

GIG HARBOR FIRE AND MEDIC ONE

GIG HARBOR STATION 51

ADDENDUM #02

September 12, 2025

TO ALL BIDDERS:

The Bid Documents issued August 15, 2025, for the Project noted above are amended by this Addendum #02. This Addendum serves to clarify, revise, and supersede information in the Project Manual and Drawings.

The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

PROJECT MANUAL REVISIONS

Division 00 Procurement

- ITEM 1** Section 011000, SUMMARY (see attached)
a) **Replace** Section 011000 SUMMARY in its entirety. Add paragraph 1.13.A "WORK BY UTILITY COMPANY".

Architectural

- ITEM 2** Section 024100 DEMOLITION
a) **Replace** Section 024100 DEMOLITION in its entirety (see attached). **Add** paragraphs 3.3.H and 3.5.B.2
- ITEM 3** Section 035400 CAST UNDERLAYMENT
a) **Add** Section 035400 in its entirety (see attached).
- ITEM 4** Section 071700 GEOTEXTILE BENTONITE WATERPROOFING
a) **Add** Section 071700 GEOTEXTILE BENTONITE WATERPROOFING in its entirety (see attached).
- ITEM 5** Section 095426 SUSPENDED WOOD CEILINGS
a) **Replace** Section 095426 SUSPENDED WOOD CEILINGS in its entirety (see attached). **Revised** WDC-1, WDC-2 and WDC-3.
- ITEM 6** Section 107516 GROUND SET FLAGPOLES
a) **Replace** Section 107516 GROUND SET FLAGPOLES in its entirety (see attached). **Revised** paragraph 2.6.A. in its entirety.

Electrical (Vol 2)

- ITEM 7** Section 263213.13 STAND-BY GENERATOR (DIESEL)
a) **Replace** Section 263213.13 STAND-BY GENERATOR (DIESEL) in its entirety (see attached). **Delete** second sentence from paragraph 2.11 (C.): "An integral fuel polishing system shall be provided".

Civil/Landscape (Vol 2)

- ITEM 8** Section 323300, SITE FURNISHINGS, PART 2 - PRODUCTS
a) **Delete** paragraph 2.3 FLAGPOLE, A, B & C in its entirety (see attached).

DRAWING REVISIONS

- ITEM 9** C1.01 – DEMOLITION & TESC: **Revised** note regarding existing Peninsula Light Company transformer.
- ITEM 10** C2.01 – SITE PLAN: **Removed** directional arrow striping.
- ITEM 11** C2.03 – FRONTAGE PLAN: **Removed** directional arrow striping from driveways and **added** two-way left turn lane and turn arrow re-striping.
- ITEM 12** A11.01 – SITE PLAN: Keynote 12 **revised**.
- ITEM 13** A11.01B – SITE DETAILS: Details 12-15 have been **added**.
- ITEM 14** A23.01 – FINISH PLAN & SCHEDULE – MAIN LEVEL: **Revisions** made to Interior Finish Schedule
- ITEM 15** A23.02 – FINISH PLAN & SCHEDULE – UPPER LEVEL: **Revisions** made to Interior Finish Schedule.
- ITEM 16** A31.01 – EXTERIOR ELEVATIONS: **Added** enlarged elevation of door sign at South Elevation
- ITEM 17** S22.01 – FOUNDATION AND LEVEL 1 FRAMING PLAN

SUBSTITUTION REQUESTS

- ITEM 18** Section 083500 – FOUR-FOLD DOORS
a) **Not Accepted:** Paragraph 2.1A, Four-fold Doors; Proposed Product: JUS Doors Model 93.
- ITEM 19** Section 085413 - FIBERGLASS WINDOWS
a) **Not Accepted:** Paragraph 2.3, Fiberglass Windows; Proposed Product: Quaker Window Products
- ITEM 20** Section 095426 – SUSPENDED WOOD CEILINGS
a) **Not Accepted:** Paragraph 2.4A, Armstrong Woodworks Grille (WDC-1); Proposed Product: CertainTeed Grille – Backer and Dowel
- ITEM 21** Section 095426 – SUSPENDED WOOD CEILINGS
a) **Accepted:** Paragraph 2.4B, Armstrong Woodworks Tegalur (WDC-2); Proposed Product: CertainTeed Lay In/Narrow Reveal Panels
- ITEM 22** Section 095426 – SUSPENDED WOOD CEILINGS
a) **Accepted:** Paragraph 2.4C, Armstrong Woodworks Tegalur (WDC-3); Proposed Product: CertainTeed Lay In/Narrow Reveal Panels

QUESTIONS AND RESPONSES

- ITEM 23** Email question sent on September 8, 2025:
Q: Question regarding waiving the AISC Certification requirement since the station is designed primarily as a wood-framed building.
Response from the structural engineer of record: Since the trusses in the apparatus bay are steel, a qualified fabricator as noted in the specification is required. The AISC Certification requirement will not be waived.
- ITEM 24** Email question sent on September 10, 2025:
Q: Would special inspections paid by the contractor be acceptable in lieu of AISC Quality Certification Program (051200, 1.5. A & B)?
Response from the structural engineer of record: The AISC Certification requirement will not be waived.
- ITEM 25** Email question sent on September 11, 2025:
Q: A21.01 shows a recessed grate in the Decon Room for the eyewash area. Could you specify the material to use for this grating?
Response from the architect of record: See section 067400 COMPOSITE GRATINGS.

ATTACHMENTS

1. DOCUMENTS

- a. Section Table of Contents (4 pages)
- b. Section 011000 SUMMARY (3 pages)
- c. Section 024100 DEMOLITION (4 pages)
- d. Section 035400 CAST UNDERLAYMENT (4 pages)
- e. Section 071700 GEOTEXTILE BENTONITE WATERPROOFING (9 pages)
- f. Section 095426 SUSPENDED WOOD CEILINGS (4 pages)
- g. Section 107516 GROUND SET FLAGPOLES (4 pages)
- h. Section 263213.13 STAND-BY GENERATOR (14 pages)
- i. Section 323300 SITE FURNISHINGS (7 pages)

2. DRAWINGS

- a. Sheet C1.01 - DEMOLITION & TESC (1 page)
- b. Sheet C2.01 – SITE PLAN (1 page)
- c. Sheet C2.03 – FRONTAGE PLAN (1 page)
- d. Sheet A11.01 – SITE PLAN (1 page)
- e. Sheet A11.01B – SITE DETAILS (1 page)
- f. Sheet A23.01 – FINISH PLAN & SCHEDULE (1 page)
- g. Sheet A23.02 - FINISH PLAN & SCHEDULE (1 page)
- h. Sheet A31.01 – EXTERIOR ELEVATIONS (1 page)
- i. Sheet S22.01 – FOUNDATION AND LEVEL 1 FRAMING PLAN (1 page)

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SECTION 011000 - SUMMARY

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work by Owner.
 - 4. Owner-furnished Contractor-Installed (OFCI) products.
 - 5. Access to site.
 - 6. Coordination with occupants.
 - 7. Work restrictions.
 - 8. Specification and Drawing conventions.

