CPL
ARCHITECTURE
ENGINEERING
PLANNING
CPLteam.com

ADDENDUM NO. 02

PROJECT: N. Rockland CSD - Stony Point ES Student Drop Off Loop& Water Heater Replacement - Contracts 03, 04, & 05

CPL PROJECT NO. R25.17697.00

SED PROJECT NO. 50-02-01-06-0-014-015

DATE: June 9, 2025

Include this Addendum as part of the Contract Documents. It supplements portions of the original specifications and drawings, the extent of which shall remain, except as revised herein:

TO THE PROJECT MANUAL:

1.1 Replace Section 004000 With the attached, revised section 004000.

1.2 After Section 011200, add the attached Section 012300.

1.3 Replace Section 055200 with the attached revised 055200.

1.4 Replace Section 334100 with the attached, revised Section 334100.

TO THE DRAWINGS:

2.1 Replace Drawing C300 with the attached, revised Drawing C300.

2.2 After Drawing C300, add the attached drawing C301.

2.3 After Drawing C502, add the attached drawing C503.

2.4 Replace Drawing P200 with the attached, revised P200.

2.5 Replace Drawing E050 with the attached, revised E050.

END OF ADDENDUM NO. 02

SECTION 004000
FORM OF PROPOSAL - SITE CONSTRUCTION

DATED: _____

BID TO:

North Rockland CSD

District Office, 65 Chapel Street, Garnerville, NY 10923

FROM:

_____ (NAME OF BIDDER)

_____ (ADDRESS OF BIDDER)

_____

GENERAL

Pursuant to, and in compliance with, the Procurement and Contracting requirements, Conditions of the Contract, relative thereto and all of the Contract Documents, including any Addenda issued by the Architect and mailed or delivered to the undersigned prior to the opening of Bids, whether received by the undersigned or not, we, _____ having visited the site and being familiar with all conditions and requirements of the Work, ___ hereby propose to furnish all plant, labor, supplies, materials and equipment incidental for all Site Construction work as required by, and in strict accord with, the applicable provisions of the Drawings and Specifications entitled STONY POINT ES - STUDENT DROP OFF LOOP & WATER HEATER REPLACEMENT CONTRACTS 03, 04 & 05all to the satisfaction and approval of the Architect and the Owner in accordance with the terms and conditions of the Contract Documents for the following sum:

Base Bid (in numbers): $ _____

Base Bid (in words): $ _____

ADDENDA RECEIVED

Any addenda issued by the Architect, emailed, mailed or delivered, to the undersigned prior to the Bid opening date shall become part of the Contract Documents. The Bidder shall enter on this list any addenda issued after this Form of Proposal has been received and shall fill in the addenda number and date.

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

Addendum No.: _____ Dated: _____

BID GUARANTEE

The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within (10) ten days after a written Notice of Award, if offered within (45) forty-five days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid.

In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

TIME OF COMPLETION

It is agreed by the undersigned that after receipt of a Notice of Award and a consummation of a Contract Agreement in accord with the terms of the Contract Documents, he or she will start work within (10) ten consecutive calendar days of the notice to proceed and fully complete the work as indicated in the Project Schedule.

ALTERNATES (REFERENCE SPECIFICATION SECTION 012300)

Enter a whole dollar amount even if it is zero ($0), for each Alternate Bid. Circle either "ADD to" or "DEDUCT from" for each Alternate Bid. If neither is circled, "DEDUCT from" will be assumed. Do not leave any Alternate Bid amount blank. If any Alternate Bid amount is left blank, it will be assumed the Bidder will provide that Alternate Bid for no charge, neither increase to nor decrease from, the Base Bid amount.

1. **Alternate Bid No. 1:**
   ADD to | DEDUCT from the base bid, a total sum of:
   (in numbers) $ _____
   (in words) $ _____
2. **Alternate Bid No. 2:**
   ADD to | DEDUCT from the base bid, a total sum of:
   (in numbers) $ _____
   (in words) $ _____

BID SECURITY

Bid Security in the form of a Certified or Cashier's Check or a Bid Bond in the form required by the Contract Documents is attached to and made a part of this Proposal.

NEW YORK STATE DEPARTMENT OF LABOR CONTRACTOR REGISTRY

Pursuant to New York State Department of Labor requirements, Contractor to submit with the bid, a copy of their Contractor Certificate of Registration which is attached to, and made part of, this Proposal.

IRAN DIVESTMENT ACT CERTIFICATION

Contractor to submit with the bid, Iran Divestment Act Certification which hereto is made a part of this Form of Proposal and is attached at the end of this Form of Proposal.

REPRESENTATIONS

By submitting this Proposal the Bidder represents and certifies to the Owner and the Architect that:

1. It has examined the Contract Documents, the site of the proposed Work, is familiar with the local conditions at the place where the Work is to be performed and fully comprehends the requirements and intent of the plans and specifications for this Project in accordance with the drawings, specifications and other Contract Documents prepared by CPL the Owners Consultant, for this Project.
2. It has examined and reviewed, where applicable, all information and data in the Contract Documents related to existing underground facilities at or contiguous to the site. Bidder shall require of the Owner or Architect no further investigations, explorations, tests or reports with respect to such underground facilities in order for the Bidder to perform the Work of the Proposal within the Contract Time and in accordance with the Contract Documents.
3. It has given notice to the Architect, as required by the Contract Documents of any and all discrepancies it has discovered and accepts the resolution of those discrepancies offered by the Architect.
4. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
    a. The prices in this bid have been arrived at independently without collusion, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
    b. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not be knowingly disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or competitor; and
    c. No attempt has been made or will be made by bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.
5. The proposal is based upon the materials, equipment and systems required by the Contract Documents, without exception, unless otherwise set forth in this Proposal in detail.

CHANGE ORDERS

We propose and agree that the above lump sum shall be adjusted for changes in the Contract Work not included in unit prices by addition of the following costs:

1. Profit and overhead as permitted in the General Conditions.

NON-COLLUSIVE BIDDING CERTIFICATION

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

ACCEPTANCE

When this Proposal is accepted, the undersigned agrees to enter into a Contract with the Owner as provided in the Form of Agreement.

AFFIRMS

The undersigned affirms and agrees that this Proposal is a firm one which remains in effect and will be irrevocable for a period of (45) forty-five days after opening of Bids.

TYPE OF BUSINESS

The undersigned hereby represents that it is a [ ] Corporation, [ ] Partnership, [ ]Individual. If a Corporation, then the undersigned further represents that it is duly qualified as a Corporation under the laws of and it is authorized to do business in this State.

PLACE OF BUSINESS

The following is the name and address of the person to whom all notices required in connection with this Proposal may be telephoned, mailed, or delivered:

Name of Contact Person: _____

Name of Business or Firm: _____

Address: _____

Address: _____

Telephone: _____ Fax: _____

Email Address: _____

FEIN: (Federal Employer Identification No.) : _____

EXECUTION OF CONTRACT

When written Notice of Acceptance of the Proposal is mailed or delivered to the undersigned within (45) forty-five days after the opening of Bids, or anytime thereafter should the Proposal not be withdrawn, the undersigned, within (10) ten days, will execute the Form of Agreement with the Owner.

ASBESTOS

The bidder certifies that no asbestos or asbestos-containing materials will be incorporated into the Work of this Contract.

AUTHORIZED SIGNATURES FOR PROPOSALS

Signature: _____

Name: _____
(Typed or Printed)

Title: _____
(Legal Name of Person, Single Proprietorship, Partnership or Corporation)

Date: _____

(if Corporation, provide seal above)

IRAN DIVESTMENT ACT CERTIFICATION

By submission of this bid or by assuming the responsibility of a Contract awarded hereunder, each bidder and each person signing on behalf of any bidders, certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief:

That each bidder/contractor/assignee is not on the "Entities Determined To Be Non-Responsive Bidders/Offerers Pursuant to The New York State Iran Divestment Act of 2012" list created pursuant to paragraph (b) subdivision 3 of section 165-a of the New York State Finance Law and posted on the OGS website at www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf and further certifies that it will not utilize on such Contract any subcontractor that is identified on the Prohibited Entities List. Additionally, Bidder/Contractor is advised that should it seek to renew or extend a Contract awarded in response to the solicitation, it must provide the same certification at the time the Contract is renewed or extended. (See Article 10 in the Instructions to Bidders.)

NAME OF COMPANY: _____

(Individual or Legal Name of Firm or Corporation)

MAILING ADDRESS: _____

_____

BY: _____

(Signature of Representative of Firm or Corporation)

NAME: _____ TITLE: _____

Please Print *Please Print*

DATED: _____

SWORN to before me this

_____ day of _____ 20 _____

Notary Public: _____

SEXUAL HARASSMENT POLICY/TRAINING AFFIRMATION

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that the bidder has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all its employees.

Contractor Information:

Name of Contractor: _____

Address: _____

Phone Number: _____ Facsimile: _____

Email Address: _____

Contractor Website: _____

_____	_____	_____
(Signature of Contractor)	*(Title)*	*(Date)*

CERTIFICATION UNDER NEW YORK STATE EXECUTIVE ORDER NO. 16

A. New York State Executive Order No. 16 provides that "all Affected State Entities are directed to refrain from entering into any new contract or renewing any existing contract with any entity conducting business operations in Russia."

B. The executive order remains in effect while sanctions imposed by the Federal Government are in effect. Accordingly, vendors who may be excluded from award of contract because of current business operations in Russia are nevertheless encouraged to respond to solicitations to preserve their contracting opportunities in case the sanctions are lifted during solicitations or even award of contract in the case of some solicitations.

C. As defined in Executive Order No. 16, an "entity conducting business operations in Russia" means an institution or company, wherever located, conducting any commercial activity in Russia or transacting business with the Russian Government or with commercial entities headquartered in Russia or with their principal place of business in Russia in the form of contracting, sales, purchasing, investment or any business partnership

D. Is Vendor an entity conducting business operations in Russia, as defined above? Please answer by checking one of the following:

_____ 1. No, Vendor does not conduct business operations in Russia within the meaning of Executive Order No. 16.

_____ 2.a. Yes, Vendor conducts business operations in Russia withing the meaning of Executive Order No. 16 but has taken steps to wind down business operations in Russia or is in the process of winding down business operations in Russia. (Please provide a detailed description of the wind down process and a schedule for completion).

_____ 2.b. Yes, Vendor conducts business operations in Russia within the meaning of Executive Order No. 16 but only to the extent necessary to provide vital health and safety services within Russia or to comply with Federal Law, Regulations, Executive Orders or Directives. (Please provide a detailed description of the services being provided or the relevant laws, regulations, etc.

_____ 3. Yes, Vendor conducts business operations in Russia within the meaning of Executive Order No. 16.

E. The undersigned certifies under penalties of perjury that they are knowledgeable of the Vendor's business and operations and that the answer provided herein is true to the best of their knowledge and belief.

