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SOIL AND MATERIALS MANAGEMENT PLAN

936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street East Hartford, Connecticut

June 2025
File No. 05.0046901.04



PREPARED FOR:
Solli Engineering
West Hartford, Connecticut

GZA GeoEnvironmental, Inc.
95 Glastonbury Boulevard, 3rd Floor | Glastonbury, CT 06033
860-286-8900

www.gza.com

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95 Glastonbury Boulevard
3rd Floor
Glastonbury, CT 06033
T: 860.286.8900
F: 860.633.5699
www.gza.com

June 13, 2025
File No. 05.0046901.04

Solli Engineering
993 Farmington Avenue, Suite 206
West Hartford, CT 06107

Attention: Paul A. Rodrigues, PE

Re: Soil and Materials Management Plan
936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street
East Hartford, Connecticut

Dear Mr. Rodrigues:

In accordance with our proposal dated March 10, 2025, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Soil and Materials Management Plan (SMMP) to Solli Engineering (Client) for the proposed excavation activities at 936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street in East Hartford, Connecticut (the Site). This plan provides guidance on managing soil and other materials during redevelopment of the Site. This plan is subject to the limitations included in Appendix A.

We trust this plan satisfies your present requirements; should you require additional information, please contact the undersigned.

Sincerely,

GZA GEOENVIRONMENTAL, INC.

Anthony Trani
Project Manager

Adam T. Henry, LEP
Principal

David Rusczyk, PE
Consultant/Reviewer

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1.0 SOIL AND MATERIALS MANAGEMENT PLAN

GZA GeoEnvironmental, Inc. (GZA) has completed this Soil and Materials Management Plan (SMMP) on behalf of Solli Engineering (Owner). This plan provides guidance on managing soil and other materials during the construction activities associated with the redevelopment of 936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street in East Hartford, Connecticut (Site). The location of the Site is shown on **Figure 1**. This section details the purpose of this report, provides background information regarding the Site and prior investigations completed at the Site, the general scope of the SMMP, and outlines the responsibilities of the Contractor and the Owner's Environmental Representative during construction activities to be completed at the Site. This report is subject to the limitations in **Appendix A**.

The purpose of this SMMP is to provide a program for handling, segregating, stockpiling, sampling, and reusing or disposing of soil/material and managing groundwater which may be encountered during planned excavation and construction activities at the Site.

1.1 BACKGROUND AND SUMMARY OF ENVIRONMENTAL TESTING

The Site consists of six (6) contiguous parcels of land totaling 25.83 acres improved with paved parking areas and sidewalks, grassed and landscaped areas, and wetland areas on the north of Silver Lane and west of Forbes Street in East Hartford, Connecticut. We understand that Site redevelopment is limited to the western portion of the Site, approximately where shown on **Figure 2**, and includes the demolition of the existing parking lot and the construction of ten multi-story residential buildings, an inground pool and patio area, paved parking areas, sidewalks, and landscaping (Project Area). Site development plans are enclosed in **Appendix B**.

Investigations of the Site by GZA in May 2022 included the collection of 23 soil samples from 16 soil borings (MW-1 through MW-3 and GZ-1 through GZ-13) and the collection of groundwater samples from three of the borings that were completed as monitoring wells (MW-1, MW-2 and MW-3). The surficial materials encountered generally consisted of fine to coarse sand with varying amounts of gravel and silt. Groundwater was encountered at depths ranging from approximately 6 to 9 feet below grade (fbg). The approximate locations of the soil borings and monitoring wells are shown on **Figure 2.**

Selected shallow (0-2 feet) soil samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260, extractable total petroleum hydrocarbons (ETPH) by the CTDPH[1] method, polyaromatic hydrocarbons (PAHs) by EPA Method 8270, pesticides by EPA Method 8081, arsenic, copper and lead. The results of the soil sampling are summarized on **Table 1** and compared to the Connecticut Remediation Standard Regulations (RSRs) Residential Direct Exposure Criteria (R-DEC) and Class GB Pollutant Mobility Criteria (GB-PMC) for those soils within the Project Area. No VOCs, ETPH or PAHs were detected in the soil samples and the concentrations arsenic, copper and lead were consistent with a naturally occurring source. Certain pesticides, including chlordane, dieldrin and DDT (and its breakdown products) were detected in soil samples GZ-7, GZ-8, GZ-10, GZ-11 and GZ-12 at concentrations that exceeded the GB-PMC. Pesticides were not detected in soil samples GZ-4, GZ-5 and GZ-13.

The groundwater samples were analyzed for VOCs, ETPH, pesticides, arsenic, copper and lead. The results of the groundwater sampling are summarized **Table 2** and compared to the Connecticut RSRs Groundwater Protection Criteria (GWPC), Surface Water Protection Criteria (SWPC) and the Aquatic Life Criteria (ALC). No VOCs, ETPH, arsenic or copper were detected in the groundwater samples. Lead was detected in sample MW-2 below the SWPC and GWPC. The concentration

1 CTDPH is the Connecticut Department of Health

of lead in MW-2 was above the Freshwater Chronic ALC. The pesticide dieldrin was detected above the GWPC and the Human Health ALC in samples MW-1 and MW-3; no pesticides were detected in MW-2.

Based on the results of the soil testing, soils polluted with pesticides that are disturbed during construction activities at the Site warrant management. The information presented in this SMMP provides procedures/requirements for materials management during the project based on our current understanding of the Site and project parameters. The specific details and logistics for implementation of the SMMP shall be the responsibility of the Contractor. The Contractor shall be responsible for the proper management and disposal of excavated material in accordance with all applicable local, state, and federal laws and regulations.

1.2 SCOPE

The scope of the SMMP relates to the handling and management of at-grade and below-grade soils, groundwater and other materials. We understand that it is the intent to reuse polluted soils on site to the extent practical and minimize the amount of polluted soil removed from the Site. This SMMP is not intended to be used for guidance relating to demolition, handling, removal, management, and disposal of buildings or other above-grade structures or materials (including foundation elements).

1.3 RESPONSIBILITIES

Polluted soils and other materials are anticipated to be encountered during excavations associated with the planned Site activities. The following is a description of certain key tasks relating to the soils and material management.

A Pre-Construction Meeting is required prior to commencing soil excavation and/or dewatering (if necessary) and shall be attended by the Contractor, the Owner, and/or Owner's Environmental Representative at a minimum.

A. The Contractor(s) shall be responsible for:

1. All aspects of implementing the SMMP including all costs associated with excavation, management, segregation and stockpiling of impacted soil.

2. Compliance with the conditions of the Connecticut Department of Energy and Environmental Protection (CTDEEP) General Permit for Contaminated Soil and/or Sediment Management. We note that this General Permit expired in 2018 and has not been renewed by CTDEEP. However, soil staging activities should comply with the General Permit conditions. A copy of the General Permit is provided in **Appendix C** for reference.

3. Compliance with the conditions of the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. A copy of the General Permit is provided in **Appendix D** for reference. We note that based on the size of the proposed site disturbance area (>5 acres), registration under the permit will be required; the Contractor must follow the Connecticut Guidelines for Soil Erosion and Sediment Control, the Connecticut Stormwater Quality Manual, local soil and erosion control land use regulations and requirements, and the Sediment and Erosion Control Plan as prepared by the Civil Engineer.

4. Compliance with the conditions of the CTDEEP General Permit for the Discharge of Groundwater Remediation Wastewater (if dewatering of polluted groundwater is necessary at the Site). A copy of the General Permit is provided in **Appendix E** for reference. We note that this General Permit expired in March of 2025 and has not been renewed by CTDEEP. However, groundwater discharging activities should comply with the General

Permit conditions. Based on the proposed construction activities, plans, and specifications and the reported depth to groundwater at the Site (6 to 9 fbg), dewatering may be necessary in certain areas.

5. Determining the project schedule, construction sequencing, and other operational parameters of the project and communicating such information to the project team.

6. Overseeing all earth-related construction work for the project including installation and maintenance of soil erosion and sediment controls in accordance with the Project Specifications.

7. Establishing an on-Site material stockpiling location(s). However, the stockpile location shall be adjusted by the Contractor to not impede site work or construction circulation.

8. Compliance with the necessary environmental and non-environmental permits, approvals, authorizations, Site Health and Safety Plan (HASP) and all other applicable local, state, and federal health and safety standards for the performance of the construction work, including those provided in the Project Specifications.

9. Providing all labor, materials, equipment, and other services required for handling, segregating, and stockpiling of materials encountered during construction.

10. Loading, transport, and disposal of polluted soils, or onsite reuse of polluted soils. Obtaining pre-approvals for soil volumes and pricing the analytical parameters and number of waste characterization samples required by the Contractor's-selected receiving/disposal facility, if polluted soils are removed from the Site. Note that the Owner must approve the Contractor's selected receiving facility prior to any off-site transport.

11. Documentation and waste shipping paperwork; identification of, and obtaining approval from, appropriate off-Site disposal facility for disposal/recycling of polluted soils; and loading, transport, and disposal of polluted soils. The Owner must approve all Contractor proposed disposal and or recycling facilities prior to off-site shipment of impacted soils or other materials.

12. Management and disposal or treatment of dewatering fluids that are generated which also includes collection and analyzing dewatering fluids to demonstrate compliance.

13. Preparing and complying with the project HASP and all other applicable local, state, and federal health and safety standards.

14. Protecting the health of workers, other on-Site personnel, the general public, and minimizing impacts to the environment.

B. The Owner and/or the Owner's Environmental Representative will be responsible for the following:

1. Coordinating with the Contractor to facilitate proper segregation of materials based on existing subsurface investigations.

2. Reviewing Contractor's documents related to compliance with applicable environmental permits, approvals, and authorizations.

3. Sampling and characterization of impacted stockpiled materials or dewatering fluids for disposal and excess residual soils requiring off-site disposal (if desired by the Owner).

2.0 EXECUTION

This section details the regulations the Contractor shall follow during the work at the Site; the planned excavation activities; environmental controls to be implemented during excavation activities; and, soil stockpiling methods and procedures.

2.1 REGULATORY COMPLIANCE

The Contractor shall conduct all work in accordance with applicable federal, State of Connecticut, and Town of East Hartford codes, ordinances, statutes, regulations, and permits that may apply to the project, including but not limited to:

- CTDEEP General Permit for Contaminated Soil and/or Sediment Management (**Appendix C**). Although this permit expired in 2018, it is the expectation that the Contractor will conduct all work in general accordance with this General Permit;

- CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (**Appendix D**);

- CTDEEP General Permit for the Discharge of Groundwater Remediation Wastewater (**Appendix E**). Although this permit expired in March of 2025, it is the expectation that the Contractor will conduct all work in general accordance with this General Permit; and

- All other applicable Local, State and federal statutes and regulations pertaining to environmental impact assessment, air pollution control, safe drinking water, water pollution control, solid and hazardous waste management, and toxic substances control.

2.2 PLANNED EXCAVATION ACTIVITIES

Soils that will be encountered at certain locations on the Site are polluted with pesticides based on results of previous testing as summarized on **Table 1** and presented on **Figure 2**. The Site work associated with this project will require earthwork activities, including but not limited to the following:

- Installation of erosion controls;
- Excavation and stockpiling of certain polluted soils related to the construction of the Site structures;
- Alterations of surficial coverings including grading and realignment of driveways, parking areas, and landscape islands;
- Installation of utilities; and
- Site grading and drainage.

The sequence of these activities will be in accordance with project phasing plans provided by the Civil Engineer. Copies of the development plans are enclosed in **Appendix B**.

As discussed in Section 1.1, previous soil quality testing indicated that soils within the shallow layer (0 to 2 fbg) in select areas of the Site as shown on **Figure 2** contain pesticides at concentrations above the GB-PMC. Generally, when pesticides are detected, they are found in shallow soils since they were historically applied to the surface. Therefore, it is unlikely soils below 2 feet would be impacted with pesticides. Soil from the shallow layer should be treated as polluted soil and may either be direct loaded for off-site disposal (if pre-characterized and Contractor has obtained facility approval) or may be temporarily stockpiled for potential on-site reuse or off-site disposal. We understand the intent is to reuse polluted soils on site to the extent practical and minimize the amount of polluted soil removed from the Site. Based on the results of stockpile sampling, if polluted soils that contain constituents that exceed the GB-PMC are reused onsite (see Section 7.3), the soil should be placed beneath the Site buildings to prevent leaching of contaminants through the infiltration of stormwater.

The Contractor shall review associated bid documents and specifications to make a determination on the quantities of material for excavation and stockpiling. Beyond those polluted fill soils identified in the **Table 1** and shown on **Figure 2**, remaining soils excavated from the Site during the construction activities may also require special handling. If suspect materials are encountered during excavation activities outside of the areas area shown on **Figure 2**, the Contractor should immediately notify the Owner's Environmental Representative.

Non-polluted soils shall be segregated from the polluted soil and stockpiled separately for potential evaluation depending on their disposition. Soil and erosion control requirements for non-polluted soils must comply with the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, and Contractor must adhere to the local soil and erosion control land use regulations and follow the Connecticut Guidelines for Soil Erosion and Sediment Control.

2.3 EXCAVATION ENVIRONMENTAL CONTROLS

The procedures the Contractor shall complete for dust control and vapor/odor control are discussed in the below sections.

2.3.1 Dust Control

The Contractor shall employ dust control measures necessary to minimize the creation of airborne fugitive dust from soils during performance of this work. Such measures shall include the containment of soils through implementation of soil transfer and stockpile best management practices and other suitable methods (i.e., wetting and covering stockpile/trucks) to limit dust, as necessary. Certain metals if present in Site soils at high concentrations could present a particulate inhalation hazard. Metal contaminated soil can become airborne with dust if site conditions are dry. Based on the relatively low concentrations of metals at the Site, real time particulate air monitoring will not be required. Rather an aggressive approach towards dust suppression should be employed. Work areas should be wetted with a water mist to control dust generation resulting from vehicle and personnel traffic and from soil handling activities. Should visible dust be generated from site operation, additional wetting shall be implemented.

2.3.2 Vapor and Odor Control

The Contractor shall monitor the work area in accordance with the requirements of the Site-specific HASP as prepared in accordance with Section 6.2 of this SMMP. Contaminant vapors at significant concentrations that might require respiratory protection for Site workers are not anticipated during the project. However, in the unlikely event that excavation or other Site activities encounter contaminants, vapors or odors, as determined through direct observations, the Owner and/or Owner's Environmental Representative should be notified, and the Contractor shall be prepared to employ control measures necessary to minimize the generation of such contaminant vapors and odors. Such measures

shall include: restricting work in a particular area, use of temporary mats or coverings, containment of a particular work area, and other feasible means of controlling contaminants, vapors and odors, as necessary, including remediation.

2.4 SOIL STOCKPILING

Stockpiles will be removed as soon as practicable. While stockpiles are in place, they will be inspected daily, and before and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection. Excavated soils will be kept covered when not actively in use with appropriately anchored plastic tarps/sheeting and will be routinely inspected. Broken or ripped tarps will be promptly replaced.

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations. Hay bales or equivalent will surround soil stockpiles except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters and other discharge points. The location(s) of the stockpiles shall be in accordance with the conditions of the CTDEEP General Permit for Contaminated Soil and/or Sediment Management and with the Soil Erosion and Sediment Control Plan as prepared by the Civil Engineer.

At least one business day prior to the commencement of excavation activities, the work area shall be prepared to receive the stockpiling of polluted materials. The following minimum stockpile criteria shall apply to stockpiles known or suspected to contain polluted materials.

- Stockpile areas containing polluted materials if any, shall be graded such that stormwater run-on and runoff is diverted around the stockpiled materials and shall be restricted to approximately 8 feet in height. At a minimum, a snow-fence and haybales with silt fence shall be placed continuously around the perimeter of each stockpile area. The stockpile area shall be underlain with a minimum double layer of eight (8)-mil-thick polyethylene sheeting and covered with anchored plastic tarps/sheeting when not in use. In the unlikely event excavated materials are excessively wet (saturated), earth berms shall be placed around the perimeter of the stockpile area, if necessary, to prevent contact of runoff with contaminated soils and to contain drainage from the stockpiles. Stockpile side slopes shall be no steeper than 3 horizontal (H) to 1 vertical (V).

- The polluted stockpile areas shall be cleared and then fenced off, if Site access is not already restricted, to minimize the contact of workmen and passers-by with stockpiled materials. The area shall be visibly marked with appropriate signs warning of potential hazards.

- The transfer of polluted materials from the excavation to the stockpile area shall be conducted in such a manner as to prevent loss of or spread of contaminated materials or dust across the Site.

- The Contractor is responsible for all construction, protection, movement and maintenance of stockpiles for the duration of the project work or until directed otherwise by the Owner.

- The clearing and preparing of stockpile areas and the grading, polyethylene barriers, berms, and all other materials, equipment, and labor required for protection of the excavated material will be considered part of the work.

3.0 SOIL SAMPLING AND LABORATORY ANALYSES

The procedures the Contractor, Owner and/or Owner's Environmental Representative shall complete for soil sampling and required laboratory analyses are discussed in the below sections.

3.1 STOCKPILE SAMPLING

For stockpiled material intended for off-site disposal, representative soil samples may be collected for characterization purposes. In general, a minimum of one representative soil sample may be collected by the Owner's Environmental Representative (with assistance from the Contractor) per 500 CY of soil stockpiled. The actual number of samples and types of analyses required will depend on the Owner's approved disposal facility. Each stockpile characterization sample will consist of a composite made of discrete grab samples collected at various depths and locations within the stockpile. The soil samples will be obtained in the following manner:

- Samples for volatile organic compounds will be discrete grab samples (one per 500 CY or as dictated by the receiving facility).

- For other constituents, composite samples will be prepared by combining equivalent volumes of soil from individual grab samples collected at different depths and locations in the stockpile. Typically, between 3 and 5 grab samples will be retrieved from each 500 CY stockpile or as dictated by the receiving facility and used to make a composite sample.

- After the grab samples have been placed into a bowl, the contents of the bowl will be fully mixed with a decontaminated spoon and a representative sample of the contents will be transferred into the appropriate sample containers.

Spoils derived from the stockpile sampling program will be placed back into the stockpile.

The Owner's Environmental Representative will be responsible for filling out chain-of-custody forms when samples are collected. The chain-of-custody form is a document that tracks the samples collected from the field to the laboratory and indicates the custodian of the samples at any time and which laboratory analyses are to be performed on which samples. Each sample will be clearly labeled and listed on the chain-of-custody. The chain of custody will be filled out as samples are collected and will accompany the samples to the laboratory. The sampler will be the first custodian of the samples and will sign the chain-of-custody when he/she relinquishes custody of the samples to another individual or to the laboratory which will also sign and date the document.

3.2 LABORATORY ANALYSIS

Soil that is intended for transport off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. All samples will be analyzed by a Connecticut certified laboratory.

Waste characterization samples will be collected and analyzed in accordance with the Contractor's proposed disposal facility(is) requirements. The number of waste characterization samples will depend on disposal facility requirements and stockpile volumes. In general, each waste characterization sample may be analyzed for all or some subset of the following (as dictated by the receiving facility):

- VOCs - EPA 8260C/5035 (one grab sample)

- Total Solids – SM 2540
- Semi-volatile organic compounds (SVOCs) - EPA 8270D
- Total and Toxicity Characteristic Leaching Procedure (TCLP) RCRA 8 Metals – EPA 6010C/7470
- Synthetic Precipitation Leaching Procedure (SPLP) metals – as requested by the disposal facility
- SPLP PAHs – EPA 8270
- Herbicides – EPA 8151A
- Hexavalent Chromium – EPA 7196
- Pesticides – EPA 8081B
- PCBs – EPA 8082A
- Total Cyanide – EPA 9010B/9012A
- Total Petroleum Hydrocarbons
- RCRA Characteristics

Other analyses may be requested by the receiving/disposal facility(ies). Laboratory turnaround will typically be on a 7- to 10-day basis, adjustable to the schedule of construction.

4.0 STOCKPILE MATERIAL CLASSIFICATION, HANDLING, AND DISPOSAL

Based on the results of the previous analytical testing, certain soils at the Site are contaminated with pesticides. The concentrations of contaminants in these soils are such that the polluted soil appears to qualify for disposal as regulated but non-hazardous waste. The results of the stockpile sampling (Section 3.00) will be provided to the Contractor to evaluate potential off-site disposal/reuse options. The Contractor will coordinate with the Owner's Environmental Representative to complete any additional required waste characterization, identify appropriate off-Site disposal facilities for polluted soils, and arrange for loading, transport, and disposal of polluted soils. Owner will sign all transportation and disposal documents (Material Shipping Records [MSRs] or Bills of Lading [BOLs]) as the Generator.

5.0 MANAGEMENT OF GROUNDWATER

Based on the anticipated depths of excavation in select areas (i.e., installation of utilities and potentially an inground pool), dewatering may be necessary. In the event dewatering is required, the procedures the Contractor shall complete for management and control of groundwater beneath the Site are discussed in the below sections.

5.1 DESCRIPTION

If the Contractor encounters groundwater or accumulated storm water which must be dewatered for construction, the Contractor shall properly contain groundwater or storm water discharge and manage all dewatering in accordance with local, State and federal regulations. Dewatering activities must comply with the CTDEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, which applies to all discharges of stormwater and dewatering wastewater from construction activities which result in the disturbance of *one or more* total acres of land area on a site regardless of project phasing and the CTDEEP General Permit for the Discharge of Groundwater Remediation Wastewater which applies to impacted groundwater. Note that registration is required under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities for projects disturbing more than 5 acres of land (such as the Site) and the permittee must adhere to the local soil and erosion control land use regulations,

receive local review and written approval of its soil and erosion control measures, and follow the Connecticut Guidelines for Soil Erosion and Sediment Control.

Water quality testing shall be conducted by the Owner's Environmental Representative prior to the discharge of any wastewater generated by dewatering activities. If the results of water quality testing indicate that the wastewater is not suitable for discharge to the storm sewer, it shall be containerized and removed for off-site disposal or treated to meet the discharge requirements.

5.2 SUBMITTALS

If the Contractor encounters groundwater requiring dewatering, the Contractor shall consult with the Owner's Environmental Representative prior to the start of any dewatering activities and shall provide a Dewatering Plan at least 5 business days prior to the start of dewatering activities. Contractor shall not start dewatering activities without prior authorization from the Owner's Environmental Representative. The Dewatering Plan shall indicate the purpose, location, and estimated duration of the proposed dewatering activities. In addition, the Dewatering Plan shall include the Contractor's proposed dewatering methodology.

5.3 RESPONSIBILITY OF THE CONTRACTOR

Minimum precautions noted in this Section shall in no way relieve the Contractor of his responsibility for implementing stricter health and safety precautions as warranted by the Work.

The Contractor shall be responsible for adhering to regulations, specifications, and recognized standard practices related to both contaminated and uncontaminated groundwater/stormwater handling during excavation and dewatering for construction.

The Contractor shall be responsible to remove and transmit groundwater and stormwater under an approved Dewatering Plan. Contractor shall complete dewatering activities in accordance with all applicable local, State and federal regulations and permits.

The Contractor shall make reasonable effort to minimize the volumes of groundwater dewatered from the excavation.

6.0 DECONTAMINATION OF EQUIPMENT AND HEALTH AND SAFETY

The procedures the Contractor shall complete for equipment decontamination and health and safety are discussed in the below sections.

6.1 DECONTAMINATION OF EQUIPMENT

The Contractor is responsible for cleaning all tools and equipment that encounter impacted materials before they are taken from the Site. This shall include all tools, heavy machinery and excavating and hauling equipment used during excavation, stockpiling and any handling of polluted soil or groundwater. In general, decontamination will consist of brushing or otherwise removing soils adhering to tools or equipment. Residuals from cleaning will be placed into appropriate stockpile or otherwise handled in a manner similar to the impacted or otherwise contaminated soils.

6.2 HEALTH AND SAFETY

The Contractor and any subcontractors performing work within the contract limits shall have a Site-specific written HASP developed by a qualified person designated by the Contractor. The Contractor shall establish protocols and provide procedures to protect worker's health and safety as it relates to the proposed construction activities when performed in the presence of contaminated materials or otherwise environmentally sensitive conditions. The HASP shall establish health and safety protocols which address the relative risk of exposure to regulated substances in accordance with Occupational Safety and Health Administration (OSHA) Regulations, 29 CFR Parts 1910 including, but not limited to, excavations. Such protocols shall only address those concerns directly related to Site conditions. The Contractor shall utilize available information and existing records and data pertaining to chemical and physical hazards associated with any of the regulated substances to develop the HASP.

The requirements set forth herein pertain to the provision of workers' health and safety as it relates to proposed project activities when performed in the presence of regulated materials. The provision of worker health and safety protocols which address potential and/or actual risk of exposure to Site specific hazards posed to Contractor employees is solely the responsibility of the Contractor.

7.0 MATERIALS DISPOSITION

The procedures the Contractor shall complete for proper disposal of material are discussed in the below sections.

7.1 OFF-SITE MATERIALS TRANSPORT

Excavated material transportation shall be performed by licensed transporters with valid Connecticut Waste Transporter Permits. All disposal facilities shall be pre-approved by the Owner and listed on the waste transporter permits. Loaded vehicles leaving the Site will be appropriately cleaned, lined, and covered in accordance with applicable laws and regulations. The proposed licensed transporters for this project will be identified by the Contractor for Owner approval prior to moving material off-site.

Waste characterization data will be provided to the Contractor to obtain approval from the proposed disposal facilities. All records regarding the removal and disposal of excavated materials shall be obtained by the Contractor and provided to the Owner for its records. Shipping manifests and/or bills of ladings for excavated material that is moved off-site will be provided to the Owner and/or Owner's representative on a daily basis.

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations. If loads contain wet material capable of causing leakage from trucks, truck liners will be used and the soils stabilized/solidified (if necessary). Queuing of trucks will be performed on-Site, when possible, to minimize off Site disturbance. Off-Site queuing will be minimized.

7.2 MATERIALS DISPOSAL OFF-SITE

The following documentation will be established and reported by the Contractor for each disposal destination used during this project to document that the disposal of regulated material exported from the Site conforms with applicable laws and regulations: a letter from each disposal facility stating it conforms with applicable laws and regulations and is approved to accept the material. These documents will be provided to the Owner.

All polluted soil or other waste excavated and removed from the Site will be disposed/reused in accordance with applicable laws and regulations.

7.3 MATERIALS REUSE ON-SITE

The intent is to reuse polluted soils on site to the extent practical and minimize the amount of polluted soil removed from the Site. Based on the results of the previous analytical testing, the concentrations of contaminants in Site soils are such that the soils could potentially be reused on-site under buildings, subject to geotechnical suitability, to prevent leaching of contaminants through the infiltration of stormwater. The Contractor will demonstrate that materials for onsite reuse are segregated from other materials to be exported from the Site.

7.4 CONTINGENCY PLAN FOR UNKNOWN CONTAMINATION SOURCES

If unknown structures (drums, underground storage tanks (USTs), etc.) or contaminated media other than what are identified in this plan are encountered during excavation, the Contractor shall promptly notify the Owner, the Owner's Environmental Representative, and (if applicable) the Town of East Hartford Fire Marshal's office. Petroleum spills will be reported to the CTDEEP by the Contractor after consultation with the Owner and the Owner's Environmental Representative. These findings will be included in the Contractor's daily report. If previously unidentified contaminant sources are found during excavation, sampling will be performed by the Owner's Environmental Representative to characterize the materials, the results will be reported to the Owner and Contractor, and the materials shall be managed in accordance with this SMMP.

If an underground storage tank (UST) is found during excavation, in addition to notifying the Owner and Owner's Environmental Representative, the Contractor/ Owner, along with a qualified subcontractor(s), if required, will perform the following tasks:

- The top of the UST will be uncovered, and its contents, if any, will be sampled (if deemed necessary for disposal), pumped out and properly disposed of offsite.
- The UST will be cleaned (with any liquids properly disposed of offsite), removed from the ground, and properly disposed of offsite.
- The Owner's Environmental Representative will collect soil confirmation samples from the UST grave, including sidewall and bottom samples per CTDEEP guidance. The confirmation samples will be analyzed at a Connecticut certified laboratory. The analyses of the confirmation samples will be determined by the contents of the UST and CTDEEP guidance.
- The results of the confirmation samples will be compared to the CT RSRs. If the results are below RSR criteria, the UST grave can be backfilled and/or excavation/construction in the area of the UST can resume with remaining polluted soil, if any, managed in accordance with this SMMP. If the results of one or more of confirmation samples are above RSR criteria, the Contractor will excavate the impacted soils for offsite disposal and additional soil confirmation sample(s) will be collected. This process will be repeated until all confirmation samples are below RSR criteria.
- The Owner's Environmental Representative will document the UST removal and soil confirmation sample results in a letter report.

7.5 IMPORTED MATERIALS

Prior to delivering any imported fill or topsoil to the Site, the Contractor shall provide documentation to the Owner's Environmental Representative that the material is clean and free of contaminants. This documentation shall be in the form of either a clean certification from the quarry or borrow pit or analytical results (VOCs, SVOCs, ETPH, PCBs, RCRA-8 metals, pesticides and based upon results for leachability via SPLP) from a certified laboratory. The Owner's Environmental Representative will determine whether the material is acceptable upon review of analytical results or source area documentation.

Tables

Table 1 - Summary of Soil Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Recognized Environmental Condition:	Remediation Standard Regulations		REC-2					REC-1							
Sample ID:			MW-2 (0-2)	MW-3 (0-2)	GZ-1 (0-2)	GZ-2 (0-2)	GZ-3 (0-2)	GZ-4 (0-2)	GZ-5 (0-2)	GZ-7 (0-1.5)	GZ-8 (0-1.5)	GZ-10 (0-2)	GZ-11 (0-2)	GZ-12 (0-2)	GZ-13 (0-2)^
Depth below grade (feet):			0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2	0-2
Sample Date:	R-DEC	GB-PMC	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022
Metals (mg/kg)															
Arsenic	10	NA	NT	NT	NT	NT	NT	4.27	1.72	4.19	2.8	2.75	3.69	3.43	1.57
Copper	2,500	NA	NT	NT	NT	NT	NT	65.5	26.4	13.3	25.6	14.5	40.2	20.2	14.8
Lead	400	NA	NT	NT	NT	NT	NT	17.5	54.6	21.4	26.5	27.7	28.1	20.9	30.4
Synthetic Precipitation Leaching Procedure (SPLP) Metals (mg/L)															
SPLP Arsenic	NA	0.5	NT	NT	NT	NT	NT	ND < 0.004	NT	NT	NT	NT	NT	NT	NT
SPLP Copper	NA	13	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT	NT
SPLP Lead	NA	0.15	NT	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)															
ETPH	500	2,500	ND< 53	ND< 52	ND< 96	ND< 54	ND< 55	NT	NT	NT	NT	NT	NT	NT	NT
Volatile Organic Compounds (VOCs) (mg/kg)															
VOCs	varies	varies	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)															
PAHs	varies	varies	ND< 0.25	ND< 0.25	ND< 0.45	ND< 0.25	ND< 0.26	NT	NT	NT	NT	NT	NT	NT	NT
Pesticides (mg/kg)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.011	0.01	ND< 0.0014	0.0022	0.0093	ND< 0.0015
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.12	0.0088	0.014	0.02	0.011	ND< 0.0015
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.2	0.0072	0.013	0.025	0.0074	ND< 0.0015
Sum**	1.8*	**0.02***	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	**0.331**	**0.026**	**0.027**	**0.0472**	**0.0277**	ND< 0.0015
Chlordane	0.49	0.066	NT	NT	NT	NT	NT	ND< 0.035	ND< 0.036	0.063	ND< 0.036	ND< 0.036	ND< 0.036	ND< 0.039	ND< 0.039
Dieldrin	0.038	**0.007**	NT	NT	NT	NT	NT	ND< 0.0035	ND< 0.0036	**0.032**	ND< 0.0036	ND< 0.0036	0.005	ND< 0.0039	ND< 0.0039
SPLP Pesticides (mg/L)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.000005	NT	NT	NT	NT	NT
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Sum**	NE	0.001	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Dieldrin	NE	**0.00002**	NT	NT	NT	NT	NT	NT	NT	**0.000026**	NT	NT	NT	NT	NT

Notes:

1. R-DEC is the Residential Direct Exposure Criteria
2. GB-PMC is the Class GB Pollutant Mobility Criteria
3. "*" = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided for comparison. Site-specific approval from CTDEEP is required for use of these criteria.
4. NE = None Established
5. ND or ND < 1.4 = Sample not detected above reporting limits shown
6. NA = Not applicable, a TCLP or SPLP result is required for comparison
7. NT = Sample not analyzed for this analyte
8. Bolded data exceed one or more criteria
9. ** RSR criteria are applicable to sum of DDD, DDE, and DDT
10. SPLP pesticide criteria are 10 times the Groundwater Protection Criteria.
11. ^Sample GZ-13 is located in a Class GA Groundwater Area and subject to the GA-Pollutant Mobility Criteria (GA-PMC).

Table 2 - Summary of Groundwater Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Sample ID:	Remediation Standard Regulations		Aquatic Life Criteria		MW-1	MW-2	MW-3
Sample Date:	GWPC	SWPC	Freshwater Chronic	Human Health	5/11/2022	5/11/2022	5/11/2022
Metals (ug/L)							
Arsenic	50	4	150	0.011	ND < 4	ND < 4	ND < 4
Copper	1,300	48	4.8	1,300	ND < 5	ND < 5	ND < 5
Lead	15	13	1.2	15	ND < 2	**2**	ND < 2
Extractable Total Petroleum Hydrocarbons (ETPH) (ug/L)							
Ext. Petroleum H.C. (C9-C36)	250	*250*	NE	NE	ND < 66	ND < 66	ND < 66
Volatile Organic Compounds (VOCs) (ug/L)							
VOCs	Varies	Varies	NE	NE	ND	ND	ND
Pesticides (ug/L)							
Dieldrin	0.002	0.1	0.056	0.000052	**0.011**	ND < 0.001	**0.015**

Notes:

SWPC is the Surface Water Protection Criteria GWPC is the Groundwater Protection Criteria

ND or ND < 1.4 = Sample not detected above reporting limits shown

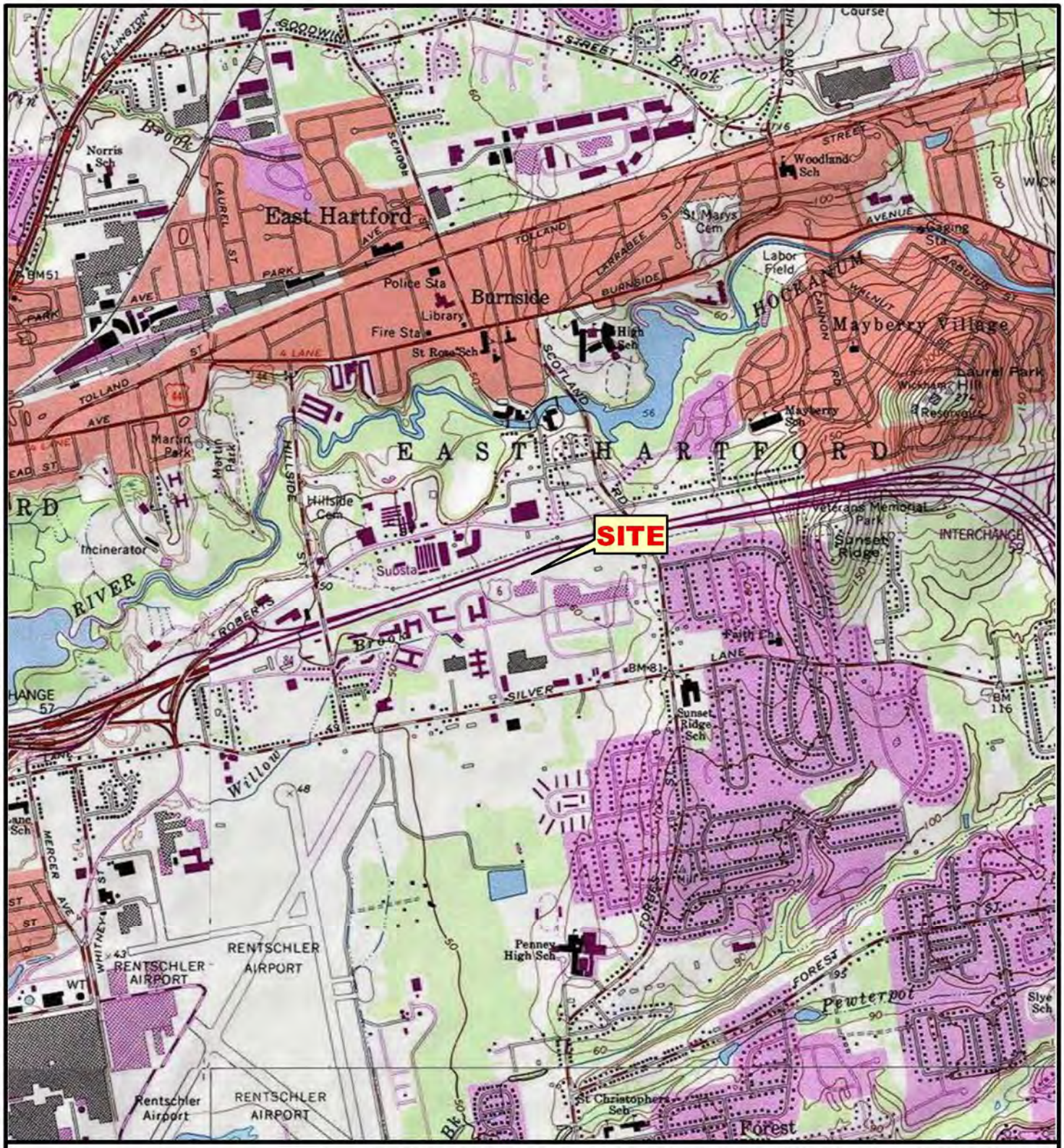
Italics = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided for comparison. Site-specific approval from CTDEEP is required for use of these criteria.

Bolded values exceed the GWPC

ug/L = micrograms per liter

NE = None Established

Figures



SOURCE : USGS TOPOGRAPHIC QUADRANGLES SCANNED BY THE NATIONAL GEOGRAPHIC SOCIETY & I-CUBED, COPYRIGHT 2011

Data Supplied by : esri

0 1,000 2,000 4,000 6,000

SCALE IN FEET

N W E S

GZA

PROJ. MGR.: AJT
DESIGNED BY: AJT
REVIEWED BY: ATH
OPERATOR: AJT

DATE: 01-17-2025

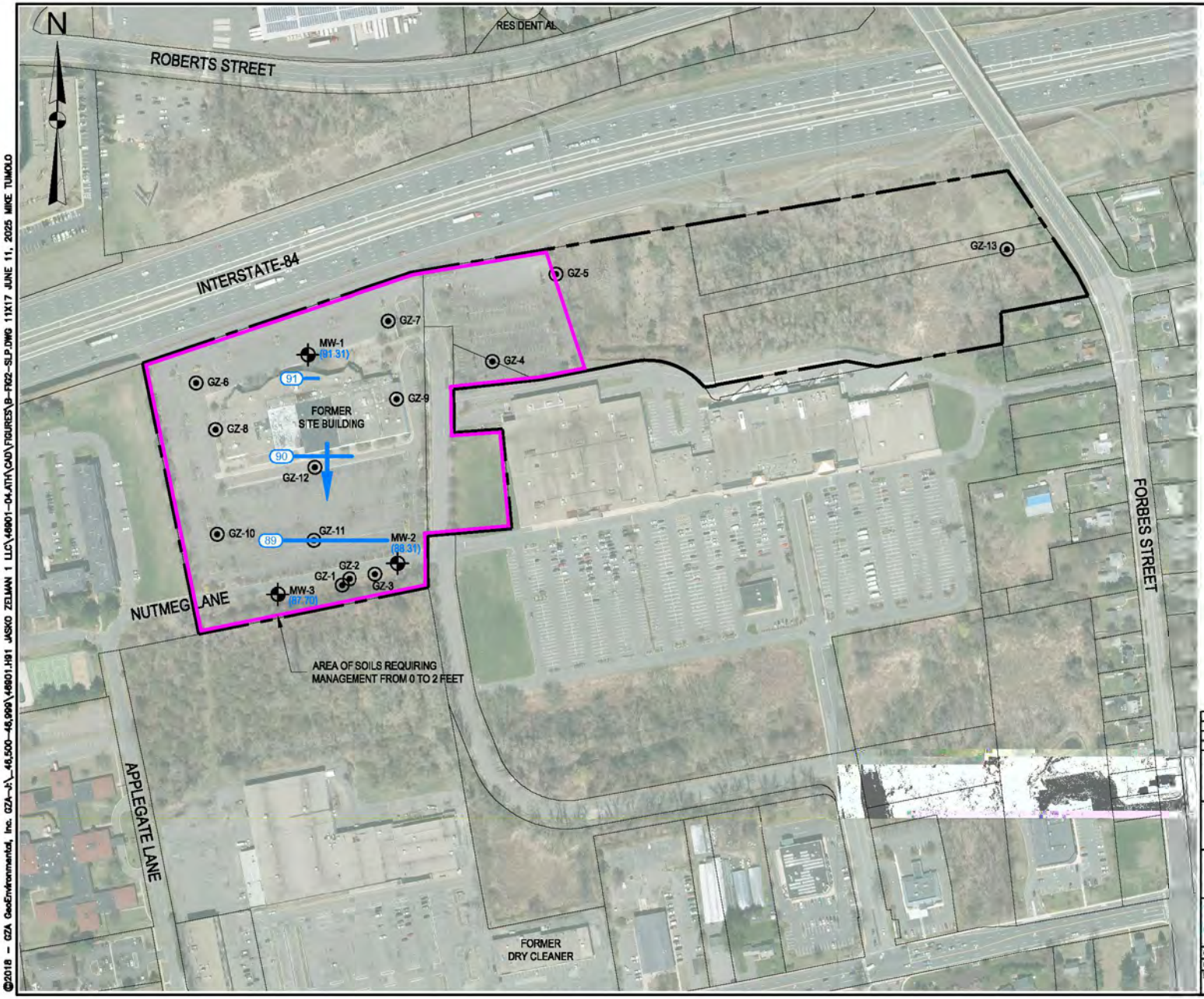
SITE LOCUS

936, 942, 944, 960 SILVER LN AND 285R AND 291 FORBES ST
EAST HARTFORD, CONNECTICUT

JOB NO.
05.0046901.04

FIGURE NO.
1

© 2025 - GZA GeoEnvironmental, Inc., \\gzaglastJobs\GIS\MXD\FIG_1_SUBJECT PROPERT LOCUS_05_0046901_03.mxd, 1/17/2025, 3:22:27 PM, automap



LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- SOIL BORING
- MONITORING WELL
- (88.69) GROUNDWATER ELEVATION
- 89 GROUNDWATER CONTOUR
- INFERRED DIRECTION OF GROUNDWATER FLOW

NOTES:

1. 2019 AERIAL PHOTO OBTAINED FROM CT ECO ONLINE DATABASE.
2. PARCEL BOUNDARIES OBTAINED FROM CT DEEP ONLINE GIS DATABASE AND ARE APPROXIMATE.
3. THE PURPOSE OF THIS DRAWING IS TO LOCATE, DESCRIBE, AND REPRESENT THE POSITIONS OF SOIL BORING AND MONITORING WELL LOCATIONS IN RELATION TO THE SUBJECT SITE. THIS DRAWING IS NOT CONSIDERED A LAND SURVEY.
4. THE LOCATION OF THE EXPLORATIONS WERE APPROXIMATELY DETERMINED BY TAPE MEASUREMENTS FROM EXISTING TOPOGRAPHIC FEATURES BY GZA PERSONNEL. THE LOCATIONS SHOWN SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5. GROUNDWATER ELEVATIONS WERE MEASURED BY GZA PERSONNEL ON MAY 11, 2022. GROUNDWATER ELEVATIONS DETERMINED RELATIVE TO AN ARBITRARY VERTICAL DATUM.
6. LOCATION, ELEVATIONS, DEPTHS AND/OR CONTOURS OF GROUNDWATER ARE BASED ON DATA FROM WIDELY SPACED EXPLORATIONS AND MAY NOT REFLECT ACTUAL SUBSURFACE CONDITIONS.

0 120 240 480

SCALE IN FEET 1" = 240'

NO.	ISSUE/DESCRIPTION	BY	DATE

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION SCRIPTED ON THE DRAWING. THE DRAWING SHALL NOT BE DUPLICATED, REUSED, COPIED, OR MUTUALLY AS ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, INC. OR AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

SILVER LANE AND FORBES STREET
EAST HARTFORD, CONNECTICUT

SAMPLE LOCATION PLAN

PREPARED BY	PREPARED FOR
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	JASKO ZELMAN 1, LLC

PROJ MGR: AJT	REVIEWED BY: KAC	CHECKED BY: ATH	FIGURE
DESIGNED BY: AJT	DRAWN BY: MJT	SCALE: AS SHOWN	2
DATE: 6-11-2025	PROJECT NO: 05.0046901.04	REVISION NO:	SHEET NO. 1 OF 1

©2018 – GZA GeoEnvironmental, Inc. GZA-J:_46,500-46,999\46901.H91 JASKO ZELMAN 1 LLC\46901-04.ATH\CAD\FIGURES\B-FIG2-SLP.DWG 11X17 JUNE 11, 2025 MIKE TUMOLO

Appendix A – Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this Report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this Report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at the party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or similar property. No warranty, express or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state, or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies. Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, were developed utilizing interpolation/extrapolation methods, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extend of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this Report.

6. Water level readings have been made, as described in this Report, in the specified monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater, however, occur due to temporal or spatial variations in areal recharge rates and heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table and hydraulic heads may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the Report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment, and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless noted otherwise, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological, or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information and data as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support he opinions provided in the Report.

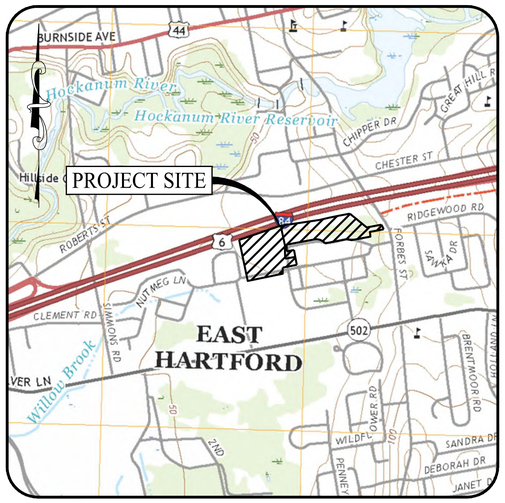
ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this Report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this Report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation, activities, construction, and/or property development/redevelopment of the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

Appendix B – Site Development Plans



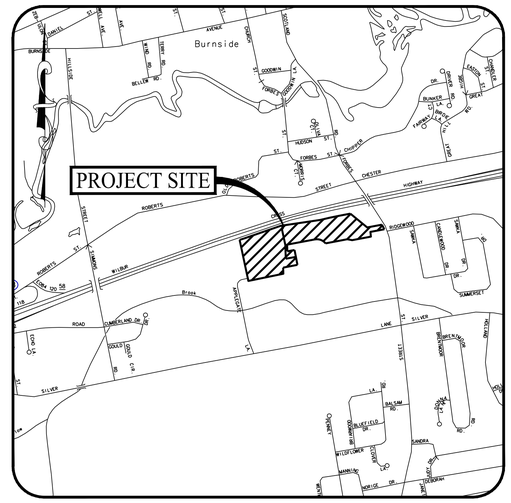
USGS MAP

SCALE: 1" = 1,000'

CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT

INFRASTRUCTURE CONSTRUCTION DOCUMENTS
CRDA PROJECT# 25-005



LOCATION MAP

SCALE: 1" = 1,000'

DRAWING LIST

CIVIL DRAWINGS

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
0.00	COVER SHEET	07/02/25	N/A
0.10	GENERAL PROJECT NOTES & LEGENDS	07/02/25	N/A
0.11	APPROVALS AND DOCUMENTATION	07/02/25	N/A
1 OF 2	ALTA/NSPS LAND TITLE SURVEY	03/25/25	05/22/25
2 OF 2	ALTA/NSPS LAND TITLE SURVEY	03/25/25	05/22/25
1 OF 1	LOT CONSOLIDATION PLAN	01/19/24	02/24/25
	SITE ENABLING PHASE 1A		
2.00	OVERALL DEMOLITION PLAN	07/02/25	N/A
2.01	PHASE 1A OVERALL GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.02	PHASE 1A OVERALL SITE UTILITY PLAN	07/02/25	N/A
2.03	OVERALL SITE LOGISTICS PLAN	07/02/25	N/A
	PHASED PLANS PHASES 1B & 2		
2.10	OVERALL SITE PLAN	07/02/25	N/A
2.11.1	PHASE 1B SITE PLAN	07/02/25	N/A
2.11.2	PHASE 1B SITE PLAN	07/02/25	N/A
2.12.1	PHASE 2 SITE PLAN	07/02/25	N/A
2.12.2	PHASE 2 SITE PLAN	07/02/25	N/A
2.20	OVERALL GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.21.1	PHASE 1B GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.21.2	PHASE 1B GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.22.1	PHASE 2 GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.22.2	PHASE 2 GRADING AND DRAINAGE PLAN	07/02/25	N/A
2.30	OVERALL EROSION & SEDIMENTATION CONTROL PLAN	07/02/25	N/A
2.31.1	PHASE 1B EROSION & SEDIMENTATION CONTROL PLAN	07/02/25	N/A
2.31.2	PHASE 1B EROSION & SEDIMENTATION CONTROL PLAN	07/02/25	N/A
2.32.1	PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN	07/02/25	N/A
2.32.2	PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN	07/02/25	N/A
2.41	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	07/02/25	N/A
2.50	OVERALL SITE UTILITY PLAN	07/02/25	N/A
2.51.1	PHASE 1B SITE UTILITY PLAN	07/02/25	N/A
2.51.2	PHASE 1B SITE UTILITY PLAN	07/02/25	N/A
2.52.1	PHASE 2 SITE UTILITY PLAN	07/02/25	N/A
2.52.2	PHASE 2 SITE UTILITY PLAN	07/02/25	N/A
3.01	CONSTRUCTION DETAILS	07/02/25	N/A
3.02	CONSTRUCTION DETAILS	07/02/25	N/A
3.03	CONSTRUCTION DETAILS	07/02/25	N/A
3.04	CONSTRUCTION DETAILS	07/02/25	N/A
3.05	CONSTRUCTION DETAILS	07/02/25	N/A
3.06	CONSTRUCTION DETAILS	07/02/25	N/A
3.07	CONSTRUCTION DETAILS	07/02/25	N/A
3.08	CONSTRUCTION DETAILS	07/02/25	N/A
	ADD/ALTERNATE PLANS		
4.01.1	ADD/ALT PHASE 1B SITE PLAN	07/02/25	N/A
4.01.2	ADD/ALT PHASE 1B SITE PLAN	07/02/25	N/A
4.02.1	ADD/ALT PHASE 2 SITE PLAN	07/02/25	N/A
4.02.2	ADD/ALT PHASE 2 SITE PLAN	07/02/25	N/A
4.03	OTTO SANITARY SERVICE ALTERNATIVES	07/02/25	N/A
4.04	OTTO PUMP STATION ALTERNATE DETAILS	07/02/25	N/A
4.05	ADD/ALT OVERALL LANDSCAPING PLAN	07/02/25	N/A
4.06.1	ADD/ALT PHASE 1B LANDSCAPE PLAN	07/02/25	N/A
4.06.2	ADD/ALT PHASE 1B LANDSCAPE PLAN	07/02/25	N/A
4.06.3	ADD/ALT PHASE 1B LANDSCAPE DETAILS & NOTES	07/02/25	N/A
4.07.1	ADD/ALT PHASE 2 LANDSCAPE PLAN	07/02/25	N/A
4.07.2	ADD/ALT PHASE 2 LANDSCAPE PLAN	07/02/25	N/A
4.07.3	ADD/ALT PHASE 2 LANDSCAPE DETAILS & NOTES	07/02/25	N/A

MDC DEVELOPMENT PERMIT AGREEMENT SET

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
0.00	COVER SHEET	01/06/25	03/03/25
1 OF 1	PROPERTY SURVEY	03/09/22	N/A
1 OF 1	LOT CONSOLIDATION PLAN	01/19/24	02/17/25
0.10	UTILITY GENERAL NOTES	01/06/25	03/03/25
2.50	OVERALL SITE UTILITY PLAN	01/06/25	03/03/25
2.51	WATER MAIN - PLAN AND PROFILE	01/06/25	03/03/25
2.52	WATER MAIN - PLAN AND PROFILE	01/06/25	03/03/25
2.53	WATER MAIN - PLAN AND PROFILE	01/06/25	03/03/25
2.54	SEWER MAIN - PLAN AND PROFILE	01/06/25	03/03/25
3.01	SEWER DETAILS	01/06/25	03/03/25
3.02	WATER DETAILS	01/06/25	03/03/25

* REFER TO ARCHITECTURAL, STRUCTURAL, & MEP DRAWINGS, PREPARED BY MARTIN ARCHITECT GROUP, UNDER SEPARATE COVER

PREPARED FOR:

CAPITAL REGION DEVELOPMENT AUTHORITY

100 COLUMBUS BOULEVARD
HARTFORD, CONNECTICUT 06103

PREPARED BY:

SOLLI ENGINEERING

MONROE, CT | WEST HARTFORD, CT | NORWOOD, MA

PRELIMINARY
NOT FOR CONSTRUCTION

DESIGN PROFESSIONALS:

SITE/CIVIL ENGINEER
KEVIN SOLLI, P.E., CPESC, LEED AP BD+C
LICENSE NO. 25759
SOLLI ENGINEERING, LLC
501 MAIN STREET
MONROE, CONNECTICUT 06468
(203) 880-5455

SURVEYOR OF RECORD
BRYAN NESTERIAK, PE, LS
LICENSE NO. 23556
ACCURATE LAND SURVEYING
15 RESEARCH DRIVE, SUITE 3
WOODBRIDGE, CONNECTICUT 06525
(203) 881-8145

LANDSCAPE DESIGNER
MARY BLACKBURN, PLA
LICENSE NO. 1499
SOLLI ENGINEERING, LLC
501 MAIN STREET
MONROE, CONNECTICUT 06468
(203) 880-5455

INTERIOR DESIGNER
ADELE SCHACHNER ARCH + INTERIORS
1716 AVENUE M
BROOKLYN, NY 11230
(973) 807-2326

ARCHITECT
DREW A. ROMANIC, AIA, PRINCIPAL / PARTNER
THE MARTIN ARCHITECTURAL GROUP, P.C.
240 N. 22ND STREET
PHILADEPHIA, PA 19103
(215) 665-1080 EXT. 181

GEOTECHNICAL ENGINEER
JOSEPH KIDD, PE,
SOLLI ENGINEERING, LLC
501 MAIN STREET
MONROE, CONNECTICUT 06468
(203) 880-5455

WETLAND SCIENTIST
WILLIAM KENNY
WILLIAM KENNY ASSOCIATES
1899 BRONSON ROAD
FAIRFIELD, CT 06824
(203) 366-0588

PROPERTY INFORMATION

ADDRESS: 285 & 291 FORBES STREET & 936, 942, 944, & 960 SILVER LANE, CONNECTICUT 06051
MAP: 46
LOT: 23, 107, 129, 130, & 113

OWNER

JASKO ZELMAN 1, LLC
66 WEST MAIN STREET, SUITE 102
EAST HARTFORD, CONNECTICUT 06108

JZ OTTO, LLC
66 WEST MAIN STREET, SUITE 102
EAST HARTFORD, CONNECTICUT 06108

Rev. #:	Date	Description

Project:
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: COVER SHEET

Sheet #: 0.00

EAST HARTFORD INLAND WETLAND ENVIRONMENT COMMISSION APPROVAL NOTES

1. THE PERMIT IS NON-TRANSFERABLE WITHOUT THE WRITTEN CONSENT OF THE TOWN OF EAST HARTFORD INLAND WETLANDS-ENVIRONMENT COMMISSION.
2. SOIL SEDIMENTATION AND EROSION CONTROLS ACCEPTABLE TO THE TOWN ENGINEER ARE TO BE MAINTAINED AT ALL TIMES.
3. ALL WORK IN THE INLAND WETLANDS AND/OR THE INLAND WETLAND UPLAND REVIEW AREA SHALL BE COMMENCED WITHIN FIVE (5) YEARS FROM THE EFFECTIVE DATE. THE ACTIVITY SHALL BE COMPLETED (3) YEARS FROM THE COMMENCEMENT OF THE ACTIVITY.
4. WRITTEN NOTICE SHALL BE SUBMITTED TO THE TOWN ENGINEER 48 HOURS PRIOR TO THE STARTING DATE OF THE APPROVED ACTIVITY.

DEMOLITION NOTES

1. REFER TO THE JANUARY 2024 EDITION OF THE METROPOLITAN DISTRICT (MDC) PROJECT MANUAL FOR INFORMATION REGARDING THE DEMOLITION OF UTILITIES UNDER THE JURISDICTION OF THE MDC OR THE DEMOLITION OF UTILITIES WITHIN EASEMENTS IN FAVOR OF THE MDC.
2. THE DEMOLITION CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL UTILITY PIPES 12" OR LARGER WITHIN 5 FEET OF ALL PROPOSED BUILDING FOOTPRINTS AND THE FOOTPRINTS OF UNDERGROUND DETENTION STRUCTURES.
3. FOR UNDERGROUND UTILITIES 12" IN DIAMETER OR GREATER, THE DEMOLITION CONTRACTOR SHALL PERFORM ONE OF THE FOLLOWING TASKS:
   3.1 REMOVE AND DISPOSE OF SAID UNDERGROUND UTILITIES.
   3.2 ABANDON AND CAP UNDERGROUND UTILITIES WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
4. FOR UNDERGROUND UTILITIES LESS THAN 12" IN DIAMETER, ALL EXISTING UTILITIES ARE PERMITTED TO REMAIN, CONTINGENT UPON CONFIRMATION OF DEACTIVATION AND COORDINATION WITH THE SITE-CIVIL ENGINEER AND APPLICABLE UTILITY PROVIDERS.
5. NO DEMOLITION WORK SHALL COMMENCE WITHIN THE EXISTING 30 FOOT WIDE EASEMENT IN FAVOR OF THE METROPOLITAN DISTRICT COMMISSION (MDC) WITHOUT PROPER PRIOR NOTIFICATION TO THE MDC.
6. AT LEAST TWO WEEKS PRIOR TO THE DEMOLITION OR REMOVAL, CONFIRM WITH THE SITE/CIVIL ENGINEER IN WRITING OF PROPOSED SCHEDULE. THE OWNER SHALL INSPECT THE EXISTING EQUIPMENT AND TO IDENTIFY AND MARK THOSE ITEMS WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER. NO REMOVALS SHALL BE STARTED WITHOUT THE PERMISSION OF THE SITE/CIVIL ENGINEER.
7. THE OWNER AND THE SITE/CIVIL ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACTUAL CONDITION OF THE UTILITIES AND STRUCTURES TO BE DEMOLISHED OR MODIFIED.
8. SHOULD ANY EXISTING UTILITIES PROPOSED TO REMAIN BE DAMAGED DURING THE DEMOLITION PROCESS, THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPAIR OF SAID DAMAGED UTILITIES, AT NO COST TO THE OWNER OF SAID UTILITIES. REPAIRS SHALL BE MADE TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
9. DISPOSE OF ALL DEMOLITION MATERIALS, EQUIPMENT, DEBRIS, AND ALL OTHER ITEMS NOT MARKED BY THE OWNER TO REMAIN, OFF THE SITE AND IN CONFORMANCE WITH ALL EXISTING APPLICABLE LAWS AND REGULATIONS. DEMOLITION DEBRIS MUST BE REUSED OR DISPOSED OF AT A DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION APPROVED CONSTRUCTION AND DEMOLITION VOLUME REDUCTION PLANT. THE SITE/CIVIL ENGINEER MUST APPROVE ANY PLANS TO REUSE THE MATERIAL AT ANOTHER LOCATION. WEIGHT TICKETS MUST BE PROVIDED FOR ANY MATERIALS DISPOSED OF AT A CONSTRUCTION AND DEMOLITION VOLUME REDUCTION PLANT.
10. ALL EXISTING ELECTRICAL EQUIPMENT AND FIXTURES TO BE REMOVED SHALL BE REMOVED WITH SUCH CARE AS MAY BE REQUIRED TO PREVENT UNNECESSARY DAMAGE, TO KEEP EXISTING SYSTEMS IN OPERATION, AND TO MAINTAIN THE INTEGRITY OF THE GROUNDING SYSTEMS.
11. WHERE SHOWN OR OTHERWISE REQUIRED, WIRING IN THE UNDERGROUND DUCT SYSTEM SHALL BE REMOVED. ALL SUCH WIRING SHALL BE SALVAGED AND STORED AS SPECIFIED AT OWNER'S OPTION. VERIFY THE FUNCTION OF ALL WIRING BEFORE DISCONNECTION AND REMOVING IT. DUCTS WHICH ARE NOT TO BE REUSED OR REMOVED SHALL BE PLUGGED WITH CLSM.
12. LIGHTING FIXTURES SHALL BE REMOVED OR RELOCATED AS SHOWN. FIXTURES NOT RELOCATED SHALL BE REMOVED FROM THE SITE AND DELIVERED TO OWNER OR DISPOSED OF PROPERLY BY THE CONTRACTOR, AT THE OWNERS OPTION. REMOVE ALL SITE DEBRIS RESULTING FROM THE DEMOLITION OPERATIONS AS IT ACCUMULATES. UPON COMPLETION OF THE WORK, ALL MATERIALS, EQUIPMENT, WASTE, AND DEBRIS OF EVERY SORT SHALL BE REMOVED AND PREMISES SHALL BE LEFT CLEAN, NEAT, AND ORDERLY.
13. SEWER AND STORM MAINS AND MANHOLES BEING ABANDONED THAT ARE REQUIRED TO BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) ARE SHOWN ON THE DEMOLITION PLANS HEREIN.
14. PUMPABLE CONTROLLED LOW STRENGTH MATERIAL (CLSM) SHALL BE IN ACCORDANCE WITH SECTION 03302 OF THE JANUARY 2017 EDITION OF THE MDC PROJECT MANUAL.
15. THE CONTRACTOR SHALL TAKE ALL MEASURES TO SUPPORT ADJACENT UTILITIES, ABOVE AND BELOW GROUND DURING REMOVAL OF EXISTING SEWERS, MANHOLES, AND LATERALS.
16. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, REGIONAL, AND LOCAL STATUTES, CODES, ORDINANCES, AND REGULATIONS REGARDING THE PROPER REMOVAL AND DISPOSAL OF EXISTING SANITARY AND STORM SEWERS, MANHOLES, AND LATERALS.
17. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY AND REQUIRED PERMITS AND LICENSES, PROVIDE ALL PERSONNEL AND EQUIPMENT INCLUDING LOADING EQUIPMENT, TRUCKS, EQUIPMENT OPERATORS AND DRIVERS, DOCUMENTATION AND MANIFEST FORMS AND COORDINATION WITH THE PRESIDING GOVERNING AUTHORITIES HAVING JURISDICTION FOR THE PROPER DISPOSAL OF REGULATED MATERIALS AT AN APPROVED SITE, AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, REGIONAL, MUNICIPAL, AND CTDOT SPECIFIC REGULATIONS AND ALL DISPOSAL REGULATIONS.
18. CARRY OUT ANY DEWATERING OF PIPE NECESSARY TO ALLOW THE CLSM OPERATION TO PROCEED AS INTENDED AND WITHOUT DILUTION OF THE CLSM MIXTURE BEING INSTALLED.
19. ALL SUBMITTALS SHALL BE APPROVED BY THE OWNER AND/OR SITE/CIVIL ENGINEER PRIOR TO ANY PLACEMENT OF CLSM.
20. THE OWNER AND SITE/CIVIL ENGINEER MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF ANY PLACEMENT OF CLSM.
21. CLEAN ALL AREAS OF SEWER MAIN DEBRIS THAT MAY HINDER THE PLACEMENT OF CLSM.
22. REMOVE ALL CLSM MATERIALS AND EXCESS EXCAVATED MATERIALS FROM THE SITE AFTER ABANDONMENT, FILLING OF CLSM IF NEEDED AND BACKFILLING ARE COMPLETED. DISPOSE OF THIS MATERIAL PROPERLY.
23. THE CONTRACTOR SHALL TAKE ALL MEASURES TO SUPPORT ADJACENT UTILITIES, ABOVE AND BELOW GROUND DURING REMOVAL OF EXISTING WATER MAINS, SERVICES, MANHOLES, AND APPURTENANCES.
24. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, REGIONAL AND LOCAL STATUTES, CODES, ORDINANCES, AND REGULATIONS REGARDING THE PROPER REMOVAL AND DISPOSAL OF THE EXISTING WATER MAINS, SERVICES, MANHOLES, AND APPURTENANCES.

SITE PLAN NOTES

1. EXISTING CONDITIONS BASE PLAN HAS BEEN TAKEN FROM "PROPERTY SURVEY OF 936, 942, 944 & 960 SILLVER LANE AND 285 & 291 FORBES STREET, EAST HARTFORD, CONNECTICUT, SCALE 1" = 80', DATED APRIL 26, 2022, REVISED AUGUST 17, 2022 PREPARED BY ACCURATE LAND SURVEYING."
2. THESE PLANS ARE FOR CONSTRUCTION. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL FINAL APPROVAL OF THIS PLAN.
3. THE SUBJECT PARCELS CONSIST OF A TOTAL AREA OF APPROXIMATELY 25.95± ACRES, LOCATED IN THE PLANNED DEVELOPMENT DISTRICT (PDD-1) ZONE OF EAST HARTFORD, CONNECTICUT.
4. WETLAND BOUNDARY AND UPLAND REVIEW AREAS TAKEN FROM SURVEYED WETLAND DELINEATION PERFORMED BY WILLIAM KENNY JANUARY 13TH AND 14TH, 2022.
5. A PORTION OF THE SITE LIES WITHIN A FLOOD HAZARD AREA. FLOOD INFORMATION TAKEN FROM FEMA FLOOD INSURANCE RATE MAP, MAP NUMBER09003C0389F, EFFECTIVE SEPTEMBER 26, 2008.
6. ALL PROPOSED SITE WORK TO BE COMPLETED IN ACCORDANCE WITH ALL PERMITS, APPROVALS, AND CONDITIONS OF APPROVALS ISSUED BY LOCAL, STATE, AND OR FEDERAL REVIEWING AGENCIES.
7. ALL CONSTRUCTION SHALL COMPLY WITH CORPORATION STANDARDS, TOWN OF EAST HARTFORD STANDARDS, AND CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
8. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL COUNTY AND TOWN CONSTRUCTION PERMITS, INCLUDING CONNECTICUT DOT & DPH PERMITS AND WATER CONNECTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
9. REFER TO PLANS & DETAILS BY SOLLI ENGINEERING, LLC FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE/CIVIL ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND OR FIELD CONDITIONS.
10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS PER PLANS AND SPECIFICATIONS TO THE OWNER AND SITE/CIVIL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
11. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
12. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, AND THE RAISED CONCRETE SIDEWALKS AND RAMPS.
13. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE SITE/CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
14. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
15. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING AS APPLICABLE UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
16. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TRAFFIC CONTROLLERS, AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED OR AS ORDERED BY THE SITE/CIVIL ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS.
17. TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
18. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
19. THE CONTRACTOR SHALL ABIDE BY ALL OSHA FEDERAL STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
20. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAVEMENT MARKING PAINT MIXTURE PRIOR TO STRIPING.
21. PAVEMENT MARKING KEY:
   - 4" SYDL - 4" SOLID YELLOW DOUBLE LINE
   - 4" SWL - 4" SOLID WHITE LINE
   - 12" SWSB - 12" SOLID WHITE STOP BAR
22. PARKING SPACES SHALL BE STRIPED WITH 4" SWL; HATCHED AREA SHALL BE STRIPED WITH 4" SWL AT A 45° ANGLE, 2' ON CENTER. HATCHING, SYMBOLS, AND OTHER MARKINGS SHALL BE PAINTED WHITE OR AS NOTED.
23. THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE SITE/CIVIL ENGINEER.
24. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
25. THE ARCHITECT AND SITE/CIVIL ENGINEER ARE NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ARCHITECT AND SITE/CIVIL ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
26. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
27. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, SITE/CIVIL ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
28. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "(800) 922-4455" OR "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
29. PAVEMENT MARKINGS SHALL BE HOT APPLIED TYPE IN ACCORDANCE WITH CONNECTICUT DOT SPECIFICATIONS, UNLESS WHERE EPOXY RESIN PAVEMENT MARKINGS ARE INDICATED.
30. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
31. FIRE LANES SHALL BE ESTABLISHED AND PROPERLY DESIGNATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE DISTRICT FIRE MARSHAL.
32. PRIOR TO OCCUPANCY THIS PROJECT WILL REQUIRE REVIEW AND APPROVAL BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC ADMINISTRATION (OSTA).
33. THE PROPOSED PROJECT IS TO BE REGISTERED UNDER THE CONNECTICUT GENERAL PERMIT FOR STORMWATER AND DEWATERING WASTE WATERS FROM CONSTRUCTION ACTIVITIES.
34. ALL BUILDING FOUNDATIONS TO BE STAKED OUT BY A LICENSED SURVEYOR

SOIL AND EROSION CONTROL CERTIFICATE

THE REQUIRED FINANCIAL GUARANTEE IS $42,500.00. THE FINANCIAL GUARANTEE SHALL BE POSTED, FOR THOSE MEASURES IN THE CERTIFIED SOIL-EROSION AND SEDIMENTATION CONTROL PLAN THAT ARE SCHEDULED FOR INSTALLATION, PRIOR TO COMMENCEMENT OF ANY SITE IMPROVEMENTS ON THE PARCEL THAT IS SUBJECT TO THE CERTIFIED SOIL- EROSION AND SEDIMENTATION CONTROLS. APPROVED PLANS SHALL BE FILED IN ACCORDANCE WITH ZONING REGULATIONS SECTION 217.7.

UTILITY NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROLS NECESSARY FOR THIS PROJECT.
2. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OR WORK AT "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN IN THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SITE/CIVIL ENGINEER.
4. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING, OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CITE/CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE, ROOF DRAINS, AND ALL OTHER UTILITIES. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION OF AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED, ORDERED BY THE SITE/CIVIL ENGINEER OR REQUIRED BY THE STATE AND LOCAL GOVERNING AUTHORITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES 72 HOURS PRIOR TO BEGINNING EXCAVATION.
8. ALL UTILITY WORK PROPOSED WITHIN THE TOWN OF EAST HARTFORD RIGHT-OF-WAY SHALL COMPLY WITH CITY OF EAST HARTFORD DPW AND ENGINEERING STANDARDS AND SPECIFICATIONS. PROPOSED UTILITY WORK WILL REQUIRE LANE CLOSURES. COORDINATION WITH THE SITE/CIVIL ENGINEER WILL BE NEEDED FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE CITY DEPARTMENTS AND CTDOT DISTRICT 3 OFFICE PRIOR TO CONSTRUCTION.
9. ALL DISTURBANCE TO CITY, COUNTY, OR STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
11. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
12. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
13. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCES AND ARE APPROXIMATE.
14. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE WATER SERVICE SHALL BE IN COMPLIANCE WITH THE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS.
15. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE ELECTRIC SERVICE SHALL BE IN COMPLIANCE WITH EVERSOURCE ENERGY STANDARDS AND SPECIFICATIONS.
16. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE GAS SERVICE SHALL BE IN COMPLIANCE WITH EVERSOURCE ENERGY STANDARDS AND SPECIFICATIONS.
17. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES 72 HOURS PRIOR TO BEGINNING OF EXCAVATION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE-IN FEES REQUIRED BY UTILITY PROVIDERS.
19. WHERE THE SANITARY SEWER LINE PASSES LESS THAN 18" BELOW THE WATER LINE, PROVIDE CONCRETE ENCASEMENT. THE LENGTH OF THE ENCASEMENT TO BE INCREASED TO THE NEAREST JOINT.
20. WHERE THE SANITARY SEWER LINE PASSES ABOVE THE WATER LINES, ENCASE SEWER IN 6" THICK CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, OR SUBSTITUTE RUBBER GASKETED PRESSURE PIPE FOR THE PIPE BEING USED FOR THE SAME DISTANCE.
21. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3.5 FEET OF COVER FOR ALL WATER DISTRIBUTION PIPING.
22. ALL NEW WATER LINES SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600.
23. ALL NEW WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.
24. ALL DOMESTIC WATER AND SANITARY SEWER STUBS TO BE TERMINATED 5 FEET OUTSIDE OF THE BUILDING UNLESS OTHERWISE NOTED. THE END OF THESE SERVICE LINES SHALL BE TIGHTLY PLUGGED OR CAPPED AND MARKED UNTIL SUCH TIME AS CONNECTION IS MADE INSIDE BUILDING BY PLUMBING CONTRACTOR.
25. SITE UTILITY CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITIES. ALL PIPE AND FITTINGS SHALL BE INSPECTED BY THE METROPOLITAN DISTRICT INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING PRESSURE TESTING AND DISINFECTION OF LATERALS AND HIS SIGNATURE OF APPROVAL IS REQUIRED.
26. THE SITE UTILITY CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE LOCAL UTILITY AUTHORITIES FOR CONNECTION TO THE EXISTING MAINS AND PAY ALL APPLICABLE FEES.
27. CONTRACTOR SHALL ADJUST LOCATION OF PROPOSED WATER LINES AS REQUIRED TO AVOID CONFLICTS WITH STORM SEWER OR OTHER UTILITIES AT NO EXTRA COST.
28. UTILITY LEAD-INS TO BUILDING SHALL NOT BE INSTALLED UNTIL BUILDING PLANS ARE COMPLETED AND LOCATIONS ESTABLISHED ON THE ARCHITECTURAL PLUMBING PLANS. UTILITY CONTRACTOR SHALL REQUEST AND RECEIVE WRITTEN APPROVAL FROM PRIME CONTRACTOR PRIOR TO INSTALLATION OF LEAD-INS.
29. BUILDING PLUMBING CONTRACTOR SHALL PAY ALL COST FOR WATER METERS, METER BOXES, VALVES, ETC. TO PROVIDE A COMPLETE JOB PER LOCAL AUTHORITY REQUIREMENTS.
30. THRUST BLOCKS SHALL BE PROVIDED AT ALL TEES, ELBOWS, BENDS, AND PLUGS OF SUFFICIENT SIZE TO COMPLY WITH MINIMUM STANDARDS OF N.F.P.A - EXISTING SOIL CONDITIONS.

LEGEND

PROPERTY LINE	MAJOR CONTOURS
RIGHT-OF-WAY LINE	MINOR CONTOURS
ADJOINING LOT LINE	EXISTING MAJOR CONTOURS
EXISTING BUILDING LIMITS	EXISTING MINOR CONTOURS
SAWCUT PAVEMENT LINE	CONTOUR LABEL
CONCRETE CURB	PROPOSED SPOT ELEVATION
STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT	EXISTING SPOT ELEVATION
CONCRETE SIDEWALK / PAVEMENT	GRADE TO DRAIN
SIDEWALK LIMITS	STORM DRAIN PIPE
CHAIN LINK FENCE	CATCH BASIN
LIMIT OF WETLANDS	STORM MANHOLE
100 FT WETLAND BUFFER	WATER QUALITY UNIT
	FLARE END SECTION
	RIP RAP
	SILT FENCE PROTECTION
	STRAW WATTLE PROTECTION
	CONSTRUCTION FENCE
	CURB REMOVAL
	WATER SERVICE REMOVAL
	SILT SACK INLET PROTECTION
	CONSTRUCTION ENTRANCE
	CONCRETE PAVEMENT DEMOLITION
	BITUMINOUS CONCRETE PAVEMENT DEMOLITION
	UTILITY STRUCTURE REMOVAL
	GAS LINE
	ELECTRIC CONDUIT
	FIRE ALARM CONDUIT
	FIBER OPTIC CONDUIT
	WATER MAIN / LATERAL
	FIRE WATER LINE

SANITARY SEWER PIPE	
OIL/WATER SEPARATOR	
SANITARY SEWER MANHOLE	
WATER VALVE	
GAS VALVE	
ELECTRIC TRANSFORMER	
WATER METER PITS	
2' DIAMETER CONCRETE LIGHT POLE BASE	
1'x1' CONCRETE BOLLARD LIGHT BASE	
UTILITY EASEMENT	
KEYNOTE CALLOUT	
ORANGE SAFETY FENCE	
LIMIT OF DISTURBANCE	
PROPOSED TREE LINE	
DIVERSION SWALE/BERM	

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROLS NECESSARY FOR THIS PROJECT.
2. EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OR WORK AT "811" OR "(800) 922-4455" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
3. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING, OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE SITE/CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
4. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED, RECOMMENDED BY THE SITE/CIVIL ENGINEER OR REQUIRED BY THE STATE AND LOCAL GOVERNING AUTHORITIES.
5. ALL DISTURBANCE TO CITY, COUNTY, OR STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER.
6. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN TH

MICHAEL P. WALSH
MAYOR

TOWN OF EAST HARTFORD
740 Main Street
East Hartford, Connecticut 06108

Phone: 860 291-7300
Fax: 860 289-0931

ENGINEERING DIVISION

VIA: CERTIFIED MAIL

July 28, 2022

Jasko Zelman 1, LLC
66 West Mis Street Suite 102
New Britain, CT 06051

Re: Inland Wetland – Environment Commission Application
Building Construction
285, 291 Forbes & 936,944 & 960 Silver Lane
East Hartford, CT

Dear Sirs:

This letter is to notify you that at the July 26, 2022 meeting of the Inland-Wetlands-Environment Commission of the Town of East Hartford, the Commission:

> **Approved:** File #22-13, Application of ND Acquisitions, LLC to conduct a regulated activity in an Inland Wetlands and Inland Wetlands Upland Review area in conjunction with the construction of four buildings at East Hartford Blvd.

In accordance with Section 12.11 of the East Hartford Inland Wetlands-Environment Commission Regulations, *this approval* was advertised in a local newspaper on July 28, 2022 and *becomes effective on August 12, 2022 provided that conditions 7 through 11 inclusive below have been met.*

This approval was granted with the following conditions:

1. The permit is non-transferable without the written consent of the Town of East Hartford Inland Wetlands - Environment Commission.
2. Soil sedimentation and erosion controls acceptable to the Town Engineer are to be maintained at all times.
3. All work in the Inland Wetlands and/or Inland Wetland Upland Review Area shall be commenced within five (5) years from the effective date. The activity shall be completed within three (3) years from the commencement of the activity.
4. Written notice shall be submitted to the Town Engineer 48 hours prior to the starting date of the approved activity.
5. In evaluating this application, the Inland Wetlands - Environment Commission has relied on information provided by the applicant, and if such information subsequently proves to be false, deceptive, incomplete and/or inaccurate, this permit shall be modified, suspended, or revoked.
6. Approval is granted based on the maps submitted with the application with plans dated 6/10/22 revised to 7/5/22.
7. Provide the information as required in Sections 8.4.f of the Inland Wetlands Regulations.
8. Per the Manual of Technical Design, "maintain existing drainage patterns" is taken to mean that each drainage catchment area is considered independently, therefore, the post conditions for DA #1 and #3 can not exceed pre-development conditions.
9. Provide E&S sheet for the eastern building off of Forbes.
10. It appears that stormwater run-off from the building and associated parking area by Forbes St is being dumped directly into the wetlands. Provide test pit data demonstrating that the seasonal high water table is at least 2 feet below the bottom of the infiltration system as required by the Manual of Technical Design. Test pits must be witnessed by Engineering staff. Provide details for the infiltration system. Storm drainage summary needs to include information on the proposed infiltration system for the building near Forbes.
11. How will the 4 story 92 unit building be constructed without impacting the wetlands? Provide a detailed narrative describing the nature of the work that is proposed in this wetland, including the duration. Extra E&S measures are warranted so these details need to be included as well as a detail sheet for E&S Control measures with narrative E&S schedule. The recommendations from the William Kenny Associates report of July 19, 2022 should be included in the restoration section.

Sincerely,

Warren W. Disbrow, P.E.
Assistant Town Engineer
Designated Agent for the Inland
Wetlands-Environment Commission

Copy to: Planning

TOWN OF EAST HARTFORD
PLANNING & ZONING COMMISSION
740 MAIN STREET EAST HARTFORD, CT 06108

CERTIFICATE OF ACTION

March 9, 2023

Mary Blackburn
501 Main Street Suite 2A
Monroe CT 06468

RE: East Hartford Planning & Zoning Commission Application

Dear Sir or Madam:

This letter is to notify you of the results of the Planning & Zoning Commission meeting on March 8, 2023 regarding the following: ZONING TEXT AMENDMENT: 285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Under section 605 and Section 711; Text Amendment/Application for modification to Approved Master Plan Text for Planned Development District #1 (PDD-1). Applicant: Brian Zelman

Location: 960 SILVER LN

Assessor Map and Lot: 46/22, 46/23, 46/113, 46/107, 46/129, 46/130

The Commission voted to **approve** the above Application. This approval is granted subject to conformance with the application materials and submitted plans (as may be modified by the Commission and this approval) and the following:

Conditions/Modifications:

Approved Plans:

Please contact me at shnatuk@easthartfordct.gov if you should have any questions.

Steve Hnatuk, CZEO, East Hartford Town Planner

MICHAEL P. WALSH
MAYOR

TOWN OF EAST HARTFORD
740 Main Street, East Hartford, CT 06108

(860) 291-7300

easthartfordct.gov

DEVELOPMENT
DEPARTMENT

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

June 9, 2022

Jasko Zelman 1, LLC
66 West Main St, Suite 102
New Britain CT 06051

Attn: Brian Zelman

RE: Town Planning and Zoning Commission
205, 291 Forbes St & 936, 942, 944, 960 Silver Lane – Zoning Map Amendment
East Hartford CT

Dear Sir or Madam:

This letter is to notify you of the results of the Town Planning and Zoning Commission meeting on June 8, 2022, 2022 regarding the following:

ZONING MAP AMENDMENT: 285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Under section 605; Zoning Map amendment from Business 6 (B-6) to proposed Planned Development District 1 (PDD1). Master Plan application for the development of a 26-acre group of parcels located in the Design Development District to include an 8 building multi-family housing complex and associated improvements.
Assessors Map/Lot: 46/22, 46/23, 46/113, 46/107, 46/129, 46/130
Applicant: Jasko Zelman 1, LLC

The Commission voted to **approve** the above Zoning Map Amendment application as presented. The effective date is 15 days after date of publication of decision.

Please contact me at 860-291-7301 if you should have any questions.

Sincerely,

Steve Hnatuk
Town Planner

xc: Bruce Cohen, Interim Director of Permits and Inspections
Eileen Buckheit, Director of Development
File

PDD#1 APPROVED ZONING TEXT

PLANNED DEVELOPMENT DISTRICT #1 (PDD#1)
STATEMENTS OF USES AND STANDARDS
FOR
285 & 291 FORBES STREET & 936, 942, 944 & 960 SILVER LANE
EAST HARTFORD, CONNECTICUT

1. GENERAL:
   This Planned Development District is established in accordance with the provisions of Section ~~603~~ 5.7 of the Town of East Hartford Zoning Regulations.

2. PURPOSE AND INTENT:
   The purpose and intent of the Planned Development District #1 (PDD1) is to permit the adaptive reuse of underutilized properties in the Silver Lane corridor to eliminate deteriorating conditions and promote the economic development of the community. Specifically, the intent is to permit a multi-family residential housing community as described in these PDD1 regulations.

3. PERMITTED USES AND ACCESSORY USES:
   a. Principal Use.
      Multi-Family Residential consisting of four hundred ~~seventy-seven (477)~~ thirty-two (432) residential dwelling units in ~~eight (8)~~ ten (10) buildings.

~~Building #1~~	~~164 Units~~	Pratt	45 Units
~~Building #2~~	~~45 Units~~	Whitney	45 Units
~~Building #3~~	~~24 Units~~	Wallace	24 Units
~~Building #4~~	~~24 Units~~	August	45 Units
~~Building #5~~	~~45 Units~~	Amelia	24 Units
~~Building #6~~	~~45 Units~~	Leon	36 Units
~~Building #7~~	~~92 Units~~	Sanford	45 Units
~~Building #8~~	~~38 Units~~	Allison	45 Units
		Otto	50 Units
		Malcolm	30 Units

   b. Accessory Uses
      Accessory uses, buildings, or structures customarily incidental and accessory to multi-family uses as permitted herein are allowed, including Trash & Maintenance Buildings, Clubhouse, Inground Pool, Shade Structures, Game Area, Fire Pit, Fenced Dog Park, Community Garden, Sign Structures, Covered Bike Racks, Outdoor Kitchen, Mail Building, Garages & Carports, Sidewalk System and Onsite Parking.

4. SIGNS
   The PDD1 shall be subject to the general provisions of the sign regulations as set forth in Section ~~310~~ 7.1 Signs of the East Hartford Zoning regulations except as noted below.
   a. Building signage will be permitted as follows:
      i. Multiple signs are allowed on each building.
      ii. The cumulative square footage of individual building signage shall not exceed 1% of the area of all building faces.
      iii. Vertical height of lettering on building signage shall not exceed four (4) feet.

5. PDD 1 DISTRICT STANDARDS:
   a. Lot Area: 25.94 Acres
   b. Yard Requirements:
      i. Front Yard: No residential structure or accessory building shall be located less than twenty (20) feet from a front lot line of the PDD.
      ii. Side & Rear Yards: No residential structure or accessory building shall be located less than half (0.5) a foot from a side or rear lot line of the PDD.
   c. Standards within the PDD 1:
      i. Maximum Number of Stories: 4
      ii. Maximum Height: 60 feet
      iii. Maximum Impervious Surface Coverage: Maximum impervious surface coverage shall not exceed seventy-five (75%) percent of the total PDD lot area.
      iv. Minimum Residential Building Separation: ~~10~~ 15 feet
      v. Maximum Building Coverage: Maximum building coverage shall not exceed sixty (60%) percent of the total PDD lot area.
      vi. Minimum Open Space: A minimum of fifteen (15%) percent of the total PDD acreage shall be set aside as open space for recreation, conservation purposes, landscaped with persistently maintained plantings, or be maintained in natural, vegetated condition.

6. PARKING:
   Off-street parking (including garages, ~~and~~ outside spaces, **and EV charging spaces**) shall be provided in accordance with the following schedule:
   a. 1.5 parking spaces per dwelling unit.

   Parking Setbacks: No parking spaces shall be located within the front yard setback.

7. LANDSCAPING:
   a. Robust landscaping will be provided throughout the development within parking areas, along driveways, in amenity areas, along the property line and near pedestrian paths and will include planted berms, rain gardens and buffers.
   b. The PDD1 shall be subject to the general provisions of the landscaping regulations as set forth in Section ~~327~~ 7.3 Landscaping, and Screening Areas – General Requirements of the East Hartford Zoning regulations except as noted below.
      i. PDD1 will be exempt from Section ~~200-1 d~~ 7.3 E.1 and ~~306-1 a~~ 7.3 E.2 of the East Hartford Zoning regulations and the East Hartford Design Manual.

8. UTILITIES:
   All utility wiring, including but not limited to electric, telephone and cable television services, shall be installed underground. An AED shall be served by adequate public water supply; public sanitary sewage disposal system and storm sewers. Provision for private trash removal shall be made.

9. DEVELOPMENT PLANS:
   Within this Planned Development District, construction shall be in conformance with Conceptual Development Plans titled "Overall ~~Initial Dev.~~ **Site** Plan, prepared for 936-960 Silver Lane & 285-291 Forbes Street, East Hartford, Connecticut" dated ~~04/27/22~~ 02/01/23, by Solli Engineering, LLC, as approved by the East Hartford Planning & Zoning Commission and as may be modified from time to time by subsequent Planning and Zoning approvals.

10. MODIFICATION AND AMENDMENT
    This Planned Development District, consisting of all the elements set forth above, including all the accompanying plans documents, and exhibits, may be modified upon adoption of subsequent alterations or modifications thereto by vote of the East Hartford Planning & Zoning Commission, provided that said modification does not materially alter any basic elements of the Planned Development District as approved. Any material alteration or change in the basic elements of the Planned Development District shall be made only by the East Hartford Planning & Zoning Commission following a duly noticed public hearing on material change.

MICHAEL P. WALSH
MAYOR

TOWN OF EAST HARTFORD
740 Main Street, East Hartford, CT 06108

(860) 291-7300

easthartfordct.gov

DEVELOPMENT
DEPARTMENT

SENT CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 23, 2022

Owner:
Town of East Hartford
740 Main Street
East Hartford, CT 06108

Applicant:
Jasko Zelman 1, LLC
66 West Main Street
New Britain, CT 06051

RE: East Hartford Planning and Zoning Commission
285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Site Plan, Erosion and Sedimentation Control Certificate Approval

Dear Sir or Madam:

This letter is to notify you of the results of the Town Planning and Zoning Commission meeting on September 14, 2022 on the following:

SITE PLAN APPLICATION: 285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Under section 605; Site Plan in accordance with approved Master Plan application for Planned Development District 1 (PDD1), development of a 26-acre group of parcels to include an 8 building multi-family housing complex and associated site improvements.
Assessors Map/Lot: 46/22, 46/23, 46/113, 46/107, 46/129, 46/130
Applicant: Jasko Zelman 1, LLC

The Commission voted to **approve** the above Site Plan Permit Application. This approval is granted subject to conformance with the application materials and submitted plans (as may be modified by the Commission and this approval) and the following conditions/modifications.

Conditions:

1. Final plans are to be signed and stamped (ink & impression) by the Professional Engineer, Land Surveyor or Architect licensed in the state of Connecticut who is responsible for the work and submitted to the Planning and Development Department prior to the issuance of any Building Permit.
2. The Final Plans shall be revised to dimension all aisle widths on sheet 2.13.
3. Prior to construction of the stormwater infiltration system, the applicant shall provide proof that the minimum infiltration rate as required by the CT DEEP Stormwater Quality Manual can be met or exceeded for all proposed infiltration systems.
4. The Erosion and Sedimentation financial guarantee shall be posted, for those measures in the certified soil-erosion and sedimentation control plan that are scheduled for installation, prior to commencement of any site improvements on the parcel that is subject to the certified soil- erosion and sedimentation controls.
5. The applicant shall retain an independent party to inspect E&S controls weekly or after a rainfall of greater than 1"and submit the inspection reports to the Town (including Engineering).
6. Additional Erosion & Sedimentation controls may be required by Town Engineering staff if field conditions necessitate.
7. In evaluating this application, the Planning and Zoning Commission has relied upon information provided by the applicant and, if such information subsequently proves to be false, deceptive, incomplete, and/or inaccurate, this permit shall be modified, suspended or revoked.

SOIL EROSION AND SEDIMENTATION CONTROL CERTIFICATION: 285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Under section 605; Site Plan in accordance with approved Master Plan application for Planned Development District 1 (PDD1), development of a 26-acre group of parcels to include an 8 building multi-family housing complex and associated site improvements.
Assessors Map/Lot: 46/22, 46/23, 46/113, 46/107, 46/129, 46/130
Applicant: Jasko Zelman 1, LLC

The Commission voted to **approve** the above Soil Erosion and Sedimentation Control Application with the following conditions: The required financial guarantee is **$42,500.00**. The financial guarantee shall be posted, for those measures in the certified soil-erosion and sedimentation control plan that are scheduled for installation, prior to commencement of any site improvements on the parcel that is subject to the certified soil- erosion and sedimentation controls. Approved plans shall be filed in accordance with Zoning Regulations section 217.7.

Please contact me at shnatuk@easthartfordct.gov if you should have any questions.

Sincerely,

Steve Hnatuk, Town Planner

xc: Bruce Cohen, Director of Permits and Inspections
Eileen Buckheit, Director of Development
File

TOWN OF EAST HARTFORD
PLANNING & ZONING COMMISSION
740 MAIN STREET EAST HARTFORD, CT 06108

CERTIFICATE OF ACTION

May 16, 2023

Mary Blackburn
501 Main Street Suite 2A
Monroe CT 06468

RE: East Hartford Planning & Zoning Commission Application

Dear Sir or Madam:

This letter is to notify you of the results of the Planning & Zoning Commission meeting on May 10, 2023 regarding the following: 285, 291 Forbes Street and 936, 942, 944, 960 Silver Lane – Under section 9.3 and 5.7; Site Plan Modification in accordance with approved Master Plan application for Planned Development District 1 (PDD1)

Location: 936 SILVER LN

Assessor Map and Lot: 46/22, 46/23, 46/113, 46/107, 46/129, 46/130

The Commission voted to **approve** the above Application. This approval is granted subject to conformance with the application materials and submitted plans (as may be modified by the Commission and this approval) and the following:

Conditions/Modifications:

Conditions which must be met prior to the endorsement and filing of final plans:
1. The Plans shall be revised to:
a. Incorporate the Certificate of Approval.
b. Incorporate sufficient detail to establish compliance with section 7.10 for stormwater design.

2. The final plans, with all necessary revisions listed above shall be submitted to the Town Planner and Town Engineer for a review of conformance with this approval.

Conditions which must be met prior to the Issuance of an Administrative Zoning Permit, the applicant shall complete the following:
3. File a map combining the subject parcels as identified on the approved plans with the East Hartford Town Clerk. A copy shall be provided to the Planning and Development Department.
4. File a single paper copy and PDF copy of the Final Approved plans incorporating all necessary revisions with the Town Planner to review for conformance with this approval. Plans shall be signed and stamped (ink & impression) by the Professional Engineer, Land Surveyor or Architect licensed in the State of Connecticut who is responsible for the work.

Prior to commencement of site activities, the applicant shall complete the following:
5. File an Erosion and Sedimentation Control financial guarantee with the Town, which includes at a minimum, those measures included within the soil-erosion and sedimentation control plan.
6. The applicant shall retain an independent party to inspect E&S controls weekly or after a rainfall of greater than 1"and submit the inspection reports to the Town Development and Engineering Department.
7. Certify to the satisfaction of the Town that all erosion and sedimentation controls measures have been installed per the approved plan.

Conditions which must be met prior to the issuance of a Final Certificate Zoning Compliance:
8. A final A-2 grade as-built survey depicting all structures, parking lots, pins and drainage with spot elevations shall be provided. Performance bonding may be allowed by the Town for outstanding site improvements should a Certificate of Zoning Compliance be requested prior to site completion.

General Conditions:
9. In evaluating this application, the Planning and Zoning Commission has relied upon information provided by the applicant and, if such information subsequently proves to be false, deceptive, incomplete, and/or inaccurate, this permit may be modified, suspended or revoked.
10. Additional Erosion & Sedimentation controls may be required by Town Engineering staff if field conditions necessitate.

According to Connecticut General Statute Chapter 124 Section 8.3.(j) "In the case of any site plan for a project consisting of four hundred or more dwelling units approved on or after June 19, 1987, all work in connection with such site plan shall be completed within ten years after the approval of the plan."

Approved Plans:

1. "Concourse Park Architectural Plan Set" dated February 1st, 2023
2. "Engineering Report" revised by Solli Engineering April 12th, 2023
3. Bicycle Storage Specs, dated May 3rd, 20230
4. Site Plan for 936-960 Silver Lane & 285-291 Forbes Street, revised May 3rd, 2023
5. Impervious Surface Overlay Exhibit, dated May 3rd, 2023
6. Light Spec Sheets, dated May 3rd, 2023

Please contact me at shnatuk@easthartfordct.gov if you should have any questions.

Steve Hnatuk, CZEO, East Hartford Town Planner

Rev. #: Date Description

SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-0695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

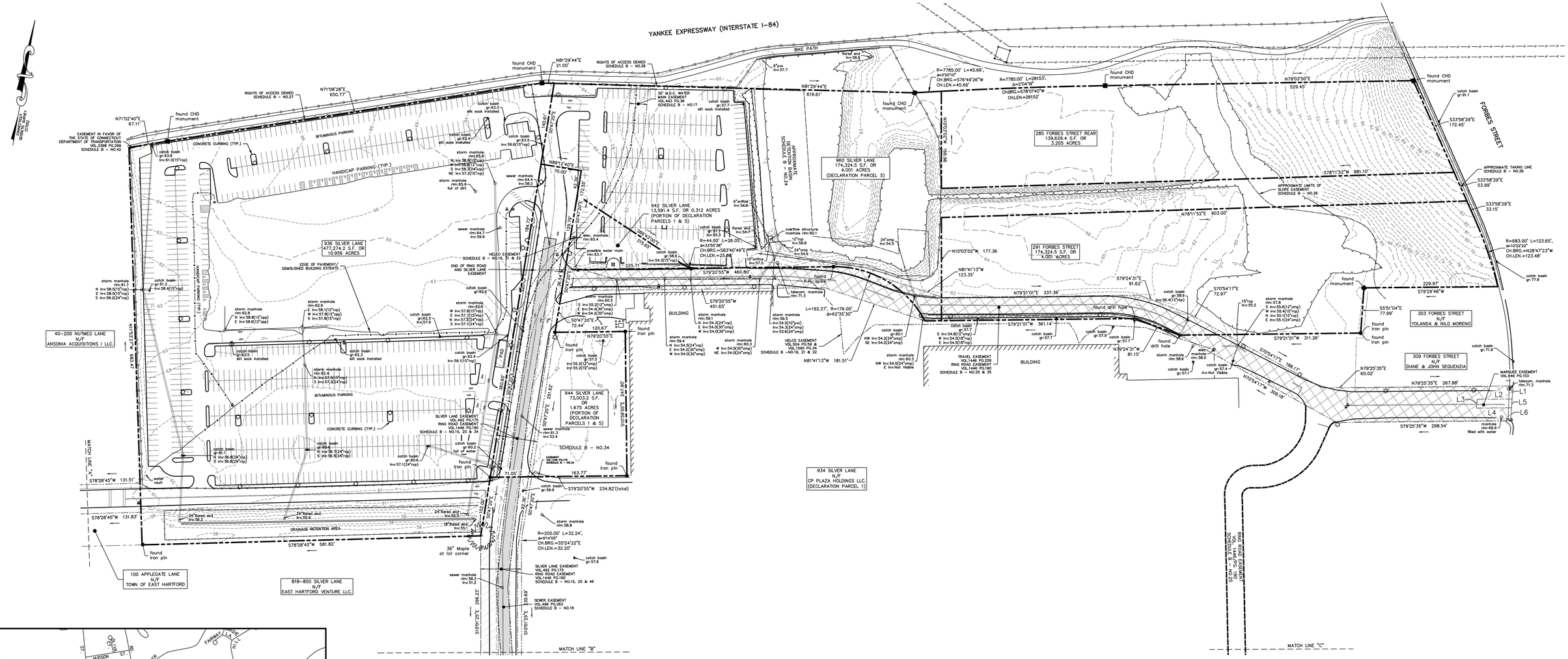
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

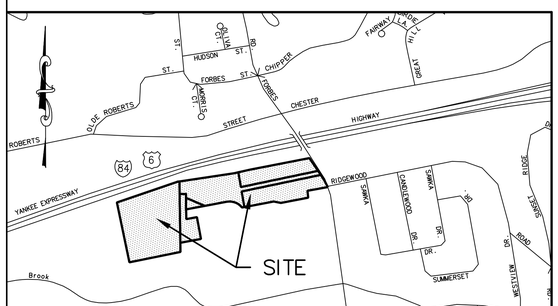
Sheet Title: APPROVALS & DOCUMENTATION

Sheet #: 0.11

PRELIMINARY
NOT FOR CONSTRUCTION

Jul 01, 2025 – 10:07am – cheadly – X:\SE Files\Project Data\2020\2010501 – Silver Lane – East Hartford, CT\Cadd Data\CRDA CDs\2010501-0.11.dwg





LOCATION MAP

SCALE: 1"=800'

LEGEND

- C.H.D. — Conn. Hwy. Dept. Monument
- Mon. — Monument
- Iron Pin to be Set
- Conc. Monument to be Set
- I. Pipe — Iron Pipe
- Iron Pin
- D.H. — Drill Hole
- Fnd. — Found
- N/F — Now or Formerly
- Property Line
- Property Line (adjoining)
- Building Setback Line
- Easement Line
- Edge of water
- FEMA Flood Zone
- BFE — Base Flood Elevation
- x200.0 — Existing Spot Elevation
- Building (existing)
- Gas gate valve
- Water gate valve
- Meter meter
- hyd — Hydrant
- W — Water main (existing)
- G — Gas Main (existing)
- SD — Underground Storm Drain Pipes
- S — Sanitary Sewer Main (existing)
- E — Electrical Line (existing)
- Overhead Wires
- S — Sanitary Manhole
- D — Drain Manhole
- E — Electric Manhole
- T — Telecom Manhole
- U — Unknown Manhole
- Chain Link or Split Rail Fence
- Metal/Wire Fence
- Wooden or Vinyl Fence
- Utility Pole with lamp
- Utility Pole
- Evergreen Tree
- Deciduous Tree
- Swamp or Wetlands
- Tree Line
- Watercourse
- 123 — Existing Contours
- R.C.P. — Reinforced Concrete Pipe
- C.M.P. — Corrugated Metal Pipe
- O.P.T. A — Percolation Test Location
- P.T. 100 — Deep Test Pit Location
- Stone Retaining Wall
- Retaining Wall
- Stone Wall
- Wetland Limit
- WF — Wetland Flag Number
- Wetland Setback
- Benchmark
- Monitoring Well
- INV: — Invert Elevation of Pipe
- Existing Catch Basin/Pipe

SCHEDULE B EXCEPTIONS

1. (NOT APPLICABLE) ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I–REQUIREMENTS ARE MET.
2. (NOT APPLICABLE) RIGHTS OR CLAIMS OF PERSONS IN POSSESSION, OTHER THAN THE INSURED, WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS.
3. (NOT APPLICABLE) ANY EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS, TITLE TO FILLED LANDS (IF ANY) AND ALL OTHER FACTS WHICH AN ACCURATE SURVEY AND INSPECTION OF THE LAND WOULD DISCLOSE AND WHICH ARE NOT SHOWN BY THE PUBLIC RECORDS. WHEN THE POLICY ISSUED IS ON A FORM HAVING A REVISION DATE OF 6–17–06, THIS EXCEPTION ALSO REFERS TO ALL THOSE MATTERS DESCRIBED IN COVERED RISK 2(C).
4. (NOT APPLICABLE) UNRECORDED MECHANICS LIENS.
5. (NOT APPLICABLE) REAL ESTATE TAXES, MUNICIPAL ASSESSMENTS AND PRIVATE ASSOCIATION ASSESSMENTS, IF ANY, INCLUDING LIENS AND ASSESSMENTS, NOT YET DUE AND PAYABLE.
6. (NOT APPLICABLE) SEWER AND WATER USE CHARGES AS MAY BE DUE AND PAYABLE.
7. (NOT APPLICABLE) REAL ESTATE TAXES TO THE TOWN OF EAST HARTFORD ON THE LIST OF OCTOBER 1, 2023, AND THEREAFTER. NOTE: THE PROPERTY IS REPORTED AS TAX EXEMPT. TAX INFORMATION ATTACHED.
8. (MAY AFFECT SURVEY AREA, NO MATHEMATICAL DATA TO PLOT) WATER PIPE LINE EASEMENT AS SET FORTH IN A GRANT FROM LEONARD H. AND FRANK H. FORBES TO THE EAST HARTFORD FIRE DISTRICT, DATED MARCH 14, 1911 AND RECORDED DECEMBER 6, 1911 IN VOLUME 51, PAGE 415.
9. INTENTIONALLY DELETED.
10. INTENTIONALLY DELETED.
11. (DOES NOT AFFECT SURVEY AREA) PERMANENT RIGHT TO DISCHARGE SURFACE WATER IN FAVOR OF THE STATE OF CONNECTICUT, AS SET FORTH IN A CERTIFICATE OF TAKING FROM JAMES J. FUTTNER AND MARY M. FUTTNER, RECORDED FEBRUARY 6, 1946 IN VOLUME 146, PAGE 33; ALSO, AS SET FORTH IN A DEED FROM JAMES J. FUTTNER AND MARY M. FUTTNER, DATED APRIL 10, 1946 AND RECORDED APRIL 18, 1946 IN VOLUME 146, PAGE 228. (SEE MAPS NO. 10 AND 11)
12. (DOES NOT AFFECT SURVEY AREA, NOT SHOWN HEREON) WAIVER OF RIGHTS OF ACCESS IN FAVOR OF THE STATE OF CONNECTICUT, AS SET FORTH IN A CERTIFICATE OF TAKING FROM JAMES J. FUTTNER AND MARY M. FUTTNER, DATED OCTOBER 23, 1942 AND RECORDED OCTOBER 26, 1942 IN VOLUME 131, PAGE 499; ALSO AS SET FORTH IN A WARRANTEE DEED FROM JAMES J. FUTTNER AND MARY M. FUTTNER, DATED APRIL 10, 1946 AND RECORDED IN VOLUME 146, PAGE 227.
13. (DOES NOT AFFECT SURVEY AREA, SHOWN HEREON LOCATED ON DECLARATION PARCEL NO. 4) CERTIFICATE OF CERTAIN RIGHTS ACQUIRED FOR PROPOSED SEWER IN FAVOR OF THE METROPOLITAN DISTRICT, DATED AND RECORDED JULY 21, 1958 IN VOLUME 283, PAGE 339.
14. (AFFECTS SURVEY AREA, NOT SURVEY RELATED) AGREEMENT BETWEEN ABRAHAM D. GOSMAN AND NATIONAL AMUSEMENTS, INC., DATED FEBRUARY 1, 1972 AND RECORDED MAY 5, 1972 IN VOLUME 482, PAGE 20; WHICH AGREEMENT WAS SUPPLEMENTED BY AGREEMENT DATED AND RECORDED SEPTEMBER 7, 1972 IN VOLUME 492, PAGE 188. AS AFFECTED BY AGREEMENT DATED JUNE 9, 1977 AND RECORDED IN VOLUME 646 AT PAGE 28 OF THE EAST HARTFORD LAND RECORDS, BY AGREEMENT DATED OCTOBER 24, 1977 AND RECORDED IN RELEASE 646 AT PAGE 50 OF THE SAID LAND RECORDS, SEE DEED RELEASING RIGHT–OF–WAY EASEMENT (FORBES STREET RIGHT–OF–WAY EASEMENT SOUTH) FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 55 OF THE EAST HARTFORD LAND RECORDS AND DEED RELEASING EASEMENT FOR MARQUEE (SILVER LANE) FROM NATIONAL AMUSEMENTS, INC TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 58 OF THE SAID LAND RECORDS, THE DESCRIPTIONS OF CERTAIN OF SAID EASEMENTS WERE CORRECTED BY AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 103 OF SAID EAST HARTFORD LAND RECORDS, AND BY RELEASE OF PAYMENT OBLIGATION DATED MAY 12, 1993 AND RECORDED IN VOLUME 1617 AT PAGE 208 OF THE SAID LAND RECORDS.
15. (PLOTTED) EASEMENTS AND AGREEMENT CONTAINED IN A WARRANTY DEED FROM ABRAHAM D. GOSMAN TO NATIONAL AMUSEMENTS, INC., DATED AND RECORDED SEPTEMBER 7, 1972 IN VOLUME 492, PAGE 175; AS AFFECTED BY AGREEMENT DATED JUNE 9, 1977 AND RECORDED IN VOLUME 646 AT PAGE 28 OF THE EAST HARTFORD LAND RECORDS, BY AGREEMENT DATED OCTOBER 24, 1977 AND RECORDED IN VOLUME 646 AT PAGE 50 OF THE SAID LAND RECORDS, AND BY RELEASE OF PAYMENT OBLIGATION DATED MAY 12, 1993 AND RECORDED IN VOLUME 1617 AT PAGE 208 OF THE SAID LAND RECORDS; AS CORRECTED BY AGREEMENT BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 103. NOTE: THE EASEMENT IDENTIFIED AS "FORBES STREET RIGHT–OF–WAY EASEMENT SOUTH" WAS RELEASED BY DEED RELEASING RIGHT–OF–WAY EASEMENT FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATION, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 55; SEE ALSO DEED RELEASING EASEMENT FOR MARQUEE FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 58.
16. (NOT SURVEY RELATED) COVENANT NOT TO COMPETE FROM ABRAHAM D. GOSMAN TO NATIONAL AMUSEMENTS, INC., DATED AND RECORDED SEPTEMBER 7, 1972 IN VOLUME 492, PAGE 186. (AS TO 936 SILVER LANE).
17. (PLOTTED) WATER MAIN EASEMENT FROM ABRAHAM D. GOSMAN TO THE METROPOLITAN DISTRICT, DATED AUGUST 24, 1972 AND RECORDED SEPTEMBER 14, 1972 IN VOLUME 493, PAGE 36. (AS TO 942, 944 AND 960 SILVER LANE) SEE MAP 510.
18. (PLOTTED) SEWER EASEMENT IN FAVOR OF THE METROPOLITAN DISTRICT, DATED OCTOBER 12, 1972 AND RECORDED OCTOBER 25, 1972 IN VOLUME 496, PAGE 262. (AS TO 944 SILVER LANE)
19. (PLOTTED) EASEMENT IN FAVOR OF THE HARTFORD ELECTRIC LIGHT COMPANY, DATED JANUARY 24, 1973 AND RECORDED JANUARY 30, 1973 IN VOLUME 504, PAGE 59, WHICH EASEMENT WAS AMENDED BY AMENDMENT TO EASEMENTS RECORDED OCTOBER 30, 1995 IN VOLUME 1590, PAGE 34. (AS TO 936 SILVER LANE AND 944 SILVER LANE)
20. (DOES NOT AFFECT SURVEY AREA, NOT PLOTTED) TERMS AND PROVISIONS OF AN AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND THE METROPOLITAN DISTRICT REGARDING SANITARY SEWER CONNECTION CHARGES), DATED JULY 25, 1975 AND RECORDED SEPTEMBER 4, 1975 IN VOLUME 576, PAGE 81.
21. (PLOTTED) ELECTRICAL DISTRIBUTION EASEMENT FROM ARGOS ASSOCIATES TO THE HARTFORD ELECTRIC LIGHT COMPANY, DATED DECEMBER 11, 1974 AND RECORDED FEBRUARY 4, 1975 IN VOLUME 560, PAGE 253; WHICH EASEMENT WAS AMENDED BY AMENDMENT TO EASEMENTS RECORDED OCTOBER 30, 1995 IN VOLUME 1590, PAGE 34. (AS TO 960 SILVER LANE)
22. (PLOTTED) ELECTRICAL DISTRIBUTION EASEMENT FROM ARGOS ASSOCIATES TO THE HARTFORD ELECTRIC LIGHT COMPANY, DATED DECEMBER 2, 1975 AND RECORDED OCTOBER 30, 1975 IN VOLUME 580, PAGE 325; WHICH EASEMENT WAS AMENDED BY AMENDMENT TO EASEMENTS RECORDED OCTOBER 30, 1995 IN VOLUME 1590, PAGE 34. (AS TO 960 SILVER LANE)
23. (NOT SURVEY RELATED) TERMS AND PROVISIONS OF AN AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND THE STATE OF CONNECTICUT, DATED JANUARY 12, 1976 AND RECORDED MARCH 8, 1976 IN VOLUME 590, PAGE 148.
24. (PLOTTED) TERMS AND PROVISIONS OF AN AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED JUNE 9, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 28; WHICH AGREEMENT WAS AMENDED BY AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 50; SEE DEED RELEASING RIGHT–OF–WAY EASEMENT (FORBES STREET RIGHT–OF–WAY EASEMENT SOUTH) FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 55 OF THE EAST HARTFORD LAND RECORDS AND DEED RELEASING EASEMENT FOR MARQUEE (SILVER LANE) FROM NATIONAL AMUSEMENTS, INC TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 58 OF THE SAID LAND RECORDS. THE DESCRIPTIONS OF CERTAIN OF SAID EASEMENTS WERE CORRECTED BY AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 103 OF SAID EAST HARTFORD LAND RECORDS. SEE ALSO RELEASE OF PAYMENT OBLIGATION BY NATIONAL AMUSEMENTS, INC., DATED MAY 12, 1993 AND RECORDED MAY 10, 1996 IN VOLUME 1617, PAGE 208.
25. (PLOTTED) DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2,1977 IN VOLUME 646, PAGE 173; WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DRAYMORE, TRUSTEE AND DENNY'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1996 IN VOLUME 1609, PAGE 56.
26. (PLOTTED) WAIVER OF RIGHTS OF ACCESS AND FULL AND PERPETUAL EASEMENT TO SLOPE FOR THE SUPPORT OF THE HIGHWAY IN FAVOR OF THE STATE OF CONNECTICUT, AS SET FORTH IN A CERTIFICATE OF CONDEMNATION FROM ARGOS ASSOCIATES, DATED JUNE 16, 1983 AND RECORDED JUNE 28, 1983 IN VOLUME 825, PAGE 59. SEE MAPS 1227–1228.
27. (PLOTTED) WAIVER OF RIGHTS OF ACCESS IN FAVOR OF THE STATE OF CONNECTIOUT, AS SET FORTH IN A CERTIFICATE OF CONDEMNATION FROM ABRAHAM D. GOSMAN, DATED JULY 6, 1983 AND RECORDED JULY 14, 1983 IN VOLUME 827, PAGE 219. SEE MAP #1234
28. (AFFECTS SURVEY AREA, BLANKET IN NATURE) RESTRICTIONS SET FORTH IN A WARRANTY DEED FROM ARGOS ASSOCIATES TO NORTON H. GOLDSTEIN, DATED JANUARY 2, 1985 AND RECORDED JANUARY 7, 1985 IN VOLUME 896, PAGE 229; AND ALSO IN A WARRANTY DEED FROM NORTON H. GOLDSTEIN TO NATIONAL AMUSEMENTS, INC, DATED AND RECORDED JANUARY 7, 1985 IN VOLUME 896, PAGE 245; AS AFFECTED BY RELEASE OF RESTRICTIVE COVENANT BY CHARTER OAK REALTY HOLDINGS LLC IN FAVOR OF THE TOWN OF EAST HARTFORD DATED JUNE 1, 2022 AND RECORDED IN VOLUME 4116, PAGE 3. (AS TO 960 SILVER LANE)
29. (AFFECTS SURVEY AREA, NO MATHEMATICAL DATA TO PLOT) FULL AND PERPETUAL EASEMENT TO SLOPE FOR THE SUPPORT OF THE HIGHWAY IN FAVOR OF THE STATE OF CONNECTICUT, AS SET FORTH IN A CERTIFICATE OF CONDEMNATION FROM ANGELUS FUTTNER, BLACEY J. FUTTNER, RAYMOND FUTTNER, MARY N. SPOSITO, WILLIAM H. ANDRULAT AND ROSEANNE ANDRULAT, DATED JULY 27, 1983 AND RECORDED AUGUST 4, 1983 IN VOLUME 830, PAGE 74. (AS TO 960 SILVER LANE AND 291 FORBES STREET)
30. (AFFECTS SURVEY AREA, NO MATHEMATICAL DATA TO PLOT) FULL AND PERPETUAL EASEMENT TO SLOPE FOR THE SUPPORT OF THE HIGHWAY IN FAVOR OF THE STATE OF CONNECTICUT, AS SET FORTH IN A CERTIFICATE OF CONDEMNATION FROM BLACEY J. FUTTNER, ANGELUS FUTTNER, RAYMOND FUTTNER, MARY N. SPOSITO AND ROSEANNE ANDRAULT, DATED AUGUST 16, 1983 AND RECORDED AUGUST 22, 1983 IN VOLUME 833, PAGE 47. (AS TO 960 SILVER LANE AND 291 FORBES STREET)
31. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 104–B ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED MAY 21, 1991 AND RECORDED JUNE 28, 1991 IN VOLUME 1336, PAGE 33.
32. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 206 ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED APRIL 15, 1975 AND RECORDED DECEMBER 31, 1992 IN VOLUME 1426, PAGE 198.
33. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 206–A ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED DECEMBER 15, 1992 AND RECORDED DECEMBER 31, 1992 IN VOLUME 1426, PAGE 203.
34. (PLOTTED) RESERVATIONS OF EASEMENTS AS SET FORTH IN A SPECIAL WARRANTY DEED FROM JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY TO NATIONAL AMUSEMENTS, INC., DATED MAY 6, 1993 AND RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 179. (AS TO 944 SILVER LANE)
35. (PLOTTED) TERMS AND PROVISIONS OF AN EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 209. SEE ALSO AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1996 IN VOLUME 1609, PAGE 56.
36. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 104–C ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED AUGUST 16, 1994 AND RECORDED OCTOBER 21, 1994 IN VOLUME 1539, PAGE 166; AS RE–RECORDED JANUARY 25, 1995 IN VOLUME 1551, PAGE 240.
37. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 104 ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED JULY 18, 1972 AND RECORDED JANUARY 25, 1995 IN VOLUME 1551, PAGE 233.
38. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 104–A ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED OCTOBER 20, 1987 AND RECORDED JANUARY 25, 1995 IN VOLUME 1551, PAGE 237.
39. (NOT SURVEY RELATED) TERMS AND CONDITIONS OF CERTIFICATE 104–B ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION, DATED MAY 21, 1991 AND RECORDED JANUARY 25, 1995 IN VOLUME 1551, PAGE 246.
40. (NOT SURVEY RELATED) TRAFFIC INVESTIGATION REPORT ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION (S.T.C. NO. 042–9103–01) DATED MAY 21, 1991 AND RECORDED FEBRUARY 14, 1995 IN VOLUME 1554, PAGE 70.
41. (NOT SURVEY RELATED) TRAFFIC INVESTIGATION REPORT ISSUED BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION (S.T.C. NO. 042–9503–01) DATED MAY 16, 1995 AND RECORDED MAY 31, 1995 IN VOLUME 1568, PAGE 193.
42. (PLOTTED) EASEMENT TO CONSTRUCT AND MAINTAIN MULTI–USE TRAIL AS SET FORTH IN A CERTIFICATE OF CONDEMNATION BY THE STATE OF CONNECTICUT DATED JUNE 12, 2013 AND RECORDED IN VOLUME 3398, PAGE 299. (SEE MAP NO. 3185 AND 3186)
43. (NOT SURVEY RELATED) CONDITIONS SET FORTH IN CERTIFICATE OF SPECIAL PERMIT GRANTED BY THE TOWN OF EAST HARTFORD PLANNING AND ZONING COMMISSION DATED SEPTEMBER 23, 2015 AND RECORDED IN VOLUME 3581, PAGE 94. (AS TO 936 SILVER LANE)
44. (NOT SURVEY RELATED) NOTICE OF ADMINISTRATIVE DECISION NO. 891 BY THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DATED DECEMBER 21, 2022 AND RECORDED IN VOLUME 4152, PAGE 70.

THE FOLLOWING EXCEPTIONS AFFECT THE APPURTENANT EASEMENTS ONLY:

45. (DOES NOT AFFECT SURVEY AREA, NOT PLOTTED)DRAINAGE EASEMENT FROM ARGOS ASSOCIATES TO UNITED STATES POSTAL SERVICE, DATED JANUARY 14, 1976 AND RECORDED APRIL 13, 1976 IN VOLUME 592, PAGE 223.
46. (PLOTTED) RIGHT OF WAY EASEMENT AS SET FORTH IN A SPECIAL WARRANTY DEED FROM ARGOS ASSOCIATES TO RED LOBSTER INNS OF AMERICA, DATED JANUARY 24, 1977 AND RECORDED JANUARY 26, 1977 IN VOLUME 619, PAGE 221.
47. (PLOTTED) DEED CONVEYING EASEMENT FOR MARQUEE FROM ARGOS ASSOCIATES TO NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 61.
48. (PLOTTED) AGREEMENT REGARDING EASEMENT FOR GRADING AND SLOPING BETWEEN JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY AND NORTON H. GOLDSTEIN, DATED JUNE 2, 1980 AND RECORDED JULY 18, 1980 IN VOLUME 730, PAGE 333.

PRELIMINARY NOT FOR CONSTRUCTION

No.	Date	REVISION DESCRIPTION
4.	5/22/2025	ADDED LIMIT OF SLOPE EASEMENT
3.	5/21/2025	REVISIONS TO SCHEDULE B EXCEPTIONS
2.	4/14/2025	REVISED ACCESS DENIED LABELS
1.	4/11/2025	ADDED ACCESS DENIED LABELS

SCALE: 1"=80'

0 40 80 160 240

STATE OF CONNECTICUT · BRYAN C. NESTERIAK · #23556 · LICENSED LAND SURVEYOR

ACCURATE LAND SURVEYING, LLC
15 Research Drive
Wodderidge, CT 06525
Tel: 203.881.8145
501 Main Street
Monroe, CT 06468
Tel: 203.880.5455

SURVEYOR'S CERTIFICATION

TO:
- USC 946 SILVER LANE LLC, ITS SUCCESSORS AND/OR ASSIGNS, AS THEIR INTEREST MAY APPEAR
- CATIC
- JASKO ZELMAN 1, LLC
- JZ OTTO LLC
- JZ FORBES LLC
- CONCOURSE PARK HOLDINGS LLC
- CONCOURSE MEZZ LLC
- UPDIKE, KELLY & SPELLACY, P.C.
- THE TOWN OF EAST HARTFORD

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2,3,4,5,8,13,18 AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 4/20/2022

DATE OF MAP: 3/25/2025

BRYAN C. NESTERIAK, PE, LS 23556

ALTA/NSPS LAND TITLE SURVEY

OF

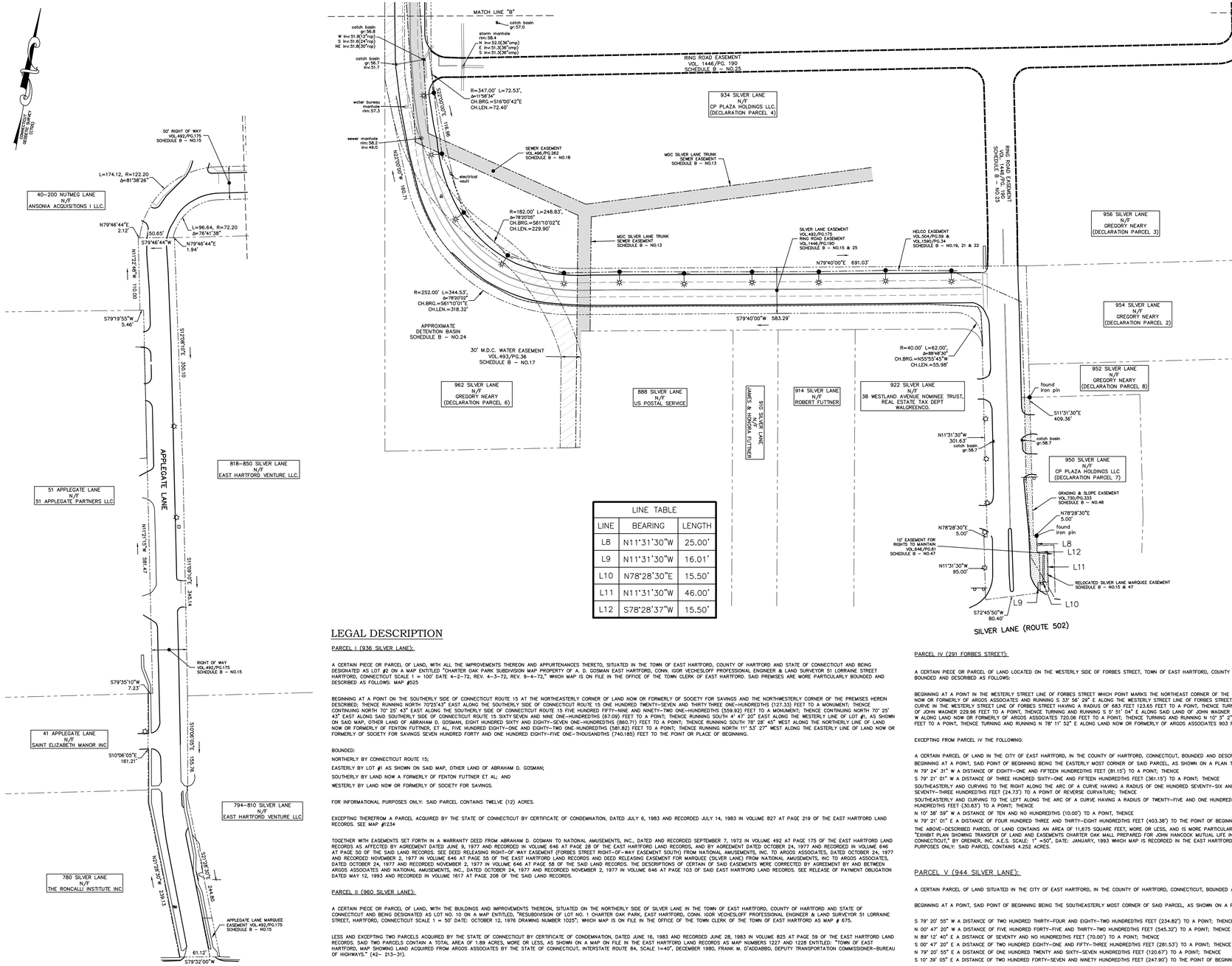
936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET EAST HARTFORD, CONNECTICUT

PREPARED FOR
USC SILVER LAKE LLC, ISAOA/ATIMA

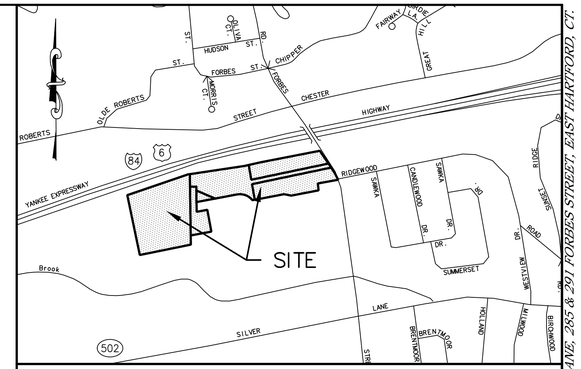
THIS DOCUMENT, THE IDEAS, AND DESIGN INCORPORATED HEREON IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE PROPERTY OF ACCURATE LAND SURVEYING, LLC. AND IS NOT TO BE REPRODUCED OR USED IN WHOLE OR IN PART FOR ANY EXTENSION OF THIS PROJECT OR FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF ACCURATE LAND SURVEYING, LLC. THIS DRAWING IS NOT A FINAL AND VAUID DOCUMENT WITHOUT A SIGNATURE OF THE CERTIFYING PROFESSIONAL AND A LIVE WET STAMP OR EMBOSSED SEAL.

Date	3/25/2025
Scale	1"=80'
Job No.	1155
Drawing No.	1 of 2

ALTA/NSPS LAND TITLE SURVEY, 936, 942, 944 & 960 SILVER LANE, 285 & 291 FORBES STREET, EAST HARTFORD, CT.



LINE TABLE		
LINE	BEARING	LENGTH
L8	N11°31'30"W	25.00'
L9	N11°31'30"W	16.01'
L10	N78°28'30"E	15.50'
L11	N11°31'30"W	46.00'
L12	S78°28'37"W	15.50'



LOCATION MAP
SCALE: 1"=800'

GENERAL SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATION OF CONNECTICUT STATE AGENCIES, SECTION 20–300b–1 THROUGH 20–300b–20, EFFECTIVE OCTOBER 26, 2018, AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
2. THE BOUNDARY DETERMINATION SHOWN HEREON IS CONSIDERED A RESURVEY.
3. THE SURVEY CONFORMS TO HORIZONTAL CLASS A–2 ACCURACY STANDARDS. VERTICAL DATA CONFORMS TO CLASS V–2 STANDARDS. TOPOGRAPHIC DATA CONFORMS TO CLASS T–2 STANDARDS. CONTOURS AND ELEVATIONS REFER TO NAVD 88 DATUM.
4. BEARINGS, COORDINATES AND ELEVATIONS ARE DERIVED FROM THE CONNECTICUT GEODETIC SURVEY (CTGS) VIA GPS TECHNOLOGY AND CONVENTIONAL SURVEY METHODS.
5. THIS IS AN ALTA/NSPS LAND TITLE SURVEY. THIS SURVEY AND ITS CONTENTS ARE BASED ON THE PROVIDED TITLE REPORT:
   CONNECTICUT ATTORNEYS TITLE INSURANCE COMPANY, COMMITMENT NUMBER NCSH 23–1954, DATE: 1/14/2025.
6. PROPERTIES ARE ALSO KNOWN AS CITY OF EAST HARTFORD TAX LOTS 22, 23, 107, 113, 129 & 130 ON ASSESSORS MAP 46.
7. TOTAL AREA = 1,130,229.8 SQ.FT. OR 25.946 ACRES
   936 SILVER LANE = 477,274.2 SQ.FT. OR 10.956 ACRES
   942 SILVER LANE = 13,591.4 SQ.FT. OR 0.312 ACRES
   944 SILVER LANE = 73,003.2 SQ.FT. OR 1.675 ACRES
   960 SILVER LANE = 252,407.1 SQ.FT. OR 5.794 ACRES
   285 FORBES STREET = 139,629.4 SQ.FT. OR 3.205 ACRES
   291 FORBES STREET = 174,324.5 SQ.FT. OR 4.001 ACRES
8. PROPERTIES LIE IN ZONING DISTRICT "B–6".
9. PROPERTIES DO NOT LIE WITHIN A FLOOD HAZARD ZONE AS DETERMINED BY FEMA.
10. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND OTHER THAN DEPICTED HEREON, IF ANY, IS UNKNOWN.
11. RELEASE OF RESTRICTIVE COVENANT WAS FILED ON JULY 14, 2022 IN THE EAST HARTFORD CLERK'S OFFICE, SEE DEED REFERENCE 11.
12. LOAN AMOUNT $57,000,000.

MAP REFERENCES

1. PLAN ENTITLED "PROPERTY SURVEY MAP PREPARED FOR THE TOWN OF EAST HARTFORD 936 SILVER LANE EAST HARTFORD, CONNECTICUT", SCALE 1"=80'. DATED: 8/23/2018. LAST REVISED: 1/2/2019. BY CME ASSOCIATES, INC.

DEED REFERENCES

1. DEED VOLUME 492 PAGE 175, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
2. DEED VOLUME 493 PAGE 36, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
3. DEED VOLUME 496 PAGE 262, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
4. DEED VOLUME 504 PAGE 59, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
5. DEED VOLUME 646 PAGE 61, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
6. DEED VOLUME 646 PAGE 103, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
7. DEED VOLUME 1446 PAGE 209, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
8. DEED VOLUME 1446 PAGE 190, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
9. DEED VOLUME 1590 PAGE 34, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
10. DEED VOLUME 3398 PAGE 299, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
11. DEED VOLUME 4116 PAGE 3, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.

LEGAL DESCRIPTION

PARCEL I (936 SILVER LANE):

A CERTAIN PIECE OR PARCEL OF LAND, WITH ALL THE IMPROVEMENTS THEREON AND APPURTENANCES THERETO, SITUATED IN THE TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND BEING DESIGNATED AS LOT #2 ON A MAP ENTITLED "CHARTER OAK PARK SUBDIVISION MAP PROPERTY OF A. D. GOSMAN EAST HARTFORD, CONN. IGOR VECHESLOFF PROFESSIONAL ENGINEER & LAND SURVEYOR 51 LORRAINE STREET HARTFORD, CONNECTICUT SCALE 1 = 100' DATE 4–2–72, REV. 4–3–72, REV. 9–4–72," WHICH MAP IS ON FILE IN THE OFFICE OF THE TOWN CLERK OF EAST HARTFORD. SAID PREMISES ARE MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS: MAP #525

BEGINNING AT A POINT ON THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS AND THE NORTHWESTERLY CORNER OF THE PREMISES HEREIN DESCRIBED; THENCE RUNNING NORTH 70°25'43" EAST ALONG THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 ONE HUNDRED TWENTY–SEVEN AND THIRTY THREE ONE–HUNDREDTHS (127.33) FEET TO A MONUMENT; THENCE CONTINUING NORTH 70° 25' 43" EAST ALONG THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 FIVE HUNDRED FIFTY–NINE AND NINETY–TWO ONE–HUNDREDTHS (559.92) FEET TO A MONUMENT; THENCE CONTINUING NORTH 70° 25' 43" EAST ALONG SAID SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 SIXTY SEVEN AND NINE ONE–HUNDREDTHS (67.09) FEET TO A POINT; THENCE RUNNING SOUTH 4° 47' 20" EAST ALONG THE WESTERLY LINE OF LOT #1, AS SHOWN ON SAID MAP, OTHER LAND OF ABRAHAM D. GOSMAN, EIGHT HUNDRED SIXTY AND EIGHTY–SEVEN ONE–HUNDREDTHS (860.71) FEET TO A POINT; THENCE RUNNING SOUTH 78° 28' 45" WEST ALONG THE NORTHERLY LINE OF LAND NOW OR FORMERLY OF FENTON FUTTNER, ET AL, FIVE HUNDRED EIGHTY–ONE AND EIGHTY–TWO ONE–HUNDREDTHS (581.82) FEET TO A POINT; THENCE RUNNING NORTH 11° 53' 27" WEST ALONG THE EASTERLY LINE OF LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS SEVEN HUNDRED FORTY AND ONE HUNDRED EIGHTY–FIVE ONE–THOUSANDTHS (740.185) FEET TO THE POINT OR PLACE OF BEGINNING.

BOUNDED:

NORTHERLY BY CONNECTICUT ROUTE 15;

EASTERLY BY LOT #1 AS SHOWN ON SAID MAP, OTHER LAND OF ABRAHAM D. GOSMAN;

SOUTHERLY BY LAND NOW A FORMERLY OF FENTON FUTTNER ET AL; AND

WESTERLY BY LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS.

FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS TWELVE (12) ACRES.

EXCEPTING THEREFROM A PARCEL ACQUIRED BY THE STATE OF CONNECTICUT BY CERTIFICATE OF CONDEMNATION, DATED JULY 6, 1983 AND RECORDED JULY 14, 1983 IN VOLUME 827 AT PAGE 219 OF THE EAST HARTFORD LAND RECORDS. SEE MAP #1234

TOGETHER WITH EASEMENTS SET FORTH IN A WARRANTY DEED FROM ABRAHAM D. GOSMAN TO NATIONAL AMUSEMENTS, INC., DATED AND RECORDED SEPTEMBER 7, 1972 IN VOLUME 492 AT PAGE 175 OF THE EAST HARTFORD LAND RECORDS AS AFFECTED BY AGREEMENT DATED JUNE 9, 1977 AND RECORDED IN VOLUME 646 AT PAGE 28 OF THE EAST HARTFORD LAND RECORDS, AND BY AGREEMENT DATED OCTOBER 24, 1977 AND RECORDED IN VOLUME 646 AT PAGE 50 OF THE SAID LAND RECORDS. SEE DEED RELEASING RIGHT–OF WAY EASEMENT (FORBES STREET RIGHT–OF–WAY EASEMENT SOUTH) FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 55 OF THE EAST HARTFORD LAND RECORDS AND DEED RELEASING EASEMENT FOR MARQUEE (SILVER LANE) FROM NATIONAL AMUSEMENTS, INC TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 58 OF THE SAID LAND RECORDS. THE DESCRIPTIONS OF CERTAIN OF SAID EASEMENTS WERE CORRECTED BY AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 103 OF SAID EAST HARTFORD LAND RECORDS. SEE RELEASE OF PAYMENT OBLIGATION DATED MAY 12, 1993 AND RECORDED IN VOLUME 1617 AT PAGE 208 OF THE SAID LAND RECORDS.

PARCEL II (960 SILVER LANE):

A CERTAIN PIECE OR PARCEL OF LAND, WITH THE BUILDINGS AND IMPROVEMENTS THEREON, SITUATED ON THE NORTHERLY SIDE OF SILVER LANE IN THE TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND BEING DESIGNATED AS LOT NO. 10 ON A MAP ENTITLED, "RESUBDIVISION OF LOT NO. 1 CHARTER OAK PARK, EAST HARTFORD, CONN. IGOR VECHESLOFF PROFESSIONAL ENGINEER & LAND SURVEYOR 51 LORRAINE STREET, HARTFORD, CONNECTICUT SCALE 1 = 50' DATE: OCTOBER 12, 1976 DRAWING NUMBER 1025"; WHICH MAP IS ON FILE IN THE OFFICE OF THE TOWN CLERK OF THE TOWN OF EAST HARTFORD AS MAP # 675.

LESS AND EXCEPTING TWO PARCELS ACQUIRED BY THE STATE OF CONNECTICUT BY CERTIFICATE OF CONDEMNATION, DATED JUNE 16, 1983 AND RECORDED JUNE 28, 1983 IN VOLUME 825 AT PAGE 59 OF THE EAST HARTFORD LAND RECORDS. SAID TWO PARCELS CONTAIN A TOTAL AREA OF 1.89 ACRES, MORE OR LESS, AS SHOWN ON A MAP ON FILE IN THE EAST HARTFORD LAND RECORDS AS MAP NUMBERS 1227 AND 1228 ENTITLED: "TOWN OF EAST HARTFORD, MAP SHOWING LAND ACQUIRED FROM ARGOS ASSOCIATES BY THE STATE OF CONNECTICUT, INTERSTATE ROUTE 84, SCALE 1=40", DECEMBER 1980, FRANK M. D'ADDABBO, DEPUTY TRANSPORTATION COMMISSIONER–BUREAU OF HIGHWAYS." (42– 213–31).

TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 173, WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DRAYMORE, TRUSTEE AND DENNY'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1996 IN VOLUME 1609, PAGE 56. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1446 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

PARCEL III (285 FORBES STREET):

A CERTAIN PIECE OR PARCEL OF LAND LOCATED ON THE WESTERLY SIDE OF FORBES STREET, TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY STREET LINE OF FORBES STREET WHICH POINT MARKS THE SOUTHEAST CORNER OF THE HEREIN–DESCRIBED PREMISES AND THE NORTHEAST CORNER OF LAND NOW OR FORMERLY OF ARGOS ASSOCIATES AND RUNNING S 78° 11' 52" W 881.10 FEET TO A POINT; THENCE TURNING AND RUNNING N 4° 47' 20" E ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 166.845 FEET TO A POINT; THENCE TURNING AND RUNNING ALONG THE ARC OF A CURVE HAVING A RADIUS

7,785 FEET ALONG LANDS NOW OR FORMERLY OF THE STATE OF CONNECTICUT 281.41 FEET TO A POINT; THENCE RUNNING N 79° 3' 45" E ALONG LAND NOW OR FORMERLY OF THE STATE OF CONNECTICUT 529.62 FEET TO POINT; THENCE TURNING AND RUNNING S 33° 58' 29" E ALONG THE WESTERLY STREET LINE OF FORBES STREET 172.36 FEET TO THE POINT OR PLACE OF BEGINNING.

FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS 3.203 ACRES.

PARCEL IV (291 FORBES STREET):

A CERTAIN PIECE OR PARCEL OF LAND LOCATED ON THE WESTERLY SIDE OF FORBES STREET, TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY STREET LINE OF FORBES STREET WHICH POINT MARKS THE NORTHEAST CORNER OF THE HEREIN–DESCRIBED PREMISES AND THE SOUTHEAST CORNER OF LAND NOW OR FORMERLY OF ARGOS ASSOCIATES AND RUNNING S 33° 56' 29" E ALONG THE WESTERLY STREET LINE OF FORBES STREET 33.15 FEET TO A POINT; THENCE RUNNING ALONG THE ARC OF A CURVE IN THE WESTERLY STREET LINE OF FORBES STREET HAVING A RADIUS OF 683 FEET 123.65 FEET TO A POINT, THENCE TURNING AND RUNNING S 79° 29' 48" W ALONG LANDS NOW OR FORMERLY OF JOHN WAGNER 229.96 FEET TO A POINT, THENCE TURNING AND RUNNING S 5° 51' 04" E ALONG SAID LAND OF JOHN WAGNER 77.99 FEET TO A POINT; THENCE TURNING AND RUNNING S 79° 21' 01" W ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 720.06 FEET TO A POINT; THENCE TURNING AND RUNNING N 10° 3' 2" W ALONG LANDS NOW OR FORMERLY OF ARGOS ASSOCIATES 206.76 FEET TO A POINT, THENCE TURNING AND RUNNING N 78° 11' 52" E ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 903 FEET TO THE POINT OR PLACE OF BEGINNING.

EXCEPTING FROM PARCEL IV THE FOLLOWING:

A CERTAIN PARCEL OF LAND IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE EASTERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE
N 79° 24' 31" W A DISTANCE OF EIGHTY–ONE AND FIFTEEN HUNDREDTHS FEET (81.15') TO A POINT; THENCE
S 79° 21' 01" W A DISTANCE OF THREE HUNDRED SIXTY–ONE AND FIFTEEN HUNDREDTHS FEET (361.15') TO A POINT; THENCE
SOUTHEASTERLY AND CURVING TO THE RIGHT ALONG THE ARC OF A CURVE HAVING A RADIUS OF ONE HUNDRED SEVENTY–SIX AND NO HUNDREDTHS FEET (176.00'), A LENGTH OF TWENTY–FOUR AND SEVENTY–THREE HUNDREDTHS FEET (24.73') TO A POINT OF REVERSE CURVATURE; THENCE
SOUTHEASTERLY AND CURVING TO THE LEFT ALONG THE ARC OF A CURVE HAVING A RADIUS OF TWENTY–FIVE AND ONE HUNDREDTHS FEET (25.01'), A LENGTH OF THIRTY AND EIGHTY–THREE HUNDREDTHS FEET (30.83') TO A POINT; THENCE
N 10° 38' 59" W A DISTANCE OF TEN AND NO HUNDREDTHS (10.00') TO A POINT, THENCE
N 79° 21' 01" E A DISTANCE OF FOUR HUNDRED THREE AND THIRTY–EIGHT HUNDREDTHS FEET (403.38') TO THE POINT OF BEGINNING.
THE ABOVE–DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 11,675 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCELS B AND BL ON A PLAN ENTITLED, "EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT," BY GREINER, INC. A.E.S. SCALE: 1" =50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204. FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS 4.252 ACRES.

PARCEL V (944 SILVER LANE):

A CERTAIN PARCEL OF LAND SITUATED IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE SOUTHEASTERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE

S 79° 20' 55" W A DISTANCE OF TWO HUNDRED THIRTY–FOUR AND EIGHTY–TWO HUNDREDTHS FEET (234.82') TO A POINT; THENCE
N 00° 47' 20" W A DISTANCE OF FIVE HUNDRED FORTY–FIVE AND THIRTY–TWO HUNDREDTHS FEET (545.32') TO A POINT; THENCE
N 89° 12' 40" E A DISTANCE OF SEVENTY AND NO HUNDREDTHS FEET (70.00') TO A POINT; THENCE
S 00° 47' 20" E A DISTANCE OF TWO HUNDRED EIGHTY–ONE AND FIFTY–THREE HUNDREDTHS FEET (281.53') TO A POINT; THENCE
N 79° 20' 55" E A DISTANCE OF ONE HUNDRED TWENTY AND SIXTY–SEVEN HUNDREDTHS FEET (120.67') TO A POINT; THENCE
S 10° 39' 05" E A DISTANCE OF TWO HUNDRED FORTY–SEVEN AND NINETY HUNDREDTHS FEET (247.90') TO THE POINT OF BEGINNING.

THE ABOVE–DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 73,003 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCEL "AL" ON A PLAN ENTITLED "EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT," BY GREINER, INC. A.E.S. SCALE: 1" =50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204.

TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 173; WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DRAYMORE, TRUSTEE AND DENNY'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1996 IN VOLUME 1609, PAGE 56. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1446 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

PARCEL VI (942 SILVER LANE):

A CERTAIN PARCEL OF LAND SITUATED IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE NORTHERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE S 66° 43' 00" E A DISTANCE OF TWO HUNDRED FIFTEEN AND SIXTY–FIVE HUNDREDTHS FEET (215.65') TO A POINT; THENCE
NORTHEASTERLY AND CURVING TO THE LEFT ALONG THE ARC OF CURVE HAVING A RADIUS OF FORTY–FOUR AND NO HUNDREDTHS FEET (44.00'), A LENGTH OF TWENTY–SIX AND SIX HUNDREDTHS FEET (26.06') TO A POINT; THENCE
S 79° 20' 55" W A DISTANCE OF TWO HUNDRED TWENTY–FIVE AND SEVENTY–ONE HUNDREDTHS FEET (225.71') TO A POINT; THENCE
N 00° 47' 20" W A DISTANCE OF ONE HUNDRED TWENTY–NINE AND EIGHTY HUNDREDTHS FEET (129.80') TO THE POINT OF BEGINNING.
THE ABOVE–DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 13,591 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCEL 'A' ON A PLAN ENTITLED 'EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT,' BY GREINER, INC. A.E.S. SCALE: 1" = 50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204.
TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 173; WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DRAYMORE, TRUSTEE AND DENNY'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1446, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1996 IN VOLUME 1609, PAGE 56. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1446 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

LEGEND

C.H.D.	Conn. Hwy. Dept. Monument	GV	Gas gate valve
Mon.	Monument	WV	Water gate valve
●	Iron Pin to be Set	W	Water meter
■	Conc. Monument to be Set	hyd	Hydrant
I. Pipe	Iron Pipe	W	Water main (existing)
I. Pin	Iron Pin	G	Gas Main (existing)
D.H.	Drill Hole	SD	Underground Storm Drain Pipes
Fnd.	Found	S	Sanitary Sewer Main (existing)
N/F	Now or Formerly	E	Electrical Line (existing)
	Property Line	//	Overhead Wires
	Property Line (adjoining)	S	Sanitary Manhole
	Building Setback Line	D	Drain Manhole
	Easement Line	E	Electric Manhole
	Edge of water	T	Telecom Manhole
	FEMA Flood Zone	U	Unknown Manhole
BFE	Base Flood Elevation		Chain Link or Split Rail Fence
×200.0	Existing Spot Elevation		Metal/Wire Fence
	Building (existing)		Wooden or Vinyl Fence
			Utility Pole with lamp
		Ø	Utility Pole
	Evergreen Tree		
	Deciduous Tree		
	Swamp or Wetlands		
	Tree Line		
	Watercourse		
123	Existing Contours		
R.C.P.	Reinforced Concrete Pipe		
C.M.P.	Corrugated Metal Pipe		
O PT A	Percolation Test Location		
TP 100	Deep Test Pit Location		
	Stone Retaining Wall		
	Retaining Wall		
	Stone Wall		
WL	Wetland Limit		
	Wetland Flag Number		
	Wetland Setback		
	Benchmark		
	Monitoring Well		
INV:	Invert Elevation of Pipe		
	Existing Catch Basin/Pipe		

PRELIMINARY
NOT FOR CONSTRUCTION

No.	Date	REVISION DESCRIPTION
4.	5/22/2025	ADDED LIMIT OF SLOPE EASEMENT
3.	5/21/2025	REVISIONS TO SCHEDULE B EXCEPTIONS
2.	4/11/2025	REVISED ACCESS DENIED LABELS
1.	4/11/2025	ADDED ACCESS DENIED LABELS

SCALE: 1"=80'
0 40 80 160 240

STATE OF CONNECTICUT BRYAN P. NESTERIAK 23556 LICENSED LAND SURVEYOR

ACCURATE LAND SURVEYING, LLC
15 RESEARCH DRIVE
WOODBRIDGE, CT 06525
TEL: 203.881.8145
501 MAIN STREET
MONROE, CT 06468
TEL: 203.880.5455

ALTA/NSPS LAND TITLE SURVEY
OF
936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET EAST HARTFORD, CONNECTICUT

PREPARED FOR
USC SILVER LAKE LLC, ISAOA/ATIMA

SURVEYOR'S CERTIFICATION

TO:
- USC 946 SILVER LANE LLC, ITS SUCCESSORS AND/OR ASSIGNS, AS THEIR INTEREST MAY APPEAR
- CATIC
- CHANNEL JAMMY 1, LLC
- JZ OTTO LLC
- JZ FORBES LLC
- CONCOURSE PARK HOLDINGS LLC
- CONCOURSE MEZZ LLC
- UPDIKE, KELLY & SPELLACY, P.C.
- THE TOWN OF EAST HARTFORD

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY

PROPOSED DRAINAGE EASEMENT #1

LINE TABLE

LINE	BEARING	LENGTH
L1	N75°49'04"E	122.06'
L2	S14°10'56"E	3.21'
L3	N75°49'05"E	6.08'
L4	N81°33'15"E	197.99'
L5	S11°53'21"E	10.02'
L6	S81°33'15"W	198.09'
L7	S75°49'05"W	5.58'
L8	S14°10'48"E	56.46'
L9	S75°49'04"W	139.43'
L10	S75°49'04"W	13.13'
L11	S59°44'55"E	17.74'
L12	S12°03'04"E	152.42'
L13	S77°09'01"W	7.14'
L14	N12°03'04"W	145.50'
L15	N59°44'55"W	37.23'
L16	N14°10'56"W	8.77'
L17	N75°50'55"E	7.85'
L18	N14°09'23"W	54.01'
L19	N75°49'04"E	43.93'
L20	S14°06'09"E	12.00'
L21	S12°03'09"E	57.42'

PROPOSED DRAINAGE EASEMENT #2

LINE TABLE

LINE	BEARING	LENGTH
L22	N02°01'15"W	42.94'
L23	N78°43'58"E	118.10'
L24	S10°39'05"E	71.65'
L25	S10°39'05"E	77.00'
L26	S79°21'09"W	37.12'
L27	S55°44'36"W	81.69'
L28	S07°45'50"W	25.41'
L29	S79°20'55"W	10.54'
L30	N07°45'50"E	29.69'
L31	N20°52'11"W	31.96'
L32	S87°58'45"W	13.06'
L33	N02°01'15"W	73.06'
L34	N02°01'15"W	18.15'
L35	S79°25'58"W	38.90'
L36	N01°35'31"W	10.06'
L37	N79°21'04"E	38.83'
L38	N79°20'55"E	128.77'

GENERAL SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATION OF CONNECTICUT STATE AGENCIES, SECTION 20–300b–1 THROUGH 20–300b–20, EFFECTIVE OCTOBER 26, 2018, AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
2. THE BOUNDARY DETERMINATION SHOWN HEREON IS CONSIDERED A RESURVEY.
3. THE SURVEY CONFORMS TO HORIZONTAL CLASS A–2 ACCURACY STANDARDS.
4. BEARINGS AND COORDINATES ARE DERIVED FROM THE CONNECTICUT GEODETIC SURVEY (CTGS) VIA GPS TECHNOLOGY AND CONVENTIONAL SURVEY METHODS.
5. PROPERTIES ARE ALSO KNOWN AS CITY OF EAST HARTFORD TAX LOTS 22, 23, 107, 113, 129 & 130 ON ASSESSORS MAP 46.
6. TOTAL AREA = 1,116,638.3 SQ.FT. OR 25.634 ACRES

   EXISTING LOTS
   936 SILVER LANE = 477,274.2 SQ.FT. OR 10.956 ACRES
   942 SILVER LANE = 13,591.4 SQ.FT. OR 0.312 ACRES
   944 SILVER LANE = 73,003.2 SQ.FT. OR 1.675 ACRES
   960 SILVER LANE = 238,815.6 SQ.FT. OR 5.482 ACRES
   285 FORBES STREET = 139,629.4 SQ.FT. OR 3.205 ACRES
   291 FORBES STREET = 174,324.5 SQ.FT. OR 4.001 ACRES

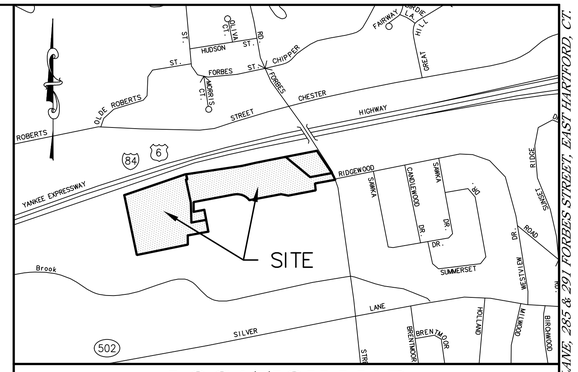
   CONSOLIDATED LOTS
   PROPOSED LOT 1 = 82,611.8 SQ.FT. OR 1.896 ACRES
   PROPOSED LOT 2 = 513,882.9 SQ.FT. OR 11.797 ACRES
   PROPOSED LOT 3 = 520,144.7 SQ.FT. OR 11.940 ACRES
7. PROPERTIES LIE IN ZONING DISTRICT "B–6".
8. PROPERTIES DO NOT LIE WITHIN A FLOOD HAZARD ZONE AS DETERMINED BY FEMA.
9. PROPOSED LOT 1 SHALL HAVE THE RIGHT TO DRAIN STORMWATER DENTON SYSTEM OUTLET ONTO PROPOSED LOT 2.

MAP REFERENCES

1. PLAN ENTITLED "PROPERTY SURVEY MAP PREPARED FOR THE TOWN OF EAST HARTFORD 936 SILVER LANE EAST HARTFORD, CONNECTICUT", SCALE 1"=80'. DATED: 8/23/2018. LAST REVISED: 1/2/2019. BY CME ASSOCIATES, INC.

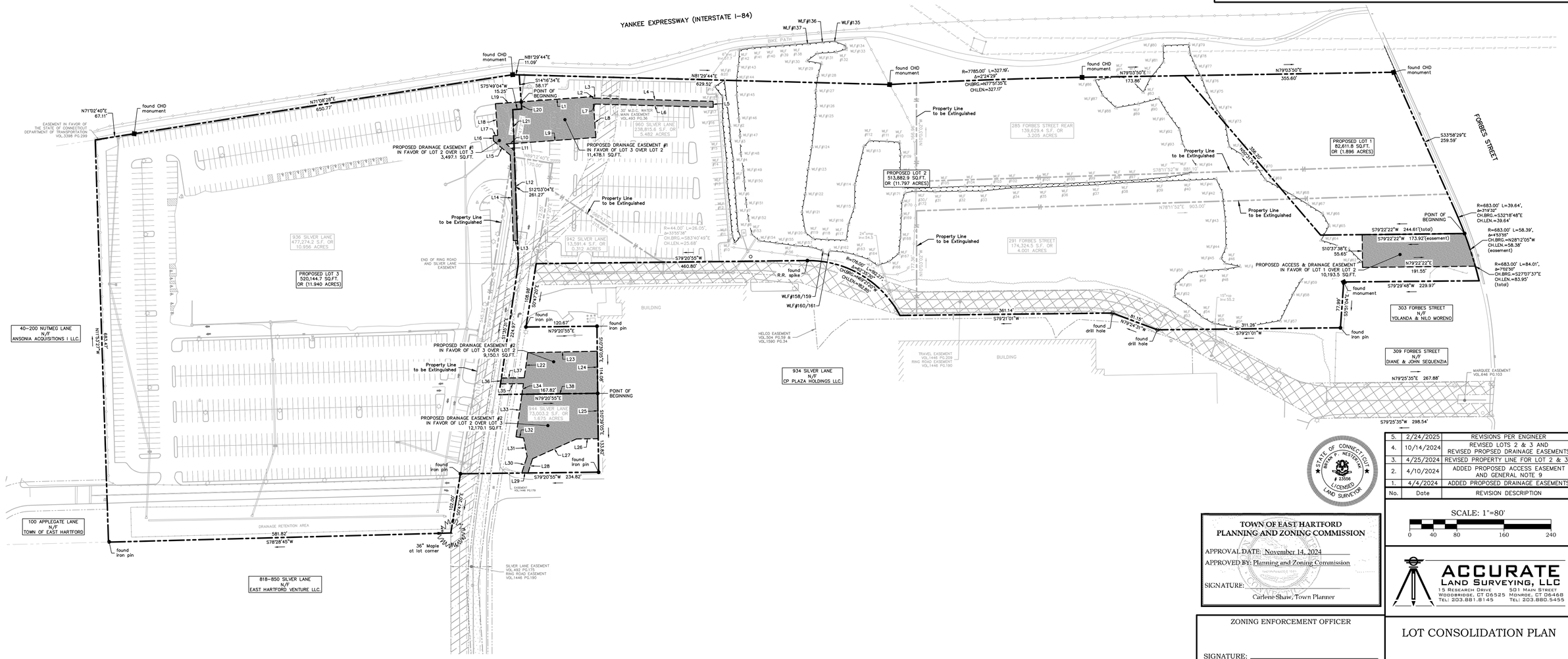
DEED REFERENCES

1. DEED VOLUME 492 PAGE 175, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
2. DEED VOLUME 493 PAGE 36, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
3. DEED VOLUME 496 PAGE 262, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
4. DEED VOLUME 504 PAGE 59, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
5. DEED VOLUME 646 PAGE 61, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
6. DEED VOLUME 646 PAGE 103, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
7. DEED VOLUME 1446 PAGE 209, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
8. DEED VOLUME 1446 PAGE 190, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
9. DEED VOLUME 1590 PAGE 34, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
10. DEED VOLUME 3398 PAGE 299, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
11. DEED VOLUME 4116 PAGE 3, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.



LOCATION MAP

SCALE: 1"=800'



S.	2/24/2025	REVISIONS PER ENGINEER
4.	10/14/2024	REVISED LOTS 2 & 3 AND REVISED PROPSED DRAINAGE EASEMENTS
3.	4/25/2024	REVISED PROPERTY LINE FOR LOT 2 & 3
2.	4/10/2024	ADDED PROPOSED ACCESS EASEMENT AND GENERAL NOTE 9
1.	4/4/2024	ADDED PROPOSED DRAINAGE EASEMENTS
No.	Date	REVISION DESCRIPTION

STATE OF CONNECTICUT BRYAN P. NESTERIAK # 23556 LICENSED LAND SURVEYOR

SCALE: 1"=80'

0 40 80 160 240

TOWN OF EAST HARTFORD
PLANNING AND ZONING COMMISSION

APPROVAL DATE: November 14, 2024

APPROVED BY: Planning and Zoning Commission

SIGNATURE: Carlene Shaw, Town Planner

ZONING ENFORCEMENT OFFICER

SIGNATURE: _____

DATE: _____

SANITARIAN

SIGNATURE: _____

DATE: _____

ACCURATE LAND SURVEYING, LLC
15 Research Drive Woodbridge, CT 06525 Tel: 203.881.0145
501 Main Street Monroe, CT 06468 Tel: 203.880.5455

LOT CONSOLIDATION PLAN

OF

936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET EAST HARTFORD, CONNECTICUT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, PE, LS 23556

Date 1/19/2024
Scale 1"=80'
Job No. 1155
Drawing No. 1 of 1

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LEGEND

C.H.D.	Conn. Hwy. Dept. Monument
Mon.	Monument
●	Iron Pin to be Set
■	Conc. Monument to be Set
I. Pipe	Iron Pipe
●	Iron Pin
D.H.	Drill Hole
	Pile of Stones
	Light Post
Fnd.	Found
N/F	Now or Formerly
	Property Line
	Property Line (adjoining)
	Building Setback Line
	Easement Line
	Edge of water
	FEMA Flood Zone
BFE:	Base Flood Elevation
×200.0	Existing Spot Elevation
GV	Gas gate valve
WV	Water gate valve
WM	Water meter
hyd	Hydrant
W	Water main (existing)
WS	Water service lateral
G	Gas Main (existing)
SS	Sanitary Sewer Main (existing)
E	Electrical Line (existing)
S	Sanitary Manhole
D	Drain Manhole
	Chain Link or Split Rail Fence
	Metal/Wire Fence
	Wooden or Vinyl Fence
UP	Utility Pole
INV.	Invert Elevation of Pipe
	Existing Catch Basin/Pipe
	Building (existing)
	Evergreen Tree
	Deciduous Tree
	Swamp or Wetlands
	Tree Line
	Watercourse
123	Existing Contours
R.C.P.	Reinforced Concrete Pipe
C.M.P.	Corrugated Metal Pipe
○ PT A	Percolation Test Location
◆ TP 100	Deep Test Pit Location
	Stone Retaining Wall
	Retaining Wall
	Stone Wall
WL	Wetland Limit
	Wetland Flag Number
	Wetland Setback
	Benchmark
	Well (Existing)
○ F.P.	Fence Post

SITE STATISTICS
PROPOSED LOT 1

ZONING DISTRICT "B–6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.459 ACRES (20,000 S.F.)	1.896 ACRES (82,611.8 S.F.)
MIN. LOT FRONTAGE	70'	<70'
MIN. LOT WIDTH	100'	<100'
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	50'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 20,652.9 S.F.	VACANT LOT
MAX. IMPERVIOUS COVERAGE	75% = 61,958.8 S.F.	

SITE STATISTICS
PROPOSED LOT 2

ZONING DISTRICT "B–6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.459 ACRES (20,000 S.F.)	11.797 ACRES (513,882.9 S.F.)
MIN. LOT FRONTAGE	70'	VACANT LOT
MIN. LOT WIDTH	100'	VACANT LOT
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	50'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 128,470.7 S.F.	
MAX. IMPERVIOUS COVERAGE	75% = 385,412.1 S.F.	

SITE STATISTICS
PROPOSED LOT 3

ZONING DISTRICT "B–6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.459 ACRES (20,000 S.F.)	11.940 ACRES (520,144.7 S.F.)
MIN. LOT FRONTAGE	70'	<70'
MIN. LOT WIDTH	100'	<100'
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	50'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 130,036.1 S.F.	
MAX. IMPERVIOUS COVERAGE	75% = 390,108.5 S.F.	

PRELIMINARY NOT FOR CONSTRUCTION

LCP, 936, 942, 944 & 960 SILVER LANE, 285 & 291 FORBES STREET, EAST HARTFORD, CT.

PROTECT & MAINTAIN EXISTING NON ACCESS HIGHWAY FENCE ALONG NORTHERN PROPERTY LINE

PROPERTY LINE (TYP.)

PAVEMENT WITHIN EXISTING 30' MDC WATER EASEMENT WITH 30" RCP WATER TRANSMISSION PIPELINE TO BE PROTECTED AND MAINTAINED FOR THE LONGEST EXTENT PRACTICAL DURING CONSTRUCTION. CONTRACTOR SHALL NOT STOCKPILE EARTH OR CONSTRUCTION MATERIALS WITHIN THE MDC EASEMENT. ALL EXCAVATION & UTILITY WORK WITHIN THE MDC EASEMENT SHALL BE PROPERLY COORDINATED WITH THE MDC.

MAINTAIN 24'-WIDE ACCESS/EGRESS DRIVE CLEAR OF DEBRIS AND MATERIAL THROUGHOUT CONSTRUCTION

CONTRACTOR TO INSTALL ORANGE SAFETY FENCE ON BOTH SIDES OF THE MDC EASEMENT TO PROTECT WATERMAIN.

INSTALL 14'Wx45'L TEMPORARY BRIDGE SYSTEM ON TIMBER MATTING ABUTMENTS WITH GRAVEL APPROACHES OVER EXISTING MDC EASEMENT (ADM WELDING AND FABRICATING, LLC PORTABLE HYBRID BRIDGE SYSTEM, OR APPROVED EQUAL). LOCATION TO VARY BASED ON CONSTRUCTION SEQUENCE AND CONTRACTOR'S MEANS AND METHODS. (11/2.41)

LIMIT OF WETLANDS (TYP.)

PROTECT & MAINTAIN EXISTING ELECTRICAL MANHOLE

PROTECT & MAINTAIN EXISTING UTILITY STRUCTURE AND RETAINING WALL

CAP STORM PIPE AND ABANDON IN PLACE

CONSTRUCTION ENTRANCE

PROVIDE LOCKABLE DOUBLE SWING GATE

PROTECT & MAINTAIN EXISTING UTILITIES UNLESS OTHERWISE SPECIFIED

ACCESS TO EXISTING LOADING DOCK MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER .

PROTECT AND MAINTAIN EXISTING STRUCTURE

100' UPLAND REVIEW AREA

PROTECT & MAINTAIN EXISTING DRAINAGE STRUCTURE

CAP STORM PIPE AND ABANDON IN PLACE

CONTRACTOR TO MAINTAIN 2-WAY TRAFFIC THROUGHOUT CONSTRUCTION.

