NEW YORK STATE | Office of General Services

DESIGN & CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 1 TO PROJECT NO. Q1936

CONSTRUCTION WORK
PROVIDE PAVEMENT & DRAINAGE IMPROVEMENTS
NEW YORK STATE POLICE ZONE HEADQUARTERS
101 MERRICK AVENUE
EAST MEADOW, NY 11554

March 13, 2025

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATIONS

1. SECTION 321130 CHAIN LINK FENCES AND GATES: Add the accompanying Section (pages 321130 – 1 thru 321130 – 15) to the Project Manual.

DRAWINGS

2. Revised Drawings:
   a. Drawing Nos. C-101, C-102 and C-502, noted "ADDENDUM #1 03/13/2025" accompany this Addendum and supersede the same numbered originally issued drawings.

END OF ADDENDUM

Brady M. Sherlock, P.E.
Director, Division of Design
Design & Construction

SECTION 323113 - CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Personnel Gates and Locks for Various Gate Types: Section 111901.

B. Sliding Gate Operator System: Section 323115.

1.2 SUMMARY

A. Section Includes:

1. Chain-link fences.
2. Manually operated swing gates.
3. Manually operated horizontal-slide gates.
4. Privacy slats.

1.3 REFERENCES

A. Comply with ASTM A53 for requirements of Schedule 40 piping.

1.4 DEFINITIONS

A. Height of Fence: Distance measured from the top of concrete footing to the top of fabric. Fences with buried fabric measured from finished grade to the top of fabric.

B. Company Field Advisor: An employee of the company which markets the security coils under their name and who is certified in writing by the Company to be technically qualified in design and installation of security coils or an employee of an organization certified by the foregoing company to be technically qualified in design and installation of security coils.

1.5 SUBMITTALS

A. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.

B. Manufacturer’s installation instructions shall be provided along with product data.

C. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).

D. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.

E. Shop Drawings: Complete detailed drawings for each height and style of fence and gate required. Include separate schedule for each listing all materials required and technical data such as size, weight, and finish, to ensure conformance to specifications.

F. Product Data: Manufacturer’s catalog cuts, specifications, and installation instructions for each item specified.

G. Submit an Environmental Product Declaration (EPD) from the manufacturer for steel framework and steel fabric within this specification section, if available. A statement of the contractor’s good faith effort to obtain the EPD shall be provided if not available.

1. Manufacturer-provided EPDs must be Product Specific Type III (Third-Party Reviewed), in adherence with ISO 14025 *Environmental labels and declarations*, ISO 14044 *Environmental management – Life cycle assessment*, and ISO 21930 *Core rules for environmental product declarations of construction products and services.*

H. Samples:

1. Fence Fabric: Minimum one square foot.
2. Fence and Gate Posts: Two each, one foot long, if requested.
3. Miscellaneous Materials and Accessories: One each, if requested.

I. Quality Control Submittals:

1. Test Reports: Security coils test procedure report.
2. Certificates: Affidavit required under Quality Assurance Article.

1.6 QUALITY ASSURANCE

A. Comply with standards of the Chain Link Fence Manufacturer’s Institute.

B. Provide steel fence and related gates as a complete compatible system including necessary erection accessories, fittings, and fastenings.

C. Posts and rails shall be continuous without splices.

D. Security Coils Certification: Affidavit by the Company Field Advisor, certifying that the installation of the security coils meets the Contract requirements.

E. Concrete batching plants shall be currently approved as concrete suppliers by the New York State Department of Transportation.

F. Testing Agency Qualifications: For testing fence grounding; member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Certified by NETA to supervise on-site testing.

1.7 MAINTENANCE

A. Extra Materials: Furnish additional 800 feet of 30-inch security coils. Store where directed. Furnish rachet tool and sufficient quantity of stainless-steel twistable wire ties for installation of coils by facility personnel.

1.8 DELIVERY

A. Coordinate delivery of anchors and other accessories to be built into other Work, to avoid delay. Furnish instructions and templates as required for accurate location.

1.9 FIELD CONDITIONS

A. Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Class B Steel Tubing (Option):

1. SS-40 Fence Pipe by Allied Tube & Conduit Corp., 16100 S. Lathrop Ave., Harvey, IL, 60426, (800) 882-5543.
2. AP-40 Fence Framework by American Tube and Pipe Co., Inc., 2525 N. 27th Ave., Phoenix, AZ 85009, (800) 669-8823.

2.2 STEEL FRAMEWORK (FOR FENCES UP TO 6’-0” HIGH)

A. End Posts, Corner Posts and Pull Posts:

1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
2. Square Tubing: 2 inches OD, 3.60 pounds per linear foot.
3. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 3.5 inches by 3.5 inch by 0.128-inch thick, with minimum bending strength of 486 pounds under a 6 foot cantilever load.

B. Line Posts:

1. Pipe: 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.
3. H-Section: 1.875 inches x 1.625 inches x 0.113 inch, 2.70 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 1.875 inches by 1.625 inches by 0.121-inch thick with minimum bending strength of 247 pounds under a 6-foot cantilever load.

2.3 STEEL FRAMEWORK (FOR FENCES 6’-1” - 10’-0” HIGH)

A. End Posts, Corner Posts and Pull Posts:

1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
2. Square Tubing: 2.50 inches OD, 5.70 pounds per linear foot.
3. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 3.5 inches by 3.5 inches by 0.128-inch thick, with minimum bending strength of 486 pounds under a 6-foot cantilever load.

B. Line Posts:

1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.
3. H-section: 2.25 inches by 1.95 inches by 0.143 inches, 4.10 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 2.25 inches by 1.70 inches by 0.121-inch thick, with minimum bending strength of 316 pounds under a 6-foot cantilever load.

2.4 STEEL FRAMEWORK (FOR FENCES 10’-1” - 16’ HIGH)

A. End Posts, Corner Posts and Pull Posts:

1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

B. Line Posts:

1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.

2.5 STEEL FABRIC

A. One-piece widths for fence heights up to 12’-0”.

B. Chain link, 2-inch mesh, No. 9 gauge; 3/8-inch mesh, No. 11 gauge.

C. Selvages: Top edge twisted and barbed; bottom edge knuckled.

D. Selvages: Top edge and bottom edge knuckled.

E. Selvages: Top edge and bottom edge twisted and barbed.

2.6 SWING GATE POSTS

A. Single width of gate up to 6’-0” wide and less than 10’-0” high:

1. Pipe: 2.875 inches OD, 5.79 pounds per linear foot (Schedule 40).
2. Square Tubing: 2.50 inches OD, 5.70 pounds per linear foot.

