

SHERIDAN COUNTY – BROOKS STREET GREENSPACE

CHANGE ORDER

No. 3 DATE OF ISSUANCE: 8/28/2024
PROJECT: Brooks Street Greenspace EFFECTIVE DATE: 8/28/2024
OWNER: Sheridan County OWNER's Contract No.: _____
CONTRACTOR: Northern Underground ENGINEER: Morrison-Maierle
TO: Northern Underground, LLC DATE OF CONTRACT: June 6, 2023

You are directed to make the following changes in your Contract for the above project. These changes are made in accordance with the General Conditions of this contract.

Description of changes:

- An additional 83 Calendar Days were added to the contract.
 - o Revised Contract Days: **305 Calendar days**

Reason for Change Order:

The existing waterproof membrane was unsalvageable. Patching the membrane was not acceptable as a full replacement was recommended. Additional time is needed for the installation of the railing, patching of the brick, demolishing the brick wall, installing the emergency shut-off switches, and moving outlets from the face of the raised platform to the wall

This change order will not include the cost to replace the membrane, install the railing, patch the brick, demolish the brick wall, install the emergency shut-off switches, and move outlets from the face of the raised platform to the wall. Those items will be paid using an existing bid item and not increase the overall contract amount.

Attachments:

- Field Orders #3, #4, and #5.

CHANGE IN CONTRACT PRICE:

Original Contract Price \$ 2,242,139.15

Net Changes from Previous Change Orders
No. 0 to No. 2

CHANGE IN CONTRACT TIME:

Original Contract Time 190 Calendar days

Substantial Completion: October 31, 2024

Final Completion: 14 Calendar Days

Net change from previous Change Orders
No. 0 to No. 2

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\$ \$66,645.00

32 Calendar Days
days

Contract Price prior to this Change Order

Contract Times Prior to this Change Order

\$ 2,242,139.15

Substantial Completion: December 2, 2024

Final Completion: 14 calendar days
days or date

Net Increase (decrease) of this Change Order

\$ 0

Net Increase (decrease) of this Change Order

83 calendar days
days

Contract Price with all approved Change Orders
(including this one):

\$ 2,242,139.15

Contract Times with all approved Change
Orders (including this one):

Substantial Completion: February 23, 2025

Final Completion: 14 calendar days
days or date

CONTRACTOR:

By: _____

Title: _____

Date: _____

ENGINEER:

By:  _____

Title: Project Manager

Date: 08/28/2024

SHERIDAN COUNTY:

By: _____

Title: _____

Date: _____

SHERIDAN COUNTY – BROOKS STREET GREENSPACE

ENGINEER'S FIELD ORDER – FORCE ACCOUNT

☐ Owner
☒ Contractor

☐ Field
☐ File

PROJECT: Brooks Street Greenspace

FIELD ORDER NO.: 3

OWNER: SHERIDAN COUNTY

DATE: 8/20/24

TO: Northern Underground

ENGINEER: Morrison-Maierle

ENGINEER'S PROJECT NO. 6017.002

CONTRACT DATE: 6/6/2023

In accordance with the General Conditions, the Engineer hereby authorizes the variation in the Work or additional Work described below which does not involve a change on Contract Time or Contract Price, and is consistent with the overall intent of the Contract Documents. Payment for any additional work will be under the "Force Account" or "Miscellaneous Additional Work" bid item (if included in the Bid Schedule for this particular project), therefore this Field Order does not increase the Contract amount. This Field Order is binding on the Owner and also on the Contractor, who shall perform the Work involved promptly.

The Engineer will determine whether Bid Unit Prices, Time and Materials, or agreed-to Lump Sum applies to the calculation of any additional work paid under this Field Order. The Engineer will calculate time involved if Time and Materials is used, and only time actually spent on completing the additional work will apply. The Engineer will present the Contractor a tabulation of hours for labor and equipment for the Force Account work at the end of each day, unless agreed otherwise with the Contractor.

Unit prices and mark-up for Time and Materials work will be per approved labor and equipment rates that comply with both the General Conditions and Modifications to the General Conditions, and invoice price for materials plus allowed mark-up.

The Force Account bid item will only be used when pre-approved by the Engineer.

DESCRIPTION:

ATTACHMENTS: Yes ☒ No ☐

The waterproof membrane referenced in the construction plans on sheet C-2 (site layout keynote #4) needs full replacement following the removal of the concrete. The owner would also like to remove a section of failing brick wall directly outside the second-story entrance and replace with decorative fencing. The attached drawings outline the demolition of the wall, the replacement of the waterproof membrane, the tie-in to the proposed sidewalk and waterproof membrane, and the installation of a new decorative fence.

The work directly correlated to replacing the membrane will be tracked on an hourly basis and paid using the labor rates (attached) submitted with the original bid. An additional \$40/day will be added for each day of the membrane replacement to account for small tools not listed on the rate sheet.

All work will be paid using the miscellaneous additional work bid item. All other items identified in this

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field order will be paid as LS.

ENGINEER: Morrison Maierle

BY: Tim Brugger, P.E.



SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building or structure.

1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.4 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.5 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
- B. Remove temporary barricades and protections where hazards no longer exist.

3.2 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain fire watch during and for at least 1 hours after flame-cutting operations.
 - 6. Maintain adequate ventilation when using cutting torches.
 - 7. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 8. Dispose of demolished items and materials promptly.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable,

protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.3 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished materials.

3.5 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.
- B.

END OF SECTION 02 4119

SECTION 04 0120.63 - BRICK MASONRY REPAIR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Brick removal and replacement.
- B. Related Requirements:

1.3 DEFINITIONS

- A. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 - 2. Include recommendations for product application and use.
 - 3. Include test data substantiating that products comply with requirements.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For including field supervisors and workers.

1.6 QUALITY ASSURANCE

- A. Mockups: Prepare mockups of brick masonry repair to demonstrate aesthetic effects and to set quality standards for materials and execution and for fabrication and installation.
 - 1. Masonry Repair: Prepare sample areas for each type of masonry repair work performed. If not otherwise indicated, size each mockup not smaller than two adjacent whole units or approximately 48 inches in least dimension. Construct sample areas in locations in existing walls where directed by Architect unless otherwise indicated. Demonstrate quality of materials, workmanship, and blending with existing work. Include the following as a minimum:
 - a. Replacement: Four brick units replaced.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver packaged materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- B. Handle bricks to prevent overstressing, chipping, defacement, and other damage.

1.8 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit brick masonry repair work to be performed according to product manufacturers' written instructions and specified requirements.
- B. Temperature Limits: Repair brick masonry only when air temperature is between 40 and 90 deg F and is predicted to remain so for at least seven days after completion of the Work unless otherwise indicated.
- C. Cold-Weather Requirements: Comply with the following procedures for masonry repair unless otherwise indicated:
 - 1. When air temperature is below 40 deg F, heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperatures between 40 and 120 deg F.
 - 2. When mean daily air temperature is below 40 deg F, provide enclosure and heat to maintain temperatures above 32 deg F within the enclosure for seven days after repair.
- D. Hot-Weather Requirements: Protect masonry repairs when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks, and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F and above unless otherwise indicated.
- E. For manufactured repair materials, perform work within the environmental limits set by each manufacturer.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Source Limitations: Obtain each type of material for repairing brick masonry (brick, cement, sand, etc.) from single source with resources to provide materials of consistent quality in appearance and physical properties.

2.2 ACCESSORY MATERIALS

- A. Setting Buttons and Shims: Resilient plastic, nonstaining to masonry, sized to suit joint thicknesses and bed depths of bricks, less the required depth of pointing materials unless removed before pointing.
- B. Masking Tape: Nonstaining, nonabsorbent material; compatible with mortar, joint primers, sealants, and surfaces adjacent to joints; and that easily comes off entirely, including adhesive.
- C. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
 - 1. Previous effectiveness in performing the work involved.
 - 2. Minimal possibility of damaging exposed surfaces.
 - 3. Consistency of each application.
 - 4. Uniformity of the resulting overall appearance.
 - 5. Do not use products or tools that could leave residue on surfaces.
- D. Masonry Veneer Anchors: Corrugated buck anchor for anchoring new masonry to concrete. Sheet metal – Carbon Steel ASTM A1008/A1008M, mill galvanized, 16 gauge.

2.3 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
- B. Do not use admixtures in mortar unless otherwise indicated.
- C. Mixes: Mix mortar materials in the following proportions:
 - 1. Rebuilding (Setting) Mortar by Type: ASTM C270, Proportion Specification, Type N unless otherwise indicated; with cementitious material limited to portland cement and lime, masonry cement, or mortar cement.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Prevent mortar from staining face of surrounding masonry and other surfaces.
 - 1. Cover sills, ledges, and other projecting items to protect them from mortar droppings.
 - 2. Keep wall area wet below rebuilding and repair work to discourage mortar from adhering.
 - 3. Immediately remove mortar splatters in contact with exposed masonry and other surfaces.

3.2 MASONRY REPAIR, GENERAL

- A. Appearance Standard: Repaired surfaces are to have a uniform appearance as viewed from 20 feet away by Architect.

3.3 BRICK REMOVAL AND REPLACEMENT

- A. At locations indicated, remove bricks that are damaged, spalled, or deteriorated or are to be reused. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.
 - 1. When removing single bricks, remove material from center of brick and work toward outside edges.
- B. Support and protect remaining masonry that surrounds removal area.
- C. Maintain flashing, reinforcement, and adjoining construction in an undamaged condition.
- D. Notify Architect of unforeseen detrimental conditions including voids, cracks, bulges, and loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- E. Remove in an undamaged condition as many whole bricks as possible.
 - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
 - 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.
 - 3. Store brick for reuse. Store off ground, on skids, and protected from weather.
 - 4. Deliver cleaned brick not required for reuse to Owner unless otherwise indicated.
- F. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement.
- G. Replace removed damaged brick with other removed brick in good condition, where possible, or with new brick matching existing brick. Do not use broken units unless they can be cut to usable size.
- H. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.
 - 1. Maintain joint width for replacement units to match existing joints.

2. Use setting buttons or shims to set units accurately spaced with uniform joints.
- I. Lay replacement brick with rebuilding (setting) mortar and with completely filled bed, head, and collar joints. Butter ends with enough mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.
 1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
 2. When mortar is hard enough to support units, remove shims and other devices interfering with pointing of joints.
- J. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.
- K. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

3.4 ANCHORED MASONRY VENEERS

- A. Anchor masonry veneers to concrete backup with masonry-veneer anchors to comply with the following requirements:
 1. Fasten anchors to concrete backup with metal fasteners of type indicated.
 2. Space anchors as indicated, but not more than 18 inches o.c. vertically and horizontally. Install additional anchors within 12 inches of openings and at intervals, not exceeding 24 inches, around perimeter.

3.5 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water applied by low-pressure spray.
 1. Do not use metal scrapers or brushes.
 2. Do not use acidic or alkaline cleaners.
- B. Clean adjacent nonmasonry surfaces. Use detergent and soft brushes or cloths.
- C. Clean mortar and debris from roof; remove debris from gutters and downspouts.
- D. Remove masking materials, leaving no residues that could trap dirt.

3.6 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property.
- B. Masonry Waste: Remove masonry waste and legally dispose of off Owner's property.

END OF SECTION 04 0120.63

SECTION 07 1113 - BITUMINOUS DAMPPROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cold-applied, emulsified-asphalt dampproofing.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.3 FIELD CONDITIONS

- A. Weather Limitations: Proceed with application only when existing and forecasted weather conditions permit dampproofing to be performed according to manufacturers' written instructions.
- B. Ventilation: Provide adequate ventilation during application of dampproofing in enclosed spaces. Maintain ventilation until dampproofing has cured.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Source Limitations: Obtain primary dampproofing materials and primers from single source from single manufacturer. Provide auxiliary materials recommended in writing by manufacturer of primary materials.

2.2 PERFORMANCE REQUIREMENTS

- A. VOC Content: Products are to comply with VOC content limits of authorities having jurisdiction unless otherwise indicated.

2.3 COLD-APPLIED, EMULSIFIED-ASPHALT DAMPPROOFING

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:
 - 1. APOC, Inc; a division of Gardner Industries; AP 302 Fibered Asphalt Emulsion.
 - 2. Euclid Chemical Company (The); a subsidiary of RPM International, Inc.; Dehydratine 75 - Emulsified Asphalt Dampproofing Compound..
 - 3. Henry, a Carlisle Company (formerly Henry Company and Carlisle Coatings & Waterproofing Inc. brands); HE789 – FIB Asphalt Emulsion Dampproofing.
 - 4. W. R. Meadows, Inc; Sealmastic Emulsion Dampproofing.
- B. Fibered Brush and Spray Coats: ASTM D1227, Type II, Class 1.

