
	1	Prunus cerasifera "Thundercloud"	Thundercloud Plum
19	1	Gleditsia triacanthos	Honey Locust
	1	Rosa Rugosa	Saltspray Rose
	1	Viburnum Carlesii	Korean Spice Viburnum
	3	Cephalotaxus harringtonia "Duke Gardens"	Yew
20	As Needed	Sod	
21	As Needed	Sod	
22	2	Rosa Rugosa	Saltspray Rose
23	As Needed	Sod	
24	4	Plants Purchased By Homeowner	

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-011
CHECKED BY CED	
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RECORD DRAWING

30' 0 30
SCALE IN FEET

C-013

[illegible]

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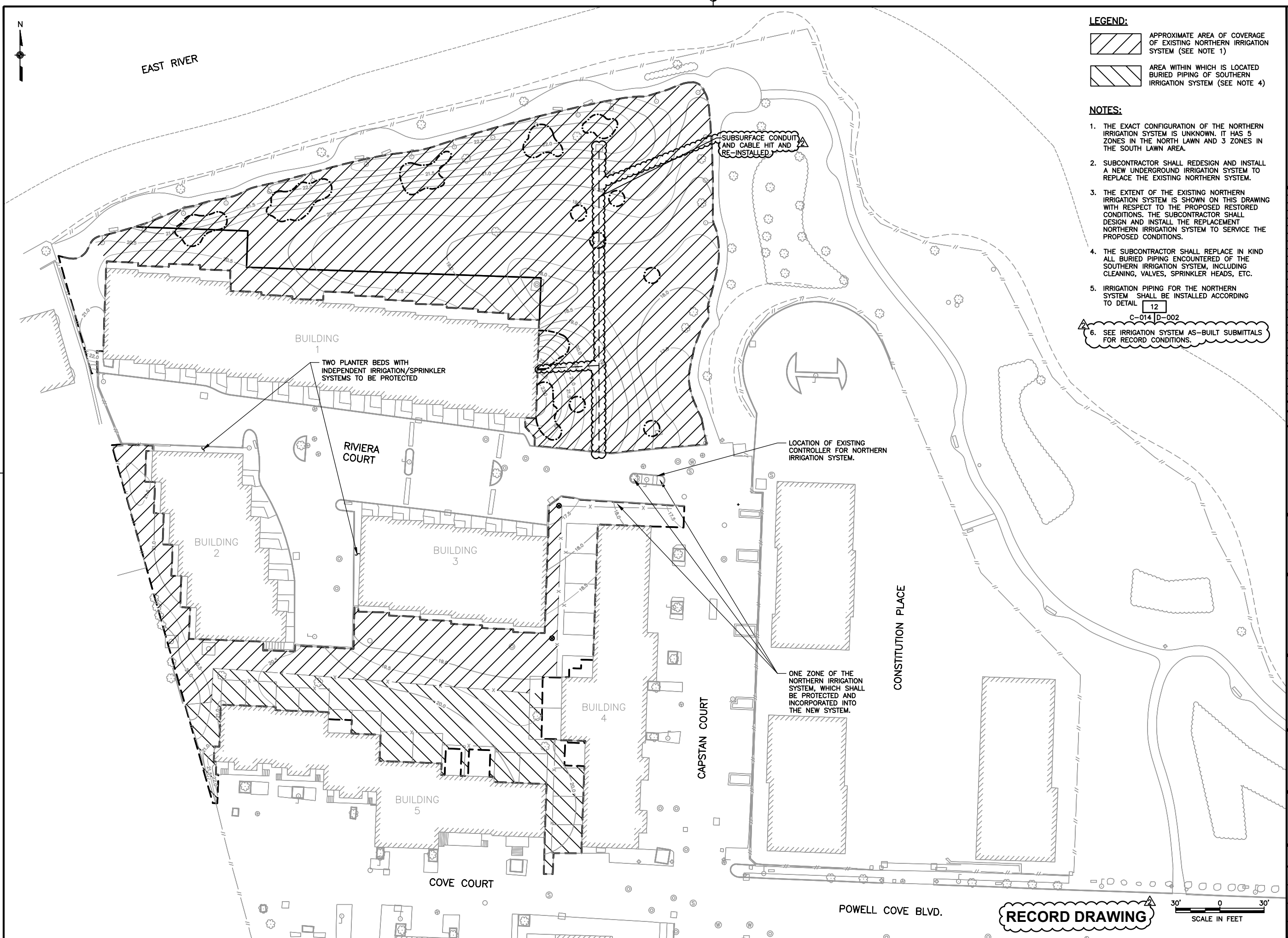
COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

LAWN AREAS
EROSION AND SEDIMENT
CONTROL PLAN

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-013
CHECKED BY CED	
ARCH/ENGR. RW	

EAST RIVER



APPROXIMATE AREA OF COVERAGE
OF EXISTING NORTHERN IRRIGATION
SYSTEM (SEE NOTE 1)

AREA WITHIN WHICH IS LOCATED
BURIED PIPING OF SOUTHERN
IRRIGATION SYSTEM (SEE NOTE 4)

1. THE EXACT CONFIGURATION OF THE NORTHERN IRRIGATION SYSTEM IS UNKNOWN. IT HAS 5 ZONES IN THE NORTH LAWN AND 3 ZONES IN THE SOUTH LAWN AREA.
2. SUBCONTRACTOR SHALL REDESIGN AND INSTALL A NEW UNDERGROUND IRRIGATION SYSTEM TO REPLACE THE EXISTING NORTHERN SYSTEM.
3. THE EXTENT OF THE EXISTING NORTHERN IRRIGATION SYSTEM IS SHOWN ON THIS DRAWING WITH RESPECT TO THE PROPOSED RESTORED CONDITIONS. THE SUBCONTRACTOR SHALL DESIGN AND INSTALL THE REPLACEMENT NORTHERN IRRIGATION SYSTEM TO SERVICE THE PROPOSED CONDITIONS.
4. THE SUBCONTRACTOR SHALL REPLACE IN KIND ALL BURIED PIPING ENCOUNTERED OF THE SOUTHERN IRRIGATION SYSTEM, INCLUDING CLEANING, VALVES, SPRINKLER HEADS, ETC.
5. IRRIGATION PIPING FOR THE NORTHERN SYSTEM SHALL BE INSTALLED ACCORDING TO DETAIL [12]

6. SEE IRRIGATION SYSTEM AS-BUILT SUBMITTALS FOR RECORD CONDITIONS.

[illegible]

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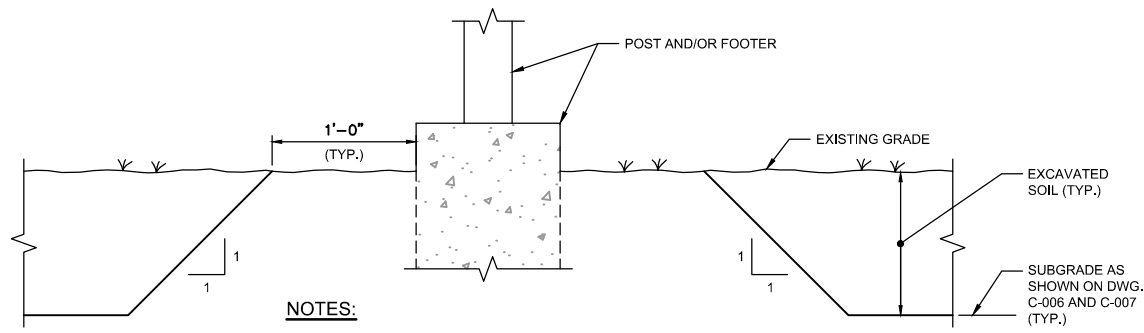
625 BROADWAY
ALBANY, NEW YORK 12233

COLLEGE POINT 3
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SITE NO. 241122

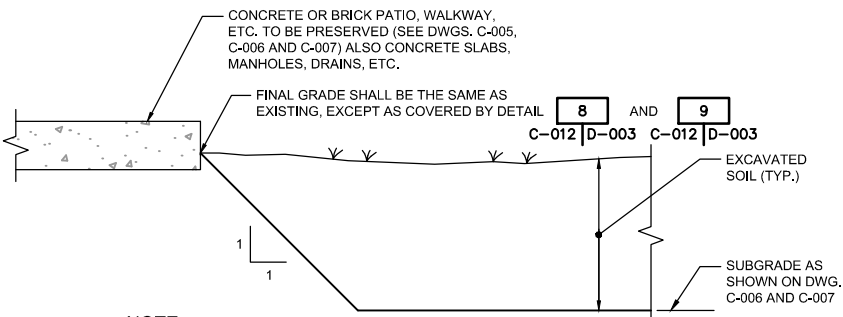
INTERIM REMEDIAL
MEASURE DESIGN

IRRIGATION PLAN

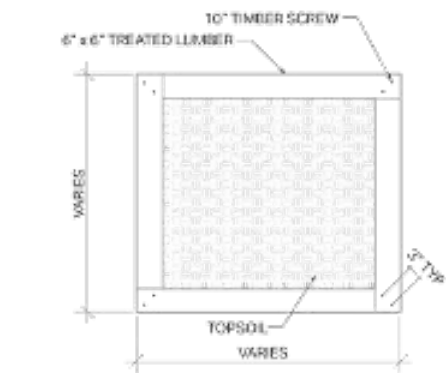
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DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	C-014
CHECKED BY CED	
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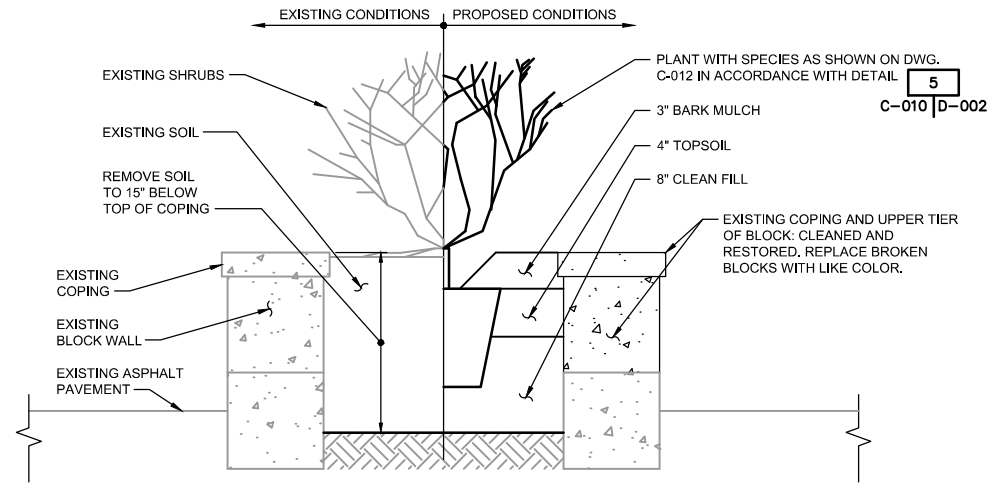
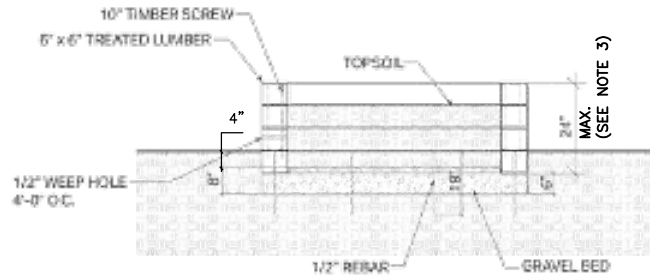
POST/FOOTER PROTECTION DETAIL 1
N.T.S. C-005 | D-001