3. Class B Steel Tubing: 2.875 inches OD, 4.64 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 3.5 inches 3.5 inches by 0.128-inch thick, with minimum bending strength of 486 pounds under a 6-foot cantilever load.

B. Single width of gate 6'-0" to 12'-0" wide or over 10'-0" high:

1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.
3. Square Tubing: 3 inches OD, 9.10 pounds per linear foot.
4. Roll Formed C-Section: ASTM A 570 Grade 45, 3.5 inches by 3.5 inches by 0.128-inch thick, with minimum bending strength of 486 pounds under a 6-foot cantilever load.

C. Single width of gate 12'-0" to 18'-0" wide:

1. Pipe: 6.625 inches OD, 18.97 pounds per linear foot (Schedule 40).

D. Single width of gate over 18'-0" wide:

1. Pipe: 8.625 inches OD, 24.70 pounds per linear foot (Schedule 30).

2.7 SWING GATE FRAMES

A. Up to 6'-0" high, and leaf width 8'-0" or less.

1. Pipe: 1.660 inches OD, 2.27 pounds per linear foot (Schedule 40).
2. Square Tubing: 1.50 inches OD, 1.90 pounds per linear foot.
3. Class B Steel Tubing: 1.660 inches OD, 1.84 pounds per linear foot.

B. Height: 6'-0" - 12'-0", or leaf width exceeding 8'-0":

1. Pipe: 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Square Tubing: 2 inches OD, 2.60 pounds per linear foot.
3. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.

C. Height: 12'-1" - 20'-0".

1. Pipe: 2.375 inches OD, 3.65 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 2.375 inches OD, 3.11 pounds per linear foot.

D. Assemble gate frames by welding or with special steel fittings and rivets for rigid connections. Install mid-height horizontal rails on gates over 10 feet high. When width of gate leaf exceeds 10 feet, install mid-distance vertical bracing of the same size and weight as frame members. When either horizontal or vertical bracing is not required, provide truss rods as cross bracing to prevent sag or twist.

2.8 SLIDING GATE FRAMEWORK

A. Posts: Pipe, 4.50 inches OD, 10.79 pounds per linear foot (Schedule 40).

B. Posts:

1. Pipe: 4 inches OD, 9.11 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 4 inches OD, 6.56 pounds per linear foot.

C. Frames:

1. Pipe 1.90 inches OD, 2.72 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.90 inches OD, 2.28 pounds per linear foot.

2.9 SWING GATE HARDWARE

A. Hinges: Non-lift-off type, offset to permit 180-degree swing, and of suitable size and weight to support gate. Hinges, Type "B" and "C" Gates: Pressed Steel 180-degree gate hinge item no. 014005 or appropriate for use by Hearne Steel Company, Inc.

B. Latch: Forked type for single gates 10 feet wide or less. Drop bar type with keeper for double gates and single gates over 10 feet wide complete with flush plate set in concrete. Drop bar length shall be 2/3 the height of the gate. Padlock eye shall be an integral part of latch construction.

C. Keeper for Double Gates: Keeper which automatically engages the gate leaf and holds it in open position until manually released.

D. Locks:

1. Type "A", "B" and "D" Gates: As specified in Section 11190.
2. Type "C" Gate: Drop bar type complete with flush plate set in concrete. For double gates provide full height drop bar and keeper. Padlock eye shall be an integral part of latch construction.

E. Holdbacks for Vehicle Gates: Type which automatically engages the gate leaf and holds it in open position until manually released.

2.10 SLIDING GATE HARDWARE

A. Overhead Type Electrically operated: As specified in Section 323115.

B. Overhead Type, Manually Operated:

1. Trolley: 2-ton capacity, Style 3569, with aprons by Columbus McKinnon Corp., 140 John James Audubon Pky., Amherst, NY 14228-1197, (800) 888-0985.
2. Manual Sliding Gate Hardware System, by Tymetal Corporation, Inc., 1626 Rt. 9, Clifton Park, NY 12065 518-383-6084.
3. Lock: Manual operation 806ER, by Folger Adam Co., 16300 West 103rd St., Lemont, IL 60439-9653, (708) 739-3900, keyed both sides, with 2SC cylinder shields as required. Key individually with 7 keys.

C. Cantilever type with enclosed tracks and integral latch assembly:

1. Ty-Metal Corp., 1626 Route 9, Clifton Park, NY 12065, (800) 328-4283.
2. Anchor Fence, 6500 Eastern Ave., Baltimore, MD, (410) 633-6500.
3. Lock: Manual operation 806ER, by Folger Adam Co., 16300 West 103rd St., Lemont, IL 60439-9653, (708) 739-3900, keyed both sides, with 2SC cylinder shields as required. Key individually with 7 keys.

2.11 MISCELLANEOUS MATERIALS AND ACCESSORIES

A. Rails and Post Braces:

1. Pipe: 1.660 inches OD, 2.27 pounds per linear foot (Schedule 40).
2. Class B Steel Tubing: 1.660 inches OD, 1.84 pounds per linear foot.
3. Roll formed C-Section: 1.625 inches by 1.25 inches by 0.0747-inch thick with minimum bending strength of 192 pounds on a 10-foot span.

B. Fittings and Post Tops: Steel, wrought iron, or malleable iron.

1. Fasteners: Tamper-resistant cadmium plated steel screws.

C. Stretcher Bars: One piece equal to full height of fabric, minimum cross-section 3/16 inch by 3/4 inch.

D. Metal Bands (for securing stretcher bars): Steel, wrought iron, or malleable iron.

E. Wire Ties: Conform to American Steel Wire gauges.

1. For tying fabric to line posts, rails and braces: 9 gauge (.1483 inch) steel wire.
2. For tying tension wire to fabric: 11 gauge (.1205 inch) steel hog rings.
3. For tying security coils to fence fabric, barbed wire, or adjacent coils: 16 gauge (.0625 inch) 300 Series stainless steel wire.
4. For splicing adjoining sections of security coils: 16 gauge (.0625 inch) 300 Series stainless steel wire, or 11 gauge (.1205 inch) 300 Series stainless steel hog rings.

F. Truss Rods: 3/8-inch diameter.

G. Concrete: Portland Cement concrete having a minimum compressive strength of 4,000 psi at 28 days.

H. Spiral Paper Tubes:

1. Sonotube by Sonoco Products Co., North Second St., Hartsville, SC 29550, (800) 377-2692.
2. Quik-Tube by Quikrete Companies, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328, (800) 282-5828.
3. Approved equivalent.

