TOWN OF SALEM, NEW HAMPSHIRE
PRESSURE REDUCING VALVE STATIONS
CONTRACT S2, DWGTF-34

ADDENDUM NO. 2

****

To be considered as part of the contract drawings and specifications and all other contract documents for the project referenced above; superseding previously issued Drawings, Specifications, Bidding Requirements, Contract Documents and Addenda, to the extent modified by this Addendum. Bidders are advised that this Addendum must be acknowledged in the appropriate space provided on the Form of General Bid.

SPECIFICATIONS

SECTION 0 – A. BIDDING REQUIREMENTS

Delete pages A-4.1 and A-4.2 "Bid Bond" in its entirety, and replace with the attached A-4.1 and A-4.2 "Bid Bond".

SECTION 01 12 16 – SCOPE AND SEQUENCE OF WORK

Delete section "01 12 16 – SCOPE AND SEQUENCE OF WORK" in its entirety, and replace with the attached section "01 12 16 – SCOPE AND SEQUENCE OF WORK".

SECTION 08 71 00 – DOOR HARDWARE

Delete the door hardware schedule in paragraph 2.01. C. in it's entirety and replace with the following door hardware schedule;

"

Item	Scheduled Manufacturer	Acceptable Substitute
Hinges	Ives (IVE)	Hager, Stanley
Flush Bolts & Coordinators	Ives (IVE)	Burns, Rockwood
Locksets	Schlage (SCH)	Best, Sargent
Exit Devices	Von Duprin	Precision, Sargent
Door Closers	LCN (LCN)	Dorma, Sargent
Door Trim	Ives (IVE)	Burns, Rockwood
Protection Plates	Ives (IVE)	Burns, Rockwood
Overhead Stops	Glynn-Johnson (GLY)	Rixson, Sargent
Stops & Holders	Ives (IVE)	Burns, Rockwood
Thresholds & Weatherstrip	Zero (ZER)	National Guard, Reese
Silencers	Ives (IVE)	Burns, Rockwood
Cylinders & Keying	Schlage (SCH)	Best, Sargent

"

SECTION 40 05 23.13 – VALVES AND APPURTENANCES FOR POTABLE WATER WORK

1. Section 40 05 23.13, paragraph 2.03, delete in its entirety and replace with the following;

"2.03 GLOBE VALVE (GENERAL REQUIREMENTS):

The main valve shall be globe-style and shall be either a diaphragm assembly or piston assembly valve as specified below.

Diaphragm Assembly Globe Valve

A. The main valve shall be hydraulically operated, single diaphragm actuated, globe pattern. The valve shall consist of three major components; the body with seat installed, the cover with bearing installed and the diaphragm assembly. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating the operating pressure from line pressure. Packing glands, stuffing boxes and/or rolling diaphragm technology will not be permitted. No fabrication or welding shall be used in the manufacturing process. Y-pattern valves shall not be permitted. Main valve shall be certified by NSF/ANSI Standard 61 as a safe drinking water system component.

B. End Connections for control valve shall be flanged per ASME/ANSI B16.42, Class 150 (2" thru 18").

C. No separate chamber(s) below the diaphragm shall be allowed between the main valve cover and body. No fabrication or welding shall be used in the manufacturing process.

D. The valve shall contain a resilient, synthetic rubber disc with a rectangular cross-section contained on three and one half sides by a disc retainer and forming a tight seal against a single removable seat insert. No O-ring type discs (circular, square, or quad type) shall be permitted as the seating surface. The disc guide shall be of the contoured type to permit smooth transition of flow and shall hold the discs firmly in place. The disc retainer shall be of a sturdy one-piece design capable of withstanding opening and closing shocks. It must have straight edge sides and a radius at the top edge to prevent excessive diaphragm wear as the diaphragm flexes across this surface. No hours-glass shaped disc retainers shall be permitted and no V-type or slotted-type disc guides shall be used.

E. The diaphragm assembly shall contain a non-magnetic 303 stainless steel stem of sufficient diameter to withstand high hydraulic pressures and shall be fully guided at both ends by a bearing in the main valve cover and an integral bearing in the valve seat. The valve seat shall be a solid, one-piece design and shall have a minimum five-degree taper on the seating surface for a positive, drip-tight shut off. No center guides shall be permitted. The stem shall be drilled and tapped in the cover end to receive and affix such accessories as may be deemed necessary. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating

the operating pressure from the line pressure. No bolts or cap screws shall be permitted for use in the construction of the diaphragm assembly.