2.4 AUXILIARY MATERIALS

- A. Furnish auxiliary materials recommended in writing by dampproofing manufacturer for intended use and compatible with bituminous dampproofing.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for surface smoothness, maximum surface moisture content, and other conditions affecting performance of the Work.
- B. Proceed with application only after substrate construction and penetrating work have been completed and unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for dampproofing application.
- B. Mask or otherwise protect adjoining exposed surfaces from being stained, spotted, or coated with dampproofing. Prevent dampproofing materials from entering and clogging weep holes and drains.
- C. Clean substrates of projections and substances detrimental to dampproofing work; fill voids, seal joints, and remove bond breakers if any.
- D. Apply patching compound to patch and fill tie holes, honeycombs, reveals, and other imperfections.

3.3 INSTALLATION, GENERAL

- A. Comply with manufacturer's written instructions for dampproofing application, cure time between coats, and drying time before backfilling unless otherwise indicated.
 - 1. Apply dampproofing to provide continuous plane of protection.
 - 2. Apply additional coats if recommended in writing by manufacturer or to achieve a smooth surface and uninterrupted coverage.

3.4 INSTALLATION OF COLD-APPLIED, EMULSIFIED-ASPHALT DAMPPROOFING

- A. Unparged Masonry Foundation Walls: Two Coat System applied per manufacturer's instructions.

3.5 PROTECTION

- A. Protect installed insulation drainage panels from damage due to UV light, harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where panels are subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.
- B. Correct dampproofing that does not comply with requirements; repair substrates, and reapply dampproofing.

END OF SECTION 07 1113

SECTION 07 1416– COLD FLUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cold fluid-applied waterproofing, horizontal applications.

1.2 REFERENCES

- A. References, General: Versions of the following standards current as of the date of issue of the project apply to the Work of this Section.
- B. ASTM International (ASTM): www.astm.org:
 - 1. ASTM C 836 – Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course
 - 2. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants
 - 3. ASTM D 4258 - Standard Practice for Surface Cleaning Concrete for Coating
 - 4. ASTM D 4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
 - 5. ASTM D 4716 - Standard Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head
 - 6. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials
 - 7. ASTM E 96/E 96M - Standard Test Methods for Water Vapor Transmission of Materials

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Conference: Conduct conference at Project Site.
 - 1. Review requirements for waterproofing products and installation, including surface preparation, substrate conditions, expansion joints as required, project and manufacturer's details, installation procedures, mockups, testing and inspection requirements, protection and repairs, and coordination and sequencing of waterproofing work with work of other Sections.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of waterproofing product (and expansion joint accessory if applicable) specified, including:
 - 1. Technical data indicating compliance with requirements.
 - 2. Substrate preparation instructions and recommendations.
- B. Shop Drawings: Show locations for waterproofing system components. Show details for each type of substrate, joints, corners, and edge conditions, including flashings, counterflashings, penetrations, transitions, and terminations.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer, manufacturer[, and waterproofing Inspector].
 - 1. Certification of manufacturer's approval of Installer.
- B. Product Test Reports: Test data for waterproofing products and waterproofing system, by qualified testing agency, indicating proposed waterproofing meets performance requirements, when requested by Architect.

- C. Warranty: Sample of unexecuted manufacturer and installer special warranties.
- D. Field quality control reports.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A manufacturer-approved firm with minimum [three] years experience in installation of specified products in successful use on similar projects, employing workers trained by manufacturer, including a full-time on-site supervisor with a minimum of [three] years experience installing similar work, and able to communicate verbally with Contractor[, Architect,] and employees.
- B. Manufacturer Qualifications: A qualified manufacturer [listed in this Section] with minimum five years experience in manufacture of waterproofing as one of its principal products.
 - 1. Manufacturer's product submitted has been in satisfactory operation on five similar installations for at least five years.
 - 2. Approval of Manufacturers and Comparable Products: Submit the following in accordance with project substitution requirements, within time allowed for substitution review:
 - a. Completed and signed Substitution Request form.
 - b. Product data, including certified independent test data indicating compliance with requirements.
 - c. Sample shop drawings from similar project.
 - d. Project references: Minimum of five installations of similar system not less than five years old, with Owner and Architect contact information.
 - e. Name and resume of proposed qualified Inspector.
 - f. Sample warranty.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Accept materials on site in manufacturer's unopened original packaging.
- B. Store products in weather protected environment, clear of ground and moisture, within temperature ranges recommended by waterproofing manufacturer.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer.
 - 1. Protect substrates from environmental conditions that affect waterproofing performance.

1.9 SCHEDULING

- A. Coordinate installation of waterproofing with completion of roofing and other work requiring interface with waterproofing.
- B. Schedule work so waterproofing applications may be inspected prior to concealment.
- C. Ensure waterproofing materials are cured before covering with other materials.

1.10 WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which waterproofing manufacturer agrees to furnish waterproofing material to repair or replace those materials installed according to manufacturer's written instructions that exhibit material defects or otherwise fail to perform as specified under normal use within warranty period specified.

1. Access for Repair: Owner shall provide unimpeded access to the Project and the waterproofing system for purposes of testing, leak investigation, and repair, and shall reinstall removed cladding and overburden materials upon completion of repair.
2. Cost Limitation: Manufacturer's obligation for repair or replacement shall be limited to the original installed cost of the work.
3. Warranty Period: 10 years date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Products: Provide waterproofing products manufactured by **Tremco, Inc., Commercial Sealants and Waterproofing Division**, Beachwood OH; (866) 321-6357; email: techresources@tremcoinc.com; www.tremcosealants.com, or comparable products of other manufacturer approved by Architect in accordance with Instructions to Bidders and Division 01 General Requirements.
- B. Source Limitations: Provide waterproofing system materials and accessory products from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General: Waterproofing system shall be capable of performing as a continuous watertight installation and as a moisture drainage plane transitioned to adjacent flashings and discharging water to the building exterior. Waterproofing shall accommodate normal substrate movement and seal expansion and control joints, construction material transitions, opening transitions, penetrations, and perimeter conditions without resultant moisture deterioration.
- B. Compatibility: Provide waterproofing system materials that are compatible with one another and with adjacent materials under conditions of service and application required, as demonstrated by waterproofing manufacturer based on testing and field experience.

2.3 WATERPROOFING MEMBRANE

- A. Cold Fluid-Applied Waterproofing: Single component, reinforced, high solids, modified aliphatic polyurethane, ASTM C 836/C 836M and coal-tar free, formulated for application to damp and green concrete.
 1. Basis of Design Product: **Tremco, Inc., TREMproof 250GC.**
 2. VOC Content: Less than 100 g/L, roller and self-leveling grades.
 3. VOC Content: Less than 160 g/L, trowel detailing grade.
 4. Hardness, ASTM D 2240: 70 – 80.
 5. Low Temperature Flexibility and Crack Bridging, ASTM C 1305: Pass.
 6. Adhesion in Peel, ASTM C 794: 26 lbf/in.

2.4 ACCESSORY MATERIALS

- A. General: Accessory materials as described in manufacturer's written installation instructions, recommended to produce complete waterproofing system meeting performance requirements, and compatible with waterproofing material and adjacent materials.
- B. Substrate Patching Material: Waterproofing manufacturer's standard trowel-grade filler material.
- C. Primer: Liquid primer meeting VOC limitations and recommended for substrate by waterproofing manufacturer.
- D. Primer for non-porous substrates:
- E.
 1. Basis of Design Product: **TREMprime Non-Porous Primer.**

BROOKS STREET GREENSPACE

- F. Joint Sealant: ASTM C 719, high performance, medium-modulus, low-VOC, UV-stable, non-sag polyurethane sealant approved by waterproofing manufacturer for adhesion and compatibility with waterproofing and accessories.
 - 1. Basis of Design Product: **Tremco, Dymonic 100.**
- G. Bonderized angle: 28 gauge, 3" legs.
- H. Stainless steel flashing: ASTM A666, Type 304 alloy, soft temper, 28 gauge, 0.0156 inch thick; smooth No. 4 Brushed finish.

2.5 PROTECTION COURSE

- A. Ultra-lightweight, made from 14-oz non-biodegradable polyester.
 - 1. Basis of Design Product: **Tremco, Protection Mat.**

2.6 DRAINAGE PANELS

- A. Drainage Mat: Composite mat with drainage core, filter fabric, and protective polymeric film. Provide the following:
 - 1. **Nonwoven-Geotextile-Faced, Molded-Sheet Drainage Panel:** Manufactured composite subsurface drainage panels consisting of a nonwoven, spun-bonded polypropylene facing laminated to one side of a studded, non-biodegradable, polystyrene drainage core, with polymeric film attached to back of drainage core.
 - a. Basis of Design: Tremco, **TREMDrain S.**
 - b. Flow Capacity, per unit width, ASTM D 4716: 9 gpm/ft.
 - c. Flow Rate, ASTM D 4491: 80 gpm/ft².
 - d. Apparent Opening Size: No. 80 sieve.
 - e. Puncture Strength, ASTM D 4833: 50 lb.
 - f. Core Compressive Strength, ASTM D 1621: 30,000 lb/ft².
 - g. Thickness: 0.25 inch.

2.7 INSULATION

- A. Insulation: By others.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Surface Condition: Before applying waterproofing materials and accessories, examine substrate and conditions to ensure substrates are fully cured, smooth, clean, dry, and free from high spots, depressions, loose and foreign particles and other deterrents to adhesion, and conditions comply with manufacturer's written recommendations.
 - 1. Verify concrete and masonry surfaces are visibly dry, have cured for time period recommended by waterproofing manufacturer, and are free from release agents, curing agents, laitance, and other contaminates. Test for capillary moisture by plastic sheet method according to ASTM D 4263. Test for waterproofing adhesion per manufacturer's recommended method. Notify Architect of unsatisfactory conditions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INTERFACE WITH OTHER WORK

- A. Sequencing of Work: Coordinate sequencing of waterproofing work with work of other sections that form portions of building envelope moisture control to ensure that expansion joints, flashings and transition materials can be properly installed and inspected.
- B. Subsequent Work: Coordinate waterproofing work with work of other sections installed subsequent to waterproofing to ensure complete inspection of installed waterproofing and sealing of waterproofing penetrations necessitated by subsequent work.

3.3 PREPARATION

- A. Clean, prepare, and treat substrates in accordance with waterproofing manufacturer's written instructions.
 - 1. Mask adjacent finished surfaces.
 - 2. Remove contaminants and film-forming coatings from substrates.
 - 3. Horizontal and vertical concrete surfaces shall be free of voids, exposed aggregate, honey comes, splatters, ridges, fins and other projections or depressions which preclude a smooth and level surface. Remove projections and excess materials and fill voids with substrate patching material.
 - 4. Patch concrete with structural weight concrete, non-shrink with a minimum 3000 psi yield strength.
 - 5. Prep concrete surfaces to receive cold fluid-applied waterproofing to CSP 2-4.
 - 6. Prepare and treat joints and cracks in substrate per ASTM D 4258 and waterproofing manufacturer's written instructions.
 - a. Refer to Tremco Detail "TREMproof 250GC Treatment of Cracks Less Than 1/16" (File Name C-250GC-G-04) for treatment of cracks less than 1/16 inch wide.
 - b. Refer to Tremco Detail "TREMproof 250GC Treatment of Cracks Greater Than 1/16" (File Name C-250GC-G-05) for treatment of cracks more than 1/16 inch wide.
 - 7. For accessory materials, follow manufacturers application instructions.
- B. Detail Preparation: Prepare non-moving shrinkage cracks, large cracks, construction joints, expansion joints, projections and protrusions, penetrations, drains, and changes in plane in accordance with waterproofing manufacturer's written instructions and details, using accessory materials specified.
 - 1. Adhere strips of elastomeric sheet to moving joints and large cracks by embedding in a layer of cold fluid-applied waterproofing and overlay with coat of cold fluid-applied waterproofing.
- C. Bonderized metal: Prep bonderized metal angle by mechanically scratching followed by a solvent wipe. Wipe dry and allow solvent to flash off.

3.4 WATERPROOFING INSTALLATION

- A. General: Apply waterproofing material to form a seal with strips and transition strips and to achieve a continuous waterproofing according to waterproofing manufacturer's written instructions. Apply waterproofing material within manufacturer's recommended application temperature ranges.
- B. Primer: Apply primer to substrates at required rate, using roller, brush, or airless spray. Allow to dry. Reprime areas not covered within 24 hours.
- C. Cold Fluid-Applied Waterproofing: Apply waterproofing in total wet film thickness and with methods recommended in writing by waterproofing manufacturer.
- D. High-Build Application: Horizontal:
 - 1. Apply using roller or squeegee.
 - 2. Apply in single pass at minimum thickness of 120 mils wet.