I. Cold Galvanizing Compound: Single component compound giving 93 percent pure zinc in the dried film, and meeting the requirements of DOD-P-21035A (NAVY).

J. Tension Wire: 7 gauge coiled spring steel wire.

K. Angle Beams, I Beams, and Steel Shapes: ASTM A 36.

L. Bolts and Nuts: ASTM A 307, Grade A.

M. Expansion Anchors: ¾ inch diameter with a minimum 4-3/4" embedment depth, Stainless Steel KWIK Bolt 3 (KB3) by Hilti, Inc. www.us.hilti.com ; 1-800-879-8000.

N. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107. Provide grout, recommended in writing by manufacturer, for exterior applications.

O. Aluminum Slats:

1. Size: 1-7/8 inches wide and 1-3/4 inches wide by .009 inch to .0105 inch thick.
2. Aluminum Alloy: 5052 H19 or 6011 T81.
3. Finish: Baked enamel, color as indicated or directed.

2.12 BARBED WIRE

A. Two strand 12-1/2-gauge steel wire, with 14 gauge 4-point steel barbs spaced 5 inches o.c.

B. Extension Arms: Pressed steel, wrought iron, or malleable iron, complete with provision for anchorage to posts (including light posts) and attaching 3 rows of barbed wire to each arm.

1. Type: Single 45 degree arm; one for each post.
2. Type: Single vertical arm; one for each post.
3. Type: Vee-Type with 2 arms at 45 degree to vertical; one set for each post.

2.13 FIVE FOOT DIAMETER SECURITY COILS (OPTION, EITHER A. OR B. BELOW)

A. One hundred and one coil loops of a single helical coil of spring quality austenitic stainless steel conforming to U.S. Army MERADCOM drawing 13220E0889 and 13220E2744 except that the outside diameter shall be 60 inches (plus or minus 4 inches) with 45 (plus or minus one) barb clusters per revolution.

1. Adjacent coil loops shall be alternately spot welded at 13 points of equal spacing about the perimeter. Spot welding shall survive a minimum 200-pound force per weld loaded uniformly about the periphery of the coil, as specified in barbed tape procedure.
2. Two jacketed stainless steel wire ropes, 7 by 7 strand 3/64 inch by 5/64 inch minimum diameter, per MIL-W-83420, Type II composition B shall be attached symmetrically about the circumference, along the length of the obstacle, to each coil loop, to preset the maximum barbed tape opening and the 50 foot (plus or minus 2 feet) length. Each wire rope with clips shall be capable of satisfying the 50-pound pull test of Paragraph 4. 5. 2. 1. 1., MIL-B-427675B.

B. Concertina Type: Minimum 51 coil loops fabricated by wrapping a barbed tape made of AISI 430 stainless steel, whose hardness is optional, around a 300 series austenitic stainless steel core wire. Diameter of the core wire shall be 0.098 inch plus or minus 0.002 inch and the tensile strength

shall be a minimum of 140,000 psi. The barbs shall be offset from the plane of the core wire. Outside diameter of the coil loops shall be 60 inches (plus or minus 2 inches). Each loop shall consist of 45 (plus or minus one) clusters of four needle sharp barbs on four-inch centers, each barb measuring a minimum of 1.2 inches in length.

1. Adjacent coil loops shall be attached alternately at 9 points of equal spacing about the circumference with stainless steel flat metal band type clips approximately 0.375-inch wide and 0.065-inch thick. These clips shall prevent the coil loops from being pulled apart at each point of attachment when a minimum 200-pound load is applied, as specified in the barbed tape test procedure. Wrapping of barbed tape about the line wire shall be accomplished within the tolerances specified in MIL-B-52489E, except that the tape shall be wrapped a minimum of 230 degrees and shall satisfy the push test specified therein.
2. Extended length shall be 25 feet (plus or minus 2 feet), with a maximum spacing between loops of 12 inches.

2.14 THIRTY INCH DIAMETER SECURITY COILS (OPTION, EITHER A. OR B. BELOW)

A. One hundred and one coil loops of a single helical coil of spring quality austenitic stainless steel conforming to U.S. Army MERADCOM drawing 13220E0889 and 13220E2744 except that the outside diameter shall be 30 inches (plus or minus 2 inches) with 24 (plus or minus 1) barb clusters per revolution.

1. Adjacent coil loops shall be alternately spot welded at 5 points of equal spacing about the perimeter. Spot welding shall survive a minimum 200-pound force per weld loaded uniformly about the periphery of the coil, as specified in the barbed tape test procedure.
2. One jacketed stainless steel wire rope, 7 by 7 strand 3/64 inch by 5/64 inch minimum diameter, per MIL-W-83420, Type II composition B, shall be attached, along the length of the obstacle to each coil loop to preset the maximum barbed tape opening and the 50 foot (plus or minus 2 feet) length.
3. The wire rope shall be attached with clips as required and the wire rope with clips shall be capable of satisfying the 50-pound pull test Paragraph 4. 5. 2. 1. 1., Specification MIL-B-52775B.

B. Concertina Type: Minimum 51 coil loops fabricated by wrapping a barbed tape made of AISI 430 stainless steel, whose hardness is optional, around a 300 series austenitic stainless steel core wire. Diameter of the core wire shall be 0.098 inch plus or minus 0.002 inch, and the tensile strength shall be a minimum of 140,000 psi. The barbs shall be offset from the plane of the core wire. Outside diameter of the coil loops shall be 30 inches (plus or minus 2 inches). Each loop shall consist of 24 (plus or minus one) clusters of four needle sharp barbs on four-inch centers, each barb measuring a minimum of 1.2 inches in length.

1. Adjacent coil loops shall be attached alternately at 5 points of equal spacing about the circumference with stainless steel flat metal band type clips approximately 0.375-inch wide and 0.065 inch thick. These clips shall prevent the coil loops from being pulled apart at each point of attachment when a minimum 200-pound load is applied, as specified in the barbed tape test procedure. Wrapping of barbed tape about the line wire shall be accomplished within the tolerances specified in MIL-B-52489E, except that the tape shall be wrapped a minimum of 230 degrees and shall satisfy the push test specified therein.

2. Extended length shall be 25 feet (plus or minus 2 feet), with a maximum spacing between loops of 12 inches.

2.15 SOURCE QUALITY CONTROL

A. Test Procedure - Barbed Tape Security Coils: The company producing the security coils shall have test facilities available which can demonstrate that the security coils meet the following requirements.