1.3 PROJECT INFORMATION

- A. Project Identification: Gig Harbor Fire & Medic One Station 51.
 - 1. Project Location: 6711 Kimball Drive, Gig Harbor, WA 98335.
- B. Owner: Gig Harbor Fire & Medic One, 10222 Bujacich Rd NW, Gig Harbor, WA 98332.
 - 1. Owner's Representative: John Johnson, Deputy Fire Chief.
- C. Architect: Rice Fergus Miller, Inc. 275 Fifth Street, Suite 100, Bremerton, WA 98337.
 - 1. Architect's Representative: Gunnar Gladics, Principal-in-Charge.
 - 2. Architect's Representative: Howard Struve, Project Manager.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. General Trades, demolition, sitework, structural, mechanical, plumbing, fire protection, and electrical.

1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.
- B. Concurrent Work: Owner will perform the following construction operations at Project site. Those operations will be conducted simultaneously with Work under this Contract.
 - 1. No items selected.
- C. Subsequent Work: Owner will perform the following additional work at site after Substantial Completion. Completion of that work will depend on successful completion of preparatory Work under this Contract.

1. Miscellaneous Appliances.
2. Shelving, Furniture and Equipment.
3. White Boards and Display Monitors.
4. TV type display units.
5. IT Systems.
6. Install air compressor and air dryer in Water Room.

1.6 OWNER-FURNISHED PRODUCTS

- A. General: Contractor shall have use of Project site for construction operations as indicated on Drawings and as indicated by requirements of this Section.
- B. Owner-Furnished Contractor-Installed (OFCI) Products:
 1. See drawings for Equipment Schedule.
 2. Building Dedication Plaque.
- C. Owner furnished owner installed products
 1. See drawings for Equipment Schedule and Furniture Schedule.

1.7 OWNER-FURNISHED CONTRACTOR INSTALLED ELECTRIC VEHICLE (EV) CHARGING STATIONS

- A. Owner to contract directly with a electric vehicle charging station service vendor to provide the following product(s) and services:
 1. Owner supplied vendor to provide only the five (5) Electric Vehicle Charging Stations, see electrical drawings, for installation by contractor. The EV ready and EV Capable Parking Spaces are provided and installed by contractor per the electrical drawings.
 2. Owner supplied vendor to provided and install the EV charging station monitoring hardware and software to operate/monitor the five EV charging stations.
 3. The EV ready and EV Capable Parking Spaces are provided and installed by contractor per the electrical drawings.

1.8 OWNER-FURNISHED FUEL DISPENSING AND MANAGEMENT SYSTEM

- A. Owner to contract directly with fuel dispensing and management service vendor to provide and install the following items:
 1. Fuel dispensing pumps for the fuel tanks.
 2. Fuel management system hardware and software to operate/monitor the dispensing equipment.

1.9 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations as indicated on Drawings and as indicated by requirements of this Section. Contractor's limited use of the Project site is limited only by the Owner's right to perform work or to retain other contractors on portions of project.
- B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. No extensive construction work is anticipated in the undeveloped, forested area east of the existing fire station 51. This area is to remain undisturbed throughout construction. No storage of equipment, materials, or other construction related items will be allowed in this undeveloped area, with exception to items noted in the construction documents.

- C. Roadways: Maintain adjacent public right-of-way, roadway(s) in a condition that is acceptable to the City of Gig Harbor throughout construction.
 - 1. This includes maintaining the roadway and sidewalk clean of debris and dirt/mud throughout construction.
 - 2. No parking of construction equipment, delivery vehicles, construction employee parking, or staging of materials within the public right-of-way unless the contractor receives written/permit approval from the City of Gig Harbor.
 - a. Construction equipment and delivery vehicles shall not block existing driveways to local business and residences along Kimball Drive throughout construction.
 - b. Contractor shall provide construction signage to direct delivery vehicles on and off the project site.
 - 3. The contractor shall be responsible for providing and submitting a right-of-way Traffic Control and Pedestrian Control Plan to the City of Gig Harbor for approval prior to commencement of construction.
 - a. Contractor shall provide traffic control and pedestrian control signage as required by the City of Gig Harbor throughout construction.

1.10 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Restricted Substances: Use of controlled substances on Project site is not permitted.
- C. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 5:00 p.m, Monday through Friday, unless otherwise indicated.
 - 1. Hours for Utility Shutdowns: Coordinate with owner for a mutually agreeable time.
- D. Noise, Vibration and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption with Owner.
 - 1. Notify Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Non-smoking Premise: Smoking is not permitted on site.

1.11 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.

2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.

1.12 PERMITS

- A. See Project Manual sections and drawings for permits, inspections, test, etc. to be secured/obtain and paid for by the contractor(s) at no expense to the owner.
 1. In addition, see list of "Deferred Submittals", see Code Summary, for permits, inspection, etc. to be secured/obtain and paid for by contractor(s) at no expense to the owner.

1.13 WORK BY UTILITY COMPANY

- A. Peninsula Light Company: Worked performed by Peninsula Light Company, see section 024100 DEMOLITION, Paragraph 3.3, Existing Utilities, for more information.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 024100 - DEMOLITION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Building demolition excluding removal of hazardous materials and toxic substances.
- B. Selective demolition of built site elements.
- C. Abandonment and removal of existing utilities and utility structures.
- D. Schedule of existing items to be salvaged for Owner.