F. The flexible, non-wicking, FDA approved diaphragm shall consist of nylon fabric bonded with synthetic rubber compatible with the operating fluid. The diaphragm's center hole for the main valve stem must be sealed by the vulcanized process or a rubber grommet sealing the center stem hole from the operating pressure. The diaphragm must withstand a Mullins Burst Test of a minimum of 600 X per layer of nylon fabric and shall be cycled tested 100,000 times to insure longevity. The diaphragm shall not be used as the seating surface. The diaphragm shall be fully supported in the valve body and cover by machined surfaces which support no less than one-half of the total surface area of the diaphragm in either the fully opened or fully closed position. Bellofram type rolling diaphragms shall not be permitted.

G. The main valve seat and stem bearing in the valve cover shall be removable. The cover bearing and valve seat in the 8" and larger size valves shall be retained by flat head machine screws for ease of maintenance. The lower bearing of the valve stem shall be contained concentrically within the seat and shall be exposed to the flow on all sides to avoid deposits. To insure proper alignment of the valve stem, the valve body and cover shall be machined with a locating lip. No "pinned" covers to the valve body shall be permitted. Cover bearing, disc retainer and seat shall be made of the same material. All necessary repairs and/or modifications other than replacement of the main valve body shall be possible without removing the valve from the pipeline. The valve shall be designed such that both the cover assembly and internal diaphragm assembly can be disassembled and lifted vertically straight up from the top of a narrow opening/vault. The seat shall be of the solid one piece design. Two piece seats or seat inserts shall not be permitted. Packing glands and/or stuffing boxes shall not be permitted.

H. Material specification for the globe valve shall be as follows:

Component	Material
Body & Cover	Ductile Iron – ASTM A536 (standard)
Main Valve Trim	Bronze (standard)
Disc Retainer	Cast Iron
Diaphragm Washer	Cast Iron
Seat	Bronze (standard)
Stem, Nut and Spring	Stainless Steel
Seal Disc	Buna-N Rubber
Diaphragm	Nylon Reinforced Buna-N Rubber
Internal Trim Parts	Stainless Steel; Bronze; Brass
End Detail	Flanged (2" – 18")
Pressure Rating	Class 150 lb. (250 psi Max.) Class 300 lb. (400 psi Max.)
Temperature Range	Water to 180 degrees F

Coating	Fusion bonded epoxy coating (interior and exterior); ANSI/NSF 61 Approved / AWWA coating specification C116-03
Any other wetted metallic parts	Stainless Steel; Bronze; Brass
Accessories	Position Indicator, Closing Speed Needle Valve, Isolation valves, Flow Limiter, Pressure Gauge

Piston Assembly Globe Valve

I. Main valve bodies shall be globe style, constructed of high-strength cast iron conforming to ASTM A126 Class B with integral flanges, faced and drilled per ANSI B16.1 Class 125. The valves shall be "full-ported" with a flow area through the valves no less than the area of its nominal pipe size and have an integral bottom pad or feet to permit support directly beneath the body.

J. The main valves shall operate on the differential piston principle such that the area on the underside of the piston is no less than the pipe area and the area on the upper surface is greater than that of the underside.

K. The valve pistons shall be fully guided on the outside diameter and all guiding and sealing surfaces shall be bronze. To minimize the consequences of throttling, throttling shall be by long, stationary vee-ports located downstream of the seat and not by the seat itself. Sawtooth attachments or other add-on devices are not acceptable.

L. The valves shall be fully capable of operating in any position without the need of springs and shall not incorporate stems, stem guides or spokes in the waterway. A visual position indicator shall be provided.

M. The main valves shall be serviceable in the line through a single flanged cover, which provides easy access to all internal components."

DRAWINGS

DRAWING A104

1. On Drawing A104, delete Detail 3 in it's entirety and replace with the attached Drawing A104 - Detail 3.

DRAWING A204

1. On Drawing A204, delete Detail 4 in it's entirety and replace with the attached Drawing A204 - Detail 4.

DRAWING C201

1. On Drawing C201, delete the note "S=0.01" for the slope listed with 6" CORR. ADS N12 HDPE and replace with the note "S=0.03".

QUESTIONS

Question: The Structural drawings call for the roof trusses to be wood. The Architectural Drawings call for the roof trusses to be steel. Please confirm which drawings control?

Answer: The roof trusses for both PRV stations are wood.

Question: Detail 3 on Sheet A104 Calls for a 3'' metal steel deck but is not shown. Please show where the 3'' steel deck is going and how it is fastened to the trusses.