BROOKS STREET GREENSPACE

- E. Terminations: Install terminations of waterproofing membrane in accordance with ASTM C 898 and ASTM C 1471, as applicable to application, at not less than minimum height recommended by waterproofing manufacturer.
- F. Correct deficiencies in or remove waterproofing that does not comply with requirements; repair substrates and reapply waterproofing components.

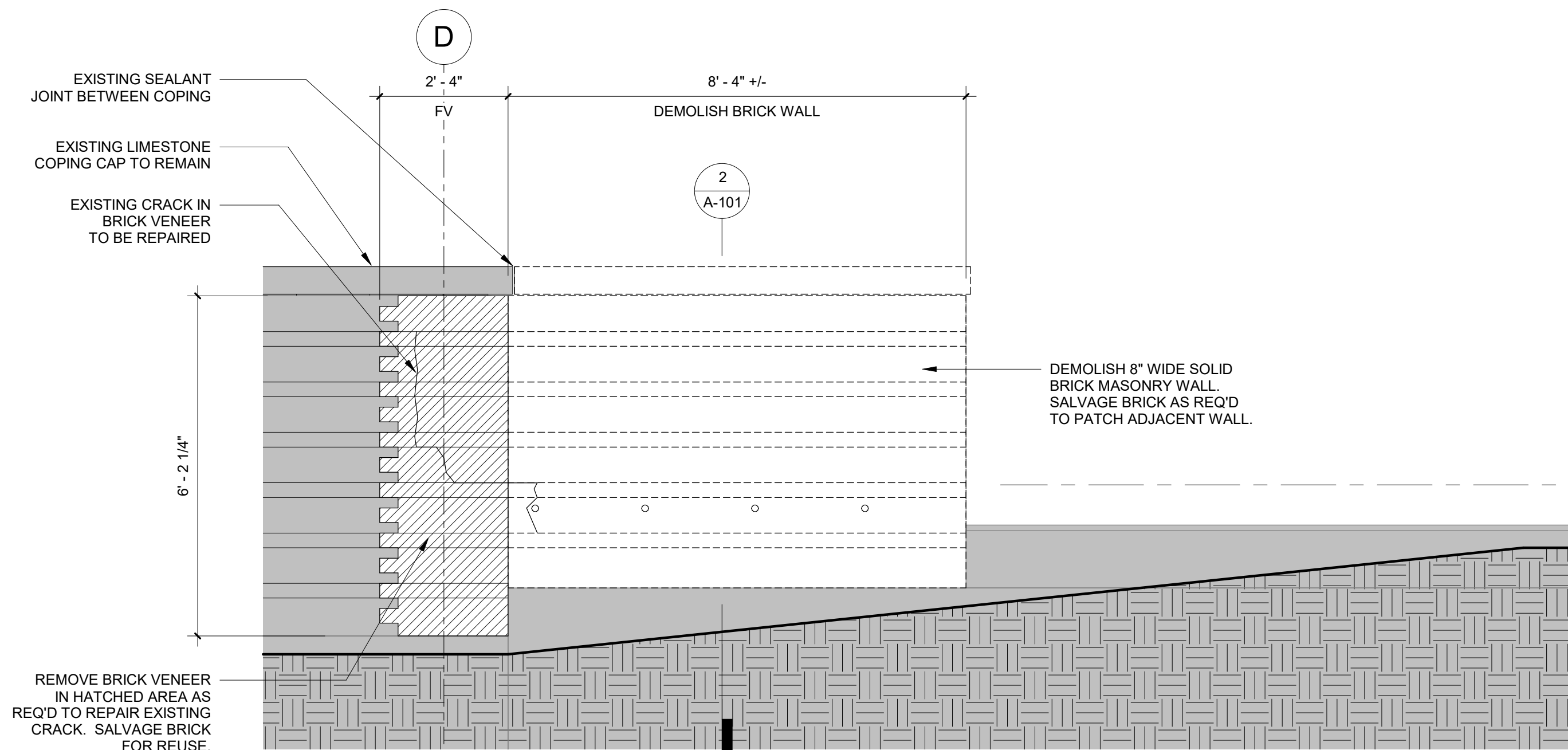
3.5 FIELD QUALITY CONTROL

- A. Coordination of Inspection: Allow access to work areas and staging. Notify Engineer in writing of schedule for Work of this Section to allow sufficient time for testing and inspection.
 - 1. Do not cover Work until testing and inspection is completed and accepted.
- B. On horizontal slabs, flood test should be run in accordance with ASTM D5957. The membrane should be cured to a firm rubber set (36 Hr. minimum@75 degree F) before flooding. Flood with a minimum 1" of water for 24 hours.
- C. Reporting: Forward written inspection reports to the Engineer within 10 working days of the inspection and test being performed.
- D. Correction of Work: Correct deficient applications not passing tests and inspections, make necessary repairs, and retest as required to demonstrate compliance with requirements.

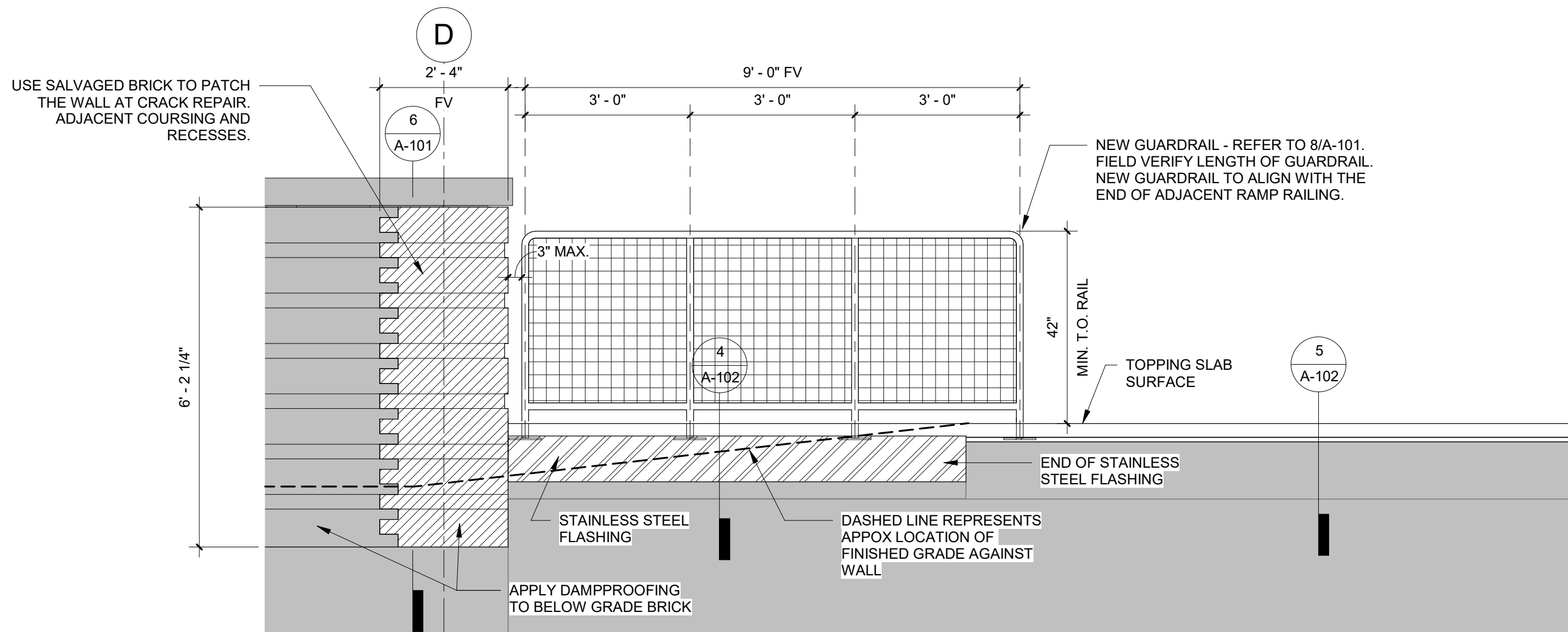
3.6 CLEANING AND PROTECTING

- A. Clean spills, stains, and overspray resulting application utilizing cleaning agents recommended by manufacturers of affected construction. Remove masking materials.
- B. Protect waterproofing from damage from subsequent work. Protect waterproofing materials from exposure to UV light for period in excess of that acceptable to waterproofing manufacturer; replace overexposed materials and retest.