PROTECT & MAINTAIN EXISTING DRAINAGE PIPE

CONSTRUCTION ENTRANCE

PROVIDE LOCKABLE DOUBLE SWING GATE

PROTECT & MAINTAIN EXISTING DRAINAGE STRUCTURE

PROTECT AND MAINTAIN EXISTING GAS LINE

REMOVE AND DISPOSE EXISTING SIGN

PROTECT EXISTING TREE

REMOVE EXISTING MONUMENT

REMOVE & DISPOSE EXISTING BITUMINOUS CONCRETE PAVEMENT AT BOTTOM OF STORM BASIN

REMOVE EXISTING MONUMENT

CAP STORM PIPE AND ABANDON IN PLACE

CONSTRUCTION ENTRANCE

PROVIDE LOCKABLE DOUBLE SWING GATE
PROTECT & MAINTAIN EXISTING WATER VALVE

PRELIMINARY
NOT FOR CONSTRUCTION

DEMOLITION KEY NOTES

(1) REMOVE, PULVERIZE & STOCKPILE BITUMINOUS PAVEMENT & SUBBASE TO BE RE-USED ONSITE (TYP.)

(2) REMOVE & DISPOSE EXISTING CURBING (TYP.)

(3) DEBRIS STOCKPILE AREA (TYP.)

(4) REMOVE OR CAP/FILL EXISTING UNDERGROUND STRUCTURE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET 0.10. REMOVE OR CAP/FILL ASSOCIATED EXISTING STORM PIPE IN ACCORDANCE TO NOTE 5

(5) REMOVE OR CAP/FILL EXISTING STORM PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET 0.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.

(6) REMOVE OR CAP/FILL EXISTING WATER PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET 0.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.

(7) REMOVE OR CAP/FILL EXISTING SANITARY SEWER PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET 0.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.

(8) REMOVE FIRE HYDRANT IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.

(9) REMOVE WATER GATE VALVE IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.

(10) REMOVE WATER METER IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.

(11) REMOVE EXISTING LIGHT POLE, LIGHT POLE FOUNDATION, AND ANY REMAINING WIRING. ENSURE DEACTIVATION OF ELECTRICAL COMPONENTS BEFORE REMOVAL. REMOVE OR CAP/FILL ELECTRICAL CONDUIT IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET 0.10.

(12) REMOVE EXISTING FENCING/GUIDE RAIL.

(13) REMOVE OR CAP EXISTING GAS LINE AS REQUIRED.

(14) REMOVE ALL TOPSOIL, TREES & SHRUBS WITHIN LANDSCAPE AREA. STOCKPILE TOPSOIL FOR FUTURE USE.

(15) INSTALL SILT FENCE

(16) INSTALL 6' HIGH PERIMETER CONSTRUCTION FENCE (TYP.)

(17) NOTE USED

(18) INSTALL SILT SACK INLET PROTECTION

(19) SAWCUT PAVEMENT

(20) INSTALL SILT FENCE WITH HAYBALE BACKING

(21) REMOVE AND DISPOSED EXISTING CONCRETE PAVEMENT (TYP.)

LEGEND

- PROPERTY LINE
- MDC WATER EASEMENT LINE
- ADJOINING LOT LINE
- CONCRETE PAVEMENT DEMOLITION
- BITUMINOUS CONCRETE PAVEMENT DEMOLITION
- CURB REMOVAL
- STORM / SANITARY SEWER / WATER PIPE REMOVAL
- UTILITY CONDUIT REMOVAL
- FENCE / ROCK WALL REMOVAL
- STORM / SANITARY STRUCTURE REMOVAL
- TREE TO BE REMOVED
- TREE PROTECTION
- CONSTRUCTION ENTRANCE
- SAWCUT PAVEMENT LINE
- SILT FENCE PROTECTION
- CONSTRUCTION FENCE
- ORANGE SAFETY FENCE
- MATERIAL STOCKPILE AREA
- SILT SACK INLET PROTECTION (2/2.41)

GENERAL NOTES

1. REFER TO SHEET 0.10 FOR ADDITIONAL NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

Rev. #:	Date	Description

Graphic Scale: 30 0 30 60

SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-0695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL DEMOLITION PLAN

Sheet #: 2.00

Jul 01, 2025 - 10:07pm chereby
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PROPERTY LINE (TYP.)

INSTALL SUB-SURFACE DETENTION SYSTEM (UGS-3)

INV. = 58.75

OCS-3
TF = 64.15
WIER ELEV. = 59.00
INV(W) = 58.75
INV(E) = 58.50

130 LF 24" RCP PIPE @ S=1.15%

62 LF 24" RCP PIPE @ S=0.0%

FLARED END SECTION (O-1)
INV = 57.00±

TYPE 1 RIPRAP APRON

INV. = 58.50

11 LF 18" RCP PIPE @ S=0.5%

MH-17
TF = 62.75
INV(E) = 58.55
INV(N) = 58.55

CB-12
TYPE "CL"
TF = 63.80
INV(E) = 58.95
INV(W) = 58.95

55 LF 18" RCP PIPE @ S=0.5%

CB-11A
TYPE "C"
TF = 63.80
INV(E) = 58.68
INV(W) = 58.68

105 LF 18" RCP PIPE @ S=0.5%

BOTTOM 18" RCP PIPE = 59.27
TOP 30" WATER MAIN = 57.80

26 LF 18" RCP PIPE @ S=0.5%

CB-13
TYPE "CL"
TF = 63.15
INV(W) = 59.47

MH-3
TF = 62.30
INV(S) = 56.82

EXISTING BURIED MANHOLE
RESET MH FROM TO GRADE
TF = 63.50
(INVERTS ARE APPROXIMATE)
INV(E) = 54.57'
INV(W) = 54.2'
INV(NE) = 53.83'
INV(S) = 53.83'

CONVERT EXISTING "TYPE C-L" CATCH BASIN TO MANHOLE
TF=61.90

EXISTING 12" PIPE TO REMAIN (TYP.)

CB-15
TYPE "C"
TF = 61.78
INV(S) = 58.78

41 LF 12" RCP PIPE @ S=1.0%

INV. = 58.00

54 LF 18" RCP PIPE @ S=1.2%

3 - 64 LF 8" C900 PVC PIPE @ S=1.31%

277 LF 30" RCP PIPE @ S=0.3%

INV. = 58.37

CB-17
TYPE 'CL'
TF = 61.50
INV(E) = 59.60

INSTALL SUB-SURFACE DETENTION SYSTEM (UGS-4)

CB-18
TYPE "C"
TF = 61.75
INV(W) = 58.76
INV(E) = 58.66

INV. = 58.00

ACCESS MANHOLE
TF=61.15

INV. = 58.00

5 LF 12" RCP PIPE @ S=0.0%

57 LF 12" RCP PIPE @ S=1.2%

OCS-4
TF = 62.77
WEIR ELEV = 59.50
6" ORIFICE INV = 58.50
INV(N) = 58.00
INV(S) = 58.00

CB-16
TYPE "C"
TF = 61.70
INV(N) = 58.70

60 LF 30" RCP PIPE @ S=0.3%

OCS-7
TF = 60.30
8" ORIFICE INV = 57.30
INV(S) = 56.00

88 LF 36" RCP PIPE @ S=0.32%

MH-5
TF = 62.35
INV(N) = 55.99
INV(W) = 55.99

MH-6 5' DIA.
TF = 62.30
INV(N) = 55.80
INV(E) = 55.80
INV(S) = 55.80

26 LF 12" RCP PIPE @ S=1.85%

MH-21 5'DIA.
TF = 59.00
INV(W) = 55.52
INV(E) = 55.52

275 LF 18" HALF PERFORATED HDPE @ S=0.00%

MH-7A 5' DIA.
TF = 60.00
INV(N) = 55.52
INV(W) = 55.52

275 LF LEVEL SPREADER, LIP ELEV. = 58.00

MH-7 5-DIA.
TF = 60.00
WIER = 57.25
8" ORIFICE = 55.52
INV(W) = 55.52
INV(E) = 55.52

MH-4 (DOGHOUSE)
TF = 62.31
INV(N) = 56.88
EX. INV. = 53.17± (TO BE VERIFIED IN THE FIELD)

56 LF 12" RCP PIPE S=2.0%

EXISTING 30" CMP TO REMAIN

275 LF 18" HALF PERFORATED HDPE @ S=0.00%

2 LF 18" HDPE PIPE @ S=0.00%

2 LF 18" HDPE PIPE @ S=0.00%

2 LF 18" HDPE PIPE @ S=0.00%

MH-8 5' DIA.
TF = 60.25
INV(W) = 55.04
INV(N) = 55.04

157 LF 24" RCP PIPE @ S=0.3%

MH-9 5' DIA. (DOGHOUSE)
TF = 60.90
INV(S) = 54.99
EX. INV. = 54.99 (TO BE VERIFIED IN FIELD)

16 LF 24" RCP PIPE @ S=0.3%

PRELIMINARY
NOT FOR CONSTRUCTION

GENERAL NOTES

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3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
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5. REFER TO SOIL AND MATERIALS MANAGEMENT PLAN, DATED JUNE 2025 BY GZA GEOENVIRONMENTAL, INC FOR SOIL MANAGEMENT REQUIREMENTS, AVAILABLE UNDER SEPARATE COVER.

Rev. #:	Date	Description

Graphic Scale: 30 0 30 60

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1A OVERALL GRADING & DRAINAGE PLAN

Sheet #: 2.01

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INSTALL FIBER PULL BOX (TYP.)

PIPE CROSSING
BOTTOM STORM PIPE = 58.74
TOP WATER PIPE = 57.74

EXISTING TEST PIT
30" MDC WATER MAIN
TOP PIPE = 57.74
BOTTOM PIPE = 55.24

PIPE CROSSING
BOTTOM STORM PIPE = 59.27
TOP WATER PIPE = 57.80

INSTALL 8" BLOW-OFF ASSEMBLY

8" GATE VALVE AND CAP

CONVERT SAMPLE PORT TO AIR VALVE AFTER WATER MAIN TESTING

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8" D.I.P. WATER MAIN [SEE GENERAL NOTE #1] (3/3.05)

CONVERT CHLORINATION INLET TO AIR VALVE AFTER WATER MAIN TESTING

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL ELECTRIC SERVICE FROM EXISTING TRANSFORMER BY APPROVED EVERSOURCE CONTRACTOR.

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL FIRE HYDRANT ASSEMBLY (TYP.)

INSTALL STANDARD AIR VALVE

INSTALL STANDARD AIR VALVE

10" X 8" REDUCER. CONNECT NEW 8" WATER SERVICE TO EXISTING 10" WATER SERVICE PER MDC REQUIREMENTS.

10" TEES AND GATE VALVES BY MDC

10" X 8" REDUCER. CONNECT NEW 8" WATER SERVICE TO EXISTING 10" WATER SERVICE PER MDC REQUIREMENTS.

CONVERT CHLORINATION INLET TO AIR VALVE AFTER WATER MAIN TESTING

CONNECT TO EXISTING FIBE CONDUIT INSTALLED BY O FINAL LOCATION TO BE DE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 4' DIA. SANITARY SEWER MANHOLE (SMH-105)
TF = 62.90
INV (S) = 55.47

EXISTING TEST PIT
30" MDC WATER MAIN
TOP PIPE = 58.10
BOTTOM PIPE = 55.57

PIPE CROSSING
BOTTOM SEWER PIPE = 56.82
TOP WATER PIPE = 54.94

INSTALL THRUST BLOCK (TYP.)

EXISTING 30FT WIDE MDC WATER MAIN EASEMENT (TYP.)

PIPE CROSSING
BOTTOM STORM PIPE = 59.40
TOP WATER PIPE = 58.29

PIPE CROSSING
BOTTOM STORM PIPE = 59.02
TOP SEWER PIPE = 54.89

EXISTING TEST PIT
30" MDC WATER MAIN
TOP PIPE = 58.30
BOTTOM PIPE = 55.81

MAINTAIN EXISTING SANITARY SEWER PIPE

MAINTAIN EXISTING SANITARY MANHOLE
TF = 61.40
EX. INV (N) = 53.40
PR. INV (S) = 53.30

INSTALL ELECTRIC VAULT ON TOP OF EXISTING ELECTRIC LINE BY APPROVED EVERSOURCE CONTRACTOR. FINAL LOCATION TO BE FIELD VERIFIED

INSTALL 86 LF OF 10" SEWER MAIN @ S = 0.7%

NEW GAS SERVICE TO CROSS ABOVE WATER MAIN. PROVIDE A MINIMUM 1' CLEARANCE BETWEEN PROPOSED GAS SERVICE & EXISTING WATER MAIN.

CONNECT NEW GAS SERVICE TO EXISTING GAS MAIN PER CNG REQUIREMENTS

INSTALL 4' DIA. SANITARY MANHOLE (SMH-101)
TF = 60.60
INV (N) (W) = 52.80
INV (S) = 52.70

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL ELECTRICAL VAULT (TYP.)

INSTALL 266 LF OF 8" SDR-35 PVC @ S = 0.6%

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8" D.I.P. WATER MAIN [SEE GENERAL NOTE #1]

PROVIDE 20FT WIDE EASEMENT (10FT PER SIDE) SURROUNDING NEW MDC WATER MAIN (TYP.)

INSTALL (1) 2" FIBER CONDUIT (TYP.)

INSTALL (2) 4" PRIMARY ELECTRICAL CONDUITS PER EVERSOURCE ENERGY REQUIREMENTS, STANDARDS, AND RECOMMENDATIONS. (TYP.)

CONCRETE ENCASE CONDUITS WHEN 30" OF COVER CAN NOT BE PROVIDED (TYP.)

INSTALL ELECTRICAL TRANSFORMER (TYP.)

INSTALL 3" GAS SERVICE (TYP.)

CAP NEW GAS SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

INSTALL 8"x8"x6" TEE WITH THRUST BLOCK, GATE VALVE AND CAP FOR 6" DI FIRE WATER SERVICE

INSTALL 8"x8"x4" TEE WITH THRUST GATE VALVE AND CAP FOR 4" DI DOMESTIC WATER SERVICE

PIPE CROSSING
BOTTOM STORM PIPE = 57.15
TOP WATER MAIN = 56.09

INSTALL 8" BLOW-OFF ASSEMBLY
TF = 60.3

CONNECT TO EXISTING WATER VALVE PER MDC REQUIREMENTS

INSTALL 4' DIA. SANITARY SEWER MANHOLE (SMH-103)
TF = 62.00
INV (N) = 53.87
INV (E) = 53.77

INSTALL 41 LF OF 8" SDR-35 PVC @ S = 0.6%

INSTALL 4' DIA. SANITARY SEWER DROP MH (SMH-102)
TF = 61.50
INV (W) = 53.52
INV (E) = 53.42

INSTALL 104 LF OF 8" SDR-35 PVC @ S = 0.6%

PIPE CROSSING
BOTTOM WATER PIPE = 55.95
TOP SEWER PIPE = 53.62

INSTALL 202 LF OF 10" SEWER MAIN @ S = 0.8%

MAINTAIN EXISTING SANITARY MANHOLE
TF = 58.30
EX INV (N) = 51.30
EX INV (S) = 51.20

INSTALL GATE VALVE (TYP.)

CONVERT SAMPLE PORT TO AIR VALVE AFTER WATER MAIN TESTING

INSTALL THRUST BLOCK (TYP.)

INSTALL FIRE HYDRANT ASSEMBLY (TYP.)

PRELIMINARY
NOT FOR CONSTRUCTION

GENERAL NOTES

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5. REFER TO DPA SET FOR WATER MAIN EXTENSION AND SEWER MAIN.

Rev. #:	Date	Description

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Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1A OVERALL SITE UTILITY PLAN

Sheet #: 2.02

Jul 01, 2025 - 10:07pm - cheedy
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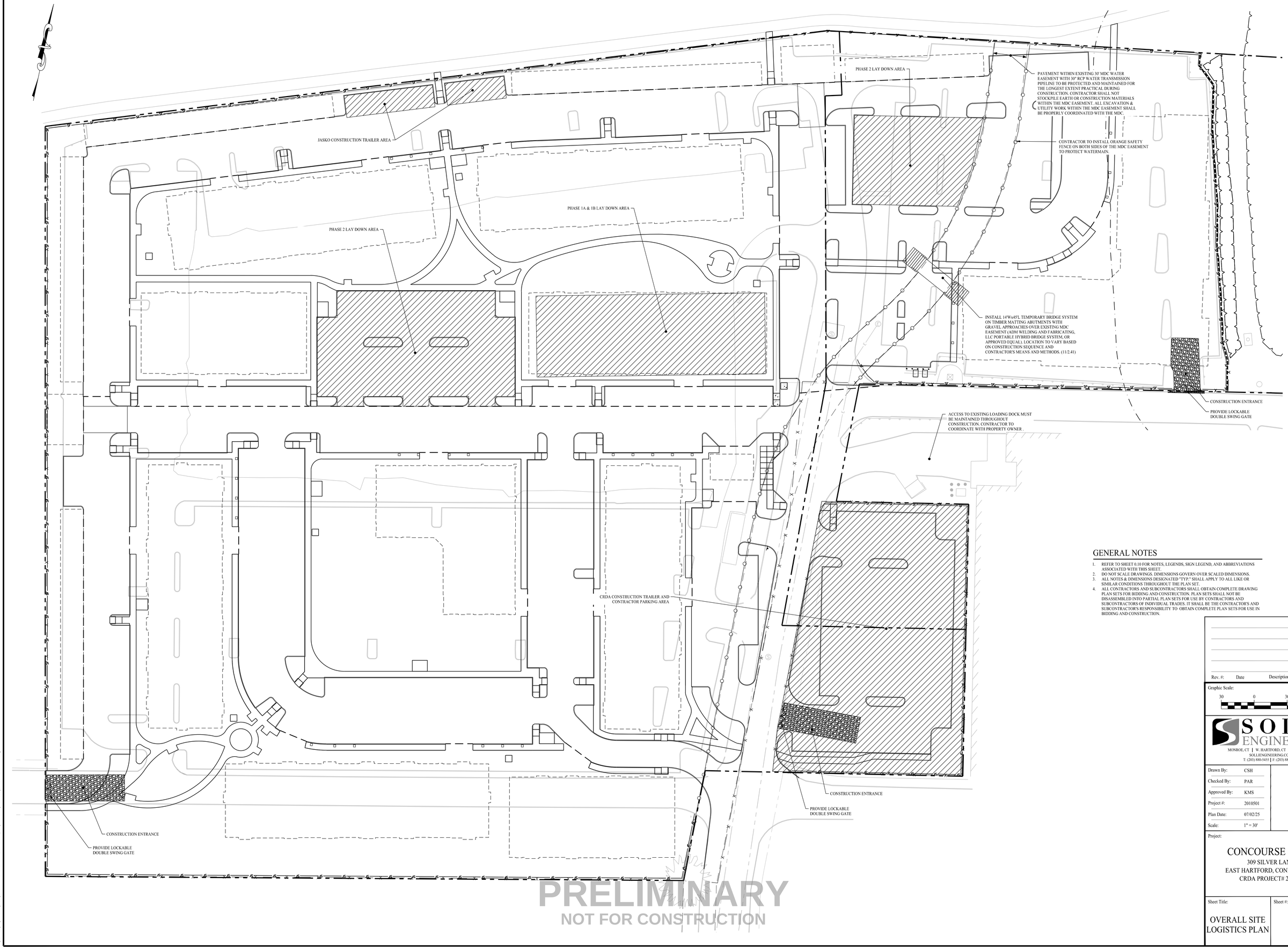

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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL SITE LOGISTICS PLAN

Sheet #: 2.03

PRELIMINARY
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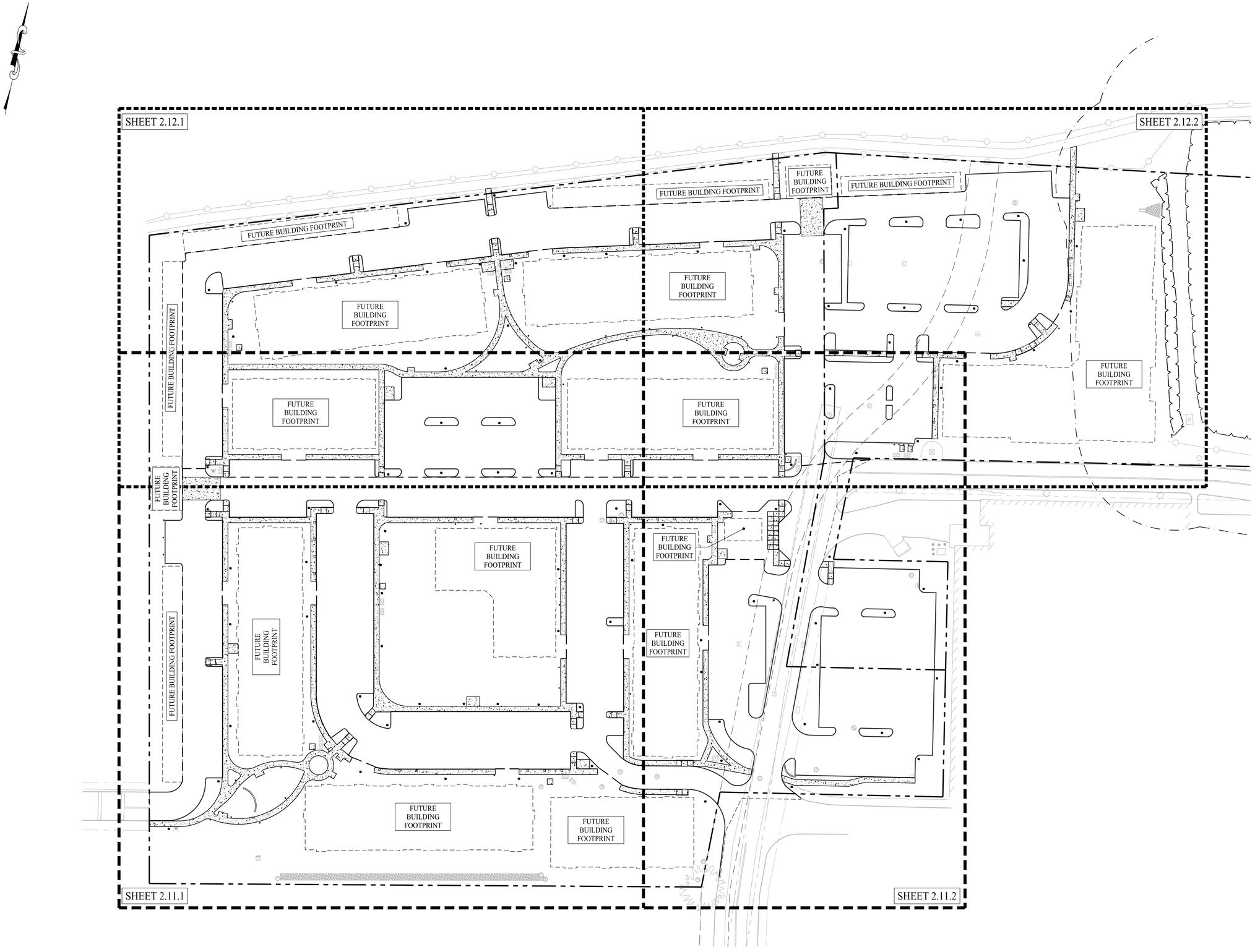

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EAST HARTFORD, CONNECTICUT
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Sheet Title: OVERALL SITE PLAN

Sheet #: 2.10

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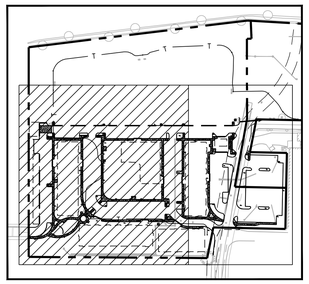
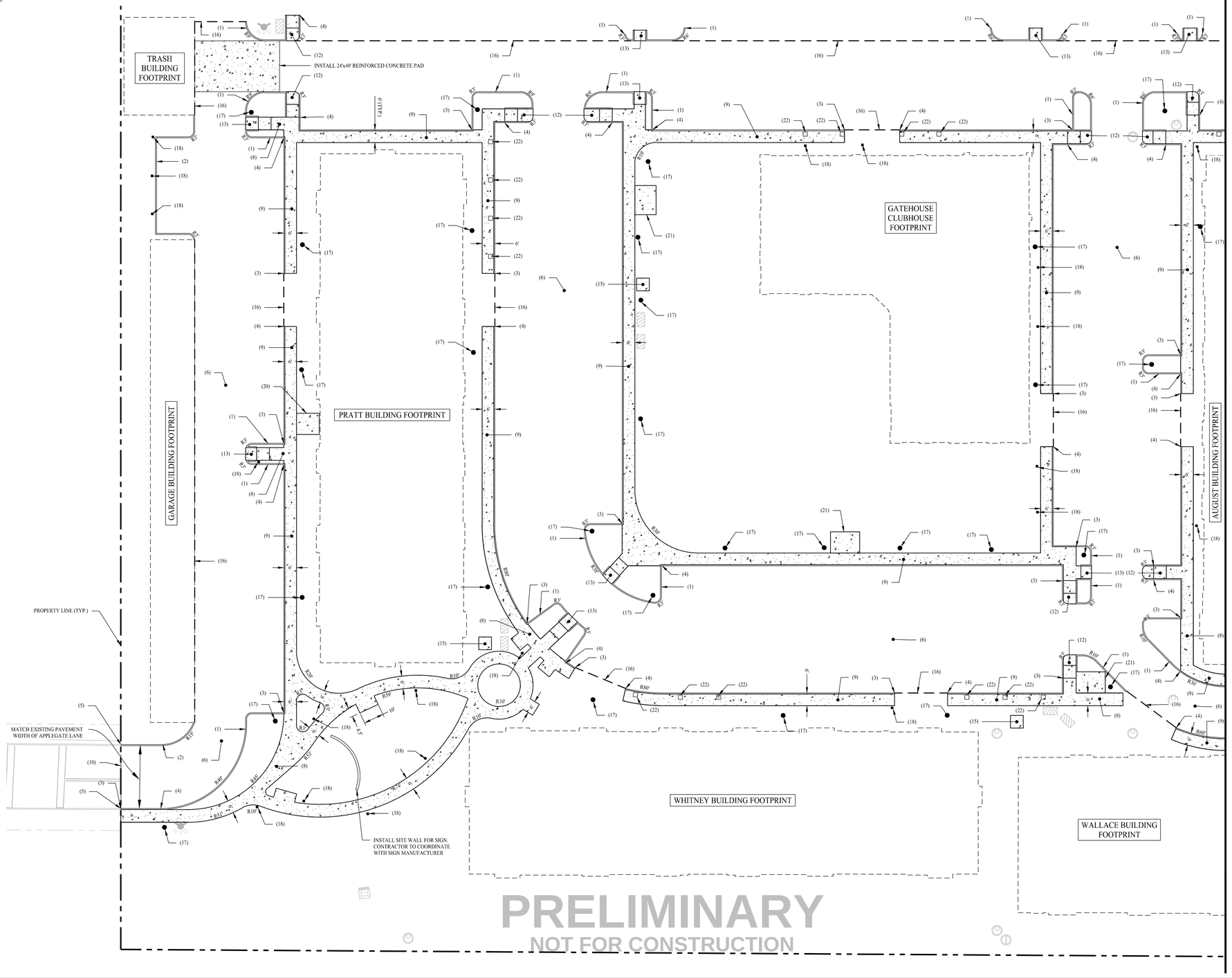


KEY MAP

SCALE: 1" = 200'



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(2) INSTALL BITUMINOUS CONCRETE CURB
(3) START OF 6" INTEGRAL CONCRETE CURB
(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB. MATCH LINE & GRADE
(6) INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) INSTALL 4' HIGH, CONCRETE BOLLARD
(8) INSTALL CONCRETE SIDEWALK
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CONCOURSE PARK
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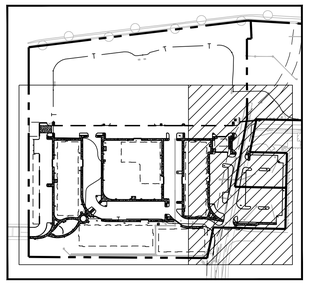
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE PLAN

Sheet #: 2.11.1



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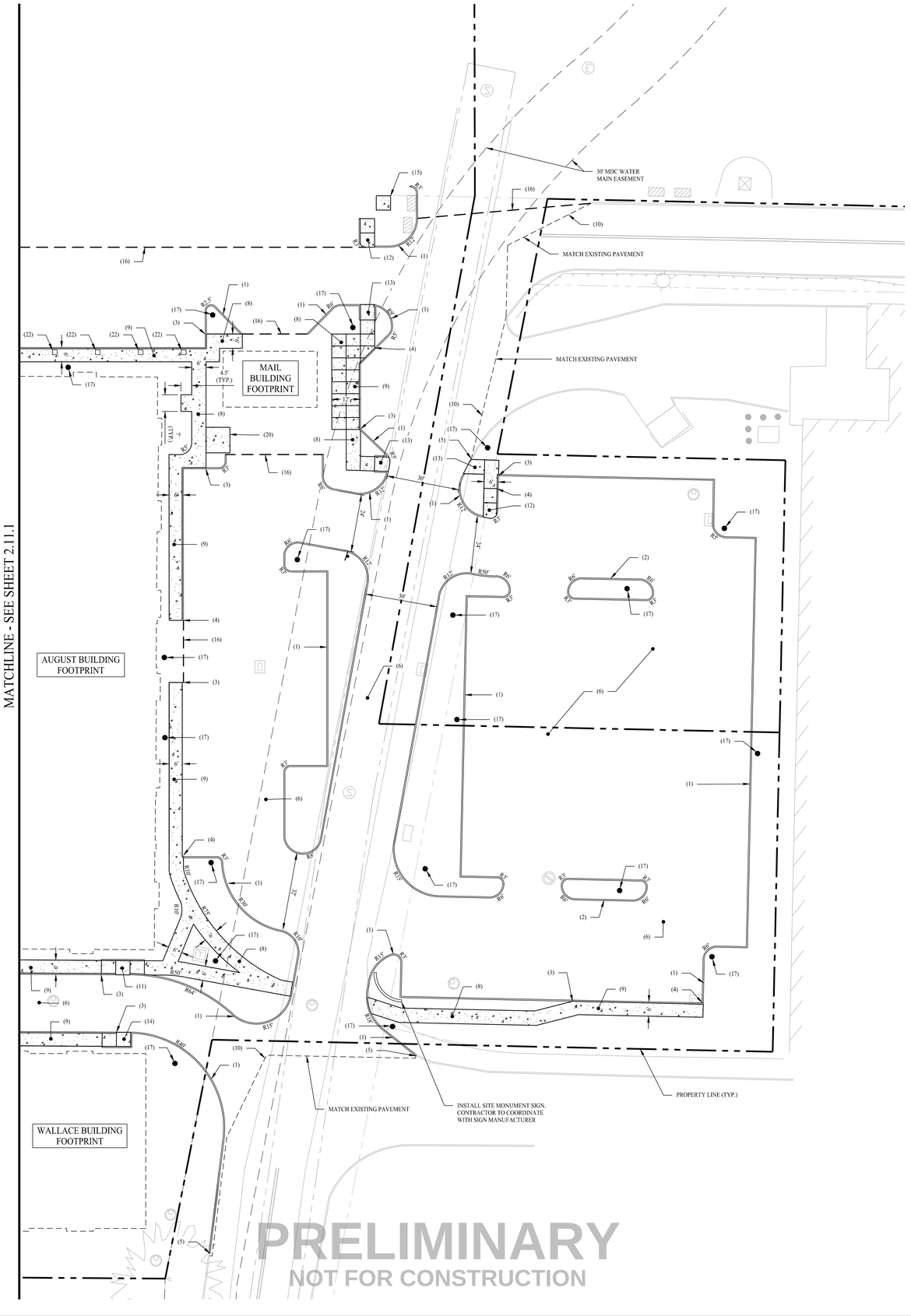

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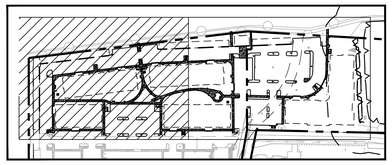
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE PLAN

Sheet #: 2.11.2



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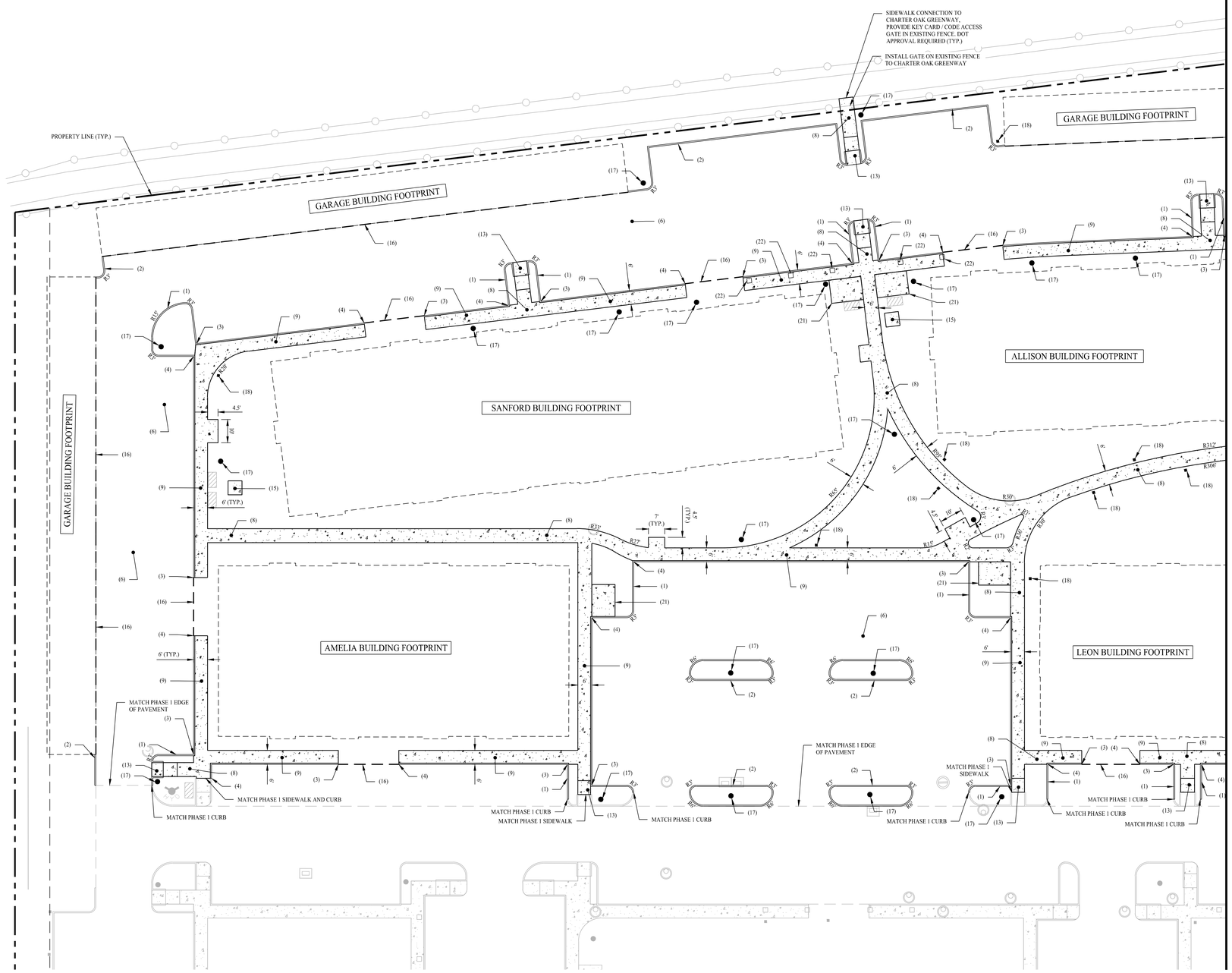

CONSTRUCTION KEY NOTES

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(20)	INSTALL MEDIUM BIKE RACK CONCRETE PAD
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(22)	INSTALL EV CHARGING STATION BASE

PRELIMINARY

NOT FOR CONSTRUCTION

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Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE PLAN

Sheet #: 2.12.1

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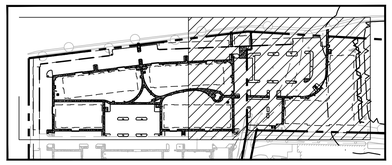

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(21) INSTALL LONG BIKE RACK CONCRETE PAD
(22) INSTALL EV CHARGING STATION BASE

MATCHLINE - SEE SHEET 2.12.1

SIDEWALK CONNECTION TO CHARTER OAK GREENWAY, MATCH EXISTING GRADE & PROVIDE KEY CARD / CODE ACCESS GATE IN EXISTING FENCE. DOT APPROVAL REQUIRED (TYP.)

INSTALL GATE ON EXISTING FENCE TO CHARTER OAK GREENWAY

TRASH & MAINT. BUILDING FOOTPRINT

GARAGE BUILDING FOOTPRINT

GARAGE BUILDING FOOTPRINT

30' MDC WATER MAIN EASEMENT

INSTALL 24'x40' REINFORCED CONCRETE PAD

ALLISON BUILDING FOOTPRINT

LEON BUILDING FOOTPRINT

OTTO BUILDING FOOTPRINT

MATCH PHASE 1 EDGE OF PAVEMENT

MATCH PHASE 1 CURB

MATCH PHASE 1 SIDEWALK AND CURB

MATCH PHASE 1 EDGE OF PAVEMENT

INSTALL SITE SIGN. CONTRACTOR TO COORDINATE WITH SIGN MANUFACTURER

PROTECT & MAINTAIN EXISTING RETAINING WALL

PROPERTY LINE (TYP.)

30' MDC WATER MAIN EASEMENT

PRELIMINARY
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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE PLAN

Sheet #: 2.12.2

Jul 01, 2025 - 10:09am cheedy
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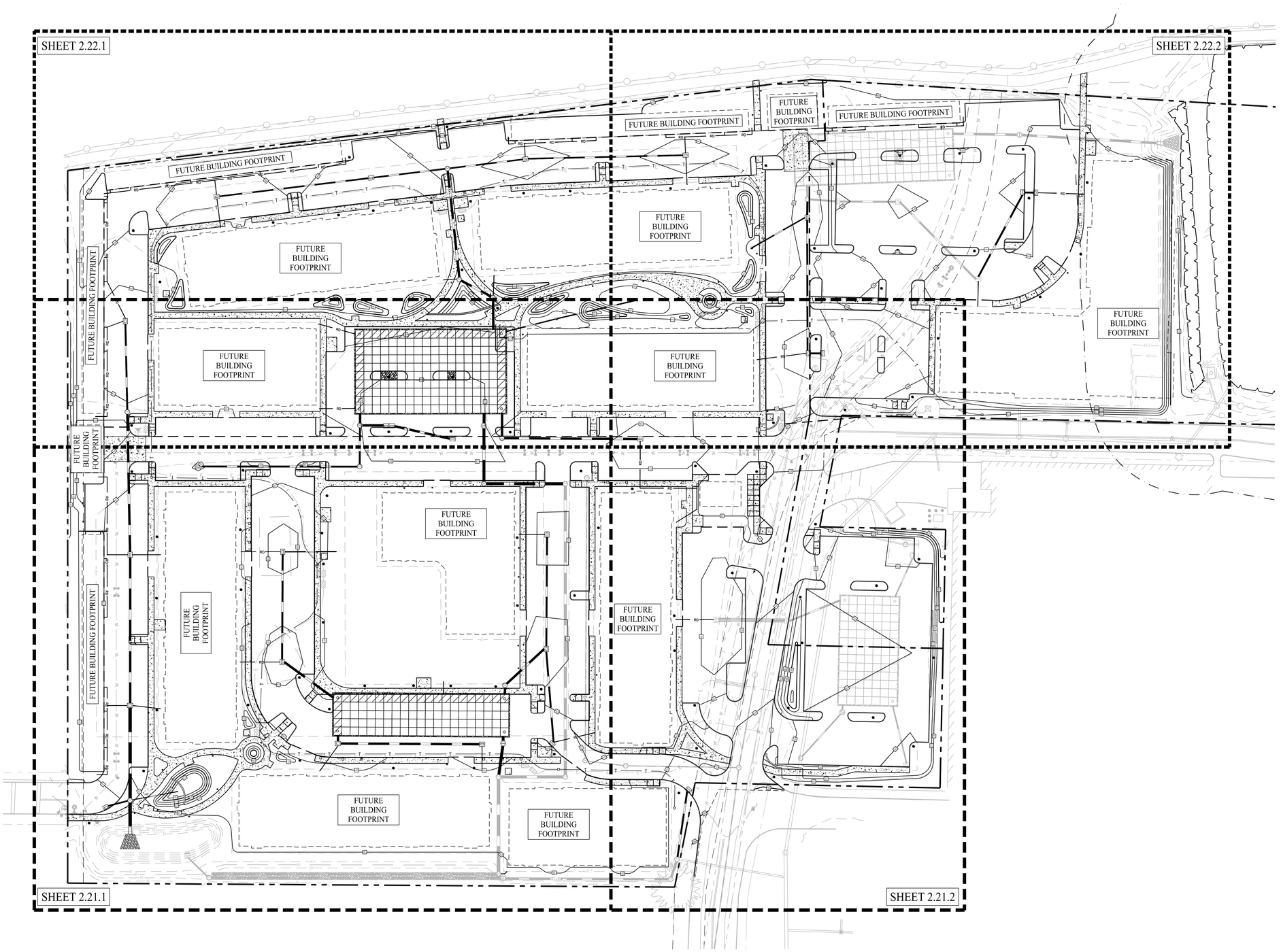
SHEET 2.22.1
SHEET 2.22.2
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SHEET 2.21.2
FUTURE BUILDING FOOTPRINT
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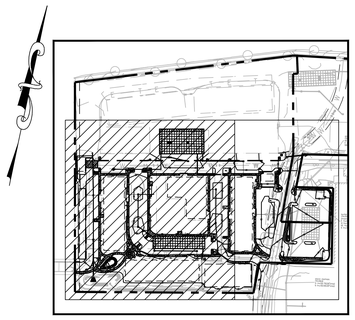

KEY MAP

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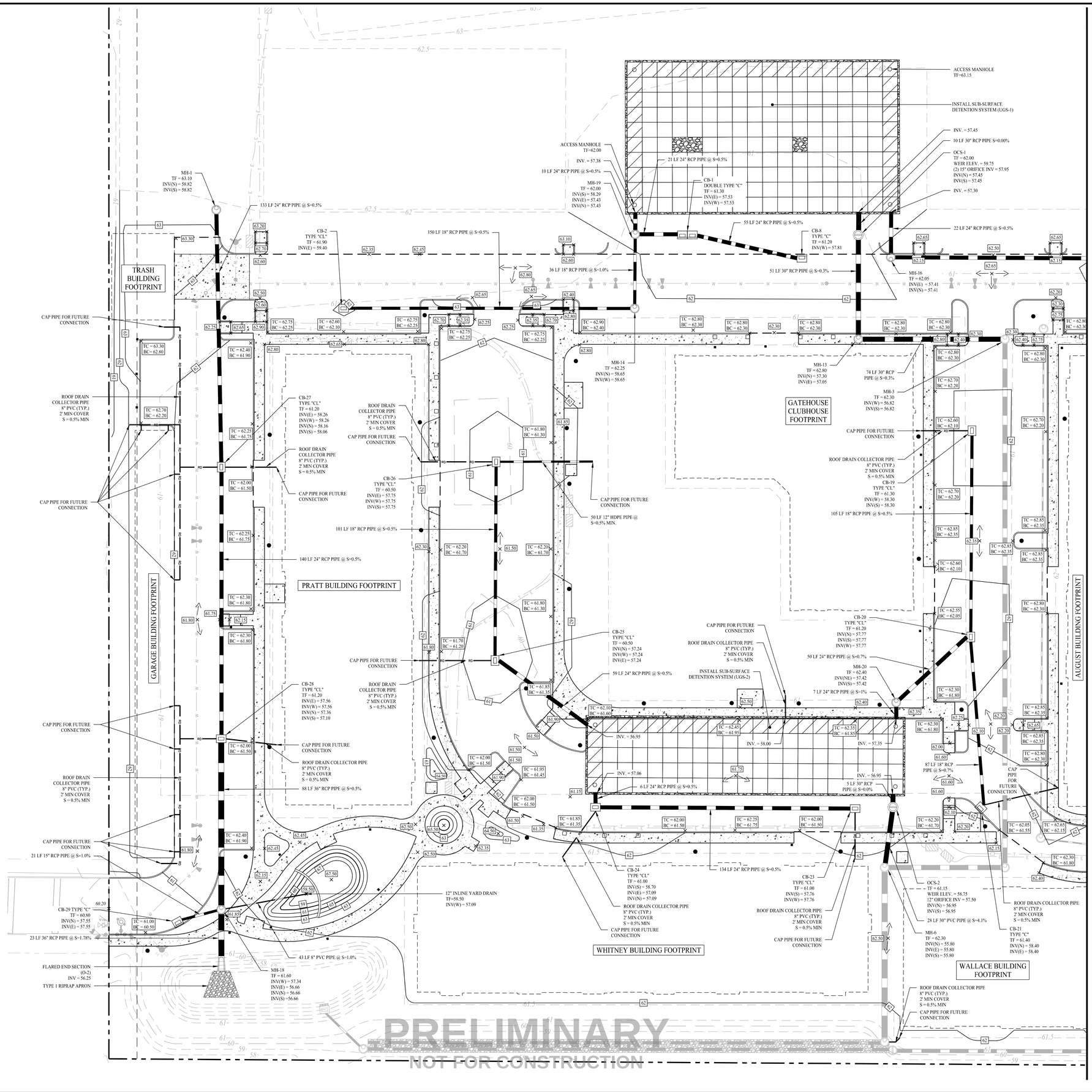

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CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B GRADING & DRAINAGE PLAN

Sheet #: 2.21.1

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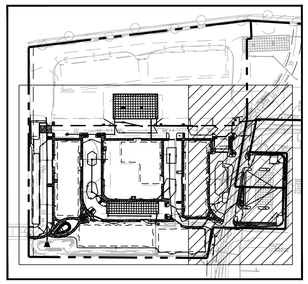

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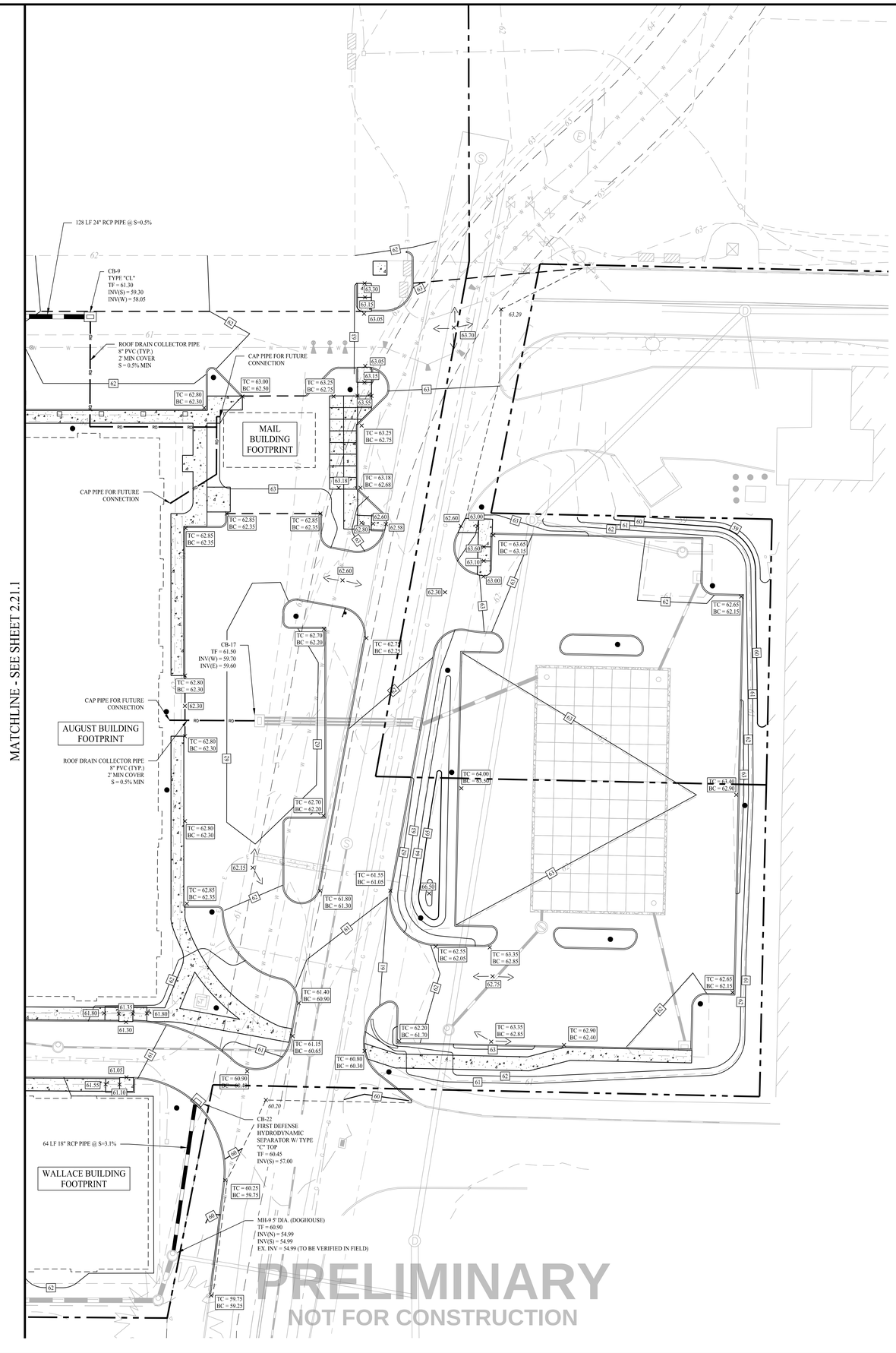

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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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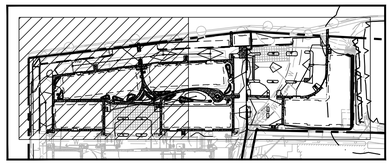
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B GRADING & DRAINAGE PLAN

Sheet #: 2.21.2



KEY MAP

SCALE: 1" = 200'

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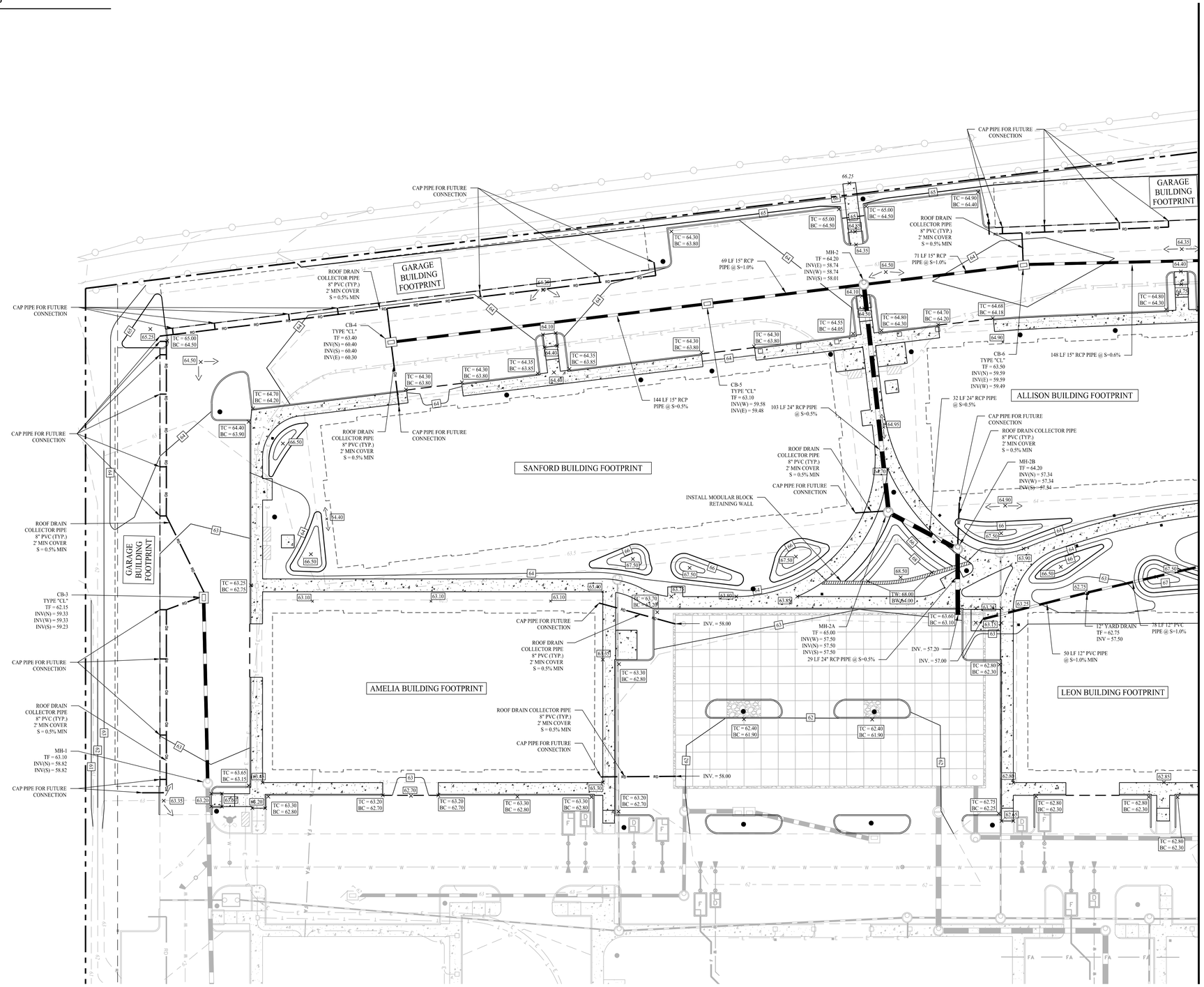

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CONCOURSE PARK

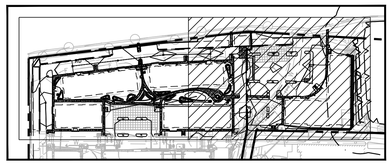
309 SILVER LANE

EAST HARTFORD, CONNECTICUT

CRDA PROJECT# 25-005

Sheet Title: PHASE 2 GRADING & DRAINAGE PLAN

Sheet #: 2.22.1



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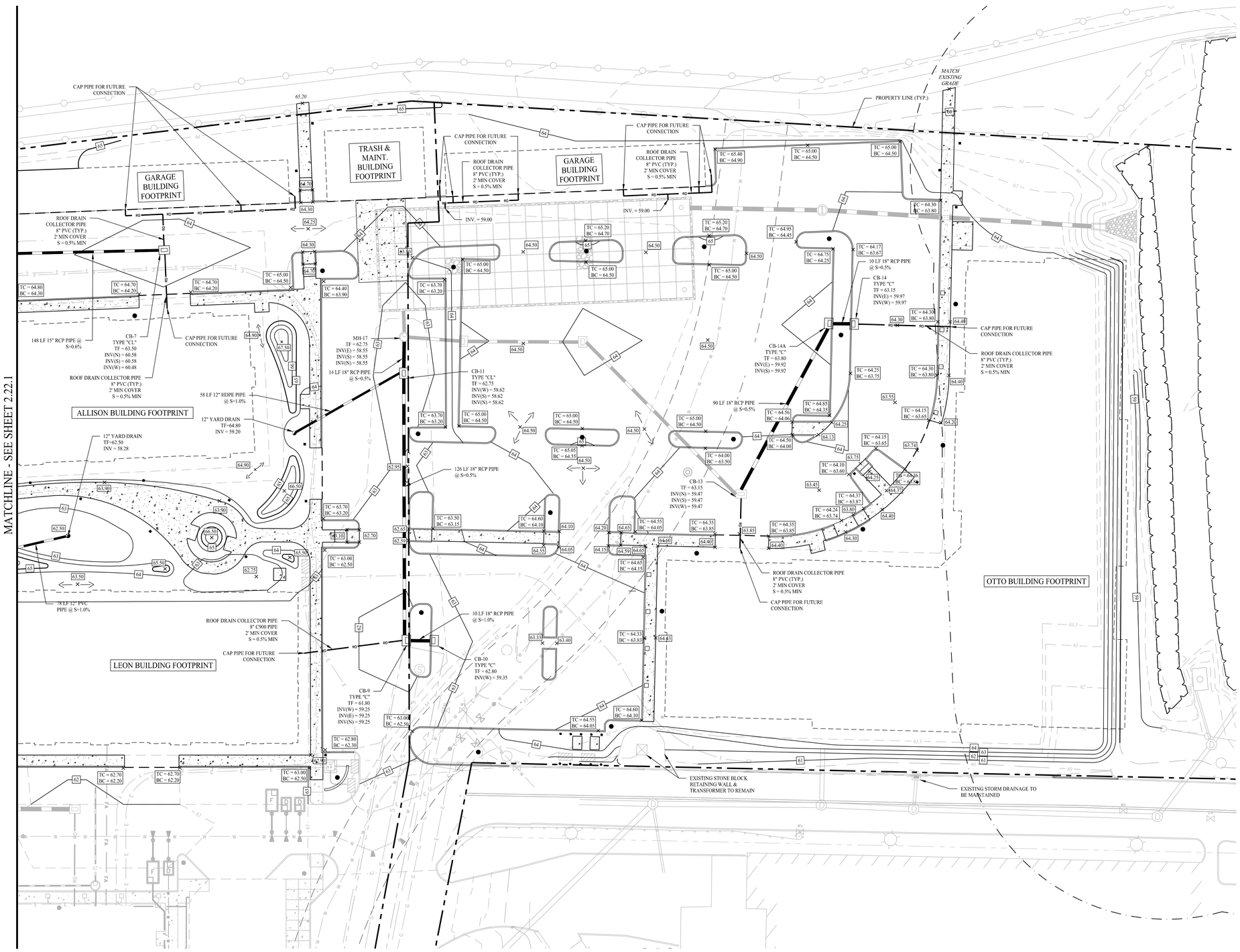

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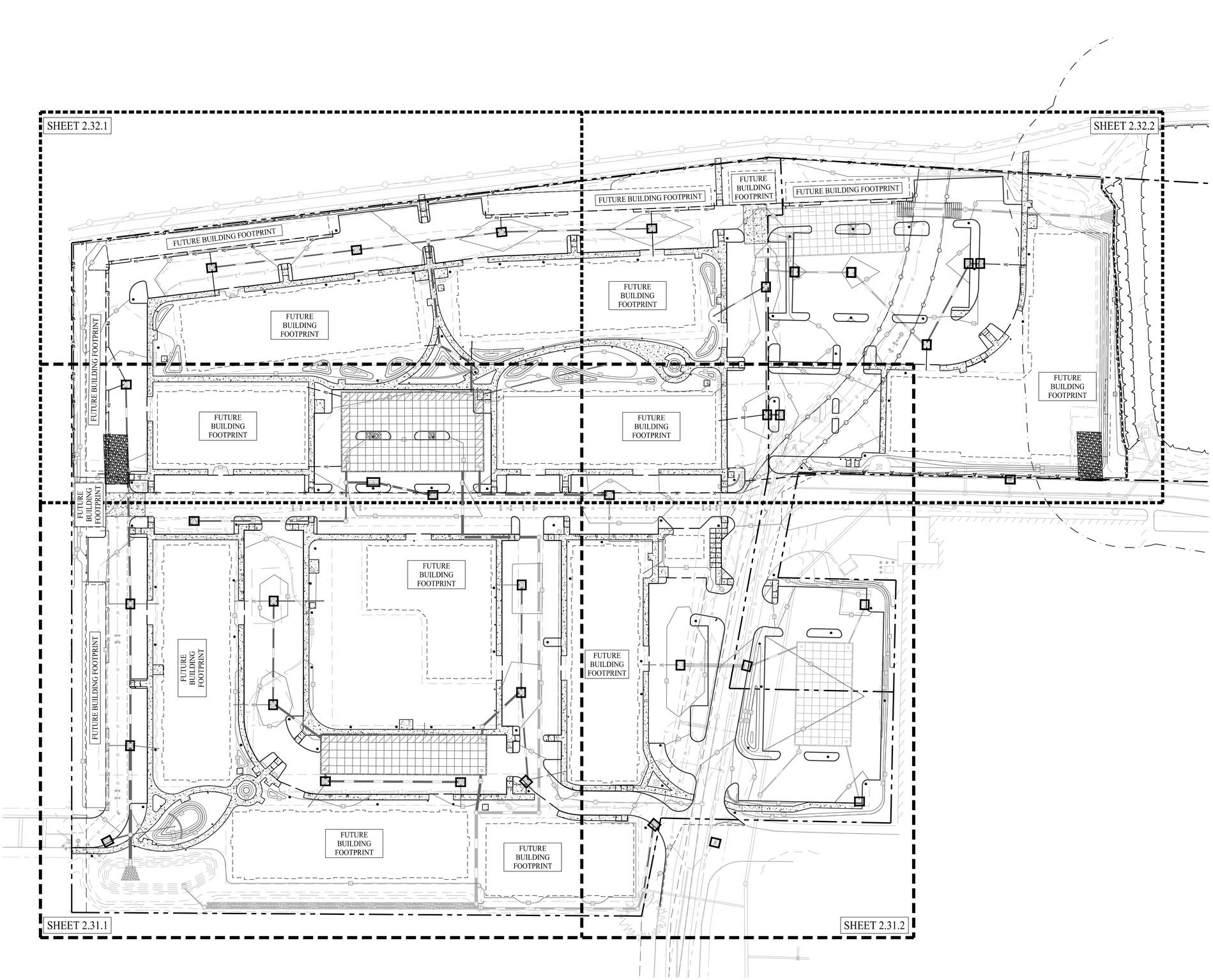
309 SILVER LANE

EAST HARTFORD, CONNECTICUT

CRDA PROJECT# 25-005

Sheet Title: PHASE 2 GRADING & DRAINAGE PLAN

Sheet #: 2.22.2



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Plan Date:	07/02/25
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL EROSION AND SEDIMENTATION CONTROL PLAN

Sheet #: 2.30

PRELIMINARY
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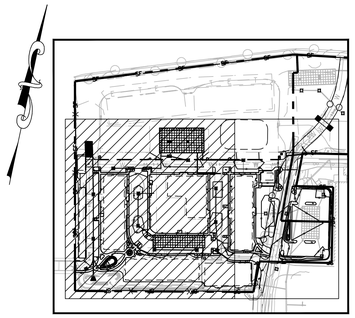
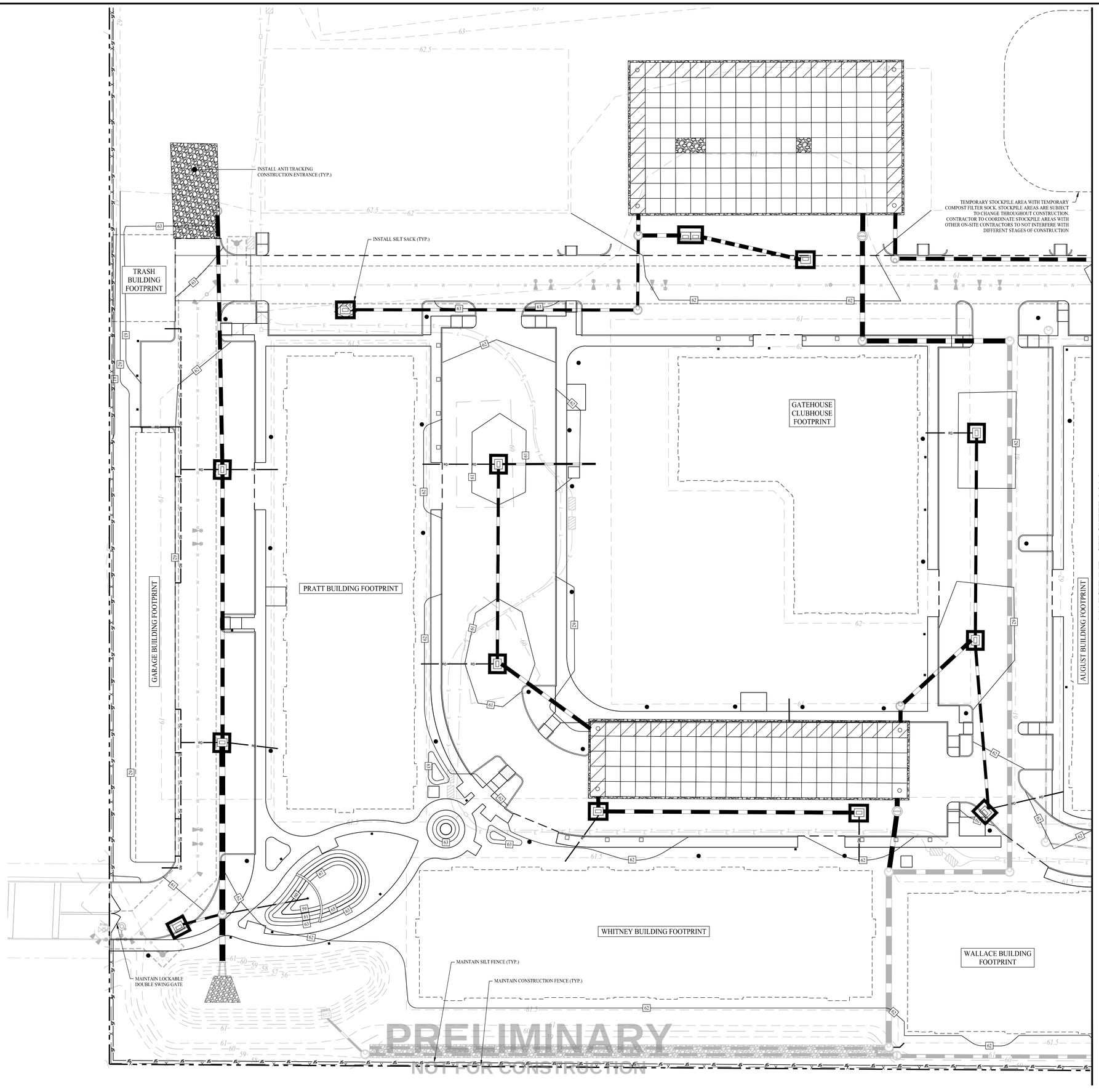


KEY MAP

SCALE: 1" = 200'



MATCHLINE - SEE SHEET 2.31.2

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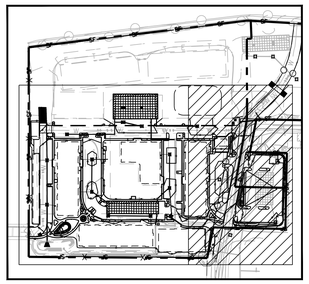
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B EROSION AND SEDIMENTATION PLAN

Sheet #: 2.31.1



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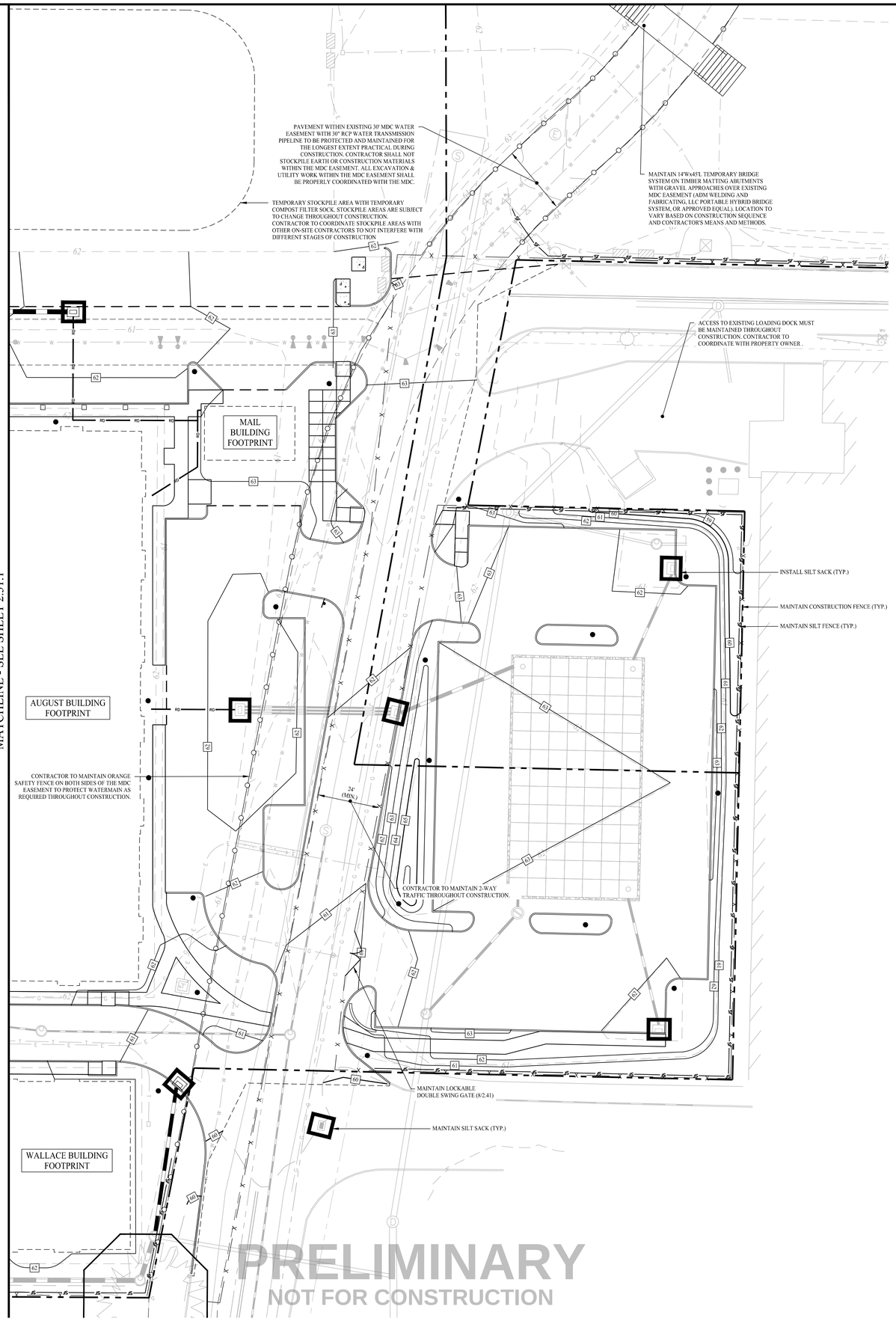

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CONCOURSE PARK
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CRDA PROJECT# 25-005

Sheet Title: PHASE 1B EROSION AND SEDIMENTATION PLAN

Sheet #: 2.31.2

Jul 01, 2025 - 10:11am dhendry
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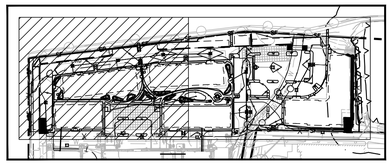

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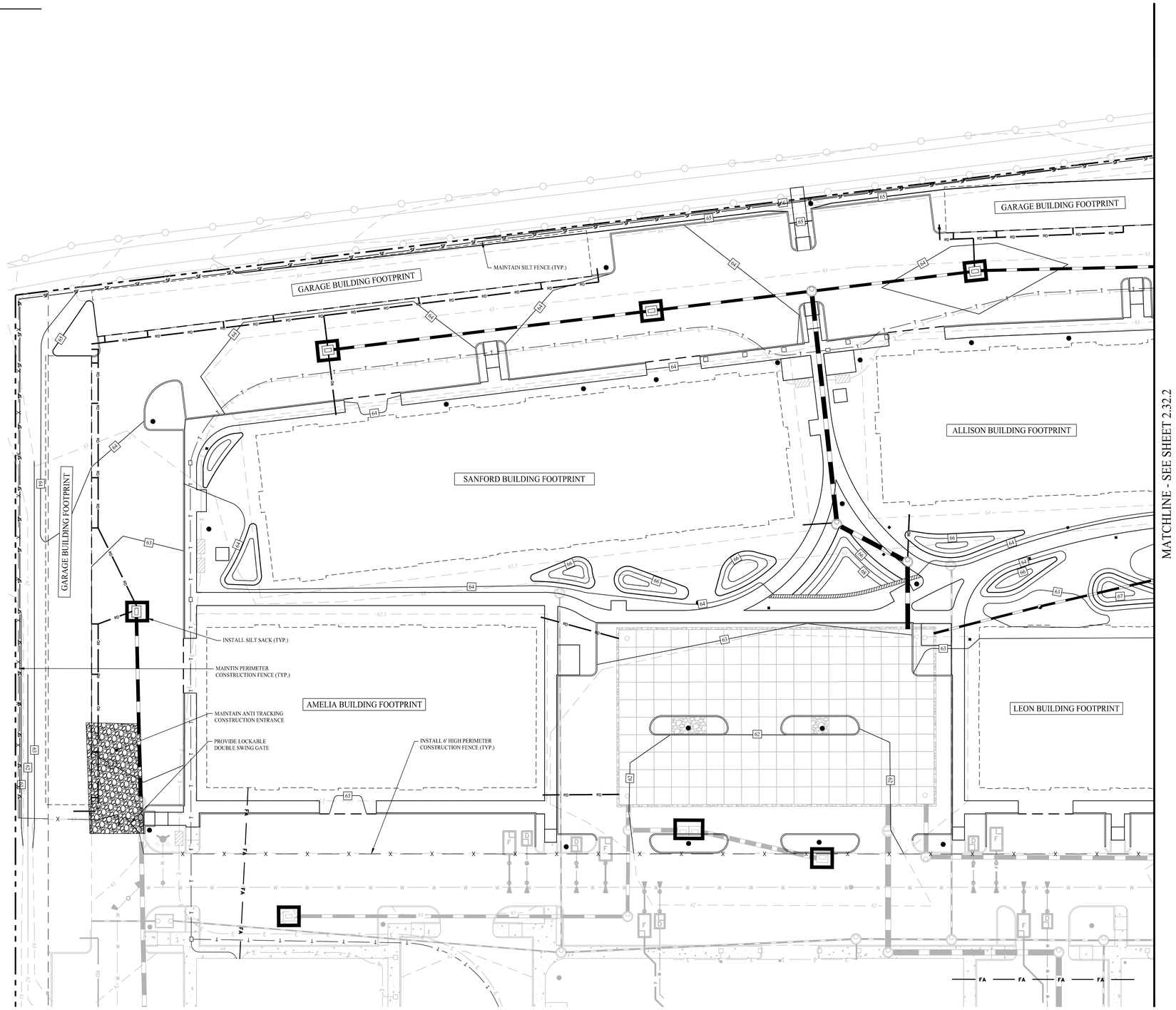

MATCHLINE - SEE SHEET 2.32.2

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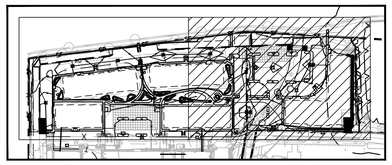
309 SILVER LANE

EAST HARTFORD, CONNECTICUT

CRDA PROJECT# 25-005

Sheet Title: PHASE 2 EROSION AND SEDIMENTATION PLAN

Sheet #: 2.32.1



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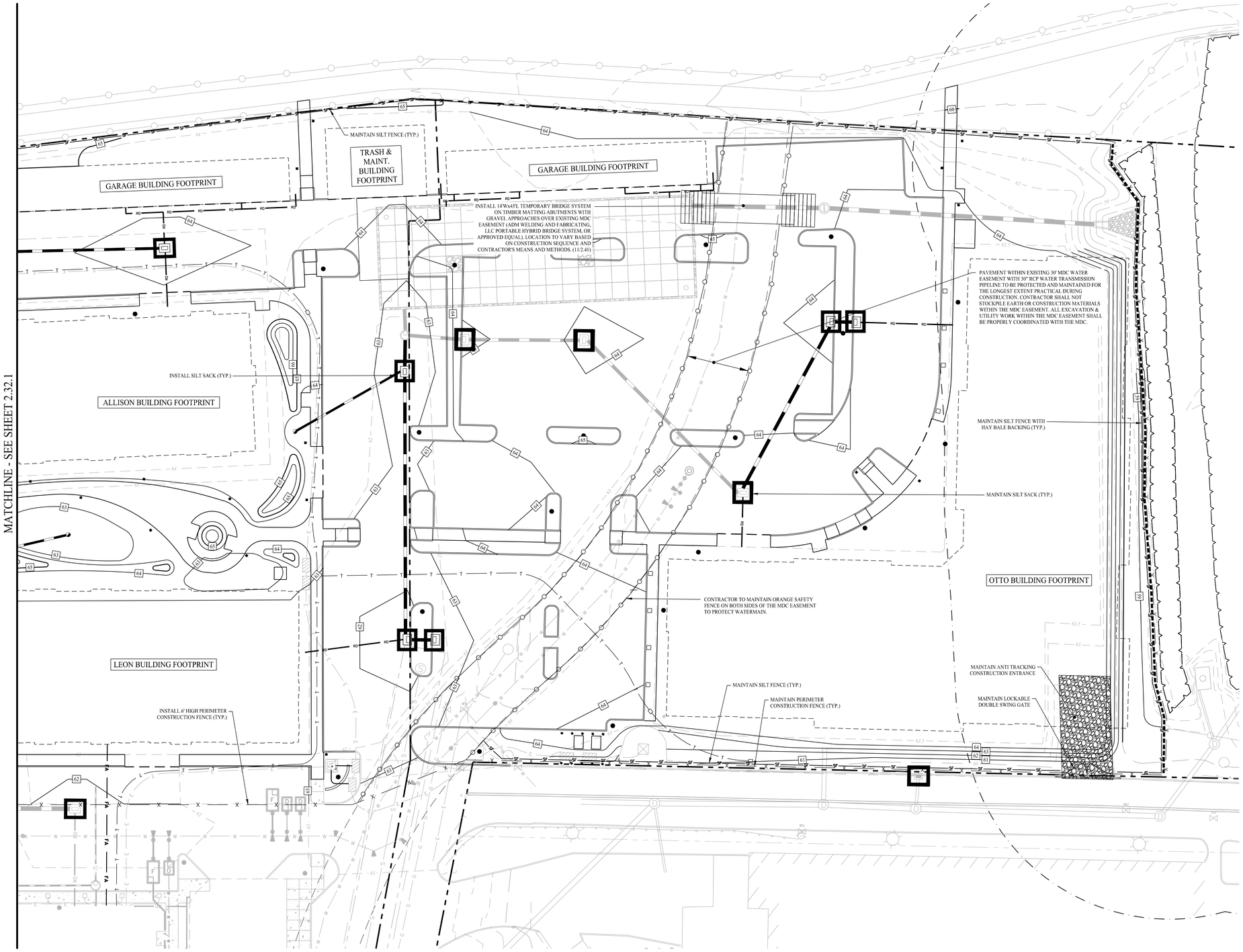

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Sheet Title: PHASE 2 EROSION AND SEDIMENTATION PLAN

Sheet #: 2.32.2

Jul 01, 2025 - 10:11am dherdy
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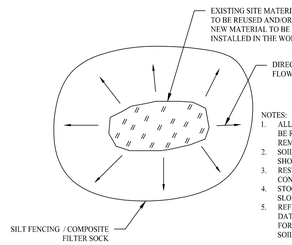
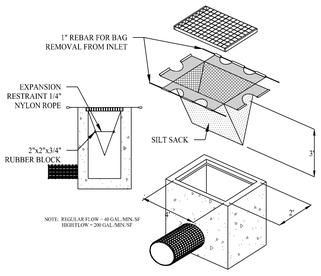


NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. SOIL/AGGREGATE STOCKPILE EDITED TO BE WHERE SHOWN ON THE DRAWINGS.
3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND SEEDED AS REQUIRED.
4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
5. REFER TO SOIL AND MATERIALS MANAGEMENT PLAN, DATED JUNE 2025 BY GZA GEOENVIRONMENTAL, INC FOR STOCKPILE REQUIREMENTS FOR CONTAMINATED SOIL, AVAILABLE UNDER SEPARATE COVER.

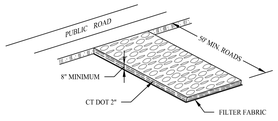
STOCKPILE AREA DETAIL

SCALE: NTS



SILT SACK DETAIL

SCALE: NTS



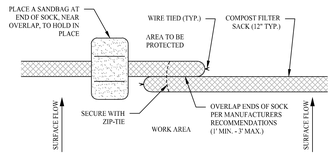
GRADATION TABLE

	CONN. DOT 2" CRUSHED GRAVEL	ASTM C-33 NO. 2	ASTM C-33 NO. 3
SQUARE MESH SIEVES	% FINER	% FINER	% FINER
2 1/2 INCHES	100	90-100	100
2 INCHES	95-100	35-70	90-100
1 1/2 INCHES	35-70	0-15	35-70
1 1/4 INCHES	0-25	---	---
1 INCHES	0-10	---	0-15
3/4 INCHES	---	0-5	---
1/2 INCHES	---	---	0-5
3/8 INCHES	---	---	---

SOURCE:
U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CT

CONSTRUCTION ENTRANCE

SCALE: NTS



COMPOST FILTER SOCK

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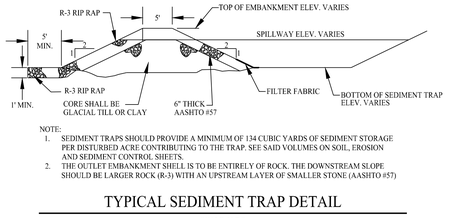
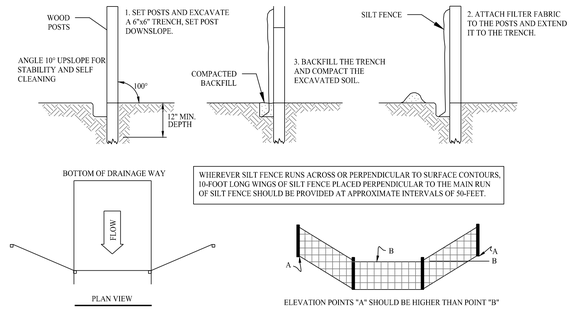
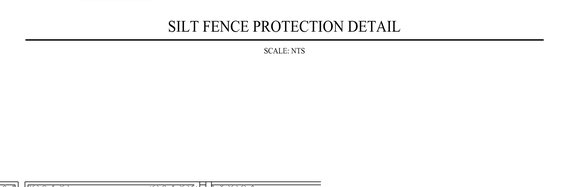


NOTE:
1. SEDIMENT TRAPS SHOULD PROVIDE A MINIMUM OF 134 CUBIC YARDS OF SEDIMENT STORAGE PER DISTURBED ACRE CONTRIBUTING TO THE TRAP. SEE SAID VOLUMES ON SOIL, EROSION AND SEDIMENT CONTROL SHEETS.
2. THE OUTLET EMBANKMENT SHELL IS TO BE ENTIRELY OF ROCK. THE DOWNSTREAM SLOPE SHOULD BE LARGER ROCK (R-3) WITH AN UPSTREAM LAYER OF SMALLER STONE (AASHTO #57)

TYPICAL SEDIMENT TRAP DETAIL

SCALE: N.T.S





WHEREVER SILT FENCE RUNS ACROSS OR PERPENDICULAR TO SURFACE CONTOURS, 10-FOOT LONG WINGS OF SILT FENCE PLACED PERPENDICULAR TO THE MAIN RUN OF SILT FENCE SHOULD BE PROVIDED AT APPROXIMATE INTERVALS OF 50-FEET.

SILT FENCE PROTECTION DETAIL

SCALE: NTS

SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES

SEDIMENT & EROSION CONTROL NARRATIVE
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND ANY ADJACENT WETLAND AREA AND WATER COURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SUMMER/FALL 2025 WITH COMPLETION ANTICIPATED BY FALL 2027. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL SITE CLEARING OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE LAND USE AGENTS OF THE TOWN OF EAST HARTFORD AND PROJECT ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

OPERATION REQUIREMENTS
CLEARING AND GRUBBING OPERATIONS:
1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES, INCLUDING THE CONSTRUCTION OF TEMPORARY SEDIMENTATION TRAPS AND STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS, WILL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING OPERATIONS.
2. FOLLOWING INSTALLATION OF ALL SEDIMENTATION AND EROSION CONTROL MEASURES, THE CONTRACTOR SHALL NOT PROCEED WITH GRADING, FILLING OR OTHER CONSTRUCTION OPERATIONS UNTIL THE ENGINEER HAS INSPECTED AND APPROVED ALL INSTALLATIONS.
3. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CLEARING AND GRUBBING OPERATIONS SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR SEDIMENTATION AND EROSION CONTROL DEVICES.
4. FOLLOWING THE COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ALL AREAS SHALL BE STABILIZED WITH TOPSOIL AND SEEDING OR PROCESSED AGGREGATE STONE AS SOON AS PRACTICAL.
5. ALL REMOVED INVASIVE PLANT SPECIES MATERIAL SHALL BE FULLY REMOVED FROM THE SITE AND TAKEN TO AN APPROVED AND/OR ACCEPTABLE DISPOSAL LOCATION.

ROUGH GRADING OPERATIONS:
1. DURING THE REMOVAL AND/OR PLACEMENT OF EARTH AS INDICATED ON THE GRADING PLAN, TOPSOIL SHALL BE STRIPPED AND APPROPRIATELY STOCKPILED FOR REUSE.
2. ALL STOCKPILED TOPSOIL SHALL BE SEEDED, MULCHED WITH HAY, AND ENCLOSED BY A SILTATION FENCE.

FILLING OPERATIONS:
1. PRIOR TO FILLING, ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE PROPERLY IMPLEMENTED, MAINTAINED AND FULLY INSTALLED, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THIS PLAN.
2. ALL FILL MATERIAL ADJACENT TO ANY WETLAND AREAS, IF APPLICABLE TO THIS PROJECT, SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN LIFT THICKNESS NOT GREATER THAN THAT SPECIFIED IN PROJECT SPECIFICATIONS. LIFTS SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS OR IN THE GEOTECHNICAL REPORT.
3. AS GENERAL GRADING OPERATIONS PROGRESS, ANY TEMPORARY DIVERSION DITCHES SHALL BE RAISED OR LOWERED, AS NECESSARY, TO DIVERT SURFACE RUNOFF TO THE SEDIMENT TRAPS.

PLACEMENT OF DRAINAGE STRUCTURES, UTILITIES, AND ROADWAY CONSTRUCTION OPERATIONS:
1. SILT FENCES SHALL BE INSTALLED AT THE DOWNHILL SIDES OF TEMPORARY SEDIMENT TRAP SLOPES, MUD PUMP DISCHARGES, AND UTILITY TRENCH MATERIAL STOCKPILES. HAY BALES MAY BE USED IF SHOWN ON THE EROSION CONTROL PLANS OR IF DIRECTED BY THE PROJECT ENGINEER.

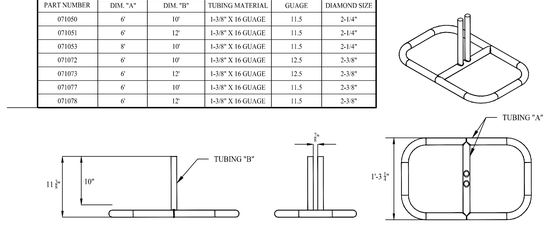
FINAL GRADING AND PAVING OPERATIONS:
1. ALL INLET AND OUTLET PROTECTION SHALL BE PLACED AND MAINTAINED AS SHOWN ON EROSION CONTROL PLANS AND DETAILS, AND AS DESCRIBED IN SPECIFICATIONS AND AS DESCRIBED HEREIN.
2. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS, JUTE MESH AND VEGETATION. ALL SLOPES SHALL BE SEEDED, AND ANY ROAD OR DRIVEWAY SHOULDER AND BANKS SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.
3. PAVEMENT SUB-BASE AND BASE COURSES SHALL BE INSTALLED OVER AREAS TO BE PAVED AS SOON AS FINAL SUB-GRADES ARE ESTABLISHED AND UNDERGROUND UTILITIES AND STORM DRAINAGE SYSTEMS HAVE BEEN INSTALLED.
4. AFTER CONSTRUCTION OF PAVEMENT, TOPSOIL, FINAL SEED, MULCH AND LANDSCAPING, REMOVE ALL TEMPORARY EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR GRASS HAS BEEN WELL ESTABLISHED AND THE SITE HAS BEEN INSPECTED AND APPROVED BY THE TOWN OF EAST HARTFORD.

INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES
I. SILTATION FENCE:
   A. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.
   B. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 1.5 FEET INTO THE GROUND.
   C. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.
   D. BACKFILL THE TRENCH AND COMPACT.
II. SILT SACK INLET PROTECTION:
   A. ALL SILT SACK INLET PROTECTION DEVICES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATE SILT SACKS AND SACKS THAT APPEAR TO HAVE AN EXCESS OF SEDIMENT SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.
   B. SEDIMENT DEPOSITS SHALL BE REMOVED FROM THE SILT SACKS WHEN THEY EXCEED A COUPLE INCHES OF SEDIMENT WITHIN THE CATCH BASIN.

OPERATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES
I. SILTATION FENCE:
   A. ALL SILTATION FENCES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.
   B. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.
II. CHECK DAMS:
   A. ALL STONE CHECK DAMS SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF STONE CHECK DAMS SHALL BE PROMPTLY MADE AND ACCUMULATED SEDIMENT REMOVED WHEN IT REACHES ONE HALF OF THE HEIGHT OF THE CHECK DAM.
III. TEMPORARY/PERMANENT DRAINAGE SWALES:
   A. SWALES SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF ANY WASHED OUT OR ERODED SLOPES SHALL BE MADE PROMPTLY AND THE AREA SHALL BE RESEEDED AS NECESSARY.

EROSION AND SEDIMENT CONTROL PLAN
1. HAY BALE FILTERS OR SILTATION FENCE WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
2. CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS; ENERGY DISSIPATERS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.
3. CATCH BASINS WILL BE PROTECTED WITH HAY BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL, LATEST EDITION.
5. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.
6. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
7. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY LOCAL GOVERNING OFFICIALS.
8. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE EROSION CONTROL PLANS, NOTES, AND DETAILS.
9. THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN.

CONSTRUCTION SEQUENCE
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
1. THIS CONSTRUCTION SEQUENCE IS PROVISIONAL AND SUBJECT TO FIELD CONSTRUCTION RELATED ADJUSTMENTS AS MAY BE NECESSARY.
2. THE SITE IS TO BE CONSTRUCTED AS A SINGLE PHASE. SOME BUILDINGS AND ASSOCIATED PARKING SPACES MAY BE COMPLETED/OCCUPIED PRIOR TO THE ENTIRE PROJECT BEING COMPLETED. PHASED OCCUPANCY SHALL BE REVIEWED AND APPROVED BY THE BUILDING DEPARTMENT.
3. CONSTRUCTION SCHEDULE:
   START OF CONSTRUCTION: SUMMER/FALL 2025
   CONSTRUCTION COMPLETION: FALL 2027
4. CONTACT TOWN OF EAST HARTFORD AGENT AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.
5. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF EAST HARTFORD AGENT PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND PERIMETER SILT FENCE.
6. CONSTRUCT STONE CONSTRUCTION ANTI-TRACKING PADS AT CONSTRUCTION ENTRANCES/EXITS AND WRAP FILTER FABRIC AROUND GRATES OF CATCH BASINS OR INSTALL SILT SACKS ON CATCH BASIN INLETS ON OFF SITE ROADS. INSTALL SILT FENCE AND OTHER EROSION CONTROL DEVICES INDICATED ON THESE PLANS AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS. INSTALL SEDIMENT TRAPS IF REQUIRED AT LOW AREAS OF SITE OR AS ORDERED BY THE ENGINEER OR AS SHOWN ON THESE PLANS.
7. CLEAR AND GRUB SITE. STOCKPILE CHIPS. STOCKPILE TOPSOIL. INSTALL EROSION CONTROLS AT STOCKPILES.
8. BUILDING AND SITE DEMOLITION AND REMOVAL. PAVEMENT REMOVAL.
9. COMMENCE EARTHWORK. CONSTRUCT FILL SLOPE AND RETAINING WALLS. INSTALL ADDITIONAL EROSION CONTROLS AS WORK PROGRESSES AND CONTINUE STORM DRAINAGE SYSTEM CONSTRUCTION, TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.
10. CONSTRUCTION STAKING OF ALL BUILDING CORNERS, UTILITIES, ACCESS DRIVES, AND PARKING AREAS.
11. ROUGH GRADING AND FILLING OF SUBGRADES AND SLOPES.
12. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
13. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST PROVIDE EVIDENCE THAT EACH SPOIL OR BORROW AREA HAS AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE TOWN OF EAST HARTFORD AND WHICH IS BEING IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL ALSO NOTIFY THE TOWN OF EAST HARTFORD IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.
14. CONTINUE INSTALLATION OF STORM DRAINAGE AS SUBGRADE ELEVATIONS ARE ACHIEVED.
15. BUILDING FOUNDATION SUBGRADE AND PAD SUBGRADE PREPARATION.
16. BUILDING FOUNDATION CONSTRUCTION. BEGIN BUILDING SUPERSTRUCTURE
17. THROUGHOUT CONSTRUCTION SEQUENCE, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENTATION BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.25 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.25 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
18. INSTALL SANITARY LATERAL AND UTILITIES. COMPLETE STORM DRAINAGE SYSTEM.
19. INSTALL SITE LIGHTING AND TRASH ENCLOSURE.
20. COMPLETE GRADING TO SUBGRADES AND CONSTRUCT PARKING AREA SUBGRADE.
21. CONSTRUCT CURBS, PAVEMENT STRUCTURE AND SIDEWALKS
22. CONDUCT FINE GRADING.
23. CONSTRUCT OFF SITE ROADWAY IMPROVEMENTS
24. PAVING OF PARKING AREAS AND DRIVEWAYS
25. FINAL FINE GRADING OF SLOPE AND NON-PAVED AREAS.
26. PLACE 4" TOPSOIL ON SLOPES AFTER FINAL GRADING IS COMPLETED. FERTILIZE SEED AND MULCH. SEED MIXTURE TO BE INSTALLED APRIL 15-JUNE 1 OR AUGUST 15-OCTOBER 1. USE EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 4.0 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
27. LANDSCAPE ISLANDS INTERIOR NON-PAVED AREA AND PERIMETER AREAS.
28. INSTALL SIGNING AND PAVEMENT MARKINGS
29. CLEAN STORM DRAINAGE PIPE STRUCTURES, DETENTION SYSTEMS AND WATER QUALITY DEVICES OF DEBRIS AND SEDIMENT.
30. UPON DIRECTION OF THE TOWN OF EAST HARTFORD AGENT, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.



PART NUMBER	DIM. "A"	DIM. "B"	TUBING MATERIAL	CHAIN LINK MATERIAL GUAGE	CHAIN LINK MATERIAL DIAMOND SIZE
071050	6'	10'	1-3/8" X 16 GUAGE	11.5	2-1/4"
071051	6'	12'	1-3/8" X 16 GUAGE	11.5	2-1/4"
071053	8'	10'	1-3/8" X 16 GUAGE	11.5	2-1/4"
071072	6'	10'	1-3/8" X 16 GUAGE	12.5	2-3/8"
071073	6'	12'	1-3/8" X 16 GUAGE	12.5	2-3/8"
071077	6'	10'	1-3/8" X 16 GUAGE	11.5	2-3/8"
071078	6'	12'	1-3/8" X 16 GUAGE	11.5	2-3/8"

TEMPORARY CONSTRUCTION FENCE

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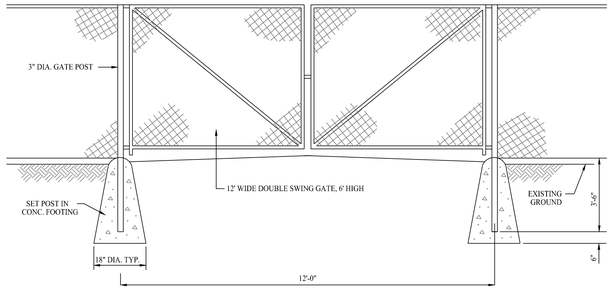

GATE DETAIL

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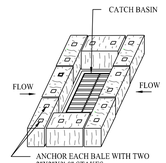
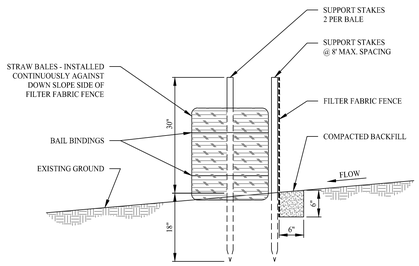


NOTE:
STORMWATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT.

HAYBALE INLET PROTECTION

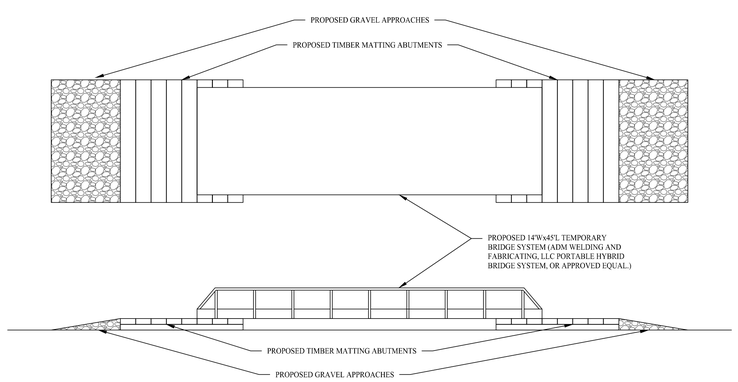
SCALE: NTS



NOTE:
1. USE 2" x 2" x 48" WOODEN STAKES OR EQUIVALENT STEEL (U OR T) STAKES.

SILT FENCE WITH HAYBALE BACKING

SCALE: NTS



TEMPORARY BRIDGE SYSTEM

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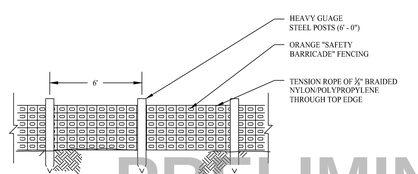

CONSTRUCTION SAFETY FENCE DETAIL

SCALE: NTS

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Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

Sheet #: 2.41

Jul 01, 2025 - 10:12am dherdy
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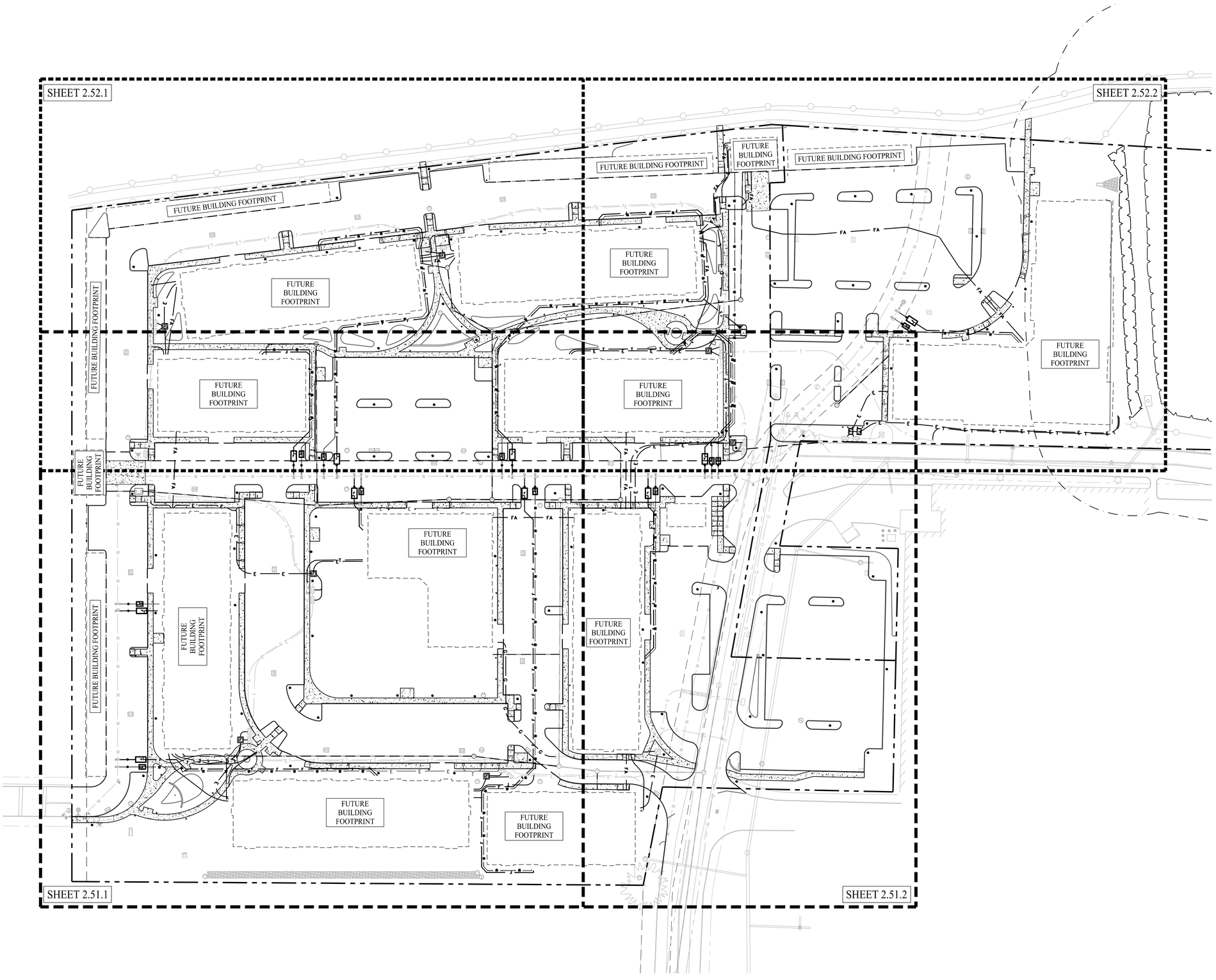

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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL SITE UTILITY PLAN

Sheet #: 2.50

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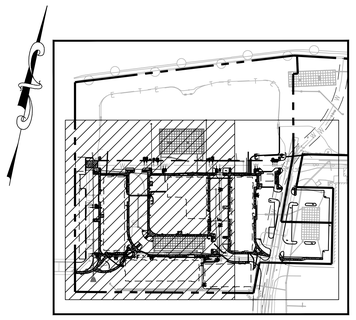
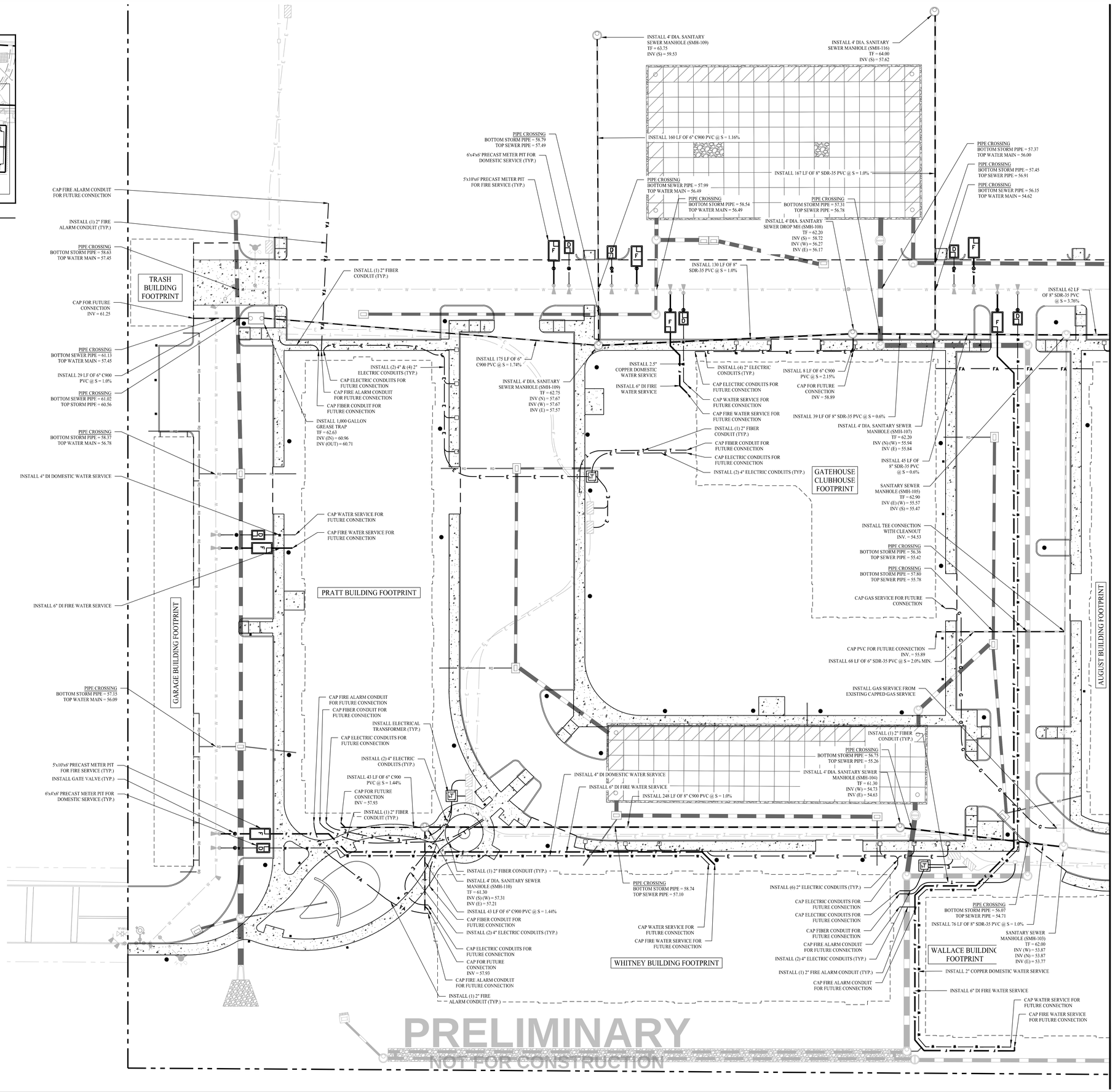


KEY MAP

SCALE: 1" = 200'

GENERAL NOTES

1. REFER TO SHEET 0.10 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.



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CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE UTILITY PLAN

Sheet #: 2.51.1

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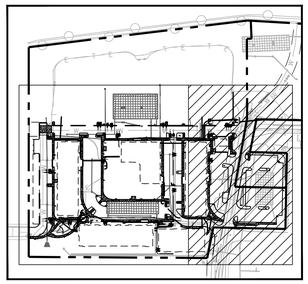

KEY MAP

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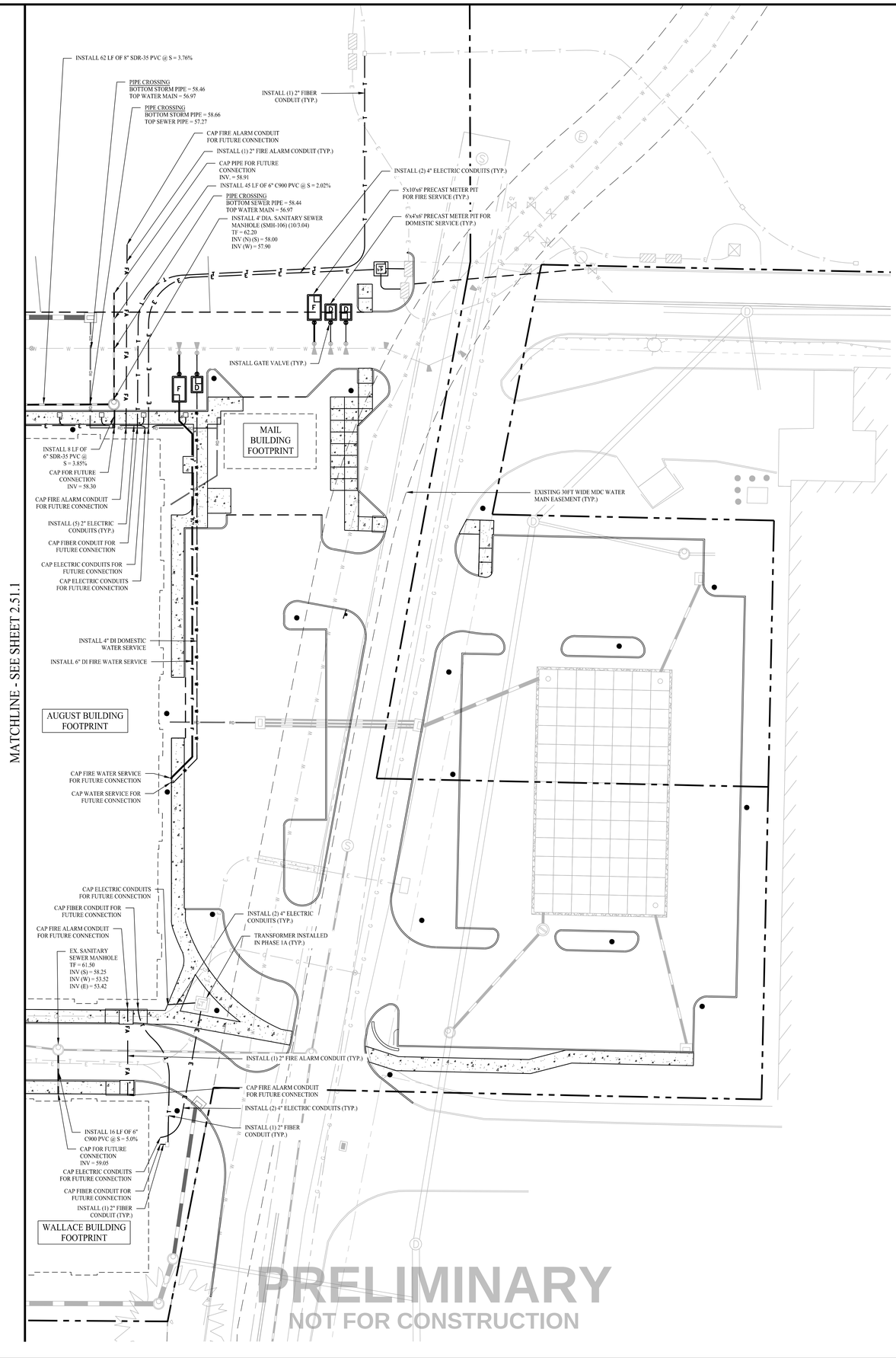

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CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE UTILITY PLAN

Sheet #: 2.51.2

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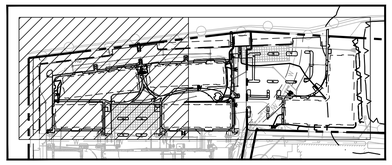

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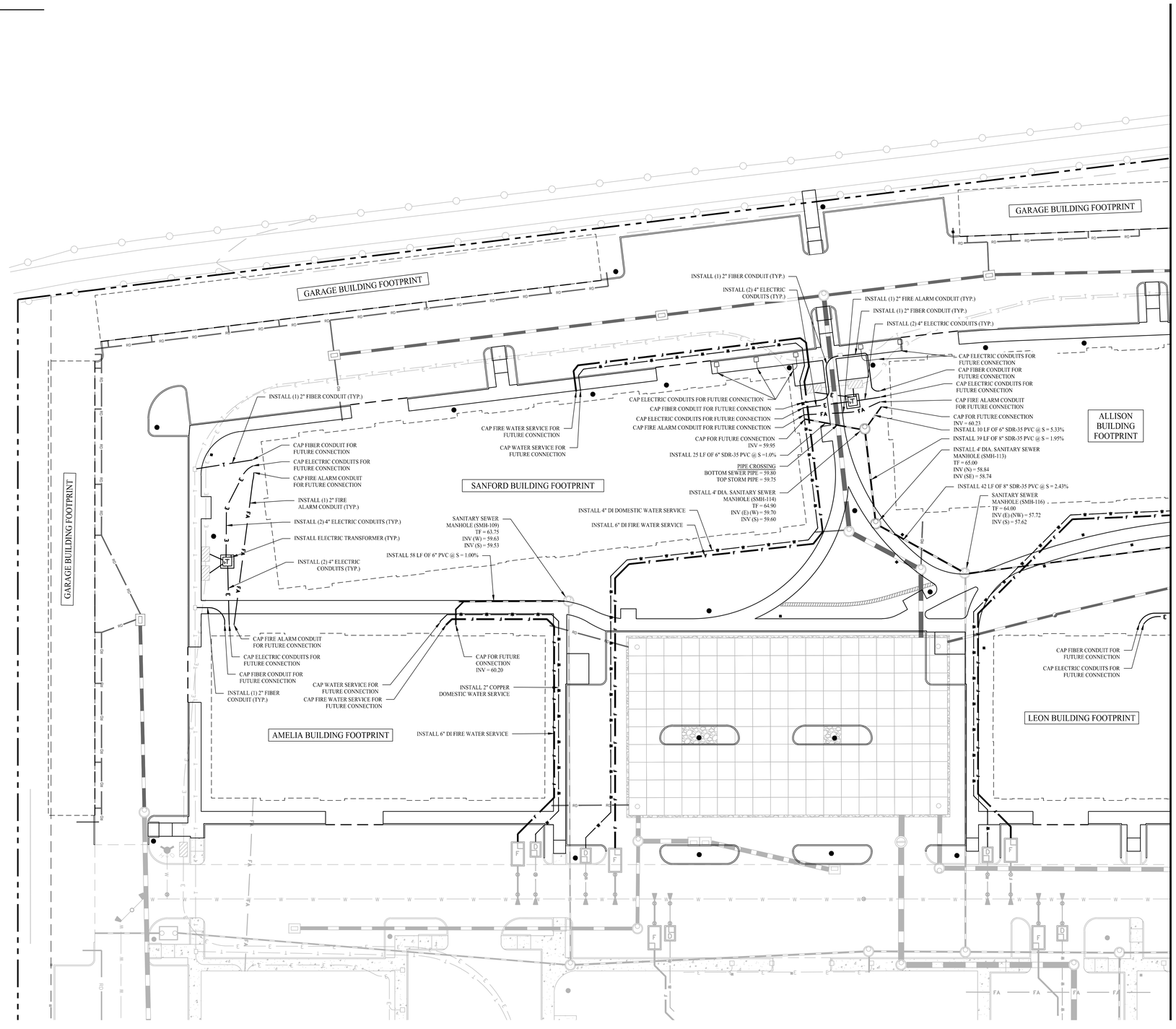

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CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
PHASE 2 SITE UTILITY PLAN	2.52.1

Jul 01, 2025 - 10:12pm cheedy
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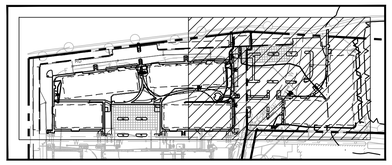
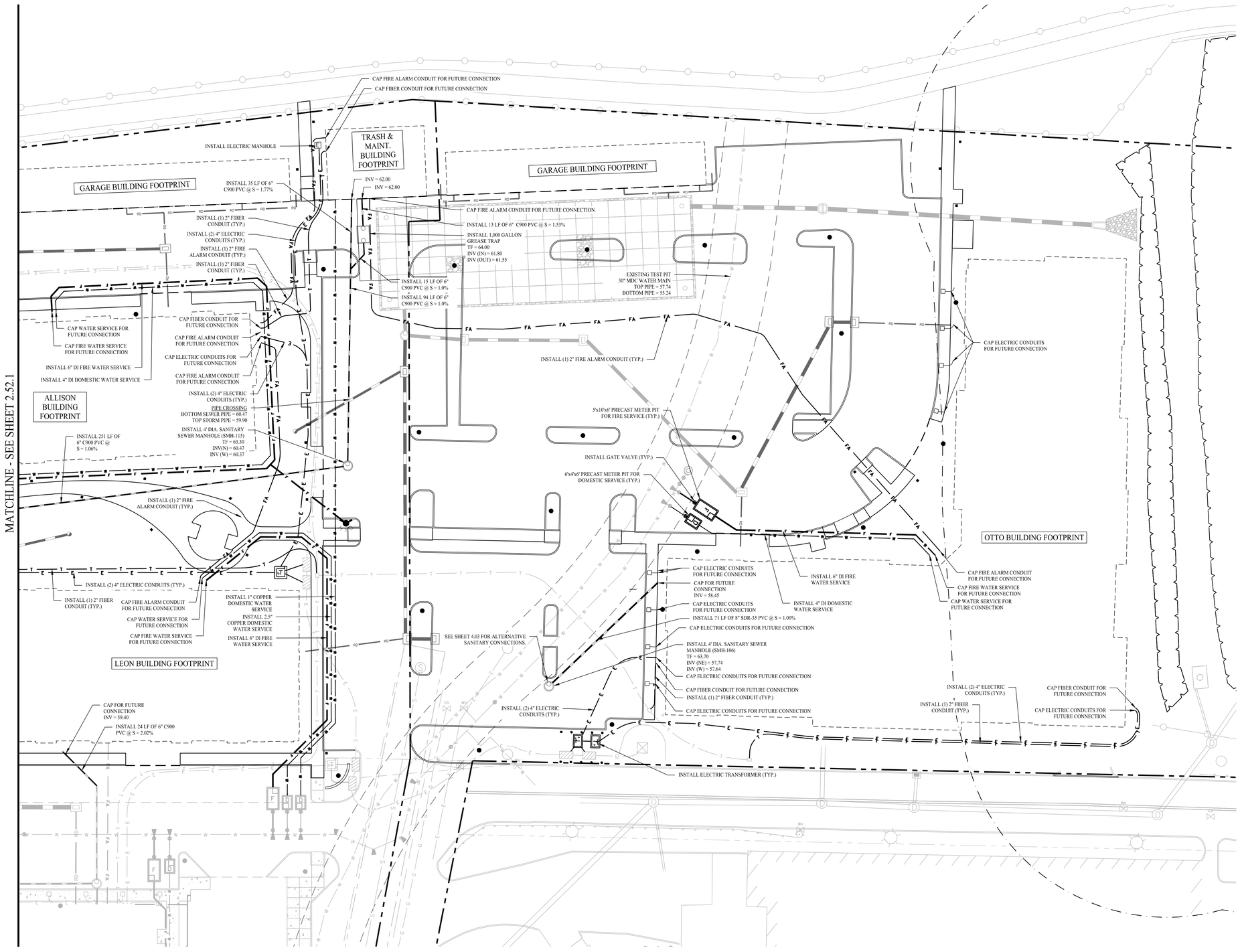


KEY MAP

SCALE: 1" = 200'

GENERAL NOTES

1. REFER TO SHEET 0.10 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.



PRELIMINARY

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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE UTILITY PLAN

Sheet #: 2.52.2

Jul 01, 2025 - 10:32am ahendry
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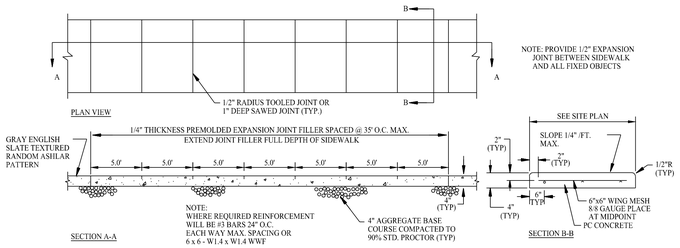
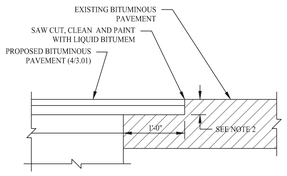


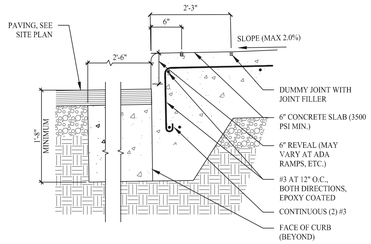
CONCRETE SIDEWALK

SCALE: NTS



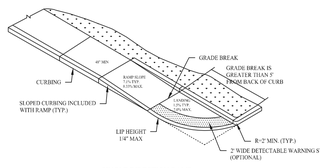
PAVEMENT MATCH TREATMENT (SAWCUT) DETAIL

SCALE: NTS

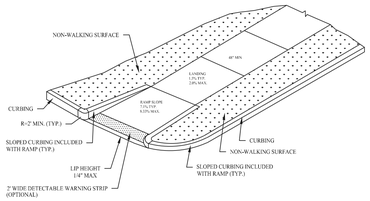


INTEGRAL CURB AT PAVEMENT

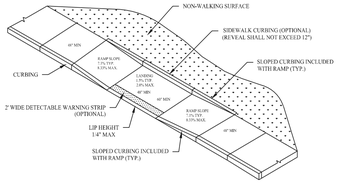
SCALE: NTS



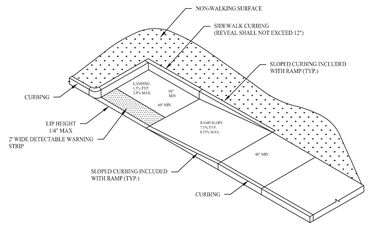
SINGLE DIRECTION RAMP
WITHOUT NON-WALKING SURFACE
GRADE BREAK GREATER THAN 5'
(TYPE 14)



SINGLE DIRECTION - RETURN CURB
WITH NON-WALKING SURFACE
(TYPE 16)



PARALLEL RAMP WITHOUT
NON-WALKING SURFACE
(TYPE 9)



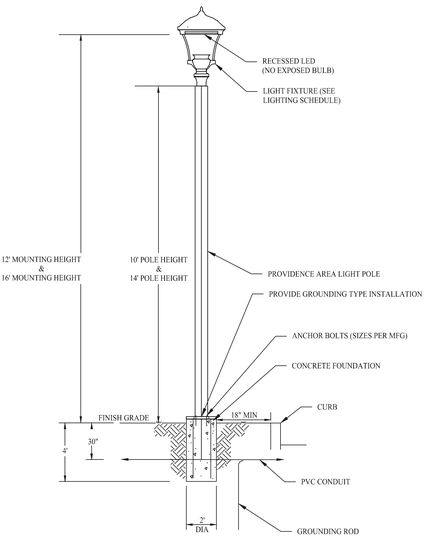
PARALLEL RAMP
WITH LANDING AT BOTTOM ON CORNER
(TYPE 10)

NOTE: ADA WARNING STRIPS NOT TO BE INSTALLED INTERIOR TO THE SITE.

CTDOT ADA STANDARD SIDEWALK DETAILS

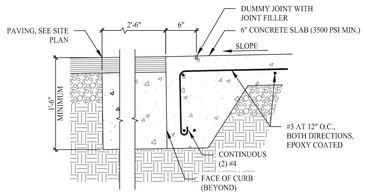
SCALE: NTS

DETAILS BY CTDOT



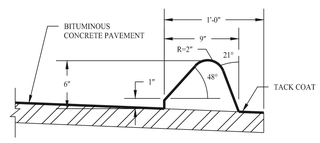
PROPOSED LIGHT POLE - P1, P2, P3, P4 & P5

ARCHITECTURAL AREA LIGHTING - PROV2
SCALE: NTS



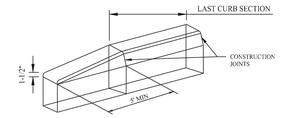
FLUSH CURB AT PAVEMENT

SCALE: NTS



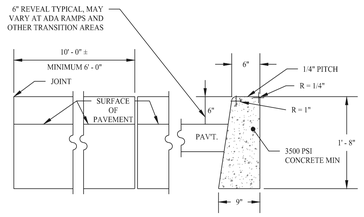
EXTRUDED BITUMINOUS CONCRETE LIP CURBING DETAIL

SCALE: NTS



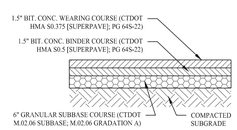
CURB TRANSITION DETAIL

SCALE: NTS



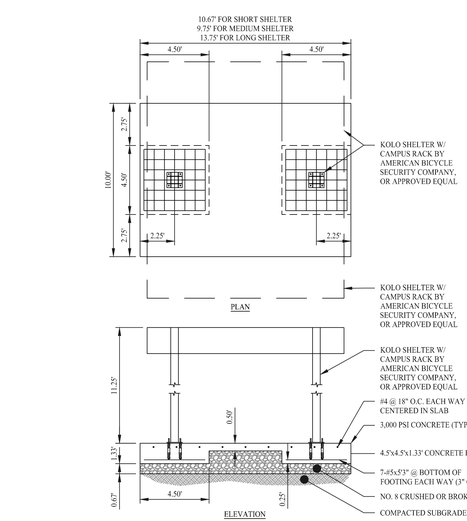
CONCRETE CURBING DETAIL

SCALE: NTS



STANDARD DUTY ASPHALT PAVING DETAIL

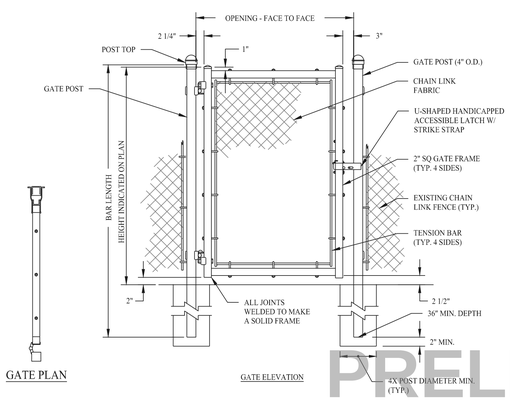
SCALE: NTS



KOLO SHELTER CAMPUS RACK DETAIL

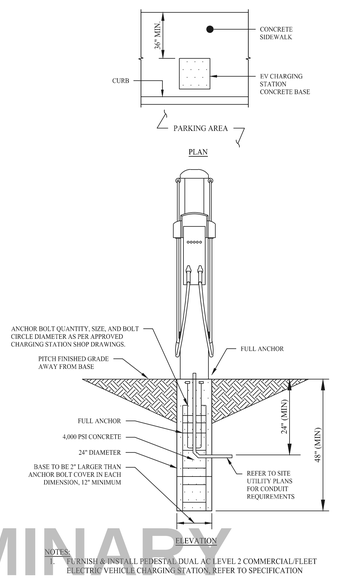
SCALE: NTS

DETAIL PROVIDED BY AMERICAN BICYCLE SECURITY COMPANY



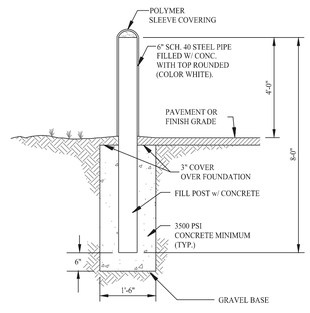
CHAIN LINK FENCE GATE DETAIL

SCALE: NTS



EV CHARGING STATION BASE DETAIL

SCALE: NTS



PROTECTION BOLLARD DETAIL

SCALE: NTS

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.01

Jul 01, 2025 - 10:13am cheverly
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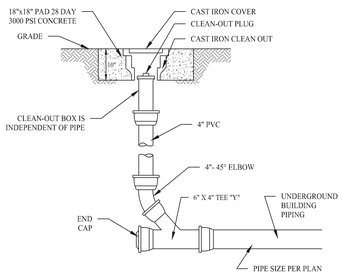
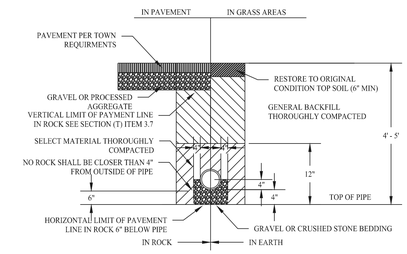


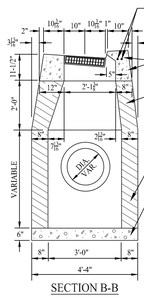
STORM CLEANOUT DETAIL

SCALE: N.T.S

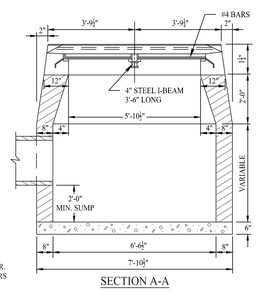


STORM TRENCH DETAIL

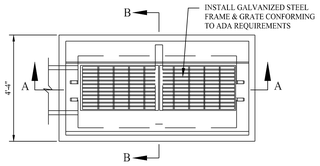
SCALE: NTS



SECTION B-B

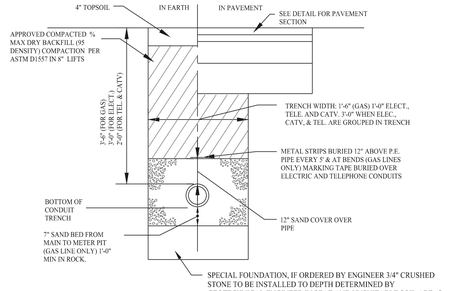


SECTION A-A



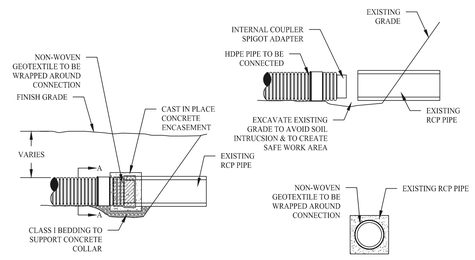
TYPE "C" DOUBLE CATCH BASIN (DOUBLE GRATE TYPE II)

SCALE: NTS



TYPICAL ELECTRICAL/TELEPHONE/CABLE AND GAS TRENCH

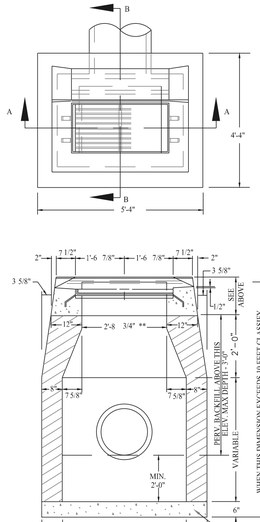
SCALE: NTS



NOTES
1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321.
2. IN LIEU OF AN INTERNAL CYLINDER, AN HDPE WATERTIGHT REPAIR COUPLER CAN BE USED TO CONNECT HDPE PIPE TO CMP.
3. INTERNAL CYLINDER ADAPTER IS NOT RECOMMENDED FOR DOWNSTREAM CONNECTIONS.

HDPE TO RCP CONNECTION (GEOTEXTILE WRAP) DETAIL

SCALE: NTS



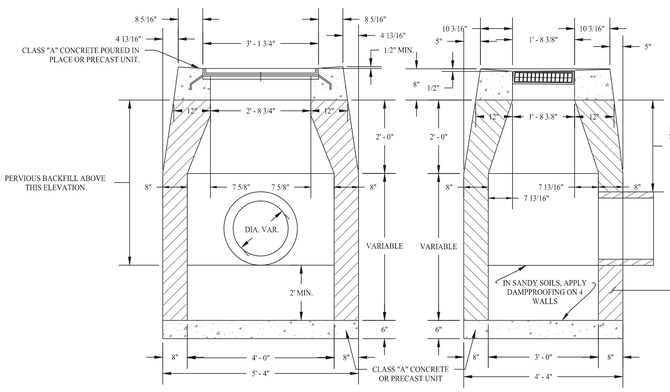
WHERE PRECAST CONC. UNIT IS USED FOR SUMP. THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN

SECTION A-A SECTION B-B

TYPE "C" PRECAST CATCH BASIN DETAIL

SCALE: NTS

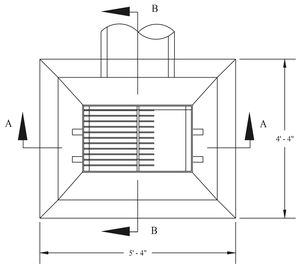
CT DOT

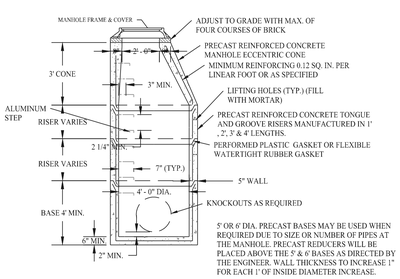


SECTION A-A SECTION B-B

TYPE "CL" PRECAST CATCH BASIN DETAIL

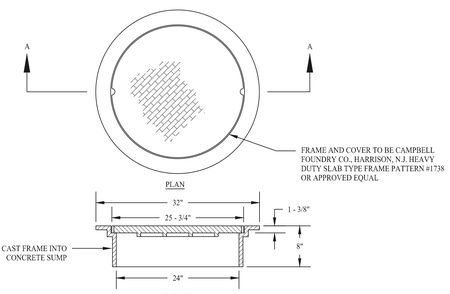
SCALE: NTS





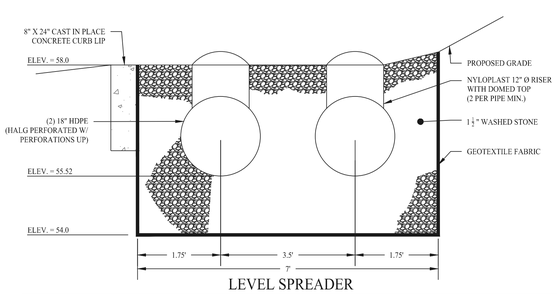
PRECAST STORM MANHOLE DETAIL

SCALE: NTS



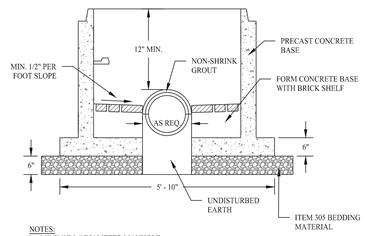
MANHOLE FRAME AND COVER DETAIL

SCALE: NTS



LEVEL SPREADER

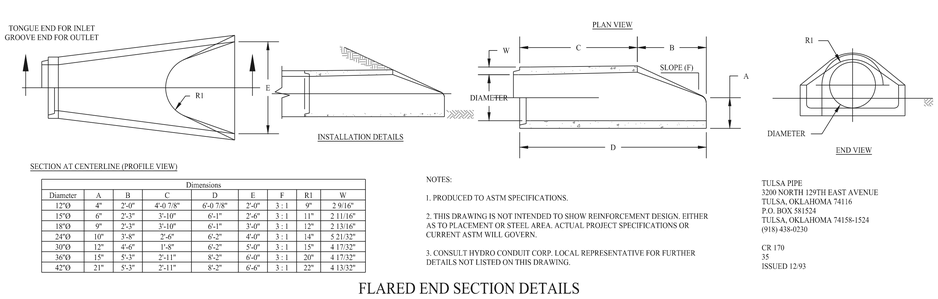
SCALE: NTS



NOTES:
1. MINIMUM 4' DIAMETER MANHOLE.
2. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST, SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 5" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
4. BREAK OUT TOP HALF OF EXISTING PIPE AFTER MANHOLE IS CONSTRUCTED.

DOGHOUSE MANHOLE (BASE) DETAIL

SCALE: NTS



SECTION AT CENTERLINE (PROFILE VIEW)

Dimensions								
Diameter	A	B	C	D	E	F	R1	W
12"Ø	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	3 : 1	9"	2 9/16"
15"Ø	6"	2'-3"	3'-10"	6'-1"	2'-6"	3 : 1	11"	2 11/16"
18"Ø	9"	2'-3"	3'-10"	6'-1"	3'-0"	3 : 1	12"	2 13/16"
24"Ø	10"	3'-8"	2'-6"	6'-2"	4'-0"	3 : 1	14"	5 21/32"
30"Ø	12"	4'-6"	1'-8"	6'-2"	5'-0"	3 : 1	15"	4 17/32"
36"Ø	15"	5'-3"	2'-11"	8'-2"	6'-0"	3 : 1	20"	4 17/32"
42"Ø	21"	5'-3"	2'-11"	8'-2"	6'-6"	3 : 1	22"	4 13/32"

NOTES:

1. PRODUCED TO ASTM SPECIFICATIONS.
2. THIS DRAWING IS NOT INTENDED TO SHOW REINFORCEMENT DESIGN. EITHER AS TO PLACEMENT OR STEEL AREA. ACTUAL PROJECT SPECIFICATIONS OR CURRENT ASTM WILL GOVERN.
3. CONSULT HYDRO CONDUIT CORP. LOCAL REPRESENTATIVE FOR FURTHER DETAILS NOT LISTED ON THIS DRAWING.

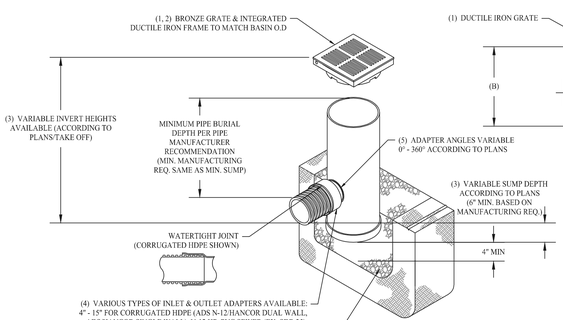
TULSA PIPE
3200 NORTH 129TH EAST AVENUE
TULSA, OKLAHOMA 74116
P.O. BOX 581524
TULSA, OKLAHOMA 74158-1524
(918) 438-0230

CR 170
35
ISSUED 12-93

FLARED END SECTION DETAILS

(WITH PRECAST STD, BASE AND CUSTOMER SPECIFIED OPENINGS)
FLAT TOP ECCENTRIC (CONCENTRIC ALSO AVAILABLE)

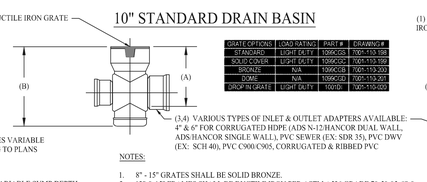
SCALE: NTS



NYLOPLAST DRAIN BASIN (YARD DRAIN) DETAIL

SCALE: NTS

DETAIL PROVIDED BY NYLOPLAST

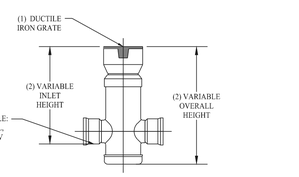


10" STANDARD DRAIN BASIN

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	1050CGS	7001-110-100
SOLID COVER	LIGHT DUTY	1050CGP	7001-110-200
SKIDNZE	N/A	1090CGS	7001-110-300
DOME	N/A	1090CGS	7001-110-301
DROP-IN GRATE	LIGHT DUTY	10100	7001-110-000

NOTES:

1. 8" - 15" GRATES SHALL BE SOLID BRONZE.
2. 12" & 15" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" BRONZE GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 001-110-065
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6. 8" - 15" BRONZE GRATES HAVE NO LOAD RATING.



10" CUSTOM DRAIN BASIN

NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2. CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
4. STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
5. DIMENSIONS ARE FOR REFERENCE ONLY ACTUAL DIMENSIONS MAY VARY.

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SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.02

Jul 01, 2025 - 10:13am - chenchy
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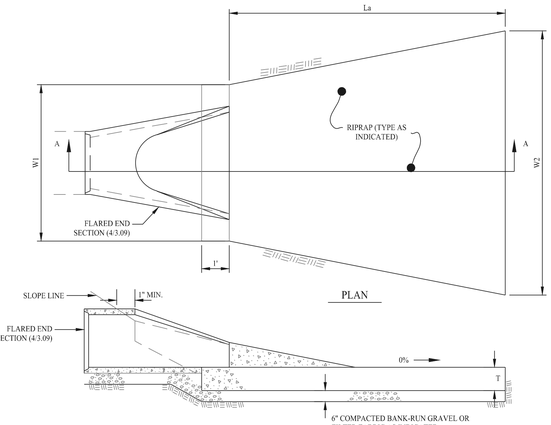
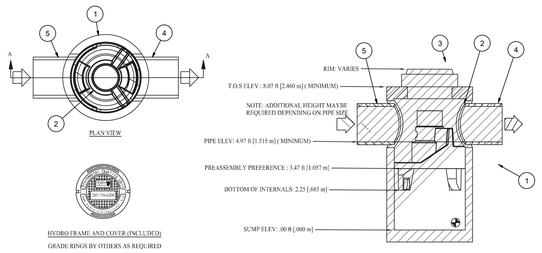


OUTLET	La	W1	W2	RIPRAP
O-1	14'	6'	16'	MODIFIED
O-2	14'	9'	19'	MODIFIED

RIPRAP TYPE	"T" (INCHES)
MODIFIED	12
INTERMEDIATE	18
STANDARD	36

TYPE 'A' RIPRAP APRON

SCALE: NTS



PRODUCT SPECIFICATION:

1. PEAK HYDRAULIC FLOW: 18.0 CFS (510 l/s)
2. MIN SEDIMENT STORAGE CAPACITY: 0.7 CU. YD. (.5 CU. M.)
3. OIL STORAGE CAPACITY: 191 GAL. (723 LITERS)
4. MAXIMUM INLET/OUTLET PIPE DIAMETERS: 24 IN. (600MM)
5. THE TREATMENT SYSTEM SHALL USE AN INDUCED VORTEX TO SEPARATE POLLUTANTS FROM STORMWATER RUNOFF.
6. FOR MORE PRODUCT INFROMATION INCLUDING REGULATORY ACCEPTANCES, PLEASE VIST http://hydro-int.com/en/products/first defense

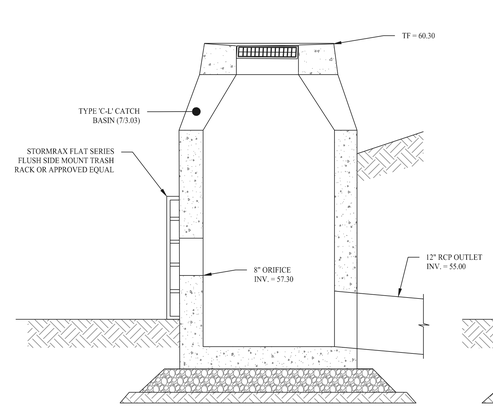
GENERAL NOTES

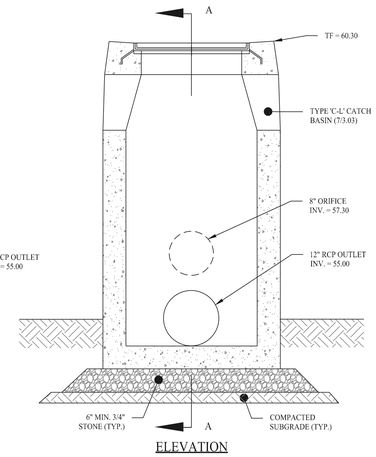
1. GENERAL ARRANGEMENT DRAWINGS ONLY. CONTACT HYDRO INTERNATIONAL FOR SITE SPECIFIC DRAWINGS.
2. THE DIAMETER OF THE INLET AND OUTLET PIPES MAY BE NO MORE THAN 24".
3. MULTIPLE INLET PIPES ARE POSSIBLE (REFER TO PROJECT PLAN).
4. INLET/OUTLET PIPE ANGLE CAN VARY TO ALIGN WITH DRAINAGE NETWORK (REFER TO THE PROJECT PLANS).
5. PEAK FLOW RATE AND MINIMUM HEIGHT LIMITED BY AVAILABLE COVER AND PIPE DIAMETER
6. LARGER SEDIMENT STORAGE CAPACITY MAY BE PROVIDED WITH A DEEPER SUMP DEPTH.

1. MANHOLE WALL AND SLAB THICKNESS ARE NOT TO SCALE
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF A STRUCTURE ELEVATION PRIOR TO SIZTING FIRST DEFENSE MANHOLE.
3. CONTRACTOR TO CONFIRM PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

FIRST DEFENSE HYDRODYNAMIC SEPARATOR

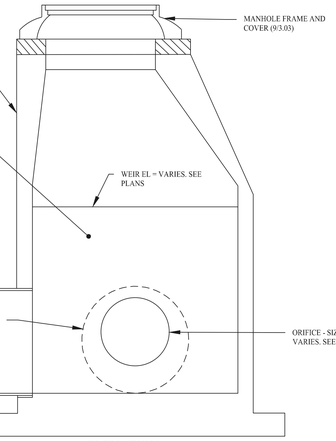
SCALE: NTS





OUTLET CONTROL STRUCTURE 7

SCALE: NTS



OUTLET CONTROL STRUCTURE DETAIL

SCALE: NTS

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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
CONSTRUCTION DETAILS	3.03

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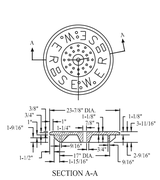
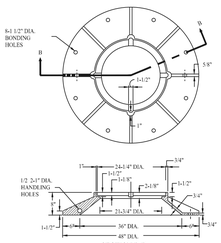


NOTES
1. MANHOLE COVERS MAY BE DESIGNED WITH OR WITHOUT RIBS. THE TOP SURFACE OF THE MANHOLE COVER SHALL BE FLAT. THE BOTTOM SURFACE MAY OR MAY NOT BE FLAT.
2. PROVIDE ALTERNATIVE INSCRIPTION "STORM DRAIN" WHEN SPECIFIED.
3. THE LOWER SURFACE OF THE COVER AND THE CORRESPONDING UPPER SURFACE OF THE FRAME SHALL BE MACHINE FINISHED TO PROVIDE A SMOOTH FLAT CONTACT OR FIT WITHOUT ANY TENDENCY FOR THE COVER OR GRATE TO ROCK OR RATTLE. THE GAP BETWEEN THE COVER/GRATE AND FRAME SHALL BE NO MORE THAN $\frac{1}{8}$" ALL AROUND.

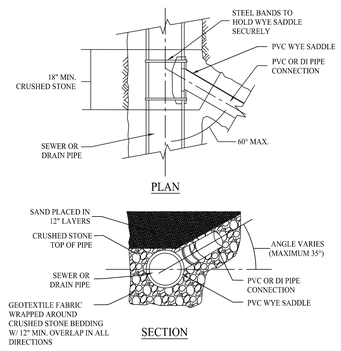
STANDARD MANHOLE COVERS DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



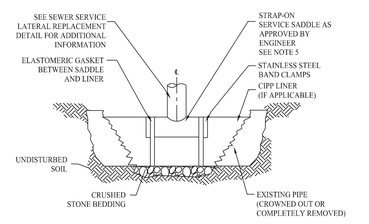
STANDARD MANHOLE FRAMES DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



WYE SADDLE CONNECTION TO EXISTING PIPE DETAIL

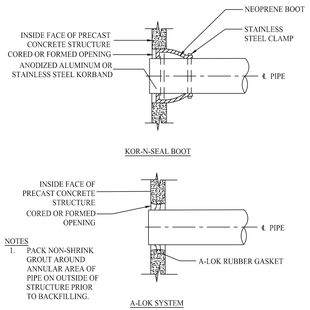
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. THIS DETAIL APPLIES WHENEVER AN EXISTING SERVICE LATERAL MUST BE CONNECTED TO A CIPP LINED SEWER MAIN AND SERVICE LATERAL INSERTA TEE CONNECTION CANNOT BE INSTALLED.
2. WHEN BREAKING OUT EXISTING PIPE CROWN, DO NOT ALLOW DEBRIS TO ENTER SEWER. INSTALL AND COMPACT CRUSHED STONE TO 1-FOOT ABOVE TOP OF PIPE AND OR SERVICE.
3. REFER TO SEWER TRENCH DETAIL FOR BEDDING, BACKFILLING AND RESTORATION REQUIREMENTS.
4. INSTALL FITTINGS, ADAPTERS, AND RUBBER SLEEVE COUPLINGS AS NECESSARY, TO MAKE CONNECTION BETWEEN NEW AND EXISTING SERVICE LATERAL PIPING.
5. NOT ALL LATERAL SIZES ARE KNOWN. CONTRACTOR TO FIELD VERIFY THE SIZE AND TYPE OF THE EXISTING SERVICE LATERAL. EXISTING LATERALS ARE ASSUMED TO BE 6" DIAMETER.

SERVICE LATERAL SADDLE CONNECTION DETAIL

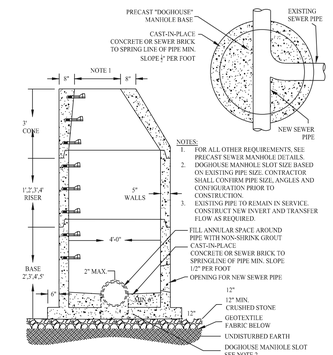
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. PACK NON-SHRINK GROUT AROUND ANNULAR AREA OF PIPE ON OUTSIDE OF STRUCTURE PRIOR TO BACKFILLING.

PIPE CONNECTIONS TO PRECAST CONCRETE STRUCTURES DETAIL

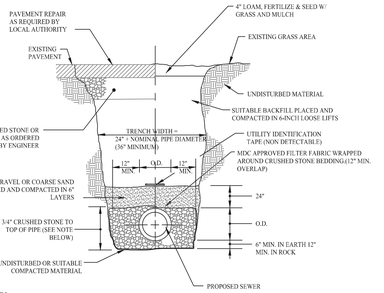
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES:
1. FOR ALL OTHER REQUIREMENTS, SEE PRECAST SEWER MANHOLE DETAILS.
2. DOGHOUSE MANHOLE SLOT SIZE BASED ON EXISTING PIPE SIZE. CONTRACTOR SHALL CONFIRM PIPE SIZE, ANGLES AND CONFIGURATION PRIOR TO CONSTRUCTION.
3. EXISTING PIPE TO REMAIN IN SERVICE. CONSTRUCT NEW INVERT AND TRANSFER FLOW AS REQUIRED.
4. FILL ANNULAR SPACE AROUND PIPE WITH NON-SHRINK GROUT
5. CAST-IN-PLACE CONCRETE OR SEWER BRICK TO SPRINGLINE OF PIPE MIN. SLOPE 1/2" PER FOOT
6. OPENING FOR NEW SEWER PIPE

PRECAST DOGHOUSE MANHOLE (48" Ø EXTENDED BASE) DETAIL (SANITARY)

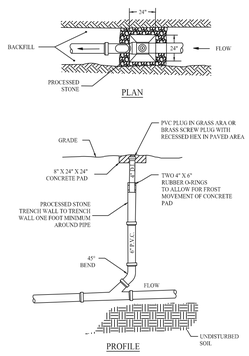
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED.
2. BACKFILL MATERIAL SHALL BE APPROVED BANK RUN GRAVEL IN PAVED AREAS (INCLUDING DRIVEWAYS AND SIDEWALKS) OR COMMON FILL IN UNPAVED AREAS.
3. TRENCH WIDTH VARIES BASED ON PIPE SIZE AND DEPTH.
4. TRENCHES LOCATED IN THE ROAD SHOULDER SHALL BE TREATED THE SAME AS TRENCHES IN THE PAVED ROADWAY EXCEPT FOR PAVEMENT AND SURFACE RESTORATION WORK.
5. PROVIDE IMPERVIOUS TRENCH DAM(S) IN STONE BEDDING AS DIRECTED BY THE ENGINEER. SEE PIPE TRENCH DAM DETAIL.
6. CRUSHED STONE SHALL BE INSTALLED TO TOP OF PIPE FOR PVC AND DI PIPE AND TO SPRINGLINE FOR RC PIPE.

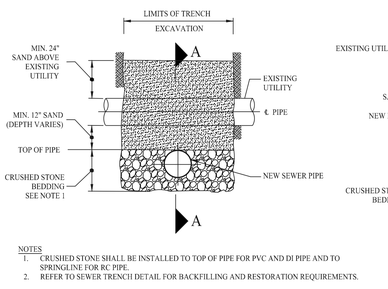
SEWER TRENCH DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



CLEANOUT AT GRADE DETAIL

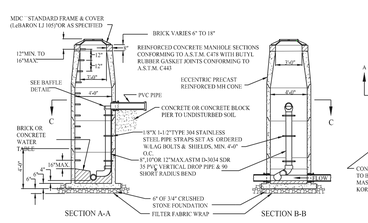
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

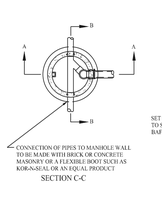


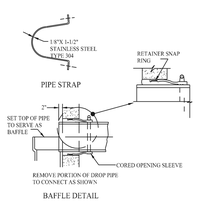
NOTES
1. CRUSHED STONE SHALL BE INSTALLED TO TOP OF PIPE FOR PVC AND DI PIPE AND TO SPRINGLINE FOR RC PIPE.
2. REFER TO SEWER TRENCH DETAIL FOR BACKFILLING AND RESTORATION REQUIREMENTS.

EXISTING GAS OR WATER UTILITY CROSSING DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



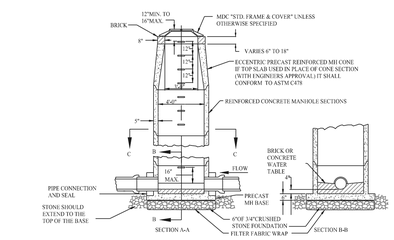


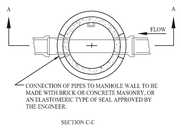


NOTES
1. MAXIMUM PIPE SIZE TO BE INSTALLED IN 60" PRECAST MANHOLE BASE SHALL BE 24".
2. REFER TO SEWER TRENCH DETAIL FOR BACKFILLING AND COMPACTION REQUIREMENTS AROUND SEWER MANHOLES.
3. INVERT THROUGH THE MANHOLE SHALL HAVE A UNIFORM GRADE OF MINIMUM 0.10 FEET BETWEEN THE INVERTS OF THE INLET AND OUTLET PIPES. INVERTS SHALL BE FIELD FORMED AND NOT FORMED IN THE SHOP/YARD.
4. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN THE INVERT OF THE TRIBUTARY INLET AND THE MANHOLE INVERT SHALL BE 18 INCHES. ELEVATION DIFFERENCES GREATER THAN 18 INCHES WILL REQUIRE A DROP CONNECTION.
5. DISTANCE FROM TOP OF MANHOLE COVER TO FIRST PLASTIC STEP SHALL BE BETWEEN 12" AND 16".

TYPE IV PRECAST CONCRETE DROP MANHOLE DETAIL (SANITARY)

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT





NOTES
1. MAXIMUM PIPE SIZE TO BE INSTALLED IN 48" MANHOLE BASE SHALL BE 18".
2. REFER TO SEWER TRENCH DETAIL FOR BACKFILLING AND COMPACTION REQUIREMENTS AROUND SEWER MANHOLES.
3. INVERT THROUGH THE MANHOLE SHALL HAVE A UNIFORM GRADE OF MINIMUM 0.10 FEET BETWEEN THE INVERTS OF THE INLET AND OUTLET PIPES. INVERTS SHALL BE FIELD FORMED AND NOT FORMED IN SHOP/YARD.
4. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN THE INVERT OF THE TRIBUTARY INLET AND THE MANHOLE INVERT SHALL BE 18 INCHES. ELEVATION DIFFERENCES GREATER THAN 18 INCHES WILL REQUIRE A DROP CONNECTION.
5. DISTANCE FROM TOP OF MANHOLE COVER TO FIRST PLASTIC STEP SHALL BE BETWEEN 12" AND 16".

TYPE II PRECAST CONCRETE MANHOLE DETAIL (SANITARY)

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

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T: (203) 880-5455 | F: (203) 880-0695

Drawn By:	CSH
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Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Kevin Solli, P.E. CT 25759

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.04

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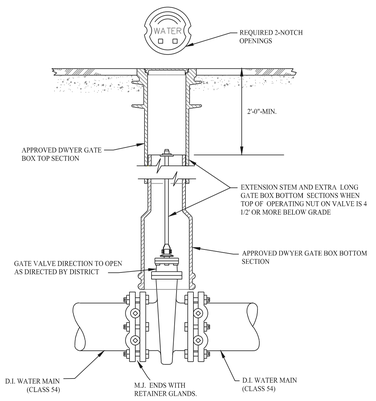
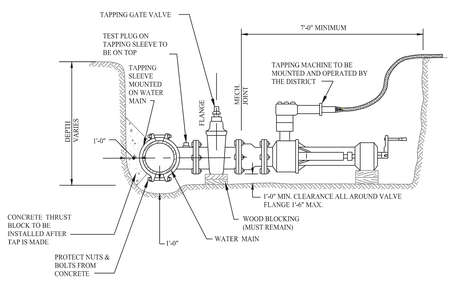


STANDARD GATE VALVE 12" & SMALLER DETAIL

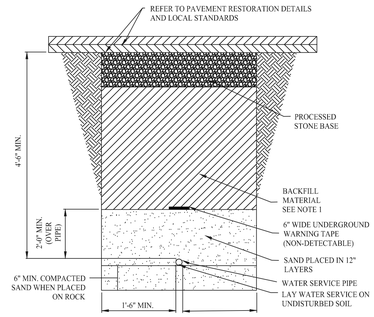
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. TAPPING SLEEVE & TAPPING GATE VALVE TO BE INSTALLED ON WATER MAIN BY THE CONTRACTOR. THE DISTRICT WILL TEST INSTALLATION PRIOR TO MAKING TAP. NO TAP WILL BE MADE IF THERE IS NO TEST PLUG.
2. TAPPING GATE VALVE TO HAVE HAND OF OPERATION AS DIRECTED BY THE DISTRICT. IF VALVE HAND OF OPERATION IS NOT CORRECT, NO TAP WILL BE MADE.
3. CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNER PRIOR TO TRENCH EXCAVATION. THE TRENCH SHALL BE PROPERLY DEWATERED, SUPPORTED AND SHALL COMPLY WITH OSHA REQUIREMENTS FOR TRENCH EXCAVATION.

TRENCH REQUIREMENT FOR 4-INCH TO 12-INCH TAP ON WATER MAIN DETAIL

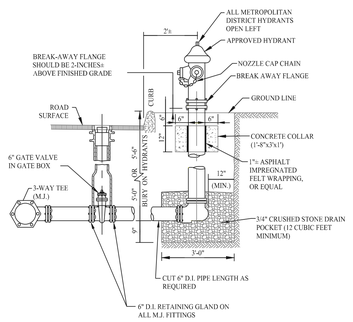
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL IN PAVED AREAS (INCLUDING SIDEWALKS AND DRIVEWAYS) OR COMMON FILL IN NON-PAVED AREAS.

WATER SERVICE TRENCH DETAIL

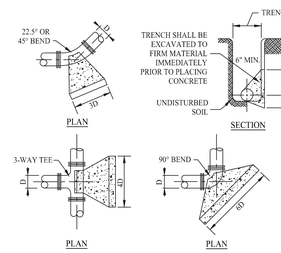
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. INSTALL 6" WIDE UNDERGROUND WARNING TAPE (NON-DETECTABLE) 2-FT ABOVE LENGTH OF HYDRANT BRANCH.
2. DISTANCE SHALL BE 3'± IN BLOOMFIELD, FARMINGTON AND GLASTONBURY AND 2'± IN OTHER MEMBER TOWNS.
3. OFFSET HYDRANT LATERAL AS NECESSARY WHILE MAINTAINING MINIMUM 4.5 FEET OF COVER TO SET FIRE HYDRANT BURY LINE AT GRADE. FURNISH AND INSTALL EXTENSIONS AS NECESSARY ONLY IF A LATERAL OFFSET IS NOT POSSIBLE.

STANDARD FIRE HYDRANT ASSEMBLY DETAIL

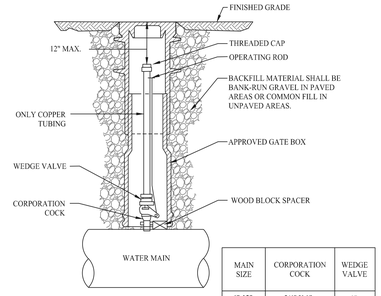
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. THRUST RESTRAINTS SHALL BE EITHER RESTRAINED JOINTS FOR DUCTILE IRON PIPE OR THRUST BLOCKS. THRUST BLOCKS ARE NOT THE PREFERRED METHOD OF THRUST RESTRAINT AND WILL ONLY BE PERMITTED IN SPECIAL CASES AS DIRECTED BY THE ENGINEER OR BY THE DISTRICT.
2. THRUST BLOCKS SHOULD ONLY BE USED WHEN SOIL CONDITIONS ARE STABLE.
3. ANCHORS SHALL BE BASED ON MAXIMUM ALLOWABLE WATER PRESSURED OF 150 PSI.

CONCRETE THRUST BLOCKS FOR 12-INCH AND SMALLER MAINS DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

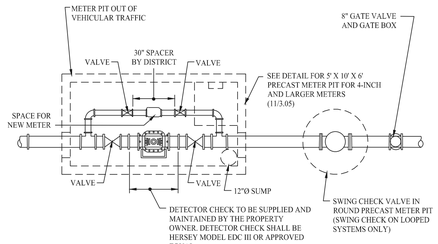


MAIN SIZE	CORPORATION COCK	WEDGE VALVE
6"-12"	3/4" X 1"	1"
16"-42"	1-1/2" X 2"	2"

NOTES:
1. CANNOT BE USED FOR FUTURE SERVICE.
2. A CHLORINATION/SAMPLING ASSEMBLY SHALL BE REMOVED ONCE WATER MAIN PASSES SAMPLING. CORPORATION SHALL EITHER BE CONVERTED TO AIR VALVE OR ABANDONED PRIOR TO FINAL PAVEMENT RESTORATION.

CHLORINATION INLET / BLOW-OFF DETAIL

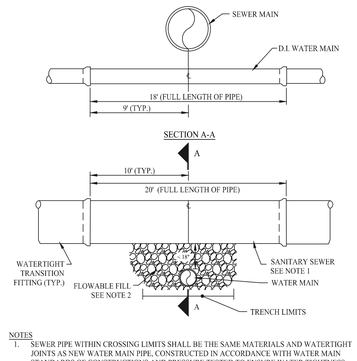
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. BYPASS IS ONLY ALLOWED UNDER CERTAIN CIRCUMSTANCES. AS APPROVED BY THE DISTRICT.

5' x 10' x 6' COMBINED METER LAYOUT DETAIL

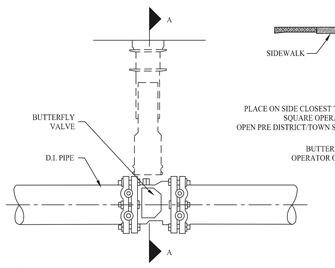
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. SEWER PIPE WITHIN CROSSING LIMITS SHALL BE THE SAME MATERIALS AND WATERTIGHT JOINTS AS NEW WATER MAIN PIPE, CONSTRUCTED IN ACCORDANCE WITH WATER MAIN STANDARDS OF CONSTRUCTION AND PRESSURE TESTED TO ENSURE WATER TIGHTNESS.
2. IF A FULL LENGTH OF WATER PIPE OR SEWER PIPE IS NOT USED, ENCASE SEWER MAIN OF WATER MAIN WITH FLOWABLE FILL WITHIN THE TRENCH LIMITS

WATER CROSSING BELOW SEWER LESS THAN 18-INCH VERTICAL SEPARATION

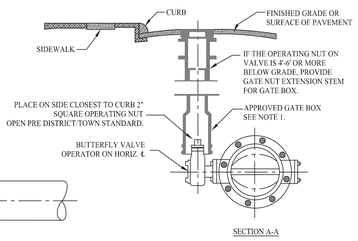
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



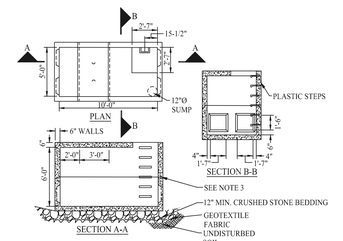
NOTES:
1. THE GATE BOX SHALL BE SET PLUMB AND CENTERED DIRECTLY OVER THE OPERATING NUT OF THE VALVE. THE CONTRACTOR SHALL USE A COMMERCIALLY AVAILABLE CENTERING DEVICE TO PREVENT DAMAGE TO THE TOP OF THE VALVE AND MAINTAIN ALIGNMENT.

