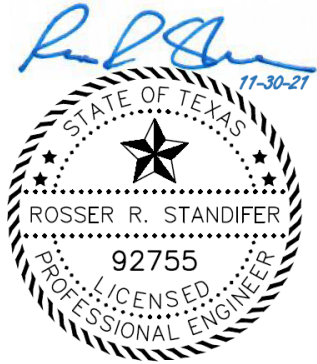


00 91 01 ADDENDUM NUMBER 01

Owner: City of Arlington, Texas
 John F. Kubala WTP West High Service Pump Station Pump 4 & 5
Project: Addition
Project No.: WUTR19020
Addendum No. 01
Addendum Date: December 1, 2021

The following additions, deletions, modifications, or clarifications shall be made to the appropriate portions of the Contract Documents. Bidders must acknowledge receipt of this Addendum in the space provided on the Bid Form.

Approved by: Arcadis, Inc.
Name: Ross Standifer, P.E.
Date: 11/30/2021



Arcadis, Inc.
Texas Registered Engineering Firm,
Firm Registration 533

Addendum Items:

Article 2 – Specifications
Section 2.01, 2.02
Article 3 – Drawings
Section 3.01, 3.02, 3.03

ARTICLE 1 – ADDENDUM

- 1.01 Amend the Contract Documents
 - A. Make the additions, modifications, or deletions to the Contract Documents described in this Addendum.
- 1.02 Acknowledge Addenda
 - A. Acknowledge receipt of this Addendum in the Bid Form submitted for this Project. Failure to acknowledge receipt of this addendum in the Bid Form may render the Bid as non-responsive and serve as the basis for rejecting the Bid.

ARTICLE 2 – SPECIFICATIONS

- 2.01 Add the following Specification Sections:

Section	Section Title
05 52 14	Steel Handrails and Railings

- 2.02 Section 31 23 05: **EXCAVATION AND FILL**
 - A. “1. Material shall be recycled crushed concrete which meets TXDOT Item 247, Grade 1, Type D gradation.”
 - B. Remove Paragraph 3.10.H.

ARTICLE 3 – DRAWINGS

- 3.01 Sheet **C-02 – PROPOSED SITE PLAN**
 - A. Add General Note 1 as follows:

“1. PROVIDE REPLACEMENT SECTIONS NECESSARY TO FACILITATE REMOVAL AND REPLACEMENT OF THE EXISTING HANDRAILS INDICATED ON THE DRAWINGS. IT IS ACCEPTABLE TO REUSE SEGMENTS OF EXISTING HANDRAIL SYSTEM WITH THE APPROVAL OF THE ENGINEER.”
 - B. Add General Note 2 as follows:

“2. THE CONTRACTOR SHALL FIELD CUT, STORE AND PROTECT EXISTING HANDRAIL SECTIONS.”
 - C. Add General Note 3 as follows:

“3. THE CONTRACTOR SHALL PROVIDE REPLACEMENT SECTIONS FOR ANY DAMAGED PORTIONS OF RAILING OR POSTS. REPLACEMENT SECTIONS SHALL BE SHOP GALVANIZED.”
 - D. Add General Note 4 as follows:

“4. FIELD WELDING PROCEDURES SHALL COMPLY WITH AWS D19.0 REMOVE ZINC COATING ON EXISTING AND REPLACEMENT COMPONENTS ONE TO FOUR INCHES FROM EACH SIDE OF ALL REQUIRED FIELD WELDS. FOLLOWING COMPLETION OF WELDING GRIND AREA SMOOTH AND REPAIR FINISH IN ACCORDANCE WITH ASTM A 780.”
 - E. Add General Note 5 as follows:

“5. COAT FIELD WELDS AND ADJACENT BARE STEEL AREAS IN ACCORDANCE WITH THE SPECIFICATIONS. COATING THICKNESS SHALL BE 50 PERCENT MORE THAN SURROUNDING SHOP GALVANIZED THICKNESS OR 4.0 MILS WHICHEVER IS LESS. THICKNESS MEASUREMENT SHALL BE TAKEN WITH EITHER MAGNETIC, ELECTROMAGNETIC OR EDDY CURRENT GAUGE.”

F. Add General Note 6 as follows:

“6. THE CONTRACTOR SHALL FIELD (COLOR) COAT BOTH THE REPLACEMENT AND EXISTING (LEFT IN PLACE) GALVANIZED STEEL HANDRAIL IN ACCORDANCE WITH THE SPECIFICATIONS. BASE BIDS ON FIELD COATING OF 100 LF OF HANDRAIL SYSTEM COMPRISED OF UPPER RAILS, MIDDLE RAILS AND UPRIGHTS (POSTS). IF DIRECTED BY THE OWNER TO LEAVE HANDRAILING WITH THE SHOP APPLIED GALVANIZED FINISH, THE CONTRACTOR SHALL CREDIT THE OWNER WITH THE COST OF MATERIALS AND LABOR REQUIRED TO FIELD COAT THE RAILINGS.”

G. Add new callout to the handrails:

“FIELD COAT EXISTING AND REPLACEMENT HANDRAILS, SEE NOTE 6”

3.02 Sheet **C-03 – SITE PAVING AND GRADING PLAN**

A. Remove and replace Sheet C-03 in its entirety. See attached C-03 as part of this addendum.

3.03 Sheet **C-05 – DETAILS II**

A. Remove and replace Sheet C-05 in its entirety. See attached Sheet C-05 as part of this addendum.

END OF ADDENDUM NO. 01



PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified or required to furnish steel handrail and railing systems.
2. The extent of the Work shall be as shown and includes the following types:
 - a. Galvanized steel pipe handrails and railings. The Contractor shall provide full replacement sections for the full linear footage shown as the drawings as demolished (removed) and replaced matching the diameter and schedule of existing components.
 - b. Painting of existing handrails: if directed by the Owner the Contractor shall field coat both existing handrailing sections in the concrete ramp that were left in place and the replacement sections installed following completion of the below grade work.
3. Provide openings in and attachments to the steel handrails and railings to accommodate the Work under this and other Sections. Provide all items for the steel handrails and railings such as anchor bolts, fasteners, studs, and all items required for which provision is not specifically included under other Sections.

B. Coordination:

1. Review installation procedures under this and other Sections and coordinate the installation of items that must be installed with, or before the steel handrails and railings Work.

C. Related Sections:

1. Section 03 60 00, Grouting.
2. Section 05 05 33, Anchor Systems.
3. Section 09 91 00, Painting. (Specifications for surface preparation and shop priming required under this Section are under Section 09 91 00, Painting.)

1.2 REFERENCES

A. Standards referenced in this Section are listed below:

1. American National Standards Institute, (ANSI).
 - a. ANSI A12.1, Safety Requirements for Floor, Wall, Railings and Toeboards.
 - b. ANSI A 1264.1, Safety Requirements for Work Place Floor and Wall Openings, Stairs and Railing Systems.
2. American Society for Testing and Materials, (ASTM).
 - a. ASTM A 36/A 36M, Specification for Carbon Structural Steel.
 - b. ASTM A 47/A 47M, Specification for Ferritic Malleable-Iron Castings.
 - c. ASTM A 48/A 48M, Specification for Gray Iron Castings.

- d. ASTM A 53/A 53M, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - e. ASTM A 123/A 123M, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - f. ASTM A 153/A 153M, Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - g. ASTM A 307, Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
 - h. ASTM A 501, Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
 - i. ASTM A 554, Specification for Welded Stainless Steel Mechanical Tubing.
 - j. ASTM A 743/A 743M, Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion-Resistant for General Application.
 - k. ASTM A 780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
- 3. American Welding Society, (AWS).
 - a. AWS D1.1/D1.1M, Structural Welding Code-Steel.
 - b. AWS WZC D19.0, Welding zinc coated steel.
 - 4. National Association of Architectural Metal Manufacturers, (NAAMM).
 - a. NAAMM, Metal Finishes Manual.
 - 5. Occupational Safety and Health Administration, (OSHA).
 - a. OSHA Part 1910.23, Guarding Floor and Wall Openings and Holes.