Vendor Name: _____
(legal entity)

By: _____
(signature)

Name: _____

Title: _____

Date: _____

END OF SECTION 004000

SECTION 012300
ALTERNATES

PART 1 GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to, or deducted from, the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
   1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
   2. The cost or credit for each alternate is the net addition to, or deduction from, the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
   1. Include as part of each alternate miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate Bid No. 1: Stormwater Retention 25-Year Storm:

1. Alternate Bid: Install four hundred and two (402) linear feet of 48-inch underground detention piping with outlet control structure and storm piping configuration as shown on the drawings and as specified.

B. Alternate Bid No. 2: Stormwater Retention 10-Year Storm:

1. Alternate Bid: Install five hundred and one (501) linear feet of 48-inch underground detention piping with outlet control structure and storm piping configuration as shown on the drawings and as specified.

END OF SECTION 012300

SECTION 055200 - METAL RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Stair Railing – Galvanized Steel, powder coated.

B. Related Sections:

A. See Section 033000 "Cast-in-place Concrete" for post foundations.

1.3 PERFORMANCE REQUIREMENTS

A. Design: Railings shall meet minimum size, material, and embedment requirements and design criteria indicated on contract documents.

B. Structural Performance: Railings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails and Top Rails of Guards:

a. Uniform load of 50 lbf/ ft. applied in any direction.
b. Concentrated load of 200 lbf applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.4 ACTION SUBMITTALS

A. Product Data: For the following:

1. Manufacturer's product lines of mechanically connected railings.
2. TGIC – Polyester Powder Coating.
3. Grout and anchoring cement.
4. Expansion joints.

B. Shop Drawings: Include dimensioned plans, elevations, sections, details, and attachments to other work.

C. Samples for Initial Selection: For products involving selection of color, texture, or design.

D. Samples for Verification: For each type of exposed finish required.

1. Sections of each distinctly different linear railing member, including handrails, top rails, posts, and balusters.
2. Handrail to post and handrail to handrail joint assembly.

a. Show method of finishing and connecting members at intersections.

3. Expansion Joint Assembly

~~E. Delegated Design Submittal: For installed products indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.~~

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: Qualification Data: For firms and persons specified in 'Quality Assurance' Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addressed of architects and Director's Representative, and other information specified. Demonstrate applicable experience with the fabrication of stainless steel rail and architectural elements.

B. Welding certificates.

C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.

D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.

E. Engineering verification that design of railings meets or exceeds design criteria indicated.

1.6 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of railing from single source from single manufacturer.

B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

C. Laboratory Test – TGIC-Polyester Powder Coating: Contractor shall retain a testing agency to conduct independent test for the TGIC - polyester powder coating. A sample of the TGIC - polyester powder coated handrail shall be laboratory tested for bonding of the powder coating to the metal. The test shall be the Cross Hatch test per ASTM D3359, method B. Failure to satisfactorily pass this test shall be a basis for rejection.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of stairs, walls and other construction contiguous with metal fabrications by field measurements before fabrication. Indicate measurements on shop drawings. Coordinate fabrication schedule with construction process to avoid delaying the work.

1.8 COORDINATION AND SCHEDULING

A. Coordinate installation of anchorages for railings. Schedule installation so railings and posts are mounted only on completed footings and stairs. Deliver such items to Project site in time for installation.

B. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes. All materials required for a complete and proper installation shall be new, free from rust, first quality of their respective kinds. Steel pipe and tubing scheduled to be hot-dipped galvanized shall be mill ordered uncoated.

B. Galvanized Handrail:

Designation A501, standard specification for hot-formed welded and seamless carbon steel structural tubing.

2. Vertical pipe posts and top rail shall be schedule 40, 2-inch nominal dimension.
3. All materials as delivered shall be in condition for erection without field fitting or cutting.

2.2 MISCELLANEOUS MATERIALS

A. Hot-Dipped Galvanizing: Hot-dip galvanize after fabrication in accordance with ASTM A 123

B. Etching Cleaner for Galvanized Metal: Complying with MPI#25.

C. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

D. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

1. Water-Resistant Product: Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.3 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage.

B. Assemble railings in the shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.

C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

D. Form work true to line and level with accurate angles and surfaces.

E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.

G. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.
4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.

H. Form changes in direction as follows:

1. As detailed.
2. By radius bends of radius indicated.

I. Bend members in jigs to produce uniform curvature for each configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

J. Close exposed ends of railing members with prefabricated end fittings.

2.4 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

2.5 STEEL AND IRON FINISHES

A. Galvanized Railings:

1. Hot-dip galvanize steel and iron railings, including hardware, after fabrication.
2. Comply with ASTM A 123/A 123M for hot-dip galvanized railings.
3. Comply with ASTM A 153/A 153M for hot-dip galvanized hardware.

4. Galvanizing of all components shall provide an acceptable substrate for applied powder coatings. No lacquer, urethane or other coatings which would prevent proper adhesion of powder coating shall be applied to the pipe.
5. Fill vent and drain holes that will be exposed in the finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.

B. Preparing Galvanized Railings for TGIC-Polyester Powder Coating: After galvanizing, thoroughly clean railings of grease, dirt, oil, flux, and other foreign matter, and apply phosphating and chromatizing treatments to improve the adhesion of the surface coating.

C. TGIC-Polyester Powder Coating: TGIC-polyester powder coating shall be applied to the galvanized steel in such a manner that the coating will not peel off. The TGIC-polyester powder coating shall be applied at a film thickness of 3 to 6 mils by electrostatic spray process and bake finished per manufacturer's directions. The TGIC-polyester shall be applied without voids, tears or cuts that reveal the substrate and shall thoroughly adhere to the metal without peeling when scratched with a pick device or knife blade point. Remove loose rust, mill scale and spatter, and slag or flux deposits in accordance with paint manufacturer's instructions. For steel to be galvanized then primed, clean galvanized surface to remove all oxidation in accordance with SSPC-SP7 "Brush-Off Blast Cleaning."
1. All metal rail components shall be coated on the surface.
2. Color shall be black.

D. TGIC-Polyester Powder Coating Touch-Up and Repair: For minor damage caused by installation or transportation and field welded metal powder coated surfaces, clean welds, bolted connections and abraded areas.
1. On damaged galvanized surfaces, apply organic zinc repair paint complying with ASTM A780. Galvanizing repair paint shall have 65 percent zinc by weight. Thickness of repair paint shall be not less than that required by ASTM A123.
2. On damaged powder coated surfaces, apply primer and touch-up finish in conformance with manufacturer's recommendations. Provide touch-up such that repair is not visible from a distance of 6 (six) feet.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.

3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

B. Posts shall be set and grouted in core drilled, cured concrete footings.
1. For cored drilled concrete footings, concrete pavements, and/or stone slabs, voids within core drill shall be filled with non-shrink, non-metallic grout.

C. Adjust railings before anchoring to ensure matching alignment at abutting joints.

3.2 RAILING CONNECTIONS

A. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.

B. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches of post.

3.3 ANCHORING POSTS

A. Form or core-drill holes not less than 5 inches deep and 3/4 inch larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with non-shrink, nonmetallic grout mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Leave anchorage joint exposed with 1/8-inch buildup, sloped away from post.

3.4 ADJUSTING AND CLEANING

A. Clean surfaces by washing thoroughly with clean water and soap and rinsing with clean water.

B. Galvanized Surfaces: Clean abraded areas and repair galvanizing to comply with ASTM A 780/A 780/M.

3.5 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

B. Restore finished damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

END OF SECTION 055200

SECTION 334100
STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section includes furnishing all labor, materials, equipment and services required to complete and make fully functional, the work indicated on the Contract Drawings and as described in the Contract Documents. This Section includes but is not limited to the following:
   1. Storm drainage pipes.
   2. Catch basins.
   3. Trench drain.
   4. Underground Detention Pipes

1.2 RELATED DOCUMENTS

A. Excavation, pipe bedding and backfill, filter fabric, underground warning tape and riprap at flared end sections are specified in Division 31 Specification Section 312000 “Earthwork-Site”.

1.3 SUBMITTALS

A. General: Submit each item in this Article according to the Conditions of the Contract.

B. Record Drawings: At project closeout, submit Record Drawings of installed storm drainage piping and products in accordance with requirements of General Condition.

C. Inspection and test reports specified in the "Field Quality Control" Article specified herein.

1.4 QUALITY ASSURANCE

A. Manufacturer’s Qualifications: Firms regularly engaged in manufacture of drainage system products of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than five (5) years.

B. Installer Qualifications: Firm with at least three (3) years of successful installation experience on projects with drainage work similar to that required for Project.

C. Codes and Standards:
   1. Plumbing Code Compliance: Comply with applicable portions of National Standard Plumbing Code pertaining to selection and installation of storm drainage system materials and products.
   2. New York State Regulation Compliance: Comply with the rules, regulations and standards of the New York State Department of Health (NYSDOH) and New York State Department of Environmental Conservation (NYSDEC) pertaining to storm drainage systems.

1.5 DEFINITIONS

A. Storm Drainage Piping: System of storm sewer pipe, fittings, and appurtenances for gravity flow of storm drainage water, surface and subsurface generated.

B. PERFORMANCE REQUIREMENTS

C. Gravity-Flow, Nonpressure-Piping Pressure Ratings: Silt-tight joints per ASTM F477 for HDPE Pipe.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Do not store plastic structures, pipe or fittings in direct sunlight.

B. Protect pipe, pipe fittings, and seals from dirt and damage.

C. Handle precast concrete headwalls and any other structures according to manufacturer's rigging instructions.

1.7 PROJECT CONDITIONS

A. Refer to utility plans of Contract Drawings pertaining to existing above ground and underground utilities.

B. Contractor shall obtain and pay for all permitting, inspection and connection fees associated with this project.

PART 2 - PRODUCTS

2.1 PIPES AND FITTINGS

A. Corrugated, High Density Polyethylene (PE) Drainage solid, double wall smooth interior pipe: AASHTO M 252 Type S, for 3 inch to 10 inch diameter, AASHTO M 294 Type S, for 12 inch to 48 inch diameter.

1. Couplings: ASTM D3350 and AASHTO M 294, high density polyethylene sleeve with ASTM D1056 Type 2, Class A, Grade 2 gasket material that mates with pipe and fitting for silt- tight joints.

2.2 GROUT

A. Non-shrink grout shall be an approved non-shrink, non-staining grout consisting of either a mixture of hydraulic cement, water, fine aggregate, and an approved nonferrous expansive admixture or a packaged product. Grout shall have a 28-day compressive strength of at least 3,000 psi at the desired water content for optimum placement.

