

Addendum 2

City of Canton, Ohio
Purchasing Department
218 Cleveland Ave. SW, 4th floor
Canton, Ohio 44702

Sugarcreek Water Treatment Plant and Wellfield Improvements

Item/Project

Water Department

Responsible Department

Thursday June 9, 2022 at 2:00 PM local time

Bids Due On or Before

Bid Proposal Submitted By:

Company Name

Street Address

City

State

Zip

Contact Person

Phone No.

Email Address

Addendum No. 2
May 20, 2022

APPENDIX D SPECIFICATIONS

1. **Page 3, Table of Contents.** In Division 07 – Thermal and Moisture Protection, ADD “Exterior Insulation and Finish Systems – Class PB 07 24 10.”
2. **Section 07 24 10 – Exterior Insulation and Finish Systems – Class PB,** After Page 374, ADD attached Section 07 24 10 (8 Pages).
3. **Page 47, Section 01 14 00 - Work Restrictions.** Part 3.5.D.12 a REPLACE “*New door hardware...will be reused*” with “Existing door and frame to be removed and new door 125A and frame with hardware to be provided per door schedule.”
4. **Page 47, Section 01 14 00 - Work Restrictions.** Part 3.5.D.12 b REPLACE “”*An aluminum mandoor with ... lower level.*” with “A new aluminum door 124A, frame, and door hardware with stair landing, steps, and handrail will be provided to the lower level.”
5. **Page 51 , Section 01 14 00 - Work Restrictions.** Part 3.5.D.19 h REPLACE “*Provide new suspended ceiling in Rooms 200...and 211.*” with ” “Provide new suspended ceiling in Rooms 200A, 200 B, 201A, 201 B, 203, 204, 205, 206, 207, 208, 209, and 210.”
6. **Page 355, Section 06 80 01 - Composite Fabrication for Baffle Walls.**
 - Part 2.1 B, ADD “Deflection in any direction shall not be more than L/90 of span for baffle wall panels.”
 - Part 2.2 B, REPLACE “*1/4” thick*” with “*3/16” thick*”.
7. **Page 517, Section 08 51 13 – Aluminum Windows.** ADD paragraph 2.2. H. as follows:
“H. Fire-rated Aluminum Members. Alloy and temper recommended by the manufacturer for strength, corrosion resistance, and application of required finish; comply with test standard UL 263 / ASTM E119 60 minute ratings.”
8. **Page 1280, Section 32 10.01, Pavement and Walks.** Part 3.3C Gravel Driveways and Pavement Areas. REPLACE “*10-inch*” with “*8-inch*”.
9. **Page 1375, Section 33 12 16 – Buried Valves.** Addendum No. 1 added 2.1 F. Tapping Sleeves and Valves for PCCP. For the tapping sleeve REPLACE “*304 stainless steel*” with “an epoxy coated sleeve with 304 stainless steel strap”.
10. **Page 1402, Section 40 05 13.33 – Process Piping, Copper.** Part 1.4 C. Submittal Package No. 2 – Layout Drawings DELETE in its entirety.
11. **Page 1406, Section 40 05 13.73 – Process Piping, PVC and CPVC.** Part 1.4 C. Part 1.4 C. Submittal Package No. 2 – Layout Drawings. DELETE in its entirety.
12. **Page 1410, Section 40 05 16 – Process Piping, Ductile Iron.**
 - Part 2.1 A.2 Pipe Thickness minimum Class REPLACE “53” with “52”.
 - Part 2.1 D. 2a Coating 1, DELETE “or without”.

13. **Page 1425, Section 40 05 23 – Process Valves.** Part 2.2 B. REPLACE “*B. Air and Vacuum Valve Assembly....or equal.*” with the following:

B. Combination Air Valve

1. Combination air valves shall consist of a ductile iron body as per ASTM A536, Grade 65-45-12, stainless steel float, and tight closing seat with Buna-N seal.
 2. All internal parts, such as float guide, bushings, and baffle retaining screws shall be either stainless steel or bronze.
 3. Stainless steel float shall be center guided for positive seating and rated 1,000 psi nonshock service.
 4. Valve shall have full size threaded connections.
 5. The baffle or hood shall shield the float from direct impact of air and water to prevent premature float closure.
 6. The seat shall slip fit into the baffle and lock in place without any distortion, and shall be easily removable.
 7. Air and vacuum valve assemblies shall have a rating of 150 psi or as noted in the Valve Schedule.
 8. Manufacturer.
 - a. DeZurik APCO Model ASU.
 - b. Val-Matic VM-200C.
 - c. Or equal.
14. **Page 1458, Section 40 05 23 – Process Valves.** Part 4.5 B. Ball Valve Schedule. DELETE row for valve FWMV (220).
15. **Page 1457, Section 40 05 23 – Process Valves.** Part 4.5 A. Air Valve Schedule, ADD the following to the Schedule Notes under Type “A CV can be used in lieu of a dual body AV valve.”

16. **Page 1460, Section 40 05 23 – Process Valves.** Part 4.5 C. Butterfly Valve Schedule. After FWSV (215) ADD row for valve FWMV (220).

Location	Pipe/Use	Size (Inches)	Ends	Quantity	Operator	Controls
“FWMV (220)	ISOLATION VALVE	24	FLG	1	HW	NA

Accessories	Installation	NSF 61 Compliant?	Operation	Service
N	V	Yes	OC	CW”

17. **Page 1463, Section 40 05 23 – Process Valves.** Part 4.5 C. Butterfly Valve Schedule. For valve CW (480) and CW (481) make the following changes:
- For Pipe/Use, REPLACE “*Control Valve*” with “Isolation Valves”.
 - For Operator, REPLACE “*EM*” with “MH”.
 - For Controls, REPLACE “*DG*” with “NA”.
18. **Page 1678, Section 43 11 33 - Blowers, Positive Displacement.** Part 2.1 K. 4 Accessories. REPLACE “*weighted-type*” with “spring-type”. Spring-type relief valve shall be vented as shown on Sheet P-31.
19. **Page 1730, Section 44 43 50.03 – Filter Equipment.** Part 2.3.
- In paragraph A, REPLACE “A. *General. The existing...AWWA F101.*” with the following:

“A. General. The existing fiberglass wash-water troughs shall be cleaned by the Contractor in a manner that does not result in any damage to the troughs.