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Manufacturer shall have a minimum of five years experience producing substantially similar products and shall be able to show evidence of at least five installations in satisfactory operation for at least five years.
 - 2. Manufacturer of railing system shall guarantee, in writing, the availability of replacement parts and components for a period of not less than five years after completion of the Work.
- B. Component Supply and Compatibility:
 - 1. Obtain all products included in this Section regardless of the component manufacturer from a single steel handrails and railings manufacturer.
 - 2. The steel handrails and railings manufacturer to review and approve or to prepare all Shop Drawings and other submittals for all components furnished under this Section.
 - 3. All components shall be specifically constructed for the specified service conditions and shall be integrated into the overall assembly by the steel handrails and railings manufacturer.
- C. Codes:
 - 1. Comply with the applicable requirements of OSHA and the Uniform Building Code.
 - 2. If there is a conflict between the OSHA requirements and the Uniform Building Code comply with whichever requirement is more stringent.
- D. Qualifications for Welding Work:

1. Qualify welding processes and welding operators in accordance with AWS "Structural Welding Code" D1.1/D1.1M, Section 5, Qualification.
2. Provide certification that all welders employed on or to be employed for the Work have satisfactorily passed AWS qualification tests within the previous 12 months. CONTRACTOR shall ensure that all certifications are kept current.

1.4 SUBMITTALS

- A. Action Submittals: Submit the following:
 1. Shop Drawings:
 - a. Detailed drawings for the fabrication and erection of steel handrails and railings. Include plans, elevations, layouts and details of sections and connections. Show anchorage items.
 2. Delegated Design Submittals:
 - a. All calculations for complete structural analysis of the handrail and railing systems, including calculations showing compliance with system performance criteria specified. The calculations shall be prepared, signed and sealed by a Registered Professional Engineer licensed in the State of Texas.
- B. Informational Submittals: Submit the following:
 1. Source Quality Control Submittals:
 - a. Furnish certification by manufacturer that loading tests have been performed on the handrail, and that it conforms to all applicable OSHA and ANSI requirements for load and deflection.
 2. Field Quality Control Submittals:
 - a. Submit results of testing and inspection performed in the field by testing agency employed by CONTRACTOR.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Packing, Shipping, Handling and Unloading:
 1. Deliver materials to the Site to ensure uninterrupted progress of the Work. Deliver anchor bolts and anchorage devices which are to be embedded in cast-in-place concrete in ample time to prevent delay of that Work.
 2. Protect painted and galvanized handrails and railings from abuse so as to prevent nicks, gouges and dents.
- B. Storage and Protection:
 1. Store materials to permit easy access for inspection and identification. Keep all material off the ground, using pallets, platforms, or other supports. Protect steel members and packaged materials from corrosion and deterioration.
- C. Acceptance at Site:
 1. All boxes, crates and packages shall be inspected by CONTRACTOR upon delivery to the Site. CONTRACTOR shall notify ENGINEER, in writing, if any loss or damage exists to equipment or components. Replace loss and repair damage to new condition in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.1 PERFORMANCE CRITERIA

A. Performance Criteria:

1. Maintain the visual design concept shown, and the technical requirements specified, including modules, profiles, alignment of components and requirements for finish.
2. Provide handrail and railing systems that conform to the Uniform Building Code and OSHA, Part 1910.23, including the 200-pound loading requirement. In addition, the system shall conform to the following requirements:
 - a. Completed railing and handrail systems shall withstand a uniform lateral force of 40-pounds per linear foot and a vertical uniform force of 50- pounds per linear foot, both applied simultaneously at the top of the handrail and railing.
 - b. Intermediate and bottom rails shall withstand simultaneously applied lateral uniform forces of 40-pounds per linear foot and a vertical load of 50-pounds per linear foot, however, lateral and vertical loads on intermediate and bottom railings need not be considered in the detailing and fabrication of posts and anchorages.
 - c. For railings having panels, the panels shall be detailed and fabricated to withstand a uniform lateral load of twenty pounds per square foot.
 - d. Concentrated 200-pound load and uniform force conditions shall not be applied simultaneously.
 - e. Other pertinent requirements ceded to ANSI A1264.1 by the Uniform Building Code.
 - f. Bending stresses shall not exceed 60 percent of the yield stress of the material. Applied loads shall not produce permanent deflection in the completed Work when loads are removed.
 - g. Select schedule of pipe, minimum diameter, loadings and maximum post spacing specified in order to limit deflection in each single-span of railing and handrail to 1.5-inches maximum and on railing posts to 1.4-inches maximum and with a safety factor of 1.65:1 for all Work.
3. Thermal Control: Provide adequate expansion within fabricated systems that allows for a thermal expansion and contraction caused by a material temperature change of 140°F to -20°F without warp or bow of system components. Distance between expansion joints shall be based on providing a 1/4-inch wide joint at 70°F, which accommodates a movement of 150 percent of the calculated amount of movement for the specified temperature range.
4. Provide expansion joints in handrail and railing systems where systems cross expansion joints in structure.
5. Provide handrail and railing systems as shown. Where handrail or railing systems are required by either the governing authority having jurisdiction at the Site or the Occupational Safety and Health Act of 1970, or the Americans with Disabilities Act of 1990, handrail and railing systems of the type specified herein shall be provided.
6. Configuration of all handrail and railing systems components shall be as shown. Verify dimensions at the Site without causing delay in the Work.

7. Except where detailed dimensions are shown, indicate required locations for posts, space posts at a maximum on centers dimension to match the existing railing. The Contractor shall at minimum include the same number of posts as are present in the existing sections removed. Additional posts may be added at the option of the Contractor for stability in placement of the Work.
8. Where details show post location requirements at or near end of runs, uniformly space intermediate posts as required to meet loading and deflection criteria specified, but not greater than maximum spacing specified. Where posts are shown at straight walkways and other locations where railing is provided on each side, locate railing system posts opposite each other; do not stagger.
9. Fabricator is responsible for structural analysis and detailing of handrails and railings systems. Provide complete structural calculations and verification of other system performance criteria and Shop Drawings for all handrail and railing members, anchors and all other support system components prepared, signed and stamped with the seal of a Registered Professional Engineer licensed to practice in the State of Texas and recognized as an expert in the specialty involved.

2.2 MANUFACTURERS (NOT USED)

2.3 MATERIALS

- A. Steel Plates, Shapes and Bars: ASTM A 36/A 36M.
- B. Steel Pipe: ASTM A 53/A 53M, Type E or Type S, Grade A; 1.90-inches OD; standard weight (Schedule 40), unless otherwise shown or specified.
- C. Steel Tubing: ASTM A 501.
- D. Gray Iron Castings: ASTM A 48/A 48M, Class 30.
- E. Malleable Iron Castings: ASTM A 47/ 47M, grade as required.
- F. Fasteners: ASTM A 307.
- G. Carbon Steel, Welded, Pipe Handrails and Railings:
 1. Use a steel, welded pipe railing system with posts, top and intermediate rails, and welded joints.
 2. Hot-dip galvanize sub-assemblies following shop fabrication.