1. CATCH BASINS AND OUTLET CONTROL STRUCTURES

B. Precast Concrete Catch Basin and Outlet Control Structures: ASTM C 478 precast, reinforced concrete, of depth indicated, with shiplap joints.

1. Diameter: 48 inches minimum.
2. Base Section: 8-inch minimum thickness for floor slab and 5-inch for walls and base riser section and having a base section with integral floor.
3. Riser Sections: 8-inch minimum wall thickness and lengths to provide depth indicated.
4. Top Section: Flat-slab-top traffic type as indicated.
5. Shiplap Joint Sealant: Butyl rope joint sealant; ASTM C990-91 and AASHTO M-198B.
6. Grade Rings: Include 2 or 3 pre-cast reinforced-concrete rings, of 8-inch total thickness each, that match inside diameter of top section opening.
7. Steps: ASTM C 478-85a and C497-85 individual steps manufactured of copolymer polypropylene plastic. Omit steps for catch basins less than 24 inches deep.
8. Pipe Connectors: ASTM C 923 cast or fitted into manhole walls, for each pipe connection.

C. Frame and Grates: ASTM 48/A 48M, Class 35, gray iron designed to meet AASHTO M306 loading. Include flat grate with small square drainage openings.

1. Size: 30 by 30 inches minimum unless otherwise indicated.
2. Frame Height: 4” minimum in traffic areas
3. Manufacturers:
   a. Product 5419 from East Jordan Iron Works, Inc., Denver, CO.
   b. Product 2816B from Campbell Foundry, Co., Harrison, NJ.
   c. Or approved equal.

D. Frame and Covers: ASTM 48/A 48M, Class 35, gray iron designed to meet AASHTO M306 loading.
   1. Size: 30 inch minimum inside diameter unless otherwise indicated.
   2. Frame Height: 4” minimum in traffic areas
   3. Manufacturers:
      a. Product 1558 from Neenah Foundry Company, Neenah, WI.
      b. Product 1480 from East Jordan Iron Works, Inc., Denver, CO.
      c. Product 1503 from Campbell Foundry Company, Harrison, NJ.

E. UNDERGROUND DETENTION SYSTEM

F. Underground detention systems shall either be corrugated metal pipe or corrugated, high density polyethylene in accordance with the following requirements.

G. Corrugated metal pipe, aluminized Type II meeting AASHTO M274 or ASTM A929. Pipe shall be manufactured in accordance with applicable requirements of AASHTO M 36 or ASTM A760.
   1. Soil tight, gravity flow, non-pressure, drainage pipe joints shall conform to AASHTO M 36 and ASTM A760. Minimum joint spacing shall be [10] feet.
   2. Joint performance requirements shall be in accordance with Division II, Section 26.4.2, of the current edition of the AASHTO Bridge Construction Specifications.
   3. Integral End Sections: Each barrel of the CMP System shall either be connected to a fitting composing a manifold for hydraulic distribution or have an integrated bulkhead to resist loading at the end/start of the barrel, end cap sections shall not be permitted.
   4. All fittings shall be manufactured prior to arriving on the jobsite to ensure structural integrity. Fitting reinforcement shall be in accordance with ASTM A998 and reinforcing details. Bulkhead design and fabrication does not vary with differing coatings on the steel components.
   5. The manufacturer of the CMP System shall be one that has regularly been engaged in the engineering design and production of these systems for at least fifteen (15) years and which has a history of successful production.

H. Corrugated, High Density Polyethylene (PE) Drainage solid, double wall smooth interior pipe: AASHTO M 294 Type S.
   1. Joint Performance: Bell and spigot joint shall meet the soil-tight requirements of ASTM F2306 and gaskets shall meet the requirements of ASTM F477. Plain end pipe and fitting connections shall be joined with coupling bands covering at least two full corrugations on each end of the pipe. Gasketed soil-tight coupling band connections shall incorporate a closed-cell synthetic expanded rubber gasket meeting the requirements of ASTM D1056 Grade 2A2.
   2. Fittings shall conform to ASTM F2306 and meet joint performance requirements indicated above for fitting connections.

2.3 TRENCH DRAIN

A. General Requirements for Polyester polymer concrete, Channel Drainage Systems:
   1. Modular system of polyester polymer concrete channel sections, grates, and appurtenances.
   2. Designed so grates fit into frames without rocking or rattling
   3. Number of units required to form lengths depicted on the plans.

B. Basis-of-Design Product: Subject to compliance with requirements, provide ACO Drain K100 as manufactured by ACO Polymer Products, Inc. or comparable product by one of the following:
   1. MultiDrain Systems, Inc.
   2. NDS Inc.
   3. Zurn Plumbing Products Group

C. Channel Sections
   1. Interlocking-joint, modular units, with built-in invert slope of approximately 0.5% and with end caps.
   2. Rounded or inclined inside bottom surface with outlets in quantities, sizes, and locations indicated.
   3. Width: 4 inches

D. Field-attached frames that fit channel sections and grates.
   1. Material: Galvanized steel

E. Grate
   1. Basis-of-Design: Subject to compliance with requirements, provide ACO Drain Type 494D longitudinal ductile iron grate manufactured by ACO Polymer Products, Inc. or comparable product by one of the following:
      a. MultiDrain Systems, Inc.
      b. NDS Inc.
      c. Zurn Plumbing Products Group
   2. Grates shall be ADA compliant and heel proof.

F. Supports, Anchors, and Setting Devices: Manufacturer's standard unless otherwise indicated.

G. Load Class: Channel and grate shall withstand loading a minimum of Load Class A as outlined by EN 1433.

H. Channel-Section Joining and Fastening Materials: As recommended by system manufacturer.

2.4 CONCRETE

A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
   1. Cement: ASTM C 150, Type II, Portland Cement.
      a. Fine Aggregate: ASTM C 33, sand.
      b. Coarse Aggregate: ASTM C33 crushed gravel.
   2. Water: Potable.

B. Structures: Portland-cement design mix, 4000-psi minimum, with 0.35 maximum Water-to-Cement (W/C) ratio.
   1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
      a. Reinforcement Bars: ASTM A 615, Grade 60 deformed steel.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching and backfilling are specified in Division 31 Specification Section 312000 "Earthwork-Site."

3.2 DRAINAGE PIPING APPLICATIONS

A. General: Include silt tight joints as indicated.

B. Refer to Part 2 of this Section for detailed specifications for pipe and fitting products listed below. Use pipe, fittings, and joining methods according to the following applications.
   1. Pipe Sizes 8 to 48 Inches: AASHTO M 294 Interim, corrugated polyethylene (PE) plastic pipe and fittings; corrugated, silt-tight couplings: silt-tight coupled joints.

3.3 INSTALLATION, GENERAL

A. General: Include silt tight joints as indicated.

B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.

C. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.

D. Install HDPE piping according to ASTM D2321.

3.4 CATCH BASIN AND OUTLET CONTROL STRUCTURE INSTALLATION

A. Construct all concrete structures to sizes and shapes indicated.

B. Set frames, grates and covers to elevations indicated.

C. Install piping according to manufacturer's standard specifications.

3.5 UNDERGROUND DETENTION SYSTEMS

A. Underground detention system shall be installed according to manufacturer recommendations in accordance with AASHTO Specifications for Highway Bridges, Section 26, Division II or ASTM A798. HDPE pipe shall be installed in accordance with ASTM D2321.

B. TRENCH DRAIN INSTALLATION

C. Install with top surfaces of components, except piping, flush with finished surface.

D. Assemble channel sections to form slope down toward drain outlets. Use sealants, adhesives, fasteners, and other manterials recommended by system manufacturer.

E. Install drains as recommended by the manufacturer as depicted on the Construction Documents.

3.6 CONCRETE PLACEMENT

A. Place cast-in-place concrete according to ACI 318, ACI 350R, and as indicated.

3.7 FIELD QUALITY CONTROL

A. Clear interior of piping and structures of dirt and superfluous material as the work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
   1. In large, accessible piping, brushes and brooms may be used for cleaning.
   2. Place plug in end of incomplete piping at end of day and whenever work stops.
   3. Flush piping between catch basins and other structures, if required by authorities having jurisdiction, to remove collected debris.

B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of the Project.
   1. Submit separate reports for each system inspection.
   2. Defects requiring correction include the following:

a. Alignment: Less than full diameter of inside of pipe is visual between structures.
b. Deflection: Flexible piping with deflection that prevents passage of a ball or cylinder of a size not less than 92.5 percent of piping diameter.
c. Crushed, broken, cracked, or otherwise damaged piping.

3. Replace defective piping using new materials and repeat inspections until defects are within allowances specified.
4. Reinspect and repeat procedure until results are satisfactory.

C. Test new piping systems and parts of existing systems that have been altered, extended, or repaired for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to authorities having jurisdiction.
3. Schedule tests, and their inspections by authorities having jurisdiction, with at least 24 hours advance notice.
4. Submit separate reports for each test.
5. Where authorities having jurisdiction do not have published procedures, perform tests as follows:
a. Storm Drainage: Perform lamping of HDPE pipe sections between drainage structures.

D. Contractor shall clean all existing and new storm drainage piping and structures prior to substantial completion. This is to include excavating accumulated sediments and debris.

