construction bid document addendum 01



Project: Aroostook State Park - Shower-Restroom Building & Utility Improvements

Presque Isle, Aroostook County, Maine BGS # 3492

pages: 02

date: 29 October 2024

The Contract Documents govern all aspects of the project. Information conveyed during pre-bid meetings, telephone, email or text with the Owner and/or Architect are informational only. Official instructions, clarifications and/or changes made to the Contract Documents during the bid phase are made only by addenda. The following information, clarifications, changes and additional instructions are hereby made as part of the Project Manual and Construction Drawings dated September 2024.

items: GENERAL - Responses to Pre Bid Conference Questions

1. Pre bid conference attendees list provided by Architect.

2. In response to a request for a wood glulam structural member suppliers we provide the following list. This does not in any way obligate Contractors to source such materials from these suppliers, nor is the A&E team responsible for sourcing materials from said suppliers.

Anthony Forest Products based in Georgia supplies glulams to:

Coast Forest Products
660 River Road
207 Ocean Road
Bow, NH 03304
Phone: 1-800-932-9663
Fax: 603-634-4444
Fax: 603-431-7663
info@coastalfp.com
Boise Cascade
207 Ocean Road
Greenland, NH 03840
Phone: 1-800-962-9961
Fax: 603-634-4444
Fax: 603-431-7663
www.bc.com/distribution

Unalam Forest Products based in New York manufacturers glulams.

Unalam Forest Products 18 Clifton Street

18 Clitton Street

P.O.Box K

Unadilla, NY 13849 Phone: 607-369-9341

- 3. *Is the contractor responsible for the building permit?* State and local permits will be provided by the Owner with exception to the demolition permit. Contractor is responsible for a demolition permit and all inspections during construction. See Specification Section 003100 Available Project Information for a list of documents provided by the Owner.
- 4. Are you requesting a mock up of the frost walls in addition to the CMU? Section 014339 requests for formed concrete wall systems. No. Parameters of mock up are described in Specification Section 042000 Unit Masonry, 1.8 Quality Assurance, C.1. and C.1.a.
- 5. With notice to proceed expected late November, this gives us 6 months to substantially complete by May date. This would mean facing winter conditions, cold, and snow throughout the duration of project. This creates a challenge to meet this deadline working in these conditions. Are we able to extend the completion date due to expected weather conditions? Yes. New Substantial and Final completion dates are included with the attached amended Specification Section 001113 Notice to Contractors.
- 6. Is this a Buy America project? Yes, with a provision of around 5% foreign material source.
- 7. Section 042000 requires shop drawings. Do we only need a cutsheet/submittal for a block or do we need full shops with a CMU design for the entire building? Cutsheet submittal is fine for the CMU and test reports for mortar and as noted in Specifications.
- 8. Will there be water and electricity available on site during construction? Yes. temporary connections will need to be installed once the existing shower building is demolished.
- 9. *Is the specified metal roofing to have a 3-coat kynar paint finish.* See response under the following ARCHITECTURAL section.

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CIVIL: **DRAWINGS**

C-102 SITE PLAN DUMP STATION - Include catch basin and water supply riser.

C-105 GRADING AND UTILITY PLAN DUMP STATION - Include shallow swale to catch basin inlets, pipe and outlets of catch basin.

C-502 DETAILS - Include head spring assembly on RV sanitary disposal station and discharge connection

C-503 DETAILS - Include catch basin, catch basin protection and beehive grate details.

ARCHITECTURAL: **DRAWINGS**

A10 SHOWER BUILDING - FLOOR PLAN: ADD concrete slab 8 inches into mechanical chase see SHEET S1.1 for location. Revise exterior hose bibs to locations shown on SHEET M20 and revised on A20 EXTERIOR ELEVATIONS.

A11 SHOWER BUILDING - ENLARGED PLANS & DETAILS: ADD steel angle brackets and fastener details for wood timber benches.

A20 SHOWER BUILDING - EXTERIOR ELEVATIONS: Revised hose bib locations.

A41 SHOWER BUILDING - WALL SECTIONS: Updated column base and top connector detail. See Structural for additional information.

A40, A41 & A42 SHOWER BUILDING - WALL SECTIONS. All details showing high density rigid insulation under the concrete foundation and slab are to be the size and type noted on Structural Drawings.

SPECIFICATIONS

SECTION 072616 - BELOW GRADE VAPOR RETARDERS: ADD (See Attachments)

SECTION 076100 - SHEET METAL ROOFING, 2.2 ROOFING SHEET METALS, B. Aluminum Sheet,

4. Exposed Coil-Coated Finish. OMIT: a. Three-coat Fluoropolymer.

ADD: a. Two-coat Fluoropolymer.

SECTION 076200 - SHEET METAL FLASHING AND TRIM, 2.2 SHEET METALS, B. Aluminum Sheet,

2. Exposed Coil-Coated Finish. OMIT: a. Three-coat Fluoropolymer.

> a. Two-coat Fluoropolymer. b. Kynar 500/Hylar 5000. ADD:

STRUCTURAL: [Not Used]

MECHANICAL & PLUMBING: [Not Used]

ELECTRICAL: DRAWINGS

E1 - SHOWER BUILDING LIGHTING PLAN: OMIT: Type D Ext. Light Fixture: Half Round Wall Mounted

Sconce, Beacon Lighting RDI1.

ADD: Type D Ext. Light Fixture: Quarter Sphere Wall Mounted Sconce, Beacon Lighting QSP1.

SPECIFICATIONS

SECTION 262726 WIRING DEVICES 2.6 OMIT: Toggle Switches.

SECTION 262726 WIRING DEVICES 2.6 ADD: Illuminated Toggle Switches.

ATTACHMENTS:

1. Pre Bid Attendee Sheet

- 2. Specification Section 001113 Notice to Contractors REV 28 Oct.
- 3. Civil Sheets C-102, C-105, C-502 and C-503.
- Architectural Sheets A10, A11, A20, and A41. 4.
- 5. Specification Section 072616 BELOW GRADE VAPOR RETARDERS
- Specification Section 262726 WIRING DEVICES 6.

tel: 207-347-5252

/24/24 Aroostook State Park Shower Building & Utilitiy Improvements
Pre-bid Conference Attendees



Sodorbus Commy Jat Gove Jost Nouth Suvelletto abu nochical, com, 207-944-7881 Phela Construction Brett phelan bphelan ephelanconstruction.com 617-999-4005 Phelan Construction Ayra Oahre adding opheromonstruction.com 976-771-3300 Puper How Augus, Juvel Ware, 302 727- 974-6467 JOJ 551 7898 each get Loc AM Construction Andrew Milywol amconstruction, andrewing good 2075516235 Sent (horpson 768-834/ The New Co Joseph Mon joseph Geatino 11c. com 762-3190 Reup Bietoly Marrhenne Rich Howers hopes mant Bomail, con Mr. mp , construction head deare head devocapation, com Email Scott Nompsur Veror constructor The Allem Co 986 BPL

00 11 13 Notice to Contractors

Aroostook State Park, Shower Building & Utility Improvements

BGS #3492

- 1. Sitework preparation includes demolition of an existing concrete slab, masonry wall with wood truss roof bathhouse, tree removal, grubbing, reworking existing underground utilities, and earthwork for the construction of a new shower-restroom building, RV dump station and septic field.
- 2. Work on shower-restroom building includes concrete foundation, slab and masonry wall construction with whole tree columns and engineered timber roof framing system with metal roof. Building to reconnect existing underground electrical, water and septic services. A new water line and spigot to be installed at RV dump station. Work also includes wood and metal trim, glass-mat sheathing, firestopping, and wire mesh ceilings. Carpentry includes wood stud wall partition framing, timber roof, timber benches and shelving. Finishes include CMU sealer, interior and exterior staining, painted metal doors and frames, and door hardware. Equipment includes toilet room accessories, signage, plumbing fixtures, electrical outlets, interior and exterior lighting, heat pump hot water heaters, propane hot water heater, water pressure tanks and chlorination system, and ventilation equipment, complete and ready for use.
- 3. Sitework includes reconnecting existing utilities, new propane tank, grading, paving, road gravel layer, and landscaping, complete and ready for use.