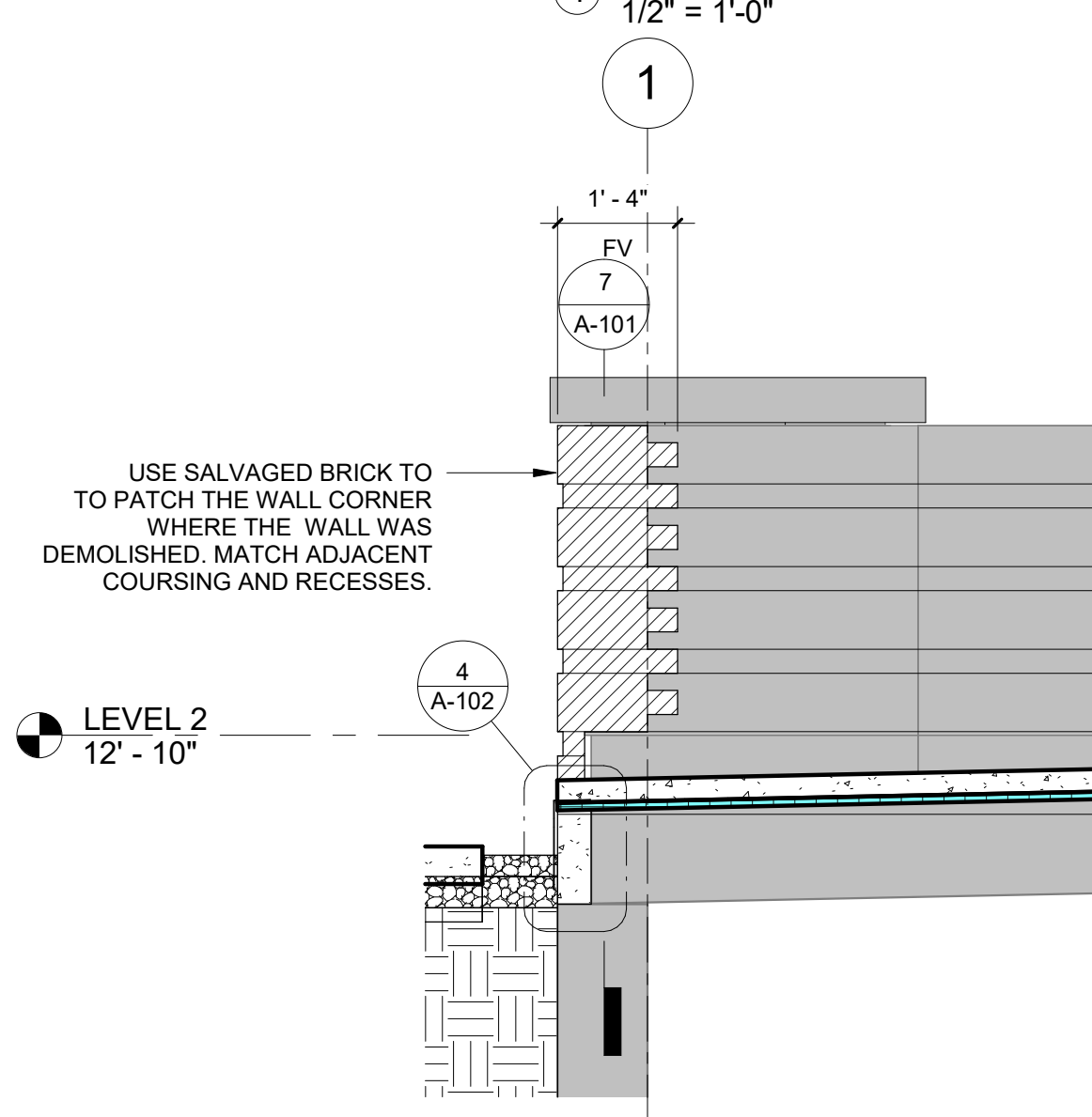
END OF SECTION



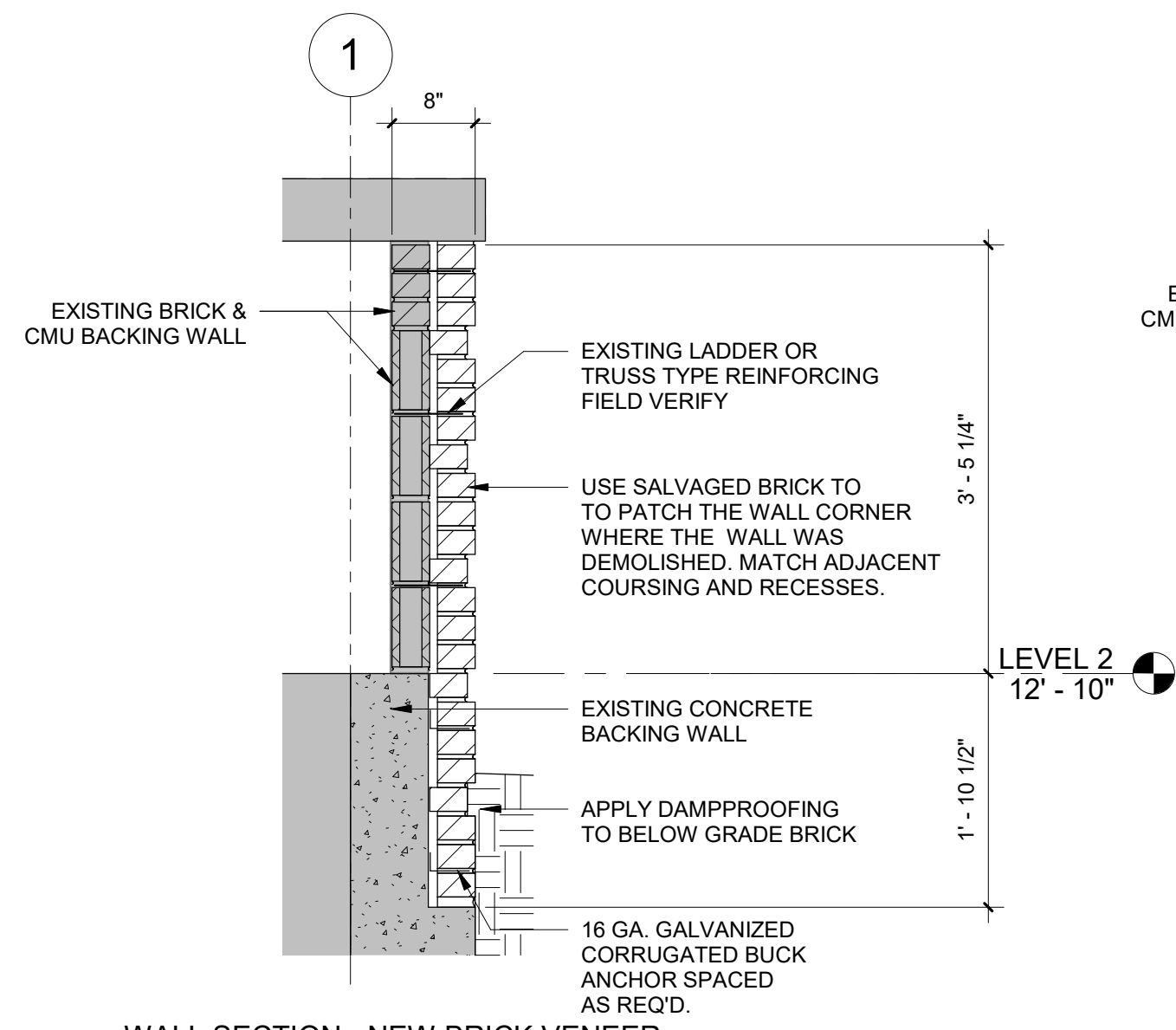
3 WEST ELEV - DEMO/CRACK REPAIR
1/2" = 1'-0"



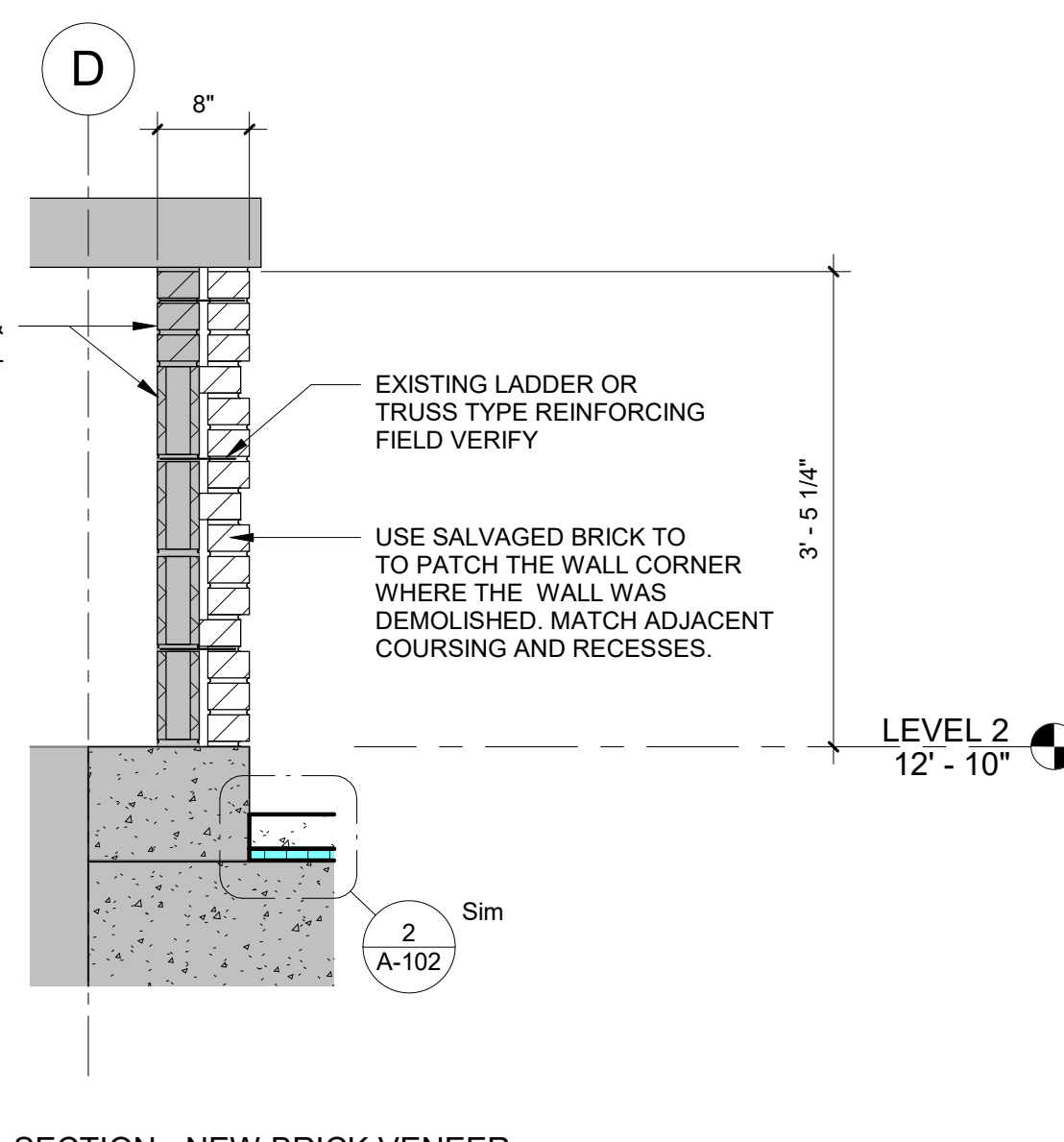
4 WEST ELEVATION
1/2" = 1'-0"



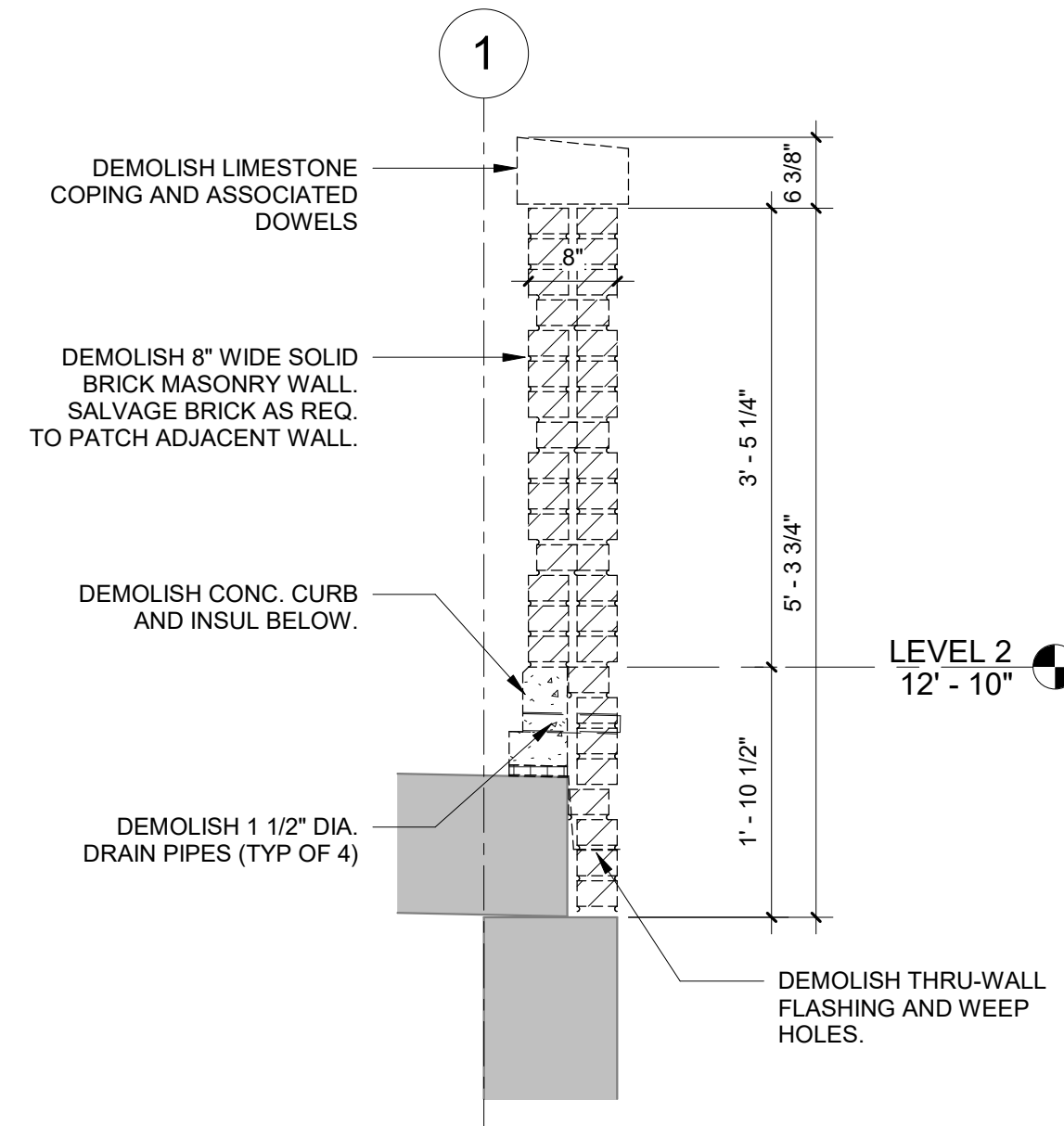
5 SOUTH ELEVATION
1/2" = 1'-0"