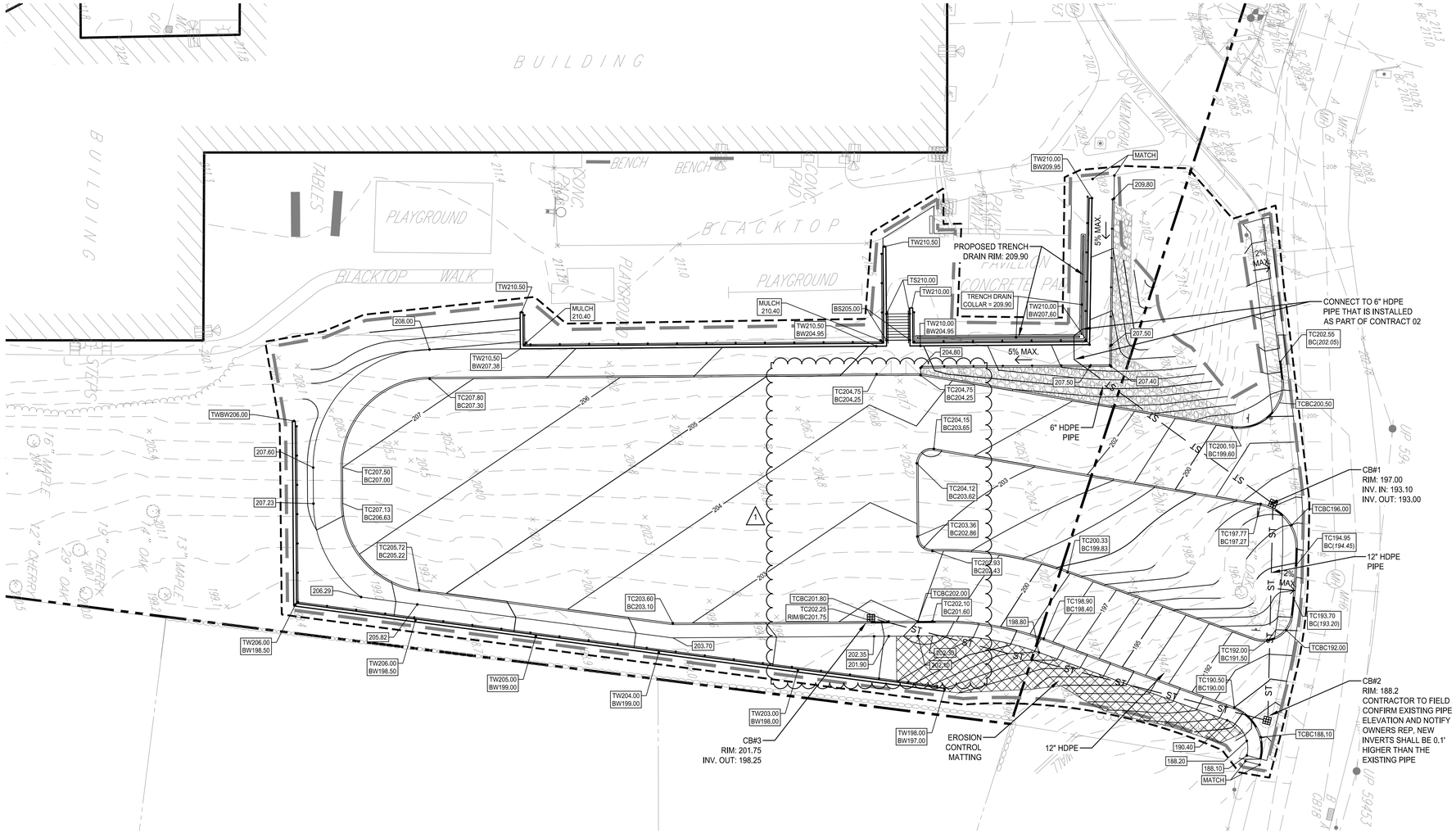
END OF SECTION 334100

UTILITY NOTES

1. THE CONTRACTOR SHALL CONTACT U.F.P.O. (1-800-962-7962) AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANY HAVING JURISDICTION TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY COSTS INCURRED BY THE CONTRACTOR DUE TO FAILURE TO CONTACT THE PROPER AUTHORITIES SHALL BECOME THE RESPONSIBILITY OF THE CONTRACTOR.
2. CONTRACTOR SHALL COORDINATE AND PAY FOR ALL REQUIRED UTILITY INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION IN ACCORDANCE WITH THEIR RESPECTIVE REQUIREMENTS.
3. ALL UTILITY INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL REGULATORY, LOCAL MUNICIPAL AND BUILDING CODE REQUIREMENTS.
4. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE DIAGRAMMATIC FOR INFORMATION ONLY, AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UTILITIES (LINES, DUCTS, CONDUITS, SLEEVES, FOOTINGS, ETC.) WITH LOCATIONS OF PROPOSED LANDSCAPE ELEMENTS (WALLS, FENCE, FOOTINGS, TREE ROOTBALLS, PROPOSED LIGHTING FOOTINGS, ETC.) AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. ANY DAMAGE AND INCURRED COSTS DUE TO FAILURE OF THE CONTRACTOR TO VERIFY UTILITY LOCATIONS SHALL BE BORNE BY THE CONTRACTOR.
5. EXTEND DESIGNATED LIMIT OF WORK AS NECESSARY TO ACCOMPLISH SITE UTILITY WORK AS REQUIRED BY THESE DRAWINGS AND SPECIFICATIONS.
6. CONTRACTOR SHALL PROTECT AND SUSTAIN IN NORMAL SERVICE ALL EXISTING UTILITIES, STRUCTURES, EQUIPMENT ROADWAYS AND DRIVEWAYS FOR THE DURATION OF CONSTRUCTION.

GRADING AND DRAINAGE NOTES:

1. ALL PROPOSED GRADES SHALL BE SET IN THE FIELD BY A NEW YORK STATE LICENSED LAND SURVEYOR.
2. CONTRACTOR SHALL ESTABLISH PERMANENT SECONDARY BENCHMARKS PRIOR TO THE START OF CONSTRUCTION. ALL SECONDARY BENCHMARKS SHALL BE SO LOCATED THAT THEY WILL NOT BE DISTURBED BY CONSTRUCTION.
3. PITCH EVENLY BETWEEN SPOT GRADES, ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM SLOPE OF ONE-EIGHTH INCH (1/8") PER FOOT. MAXIMUM CROSSPITCH OF ALL SIDEWALKS IS 2%, ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
4. MAXIMUM CROSSPITCH OF ALL SIDEWALKS IS 2%. RAMPS SHALL NOT EXCEED 1 IN 12 OR 30' IN LENGTH. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
5. ALL PROPOSED TOP OF VERTICAL CURB ELEVATIONS ARE SIX INCHES (6") ABOVE BOTTOM OF CURB UNLESS SHOWN OTHERWISE.
6. WHERE NEW PAVING MEETS EXISTING PAVING, NEW PAVING SHALL MEET THE LINE AND GRADE OF THE EXISTING PAVING.
7. SET CATCH BASIN AND DROP INLET RIMS TO DRAIN SURROUNDING AREAS AND AT SAME PITCH AS SLOPING PAVEMENT. IF STRUCTURE IS SHOWN ADJACENT TO CURB, SET GRATE TIGHT TO FACE OF CURB.
8. EXCAVATION REQUIRED WITHIN 3 FEET OF EXISTING UTILITY LINE SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL STRIP AND STOCKPILE EXISTING TOPSOIL TO FULL DEPTH WITHIN LIMIT OF GRADING BEFORE COMMENCING EXCAVATION AND GRADING OPERATIONS. NO TOPSOIL SHALL BE REMOVED FROM SITE WITHOUT PRIOR AUTHORIZATION FROM OWNER. TOPSOIL SHALL BE STOCKPILED FOR RE-USE ON SITE OR LEGALLY DISPOSED OF OFFSITE.
10. ALL AREAS REQUIRING FILL SHALL BE BROUGHT TO REQUIRED GRADE IN MAXIMUM COMPACTED LIFTS. GENERAL FILL SHALL BE FREE OF DELETERIOUS MATERIAL, CONTAIN NO GRAVEL LARGER THAN 2", AND SHALL BE COMPACTED IN ACCORDANCE WITH PROJECT PLANS AND DETAILS.
11. GRADE AREAS ADJACENT TO BUILDING LINES TO DRAIN AWAY FROM STRUCTURE AND PREVENT PONDING. FINISH SURFACES SHALL BE FREE FROM IRREGULAR SURFACE CHANGES.
12. EXCAVATION REQUIRED WITHIN DRIP LINE OF TREES DESIGNATED TO REMAIN SHALL BE DONE BY HAND. PLANT MATERIALS DAMAGED BY CONTRACTOR SHALL BE REPLACED IN KIND.
13. SLOPE SIDES OF EXCAVATIONS TO COMPLY WITH LOCAL CODES AND ORDINANCES HAVING JURISDICTION AND OSHA REGULATIONS. MAINTAIN SIDE SLOPES OF EXCAVATIONS IN A SAFE CONDITION UNTIL COMPLETION OF BACKFILLING.
14. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDINGS AT ALL TOP AND BOTTOM OF SLOPES.
15. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE EXISTING DRAINAGE SYSTEM AT ALL TIMES. DURING EARTHWORK OPERATIONS, DRAINAGE OF THE SITE AND ADJACENT AREAS SHALL BE MAINTAINED CONTINUOUSLY TO PREVENT EROSION OR DAMAGE RESULTING FROM CONCENTRATED RUN-OFF. WHEN IT IS NECESSARY TO INTERRUPT THE EXISTING DRAINAGE PATTERNS AND/OR UTILITIES, PROVIDE TEMPORARY FACILITIES UNTIL WORK IS PERMANENTLY STABILIZED AND APPROVED BY OWNER'S REPRESENTATIVE.
16. CONTRACTOR SHALL MAINTAIN OR ADJUST TO NEW FINISH GRADE AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS LIGHT POLES, SIGN POLES, MAN HOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS UNLESS OTHERWISE NOTED ON THE UTILITY DRAWINGS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
17. IN ALL LAWN AREAS, ROUGH GRADE SHALL BE BROUGHT TO WITHIN 4" OF FINISHED GRADE UNLESS OTHERWISE NOTED.
18. THE SIDES OF ANY NEW CUT AND/OR FILL SLOPES SHALL BE CONSTRUCTED W/ SLOPES NO STEEPER THAN 1 FOOT (VERTICAL) ON 2 FOOT (HORIZONTAL).



LEGEND

- LIMIT OF DISTURBANCE
- PROPERTY LINE
- ST — PROPOSED STORM PIPE
- 247 — EXISTING CONTOUR LINE
- 247 — PROPOSED CONTOUR LINE
- PROPOSED CATCH BASIN
- 188.00 — PROPOSED SPOT ELEVATION
- TS — TOP OF STEP
- BS — BOTTOM OF STEP

Scale: 1" = 20'

The LA GROUP
Landscape Architecture & Engineering P.C.
People. Purpose. Place.
40 Long Alley, Saratoga Springs, NY 12866
p: 518-587-8100
f: 518-587-0180
www.thelagroup.com

Prepared for:

North Rockland Central School District
65 Chapel Street
Garnerville, New York 10923

Project Title:

Stony Point Student Drop Off Loop

7 Gurnee Drive
Stony Point, New York 10980

EXPIRATION DATE: 01/31/2027

Project No.:			2024108
Design:			JFK
Drawn:	MLD	Ch'k'd:	DBH
Date:	05/27/25	Scale:	1"=20'