1. Sampling; before delivery to job site: Samples for quality conformance inspections shall be selected in accordance with MIL-STD-105, sampling level S-1, AQL 2.5. A unit of product for sampling shall be one complete unit no less than ten feet in length.
2. Test Equipment: The test equipment for applying and measuring force shall be capable of measuring a minimum force of 200 pounds and shall be calibrated prior to each test with standards traceable to the National Bureau of Standards.
3. Test Specimen: The test specimen shall consist of 2 segments of barbed tape, taken from adjacent coil loops, each at least one- foot-long, containing and centered upon a point of attachment. This attachment shall be prepared in the normal course of production.
4. Test Preparation: A pair of one inch, plus or minus 0.1-inch, cubic back-up blocks shall be centered on each side of the attachment point, in as close as possible contact with the major surfaces of the barbed tape. Barbs adjacent to the attachment point may be removed to simplify the testing process. Each leg of each barbed tape segment shall be bent at a 90 degree angle so that each segment has a major surface in contact with 3 adjoining faces of a back-up cube and so that ends of each segment are parallel to each other and to the axis of the attachment. Each back-up cube shall then be restrained in place by spot welding a straining strap to each leg of a segment so that the strap is in continuous contact with the cube face opposite the point attaching the 2 segments.
5. Test: Two ends of one of the test segments, prepared per above, shall be joined and rigidly attached to a structure so that the retaining structure, with said attachment, will survive a minimum tensile load of 200 pounds without deflection or slippage. The 2 ends of the opposite segment shall be joined and attached to the test apparatus so that said attachment will survive a minimum tensile load of 200 pounds, without any slippage. The test equipment above shall then be used to apply up to a 200-pound minimum force (through the adjacent coil loop segment attachment point) away from the rigid retaining structure. After reaching a minimum 200-pound force, as measured by the test equipment, this force shall be maintained continuously for a least 30 seconds.
6. Test Results: At the completion of the 30 second pull test, the test specimen shall be removed from the attachments to the rigid retaining structure and to the test equipment. The back-up blocks shall be removed from the test specimen and each segment of the barbed tape shall be examined for breaks, cracks, or separation around their mutual attachment point. The test specimen shall have failed this test if any of the above have occurred or a 200-pound minimum pull cannot be applied continuously for 30 seconds.

2.16 FINISHES

A. Steel Framework:

1. Pipe: Galvanized in accordance with ASTM A 53, 1.8 ounces zinc per square foot.

2. Square Tubing: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
3. Class B Steel Tubing: Exterior; 1.0 ounces zinc per square foot plus chromate conversion coating and clear polyurethane. Interior; zinc rich organic coating.
4. H-Section: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
5. Roll Formed C-Section: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
6. Polyvinyl Chloride (PVC): Black plastic finish, fusion bonded to galvanized metal, minimum thickness 10 mils.

B. Fabric; one of the following:

1. Galvanized Finish: ASTM A 392 class II zinc coated after weaving, with 2.0 ounces per square foot.
2. Aluminized Finish: ASTM A 491 aluminum coated with 0.40 ounces per square foot.
3. Polyvinyl Chloride (PVC) Finish: Black plastic, fusion bonded to galvanized wire, breaking strength, 1290 pounds, minimum thickness 7 mils.

C. Fence and Gate Hardware, Miscellaneous Materials, Accessories:

1. Wire Ties: Galvanized Finish, ASTM A 90 1.6 ounces zinc per square foot, or aluminized finish, ASTM A 809 0.40 ounces per square foot.
2. Hardware and Miscellaneous Items: Galvanized Finish, ASTM A 153 (Table 1).
3. Extension Arms: Hot-dip galvanized after fabrication, ASTM 123, 2.0 ounces zinc per square foot.
4. Angle Beams, I Beams, and Steel Shapes: Galvanized in accordance with ASTM A 123, 2.0 ounces zinc per square foot.
5. PVC coated, per manufacturer's standards.

D. Barbed Wire and Tension Wire; one of the following:

1. Galvanized Finish: ASTM A 121 class 3, 0.80 ounces per square foot.
2. Aluminized Finish: ASTM A 585 class 2, 0.30 ounces per square foot.
3. PVC Coated, per manufacturer's standards.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clear and grub along fence line as required to eliminate growth interfering with alignment. Remove debris from State property.

B. Do not begin installation of fence in areas to be cut until finished grading has been completed.

C. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

3.2 INSTALLATION

A. Space posts equidistant in the fence line with a maximum of 10 feet on center.

B. Setting Posts in Earth: Drill holes for post footings. If existing grade at the time of installation is below finished grade, provide spiral paper tubes to contain concrete to finish grade elevation. Set posts in center of hole and fill hole with -concrete. Plumb and align posts. Vibrate or tamp concrete for consolidation. Finish concrete in a dome shape above finish grade elevation to shed water. Do not attach fabric to posts until concrete has cured a minimum of 7 days.

C. Setting Posts in Rock: Drill holes into solid rock one inch wider than post diameter, 18 inches deep for end, pull, corner, and gate posts, and 12 inches deep for line posts. Set posts into holes and fill annular space with shrink-resistant grout.

D. Locate corner posts at corners and at changes in direction. Use pull posts at all abrupt changes in grade.

E. Install top rail continuously through post tops or extension arms, bending to radius for curved runs. Install expansion couplings as recommended by fencing manufacturers.

F. Install bottom and intermediate rails in one piece between posts and flush with post on fabric side using special offset fittings where necessary.

G. Brace corner posts, pull posts, end posts, and gate posts to adjacent line posts with horizontal rails.

H. Diagonally brace corner posts, pull posts, end posts, and gate posts to adjacent line posts with truss rods and turnbuckles.

I. Attach fabric to security side of fence. Maintain a 2-inch clearance above finished grade except when indicated otherwise. Thread stretcher bars through fabric using one bar for each gate and end post and 2 for each corner and pull post. Pull fabric tight so that the maximum deflection of fabric is 2 inches when a 30-pound pull is exerted perpendicular to the center of a panel. “Maintain tension by securing stretcher bars to posts with metal bands spaced 15 inches oc. Fasten fabric to steel framework with wire ties spaced 12 inches of for line posts and 24 inches oc for rails and braces. Bend back wire ends to prevent injury. Tighten stretcher bar bands, wire ties, and other fasteners securely.