2.4 FABRICATION

- A. General: Form exposed Work true to line and level with accurate angles and surfaces and straight sharp edges. Form bent-metal corners to the smallest radius possible without causing grain separation or otherwise impairing the Work.
- B. Fabricate to profiles shown.
- C. Connections:

1. Welded Connections: Cope intersections of rails and posts, weld joints and grind smooth. Butt weld end-to-end joints of railings or use welding connectors.
 - a. Weld corners and seams continuously and as follows:
 - 1) Painted and Galvanized Railings: In accordance with AWS D1.1/D1.1M, Section 10.
 - b. Grind exposed welds smooth and flush, to match and blend with adjoining surfaces.
 - E. Brackets, Flanges, and Anchors: Provide brackets, flanges, and anchors for railing posts and for handrail supports. Furnish inserts and sleeves as required for anchorage to concrete or masonry. Components shall be in accordance with manufacturer's recommendations.
 - F. Finish:
 1. Galvanized Railings: Galvanize all railings, including pipe, fittings, brackets, fasteners and other ferrous metal components in accordance with ASTM A 123/A 123M. If handrails are mechanically fastened as specified above, all ferrous components, except pipe, shall be galvanized in accordance with ASTM A 153/A 153M.
- 2.4 PAINTING
- A. Surface Preparation and Shop Priming: All galvanized steel handrails and railings shall be primed in the shop unless otherwise directed by the Owner during construction. Surface preparation and shop priming requirements are included herein, but are specified in Section 09 91 00, Painting. If the existing and installed handrail sections are to be left in a galvanized finish that Contractor shall credit the Owner for the cost of surface preparation, materials and labor associated with painting.
 - B. Repair damaged galvanizing and bare steel surfaces in accordance with ASTM A 780, Standard Practice for Repair of Damaged Hot-Dipped Galvanized Coatings, Annex A2. Thoroughly clean damaged areas with a power sanding disk (e.g. 3M Scotch-Brite™ Clean and Strip disk) to produce a clean, bare and dry bright metal surface. Touch up shall not be permitted using aerosol spray, silver paint, brite paint, or aluminum paint. Approved repair paints include ZiRP™ by Duncan Galvanizing (617-389-8440) and ZRC® Cold Galvanizing Compound (781-319-0400).

PART 3 - EXECUTION

3.1 INSPECTION

- A. CONTRACTOR shall examine the conditions under which the Work is to be installed and notify the ENGINEER, in writing, of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected.
- B. Make adjustments required to place system in proper operating condition.

3.2 INSTALLATION

- A. Fastening to In-Place Construction:
 - 1. Provide anchorage devices and fasteners where necessary for securing handrails and railing items to in-place construction, including threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts and other connectors, as required. Use devices and fasteners that are compatible with installed material.
- B. Cutting, Fitting and Placement:
 - 1. Perform cutting, drilling and fitting required for installation. Set the Work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels.
 - 2. Fit exposed connections accurately together to form tight hairline joints. Field welding will not be permitted, unless approved by ENGINEER. Do not cut or abrade the surfaces of units, which have been coated or finished after fabrication, and are intended for field connections.
 - 3. Permanent splice connections shall be made in accordance with manufacturer's instructions.
 - 4. Provide approved slip connections in top and bottom rails at each expansion joint.
 - 5. Space posts on centers, eight feet maximum, unless otherwise shown.
 - 6. Adjust railings prior to securing in place, to ensure proper matching at butting joints and correct alignment throughout their length. Plumb posts in each direction. Secure posts and rail ends to building construction as follows:
 - a. Anchor posts in concrete by means of sleeves set and anchored into the concrete floor slab. Provide closure secured to the bottom of the sleeve. Unless otherwise shown, after the posts have been inserted into the sleeves, fill the annular space between posts and sleeves solid with grout as specified in Section 03 60 00, Grouting. Crown grout around posts so that drainage will be away from posts.
 - b. CONTRACTOR may, at their option, anchor posts in concrete by core drilling holes in areas selected by him and approved by ENGINEER. Drill holes not less than 1-inch greater than the outside diameter of post. Reinforcing steel shall not be cut by the core drilling. Fill the annular space with grout as specified above.
 - 7. Secure handrails to walls with wall brackets and end fittings as shown. Drill wall plate portion of the bracket to receive one bolt, unless otherwise shown for concealed

anchorage. Locate brackets as shown or, if not shown, at not more than eight feet on centers. Provide flush-type wall return fittings with the same projection as that shown for wall brackets. Secure wall brackets and wall return fittings to building construction as follows: Refer to Section 05 05 33, Anchor Systems.

3.3 REPAIR

- A. Touch-up Painting:
 - 1. For damages following application of shop or field coating, comply with all requirements of touch-up painting specified in Section 09 91 00, Painting.
 - 2. Immediately after erection, clean field welds and all damaged and abraded areas of the shop paint. Apply paint to all exposed areas with the same material used for shop painting. Apply by brush or spray to provide a minimum dry film thickness as specified in Section 09 91 00, Painting.

- B. Galvanized Railings: Repair damaged zinc coating by cleaning the area and removing defective coating. Paint cleaned area with one brush coat of an approved zinc repair material, compatible with paint as specified in this Section. Brush apply an approved organic zinc-rich repair paint containing 94 percent (min.) zinc by weight in the dry film, according to the manufacturer's recommendations, in two coats to a thickness equivalent to the surrounding galvanizing (min. 4 mils DFT). The total repair area shall be less than 3% of the area of the member, or the member shall be re-galvanized.

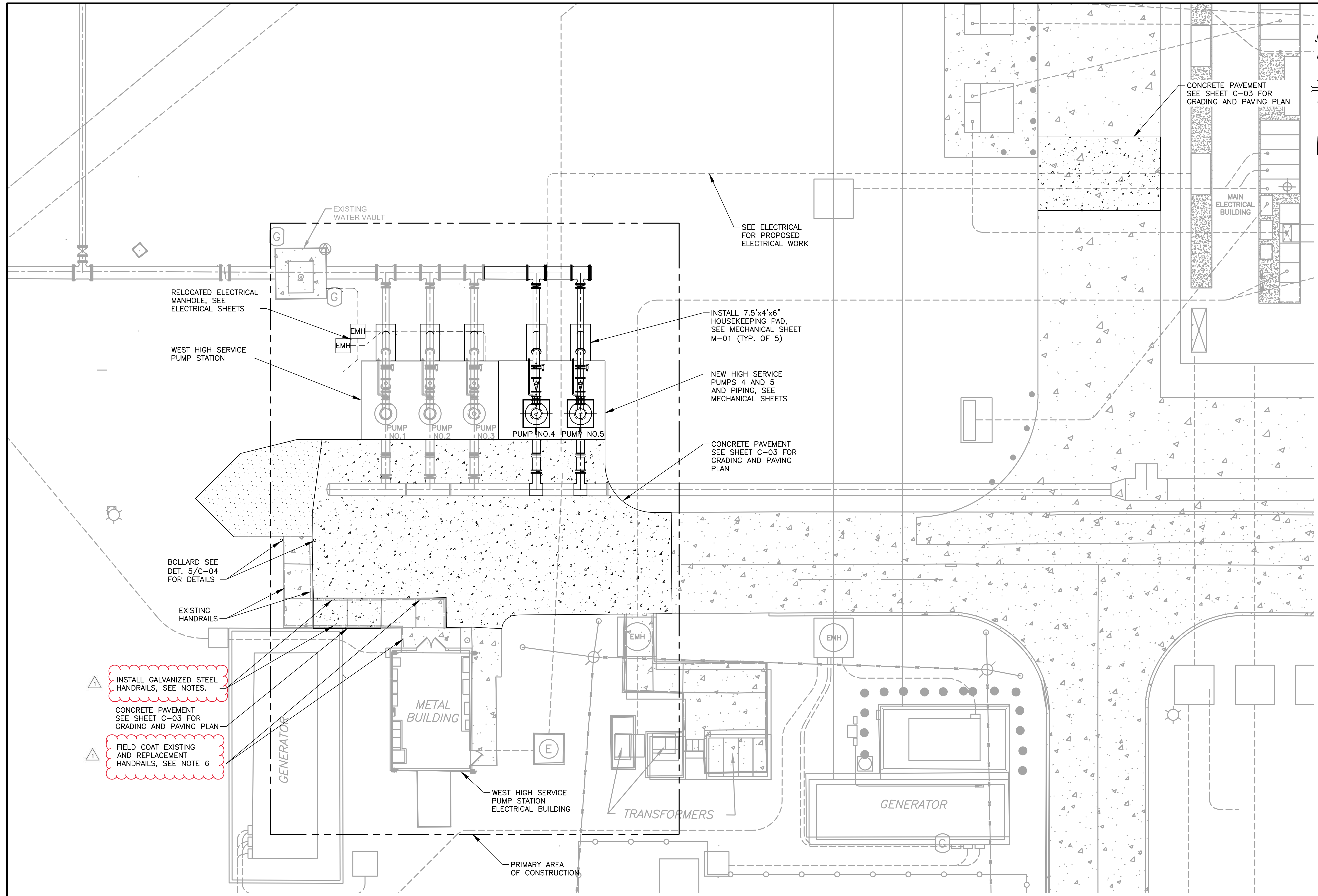
- C. Remove stained or otherwise defective Work and replace with material that meets the requirements of these Specifications.