Answer: There is no metal deck being used on this project. See Updated Drawings (A104 and A204) for Corrected Notes

Question: Detail 3 on Sheet A104 calls for 5 ½'' vented insulated but there is no detail how it is to be fastened to the trusses. Please provide detail on fastening requirements.

Answer: Please review Spec Section 06 10 00 for fastening requirements.

Question: Detail 3 on Sheet A104 shows a 7/8'' furring strip on the 3'' rigid insulation but how it is fastened to the masonry block is not detailed.

Answer: There is no detail for this item. Please see Spec Section 07 21 00 for Attaching rigid insulation.

Question: There are no specifications for plumbing. Please confirm that only what is on the drawings is required for completion of the plumbing contract.

Answer: There are no specifications for plumbing. All plumbing materials shall be furnished and installed per the jurisdictional plumbing code. All plumbing materials shall carry the manufacturer's warranty. All plumbing equipment shall be furnished with the manufacturer's operation and maintenance manual.

Question: The Site drawings show that all the pipe and utilities are brought onto the sites under another contract. Please confirm that there will be no work on state, county or town roads and that no bonds, insurance, traffic control or special signage will need to be provided.

Answer: Work on water pipe associated with this contract shall be coordinated with the water main work being performed under Contract #S1A and Contract #S1B. Revoli Construction Co. is the Contractor performing work under #S1A and #S1B.

Underground electric utilities are to be installed (under contract #S2) from the Route 28 utility pole (as shown on sheet E002) under Northland Road and into the proposed site as shown. All Town of Windham excavation permits and requirements for traffic control shall be obtained, as necessary, to perform this work.

The Town of Salem is currently filing an application for a NHDOT Driveway Permit. The permit is pending. Contractor shall comply with all requirements of NHDOT for installing the driveway at the Rail Trail PRV site. Please note, the Contractor for Contract #S2 shall coordinate all work with Revoli Construction Co.; the Contractor for Contract #S1B.

Question: Drawing C201 shows the roof drain line going to what looks like a retention basin. There is only 9 inches of cover over the top of the pipe. Please provide detail of retention basin and grades.

Answer: Refer to Detail "Gutter Downspout 'B' Connection Detail" on Sheet C603 for additional information on the roof drain line. Maintain 12 inches of cover on top of the 6-inch drain pipe under the paved surface. Pipe slope to be 0.03.

Question: Hollow Metal Spec 081100, PP.2.01 specifies bullet resistant exterior doors. Are any bullet resistant doors required? If yes, please advise locations and specific UL Level (1 through 8) required.

Answer: No bullet resistant exterior doors are required. Please use the specifications for "Other exterior swing doors" for furnishing the exterior doors required for this project.

Question: Finish Hardware Spec 087100 narrative and pages 6 and 7 call for specific brand name products, No Substitute. Hardware Sets pages 19 & 20 list products by Dorma and Falcon that are not allowed per the narrative. Please clarify. As this is a public project, can equal hardware products by Stanley, Corbin, Best, Yale, Dorma, Precision and Sargent be allowed?

Answer: See the revised hardware schedule that is included in this addendum. The contractor is allowed to substitute "or-equal" products that match the quality of the scheduled MFG. Note that cylinders and keying are to be compatible with the owner's master key system if they have one.

ATTACHMENTS

- Revised Contract Specification Section 0, A-4.1 and A-4.2, Bid Bond (2 pages)
- Revised Contract Specification Section 01 12 16, Scope and Sequence of Work (2 pages)
- Revised Detail 3 on Sheet A104 (1 page)
- Revised Detail 4 on Sheet A204 (1 page)

END OF ADDENDUM NO. 2

TOWN OF SALEM, NEW HAMPSHIRE
BY ITS TOWN OFFICER

WESTON & SAMPSON ENGINEERS, INC.
PORTSMOUTH, NEW HAMPSHIRE

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____

_____ as Principal, and

_____ as Surety, are hereby

held and firmly bound unto The Town of Salem, New Hampshire as OWNER

in the penal sum of _____

for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____

The Condition of the above obligation is such that whereas the Principal has submitted to

_____

a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for

the SNHRW Project – Pressure Reducing Valve Stations, Contract S2

_____

_____

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (Properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise, the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety , for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____
Principal

By: _____

_____
Surety

By: _____

IMPORTANT-Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of New Hampshire.

SECTION 01 12 16

SCOPE AND SEQUENCE OF WORK

PART 1 – GENERAL

1.01 WORK INCLUDED:

A. Work includes the installation of two pressure reducing valve (PRV) facilities including, but not limited to, two separate buildings and foundations, process piping and valves, chemical feed equipment and site work in Windham and Salem.