The contract shall designate the Substantial Completion Date on or before 31 July 2025, and the Contract Final Completion Date on or before 15 August 2025.

1. Submit bids on a completed Contractor Bid Form (section 00 41 13), provided in the Bid Documents, include bid security when required, and scan each item as an attachment to an email addressed to: BGS.Architect@Maine.gov, so as to be received no later than 2:00:00 p.m. on 5 November 2024. The email subject line shall be marked Bid for Aroostook State Park, Shower-Restroom Building & Utility Improvements, BGS Project #3492.

Bid submissions will be opened and read aloud at the time and date noted above at the Bureau of General Services office, accessible as a video conference call. Those who wish to participate in the call must submit a request for access to BGS.Architect@Maine.gov.

Any bid received after the noted time will not be considered a valid bid and will remain unopened. Any bid submitted by any other means will not be considered a valid bid. In certain circumstances, the Bureau of General Services may require the Bidder to surrender a valid paper copy of the bid form or the bid security document. The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.

2. Questions and comments on the *bid opening process* shall be addressed to: Division of Planning, Design & Construction, Bureau of General Services, 77 State House Station, Augusta, Maine 04333-0077, BGS.Architect@Maine.gov.

Form revision date: 30 July 2024

00 11 13 Notice to Contractors

3. Questions and comments regarding the *project* design specifications or drawings shall be directed in writing to the Consultant during the bid period prior to the question and comment deadline of 5:00 p.m. on 30 October 2024. ARCADIA designworks Patric Santerre, Architect patric@arcadiadesignworks.com 4. \(\Big \) Bid security is required on this project. The Bidder shall include a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with the completed bid form submitted to the Owner. The Bid Bond form is available on the BGS website. or ☐ Bid security is not required on this project. 5. A Performance and Payment Bonds are required on this project. If noted above as required, or if any combination of Base Bid and Alternate Bids amounts selected in the award of the contract exceeds \$125,000.00, the selected Contractor shall furnish a 100% contract Performance Bond (section 00 61 13.13) and a 100% contract Payment Bond (section 00 61 13.16) in the contract amount to cover the execution of the Work. Bond forms are available on the BGS website. or ☐ Performance and Payment Bonds are <u>not</u> required on this project. 6. Filed Sub-bids are not required on this project. 7.

Pre-qualified General Contractors are utilized on this project. insert the company name, city and state for each or ☑ Pre-qualified General Contractors are <u>not</u> utilized on this project. 8. An on-site pre-bid conference (\(\square\$ mandatory or \(\square\$ optional \)) will be conducted for this project. The pre-bid conference is intended for General Contractors. Subcontractors and suppliers are welcome to attend. Contractors who arrive late or leave early for a mandatory meeting may be prohibited from participating in this meeting and bidding. 3:00 PM, 24 October 2024 Aroostook State Park 87 State Park Road, Presque Isle, Maine

☐ An on-site pre-bid conference will <u>not</u> be conducted for this project.

9. Bid Documents - full sets only - will be available on or about 8 October 2024 and may be obtained at no cost from:

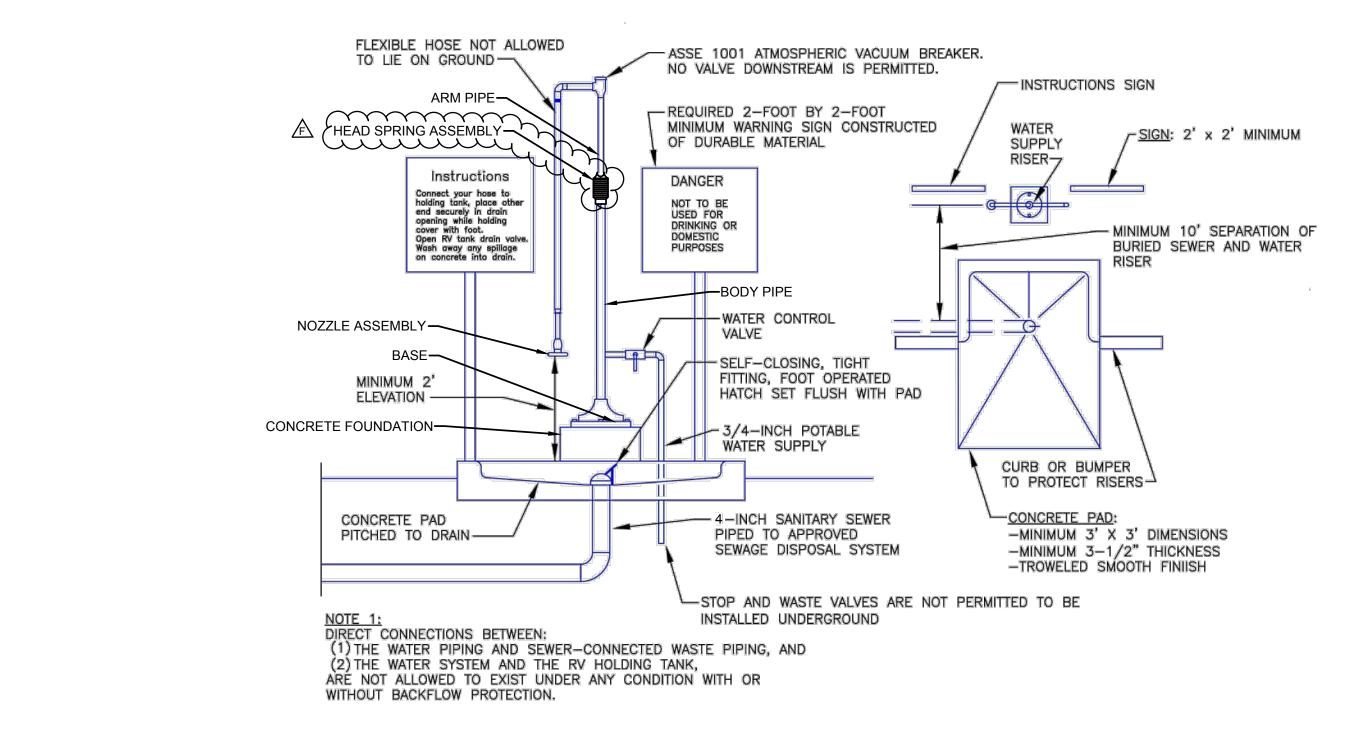
ARCADIA designworks
199 Prospect Street, Suite A
Portland, Maine 04103
(207) 347-5252 ideate@arcadiadesignworks.com