3.4 FIELD QUALITY CONTROL

- A. Engage an independent testing and inspection agency to inspect the welded connections and to perform tests and prepare test reports.
 - 1. All welds will be subject to visual inspection. Where visually deficient welds are observed, the welds will be tested using non-destructive methods by a certified testing laboratory. If welds are found to be satisfactory, OWNER will pay for testing. Where welds are found unacceptable or deficient, CONTRACTOR will pay for testing. CONTRACTOR will correct improper workmanship, remove and replace, or correct as instructed, all welds found unacceptable or deficient. CONTRACTOR will pay for all corrections and subsequent tests required to confirm the integrity of the weld.
 - 2. The independent testing and inspection agency shall complete a report for all the Work. The report shall summarize the observations made by the inspector and be submitted to the ENGINEER.

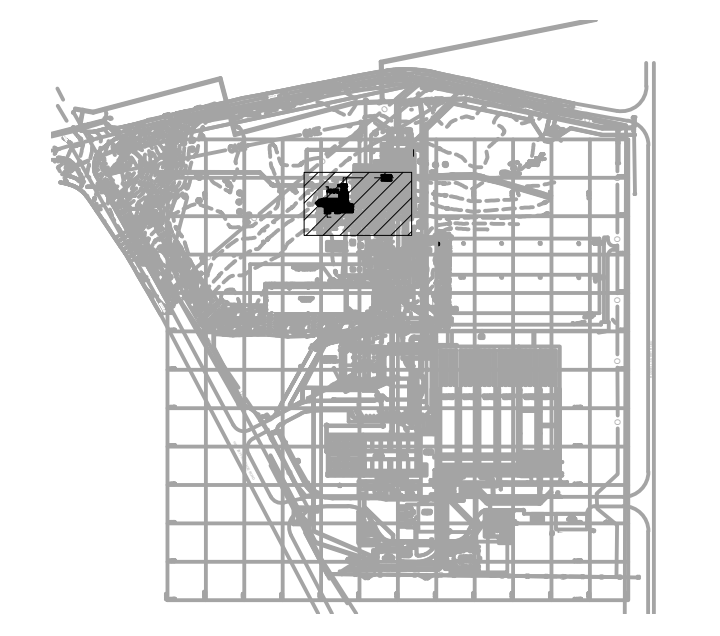
END OF SECTION

- NOTES:
1. PROVIDE REPLACEMENT SECTIONS NECESSARY TO FACILITATE REMOVAL AND REPLACEMENT OF THE EXISTING HANDRAILS INDICATED ON THE DRAWINGS. IT IS ACCEPTABLE TO REUSE SEGMENTS OF EXISTING HANDRAIL SYSTEM WITH THE APPROVAL OF THE ENGINEER.
 2. THE CONTRACTOR SHALL FIELD CUT, STORE AND PROTECT EXISTING HANDRAIL SECTIONS.
 3. THE CONTRACTOR SHALL PROVIDE REPLACEMENT SECTIONS FOR ANY DAMAGED PORTIONS OF RAILING OR POSTS. REPLACEMENT SECTIONS SHALL BE SHOP GALVANIZED.
 4. FIELD WELDING PROCEDURES SHALL COMPLY WITH AWS D19.0. REMOVE ZINC COATING ON EXISTING AND REPLACEMENT COMPONENTS ONE TO FOUR INCHES FROM EACH SIDE OF ALL REQUIRED FIELD WELDS. FOLLOWING COMPLETION OF WELDING GRIND AREA SMOOTH AND REPAIR FINISH IN ACCORDANCE WITH ASTM A 780.
 5. COAT FIELD WELDS AND ADJACENT BARE STEEL AREAS IN ACCORDANCE WITH THE SPECIFICATIONS. COATING THICKNESS SHALL BE 50 PERCENT MORE THAN SURROUNDING SHOP GALVANIZED THICKNESS OR 4.0 MILS WHICH EVER IS LESS. THICKNESS MEASUREMENT SHALL BE TAKEN WITH EITHER MAGNETIC, ELECTROMAGNETIC OR EDDY CURRENT GAUGE.
 6. THE CONTRACTOR SHALL FIELD (COLOR) COAT BOTH THE REPLACEMENT AND EXISTING (LEFT IN PLACE) GALVANIZED STEEL HANDRAIL IN ACCORDANCE WITH THE SPECIFICATIONS. BASE BIDS ON FIELD COATING OF 100 LF OF HANDRAIL SYSTEM COMPRISED ON UPPER RAILS, MIDDLE RAILS AND UPRIGHTS (POSTS). IF DIRECTED BY THE OWNER TO LEAVE HANDRAILING WITH THE SHOP APPLIED GALVANIZED FINISH, THE CONTRACTOR SHALL CREDIT THE OWNER WITH THE COST OF MATERIALS AND LABOR REQUIRED TO FIELD COAT THE RAILINGS.



- INSTALL GALVANIZED STEEL HANDRAILS, SEE NOTES.
- CONCRETE PAVEMENT SEE SHEET C-03 FOR GRADING AND PAVING PLAN
- FIELD COAT EXISTING AND REPLACEMENT HANDRAILS, SEE NOTE 6

PLAN
1" = 10'