PATIO / WALKWAY PROTECTION DETAIL 2
N.T.S. C-005 | D-001



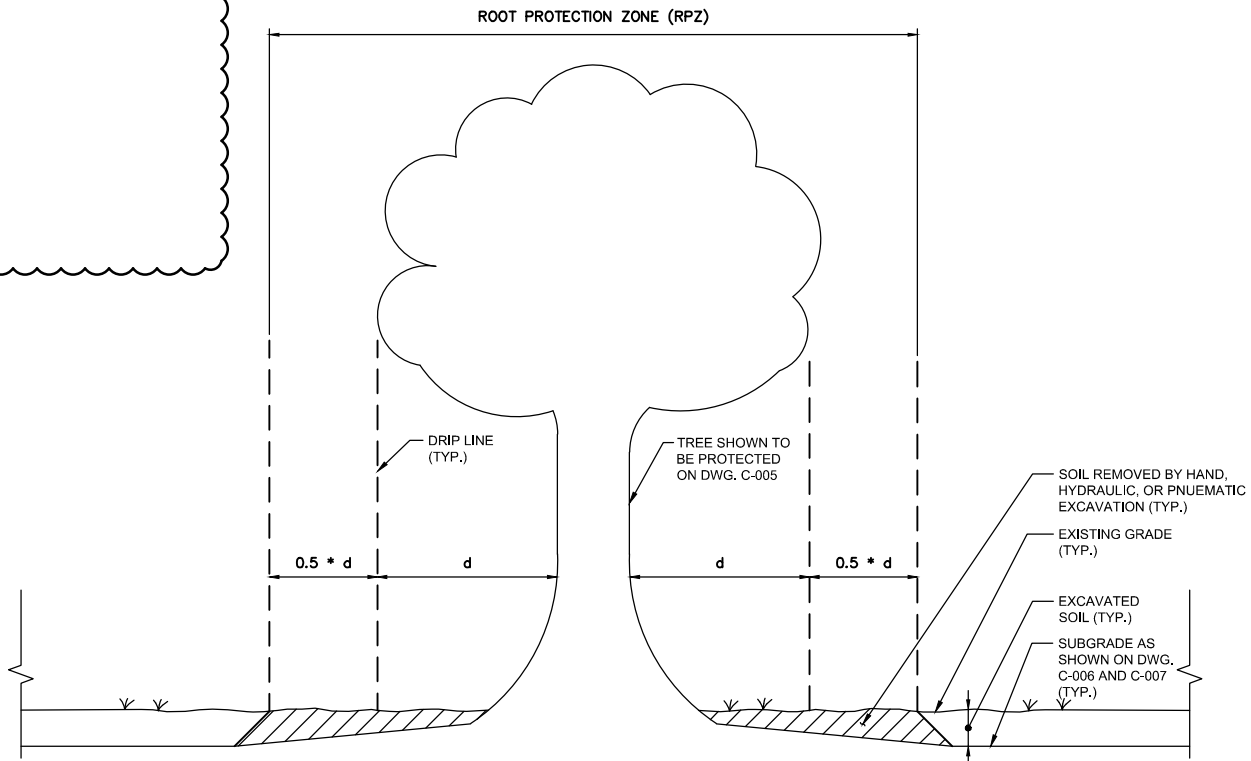
REPLACEMENT PLANTER DETAIL 3
NOT TO SCALE C-012 | D-001



RESTORATION OF CONCRETE BLOCK PLANTERS 6
N.T.S. C-012 | D-001

SEQUENCE OF WORK:

1. REMOVE, CLEAN, AND RETAIN COPING AND UPPER TIER OF BLOCK. BLOCK SHALL BE POWER WASHED OR BRUSHED CLEAN.
2. REMOVE SOIL TO 15" INCHES BELOW TOP OF CASING, DISPOSE OF SOIL.
3. REPLACE UPPER TIER OF BLOCK.
4. PLACE SHRUBS TO BE PLANTED AND BACKFILL PLANTER WITH CLEAN FILL AND TOPSOIL.
5. PLANT REMAINDER OF PLANTS.
6. COVER EXPOSED SOIL WITH BARK MULCH.



TREE PROTECTION DETAIL 5
N.T.S. C-005 | D-001

NOTES:

1. THE ROOT PROTECTION ZONE (RPZ) IS DEFINED AS AN AREA EXTENDING OUT FROM THE TRUNK ALONG ANY RADIUS 50 PERCENT FARTHER THAN THE FARTHEST BRANCH (THE "DRIP LINE").
2. THE SUBCONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT THE ROOT SYSTEMS OF EXISTING TREES. MATERIAL, EQUIPMENT, OR VEHICLES SHALL NOT BE STOCKPILED OR PARKED WITHIN THE RPZ OF ANY TREE COMPLETELY OR PARTIALLY WITHIN THE CONTRACT LIMIT LINE TO MINIMIZE SURFACE AND SUBSURFACE ROOT AND SOIL COMPACTION.
3. REMOVAL OF SOIL WITHIN THE RPZ OF TREES SHOWN TO BE PROTECTED SHALL BE PERFORMED PRIOR TO JUNE 1.
4. THE RPZ SHALL BE STAKED OUT FOR APPROVAL BY THE ENGINEER PRIOR TO SOIL REMOVAL.
5. PRIOR TO REMOVAL, SOIL SHALL BE THOROUGHLY WETTED TO ELIMINATE DUST.
6. SOIL WITHIN THE RPZ SHALL BE REMOVED (EXCAVATED) AS CLOSE TO THE SPECIFIED DEPTH AS PRACTICABLE BY HAND OR VIA PNEUMATIC OR LOW-PRESSURE HYDRAULIC EXCAVATION.
7. THE REMOVED SOIL SHALL BE COLLECTED, AND DISPOSED OF WITH OTHER PROJECT SOILS.
8. REMOVAL OF THE SOIL FROM WITHIN THE RPZ FOR ANY TREE SHALL BE ACCOMPLISHED IN A SINGLE WORK DAY.
9. TREE ROOTS EXPOSED WITHIN THE RPZ SHALL BE KEPT MOIST AND COVERED WITH BURLAP IMMEDIATELY AFTER SOIL REMOVAL. NO POOLING OF WATER SHALL OCCUR WITHIN THE RPZ.
10. THE EXCAVATED RPZ SHALL BE BACKFILLED WITH TOPSOIL WITHIN 24 HOURS OF THE BEGINNING OF SOIL REMOVAL.
11. BACKFILL SOIL SHALL BE COMPACTED WITH A VIBRATORY PLATE TAMPER.
12. A 3-INCH LAYER OF PINE BARK MULCH SHALL BE APPLIED ON TOP OF THE BACKFILL SOIL OVER THE RPZ. DO NOT PLACE MULCH IN CONTACT WITH THE TRUNK.

RECORD DRAWING

NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. WORK/SUPR APPROVAL
2	3/20/18	ELB	RW	CED
1	12/20/17	ELB	RW	CED
0	12/12/17	HAP	RW	CED

REVISIONS



URS Corporation
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**NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION**
625 BROADWAY
ALBANY, NEW YORK 12233

**COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122**

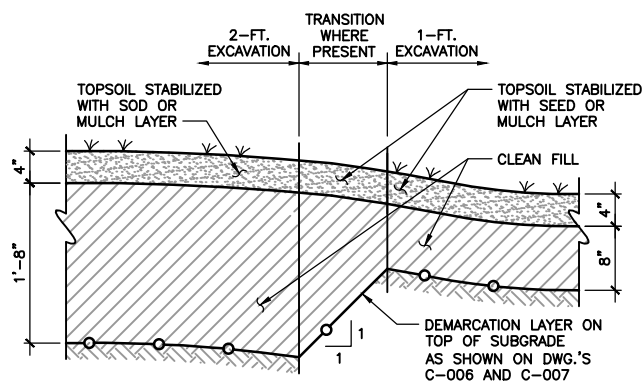
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MEASURE DESIGN**

DETAILS

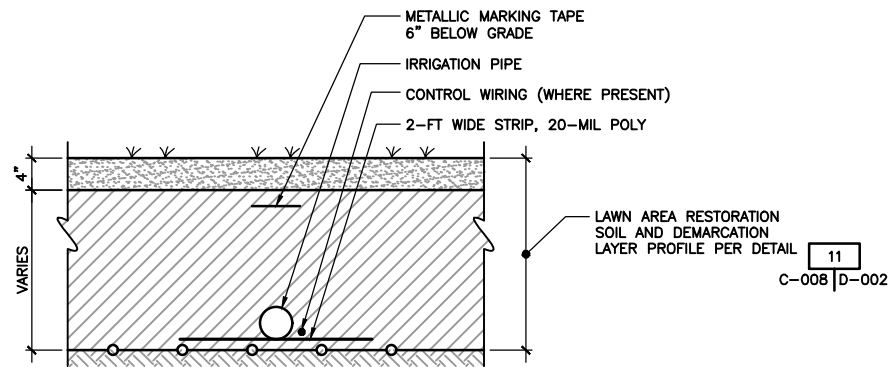
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DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	D-001
CHECKED BY	
ARCH/ENGR.	

PROJECT NO. SHEET NO.

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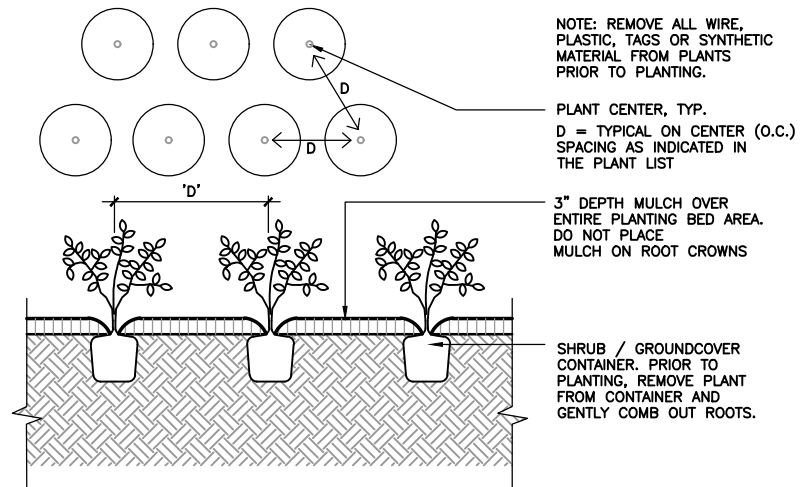


TYPICAL LAWN AREA RESTORATION 11
NOT TO SCALE C-008 | D-002

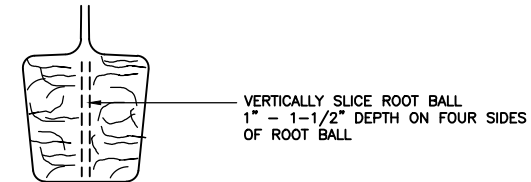


NOTE:
1. FOR INSTALLATION OF IRRIGATION MAINS IN AREAS OF 1-FT EXCAVATION, THE DEPTH OF EXCAVATION SHALL BE INCREASED TO PROVIDE A MINIMUM OF 18 INCHES COVER.