STANDARD BUTTERFLY DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



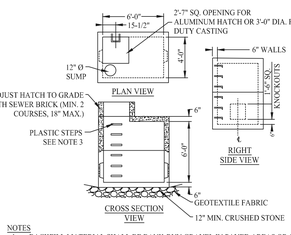
SECTION A-A



NOTES
1. BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL IN PAVED AREAS OR COMMON FILL IN UNPAVED AREAS
2. CONCRETE STRENGTH SHALL BE MIN. 4,000 P.S.I (28 DAYS). REINFORCING STEEL NOT SHOWN.
3. INSTALL REINFORCED CONCRETE MANHOLE SECTIONS WITH PREFORMED FLEXIBLE JOINT SEALANT OR O-RING RUBBER GASKET

5' X 10' X 6' PRECAST METER PIT FOR 4-INCH AND LARGER METERS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



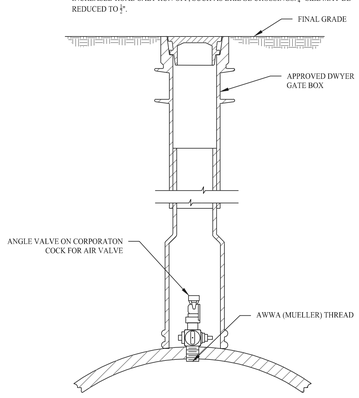
NOTES
1. BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL IN PAVED AREAS OR COMMON FILL IN UNPAVED AREAS
2. CONCRETE STRENGTH SHALL BE MIN. 4,000 P.S.I (28 DAYS). REINFORCING STEEL NOT SHOWN.
3. INSTALL REINFORCED CONCRETE MANHOLE SECTIONS WITH PREFORMED FLEXIBLE JOINT SEALANT OR O-RING RUBBER GASKET

6' X 4' X 6' PRECAST METER PIT FOR 2-INCH THROUGH 4-INCH METERS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

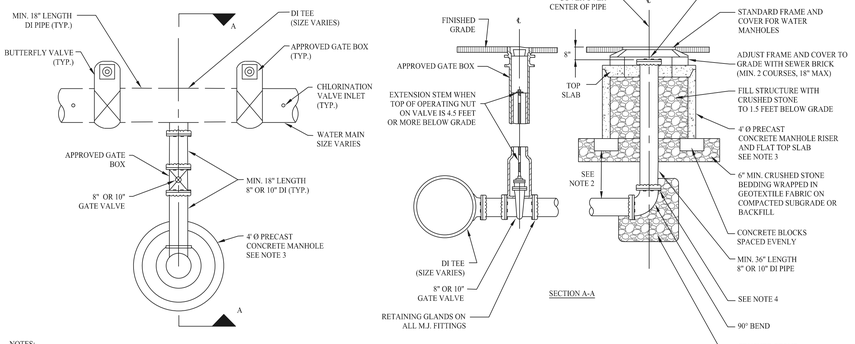
DIA. OF MAIN	MIN. SIZE AIR VALVE	CORPORATION COCK	ANGLE VALVE SIZE
TO 12"(INCL.)	3/4"	3/4"x 1"	1"
16" & 20"	1"	1"x 1"	1"
24" & 30"	1 1/4"	1 1/4"x 1 1/2"	1 1/2"
36" & 42"	1 1/2"	1 1/2"x 2"	2"
48" & 54"	2"	2"x 2"	2"

NOTE:
STAINLESS STEEL AIR VALVES SHALL BE USED IN AREAS SUBJECT TO ATMOSPHERIC EXPOSURE OR IN AREAS SUBJECT TO EXPOSURE FROM INCREASED ROAD SALT RUN OFF, SUCH AS BRIDGE CROSSINGS. 2" SIZE MAY BE REDUCED TO 1".



STANDARD AIR VALVE DETAIL

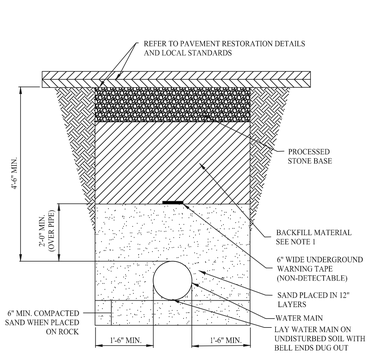
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES:
1. ALL PIPING, FITTINGS AND VALVES SHALL BE RESTRAINED JOINTS.
2. MINIMUM DIMENSION FROM BOTTOM OF CONCRETE BLOCKS TO TOP OF 8" OR 10" DI SHALL BE 18 INCHES.
3. MANHOLE RISER SHALL MEET THE REQUIREMENTS OF TYPE II PRECAST CONCRETE RISER SECTIONS, MANHOLE STEPS ARE NOT REQUIRED.
4. CUT AND REMOVE" OR " SECTION OF GASKET SO WATER WILL DRAIN FROM STANDPIPE.

8-INCH OR 10-INCH BLOW-OFF ASSEMBLY DETAIL

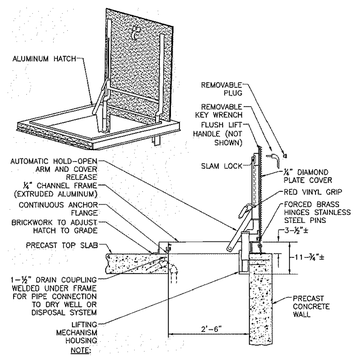
SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. BACKFILL MATERIAL SHALL BE BANK-RUN GRAVEL IN PAVED AREAS (INCLUDING SIDEWALKS AND DRIVEWAYS) OR COMMON FILL IN NON-PAVED AREAS.

WATER MAIN TRENCH DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTE:
1. ALUMINUM HATCH SHALL BE 2'-6" x 2'-6" BILCO TYPE "J-ALH20" OR EQUAL.

ALUMINUM HATCH FOR PRECAST METER PITS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

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Rev. #:	Date	Description

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.05

Jul 01, 2025 - 10:14am dhendry
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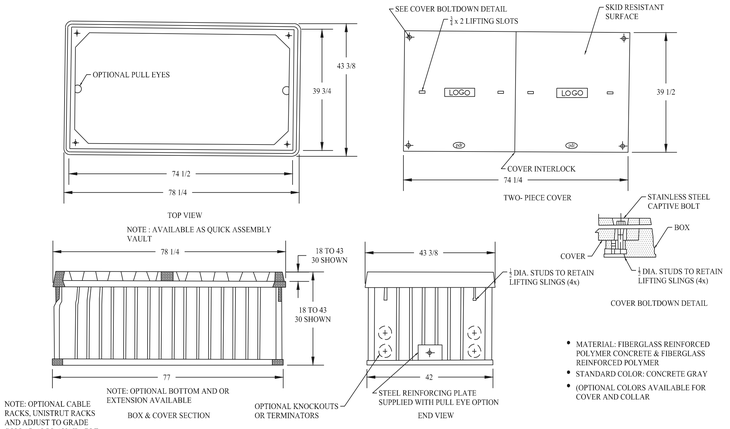
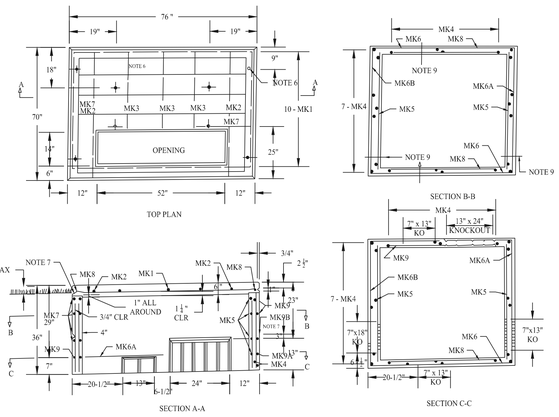


36 X 72 SERIES BOX & COVER

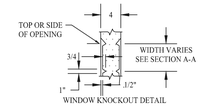
SCALE: NTS — DETAIL PER EVERSOURCE



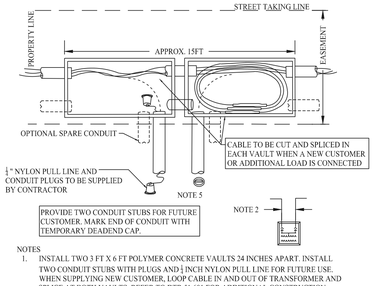
THREE PHASE TRANSFORMER DETAIL

SCALE: NTS — DETAIL PER EVERSOURCE

BAR SCHEDULE										
MARK NO	MK1	MK2	MK3	MK4	MK5	MK6	MK6A	MK6B	MK7	MK8	MK9
SIZE	#5	#4	#4	#3	#4	#4	#4	#4	#4	#4	#4
NO OF BARS	10	2	3	22	8	7	1	1	2	7	1
DIMENSIONS											



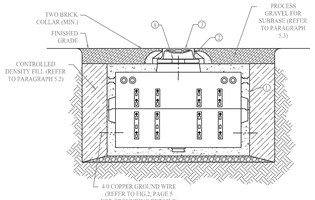
NOTE:
1. ROOF DESIGN LOAD: 4000 LBS SPREAD OVER 1-FOOT-SQUARE AREA ANYWHERE ON ROOF
2. WALLS: SOIL PRESSURE OF EQUIVALENT FLUID PRESSURE OF 33 PCF. SURCHARGE OF 2.5 FEET OF SOIL WEIGHING 120 PCF.
3. CONCRETE: 4000 PSI AT 28 DAYS. ENTRAINED AIR 6-9 PERCENT
4. STEEL: ASTM A615-1992, GRADE 40.
5. ALL CONCRETE AND REINFORCEMENT IN ACCORDANCE WITH ACI 318-1999
6. FOR LIFTING TOP OR BOTTOM SECTIONS, CAST IN FOUR 3/4-INCH-DIAMETER DAYTON SUREGRIP (OR APPROVED EQUAL) COIL LOOP INSERTS, GALVANIZED, WITH T21 PLASTIC SETTING PLUGS. INSERTS ARE TO BE SECURED IN PLACE WITH REBAR
   TOP: CATALOG TYPE B16, 3/4 INCH DIAMETER X 4 INCHES LONG
   BOTTOM: CATALOG TYPE B16, 3/4 INCH DIAMETER X 6 INCHES LONG.
7. PROVIDE 3-INCH-LONG GROOVE (3/4 INCH X 1 INCH) FOR LIFTING SLING AT EACH CORNER, EACH SIDE.
8. MANUFACTURER'S IDENTIFICATION AND MONTH/YEAR WHEN MANUFACTURED SHALL BE LEGIBLY MARKED IN/ON CONCRETE IN THE SIDE
9. ZINC ALLOY INSERTS 3/4 INCH - 10 INCHES X 3 INCHES FOR CABLE PULLING. TO BE LOCATED 4 INCHES ABOVE (7 INCH X 13 INCH) KNOCKOUTS (FOUR)



FUTURE LOOPED TRANSFORMER OR EXTENSION DETAIL

NOTES
1. INSTALL TWO 3 FT X 6 FT POLYMER CONCRETE VAULTS 24 INCHES APART. INSTALL TWO CONDUIT STUBS WITH PLUGS AND 1 INCH NYLON PULL LINE FOR FUTURE USE. WHEN SUPPLYING NEW CUSTOMER, LOOP CABLE IN AND OUT OF TRANSFORMER AND SPLICE AT BOTH VAULTS. REFER TO DTR 51.601 FOR ADDITIONAL CONSTRUCTION GUIDELINES.
2. MAINTAIN MINIMUM 12 INCH SEPARATION BETWEEN CONDUITS. CONDUIT SHALL BE MINIMUM 5 INCH SCHEDULE 40 PVC.
3. GAPS AROUND CONDUIT AT KNOCKOUT OPENINGS SHALL BE SEALED WITH CEMENT MORTAR TO PREVENT BACKFILL FROM ENTERING VAULT.
4. CONDUITS ENTERING CUSTOMERS FACILITIES ARE REQUIRED TO BE SEALED TO PREVENT WATER AND/OR GAS FROM ENTERING BUILDING. REFER TO DTR 73.251
5. INSTALL TEMPORARY DEADEND MARKER TO IDENTIFY END OF CONDUIT STUB . REFER TO DTR 54.118.
6. SELECT SPLICES FROM DTR 33.501-502
7. INSTALL TWO GALVANIZED STEEL GROUND RODS, SPACED MINIMUM 8 INCHES APART, ADJACENT TO EACH VAULT AND GROUND CABLE IN ACCORDANCE WITH DTR 78.151. PROVIDE #6 CU BOND FOR COMMUNICATIONS COMPANIES.

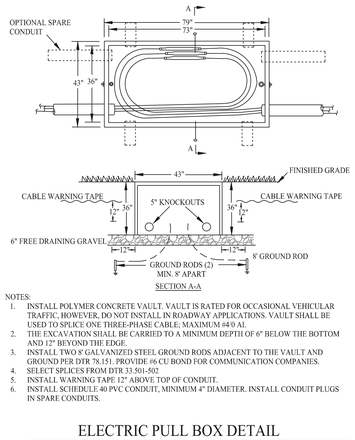
SCALE: NTS — DETAIL PER EVERSOURCE



TYPICAL SECTION
SHOWING MANHOLE FRAME INSTALLATION

ELECTRIC MANHOLE DETAIL

SCALE: NTS — DETAIL PROVIDED BY EVERSOURCE



SECTION A-A

NOTES:
1. INSTALL POLYMER CONCRETE VAULT. VAULT IS RATED FOR OCCASIONAL VEHICULAR TRAFFIC. HOWEVER, DO NOT INSTALL IN ROADWAY APPLICATIONS. VAULT SHALL BE USED TO SPLICE ONE THREE-PHASE CABLE; MAXIMUM #4/0 AL.
2. THE EXCAVATION SHALL BE CARRIED TO A MINIMUM DEPTH OF 6" BELOW THE BOTTOM AND 12" BEYOND THE EDGE.
3. INSTALL TWO 8' GALVANIZED STEEL GROUND RODS ADJACENT TO THE VAULT AND GROUND PER DTR 78.151. PROVIDE #6 CU BOND FOR COMMUNICATION COMPANIES.
4. SELECT SPLICES FROM DTR 33.501-502.
5. INSTALL WARNING TAPE 12" ABOVE TOP OF CONDUIT.
6. INSTALL SCHEDULE 40 PVC CONDUIT, MINIMUM 4" DIAMETER. INSTALL CONDUIT PLUGS IN SPARE CONDUITS.

ELECTRIC PULL BOX DETAIL

SCALE: NTS — DETAIL PROVIDED BY EVERSOURCE

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Rev. #:	Date	Description

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SOLLIENGINEERING.COM
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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.06

Jul 01, 2025 - 10:14am cheverly
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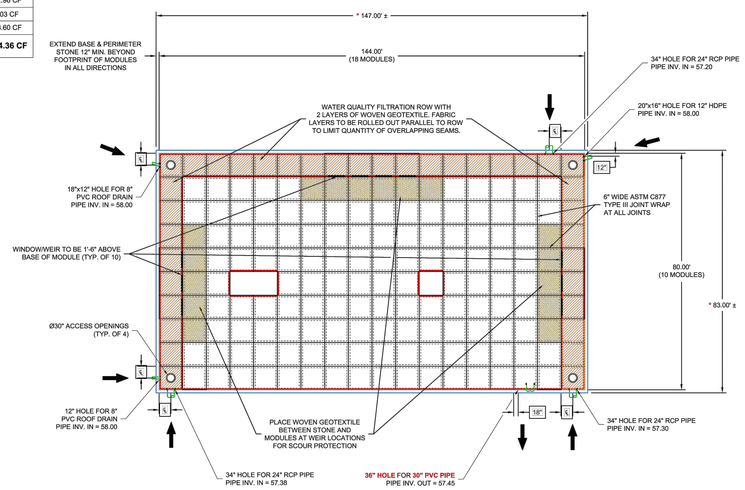
RETAIN-IT MODULE QUANTITIES

MODULE SIZE = 8' x 8' x 3'-0"		STORAGE VOLUME
115	CENTER MODULES (TYPE 1) @ 168.94 CF/MODULE =	19,428.10 CF
26	PERIMETER MODULES (TYPE 2) @ 164.99 CF/MODULE =	4,289.61 CF
2	CORNER MODULES (TYPE 3) @ 161.03 CF/MODULE =	322.06 CF
32	SINGLE ROW CENTER MODULES (TYPE 6) @ 161.03 CF/MODULE =	5,152.96 CF
2	SINGLE ROW END MODULES (TYPE 7) @ 154.02 CF/MODULE =	308.03 CF
	STORAGE IN 12" OF STONE BASE @ 40% VOIDS =	4,853.60 CF
TOTAL STORAGE VOLUME PROVIDED =		**34,354.36 CF**

PROPOSED ELEVATIONS / MODULE SIZE = 8' x 8' x	3'-0"
MAXIMUM ALLOWABLE ELEVATION	63.00
MINIMUM ALLOWABLE ELEVATION	62.00
TOP OUTSIDE OF MODULE/CONCRETE	60.87
TOP INSIDE OF MODULE	60.20
INVERT OF MODULE	57.20
BOTTOM OF STONE	56.20

DEPTH OF BASE STONE =	12 in
AREA OF SYSTEM =	12,134 sf
HEAVIEST PICK WEIGHT =	12,424 lbs

NOTE:
* OVERALL DIMENSIONS ALLOW FOR ANY GAPS ≤1/2" BETWEEN MODULES



RETAIN-IT STORMWATER SYSTEMS®

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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PLAN LAYOUT
UGS-1

DATE: 06/04/2025 DRAWN BY: ITP

SCALE: NTS CHECKED BY: MDK

THIS DRAWING HAS BEEN CREATED UTILIZING INFORMATION ON PLANS PREPARED BY: SOLLI ENGINEERING, LLC, DATED: 05/07/2025 AND FURNISHED TO LID TECHNOLOGIES UNDER THE GUIDANCE OF A DESIGNATED PROJECT REPRESENTATIVE. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO REVIEW THIS DRAWING BEFORE CONSTRUCTION COMMENCES, GUARANTEEING THAT THE DEPICTED PRODUCT(S) AND ALL PERTINENT SPECIFICS ADHERE STRICTLY TO ALL RELEVANT LAWS, REGULATIONS, AND PROJECT PREREQUISITES.

LIDTech SUSTAINABLE STORMWATER SOLUTIONS

Phone: 888-357-1161 • www.LIDTech.com

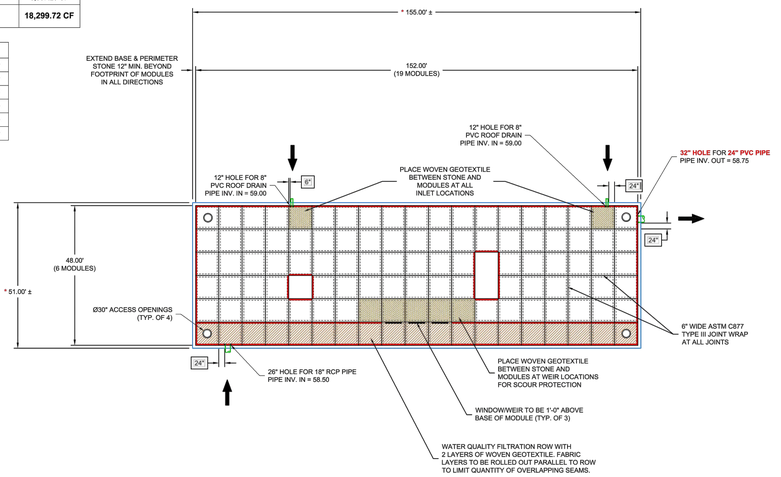
RETAIN-IT MODULE QUANTITIES

MODULE SIZE = 8' x 8' x 2'-6"		STORAGE VOLUME
55	CENTER MODULES (TYPE 1) @ 138.91 CF/MODULE =	7,640.05 CF
38	PERIMETER MODULES (TYPE 2) @ 136.27 CF/MODULE =	5,178.26 CF
2	CORNER MODULES (TYPE 3) @ 133.63 CF/MODULE =	267.26 CF
14	SINGLE ROW CENTER MODULES (TYPE 6) @ 133.63 CF/MODULE =	1,870.82 CF
2	SINGLE ROW END MODULES (TYPE 7) @ 128.07 CF/MODULE =	256.13 CF
	STORAGE IN 12" OF STONE BASE @ 40% VOIDS =	3,087.20 CF
TOTAL STORAGE VOLUME PROVIDED =		**18,299.72 CF**

PROPOSED ELEVATIONS / MODULE SIZE = 8' x 8' x	2'-6"
MAXIMUM ALLOWABLE ELEVATION	65.00
MINIMUM ALLOWABLE ELEVATION	63.00
TOP OUTSIDE OF MODULE/CONCRETE	61.67
TOP INSIDE OF MODULE	61.00
INVERT OF MODULE	58.50
BOTTOM OF STONE	57.50

DEPTH OF BASE STONE =	12 in
AREA OF SYSTEM =	7,718 sf
HEAVIEST PICK WEIGHT =	11,454 lbs

NOTE:
* OVERALL DIMENSIONS ALLOW FOR ANY GAPS ≤1/2" BETWEEN MODULES



RETAIN-IT STORMWATER SYSTEMS®

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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PLAN LAYOUT
UGS-3

DATE: 06/04/2025 DRAWN BY: ITP

SCALE: NTS CHECKED BY: MDK

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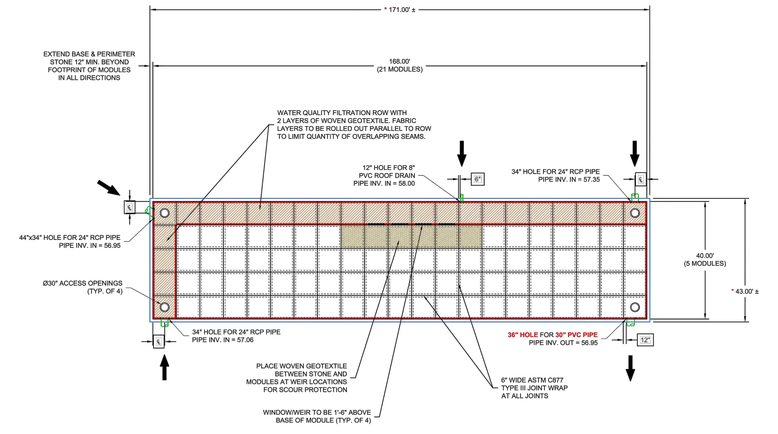
RETAIN-IT MODULE QUANTITIES

MODULE SIZE = 8' x 8' x 3'-0"		STORAGE VOLUME
57	CENTER MODULES (TYPE 1) @ 168.94 CF/MODULE =	9,629.58 CF
22	PERIMETER MODULES (TYPE 2) @ 164.99 CF/MODULE =	3,629.67 CF
2	CORNER MODULES (TYPE 3) @ 161.03 CF/MODULE =	322.06 CF
22	SINGLE ROW CENTER MODULES (TYPE 6) @ 161.03 CF/MODULE =	3,542.66 CF
2	SINGLE ROW END MODULES (TYPE 7) @ 154.02 CF/MODULE =	308.03 CF
	STORAGE IN 12" OF STONE BASE @ 40% VOIDS =	2,933.60 CF
TOTAL STORAGE VOLUME PROVIDED =		**20,365.60 CF**

PROPOSED ELEVATIONS / MODULE SIZE = 8' x 8' x	3'-0"
MAXIMUM ALLOWABLE ELEVATION	62.00
MINIMUM ALLOWABLE ELEVATION	61.60
TOP OUTSIDE OF MODULE/CONCRETE	60.62
TOP INSIDE OF MODULE	59.95
INVERT OF MODULE	56.95
BOTTOM OF STONE	55.95

DEPTH OF BASE STONE =	12 in
AREA OF SYSTEM =	7334 sf
HEAVIEST PICK WEIGHT =	12,424 lbs

NOTE:
* OVERALL DIMENSIONS ALLOW FOR ANY GAPS ≤1/2" BETWEEN MODULES



RETAIN-IT STORMWATER SYSTEMS®

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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PLAN LAYOUT
UGS-2

DATE: 06/04/2025 DRAWN BY: ITP

SCALE: NTS CHECKED BY: MDK

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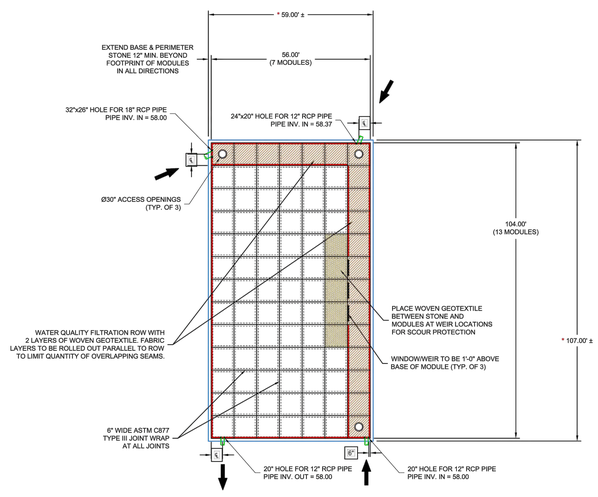
RETAIN-IT MODULE QUANTITIES

MODULE SIZE = 8' x 8' x 2'-6"		STORAGE VOLUME
50	CENTER MODULES (TYPE 1) @ 138.91 CF/MODULE =	6,945.50 CF
24	PERIMETER MODULES (TYPE 2) @ 136.27 CF/MODULE =	3,270.48 CF
2	CORNER MODULES (TYPE 3) @ 133.63 CF/MODULE =	267.26 CF
13	SINGLE ROW CENTER MODULES (TYPE 6) @ 133.63 CF/MODULE =	1,737.19 CF
2	SINGLE ROW END MODULES (TYPE 7) @ 128.07 CF/MODULE =	256.13 CF
	STORAGE IN 9" STONE BASE @ 40% VOIDS =	1,893.00 CF
TOTAL STORAGE VOLUME PROVIDED =		**14,369.56 CF**

PROPOSED ELEVATIONS / MODULE SIZE = 8' x 8' x	2'-6"
MAXIMUM ALLOWABLE ELEVATION	63.00
MINIMUM ALLOWABLE ELEVATION	62.50
TOP OUTSIDE OF MODULE/CONCRETE	61.17
TOP INSIDE OF MODULE	60.50
INVERT OF MODULE	58.00
BOTTOM OF STONE	57.25

DEPTH OF BASE STONE =	9 in
AREA OF SYSTEM =	6,310 sf
HEAVIEST PICK WEIGHT =	11,454 lbs

NOTE:
* OVERALL DIMENSIONS ALLOW FOR ANY GAPS ≤1/2" BETWEEN MODULES



RETAIN-IT STORMWATER SYSTEMS®

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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PLAN LAYOUT
UGS-4

DATE: 06/04/2025 DRAWN BY: ITP

SCALE: NTS CHECKED BY: MDK

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Rev. #:	Date	Description

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SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:

CONSTRUCTION DETAILS

Sheet #:

3.07

Jul 01, 2025 - 10:15am cheedy
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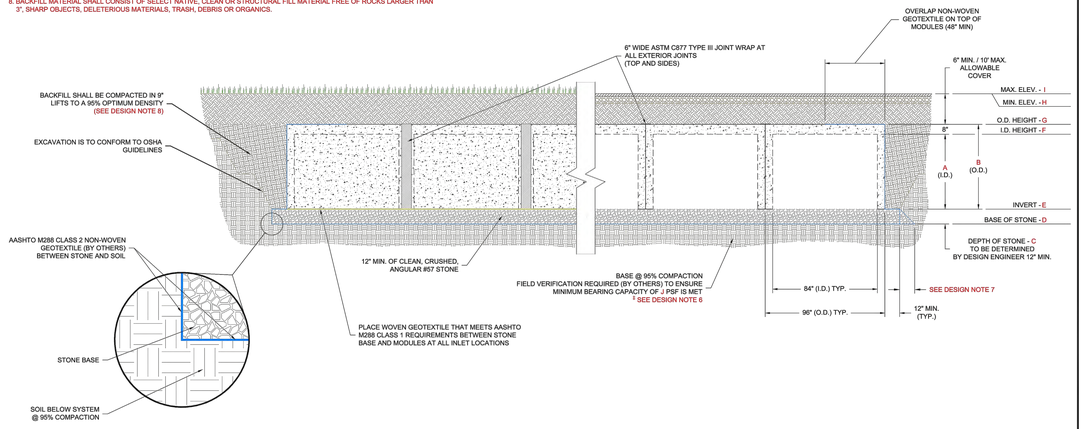
DESIGN NOTES:

1. CONCRETE - 5,000 PSI, 28 DAYS
2. REINFORCING STEEL CONFORMS TO LATEST ASTM A615
3. H-20 DESIGN LOADING PER AASHTO HS-20-44
4. EACH MODULE SHALL BE EQUIPPED WITH FOUR LIFTING POINTS FOR USE WITH A 4-HOOK WIRE ROPE OR CHAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING SYSTEM TO MEET PROJECT SPECIFICATIONS ON WATERTIGHTNESS. RETAIN-IT MANUFACTURE AND SUPPLIER WILL NOT ACCEPT RESPONSIBILITY NOR PROVIDE A GUARANTEE IN REGARD TO WATERTIGHTNESS REQUIREMENTS.
6. [‡] MINIMUM SUBSOIL BEARING CAPACITY IS BASED ON MAXIMUM GRADE OVER SYSTEM AND DEPTH OF BASE STONE. INCREASING BASE STONE WILL REDUCE BEARING PRESSURE AT BOTTOM OF STONE LAYER. CONTACT RETAIN-IT FOR PROJECT SPECIFIC BEARING PRESSURES.
7. STONE BASE SHALL BE SUPPORTED BY A VERTICAL EXCAVATION 12" FROM MODULES EDGE OR STONE BASE SHALL BE SLOPED DOWNWARD AT A 45 DEGREE ANGLE STARTING 12" FROM MODULES.
8. BACKFILL MATERIAL SHALL CONSIST OF SELECT NATIVE, CLEAN OR STRUCTURAL FILL MATERIAL FREE OF ROCKS LARGER THAN 3", SHARP OBJECTS, DELETERIOUS MATERIALS, TRASH, DEBRIS OR ORGANICS.

SYSTEM ELEVATIONS & MINIMUM BEARING CAPACITIES

SYSTEM #	A	B	C	D	E	F	G	H	I	J
UGS-1	3'-0"	44"	12"	56.20	57.20	60.20	60.87	62.00	63.00	3,200
UGS-2	3'-0"	44"	12"	55.95	56.95	59.95	60.62	61.60	62.00	3,200
UGS-3	2'-6"	38"	12"	57.50	58.50	61.00	61.67	63.00	65.00	3,200
UGS-4	2'-6"	38"	9"	57.25	58.00	60.50	61.17	62.50	63.00	4,200



RETAIN-IT CROSS SECTION
(UPRIGHT MODULES ON CRUSHED STONE BASE)

* ANY MODIFICATIONS TO THE DESIGN DEPICTED ON THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF LID TECHNOLOGIES SHALL RENDER THE DESIGN INVALID AND UNUSABLE.

RETAIN-IT STORMWATER SYSTEMS

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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RETAIN-IT CROSS SECTION

DATE: 06/04/2025 DRAWN BY: ITP

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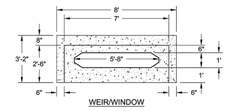
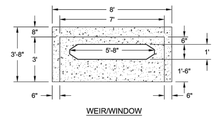


2'-6" RETAIN-IT MODULE WITH WEIR/WINDOW DIMENSIONS
(WATER QUALITY FILTRATION ROW)



3'-0" RETAIN-IT MODULE WITH WEIR/WINDOW DIMENSIONS
(WATER QUALITY FILTRATION ROW)

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RETAIN-IT STORMWATER SYSTEMS

CONCOURSE PARK

EAST HARTFORD, CT

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RETAIN-IT DETAILS

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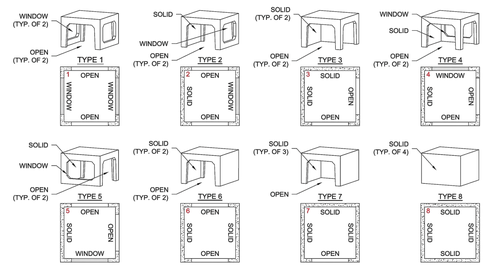
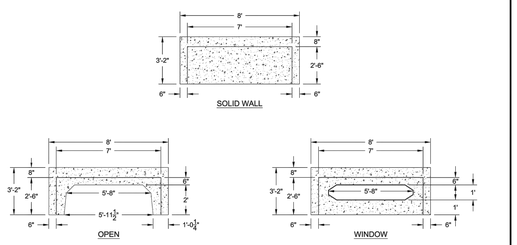
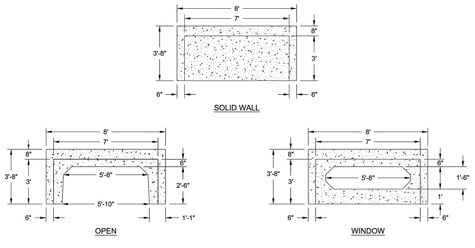


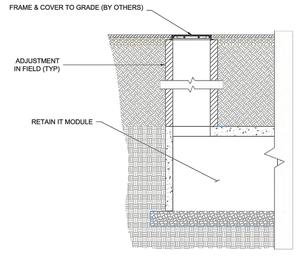
1'-6" to 4'-6" RETAIN-IT MODULE TYPES



TYPICAL 2'-6" RETAIN-IT MODULE DIMENSIONS



TYPICAL 3'-0" RETAIN-IT MODULE DIMENSIONS



ACCESS RISER DETAIL

RETAIN-IT STORMWATER SYSTEMS

CONCOURSE PARK

EAST HARTFORD, CT

REVISION DESCRIPTION	BY	CHECK	DATE
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RETAIN-IT DETAILS

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T: (203) 880-5455 | F: (203) 880-0695

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Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.08

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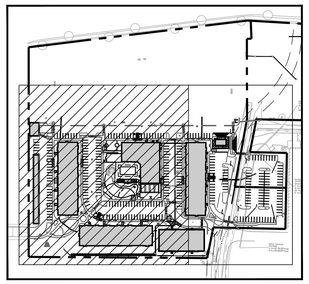
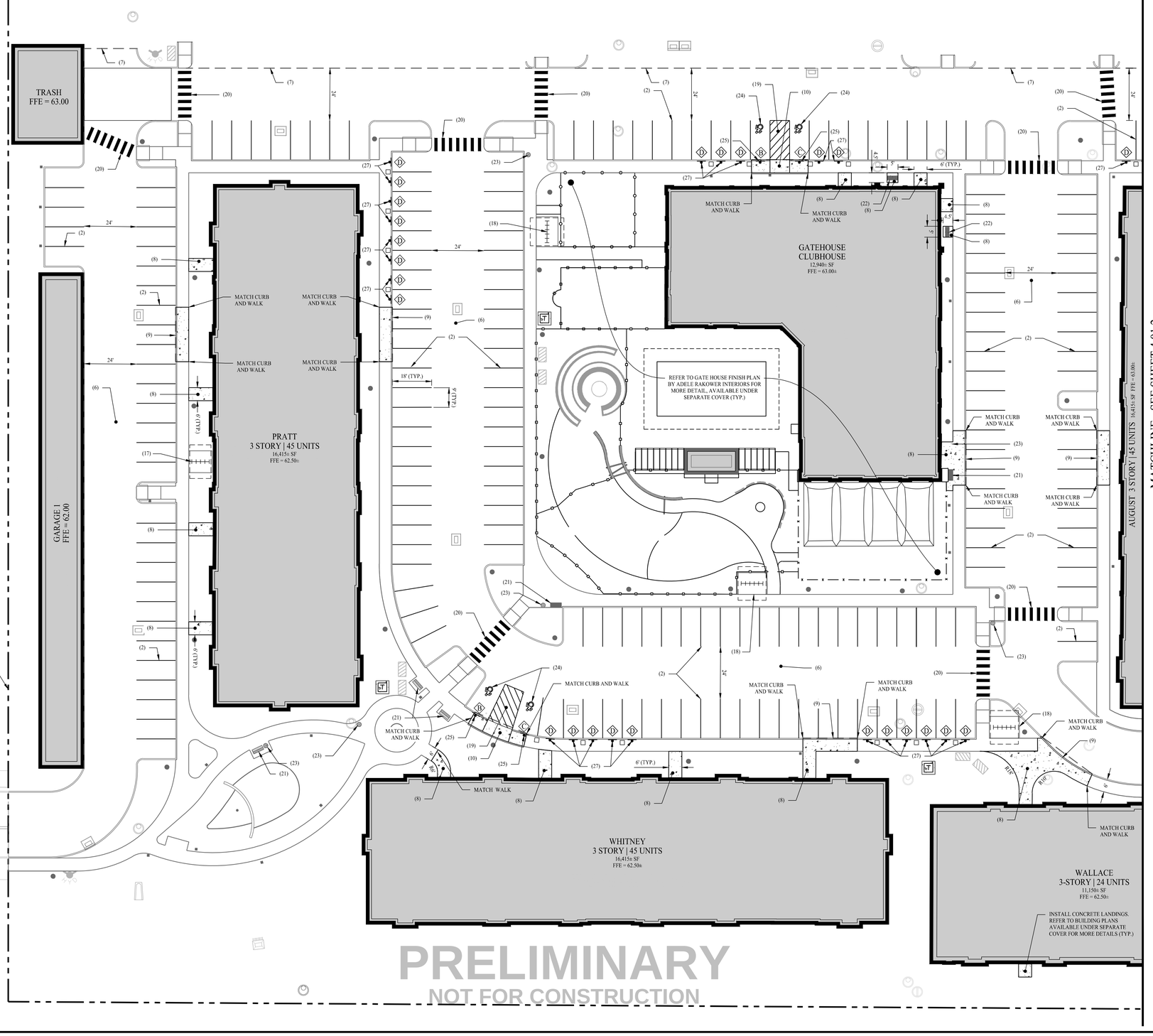


KEY MAP

SCALE: 1" = 200'



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CONSTRUCTION KEY NOTES

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(2) INSTALL 4" PAINTED SOLID WHITE LINE, TO BE HOT APPLIED (TYP.)
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(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB. MATCH LINE & GRADE
(6) INSTALL FINISH COURSE STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) MATCH PHASE 1 EDGE OF PAVEMENT
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
(10) ADA RAMP TYPE 9
(11) ADA RAMP TYPE 14
(12) ADA RAMP TYPE 16
(13) ADA RAMP TYPE 10
(14) 2' DIAMETER CONCRETE LIGHT POLE BASE
(15) 1'x1' CONCRETE BOLLARD LIGHT BASE
(16) 4' WIDE CHAIN LINK GATE
(17) INSTALL MEDIUM BIKE RACK WITH CANOPY
(18) INSTALL LONG BIKE RACK WITH CANOPY
(19) 4" PAINTED SOLID WHITE LINE AT 2' O.C., PAINTED @ 45° ANGLE (TYP.)
(20) INSTALL 6' WIDE WHITE PAINTED CROSSWALK (16" BARS, 40" O.C. SPACING)
(21) INSTALL LARGE (70 1/4") BENCH
(22) INSTALL SMALL (48") BENCH
(23) INSTALL TRASH CAN
(24) ADA PARKING SPACE
(25) INSTALL ADA ACCESSIBLE SIGN WITH BOLLARD BASE
(26) 12" WHITE PAINTED STOP BAR
(27) INSTALL EV PARKING ONLY SIGN WITH BOLLARD BASE
(28) INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE, TO BE HOT APPLIED (TYP.)
(29) INSTALL 4" PAINTED DOTTED SINGLE YELLOW LINE, TO BE HOT APPLIED (TYP.)

SIGN LEGEND

A



SIZES (IN)	CONN DOT #	SUPPORTS
30"	31-0552	1

B



SIZES (IN)	MUTCD #	SUPPORTS
12"x24" 12"x6"	* R7-8P	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C



SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D



SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	N/A*	1

*USE EQUIVALENT APPROVED SIGN

PRELIMINARY
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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B SITE PLAN

Sheet #: 4.01.1

Jul 01, 2025 - 10:16am dhendy
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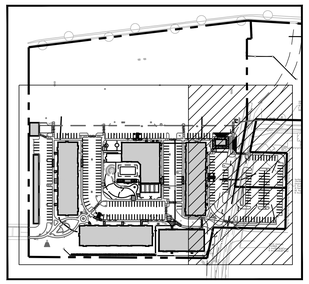
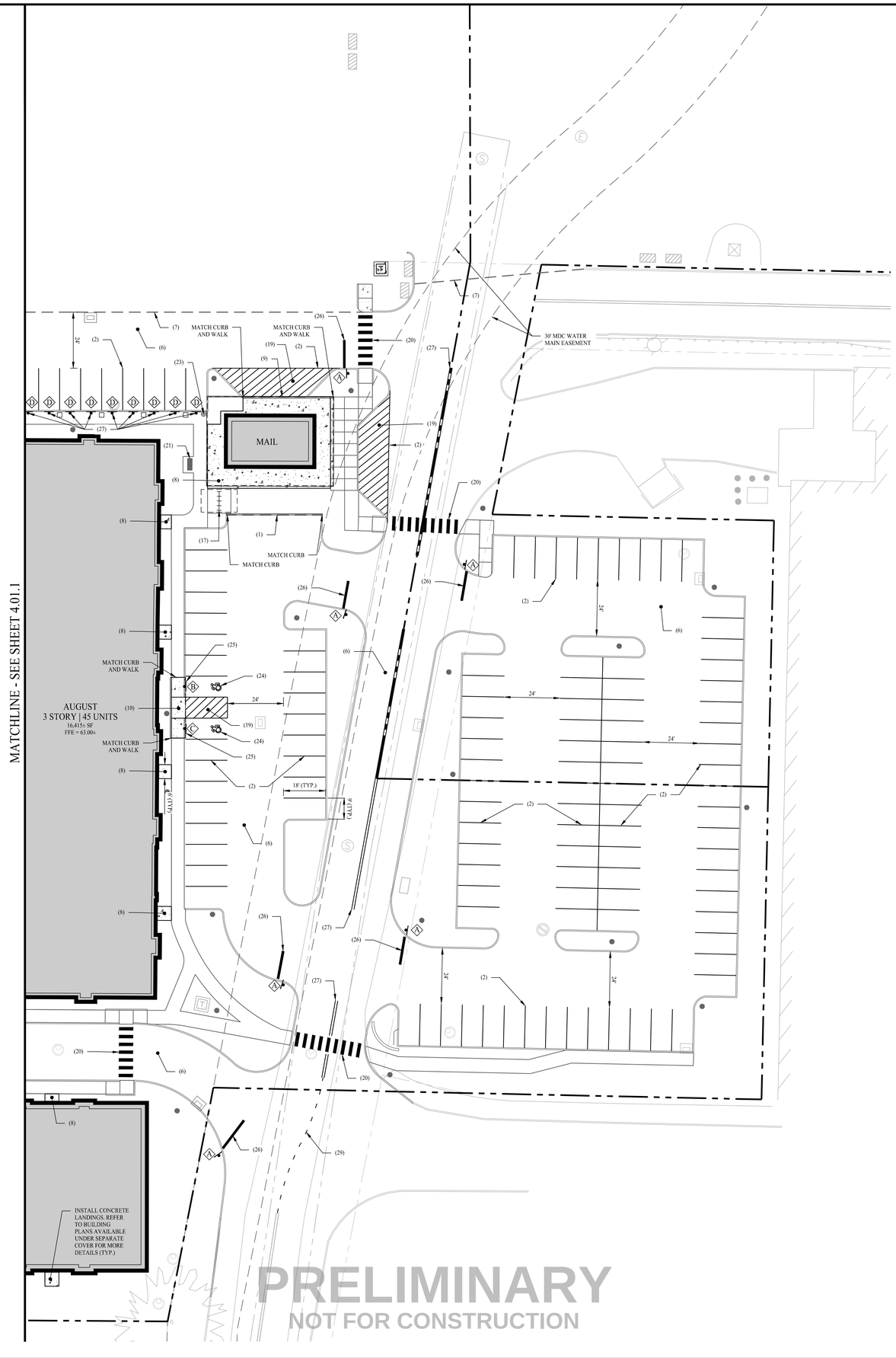


KEY MAP

SCALE: 1" = 200'



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SIGN LEGEND

A



SIZES (IN)	CONN DOT #	SUPPORTS
30"	31-0552	1

B



SIZES (IN)	MUTCD #	SUPPORTS
12"x24" 12"x6"	* R7-8P	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C



SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D



SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	N/A*	1

*USE EQUIVALENT APPROVED SIGN

Rev. #: Date Description

Graphic Scale: 20 0 20 40

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B SITE PLAN

Sheet #: 4.01.2

Jul 01, 2025 - 10:54am dheeby
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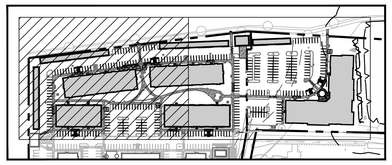
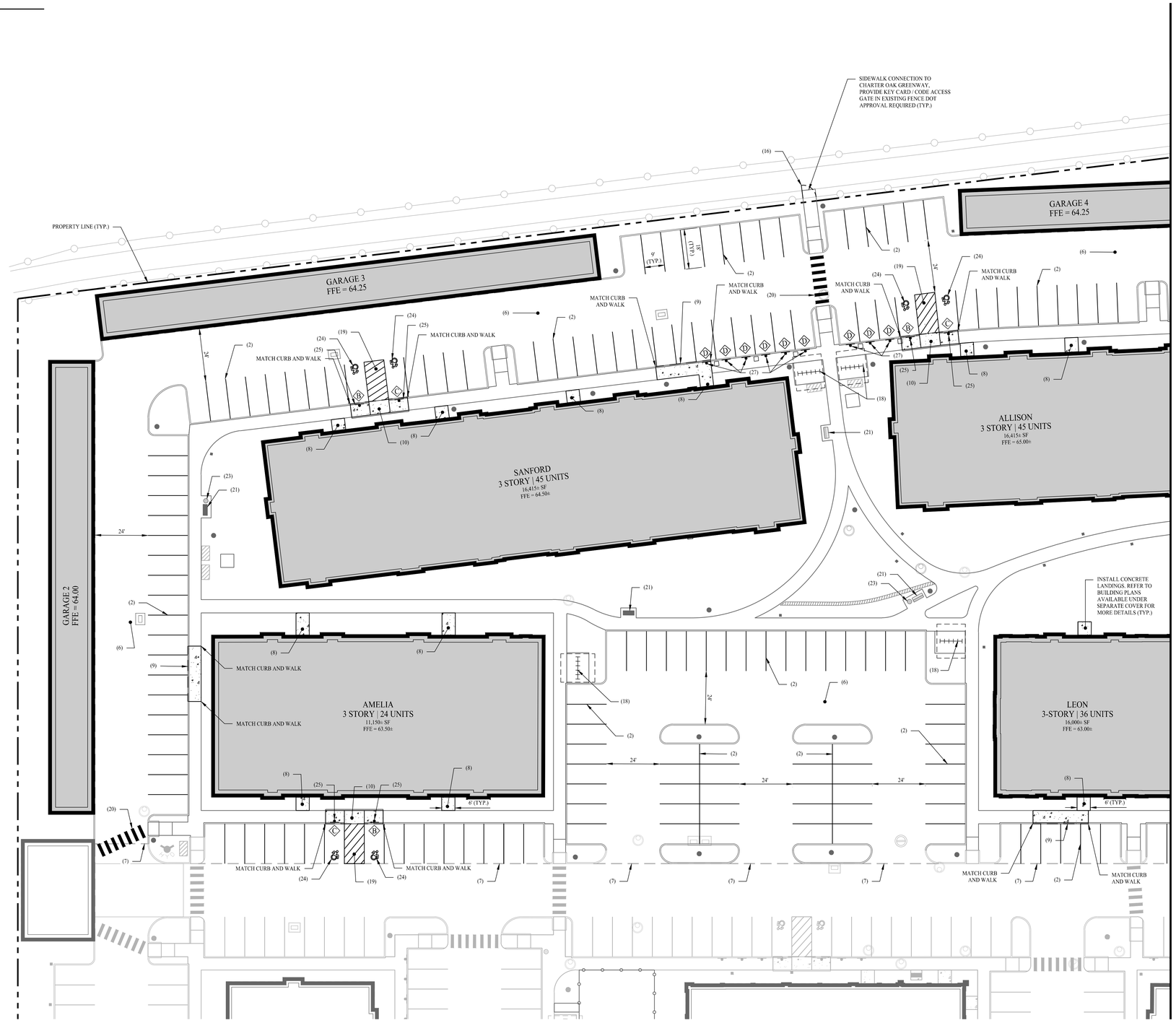


KEY MAP
SCALE: 1" = 200'



MATCHLINE - SEE SHEET 4.02.2

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(24) ADA PARKING SPACE
(25) INSTALL ADA ACCESSIBLE SIGN WITH BOLLARD BASE
(26) 12" WHITE PAINTED STOP BAR
(27) INSTALL EV PARKING ONLY SIGN WITH BOLLARD BASE
(28) INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE, TO BE HOT APPLIED (TYP.)
(29) INSTALL 4" PAINTED DOTTED SINGLE YELLOW LINE, TO BE HOT APPLIED (TYP.)

SIGN LEGEND

A



SIZES (IN)	CONN DOT #	SUPPORTS
30"	31-0552	1

B



SIZES (IN)	MUTCD #	SUPPORTS
12"x24" 12"x6"	* R7-8P	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

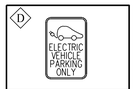
C



SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D



SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	N/A*	1

*USE EQUIVALENT APPROVED SIGN

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-0695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 SITE PLAN

Sheet #: 4.02.1

PRELIMINARY
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Jul 01, 2025 - 10:16am cheedy
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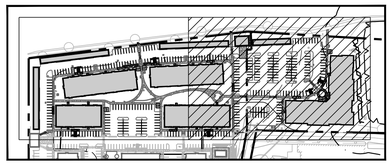
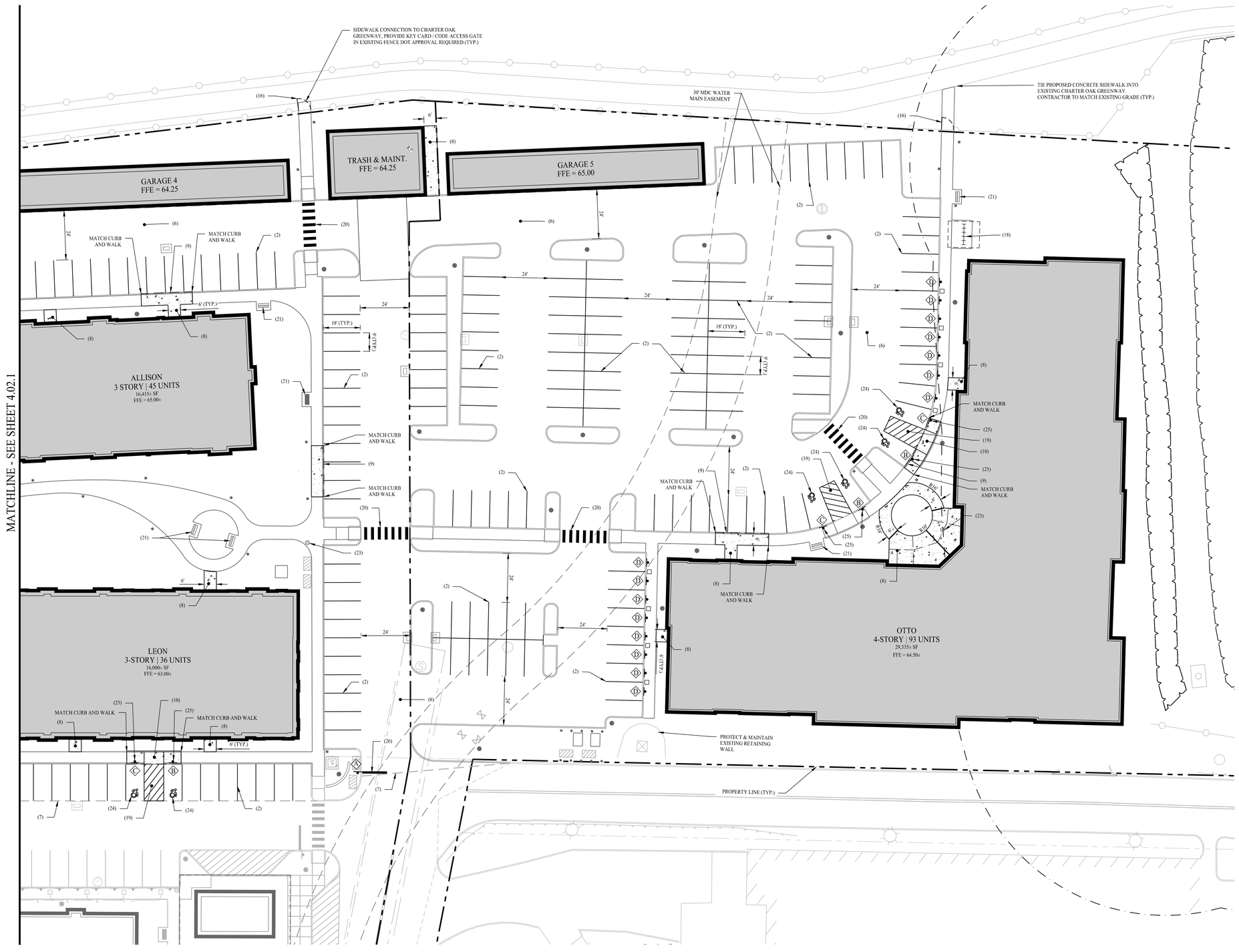


KEY MAP

SCALE: 1" = 200'



PRELIMINARY

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GENERAL NOTES

1. REFER TO SHEET 0.10 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTORS AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

CONSTRUCTION KEY NOTES

(1) INSTALL 6" CONCRETE CURB
(2) INSTALL 4" PAINTED SOLID WHITE LINE, TO BE HOT APPLIED (TYP.)
(3) START OF 6" INTEGRAL CONCRETE CURB
(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB. MATCH LINE & GRADE
(6) INSTALL FINISH COURSE STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) MATCH PHASE 1 EDGE OF PAVEMENT
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
(10) ADA RAMP TYPE 9
(11) ADA RAMP TYPE 14
(12) ADA RAMP TYPE 16
(13) ADA RAMP TYPE 10
(14) 2' DIAMETER CONCRETE LIGHT POLE BASE
(15) 1'x1' CONCRETE BOLLARD LIGHT BASE
(16) 4' WIDE CHAIN LINK GATE
(17) INSTALL MEDIUM BIKE RACK WITH CANOPY
(18) INSTALL LONG BIKE RACK WITH CANOPY
(19) 4" PAINTED SOLID WHITE LINE AT 2' O.C., PAINTED @ 45° ANGLE (TYP.)
(20) INSTALL 6' WIDE WHITE PAINTED CROSSWALK (16" BARS, 40" O.C. SPACING)
(21) INSTALL LARGE (70 1/4") BENCH
(22) INSTALL SMALL (48") BENCH
(23) INSTALL TRASH CAN
(24) ADA PARKING SPACE
(25) INSTALL ADA ACCESSIBLE SIGN WITH BOLLARD BASE
(26) 12" WHITE PAINTED STOP BAR
(27) INSTALL EV PARKING ONLY SIGN WITH BOLLARD BASE
(28) INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE, TO BE HOT APPLIED (TYP.)
(29) INSTALL 4" PAINTED DOTTED SINGLE YELLOW LINE, TO BE HOT APPLIED (TYP.)

SIGN LEGEND

A — STOP

SIZES (IN)	CONN DOT #	SUPPORTS
30"	31-0552	1

B — RESERVED PARKING / FINE / PENALTIES / VAN ACCESSIBLE

SIZES (IN)	MUTCD #	SUPPORTS
12"x24" 12"x6"	* R7-8P	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C — RESERVED PARKING / FINE / PENALTIES

SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D — ELECTRIC VEHICLE PARKING ONLY

SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	N/A*	1

*USE EQUIVALENT APPROVED SIGN

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T: (203) 880-5455 | F: (203) 880-0695

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 SITE PLAN

Sheet #: 4.02.2

Jul 01, 2025 - 10:16am chendy
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GENERAL NOTES

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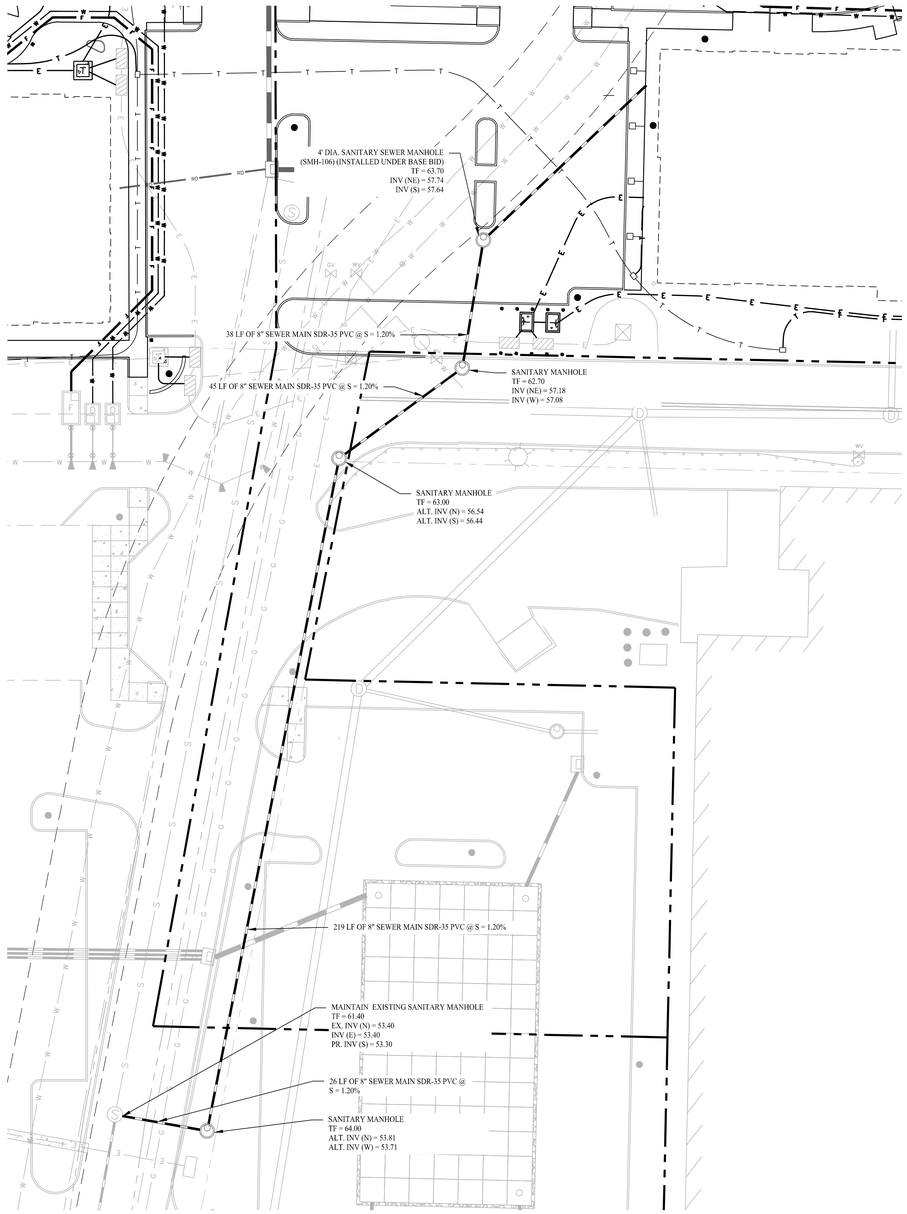
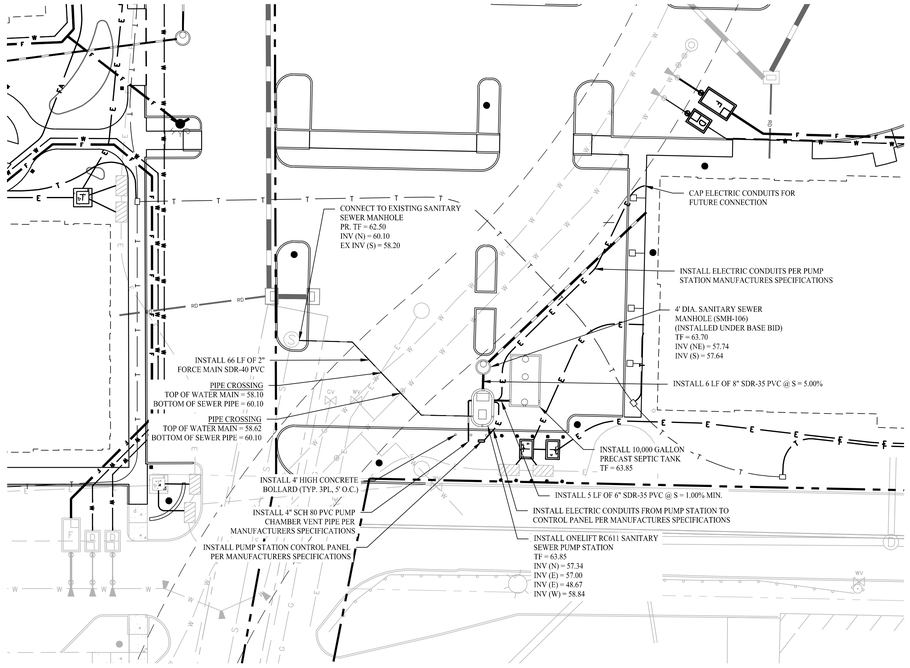


OTTO GRAVITY SANITARY SEWER CONNECTION ALTERNATIVE

SCALE: 1" = 20'



OTTO PUMP STATION SANITARY SEWER CONNECTION ALTERNATIVE

SCALE: 1" = 20'

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Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OTTO SANITARY SERVICE ALTERNATES

Sheet #: 4.03

GENERAL NOTES

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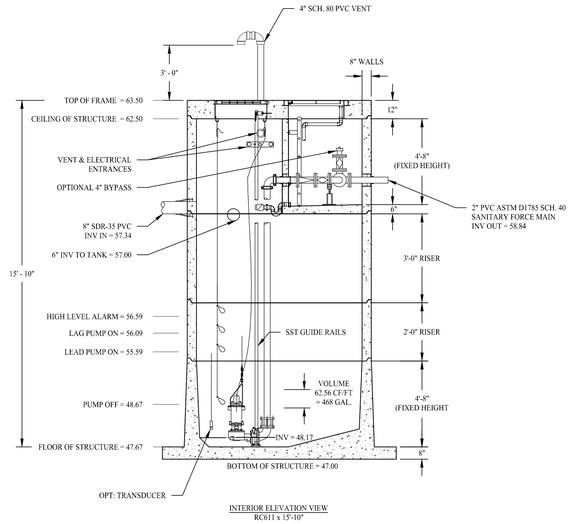
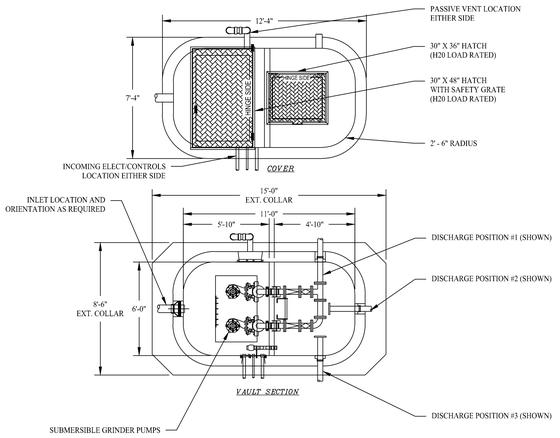
NOTES:
1. PRECAST PUMP STATION STRUCTURE. HS 20 LOAD QUALIFIED.
2. PRECAST PUMP STATION SHIMS, 2", 3" & 4" HEIGHTS AS NEEDED.
3. LIBERTY PUMPS PRG100-SERIES 1 HP SUBMERSIBLE GRINDER PUMPS OR APPROVED EQUAL.
4. THE CONTROL PANEL SHALL BE ITT-CENTRIPRO MODEL A6-2012, OR AS SPECIFIED BY MANUFATURER, AND LOCATED IN BUILDING.
5. 2" PVC SCH 40 DISCHARGE PIPING WITH PVC SCH 40 FITTINGS.
6. 2" DUPLEX DISCHARGE KIT SUPPLIED BY HOMA.
7. 1¼" STAINLESS STEEL PUMP REMOVAL GUIDE RAILS MODEL A10-2015 AS SUPPLIED BY CENTRIPRO.
8. 8" SDR-35 PVC INLET PIPE.**
9. PROVIDE PUMP ACCESS HATCHES AS INDICATED, QUALIFIED FOR HS 20 LOAD.
10. ADJUSTABLE POLYPROPYLENE LEVEL CONTROL FLOAT SWITCHES.
11. LINK SEAL (FOR EACH PIPE LEAVING OR ENTERING MANHOLE AND VALVE VAULT).
12. 2" PVC ASTM D 1785 SCHEDULE 40 PVC PIPE.
13. WATERTIGHT SEALANT REQUIRED ON ALL JOINTS AND SEAMS.



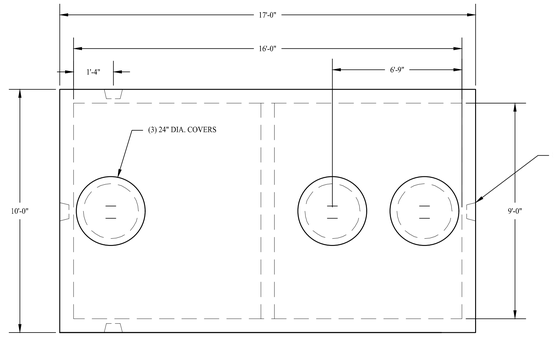
INTERIOR ELEVATION VIEW
RC611 x 15'-10"



ONELIFT PUMP STATION DETAIL

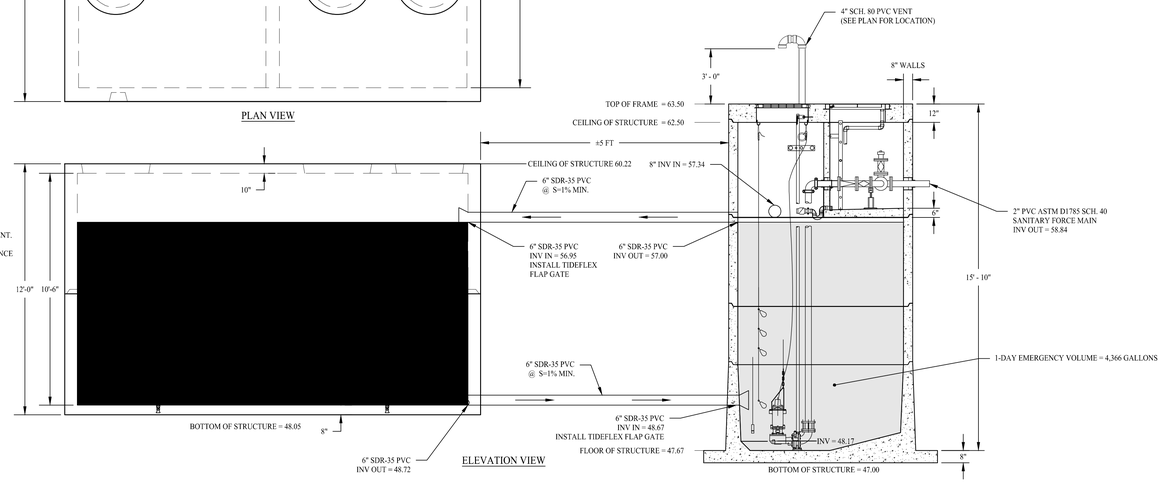
1 SCALE: NTS

DETAIL PROVIDED BY: OLD CASTLE PRECAST



PLAN VIEW

NOTES:
1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH = 5,000 PSI.
2. REBAR: GRADE 60 PER ASTM A615 (BLACK).
3. DESIGN LOAD: AASHTO H-20 (2'-5" COVER).
4. CONTRACTOR TO VERIFY ALL OPENING SIZES AND LOCATIONS.
5. ALL PIPE AND ROOF OPENINGS HAVE ADDITIONAL REBAR REINFORCEMENT.
6. JOINT TO BE SEALED WITH 1" BUTYL RUBBER.
7. ALL HARDWARE SHOWN BUT NOT DIMENSIONED IS FOR VISUAL REFERENCE ONLY. DO NOT SCALE FOR PLACEMENT.
8. PROVIDE MANHOLE RISERS TO GRADE.
9. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE FIXED.
10. WATERTIGHT SEALANT REQUIRED ON ALL JOINTS AND SEAMS.



ELEVATION VIEW

10,000 GALLON STORAGE TANK WITH PUMP STATION CONNECTION

2 SCALE: NTS

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Checked By:	PAR
Approved By:	KMS
Project #:	20105O1
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OTTO PUMP STATION DETAILS ALTERNATE

Sheet #: 4.04

Jul 01, 2025 – 10:17am dherdy
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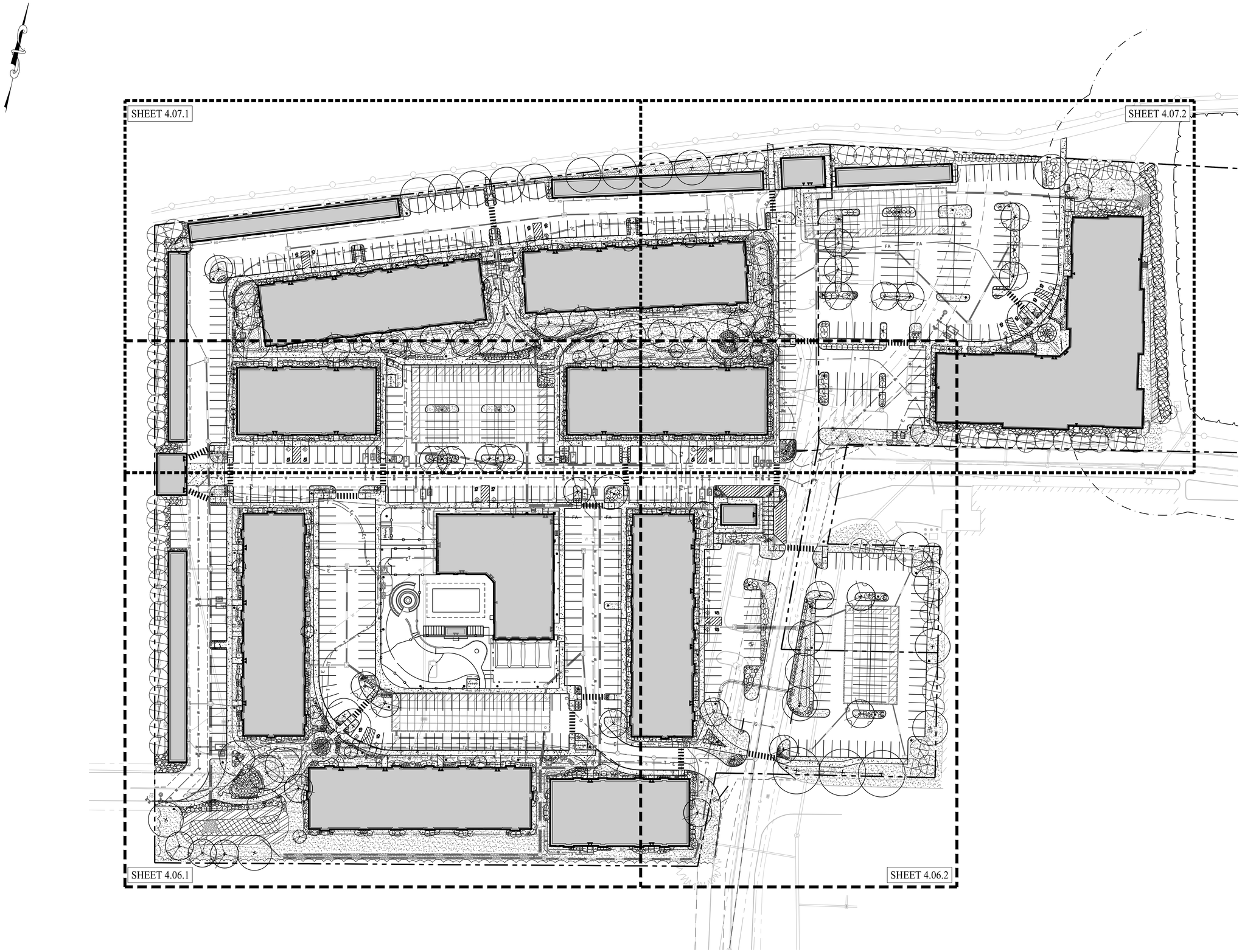

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Rev. #:	Date	Description

Graphic Scale: 40 0 40 80

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Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT OVERALL LANDSCAPING PLAN

Sheet #: 4.05

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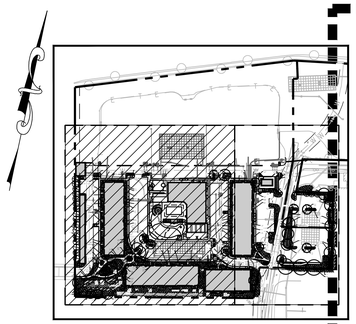

KEY MAP

SCALE: 1" = 200'

GENERAL NOTES

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LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINING LOT LINE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING TREE
- OVERSTORY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUBS & GROUNDCOVER
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONRTOL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- DECORATIVE STONE

(4) AU
(4) KL
(4) IG
(4) AM
(3) HU
(7) OC
(3) JH
(4) PF
(1) FM
(3) PF
(1) PM
(3) PM
(4) PF
(1) OV
(3) FG
(1) AR
(2) AG
(7) LM
(3) PI
DECORATIVE STONE (TYP.)
(4) HU
(5) LK
(4) AM
(1) IC
(1) AY
(3) LF
(7) SS
(1) FM
(2) HU
(3) NF
(4) HQ
(3) CK
(5) IG
(2) IG
(1) SP
(6) IT
(1) MC
(5) SS
(4) PM
(1) LS
(4) MC
(2) MC
(6) PO
(3) IT
(3) IG
(6) LF
(7) PV
(4) RA
(1) JT
(2) IG
(6) LF
(3) IG
(6) FM
(1) MC
(8) OP
(1) IG
(1) SP
(10) AY
(4) PO
(2) PF
(1) JT
(4) PO
(4) RA
(1) JT
(8) JV
(18) LM
(3) PJM
(3) CA
(7) SS
(1) CC
(4) MC
(2) PF
(1) JC
(5) TP
(8) SS
NEW ENGLAND SHOWY WILDFLOWER MIX (TYP.)
(6) PM
(1) LS
(5) PM
(6) IG
(5) JT
(7) PV
(5) AY
(9) IT
(5) SL
(3) CA
(7) AA
(6) AU
(4) IG
(6) CK
(4) IG
(6) OP
(6) IT
(2) MC
(5) PO
(2) GB
(5) SS
(1) CC
(12) AU
(1) JC
(3) PF
(1) HS
(4) IG
(5) SS
(1) HS
(4) IG
(1) MV
(17) SS
(1) HS
(3) IG
(7) CA
(1) MD
(3) PJM
(1) GT
(10) CK
(6) HS
(4) MC
(2) PM
(3) CA
(7) AA
(8) LF
(3) PJM
(1) IC
(7) IT
(3) IG
(1) SP
(6) VA
(2) IC
(3) PJM
(7) VA
(1) IC
(3) AY
(1) HS
(4) PM
(15) IG
(19) NF
(17) PM
(15) AL
(9) AC
(2) BS
(3) OC
(6) PJM
(3) CA
(3) IG
(6) AC
(8) AY
(1) IC
(9) IS
(6) HU
(7) AC
(5) DC
(6) HU
(5) PV
(8) CA
(5) IL
(5) IV
(2) PM
(1) MG
(3) AG
(10) IT
(1) MV
(2) VA
(2) HS
(2) LF
(2) PJM
(5) HU
(4) KL
(6) IL
(7) CA
(12) FM
(3) HU
(4) AC
(4) IS
(4) IG
(1) CR
(4) PJM
(3) AY
(5) LF
(1) IC
(3) PO
(1) AG
(4) IG
(6) LK
(4) PO
(5) DC
(1) GT
(5) FM
(3) CA
(3) RM
(7) AC
NEW ENGLAND WETMIX (TYP.)
(1) MV
(6) AY
(2) PO
(5) CA
(1) HS
(2) PO
(5) AY
LAWN AREA (TYP.)
(8) KL
(3) AY
(3) RM
(3) AY
(2) VA
(3) LF
(3) PJM
(1) HS
(1) HS
(3) CA
(3) LF
(8) LF
(6) HS
(1) QA
(1) CC
NEW ENGLAND EROSION CONTROL RESTORATION MIX (TYP.)
(1) CC
(1) CC
(1) ICC
(1) NS
PROPOSED TREELINE (TYP.)

MATCHLINE - SEE SHEET 4.06.2

PRELIMINARY
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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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Drawn By:	JJS
Checked By:	MFB
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B LANDSCAPE PLAN

Sheet #: 4.06.1

Jul 01, 2025 - 10:56am - ehenchy
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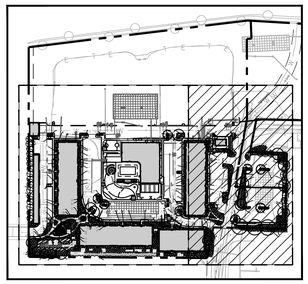
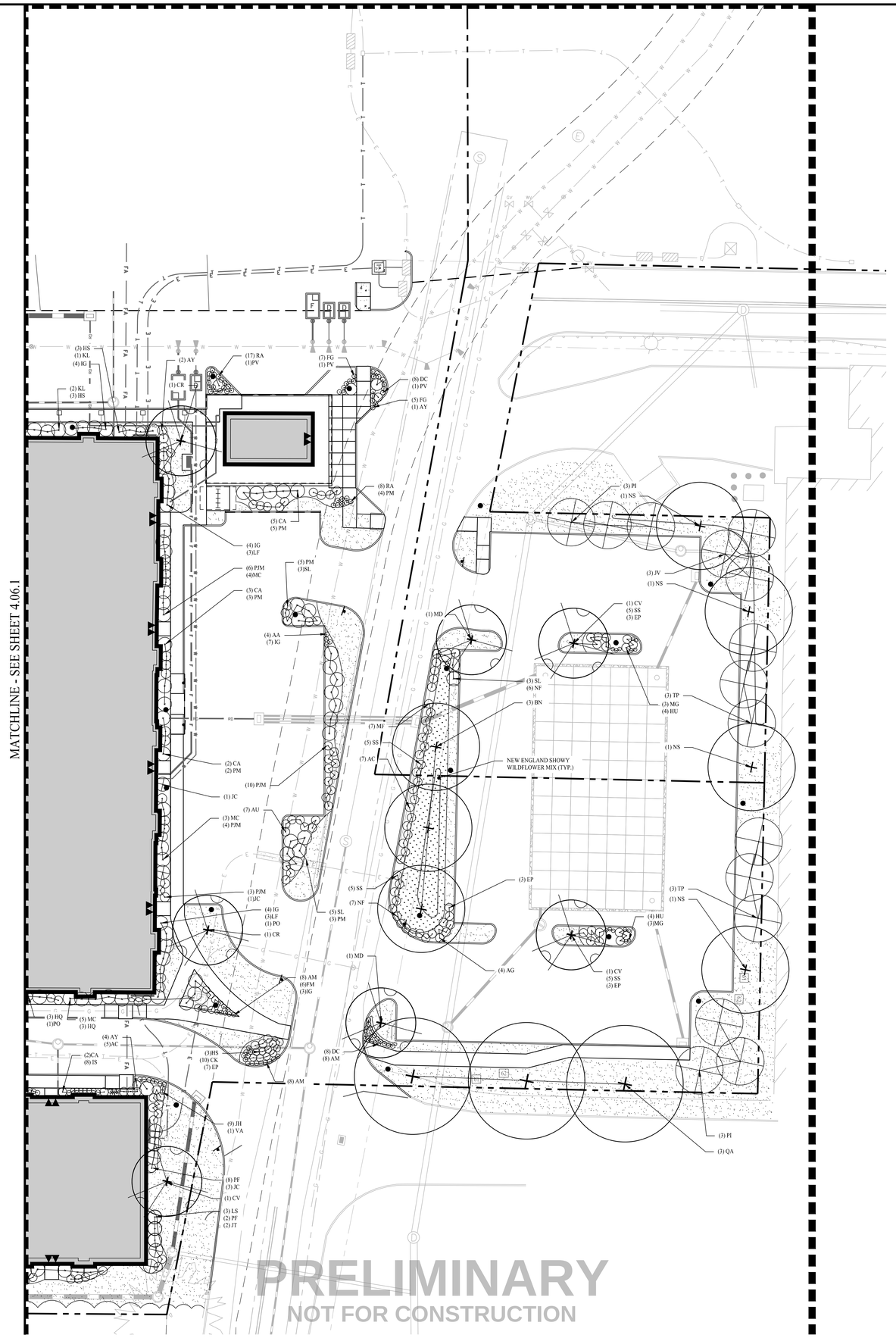


KEY MAP

SCALE: 1" = 200'



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4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINING LOT LINE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING TREE
- OVERSTORY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUBS & GROUNDCOVER
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONRTOL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- DECORATIVE STONE

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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Drawn By:	JJS
Checked By:	MFB
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Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B LANDSCAPE PLAN

Sheet #: 4.06.2

OVERALL PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
TREES						
AR	1	ACER RUBRUM	RED MAPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
BN	10	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	8-10' HT	MULTI-STEM
CB	6	CARPINUS BETULA 'FASTIGIATA'	FASTIGIATE HORNBEAM	B&B	2 - 2 1/2" CAL	FULL, EXTRA HEAVY
GB	4	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	B&B	2"-3" CAL	FULL, EXTRA HEAVY
GT	2	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	THORNLESS COMMON HONEYLOCUST	B&B	2"-3" CAL	FULL, EXTRA HEAVY
IO	7	ILEX OPACA 'SATYR HILL'	AMERICAN HOLLY	B&B	6' HT	FULL, EXTRA HEAVY
JC	10	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	B&B	5'-6' HT	FULL, EXTRA HEAVY
JT	5	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR EASTERN RED CEDAR	B&B	8'-10' HT	FULL, EXTRA HEAVY
JV	11	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	B&B	8'-10' HT	FULL, EXTRA HEAVY
LS	24	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE'	SWEETGUM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
NS	5	NYSSA SYLVATICA	BLACK TUPELO	B&B	2"-3" CAL	FULL, EXTRA HEAVY
TP	11	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARDORVITAE	B&B	8'-10' HT	FULL, EXTRA HEAVY
PI	9	PICEA PUNGENS	COLORADO BLUE SPRUCE	B&B	8'-10' HT	FULL, EXTRA HEAVY
QA	4	QUERCUS ALBA	WHITE OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
UNDERSTORY TREES						
CC	5	CERCIS CANADENSIS	EASTERN REDBUD	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CR	3	CORNUS X RUTGERSENSIS	FLOWERING DOGWOOD 'RUTGAN'	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CV	3	CRATAEGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MA	2	MALUS DOMESTICA	FRUITING APPLE	B&B	2 -2 1/2" CAL	FULL, EXTRA HEAVY
MDE	8	MALUS DOMESTICA 'espalier'	ESPALIER FRUITING APPLE	B&B	2 -2 1/2" CAL	FULL, EXTRA HEAVY
MD	3	MALUS 'DONALD WYMAN'	DONALD WYMAN FLOWERING CRABAPPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MV	4	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
OV	1	OSTRAYA VIRGINIANA	AMERICAN HORNBEAM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
SP	3	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
ZS	1	ZELKOVA SERRATA	JAPANESE ZELKOVA	B&B	3 - 3 1/2" CAL	FULL, EXTRA HEAVY
UPLAND SHRUBS						
AA	18	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
AY	54	AZALEA 'YUKA'	YUKA AZALEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
CA	80	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
CO	11	CORNUS ALBA 'BUDS YELLOW'	YELLOWTWIG DOGWOOD	CONT	24"-30" HT	FULL, EXTRA HEAVY
CRE	3	CORNUS RACEMOSA	GRAY DOGWOOD	CONT	18"-24" HT	FULL, EXTRA HEAVY
FM	37	FOTHERGILLA MAJOR 'MT. AIRY'	MT. AIRY FOTHERGILLA	CONT	18"-24" HT	FULL, EXTRA HEAVY
HMA	6	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	CONT	24"-30" HT	FULL, EXTRA HEAVY
HP	33	HYDRANGEA PANICULATA 'LITTLE QUICKFIRE'	LITTLE QUICKFIRE HYDRANGEA	CONT	24"-30" HT	FULL, EXTRA HEAVY
HPL	29	HYDRANGEA PANICULATA 'LIMELIGHT'	LIMELIGHT HYDRANGEA	CONT	24"-30" HT	FULL, EXTRA HEAVY
HQ	14	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	CONT	24"-30" HT	FULL, EXTRA HEAVY
HS	35	HYDRANGEA QUERCIFOLIA 'SNOWFLAKE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
ICR	36	ILEX CRENATA 'HOOGENDORN'	JAPANESE HOLLY	CONT	24"-30" HT	FULL, EXTRA HEAVY
IC	7	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IM	7	ILEX MESERVEAE 'BLUE PRINCESS'	BLUE HOLLY	CONT	24"-30" HT	FULL, EXTRA HEAVY
IG	125	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IS	24	ILEX CRENATA 'SKY PENCIL'	SKY PENCIL JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IL	11	ILEX VERTICILLATA	WINTERBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IT	51	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPIRE	CONT	18"-24" HT	FULL, EXTRA HEAVY
KL	19	KALMIA LATIFOLIA 'LITTLE LINDA'	HYBRID MOUNTAIN LAUREL	CONT	18"-24" HT	FULL, EXTRA HEAVY
LF	47	LEUCOTHOE FONTANESIANA	DROOPING LEUCOTHOE	CONT	18"-24" HT	FULL, EXTRA HEAVY
MG	7	MYRICA GALE	SWEETGALE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PF	28	POTENTILLA FRUTICOSA	BUSH CINQUEFOIL	CONT	18"-24" HT	FULL, EXTRA HEAVY
PM	69	PINUS MUGO 'MOPS'	DWARF MUGO PINE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PO	32	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	DWARF COMMON NINEBARK	CONT	18"-24" HT	FULL, EXTRA HEAVY
PJM	59	RHODODENDRON PJM	PJM RHODODENDRON	CONT	18"-24" HT	FULL, EXTRA HEAVY
RC	24	RHODODENDRON 'CUNNINGHAMS WHITE'	CUNNINGHAMS WHITE RHODODENDRON	CONT	24"-30" HT	FULL, EXTRA HEAVY
RM	6	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	CONT	18"-24" HT	FULL, EXTRA HEAVY
SL	16	SPIREA LATIFOLIA	MEADOWSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
TM	13	TAXUS X MEDIA 'HICKSII'	HICKS YEW	CONT	24"-30" HT	FULL, EXTRA HEAVY
VA	23	VIBURNUM ACERIFOLIUM	MAPLE-LEAF VIBURNUM	CONT	18"-24" HT	FULL, EXTRA HEAVY
GROUNDCOVER						
AU	29	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	CONT	#1 CONT	FULL, EXTRA HEAVY
JH	12	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	CONT	#1 CONT	FULL, EXTRA HEAVY
LM	25	LIRIOPE MUSCARI	LILY TURF	CONT	#1 CONT	FULL, EXTRA HEAVY
RA	33	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	CONT	#1 CONT	FULL, EXTRA HEAVY
PERENNIALS + FERNS						
AC	69	ASTILBE CHINENSIS	ASTILBE	CONT	1 GAL	FULL, EXTRA HEAVY
AL	18	ALCHEMILLA MOLLIS	LADY'S MANTLE	CONT	1 GAL	FULL, EXTRA HEAVY
AM	32	ACHILLEA 'MOONSHINE'	MOONSHINE YARROW	CONT	1 GAL	FULL, EXTRA HEAVY
DC	26	DELOSPERMA	ICE PLANT	CONT	1 GAL	FULL, EXTRA HEAVY
EP	16	ECHINACEA PURPUREA	CONE FLOWER	CONT	1 GAL	FULL, EXTRA HEAVY
FG	15	FESTUCA GLAUCA 'ELIJAH BLUE'	FESCUE GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
HU	42	HEUCHERA 'CARAMEL'	CORAL BELLS	CONT	1 GAL	FULL, EXTRA HEAVY
IV	18	IRIS VERSICOLOR	BLUE FLAG IRIS	CONT	1 GAL	FULL, EXTRA HEAVY
LK	11	LIATRIS SPICATA 'KOBOLD'	KOBOLD LIATRIS	CONT	1 GAL	FULL, EXTRA HEAVY
MF	7	MONARDA FISTULOSA	BEE BALM	CONT	1 GAL	FULL, EXTRA HEAVY
NF	50	NEPETA FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	CONT	1 GAL	FULL, EXTRA HEAVY
OC	10	OSMUNDA CINNAMOMEA	CINNAMON FERN	CONT	1 GAL	FULL, EXTRA HEAVY
SA	12	SALVIA NEMEROSA 'BLUE HILL'	BLUE HILL MEADOW SAGE	CONT	1 GAL	FULL, EXTRA HEAVY
SE	206	SEDUM ASSORTMENT	STONE CROP	CONT	1 GAL	FULL, EXTRA HEAVY
WF	2	WISTERIA FLORIBUNDA	JAPANESE WISTERIA	CONT	TRELLIS	FULL, EXTRA HEAVY
GRASSES						
AG	22	ANDROPOGON GERARDII 'RED OCTOBER'	RED OCTOBER BIG BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
CK	52	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER REED GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
HA	86	HAKONECHLOA MACRA 'AUREOLA'	HAKONE GRASS	CONT	2 GAL	FULL, EXTRA HEAVY
MC	47	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
OP	16	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDO GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
PA	13	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	FOUNTAIN GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
PV	22	PANICUM VIRGATUM	SWITCHGRASS	CONT	1 GAL	FULL, EXTRA HEAVY
SS	78	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
SEED MIXES						
NEW ENGLAND WETMIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/2,500 S.F.						
NEW ENGLAND SHOWY WILDFLOWER MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/1,900 S.F.						
NEW ENGLAND EROSION CONTROL/RESTORATION MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/2,500 S.F.						
LAWN: PENNINGTON SMART SEED SUN AND SHADE						
APPLICATION RATE NEW LAWNS: 9 LB/1,000 S.F.						

PLANTING SOIL NOTES

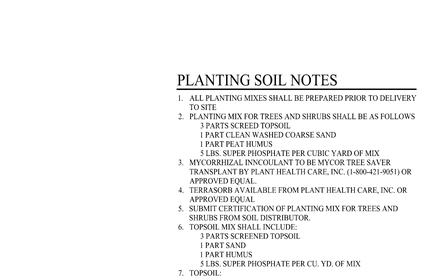
1. ALL PLANTING MIXES SHALL BE PREPARED PRIOR TO DELIVERY TO SITE.
2. PLANTING MIX FOR TREES AND SHRUBS SHALL BE AS FOLLOWS
   3 PARTS SCREED TOPSOIL
   1 PART CLEAN WASHED COARSE SAND
   1 PART PEAT HUMUS
   5 LBS. SUPER PHOSPHATE PER CUBIC YARD OF MIX
3. MYCORRHIZAL INNCOULANT TO BE MYCOR TREE SAVER TRANSPLANT BY PLANT HEALTH CARE, INC. (1-800-421-9051) OR APPROVED EQUAL.
4. TERRASORB AVAILABLE FROM PLANT HEALTH CARE, INC. OR APPROVED EQUAL.
5. SUBMIT CERTIFICATION OF PLANTING MIX FOR TREES AND SHRUBS FROM SOIL DISTRIBUTOR.
6. TOPSOIL MIX SHALL INCLUDE:
   3 PARTS SCREENED TOPSOIL
   1 PART SAND
   1 PART HUMUS
   5 LBS. SUPER PHOSPHATE PER CU. YD. OF MIX
7. TOPSOIL:
   A. PROVIDE A NATURAL, FERTILE, FRIABLE, NATURAL LOAM SURFACE SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, OF UNIFORM COMPOSITION THROUGHOUT AND WITHOUT ADMIXTURES OF SUBSOIL, AND FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS OR OTHER EXTRANEOUS MATTER.
   B. TOPSOIL SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 20% ORGANIC MATTER AS DETERMINED BY THE WET COMBUSTION METHOD.
   C. MECHANICAL ANALYSIS

SCREEN SIZE	% BY WEIGHT PASSING
1"	100
1/4"	97 - 100
NO. 200	20 - 65

   D. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL TESTING AND ANALYSIS OF EXISTING AND IMPORTED SOILS. FURNISH A SOIL ANALYSIS MADE BY A QUALIFIED INDEPENDENT SOIL - TESTING AGENCY STATING PERCENTAGES OF ORGANIC MATTER, INORGANIC MATTER (SILT, CLAY, AND SAND), DELETERIOUS MATERIAL, PH, AND MINERAL AND PLANT - NUTRIENT CONTENT OF TOPSOIL.
   E. REPORT SUITABILITY OF TOPSOIL FOR LAWN AND SHRUB PLANTING GROWTH. RECOMMEND QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENT AND ANY LIMESTONE, ALUMINUM SULFATE, OR OTHER SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY TOPSOIL.

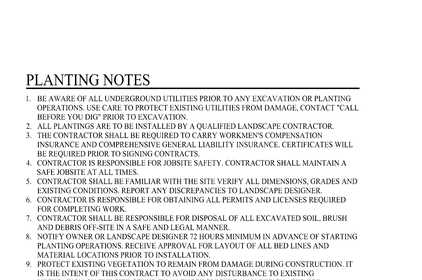
PLANTING NOTES

1. BE AWARE OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR PLANTING OPERATIONS. USE CARE TO PROTECT EXISTING UTILITIES FROM DAMAGE, CONTACT "CALL BEFORE YOU DIG" PRIOR TO EXCAVATION.
2. ALL PLANTINGS ARE TO BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR.
3. THE CONTRACTOR SHALL BE REQUIRED TO CARRY WORKMEN'S COMPENSATION INSURANCE AND COMPREHENSIVE GENERAL LIABILITY INSURANCE. CERTIFICATES WILL BE REQUIRED PRIOR TO SIGNING CONTRACTS.
4. CONTRACTOR IS RESPONSIBLE FOR JOBSITE SAFETY. CONTRACTOR SHALL MAINTAIN A SAFE JOBSITE AT ALL TIMES.
5. CONTRACTOR SHALL BE FAMILIAR WITH THE SITE VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS. REPORT ANY DISCREPANCIES TO LANDSCAPE DESIGNER.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED FOR COMPLETING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL EXCAVATED SOIL, BRUSH AND DEBRIS OFF-SITE IN A SAFE AND LEGAL MANNER.
8. NOTIFY OWNER OR LANDSCAPE DESIGNER 72 HOURS MINIMUM IN ADVANCE OF STARTING PLANTING OPERATIONS. RECEIVE APPROVAL FOR LAYOUT OF ALL BED LINES AND MATERIAL LOCATIONS PRIOR TO INSTALLATION.
9. PROTECT EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING CONSTRUCTION. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD AT THE DIRECTION OF THE LANDSCAPE DESIGNER.
10. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL PLANTING, SEEDING AND TREE WORK WITH OTHER TRADES. RESPECT OTHER TRADES WORK AT ALL TIMES.
11. CONTRACTOR IS TO EXERCISE EXTREME CARE DURING THE COURSE OF DEMOLITION AND REMOVALS. ANY DAMAGE TO EXISTING FACILITIES, UTILITIES OR TREES TO REMAIN SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE IN KIND.
12. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DAMAGED TO PRE-EXISTING CONDITIONS AS A RESULT OF PLANTING OPERATIONS TO OWNERS AND OR LANDSCAPE DESGNERS APPROVAL.
13. VEGETATION TO BE REMOVED, NOT INDICATED ON PLAN, SHALL BE TAGGED IN FIELD BY LANDSCAPE DESIGNER.
14. THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO REJECT INFERIOR PLANT MATERIALS AND SUBSTITUTIONS. THE LANDSCAPE DESIGNER IS WILLING TO MAKE TWO TRIPS TO SUPPLIERS TO TAG, REVIEW AND APPROVE MATERIALS. PREVIOUSLY UNAPPROVED MATERIALS MAY BE REJECTED AT THE SITE. MINIMALLY, ALL MATERIALS WILL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1 - 2004) OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
15. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AS SOON AS WEATHER AND SEASONAL CONDITIONS PERMIT, ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE DESIGNER DURING, AND AT THE END OF THE GUARANTEE PERIOD. WARRANTY REPLACEMENT WILL BE PROVIDED AT NO COST TO THE OWNER AND INCLUDE MATERIALS AND LABOR. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING REPLACEMENT OF WARRANTY MATERIALS.
16. WHEN THERE IS A DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON THE PLANT LIST & THE PLAN, USE THE QUANTITIES FROM THE PLAN.
17. PERENNIALS, GROUNDCOVERS & GRASSES TO BE FIELD LOCATED BY LANDSCAPE DESIGNER. COORDINATE TO NOTIFY LANDSCAPE DESIGNER AT LEAST 72 HOURS IN ADVANCE OF EXPECTED INSTALLATION DATE. ON THAT DATE ALL BEDS SHALL BE PREPARED & ALL PLANT MATERIAL SHALL BE ON SITE.
18. PROVIDE A MINIMUM 6" TOPSOIL FOR ALL DISTURBED AREAS. SUBMIT SAMPLE OF TOPSOIL AND SOIL TEST RESULTS FOR LANDSCAPE DESIGNER APPROVAL PRIOR TO DELIVERING TO SITE.
19. MULCH ALL BEDS SHOWN AS CONTINUOUS WITH A 3" MINIMUM OF DOUBLE SHREDDED CEDAR BARK MULCH. SAMPLE TO BE SUBMITTED TO LANDSCAPE DESIGNER FOR APPROVAL.
20. ALL PLANT MATERIALS TO BE SOURCED FROM LOCALLY GROWN GROWERS.
21. PLANTING SHALL ONLY BE DONE BETWEEN MARCH 15TH TO MAY 15TH OR SEPTEMBER 1ST TO NOVEMBER 15TH.



NOTE
1. IN AREAS OF MASS PLANTING, CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.
2. VERIFY THAT ALL PLANT PITS ARE FREE DRAINING. NOTIFY LANDSCAPE ARCHITECT IF PITS ARE NOT FREE DRAINING.
3. PRUNE, DEAD, DEFORMED, OR BROKEN BRANCHES.

1 SHRUB PLANTING
SCALE: NTS



2 DECIDUOUS TREE PLANTING
SCALE: NTS

3 EVERGREEN TREE PLANTING
SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION

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SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	JJS
Checked By:	MFB
Approved By:	KMS
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Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B LANDSCAPE DETAILS & NOTES

Sheet #: 4.06.3

Jul 01, 2025 - 10:18am dhendry
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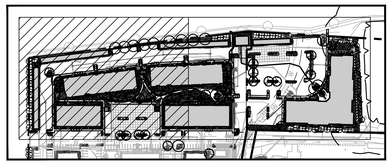

KEY MAP

SCALE: 1" = 200'

GENERAL NOTES

1. REFER TO SHEET 4.07.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
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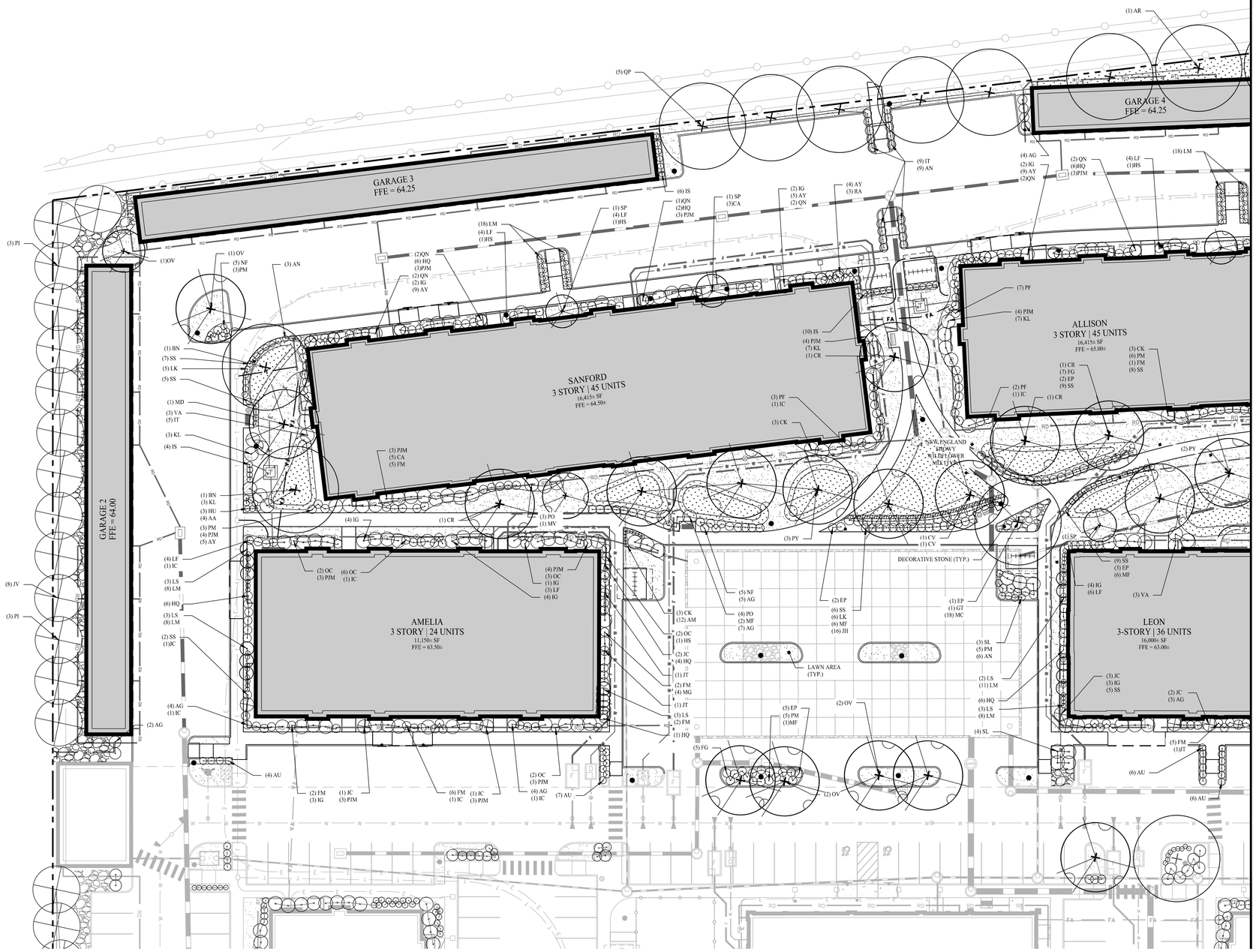

LEGEND

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- RIVERROCK

PRELIMINARY

NOT FOR CONSTRUCTION

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CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 LANDSCAPE PLAN

Sheet #: 4.07.1

Jul 01, 2025 - 10:19am cherdy
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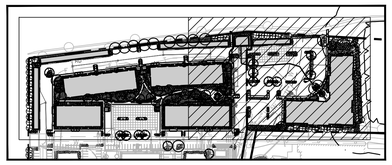
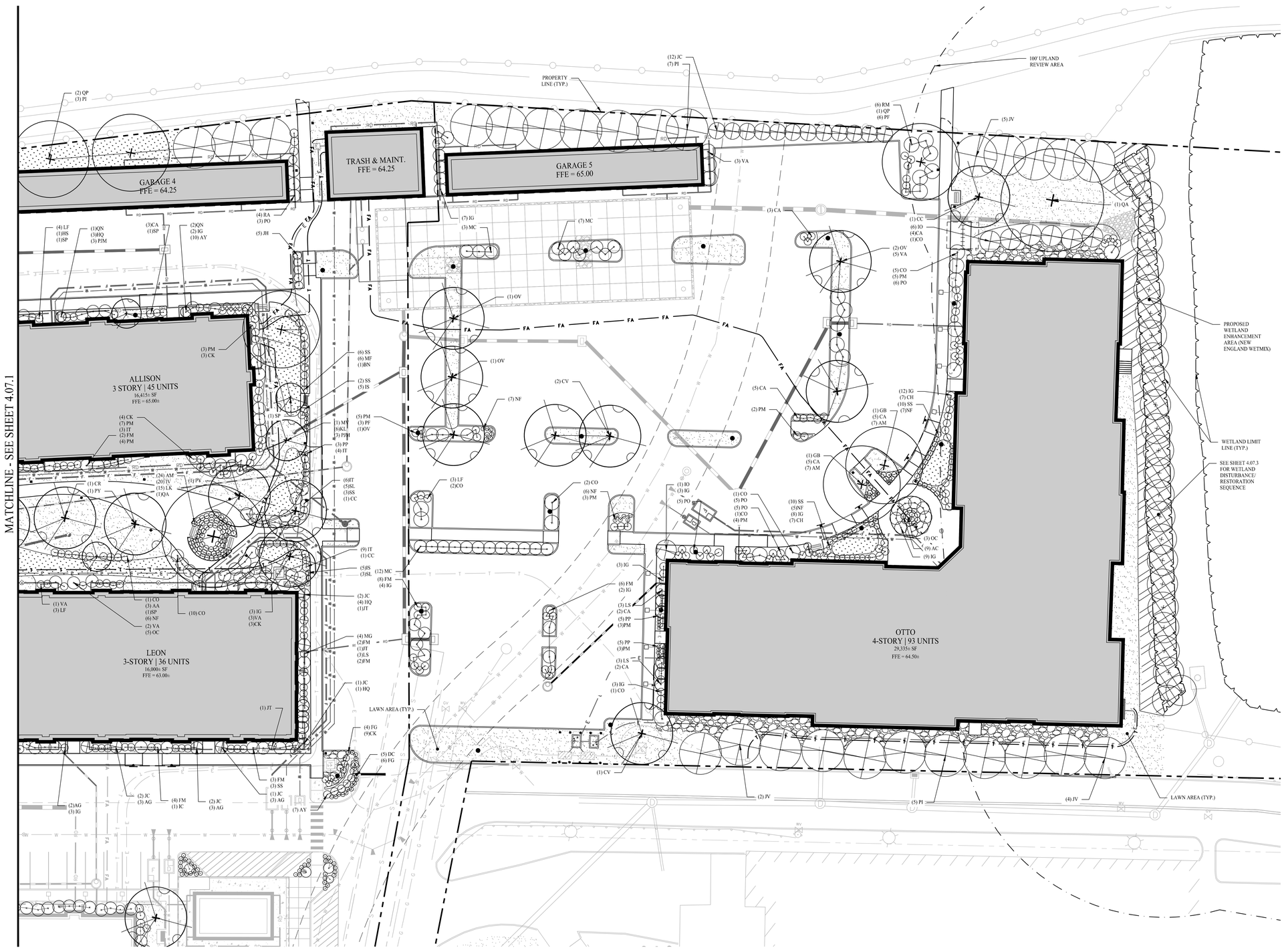


KEY MAP

SCALE: 1" = 200'



GENERAL NOTES

1. REFER TO SHEET 4.07.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINING LOT LINE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING TREE
- OVERSTORY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUBS & GROUNDCOVER
- NATIVE WETLAND TREE
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONRTOL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- RIVERROCK

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	JJS
Checked By:	MFB
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 LANDSCAPE PLAN

Sheet #: 4.07.2

PRELIMINARY
NOT FOR CONSTRUCTION

OVERALL PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
TREES						
AR	2	ACER RUBRUM	RED MAPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
BN	3	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	8-10' HT	MULTI-STEM
GB	2	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY
GT	1	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	THORNLESS COMMON HONEYLOCUST	B&B	2"-3" CAL	FULL, EXTRA HEAVY
IO	7	ILEX OPACA 'PATERSON'	PATERSON AMERICAN HOLLY	B&B	6'-7' HT	FULL, EXTRA HEAVY
JC	30	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	B&B	5'-6' HT	FULL, EXTRA HEAVY
JT	6	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR EASTERN RED CEDAR	B&B	8'-10' HT	FULL, EXTRA HEAVY
JV	19	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	B&B	8'-10' HT	FULL, EXTRA HEAVY
LS	23	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE'	SWEETGUM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
PI	21	PICEA PUNGENS	COLORADO BLUE SPRUCE	B&B	8'-10' HT	FULL, EXTRA HEAVY
QA	2	QUERCUS ALBA	WHITE OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
QN	14	QUERCUS 'NADLER' KINDRED SPIRIT	KINDRED SPIRIT HYBRID OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
QP	8	QUERCUS PALUSTRIS	PIN OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
UNDERSTORY TREES						
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CR	5	CORNUS X RUTGERSENSIS	FLOWERING DOGWOOD 'RUTGAN'	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CV	5	CRATAEGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MD	1	MALUS 'DONALD WYMAN'	DONALD WYMAN FLOWERING CRABAPPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
OV	11	OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
PY	7	PRUNUS X YEDOENSIS 'AKEBONO'	AKEBONO CHERRY	B&B	2"-3" CAL	FULL, EXTRA HEAVY
SP	6	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
UPLAND SHRUBS						
AY	49	AZALEA 'YUKA'	YUKA AZALEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
CA	37	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
CO	24	CORNUS ALBA 'BUD'S YELLOW'	YELLOW TWIG DOGWOOD	CONT	18"-24" HT	FULL, EXTRA HEAVY
FM	50	FOTHERGILLA MAJOR 'MT. AIRY'	MT. AIRY FOTHERGILLA	CONT	18"-24" HT	FULL, EXTRA HEAVY
HQ	39	HYDRANGEA QUERCIFOLIA 'PEE WEE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
HS	5	HYDRANGEA QUERCIFOLIA 'SNOWFLAKE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
IC	8	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IG	84	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IS	27	ILEX CRENATA 'SKY PENCIL'	SKY PENCIL JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IT	36	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPIRE	CONT	18"-24" HT	FULL, EXTRA HEAVY
KL	26	KALMIA LATIFOLIA 'LITTLE LINDA'	HYBRID MOUNTAIN LAUREL	CONT	18"-24" HT	FULL, EXTRA HEAVY
LF	37	LEUCOTHOE FONTANESIANA	DROOPING LEUCOTHOE	CONT	18"-24" HT	FULL, EXTRA HEAVY
MG	8	MYRICA GALE	SWEETGALE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PF	21	POTENTILLA FRUTICOSA	BUSH CINQUEFOIL	CONT	18"-24" HT	FULL, EXTRA HEAVY
PJM	46	RHODODENDRON PJM	PJM RHODODENDRON	CONT	18"-24" HT	FULL, EXTRA HEAVY
PM	61	PINUS MUGO 'MOPS'	DWARF MUGO PINE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PO	31	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	DWARF COMMON NINEBARK	CONT	18"-24" HT	FULL, EXTRA HEAVY
RM	6	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	CONT	24"-30" HT	FULL, EXTRA HEAVY
SL	15	SPIREA LATIFOLIA	MEADOWSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
VA	20	VIBURNUM ACERIFOLIUM	MAPLE-LEAF VIBURNUM	CONT	18"-24" HT	FULL, EXTRA HEAVY
GROUNDCOVER						
AU	23	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	CONT	#1 CONT	FULL, EXTRA HEAVY
JH	21	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	CONT	#1 CONT	FULL, EXTRA HEAVY
LM	71	LIRIOPE MUSCARI	LILY TURF	CONT	#1 CONT	FULL, EXTRA HEAVY
RA	7	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	CONT	#1 CONT	FULL, EXTRA HEAVY
PERENNIALS + FERNS						
AA	7	ASTILBE X ARENDSII 'FANAL'	FANAL ASTILBE	CONT	1 GAL	FULL, EXTRA HEAVY
AC	9	ASTILBE CHINENSIS	ASTILBE	CONT	1 GAL	FULL, EXTRA HEAVY
AM	50	ALCHEMILLA MOLLIS	LADY'S MANTLE	CONT	1 GAL	FULL, EXTRA HEAVY
AN	18	ASTER NOVAE-ANGLIAE 'PURPLE DOME'	PURPLE DOME ASTER	CONT	1 GAL	FULL, EXTRA HEAVY
CH	14	CHELONE OBLIQUA 'ROSEA'	PINK TURTLEHEAD	CONT	1 GAL	FULL, EXTRA HEAVY
DC	5	DELOSPERMA	ICE PLANT	CONT	1 GAL	FULL, EXTRA HEAVY
EP	13	ECHINACEA PURPUREA	CONE FLOWER	CONT	1 GAL	FULL, EXTRA HEAVY
FG	22	FESTUCA GLAUCA 'ELIJAH BLUE'	FESCUE GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
HU	3	HEUCHERA 'CARAMEL'	CORAL BELLS	CONT	1 GAL	FULL, EXTRA HEAVY
IV	20	IRIS VERSICOLOR	BLUE FLAG IRIS	CONT	1 GAL	FULL, EXTRA HEAVY
LK	26	LIATRIS SPICATA 'KOBOLD'	KOBOLD LIATRIS	CONT	1 GAL	FULL, EXTRA HEAVY
MF	21	MONARDA FISTULOSA	BEE BALM	CONT	1 GAL	FULL, EXTRA HEAVY
NF	41	NEPETA FAASSENII 'WALKER'S LOW"	WALKER'S LOW CATMINT	CONT	1 GAL	FULL, EXTRA HEAVY
OC	23	OSMUNDA CINNAMOMEA	CINNAMON FERN	CONT	1 GAL	FULL, EXTRA HEAVY
PP	13	PHLOX PANICULATA 'GLAMOUR GIRL'	GARDEN PHLOX	CONT	1 GAL	FULL, EXTRA HEAVY
GRASSES						
AG	29	ANDROPOGON GERARDII 'RED OCTOBER'	BIG BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
CK	28	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER REED GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
MC	40	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
SS	85	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
NATIVE WETLAND TREES						
ARw	5	ACER RUBRUM	RED MAPLE	CONT	4'-6' HT	FULL, EXTRA HEAVY
NSw	5	NYSSA SYLVATICA	BLACK TUPELO	CONT	4'-6' HT	FULL, EXTRA HEAVY
POw	2	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY
QBw	5	QUERCUS BICOLOR	SWAMP WHITE OAK	CONT	4'-6' HT	FULL, EXTRA HEAVY
QPw	6	QUERCUS PALUSTRIS	PIN OAK	CONT	4'-6' HT	FULL, EXTRA HEAVY
UAw	3	ULMUS AMERICANA 'PRINCETON'	PRINCETON' AMERICAN ELM	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY
SEED MIXES						
NEW ENGLAND WETMIX (NEW ENGLAND WETLAND PLANTS, INC.)						
		APPLICATION RATE: 1 LB/2,500 S.F.				
NEW ENGLAND SHOWY WILDFLOWER MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
		APPLICATION RATE: 1 LB/1,900 S.F.				
NEW ENGLAND EROSION CONTROL/RESTORATION MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
		APPLICATION RATE: 1 LB/2,500 S.F.				
LAWN: PENNINGTON SMART SEED SUN AND SHADE						
		APPLICATION RATE NEW LAWNS: 9 LB/1,000 S.F.				

WETLAND DISTURBANCE/ RESTORATION SEQUENCE:

1. INSTALL PERIMETER SEDIMENT BARRIER IN THE AREA OF PROPOSED WETLAND DISTURBANCE.
2. REMOVE ANY SMALL MAMMALS, REPTILES, AND AMPHIBIANS FROM THE AREA TO BE DISTURBED AND RELOCATE THEM TO THE ADJACENT STORMWATER WETLAND AREA.
3. REMOVE INVASIVE VEGETATION IN THE AREA OF DISTURBANCE AND INTO THE STORMWATER WETLAND.
4. CONTRACTOR TO REMOVE ACCUMULATED SANDS, SILTS, AND OTHER DEBRIS FROM THE AREA OF PROPOSED DISTURBANCE AND DISPOSE OF.
5. CONTRACTOR SHALL STRIP AND STOCKPILE THE ORGANIC SOILS/TOPSOIL WITHIN THE PROPOSED AREA OF DISTURBANCE FOR LATER RE-USE.
6. CONTRACTOR SHALL INSTALL TWO LAYERS OF FILTER FABRIC OVER THE EXPOSED SUBSOIL WITHIN THE AREA OF DISTURBANCE.
7. TEMPORARY FILL SHALL BE PLACED TO FACILITATE CONSTRUCTION OF THE PROPOSED BUILDING.
8. ONCE BUILDING AND SITE CONSTRUCTION ADJACENT TO THE WETLANDS IS COMPLETED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY FILL AND FILTER FABRIC LAYERS. LIGHTLY SCARIFY SURFACE IN PREPARATION OF WETLAND RESTORATION WORK.
9. REINSTALL NATIVE TOPSOIL/ORGANIC SOIL THAT WAS PREVIOUSLY REMOVED TO A MINIMUM DEPTH OF 12", AUGMENT THE NATIVE TOPSOIL WITH IMPORTED, SCREENED TOPSOIL AS REQUIRED TO ACHIEVE MINIMUM PLANTING DEPTH.
10. REVEGETATE THE DISTURBED AREAS WITH NATIVE, HERBACEOUS VEGETATION AS INDICATED ON THE WETLAND RESTORATION PLAN.
11. ONCE DISTURBED AREAS HAVE BEEN STABILIZED, TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED.
12. A THREE-YEAR MONITORING PROGRAM SHALL BE PUT IN PLACE THAT WILL PROVIDE STATUS UPDATES ON THE EFFECTIVENESS OF CONTROLLING INVASIVE VEGETATION AND THE ESTABLISHMENT OF NATIVE VEGETATION AND TO PROVIDE MAINTENANCE RECOMMENDATIONS ACCORDINGLY TO MEET THESE REQUIREMENTS.

PLANTING SOIL NOTES

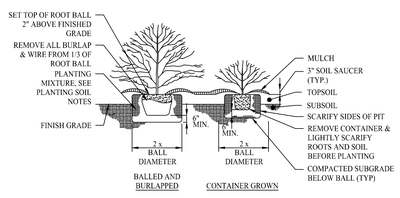
1. ALL PLANTING MIXES SHALL BE PREPARED PRIOR TO DELIVERY TO SITE.
2. PLANTING MIX FOR TREES AND SHRUBS SHALL BE AS FOLLOWS
   3 PARTS SCREED TOPSOIL
   1 PART CLEAN WASHED COARSE SAND
   1 PART PEAT HUMUS
   5 LBS. SUPER PHOSPHATE PER CUBIC YARD OF MIX
3. MYCORRHIZAL INNOCULANT TO BE MYCOR TREE SAVER TRANSPLANT BY PLANT HEALTH CARE, INC. (1-800-421-9051) OR APPROVED EQUAL.
4. TERRASORB AVAILABLE FROM PLANT HEALTH CARE, INC. OR APPROVED EQUAL.
5. SUBMIT CERTIFICATION OF PLANTING MIX FOR TREES AND SHRUBS FROM SOIL DISTRIBUTOR.
6. TOPSOIL MIX SHALL INCLUDE:
   3 PARTS SCREENED TOPSOIL
   1 PART SAND
   1 PART HUMUS
   5 LBS. SUPER PHOSPHATE PER CU. YD. OF MIX
7. TOPSOIL:
   A. PROVIDE A NATURAL, FERTILE, FRIABLE, NATURAL LOAM SURFACE SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, OF UNIFORM COMPOSITION THROUGHOUT AND WITHOUT ADMIXTURES OF SUBSOIL, AND FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS OR OTHER EXTRANEOUS MATTER.
   B. TOPSOIL SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 20% ORGANIC MATTER AS DETERMINED BY THE WET COMBUSTION METHOD.
   C. MECHANICAL ANALYSIS

SCREEN SIZE	% BY WEIGHT PASSING
1"	100
1/4"	97 - 100
NO. 200	20 - 65

   D. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL TESTING AND ANALYSIS OF EXISTING AND IMPORTED SOILS. FURNISH A SOIL ANALYSIS MADE BY A QUALIFIED INDEPENDENT SOIL - TESTING AGENCY STATING PERCENTAGES OF ORGANIC MATTER, INORGANIC MATTER (SILT, CLAY, AND SAND), DELETERIOUS MATERIAL, PH, AND MINERAL AND PLANT - NUTRIENT CONTENT OF TOPSOIL.
   E. REPORT SUITABILITY OF TOPSOIL FOR LAWN AND SHRUB PLANTING GROWTH. RECOMMEND QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENT AND ANY LIMESTONE, ALUMINUM SULFATE, OR OTHER SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY TOPSOIL.

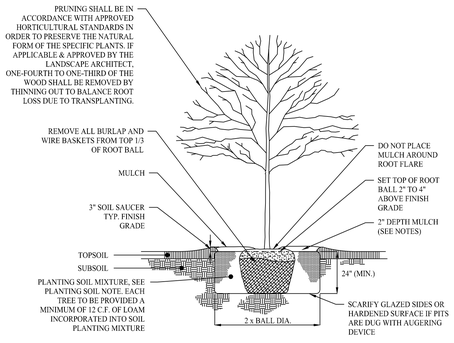
PLANTING NOTES

1. BE AWARE OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR PLANTING OPERATIONS. USE CARE TO PROTECT EXISTING UTILITIES FROM DAMAGE, CONTACT "CALL BEFORE YOU DIG" PRIOR TO EXCAVATION.
2. ALL PLANTINGS ARE TO BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR.
3. THE CONTRACTOR SHALL BE REQUIRED TO CARRY WORKMEN'S COMPENSATION INSURANCE AND COMPREHENSIVE GENERAL LIABILITY INSURANCE. CERTIFICATES WILL BE REQUIRED PRIOR TO SIGNING CONTRACTS.
4. CONTRACTOR IS RESPONSIBLE FOR JOBSITE SAFETY. CONTRACTOR SHALL MAINTAIN A SAFE JOBSITE AT ALL TIMES.
5. CONTRACTOR SHALL BE FAMILIAR WITH THE SITE VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS. REPORT ANY DISCREPANCIES TO LANDSCAPE DESIGNER.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED FOR COMPLETING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL EXCAVATED SOIL, BRUSH AND DEBRIS OFF-SITE IN A SAFE AND LEGAL MANNER.
8. NOTIFY OWNER OR LANDSCAPE DESIGNER 72 HOURS MINIMUM IN ADVANCE OF STARTING PLANTING OPERATIONS. RECEIVE APPROVAL FOR LAYOUT OF ALL BED LINES AND MATERIAL LOCATIONS PRIOR TO INSTALLATION.
9. PROTECT EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING CONSTRUCTION. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD AT THE DIRECTION OF THE LANDSCAPE DESIGNER.
10. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL PLANTING, SEEDING AND TREE WORK WITH OTHER TRADES. RESPECT OTHER TRADES WORK AT ALL TIMES.
11. CONTRACTOR IS TO EXERCISE EXTREME CARE DURING THE COURSE OF DEMOLITION AND REMOVALS. ANY DAMAGE TO EXISTING FACILITIES, UTILITIES OR TREES TO REMAIN SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE IN KIND.
12. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DAMAGED TO PRE-EXISTING CONDITIONS AS A RESULT OF PLANTING OPERATIONS TO OWNERS AND/OR LANDSCAPE DESIGNERS APPROVAL.
13. VEGETATION TO BE REMOVED, NOT INDICATED ON PLAN, SHALL BE TAGGED IN FIELD BY LANDSCAPE DESIGNER.
14. THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO REJECT INFERIOR PLANT MATERIALS AND SUBSTITUTIONS. THE LANDSCAPE DESIGNER IS WILLING TO MAKE TWO TRIPS TO SUPPLIERS TO TAG, REVIEW AND APPROVE MATERIALS, PREVIOUSLY UNAPPROVED MATERIALS MAY BE REJECTED AT THE SITE. MINIMALLY, ALL MATERIALS WILL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1 - 2004) OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
15. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AS SOON AS WEATHER AND SEASONAL CONDITIONS PERMIT, ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE DESIGNER DURING, AND AT THE END OF THE GUARANTEE PERIOD. WARRANTY REPLACEMENT WILL BE PROVIDED AT NO COST TO THE OWNER AND INCLUDE MATERIALS AND LABOR. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING REPLACEMENT OF WARRANTY MATERIALS.
16. WHEN THERE IS A DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON THE PLANT LIST & THE PLAN, USE THE QUANTITIES FROM THE PLAN.
17. PERENNIALS, GROUNDCOVERS & GRASSES TO BE FIELD LOCATED BY LANDSCAPE DESIGNER. COORDINATE TO NOTIFY LANDSCAPE DESIGNER AT LEAST 72 HOURS IN ADVANCE OF EXPECTED INSTALLATION DATE. ON THAT DATE ALL BEDS SHALL BE PREPARED & ALL PLANT MATERIAL SHALL BE ON SITE.
18. PROVIDE A MINIMUM 6" TOPSOIL FOR ALL DISTURBED AREAS. SUBMIT SAMPLE OF TOPSOIL AND SOIL TEST RESULTS FOR LANDSCAPE DESIGNER APPROVAL PRIOR TO DELIVERING TO SITE.
19. MULCH ALL BEDS SHOWN AS CONTINUOUS WITH A 3" MINIMUM OF DOUBLE SHREDDED CEDAR BARK MULCH. SAMPLE TO BE SUBMITTED TO LANDSCAPE DESIGNER FOR APPROVAL.
20. ALL PLANT MATERIALS TO BE SOURCED FROM LOCALLY GROWN GROWERS.
21. PLANTING SHALL ONLY BE DONE BETWEEN APRIL 1ST TO JUNE 15TH OR SEPTEMBER 1ST TO OCTOBER 1ST.

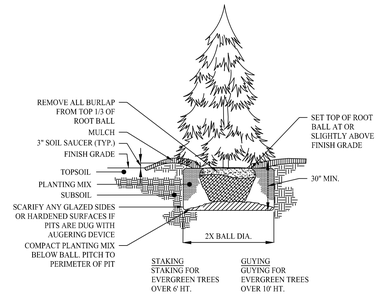


NOTE
1. IN AREAS OF MASS PLANTING, CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.
2. VERIFY THAT ALL PLANT PITS ARE FREE DRAINING. NOTIFY LANDSCAPE ARCHITECT IF PITS ARE NOT FREE DRAINING.
3. PRUNE, DEAD, DEFORMED, OR BROKEN BRANCHES.

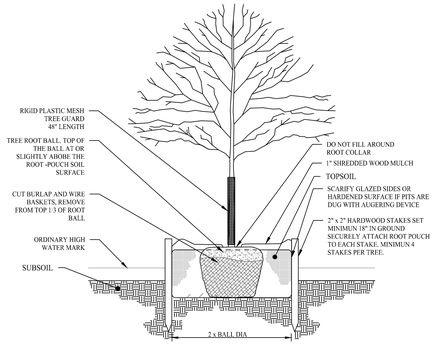
1 SHRUB PLANTING
SCALE: NTS



2 DECIDUOUS TREE PLANTING
SCALE: NTS



3 EVERGREEN TREE PLANTING
SCALE: NTS



4 WETLAND TREE PLANTING
SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION

Rev. #: Date Description

Graphic Scale:

SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-5455 | F: (203) 880-9695

Drawn By:	JJS
Checked By:	MFB
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 LANDSCAPE DETAILS & NOTES

Sheet #: 4.07.3

Jul 01, 2025 - 10:19am dherdy
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PHASE II ENVIRONMENTAL SITE ASSESSMENT
936, 942, 944 AND 960 SILVER LANE & 285R AND 291 FORBES STREET EAST HARTFORD, CONNECTICUT

June 2022
File No. 05.0046901.01



PREPARED FOR:
Jasko Zelman 1, LLC
New Britain, Connecticut

GZA GeoEnvironmental, Inc.
95 Glastonbury Boulevard, 3rd Floor | Glastonbury, CT 06033
860-286-8900

31 Offices Nationwide
www.gza.com

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June 13, 2022
File No. 05.0046901.01

Jasko Zelman 1, LLC
66 West Main Street, Suite 102
New Britain, CT 06051
Attn: Brian Zelman

Re: Phase II Environmental Site Assessment
936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street
East Hartford, CT

Dear Mr. Zelman:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Phase II Environmental Site Assessment (ESA) Report to you for the investigation conducted at 936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street, East Hartford, Connecticut (Site). This investigation was conducted in general accordance with our proposal dated March 24, 2022. As described herein, the objective of this assessment was to assess the quality of soil and groundwater at potential Recognized Environmental Conditions (RECs) that were identified in GZA's March 2022 Phase I ESA.

This report summarizes our findings and provides recommendations based on the observed conditions and results of the subsurface investigations performed in May 2022. As discussed in more detail in the report, it is GZA's opinion that no further investigation of the Site is warranted. In light of the historic use of the Site for agricultural purposes and residual pesticides identified during the investigation, GZA recommends a soil management plan be developed to manage potential pesticide-impacted soil during any future redevelopment. Similarly, GZA recommends that a dewatering plan also be developed to manage the discharge of groundwater, if needed, in connection with any future redevelopment. This report is subject to the limitations included in Appendix A.

We trust this report satisfies your present requirements; should you require additional information, please call Adam Henry at (860) 858-3166.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Anthony Trani
Project Manager

Adam T. Henry, PG, LEP
Associate Principal

Kathleen A. Cyr, LEP
Consultant

Attachment: Report

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1.0 INTRODUCTION

This report was prepared for Jasko Zelman 1, LLC (Client) in general accordance with our proposal dated March 24, 2022 and presents the results of GZA GeoEnvironmental Inc.'s (GZA's) Phase II Environmental Site Assessment (ESA) for the properties at 936, 942, 944, and 960 Silver Lane, 285R Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street in East Hartford, Connecticut (herein referred to as the Site). The location of the Site is shown on Figure 1, attached. GZA's Phase II ESA and Report are subject to the Limitations in Appendix A.

In March 2022, GZA completed a Phase I Environmental Site Assessment (ESA) of the Site and identified the following Recognized Environmental Conditions (RECs):

- **REC-1: Historical Agricultural Use** – The Site was previously utilized as agricultural land prior to the 1970s. According to a 2018 investigation by Milone and McBroom, pesticides (4,4-DDD, 4,4-DDE, 4,4-DDT, delta-BHC, and dieldrin) were detected in soils at concentrations above the default criteria contained in the Connecticut Remediation Standard Regulations (RSRs).

- **REC-2: 75-gallon Diesel Fuel Release** – In May 2013, approximately 75 gallons of diesel fuel was spilled along the northern edge of the Site due to illegal dumping. The spill was cleaned using absorbent powder and pads and 60 tons of impacted soils were removed from the Site; however, the results of confirmatory soil sampling were not available.

GZA's 2021 Phase I ESA report also indicated that the Site does not appear to meet the definition of an "establishment" under the Connecticut Transfer Act (CGS §§ 22a-134 *et seq.*, the "Transfer Act").

The objective of this Phase II ESA was to assess whether a release of petroleum products or hazardous substances (including pesticides) has occurred to Site soil and groundwater at the identified RECs. GZA's Phase II ESA included the advancement of sixteen (16) soil borings, the installation of three (3) groundwater monitoring wells, the collection and laboratory analysis of thirteen (13) soil samples and three (3) groundwater samples, and the completion of a groundwater elevation survey.

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND HISTORY

The Site consists of six (6) contiguous parcels of land totaling 25.83 acres located north of Silver Lane and west of Forbes Street in a primarily commercial section of East Hartford, Connecticut. From at least 1934 until the 1970s, the Site was used for agriculture (tobacco farming). By the 1950s, the portion of the Site by Forbes Street was developed with a hotel until circa 1980 when it was demolished. In the 1970s, farming ceased and the western portion of the Site was developed as a movie theatre which operated into the 2000s. The movie theater was demolished after 2018, and the Site currently consists of vacant land with an access road and two paved parking lots.

2.2 PHYSIOGRAPHIC SETTING

Based on a review of the U.S. Geological Survey topographic map of East Hartford (2018), the Site is situated at an approximate elevation of 60 feet above mean sea level. The topographic gradient near the Site is generally flat with a gentle slope down to the south.

2.3 BEDROCK AND SURFICIAL GEOLOGY

According to bedrock geology data provided by USGS, bedrock in the Site area consists of the Portland Arkose. This bedrock type is described as "reddish-brown arkose (brownstone)." During GZA's investigation, bedrock was not encountered to depths of up to 15 feet below the ground (fbg).

According to Connecticut Environmental Conditions Online (CTECO), the surficial materials beneath the majority of the Site consist of sands overlying fines. Surficial materials encountered during GZA's investigation generally consisted of sand with varying amounts of silt and gravel.

According to soil data provided by US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, soils at the Site consist of Urban Land, Udorthents Urban Land Complex, Elmridge fine sandy loam, Ninigret fine sandy loam, and Windsor loamy sand.

2.4 HYDROGEOLOGY

During GZA's investigation, groundwater was encountered at depths ranging from 6 to 9 fbg and, based on field measurements, groundwater beneath the Site is inferred to generally flow in a southerly direction towards an offsite wetland. However, localized flow direction in the area of the Site may vary as a result of underground utilities, septic systems, or heterogeneous subsurface conditions.

According to Connecticut Environmental Conditions Online (CTECO), the Connecticut Department of Energy and Environmental Protection (CTDEEP) has classified groundwater beneath the western portion of the Site as Class "GB." The eastern portion of the Site is classified as Class "GA" and there is a small portion classified as Class "GA Impaired" by Forbes Street. According to the CTDEEP Water Quality Standards Regulations (October 2013), Class "GB" groundwater is described as "ground water within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is available. Such ground water may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts." Class "GA" groundwater is described as "ground water within the area of existing private water supply wells or an area with the potential to provide water to public or private water supply wells." Class "GA Impaired" groundwater has a goal of becoming Class "GA" groundwater.

The nearest surface water body to the Site is Willow Brook which is approximately 650 feet to the southwest of the Site. According to CTECO, CTDEEP considers Willow Brook a Class A surface water body. Designated uses for Class A surface waters include potential drinking water supplies, fisheries, recreation, agriculture and/or industrial water supply, and other legitimate uses including navigation. According to the East Hartford Geographical Information System (GIS) there are wetlands present at 960 Silver Lane, 285 Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street.

3.0 CONCEPTUAL MODEL

A Conceptual Site Model ("CSM") was developed that considers the Site setting, operational history, constituents of concern, and available physical and chemical data in order to understand the potential for releases and the pathways through which releases might impact environmental media. Sections 3.1 through 3.3 present the primary information used to develop the CSM for this Site.

3.1 RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS) AND CONSTITUENTS OF CONCERN (COCs)

Based on the finding and conclusions of our March 2022 Phase I ESA, two RECs were identified in which former/current Site operations may have resulted in a release of petroleum products and/or hazardous materials to the environment.

The following table lists the identified RECs, provides a list of constituents of concern (COCs) associated with each REC, and briefly describes a model for a potential release to impact the environment. A more detailed description of each REC is provided in Section 5.0. The locations of the RECs are shown on Figure 2.

REC #	Description	COC	Potential Release Mechanisms
REC-1	Historical Agricultural Use	Pesticides, arsenic, copper, lead	Application of pesticides to shallow soils
REC-2	75-gallon Diesel Fuel Release	VOCs, ETPH, and PAHs	Spill penetrating to underlying soil through cracks or holes in asphalt

VOCs = Volatile Organic Compounds
ETPH = Extractable Total Petroleum Hydrocarbons
PAHs = Polyaromatic hydrocarbons

3.2 CONCEPTUAL SITE MODEL (CSM)

The release mechanism for the RECs consists of potential releases directly to the ground surface from the reported May 2013 spill of diesel fuel with subsequent migration through the pavement via cracks and/or joints or the historical application of pesticides to the ground surface. Given the relatively permeable native soils described in Section 2.3, releases from the identified RECs, if any, would have the potential to migrate through subsurface soils to groundwater. Given this CSM, the objective of the Phase II investigation was to assess whether a release has occurred at the identified RECs by collecting soil and groundwater samples and analyzing those samples for the COCs described above.

Groundwater data obtained during this investigation program from the downgradient portions of the Site are used to assess/identify potential releases from the identified RECs as well as any potential undocumented release(s).

3.3 REGULATORY SETTING

Although the Site is not in a formal regulatory program, the analytical results of the Phase II investigation were compared to the default CTDEEP Remediation Standard Regulations (RSRs). The RSR soil criteria that were used for comparison purposes include the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The RSR groundwater criteria that were used for comparison purposes include the Groundwater Protection Criteria (GWPC), Groundwater Volatilization Criteria (GWVC) and the Surface Water Protection Criteria (SWPC). Descriptions of each of the criteria are presented below.

3.3.1 Direct Exposure Criteria (DEC)

In soil, compliance with Direct Exposure Criteria (DEC) is evaluated through comparison of mass-based concentrations of contaminant constituents to established numerical criteria. The purpose of the DEC standard is to protect human health from risks associated with direct contact and/or ingestion of soil contaminants.

When the RSRs are applicable, the DEC apply to soil within 15 feet of ground surface. Separate criteria are established for residential (R-DEC) and industrial/commercial (I/C-DEC) areas; however, use of the less stringent I/C-DEC standards requires the owner of the property subject to the RSRs to place an Environmental Use Restriction (EUR) on the property land records prohibiting its use for residential activities. The DEC standards also do not apply to "inaccessible soils," which are defined as soils more than four feet below ground surface (assuming the top four feet are compliant with the DEC), two feet below qualifying pavement (>3-inches thick), or below an existing building, provided an appropriate EUR has been recorded. The R-DEC have been provided for comparison on Table 2.

3.3.2 Pollutant Mobility Criteria (PMC)

Concentrations of constituents in soil are also often evaluated based on the Pollutant Mobility Criteria (PMC). The PMC are intended to protect groundwater from constituents that could leach from the soil and degrade the underlying groundwater. When the RSRs are applicable, for most constituents, PMC compliance can be evaluated by either 1) using samples analyzed for total mass concentrations and comparing directly to PMC criteria presented in the RSRs, or 2) subjecting soil samples to the Synthetic Precipitation Leaching Procedure (SPLP) and comparing the concentrations of constituents in the extracts to ten times the RSR groundwater protection criteria (GWPC) and/or extraction-based PMC. Where mass-based PMC is exceeded, SPLP data can often be used to demonstrate PMC compliance as an allowable alternative under the RSRs. The PMC do not apply to soils that are "environmentally isolated" (for example, below a building), provided an appropriate EUR is in place prohibiting removal of the building; to soil located below the seasonal low groundwater table in an area with a GA groundwater classification; or to soil located below the seasonal high groundwater table in an area with a GB groundwater classification. As previously discussed, the majority of the Site is within a GB-classified groundwater area; therefore, the GB-PMC have been provided for comparison purposes in the soil data summary table (Table 2).

3.3.3 Groundwater Protection Criteria (GWPC)

The intent of the GWPC is to protect human health from risks associated with consuming contaminated groundwater. When the RSRs are applicable, the GWPC is a baseline criterion applicable to areas with GA groundwater classification; however, through Section 22a-133k-3(A)(3), the GWPC are also protective of existing untreated drinking water uses of groundwater in GB areas. Because the Site monitoring wells are located in the area of the Site that is within a Class GB groundwater area and groundwater, to our knowledge, is not used for drinking purposes (or any other purposes), the GWPC may not be applicable even if compliance with the RSRs was required. However, completion of a potable well receptor survey confirming the absence of potable wells in the Site area would be required to evaluate the applicability of the GWPC; therefore, the GWPC has been provided for comparison purposes in Table 3.

3.3.4 Surface Water Protection Criteria (SWPC)

The intent of the SWPC is to determine whether impacted groundwater that discharges to a surface water body might interfere with the attainment of surface water quality standards in that water body. For discharges to wetland areas, the more stringent aquatic life criteria (ALC) may also be applicable. The Site groundwater is anticipated to potentially discharge to a wetland abutting the Site to the south. Accordingly, groundwater constituent concentrations at the Site are compared to the SWPC and ALC on Table 3.

4.0 SUMMARY OF INVESTIGATIONS

The scope of work for GZA's Phase II ESA was developed based on the results of our March 2022 Phase I ESA and was intended to identify whether releases have occurred from the identified RECs. The following sections summarize GZA's Phase II investigation scope of work.

4.1 SAMPLING RATIONALE

The sampling program was designed to assess releases to the soil and groundwater from locations where hazardous substances or petroleum products are currently, or were historically, stored or handled. The locations and depths of the samples collected were based on our Conceptual Site Model. Boring locations were selected based on the inferred southerly groundwater flow direction at the Site as discussed in Section 2.4.

GZA's Phase II ESA included the advancement of 16 soil borings, the installation of 3 groundwater wells and the collection and laboratory analysis of 13 soil samples and 3 groundwater water samples. The locations of the borings are shown on Figure 2.

4.2 TEST BORINGS AND SOIL SAMPLING

Prior to on-Site activities, Call-Before-You-Dig was notified to identify and mark underground utilities at the Site.

On May 2, 2022, GZA met with Site Environmental, LLC to install 7 soil borings (GZ-1 through GZ-4 and MW-1 through MW-3) using a hollow stem auger drilling rig. The soil borings were generally advanced to depths up to 2 fbg except for MW-1 through MW-3, which were advanced to depths of 15 fbg; soil samples were collected from the borings using a 24-inch-long by 1-3/8-inch inner diameter split-spoon sampler. In addition, GZA advanced 9 shallow soil borings (GZ-5 through GZ-13) using a hand auger. The hand auger was decontaminated between samples with Alconox and water. Soil boring/sampling logs are provided in Appendix B.

The surficial materials encountered generally consisted of medium to coarse sand with varying amounts of gravel and silt. The recovered soil samples were observed in the field by GZA's staff for indicators of a release (e.g., staining, discoloration and/or odors). No staining or odors were noted in the soil samples retrieved during this investigation. In addition, soil samples were screened using a photo-ionization detector (PID) with a 10.6 eV lamp. A PID is a screening instrument that is capable of detecting certain organic vapors, including constituents of petroleum fuels and oils. A PID is used as a screening instrument only and does not provide absolute values for concentrations in soil samples. The PID was calibrated to 100 parts per million (ppm) isobutylene standard prior to sample screening. A background reading of 0.0 ppm on the PID was noted during the sampling. No PID readings were observed from the samples.

Representative soil samples were collected from the borings and preserved for laboratory analyses for the identified COCs and submitted under chain of custody to Phoenix Laboratories (Phoenix) in Manchester, Connecticut. Borings GZ-6, GZ-9 and MW-1 were not submitted for laboratory analysis. Soil samples intended for VOC analyses were collected according to CTDEEP requirements for VOC soil sampling (EPA Method 5035). Samples were analyzed for one or more of the following: VOCs by EPA Method 8260, ETPH by the CTDPH[1] method, PAHs by EPA Method 8270, pesticides, arsenic, copper, lead, leachable pesticides by the synthetic precipitation leaching procedure (SPLP) method, and SPLP arsenic, SPLP copper, and SPLP lead. Laboratory reports are provided in Appendix C.

[1] CTDPH – CT Department of Public Health

4.3 MONITORING WELLS

Three borings (MW-1 through MW-3) were completed as monitoring wells. The monitoring wells were constructed with 10 feet of screen installed at depths of approximately 15 fbg. The wells were sand-packed, sealed with bentonite and finished with flush-mount road boxes. Monitoring well installation details are included on the soil boring logs in Appendix B and summarized on Table 1.

After installation, GZA purged the newly installed monitoring wells to remove fines and develop the sand pack.

4.4 GROUNDWATER SAMPLING

On May 11, 2022, GZA sampled the three newly installed monitoring wells (MW-1 through MW-3) at the Site. After measuring the depth to the static groundwater table, each well was purged and sampled via low flow sampling techniques using a Geotech pump. A YSI 556 XL Multiparameter Sondes equipped with a flow-through cell was used to field measure the following parameters: pH, oxidation/reduction potential (ORP), conductivity, temperature, and dissolved oxygen. A MicroTPI Turbimeter was used to measure turbidity in the groundwater samples prior to the flow-through cell. The groundwater samples were collected and placed in preserved containers and submitted under chain of custody to Phoenix for analysis of VOCs by EPA Method 8260, ETPH, pesticides, arsenic, copper, and lead. Groundwater sampling logs are provided in Appendix B and laboratory reports are provided in Appendix C.

4.5 GROUNDWATER ELEVATION SURVEY

On May 11, 2022, GZA personnel surveyed the relative elevations of the monitoring wells using an arbitrary datum. The survey data combined with depth to groundwater measurements were used to calculate the elevation of the groundwater surface. Both the survey elevations and groundwater measurements are provided in Table 1. Groundwater was encountered at depths ranging from approximately 6 to 9 fbg. Inferred groundwater flow contours are shown on Figure 2 and indicate a southerly groundwater flow pattern.

5.0 SUMMARY OF INVESTIGATIONS AND COMPARISON TO THE REMEDIATION STANDARD REGULATIONS (RSRS)

The following sections summarize the results of GZA's Phase II ESA and provide a comparison of the results to the RSRs. Sections 5.1 through 5.2 discuss Site conditions by REC. Section 5.3 discusses Site groundwater and Section 5.4 discusses laboratory data quality for the samples.

The sampling locations are shown on Figure 2 and the results of GZA's laboratory analyses of soils and groundwater are presented in Table 2 and 3. Boring logs documenting subsurface conditions encountered are included in Appendix B and the laboratory analytical reports for the samples are included in Appendix C.

5.1 REC-1: HISTORICAL AGRICULTURAL USE

The Site was previously utilized as agricultural land prior to the 1970s. According to a 2018 investigation by Milone and McBroom, pesticides (4,4-DDD, 4,4-DDE, 4,4-DDT, delta-BHC, and dieldrin) were detected in soils at concentrations above the default criteria contained in the RSRs.

To assess for potential impacts, GZA collected surficial samples from depths up to 2 fbg from borings GZ-4, GZ-5, GZ-7, GZ-8, GZ-10, GZ-11, GZ-12 and GZ-13 and submitted them to the laboratory for analysis for pesticides, arsenic, copper, and lead. No odors, staining or PID readings were noted from the soil samples.

The results of the laboratory analyses are summarized in Table 2 and indicate that pesticides were detected in 5 of the 8 samples analyzed. The pesticides 4,4'-DDE, 4,4'-DDE and 4,4'-DDT and dieldrin (1 sample) were detected at concentrations above the mass-based GB-PMC. SPLP 4,4'-DDE, 4,4'-DDE and 4,4'-DDT were not detected in sample GZ-7 (the sample containing the highest mass-based pesticide detections); however, SPLP dieldrin was detected in sample GZ-7 at a concentration above the extraction-based GB-PMC (10 times the groundwater protection criteria). Arsenic, copper and lead were detected in the soil samples at concentrations consistent with a naturally occurring source and not indicative of a release of metals. SPLP arsenic, copper, and lead were not detected in the samples that were analyzed for those parameters.

Based upon the results of the investigation, low concentrations of pesticides were detected in five of the eight soil samples from the Site. The detected concentrations of pesticides are below RSR criteria used for comparison except for dieldrin which exceeds the GB-PMC in sample GZ-7.

5.2 REC-2: 75-GALLON DIESEL FUEL RELEASE

In May 2013, approximately 75 gallons of diesel fuel was reportedly spilled along the northern edge of the Site due to illegal dumping. The spill was cleaned using absorbent powder and pads and 60 tons of impacted soils were removed from the Site; however, the results of confirmatory soil sampling were not available.

To evaluate current conditions at this REC, GZA advanced soil borings MW-2, MW-3, and GZ-1 through GZ-3 in the approximate location of the former 75-gallon diesel spill. The borings were advanced to depths up to 15 fbg. No odors, staining or PID readings were noted from the soil samples. Shallow soil samples (0-2) were submitted to the laboratory for analysis for VOCs, ETPH, and PAHs.

The results of the laboratory analyses are summarized in Table 2 and indicate that no VOCs, ETPH or PAHs were detected above the laboratory's method reporting limits (MRLs).

5.3 SITE-WIDE GROUNDWATER QUALITY

As discussed in Section 4.0, GZA installed three monitoring wells (MW-1 through MW-3) at the Site and collected groundwater samples from the monitoring wells for laboratory analysis of VOCs, ETPH, pesticides, arsenic, copper, and lead. No observable impacts (odor, sheen) were noted in the groundwater samples collected.

The results of the groundwater analyses are summarized on Table 3 and indicate no VOCs, ETPH, copper or arsenic were detected above the MRLs. Lead was detected in groundwater sample MW-2 at a concentration equivalent to the reporting limit (2 µg/L) and consistent with a naturally occurring source. However, the detected concentration of lead was above the ALC (Freshwater Chronic). Dieldrin was detected in samples MW-1 and MW-3 at concentrations above the GWPC and the ALC.

5.4 DATA QUALITY ASSURANCE/QUALITY CONTROL ANALYSIS

The CTDEEP Quality Assurance/Quality Control (QA/QC) Work Group finalized Reasonable Confidence Protocols (RCPs) in November 2007. These RCPs are guidelines for enhanced QA/QC procedures for analytical methods and reporting. The

CTDEEP currently recommends that environmental professionals request that the laboratory follow the RCPs when producing data that is used as the basis of decisions regarding compliance with the RSRs.

To demonstrate data quality, the analytical laboratory (Phoenix) provided full QA/QC packages that accompanied the laboratory results for all soil samples collected during this project. Data packages contained appropriate QA/QC documentation including Lab Method Blanks, Lab Control Samples (LCS), and surrogate recoveries as well as lab recordkeeping and documentation paperwork. Additionally, field QA/QC samples were collected and analyzed according to RCP protocols, including trip blanks. QA/QC data is located within the laboratory report provided in Appendix C. No VOCs were detected in the trip blank. According to our review, no significant QA/QC issues were identified. Based on the findings of the QA/QC review it is GZA's opinion that the data is suitable for the purposes of this Phase II ESA.

6.0 CONCLUSIONS AND RECOMMENDATIONS

On behalf of Jasko Zelman 1, LLC, GZA conducted a Phase II Environmental Site Assessment 936, 942, 944, and 960 Silver Lane, 285R Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street in East Hartford, Connecticut. The purpose of the investigation was to assess whether a release of petroleum products or hazardous substances has occurred to Site soils and groundwater at the RECs identified in the March 2022 Phase I ESA.

GZA's Phase II ESA included the advancement of sixteen (16) soil borings, the installation of three (3) groundwater monitoring wells, the collection and laboratory analysis of thirteen (13) soil samples and three (3) groundwater samples, and the completion of a groundwater elevation survey.

Subsurface soils encountered during the investigation primarily consisted of medium to coarse with varying amounts of gravel and silt. Groundwater was encountered at depths of approximately 6 to 8 fbg and is inferred to flow in a generally southerly direction towards an unnamed wetland.

The results of the investigation indicated that low concentrations of pesticides were detected in shallow soil samples collected at the Site. The detected concentrations are below RSR criteria except for dieldrin which exceeds the GB-PMC in sample GZ-7. It is GZA's opinion that no further investigation of REC-1 (Historic Agricultural Use) from the GZA's March 2022 Phase I ESA is warranted; however, if soils are disturbed during redevelopment of the Site, GZA recommends that a soil management plan be developed to manage pesticide-impacted soils.

No residual impacts to soil or groundwater from petroleum-related compounds were detected and it is GZA's opinion that no further investigation of REC-2 (75-gallon Diesel Fuel Release) from GZA's March 2022 Phase I ESA is warranted. However, the pesticide dieldrin was detected at concentrations above the GWPC and the ALC at two locations (MW-1 and MW-3). If dewatering is anticipated during redevelopment of the Site, GZA recommends that a dewatering plan be developed to manage the discharge of pesticide-impacted groundwater.

TABLES

Table 1
Summary of Well Construction Detail and Groundwater Elevations
Silver Lane and Forbes Street
East Hartford, Connecticut

Monitoring Well	Well Diameter (inches)	Screened Interval (feet below grade)	Reference Elevation Top of PVC (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)
				5/11/2022	
MW-1	2	5-15	100	8.69	91.31
MW-2	2	5-15	94.33	6.02	88.31
MW-3	2	5-15	94.85	7.15	87.70

NOTES:

1. Wells surveyed by GZA on May 11, 2022 and relative to an arbitrary datum at the top of PVC at MW-1.

Table 2 - Summary of Soil Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Recognized Environmental Condition:	Remediation Standard Regulations		REC-2					REC-1							
Sample ID:			MW-2 (0-2)	MW-3 (0-2)	GZ-1 (0-2)	GZ-2 (0-2)	GZ-3 (0-2)	GZ-4 (0-2)	GZ-5 (0-2)	GZ-7 (0-1.5)	GZ-8 (0-1.5)	GZ-10 (0-2)	GZ-11 (0-2)	GZ-12 (0-2)	GZ-13 (0-2)^
Depth below grade (feet):			0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2	0-2
Sample Date:	R-DEC	GB-PMC	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022
Metals (mg/kg)															
Arsenic	10	NA	NT	NT	NT	NT	NT	4.27	1.72	4.19	2.8	2.75	3.69	3.43	1.57
Copper	2,500	NA	NT	NT	NT	NT	NT	65.5	26.4	13.3	25.6	14.5	40.2	20.2	14.8
Lead	400	NA	NT	NT	NT	NT	NT	17.5	54.6	21.4	26.5	27.7	28.1	20.9	30.4
Synthetic Precipitation Leaching Procedure (SPLP) Metals (mg/L)															
SPLP Arsenic	NA	0.5	NT	NT	NT	NT	NT	ND < 0.004	NT	NT	NT	NT	NT	NT	NT
SPLP Copper	NA	13	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT	NT
SPLP Lead	NA	0.15	NT	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)															
ETPH	500	2,500	ND< 53	ND< 52	ND< 96	ND< 54	ND< 55	NT	NT	NT	NT	NT	NT	NT	NT
Volatile Organic Compounds (VOCs) (mg/kg)															
VOCs	varies	varies	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)															
PAHs	varies	varies	ND< 0.25	ND< 0.25	ND< 0.45	ND< 0.25	ND< 0.26	NT	NT	NT	NT	NT	NT	NT	NT
Pesticides (mg/kg)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.011	0.01	ND< 0.0014	0.0022	0.0093	ND< 0.0015
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.12	0.0088	0.014	0.02	0.011	ND< 0.0015
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.2	0.0072	0.013	0.025	0.0074	ND< 0.0015
Sum**	1.8*	**0.02***	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	**0.331**	**0.026**	**0.027**	**0.0472**	**0.0277**	ND< 0.0015
Chlordane	0.49	0.066	NT	NT	NT	NT	NT	ND< 0.035	ND< 0.036	0.063	ND< 0.036	ND< 0.036	ND< 0.036	ND< 0.039	ND< 0.039
Dieldrin	0.038	**0.007**	NT	NT	NT	NT	NT	ND< 0.0035	ND< 0.0036	**0.032**	ND< 0.0036	ND< 0.0036	0.005	ND< 0.0039	ND< 0.0039
SPLP Pesticides (mg/L)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.000005	NT	NT	NT	NT	NT
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Sum**	NE	0.001	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Dieldrin	NE	**0.00002**	NT	NT	NT	NT	NT	NT	NT	**0.000026**	NT	NT	NT	NT	NT

Notes:

1. R-DEC s the Residential Direct Exposure Criteria
2. GB-PMC is the Class GB Pollutant Mobility Criteria
3. "*" = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided for comparison. Site-specific approval from CTDEEP is required for use of these criteria.
4. NE = None Established
5. ND or ND < 1.4 = Sample not detected above reporting limits shown
6. NA = Not applicable, a TCLP or SPLP result is required for comparison
7. NT = Sample not analyzed for this analyte
8. Bolded data exceed one or more criteria
9. ** RSR criteria are applicable to sum of DDD, DDE, and DDT
10. SPLP pesticide criteria are 10 times the Groundwater Protection Criteria.
11. ^Sample GZ-13 is located in a Class GA Groundwater Area and subject to the GA-Pollutant Mobility Criteria (GA-PMC).

Table 3 - Summary of Groundwater Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Sample ID:	Remediation Standard Regulations		Aquatic Life Criteria		MW-1	MW-2	MW-3
Sample Date:	GWPC	SWPC	Freshwater Chronic	Human Health	5/11/2022	5/11/2022	5/11/2022
Metals (ug/L)							
Arsenic	50	4	150	0.011	ND < 4	ND < 4	ND < 4
Copper	1,300	48	4.8	1,300	ND < 5	ND < 5	ND < 5
Lead	15	13	1.2	15	ND < 2	**2**	ND < 2
Extractable Total Petroleum Hydrocarbons (ETPH) (ug/L)							
Ext. Petroleum H.C. (C9-C36)	250	*250*	NE	NE	ND < 66	ND < 66	ND < 66
Volatile Organic Compounds (VOCs) (ug/L)							
VOCs	Varies	Varies	NE	NE	ND	ND	ND
Pesticides (ug/L)							
Dieldrin	0.002	0.1	0.056	0.000052	**0.011**	ND < 0.001	**0.015**

Notes:

SWPC is the Surface Water Protection Criteria GWPC is the Groundwater Protection Criteria

ND or ND < 1.4 = Sample not detected above reporting limits shown

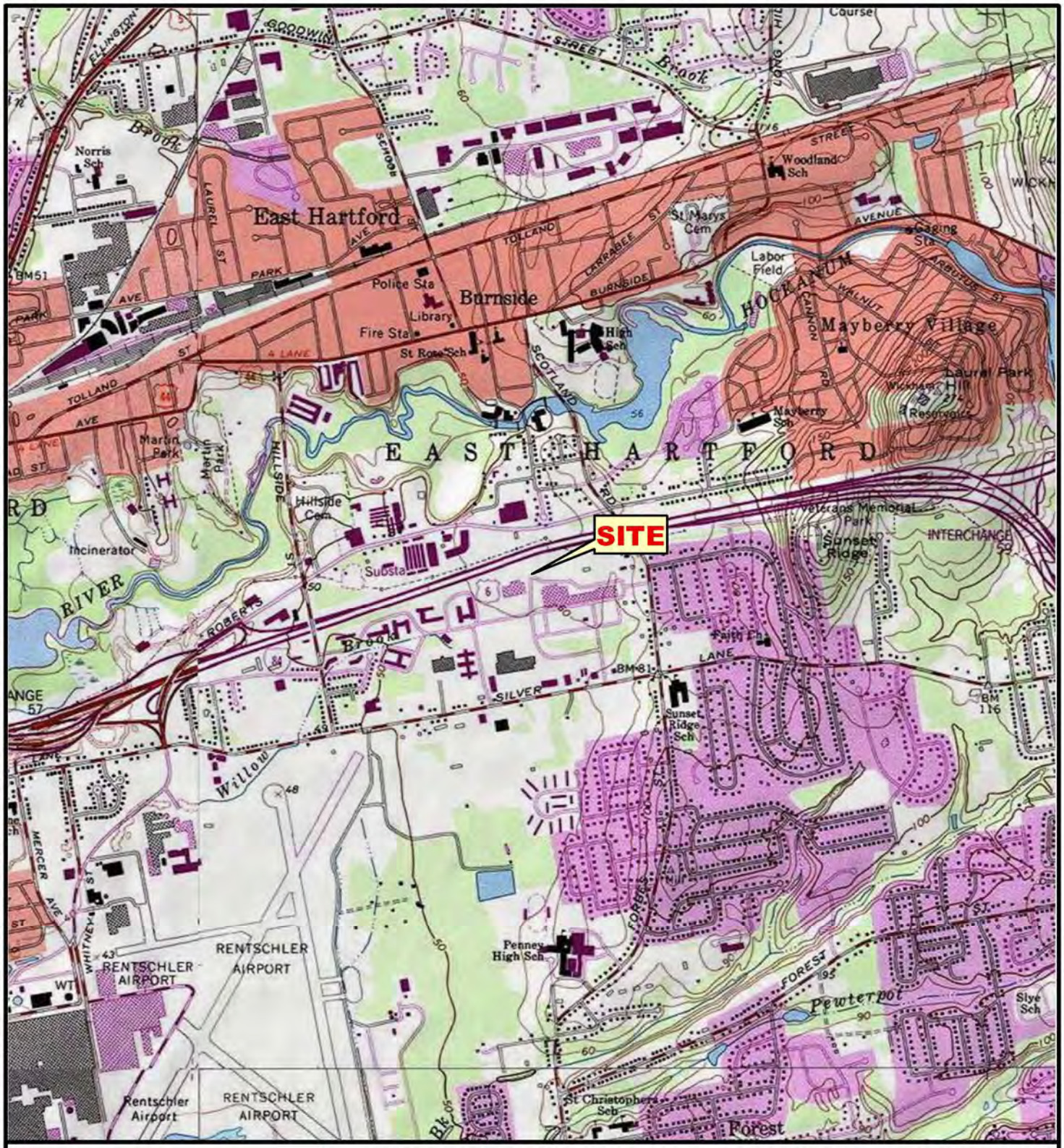
Italics = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided forcomparison. Site-specific approval from CTDEEP is required for use of these criteria.

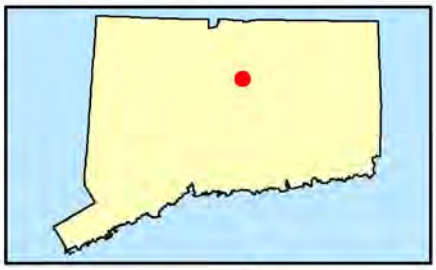
Bolded values exceed the GWPC

ug/L = micrograms per liter

NE = None Established

FIGURES





SOURCE : USGS TOPOGRAPHIC QUADRANGLES SCANNED BY THE NATIONAL GEOGRAPHIC SOCIETY & I-CUBED, COPYRIGHT 2011

Data Supplied by : esri

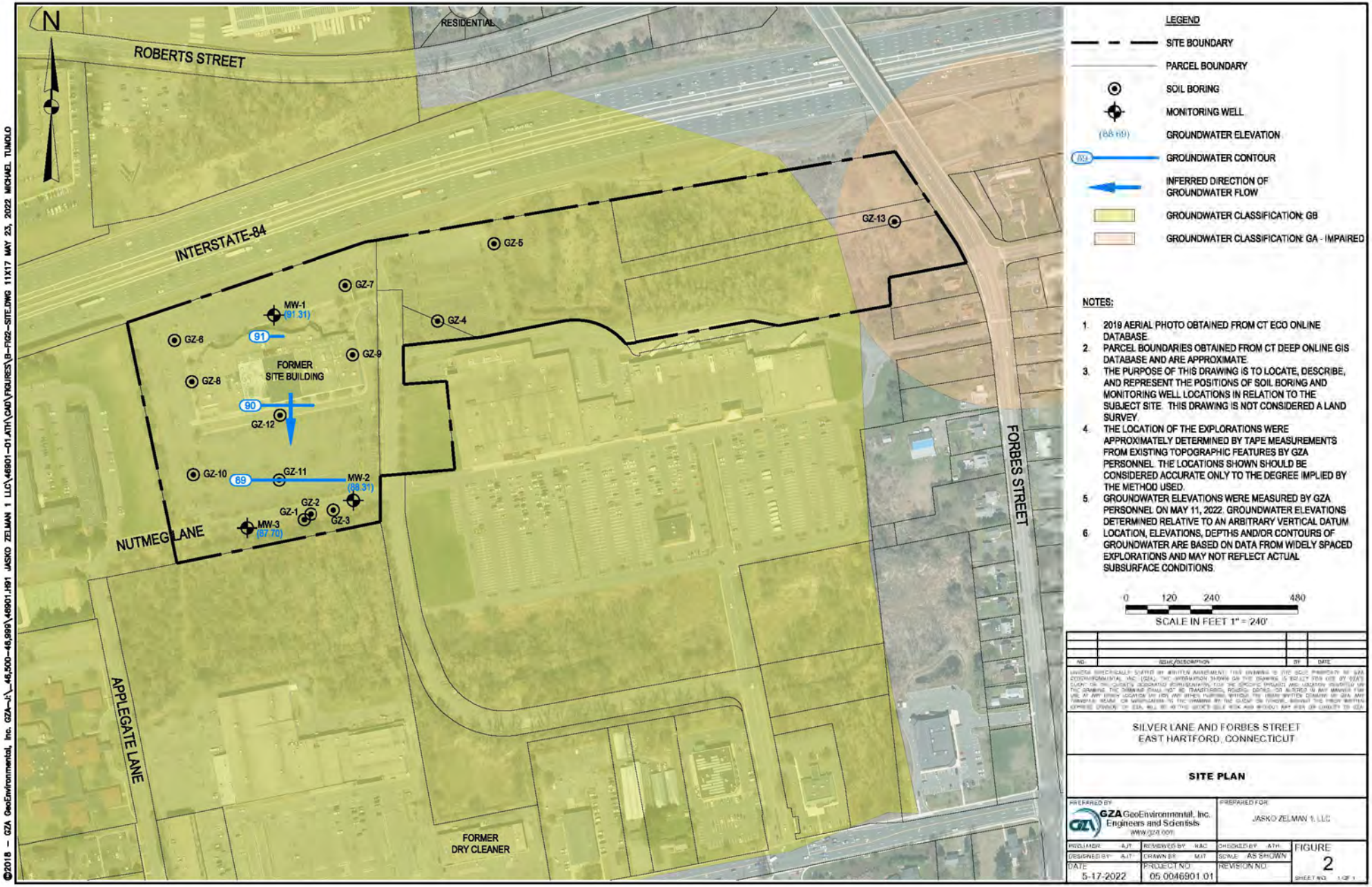
0 1,000 2,000 4,000 6,000

SCALE IN FEET

N W E S

GZA	PROJ. MGR.: AJT DESIGNED BY: AJT REVIEWED BY: ATH OPERATOR: AJT DATE: 01-24-2022	FIGURE 1 - SITE LOCUS	JOB NO. 05.0046901.01
		SILVER LN AND FORBES ST EAST HARTFORD, CONNECTICUT	FIGURE NO. 1

© 2022 - GZA GeoEnvironmental, Inc., \\gzaglastJobs\GIS\MXD\FIG_1_FIGURE 1 - SITE LOCUS_05_0046901_00.mxd, 1/24/2022, 1:25:03 PM, anthony.trani



©2018 – GZA GeoEnvironmental, Inc. G:\A–J_46,500–46,999\46901.H91 JASKO ZELMAN 1 LLC\46901–01.ATH\CAD\FIGURES\B–FIG2–SITE.DWG 11X17 MAY 23, 2022 MICHAEL TUMOLO

APPENDIX A
LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

CONCEPTUAL SITE MODEL

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.