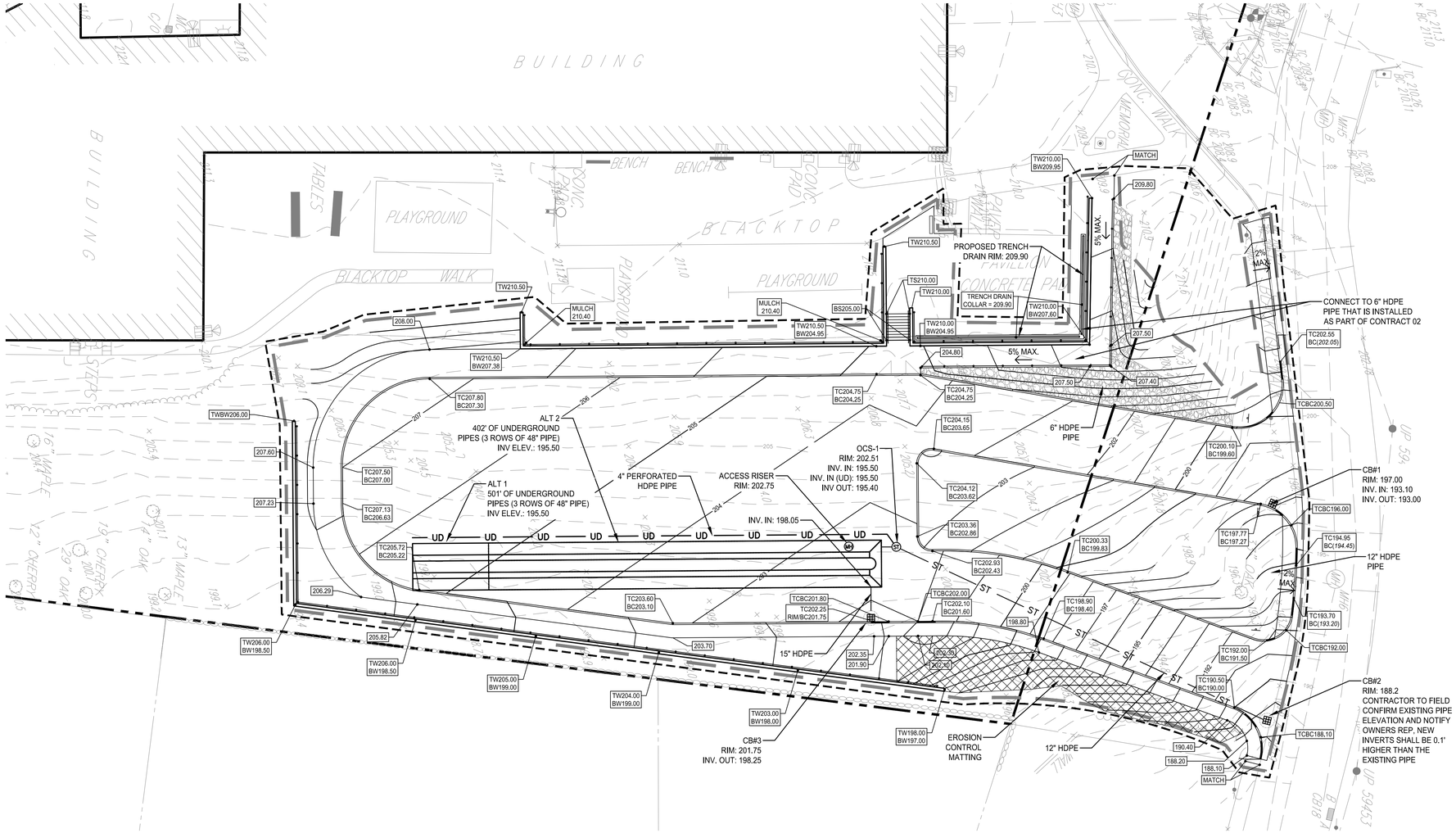
Rev:	Description:	Date:
1	ADDENDUM #1	6/6/2025

Drawing Title

GRADING AND DRAINAGE PLAN

Drawing No.

C-300



ALT 1:
INSTALL 501 LINEAR FEET OF 48" UNDERGROUND DETENTION PIPING WITH OUTLET CONTROL STRUCTURE AND STORM PIPING CONFIGURATION.

ALT 2:
INSTALL 402 LINEAR FEET OF 48" UNDERGROUND DETENTION PIPING WITH OUTLET CONTROL STRUCTURE AND STORM PIPING CONFIGURATION.

LEGEND

▬ ▬ ▬	LIMIT OF DISTURBANCE
▬ ▪ ▪ ▬	PROPERTY LINE
— ST —	PROPOSED STORM PIPE
- - 247 - -	EXISTING CONTOUR LINE
— 247 —	PROPOSED CONTOUR LINE
⊞	PROPOSED CATCH BASIN
188.00	PROPOSED SPOT ELEVATION
TS	TOP OF STEP
BS	BOTTOM OF STEP
OCS	OUTLET CONTROL STRUCTURE

20 10 0 5 10 15 20
Scale: 1" = 20'

The LA GROUP
Landscape Architecture & Engineering P.C.
People. Purpose. Place.

40 Long Alley
Saratoga Springs
NY 12866
p: 518-587-8100
f: 518-587-0180
www.thelagroup.com

Unauthorized alteration or addition to this document is a violation of Section 7209 of the New York State Education Law.

Prepared for:
North Rockland
Central School
District
65 Chapel Street
Garnerville, New York 10923

Project Title:
Stony Point Student
Drop Off Loop

7 Gurnee Drive
Stony Point, New York 10980

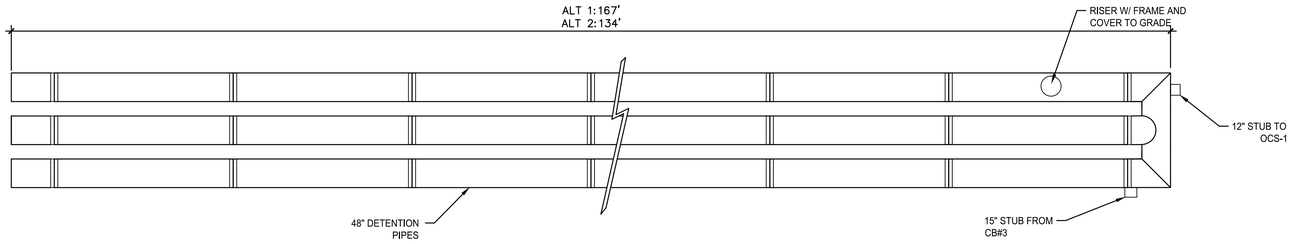
EXPIRATION DATE: 01/31/2027

Project No.:			2024108
Design:			JFK
Drawn:	MLD	Ch'k'd:	DBH
Date:	05/27/25	Scale:	1"=20'

Rev:	Description:	Date:
1	ADDENDUM #1	6/6/2025

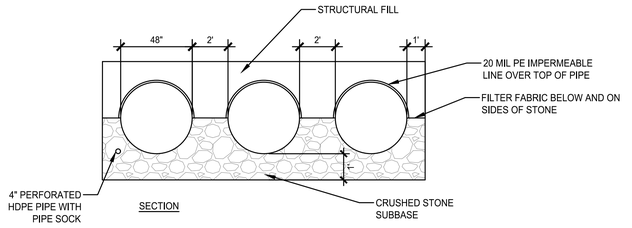
Drawing Title
GRADING AND
DRAINAGE PLAN,
ALT 1 & 2

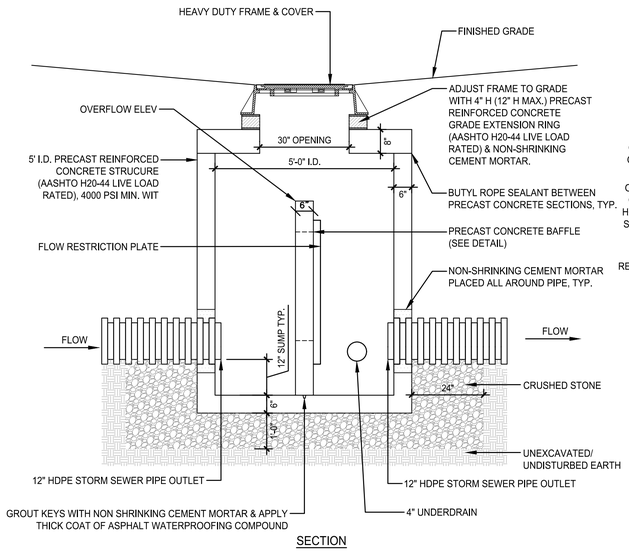
Drawing No.
C-301

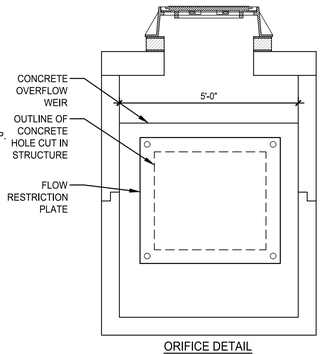


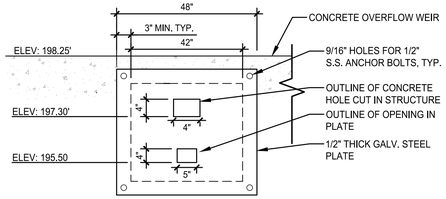
1 UNDERGROUND DETENTION PIPES

Scale: NTS

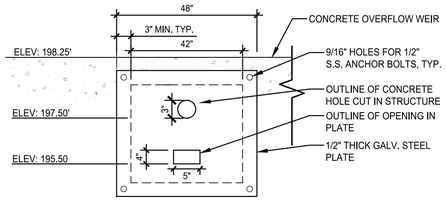








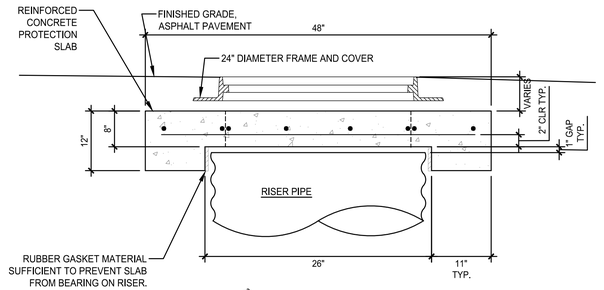
ALT 1: OCS-1 FLOW RESTRICTION PLATE

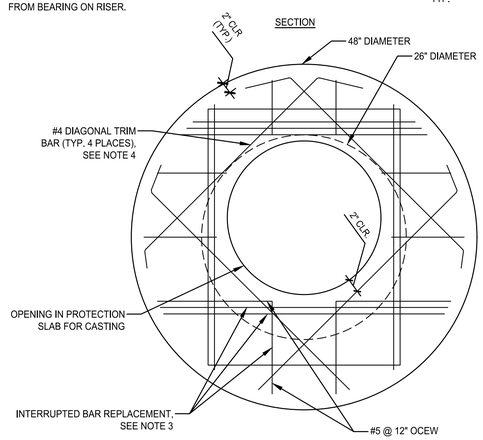


ALT 2: OCS-1 FLOW RESTRICTION PLATE

2 OUTLET CONTROL STRUCTURE

Scale: NTS





NOTES:

1. CONCRETE STRENGTH = 4,000 PSI
2. REINFORCING STEEL - ASTM A615, GRADE 60, DEFORMED.
3. PROVIDED ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED. HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
4. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
5. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.