TYPICAL IRRIGATION PIPE INSTALLATION 12
NOT TO SCALE C-014 | D-002

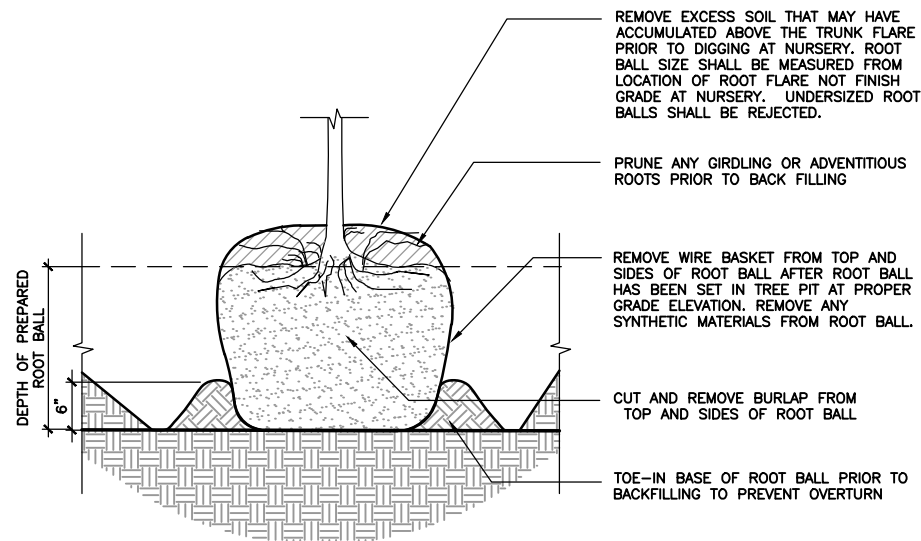


TYPICAL SHRUB AND GROUNDCOVER PLANTING 13
NOT TO SCALE D-003 | D-002



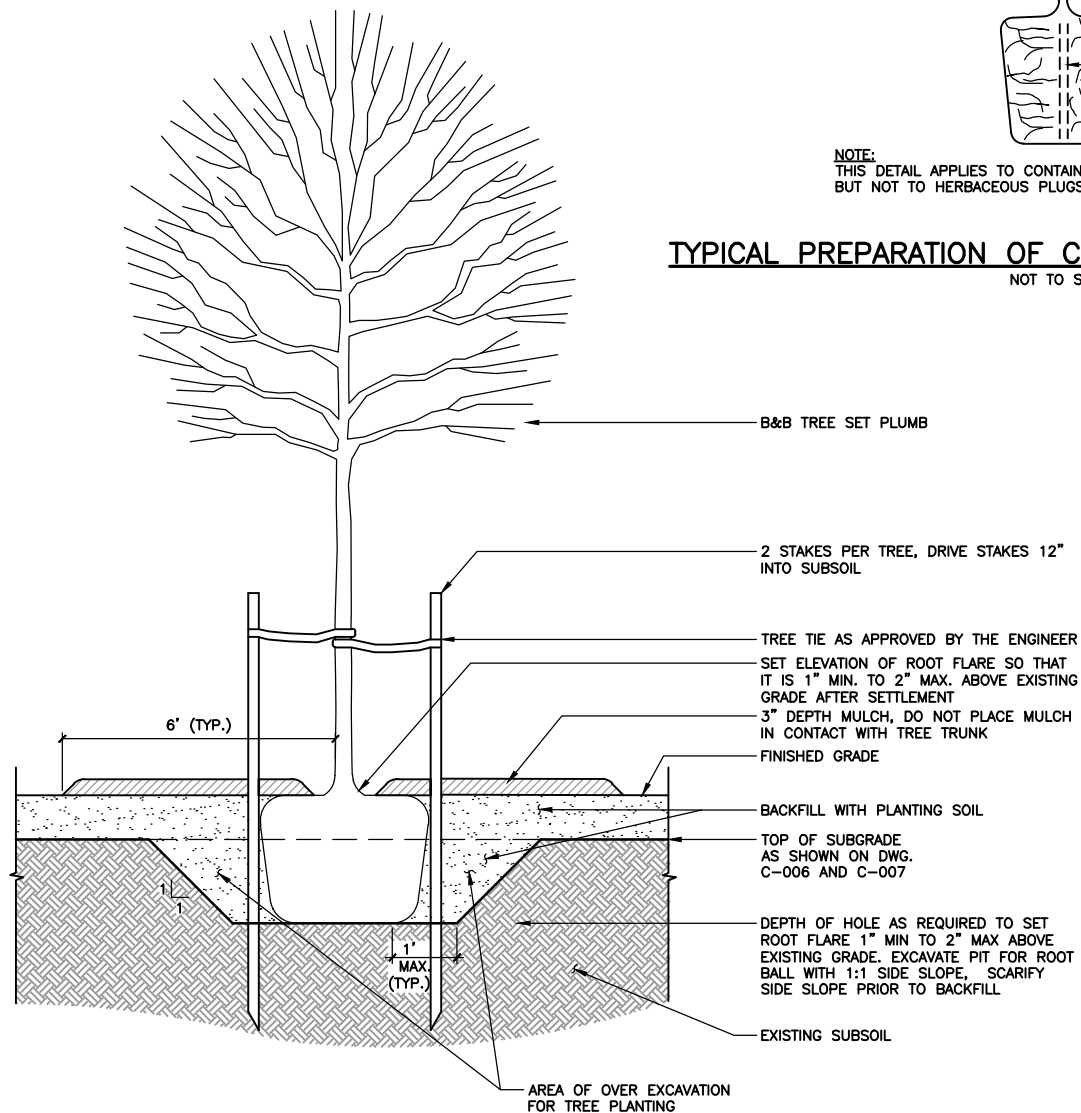
NOTE:
THIS DETAIL APPLIES TO CONTAINERIZED SHRUBS AND PERENNIALS, BUT NOT TO HERBACEOUS PLUGS.

TYPICAL PREPARATION OF CONTAINERIZED ROOT BALL
NOT TO SCALE



NOTE:
1. EXPOSE TRUNK FLARE IN BALL PRIOR TO DIGGING HOLE TO DETERMINE CORRECT DEPTH.

TYPICAL PREPARATION OF B&B ROOT BALL
NOT TO SCALE



TYPICAL TREE PLANTING DETAIL 14
NOT TO SCALE D-002

RECORD DRAWING

NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. WCR/SUPR
1	3/20/18	RAL	RW	CED
0	12/12/17	HAP	RW	CED



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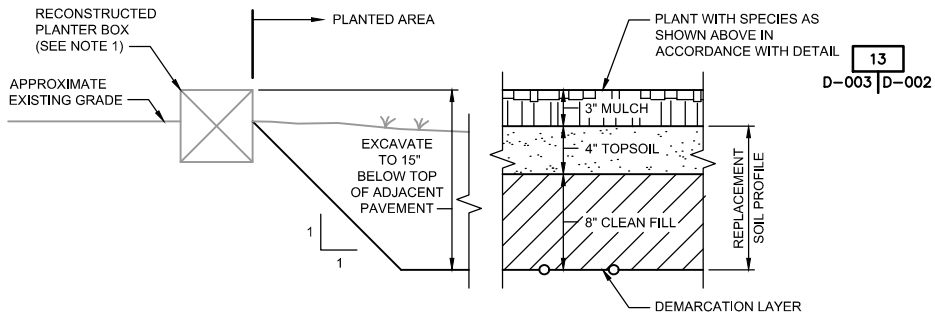
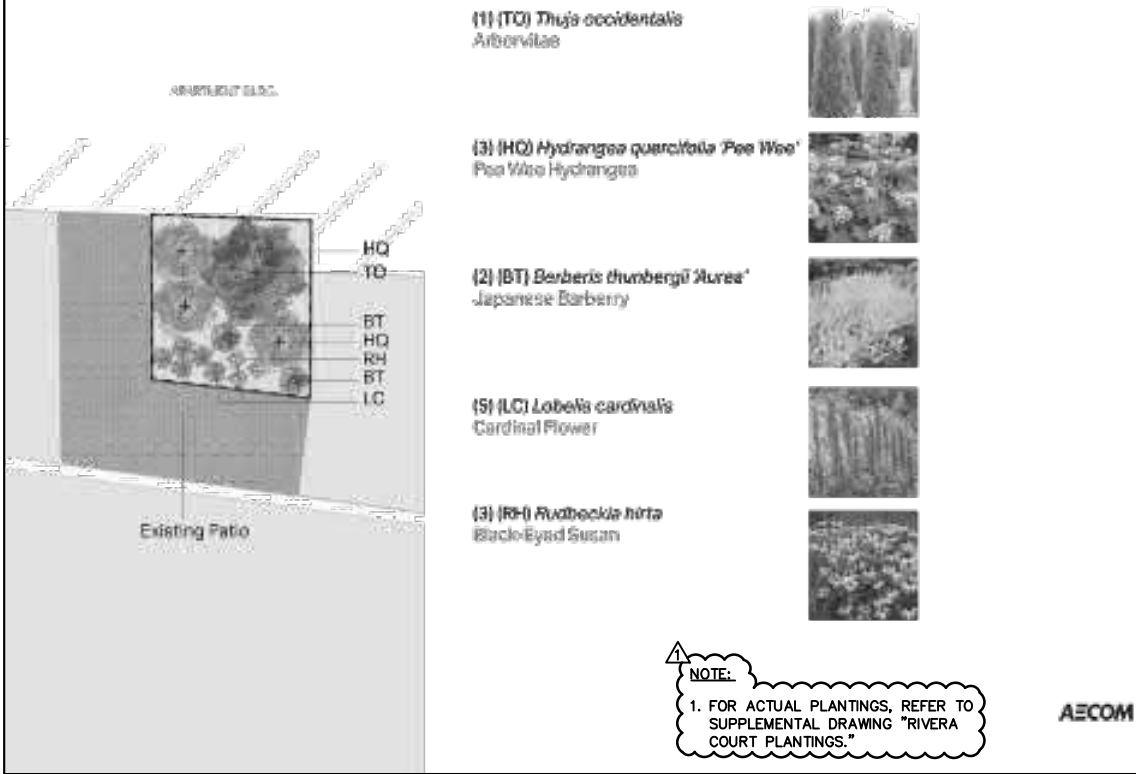
COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL
MEASURE DESIGN

LANDSCAPING
DETAILS

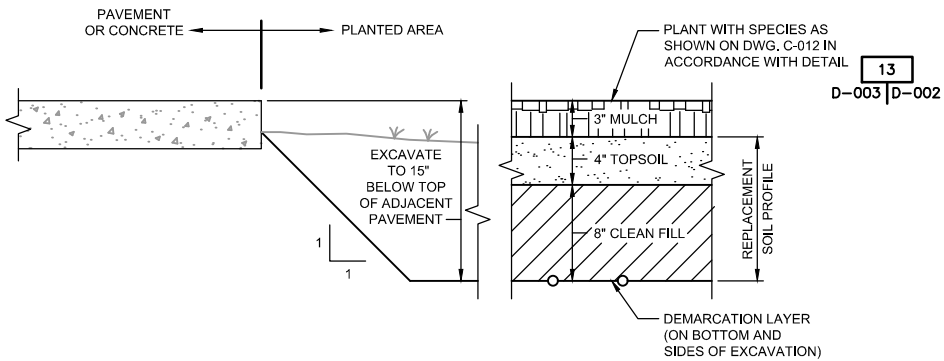
OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	D-002
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	