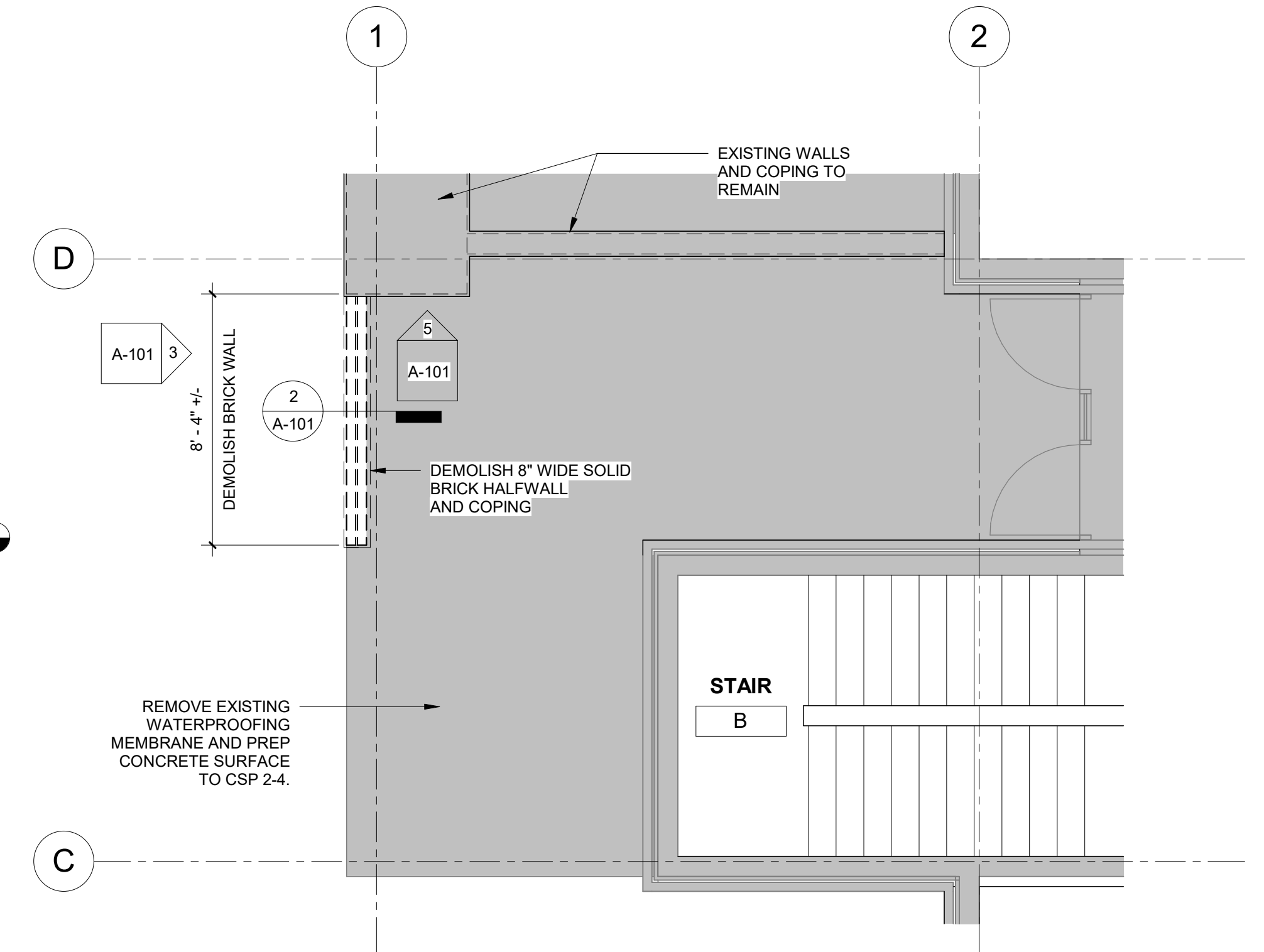
6 WALL SECTION - NEW BRICK VENEER - WEST
3/4" = 1'-0"



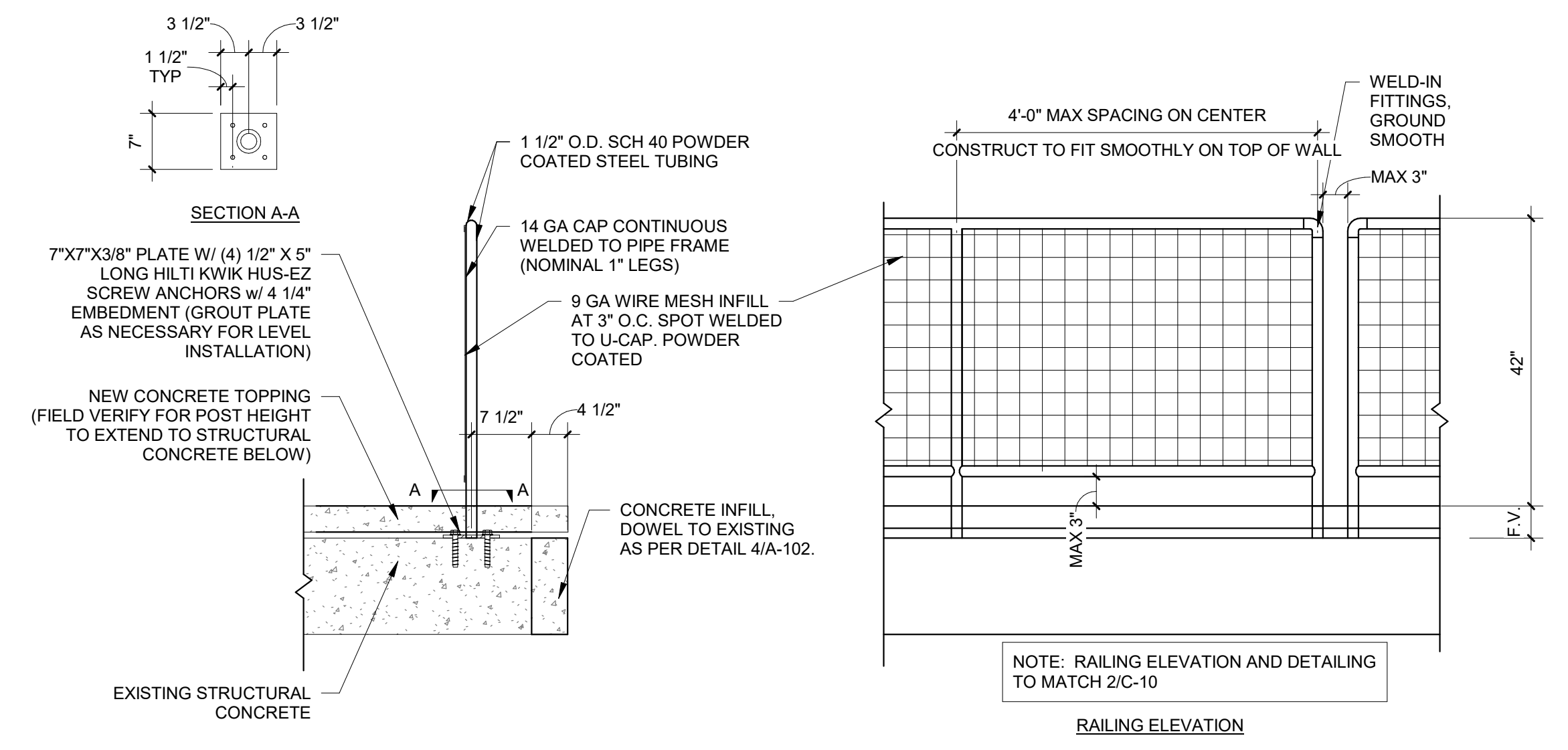
7 WALL SECTION - NEW BRICK VENEER - SOUTH
3/4" = 1'-0"



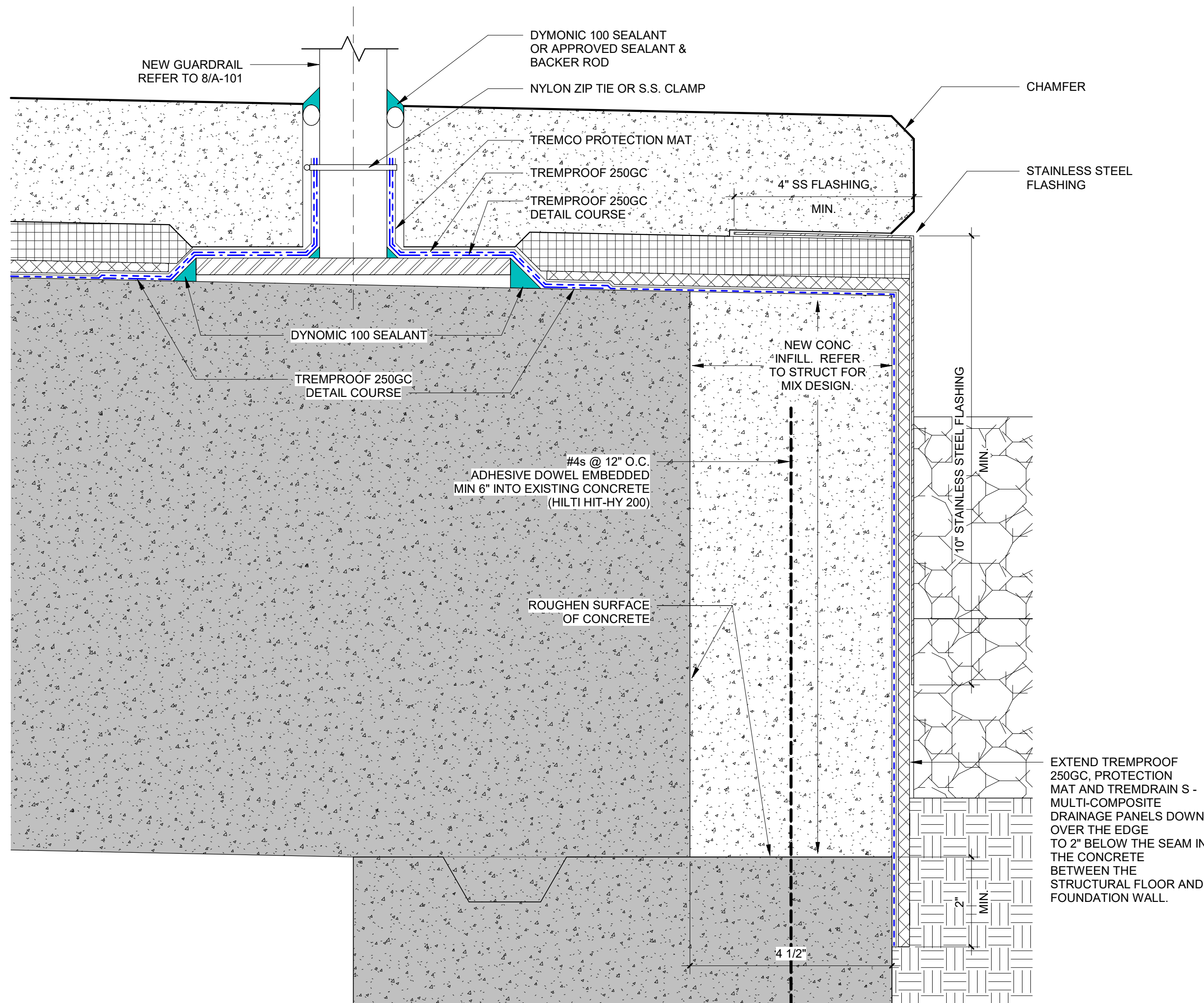
2 WALL SECTION - HALF WALL
3/4" = 1'-0"



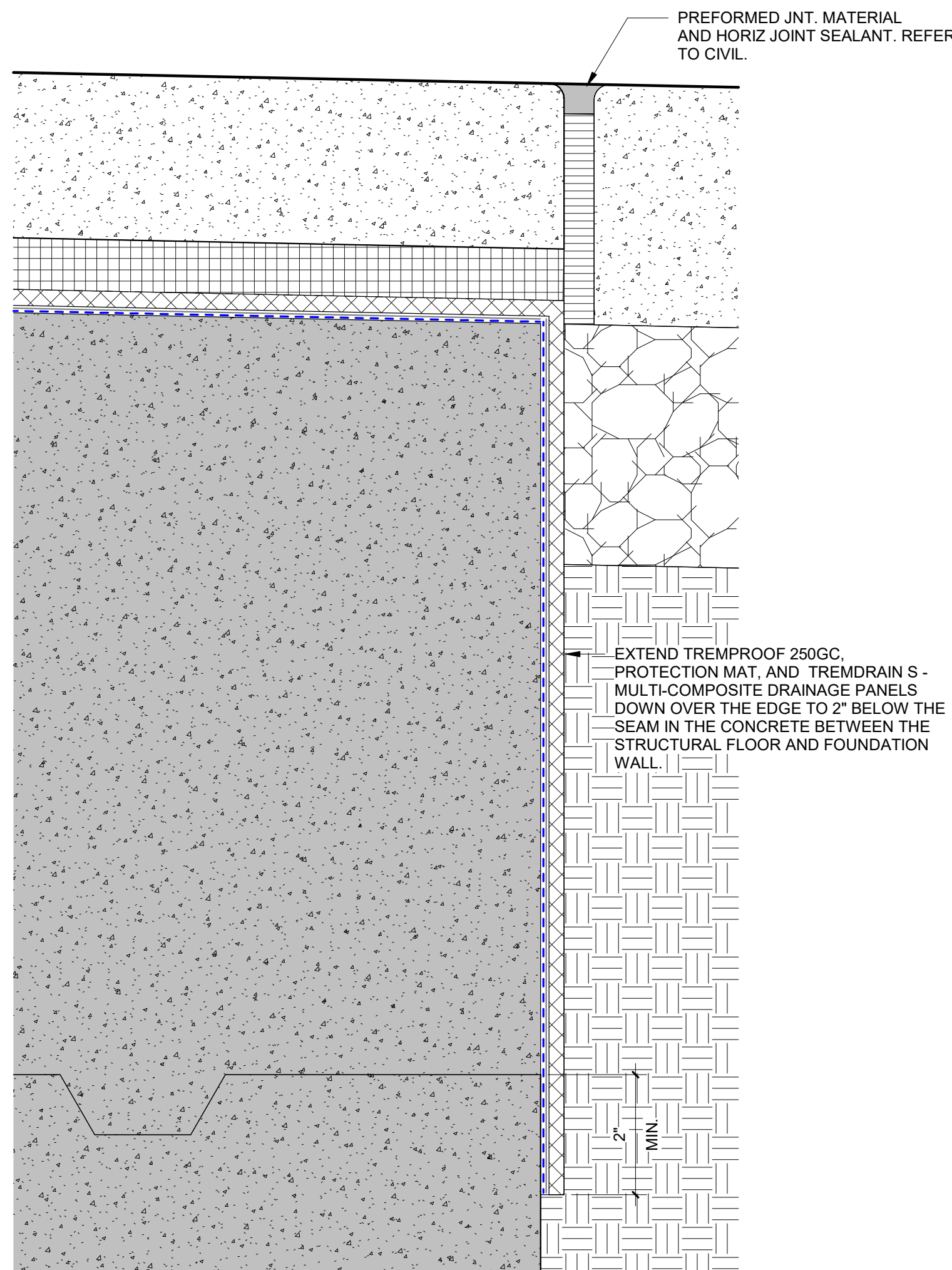
1 DEMOLITION PLAN
1/4" = 1'-0"