 1. After cleaning, the troughs shall be inspected for hairline cracks, small holes, and other blemishes with the Owner/Engineer present and Contractor shall identify and locate repairs required.
 2. Contractor shall coordinate with the Owner/Engineer to determine if any defects needs addressed in the fiberglass wash water troughs in each of the filters. The interior and exterior surfaces of the rehabilitated troughs shall be smooth with a glass mat. Contractor will be requested to submit a proposal to remedy defects. The rehabilitation of the existing troughs shall meet the requirements of ANSI/AWWA F101. The approved proposal will be paid for using an allowance.”
20. **Page 1734, Section 44 43 50.03 – Filter Equipment.** Part 3.1 C. 2.e, REPLACE the following: “*New supports shall be installed following these activities, the weirs shall be leveled.*” with “The weirs shall be leveled following these activities.”
21. **Page 1761, Section 46 33 01 - Liquid Chemical Feed Equipment.** Part 3.9 A. Equipment Schedule for Sodium Bisulfite Feed Equipment, Discharge Pressure (psi) REPLACE “110” with “125.”

APPENDIX D: DRAWINGS

22. **Sheet WC-25, New Raw Water Main Miscellaneous Details.** DELETE Typical DIP Well Connection Detail.
23. **Sheet WP-3, Wellfields Ex. Wells 1-7 Demolition Plan-Section.** For Wells 1-7, the existing 12" check valves and butterfly valves in good condition shall be salvaged and delivered to the Owner. For Coded Note 6, REPLACE "*for re-install*" with "to Deliver to Owner per Section 02 14 19".
24. **Sheet WP-4, WP-6, WP-7, WP-8, Wellfields Ex. Well #X Renovation Plan-Section-Elevation.** For Wells 1-10 in Section A, at the 1" Drain Line between the well casing and discharge pipe, ADD note with leader "1" PVC SCH 80".
25. **Sheet D-18, Main Building Demolition First Floor.**
 - ADD Coded Note with arrow pointing to Battery Room 105: "14. Remove clay floor tile and base cove, including mortar setting bed, and apply concrete floor topping to restore floor to finish grade."
 - At Door 108A REPLACE Coded Note "5" with Coded Note "15".
 - ADD Coded Note 15, "Remove door, hardware and frame and relocate to the Temporary Office and Control Room 104 A and install for Door 108C. The door, frame, and hardware shall be reused during construction. Contractor shall remove temporary walls and door at the completion of the project."
26. **Sheet C-9, WTP Service Drive Civil Cross Sections - Schedule.** HW-1 and HW-2 are existing headwalls to remain in place. MH-0 is an existing manhole but the rim shall be lowered. Under type, for HW-1 REPLACE "*HW-1,2*" with "Ex.", for HW-2 REPLACE "*HW-1,2*" with "Ex." and for MH-0 REPLACE "*MH-B*" with "Ex.".
27. **Sheet C-13, Finished Water Meter Vault Renovation Plan-Section.** In the Lower Plan and Section A, REPLACE "*New 24" Ball Valve*" with "New 24" Butterfly Valve".

28. **Sheet C-36, Civil Site Piping Details.** Restrained Joints. REPLACE table for restrained lengths with the following updated table and note:

JOINT TYPE	RESTRAINED LENGTH (FT)										REMARKS
	4"	6"	8"	12"	16"	18"	20"	24"	30"	36"	
PIPE DIAMETER											
TOP VERT. BENDS											
22.5	10	15	19	28	36	41	45	54	67	79	EACH SIDE OF BEND
45	21	30	40	56	75	84	93	110	137	164	"
BOT. VERT. BENDS											
22.5	3	4	5	8	10	11	12	14	18	21	EACH SIDE OF BEND
45	6	9	11	16	21	22	24	29	36	43	"
HOR. BENDS											
11.25	2	3	3	5	6	6	6	7	9	10	EACH SIDE OF BEND
22.5	4	5	7	10	13	14	15	17	22	26	"
45	8	11	14	20	26	28	30	35	44	52	"
90	19	26	34	49	63	71	78	93	115	137	"
TEES											BRANCH
16x12				42							"
12x12				56							"
REDUCERS											
16x12					54						LARGE SIDE
DEAD ENDS	36	51	67	97	126	142	157	187	232	277	

Note: Restrained joints are required for all buried DIP bells. This shall be accomplished using factory restraints (TR-Flex), field-lok gaskets, bell harnesses, or approved equal restraints which meets or exceeds AWWA C151 and/or C111."

29. **Sheet C-37, Civil Miscellaneous Details.** ADD the following general note: "General Note: Where main size is 4" provide a 4"x4" tee with valve and box and a 4"x6" increaser to connect to standard 6" hydrant."
30. **Sheet P-1, P-2, P-3, P-4, Aerator Buildings.** For the floor stands in the Aerator Buildings DELETE reference to "304 SS". Floor stands shall be ductile iron per Section 40 05 23.
31. **Sheet P-2, West Aerator Bldg Renovation Sections.** Section C/P-1 Enlarged Plan, ADD arrow with note pointing to spool piece attached to Valve 304. The note shall state: "New 30" STL spool piece."
32. **Sheet P-34, Chlorine Building Process Schematic.** Chlorine Schematic, for the 1-1/2" PVC Chlorine Pipe REPLACE "Chlorine Solution Line" with "Chlorine Carrier Pipe".
33. **Sheet A-6, Main & Filter Building Architectural First Floor Plan.**
- For the stairwell between column lines M & N and 1B & 2B, REPLACE "Stair "E"" with "Filter Stairwell 220"
 - For New Work Notes 4, ADD "South wall shall be 8" CMU. See Sheet A-12 for wall section."
 - In High Service Pump Room 102, ADD symbol for Coded Note 15 pointing to High Service Pump Room 102.