3 RISER DETAIL

Scale: NTS

The LA GROUP
Landscape Architecture & Engineering P.C.
People. Purpose. Place.
40 Long Alley
Saratoga Springs
NY 12866
p: 518-587-8100
f: 518-587-0180
www.thelagroup.com

Prepared for:

North Rockland Central School District
65 Chapel Street
Garnerville, New York 10923

Project Title:

Stony Point Student Drop Off Loop

7 Gurnee Drive
Stony Point, New York 10980

EXPIRATION DATE: 01/31/2027

Project No.:			2024108
Design:			DBH
Drawn:	MLD	Ch'k'd:	DBH
Date:	05/27/2025	Scale:	NTS

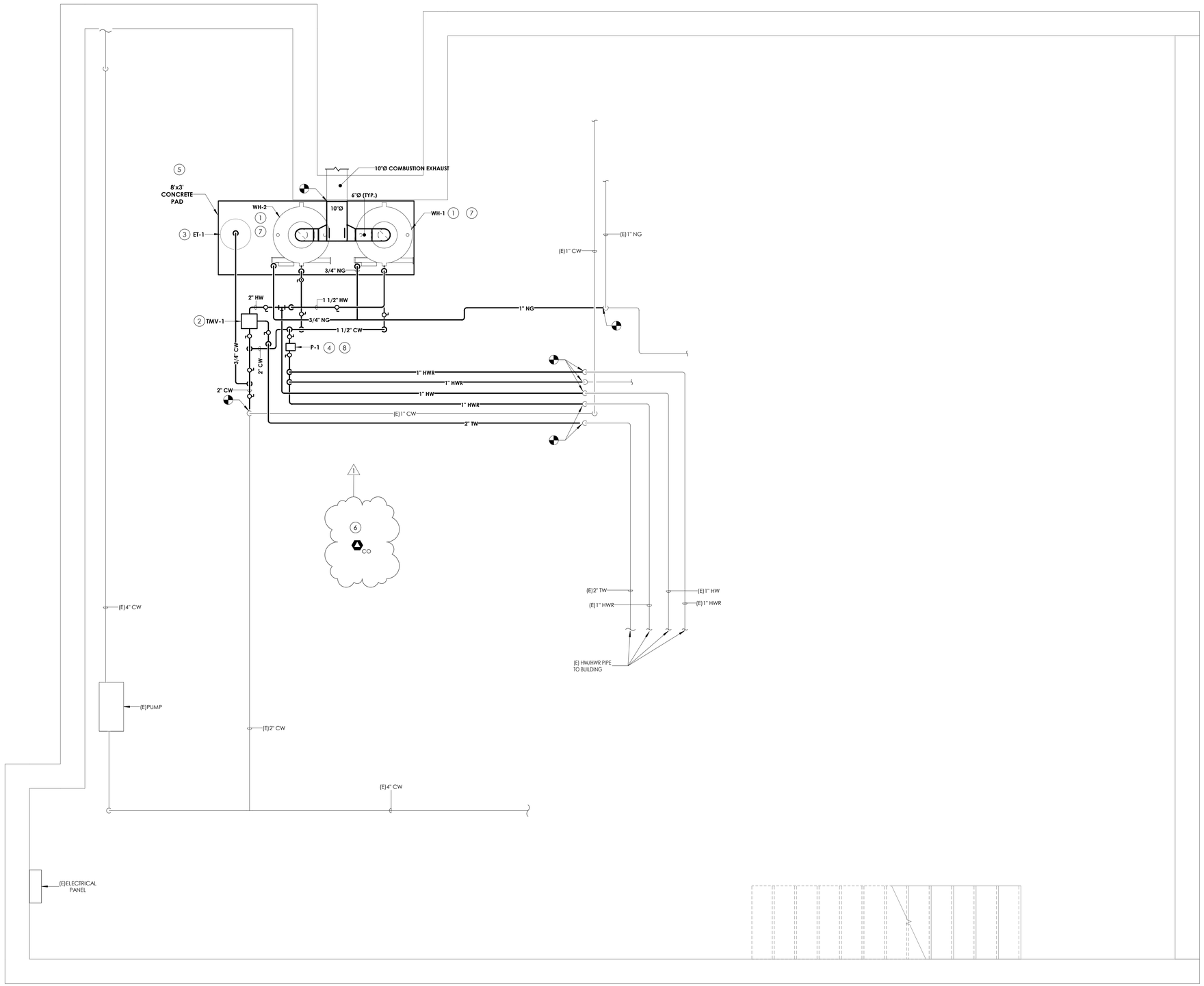
Rev:	Description:	Date:
1	ADDENDUM 1	06/06/2025

Drawing Title

DETAILS, ALT 1+2

Drawing No.

C-503



1 P200 **BOILER ROOM NEW WORK PLAN**

1/2" = 1'-0"

KEY NOTES

1. PROVIDE NEW GAS FIRED WATER HEATER AND ALL ASSOCAITED HOT WATER, COLD WATER, AND NATURAL GAS PIPING. RECONNECT PIPING AT POINTS INDICATED. PROVIDE COMBUSTION AIR EXHAUST DUCTWORK AND CONNECT TO EXISTING DUCTWORK AT POINT INDICATED.
2. PROVIDE NEW THERMOSTATIC MIXING VALVE AND ALL ASSOCAITED HOT WATER AND COLD WATER PIPING. RECONNECT PIPING AT POINTS INDICATED.
3. PROVIDE NEW EXPANSION TANK AND ALL ASSOCIATED HOT WATER AND COLD WATER PIPING.
4. PROVIDE NEW CIRC PUMP AND ASSOCIATED HOT WATER PIPING. RECONNECT PIPING AT POINTS INDICATED.
5. PROVIDE NEW CONCRETE EQUIPMENT PAD, SEE DETAIL 6/P800.
6. PROVIDE NEW CARBON MONOXIDE DETECTOR. PROVIDE WIRING BACK TO FIRE ALARM CONTROL PANEL. PROVIDE INSTALLATION AND TESTING.
7. CONNECT NEW WATER HEATERS TO EXISTING TAGGED WATER HEATER CIRCUIT. PROVIDE (2) #12, (1) #12GND IN 3/4" CONDUIT TO EACH WATER HEATER FROM THAT CIRCUITS JUNCTION BOX.
8. PROVIDE (2) #12, (1) #12GND IN 3/4" CONDUIT FROM PUMP TO PANEL EX, SPARE CIRCUIT 4.

CPL | Architecture Engineering Planning
26 IBM Road
Poughkeepse, NY 12601
CPLteam.com
NY ENGINEERING FIRM CERTIFICATE #0021419

PROJECT INFORMATION

Project Number
R25.17697.00

Client Name
NORTH ROCKLAND CSD

Project Name
STONY POINT WATER HEATER & SITE WORK

Project Address
7 GURNEE DRIVE
STONY POINT, NY 10980

PROJECT ISSUE & REVISION SCHEDULE

#	Date	Description
1	06/05/2025	SED ADDENDUM #1

PROFESSIONAL STAMPS

SHEET INFORMATION

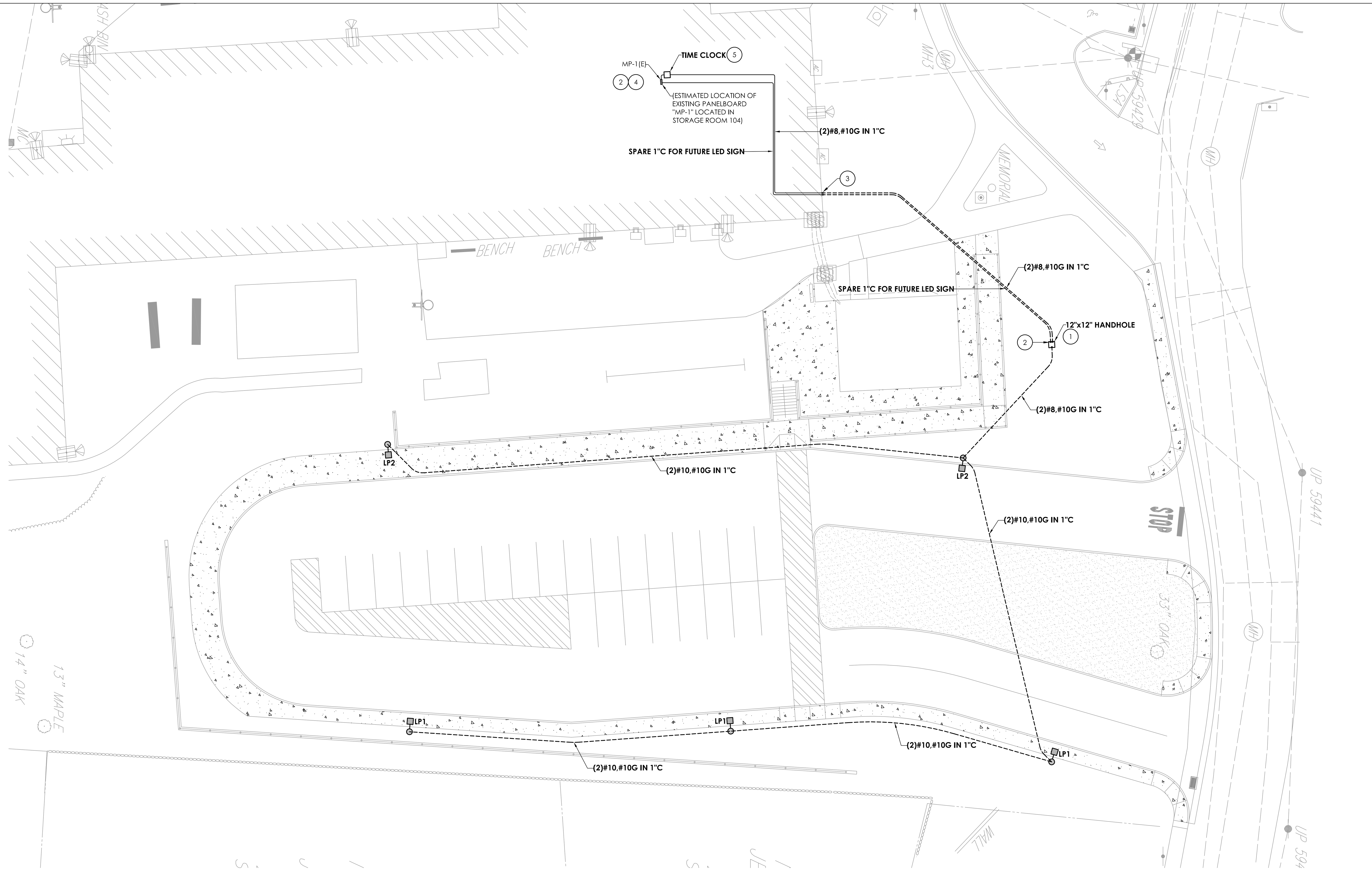
Issued	Scale
05/27/2025	As indicated

Project Status
SED SUBMISSION

Drawn By	Checked By
AJE	AJS

Drawing Title
BOILER ROOM NEW WORK PLAN

Drawing Number
SP
P200



1
E050
ELECTRICAL SITE PLAN - PROPOSED NEW WORK
SCALE: 1" = 20'-0"

GENERAL NOTES:

A. (E) ANY DEVICE, AS WELL AS ITS ASSOCIATED CIRCUITING AND RACEWAY, LABELED "E" SHALL REMAIN, UNLESS OTHERWISE NOTED.

B. EXISTING UNDERGROUND UTILITIES SHOWN WERE OBTAINED THROUGH EXISTING DOCUMENTS AND FIELD WORK AND ARE SHOWN FOR REFERENCE PURPOSES ONLY. THE SITE WORK CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND UTILITIES IN AREAS OF NEW UNDERGROUND ELECTRICAL WORK PRIOR TO EXCAVATION. ALL EXISTING ADJACENT UTILITIES SHALL BE TRACED AND MARKED ON SITE PRIOR TO EXCAVATION. SITE WORK CONTRACTOR SHALL HAND EXCAVATE AS REQUIRED. THE SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT UNDERGROUND UTILITIES AND SHALL INCUR ALL ASSOCIATED REPAIR COSTS.