APPENDIX B
SHALLOW SOIL FIELD LOG, BORING LOGS, AND GROUNDWATER FIELD SHEETS

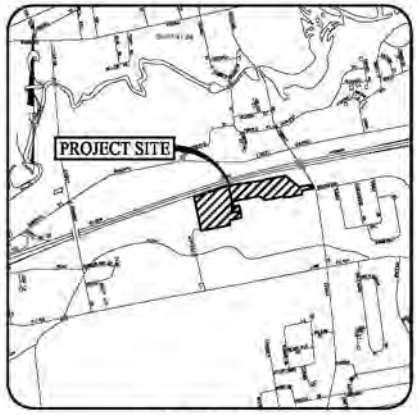


USGS MAP

CONCOURSE PARK

309 SILVER LANE
EAST HARTFORD, CONNECTICUT

INFRASTRUCTURE CONSTRUCTION DOCUMENTS
CRDA PROJECT# 25-005



LOCATION MAP

DRAWING LIST

CIVIL DRAWINGS

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
0.00	COVER SHEET	05/02/25	N/A
0.10	GENERAL PROJECT NOTES & LEGEND	05/02/25	N/A
0.11	APPROVALS AND DOCUMENTATION	05/02/25	N/A
1 OF 2	ALTA/NSPS LAND TITLE SURVEY	03/20/25	05/22/25
2 OF 2	ALTA/NSPS LAND TITLE SURVEY	03/20/25	05/22/25
1 OF 1	LOT CONSOLIDATION PLAN	04/14/25	05/29/25
	SITE PHASING PHASE 1A		
2.00	OVERALL DEMOLITION PLAN	05/02/25	N/A
2.01	PHASE 1A OVERALL GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.02	PHASE 1A OVERALL SITE UTILITY PLAN	05/02/25	N/A
2.05	OVERALL SITE LOGISTICS PLAN	05/02/25	N/A
	PHASED PLANS PHASE 1B & 2		
2.50	OVERALL SITE PLAN	05/02/25	N/A
2.51.1	PHASE 1B SITE PLAN	05/02/25	N/A
2.51.2	PHASE 1B SIZE PLAN	05/02/25	N/A
2.52.1	PHASE 2 SITE PLAN	05/02/25	N/A
2.52.2	PHASE 2 SITE PLAN	05/02/25	N/A
2.60	OVERALL GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.61.1	PHASE 1B GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.61.2	PHASE 1B GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.62.1	PHASE 2 GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.62.2	PHASE 2 GRADING AND DRAINAGE PLAN	05/02/25	N/A
2.70	OVERALL EROSION & SEDIMENTATION CONTROL PLAN	05/02/25	N/A
2.71.1	PHASE 1B EROSION & SEDIMENTATION CONTROL PLAN	05/02/25	N/A
2.71.2	PHASE 1B EROSION & SEDIMENTATION CONTROL PLAN	05/02/25	N/A
2.72.1	PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN	05/02/25	N/A
2.72.2	PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN	05/02/25	N/A
2.81	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	05/02/25	N/A
2.90	OVERALL SITE UTILITY PLAN	05/02/25	N/A
2.91.1	PHASE 1B SITE UTILITY PLAN	05/02/25	N/A
2.91.2	PHASE 1B SIZE UTILITY PLAN	05/02/25	N/A
2.92.1	PHASE 2 SITE UTILITY PLAN	05/02/25	N/A
2.92.2	PHASE 2 SITE UTILITY PLAN	05/02/25	N/A
3.01	CONSTRUCTION DETAILS	05/02/25	N/A
3.02	CONSTRUCTION DETAILS	05/02/25	N/A
3.03	CONSTRUCTION DETAILS	05/02/25	N/A
3.04	CONSTRUCTION DETAILS	05/02/25	N/A
3.05	CONSTRUCTION DETAILS	05/02/25	N/A
3.06	CONSTRUCTION DETAILS	05/02/25	N/A
3.07	CONSTRUCTION DETAILS	05/02/25	N/A
3.08	CONSTRUCTION DETAILS	05/02/25	N/A
	ADAPTATION TEXT AMT		
4.01.1	ADAPT PHASE 1B SITE PLAN	05/02/25	N/A
4.01.2	ADAPT PHASE 1B SITE PLAN	05/02/25	N/A
4.02.1	ADAPT PHASE 2 SITE PLAN	05/02/25	N/A
4.02.2	ADAPT PHASE 2 SITE PLAN	05/02/25	N/A
4.03	OTIS SANITARY SERVICE ALTERNATIVE	05/02/25	N/A
4.04	OTIS PUMP STATION ALTERNATE DETAILS	05/02/25	N/A
4.05	ADAPT OVERALL LANDSCAPING PLAN	05/02/25	N/A
4.06.1	ADAPT PHASE 1B LANDSCAPE PLAN	05/02/25	N/A
4.06.2	ADAPT PHASE 1B LANDSCAPE PLAN	05/02/25	N/A
4.06.3	ADAPT PHASE 1B LANDSCAPE DETAILS & NOTES	05/02/25	N/A
4.07.1	ADAPT PHASE 2 LANDSCAPE PLAN	05/02/25	N/A
4.07.2	ADAPT PHASE 2 LANDSCAPE PLAN	05/02/25	N/A
4.07.3	ADAPT PHASE 2 LANDSCAPE DETAILS & NOTES	05/02/25	N/A

MDC DEVELOPMENT PERMIT AGREEMENT SET

SHEET #	SHEET NAME	PLAN DATE	LATEST REVISION
0.00	COVER SHEET	05/06/25	05/05/25
1 OF 1	PROPERTY SURVEY	03/20/25	N/A
1 OF 1	LOT CONSOLIDATION PLAN	04/14/25	05/29/25
0.10	UTILITY GENERAL NOTES	05/06/25	05/05/25
2.50	OVERALL SITE UTILITY PLAN	05/06/25	05/05/25
2.51	WATER MAIN - PLAN AND PROFILE	05/06/25	05/05/25
2.52	WATER MAIN - PLAN AND PROFILE	05/06/25	05/05/25
2.53	WATER MAIN - PLAN AND PROFILE	05/06/25	05/05/25
2.54	SEWER MAIN - PLAN AND PROFILE	05/06/25	05/05/25
3.01	SEWER DETAILS	05/06/25	05/05/25
3.02	WATER DETAILS	05/06/25	05/05/25

* REFER TO ARCHITECTURAL, STRUCTURAL, & MEP DRAWINGS, PREPARED BY MARTIN ARCHITECT GROUP, UNDER SEPARATE COVER

PREPARED FOR:

CAPITAL REGION DEVELOPMENT AUTHORITY

100 COLUMBUS BOULEVARD
HARTFORD, CONNECTICUT 06103

PREPARED BY:

SOLLI ENGINEERING

MONROE, CT | WEST HARTFORD, CT | NORWOOD, MA

DESIGN PROFESSIONALS:

SITE/CIVIL ENGINEER

SURVEYOR OF RECORD

LANDSCAPE DESIGNER

INTERIOR DESIGNER

ARCHITECT

GEOTECHNICAL ENGINEER

WETLAND SCIENTIST

PROPERTY INFORMATION

ADDRESS: 309 & 291 SILVER LANE & 900, 940, 944, & 960 SILVER LANE, EAST HARTFORD, CONNECTICUT 06118

MAP: 48

LOT: 37, 107, 120, 130, & 131

OWNER

CRDA PROJECT# 25-005

309 SILVER LANE
EAST HARTFORD, CONNECTICUT

Sheet Title:	Sheet #:
COVER SHEET	0.00

PRELIMINARY
NOT FOR CONSTRUCTION

EAST HARTFORD INLAND WETLAND ENVIRONMENT COMMISSION APPROVAL NOTES

1. THIS PERMIT IS NOW TRANSFERABLE WITHOUT THE WRITTEN CONSENT OF THE TOWN OF EAST HARTFORD INLAND WETLANDS ENVIRONMENT COMMISSION.
2. SOIL SEDIMENTATION AND EROSION CONTROLS ACCEPTABLE TO THE TOWN ENGINEER ARE TO BE MAINTAINED AT ALL TIMES.
3. ALL WORK IN THE INLAND WETLANDS AND/OR THE INLAND WETLAND BUFFER AREA IS TO BE COMMENCED WITHIN FIVE (5) YEARS FROM THE EFFECTIVE DATE. THE ACTIVITY SHALL BE COMPLETED (5) YEARS FROM THE COMMENCEMENT OF THE ACTIVITY.
4. WRITTEN NOTICE SHALL BE SUBMITTED TO THE TOWN ENGINEER 48 HOURS PRIOR TO THE STARTING DATE OF THE APPROVED ACTIVITY.

DEMOLITION NOTES

1. REFER TO THE JANUARY 2004 EDITION OF THE METROPOLITAN DISTRICT (MDC) PROJECT MANUAL FOR INFORMATION REGARDING THE DEMOLITION OF UTILITIES UNDER THE JURISDICTION OF THE MDC OR THE DEMOLITION OF UTILITIES WITHIN EASEMENTS IN PARCEL OF THE MDC.
2. THE DEMOLITION CONTRACTOR SHALL IDENTIFY AND DISPOSE OF ALL UTILITY PIPE 12" OR LARGER WITHIN 5 FEET OF ALL PROPOSED BUILDING FOOTPRINTS AND THE FOOTPRINTS OF UNDERGROUND DETENTION STRUCTURES.
3. FOR UNDERGROUND UTILITIES 12" IN DIAMETER OR GREATER, THE DEMOLITION CONTRACTOR SHALL PERFORM ONE OF THE FOLLOWING TASKS:
   3.1 REMOVE AND DISPOSE OF SAID UNDERGROUND UTILITIES.
   3.2 ABANDON AND CAP UNDERGROUND UTILITIES WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM).
4. FOR UNDERGROUND UTILITIES LESS THAN 12" IN DIAMETER, ALL SECTIONS OF UTILITIES ARE PERMITTED TO REMAIN, CONVENIENT UPON CONFIRMATION OF DEACTIVATION AND COORDINATION WITH THE EFFECTIVE, ENGINEER AND APPLICABLE UTILITY PROVIDERS.
5. NO DEMOLITION WORK SHALL COMMENCE WITHIN THE EXISTING 30 FOOT WIDE EASEMENT IN PAYOR OF THE METROPOLITAN DISTRICT COMMISSION (MDC) WITHOUT PROPER PRIOR NOTIFICATION TO THE MDC.
6. AT LEAST TWO WEEKS PRIOR TO THE DEMOLITION OR REMOVAL, CONFER WITH THE EFFECTIVE, ENGINEER IN WRITING OF PROPOSED SCHEDULE, THE CONTRACTOR SHALL INSPECT THE EXISTING EQUIPMENT AND TO IDENTIFY AND MARK ITEMS WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER. NO MATERIALS SHALL BE STACKED WITHOUT THE PERMISSION OF THE EFFECTIVE, ENGINEER.
7. THE OWNER AND THE EFFECTIVE, ENGINEER ASSUME NO RESPONSIBILITY FOR THE ACTUAL CONDITION OF THE UTILITIES AND STRUCTURES TO BE DEMOLISHED OR MODIFIED.
8. SHOULD ANY EXISTING UTILITIES PROPOSED TO REMAIN BE DAMAGED DURING THE DEMOLITION PROCESS, THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR THE PROMPT REPAIR OF SAID DAMAGED UTILITIES, AT NO COST TO THE OWNER OF SAID UTILITIES. REPAIRS SHALL BE MADE TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
9. DISPOSE OF ALL DEMOLITION MATERIALS, EQUIPMENT, DEBRIS, AND ALL OTHER ITEMS NOT MARKED BY THE OWNER TO REMAIN, OFF THE SITE AND IN CONFORMANCE WITH ALL EXISTING APPLICABLE LAWS AND REGULATIONS. DEMOLITION DEBRIS MUST BE BURIED OR DISPOSED OF AT A DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION APPROVED CONSTRUCTION AND DEMOLITION VOLUME REDUCTION PLANT. THE EFFECTIVE, ENGINEER MUST APPROVE ANY PLANS TO REUSE THE MATERIAL AT ANOTHER LOCATION. WRIGHT DEBRIS MAY BE PROVIDED FOR ANY MATERIALS DISPOSED OF AT A CONSTRUCTION AND DEMOLITION VOLUME REDUCTION PLANT.
10. ALL EXISTING ELECTRICAL EQUIPMENT AND FIXTURES TO BE REMOVED SHALL BE REMOVED WITH SUCH CARE AS MAY BE REQUIRED TO PREVENT UNNECESSARY DAMAGE, TO KEEP EXISTING SYSTEMS IN OPERATION, AND TO MAINTAIN THE INTEGRITY OF THE GROUNDING SYSTEMS.
11. WHERE SHOWN ON OVERVIEW SHEET(S), WIRING IN THE UNDERGROUND DUCT SYSTEMS SHALL BE REMOVED. ALL SUCH WIRING SHALL BE SALVAGED AND STORED AS DIRECTED BY OWNER'S OFFICE. VERIFY THE FUNCTION OF ALL WIRING BEFORE DISCONNECTION AND REMOVING IT. DUCTS WHICH ARE NOT TO BE REUSED OR REMOVED SHALL BE PLUGGED WITH CLSM.
12. EXISTING FIXTURES SHALL BE REMOVED OR RELOCATED AS SHOWN. FIXTURES NOT RELOCATED SHALL BE REMOVED FROM THE SITE AND DELIVERED TO OWNER OR DISPOSED OF PROPERLY BY THE CONTRACTOR, AT THE OWNER'S OPTION. REMOVED ALL SITE DEBRIS RESULTING FROM THE DEMOLITION OPERATIONS AT 12 AT LEAST ALL TIME UPON COMPLETION OF THE WORK, ALL MATERIALS, EQUIPMENT, WASTE, AND DEBRIS OF EVERY SORT SHALL BE REMOVED AND PERMITTED SHALL BE LEFT CLEAN, NEAT, AND ORDERLY.
13. WHERE ANY STORM MAINS AND MANHOLES BEING ABANDONED THAT ARE REQUIRED TO BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) AS SHOWN ON THIS DEMOLITION PLANS HEREIN.
14. PUMPABLE CONTROLLED LOW STRENGTH MATERIAL (CLSM) SHALL BE IN ACCORDANCE WITH EXISTING ONE OF THE LATEST 2015 EDITION OF THE MDC PROJECT MANUAL.
15. THE CONTRACTOR SHALL TAKES ALL MEASURES REQUIRED TO PROTECT ADJACENT UTILITIES, ABOVE AND BELOW GROUND, INCLUDING SERVICE TO EXISTING HOMES, MANHOLES, AND LATERALS.
16. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, REGIONAL, AND LOCAL STATUTES, CODES, ORDINANCES, AND REGULATIONS REGARDING THE PROPER REMOVAL AND DISPOSAL OF EXISTING SANITARY AND STORM SEWERS, MANHOLES, AND STRUCTURES.
17. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY AND REQUIRED PERMITS AND LICENSES, PROVIDE ALL PERSONNEL AND EQUIPMENT INCLUDING LOADING EQUIPMENT, TRUCKS, EQUIPMENT OPERATORS AND DRIVERS, DOCUMENTATION AND MANIFEST FORMS AND COORDINATION WITH THE PERSONS GOVERNING AUTHORITIES AND/OR THE PERSONS HAVING JURISDICTION FOR THE PROPER DISPOSAL OF REGULATED MATERIALS AT AN APPROVED SITE, AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, REGIONAL, MUNICIPAL, AND OTHER SPECIFIC REGULATIONS AND ALL IMPOSAL REGULATIONS.
18. GASKET OUT ANY DEWATERING OF PIPE NECESSARY TO ALLOW THE CLSM OPERATION TO PROCEED AS INTENDED AND WITHOUT DILUTION OF THE CLSM MIXTURE BEING INSTALLED.
19. ALL SUBMITTALS SHALL BE APPROVED BY THE OWNER AND/OR EFFECTIVE, ENGINEER PRIOR TO ANY PLACEMENT OF CLSM.
20. THE OWNER AND EFFECTIVE, ENGINEER MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF ANY PLACEMENT OF CLSM.
21. CLEAN ALL GRADE OF DEPOSIT MAIN CHEMIST IMMEDIATELY BEFORE THE PLACEMENT OF CLSM.
22. REMOVE ALL CLSM MATERIALS AND DEBRIS SEGAVETED MATERIALS FROM THIS SITE AFTER ABANDONMENT, FILLING OF CLSM IF NEEDED AND BACKFILLING ARE COMPLETED. DISPOSE OF THIS MATERIAL PROPERLY.
23. THE CONTRACTOR SHALL TAKE ALL MEASURES TO SUPPORT ADJACENT UTILITIES, ABOVE AND BELOW GROUND INCLUDING SERVICE TO EXISTING WATER MAINS, HYDRANTS, MANHOLES, AND APPURTENANCES.
24. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, REGIONAL AND LOCAL STATUTES, CODES, ORDINANCES, AND REGULATIONS REGARDING THE PROPER REMOVAL AND DISPOSAL OF THE EXISTING WATER MAINS, SERVICES, MANHOLES, AND APPURTENANCES.

SITE PLAN NOTES

1. EXISTING CONDITIONS BASE PLAN HAS BEEN TAKEN FROM "PROPERTY SURVEY OF 954, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET, EAST HARTFORD, CONNECTICUT, SCALE 1" = 40', DATED APRIL 30, 2021, REVISED AUGUST 17, 2022 PREPARED BY ACCURATE LAND SURVEYING."
2. THERE PLANS ARE FOR CONSTRUCTION. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL FINAL APPROVAL OF THIS PLAN.
3. THE SUBJECT PARCELS CONSIST OF A TOTAL AREA OF APPROXIMATELY 20.95+ ACRES, LOCATED IN THE PLANNED DEVELOPMENT DISTRICT (PDD 1) ZONING DISTRICT OF EAST HARTFORD, CONNECTICUT.
4. WETLAND BOUNDARY AND UPLAND REVIEW AREAS TAKEN FROM SURVEYED WETLAND DELINEATION PERFORMED BY WILLIAM KINNY JANUARY 13TH AND 16TH, 2021.
5. A PORTION OF THE SITE LIES WITHIN A FLOOD HAZARD AREA. FLOOD INFORMATION TAKEN FROM FEMA FLOOD INSURANCE RATEMAP, MAP NUMBER0900300009C, EFFECTIVE SEPTEMBER 26, 2008.
6. ALL PROPOSED SITE WORK TO BE COMPLETED IN ACCORDANCE WITH ALL PERMITS, APPROVALS, AND CONDITIONS OF APPROVALS ISSUED BY LOCAL, STATE, AND/OR FEDERAL REVIEWING AGENCIES.
7. ALL CONSTRUCTION SHALL COMPLY WITH CONNECTICUT STANDARDS, TOWN OF EAST HARTFORD STANDARDS, AND CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED DESCENDING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
8. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL COUNTY AND TOWN CONSTRUCTION PERMITS, INCLUDING CONNECTION TO DOT & OPE PERMIT AND WATER CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THE WORK.
9. REFER TO PLANS & DETAILS BY KELL ENGINEERING, LLC FOR ADDITIONAL INFORMATION. THE CONTRACTOR IS VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE EFFECTIVE, ENGINEER IF THERE ARE ANY CONFLICTS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS.
10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS FOR PLANS AND SPECIFICATIONS TO THE OWNER AND EFFECTIVE, ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
11. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
12. THE CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING, AND THE RAISED CONCRETE SIDEWALKS AND RAMPS.
13. REFER TO KEY LOCATION FOR DIMENSIONAL CHARACTER, EXISTING PAVEMENT OR EXISTING UTILITY BE UNDERMINED DURING EXCAVATION, CONSULT THE EFFECTIVE, ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
14. NO INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITY. SUCH INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY UTILITIES HAVE BEEN PROVIDED.
15. ALL NEW PAVEMENT AREAS SHALL CONFORM TO THE LINES AND GRADES OF PAVING AS APPLICABLE AS SHOWN ON THE PLANS. ALL EXISTING CATCH BASINS AND MANHOLES TO BE ADJUSTED TO GRADE AS REQUIRED BY THE CONSTRUCTION OF NEW CURBS, GUTTERS, SIDEWALKS, SIGNS, LIGHTS, FENCES, TRAFFIC CONTROLLERS, AND ENGINEERED TRAFFIC DEVICES AS DESIGNED BY THE EFFECTIVE, ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS.
16. TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE STATE DOT STANDARD SHEETS, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED FLUSH WITH THE SIDE OF THE SIGN 5' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
17. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MATERIALS AND STRUCTURES FOR EFFECTIVE AND APPROVAL PRIOR TO DELIVERY TO THE SITE. ALLOW 14 WORKING DAYS FOR REVIEW.
18. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MACHINERY AND STRUCTURES FOR EFFECTIVE AND APPROVAL PRIOR TO DELIVERY TO THE SITE. ALLOW 14 WORKING DAYS FOR REVIEW.
19. TYPICAL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
20. ALL CATCH BASINS ARE TO BE INSTALLED WITH MINIMUM OF 3 FOOT SUMPS AND HOODED OUTLETS.
21. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MACHINERY AND STRUCTURES FOR EFFECTIVE AND APPROVAL PRIOR TO DELIVERY TO THE SITE. ALLOW 14 WORKING DAYS FOR REVIEW.
22. TYPICAL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
23. ALL SITE WORK TO BE COMPLETED IN ACCORDANCE WITH ALL PERMITS, APPROVALS, AND CONDITIONS OF APPROVALS ISSUED BY LOCAL, STATE, AND/OR FEDERAL REVIEWING AGENCIES.
24. ALL CONSTRUCTION SHALL COMPLY WITH CONNECTICUT STANDARDS, TOWN OF EAST HARTFORD STANDARDS, AND CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED DESCENDING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
25. THE CONTRACTOR SHALL TAKE ALL MEASURES TO SUPPORT ADJACENT UTILITIES, ABOVE AND BELOW GROUND INCLUDING SERVICE TO EXISTING WATER MAINS, HYDRANTS, MANHOLES, AND APPURTENANCES.
26. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, REGIONAL AND LOCAL STATUTES, CODES, ORDINANCES, AND REGULATIONS REGARDING THE PROPER REMOVAL AND DISPOSAL OF THE EXISTING WATER MAINS, SERVICES, MANHOLES, AND APPURTENANCES.
27. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PAVEMENT MARKING PAINT MIXTURE PRIOR TO STRIPING.
28. PAVEMENT MARKING KEY:
   - 4" PCOL = SOLID YELLOW DOUBLE LINE
   - 4" WSL = 4" SOLID WHITE LINE
   - 12" WSB = 12" BOLD WHITE STOP BAR
29. PARKING SPACES SHALL BE STRIPED WITH 4" SWL AT 4'-0" APART, 8'-0" ON CENTER. HATCHING, PINSTRIPE, AND OTHER MARKINGS SHALL BE PAINTED WHITE OR AS NOTED.
30. THE CONTRACTOR SHALL REFORE ANY DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE EFFECTIVE, ENGINEER.
31. THE CONTRACTOR SHALL PROVIDE AS BUILT SKETCHES OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
32. THE ADEQUACY AND SUITABILITY, ENGINEER AND NOT RESPONSIBLE FOR EFFECTIVE SAFETY MEASURES TO BE ADOPTED AND USED BY CONTRACTOR. THE ARCHITECT AND EFFECTIVE, ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFETY METHODS OR MEANS OF THE WORK, FOR SITE RESPONSIBILITY, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH RESPONSIBILITY.
33. THE CONTRACTOR SHALL QUALIFY WITH CBS 20 SAFE USE FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
34. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, EFFECTIVE, ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
35. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS, ANNUAL FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ASSIST THE CONTRACTOR IN DETERMINING ANTICIPATED ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800) 922-4455 OR "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
36. PAVEMENT MARKINGS SHALL BE NOT APPLIED TYPE IN ACCORDANCE WITH CONNECTICUT DOT SPECIFICATIONS, UNLESS WHERE EPOXY RESIN PAVEMENT MARKINGS ARE INDICATED.
37. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THIS FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
38. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SEQUENCING OF CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING REGULATIONS.
39. THE USE OF EQUIPMENT ON THE PROJECT SHALL REQUIRE REVIEW AND APPROVAL BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION (DEPT) OF TRAFFIC ADMINISTRATION (DTA).
40. THE PROPOSED PROJECT TO BE SUBMITTED UPON THE COMPLETION OF FINAL PERMIT FOR INFORMATION AND DEWATERING WASTE WATERS FROM CONSTRUCTION ACTIVITIES.
41. ALL BUILDING FOUNDATIONS TO BE STAKED OUT BY A LICENSED SURVEYOR.

SOIL AND EROSION CONTROL CERTIFICATE

THE ENCLOSED FINANCIAL GUARANTEE IS INCLUDED THE FINANCIAL GUARANTEE SHALL BE POSTED, FOR THOSE BONDED AND SEDIMENTATION COUNCIL, FAIR SHALL BE SCHEDULED FOR INSTALLATION, PRIOR TO COMMENCEMENT OF ANY SITE IMPROVEMENTS ON THIS PARCEL THAT IS SUBJECT TO THIS CERTIFIED SOIL EROSION AND SEDIMENTATION CONTROLS APPROVED PLANS SHALL BE FILED IN ACCORDANCE WITH SECTION 22A-53 OF THE CONNECTICUT GENERAL STATUTES.

UTILITY NOTES

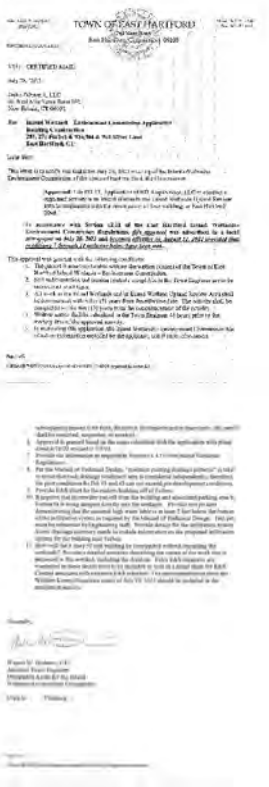
1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROLS NECESSARY FOR THE PROJECT.
2. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ASSIST THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800) 922-4455 OR "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
3. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERT ELEVATIONS. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN IN THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE EFFECTIVE, ENGINEER.
4. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING, OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE EFFECTIVE, ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL, PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY INTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE, ROOF DRAINS, AND ALL OTHER UTILITIES. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES BY EACH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATION WITH THE EXCAVATORY AGENCY AS TO LOCATION OF AND REMODELING OF CONNECTIONS TO THESE FACILITIES.
6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF BERMS, BARRIERS, SIGNS, LIGHTS, FENCES, AND UNIFORMED TRAFFIC CONTROLLERS AS REQUIRED, ORDERED BY THE EFFECTIVE, ENGINEER OR REQUIRED BY THE STATE AND LOCAL GOVERNING AUTHORITIES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES 72 HOURS PRIOR TO BEGINNING EXCAVATION.
8. ALL UTILITY WORK PERFORMED WITHIN THE TOWN OF EAST HARTFORD RIGHT OF WAY SHALL COMPLY WITH CITY OF EAST HARTFORD DPW AND ENGINEERING STANDARDS AND SPECIFICATIONS. PROPOSED UTILITY WORK WILL REQUIRE LANE CLOSURES COORDINATED WITH THE EFFECTIVE, ENGINEER. WILL BE NEEDED FOR MAINTENANCE AND PROTECTION OF TRAFFIC FLOW. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE CITY LEAD AGENTS AND OBTAINING ALL NECESSARY PERMITS.
9. ALL DISTURBANCES WITHIN EXISTING TOWN STATE PROPERTY 2020 TO CONSTRUCTION SHALL BE RESTORED TO ITS PRESENT CONDITION OR BETTER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE-IN FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
11. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK AT IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
12. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
13. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCES AND ARE APPROXIMATE.
14. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE WATER SERVICES SHALL BE IN COMPLIANCE WITH THE METROPOLITAN DISTRICT STANDARDS AND SPECIFICATIONS.
15. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE ELECTRIC SERVICE SHALL BE IN COMPLIANCE WITH EVERSOURCE ENERGY STANDARDS AND SPECIFICATIONS.
16. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE GAS SERVICES SHALL BE IN COMPLIANCE WITH EVERSOURCE ENERGY STANDARDS AND SPECIFICATIONS.
17. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES 72 HOURS PRIOR TO BEGINNING OF EXCAVATION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE-IN FEES REQUIRED BY UTILITY PROVIDERS.
19. WHERE THE SANITARY SEWER LINE RAISES LESS THAN 18" BELOW THE WATER LINE, PROVIDE CONCRETE ENCASEMENT. THE LENGTH OF THE ENCASEMENT TO BE INCREASED TO THE NEAREST JOINT.
20. WHERE THE SANITARY SEWER LINE PASSES ABOVE THE WATER LINES, ENCASE SEWER IN 6" THICK CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, OR SUBSTITUTE RUBBER GASKETED PRESSURE PIPE FOR THE PIPE BEING USED FOR THE SAME DISTANCE.
21. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5.5 FEET OF COVER FOR ALL WATER DISTRIBUTION PIPING.
22. ALL NEW WATER LINES SHALL BE DISINFECTED TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600.
23. ALL NEW WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.
24. ALL DOMESTIC WATER AND SANITARY SEWER PIPE TO BE TERMINATED 5 FEET OUTSIDE OF THE BUILDING UNLESS OTHERWISE NOTED. THE END OF THESE SERVICE LINES SHALL BE TIGHTLY PLUGGED OR CAPPED AND MARKED UNTIL SUCH TIME AS CONNECTION IS MADE INSIDE BUILDING BY PLUMBING CONTRACTOR.
25. SITE UTILITY CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF THE UTILITIES. ALL PIPE AND FITTINGS SHALL BE INSPECTED BY THE METROPOLITAN DISTRICT INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING PRESSURE TESTING AND DISINFECTION OF LATERALS AND BE SIGNATORY OF APPROVAL IS REQUIRED.
26. THE SITE UTILITY CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE LOCAL UTILITY AUTHORITIES FOR CONNECTION TO THE EXISTING MAINS AND PAY ALL APPLICABLE FEES.
27. CONTRACTOR SHALL LOCATE LOCATION OF THROWS FOR THE LENGTH OF SERVICE TO AVOID CONFLICTS WITH STORM SEWER OR OTHER UTILITIES AT NO EXTRA COST.
28. UTILITY LINES AND TO BE CLOSED SHALL NOT BE MADE UNTIL ALL CONSTRUCTION PLANS ARE COMPLETED AND LOCATIONS ESTABLISHED ON THE ARCHITECTURAL/PLUMBING PLANS. UTILITY CONTRACTOR SHALL REQUIRE SIGNED AND SEALED PLUMBING CONTRACTOR DRAWINGS BEFORE MAKING FINAL CONNECTIONS.
29. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING FOR WATER METERS, VALVES, ETC. TO PROVIDE A COMPLETE JOB TO LOCAL AUTHORITY REQUIREMENTS.
30. THRUST BLOCKS SHALL BE PROVIDED AT ALL TEE, PLUGS, BENDS, AND BENDS OF ELBOWS AT 22.5° AND 45° TO COMPLY WITH MINIMUM STANDARDS OF SCP 2.4. EXISTING SIZE CONNECTIONS.

LEGEND

- PROPERTY LINE
- EDGE OF WAY LINE
- ADJOINING LOT LINE
- EXISTING BUILDING LIMITS
- SAWCUT PAVEMENT LINE
- CONCRETE CURB
- BITUMINOUS CONCRETE PAVEMENT
- CONCRETE SIDEWALK / PAVEMENT
- SIDEWALK LIMITS
- CHAIN LINK FENCE
- LIMIT OF WETLANDS
- 100 FT WETLAND BUFFER
- MAJOR CONTOURS
- MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- CONTOUR LABEL
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- GRADE TO DRAIN
- STORM DRAIN PIPE
- CATCH BASIN
- STORM MANHOLE
- WATER QUALITY UNIT
- FLARE END SECTION
- RIP RAP
- SILT FENCE/ PROTECTION
- STRAW WATTLE PROTECTION
- CONSTRUCTION FENCE
- CURB REMOVAL
- WATER SERVICE REMOVAL
- SILT SACK INLET PROTECTION
- CONSTRUCTION ENTRANCE
- CONCRETE PAVEMENT DEMOLITION
- BITUMINOUS CONCRETE PAVEMENT DEMOLITION
- UTILITY STRUCTURE REMOVAL
- GAS LINE
- ELECTRIC CONDUIT
- FIRE ALARM CONDUIT
- FIBER OPTIC CONDUIT
- WATER MAIN / LATERAL
- FIRE WATER LINE
- SANITARY SEWER PIPE
- OIL/WATER SEPARATOR
- SANITARY SEWER MANHOLE
- WATER VALVE
- GAS VALVE
- ELECTRIC TRANSFORMER
- WATER METER PITS
- 3' DIAMETER CONCRETE LIGHT POLE BASE
- 5'x5' CONCRETE BOLLARD LIGHT BASE
- UTILITY EASEMENT
- KEYNOTE CALLOUT
- ORANGE SAFETY FENCE
- LIMIT OF DISTURBANCE
- PROPOSED TREE LINE
- DIVERSION SWALE/BERM

GRADING & DRAINAGE NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE, AND PROVIDE TRAFFIC CONTROLS NECESSARY FOR THE PROJECT.
2. EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ASSIST THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" TO ROUTE REPORT COMMENCEMENT OF WORK AT "811" OR "(800) 922-4455" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.



TOWN OF EAST HARTFORD

VIA: CERTIFIED MAIL

July 29, 2021

John Schnur, L, LLC
41 Wall At Van Dyke Road SW,
New Britain, CT 06053

Re: **Signed Warrant - Environmental Commission Application**
Building A, Construction
291, 293, 295 Pitkin St & 304 Main St - 9.63 Silver Land
East Hartford, CT

Dear Sir:

This letter is to notify you that on July 26, 2021 it was signed by the Inland Wetlands Environmental Commission of the Town of East Hartford that the Application:

Approved - On 07/19, Application 21-07, Angelo Spagnolo, LLC re: establish a single-user restaurant in the old Hartford Insurance Group building at 304 Main Street with a drive-thru and 2,500 sq. ft. addition to the front portion of that building, at 304 Main Street

In accordance with Section 12.10 of the East Hartford Inland Wetlands Environmental Commission Regulations, this approval was submitted to a land use agency on July 20, 2021 and became effective on August 11, 2021 provided that conditions 1 through 12 mentioned below have been met.

This approval was granted with the following conditions:

1. The plans for any activities within the regulated areas of the Town of East Hartford shall be in accordance with the application submitted to the Commission on June 15, 2021 and dated 5/27/21.
2. Any modifications to the plans which would affect the regulated areas of the Town of East Hartford shall be submitted to the Commission for review and approval prior to the commencement of such activity.
3. All erosion and sedimentation controls shall be in place prior to the commencement of any activity in the regulated areas of the Town of East Hartford and shall be maintained in good condition until all activities in the regulated areas are completed and the site is permanently stabilized.
4. Any additional soil disturbance, including but not limited to grading, excavation, or placement of fill, that is not shown on the plans approved by the Commission shall require the submission of a revised application to the Commission for review and approval.
5. Any deviation from the approved plans, including but not limited to changes in the limits of disturbance, the location of erosion and sedimentation controls, or the placement of fill, shall require the submission of a revised application to the Commission for review and approval.
6. The applicant shall notify the Commission at least 48 hours prior to the commencement of any activity in the regulated areas of the Town of East Hartford.
7. The applicant shall notify the Commission upon the completion of the activity in the regulated areas of the Town of East Hartford.
8. The applicant shall maintain a record of all inspections and shall make such records available to the Commission upon request.
9. The applicant shall comply with all applicable federal, state, and local laws, regulations, and ordinances.
10. The applicant shall be responsible for any damage to the regulated areas of the Town of East Hartford that may result from the activities conducted on the property.
11. The applicant shall indemnify and hold harmless the Commission and its members, employees, and agents from any and all claims, damages, losses, or expenses arising out of or in connection with the activities conducted on the property.
12. The applicant shall obtain all necessary permits and approvals from other agencies having jurisdiction over the activities conducted on the property.

Failure to comply with any of the above conditions may result in the revocation of this approval and the imposition of penalties as provided by law.

Please contact me if you have any questions regarding this matter.

Sincerely,

[signature]

Patrick M. Graham, P.E.
Assistant Town Engineer
Designated Agent for the Inland
Wetlands Environmental Commission

PMG/ld

cc: [illegible]



CERTIFICATE OF ACTION

Dear Sir/Madam:

This letter is to notify you that on [illegible] the Planning & Zoning Commission of the Town of East Hartford took the following action on the application of:

Location: [illegible]

Assessor Map and Lot: [illegible]

Zone: [illegible]

Proposed Use: [illegible]

Action Taken: [illegible]

Conditions/Modifications: [illegible]

Approved Plans: [illegible]

Any appeal of this decision must be filed within fifteen (15) days after the date of publication of the notice of decision in accordance with Section 8-8 of the Connecticut General Statutes, as amended.

Sincerely,

[signature]

Town Planner, CERTIFIED MAIL



MICHAEL P. GAUDIO
Chief Executive Officer

TOWN OF EAST HARTFORD
Incorporated — One Town, One Future — 1783

(860) 291-7371

DAVID GENGA
Director of Economic Development

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

June 9, 2022

John Schnur, L, LLC
41 Wall At Van Dyke Road
New Britain CT 06053

Attn: Principals

RE: Letter of Intent and Zoning Compliance
291, 293, Pitkin St & 304, 310, 316, 340 Main Street (a/k/a 304 Silver Lane)
East Hartford, CT

Dear Sir or Madam:

This letter will serve as your confirmation of our Zoning Meeting and Tour of the above referenced property on June 6, 2022 regarding the following:

ZONING MAP AMENDMENT: 291, 293 Pitkin Street and 304, 310, 316, 340 Main Street – Under review by the Planning & Zoning Commission (PZC) – Zoning Map Amendment re: the development of a 20 acre parcel (Assessor's Lots Parcels Numbers [illegible]) – Applicant: Under Contract to the Property Owners, John Schnur, L, LLC – Attorney: [illegible]

Our Economic Development Division staff is available to assist you in any way possible as you move forward with your application. Please contact me if you have any questions or require additional information.

Sincerely,

DAVID GENGA
Town Planner

cc: [illegible]



PLANNED DEVELOPMENT DISTRICT #1 (PDD#1)
AS AMENDED TO ADD A NEW SUBAREA
FOR
[illegible] COMPLEX
[illegible]

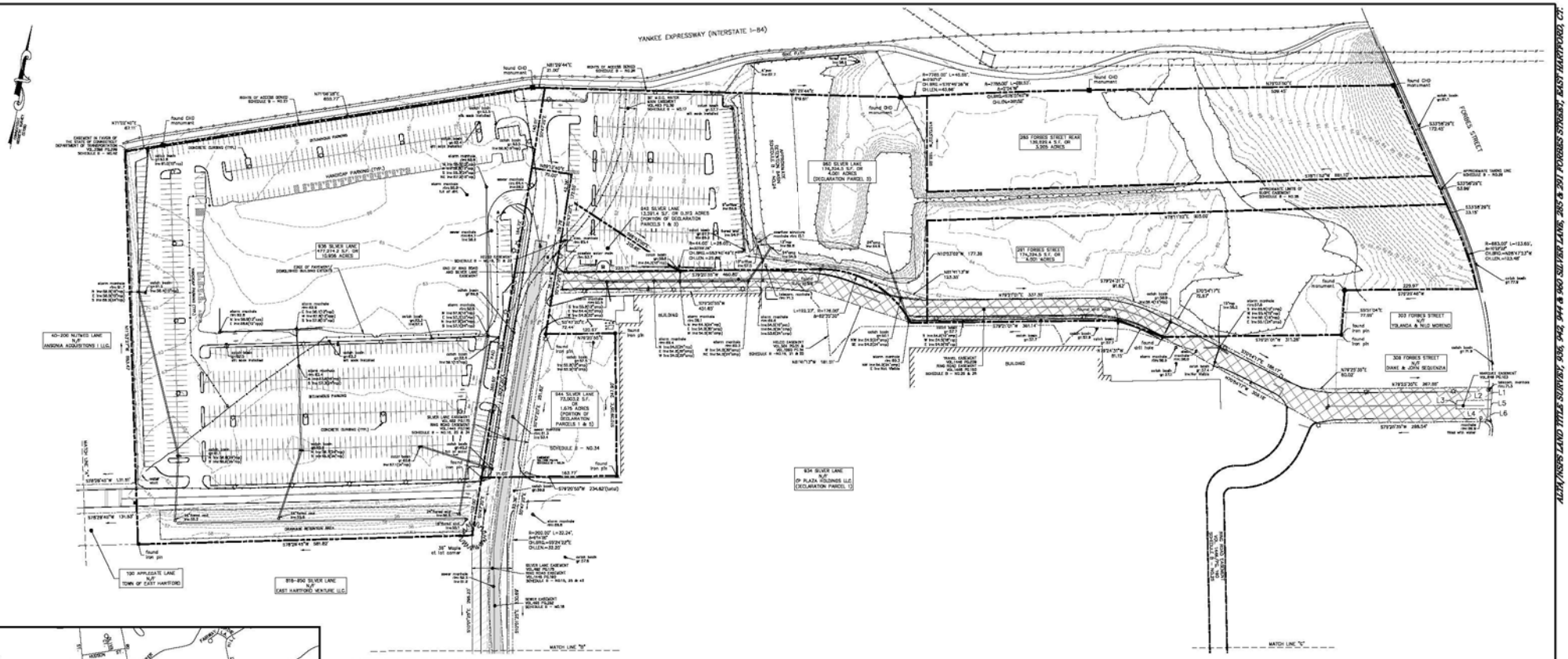
1. GENERAL:
2. PERMITTED USES:
3. DEVELOPMENT STANDARDS:
4. SIGNS:
5. PARKING:
6. LANDSCAPING:
7. LIGHTING:
8. DEVELOPMENT PLANS:
9. MODIFICATION AND AMENDMENT:

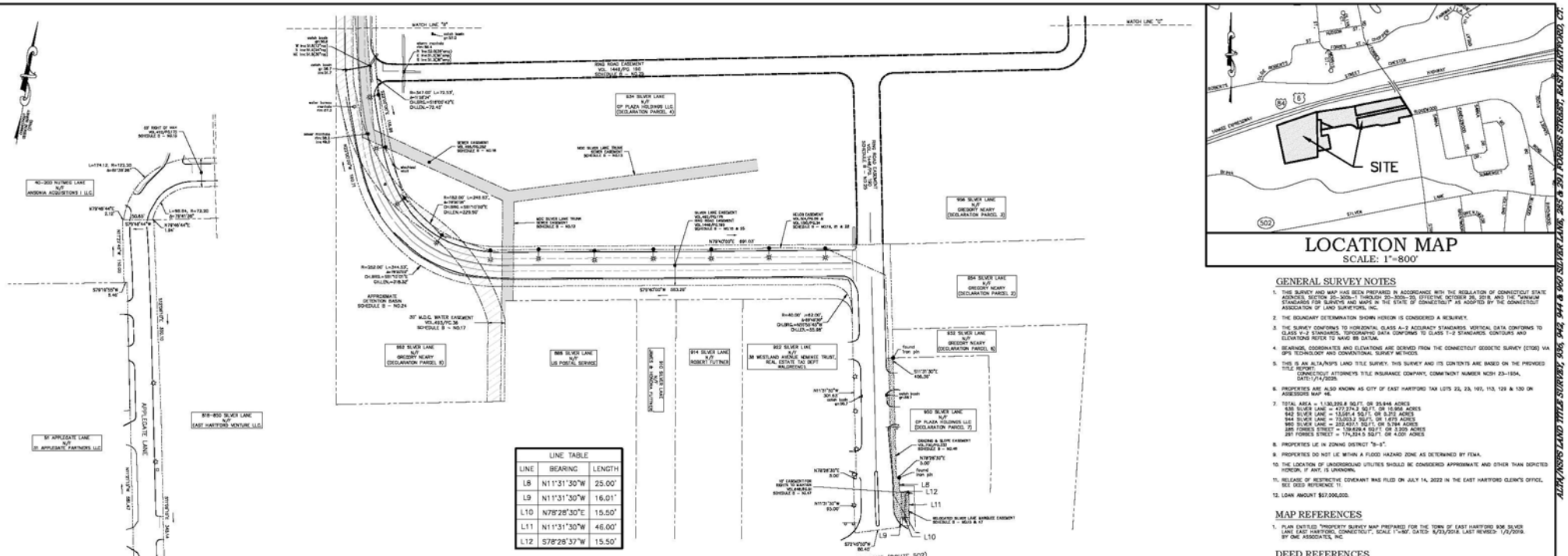


[illegible]

[illegible]

[illegible]


YANKEE EXPRESSWAY (INTERSTATE I-84)
FORBES STREET
HANDICAP PARKING (TYP.)
CONCRETE CURBING (TYP.)
BITUMINOUS PAVING
SILVER LANE
936 SILVER LANE N/F ANSONIA ACQUISITIONS I, LLC
40-200 NUTMEG LANE N/F ANSONIA ACQUISITIONS I, LLC
130 APPLEGATE LANE N/F TOWN OF EAST HARTFORD
810-890 SILVER LANE N/F EAST HARTFORD VENTURE, LLC
834 SILVER LANE N/F PLAZA HOLDINGS LLC (DECLARATION PARCEL 1)
842 SILVER LANE 174,324.5 S.F. OR 4.001 ACRES (DECLARATION PARCEL 2)
843 SILVER LANE 13,591.4 S.F. OR 0.312 ACRES (PORTION OF DECLARATION PARCELS 1 & 2)
844 SILVER LANE 73,063.2 S.F. OR 1.676 ACRES (PORTION OF DECLARATION PARCELS 1 & 2)
285 FORBES STREET REAR 136,695.4 S.F. OR 3.305 ACRES
291 FORBES STREET 174,234.5 S.F. OR 4.001 ACRES
303 FORBES STREET N/F YOLANDA & NILO MORENO
308 FORBES STREET N/F DIANE & JOHN SEQUENZA
SCHEDULE B - NO.34
SCHEDULE B - NO.16, 29 & 30
SCHEDULE B - NO.15
SCHEDULE B - NO.17
SCHEDULE B - NO.18
SCHEDULE B - NO.19
SCHEDULE B - NO.20
SCHEDULE B - NO.21
SCHEDULE B - NO.22
SCHEDULE B - NO.23
SCHEDULE B - NO.24
SCHEDULE B - NO.25
SCHEDULE B - NO.26
SCHEDULE B - NO.27
SCHEDULE B - NO.28
SCHEDULE B - NO.31
SCHEDULE B - NO.32
SCHEDULE B - NO.33
SCHEDULE B - NO.35
SCHEDULE B - NO.36
SCHEDULE B - NO.37
SCHEDULE B - NO.38
SCHEDULE B - NO.39
SCHEDULE B - NO.40
SCHEDULE B - NO.41
SCHEDULE B - NO.42
SCHEDULE B - NO.43
SCHEDULE B - NO.44
SCHEDULE B -



LINE TABLE		
LINE	BEARING	LENGTH
L8	N11°31'30"W	25.00'
L9	N11°31'30"W	16.01'
L10	N78°28'30"E	15.50'
L11	N11°31'30"W	46.00'
L12	S78°28'37"W	15.50'

LOCATION MAP
SCALE: 1"=800'

GENERAL SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATION OF CONNECTICUT STATE AGENCIES, SECTION 20-300b-1 THROUGH 20-300b-20, EFFECTIVE OCTOBER 26, 2018, AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
2. THE BOUNDARY DETERMINATION SHOWN HEREON IS CONSIDERED A RESURVEY.
3. THE SURVEY CONFORMS TO HORIZONTAL CLASS A-2 ACCURACY STANDARDS. VERTICAL DATA CONFORMS TO CLASS V-2 STANDARDS. TOPOGRAPHIC DATA CONFORMS TO CLASS T-2 STANDARDS. CONTOURS AND ELEVATIONS REFER TO NAVD 88 DATUM.
4. BEARINGS, COORDINATES AND ELEVATIONS ARE DERIVED FROM THE CONNECTICUT GEODETIC SURVEY (CTGS) VIA GPS TECHNOLOGY AND CONVENTIONAL SURVEY METHODS.
5. THIS IS AN ALTA/NSPS LAND TITLE SURVEY. THIS SURVEY AND ITS CONTENTS ARE BASED ON THE PROVIDED TITLE REPORT:
   CONNECTICUT ATTORNEYS TITLE INSURANCE COMPANY, COMMITMENT NUMBER NCSH 23-11514, DATE: 1/14/2025.
6. PROPERTIES ARE ALSO KNOWN AS CITY OF EAST HARTFORD TAX LOTS 22, 23, 107, 113, 129 & 130 ON ASSESSORS MAP 48.
7. TOTAL AREA = 1,130,220.8 SQ.FT. OR 25.946 ACRES
   636 SILVER LANE = 477,274.2 SQ.FT. OR 10.956 ACRES
   642 SILVER LANE = 13,097.4 SQ.FT. OR 0.312 ACRES
   944 SILVER LANE = 73,003.2 SQ.FT. OR 1.675 ACRES
   960 SILVER LANE = 232,437.1 SQ.FT. OR 5.784 ACRES
   285 FORBES STREET = 139,629.4 SQ.FT. OR 3.205 ACRES
   291 FORBES STREET = 174,324.5 SQ.FT. OR 4.001 ACRES
8. PROPERTIES LIE IN ZONING DISTRICT "B-S".
9. PROPERTIES DO NOT LIE WITHIN A FLOOD HAZARD ZONE AS DETERMINED BY FEMA.
10. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND OTHER THAN DEPICTED HEREON, IF ANY, IS UNKNOWN.
11. RELEASE OF RESTRICTIVE COVENANT WAS FILED ON JULY 14, 2022 IN THE EAST HARTFORD CLERK'S OFFICE, SEE DEED REFERENCE 11.
12. LOAN AMOUNT $67,000,000.

MAP REFERENCES

1. PLAN ENTITLED "PROPERTY SURVEY MAP PREPARED FOR THE TOWN OF EAST HARTFORD 80K SILVER LANE EAST HARTFORD, CONNECTICUT", SCALE 1"=80'. DATED: 6/23/2018. LAST REVISED: 1/23/2019. BY CME ASSOCIATES, INC.

DEED REFERENCES

1. DEED VOLUME 492 PAGE 173, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
2. DEED VOLUME 483 PAGE 38, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
3. DEED VOLUME 496 PAGE 202, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
4. DEED VOLUME 504 PAGE 58, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
5. DEED VOLUME 648 PAGE 61, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
6. DEED VOLUME 649 PAGE 103, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
7. DEED VOLUME 1446 PAGE 209, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
8. DEED VOLUME 1446 PAGE 190, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
9. DEED VOLUME 1590 PAGE 34, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
10. DEED VOLUME 3388 PAGE 288, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
11. DEED VOLUME 4114 PAGE 3, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.

LEGAL DESCRIPTION

PARCEL I (936 SILVER LANE):

A CERTAIN PIECE OR PARCEL OF LAND, WITH ALL THE IMPROVEMENTS THEREON AND APPURTENANCES THERETO, SITUATED IN THE TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND BEING DESIGNATED AS LOT #3 ON A MAP ENTITLED "CHARTER OAK PARK SUBDIVISION MAP PROPERTY OF A. D. GOSMAN EAST HARTFORD, CONN. IDER WEDHOLDOFF PROFESSIONAL ENGINEER & LAND SURVEYOR 51 LORRAINE STREET HARTFORD, CONNECTICUT SCALE 1 = 100' DATE 4-2-72, REV. 4-3-72, REV. 4-4-72," WHICH MAP IS ON FILE IN THE OFFICE OF THE TOWN CLERK OF EAST HARTFORD, SAID PREMISES ARE MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS: MAP #570

BEGINNING AT A POINT ON THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS AND THE NORTHWESTERLY CORNER OF THE PREMISES HEREIN DESCRIBED; THENCE RUNNING NORTH 70°37'47" EAST ALONG THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 ONE HUNDRED TWENTY-SEVEN AND THIRTY THREE ONE-HUNDREDTHS (127.33) FEET TO A MONUMENT; THENCE CONTINUING NORTH 70° 25' 47" EAST ALONG THE SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 ONE HUNDRED FIFTY-NINE AND NINETY-TWO ONE-HUNDREDTHS (159.92) FEET TO A MONUMENT; THENCE CONTINUING NORTH 70° 25' 47" EAST ALONG SAID SOUTHERLY SIDE OF CONNECTICUT ROUTE 15 SIXTY SEVEN AND NINE ONE-HUNDREDTHS (67.09) FEET TO A POINT; THENCE TURNING SOUTH 19° 34' 13" EAST ALONG THE WESTERLY LINE OF LOT #1, AS SHOWN ON SAID MAP, ONE HUNDRED FIFTY-FOUR AND SEVENTY-FIVE ONE-HUNDREDTHS (154.75) FEET TO A POINT; THENCE RUNNING SOUTH 70° 25' 47" WEST ALONG THE NORTHERLY LINE OF LAND NOW OR FORMERLY OF FENTON FUTTNER ET AL, FIVE HUNDRED EIGHTY-ONE AND EIGHTY-TWO ONE-HUNDREDTHS (581.82) FEET TO A POINT; THENCE RUNNING NORTH 11° 52' 27" WEST ALONG THE EASTERLY LINE OF LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS SEVEN HUNDRED FORTY AND ONE HUNDRED EIGHTY-FIVE ONE-THOUSANDTHS (740.185) FEET TO THE POINT OR PLACE OF BEGINNING.

BOUNDED:

NORTHERLY BY CONNECTICUT ROUTE 15;

EASTERLY BY LOT #1 AS SHOWN ON SAID MAP, OTHER LAND OF ABRAHAM D. GOSMAN;

SOUTHERLY BY LAND NOW A FORMERLY OF FENTON FUTNER ET AL; AND

WESTERLY BY LAND NOW OR FORMERLY OF SOCIETY FOR SAVINGS.

FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS TWELVE (12) ACRES.

EXCEPTING THEREFROM A PARCEL ACQUIRED BY THE STATE OF CONNECTICUT BY CERTIFICATE OF CONDEMNATION, DATED JULY 8, 1963 AND RECORDED JULY 14, 1963 IN VOLUME 627 AT PAGE 219 OF THE EAST HARTFORD LAND RECORDS. SEE MAP #1294.

TOGETHER WITH EASEMENTS SET FORTH IN A WARRANTY DEED FROM ABRAHAM D. GOSMAN TO NATIONAL AMUSEMENTS, INC., DATED AND RECORDED SEPTEMBER 7, 1972 IN VOLUME 480 AT PAGE 175 OF THE EAST HARTFORD LAND RECORDS AS AFFECTED BY AGREEMENT DATED JUNE 5, 1973 AND RECORDED IN VOLUME 546 AT PAGE 28 OF THE EAST HARTFORD LAND RECORDS, AND BY AGREEMENT DATED OCTOBER 24, 1977 AND RECORDED IN VOLUME 646 AT PAGE 240 OF THE SAID LAND RECORDS. SEE DEED RELEASING RIGHT-OF-WAY EASEMENT (FORBES STREET RIGHT-OF-WAY EASEMENT SOUTH) FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 56 OF THE EAST HARTFORD LAND RECORDS AND DEED RELEASING EASEMENT FOR NAMELESS (SILVER LANE) FROM NATIONAL AMUSEMENTS, INC. TO ARGOS ASSOCIATES, DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 59 OF THE SAID LAND RECORDS. THE DESCRIPTIONS OF CERTAIN OF SAID EASEMENTS WERE CORRECTED BY AGREEMENT BY AND BETWEEN ARGOS ASSOCIATES AND NATIONAL AMUSEMENTS, INC., DATED OCTOBER 24, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646 AT PAGE 103 OF SAID EAST HARTFORD LAND RECORDS. SEE RELEASE OF PAYMENT OBLIGATION DATED MAY 12, 1993 AND RECORDED IN VOLUME 1817 AT PAGE 208 OF THE SAID LAND RECORDS.

PARCEL II (960 SILVER LANE):

A CERTAIN PIECE OR PARCEL OF LAND, WITH THE BUILDINGS AND IMPROVEMENTS THEREON, SITUATED ON THE NORTHERLY SIDE OF SILVER LANE IN THE TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND BEING DESIGNATED AS LOT NO. 10 ON A MAP ENTITLED, "RESUBDIVISION OF LOT NO. 1 CHARTER OAK PARK, EAST HARTFORD, CONN. KOH KEVSHLOFF PROFESSIONAL ENGINEER & LAND SURVEYOR 51 LORRAINE STREET, HARTFORD, CONNECTICUT SCALE 1 = 50' DATE: OCTOBER 12, 1970 DRAWING NUMBER 1035", WHICH MAP IS ON FILE IN THE OFFICE OF THE TOWN CLERK OF THE TOWN OF EAST HARTFORD AS MAP # 575.

LESS AND EXCEPTING TWO PARCELS ACQUIRED BY THE STATE OF CONNECTICUT BY CERTIFICATE OF CONDEMNATION, DATED JUNE 16, 1983 AND RECORDED JUNE 28, 1983 IN VOLUME 825 AT PAGE 39 OF THE EAST HARTFORD LAND RECORDS, SAID TWO PARCELS CONTAIN A TOTAL AREA OF 1.50 ACRES, MORE OR LESS, AS SHOWN ON A MAP ON FILE IN THE EAST HARTFORD LAND RECORDS AS MAP NUMBERS 1227 AND 1229 ENTITLED "TOWN OF EAST HARTFORD, MAP SHOWING LAND ACQUIRED FROM ARGOS ASSOCIATES BY THE STATE OF CONNECTICUT, INTERSTATE ROUTE 84, SCALE 1"=40', DECEMBER 1980, FRANK M. D'AGOSTINO, DEPUTY TRANSPORTATION COMMISSIONER-BUREAU OF HIGHWAYS." (42- 213-31).

TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 133, WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DYAKNORE, TRUSTEE AND DEWITT'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1448, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1998 IN VOLUME 1808, PAGE 96. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1448 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

PARCEL III (285 FORBES STREET):

A CERTAIN PIECE OR PARCEL OF LAND LOCATED ON THE WESTERLY SIDE OF FORBES STREET, TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY STREET LINE OF FORBES STREET WHICH POINT MARKS THE SOUTHEAST CORNER OF THE HEREIN-DESCRIBED PREMISES AND THE NORTHEAST CORNER OF LAND NOW OR FORMERLY OF ARGOS ASSOCIATES AND RUNNING S 78° 11' 52" W 891.10 FEET TO A POINT; THENCE TURNING AND RUNNING N 10° 3' 02" W ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 166.940 FEET TO A POINT; THENCE TURNING AND RUNNING ALONG THE ARC OF A CURVE HAVING A RADIUS OF 1,783 FEET ALONG LANDS NOW OR FORMERLY OF THE STATE OF CONNECTICUT 330.61 FEET TO A POINT; THENCE RUNNING N 79° 3' 45" E ALONG LAND NOW OR FORMERLY OF THE STATE OF CONNECTICUT 535.00 FEET TO POINT; THENCE TURNING AND RUNNING S 20° 56' 28" E ALONG THE WESTERLY STREET LINE OF FORBES STREET 173.35 FEET TO THE POINT OR PLACE OF BEGINNING.

FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS 3.205 ACRES.

PARCEL IV (291 FORBES STREET):

A CERTAIN PIECE OR PARCEL OF LAND LOCATED ON THE WESTERLY SIDE OF FORBES STREET, TOWN OF EAST HARTFORD, COUNTY OF HARTFORD AND STATE OF CONNECTICUT AND MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY STREET LINE OF FORBES STREET WHICH POINT MARKS THE NORTHEAST CORNER OF THE HEREIN-DESCRIBED PREMISES AND THE SOUTHEAST CORNER OF LAND NOW OR FORMERLY OF ARGOS ASSOCIATES AND RUNNING S 23° 29' 29" E ALONG THE WESTERLY STREET LINE OF FORBES STREET 33.15 FEET TO A POINT; THENCE RUNNING ALONG THE ARC OF A CURVE IN THE WESTERLY STREET LINE OF FORBES STREET HAVING A RADIUS OF 883 FEET 153.85 FEET TO A POINT; THENCE TURNING AND RUNNING S 79° 29' 48" W ALONG LANDS NOW OR FORMERLY OF JOHN HANCOCK 228.88 FEET TO A POINT; THENCE TURNING AND RUNNING S 3° 21' 04" E ALONG SAID LAND OF JOHN HANCOCK 77.84 FEET TO A POINT; THENCE TURNING AND RUNNING S 79° 21' 09" W ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 232.06 FEET TO A POINT; THENCE TURNING AND RUNNING N 10° 3' 2" W ALONG LANDS NOW OR FORMERLY OF ARGOS ASSOCIATES 205.76 FEET TO A POINT; THENCE TURNING AND RUNNING N 78° 11' 52" E ALONG LAND NOW OR FORMERLY OF ARGOS ASSOCIATES 926 FEET TO THE POINT OR PLACE OF BEGINNING.

EXCEPTING FROM PARCEL IV THE FOLLOWING:

A CERTAIN PARCEL OF LAND IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE EASTERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE
N 75° 29' 31" W A DISTANCE OF EIGHTY-ONE AND FIFTEEN HUNDREDTHS FEET (80.15') TO A POINT; THENCE
S 79° 21' 31" W A DISTANCE OF THREE HUNDRED SIXTY-ONE AND FIFTEEN HUNDREDTHS FEET (361.15') TO A POINT; THENCE
SOUTHEASTERLY AND CURVING TO THE RIGHT ALONG THE ARC OF A CURVE HAVING A RADIUS OF ONE HUNDRED SEVENTY-SIX AND NO HUNDREDTHS FEET (176.00'), A LENGTH OF TWENTY-FOUR AND SEVENTY-THREE HUNDREDTHS FEET (24.73') TO A POINT OF REVERSE CURVATURE; THENCE
SOUTHEASTERLY AND CURVING TO LEFT ALONG THE ARC OF A CURVE HAVING A RADIUS OF TWENTY-FIVE AND ONE HUNDREDTHS FEET (25.01'), A LENGTH OF THIRTY AND EIGHTY-THREE HUNDREDTHS FEET (30.83') TO A POINT; THENCE
N 10° 38' 08" W A DISTANCE OF TEN AND NO HUNDREDTHS (10.00') TO A POINT; THENCE
N 79° 21' 09" E A DISTANCE OF FOUR HUNDRED THREE AND THIRTY-EIGHT HUNDREDTHS FEET (403.38') TO THE POINT OF BEGINNING.
THE ABOVE-DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 11,870 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCEL B AND B1, ON A PLAN ENTITLED, "EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT" BY GENDRON, INC. A.L.S. SCALE: 1"=50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204. FOR INFORMATIONAL PURPOSES ONLY: SAID PARCEL CONTAINS 4.252 ACRES.

PARCEL V (944 SILVER LANE):

A CERTAIN PARCEL OF LAND SITUATED IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE SOUTHEASTERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE:

S 79° 21' 09" W A DISTANCE OF TWO HUNDRED THIRTY-FOUR AND EIGHTY-TWO HUNDREDTHS FEET (234.82') TO A POINT; THENCE
N 06° 47' 39" W A DISTANCE OF FIVE HUNDRED FORTY-FIVE AND THIRTY-TWO HUNDREDTHS FEET (545.32') TO A POINT; THENCE
N 86° 12' 40" E A DISTANCE OF SEVENTY AND NO HUNDREDTHS FEET (70.00') TO A POINT; THENCE
S 00° 47' 20" E A DISTANCE OF TWO HUNDRED EIGHTY-ONE AND FIFTY-THREE HUNDREDTHS FEET (281.53') TO A POINT; THENCE
N 79° 29' 55" E A DISTANCE OF ONE HUNDRED TWENTY AND SIXTY-SEVEN HUNDREDTHS FEET (120.67') TO A POINT; THENCE
S 13° 39' 05" E A DISTANCE OF TWO HUNDRED FORTY-SEVEN AND NINETY HUNDREDTHS FEET (247.90') TO THE POINT OF BEGINNING.

THE ABOVE-DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 73,003 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCEL "A1" ON A PLAN ENTITLED "EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT" BY GENDRON, INC. A.L.S. SCALE: 1"=50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204.

TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 133, WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DYAKNORE, TRUSTEE AND DEWITT'S, INC., RECORDED MAY 12, 1993 IN VOLUME 1448, PAGE 190. SEE AFFIDAVIT OF FACTS RELATING TO TITLE BY CARL J. HOHMANN, INVESTMENT OFFICER OF JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, RECORDED MARCH 25, 1998 IN VOLUME 1808, PAGE 96. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1448 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

PARCEL VI (942 SILVER LANE):

A CERTAIN PARCEL OF LAND SITUATED IN THE CITY OF EAST HARTFORD, IN THE COUNTY OF HARTFORD, CONNECTICUT, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT OF BEGINNING BEING THE NORTHERLY MOST CORNER OF SAID PARCEL, AS SHOWN ON A PLAN TO BE REFERENCED HEREAFTER; THENCE S 69° 43' 09" E A DISTANCE OF TWO HUNDRED FIFTEEN AND SIXTY-FIVE HUNDREDTHS FEET (215.65') TO A POINT; THENCE

NORTHEASTERLY AND CURVING TO THE LEFT ALONG THE ARC OF CURVE HAVING A RADIUS OF FORTY-FOUR AND NO HUNDREDTHS FEET (44.00'), A LENGTH OF TWENTY-SIX AND SIX HUNDREDTHS FEET (26.06') TO A POINT; THENCE

S 79° 21' 09" W A DISTANCE OF TWO HUNDRED TWENTY-FIVE AND SEVENTY-ONE HUNDREDTHS FEET (225.71') TO A POINT; THENCE
N 10° 47' 39" W A DISTANCE OF ONE HUNDRED TWENTY-FIVE AND EIGHTY HUNDREDTHS FEET (125.80') TO THE POINT OF BEGINNING.

THE ABOVE-DESCRIBED PARCEL OF LAND CONTAINS AN AREA OF 13,591 SQUARE FEET, MORE OR LESS, AND IS MORE PARTICULARLY SHOWN AS PROPOSED PARCEL "A" ON A PLAN ENTITLED "EXHIBIT PLAN SHOWING TRANSFER OF LAND AND EASEMENTS CHARTER OAK MALL PREPARED FOR JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY SILVER LANE AND FORBES STREET EAST HARTFORD, CONNECTICUT" BY GENDRON, INC. A.L.S. SCALE: 1"=50', DATE: JANUARY, 1993 WHICH MAP IS RECORDED IN THE EAST HARTFORD LAND RECORDS IN VOLUME 1446 AT PAGE 204.

TOGETHER WITH EASEMENTS SET FORTH IN A DECLARATION OF EASEMENTS BY ARGOS ASSOCIATES, DATED OCTOBER 31, 1977 AND RECORDED NOVEMBER 2, 1977 IN VOLUME 646, PAGE 133, WHICH DECLARATION OF EASEMENTS WAS AMENDED BY AMENDMENT TO DECLARATION OF EASEMENTS BY AND AMONG NATIONAL AMUSEMENTS, INC., JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, MARK R. DYAKNORE, TRUSTEE AND DEWITT'S, INC., RECORDED MARCH 25, 1998 IN VOLUME 1808, PAGE 96. FURTHER TOGETHER WITH EASEMENT AGREEMENT REGARDING CONSTRUCTION OF RELOCATED ACCESSWAY, RIGHTS OF PASSAGE THEREON AND OTHER RIGHTS WITH RESPECT THERETO BY AND BETWEEN NATIONAL AMUSEMENTS, INC. AND JOHN HANCOCK MUTUAL LIFE INSURANCE COMPANY, DATED AND RECORDED MAY 12, 1993 IN VOLUME 1448 AT PAGE 209 OF THE EAST HARTFORD LAND RECORDS.

LEGEND

- C.M.D. Conn. Hwy. Dept. Monument
- M. Mon. Monument
- Iron Pin to be Set
- Conc. Monument to be Set
- I.P. Iron Pipe
- Iron Pin
- D.H. Drill Hole
- Fnd. Found
- n/f Now or Formerly
- Property Line
- Property Line (adjoining)
- Building Setback Line
- Easement Line
- Edge of water
- FEMA Flood Zone
- Base Flood Elevation
- Existing Spot Elevation
- Building (existing)
- Gas gate valve
- Water gate valve
- Water meter
- Hydrant
- Water main (existing)
- Gas Main (existing)
- Underground Storm Drain Pipes
- Sanitary Sewer Main (existing)
- Electrical Line (existing)
- Overhead Wires
- Sanitary Manhole
- Drain Manhole
- Electric Manhole
- Telecom Manhole
- Unknown Manholes
- ST P 100
- Chain Link or Split Rail Fence
- Metal/Wire Fence
- Wooden or Vinyl Fence
- Utility Pole with lamp
- Utility Pole
- Evergreen Tree
- Deciduous Tree
- Swamp or Wetlands
- Tree Line
- Watercourse
- Existing Contours
- R.C.P. Reinforced Concrete Pipe
- C.M.P. Corrugated Metal Pipe
- Perculation Test Location
- Deep Test Pit Location
- Stone Retaining Wall
- Retaining Wall
- Wetland Setback
- Wetland Limit
- Wetland Flag Number
- Stone Wall
- Benchmark
- Monitoring Well
- INV. Invert Elevation of Pipe
- Existing Catch Basin/Pipe

PRELIMINARY
NOT FOR CONSTRUCTION

No.	Date	REVISION DESCRIPTION
4.	5/22/2025	ADDED LIMIT OF SLOPE EASEMENT
3.	5/21/2025	REVISIONS TO SCHEDULE B EXCEPTIONS
2.	4/11/2025	REVISED ACCESS DENIED LABELS
1.	4/11/2025	ADDED ACCESS DENIED LABELS

SCALE: 1"=80'
0 40 80 160 240

SURVEYOR'S CERTIFICATION

TO:
- USC 948 SILVER LANE LLC, ITS SUCCESSORS AND/OR ASSIGNS, AS THEIR INTEREST MAY APPEAR
- CATIC
- JPMORGAN CHASE BANK, N.A.
- ALL LLC
- TORRIS LLC
- CONCOURSE PARK HOLDINGS LLC
- CONCOURSE MEZZ LLC
- UPSKY, KELLY & SPELLACY, P.C.
- THE TOWN OF EAST HARTFORD

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2,3,4,6,7(a),7(b),8 AND 9 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 4/02/2022

DATE OF MAP: 3/25/2025

BRYAN P. NESTERAK, PE, LS 23506

ACCURATE LAND SURVEYING, LLC
15 RESEARCH DRIVE, SUITE 1C, WOODBRIDGE, CT 06525 (TEL) 203.891.8145
851 MAIN STREET, MONROE, CT 06468 (TEL) 203.880.9495

ALTA/NSPS LAND TITLE SURVEY
OF
936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET EAST HARTFORD, CONNECTICUT

PREPARED FOR
USC SILVER LAKE LLC, USACQ/ATIMA

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Date	3/25/2025
Scale	1"=80'
Job No.	1155
Drawing No.	2 of 2

ALTA/NSPS LAND TITLE SURVEY OF 936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET, EAST HARTFORD, CONNECTICUT

LOT 936, 942, 944 & 960 SILVER LANE, 285 & 291 FORBES STREET, EAST HARTFORD, CT

PROPOSED DRAINAGE EASEMENT #1

LINE TABLE

LINE	BEARING	LENGTH
L1	N75°49'24"E	122.06'
L2	S14°10'36"E	3.21'
L3	N75°49'05"E	6.08'
L4	N81°33'15"E	197.99'
L5	S11°53'25"E	10.02'
L6	S81°33'15"W	198.09'
L7	S75°49'05"W	5.58'
L8	S14°10'48"E	36.49'
L9	S75°49'04"W	139.43'
L10	S25°48'04"W	13.13'
L11	S59°44'50"E	17.24'
L12	S12°53'24"E	102.42'
L13	S77°05'01"W	7.14'
L14	N12°53'04"W	146.56'
L15	N58°44'50"W	27.23'
L16	N14°10'36"W	8.77'
L17	N75°36'30"E	7.85'
L18	N14°09'23"W	54.01'
L19	N75°45'04"E	43.93'
L20	S14°08'09"E	12.00'
L21	S12°53'09"E	57.43'

PROPOSED DRAINAGE EASEMENT #2

LINE TABLE

LINE	BEARING	LENGTH
L22	N03°01'16"W	42.84'
L23	N78°43'38"E	118.10'
L24	S10°38'05"E	31.63'
L25	S10°38'05"E	77.00'
L26	S76°21'06"W	37.12'
L27	S55°44'35"W	81.69'
L28	S07°45'30"W	25.41'
L29	S79°20'30"W	10.34'
L30	N07°45'30"E	29.84'
L31	N20°52'11"W	31.98'
L32	S87°54'43"W	13.06'
L33	N02°01'16"W	73.08'
L34	N02°01'15"W	18.13'
L35	S79°25'38"W	38.90'
L36	N01°30'11"W	13.06'
L37	N75°21'04"E	28.83'
L38	N79°22'33"E	138.77'

GENERAL SURVEY NOTES

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATION OF CONNECTICUT STATE AGENCIES, SECTION 20-300b-1 THROUGH 20-300b-20, EFFECTIVE OCTOBER 26, 2018, AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
2. THE BOUNDARY DETERMINATION SHOWN HEREON IS CONSIDERED A RESURVEY.
3. THE SURVEY CONFORMS TO HORIZONTAL CLASS A-2 ACCURACY STANDARDS.
4. BEARINGS AND COORDINATES ARE DERIVED FROM THE CONNECTICUT GEODETIC SURVEY (CTGS) VIA GPS TECHNOLOGY AND CONVENTIONAL SURVEY METHODS.
5. PROPERTIES ARE ALSO KNOWN AS CITY OF EAST HARTFORD TAX LOTS 23, 23, 107, 113, 120 & 130 ON ASSESSORS MAP 45.
6. TOTAL AREA = 1,116,636.3 SQ.FT. OR 25.634 ACRES

   EXISTING LOTS
   - 938 SILVER LANE = 477,274.3 SQ.FT. OR 10.958 ACRES
   - 942 SILVER LANE = 13,591.4 SQ.FT. OR 0.312 ACRES
   - 944 SILVER LANE = 73,963.3 SQ.FT. OR 1.975 ACRES
   - 960 SILVER LANE = 238,870.6 SQ.FT. OR 5.482 ACRES
   - 285 FORBES STREET = 139,934.4 SQ.FT. OR 3.213 ACRES
   - 291 FORBES STREET = 174,324.5 SQ.FT. OR 4.001 ACRES

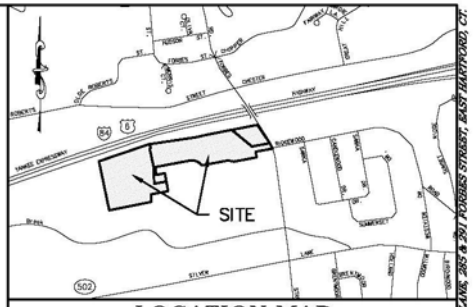
   CONSOLIDATED LOTS
   - PROPOSED LOT 1 = 62,611.8 SQ.FT. OR 1.899 ACRES
   - PROPOSED LOT 2 = 513,882.9 SQ.FT. OR 11.797 ACRES
   - PROPOSED LOT 3 = 520,144.7 SQ.FT. OR 11.940 ACRES
7. PROPERTIES LIE IN ZONING DISTRICT "B-6".
8. PROPERTIES DO NOT LIE WITHIN A FLOOD HAZARD ZONE AS DETERMINED BY FEMA.
9. PROPOSED LOT 1 SHALL HAVE THE RIGHT TO DRAIN STORMWATER DENTON SYSTEM OUTLET ONTO PROPOSED LOT 2.

MAP REFERENCES

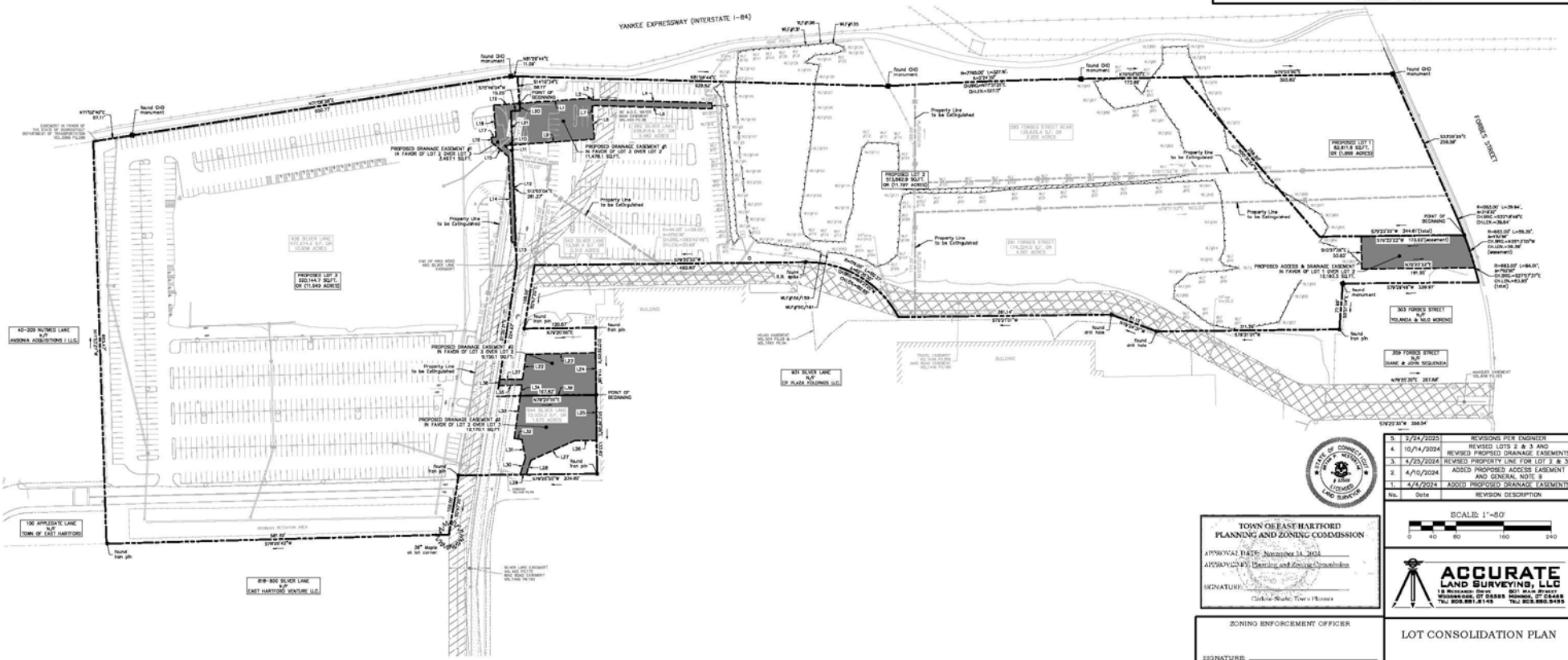
1. PLAN ENTITLED "PROPERTY SURVEY MAP PREPARED FOR THE TOWN OF EAST HARTFORD 938 SILVER LANE EAST HARTFORD, CONNECTICUT", SCALE 1"=80', DATED: 8/23/2016, LAST REVISED: 1/2/2019, BY CME ASSOCIATES, INC.

DEED REFERENCES

1. DEED VOLUME 482 PAGE 175, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
2. DEED VOLUME 483 PAGE 36, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
3. DEED VOLUME 486 PAGE 282, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
4. DEED VOLUME 504 PAGE 58, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
5. DEED VOLUME 649 PAGE 91, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
6. DEED VOLUME 646 PAGE 103, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
7. DEED VOLUME 1446 PAGE 205, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
8. DEED VOLUME 1446 PAGE 190, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
9. DEED VOLUME 1583 PAGE 34, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
10. DEED VOLUME 3390 PAGE 295, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.
11. DEED VOLUME 4116 PAGE 3, ON FILE IN THE CITY OF EAST HARTFORD CLERK'S OFFICE.



LOCATION MAP
SCALE: 1"=800'



No.	Date	REVISION DESCRIPTION
5.	7/24/2025	REVISIONS PER ENGINEER
4.	10/14/2024	REVISED LOTS 2 & 3 AND REVISED PROPSED DRAINAGE EASEMENTS
3.	4/25/2024	REVISED PROPERTY LINE FOR LOT 2 & 3
2.	4/10/2024	ADDED PROPOSED ACCESS EASEMENT AND GENERAL NOTE 9
1.	4/4/2024	ADDED PROPOSED DRAINAGE EASEMENTS

SCALE: 1"=80'
0 40 80 160 240

LEGEND

CHD Conn. Hwy. Dept. Monument	Gas gate valve	Evergreen Tree
Monument	Water gate valve	Deciduous Tree
Iron Pin to be Set	Water meter	Swamp or Wetlands
Conc. Monument to be Set	Hydrant	Tree Line
Iron Pipe	Water main (existing)	Watercourse
Iron Pin	Water service lateral	Existing Contours
Drill Hole	Gas Main (existing)	Reinforced Concrete Pipe
Pile of Stones	Sanitary Sewer Main (existing)	Corrugated Metal Pipe
Light Post	Electrical Line (existing)	Perkolation Test Location
Found	Sanitary Manhole	Deep Test Pit Location
N/F or Formerly	Drain Manhole	Stone Retaining Wall
Property Line	Chain Link or Split Rail Fence	Retaining Wall
Property Line (adjoining)	Metal/Wire Fence	Stone Wall
Building Setback Line	Wooden or Vinyl Fence	Wetland Limit
Easement Line	Utility Pole	Wetland Flag Number
Edge of water	Invert Elevation of Pipe	Wetland Setback
FEMA Flood Zone	Existing Catch Basin/Pipe	Benchmark
Base Flood Elevation	Building (existing)	Well (Existing)
x 200.0 Existing Spot Elevation		Fence Post

SITE STATISTICS
PROPOSED LOT 1

ZONING DISTRICT "B-6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.459 ACRES (20,000 S.F.)	1.886 ACRES (82,611.8 S.F.)
MIN. LOT FRONTAGE	75'	<75'
MIN. LOT WIDTH	100'	<100'
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	60'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 20,652.9 S.F.	7% = 6,808.8 S.F.
MAX. IMPERVIOUS COVERAGE	75% = 61,958.8 S.F.	

SITE STATISTICS
PROPOSED LOT 2

ZONING DISTRICT "B-6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.458 ACRES (20,000 S.F.)	11.797 ACRES (513,882.9 S.F.)
MIN. LOT FRONTAGE	75'	<75'
MIN. LOT WIDTH	100'	<100'
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	60'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 128,470.7 S.F.	VACANT LOT
MAX. IMPERVIOUS COVERAGE	75% = 385,412.1 S.F.	

SITE STATISTICS
PROPOSED LOT 3

ZONING DISTRICT "B-6"	REQUIRED	PROVIDED
BULK STATISTICS		
MIN. LOT AREA	0.458 ACRES (20,000 S.F.)	11.940 ACRES (520,144.7 S.F.)
MIN. LOT FRONTAGE	75'	<75'
MIN. LOT WIDTH	100'	<100'
MIN. BUILDING SETBACK (FRONT)	40'	VACANT LOT
MIN. BUILDING SETBACK (SIDE)	25'	VACANT LOT
MIN. BUILDING SETBACK (REAR)	30'	VACANT LOT
MAX. HEIGHT	60'	VACANT LOT
MAX. BUILDING COVERAGE	25% = 130,036.1 S.F.	
MAX. IMPERVIOUS COVERAGE	75% = 390,108.5 S.F.	

PRELIMINARY
NOT FOR CONSTRUCTION

TOWN OF EAST HARTFORD
PLANNING AND ZONING COMMISSION
APPROVAL DATE: November 14, 2024
APPROVED BY: Planning and Zoning Commission
SIGNATURE: _____
Clarke Nealy, Town Planner

ZONING ENFORCEMENT OFFICER
SIGNATURE: _____
DATE: _____

SANITARIAN
SIGNATURE: _____
DATE: _____

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ACCURATE LAND SURVEYING, LLC
15 RESEARCH DRIVE
WINDSOR LOCKS, CT 06096
TEL: 203.661.8145
901 MAIN STREET
MONROE, CT 06468
TEL: 203.880.9495

LOT CONSOLIDATION PLAN

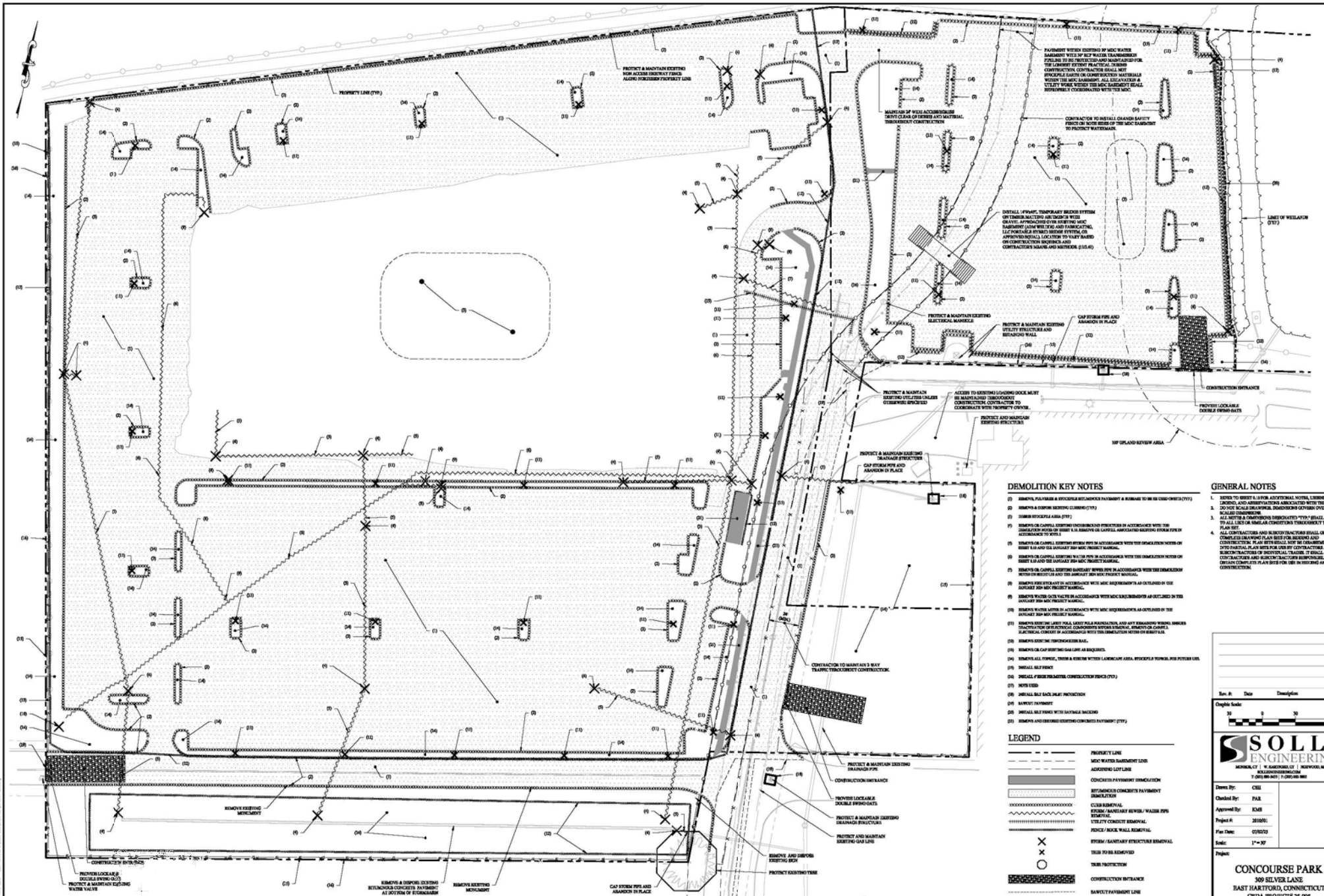
OF

936, 942, 944 & 960 SILVER LANE AND 285 & 291 FORBES STREET EAST HARTFORD, CONNECTICUT

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

BRYAN P. NESTERIAK, PE, LS 23006

Date	1/19/2024
Scale	1"=80'
Job No.	1155
Drawing No.	1 of 1



DEMOLITION KEY NOTES

(1) REMOVE, POLYSHRED & STOCKPILE BITUMINOUS PAVEMENT & SUBBASE TO BE RE-USED ONSITE (TYP.)
(2) REMOVE & DISPOSE EXISTING CURBING (TYP.)
(3) REMOVE STOCKPILE AREA (TYP.)
(4) REMOVE OR CAP/FILL EXISTING UNDERGROUND STRUCTURE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET S.10. REMOVE OR CAP/FILL ASSOCIATED EXISTING STORM PIPE IN ACCORDANCE TO WITH 3
(5) REMOVE OR CAP/FILL EXISTING STORM PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET S.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.
(6) REMOVE OR CAP/FILL EXISTING WATER PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET S.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.
(7) REMOVE OR CAP/FILL EXISTING SANITARY SEWER PIPE IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET S.10 AND THE JANUARY 2024 MDC PROJECT MANUAL.
(8) REMOVE FIRE HYDRANT IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.
(9) REMOVE WATER GATE VALVE IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.
(10) REMOVE WATER METER IN ACCORDANCE WITH MDC REQUIREMENTS AS OUTLINED IN THE JANUARY 2024 MDC PROJECT MANUAL.
(11) REMOVE EXISTING LIGHT POLE, LIGHT POLE FOUNDATION, AND ANY REMAINING WIRING. ENSURE DEACTIVATION OF ELECTRICAL COMPONENTS BEFORE REMOVAL. REMOVE OR CAP/FILL ELECTRICAL CONDUIT IN ACCORDANCE WITH THE DEMOLITION NOTES ON SHEET S.10.
(12) REMOVE EXISTING TOP/UNDERSIDE RAIL.
(13) REMOVE OR CAP EXISTING GAS LINE AS REQUIRED.
(14) REMOVE ALL TOPSOIL, TREES & SHRUBS WITHIN LANDSCAPE AREA. STOCKPILE TOPSOIL FOR FUTURE USE.
(15) INSTALL SILT FENCE
(16) INSTALL 4' HIGH PERIMETER CONSTRUCTION FENCE (TYP.)
(17) NOT USED
(18) INSTALL SILT SACK INLET PROTECTION
(19) SAWCUT PAVEMENT
(20) INSTALL SILT FENCE WITH HAYBALE BACKING
(21) REMOVE AND DISPOSE EXISTING CONCRETE PAVEMENT (TYP.)

LEGEND

- PROPERTY LINE
- MDC WATER EASEMENT LINE
- ADJOINING LOT LINE
- CONCRETE PAVEMENT DEMOLITION
- BITUMINOUS CONCRETE PAVEMENT DEMOLITION
- CURB REMOVAL
- STORM / SANITARY SEWER / WATER PIPE REMOVAL
- UTILITY CONDUIT REMOVAL
- FENCE / ROCK WALL REMOVAL
- STORM / SANITARY STRUCTURE REMOVAL
- TREE TO BE REMOVED
- TREE PROTECTION
- CONSTRUCTION ENTRANCE
- SAWCUT PAVEMENT LINE
- SILT FENCE PROTECTION
- CONSTRUCTION FENCE
- ORANGE SAFETY FENCE
- MATERIAL STOCKPILE AREA
- SILT SACK INLET PROTECTION (110.41)

GENERAL NOTES

1. REFER TO SHEET G.10 FOR ADDITIONAL NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTORS AND SUBCONTRACTORS RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

Rev. #	Date	Description

Graphic Scale: 30 0 30 60

SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
ROLLINSFORD, NH
T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: **OVERALL DEMOLITION PLAN**

Sheet #: **2.00**

PRELIMINARY
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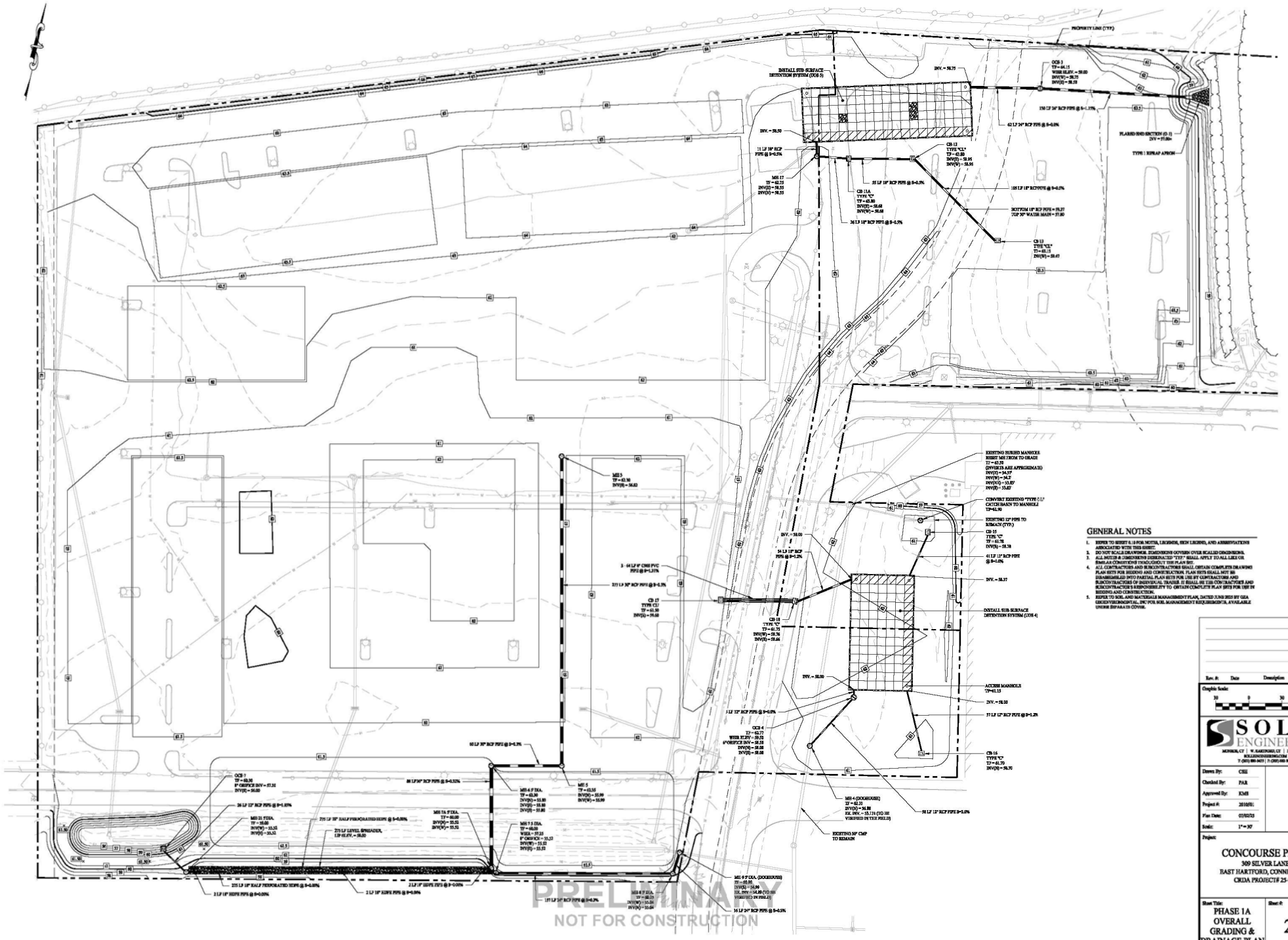

GENERAL NOTES

1. REFER TO SHEET G.1.0 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
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5. REFER TO SOIL AND MATERIALS MANAGEMENT PLAN, DATED JUNE 2025 BY GZA GEOENVIRONMENTAL, INC FOR SOIL MANAGEMENT REQUIREMENTS, AVAILABLE UNDER SEPARATE COVER.

PRELIMINARY
NOT FOR CONSTRUCTION

Rev. #	Date	Description

Graphic Scale: 30 0 30 60

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MANCHESTER, CT | WAREHAM, ME | NORWOOD, MA
SOLLIENGINEERING.COM
T: (860) 880-8455 | T: (207) 602-3002

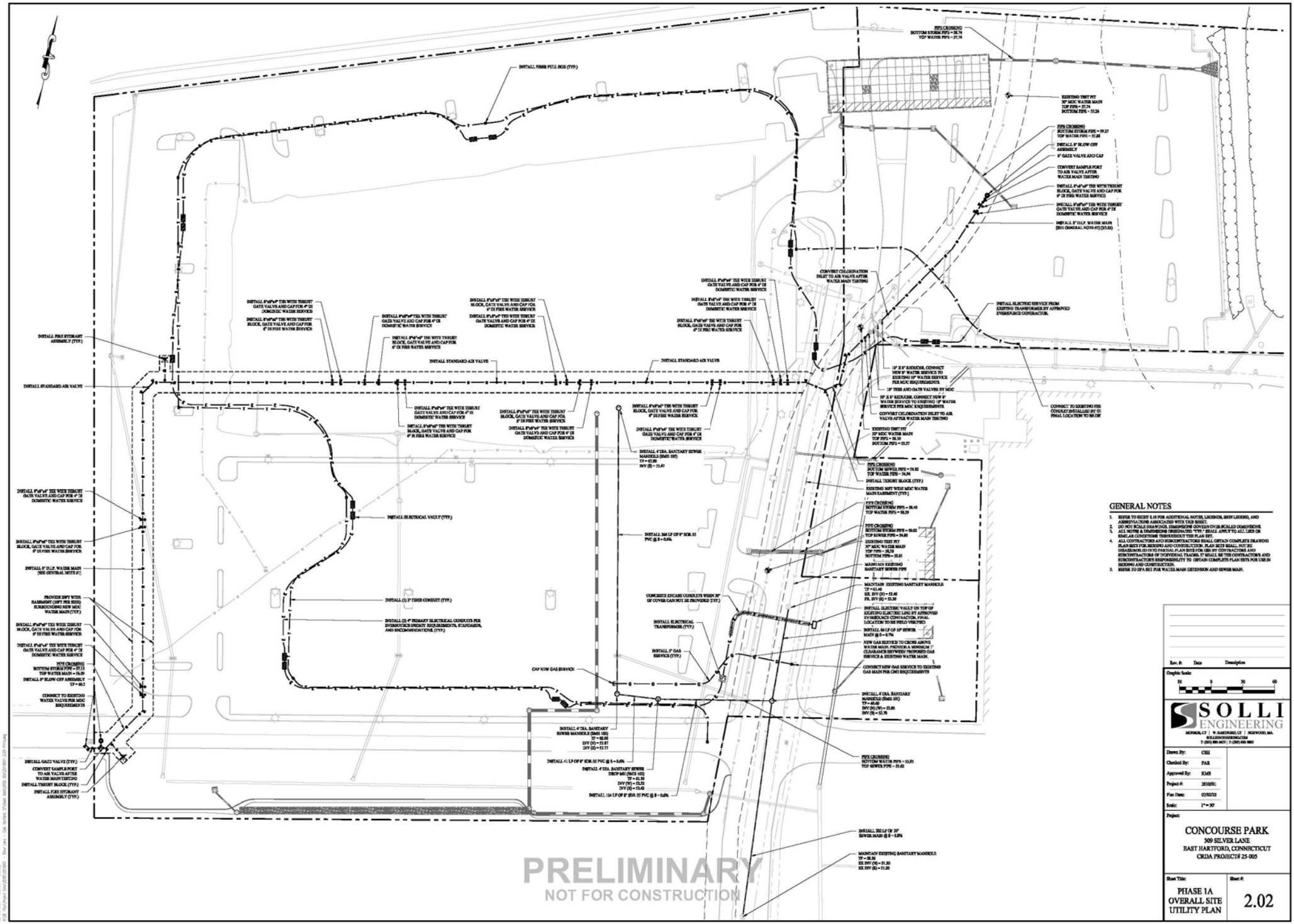
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2510501
Plot Date:	03/02/26
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:
PHASE 1A OVERALL GRADING & DRAINAGE PLAN

Sheet #:
2.01



GENERAL NOTES

1. REFER TO SHEET G.10 FOR ADDITIONAL NOTES, LEGENDS, SHOW LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWING. DIMENSIONS GIVEN OVER SCALED DIMENSIONS.
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5. REFER TO DPA SET FOR WATER MAIN EXTENSION AND SEWER MAIN.

PRELIMINARY
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Rev. #:	Date	Description

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MEMBER, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 30'

Project:

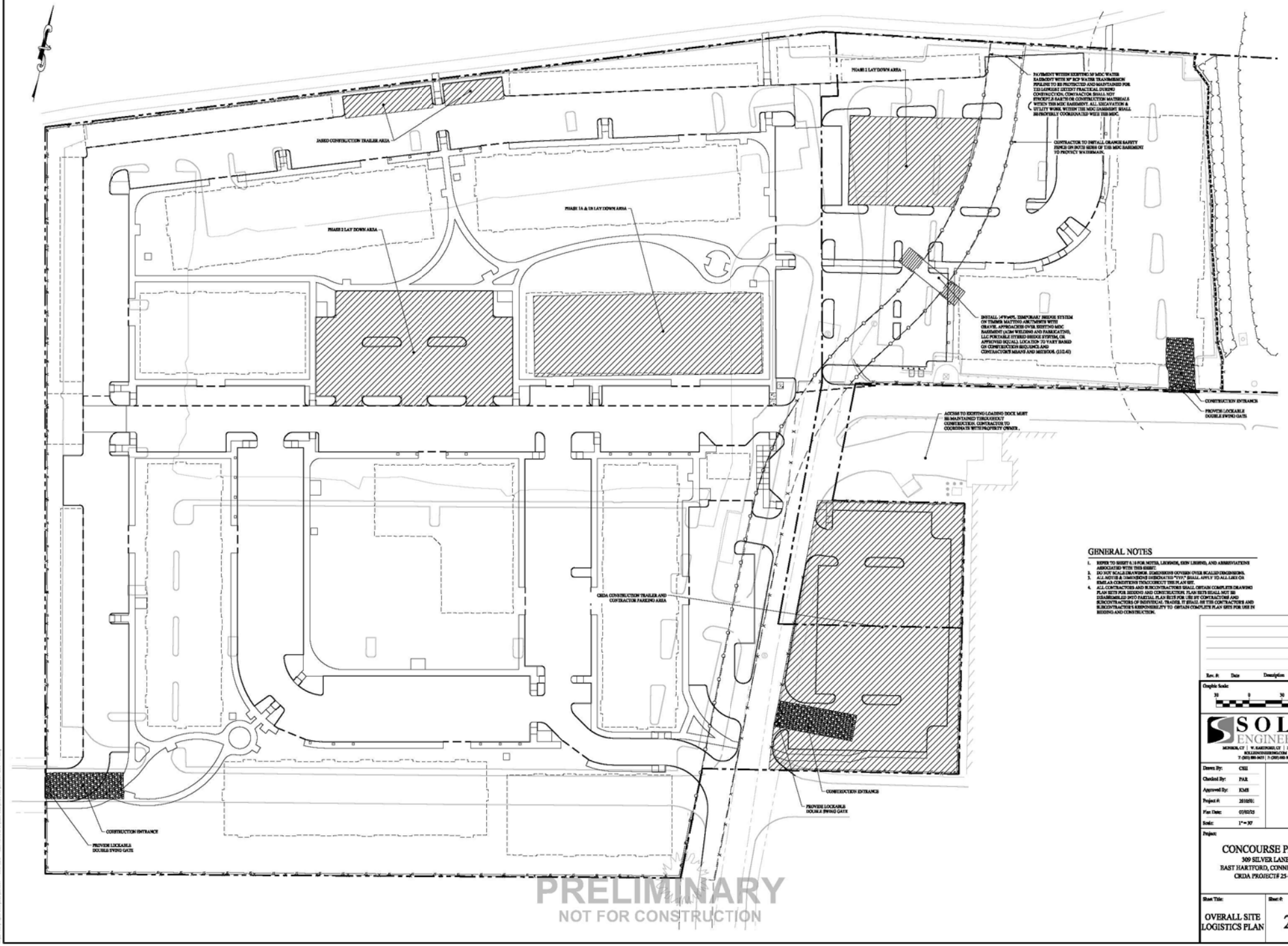
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:

PHASE 1A OVERALL SITE UTILITY PLAN

Sheet #:

2.02



GENERAL NOTES

1. REFER TO SHEET 0.14 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
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Rev. #:	Date	Description

Graphic Scale:
30 0 30 60

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-3455 | F: (203) 880-3665

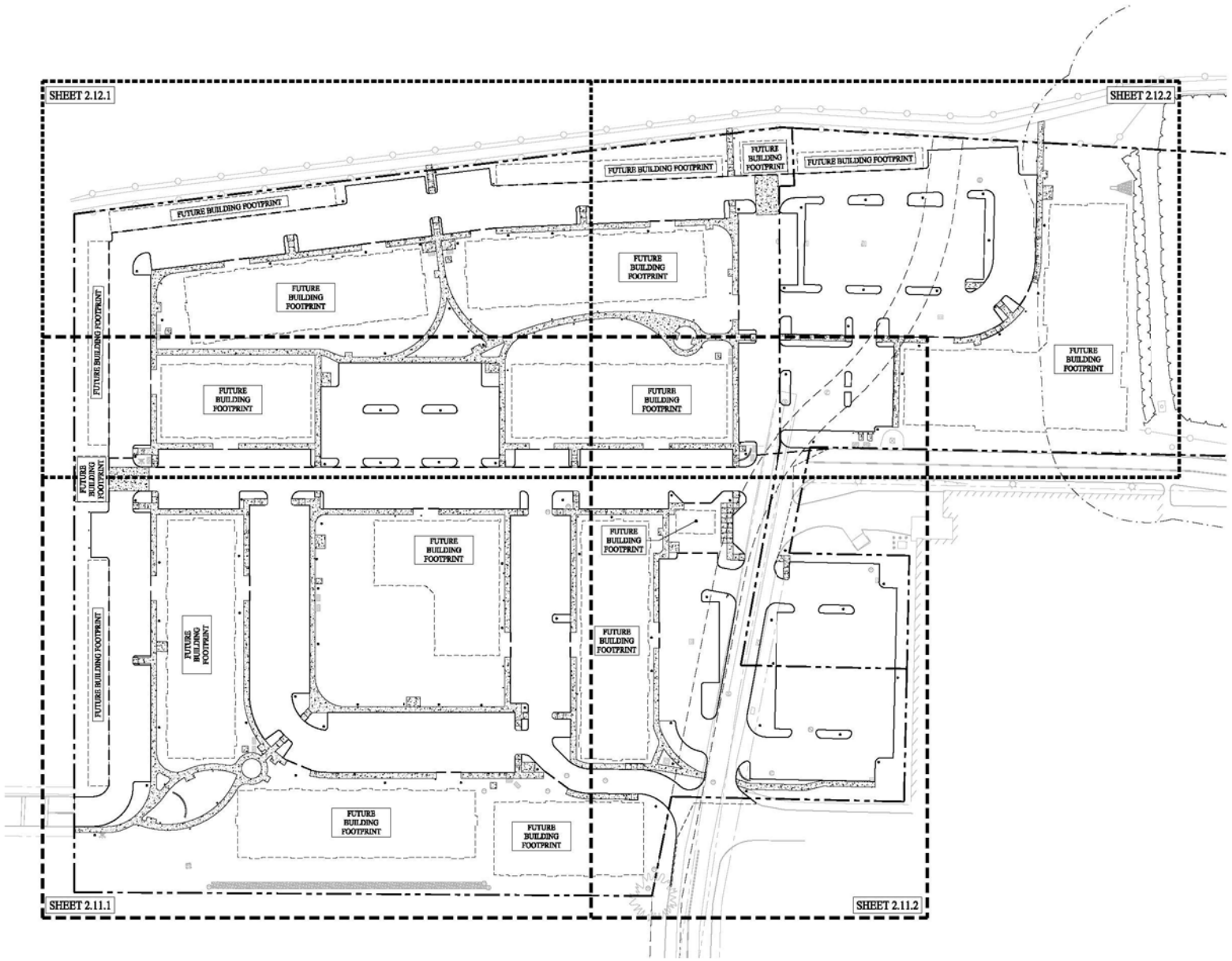
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 30'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
OVERALL SITE LOGISTICS PLAN	2.03

PRELIMINARY
NOT FOR CONSTRUCTION



GENERAL NOTES

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Rev. #:	Date	Description

Graphic Scale: 40 0 40 80

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/23
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL SITE PLAN

Sheet #: 2.10

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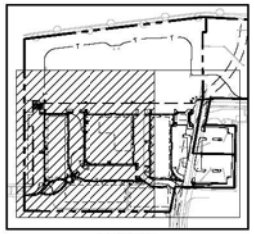

KEY MAP

SCALE: 1" = 200'

GENERAL NOTES

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CONSTRUCTION KEY NOTES

(1) INSTALL 6" CONCRETE CURB
(2) INSTALL BITUMINOUS CONCRETE CURB
(3) START OF 6" INTEGRAL CONCRETE CURB
(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB. MATCH LINE & GRADE
(6) INSTALL STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) INSTALL 4' HIGH, CONCRETE BOLLARD
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
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(11) ADA RAMP TYPE 9
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(13) ADA RAMP TYPE 15
(14) ADA RAMP TYPE 16
(15) PRE CAST CONCRETE PAD - THREE PHASE TRANSFORMER
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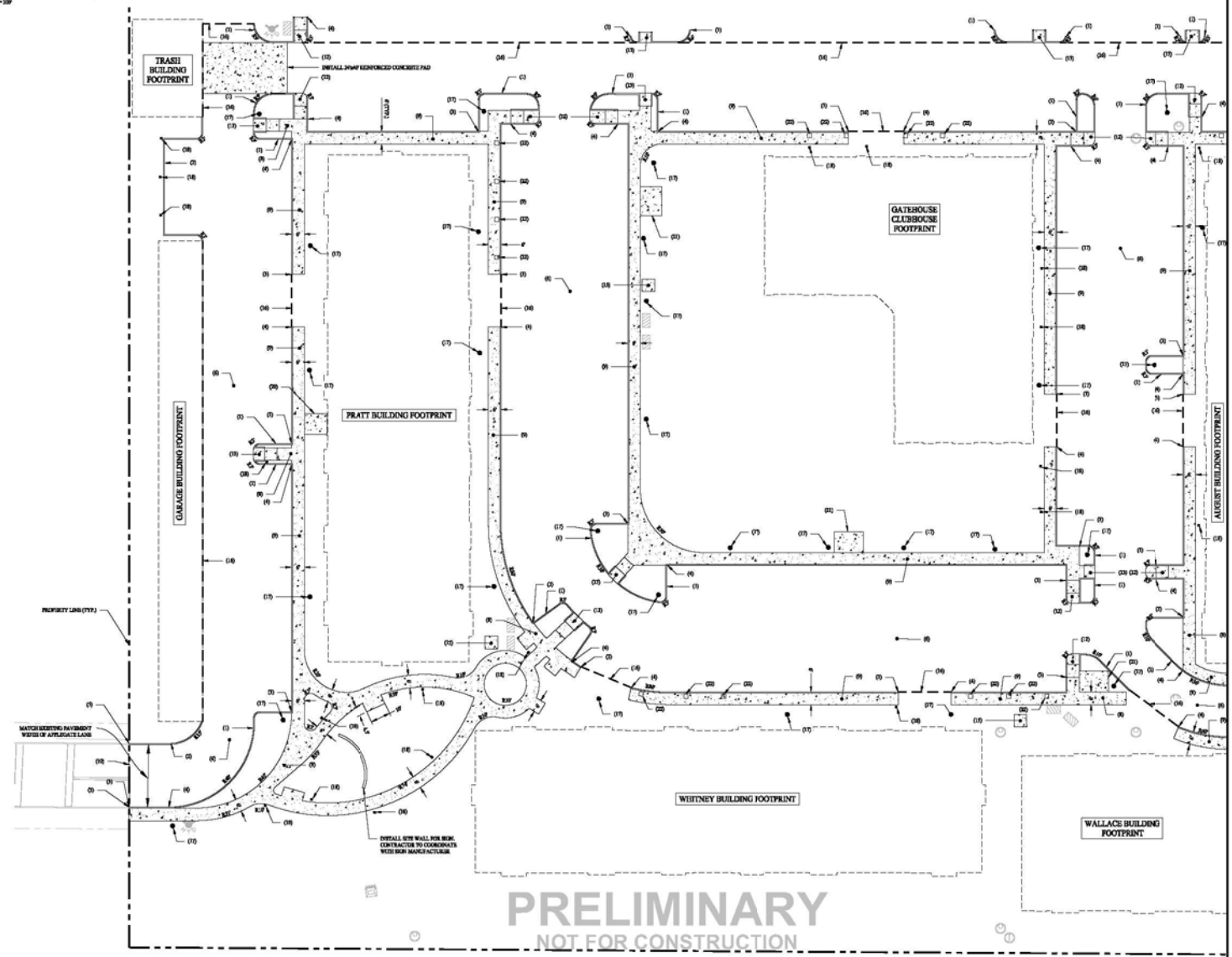
(17) 3" DIAMETER CONCRETE LIGHT POLE BASE
(18) 7'6" CONCRETE BOLLARD LIGHT BASE
(19) 4' WIDE CHAIN LINK GATE
(20) INSTALL MEDIUM BIKE RACK CONCRETE PAD
(21) INSTALL LONG BIKE RACK CONCRETE PAD
(22) INSTALL EV CHARGING STATION BASE



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Rev. #	Date	Description

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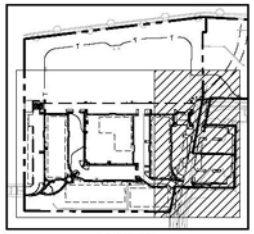
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE PLAN

Sheet #: 2.11.1



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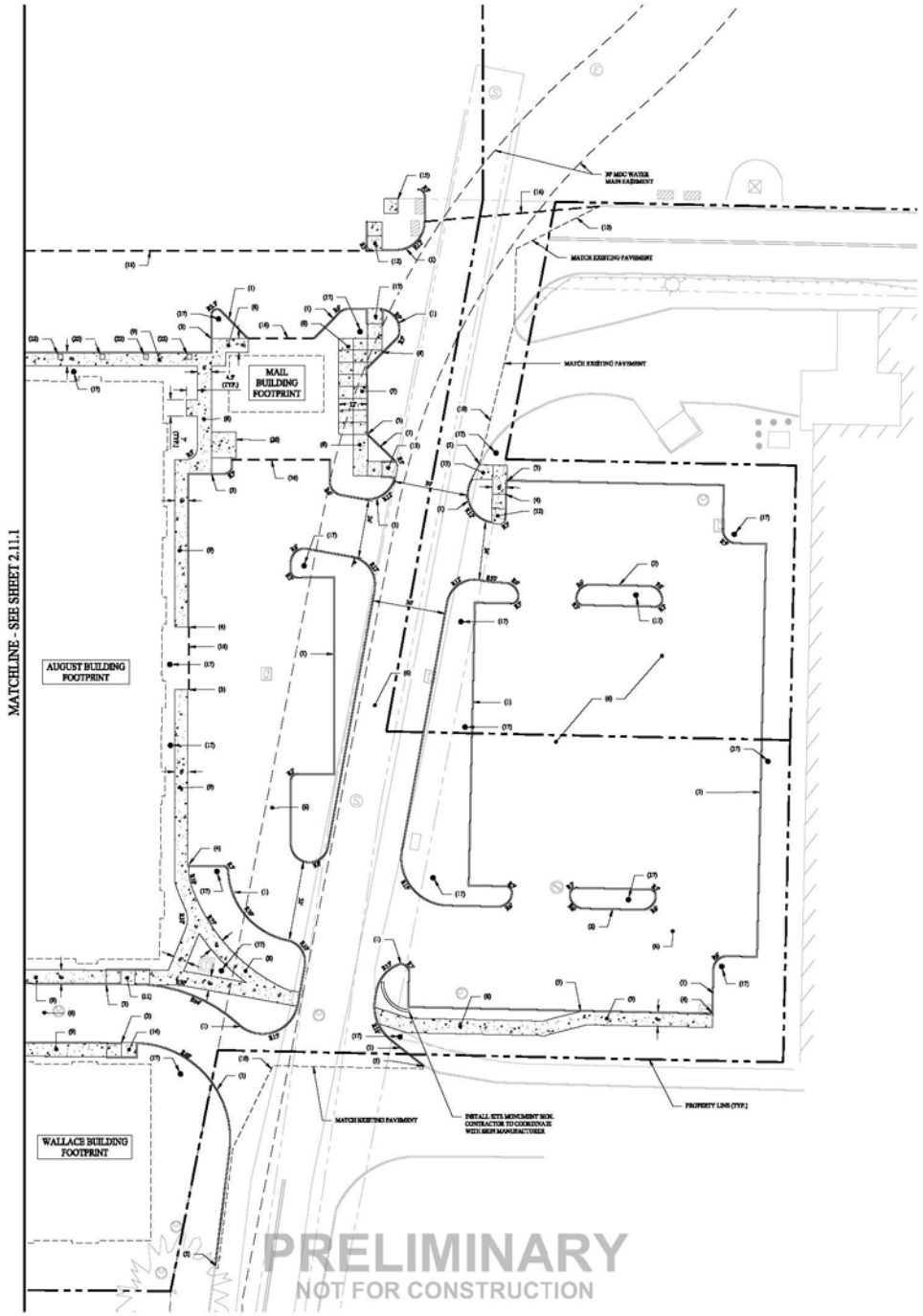

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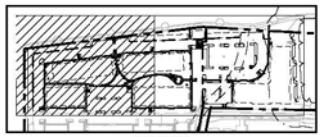
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE PLAN

Sheet #: 2.11.2



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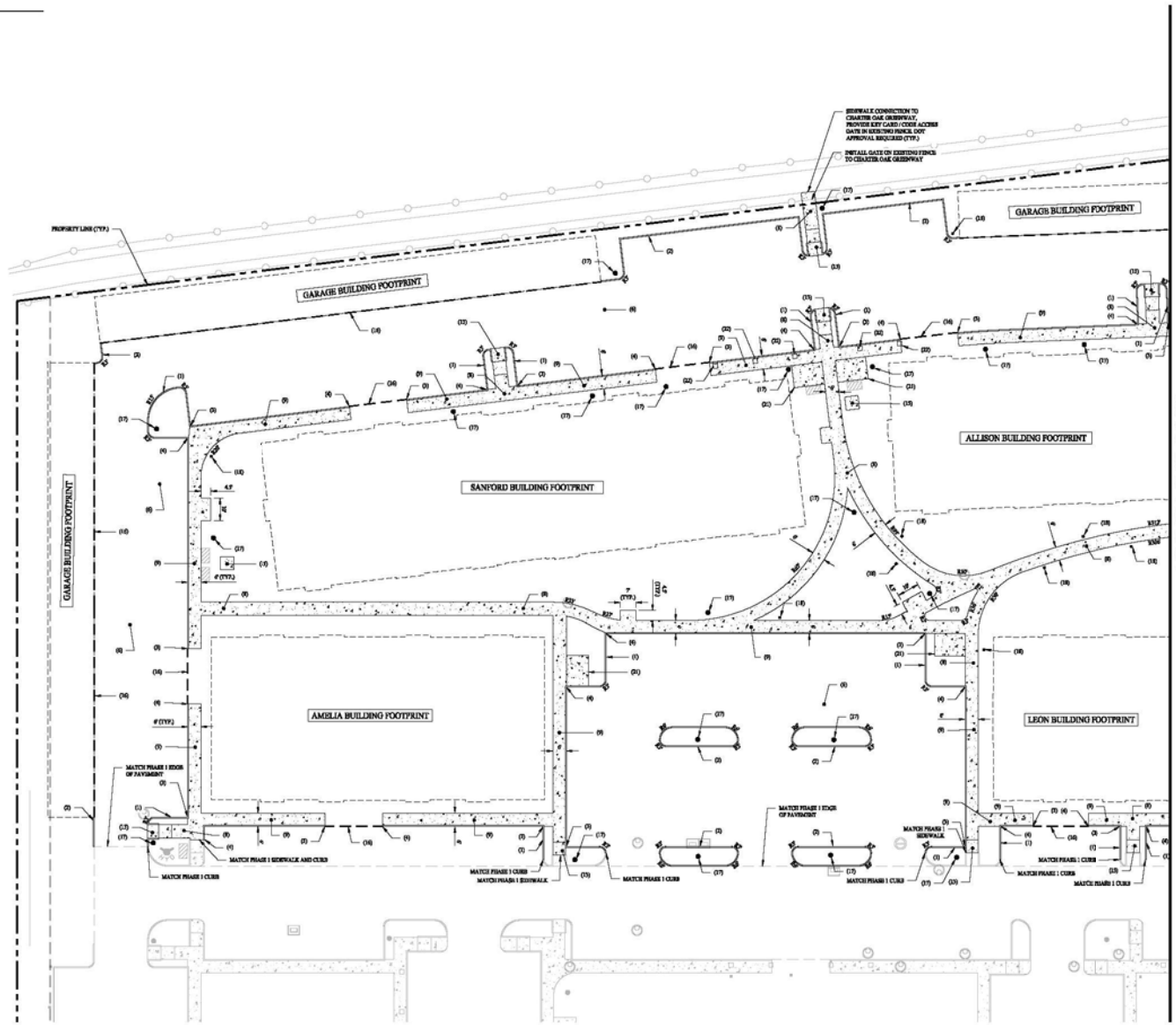

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Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE PLAN

Sheet #: 2.12.1



KEY MAP
SCALE: 1" = 200'

GENERAL NOTES

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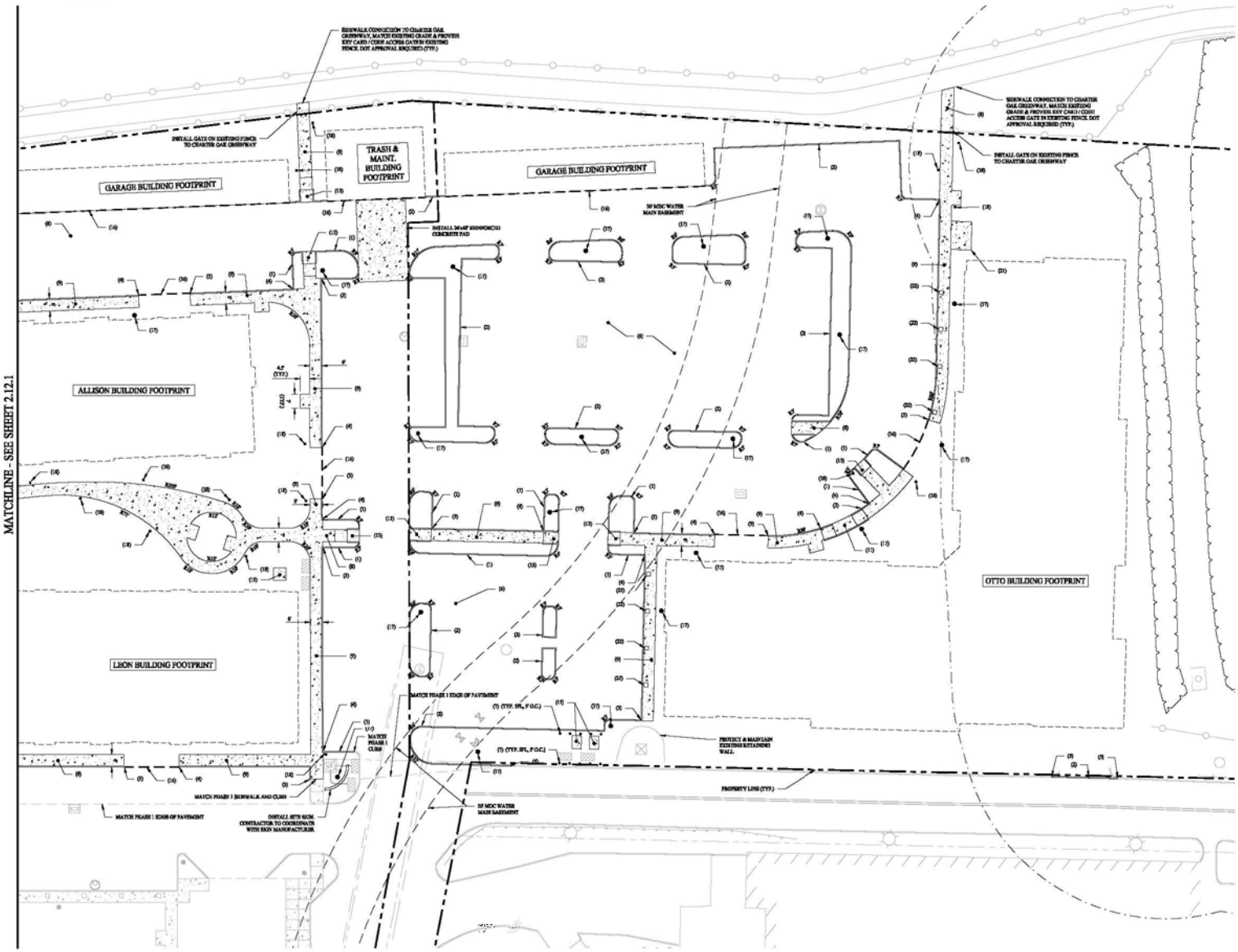

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(18) 1'x1' CONCRETE BOLLARD LIGHT BASE
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(21) INSTALL LONG BIKE RACK CONCRETE PAD
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Rev. #:	Date	Description

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Project #:	2010501
Plan Date:	03/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE PLAN

Sheet #: 2.12.2

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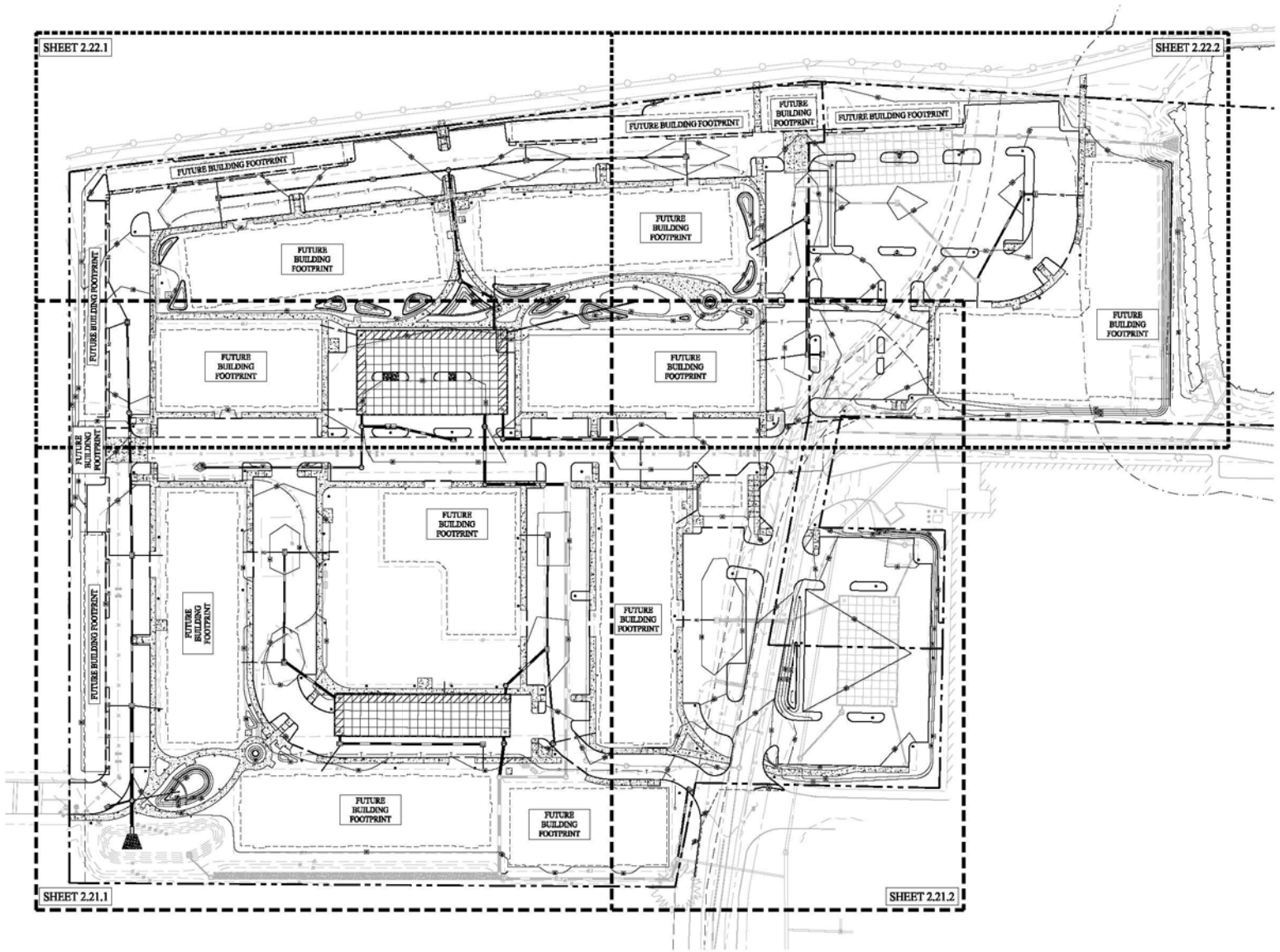

PRELIMINARY
NOT FOR CONSTRUCTION

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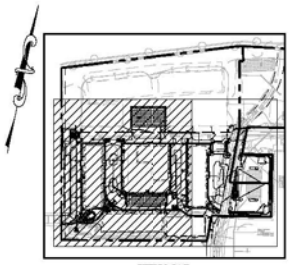
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/23
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OVERALL GRADING & DRAINAGE PLAN

Sheet #: 2.20



KEY MAP
SCALE: 1" = 200'

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TRASH BUILDING FOOTPRINT

GARAGE BUILDING FOOTPRINT

PRATT BUILDING FOOTPRINT

GATEHOUSE CLUBHOUSE FOOTPRINT

AUGUST BUILDING FOOTPRINT

WHITNEY BUILDING FOOTPRINT

WALLACE BUILDING FOOTPRINT

MATCHLINE - SEE SHEET 2.21.2

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Rev. #:	Date	Description

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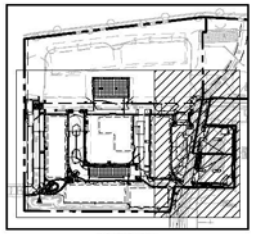
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B GRADING & DRAINAGE PLAN

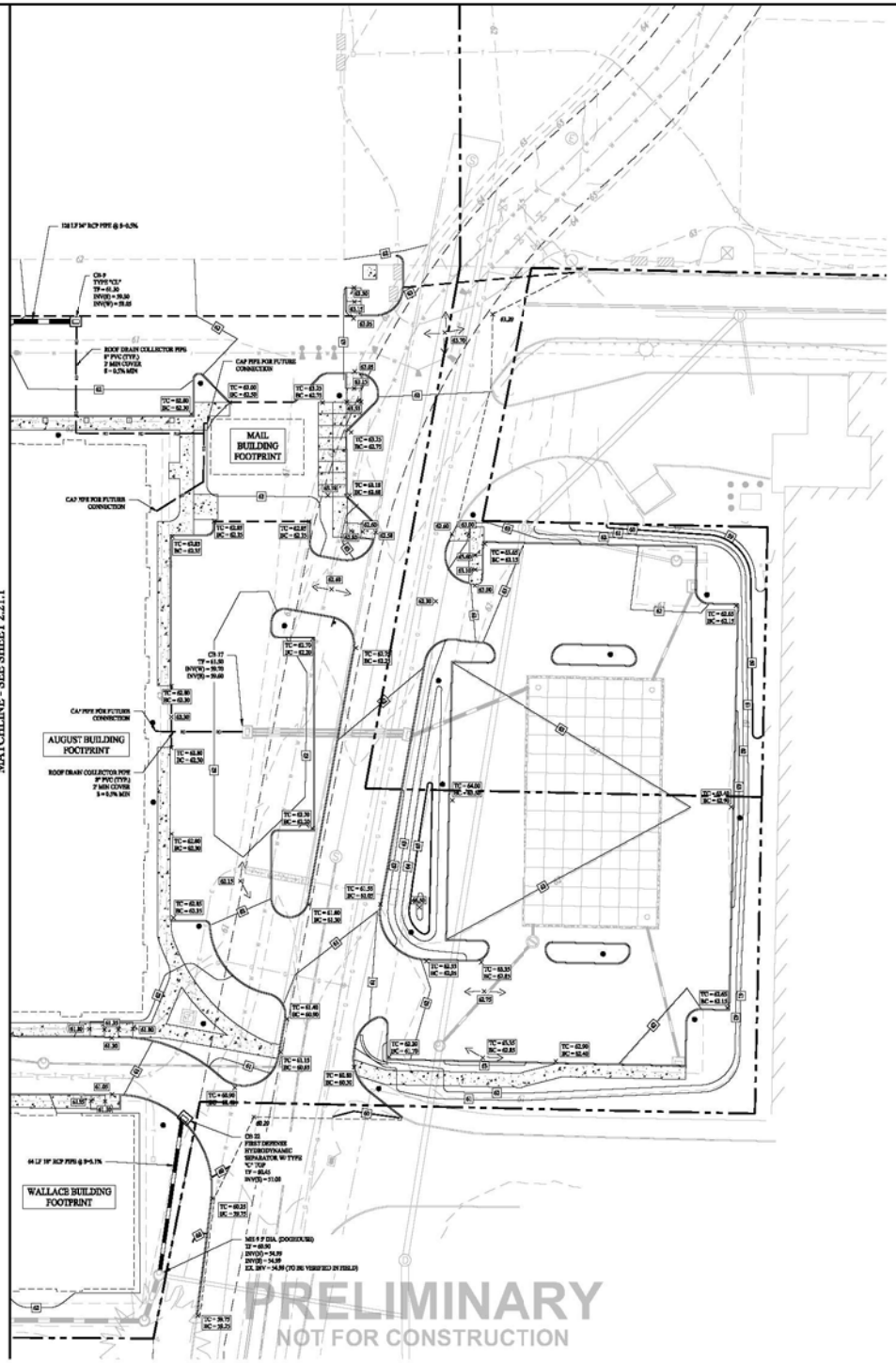
Sheet #: 2.21.1



KEY MAP

SCALE: 1" = 200'

MATCHLINE - SEE SHEET 2.21.1



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Drawn By:	CSH
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Project #:	2010501
Plot Date:	07/02/25
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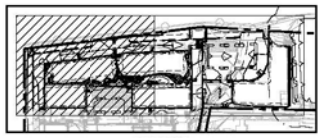
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: **PHASE 1B GRADING & DRAINAGE PLAN**

Sheet #: **2.21.2**



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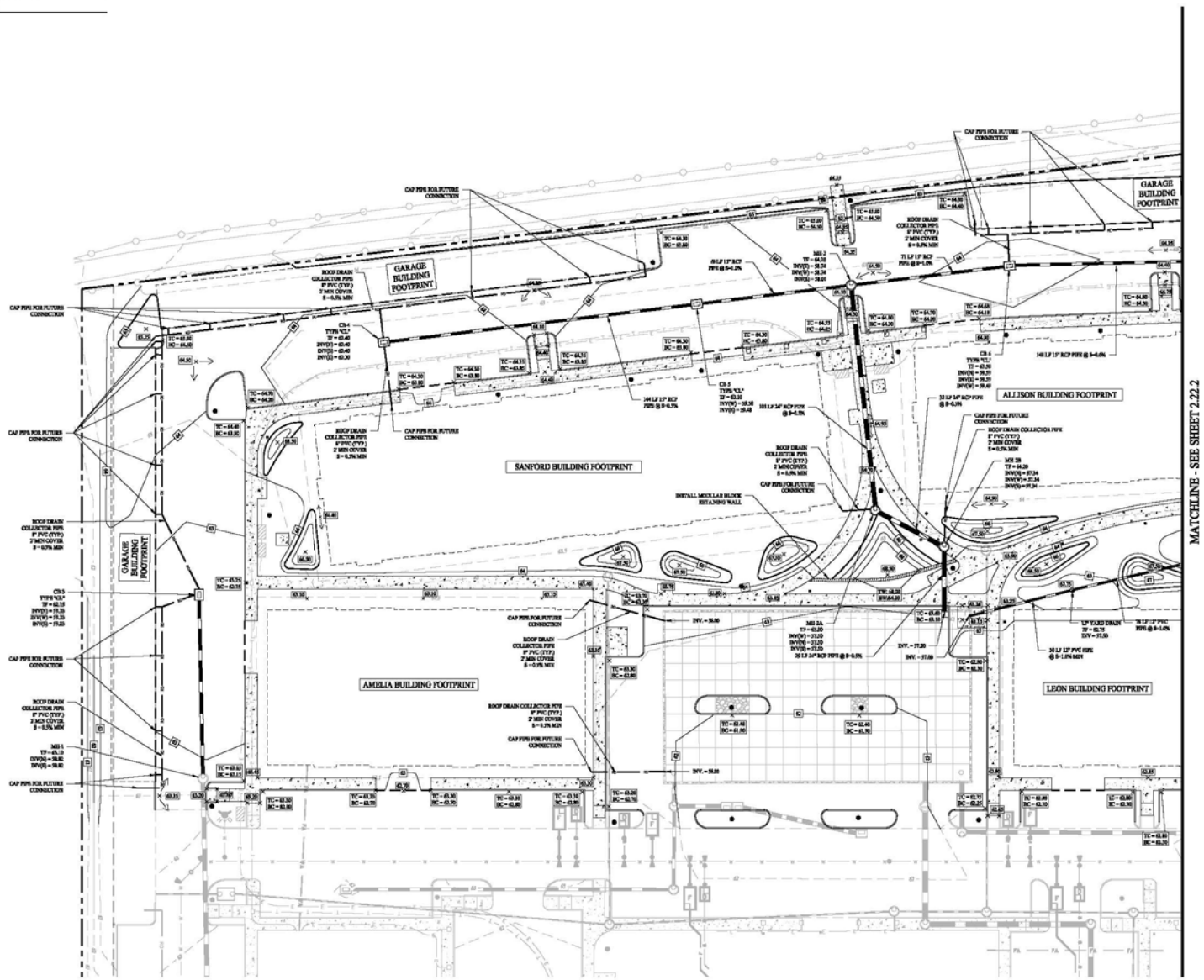

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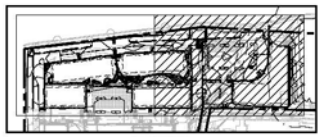
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 GRADING & DRAINAGE PLAN

Sheet #: 2.22.1



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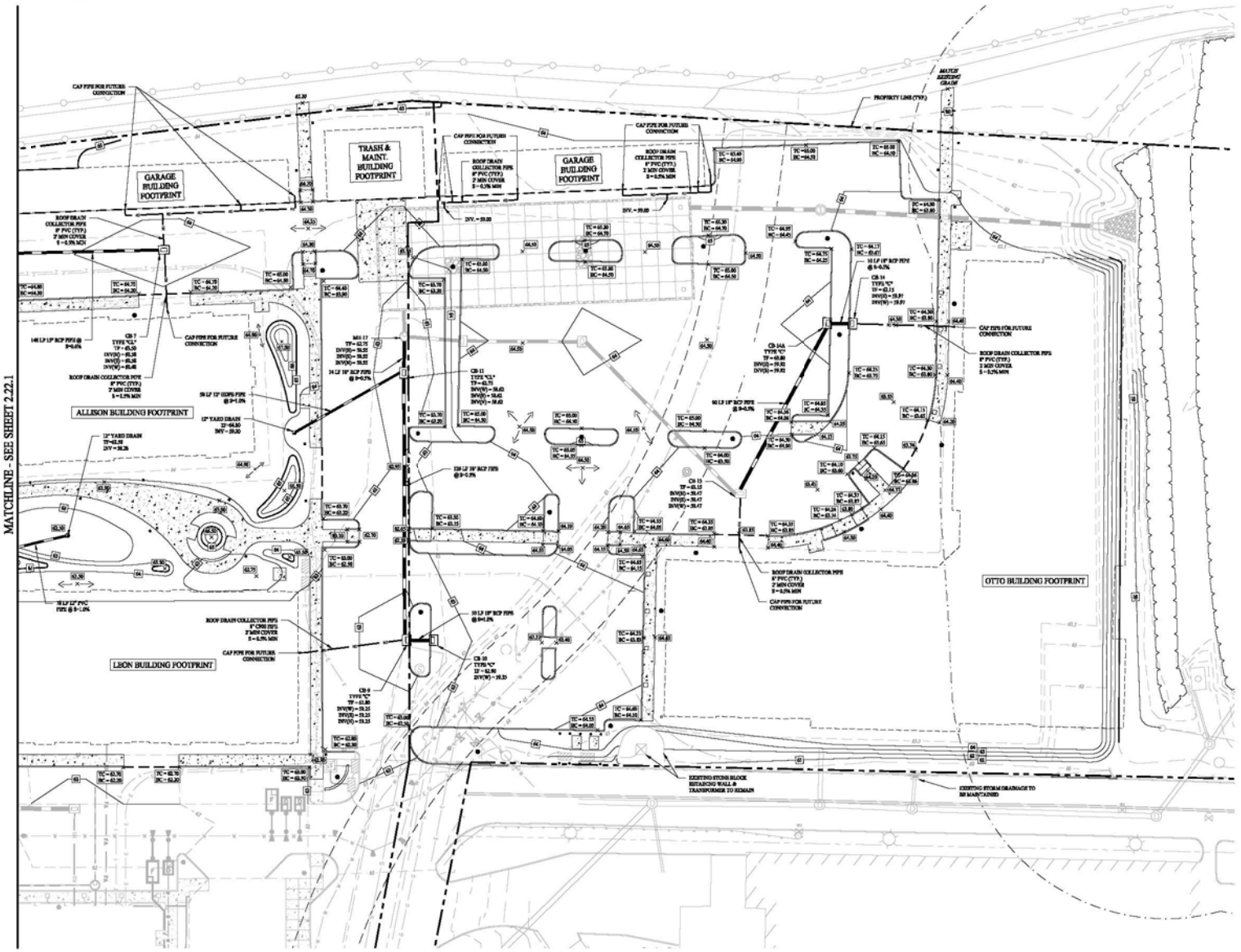

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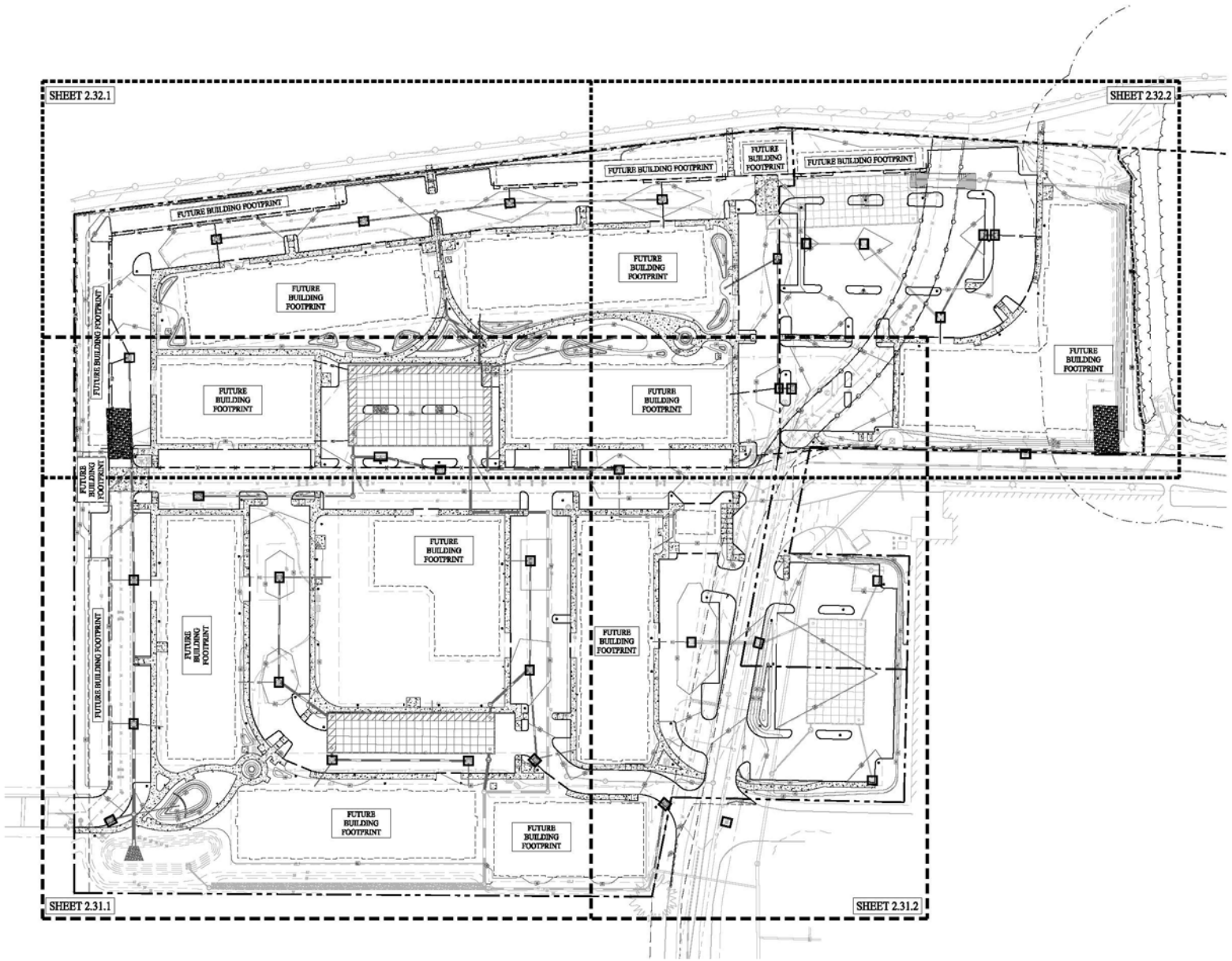
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 GRADING & DRAINAGE PLAN

Sheet #: 2.22.2

GENERAL NOTES

1. REFER TO SHEET G.10 FOR ADDITIONAL NOTES, LEGENDS, SIGN LEGEND AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTORS AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.



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Rev. #	Date	Description

Graphic Scale: 40 0 40 80

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T: (203) 880-8455 | T: (203) 880-8882

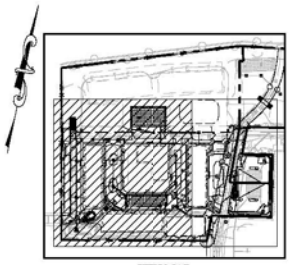
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

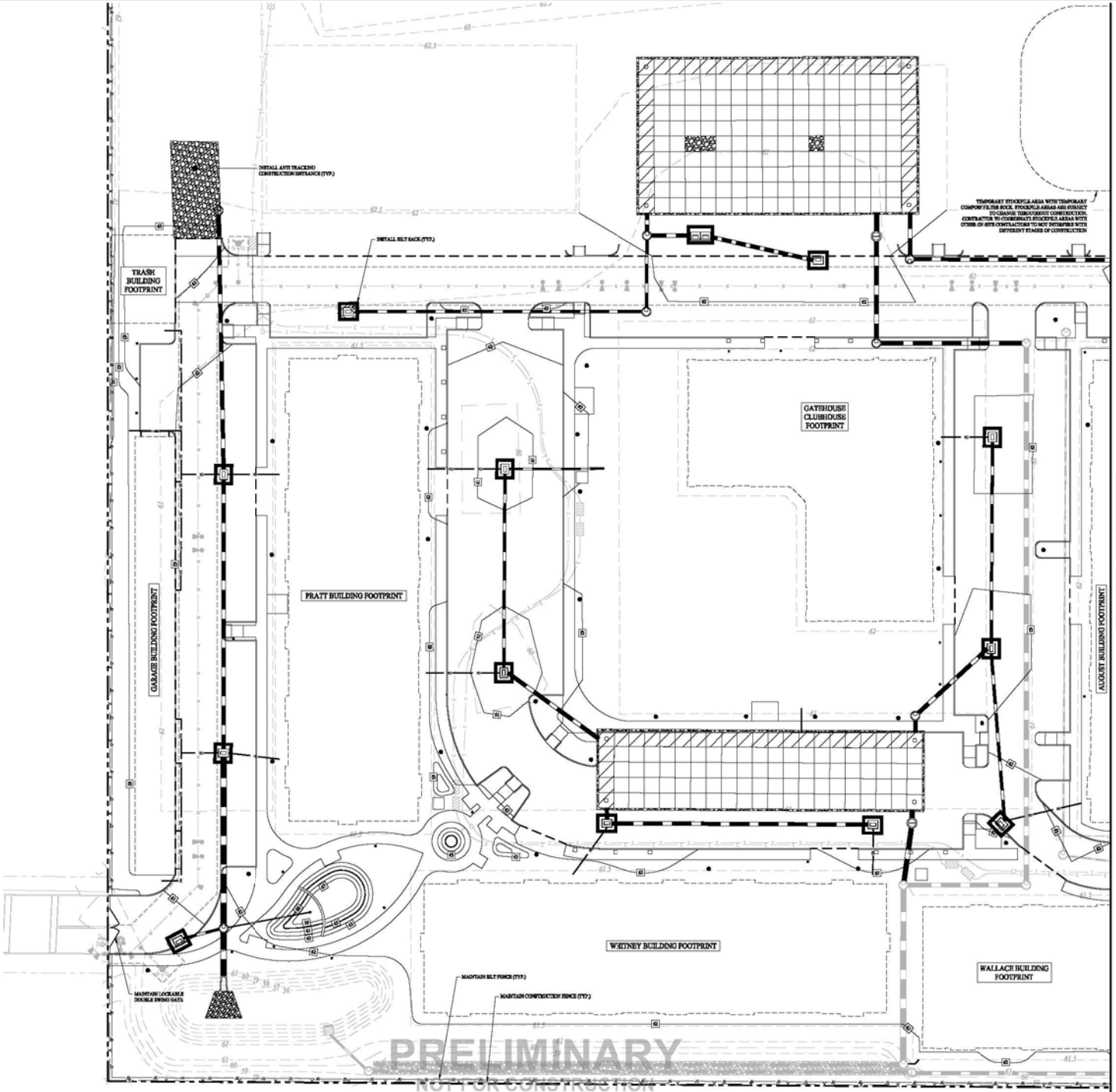
Sheet Title: OVERALL EROSION AND SEDIMENTATION CONTROL PLAN

Sheet #: 2.30



KEY MAP

SCALE: 1" = 200'



MATCHLINE - SEE SHEET 2.31.2

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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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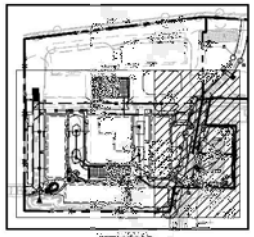
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/25
Scale:	1" = 20'

Project:

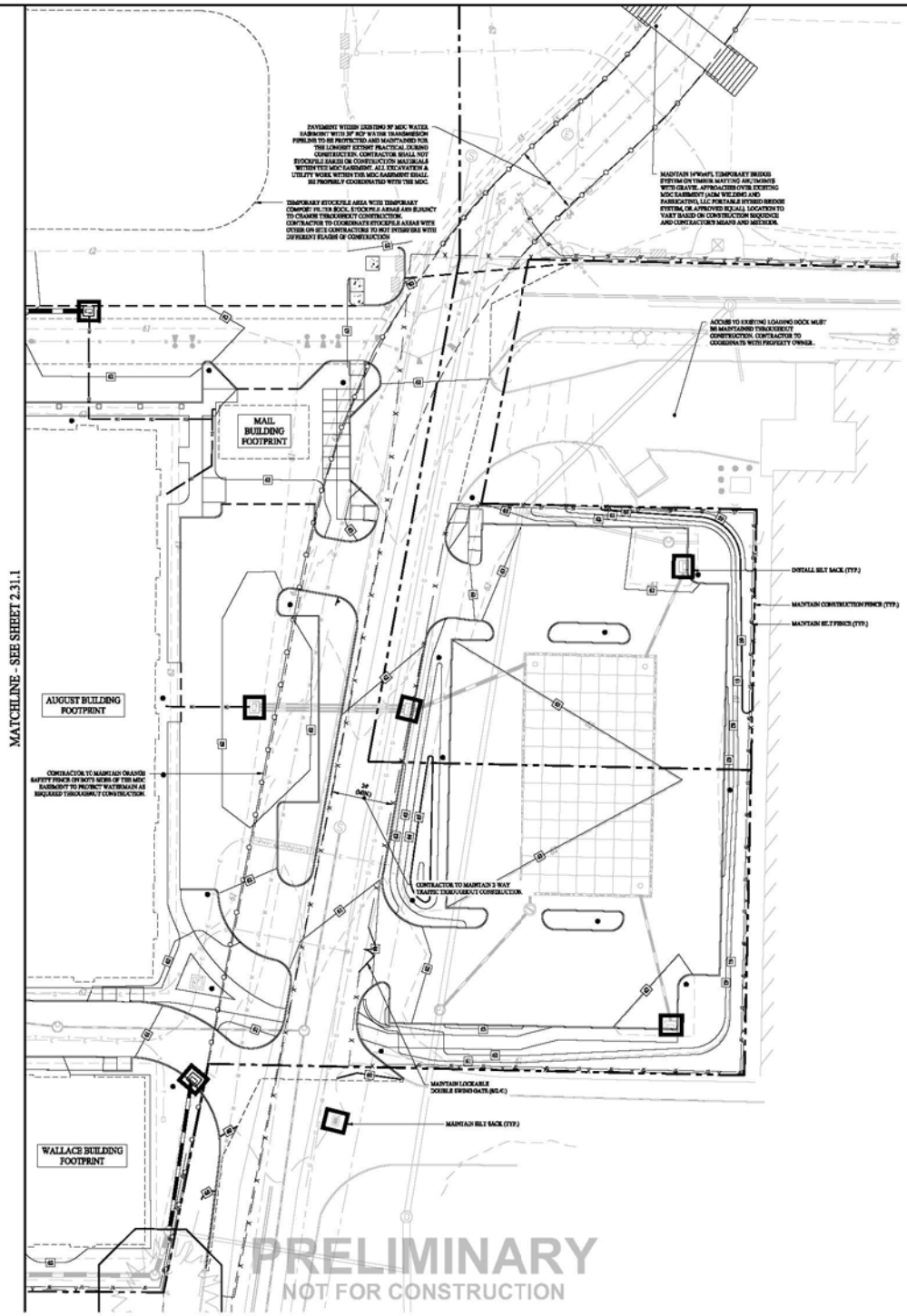
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B EROSION AND SEDIMENTATION PLAN

Sheet #: 2.31.1



KEY MAP



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Graphic Scale: 20 0 20 40

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SOLLIENGINEERING.COM
T: (203) 880-3455 | F: (203) 880-3865

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Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
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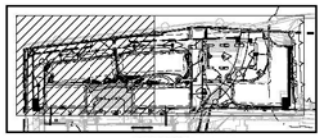
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B EROSION AND SEDIMENTATION PLAN

Sheet #: 2.31.2



KEY MAP
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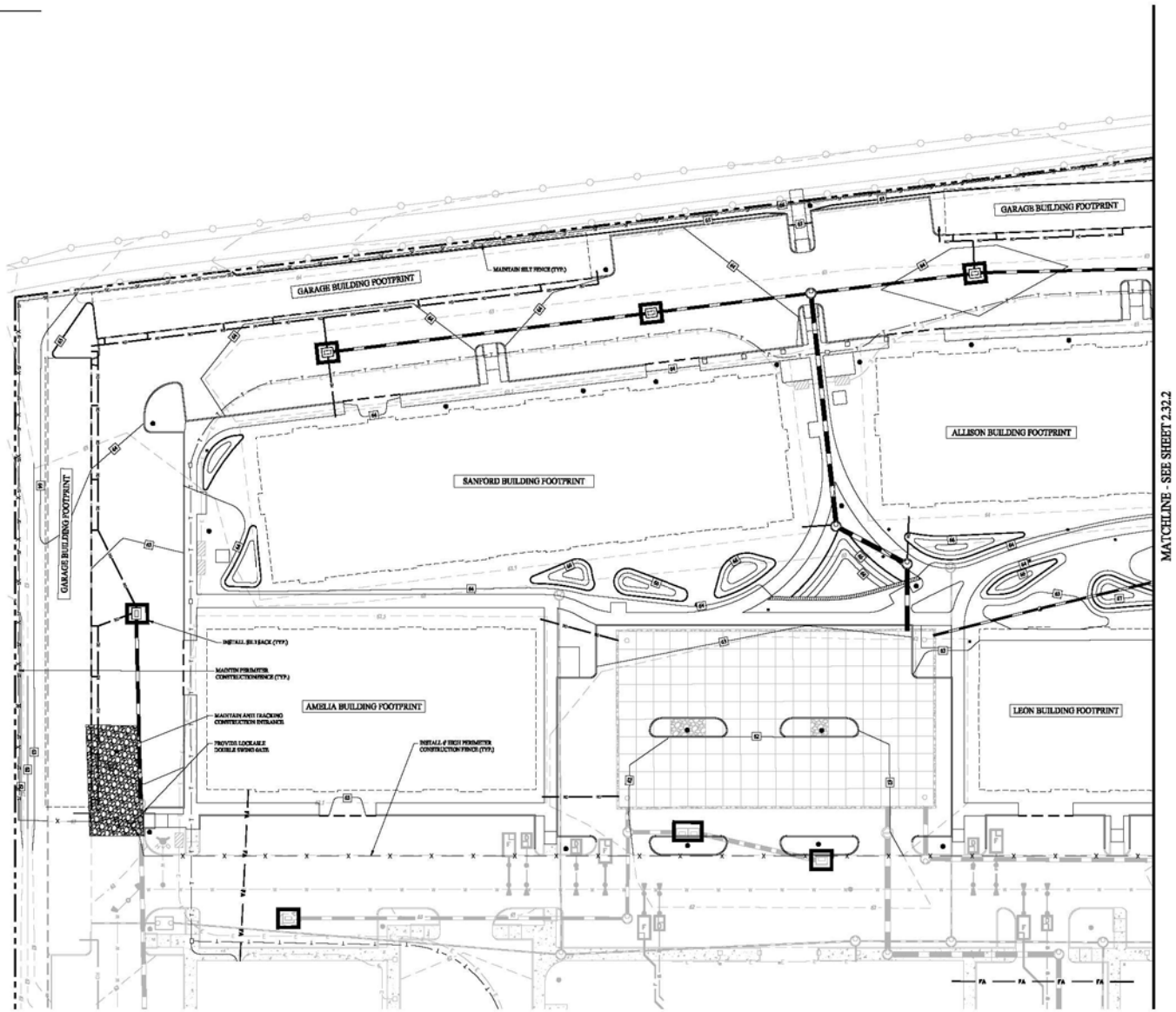

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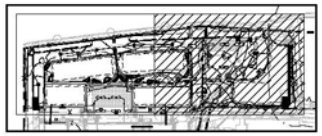
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 EROSION AND SEDIMENTATION PLAN

Sheet #: 2.32.1



KEY MAP
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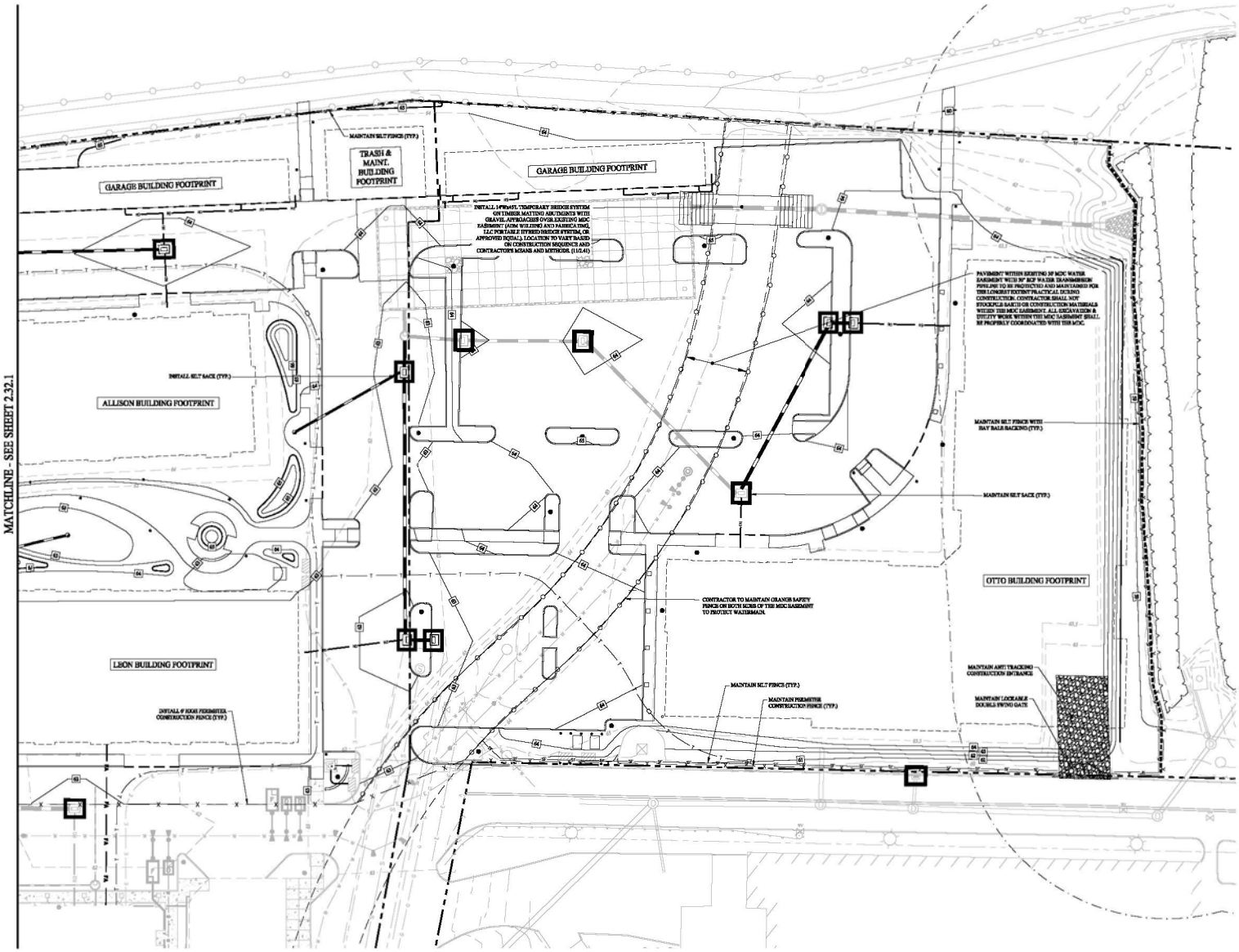

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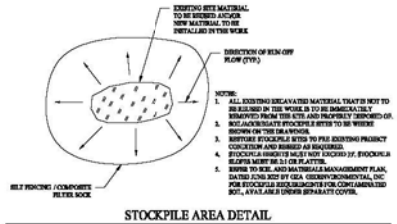
CRDA PROJECT# 25-005

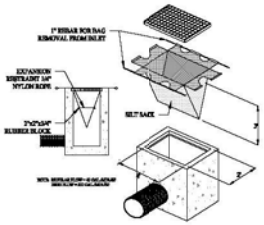
Sheet Title:
PHASE 2 EROSION AND SEDIMENTATION PLAN

Sheet #:
2.32.2



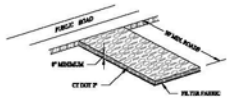
STOCKPILE AREA DETAIL

SCALE: NTS



SILT SACK DETAIL

SCALE: NTS



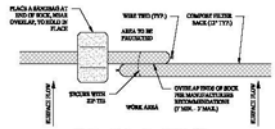
GRADATION TABLE

SQUARE MESH SIEVES	% FINER	% FINER	% FINER
3 1/2 INCHES	100	90-100	100
2 INCHES	90-100	35-90	50-100
1 1/2 INCHES	35-70	0-15	35-90
1 1/4 INCHES	0-20	—	—
1 INCHES	0-10	—	0-15
3/4 INCHES	—	0-5	—
1/2 INCHES	—	—	0-5
#8 INCHES	—	—	—

SOURCE:
US DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, STORRS, CT

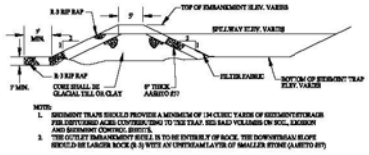
CONSTRUCTION ENTRANCE

SCALE: NTS



COMPOST FILTER SOCK

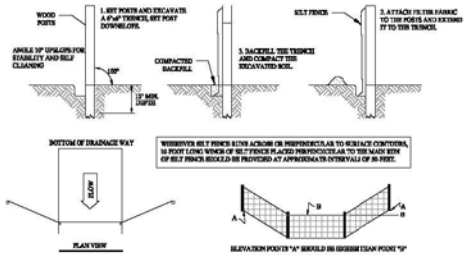
SCALE: NTS



NOTE:
1. SEDIMENT TRAPS SHOULD PROVIDE A MINIMUM OF 134 CUBIC YARDS OF SEDIMENT STORAGE PER DISTURBED ACRE CONTRIBUTING TO THE TRAP. SEE SAID VOLUMES ON SOIL EROSION AND SEDIMENT CONTROL SHEETS.
2. THE OUTLET EMBANKMENT SHALL IS TO BE INTERLY OF ROCK. THE DOWNSTREAM SLOPE SHOULD BE LARGER ROCK (8 ½ WITH AN UNDERMANTLE OF SMALLER STONE (AASHTO #57)

TYPICAL SEDIMENT TRAP DETAIL

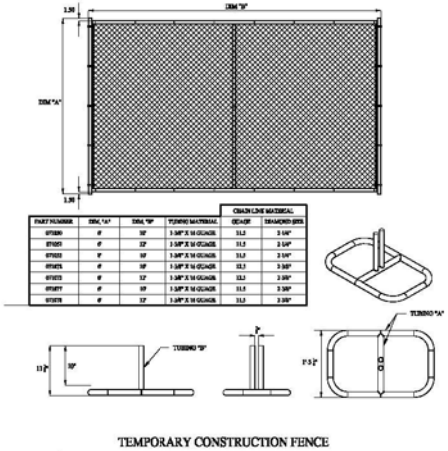
SCALE: NTS



WHENEVER SILT FENCE RUNS ACROSS OR PERPENDICULAR TO SURFACE CONTOURS, 50 FOOT LONG WINGS OF SILT FENCE PLACED PERPENDICULAR TO THE MAIN RUN OF SILT FENCE SHOULD BE PROVIDED AT APPROXIMATE INTERVALS OF 50 FEET.