RIVIERA COURT PLANTERS



RIVIERA COURT PLANTER REMEDIAL EXCAVATION AND RESTORATION 7

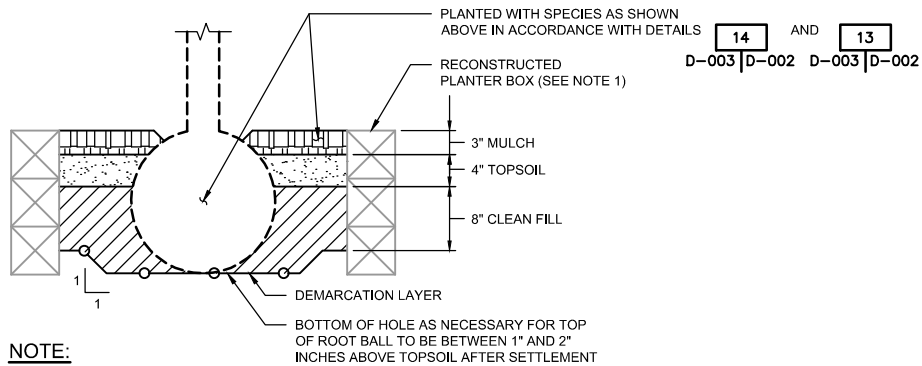
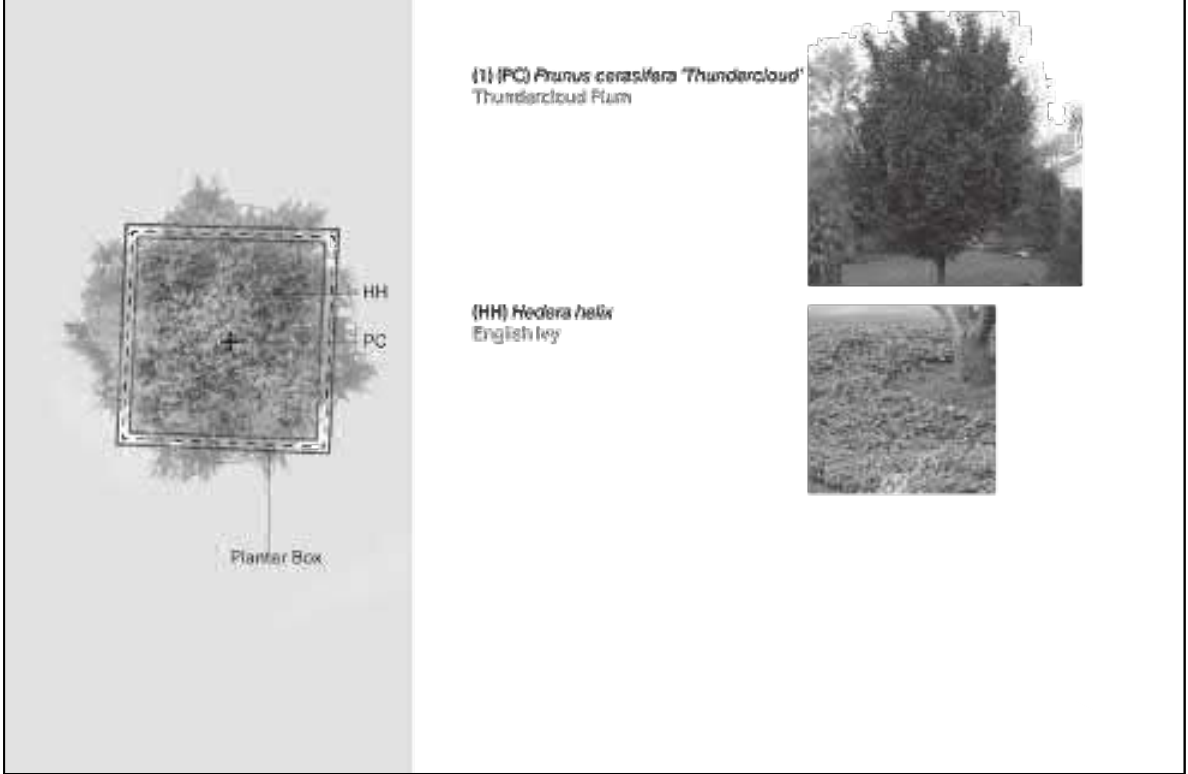
N.T.S. C-012 | D-003



RIVIERA COURT ISLAND REMEDIATION / RESTORATION 9

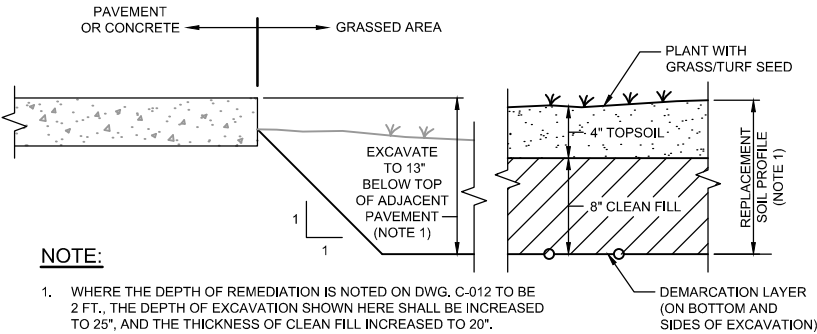
N.T.S. C-012 | D-003

CAPSTAN COURT / COVE COURT PLANTERS



CAPSTAN / COVE COURTS PLANTERS 10

N.T.S. C-012 | D-003



GRASSED AREA REMEDIATION / RESTORATION 8

N.T.S. C-012 | D-003

RECORD DRAWING

1	3/20/18	RAL	RW	CED
0	12/12/17	HAP	RW	CED
NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. WORK/SUPR APPROVAL
REVISIONS				



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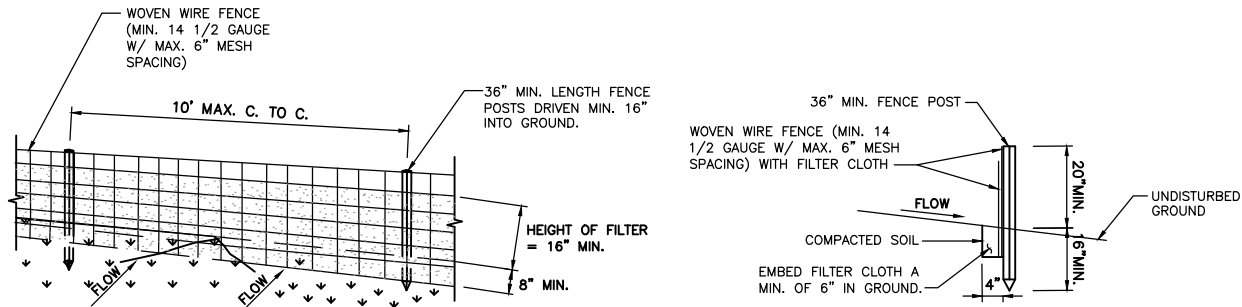
NEW YORK STATE
DEPARTMENT OF
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625 BROADWAY
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MEASURE DESIGN

PLANTER PLANS -
CAPSTAN, COVE, AND
RIVIERA COURTS

OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	D-003
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	



PERSPECTIVE VIEW

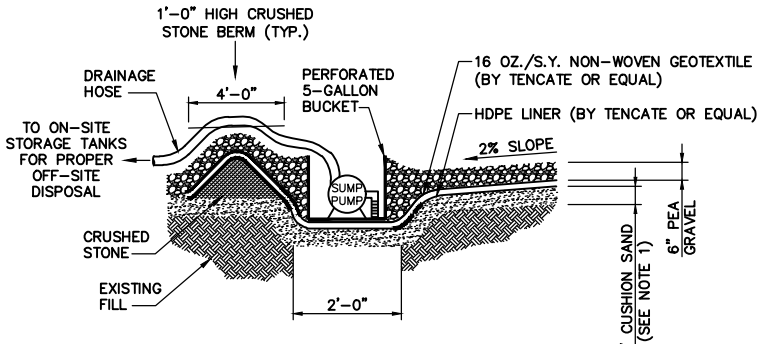
SECTION VIEW

SILT FENCE SPECIFICATIONS:

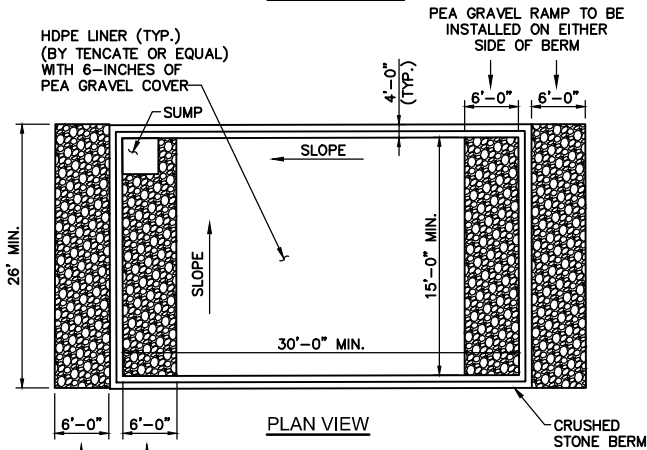
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "I" OR "U" TYPE OR HARDWOOD.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
- PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL

NOT TO SCALE



SECTION VIEW



PLAN VIEW

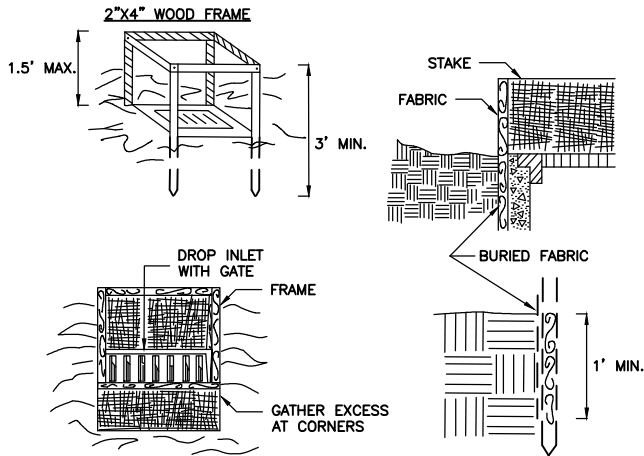
NOTES:

- SELECT FILL SHALL CONSIST OF CONCRETE SAND CONFORMING TO THE REQUIREMENTS OF SECTION 703-07 OF THE NYSDOT STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL EXCAVATE CONTAMINATED SOIL TO THE DEPTH SHOWN AS NEEDED TO INSTALL EQUIPMENT DECONTAMINATION AREA AT LOCATION AS SELECTED BY THE SUBCONTRACTOR AND ACCEPTABLE BY URS CORPORATION.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES, THE MATERIALS USED FOR THE EQUIPMENT DECONTAMINATION AREA SHALL BE REMOVED, TRANSPORTED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES, SUBCONTRACTOR SHALL RESTORE AREA IN-KIND TO THE LINES, GRADES AND DIMENSIONS OF THE EXISTING CONDITIONS (AS THEY EXISTED PRIOR TO INSTALLATION OF THE EQUIPMENT DECONTAMINATION AREA).

DECONTAMINATION PAD DETAIL

NOT TO SCALE

C-013 D-004



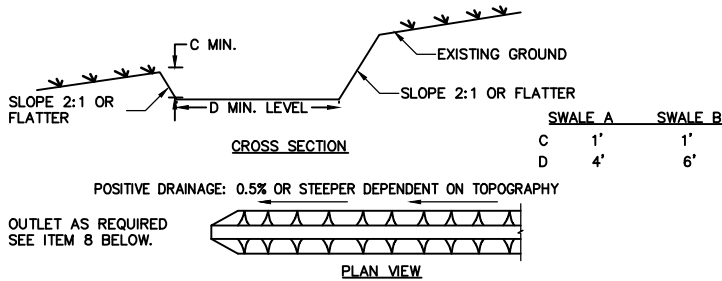
CONSTRUCTION SPECIFICATIONS

- FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
- CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
- STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
- SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
- FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
- A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUM DRAINAGE AREA 1 ACRE

STORM DRAIN INLET PROTECTION

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

- ALL CONSTRUCTION DITCHES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
- DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
- DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
- ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
- THE DITCH SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
- ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DITCH.
- STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC. OR LESS)	B (5 AC. -10 AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH

- PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

CONSTRUCTION DITCH DETAIL

NOT TO SCALE

RECORD DRAWING

NOTES:

A. REGULATORY REQUIREMENTS

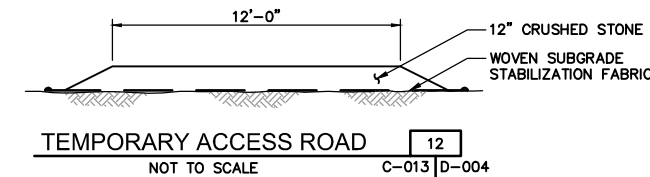
- THE DISCHARGE OF STORMWATER RUNOFF FROM DISTURBED GROUND IN THIS PROJECT IS REGULATED UNDER THE NY SPDES PERMIT PROGRAM, GENERAL PERMIT GP-0-15-002 FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY.
- IT IS A VIOLATION OF STATE LAW TO MANAGE STORMWATER, AND EROSION AND SEDIMENT CONTROL, IN A MANNER INCONSISTENT WITH THE APPROVED STORMWATER POLLUTION PREVENTION PLAN, INCLUDING THESE EROSION AND SEDIMENT CONTROL DRAWINGS.
- THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR ALL FINES AND PENALTIES RESULTING FROM ANY CONTRAVENTION OF NYS ENVIRONMENTAL CONSERVATION LAW ON THIS PROJECT.
- THE SUBCONTRACTOR SHALL MODIFY THE EROSION AND SEDIMENT CONTROL PRACTICES AS NECESSARY THROUGHOUT THE PROJECT TO ENSURE COMPLIANCE WITH THE REQUIREMENTS AND GOALS OF THE SPDES PERMIT PROGRAM.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH "NEW YORK STATE STANDARDS & SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION.