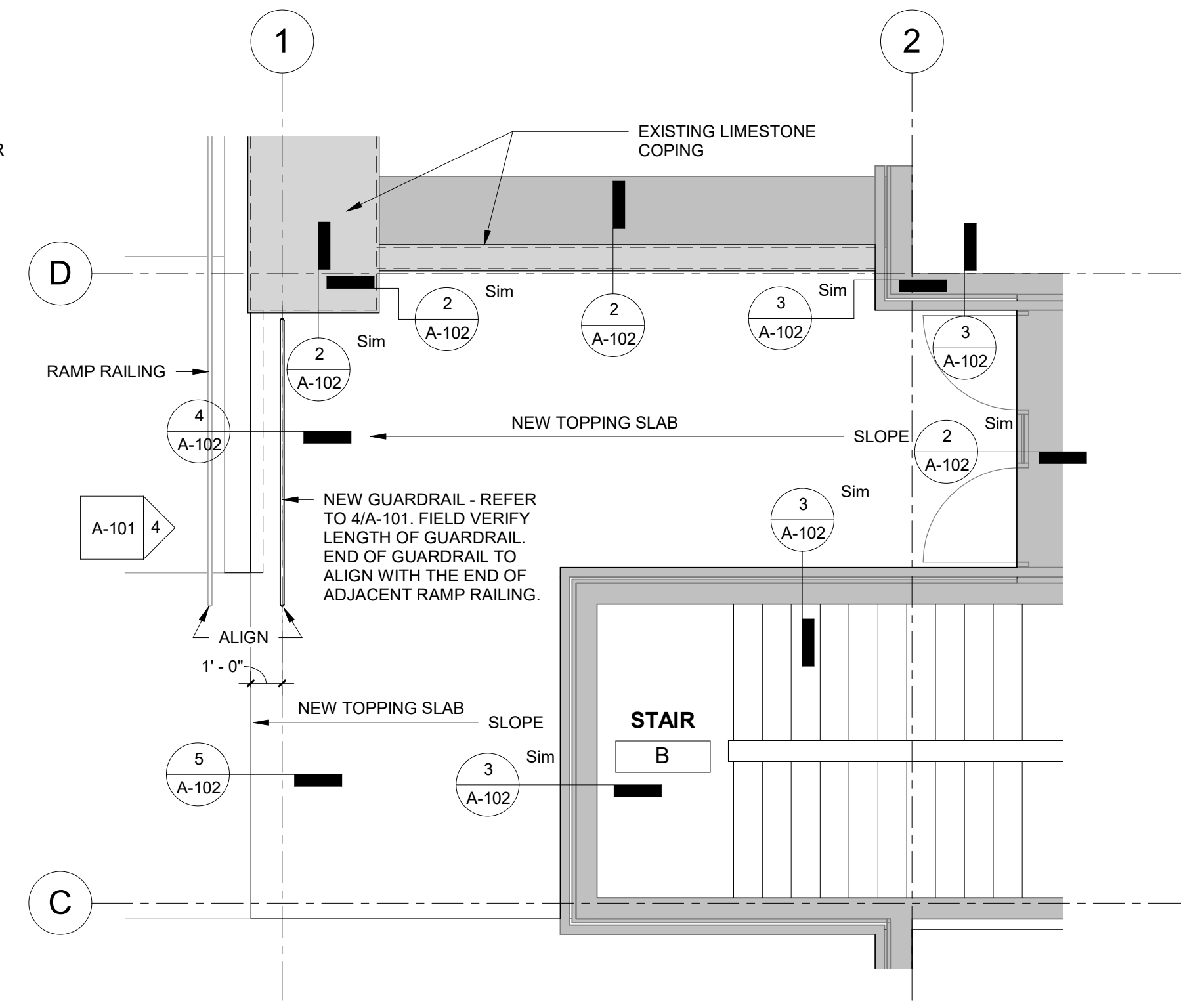
8 NEW GUARDRAIL DETAIL
3/4" = 1'-0"



4 EDGE OF SLAB - NORTH
6" = 1'-0"



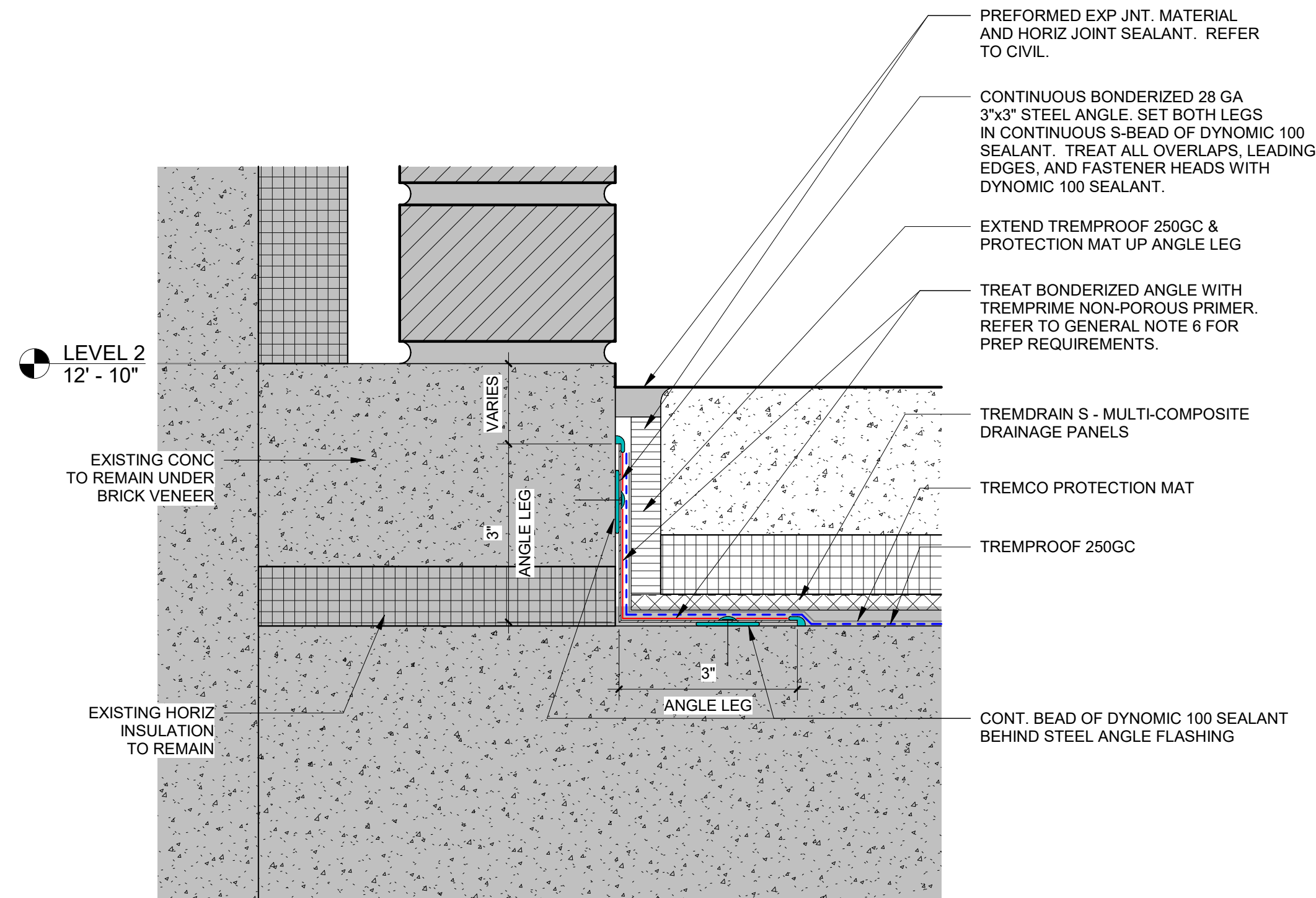
5 EDGE OF SLAB - SOUTH
6" = 1'-0"



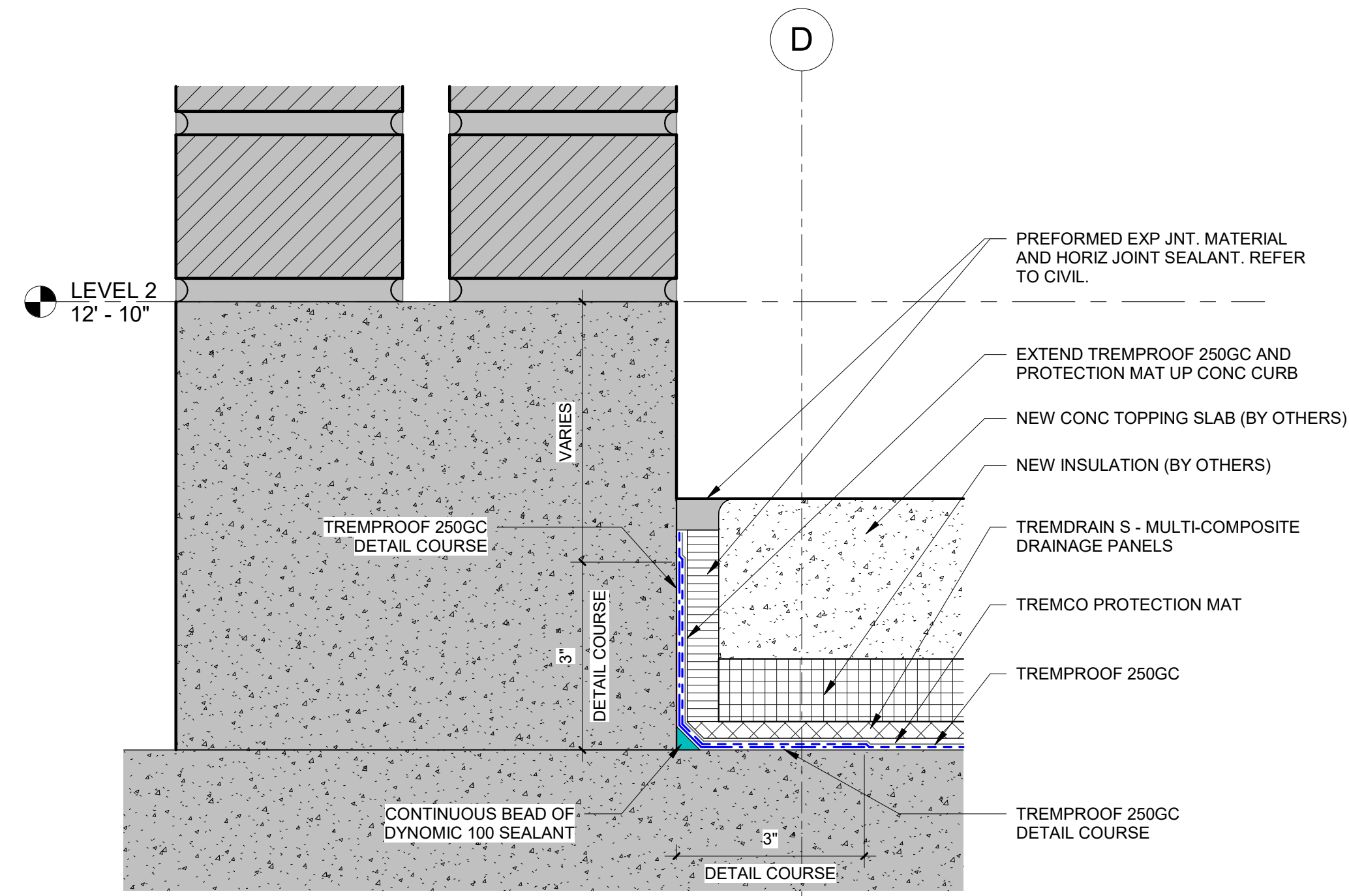
1 PLAN
1/4" = 1'-0"

WATERPROOFING SYSTEM - GENERAL NOTES

1. REMOVE EXISTING WATERPROOFING MEMBRANE AND PREP CONCRETE SURFACE TO CSP 2-4.
2. SURFACE TO BE WATERPROOFED SHALL BE CLEAN, SOUND AND FREE OF ALL CONTAMINANTS WHICH MAY INTERFERE WITH ADHESION OR PROPER CURING OF THE MEMBRANE.
3. IF RELEASE AGENTS ARE PRESENT, THEY MUST BE REMOVED PRIOR TO THE APPLICATION OF THE TREMPROOF 250GC WATERPROOFING.
4. HORIZONTAL AND VERTICAL CONCRETE SURFACES SHALL BE FREE OF VOIDS, EXPOSED AGGREGATE, HONEY COMBS, SPLATTERS, RIDGES, FINS AND OTHER PROJECTIONS OR DEPRESSIONS WHICH PRECLUDE A SMOOTH AND LEVEL SURFACE.
5. CONCRETE PATCHING MATERIALS SHALL BE STRUCTURAL WEIGHT CONCRETE, NON-SHRINK AND YIELD A MINIMUM OF 3000 PSI STRENGTH.
6. PREP BONDERIZED METAL ANGLE BY MECHANICALLY SCRATCHING FOLLOWED BY A SOLVENT WIPE, THEN DRY WIPE, AND ALLOW THE SOLVENT TO FLASH OFF.
7. CONDUCT FLOOD TEST AS RECOMMENDED BY TREMCO.