SILT FENCE PROTECTION DETAIL

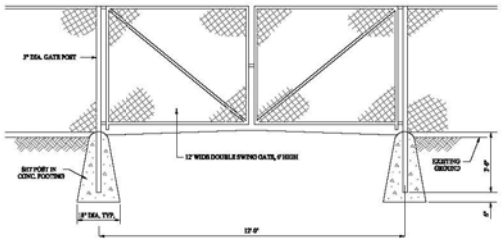
SCALE: NTS



PART NUMBER	DIM. "A"	DIM. "B"	TUBING MATERIAL	CHAIN LINK MATERIAL GRADE	DIAMOND SIZE
075050	6'	50'	1 3/8" X 16 GUAGE	11.5	2 1/4"
075025	6'	25'	1 3/8" X 16 GUAGE	11.5	2 1/4"
075025	5'	50'	1 3/8" X 16 GUAGE	11.5	2 1/4"
075075	6'	75'	1 3/8" X 16 GUAGE	12.5	2 3/8"
075075	6'	75'	1 3/8" X 16 GUAGE	12.5	2 3/8"
075075	6'	75'	1 3/8" X 16 GUAGE	11.5	2 3/8"
075075	6'	75'	1 3/8" X 16 GUAGE	11.5	2 3/8"

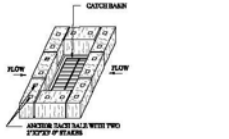
TEMPORARY CONSTRUCTION FENCE

SCALE: NTS



GATE DETAIL

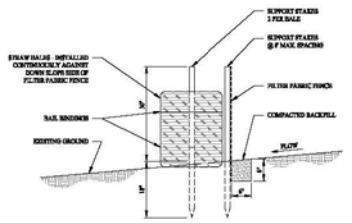
SCALE: NTS



NOTE
STORM WATER INLETS WHICH DO NOT DISCHARGE TO SEDIMENT TRAPS OR BASINS, MUST BE PROTECTED UNTIL THE TRIBUTARY AREAS ARE STABILIZED. SEDIMENT MUST BE REMOVED FROM INLET PROTECTION AFTER EACH STORM EVENT.

HAYBALE INLET PROTECTION

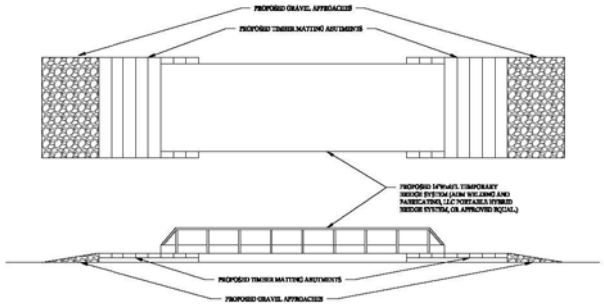
SCALE: NTS



NOTE:
1. USE 3' x 2" x 4#" WOODEN STAKES OR EQUIVALENT STEEL (U OR T) STAKES.

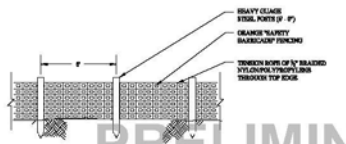
SILT FENCE WITH HAYBALE BACKING

SCALE: NTS



TEMPORARY BRIDGE SYSTEM

SCALE: N.T.S



CONSTRUCTION SAFETY FENCE DETAIL

SCALE: NTS

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SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES

SEDIMENT & EROSION CONTROL NARRATIVE
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND ANY ADJACENT WETLAND AREA AND WATER COURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS SUMMER/FALL 2025 WITH COMPLETION ANTICIPATED BY FALL 2027. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL SITE CLEARING OR CONSTRUCTION ACTIVITY. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE LAND USE AGENTS OF THE TOWN OF EAST HARTFORD AND PROJECT ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

OPERATION REQUIREMENTS
CLEARING AND GRUBBING OPERATIONS:
1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES, INCLUDING THE CONSTRUCTION OF TEMPORARY SEDIMENTATION TRAPS AND STONE CONSTRUCTION ENTRANCE ANTI TRACKING PADS, WILL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING OPERATIONS.
2. FOLLOWING INSTALLATION OF ALL SEDIMENTATION AND EROSION CONTROL MEASURES, THE CONTRACTOR SHALL NOT PROCEED WITH GRADING, FILLING OR OTHER CONSTRUCTION OPERATIONS UNTIL THE ENGINEER HAS INSPECTED AND APPROVED ALL INSTALLATIONS.
3. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CLEARING AND GRUBBING OPERATIONS SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR SEDIMENTATION AND EROSION CONTROL DEVICES.
4. FOLLOWING THE COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ALL AREAS SHALL BE STABILIZED WITH TOPSOIL AND SEEDING OR PROCESSED AGGREGATE STONE AS SOON AS PRACTICAL.
5. ALL REMOVED INVASIVE PLANT SPECIES MATERIAL SHALL BE FULLY REMOVED FROM THE SITE AND TAKEN TO AN APPROVED AND/OR ACCEPTABLE DISPOSAL LOCATION.

ROUGH GRADING OPERATIONS:
1. DURING THE REMOVAL AND/OR PLACEMENT OF EARTH AS INDICATED ON THE GRADING PLAN, TOPSOIL, SHALL BE STOCKPILED AND APPROPRIATELY STOCKPILED FOR REUSE.
2. ALL STOCKPILED TOPSOIL SHALL BE SEEDED, MULCHED WITH HAY, AND ENCLOSED BY A SILTATION FENCE.

FILLING OPERATIONS:
1. PRIOR TO FILLING, ALL SEDIMENTATION AND EROSION CONTROL DEVICES SHALL BE PROPERLY IMPLEMENTED, MAINTAINED AND FULLY INSTALLED, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THIS PLAN.
2. ALL FILL MATERIAL ADJACENT TO ANY WETLAND AREAS, (IF APPLICABLE TO THIS PROJECT, SHALL BE GOOD QUALITY, WELL-GRADED SMALL 3% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN LIFT THICKNESS NOT GREATER THAN THAT SPECIFIED BY PROJECT SPECIFICATIONS. LIFTS SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS OR IN THIS CONTRACTORS REPORT.
3. ALL GENERAL GRADING OPERATIONS PROGRESS, ANY TEMPORARY DIVERSION DITCHES SHALL BE RAISED OR LOWERED, AS NECESSARY, TO DIVERT SURFACE RUNOFF TO THE SEDIMENT TRAPS.

PLACEMENT OF DRAINAGE STRUCTURES, UTILITIES, AND ROADWAY CONSTRUCTION OPERATIONS:
1. SILT FENCES SHALL BE INSTALLED AT THE DOWNHILL SIDES OF TEMPORARY SEDIMENT TRAP SLOPES, MUD PUMPING AREAS, AND UTILITY TRENCH MATERIAL STOCKPILES. HAY BALES MAY BE USED IF SHOWN ON THE EROSION CONTROL PLANS OR DIRECTED BY THE PROJECT ENGINEER.

FINAL GRADING AND PAVING OPERATIONS:
1. ALL INLET AND OUTLET PROTECTION SHALL BE PLACED AND MAINTAINED AS SHOWN ON EROSION CONTROL PLANS AND DETAILS, AND AS DESCRIBED IN SPECIFICATIONS AND AS DESCRIBED HEREIN.
2. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS, JUTE MESH AND VEGETATION. ALL SLOPES SHALL BE SEEDED, AND ANY ROAD OR DRIVEWAY SHOULDER AND BANKS SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TIME IS STABILIZED.
3. PAVEMENT SUB BASE AND BASE COURSES SHALL BE INSTALLED OVER AREAS TO BE PAVED AS SOON AS FINAL SUB GRADES ARE ESTABLISHED AND UNDERGROUND UTILITIES AND STORM DRAINAGE SYSTEMS HAVE BEEN INSTALLED.
4. AFTER CONSTRUCTION OF PAVEMENT, TOPSOIL, FINAL SEED, MULCH AND LANDSCAPING, REMOVE ALL TEMPORARY EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR ON-SITE HAS BEEN WELL STABILIZED AND THE SITE HAS BEEN INSPECTED AND APPROVED BY THE TOWN OF EAST HARTFORD.

INSTALLATION OF IMPLEMENTATION AND EROSION CONTROL MEASURES
I. SILTATION FENCE:
A. TIED A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE/LOCATION.
B. PUSH TO THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 1.5 FEET INTO THE GROUND.
C. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.
D. BACKFILL THE TRENCH AND COMPACT.
II. SILT SACK INLET PROTECTION
A. ALL SILT SACK INLET PROTECTION DEVICES SHALL BE INSPECTED AS A MINIMUM WEEKLY AND AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED PARTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.
B. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.
II. CHECK DAMS:
A. ALL STONE CHECK DAMS SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF STONE CHECK DAMS SHALL BE PROMPTLY MADE AND ACCUMULATED SEDIMENT REMOVED WHEN IT REACHES ONE HALF OF THE HEIGHT OF THE CHECK DAM.
III. TEMPORARY/PERMANENT DRAINAGE SWALES:
A. SWALES SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF ANY WASHED OUT OR ERODED SLOPES SHALL BE MADE PROMPTLY AND THE AREA SHALL BE MONITORED AS NECESSARY.

EROSION AND SEDIMENT CONTROL PLAN
1. HAY BALE FILTERS OR SILTATION FENCES WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
2. CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS, ENERGY DISSIPATERS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.
3. CATCH BASINS WILL BE PROTECTED WITH HAY BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
4. ALL SEDIMENT AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL MANUAL, LATEST EDITION.
5. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION WITHIN/OVER FEASIBLE.
6. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
7. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY LOCAL GOVERNING OFFICIALS.
8. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THIS EROSION CONTROL PLANS, NOTES, AND DETAILS.
9. THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED IN THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN.

CONSTRUCTION SEQUENCE:
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
1. THIS CONSTRUCTION SEQUENCE IS PROVISIONAL AND SUBJECT TO FIELD/CONSTRUCTION RELATED ADJUSTMENTS AS MAY BE NECESSARY.
2. THE SITE IS TO BE CONSTRUCTED AS A SINGLE PHASE. WORK BUILDINGS AND ASSOCIATED PARKING SPACES MAY BE COMPLETED/OCCUPIED PRIOR TO THE ENTIRE PROJECT BEING COMPLETED. PHASED OCCUPANCY SHALL BE REVIEWED AND APPROVED BY THE BUILDING DEPARTMENT.
3. CONSTRUCTION SCHEDULE:
START OF CONSTRUCTION: SUMMER/FALL 2025
CONSTRUCTION COMPLETION: FALL 2027
4. CONTACT TOWN OF EAST HARTFORD AGENT AT LEAST FORTY EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.
5. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF EAST HARTFORD AGENT PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND FILTRATION SILT FENCE.
6. CONSTRUCT STONE CONSTRUCTION ANTI TRACKING PADS AT CONSTRUCTION ENTRANCES/EXITS AND WRAP FILTER FABRIC AROUND GRATES OF CATCH BASINS OR INSTALL SILT SACKS ON CATCH BASIN INLETS ON OFF SITE ROADS. INSTALL SILT FENCE AND OTHER EROSION CONTROL DEVICES INDICATED ON THESE PLANS AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS. INSTALL SEDIMENT TRAPS IF REQUIRED AT LOW AREAS OF SITE OR AS DIRECTED BY THE ENGINEER OR AS SHOWN ON THESE PLANS.
7. CLEAR AND GRUB SITE, STOCKPILE CHIPS, STOCKPILE TOPSOIL. INSTALL EROSION CONTROLS AT STOCKPILES.
8. BUILDING AND SITE DEMOLITION AND REMOVAL. PAVEMENT REMOVAL.
9. COMMENCE EARTHWORK. CONSTRUCT FILL SLOPES AND RETAINING WALLS. INSTALL ADDITIONAL EROSION CONTROLS AS WORK PROGRESSES AND CONTINUE STORM DRAINAGE SYSTEM CONSTRUCTION. TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.
10. CONSTRUCTION STAGING OF ALL BUILDING CURBING, UTILITIES, ACCESS DRIVES, AND PARKING AREAS.
11. ROUGH GRADING AND FILLING OF SUBGRADE AND SLOPES.
12. ISOLATE/LIMIT OPEN DISCHARGING UNPROTECTED CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION. USE OPEN FLOW SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THIS POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
13. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST PROVIDE EVIDENCE THAT SAID SOIL OR BORROW AREA HAS AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE TOWN OF EAST HARTFORD AND WHICH IS BEING IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL ALSO NOTIFY THE TOWN OF EAST HARTFORD IN WRITING OF ALL RECEIVING SOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.
14. CONSTRUCT INSTALLATION OF STORM DRAINAGE AS SUBGRADE ELEVATIONS ARE ACHIEVED.
15. BUILDING FOUNDATION SUBGRADE AND PAD SUBGRADE PREPARATION.
16. BUILDING FOUNDATION CONSTRUCTION. SNOW BUILDING SUPERSTRUCTURE
17. TERRACEOUT CONSTRUCTION SEQUENCE, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENTATION BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.25 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.25 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DISPOSED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
18. INSTALL SANITARY LATERAL AND UTILITIES. COMPLETE STORM DRAINAGE SYSTEM.
19. INSTALL SITE LIGHTING AND TRANSFORMER ENCLOSURES.
20. COMPLETE GRADING TO SUBGRADES AND COMPLETE PARKING AREA SUBGRADE.
21. CONSTRUCT CURBS, PAVEMENT STRUCTURE AND SIDEWALKS
22. CONDUCT FINE GRADING.
23. CONSTRUCT OFF SITE ROADWAY IMPROVEMENTS
24. PAVING OF PARKING AREAS AND DRIVEWAYS
25. FINAL FINE GRADING OF IS (OFF) AND NON PAVED AREAS.
26. PLACE 4" TOPSOIL ON SLOPES AFTER FINAL GRADING IS COMPLETED. FERTILIZE SEED AND MULCH. SEED MIXTURES TO BE INSTALLED APRIL 15 - JUNE 1 OR AUGUST 15 - OCTOBER 1. USE EROSION CONTROL BLANKETS AS REQUIRED OR CREATED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND DATES USE ANNUAL RYE AT 40 LBS/ACRE OR 1,000 S.F. FERTILIZE WITH 30-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).
27. LANDSCAPE ISLANDS INTERIOR NON PAVED AREA AND PERIMETER AREAS.
28. INSTALL SIGNING AND PAVEMENT MARKINGS
29. CLEAN STORM DRAINAGE PIPE STRUCTURES, DETENTION SYSTEMS AND WATER QUALITY DEVICES OF DEBRIS AND SEDIMENT.
30. UPON DIRECTION OF THE TOWN OF EAST HARTFORD AGENT, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-8455 | T: (203) 660-3883

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:
SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

Sheet #:
2.41

Jul 01, 2025 - 10:53am mwelty
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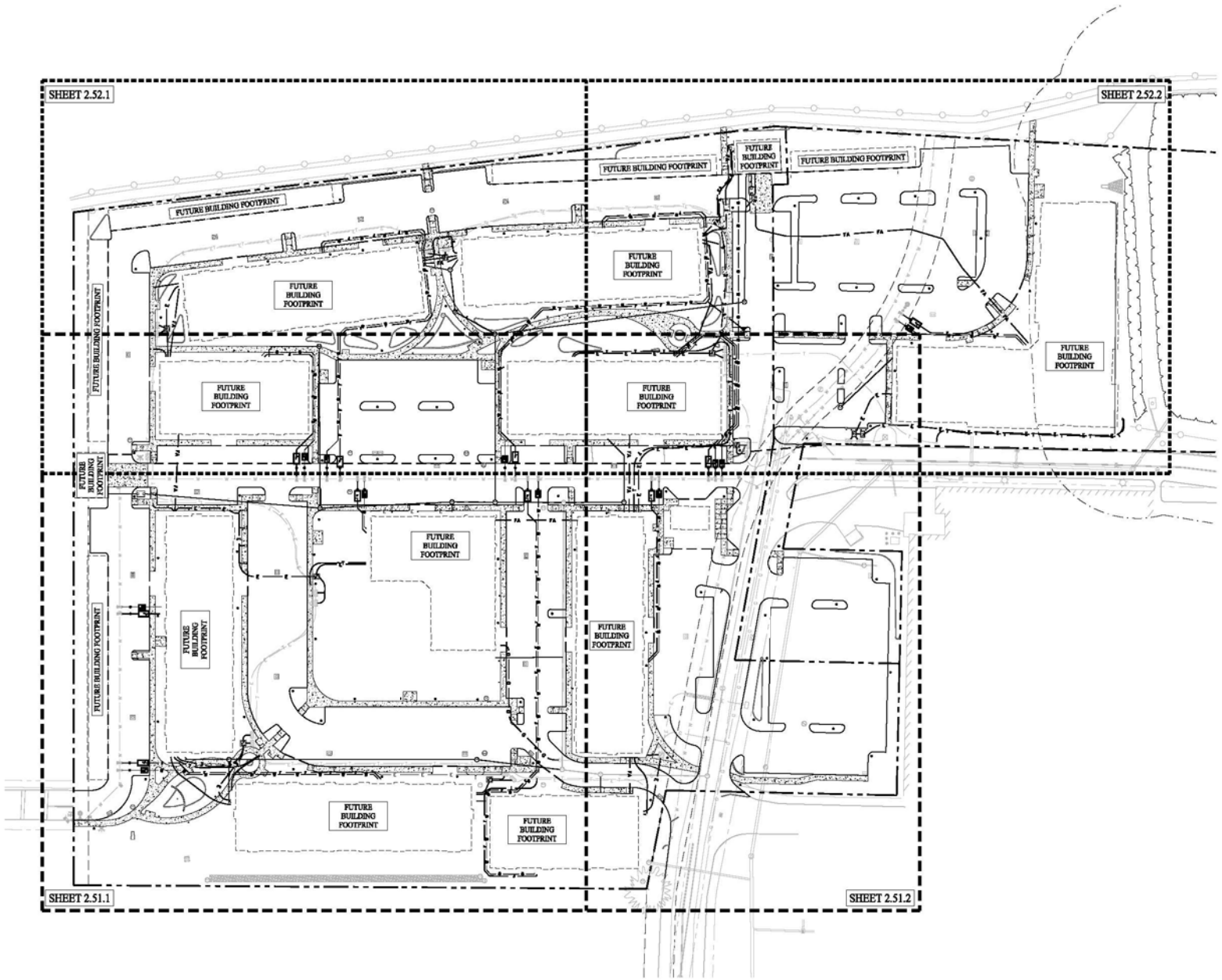
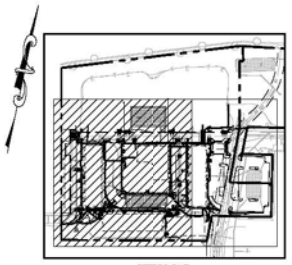
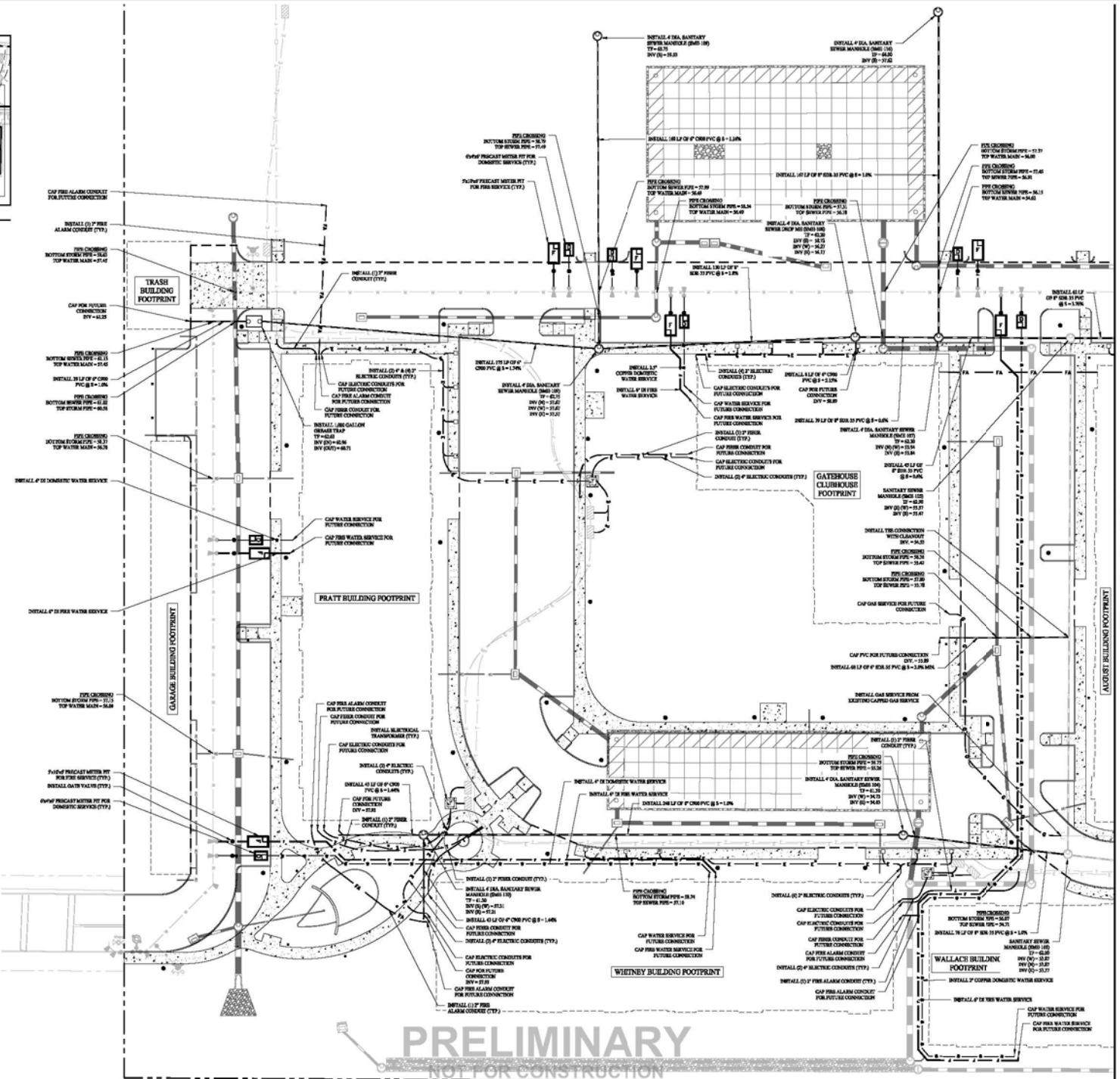

SHEET 2.52.1
SHEET 2.52.2
SHEET 2.51.1
SHEET 2.51.2
FUTURE BUILDING FOOTPRINT
FUTURE BUILDING FOOTPRINT
FUTURE BUILDING FOOTPRINT



KEY MAP
SCALE: 1" = 200'

GENERAL NOTES

1. REFER TO SHEET G.10 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTORS AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.



Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
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Plot Date:	07/02/23
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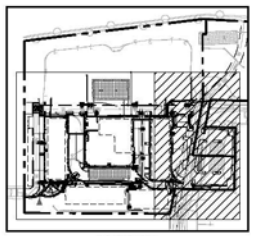
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE UTILITY PLAN

Sheet #: 2.51.1



KEY MAP

SCALE: 1" = 200'

MATCHLINE - SEE SHEET 2.51.1

MAIL BUILDING FOOTPRINT

AUGUST BUILDING FOOTPRINT

WALLACH BUILDING FOOTPRINT

EXISTING 30FT WIDE MDC WATER MAIN EASEMENT (TYP.)

TRANSFORMER INSTALLED IN PHASE 1A (TYP.)

PRELIMINARY

NOT FOR CONSTRUCTION

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T: (203) 880-8455 | T: (203) 665-3002

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Checked By:	PAR
Approved By:	KMS
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Scale:	1" = 20'

Project:

CONCOURSE PARK

309 SILVER LANE

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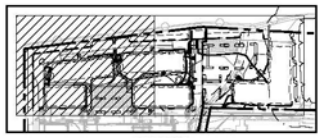
CRDA PROJECT# 25-005

Sheet Title: PHASE 1B SITE UTILITY PLAN

Sheet #: 2.51.2



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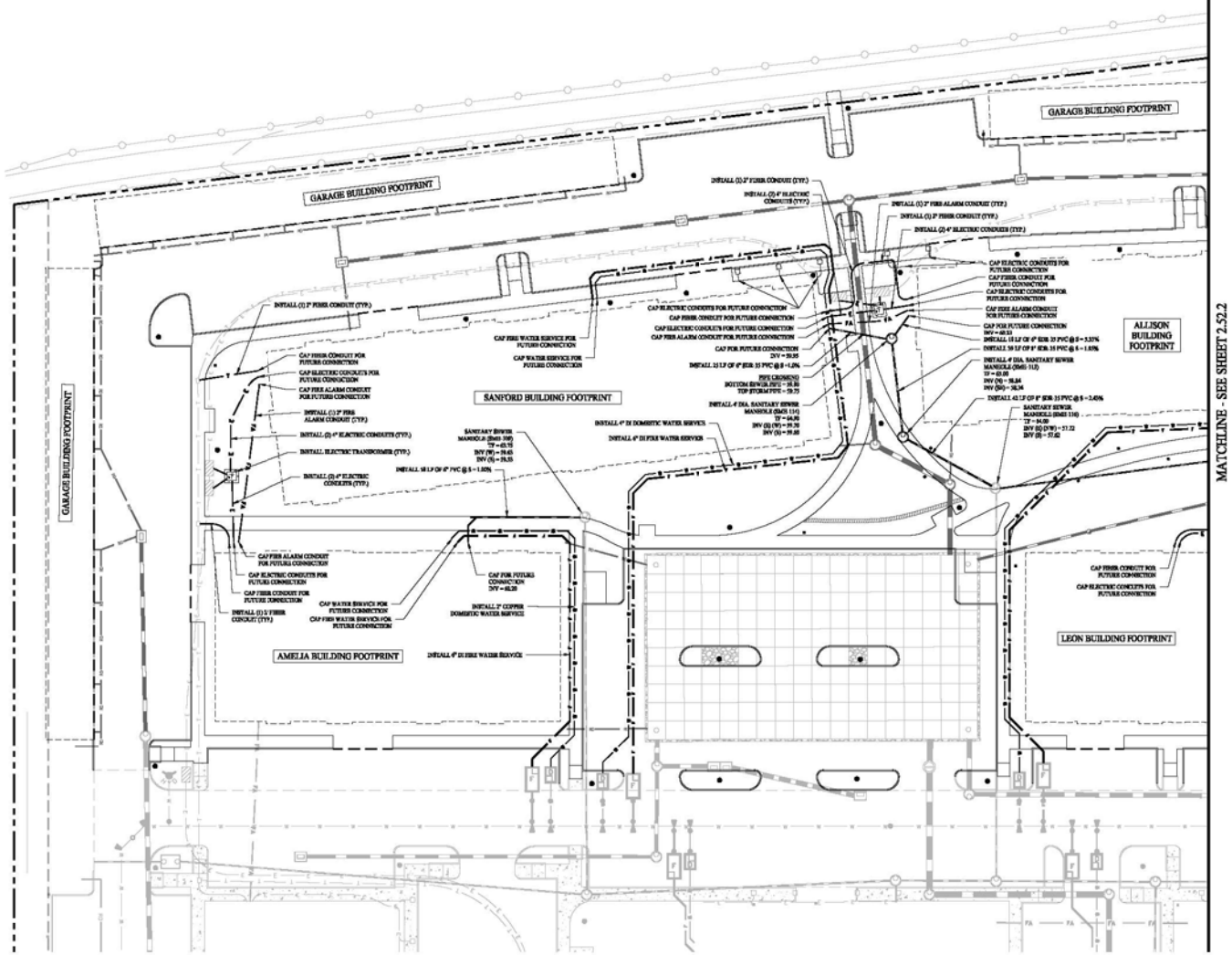

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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
PHASE 2 SITE UTILITY PLAN	2.52.1

Jul 01, 2025 - 10:53am mwelty
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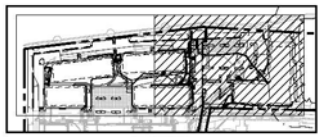

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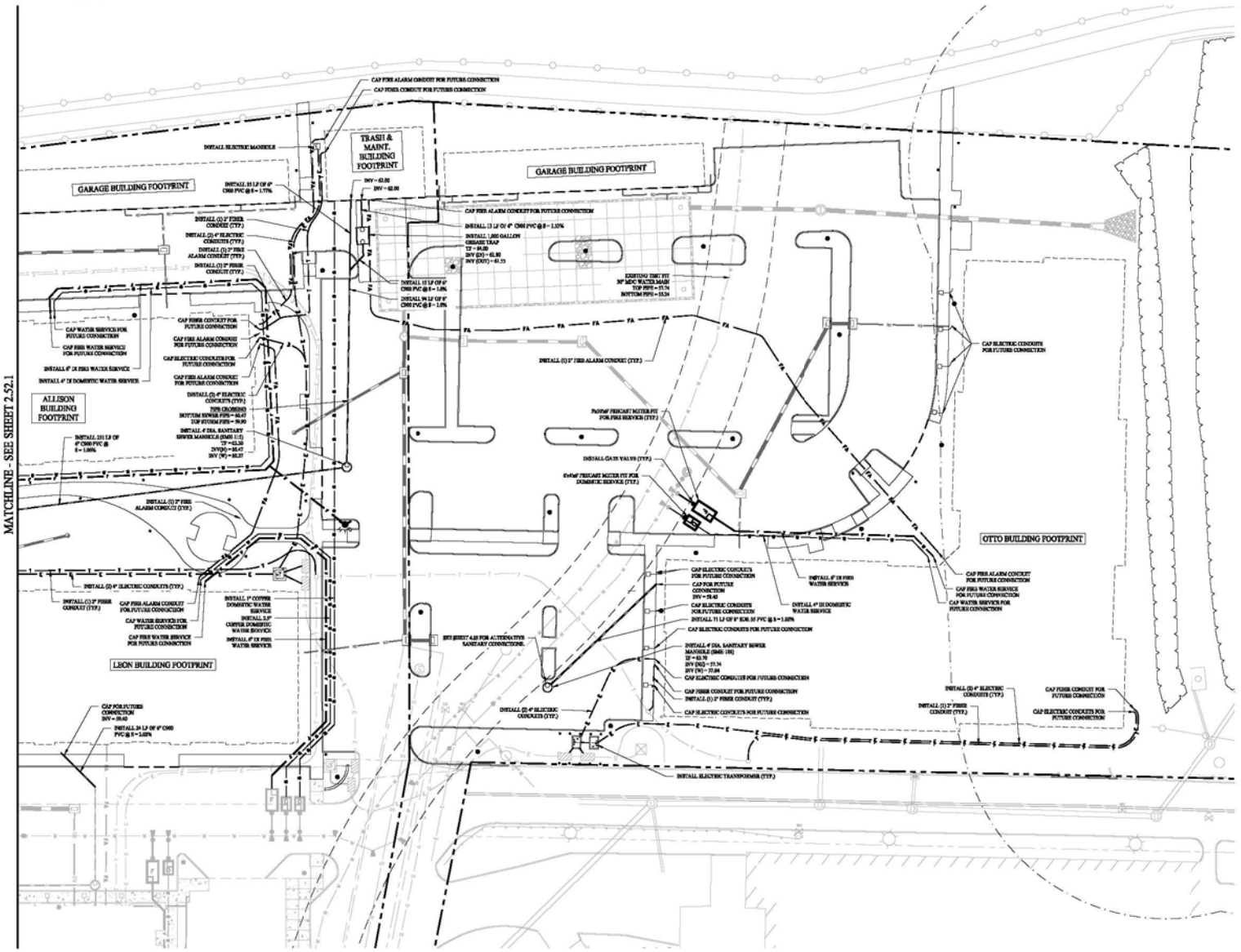

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CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: PHASE 2 SITE UTILITY PLAN

Sheet #: 2.52.2

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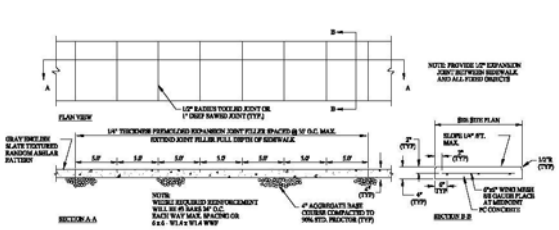
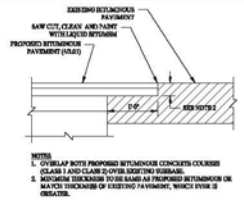


CONCRETE SIDEWALK

SCALE: NTS



PAVEMENT MATCH TREATMENT (SAWCUT) DETAIL

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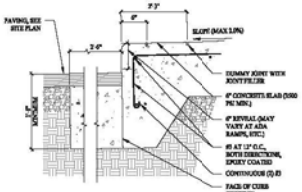

INTEGRAL CURB AT PAVEMENT

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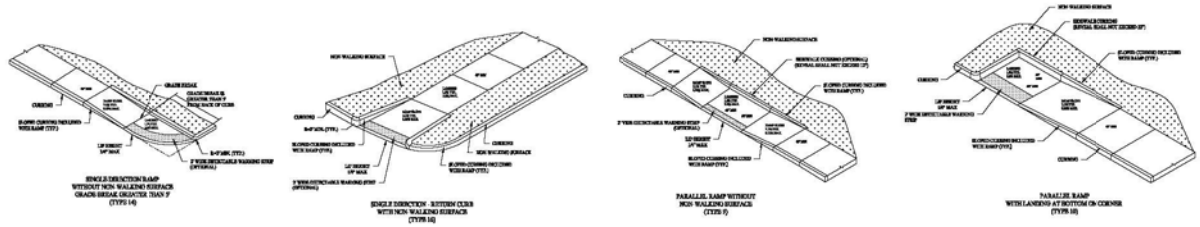
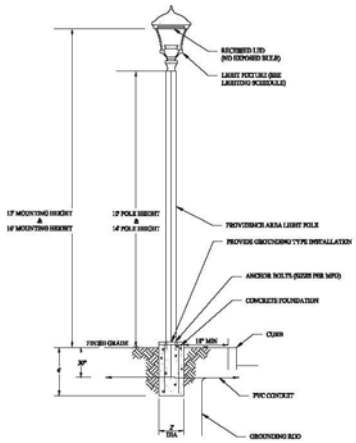


CTDOT ADA STANDARD SIDEWALK DETAILS

SCALE: NTS

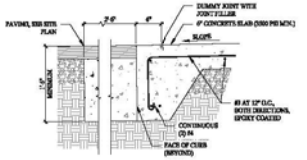
DETAILS BY CTDOT



PROPOSED LIGHT POLE - P1, P2, P3, P4 & P5

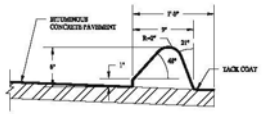
ARCHITECTURAL AREA LIGHTING - PROV2

SCALE: NTS



FLUSH CURB AT PAVEMENT

SCALE: NTS



EXTRUDED BITUMINOUS CONCRETE LIP CURBING DETAIL

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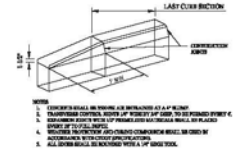

CURB TRANSITION DETAIL

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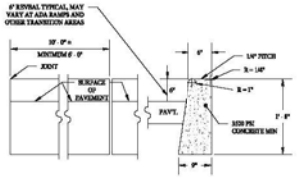

CONCRETE CURBING DETAIL

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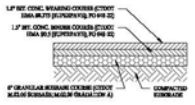

STANDARD DUTY ASPHALT PAVING DETAIL

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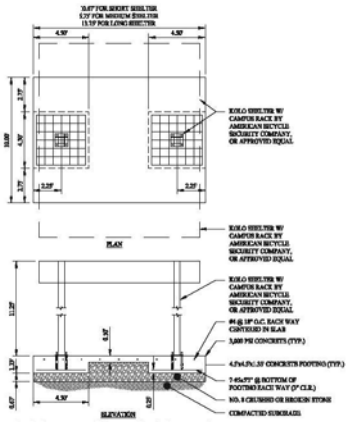
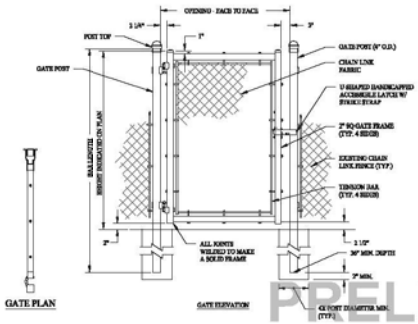


KOLO SHELTER CAMPUS RACK DETAIL

SCALE: NTS

DETAIL PROVIDED BY AMERICAN BICYCLE SECURITY COMPANY



CHAIN LINK FENCE GATE DETAIL

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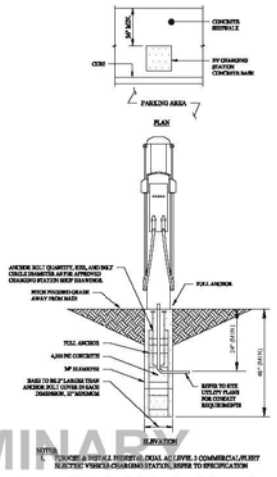
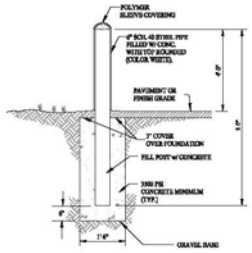


EV CHARGING STATION BASE DETAIL

SCALE: NTS



PROTECTION BOLLARD DETAIL

SCALE: NTS

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SOLLIENGINEERING.COM
T: (203) 880-3455 | T: (203) 880-3882

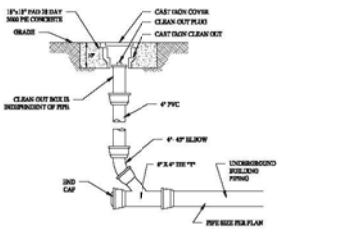
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

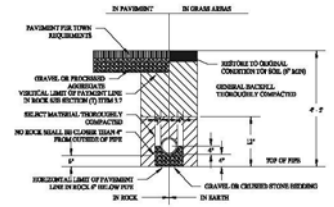
Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.01



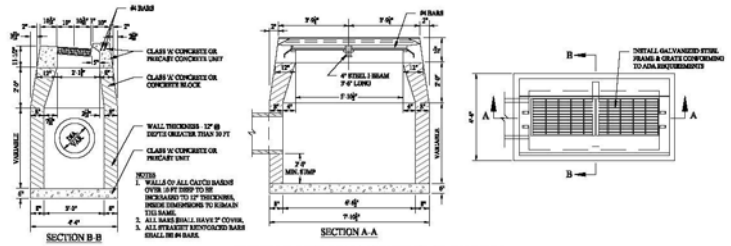
STORM CLEANOUT DETAIL

SCALE: N.T.S



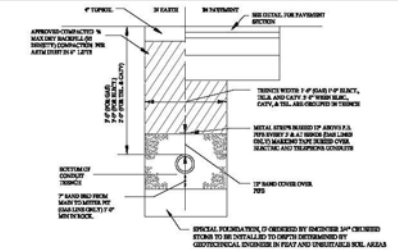
STORM TRENCH DETAIL

SCALE: NTS



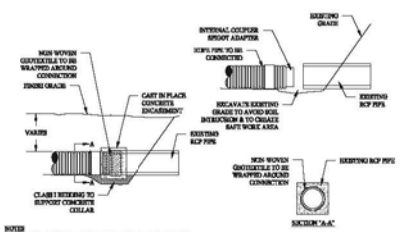
TYPE "C" DOUELE CATCH BASIN (DOUBLE GRATE TYPE II)

SCALE: NTS



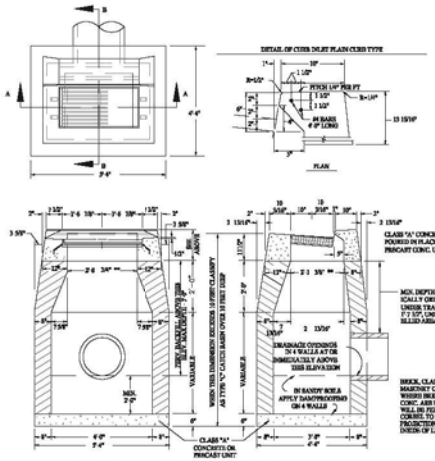
TYPICAL ELECTRICAL/TELEPHONE/CABLE AND GAS TRENCH

SCALE: NTS



HDPE TO RCP CONNECTION (GEOTEXTILE WRAP) DETAIL

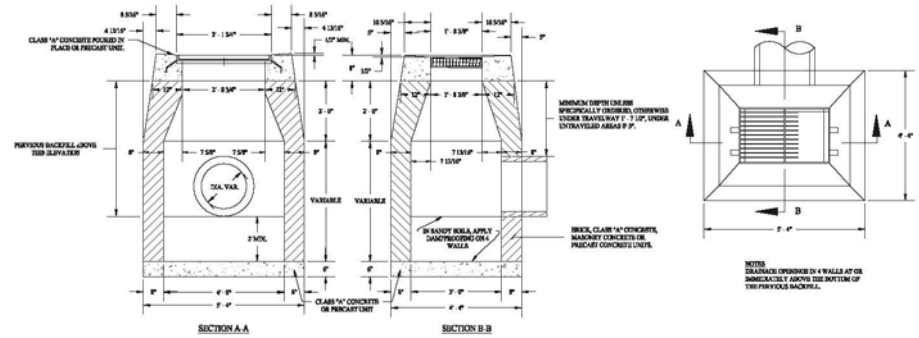
SCALE: NTS



TYPE "C" PRECAST CATCH BASIN DETAIL

SCALE: NTS

CT DOT



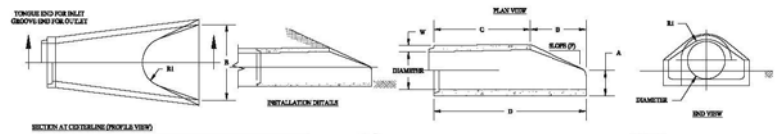
TYPE "CL" PRECAST CATCH BASIN DETAIL

SCALE: NTS



PRECAST STORM MANHOLE DETAIL

SCALE: NTS



SECTION AT CENTERLINE (PROFILE VIEW)

Diameter	A	B	C	D	E	F	R1	W
12"ID	4"	2'-0"	4'-0 3/8"	4'-0 3/8"	2'-0"	5:1	1"	2 9/16"
15"ID	6"	2'-1"	3'-10"	6'-1"	2'-6"	5:1	11"	2 11/16"
18"ID	9"	2'-2"	3'-10"	6'-1"	2'-6"	5:1	12"	2 15/16"
24"ID	10"	2'-8"	2'-6"	6'-2"	4'-0"	5:1	14"	3 21/32"
36"ID	12"	4'-0"	1'-8"	6'-2"	5'-0"	5:1	15"	4 17/32"
36"ID	15"	5'-1"	2'-11"	6'-2"	6'-0"	5:1	20"	4 17/32"
42"ID	21"	5'-1"	2'-11"	6'-2"	6'-6"	5:1	22"	4 15/32"

NOTES:

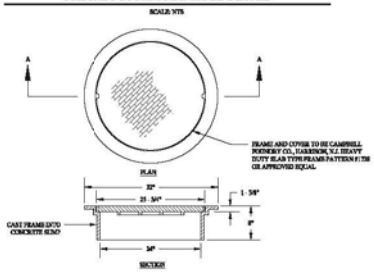
1. PRODUCED TO ASTM SPECIFICATIONS.
2. THIS DRAWING IS NOT INTENDED TO SHOW REINFORCEMENT DESIGN. EITHER AS TO PLACEMENT OR STEEL AREA, ACTUAL PROJECT SPECIFICATIONS OR CURRENT ASTM WILL GOVERN.
3. CONSULT HYDRO CONDUIT CORP. LOCAL REPRESENTATIVE FOR FURTHER DETAILS NOT LISTED ON THIS DRAWING.

TULSA PIPE
2300 NORTH 129TH EAST AVENUE
TULSA, OKLAHOMA 74116
P.O. BOX 501524
TULSA, OKLAHOMA 74150-1524
(918) 438-0250

CR 170
25
BRILLED 12/95

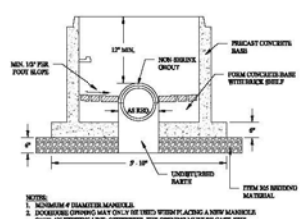
FLARED END SECTION DETAILS
(WITH PRECAST STD, BASE AND CUSTOMER SPECIFIED OPENINGS)
FLAT TOP ECCENTRIC (CONCENTRIC ALSO AVAILABLE)

SCALE: NTS



MANHOLE FRAME AND COVER DETAIL

SCALE: NTS

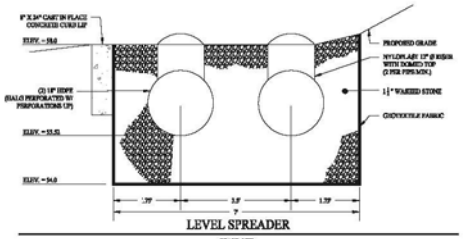


NOTES:

1. MINIMUM 4' DIAMETER MANHOLE.
2. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION AND ANGLE OF ENTRY SHOULD BE AS REQUIRED BY THE PLANS.
3. OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
4. BREAK OUT TOP HALF OF EXISTING PIPE AFTER MANHOLE IS CONSTRUCTED.

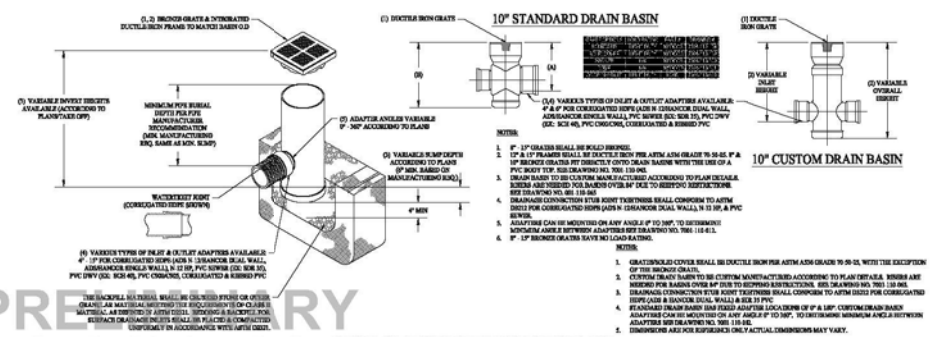
DOGHOUSE MANHOLE (BASE) DETAIL

SCALE: NTS



LEVEL SPREADER

SCALE: NTS



10" STANDARD DRAIN BASIN

10" CUSTOM DRAIN BASIN

NOTES:

1. 8" - 15" GRATES SHALL BE SOLID BRONZE.
2. 12" & 15" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" BRONZE GRATES PIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO REEPING RESTRICTIONS. SEE DRAWING NO. 001-110-045
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°, TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6. 8" - 15" BRONZE GRATES HAVE NO LOAD RATING.

NOTES:

1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2. CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO REEPING RESTRICTIONS. SEE DRAWING NO. 7001-110-045.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SEE 10 PVC.
4. STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°, TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
5. DIMENSIONS ARE FOR REFERENCE ONLY ACTUAL DIMENSIONS MAY VARY.

NYLOPLAST DRAIN BASIN (YARD DRAIN) DETAIL

SCALE: NTS

DETAIL PROVIDED BY NYLOPLAST

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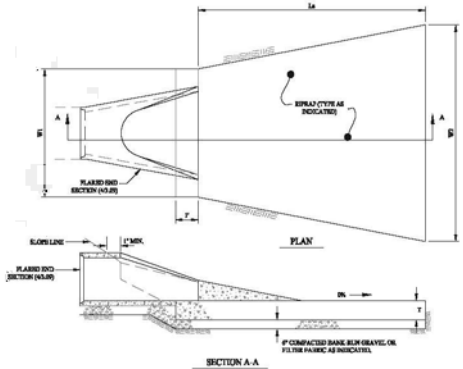
T: (203) 880-8455 | F: (203) 880-8865

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/23
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
CONSTRUCTION DETAILS	3.02

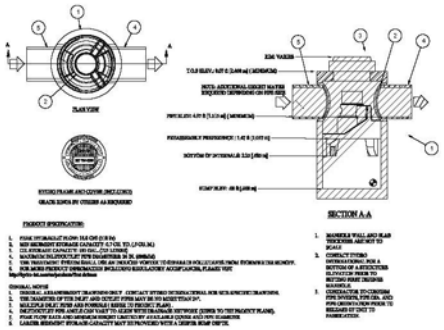


OUTLET	La	W1	W2	RIPRAP
O-1	14'	6'	16'	MODIFIED
O-2	14'	5'	15'	MODIFIED

RIPRAP TYPE	"T" (INCHES)
MODIFIED	12
INTERMEDIATE	18
STANDARD	36

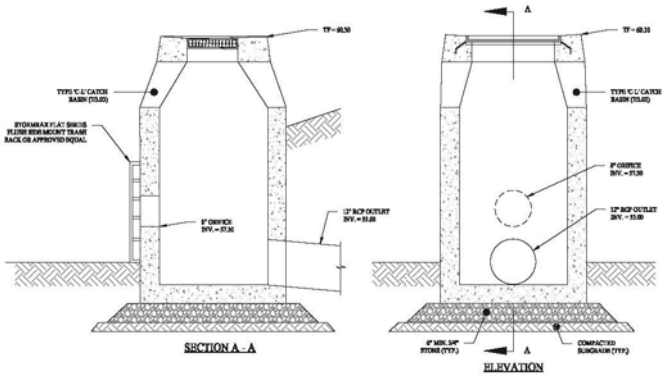
TYPE 'A' RIPRAP APRON

SCALE: NTS



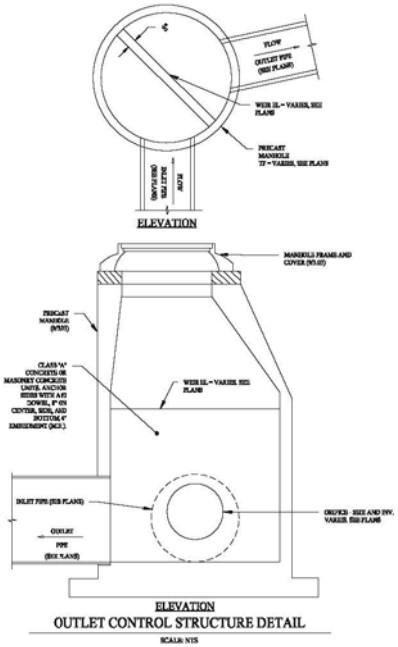
FIRST DEFENSE HYDRODYNAMIC SEPARATOR

SCALE: NTS



OUTLET CONTROL STRUCTURE 7

SCALE: NTS



OUTLET CONTROL STRUCTURE DETAIL

SCALE: NTS

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T: (203) 880-8455 | T: (203) 880-8882

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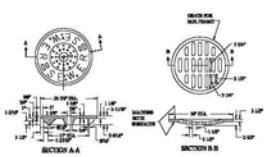
EAST HARTFORD, CONNECTICUT

CRDA PROJECT# 25-005

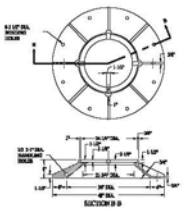
Sheet Title:	Sheet #:
CONSTRUCTION DETAILS	3.03



NOTES
1. MANHOLE COVERS MAY BE DESIGNED WITH OR WITHOUT RIMS. THE TOP SURFACE OF THE MANHOLE COVER SHALL BE FLAT. THE BOTTOM SURFACE MAY OR MAY NOT BE FLAT.
2. PROVIDE ALTERNATIVE INSCRIPTION "STORM DRAIN" WHEN SPECIFIED.
3. THE LOWER SURFACES OF THE COVER AND THE CORRESPONDING UPPER SURFACES OF THE FRAME SHALL BE MACHINE FINISHED TO PROVIDE A SMOOTH FLAT CONTACT OR FIT WITHOUT ANY TENDENCY FOR THE COVER OR GRATE TO ROCK OR RATTLE. THE GAP BETWEEN THE COVER/GRATE AND FRAME SHALL BE NO MORE THAN ¼" ALL AROUND.

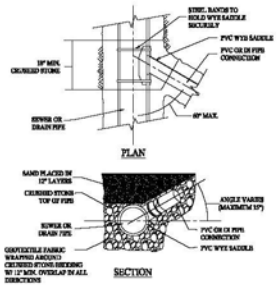
STANDARD MANHOLE COVERS DETAIL

SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



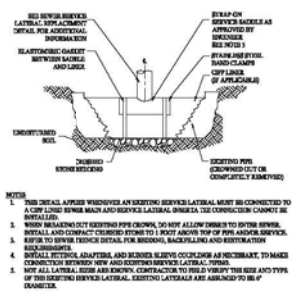
STANDARD MANHOLE FRAMES DETAIL

SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



WYE SADDLE CONNECTION TO EXISTING PIPE DETAIL

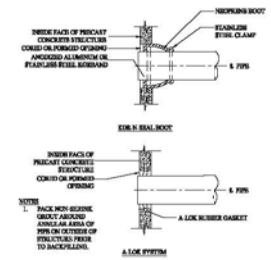
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. THIS DETAIL APPLIES WHENEVER AN EXISTING SERVICE LATERAL MUST BE CONNECTED TO A CIPP LINED SEWER MAIN AND SERVICE LATERAL INSERTA TEE CONNECTION CANNOT BE INSTALLED.
2. WHEN BREAKING OUT EXISTING PIPE CROWN, DO NOT ALLOW DEBRIS TO ENTER SEWER. INSTALL AND COMPACT CRUSHED STONE TO 1 FOOT ABOVE TOP OF PIPE AND SIDE SERVICE.
3. REFER TO SEWER TRENCH DETAIL FOR BEDDING, BACKFILLING AND RESTORATION REQUIREMENTS.
4. INSTALL FITTINGS, ADAPTERS, AND BUSHED SLEEVE COUPLINGS AS NECESSARY, TO MAKE CONNECTION BETWEEN NEW AND EXISTING SERVICE LATERAL PIPING.
5. NOT ALL LATERAL SIZES ARE KNOWN. CONTRACTOR TO FIELD VERIFY THE SIZE AND TYPE OF THE EXISTING SERVICE LATERAL. EXISTING LATERALS ARE ASSUMED TO BE 6" DIAMETER.

SERVICE LATERAL SADDLE CONNECTION DETAIL

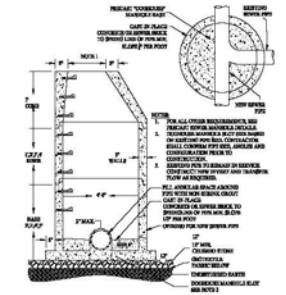
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. PACK NON-SHRINK GROUT AROUND ANNULAR AREA OF PIPE ON OUTSIDE OF STRUCTURES PRIOR TO BACKFILLING.

PIPE CONNECTIONS TO PRECAST CONCRETE STRUCTURES DETAIL

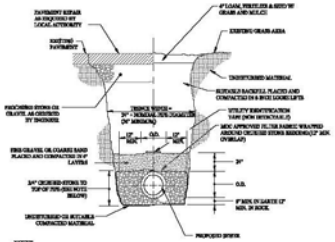
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. FOR ALL OTHER REQUIREMENTS, SEE PRECAST SEWER MANHOLE DETAILS.
2. DOGHOUSE MANHOLE MAY BE USED BASED ON ADDITIONAL PIPE SIZE, CONTRACTOR SHALL CONFIRM PIPE SIZE, ANGLES AND CONFIGURATION PRIOR TO CONSTRUCTION.
3. ADDRESS PIPE TO BE USED IN SERVICE. CONTRACT WITH INVERT AND TRANSITION FLOW AS REQUIRED.

PRECAST DOGHOUSE MANHOLE (48" Ø EXTENDED BASE) DETAIL (SANITARY)

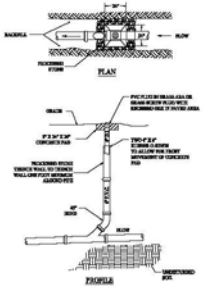
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. ALL EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED.
2. BACKFILL MATERIAL SHALL BE APPROVED BANK RUN GRAVEL IN PAVED AREAS (INCLUDING DRIVEWAYS AND SIDEWALKS) OR COMMON FILL IN UNPAVED AREAS.
3. TRENCH WIDTH VARIES BASED ON PIPE SIZE AND DEPTH.
4. TRENCHES LOCATED IN THE ROAD RIGHT-OF-WAY SHALL BE TREATED THE SAME AS TRENCHES IN THE PAVED ROADWAY EXCEPT FOR PAVEMENT AND SURFACE RESTORATION WORK. PROVIDE IMPERVIOUS TRENCH DAM(S) IN ZONE(S) AS DIRECTED BY THE ENGINEER. SEE PIPE TRENCH DAM DETAIL.
5. CRUSHED STONE SHALL BE INSTALLED TO TOP OF PIPE FOR PVC AND DI PIPE AND TO SPRINGLINE FOR RC PIPE.

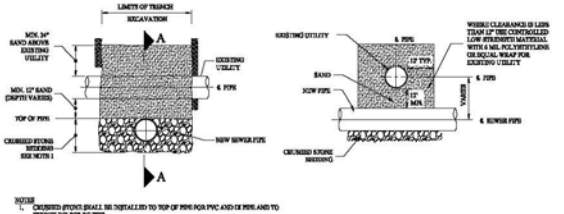
SEWER TRENCH DETAIL

SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



CLEANOUT AT GRADE DETAIL

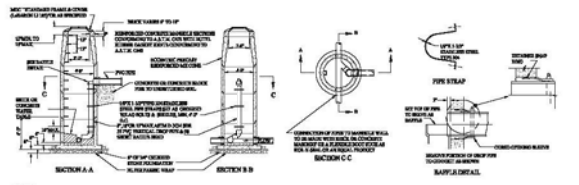
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



NOTES
1. CRUSHED STONE SHALL BE INSTALLED TO TOP OF PIPE FOR PVC AND DI PIPE AND TO SPRINGLINE FOR RC PIPE.
2. REFER TO SEWER TRENCH DETAIL FOR BACKFILLING AND RESTORATION REQUIREMENTS.

EXISTING GAS OR WATER UTILITY CROSSING DETAIL

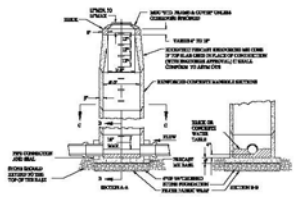
SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

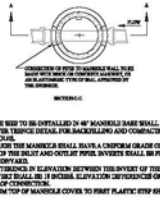


NOTES
1. MAXIMUM PIPE SIZE TO BE INSTALLED IN 48" PRECAST MANHOLE BASE SHALL BE 24".
2. REFER TO SEWER TRENCH DETAIL FOR BACKFILLING AND COMPACTION REQUIREMENTS AROUND SEWER MANHOLES.
3. INVERT THROUGH THE MANHOLE SHALL HAVE A UNIFORM GRADE OF MINIMUM 0.10 FEET BETWEEN THE INVERTS OF THE INLET AND OUTLET PIPES. INVERTS SHALL BE FIELD FORMED AND NOT FORMED IN THE SHOPYARD.
4. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN THE INVERT OF THE TRIBUTARY INLET AND THIS MANHOLE INVERT SHALL BE 18 INCHES. ELEVATION DIFFERENCES GREATER THAN 18 INCHES WILL REQUIRE A DROP CONNECTION.
5. DISTANCE FROM TOP OF MANHOLE COVER TO FIRST PLASTIC STEP SHALL BE BETWEEN 12" AND 16".

TYPE IV PRECAST CONCRETE DROP MANHOLE DETAIL (SANITARY)

SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT





NOTES
1. ALL CONCRETE SHALL BE CLASS A (4000 PSI).
2. ALL REINFORCING STEEL SHALL BE GRADE 60.
3. ALL CONCRETE SHALL BE AIR ENTRAINED.
4. ALL CONCRETE SHALL BE CAST AGAINST UNDISTURBED EARTH.
5. ALL CONCRETE SHALL BE CURED WITH AN APPROVED CURING COMPOUND.
6. ALL REINFORCING STEEL SHALL BE CLEAN AND FREE OF RUST, MILL SCALE, GREASE, OIL OR OTHER FOREIGN MATERIAL.
7. ALL REINFORCING STEEL SHALL BE SECURELY TIED AND SUPPORTED IN PROPER POSITION PRIOR TO PLACING CONCRETE.
8. ALL REINFORCING STEEL SHALL BE CONTINUOUS AROUND CORNERS.
9. ALL REINFORCING STEEL SHALL BE SPLICED WITH A MINIMUM LAP OF 40 BAR DIAMETERS.
10. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2".

TYPE II PRECAST CONCRETE MANHOLE DETAIL (SANITARY)

SCALE: NTS | DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

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SOLLIENGINEERING.COM
T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
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Kevin Solli, P.E.
CT 21735

Project:

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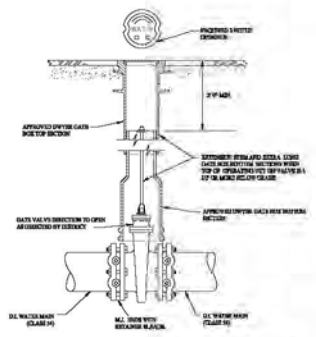
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

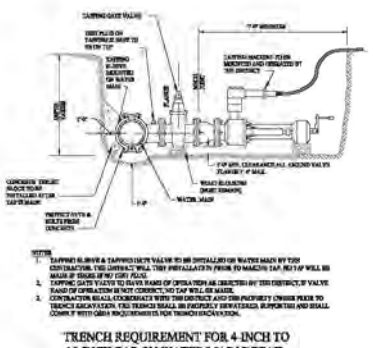
Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.04



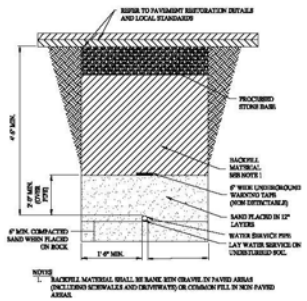
STANDARD GATE VALVE 12" & SMALLER DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



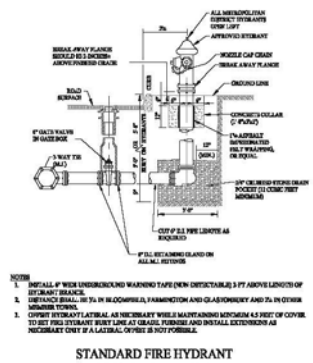
TRENCH REQUIREMENT FOR 4-INCH TO 12-INCH TAP ON WATER MAIN DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



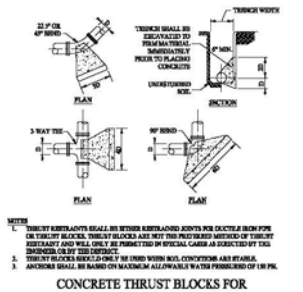
WATER SERVICE TRENCH DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



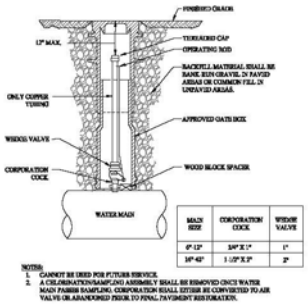
STANDARD FIRE HYDRANT ASSEMBLY DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



CONCRETE THRUST BLOCKS FOR 12-INCH AND SMALLER MAINS DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

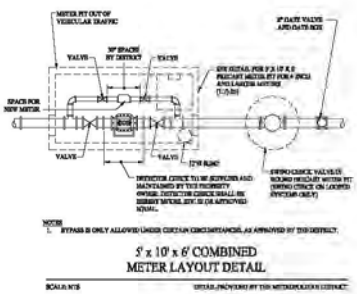


MAIN SIZE	CORPORATION COCK	WEDGE VALVE
6" 12"	3/4" X 1"	1"
16" 42"	1 1/2" X 2"	2"

NOTES:
1. CANNOT BE USED FOR FUTURE SERVICE.
2. A CHLORINATION/SAMPLING ASSEMBLY SHALL BE REMOVED ONCE WATER MAIN PASSES SAMPLING. CORPORATION SHALL EITHER BE CONVERTED TO AIR VALVE OR ABANDONED PRIOR TO FINAL PAVEMENT RESTORATION.

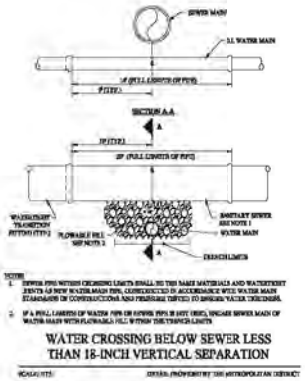
CHLORINATION INLET / BLOW-OFF DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



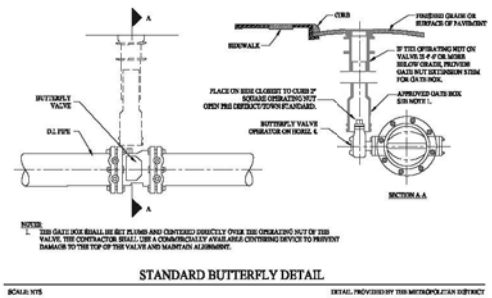
5' x 10' x 6' COMBINED METER LAYOUT DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



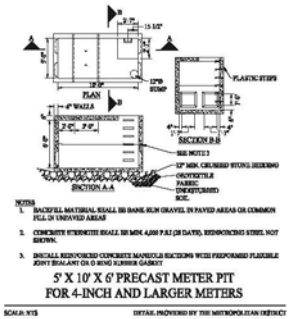
WATER CROSSING BELOW SEWER LESS THAN 18-INCH VERTICAL SEPARATION

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



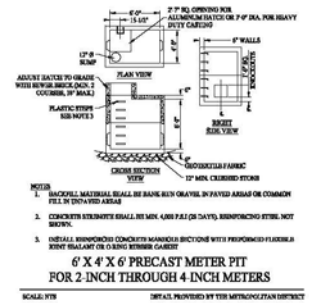
STANDARD BUTTERFLY DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



5' X 10' X 6' PRECAST METER PIT FOR 4-INCH AND LARGER METERS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

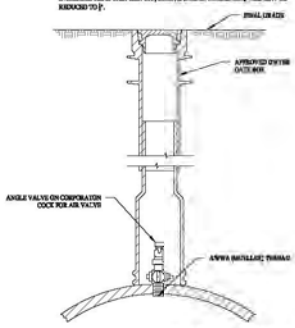


6' X 4' X 6' PRECAST METER PIT FOR 2-INCH THROUGH 4-INCH METERS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

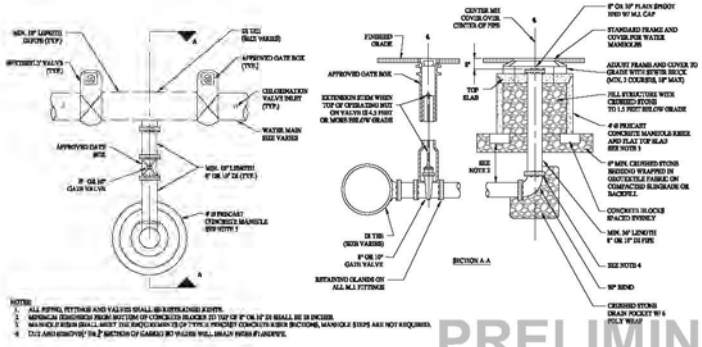
DIA. OF MAIN	MIN. SIZE AIR VALVE	CORPORATION COCK	WEDGE VALVE SIZE
TO 12"(INCL.)	3/4"	3/4" X 1"	1"
16" & 20"	1"	1" X 1"	1"
24" & 30"	1 1/4"	1 1/4" X 1 1/2"	1 1/2"
36" & 40"	1 1/2"	1 1/2" X 2"	2"
48" & 54"	2"	2" X 2"	2"

NOTE:
STAINLESS STEEL AIR VALVES SHALL BE USED IN AREAS SUBJECT TO ATMOSPHERIC EXPOSURE OR IN AREAS SUBJECT TO EXPOSURE FROM INCREASED ROAD SALT RUN OFF, SUCH AS BRIDGE CROSSINGS. 2" SIZE MAY BE REDUCED TO 1".



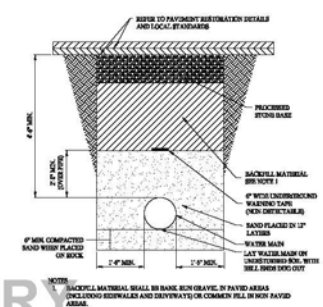
STANDARD AIR VALVE DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



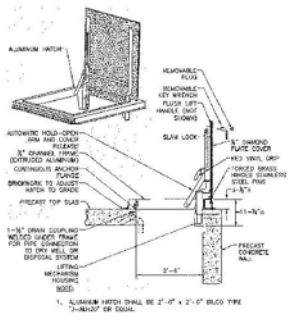
8-INCH OR 10-INCH BLOW-OFF ASSEMBLY DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



WATER MAIN TRENCH DETAIL

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT



ALUMINUM HATCH FOR PRECAST METER PITS

SCALE: NTS — DETAIL PROVIDED BY THE METROPOLITAN DISTRICT

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Rev. #:	Date	Description

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MONSON, CT | W. HARTFORD, CT | NEWWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-8455 | F: (203) 880-8855

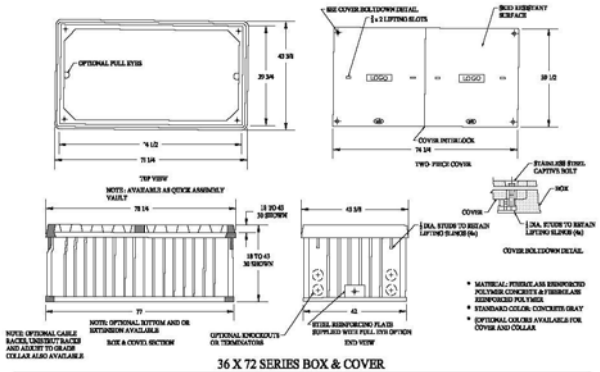
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

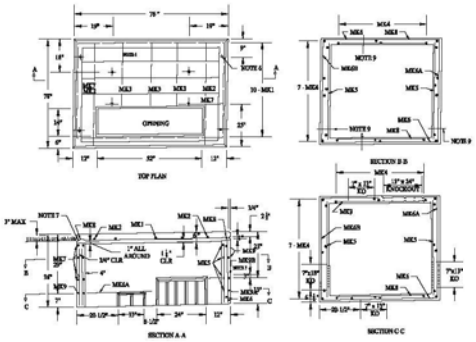
Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.05

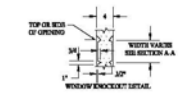


36 X 72 SERIES BOX & COVER

SCALE: NTS DETAIL PER EVERSOURCE



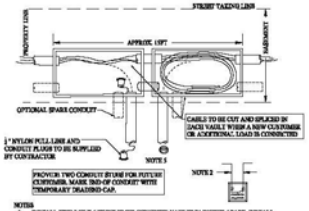
BAR SCHEDULE											
MARK NO.	MK1	MK2	MK3	MK4	MK5	MK6	MK7	MK8	MK9	MK10	MK11
SIZE	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5	#5
NO. OF BARS	11	3	3	10	6	7	3	3	7	3	3
DIMENSIONS	78"	19"	19"	78"	78"	78"	19"	19"	78"	19"	19"



NOTES:
1. ROOF DESIGN LOAD: 4000 LBS SPREAD OVER 1 FOOT SQUARE AREA ANYWHERE ON ROOF
2. WALLS: SOIL PRESSURE OF EQUIVALENT FLUID PRESSURE OF 30 PCF, SURCHARGE OF 2.5 FEET OF SOIL WEIGHING 120 PCF.
3. CONCRETE: 4000 PSI AT 28 DAYS, ENTRAINED AIR 4-8 PERCENT
4. STEEL: ASTM A615 GRADE 60.
5. ALL CONCRETE AND REINFORCEMENT IN ACCORDANCE WITH ACI 318-1999
6. FOR LIFTING TOP OR BOTTOM SECTIONS, CAST IN FOUR 3/4- INCH DIAMETER DAYTON RUSSKEIP (OR APPROVED EQUAL) CEIL LOOP INSERTS, GALVANIZED, WITH ITS PLASTIC SLITTING FLOOR INSERTS ARE TO BE SECURED IN PLACE WITH REBAR.
   TOP: CATALOG TYPE B34, 3/4- INCH DIAMETER X 4 INCHES LONG
   BOTTOM: CATALOG TYPE B54, 3/4- INCH DIAMETER X 6 INCHES LONG
7. PROVIDE 3 INCH LONG GROOVE (3/4 INCH X 1 INCH) FOR LIFTING SLING AT EACH CORNER, EACH SIDE.
8. MANUFACTURER'S IDENTIFICATION AND MONTH/YEAR WHEN MANUFACTURED SHALL BE LEGIBLY MARKED INTO CONCRETE IN THE SIDE
9. ZINC ALLOY INSERTS 3/4 INCH - 10 INCHES X 3 INCHES FOR CABLE PULLING. TO BE LOCATED 4 INCHES ABOVE (7 INCHES (3 INCH) KNOCKOUTS (FOUR).

THREE PHASE TRANSFORMER DETAIL

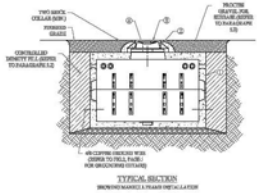
SCALE: NTS DETAIL PER EVERSOURCE



NOTES:
1. INSTALL TWO 3 FT X 4 FT POLYMER CONCRETE VAULTS 24 INCHES APART. INSTALL TWO CONDUIT STUBS WITH PLUGS AND 1 INCH NYLON PULL LINE FOR FUTURE USE WHEN SUPPLYING NEW CUSTOMER, LOOP CABLE IN AND OUT OF TRANSFORMER AND SPLICE AT BOTH VAULTS. REFER TO DTR 51.021 FOR ADDITIONAL CONSTRUCTION GUIDELINES.
2. MAINTAIN MINIMUM 12 INCH SEPARATION BETWEEN CONDUITS. CONDUIT SHALL BE MINIMUM 3 INCH SCHEDULE 40 PVC.
3. GAPS AROUND CONDUIT AT ENDCOUT OPENINGS SHALL BE SEALED WITH CEMENT MORTAR TO PREVENT BACKFILL FROM ENTERING VAULT.
4. CONDUITS ENTERING CUSTOMERS FACILITIES ARE REQUIRED TO BE SEALED TO PREVENT WATER AND/OR GAS FROM ENTERING BUILDING. REFER TO DTR 75.275
5. INSTALL DISPOSABLE DEADEND MARKER TO IDENTIFY END OF CONDUIT STUB . REFER TO DTR 04.11B.
6. SELECT SPLICES FROM DTR 55.501-502
7. INSTALL TWO GALVANIZED STEEL GROUND RODS, SPACED MINIMUM 8 INCHES APART, ADJACENT TO EACH VAULT AND GROUND CABLE IN ACCORDANCE WITH DTR 78.151. PROVIDE #6 CU BOND FOR COMMUNICATIONS COMPANIES.

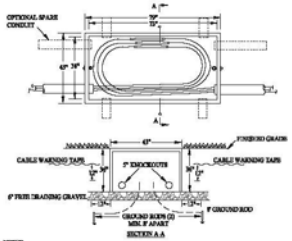
FUTURE LOOPED TRANSFORMER OR EXTENSION DETAIL

SCALE: NTS DETAIL PER EVERSOURCE



ELECTRIC MANHOLE DETAIL

SCALE: NTS DETAIL PROVIDED BY EVERSOURCE



NOTES:
1. INSTALL POLYMER CONCRETE VAULT. VAULT IS RATED FOR OCCASIONAL VEHICULAR TRAFFIC, SURVIVOR, DO NOT INSTALL IN ROADWAY APPLICATIONS. VAULT SHALL BE USED TO SPLICE ONE THREE-PHASE CABLE, MAXIMUM 1600 AL
2. THE EXCAVATION SHALL BE CARRIED TO A MINIMUM DEPTH OF 6" BELOW THE BOTTOM AND 12" BEYOND THE EDGE.
3. INSTALL TWO 8' GALVANIZED STEEL GROUND RODS ADJACENT TO THE VAULT AND GROUND PER DTR 78.151., PROVIDE #6 CU BOND FOR COMMUNICATION COMPANIES.
4. SELECT SPLICES FROM DTR 55.201-503
5. INSTALL WARNING TAPE 12" ABOVE TOP OF CONDUIT.
6. INSTALL SCHEDULE 40 PVC CONDUIT, MINIMUM 4" DIAMETER. INSTALL CONDUIT PLUGS IN SPARE CONDUITS.

ELECTRIC PULL BOX DETAIL

SCALE: NTS DETAIL PROVIDED BY EVERSOURCE

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MANCHESTER, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
CONSTRUCTION DETAILS	3.06

Jul 02, 2025 - 10:16am mwelty
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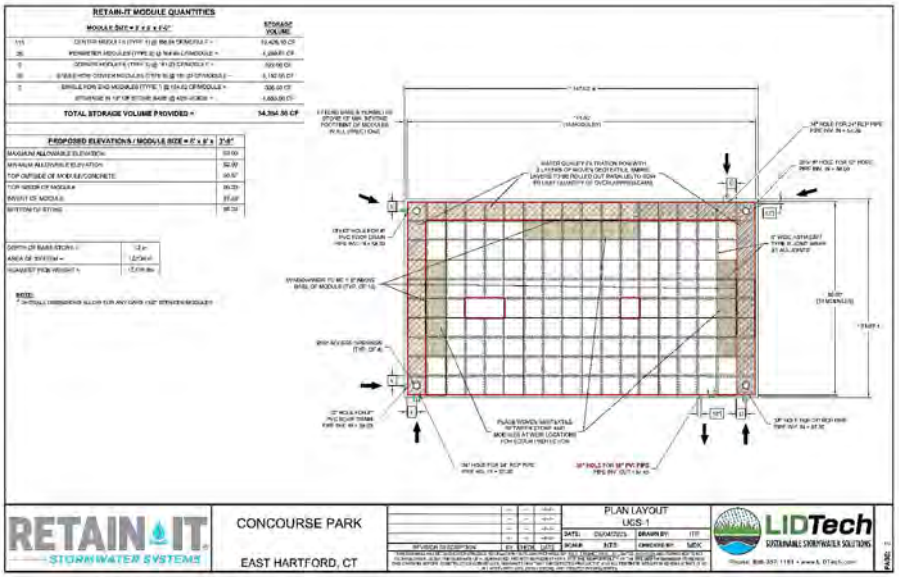
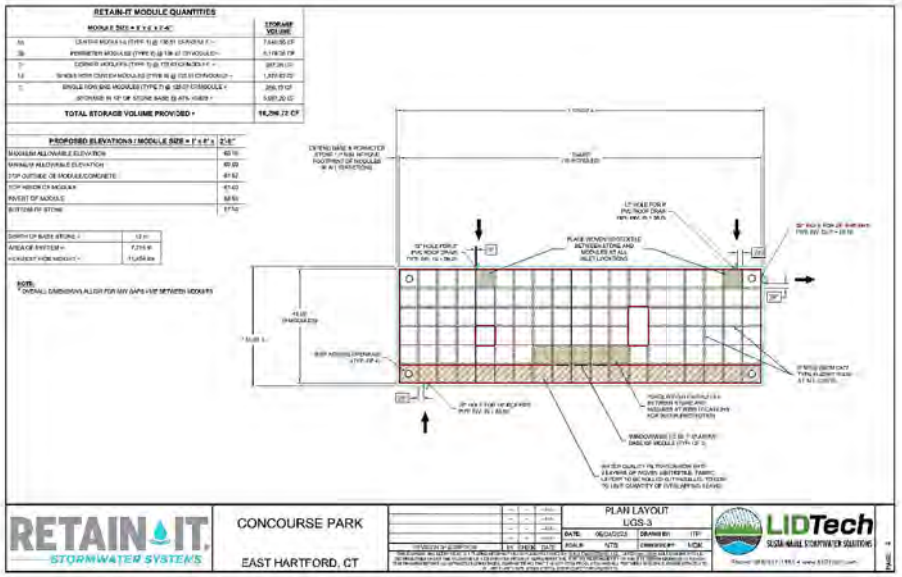
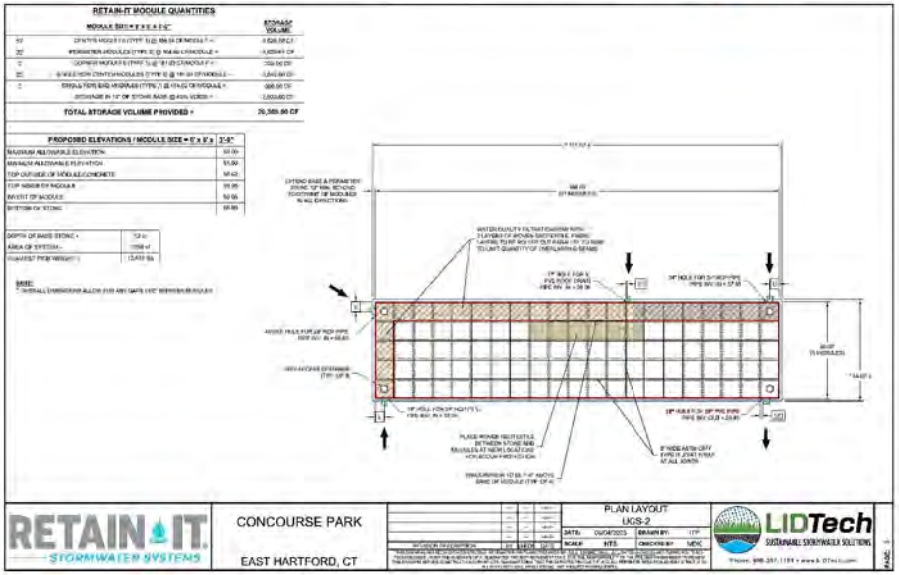
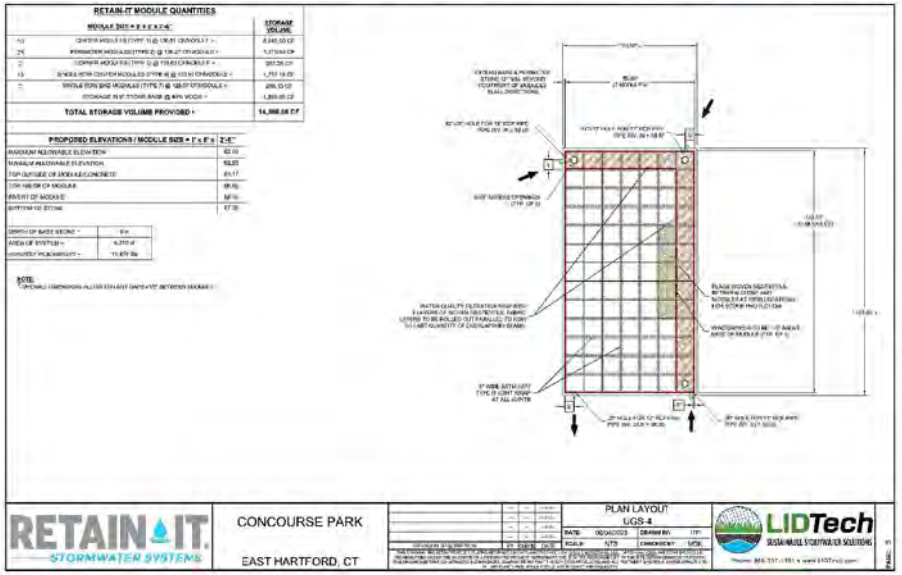








Rev. #	Date	Description

SOLLI ENGINEERING

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMB
Project #:	2018251
Plan Date:	03/02/23
Scale:	NTS

Project:

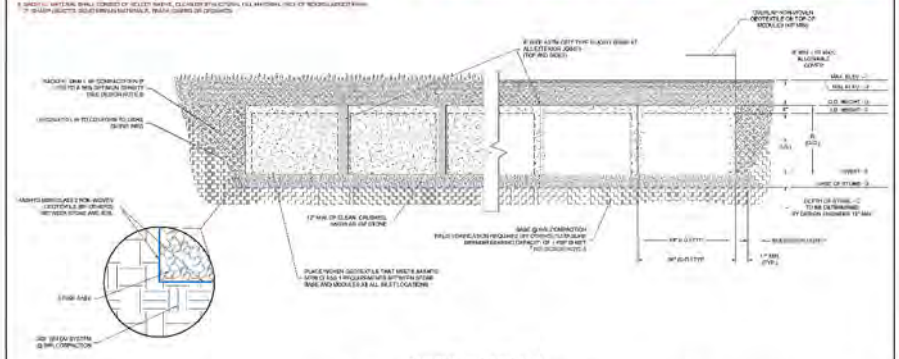
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:	Sheet #:
CONSTRUCTION DETAILS	3.07

PRELIMINARY
NOT FOR CONSTRUCTION

SYSTEM ELEVATIONS & MINIMUM BEARING CAPACITIES

SYSTEM #	A	B	C	D	E	F	G	H	I	J
UDS-1	2'-0"	44"	12"	55.38	47.25	50.25	60.87	42.00	23.00	3,360
UDS-2	2'-0"	44"	12"	59.88	56.50	55.38	60.62	51.00	30.00	3,360
UDS-3	2'-0"	39"	12"	57.50	56.00	51.00	61.67	45.00	30.00	3,360
UDS-4	2'-0"	39"	9"	57.25	56.00	50.50	61.17	42.00	30.00	4,240



RETAIN-IT CROSS SECTION
(UPRIGHT MODULES ON CRUSHED STONE BASE)

RETAIN-IT STORMWATER SYSTEMS | CONCOURSE PARK | EAST HARTFORD, CT | RETAIN-IT CROSS SECTION | LIDTech SUSTAINABLE STORMWATER SOLUTIONS

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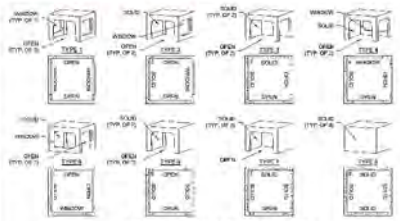
2'-6" RETAIN-IT MODULE WITH WEIR/WINDOW DIMENSIONS
(WATER QUALITY FILTRATION ROW)



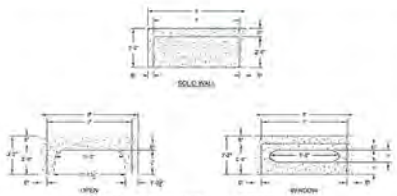
3'-0" RETAIN-IT MODULE WITH WEIR/WINDOW DIMENSIONS
(WATER QUALITY FILTRATION ROW)

INTENTIONALLY LEFT BLANK

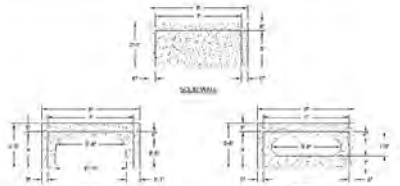
RETAIN-IT STORMWATER SYSTEMS | CONCOURSE PARK | EAST HARTFORD, CT | RETAIN-IT DETAILS | LIDTech SUSTAINABLE STORMWATER SOLUTIONS



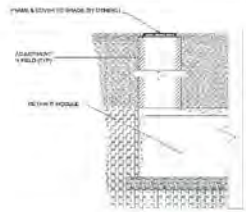
1'-6" to 4'-6" RETAIN-IT MODULE TYPES



TYPICAL 2'-6" RETAIN-IT MODULE DIMENSIONS



TYPICAL 3'-0" RETAIN-IT MODULE DIMENSIONS



ACCESS RISER DETAIL

RETAIN-IT STORMWATER SYSTEMS | CONCOURSE PARK | EAST HARTFORD, CT | RETAIN-IT DETAILS | LIDTech SUSTAINABLE STORMWATER SOLUTIONS

Rev. #	Date	Description

SOLLI ENGINEERING

Drawn By:	CSS
Checked By:	PAS
Approved By:	KMS
Project #:	2510051
Plot Date:	02/02/26
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-003

Sheet Title: CONSTRUCTION DETAILS

Sheet #: 3.08

PRELIMINARY
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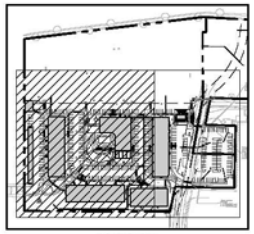
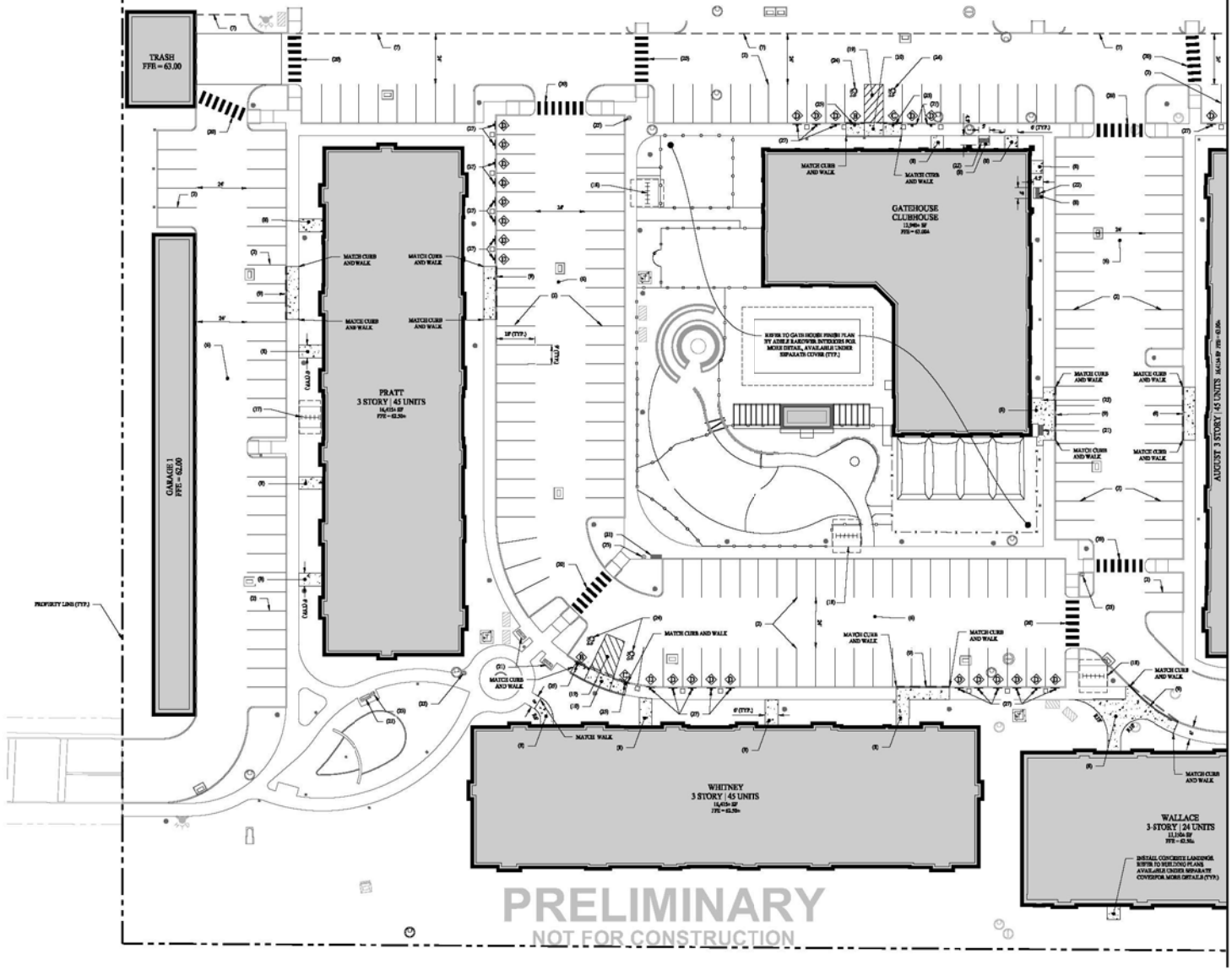


KEY MAP
SCALE: 1" = 100'



MATCHLINE - SEE SHEET 4.01.2

GENERAL NOTES

1. REFER TO SHEET G.10 FOR NOTES, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

CONSTRUCTION KEY NOTES

(1) INSTALL 6" CONCRETE CURB
(2) INSTALL 4" PAINTED SOLID WHITE LINE, TO BE HOT APPLIED (TYP.)
(3) START OF 6" INTEGRAL CONCRETE CURB
(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB, MATCH LINE & GRADE
(6) INSTALL FINISH COURSE STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) MATCH PHASE 1 EDGE OF PAVEMENT
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
(10) ADA RAMP TYPE 9
(11) ADA RAMP TYPE 14
(12) ADA RAMP TYPE 16
(13) ADA RAMP TYPE 18
(14) 2' DIAMETER CONCRETE LIGHT POLE BASE
(15) 7x7 CONCRETE BOLLARD LIGHT BASE
(16) 4' WIDE CHAIN LINK GATE
(17) INSTALL MEDIUM BIKE RACK WITH CANOPY
(18) INSTALL LONG BIKE RACK WITH CANOPY
(19) 4" PAINTED SOLID WHITE LINE AT 2' O.C., PAINTED @ 45° ANGLE (TYP.)
(20) INSTALL 6' WIDE WHITE PAINTED CROSSWALK (24" BARS, 48" O.C. SPACING)
(21) INSTALL LARGE (30 LB*) BENCH
(22) INSTALL SMALL (40*) BENCH
(23) INSTALL TRASH CAN
(24) ADA PARKING SPACE
(25) INSTALL ACCESSIBLE SIGN WITH BOLLARD BASE
(26) 12" WHITE PAINTED STOP BAR
(27) INSTALL EV PARKING ONLY SIGN WITH BOLLARD BASE
(28) INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE, TO BE HOT APPLIED (TYP.)
(29) INSTALL 4" PAINTED DOTTED SINGLE YELLOW LINE, TO BE HOT APPLIED (TYP.)

SIGN LEGEND

A — STOP

SIZES (IN)	CONN DOT #	SUPPORTS
30"	M 1018	1

B — PAINTED ON PAVEMENT

SIZES (IN)	MUTCD #	SUPPORTS
12"x36" 12"x96"	* R7-8*	1

*MODIFIED INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C — PAINTED ON PAVEMENT

SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODIFIED INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D — ELECTRIC VEHICLE PARKING ONLY

SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	M18*	1

*OR EQUIVALENT APPROVED SIGN

Rev. #	Date	Description

Graphic Scale: 20 0 20 40

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T: (203) 880-8455 | T: (203) 880-8882

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

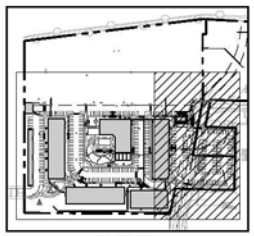
Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B SITE PLAN

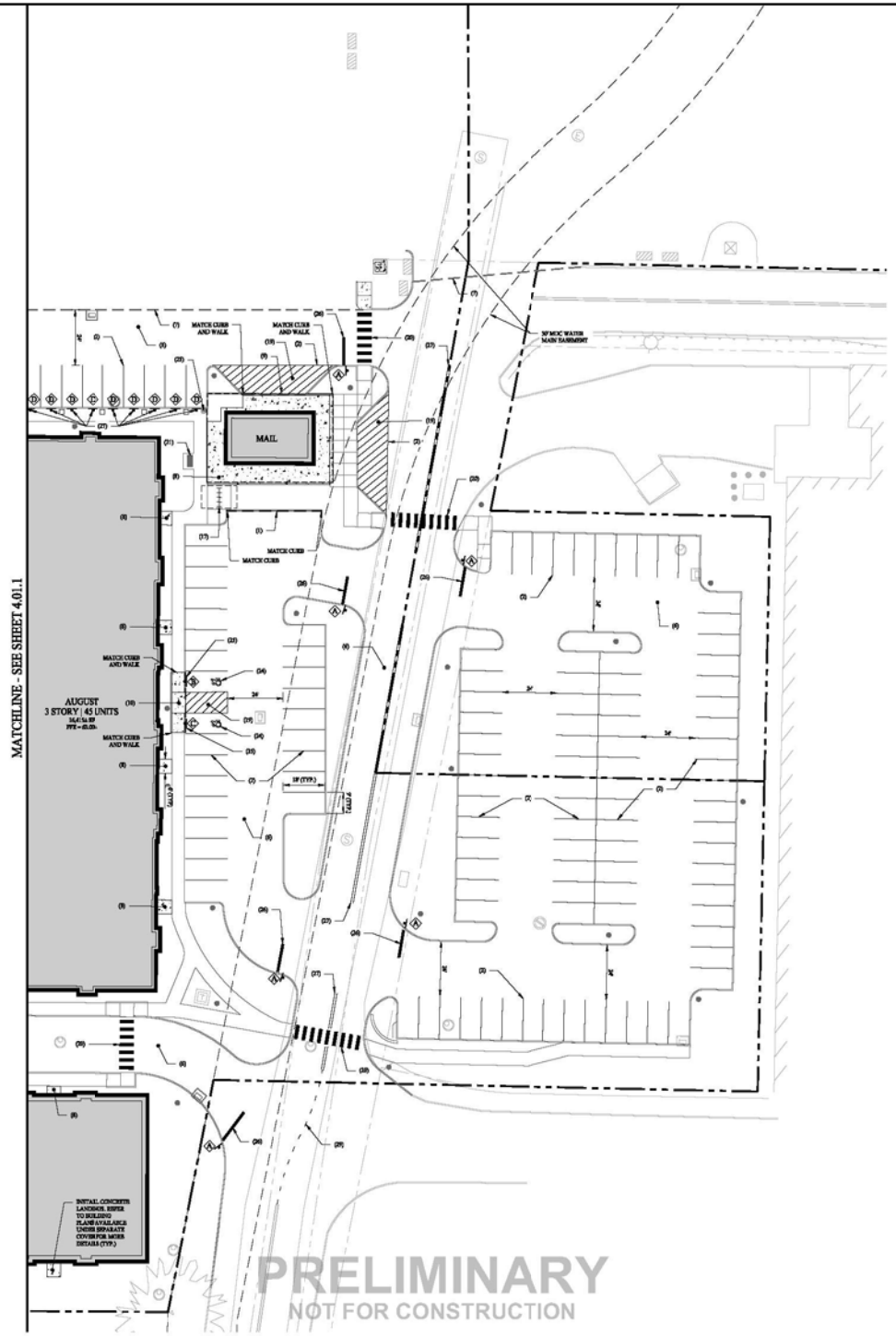
Sheet #: 4.01.1

PRELIMINARY
NOT FOR CONSTRUCTION



KEY MAP

SCALE: 1" = 200'



PRELIMINARY
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GENERAL NOTES

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CONSTRUCTION KEY NOTES

(1) INSTALL 6" CONCRETE CURB
(2) INSTALL 4" PAINTED SOLID WHITE LINE, TO BE HOT APPLIED (TYP.)
(3) START OF 6" INTEGRAL CONCRETE CURB
(4) END OF 6" INTEGRAL CONCRETE CURB
(5) TIE INTO EXISTING CURB, MATCH LINE & GRADE
(6) INSTALL FINISH COURSE STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
(7) MATCH PHASE 1 EDGE OF PAVEMENT
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
(10) ADA RAMP TYPE 9
(11) ADA RAMP TYPE 14
(12) ADA RAMP TYPE 16
(13) ADA RAMP TYPE 18
(14) 2' DIAMETER CONCRETE LIGHT POLE BASE
(15) 1'x1' CONCRETE BOLLARD LIGHT BASE
(16) 4' WIDE CHAIN LINK GATE
(17) INSTALL MEDIUM BIKE RACK WITH CANOPY
(18) INSTALL LONG BIKE RACK WITH CANOPY
(19) 4" PAINTED SOLID WHITE LINE AT 2' O.C., PAINTED @ 45° ANGLE (TYP.)
(20) INSTALL 6" WIDE WHITE PAINTED CROSSWALK (36" BARS, 40" O.C. SPACING)
(21) INSTALL LARGE (60 1/8") BENCH
(22) INSTALL SMALL (48") BENCH
(23) INSTALL TRASH CAN
(24) ADA PARKING SPACE
(25) INSTALL ADA ACCESSIBLE SIGN WITH BOLLARD BASE
(26) 12" WHITE PAINTED STOP BAR
(27) INSTALL EV PARKING ONLY SIGN WITH BOLLARD BASE
(28) INSTALL 4" PAINTED SOLID DOUBLE YELLOW LINE, TO BE HOT APPLIED (TYP.)
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SIGN LEGEND



SIZES (IN)	CONN DOT #	SUPPORTS
36"	51-0551	1



SIZES (IN)	MUTCD #	SUPPORTS
12"x24" 12"x6"	* R7-8F	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.



SIZES (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODERN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.



SIZES (IN)	CONN DOT #	SUPPORTS
12"x18"	30A*	1

*USE EQUIVALENT APPROVED SIGN

Rev. #:	Date	Description

Graphic Scale:

20 0 20 40

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T: (203) 880-3455 | F: (203) 880-3865

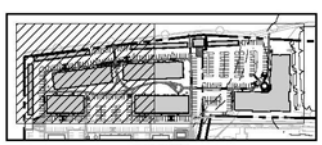
Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

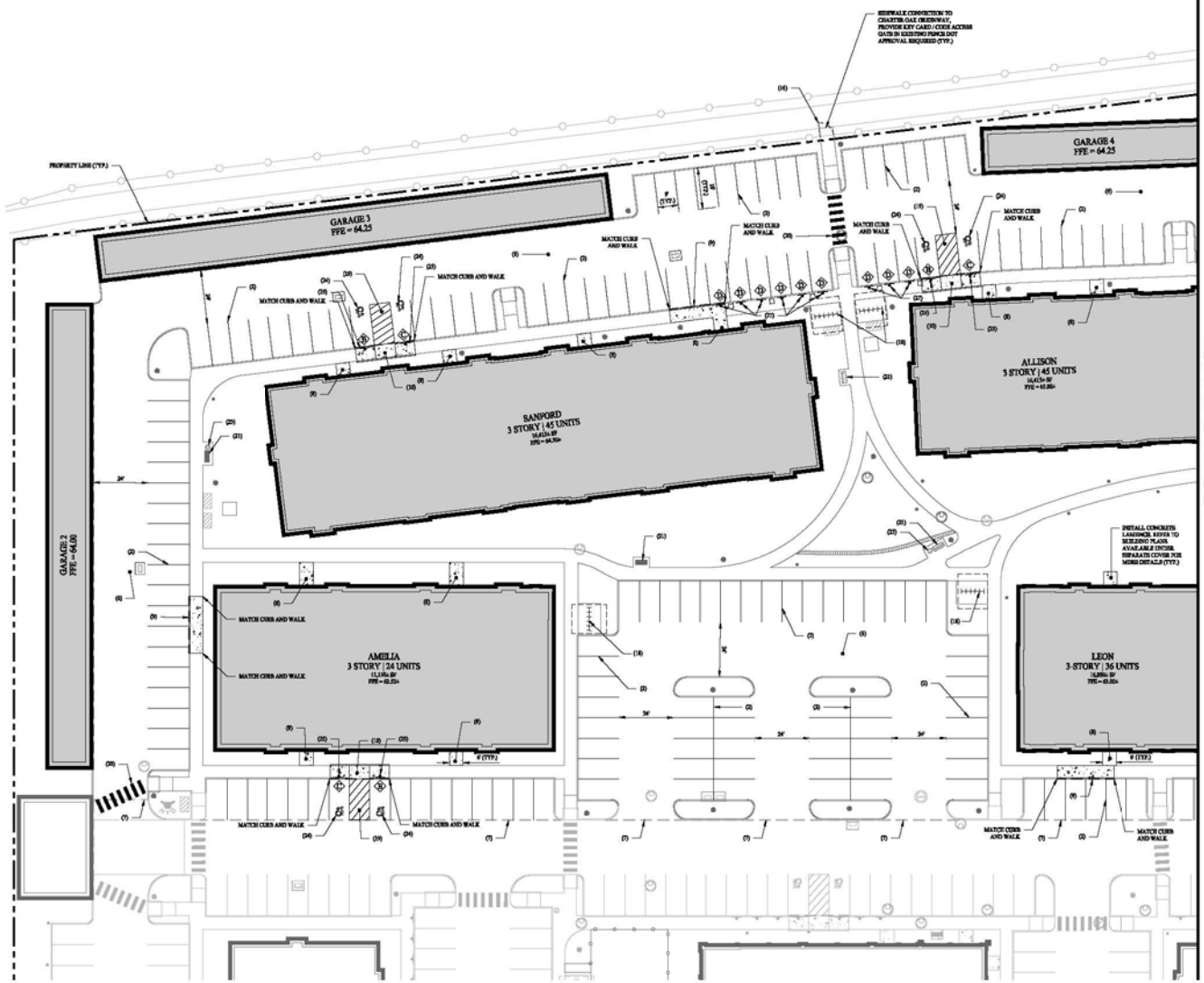
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B SITE PLAN

Sheet #: 4.01.2



KEY MAP
SCALE: 1" = 200'



GENERAL NOTES

1. REFER TO SHEET G.10 FOR SOUTH, LEGENDS, SIGN LEGEND, AND ABBREVIATIONS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
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(7) MATCH PHASE 1 EDGE OF PAVEMENT
(8) INSTALL CONCRETE SIDEWALK
(9) INTEGRAL CURB AND SIDEWALK
(10) ADA RAMP TYPE 9
(11) ADA RAMP TYPE 14
(12) ADA RAMP TYPE 16
(13) ADA RAMP TYPE 10
(14) 2' DIAMETER CONCRETE LIGHT POLE BASE
(15) 3'x3' CONCRETE BOLLARD LIGHT BASE
(16) 4' WIDE CHAIN LINK GATE
(17) INSTALL MEDIUM BIKE RACK WITH CANOPY
(18) INSTALL LONG BIKE RACK WITH CANOPY
(19) 4" PAINTED SOLID WHITE LINE AT 2' O.C., PAINTED @ 45° ANGLE (TYP.)
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SIGN LEGEND

A — STOP

SIZE (IN)	CONN DOT #	SUPPORTS
30"	M 1018	1

B — R7-8 ACCESSIBLE PARKING SPACE

SIZE (IN)	MUTCD #	SUPPORTS
12"x24" 12"x18"	* R7-8P	1

*MODIFY IN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C — R7-8 ACCESSIBLE PARKING ONLY

SIZE (IN)	MUTCD #	SUPPORTS
12"x24"	*	1

*MODIFY IN INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D — ELECTRIC VEHICLE PARKING ONLY

SIZE (IN)	CONN DOT #	SUPPORTS
12"x18"	M18*	1

*OR EQUIVALENT APPROVED SIGN

PRELIMINARY
NOT FOR CONSTRUCTION

Rev. #	Date	Description

Graphic Scale: 20 0 20 40

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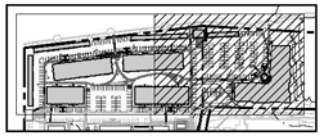
MANCHESTER, CT | WARMINSTER, PA | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 886-0435 | T: (267) 443-3002

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 20'

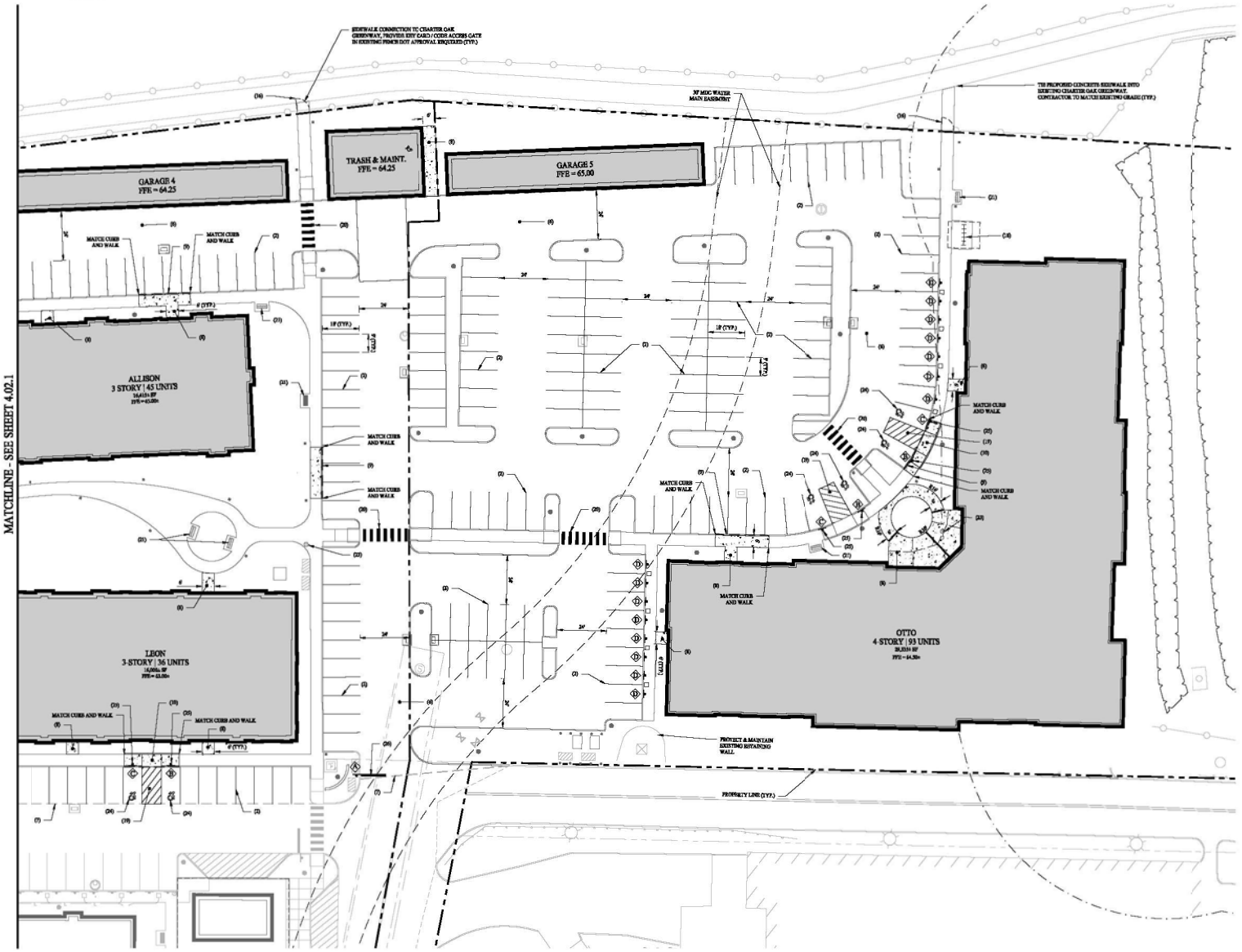
Project:
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 SITE PLAN

Sheet #: 4.02.1



KEY MAP
SCALE: 1" = 200'



PRELIMINARY
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(29) INSTALL 4" PAINTED DOTTED SINGLE YELLOW LINE, TO BE HOT APPLIED (TYP.)

SIGN LEGEND

A — STOP

SIZE (IN)	CONN DOT #	SUPPORTS
30"	R1-1(24)	1

B — ACCESSIBLE PARKING SIGN

SIZE (IN)	MUTCD #	SUPPORTS
12"x18"	*	1
12"x18"	R7-8P	1

*MODIFIED INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

C — ACCESSIBLE PARKING SIGN

SIZE (IN)	MUTCD #	SUPPORTS
12"x18"	*	1

*MODIFIED INTERNATIONAL SYMBOL OF ACCESSIBILITY STATE OF CONNECTICUT PARKING SIGN.

D — ELECTRIC VEHICLE PARKING ONLY

SIZE (IN)	CONN DOT #	SUPPORTS
12"x18"	R7-8	1

*OR EQUIVALENT APPROVED SIGN

Rev. #	Date	Description

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 20'

Project:
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 SITE PLAN

Sheet #: 4.02.2

GENERAL NOTES

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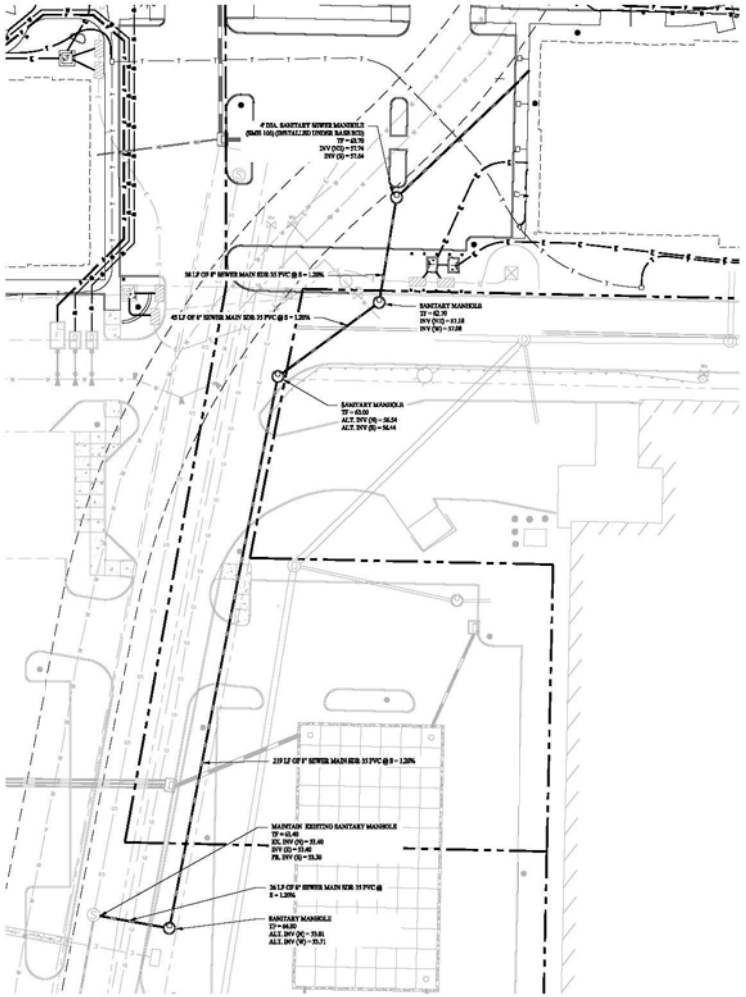
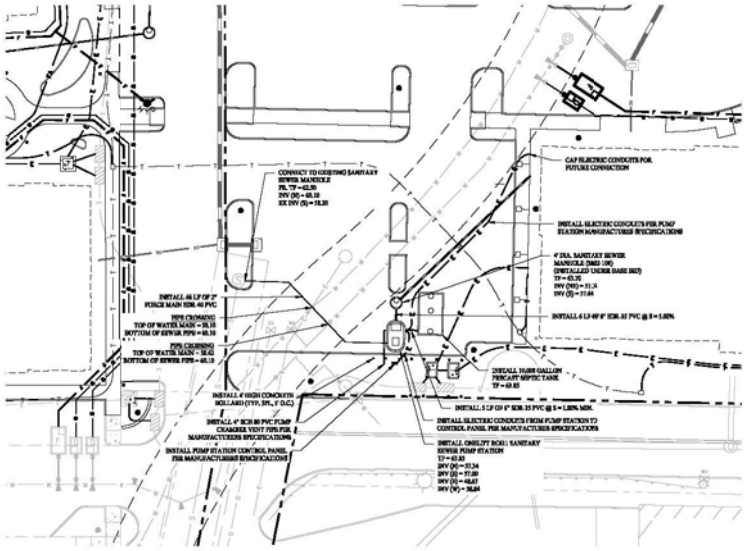


OTTO GRAVITY SANITARY SEWER CONNECTION ALTERNATIVE

SCALE: 1" = 20'



OTTO PUMP STATION SANITARY SEWER CONNECTION ALTERNATIVE

SCALE: 1" = 20'

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OTTO SANITARY SERVICE ALTERNATES

Sheet #: 4.03

PRELIMINARY
NOT FOR CONSTRUCTION

GENERAL NOTES

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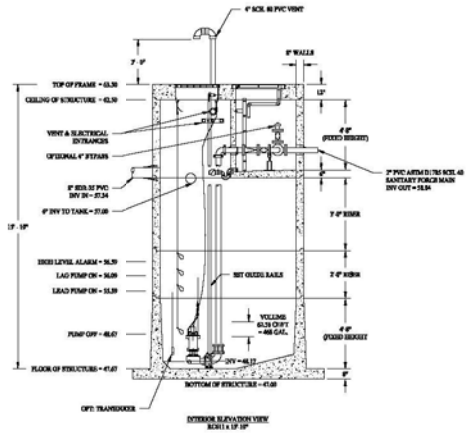
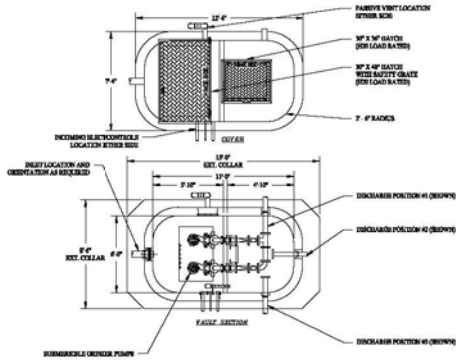
NOTES:
1. PRECAST PUMP STATION STRUCTURE, HS 20 LOAD QUALIFIED.
2. PRECAST PUMP STATION RISERS, 2', 3' & 4' SEGMENTS AS REQUIRED.
3. (2)DUTY PUMPS PR1030 SERIES 1 HP SUBMERSIBLE GRINDER PUMPS OR APPROVED EQUAL.
4. THE CONTROL PANEL SHALL BE NFPA-70/NEC-COMPLIANT MODEL AS-2012, OR AS SPECIFIED BY MANUFACTURER, AND LOCATED IN BUILDING.
5. 2" PVC SCH 40 DISCHARGE PIPING WITH PVC SCH 40 FITTINGS.
6. 2" DUPLEX DISCHARGE ETF SUPPLIED BY ZURN.
7. 24" STAINLESS STEEL PUMP REMOVAL GUIDE RAILS MODEL A10 2015 AS SUPPLIED BY CENTERPRO.
8. 8" SDR 35 PVC INLET PIPE.**
9. PROVIDE PUMP ACCESS HATCHES AS INDICATED, QUALIFIED FOR HS 20 LOAD.
10. ADJUSTABLE POLYPROPYLENE LEVEL CONTROL FLOAT SWITCHES.
11. LINK SEAL (FOR EACH PIPE) SAYING OR ENTERING MANHOLES AND VALVE VAULTS).
12. 2" PVC ASTM D 1785 SCHEDULE 40 PVC PIPE.
13. WATERTIGHT SEALANT REQUIRED ON ALL JOINTS AND SEAMS.

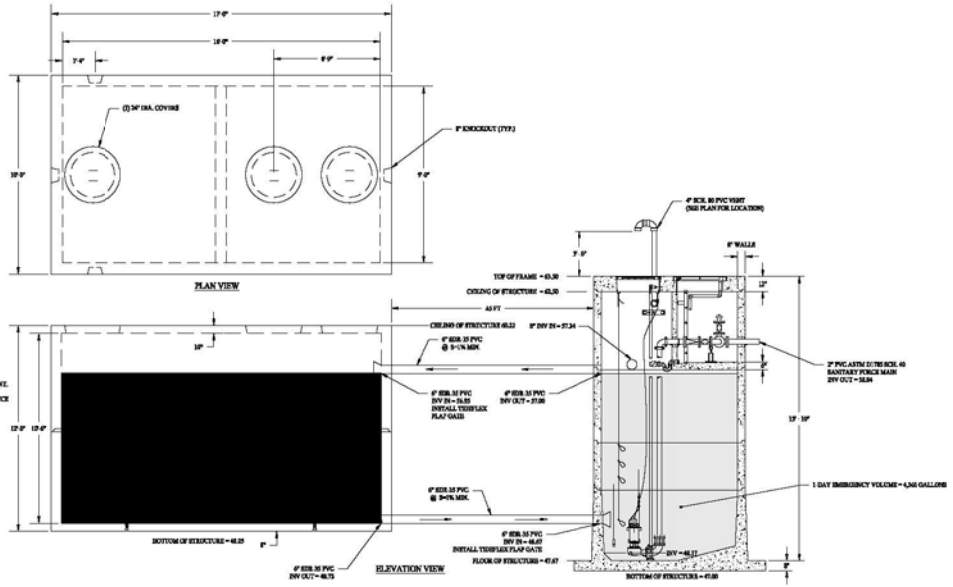




ONELIFT PUMP STATION DETAIL

1 SCALE: NTS

DETAIL PROVIDED BY: OLD CASTLE PRECAST



10,000 GALLON STORAGE TANK WITH PUMP STATION CONNECTION

2 SCALE: NTS

PRELIMINARY
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Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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SOLLIENGINEERING.COM
T: (203) 880-3455 | T: (203) 665-3002

Drawn By:	CSH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: OTTO PUMP STATION DETAILS ALTERNATE

Sheet #: 4.04

GENERAL NOTES

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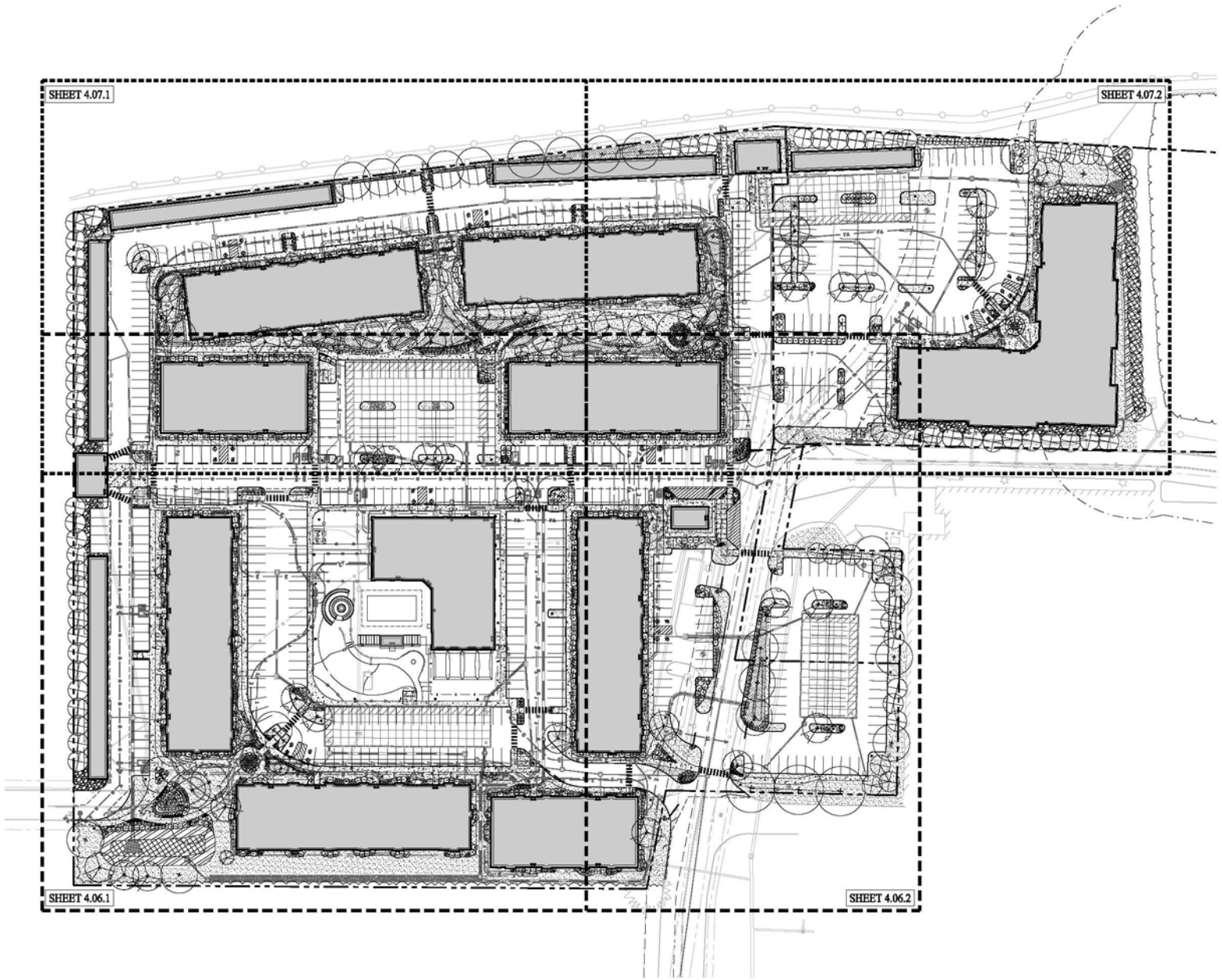

PRELIMINARY
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Rev. #:	Date	Description

Graphic Scale:
40 0 40 80

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MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-3455 | F: (203) 880-3665

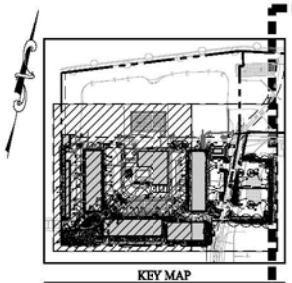
Drawn By:	MMH
Checked By:	PAR
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/25
Scale:	1" = 40'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

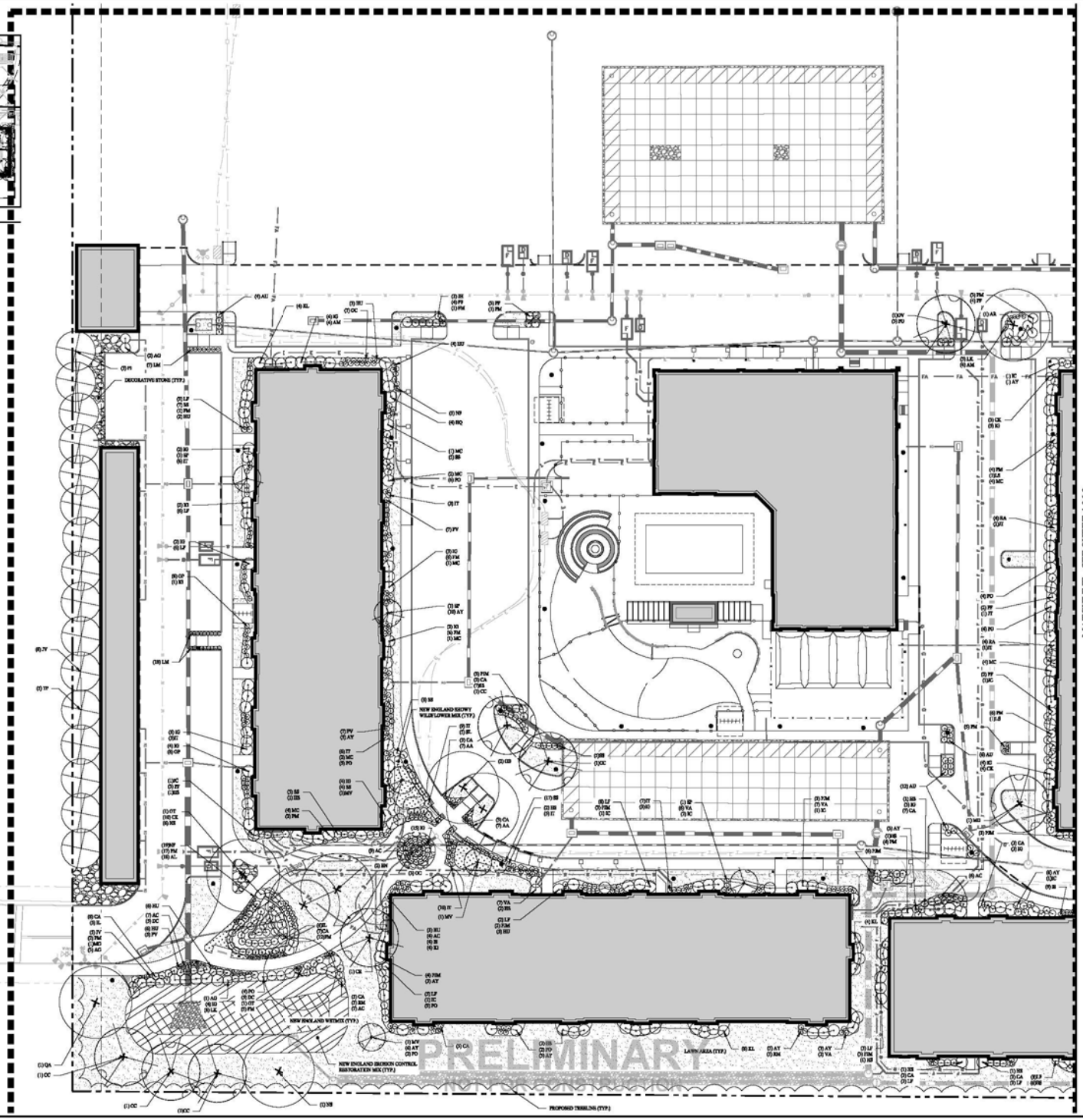
Sheet Title: ADD/ALT OVERALL LANDSCAPING PLAN

Sheet #: 4.05



KEY MAP

SCALE: 1" = 200'



MATCHLINE - SEE SHEET 4.06.2

GENERAL NOTES

1. REFER TO SHEET 4.06.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THIS PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINING LOT LINE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING TREE
- OVERSTORY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUBS & GROUNDCOVER
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONTROL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- DECORATIVE STONE

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

SOLLI ENGINEERING

MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
T: (203) 880-3455 | F: (203) 880-3665

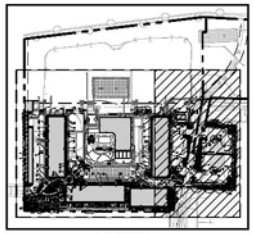
Drawn By:	JJS
Checked By:	MPB
Approved By:	KMS
Project #:	2010501
Plan Date:	03/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

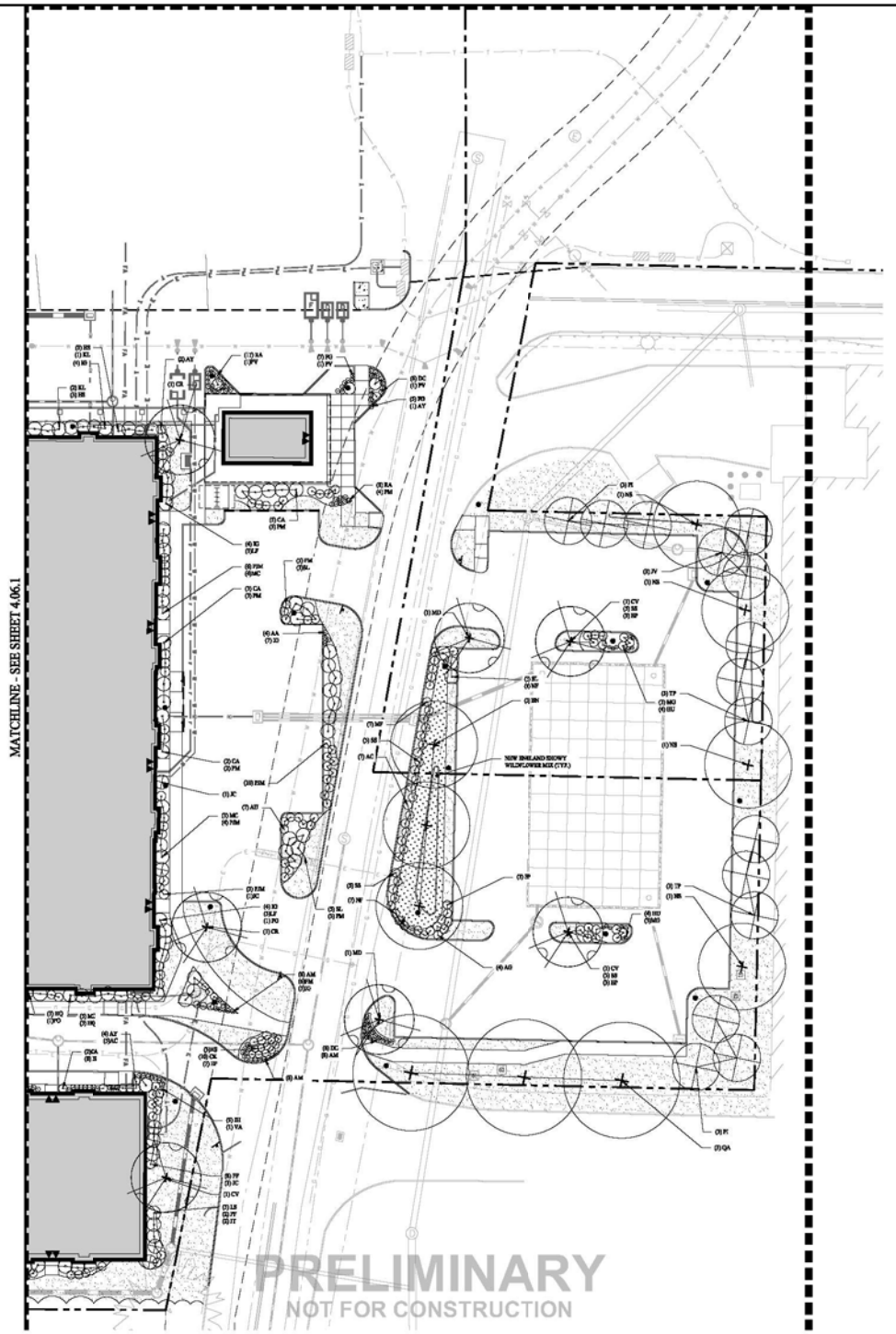
Sheet Title: ADD/ALT PHASE 1B LANDSCAPE PLAN

Sheet #: 4.06.1



KEY MAP

SCALE: 1" = 200'



GENERAL NOTES

1. REFER TO SHEET 4.06.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. [illegible]
3. ALL NOTES & DIMENSIONS [illegible] SIMILAR CONDITIONS [illegible] PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE [illegible] PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTORS AND SUBCONTRACTORS RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

LEGEND

- PROPERTY LINE
- RIGHT OF WAY LINE
- ADJOINING LOT LINE
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- LAWN
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- NEW ENGLAND BROKEN CONTROL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- DECORATIVE STONE

Rev. #:	Date	Description

Graphic Scale: 20 0 20 40

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SOLLIENGINEERING.COM
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Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 1B LANDSCAPE PLAN

Sheet #: 4.06.2

PRELIMINARY
NOT FOR CONSTRUCTION

OVERALL PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
TREES						
AR	1	ACER RUBRUM	RED MAPLE	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
BN	10	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	8-10 HT.	MULTI-STEM
CB	6	CARPINUS BETULA 'FASTIGIATA'	FASTIGIATE HORNBEAM	B&B	2 - 2 1/2" CAL.	FULL, EXTRA HEAVY
GB	4	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
GT	3	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	THORNLESS COMMON HONEYLOCUST	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
HO	7	ILEX OPACA 'NATIVE HOLLY'	AMERICAN HOLLY	B&B	8' HT.	FULL, EXTRA HEAVY
JC	16	JUNIPERUS CONFERTA 'BLUE POINT'	BLUE POINT JUNIPER	B&B	5'-7' HT.	FULL, EXTRA HEAVY
JT	5	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR JUNIPER RED CEDAR	B&B	8'-10' HT.	FULL, EXTRA HEAVY
JV	11	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	B&B	8'-10' HT.	FULL, EXTRA HEAVY
LS	24	LIQUIDAMBAR STYRACIFLUA 'SLENDER SILHOUETTE'	SWEETGUM	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
NS	3	NYSSA SYLVATICA	BLACK TUPELO	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
TP	11	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	B&B	8'-10' HT.	FULL, EXTRA HEAVY
PI	9	PICEA PUNGENS	COLORADO BLUE SPRUCE	B&B	8'-10' HT.	FULL, EXTRA HEAVY
QA	8	QUERCUS ALBA	WHITE OAK	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
UNDERSTORY TREES						
CC	5	CERCIS CANADENSIS	EASTERN REDBUD	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
CF	3	CORNUS X 'RUTGAN' FB	FB WHITE DOGWOOD 'RUTGAN'	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
CV	3	CRATAEGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
MA	2	MALUS FLORIBUNDA	FLOWERING APPLE	B&B	2 - 2 1/2" CAL.	FULL, EXTRA HEAVY
MOF	8	MALUS 'DOLGO' X 'SPALSH'	DOLGO X SPLASH FLOWERING APPLE	B&B	2 - 2 1/2" CAL.	FULL, EXTRA HEAVY
MD	3	MALUS 'DONALD WYMAN'	DONALD WYMAN FLOWERING CRABAPPLE	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
MV	4	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
OV	1	OSTRYA VIRGINIANA	AMERICAN HORNBEAM	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
SP	9	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	B&B	2"-3" CAL.	FULL, EXTRA HEAVY
ZS	1	ZELKOVA SERRATA	JAPANESE ZELKOVA	B&B	2 - 2 1/2" CAL.	FULL, EXTRA HEAVY
UPLAND SHRUBS						
AA	16	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	CONT	18"-24" HT.	FULL, EXTRA HEAVY
AV	34	AVALEA 'VUYK'	VUYK AVALEA	CONT	18"-24" HT.	FULL, EXTRA HEAVY
CA	36	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	CONT	18"-24" HT.	FULL, EXTRA HEAVY
CO	11	CORNUS ALBA 'BUDS YELLOW'	YELLOW TWIG DOGWOOD	CONT	24"-30" HT.	FULL, EXTRA HEAVY
CSE	3	CORNUS RACEMOSA	GRAY DOGWOOD	CONT	18"-24" HT.	FULL, EXTRA HEAVY
HM	87	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	MT. AIRY HYDRANGEA	CONT	18"-24" HT.	FULL, EXTRA HEAVY
HMA	6	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	CONT	24"-30" HT.	FULL, EXTRA HEAVY
HP	33	HYDRANGEA PANICULATA 'LITTLE QUICKFIRE'	LITTLE QUICKFIRE HYDRANGEA	CONT	24"-30" HT.	FULL, EXTRA HEAVY
HPL	29	HYDRANGEA PANICULATA 'LIMELIGHT'	LIMELIGHT HYDRANGEA	CONT	24"-30" HT.	FULL, EXTRA HEAVY
HQ	14	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	CONT	24"-30" HT.	FULL, EXTRA HEAVY
HS	35	HYDRANGEA QUERCIFOLIA 'SNOW FLAKE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT.	FULL, EXTRA HEAVY
ICR	96	ILEX CRENATA 'CHOKOKUMOCHI'	JAPANESE HOLLY	CONT	24"-30" HT.	FULL, EXTRA HEAVY
IC	7	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	CONT	18"-24" HT.	FULL, EXTRA HEAVY
IM	7	ILEX MERLEY AL 'MERRY PRINCESS'	BLUE HOLLY	CONT	24"-30" HT.	FULL, EXTRA HEAVY
IO	123	ILEX OPACA 'SHAMROCK'	SHAMROCK INKBERRY	CONT	18"-24" HT.	FULL, EXTRA HEAVY
IS	24	ILEX CRENATA 'SKY PENCIL'	SKY PENCIL JAPANESE HOLLY	CONT	18"-24" HT.	FULL, EXTRA HEAVY
IL	11	ILEX VERTICILLATA	WINTERBERRY	CONT	18"-24" HT.	FULL, EXTRA HEAVY
IT	51	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPIRE	CONT	18"-24" HT.	FULL, EXTRA HEAVY
KL	19	KALMIA LATIFOLIA 'LITTLE LINDA'	DWARF MOUNTAIN LAUREL	CONT	18"-24" HT.	FULL, EXTRA HEAVY
LP	47	LIRIOTHYPE PANTAMENAVA	DECOSPINGLER CYTISUS	CONT	18"-24" HT.	FULL, EXTRA HEAVY
MG	7	MYRICA GALE	SWEETGALE	CONT	18"-24" HT.	FULL, EXTRA HEAVY
PJ	29	PIERIS JAPONICA 'BRUCHOOSA'	JAPANESE ANDROMEDA	CONT	18"-24" HT.	FULL, EXTRA HEAVY
PM	69	PINUS MUGO 'MOPS'	DWARF MUGO PINE	CONT	18"-24" HT.	FULL, EXTRA HEAVY
PO	32	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	DWARF COMMON NINEBARK	CONT	18"-24" HT.	FULL, EXTRA HEAVY
PRM	59	RHODODENDRON 'PJM'	PJM RHODODENDRON	CONT	18"-24" HT.	FULL, EXTRA HEAVY
RV	24	RHODODENDRON X 'VENNINGHAM'S WHITE'	VENNINGHAM'S WHITE RHODODENDRON	CONT	24"-30" HT.	FULL, EXTRA HEAVY
RM	6	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	CONT	18"-24" HT.	FULL, EXTRA HEAVY
SL	16	SPIREA LATIFOLIA	MEADOWSWEET	CONT	18"-24" HT.	FULL, EXTRA HEAVY
TM	13	TAXUS X MEDIA 'HICKSII'	HICKS YEW	CONT	24"-30" HT.	FULL, EXTRA HEAVY
VA	23	VIBURNUM ACERIFOLIUM	MAPLE-LEAF VIBURNUM	CONT	18"-24" HT.	FULL, EXTRA HEAVY
GROUNDCOVER						
AL	29	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	CONT	#1 CONT.	FULL, EXTRA HEAVY
JH	12	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	CONT	#1 CONT.	FULL, EXTRA HEAVY
LM	27	LIRIOPE MUSCARI	LILY TURF	CONT	#1 CONT.	FULL, EXTRA HEAVY
RA	53	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	CONT	#1 CONT.	FULL, EXTRA HEAVY
PERENNIALS / FERNS						
AC	69	ASTILBE CHINENSIS	ASTILBE	CONT	1 GAL.	FULL, EXTRA HEAVY
AL	15	ALCHEMILLA MOLLIS	LADY'S MANTLE	CONT	1 GAL.	FULL, EXTRA HEAVY
AM	32	ACHILLEA 'MOONSHINE'	MOONSHINE YARROW	CONT	1 GAL.	FULL, EXTRA HEAVY
DC	26	DELOSPERMA 'COMET'	ICE PLANT	CONT	1 GAL.	FULL, EXTRA HEAVY
LP	16	RUDBECKIA PURPUREA	CONE FLOWER	CONT	1 GAL.	FULL, EXTRA HEAVY
PG	13	PENNISETUM GLAUCA 'ELIJAH BLUE'	PEARL GRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
HY	42	HEUCHERA 'CARAMEL'	CORAL BELLS	CONT	1 GAL.	FULL, EXTRA HEAVY
JV	18	JOE VEED CORE	BLUE FLAG IRIS	CONT	1 GAL.	FULL, EXTRA HEAVY
LK	11	ELATIOR SPECIATA 'KOSHOLD'	KOSHOLD LUTHIN	CONT	1 GAL.	FULL, EXTRA HEAVY
MP	7	MONARDA PINE FLORA	BEE BALM	CONT	1 GAL.	FULL, EXTRA HEAVY
NF	50	NEPETA FASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	CONT	1 GAL.	FULL, EXTRA HEAVY
OC	16	OSMUNDA CINNAMOMEA	CINNAMON FERN	CONT	1 GAL.	FULL, EXTRA HEAVY
SA	12	SALVIA NEMOROSA 'PHILIP HALL'	BLUE HILL MEADOW SAGE	CONT	1 GAL.	FULL, EXTRA HEAVY
SC	206	SEDUM ASSORTMENT	STONE CROP	CONT	1 GAL.	FULL, EXTRA HEAVY
WF	2	WISTERIA FLORIBUNDA	JAPANESE WISTERIA	CONT	TRELLIS	FULL, EXTRA HEAVY
GRASSES						
AG	27	ANDROPOGON GERARDII 'RED OCTOBER'	RED OCTOBER BIG BLUESTEM	CONT	1 GAL.	FULL, EXTRA HEAVY
CK	52	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER REED GRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
HA	86	HAKONECHLOA MACRA 'AUREOLA'	HAKONE GRASS	CONT	2 GAL.	FULL, EXTRA HEAVY
MC	67	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
OP	16	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	BLACK MONDO GRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
PA	13	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	FOUNTAIN GRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
PV	22	PANICUM VIRGATUM	SWITCHGRASS	CONT	1 GAL.	FULL, EXTRA HEAVY
SS	79	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	CONT	1 GAL.	FULL, EXTRA HEAVY
SEED MIXES						
NEW ENGLAND WETMIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/2,500 S.F.						
NEW ENGLAND SHOWY WILDFLOWER MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/2,500 S.F.						
NEW ENGLAND EROSION CONTROL/RESTORATION MIX (NEW ENGLAND WETLAND PLANTS, INC.)						
APPLICATION RATE: 1 LB/2,500 S.F.						
LAWN: PENNINGTON SMART SEED SUN AND SHADE						
APPLICATION RATE: NEW LAWNS- 9 LB/1,000 S.F.						

PLANTING SOIL NOTES

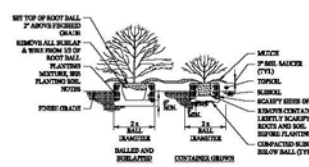
1. ALL PLANTING SOILS SHALL BE PREPARED PRIOR TO DELIVERY TO SITE.
2. PLANTING MIX FOR TREES AND SHRUBS SHALL BE AS FOLLOWS:
   - 3 PARTS SCREENED TOPSOIL
   - 1 PART CLEAN WASHED COARSE SAND
   - 1 PART PEAT HUMUS
   - 5 LBS. SUPER PHOSPHATE PER CUBIC YARD OF MIX
3. MYCORRHIZAL INNOCULANT TO BE AS FOR TREE SAVER TRANSPLANT BY PLANT HEALTH CARE, INC. (1-800-421-9051) OR APPROVED EQUAL.
4. "TERRASORB AVAILABLE FROM PLANT HEALTH CARE, INC. OR APPROVED EQUAL.
5. SUBMIT CERTIFICATION OF PLANTING MIX FOR TREES AND SHRUBS FROM SOIL DISTRIBUTOR.
6. TOPSOIL MIX SHALL INCLUDE:
   - 3 PARTS SCREENED TOPSOIL
   - 1 PART SAND
   - 1 PART HUMUS
   - 5 LBS. SUPER PHOSPHATE PER CU. YD. OF MIX
7. TOPSOIL:
   - A. PROVIDE A NATURAL, FRIABLE, FRAMLE, NATURAL LOAM SURFACE SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, OF UNIFORM COMPOSITION THROUGHOUT AND WITHOUT ADMIXTURES OF SUBSOIL, AND FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS OR OTHER EXTRANEOUS MATTER.
   - B. TOPSOIL SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 20% ORGANIC MATTER AS DETERMINED BY THE WET COMBUSTION METHOD.
   - C. MECHANICAL ANALYSIS

SCREEN SIZE	% BY WEIGHT PASSING
1"	100
1/4"	97 - 100
NO. 200	20 - 45

   - D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING AND ANALYSIS OF EXISTING AND IMPORTED SOILS. FURNISH A SOIL ANALYSIS MADE BY A QUALIFIED INDEPENDENT SOIL TESTING AGENCY STATING PERCENTAGES OF ORGANIC MATTER, INORGANIC MATTER (SILT, CLAY, AND SAND), DELETERIOUS MATERIAL, PH, AND MINERAL AND PLANT NUTRIENT CONTENT OF TOPSOIL.
   - B. BEFORE SUITABILITY OF TOPSOIL FOR LAWN AND SHRUB PLANTING GROWTH, RECOMMEND QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENT AND ANY LIMESTONE, ALUMINUM SULFATE, OR OTHER SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY TOPSOIL.

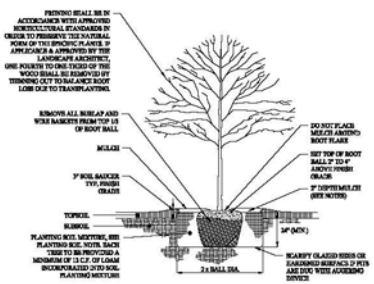
PLANTING NOTES

1. BE AWARE OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR PLANTING OPERATIONS. USE CARE TO PROTECT EXISTING UTILITIES FROM DAMAGE. CONTACT "CALL BEFORE YOU DIG" PRIOR TO EXCAVATION.
2. ALL PLANTWORK ARE TO BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR.
3. THE CONTRACTOR SHALL BE REQUIRED TO CARRY WORKMEN'S COMPENSATION INSURANCE AND COMPREHENSIVE GENERAL LIABILITY INSURANCE. CERTIFICATES WILL BE REQUIRED PRIOR TO SENDING CONTRACTS.
4. CONTRACTOR IS RESPONSIBLE FOR JOBSITE SAFETY. CONTRACTOR SHALL MAINTAIN A SAFE JOBSITE AT ALL TIMES.
5. CONTRACTOR SHALL BE FAMILIAR WITH THIS SITE'S VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS. REPORT ANY DISCREPANCIES TO LANDSCAPE DESIGNER.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED FOR COMPLETING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL EXCAVATED SOIL, BRUSH AND DEBRIS OFF SITE IN A SAFE AND LEGAL MANNER.
8. NOTIFY UTILITY OR LANDSCAPE DESIGNER 72 HOURS MINIMUM IN ADVANCE OF STARTING PLANTING OPERATIONS. RECEIVE APPROVAL FOR LAYOUT OF ALL SHRUBBED AND MATERIAL LOCATIONS PRIOR TO INSTALLATION.
9. PROTECT EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING CONSTRUCTION. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD AS THE DIRECTION OF THE LANDSCAPE DESIGNER.
10. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL PLANTING, SEEDING AND TREE WORK WITH OTHER TRADES. RESPECT OTHER TRADES' WORK AT ALL TIMES.
11. CONTRACTOR IS TO EXERCISE EXTREME CARE DURING THE COURSE OF DEMOLITION AND REMOVALS. ANY DAMAGES TO EXISTING FACILITIES, UTILITIES OR TREES TO REMAIN SHALL BE THIS SOLE RESPONSIBILITY OF THIS CONTRACTOR TO REPLACE IN KIND.
12. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DAMAGED TO PRE-EXISTING CONDITIONS AS A RESULT OF PLANTING OPERATIONS TO OWNERS AND/OR LANDSCAPE DESIGNER APPROVAL.
13. VEGETATION TO BE REMOVED, NOT INDICATED ON PLAN, SHALL BE TAGGED IN FIELD BY LANDSCAPE DESIGNER.
14. THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO REJECT INFERIOR PLANT MATERIALS AND SUBSTITUTIONS. THE LANDSCAPE DESIGNER IS WILLING TO MAKE TWO TRIPS TO SUPPLIERS TO TAKE REVIEW AND APPROVE MATERIALS. PREVIOUSLY UNAPPROVED MATERIALS MAY BE REJECTED AT THE SITE. MINIMALLY, ALL MATERIALS WILL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1 - 2004) OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
15. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AS SOON AS WEATHER AND SEASONAL CONDITIONS PERMIT, ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE DESIGNER DURING, AND AT THE END OF THE GUARANTEE PERIOD. WARRANTY REPLACEMENT WILL BE PROVIDED AT NO COST TO THE OWNER AND INCLUDE MATERIALS AND LABOR. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING REPLACEMENT OF WARRANTY MATERIALS.
16. WHEN THERE IS A DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON THE PLANT LIST & THE PLAN, USE THE QUANTITIES FROM THE PLAN.
17. PERENNIALS, GROUNDCOVERS & GRASSES TO BE FIELD LOCATED BY LANDSCAPE DESIGNER. COORDINATE TO MODIFY LANDSCAPE DESIGNS AT LEAST 72 HOURS IN ADVANCE OF EXPECTED INSTALLATION DATE. ON THAT DATE ALL SEEDS SHALL BE PREPARED & ALL PLANT MATERIAL SHALL BE ON SITE.
18. PROVIDE A MINIMUM 6" TOPSOIL FOR ALL DISTURBED AREAS. SUBMIT SAMPLE OF TOPSOIL AND SOIL TEST RESULTS FOR LANDSCAPE DESIGNER APPROVAL PRIOR TO DELIVERING TO SITE.
19. MULCH ALL SEED SHOWN AS CONTINUOUS WITH A 3" MINIMUM OF DOUBLE SHREDDED CEDAR BARK MULCH. SAMPLE TO BE SUBMITTED TO LANDSCAPE DESIGNER FOR APPROVAL.
20. ALL PLANT MATERIALS TO BE SOURCED FROM LOCALLY GROWN GROWERS.
21. PLANTING SHALL ONLY BE DONE BETWEEN MARCH 15TH TO MAY 15TH OR SEPTEMBER 1ST TO NOVEMBER 30TH.

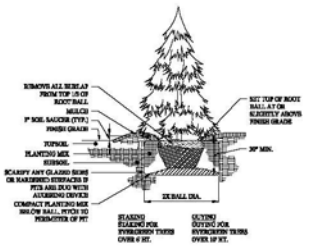


NOTE
1. IN AREAS OF MASS PLANTING, CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.
2. VERIFY THAT ALL PLANT PITS ARE FREE DRAINING. NOTIFY LANDSCAPE ARCHITECT IF PITS ARE NOT FREE DRAINING.
3. PRUNE, DEAD, DISFIGURED, OR BROKEN BRANCHES.