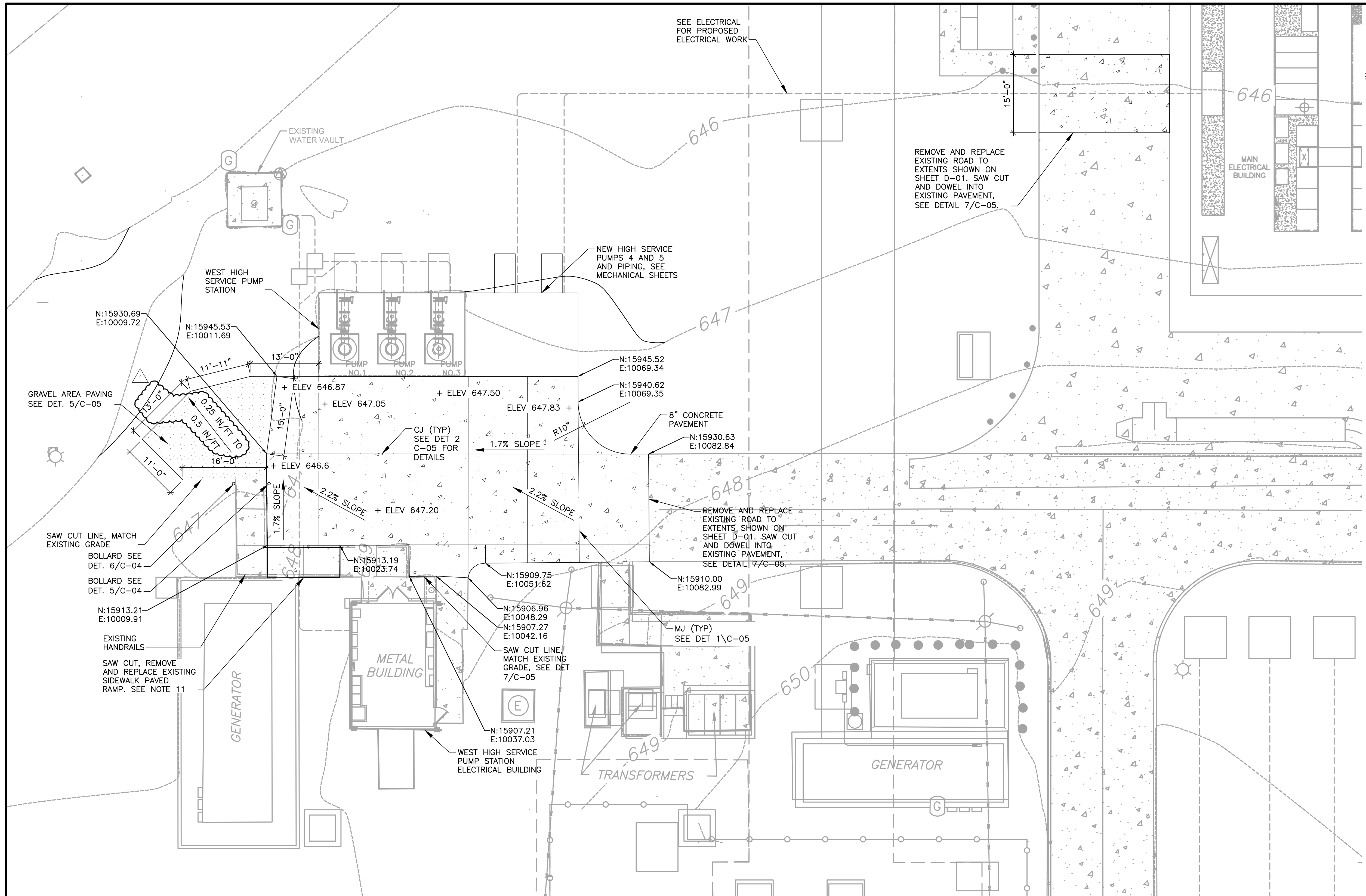
KEY PLAN



ARLINGTON CITY OF ARLINGTON
 JOHN F. KUBALA WATER TREATMENT PLANT
 WEST HIGH SERVICE PUMP STATION
 PUMP 4 AND 5 ADDITIONS

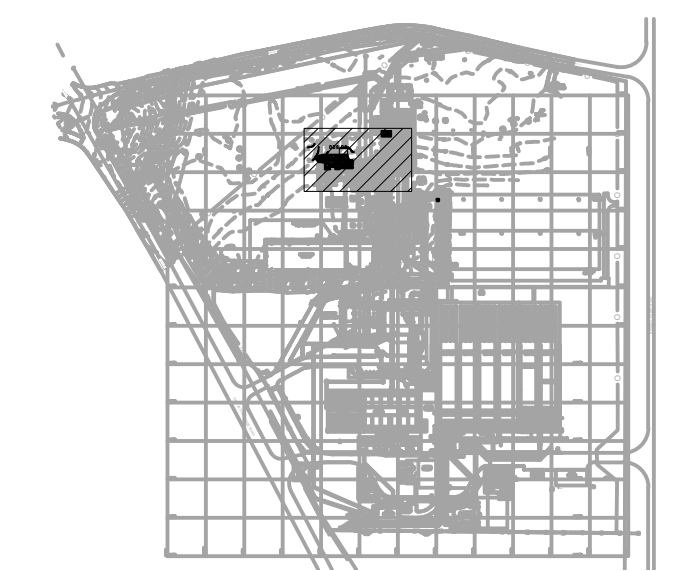
PROPOSED SITE PLAN

DESIGNED	R. STANDIFER
DRAWN	J. RAY
CHECKED	K. BURKS
DATE	NOVEMBER 2021
SHEET NO.	C-02
	5 OF 38



- NOTES:
1. ALL CONCRETE SHALL CONFORM TO SPECIFICATIONS.
 2. ALL FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN NO GREATER THAN 8 INCH LIFTS.
 3. PAVEMENT REINFORCEMENT SHALL BE #4 BARS, SPACED AT 12" CENTER TO CENTER EACH WAY EXCEPT WHERE NOTED IN PROJECT DETAILS.
 4. ALL PAVEMENT REMOVAL SHALL BE COMPLETED SO THAT THE EXISTING TRANSVERSE REINFORCING STEEL IS PRESERVED TO THE MAXIMUM EXTENT POSSIBLE.
 5. KEYWAY CONTRACTION JOINTS SHALL BE USED AT THE END OF EACH DAY'S PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
 6. TRANSVERSE JOINTS (TJ) SHALL BE SAW CUT AT LONGITUDINALLY ALONG THE CENTERLINE OF DRIVEWAYS GREATER THAN 20 FT IN WIDTH AND AT AN INTERVAL OF 15 FT ACROSS THE PAVING.
 7. BAR LAPS SHALL BE 30" DIAMETERS IN LENGTH.
 8. LOCATE LONGITUDINAL DOWEL EXPANSION JOINTS AT THE START/STOP OF RADIUS FOR CURVED PAVING.
 9. THE CONTRACTOR SHALL PROVIDE A SUBMITTAL OF THE PLANNED JOINT LAYOUT PRIOR TO THE PURCHASE OF REINFORCEMENT AND JOINTING MATERIALS. JOINTING TYPE AND LOCATION SHALL COMPLY WITH ACI 325.12R-02 JOINT PLACEMENT SHALL BE PER THE ACCEPTED SUBMITTAL.
 10. REFER TO "E" SHEETS FOR PROPOSED ELECTRICAL WORK.
 11. CONTRACTOR TO RESTORE CONCRETE RAMP TO MATCH EXISTING THICKNESS AND REINFORCEMENT BASE BIDS ON 6-INCH THICK WITH #4 @ 8" ON CENTER.


PLAN
1" = 10'