3 BOW @ EXISTING CONC/INSUL
6" = 1'-0"



2 BOW @ EXISTING CONC CURB
6" = 1'-0"

VERIFY SCALE!		REVISIONS			
THESE PRINTS MAY BE REDUCED. LINE BELOW MEASURES ONE INCH ON ORIGINAL DRAWING.		NO.	DESCRIPTION	DATE	BY
<div><div></div></div> MODIFY SCALE ACCORDINGLY!					

QC10 ARCHITECTS

108 S. Thurmond
Sheridan, Wyoming
82801
307.461.1031

www.qc10architects.com

Morrison
Maierle

engineers • surveyors • planners • scientists

1470 Sugarland Drive, Suite 1, Sheridan, WY 82801
307.672.9310 • www.m-m.net
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REGISTERED ARCHITECT
B-4002
DATE: 7/16/2024
STATE OF WYOMING

DRAWN BY: CMT
DSGN. BY: CMT
APPR. BY: TM
DATE: 7/16/2024
Q.C. REVIEW
BY:
DATE:

SHERIDAN

SHERIDAN COUNTY
BROOKS STREET GREENSPACE

WYOMING

FLOOR PLAN AND WATERPROOFING DETAILS

PROJECT NUMBER
6017.002

SHEET NUMBER
2

DRAWING NUMBER
A-102



Itemized Proposal

Thursday, August 8, 2024

PR # 04 & 05 combined

PROJECT: Brooks Street

OWNER: Sheridan County

TO: Tim Brugger

FROM: Aaron

Listed below is an itemized description for the extra work

Item	Quantity	Describe Work, Materials, or Labor	Unit Price	Ext. Price
1		Demo Brick wall		
1.1	10	HR, Skidsteer	\$ 125.00	\$ 1,250.00
1.2	10	HR, Labor	\$ 55.00	\$ 550.00
1.3	2	HR, Dump Truck	\$ 105.00	\$ 210.00
				\$ -
				\$ -
2		Patch Brick		\$ -
2.1	1	Provide and install brick at wall end	\$ 2,589.00	\$ 2,589.00
2.2	1	Fix cracks and broken bricks (requested by County)	\$ 1,380.00	\$ 1,380.00
				\$ -
				\$ -
3	1	Concrete Patch under membrane	\$ 480.00	\$ 480.00
				\$ -
				\$ -
4		Railing fabrication & installation		\$ -
4.1	1	Materials	\$ 2,347.00	\$ 2,347.00
4.2	1	Fabrication and installation	\$ 4,326.00	\$ 4,326.00
				\$ -
				\$ -
				\$ -
				\$ -
			TOTAL	\$ 13,132.00

Additional Time of 75 days will be added to the Contract Schedule to accommodate this Proposal



256 East Ridge Road
 Sheridan, WY 82801
 307.673.4909

Labor and Equipment Rates 2021
 Northern Underground, LLC

Equipment Rates

	\$/HR		\$/Day
Cat 143H Grader	185	Pickup Truck	40
Cat 12M Graader	195	2" Trash Pump	10
Cat D6K Dozer	165	Concrete Saw	200
Cat 308 Excavator	155	Generator	40
Cat 320 Excavator	175	Jumping Jack	75
Cat 323F Excavator	175	Plate Compactor	75
Hitachi 350 Ex	200	Air Compressor 185 cfm	200
Bobcat E63 Excavator	140	Light Plant	200
Vaccon Hydro-ex	250	Trench box	200
Cat 924 Loader	160	Road plates	200
Cat 930 Loader	170	GPS Daily Rate	400
Cat 323 Roller	125	Total Station Daily Rate	500
Cat 563 Roller	150		
Bomag Remote Roller	85		
Bell 4206 Scaper	185		
Bobcat T595 Skidsteer	125		
Bobcat T750 Skidsteer	125		
Bobcat T770 Skidsteer	125		
Roller Compaction Bucket	35		
Excavator Plate Compactor	50		
Bobcat Attachment	35		
Tandem Axle Dump Truck	105		
Dump Truck & Trailer	125		
Tractor & Lowboy	125		
Side Dump	125		
Watertruck	110		

Labor Rates

	\$/hr
Superintendent	95
Foreman	85
Operator	75
Laborer	55

From: [Aaron Rosenlund](#)
To: [Tre LaBossiere](#)
Cc: [Clinton Granger](#); [Tim Brugger](#)
Subject: RE: Brooks Green Space Membrane Field Orders
Date: Friday, August 16, 2024 7:59:17 AM
Attachments: [image001.png](#)
[image002.png](#)
Importance: High

This message originated from an **External Source.** Please use proper judgment and caution when opening attachments, clicking links, or responding to this message.

Correct

Thanks-

Aaron

From: Tre LaBossiere <tlabossiere@m-m.net>
Sent: Friday, August 16, 2024 7:58 AM
To: Aaron Rosenlund <aaron@northernunderground.com>
Cc: Clinton Granger <clinton@northernunderground.com>; Tim Brugger <tbrugger@m-m.net>
Subject: RE: Brooks Green Space Membrane Field Orders

Aaron,

Just to clarify so we can represent it accurately on the field order, is that everything I have copied below from your previous email?

“Rotohammer, scrapers, grinder, margin trowels, mag trowel, drill, mixer, hose, shop vac, paint rollers, trays, handles, caulk gun, knife, shovels, jumping jack, scrub brushes, rags. “

Thanks

 **Tre LaBossiere**
Engineer Intern, Morrison-Maierle
[+13076757709](tel:+13076757709) direct | [+13076729310](tel:+13076729310) office main

A 100% Employee-Owned Company

From: Aaron Rosenlund <aaron@northernunderground.com>
Sent: Friday, August 16, 2024 7:54 AM
To: Tre LaBossiere <tlabossiere@m-m.net>
Cc: Clinton Granger <clinton@northernunderground.com>
Subject: RE: Brooks Green Space Membrane Field Orders
Importance: High

This message originated from an **External Source.** Please use proper judgment and caution

when opening attachments, clicking links, or responding to this message.

Tre-

I think \$40 a day will cover the small tools costs.

Thanks-

Aaron

From: Tre LaBossiere <tlabossiere@m-m.net>
Sent: Wednesday, August 14, 2024 11:40 AM
To: Aaron Rosenlund <aaron@northernunderground.com>
Subject: RE: Brooks Green Space Membrane Field Orders

Aaron,

I guess you'll have to break down a little more with what you are referring to by small tools.

Thanks

 **Tre LaBossiere**
Engineer Intern, Morrison-Maierle
[+13076757709](tel:+13076757709) direct | [+13076729310](tel:+13076729310) office main

A 100% Employee-Owned Company

From: Aaron Rosenlund <aaron@northernunderground.com>
Sent: Wednesday, August 14, 2024 7:57 AM
To: Tre LaBossiere <tlabossiere@m-m.net>
Subject: FW: Brooks Green Space Membrane Field Orders
Importance: High

This message originated from an **External Source.** Please use proper judgment and caution when opening attachments, clicking links, or responding to this message.

Morning Tre-

Looking for clarification on how we are going to be paid for small tools on the T&M work.

Thanks-

Aaron

From: Aaron Rosenlund
Sent: Thursday, August 8, 2024 5:03 PM
To: Tre LaBossiere <tlabossiere@m-m.net>

Cc: Clinton Granger <clinton@northernunderground.com>; Marcus schoenfelder <marcus@northernunderground.com>; Tim Brugger <tbrugger@m-m.net>
Subject: RE: Brooks Green Space Membrane Field Orders

Tre-

See attached. We will plan on doing all the prep work and installation of the membrane as T&M. The only problem with that is that we are going to be using a bunch of small tools to complete the work. These tools are not listed on our rate sheet. Please let me know how we will address paying for these tools.

The discrepancy in the railing price is the first quote was an estimate based on conversations. Once we had the drawings, the supplier revised his number and provided pricing for an expedited schedule. If not expedited, time to complete railing is 7-8 weeks.

Thanks-

Aaron

From: Tre LaBossiere <tlabossiere@m-m.net>
Sent: Tuesday, August 6, 2024 12:04 PM
To: Aaron Rosenlund <aaron@northernunderground.com>
Cc: Clinton Granger <clinton@northernunderground.com>; Marcus schoenfelder <marcus@northernunderground.com>; Tim Brugger <tbrugger@m-m.net>
Subject: Brooks Green Space Membrane Field Orders

Aaron,

Due to the intricate nature of our current requests and the timing of onboarding the architect, we have encountered some overlap in price requests #4 and #5, both of which outline similar work and requested days. To streamline our documentation and facilitate clear communication with the county, we kindly ask you to provide a revised price request encompassing the following:

1. Demolition of the wall: \$2,010
2. Patching back the brick: \$2,589 (unless changed following the issuance of the architect's drawings)
3. Expedited guard rail cost (and timing if expediting is not selected)
4. Concrete costs from PR#05 (I think this work has already been done)
5. Any other relevant costs not included in the membrane installation
6. The days requested to complete all the above items


After consultation with the architect, we would like to proceed with the membrane work on a time and material basis. We have your submitted Labor and Equipment rates, and I will coordinate with Clinton daily to record the hours for each laborer and equipment.

Additionally, we need to address the discrepancy in the railing costs. In PR#04, the railing cost is

listed as \$3,360.00, while in PR#05, it is \$6,672.00. Could you please clarify the reason for this change?

We will process the change order to amend the number of days after the membrane work is completed to ensure accuracy. Payments for items included in this new price request will be made upon completion under the Miscellaneous Additional Work item.

Thanks



Tre LaBossiere
Engineer Intern, Morrison-Maierle
[+13076757709](tel:+13076757709) direct | [+13076729310](tel:+13076729310) office main
1470 Sugarland Dr, Suite 2, Sheridan, WY 82801

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SHERIDAN COUNTY – BROOKS STREET GREENSPACE

ENGINEER'S FIELD ORDER – FORCE ACCOUNT

☐ Owner
☒ Contractor

☐ Field
☐ File

PROJECT: Brooks Street Greenspace

FIELD ORDER NO.: 4

OWNER: SHERIDAN COUNTY

DATE: 7/24/2024

TO: Northern Underground

ENGINEER: Morrison-Maierle

ENGINEER'S PROJECT NO. 6017.002

CONTRACT DATE: 6/6/2023

In accordance with the General Conditions, the Engineer hereby authorizes the variation in the Work or additional Work described below which does not involve a change on Contract Time or Contract Price, and is consistent with the overall intent of the Contract Documents. Payment for any additional work will be under the "Force Account" or "Miscellaneous Additional Work" bid item (if included in the Bid Schedule for this particular project), therefore this Field Order does not increase the Contract amount. This Field Order is binding on the Owner and also on the Contractor, who shall perform the Work involved promptly.

The Engineer will determine whether Bid Unit Prices, Time and Materials, or agreed-to Lump Sum applies to the calculation of any additional work paid under this Field Order. The Engineer will calculate time involved if Time and Materials is used, and only time actually spent on completing the additional work will apply. The Engineer will present the Contractor a tabulation of hours for labor and equipment for the Force Account work at the end of each day, unless agreed otherwise with the Contractor.