    1. When fabric height exceeds 12 feet, overlap horizontal splices a minimum of 6 inches at the intermediate rail, and secure with wire ties spaced 12 inches oc.
    2. When fabric is indicated to be buried, the buried portion of fabric shall be separate from the main fence fabric. Overlap main fabric and buried fabric a minimum of 6 inches at the bottom rail, and secure with wire ties spaced 12 inches oc.

J. Position bolts for securing metal bands and hardware so nuts are located opposite the fabric side of fence. Tighten nuts and cut off excess threads so no more than 1/8 inch is exposed. Peen ends to prevent loosening or removal of nuts.

    1. Secure post tops and extension arms with tamper-resistant screws.

K. Install gates plumb and level and adjust for full opening without interference. Install ground-set items in concrete for anchorage, as recommended by fence manufacturer. Adjust hardware for smooth operation and lubricate where necessary.

L. Fence Alarm System: Install the inside fence in a manner that will permit satisfactory operation of a fence alarm system. Conform to the following:

1. Eliminate all fabric vibrations and rattles caused by wind against posts and rails. Install additional wire ties above quantity specified if deemed necessary to prevent vibrations and rattles.
2. Eliminate all rattles from stretcher bar bands, truss rods, rail and post clamps, and other hardware.

M. Tension Wire: Support bottom edge of fabric with tension wire. Weave tension wire through fabric or fasten with hog rings spaced 24 inches oc. Tie tension wire to posts with 9-gauge wire ties.

N. Security Coils (except Concertina Type):

1. Stretch to full preset length, determined by applying a tensile load of not more than 50 pounds at each end of the spacer wire. Attach successive units to each other to form one continuous obstacle. After the first unit is installed, orient the beginning of the second unit so that (spot weld) attachments of the second unit approximately match those at the end of the first unit. Attach the last coil loop of the first unit to the first coil loop of the second unit, with stainless steel twistable wire ties (para. 3.7. MIL-B-52775B) at the locations where the coils would have been spot welded, if one continuous unit had been fabricated. Where security coils are placed on the ground, anchor each coil to the ground at 5-foot intervals using anchors formed from No. 3 reinforcement bars. Each reinforcement bar anchor shall have a 2-inch hook formed at the top and shall be driven a minimum of 18 inches into the ground.
2. Secure coils to the side of the fence by erecting the material as described for ground installation. Attach each coil loop (or pair of coil loops where adjacent coils are spot welded) to the fence fabric with stainless steel twistable wire ties. The point of attachment shall be made where the security coils are tangent to (intersects) the fence, after it has been expanded to its full length, without tangles and free of distortion. (The location of the point of attachment to the fence will vary as the security coil rotates slightly about its longitudinal axis as it is extended to its full length.)

O. Concertina Type Security Coils: Install in accordance with the manufacturer's printed instructions and meeting the following minimum requirements:

1. Install security coils with coil loops (apertures) equally spaced 12 inches oc (plus or minus 2 inches).
2. Secure coils to the top of the fence by attaching each coil loop where it intersects the barbed wire and the top of the fabric with twistable stainless steel wire ties.
3. Secure coils to the side of the fence by attaching each coil loop where it intersects the fence fabric, and any adjacent coils, with twistable stainless steel wire ties. Attach adjacent coils to each other where every other loop intersects or at 36 inches oc maximum.
4. Where security coils are placed on the ground, anchor each coil to the ground at 5-foot intervals using anchors formed from No. 3 reinforcement bars. Each reinforcement bar

anchor shall have a 2-inch hook formed at the top and shall be driven a minimum of 18 inches into the ground.

5. Splices: Splice successive units to adjacent coil loops by overlapping end loops a minimum of two barbed clusters to form one continuous obstacle.

    a. Permanently attach barb roots together with twistable stainless steel wire ties or stainless steel hog rings.
    b. Cross-tie barb roots with 2 stainless steel twistable wire ties or 2 stainless steel hog rings on both barbs of a 2-barb splice or the center barb of a 3-barb splice, and at all points of the splice where factory clips are installed on adjoining sections of continuous coil.

P. Aluminum Slats: Install where indicated aluminum slats in every diagonal run of links in both directions for the full height of the fence. Crimp and staple with monel staples at the top and bottom of fabric. Overlap and staple spliced slats.

Q. Wire brush and repair welded and abraded areas of galvanized surfaces with one coat of cold galvanizing compound.

R. Restore disturbed ground areas to original condition. Topsoil and seed to match adjacent areas.

3.3 GROUNDING AND BONDING

A. Comply with requirements in Section 260526 "Grounding and Bonding for Electrical Systems."

B. Fence and Gate Grounding:

1. Ground for fence and fence posts shall be a separate system from ground for gate and gate posts.
2. Ground fence on each side of gates and other fence openings.

    a. Bond metal gates to gate posts.
    b. Bond across openings, with and without gates, except openings indicated as intentional fence discontinuities. Use No. 2 AWG wire and bury it at least 18 inches below finished grade.

C. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a ground rod located a maximum distance of 150 feet on each side of crossing.

D. Fences Enclosing Electrical Power Distribution Equipment: Ground according to ANSI and IEEE C2 unless otherwise indicated.

E. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 24 inches below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at grounding location.

1. Make grounding connections to each barbed wire strand with wire-to-wire connectors designed for this purpose.
2. Make grounding connections to each barbed tape coil with connectors designed for this purpose.

F. Connections:

1. Make connections with clean, bare metal at points of contact.
2. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
3. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
4. Make above-grade ground connections with mechanical fasteners.
5. Make below-grade ground connections with exothermic welds.
6. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