B. ALL CONSTRUCTION AREAS

- AREAS NOT TO BE DISTURBED SHALL BE CLEARLY MARKED WITH FLAGS.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- INITIAL CLEARING AND GRUBBING SHALL BE ONLY THOSE LIMITED AREAS AS REQUIRED FOR INSTALLATION OF E & S CONTROL MEASURES.
- INSTALL ALL PERIMETER AND SEDIMENT CONTROLS.
- PERIMETER CONTROLS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER, PRIOR TO CONSTRUCTION.
- CLEAR AND GRUB ONLY AS MUCH AREA AS IS NECESSARY TO ACCOMMODATE CONSTRUCTION NEEDS.
- ACCESS TO SITE SHALL BE RESTRICTED TO AREA HAVING A STABILIZED CONSTRUCTION ENTRANCE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL, OR AT ANY SIGN OF FAILURE, AND REPAIRED OR REPLACED AS REQUIRED OR AS DIRECTED BY THE ENGINEER. ADDITIONAL E & S CONTROL MEASURES SHALL BE IMPLEMENTED AS REQUIRED.
- REMOVE ANY SEDIMENT THAT MAY WASH OR TRACK OFF OF THE SITE. PAVED ROADS SHALL BE MAINTAINED IN A CLEAN, SWEEPED CONDITION DAILY THROUGHOUT CONSTRUCTION.
- ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES SHALL BE TEMPORARILY STABILIZED OR OTHERWISE PROTECTED WITH E & S CONTROLS PRIOR TO THE END OF WORK EACH DAY. PERMANENT VEGETATION SHALL BE ESTABLISHED WITH TOPSOIL AND SEED OR SOD ON ALL EXPOSED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADING. MULCH TO BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- REMOVE E & S CONTROL MEASURES WHEN ENTIRE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED AND APPROVED BY THE ENGINEER OR ANY OTHER QUALIFIED PROFESSIONALS DEFINED BY GP-0-15-002.
- IF TRENCH DEWATERING IS NECESSARY FOR UNDERGROUND CONSTRUCTION, THE SUBCONTRACTOR SHALL DEPLOY A SUMP PIT AND ROCK OUTLET OR AN EQUIVALENT EROSION AND SEDIMENT CONTROL METHOD FOR THE DISCHARGE LINE. THE SUMP PIT AND THE ROCK OUTLET WILL BE UTILIZED AS DETAILED IN THE PROVIDED DETAILS, THE PROJECT SWPPP AND THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

C. TEMPORARY EQUIPMENT STORAGE AND STAGING AREA

- INSTALL STABILIZED CONSTRUCTION ENTRANCE AT THE LOCATIONS IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
- INSTALL THE SILT FENCE AT THE LOCATIONS IDENTIFIED ON THE CONSTRUCTION DRAWINGS AND AS INDICATED ON THIS PAGE.
- PLACE GRAVEL, WHERE APPLICABLE, AND USE FOR TEMPORARY EQUIPMENT STORAGE AND STAGING AREA.
- RESTORE SITE TO EXISTING CONTOURS AND STABILIZE.
- AFTER THE SITE HAS BEEN STABILIZED AND A VIGOROUS, DENSE STAND OF VEGETATIVE COVER HAS BEEN ESTABLISHED, REMOVE THE SILT FENCE AND ANY OTHER TEMPORARY MEASUREMENTS.



NO.	DATE	BY	PROJECT ARCH/ENGR	DEPT. WORK/SUPR	APPROVAL
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0	12/12/17	HAP	RW	CED	

REVISIONS



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NEW YORK STATE
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INTERIM REMEDIAL
MEASURE DESIGN

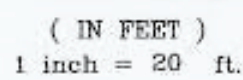
EROSION AND SEDIMENT
CONTROL DETAILS

OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	SCALE
DRAWN BY	AS SHOWN
CHECKED BY	
ARCH/ENGR.	
	D-004



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N-3	715362.19	672656.84	20.84	17	715302.66	672942.28	18.56
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N-3-5	715365.00	672928.11	19.70	26	715327.39	673035.01	17.61
N-3-5A	715363.89	672928.64	18.76	28	715347.54	673032.96	17.53
N3-2A/	715336.09			31	715358.63	673042.70	18.14
N3-3	715369.89	672690.05	20.43	32	715356.89	673042.69	18.14
N3-3A/				SS-1	715337.38	673033.26	18.05
N3-3-1	715378.30	672761.57	20.95	SS-11	715388.58	672699.85	19.29
1	715378.30	672691.57	18.64	1	715399.74	672699.85	19.60
3	715354.18	672937.97	18.76	2-3	715407.12	672909.39	19.45
4	715364.37	672940.07	18.60	2-4	715398.85	672899.36	19.14
5	715373.94	672940.44	18.70	5	715386.03	672889.65	18.71
6	715373.94	672940.44	18.63	NDW A	715365.39	672925.08	18.45
7	715373.21	672918.48	19.01				

GRAPHIC SCALE



MATCHLINE A-A

LEGEND

- | | | |
|---|-------|----------------------------|
|  | ..... | LIGHTPOLE |
|  | ..... | FENCE POST |
|  | ..... | MONITOR WELL |
|  | ..... | SAMPLE LOCATION |
|  | ..... | ELECTRIC MANHOLE |
|  | ..... | SANITARY MANHOLE |
|  | ..... | RECTANGULAR DRAIN INLET |
|  | ..... | ROUND DRAIN INLET |
|  | ..... | BOULDER |
|  | ..... | IRRIGATION BOX |
|  | ..... | SPOT ELEVATION |
|  | ..... | SPOT ELEVATION AT GRID PT. |
- * ELEV.

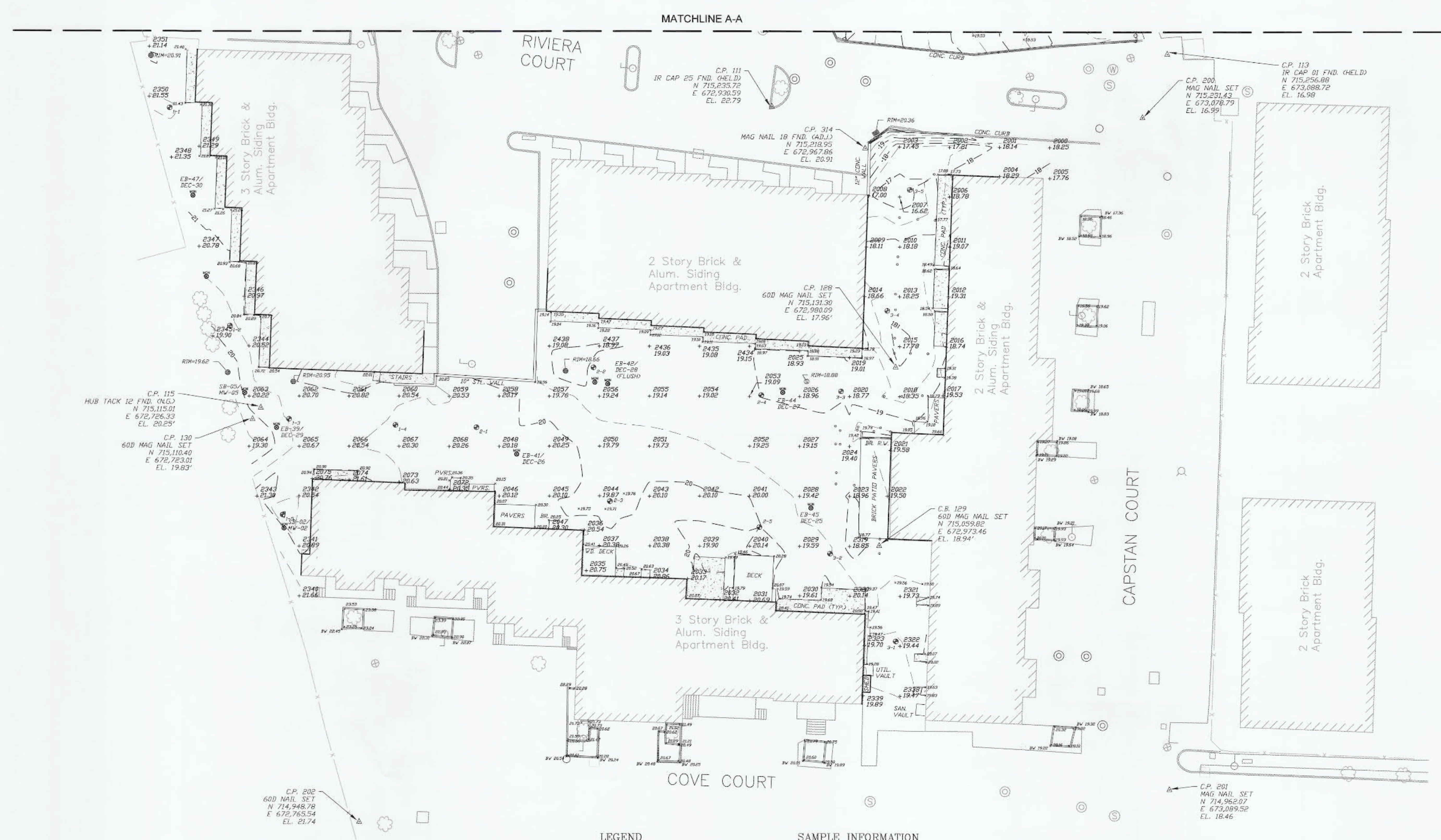
I hereby certify that this map was made from an actual survey completed by me on 05/10/2018, 05/15/2018, 06/26/2018, 07/31/2018 and 08/21/2018.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS			
COLLEGE POINT REMEDIATION SURVEY & MAPPING			
INITIAL SURVEY (North Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
		Field Survey By: J.L./J.L.	Scale: 1" = 20' Sheet No. 1
		Office Survey By: T.L.S.	Date: May 9, 2019
		Approved By: T.L.S.	File No. 18031.000 2

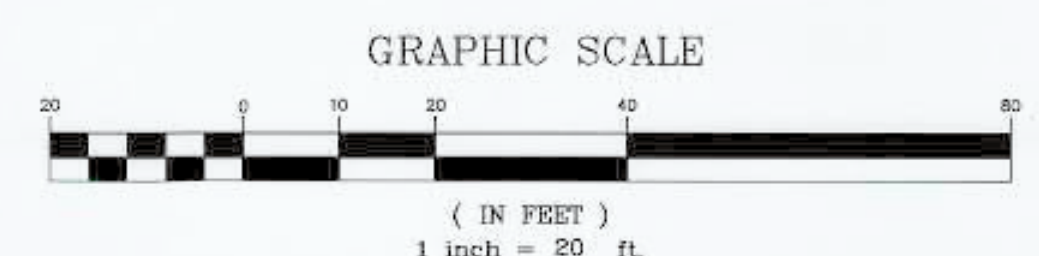
NOTES

1. MEASUREMENTS ARE IN ACCORDANCE WITH U.S. STANDARDS.
2. HORIZONTAL DATUM IS REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM, NAD83, EAST ZONE. CONTROL POINT INFORMATION WAS PROVIDED BY CONTRACTOR THROUGH ELECTRONIC DRAWING FILES PREPARED BY URS CORP. (BUFFALO, N.Y.) IN DEC. 2017, PROJECT NO. 60367897.
3. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
4. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S "EMBOSSED" OR "INKED" SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
5. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON BEHALF OF THE TITLE COMPANY, GEOTECHNICAL AGENCY AND LENDING INSTITUTION LISTED HEREON AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.