Unit prices and mark-up for Time and Materials work will be per approved labor and equipment rates that comply with both the General Conditions and Modifications to the General Conditions, and invoice price for materials plus allowed mark-up.


The Force Account bid item will only be used when pre-approved by the Engineer.

DESCRIPTION:

ATTACHMENTS: Yes ☐ No ☒

Contractor shall furnish and install an emergency stop pushbutton at each entrance / exit to the boiler room. Pushbuttons shall be Pilla #WSPMPMDYCLM-30, or approved equal. Provide one 4-pole minimum, 20A, contactor with 120V electrically held 120V coil. The electrical contractor shall verify the exact quantity of poles required to properly control all boilers prior to ordering. Contractor shall route circuits serving the new boiler, B-1, and the existing circuits serving the existing boilers through the contactor's contacts. Contractor shall wire emergency pushbuttons and contactor such that with the push of either pushbutton, the contactor's contacts open and de-energize all boilers. Circuit the contactor coil from the nearest available 120V unswitched power source. Provide all conduit and wire required for a complete and fully functional system.

ENGINEER: Morrison Maierle

BY: Tim Brugger, P.E. 

SHERIDAN COUNTY – BROOKS STREET GREENSPACE

ENGINEER'S FIELD ORDER – FORCE ACCOUNT

☐ Owner
☒ Contractor

☐ Field
☐ File

PROJECT: Brooks Street Greenspace

FIELD ORDER NO.: 5

OWNER: SHERIDAN COUNTY

DATE: 8/20/2024

TO: Northern Underground

ENGINEER: Morrison-Maierle

ENGINEER'S PROJECT NO. 6017.002

CONTRACT DATE: 6/6/2023

In accordance with the General Conditions, the Engineer hereby authorizes the variation in the Work or additional Work described below which does not involve a change on Contract Time or Contract Price, and is consistent with the overall intent of the Contract Documents. Payment for any additional work will be under the "Force Account" or "Miscellaneous Additional Work" bid item (if included in the Bid Schedule for this particular project), therefore this Field Order does not increase the Contract amount. This Field Order is binding on the Owner and also on the Contractor, who shall perform the Work involved promptly.

The Engineer will determine whether Bid Unit Prices, Time and Materials, or agreed-to Lump Sum applies to the calculation of any additional work paid under this Field Order. The Engineer will calculate time involved if Time and Materials is used, and only time actually spent on completing the additional work will apply. The Engineer will present the Contractor a tabulation of hours for labor and equipment for the Force Account work at the end of each day, unless agreed otherwise with the Contractor.

Unit prices and mark-up for Time and Materials work will be per approved labor and equipment rates that comply with both the General Conditions and Modifications to the General Conditions, and invoice price for materials plus allowed mark-up.


The Force Account bid item will only be used when pre-approved by the Engineer.

DESCRIPTION:

ATTACHMENTS: Yes X No

Contractor shall move the outlets from the face of the raised platform to the back wall. All work to move the outlets including moving existing infrastructure and installing/furnishing new equipment shall be included in the price. Final locations shall be in the same location along the curve of the wall as they are shown on the face of the raised platform (see attached sheet).

ENGINEER: Morrison Maierle

BY: Tim Brugger, P.E. 



A. IT IS ABSOLUTELY NECESSARY FOR ALL TRADES INVOLVED TO COORDINATE WITH EACH OTHER AND VERIFY THAT THERE ARE NO CONFLICTS IN LOCATION OF CONDUITS, PIPING AND OTHER ITEMS THROUGHOUT THIS PROJECT BEFORE FINAL PLACEMENT OF MATERIALS.

B. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING AND COMPACTION TO PERFORM THE REQUIRED WORK DEPICTED IN THESE DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL EARTH WORK TO PREVENT SETTLLING TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.

C. CLEAR OPTICAL GLASS MOUNTED ON SITE SHALL HAVE A MINIMUM OF 24" OF CLEAR, PROPERLY COMPACTED COVER LOCATED OVER THEM.

D. LINES SHOWN ON THE PLAN FROM ELECTRICAL BASED DEVICES TO THE BUILDING/ POWER SOURCE REPRESENT THE PROPOSED ROUTING PATH FOR RACEWAYS. EC TO SELECT BEST PATH WHEN ROUTING FOR THE LEAST IMPACT ON SITE OR BUILDING.

E. EC TO PROVIDE A CIRCUIT CONSISTING OF #10'S THROUGH OUT IN 1" PVC FOR ALL SITE BASED POWER CONSUMING DEVICES: LIGHTS, RECEPTABLES, ECT, UNO.

F. COORDINATE ALL LOCATIONS WITH CIVIL DRAWINGS. UTILITY MAPS AND GRADING PLANS, INCLUDING ANY/ALL CONTRACTUAL CLARIFICATIONS OR CHANGES. LIGHTING FIXTURES ON SITE PLANS ARE SHOWN IN SCHEMATIC FORM AND ARE NOT TO SCALE. VERIFY FINISH GRADE HEIGHT PRIOR TO SETTING BASES. POLE LIGHT LOCATIONS MAY NEED TO BE SHIFTED SLIGHTLY TO PROPERLY ALIGN THE FIXTURES AESTHETICALLY AND TO AVOID ENCRoACHMENT ON TRAVEL LANES, PARKING SPOTS, CURBS, SIDEWALKS, OVERHEAD UTILITY LINES, ETC.

G. ALL EXTERIOR RECEPTABLES SHALL BE: GFI STYLE, WEATHER RESISTIVE CONSTRUCTION AND FEATURE A WEATHERPROOF-IN-USE METALLIC COVER, AS WELL AS ANY ADDITIONAL FEATURES WHEN CALLED FOR ON PLANS. MOUNT DEVICES AT 24" AFF.

H. ALL SITE LIGHTING CONTROL PANEL LOCATED IN THE BUILDING INTERIOR NEXT TO THE PLAN "LST" FOR CONTROL. SEE DETAIL ON E-5 FOR PROGRAMMING INFORMATION AND ADDITIONAL DETAILS.

I. ARRANGE BOLLARDS SUCH THAT THEIR OPTICS (FIXTURE TYPE E3) ILLUMINATE THE SIDEWALK IN FRONT OF THE FIXTURE. FIXTURE TYPE E4 ARE AN SYMMETRICAL OPTIC STYLE AND HAVE NO AIMING NEEDS.

1. RECEPTACLE LOCATED FLUSH IN THE FACE OF THE RAISED SITTING PAD AT THIS LOCATION.
2. RECEPTACLE LOCATED FLUSH IN THE CONCRETE WALL FOR SERVING OF PERGOLA CORD AND PLUG CONNECTED DEVICES. ROUTE CIRCUITRY SERVING THESE RECEPTACLE THROUGH THE RELAY LOCATED IN BOILER ROOM ADJACENT TO THE LCP FOR CONTROL VIA THE LCP.
3. FLOOR MOUNTED TRANSFORMER, UNIT IS LOCATED ADJACENT TO WHERE THE EXISTING GENERATOR RESIDED PRIOR TO REPLACEMENT.
4. NEW REBAR LAY FOR SERVING OF SITE ADDED LOADS.
5. EXISTING GE PANELBOARD THAT WILL BE USED TO FEED NEW PROJECT TRANSFORMER. SEE ONE-LINE ON E-5 FOR ADDITIONAL DETAILS.
6. LIGHTING CONTROL PANEL FOR CONTROL OF THE SITE LIGHTS.
7. ALL RACEWAYS FOR SITE POWER CONSUMING DEVICES SHALL BE ROUTED TO THIS LOCATION, ADJACENT TO THE WALL LOUVER AND RISE FROM GRADE TO BE SURFACE MOUNTED ON THE BUILDING EXTERIOR. RACEWAYS SHALL ROUTE UP THE WALL AND LAND IN A COMMON NEMA 3P JUNCTION BOX THAT IS MOUNTED HIGH ON BUILDING EXTERIOR WALL, AT APPROXIMATELY THE LOCATION OF THE CEILING STRUCTURE IN THE BUILDING INTERIOR. RACEWAYS SHALL PENETRATE EXTERIOR WALL AND ROUTE THROUGH THE CEILING SPACE OF BOILER ROOM PRIOR TO TERMINATING ON THE LCP OR PANEL LST. ALL RACEWAY ROUTING SHALL BE DONE IN A CLEAN AND AESTHETICALLY PLEASING MANNER (90 DEGREE ANGLES, PERPENDICULAR OR PARALLEL TO WALL SURFACES) AND SHALL BE OF EMT CONSTRUCTION WHEN LOCATED ABOVE GRADE THAT FEATURES WEATHER TIGHT FITTINGS IN WET LOCATIONS.
8. RELAY FOR CONTROL OF THE PERGOLA RECEPTACLES FROM INPUT FROM THE LCP. RELAY SHALL BE SQ D CLASS #8501C, SPST CONFIGURATION WITH 120V CLM. MOUNT RELAY IN A NEMA 1 ENCLOSURE ABOVE THE LCP. SEE DETAIL 7E-5 FOR ADDITIONAL INFORMATION.
9. EC TO PROVIDE A 100A, 3-POL, NON-FLUSH DISCONNECT IN A NEMA 1 ENCLOSURE TO SERVE AS THE LOCAL DISCONNECTING MEANS FOR THE PRIMARY SIDE OF THE TRANSFORMER.
10. POWER CONNECTION MOUNTED AT 48" AFF FOR IRRIGATION CONTROLLER PROVIDED BY LANDSCAPE CONTRACTOR. EC TO CONFIRM FINAL CONTROLLER LOCATION AND HEIGHT PRIOR TO ROUGH-IN.

11. NEW BOILER PUMP LOCATED ON MEZZANINE ABOVE THE ELECTRICAL ROOM AND ADJACENT TO THE EXISTING PUMPS LOCATED ON THE FLOOR. PUMP COMES COMPLETE WITH UNIT MOUNTED VFD THAT FEATURES A DISCONNECT. EC TO LAND ON LINE SIDE OF DISCONNECT AND WIRE COMPLETE.
12. EC TO DROP POWER FROM THE STRUCTURE ABOVE AND MOUNT A RECEPTACLE TO A UNISTRUT RACK THAT IS BUILT BY THE EC. WHICH WILL ALSO SUPPORT THE DISCONNECT FOR THE BOILER PUMP AND BOILER. FASTEN THE RACK TO THE NEW BOILER HOUSE KEEPING PAD THAT IS CONSTRUCTED BY THE MC.
13. THE PUMP IS PROVIDED WITH AN EXTERNAL CIRCULATION PUMP THAT MUST BE FIELD WIRED BY THE EC TO THE BOILER. CONTROLS BETWEEN PUMP AND BOILER SHALL BE BY THE MC. EC TO COORDINATE W/ MC FOR FINAL LOCATION OF BOILER PUMP PRIOR TO ROUGH-IN.
14. ROUTE CIRCUIT SERVING BOILER THROUGH THE EXISTING EMERGENCY BOILER SHUTDOWN CONTACTOR IN THE ROOM. APPROXIMATE LOCATION OF COMMON VOLTAGE CONTROLLER IS 48" AFF. FIELD VERIFY.
15. NOTED LOCATION OF BOILER SHUT DOWN CONTACTOR, FIELD VERIFY AND ADJUST WIRING FROM NEW BOILER INSURE ITS MAIN POWER IS FULLY ELECTRICALLY CONTROLLED.
16. POWER CONNECTION FOR THE WALL MOUNTED SNOW MELT ZONE CONTROLLERS, THAT ARE PROVIDED BY THE MC WITH ALL LINE VOLTAGE CONTROLLERS BY THE MC. APPROXIMATE HEIGHT FOR ROUGH-IN IS 48" AFF. VERIFY FINAL LOCATION AND LOCATION OF THE CONTROLLERS WITH THE MC PRIOR TO ROUGH-IN. CONNECT ALL CONTROLLERS TO THE COMMON LINE VOLTAGE CIRCUIT NOTED.



Itemized Proposal

Tuesday, August 13, 2024

PR # 07

PROJECT: Brooks Street

OWNER: Sheridan County

TO: Tim Brugger

FROM: Aaron

Listed below is an itemized description for the extra work

Item	Quantity	Describe Work, Materials, or Labor	Unit Price	Ext. Price
1	1	Move outlets from face raised platform to wall,	\$ 4,125.00	\$ 4,125.00
		Extend conduits, install junction box in landscape strip		\$ -
		behind seat wall, cut blocks and fit conduit		\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
			TOTAL	\$ 4,125.00

Additional Time of 3 days will be added to the Contract Schedule to accommodate this Proposal Request.