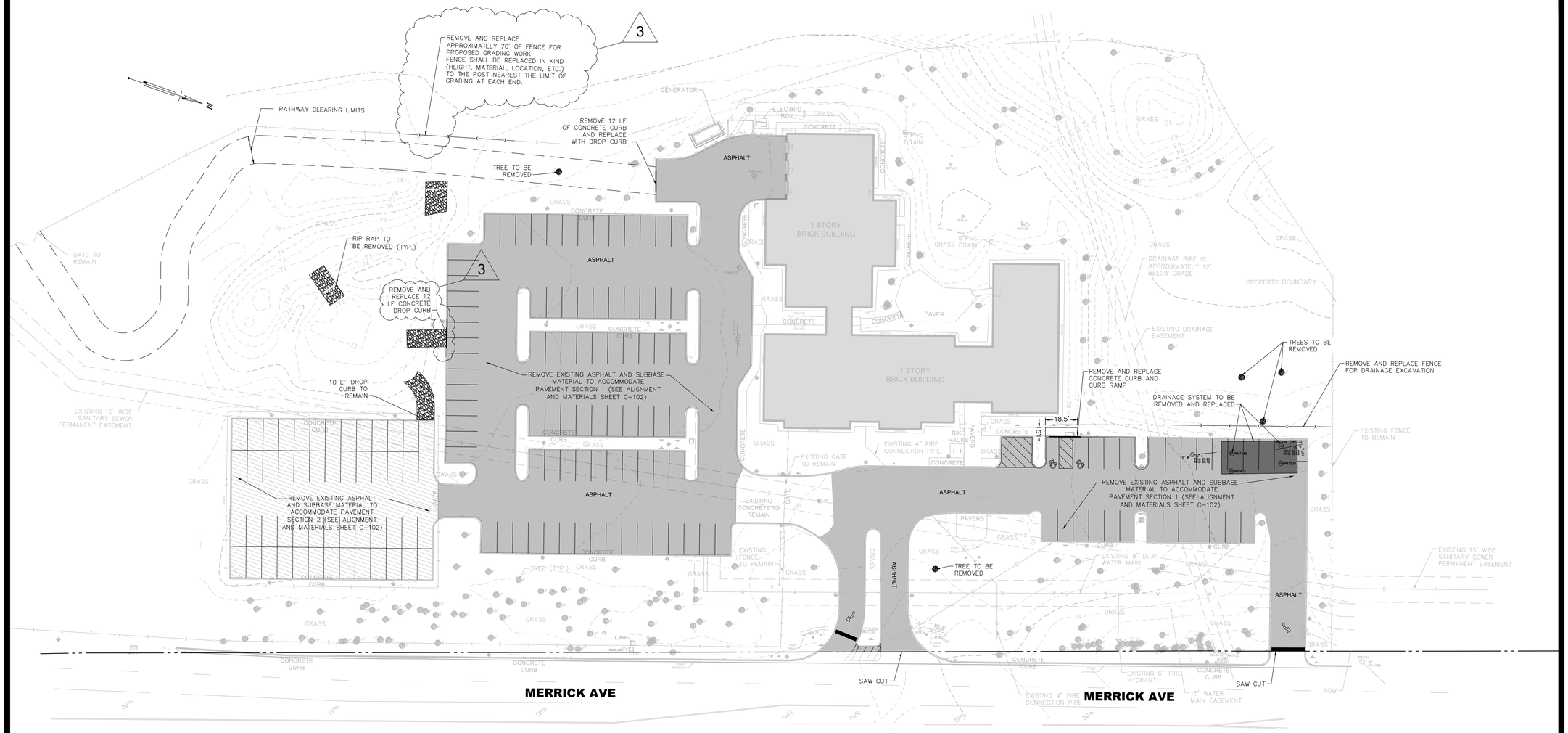
G. Bonding to Lightning Protection System: Ground fence and bond fence grounding conductor to lightning protection down conductor or lightning protection grounding conductor according to NFPA 780.

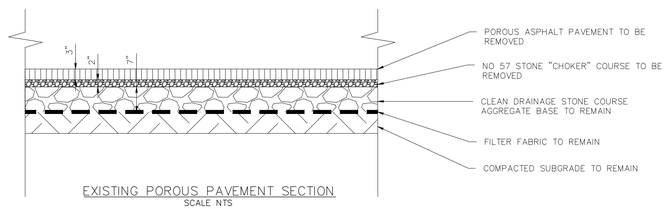
H. Comply with requirements in Section 264113 "Lightning Protection for Structures."

3.4 DEMONSTRATION

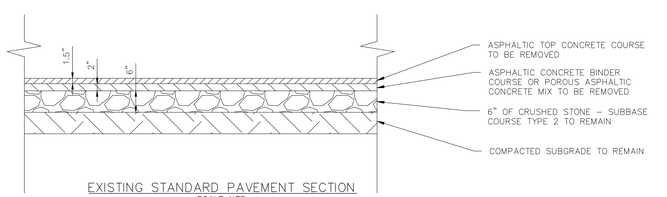
A. Fence contractor to train Facility’s maintenance personnel to adjust, operate and maintain chain-link fences and gates.

END OF SECTION 323113





EXISTING POROUS PAVEMENT SECTION
SCALE NTS



EXISTING STANDARD PAVEMENT SECTION
SCALE NTS

PAVEMENT LEGEND

REMOVE EXISTING POROUS PAVEMENT SECTION

REMOVE EXISTING STANDARD PAVEMENT SECTION

MATERIALS REMOVAL TABLE

ITEM	AREA (SF)	LENGTH OR DEPTH (FT)	CUT (C) OR FILL (F)	CF	CY
ASPHALT PAVEMENT (POROUS SECTION)	49100	0.417	C	20458	757.7
ASPHALT PAVEMENT (STANDARD DUTY SECTION)	10800	0.292	C	3150	116.7
CONCRETE CURB	0.75	51.00	C	38	1.4
ADA RAMP (SIDEWALK)	100	0.33	C	33	1.2
POND EXPANSION	N/A	N/A	C	18225	675.0
			TOTAL	41905	1552

LEGEND: DEMOLITION	
	COLOR OF EXISTING ITEM TO REMAIN
	COLOR OF EXISTING ITEM TO BE DEMOLISHED AND REMOVED*

*UNLESS OTHERWISE NOTED ON DEMOLITION PLAN.

SCALE 1" = 30' (30 0 30 60 FEET)

NEW YORK STATE OF OPPORTUNITY. Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

STATE OF NEW YORK · ERIC C. JETER · 097037 · LICENSED PROFESSIONAL ENGINEER

SITE/CIVIL:
HAYDUK ENGINEERING, LLC
REGISTRATION EXPIRATION DATE:
AUGUST 31, 2025

WARNING:
THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.