1.2 RELATED REQUIREMENTS

- A. Section 011000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 011000 - Summary: Description of items to be removed by Owner.
- C. Section 011000 - Summary: Description of items to be salvaged or removed for re-use by Contractor.
- D. Section 015000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- E. Section 016000 - Product Requirements: Handling and storage of items removed for salvage and relocation.
- F. Section 017300 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products; temporary bracing and shoring.
- G. Section 017419 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- H. Section 311000 - Site Clearing: For removal of existing septic tanks.
- I. Section 312000 - Earth Moving: Fill material for filling holes, pits, and excavations generated as a result of removal operations.

1.3 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Fill Material: As specified in Section 312000 - Earth Moving.

PART 3 EXECUTION

3.1 SCOPE

- A. Remove the entire building designated as Existing Fire Station 51.
- B. Remove all other paving and curbs as indicated on drawings.
- C. Remove all existing foundation walls & footings.
- D. Remove concrete slabs on grade within site boundaries.
- E. Remove underground tanks.
- F. Remove other items indicated, for salvage, relocation, and recycling.
- G. Refer to drawings for scope of work.
- H. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 200.

3.2 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain and pay for all other required permits not obtained by the owner.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permit.
 - 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 - 7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Do not begin removal until built elements to be salvaged or relocated have been removed.
- D. Protect existing structures and other elements that are not to be removed.
 - 1. Provide bracing and shoring.
 - 2. Prevent movement or settlement of adjacent structures.
 - 3. Stop work immediately if adjacent structures appear to be in danger.
- E. Underground Storage Tanks: Remove and dispose of as specified in Section 026500.

3.3 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.

- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Peninsula Light Company will perform the following tasks:
 - 1. Shut-off power to the existing Station 51
 - 2. Removal existing transformer. This work does not include removal of the existing transformer vault.
 - 3. Removal of existing main feeders lines from the Station 51 transformer to an existing transformer located nearby the south property line. This work does not include removal of the existing buried conduits that house the existing main feeder lines.

3.4 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

3.5 SCHEDULE OF SALVAGE ITEMS

- A. Salvage the following items for Owner:
 - 1. Existing generator and automatic transfer switch: Owner to remove & salvage existing standby generator and automatic transfer switch.
 - 2. Existing above ground 1,000 gallon concrete fuel tank: Salvage, protect and relocate to new location on site per drawings. Owner to remove and salvage existing fuel dispensers and fuel management systems. Owner will remove & salvage existing fuel.
 - 3. Existing 60 lbs. Extractor and Gear Dryer (approximately 3' wide by 8' long): Salvage, protect and store each piece of equipment on appropriate sized pallet and secure to each pallet for pickup and transportation by owner.
 - 4. Existing Memorial Plaque: To be removed by owner prior to demolition.
 - 5. (2) Existing Conex Boxes: To be removed by owner prior to demolition.
- B. Salvage the following items by Owner:
 - 1. Existing DEF Tank: Prior to demolition owner will remove existing DEFTank for their use.
 - 2. The Owner reserves the right to remove all or some of the existing equipment, furniture, built-in or non-built items prior to issuing Notification to Proceed.

END OF SECTION

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SECTION 035400 - CAST UNDERLAYMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Liquid-applied self-leveling floor underlayment:
 - 1. Cementitious underlayment.
- B. Sound Control Mat

1.2 RELATED REQUIREMENTS

- A. Division 9 Flooring sections.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before the start of work for this section in accordance with Section 013000.
 - 1. Review preparation and installation procedures, and coordinating and scheduling required with related work.

1.4 SUBMITTALS

- A. Qualification Data: For installer.
- B. Product Data: Provide manufacturer's data sheets documenting physical characteristics and product limitations of underlayment materials. Include information on surface preparation, environmental limitations, and installation instructions.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum 3 years of experience.
 - 1. Installer shall be listed with the manufacturer as a having special skill in this work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Keep dry and protect from direct sun exposure, freezing, and ambient temperature greater than 105 degrees Fahrenheit (40.56 degrees Celsius).

1.7 FIELD CONDITIONS

- A. Do not install underlayment until floor penetrations and peripheral work are complete.
- B. Maintain minimum ambient temperatures of 50 degrees Fahrenheit (10 degrees Celsius) 24 hours before, during, and 72 hours after installation of underlayment.
- C. During the curing process, ventilate spaces to remove excess moisture.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for combustibility or flame spread requirements.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of underlayment materials in the required fire rated assembly.

PART 2 PRODUCTS

2.1 DESCRIPTION

- A. Self-leveling or trowelable underlayment for application below finish flooring. Provide all components and accessories as required by manufacturer.

2.2 CEMENTITIOUS UNDERLAYMENT - INTERIOR

- A. Basis of Design: Levelrock 2500 by USG.
 - 1. Materials:
 - a. Gypsum Cement.
 - 2. Performance Requirements:
 - a. Minimum compressive strength (((ASTM C472))) : 2,500 psi (17236.90 kPa).(Avg. 2500-3,200 psi (22063.23 kPa) MPa.
 - b. Nominal Average Density: 115 pounds per cubic foot.
- B. Accessories:
 - 1. LEVELROCK Brand Floor Primer
 - a. Material Standard: Comply with specifications outlined in manufacturer's Applicator Manual for wood and concrete.
 - 2. LEVELROCK SE-100™ Surface Enhancer
 - a. Material Standard: Comply with specifications outlined in
 - 3. Mix Water:
 - a. Material Standard: Potable, free from impurities and from domestic source.
 - 4. Sand Aggregate:
 - 5. Sand shall meet ASTM C33 as well as specifications outlined in manufacturer's applicator manual.
 - 6. Fast Track Primer Sealer
 - a. Material Standard: Comply with specification outlined by the manufacturer Valspar Flooring Division.
 - 7. Repair:
 - a. ULTRAFLOW Floor Patch
 - 1) High polymer-modified blend of engineered cements.

2.3 SOUND CONTROL MAT

- A. Basis of Design: Levelrock SAM-N25 by USG.

2.4 ACCESSORIES

- A. Aggregate:
 - 1. Dry, well graded, washed silica aggregate, approximately 1/8 inch (3.18 mm) in size and acceptable to underlayment manufacturer.
- B. Reinforcement:

1. Galvanized metal lath complying with recommendations of underlayment manufacturer for specific project circumstances.
- C. Water:
 1. Potable and not detrimental to underlayment mix materials.
- D. Primer:
 1. Manufacturer's recommended type.
- E. Joint and Crack Filler:
 1. Cementitious type recommended by manufacturer.