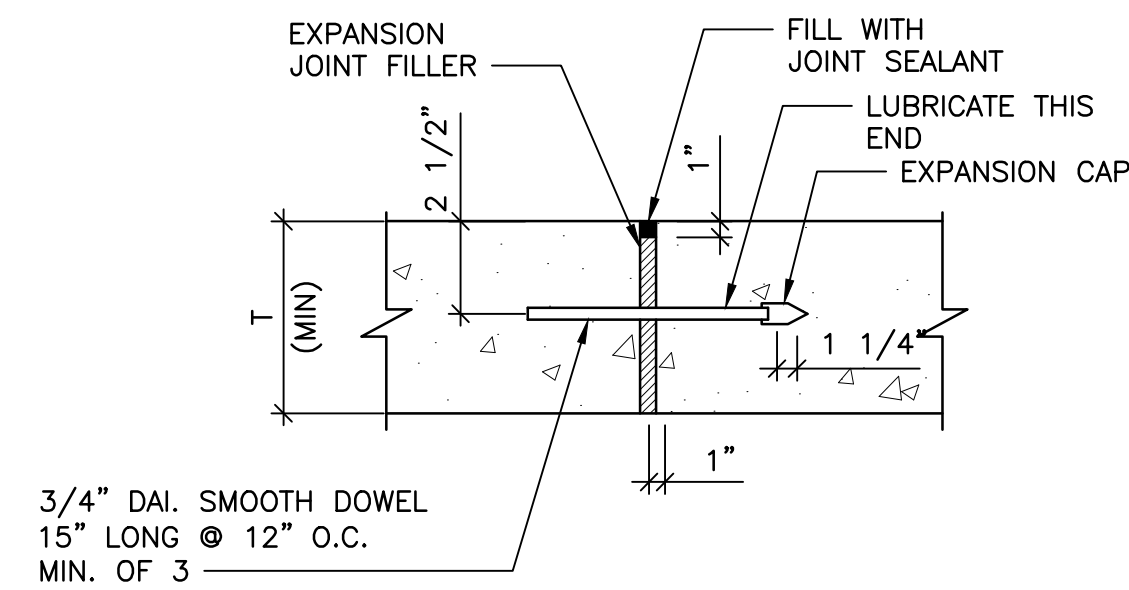
KEY PLAN

NO.	DATE	REVISION	BY
1	11/30/21	ADDENDUM NO. 1	RRS



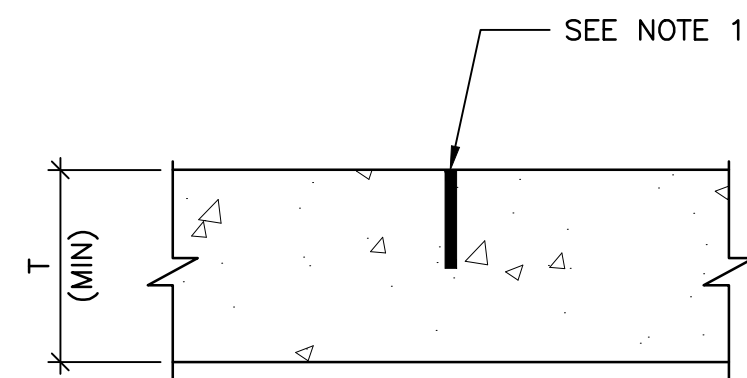

CITY OF ARLINGTON
 JOHN F. KUBALA WATER TREATMENT PLANT
 WEST HIGH SERVICE PUMP STATION
 PUMP 4 AND 5 ADDITIONS
SITE PAVING AND GRADING PLAN

DESIGNED R. STANDIFER
DRAWN J. RAY
CHECKED K. BURKS
DATE NOVEMBER 2021
SHEET NO. C-03
6 OF 38



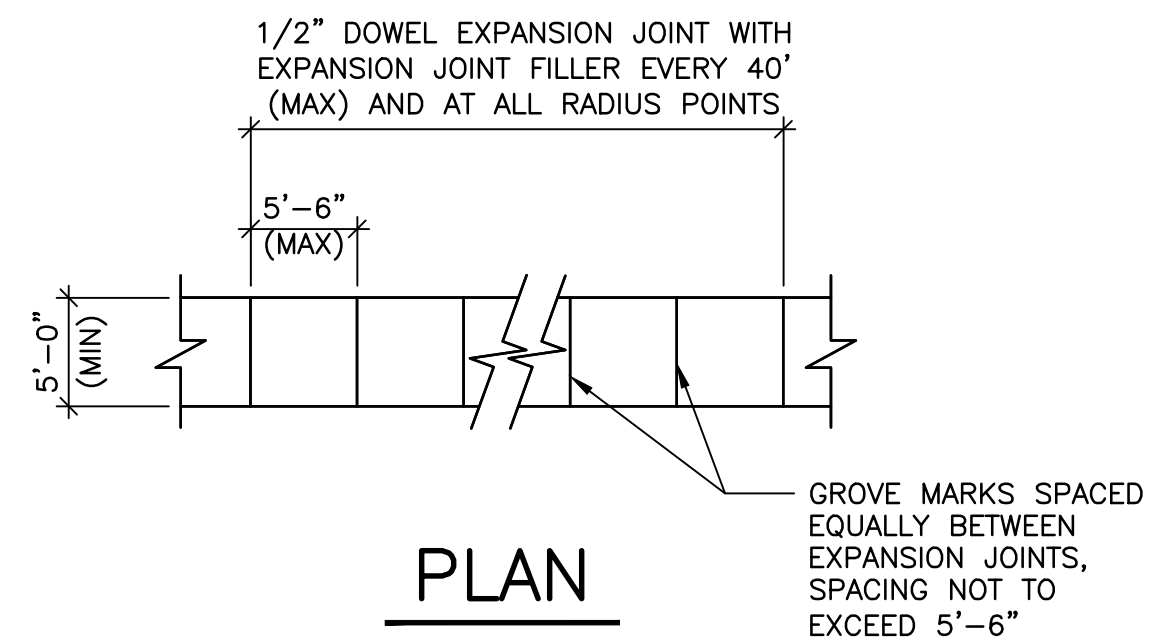
1 EXPANSION JOINT (EJ)

C-05 EXPANSION JOINT NOTES:
 1. EXPANSION JOINTS SHALL BE LOCATED AT A SPACING TO NOT EXCEED 40' AND AT ALL INTERSECTIONS.
 2. LOCATE A CJ BETWEEN EXPANSION JOINTS PER PLAN DEPICTION IN THIS DETAIL.



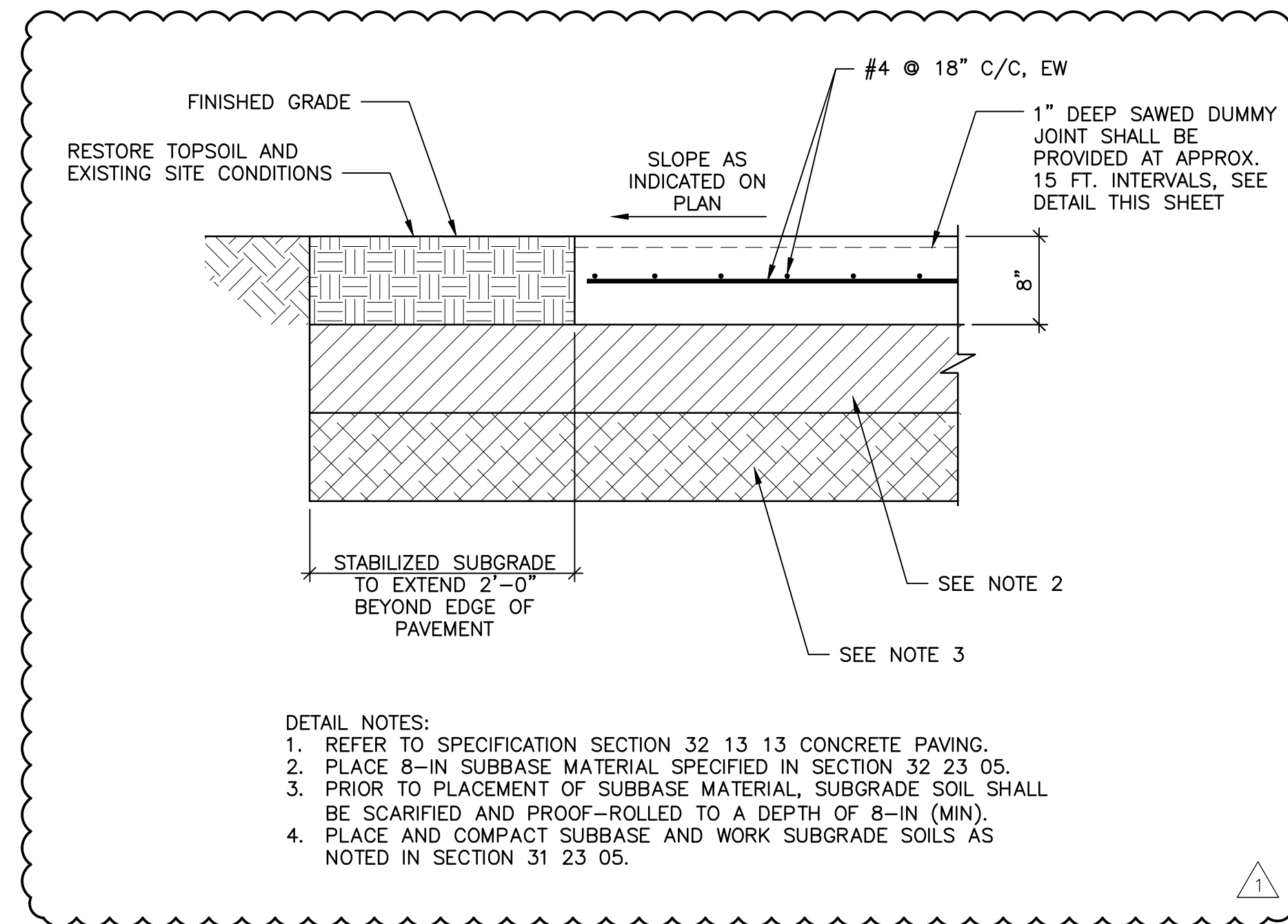
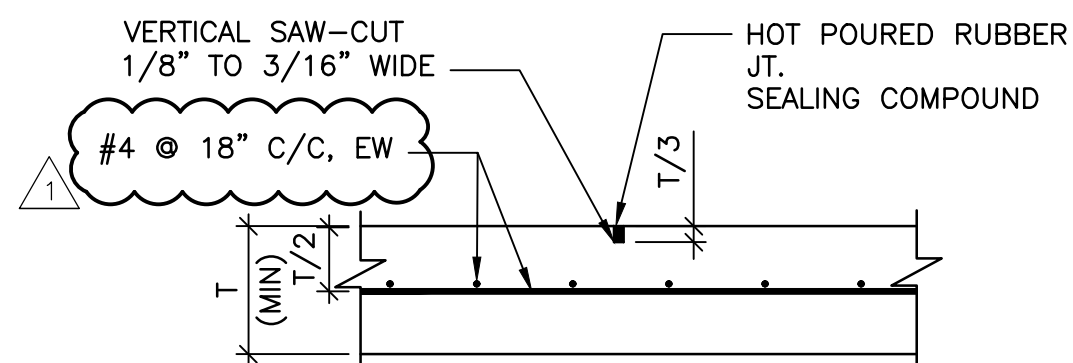
2 CONTROL JOINT (CJ)