CONTRACT:
CONSTRUCTION

TITLE:
PROVIDE PAVING & DRAINAGE IMPROVEMNTS

LOCATION:
NYS POLICE EAST MEADOW
101 MERRICK AVE
EAST MEADOW, NY

CLIENT:
DSP – NYS POLICE

MARK	DATE	DESCRIPTION
3	03/13/2025	ADDENDUM #1
2	01/13/2025	AS PER OGS COMMENTS (01/10/2025)
1	01/08/2025	AS PER OGS COMMENTS (09/16/2024)

PROJECT NUMBER:	Q1936-C
DESIGNED BY:	RF
DRAWN BY:	RF
FIELD CHECK:	
APPROVED:	ECJ

SHEET TITLE:
EXISTING CONDITIONS AND REMOVALS PLAN

DRAWING NUMBER:
C–101

SHEET 3 OF 9

Mar 13,2025 – 11:57am
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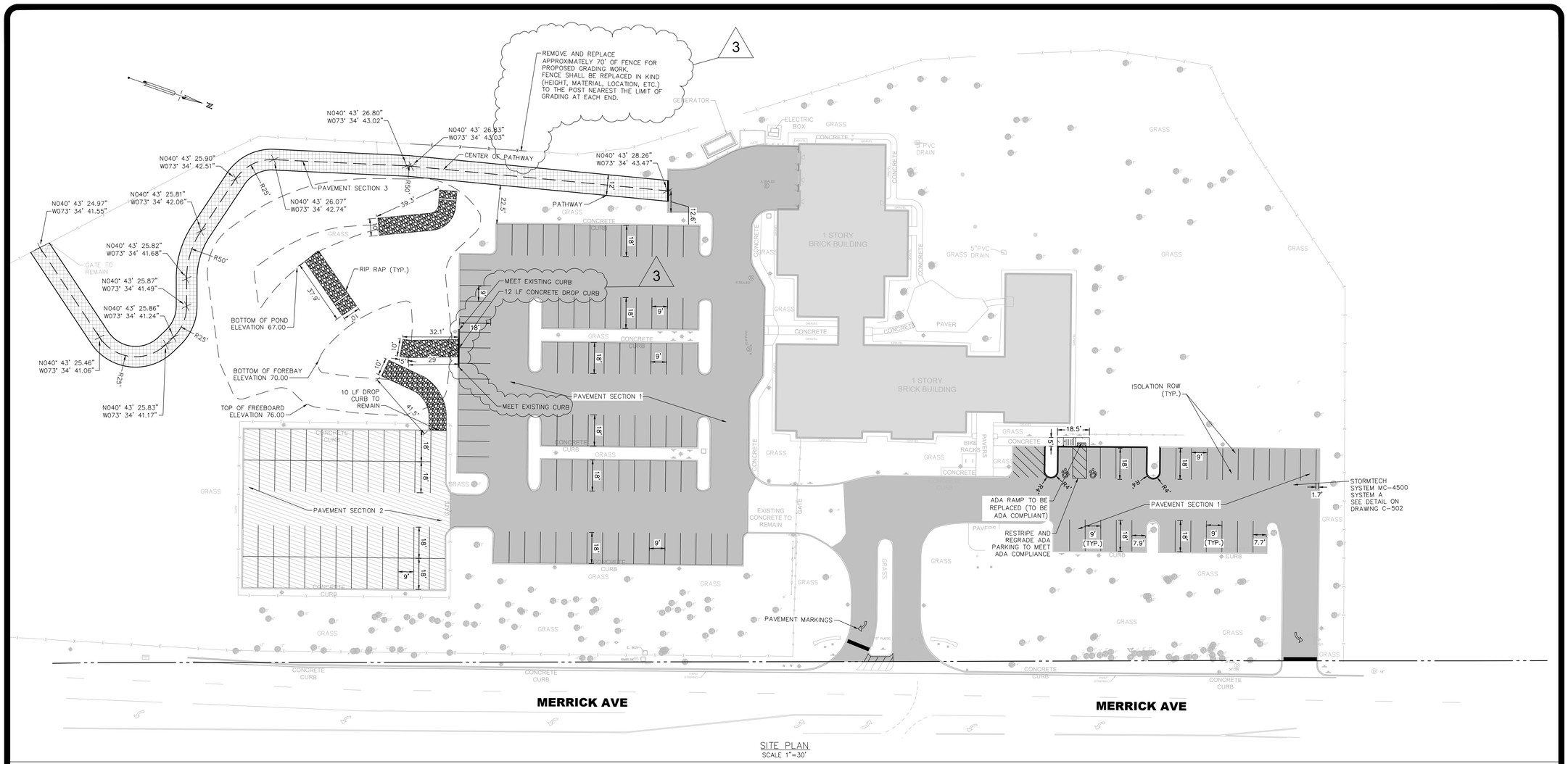
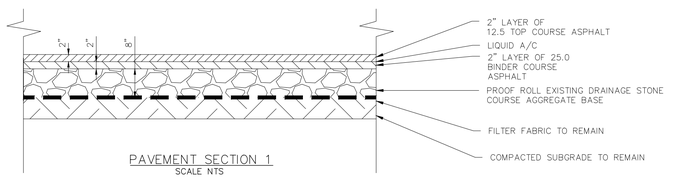
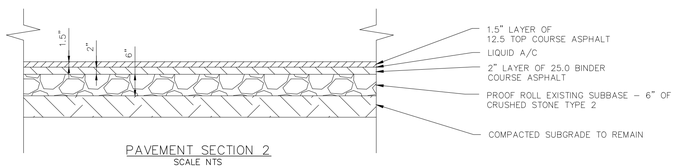


SITE PLAN
SCALE 1"=30'



PAVEMENT SECTION 1
SCALE NTS



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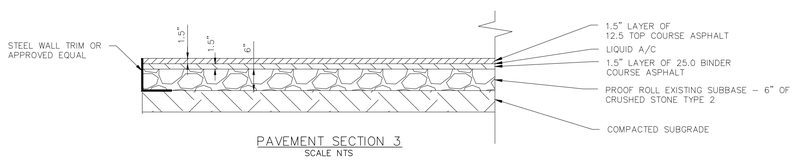

PAVEMENT SECTION 3
SCALE NTS

PAVEMENT LEGEND

- PAVEMENT SECTION 1
- PAVEMENT SECTION 2
- PAVEMENT SECTION 3

SCALE 1" = 30' (30 0 30 60 FEET)

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NEW YORK STATE OF OPPORTUNITY. Office of General Services
DESIGN & CONSTRUCTION