C. UNDERGROUND CONDUIT TO BE PLACED IN TRENCH SO THAT TOP OF CONDUIT IS 24" BELOW GRADE. INSTALL WARNING TAPE 12" ABOVE CONDUIT.

D. ALL UNDERGROUND BRANCH CIRCUITS TO BE INSTALLED IN SCHEDULE 80 PVC CONDUIT. ALL CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE.

E. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SLEEVES THROUGH CONCRETE FOUNDATION WALLS AND SLABS. ELECTRICAL CONTRACTOR TO COORDINATE WITH SITE WORK CONTRACTOR FOR EXACT SLEEVE SIZES REQUIRED.

F. ALL HANDHOLE/MANHOLE SPLICES SHALL BE VIA SILICONE GEL WRAP-AROUND CLOSURE SPLICES. RAYCHEM COLD APPLIED GELWRAP SERIES OR EQUIVALENT.

G. NEW HANDHOLES SHALL BE OPEN BOTTOM POLYMER. HANDHOLES SHALL HAVE HEAVY DUTY "LOGO" COVER AND TWO BOLTS. QUAZITE OR APPROVED EQUAL.

H. ALL ABOVE GRADE EXPOSED CONDUITS SHALL BE IN RIGID GALVANIZED STEEL.

I. MINIMUM UNDERGROUND CONDUIT SIZE SHALL BE 1". ALL UNDERGROUND CONDUIT ELBOWS AND SWEEPS LARGER THAN 1" SHALL BE IN RIGID GALVANIZED STEEL.

KEY NOTES:

1. PROVIDE NEW HANDHOLE (SIZE AS INDICATED). HANDHOLE SHALL BE QUAZITE OR APPROVED EQUAL.
2. PROVIDE (1) SPARE 1" CONDUIT FROM PANELBOARD "MP-1" AND TERMINATE TO HANDHOLE FOR FUTURE LED SIGN FEEDERS. PROVIDE CONDUIT WITH NYLON PULL STRING AND WATER PROOF CAPS.
3. PENETRATE CONDUITS INTO ADJACENT CEILING SPACE WITHIN FIRST FLOOR AREA. ANY EXPOSED CONDUITS SHALL BE PAINTED TO MATCH EXTERIOR FINISH AND PROVIDED WITH WATER TIGHT SEALS.
4. SITE LIGHTING FIXTURES (5 IN TOTAL) SHALL CONNECT TO PANELBOARD "MP-1" AT CIRCUIT NUMBER 51 WITH WIRE SIZE AND QUANTITY IN CONDUIT SPECIFIED ON DRAWING. PROVIDE WITH 20A/1P CIRCUIT BREAKER. BREAKER SHALL HAVE 22KA INTERRUPTING RATING TO MATCH THE PANEL.
5. PROVIDE 24HR DIGITAL TIME CLOCK WITH MANUAL OVERRIDE FOR CONTROL OF NEW SITE LIGHTING. TORK MODEL#: EW101B OR APPROVED EQUAL. REFER TO DETAIL 5/E050 ON THIS SHEET FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF TIME CLOCK WITH OWNER PRIOR TO ROUGH-IN.

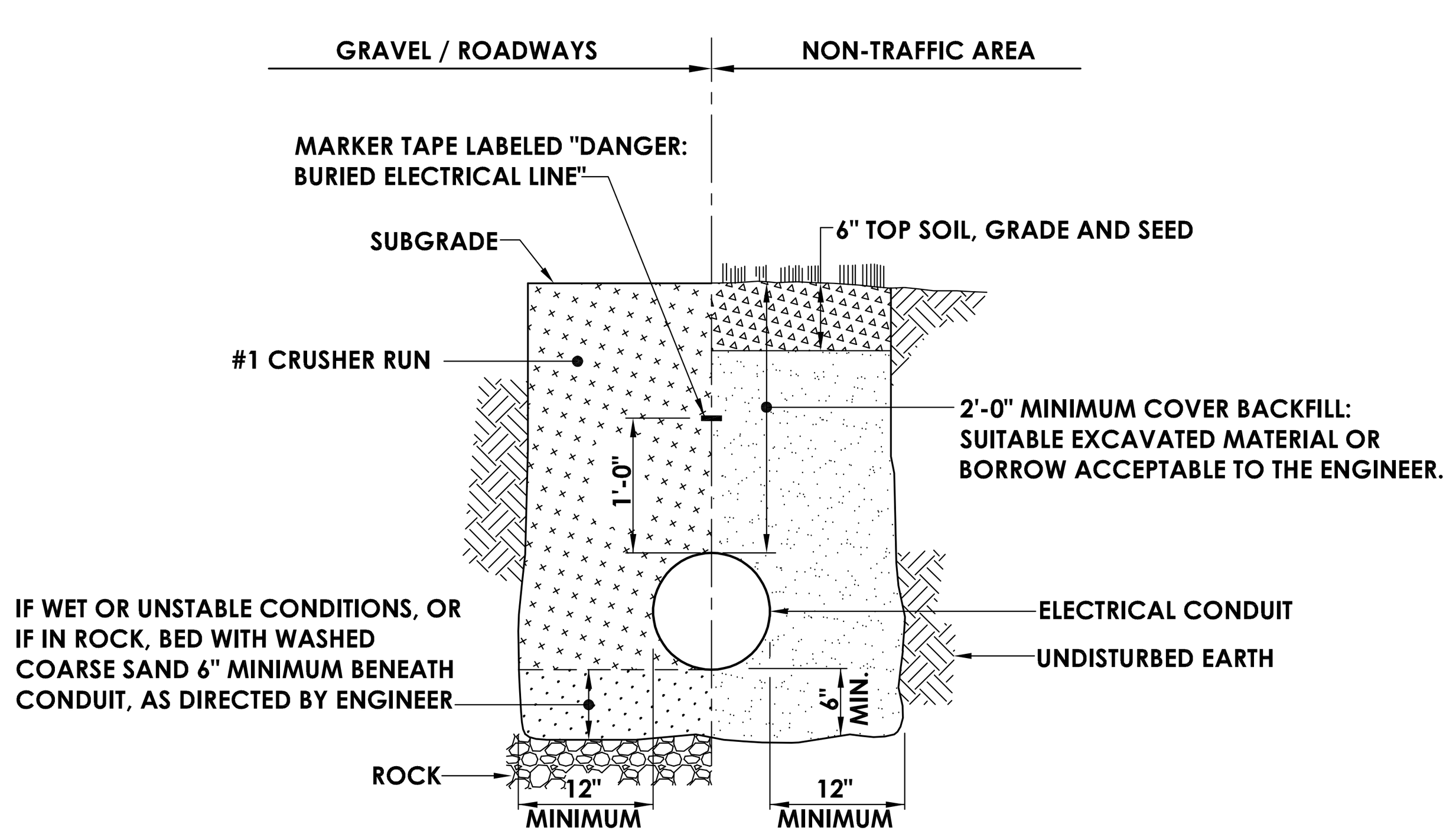
LUMINAIRE SCHEDULE:

LP1 - BLACK POLE MOUNT, SINGLE HEAD, 4000K CCT, 80 CRI, 7278 NOMINAL LUMENS, 54 WATT AREA LUMINAIRE ON MATCHING SQUARE STEEL POLE. LUMINAIRE TO BE PROVIDED WITH BACK LIGHTING CONTROL OPTICS, 120V AND WITH INTEGRATED PHOTOCONTROL. FOOTCANLE LEVELS TO BE SET DURING COMMISIONING. POLE SHALL BE 4" SQUARE, 25' HIGH SQUARE STEEL POLE WITH 0.120" WALL THICKNESS AND MINIMUM OF 2.75 EPA AT 100 MPH, BLACK TEXTURED FINISH TO MATCH FIXTURE AND VIBRATION DAMPENING.
BASIS OF DESIGN: GARDCO/SIGNIFY OPTIFORM SMALL 'OPF-S-A03-840-BLC-AR1-120V-PCB-BK' WITH GARDCO/SIGNIFY POLE 'SSS-CB-11-25-D1-DT5-BK-VDA'

LP2 - BLACK POLE MOUNT, SINGLE HEAD, 4000K CCT, 80 CRI, 9991 NOMINAL LUMENS, 54 WATT AREA LUMINAIRE ON MATCHING SQUARE STEEL POLE. LUMINAIRE TO BE PROVIDED WITH TYPE IV WIDE OPTICS, 120V, INTEGRATED PHOTOCONTROL AND TO BE PROVIDED WITH INTERNAL HOUSE SIDE SHEILD. FOOTCANLE LEVELS TO BE SET DURING COMMISIONING. POLE SHALL BE 4" SQUARE, 25' HIGH SQUARE STEEL POLE WITH 0.120" WALL THICKNESS AND MINIMUM OF 2.75 EPA AT 100 MPH, BLACK TEXTURED FINISH TO MATCH FIXTURE AND VIBRATION DAMPENING.
BASIS OF DESIGN: GARDCO/SIGNIFY OPTIFORM SMALL 'OPF-S-A03-840-T4W-AR1-120V-PCB-BK' AND ACCESSORY OPF-S-HIS-T4-1 WITH GARDCO/SIGNIFY POLE 'SSS-CB-11-25-D1-DT5-BK-VDA'

LUMINAIRE SCHEDULE GENERAL NOTES:

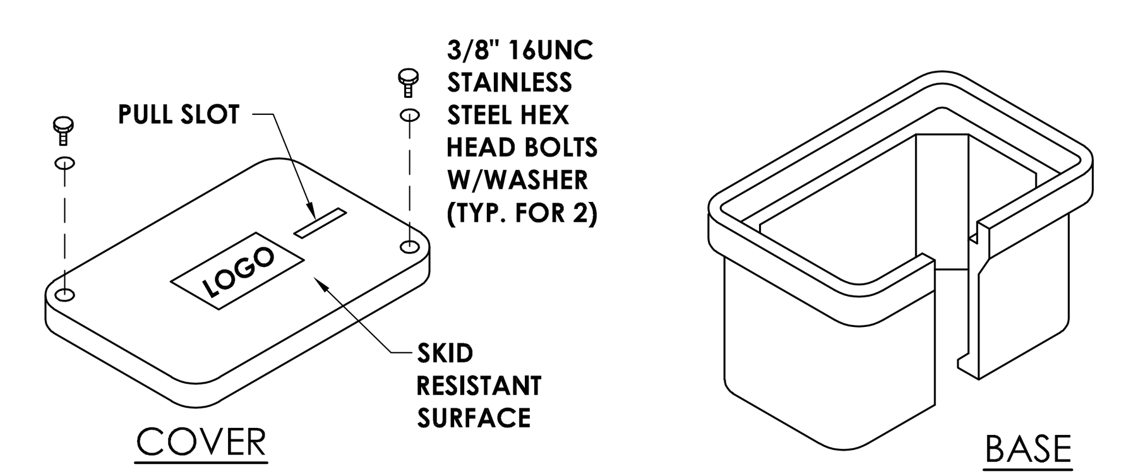
1. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF LIGHT POLES. SITE WORK CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLATION OF ASSOCIATED LIGHT POLE BASES. COORDINATE ALL POLE AND BASE INSTALLATION WORK WITH SITE WORK CONTRACTOR.
2. SPECIFIED LIGHTING FIXTURES HAVE BEEN DESIGNED AROUND SPECIFIC PHOTOMETRIC CALCULATIONS, LIGHTING CONTROLS, FIXTURE LAYOUT, AESTHETICS, ETC.
3. SPECIFIED LIGHTING FIXTURES HAVE BEEN DESIGNED FOR LIMITING LIGHT SPILLAGE/CUTOFF ONTO NEIGHBORING PROPERTIES. (1)
4. IF IN ANY CASE, SUBSTITUTE FIXTURE SELECTIONS REQUIRE MODIFICATIONS TO LIGHTING CONTROLS, FIXTURE LAYOUT, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCUR ALL COSTS, BOTH LABOR AND MATERIAL, AS REQUIRED TO ACCOMMODATE THESE MODIFICATIONS.
5. IF ANY SUBSTITUTE MANUFACTURERS ARE USED, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE FOLLOWING:
   - A SAMPLE SUBSTITUTE FIXTURE AND ALL PHOTOMETRIC CALCULATIONS (5) DAYS PRIOR TO BID.
   - ALL PHOTOMETRIC CALCULATIONS THAT ARE EQUAL TO OR GREATER THAN THE SPECIFIED FIXTURES IN PERFORMANCE AND DESIGN AND MEET OR EXCEED MAXIMUM/MINIMUM RATIOS.
   - ~~FIXTURES THAT ARE COMPATIBLE WITH LIGHTING CONTROL LAYOUTS.~~ (1)
   - FIXTURES THAT LIMIT LIGHT SPILLAGE/CUTOFF ONTO NEIGHBORING PROPERTIES.



NOTES:

1) ALL MATERIAL PLACED IN GRAVEL/ROADWAY AREAS SHALL BE COMPACTED IN MAXIMUM 6" LIFTS.
2) THIS TRENCH DETAIL SHALL INCLUDE THE REQUIREMENTS COMMON TO MORE THAN ONE SECTION OF DIVISION 2 OF THE SPECIFICATIONS.
3) SITE WORK CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING AND BACKFILL. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LAYING OF THE CONDUIT AND MARKERS. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL SITE PATHWAYS/TRENCHING REQUIRED WITH THE SITE WORK CONTRACTOR.

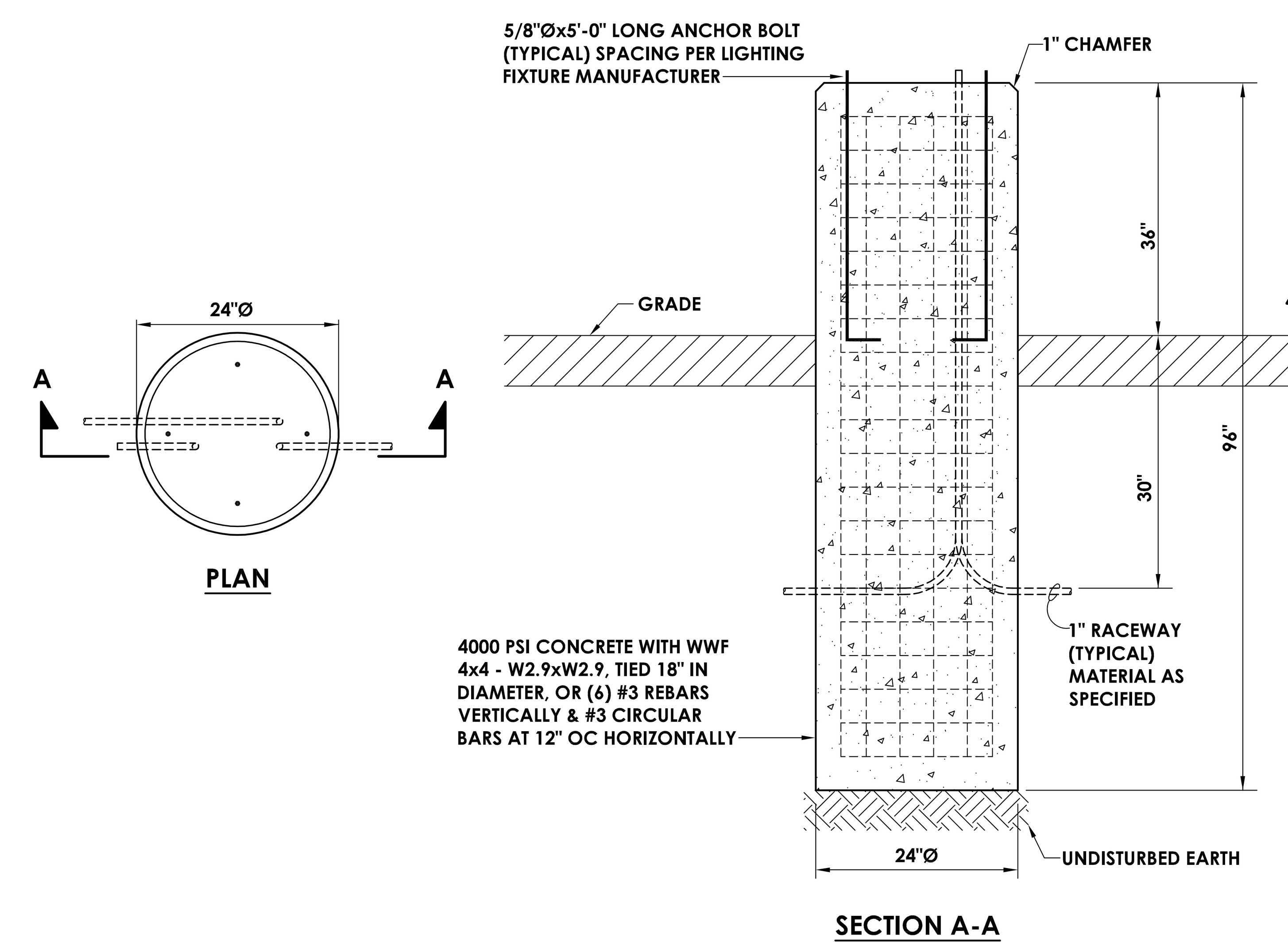
2
E050
TYPICAL TRENCH DETAIL FOR CONDUIT
SCALE: NTS



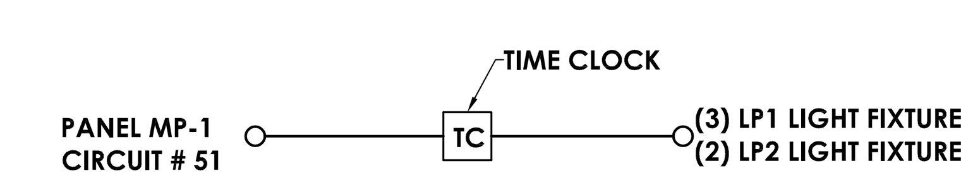
NOTES:

1. PROVIDE QUAZITE OPEN BOTTOM POLYMER HANDHOLE OR EQUAL.
2. COORDINATE DEPTH OF HANDHOLES WITH FIELD CONDITIONS. HANDHOLES TO BE LOCATED IN NON-TRAFFIC GRASS AREAS WITH TOP FLUSH WITH FINISHED GRADE.
3. PROVIDE 12" MINIMUM CRUSHED STONE BELOW HANDHOLE FOR DRAINAGE.
4. FILL AND COMPACT THE SOIL AROUND THE HANDHOLE TO GRADE LEVEL WITH THE COVER ON THE ENCLOSURE.

3
E050
HANDHOLE DETAIL
SCALE: NTS



4
E050
LIGHT POLE NEW BASE DETAIL
SCALE: NTS



TIME CLOCK SPECIFICATION NOTES:

- 120-277 VAC RANGE
- 20A, SPST CONTACT
- ON/OFF WITH MANUAL OVERRIDE
- TORK MODEL #: EW101B OR APPROVED EQUAL

5
E050
SITE LIGHTING CONTROL DETAIL
SCALE: NTS

CPL | Architecture Engineering Planning
26 IBM Road
Poughkeepsie, NY 12601
CPLteam.com
NY ENGINEERING FIRM CERTIFICATE #0021419

PROJECT INFORMATION

Project Number
R25.17697.00
Client Name
NORTH ROCKLAND CENTRAL SCHOOL DISTRICT
Project Name
STONY POINT ELEMENTARY SCHOOL WATER HEATER REPLACEMENT & SITE WORK
Project Address
7 GURNEE DRIVE
STONY POINT, NEW YORK 10980

PROJECT ISSUE & REVISION SCHEDULE

No.	Date	Description
1	06/05/2025	SED ADDENDUM 1

PROFESSIONAL STAMPS

STATE OF NEW YORK · ANTHONY R. MARCHETTI · No. 1608 1533 · LICENSED PROFESSIONAL ENGINEER

LICENSE EXPIRATION DATE: 05/31/2027

SHEET INFORMATION

Issued	Scale
05/27/2025	AS INDICATED
Project Status	
SED	
Drawn By	Checked By
JLR	ARM

Drawing Title
ELECTRICAL SITE PLAN - PROPOSED NEW WORK

Drawing Number
E050