1.02 RELATED WORK:

A. SECTION 01 11 00 – CONTROL OF WORK AND MATERIALS

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 GENERAL:

A. The Contractor shall be responsible for scheduling its activities and the activities of any subcontractors involved, to meet the completion date, or milestones, established for the contract. Scheduling of the work shall be coordinated with the Owner and Engineer.

B. The Construction Sequence Requirements shall be used by the Contractor to form a complete schedule for the project, which shall be coordinated with the Owner and Engineer. Prior to performing any work at the site, the Contractor shall submit a detailed plan to the Engineer for review. The plan shall describe the proposed sequence, methods, timing of the work, and number of crews on site.

C. The construction area is partially located within the street rights-of-way owned by the New Hampshire Department of Transportation (NHDOT) and the Town of Windham. No construction activities or staging/stockpiling is permitted outside of the street right-of-way or property not owned by NHDOT or the towns of Windham or Salem, without written approval of the Owner(s).

3.02 CONSTRUCTION SCHEDULE:

A. Time to Complete

a. Milestone No. 1 – SUBSTANTIAL COMPLETION

The Contractor shall bring the work to substantial completion by June 15, 2020. Substantial completion is defined as beneficial use of both PRV facilities for water supply purposes including, but not limited to, fully functioning water piping and valves, chemical feed system, and instrument and controls systems.

b. Milestone No. 2 – FINAL COMPLETION

The Contractor shall bring the work to final completion by August 15, 2020. Final completion of the project shall be reached upon the successful completion of all work. The following is a listing of work that can be completed after Milestone No. 1 but prior to Milestone No. 2;

- fiber cement clapboard/shingle siding,
- landscaping/loam and seeding,
- final grading,
- permanent pavement,
- site drainage systems,
- painting of non-water pipe surfaces,
- installation and testing of the emergency power generator,
- installation and testing of the HVAC systems,
- and completion of the contract punch list.

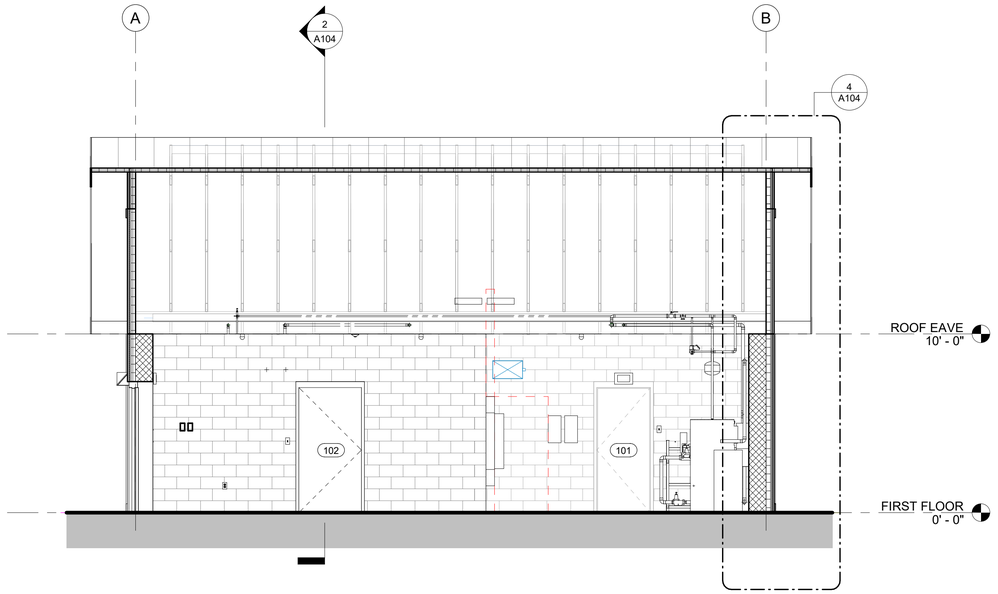
3.03 CONSTRUCTION SEQUENCING REQUIREMENTS:

A. Contractor shall coordinate all water main connections with other contracts associated with this project (Contract #S1A and #S1B) with the Owner and Engineer. Water main will also be constructed on Route 28 on behalf of the Town of Salem to the north and south of this contract. The Contractor shall coordinate work with the proposed work of these contracts.