10. Bid Documents may be examined at:

AGC Maine 188 Whitten Road, Augusta, ME 04330 207-622-4741 Construction Summary 734 Chestnut Street, Manchester, NH 03104 603-627-8856



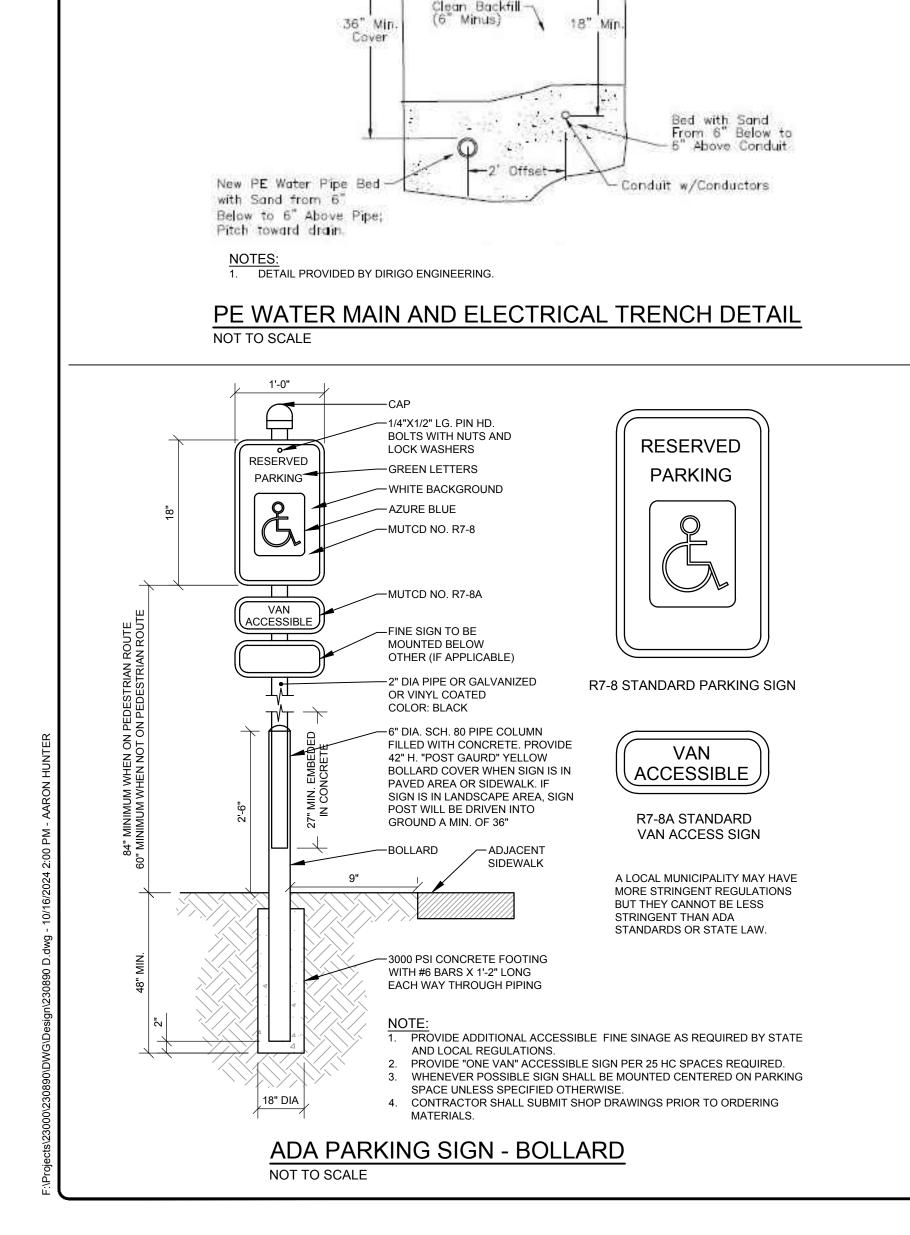




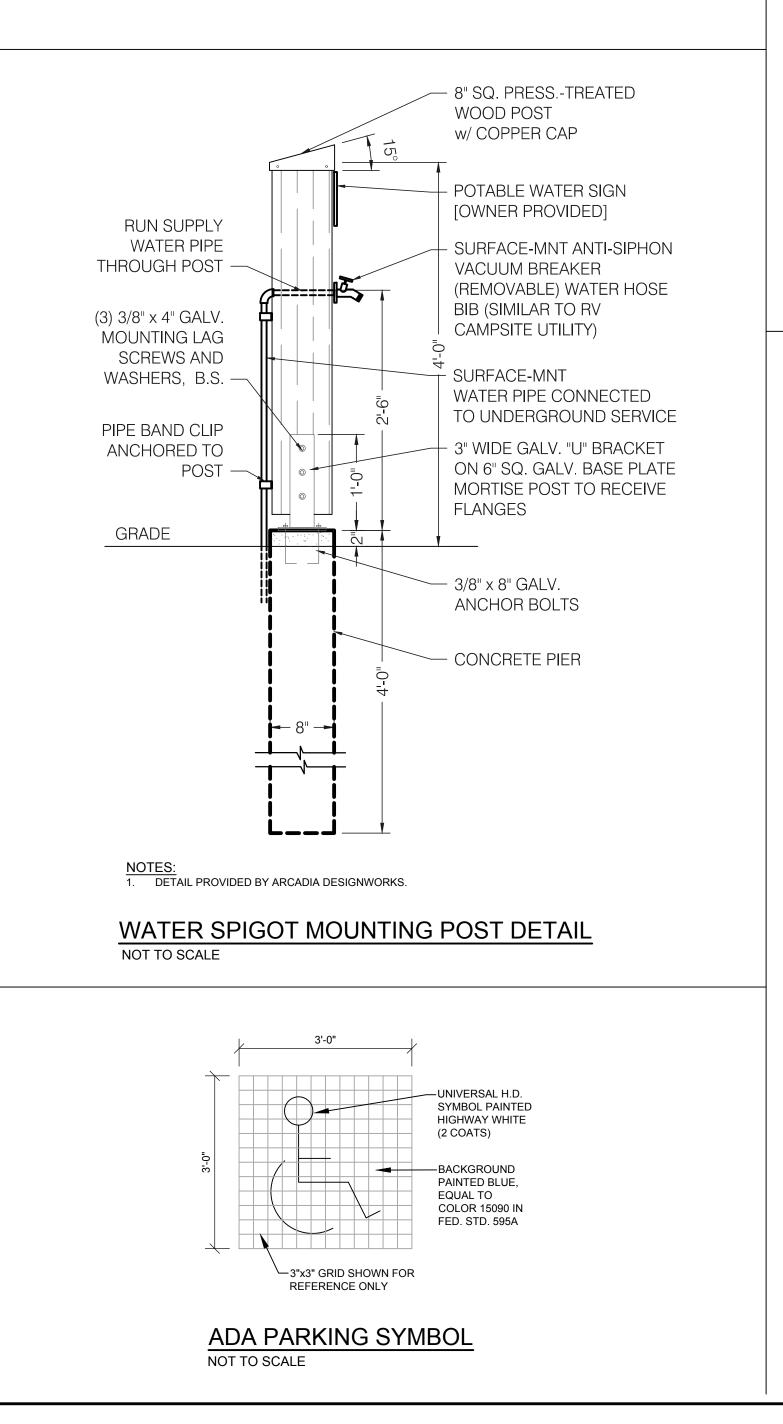
RV SANITARY DISPOSAL STATION AND DISCHARGE CONNECTION NOT TO SCALE

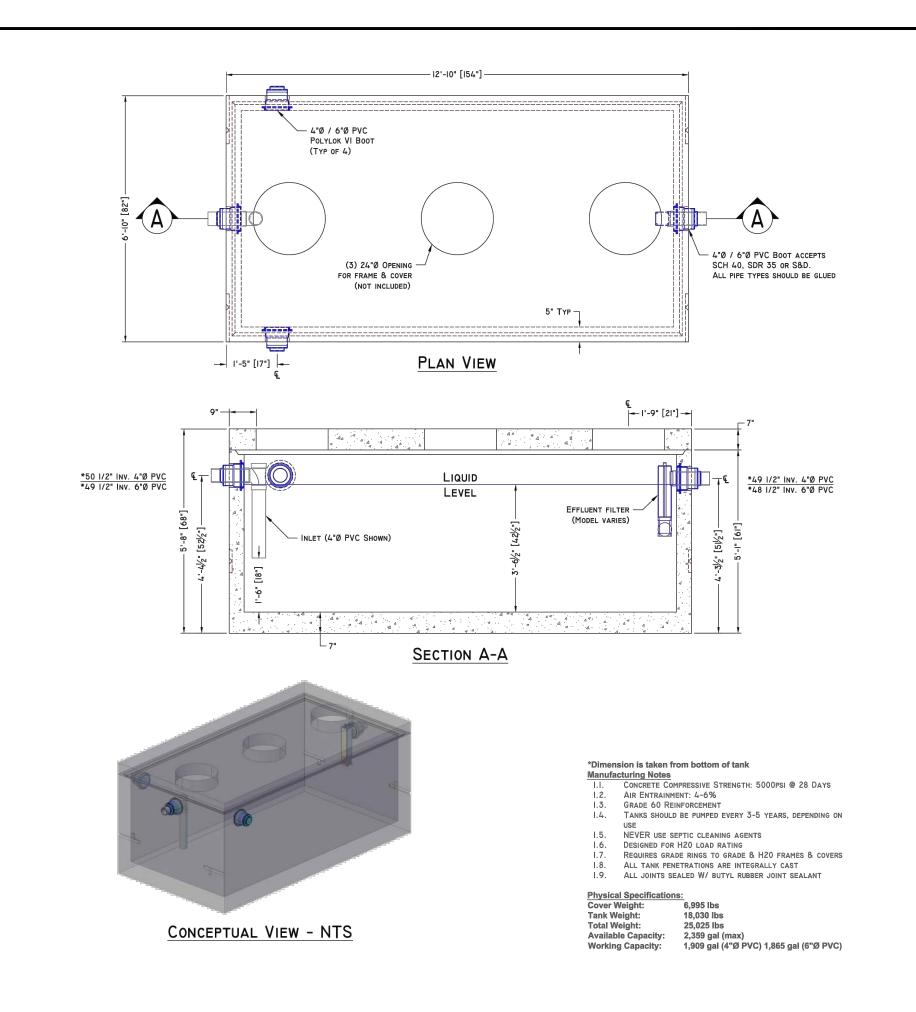
Finish Grade - Restore Surface

Plastic Marker Tape

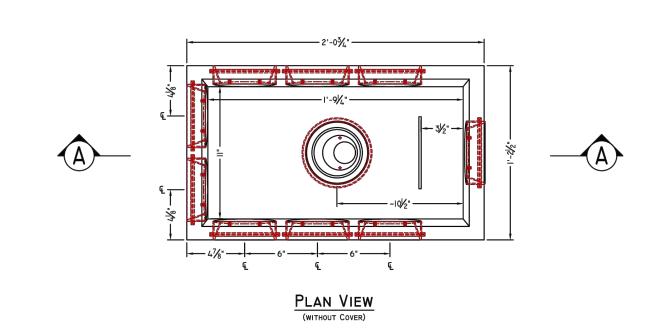


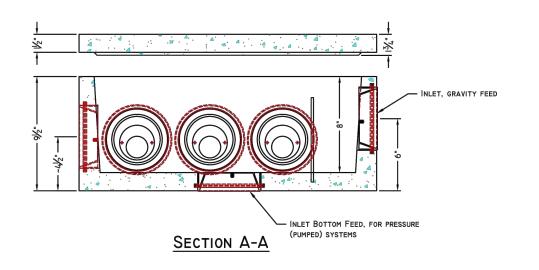
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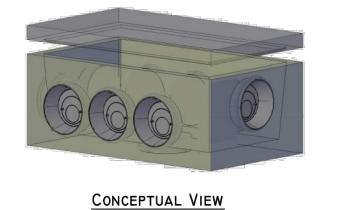




2,000 GAL. SEPTIC TANK NOT TO SCALE





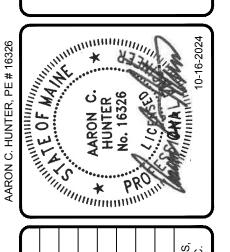


SCALE: NTS

- Manufacturing Notes
 1.1. Concrete Compressive Strength: 4,000psi @ 28 Days AIR ENTRAINMENT: 4-6%
 GRADE 60 REINFORCEMENT & STRUCTURAL FIBER REINFORCED NEVER USE SEPTIC CLEANING AGENTS
 DESIGNED FOR PEDESTRIAN LOAD RATING ONLY
 ALL PIPE SEAL PENETRATIONS ARE INTEGRALLY CAST
 FLOW EQUALIZERS RECOMMENDED FOR EQUAL BED LOADING
- Physical Specifications:

 Cover Weight: 53 lbs
 Base Weight: 95 lbs
 Total Weight: 148 lbs

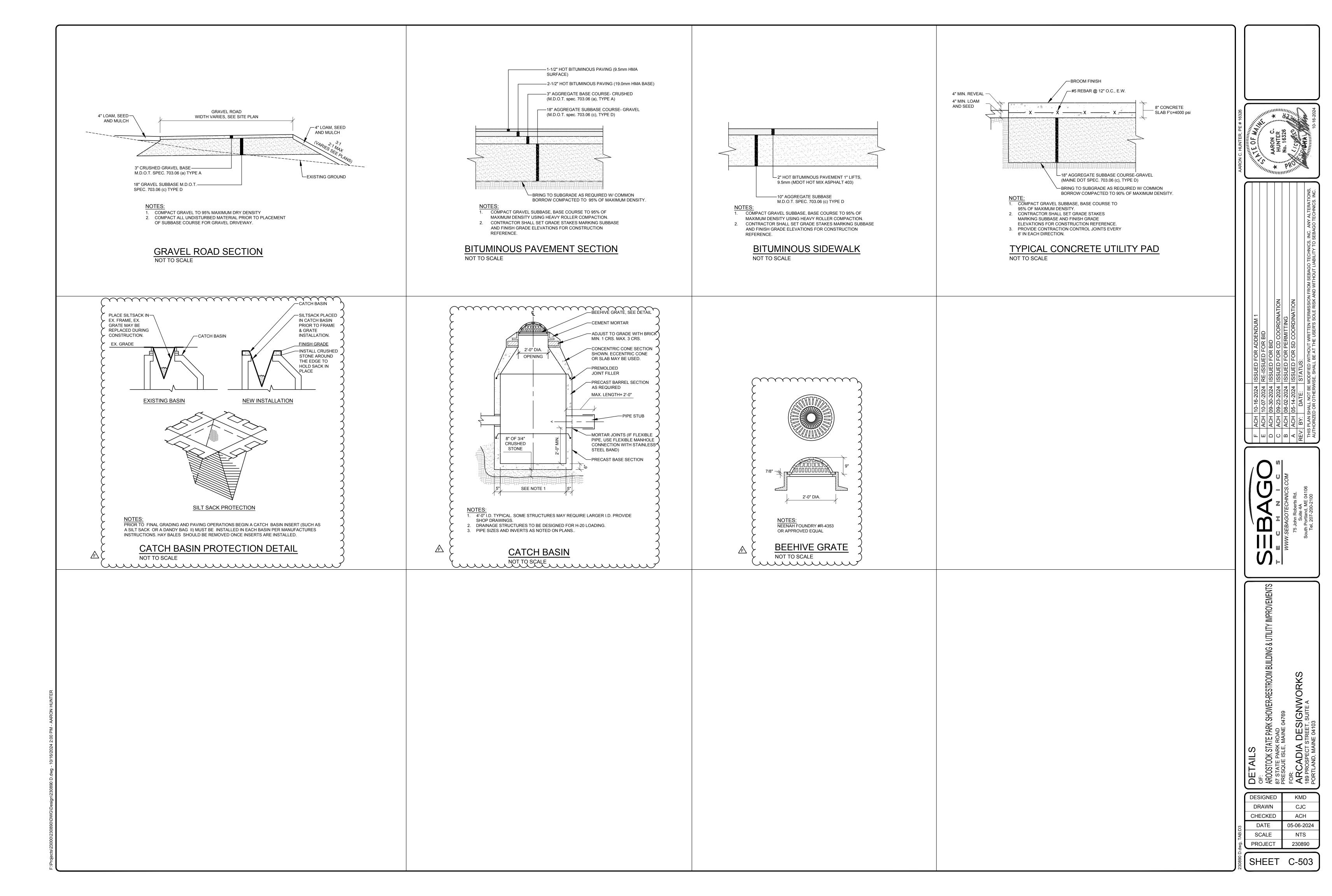
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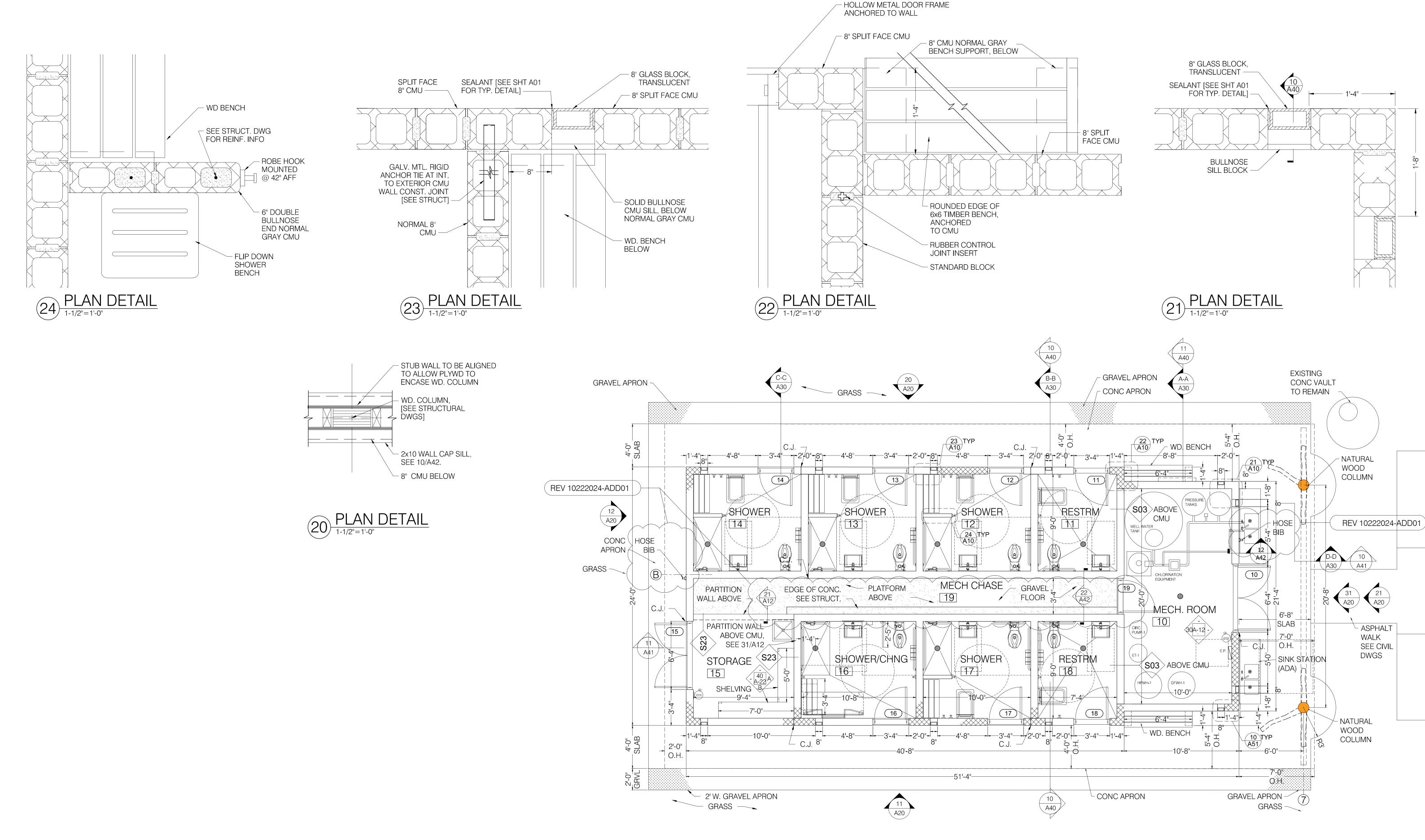


| | F ACH 10-16-2024 ISSUED FOR ADDENDUM 1 | E ACH 10-07-2024 RE-ISSUED FOR BID | D ACH 09-30-2024 ISSUED FOR BID | C ACH 09-23-2024 ISSUED FOR CD COORDINATION | B ACH 08-02-2024 ISSUED FOR PERMITTING | |
|---|--|------------------------------------|--------------------------------------|---|--|--|
| | 10-16-2024 I | 10-07-2024 F |)9-30-2024 I |)9-23-2024 I |)8-02-2024 I | |
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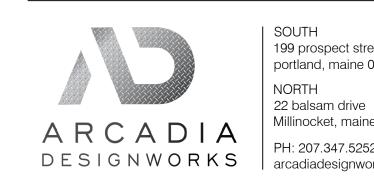
DESIGNED KMD DRAWN CJC ACH CHECKED DATE 05-06-2024 SCALE NTS PROJECT 230890