2.5 MIXING

- A. Site mix materials in accordance with manufacturer's instructions.
- B. Add aggregate for areas where thickness will exceed 1/2 inch (12.7 mm). Mix underlayment and water for at least two minutes before adding aggregate, and continue mixing to assure that aggregate has been thoroughly coated.
- C. Mix to self-leveling consistency without over-watering.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate surfaces are clean, dry, unfrozen, do not contain petroleum byproducts, or other compounds detrimental to underlayment material bond to substrate.

3.2 PREPARATION

- A. Concrete: Mechanically prepare steel troweled concrete to create a textured surface necessary to achieve the best bond; acceptable methods include bead blasting and scarifying. Do not use acid etching.
- B. Wood: Install metal lath for reinforcement of underlayment.
- C. Remove substrate surface irregularities. Fill voids and deck joints with filler. Finish smooth.
- D. Vacuum clean surfaces.
- E. Prime substrate in accordance with manufacturer's instructions.
- F. Close floor openings.

3.3 APPLICATION

- A. Install underlayment in accordance with manufacturer's instructions.
- B. Pump or pour material onto substrate. Do not retemper or add water.
 1. Pump, move, and screed while the material is still highly flowable.
 2. Be careful not to create cold joints.

- C. For final thickness over 1-1/2 inches (38 mm), place underlayment in layers. Allow initial layer to harden to the point where the material has lost its evaporative moisture. Immediately prime and begin application of the subsequent layer within 24 hours.
- D. Place concrete floor topping continuously in a single layer, tamping and consolidating to achieve tight contact with bonding surface. Do not permit cold joints or seams to develop within pour strip.
 - 1. Screed surface with a straightedge and strike off to correct elevations.
 - 2. Slope surfaces uniformly where indicated
 - 3. Begin initial floating using bull floats to form a uniform and open-textured surface plane free of humps or hollows.
- E. Place before partition installation.
- F. Where additional aggregate has been used in the mix, add a top layer of neat mix (without aggregate), if needed to level and smooth the surface.
- G. If a fine, feathered edge is desired, steel trowel the edge after initial set, but before it is completely hard.

3.4 CURING

- A. Once underlayment starts to set, prohibit foot traffic until final set has been reached.
- B. Air cure in accordance with manufacturer's instructions.

3.5 INSTALLATION

- A. General: Install all materials in accordance with manufacturer's instructions based on conditions present.

3.6 CLEANING

- A. Dispose of all waste material in accordance with project's Waste Management Plan.

3.7 PROTECTION

- A. Protect against direct sunlight, heat, and wind; prevent rapid drying to avoid shrinkage and cracking.
- B. Do not permit traffic over unprotected floor underlayment surfaces unless allowed in writing by manufacturer.

END OF SECTION

SECTION 071700 - GEOTEXTILE BENTONITE WATERPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. All of the Contract Documents, including General and Supplementary Conditions, and Division 1 General requirements, apply to the work of this section.

1.2 WORK SUMMARY

- A. The work of this section includes, but is not limited to the furnishing and installing the following materials, per project specifications and drawings, or as directed by bentonite waterproofing manufacturer:
 - 1. Voltex® DS sodium bentonite geotextile sheet waterproofing membrane with all applicable accessory products.
 - 2. Aquadrain® Prefabricated drainage composite and Aquadrain 100BD Base Drain
 - 3. Waterstop-RX 102: 3/4" x 3/8" x 33'4" rolls of flexible strip of bentonite and butyl rubber compound for use in concrete construction joints - not designed for expansion joints.

1.3 RELATED SECTIONS

- A. Other specification Sections which directly relate to the work of this section include, but are not limited to, the following:
 - 1. Section 033001: Cast in Place Concrete

1.4 SYSTEM DESCRIPTION

- A. Provide bentonite waterproofing and prefabricated drainage composite system to prevent the passage of liquid water and install without defects, damage or failure. Waterproofing shall be two high strength geotextiles interlocked encapsulating minimum 1.10 lbs. per square foot (5.37 kg/sqm) granular Voltex sodium bentonite with an integrated polyethylene liner.

1.5 SUBMITTALS

- A. General: Prepare and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections.
- B. Product Data: Submit manufacturer's product data, with complete general and specific installation instructions, recommendations, and limitations.
- C. Product Samples: Submit representative samples of the following for approval:
 - 1. Cetco Voltex DS Bentonite geotextile membrane waterproofing
 - 2. Cetco Aquadrain 100BD Base Drain and Aquadrain 15XP Prefabricated drainage composite
 - 3. Waterstop-RX. Flexible strip of bentonite and butyl rubber compound for use in concrete construction joints - not designed for expansion joints.
- D. Material Certificates: Submit certificate(s) signed by manufacturer certifying materials comply with specified performance characteristics and physical requirements. Submit certification that waterproofing system and components, drainage and protection materials are supplied by a single- source manufacturer.