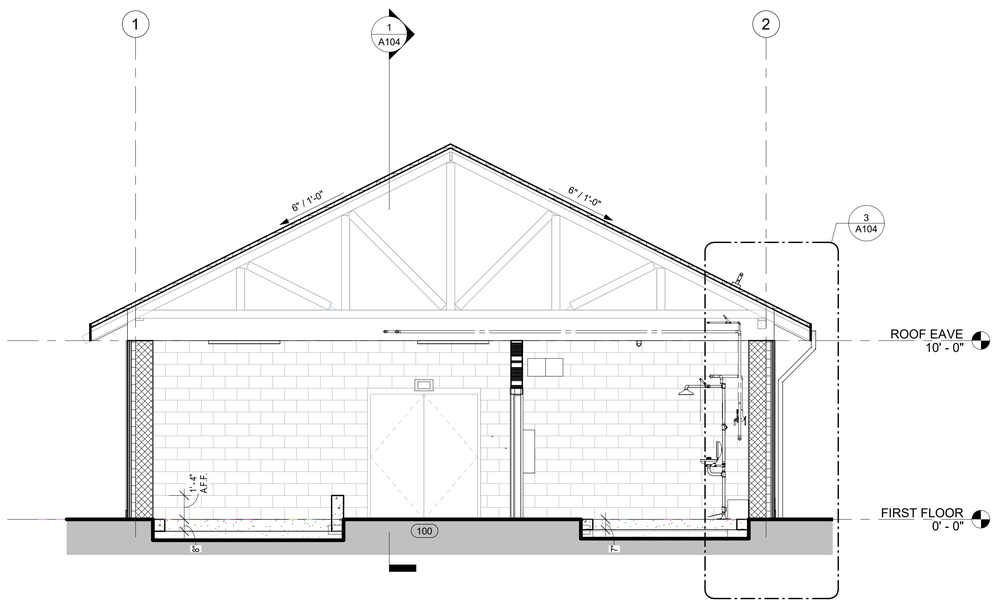
B. The contractor shall provide a minimum of 72 hours' notice to the Owner prior to performing any water main test or connection to existing water mains.

C. New water main shall be disinfected, bacteria tested, and pressure tested prior to connecting with any water mains from other contracts associated with this project. Upon passing the required tests, the new water mains will be physically connected to the associated water mains.