SHEET C-502









NORTH

Millinocket, maine 04462

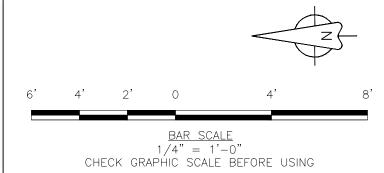
SOUTH
199 prospect street, suite A
portland, maine 04101 PH: 207.347.5252 & 207.749.9306 arcadiadesignworks.com Landscape Architecture and Planning





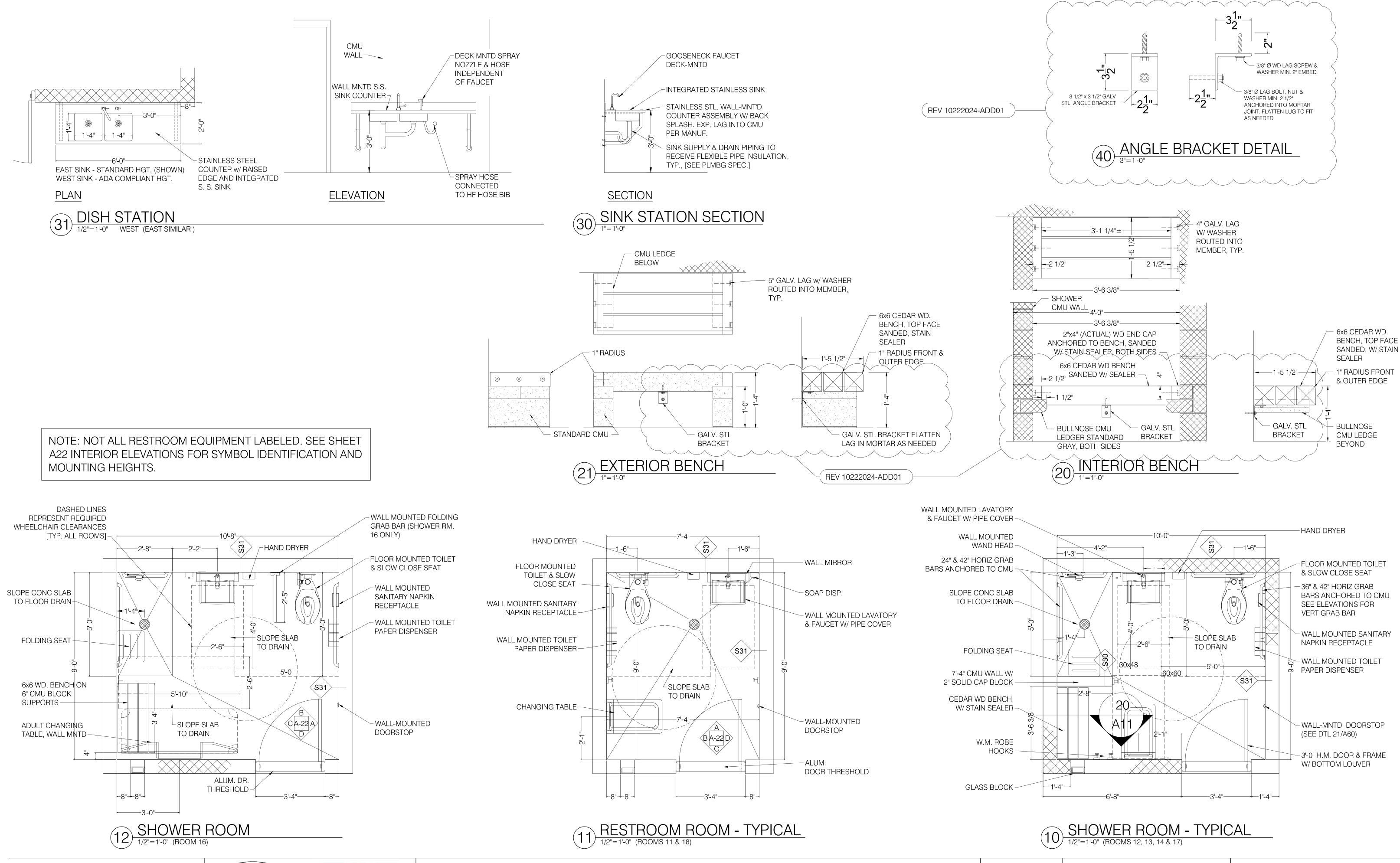






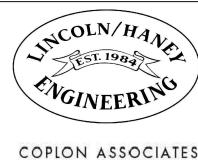


PRESQUE ISLE, MAINE



ARCADIA DESIGNWORKS

SOUTH 199 prospect street, suite A portland, maine 04101 NORTH 22 balsam drive Millinocket, maine 04462 arcadiadesignworks.com