- NOTES**
- MEASUREMENTS ARE IN ACCORDANCE WITH U.S. STANDARDS.
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- LEGEND**
- LIGHTPOLE
 - FENCE POST
 - MONITOR WELL
 - SAMPLE LOCATION
 - ELECTRIC MANHOLE
 - SANITARY MANHOLE
 - RECTANGULAR DRAIN INLET
 - ROUND DRAIN INLET
 - BOULDER
 - IRRIGATION BOX
 - * SPOT ELEVATION
 - PT.# SPOT ELEVATION AT GRID PT.
 - + ELEV.



SAMPLE INFORMATION

DESC.	NORTHING	EASTING	ELEV.
1-1	715235.03	672669.76	21.55
1-2	715147.75	672713.92	20.33
1-3	715110.40	672737.56	20.54
1-4	715108.07	672780.18	20.43
1-5	715072.11	672734.86	19.90
2-1	715107.15	672812.51	20.13
2-2	715131.06	672859.23	19.09
2-3	715077.47	672855.75	19.74
2-4	715120.05	672926.31	18.99
2-5	715067.18	672925.52	20.03
3-1	715021.43	672979.99	19.44
3-2	715056.60	672953.75	19.55
3-3	715121.62	672958.20	18.90
3-4	715153.06	672976.68	18.12
3-5	715202.47	672965.69	16.84

I hereby certify that this map was made from an actual survey completed by me on 04/04/2018 and 04/12/2018.

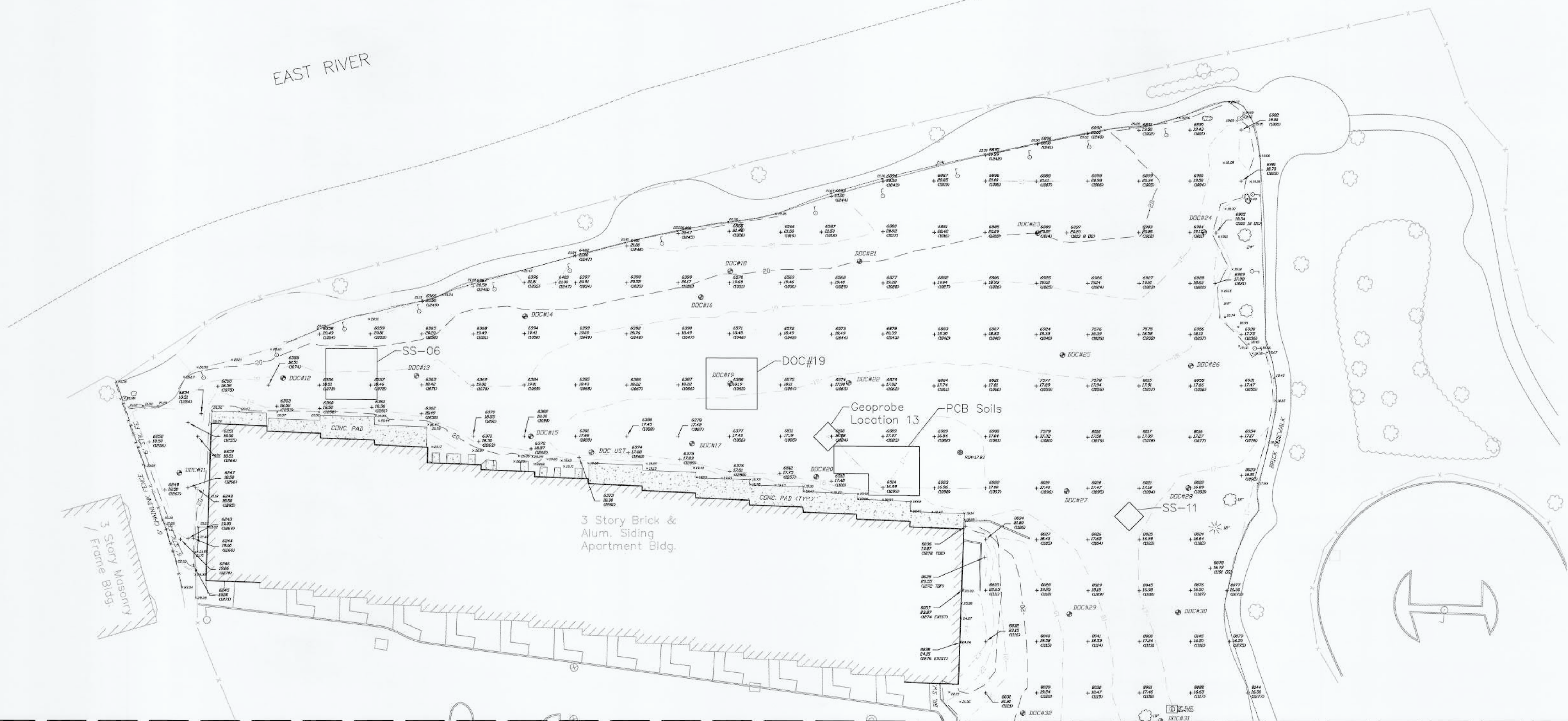
Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS			
COLLEGE POINT REMEDIATION SURVEY & MAPPING			
INITIAL SURVEY (South Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale: 1" = 20'	Sheet No.
Office Survey By:	T.L.S.	Date: May 9, 2019	2
Approved By:	T.L.S.	File No. 18031.000	2

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
North Lawn Excavation Volume	1.00	1.00	50424.72 Sq. Ft.	2151.36 Cu. Yd.	2.93 Cu. Yd.	2148.42 Cu. Yd.<Cut>
Totals			50424.72 Sq. Ft.	2151.36 Cu. Yd.	2.93 Cu. Yd.	2148.42 Cu. Yd.<Cut>

EAST RIVER



MATCHLINE A-A

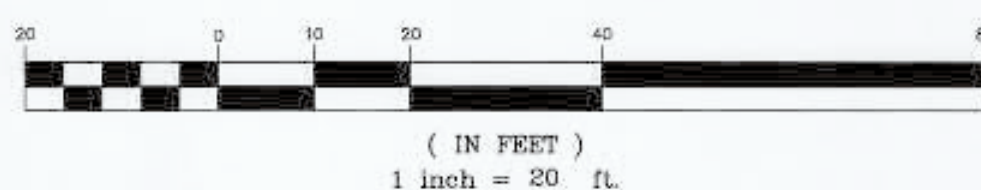
NOTES

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LEGEND

- LIGHTPOLE
- SAMPLE LOCATION
- ⊙ ELECTRIC MANHOLE
- ⊙ ROUND DRAIN INLET
- ⊙ BOULDER
- × SPOT ELEVATION
- PT.# SPOT ELEVATION AT GRID PT.
- + ELEV.

GRAPHIC SCALE



I hereby certify that this map was made from an actual survey completed by me on 08/31/2018, 09/14/2018, 09/19/2018, 09/27/2018, 10/10/2018 and 10/24/2018.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS COLLEGE POINT REMEDIATION SURVEY & MAPPING			
EXCAVATION SURVEY (North Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale: 1" = 20'	Sheet No. 1
Office Survey By:	T.L.S.	Date: November 6, 2018	2
Approved By:	T.L.S.	File No. 18031.000	



PA18031.000 College Point Remediation - Survey & Mapping Drawings Excavation Surveying 5/29/2019 3:18 PM Tamara Stillman

NOTES

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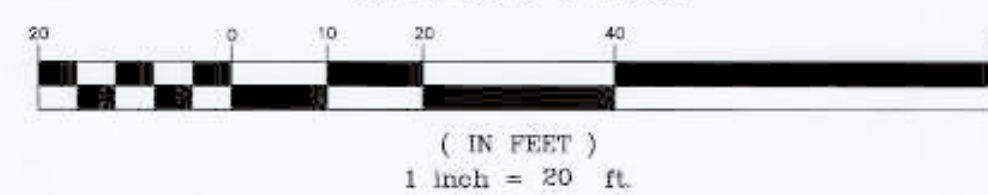
Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
South Lawn Excavation Volume	1.00	1.00	23610.93 Sq. Ft.	1627.43 Cu. Yd.	0.24 Cu. Yd.	1627.19 Cu. Yd.<Cut>
Totals			23610.93 Sq. Ft.	1627.43 Cu. Yd.	0.24 Cu. Yd.	1627.19 Cu. Yd.<Cut>

LEGEND

- MONITOR WELL
SAMPLE LOCATION
SANITARY MANHOLE
SPOT ELEVATION
PT. #
ELEV.
SPOT ELEVATION AT GRID PT.

GRAPHIC SCALE



I hereby certify that this map was made from an actual survey completed by me on 05/15/2018, 06/04/2018 and 06/11/2018.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 050528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS			
COLLEGE POINT REMEDIATION SURVEY & MAPPING			
EXCAVATION SURVEY (South Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale: 1" = 20'	Sheet No.
Office Survey By:	T.L.S.	Date: November 6, 2018	2
Approved By:	T.L.S.	File No. 18031.000	2

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Backfill Volume North Lawn	1.00	1.00	50249.77 Sq. Ft.	1.50 Cu. Yd.	1497.09 Cu. Yd.	1495.60 Cu. Yd.<Fill>
Totals			50249.77 Sq. Ft.	1.50 Cu. Yd.	1497.09 Cu. Yd.	1495.60 Cu. Yd.<Fill>

EAST RIVER

3 Story Masonry
Frame Bldg.

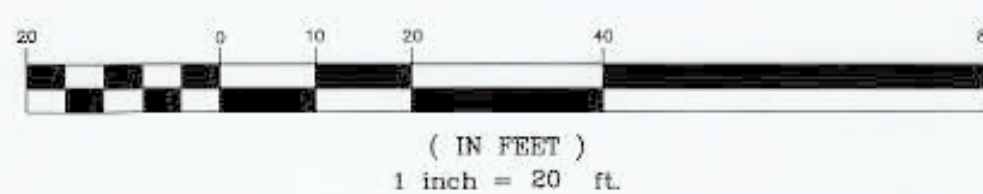
3 Story Brick &
Alum. Siding
Apartment Bldg.

MATCHLINE A-A

LEGEND

- LIGHTPOLE
- FENCE POST
- MONITOR WELL
- SAMPLE LOCATION
- ELECTRIC MANHOLE
- SANITARY MANHOLE
- RECTANGULAR DRAIN INLET
- ROUND DRAIN INLET
- BOULDER
- IRRIGATION BOX
- × SPOT ELEVATION
- PT# SPOT ELEVATION AT GRID PT.
- + ELEV.

