

ADDENDUM

ADDENDUM NO: 1

PROJECT: BCSC Columbus East High School – C4 Addition

PROJECT NO: 2025022

DATE: 11/03/2025

BY: Josh Cannaday

This Addendum is issued in accordance with the provisions of "The General Conditions of the Contract for Construction," Article 1, "Contract Documents" and becomes a part of the Contract Documents as provided therein. This Addendum includes:

Addendum Pages: ADD1-1 – ADD1-3

Attached Documents: Specification section 00 42 01 – Bid Form
Specification section 01 23 00 – Alternates
Specification section 08 71 00 – Door Hardware

Attached Drawing Sheets: C000, C400, C410, C800, C900, C901



PART 0 - GENERAL INFORMATION

0.1 N/A

PART 1 - BIDDING REQUIREMENTS

1.1 00 42 01 – BID FORM

A. Add mandatory alternate #5 regarding PVC roofing membrane.

1.2 01 10 00 – SUMMARY

A. Modify 1.09 Miscellaneous Provisions as follows:

1.09.A.3. Start of Construction: Materials, schedule, staging and scope will need to be presented to the Owner and approved prior to start of construction. ~~Demolition may start once the current school year is completed after the last student day on May 23, 2023, pending no changes to the current school calendar due to inclement weather. Staging can begin a couple weeks before the end of the current school year.~~ **Staging and construction may begin after the end of the current semester. The last student day is December 19, 2025.**

1.3 01 23 00 – ALTERNATES

A. Add mandatory alternate #5 regarding PVC roofing membrane.

PART 2 - SPECIFICATIONS

2.1 07 54 19 – POLYVINYL CHLORIDE (PVC) ROOFING

- A. Modify 2.01 PVC Membrane Roofing as follows:

2.01.A.1.d. **Elevate.**

2.01.A.1.e. **Duro-Last**

2.2 08 71 00 – DOOR HARDWARE

- A. Delete original specification section in its entirety and replace with new door hardware specification.

2.3 10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES

- A. Modify 2.04 Childcare Accessories as follows:

- A. Manufacturers: Subject to compliance with requirements, provide the basis of design product Koala Kare ~~KB110-SSWM~~ **KB300-SS** or products by one of the following:

1. American Specialties, Inc.
2. Bradley Corporation.
3. Koala Kare Products; a division of Bobrick Washroom Equipment, Inc.
4. SSC, Inc.
5. World Dryer Corp.
6. **Saniflow.**

2.4 10 51 00 – METAL LOCKERS

- A. Add manufacturer to 2.03 as follows:

2.03.A.7. **Lockers MFG.**

PART 3 - DRAWINGS

3.1 C000 – TITLE SHEET

- A. Modified Drawing Index to identify the revised sheets & dates under this Addendum.

3.2 C400 – DRAINAGE PLAN

- A. Modified Pipe 203 invert from 618.28' to 618.30'.
- B. Added Existing water notes calling for contractor to pothole existing water crossing for proposed pipe 202.
- C. Added detail reference to Str 203.

D. Adjusted Structure and Pipe Tables.

3.3 C401 – STORMWATER PROFILES

A. Modified Invert for Pipe 203, adjusting hatching accordingly.

B. Added assumed existing water location.

3.4 C800 – SITE DETAILS

A. Added top of weir elevation to detail 413.

3.5 C900 – STORMWATER POLLUTION PREVENTION PLAN

A. Added temporary soil stockpile location if required.

3.6 C901 – STORMWATER POLLUTION PREVENTION NOTES

A. Adjusted narrative of A9, A29, B2, B3, B4, B5, B6, B7, and B10.

PART 4 - OTHER ITEMS

4.1 NOT USED

PART 5 - QUESTIONS AND ANSWERS

5.1 Question: Specification Section 07 27 26 Fluid Applied Membrane Air Barriers, Paragraph 07 27 26, Paragraph 1.6.1 requires installer to be ABAA licensed. Many of the local contractors do not have this licensing and will preclude them from bidding this project. In lieu of licensing, would it be acceptable for the contractor to be an approved applicator by the respective specified manufacturers?

A. This is an acceptable solution. Contractor must have written documentation as an approved applicator for review prior to commencement of construction.

5.2 Question: Can EJOT Crossfix Cladding Attachment System be an approved product for 07 42 43.2.02.C?

A. This is an acceptable product for the attachment assembly component. The project was not originally detailed with this system and additional coordination might be required to meet the envelop requirements. All components of the wall system must be engineered to meet the loading requirements presented in the project manual and accompanying documents.

END ADDENDUM #1

SECTION 00 42 01 - SUPPLEMENTARY BID FORM

FOR (PROJECTS): Columbus East High School – C⁴ Addition
230 South Marr Road
Columbus, Indiana 47201

TO (OWNER): Bartholomew Consolidated School Corporation
Administration Building
1200 Central Avenue
Columbus, Indiana 47201

BY (CONTRACTOR):

COMPANY NAME _____
ADDRESS _____
CONTACT PERSON _____
MOBILE PHONE _____
EMAIL _____

BID SUBMISSION CHECKLIST:

Each Bid shall contain the following documents for consideration as a complete bid:

- ☐ 00 41 00 Completed Form 96 (1 Copy)
- ☐ 00 42 01 Completed Bid Form(s) (2 Copies)
- ☐ 00 43 00 Bid Bond (1 Copy)
- ☐ 00 45 13 Financial statements (1 Copy)

Pursuant to notices given, the undersigned proposes to complete the Work of the Project according to Bidding Documents prepared by CSO Architects, Inc., 8831 Keystone Crossing, Indianapolis, Indiana, for the sum of

BASE BID: _____ \$ _____
(amount in words)

ADDENDA:

The undersigned acknowledges receipt of the following Addenda and agrees that this proposal includes all items mentioned in such Addenda:

No. _____

ALLOWANCES:

The undersigned acknowledges that the base bid amount includes the following allowances:

Allowance (Owner's Contingency): \$ _____

ALTERNATE BIDS:

The undersigned also proposes to furnish or to omit all labor and materials necessary to complete work as required by the “Alternate Bids”, as provided for in the drawings and specifications as follows:

Alternate No. 1 – **Building Controls**

_____ Add/Deduct \$ _____

Alternate No. 2 – **PVC Roof Replacement**

_____ Add/Deduct \$ _____

Alternate No. 3 – **Generator Replacement**

_____ Add/Deduct \$ _____

Alternate No. 4A – **Extend Fire Protection to Existing Building**

_____ Add/Deduct \$ _____

Alternate No. 5 – **PVC Roofing Manufacturer**

_____ Add/Deduct \$ _____

COMPLETION OF WORK:

The undersigned guarantees, if awarded the contract, to complete the work not later than date(s) established in Section 01 10 00 SUMMARY OF WORK. Please indicate that date or an alternate date on the line below.

Proposed Date of Completion: _____

BIDDER'S SIGNATURE:

IN TESTIMONY WHEREOF, the Bidder (an individual) has hereunto set his hand this

_____ day of _____, 202__.

(Individual)

IN TESTIMONY WHEREOF, the Bidder (a firm) have hereunto set their hands this

_____ day of _____, 202__.

Firm Name: _____

By _____

By _____

IN TESTIMONY WHEREOF, the Bidder (a Corporation) has caused this proposal to be signed by its
President and Secretary and affixed its corporate seal this

_____ day of _____, 202__.

Name of Corporation: _____

President _____

Secretary _____

OATH AND AFFIRMATION:

I affirm under the penalties of perjury that the foregoing facts and information are true and correct to the
best of my knowledge and belief.

Subscribed and sworn to before me by _____

this _____ day of _____, 202__.

My Commission expires _____.

Notary Public

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SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.03 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.

1.04 PROCEDURES

- A. Coordination: Revise 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 revisions 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

3.01 SCHEDULE OF ALTERNATES

A. Alternate No. 01 (Mandatory): Building Controls

1. Base Bid: Provide building controls from Manufacturer of choice.
2. Alternate Bid: Amount to add to contract sum for all Trane Controls – Local Branch Office temperature controls provided with requirements specified in 23 09 00 – Instrumentation and Controls for HVAC as shown on Drawings. Amount represents cost of systems, equipment and labor.

B. Alternate No. 02: PVC Roof Replacement

1. Base Bid: Existing roof to south of new addition (approximately 6900 square feet) to be existing to remain except for work as required to install expansion joint to new addition, included but not limited to removal of metal panel and coping rework.
2. Alternate Bid: Demolish existing blocking and EPDM roof membrane down to insulation. Install new coverboard and PVC roof membrane to meet requirements as described in Specification 07 54 19.
3. Reference Sheet(s): A121

C. Alternate No. 03: Generator Replacement

1. Base Bid: Existing generator to remain in existing location.
2. Alternate Bid: Remove existing standby generator, concrete pad, natural gas connection, exhaust/ventilation system, automatic transfer switch, emergency panels, transformer, related wiring, etc. Provide a new outdoor generator, concrete pad, fence, natural gas connection, automatic transfer switch, emergency panels, transformer, related wiring, etc. Add three sides of chain link fencing to match adjacent existing equipment enclosure. Add bollards for site safety.

D. Alternate No. 04: Extend Fire Protection to Existing Building

1. Base Bid: No work on Fire Protection System in existing building.
2. Alternate Bid: Extend existing wet sprinkler system into kitchen area and provide sprinkler coverage as required by NFPA 13. Confirm existing location and pipe sizes in field. Recalculate sprinkler zone as required by NFPA 13. Provide concealed style sprinkler heads in existing ceiling grid. Coordinate sprinkler head location with all existing ceiling mounted devices. Provide dry pendent sprinkler heads in walk-in coolers and walk-in freezers. Coordinate ceiling grid removal and replacement with general contractor.
3. Reference Sheet(s): FP203

E. Alternate No. 05 (Mandatory): PVC Roofing

1. **Base Bid: Provide PVC membrane from approved Manufacturer of choice.**
2. **Alternate Bid: Amount to add to contract sum for all Sika Sarnafil PVC membrane to comply requirements specified in 07 54 19 – Polyvinyl-Chloride Roofing. Amount represents cost of systems, equipment, and labor.**

END OF SECTION

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Mechanical and electrified door hardware
2. Electronic access control system component

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 "General Requirements" sections for Allowances, Alternates, Owner Furnished Contractor Installed, Project Management and Coordination.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Aluminum-Framed Entrances and Storefronts"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.

- a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule:

- a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
- b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
- c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.

5. Key Schedule:

- a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
- b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
- c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
- d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
- e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
- f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
 2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.
- D. Closeout Submittals:
1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.
 - d. Final keying schedule
 - e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
 - f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
- E. Inspection and Testing:
1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

- A. Qualifications and Responsibilities:
1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
 2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
 3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.

- d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
 - 4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.
- B. Certifications:
 - 1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
 - 2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
 - 3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
 - 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.
- C. Pre-Installation Meetings
 - 1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
 - 2. Pre-installation Conference

- a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
3. Electrified Hardware Coordination Conference:
- a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks: 10 Years
 - 2) Exit Devices: 10 Years
 - 3) Closers: 30 Years
 - b. Electrical Warranty
 - 1) Locks: 3 Years
 - 2) Exit Devices: 3 Years
 - 3) Automatic Operators: 2 Years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of alternate manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category are only to be considered by official substitution request in accordance with section 01 25 00.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.

- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

C. Cable and Connectors:

1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
2. Acceptable Manufacturers and Products:
 - a. Hager BB series
 - b. McKinney TB series
 - c. Stanley (Best/Dormakaba) FBB series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.

3. Hinge Height:
 - a. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide: 4-1/2 inches (114 mm) high
 - b. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide: 5 inches (127 mm) high
 - c. 2 inches or thicker doors: 5 inches (127 mm) high, regardless of door width
4. Hinge Width: 4-1/2 inches (114 mm) wide typical. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
5. Hinge quantity: Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
6. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
7. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Select
 - b. Pemko

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.

6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.
8. Adjust hinge model/width as required for door thickness or construction.

2.05 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin EPT-10
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.06 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Rockwood
 - b. Trimco

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.07 SURFACE BOLTS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
 2. Acceptable Manufacturers:
 - a. Rockwood
 - b. Trimco
- B. Requirements:
1. Surface bolts to have 1" throw for maximum security with concealed mounting that prevents vandalism. Units to be constructed of heavy-duty steel and UL listed up to three (3) hours when used on the inactive door of a pair up to 8' in height.

2.08 COORDINATORS

- A. Manufacturers:
1. Scheduled Manufacturer:
 - a. Ives
 2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood
- B. Requirements:
1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
 2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.09 MORTISE LOCKS

- A. Manufacturers and Products:
1. Scheduled Manufacturer and Product:
 - a. Schlage L9000 series
 2. Acceptable Manufacturers and Products:
 - a. No Substitute
- B. Requirements:
1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.

2. Indicators: Where specified, provide indicator window measuring a minimum 2-inch x 1/2 inch with 180-degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.
3. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
4. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to "KEYING" article, herein.
5. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1-inch (25 mm) throw, constructed of stainless steel.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches. Provide motor based electrified and motor based latch retraction locksets that comply with the following requirements:
 - a. Universal input voltage – single chassis accepts 12 or 24VDC to allow for changes in the field without changing lock chassis.
 - b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case
 - c. Low maximum current draw – maximum 0.4 amps (Lever control) and maximum 2.0 amps (Latch retraction) to allow for multiple locks on a single power supply.
 - d. Low holding current (Lever control or latch retraction) – maximum 0.01 amps to produce minimal heat, eliminate "hot levers" in electrically locked applications and motorized latch retraction applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
 - e. Connections – provide quick-connect Molex system standard.
8. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
 - a. Lever Design: Schlage 17B.

2.10 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 99/33A series
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.

3. Provide grooved touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.
8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.11 EXIT DEVICES, WEATHERIZED

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 98/99 Series Outdoor Defense
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Exit device must be designed to perform in outdoor conditions, and engineered to safeguard against moisture, temperature variations, and corrosion.
2. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
3. Provide Outdoor Defense exit devices for use in full exterior application, highly corrosive areas, and where noted in hardware sets.
4. Provide Outdoor Defense exit devices in Rim or Surface Vertical Rod configuration.

5. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware[LE1] .
6. Cylinders: Refer to "KEYING" article, herein.
7. Provide smooth or touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
8. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
9. Provide exit devices with dead-latching feature for security and for future addition of alarm kits and/or other electrified requirements.
10. Provide flush end caps for exit devices.
11. Provide exit devices with manufacturer's approved strikes.
12. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
13. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
14. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
15. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
16. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
17. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

C. Outdoor Defense Features:

1. Designed to perform in a variety of outdoor conditions, and utilize a series of tests to ensure performance as intended in outdoor applications.
 - a. Temperature range: -31 degrees Fahrenheit (-35 degrees Celsius) to 151 degrees Fahrenheit (66 degrees Celsius).
 - 1) Evaluated per UL294 Section 81 Variable Ambient Test
 - 2) Evaluated per UL1034 Section 34.2 Variable Ambient Test
 - b. Moisture Resistance: Rain tested at 4.8 gallons per minute
 - 1) Per UL294 Section 79
 - 2) Per UL1034 Section 53
 - c. Corrosion Resistance: Salt Fog Tested per
 - 1) UL294 Section 83.2 Salt Spray (5% salt concentration)
 - 2) UL1034 Section 52 Salt Spray Corrosion Test (20% salt concentration)
 - d. Dust Resistance: Dust Tested per
 - 1) UL294 Section 80 Dust Test
 - 2) UL1034 Section 54 Dust Test

- D. Warranty: Outdoor defense exit devices are warranties for 10 years for mechanical and 3 years for electro-mechanical from the date of shipment from the factory.

2.12 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage/Von Duprin PS900 Series
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.
 - b. Class 2 Rated power limited output.
 - c. Universal 120-240 VAC input.
 - d. Low voltage DC, regulated and filtered.
 - e. Polarized connector for distribution boards.
 - f. Fused primary input.
 - g. AC input and DC output monitoring circuit w/LED indicators.
 - h. Cover mounted AC Input indication.
 - i. Tested and certified to meet UL294.
 - j. NEMA 1 enclosure.
 - k. Hinged cover w/lock down screws.
 - l. High voltage protective cover.

2.13 CYLINDER HOUSINGS

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Schlage
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide cylinder housings from same manufacturer of locksets, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.
2. Provide cylinder housings in the below-listed configuration(s), distributed throughout the Project as indicated.
 - a. Cylinder/Core Type: Small Format Interchangeable Core (SFIC)
3. Replaceable Construction Cores.
 - a. Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - 1) 3 construction control keys
 - 2) 12 construction change (day) keys.

2.14 PERMANENT CORES, KEYING, KEYS

A. Manufacturers:

1. Scheduled Manufacturer: Best - PROVIDED BY OWNER

B. Acceptable Manufacturers:

1. No Substitute

2.15 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN 4040XP series
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2-inch (38 mm) diameter piston with 5/8-inch (16 mm) diameter double heat-treated pinion journal. QR code with a direct link to maintenance instructions.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards. Provide snap-on cover clip, with plastic covers, that secures cover to spring tube.

6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck. Provide graphically labelled instructions on the closer body adjacent to each adjustment valve. Provide positive stop on reg valve that prevents reg screw from being backed out.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.
11. Closers shall be capable of being upgraded by adding modular mechanical or electronic components in the field.

2.16 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.17 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.

2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.18 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. No Substitute

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.

2.19 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco
 - b. Rockwood

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button or thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.20 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:

- a. Rockwood
- b. Trimco

B. Requirements:

- 1. Provide "push-in" type silencers for hollow metal or wood frames.
- 2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
- 3. Omit where gasketing is specified.

2.21 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

B. Scheduled Manufacturer:

- 1. Zero International

C. Acceptable Manufacturers:

- 1. National Guard
- 2. Reese
- 3. Pemko

D. Seals and Gasketing: Provide continuous gasketing on exterior openings, to the head and jambs, forming a continuous seal between the door and the frame. Provide smoke, light, or sound gasketing on interior doors where indicated.

- 1. Provide self-tapping fasteners for aluminum extruded gasketing being applied to hollow metal frames.
 - a. Provide non-corrosive fasteners for all exterior applications.
 - b. Provide security fasteners where indicated.
- 2. Provide neoprene, EPDM, silicone, or nylon brush inserts as specified in hardware sets. Provide non brush inserts of solid or sponge cell, as specified in hardware sets. Vinyl inserts are not allowed except where specified in hardware sets.

E. Smoke Labeled Gasketing: At all smoke labeled openings, provide smoke listed perimeter gasketing assemblies complying with NFPA 105 listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for smoke control ratings indicated based on testing according to UL 1784.

F. Fire Listed Gasketing: Assemblies complying with NFPA 80 that are listed by a testing and inspecting agency acceptable to authorities having jurisdiction for fire ratings indicated based on testing according to UL-10C.

- 1. Where frame-applied intumescent seals are required by the manufacturer, provide gaskets that comply with UL10C Standard for Positive Pressure Fire Tests of Door Assemblies and UBC 7-2, Fire Tests of Door Assemblies.

G. Sound-Rated Gasketing: Provide acoustic gasketing to meet Sound Transmission Class (STC) rating required.

- H. Meeting-Stile Gasketing: Provide meeting-stile gasketing that fastens to the meeting stiles forming a continuous seal when doors are closed.
- I. Door Sweeps or Shoes: Apply to the bottom of the door to close the gap between the door bottom and finished floor or saddle threshold.
 - 1. Provide solid neoprene, EPDM, silicone, or nylon brush type of seal as specified in hardware sets. Vinyl inserts are not allowed except where specified in hardware sets.
- J. Automatic Door Bottoms:
 - 1. Provide closed cell sponge, bulb neoprene. or EPDM type of seal as specified in hardware sets.
 - 2. Door bottom to be mortised, semi mortised, or surface mount as with a minimum thickness as specified in hardware sets.
- K. Rain Drips:
 - 1. Provide overhead rain drips for out-swinging hollow metal doors that are not covered against 45 degree blowing rain. Aluminum extrusion to be a minimum of .088 inches thick and extend 2.50 inches from the face of the frame, in anodized finish to match door.
 - 2. Door sweeps or shoes with integral rain drip must meet ADA requirements
- L. Thresholds: Provide threshold units not less than 4 inches wide, formed to accommodate change in floor elevation where indicated, and fabricated to accommodate door hardware and fit door frames.
 - 1. Threshold extrusion to be a minimum thickness as specified in hardware sets.

2.22 DOOR POSITION SWITCHES

- A. Manufacturers:
 - 1. Scheduled Manufacturer:
 - a. Schlage
 - 2. Acceptable Manufacturers:
 - a. George Risk
- B. Requirements:
 - 1. Provide recessed or surface mounted type door position switches as specified.
 - 2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.23 FINISHES

- A. Provide finish for each item as indicated in the sets.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 - 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.

- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Continuous Hinges: Re-locate the door and frame fire rating labels where they will remain visible so that the hinge does not cover the label once installed.
- M. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- N. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- O. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- P. Thresholds:
 - 1. Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
 - 2. Aluminum thresholds to be cut-in, and scribed around mullions, frame members, and stops. Do not butt to thresholds. Provide a continuous surface across full width of opening from jamb to jamb.
 - 3. Where aluminum panic-type (rabbeted) thresholds with neoprene inserts are specified, undercut doors as required to properly mate with seal in threshold.
- Q. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- R. Perimeter Gasketing:
 - 1. Apply to head and jamb, forming seal between door and frame.
 - 2. Install gasketing in a manner eliminating need to cut any seal to install surface mounted hardware. Install compatible mounting bracket for surface mounted hardware unless minimum 1/4 inch thick solid aluminum seals are provided for mounting of surface applied hardware.
- S. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- T. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

HARDWARE GROUP NO. 01

For use on Door #(s):
I-150.3

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	SURFACE BOLT	SB1630 T @ TOP	652	IVE
1	EA	EXIT LOCK	L9025 17B HVAC ROOM SIDE	626	SCH
2	EA	OH STOP	410S	652	GLY
1	EA	SAFETY CHAIN & SIGN			
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 02

For use on Door #(s):
I-056

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	DEADLOCK, CYL X C/R TT	L463BDC XB11-720	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	PUSH PLATE	8200 4" X 16" (CFC/CFTT AS REQ'D)	630	IVE
1	EA	PULL PLATE	8303 10" 4" X 16" (CFC/CFTT AS REQ'D)	630	IVE
1	EA	SURFACE CLOSER (W/ DEAD STOP & HO)	4040XP HCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 03

For use on Door #(s):

I-052 I-053 I-060 I-062 I-063

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	L9040 17B L583-363 OS-OCC	626	SCH
1	EA	SURFACE CLOSER	4040XP REG	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B-CS	630	IVE
1	EA	MOP PLATE	8400 4"H X WIDTH AS REQ'D B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 04

For use on Door #(s):

I-071

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 17B L583-363	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 05

For use on Door #(s):

I-050.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	DBL CYL STORE W/DB	L9466BDC 17B	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ DEAD STOP & HO)	4040XP HCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 06

For use on Door #(s):
I-152A.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY	628	IVE
1	EA	DBL CYL STORE W/DB	L9466HD 17B	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ SPRING STOP & HO)	4040XP SHCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	WEATHERSTRIPPING	429AA-S (4 SIDES)	AA	ZER
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE

HARDWARE GROUP NO. 07

For use on Door #(s):
I-068

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 08

For use on Door #(s):
I-050.1 I-058.4 I-061 I-064.1 I-064.2 I-151.1
I-152

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	CLASSROOM SECURITY W/ INSIDE INDICATOR	L9071BDC 17B IS-LOC	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 09

For use on Door #(s):
I-066

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	OH STOP	410S	652	GLY
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 10

For use on Door #(s):
I-054A.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	FLOOR STOP	FS439	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 11

For use on Door #(s):
I-065 I-152A.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 12

For use on Door #(s):
I-150.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ DEAD STOP)	4040XP CUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
1	EA	MEETING STILE	328AA-S	AA	ZER
1	EA	AUTO DOOR BOTTOM	364AA	AA	ZER
1	EA	SOUND SEAL MTG BRACKET	328SPB		ZER

HARDWARE GROUP NO. 13

For use on Door #(s):
I-057

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER	4040XP REG	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 14

For use on Door #(s):

I-057A I-057B

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ DEAD STOP)	4040XP CUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE GROUP NO. 15

For use on Door #(s):

I-050A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	CONST LATCHING BOLT	FB51T/FB61T (AS REQ'D)	630	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
2	EA	WALL STOP	WS406/407CVX	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 16

For use on Door #(s):

I-055A.1 I-055A.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6	EA	HINGE	5BB1 SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	AUTO FLUSH BOLT	FB31T/FB41T (AS REQ'D)	630	IVE
1	EA	STOREROOM LOCK	L9080BDC 17B	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	COORDINATOR	COR X FL (MB AS REQ'D)	628	IVE
2	EA	SURFACE CLOSER (W/ DEAD STOP)	4040XP CUSH	689	LCN
2	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 17

For use on Door #(s):
I-058.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL 24 VDC	626	VON
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	EA	CREDENTIAL READER	MT SERIES - BY ACCESS CONTROL INTEGRATOR	BLK	SCE
1	EA	PUSH BUTTON RELEASE	BY ACCESS CONTROL INTEGRATOR		B/O
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE

DOOR(S) NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER, OR REMOTE PUSH BUTTON, RETRACTS EXIT DEVICE LATCH ALLOWING ACCESS. EXIT DEVICE(S) CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICE(S) LATCH AND LOCK WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 18

For use on Door #(s):
I-058.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL 24 VDC	626	VON
1	EA	RIM CYL HOUSING (SFIC)	80-159 (W/ KEYED CONST CORE)	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	MOUNTING PLATE	4040XP-18PA	689	LCN
1	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	WEATHERSTRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
1	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER
1	EA	CREDENTIAL READER	MT SERIES - BY ACCESS CONTROL INTEGRATOR	BLK	SCE
1	EA	PUSH BUTTON RELEASE	BY ACCESS CONTROL INTEGRATOR		B/O
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE

DOOR(S) NORMALLY CLOSED AND LOCKED AND EXTERIOR ACTUATOR DISABLED. PRESENTING VALID CREDENTIAL TO READER, OR REMOTE PUSH BUTTON, RETRACTS EXIT DEVICE LATCH AND ENABLES EXTERIOR ACTUATOR. PUSHING ENABLED EXTERIOR ACTUATOR SIGNALS AUTOMATIC OPERATOR TO OPEN DOOR. INTERIOR ACTUATOR ENABLED AT ALL TIMES. PUSHING INTERIOR ACTUATOR RETRACTS LATCH AND SIGNALS AUTOMATIC OPERATOR TO OPEN DOOR. EXIT DEVICE LATCH ALSO CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICE LATCHES AND LOCKS WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 19

For use on Door #(s):

I-051.3 I-055.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224XY EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL 24 VDC	626	VON
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ SPRING STOP)	4040XP SCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
1	EA	WEATHERSTRIPPING	429AA-S	AA	ZER
1	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER
1	EA	CREDENTIAL READER	MT SERIES - BY ACCESS CONTROL INTEGRATOR	BLK	SCE
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE

DOOR(S) NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER RETRACTS EXIT DEVICE LATCH ALLOWING ACCESS. EXIT DEVICE(S) CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICE(S) LATCH AND LOCK WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 20

For use on Door #(s):

I-051.1 I-054.1 I-054.2 I-099C

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	PANIC HARDWARE	CDSI-99-L-NL-17	626	VON
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 XQ11-948 (W/ DISP CONST CORE)	626	SCH
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ DEAD STOP & HO)	4040XP HCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B- CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 21

For use on Door #(s):
I-070

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	PANIC HARDWARE	CDSI-99-L-NL-17	626	VON
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 XQ11-948 (W/ DISP CONST CORE)	626	SCH
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER (W/ DEAD STOP & HO)	4040XP HCUSH	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B-CS	630	IVE
3	EA	SILENCER	SR64	GRY	IVE
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE

HARDWARE GROUP NO. 22

For use on Door #(s):
I-067

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW SIZE, QTY, NRP AS REQ'D (SEE SPECS)	652	IVE
1	EA	PANIC HARDWARE	CDSI-99-L-NL-17	626	VON
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 XQ11-948 (W/ DISP CONST CORE)	626	SCH
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	SURFACE CLOSER	4040XP EDA	689	LCN
1	EA	KICK PLATE	8400 10"H X WIDTH AS REQ'D B-CS	630	IVE
1	EA	WALL STOP	WS406/407CVX	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

HARDWARE GROUP NO. 23

For use on Door #(s):

EX-001 I-099A.2 I-099B.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE, WEATHERIZED	CD-OUT-99-NL	626	VON
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 XQ11-948 (W/ DISP CONST CORE)	626	SCH
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4040XP REG ST-1630	689	LCN
1	EA	MOUNTING PLATE	4040XP-18TJ	689	LCN
1	EA	WEATHERSTRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
1	EA	DOOR BOTTOM, INSWING ALD	111AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER
1	EA	DOOR CONTACT	679 SERIES	BLK	SCE

HARDWARE GROUP NO. 24

For use on Door #(s):
I-099A.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY EPT	628	IVE
2	EA	POWER TRANSFER	EPT10	689	VON
1	EA	REMOVABLE MULLION	KR4954 STAB	689	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-DT 24 VDC	626	VON
1	EA	ELEC PANIC HARDWARE	RX-QEL-99-NL 24 VDC	626	VON
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 (W/ DISP CONST CORE)	626	SCH
1	EA	RIM CYL HOUSING (SFIC)	80-159 (W/ KEYED CONST CORE)	626	SCH
2	EA	PERMANENT CORE	BY OWNER	626	BES
2	EA	SURFACE CLOSER	4040XP EDA	689	LCN
2	EA	MOUNTING PLATE	4040XP-18PA	689	LCN
2	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
1	EA	WEATHERSTRIPPING	BY DOOR/FRAME MANUFACTURER		B/O
2	EA	DOOR SWEEP, BRUSH W/ DRIP	8198AA	AA	ZER
1	EA	THRESHOLD, 1/2"	655A	A	ZER
1	EA	CREDENTIAL READER	MT SERIES - BY ACCESS CONTROL INTEGRATOR	BLK	SCE
2	EA	DOOR CONTACT	679 SERIES	BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	LGR	SCE

DOOR(S) NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL TO READER RETRACTS EXIT DEVICE LATCH ALLOWING ACCESS. EXIT DEVICE(S) CAPABLE OF BEING ELECTRONICALLY DOGGED DOWN (I.E. PUSH/PULL MODE) AS DESIGNATED BY ACCESS CONTROL SYSTEM SCHEDULE. EXIT DEVICE(S) LATCH AND LOCK WITH LOSS OF POWER. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 25

For use on Door #(s):
I-099B.1

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112XY	628	IVE
1	EA	PANIC HARDWARE	LD-9949-DT-LBL	626	VON
1	EA	PANIC HARDWARE	LD-9949-NL-LBL	626	VON
1	EA	RIM CYL HOUSING (SFIC)	80-116 (W/ DISP CONST CORE)	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES
1	EA	ELEC OVERHEAD HOLDER	SEH 24V/120V AC/DC AS REQ PULL SIDE, TEMPLATE @ 90 DEGREES	689	LCN
1	EA	SURFACE CLOSER (W/ DEAD STOP)	4040XP CUSH @ SEH LEAF, TEMPLATE @ 90 DEGREES	689	LCN
1	EA	SURFACE CLOSER	4040XP EDA @ SEM LEAF	689	LCN
2	EA	MOUNTING PLATE	4040XP-18PA	689	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30	689	LCN
2	EA	BLADE STOP SPACER	4040XP-61	689	LCN
1	EA	ELEC WALL MAG HOLDER	SEM7840 AS REQ (2 5/8" PROJECTION, 12/24/120V AC/DC TRI-VOLT, 2 5/8" PROJECTION)	689	LCN

DOORS NORMALLY HELD OPEN BY ELEC HOLDERS. DOORS CLOSE AND LOCK WITH
ACTIVATION OF SECURITY SYSTEM OR LOSS OF POWER. DOORS CAN ALSO BE MANUALLY
RELEASED FROM ELEC HOLDERS. FREE EGRESS AT ALL TIMES.

HARDWARE GROUP NO. 26

For use on Door #(s):
I-051.2 I-051.4 I-055.2

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	MORTISE CYL HOUSING (SFIC)	80-110 (W/ DISP CONST CORE)	626	SCH
1	EA	PERMANENT CORE	BY OWNER	626	BES

VERIFY EXACT CYLINDER TYPE REQUIRED. BALANCE OF HARDWARE BY DOOR
MANUFACTURER.

<u>DOOR#</u>	<u>HWSET#</u>	<u>INFORMATION</u>
EX-001	23	DPS ONLY
I-050.1	08	
I-050.2	05	
I-050A	15	
I-051.1	20	
I-051.2	26	
I-051.3	19	CR
I-051.4	26	
I-052	03	
I-053	03	
I-054.1	20	
I-054.2	20	
I-054A.2	10	
I-055.1	19	CR
I-055.2	26	
I-055A.1	16	
I-055A.2	16	
I-056	02	
I-057	13	
I-057A	14	
I-057B	14	
I-058.1	18	CR, PBR
I-058.2	17	CR, PBR
I-058.4	08	
I-060	03	
I-061	08	
I-062	03	
I-063	03	
I-064.1	08	
I-064.2	08	
I-065	11	
I-066	09	
I-067	22	
I-068	07	
I-070	21	DPS ONLY
I-071	04	
I-099A.1	24	CR
I-099A.2	23	DPS ONLY
I-099B.1	25	ELEC HOLD OPENS
I-099B.2	23	DPS ONLY
I-099C	20	
I-150.1	12	
I-150.3	01	
I-151.1	08	
I-152	08	

<u>DOOR#</u>	<u>HWSET#</u>	<u>INFORMATION</u>
I-152A.1	11	
I-152A.2	06	DPS ONLY

END OF SECTION

C4 BUILDING EXPANSION COLUMBUS EAST HIGH SCHOOL

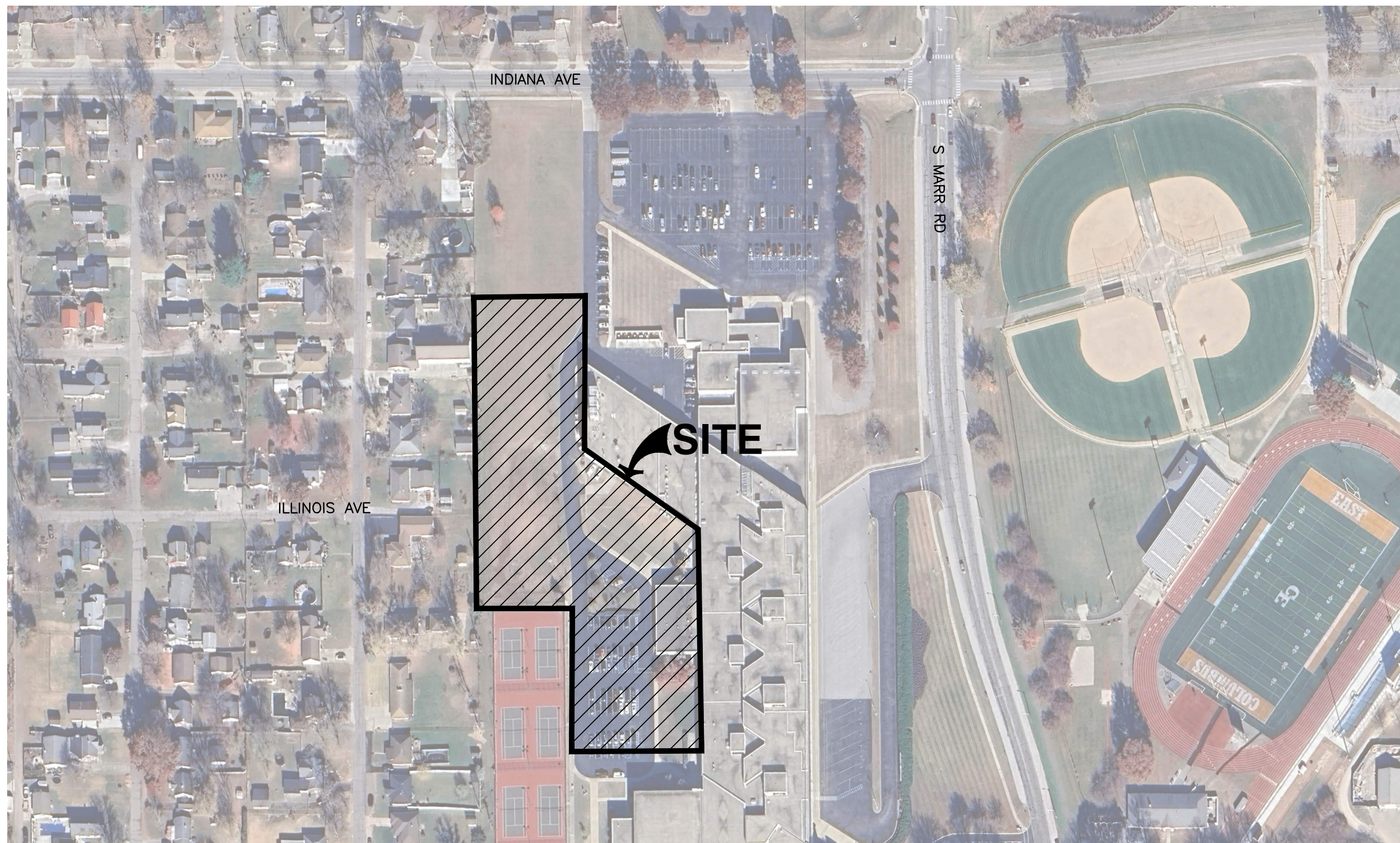
230 S MARR RD
COLUMBUS, INDIANA 47201
CIVIL PLANS

OCTOBER 24, 2025
ADDENDUM #01 - NOVEMBER 3, 2025

DRAWING INDEX		
Sheet No	Sheet Title	Drawing No.
1	TITLE SHEET	C000
2-3	BOUNDARY RETRACEMENT SURVEY	BDNRY
4-9	TOPOGRAPHIC SURVEY	TOPO
10	EXISTING CONDITIONS OVERALL SITE	C001
11	DEMOLITION PLAN	C100
12	GRADING PLAN	C300
13	EMERGENCY FLOOD ROUTING	C310
14	DRAINAGE PLAN	C400
15	STORMWATER PROFILES	C410
16	UTILITY PLAN	C500
17	SITE DETAILS	C800
18	STORMWATER POLLUTION PREVENTION PLAN	C900
19	STORMWATER POLLUTION PREVENTION NOTES	C901
20	STORMWATER POLLUTION PREVENTION DETAILS	C902
CITY OF COLUMBUS TYPICAL DETAILS		



LOCATION MAP



VICINITY MAP

BASE IMAGE FROM GOOGLE EARTH
ACCESSED SEPTEMBER, 2025
SCALE: 1"=150'

SCALE: 1"=150'
0 150' 300'

PROJECT TEAM:

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ATTN: TROY TODD
ttodd@columbus.in.gov

PLANNING DEPARTMENT

COLUMBUS PLANNING DEPARTMENT
123 WASHINGTON ST.
COLUMBUS, IN 47201
(812)376-2550
ATTN: JEFF BERGMAN
jbergmanc@columbus.in.gov

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88 (GEOID 18)). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TEM#1: CUT "X" ON THE WEST BONNET BOLT OF A FIRE HYDRANT LOCATED AT THE NORTHEAST QUADRANT OF INTERSECTION OF SALZBURG BLVD. AND INDIANA AVE.
ELEV. = 622.94

TEM#2: CUT SQUARE ON TOP OF THE NORTH SIDE OF A CONCRETE STADIUM LIGHT BASE LOCATED AT THE SOUTHWEST CORNER OF THE FOOTBALL FIELD.
ELEV. = 622.86

TEM#3: CUT SQUARE ON THE INSIDE CORNER OF THE SIDEWALK LOCATED ON THE NORTH SIDE OF HOLLOWELL ST., 375'± EAST OF MARR RD.
ELEV. = 619.07

TEM#4: MAG SPIKE ON THE SOUTH SIDE OF UTILITY POLE #211620 LOCATED ON THE NORTH SIDE OF INDIANA AVE., 220'± EAST OF INDIANA CT.
ELEV. = 630.38

TEM#5: CUT "X" ON THE WEST BONNET BOLT OF A FIRE HYDRANT LOCATED ON THE WEST SIDE OF MARR RD., 710'± SOUTH OF INDIANA AVE.
ELEV. = 622.06

TEM#6: CUT "X" ON THE NORTH BOLT OF A TRAFFIC POLE LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF MARR RD. AND S.R. 46.
ELEV. = 622.37

TEM#7: MAG SPIKE ON THE EAST FACE OF SIREN POLE LOCATED 110'± SOUTHWEST OF THE SOUTHWEST CORNER OF THE TENNIS COURTS.
ELEV. = 625.25

TBMS 1-3 WERE ESTABLISHED AS PART OF CEC PROJECT NUMBER 315-436

UTILITY NOTE:

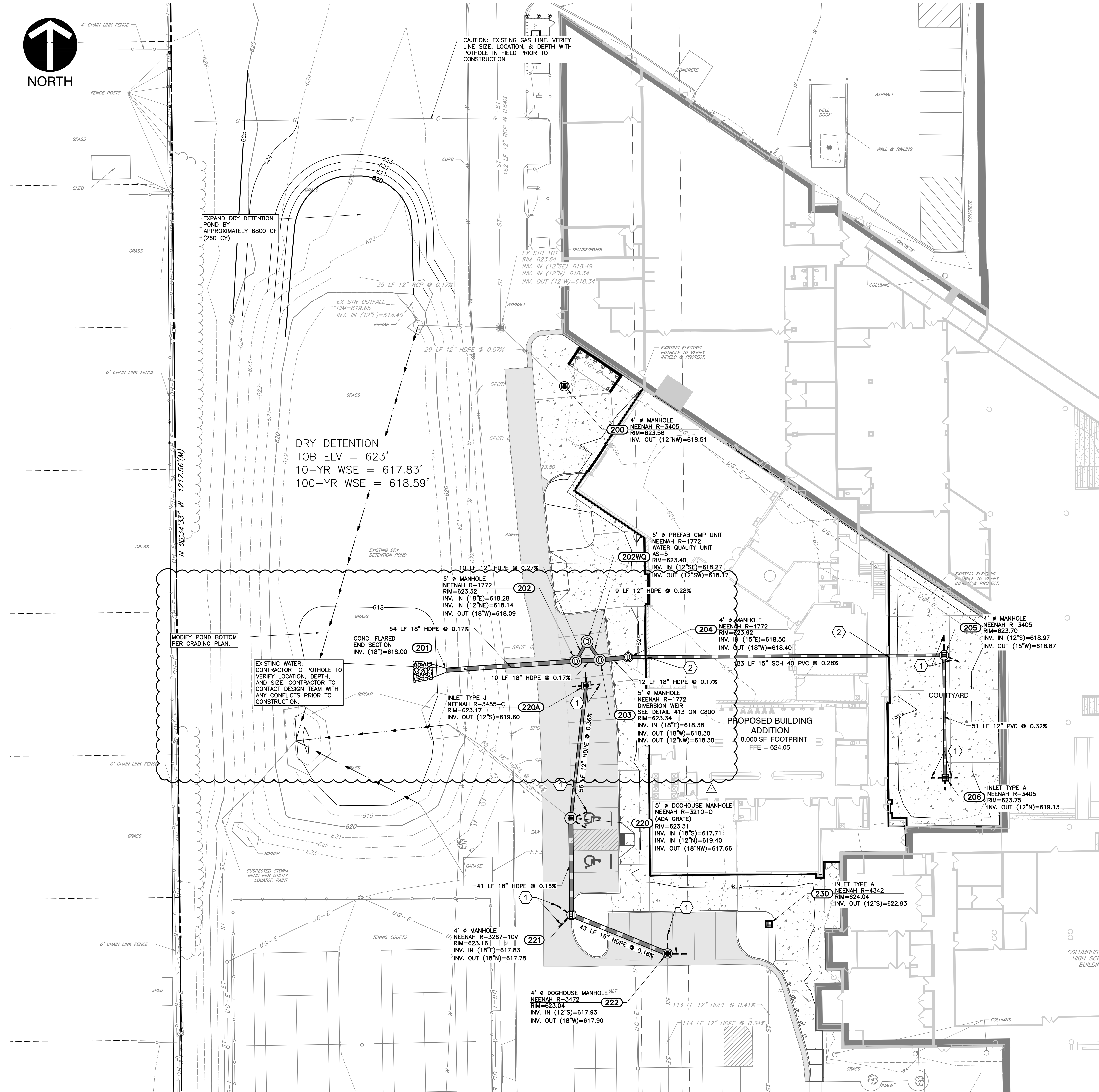
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 25061106972 AND 25061107023 WERE ISSUED FOR THIS SITE. MASON PRIVATE LOCATING, A PRIVATE SUBSURFACE UTILITY LOCATING SERVICE, WAS CONTRACTED TO PERFORM THE PRIVATE UTILITY LOCATIONS FOR THE SUBJECT SITE. THE PRIVATE UTILITIES LOCATED AND DEPICTED HEREIN WERE EITHER OBSERVED FROM MARKINGS ON THE GROUND OR USING EXISTING PLANS.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

FLOOD NOTE:

THE PARCEL DESCRIBED AND SHOWN HEREIN LIES WITHIN ZONES "X" (UN-SHADED) AND "X" (SHADED) AS SAID PARCEL PLOTS ON MAP NUMBER 180500134F, DATED FEBRUARY 23, 2023 OF THE FLOOD INSURANCE RATE MAPS FOR THE CITY OF COLUMBUS, BARTHOLOMEW COUNTY, INDIANA. THE ACCURACY OF THIS FLOOD HAZARD STATEMENT IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP.





Structure Table				
Structure Name	RIM E.	INVERT IN	INVERT OUT	REMARKS
200	623.56		101A = 618.51	4" # MANHOLE NEENAH R-3405
201	619.72	202 = 618.00		Conc. Flared End Section
202	623.32	203 = 618.28 202WQ = 618.14	202 = 618.09	5" # MANHOLE NEENAH R-1772
202WQ	623.40	203WQ = 618.27	202WQ = 618.17	5" # PREFAB CMP UNIT NEENAH R-1772 WATER QUALITY UNIT
203	623.34	204 = 618.38	203 = 618.30 203WQ = 618.30	5" # MANHOLE NEENAH R-1772 DIVERSION WEIR SEE DETAIL 413 ON C800
204	623.62	205 = 618.50	204 = 618.40	NEENAH R-1772
205	623.70	206 = 618.97	205 = 618.87	4" # MANHOLE NEENAH R-3405
206	623.75		206 = 619.13	Inlet Type A NEENAH R-3405
220A	623.17		220A = 619.60	Inlet Type A NEENAH R-3405-C
220	623.31	221 = 617.71 220A = 619.40	120 = 617.66	5" # DOGHOUSE MANHOLE NEENAH R-3210-Q (ADA GRATE)
221	623.16	222 = 617.83	221 = 617.78	4" # MANHOLE NEENAH R-3287-10V
222	623.04	122A = 617.93	222 = 617.90	4" # DOGHOUSE MANHOLE NEENAH R-3472
230	624.04		130A = 622.93	Inlet Type A NEENAH R-4342

Pipe Table				
Pipe Name	Size (in)	Length (ft)	Slope	MATERIAL
202	18	54.4	0.17%	HDPE
203	18	10.1	0.17%	HDPE
204	18	12.0	0.17%	HDPE
205	15	132.9	0.28%	SDH 40 PVC
206	12	51.5	0.32%	PVC
220A	12	56.2	0.36%	HDPE
221	18	40.8	0.16%	HDPE
222	18	43.5	0.16%	HDPE

- GENERAL DRAINAGE NOTES:**
- DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
 - ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
 - ANY WORK PERFORMED IN THE LOCAL OR STATE RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL OR STATE REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
 - STORM PIPE MATERIAL SHALL BE RCP OR HDPE DUAL WALL OR PVC UNLESS NOTED OTHERWISE ON PLANS.
 - CONTRACTOR SHALL REMOVE SWPPP CSOP GUIDELINES PRIOR TO TURNOVER TO THE OWNER. CONTRACTOR SHALL HYDROVAC STORM STRUCTURES TO CLEAN & REMOVE DEBRIS AFTER CONSTRUCTION COMPLETION.

- DRAINAGE LEGEND:**
- 855 PROPOSED INDEX CONTOUR
 - 854 PROPOSED INTERMEDIATE CONTOUR
 - PROPOSED DRAINAGE SWALE
 - PROPOSED GRADE BREAK
 - PROPOSED STORM SEWER LINE
 - PROPOSED UNDERDRAIN
 - PROPOSED YARD DRAIN
 - PROPOSED CURB INLET
 - PROPOSED STORM MANHOLE

- KEY NOTES:**
- TYPICAL 4" PARKING LOT PAVEMENT UNDERDRAIN, EXTEND 20 LF BEYOND STRUCTURE. CAP ENDS. SEE DETAIL 406 ON SHEET C800.
 - PIPE TO BE SLEEVED THROUGH STEP DOWN FOUNDATION. REFER TO "S" SERIES PLANS.

BENCHMARKS:

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8831 Keystone Crossing Indianapolis, IN 46240
317.845.7800 | csc@bcsc.net



Civil & Environmental Consultants, Inc.
433 N. CAPITOL AVENUE, SUITE 200
INDIANAPOLIS, IN 46204
www.cecinc.com

PROJECT:

BARTHOLOMEW COUNTY SCHOOL CORPORATION
COLUMBUS EAST HIGH SCHOOL
C-4 ADDITION
230 S Marr Rd
Columbus, Indiana 47201

SCOPE DRAWINGS:

These drawings indicate the general scope of the project in terms of architectural design concept. The drawings are not intended to be used for construction or for any other purpose without the written consent of the engineer. The drawings are not intended to be used for any other purpose without the written consent of the engineer.

REVISIONS:

11/03/2025 - ADDENDUM #01

ISSUE DATE 10/24/25 DRAWN BY JMP CHECKED BY JMP

DRAWING TITLE:

DRAINAGE PLAN

CERTIFIED BY:

ONATHAN M. PASKY
REGISTERED
No. PE12100829
STATE OF INDIANA
PROFESSIONAL ENGINEER
10/24/2025

DRAWING NUMBER

C400

PROJECT NUMBER

2025022

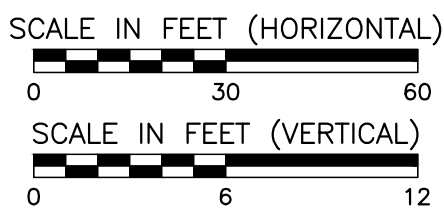
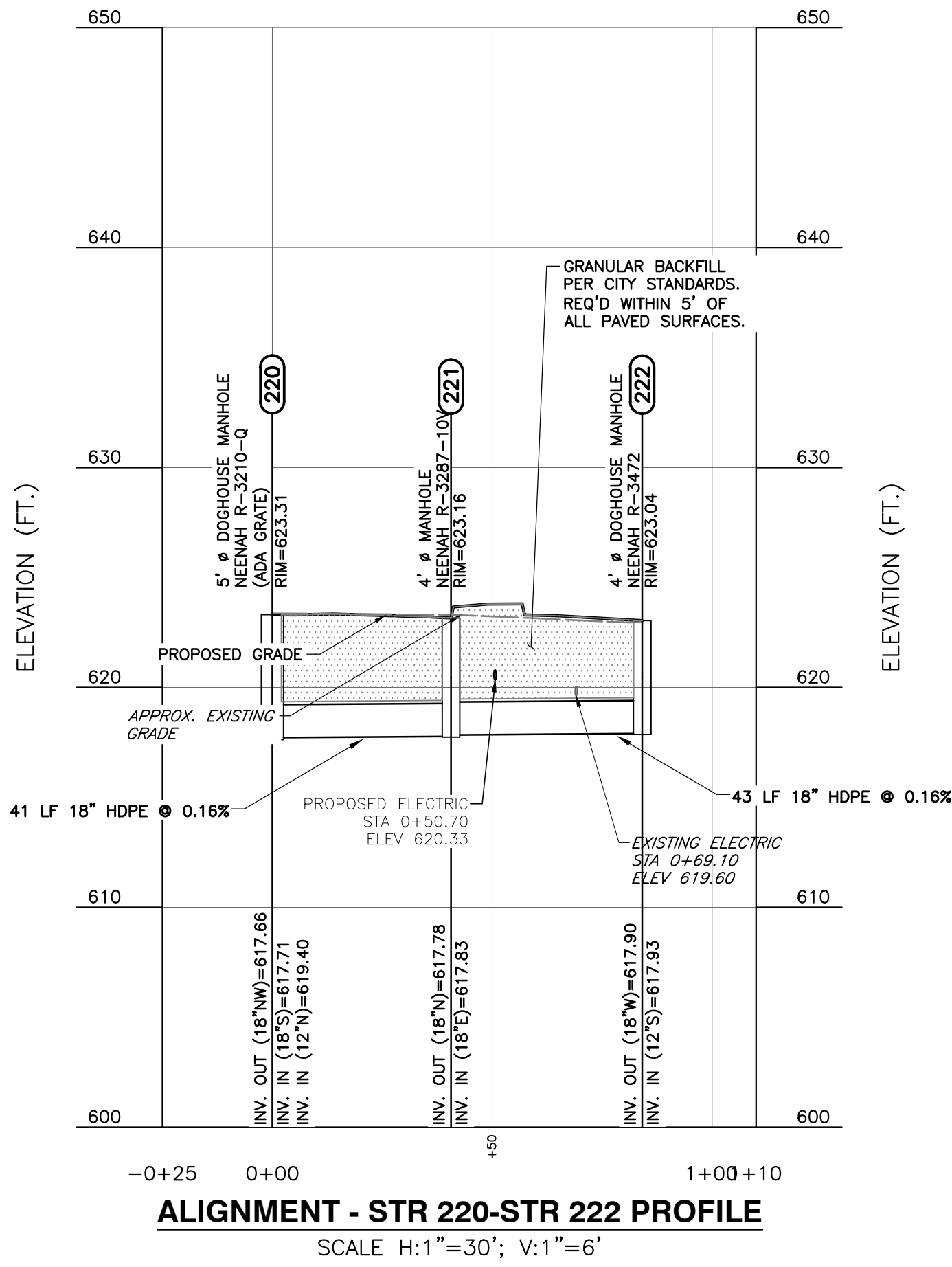
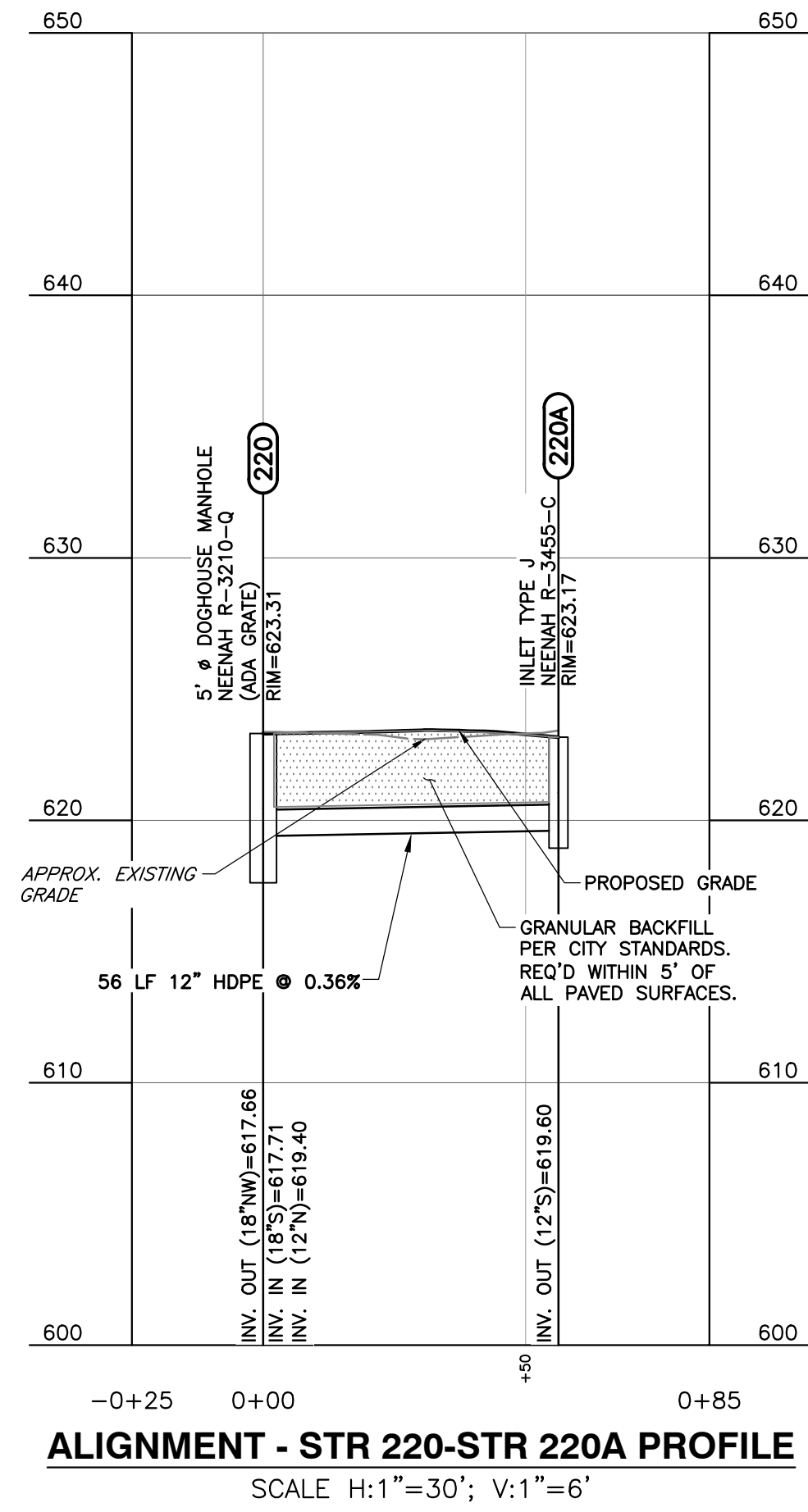
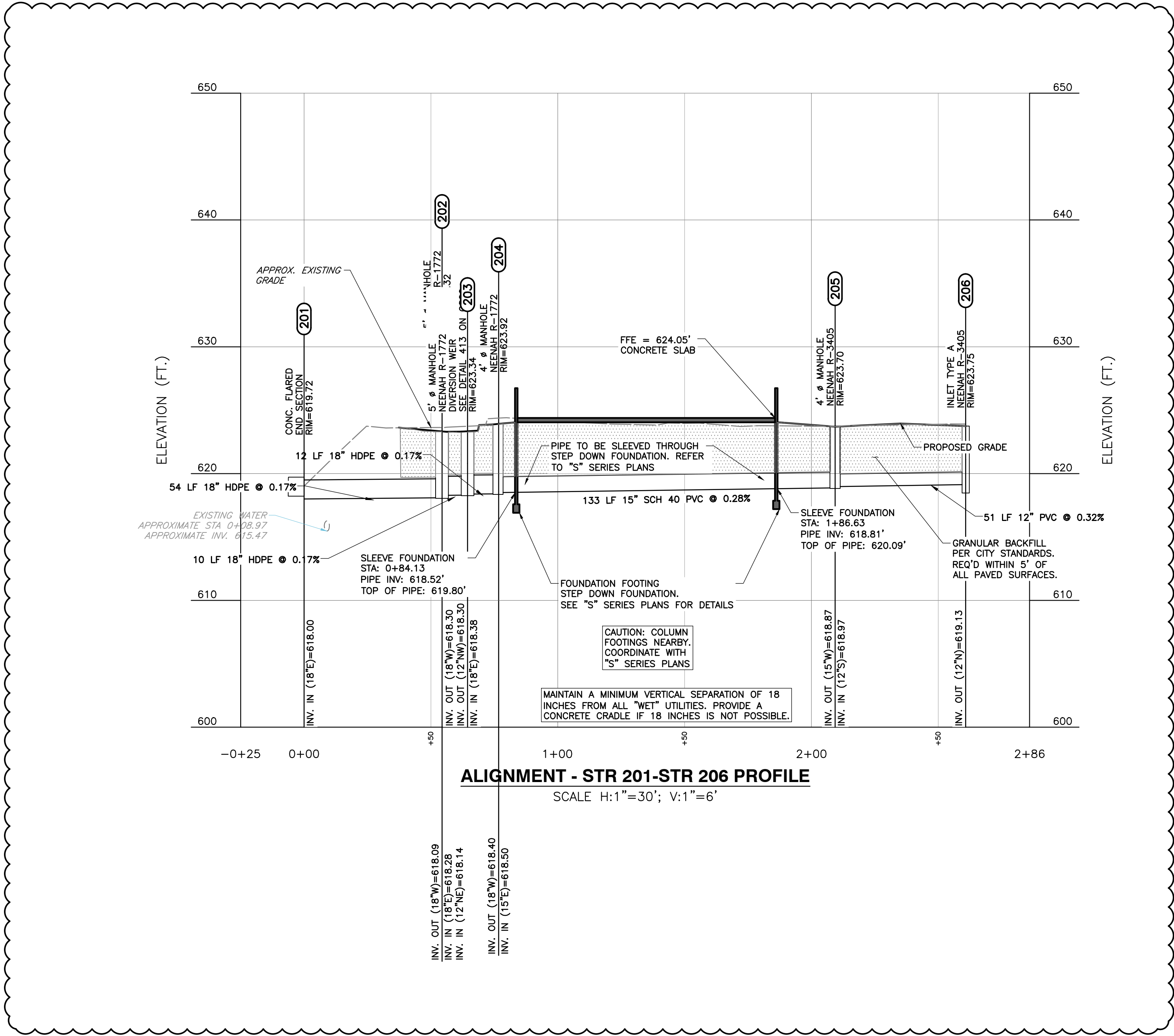


Know what's below.
Call before you dig.

REFERENCE

- TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY CEC, INC.; DATED JULY 17, 2025.

- REFERENCE
- TOPOGRAPHIC SURVEY INFORMATION PROVIDED BY CEC, INC.; DATED JULY 17, 2025.
 - CONTRACTOR TO REFER TO C400 FOR MORE INFORMATION.
 - CONTRACTOR TO POTHOLE EXISTING UTILITIES TO VERIFY DEPTH, LOCATION, AND SIZE. SHOULD AN ISSUE ARISE, THE CONTRACTOR SHOULD CONTACT THE DESIGN TEAM.



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317.845.7800 | csc@csinet

433 N. CAPITOL AVENUE, SUITE 200
INDIANAPOLIS, IN 46204
www.cecinc.com

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BARTHOLOMEW COUNTY SCHOOL CORPORATION
COLUMBUS EAST HIGH SCHOOL
C-4 ADDITION
230 S Marr Rd
Columbus, Indiana 47201

SCOPE DRAWINGS:
These drawings indicate the general scope of the project in terms of architectural design concept, the dimensions of structural, mechanical and electrical systems.
The drawings do not necessarily indicate or describe all work required for full performance and completion of the requirements of the Contract.
On the basis of the general scope indicated or described, the trade contractors shall furnish all items required for the proper execution and completion of the work.

REVISIONS:
11/03/2025 - ADDENDUM #01

ISSUE DATE	DRAWN BY	CHECKED BY
10/24/25		JMP

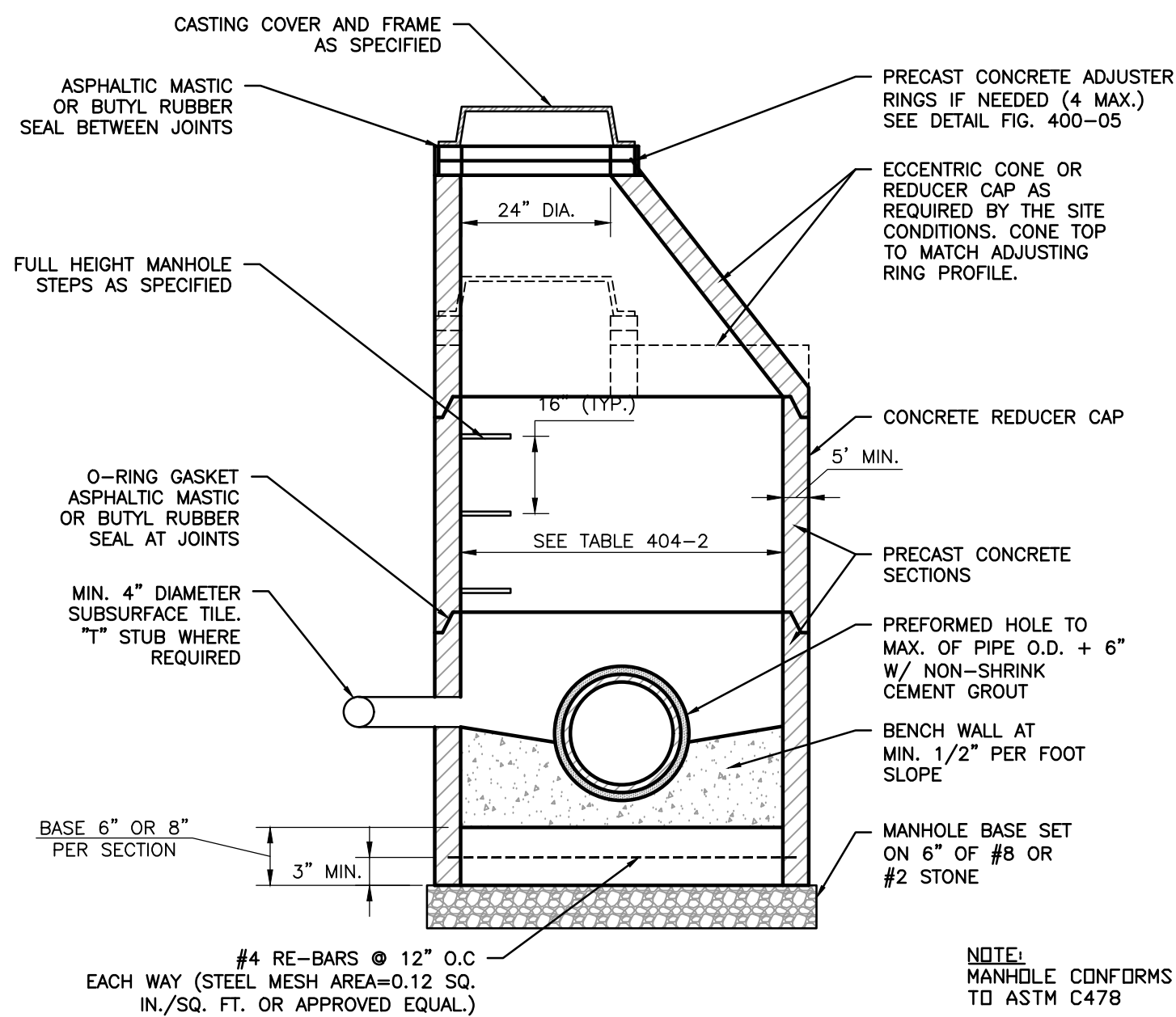
DRAWING TITLE:
STORMWATER PROFILES

CERTIFIED BY:

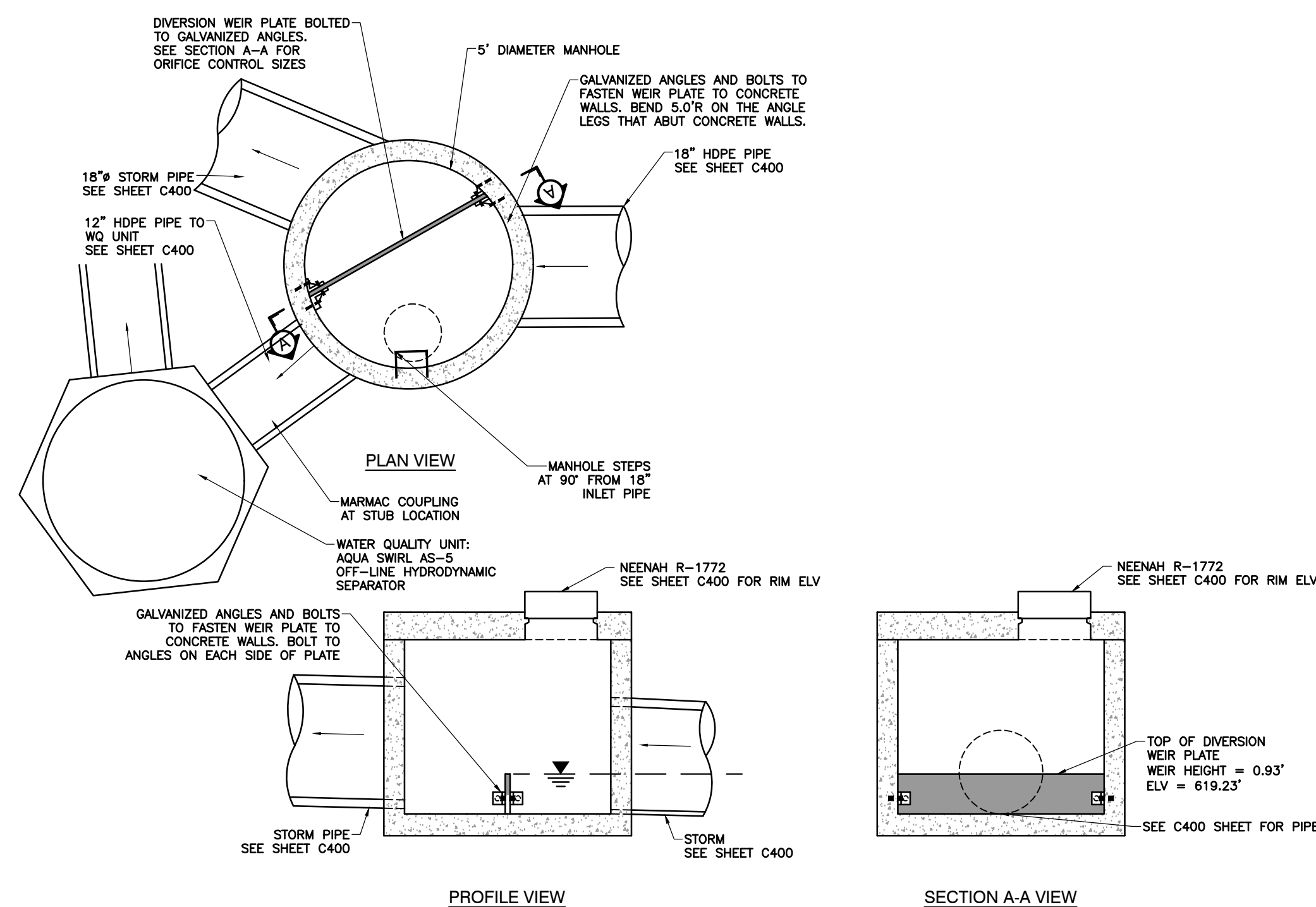
10/24/2025

DRAWING NUMBER
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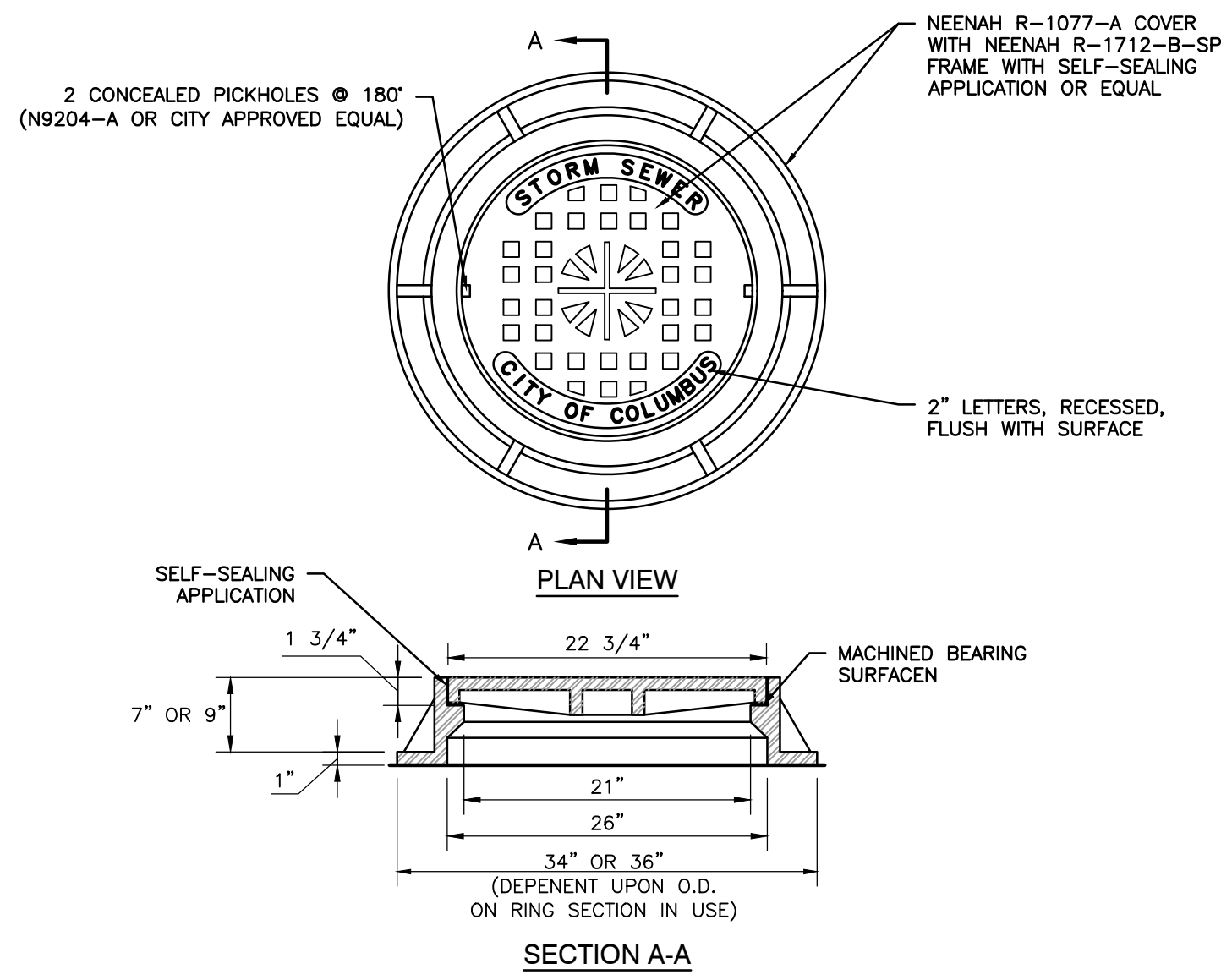
PROJECT NUMBER
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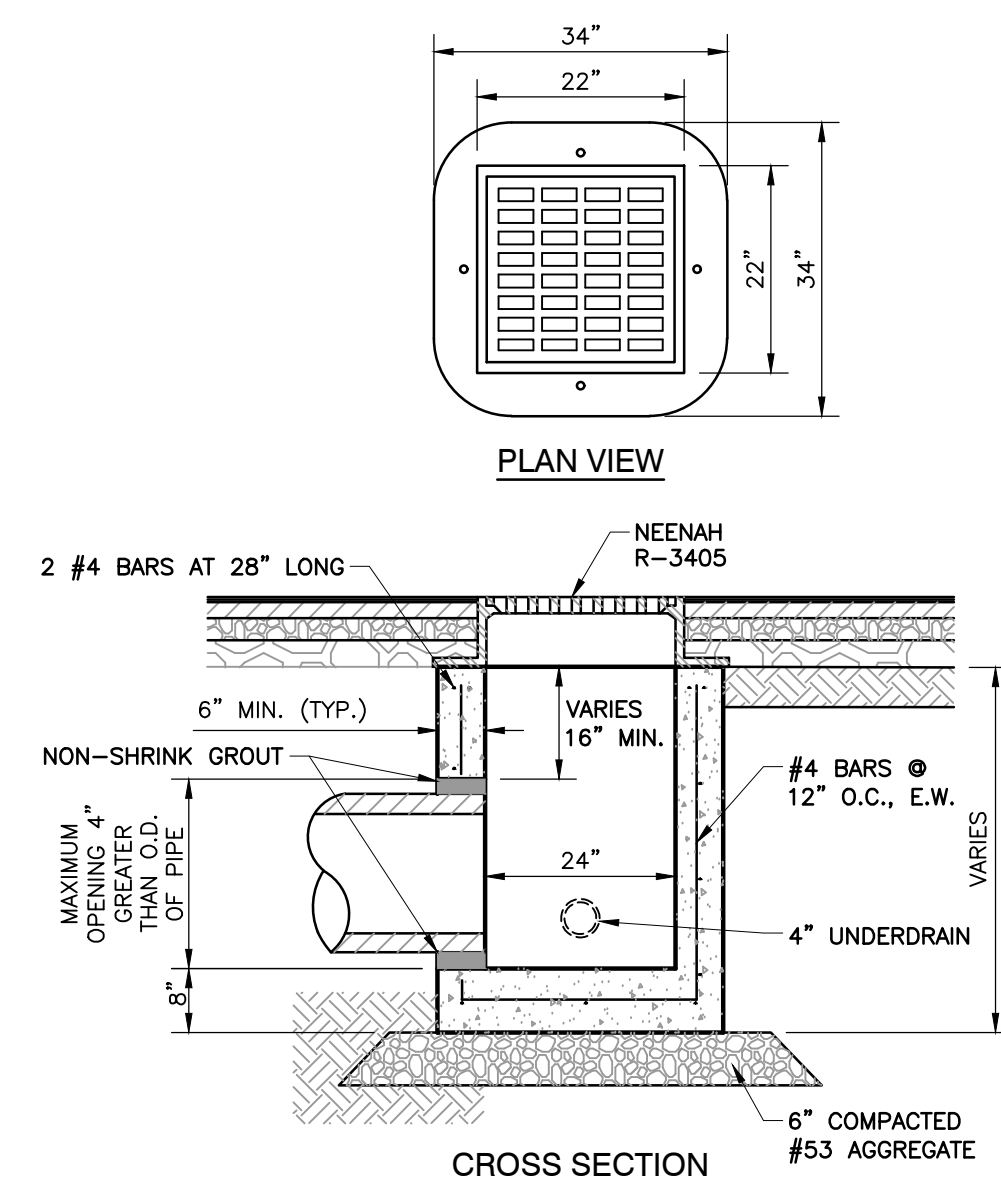
DETAIL 410 - STANDARD MANHOLE FOR PIPE SIZES 12" thru 24"
NOT TO SCALE



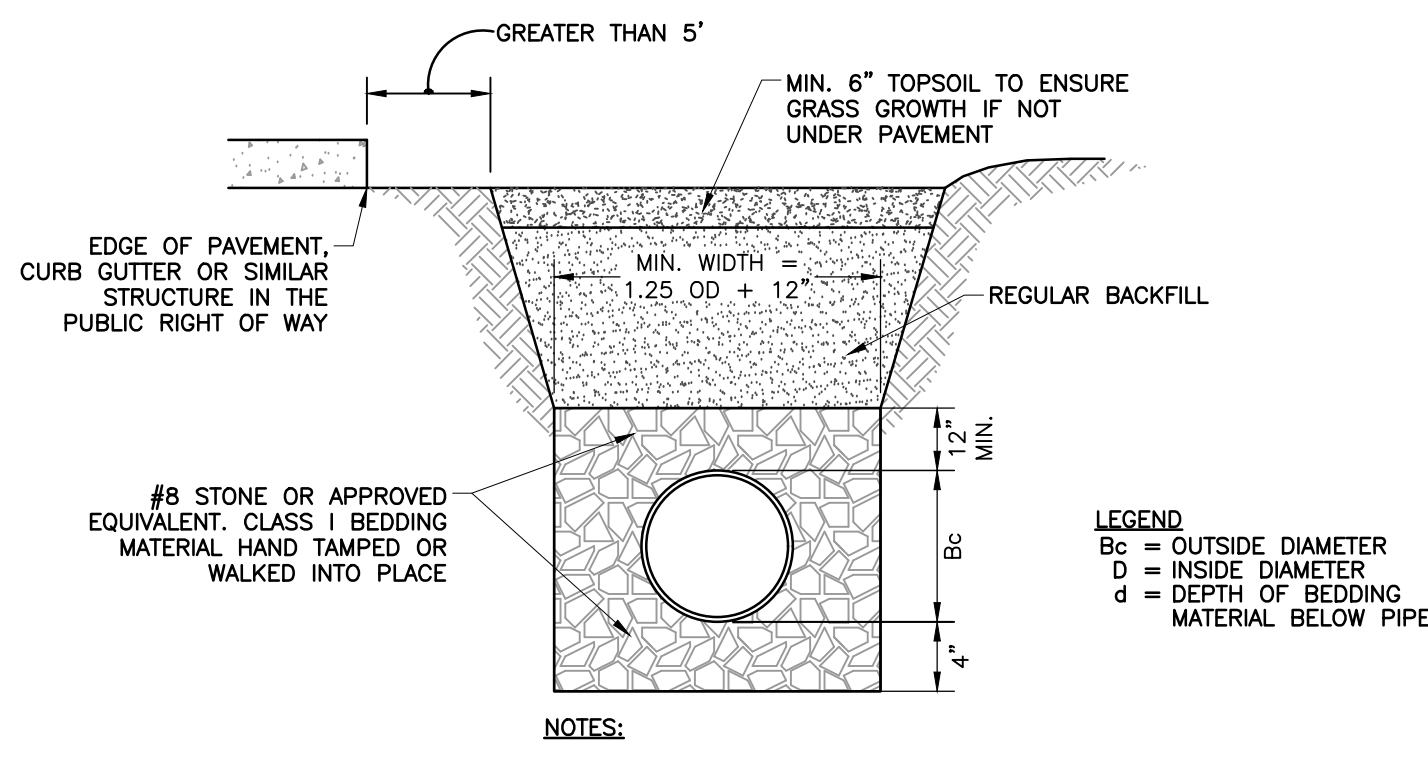
DETAIL 413 - WATER QUALITY DIVERSION WEIR STRUCTURE
NOT TO SCALE