- E. Contractor Certificate: At time of bid, submit written certification that installer has current Approved Applicator status with waterproofing material manufacturer.
 - 1. NSF Standard 61 Certification: Submit Official NSF Listing for standard bentonite geotextile waterproofing membrane confirming that product conforms to the requirements of NSF Standard 61 – Drinking Water System Components – Health Effects.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Installing company should have at least three (3) years experience in work of the type required by this section, who can comply with manufacturer's warranty requirements, and who is an Approved Applicator as determined by waterproofing/drainage system manufacturer.
- B. Manufacturer Qualifications: Bentonite geotextile waterproofing and all accessory products shall be provided by a single manufacturer with a minimum of 30 years experience in the direct production and sales of bentonite waterproofing systems. Manufacturer shall be capable of providing field service representation during construction, approving an acceptable installer, recommending appropriate installation methods, and conducting a final inspection of the bentonite waterproofing and prefabricated drainage system applied.
- C. Pre-Installation Conference: A pre-installation conference shall be held prior to commencement of field installation to establish procedures to maintain required working conditions and to coordinate this work with related and adjacent work. Verify that final waterproofing and details comply with waterproofing manufacturer's current installation requirements and recommendations. Pre-con meeting attendees should include representatives for the owner, architect, inspection firm, general contractor, waterproofing contractor, concrete contractor, excavating/backfill contractor, and mechanical and electrical contractors if work penetrates the waterproofing.
- D. Materials: Obtain bentonite geotextile waterproofing with integrated polyethylene liner and prefabricated drainage materials from a single manufacturer to assure material compatibility.
- E. Independent Inspection: Owner shall make all arrangements and payments for an independent inspection service to monitor waterproofing material installation compliance with the project contract documents and manufacturer's published literature and site specific details. Independent Inspection Firm shall be an approved company participating with the waterproofing manufacturer's Certified Inspection Program. Inspection service shall produce reports and digital photographs documenting each inspection. Reports shall be made available to the Contractor, waterproofing installer, waterproofing material manufacturer, and Architect. Inspections should include substrate examination, beginning of waterproofing installation, periodic intervals, and final inspection prior to concrete or backfill placement against the waterproofing.
- F. Water Sample Test: Project site water sample supplied to manufacturer by waterproofing contractor to determine type of bentonite system (standard sodium bentonite or contaminate resistant (CR) sodium bentonite) to be utilized on the project. Manufacturer shall conduct test free of charge. Contractor is responsible for collection and shipment of one liter of actual site water. Water should be shipped in uncontaminated, sealed plastic container to: CETCO Technical Center, Attn: BMG Water sample Technician, 1500 West Shure Drive, Arlington Heights, IL 60004. Also provide project name, city and state along with return address to forward test results.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery and Handling: Deliver materials in factory sealed and labeled packaging. Sequence deliveries to avoid delays, while minimizing on-site storage. Handle and store following manufacturer's instructions, recommendations and material safety data sheets. Protect from construction operation related damage and prolonged weather exposure. Remove damaged material from site and dispose of in accordance with applicable regulations.
- B. Storage: Do not double-stack pallets during shipping or storage. During storage protect waterproofing materials from moisture, excessive temperatures and sources of ignition. Provide cover, top and all sides, for materials stored on-site, allowing for adequate ventilation.

1.8 PROJECT CONDITIONS

- A. Substrate Condition: Proceed with work only when substrate construction and preparation work is complete and in condition to receive waterproofing system.
 - 1. Weather Conditions: Perform work only when existing and forecasted weather conditions are within the guidelines established by the manufacturer of the waterproofing materials. Do not apply waterproofing materials into standing water or over ice and snow. Though exposure to precipitation and ground water seepage typically will not adversely affect Voltex DS, the General Contractor shall maintain site conditions to remove standing water from precipitation or ground water seepage in a timely manner. Should Voltex DS be subjected to prehydration as a result of prolonged immersion, inspection of the material and written acceptance from CETCO is required prior to concrete or backfill placement.

1.9 WARRANTY

- A. Waterproofing Warranty: Upon completion and acceptance of the work required by this section, the waterproofing materials manufacturer will provide a written five (5) year warranty, covering both materials and labor, to the project owner. Issuance of Manufacturer's HydroShield Warranty requires the following: (1) System waterproofing products and drainage composite products shall have been provided by a single manufacturer; (2) Installation of waterproofing products and prefabricated drainage composite by Manufacturer's Approved Applicator; (3) Installation inspected by certified Independent Inspection Firm per Section 1.06E. Manufacturer's warranty shall be independent from any other warranties made by the Contractor under requirements of the Contract Documents and may run concurrent with the other warranties.

PART 2 - PRODUCTS

2.1 BASIS OF DESIGN: MANUFACTURER

- 1. Provide Voltex DS bentonite interlocked-geotextile waterproofing with integrated polyethylene liner and applicable accessories as manufactured by Colloid Environmental Technologies Company (CETCO)

2.2 MATERIALS

- A. VOLTEX DS BENTONITE GEOTEXTILE WATERPROOFING MEMBRANE
 - 1. VOLTEX DS MEMBRANE: 1.2 x 4.4m (4' x 14.5') roll of interlocked geotextiles encapsulating a minimum 4.8 kg/sqm (1.0-lbs per square foot) of granular sodium bentonite. Composite shall consist of one woven and one nonwoven polypropylene

geotextile, interlocked using a needle-punching process that produces interlocks over the entire area of the product with an integrated polymeric sheet liner on one side.

a. Voltex DS / Voltex DSCR performance properties:

PROPERTY	TEST METHOD	TYPICAL VALUE
Hydrostatic Pressure Resistance	ASTM D 5385 mod.	70 m 231 feet (7040.88 cm)
Permeability	ASTM D 5084	1 x 10 ^{-0.33} feet (10 cm)/sec.
Grab Tensile Strength	ASTM D 4632	422 N (95 lbs.)
Puncture Resistance	ASTM D 4833	620 N (140 lbs.)
Low Temperature Flexibility	ASTM D 1970	Unaffected at -32°C (-25°F)
Elongation	ASTM D 4632	50%
Peel Adhesion to Concrete	ASTM D 903 mod	. 2.6 kN/m (15 lbs. /in.)
Water Vapor Transmission Rate	ASTM E 96 (B)	0.03 grains/hr/ft ²

B. ACCESSORY WATERPROOFING PRODUCTS: All accessory waterproofing materials shall be provided by the bentonite waterproofing manufacturer or shall have manufacturer's written approval for substitution.

1. Bentoseal®: Trowel grade detailing mastic
2. Hydrobar Tubes: 1.97 inch (50 mm) diameter x 1.97 feet (60 cm) long, water soluble tube container filled with active granular sodium bentonite
3. Waterstoppage®: 22.7 kg (50 lbs.) bag of active granular sodium bentonite.
4. SeamTape®: 1.97 inch (50 mm) wide butyl rubber sealant tape.
5. Termination Bar: Min. 0.12 inch (3 mm) thick by 0.98 inch (25 mm) wide stainless steel or aluminum termination bar with pre-punched holes punched 6" (5.91 inch (150 mm)) on center for fastening.
6. CETSEAL – single-component polyether general sealant and adhesive
7. ENVIROSHEET – self-adhering flashing membrane used for grade and thru-wall detailing.
8. CXJ 200/400: CXJ is an thermoplastic expansion joint product consisting of a 50mm (2")/ 100mm (4") wide dual-cell center gland with two integrated flashing flanges on both sides of the center gland.