- ADD Coded Note 15, “15. Remove existing concrete generator pad and replace with clay tile to match existing floor as shown on Sheet P-26. Remove and replace cracked floor tile at Column Line B and at the floor around pumps as shown on Sheet P-26.
 - ADD symbol for Coded Note 16 pointing to Door 108A.
 - ADD Coded Note 16, “16. Contractor shall provide a new door, frame, and hardware to replace existing door that was relocated to Temporary Office and Control Room 104A (Door 108C) per D-18.”
34. **Sheet A-7, Main & Filter Bldg Architectural Second Floor Plan.** For the stairwell between column lines M & N and 1B & 2B, ADD the following note “Filter Stairwell 220”
35. **Sheet A-9, Main Building Architectural Filter Gallery Annex Plan.**
- ADD door symbol for Door 101A with hinge right.
 - ADD door symbol for Door 105A with hinge left.
 - ADD door symbol for Door 107A with hinge right.
 - For Room JC 105 walls ADD symbol for Coded Note 10.
 - ADD Coded Note 10, “10. New partition forming Restroom 107 and Janitor Closet 105 shall be Type S3A.”
 - For Restroom 107 east wall ADD symbol for Coded Note 11.
 - ADD Coded Note 11, “11. New partition forming the pipe chase wall in Restroom 107 shall be Type S2.”
36. **Sheet A-10, Main Bldg Architectural Second Floor Enlarged Plan.**
- Window lengths are currently not shown on the drawing. ADD the following window lengths:
 - IW1 = 16'-0"
 - IW2 = 5'-9 1/2"
 - IW3 = 14'-8"
 - IW4 = 5'-0"
 - ADD the following to New Work Note 7, “6” metal stud wall to be used to enclose structural support encased in wall on north side of door.”
 - ADD the following to New Work Note 8, “Windows along Hall 200B shall be segmented and drywall shall be installed to form a smooth curve with the segmented windows installed as shown on A-10.”
 - Between the Lobby 200 and Break Room 204 for the partition depicted with the dashed line, REPLACE wall type “S3A” with “S3A1”.
 - At west wall at the new entrance to lobby ADD symbol for Coded Note 12.
 - ADD Coded Note 12, “12. The west wall at new entrance of the lobby is a structural steel frame that will be behind GWB on metal stud framing. Partition type S2.”
37. **Sheet A-11, Main & Filter Bldg Architectural Elevations.** In the West Elevation, REPLACE single door with transome symbol with double door with transome symbol and ADD label “123 B”.
38. **Sheet A-14, Main Building Architectural Stair Plan- Sections.** In Section 1/A-1Stair “D” Plan, ADD note pointing to new wall on the south wall for Fluoride Operator Room 125: “New 8” CMU wall, See P-35.”

39. **Sheet A-16, Architectural Door Schedule and Details.**
- Under door Type F, ADD the following note: “For Door 100 A the fire-resistant glass is not required.”
 - In the Door and Frame Schedule, DELETE Glazing column.
 - Under the Door and Frame Schedule, ADD the following note: “3. All glazing for doors shall be 1” insulated glass unit IG-1 per Section 08 88 00 unless otherwise noted.”
 - Under the Door and Frame Schedule, for Door 100A – For Frame Details Head column ADD “3/A-6”; for Jamb column ADD “MFR STD; for Sill column ADD “2S”.
 - Under the Door and Frame Schedule, for Door 108C – For Door Dimension W column DELETE “Pr.”; for Hardware Sets column REPLACE “3” with “-”; for Mark in last column REPLACE “108B” with “108C”.
 - Under the Door and Frame Schedule, for Door 124A – For Frame Details Jamb column REPLACE “5J” with “2J”.
 - Under the Door and Frame Schedule, for Door 201B – For Frame Details Head column ADD “2H”; for Jamb column ADD “1J”; for Sill column ADD “-”.
 - Under the Door and Frame Schedule, for Door 202A – For Frame Details Head column ADD “2H”; for Jamb column ADD “1J”; for Sill column ADD “-”.
 - Under the Door and Frame Schedule, for Door 203A – For Frame Details Head column ADD “2H”; for Jamb column ADD “1J”; for Sill column ADD “-”.
 - There are two 6J Jamb Details. DELETE 6J Jamb Detail adjacent to the door schedule.
40. **Sheet A-17, Architectural Room Finish Schedule.** For the Room Finish Schedule:
- For Room 106: Mechanical Room, ADD “X” to the following columns: Floors: Sealed Concrete; Base: Existing to Remain; Walls: Paint CMU/ Concrete
 - For Room 120: Under Room Description, REPLACE “*Not Used*” with “Generator Room”. Under Existing to Remain Column, ADD “X”.
 - For Room 200: Lobby, Ceiling: DELETE “X” in Paint Existing column and ADD “X” to column ACT-1.
 - For Room 200A: Elevator Access, ADD “X” to the following columns: Base: Rubber Cover Base; Walls: Paint GYP. Drywall; Ceiling: ACT-1.
 - For Room Description Lobby Stairs: DELETE row. Lobby Stairs are covered under Room 100; stairs are existing to remain.
 - For Room Description Filter Stairwell: Under Room Number, ADD “220”. ADD “X” to column Ceiling: Paint Existing.
41. **Sheet A-18, Architectural Window Elevations-Details.** For Windows W-10, W-11, and W-12 ADD notation for Window Detail 6 to be used. These windows are shown on A-7 and shall be aluminum with insulated glass.
42. **Sheet A-19. Architectural Partition Schedule – Details.** For S3A (One Existing Curb) detail, after S3A ADD “ or S3A1 (1-Hr Fire Rated GWB)”.
43. **Sheet S-4, Main Building Structural First Floor Plan.**
- At the shaded area in Hallway 109 ADD symbol for Coded Note 16.
 - ADD Coded Note 16, “16. Cut floor and remove concrete slab on grade, backfill with stone, and install 6” concrete slab with #5 bars EW. Epoxy coat floor for entire Hall 109.”