GRAPHIC SCALE



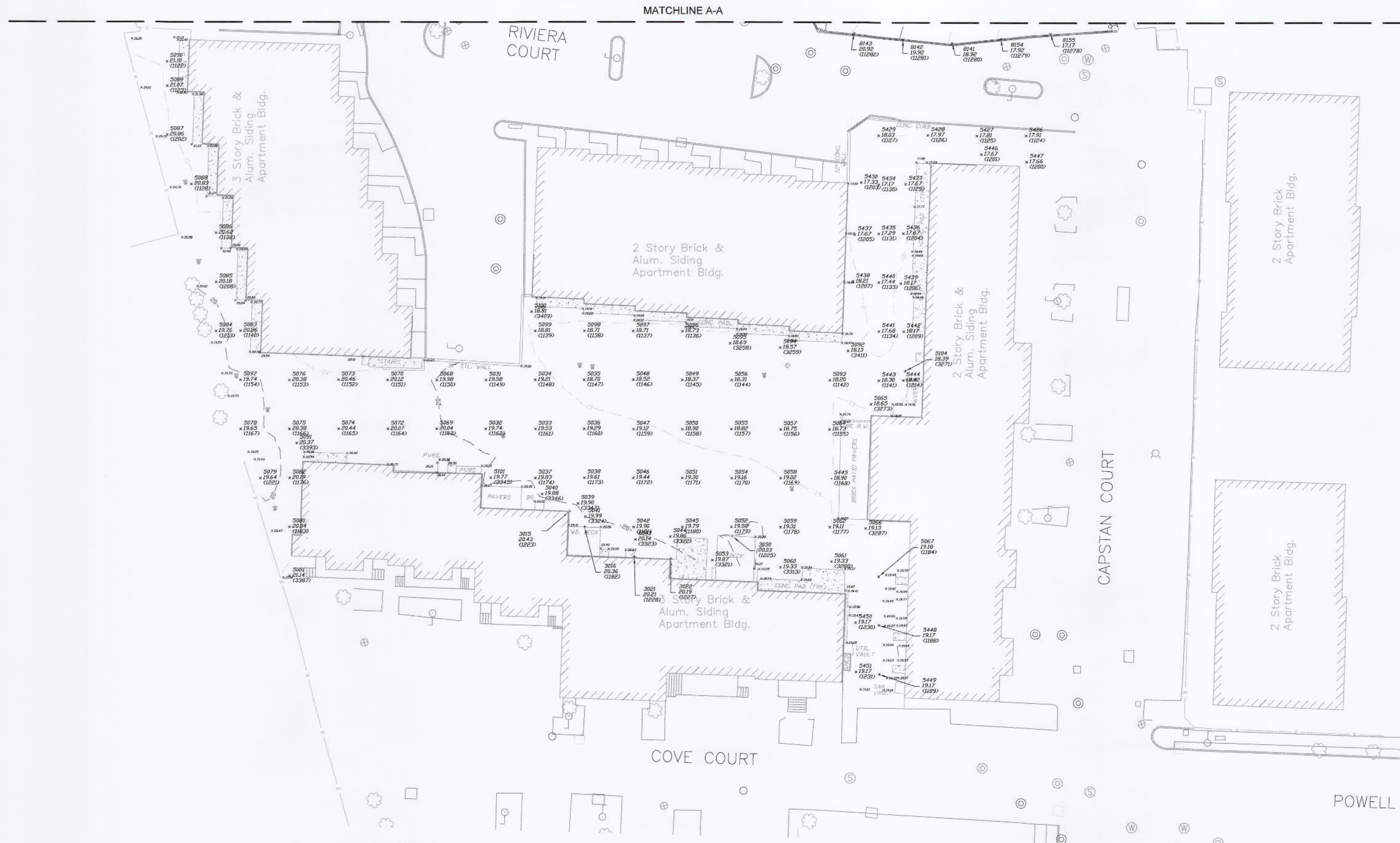
NOTES

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I hereby certify that this map was made from an actual survey completed by me on 09/14/2018, 09/19/2018, 09/27/2018, and 10/10/2018, 10/24/2018 and 10/29/2018.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS COLLEGE POINT REMEDIATION SURVEY & MAPPING			
BACKFILL SURVEY (North Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale: 1" = 20'	Sheet No.
Office Survey By:	T.L.S.	Date: May 9, 2019	1
Approved By:	T.L.S.	File No. 18031.000	2



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Backfill Volume South Lawn	1.00	1.00	23565.68 Sq. Ft.	0.39 Cu. Yd.	1345.70 Cu. Yd.	1345.31 Cu. Yd. <Fill>
Totals			23565.68 Sq. Ft.	0.39 Cu. Yd.	1345.70 Cu. Yd.	1345.31 Cu. Yd. <Fill>

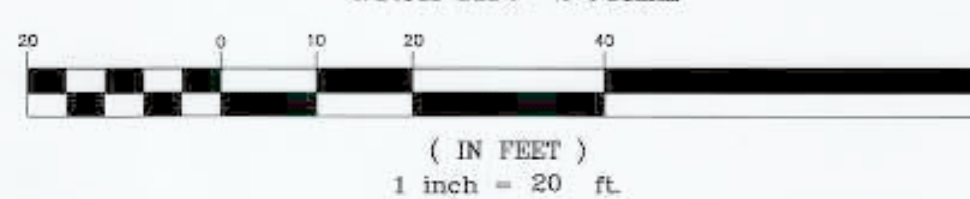
NOTES

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LEGEND

- MONITOR WELL
- SAMPLE LOCATION
- SANITARY MANHOLE
- SPOT ELEVATION
- SPOT ELEVATION AT GRID PT. + ELEV.

GRAPHIC SCALE

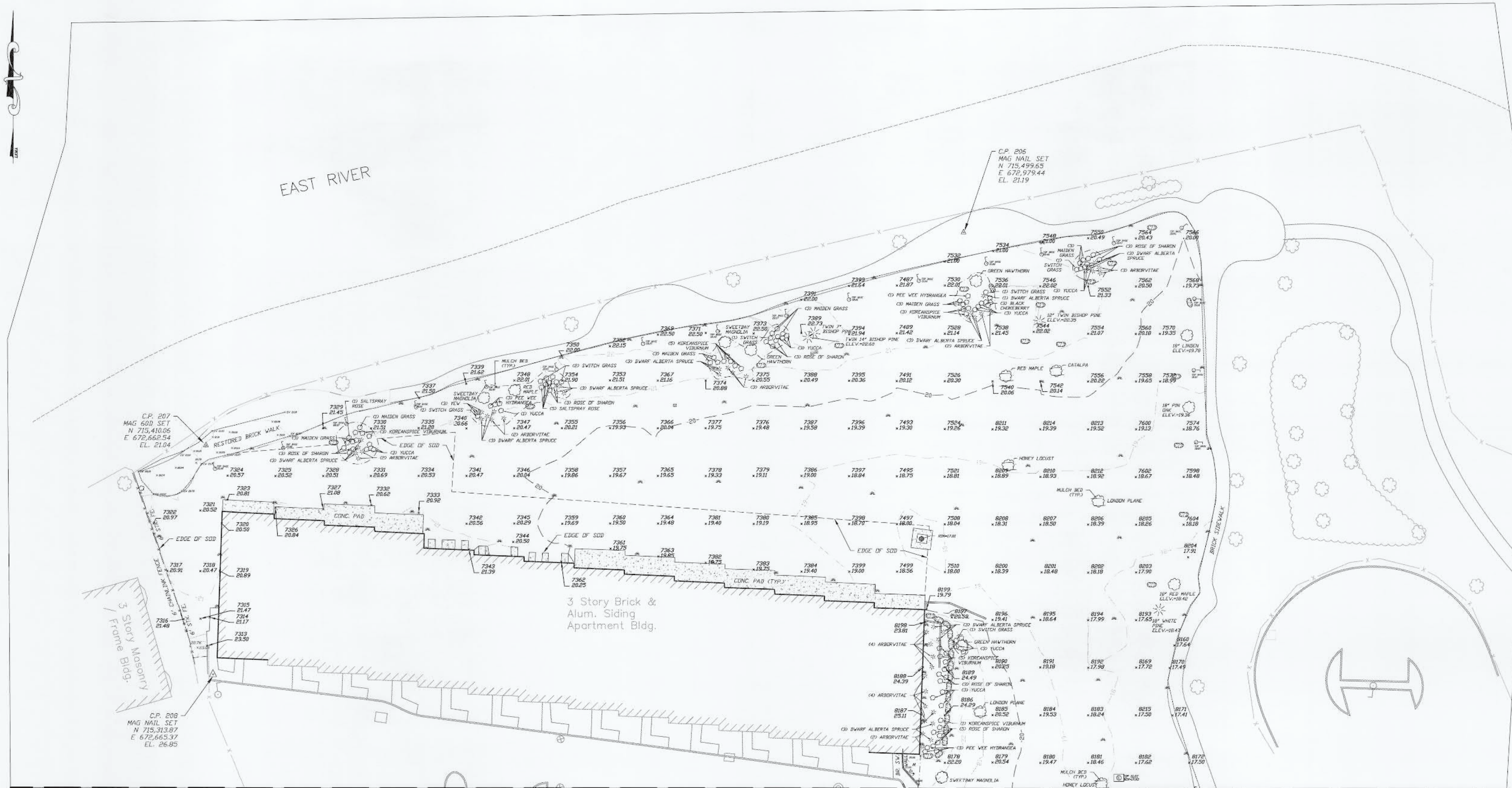


I hereby certify that this map was made from an actual survey completed by me on 07/19/2018 and 07/24/2018.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS			
COLLEGE POINT REMEDIATION SURVEY & MAPPING			
BACKFILL SURVEY (South Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale:	1" = 20'
Office Survey By:	T.L.S.	Date:	May 9, 2019
Approved By:	T.L.S.	File No.	18031.000
			Sheet No. 2

P:\B001000 College Point Remediation - Survey & Mapping\Drawings\as-built Survey\dwg 5/9/2019 1:34 PM Tamara Stillman



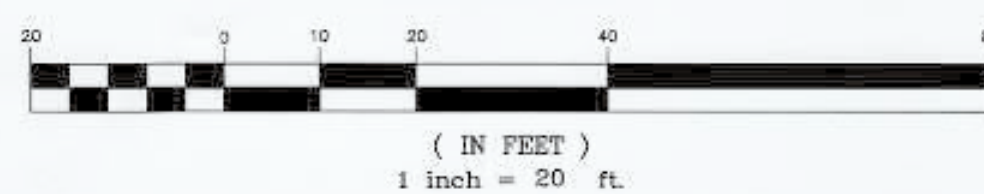
NOTES

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- HORIZONTAL DATUM IS IN THE NEW YORK STATE PLANE COORDINATE SYSTEM, NAD83, EAST ZONE. THE VERTICAL DATUM IS REFERENCED TO CONTROL POINTS PROVIDED BY CONTRACTOR THROUGH ELECTRONIC DRAWING FILES PREPARED BY URS CORP. (BUFFALO, N.Y.) IN DEC. 2017, PROJECT NO. 60536797.
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LEGEND

- LIGHTPOLE
- FENCE POST
- MONITOR WELL
- ELECTRIC MANHOLE
- SANITARY MANHOLE
- ROUND DRAIN INLET
- BOULDER
- IRRIGATION BOX
- SPRINKLER HEAD
- * 20.00 SPOT ELEVATION
- * EV 20.00 EDGE WALK SPOT ELEVATION
- PT.# SPOT ELEVATION AT GRID PT.
- + ELEV.