Landscape Architecture and Planning



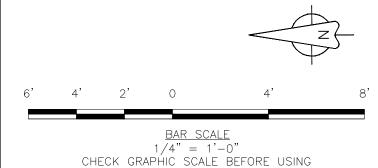


PRESQUE ISLE, MAINE

REVISIONS: 22 OCT

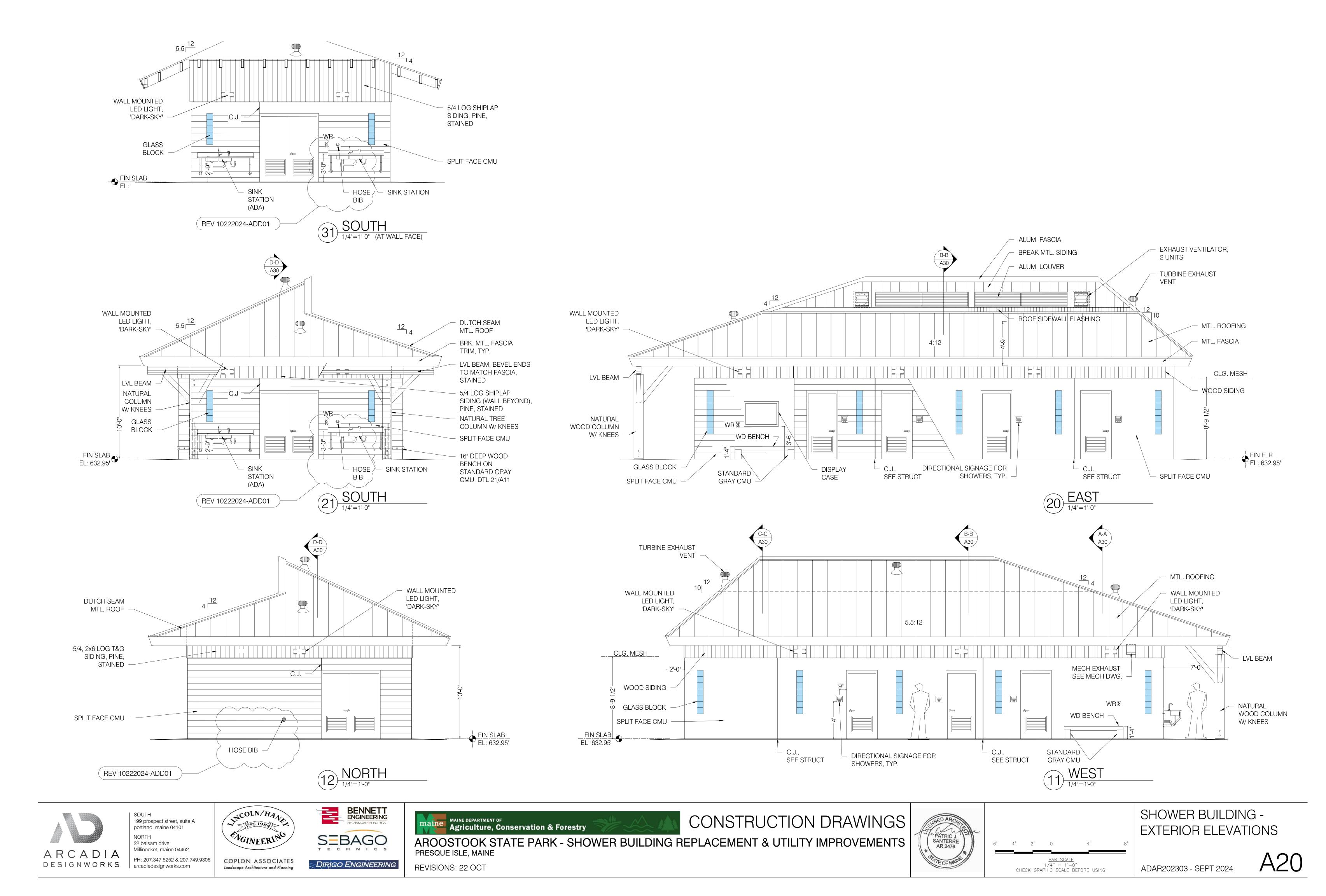


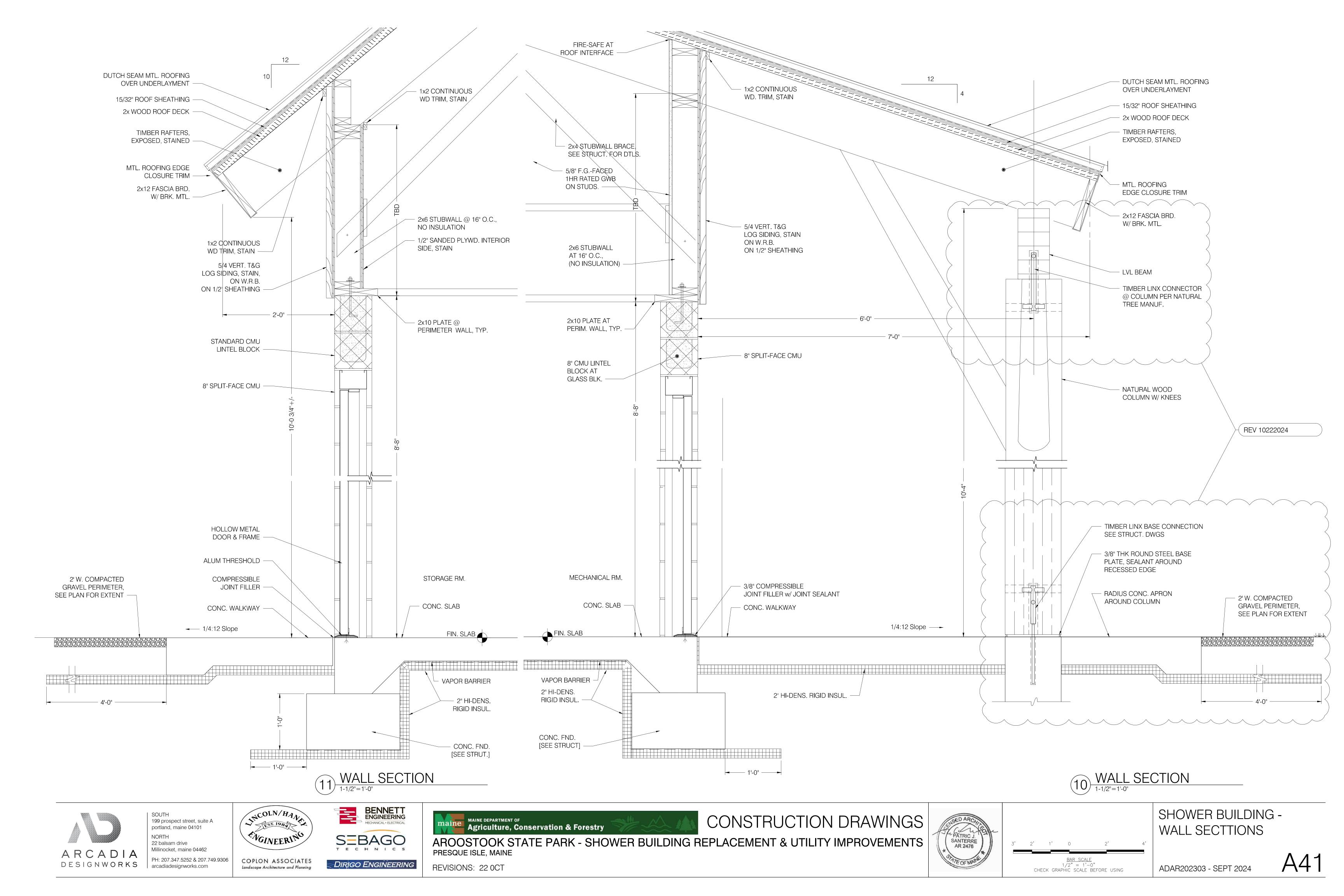




SHOWER BUILDING -ENLARGED PLANS & DETAILS

ADAR202303 - SEPT 2024





SECTION 072616 - BELOW-GRADE VAPOR RETARDERS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Vapor retarders under slabs-on-grade.

1.2 DEFINITIONS

A. Vapor Retarder: Material with a water vapor transmission rating of not over 0.04g per square foot per hour.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: 12 inch square units for each type of vapor retarder, vapor barrier, or air barrier indicated.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

1.5 PROJECT CONDITIONS

A. Separate and recycle waste materials.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Manufacturers and Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following products listed in Part 2 of this Section.