DETAIL 407 - STORM SEWER MANHOLE FRAME & COVER
NOT TO SCALE

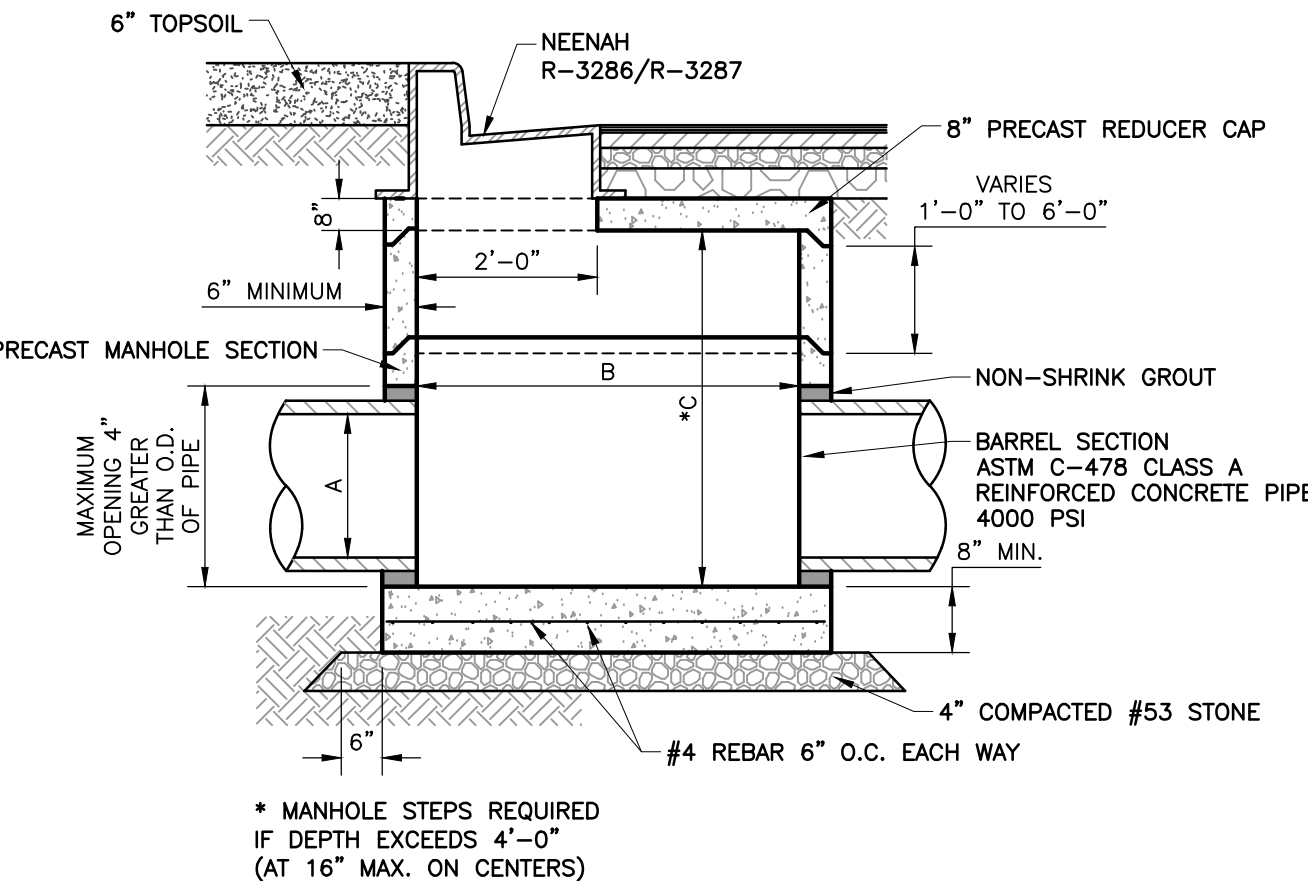


DETAIL 404 - PAVEMENT INLET TYPE 'A'
NOT TO SCALE

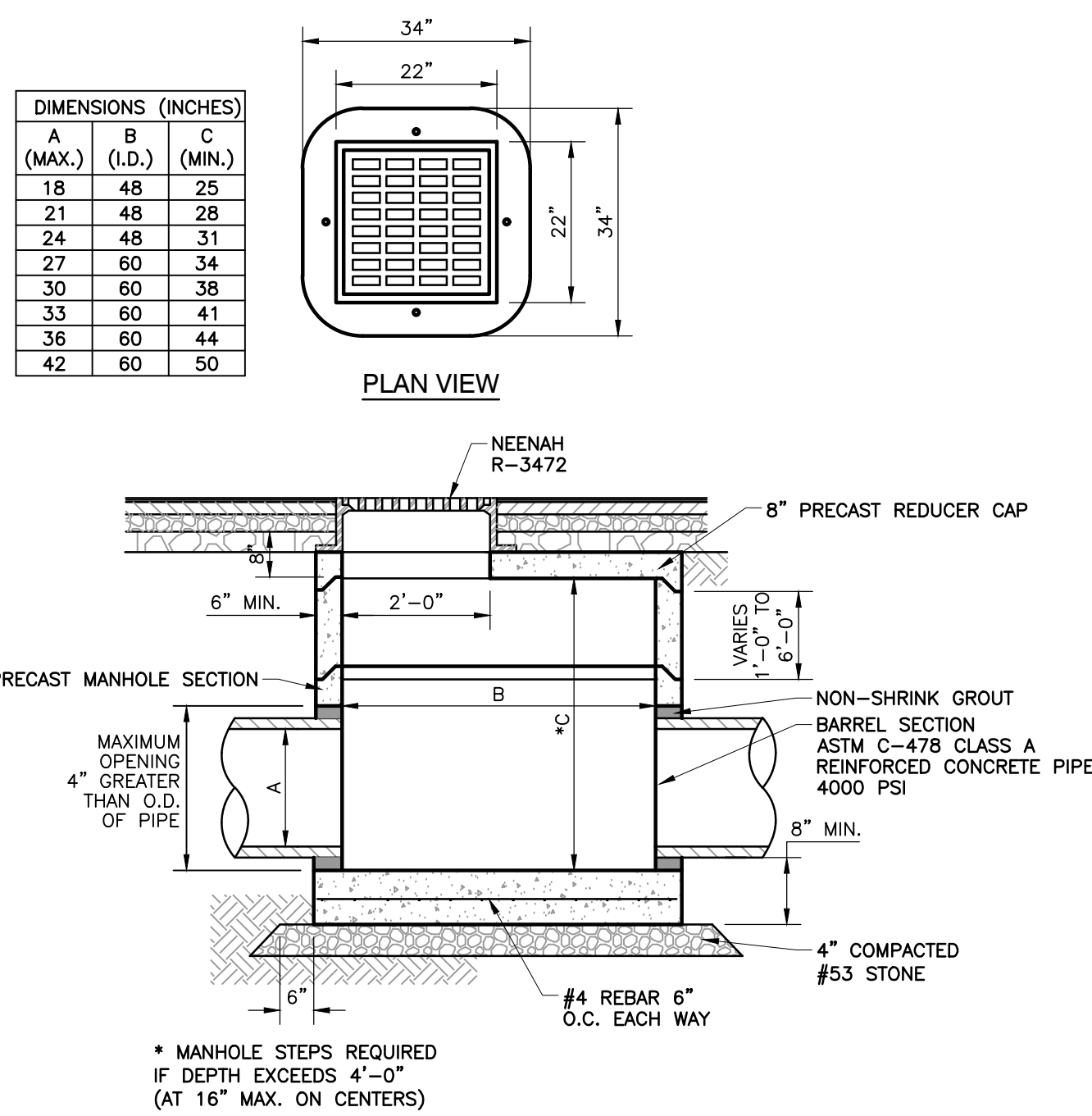


DETAIL 401 - PLASTIC PIPE (PVC & HDPE) BEDDING/TRENCH DETAIL
NOT TO SCALE

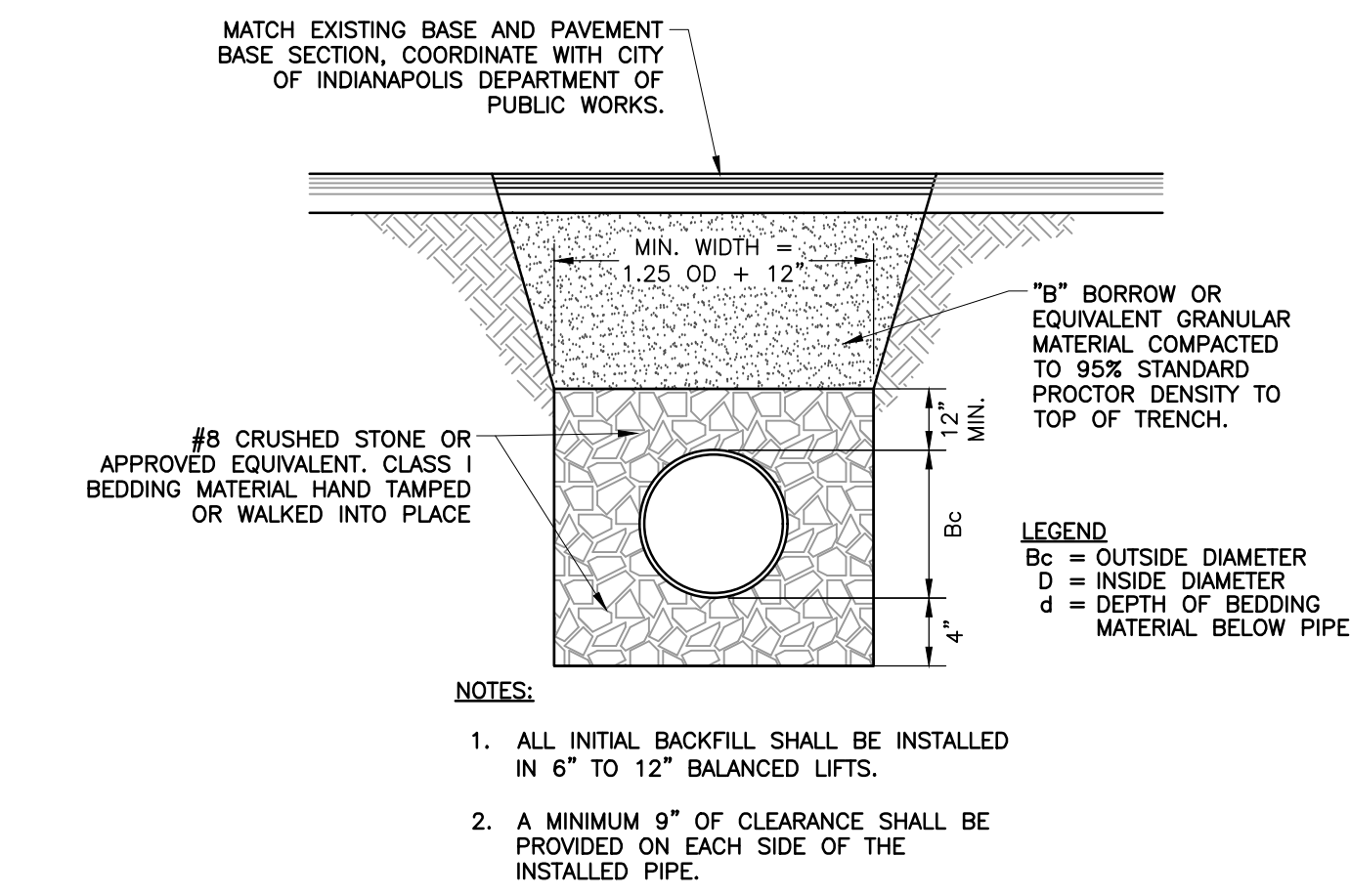
DIMENSIONS (INCHES)			
A (MAX.)	B (I.D.)	C (MIN.)	
18	48	25	
21	48	28	
24	48	31	
27	60	34	
30	60	38	
33	60	41	
36	60	44	
42	60	50	



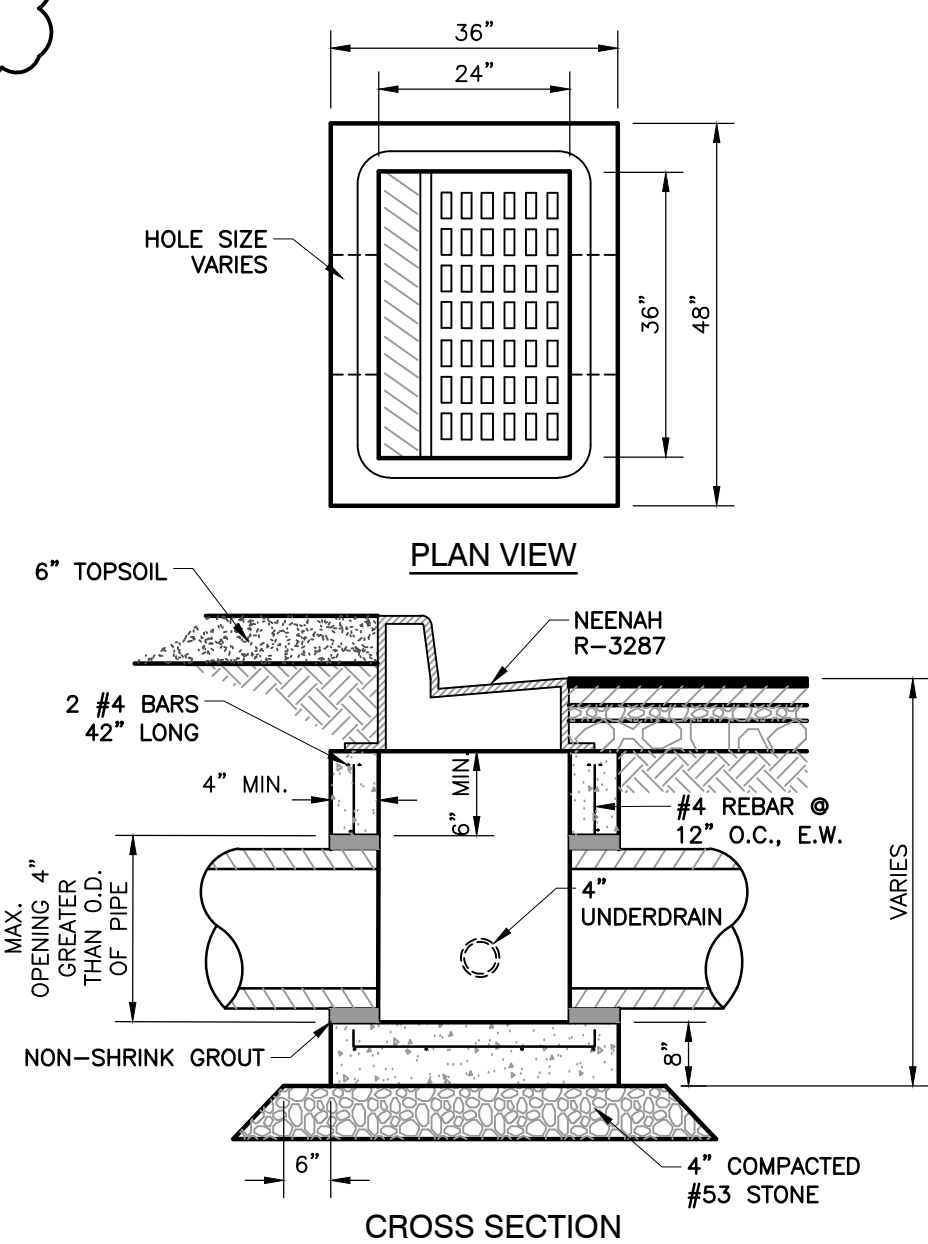
DETAIL 408 - CURB MANHOLE
NOT TO SCALE



DETAIL 405 - PAVEMENT MANHOLE
NOT TO SCALE



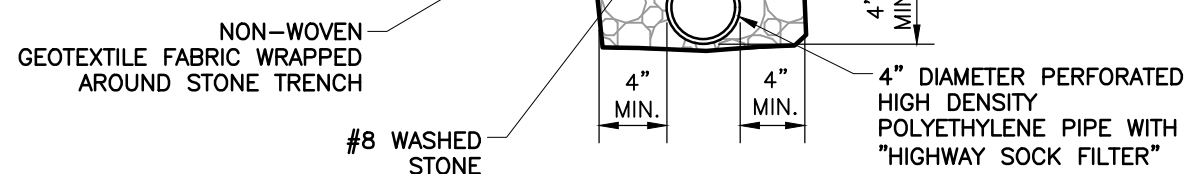
DETAIL 402 - PLASTIC PIPE (PVC & HDPE) BEDDING/TRENCH IN PAVEMENT DETAIL
NOT TO SCALE