1 SHRUB PLANTING
SCALE: NTS



2 DECIDUOUS TREE PLANTING
SCALE: NTS



3 EVERGREEN TREE PLANTING
SCALE: NTS

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Rev. #	Date	Description

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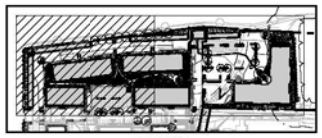
Checked By:	MPD
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:
ADD/ALT PHASE 1B LANDSCAPE DETAILS & NOTES

Sheet #:
4.06.3



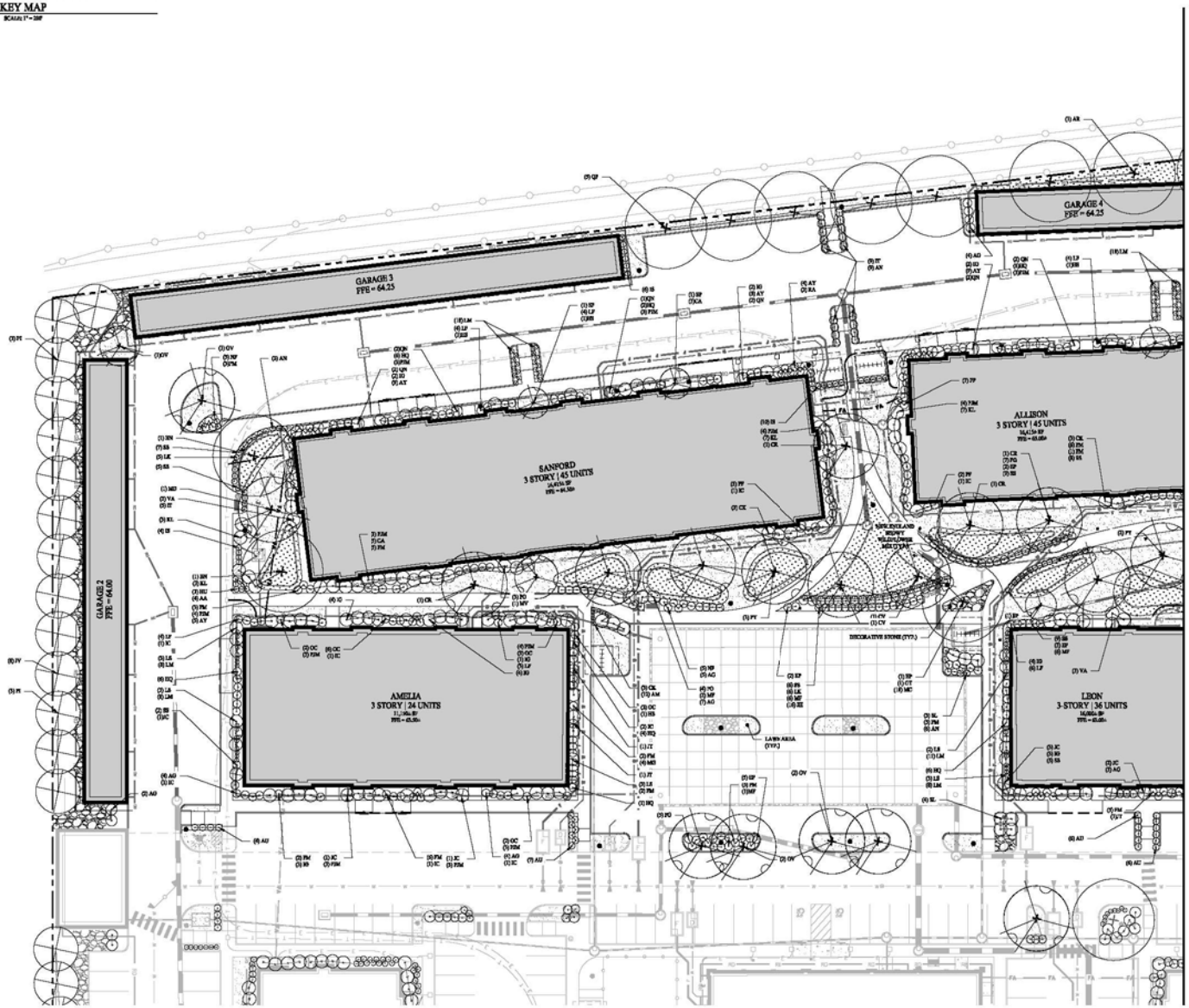
KEY MAP
SCALE: 1" = 200'

GENERAL NOTES

1. REFER TO SHEET 4.07.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
3. ALL NOTES & DIMENSIONS DESIGNATED "TYP." SHALL APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PLAN SET.
4. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS FOR USE IN BIDDING AND CONSTRUCTION.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJOINING LOT LINE
- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING TREE
- OVERSTORY TREE
- UNDERSTORY TREE
- EVERGREEN TREE
- SHRUBS & GROUNDCOVER
- NATIVE WETLAND TREE
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONTROL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- RIVERROCK



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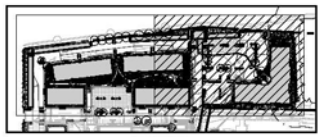
Checked By:	MPB
Approved By:	KMS
Project #:	2010501
Plan Date:	07/02/25
Scale:	1" = 20'

Project:

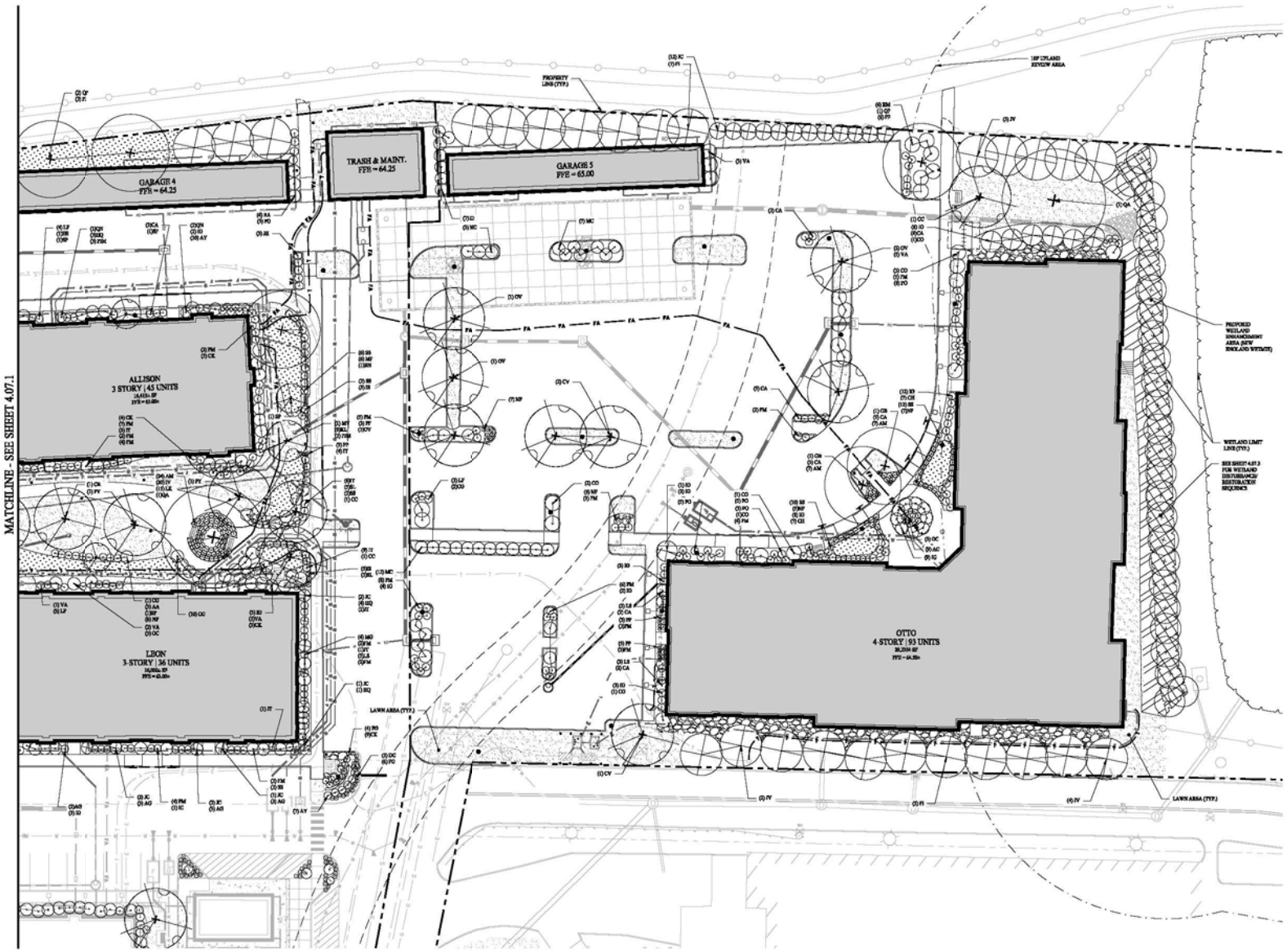
CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 LANDSCAPE PLAN

Sheet #: 4.07.1



KEY MAP
SCALE: 1" = 200'



GENERAL NOTES

1. REFER TO SHEET 4.07.3 FOR NOTES, PLANT SCHEDULE, AND DETAILS ASSOCIATED WITH THIS SHEET.
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- NATIVE WETLAND TREE
- LAWN
- NEW ENGLAND WETMIX
- NEW ENGLAND EROSION CONTROL/RESTORATION MIX
- NEW ENGLAND SHOWY WILDFLOWER MIX
- RIVERROCK

Rev. #:	Date	Description

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SOLLIENGINEERING.COM
T: (203) 880-3455 | F: (203) 880-3882

Drawn By:	JJS
Checked By:	MPB
Approved By:	KMS
Project #:	2010/501
Plan Date:	03/02/25
Scale:	1" = 20'

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title: ADD/ALT PHASE 2 LANDSCAPE PLAN

Sheet #: 4.07.2

PRELIMINARY
NOT FOR CONSTRUCTION

OVERALL PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
TREES						
AR	2	ACER RUBRUM	RED MAPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
BN	3	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	8-10' HT	MULTI-STEM
GB	2	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY
GT	1	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	SKYLINE COMMON HONEYLOCUST	B&B	2"-3" CAL	FULL, EXTRA HEAVY
IO	7	ILEX OPACA 'JAMESON'	PATRIOT AMERICAN HOLLY	B&B	6-7' HT	FULL, EXTRA HEAVY
JC	46	JUNIPERUS SCOPULORUM 'BLUE POINT'	BLUE POINT JUNIPER	B&B	7-8' HT	FULL, EXTRA HEAVY
JT	6	JUNIPERUS VIRGINIANA 'TAYLOR'	TAYLOR EASTERN RED CEDAR	B&B	8-10' HT	FULL, EXTRA HEAVY
JV	19	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	B&B	8-10' HT	FULL, EXTRA HEAVY
LR	21	LIRIODENDRON TULIPIFERA 'SEEDLESS' (LIMOUSETTE)	SWEETBUM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
PB	21	PICEA PUNGENS	COLORADO BLUE SPRUCE	B&B	8-10' HT	FULL, EXTRA HEAVY
QA	2	QUERCUS ALBA	WHITE OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
QK	11	QUERCUS BICOLOR 'KINDRED SPIRIT'	KINDRED SPIRIT HYBRID OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
QP	6	QUERCUS PALUSTRIS	PIN OAK	B&B	2"-3" CAL	FULL, EXTRA HEAVY
UNDERSTORY TREES						
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CK	7	CORNUS X 'KOUSA'	FLOWERING DOGWOOD 'KOUSA'	B&B	2"-3" CAL	FULL, EXTRA HEAVY
CV	7	CRATAEGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MD	3	MALUS 'DONALD WYMAN'	DONALD WYMAN FLOWERING CRABAPPLE	B&B	2"-3" CAL	FULL, EXTRA HEAVY
MV	2	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
OV	11	OSTRYA VIRGINIANA	AMERICAN IRONWOOD/HOP-HORNBEAM	B&B	2"-3" CAL	FULL, EXTRA HEAVY
PT	7	PRUNUS X 'OKAMENSIS' ACCIDONO	ACCIDONO CHERRY	B&B	2"-3" CAL	FULL, EXTRA HEAVY
SP	5	SYRINGA PEKINENSIS 'ARELLIA'	JAPANESE STEWARTIA	B&B	2"-3" CAL	FULL, EXTRA HEAVY
UPLAND SHRUBS						
AY	49	AGAVE 'YUCA'	YUCCA AGAVE A	PENT	10"-12" HT	FULL, EXTRA HEAVY
CA	57	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
CO	23	CORNUS ALBA 'BUDS YELLOW'	YELLOW TWIG DOGWOOD	CONT	18"-24" HT	FULL, EXTRA HEAVY
FM	58	FOTHERGILLA MAJOR 'MT. AIRY'	MT. AIRY FOTHERGILLA	CONT	18"-24" HT	FULL, EXTRA HEAVY
HQ	35	HYDRANGEA QUERCIFOLIA 'PEE WEE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
HS	17	HYDRANGEA QUERCIFOLIA 'SNOWFLAKE'	OAKLEAF HYDRANGEA	CONT	18"-24" HT	FULL, EXTRA HEAVY
IC	9	ILEX CRENATA 'STEEDS'	STEEDS JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IG	84	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IS	27	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IS	28	ILEX VERTICILLATA 'SKY PENCIL'	SKY PENCIL JAPANESE HOLLY	CONT	18"-24" HT	FULL, EXTRA HEAVY
IT	38	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPIRE	CONT	18"-24" HT	FULL, EXTRA HEAVY
KL	28	KALMIA LATIFOLIA 'LITTLE INDIA'	HYBRID MOUNTAIN LAUREL	CONT	18"-24" HT	FULL, EXTRA HEAVY
LS	57	LEUCOTHOE SPURYANA 'RAZZ'	DROOPING LEUCOTHOE	CONT	18"-24" HT	FULL, EXTRA HEAVY
MG	8	MYRICA GALE	SWEETGALE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PT	23	POTENTILLA FRUTICOSA	BUSH CINQUEFOIL	CONT	18"-24" HT	FULL, EXTRA HEAVY
PM	46	RHODODENDRON PJM	PJM RHODODENDRON	CONT	18"-24" HT	FULL, EXTRA HEAVY
PM	61	PRUNUS SLEGO 'MIPPS'	DWARF MUGO PINE	CONT	18"-24" HT	FULL, EXTRA HEAVY
PG	31	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	DWARF COMMON NINEBARK	CONT	18"-24" HT	FULL, EXTRA HEAVY
RM	6	RHODODENDRON MAXIMUM	ROSEBAY RHODODENDRON	CONT	24"-30" HT	FULL, EXTRA HEAVY
SL	15	SPIREA LATIFOLIA	MEADOWSWEET	CONT	18"-24" HT	FULL, EXTRA HEAVY
VA	20	VIBURNUM ACERIFOLIUM	MAPLE-LEAF VIBURNUM	CONT	18"-24" HT	FULL, EXTRA HEAVY
GROUNDCOVER						
AU	23	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	CONT	#1 EMWT	FULL, EXTRA HEAVY
BH	23	EUONYMUS KIRKLAND'S FAT IS 'BAR HARBOR'	BAR HARBOR CREEPING EUNYM	CONT	#1 CONT	FULL, EXTRA HEAVY
LM	53	LIRIOPE MUSCARI	LILY TURF	COST	#1 CONT	FULL, EXTRA HEAVY
RA	77	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	CONT	#1 CONT	FULL, EXTRA HEAVY
PERENNIALS + FERNS						
AA	37	ASTILBE X ARENDSII 'FANAL'	FANAL ASTILBE	CONT	1 GAL	FULL, EXTRA HEAVY
AC	6	ASTILBE CHINENSIS	ASTILBE	CONT	1 GAL	FULL, EXTRA HEAVY
AM	86	ALCHEMILLA MOLLIS	LADY'S MANTLE	CONT	1 GAL	FULL, EXTRA HEAVY
AN	18	ASTER LAEVIGATUS 'PURPLE DOME'	PURPLE DOME ASTER	CONT	1 GAL	FULL, EXTRA HEAVY
DR	14	DENNSTAEDTIA PUNCTILOBULA	FERN, HAY-SCENTED	CONT	1 GAL	FULL, EXTRA HEAVY
DC	7	DICENTRA SPECTABILIS	BLEEDING HEART	CONT	1 GAL	FULL, EXTRA HEAVY
EP	23	ECHINACEA PURPUREA	CONE FLOWER	CONT	1 GAL	FULL, EXTRA HEAVY
FG	22	FESTUCA GLAUCA 'ELIJAH BLUE'	FESCUE GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
HH	1	HEUCHERA 'CARAMEL'	CORAL BELLS	CONT	1 GAL	FULL, EXTRA HEAVY
IV	26	IRIS VERSICOLOR	BLUE FLAG IRIS	CONT	1 GAL	FULL, EXTRA HEAVY
LK	26	LIATRIS SPICATA 'KOBOLD'	KOBOLD LIATRIS	CONT	1 GAL	FULL, EXTRA HEAVY
ME	21	MONARDA FISTULOSA	BEE BALM	CONT	1 GAL	FULL, EXTRA HEAVY
NW	61	NEPETA 'JANSENII' WALKER'S LOW	WALKER'S LOW CATMINT	CONT	1 GAL	FULL, EXTRA HEAVY
OC	23	OSMUNDA CINNAMOMEA	CINNAMON FERN	CONT	1 GAL	FULL, EXTRA HEAVY
PP	23	PHLOX PANICULATA 'GLAMOUR GIRL'	GARDEN PHLOX	CONT	1 GAL	FULL, EXTRA HEAVY
GRASSES						
AH	29	ANDROPOGON GERARDII 'RED OCTOBER'	BIG BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
CK	58	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER REED GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
MR	48	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	CONT	1 GAL	FULL, EXTRA HEAVY
SS	35	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	CONT	1 GAL	FULL, EXTRA HEAVY
NATIVE WETLAND TREES						
ARw	5	ACER RUBRUM	RED MAPLE	CONT	6'-8' HT	FULL, EXTRA HEAVY
NSw	5	NYSSA SYLVATICA	BLACK TUPELO	CONT	6-8' HT	FULL, EXTRA HEAVY
POw	2	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY
QBw	5	QUERCUS BICOLOR	SWAMP WHITE OAK	CONT	6-8' HT	FULL, EXTRA HEAVY
QPw	6	QUERCUS PALUSTRIS	PIN OAK	CONT	6-8' HT	FULL, EXTRA HEAVY
SAw	1	SALIX AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	B&B	2 1/2"-3" CAL	FULL, EXTRA HEAVY

SEED MIXES:

NEW ENGLAND WETMIX (NEW ENGLAND WETLAND PLANTS, INC.)
APPLICATION RATE: 1 LB/2,500 S.F.

NEW ENGLAND SHOWY WILDFLOWER MIX (NEW ENGLAND WETLAND PLANTS, INC.)
APPLICATION RATE: 1 LB/5,000 S.F.

NEW ENGLAND EROSION CONTROL/RESTORATION MIX (NEW ENGLAND WETLAND PLANTS, INC.)
APPLICATION RATE: 1 LB/5,000 S.F.

LAWN: PENNINGTON SMART SEED SUN AND SHADE
APPLICATION RATE: NEW LAWNS 5 LB/5,000 S.F.

WETLAND DISTURBANCE/ RESTORATION SEQUENCE:

1. INSTALL PERIMETER SEDIMENT BARRIER AT THE AREA OF PROPOSED WETLAND DISTURBANCE.
2. REMOVE ANY SMALL MAMMALS, REPTILES, AND AMPHIBIANS FROM THIS AREA TO BE DISTURBED AND RELOCATE THEM TO THE ADJACENT HYDROPHYTIC WETLAND AREA.
3. REMOVE INVASIVE WEEDS SHOWN IN THE AREA OF DISTURBANCE AND INTO THE STORMWATER WETLAND.
4. CONTRACTOR TO REMOVE ACCUMULATED RAKES, SILTS, AND OTHER DEBRIS FROM THIS AREA OF PROPOSED DISTURBANCE, AND DISPOSE OF.
5. CONTRACTOR SHALL STAND AND STOCKPILE THE ORGANIC SURFACE SOIL WITHIN THE PROPOSED AREA OF DISTURBANCE FOR LATER RE-USE.
6. CONTRACTOR SHALL INSTALL TWO LAYERS OF FILTER FABRIC OVER THE DISTURBED STORAGE WITHIN THIS AREA OF DISTURBANCE.
7. TEMPORARY FILL SHALL BE PLACED TO FACILITATE CONSTRUCTION OF THE PROPOSED BUILDING.
8. ONCE BUILDING AND SITE CONSTRUCTION ADJACENT TO THE WETLANDS IS COMPLETED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY FILL AND THE FILTER FABRIC, EXPECT SCARIFY RESEARCH PERTINATION OF WETLAND REVEGETATION WORK.
9. REMOVE ALL NATIVE TOPSOIL/ORGANIC SOIL THAT WAS PREVIOUSLY REMOVED TO A MINIMUM DEPTH OF 12", AS PERMITTED THIS NATIVE TOPSOIL WITH REMOVED, SCREENED TOPSOIL AS REQUIRED TO ACHIEVE MINIMUM PLANTING DEPTH.
10. ANYWHERE IN THE DISTURBED AREAS WITH NATIVE, REMOVED TOPSOIL FROM AS EXCAVATION ON THIS WEST AND RESTORATION PLAN.
11. ONCE DISTURBED AREAS HAVE BEEN STABILIZED, TEMPORARY EROSION CONTROL MEASURES MAY BE REMOVED.
12. A THREE YEAR MONITORING PROGRAM SHALL BE PUT IN PLACE THAT WILL PROVIDE YEARLY UPDATES ON THE REVEGETATION OF CONTRACTING INVASIVE VEGETATION AND THE ESTABLISHMENT OF NATIVE VEGETATION AND TO PROVIDE MAINTENANCE RECOMMENDATIONS ACCORDINGLY TO MEET THESE REQUIREMENTS.

PLANTING SOIL NOTES

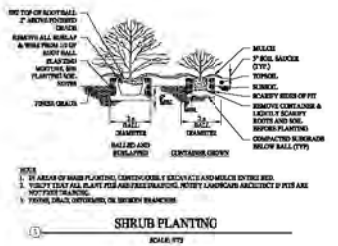
1. ALL PLANTING MIXES SHALL BE PREPARED PRIOR TO DELIVERY TO SITE.
2. PLANTING MIX FOR TREES AND SHRUBS SHALL BE AS FOLLOWS
   - 5 PARTS SCREENED TOPSOIL
   - 1 PART CLEAN WASHED COARSE SAND
   - 1 PART PEAT HUMUS
   - 5 LBS. SUPER PHOSPHATE PER CUBIC YARD OF MIX
3. MYCORRHIZAL INNOCULANT TO BE MYCOR-TREE BAYER. TREE PLANTING BY PLANT HEALTH CARE, INC. (1-800-421-6072) OR APPROVED EQUAL.
4. TERRACARE AVAILABLE FROM PLANT HEALTH CARE, INC. OR APPROVED EQUAL.
5. SUBMIT CERTIFICATION OF PLANTING MIX FOR TREES AND SHRUBS FROM SOIL DISTRIBUTOR.
6. TOPSOIL MIX SHALL INCLUDE:
   - 3 PARTS SCREENED TOPSOIL
   - 1 PART SAND
   - 1 PART HUMUS
   - 5 LBS. SUPER PHOSPHATE PER CU. YD. OF MIX
7. TOPSOIL:
   - A. PROVIDE A NATURAL, FERTILE, FRIABLE, NATURAL LOAM SURFACE SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, OF UNIFORM COMPOSITION THROUGHOUT AND WITHOUT ADMIXTURES OF SUBSOIL, AND FREE OF STONES, LUMPS, PLANTS, ROOTS, STICKS OR OTHER EXTRANEOUS MATTER.
   - B. TOPSOIL SHALL CONTAIN NOT LESS THAN 4% NOR MORE THAN 20% ORGANIC MATTER AS DETERMINED BY THE WET COMBUSTION METHOD.
   - C. MECHANICAL ANALYSIS

SIEVE SIZE	% BY WEIGHT PASSING
1"	100
1/4"	97 - 100
NO. 200	20 - 45

   - D. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL TESTING AND ANALYSIS OF EXISTING AND IMPORTED SOILS. FURNISH A SOIL ANALYSIS MADE BY A QUALIFIED INDEPENDENT SOIL TESTING AGENCY STATING PERCENTAGES OF ORGANIC MATTER, INORGANIC MATTER (SILT, CLAY, AND SAND), DELETERIOUS MATERIAL, PH, AND MINERAL AND PLANT NUTRIENT CONTENT OF TOPSOIL.
   - E. REPORT SUITABILITY OF TOPSOIL FOR LAWN AND SHRUB PLANTING GROWTH. RECOMMEND QUANTITIES OF NITROGEN, PHOSPHORUS AND POTASH NUTRIENT AND ANY LIMESTONE, ALUMINUM SULFATE, OR OTHER SOIL AMENDMENTS TO BE ADDED TO PRODUCE A SATISFACTORY TOPSOIL.

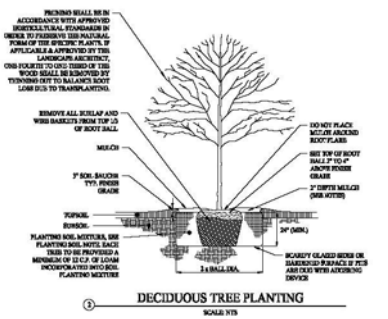
PLANTING NOTES

1. BE AWARE OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION OR PLANTING OPERATIONS. USE CARE TO PROTECT EXISTING UTILITIES FROM DAMAGE. CONTACT "CALL BEFORE YOU DIG" PRIOR TO EXCAVATION.
2. ALL PLANTINGS ARE TO BE INSTALLED BY A QUALIFIED LANDSCAPE CONTRACTOR.
3. THE CONTRACTOR SHALL BE REQUIRED TO CARRY WORKMEN'S COMPENSATION INSURANCE AND COMPREHENSIVE GENERAL LIABILITY INSURANCE. CERTIFICATES WILL BE REQUIRED PRIOR TO SIGNING CONTRACTS.
4. CONTRACTOR IS RESPONSIBLE FOR JOBSITE SAFETY. CONTRACTOR SHALL MAINTAIN A SAFE JOBSITE AT ALL TIMES.
5. CONTRACTOR SHALL BE FAMILIAR WITH THE SITE VERIFY ALL DIMENSIONS, GRADES AND EXISTING CONDITIONS. REPORT ANY DISCREPANCIES TO LANDSCAPE DESIGNER.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED FOR COMPLETING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL EXCAVATED SOIL, BRUSH AND DEBRIS OFF SITE IN A SAFE AND LEGAL MANNER.
8. NOTIFY OWNER OR LANDSCAPE DESIGNER 72 HOURS MINIMUM IN ADVANCE OF STARTING PLANTING OPERATIONS. RECEIVE APPROVAL FOR LAYOUT OF ALL BED LINES AND MATERIAL LOCATIONS PRIOR TO INSTALLATION.
9. PROTECT EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING CONSTRUCTION. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING VEGETATION ON THIS SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD AT THE DISCRETION OF THE LANDSCAPE DESIGNER.
10. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL PLANTING, SEEDING AND TREE WORK WITH OTHER TRADES. INSPECT OTHER TRADES WORK AT ALL TIMES.
11. CONTRACTOR IS TO EXERCISE EXTREME CARE DURING THE COURSE OF DEMOLITION AND REMOVALS. ANY DAMAGE TO EXISTING FACILITIES, UTILITIES OR TREES TO REMAIN SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE IN KIND.
12. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DAMAGED TO PRE-EXISTING CONDITIONS AS A RESULT OF PLANTING OPERATIONS TO OWNERS AND/OR LANDSCAPE DESIGNERS APPROVAL.
13. VEGETATION TO BE REMOVED, NOT INDICATED ON PLAN, SHALL BE TAGGED IN FIELD BY LANDSCAPE DESIGNER.
14. THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO REJECT INFERIOR PLANT MATERIALS AND SUBSTITUTIONS. THE LANDSCAPE DESIGNER IS WILLING TO MAKE TWO TRIPS TO SUPPLIERS TO TAG, REVIEW AND APPROVE MATERIALS. PREVIOUSLY UNAPPROVED MATERIALS MAY BE REJECTED AT THE SITE. MINIMALLY ALL MATERIALS WILL CONFORM TO THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI INC.) – 2004) OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
15. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN GOOD, HEALTHY AND FLOURISHING CONDITION FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE. THE CONTRACTOR SHALL REPLACE, AS SOON AS WEATHER AND SEASONAL CONDITIONS PERMIT, ALL DEAD PLANTS AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE DESIGNER DURING, AND AT THE END OF THE GUARANTEE PERIOD. WARRANTY REPLACEMENT WILL BE PROVIDED AT NO COST TO THE OWNER AND INCLUDE MATERIALS AND LABOR. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE INCURRED DURING REPLACEMENT OF WARRANTY MATERIALS.
16. WHEN THERE IS A DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON THE PLANT LIST & THE PLAN, USE THE QUANTITIES FROM THE PLAN.
17. PERENNIALS, GROUNDCOVERS & GRASSES TO BE FIELD LOCATED BY LANDSCAPE DESIGNER. COORDINATE TO NOTIFY LANDSCAPE DESIGNER AT LEAST 72 HOURS IN ADVANCE OF REQUESTED INSTALLATION DATE ON THAT DATE ALL SIGN SHALL BE PREPARED & ALL PLANT MATERIAL SHALL BE ON SITE.
18. PROVIDE A MINIMUM 24" TOPSOIL FOR ALL DISTURBED AREAS. SUBMIT SAMPLE OF TOPSOIL AND SOIL TEST RESULTS FOR LANDSCAPE DESIGNERS APPROVAL PRIOR TO DELIVERING TO SITE.
19. MULCH ALL BEDS SHOWN AS CONTINUOUS WITH A 3" MINIMUM OF DOUBLE SHREDDED CEDAR BARK MULCH. SAMPLE TO BE SUBMITTED TO LANDSCAPE DESIGNER FOR APPROVAL.
20. ALL PLANT MATERIALS TO BE SOURCED FROM LOCALLY GROWN GROWERS.
21. PLANTING SHALL ONLY BE DONE BETWEEN APRIL 1ST TO JUNE 15TH OR SEPTEMBER 1ST TO OCTOBER 1ST.



NOTES
1. 3" MULCH OF SHADE PLANTING. CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.
2. VERIFY THAT ALL PLANT PITS ARE FREE DRAINING. NOTIFY LANDSCAPE ARCHITECT IF PITS ARE NOT FREE DRAINING.
3. TWINE, TRACE, UNTIGHTEN, OR REMOVE BRACKETS.

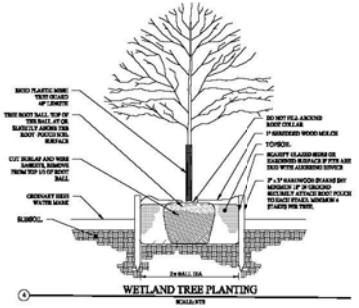
SHRUB PLANTING
SCALE: NTS



DECIDUOUS TREE PLANTING
SCALE: NTS



EVERGREEN TREE PLANTING
SCALE: NTS



WETLAND TREE PLANTING
SCALE: NTS

PRELIMINARY
NOT FOR CONSTRUCTION

Rev. #	Date	Description

Graphic Scale:

SOLLI ENGINEERING
MONROE, CT | W. HARTFORD, CT | NORWOOD, MA
SOLLIENGINEERING.COM
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Drawn By:	DS
Checked By:	MPD
Approved By:	KMS
Project #:	2010501
Plot Date:	07/02/25
Scale:	NTS

Project:

CONCOURSE PARK
309 SILVER LANE
EAST HARTFORD, CONNECTICUT
CRDA PROJECT# 25-005

Sheet Title:
ADD/ALT PHASE 2 LANDSCAPE DETAILS & NOTES

Sheet #:
4.07.3

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PHASE II ENVIRONMENTAL SITE ASSESSMENT
936, 942, 944 AND 960 SILVER LANE & 285R AND 291 FORBES STREET EAST HARTFORD, CONNECTICUT

June 2022
File No. 05.0046901.01



PREPARED FOR:
Jasko Zelman 1, LLC
New Britain, Connecticut

GZA GeoEnvironmental, Inc.
95 Glastonbury Boulevard, 3rd Floor | Glastonbury, CT 06033
860-286-8900

31 Offices Nationwide
www.gza.com

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June 13, 2022
File No. 05.0046901.01

Jasko Zelman 1, LLC
66 West Main Street, Suite 102
New Britain, CT 06051
Attn: Brian Zelman

Re: Phase II Environmental Site Assessment
936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street
East Hartford, CT

Dear Mr. Zelman:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide the attached Phase II Environmental Site Assessment (ESA) Report to you for the investigation conducted at 936, 942, 944 and 960 Silver Lane & 285R and 291 Forbes Street, East Hartford, Connecticut (Site). This investigation was conducted in general accordance with our proposal dated March 24, 2022. As described herein, the objective of this assessment was to assess the quality of soil and groundwater at potential Recognized Environmental Conditions (RECs) that were identified in GZA's March 2022 Phase I ESA.

This report summarizes our findings and provides recommendations based on the observed conditions and results of the subsurface investigations performed in May 2022. As discussed in more detail in the report, it is GZA's opinion that no further investigation of the Site is warranted. In light of the historic use of the Site for agricultural purposes and residual pesticides identified during the investigation, GZA recommends a soil management plan be developed to manage potential pesticide-impacted soil during any future redevelopment. Similarly, GZA recommends that a dewatering plan also be developed to manage the discharge of groundwater, if needed, in connection with any future redevelopment. This report is subject to the limitations included in Appendix A.

We trust this report satisfies your present requirements; should you require additional information, please call Adam Henry at (860) 858-3166.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Anthony Trani
Project Manager

Adam T. Henry, PG, LEP
Associate Principal

Kathleen A. Cyr, LEP
Consultant

Attachment: Report

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1.0 INTRODUCTION

This report was prepared for Jasko Zelman 1, LLC (Client) in general accordance with our proposal dated March 24, 2022 and presents the results of GZA GeoEnvironmental Inc.'s (GZA's) Phase II Environmental Site Assessment (ESA) for the properties at 936, 942, 944, and 960 Silver Lane, 285R Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street in East Hartford, Connecticut (herein referred to as the Site). The location of the Site is shown on Figure 1, attached. GZA's Phase II ESA and Report are subject to the Limitations in Appendix A.

In March 2022, GZA completed a Phase I Environmental Site Assessment (ESA) of the Site and identified the following Recognized Environmental Conditions (RECs):

- **REC-1: Historical Agricultural Use** – The Site was previously utilized as agricultural land prior to the 1970s. According to a 2018 investigation by Milone and McBroom, pesticides (4,4-DDD, 4,4-DDE, 4,4-DDT, delta-BHC, and dieldrin) were detected in soils at concentrations above the default criteria contained in the Connecticut Remediation Standard Regulations (RSRs).

- **REC-2: 75-gallon Diesel Fuel Release** – In May 2013, approximately 75 gallons of diesel fuel was spilled along the northern edge of the Site due to illegal dumping. The spill was cleaned using absorbent powder and pads and 60 tons of impacted soils were removed from the Site; however, the results of confirmatory soil sampling were not available.

GZA's 2021 Phase I ESA report also indicated that the Site does not appear to meet the definition of an "establishment" under the Connecticut Transfer Act (CGS §§ 22a-134 *et seq.*, the "Transfer Act").

The objective of this Phase II ESA was to assess whether a release of petroleum products or hazardous substances (including pesticides) has occurred to Site soil and groundwater at the identified RECs. GZA's Phase II ESA included the advancement of sixteen (16) soil borings, the installation of three (3) groundwater monitoring wells, the collection and laboratory analysis of thirteen (13) soil samples and three (3) groundwater samples, and the completion of a groundwater elevation survey.

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND HISTORY

The Site consists of six (6) contiguous parcels of land totaling 25.83 acres located north of Silver Lane and west of Forbes Street in a primarily commercial section of East Hartford, Connecticut. From at least 1934 until the 1970s, the Site was used for agriculture (tobacco farming). By the 1950s, the portion of the Site by Forbes Street was developed with a hotel until circa 1980 when it was demolished. In the 1970s, farming ceased and the western portion of the Site was developed as a movie theatre which operated into the 2000s. The movie theater was demolished after 2018, and the Site currently consists of vacant land with an access road and two paved parking lots.

2.2 PHYSIOGRAPHIC SETTING

Based on a review of the U.S. Geological Survey topographic map of East Hartford (2018), the Site is situated at an approximate elevation of 60 feet above mean sea level. The topographic gradient near the Site is generally flat with a gentle slope down to the south.

2.3 BEDROCK AND SURFICIAL GEOLOGY

According to bedrock geology data provided by USGS, bedrock in the Site area consists of the Portland Arkose. This bedrock type is described as "reddish-brown arkose (brownstone)." During GZA's investigation, bedrock was not encountered to depths of up to 15 feet below the ground (fbg).

According to Connecticut Environmental Conditions Online (CTECO), the surficial materials beneath the majority of the Site consist of sands overlying fines. Surficial materials encountered during GZA's investigation generally consisted of sand with varying amounts of silt and gravel.

According to soil data provided by US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, soils at the Site consist of Urban Land, Udorthents Urban Land Complex, Elmridge fine sandy loam, Ninigret fine sandy loam, and Windsor loamy sand.

2.4 HYDROGEOLOGY

During GZA's investigation, groundwater was encountered at depths ranging from 6 to 9 fbg and, based on field measurements, groundwater beneath the Site is inferred to generally flow in a southerly direction towards an offsite wetland. However, localized flow direction in the area of the Site may vary as a result of underground utilities, septic systems, or heterogeneous subsurface conditions.

According to Connecticut Environmental Conditions Online (CTECO), the Connecticut Department of Energy and Environmental Protection (CTDEEP) has classified groundwater beneath the western portion of the Site as Class "GB." The eastern portion of the Site is classified as Class "GA" and there is a small portion classified as Class "GA Impaired" by Forbes Street. According to the CTDEEP Water Quality Standards Regulations (October 2013), Class "GB" groundwater is described as "ground water within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is available. Such ground water may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts." Class "GA" groundwater is described as "ground water within the area of existing private water supply wells or an area with the potential to provide water to public or private water supply wells." Class "GA Impaired" groundwater has a goal of becoming Class "GA" groundwater.

The nearest surface water body to the Site is Willow Brook which is approximately 650 feet to the southwest of the Site. According to CTECO, CTDEEP considers Willow Brook a Class A surface water body. Designated uses for Class A surface waters include potential drinking water supplies, fisheries, recreation, agriculture and/or industrial water supply, and other legitimate uses including navigation. According to the East Hartford Geographical Information System (GIS) there are wetlands present at 960 Silver Lane, 285 Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street.

3.0 CONCEPTUAL MODEL

A Conceptual Site Model ("CSM") was developed that considers the Site setting, operational history, constituents of concern, and available physical and chemical data in order to understand the potential for releases and the pathways through which releases might impact environmental media. Sections 3.1 through 3.3 present the primary information used to develop the CSM for this Site.

3.1 RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS) AND CONSTITUENTS OF CONCERN (COCs)

Based on the finding and conclusions of our March 2022 Phase I ESA, two RECs were identified in which former/current Site operations may have resulted in a release of petroleum products and/or hazardous materials to the environment.

The following table lists the identified RECs, provides a list of constituents of concern (COCs) associated with each REC, and briefly describes a model for a potential release to impact the environment. A more detailed description of each REC is provided in Section 5.0. The locations of the RECs are shown on Figure 2.

REC #	Description	COC	Potential Release Mechanisms
REC-1	Historical Agricultural Use	Pesticides, arsenic, copper, lead	Application of pesticides to shallow soils
REC-2	75-gallon Diesel Fuel Release	VOCs, ETPH, and PAHs	Spill penetrating to underlying soil through cracks or holes in asphalt

VOCs = Volatile Organic Compounds
ETPH = Extractable Total Petroleum Hydrocarbons
PAHs = Polyaromatic hydrocarbons

3.2 CONCEPTUAL SITE MODEL (CSM)

The release mechanism for the RECs consists of potential releases directly to the ground surface from the reported May 2013 spill of diesel fuel with subsequent migration through the pavement via cracks and/or joints or the historical application of pesticides to the ground surface. Given the relatively permeable native soils described in Section 2.3, releases from the identified RECs, if any, would have the potential to migrate through subsurface soils to groundwater. Given this CSM, the objective of the Phase II investigation was to assess whether a release has occurred at the identified RECs by collecting soil and groundwater samples and analyzing those samples for the COCs described above.

Groundwater data obtained during this investigation program from the downgradient portions of the Site are used to assess/identify potential releases from the identified RECs as well as any potential undocumented release(s).

3.3 REGULATORY SETTING

Although the Site is not in a formal regulatory program, the analytical results of the Phase II investigation were compared to the default CTDEEP Remediation Standard Regulations (RSRs). The RSR soil criteria that were used for comparison purposes include the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The RSR groundwater criteria that were used for comparison purposes include the Groundwater Protection Criteria (GWPC), Groundwater Volatilization Criteria (GWVC) and the Surface Water Protection Criteria (SWPC). Descriptions of each of the criteria are presented below.

3.3.1 Direct Exposure Criteria (DEC)

In soil, compliance with Direct Exposure Criteria (DEC) is evaluated through comparison of mass-based concentrations of contaminant constituents to established numerical criteria. The purpose of the DEC standard is to protect human health from risks associated with direct contact and/or ingestion of soil contaminants.

When the RSRs are applicable, the DEC apply to soil within 15 feet of ground surface. Separate criteria are established for residential (R-DEC) and industrial/commercial (I/C-DEC) areas; however, use of the less stringent I/C-DEC standards requires the owner of the property subject to the RSRs to place an Environmental Use Restriction (EUR) on the property land records prohibiting its use for residential activities. The DEC standards also do not apply to "inaccessible soils," which are defined as soils more than four feet below ground surface (assuming the top four feet are compliant with the DEC), two feet below qualifying pavement (>3-inches thick), or below an existing building, provided an appropriate EUR has been recorded. The R-DEC have been provided for comparison on Table 2.

3.3.2 Pollutant Mobility Criteria (PMC)

Concentrations of constituents in soil are also often evaluated based on the Pollutant Mobility Criteria (PMC). The PMC are intended to protect groundwater from constituents that could leach from the soil and degrade the underlying groundwater. When the RSRs are applicable, for most constituents, PMC compliance can be evaluated by either 1) using samples analyzed for total mass concentrations and comparing directly to PMC criteria presented in the RSRs, or 2) subjecting soil samples to the Synthetic Precipitation Leaching Procedure (SPLP) and comparing the concentrations of constituents in the extracts to ten times the RSR groundwater protection criteria (GWPC) and/or extraction-based PMC. Where mass-based PMC is exceeded, SPLP data can often be used to demonstrate PMC compliance as an allowable alternative under the RSRs. The PMC do not apply to soils that are "environmentally isolated" (for example, below a building), provided an appropriate EUR is in place prohibiting removal of the building; to soil located below the seasonal low groundwater table in an area with a GA groundwater classification; or to soil located below the seasonal high groundwater table in an area with a GB groundwater classification. As previously discussed, the majority of the Site is within a GB-classified groundwater area; therefore, the GB-PMC have been provided for comparison purposes in the soil data summary table (Table 2).

3.3.3 Groundwater Protection Criteria (GWPC)

The intent of the GWPC is to protect human health from risks associated with consuming contaminated groundwater. When the RSRs are applicable, the GWPC is a baseline criterion applicable to areas with GA groundwater classification; however, through Section 22a-133k-3(A)(3), the GWPC are also protective of existing untreated drinking water uses of groundwater in GB areas. Because the Site monitoring wells are located in the area of the Site that is within a Class GB groundwater area and groundwater, to our knowledge, is not used for drinking purposes (or any other purposes), the GWPC may not be applicable even if compliance with the RSRs was required. However, completion of a potable well receptor survey confirming the absence of potable wells in the Site area would be required to evaluate the applicability of the GWPC; therefore, the GWPC has been provided for comparison purposes in Table 3.

3.3.4 Surface Water Protection Criteria (SWPC)

The intent of the SWPC is to determine whether impacted groundwater that discharges to a surface water body might interfere with the attainment of surface water quality standards in that water body. For discharges to wetland areas, the more stringent aquatic life criteria (ALC) may also be applicable. The Site groundwater is anticipated to potentially discharge to a wetland abutting the Site to the south. Accordingly, groundwater constituent concentrations at the Site are compared to the SWPC and ALC on Table 3.

4.0 SUMMARY OF INVESTIGATIONS

The scope of work for GZA's Phase II ESA was developed based on the results of our March 2022 Phase I ESA and was intended to identify whether releases have occurred from the identified RECs. The following sections summarize GZA's Phase II investigation scope of work.

4.1 SAMPLING RATIONALE

The sampling program was designed to assess releases to the soil and groundwater from locations where hazardous substances or petroleum products are currently, or were historically, stored or handled. The locations and depths of the samples collected were based on our Conceptual Site Model. Boring locations were selected based on the inferred southerly groundwater flow direction at the Site as discussed in Section 2.4.

GZA's Phase II ESA included the advancement of 16 soil borings, the installation of 3 groundwater wells and the collection and laboratory analysis of 13 soil samples and 3 groundwater water samples. The locations of the borings are shown on Figure 2.

4.2 TEST BORINGS AND SOIL SAMPLING

Prior to on-Site activities, Call-Before-You-Dig was notified to identify and mark underground utilities at the Site.

On May 2, 2022, GZA met with Site Environmental, LLC to install 7 soil borings (GZ-1 through GZ-4 and MW-1 through MW-3) using a hollow stem auger drilling rig. The soil borings were generally advanced to depths up to 2 fbg except for MW-1 through MW-3, which were advanced to depths of 15 fbg; soil samples were collected from the borings using a 24-inch-long by 1-3/8-inch inner diameter split-spoon sampler. In addition, GZA advanced 9 shallow soil borings (GZ-5 through GZ-13) using a hand auger. The hand auger was decontaminated between samples with Alconox and water. Soil boring/sampling logs are provided in Appendix B.

The surficial materials encountered generally consisted of medium to coarse sand with varying amounts of gravel and silt. The recovered soil samples were observed in the field by GZA's staff for indicators of a release (e.g., staining, discoloration and/or odors). No staining or odors were noted in the soil samples retrieved during this investigation. In addition, soil samples were screened using a photo-ionization detector (PID) with a 10.6 eV lamp. A PID is a screening instrument that is capable of detecting certain organic vapors, including constituents of petroleum fuels and oils. A PID is used as a screening instrument only and does not provide absolute values for concentrations in soil samples. The PID was calibrated to 100 parts per million (ppm) isobutylene standard prior to sample screening. A background reading of 0.0 ppm on the PID was noted during the sampling. No PID readings were observed from the samples.

Representative soil samples were collected from the borings and preserved for laboratory analyses for the identified COCs and submitted under chain of custody to Phoenix Laboratories (Phoenix) in Manchester, Connecticut. Borings GZ-6, GZ-9 and MW-1 were not submitted for laboratory analysis. Soil samples intended for VOC analyses were collected according to CTDEEP requirements for VOC soil sampling (EPA Method 5035). Samples were analyzed for one or more of the following: VOCs by EPA Method 8260, ETPH by the CTDPH[1] method, PAHs by EPA Method 8270, pesticides, arsenic, copper, lead, leachable pesticides by the synthetic precipitation leaching procedure (SPLP) method, and SPLP arsenic, SPLP copper, and SPLP lead. Laboratory reports are provided in Appendix C.

[1] CTDPH – CT Department of Public Health

4.3 MONITORING WELLS

Three borings (MW-1 through MW-3) were completed as monitoring wells. The monitoring wells were constructed with 10 feet of screen installed at depths of approximately 15 fbg. The wells were sand-packed, sealed with bentonite and finished with flush-mount road boxes. Monitoring well installation details are included on the soil boring logs in Appendix B and summarized on Table 1.

After installation, GZA purged the newly installed monitoring wells to remove fines and develop the sand pack.

4.4 GROUNDWATER SAMPLING

On May 11, 2022, GZA sampled the three newly installed monitoring wells (MW-1 through MW-3) at the Site. After measuring the depth to the static groundwater table, each well was purged and sampled via low flow sampling techniques using a Geotech pump. A YSI 556 XL Multiparameter Sondes equipped with a flow-through cell was used to field measure the following parameters: pH, oxidation/reduction potential (ORP), conductivity, temperature, and dissolved oxygen. A MicroTPI Turbimeter was used to measure turbidity in the groundwater samples prior to the flow-through cell. The groundwater samples were collected and placed in preserved containers and submitted under chain of custody to Phoenix for analysis of VOCs by EPA Method 8260, ETPH, pesticides, arsenic, copper, and lead. Groundwater sampling logs are provided in Appendix B and laboratory reports are provided in Appendix C.

4.5 GROUNDWATER ELEVATION SURVEY

On May 11, 2022, GZA personnel surveyed the relative elevations of the monitoring wells using an arbitrary datum. The survey data combined with depth to groundwater measurements were used to calculate the elevation of the groundwater surface. Both the survey elevations and groundwater measurements are provided in Table 1. Groundwater was encountered at depths ranging from approximately 6 to 9 fbg. Inferred groundwater flow contours are shown on Figure 2 and indicate a southerly groundwater flow pattern.

5.0 SUMMARY OF INVESTIGATIONS AND COMPARISON TO THE REMEDIATION STANDARD REGULATIONS (RSRS)

The following sections summarize the results of GZA's Phase II ESA and provide a comparison of the results to the RSRs. Sections 5.1 through 5.2 discuss Site conditions by REC. Section 5.3 discusses Site groundwater and Section 5.4 discusses laboratory data quality for the samples.

The sampling locations are shown on Figure 2 and the results of GZA's laboratory analyses of soils and groundwater are presented in Table 2 and 3. Boring logs documenting subsurface conditions encountered are included in Appendix B and the laboratory analytical reports for the samples are included in Appendix C.

5.1 REC-1: HISTORICAL AGRICULTURAL USE

The Site was previously utilized as agricultural land prior to the 1970s. According to a 2018 investigation by Milone and McBroom, pesticides (4,4-DDD, 4,4-DDE, 4,4-DDT, delta-BHC, and dieldrin) were detected in soils at concentrations above the default criteria contained in the RSRs.

To assess for potential impacts, GZA collected surficial samples from depths up to 2 fbg from borings GZ-4, GZ-5, GZ-7, GZ-8, GZ-10, GZ-11, GZ-12 and GZ-13 and submitted them to the laboratory for analysis for pesticides, arsenic, copper, and lead. No odors, staining or PID readings were noted from the soil samples.

The results of the laboratory analyses are summarized in Table 2 and indicate that pesticides were detected in 5 of the 8 samples analyzed. The pesticides 4,4'-DDE, 4,4'-DDE and 4,4'-DDT and dieldrin (1 sample) were detected at concentrations above the mass-based GB-PMC. SPLP 4,4'-DDE, 4,4'-DDE and 4,4'-DDT were not detected in sample GZ-7 (the sample containing the highest mass-based pesticide detections); however, SPLP dieldrin was detected in sample GZ-7 at a concentration above the extraction-based GB-PMC (10 times the groundwater protection criteria). Arsenic, copper and lead were detected in the soil samples at concentrations consistent with a naturally occurring source and not indicative of a release of metals. SPLP arsenic, copper, and lead were not detected in the samples that were analyzed for those parameters.

Based upon the results of the investigation, low concentrations of pesticides were detected in five of the eight soil samples from the Site. The detected concentrations of pesticides are below RSR criteria used for comparison except for dieldrin which exceeds the GB-PMC in sample GZ-7.

5.2 REC-2: 75-GALLON DIESEL FUEL RELEASE

In May 2013, approximately 75 gallons of diesel fuel was reportedly spilled along the northern edge of the Site due to illegal dumping. The spill was cleaned using absorbent powder and pads and 60 tons of impacted soils were removed from the Site; however, the results of confirmatory soil sampling were not available.

To evaluate current conditions at this REC, GZA advanced soil borings MW-2, MW-3, and GZ-1 through GZ-3 in the approximate location of the former 75-gallon diesel spill. The borings were advanced to depths up to 15 fbg. No odors, staining or PID readings were noted from the soil samples. Shallow soil samples (0-2) were submitted to the laboratory for analysis for VOCs, ETPH, and PAHs.

The results of the laboratory analyses are summarized in Table 2 and indicate that no VOCs, ETPH or PAHs were detected above the laboratory's method reporting limits (MRLs).

5.3 SITE-WIDE GROUNDWATER QUALITY

As discussed in Section 4.0, GZA installed three monitoring wells (MW-1 through MW-3) at the Site and collected groundwater samples from the monitoring wells for laboratory analysis of VOCs, ETPH, pesticides, arsenic, copper, and lead. No observable impacts (odor, sheen) were noted in the groundwater samples collected.

The results of the groundwater analyses are summarized on Table 3 and indicate no VOCs, ETPH, copper or arsenic were detected above the MRLs. Lead was detected in groundwater sample MW-2 at a concentration equivalent to the reporting limit (2 µg/L) and consistent with a naturally occurring source. However, the detected concentration of lead was above the ALC (Freshwater Chronic). Dieldrin was detected in samples MW-1 and MW-3 at concentrations above the GWPC and the ALC.

5.4 DATA QUALITY ASSURANCE/QUALITY CONTROL ANALYSIS

The CTDEEP Quality Assurance/Quality Control (QA/QC) Work Group finalized Reasonable Confidence Protocols (RCPs) in November 2007. These RCPs are guidelines for enhanced QA/QC procedures for analytical methods and reporting. The

CTDEEP currently recommends that environmental professionals request that the laboratory follow the RCPs when producing data that is used as the basis of decisions regarding compliance with the RSRs.

To demonstrate data quality, the analytical laboratory (Phoenix) provided full QA/QC packages that accompanied the laboratory results for all soil samples collected during this project. Data packages contained appropriate QA/QC documentation including Lab Method Blanks, Lab Control Samples (LCS), and surrogate recoveries as well as lab recordkeeping and documentation paperwork. Additionally, field QA/QC samples were collected and analyzed according to RCP protocols, including trip blanks. QA/QC data is located within the laboratory report provided in Appendix C. No VOCs were detected in the trip blank. According to our review, no significant QA/QC issues were identified. Based on the findings of the QA/QC review it is GZA's opinion that the data is suitable for the purposes of this Phase II ESA.

6.0 CONCLUSIONS AND RECOMMENDATIONS

On behalf of Jasko Zelman 1, LLC, GZA conducted a Phase II Environmental Site Assessment 936, 942, 944, and 960 Silver Lane, 285R Forbes Street (a/k/a 285 Forbes Street Rear) and 291 Forbes Street in East Hartford, Connecticut. The purpose of the investigation was to assess whether a release of petroleum products or hazardous substances has occurred to Site soils and groundwater at the RECs identified in the March 2022 Phase I ESA.

GZA's Phase II ESA included the advancement of sixteen (16) soil borings, the installation of three (3) groundwater monitoring wells, the collection and laboratory analysis of thirteen (13) soil samples and three (3) groundwater samples, and the completion of a groundwater elevation survey.

Subsurface soils encountered during the investigation primarily consisted of medium to coarse with varying amounts of gravel and silt. Groundwater was encountered at depths of approximately 6 to 8 fbg and is inferred to flow in a generally southerly direction towards an unnamed wetland.

The results of the investigation indicated that low concentrations of pesticides were detected in shallow soil samples collected at the Site. The detected concentrations are below RSR criteria except for dieldrin which exceeds the GB-PMC in sample GZ-7. It is GZA's opinion that no further investigation of REC-1 (Historic Agricultural Use) from the GZA's March 2022 Phase I ESA is warranted; however, if soils are disturbed during redevelopment of the Site, GZA recommends that a soil management plan be developed to manage pesticide-impacted soils.

No residual impacts to soil or groundwater from petroleum-related compounds were detected and it is GZA's opinion that no further investigation of REC-2 (75-gallon Diesel Fuel Release) from GZA's March 2022 Phase I ESA is warranted. However, the pesticide dieldrin was detected at concentrations above the GWPC and the ALC at two locations (MW-1 and MW-3). If dewatering is anticipated during redevelopment of the Site, GZA recommends that a dewatering plan be developed to manage the discharge of pesticide-impacted groundwater.

TABLES

Table 1
Summary of Well Construction Detail and Groundwater Elevations
Silver Lane and Forbes Street
East Hartford, Connecticut

Monitoring Well	Well Diameter (inches)	Screened Interval (feet below grade)	Reference Elevation Top of PVC (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)
				5/11/2022	
MW-1	2	5-15	100	8.69	91.31
MW-2	2	5-15	94.33	6.02	88.31
MW-3	2	5-15	94.85	7.15	87.70

NOTES:

1. Wells surveyed by GZA on May 11, 2022 and relative to an arbitrary datum at the top of PVC at MW-1.

Table 2 - Summary of Soil Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Recognized Environmental Condition:	Remediation Standard Regulations		REC-2					REC-1							
Sample ID:			MW-2 (0-2)	MW-3 (0-2)	GZ-1 (0-2)	GZ-2 (0-2)	GZ-3 (0-2)	GZ-4 (0-2)	GZ-5 (0-2)	GZ-7 (0-1.5)	GZ-8 (0-1.5)	GZ-10 (0-2)	GZ-11 (0-2)	GZ-12 (0-2)	GZ-13 (0-2)^
Depth below grade (feet):			0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-1.5	0-1.5	0-2	0-2	0-2	0-2
Sample Date:	R-DEC	GB-PMC	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022	5/2/2022
Metals (mg/kg)															
Arsenic	10	NA	NT	NT	NT	NT	NT	4.27	1.72	4.19	2.8	2.75	3.69	3.43	1.57
Copper	2,500	NA	NT	NT	NT	NT	NT	65.5	26.4	13.3	25.6	14.5	40.2	20.2	14.8
Lead	400	NA	NT	NT	NT	NT	NT	17.5	54.6	21.4	26.5	27.7	28.1	20.9	30.4
Synthetic Precipitation Leaching Procedure (SPLP) Metals (mg/L)															
SPLP Arsenic	NA	0.5	NT	NT	NT	NT	NT	ND < 0.004	NT	NT	NT	NT	NT	NT	NT
SPLP Copper	NA	13	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT	NT
SPLP Lead	NA	0.15	NT	NT	NT	NT	NT	NT	ND < 0.01	NT	NT	NT	NT	NT	NT
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)															
ETPH	500	2,500	ND< 53	ND< 52	ND< 96	ND< 54	ND< 55	NT	NT	NT	NT	NT	NT	NT	NT
Volatile Organic Compounds (VOCs) (mg/kg)															
VOCs	varies	varies	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/kg)															
PAHs	varies	varies	ND< 0.25	ND< 0.25	ND< 0.45	ND< 0.25	ND< 0.26	NT	NT	NT	NT	NT	NT	NT	NT
Pesticides (mg/kg)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.011	0.01	ND< 0.0014	0.0022	0.0093	ND< 0.0015
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.12	0.0088	0.014	0.02	0.011	ND< 0.0015
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	0.2	0.0072	0.013	0.025	0.0074	ND< 0.0015
Sum**	1.8*	**0.02***	NT	NT	NT	NT	NT	ND< 0.0014	ND< 0.0015	**0.331**	**0.026**	**0.027**	**0.0472**	**0.0277**	ND< 0.0015
Chlordane	0.49	0.066	NT	NT	NT	NT	NT	ND< 0.035	ND< 0.036	0.063	ND< 0.036	ND< 0.036	ND< 0.036	ND< 0.039	ND< 0.039
Dieldrin	0.038	**0.007**	NT	NT	NT	NT	NT	ND< 0.0035	ND< 0.0036	**0.032**	ND< 0.0036	ND< 0.0036	0.005	ND< 0.0039	ND< 0.0039
SPLP Pesticides (mg/L)															
4,4' -DDD	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.000005	NT	NT	NT	NT	NT
4,4' -DDE	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
4,4' -DDT	NE	NE	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Sum**	NE	0.001	NT	NT	NT	NT	NT	NT	NT	ND < 0.00001	NT	NT	NT	NT	NT
Dieldrin	NE	**0.00002**	NT	NT	NT	NT	NT	NT	NT	**0.000026**	NT	NT	NT	NT	NT

Notes:

1. R-DEC s the Residential Direct Exposure Criteria
2. GB-PMC is the Class GB Pollutant Mobility Criteria
3. "*" = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided for comparison. Site-specific approval from CTDEEP is required for use of these criteria.
4. NE = None Established
5. ND or ND < 1.4 = Sample not detected above reporting limits shown
6. NA = Not applicable, a TCLP or SPLP result is required for comparison
7. NT = Sample not analyzed for this analyte
8. Bolded data exceed one or more criteria
9. ** RSR criteria are applicable to sum of DDD, DDE, and DDT
10. SPLP pesticide criteria are 10 times the Groundwater Protection Criteria.
11. ^Sample GZ-13 is located in a Class GA Groundwater Area and subject to the GA-Pollutant Mobility Criteria (GA-PMC).

Table 3 - Summary of Groundwater Analytical Data
Silver Lane and Forbes Street
East Hartford, Connecticut

Sample ID:	Remediation Standard Regulations		Aquatic Life Criteria		MW-1	MW-2	MW-3
Sample Date:	GWPC	SWPC	Freshwater Chronic	Human Health	5/11/2022	5/11/2022	5/11/2022
Metals (ug/L)							
Arsenic	50	4	150	0.011	ND < 4	ND < 4	ND < 4
Copper	1,300	48	4.8	1,300	ND < 5	ND < 5	ND < 5
Lead	15	13	1.2	15	ND < 2	**2**	ND < 2
Extractable Total Petroleum Hydrocarbons (ETPH) (ug/L)							
Ext. Petroleum H.C. (C9-C36)	250	*250*	NE	NE	ND < 66	ND < 66	ND < 66
Volatile Organic Compounds (VOCs) (ug/L)							
VOCs	Varies	Varies	NE	NE	ND	ND	ND
Pesticides (ug/L)							
Dieldrin	0.002	0.1	0.056	0.000052	**0.011**	ND < 0.001	**0.015**

Notes:

SWPC is the Surface Water Protection Criteria GWPC is the Groundwater Protection Criteria

ND or ND < 1.4 = Sample not detected above reporting limits shown

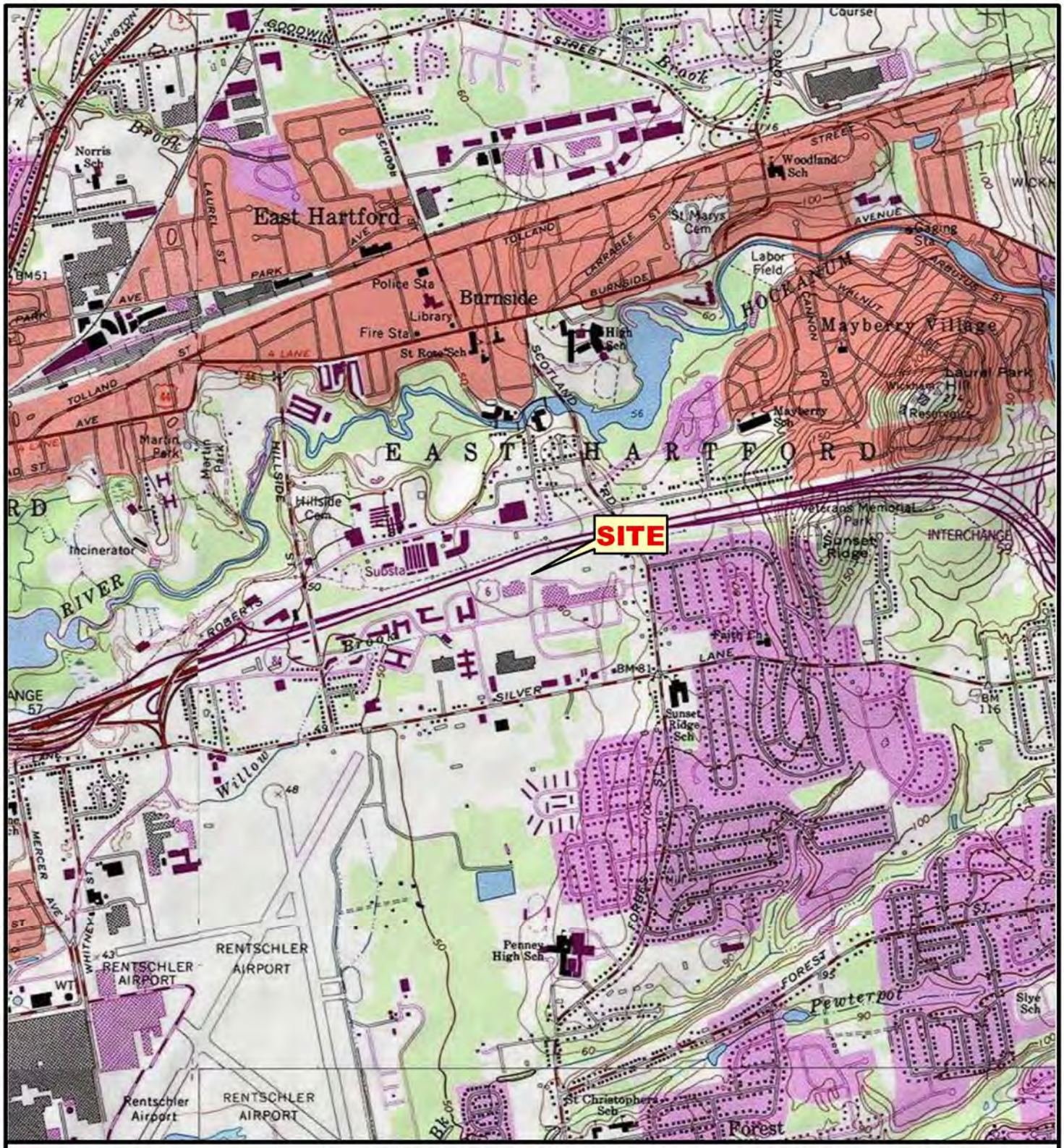
Italics = No current RSR criteria; common Additional Polluting Substances criteria from CTDEEP 2018 Technical Support Document are provided forcomparison. Site-specific approval from CTDEEP is required for use of these criteria.

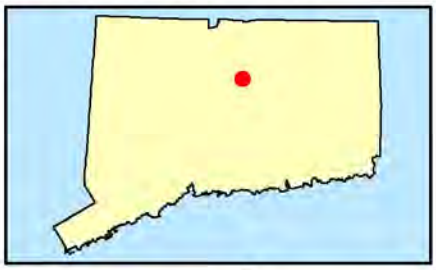
Bolded values exceed the GWPC

ug/L = micrograms per liter

NE = None Established

FIGURES





SOURCE : USGS TOPOGRAPHIC QUADRANGLES SCANNED BY THE NATIONAL GEOGRAPHIC SOCIETY & I-CUBED, COPYRIGHT 2011

Data Supplied by : esri

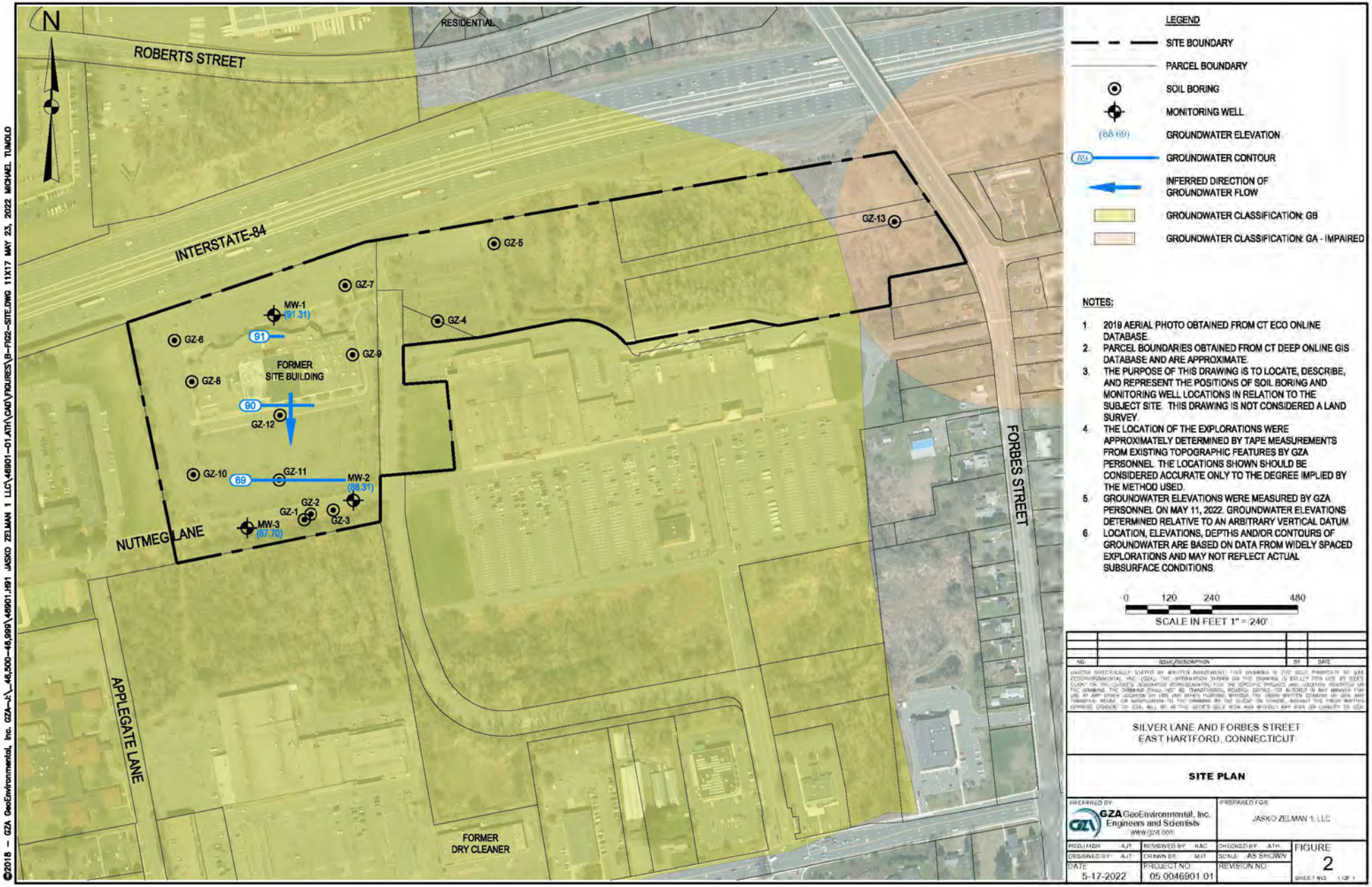
0 1,000 2,000 4,000 6,000

SCALE IN FEET

N W E S

GZA	PROJ. MGR.: AJT DESIGNED BY: AJT REVIEWED BY: ATH OPERATOR: AJT DATE: 01-24-2022	FIGURE 1 - SITE LOCUS	JOB NO. 05.0046901.01
		SILVER LN AND FORBES ST EAST HARTFORD, CONNECTICUT	FIGURE NO. 1

© 2022 - GZA GeoEnvironmental, Inc., \\gzaglastJobs\GIS\MXD\FIG_1_FIGURE 1 - SITE LOCUS_05_0046901_00.mxd, 1/24/2022, 1:25:03 PM, anthony.trani



©2018 – GZA GeoEnvironmental, Inc. G:\A–J_46,500–46,999\46901.H91 JASKO ZELMAN 1 LLC\46901–01.ATH\CAD\FIGURES\B–FIG2–SITE.DWG 11X17 MAY 23, 2022 MICHAEL TUMOLO

APPENDIX A
LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

CONCEPTUAL SITE MODEL

14. Our opinions were developed, in part, based upon a comparison of site data to conditions anticipated within our Conceptual Site Model (CSM). The CSM is based on available information, and professional judgment. There are rarely sufficient data to develop a unique CSM. Therefore observations over time, and/or space, may vary from those depicted in the CSM provided in this report. In addition, the CSM should be evaluated and refined (as appropriate) whenever significant new information and/or data is obtained.

APPENDIX B
SHALLOW SOIL FIELD LOG, BORING LOGS, AND GROUNDWATER FIELD SHEETS

SHALLOW SOIL SAMPLE FIELD LOG

GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd., 3rd floor
Glastonbury, CT 06033
Phone: (860) 286-8900

PROJECT

Project Name: Silver Lane and Forbes Street

Location: East Hartford, CT

Date: 5/2/2022 Page 1 of 1

File No. 05.0046901.01

GZA Staff/Sampler: Tim McBride

Air Temperature (°F): 60°

Weather Conditions: Light Rain/Cloudy

SAMPLING EQUIPMENT

Sample Method/Device: Hand Auger

Grab **Hand Auger** Hand Core/Borer Dredge Other

PID: MiniRae 10.6

Calibration Standard: 100 ppm Source lamp: 10.6 eV

Instrument Reading (start): 100 ppm

Instrument Reading (finish):

Sample ID	Time	Sample Depth (FT)	OVM Reading (PPM)	Odor	Ground Cover (asphlt/cnc.gras)	Cover Thickness (ft)	Sample Description
GZ-6	1420	1.5	0	None	Grass	0.25	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-7	1430	1.5	0	None	Grass	0.30	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-8	1435	1.5	0	None	Grass	0.25	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-9	1440	2	0	None	Grass	0.25	Tan-brown, medium to coarse SAND, little fine Gravel
GZ-10	1445	2	0	None	Grass	0.3	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-11	1455	2	0	None	Grass	0.3	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-5	1500	2	0	None	Grass	0.25	Brown, medium to coarse SAND, some fine Gravel, little Silt
GZ-12	1505	2	0	None	Grass	0.40	Reddish-brown, medium to fine SAND, some Silt, little fine Gravel
GZ-13	1515	2	0	None	Grass	0.25	Reddish-brown, medium to fine SAND, some Silt, little fine Gravel

SOIL CONDITIONS

Fines (silts & clay)	Too fine to see.	TRACE (TR.)	0-10%
Fine sand.	Finest visible particles.	LITTLE (L.)	10-20%
Med. Sand	1/64"-1/16" (granular sugar).	SOME (S.)	20-35%
C. Sand	1/6"-1/4" (rock salt).	AND	35-50%
Fine gravel	1/4"-3/4" (pea to grape).		

DENSITY

Sand	Silt/Clay
V. Loose	V. Soft
Loose	Soft
M. Dense	M. Stiff
Dense	Stiff

ABBREVIATIONS

V - Very	F - Fine
GR - Gray	M - Medium
BN - Brown	C - Coarse
YEL - Yellow	F/M - Fine to Medium
RD - Red	F/C - Fine to Coarse

ORGANIC MATERIALS

Organic Silt:	Dark gray to black, light weight, often H2S odor.
Humus:	Decomposed root/twig/leaf litter - forest areas.
Root Mat:	Living root fiber structures, found in marshes.
Peat:	Fossiliferous root mat - decomposed fiber structure.

Note: e.g. logs, branches, roots, shells, black streaks, H2S odor.

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: GZ-1
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	S-1	0-2	24	16	0.0	S-1 : Top 6": ASPHALT Bottom 10": Brown, medium to coarse SAND, little Silt	1 2	ASPHALT	0.6	No Equipment Installed
	S-2	2-4	24	24	0.0	S-2 : Brown, medium to coarse SAND, little Silt		SAND	4	
5						End of Exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample GZ-1 from 0 to 2 feet collected at 1245.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-1

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP & SAMP NO; 5/18/2022; 2:47:32 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: GZ-2
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	S-1	0-2	24	16	0.0	S-1 : Top 8": ASPHALT Bottom 8": Tan, medium to coarse SAND	1 2	ASPHALT	0.7	No Equipment Installed
	S-2	2-4	24	19	0.0	S-2 : Reddish-brown, medium to coarse SAND		SAND	4	
5						End of Exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample GZ-2 from 0 to 2 feet collected at 1305.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-2

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP & SAMP NO; 5/18/2022; 2:47:39 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: GZ-3
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	S-1	0-2	24	20	0.0	S-1 : Top 5": ASPHALT	1	ASPHALT	0.5	No Equipment Installed
						Middle 2": Reddish-brown, medium to coarse SAND	2			
	S-2	2-4	24	24	0.0	Bottom 13": Tan, brown, medium to coarse SAND, little Silt		SAND		
						S-2 : Tan-brown, medium to coarse SAND			4	
5						End of Exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample GZ-3 from 0 to 2 feet collected at 1320.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-3

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP & SAMP NO; 5/18/2022; 2:47:45 PM

GEOPROBE LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: GZ-4
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Geoprobe Location: See Plan
Ground Surface Elev. (ft.):
Final Geoprobe Depth (ft.): 4
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	PID* (ppm)	Sample Description Modified Burmister	Remark	Elev. (ft.) Stratum Description	Depth (ft.)	Equipment Installed
	S-1	0-2	24	15	0.0	S-1 : Top 4": ASPHALT Bottom 11": Brown, medium SAND, some fine Gravel, some Silt	1 2	ASPHALT	0.4	No Equipment Installed
	S-2	2-4	24	24	0.0	S-2 : Top 20": Brown, medium to coarse SAND Bottom 4": Brown, grey, medium to coarse SAND		SAND	4	
5						End of Exploration at 4 feet.				
10										
15										
20										
25										
30										

REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample GZ-4 from 0 to 2 feet collected at 1350.

Stratification lines represent approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

GZ-4

GZADEPTH.GDT; GZA TEMPLATE GEOPROBE W/EQUIP & SAMP NO; 5/18/2022; 2:47:50 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: MW-1
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Boring Location: See Plan
Ground Surface Elev. (ft.):
Final Boring Depth (ft.): 15
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

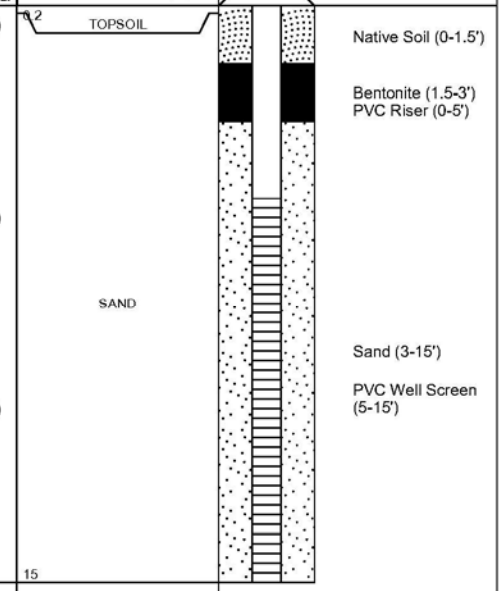
Hammer Type:
Hammer Weight (lb.):
Hammer Fall (in.):
Auger or Casing O.D./I.D Dia (in.):

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/2/2022	1300	-9.2'	

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows per 6"	Sample SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
		S-1	0-2	18	14			Top 2": TOPSOIL Bottom 12": Brown, medium to coarse SAND, little Silt	1 2	0.0
		S-2	2-4	24	24			Brown, medium to coarse SAND, little Silt		
5		S-3	5-7	24	24			Brown, medium to coarse SAND, little Silt		0.0
10		S-4	10-12	24	24			Brown, medium to coarse SAND, little Silt		0.0
15									3	
								End of Exploration at 15 feet.		
20										
25										
30										



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample MW-1 from 0 to 2 feet collected at 0730.
3 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximatey 15 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 3 to 15 feet below grade. Bentonite seal installed from 1.5 to 3 feet below grade. Remaining anulus filled with native sand fom 0 to 1.5 feet below grade. Well completed with flush mount roadbox.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: MW-1

GZA TEMPLATE TEST BORING W/ EQUIP. BORING LOGS.GPJ GLASO APPS LIBRARY 012111.GLB 5/25/2022 4:42:49 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*

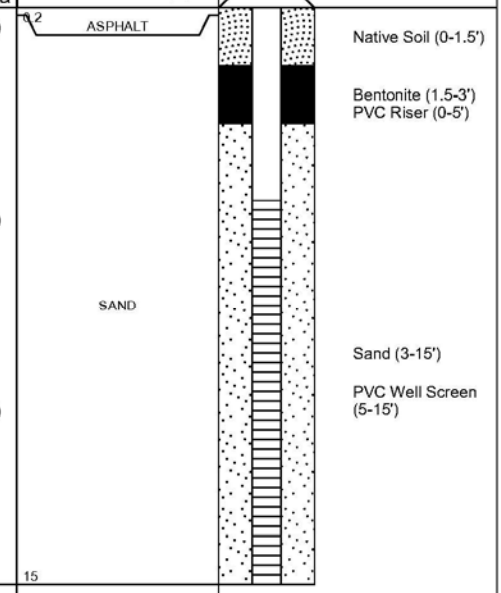
Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: MW-2
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride **Drilling Co.:** Site LLC **Foreman:** John Miller	**Type of Rig:** CME **Rig Model:** 55 LLX **Drilling Method:** Direct Push	**Boring Location:** See Plan **Ground Surface Elev. (ft.):** **Final Boring Depth (ft.):** 15 **Date Start - Finish:** 5/2/2022 - 5/2/2022	**H. Datum:** **V. Datum:**

		Groundwater Depth (ft.)			
Hammer Type: **Hammer Weight (lb.):** **Hammer Fall (in.):** **Auger or Casing O.D./I.D Dia (in.):**	**Sampler Type:** SS **Sampler O.D. (in.):** 2.25 **Sampler Length (in.):** 24 **Rock Core Size:**	**Date**	**Time**	**Water Depth**	**Stab. Time**
		5/2/2022	1305	~6.2'	

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
0		S-1	0-2	24	24			Top 2": ASPHALT	1	0.0
								Bottom 22": Reddish-brown, medium to coarse SAND	2	
		S-2	2-4	24	24			Reddish-brown, medium to coarse SAND		
5		S-3	5-7	24	24			Reddish-brown, medium to coarse SAND, moist		0.0
10		S-4	10-12	24	24			Reddish-brown, medium to very coarse SAND		0.0
15									3	
								End of Exploration at 15 feet.		
20										
25										
30										



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample MW-2 from 0 to feet collected at 0845.
3 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximatey 15 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 3 to 15 feet below grade. Bentonite seal installed from 1.5 to 3 feet below grade. Remaining anulus filled with native sand fom 0 to 1.5 feet below grade. Well completed with flush mount roadbox.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: MW-2

GZA TEMPLATE TEST BORING W/ EQUIP. BORING LOGS.GPJ GLASO APPS LIBRARY 012111.GLB 5/25/2022 4:43:42 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc. *Engineers and Scientists*

Silver Lane and Forbest Street
East Hartford, CT

EXPLORATION NO.: MW-3
SHEET: 1 of 1
PROJECT NO: 05.0046901.01
REVIEWED BY:

Logged By: T. McBride
Drilling Co.: Site LLC
Foreman: John Miller

Type of Rig: CME
Rig Model: 55 LLX
Drilling Method: Direct Push

Boring Location: See Plan
Ground Surface Elev. (ft.):
Final Boring Depth (ft.): 15
Date Start - Finish: 5/2/2022 - 5/2/2022

H. Datum:
V. Datum:

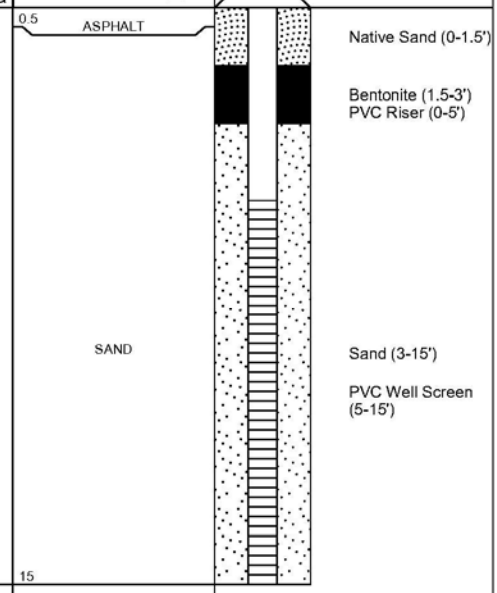
Hammer Type:
Hammer Weight (lb.):
Hammer Fall (in.):
Auger or Casing O.D./I.D Dia (in.):

Sampler Type: SS
Sampler O.D. (in.): 2.25
Sampler Length (in.): 24
Rock Core Size:

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/2/2022	1320	~8'	

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows per 6"	SPT Value	Sample Description Modified Burmister	Remark	Field Test Data
		S-1	0-2	24	20			Top 7": ASPHALT Bottom 13": Brown, medium to coarse SAND, little Silt	1 2	0.0
		S-2	2-4	24	24			Brown, medium to coarse SAND, little Silt		0.0
5		S-3	5-7	24	24			Reddish-brown, medium to coarse SAND, little Silt		0.0
10		S-4	10-12	24	24			Brown, coarse SAND, some fine Gravel		0.0
15									3	
								End of Exploration at 15 feet.		
20										
25										
30										



REMARKS

1 - Soil samples screened with a 10.6 eV MiniRAE photoionization detector (PID). PID values represent meter response in parts per million (ppm) relative to benzene in air and above background readings. A "*" indicates a sample sent to a laboratory for additional analyses or screening.
2 - Soil sample MW-3 from 0 to 2 feet collected at 1050.
3 - 10 feet of 2 inch diameter, Schedule 40, threaded, flush joint, 10-slot PVC well screen set at approximatey 15 feet below grade. Well completed to ground surface with a 2 inch diameter, Schedule 40, threaded, flush joint, PVC riser. Filter sand placed in annulus around well from 3 to 15 feet below grade. Bentonite seal installed from 1.5 to 3 feet below grade. Remaining anulus filled with native sand fom 0 to 1.5 feet below grade. Well completed with flush mount roadbox.

Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: MW-3

GZA TEMPLATE TEST BORING W/ EQUIP. BORING LOGS.GPJ GLASO APPS LIBRARY 012111.GLB 5/25/2022 4:44:13 PM

GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd, 3rd Floor
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: MW-1
Sample Date: 5/11/2022

PROJECT INFORMATION

Project Name: Silver Lane & Forbes Street Location: East Hartford, CT File No. 05.0046901.01

WATER LEVEL OBSERVATIONS Measurement Date/Time: 5/11/2022 / 1013 Collector Initials: TRM

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)
Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)
Difference Between PVC and Casing Top (feet): 0.42 Difference in Elevation (feet):
Well Screened Interval (fbg) 5-15 (Reference Elevation - Ground Elevation)
HACH Kit Type NA Other Field Method

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	14.48	14.9
Depth to Water (feet):	8.69	9.11
Standing Water in Well (feet):	5.79	5.79

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 2.0 gallons or ☐ liters ☑
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / **good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - **Yes** / No; Concrete Collar - **Yes** / No; Well - poor / **good**
Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☐ Other: ☑ _____
Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____ 250 mL

CALIBRATION DATA:

				Temp/time (#1)		Temp/time (#2)		
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1413	Reading (#1)	1413	Reading (#2)	
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	4	pH 7: (1/2)	7.00	pH 10: (1/2)	10.00
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	100 20%	(#2)	
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:	1000/10/0.02	Reading (#1)	1000/10/0.02		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	237.5	Reading (#1)	237.5	(#2)	

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	1016	1030	1033	1036						1036
Depth to Water (ft) below Ref. point (drawdown <0.3)	8.69	8.91	8.91	8.91						8.91
Volume Purged (L)		1.4	1.7	2.0						2.0
Purge Rate (ml/min)		100	100	100						100
Temperature (3%) °C		12.1	12.1	12.1						12.1
Spec. Cond. (3%) (µS)		208.9	208.9	208.9						208.9
Salinity (3%) (ppt)		0.10	0.10	0.10						0.10
DO (10%) (mg/L)		1.36	1.11	1.05						1.05
pH (+/- 0.1) (s.u.)		6.46	6.46	6.46						6.46
ORP** (+/- 10) (mvolts)		17.7	16.1	15.3						15.3
Turbidity (<5) (10%) (ntu)		0.45	0.27	0.19						0.19

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** ~12' (below grade ___ or ref. pt. X) **Sample Time:** 1040 **Sample ID:** MW-1

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
ETPH	CTDPH	1	Amber	1.0 L	Cool	Ice/Cooler
Pesticides		1	Amber	1.0 L	Cool	Ice/Cooler
VOCs	8260	3	VOA	40 mL	HCl	Ice/Cooler
Pb, Cu As		1	Plastic	250 mL	HNO3	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: None Product Thickness: N/A (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd, 3rd Floor
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: MW-2
Sample Date: 5/11/2022

PROJECT INFORMATION

Project Name: Silver Lane & Forbes Street Location: East Hartford, CT File No. 05.0046901.01

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 5/11/2022 / 0908 Collector Initials: TRM

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)
Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)
Difference Between PVC and Casing Top (feet): 0.37 Difference in Elevation (feet):
Well Screened Interval (fbg) 5-15 (Reference Elevation - Ground Elevation)
HACH Kit Type NA Other Field Method

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	14.49	14.86
Depth to Water (feet):	6.02	6.39
Standing Water in Well (feet):	8.47	8.47

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 2.0 gallons or ☐ liters ☑
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / **good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - **Yes** / No; Concrete Collar - **Yes** / No; Well - poor / **good**
Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☐ Other: ☑ _____
Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____ 250 mL

CALIBRATION DATA:

				Temp/time (#1)		Temp/time (#2)		
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1413	Reading (#1)	1413	Reading (#2)	
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	4	pH 7: (1/2)	7.00	pH 10: (1/2)	10.00
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	100 20%	(#2)	
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:	1000/10/0.02	Reading (#1)	1000/10/0.02		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	237.5	Reading (#1)	237.5	(#2)	

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	0911	0925	0928	0931						0931
Depth to Water (ft) below Ref. point (drawdown <0.3)	6.02	6.05	6.05	6.05						6.05
Volume Purged (L)		1.4	1.7	2.0						2.0
Purge Rate (ml/min)		100	100	100						100
Temperature (3%) °C		14.8	14.8	14.8						14.8
Spec. Cond. (3%) (µS)		177.1	177.1	176.9						176.9
Salinity (3%) (ppt)		0.08	0.08	0.08						0.08
DO (10%) (mg/L)		0.43	0.42	0.42						0.42
pH (+/- 0.1) (s.u.)		6.71	6.73	6.73						6.73
ORP** (+/- 10) (mvolts)		36.7	36.8	36.7						36.7
Turbidity (<5) (10%) (ntu)		0.43	0.21	0.15						0.15

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** ~12' (below grade ___ or ref. pt. X) **Sample Time:** 0935 **Sample ID:** MW-2

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
ETPH	CTDPH	1	Amber	1.0 L	Cool	Ice/Cooler
Pesticides		1	Amber	1.0 L	Cool	Ice/Cooler
VOCs	8260	3	VOA	40 mL	HCl	Ice/Cooler
Pb, Cu As		1	Plastic	250 mL	HNO3	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: None Product Thickness: N/A (Call PM if present) Well Condition: Good

GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd, 3rd Floor
Glastonbury, CT 06033

GROUNDWATER SAMPLING DATA SHEET

Well ID: MW-3
Sample Date: 5/11/2022

PROJECT INFORMATION

Project Name: Silver Lane & Forbes Street Location: East Hartford, CT File No. 05.0046901.01

WATER LEVEL OBSERVATIONS Measurement Date/Time: 5/11/2022 / 0830 Collector Initials: TRM

Reference Point of Measurement: PVC Riser ☑ Steel Casing ☐ Ground ☐ Reference Elevation (feet)
Well Completion: Stand Pipe ☐ Road Box ☑ Ground Elevation (feet)
Difference Between PVC and Casing Top (feet): 0.39 Difference in Elevation (feet):
Well Screened Interval (fbg) 5-15 (Reference Elevation - Ground Elevation)
HACH Kit Type NA Other Field Method

	Depth from Ref. Point	Depth Below Ground
Total Length of Well (feet):	14.59	14.98
Depth to Water (feet):	7.15	7.54
Standing Water in Well (feet):	7.44	7.44

(Reference Point Measurement - Difference in Elevation)

Total Purged Sample Volume 1.9 gallons or ☐ liters ☑
Multiply liters by 0.2642 to get gallons

Well Condition: Protective Casing - poor / **good**; Lock - Yes / **No**; Expansion Cap - **Yes**/No; Well ID - **Yes** / No; Concrete Collar - **Yes** / No; Well - poor / **good**
Well head vapors: VOCs (PID/FID) _____ ppmv Methane (FID/Other) _____ ppmv Other _____ ppmv

Sample Method: Bail ☐ Grab ☐ Pump ☐ Low Flow ☑ **Purge Method:** Bail ☐ Pump ☑ **Flow-Thru Cell Vol:** (460mL) ☐ Other: ☑ _____
Pump Type: Electric Submersible ☐ Peristaltic ☑ Bladder Pump ☐ Other: ☐ _____ 250 mL

CALIBRATION DATA:

				Temp/time (#1)		Temp/time (#2)		
Specific Conductance:	Instrument Model:	YSI 556	Standard Solution:	1413	Reading (#1)	1413	Reading (#2)	
pH (s.u.):	Instrument Model:	YSI 556	Reading: pH 4: (1/2)	4	pH 7: (1/2)	7.00	pH 10: (1/2)	10.00
DO (mg/L):	Instrument Model:	YSI 556	Standard Solution:	100%	Reading (#1)	100 20%	(#2)	
Turbidity (NTU):	Instrument Model:	Micro TPI	Standard Solution:	1000/10/0.02	Reading (#1)	1000/10/0.02		
ORP (mvolts:)	Instrument Model:	YSI 556	Standard Solution:	237.5	Reading (#1)	237.5	(#2)	

INSTRUMENT MEASUREMENTS:

Parameters	Static*	1	2	3	4	5	6	7	8	Stabilized
Time:	0832	0845	0848	0851						0851
Depth to Water (ft) below Ref. point (drawdown <0.3)	7.15	7.20	7.20	7.20						7.20
Volume Purged (L)		1.3	1.6	1.9						1.9
Purge Rate (ml/min)		100	100	100						100
Temperature (3%) °C		14.4	14.4	14.4						14.4
Spec. Cond. (3%) (µS)		77.2	77.0	76.9						76.9
Salinity (3%) (ppt)		0.04	0.04	0.04						0.04
DO (10%) (mg/L)		2.84	2.82	2.81						2.81
pH (+/- 0.1) (s.u.)		6.43	6.42	6.43						6.43
ORP** (+/- 10) (mvolts)		23.2	23.2	24.9						24.9
Turbidity (<5) (10%) (ntu)		1.61	1.11	0.97						0.97

*Static measurement is before installation of equipment.
**If ORP is negative and DO is greater than 2 mg/L or if DO is greater than 10 mg/L; recalibrate and/or clean instrument. If persistent call PM.

SAMPLING INFORMATION **Sample Depth:** ~12' (below grade ___ or ref. pt. X) **Sample Time:** 0855 **Sample ID:** MW-3

Analysis	Method	No. Bottles	Bottle Type	Vol.	Preservation	Handling
ETPH	CTDPH	1	Amber	1.0 L	Cool	Ice/Cooler
Pesticides		1	Amber	1.0 L	Cool	Ice/Cooler
VOCs	8260	3	VOA	40 mL	HCl	Ice/Cooler
Pb, Cu As		1	Plastic	250 mL	HNO3	Ice/Cooler

NOTES/OBSERVATIONS:

Color: Clear Odor: None Product Thickness: N/A (Call PM if present) Well Condition: Good

APPENDIX C
LABORATORY ANALYTICAL REPORT

PHOENIX
Environmental Laboratories, Inc.

Wednesday, May 18, 2022

Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Project ID: FORBES ST & SILVER LANE
SDG ID: GCL21187
Sample ID#s: CL21189, CL21191, CL21193, CL21195, CL21197, CL21199, CL21201, CL21203 - CL21204, CL21206 - CL21211

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

SDG Comments

May 18, 2022

SDG I.D.: GCL21187

Version 2: Per client request SPLP metals and SPLP pesticides were added on

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

May 18, 2022

SDG I.D.: GCL21187

Project ID: FORBES ST & SILVER LANE

Client Id	Lab Id	Matrix
MW-2 (0-2)	CL21189	SOIL
MW-3 (0-2)	CL21191	SOIL
GZ-1 (0-2)	CL21193	SOIL
GZ-2 (0-2)	CL21195	SOIL
GZ-3 (0-2)	CL21197	SOIL
GZ-4 (0-2)	CL21199	SOIL
GZ-5 (0-2)	CL21201	SOIL
GZ-7 (0-1.5)	CL21203	SOIL
GZ-8 (0-1.5)	CL21204	SOIL
GZ-10 (0-2)	CL21206	SOIL
GZ-11 (0-2)	CL21207	SOIL
GZ-12 (0-2)	CL21208	SOIL
GZ-13 (0-2)	CL21209	SOIL
TB050222 LOW	CL21210	SOIL
TB050222 HIGH	CL21211	SOIL

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	8:45
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21189

Project ID: FORBES ST & SILVER LANE
Client ID: MW-2 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		05/03/22	K	SW846-%Solid
Field Extraction	Completed				05/02/22		SW5035A
Extraction of ETPH	Completed				05/03/22	R/A	SW3546
Soil Extraction for SVOA PAH	Completed				05/03/22	R/A	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	05/04/22	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/04/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	98		%	1	05/04/22	JRB	50 - 150 %
% Terphenyl (surr)	101		%	1	05/04/22	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.65	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: MW-2 (0-2)

Phoenix I.D.: CL21189

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
4-Chlorotoluene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: MW-2 (0-2)

Phoenix I.D.: CL21189

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	05/04/22	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	98		%	1	05/04/22	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	59		%	1	05/04/22	WB	30 - 130 %
% Nitrobenzene-d5	60		%	1	05/04/22	WB	30 - 130 %
% Terphenyl-d14	60		%	1	05/04/22	WB	30 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: MW-2 (0-2)

Phoenix I.D.: CL21189

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 18, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	10:30
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21191

Project ID: FORBES ST & SILVER LANE
Client ID: MW-3 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		05/03/22	K	SW846-%Solid
Field Extraction	Completed				05/02/22		SW5035A
Extraction of ETPH	Completed				05/03/22	R/A	SW3546
Soil Extraction for SVOA PAH	Completed				05/03/22	R/A	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	05/04/22	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/04/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	110		%	1	05/04/22	JRB	50 - 150 %
% Terphenyl (surr)	113		%	1	05/04/22	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.56	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: MW-3 (0-2)

Phoenix I.D.: CL21191

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	28	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
4-Chlorotoluene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	28	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	280	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: MW-3 (0-2)

Phoenix I.D.: CL21191

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	5.6	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	05/04/22	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	94		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	98		%	1	05/04/22	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	58		%	1	05/04/22	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	05/04/22	WB	30 - 130 %
% Terphenyl-d14	57		%	1	05/04/22	WB	30 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: MW-3 (0-2)

Phoenix I.D.: CL21191

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 18, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	12:45
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21193

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-1 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	77		%		05/03/22	K	SW846-%Solid
Field Extraction	Completed				05/02/22		SW5035A
Extraction of ETPH	Completed				05/03/22	R/A	SW3546
Soil Extraction for SVOA PAH	Completed				05/03/22	R/A	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	96	mg/Kg	1	05/04/22	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/04/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	108		%	1	05/04/22	JRB	50 - 150 %
% Terphenyl (surr)	114		%	1	05/04/22	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.2	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.70	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-1 (0-2)

Phoenix I.D.: CL21193

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	35	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
4-Chlorotoluene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	35	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	350	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	4.2	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	42	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-1 (0-2)

Phoenix I.D.: CL21193

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	7.0	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	05/04/22	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	98		%	1	05/04/22	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthylene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Anthracene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Benz(a)anthracene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(a)pyrene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(b)fluoranthene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(ghi)perylene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(k)fluoranthene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Chrysene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Fluoranthene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Fluorene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Naphthalene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Phenanthrene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
Pyrene	ND	450	ug/Kg	1	05/04/22	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	53		%	1	05/04/22	WB	30 - 130 %
% Nitrobenzene-d5	53		%	1	05/04/22	WB	30 - 130 %
% Terphenyl-d14	52		%	1	05/04/22	WB	30 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-1 (0-2)

Phoenix I.D.: CL21193

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	13:00
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21195

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-2 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		05/03/22	K	SW846-%Solid
Field Extraction	Completed				05/02/22		SW5035A
Extraction of ETPH	Completed				05/03/22	R/A	SW3546
Soil Extraction for SVOA PAH	Completed				05/03/22	R/A	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	05/04/22	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/04/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	84		%	1	05/04/22	JRB	50 - 150 %
% Terphenyl (surr)	83		%	1	05/04/22	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.53	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-2 (0-2)

Phoenix I.D.: CL21195

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-2 (0-2)

Phoenix I.D.: CL21195

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	05/04/22	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	96		%	1	05/04/22	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	05/04/22	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	05/04/22	WB	30 - 130 %
% Nitrobenzene-d5	65		%	1	05/04/22	WB	30 - 130 %
% Terphenyl-d14	64		%	1	05/04/22	WB	30 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-2 (0-2)

Phoenix I.D.: CL21195

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	13:15
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21197

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-3 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		05/03/22	K	SW846-%Solid
Field Extraction	Completed				05/02/22		SW5035A
Extraction of ETPH	Completed				05/03/22	R/A	SW3546
Soil Extraction for SVOA PAH	Completed				05/03/22	R/A	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	05/04/22	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	05/04/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% COD (surr)	60		%	1	05/04/22	JRB	50 - 150 %
% Terphenyl (surr)	60		%	1	05/04/22	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.49	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-3 (0-2)

Phoenix I.D.: CL21197

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dichloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
4-Chlorotoluene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.8	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	9.8	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.8	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-3 (0-2)

Phoenix I.D.: CL21197

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Xylenes	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.8	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.8	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	05/04/22	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	97		%	1	05/04/22	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	05/04/22	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	70		%	1	05/04/22	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	05/04/22	WB	30 - 130 %
% Terphenyl-d14	69		%	1	05/04/22	WB	30 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-3 (0-2)

Phoenix I.D.: CL21197

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	13:50
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21199

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-4 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	4.27	0.74	mg/Kg	1	05/04/22	EK	SW6010D
Copper	65.5	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	17.5	0.37	mg/Kg	1	05/04/22	EK	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	05/11/22	CPP	SW6010D
SPLP Copper	< 0.010	0.010	mg/L	1	05/11/22	CPP	SW6010D
SPLP Metals Digestion	Completed				05/11/22	AB/AB	SW3010A
Percent Solid	95		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
SPLP Extraction for Metals	Completed				05/10/22	AB	SW1312
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	35	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.5	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-4 (0-2)

Phoenix I.D.: CL21199

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endrin ketone	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	6.9	ug/Kg	2	05/05/22	KCA	SW8081B
Methoxychlor	ND	35	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	140	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	43		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	36		%	2	05/05/22	KCA	30 - 150 %
% TCMX	51		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	52		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	15:00
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21201

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-5 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	1.72	0.69	mg/Kg	1	05/04/22	EK	SW6010D
Copper	26.4	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	54.6	0.34	mg/Kg	1	05/04/22	EK	SW6010D
SPLP Lead	< 0.010	0.010	mg/L	1	05/11/22	CPP	SW6010D
SPLP Metals Digestion	Completed				05/11/22	AB/AB	SW3010A
Percent Solid	91		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
SPLP Extraction for Metals	Completed				05/10/22	AB	SW1312
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-5 (0-2)

Phoenix I.D.: CL21201

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
g-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Methoxychlor	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	150	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	44		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	39		%	2	05/05/22	KCA	30 - 150 %
% TCMX	45		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	53		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	14:30
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	24 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21203

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-7 (0-1.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	4.19	0.66	mg/Kg	1	05/04/22	EK	SW6010D
Copper	13.3	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	21.4	0.33	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	93		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
SPLP Extraction for Organics	Completed				05/10/22	AB	SW1312
SPLP Pesticides Ext.	Completed				05/12/22	U/SA	SW3510C
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	11	1.4	ug/Kg	2	05/05/22	AW	SW8081B
4,4' -DDE	120	35	ug/Kg	10	05/06/22	AW	SW8081B
4,4' -DDT	200	35	ug/Kg	10	05/06/22	AW	SW8081B
a-BHC	ND	1.4	ug/Kg	2	05/05/22	AW	SW8081B
Alachlor	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Aldrin	ND	1.4	ug/Kg	2	05/05/22	AW	SW8081B
b-BHC	ND	1.4	ug/Kg	2	05/05/22	AW	SW8081B
Chlordane	63	35	ug/Kg	2	05/05/22	AW	SW8081B
d-BHC	ND	1.4	ug/Kg	2	05/05/22	AW	SW8081B
Dieldrin	32	3.5	ug/Kg	2	05/05/22	AW	SW8081B
Endosulfan I	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Endosulfan II	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Endosulfan sulfate	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Endrin	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Endrin aldehyde	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Endrin ketone	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	05/05/22	AW	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-7 (0-1.5)

Phoenix I.D.: CL21203

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Heptachlor	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Heptachlor epoxide	ND	7.0	ug/Kg	2	05/05/22	AW	SW8081B
Methoxychlor	ND	35	ug/Kg	2	05/05/22	AW	SW8081B
Toxaphene	ND	140	ug/Kg	2	05/05/22	AW	SW8081B
QA/QC Surrogates							
% DCBP	47		%	2	05/05/22	AW	30 - 150 %
% DCBP (Confirmation)	43		%	2	05/05/22	AW	30 - 150 %
% TCMX	51		%	2	05/05/22	AW	30 - 150 %
% TCMX (Confirmation)	52		%	2	05/05/22	AW	30 - 150 %
SPLP Pesticides							
4,4' -DDD	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDE	ND	0.010	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDT	ND	0.010	ug/L	1	05/16/22	AW	SW8081B
a-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Alachlor	ND	0.010	ug/L	1	05/16/22	AW	SW8081B
Aldrin	ND	0.003	ug/L	1	05/16/22	AW	SW8081B
b-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Chlordane	ND	0.050	ug/L	1	05/16/22	AW	SW8081B
d-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Dieldrin	0.026	0.002	ug/L	1	05/16/22	AW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Endrin	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Endrin aldehyde	ND	0.010	ug/L	1	05/16/22	AW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
g-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Heptachlor	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Toxaphene	ND	0.20	ug/L	1	05/16/22	AW	SW8081B
QA/QC Surrogates							
%DCBP (Surrogate Rec)	50		%	1	05/16/22	AW	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	34		%	1	05/16/22	AW	30 - 150 %
%TCMX (Surrogate Rec)	53		%	1	05/16/22	AW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	60		%	1	05/16/22	AW	30 - 150 %

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-7 (0-1.5)

Phoenix I.D.: CL21203

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	14:35
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21204

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-8 (0-1.5)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	2.80	0.74	mg/Kg	1	05/04/22	EK	SW6010D
Copper	25.6	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	26.5	0.37	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	91		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	10	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	8.8	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	7.2	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-8 (0-1.5)

Phoenix I.D.: CL21204

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	140	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	53		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	44		%	2	05/05/22	KCA	30 - 150 %
% TCMX	60		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	55		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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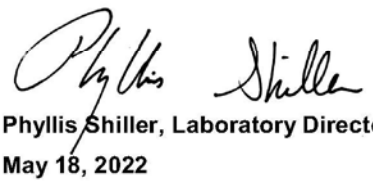

Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	14:45
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21206

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-10 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	2.75	0.67	mg/Kg	1	05/04/22	EK	SW6010D
Copper	14.5	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	27.7	0.34	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	92		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	14	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	13	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.6	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.4	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.2	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-10 (0-2)

Phoenix I.D.: CL21206

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	140	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	48		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	41		%	2	05/05/22	KCA	30 - 150 %
% TCMX	55		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	53		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
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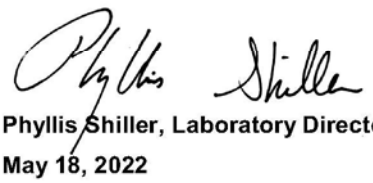

Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	14:56
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21207

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-11 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.69	0.65	mg/Kg	1	05/04/22	EK	SW6010D
Copper	40.2	0.7	mg/kg	1	05/04/22	EK	SW6010D
Lead	28.1	0.33	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	90		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	2.2	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	20	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	25	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	5.0	3.6	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-11 (0-2)

Phoenix I.D.: CL21207

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	36	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	150	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	44		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	39		%	2	05/05/22	KCA	30 - 150 %
% TCMX	55		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	56		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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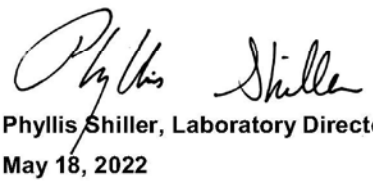

Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	15:15
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21208

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-12 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	3.43	0.77	mg/Kg	1	05/04/22	EK	SW6010D
Copper	20.2	0.8	mg/kg	1	05/04/22	EK	SW6010D
Lead	20.9	0.39	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	84		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	9.3	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	11	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	7.4	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	39	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.6	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-12 (0-2)

Phoenix I.D.: CL21208

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	39	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	160	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	55		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	42		%	2	05/05/22	KCA	30 - 150 %
% TCMX	66		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	56		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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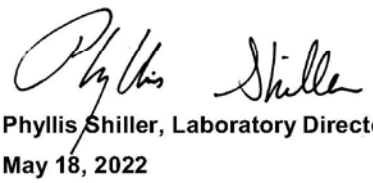

Phyllis Shiller, Laboratory Director
May 18, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	15:25
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21209

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-13 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	1.57	0.78	mg/Kg	1	05/04/22	EK	SW6010D
Copper	14.8	0.8	mg/kg	1	05/04/22	EK	SW6010D
Lead	30.4	0.39	mg/Kg	1	05/04/22	EK	SW6010D
Percent Solid	84		%		05/03/22	K	SW846-%Solid
Soil Extraction for Pesticide	Completed				05/04/22	O/E	SW3545A
Total Metals Digest	Completed				05/03/22	B/AG	SW3050B
Pesticides							
4,4' -DDD	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
a-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Alachlor	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Aldrin	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
b-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Chlordane	ND	39	ug/Kg	2	05/05/22	KCA	SW8081B
d-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Endosulfan sulfate	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
g-BHC	ND	1.5	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	05/05/22	KCA	SW8081B

Project ID: FORBES ST & SILVER LANE
Client ID: GZ-13 (0-2)

Phoenix I.D.: CL21209

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methoxychlor	ND	39	ug/Kg	2	05/05/22	KCA	SW8081B
Toxaphene	ND	150	ug/Kg	2	05/05/22	KCA	SW8081B
QA/QC Surrogates							
% DCBP	48		%	2	05/05/22	KCA	30 - 150 %
% DCBP (Confirmation)	42		%	2	05/05/22	KCA	30 - 150 %
% TCMX	53		%	2	05/05/22	KCA	30 - 150 %
% TCMX (Confirmation)	54		%	2	05/05/22	KCA	30 - 150 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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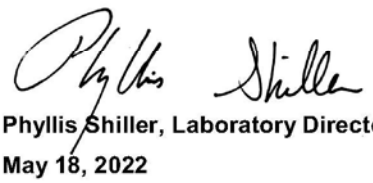

Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21210

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 LOW

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				05/02/22		SW5035A
Volatiles							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	0.50	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 LOW

Phoenix I.D.: CL21210

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Chlorotoluene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	05/04/22	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	05/04/22	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	05/04/22	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	05/04/22	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	05/04/22	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	05/04/22	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	05/04/22	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	05/04/22	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	05/04/22	JLI	70 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 LOW

Phoenix I.D.: CL21210

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene	95		%	1	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane	92		%	1	05/04/22	JLI	70 - 130 %
% Toluene-d8	98		%	1	05/04/22	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director

May 18, 2022

Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 18, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		05/02/22	
Location Code:	GZACTENG	Received by:	CP	05/03/22	14:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCL21187
Phoenix ID: CL21211

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 HIGH

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Field Extraction	Completed				05/02/22		SW5035A
Volatiles							
1,1,1,2-Tetrachloroethane	ND	50	ug/Kg	50	05/04/22	JLI	SW8260C
1,1,1-Trichloroethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	50	ug/Kg	50	05/04/22	JLI	SW8260C
1,1,2-Trichloroethane	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
1,1-Dichloroethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,1-Dichloroethene	ND	140	ug/Kg	50	05/04/22	JLI	SW8260C
1,1-Dichloropropene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2,3-Trichloropropane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	50	ug/Kg	50	05/04/22	JLI	SW8260C
1,2-Dibromoethane	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
1,2-Dichlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,2-Dichloroethane	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
1,2-Dichloropropane	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,3-Dichlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,3-Dichloropropane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
1,4-Dichlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
2,2-Dichloropropane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
2-Chlorotoluene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
2-Hexanone	ND	700	ug/Kg	50	05/04/22	JLI	SW8260C
2-Isopropyltoluene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 HIGH

Phoenix I.D.: CL21211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Chlorotoluene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	05/04/22	JLI	SW8260C
Acetone	ND	5000	ug/Kg	50	05/04/22	JLI	SW8260C
Acrylonitrile	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
Benzene	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
Bromobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Bromochloromethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Bromodichloromethane	ND	50	ug/Kg	50	05/04/22	JLI	SW8260C
Bromoform	ND	80	ug/Kg	50	05/04/22	JLI	SW8260C
Bromomethane	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
Carbon Disulfide	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Carbon tetrachloride	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
Chlorobenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Chloroethane	ND	150	ug/Kg	50	05/04/22	JLI	SW8260C
Chloroform	ND	120	ug/Kg	50	05/04/22	JLI	SW8260C
Chloromethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
cis-1,3-Dichloropropene	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
Dibromochloromethane	ND	50	ug/Kg	50	05/04/22	JLI	SW8260C
Dibromomethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Dichlorodifluoromethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Ethylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Hexachlorobutadiene	ND	200	ug/Kg	50	05/04/22	JLI	SW8260C
Isopropylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
m&p-Xylene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	05/04/22	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Methylene chloride	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
Naphthalene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
n-Butylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
n-Propylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
o-Xylene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
p-Isopropyltoluene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
sec-Butylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Styrene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
tert-Butylbenzene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Tetrachloroethene	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
Tetrahydrofuran (THF)	ND	130	ug/Kg	50	05/04/22	JLI	SW8260C
Toluene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Total Xylenes	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
trans-1,3-Dichloropropene	ND	25	ug/Kg	50	05/04/22	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	05/04/22	JLI	SW8260C
Trichloroethene	ND	100	ug/Kg	50	05/04/22	JLI	SW8260C
Trichlorofluoromethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Trichlorotrifluoroethane	ND	250	ug/Kg	50	05/04/22	JLI	SW8260C
Vinyl chloride	ND	40	ug/Kg	50	05/04/22	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4 (50x)	98		%	50	05/04/22	JLI	70 - 130 %

Project ID: FORBES ST & SILVER LANE
Client ID: TB050222 HIGH

Phoenix I.D.: CL21211

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Bromofluorobenzene (50x)	94		%	50	05/04/22	JLI	70 - 130 %
% Dibromofluoromethane (50x)	88		%	50	05/04/22	JLI	70 - 130 %
% Toluene-d8 (50x)	96		%	50	05/04/22	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 18, 2022
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 18, 2022

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 623001 (mg/kg), QC Sample No: CL21199 (CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209)														
ICP Metals - Soil														
Arsenic	BRL	0.67	4.27	7.04	49.0	96.9	94.5	2.5	97.3			75 - 125	35	r
Copper	BRL	0.67	65.5	53.4	20.4	94.6	92.3	2.5	87.0			75 - 125	35	
Lead	BRL	0.33	17.5	7.56	79.3	107	100	6.8	98.9			75 - 125	35	r
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 624155 (mg/L), QC Sample No: CL26662 (CL21199, CL21201)														
ICP Metals - SPLP Extraction														
Arsenic	BRL	0.004	<0.004	0.005	NC	98.3	102	3.7	99.7			80 - 120	20	
Copper	BRL	0.010	0.016	0.016	NC	101	104	2.9	101			80 - 120	20	
Lead	BRL	0.010	<0.010	<0.010	NC	99.7	104	4.2	101			80 - 120	20	
Comment:														
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.														

r = This parameter is outside laboratory RPD specified recovery limits.

PHOENIX

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QA/QC Report

May 18, 2022

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 623005 (mg/Kg), QC Sample No: CL20146 (CL21189, CL21191, CL21193, CL21195, CL21197)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	88	90	2.2	102	100	2.0	60 - 120	30	
% COD (surr)	73	%	76	82	7.6	51	49	4.0	50 - 150	30	m
% Terphenyl (surr)	74	%	78	87	10.9	91	81	11.6	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 624456 (ug/L), QC Sample No: CL17239 (CL21203)											
Pesticides											
4,4' -DDD	ND	0.003	81	81	0.0				40 - 140	20	
4,4' -DDE	ND	0.003	96	99	3.1				40 - 140	20	
4,4' -DDT	ND	0.003	68	74	8.5				40 - 140	20	
a-BHC	ND	0.002	68	75	9.8				40 - 140	20	
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20	
Aldrin	ND	0.002	50	43	15.1				40 - 140	20	
b-BHC	ND	0.002	81	89	9.4				40 - 140	20	
Chlordane	ND	0.050	68	74	8.5				40 - 140	20	
d-BHC	ND	0.005	21	20	4.9				40 - 140	20	I
Dieldrin	ND	0.002	88	89	1.1				40 - 140	20	
Endosulfan I	ND	0.005	73	80	9.2				40 - 140	20	
Endosulfan II	ND	0.005	97	103	6.0				40 - 140	20	
Endosulfan sulfate	ND	0.005	55	58	5.3				40 - 140	20	
Endrin	ND	0.005	90	101	11.5				40 - 140	20	
Endrin aldehyde	ND	0.005	83	92	10.3				40 - 140	20	
Endrin ketone	ND	0.005	56	82	37.7				40 - 140	20	r
g-BHC	ND	0.002	82	85	3.6				40 - 140	20	
Heptachlor	ND	0.005	62	87	33.6				40 - 140	20	r
Heptachlor epoxide	ND	0.005	85	88	3.5				40 - 140	20	
Methoxychlor	ND	0.005	65	63	3.1				40 - 140	20	
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20	
% DCBP	38	%	56	64	13.3				30 - 150	20	
% DCBP (Confirmation)	67	%	78	80	2.5				30 - 150	20	
% TCMX	54	%	72	76	5.4				30 - 150	20	
% TCMX (Confirmation)	83	%	87	80	8.4				30 - 150	20	
Comment:											
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD											
QA/QC Batch 623226 (ug/Kg), QC Sample No: CL22157 2X (CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209)											
Pesticides - Soil											
4,4' -DDD	ND	1.7	89	77	14.5	68	65	4.5	40 - 140	30	

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4,4' -DDE	ND	1.7	82	71	14.4	64	62	3.2	40 - 140	30	
4,4' -DDT	ND	1.7	71	60	16.8	52	50	3.9	40 - 140	30	
a-BHC	ND	1.0	82	70	15.8	57	55	3.6	40 - 140	30	
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30	
Aldrin	ND	1.0	82	71	14.4	57	55	3.6	40 - 140	30	
b-BHC	ND	1.0	86	74	15.0	68	62	9.2	40 - 140	30	
Chlordane	ND	33	82	71	14.4	63	60	4.9	40 - 140	30	
d-BHC	ND	3.3	68	54	23.0	51	49	4.0	40 - 140	30	
Dieldrin	ND	1.0	84	74	12.7	64	62	3.2	40 - 140	30	
Endosulfan I	ND	3.3	82	70	15.8	60	57	5.1	40 - 140	30	
Endosulfan II	ND	3.3	86	75	13.7	62	59	5.0	40 - 140	30	
Endosulfan sulfate	ND	3.3	76	67	12.6	54	52	3.8	40 - 140	30	
Endrin	ND	3.3	81	69	16.0	65	62	4.7	40 - 140	30	
Endrin aldehyde	ND	3.3	77	67	13.9	51	50	2.0	40 - 140	30	
Endrin ketone	ND	3.3	72	64	11.8	50	48	4.1	40 - 140	30	
g-BHC	ND	1.0	87	75	14.8	61	61	0.0	40 - 140	30	
Heptachlor	ND	3.3	73	63	14.7	51	49	4.0	40 - 140	30	
Heptachlor epoxide	ND	3.3	84	72	15.4	63	61	3.2	40 - 140	30	
Methoxychlor	ND	3.3	70	61	13.7	50	47	6.2	40 - 140	30	
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	64	%	65	57	13.1	47	46	2.2	30 - 150	30	
% DCBP (Confirmation)	52	%	53	49	7.8	34	35	2.9	30 - 150	30	
% TCMX	75	%	77	67	13.9	51	52	1.9	30 - 150	30	
% TCMX (Confirmation)	72	%	71	65	8.8	49	53	7.8	30 - 150	30	
QA/QC Batch 623004 (ug/kg), QC Sample No: CL21191 (CL21189, CL21191, CL21193, CL21195, CL21197)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	230	71	52	30.9	58	60	3.4	40 - 140	30	r
Acenaphthene	ND	230	77	57	29.9	63	63	0.0	30 - 130	30	
Acenaphthylene	ND	230	69	51	30.0	55	55	0.0	40 - 140	30	
Anthracene	ND	230	76	58	26.9	63	64	1.6	40 - 140	30	
Benz(a)anthracene	ND	230	75	56	29.0	62	61	1.6	40 - 140	30	
Benzo(a)pyrene	ND	230	70	54	25.8	59	59	0.0	40 - 140	30	
Benzo(b)fluoranthene	ND	230	71	55	25.4	61	61	0.0	40 - 140	30	
Benzo(ghi)perylene	ND	230	76	60	23.5	62	64	3.2	40 - 140	30	
Benzo(k)fluoranthene	ND	230	70	55	24.0	61	60	1.7	40 - 140	30	
Chrysene	ND	230	78	59	27.7	66	65	1.5	40 - 140	30	
Dibenz(a,h)anthracene	ND	230	77	58	28.1	62	63	1.6	40 - 140	30	
Fluoranthene	ND	230	75	58	25.6	61	62	1.6	40 - 140	30	
Fluorene	ND	230	78	57	31.1	62	62	0.0	40 - 140	30	r
Indeno(1,2,3-cd)pyrene	ND	230	80	62	25.4	66	67	1.5	40 - 140	30	
Naphthalene	ND	230	70	50	33.3	54	56	3.6	40 - 140	30	r
Phenanthrene	ND	230	74	57	26.0	61	62	1.6	40 - 140	30	
Pyrene	ND	230	77	59	26.5	62	63	1.6	30 - 130	30	
% 2-Fluorobiphenyl	68	%	73	53	31.7	58	58	0.0	30 - 130	30	r
% Nitrobenzene-d5	77	%	83	58	35.5	62	66	6.3	30 - 130	30	r
% Terphenyl-d14	71	%	72	54	28.6	58	60	3.4	30 - 130	30	
Comment:											
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											
QA/QC Batch 623198 (ug/kg), QC Sample No: CL21503 (CL21189, CL21191, CL21193, CL21195, CL21197, CL21210)											
Volatiles - Soil (Low Level)											
1,1,1,2-Tetrachloroethane	ND	5.0	112	114	1.8				70 - 130	30	

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1,1-Trichloroethane	ND	5.0	98	99	1.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	96	93	3.2				70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	96	0.0				70 - 130	30
1,1-Dichloroethane	ND	5.0	90	92	2.2				70 - 130	30
1,1-Dichloroethene	ND	5.0	97	97	0.0				70 - 130	30
1,1-Dichloropropene	ND	5.0	102	104	1.9				70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	98	101	3.0				70 - 130	30
1,2,3-Trichloropropane	ND	5.0	97	98	1.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	96	99	3.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	100	103	3.0				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	108	106	1.9				70 - 130	30
1,2-Dibromoethane	ND	5.0	102	102	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	5.0	98	100	2.0				70 - 130	30
1,2-Dichloroethane	ND	5.0	95	94	1.1				70 - 130	30
1,2-Dichloropropane	ND	5.0	93	94	1.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	102	105	2.9				70 - 130	30
1,3-Dichlorobenzene	ND	5.0	98	101	3.0				70 - 130	30
1,3-Dichloropropane	ND	5.0	100	100	0.0				70 - 130	30
1,4-Dichlorobenzene	ND	5.0	97	99	2.0				70 - 130	30
2,2-Dichloropropane	ND	5.0	110	112	1.8				70 - 130	30
2-Chlorotoluene	ND	5.0	104	105	1.0				70 - 130	30
2-Hexanone	ND	25	92	89	3.3				70 - 130	30
2-Isopropyltoluene	ND	5.0	103	106	2.9				70 - 130	30
4-Chlorotoluene	ND	5.0	101	104	2.9				70 - 130	30
4-Methyl-2-pentanone	ND	25	92	90	2.2				70 - 130	30
Acetone	ND	10	72	71	1.4				70 - 130	30
Acrylonitrile	ND	5.0	82	80	2.5				70 - 130	30
Benzene	ND	1.0	98	100	2.0				70 - 130	30
Bromobenzene	ND	5.0	103	106	2.9				70 - 130	30
Bromochloromethane	ND	5.0	94	95	1.1				70 - 130	30
Bromodichloromethane	ND	5.0	98	100	2.0				70 - 130	30
Bromoform	ND	5.0	110	110	0.0				70 - 130	30
Bromomethane	ND	5.0	95	97	2.1				70 - 130	30
Carbon Disulfide	ND	5.0	91	92	1.1				70 - 130	30
Carbon tetrachloride	ND	5.0	99	100	1.0				70 - 130	30
Chlorobenzene	ND	5.0	101	103	2.0				70 - 130	30
Chloroethane	ND	5.0	99	101	2.0				70 - 130	30
Chloroform	ND	5.0	90	92	2.2				70 - 130	30
Chloromethane	ND	5.0	83	83	0.0				70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	96	93	3.2				70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	104	2.9				70 - 130	30
Dibromochloromethane	ND	3.0	106	109	2.8				70 - 130	30
Dibromomethane	ND	5.0	96	96	0.0				70 - 130	30
Dichlorodifluoromethane	ND	5.0	91	93	2.2				70 - 130	30
Ethylbenzene	ND	1.0	104	107	2.8				70 - 130	30
Hexachlorobutadiene	ND	5.0	105	108	2.8				70 - 130	30
Isopropylbenzene	ND	1.0	106	108	1.9				70 - 130	30
m&p-Xylene	ND	2.0	103	106	2.9				70 - 130	30
Methyl ethyl ketone	ND	5.0	80	78	2.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	91	89	2.2				70 - 130	30
Methylene chloride	ND	5.0	85	84	1.2				70 - 130	30
Naphthalene	ND	5.0	101	104	2.9				70 - 130	30
n-Butylbenzene	ND	1.0	99	102	3.0				70 - 130	30

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
n-Propylbenzene	ND	1.0	104	107	2.8				70 - 130	30
o-Xylene	ND	2.0	103	104	1.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	103	107	3.8				70 - 130	30
sec-Butylbenzene	ND	1.0	103	106	2.9				70 - 130	30
Styrene	ND	5.0	104	105	1.0				70 - 130	30
tert-Butylbenzene	ND	1.0	106	109	2.8				70 - 130	30
Tetrachloroethene	ND	5.0	101	104	2.9				70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	81	76	6.4				70 - 130	30
Toluene	ND	1.0	98	101	3.0				70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	99	98	1.0				70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	106	107	0.9				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	116	114	1.7				70 - 130	30
Trichloroethene	ND	5.0	102	104	1.9				70 - 130	30
Trichlorofluoromethane	ND	5.0	92	94	2.2				70 - 130	30
Trichlorotrifluoroethane	ND	5.0	89	89	0.0				70 - 130	30
Vinyl chloride	ND	5.0	93	95	2.1				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	99	98	1.0				70 - 130	30
% Bromofluorobenzene	95	%	100	99	1.0				70 - 130	30
% Dibromofluoromethane	95	%	97	95	2.1				70 - 130	30
% Toluene-d8	97	%	98	99	1.0				70 - 130	30

Comment:

The Low Level MS/MSD are not reported for this batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 623198H (ug/kg), QC Sample No: CL21503 50X (CL21211 (50X))

Volatiles - Soil (High Level)

1,1,1,2-Tetrachloroethane	ND	250	120	119	0.8	116	113	2.6	70 - 130	30
1,1,1-Trichloroethane	ND	250	102	101	1.0	102	99	3.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	250	108	107	0.9	106	103	2.9	70 - 130	30
1,1,2-Trichloroethane	ND	250	103	103	0.0	101	100	1.0	70 - 130	30
1,1-Dichloroethane	ND	250	96	96	0.0	95	93	2.1	70 - 130	30
1,1-Dichloroethene	ND	250	92	92	0.0	93	89	4.4	70 - 130	30
1,1-Dichloropropene	ND	250	114	114	0.0	113	110	2.7	70 - 130	30
1,2,3-Trichlorobenzene	ND	250	120	118	1.7	112	112	0.0	70 - 130	30
1,2,3-Trichloropropane	ND	250	114	112	1.8	112	109	2.7	70 - 130	30
1,2,4-Trichlorobenzene	ND	250	122	120	1.7	113	113	0.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	250	115	116	0.9	112	110	1.8	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	250	119	116	2.6	113	111	1.8	70 - 130	30
1,2-Dibromoethane	ND	250	110	111	0.9	110	107	2.8	70 - 130	30
1,2-Dichlorobenzene	ND	250	116	116	0.0	112	110	1.8	70 - 130	30
1,2-Dichloroethane	ND	250	101	101	0.0	101	98	3.0	70 - 130	30
1,2-Dichloropropane	ND	250	103	103	0.0	101	99	2.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	250	117	118	0.9	115	112	2.6	70 - 130	30
1,3-Dichlorobenzene	ND	250	116	116	0.0	112	111	0.9	70 - 130	30
1,3-Dichloropropane	ND	250	109	110	0.9	108	105	2.8	70 - 130	30
1,4-Dichlorobenzene	ND	250	116	115	0.9	111	109	1.8	70 - 130	30
2,2-Dichloropropane	ND	250	111	112	0.9	105	104	1.0	70 - 130	30
2-Chlorotoluene	ND	250	120	120	0.0	116	113	2.6	70 - 130	30
2-Hexanone	ND	1300	100	99	1.0	98	96	2.1	70 - 130	30
2-Isopropyltoluene	ND	250	118	118	0.0	115	113	1.8	70 - 130	30
4-Chlorotoluene	ND	250	118	118	0.0	114	111	2.7	70 - 130	30
4-Methyl-2-pentanone	ND	1300	97	96	1.0	95	94	1.1	70 - 130	30

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Acetone	ND	500	65	60	8.0	65	61	6.3	70 - 130	30	l,m
Acrylonitrile	ND	250	83	82	1.2	82	81	1.2	70 - 130	30	
Benzene	ND	250	109	110	0.9	108	106	1.9	70 - 130	30	
Bromobenzene	ND	250	117	118	0.9	115	113	1.8	70 - 130	30	
Bromochloromethane	ND	250	98	98	0.0	98	96	2.1	70 - 130	30	
Bromodichloromethane	ND	250	102	102	0.0	99	97	2.0	70 - 130	30	
Bromoform	ND	250	112	110	1.8	105	104	1.0	70 - 130	30	
Bromomethane	ND	250	73	75	2.7	74	74	0.0	70 - 130	30	
Carbon Disulfide	ND	250	83	82	1.2	82	79	3.7	70 - 130	30	
Carbon tetrachloride	ND	250	98	95	3.1	93	91	2.2	70 - 130	30	
Chlorobenzene	ND	250	114	115	0.9	113	110	2.7	70 - 130	30	
Chloroethane	ND	250	37	36	2.7	39	36	8.0	70 - 130	30	l,m
Chloroform	ND	250	96	95	1.0	96	93	3.2	70 - 130	30	
Chloromethane	ND	250	89	88	1.1	84	82	2.4	70 - 130	30	
cis-1,2-Dichloroethene	ND	250	103	98	5.0	103	100	3.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	250	110	109	0.9	105	104	1.0	70 - 130	30	
Dibromochloromethane	ND	150	112	111	0.9	108	105	2.8	70 - 130	30	
Dibromomethane	ND	250	102	103	1.0	102	100	2.0	70 - 130	30	
Dichlorodifluoromethane	ND	250	93	93	0.0	89	88	1.1	70 - 130	30	
Ethylbenzene	ND	250	119	120	0.8	118	114	3.4	70 - 130	30	
Hexachlorobutadiene	ND	250	129	129	0.0	125	122	2.4	70 - 130	30	
Isopropylbenzene	ND	250	119	122	2.5	118	114	3.4	70 - 130	30	
m&p-Xylene	ND	250	118	119	0.8	116	113	2.6	70 - 130	30	
Methyl ethyl ketone	ND	250	80	78	2.5	81	79	2.5	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	250	93	92	1.1	94	91	3.2	70 - 130	30	
Methylene chloride	ND	250	85	85	0.0	87	84	3.5	70 - 130	30	
Naphthalene	ND	250	119	117	1.7	112	113	0.9	70 - 130	30	
n-Butylbenzene	ND	250	117	117	0.0	112	109	2.7	70 - 130	30	
n-Propylbenzene	ND	250	119	122	2.5	118	114	3.4	70 - 130	30	
o-Xylene	ND	250	115	116	0.9	113	111	1.8	70 - 130	30	
p-Isopropyltoluene	ND	250	120	121	0.8	117	115	1.7	70 - 130	30	
sec-Butylbenzene	ND	250	118	119	0.8	116	113	2.6	70 - 130	30	
Styrene	ND	250	119	119	0.0	116	113	2.6	70 - 130	30	
tert-Butylbenzene	ND	250	120	121	0.8	120	116	3.4	70 - 130	30	
Tetrachloroethene	ND	250	119	119	0.0	116	114	1.7	70 - 130	30	
Tetrahydrofuran (THF)	ND	250	82	80	2.5	82	78	5.0	70 - 130	30	
Toluene	ND	250	112	112	0.0	110	108	1.8	70 - 130	30	
trans-1,2-Dichloroethene	ND	250	104	103	1.0	104	102	1.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	250	113	112	0.9	107	106	0.9	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	250	125	123	1.6	115	114	0.9	70 - 130	30	
Trichloroethene	ND	250	114	115	0.9	114	110	3.6	70 - 130	30	
Trichlorofluoromethane	ND	250	26	26	0.0	27	25	7.7	70 - 130	30	l,m
Trichlorotrifluoroethane	ND	250	85	86	1.2	90	84	6.9	70 - 130	30	
Vinyl chloride	ND	250	93	95	2.1	92	91	1.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	99	98	1.0	99	98	1.0	70 - 130	30	
% Bromofluorobenzene	95	%	98	98	0.0	98	98	0.0	70 - 130	30	
% Dibromofluoromethane	87	%	92	89	3.3	91	92	1.1	70 - 130	30	
% Toluene-d8	96	%	100	99	1.0	98	99	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Data

SDG I.D.: GCL21187

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
May 18, 2022

Wednesday, May 18, 2022

Criteria: CT: GAM, GBM, RC

State: CT

Sample Criteria Exceedances Report

GCL21187 - GZACTENG

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CL21203	$PEST_SMR	Dieldrin	CT / RSR GA (mg/kg) / Pesticides/TPH	32	3.5	7	7	ug/Kg
CL21203	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	120	35	3	3	ug/Kg
CL21203	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	200	35	3	3	ug/Kg
CL21203	$PEST_SMR	4,4' -DDD	CT / RSR GA,GAA (mg/kg) / APS Organics	11	1.4	3	3	ug/Kg
CL21203	$PEST_SMR	4,4' -DDE	CT / RSR GB (mg/kg) / APS Organics	120	35	20	20	ug/Kg
CL21203	$PEST_SMR	4,4' -DDT	CT / RSR GB (mg/kg) / APS Organics	200	35	20	20	ug/Kg
CL21203	$PEST_SMR	Dieldrin	CT / RSR GB (mg/kg) / Pesticides/TPH	32	3.5	7	7	ug/Kg
CL21204	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	7.2	1.4	3	3	ug/Kg
CL21204	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	8.8	7.2	3	3	ug/Kg
CL21204	$PEST_SMR	4,4' -DDD	CT / RSR GA,GAA (mg/kg) / APS Organics	10	1.4	3	3	ug/Kg
CL21206	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	14	7.2	3	3	ug/Kg
CL21206	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	13	7.2	3	3	ug/Kg
CL21207	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	20	7.3	3	3	ug/Kg
CL21207	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	25	7.3	3	3	ug/Kg
CL21207	$PEST_SMR	4,4' -DDT	CT / RSR GB (mg/kg) / APS Organics	25	7.3	20	20	ug/Kg
CL21208	$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	7.4	1.6	3	3	ug/Kg
CL21208	$PEST_SMR	4,4' -DDD	CT / RSR GA,GAA (mg/kg) / APS Organics	9.3	1.6	3	3	ug/Kg
CL21208	$PEST_SMR	4,4' -DDE	CT / RSR GA,GAA (mg/kg) / APS Organics	11	1.6	3	3	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** GZA GeoEnvironmental, Inc.

Project Location: FORBES ST & SILVER LANE ***Project Number:***

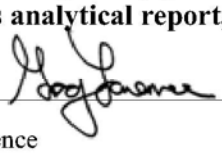
Laboratory Sample ID(s): CL21189, ***Sampling Date(s):*** 5/2/2022
CL21191, CL21193, CL21195, CL21197, CL21199, CL21201, CL21203, CL21204, CL21206-CL21211

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 8081, 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ICP Narration, PEST Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Wednesday, May 18, 2022

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

May 18, 2022

SDG I.D.: GCL21187

SDG Comments

Metals Analysis:
The client requested a site specific list of elements which is shorter than the 6010 RCP list. The following analytes from the 6010 RCP Metals list were not reported: Antimony, Barium, Beryllium, Cadmium, Chromium, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc.

8270 Semi-volatile Organics:
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-FID1 05/04/22-1 Jeff Bucko, Chemist 05/04/22

CL21195 (1X), CL21197 (1X)

The initial calibration (ET_502AI) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (504A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID21 05/04/22-1 Jeff Bucko, Chemist 05/04/22

CL21189 (1X), CL21191 (1X), CL21193 (1X)

The initial calibration (ET_0316I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (504A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 623005 (CL20146)

CL21189, CL21191, CL21193, CL21195, CL21197

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 623001 (Samples: CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209): -----

The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Arsenic, Lead)

Instrument:

ARCOS 05/11/22 14:18 Cindy Pearce, Chemist 05/11/22

CL21199, CL21201

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Certification Report

May 18, 2022

SDG I.D.: GCL21187

ICP Metals Narration

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS-2 05/03/22 12:08 Emily Kolominskaya, Chemist 05/03/22

CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 624155 (CL26662)

CL21199, CL21201

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All LCSD recoveries were within 80 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QC (Site Specific):

Batch 623001 (CL21199)

CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All LCSD recoveries were within 75 - 125 with the following exceptions: None.
All LCS/LCSD RPDs were less than 35% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

PEST Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 624456 (Samples: CL21203): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (d-BHC)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Endrin ketone, Heptachlor)

Instrument:

AU-ECD35 05/05/22-1 Keith Aloisa, Chemist 05/05/22

CL21199 (2X), CL21201 (2X), CL21206 (2X), CL21207 (2X)

The initial calibration (PS0425AI) RSD for the compound list was less than 20% except for the following compounds: None.

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RCP Certification Report

May 18, 2022

SDG I.D.: GCL21187

PEST Narration

The initial calibration (PS0425BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CL21206
Preceding CC 505B020 - None.
Succeeding CC 505B033 - % DCBP -23%L (20%), Methoxychlor -22%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.
Samples: CL21199, CL21201, CL21207
Preceding CC 505B033 - % DCBP -23%L (20%), Methoxychlor -22%L (20%)
Succeeding CC 505B047 - % DCBP -24%L (20%), Methoxychlor -23%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

AU-ECD35 05/16/22-1 Adam Werner, Chemist 05/16/22

CL21203 (1X)

The initial calibration (PS0425AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS0425BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CL21203
Preceding CC 516B029 - None.
Succeeding CC 516B042 - b-BHC 21%H (20%)

AU-ECD7 05/05/22-1 Keith Aloisa, Chemist 05/05/22

CL21203 (2X, 10X), CL21204 (2X), CL21208 (2X), CL21209 (2X)

The initial calibration (PS0418AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS0418BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CL21203, CL21204, CL21208, CL21209
Preceding CC 505A004 - None.
Succeeding CC 505A020 - % DCBP -21%L (20%)
Samples: CL21203
Preceding CC 505A051 - % DCBP -30%L (20%)
Succeeding CC 505A063 - % DCBP -27%L (20%), Endosulfan sulfate -25%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

QC (Batch Specific):

Batch 623226 (CL22157)

CL21199, CL21201, CL21203, CL21204, CL21206, CL21207, CL21208, CL21209

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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RCP Certification Report

May 18, 2022

SDG I.D.: GCL21187

PEST Narration

Batch 624456 (CL17239)

CL21203

All LCS recoveries were within 40 - 140 with the following exceptions: d-BHC(21%)
All LCSD recoveries were within 40 - 140 with the following exceptions: d-BHC(20%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: Endrin ketone(37.7%), Heptachlor(33.6%)
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 623004 (Samples: CL21189, CL21191, CL21193, CL21195, CL21197): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (2-Methylnaphthalene, Fluorene, Naphthalene)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% 2-Fluorobiphenyl, % Nitrobenzene-d5)

Instrument:

CHEM28 05/03/22-1 Matt Richard, Chemist 05/03/22

CL21189 (1X), CL21191 (1X), CL21193 (1X), CL21195 (1X), CL21197 (1X)

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM28/28_BN_0414):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM28/0503_03-28_BN_0414):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Site Specific):

Batch 623004 (CL21191)

CL21189, CL21191, CL21193, CL21195, CL21197

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: % 2-Fluorobiphenyl(31.7%), % Nitrobenzene-d5(35.5%),

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RCP Certification Report

May 18, 2022

SDG I.D.: GCL21187

SVOA Narration

2-Methylnaphthalene(30.9%), Fluorene(31.1%), Naphthalene(33.3%)
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 623198H: -----

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Acetone, Chloroethane, Trichlorofluoromethane)

Instrument:

CHEM03 05/03/22-2 Jane Li, Chemist 05/03/22

CL21189 (1X), CL21191 (1X), CL21193 (1X), CL21195 (1X), CL21197 (1X), CL21210 (1X), CL21211 (50X)

Initial Calibration Evaluation (CHEM03/VT-L042522P):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: trans-1,4-dichloro-2-butene 25% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: Acetone 0.098 (0.1), Tetrachloroethene 0.171 (0.2)
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM03/0503_37-VT-L042522P):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

QC (Batch Specific):

Batch 623198 (CL21503) CHEM03 5/3/2022-2

CL21189(1X), CL21191(1X), CL21193(1X), CL21195(1X), CL21197(1X), CL21210(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
The Low Level MS/MSD are not reported for this batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Batch 623198H (CL21503) CHEM03 5/3/2022-2

CL21211(50X)

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(65%), Chloroethane(37%), Trichlorofluoromethane(26%)

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

May 18, 2022

SDG I.D.: GCL21187

VOA Narration

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(60%), Chloroethane(36%), Trichlorofluoromethane(26%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

CHAIN OF CUSTODY RECORD

Temp 2.2c Pg of

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[■] Email:

Customer: GZA Geoenvironmental
Address: 95 Glastonbury Boulevard, Third Floor
Glastonbury, CT

Project: Forbes St & Silver Lane
Report to: Anthony Trani
Invoice to: Same as Above
Quote #

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: T Date: 5/2/11

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	Pesticides	Arsenic, Copper, Lead	Hold	*MS/MSD (May be billable at analysis unit rate)	GL Amber 8 oz. [ ] w/H3PO4 [ ] NAHSO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container (8) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [1] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/Na	Bacteria Bottle as is
21187	MW-1 (0-2)	S	5/2/11	730						x					1								
21188	MW-1 (2-4)			736						x					1								
21189	MW-2 (0-2)			845	x	x	x							3	1								
21190	MW-2 (2-4)			850						x				3	1								
21191	MW-3 (0-2)			1030	x	x	x							3	1								
21192	MW-3 (2-4)			1035						x				3	1								
21193	GZ-1 (0-2)			1245	x	x	x							3	1								
21194	GZ-1 (2-4)			1250						x				3	1								
21195	GZ-2 (0-2)			1300	x	x	x							3	1								
21196	GZ-2 (2-4)			1305						x				3	1								
21197	GZ-3 (0-2)			1315	x	x	x							3	1								
21198	GZ-3 (2-4)	"	"	1300						x				3	1								

Relinquished by:	Accepted by:	Date:	Time:
T		5/2/11	1307
		5/3	1410

Comments, Special Requirements or Regulations:

Turnaround Time:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other

**MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.*

** SURCHARGE APPLIES*

RI
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[■] GA Mobility
[■] GB Mobility
[ ] SWPC
[■] Residential DEC
[ ] I/C DEC

MA
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

State where samples were collected: CT

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other

** SURCHARGE APPLIES*

Pg 1 of 2

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

CHAIN OF CUSTODY RECORD

Temp 2.2c Pg of

PHOENIX Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[■] Email:

Customer: GZA Geoenvironmental
Address: 95 Glastonbury Boulevard, Third Floor
Glastonbury, CT

Project: Forbes St & Silver Lane
Report to: Anthony Trani
Invoice to: Same as Above
Quote #

Project P.O:

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 5/2/22

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil
B=Bulk L=Liquid X = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	Pesticides	Arsenic, Copper, Lead	Hold	*MS/MSD (May be billable at analysis unit rate)	GL Amber 8 oz. [ ] w/H3PO4 [ ] NAHSO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container (8) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [1] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
21199	GZ-4 (0-2)	S	5/2/22	1350				x	x				1										
21200	GZ-4 (2-4)	S	5/2/22	1355						x			1										
21201	GZ-5 (0-2)	S	5/2/22	1500				x	x				1										
21202	GZ-6 (0-1.5)	S	5/2/22	1420						x			1										
21203	GZ-7 (0-1.5)	S	5/2/22	1430				x	x				1										
21204	GZ-8 (0-1.5)	S	5/2/22	1435				x	x				1										
21205	GZ-9 (0-2)	S	5/2/22	1440						x			1										
21206	GZ-10 (0-2)	S	5/2/22	1445				x	x				1										
21207	GZ-11 (0-2)	S	5/2/22	1455				x	x				1										
21208	GZ-12 (0-2)	S	5/2/22	1515				x	x				1										
21209	GZ-13 (0-2)	S	5/2/22	1525				x	x				1										
21210	TB050222 LL	S	5/2/22	—	x								1										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	5/3/22	1307
[signature]	[signature]	5/3	1410

Comments, Special Requirements or Regulations:

21211 — TB HL

Turnaround Time:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[x] Standard
[ ] Other

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

* SURCHARGE APPLIES

RI
[ ] (Residential) Direct Exposure
[ ] (Comm/Industrial) Direct Exposure
[ ] GA Leachability
[ ] GB Leachability
[ ] GA-GW Objectives
[ ] GB-GW Objectives
[ ] Other

CT
[x] RCP Cert
[ ] GW Protection
[ ] SW Protection
[x] GA Mobility
[x] GB Mobility
[ ] SWPC
[x] Residential DEC
[ ] I/C DEC

MA
[ ] MCP Certification
[ ] GW-1 [ ] MWRA eSMART
[ ] GW-2 [ ] S-1 10% CALC
[ ] GW-3
[ ] S-1 GW-1 [ ] S-1 GW-2 [ ] S-1 GW-3
[ ] S-2 GW-1 [ ] S-2 GW-2 [ ] S-2 GW-3
[ ] S-3 GW-1 [ ] S-3 GW-2 [ ] S-3 GW-3
[ ] SW Protection

State where samples were collected: CT

Data Format
[x] Excel
[x] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[x] Phoenix Std Report
[ ] Other

* SURCHARGE APPLIES

Pg 2 of 2

Sarah Bell

From: Anthony Trani <Anthony.Trani@gza.com>
Sent: Tuesday, May 10, 2022 7:14 AM
To: Reports - Phoenix Labs; Sarah Bell
Subject: RE: Phoenix Labs - GCL21187, FORBES ST & SILVER LANE - Report Ready

Can you please run the following on a 5 day TAT:

CL21199 - GZ-4 (0-2) for SPLP arsenic and copper
CL21201 - GZ-5 (0-2) for SPLP lead
CL21203 - GZ-7 (0-1.5) for SPLP Pesticides

Please confirm.

Anthony

From: Reports@phoenixlabs.com <Reports@phoenixlabs.com>
Sent: Monday, May 9, 2022 5:24 PM
To: Anthony Trani <Anthony.Trani@gza.com>
Subject: [EXTERNAL] Phoenix Labs - GCL21187, FORBES ST & SILVER LANE - Report Ready

Delivery group GCL21187 (FORBES ST & SILVER LANE) for the following samples:

CL21189 - MW-2 (0-2)
CL21191 - MW-3 (0-2)
CL21193 - GZ-1 (0-2)
CL21195 - GZ-2 (0-2)
CL21197 - GZ-3 (0-2)
CL21199 - GZ-4 (0-2)
CL21201 - GZ-5 (0-2)
CL21203 - GZ-7 (0-1.5)
CL21204 - GZ-8 (0-1.5)
CL21206 - GZ-10 (0-2)
CL21207 - GZ-11 (0-2)
CL21208 - GZ-12 (0-2)
CL21209 - GZ-13 (0-2)
CL21210 - TB050222 LOW
CL21211 - TB050222 HIGH

is available for review. Please click the following link to view report data.

www.PhoenixLabs.com

Note: The default password is your email address. You may change it after logging in.

Please take a moment to give us some feedback on your experience with Phoenix Environmental Laboratories, Inc. Your input is valuable to us!
www.phoenixlabs.com/CustomerSurvey

Phoenix Environmental Laboratories, Inc.

587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06374
Tel. (860) 645-1102
Fax. (860) 645-0823
www.phoenixlabs.com

Please do not reply to this email.
cc'd:anthony.trani@gza.com

This electronic message is intended to be viewed only by the individual or entity to which it is addressed and may contain privileged and/or confidential information intended for the exclusive use of the addressee(s). If you are not the intended recipient, please be aware that any disclosure, printing, copying, distribution or use of this information is prohibited. If you have received this message in error, please notify the sender immediately and destroy this message and its attachments from your system.

For information about GZA GeoEnvironmental, Inc. and its services, please visit our website at www.gza.com.

PHOENIX
Environmental Laboratories, Inc.

Friday, May 20, 2022

Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Project ID: FORBES ST., & SILVER LANE
SDG ID: GCL28936
Sample ID#s: CL28936 - CL28939

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac
NY # 11301

SDG Comments

May 20, 2022

SDG I.D.: GCL28936

Volatile 8260 analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, these compounds are analyzed by GC/ECD to achieve this criteria.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

May 20, 2022

SDG I.D.: GCL28936

Project ID: FORBES ST., & SILVER LANE

Client Id	Lab Id	Matrix
MW-1	CL28936	GROUND WATER
MW-2	CL28937	GROUND WATER
MW-3	CL28938	GROUND WATER
TB	CL28939	GROUND WATER

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 20, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		05/11/22	10:40
Location Code:	GZACTENG	Received by:	LB	05/12/22	11:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0046901.01				

Laboratory Data

SDG ID: GCL28936
Phoenix ID: CL28936

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	< 0.004	0.004	mg/L	1	05/13/22	EK	SW6010D
Copper	< 0.005	0.005	mg/L	1	05/13/22	EK	SW6010D
Lead	< 0.002	0.002	mg/L	1	05/13/22	EK	SW6010D
Extraction of ETPH	Completed				05/17/22	MA/DW	SW3510C/SW3520C
Extraction for Pest (LDL)	Completed				05/12/22	U/SA	SW3510C
Total Metals Digestion	Completed				05/12/22	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/18/22	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/18/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% Terphenyl (surr)	79		%	1	05/18/22	JRB	50 - 150 %
Pesticides							
4,4' -DDD	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDE	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDT	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
a-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Alachlor	ND	0.071	ug/L	1	05/16/22	AW	SW8081B
Aldrin	ND	0.001	ug/L	1	05/16/22	AW	SW8081B
b-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Chlordane	ND	0.28	ug/L	1	05/16/22	AW	SW8081B
d-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Dieldrin	0.011	0.001	ug/L	1	05/16/22	AW	SW8081B
Endosulfan I	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endosulfan II	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endosulfan Sulfate	ND	0.047	ug/L	1	05/16/22	AW	SW8081B

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-1

Phoenix I.D.: CL28936

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endrin	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endrin Aldehyde	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endrin ketone	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
g-BHC (Lindane)	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Heptachlor	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Heptachlor epoxide	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Methoxychlor	ND	0.094	ug/L	1	05/16/22	AW	SW8081B
Toxaphene	ND	0.94	ug/L	1	05/16/22	AW	SW8081B
QA/QC Surrogates							
%DCBP (Surrogate Rec)	61		%	1	05/16/22	AW	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	37		%	1	05/16/22	AW	30 - 150 %
%TCMX (Surrogate Rec)	51		%	1	05/16/22	AW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	44		%	1	05/16/22	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Acetone	ND	25	ug/L	1	05/19/22	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Benzene	ND	0.70	ug/L	1	05/19/22	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/19/22	HM	SW8260C

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-1

Phoenix I.D.: CL28936

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon tetrachloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/19/22	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	05/19/22	HM	70 - 130 %
% Bromofluorobenzene	97		%	1	05/19/22	HM	70 - 130 %
% Dibromofluoromethane	105		%	1	05/19/22	HM	70 - 130 %
% Toluene-d8	101		%	1	05/19/22	HM	70 - 130 %

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-1

Phoenix I.D.: CL28936

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 20, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 20, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		05/11/22	9:35
Location Code:	GZACTENG	Received by:	LB	05/12/22	11:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0046901.01				

Laboratory Data

SDG ID: GCL28936
Phoenix ID: CL28937

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	< 0.004	0.004	mg/L	1	05/13/22	EK	SW6010D
Copper	< 0.005	0.005	mg/L	1	05/13/22	EK	SW6010D
Lead	0.002	0.002	mg/L	1	05/13/22	EK	SW6010D
Extraction of ETPH	Completed				05/17/22	MA/DW	SW3510C/SW3520C
Extraction for Pest (LDL)	Completed				05/12/22	U/SA	SW3510C
Total Metals Digestion	Completed				05/12/22	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/18/22	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/18/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% Terphenyl (surr)	84		%	1	05/18/22	JRB	50 - 150 %
Pesticides							
4,4' -DDD	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDE	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDT	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
a-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Alachlor	ND	0.071	ug/L	1	05/16/22	AW	SW8081B
Aldrin	ND	0.001	ug/L	1	05/16/22	AW	SW8081B
b-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Chlordane	ND	0.28	ug/L	1	05/16/22	AW	SW8081B
d-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Dieldrin	ND	0.001	ug/L	1	05/16/22	AW	SW8081B
Endosulfan I	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endosulfan II	ND	0.047	ug/L	1	05/16/22	AW	SW8081B
Endosulfan Sulfate	ND	0.047	ug/L	1	05/16/22	AW	SW8081B

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-2

Phoenix I.D.: CL28937

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Endrin	ND	0.047	ug/L	1	05/16/22	AW	SW8081B	
Endrin Aldehyde	ND	0.047	ug/L	1	05/16/22	AW	SW8081B	
Endrin ketone	ND	0.047	ug/L	1	05/16/22	AW	SW8081B	
g-BHC (Lindane)	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Heptachlor	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Heptachlor epoxide	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Methoxychlor	ND	0.094	ug/L	1	05/16/22	AW	SW8081B	
Toxaphene	ND	0.94	ug/L	1	05/16/22	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	16		%	1	05/16/22	AW	30 - 150 %	3
%DCBP (Surrogate Rec) (Confirmation)	26		%	1	05/16/22	AW	30 - 150 %	3
%TCMX (Surrogate Rec)	59		%	1	05/16/22	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	48		%	1	05/16/22	AW	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloropropene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dibromoethane	ND	0.25	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichloroethane	ND	0.60	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2-Hexanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	
2-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
4-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	
Acetone	ND	25	ug/L	1	05/19/22	HM	SW8260C	
Acrylonitrile	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
Benzene	ND	0.70	ug/L	1	05/19/22	HM	SW8260C	
Bromobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromochloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromodichloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
Bromoform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Carbon Disulfide	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-2

Phoenix I.D.: CL28937

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon tetrachloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/19/22	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/19/22	HM	70 - 130 %
% Bromofluorobenzene	96		%	1	05/19/22	HM	70 - 130 %
% Dibromofluoromethane	101		%	1	05/19/22	HM	70 - 130 %
% Toluene-d8	101		%	1	05/19/22	HM	70 - 130 %

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-2

Phoenix I.D.: CL28937

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Pesticide Comment:
Poor surrogate recovery was observed. Insufficient sample for re-extraction.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

May 20, 2022

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 20, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		05/11/22	8:55
Location Code:	GZACTENG	Received by:	LB	05/12/22	11:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0046901.01				

Laboratory Data

SDG ID: GCL28936
Phoenix ID: CL28938

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Arsenic	< 0.004	0.004	mg/L	1	05/13/22	EK	SW6010D
Copper	< 0.005	0.005	mg/L	1	05/13/22	EK	SW6010D
Lead	< 0.002	0.002	mg/L	1	05/13/22	EK	SW6010D
Extraction of ETPH	Completed				05/18/22	MA/KL	SW3510C/SW3520C
Extraction for Pest (LDL)	Completed				05/12/22	U/SA	SW3510C
Total Metals Digestion	Completed				05/12/22	AG	
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	05/19/22	JRB	CTETPH 8015D
Identification	ND		mg/L	1	05/19/22	JRB	CTETPH 8015D
QA/QC Surrogates							
% Terphenyl (surr)	71		%	1	05/19/22	JRB	50 - 150 %
Pesticides							
4,4' -DDD	ND	0.048	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDE	ND	0.048	ug/L	1	05/16/22	AW	SW8081B
4,4' -DDT	ND	0.048	ug/L	1	05/16/22	AW	SW8081B
a-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Alachlor	ND	0.072	ug/L	1	05/16/22	AW	SW8081B
Aldrin	ND	0.001	ug/L	1	05/16/22	AW	SW8081B
b-BHC	ND	0.005	ug/L	1	05/16/22	AW	SW8081B
Chlordane	ND	0.29	ug/L	1	05/16/22	AW	SW8081B
d-BHC	ND	0.024	ug/L	1	05/16/22	AW	SW8081B
Dieldrin	0.015	0.001	ug/L	1	05/16/22	AW	SW8081B
Endosulfan I	ND	0.048	ug/L	1	05/16/22	AW	SW8081B
Endosulfan II	ND	0.048	ug/L	1	05/16/22	AW	SW8081B
Endosulfan Sulfate	ND	0.048	ug/L	1	05/16/22	AW	SW8081B

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-3

Phoenix I.D.: CL28938

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Endrin	ND	0.048	ug/L	1	05/16/22	AW	SW8081B	
Endrin Aldehyde	ND	0.048	ug/L	1	05/16/22	AW	SW8081B	
Endrin ketone	ND	0.048	ug/L	1	05/16/22	AW	SW8081B	
g-BHC (Lindane)	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Heptachlor	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Heptachlor epoxide	ND	0.024	ug/L	1	05/16/22	AW	SW8081B	
Methoxychlor	ND	0.096	ug/L	1	05/16/22	AW	SW8081B	
Toxaphene	ND	0.96	ug/L	1	05/16/22	AW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	37		%	1	05/16/22	AW	30 - 150 %	
%DCBP (Surrogate Rec) (Confirmation)	22		%	1	05/16/22	AW	30 - 150 %	3
%TCMX (Surrogate Rec)	45		%	1	05/16/22	AW	30 - 150 %	
%TCMX (Surrogate Rec) (Confirmation)	51		%	1	05/16/22	AW	30 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,1-Dichloropropene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dibromoethane	ND	0.25	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichloroethane	ND	0.60	ug/L	1	05/19/22	HM	SW8260C	
1,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,3-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
2-Hexanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	
2-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
4-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	
Acetone	ND	25	ug/L	1	05/19/22	HM	SW8260C	
Acrylonitrile	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
Benzene	ND	0.70	ug/L	1	05/19/22	HM	SW8260C	
Bromobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromochloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromodichloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C	
Bromoform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Bromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C	
Carbon Disulfide	ND	5.0	ug/L	1	05/19/22	HM	SW8260C	

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-3

Phoenix I.D.: CL28938

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon tetrachloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/19/22	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	05/19/22	HM	70 - 130 %
% Bromofluorobenzene	96		%	1	05/19/22	HM	70 - 130 %
% Dibromofluoromethane	100		%	1	05/19/22	HM	70 - 130 %
% Toluene-d8	101		%	1	05/19/22	HM	70 - 130 %

Project ID: FORBES ST., & SILVER LANE
Client ID: MW-3

Phoenix I.D.: CL28938

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 20, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

May 20, 2022

FOR: Attn: Anthony Trani
GZA GeoEnvironmental, Inc.
95 Glastonbury Blvd 3rd Fl
Glastonbury, CT 06033

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		05/11/22	
Location Code:	GZACTENG	Received by:	LB	05/12/22	11:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	05.0046901.01				

Laboratory Data

SDG ID: GCL28936
Phoenix ID: CL28939

Project ID: FORBES ST., & SILVER LANE
Client ID: TB

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
1,2-Dibromoethane	ND	0.25	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	05/19/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
2-Hexanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C

Project ID: FORBES ST., & SILVER LANE
Client ID: TB

Phoenix I.D.: CL28939

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	05/19/22	HM	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Benzene	ND	0.70	ug/L	1	05/19/22	HM	SW8260C
Bromobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Bromoform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Bromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloroform	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Chloromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	05/19/22	HM	SW8260C
Dibromomethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Methylene chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Naphthalene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
o-Xylene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Styrene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	05/19/22	HM	SW8260C
Toluene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Total Xylenes	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	05/19/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	05/19/22	HM	SW8260C
Trichloroethene	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	05/19/22	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	05/19/22	HM	70 - 130 %
% Bromofluorobenzene	96		%	1	05/19/22	HM	70 - 130 %
% Dibromofluoromethane	101		%	1	05/19/22	HM	70 - 130 %

Project ID: FORBES ST., & SILVER LANE
Client ID: TB

Phoenix I.D.: CL28939

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	100		%	1	05/19/22	HM	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
May 20, 2022
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 20, 2022

QA/QC Data

SDG I.D.: GCL28936

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 624496 (mg/L), QC Sample No: CL28699 (CL28936, CL28937, CL28938)													
ICP Metals - Aqueous													
Arsenic	BRL	0.004	<0.004	<0.004	NC	98.4	100	1.6	100			80 - 120	20
Copper	BRL	0.005	0.018	0.017	NC	99.9	101	1.1	102			80 - 120	20
Lead	BRL	0.002	0.003	0.004	NC	98.5	101	2.5	101			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

PHOENIX

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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

May 20, 2022

QA/QC Data

SDG I.D.: GCL28936

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 625090 (mg/L), QC Sample No: CL27767 (CL28936, CL28937)											
TPH by GC (Extractable Products) - Ground Water											
Ext. Petroleum H.C. (C9-C36)	ND	0.10	95	116	19.9				60 - 120	30	
% Terphenyl (surr)	94	%	77	95	20.9				50 - 150	20	r
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 625294 (mg/L), QC Sample No: CL28794 (CL28938)											
TPH by GC (Extractable Products) - Ground Water											
Ext. Petroleum H.C. (C9-C36)	ND	0.10	100	85	16.2				60 - 120	30	
% Terphenyl (surr)	77	%	90	76	16.9				50 - 150	20	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 624456 (ug/L), QC Sample No: CL17239 (CL28936, CL28937, CL28938)											
Pesticides - Ground Water											
4,4' -DDD	ND	0.003	81	81	0.0				40 - 140	20	
4,4' -DDE	ND	0.003	96	99	3.1				40 - 140	20	
4,4' -DDT	ND	0.003	68	74	8.5				40 - 140	20	
a-BHC	ND	0.002	68	75	9.8				40 - 140	20	
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20	
Aldrin	ND	0.002	50	43	15.1				40 - 140	20	
b-BHC	ND	0.002	81	89	9.4				40 - 140	20	
Chlordane	ND	0.050	68	74	8.5				40 - 140	20	
d-BHC	ND	0.005	21	20	4.9				40 - 140	20	I
Dieldrin	ND	0.002	88	89	1.1				40 - 140	20	
Endosulfan I	ND	0.005	73	80	9.2				40 - 140	20	
Endosulfan II	ND	0.005	97	103	6.0				40 - 140	20	
Endosulfan sulfate	ND	0.005	55	58	5.3				40 - 140	20	
Endrin	ND	0.005	90	101	11.5				40 - 140	20	
Endrin aldehyde	ND	0.005	83	92	10.3				40 - 140	20	
Endrin ketone	ND	0.005	56	82	37.7				40 - 140	20	r
g-BHC	ND	0.002	82	85	3.6				40 - 140	20	
Heptachlor	ND	0.005	62	87	33.6				40 - 140	20	r
Heptachlor epoxide	ND	0.005	85	88	3.5				40 - 140	20	
Methoxychlor	ND	0.005	65	63	3.1				40 - 140	20	
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20	
% DCBP	38	%	56	64	13.3				30 - 150	20	
% DCBP (Confirmation)	67	%	78	80	2.5				30 - 150	20	
% TCMX	54	%	72	76	5.4				30 - 150	20	
% TCMX (Confirmation)	83	%	87	80	8.4				30 - 150	20	

QA/QC Data

SDG I.D.: GCL28936

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Comment:										
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD										
QA/QC Batch 625633 (ug/L), QC Sample No: CL30275 (CL28936, CL28937, CL28938, CL28939)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	101	101	0.0				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	99	102	3.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	99	102	3.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	102	101	1.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	97	103	6.0				70 - 130	30
1,1-Dichloroethene	ND	1.0	101	105	3.9				70 - 130	30
1,1-Dichloropropene	ND	1.0	99	103	4.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	112	112	0.0				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	98	100	2.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	103	105	1.9				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	97	2.1				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	100	104	3.9				70 - 130	30
1,2-Dibromoethane	ND	1.0	101	104	2.9				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	96	98	2.1				70 - 130	30
1,2-Dichloroethane	ND	1.0	100	100	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	95	98	3.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	95	99	4.1				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	96	97	1.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	101	103	2.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	95	97	2.1				70 - 130	30
2,2-Dichloropropane	ND	1.0	102	106	3.8				70 - 130	30
2-Chlorotoluene	ND	1.0	95	98	3.1				70 - 130	30
2-Hexanone	ND	5.0	103	97	6.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	95	98	3.1				70 - 130	30
4-Chlorotoluene	ND	1.0	95	98	3.1				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	110	108	1.8				70 - 130	30
Acetone	ND	5.0	88	84	4.7				70 - 130	30
Acrylonitrile	ND	5.0	106	102	3.8				70 - 130	30
Benzene	ND	0.70	95	98	3.1				70 - 130	30
Bromobenzene	ND	1.0	97	98	1.0				70 - 130	30
Bromochloromethane	ND	1.0	106	108	1.9				70 - 130	30
Bromodichloromethane	ND	0.50	98	100	2.0				70 - 130	30
Bromoform	ND	1.0	102	102	0.0				70 - 130	30
Bromomethane	ND	1.0	81	89	9.4				70 - 130	30
Carbon Disulfide	ND	1.0	90	95	5.4				70 - 130	30
Carbon tetrachloride	ND	1.0	97	102	5.0				70 - 130	30
Chlorobenzene	ND	1.0	96	100	4.1				70 - 130	30
Chloroethane	ND	1.0	90	95	5.4				70 - 130	30
Chloroform	ND	1.0	105	109	3.7				70 - 130	30
Chloromethane	ND	1.0	90	93	3.3				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	98	100	2.0				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	97	100	3.0				70 - 130	30
Dibromochloromethane	ND	0.50	102	103	1.0				70 - 130	30
Dibromomethane	ND	1.0	103	103	0.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	87	90	3.4				70 - 130	30
Ethylbenzene	ND	1.0	98	101	3.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	98	102	4.0				70 - 130	30

QA/QC Data

SDG I.D.: GCL28936

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Isopropylbenzene	ND	1.0	95	99	4.1				70 - 130	30
m&p-Xylene	ND	1.0	98	101	3.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	97	114	16.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	106	0.9				70 - 130	30
Methylene chloride	ND	1.0	93	97	4.2				70 - 130	30
Naphthalene	ND	1.0	109	110	0.9				70 - 130	30
n-Butylbenzene	ND	1.0	101	104	2.9				70 - 130	30
n-Propylbenzene	ND	1.0	95	100	5.1				70 - 130	30
o-Xylene	ND	1.0	97	100	3.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	98	100	2.0				70 - 130	30
sec-Butylbenzene	ND	1.0	98	100	2.0				70 - 130	30
Styrene	ND	1.0	101	104	2.9				70 - 130	30
tert-Butylbenzene	ND	1.0	95	98	3.1				70 - 130	30
Tetrachloroethene	ND	1.0	96	98	2.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	95	102	7.1				70 - 130	30
Toluene	ND	1.0	96	98	2.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	97	102	5.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	101	102	1.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	104	102	1.9				70 - 130	30
Trichloroethene	ND	1.0	94	98	4.2				70 - 130	30
Trichlorofluoromethane	ND	1.0	104	107	2.8				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	92	95	3.2				70 - 130	30
Vinyl chloride	ND	1.0	98	103	5.0				70 - 130	30
% 1,2-dichlorobenzene-d4	101	%	100	101	1.0				70 - 130	30
% Bromofluorobenzene	96	%	104	103	1.0				70 - 130	30
% Dibromofluoromethane	101	%	104	99	4.9				70 - 130	30
% Toluene-d8	101	%	101	100	1.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
May 20, 2022

Friday, May 20, 2022

Criteria: CT: GWP, SWP

State: CT

Sample Criteria Exceedances Report

GCL28936 - GZACTENG

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CL28936	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CL28936	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CL28936	$PEST_GAWR	Dieldrin	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.011	0.001	0.002	0.002	ug/L
CL28937	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CL28937	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CL28938	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CL28938	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L
CL28938	$PEST_GAWR	Dieldrin	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.015	0.001	0.002	0.002	ug/L
CL28939	$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2	ug/L
CL28939	$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.25	0.05	0.05	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** GZA GeoEnvironmental, Inc.

Project Location: FORBES ST., & SILVER LANE ***Project Number:***

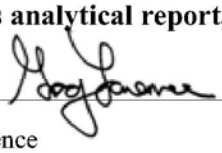
Laboratory Sample ID(s): CL28936-CL28939 ***Sampling Date(s):*** 5/11/2022

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 8081, 8260, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH Narration, PEST Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Assistant Lab Director

Printed Name: Greg Lawrence **Date:** Friday, May 20, 2022

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

May 20, 2022

SDG I.D.: GCL28936

SDG Comments

Metals Analysis:
The client requested a site specific list of elements which is shorter than the 6010 RCP list. The following analytes from the 6010 RCP Metals list were not reported: Antimony, Barium, Beryllium, Cadmium, Chromium, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc.

Volatile 8260 analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet the GWP these compounds are analyzed by GC/ECD to achieve this criteria.

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 625090 (Samples: CL28936, CL28937): -----

The LCS/LCSD RPD exceeds the method criteria for the surrogate. No significant variability is suspected. (% Terphenyl (surr))

Instrument:

AU-XL1 05/19/22-1 Jeff Bucko, Chemist 05/19/22

CL28938 (1X)

The initial calibration (ETPH228I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (519A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 05/17/22-1 Jeff Bucko, Chemist 05/17/22

CL28936 (1X), CL28937 (1X)

The initial calibration (ETPH307I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (517A003_2) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 625090 (CL27767)

CL28936, CL28937

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: % Terphenyl (surr)(20.9%)
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 625294 (CL28794)

CL28938

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

ICP Metals Narration

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

May 20, 2022

SDG I.D.: GCL28936

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 05/13/22 08:47 Emily Kolominskaya, Chemist 05/13/22

CL28936, CL28937, CL28938

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 624496 (CL28699)

CL28936, CL28937, CL28938

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All LCSD recoveries were within 80 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

PEST Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 624456 (Samples: CL28936, CL28937, CL28938): -----

The LCS/LCSD is below the method criteria. A low bias is possible. (d-BHC)

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Endrin ketone, Heptachlor)

Instrument:

AU-ECD35 05/16/22-1 Adam Werner, Chemist 05/16/22

CL28937 (1X), CL28938 (1X)

The initial calibration (PS0425AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS0425BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CL28937, CL28938
Preceding CC 516A029 - None.
Succeeding CC 516A042 - % DCBP -25%L (20%), b-BHC 23%H (20%)
Samples: CL28937, CL28938
Preceding CC 516B029 - None.
Succeeding CC 516B042 - b-BHC 21%H (20%)

AU-ECD7 05/16/22-1 Adam Werner, Chemist 05/16/22

CL28936 (1X)

The initial calibration (PS0418AI) RSD for the compound list was less than 20% except for the following compounds: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

May 20, 2022

SDG I.D.: GCL28936

PEST Narration

The initial calibration (PS0418BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CL28936
Preceding CC 516A023 - None.
Succeeding CC 516A047 - Methoxychlor -24%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

QC (Batch Specific):

Batch 624456 (CL17239)

CL28936, CL28937, CL28938

All LCS recoveries were within 40 - 140 with the following exceptions: d-BHC(21%)
All LCSD recoveries were within 40 - 140 with the following exceptions: d-BHC(20%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: Endrin ketone(37.7%), Heptachlor(33.6%)
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM02 05/19/22-1 Michael Hahn, Chemist 05/19/22

CL28936 (1X), CL28937 (1X), CL28938 (1X), CL28939 (1X)

Chem02 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.
EPA method 8260D Table 4 supports this approach.