2.2 VAPOR RETARDERS FOR UNDER SLABS

- A. Vapor Retarder with extremely low permeance for critically sensitive, low permeance floor coverings such as rubber, vinyl, urethane, epoxy and methyl methacrylate, as well as linoleum and wood, having the following qualities:
 - 1. Minimum Permeance: ASTM E-96, not greater than 0.01 perms.
 - 2. Tensile Strength: ASTM E154 or D638, Class A over 45 lbf/in.
 - 3. Puncture Resistance: ASTM E-154, Class B over 1700 grams.
 - 4. Water Vapor Barrier: ASTM E-1745, meets or exceeds Class B.
 - 5. Thickness of Barrier (Plastic) ACI 302.1R-96, not less than 15 mils.
- B. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Stego Wrap, 15 mil thick vapor retarder by Stego Industries LLC, (877) 464-7834.
 - 2. Griffolyn® 15 by Reef Industries.
 - 3. Sealtight Perminator 15 mil Underslab Vapor-Mat by W.R. Meadows, Inc.
 - 4. Viper VaporCheck II 15 mil by Insulation Solutions, Inc.
- C. Vapor-Retarder Tape (for slabs): Stego Warp red polyethylene tape or tape as recommended by the manufacturer.
- D. Double-Stick Edge Tape: Preformed 1-1/2" wide two-sided adhesive. Available products include "Fab Tape" by Reef Industries.
- E. Expansion Joint Filler: Installer may elect to use Deck-O-Foam Expansion Joint Filler by WR Meadows or equal. Foam expansion joint filler with pre-scored removable strip for installation of joint sealant.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for Sections in which substrates and related work are specified and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of substances harmful to vapor retarders, including removing projections capable of puncturing vapor retarders, or of interfering with attachment.

3.3 INSTALLATION, GENERAL

A. Comply with manufacturer's written instructions applicable to products and application indicated.

B. Extend retarders in thickness indicated to envelop entire area to be covered. Cut and fit tightly around obstructions.

3.4 INSTALLATION OF UNDER-SLAB VAPOR RETARDERS

- A. Moisture vapor retarder system shall be installed at all interior floor slabs and as otherwise indicated in the drawings in strict accordance with the manufacturer's printed instructions and as follows:
 - 1. Snap chalk line along inside perimeter of foundation walls at top of slab elevation.
 - 2. Without wetting, clean a 3" wide band on the surface of the concrete below the chalk line at approximately mid-slab height. Remove dirt, residual form release, or other bond inhibiting surface contaminates. Grind smooth any surface projections within the band.
 - 3. While removing the contact paper on the backside, firmly press 2" wide double-stick edge tape onto wall, parallel to the chalk line on the cleaned band at mid-slab elevation.
 - 4. Remove contact paper on the face side.
 - 5. Apply a 12" wide strip of vapor retarder covering only the bottom 1" of contact surface on the edge tape. Cut, fit, and seal corner details with vapor retarder seaming tape.
 - 6. Align top edge of Deck-O-Foam expansion joint material to chalk line, and press material onto remaining 1" of exposed perimeter strip adhesive.
 - 7. Roll out vapor retarder material, overlapping edge rolls and all seams by 3". Tape all seams with vapor retarder seaming tape.
 - 8. Seal all penetrations (including pipes) per manufacturer's instructions.
 - 9. All tears, punctures, etc. to be repaired and taped as required to maintain the watertight integrity of the vapor retarder system.

3.5 PROTECTION

A. Protect installed vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where vapor retarders are subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072616

SECTION 262726 - WIRING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

- 1. Receptacles, receptacles with integral GFCI, and associated device plates.
- 2. Weather-resistant receptacles.
- 3. Illuminated Snap switches.
- 4. Cord and plug sets.

1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. GFCI: Ground-fault circuit interrupter.
- C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
- D. RFI: Radio-frequency interference.
- E. TVSS: Transient voltage surge suppressor.
- F. UTP: Unshielded twisted pair.

1.4 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

- 1. Receptacles for Owner-Furnished Equipment: Match plug configurations.
- 2. Cord and Plug Sets: Match equipment requirements.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.6 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers' Names: Shortened versions (shown in parentheses) of the following manufacturers' names are used in other Part 2 articles:
 - 1. Cooper Wiring Devices; Division of Cooper Industries, Inc. (Cooper).
 - 2. Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
 - 3. Leviton Mfg. Company Inc. (Leviton).
 - 4. Pass & Seymour/Legrand (Pass & Seymour).
- B. Source Limitations: Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.2 GENERAL WIRING-DEVICE REQUIREMENTS

- A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Comply with NFPA 70.
- C. Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:
 - 1. Connectors shall comply with UL 2459 and shall be made with stranding building wire.
 - 2. Devices shall comply with the requirements in this Section.

2.3 STRAIGHT-BLADE RECEPTACLES

- A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

2.4 GFCI RECEPTACLES

- A. General Description:
 - 1. Straight blade, non-feed-through type.
 - 2. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.

3. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.

B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

2.5 CORD AND PLUG SETS

A. Description:

- 1. Match voltage and current ratings and number of conductors to requirements of equipment being connected.
- 2. Cord: Rubber-insulated, stranded-copper conductors, with Type SOW-A jacket; with green-insulated grounding conductor and ampacity of at least 130 percent of the equipment rating.
- 3. Plug: Nylon body and integral cable-clamping jaws. Match cord and receptacle type for connection.

2.6 ILLUMINATED TOGGLE SWITCHES

- A. Comply with NEMA WD 1, UL 20, and FS W-S-896.
- B. Switches, 120/277 V, A:
 - 1. Products: Leviton L1461-2C or equal

2.7 WALL PLATES

- A. Single and combination types shall match corresponding wiring devices.
 - 1. Plate-Securing Screws: Metal with head color to match plate finish.
 - 2. Material for Finished Spaces: Stainless steel.
 - 3. Material for Unfinished Spaces: Stainless steel.
 - 4. Material for Damp Locations: Cast aluminum with spring-loaded lift cover and listed and labeled for use in wet and damp locations.
- B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant, die-cast aluminum with lockable cover.

2.8 FLOOR SERVICE FITTINGS

- A. Type: Modular, flush-type, dual-service units suitable for wiring method used.
- B. Compartments: Barrier separates power from voice and data communication cabling.
- C. Service Plate: Round, die-cast aluminum with satin finish.

- D. Power Receptacle: NEMA WD 6 Configuration 5-20R, gray finish, unless otherwise indicated.
- E. Voice and Data Communication Outlet: Two modular, keyed, color-coded, RJ-45 jacks for UTP cable complying with requirements in Section 271500 "Communications Horizontal Cabling."

2.9 FINISHES

A. Device Color:

1. Wiring Devices Connected to Normal Power System: As selected by Architect unless otherwise indicated or required by NFPA 70 or device listing.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B. Coordination with Other Trades:

- 1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
- 2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
- 3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
- 4. Install wiring devices after all wall preparation, including painting, is complete.

C. Conductors:

- 1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
- 2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
- 3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.

D. Device Installation:

- 1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
- 2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
- 3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.

- 4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
- 5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
- 6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
- 7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
- 8. Tighten unused terminal screws on the device.
- 9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

E. Receptacle Orientation:

- 1. Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the right.
- F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G. Dimmers:

- 1. Install dimmers within terms of their listing.
- 2. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.
- H. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.
- I. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

3.2 GFCI RECEPTACLES

A. Install non-feed-through-type GFCI receptacles where protection of downstream receptacles is not required.

3.3 IDENTIFICATION

A. Identify each receptacle with panelboard identification and circuit number. Use hot, stamped, or engraved machine printing with black-filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.

3.4 FIELD QUALITY CONTROL

A. Test straight-blade for the retention force of the grounding blade according to NFPA 99. Retention force shall be not less than 4 oz. (115 g).

- B. Wiring device will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

END OF SECTION 262726