44. **Sheet S-10, Main Building Structural West Clearwell Access Plan-Sections.** REPLACE with the attached S-10. Overlapping text was resolved.
45. **Sheet E-4, Overall Electrical Renovation Site Plan.** For the duct bank section between the building and fuel storage tank REPLACE “B/E-6” with “G/E-6”.
46. **Sheet E-6, Overall Site Plan Duct Bank Schedule.**
 - For the wire in Duct Bank A/E-6 line A, REPLACE “4#10, 5KV” with “4#350 KCIMIL, 5KV”.
 - For the wire in Duct Bank A/E-6 line B, REPLACE “4#10, 5KV” with “4#350 KCIMIL, 5KV”.
 - For the wire in Duct Bank B/E-6 line A, REPLACE “25 KV” with “5 KV”.
 - For the wire in Duct Bank B/E-6 line C, REPLACE “25 KV” with “5 KV”.
47. **Sheet E-8, E-11, E14, E-17, E20, E23, E-26, E29, E32, E-35 – Well No. X Electrical Site Plan.** For Wells 1-10, ADD two pipe bollard symbols next to each transformer for a total of 4 per Detail 2 on Sheet E-37. For the note pointed to the pipe bollard symbol, REPLACE “(2)” with “(4)”.
48. **Sheet E-39, Proposed New 5KV One-Line Diagram.** Feeder/Conduit Schedule Note 2, REPLACE “NEW (1) 5” ...*spare*” with “New (2) 5” conduits with 4 #350 KCIMIL, 5KV feeder in each and (1) 5” spare conduit.”
49. **Sheet E-41, Electrical One-Line Diagram 5 KV MV/MCC-1 and MV/MCC-2.** In the Feeder/Conduit Schedule Note 2, REPLACE “3#2” with “3#4 unshielded”.
50. **Sheet E-43, New MCC-A & MCC-B Electrical One-Line Diagram.**
 - New Air Scour Blower No. 1 (ASB-1) for blower motor horsepower REPLACE “50” with “40”
 - New Air Scour Blower No. 2 (ASB-2) for blower motor horsepower REPLACE “50” with “40”
51. **Sheet E-53, High Service Pump RM Electrical Renovation Power Plan.**
 - For New Air Scour Blowers, ASB-1 and ASB-2, for blower horsepower REPLACE “50” with “40”
52. **Sheet E-54, High Service Pump RM Electrical Renovation Lighting Plan.**
 - For the emergency light fixtures in Corridor 110 REPLACE “EX” with “EXM”
 - For the emergency light fixtures in Restroom 107 REPLACE “EX” with “EXM”
 - For the emergency light fixture EMX in Lobby 100, ADD a homerun arrow and the following note: “Connect to the local lighting circuit.”
 - For the exterior remote light at rear door the Mechanical Room 106, ADD a homerun arrow and the following note: “Connect to new EMX circuit inside Mechanical Room 106”.
53. **Sheet E-72, Electrical Panel Schedules 2.**
New Panel Number P3:
 - In the column Breaker Pole, for EWH-1 REPLACE “1” with “2”.
 - In the column Breaker Amps, for EWH-1 REPLACE “60” with “15”.

54. **Sheet E-74, Electrical Panel Schedules 4.**
New Panel Number L1:
- In the column Breaker Amps, for EUH-6, EUH-7, EUH-10 & EUH-11 REPLACE “60” with “15”.
 - In the column Breaker Amps, for HV-1 on Roof REPLACE “60” with “25”.
 - In the column Wiring, for HV-1 on Roof REPLACE “2#12, 1#12G” with “3#10, 1#10G”.
- New Panel Number L2:
- In the column Wiring, for all wired circuits except spares (11 total) REPLACE “2#12” with “3#12”.
55. **Sheet I-16, Backwash and Finished Water Distribution Pumps P&ID.** For the Back Wash Pump, naming shall be BWP-1 as used on Sheet E-53.
- REPLACE “P-7” with “BWP-1”
 - REPLACE “SP-1” with “BWP-1”.
56. **Sheet I-19, Process and Instrumentation High Service Pump P&ID.** REPLACE “3” *Backflow Preventer (Typ of 2)*” with “2” Backflow Preventer (Typ of 2) See PL-11 Coded Note 22”.
57. **Sheet DC-3, Dechlorination Building Process Plan-Sections.**
- Chemical Feed Pumps for Dechlorination Note 2, REPLACE “*City shall furnish 2 chemical feed pumps (1 new and 1 existing pump).*” with “Contractor shall furnish and install 2 new chemical feed pumps”.
 - Chemical Feed Pumps for Dechlorination Note 3, REPLACE “*New pump (CP-1)... to remain.*” with “New pumps (CFP-1 and CFP-2) shall be Blue White Model Flex-Prom-2, Watson Marlow QDOS 60, or equal.”
 - Coded Note 1, REPLACE “09 90 00” with “09 96 35.”
58. **Sheet DC-4, Dechlorination Bldg Architectural Plan-Section-Elevations.**
- Note 2, REPLACE “09 90 00” with “09 96 35.”

GENERAL CLARIFICATIONS

59. **Bid Form. Page BF-16,** Section 1.03 should have a date of May 11, 2022 when acknowledging Addendum 1. Addendum 1 was uploaded on the City’s website on May 12, 2022 but Addendum 1 has a date of May 11, 2022 on Page 2 of 7. The date on Page 2 of the Addendum should be used.
60. **Request for Record Drawings and CAD Files.** This information will not be provided during the bid period, but information can be requested by the Successful Bidder.
61. **Existing Raw Water Transmission Main.** The Contract Drawings provide information depicted on the 1959 and 1978 record drawings for the raw water transmission main, record drawings can be provided to the Successful Bidder.

62. **Existing Roof Warranty.** The only roof currently under warranty is the single ply membrane installed on the original Main Building which is from column lines A through N shown on A-8. This does not include the Chlorine or Fluoride Buildings. The roof was installed in 2006 by Tycor roofing. Any repairs performed on this roof must meet the requirements to maintain the warranty.
63. **Page 1453, Section 40 05 23 – Process Valves,** Part 2.4 L Portable Electric Operators. This section is included in this specification but there are no Portable Electric Operators for sluice gates required for this project.
64. **WC-1, WC-3, WC-5 - Well #x Civil Site Plans.** At the cross connection between the existing transmission main and Wells #1, #3, and #5 a section of pipe is needed to be removed to perform the heavy cleaning of the transmission main. Means and methods will need to be coordinated between the Contractor, pipe supplier, and cleaning contractor as to whether a side outlet tapping sleeve and valve for the cross connection would be feasible.
65. **Appendix II - Lead and Asbestos Survey Results.** Hazardous material disposal is referenced in in Section 02 41 19 – Selective Demolition Part 3.4 B. Appendix II contains the report referenced in Section 02 83 00 - Asbestos and Lead Paint Collection and Disposal. This is provided as guidance for the Contractor to be aware of the presence of lead and asbestos containing materials to assist with preparation of the bids. The Bidders shall familiarize themselves with the report and required work to assist with the demolition.

SECTION 07 24 10

EXTERIOR INSULATION AND FINISH SYSTEMS - CLASS PB

[ADDENDUM NO. 2]

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. **General.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 1, and all related specification sections, apply to work of this section.

1.2 DESCRIPTION OF WORK

- A. **General.** The Contractor shall provide all labor, materials, tools, and equipment necessary to furnish and install exterior insulation and finish systems, Class PB, in accordance with the plans and as specified herein.
- B. **Work Included.** This section includes the following:
 - 1. Applications over masonry surfaces.
 - 2. Applications over concrete surfaces.
- C. **Related Sections.** The following sections contain requirements that relate to this section:
 - 1. Division 3 section "Concrete Work" for concrete substrates behind system.
 - 2. Division 4 section "Unit Masonry" for masonry substrates behind system.