C. BASE AND SHEET DRAINAGE COMPOSITE

1. Aquadrain® drainage composite by CETCO shall be used to promote positive drainage. Use base drain accessory connectors and outlets as required.
2. Aquadrain® 15XP – 1.31 yard (1.2 meter) x 17.28 yard (15.8 meter) roll of a three-dimensional polypropylene drainage core with a nonwoven geotextile adhered to one side to allow water passage while restricting soil particles. Composite includes a thin polyethylene sheet on the back of the drainage core.
 - a. Compressive Strength, 104 psi (718 kPa);
 - b. Water Flow Rate, 251 l/m/m (20gpm/ft);
 - c. Thickness, 0.43 inch (11 mm)
3. Waterstop-RX 102: 3/4" x 3/8" x 33'4" rolls of flexible strip of bentonite and butyl rubber compound for use in concrete construction joints - not designed for expansion joints.

PART 3 – EXECUTION

3.1 GENERAL

- A. Comply with contract documents and manufacturer's product data, including product application and installation instructions.

3.2 SUBSTRATE INSPECTION AND CONDITIONS

- A. The installer, with the Owner's Independent Inspector present, shall examine conditions of substrates and other conditions under which this section work is to be performed and notify the contractor, in writing, of circumstances detrimental to the proper completion of the work. Do not proceed with work until unsatisfactory conditions are corrected and are acceptable for compliance with manufacturer's warranty requirements. General substrate conditions acceptable for the waterproofing installation are listed below. For conditions not covered in this Section, contact the waterproofing manufacturer for guidance.
 - 1. SOIL SUBSTRATES: Site conditions allowing, Voltex DS applications do not require a mud-working slab. Grade substrates should consist of well-leveled soils without voids and debris, and compacted to a minimum of 85% Modified Proctor density. If substrate consists of large aggregate, place a high-strength geotextile layer over the aggregate and then provide several inches of compacted soil or sand for uniform support and containment of waterproofing sheets.
- B. CONCRETE: Cast-in-place concrete to receive waterproofing shall be of sound structural grade with a smooth finish, free of debris, oil, grease, laitance, dirt, dust, or other foreign matter which will impair the performance of the waterproofing and drainage system and which do not comply with manufacturer's warranty requirements. Voltex DS can be installed on green structural concrete as soon as the forms are removed. There is no product limitation regarding a minimum concrete curing time requirement for Voltex DS to be installed over structural concrete. Manufacturer recommends gaining instructions from project structural engineer regarding any site specific concrete curing time requirement. Do not apply Voltex DS waterproofing over lightweight insulating concrete.
 - 1. Horizontal surfaces should be sloped for proper drainage.
 - 2. Form fins, ridges, and other protrusions should be level and smooth with monolithic concrete surface. Honeycombing, aggregate pockets, tie-rod holes and other voids should be completely filled with non-shrink cementitious grout and level with monolithic concrete surface.
 - 3. All expansion joints should receive applicable expansion joint sealant product manufactured by others prior to the installation of the Voltex DS Waterproofing System. Expansion joint material is the primary seal at the expansion joint and the expansion joint material manufacturer is responsible for water tightness of the joint.

3.3 SURFACE PREPARATION

- A. Remove dirt, debris, oil, grease, cement laitance, or other foreign matter which will impair or negatively affect the performance of the waterproofing and drainage system.
- B. Protect adjacent work areas and finish surfaces from damage or contamination from waterproofing products during installation operations.

3.4 GENERAL INSTALLATION GUIDELINES

- 1. Install Voltex DS Waterproofing System with the dark gray woven geotextile side facing the concrete (polyethylene liner side away from concrete) to be waterproofed in both

horizontal and vertical applications. Overlap Voltex DS membrane edges a minimum 4" 3.94 inch (100 mm) or greater as defined herein.

- B. Expansion Joints: Voltex DS waterproofing is not an expansion joint filler or sealant, but may be used as an expansion joint cover over a properly installed expansion joint material placed during substrate preparation. To use Voltex DS as an expansion joint cover, trowel 1/8" 0.12 inch (3 mm) thick, 6" (5.91 inch (150 mm)) wide layer of Bentoseal centered over expansion joint. Install a 24" (1.97 feet (60 cm)) wide strip of Voltex DS centered over the expansion joint. Then install the main course of Voltex DS.

3.5 WATERSTOPS

- A. General installation guidelines:
 - 1. Install WATERSTOP-RX in all applicable vertical and horizontal cast-in-place concrete construction joints; and around applicable penetrations and structural members. Place WATERSTOP-RX to allow for minimum 3" 2.95 inch (75 mm) concrete coverage on all sides (2" (1.97 inch (50 mm)) coverage for RX-102).
 - 2. Apply continuous bead of CETSEAL (typical bead diameter 3/16" 0.2 inch (5 mm) to dry, smooth concrete surface maintaining a minimum 3" (75 mm) depth within the concrete joint.
 - 3. Remove release paper from coil of WATERSTOP-RX. Firmly press the entire length of WATERSTOP-RX into the CETSEAL adhesive bead; resulting in the adhesive bead spreading to coat most of the bottom of the waterstop. Verify 3" 2.95 inch (75 mm) minimum concrete coverage will be maintained over entire placement of waterstop. Place in maximum practical lengths to minimize coil end joints.
 - 4. Tightly butt coil ends together to form continuous waterstop. Do not overlap coil ends. Where required, cut coils with sharp knife or utility blade to fit coil ends together without overlapping.
 - 5. Following Steps 1-3, install waterstop around all applicable through wall pipes and mechanical penetrations; and around all applicable structural elements like metal H-Piles through the slab.
 - 6. Protect installed waterstop from prehydration prior to concrete placement and product encapsulation.
 - 7. Replace any waterstop material that exhibits significant expansion prior to concrete encapsulation.

3.6 SLAB / FOOTING EDGE VOLTEX DS TRANSITION COURSE

- A. Provide a minimum of 6" 5.91 inch (150 mm) overlap between underslab and vertical wall waterproofing. Secure overlap with washer-head fasteners a minimum of 24" (23.62 inch (600 mm)) on center and apply Bentoseal to the overlap edge.
- B. At the slab/footing form edge, secure Voltex DS sheet horizontally oriented (poly side down; dark gray woven geotextile facing installer) to the top inside edge of the exterior slab/footing form with the sheet conforming to the interior form sides and then extending out onto the horizontal slab substrate a minimum 12" 11.81 inch (300 mm). Overlap edges of adjacent Voltex DS sheets a minimum 4" (3.94 inch (100 mm)) and secure to prevent sheet movement during construction or concrete placement.