C-05 CONTROL JOINT NOTES:
 1. TOOL OR SAW CONTROL JOINTS SHALL BE DEPTH OF 1/4 OF THE SPECIFIED SIDEWALK PAVING THICKNESS (T).
 2. LOCATE A CJ AS NOTED ON THE SPECIFIC AREA DRAWING. FOR AREA IN EXCESS OF THE STANDARD SIDEWALK WIDTH NOTED IN THE PLAN VIEW ABOVE.



3 TRANSVERSE DUMMY LONGITUDINAL DUMMY SIMILAR

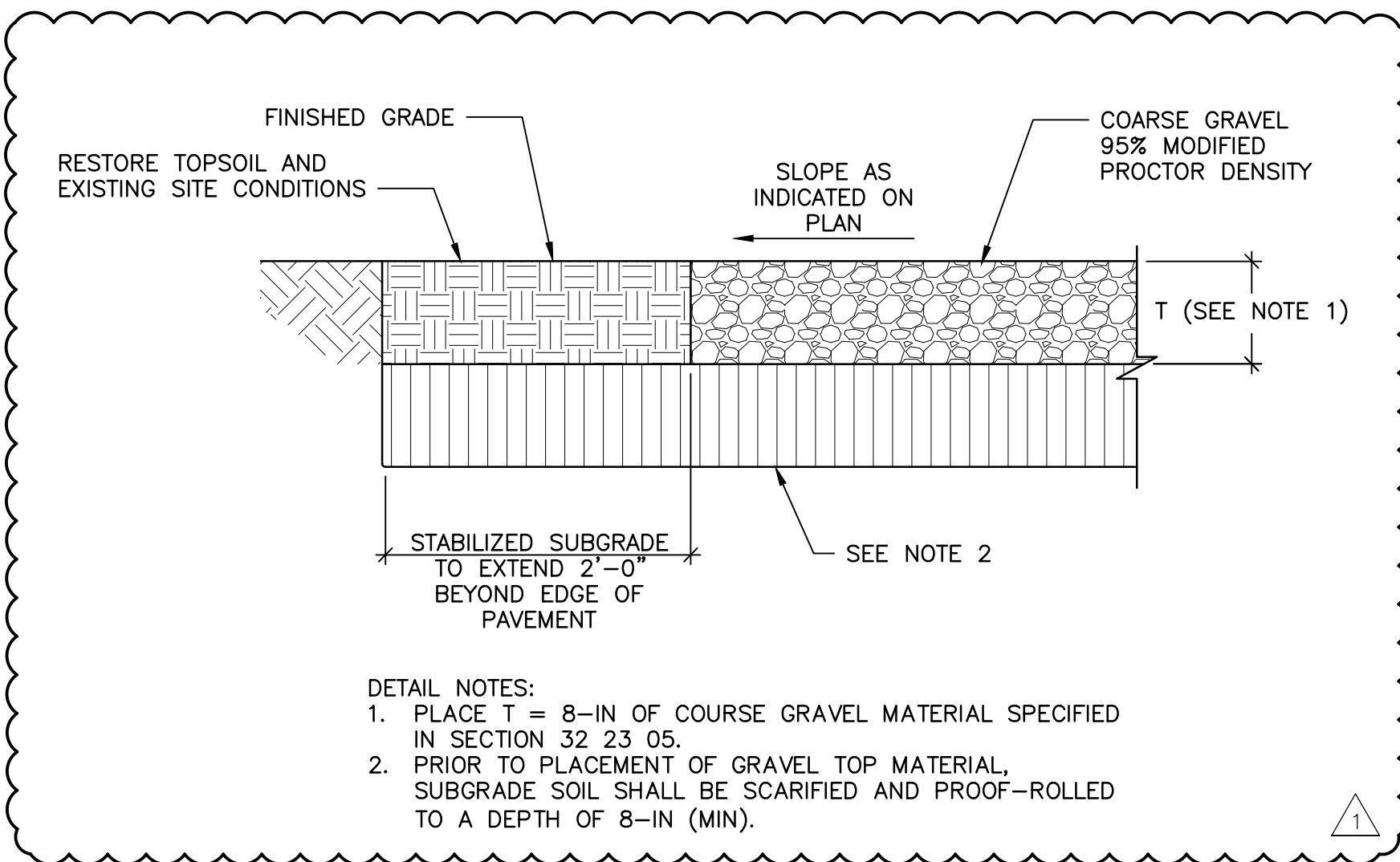
C-05 NOT TO SCALE



4 CONCRETE PAVEMENT WITHOUT CURBS

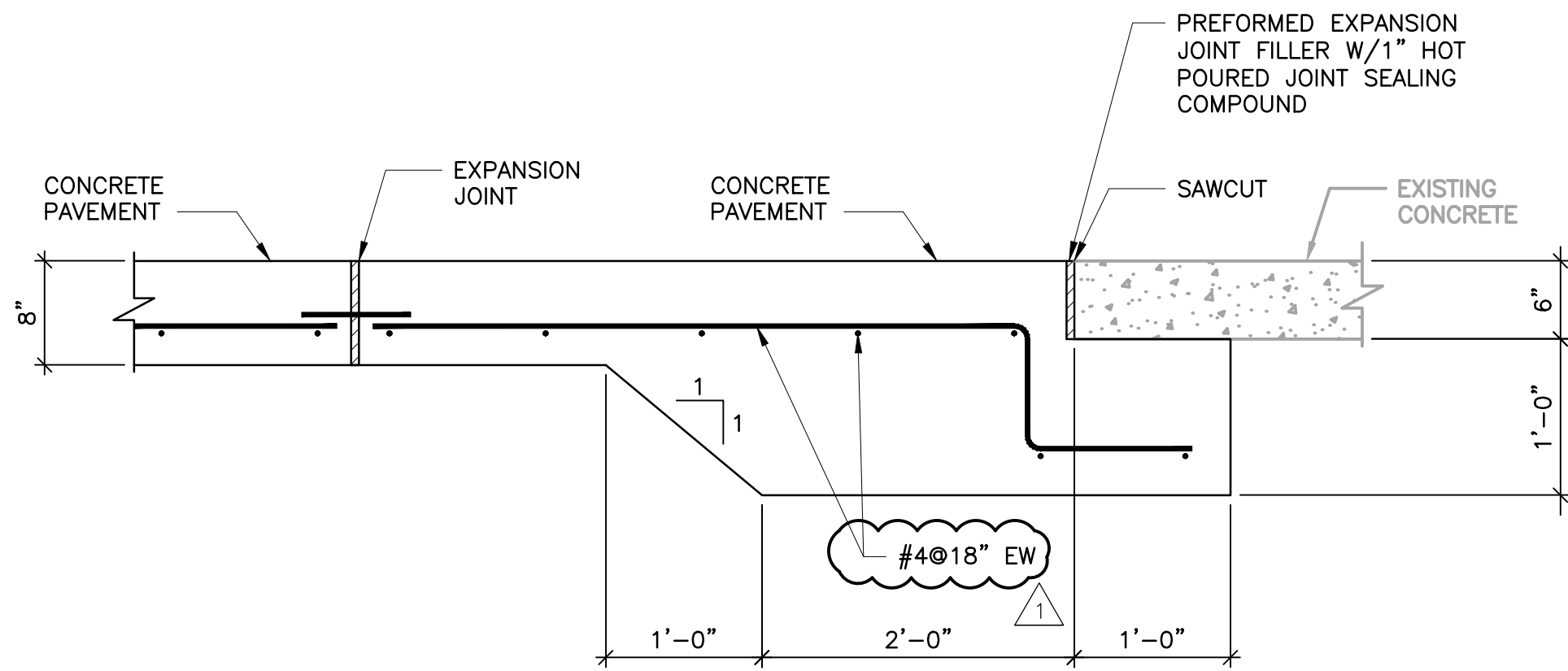
C-05 NOT TO SCALE

DETAIL NOTES:
 1. REFER TO SPECIFICATION SECTION 32 13 13 CONCRETE PAVING.
 2. PLACE 8-IN SUBBASE MATERIAL SPECIFIED IN SECTION 32 23 05.
 3. PRIOR TO PLACEMENT OF SUBBASE MATERIAL, SUBGRADE SOIL SHALL BE SCARIFIED AND PROOF-ROLLED TO A DEPTH OF 8-IN (MIN).
 4. PLACE AND COMPACT SUBBASE AND WORK SUBGRADE SOILS AS NOTED IN SECTION 31 23 05.