1.3 QUALITY ASSURANCE

- A. **Codes.** Perform all work in compliance with all federal, state, and local codes.
- B. **Standards.** Materials and workmanship shall be in accordance with the following standards:
 - 1. ASTM - American Society for Testing and Materials.
 - 2. EIMA - Exterior Insulation Manufacturers Association.
- C. **Regulatory Agencies.** Perform all work in compliance with the requirements of the following regulatory agencies:
 - 1. OSHA - Occupational Safety and Health Administration.
- D. **Manufacturer Qualifications.** Engage a firm experienced in manufacturing systems that are similar to those indicated for this project and that have a record of successful in-service performance.

- E. **Installer Qualifications.** Engage an experienced installer who has completed systems similar in material, design, and extent to that indicated for project that have resulted in construction with a record of successful in-service performance.
- F. **Single Source Responsibility.** Obtain materials for system from either a single manufacturer or manufacturers approved by the system manufacturer as compatible with other system components.

1.4 SUBMITTALS

- A. **General.** Submit the following in accordance with Conditions of Contract and Division 1 specification sections.
 - 1. Product data for each component of exterior insulation and finish systems.
 - 2. Samples for initial selection purposes in form of manufacturer's standard color charts and small scale samples indicating available textural choices.
 - 3. Sealant manufacturer's standard bead samples consisting of strips of actual products showing full range of colors available.
 - 4. Samples for verification purposes in the form of 1 foot square panels for each finish, color, and texture specified. Prepare samples using same tools and techniques intended for actual work.
 - a. Incorporate within each sample a typical control joint filled with sealant of color indicated or selected.
 - 5. Qualification data for firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include list of completed projects with project names, addresses, names of Engineers/Architects and Owners, plus other information specified.
 - 6. Product test reports from and based on tests performed by qualified independent testing laboratory evidencing compliance of components and systems with requirements based on comprehensive testing within last 3 years of current product formulations and systems.
 - 7. Sealant compatibility and test report from sealant manufacturer certifying that materials forming joint substrates of system have been tested for compatibility and adhesion with joint sealants; include sealant manufacturer's interpretation of results relative to sealant performance and recommendations for primers and substrate preparation needed to obtain adhesion.
 - 8. Research reports or evaluation reports of the model code organization acceptable to authorities having jurisdiction that evidence system's compliance with building code in effect for project.

1.5 **JOB CONDITIONS**

- A. **Coordination - Interfacing.** Coordinate with all other trades to prevent delays, errors, and omissions.
- B. **Environmental Conditions.** Do not install system when ambient outdoor temperatures are 40 degrees Fahrenheit (° F.) and falling unless temporary protection and heat are provided to maintain ambient temperatures above 40° F. during installation of wet materials and for 24 hours after installation or longer to allow them to become thoroughly dry and weather resistant.

1.6 **DELIVERY, STORAGE, AND HANDLING**

- A. **Delivery.** Deliver products in original, unopened packages and containers with manufacturer's labels identifying products legible and intact.
- B. **Storage.** Store materials inside and under cover; keep them dry and protected from the weather, direct sunlight, surface contamination, aging, corrosion, damaging temperatures, damage from construction traffic, and other causes.
 - 1. Stack insulation boards flat and off the ground.
- C. **Handling.** Handle materials and products per manufacturer's recommendations.

1.7 **SPECIAL WARRANTY**

Not used.

1.8 **DEFINITIONS**

- A. **Exterior Insulation and Finish System (E.I.F.S.).** Exterior insulation and finish systems refer to exterior assemblies composed of an inner layer of board insulation and an outer layer composed of a glass fiber mesh reinforced base coat applied directly to board insulation and a textured protective finish coat. These assemblies are applied to supporting substrates of construction indicated.
- B. **Class.** Designation PB for class of exterior insulation and finish systems specified in this section is based on the classification developed by the Exterior Insulation Manufacturers Association (EIMA).
- C. **System.** System in this section refers to Class PB exterior insulation and finish systems.
- D. **System Manufacturer.** System manufacturer refers to the manufacturer of exterior insulation and finish systems.
- E. **Thermal Resistivity.** Thermal resistivity of the insulation board is designated by an r-value that represents the reciprocal of thermal conductivity (k-value). Thermal conductivity is the rate of heat flow through a homogenous material exactly 1 inch thick. Thermal resistivity (r-value) is expressed by the temperature difference between the two exposed faces required to cause one BTU to flow through 1 square foot per hour at mean temperatures indicated.

1.9 SYSTEM PERFORMANCE REQUIREMENTS

- A. **General.** Provide systems complying with the following performance requirements:
1. **Bond Integrity.** Free from bond failure within system components or between system and supporting wall construction, resulting from exposure to fire, wind loads, weather, or other in-service conditions.
 2. **Weathertightness.** Resistant to water penetration from exterior into system and assemblies behind it or through them into interior of building that results in deterioration of thermal insulating effectiveness or other degradation of system and assemblies behind system including substrates, supporting wall construction, and interior finish.
 3. **Fire Performance Characteristics.** Provide materials and construction that are identical to those tested for the following fire performance characteristics, per test method indicated below, by testing and inspecting organizations acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting organization.
 - a. **Flame Spread of Insulation Board and Finish Coats.** 25 or less when tested individually per American Society for Testing and Materials (ASTM) E 84.

1.10 SEQUENCING AND SCHEDULING

- A. **General.** Sequence installation of system with related work specified in other sections to ensure that wall assemblies, including flashing, trim, and joint sealers, are protected against damage from weather, aging, corrosion, and other causes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. **Available Manufacturers.** Subject to compliance with requirements, manufacturers offering Class PB systems that may be incorporated in the work include but are not limited to the following:
1. Dryvit Systems, Inc.
 2. STO Industries, Inc.
 3. Vitricon Div., Polymer Plastics Corp.