3.7 BACKFILLED CAST-IN-PLACE CONCRETE WALLS

- A. Place Hydrobar Tubes along the wall/footing intersection with ends "buted" tightly together to form a continuous installation.

- B. Trowel 3/4" 0.71 inch (18 mm) thick, continuous Bentoseal fillet at all inside wall corner transitions. Trowel Bentoseal form-tie pockets/patches and any slightly irregular honeycomb areas.
- C. Starting at the base of the wall, install Voltex DS sheet horizontally (dark gray woven geotextile against the wall; poly side facing installer) covering the Hydrobar Tubes and extending onto the footing a minimum of 6" 5.91 inch (150 mm). For hydrostatic conditions, cover the entire footing and overlap waterproofing membrane from underslab work a minimum of 6" (150 mm). Attach Voltex DS using washer-headed mechanical fasteners centered 24" (1.97 feet (60 cm)) around the sheet edge. Overlap all adjacent sheet edges a minimum 4" (3.94 inch (100 mm)). Stagger all vertical overlap seams a minimum of 12" (11.81 inch (300 mm)).
- D. After the bottom horizontal course, Voltex DS sheets can be installed either vertically or horizontally oriented. Continue Voltex DS installation up wall to finished grade elevation, staggering all sheet roll ends of adjacent courses a minimum 12" 11.81 inch (300 mm). Do not allow horizontal Voltex DS overlap
 - 1. Joints to run at same elevation as the concrete pour lift joints. Overlap all adjacent Voltex DS sheet edges a minimum 4" 3.94 inch (100 mm).
- E. Cut Voltex DS to fit snugly around penetrations. Detail around all penetrations with 3/4" 0.71 inch (18 mm) cant of Bentoseal. Completely fill any space between the penetration and Voltex DS edge. Extend Bentoseal 1/4" (0.24 inch (6 mm)) thick over substrate a minimum radius of 1-1/2" (1.5 inch (38 mm)) and onto penetration.
- F. Terminate Voltex DS at grade with metal termination bar fastened 12" 11.81 inch (300 mm) on center. Cover top edge of Voltex DS with 1/2" (0.47 inch (12 mm)) thick, 2" (1.97 inch (50 mm)) wide layer of Bentoseal.
- G. Inspect finished Voltex DS installation and repair any damaged material prior to backfill placement. Assure that Voltex DS is not displaced during backfill placement or soil compaction.

3.8 PREFABRICATED DRAINAGE COMPOSITE INSTALLATION (BACKFILLED WALLS)

- A. At the base of the wall, place Aquadrain 100BD (100BD) base-drain horizontally oriented with the open core side up and the 2" 1.97 inch (50 mm) flap of fabric side tight against the wall over the previously installed Voltex DS waterproofing using wash-head mechanical fasteners or general construction adhesive. The 2" fabric flap along the top edge of 100BD should be tightly secured against the wall. Use 100BD accessory fittings, as required, to form a continuous installation. Install 100BD discharge outlet fittings to connect to discharge pipes as required for the project.
- B. Install the bottom course of Aquadrain 15XP sheet drainage (plastic core side against the wall) with the 15XP bottom core edge in contact with open top core edge of 100BD. Secure sheet drain to wall with washer-head fasteners. Secure extra fabric flap of 15XP extending down the top front edge of 100BD to prevent the passage of soil into the core at the connection.
- C. Install subsequent courses of Aquadrain 15XP sheet drainage to within 12" 11.81 inch (300 mm) of finished grade or as shown on the project drawings. Tightly abut adjoining sheet drain core edges together and secure the extra fabric flaps over the front of adjacent roll edges to prevent soil from entering the sheet drain. Secure sheet drain to wall with washer-head fasteners. Where drainage sheet panels are installed overlapped, bottom edge of higher course shall be installed to the outside of the lower course to shed water like a roof shingle.
- D. Around penetrations and tie-back heads, cut sheet drainage composite to fit and wrap extra filter fabric around open core edge to prevent soil from entering core.

- E. At the top of the sheet drain installation, wrap the filter fabric flap behind the exposed top core edge to prevent intrusion of soil into the core and secure sheet drain to wall with termination bar fastened 12" 11.81 inch (300 mm) on center.

3.9 INSULATION

- A. Always apply Voltex DS waterproofing directly to properly prepared structural concrete substrates. Insulation, if used, should be applied over the waterproofing and drainage. Do not apply Voltex DS waterproofing over lightweight insulating concrete.

3.10 BACKFILL EXCAVATED CAST-IN-PLACE CONCRETE WALLS

- A. Closely coordinate Voltex DS installation with Backfill conducted under Division 31 work. Care should be used during backfill operation to avoid damage to the waterproofing system. Follow generally accepted practices for backfilling and compaction. Backfill should be added in 6" to 12" (150 - 11.81 inch (300 mm) lifts and compacted to a minimum 85% Modified Proctor density. If gravel backfill, specify angular aggregate <3/4" (18mm) with fines.

3.11 CLEAN UP

- A. Clean areas where adjacent finished surfaces are soiled by work of this Section. Remove all tools, equipment and remaining product on-site. Dispose of section work debris and damaged product following all applicable regulations.

END OF SECTION

SECTION 095426 - SUSPENDED WOOD CEILINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Acoustical wood ceiling systems.
- B. Suspension system and connectors.
- C. Accommodation for penetrations of HVAC and electrical items such as lighting and outlets.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section in accordance with Section 01 31 00 - Project Management and Coordination.
 - 1. Review preparation and installation procedures and coordinating and scheduling required with related work.
- B. Related Sections:
 - 1. Section 095100 – Acoustical Ceilings.

1.3 SUBMITTALS

- A. Qualification Data: For manufacturer and installer.
- B. Submit shop drawings prepared by the manufacturer showing all necessary details and dimension requirements field verified.
- C. Samples: Submit 8-inch X 5-inch sample panels of each type of product specified.
- D. Certification: Submit certificate of compliance to specified acoustical and fire performance criteria as stated below
- E. Test results: Submit independent laboratory test results for each product used. components must meet or exceed the specified requirements.
- F. Manufacturer's Approval of installer.
- G. Single Source: All wood ceiling panels shall be purchased from a single supplier.