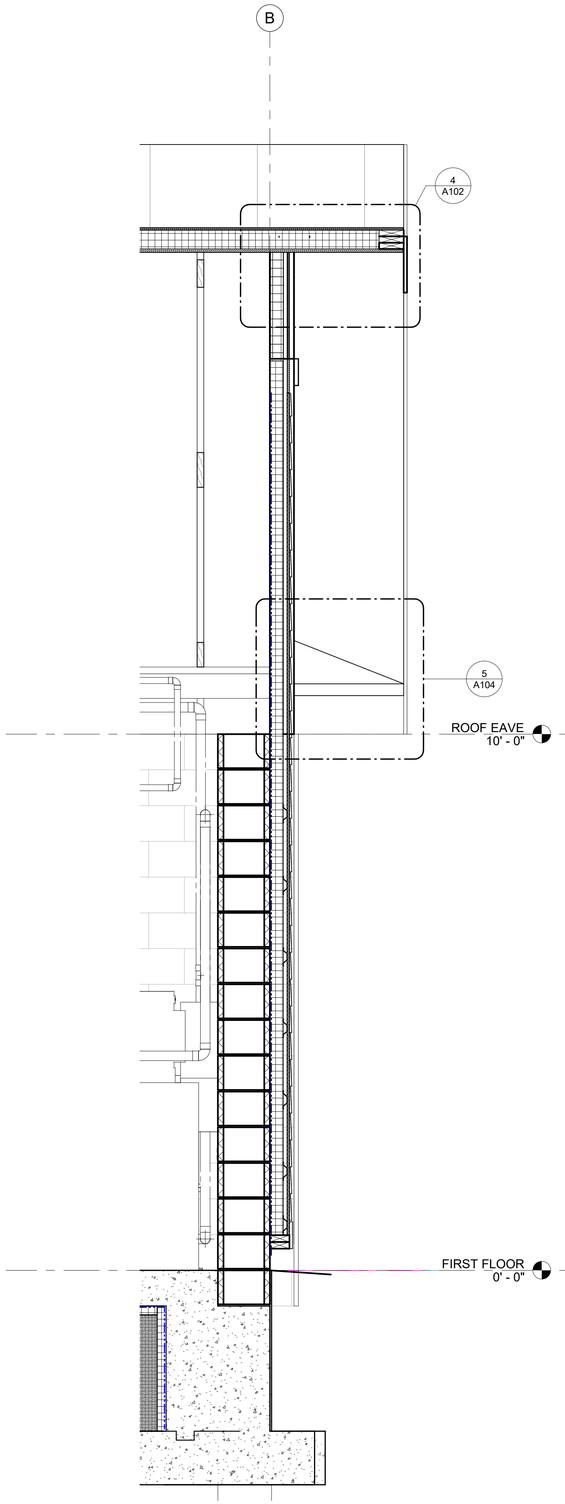
END OF SECTION



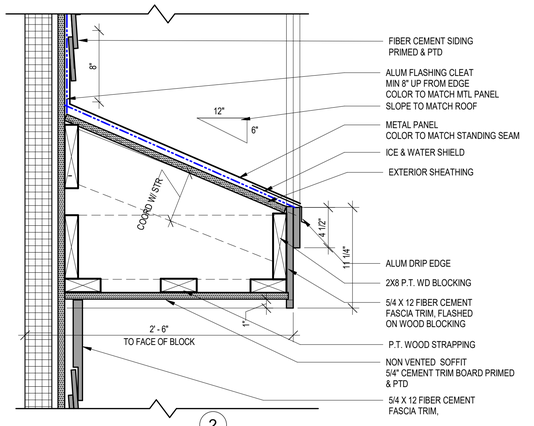
1 BUILDING SECTION "B"
1/4" = 1'-0"



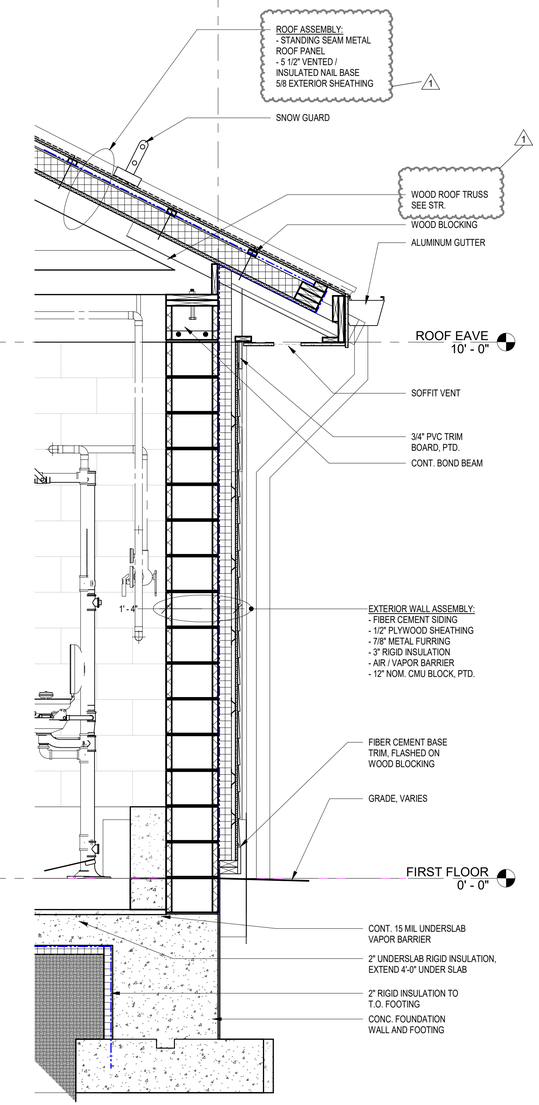
2 BUILDING SECTION "A"
1/4" = 1'-0"



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



DETAIL OF GREEK RETURN
1 1/2" = 1'-0"



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

Project:

TOWN OF SALEM,
NEW HAMPSHIRE

SOUTHERN NEW HAMPSHIRE
REGIONAL WATER PROJECT
CONTRACT #S2 -
NORTHLAND ROAD

33 GEREMONTY DRIVE,
SALEM, NH 03079

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

www.westonandsampson.com

PROJECT TRUE

SCALE: AS NOTED

Revisions:

No.	Date	Description
1	9/6/19	addendum #2

LICENSED ARCHITECT
DANIEL G. TENNEY III
No. 04378
THE STATE OF NEW HAMPSHIRE

BIDDING SET

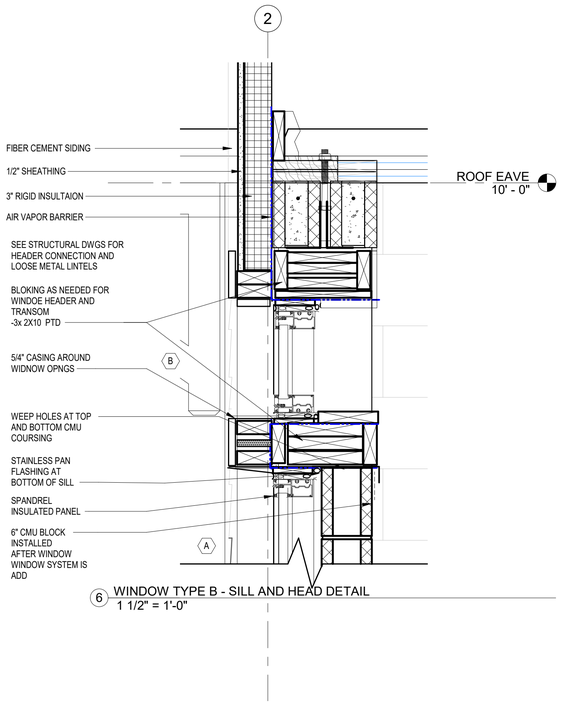
Draw BY:	ACR
Reviewed By.:	JPB
Approved By.:	JPB
W&S Project No.:	2190118
W&S File No.:	XXX

Drawing Title:

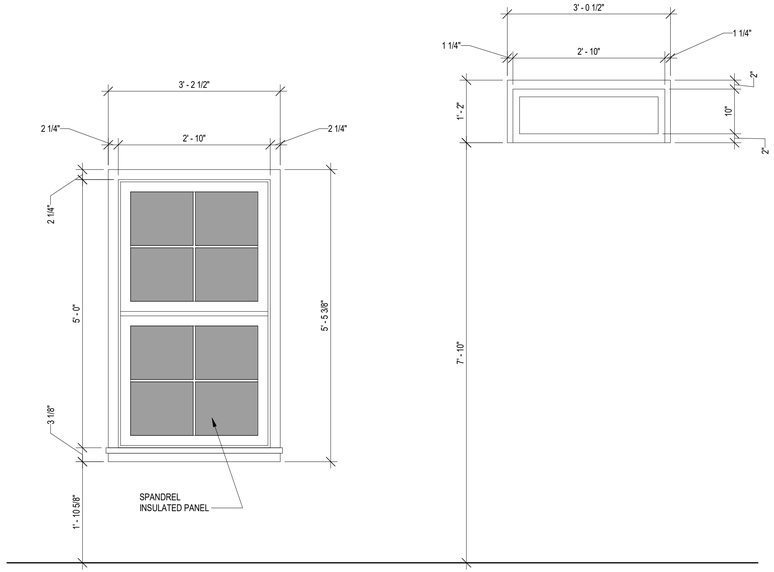
NORTHLAND -
BUILDING SECTIONS
& WALL SECTIONS

Sheet Number:

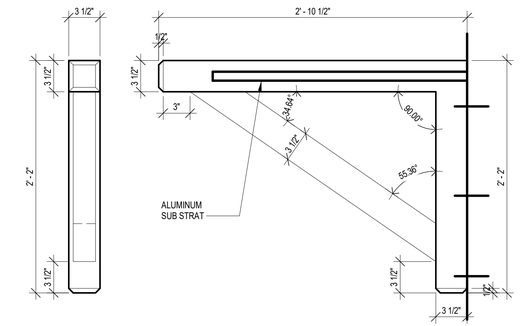
A104



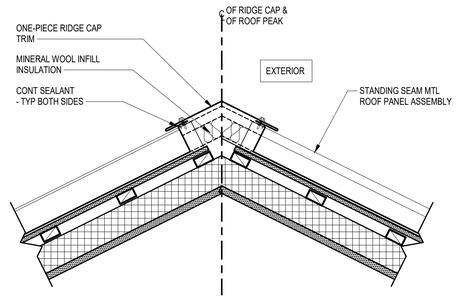
6 WINDOW TYPE B - SILL AND HEAD DETAIL
1 1/2" = 1'-0"



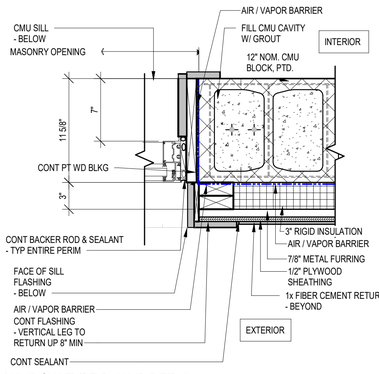
5 WINDOW TYPES
3/4" = 1'-0"