2.2 MATERIALS

- A. **Compatibility.** Provide adhesive, board insulation, reinforcing fabrics, base and finish coat materials, sealants, and accessories that are compatible with one another and approved for use by system manufacturer.
- B. **Colors and Textures of Protective Coating.** Comply with the following requirements:

1. Provide selections made by Engineer/Architect from manufacturer's full range of standard colors and textures for type of finish coat indicated.
- C. **Surface Sealer.** System manufacturer's standard adhesion intermediary designed to improve bond between substrate of type indicated and adhesive for application of insulation.
- D. **Adhesive for Application of Insulation.** System manufacturer's standard formulation designed for indicated use, compatible with substrate, and complying with the following requirements:
1. Factory mixed formulation designed for adhesive attachment of insulation to substrates of type indicated, as approved by system manufacturer.
- E. **Molded Polystyrene Board Insulation.** Rigid cellular thermal insulation formed by the expansion of polystyrene resin beads or granules in a closed mold to comply with ASTM C 578 for Type I, approved by system manufacturer for material qualities including corner squareness, other dimensional tolerances and the following:
- F. **Reinforcing Fabric.** Balanced, alkali resistant open weave glass fiber fabric treated for compatibility with other system materials; made from continuous multiend strands with tensile strength of not less than 145 pounds and 150 pounds in warp and fill directions per ASTM D 1682; complying with ASTM D 578 and the following requirements for minimum weight:
1. Intermediate Reinforcing Fabric. 9.8 ounces per square yard (oz/sy).
 2. Strip Reinforcing Fabric. 3.75 oz/sy.
- G. **Base Coat Materials.** System manufacturer's standard, job mixed formulation of portland cement complying with ASTM C 150, Type I, white or natural color; and system manufacturer's standard polymer based adhesive designed for use indicated.
- H. **Finish Coat Materials.** System manufacturer's standard mixture complying with the following requirements for material composition and method of combining materials:
1. Factory mixed formulation of polymer emulsion admixture, colorfast mineral pigments, sound stone particles, and fillers.
- I. **Water.** Clean and potable.

2.3 ELASTOMERIC SEALANTS

- A. **Sealant Products.** Provide manufacturer's standard chemically curing, elastomeric sealant that is compatible with joint fillers, joint substrates, and other related materials and complies with requirements of Division 7 section "Joint Sealers" for products corresponding to description indicated below.
1. Multipart Nonsag Urethane Sealant.
- B. **Sealant Color.** Comply with the following requirement:

1. Match finish coat color of system.

2.4 MIXING

- A. **General.** Comply with system manufacturer's requirements for combining and mixing materials. Do not introduce admixtures, water, or other materials except as approved by system manufacturer. Mix materials in clean containers. Use materials within time period specified by system manufacturer or discard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. **General.** Examine substrates, with installer present, to determine if they are in satisfactory condition for installation of system. Do not proceed with installation of system until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. **General.** Protect contiguous work from moisture deterioration and soiling resulting from application of systems. Provide temporary covering and other protection needed to prevent spattering of exterior finish coatings on other work.
- B. **Weather Protection.** Protect system, substrates, and wall construction behind them from inclement weather during installation. Prevent infiltration of moisture behind system and deterioration of substrates.
- C. **Substrate Preparation.** Prepare and clean substrates to comply with system manufacturer's requirements to obtain optimum bond between substrate and adhesive for insulation.

3.3 INSTALLATION

- A. **General.** Comply with system manufacturer's current published instructions for installation of system as applicable to each type of substrate indicated.
- B. **Adhesive Attachment.** Adhesively attach insulation to comply with the following requirements:
 1. Apply adhesive to insulation by notched trowel method in manner that results in adhesive application in the manufacturer's recommended ribbon and dab method.
 2. Allow adhered insulation to remain undisturbed for period prescribed by system manufacturer but not less than 24 hours, prior to beginning rasping and sanding insulation or application of base coat and reinforcing fabric.
- C. **Insulation Attachment.** Attach insulation to comply with the following requirements:
 1. Apply insulation boards over dry substrates in courses with long edges oriented horizontally; begin first course from a level base line and work upwards.

2. Stagger vertical joints in successive courses to produce running bond pattern.
3. Interlock ends at internal and external corners.
4. Abut boards tightly at joints within and between each course to produce flush, continuously even surfaces without gaps or raised edges between insulation boards. If gaps occur, fill with insulation cut to fit gaps exactly; insert without use of adhesive.
5. Rasp or sand flush entire surface of insulation to remove irregularities projecting more than 1/32 inch, or 1/16 inch if it is the manufacturer's standard, from surface of insulation and yellowed areas due to sun exposure; do not create depressions deeper than 1/16 inch.
6. Cut insulation to fit openings, corners, and projections precisely and to produce edges and shapes conforming to details indicated.
7. Interrupt insulation where expansion joints are indicated in substrates behind exterior insulation and finish systems.
8. Form joints for sealant application by leaving gaps of width needed between adjoining insulation edges as well as between insulation edges and dissimilar adjoining surfaces projecting through insulation that produce joint widths indicated after encapsulation of joint substrates with base coat, reinforcing fabric, and finish coat.
9. Cut grooves, rabbets, and other features in outside face of insulation with high speed router and bit configured to produce grooves, rabbets, and other features that conform accurately to profiles and locations indicated. Do not reduce insulation thickness at features to less than 3/4 inch.
10. Treat exposed edges of insulation board, including those forming substrates of sealed joints within system or between system and other work, by encapsulating with base coat, reinforcing fabric, and finish coat.
11. Coordinate flashing installation with installation of insulation to produce a wall system that does not allow water to penetrate behind protective coating.

D. **Base Coat.** Apply base coat to exposed surfaces of insulation in minimum thickness specified by system manufacturer.

E. **Reinforcing Fabric.** Fully embed reinforcing fabric of type indicated below in wet base coat to produce wrinkle free installation with fabric continuous at corners and lapped or otherwise treated at joints to comply with system manufacturer's requirements.

1. Intermediate (9.8 oz./sy.) reinforcing fabric unless otherwise indicated.

F. **Finish Coat.** Apply finish coat over dry base coat in thickness required by system manufacturer to produce a uniform finish of texture and color matching approved sample.

1. At existing E.I.F.S. surfaces, clean and prepare surfaces as recommended by E.I.F.S. manufacturer. Provide primer, reinforcing fabric, or other means to ensure proper bonding.