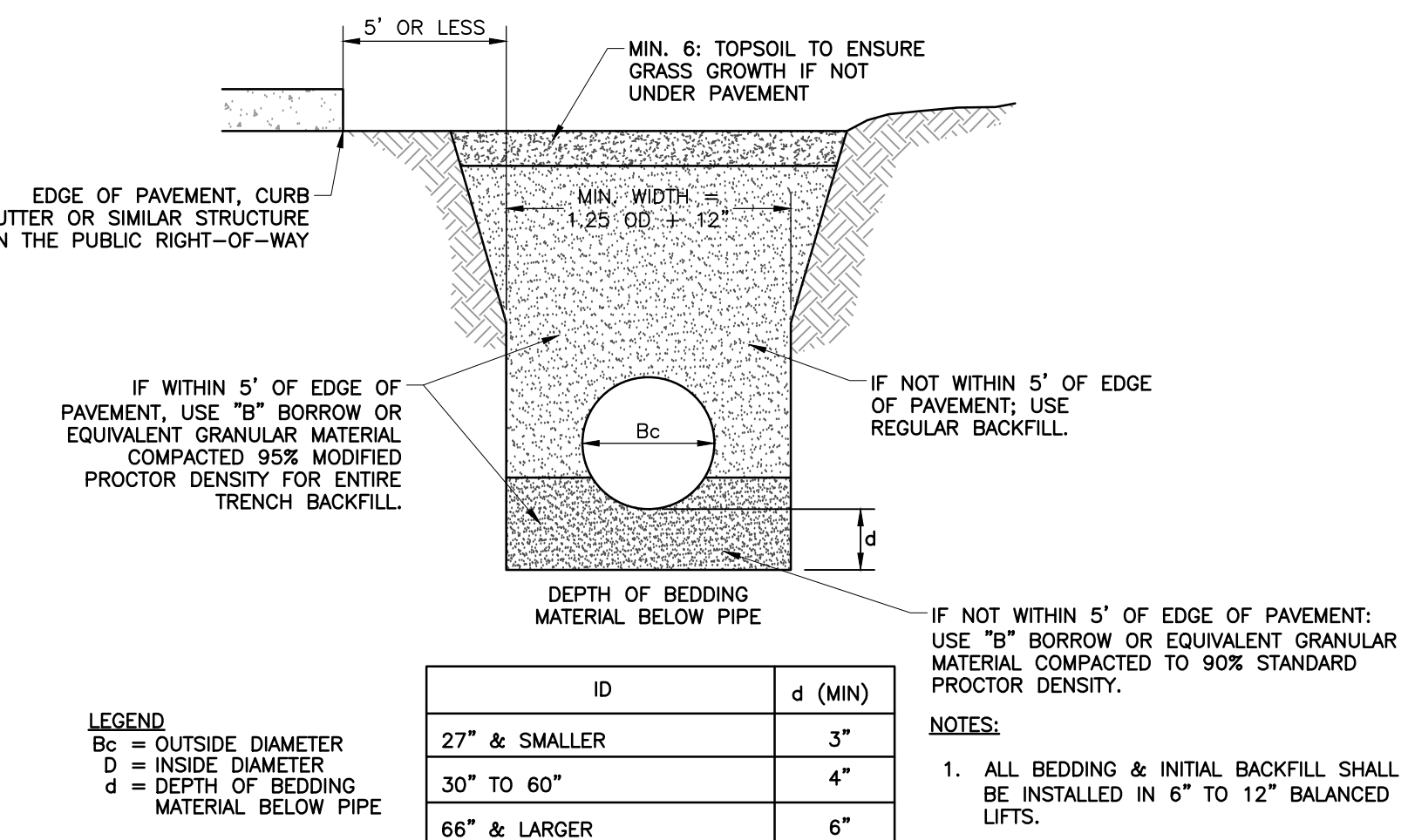
DETAIL 409 - CURB INLET TYPE 'M'
NOT TO SCALE

INSTALLATION REQUIRED

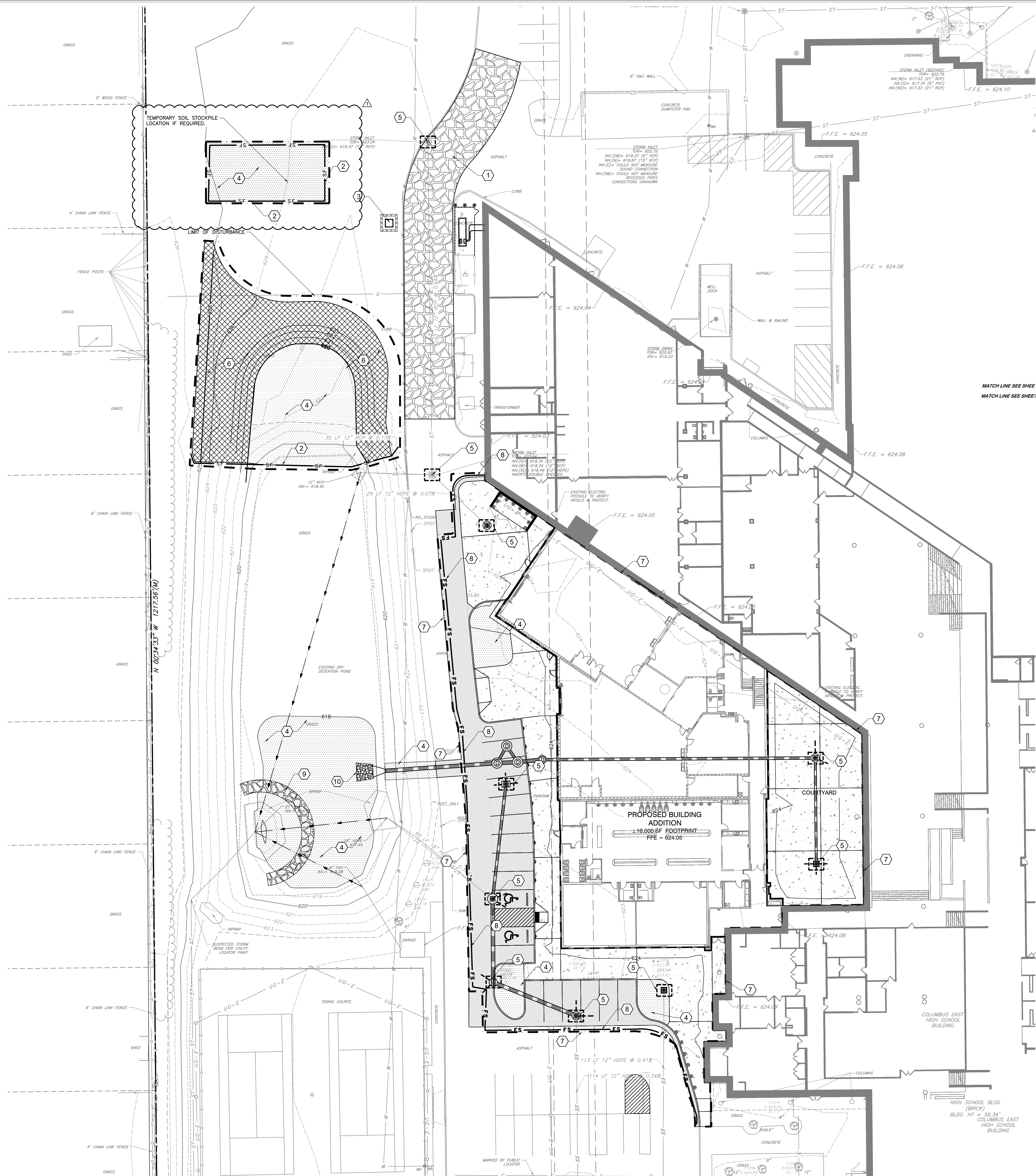
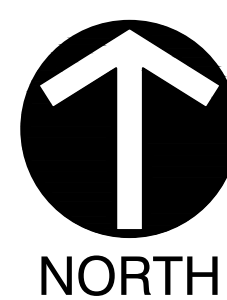
1. EXTENDING 20' FROM STORM INLETS OR MANHOLE WHERE SHOWN ON THE UTILITY & GRADING PLAN.
2. PIPE MATERIAL PER INDIANA DEPT. OF TRANSPORTATION SPECS. No. 218.02



DETAIL 406 - 4" PIPE UNDERDRAIN
NOT TO SCALE



DETAIL 403 - REINFORCED CONCRETE PIPE (RCP) BEDDING/TRENCH DETAIL
NOT TO SCALE



GENERAL EROSION CONTROL NOTES:

1. CONTRACTOR SHALL INSTALL ALL REQUIRED SILT FENCES, SILT TRAPS, TREE PROTECTION AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO THE START OF ANY EARTH MOVING OR STRIPPING.
2. CONTRACTOR SHALL INSTALL A STONE CONSTRUCTION ENTRANCE OR SOME OTHER DEVICE PRIOR TO THE START OF EARTHWORK AS NECESSARY TO PREVENT SOIL FROM BEING TRACKED OR WASHED INTO EXISTING ROADWAYS.
3. LAND ALTERATIONS WHICH STRIP THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. AS GRADING IS DONE, INSTALL SILT TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON SITE.
4. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED AS SHOWN ON THE PLANS IMMEDIATELY AFTER COMPLETION OF GROUND ACTIVITY. FOR LARGE PROJECTS, THIS SEEDING SHOULD BE COMPLETED IN PHASES AS THE DIFFERENT AREAS OF THE SITE ARE COMPLETED.
5. PERMANENT AND FINAL VEGETATION OR STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS SOON AS PRACTICAL UNDER THE CIRCUMSTANCES.
6. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM DEPENDING UPON THE WEATHER. IF CONSTRUCTION ACTIVITY IS TO CEASE FOR MORE THAN TWO WEEKS, THE DISTURBED AREAS SHALL BE TEMPORARILY SEEDED.
7. ALL STORM SEWER INLET PROTECTION DEVICES SHALL BE PUT IN PLACE AT THE TIME EACH INLET IS CONSTRUCTED.
8. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES AND DEVICES DURING CONSTRUCTION AND UNTIL SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR.
9. ONCE ONSITE EROSION AND SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY EROSION CONTROL DEVICES.
10. THESE GENERAL PROCEDURES MAY NOT COVER ALL SITUATIONS. REFER TO EROSION CONTROL PLANS FOR SPECIFIC NOTES AND ADDITIONAL DETAILS.
11. EROSION CONTROL TO COMPLY WITH THE INDIANA CONSTRUCTION STORMWATER GENERAL PERMIT (CSGP), AND INDIANA STORMWATER QUALITY HANDBOOK.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.
13. ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE IDNR INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS, DATED OCTOBER 1992 AND THE SOS FIELD OFFICE TECHNICAL GUIDE.
14. STABILIZATION SHALL BE INITIATED BY THE END OF THE SEVENTH (7TH) DAY THE AREA WAS LEFT IDLE. STABILIZATION MUST BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER INITIATION.

PROPOSED LEGEND:

- PROPOSED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- PERMANENT/ TEMPORARY SEEDED AREAS
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED TREE PROTECTION FENCE
- PROPOSED FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED CONCRETE WASHOUT
- ROCK DOUGHNUT INLET PROTECTION

EROSION CONTROL ITEMS:

- 1 CONSTRUCTION ENTRANCE; REFER TO DETAIL 901 ON SHEET C902.
- 2 TEMPORARY SILT FENCE; REFER TO DETAIL903 ON SHEET C902.
- 3 CONCRETE WASHOUT STATION; REFER TO DETAIL 902 ON SHEET C902.
- 4 PERMANENT/TEMPORARY SEEDED AREAS; REFER TO DETAIL ON SHEET C902.
- 5 INLET PROTECTION; REFER TO DETAIL 905 ON SHEET C902.
- 6 EROSION CONTROL BLANKET AND SEEDED; REFER TO DETAIL 904 ON SHEET C902.
- 7 LIMITS OF DISTURBANCE.
- 8 FILTER SOCK; REFER TO DETAIL 911 ON SHEET C902.
- 9 HORSESHOE DAM; REFER TO DETAIL 906 ON SHEET C902.
- 10 RIP RAP; REFER TO DETAIL 910 ON SHEET C902.

EROSION CONTROL RESPONSIBLE PERSON

THE PERSON RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION CONTROL IS LISTED BELOW.

RESPONSIBLE REPRESENTATIVE:
BARTHOLOMEW CONSOLIDATED SCHOOL CORPORATION
BRETT BOEZEMAN, DIRECTOR OF OPERATIONS
1250 N. MARR ROAD
COLUMBUS, IN 47201
PH: (812) 376-4231
boezemanb@bcsc.k12.in.us

SCALE IN FEET
0 50' 100'



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C⁴ ADDITION
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REVISIONS:
11/03/2025 - ADDENDUM #01

ISSUE DATE 10/24/25
DRAWN BY SGJ
CHECKED BY JMP

DRAWING TITLE:
STORMWATER
POLLUTION
PREVENTION
PLAN

CERTIFIED BY:
NATHAN M. PASKY
REGISTERED
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