Initial Calibration Evaluation (CHEM02/VT-P051822):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 31% (20%), Bromoform 25% (20%), trans-1,4-dichloro-2-butene 25% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: 1,2-Dibromo-3-chloropropane 0.031 (0.05), 2-Hexanone 0.060 (0.1), 4-Methyl-2-pentanone 0.089 (0.1), Acetone 0.044 (0.1), Acrylonitrile 0.049 (0.05), Bromoform 0.068 (0.1), Methyl ethyl ketone 0.060 (0.1), Tetrahydrofuran (THF) 0.043 (0.05)
The following compounds did not meet the minimum response factor of 0.05: 1,2-Dibromo-3-chloropropane 0.031 (0.05), Acetone 0.044 (0.05), Acrylonitrile 0.049 (0.05), Tetrahydrofuran (THF) 0.043 (0.05)

Continuing Calibration Verification (CHEM02/0519_01-VT-P051822):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: 1,2-Dibromo-3-chloropropane 0.033 (0.05), Acetone 0.042 (0.05), Tetrahydrofuran (THF) 0.044 (0.05)

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RCP Certification Report

May 20, 2022

SDG I.D.: GCL28936

VOA Narration

QC (Batch Specific):

Batch 625633 (CL30275) CHEM02 5/19/2022-1

CL28936(1X), CL28937(1X), CL28938(1X), CL28939(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Temperature Narration

The samples were received at 2.1C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☑ No ☐
Coolant: IPK ☑ ICE ☐ No ☐

CHAIN OF CUSTODY RECORD

Temp 2.1 °C Pg of

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: GZA Geoenvironmental
Address: 95 Glastonbury Boulevard, Third Floor
Glastonbury, CT

Project: Forbes St & Silver Lane
Report to: Anthony Trani
Invoice to: Same as above
Quote #

Project P.O: 05.0046901.01

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: TA Date: 5/11/22

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil B=Bulk L=Liquid X = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs (8260)	ETPH	Pesticides	Arsenic, Copper, Lead	*MS/MSD (May be billable at analysis unit rate)	GL Amber 8 oz. [ ] w/H3PO4 [ ] NaHSO4	Soil VOA Vials [ ] w/MeOH [ ] H2O	GL Soil container (4) oz.	GL Soil container (8) oz.	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
28936	MW-1	GW	5/11/2022	1040	x	x	x	x									3	2		1		
28937	MW-2	GW	5/11/2022	935	x	x	x	x									3	2		1		
28938	MW-3	GW	5/11/2022	855	x	x	x	x									3	2		1		
28939	TB	GW	--	--													3					

Relinquished by:	Accepted by:	Date:	Time:
TA	[signature]	5/11/22	10:30
[signature]	[signature]	5/12	1130

Comments, Special Requirements or Regulations:

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

Turnaround Time:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☐ Standard
☑ Other (5 Day)

* SURCHARGE APPLIES

RI
☐ (Residential) Direct Exposure
☐ (Comm/Industrial) Direct Exposure
☐ GA Leachability
☐ GB Leachability
☐ GA-GW Objectives
☐ GB-GW Objectives
☐ Other

CT
☑ RCP Cert
☑ GW Protection
☑ SW Protection
☑ GA Mobility
☑ GB Mobility
☐ SWPC
☐ Residential DEC
☐ I/C DEC

MA
☐ MCP Certification
☐ GW-1 ☐ MWRA eSMART
☐ GW-2 ☐ S-1 10% CALC
☐ GW-3
☐ S-1 GW-1 ☐ S-1 GW-2 ☐ S-1 GW-3
☐ S-2 GW-1 ☐ S-2 GW-2 ☐ S-2 GW-3
☐ S-3 GW-1 ☐ S-3 GW-2 ☐ S-3 GW-3
☐ SW Protection

Data Format
☑ Excel
☑ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☑ Phoenix Std Report
☐ Other

State where samples were collected: CT

* SURCHARGE APPLIES



GZA GeoEnvironmental, Inc.

Appendix C – General Permit for Contaminated Soil and/or Sediment Management Associated with Construction Activities

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)

Issuance Date: September 20, 2013
Expiration Date: September 19, 2018

Bureau of Materials Management and Compliance Assurance
Waste Engineering and Enforcement Division
79 Elm Street, Hartford, CT 06106-5127
860-424-3366

General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)

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General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)

Section 1. Authority

This general permit is issued under the authority of sections 22a-133z and 22a-208a of the Connecticut General Statutes.

Section 2. Definitions

As used in this general permit:

"Activity" means the process of staging, temporarily storing, or transferring, contaminated soil and/or sediment at an authorized site (Staging, Transfer and/or Temporary Storage Area).

"Approval of registration" means an approval of registration issued under this general permit.

"Aquifer Protection Area" (APA) means aquifer protection area as defined in section 22a-354h of the General Statutes.

"Authorized activity" means any activity authorized by this general permit.

"Commissioner" means the commissioner as defined by section 22a-2(b) of the General Statutes.

"Contaminated soil and/or sediment" means treated or untreated soil and/or sediment affected by a known or suspected release and determined, or reasonably expected to contain substances exceeding Residential Direct Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in section 22a-133k-1 of the Regulations of Connecticut State Agencies.

"Day" means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

"Department" means the Department of Energy and Environmental Protection.

"Disposal" means disposal as defined in section 22a-207(6) of the General Statutes.

"Facility" means transfer station as defined in section 22a-207(10) of the General Statutes.

"Facility storage" means the combined volume of all contaminated soil and/or sediment stored at the facility at any single point in time.

"Facility throughput" means the combined weight of all contaminated soil and/or sediment and incidental excavation waste introduced into or leaving the facility during a specified period of time.

"Hazardous waste" means hazardous waste as identified or listed as hazardous wastes in accordance with section 3001 of the Federal Resource Conservation Recovery Act of 1976 (42 USC section 6901) and section 22a-449(c)-101 of the Regulations of Connecticut State Agencies.

"Incidental excavation waste" means any material other than soil, sediment, or other material that does not meet the definition of clean fill as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies generated during excavation activities.

"Individual permit" means a permit issued to a named permittee under section 22a-208a of the General Statutes.

"Permittee" means a person who is authorized by this general permit to stage, transfer, and temporarily store contaminated soil and/or sediment.

"Person" means person as defined by section 22a-2(c) of the General Statutes.

"Registrant" means a person who files a registration pursuant to Section 4 of this general permit.

"Registration" means a registration form filed with the commissioner pursuant to Section 4 of this general permit.

"Release" means release as defined in section 22a-133k-1(a) of the Regulations of Connecticut State Agencies.

"Sediment" means sediment as defined in section 22a-133k-1(a) of the Regulations of Connecticut State Agencies.

"Site" means geographically contiguous property on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous properties owned or leased by the same person and connected by a right-of-way, which such person controls, shall be deemed the same site.

"Soil" means soil as defined in section 22a-133k-1(a) of the Regulations of Connecticut State Agencies.

"Solid waste" means solid waste as defined in section 22a-207 of the General Statutes.

"Solid waste facility" means solid waste facility as defined in section 22a-207 of the General Statutes.

"Staging" and/or "Storage" means the holding of a solid waste not in transit for a temporary period of time, at the end of which the solid waste is recycled, disposed, or stored elsewhere.

Section 3. Authorization Under This General Permit

(a) Eligible Activities

Provided the requirements of subsection (b) of this section are satisfied, this general permit authorizes the staging, transfer, and temporary storage of contaminated soil and/or sediment for a period not to exceed two years. This general permit applies only to activities conducted on land.

Note: This general permit *does not* authorize the treatment (reduction of contaminants via physical removal, dilution, chemical stabilization, etc.) of or any specific reuse of contaminated soil and/or sediment.

(b) Requirements for Authorization

This general permit authorizes the activities listed in subsection (a) of this section provided:

(1) Registration

(A) Except as provided in Sections 4(a)(1) and 4(a)(3) of this general permit, a completed registration with respect to such activity has been filed with the commissioner.

(B) Except as provided in Sections 4(a)(1) and 4(a)(2) of this general permit, a completed registration with respect to such activity has been filed with the commissioner and the commissioner has issued an approval of registration with respect to such activity.

(2) Coastal Area Management

Such activity is consistent with all applicable goals and policies in section 22a-92 of the General Statutes and will not cause adverse impacts to coastal resources as defined in section 22a-93 of the General Statutes.

(3) Endangered and Threatened Species

Such activity does not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat essential to such species.

(4) Aquifer Protection

Such activity shall not be conducted within an Aquifer Protection Area except for the staging and/or temporary storage of less than 10,000 cubic yards of contaminated soil and/or sediment at the site of origin (see Section 4(a)(2) of this general permit for additional registration requirements that apply in such instances).

(5) Stream Channel Encroachment

Such activity shall not create an obstruction or hindrance riverward of Stream Channel Encroachment Lines that will have an adverse effect on the flood heights, flood carrying and water capacity of the waterways and floodplains.

(6) Flood Management

Such activity shall be consistent with all applicable standards and criteria established in sections 25-68d(b) of the General Statutes and sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

(c) Geographic Area

This general permit applies throughout the State of Connecticut.

(d) Effective Date and Expiration Date of this General Permit

This general permit is effective on the date it is issued by the commissioner and expires five (5) years from such date of issuance.

(e) Effective Date and Expiration Date of Authorization

(1) For an ***activity that is exempt from the requirement to file a registration as specified in Section 4(a)(1) of this general permit***, such activity is authorized by this general permit on the date the general permit becomes effective *or* on the date the staging, transfer and temporary storage activities commence, *whichever is later* and expires two years from such date *or* on the date this general permit expires, *whichever is sooner*.

(2) For an ***activity that is required to file a registration as specified in Section 4(a)(2) of this general permit***, such activity is authorized by this general permit on the date the commissioner receives a completed registration with respect to such activity and expires two years from the date the staging, transfer and temporary storage activities commence *or* on the date this general permit expires, *whichever is sooner*.

(3) For an ***activity that is required to file a registration and obtain an approval of registration as specified in Section 4(a)(3) of this general permit***, such activity is authorized by this general permit on the date the commissioner issues an approval of registration with respect to such activity and expires two years from the date the staging, transfer and temporary storage activities commence *or* on the date this general permit expires, *whichever is sooner*.

(f) Revocation of an Individual Permit

If an activity meets the requirements of authorization of this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the commissioner upon a written request by the permittee. If the commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity by this general permit.

(g) Issuance of an Individual Permit

If after the commissioner approves a registration under this general permit, the commissioner issues an individual permit authorizing the same activity authorized by such general permit approval, such general permit approval shall become null and void on the date such individual permit is issued.

Section 4. Registration Requirements

(a) Registration Requirements for Contaminated Soil and/or Sediment Staging, Transfer, and Temporary Storage Areas

All activities authorized under this general permit must be conducted ***in less than two years.*** If an activity requiring a registration as listed below is anticipated to exceed the two year time period, such activity must have its registration renewed.

(1) Who Does NOT Need to File a Registration

Any person who stages and/or temporarily stores **greater than 10 cubic yards but less than 1,000 cubic yards** of contaminated soil and/or sediment **at the site of excavation**, does not need to file a registration with the commissioner provided such activities are conducted in accordance with the operating conditions of Sections 5(a) and 5(b) *and* all other applicable conditions of this general permit.

Note: If such an activity is located in an Aquifer Protection Area, the local municipal Aquifer Protection Agency shall be notified in writing of such activity.

(2) Who Must File a Registration

(A) Any person seeking authorization under this general permit to conduct the following activities in an area that *is* ***not*** *located* in an Aquifer Protection Area, shall file with the commissioner, 1) a registration form which meets the requirements of Section 4 of this general permit and 2) the applicable fee.

- Stage and/or temporarily store **greater than or equal to 1,000 cubic yards and less than or equal to 10,000 cubic yards at any one time** of contaminated soil and/or sediment **at the site of excavation for a period exceeding 45 days in duration**.

- Transfer, stage, and/or temporarily store **greater than 10 cubic yards and less than or equal to 10,000 cubic yards at any one time** of contaminated soil and/or sediment **at a site other than the site of excavation** from which the soil and/or sediment originated.

(B) Any person seeking authorization under this general permit to stage and/or temporarily store **greater than 1,000 cubic yards and less than or equal to 10,000 cubic yards at any one time** of contaminated soil and/or sediment **at the site of excavation for a period exceeding 45 days in**

duration, and which subject site *is located* in an Aquifer Protection Area, shall file with the commissioner, 1) a registration form which meets the requirements of Section 4 of this general permit and 2) the applicable fee. Such person shall also notify in writing, the local municipal Aquifer Protection Agency.

(3) Who Must Obtain an Approval of Registration

Any person seeking authorization under this general permit to conduct the following activities in an area that *is **not** located* in an Aquifer Protection Area, shall file with the commissioner, 1) a registration form which meets the requirements of Section 4 of this general permit and 2) the applicable fee *and* shall obtain an approval of registration by the commissioner.

- Stage and/or temporarily store **greater than 10,000 cubic yards at any one time** of contaminated soil and/or sediment **at the site of excavation for a period exceeding 45 days in duration**.

- Transfer, stage, and/or temporarily store **greater than 10,000 cubic yards at any one time** of contaminated soil and/or sediment at a site other than the site of excavation from which the soil and/or sediment originated.

(4) Summary of Registration Requirements

Location	Facility Storage	Activity	Required Action
*On Site	Greater than 10 cy but less than 1,000 cy	Staging and/or storage	Comply with General Permit. No Registration.
*On Site	Greater than 1,000 cy but less than 10,000 cy	Staging and/or storage	Comply with General Permit and File a Registration.
On Site; not in an APA	Greater than 10,000 cy	Staging and/or storage	Comply with General Permit and Obtain an Approval of Registration.
Off Site; not in an APA	Greater than 10 cy but less than 10,000 cy	Transfer, staging, and/or storage	Comply with General Permit and File a Registration.
Off Site; not in an APA	Greater than 10,000 cy	Transfer, staging, and/or storage	Comply with General Permit and Obtain an Approval of Registration.

**** If the activity will be located in an Aquifer Protection Area (APA), the local municipal Aquifer Protection Agency must be notified in writing.***

(b) Scope of Registration

Any person shall register each activity, by site, for which such person seeks authorization under this general permit on a separate registration form that meets the requirements of Section 4 of this general permit.

(c) Contents of Registration

(1) **Registration Fees**

(A) A fee shall be submitted along with a registration form for any registration. A registration shall not be deemed complete and no activity shall be authorized by this general permit unless the fee has been paid in full.

(i) All activities requiring a **registration** pursuant to Section 4(a)(2) of this general permit: **$250.00**

(ii) All activities requiring a **renewal of registration** pursuant to Section 4(a)(2) of this general permit: **$250.00**

(iii) All activities requiring an **approval of registration** pursuant to Section 4(a)(3) of this general permit: **$1,500.00**

(iv) All activities requiring a **renewal of an approval of registration** pursuant to Section 4(a)(3) of this general permit: **$750.00**

Note: In accordance with section 22a-6(b) of the General Statutes, the fee for municipalities is fifty percent (50%) of the fee listed above.

(B) The registration fee shall be paid by check or money order payable to the **Department of Energy and Environmental Protection**.

(C) The registration fees are non-refundable.

(2) **Registration Form**

A registration shall be filed on a form prescribed and provided by the commissioner and shall include the following:

(A) Legal name, address, and telephone number of the registrant. If the registrant is an entity transacting business in Connecticut, and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State.

(B) Legal name, address, and telephone number of the owner of the property on which the subject activity is to occur.

(C) Legal name, address, and telephone number of the registrant's attorney or other representative, if applicable.

(D) Legal name, address, and telephone number of any consultant(s) or engineer(s) retained by the registrant to prepare the registration.

(E) Location of the site with respect to which the registration is submitted.

(F) Anticipated date of commencement of the subject contaminated soil and/or sediment staging, transfer, and temporary storage activities.

(G) An 8 1/2" by 11" copy of the relevant portion or a full-sized original of a United States Geological Survey (USGS) quadrangle map, with a scale of 1:24,000, showing the exact location of the site and the area within a one-mile radius of the site. Identify the quadrangle name and number on such copy.

(H) A registration requiring an approval, pursuant to Section 4(a)(3) of this general permit, must also include the following plans and documents, prepared in accordance with Section 4(c)(3) of this general permit:

(i) a Facility Site Plan,
(ii) a Facility Description,
(iii) a Facility Operations and Management Plan.

(I) A renewal of registration must provide the following additional information: status of the project, an explanation of why the project needs a renewal of registration, and the anticipated remaining duration of the activities being conducted.

(J) The signature of the registrant and of the individual or individuals responsible for actually preparing the registration, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute. I certify that this general permit registration is complete and accurate on forms as prescribed by the commissioner without alteration of their text."

(3) **Required Plans and Documents for Registrations Requiring an Approval**

The following plans and documents shall be prepared and submitted to the department by those registrants **requiring an approval** issued by the commissioner pursuant to Section 4(a)(3) of this general permit. Such plans and documents shall be prepared in accordance with the following, be available at the site of the subject facility and be maintained for review upon request by the Department.

(A) Facility Site Plan

The facility site plan shall provide a clear and detailed presentation of all topographical and man-made features at the subject facility site. The facility site plan shall also include a drawing showing the layout of the facility. The map or drawing(s) must, at a minimum show the following:

(i) map scale (scale must be at least 1 in. = 100 ft.);
(ii) map date;
(iii) a meridian arrow showing north;
(iv) contour sufficient to show surface water flow;
(v) property boundaries of the site.

(B) Facility Description

The facility description must include a detailed description of the facility including the nature and purpose of the excavation activities from which the contaminated soil will originate.

(C) Facility Operations and Management (O&M) Plan

The Facility Operation and Management Plan shall include at a minimum: a Soil Management Plan (that describes how the facility will track, sample, and maintain adequate separation between individual stockpiles of soil during characterization procedures), an Emergency and Preparedness Plan, and a description of the inspection and maintenance procedures for the subject Staging, Transfer, and/or Temporary Storage Area.

(4) **Revision of Required Plans and Documents for Registrations Requiring an Approval**

Whenever any significant or substantial facility or operational change is planned, the permittee shall update the Facility Site Plan, the Facility Description, and the Facility Operation and Management Plan as applicable for the subject facility. Such plans and documents shall be updated prior to making such changes to the facility and shall be submitted to the commissioner for the commissioner's review. The updated plans and documents shall be available at the site of the subject facility and shall be maintained for review upon request by the Department.

For the purpose of this subsection, 'significant or substantial' means any change to the facility that results in a new soil management configuration (i.e. the addition of new storage cells or pile staging areas) or results in a need for the maintenance of additional soil tracking information on the facility operational log.

(d) Where to File a Registration and Other Related Documents

(1) A registration shall be filed with the commissioner at the following address:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

(2) In addition to filing a registration with the commissioner, the registrant shall provide at the same time written notification to the chief elected official of the municipality and, if applicable pursuant to Section 4(a)(2)(B) of this general permit, to the municipal Aquifer Protection Agency, in which the subject facility is or will be located.

(e) Additional Information

The commissioner may require a registrant to submit additional information, which the commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

(f) Action by Commissioner

(1) The commissioner may reject without prejudice a registration if the commissioner determines that it does not satisfy the requirements of Section 4(c) of this general permit or more than thirty (30) days have elapsed since the commissioner requested that the registrant submit additional information or the required fee and the registrant has not submitted such information or fee. Any registration refiled after such a rejection shall be accompanied by the fee specified in Section 4(c)(1) of this general permit.

(2) The commissioner may disapprove a registration if the commissioner finds that the subject activity is inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.

(3) Disapproval of a registration under this subsection shall constitute notice to the registrant that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit.

(4) The commissioner may approve a registration with reasonable conditions. If the commissioner approves a registration with conditions, the permittee shall be bound by such conditions as if they were a part of this general permit.

(5) Rejection, disapproval, or approval of a registration shall be in writing.

Section 5. Conditions of This General Permit

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, the permittee shall ensure that activities authorized by this general permit are conducted in accordance with the following general conditions of Section 5(a) and the applicable specific conditions of Sections 5(b) and 5(c) of this general permit.

(a) General Operating Conditions for Staging, Transfer, and/or Temporary Storage Areas

(1) The permittee shall design, operate, maintain and repair the Staging, Transfer, and/or Temporary Storage Area in conformance with the requirements of this general permit.

(2) The permittee shall maintain a communications system capable of summoning fire, police, and/or other emergency service personnel.

(3) Unless exempt from the requirement to file a registration as specified in Section 4(a)(1) of this general permit, the permittee shall post and maintain a sign that is visible from a distance of at least 25 feet at the Staging, Transfer, and/or Temporary Storage Area entrance identifying, at the minimum, the name of the permittee, a contact phone number, the hours of operation, and the phrase 'Temporary Soil Staging Area'.

(4) The permittee shall take appropriate measures to prevent unauthorized entry onto the stockpiles. Appropriate control measures may be accomplished through the use of fences, gates, or other natural or artificial barriers.

(5) The permittee shall operate the Staging, Transfer, and/or Temporary Storage Area such that the receipt, unloading and processing, if applicable, of contaminated soil and/or sediment does not occur for periods longer than that which is consistent with the local zoning requirements, if applicable, of the municipality where the activity is occurring.

(6) During all periods of operation of the Staging, Transfer, and/or Temporary Storage Area, the permittee shall have sufficient personnel on site to inspect contaminated soil and/or sediment for the presence of incidental excavation wastes and materials and for any suspect contaminated soil and/or sediment that may contain hazardous wastes. The permittee shall comply with the following management standards regarding wastes:

(A) **Allowed Wastes and Materials**

This general permit authorizes only the management of contaminated soil and/or sediment, in the Staging, Transfer, and/or Temporary Storage Area.

(B) **Non Authorized Wastes and Materials**

This general permit does not authorize the management of materials or wastes other than contaminated soil and/or sediment. Management of contaminated soil and/or sediment that either contains or is considered to be hazardous waste is not authorized by this general permit.

(C) **Non Authorized Activities**

This general permit does not authorize the treatment (including but not limited to blending and/or mixing) of soil or sediment for the expressed purpose of diluting contaminants.

(D) **Incidental Excavation Waste**

Incidental excavation waste shall be: (1) separated to the satisfaction of the receiving facility or to an extent that renders the contaminated soil and/or sediment suitable for its intended reuse; (2) isolated and temporarily stored in a safe manner prior to off-site transport; and (3) disposed at a facility lawfully authorized to accept such waste. The maximum amount of incidental excavation waste stored at the Staging, Transfer, and/or Temporary Storage Area shall be as follows:

(i) Less than or equal to 10,000 cubic yards of contaminated soil and/or sediment - No more than 100 cubic yards of incidental excavation waste shall be stored at any one time.

(ii) Greater than 10,000 cubic yards of contaminated soil and/or sediment - No more than 1,000 cubic yards of incidental excavation waste shall be stored at any one time.

(E) **Hazardous Waste**

Hazardous waste inadvertently received at the Facility shall be: (1) promptly sorted, separated, and isolated; (2) recorded in the Site Operating Log required by Section 5(c)(1) of this general permit; and (3) managed in accordance with the conditions contained within section 22a-449(c)-100 through 119 of the Regulations of Connecticut State Agencies (Hazardous Waste Management Regulations).

(7) The permittee shall at all times take reasonable precautions to control fugitive dust emissions and odors in accordance with section 22a-174-18 and section 22a-174-23, respectively of the Regulations of Connecticut State Agencies.

(b) Specific Operating Conditions for Staging, Transfer, and/or Temporary Storage Areas

(1) **Erosion Controls**. The permittee shall place the soil stockpiles on a surface sufficiently impervious to prevent or minimize the transfer or infiltration of contaminants from the soil stockpiles to the ground and shall also securely cover any stockpiles of soil when the Staging, Transfer and/or Temporary Storage Area is not in use with an impervious material such as a tarp or other

equivalent material to control and minimize storm water run-on and run-off. Soil stockpiles shall be covered at the end of each operating day or at any time that the Staging, Transfer and/or Temporary Storage Area is unattended by the permittee. Run-on/run-off controls shall be consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

(2) **Dust Controls**. The permittee shall minimize wind erosion and dust transport from the stockpiles and the travel areas of the Staging, Transfer and/or Temporary Storage Area by ensuring that all necessary dust controls (tarps, dust suppressants, routine street sweeping, etc.) are implemented and maintained at all times during periods of operation.

(3) **Anti-Tracking**. The permittee shall employ anti-tracking measures (street sweepers, anti-tracking pads, etc.) at the Staging, Transfer and/or Temporary Storage Area to ensure that vehicles that have entered the Staging, Transfer and/or Temporary Storage Area do not track soils from the Staging, Transfer and/or Temporary Storage Area onto a public roadway at any time. Construction entrance anti-tracking pads shall be constructed in a manner that is consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

(4) **Characterization**. The permittee shall characterize each soil stockpile staged at the Staging, Transfer and/or Temporary Storage Area prior to transporting such stockpile for soil reuse or disposal. The permittee shall analyze soil obtained from representative samples collected from the media such that the permittee can reasonably determine whether such media does or does not exceed any applicable analytical performance standard (such as the Remediation Standard Regulations or a receiving facility's acceptance criteria). The permittee shall ensure that physical separation is maintained between previously sampled soil stockpiles (by means of concrete walls, aisle space, etc.) while awaiting the results of soil sample analyses. The permittee shall ensure that an independent laboratory certified by the Connecticut Department of Public Health for chemical testing performs the soil sample analyses used to characterize the soil.

(5) **Storage Cell/Pile Capacity and Placement**. Unless otherwise approved in writing by the commissioner as part of a site specific soil management plan, the permittee shall ensure that individual contaminated soil and/or sediment storage piles do not exceed a volume of 1,000 cubic yards and are maintained with a minimum distance of 12 feet from any property line (unless the stockpiles are staged at the site of excavation).

(6) **Transporter Practices**. The permittee shall instruct the transporters of contaminated soil and/or sediment of best management practices for the transportation of such soil (proper tarping of hauling dump bodies, removing loose material from dump body, etc.).

(7) **Queuing and Idling of Transport Vehicles**. The permittee shall: (a) control all traffic related to the operation of the facility in such a way as to mitigate the queuing of vehicles off-site and excessive or unsafe traffic impact in the area

where the facility is located; and (b) ensure that except as allowed in section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies, trucks are not left idling for more than three (3) consecutive minutes.

(c) Record Keeping Requirements

(1) **Site Operating Log**. Unless exempt from the requirement to file a registration as specified in Section 4(a)(1) of this general permit, the permittee shall maintain a Site Operating Log for the duration of the authorized activities. The Site Operating Log shall include up-to-date records that clearly identify the origin of each soil stockpile placed at the Staging, Transfer and/or Temporary Storage Area; indicate the date such soils are received at the Staging, Transfer and/or Temporary Storage Area; list the specific Staging, Transfer and/or Temporary Storage Area storage cell, if applicable; indicate the date such soils are transported from the Staging, Transfer and/or Temporary Storage Area; and, indicate the final disposition (i.e. transportation to a soil processing facility or placement on the land) of such soils.

(2) **Records Retention**. Unless exempt from the requirement to file a registration as specified in Section 4(a)(1) of this general permit, the permittee shall maintain an up-to-date record of its operating activities during the entire operational period of the Staging, Transfer and/or Temporary Storage Area. At a minimum, the operating record shall include:

(A) Any initial site characterization data and information and a summary of the Contaminants of Concern (COCs) identified;

(B) The location of excavation activities where soils were generated and subsequently transported to the Staging, Transfer and/or Temporary Storage Area for additional sampling and characterization;

(C) An accounting of the total facility throughput including the quantity of soil (expressed in tons or cubic yards) shipped to and stored at the Staging, Transfer and/or Temporary Storage Area during sampling and characterization procedures;

(D) A statement describing each of the soil reuse, or disposal sites (facility name, location, and address) utilized and an accounting of the quantity of soil (expressed in tons or cubic yards) shipped to each;

(E) Certifications, site maps, the site operating log, and either a complete set of the soil sampling test results or a complete set of soil sampling summary tables, and;

(F) Any other data or documents required by this authorization.

The permittee shall retain the operating record at its place of business for a period of at least three years following the expiration of this permit and shall make such records available for review by the commissioner or the commissioner's designee upon request.

Section 6. General Conditions

(a) Reliance on Registration

When evaluating a registration, the commissioner relies on information provided by the registrant. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

(b) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, the permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the commissioner within five (5) days of the permittee's learning of such violation. Such report shall be certified in accordance with Section 6(d) of this general permit.

(c) Duty to Provide Information

If the commissioner requests any information pertinent to the authorized activity or to determine compliance with this general permit, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 6(d) of this general permit.

(d) Certification of Documents

Any document, including but not limited to any notice, which is submitted to the commissioner under this general permit shall be signed, as applicable, by the registrant or the permittee in accordance with section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

(e) Date of Filing

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner.

(f) False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the General

Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

(g) Correction of Inaccuracies

Within fifteen (15) days after the date a permittee becomes aware of a change in any of the information submitted pursuant to this general permit, becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified in accordance with Section 6(d) of this general permit. The provisions of this subsection shall apply both while a request for approval of registration is pending and after the commissioner has approved such request.

(h) Transfer of Authorization

A registration or an approval of registration under this general permit is transferable only in accordance with the provisions of section 22a-6o of the General Statutes.

(i) Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(j) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 7. Commissioner's Powers

(a) Abatement of Violations

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any

appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Permit Application

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within thirty (30) days of receiving the commissioner's notice. While such application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of registration. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued Date: September 20, 2013

Macky McCleary

Deputy Commissioner

This is a true and accurate copy of the general permit executed on September 20, 2013 by the Department of Energy and Environmental Protection

Appendix D – General Permit for Discharge of Stormwater and Dewatering Wastewaters

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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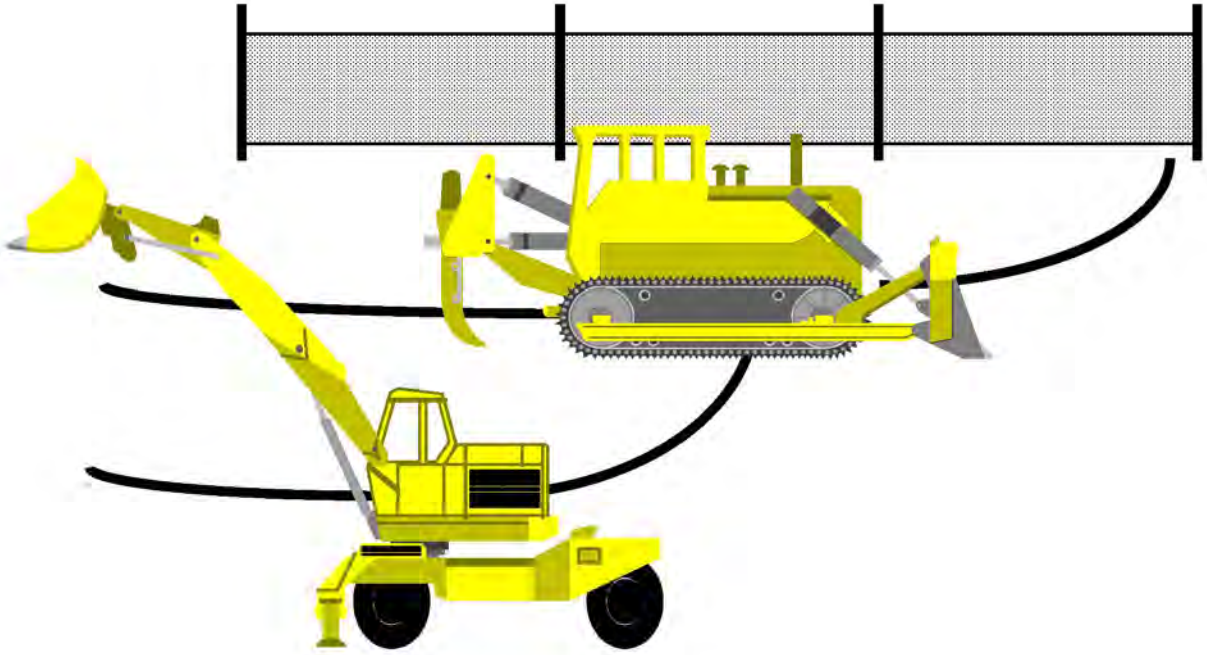
General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities



Effective Date: December 31, 2020
Modification Date: November 25, 2022
Expiration Date: December 20, 2025

Printed on recycled paper

General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

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General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

Section 1. Authority

This general permit is issued under the authority of section 22a-430b of the Connecticut General Statutes.

Section 2. Definitions

The definitions of terms used in this general permit shall be the same as the definitions contained in section 22a-423 of the Connecticut General Statutes and section 22a-430-3(a) of the Regulations of Connecticut State Agencies. All references to an Appendix in this general permit means the applicable Appendix of this general permit. As used in this general permit, the following definitions shall apply:

"*x-year, 24-hour rainfall event*" means the maximum 24-hour precipitation event with a probable recurrence interval of once in the given number of years (i.e. x=2, 25 or 100), as defined by the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 10, Version 2, Point Precipitation Frequency Estimates (as amended), or equivalent regional or state rainfall probability information developed therefrom.

"*Annual sediment load*" means the total amount of sediment carried by stormwater runoff on an annualized basis.

"*Aquifer protection area*" has the same meaning as provided in section 22a-354h of the Connecticut General Statutes.

"*Best engineering practices*" means the design of engineered control measures to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable.

"*CFR*" means the Code of Federal Regulations.

"*Coastal area*" means coastal area as defined in section 22a-93(3) of the Connecticut General Statutes.

"*Coastal waters*" means coastal waters as defined in section 22a-93(5) of the Connecticut General Statutes.

"*Commissioner*" means the Commissioner of Energy and Environmental Protection or the Commissioner's designee.

"*Construction activity*" means any activity and discharges associated with construction at a site or the site's preparation for construction, including, but not limited to, clearing, grubbing, pile driving, soil disturbance, soil compaction by construction equipment, staging and stockpiling, cleaning and washout, grading, excavation, and dewatering.

"*DOT*" means the State of Connecticut Department of Transportation.

"*Department*" means the Department of Energy and Environmental Protection.

"*Designing qualified professional*" means the qualified professional engineer or qualified soil erosion and sediment control professional, as defined below, who developed the original Stormwater Pollution Control Plan for which authorization was granted under this general permit.

"*Developer*" means a person who or municipality which is responsible, either solely or partially through contract, for the design and construction of a project site.

"*Dewatering wastewater*" means wastewater associated with the construction activity generated from the lowering of the groundwater table, the pumping of accumulated stormwater or uncontaminated groundwater from an excavation, the pumping of surface water from a cofferdam, or pumping of other surface water that has been diverted into a construction site.

"*District*" means a soil and water conservation district established pursuant to section 22a-315 of the Connecticut General Statutes. Appendices E and F list the Districts, their geographic delineations, and contact information.

"*Disturbance*" means the area on a site where soil will be exposed or susceptible to erosion during any construction activity.

"*Effective Impervious Cover*" is the area of impervious cover that is hydraulically connected to a water or wetland by means of continuous paved surfaces, gutters, swales, ditches, drain pipes or other conventional conveyance and detention structures that do not reduce runoff volume. Impervious cover is a surface composed of any material that impedes or prevents infiltration of water into the soil. Impervious surfaces shall include, but are not limited to, roofs, solid decks, driveways, patios, sidewalks, parking areas, tennis courts, concrete or asphalt streets, or compacted soils or compacted gravel surfaces.

"*Engineered stormwater management system*" means any control measure and related appurtenances which requires engineering analysis and/or design by a professional engineer.

"*Erosion*" means the detachment and movement of soil or rock fragments by water, wind, ice and gravity.

"*Final stabilization*" for a site authorized by this general permit means that no disturbed areas remain exposed, there is no active erosion or sedimentation present on the site, and that vegetation or permanent non-vegetative ground cover, as specified in the Permittee's Plan, have been fully established over the entire site.

"*Fresh-tidal wetland*" means a tidal wetland with an average salinity level of less than 0.5 parts per thousand.

"*General Permit*" means the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities issued by the Commissioner effective on December 31, 2020.

"*Groundwater*" means those waters of the state that naturally exist or flow below the surface of the ground.

"*Guidelines*" means the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, established pursuant to section 22a-328 of the Connecticut General Statutes.

"*High Quality Waters*" means those waters defined as high quality waters in RCSA 22a-426-1, as may be amended.

"*Impaired water(s)*" means those surface waters of the state designated by the commissioner as impaired pursuant to Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

"*In Responsible charge*" means professional experience for which the Commissioner determines that a professional's primary duties consistently involve a high level of responsibility and decision making in the planning and designing of engineered stormwater management systems or in the planning and designing of soil erosion and sediment controls for residential and commercial construction projects. The Commissioner

shall consider the following in determining whether a professional's experience qualifies as responsible charge experience:

(i) the level of independent decision-making exercised;

(ii) the number of individuals and the disciplines of the other professionals that the professional supervised or coordinated;

(iii) the extent to which a professional's responsibilities consistently involved the review of work performed by other professionals involved the planning and designing of engineered stormwater management systems or the planning and designing of soil erosion and sediment controls for residential and commercial construction projects;

(iv) the extent to which a professional's responsibilities consistently involved the planning and designing of engineered stormwater management systems or the planning and designing of soil erosion and sediment controls for residential and commercial construction projects and whether such responsibilities were an integral and substantial component of the professional's position;

(v) the nature of a professional's employer's primary business interests and the relation of those interests to planning and designing of engineered stormwater management systems or to planning and designing of soil erosion and sediment controls for residential and commercial construction projects;

(vi) the extent to which a professional has engaged in the evaluation and selection of scientific or technical methodologies for planning and designing of engineered stormwater management systems or for planning and designing of soil erosion and sediment controls for residential and commercial construction projects;

(vii) the extent to which a professional drew technical conclusions, made recommendations, and issued opinions based on the results of planning and designing of engineered stormwater management systems or of planning and designing of soil erosion and sediment controls for residential and commercial construction projects; or

(viii) any other factor that the Commissioner deems relevant.

"*Individual permit*" means a permit issued to a specific permittee under section 22a-430 of the Connecticut General Statutes.

"*Inland wetland*" means wetlands as defined in section 22a-38 of the Connecticut General Statutes.

"*Landscape Architect*" means a person with a currently effective license issued in accordance with chapter 396 of the Connecticut General Statutes.

"*Linear Project*" includes the construction of roads, railways, bridges, bikeways, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

"*Locally approvable project*" means a construction activity for which the registration is not for a municipal, state or federal project and is required to obtain municipal approval for the project.

"*Locally exempt project*" means a construction activity for which a registration is required under this general permit and which is not a locally approvable project.

"*Low Impact Development*" or "*LID*" means a site design strategy that maintains, mimics or replicates pre-development hydrology through the use of numerous site design principles and small-scale treatment practices distributed throughout a site to manage runoff volume and water quality at the source.

"*Minimize*", for purposes of implementing the control measures in Section 5(*b*)(2) of this general permit, means to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

"*Municipal separate storm sewer system*" or "*MS4*" means conveyances for stormwater (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) owned or operated by any municipality, DOT or by any other state or federal institution (as defined in the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems) and discharging to surface waters of the state.

"*Municipality*" has the same meaning as provided in section 22a-423 of the Connecticut General Statutes.

"*Normal Working Hours*" are considered to be, at a minimum, Monday through Friday, between the hours of 8:00 am and 6:00 pm, unless additional working hours are specified by the permittee.

"*Permittee*" means any person who or municipality which initiates, creates or maintains a discharge in accordance with Section 3 of this general permit.

"*Person*" means person as defined in section 22a-423 of the Connecticut General Statutes.

"*Phase*" means a portion of a project possessing a distinct and complete set of activities that have a specific functional goal wherein the work to be completed in the phase is not dependent upon the execution of work in a later phase in order to make it functional.

"*Point Source*" means any discernible, confined and discrete stormwater conveyance (including but not limited to, any pipe, ditch, channel, tunnel, conduit, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft) from which pollutants are or may be discharged.

"*Professional Engineer*" or *"P.E.*" means a person with a currently effective license issued in accordance with chapter 391 of the Connecticut General Statutes.

"*Qualified Inspector*" means an individual possessing either (1) a professional license or certification by a professional organization recognized by the commissioner related to agronomy, civil engineering, landscape architecture, soil science, and two years of demonstrable and focused experience in erosion and sediment control plan reading, installation, inspection and/or report writing for residential and commercial construction projects in accordance with the Guidelines; or (2) five years of demonstrable and focused experience in erosion and sediment control plan reading, installation, inspection and/or report writing for residential and commercial construction projects in accordance with the Guidelines; or (3) certification by the DOT. For purposes of solar array projects, a Qualified Inspector shall be selected as specified in Appendix I of the general permit.

"*Qualified professional engineer*" means a professional engineer who has, for a minimum of eight years, engaged in the planning and designing of engineered stormwater management systems for residential and commercial construction projects in accordance with the Guidelines and the Stormwater Quality Manual including, but not limited to, a minimum of four years in responsible charge of the planning and designing of engineered stormwater management systems for such projects. Such qualified professional engineer shall remain in good standing with the Connecticut Department of Consumer Protection and the Commissioner.

"*Qualified soil erosion and sediment control professional*" means a landscape architect or a professional engineer who: (1) has for a minimum of eight years engaged in the planning and designing of soil erosion and sediment controls for residential and commercial construction projects in accordance with the Guidelines including, but not limited to, a minimum of four years in responsible charge of the planning and designing of soil erosion and sediment controls for such projects; or (2) is currently certified as a professional in erosion and sediment control as designated by EnviroCert International, Incorporated (or other certifying organization acceptable to the commissioner) and has, for a minimum of six years, engaged in the planning and designing of soil erosion and sediment controls for residential and commercial construction projects in accordance with the Guidelines including, but not limited to, a minimum of four years in responsible charge in the planning and designing of soil erosion and sediment controls for such projects. Such qualified soil erosion and sediment control professional shall remain in good standing with the Connecticut Department of Consumer Protection and the Commissioner.

"*Registrant*" means a person or municipality that files a registration.

"*Registration*" means a registration filed with the commissioner pursuant to Section 4 of this general permit.

"*Regulated Municipal Separate Storm Sewer System*" or "*Regulated MS4*" means any MS4 (as defined above) authorized by the most recently issued General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, as well as the separate storm sewer system of the DOT and the City of Stamford including all those located partially or entirely within an Urbanized Area and those additional MS4s located outside an Urbanized Area as may be designated by the commissioner.

"*Retain*" means to hold runoff on-site to promote vegetative uptake and groundwater recharge through the use of runoff reduction or LID practices or other measures. In addition, it means there shall be no subsequent point source release to surface waters from a storm event defined in this general permit or as approved by the commissioner.

"*Runoff reduction practices*" means those post-construction stormwater management practices used to reduce post-development runoff volume delivered to the receiving water, as defined by retaining the volume of runoff from a storm up to the first half inch or one inch of rainfall. Runoff reduction is quantified as the total annual post-development runoff volume reduced through canopy interception, soil amendments, evaporation, rainfall harvesting, engineered infiltration, extended filtration or evapo-transpiration.

"*Sediment*" means solid material, either mineral or organic, that is in suspension, is transported, or has been moved from its site of origin by erosion.

"*Site*" means geographically contiguous land on which a construction activity takes place or on which a construction activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water owned by the same person shall be deemed the same site if such land is part of a linear project (as defined in this section) or is otherwise connected by a right-of-way, which such person controls.

"*Soil*" means any unconsolidated mineral and organic material of any origin.

"*Soil Scientist*" shall be as defined in Conn. Gen. Stat. § 22a-38.

"*Solar array*" means an on-the-ground installation of arrays of photovoltaic cell panels, supporting structures and related equipment for the production of electricity.

"*Stabilize*" means the use of measures as outlined in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, or as approved by the commissioner, to prevent the visible movement of soil particles and development of rills.

"*Standard of care*", as used in Section 3(*b*), means to endeavor to perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

"*Structural measure*" means a measure constructed for the temporary storage and/or treatment of stormwater runoff.

"*Stormwater*" means waters consisting of rainfall runoff, including snow or ice melt during a rain event.

"*Stormwater Pollution Control Plan*", "*SWPCC*", or "*Plan*" means the stormwater pollution control plan required under Section 5(*b*) of the general permit and approved by Commissioner as part of the approval of a registration.

"*Stormwater Quality Manual*" means the 2004 Connecticut Stormwater Quality Manual published by the Connecticut Department of Energy & Environmental Protection, as amended.

"*Surface water*" means that portion of waters, as the term "waters" is defined in section 22a-423 of the Connecticut General Statutes, located above the ground surface.

"*Tidal wetland*" means a wetland as that term is defined in section 22a-29(2) of the Connecticut General Statutes.

"*Total disturbance*" means the total area of disturbance on a site during all phases of construction activity.

"*Total Maximum Daily Load*" or "*TMDL*" means the maximum capacity of a surface water to assimilate a pollutant as established by the commissioner, including pollutants contributed by point and non-point sources and a margin of safety.

"*Upland soils*" means soils which are not designated as poorly drained, very poorly drained, alluvial, or flood plain by the National Cooperative Soils Survey, as may be amended, of the Natural Resources Conservation Service of the United States Department of Agriculture and/or the inland wetlands agency of the municipality in which the project will take place.

"*Water company*" means water company as defined in section 25-32a of the Connecticut General Statutes.

"*Waters*" shall be as defined in Conn. Gen. Stat. § 22a-423, and for clarification shall include vernal pools and intermittent waters.

"*Water Quality Standards*" means the water quality standards in RCSA 22a-426-1 et seq, and the classification maps adopted pursuant to section 22a-426 of the Connecticut General Statutes, as both may be amended.

"*Water Quality Volume*" or "*WQV*" means the volume of runoff generated by one inch of rainfall on a site as defined in the 2004 Connecticut Stormwater Quality Manual, as amended.

"*Wetland*" shall mean and include both "wetland" as defined in Conn. Gen. Stat. § 22a-29 and "wetlands" as defined in Conn. Gen. Stat. § 22a-38.

Section 3. Authorization Under This General Permit

(a) Eligible Activities

This general permit authorizes construction activities and associated stormwater and dewatering wastewater discharges on a site, as defined in this general permit, with a total disturbance of one or more acres of land area on a site, *regardless of project phasing*.

In the case of a larger plan of development (such as a subdivision), the estimate of total acres of site disturbance shall include, but is not limited to, road and utility construction, individual lot construction (e.g. house, driveway, septic system, etc.), and all other construction associated with the overall plan, regardless of the individual parties responsible for construction of these various elements.

(b) Requirements for Authorization

This general permit authorizes the construction activity and associated discharges listed in the "Eligible Activities" section (Section 3(*a*)) of this general permit provided:

(1) Coastal Management Act

Such construction activity must be consistent with all applicable goals and policies in section 22a-92 of the Connecticut General Statutes, and must not cause adverse impacts to coastal resources as defined in section 22a-93(15) of the Connecticut General Statutes. Please refer to the Appendix D for additional guidance.

(2) Endangered and Threatened Species

Such activity must not threaten the continued existence of any species listed pursuant to section 26-306 of the Connecticut General Statutes as endangered or threatened and must not result in the destruction or adverse modification of habitat designated as essential to such species. See Appendix A for conditions and requirements for compliance.

(3) Aquifer Protection Areas

Such construction activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, must comply with regulations adopted pursuant to section 22a-354i of the General Statutes. Please refer to the Appendix C for additional guidance.

For any construction activity regulated pursuant to sections 22a-354i-8(c) and 9(b) of the Regulations of Connecticut State Agencies (Aquifer Protection Regulations), the Stormwater Pollution Control Plan (Plan) must assure that stormwater run-off generated from the regulated construction activity (i) is managed in a manner so as to prevent pollution of groundwater, and (ii) complies with all the requirements of this general permit.

(4) Mining Operations Exception

The stormwater discharge resulting from an activity classified by the Standard Industrial Classification 10 and 12 through 14 (the mining industry) is not eligible to be authorized by this general permit and is regulated under the most recently issued General Permit for the Discharge of Stormwater Associated with Industrial Activity.

(5) Discharge to POTW

The stormwater is *not* discharged to a Publicly Owned Treatment Works (POTW).

(6) Discharge to Groundwater

The stormwater is *not* discharged entirely to groundwater under all conditions before, during or after construction.

(7) Such construction activity must be consistent with the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) for those river components and tributaries which have been designated as Wild and Scenic by the United States Congress. Further, such construction activities must not have a direct and adverse effect on the values for which such river designation was established. Please refer to Appendix H for additional guidance.

(8) Certification Requirements for Registrants and other Individuals

As part of the registration for this general permit, the registrant and any other individual or individuals responsible for preparing the registration submits to the commissioner a written certification which, at a minimum, complies with the following requirements:

(A) The registrant and any other individual or individuals responsible for preparing the registration and signing the certification has completely and thoroughly reviewed, at a minimum, this general permit and the following regarding the activities to be authorized under such general permit:

(i) all registration information provided in accordance with Section 4(*c*)(2) of such general permit;

(ii) the project site, based on a site inspection;

(iii) the Stormwater Pollution Control Plan; and

(iv) any plans and specifications and any Department approvals regarding such Stormwater Pollution Control Plan;

(B) The registrant and any other individual or individuals responsible for preparing the registration and signing the certification pursuant to this general permit has, based on the review described in section 3(*b*)(8)(A) of this general permit, made an affirmative determination to:

(i) comply with the terms and conditions of this general permit;

(ii) maintain compliance with all plans and documents prepared pursuant to this general permit including, but not limited to, the Stormwater Pollution Control Plan;

(iii) properly implement and maintain the elements of the Stormwater Pollution Control Plan; and

(iv) properly operate and maintain all stormwater management systems in compliance with the terms and conditions of this general permit to protect the waters of the state from pollution;

(C) Such registrant and any other individual or individuals responsible for preparing the registration certifies to the following statement: "I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT

ADDRESS OF PROJECT OR ACTIVITY] and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(*b*)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify that I have made an affirmative determination in accordance with Section 3(*b*)(8)(B) of this general permit. I understand that the registration filed in connection with such general permit is submitted in accordance with and shall comply with the requirements of Section 22a-430b of Connecticut General Statutes. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(9) The registrant has submitted to the commissioner a written certification by a professional engineer or, where appropriate, a landscape architect licensed in the State of Connecticut for the preparation, planning and design of the Stormwater Pollution Control Plan ("Plan" or "SWPCP") and stormwater management systems:

The professional engineer or landscape architect shall certify to the following statement:

"I hereby certify that I am a [professional engineer][landscape architect] licensed in the State of Connecticut. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I certify that I have thoroughly and completely reviewed the Stormwater Pollution Control Plan for the project or activity covered by this certification. I further certify, based on such review and on the standard of care for such projects, that the Stormwater Pollution Control Plan has been prepared in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, the Stormwater Quality Manual, as amended, and the conditions of the general permit, and that the controls required for such Plan are appropriate for the site. I further certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement in this certification may subject me to sanction by the Department and/or be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(10) Plan Review and Certification by a District for Locally Approvable Projects

For locally approvable Plans not reviewed in accordance with Section 3(*b*)(11), below, the registrant has submitted to the commissioner a written certification by the appropriate regional District for the review of the Stormwater Pollution Control Plan pursuant to Appendix E, which, at a minimum, complies with the following requirements:

(A) the Plan Review Certification must be signed by the District. Information on the District review process is outlined in the Memorandum of Agreement provided in Appendix E. In cases where the District is unable to complete review of the Plan within the time limits

specified in the Memorandum of Agreement in Appendix E, a notice to that effect signed by the District may be submitted in lieu of the certification.

(B) the Stormwater Pollution Control Plan has been prepared in accordance with the requirements of Section 5(*b*) of the general permit.

(11) Plan Review and Certification by a Qualified Soil Erosion and Sediment Control Professional and Qualified Professional Engineer for Locally Approvable Projects

For those Plans not reviewed in accordance with Section 3(*b*)(10), above, the registrant has submitted to the commissioner a written certification by a qualified professional engineer or a qualified soil erosion and sediment control professional in accordance with the following requirements:

(A) for projects disturbing more than one acre and less than fifteen (15) acres, such qualified soil erosion and sediment control professional or qualified professional engineer:

(i) is not an employee, as defined by the Internal Revenue Service in the Internal Revenue Code of 1986, of the registrant; and

(ii) has no ownership interest of any kind in the project for which the registration is being submitted.

(B) for projects disturbing fifteen (15) acres or more, such qualified soil erosion and sediment control professional or qualified professional engineer:

(i) is not an employee, as defined by the Internal Revenue Service in the Internal Revenue Code of 1986, of the registrant;

(ii) did not engage in any activities associated with the preparation, planning, designing or engineering of such plan for soil erosion and sediment control or plan for stormwater management systems on behalf of such registrant;

(iii) is not under the same employ as any person who engaged in any activities associated with the preparation, planning, designing or engineering of such plans and specifications for soil erosion and sediment control or plans and specifications for stormwater management systems on behalf of such registrant; and

(iv) has no ownership interest of any kind in the project for which the registration is being submitted.

(C) The qualified professional engineer or qualified soil erosion and sediment control professional signing the certification has, at a minimum, completely and thoroughly reviewed this general permit and the following regarding the discharges to be authorized under such general permit:

(i) all registration information provided in accordance with Section 4(*c*)(1) of such general permit;

(ii) the site, based on a site inspection;

(iii) the Stormwater Pollution Control Plan;

(iv) the Guidelines;

(v) the Stormwater Quality Manual, if applicable; and

(vi) all non-engineered and engineered stormwater management systems, including any plans and specifications and any Department approvals regarding such stormwater management systems.

(D) Affirmative Determination

(i) The qualified soil erosion and sediment control professional signing the certification must have made an affirmative determination, based on the review described in section 3(*b*)(11)(C) of this general permit that:

(a) the Stormwater Pollution Control Plan prepared and certified pursuant to the registration is adequate to assure that the project or activity authorized under this general permit, if implemented in accordance with the Stormwater Pollution Control Plan, will comply with the terms and conditions of such general permit; and

(b) all non-engineered stormwater management systems:

(*1*) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual;

(*2*) will function properly as designed;

(*3*) are adequate to ensure compliance with the terms and conditions of this general permit; and

(*4*) will protect the waters of the state from pollution.

(ii) The qualified professional engineer signing the certification must have made an affirmative determination, based on the review described in section 3(*b*)(11)(C) of this general permit that:

(a) the Stormwater Pollution Control Plan prepared and certified pursuant to the registration is adequate to assure that the activity authorized under this general permit, if implemented in accordance with the Stormwater Pollution Control Plan, will comply with the terms and conditions of such general permit; and

(b) all non-engineered and engineered stormwater management systems:

(*1*) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual;

(*2*) will function properly as designed;

(*3*) are adequate to ensure compliance with the terms and conditions of this general permit; and

(*4*) will protect the waters of the state from pollution.

(E) The qualified professional engineer or qualified soil erosion and sediment control professional shall, provided it is true and accurate, certify to the following statement:

"I hereby certify that I am a qualified professional engineer or qualified soil erosion and sediment control professional, or both, as defined in the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and as further specified in sections 3(*b*)(11)(A) and (B) of such general permit. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(*b*)(11)(C) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination in accordance with Sections 3(*b*)(11)(D)(i) and (ii) of this general permit. I understand that this certification is part of a registration submitted in accordance with Section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(12) Plan Review and Certification for Projects Conducted by State Agencies

For projects conducted by a state agency (e.g. DOT, DAS, etc.), the registering agency has submitted to the commissioner a written certification by a qualified professional engineer or a qualified soil erosion and sediment control professional in accordance with the following requirements:

(A) the registering agency or another state agency has developed a process to establish a list of qualified professional engineers and qualified soil erosion and sediment control professionals for which the process to qualify has been approved in writing by the commissioner;

(B) the qualified professional engineer or qualified soil erosion and sediment control professional reviewing and certifying the Plan is included on the list prepared by a state agency and for which the process to establish the list has been approved by the commissioner pursuant to Section 3(*b*)(12)(A), above;

(C) the qualified professional engineer or qualified soil erosion and sediment control professional signing the certification has, at a minimum, completely and thoroughly reviewed this general permit and the following regarding the discharges to be authorized under such general permit:

(i) all registration information provided in accordance with Section 4(*c*)(2) of such general permit;

(ii) the site, based on a site inspection;

(iii) the Stormwater Pollution Control Plan;

(iv) the Guidelines;

(v) the Stormwater Quality Manual, if applicable; and

(vi) all non-engineered and engineered stormwater management systems, including any plans and specifications and any Department approvals regarding such stormwater management systems.

(D) Affirmative Determination

(i) The qualified soil erosion and sediment control professional signing the certification must have made an affirmative determination, based on the review described in section 3(*b*)(12)(C) of this general permit that:

(a) the Stormwater Pollution Control Plan prepared and certified pursuant to the registration is adequate to assure that the project or activity authorized under this general permit, if implemented in accordance with the Stormwater Pollution Control Plan, will comply with the terms and conditions of such general permit; and

(b) all non-engineered stormwater management systems:

(*1*) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual;

(*2*) will function properly as designed;

(*3*) are adequate to ensure compliance with the terms and conditions of this general permit; and

(*4*) will protect the waters of the state from pollution.

(ii) The qualified professional engineer signing the certification must have made an affirmative determination, based on the review described in section 3(*b*)(12)(C) of this general permit that:

(a) the Stormwater Pollution Control Plan prepared and certified pursuant to the registration is adequate to assure that the activity authorized under this general permit, if implemented in accordance with the Stormwater Pollution Control Plan, will comply with the terms and conditions of such general permit; and

(b) all non-engineered and engineered stormwater management systems:

(*1*) have been designed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable and that conform to those in the Guidelines and the Stormwater Quality Manual;

(*2*) will function properly as designed;

(*3*) are adequate to ensure compliance with the terms and conditions of this general permit; and

(*4*) will protect the waters of the state from pollution.

(E) The qualified professional engineer or qualified soil erosion and sediment control professional shall, provided it is true and accurate, certify to the following statement:

"I hereby certify that I am a qualified professional engineer or qualified soil erosion and sediment control professional, or both, as defined in the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and as further specified in sections 3(*b*)(12)(A) and (B) of such general permit. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(*b*)(12)(C) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination in accordance with Sections 3(*b*)(12)(D)(i) and (ii) of this general permit. I understand that this certification is part of a registration submitted in accordance with Section 22a-430b of Connecticut General Statutes and is subject to the requirements and responsibilities for a qualified professional in such statute. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(F) Projects conducted by a state agency under this subparagraph (Section 3(*b*)(12)) shall be submitted in accordance with the requirements in Sections 3(*c*), 3(*g*)(1)(B) and 4(*c*)(2)(A)(i).

(13) New Discharges to Impaired Waters

(A) For impaired waters identified in the State's most recent Integrated Water Quality Report, new stormwater discharges proposed in a registration submitted under this general permit that will discharge directly to such waters must comply with the requirements of (13)(B), below, if such report indicates the cause or potential cause of the impairment as one of the following:

(i) Site Clearance (Land Development or Redevelopment)

(ii) Post-Development Erosion and Sedimentation

(iii) Source Unknown (if cause of impairment is Sedimentation/Siltation)

(B) Such stormwater discharge is authorized if the permittee complies with the requirements of Section 5(*b*)(3) of this permit and receives a written affirmative determination from the commissioner that the discharge meets the requirements of that section. In such case, the permittee must keep a copy of the written determination onsite with the Plan. If the permittee does not receive such affirmative determination, the construction activity is not authorized by this general permit and must obtain an individual permit.

(14) Solar Arrays

For constructions activities associated with the development of a solar array that is locally exempt, as those respective terms are defined in Section 2, in addition to the other requirements of this general permit a Permittee shall also comply with the requirements in Appendix I.

(15) Cold Water Stream Habitat

Unless otherwise authorized in writing by the Commissioner, a Permittee shall maintain a one-hundred (100) foot buffer of undisturbed soil and well-established vegetation between any construction activity and any stream, river, or tributary that is included within a Cold Water Stream Habitat as defined at: https://portal.ct.gov/DEEP/Water/Inland-Water-Monitoring/Cold-Water-Stream-Habitat-Map.

(16) Other Requirements for Authorization

The following requirements for authorization shall apply to all projects:

(A) Prior to commencement of any construction activity, the Permittee shall conduct a preconstruction meeting with the qualified professional who designed the project, the qualified inspector who will be conducting inspections, and all site contractors and subcontractors to be involved in construction. Such meeting shall convey the design, stormwater control measures, erosion and sediment controls, plan implementation and routine site inspections, and contract requirements for the project prior to earth disturbance. Such meeting shall also include a site walk of the project site. In the case of solar arrays and any other projects that may be reviewed and/or inspected by a District, the preconstruction meeting and site walk shall also include the appropriate District personnel. The Permittee shall ensure that the date of such meeting and a report summarizing the meeting shall be prepared and retained in the Permittee's Plan.

(B) The following contractor certification shall be signed by all contractors and subcontractors that will perform construction activities on the site that have the potential to cause pollution of the waters of the State:

"I certify under penalty of the law that I have read and understand the terms and conditions of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that as a contractor or subcontractor at the site, I am authorized by this general permit, and must comply with the terms and conditions of this general permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for the site."

Such signed certifications shall be maintained with the Plan on-site at all times.

(C) The designing qualified professional shall conduct the Plan Implementation Inspection(s) pursuant to Section 5(*b*)(4)(A) and shall submit such Plan Implementation Inspection report(s) to the commissioner confirming compliance with the general permit and proper initial implementation of all control measures designated in the Plan for the initial phase of construction. In the case of solar arrays and any other projects that may be reviewed and/or inspected by a District, the Plan Implementation Inspection(s) shall also include the appropriate District personnel.

(D) For locally approvable projects, the permittee shall indicate whether any financial assurance was required by the town in which the project is being conducted and, if so, indicate what type of assurance was required and in what amount.

(E) Nothing in this subsection or permit shall be construed to authorize District personnel, a qualified soil erosion and sediment control professional or a qualified professional engineer to engage in any profession or occupation requiring a license under any other provision of the general statutes without such license.

(F) Failure to comply with any provisions of Section 3(*b*)(16) is a violation of this general permit and shall be grounds for the commissioner to revoke authorization.

(G) Specific Provisions Applicable to Projects Conducted by State Agencies

(i) Permittee shall conduct a preconstruction meeting with the contractor that conveys the design, stormwater control measures, plan implementation and routine site inspections, erosion and sediment controls, and contract requirements for the project prior to earth disturbance. Such meeting shall include a site walk of the project site.

(ii) The DOT District Engineer, District Environmental Coordinator, or the designated employee of another state agency shall conduct the Plan Implementation Inspection(s) pursuant to Section 5(*b*)(4)(A) of the general permit and shall submit such Plan Implementation Inspection report(s) to the Commissioner confirming compliance with the general permit and proper initial implementation of all control measures designated in the Plan for the initial phase of construction.

(iii) The State is not required to provide evidence of financial assurance.

(c) Registration

Pursuant to the "Registration Requirements" section (Section 4) of this general permit, a completed registration with respect to the construction activity shall be filed with the commissioner.

(d) Small Construction

For construction projects with a total disturbance of between one and five acres, the permittee shall adhere to the erosion and sediment control land use regulations of the municipality in which the construction activity is conducted, as well as the Guidelines and the Stormwater Quality Manual.

No registration or Plan review and certification shall be required for such construction activity provided a land-use commission of the municipality (i.e. planning/zoning, wetland, conservation, etc) reviews and issues a written approval of the proposed erosion and sediment control measures, pursuant to the requirements of section 22a-329 of the Connecticut General Statutes. In the absence of a municipal commission to review and approve such activity, the permittee shall register with the DEEP under the requirements for a Locally Exempt Project and comply with all applicable conditions of this general permit.

(e) Geographic Area

This general permit applies throughout the State of Connecticut.

(f) Effective Date and Expiration Date of this General Permit

This General Permit shall be effective at 12:00 a.m. on December 31, 2020. The provisions of this General Permit shall expire as of 11:59 p.m. on December 30, 2025.

(g) Effective Date of Authorization

A construction activity is not authorized by this general permit unless a registration has been approved by the Commissioner and the following conditions have been met:

(1) General Timelines

(A) for locally approvable projects, sixty (60) days have elapsed after the submission of a complete and sufficient registration form required by Section 4(*c*) of the general permit, or

(B) for locally exempt projects with a total disturbed area of under fifteen (15) acres, sixty (60) days have elapsed after the submission of a complete and sufficient registration form required by Section 4(*c*), or

(C) for locally exempt projects with a total disturbed area equal to or more than fifteen (15) acres, ninety (90) days have elapsed after the submission of a complete and sufficient registration form required by Section 4(*c*) of the general permit.

(2) Exceptions to Authorization Timelines

If one of the following conditions applies, that condition shall supersede those of subsection (1), above:

(A) for sites for which the registration and Plan availability and review provisions of Section 4(*e*) of the general permit are completed prior to the elapse of the authorization periods in subdivision (1), above, the commissioner may authorize the activity upon such completion, or

(B) for sites for which the conditions of Section 3(*b*)(2), 3(*b*)(13) or Section 5(*a*)(2) of the general permit apply, the activity is authorized only upon the date of the commissioner's affirmative determination and/or approval of a registration, or

(C) for sites authorized by any previous version of this general permit and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" of that general permit, the activity is authorized effective December 31, 2020. Authorization under this general permit shall cease if a re-registration form is not submitted within one hundred twenty (120) days of the effective date of this general permit.

(h) Revocation of an Individual Permit

No person shall seek authorization under this general permit for a construction activity authorized by an individual permit. If a construction activity is eligible for authorization under this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the commissioner upon a written request by the permittee. If the commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity under this general permit.

(i) Issuance of an Individual Permit

If the commissioner issues an individual permit under section 22a-430 of the Connecticut General Statutes, authorizing a construction activity authorized by this general permit, this general permit shall cease to authorize that activity beginning on the date such individual permit is issued.

Section 4. Registration Requirements

(a) Who Must File a Registration

With the exception noted in the "Small Construction" section (Section 3(*d*)) of this general permit, any person or municipality which initiates, creates, originates or maintains a discharge described in the "Eligible Activities" section (Section 3(*a*)) of this general permit shall file with the commissioner a registration form (or, for existing permittees, a re-registration form) that meets the requirements of the "Contents of Registration" section (Section 4(*d*)) of this general permit (or a re-registration form) and the applicable fee within the timeframes and in the amounts specified in Sections 4(*c*) and 4(*d*)(1)(A), respectively. Any such person or municipality filing a registration remains responsible for maintaining compliance with this general permit.

(b) Scope of Registration

Each registration shall be limited to the discharge at or from one site; no registration shall cover discharges at or from more than one site.

(c) Registration Procedure

(1) Locally Approvable Projects

The registration must:

(A) Be electronically submitted, along with all required elements in subsections (B) through (E), below, at least sixty (60) days prior to the planned commencement of the construction activity. Failure to include any of these required submissions shall, among other potential reasons, be grounds to reject the registration.

(B) Include the electronic Registration Form (available at www.ct.gov/deep/stormwater).

(C) Include any additional forms and information that may be required pursuant to the "Requirements for Authorization" section (Section 3(*b*) of the general permit) regarding compliance and/or consistency with the Coastal Management Act, Impaired Waters (including TMDL requirements), Endangered and Threatened Species, and Aquifer Protection Areas.

(D) Include an electronic copy of the Stormwater Pollution Control Plan. The electronic Plan shall be in Adobe™ PDF format or similar publicly available format in common use. **DO NOT INCLUDE** in this electronic copy any pages or other material that do not pertain to stormwater management or erosion and sediment control (such as electrical and lighting plans, boundary or lot surveys, building plans, non-stormwater related detail sheets, etc.).

(E) Include a Plan Review Certification in accordance with the plan review certification requirements of either Section 5(*b*)(10) or 5(*b*)(11) of the general permit.

(2) Locally Exempt Projects

The registration must be electronically submitted, along with all required elements in subsections (B), (C) and (D) of this section. The sixty (60) or ninety (90) day periods cited in subparagraph (A) of this subdivision shall not begin until all required elements have been submitted. Failure to include any of these required submissions shall be grounds to reject the registration. A registration shall:

(A) Be submitted at least:

(i) sixty (60) days prior to the planned commencement of the construction activity if the site has a total disturbance of between one (1) and fifteen (15) acres; ***or***

(ii) ninety (90) days prior to the planned commencement of construction activity if the site:

(a) has a total disturbance greater than fifteen (15) acres;

(b) discharges to a tidal wetland (that is not a fresh-tidal wetland) within 500 feet of the discharge point; ***or***

(c) is subject to the impaired waters provisions of Section 3(*b*)(13) of the general permit.

(B) Include the electronic Registration Form (available at www.ct.gov/deep/stormwater).

(C) Include any additional forms and information that may be required pursuant to Section 3(*b*)) of the general permit, "Requirements of Authorization", regarding compliance and/or consistency with the Coastal Management Act, Impaired Waters (including TMDL requirements), Endangered and Threatened Species, Solar Array provisions and Aquifer Protection.

(D) Include an electronic copy of the Stormwater Pollution Control Plan (Plan) (or a web address where the electronic Plan can be downloaded) for the commissioner's review. The electronic Plan shall be in Adobe™ PDF format or similar publicly available format in common use. **DO NOT INCLUDE** in this electronic copy any pages or other material that do not pertain to stormwater management or erosion and sediment control (such as electrical and lighting plans, A-2 boundary or similar lot surveys, building plans, non-stormwater related detail sheets, etc.).

(3) Re-Registration of Existing Projects

(A) *Re-Registration*. In order for discharges to continue to be authorized, a Permittee with a registration previously approved by the Commissioner under any previous version of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" of that general permit shall submit a re-registration. Any such registration shall:

(i) be submitted no later than one hundred twenty (120) days after the effective date of this general permit using an electronic Re-Registration Form (available at www.ct.gov/deep/stormwater) pursuant to Section 4(*c*)(3) of the general permit; and

(ii) be accompanied by the fee set forth in Section 4(*d*)(1)(A)(iii) of the general permit unless that section provides for the waiver of such fee. Resubmission of a Permittee's Plan is not required with a re-registration provided, however, that such Plan shall be provided to, if requested by, the commissioner. Such Plan shall be provided within the time frame provided for in any request, or if no timeframe is provided, within thirty (30) days of the date of any such request.

(B) *Existing Projects that are not re-registered.* Discharges at or emanating from a site, for a Permittee with a registration previously approved by the Commissioner, that is not re-registered in accordance with this section shall no longer be authorized. Any re-registration

received more than one hundred twenty (120) days after the effective date of this general permit shall be considered to be a new registration, and shall not be eligible for any exemption from, or waiver of, any condition or requirement of this general permit, as specified in this section, and shall instead be required to comply with this general permit as if it were a new project, i.e., a project that had not been previously registered.

(C) *Exemption for Existing Projects Upon Re-Registration.* A Permittee that submits a re-registration in compliance with this section shall, except as provided in this section, comply with the terms and conditions of this general permit, including, but not limited to, the Plan in effect for the site. Any such Permittee shall be exempt from compliance with Sections 3(*b*)(15) and 5(*b*)(2)(D)(vi) of this general permit and, for a Permittee submitting a re-registration for construction of a solar array, shall be exempt from paragraphs (1) and (2) of Section I, Design and Construction requirements, in Appendix I and Section II, Design requirements for post-constriction stormwater management measures in Appendix I.

Note: For clarification purposes, the provisions of this general permit, including any updates to a Permittee's Plan, shall not apply retroactively to construction activities that may have already commenced – or been completed - before a Permittee submits a re-registration pursuant to section 4(*c*)(3) of this general permit. For example, the plan implementation inspections required by Section 5(*b*)(4)(A) of this general permit would not be applicable to a phase of construction already begun at the time a re-registration is submitted. By contrast, compliance with those same plan implementation inspection requirements would be required for each phase of construction that commences after a re-registration is submitted.

(4) Latest Date for New Registrations

Unless another date is specified by the Commissioner on the Department's Internet website (www.ct.gov/deep/stormwater), no person shall submit a registration under this general permit on or after October 1, 2025.

(d) Contents of Registration

(1) Fees

(A) Registration Fee

A registration, if required, shall not be deemed complete unless the registration fee has been paid in full.

(i) Locally Approvable Projects

A registration fee of $625.00 shall be submitted to the Department with the registration form.

(ii) Locally Exempt Projects

A registration fee shall be submitted with a registration form as follows:

(a) For sites with total disturbance of one (1) or more acres, but less than fifteen (15) acres, the fee shall be $3,000.

(b) For sites with total disturbance equal to or greater than fifteen (15) acres and less than fifty (50) acres, the fee shall be $4,000.

(c) For sites with total disturbance equal to or greater than fifty (50) acres, the fee shall be $5,000.

The fees for municipalities shall be half of those indicated in subsections (a), (b) and (c) above pursuant to section 22a-6(b) of the Connecticut General Statutes. State and Federal agencies shall pay the full fees specified in this subsection.

(iii) Re-registration

(a) For sites that registered under the previous version of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities prior to August 1, 2019 and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" section (Section 6), the re-registration fee shall be $625 payable with submission of the re-registration form within one hundred twenty (120) days from the effective date of this general permit. If a Notice of Termination is submitted prior to January 1, 2020, no re-registration or associated fee are required.

(b) For sites that registered under the previous version of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities on or after August 1, 2019 and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" section (Section 6), the permittee shall re-register and there is no re-registration fee.

(B) The registration fee shall be paid electronically or by check or money order payable to the Department of Energy & Environmental Protection in accordance with the instructions on the registration form.

(C) The registration fee is non-refundable.

(2) Registration Form

A registration shall be filed electronically on forms prescribed and provided by the commissioner (available at: www.ct.gov/deep/stormwater).

A registration shall include, but not be limited to, the following:

(A) Legal name, address, email address, and telephone number of the registrant. If the registrant is a person (as defined in Section 2 of this permit) transacting business in Connecticut and is registered with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State.

(B) Legal name, address, email address, and telephone number of the owner of the property on which the construction activity will take place.

(C) Legal name, address, email address, and telephone number of the primary contact for departmental correspondence and inquiries, if different from the registrant.

(D) Legal name, address, email address, and telephone number of the developer of the property on which the construction activity is to take place.

(E) Legal name, address, email address, and daytime and off-hours telephone numbers of the general contractor(s) or other representative(s), if different from the developer.

(F) Legal name, address, email address, and telephone number of any consultant(s), engineer(s) or landscape architect(s) retained by the permittee to prepare the registration and Stormwater Pollution Control Plan.

(G) Location address or description of the site for which the registration is filed.

(H) The estimated duration of the construction activity.

(I) Indication of the normal working hours at the site.

(J) A brief description of the construction activity, including, but not limited to:

(i) Total number of acres to be disturbed, regardless of phasing.

(ii) Verification that construction is in accordance with the Guidelines and local erosion and sediment control ordinances, where applicable.

(iii) For sites in the Coastal Boundary, documentation that the DEEP Office of Long Island Sound Programs or local governing authority has issued a coastal site plan approval or a determination that the project is exempt from coastal site plan review (see Appendix D) in accordance with section 22a-92 and 22a-93(15) of the Connecticut General Statutes.

(iv) Documentation that the construction activity will not threaten the continued existence of any species listed pursuant to section 26-306 of the Connecticut General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species (see Appendix A).

(v) For sites discharging to certain impaired waters, as specified in Section 3(*b*)(13) of the general permit, documentation that the construction activity meets the requirements of that section and Section 5(*b*)(3) of the general permit for authorization under this general permit.

(vi) Verification that the construction activity is not located within an aquifer protection area (see Appendix C) as mapped under section 22a-354b of the Connecticut General Statutes or, if it is located within an aquifer protection area, that the construction activity will comply with regulations adopted pursuant to section 22a-354i of the Connecticut General Statutes.

(vii) For a proposed locally approvable project, a plan review certification from the appropriate District, qualified soil erosion and sediment control professional, and/or qualified professional engineer in accordance with Section 5(*b*)(10) or (11) or a notice from the District that they were unable to complete the Plan review within the time limits specified in the Memorandum of Agreement in Appendix E.

(viii) For construction activities within one-hundred (100) feet of any stream, river, or tributary that is included within a Cold Water Stream Habitat, as may be authorized by the Commissioner pursuant to Section 3(b)(15) of this general permit, a completed Fisheries Consultation Form or documentation of official interagency coordination between the Fisheries Division and other state agency staff.

(K) A brief description of the stormwater discharge, including:

(i) The name of the municipal separate storm sewer system or immediate surface water body or wetland to which the stormwater runoff will discharge;

(ii) Verification of whether or not the site discharges to a tidal wetland (that is not a fresh-tidal wetland) within 500 feet of the discharge point, to a high quality water or to an impaired water with or without a TMDL;

(iii) The name of the watershed or nearest waterbody to which the site discharges.

(iv) Location of the stormwater discharge(s) including latitude and longitude.

(L) The total effective impervious cover for the site before and after the proposed construction activity.

(M) Documentation that the proposed construction activity has been reviewed for consistency with state Historic Preservation statutes, regulations, and policies including identification of any potential impacts on property listed or eligible for listing on the Connecticut Register of Historic Places. A review conducted for an Army Corps of Engineers Section 404 wetland permit would meet this qualification. Refer to Appendix G for guidance on conducting the required review.

(N) An electronic copy of their Plan. The electronic Plan shall be in Adobe™ PDF format or similar publicly available format in common use. **DO NOT INCLUDE** in this Plan any pages or other material that do not pertain to stormwater management or erosion and sediment control (such as electrical and lighting plans, boundary or lot surveys, building plans, non-stormwater related detail sheets, etc.).

(O) The certification of the registrant and of the individual or individuals responsible for actually preparing the registration, in accordance with Section 3(*b*)(8) of the general permit.

(P) A design certification must be signed by a professional engineer or, where appropriate, a landscape architect in accordance with Section 3(*b*)(9) of the general permit.

(Q) For registrations for locally approvable projects a review certification must be signed by either: (i) a District representative in accordance with Section 3(*b*)(10) of the general permit, or (ii) a qualified soil erosion and sediment control professional and/or qualified professional engineer in accordance with either Section 3(*b*)(11) of the general permit.

If the registrant is not capable of submitting electronically, contact the DEEP stormwater staff at DEEP.stormwaterstaff@ct.gov.

(3) Re-Registration Form

For sites previously registered under any previous version of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" in Section 6 of the general permit, a re-registration is required. Such re-registration shall be filed electronically on forms prescribed and provided by the commissioner (available at: www.ct.gov/deep/stormwater) and shall include, but not be limited to, the following:

(A) Legal name, address, email address, and telephone number of the registrant. If the registrant is a person transacting business in Connecticut and is registered with the Connecticut

Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State.

(B) The previously issued permit number (beginning with GSN).

(C) Legal name, address, email address, and telephone number of the owner of the property on which the construction activity will take place.

(D) Legal name, address, email address, and telephone number of the primary contact for departmental correspondence and inquiries, if different from the registrant.

(E) Legal name, address, email address, and telephone number of the developer of the property on which the subject construction activity is to take place.

(F) Legal name, address, email address, and daytime and off-hours telephone numbers of the general contractor(s) or other representative(s), if different from the developer.

(G) Legal name, address, email address, and telephone number of any consultant(s) or engineer(s) retained by the permittee to prepare the registration and Stormwater Pollution Control Plan.

(H) Location address or description of the site for which the re-registration is filed.

(I) Indication of the normal working hours at the site.

(J) The estimated duration of the construction activity.

(K) The signature of the registrant and of the individual or individuals responsible for actually preparing the re-registration, each of who shall certify in writing as follows:

"I hereby certify that I am making this certification in connection with a registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY] and that all terms and conditions of the general permit are being met for all discharges which have been initiated and such activity is eligible for authorization under such permit. I further certify that all designs and plans for such activity meet the current terms and conditions of the general permit in accordance with Section 5(b)(5)(C) of such general permit and that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit at the site. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(*b*)(8)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I also understand that knowingly making any false statement made in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(e) How to Submit a Registration

A registration or re-registration (available at: www.ct.gov/deep/stormwater) shall be filed electronically with the commissioner in accordance with Section 4(*d*)(2) or (3) of the general permit. If a permittee is not capable of submitting electronically, contact the DEEP stormwater staff at DEEP.stormwaterstaff@ct.gov.

(f) Availability of Registration and Plan

The commissioner shall post on the DEEP website a list of registrations submitted. Plans will be posted electronically with the corresponding registration. On or before thirty (30) days from the date such registration is accessible to the public through posting by the commissioner, members of the public may review and comment on a registration and/or Plan. This provision shall not apply to Permittee's submitting a re-registration for sites registered under any previous version of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities and for which no Notice of Termination has been submitted pursuant to the "Termination Requirements" in Section 6 of the general permit.

(g) Additional Information

The commissioner may require a Permittee to submit additional information that the commissioner deems necessary to evaluate compliance of the subject construction activity with the requirements for authorization under this general permit.

(h) Additional Notification

(1) No later than five (5) days after submitting a registration to the commissioner, the Permittee shall provide the following additional notifications:

(A) For discharges authorized by this general permit to a regulated municipal separate storm sewer system, a notification that a registration has been submitted to the Department shall also be submitted to the owner and operator of that system.

(B) For discharges authorized by this general permit to a DOT separate storm sewer system, a copy of the registration and all attachments thereto shall also be submitted to the DOT upon request.

(C) For discharges within a public drinking water supply watershed or aquifer protection area, a copy of the registration and the Plan described in subsection 5(*b*) of this general permit shall be submitted to the water company.

(D) For discharges to river components and tributaries which have been designated as Wild and Scenic under the Wild and Scenic Rivers Act, a copy of the registration and the Plan described in 5(*b*) of this general permit shall be submitted to the applicable Wild and Scenic Coordinating Committee. Please refer to Appendix H for additional guidance.

(2) The Permittee shall ensure that a copy of the registration submitted to the Commissioner and the Plan shall be available upon request to the local inland wetlands agency established pursuant to section 22a-42 of the Connecticut General Statutes, or its duly authorized agent.

(i) Action by Commissioner

(1) The commissioner may reject without prejudice a registration that the commissioner deems insufficient. For example, if it does not satisfy the requirements of the "Contents of Registration"

section (subsection 4(*d*)) of this general permit. Any registration refiled after such a rejection shall be accompanied by the fee specified in the "Fees" subsection (subsection 4(*d*)(1)) of this general permit.

(2) The commissioner may disapprove a registration if it does not comply with the requirements of this general permit or for any other reason provided for by law. For example, if it is inconsistent with the requirements for authorization under the "Requirements for Authorization" section (Section 3(*b*)) of this general permit, or an individual permit is required pursuant to Conn. Gen. Stat. § 22a-430b(c). Disapproval of a registration under this subsection shall constitute notice to the registrant that the subject construction activity must be authorized under an individual permit.

(3) Rejection or disapproval of a registration by the commissioner shall be in writing and state the reasons for such rejection or disapproval.

(4) Pursuant to Conn. Gen. Stat. § 22a-430b(c), the commissioner may require that a person or municipality obtain an individual permit, in which case, such person or municipality will be ineligible for authorization under this general permit.

(5) When approving a registration, the commissioner may include in any such approval any term or condition the commissioner deems necessary to protect human health and the environment..

Section 5. Conditions of this General Permit

The permittee shall comply with all of the requirements of this general permit at all times. In addition, a permittee shall be responsible for conducting authorized construction activities in accordance with the following conditions:

(a) General Conditions

(1) Structures and Dredging in Coastal and Tidal Areas

Any person who or municipality that discharges stormwater into coastal tidal waters for which a permit is required under section 22a-361 of the Connecticut General Statutes (structures and dredging) or section 22a-32 of the Connecticut General Statutes (Tidal Wetlands Act), shall obtain such permit(s) from the commissioner. A tidal wetland permit is required for any regulated activity conducted within a tidal wetland, including, but no limited to, the placement of any sediment upon a tidal wetland, whether it is deposited directly or indirectly.

(2) Discharges to Tidal Wetlands

Any site which has a post-construction stormwater discharge to a tidal wetland (that is not a fresh-tidal wetland) where such discharge is within 500 feet of the tidal wetland, shall discharge such stormwater through a system designed to retain and infiltrate the volume of stormwater runoff generated by 1 inch of rainfall on the site. If there are site constraints that would prevent retention of this volume on-site (e.g., brownfields, capped landfills, bedrock, elevated groundwater, etc.), documentation must be submitted, for the commissioner's review and written approval, which explains the site limitations and offers an alternative retention volume. In such cases, the portion of 1 inch that cannot be retained must be provided with additional stormwater treatment so as to protect water quality. Any such treatment shall be designed, installed and maintained in accordance with the Stormwater Quality Manual.

For sites unable to comply with this section, the commissioner, at the commissioner's sole discretion, may require the submission of an individual permit in lieu of authorization under this general permit.

(3) Toxicity to Aquatic and Marine Life/Risk to Human Health

Any discharge authorized under this general permit shall not cause pollution due to acute or chronic toxicity to aquatic and marine life, impair the biological integrity of aquatic or marine ecosystems, or result in an unacceptable risk to human health.

(4) Water Quality Standards

Any discharge authorized under this general permit shall not cause or contribute to an exceedance of the applicable Water Quality Standards in the receiving water.

(5) High Quality Waters

Any new or increased discharge authorized under this general permit to high quality waters shall be discharged in accordance with the Anti-Degradation Implementation requirements in the Water Quality Standards, section 22a-426-8 of RCSA.

(b) Stormwater Pollution Control Plan

All Permittees shall develop and maintain on-site a Stormwater Pollution Control Plan ("Plan" or "SWPCP") for the construction activity authorized by this general permit. Once the construction activity begins, the permittee shall perform all actions required by such Plan and shall maintain compliance with the Plan at all times. The permittee shall ensure that the design and implementation of the Plan minimizes: (1) soil erosion and sedimentation during and after construction; and (2) stormwater pollution from the site after construction is completed.

(1) Development and Contents of Plan

(A) The Plan shall consist of site plan drawings and a narrative. The Plan shall be prepared in accordance with sound engineering practices, and shall be consistent with the Guidelines, the Stormwater Quality Manual (available at http://www.ct.gov/deep/stormwater) and any applicable requirements of this general permit. The Plan shall also be consistent with any remedial action plan, closure plan or other plan required by any other DEEP permit.

(B) The Plan shall include, at a minimum, the following items:

(i) Site Plan

Site drawings indicating drainage patterns and approximate slopes anticipated after major grading activities, areas of soil disturbance, the location of major structural and non-structural controls (as specified in subsection 5(*b*)(2), below), the location of areas where stabilization practices are expected to occur, areas which will be vegetated following construction, surface waters, impaired waters (identifying those with and without a TMDL), high quality waters, inland wetlands, tidal wetlands, fresh-tidal wetlands, and locations where stormwater will be discharged to a surface water (both during and post-construction);

(ii) Site Description

(a) A narrative description of the nature of the construction activity;

(b) An estimate of the total area of the site and the total area of the site that is expected to be disturbed by construction activities;

(c) An estimate of the average runoff coefficient of the site after construction activities are completed;

(d) The name of the immediate receiving water(s) and the ultimate receiving water(s) of the discharges authorized by this general permit; and

(e) Extent of wetland acreage on the site.

(iii) Construction Sequencing

The Plan shall clearly identify the expected sequence of all construction activities on the site and corresponding erosion and sediment controls and shall include an estimated timetable for all construction activities, which shall be revised as necessary to keep the Plan current. Wherever practicable, site construction activities shall be phased to avoid the disturbance of over five acres at one time (or a lesser area of disturbance as required in Section 5(*b*)(3) of the general permit regarding "Impaired Waters". In addition, permanent stormwater control measures, including, but not limited to, stormwater basins should be constructed, where practicable, in the early phases of the construction sequence. The Plan shall clearly show the limits of total disturbance for the construction activity and for each phase.

(iv) Control Measures

The Plan shall include a description, in a separate narrative and on the site plan drawings, of control measures that will be implemented at the site to minimize the discharge of pollutants. Control measures shall be implemented in accordance with Section 5(*b*)(2) of the general permit. In addition, the following information shall be provided:

(a) Calculations supporting the design of sediment and floatables removal controls pursuant to Section 5(*b*)(2)(C)(ii)(b) of the general permit.

(b) Calculations supporting the design of velocity dissipation controls pursuant to Section 5(*b*)(2)(C)(ii)(c) of the general permit.

(v) Runoff Reduction and Low Impact Development (LID) Information

Where runoff reduction practices and/or LID measures are utilized, the following information shall be included in the site plan and narrative (refer to Appendix B for guidance):

(a) The location of the site's streams, floodplains, all wetlands, riparian buffers, slopes 3:1 and steeper, and vegetation identified for preservation and non-disturbance during construction such as forested areas, hay fields, and old fields;

(b) Natural drainage patterns, swales, and other drainage ways, that are not streams, floodplains, or wetlands;

(c) The location of all areas with soils suitable for infiltration[1] and areas of the site best suited for infiltration for the siting of runoff reduction practices and LID design measures;

1 Infiltration rates must be measured by a field permeability test. The measured field design infiltration rate is equal to one-half the field-measured infiltration rate.

(d) The location of all areas unsuitable or least suitable for infiltration for the siting of areas of development/building;

(e) The location of all post-construction stormwater management measures, runoff reduction practices and LID design measures developed pursuant to subsection 5(*b*)(2)(C)(i) of the general permit;

(f) Identification of areas inappropriate for the infiltration of stormwater runoff from land uses with a significant potential for groundwater pollution;

(g) A narrative describing the nature, purpose, implementation and long-term maintenance of post-construction stormwater management measures, runoff reduction practices and LID design measures;

(h) Calculations, for measures developed pursuant to Section 5(*b*)(2)(C)(i) of the general permit, illustrating the retention of the water quality volume or half the water quality volume for the site, as applicable, including a discussion of the impact of any runoff reduction and/or LID practices on these calculations;

(i) A narrative describing any site constraints that prevent retention of the appropriate volume specified in Section 5(*b*)(2)(C)(i) of the general permit including: an explanation of the site limitations; a description of the runoff reduction practices implemented; an explanation of why the amount retained constitutes the maximum extent achievable; an alternative retention volume; and a description of the measures used to provide additional stormwater treatment for sediment, floatables and nutrients above the alternate volume up to the water quality volume; and

(j) Calculations showing the proposed effective impervious cover for the site and, where required or proposed for linear projects pursuant to Section 5(*b*)(2)(C)(i) of the general permit, each outfall drainage area.

(vi) Inspections

(a) Plan Implementation Inspections

The Plan shall include a Plan Implementation inspection checklist, a schedule for conducting inspections, and identification of the designing qualified professional (and District personnel, as appropriate) conducting such inspections and their responsibilities and procedures pursuant to subsection 5(*b*)(4)(A) of the general permit. The Plan shall also include documentation of the qualifications of the inspector and the findings, actions and results of all inspections conducted at the site. For inspection requirements for solar arrays (as defined in Section 2), see Appendix I.

(b) Routine Inspections

The Plan shall include a routine inspection checklist, schedule for conducting inspections, and identification of the qualified inspector(s) conducting the routine inspections and their responsibilities and procedures pursuant to subsection 5(*b*)(4)(B) of the general permit. The Plan shall also include documentation of the qualifications of the inspector(s) and the findings, actions and results of all inspections conducted at the site.

(c) For additional Plan Implementation and Routine Inspection requirements for solar arrays, see Appendix I.

(d) Inspection Checklists

The checklists required by (vi)(a) and (vi)(b) of this subparagraph shall include the information described in the checklist forms found at: www.ct.gov/deep/stormwater. Such inspection checklists shall comply with the requirements and conditions of Section 5(*b*)(4) of the general permit, and include a space for the qualified professional's signature and professional stamp.

(vii) Contractors

(a) The Plan shall clearly identify each contractor and subcontractor that will perform construction activities on the site that have the potential to cause pollution of the waters of the State. The Plan shall also include a copy of the certification statement pursuant to "Other Requirements for Authorization" in Section 3(*b*)(16) of the general permit, signed by each such contractor and subcontractor.

(b) Subdivisions

Where individual lots in a subdivision or other common plan of development are conveyed or otherwise the responsibility of another person or municipality, those individual lot contractors shall be required to comply with the provisions of this general permit and the Stormwater Pollution Control Plan, regardless of lot size or disturbed area. In such cases, the permittee shall provide a copy of the Plan to each individual lot contractor, obtain signed certifications pursuant to Section 3(*b*)(16)(B) of the general permit from such contractors and retain all signed certifications in the Plan.

(viii) Impaired Waters

For construction activities that discharge to impaired waters, as specified in "New Discharges to Impaired Waters" (Section 3(*b*)(13)), the Plan shall include a description of the provisions for controlling the construction and post-construction stormwater discharges to these waters pursuant to subsection 5(*b*)(3) below.

(2) Stormwater Control Measures

Control Measures are required Best Management Practices (BMPs) that the permittee must implement to minimize the discharge of pollutants from the permitted activity. The term "minimize" is defined in Section 2 of this general permit. The Permittee shall comply with the following requirements.

Control Measures shall be designed in accordance with the Guidelines, the Stormwater Quality Manual or the DOT Qualified Products List (https://portal.ct.gov/-/media/DOT/documents/dresearch/ConnDOT-Qualified-Product-List.pdf?la=en). Use of control measures to comply with the "Erosion and Sediment Controls" section (subsection (A) below) of this general permit that are not included in such references must be approved by the commissioner. The narrative and drawings of controls shall address the following minimum components:

(A) Erosion and Sediment Controls

(i) Soil Stabilization and Protection

The Plan shall include a narrative and drawings of interim and permanent soil stabilization practices for managing disturbed areas and soil stockpiles, including a schedule for implementing the practices. The Permittee shall ensure that existing vegetation is preserved to the maximum extent practicable and that disturbed portions of the site are minimized and stabilized throughout the duration of the construction activity at the site.

Regardless of any provisions for erosion control barriers prescribed in the Guidelines, the Permittee shall ensure that two rows of erosion control barriers are installed and maintained on sites with slopes equal to or greater than eight percent (8%) within the contributing drainage area to such barrier. Notwithstanding the foregoing, use of two rows of erosion control barriers shall not be required on the sites specified in this paragraph when: (i) the Commissioner determines, for a limited section or portion of such erosion control barriers, that it is necessary to accommodate animal crossing or animal movement; (ii) the Commissioner approves a Plan that includes an erosion control system whose performance is equivalent to, or exceeds, two rows of erosion control barriers; or (iii) for *linear projects*, the Commissioner has determined that two rows of erosion control barriers, when compared to one row, will cause greater adverse impact to wetlands, waters, or other sensitive resources. In such situation the Commissioner may approve a Plan with one row of erosion control barriers or an alternative erosion control system. When implementing this paragraph the Commissioner may consider the contributing disturbed area, drainage area, length of the slope, flow conditions to maintain sheet flow, the efficacy of the proposed barrier, any adverse impacts from the use of one or two rows of erosion control barriers, and any other factor the Commissioner deems necessary.

Where construction activities have permanently ceased or when final grades are reached in any portion of the site, stabilization and protection practices as specified in Chapter 5 of the Guidelines or as approved by the commissioner shall be implemented within seven days. Notwithstanding any provisions of the Guidelines, areas that will remain disturbed but inactive for at least fourteen calendar days shall receive temporary seeding or soil protection within seven days in accordance with the Guidelines unless site conditions warrant shorter time periods for these provisions.

Areas that will remain disturbed beyond the seeding season as identified in the Guidelines, shall receive long-term, non-vegetative stabilization and protection sufficient to protect the site through the winter. In all cases, stabilization and protection measures shall be implemented as soon as possible in accordance with the Guidelines or as approved by the commissioner.

Temporary or permanent vegetation or other ground cover shall be maintained at all times in all areas of the site, except those undergoing active disturbance, in order to prevent erosion and soil compaction during construction activities. All new temporary and permanent vegetation shall consist of native plant species. With respect to such vegetation, the Permittee shall not use chemical fertilization, herbicides, or pesticides except as necessary to establish such vegetation.

A reverse slope bench is required for any slope steeper than 3:1 (horizontal: vertical) that exceeds 15 feet vertically, except when engineered slope stabilization structures or measures are included or a detailed soil mechanics analysis has been conducted to

verify stability. Engineered analyses and measures must be designed by a CT licensed Professional Engineer with experience in geotechnical engineering or soil mechanics.

(ii) Wetland Protection

Where site disturbance occurs within fifty (50) feet upgradient of a wetland, wetlands, or waters as defined in Section 2 of the general permit, a double row of sediment barrier (e.g. hay bales, silt fence, wattles, etc.) shall be installed in accordance with the Guidelines between the disturbed area and any such downgradient wetland, wetlands or waters.

(iii) Structural Measures

The Plan shall include a narrative and drawings of structural measures to divert flows away from exposed soils, store flows or otherwise limit runoff and minimize the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the commissioner, or if otherwise authorized by another state or federal permit, structural measures shall be installed on upland soils.

For points of discharge from disturbed sites with a total contributing drainage area of between two to five acres, a temporary sediment trap or temporary sediment basin shall be designed and installed in accordance with the Guidelines. For points of discharge from disturbed sites with a total contributing drainage area greater than five acres, a temporary sediment basin shall be designed and installed in accordance with the Guidelines. Such trap(s) or basin(s) must be maintained until final stabilization of the contributing area as defined in "Notice of Termination" (Section 6(*a*)).

The requirement for sediment traps or basins shall not apply to flows from off-site areas and flows from areas of the site that are either undisturbed or have undergone final stabilization, provided such flows are diverted around the temporary sediment trap or basin and are approved in writing by the commissioner.

(iv) Maintenance

The Plan shall include a narrative of the procedures to maintain, in good and effective operating condition, all erosion and sediment control measures, including vegetation, and all other protective measures identified in the Plan. Maintenance of all erosion and sediment controls shall be performed in accordance with the Guidelines, or more frequently as necessary.

(B) Dewatering Wastewaters

Dewatering wastewaters shall be managed in accordance with the Guidelines. Dewatering wastewaters discharged to surface waters shall be discharged in a manner that minimizes the discoloration of the receiving waters. The Plan shall include a narrative and drawings of the operational and structural measures that will be used to ensure that all dewatering wastewaters will not cause scouring or erosion or contain suspended solids in amounts that could reasonably be expected to cause pollution of surface waters of the State. Unless otherwise specifically approved in writing by the commissioner, or if otherwise authorized by another state or federal permit, dewatering measures shall be installed on upland soils.

No discharge of dewatering wastewater(s) shall contain or cause a visible oil sheen, floating solids, or foaming in the receiving water.

(C) Post-Construction Stormwater Management

The Plan shall include a narrative and drawings of measures that will be installed during the construction process to minimize the discharge of pollutants in stormwater discharges that will occur after construction operations have been completed. Post-construction stormwater management measures shall be designed and implemented in accordance with the Stormwater Quality Manual, the DOT Qualified Products List or as approved by the commissioner. Unless otherwise specifically provided by the commissioner in writing, or authorized by another state or federal permit, structural measures shall be placed on upland soils. The Plan shall include provisions to address the long-term maintenance of any post-construction stormwater management measure installed.

(i) Post-Construction Performance Standards

The permittee shall utilize runoff reduction practices (as defined in Section 2 of the general permit) to meet runoff volume requirements based on the conditions below.

(a) Redevelopment

For sites that are currently developed with an effective impervious cover of forty percent or more and for which the permittee is proposing redevelopment, the permittee shall design the site in such a manner as to retain on-site half the water quality volume (as defined in Section 2 of the general permit) for the site and provide additional stormwater treatment without retention for discharges up to the full water quality volume for sediment, floatables and nutrients to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In cases where the permittee is not able to retain half the water quality volume (e.g., brownfields, capped landfills, bedrock, elevated groundwater, etc.), the permittee shall design the redevelopment to retain runoff volume to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In such cases, additional stormwater treatment up to the full water quality volume is still required. Any such treatment shall be designed, installed and maintained in accordance with the Stormwater Quality Manual. If retention of half the water quality volume is not achieved, the permittee shall submit a report for the commissioner's review and written approval describing: the measures taken to maximize runoff reduction practices on the site; the reasons why those practices constitute the maximum extent achievable; the alternative retention volume; and a description of the measures used to provide additional stormwater treatment above the alternate volume up to the water quality volume.

(b) Linear Redevelopment

In the case of linear redevelopment projects (e.g. roadway reconstruction or widening or public utility rights of way) for the developed portion of the right of way: (1) for projects that may be unable to comply with the retention of the appropriate portion of the water quality volume specified in subparagraphs (a) and (c) of this subsection, the alternate retention and treatment provisions may also be applied as specified in such subparagraphs, or (2) for projects that will not increase the effective impervious cover within a given watershed, the permittee shall implement the additional stormwater treatment measures referenced in subsections (a) and (c) of this subsection, but will not be required to retain the appropriate portion of the water quality volume specified in such paragraphs.

(c) Other Development

The following performance standard applies to all sites that are currently undeveloped or are currently developed with less than forty percent effective impervious cover. For these sites, the permittee shall design the site to retain the water quality volume for the site. If there are site constraints that would prevent retention of this volume on-site (e.g., brownfields, capped landfills, bedrock, elevated groundwater, etc.), documentation must be submitted, for the commissioner's review and written approval, which: explains the site limitations; provides a description of the runoff reduction practices implemented; provides an explanation of why this constitutes the maximum extent achievable; offers an alternative retention volume; and provides a description of the measures used to provide additional stormwater treatment for sediment, floatables and nutrients above the alternate volume up to the water quality volume. In the case of linear projects that do not involve impervious surfaces (e.g. electrical transmission rights-of-way or natural gas pipelines), retention of the water quality volume is not required as long as the post-development runoff characteristics do not differ significantly from pre-development conditions.

(ii) Post-Construction Control Measures

(a) Runoff Reduction and Low Impact Development ("LID") Practices

The site design shall incorporate runoff reduction practices, low impact development ("LID") practices or other post-construction control measures to meet the performance standards in subsection (i) above, promote groundwater recharge and minimize post-construction impacts to water quality. Please refer to Appendix B for additional guidance information.

(b) Suspended Solids and Floatables Removal

The permittee shall install post-construction stormwater control measures designed to minimize the discharge of suspended solids and floatables (e.g. oil and grease, other floatable liquids, floatable solids, trash, etc.) from stormwater. A goal of 80 percent removal of the annual sediment load from the stormwater discharge shall be used in designing and installing such stormwater control measures. The Plan shall provide calculations supporting the capability of such measures in achieving this goal and any third-party verification, as applicable, of the sediment removal efficiencies of such measures. This goal is not intended to limit local approval authorities from requiring a higher standard pursuant to local requirements.

(c) Velocity Dissipation

Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow to receiving waters so that the natural physical and biological characteristics and functions of such waters are maintained and protected.

(D) Other Controls

The following additional controls shall be implemented:

(i) Waste Disposal

Best management practices shall be implemented to minimize the discharge of litter, debris, building materials, hardened concrete waste, or similar materials to waters of the State. A narrative of these practices shall be provided in the Plan. In addition, the dumping of liquid wastes in storm sewers is prohibited.

(ii) Washout Areas

Washout of applicators, containers, vehicles and equipment for concrete, paint and other materials shall be conducted in a designated washout area. There shall be no surface discharge of washout wastewaters from this area. Such washout shall be conducted: (1) outside of any buffers and at least 50 feet from any stream, wetland or other sensitive resource; or (2) in an entirely self-contained washout system. The permittee shall clearly flag off and designate areas to be used for washing and conduct such activities only in these areas. The permittee shall direct all washwater into a container or pit designed such that no overflows can occur during rainfall or after snowmelt. At least once per week, the permittee shall inspect all of the containers or pits used for washout to ensure structural integrity, adequate holding capacity, and to check for leaks or overflows. If there are signs of leaks, holes or overflows in the containers or pits that could lead to a discharge, the permittee shall repair them prior to further use.

For concrete washout areas, the permittee shall remove hardened concrete waste whenever the hardened concrete has accumulated to a height of ½ of the container or pit or as necessary to avoid overflows. The permittee shall remove and dispose of such hardened concrete waste in accordance with the practices developed for "Waste Disposal" (see Section 5(*b*)(2)(D)(i) of this general permit).

A narrative of maintenance procedures and a record of maintenance and inspections shall be included in the Plan.

(iii) Off-site Vehicle Tracking/Dust Suppression

Off-site vehicle tracking of sediments and the generation of dust shall be minimized. Wet dust suppression shall be used, in accordance with section 22a-174-18(c) of the Regulations of Connecticut State Agencies, for any construction activity that causes airborne particulates. The volume of water sprayed for controlling dust shall be minimized so as to prevent the runoff of water. No discharge of dust control water shall contain a visible oil sheen, floating solids, visible discoloration, or foaming agents or cause a visible sheen, floating solids, visible discoloration, or foaming in any receiving waters.

(iv) Cleaning

All post-construction stormwater structures shall be cleaned of construction sediment and any remaining silt fence shall be removed upon stabilization of the site.

(v) Storage of Chemical and Petroleum Products

All chemical and petroleum product containers stored on the site (excluding those contained within vehicles and equipment) shall be stored within an impermeable containment system that is free of gaps and cracks, can contain any leaks or spills and accumulated precipitation until the collected materials are detected and removed, and

which can hold at least 110% of the volume of the largest container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment system. In addition, all chemicals and petroleum products shall be stored under a roofed area except for those chemicals stored in containers of 100 gallon capacity or more, in which case a roof is not required. Double-walled tanks satisfy the requirements of this paragraph for containment and roofing.

(vi) Cold Water Stream Habitat

For construction activities within one hundred (100) feet of any stream, river, or tributary that is included within a Cold Water Stream Habitat, as may be authorized by the Commissioner pursuant to Section 3(*b*)(15) of this general permit, any mitigation strategies authorized by the commissioner must be verified post-construction.

(3) Additional Control Measures for Impaired Waters

Construction activities discharging directly to impaired waters that do not comply with this subsection are not authorized by this general permit. For construction activities that discharge directly to impaired waters, as specified in "New Discharges to Impaired Waters" (Section 3(*b*)(13) of this general permit), the Plan shall include the following provisions:

(A) In lieu of the provisions regarding "Construction Sequencing" in Section 5(*b*)(1)(B)(iii) of this general permit, no more than 3 acres may be disturbed at any one time. For those areas for which construction activity will be temporarily suspended for a period of greater than 14 days, temporary stabilization measures shall be implemented within 3 days of such suspension of activity. For all areas, permanent stabilization shall be implemented within 30 days of disturbance; ***or***

(B) The Plan shall document that measures are in place to ensure that there will be no discharge to the impaired water from rain events up to a 2-year, 24-hour rain event while construction activity is occurring; ***or***

(C) For discharges to impaired waters with an established TMDL, the requirements for stormwater discharges specified in the TMDL shall be met, or:

(i) the Plan shall document that there is sufficient remaining Waste Load Allocation (WLA) in the TMDL to allow the discharge;

(ii) measures shall be implemented to ensure the WLA will not be exceeded; ***and***

(iii) stormwater discharges shall be monitored, if applicable, for any indicator pollutant identified in the TMDL for every rain event that produces a discharge to ensure compliance with the WLA.

(4) Inspections

All construction activities authorized by this general permit shall be inspected initially for Plan implementation and then weekly for routine inspections. Upon project completion and prior to submission of a Notice of Termination, post-construction and final stabilization inspections shall also be conducted. For inspections at solar arrays, see additional requirements in Appendix I.

(A) Plan Implementation Inspections

Prior to commencement of each phase of the construction activity on the site, the permittee shall contact the designing qualified professional and, for locally exempt projects including, but not limited to, solar arrays subject to Appendix I, the appropriate District to ensure that all required inspections are conducted. For each phase of construction, the site shall be inspected at least once within the first thirty (30) days of construction activity and at least three times, with seven (7) or more days between inspections, within the first ninety (90) days of construction activity to confirm compliance with the general permit and proper initial implementation of all control measures designated in the Plan for each phase of construction. The following conditions shall apply:

(i) for all projects not conducted by a state agency and which disturb more than one (1) acre, the inspector shall be someone who:

(a) is not an employee, as defined by the Internal Revenue Service in the Internal Revenue Code of 1986, of the registrant, and

(b) has no ownership interest of any kind in the project for which the registration is being submitted.

(ii) for projects conducted by a state agency and which disturb more than one (1) acre, the inspector shall be someone who:

(a) meets the requirements in subparagraph (i), above, or

(b) is included in the list of qualified professionals specified in Section 3(*b*)(12)(B) of the general permit.

(B) Routine Inspections

The permittee shall routinely inspect the site for compliance with the general permit, including, but not limited to, compliance with the Plan for the site, until a Notice of Termination under Section 6 of the general permit has been submitted to the Commissioner. Inspection procedures for these routine inspections shall comply with the following:

(i) The permittee shall maintain a rain gauge on-site to document rainfall amounts. At least once a week and within 24 hours of the end of a storm that generates a discharge, a qualified inspector (provided by the permittee), shall inspect, at a minimum, the following: disturbed areas of the construction activity that have not been finally stabilized; all erosion and sediment control measures; all structural control measures; all soil stockpile areas; all washout areas and locations where vehicles enter or exit the site. For storms that end on a weekend, holiday or other time after which normal working hours will not commence within 24 hours, a routine inspection is required within 24 hours only for storms that equal or exceed 0.5 inches. For storms of less than 0.5 inches, an inspection shall occur immediately upon the start of the subsequent normal working hours.

In areas of the site where temporary stabilization has been implemented, a routine inspection shall be conducted at least weekly until final stabilization has been achieved. Once all post-construction stormwater measures have been installed in accordance with the Post-Construction Stormwater Management section (subsection 5(*b*)(2)(C) of this general permit) and cleaned of any construction sediment or debris, a post-construction inspection shall be conducted in accordance with subsection (C), below. For sites that

have implemented final stabilization, a routine inspection shall be conducted in accordance with subsection (D), below.

(ii) During each routine inspection the qualified inspector(s) shall, among other things, evaluate the effectiveness of erosion and sediment controls, structural controls, stabilization practices, and any other controls implemented to prevent pollution and determine if it is necessary to install, maintain, or repair such controls and/or practices to improve the quality of stormwater discharge(s). In addition, during each routine inspections the site including, but not limited to, all of the areas noted in the preceding paragraph, shall be inspected for evidence of, or the potential for, pollutants discharging to waters, or entering the drainage system and impacts to the receiving waters. Locations where vehicles enter or exit the site shall also be inspected for evidence of off-site sediment tracking.

(iii) The qualified inspector conducting routine inspections shall prepare a report of each inspection. Each such report shall be retained as part of the Plan. A copy of each inspection report shall be submitted electronically in accordance with Section 5(*c*)(2) of the general permit. This report shall summarize: the scope of the inspection; name(s) and qualifications of personnel conducting the inspection; the date(s) of the inspection; weather conditions including precipitation information; major observations relating to erosion and sediment controls and the implementation of the Plan; a description of the stormwater discharge(s) from the site; and any water quality monitoring performed during the inspection. The report shall be signed by the permittee or his/her authorized representative in accordance with the "Certification of Documents," see Section 5(*h*) of this general permit.

The report shall include a statement that, in the judgment of the qualified inspector(s) conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the Plan and permit. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance. Non-engineered corrective actions (as identified in the Guidelines) shall be implemented on site within 24 hours and incorporated into a revised Plan within three (3) calendar days of the date of inspection unless another schedule is specified in the Guidelines. Engineered corrective actions (as identified in the Guidelines) shall be implemented on site within seven (7) calendar days and incorporated into a revised Plan within ten (10) calendar days of the date of inspection, unless another schedule is specified in the Guidelines or is approved by the commissioner. During the period in which any corrective actions are being developed and have not yet been fully implemented, interim measures shall be implemented to minimize the potential for the discharge of pollutants from the site.

(iv) Inspectors from the DEEP and the appropriate District, where applicable, may inspect the site to verify compliance with this general permit at any time construction activities are ongoing, and upon completion of construction activities, until a Notice of Termination has been accepted by the Commissioner pursuant to Section 6 of the general permit.

(C) Post-Construction Inspection

(i) For locally approvable projects, once all post-construction stormwater measures have been installed in accordance with Section 5(*b*)(2)(C) of the general permit, Post-Construction Stormwater Management, and cleaned of any construction sediment or debris, the Permittee shall ensure that the appropriate Conservation District or a qualified soil erosion and sediment control professional or a qualified professional

engineer, as appropriate, inspects the site to confirm compliance with the post-construction stormwater management requirements. The permittee shall ensure that the person inspecting the site pursuant to this paragraph is not an employee, as defined by the Internal Revenue Service in the Internal Revenue Code of 1986, of the Permittee and that such person has no ownership interest of any kind in the project for which the site's registration was submitted. A report shall be prepared and certified in accordance with Sections 6(*a*) and (*b*) of the general permit to indicate compliance with this requirement on the Notice of Termination form.

(ii) For locally exempt projects except those conducted by state agencies, once all post-construction stormwater measures have been installed in accordance with the Section 5(*b*)(2)(C) of the general permit, "Post-Construction Stormwater Management", and cleaned of any construction sediment or debris, the permittee shall ensure that a qualified soil erosion and sediment control professional or a qualified professional engineer inspects the site to confirm compliance with the post-construction stormwater management requirements of the general permit. A report shall be prepared and certified in accordance with Sections 6(*a*) and (*b*) of the general permit to indicate compliance with this requirement on the Notice of Termination form.

(iii) For projects conducted by state agencies, once all post-construction stormwater measures have been installed in accordance with the Post-Construction Stormwater Management section (subsection 5(*b*)(2)(C)) and cleaned of any construction sediment or debris, the DOT District Engineer or his/her designee and/or DOT District Environmental Coordinator, or the designated employee of another state agency, will inspect the site to confirm compliance with the post-construction stormwater management requirements of the general permit.

(D) Final Stabilization Inspection

For all projects, once the site has achieved final stabilization for at least one full growing season (April – October) in the year following the end of construction, the Permittee shall have the site inspected by a qualified inspector to confirm such stabilization is maintained. The Permittee shall indicate compliance with this requirement on the Notice of Termination form.

(5) Keeping Plans Current

The Permittee is responsible for keeping their Plan in compliance with this general permit at all times. This may involve any or all of the following:

(A) The permittee shall amend the Plan if the actions required by the Plan fail to prevent pollution or unauthorized discharges to the waters of the state, or fail to comply with any other provision of this general permit. The Plan shall also be amended whenever there is an addition of or change in contractors or subcontractors at the site, the designing qualified professional, District personnel, or a change in design, construction, operation, or maintenance at the site which has not otherwise been addressed in the Plan.

The permittee shall submit a new registration to the commissioner in accordance with Section 4 of this general permit if the amount of disturbed area increases from the amount specified in the registration approved by the Commissioner or there are changes to engineered or non-engineered construction or post-construction control measures that have the potential to increase the quantity or quantity of pollution in the site's stormwater discharges. Such new registration shall be submitted before any such increases or changes are implemented.

(B) The commissioner may notify the permittee at any time that the Plan or the site does not meet one or more requirements of this general permit. Within seven (7) days of such notice, or such other time as the commissioner may allow, the permittee shall make the required changes to the Plan and perform all actions required by such revised Plan. Within 15 days of such notice, or such other time as the commissioner may allow, the permittee shall submit to the commissioner a written certification that the requested changes have been made and implemented and such other information as the commissioner requires. Any such certification or information shall be submitted in accordance with the 'Duty to Provide Information" and "Certification of Documents," Sections 5(*g*) and 5(*h*) of this general permit.

(C) For any stormwater discharges authorized under any previous version of this general permit, the Permittee shall, excluding any provisions for which an exemption is provided for in Section 4(*c*)(3)(C) of the general permit, update their Plan prior to their re-registration pursuant to Section 4(*c*)(3) of the general permit, and in no case later than one hundred twenty (120) days after the effective date of this general permit to ensure and maintain compliance with any applicable term and condition of this general permit. For previously authorized sites discharging to impaired waters or other sensitive areas, the commissioner may require additional control measures or provide authorization under an individual permit pursuant to Sections 4(*i*) and 3(*i*).

(D) The Permittee shall ensure that any person keeping this Plan or part thereof current, under the Keeping Plans Current section of this permit, has qualifications that would be required under this general permit to initially prepare the Plan or part thereof.

(E) The permittee shall retain as part of the Plan all modifications, and any documentation associated with each modification, made under this section.

(6) Failure to Prepare, Maintain or Update Plan

In no event shall failure to complete, maintain or update a Plan, in accordance with the "Development of Contents of the Plan" and "Keeping Plans Current" sections (subsections 5(*b*)(1) and 5(*b*)(5)) of this general permit, excuse non-compliance or relieve a permittee of responsibility to implement any actions required to protect the waters of the state or comply with the requirements of this permit.

(7) Plan Signature

The Plan shall be signed and certified as follows:

(A) The Plan shall be signed by the permittee in accordance with the Section 5(*h*) of this general permit, "Certification of Documents".

(B) The Plan shall include certification by all contractors and subcontractors in accordance with Section 5(*b*)(1)(B)(vii)) of this general permit, "Contractors".

(C) The Plan shall include a copy of the certification by a professional engineer or landscape architect made in accordance with Section 3(*b*)(9) of this general permit.

(8) Plan Review Certification

For a locally approvable project pursuant to Section 4(*c*) of this general permit, a copy of the Plan review certification made in accordance with Section 3(*b*)(10) or (11) of this general permit, as

applicable, shall be maintained with the Plan. (Note: Construction activities reviewed and certified pursuant to those sections are still subject to the local erosion and sediment control and stormwater management regulations of the municipality in which the activity is conducted.)

(9) Plan Submittal

The Permittee shall ensure that the Plan is submitted to the commissioner and other parties as follows:

(A) For all Locally Exempt Projects with greater than one acre of soil disturbance, the Permittee shall submit an electronic copy of the Plan and a completed Registration Form to the commissioner.

(B) For Locally Approvable projects, the permittee shall provide an electronic copy of the Plan and a completed Registration Form to the commissioner. In addition, a completed Registration Form for this general permit shall be submitted to the following persons immediately upon request:

(i) The municipal planning commission, zoning commission and/or inland wetlands agency, or its respective enforcement officer or designated agent; and

(ii) In the case of a stormwater discharge through a municipal separate storm sewer system, the municipal operator of the system; and

(iii) In the case of a stormwater discharge located within a public drinking water supply watershed or aquifer area, the water company responsible for that water supply.

DO NOT SUBMIT any information that does not pertain to stormwater management or erosion and sediment control (such as electrical and lighting plans, boundary or lot surveys, building plans, non-stormwater related detail sheets, etc.). Any plans stamped "not for construction" will not be accepted.

(c) Reporting and Record Keeping Requirements

(1) Record Keeping

(A) For a period of at least five years from the date the Notice of Termination is accepted by the Commissioner, the permittee shall retain copies of the Plan and all reports required by this general permit, and records of all data used to complete the registration for this general permit, unless the commissioner specifies another time period in writing.

(B) The permittee shall retain an updated copy of the Plan required by this general permit at the construction site from the date construction is initiated at the site until the date construction at the site is completed.

(C) Inspection records must be retained as part of the Plan for a period of five (5) years after the date of inspection. In addition, the following inspection reports shall be kept on-site with the Plan and shall be submitted to the Commissioner upon request:

(i) Plan Implementation Inspections conducted in accordance with Section 5(*b*)(4)(A) and recorded on checklist forms prepared pursuant to Section 5(*b*)(1)(B)(vi)(a).

(ii) Routine Inspections conducted in accordance with Section 5(*b*)(4)(B) and recorded on checklist forms prepared pursuant to Section 5(*b*)(1)(B)(vi)(b).

(D) Plan Modification

Plan modifications made pursuant to Section 5(*b*)(5) of this general permit and any documentation associated with such modification shall be kept on-site with the Plan.

(2) Reporting

(A) The reports specified in this section shall be provided to the Commissioner within the timeframe specified in any request by the Commissioner, and if no timeframe is specified, no later than thirty (30) days after the date of any such request. If requested by the Commissioner, the reports shall be submitted to the Commissioner using NetDMR in the manner specified in subsection (B), below.

(B) NetDMR Reporting

The permittee shall submit all reporting of inspections, Plan updates or other reporting electronically using NetDMR, a web-based tool that allows Permittees to electronically submit stormwater reports through a secure internet connection. Unless otherwise approved in writing by the commissioner, no later than thirty (30) days after authorization under this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

(i) Submittal of NetDMR Subscriber Agreement

At or before the time the Permittee submits a registration for this permit, the Permittee and/or the person authorized to sign the Permittee's reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at deep.netdmr@ct.gov and initiate the NetDMR subscription process for electronic submission of Stormwater Report information. Information on NetDMR is available on the Department's website at www.ct.gov/deep/netdmr. On or before the date of authorization under this permit the Permittee shall submit a signed and notarized copy of the *Connecticut DEEP NetDMR Subscriber Agreement* to the Department.

(ii) Submittal of Reports and other documents Using NetDMR

Unless otherwise approved by the commissioner, on or before thirty (30) days following authorization under this permit, the Permittee and/or the Signatory Authority shall electronically submit reports and any other documents required under this permit or by request of the Commissioner to the Department using NetDMR in satisfaction of the requirements of Section 5(*c*)(2)(A) of this permit.

Reports shall be submitted electronically to the Department no later than fifteen (15) days following the completed reporting period. NetDMR is accessed from: http://www.epa.gov/netdmr.

(iii) Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting reports, the commissioner may approve an alternative for the submission of reports. Any such request shall be submitted in writing to the Department for written approval on or before the Permittee's date of permit authorization. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and

shall thereupon expire. At such time, reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed request for an alternative and such request is approved by the Department.

All requests under this provision and requests for the NetDMR subscriber form should be sent to the following address or by email at deep.netdmr@ct.gov:

Attn: NetDMR Coordinator
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(d) Regulations of Connecticut State Agencies Incorporated into this General Permit

The permittee shall comply with sections 22a-430-3 and 22a-430-4 of the Regulations of Connecticut State Agencies which are hereby incorporated into this general permit, as if fully set forth herein.

(e) Reliance on Registration

In evaluating a registration submitted under this general permit, the commissioner has relied on information provided by the registrant. If such information proves to be false or incomplete, any authorization reliant on such information may be suspended or revoked in accordance with law, and the commissioner may take any other action authorized by law.

(f) Duty to Correct and Report Violations

Upon learning of any violation of this general permit, including, but not limited to, any failure to follow the Plan or any adverse impacts on wetlands or waters a permittee shall immediately cease all construction activities and take all reasonable action to determine the cause of such violation, return to compliance, correct and mitigate the results of such violation, and prevent such violation from recurring. Construction activities shall not recommence until such reasonable action(s) have been taken and such violation and/or adverse impacts have been corrected and compliance has been restored. The permittee shall ensure that any violations of the terms and conditions of the general permit, including but not limited to, the Plan, identified during an inspection or at any other time, that result in the potential to discharge pollutants to waters of the state are reported to the commissioner within two (2) hours of discovery, or, for those violations discovered outside normal business hours, at the start of the next business day. Violations shall be reported to the DEEP stormwater staff at deep.stormwaterstaff@ct.gov and by calling (860) 424-3025. Furthermore, within five (5) days of discovery of a violation, the Permittee shall prepare and submit to the commissioner a written report signed by the Permittee, which documents the cause of the violation, duration including dates and times, and corrective action taken to address the violation and any action taken or planned to prevent future occurrences. Such information shall be filed in accordance with Section 5(*h*) of this general permit, "Certification of Documents".

In addition, nothing in this section shall affect any other action the commissioner is authorized to take regarding a violation of this general permit.

(g) Duty to Provide Information

The commissioner may request any information pertinent to the construction activity or concerning the Permittee's compliance with this general permit. If requested, the permittee shall provide any such information within fifteen (15) days of such request or other time period as may be specified in writing by the commissioner.

(h) Certification of Documents

Unless otherwise specified in this general permit, any document, including but not limited to any notice, information or report, which is submitted to the commissioner under this general permit shall be signed by the permittee, or a duly authorized representative of the permittee, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

(i) Date of Filing

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word "day" as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

(j) False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes.

(k) Correction of Inaccuracies

Within fifteen (15) days after the date a permittee becomes aware of a change in any information submitted pursuant to this general permit, or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be filed in accordance with the certification requirements prescribed in Section 5(*h*) of this general permit.

(l) Transfer of Authorization

Any authorization issued by the commissioner under this general permit is transferable only in accordance with the provisions of section 22a-6o of the General Statutes. Any person or municipality proposing to transfer any such authorization shall submit a license transfer form to the commissioner. For state projects, the Permittee must be contractually authorized to conduct the transfer. The transferee is not authorized to conduct any activities under this general permit until the transfer is approved by the commissioner. The transferee may adopt by reference the Plan developed by the transferor. The transferee shall update the Plan as required by Section 5(*b*)(5) of this general permit, "Keeping Plans Current".

(m) Other Applicable Requirements

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local requirements, including but not limited to the obligation to obtain any other required authorizations or licenses.

(n) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or construction activity affected by such general permit. In conducting any construction activity authorized hereunder, the permittee shall not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 6. Termination Requirements

(a) Notice of Termination

At the completion of a construction project the Permittee shall submit a Notice of Termination in accordance with the requirements of this section. A project shall be considered complete after all post-construction measures are installed, cleaned, functioning, and inspected and the site has achieved final stabilization and inspection (see Sections 5(*b*)(4)(C) & (D) of the general permit, respectively) for at least one full growing season (i.e. April through October) in the year following the cessation of construction activities. Final stabilization must be achieved for all phases of construction, and for solar projects, any additional requirements in Appendix I complied with, before a Notice of Termination may be submitted.

(b) Termination Form

A Notice of Termination shall be filed on forms prescribed and provided by the commissioner and shall include the following:

(1) The permit number as provided to the permittee on the permit certificate;

(2) The name of the registrant as reported on the general permit registration form (DEEP-PED-REG-015), or if a license transfer has been approved by the commissioner, the name of the permittee on a license transfer form;

(3) The address of the completed construction site;

(4) The dates when:

(A) Construction was completed;

(B) All storm drainage structures were cleaned of construction debris pursuant to the "Other Controls" section (subsection 5(*b*)(2)(D)) of this general permit;

(C) The post-construction inspection was conducted pursuant to Section 5(*b)(*4)(C);

(D) The final stabilization inspection was conducted pursuant to Section 5(*b*)(4)(D).

(5) A description of the post-construction activities at the site; and

(6) Signatures of:

(A) The permittee; and

(B) The person who conducted the post-construction inspection pursuant to Section 5(*b*)(4)(C) of the general permit.

(C) The person who conducted the final stabilization inspection pursuant to Section 5(*b*)(4)(D) of the general permit.

(c) Where to File a Termination Form

A termination form shall be filed with the commissioner at the following address:

WATER PERMITTING AND ENFORCEMENT DIVISION/STORMWATER GROUP
BUREAU OF MATERIALS MANAGEMENT & COMPLIANCE ASSURANCE
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Section 7. Commissioner's Powers

(a) Abatement of Violations

The commissioner may take any action provided by law to abate a violation of this general permit, including but not limited to penalties of up to $25,000 per violation per day under Chapter 446k of the Connecticut General Statutes, for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Permit Application

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit, the permittee shall file an application for an individual permit within thirty (30) days of receiving the commissioner's notice or such other time that the commissioner specified in the notice to the permittee. While such application is pending before the commissioner, the permittee shall continue to comply with the terms and conditions of this general permit. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued: November 25, 2022

Tracy R. Babbidge
for Katherine S. Dykes
Commissioner

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

APPENDIX A

Endangered and Threatened Species

In order to be eligible for coverage under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("GP" or "the GP"), under section 3(*b*)(2) of the GP, a registrant must ensure that the construction activity, as defined in Section 2 of the GP, does not threaten the continued existence of any state or federal species listed as endangered or threatened ("listed species") or result in the destruction or adverse modification of any habitat associated with such species.

In order to prevent significant, unforeseen delays in the processing of a registration under the GP, registrants should assess compliance with section 3(*b*)(2) early in the planning stages of a project. The Department of Energy and Environmental Protection ("the Department") strongly recommends that this assessment *be initiated up to one year, or more,* prior to the projected construction initiation date, and even before the purchase of the site of the construction activity. At a minimum, registrants must assess compliance with section 3(*b*)(2) prior to submission of the Registration Form for the GP.

This Appendix describes the ways that a registrant can comply with section 3(*b*)(2) of the GP. In connection with the filing of a registration a registrant can perform a self-assessment described in Section 1, seek a limited two-year determination or a safe harbor determination from the Department's Wildlife Division under Sections 2 or 3, respectively, or stipulate in writing to the presence of listed species or any habitat associated with such species and develop a mitigation plan pursuant to Section 5 of this Appendix. While some means of compliance are more limited than others, the options set out in this Appendix are not mutually exclusive and all options remain available to a registrant. For example, a registrant may perform a self-assessment under Section 1 and seek a safe harbor determination under Section 3 of this Appendix. Provided the requirements of this Appendix are met, the choice of how to proceed is the registrant's.

Section 1. Self Assessment through Natural Diversity Database Map Review and Screening

Before submission of a registration for coverage under this GP, a registrant must review the current versions of the Department's Natural Diversity Data Base ("NDDB") maps. Except as provided for in Sections 2, 3 or 5 of this Appendix, such review must occur no more than six months before such submission. Such review provides a method for screening whether the Department is already aware of listed species that may be present on the site of the construction activity. These maps can be viewed online at:

CT DEEP Natural Diversity Data Base Maps
CTECO Webpage (in the interactive Map Viewer)

Screening

The site of the construction activity must be compared to the shaded areas depicted on the NDDB map to determine if the site is entirely or partially within a shaded area. If the site is entirely or partially within a shaded area for a listed species a registrant can only achieve compliance with section 3(*b*)(2) of the GP by obtaining a limited two-year determination under Section 2, a safe harbor determination under Section 3, or an approved mitigation plan under Section 5 of this Appendix from the Department's Wildlife Division.

If the site of the construction activity is not entirely or partially within a shaded area, then the Department is not aware of any listed species at the site of the construction activity. Based upon this screening, and provided the registrant has no reasonably available verifiable, scientific or other credible information that the construction activity could reasonably be expected to violate section 3(*b*)(2) of the GP, when completing the Registration Form for this GP a registrant may check the box that indicates that the construction activity will not impact federal or state listed species.

A registrant using only self-assessment under this section may utilize the results of any such self-assessment for up to, but no more than, six months from the date of such assessment. Note, however, that the NDDB maps are not the result of comprehensive state-wide field investigations, but rather serve as a screening tool. Using such maps as a screening tool does not provide a registrant with an assurance that listed species or their associated habitat may not be encountered at the site of the construction activity. Notwithstanding the NDDB screening results, if a listed species is encountered at the site of the construction activity, the registrant shall promptly contact the Department and may need to take additional action to ensure that the registrant does not violate section 3(*b*)(2) of the GP.

Section 2. Obtaining a Limited Two-Year Determination

A registrant may seek a written determination from the Department's Wildlife Division, good for two years, that the proposed construction activity complies with section 3(*b*)(2) of the GP. To obtain this limited two-year determination, a registrant must, in addition to conducting the NDDB map review in Section 1 of this Appendix, provide the Department's Wildlife Division with (1) any reasonably available verifiable, scientific or other credible information about whether the construction activity could reasonably be expected to result in a violation of section 3(*b*)(2) of the GP, and (2) limited information about the site of the proposed construction activity, but less information than would be necessary for a safe harbor determination under Section 3 of this Appendix. The limited information necessary for a two-year determination is on the current "Request for Natural Diversity Database (NDDB) State Listed Species Review" form on the Department's website. The form and instructions for seeking such a limited two-year determination are available at www.ct.gov/DEEP/nddbrequest.

Provided the registrant's information is accurate and the Department's Wildlife Division determines that the construction activity will not violate section 3(*b*)(2) of the GP, the registrant shall receive a limited two-year determination from the Department. Any such determination may indicate that the construction activity will not impact listed species or their associated habitat, or it may include specific conditions to be implemented to avoid or significantly minimize any impacts that may be encountered at the site of the construction activity. For purposes of submitting a registration for the GP, any such limited two-year determination can be relied upon by the person receiving such determination for two years from the date of such determination. Like, however, the NDDB screening procedure in Section 1 of this Appendix, a limited two-year determination does not provide a registrant with an assurance that listed species or their associated habitat may not be encountered at the site of the construction activity. If a listed species is encountered, the registrant shall promptly contact the Department and may need to take additional action to ensure that the construction activity does not violate section 3(*b*)(2) of the GP.

If a registrant receives a limited two-year determination from the Department, the registrant should check the limited two-year determination box on the GP registration form and include the Department's two-year limited determination letter with the GP Registration form. Checking the limited two-year determination box on the registration form and failing to provide the determination letter from the Department's Wildlife Division with the GP Registration form will delay and may prevent processing of a registration.

If based upon the information provided by a registrant seeking a limited two-year determination the Department's Wildlife Division determines that the construction activity could impact listed species or their associated habitat, or that the Department needs additional information to make a limited two-year determination, the registrant may still achieve compliance with section 3(*b*)(2) of the GP through providing additional information pursuant to Section 4 or developing a mitigation plan pursuant to Section 5 of this Appendix.

A registrant may request one or more one-year extensions to a limited two-year determination under this section. If the Department's Wildlife Division has prescribed a form for requesting an extension, any such request shall be made using the prescribed form. There is a presumption that requests for a one-year extension of a limited two-year determination shall be granted. However, this presumption can be rebutted if the Department determines that a change in any of the following has occurred since an initial limited two-year determination or any extension was granted: the construction activity affecting or potentially affecting listed species or their associated habitat; the NDDB maps for the site of the construction activity; the limited information upon which a limited two-year determination or any extension was granted; or other information indicative of a change in circumstance affecting listed species or their associated habitat. Any one-year extension granted under this paragraph shall run from the date the Department's Wildlife Division issues its determination to grant an extension and shall be treated under the same conditions as a limited two-year determination as provided for in this section. Any letter granting a one-year extension shall be included with a registration along with the original limited two-year determination as provided for in this section.

Section 3. Obtaining a Safe Harbor Determination

A registrant may seek a written determination from the Department's Wildlife Division, good for three years, with the potential to be extended for an additional year, that proposed construction activity complies with section 3(*b*)(2) of the GP. Any such determination shall constitute a "safe harbor" for purposes of section 3(*b*)(2) of the GP.

To obtain a safe harbor determination, a registrant must, in addition to conducting the NDDB review in section 1 of this Appendix, provide the Department's Wildlife Division with any reasonably available verifiable, scientific or other credible information about whether the construction activity could reasonably be expected to result in a violation of section 3(*b*)(2) of the GP and specific information about the site of the construction activity. The specific information necessary for a safe harbor determination is listed in Attachment A to this Appendix. This information must be sufficient to allow the Wildlife Division to adequately assess the site for potential risks to listed species and their associated habitat. While the Department recognizes certain information is necessary to make a safe harbor determination, it also recognizes that a registrant may need to obtain a safe harbor determination early in its project's approval process in order to make prudent business decisions about purchasing a site or proceeding to final project designs. The form and instructions for seeking a safe harbor determination are available at www.ct.gov/DEEP/nddbrequest.

Provided the registrant's information is accurate and the Department's Wildlife Division determines that the construction activity will not violate section 3(*b*)(2) of the GP, the registrant shall receive a safe harbor determination from the Department. A safe harbor determination may indicate that the construction activity will not impact listed species or their associated habitat, or it may include specific conditions to be implemented to avoid or significantly minimize any impacts that may be encountered at the site of the construction activity. The Department shall honor the safe harbor determination for three years from the date it is issued, meaning that unlike the NDDB review in Section 1 or the limited two-year determination in Section 2 of this Appendix, if the Department makes a safe harbor determination and a registrant remains in compliance with any conditions in any such determination, irrespective of what may be found at the site of the construction activity, a registrant shall be considered in compliance with section 3(*b*)(2) of the GP. However, a safe harbor determination shall

not be effective if a construction activity may threaten the continued existence of any federally listed species or its critical habitat under federal law. If a federally listed species or its critical habitat is encountered on the site of the construction activity, the registrant shall promptly contact the Department and may need to take additional action to ensure that the construction activity does not violate federal law or section 3(*b*)(2) of the GP.

If a registrant receives a safe harbor determination from the Department, the registrant should check the safe harbor determination box on the GP registration form and include the Department's safe harbor determination with the GP Registration form. Checking the safe harbor box on the registration form and failing to provide the safe harbor determination letter from the Department's Wildlife Division with the GP Registration form will delay and may prevent processing of a registration.

If based upon the information provided by a registrant seeking a safe harbor determination the Department's Wildlife Division determines that the construction activity could impact listed species or their associated habitat, or that the Department needs additional information to make a safe harbor determination, the registrant may still achieve compliance with section 3(*b*)(2) of the GP through providing additional information pursuant to Section 4 or developing a mitigation plan pursuant to Section 5 of this Appendix.

If a registrant receives a safe harbor determination from the Department's Wildlife Division, anytime during the third year of such safe harbor, a registrant may request a one-year extension of that safe harbor. If the Department's Wildlife Division has prescribed a form for requesting an extension, any such request shall be made using the prescribed form. There is a presumption that a request for a one-year extension of a safe harbor shall be granted. However, this presumption can be rebutted if the Department determines that a change in any of the following has occurred since the safe harbor was granted: the construction activity affecting or potentially affecting listed species or their associated habitat; the NDDB maps for the site of the construction activity; the information upon which the safe harbor was granted; or other information indicative of a change in circumstance affecting listed species or their associated habitat. A registrant may seek only one extension, for one year, to a safe harbor determination. Any one-year extension granted under this paragraph shall run from the date of the Department's Wildlife Division issues its determination to grant an extension and shall be honored by the Department in the same manner as a safe harbor determination noted above. Any letter granting a one-year extension shall be included with a registration along with the original safe harbor determination as provided for in this section.

Section 4. Providing Additional Information

For the Department's Wildlife Division to make a limited two-year determination under Section 2 or a safe harbor determination under section 3 of this Appendix, limited additional information may be required to determine if the construction activity would impact listed species or their associated habitat. If the species in question is a state listed endangered or threatened species under section 26-306 of the general statutes, a registrant shall, in consultation with the Department's Wildlife Division, provide the limited additional information requested by the Department's Wildlife Division. Such information may include, but is not limited to, a survey of specific listed species in question. If the species in question is a federally listed threatened or endangered species, in addition to the Department's Wildlife Division, a registrant shall also consult with the U.S. Fish and Wildlife Service and shall provide any additional information requested by that agency. A registrant that initially sought or obtained a limited two-year determination may, after providing the additional information required under this section request a safe harbor determination under Section 3 of this Appendix.

At any time, as an alternative to proceeding under Section 2, 3 or 4 of this Appendix, a registrant may stipulate, in writing, to the presence of one or more listed species or their associated habitat. A registrant choosing this alternative shall proceed to develop a mitigation plan under Section 5 of this Appendix.

If based upon any additional information provided to the Department's Wildlife Division, and as applicable, the U.S. Fish & Wildlife Service, the Department's Wildlife division determines that construction activity will be in compliance with section 3(*b*)(2) of the GP, a registrant shall receive a limited two-year determination under Section 2 or a safe harbor determination under Section 3 of this Appendix, as applicable.

If the Department's Wildlife Division determines that additional information is necessary to determine if the construction activity has the potential to impact listed species or their associated habitat, and a registrant chooses to not provide such information, a registrant shall proceed with the self-assessment through an NDDB review under Section 1 of this Appendix, or stipulate to the existence of a listed species or associated habitat and develop a mitigation plan under Section 5 or such registrant shall not be eligible to register under the GP.

Section 5. Developing a Mitigation Plan

The Department's Wildlife Division may determine that the construction activity has the potential to adversely impact listed species or their associated habitat. However, it may be possible to modify the construction activity or undertake certain on-site measures to avoid or significantly minimize such impacts. If the species or associated habitat in question is a state listed endangered or threatened species under section 26-306 of the general statutes, a registrant shall consult with the Department's Wildlife Division to determine if an acceptable mitigation plan can be developed so impacts can be avoided or minimized such that a registrant remains in compliance with section 3(*b*)(2). If the species in question is a federally listed threatened or endangered species, any such consultation shall also include the U.S. Fish and Wildlife Service.

If a registrant in consultation with the Department's Wildlife Division, and as applicable, the U.S. Fish & Wildlife Service, develops a mitigation plan that is approved by the Department's Wildlife Division, or as applicable, the U.S. Fish & Wildlife Service, the registrant shall receive a limited two-year determination under Section 2 or a safe harbor determination under Section 3 of this Appendix. In this situation, in addition to checking the two-year determination box or the safe harbor determination box, as applicable, on the registration form, the registrant shall also check the box on the registration form indicating that it has an approved mitigation plan and provide a status update on the registration form as to whether it has completed or is still in the process of implementing the approved mitigation plan.

If an approved mitigation plan has not been fully implemented by the time a registration is submitted, completing all remaining tasks in the plan shall become an enforceable condition of any registration issued to the registrant.

If the Department determines that the construction activity has the potential to adversely impact listed species or their associated habitat and the registrant and the Department, and as applicable, the U.S. Fish & Wildlife Service, are not able to agree on an acceptable mitigation plan that is approved by the Department, and as applicable, the U.S. Fish & Wildlife Service, any such registrant shall not be eligible to register under the GP.

APPENDIX A
ATTACHMENT A

Specific Information Needed to Apply for a Safe Harbor Determination

A Safe Harbor Determination will be made upon the submission of a detailed report that fully addresses the matters noted below. For the Department's Wildlife Division to make a safe harbor determination, the report should synthesize and analyze this information, not simply compile information. Those providing synthesis and analysis need appropriate qualifications and experience. A request for a safe harbor determination shall include:

1) Habitat Information, including GIS mapping overlays, identifying:

- wetlands, including wetland cover types;
- plant community types;
- topography;
- soils;
- bedrock geology;
- floodplains, if any;
- land use history; and
- water quality classifications/criteria.

2) Photographs - The report should also include photographs of the site, including all reasonably available aerial or satellite photographs and an analysis of such photographs.

3) Inspection - The report should include a visual inspection(s) of the site, preferably when the ground is visible. This inspection can also be helpful in confirming or further evaluating the items noted above.

4) Biological Surveys - The report should include all biological surveys of the site where construction activity will take place that are reasonably available to a registrant. A registrant shall notify the Department's Wildlife Division of biological studies of the site where construction activity will take place that a registrant is aware of but are not reasonably available to the registrant.

5) Based on items #1 through 4 above, the report shall include a Natural Resources Inventory of the site of the construction activity. This inventory should also include a review of reasonably available scientific literature and any recommendations for minimizing adverse impacts from the proposed construction activity on listed species or their associated habitat.

6) In addition, to the extent the following is available at the time a safe harbor determination is requested, a request for a safe harbor determination shall include and assess:

- Information on Site Disturbance Estimates/Site Alteration information
- Vehicular Use
- Construction Activity Phasing Schedules, if any; and
- Alternation of Drainage Patterns

APPENDIX B

Connecticut Department of Energy & Environmental Protection
Inland Water Resources Division Fact Sheet
Considering Low Impact Development Principles in Site Design

In order to reduce the impact of development and address stormwater quality issues, the Department requires the use of Low Impact Development (LID) measures in accordance with Sections 5(*b*)(2)(C)(i) and (ii) of the general permit. LID is a site design strategy intended to maintain or replicate predevelopment hydrology through the use of small-scale controls, integrated throughout the site, to manage stormwater runoff as close to its source as possible. Infiltration of stormwater through LID helps to remove sediments, nutrients, heavy metals, and other types of pollutants from runoff.

Key Strategies for LID

Key strategies for effective LID include: infiltrating, filtering, and storing as much stormwater as feasible, managing stormwater close to where the rain/snow falls, managing stormwater at multiple locations throughout the landscape, conserving and restoring natural vegetation and soils, preserving open space and minimizing land disturbance, designing the site to minimize impervious surfaces, and providing for maintenance and education. Water quality and quantity benefits are maximized when multiple techniques are grouped together. In areas of compacted and/or possibly contaminated soils, soil suitability should be further investigated prior to selecting optimum treatment and/or remediation measures. Where soil conditions permit, the DEEP encourages the utilization of one, or a combination of, the following measures:

- the use of pervious pavement or grid pavers (which are very compatible for parking lot and fire lane applications), or impervious pavement without curbs or with notched curbs to direct runoff to properly designed and installed infiltration areas;
- the use of vegetated swales, tree box filters, and/or infiltration islands to infiltrate and treat stormwater runoff (from building roofs, roads, and parking lots);
- the minimization of access road widths and parking lot areas to the maximum extent possible to reduce the area of impervious surface;
- the use of dry wells to manage runoff from building roofs;
- incorporation of proper physical barriers or operational procedures for special activity areas where pollutants could potentially be released (e.g. loading docks, maintenance and service areas, dumpsters, etc.);
- the installation of rainwater harvesting systems to capture stormwater from building roofs for the purpose of reuse for irrigation (i.e. - rain barrels for residential use and cisterns for larger developments);
- the use of residential rain gardens to manage runoff from roofs and driveways;
- the use of vegetated roofs (green roofs) to detain, absorb, and reduce the volume of roof runoff; and
- providing for pollution prevention measures to reduce the introduction of pollutants to the environment.

The 2004 Stormwater Quality Manual LID Appendix and the 2002 Erosion and Sediment Control Guidelines LID Appendix both provide guidance on implementing LID measures. A guide to LID resources can also be found in the DEEP Low Impact Development Resources Factsheet (PDF).

LID in Urban Areas

If the proposed site is located in a highly urbanized area, it is likely underlain by urban land complex soils. The Natural Resources Conservation Service (NRCS) Soil Web Survey (http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm) provides information on soil textures, parent materials, slopes, height of seasonal high water table, depth to restrictive layer, and permeability. In highly developed areas, infiltration may be limited due to the high percentage of impervious cover. However, infiltration practices may be suitable at urban sites depending on:

- Potential contamination of soils in historically industrialized areas. The siting of areas for infiltration must consider any existing soil or groundwater contamination.

- Site specific soil conditions. NRCS mapping consists of a minimum 3 acres map unit and soils may vary substantially within each mapping unit. Test pits should be dug in areas planned for infiltration practices to verify soil suitability and/or limitations.

- Investigation of areas of compacted soils and the utilization of proper construction staging. Planning should insure that areas to be used for infiltration are not compacted during the construction process by vehicles or machinery.

Even if infiltration is limited at a site, it is still possible to implement LID practices. Specifically, potential exists for the installation of green roofs on buildings and/or the use of cisterns to capture and reuse rainwater.

LID in Areas with a High Seasonal Water Table or Hardpan Layer

- The impact of stormwater runoff to any streams and/or wetlands near the site should be considered. Water quality treatment is influenced by hydraulic conductivity and time of travel. If stormwater infiltration is limited by an impermeable layer close to the surface, the water may run laterally through the ground and discharge to the stream or wetlands, providing limited water quality treatment. However, a longer time of travel may provide sufficient treatment. Proper soil testing for infiltration potential will increase the likelihood of successful BMP design.

- In areas with a high seasonal water table, bioretention areas/rain gardens should be planted with water tolerant/wetland plants. The presence of a high seasonal water table suggests that water may drain slowly or not at all during certain parts of the year. Planting native wetland vegetation will help to ensure plant survival and increase the effectiveness of bioretention practices. Information on native plantings that are both drought tolerant and tolerant of wet conditions can be found in The UConn Cooperative Extension System's guide to building a rain garden at http://nemo.uconn.edu/publications/rain_garden_broch.pdf. Native plant lists for Connecticut can also be found at http://www.fhwa.dot.gov/environment/rdsduse/ct.htm.

LID Guidance for Federal Projects

- LID techniques have been utilized by Department of Defense (DoD) agencies during the last several years. The effectiveness of these projects in managing runoff as well as reducing construction and maintenance costs has created significant interest in LID. The DoD has created a Unified Facilities Criteria document, Low Impact Development that provides guidelines for integrating LID planning and design into a facility's regulatory and resource protection programs. It is available on-line at: http://www.wbdg.org/ccb/DOD/UFC/ufc_3_210_10.pdf.

- Section 438 of the Energy Independence and Security Act (EISA) of 2007 requires federal agencies to reduce stormwater runoff from federal development projects to protect water resources. In December 2009, the EPA developed a technical guidance document on implementing the stormwater runoff requirements for federal projects under Section 438 of EISA. The document contains guidance on how compliance with Section 438 can be achieved, measured and evaluated and can be found at: http://www.epa.gov/owow/NPS/lid/section438/pdf/final_sec438_eisa.pdf.

For more information contact the CT DEEP Watershed Management/Low Impact Development Program call (860)424-3716.

List of Runoff Reduction/LID Practices

Re-Forestation
Disconnection of Rooftop Runoff
Disconnection of Non-Rooftop Runoff
Sheetflow to Conservation Areas
Green Roof
Permeable Pavement
Rainwater Harvesting
Submerged Gravel Wetlands
Micro-Infiltration
Rain Gardens
Bioretention
Landscape Infiltration
Grass Swales
Bio-swales
Wet Swales
Stormwater Ponds
Stormwater Wetlands
Stormwater Filtering Systems
Stormwater Infiltration

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

APPENDIX C

AQUIFER PROTECTION AREAS AND OTHER GROUNDWATER DRINKING SUPPLY AREAS GUIDANCE INFORMATION

The Stormwater Pollution Control Plan ("the Plan") shall consider measures to reduce or mitigate potential impacts to both ground water (aquifers) and surface waters, taking into consideration both quantity and quality of the runoff. The emphasis should be to minimize, to the extent possible, changes between pre-development and post-development runoff rates and volumes.

The basic stormwater principals for Aquifer Protection Areas (and other groundwater drinking supply areas) are to prevent inadvertent pollution discharges/releases to the ground, while encouraging recharge of stormwater where it does not endanger groundwater quality. Measures include:

- prevent illicit discharges to storm water, including fuel/chemical pollution releases to the ground;
- minimize impervious coverage and disconnect large impervious areas with natural or landscape areas;
- direct paved surface runoff to aboveground type land treatment structures – sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground;
- provide necessary impervious pavement in high potential pollutant release areas. These "storm water hot spots" include certain land use types or storage and loading areas, fueling areas, intensive parking areas and roadways (see table below);
- only use subsurface recharge structures such as dry wells, galleries, or leaching trenches, to directly infiltrate clean runoff such as rooftops, or other clean surfaces. These structures do not adequately allow for attenuation of salts, solvents, fuels or other soluble compounds in groundwater that may be contained in runoff; and
- restrict pavement deicing chemicals, or use an environmentally suitable substitute such as sand only, or alternative de-icing agents such as calcium chloride or calcium magnesium.

Infiltration of stormwater should be **restricted** under the following site conditions:

- ***Land Uses or Activities with Potential for Higher Pollutant Loads:*** Infiltration of stormwater from these land uses or activities (refer to Table 7-5 below), also referred to as stormwater "hotspots," can contaminate public and private groundwater supplies. Infiltration of stormwater from these land uses or activities may be allowed by the review authority with appropriate pretreatment. Pretreatment could consist of one or a combination of the primary or secondary treatment practices described in the Stormwater Quality Manual provided that the treatment practice is designed to remove the stormwater contaminants of concern.

- ***Subsurface Contamination:*** Infiltration of stormwater in areas with soil or groundwater contamination such as brownfield sites and urban redevelopment areas can mobilize contaminants.

- ***Groundwater Supply and Wellhead Areas:*** Infiltration of stormwater can potentially contaminate groundwater drinking water supplies in immediate public drinking water wellhead areas.

Land Uses or Activities with Potential for Higher Pollutant Loads
Table 7-5 of the 2004 Stormwater Quality Manual

Land Use/Activities	
• Industrial facilities subject to the DEEP Industrial Stormwater General Permit or the U.S. EPA National Pollution Discharge Elimination System (NPDES) Stormwater Permit Program • Vehicle salvage yards and recycling facilities • Vehicle fueling facilities (gas stations and other facilities with on-site vehicle fueling) • Vehicle service, maintenance, and equipment cleaning facilities • Fleet storage areas (cars, buses, trucks, public works) • Commercial parking lots with high intensity use (shopping malls, fast food restaurants, convenience stores, supermarkets, etc.) • Public works storage areas	• Road salt storage facilities (if exposed to rainfall) • Commercial nurseries • Flat metal rooftops of industrial facilities • Facilities with outdoor storage and loading/unloading of hazardous substances or materials, regardless of the primary land use of the facility or development • Facilities subject to chemical inventory reporting under Section 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA), if materials or containers are exposed to rainfall • Marinas (service and maintenance) • Other land uses and activities as designated by the review authority

For further information regarding the design of stormwater collection systems in Aquifer Protection Areas, contact the Aquifer Protection Area Program at (860) 424-3020 or visit www.ct.gov/deep/aquiferprotection.

General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

APPENDIX D

Coastal Management Act Determination Form

For sites within the Coastal Boundary, please attach this form and written approval from the local governing authority (or verification of exemption) to the Registration Form for the Discharge of Stormwater and Dewatering Wastewaters From Construction Activities.

SITE INFORMATION

Future Permittee _____

Mailing Address _____

Business Phone _____ ext.: _____ Fax: _____

Contact Person _____ Title: _____

Site Name _____

Site Address/ Location _____

Site Latitude and Longitude _____

Receiving Water (name, basin) _____

Project Description _____

_____

STATEMENT OF REVIEW:

The above referenced project is consistent with the goals and policies in section 22a-92 of the Connecticut General Statutes and will not cause adverse impacts to coastal resources as defined in section 22a-93(15) of the Connecticut General Statutes.

Date of Coastal Site Plan Approval: _____

☐ Copy of written approval attached, or

☐ Verification of exemption attached

APPENDIX E

Memorandum of Agreement
Between
The Connecticut Department of Energy & Environmental Protection
and the
the Five Conservation Districts of Connecticut
for
Technical Assistance for Locally Approvable Stormwater Construction General Permits

WHEREAS, the Commissioner of the Department of Energy and Environmental Protection ("Department" or "DEEP ") is authorized by section 22a-6(a)(2)(3) and (4) of the Connecticut General Statutes ("CGS") to enter into this Agreement; and

WHEREAS, the five Conservation Districts of Connecticut (collectively, the "Districts"), are not-for-profit corporations duly authorized, organized and existing under the laws of the State of Connecticut and are authorized by section 22a-315 of the CGS and section 22a-315-14 of the Regulations of Connecticut State Agencies to enter into this Agreement; and

WHEREAS, section 22a-430b of the Connecticut General Statutes authorizes the Department to regulate stormwater discharges from construction activities under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities ("the Construction General Permit" or "CGP"), which has been or shall be issued on October 1, 2019. The Construction General Permit requires the implementation of erosion and sediment controls to control the discharge of sediment from construction and post-construction discharges; and

WHEREAS, Construction General Permits require the preparation and implementation of a Stormwater Pollution Control Plan ("Plan" or "SWPCP") to prevent erosion and the discharge of sediment to the waters of the state; and

WHEREAS, pursuant to section 22a-315 of the CGS, soil and water conservation districts and boards were established to advise the Commissioner on matters of soil and water conservation and erosion and sediment control and to assist the Commissioner in implementing programs related to soil and water conservation and erosion and sediment control; and

WHEREAS, pursuant to section 22a-315 of the CGS, the soil and water conservation districts and boards may receive funds from private sources for services provided to promote soil and water conservation and to assist the Commissioner in the implementation of related programs; and

WHEREAS, section 22a-326 of the CGS declares the policy of the state "to strengthen and extend its erosion and sediment control activities and programs and to establish and implement, through the Council on Soil and Water Conservation, soil and water conservation districts, the municipalities and the Commissioner of Energy and Environmental Protection, a state-wide coordinated erosion and sediment control program which shall reduce the danger from storm water runoff, minimize nonpoint sediment pollution from land being developed and conserve and protect the land, water, air and other environmental resources of the state;" and

WHEREAS, the Districts have understanding and experience in reviewing erosion and sediment control plans because of their longstanding participation in the municipal approval process, as required by section 22a-329 of the CGS; and

WHEREAS, DEEP and the Districts are jointly dedicated to protecting the waters of the state by controlling the discharge of sediment and the pollution resulting from stormwater runoff.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter stated, the Parties agree as follows:

Special Conditions

I. REQUIREMENTS FOR TECHNICAL ASSISTANCE BY DISTRICTS

A. SWPCP technical assistance shall be conducted by a District representative having one or more of the following minimum qualifications: (i) a bachelor's degree in hydrology, engineering (agricultural, civil, environmental, or chemical), landscape architecture, geology, soil science, environmental science, natural resources management, or a related field and two years of professional and field experience, or (ii) the EnviroCert International, Inc. designation as a Certified Professional in Erosion and Sediment Control (CPESC), Certified Erosion, Sediment and Stormwater Inspector (CESSWI), or a Certified Professional in Stormwater Quality (CPSWQ).

B. All technical assistance on SWPCPs undertaken by a District shall be conducted in accordance with the guidelines and procedures established by DEEP in consultation with the Districts, as further described below.

II. LOCALLY APPROVABLE PROJECTS

For locally approvable projects, as defined in the Construction General Permit, with five (5) or more acres of soil disturbance, the appropriate District (as indicated in Exhibit 2 of this agreement) shall review Stormwater Pollution Control Plans submitted to the District in accordance with Section 3(*b*)(10) of the CGP, shall determine whether each such SWPCP is consistent with the requirements of the CGP, and shall advise the Commissioner in writing of its determination regarding the SWPCP's consistency. The appropriate District may request assistance from another District or re-assign a project to another District upon mutual consent of the Districts. The Commissioner will be notified in writing of any re-assignment.

A. Components of the SWPCP Review by the Districts

1. Requirements for Conducting a Review:

   The District shall begin a SWPCP review upon the receipt of the all of following: the developer's request for review, two hard copies and a digital copy of the proposed SWPCP, a non-refundable down payment from the permittee as per the Fee Schedule in Exhibit 1 and the written permission of the developer to enter onto and inspect the project site. Once the District is in receipt of all the documents and the fee as delineated above, the developer's SWPCP shall be considered submitted to the District.

2. Determinations of Consistency by the District after Review of the SWPCP and Subsequent Procedures

   (a) If the District determines the developer's SWPCP is:

   (i) Consistent with the requirements of the Construction General Permit, the District shall issue an affirmative determination notice to both the developer or such developer's designee and to DEEP in order to advise them of the adequacy of the SWPCP. The District shall also provide a copy of the SWPCP to DEEP if requested by the Commissioner.

   (ii) Not consistent with the requirements of the Construction General Permit, the District shall provide a written notice of such inconsistency to the developer or such developer's designee; such notice shall include a list of the SWPCP's deficiencies and any appropriate explanatory comments.

(b) If the developer's SWPCP is found to be inconsistent with the CGP, the developer may revise the SWPCP (the "Revised SWPCP") to address any deficiencies noted by the District and resubmit its Revised SWPCP to the District for review.

(c) If the District receives a Revised SWPCP in accordance with subsection (b) above, the District shall perform a review of the Revised SWPCP. If the Revised SWPCP is deemed:

(i) Consistent with the requirements of the Construction General Permit, the District shall (1) issue an affirmative determination notice to both the project developer or such project developer's designee and to DEEP to advise them of the adequacy of the SWPCP and (2) provide a copy of the SWPCP to the DEEP if requested by the Commissioner; or

(ii) Not consistent with the requirements of the CGP after this review, the District shall provide a written notice of such inconsistency to the developer or such developer's designee. This notice shall include a list of all remaining SWPCP deficiencies and any explanatory comments as appropriate.

(d) In the event the District determines after review of the Revised SWPCP in accordance with subsection (c), above, that the Revised SWPCP remains inconsistent with the requirements of the Construction General Permit, the developer shall continue to resubmit a Revised SWPCP in accordance with subsection (c), above, until such time as the District determines that the SWPCP is consistent with the requirements of the Construction General Permit and issues an affirmative determination notice. As such, the resubmitted Revised SWPCP shall be reviewed by the District in accordance with the timeframes set forth in Section II.B., and other applicable sections of this document, and the fee shall remain in accordance with the Fee Schedule in Exhibit 1.

(e) Revisions to a SWPCP subsequent to the District's prior approval of developer's SWPCP

In the event the developer revises a SWPCP after the District has determined that the developer's SWPCP, prior to this revision, was consistent with the requirements of the Construction General Permit, the SWPCP shall be considered a Post-Approval Resubmission. In such a case, the District shall review the SWPCP in accordance with the timeframes set forth in Section II.B., and other applicable sections of this document, and the fee shall be in accordance with the Fee Schedule in Exhibit 1.

B. Plan Review Timeframes

1. The District shall review a new submission of a SWPCP submitted by a developer or such developer's designee and provide review comments or issue an affirmative determination notice within thirty (30) calendar days of the date of a complete submission as specified in Section II.A.1.

2. If the District identifies deficiencies in the SWPCP, the District shall allow the developer or such developer's designee the opportunity to revise their SWPCP and resubmit it to the District within fifteen (15) calendar days after the date of mailing or delivery of the District's written comments to the developer or such developer's designee.

3. The District shall review any SWPCP revised in accordance with subsection II.B.2., above, and provide a written determination of the SWPCP's consistency or inconsistency within fifteen (15) calendar days after the submission of the revised SWPCP. Subsequent resubmissions of a revised SWPCP shall be in accordance with the same timeframes.

4. At the request of the District or the developer and with the agreement of both the District and the developer, the deadlines stated in subsections 1. – 3., above, may be extended. However, any such

extensions shall be limited to no more than double the original amount of time allowed above for the relevant action.

5. Expedited review of a SWPCP may be requested by a developer. However, the Districts shall have complete discretion to accept or decline such request for an expedited review based on the District's circumstances, including, but not limited to: their existing workload, vacation schedules and staffing. If a District grants an expedited review, the timeframe shall be reduced to no more than one third of the timeframes noted in subsection 1. – 3., above, and the fee and non-refundable down payment shall be twice those amounts listed in Exhibit 1.

6. In the event a District does not complete the review of the SWPCP within sixty (60) days (or within the time allowed under any resubmissions or authorized extension pursuant to subsections B.3 and B.4, above, but in no circumstance later than 120 days) of the date the SWPCP was initially submitted to the District, and provided such delay is not the result of the developer's or such developer's designee's failure to address SWPCP deficiencies as noted in subsection B.2, above, the District shall:

   (a) not later than three (3) days after the District's deadline, notify the DEEP that the developer shall be initiating the registration process for the Construction General Permit in accordance with section II.B of this Agreement, for completion of the SWPCP review, and;

   (b) provide to the DEEP, upon request, the District's complete file, including supporting documentation the developer's SWPCP consistency determination, including, but not limited to, the SWPCP, any other documentation submitted to the District by or on behalf of a developer, and any analysis already performed by the District; and

   (c) not later than seven (7) days after the District's deadline, in accordance with section II.B of this Agreement, for completion of the SWPCP review, transfer to the DEEP all fees that were originally submitted by the developer.

C. Inspections of the Project Site

1. Prior to the commencement of project construction and during the course of the SWPCP review process, the District shall conduct at least one inspection of the project site.

2. Once the construction of the project has begun, the District shall make at least one, but not more than three, inspection(s) of the project site to verify that the developer's SWPCP is being implemented as approved by the District. The District shall report the results of the inspection(s) to the developer or such developer's designee and to DEEP in a manner prescribed by the Commissioner.

3. Upon notification from the developer or developer's designee, in accordance with Section 6(a)(1) of the CGP, that construction of the stormwater collection and management system is complete, the District shall conduct one inspection of the project site to verify that the post-construction stormwater management measures were completed in accordance with the approved SWPCP. The District shall report the results of this inspection to DEEP in a manner prescribed by the Commissioner.

D. Audits

The District agrees that all records pertaining to this Agreement shall be maintained for a period of not less than five (5) years. Such records shall be made available to the DEEP and to the state auditors upon request. For the purposes of this Agreement, "Records" are all working papers and such information and materials as may have been accumulated by the District in performing the Agreement, including, but not limited to, documents, data, analysis, plans, books, computations, drawings, specifications, notes, reports, records, estimates, summaries and correspondence, kept or stored in any form.