3.4 **INSTALLATION OF JOINT SEALANTS**

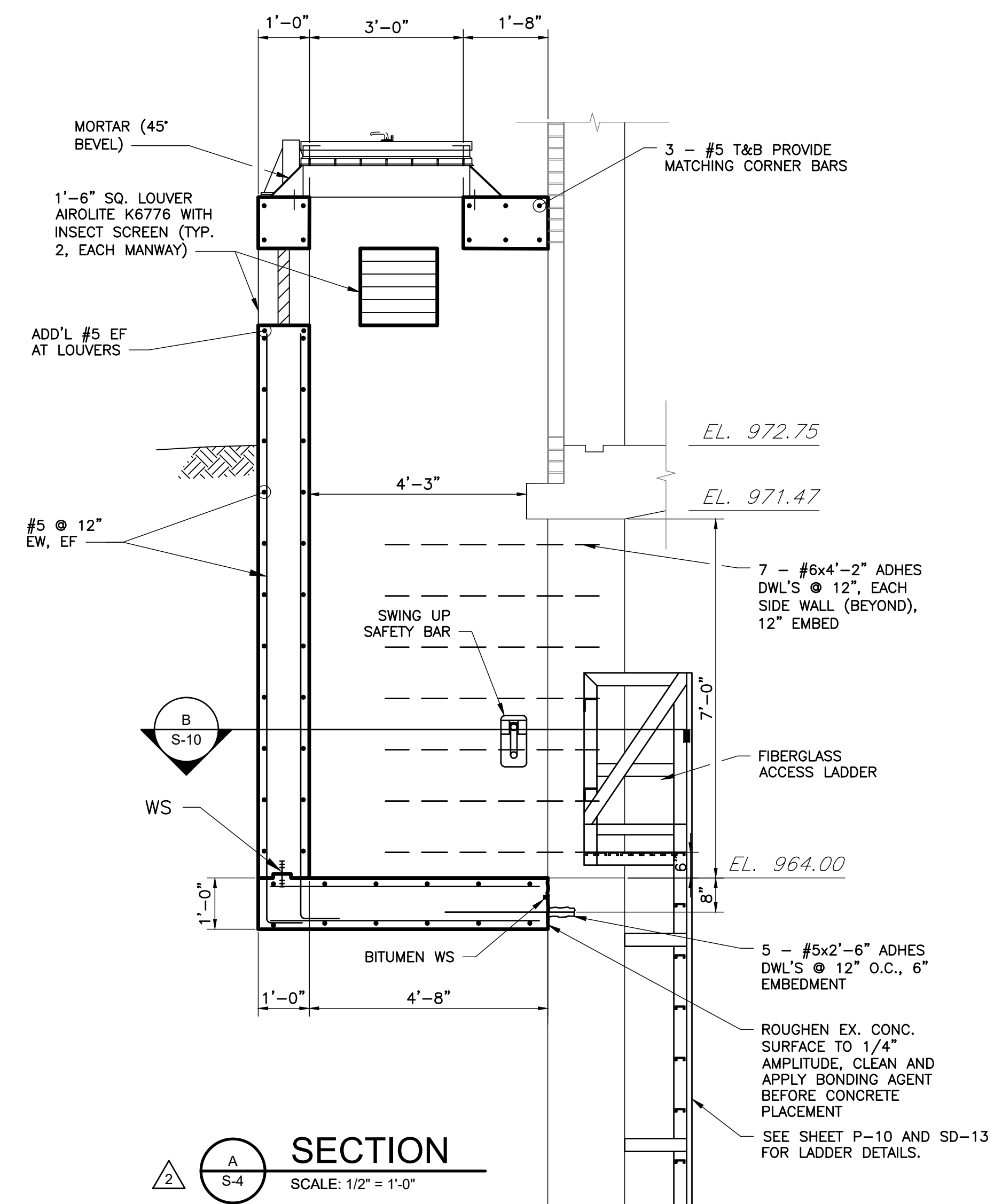
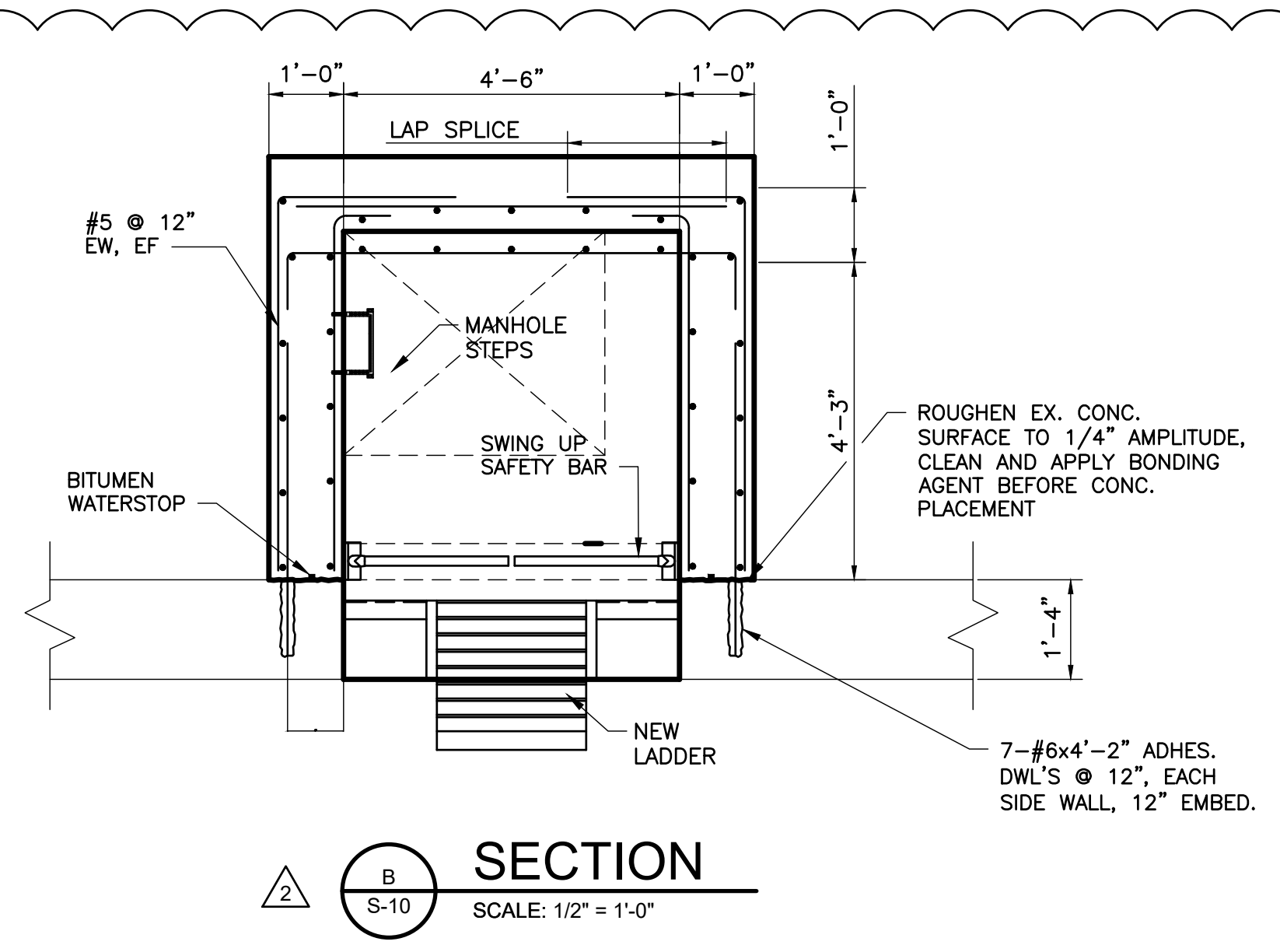
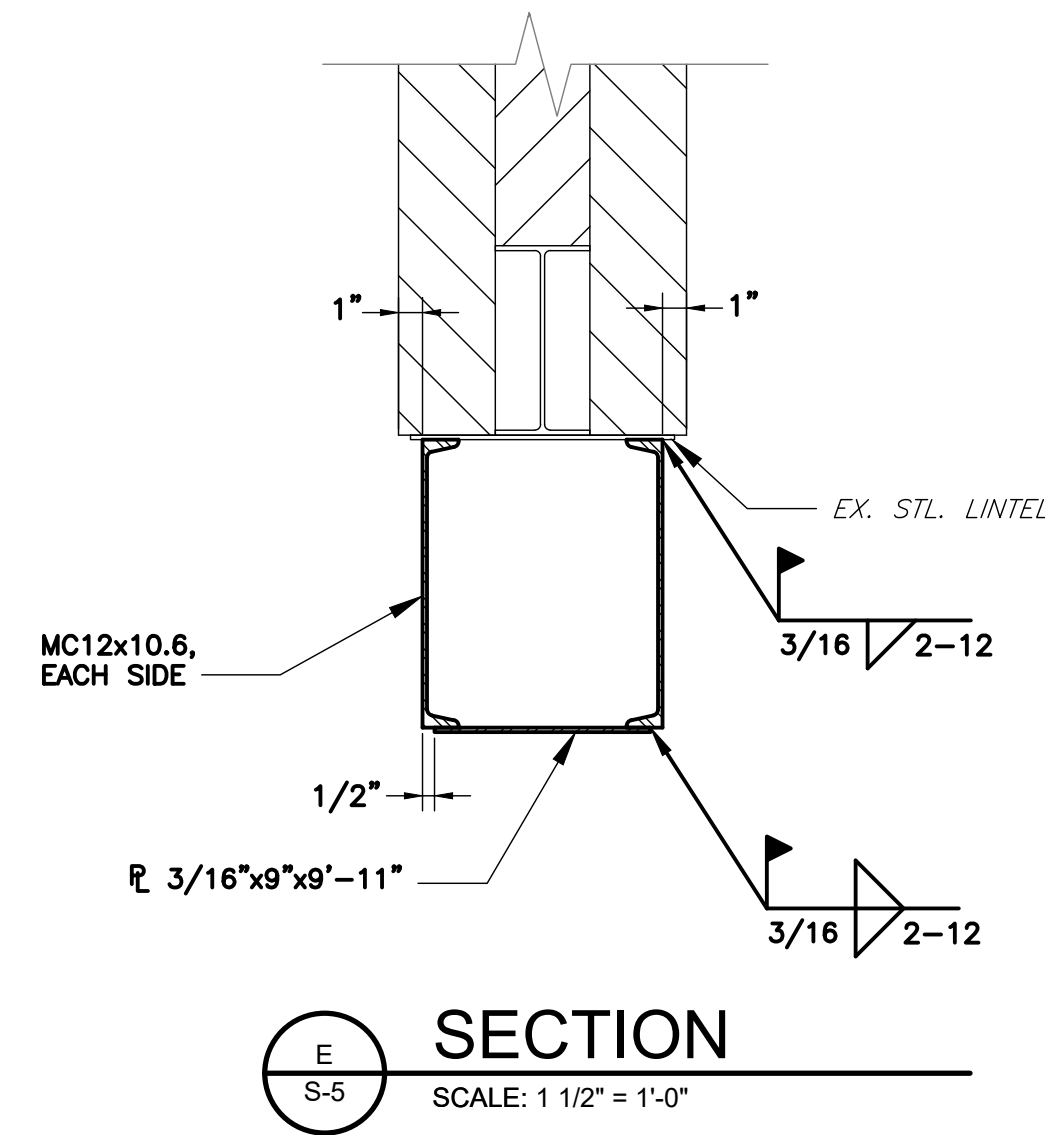
A. **Joints/Sealants.** Prepare joints and apply sealants, of type and at locations indicated, to comply with applicable requirements of Division 7 section "Joint Sealers" and with "EIMA Joint Sealant Specifications for Exterior Insulation and Finish Systems."

3.5 **CLEANING AND PROTECTION**

A. **Cleaning.** Remove temporary covering and protection of other work. Promptly remove protective coatings from window and door frames and any other surfaces outside areas indicated to receive protective coating.

B. **Protection.** Provide final protection and maintain conditions in a manner acceptable to installer and system manufacturer that ensures system's being without damage or deterioration at time of Substantial Completion.

END OF SECTION



BURGESS & NIPLÉ
100 WEST ERIE STREET
PAINESVILLE, OHIO 44077

CITY OF CANTON, OHIO
WATER DEPARTMENT
SUGAR CREEK
WATER TREATMENT PLANT &
WELLFIELD IMPROVEMENTS

REVISIONS		
NO.	DESCRIPTION	DATE
2	ADDENDUM NO. 2	05/2022
1	BID SET	04/2022

JOB NO: PR58982
DATE: APR 2022
DESIGNED BY: RMP
DRAWN BY: RMP
CHECKED BY: MMK
APPROVED BY: CMS
SCALE: NONE

MAIN BLDG
STRUCTURAL
WEST CLEARWELL
ACCESS
PLAN-SECTIONS

S-10
SHEET: OF