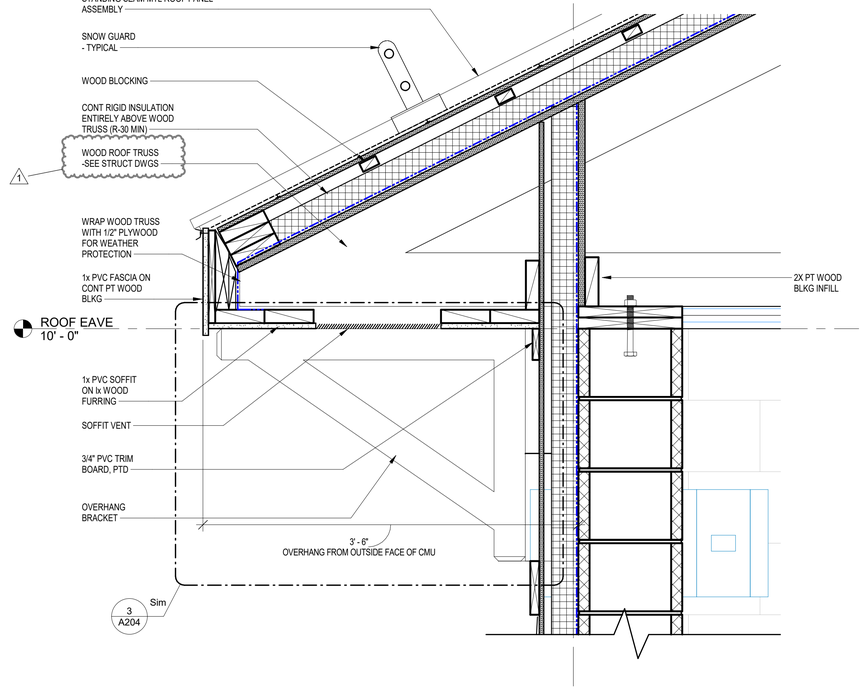
3 BRACKET DETAIL
1 1/2" = 1'-0"



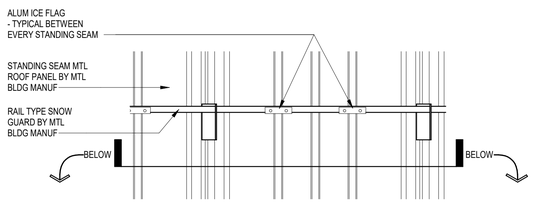
1 RIDGE CAP DETAIL
1 1/2" = 1'-0"



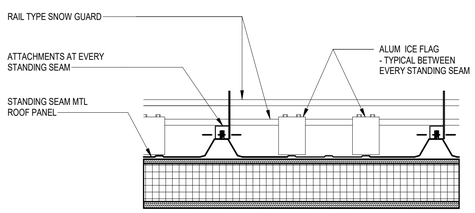
WINDOW TYPE B JAMB DETAIL
1 1/2" = 1'-0"



4 ROOF EAVE - SECTION DETAIL
1 1/2" = 1'-0"

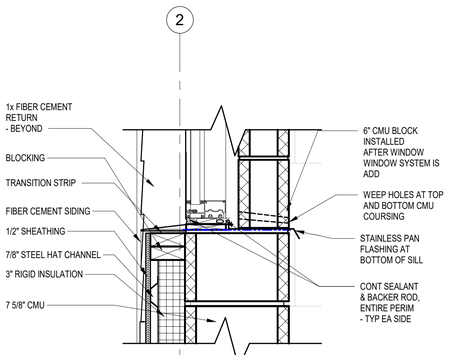


PLAN VIEW



SECTION VIEW

2 SNOW GUARD DETAIL
1 1/2" = 1'-0"



7 WINDOW TYPE A - SILL DETAIL
1 1/2" = 1'-0"

Project:
TOWN OF SALEM,
NEW HAMPSHIRE

SOUTHERN NEW HAMPSHIRE
REGIONAL WATER PROJECT
CONTRACT #S2 -
RAIL TRAIL DEPOT

33 GEREMONTY DRIVE,
SALEM, NH 03079

Weston & Sampson
Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

PROJECT TRUE

SCALE: AS NOTED

Revisions:

No.	Date	Description
1	9/6/19	Addendum #2

DANIEL G. TENNEY III No. 04378 LICENSED ARCHITECT THE STATE OF NEW HAMPSHIRE

BIDDING SET

Draw BY:	ACR
Reviewed By.:	JPB
Approved By.:	JPB
W&S Project No.:	2190118
W&S File No.:	XXX

Drawing Title:

RAIL TRAIL - DETAILS

Sheet Number:

A204