CONSULTANT

STATE OF NEW YORK ERIC C. JETER 097037 LICENSED PROFESSIONAL ENGINEER

SITE/CIVIL:
HAYDUK ENGINEERING, LLC
REGISTRATION EXPIRATION DATE:
AUGUST 31, 2025

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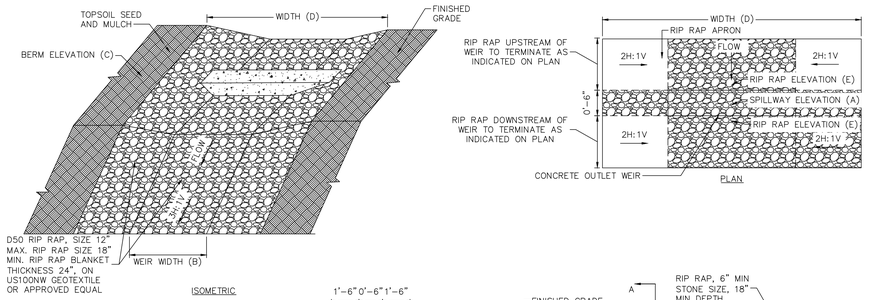
PROJECT NUMBER:	Q1936-C
DESIGNED BY:	RF
DRAWN BY:	RF
FIELD CHECK:	
APPROVED:	ECJ

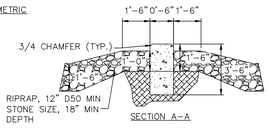
SHEET TITLE:
ALIGNMENT AND MATERIALS PLAN

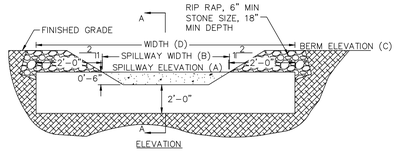
DRAWING NUMBER:
C-102

SHEET 4 OF 9

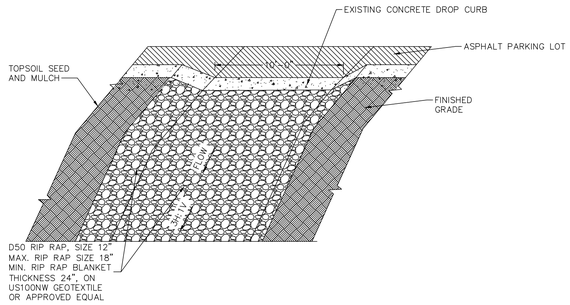


OUTLET WEIR	SPILLWAY ELEV. (A)	SPILLWAY WIDTH (B)	BERM ELEV. (C)	WIDTH (D)	RIP RAP ELEV. (E)
1	74.0	10'-0"	75.0	14'-0"	73.5
2	74.0	10'-0"	75.0	14'-0"	73.5





01 **CONCRETE OUTLET WEIR AND RIP RAP OVERFLOW DETAIL**
NOT TO SCALE
SOURCE: O.G.S. PROJECT NO. 44561 - C,H,P, & E



02 **RIP RAP OVERFLOW DETAIL**
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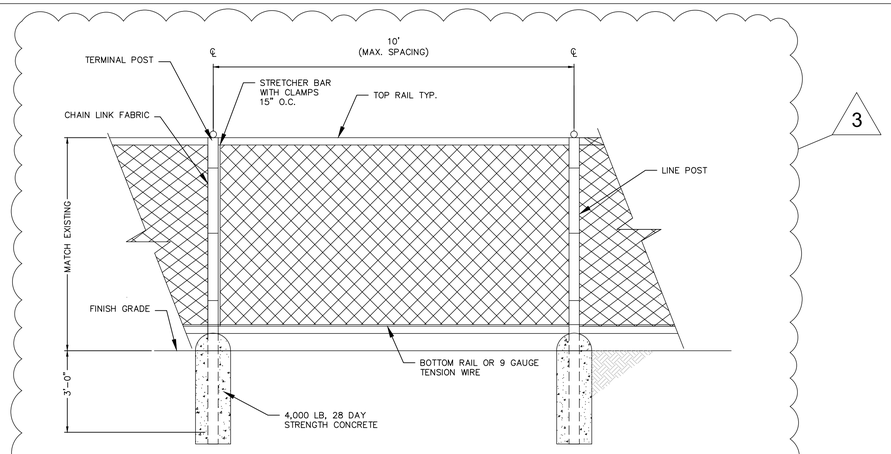
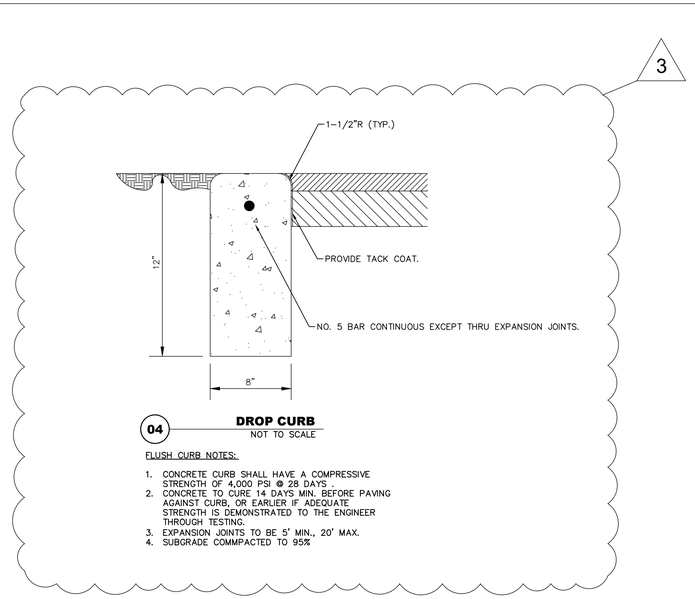


03 **CHAIN LINK FENCE**
NOT TO SCALE



04 **DROP CURB**
NOT TO SCALE

FLUSH CURB NOTES:

1. CONCRETE CURB SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS .
2. CONCRETE TO CURE 14 DAYS MIN. BEFORE PAVING AGAINST CURB, OR EARLIER IF ADEQUATE STRENGTH IS DEMONSTRATED TO THE ENGINEER THROUGH TESTING.
3. EXPANSION JOINTS TO BE 5' MIN., 20' MAX.
4. SUBGRADE COMMPACTED TO 95%

NEW YORK STATE OF OPPORTUNITY. Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

STATE OF NEW YORK · ERIC C. JETER · 097037 · LICENSED PROFESSIONAL ENGINEER

SITE/CIVIL:
HAYDUK ENGINEERING, LLC
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PROJECT NUMBER:	Q1936-C
DESIGNED BY:	RF
DRAWN BY:	RF
FIELD CHECK:	
APPROVED:	ECJ

SHEET TITLE:
DETAILS – 2

DRAWING NUMBER:
C-502

SHEET 8 OF 9

Mar 13,2025 – 11:27am
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