5 GRAVEL PAVEMENT WITHOUT CURBS

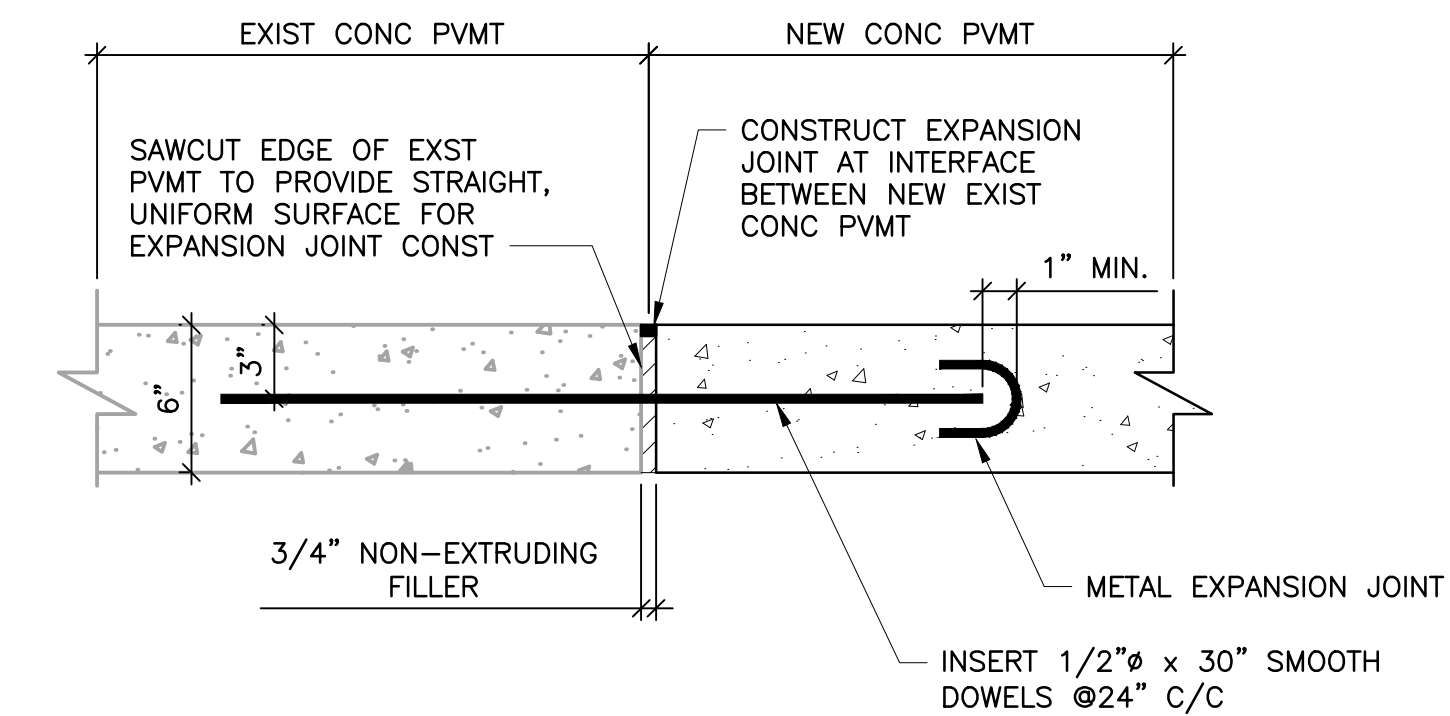
C-05 NOT TO SCALE



NOTE:
 1. SEE PAVEMENT DETAIL FOR REINFORCING STEEL.

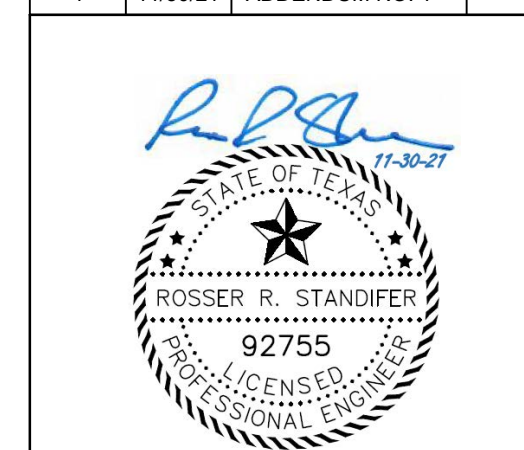
6 CONNECTION OF NEW PAVEMENT TO EXISTING PAVEMENT

C-05 NOT TO SCALE



DETAIL NOTES:
 1. PLACE T = 8-IN OF COURSE GRAVEL MATERIAL SPECIFIED IN SECTION 32 23 05.
 2. PRIOR TO PLACEMENT OF GRAVEL TOP MATERIAL, SUBGRADE SOIL SHALL BE SCARIFIED AND PROOF-ROLLED TO A DEPTH OF 8-IN (MIN).

NO.	DATE	REVISION	BY
1	11/30/21	ADDENDUM NO. 1	RRS



CITY OF ARLINGTON
 JOHN F. KUBALA WATER TREATMENT PLANT
 WEST HIGH SERVICE PUMP STATION
 PUMP 4 AND 5 ADDITIONS

DESIGNED	R. STANDIFER
DRAWN	J. RAY
CHECKED	K. BURKS
DATE	NOVEMBER 2021
SHEET NO.	C-05
	8 OF 38



DETAILS II
 SHEET NO. C-05
 8 OF 38