III. FEE SCHEDULE.

A. A District may assess fees for the services it renders in conjunction with its SWPCP reviews. Such fees shall be assessed in accordance with the Fee Schedule in Exhibit 1. All fees shall be submitted by the developer to the District with the developer's request for review and inspections. These fees are non-refundable.

B. The Fee Schedule shall be reviewed annually by the Parties. The Fee Schedule may be adjusted as warranted, without a formal amendment to this Agreement, by mutual agreement between the Districts and the Commissioner.

IV. RESPONSIBILITIES OF DEEP.

A. In accordance with the Construction General Permit requirements for SWPCP reviews of locally approvable projects by a third party, DEEP shall conduct outreach to inform the development community that a District may review SWPCPs for consistency with the requirements of the Construction General Permit. DEEP shall also inform the development community that a registration form for authorization of a locally approvable project under the Construction General Permit may only be submitted to DEEP if: the District, or other third party in accordance with Section 3(b)(11) of the CGP, determines that the SWPCP is consistent with the requirements of the CGP, or in the event the time schedule is exceeded for a District review as described in section II.B.6, above.

B. In order to institute standard SWPCP review guidelines and procedures, DEEP shall coordinate with the Districts to prepare a SWPCP checklist. The standard review guidelines and procedures established shall be consistent with the requirements of the Construction General Permit, the 2002 CT Guidelines for Soil Erosion and Sediment Control, and the 2004 Stormwater Quality Manual, as respectively amended. The Commissioner shall have final approval of the review guidelines and procedures.

C. DEEP shall provide initial training regarding SWPCP requirements for District staff involved in SWPCP reviews. The frequency of subsequent training shall be determined by the Commissioner.

D. DEEP shall retain final decision making authority regarding the determination that a SWPCP is or is not consistent with the requirements of the Construction General Permit and shall oversee the permitting process for Construction General Permit coverage.

E. Once a SWPCP has been approved, DEEP shall oversee any subsequent compliance and/or enforcement matters related to a developer's adherence to the requirements of the Construction General Permit.

F. DEEP shall have the discretion to review any of the Districts' records pertaining to any aspect this Agreement.

V. POINTS OF CONTACT.

The following shall be points of contact for this Agreement unless otherwise agreed to by all Parties, notwithstanding section VI. All notices, demands, requests, consents, approvals or other communications required or permitted to be given or which are given with respect to this Agreement (for the purpose of this section collectively called "Notices") shall be deemed to have been effected at such time as the notice is placed in the U.S. mail, first class and postage prepaid, return receipt requested, or, placed with a recognized, overnight express delivery service that provides for a return receipt. All such Notices shall be in writing and shall be addressed as follows:

A. DEEP
Director
Water Permitting & Enforcement Division
Bureau of Material Management & Compliance Assurance
Department of Energy & Environmental Protection
79 Elm St.
Hartford, CT 06106
Phone: 860-424-3018
Fax: 860-424-4074

B. Conservation District
Board Chairperson
Address & Phone of appropriate District:

Northwest Conservation District
1185 New Litchfield Street
Torrington, CT 06790
Ph: 860-626-7222
Fax: 860-626-7222
Email: info@nwcd.org

Eastern Connecticut Conservation District
238 West Town Street
Norwich, CT 06360-2111
Ph: 860-319-8806
Email: Dan.Mullins@comcast.net

Connecticut River Coastal Conservation District, Inc.
deKoven House Community Center
27 Washington Street
Middletown, CT 06457
Ph: 860-346-3282
Email: ctrivercoastal@conservect.org

Southwest Conservation District
51 Mill Pond Road
Hamden, CT 06514
Ph: 203-859-7014
Email: csullivan@conservect.org

North Central Conservation District
24 Hyde Avenue
Vernon, CT 06066
Ph: 860-875-3881
Email: tollandc@snet.net

General Conditions

VI. EXECUTIVE ORDERS AND ANTI-DISCRIMINATION. This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which

are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract may also be subject to Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services and to Executive Order No. 49 of Governor Dannel P. Malloy, promulgated May 22, 2015, mandating disclosure of certain gifts to public employees and contributions to certain candidates for office. If Executive Order 14 and/or Executive Order 49 are applicable, they are deemed to be incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Client Agency or DAS shall provide a copy of these orders to the Contractor.

VII. AMENDMENTS. Either the DEEP or the Districts may recommend revisions to this Agreement as circumstances may warrant; however, any revisions must be upon mutual agreement of DEEP and all five Conservation Districts. Unless otherwise stated in this Agreement, formal written amendment is required for changes to any of the terms and conditions specifically stated in the Agreement, any prior amendments to the Agreement, and any other Agreement revisions determined material by the Department.

VIII. SEVERABILITY. The provisions of this Agreement are severable. If any part of it is found unenforceable, all other provisions shall remain fully valid and enforceable, unless the unenforceable provision is an essential element of the bargain.

IX. SOVEREIGN IMMUNITY. The Parties acknowledge and agree that nothing in the Agreement shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by federal law or the laws of the State of Connecticut to the State or any of the State's, which they may have had, now have or shall have with respect to all matters arising out of the Agreement. To the extent that this section conflicts with any other section, this section shall govern.

X. FORUM AND CHOICE OF LAW. The Agreement shall be deemed to have been made in the City of Hartford, State of Connecticut. Both Parties agree that it is fair and reasonable for the validity and construction of the Agreement to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by federal law or the laws of the State of Connecticut do not bar an action against the State or the Districts, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Districts waive any objection which they may now have or shall have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

XI. TERMINATION. Notwithstanding any provisions in this Agreement, DEEP, through a duly authorized employee, may terminate the Agreement whenever the Agency makes a written determination that such Termination is in the best interests of the State. The Agency shall notify the Districts in writing sent by certified mail, return receipt requested, which notice shall specify the effective date of Termination and the extent to which the Districts must complete its Performance under the Agreement prior to such date; or (b) The Districts may terminate the Agreement for good cause. The Districts shall notify DEEP by written notice at least one hundred eighty (180) days prior to the effective date of termination. In order for the Districts to terminate this Agreement, (1) there must be a consensus between all five Conservation Districts that each District shall be terminating this Agreement with the DEEP; (2) such proof of consensus shall be submitted to the DEEP in the form of a letter signed by the duly authorized agent for each District by certified mail, return receipt requested, at least one hundred eighty (180) days prior to the Districts' intention to cancel or terminate. Upon the Termination of this Agreement by either Party, the Districts shall deliver to the Agency copies of all Records no later than thirty (30) days after the Termination of the Agreement, or fifteen (15) days after the Non-terminating Party receives a written request from the Terminating Party for the Records. The Districts shall deliver those Records that exist in electronic, magnetic or other intangible form in a non-proprietary format, such as, but not limited to, PDF, ASCII or .TXT. Upon receipt of a written notice of

Termination from the Agency, the Districts shall cease operations as the Agency directs in the notice, and take all actions that are necessary or appropriate, or that the Agency may reasonably direct, for the protection, and preservation of records. Except for any work which the Agency directs the Districts to Perform in the notice prior to the effective date of Termination, and except as otherwise provided in the notice, the Districts shall terminate or conclude all existing subcontracts and purchase orders and shall not enter into any further subcontracts, purchase orders or commitments. Upon Termination of the Agreement, all rights and obligations shall be null and void, so that no Party shall have any further rights or obligations to any other Party, except with respect to the sections which survive Termination. All representations, warranties, agreements and rights of the Parties under the Agreement shall survive such Termination to the extent not otherwise limited in the Agreement and without each one of them having to be specifically mentioned in the Agreement. Termination of the Agreement pursuant to this section shall not be deemed to be a breach of Agreement by the Agency.

XII. DURATION OF AGREEMENT. This Agreement shall be effective on July 1, 2019 or on the date of the last signature below, whichever is later, and shall continue in force unless canceled or terminated by either party in accordance with paragraph XI above.

XIII. VOID AB INITIO. Notwithstanding paragraphs XI and XII, the Agreement shall be void *ab initio* if the Construction General Permit is reissued, revoked or modified to eliminate the need for the Districts to review the SWPCP pursuant to such general permit's terms and conditions or if the Construction General Permit expires and is not reissued.

XIV. INTERPRETATION. The Agreement contains numerous references to statutes and regulations. For purposes of interpretation, conflict resolution and otherwise, the content of those statutes and regulations shall govern over the content of the reference in the Agreement to those statutes and regulations.

XV. ENTIRETY OF AGREEMENT. This Agreement is the entire agreement between the Parties with respect to its subject matter, and supersedes all prior agreements, proposals, offers, counteroffers and understandings of the Parties, whether written or oral. The Agreement has been entered into after full investigation, neither Party relying upon any statement or representation by the other unless such statement or representation is specifically embodied in the Agreement.

XVI. PROTECTION OF STATE CONFIDENTIAL INFORMATION.

A. The Districts or District Parties, at their own expense, have a duty to and shall protect from a Confidential Information Breach any and all Confidential Information which they come to possess or control, wherever and however stored or maintained, in a commercially reasonable manner in accordance with current industry standards. Confidential Information is any information that a party claims to be exempt from the state Freedom of Information Act (Section 1-210 et seq of the Connecticut General Statutes, also called FOIA) as specified in that Act.

B. Each District or District Party shall develop, implement and maintain a comprehensive data-security program for the protection of Confidential Information. The safeguards contained in such program shall be consistent with and comply with the safeguards for protection of Confidential Information, and information of a similar character, as set forth in all applicable federal and state law and written policy of the Department or State concerning the confidentiality of Confidential Information. Such data-security program shall include, but not be limited to, the following:

1. A security policy for employees related to the storage, access and transportation of data containing Confidential Information;

2. Reasonable restrictions on access to records containing Confidential Information, including access to any locked storage where such records are kept;

3. A process for reviewing policies and security measures at least annually;

4. Creating secure access controls to Confidential Information, including but not limited to passwords; and

5. Encrypting of Confidential Information that is stored on laptops, portable devices or being transmitted electronically.

C. The District and District Parties shall notify the Department and the Connecticut Office of the Attorney General as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any Confidential Information which Parties have come to possess or control has been subject to a Confidential Information Breach. If a Confidential Information Breach has occurred, the District shall, within three (3) business days after the notification, present a credit monitoring and protection plan to the Commissioner of Administrative Services, the Department and the Connecticut Office of the Attorney General, for review and approval. Such credit monitoring or protection plan shall be made available by the District at its own cost and expense to all individuals affected by the Confidential Information Breach. Such credit monitoring or protection plan shall include, but is not limited to, reimbursement for the cost of placing and lifting one (1) security freeze per credit file pursuant to Connecticut General Statutes §36a-701a. Such credit monitoring or protection plans shall be approved by the State in accordance with this Section and shall cover a length of time commensurate with the circumstances of the Confidential Information Breach. The District's costs and expenses for the credit monitoring and protection plan shall not be recoverable from the Department, any State of Connecticut entity or any affected individuals.

D. The District shall incorporate the requirements of this Section in all subAgreements requiring each District Party to safeguard Confidential Information in the same manner as provided for in this Section.

E. Nothing in this Section shall supersede in any manner the District's and/ or the District Parties' obligations pursuant to HIPAA or the provisions of this Agreement concerning the obligations of the District as a Business Associate of the Department.

XVII. AMERICANS WITH DISABILITIES ACT. The Districts shall be and remain in compliance with the Americans with Disabilities Act of 1990 ("Act"), to the extent applicable, during the term of the Agreement. The DEEP may cancel the Agreement if the District and District Parties fail to comply with the Act.

XVIII. ADA PUBLICATION STATEMENT. The following statement shall be incorporated into all **publications** prepared under the terms of this Agreement:

"The Department of Energy and Environmental Protection is an affirmative action/equal opportunity employer and service provider. In conformance with the Americans with Disabilities Act, DEEP makes every effort to provide equally effective services for persons with disabilities. Individuals with disabilities who need this information in an alternative format, to allow them to benefit and/or participate in the agency's programs and services, should call DEEP's Human Resources Office at (860) 424-3006, send a fax to (860) 424-3896, or email DEEP.MedRecs@ct.gov. Persons who are hearing impaired should call the State of Connecticut relay number 711."

When advertising any **public meetings** conducted under the terms of this Agreement, the above publications language should be used as well as the following statement:

"Requests for accommodations must be made at least two weeks prior to the program date."

All **videos** produced under the terms of this Agreement must be made available with closed captioning.

XIX. PUBLICATION OF MATERIALS. The District must obtain written approval from the State of Connecticut prior to distribution or publication of any printed material prepared under the terms of this Agreement. Unless specifically authorized in writing by the State, on a case by case basis, the District shall have no right to use, and shall not use, the name of the State of Connecticut, its officials, agencies, or employees or the seal of the State of Connecticut or its agencies: (1) in any advertising, publicity, promotion; or (2) to express or to imply any endorsement of District's products or services; or (3) to use the name of the State of Connecticut, its officials agencies, or employees or the seal of the State of Connecticut or its agencies in any other manner (whether or not similar to uses prohibited by (1) and (2) above), except only to manufacture and deliver in accordance with this Agreement such items as are hereby contracted for by the State. In no event may the Districts use the State Seal in any way without the express written consent of the Secretary of State.

XX. CHANGES IN PRINCIPAL PROJECT STAFF. Any changes in District staff qualified to review Plans must be requested in writing and approved in writing by the Commissioner at the Commissioner's sole discretion. In the event of any unapproved change in District staff, the Commissioner may, in the Commissioner's sole discretion, terminate this Agreement.

XXI. FURTHER ASSURANCES. The Parties shall provide such information, execute and deliver any instruments and documents and take such other actions as may be necessary or reasonably requested by the other Party which are not inconsistent with the provisions of this Agreement and which do not involve the vesting of rights or assumption of obligations other than those provided for in the Agreement, in order to give full effect to the Agreement and to carry out the intent of the Agreement.

XXII. ASSIGNMENT. The Districts shall not assign any of their rights or obligations under the Agreement, voluntarily or otherwise, in any manner without the prior written consent of the Agency. The Agency may void any purported assignment in violation of this section and declare the District in breach of this Agreement. Any termination by the Agency for a breach is without prejudice to the Agency's or the State's rights or possible Claims.

XXIII. EXHIBITS. All exhibits referred to in, and attached to, this Agreement are incorporated in this Agreement by such reference and shall be deemed to be a part of it as if they had been fully set forth in it.

XXIV. FORCE MAJEUR. Events that materially affect the cost of the Goods or Services or the time schedule within which to Perform and are outside the control of the party asserting that such an event has occurred, including, but not limited to, labor troubles unrelated to District(s), failure of or inadequate permanent power, unavoidable casualties, fire not caused by a District, extraordinary weather conditions, disasters, riots, acts of God, insurrection or war.

XXV. INDEMNIFICATION. The Districts shall indemnify, defend and hold harmless the State and its officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) Claims arising, directly or indirectly, in connection with the Agreement, including the acts of commission or omission (collectively, the "Acts") of the District or District Parties; and (2) liabilities, damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, arising, directly or indirectly, in connection with Claims, Acts or the Agreement. The Districts obligations under this section to indemnify, defend and hold harmless against Claims includes Claims concerning confidentiality of any part of or all of the Districts' Records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the Performance. The Districts shall not be responsible for indemnifying or holding the State harmless from any liability arising due to the negligence of the State or any other person or entity acting under the direct control or supervision of the State. The Districts shall reimburse the State for any and all damages to the real or personal property of the State caused by the Acts of the Districts or any District Parties. The State shall give the Districts reasonable notice of any such Claims. The Districts shall carry and maintain at all times during the term of the Agreement, and during the time that any

provisions survive the term of the Agreement, sufficient general liability insurance to satisfy its obligations under this Agreement. The Districts shall name the State as an additional insured on the policy and shall provide a copy of the policy to the Agency prior to the effective date of the Agreement. The Districts shall not begin Performance until the delivery of the policy to the Agency. The Agency shall be entitled to recover under the insurance policy even if a body of competent jurisdiction determines that the Agency or the State is contributorily negligent. This section shall survive the Termination of the Agreement and shall not be limited by reason of any insurance coverage.

XXVI. DISTRICT PARTIES. A District's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the District is in privity of oral or written contract and the District intends for such other person or entity to Perform under the Agreement in any capacity

XXVII. CAMPAIGN CONTRIBUTION RESTRICTION. For all State contracts as defined in P.A. 07-1 having a value in a calendar year of $50,000 or more or a combination or series of such agreements or contracts having a value of $100,000 or more, the authorized signatory to this Agreement expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. See SEEC Form 11.

Authorizing Signatures

For DEEP: _____ _____
Katherine S. Dykes, Commissioner Date

For Northwest Conservation District: _____ _____
Signature Date

_____
Title

For Eastern Connecticut Conservation District: _____ _____
Signature Date

_____
Title

For Connecticut River Coastal Conservation District, Inc.: _____ _____
Signature Date

_____
Title

For Southwest Conservation District: _____ _____
Signature Date

_____
Title

For North Central Conservation District: _____ _____
Signature Date

_____
Title

Exhibit 1

Fee Schedule

The Districts will be paid $120/hour for technical assistance work performed.

Non-refundable down payments required with submission:
$2,500 for sites ≤ 20 acres
$4,000 for sites > 20 acres

Exhibit 2

Conservation Districts of Connecticut
Regional Delineations and Contact Information

Northwest Conservation District
1185 New Litchfield Street
Torrington, CT 06790
Ph: 860-626-7222
Fax: 860-626-7222
Email: info@nwcd.org

Eastern Connecticut Conservation District
238 West Town Street
Norwich, CT 06360-2111
Ph: 860-319-8806
Email: Dan.Mullins@comcast.net

Connecticut River Coastal Conservation District, Inc.
deKoven House Community Center
27 Washington Street
Middletown, CT 06457
Ph: 860-346-3282Email: ctrivercoastal@conservect.org

Southwest Conservation District
51 Mill Pond Road
Hamden, CT 06514
Ph: 203-859-7014
Email: csullivan@conservect.org

North Central Conservation District
24 Hyde Avenue
Vernon, CT 06066
Ph: 860-875-3881
Email: tollandc@snet.net

NORTHWEST	SOUTHWEST	NORTH CENTRAL	CT RIVER COASTAL	EASTERN
Barkhamsted	Ansonia	Avon	Berlin	Andover
Bethel	Beacon Falls	Bloomfield	Chester	Ashford
Bethlehem	Bethany	Bolton	Clinton	Bozrah
Bridgewater	Branford	Bristol	Colchester	Brooklyn
Brookfield	Bridgeport	Burlington	Cromwell	Canterbury
Canaan	Cheshire	Canton	Deep River	Chaplin
Colebrook	Darien	Coventry	Durham	Columbia
Cornwall	Derby	East Granby	East Haddam	Eastford
Danbury	East Haven	East Hartford	East Hampton	East Lyme
Goshen	Easton	East Windsor	Essex	Franklin
Hartland	Fairfield	Ellington	Haddam	Griswold
Harwinton	Greenwich	Enfield	Hebron	Groton
Kent	Guilford	Farmington	Killingworth	Hampton
Litchfield	Hamden	Glastonbury	Lyme	Killingly
Morris	Meriden	Granby	Madison	Lebanon
New Fairfield	Middlebury	Hartford	Marlborough	Ledyard
New Hartford	Milford	Manchester	Middlefield	Lisbon
New Milford	Monroe	Plainville	Middletown	Mansfield
Newtown	Naugatuck	Simsbury	Newington	Montville
Norfolk	New Canaan	Somers	New Britain	New
North Canaan	New Haven	South Windsor	Old Lyme	London
Plymouth	North Branford	Stafford	Old Saybrook	North
Roxbury	North Haven	Suffield	Portland	Stonington
Salisbury	Norwalk	Tolland	Rocky Hill	Norwich
Sharon	Orange	Vernon	Salem	Plainfield
Sherman	Oxford	West Hartford	Westbrook	Pomfret
Southbury	Prospect	Wethersfield		Preston
Thomaston	Redding	Willington		Putnam
Torrington	Ridgefield	Windsor		Scotland
Warren	Seymour	Windsor Locks		Sprague
Washington	Shelton			Sterling
Watertown	Southington			Stonington
Winchester	Stamford			Thompson
Woodbury	Stratford			Union
	Trumbull			Voluntown
	Wallingford			Waterford
	Waterbury			Windham
	West Haven			Woodstock
	Weston			
	Westport			
	Wilton			
	Wolcott			
	Woodbridge			

Exhibit 3

CONSERVATION DISTRICT PLAN REVIEW CERTIFICATION

Registrations submitted to DEEP for which a Conservation District has performed the Plan review pursuant to Section 3(*b*)(10) of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities shall include the following certification:

"I hereby certify that I am an employee of the [INSERT NAME OF DISTRICT] Conservation District and that I meet the qualifications to review Stormwater Pollution Control Plans as specified in the Memorandum of Agreement between the Connecticut Department of Energy & Environmental Protection and the Five Conservation Districts of Connecticut for Technical Assistance for Locally Approvable Construction General Permits. I am making this certification in connection with a registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I certify, based on my review of the requirements of such general permit and on the standard of care for such projects, that the Plan is in compliance with the requirements of the general permit. I understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

Registrations submitted to DEEP for which the District review was begun but ***could not be completed*** within the time limits specified in the Memorandum of Agreement shall include the following statement:

"I hereby certify that I am an employee of the [INSERT NAME OF DISTRICT] Conservation District and that I meet the qualifications to review Stormwater Pollution Control Plans as specified in the Memorandum of Agreement between the Connecticut Department of Energy & Environmental Protection and the Five Conservation Districts of Connecticut for Technical Assistance for Locally Approvable Construction General Permits. I am making this statement in connection with a registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I hereby state that the review of the Stormwater Pollution Control Plan (Plan) for such registration was not completed within the time frames specified in the Memorandum of Agreement. Consequently, I cannot certify that the Plan is in compliance with the requirements of the general permit."

APPENDIX F
Memorandum of Agreement
Between
The Connecticut Department of Energy & Environmental Protection
and
the Five Conservation Districts of Connecticut
for
Technical Assistance for Locally Exempt Stormwater Construction General Permits

WHEREAS, the Commissioner of the Department of Energy and Environmental Protection ("Department" or "DEEP ") is authorized by section 22a-6(a)(2)(3) and (4) of the Connecticut General Statutes ("CGS") to enter into this Agreement; and

WHEREAS, the five Conservation Districts of Connecticut (collectively, the "Districts"), are not-for-profit corporations duly authorized, organized and existing under the laws of the State of Connecticut and are authorized by section 22a-315 of the CGS and section 22a-315-14 of the Regulations of Connecticut State Agencies to enter into this Agreement; and

WHEREAS, section 22a-430b of the Connecticut General Statutes authorizes the Department to regulate stormwater discharges from construction activities under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities ("the Construction General Permit" or "CGP"), which has been or shall be issued on October 1, 2019. The Construction General Permit requires the implementation of erosion and sediment controls to control the discharge of sediment from construction and post-construction discharges; and

WHEREAS, the Construction General Permit requires the preparation and implementation of a Stormwater Pollution Control Plan ("Plan" or "SWPCP") to prevent erosion and the discharge of sediment to the waters of the state; and

WHEREAS, pursuant to section 22a-315 of the CGS, soil and water conservation districts and boards were established to advise the Commissioner on matters of soil and water conservation and erosion and sediment control and to assist the Commissioner in implementing programs related to soil and water conservation and erosion and sediment control; and

WHEREAS, pursuant to section 22a-315 of the CGS, the soil and water conservation districts and boards may receive funds from private sources for services provided to promote soil and water conservation and to assist the Commissioner in the implementation of related programs; and

WHEREAS, section 22a-326 of the CGS declares the policy of the state "to strengthen and extend its erosion and sediment control activities and programs and to establish and implement, through the Council on Soil and Water Conservation, soil and water conservation districts, the municipalities and the Commissioner of Energy and Environmental Protection, a state-wide coordinated erosion and sediment control program which shall reduce the danger from storm water runoff, minimize nonpoint sediment

pollution from land being developed and conserve and protect the land, water, air and other environmental resources of the state;" and

WHEREAS, the Districts have understanding and experience in reviewing erosion and sediment control plans because of their longstanding participation in the municipal approval process, as required by section 22a-329 of the CGS; and

WHEREAS, DEEP and the Districts are jointly dedicated to protecting the waters of the state by controlling the discharge of sediment and the pollution resulting from stormwater runoff.

NOW, THEREFORE, in consideration of the mutual covenants and conditions hereinafter stated, the Parties agree as follows:

Special Conditions

II. REQUIREMENTS FOR TECHNICAL ASSISTANCE BY DISTRICTS

A. SWPCP technical assistance shall be conducted by a District representative having one or more of the following minimum qualifications: (i) a bachelor's degree in hydrology, engineering (agricultural, civil, environmental, or chemical), landscape architecture, geology, soil science, environmental science, natural resources management, or a related field and two years of professional and field experience, or (ii) the EnviroCert International, Inc. designation as a Certified Professional in Erosion and Sediment Control (CPESC), Certified Erosion, Sediment and Stormwater Inspector (CESSWI), or a Certified Professional in Stormwater Quality (CPSWQ).

B. All technical assistance on SWPCPs undertaken by a District shall be conducted in accordance with the guidelines and procedures established by DEEP in consultation with the Districts, as further described below.

III. LOCALLY EXEMPT PROJECTS

For locally exempt projects, as defined in the Construction General Permit, with five (5) or more acres of soil disturbance, the appropriate District (as specified in the CGP and as indicated in Exhibit 2 appended hereto) shall, upon request by DEEP, provide technical assistance to DEEP for ensuring implementation of the Stormwater Pollution Control Plan in compliance with the CGP.

A. SWPCP Compliance Technical Assistance

1. The District shall be responsible for inspections to ensure that the SWPCP is properly implemented in accordance with the CGP by coordinating with the permittee (or designee) and conducting on-site inspections. Technical assistance will begin upon a written request from DEEP, the receipt of two copies of the approved SWPCP, and a down payment from the permittee as per the fee schedule in Exhibit 1. Once the District is in receipt of the documents and such down payment, the permittee's SWPCP shall be considered submitted to the District and the District will begin the required review in accordance with this agreement and the CGP.

2. Pre-construction Preparation: The District will review the approved SWPCP and any other relevant site plans, conduct an on-site visit, and set a date for the pre-construction meeting.

3. Pre-construction Meeting: Before the start of any construction, including any clearing of vegetation or installation of erosion and sediment controls (E&S controls), the District will meet with the permittee (or designee), contractor(s) and the qualified professional engineer who designed the project (designing qualified professional engineer) to review E&S control plans for construction and post-construction stormwater controls. Such meeting will include review of the construction schedule/phasing plan, inspection schedule, exchange of contacts, and discussion of any potential problem areas. If construction begins prior to this meeting, the District shall notify DEEP of non-compliance with the CGP.

4. Plan Implementation Inspection: The permittee (or designee) will notify the District when the E&S controls are installed and coordinate with the designing qualified professional engineer to schedule the Plan Implementation Inspection. The District will conduct the initial on-site inspection accompanied by the permittee (or designee) and the designing qualified professional engineer. If it is determined that the controls are installed properly and are in compliance with the approved SWPCP, the District will issue a notice that construction may proceed according to the SWPCP phasing plan. If the controls are not installed properly, the District will provide written notification to the permittee (or designee) of any action needed to comply with the SWPCP. The District shall re-inspect the site upon notification by the permittee (or designee) that the site is ready for re-inspection and in accordance with the Plan Implementation Inspection requirements in the CGP. Once the controls are properly installed and are in compliance with the approved SWPCP, the District will issue a notice that construction may proceed according to the SWPCP phasing plan.

5. Interim Inspections

   (a) As determined at the pre-construction meeting and according to the approved SWPCP or as otherwise directed by the Commissioner, interim inspections shall be conducted to verify compliance with the CGP and the SWPCP, including but not limited to, verification of site stabilization at the end of each construction phase and proper installation of controls prior to the beginning of the next phase of construction. Similar to the Plan Implementation Inspection, the permittee (or designee) will notify the District that an inspection is needed for either the closeout of one phase and/or the beginning of another.

   (b) Random inspections shall be conducted at least every 6 weeks if needed between scheduled inspections.

   (c) Additional inspections may be scheduled if E&S control objectives are not being met.

   (d) A written report will be generated following each inspection noting site conditions and any action required to maintain proper E&S controls during construction. The report will note whether or not the site is in compliance with the SWPCP and the CGP.

6. Post-Construction Inspection: Once construction is completed the District will conduct a post-construction site inspection with the permittee (or designee), designing qualified professional engineer and contractor to verify that all post-construction stormwater measures

are installed properly in accordance with the CGP and the SWPCP. The District will conduct at least one follow-up site visit after the post-construction site inspection. Additional inspections may be needed if the site is not stable and remedial action is needed. Reports and required actions will follow the same protocol as outlined in II.A.5.(d), above.

7. Final Stabilization Inspection: A final site inspection with the District, contractor, and designing qualified professional engineer will be conducted to ensure the site has been fully stabilized and all post-construction stormwater Best Management Practices (BMPs) are in place and functioning. The final stabilization inspection shall not take place prior to the completion of one (1) full growing season (April – October) following a successful post-construction inspection. The District will notify DEEP to confirm the site has achieved final stabilization. Subsequent to such notification, the permittee shall submit a Notice of Termination in accordance with the CGP.

B. Audits

The District agrees that all records pertaining to this Agreement shall be maintained for a period of not less than five (5) years. Such records shall be made available to the DEEP and to the state auditors upon request. For the purposes of this Agreement, "Records" are all working papers and such information and materials as may have been accumulated by the District in performing the Agreement, including, but not limited to, documents, data, analysis, plans, books, computations, drawings, specifications, notes, inspection reports and records, estimates, summaries and correspondence, kept or stored in any form.

IV. FEE SCHEDULE

A. A District will assess fees for the services it renders in conjunction with its SWPCP technical assistance in accordance with the Fee Schedule provided in Exhibit 1 to this agreement. Fees will be calculated on an hourly basis and paid for by the permittee. A down payment will be required prior to the start of any assistance.

B. The Fee Schedule shall be reviewed annually by the Parties. The Fee Schedule may be adjusted as warranted by mutual written agreement between the Districts and the Commissioner.

V. RESPONSIBILITIES OF DEEP

A. DEEP is responsible for formal review of all locally exempt SWPCPs submitted as part of the CGP and will require performance assurance (in accordance with the CGP) or similar financial mechanisms of the permittee to ensure payments will be made to Districts for technical assistance work.

B. In order to institute standard SWPCP review guidelines and procedures, DEEP shall coordinate with the Districts to prepare a SWPCP checklist. The standard review guidelines and procedures established shall be consistent with the requirements of the Construction General Permit, the 2002 CT Guidelines for Soil Erosion and Sediment Control (as amended), and the 2004 Stormwater Quality Manual (as amended). The Commissioner shall have final approval of the review guidelines and procedures.

C. DEEP shall provide initial training regarding SWPCP requirements for District staff involved in SWPCP technical assistance. The frequency of subsequent training shall be determined by the Commissioner.

D. DEEP shall retain final decision making authority regarding the determination that a construction site is in compliance or not with the SWPCP requirements of the Construction General Permit and shall oversee the permitting process for Construction General Permit coverage.

E. DEEP shall oversee any subsequent compliance and/or enforcement matters related to a permittee's adherence to the requirements of the Construction General Permit.

F. DEEP shall have the discretion to review any of the Districts' records pertaining to any aspect this Agreement.

VI. POINTS OF CONTACT

The following shall be points of contact for this Agreement unless otherwise agreed to by all Parties. All notices, demands, requests, consents, approvals or other communications required or permitted to be given or which are given with respect to this Agreement (for the purpose of this section collectively called "Notices") shall be deemed to have been effected at such time as the notice is emailed, or placed in the U.S. mail, first class and postage pre-paid, return receipt requested, or placed with a recognized overnight express delivery service that provides for a return receipt. All such Notices shall be in writing and shall be addressed as follows:

DEEP
Director Water Permitting & Enforcement Division
Bureau of Material Management & Compliance Assurance
Department of Energy & Environmental Protection
79 Elm St.
Hartford, CT 06106
Phone: 860-424-3018
Fax: 860-424-4074

Conservation District Executive Director and/or Board Chairperson
Address & Phone of appropriate District:

Northwest Conservation District
1185 New Litchfield Street
Torrington, CT 06790
Ph: 860-626-7222
Fax: 860-626-7222
Email: info@nwcd.org

Eastern Connecticut Conservation District
238 West Town Street
Norwich, CT 06360-2111
Ph: 860-319-8806
Email: Dan.Mullins@comcast.net

Connecticut River Coastal Conservation District, Inc.
deKoven House Community Center
27 Washington Street
Middletown, CT 06457
Ph: 860-346-3282
Email: ctrivercoastal@conservect.org

Southwest Conservation District
51 Mill Pond Road
Hamden, CT 06514
Ph: 203-859-7014
Email: csullivan@conservect.org

North Central Conservation District
24 Hyde Avenue
Vernon, CT 06066
Ph: 860-875-3881
Email: tollandc@snet.net

General Conditions

VII. EXECUTIVE ORDERS AND ANTI-DISCRIMINATION.

Executive Orders. . This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract may also be subject to Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services and to Executive Order No. 49 of Governor Dannel P. Malloy, promulgated May 22, 2015, mandating disclosure of certain gifts to public employees and contributions to certain candidates for office. If Executive Order 14 and/or Executive Order 49 are applicable, they are deemed to be incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Client Agency or DAS shall provide a copy of these orders to the Contractor.

VIII. AMENDMENTS. Either the DEEP or the Districts may recommend revisions to this Agreement as circumstances may warrant; however, any revisions must be upon mutual agreement of DEEP and all five Conservation Districts. Unless otherwise stated in this Agreement, formal written amendment is required for changes to any of the terms and conditions specifically stated in the Agreement, any prior amendments to the Agreement, and any other Agreement revisions determined

material by the Department.

IX. SEVERABILITY. The provisions of this Agreement are severable. If any part of it is found unenforceable, all other provisions shall remain fully valid and enforceable, unless the unenforceable provision is an essential element of the bargain.

X. SOVEREIGN IMMUNITY. The Parties acknowledge and agree that nothing in the Agreement shall be construed as a modification, compromise or waiver by the State of Connecticut ("State") of any rights or defenses of any immunities provided by federal law or the laws of the State of Connecticut to the State or any of the State's, which they may have had, now have or shall have with respect to all matters arising out of the Agreement. To the extent that this section conflicts with any other section, this section shall govern.

XI. FORUM AND CHOICE OF LAW. The Agreement shall be deemed to have been made in the City of Hartford, State of Connecticut. Both Parties agree that it is fair and reasonable for the validity and construction of the Agreement to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by federal law or the laws of the State of Connecticut do not bar an action against the State or the Districts, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Districts waive any objection which they may now have or shall have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

XII. TERMINATION. Notwithstanding any provisions in this Agreement, DEEP, through a duly authorized employee, may terminate the Agreement whenever the Department makes a written determination that such Termination is in the best interests of the State. The Department shall notify the Districts in writing sent by certified mail, return receipt requested, which notice shall specify the effective date of Termination and the extent to which the Districts must complete its Performance under the Agreement prior to such date; or (b) The Districts may terminate the Agreement for good cause. The Districts shall notify DEEP by written notice at least one hundred eighty (180) days prior to the effective date of termination. In order for the Districts to terminate this Agreement, (1) there must be a consensus between all five Conservation Districts that each District shall be terminating this Agreement with the DEEP; (2) such proof of consensus shall be submitted to the DEEP in the form of a letter signed by the duly authorized agent for each District by certified mail, return receipt requested, at least one hundred eighty (180) days prior to the Districts' intention to cancel or terminate. Upon the Termination of this Agreement by either Party, the Districts shall deliver to the Department copies of all Records no later than thirty (30) days after the Termination of the Agreement, or fifteen (15) days after the Non-terminating Party receives a written request from the Terminating Party for the Records. The Districts shall deliver those Records that exist in electronic, magnetic or other intangible form in a non-proprietary format, such as, but not limited to, PDF, ASCII or .TXT. Upon receipt of a written notice of Termination from the Department, the Districts shall cease operations as the Department directs in the notice, and take all actions that are necessary or appropriate, or that the Department may reasonably direct, for the protection, and preservation of records. Except for any work which the Department directs the Districts to Perform in the notice prior to the effective date of Termination, and except as otherwise provided in the notice, the

Districts shall terminate or conclude all existing subcontracts and purchase orders and shall not enter into any further subcontracts, purchase orders or commitments. Upon Termination of the Agreement, all rights and obligations shall be null and void, so that no Party shall have any further rights or obligations to any other Party, except with respect to the sections which survive Termination. All representations, warranties, agreements and rights of the Parties under the Agreement shall survive such Termination to the extent not otherwise limited in the Agreement and without each one of them having to be specifically mentioned in the Agreement. Termination of the Agreement pursuant to this section shall not be deemed to be a breach of Agreement by the Department.

XIII. DURATION OF AGREEMENT. This Agreement shall be effective on January 1, 2019 or on the date of the last signature below, whichever is later, and shall continue in force unless canceled or terminated by either party in accordance with paragraph X above.

XIV. VOID AB INITIO. Notwithstanding paragraphs X and XI, the Agreement shall be void ab initio if, in the Commissioner's sole discretion, the Construction General Permit is reissued, revoked or modified to eliminate the need for the Districts to review the SWPCP pursuant to such general permit's terms and conditions or if the Construction General Permit expires and is not reissued.

XV. INTERPRETATION. The Agreement contains numerous references to statutes and regulations. For purposes of interpretation, conflict resolution and otherwise, the content of those statutes and regulations shall govern over the content of the reference in the Agreement to those statutes and regulations.

XVI. ENTIRETY OF AGREEMENT. This Agreement is the entire agreement between the Parties with respect to its subject matter, and supersedes all prior agreements, proposals, offers, counteroffers and understandings of the Parties, whether written or oral. The Agreement has been entered into after full investigation, neither Party relying upon any statement or representation by the other unless such statement or representation is specifically embodied in the Agreement.

XVII. PROTECTION OF STATE CONFIDENTIAL INFORMATION

A. The Districts or District Parties, at their own expense, have a duty to and shall protect from a Confidential Information Breach any and all Confidential Information which they come to possess or control, wherever and however stored or maintained, in a commercially reasonable manner in accordance with current industry standards.

B. Each District or District Party shall develop, implement and maintain a comprehensive data-security program for the protection of Confidential Information. The safeguards contained in such program shall be consistent with and comply with the safeguards for protection of Confidential Information, and information of a similar character, as set forth in all applicable federal and state law and written policy of the Department or State concerning the confidentiality of Confidential Information. Such data-security program shall include, but not be limited to, the following:

1. A security policy for employees related to the storage, access and transportation of data containing Confidential Information;

2. Reasonable restrictions on access to records containing Confidential Information, including access to any locked storage where such records are kept;

3. A process for reviewing policies and security measures at least annually;

4. Creating secure access controls to Confidential Information, including but not limited to passwords; and

5. Encrypting of Confidential Information that is stored on laptops, portable devices or being transmitted electronically.

C. The District and District Parties shall notify the Department and the Connecticut Office of the Attorney General as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any Confidential Information which Parties have come to possess or control has been subject to a Confidential Information Breach. If a Confidential Information Breach has occurred, the District shall, within three (3) business days after the notification, present a credit monitoring and protection plan to the Commissioner of Administrative Services, the Department and the Connecticut Office of the Attorney General, for review and approval. Such credit monitoring or protection plan shall be made available by the District at its own cost and expense to all individuals affected by the Confidential Information Breach. Such credit monitoring or protection plan shall include, but is not limited to, reimbursement for the cost of placing and lifting one (1) security freeze per credit file pursuant to Connecticut General Statutes §36a-701a. Such credit monitoring or protection plans shall be approved by the State in accordance with this Section and shall cover a length of time commensurate with the circumstances of the Confidential Information Breach. The District's costs and expenses for the credit monitoring and protection plan shall not be recoverable from the Department, any State of Connecticut entity or any affected individuals.

D. The District shall incorporate the requirements of this Section in all subAgreements requiring each District Party to safeguard Confidential Information in the same manner as provided for in this Section.

E. Nothing in this Section shall supersede in any manner the District's and/ or the District Parties' obligations pursuant to HIPAA or the provisions of this Agreement concerning the obligations of the District as a Business Associate of the Department.

XVIII. AMERICANS WITH DISABILITIES ACT. The Districts shall be and remain in compliance with the Americans with Disabilities Act of 1990 ("Act"), to the extent applicable, during the term of the Agreement. The DEEP may cancel the Agreement if the District and District Parties fail to comply with the Act.

XIX. ADA PUBLICATION STATEMENT. The following statement shall be incorporated into all publications prepared under the terms of this Agreement:

"The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). Please contact us at (860) 418-5910 or deep.accommodations@ct.gov if you: have a disability and need a communication aid or service;

have limited proficiency in English and may need information in another language; or if you wish to file an ADA or Title VI discrimination complaint."

When advertising any public meetings conducted under the terms of this Agreement, the above publications language should be used as well as the following statement:

"Requests for accommodations must be made at least two weeks prior to the program date."

All videos produced under the terms of this Agreement must be made available with closed captioning.

XX. PUBLICATION OF MATERIALS. The District must obtain written approval from the State of Connecticut prior to distribution or publication of any printed material prepared under the terms of this Agreement. Unless specifically authorized in writing by the State, on a case by case basis, the District shall have no right to use, and shall not use, the name of the State of Connecticut, its officials, agencies, or employees or the seal of the State of Connecticut or its agencies: (1) in any advertising, publicity, promotion; or (2) to express or to imply any endorsement of District's products or services; or (3) to use the name of the State of Connecticut, its officials agencies, or employees or the seal of the State of Connecticut or its agencies in any other manner (whether or not similar to uses prohibited by (1) and (2) above), except only to manufacture and deliver in accordance with this Agreement such items as are hereby contracted for by the State. In no event may the Districts use the State Seal in any way without the express written consent of the Secretary of State.

XXI. CHANGES IN PRINCIPAL PROJECT STAFF. Any changes in the principal project staff must be requested in writing and approved in writing by the Commissioner at the Commissioner's sole discretion. In the event of any unapproved change in principal project staff, the Commissioner may, in the Commissioner's sole discretion, terminate this Agreement.

XXII. FURTHER ASSURANCES. The Parties shall provide such information, execute and deliver any instruments and documents and take such other actions as may be necessary or reasonably requested by the other Party which are not inconsistent with the provisions of this Agreement and which do not involve the vesting of rights or assumption of obligations other than those provided for in the Agreement, in order to give full effect to the Agreement and to carry out the intent of the Agreement.

XXIII. ASSIGNMENT. The Districts shall not assign any of their rights or obligations under the Agreement, voluntarily or otherwise, in any manner without the prior written consent of the Department. The Department may void any purported assignment in violation of this section and declare the District in breach of this Agreement. Any termination by the Department for a breach is without prejudice to the Agency's or the State's rights or possible Claims.

XXIV. EXHIBITS. All exhibits referred to in, and attached to, this Agreement are incorporated in this Agreement by such reference and shall be deemed to be a part of it as if they had been fully set forth in it.

XXV. FORCE MAJEUR. Events that materially affect the cost of the Goods or Services or the time schedule within which to Perform and are outside the control of the party asserting that such an event has occurred, including, but not limited to, labor troubles unrelated to District(s), failure of or inadequate permanent power, unavoidable casualties, fire not caused by a District, extraordinary

weather conditions, disasters, riots, acts of God, insurrection or war.

XXVI. INDEMNIFICATION. The Districts shall indemnify, defend and hold harmless the State and its officers, representatives, agents, servants, employees, successors and assigns from and against any and all (1) Claims arising, directly or indirectly, in connection with the Agreement, including the acts of commission or omission (collectively, the "Acts") of the District or District Parties; and (2) liabilities, damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, arising, directly or indirectly, in connection with Claims, Acts or the Agreement. The Districts obligations under this section to indemnify, defend and hold harmless against Claims includes Claims concerning confidentiality of any part of or all of the Districts' Records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the Performance. The Districts shall not be responsible for indemnifying or holding the State harmless from any liability arising due to the gross negligence of the State or any other person or entity acting under the direct control or supervision of the State. The Districts shall reimburse the State for any and all damages to the real or personal property of the State caused by the Acts of the Districts or any District Parties. The State shall give the Districts reasonable notice of any such Claims. The Districts shall carry and maintain at all times during the term of the Agreement, and during the time that any provisions survive the term of the Agreement, sufficient general liability insurance to satisfy its obligations under this Agreement. The Districts shall name the State as an additional insured on the policy and shall provide a copy of the policy to the Department prior to the effective date of the Agreement. The Districts shall not begin Performance until the delivery of the policy to the Department. The Department shall be entitled to recover under the insurance policy even if a body of competent jurisdiction determines that the Department or the State is contributorily negligent. This section shall survive the Termination of the Agreement and shall not be limited by reason of any insurance coverage.

XXVII. DISTRICT PARTIES. A District's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the District is in privity of oral or written contract and the District intends for such other person or entity to Perform under the Agreement in any capacity

Authorizing Signatures

For DEEP: _____ _____
Katherine S. Dykes, Commissioner Date

For Northwest Conservation District:

_____ _____
Signature Date

_____
Title

For Eastern Connecticut Conservation District:

_____ _____
Signature Date

_____
Title

For Connecticut River Coastal Conservation District, Inc.:

_____ _____
Signature Date

_____
Title

For Southwest Conservation District:

_____ _____
Signature Date

_____
Title

For North Central Conservation District:

_____ _____
Signature Date

_____
Title

Exhibit 1

Fee Schedule effective as of January 1, 2019

The Districts will be paid $120/hour for technical assistance work performed. Interim inspections must be estimated based on phasing and complexity of site.

Down payments:
$2,500 for sites ≤ 20 acres
$4,000 for sites > 20 acres

Exhibit 2

Conservation Districts of Connecticut
Regional Delineations and Contact Information

Northwest Conservation District
1185 New Litchfield Street
Torrington, CT 06790
Ph: 860-626-7222
Fax: 860-626-7222
Email: info@nwcd.org

Eastern Connecticut Conservation District
238 West Town Street
Norwich, CT 06360-2111
Ph: 860-319-8806
Email: Dan.Mullins@comcast.net

Connecticut River Coastal Conservation District, Inc.
deKoven House Community Center
27 Washington Street
Middletown, CT 06457
Ph: 860-346-3282
Email: ctrivercoastal@conservect.org

Southwest Conservation District
51 Mill Pond Road
Hamden, CT 06514
Ph: 203-859-7014
Email: csullivan@conservect.org

North Central Conservation District
24 Hyde Avenue
Vernon, CT 06066
Ph: 860-875-3881
Email: tollandc@snet.net

NORTHWEST	SOUTHWEST	NORTH CENTRAL	CT RIVER COASTAL	EASTERN
Barkhamsted	Ansonia	Avon	Berlin	Andover
Bethel	Beacon Falls	Bloomfield	Chester	Ashford
Bethlehem	Bethany	Bolton	Clinton	Bozrah
Bridgewater	Branford	Bristol	Colchester	Brooklyn
Brookfield	Bridgeport	Burlington	Cromwell	Canterbury
Canaan	Cheshire	Canton	Deep River	Chaplin
Colebrook	Darien	Coventry	Durham	Columbia
Cornwall	Derby	East Granby	East Haddam	Eastford
Danbury	East Haven	East Hartford	East Hampton	East Lyme
Goshen	Easton	East Windsor	Essex	Franklin
Hartland	Fairfield	Ellington	Haddam	Griswold
Harwinton	Greenwich	Enfield	Hebron	Groton
Kent	Guilford	Farmington	Killingworth	Hampton
Litchfield	Hamden	Glastonbury	Lyme	Killingly
Morris	Meriden	Granby	Madison	Lebanon
New Fairfield	Middlebury	Hartford	Marlborough	Ledyard
New Hartford	Milford	Manchester	Middlefield	Lisbon
New Milford	Monroe	Plainville	Middletown	Mansfield
Newtown	Naugatuck	Simsbury	Newington	Montville
Norfolk	New Canaan	Somers	New Britain	New
North Canaan	New Haven	South Windsor	Old Lyme	London
Plymouth	North Branford	Stafford	Old Saybrook	North
Roxbury	North Haven	Suffield	Portland	Stonington
Salisbury	Norwalk	Tolland	Rocky Hill	Norwich
Sharon	Orange	Vernon	Salem	Plainfield
Sherman	Oxford	West Hartford	Westbrook	Pomfret
Southbury	Prospect	Wethersfield		Preston
Thomaston	Redding	Willington		Putnam
Torrington	Ridgefield	Windsor		Scotland
Warren	Seymour	Windsor Locks		Sprague
Washington	Shelton			Sterling
Watertown	Southington			Stonington
Winchester	Stamford			Thompson
Woodbury	Stratford			Union
	Trumbull			Voluntown
	Wallingford			Waterford
	Waterbury			Windham
	West Haven			Woodstock
	Weston			
	Westport			
	Wilton			
	Wolcott			
	Woodbridge			

APPENDIX G

Historic Preservation Review

Chapter 184a, Section 10-387 of the Connecticut General Statutes states that DEEP shall review, in consultation with the State Historic Preservation Office (SHPO) within the Department of Economic and Community Development, its policies and practices for consistency with the preservation and study of the state's archaeological and historical sites. Pursuant to this requirement, DEEP has outlined the following process for assessing the potential for a proposed development to impact these important resources. DEEP advises a review for resources identified below to ***be initiated up to one year*** prior to registration for this permit and in conjunction with the local project approval process.

Question 1
Will the proposed project will be authorized under an Army Corps of Engineers Section 404 wetland permit?

☐ Yes – Stop here – the Section 404 permit will satisfy all requirements for Appendix G
☐ No – Please answer the following questions

Question 2
Is the project site within an area of significance?

☐ Yes ☐ No ☐ Do Not Know or Unable to Determine

This can be determined by consulting the following resources:

1. National Register of Historic Places found at the link below: https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466
2. The municipality of the proposed development site for locally designated properties (including local historic districts) and any municipal ordinance pertaining to properties over 50 years old.

Question 3
Does the area of anticipated construction or ground disturbance include soils defined by the United States Department of Agriculture as "Loam, Sandy Loam, or Loamy Sand" that also may be Fine or Gravelly with slopes less than or equal to 15% (Soil mapping information is available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx)?

☐ Yes ☐ No ☐ Do Not Know or Unable to Determine

Question 4
Are there buildings or structures over 50 years in age within the project site or evidence of prior human land use (i.e., buildings foundations, wells, stone walls, or other built stone features)?

☐ Yes ☐ No ☐ Do Not Know or Unable to Determine

How to Proceed

If you answered "Yes" or "Do Not Know or Unable to Determine" to any or all of Questions 2, 3, or 4 above; please contact Catherine Labadia at SHPO for additional guidance (email: catherine.labadia@ct.gov or direct phone: 860-500-2329).

If you answered "No" to each one of Questions 2, 3, or 4 above; report in the Registration Form for the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities that a self-review has been conducted and report the results provided above.

Appendix H
Wild & Scenic Rivers Guidance

Overview: Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (WSRA) charges administration of rivers in the National Wild and Scenic Rivers System (National System) to four federal land management agencies (Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and U.S. Forest Service). However, to protect and enhance river values as directed in the WSRA, it is essential to use the authorities of a number of other federal agencies in administering the water column, river bed/bank, and upland river corridor.

Congress declared a policy to protect selected rivers in the nation through the WSRA. The river-administering agencies are to protect the river's identified values, free-flowing condition, and associated water quality. Specifically, each component is to be "administered in such manner as to protect and enhance the (outstandingly remarkable) values (**ORVs**) which caused it to be included in said system. . . ."

The WSRA also directs other federal agencies to protect river values. It explicitly recognizes the Federal Energy Regulatory Commission, Environmental Protection Agency, Army Corps of Engineers and any other federal department or agency with lands on or adjacent to designated (or congressionally authorized study) rivers or that permit or assist in the construction of water resources projects.

Pertinent Sections of the Wild and Scenic Rivers Act

The full Wild and Scenic Rivers Act can be found at the website: www.rivers.gov
Pertinent Sections related to the mandate to protect river values through coordinated federal actions is found in several sections of the WSRA:

Section 1(b)	Section 7(a)	Section 10(a)
Section 12(a)	Section 12(c)	

Designated Rivers under the Wild and Scenic Rivers Act and Contact Information

The full listing of designated rivers can be found on the website www.rivers.gov
As of the date of this publication, there are two designated rivers in Connecticut, both of which are managed under the Partnership Wild and Scenic Rivers Program, through a Coordinating Committee consisting of representatives from local communities and organizations, state government and the National Park Service. More information about these rivers, their watersheds, approved management plans, the Wild and Scenic Coordinating Committees and specific contact information can be found on the websites.

1. Farmington (West Branch) River: farmingtonriver.org
2. Farmington (Lower) & Salmon Brook: lowerfarmingtonriver.org
3. Eightmile River: eightmileriver.org
4. Wood & Pawcatuck Rivers: wpwildrivers.org

APPENDIX I
Stormwater Management at
Solar Array Construction Projects

Solar development has expanded over the last several years as Connecticut and other states have invested in this important resource to further greenhouse gas emission reductions and other renewable policy objectives. However, construction of a large-scale solar array is unlike most other construction activities regulated under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("general permit") and entails challenges not encountered in traditional development projects. If not properly managed, stormwater discharged during and after the construction of solar arrays can be a significant source of pollution resulting from increased runoff, erosion, and sedimentation, which can adversely impact wetlands or other natural resources. It is vitally important to stabilize soil, minimize soil disturbance and soil compaction, and manage the total runoff volume and velocity. Proper stormwater management practices can significantly mitigate the loss of topsoil, erosion and sediment discharges from disturbed areas and stormwater outlets, and erosion along downstream channels and streambanks. The opportunities to properly manage runoff decrease as site imperviousness increases.

Therefore, in addition to the terms and conditions of the general permit, registrations for construction of a Solar Array (as that term is defined in Section 2 of the general permit) shall, at a minimum, adhere to the conditions listed below. Depending on site-specific conditions for a particular solar array construction project, additional analyses may be required.

(I) Design and construction requirements

(1) Roadways, gravel surfaces and transformer pads within the solar array are considered effective impervious cover for the purposes of calculating Water Quality Volume (WQV). In addition to these impervious surfaces, all solar panels in the array shall also be considered effective impervious cover for the purposes of calculating Water Quality Volume if the proposed post-construction slopes at a site are equal to or greater than 15% or if the post-construction slopes at a site are less than 15% and the conditions in (a) – (d), inclusive, below have not been met:

(a) The vegetated area receiving runoff between rows of solar panels (see Figures 1 and 2, below) is equal to or greater than the average width of the row of solar panels draining to the vegetated area;

(b) Overall site conditions and solar panel configuration within the array are designed and constructed such that stormwater runoff remains as sheet flow across the entire site and flows towards the intended stormwater management controls;

(c) The following conditions are satisfied regarding the design of the post-construction slope of the site:

(i) For slopes less than or equal to 5%, appropriate vegetation shall be established that will ensure sheet flow conditions and that will provide sufficient ground cover throughout the site; and

(ii) For slopes greater than 5%, but less than 10%, practices including, but not limited to, level spreaders, terraces or berms as described in Figure 2, below, shall be used to ensure long term sheet flow conditions; and

(iii) For slopes greater than or equal to 8%, erosion control blankets or stump grindings or erosion control mix mulch or hydroseed with tackifier shall be applied within 72 hours of final grading, or when a rainfall of 0.5 inches or greater is predicted within 24 hours of final grading, whichever time period is less; and

(iv) For slopes equal to or greater than 10% and less than 15%, the Plan includes specific engineered stormwater control measures with detailed specifications that are designed to provide permanent stabilization and non-erosive conveyance of runoff to the property line of the site or downgradient from the site.

(d) The solar panels shall be designed and constructed in such a manner as to allow the growth of native

vegetation beneath and between the panels. Pollinator-friendly vegetation is strongly encouraged. With respect to such vegetation, the Permittee shall not use chemical fertilization, herbicides, or pesticides except as necessary to establish such vegetation.

(2) (a) Prior to commencing construction activities, the Permittee shall ensure that the following setback and buffer shall be delineated and maintained on the site:

(i) No solar panel associated with a solar array shall be located within one-hundred (100) feet of any wetland or waters ("the 100-foot setback") that, prior to or after construction, is located downgradient of such construction activity or within fifty (50) feet of any property boundary ("the 50-foot setback") that, prior to or after construction, is located downgradient of such construction activity; and

(ii) Except as provided in section 2(a)(iii), there shall be an undisturbed buffer of at least fifty (50) feet between any construction activity at a site and any wetland or waters that, prior to or after construction, is located downgradient of such construction activity ("the 50-foot buffer"). Such buffer shall be comprised of existing dense herbaceous vegetative ground cover (e.g. not forested area). If the entirety of such buffer is not comprised of existing dense herbaceous vegetative ground cover, such buffer shall be at least one-hundred (100) feet ("the 100-foot buffer").

(iii) There shall be an undisturbed buffer of at least ten (10) feet between any construction activity at a site associated with an access road or the electrical interconnection necessary for the solar array and any wetland or waters that, prior to or after construction, is located downgradient of such construction activity ("10-foot buffer"), except if the access road or electrical interconnection passes between two wetland or waters and the undisturbed buffer cannot be achieved. Any crossing through a wetland or waters for an access road or electrical interconnection is exempt from such buffer requirement.

(b) Notwithstanding section 2(a)(ii), the 50-foot buffer or 100-foot buffer, as applicable, may be reduced, only where necessary, but by no more than fifty percent (50%), only if all of the following have been demonstrated to the satisfaction of the commissioner by approval of a Registration:

(i) Stormwater control measures for managing stormwater discharges that will enter or be received by a wetland or waters shall be designed and installed in accordance with the following conditions:

(A) a minimum sediment load reduction of ninety percent (90%) shall be achieved before such discharges enter or are received by a wetland or waters. The required sediment load reduction shall be calculated based solely on the stormwater controls used; no sediment load reduction from conditions on the site (i.e., from any remaining buffer) shall be considered when calculating the sediment load reduction from such stormwater controls. The sediment load reduction may be calculated using a range of available models that are available to facilitate this calculation, including USDA's RUSLE-series programs and the WEPP erosion model, SEDCAD, SEDIMOT, or other equivalent independent third party model or method acceptable to the commissioner;

(B) those portions of a solar array from which stormwater discharges enter or will be received by a wetland or waters shall be deemed effective impervious cover for the purposes of calculating Stream Channel Protection in accordance with Section 7.6.1 of the Stormwater Quality Manual, even if those portions of such array are less than one (1) acre; and

(C) the buffer into which stormwater discharges shall have a slope of less than or equal to fifteen percent (15%)

(c) A soil scientist, as that term is defined in Section 2 of the general permit, shall delineate all wetland or waters by field survey. The location of all wetland or waters and all required setbacks and buffers shall be shown on all mapping and prior to the start of construction be clearly marked on the site with flags, stakes, tape, or a similar marking device by a surveyor licensed in Connecticut.

(d) Delineation of the 100-foot setback and any buffer required under this section shall be measured perpendicularly and laterally from the nearest part of the solar array or construction activity, as applicable, to:

(i) in the case of waters, the ordinary high water mark of the water body, defined as the line on the shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, and/or the presence of litter and debris;

(ii) the nearest edge of the stream or river bank, bluff, or cliff, as applicable; and

(iii) the nearest edge of any wetland, as determined by a soil scientist.

(e) The Plan shall indicate how compliance with this section will be achieved.

(f) Prior to the approval of a registration, the commissioner may determine that the 100 foot-setback or any buffer required under this section is not adequate to protect water quality or natural resources (i.e., a vernal pool, cold-water perennial streams, perennial headwater seeps or similar sensitive wetland or waters, or other sensitive habitat). In such a case, the commissioner may reject or disapprove the registration, or may impose additional terms and conditions in the approval of such registration, including, but not limited to, an additional setback, buffer or other control measure.

(g) Nothing in this section is intended to or shall prevent improvements, as may be directed by the commissioner in the approval of a registration, to enhance the water quality benefits or the natural resource value of any buffer required under this section.

(h) The terms "wetland", "wetlands", and "waters" shall be as defined in Section 2 of the general permit. In addition, the term "access road" shall mean a road used for the sole purpose of gaining access to the site from a public road or right-of-way or a road used solely to provide access between separate internal areas of fenced solar arrays. Access road shall *not* include any other road, including, but not limited to, a road around the perimeter of a solar array or a road used to service solar arrays.

(3) The lowest vertical clearance of the solar panels above the ground should not be greater than ten (10) feet. The panels shall, however, be at an adequate height to support vegetative growth and maintenance beneath and between the panels. If the lowest vertical clearance of the solar panels above the ground is greater than ten (10) feet, non-vegetative control measures will be required to prevent/control erosion and scour along the drip line or otherwise provide energy dissipation from water running off the panels. This section does not apply to solar carports that are installed over asphalt pavement.

(4) In addition to the pre-construction meeting required by Section 3(*b*)(15) of the general permit, prior to each phase of any construction activity, the Permittee shall ensure that a preconstruction meeting takes place with the designing qualified professional, qualified inspector, and all site contractors and subcontractors to be involved in construction, and the appropriate District personnel. Such meeting shall include a site walk of the project site. The Permittee shall ensure that a record of the date of such meeting and a report summarizing the meeting shall be prepared and retained in the Permittee's Plan, with a copy sent to all parties who attended the preconstruction meeting.

(5) (a) The Permittee shall retain the designing qualified professional and a qualified inspector (as those terms are defined in Section (2)) to conduct the Plan Implementation and Routine inspections pursuant to Section 5(*b*)(4), provided that any qualified inspector shall be chosen by the designing qualified professional. Unless otherwise approved in writing by the Commissioner, such designing qualified professional and qualified inspector shall be retained for the duration of the construction project until the Notice of Termination has been submitted to the Commissioner and determined to be acceptable, as described below in paragraph (8) below.

(b) Plan Implementation Inspections: Notwithstanding the schedule of inspections set forth in Section 5(*b*)(4) of the general permit, the Permittee shall ensure that the designing qualified professional and the qualified

inspector chosen by such designing qualified professional conduct Plan Implementation Inspections beginning with the commencement of construction activities and through each phase of construction until all perimeter controls, initial erosion and sediment control measures, and construction stormwater traps, basins, swales, and other control measures associated with each phase have been installed and stabilized. In addition, once all of these measures have been installed and stabilized, the Permittee shall ensure that the designing qualified professional certifies in writing to their completion in the applicable inspection report in accordance with the Plan. The Permittee shall ensure that the designing qualified professional conducts a Plan Implementation Inspection of the site at least once a month and the qualified inspector chosen by such designing qualified professional conducts such inspection at least once a week. (The qualified inspector does not need to conduct a weekly inspection during the week the qualified designing professional conducts a monthly inspection).

(c) Routine Inspections: Following the completion of the Plan Implementation Inspections (i.e., after the designing qualified professional has certified that stormwater control measures have been installed and stabilized) and notwithstanding the requirements of Section 5(*b*)(4)(B) of the general permit, either the designing qualified professional or the qualified inspector shall conduct weekly Routine Inspections pursuant to Section 5(*b*)(4)(B) of the general permit, provided that the designing qualified professional shall inspect the site at least once a month, or more frequently if necessary, to confirm that the site is in compliance with the general permit and determine if it is necessary to install, modify, maintain, or repair such controls and/or measures to improve the quality of stormwater discharges.

(d) In addition to any requirements of Section 5(*b*)(4)(B) of the general permit, the designing qualified professional shall seal and certify to the truth and accuracy of each inspection undertaken pursuant to this section regardless of whether the inspection is performed by such designing qualified professional or the qualified inspector. On or before five (5) days after the completion of each inspection, the Permittee shall ensure that certified inspection reports of all inspections undertaken pursuant to this section are provided by the designing qualified professional directly to the Permittee and shall ensure that a copy of the certified inspection report of each such inspection is provided to the appropriate District personnel and submitted electronically to the Department via email at DEEP.stormwaterstaff@ct.gov.

(e) Unless otherwise provided for in this section, the Permittee shall comply with section 5(*b*)(4) of the general permit, including, but not limited to, taking action if an inspection indicates that the site is not in compliance with the terms and conditions of the Plan or the general permit.

(f) The Permittee shall also ensure that the proposed inspection checklist prepared by the designing qualified professional is submitted for the review and approval of the Commissioner and is included with the registration for the general permit. No other professionals may serve as the designing qualified professional or qualified inspector without the prior submittal of relevant credentials and inspection checklist for the Commissioner's review and written approval.

(6) In addition to the requirements of this general permit regarding inspection checklists, the Permittee shall ensure that a copy of all such checklists are submitted electronically to the Department email (DEEP.stormwaterstaff@ct.gov) and the appropriate District within five (5) days from the date an inspection of the site was performed.

(7) The Permittee shall ensure, after completion of a construction project, that a Notice of Termination is filed in compliance with Section 6 of this general permit, including the requirement that such Notice of Termination be signed by a District representative certifying that such District representative has personally conducted a Post-Construction Inspection and Final Stabilization Inspection in accordance with Section 6(*a*) of this general permit and verified compliance with the requirements of that section. The Notice of Termination shall not be submitted until two (2) full growing seasons have passed following final stabilization. Monthly post-construction inspections shall be conducted by the qualified inspector following final stabilization until the Notice of Termination is submitted.

(8) (a) Prior to undertaking any construction activity, the Permittee shall secure and maintain a letter of credit in

accordance with the requirements of this section.

(b) For sites with a total disturbance of twenty (20) acres or more, the amount of the Letter of Credit shall be $15,000.00 per acre of disturbance. For sites with a total disturbance of less than twenty (20) acres, the amount of the Letter of Credit shall be $7,500.00 per acre of disturbance. Should a project developer locate more than one project with a total disturbance of less than twenty (20) acres in the same vicinity, for purposes of this section, the Commissioner reserves the right to combine such projects and consider them as being a site with a total disturbance of twenty (20) acres or more.

(c) The wording of such letter of credit must be identical to the wording specified in Appendix J of the general permit. The Permittee shall maintain such letter of credit in effect until the Commissioner notifies the permittee that the Notice of Termination, filed in compliance with Section 6 of the general permit has been accepted by the Commissioner.

(d) At the option of the Permittee, the amount of the letter of credit required under section 8(b) of Appendix I may be reduced:

(i) By forty (40) percent of the amount of the original letter of credit, only upon a determination by the Commissioner or, after designation of a District by the Commissioner, a representative from such District, that all perimeter controls, initial erosion and sediment control measures, and construction stormwater traps, basins, swales, and other control measures have been installed, functioning and stabilized in accordance with the general permit and the Plan;

(ii) By forty (40) percent of the amount of the original letter of credit, only upon a determination by the Commissioner or, after designation of a District by the Commissioner, a representative from such District, that all post-construction stormwater management measures specified in the SWPCP have been installed, functioning and stabilized in accordance with the general permit and the Plan; and

(iii) Upon the Commissioner's acceptance of the Notice of Termination filed in compliance with Section 6 of the general permit, the letter of credit may be terminated.

(e) The process for reducing the amount of the letter of credit in accordance with section 8(d) of Appendix I shall be as follows: the Permittee shall first submit a new letter of credit identical in all respects to the letter of credit in Appendix J, except for the reduced amount. Once the new letter of credit is received and the Commissioner determines that it is satisfactory, the Commissioner shall follow any reasonable instructions from the issuing bank regarding the termination or return of the previous letter of credit.

II. Design requirements for post-construction stormwater management measures.

(1) Post-construction stormwater control measures shall be designed and constructed to provide permanent stabilization and non-erosive conveyance of runoff on the site, to the property line of the site or downgradient from the site to ensure protection of on- and off-site wetland, wetlands, and waters (as those terms are defined in Section 2 of the general permit) or other natural resources.

(2) Orientation of panels shall be considered with respect to drainage pattern, flow concentration, drainage area and velocity.

(3) The permittee shall conduct a hydrologic analysis that:

(a) Evaluates and controls the 2, 25, 50 and 100-year 24-hour rainfall event post-development peak discharge to the corresponding pre-development peak discharge rates in accordance with the Stormwater Quality Manual, with the following exceptions: that sheet flow is maintained for a maximum length of 100 feet; shallow concentrated flow is calculated using velocity factors per NRCS Part 630 National Engineering Handbook Chapter 15 (the use of TR-55 paved or unpaved velocity factors are not acceptable); if swales are used to convey or control stormwater, such swales shall convey and control stormwater from a 100-year, 24-hour

rainfall event; and

(b) Is based on site specific soil mapping to confirm soil types; and

(c) Is able to determine and confirm the infiltrative capacity of any stormwater management measures . In addition, in areas where grading exceeds a two (2) foot difference between existing and proposed grades, the runoff curve number shall increase by one full HSG (e.g. runoff curve number for soils of HSG B shall be considered HSB C). For the remainder of the entire site, the runoff curve number associated with the Hydrologic Soil Group present on-site shall increase by one half (1/2) the difference between the Hydrologic Soil Group present on-site and the next higher Hydrologic Soil Group (e.g. half the difference between the runoff curve number for HSG B versus HSG C) to account for the compaction of soils that results from extensive machinery traffic over the course of the construction of the array; and

(d) Is based on slope gradient, surveyed soil type (adjusted per subparagraph (c), above), infiltration rate, length of slope, occurrence of bedrock, and change in drainage patterns. Pre- and post-development drainage area maps shall be provided showing this information; and

(e) For an engineered stormwater management system, demonstrates no net increase in peak flows, erosive velocities or volumes, or adverse impacts to downstream properties in accordance with the general permit and the Stormwater Quality Manual.

Figure 1
Solar Panel Installation with Slopes ≤ 5%

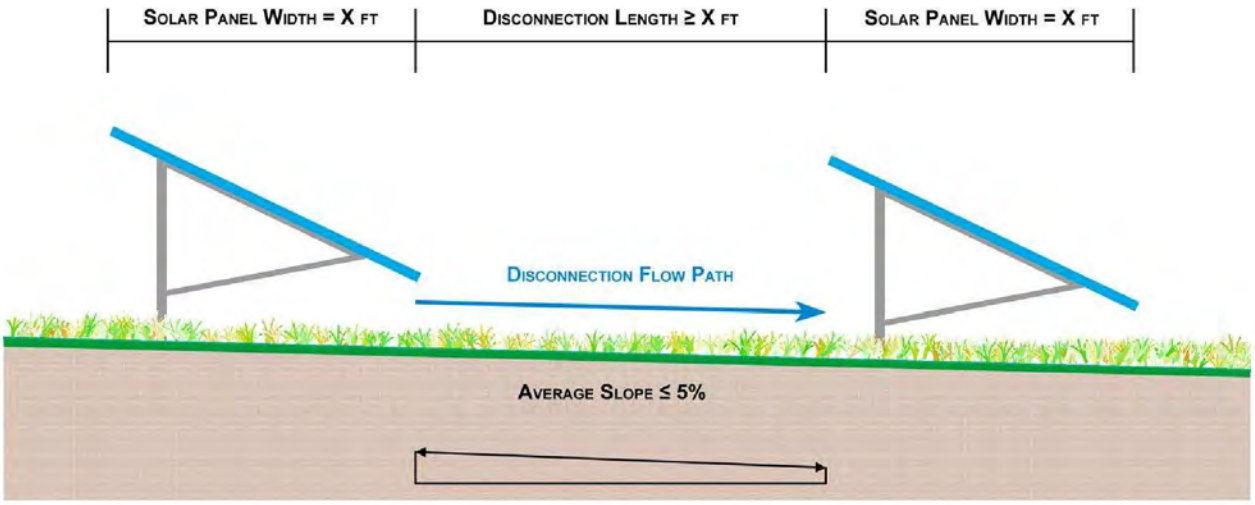
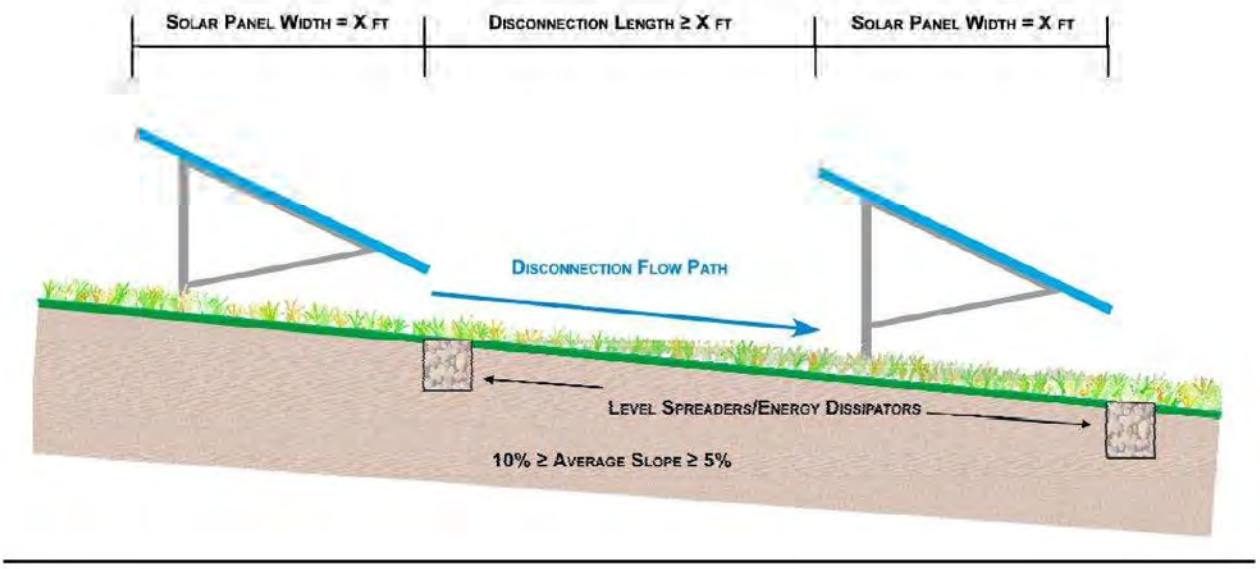


Figure 2
Solar Panel Installation with Slopes > 5% and ≤ 10%



Source: Maryland Department of the Environment: Stormwater Design Guidance – Solar Panel Installations

APPENDIX J
CTDEEP Financial Assurance Irrevocable Letter of Credit

[NAME OF ISSUING BANK]

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER: [XXXX]

ISSUANCE DATE: [MONTH, DATE, YEAR]

TOTAL AMOUNT: U.S. $[X,XXX.00]

BENEFICIARY: Commissioner, Connecticut Department of Energy and Environmental Protection

APPLICANT: [APPLICANT NAME AND ADDRESS]

Commissioner
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. [XXXX] in your favor, at the request and for the account of the Applicant, [APPLICANT NAME AND ADDRESS], up to the aggregate total amount of [XXX] U.S. Dollars ($[X,XXX].00). We hereby authorize the Commissioner of the Connecticut Department of Energy and Environmental Protection ("Commissioner") to draw at sight on us, [NAME AND ADDRESS OF ISSUING BANK], an aggregate amount up to the total amount, available upon presentation of:

(1) your sight draft, bearing reference to this Letter of Credit No. [XXXX], and

(2) your signed, dated statement reading as follows: "I certify that the amount of the draft is payable because I have determined one or more of the following has occurred or is occurring:

(a) one or more violations of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities issued by the Commissioner and which is currently in effect, or one or more violations of any other requirement or approval applicable to the management of stormwater at or emanating from [ADDRESS OF SITE] ("the Property"), or

(b) stormwater at or emanating from the Property is or has become a potential source of pollution (as that term is defined in Conn. Gen. Stat. § 22a-423) which has not been

remedied to my satisfaction within five (5) business days of the Applicant's receipt of a written notice from me that a pollution condition exists, or

(c) the Applicant, or any other entity in which the Applicant has a controlling interest, no longer owns, leases, or can control the use of the Property, or no longer owns, operates, or has a controlling interest in the solar array facility located at the Property, or

(d) the issuing bank has notified me that it has decided not to extend this letter of credit beyond the current expiration date."

This letter of credit is effective as of [MONTH, DATE, YEAR] and shall expire on [MONTH, DATE, YEAR AT LEAST ONE YEAR LATER], but such expiration date shall be automatically extended for a period of one year and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and Applicant, [APPLICANT NAME], by certified mail or nationally recognized courier service that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of this letter of credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by you, as shown on the signed return receipts or evidence of courier delivery.

Multiple and partial draws on this letter of credit are expressly permitted, up to an aggregate amount not to exceed the total amount. Whenever this letter of credit is drawn on under and in compliance with the terms of this letter of credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into a Connecticut Department of Energy and Environmental Protection dedicated account in accordance with your instructions.

All banking and other charges under this letter of credit are for the account of the Applicant.

This letter of credit is issued subject to the edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce, in effect on the date this Letter of Credit is issued.

By signing, the signatory below certifies, under penalty of law, that the issuing institution is an entity which has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

_____

[SIGNATURE(S) OF OFFICIAL(S) OF ISSUING INSTITUTION]

_____

[TITLE(S) OF OFFICIAL(S) OF ISSUING INSTITUTION]

Date: [MONTH, DATE, YEAR]

Appendix E – General Permit for the Discharge of Groundwater Remediation Wastewater

Connecticut
Department of Energy &
Environmental Protection

General Permit for the Discharge of Groundwater Remediation Wastewater

Issuance Date: February 17, 2023

Effective Date: March 1, 2023

Expiration Date: March 1, 2025

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (WPED)
860-424-3025

General Permit for the Discharge of Groundwater Remediation Wastewater

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General Permit for the Discharge of Groundwater Remediation Wastewater

Section 1. Authority

This general permit is issued under the authority of section 22a-430b of the General Statutes.

Section 2. Definitions

Terms used in this general permit shall be defined as they are in section 22a-423 of the General Statutes and section 22a-430-3(a) of the Regulations of Connecticut State Agencies. For purposes of this general permit, the following definitions shall also apply:

"7Q10 flow (seven-day, ten year low flow)" means the lowest seven consecutive day mean stream flow with a recurrence interval of ten years.

"Approval of registration" means an approval of registration issued under Section 3 of this general permit.

"Aquifer protection area" means aquifer protection area as defined by section 22a-354h of the General Statutes.

"Authorized discharge" means a discharge authorized by this general permit.

"Best management practice" or *"BMP"* means a practice, procedure, structure, or facility designed to prevent or minimize environmental damage or to maintain or enhance environmental quality. BMPs include without limitation, facilities to reduce pollutants in wastewater and practices or structures to minimize the generation of waste, to control runoff, drainage, spillage, or leaks of contaminated material, to protect sources of drinking water and drinking water wells, and to protect streamflows and aquatic life.

"Bioaccumulate" means the uptake and retention of substances by an organism from its surrounding medium and/or food.

"Bioconcentrate" means the uptake and retention of substances by an organism from its surrounding medium.

"CERCLA" means Comprehensive Environmental Response, Compensation, and Liability Act.

"Certified Hazardous Materials Manager" or "CHMM" means a person who has gained recognition as a certified hazardous materials manager in accordance with the requirements developed and administered by the Institute of Hazardous Materials Management.

"CFR" means the Code of Federal Regulations.

"Coastal boundary" means coastal boundary as defined by section 22a-94 of the General Statutes.

"Commissioner" means the commissioner as defined by section 22a-2(b) of the General Statutes.

"Cone of depression" means an area surrounding a withdrawal of groundwater, the cross sectional border of the point(s) at which groundwater recharge equals the rate of withdrawal.

"Department" means the Department of Energy and Environmental Protection.

"DSN" means discharge serial number, i.e. an identifying number 101, 102, 103, etc. designating each discreet discharge consisting solely of wastewater authorized by this general permit.

"Effluent" means the wastewater authorized to be discharged by this general permit after treatment and prior to mixing with liquid from any other source.

"Effluent limitation" means an effluent limitation established in this general permit, including limitations specified in Appendix A or B of this general permit.

"Emerging contaminants" means emerging contaminants as defined in the "Technical Fact Sheets about Contaminants of Concern at Federal Facilities", available at: www.epa.gov/fedfac/emerging-contaminants-and-federal-facility-contaminants-concern.

"Endangered or threatened species" means endangered or threatened species as defined by section 26-304 of the General Statutes.

"EPA" means the United States Environmental Protection Agency.

"General Statutes" means the Connecticut General Statutes.

"Groundwater remediation recirculating system" means a system designed to recover groundwater, treat it to an appropriate standard and inject it back to groundwater through a designed infiltration system.

"Groundwater remediation wastewater" means wastewater generated in connection with investigating pollution or remediating polluted groundwater, sediment or soil. Groundwater remediation wastewater includes without limitation groundwater withdrawn from a groundwater recovery well; groundwater which collects in an excavation or foundation drain or other subsurface facility or structure; groundwater contaminated runoff and stormwater impacted by on-site pollutants from any construction activity; condensate resulting from construction or maintenance of a soil vapor extraction system; washdown or backwash wastewater from treatment facilities; well development wastewater, and wastewater generated by removing an underground storage tank or by developing, testing, sampling, or purging a well, or by maintaining treatment facilities.

"*Impaired water*" means those surface waters of the state designated by the commissioner as impaired pursuant to section 303(d) of the federal Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

"Individual permit" means a permit issued to a named person or municipality under section 22a-430 of the General Statutes.

"Influent" means the groundwater to be discharged prior to any treatment except for the implementation of BMPs at pump intakes for the control of solids.

"Inland wetlands" means wetlands as defined by section 22a-38 of the General Statutes.

"Intermittent discharge" means a discharge that is generated at scheduled intervals related to activities such as groundwater monitoring, site investigation, groundwater pump tests, or related activities. Discharges that temporarily cease due to treatment system shutdown, lack of available groundwater or other unscheduled reasons are not intermittent as defined by this general permit.

"Licensed Environmental Professional" or "LEP" means an environmental professional licensed pursuant to the requirements of section 22a-133v of the General Statutes.

"Maximum contaminant level" or *"MCL"* means the highest level of a contaminant that is allowed in drinking water under the National Primary Drinking Water Regulations.

"Mg/l" means milligrams per liter.

"Minimum Level" means the lowest concentration of a pollutant that an analytical methodology can detect and determine the concentration of in accordance with 40 CFR 136 or other accepted protocols. "Minimum Level" means the same as "Reporting Limit", "Quantitation Limit" and "Quantification Level".

"Monitoring requirement" means the requirements specified in Sections 5, 5A, 5B, or 5C of this general permit for the evaluation of wastewaters being discharged.

"NOAEL" or *"no observable acute effect level of greater than or equal to 100%"* means that a sample of non-diluted effluent analyzed by a toxicity test conducted pursuant to section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies, as required in Section 5A(a)(2) of this general permit, demonstrates 90% or greater survival for each test organism.

"Oxygenates" means fuel additives (alcohols and ethers) that contain oxygen which can boost gasoline's octane quality, enhance combustion, and reduce exhaust emissions.

"Permittee" means a person who or municipality which initiates or maintains an authorized discharge.

"Professional engineer" or "P.E." means a professional engineer licensed by the Connecticut Department of Consumer Protection.

"POTW authority" means the chairperson or responsible official of the Water Pollution Control Authority which owns or operates a Publicly Owned Treatment Works.

"Publicly owned treatment works" or "POTW" means a system used for the collection, treatment and/or disposal of sewage from more than one lot as defined in section 22a-430-1

of the Regulations of Connecticut State Agencies and which discharges to the waters of the state and which is owned by a municipality, a regional water authority, or the state.

"Qualified professional" means a P.E., LEP, or CHMM who has, for a minimum of eight years, engaged in the design, installation, operation, and maintenance of systems for the collection and treatment of sanitary, industrial, commercial, or remediation wastewaters including, but not limited to, a minimum of four years in responsible charge of design, installation, operation, and maintenance of such systems.

"Recovery well" means a well used to pump contaminated groundwater.

"Registrant" means a person who or municipality which files a registration.

"Registration" means a registration filed pursuant to Section 4 of this general permit.

"Remote site" means a site on which groundwater remediation equipment is installed and operates but on which the permittee does not maintain other commercial activity.

"Screening analysis" means an analysis performed to satisfy the registration requirements of Section 4 of this permit, and the ongoing screening analysis required pursuant to Section 5(a) of this permit for the evaluation of groundwater prior to treatment for the removal of pollutants.

"Screening form" means form no. DEEP-WPED-SCREEN-027 as provided by the commissioner.

"Site" means geographically contiguous land or water from which an authorized discharge takes place or from which a discharge for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water owned by the same person or municipality and connected by a right-of-way which such person or municipality controls and from which the public is excluded shall be deemed the same site.

"Sufficiently sensitive" means using a sufficiently sensitive analytical method as defined in 40 CFR §122.44(i)(1)(iv).

*"Surface water(s) "*means the waters of Long Island Sound, its harbors, embayments, tidal wetlands and creeks; rivers and streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, federal jurisdictional wetlands, and other natural or artificial, public or private, vernal or intermittent bodies of water, excluding groundwater.

"Target compound" means a compound that is identified and quantified in accordance with 40 CFR 136, or other accepted protocols.

"Tentatively identified compound" or *"TIC"* means a chemical compound detected in a sample that is not a target compound, internal standard, system monitoring compound or surrogate.

"Tidal wetland" means wetland as defined by section 22a-29 of the General Statutes.

"Total petroleum hydrocarbons analysis" means analysis conducted in accordance with 40 CFR 136 to determine the concentration of gross oil or hydrocarbon in a substance or material.

"Toxic" means having the ability to adversely affect the survival, growth, or reproduction of organisms or humans through either direct contact or consumption.

"Toxicity reduction evaluation or "TRE" means an evaluation intended to determine those actions necessary to achieve compliance with the Whole Effluent Toxicity limits specified in Section 5A(a)(2) of this general permit.

"µg/l" means micrograms per liter.

"Volatile organic compound" or *"VOC"* means volatile organic compound as defined in 40 CFR 51.100(s).

"Volume proportioned average" is a calculated concentration of pollutants in a wastewater generated by multiplying the pollutant concentration in multiple samples by the relative volume, as a percentage of the total wastewater represented by each sample and adding all results.

"Watercourse" means a watercourse as that term is defined by section 22a-38 of the General Statutes, including those waters designated as Coastal Waters as defined by section 22a-93 of the General Statutes.

"Well development" means the pumping of a well to accomplish the removal of scale or other fine materials from its sides.

"Well point dewatering" means the process of dewatering an area, including an excavation, by pumping a well or wells located outside such area.

"Well purging" means removing standing water from a well to encourage inflow of surrounding groundwater.

"Well rehabilitation" means to physically or chemically treat a groundwater remediation well to remove chemical or biological residues from the well screen(s), annular space, sand pack, and native materials immediately adjacent to the well to return the well to its design function.

Section 3. Authorization Under this General Permit

(a) Eligible Activities

The following discharges are authorized by this general permit, provided the requirements of Section 3(b) of this general permit are satisfied:

(1) Any discharge of groundwater remediation wastewater to a surface water, either through a dedicated conveyance, or through any other conveyance system that the permittee is authorized to utilize, or

(2) Any discharge of groundwater remediation wastewater to a Publicly Owned Treatment Works (POTW), or

(3) Discharge of well rehabilitation wastewaters and groundwater remediation recirculating system wastewater if conducted in accordance with the requirements of Sections 5C(a), 5C(b) and/or 5C(c) of this general permit.

All other discharges of water, substances or materials into the waters of the state are not authorized under this general permit, and any person who or municipality which initiates, creates, originates, or maintains such a discharge shall first apply for and obtain authorization under section 22a-430 or 22a-430(b) of the General Statutes.

(b) Requirements for Authorization

This general permit authorizes a discharge comprised solely of groundwater remediation wastewater, provided that:

(1) Registration

(A) Except as provided in Section 3(b)(1)(B) of this general permit, a complete and sufficient registration with respect to such discharge has been filed with the commissioner.

(B) A complete and sufficient registration with respect to such discharge has been filed with the commissioner and the commissioner has issued an Approval of Registration with respect to such discharge if:

(i) the combined maximum daily flow of all groundwater remediation wastewater generated at such site exceeds ten percent of the 7Q10 flow of the watercourse into which such wastewater is discharged, or

(ii) the combined maximum daily flow of all groundwater remediation wastewater generated at such site exceeds one-half of one per cent of the water volume of the impoundment, lake, or pond into which such wastewater is discharged, or

(iii) the discharge is directed to a surface water with a Water Quality Classification designated as Class AA or any tributary thereof, or

(iv) wastewater treatment will include the addition of chemicals, other than for final effluent pH adjustment, used as part of wastewater treatment or for the maintenance of any treatment system component, or

(v) groundwater remediation wastewater to be discharged contains any pollutant, excluding temperature, solids, nutrients and oxygenates, for which no limit is specified in Appendix A or Appendix B, or

(vi) radioactive material as defined by section 22a-148 of the General Statutes has been deposited on the site from which such discharge takes place or is proposed to take place, or,

(vii) groundwater from adjacent properties potentially effected by pollutants originating from the registered property will be collected

at such adjacent properties and pumped or transported to the registered property for treatment and discharge, or

(viii) the discharge is to be directed to the ground, including discharges of well rehabilitation wastewaters, or

(ix) the discharge is generated from the dewatering of dredged sediments, or

(x) the pollutants being remediated have been identified as a source of impairment in the waterbody receiving the discharge, or

(xi) a stormwater conveyance or other structure that is not part of a designed wastewater treatment system is to be used to reduce pollutants to allowable limits, or

(xii) the commissioner determines that emerging contaminant(s) are present at levels that require development of site specific monitoring requirements and/or discharge limitations.

(2) Coastal Area Management and Permitting

Such activity is consistent with all-applicable goals and policies in section 22a-92 of the General Statutes, and will not cause adverse impacts to coastal resources as defined in section 22a-93 of the General Statutes or if such activity is located, wholly or in part, waterward of the coastal jurisdiction line in tidal, coastal or navigable waters of the State or in tidal wetlands, the activity is authorized pursuant to sections 22a-359 through 22a-363f, inclusive, or 22a-28 through 22a-35, inclusive.

(3) Endangered and Threatened Species

Such activity does not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species.

(4) Aquifer Protection

Such activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, complies with regulations adopted pursuant to section 22a-354i of the General Statutes.

(5) Conservation and Preservation Restrictions

Such activity, if located within a conservation or preservation restriction area, complies with section 47-42d of the Connecticut General Statutes, by providing the following documentation to the commissioner: proof of written notice to the holder of such restriction of the proposed activity's registration pursuant to this general permit or a letter from the holder of such restriction verifying that the proposed activity is in compliance with the terms of the restriction.

(6) Wild and Scenic Rivers Act

Such activity must be consistent with the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) for those river components and tributaries which have been designated as Wild and Scenic by the United States Congress. Further, such activity must not have a direct and adverse effect on the values for which such river designation was established.

(7) Antidegradation Standards

Such activity is consistent with the Antidegradation Standards of section 22a-426-8 of the Regulations of Connecticut State Agencies.

(8) Water Diversion Policy Act

Such activity is consistent with the Water Diversion Policy Act which requires that any person or municipality maintaining a diversion at a rate exceeding 50,000 gallons in any twenty- four hour period shall:

(A) have in effect a valid license issued by the commissioner pursuant to sections 22a-368 or 22a-378a of the General Statutes, or

(B) be exempt pursuant to section 22a-377(b)-1(a) of the Regulations of Connecticut State Agencies.

(9) New Discharges to Impaired Waters or Surface Waters with Total Maximum Daily Loads

A new surface water discharge to an impaired water listed in the most recent Connecticut Integrated Water Quality Report pursuant to Clean Water Act section 303(d) and 305(b) is not authorized unless the permittee provides to the commissioner the following documentation to support a showing that the discharge is not expected to cause or contribute to an exceedance of a water quality standard:

(A) For discharges of pollutants which cause or contribute to the impairment of a water body segment without an established Total Maximum Daily Load (TMDL), the permittee must provide data and other technical information to the commissioner sufficient to demonstrate that the discharge of the pollutant identified as an indicator of the impairment will meet in-stream water quality criteria at the point of discharge to the waterbody.

For discharges to waterbody segments impaired for Aquatic Life Uses, discharges shall not contain concentrations of any pollutants with a Water Quality Criteria (WQC) identified in section 22a-426-9 Table 3 of the Regulations of Connecticut State Agencies in concentrations greater than the more restrictive of the chronic aquatic life criteria or applicable human health criteria.

(B) For discharges to waters with an established Total Maximum Daily Load (TMDL), the Department must determine that there are sufficient remaining Waste Load Allocations in the TMDL to allow the discharge and that existing dischargers to the waterbody are subject to compliance

schedules designed to bring the waterbody into attainment with water quality standards.

To be eligible for authorization under this subsection, the registrant must receive a written determination from the commissioner that the discharge will not contribute to the existing impairment. If the registrant does not receive such written determination, the activity is not authorized by this general permit and must obtain an individual permit.

(10) Existing Discharges to Impaired Surface Waters

For previously authorized discharges to impaired waterbody segments or other sensitive areas, the commissioner may require additional control measures or may require authorization under an individual permit pursuant to Sections 3(f)(Transition to and from an Individual Permit) and 4(f) (Action by Commissioner) of this general permit.

(11) If radioactive material as defined by section 22a-148 of the General Statutes has been deposited on the site from which discharge takes place or is proposed to take place, such discharge is performed and monitored in accordance with the applicable conditions 10 CFR 50.36a "Technical specifications effluents from nuclear power reactors" plus 10 CFR 20 Appendix B "Standards for Protection Against Radiation" and 40 CFR 190, "Environmental Radiation Protection Standards For Nuclear Power Operations".

(12) If such site is a solid waste disposal area, as defined in section 22a-207 of the General Statutes, for which the department has required that a groundwater monitoring plan be approved by the commissioner, the commissioner has approved such a plan.

(13) Any local authorization(s) required for such a discharge or associated activities have been obtained, including written approval from the POTW authority if applicable.

(14) Such discharge does not physically disturb any tidal wetland or reduce the salinity of any tidal, navigable, or coastal water by more than five percent.

(15) If such discharge is directed to surface waters with a Water Quality Classification designated as Class AA or any tributary thereof, or to ground waters with a Water Quality Classification designated as GAA, or an Aquifer Protection Area, a copy of the registration has been filed with the appropriate water utility and the Department of Public Health, Drinking Water Section via email at DPH.SourceProtection@ct.gov, and such discharge has been approved in writing by the Department of Public Health, Drinking Water Section.

(16) Certifications by a Qualified Professional

For discharges of longer than 30 days, as required by Section 4(c)(2)(R) of this general permit, the registrant has submitted to the commissioner a written certification which, at a minimum, complies with the following requirements:

(A) such certification was signed by a Qualified Professional as defined in this general permit;

(B) such certification is not the subject of an audit as described under section 22a-430b of the Connecticut General Statutes;

(C) the Qualified Professional signing the certification has, at a minimum, completely and thoroughly reviewed this general permit and the following regarding the discharges to be authorized under this general permit: (i) all registration information provided in accordance with Section 4(c)(2) of this general permit, (ii) the facility, based on a site inspection, (iii) compliance records, (iv) all wastewater collection and treatment systems and monitoring equipment, including any plans and specifications, operating records and any Department approvals regarding such wastewater collection and treatment systems and monitoring equipment;

(D) the Qualified Professional signing the certification has made an affirmative determination, based on the review described in Section 3(b)(16)(C) of this general permit, that any treatment or Best Management Practices are adequate to assure that the activity to be authorized under this general permit will comply with the terms and conditions of such general permit and all wastewater collection and treatment systems and monitoring equipment: (i) have been designed and installed to control pollution to the maximum extent achievable using measures that are technologically available and economically practicable, (ii) will function properly as designed based on visual inspection, compliance and operating records, and (iii) are adequate to ensure compliance with the terms and conditions of this general permit;

(E) such Qualified Professional certifies, provided it is true and accurate, to the following statement: "I hereby certify that I am a Qualified Professional as defined in the General Permit for the Discharge of Groundwater Remediation Wastewater and as further specified in Section 3(b)(16) of such permit. I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY]. I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(16)(C) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the

affirmative determination required in accordance with Section 3(b)(16)(D) of this general permit and that my signing this certification constitutes conclusive evidence of my having made such affirmative determination. I understand that this certification may be subject to an audit by the commissioner in accordance with section 22a-430b of the Connecticut General Statutes, and I agree to cooperate with the commissioner should such an audit be required, including, but not limited to providing information as may be requested in writing by the commissioner in connection with any such audit. I also understand that knowingly making any false statement in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(17) Certification Requirements for Registrants and other Individuals

As part of the registration for this general permit, the registrant and any other individual or individuals responsible for preparing the registration submits to the commissioner a written certification which, at a minimum, complies with the following requirements:

(A) the registrant and any other individual or individuals responsible for preparing the registration and signing the certification has completely and thoroughly reviewed, at a minimum, this general permit and the following regarding the activities to be covered under such general permit: (i) all registration information provided in accordance with Section 4(c)(2) of such general permit, (ii) the facility, based on a visual site inspection, (iii) compliance records, (iv) all wastewater collection and treatment systems and monitoring equipment, including any plans and specifications, operating records and any Department approvals regarding such wastewater collection and treatment systems and monitoring equipment;

(B) the registrant has, based on the review described in Section 3(b)(17)(A) of this general permit, made an affirmative determination to: (i) comply with the terms and conditions of this general permit; (ii) maintain compliance with all plans and documents prepared pursuant to this general permit, and (iii) properly operate and maintain all wastewater collection and treatment systems and monitoring equipment in compliance with the terms and conditions of this general permit to protect the waters of the state from pollution;

(C) such registrant certifies to the following statement: "I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY] and that such activity is eligible for authorization under such permit. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all

information described in Section 3(b)(17)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I further certify that I have made the affirmative determination required in accordance with Section 3(b)(17)(B) of this general permit and that my signing this certification constitutes conclusive evidence of my having made such affirmative determination.

I certify that our facility does not use products or chemicals that may result in a discharge of mercury.

I understand that the registration filed in connection with such general permit may be denied, revoked or suspended for engaging in professional misconduct, including but not limited to the submission of false or misleading information, or making a false or inaccurate certification. I understand that the certification made pursuant to Section 3(b)(16) of this general permit may be subject to an audit by the commissioner in accordance with section 22a-430b of the Connecticut General Statutes, and that I will be required to provide additional information as may be requested in writing by the commissioner in connection with such audit, and the registration filed in connection with such general permit may be denied, revoked or suspended as a result of such audit. As part of such audit, I understand the commissioner may require that any information prepared in accordance with this general permit be independently certified by a Professional Engineer in accordance with this general permit and that such independent certification shall be at the registrant's expense. I understand that the reasonable cost of any such audit that reveals that a false certification was submitted to the commissioner may be charged to the registrant for this general permit for which such certification was made. I also understand that knowingly making any false statement in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(D) any other individual or individuals responsible for preparing the registration certifies to the following statement: "I hereby certify that I am making this certification in connection with a registration under such general permit, submitted to the commissioner by [INSERT NAME OF REGISTRANT] for an activity located at [INSERT ADDRESS OF PROJECT OR ACTIVITY] and that such activity is eligible for authorization under such permit. I certify that the registration filed pursuant to this general permit is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that I have personally examined and am familiar with the information that provides the basis for this certification, including but not limited to all information described in Section 3(b)(17)(A) of such general permit, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining such

information, that the information upon which this certification is based is true, accurate and complete to the best of my knowledge and belief. I understand that the registration filed in connection with such general permit may be denied, revoked or suspended for engaging in professional misconduct, including but not limited to the submission of false or misleading information, or making a false or inaccurate certification. I understand that knowingly making any false statement in the submitted information and in this certification may be punishable as a criminal offense, including the possibility of fine and imprisonment, under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(18) No pollutant with an effluent limit specified as not detected (ND) is detected using sufficiently sensitive analytical methods.

(c) Geographic Area

This general permit applies throughout the State of Connecticut.

(d) Effective date and expiration date of this General Permit

This general permit is effective on February 21, 2018 and expires on February 20, 2023.

(e) Effective date of Authorization under this General Permit

(1) Except as provided in Section 3(e)(2) of this general permit, a discharge of groundwater remediation wastewater is authorized on the date the commissioner receives a complete and sufficient registration with respect to such discharge.

(2) A discharge for which an approval of registration is required under Section 3(b)(1)(B) of this general permit is authorized on the date the commissioner issues an approval of registration with respect to such discharge.

(f) Transition to and from an Individual Permit

No person shall operate or conduct an activity authorized by both an individual permit and this general permit. The requirements for transitioning authorization are as follows:

(1) *Transition from an Individual Permit to Authorization under this General Permit.* If an activity meets the requirements of authorization of this general permit and such operation or activity is presently authorized by an individual permit, the permittee may seek a modification to the permit to exclude such operation or activity from the individual permit or if the operation or activity is the sole operation or activity authorized by such permit, the permittee shall surrender its permit in writing to the commissioner. In either event, such permittee's individual permit shall continue to apply and remain in effect until authorization of such operation or activity under this general permit takes effect.

(2) *Transition from Authorization under this General Permit to an Individual Permit.* If an activity or operation is authorized under this general permit and the commissioner subsequently issues an individual permit for the same activity,

then on the date any such individual permit is issued by the commissioner, the authorization issued under this general permit shall automatically expire.

Section 4. Registration Requirements

(a) Who Must Submit a Registration

Any person or municipality seeking authorization under this general permit to initiate, create or maintain a discharge of groundwater remediation wastewater shall file with the commissioner a registration which meets the requirements of this section, and the applicable fee specified by Section 4(c) of this general permit in accordance with the following:

(1) For a new discharge of groundwater remediation wastewater, a complete and sufficient registration and applicable fee shall be filed with the commissioner prior to the initiation of such discharge.

(2) For an existing discharge of groundwater remediation wastewater authorized under the General Permit for the Discharge of Groundwater Remediation Wastewater Directly effective on February 21, 2018 and expiring on February 20, 2023 , shall be continued in effective until the expiration date of the General Permit.

(b) Scope of Registration

A registrant shall register on one registration form every discharge originating from a single site for which discharge the registrant seeks authorization under this general permit. Discharges originating from more than a single site may not be registered on the same registration form.

(c) Contents of Registration

(1) Fees

(A) Except as provided in Sections 4(c)(1)(B) and (C) of this general permit, a registration fee of $625 for any person and $312.50 for any municipality shall be submitted with a registration form.

(B) A registration fee of $1,250 for any person or $625 for any municipality shall be submitted for any discharge of groundwater remediation wastewater for which an approval of registration is required under Section 3(b)(1)(B) of this general permit unless such approval of registration is issued by the commissioner under Section 3(b)(1)(B)(xii) of this general permit.

(C) Discharges from a building used solely as a single-family residence shall be exempt from the fees required under Section 4(c)(1) of this general permit.

(D) A registration shall not be deemed complete and sufficient and the subject discharge shall not be authorized by this general permit unless the registration fee has been paid in full.

(2) Registration Form

A registration shall be filed on forms prescribed and provided by the commissioner and shall, with respect to each discharge registered on such form, include the following:

(A) Legal name, address, and telephone number of the owner of the site from which the subject discharge takes, or is to take, place.

(B) Legal name, address, and telephone number of the registrant's attorney or other representative, if applicable.

(C) Legal name, address, and telephone number of any consultant(s), or engineer retained by the registrant to prepare the registration.

(D) Location address and groundwater classification of the site of the subject discharge.

(E) The name and water quality classification of the surface water receiving the discharge, the 7Q10 flow of said surface water, and the method of calculating the 7Q10 flow of the surface water, including but not limited to, identification of the sources(s) of all information used in such calculation, if applicable.

(F) The name of the POTW which will receive the discharge, if applicable.

(G) The maximum daily flow and number of hours per day of the subject discharge.

(H) If the subject discharge is an existing discharge, the date it began and the date it is expected to end; if the subject discharge is a new discharge, the date the registrant intends to initiate the discharge and the date it is expected to end.

(I) A statement whether or not the subject discharge will take place within the coastal boundary, in essential habitat of an endangered or threatened species, or in an aquifer protection area as defined in section 22a-354h of the General Statutes.

(J) A statement whether the subject discharge will take place within ¼-mile of any public or private drinking water well.

(K) An indication of whether the site is on the State or Federal Superfund list, National Priority List, listed under CERCLA, has been used for the disposal of hazardous materials, or is subject to the reporting requirements of sections 22a-6u or 22a-134 of the General Statutes.

(L) A detailed description of any treatment facility for the subject wastewater, including without limitation a description of flow monitoring equipment

or techniques and devices used for recording total daily flow, and a statement whether any such system will employ air stripping.

(M) A detailed description of any erosion and sediment controls, and energy dissipation structures to be used in connection with the subject remedial measures.

(N) A plan of the site where the subject wastewater will be generated, showing at a minimum: the legal boundaries of such site; the location of existing and planned recovery, soil venting, and drinking water wells thereon; the location from which the subject discharge leaves the site; the location from which the subject discharge enters the surface water; the location of all monitoring wells and other places where chemical, physical, or biological monitoring does or will take place; the existing or planned treatment system for the subject wastewater; and the location, if any, of all tidal wetlands and of all inland wetlands and watercourses.

(O) A 8 ½" x 11" copy of each applicable section of a United States Geological Survey quadrangle map with a scale of 1:24,000, which shows: the exact location of each discharge; the longitude and latitude of the discharge to within the closest 15 seconds; and the location of any drinking water wells within ¼-mile of the site. Each quadrangle map should be marked with the name of such map.

(P) The results of a screening analysis conducted pursuant to Sections 4 and 5(a) of this general permit, as documented on a screening form, prescribed and provided by the commissioner.

(Q) An "Application for Approval of Registration if an Approval of Registration is required per Section 3(b)(1)(B) of this general permit.

(R) A certification by a Qualified Professional that complies with Section 3(b)(16) of this general permit for discharges exceeding 30 days in duration.

(S) A written certification, signed by the registrant and any other individual or individuals responsible for preparing the registration, which complies with the requirements of Section 3(b)(17) of this general permit.

(T) Attachment K, Department of Public Health, Drinking Water Section Approval, if such approval is required by Section 3(b)(15) of this General Permit pertaining to discharges to surface waters with a Water Quality Classification designated as Class AA or any tributary thereof, or to ground waters with a Water Quality Classification designated as GAA, or an Aquifer Protection Area,

(d) Where to Submit a Registration

(1) A registration shall be filed at the following address:

CENTRAL PERMITTING PROCESSING UNIT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

(2) One additional copy of the complete and sufficient registration shall be submitted for each of the following conditions:

(A) For any discharge of groundwater remediation wastewater where drinking water wells exist within one-quarter mile of the proposed site;

(B) For any discharge of groundwater remediation wastewater where air stripping is used as a wastewater treatment technology.

(e) Additional Information

The commissioner may require a registrant to submit additional information which the commissioner deems reasonably necessary to evaluate whether the subject discharge is consistent with the criteria for authorization under this general permit.

(f) ***Action by Commissioner***

(1) The commissioner may reject a registration if the registration is not accompanied by the required fee or the commissioner determines that the registration does not include the information required in Section 4(c) of this general permit. Any registration refiled after such a rejection shall be accompanied by the fee specified in Section 4(c)(1) of this general permit.

(2) The commissioner may deny a registration if it is found that the subject activity is inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.

(3) Denial of a registration under this subsection shall constitute notice to the registrant that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit.

(4) The commissioner may approve a registration with reasonable conditions. If the commissioner approves a registration with conditions, the permittee shall be bound by such conditions as if they were a part of this general permit.

(5) Rejection, denial, or approval of a registration shall be in writing.

Section 5. Conditions of this General Permit – ALL DISCHARGES

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, the permittee shall assure that authorized activities are conducted in accordance with the following conditions:

(a) Screening Analysis Requirements

(1) Frequency

(A) Initial Screening Analysis

Except as noted in the next paragraph, an initial screening analysis shall be conducted prior to registering for authorization under this general permit and results shall be submitted on forms prescribed and provided by the commissioner with the registration form per Section 4(c)(2)(P) of this general permit.

If the authorized discharge is the result of an emergency response, unexpected release, or underground storage tank release, the initial screening analysis shall be submitted within 30 days of submittal of a registration.

(B) Ongoing Screening Analysis

After registering, and for the duration of authorization under this general permit, the registrant shall conduct ongoing screening analysis. Analysis shall be recorded on forms prescribed and provided by the commissioner, submitted in accordance with Section 5 of this general permit, and be maintained on site or be readily available by the permittee. Ongoing screening analysis shall be conducted in accordance with the following schedule based on discharge volume:

Maximum Daily Flow	***Ongoing Screening Frequency***
< 5,000 gallons per day	annually
≥ 5,000 gallons per day	twice per year

(2) Protocols

All screening analysis, initial and ongoing, required by this general permit shall conform to the following:

(A) Samples shall be grab samples of untreated wastewater.

(B) Samples shall be analyzed to determine the concentration or level therein of:

(i) Total volatile organic compounds;

(ii) Total petroleum hydrocarbons;

(iii) Total copper, total lead, total mercury, total zinc, total iron and total cadmium;

(iv) pH;

(v) Total Nitrogen and Total Phosphorous

(vi) Temperature;

(vii) Total settleable solids;

(viii) Total suspended solids.

(C) If wastewater to be discharged is reasonably expected to be impacted by petroleum compounds other than gasoline, samples of untreated wastewater shall be analyzed for Polynuclear Aromatic Hydrocarbons (PAHs).

(D) If wastewater to be discharged is reasonably expected to be impacted by gasoline, the samples of untreated wastewater shall be analyzed for gasoline oxygenates, including TBA, MTBE, TAME, and related compounds known to be added to the gasoline released. Analysis shall be by EPA Method 624, or other methodology approved pursuant to 40 CFR 136.

(E) If any pollutant listed in:

(i) Appendix B, Tables II, III, IV, or V of section 22a-430-4 of the Regulations of Connecticut State Agencies;

(ii) Appendix D of section 22a-430-4 of the Regulations of Connecticut State Agencies; or

(iii) Title 10 of the CFR,

is reasonably known to have been handled, stored, released, or disposed of at or adjacent to the site where the subject wastewater originates, the subject wastewater shall also be analyzed to determine the concentration of such pollutant.

(F) If any pollutant identified as an emerging contaminant is reasonably known to have been handled, stored, released or disposed of at the site where the subject wastewater originates, the subject wastewater shall also be analyzed to determine the concentration of such emerging contaminants(s) if an analytical method for such pollutant has been approved pursuant to 40 CFR 136. Such monitoring shall not be subject to the ongoing screening analysis or effluent monitoring requirements unless directed to conduct such analysis in writing by the commissioner.

(G) If any pollutant,

(i) other than one specified in subsections (2)(B), 2(C), 2(D), 2(E) or 2(F) of this section which may be toxic, hazardous, or detrimental to any use of the watercourse designated pursuant to Connecticut's Water Quality Standards into which such wastewater is or will be discharged, or

(ii) having the potential to bioaccumulate, bioconcentrate, or adversely affect aquatic life,

is reasonably known to have been handled, stored, released, or disposed of at or adjacent to the site where the subject wastewater originates, the subject wastewater shall also be analyzed to determine the concentration of each such pollutant.

(H) Test Methods

All sample analyses shall be done by a laboratory certified by the Connecticut Department of Public Health. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative test methods approved by EPA in accordance with the procedures in 40 CFR §136. All analyses must be conducted using a sufficiently sensitive test method in accordance with 40 CFR §122.44(i)(1)(iv).

(b) ***Pollution Prevention/Best Management Practices***

(1) Solid waste, including but not limited to contaminated soils or sludges, may be generated as a result of the remediation activity allowed by this general permit. All waste generated must be disposed of in accordance with applicable federal, state and local law. Some or all of these wastes may be hazardous waste identified in accordance with section 3001 of the Federal Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) or other wastes of special concern requiring department approval prior to disposal. It is the responsibility of the permittee to ensure that all wastes generated are properly identified and that all necessary department approvals are secured prior to disposal of the wastes. For further information regarding solid waste management, please contact the Waste Engineering and Enforcement Division at 860-424-3023.

(2) Air pollution, including but not limited to hazardous air pollutants, may be emitted as a result of the remediation activity allowed by this general permit. It is the responsibility of the permittee to ensure that all air pollution emitted is properly identified and quantified, and that all necessary department approvals are secured prior to emitting such pollutants. All air pollution emitted must be analyzed to ensure compliance with all applicable federal, state and local laws including but not limited to sections 22a-174-1 (Definitions), 22a-174-3 (New Sources), and 22a-174-29 (Hazardous Air Pollutants) of the Regulations of Connecticut State Agencies and the National Emission Standards for Hazardous Air Pollutants (NESHAPs) in the Code of Federal Regulations (40 CFR Part

61). For further information, please contact the Air Permitting Program at 860-424-4152.

(3) No litter, debris, building materials, or similar materials shall be discharged to the waters of the state from the site.

(c) Erosion and Sediment Controls

If authorized activities create a potential for pollution due to the erosion of soil, erosion and sediment control measures shall be installed and maintained in compliance with the standards set forth in the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" as revised, established pursuant to section 22a-328 of the Connecticut General Statutes.

(1) During the construction of any dewatering facility associated with the discharge, erosion and sediment control measures shall be installed and maintained to ensure that erosion of disturbed soils and discharge of eroded sediments to tidal wetlands, inland wetlands and watercourses is minimized or eliminated.

(2) During discharge operations, erosion and sediment control measures shall be installed and maintained to ensure that discharge energies are sufficiently dissipated to prevent the erosion of soil and the discharge of eroded sediments to tidal wetlands, inland wetlands and watercourses.

(d) Regulations of Connecticut State Agencies Incorporated into this General Permit

The permittee shall comply with all applicable law, including without limitation the following Regulations of Connecticut State Agencies, which are hereby incorporated into this general permit as if fully set forth herein:

Section 22a-430-3:

Subsection (b) General - subparagraph (1)(D) and subdivisions (2), (3), (4) and (5)
Subsection (c) Inspection and Entry
Subsection (d) Effect of a Permit - subdivisions (1) and (4)
Subsection (e) Duty to Comply
Subsection (f) Proper Operation and Maintenance
Subsection (g) Sludge Disposal
Subsection (h) Duty to Mitigate
Subsection (i) Facility Modifications, Notification - subdivisions (1) and (4)
Subsection (j) Monitoring, Records and Reporting Requirements - subsections (1), (6), (7), (8), (9) and (11) [except subparagraphs (9)(A)(2), and (9)(C)]
Subsection (k) Bypass
Subsection (m) Effluent Limitation Violations
Subsection (n) Enforcement
Subsection (o) Resource Conservation
Subsection (p) Spill Prevention and Control
Subsection (q) Instrumentation, Alarms, Flow Recorders
Subsection (r) Equalization

Section 22a-430-4:

Subsection (t) - Prohibitions
Subsection (p) - Revocation, Denial, Modification
Appendices

Section 5A. Permit Terms and Conditions Applicable for Discharges to Surface Waters

(a) Monitoring Requirements

(1) Chemical Monitoring Frequency

Monitoring to verify compliance with the effluent limitations in Section 5A and Appendix A of this general permit and any Approval of Registration issued pursuant to Section 3 of this general permit shall be performed according to the following schedule:

(A) For all discharges, except as specified in subsection (D) of this section, for each initiation of a discharge, the discharge shall be sampled on the first day of discharge and then every other day for the first week, weekly for the next month, and then as follows depending upon the maximum daily flow:

Maximum Daily Flow	***Effluent Monitoring Frequency***
< 5,000 gallons per day	quarterly
≥ 5,000 gallons per day	monthly

(B) For each initiation or restart of a discharge after an exceedance of an effluent limitation, the discharge shall be sampled on the first day of discharge and then every other day for the first week, weekly for the next month, and then in accordance with the sampling schedule at the time the discharge was ceased.

(C) For each restart of a discharge for any reason other than an exceedance of a parameter limit, the discharge shall be sampled on the first day of discharge and then in accordance with the sampling schedule at the time the discharge was ceased.

(D) For intermittent discharges of groundwater remediation wastewaters generated from scheduled remediation activities, such as purging conducted prior to monitoring, conducted at sites with no other discharges of wastewater subject to this general permit, the following monitoring shall be required:

(i) A minimum of one representative sample shall be collected and analyzed in accordance with Section 5A(c) of this general permit for each discharge.

(ii) If multiple points are sampled independently, a volume-proportioned average of analytical results may be substituted for a single sample.

(iii) Treatment and discharge shall be conducted as described in Section 5A(d) of this general permit.

(2) Aquatic Toxicity Monitoring

All discharges of Groundwater Remediation Wastewater to a surface water, except intermittent discharges, with a duration of greater than 90 days shall be monitored for aquatic toxicity in accordance with the following:

(A) Monitoring frequency for aquatic toxicity shall be conducted and reported as follows unless otherwise approved by the commissioner:

(i) For discharges exceeding 25,000 gallons per day, monitoring for toxicity shall be conducted quarterly during the months of March, June, September, and December.

(ii) For discharges with flows of less than 25,000 gallons per day, monitoring for aquatic toxicity shall be conducted twice per year in the months of March and September.

(iii) For discharges consisting solely of well purging wastewater generated during routine monitoring events that comply with all chemical monitoring requirements, toxicity monitoring shall be conducted once during the term of this general permit.

(iv) For sites discharging under 1,000 gallons per day, if groundwater levels are insufficient to generate a representative discharge during the routine sampling required above, toxicity monitoring may be waived for that sampling period.

(B) Samples collected for determination of aquatic toxicity shall be tested using the NOAEL protocol specified in section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies.

(C) Toxicity tests shall be initiated within 24 hours of sample collection.

(i) Grab samples shall be chilled immediately following sample collection.

(ii) Samples used for Aquatic toxicity shall not be dechlorinated, filtered or modified in any way prior to testing, except for samples which require salinity adjustment. For salinities of between 5 ppt and 15 ppt, the effluent may be salinity adjusted to 15 ppt using artificial sea salts.

(D) Toxicity tests shall be 48 hours in duration.

(E) For salinity less than 5 ppt toxicity tests shall employ neonatal (less than 24 hours old) Daphnia pulex and juvenile (1-14 days old, with no greater than a 24 hour range in age) Pimephales promelas as test organisms. For salinity greater than or equal to 5 ppt toxicity tests shall utilize neonatal (1-5 days old with no more than 24-hours range in age) Mysidopsis bahia and juvenile (9-14 days old, with no greater than a 24 hour range in age) Menidia beryllina as test organisms.

(F) All samples collected for determination of aquatic toxicity shall be analyzed for chemical parameters as follows:

Pollutant Parameters	Required Minimum Level
Copper, Total Recoverable	0.005 mg/l
Lead, Total Recoverable	0.005 mg/l
Iron, Total Recoverable	0.1 mg/l
Total Residual Chlorine	0.020 mg/l
Temperature	°F
Zinc, Total Recoverable	0.005 mg/l
Salinity	parts per thousand (ppt)
Appearance	---
Hardness	---
Alkalinity	---
Specific conductance	---
pH	+/- 0.10 Standard Unit

(G) If any toxicity test indicates that either of the conditions listed below has occurred, another sample of the discharge shall be collected and tested as described above within 30 days of the previous test.

(i) The survival of the test organisms was less than ninety (90) percent in the average of the test chambers containing undiluted effluent (permit limit exceeded).

(ii) The survival of test organisms was less than ninety (90) percent in each replicate control test chamber or test conditions were not achieved as specified in section 22a-430-3(j)(7)(A) of the Regulations of Connecticut State Agencies, such as maintenance of appropriate environmental controls (invalid test).

(H) Following the violation of any aquatic toxicity limit for two consecutive tests or three tests in any 12 month period, the permittee shall conduct a Toxicity Identification/Reduction Evaluation (see Methods for Aquatic Toxicity Identification Evaluations, Publication No. EPA/600/6-91/003) and submit a schedule for return to compliance.

(I) All toxicity tests and supporting chemistry must be reported to the Department via NetDMR and also by electronic mail on a form provided by the commissioner.

(3) Totals Suspended Solids Requirements

Total Suspended Solids concentrations shall not exceed 30 mg/l. Total Suspended Solids concentrations of greater than 30 mg/l shall be reported and corrected per the conditions of Section 5A(f)(2) of this general permit. Total Suspended Solids concentrations of greater than 30 mg/l are not subject to the requirements of Section 5A(f)(1), (3) or (4) of this general permit.

(b) Effluent Limitations

(1) The effluent limitations specified in Appendix A and/or this section of this general permit and/or specified in the Approval of Registration issued pursuant to Section 3 of this general permit, shall not be exceeded at any time as determined by a grab sample.

Effluent analyses for which quantification was verified during the analysis using sufficiently sensitive methods and which indicate that a parameter was not detected (ND) shall be reported as "less than x" where 'x' is the numerical value equivalent to the minimum level for that analysis.

For any analyses conducted using a sufficiently sensitive test method in accordance with 40 CFR §122.44(i)(1)(iv), if the minimum level for such test method exceeds the effluent limit for the measured pollutant or pollutant parameter, then the effluent limit for the measured pollutant or pollutant parameter shall be non-detect at the minimum level for such test method.

(2) The maximum daily flow shall not exceed the maximum daily flow specified in the general permit registration.

(3) The pH of the discharges shall not be less than 6.0 or greater than 8.5 standard units for discharges to surface waters.

(4) For sites within the influence of naturally saline waters, where such waters are known or presumed to compose all or part of the groundwaters to be pumped, and the discharge is to be directed to such naturally saline water, the limitation for naturally occurring saline water ions shall be 1.5 times the naturally occurring concentration for such ions provided:

(A) Groundwater on-site is not known or presumed to be contaminated by such ions as the result of activities that have or are currently occurring at the site,

(B) Background concentrations for such ions have been verified by monitoring of the surface water beyond any area influenced by the subject site,

(C) The ion does not cause or contribute to a violation of the toxicity requirements of this general permit, and

(D) Monitoring for such ions is conducted in the surface water at least once per year with analysis being submitted with the reporting required pursuant to Section 5A(e) of this general permit.

(c) Additional Monitoring Requirements

All discharges shall be monitored in accordance with the following:

(1) The permittee shall monitor the discharge for any pollutant that in the screening analysis conducted pursuant to Section 5(a) of this general permit or any other analysis identifies the presence of such pollutant in the groundwater at levels above either the limitations specified in Appendix A or Section 5A(b) of this general permit or the limitations or conditions specified in an Approval of Registration issued pursuant to Section 3 of this general permit.

(2) The permittee shall monitor the discharges for the presence of VOCs if the source of contamination includes VOCs, or any screening analysis conducted pursuant to Section 5(a) of this general permit indicates the presence of any VOCs at or above the minimum level, or a combined concentration of oxygenates exceeding 50 ug/l. Tentatively identified compounds (TIC) detected in the screening analysis required pursuant to Section 5(a) of this general permit shall be analyzed as target compounds if such compounds compose greater than 10% of the total pollutant load for VOCs, or if treatment technology is not proven to be as effective for the TICs detected as for target VOCs of concern.

(3) The permittee shall monitor the discharges for total petroleum hydrocarbons if:

(A) the results of any analysis of the discharges indicates that total petroleum hydrocarbons is present in the groundwater to be discharged above the limit identified in Appendix A of this general permit;

(B) oil or an oily sheen is visible in the water to be discharged; or

(C) the source of the contamination being remediated is petroleum oil.

(4) All discharges generated during construction dewatering, except well point dewatering, shall be monitored for Total Suspended Solids, and Total Settleable Solids.

(5) Except as noted in Section 5A(b)(4) of this general permit the permittee shall monitor the discharges for any metal if:

(A) any analysis required per Section 5(a)(2) of this general permit indicates that metal is present in the groundwater at concentrations greater than the limit listed in Appendix A;

(B) the site has been historically or is presently used to dispose of or store that metal; or

(C) the permittee has reason to believe that concentrations of the metal in groundwater may exceed the limits in Appendix A, as a result of current or historic on-site activities.

(6) The permittee shall periodically calibrate and perform maintenance on all monitoring and field equipment at intervals that will ensure the accuracy of measurements.

(7) Monitoring for flow shall be performed according to the schedule in Section 5A(a)(1)(A) of this general permit. All discharges of greater than 5000 gallons per day, shall have flow monitoring equipment installed, or implement techniques and devices capable of recording total daily flow. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. All other discharges shall implement flow-measuring procedures to adequately estimate flows.

(8) Monitoring and reporting of radioactive liquid releases shall be performed in accordance with an approval of registration issued pursuant to Section 3(b)(1)(B)(vi) of this general permit *and* with the applicable 10 CFR 50.36a "Technical specifications on effluents from nuclear power reactors" plus 10 CFR 20 Appendix B, "Standards for Protection Against Radiation" and 40 CFR 190, "Environmental Radiation Protection Standards For Nuclear Power Operations". Annual monitoring reports shall be submitted to the Federal Nuclear Regulatory Commission and the Department's Bureau of Air Management, Radiation Control Division.

(9) Monitoring of Discharges to Impaired Waters

For discharges to impaired waters, the permittee must conduct the following additional monitoring:

(A) Discharges to Impaired Waters **without** an Established Total Maximum Daily Load (TMDL)

(i) For discharges to an impaired water without a TMDL, the permittee must monitor annually for any indicator pollutants identified as contributing to the impairment if informed in writing by the Department (and for which a standard analytical method exists). No additional monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is identified as an indicator of the impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.

(ii) This monitoring requirement does not apply after the first year of monitoring if the indicator pollutant is not detected above natural

background levels, as determined by the commissioner, in the discharge.

(B) Discharges to Impaired Waters **with** an Established Total Maximum Daily Load (TMDL)

(i) For discharges to impaired waters for which there is an established TMDL, the permittee is required to monitor for any indicator pollutant identified in the TMDL if informed in writing by the Department (following the Department's examination of the applicable TMDL and/or Waste Load Allocation (WLA)). The Department's notice will include specifications on which indicator pollutant to monitor, limit of detection, and the required monitoring frequency during the first year of permit coverage.

(ii) Following the first year of monitoring:

(a) If the indicator pollutant is not detected in any of the first year samples, the permittee may discontinue further sampling, unless the TMDL has specific instructions to the contrary, in which case the permittee must follow those instructions.

(b) If the permittee detects the presence of the indicator pollutant in the discharge for any of the samples collected in the first year, the permittee must continue monitoring annually throughout the term of this permit, unless the TMDL specifies more frequent monitoring, in which case the TMDL requirements must be followed.

(10) Monitoring Location

(A) Samples shall be taken at the monitoring points identified pursuant to Section 4(c)(2)(N) of this general permit before the effluent joins or is diluted by any other waste stream, or substance.

(B) For any site with more than one discharge point, individual samples shall be collected from each discharge. Samples shall be designated as DSN 101, DSN 102, etc.

(11) Sample Type

Samples taken for purposes of determining compliance with all effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

(12) Test Methods

(A) All sample analysis which are required by this general permit shall be conducted by a laboratory certified in accordance with the certification requirements specified in section 19-29a of the General Statutes. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative test methods approved by EPA

in accordance with the procedures in 40 CFR §136 or using methods approved by the commissioner in an Approval of Registration issued pursuant to Section 3 of this general permit.

(B) All analyses must be conducted using a sufficiently sensitive test method in accordance with 40 CFR §122.44(i)(1)(iv).

(d) Treatment and Inspection Requirements

(1) The permittee shall treat the discharge for any pollutant that in the screening analysis conducted pursuant to Section 5(a) of this general permit or any other analysis identifies the presence of such pollutant in the groundwater at levels above either the limitations specified in Appendix A or Section 5A(b) of this general permit or the limitations specified in an Approval of Registration issued pursuant to Section 3 of this general permit or as directed in an Approval of Registration issued pursuant to Section 3 of this general permit.

(2) Treatment systems implemented shall incorporate best management practices and accepted technologies for the reduction of all pollutants to below the levels specified in Appendix A and/or Section 5A(b) of this general permit and/or specified in the Approval of Registration issued pursuant to Section 3 of this general permit.

(3) If the discharge is directed to a waterbody or tributary to any waterbody that contributes to a source of public drinking water, treatment shall at a minimum incorporate technologies certified by the NSF for the treatment of drinking water for the removal of the pollutants of concern, and be designed for the flows anticipated.

(4) Treatment systems shall be inspected and maintained at regularly scheduled intervals as determined by manufacturer specifications, site specific conditions and best professional judgment. The permittee shall conduct routine inspections of all equipment associated with the discharges authorized by this general permit. Inspections shall be conducted as necessary to insure proper operation of all equipment. If the routine inspections are to be conducted at intervals of greater than 7 days, an inspection schedule summarizing inspection protocols shall be included as an Attachment to the general permit registration required pursuant to Section 3 of this general permit, unless the site is a remote site as defined in Section 2 of this general permit with a maximum daily flow of under 14,400 gallons per day. Remote sites with maximum daily flows of less than 14,400 gallons per day shall be inspected as necessary to insure proper operation of all equipment, but at intervals of no more than 30 days.

A log shall be maintained on-site documenting the date of inspection, inspector's name, verification of operation of critical equipment, and a summary of any work or change in equipment associated with the discharges authorized by this general permit.

The discharge shall cease if the treatment system is not operating as necessary to maintain compliance with all effluent limitations.

(e) Reporting and Record Keeping Requirements

(1) Beginning the effective date of the authorization to discharge, the permittee must record all monitoring data collected to comply with this general permit.

(2) **For discharges lasting 90 days or more**, within 120 days after the effective date of the authorization to discharge, the operator shall begin reporting monitoring data electronically using NetDMR, unless, in accordance with Section 5A(e)(3) of this general permit, the operator is able to demonstrate on a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMR's. DMR Reports are due no later than the last day of the month following the month in which samples are taken.

(3) **NetDMR opt-out requests** must be submitted in writing to the Department for written approval at least 30 days prior to the date a site would be required under this general permit to begin using NetDMR. This demonstration shall be valid for 12 months from the date of the Department approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically via NetDMR unless the permittee submits a renewed opt-out request and such request is approved by the Department. Except as otherwise specified in writing by the commissioner, each analytical result of a wastewater sample taken and all data generated by any other monitoring conducted under this general permit shall be retained at the subject site for at least five years from the date such result or data was generated or received by the permittee, whichever is later. The commissioner may specify a longer retention period as he reasonably deems necessary upon written notice to the permittee stating the reasons for such longer period. If during the retention period required by this subdivision the commissioner, under chapter 446k of the General Statutes, issues an order or commences a civil action against the permittee, such retention period shall be extended as necessary until such order or action is finally disposed of.

(4) The permittee shall make any such result or data available to the commissioner upon request.

(5) Within 14 days of termination of discharge, the permittee shall notify the Department of the date of termination of discharge on a form provided by the commissioner.

(6) **For discharges lasting less than 90 days**, the results of all monitoring results shall be submitted with the notification of termination of discharge in accordance with Section 5A(e)(5) of this general permit.

(f) Duty to Correct, Record, and Report Violations

(1) Upon learning of a violation of a condition of this general permit, the permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results and prevent recurrence of such violation.

(2) The permittee shall:

(A) within two hours of becoming aware of the circumstances (and at the start of the next business day if he or she becomes aware of the circumstances

outside normal business hours) of any violation of:

(i) any maximum daily limitation for a discharge to surface waters of greater than two (2) times the limitation, or

(ii) if re-sampling for toxicity is required pursuant to Section 5A(a)(2)(G) of this general permit,

notify the Water Permitting and Enforcement Division of the Bureau of Materials Management and Compliance Assurance at 860-424-3025 during business hours 8:30 a.m. – 4:30 p.m.

(B) within five days of becoming aware of the circumstances of any violation of any maximum daily limitation for a discharge to surface waters of greater than two (2) times the limitation, or aquatic toxicity which requires resampling pursuant to Section 5A(a)(2)(G) of this general permit, submit a written report that contains the following information:

(i) the condition(s) or effluent limit(s) violated;

(ii) the analytical results and information demonstrating such violation(s);

(iii) the cause of the violation(s);

(iv) period of noncompliance including exact dates and times;

(v) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;

(vi) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and

(vii) the name and title of the person recording the information and the date and time of such recording.

(3) In addition to the requirements described in section 22a-430-3(j)(11)(D) of the Regulations of Connecticut State Agencies, any other actual or anticipated noncompliance with effluent limits or other terms and conditions of this general permit shall be recorded within twenty-four hours of becoming aware of such circumstances in a log which contains at least the following information:

(A) the condition(s) or effluent limit(s) violated;

(B) the analytical results and information demonstrating such violation(s);

(C) the cause of the violation(s) or noncompliance;

(D) period of noncompliance including exact dates and times;

(E) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;

(F) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and

(G) the name and title of the person recording the information and the date and time of such recording.

(4) The permittee shall submit a report to the commissioner prepared by a Professional Engineer licensed to practice in Connecticut, or a Licensed Environmental Professional, or a Certified Hazardous Materials Manager if analytical results, monitoring data or other information indicates any of the following:

(A) the exceedance of any effluent limit by more than two hundred percent;

(B) three or more violations of any effluent limit from a single sample;

(C) three successive sampling events each of which show a violation(s) of any effluent limits;

(D) the occurrence of four or more violations of any effluent limit during any calendar year;

(E) the violation of the pH limit by more than one standard unit

Such report shall contain at least the information required to be recorded under Section 5A(f)(1)(B) of this general permit and must be submitted within 20 days of becoming aware of the non-compliance which triggered the report. Such certified report shall be sent to the commissioner at the following address:

Water Permitting and Enforcement Division
Bureau of Materials Management and Compliance Assurance
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(5) Within 60 days after the deadline for submitting the report specified in Section 5A(f)(3) of this general permit, the permittee shall submit to the commissioner at the same address provided in Section 5A(f)(3) of this general permit, the following certification signed by a Professional Engineer licensed to practice in Connecticut, Licensed Environmental Professional, or a Certified Hazardous Materials Manager:

"I certify that in my professional judgment, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining information pursuant to Section 5 of the General Permit for the Discharge of Groundwater Remediation Wastewater that all discharge(s) which are maintained on the site referenced herein, and which are covered under the general permit comply with all conditions of said general permit, including but not limited to all effluent limits in Section 5A(b) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will insure that all effluent limits and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limits and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136, which samples were representative of the discharge during standard operating conditions, were taken in the previous year, at least one week apart, and were of the type(s) specified in Section 5A of said general permit, and were analyzed for the parameters specified in Section 5A of said general permit. I understand that a false statement made in this report, including all

attachments thereto, or in this certification may, pursuant to section 22a-6 of the General Statutes, be punishable as a criminal offense under section 53a-157b of the General Statutes, and may also be punishable under section 22a-438 of the General Statutes and any other applicable law."

The above certification should not be construed as authorizing a Licensed Environmental Professional or a Certified Hazardous Materials Manager to certify compliance in areas that should only be handled by a licensed Professional Engineer including but not limited to design or modification of engineered wastewater treatment systems.

Section 5B. Permit Terms and Conditions Applicable for Discharges to a POTW

(a) Monitoring Requirements

(1) Chemical Monitoring Frequency

Monitoring to verify compliance with the effluent limitations in Section 5B and Appendix B of this general permit and any Approval of Registration issued pursuant to Section 3 of this general permit shall be performed according to the following schedule:

(A) For all discharges, except as specified in subsection (D) of this section, for each initiation of a discharge, the discharge shall be sampled on the first day of discharge and then every other day for the first week, weekly for the next month, and then as follows depending upon the maximum daily flow:

Maximum Daily Flow	***Effluent Monitoring Frequency***
< 5,000 gallons per day	quarterly
≥ 5,000 gallons per day	monthly

(B) For each initiation or restart of a discharge after an exceedance of an effluent limitation, the discharge shall be sampled on the first day of discharge and then every other day for the first week, weekly for the next month, and then in accordance with the sampling schedule at the time the discharge was ceased.

(C) For each restart of a discharge for any reason other than an exceedance of a parameter limit, the discharge shall be sampled on the first day of discharge and then in accordance with the sampling schedule at the time the discharge was ceased.

(D) For intermittent discharges of groundwater remediation wastewaters generated from scheduled remediation activities, such as purging conducted prior to monitoring, conducted at sites with no other discharges of wastewater subject to this general permit, the following monitoring shall be required:

(i) A minimum of one representative sample shall be collected and analyzed in accordance with Section 5B(d) of this general permit for each discharge.

(ii) If multiple points are sampled independently, a volume-proportioned average of analytical results may be substituted for a single sample.

(iii) Treatment and discharge shall be conducted as described in Section 5B(e) of this general permit.

(b) POTW Specific Requirements

Any requirement specified in writing by the POTW Authority receiving authorized discharge(s) shall be considered requirement(s) of this general permit.

(c) Effluent Limitations

(1) The effluent limitations specified in Appendix B and/or this section of this general permit and/or specified in the Approval of Registration issued pursuant to Section 3 of this general permit, shall not be exceeded at any time as determined by a grab sample.

(2) The maximum daily flow shall not exceed the maximum daily flow specified in the general permit registration.

(3) The pH of the discharges shall not be less than 5.0 or greater than 10.0 standard units at any time.

(d) Additional Monitoring Requirements

All discharges shall be monitored in accordance with the following:

(1) The permittee shall monitor the discharge for any pollutant that in the screening analysis conducted pursuant to Section 5(a) of this general permit or any other analysis identifies the presence of such pollutant in the groundwater at levels above either the limitations specified in Appendix B or Section 5B(c) of this general permit or the limitations or conditions specified in an Approval of Registration issued pursuant to Section 3 of this general permit.

(2) The permittee shall monitor the discharges for the presence of VOCs if the source of contamination includes VOCs, or any screening analysis conducted pursuant to Section 5(a) of this general permit indicates the presence of any VOCs at or above the minimum level, or a combined concentration of oxygenates exceeding 50 ug/l. Tentatively identified compounds (TIC) detected in the screening analysis required pursuant to Section 5(a) of this general permit shall be analyzed as target compounds if such compounds compose greater than 10% of the total pollutant load for VOCs, or if treatment technology is not proven to be as effective for the TICs detected as for target VOCs of concern.

(3) The permittee shall monitor the discharges for total petroleum hydrocarbons if:

(A) the results of any analysis of the discharges indicates that total petroleum hydrocarbons is present in the groundwater to be discharged above the limit identified in Appendix B of this general permit;

(B) oil or an oily sheen is visible in the water to be discharged; or

(C) the source of the contamination being remediated is petroleum oil.

(4) All discharges generated during construction dewatering, except well point dewatering, shall be monitored for Total Suspended Solids, and Total Settleable Solids.

(5) The permittee shall monitor the discharges for any metal if:

(A) any analysis required per Section 5(a)(2) of this general permit indicates that metal is present in the groundwater at concentrations greater than the limit listed in Appendix B;

(B) the site has been historically or is presently used to dispose of or store that metal; or

(C) the permittee has reason to believe that concentrations of the metal in groundwater may exceed the limits in Appendix B, as a result of current or historic on-site activities.

(6) The permittee shall periodically calibrate and perform maintenance on all monitoring and field equipment at intervals that will ensure the accuracy of measurements.

(7) Monitoring for flow shall be performed according to the schedule in Section 5B(a)(1) of this general permit. All discharges of greater than 5000 gallons per day shall have flow monitoring equipment installed or implement techniques and devices capable of recording total daily flow. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. All other discharges shall implement flow-measuring procedures to adequately estimate flows.

(8) Monitoring and reporting of radioactive liquid releases shall be performed in accordance with an approval of registration issued pursuant to Section 3(b)(1)(B)(vi) of this general permit *and* with the applicable 10 CFR 50.36a "Technical specifications on effluents from nuclear power reactors" plus 10 CFR 20 Appendix B "Standards for Protection Against Radiation" and 40 CFR 190, "Environmental Radiation Protection Standards For Nuclear Power Operations". Annual monitoring reports shall be submitted to the Federal Nuclear Regulatory Commission and the Department's Bureau of Air Management, Radiation Control Division.

(9) Monitoring Location

(A) Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. Samples shall be taken at the monitoring points identified pursuant to Section 4(c)(2)(N) of this general permit before the effluent joins or is diluted by any other waste stream, or substance.

(B) For any site with more than one discharge point, individual samples shall be collected from each discharge. Samples shall be designated as DSN 201, DSN 202, etc.

(10) Sample Type

Samples taken for purposes of determining compliance with all effluent limitations and monitoring requirements listed in this general permit shall be grab samples.

(11) Test Methods

All sample analysis which are required by this general permit shall be conducted by a laboratory certified in accordance with the certification requirements specified in section 19-29a of the General Statutes. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative test methods approved by EPA in accordance with the procedures in 40 CFR §136 or using methods approved by the commissioner in an Approval of Registration issued pursuant to Section 3 of this general permit.

All analyses must be conducted using a sufficiently sensitive test method in accordance with 40 CFR §122.44(i)(1)(iv).

(e) Treatment and Inspection Requirements

(1) The permittee shall treat the discharge for any pollutant that in the screening analysis conducted pursuant to Section 5(a) of this general permit or any other analysis identifies the presence of such pollutant in the groundwater at levels above either the limitations specified in Appendix B and/or Section 5B(c) of this general permit or the limitations specified in an Approval of Registration issued pursuant to Section 3 of this general permit or as directed in an Approval of Registration issued pursuant to Section 3 of this general permit.

(2) Treatment systems implemented shall incorporate best management practices and accepted technologies for the reduction of all pollutants to below the levels specified in Appendix B and/or Section 5B(c) of this general permit and/or specified in the Approval of Registration issued pursuant to Section 3 of this general permit.

(3) Treatment systems shall be inspected and maintained at regularly scheduled intervals as determined by manufacturer specifications, site specific conditions and best professional judgment. The permittee shall conduct routine inspections of all equipment associated with the discharges authorized by this general permit. Inspections shall be conducted as necessary to insure proper operation of all equipment. If the routine inspections are to be conducted at intervals of

greater than 7 days, an inspection schedule summarizing inspection protocols shall be included as an Attachment to the general permit registration required pursuant to Section 3 of this general permit, unless the site is a remote site as defined in Section 2 of this general permit with a maximum daily flow of under 14,400 gallons per day. Remote sites with maximum daily flows of less than 14,400 gallons per day shall be inspected as necessary to insure proper operation of all equipment, but at intervals of no more than 30 days.

A log shall be maintained on-site documenting the date of inspection, inspector's name, verification of operation of critical equipment, and a summary of any work or change in equipment associated with the discharges authorized by this general permit.

The discharge shall cease if the treatment system is not operating as necessary to maintain compliance with all effluent limitations.

(f) Reporting and Record Keeping Requirements

(1) Beginning the effective date of the authorization to discharge, the permittee must record all monitoring data collected to comply with this general permit.

(2) **For discharges lasting 90 days or more**, within 120 days after the effective date of the authorization to discharge, the operator shall begin reporting monitoring data electronically using NetDMR, unless, in accordance with Section 5B(f)(3) of this general permit, the operator is able to demonstrate on a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMR's. DMR Reports are due no later than the last day of the month following the month in which samples are taken.

(3) **NetDMR opt-out requests** must be submitted in writing to the Department for written approval at least 30 days prior to the date a site would be required under this general permit to begin using NetDMR. This demonstration shall be valid for 12 months from the date of the Department approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically via NetDMR unless the permittee submits a renewed opt-out request and such request is approved by the Department.

(4) Except as otherwise specified in writing by the commissioner, each analytical result of a wastewater sample taken and all data generated by any other monitoring conducted under this general permit shall be retained at the subject site, or at the registrant's business office for at least five years from the date such result or data was generated or received by the permittee, whichever is later. The commissioner may specify a longer retention period as he reasonably deems necessary upon written notice to the permittee stating the reasons for such longer period. If during the retention period required by this subdivision the commissioner, under chapter 446k of the General Statutes, issues an order or commences a civil action against the permittee, such retention period shall be extended as necessary until such order or action is finally disposed of.

(5) The permittee shall make any such result or data available to the commissioner upon request.

(6) Within 14 days of termination of discharge, the permittee shall notify the Department of the date of termination of discharge on a form provided by the commissioner.

(7) **For discharges lasting less than 90 days,** the results of all monitoring results shall be submitted with the notification of termination of discharge in accordance with Section 5B(f)(6) of this general permit.

(g) Duty to Correct, Record, and Report Violations

(1) Upon learning of a violation of a condition of this general permit, the permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results and prevent recurrence of such violation.

(2) The permittee shall immediately notify:

(A) the local Water Pollution Control Authority and

(B) the Water Permitting and Enforcement Division of the Bureau of Materials Management and Compliance Assurance at 860-424-3025 during business hours 8:30 a.m. – 4:30 p.m.

of all discharges that could cause problems to the POTW, including but not limited to slug loadings of pollutants which may cause a violation of the POTW's NPDES permit, or which may inhibit or disrupt the POTW, its treatment processes or operations, or its sludge processes, use or disposal.

(3) The permittee shall:

(A) notify the department of violation(s) that are more than twice the limits specified in Section 5B(c) of this permit within two hours of becoming aware of the violation(s) (or at the start of the next business day if this occurs outside normal business hours) and

(B) submit a written report that contains the following information within five days of becoming aware of the violation:

(i) the condition(s) or effluent limit(s) violated;

(ii) the analytical results and information demonstrating such violation(s);

(iii) the cause of the violation(s);

(iv) period of noncompliance including exact dates and times;

(v) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;

(vi) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and

(vii) the name and title of the person recording the information and the date and time of such recording.

(4) In addition to the requirements described in section 22a-430-3(j)(11)(D) of the Regulations of Connecticut State Agencies, any other actual or anticipated

noncompliance with effluent limits or other terms and conditions of this general permit shall be recorded within twenty-four hours of becoming aware of such circumstances in a log which contains at least the following information:

(A) the condition(s) or effluent limit(s) violated;

(B) the analytical results and information demonstrating such violation(s);

(C) the cause of the violation(s) or noncompliance;

(D) period of noncompliance including exact dates and times;

(E) if the noncompliance has not been corrected, the anticipated time it is expected to continue, and, upon correction, the date and time of correction;

(F) steps taken and planned to reduce, eliminate and prevent a recurrence of the noncompliance, and the dates such steps are executed; and

(G) the name and title of the person recording the information and the date and time of such recording.

(5) The permittee shall submit a report to the commissioner prepared by a Professional Engineer licensed to practice in Connecticut, or a Licensed Environmental Professional, or a Certified Hazardous Materials Manager if analytical results, monitoring data or other information indicates any of the following:

(A) the exceedance of any effluent limit by more than two hundred percent;

(B) three or more violations of any effluent limit from a single sample;

(C) three successive sampling events each of which show a violation of any effluent limit;

(D) the occurrence of four or more violations of any effluent limit during any calendar year;

(E) the violation of the pH limit by more than one standard unit

Such report shall contain at least the information required to be recorded under Section 5B(g)(2) of this general permit and must be submitted within 20 days of becoming aware of the non-compliance which triggered the report. Such certified report shall be sent to the commissioner at the following address:

Water Permitting and Enforcement Division
Bureau of Materials Management and Compliance Assurance
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

(6) Within 60 days after the deadline for submitting the report specified in Section 5B(g)(4) of this general permit, the permittee shall submit to the commissioner at the same address provided in Section 5B(g)(4) of this general permit the following certification signed by a Professional Engineer licensed to practice in Connecticut, Licensed Environmental Professional, or a Certified Hazardous Materials Manager:

"I certify that in my professional judgment, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining information pursuant to Section 5 of the General Permit for the Discharge of Groundwater Remediation Wastewater that all discharge(s) which are maintained on the site referenced herein, and which are covered under the general permit comply with all conditions of said general permit, including but not limited to all effluent limits in Section 5B(c) of such general permit, and proper operation and maintenance of any systems installed to treat such discharge(s) will insure that all effluent limits and other conditions in such general permit are met, or if there is no treatment system for such discharge(s), that the discharge(s) will meet all effluent limits and conditions of such general permit without treatment. This certification is based in part on my review of analyses of a minimum of three effluent samples collected, preserved, handled and analyzed in accordance with 40 CFR 136, which samples were representative of the discharge during standard operating conditions, were taken in the previous year, at least one week apart, and were of the type(s) specified in Section 5B of said general permit, and were analyzed for the parameters specified in Section 5B of said general permit. I understand that a false statement made in this report, including all attachments thereto, or in this certification may, pursuant to section 22a-6 of the General Statutes, be punishable as a criminal offense under section 53a-157b of the General Statutes, and may also be punishable under section 22a-438 of the General Statutes and any other applicable law."

The above certification should not be construed as authorizing a Licensed Environmental Professional or a Certified Hazardous Materials Manager to certify compliance in areas that should only be handled by a licensed Professional Engineer including but not limited to design or modification of engineered wastewater treatment systems.

(7) The permittee shall also submit a copy of any report required under this subsection to the applicable Water Pollution Control Authority.

Section 5C.Permit Terms and Conditions – Discharges to Ground and Groundwater

(a) Separating distances to potable supply wells

The following minimum separating distances between any point of a disposal system that accepts an authorized discharge and any potable water supply well shall be as specified in an approval of registration, or:

(1) for wells yielding less than 10 gallons per minute, the minimum separating distance shall be 75 feet;

(2) for wells yielding 10 or more gallons per minute but less than 50 gallons per minute, the minimum separating distance shall be 150 feet;

(3) for wells yielding more than 50 gallons per minute, the minimum separating distance shall be 200 feet.

(b) Well rehabilitation wastewaters

The following requirements apply to any well rehabilitation activity that involves the injection or addition of any substance to a well.

(1) Unless specifically approved in writing by the commissioner, the source of any water injected during well rehabilitation activities shall be from a potable supply.

(2) Unless specifically approved in writing by the commissioner, well rehabilitation solutions shall be removed from the well within forty-eight (48) hours of being introduced into any well.

(3) Unless specifically approved in writing by the commissioner, no substance(s) shall be used for well rehabilitation that are not identified in the registration submitted in accordance with Section 4 of this general permit.

(4) All limitations, monitoring requirements, terms and conditions specified in the Approval of Registration required by Section 3(b)(1)(B) of this general permit shall be complied with or the discharge shall cease.

(c) Groundwater Remediation Recirculation Systems

The following requirements apply to any discharge of treated groundwater remediation wastewater to groundwater.

(1) Unless specifically approved in writing by the commissioner, the effluent limitations specified in Appendix A shall not be exceeded at any time as determined by a grab sample.

(2) Unless specifically approved in writing by the commissioner, the discharger shall demonstrate that the groundwater recovery system is designed to capture all discharges injected under authorization of this general permit.

(3) All limitations, monitoring requirements, terms and conditions specified in the Approval of Registration required by Section 3(b)(1)(B) of this general permit shall be complied with or the discharge shall cease.

(4) If the discharge is directed to groundwater with a Water Quality Classification designated as Class GAA, or within an aquifer protection area, treatment shall at a minimum incorporate technologies certified by the NSF for the treatment of drinking water for the removal of the pollutants of concern, and be designed for the flows anticipated.

Section 6. General Conditions

(a) Reliance on Registration

In evaluating the permittee's registration, the commissioner has relied on information provided by the permittee. If such information proves to be false or incomplete, the permittee's authorization to discharge under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

(b) Duty to Provide Information

If the commissioner requests any information pertinent to the authorized discharge or to compliance with this general permit or with the permittees registration or approval of registration under this general permit, the permittee shall provide such information within 30 days of such request. Such information shall be filed in accordance with the "Certification of Documents" requirements prescribed in Section 6(c) of this general permit.

(c) Certification of Documents

Any document, including but not limited to any notice, information or report, which is submitted to the commissioner under this general permit shall be signed by the permittee or by a duly authorized representative of the permittee in accordance with section 22a-430-3(b)(2)(A) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute."

(d) Date of Filing

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word "day" as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

(e) False Statements

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6, under section 53a-157b of the General Statutes.

(f) Correction of Inaccuracies

Within fifteen days after the date a permittee becomes aware of a change in any information in any material submitted pursuant to this general permit, or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be filed in accordance with the certification requirements prescribed in Section 6(c) of this general permit.

(g) Transfer of Authorization

An authorization under this general permit is transferable only in accordance with the provisions of section 22a-6o of the General Statutes. Any person or municipality proposing to transfer an approval of registration shall submit a license transfer form to the commissioner to transfer the previous permit authorization to a new registrant. The new registrant is not authorized by this general permit until the transfer is approved by the commissioner.

(h) Other Applicable Law

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(i) Other Rights

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 7. Commissioner's Powers

(a) Abatement of Violations

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Permit Application

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty (60) days of receiving the commissioner's notice. While such application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of registration. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued Date: February 17, 2022

Tracy R. Babbidge
Acting Deputy Commissioner

This is a true and accurate copy of the general permit executed on February 17, 2023 by the Department of Energy and Environmental Protection.

Appendix A: DISCHARGES TO SURFACE WATERS

Toxic, Hazardous and Other Pollutants and Their Maximum Concentrations

The Maximum Concentration For Each Pollutant or Pollutant Parameter, As Specified Below, Shall Not Be Exceeded:
(If the Minimum Level for a pollutant or pollutant parameter is higher than the stated limit for that pollutant or pollutant parameter, the limit shall be "ND <Minimum Level".)

Volatile Organic Compounds

Combined Total of All Individual Compounds Shall Not Exceed 10 µg/l for all Discharges to Receiving Waters with a Water Quality Classification or Goal of A or SA
Combined Total of All Individual Compounds Shall Not Exceed 50 µg/l, **and** 1,1,2 Trichloroethane shall not exceed 42 µg/l for all Discharges to Receiving Waters with a Water Quality Classification or Goal of B or SB
MTBE Shall Not Exceed 70 µg/l

Total Petroleum Hydrocarbons

Total Petroleum Hydrocarbons Shall Not Exceed 5.0 mg/l

Solids

Total Suspended Solids Shall Not Exceed 30 mg/l

Phthalate Esters

Phthalate Ester	Maximum Concentration (µg/l)
Bis(2-ethylhexyl)phthalate	**Bis(2-ethylhexyl)phthalate 5.9 µg/l** **Combined Total of All Phthalates Shall Not Exceed 100 µg/l**
Benzyl butyl phthalate	
Di-n-butyl phthalate	
Diethyl phthalate	
Dimethyl phthalate	
Di-n-octyl phthalate	

Base Neutral and Acid Extractables (BNA)

The Combined Total of All BNAs, Including Tentatively Identified Compounds, but Excluding Phenols* and PAHs* Shall Not Exceed 10.0 µg/l.

* Excluded Compounds Referenced Below

In addition, the Maximum Concentration For Each Compound Specified Below Shall Not Be Exceeded:

BNA's (Excludes Phenol and PAHs)	Maximum Concentration (µg/l)
Benzidine	ND
3,3 dichlorobenzidine	ND
Hexachlorobenzene	ND

Phenols

Phenol	Maximum Concentration (µg/l)
2-sec-Butyl-4, 6-dinitrophenol (DNBP)	**Combined Total of All Phenols** **Shall Not Exceed 5.0 µg/l**
4-Chloro-3-methylphenol	
2-Chlorophenol	
Cresols (methyl phenols)	
2-Cyclohexyl-4, 6-dinitrophenol	
2,4-Dichlorophenol	
2,6-Dichlorophenol	
2,4-Dimethylphenol	
2,4-Dinitrophenol	
2-Methyl-4, 6-dinitrophenol	
2-Nitrophenol	
4-Nitrophenol	
Pentachlorophenol	
Phenol	
Tetrachlorophenols	
Trichlorophenols	
2,4,6-Trichlorophenol	

Polynuclear Aromatic Hydrocarbons (PAHs)

The Combined Total of All PAHs Shall Not Exceed 5.0 µg/l and the Maximum Concentration For Each Compound Specified Below Shall Not Be Exceeded:

PAH	Maximum Concentration (µg/l)
Acenaphthene	
Acenaphthylene	
Anthracene	
Benzo(a)anthracene	0.49 µg/l
Benzo(a)pyrene	0.49 µg/l
Benzo(b)fluoranthene	
Benzo(j)fluoranthene	
Benzo(k)fluoranthene	0.49 µg/l
Benzo(ghi)perylene	
Chrysene	
Dibenzo(a,h)acridine	
Dibenzo(a,j)acridine	
Dibenzo(a,h)anthracene	0.01 µg/l
H-Dibenzo(c,g)carbazole	
Dibenzo(a,e)pyrene	
Dibenzo(a,h)pyrene	
Dibenzo(a,i)pyrene	
Fluoranthene	
Fluorene	
Indeno(1,2,3-cd)pyrene	0.49 µg/l
3-Methylcholanthrene	
Naphthalene	
Phenanthrene	
Pyrene	

Organochlorine Pesticides

(For any maximum concentration that is below the minimum level of the approved methodology, the maximum concentration shall be "ND < minimum level")

Pesticide	Maximum Concentration (µg/l)
Aldrin	ND
Alpha-BHC	ND
Beta-BHC	ND
Delta-BHC	ND
Gamma-BHC (Lindane)	ND
Chlordane (technical)	ND
4,4'-DDD	ND
4,4'-DDE	ND
4,4'-DDT	ND
Dieldrin	ND
Endosulfan I	ND
Endosulfan II	ND
Endosulfan sulfate	ND
Endrin	ND
Endrin aldehyde	ND
Heptachlor	ND
Heptachlor epoxide	ND

Chlorinated Herbicides

Herbicide	Maximum Concentration (µg/l)
2,4,-D	**Combined Total of 2,4-D plus 2,4-DB Shall Not Exceed 50 µg/l**
2,4-DB	
2,4,5-T	ND
2,4,5-TP (Silvex)	ND
Dicamba	ND

PCBs

PCB	Maximum Concentration (µg/l)
PCB-1016	**Combined Total of All PCBs Shall Not Exceed 0.1 µg/l and no individual compound shall exceed 0.00017 µg/l**
PCB-1221	
PCB-1232	
PCB-1242	
PCB-1248	
PCB-1254	
PCB-1260	
OTHER PCB's	

If other PCBs have been used or stored on-site or there is reason to believe they may be present, analyze each compound (congener) in addition to the seven listed PCB mixtures.

Metals

Metals	Maximum Concentration (µg/l)	
	10 to 1 Dilution	100 to 1 Dilution
Arsenic	0.021 µg/l	0.021 µg/l
Beryllium	2.6 µg/l	24.8 µg/l
Cadmium	10.0 µg/l	95.9 µg/l
Chromium	342 µg/l	1000 µg/l
Copper	48 µg/l	480 µg/l
Lead	9.8 µg/l	93.6 µg/l
Hexavalent Chromium	79.4 µg/l	79.4 µg/l

Metals	Maximum Concentration (µg/l)	
	10 to 1 Dilution	100 to 1 Dilution
Mercury	ND	ND
Nickel	235 µg/l	1000 µg/l
Selenium	40 µg/l	390 µg/l
Silver	5.0 µg/l	48 µg/l
Zinc	322 µg/l	1000 µg/l

Dilution is calculated as the ratio 7Q10 flow of the receiving water and maximum daily flow of the discharge (7Q10 / maximum flow). Dilution in tidal waters shall be determined by the Department on a case by case basis.

OTHER SUBSTANCES:

Pollutant	Maximum Concentration	
	10 to 1 Dilution	100 to 1 Dilution
Ammonia	1.5 mg/l	1.5 mg/l
Chlorine	0.09 mg/l	0.8 mg/l
Cyanide	43 µg/l	406 µg/l
Amenable Cyanide	43 µg/l	100 µg/l

Radioactivity:

Except as authorized in an Approval of Registration issued pursuant to Section 3(b)(1)(B)(vi) of this general permit, the concentration of radon in the discharge shall not exceed naturally occurring background concentration.

Discharge of wastewater impacted by any other radiological sources, or from sites specified in Section 3(b)(1)(B)(vi) of this general permit shall be conducted as authorized by an Approval of Registration issued pursuant to Section 3(b)(1)(B)(vi) of this general permit *and* with the applicable 10 CFR 50.36a "Technical specifications on effluents from nuclear power reactors" plus 10 CFR 20 Appendix B "Standards for Protection Against Radiation" and 40 CFR 190, “Environmental Radiation Protection Standards For Nuclear Power Operations”.

Appendix B: DISCHARGES TO A POTW

Toxic, Hazardous and Other Pollutants and Their Maximum Concentrations

The Maximum Concentration For Each Pollutant or Pollutant Parameter, As Specified Below, Shall Not Be Exceeded:
(If the Minimum Level for a pollutant or pollutant parameter is higher than the stated limit for that pollutant or pollutant parameter, the limit shall be "ND <Minimum Level".)

Volatile Organic Compounds

Combined Total of Chlorinated Volatile Organic Compounds Shall Not Exceed 1.0 mg/l
Combined Total of All Volatile Organic Compounds Shall Not Exceed 5.0 mg/l
MTBE Shall Not Exceed 1.0 mg/l

Total Petroleum Hydrocarbons

Total Petroleum Hydrocarbons Shall Not Exceed 100 mg/l

EPA Method 200.7 or other methods approved in accordance with 40 CFR 136 which are capable of achieving minimum levels below the levels established below

Metals	Maximum Concentration (mg/l)
Arsenic	0.1 mg/l
Barium	5.0 mg/l
Beryllium	2.0 mg/l
Boron	5.0 mg/l
Cadmium	0.1 mg/l
Chromium	1.0 mg/l
Hexavalent Chromium	0.1 mg/l
Cobalt	2.0 mg/l
Copper	1.0 mg/l
Lead	0.1 mg/l

Metals	Maximum Concentration (mg/l)
Magnesium	50 mg/l
Mercury	ND
Nickel	1.0 mg/l
Selenium	1.0 mg/l
Silver	0.1 mg/l
Thallium	1.0 mg/l
Tin	2.0 mg/l
Vanadium	1.0 mg/l
Zinc	1.0 mg/l

Base Neutral and Acid Extractables (BNA)

Combined Total of All BNAs Excluding Phenols and PAHs Shall Not Exceed 2.0 mg/l

Phenols

Phenol	Maximum Concentration (mg/l)
2-sec-Butyl-4,6-dinitrophenol (DNBP)	**Combined Total of All Phenols Shall Not Exceed 1.0 mg/l**
4-Chloro-3-methylphenol	
2-Chlorophenol	
Cresols(methyl phenols)	
2-Cyclohexyl-4,6-dinitrophenol	
2,4-Dichlorophenol	
2,6-Dichlorophenol	
2,4-Dimethylphenol	
2,4-Dinitrophenol	
2-Methyl-4,6-dinitrophenol	
2-Nitrophenol	
4-Nitrophenol	
Pentachlorophenol	
Phenol	
Tetrachlorophenols	
Trichlorophenols	
2,4,6-Trichlorophenol	

Polynuclear Aromatic Hydrocarbons (PAHs)

Combined Total of All Polynuclear Aromatic Hydrocarbons Shall Not Exceed 2.0 mg/l

Organochlorine Pesticides

Pesticide	Maximum Concentration (µg/l)
Aldrin	1.5 µg/l
Alpha-BHC	1.0 µg/l
Beta-BHC	1.0 µg/l
Delta-BHC	1.0 µg/l
Gamma-BHC (Lindane)	2.0 µg/l
Chlordane (technical)	20 µg/l
4,4'-DDD	0.2 µg/l
4,4'-DDE	0.2 µg/l
4,4'-DDT	0.2 µg/l
Dieldrin	10 µg/l
Endosulfan I	2.0 µg/l
Endosulfan II	2.0 µg/l
Endosulfan sulfate	2.0 µg/l
Endrin	1.0 µg/l
Endrin aldehyde	1.0 µg/l
Heptachlor	0.6 µg/l
Heptachlor epoxide	0.4 µg/l
Methoxychlor	360 µg/l
Toxaphene	10 µg/l

Phthalate Esters

Phthalate Ester	Maximum Concentration (mg/l)
Benzyl butyl phthalate	**Combined Total of All Phthalates Shall Not Exceed 2.0 mg/l**
Bis(2-ethylhexyl)phthalate	
Di-n-butyl phthalate	
Diethyl phthalate	
Dimethyl phthalate	
Di-n-octyl phthalate	

PCBs

PCB	Maximum Concentration (µg/l)
PCB-1016	**Combined Total of All PCBs Shall Not Exceed 1.0 µg/l**
PCB-1221	
PCB-1232	
PCB-1242	
PCB-1248	
PCB-1254	
PCB-1260	
OTHER PCB's	

If other PCBs have been used or stored on-site or there is reason to believe they may be present, each compound must be analyzed for in addition to the seven listed PCBs.

Chlorinated Herbicides

Herbicide	Maximum Concentration (µg/l)
2,4,-D	**Combined Total of 2,4-D plus 2,4-DB Shall Not Exceed 700 µg/l**
2,4-DB	
2,4,5-T	10.0 µg/l
2,4,5-TP (Silvex)	10.0 µg/l
Dicamba	10.0 µg/l

Cyanide: EPA Method 335.1; 335.2

Cyanide	Maximum Concentration (mg/l)
Total Cyanide	0.6 mg/l
Amenable Cyanide	0.1 mg/l



GZA GeoEnvironmental, Inc.