GRAPHIC SCALE

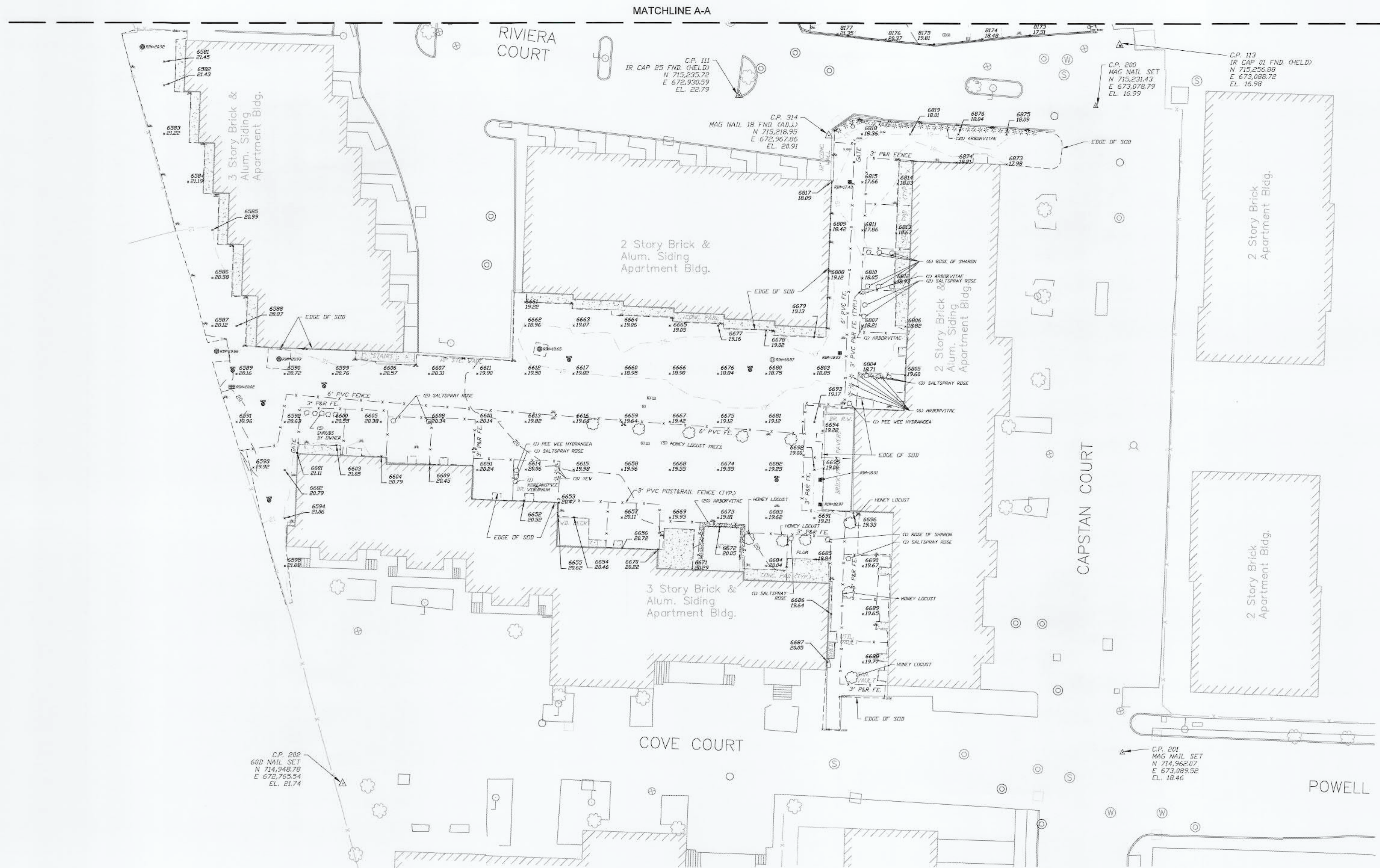


MATCHLINE A-A

I hereby certify that this map was made from an actual survey completed by me on 12/14/2018 and 04/12/2019.

Tamara L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS			
COLLEGE POINT REMEDIATION SURVEY & MAPPING			
AS-BUILT SURVEY (North Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale:	1" = 20'
Office Survey By:	T.L.S.	Date:	May 9, 2019
Approved By:	T.L.S.	File No.	18031.000
Sheet No.			1
			2



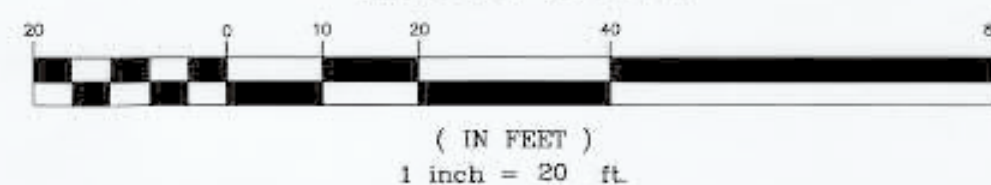
NOTES

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- HORIZONTAL DATUM IS IN THE NEW YORK STATE PLANE COORDINATE SYSTEM, NAD83, EAST ZONE. THE VERTICAL DATUM IS REFERENCED TO CONTROL POINTS PROVIDED BY CONTRACTOR THROUGH ELECTRONIC DRAWING FILES PREPARED BY URS CORP. (BUFFALO, N.Y.) IN DEC. 2017, PROJECT NO. 60536797.
- UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
- ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S "EMBOSSED" OR "INKED" SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
- CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

LEGEND

- MONITOR WELL
- 1"x1' RECT. DRAINAGE INLET
- ROUND DRAINAGE INLET
- DRAINAGE MANHOLE
- IRRIGATION BOX
- SPRINKLER HEAD
- LIGHT POLE
- SPOT ELEVATION
- SPOT ELEVATION AT GRID PT. ELEV.

GRAPHIC SCALE



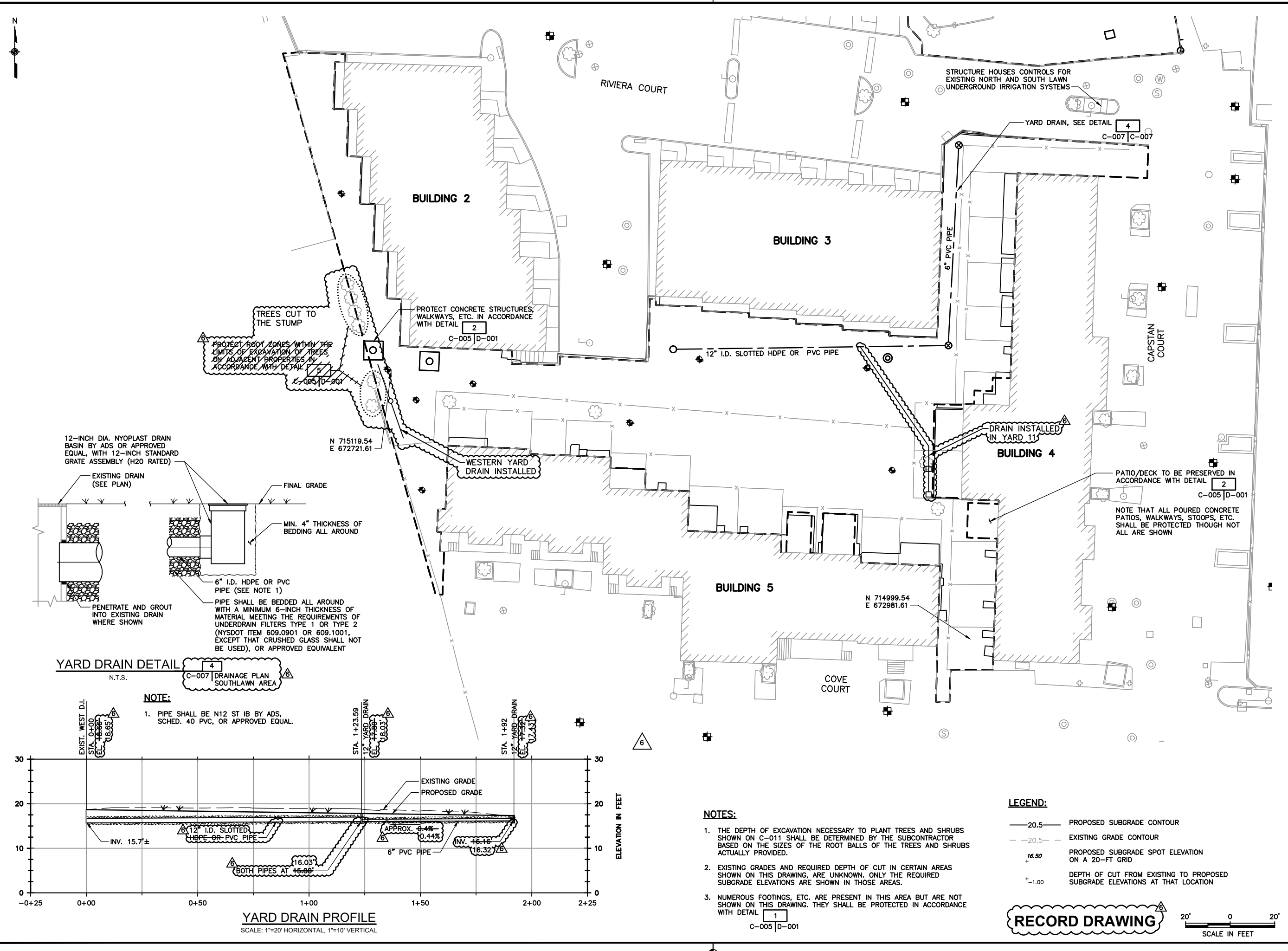
I hereby certify that this map was made from an actual survey completed by me on 12/14/2018 and 04/12/2019.

Sandra L. Stillman
TAMARA L. STILLMAN, P.L.S.
NYSPLS No. 50528

DATE	BY	DESCRIPTION	APPROV. BY
REVISIONS			
EnviroTrac Ltd. COLLEGE POINT, QUEENS COLLEGE POINT REMEDIATION SURVEY & MAPPING AS-BUILT SURVEY (South Lawn Area)			
L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS & LAND SURVEYORS 437 SO. COUNTRY ROAD, BROOKHAVEN, NEW YORK			
Field Survey By:	J.L./J.L.	Scale:	1" = 20'
Office Survey By:	T.L.S.	Date:	May 9, 2019
Approved By:	T.L.S.	File No.	18031.000
Sheet No.			2



PROJECT NO. SHEET NO. 1--HAP



- NOTES:**
- THE DEPTH OF EXCAVATION NECESSARY TO PLANT TREES AND SHRUBS SHOWN ON C-011 SHALL BE DETERMINED BY THE SUBCONTRACTOR BASED ON THE SIZES OF THE ROOT BALLS OF THE TREES AND SHRUBS ACTUALLY PROVIDED.
 - EXISTING GRADES AND REQUIRED DEPTH OF CUT IN CERTAIN AREAS SHOWN ON THIS DRAWING, ARE UNKNOWN. ONLY THE REQUIRED SUBGRADE ELEVATIONS ARE SHOWN IN THOSE AREAS.
 - NUMEROUS FOOTINGS, ETC. ARE PRESENT IN THIS AREA BUT ARE NOT SHOWN ON THIS DRAWING. THEY SHALL BE PROTECTED IN ACCORDANCE WITH DETAIL 1
- C-005 | D-001

LEGEND:

- 20.5— PROPOSED SUBGRADE CONTOUR
- -20.5- - EXISTING GRADE CONTOUR
- 16.50 PROPOSED SUBGRADE SPOT ELEVATION ON A 20'-FT GRID
- + -1.00 DEPTH OF CUT FROM EXISTING TO PROPOSED SUBGRADE ELEVATIONS AT THAT LOCATION

RECORD DRAWING

20' 0 20'

SCALE IN FEET

NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. WORK/SUPR APPROVAL
6	3/20/19	RAL	RW	CED
5	06/05/18	HAP	RW	CED
4	06/01/18	HAP	RW	CED
3	05/16/18	HAP	RW	CED
2	04/24/18	HAP	RW	CED
1	06/03/18	HAP	RW	CED
0	12/12/17	HAP	RW	CED



URS Corporation

257 West Genesee Street, Buffalo, New York 14202
(716)856-5636 phone (716)856-2545 fax

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

625 BROADWAY
ALBANY, NEW YORK 12233

COLLEGE POINT 3
COLLEGE POINT, NY
SITE NO. 241122

INTERIM REMEDIAL MEASURE DESIGN

DRAINAGE PLAN SOUTHLAWN AREA

OWNER'S PROJECT NUMBER	PROJECT NUMBER
DATE	SCALE
DECEMBER 2017	AS SHOWN
DRAWN BY	
HAP	
CHECKED BY	
CED	
ARCH/ENGR.	
RW	



1	3/20/19	RAL	RW	CED
0	12/12/17	HAP	RW	CED
NO.	DATE	BY	PROJECT ARCH/ ENGR APPROVAL	DEPT. MGR/SUPR APPROVAL

257 West Genesee Street, Buffalo, New York 14202
(716)856-5636 phone (716)856-2545 fax

625 BROADWAY
ALBANY, NEW YORK 12233

RIVERIA COURT PLANTINGS

OWNER'S PROJECT NUMBER	PROJECT NUMBER 60536797
DATE DECEMBER 2017	SCALE AS SHOWN
DRAWN BY HAP	
CHECKED BY CED	
ARCH/ENGR. RW	

APPENDIX R:

ANALYTICAL RESULTS

(ON DVD)

APPENDIX S:

FIELD CLARIFICATION MEMORANDA

(ON DVD)