1.4 QUALITY ASSURANCE

- A. Manufacturer & Installer: Firm manufacturing shall have adequate capacity required for projects listed and have successfully completed similar projects for not less than five years.
- B. The Installer shall be approved by the manufacturer as qualified to perform work.
- C. Fire Performance Characteristics: Class A as tested by an independent accredited testing facility. Tests: ASTM E84. Flame spread: 25 or less. Smoke developed: 450 or less as specified by state or local codes.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Fire-Retardant-Treated Wood: Prevent exposure to precipitation during shipping, storage, or installation.
- B. Deliver fabricated units and related components to the site for installation in accordance with a reasonable schedule furnished by the contractor. On-site storage shall be such as to assure that all panels and associated materials are protected from damage.
- C. Do not deliver wood materials to project site until building is fully enclosed and interior temperature and humidity are in accordance with recommendations of AWI Quality Standards Illustrated.
- D. Store, install and maintain panels only in a secure ambient environment (humidity minimum 35 percent - maximum 55 percent, temperature not to exceed 80° F.
- E. Handle products carefully to avoid damaging plank surfaces or chipping edges. Report any damage immediately. Installation of damaged planks is not covered by the manufacturer's warranty.

1.6 PROJECT CONDITIONS

- A. Do not install acoustic planks until space is enclosed and weather-proofed, wet work is completely dry and ambient temperature and humidity conditions are maintained at the levels indicated for the project when occupied for its intended use.
- B. Permit planks to reach room temperature, 50 to 86 degrees F, and stabilized moisture content of 25% to 55% RH for at least 72 hours before installation per AWI standards. Building should be enclosed and HVAC systems functioning in continuous operation with relative humidity maintained between 25 and 55 percent.
- C. MAINTENANCE
 - 1. Maintenance Instructions: Provide manufacturer's standard maintenance and cleaning instructions for finishes provided.

PART 2 - PRODUCTS

2.1 DESCRIPTION

- A. Suspended wood ceiling systems with seismic edge clips and manufactured edge trim at changes in plane.

2.2 MANUFACTURERS

- A. Manufacturers:
 - 1. Armstrong World Industries; Armstrong Ceilings; www.armstrongceilings.com.

2.3 MATERIALS

2.4 BASIS OF DESIGN REQUIREMENTS

- A. (WDC-1) Wood Slat Ceiling and Wood Fascia:
 - 1. Armstrong Woodworks Grille Forte 6323L Backer
 - 2. Species and Finish: Solid Poplar Red Oak (GRK)

3. Acoustic backing: 2821BK Calla Lay-in Panel 24" x 48" x 1" Black
 4. Cut to fit above ceiling and behind fascia
 5. Suspension Grid: Black
 6. Substitutions: See Section 016000 - Product Requirements
 - a. Substitution requests will not be considered after bids are opened.
- B. (WDC-2) Wood Tegular Ceiling Tile:
1. Armstrong Woodworks Tegular; 5404F018200T10; 24 inch x 24 inch x 3/4 inch
 2. Species and Finish: la Rift White Oak (NRO)
 3. Perforations: W4 - Rg 6011, Round Straight
 4. Acoustic backing: 8200T10 Fiberglass Infill
 5. Suspension Grid: White
 6. Substitutions: See Section 016000 - Product Requirements
 - a. Substitution requests will not be considered after bids are opened.
- C. (WDC-3) WoodTegular Ceiling Tile:
1. Armstrong Woodworks Tegular; 6484F018200T10; 48 inch x 12 inch x 3/4 inch
 2. Species and Finish: Rift White Oak (NRO)
 3. Perforations: W4 - Rg 6011, Round Strainght
 4. Acoustic backing: 8200T10 Fiberglass Infill
 5. Suspension Grid: White
 6. Substitutions: See Section 016000 - Product Requirements
 - a. Substitution requests will not be considered after bids are opened.

2.5 ACCESSORIES

- A. All accessory materials required by the manufacturer for a warrantable installation of the installed products in a manner that meets the Performance and Design Criteria.
- B. Woodworks Grille Solid End-Stain: to match ceiling tile finish.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine substrates and structural framing to which ceiling system attaches or abuts, with installer present, for compliance with requirements of this or other sections that affect installation and support of ceiling system.
- B. All wet work in the installation area must be complete, cured, and dry prior to installation.
- C. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install all materials in accordance with manufacturer's instructions based on conditions present.
- B. Provide for shimming and adjustment to maintain consistent alignment of joints and finished panel faces.
- C. Coordinate location of framing and hangers with other work. Where components prevent regular spacing of framing or hangers, reinforce system to span the extra distance.

- D. Hang system independent of walls, columns, ducts, pipes, and conduit.
- E. Comply with manufacturer's instructions and recommendations for hanging planks.
 - 1. For a suspended grid, install using Plank Clips, which impale securely onto a plank's edge, then fasten to the 15/16" heavy duty suspended grid.
- F. Confirm all field dimensions are coordinated with shop drawings.

3.3 TOLERANCES

- A. Variation from Flat and Level Surface: 0.125 inch in 10 feet.

3.4 ADJUSTMENT AND REPLACEMENT

- A. The Owner shall inspect the installation and product on completion. The manufacturer shall provide repair or replace components not conforming to requirements.
- B. Installation labor for removal and replacement of product improperly installed and not conforming to specified installation instructions and shown on plans shall be the responsibility of the installing Contractor.
- C. Remove and replace damaged or discolored materials not in compliance with manufacturer's tolerances.

END OF SECTION

SECTION 107516 - GROUND-SET FLAGPOLES

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 ground-set flagpoles made from aluminum.
- B. Owner-Furnished Material: Flags.

1.3 REFERENCE STANDARDS

- A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2014 (2015 Errata).
- B. ASTM B241/B241M - Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube; 2022.
- C. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2016, with Editorial Revision (2016).
- D. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2020.
- E. NAAMM FP 1001 - Guide Specifications for Design Loads of Metal Flagpoles; 2007.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, operating characteristics, fittings, accessories, and finishes for flagpoles.
- B. Shop Drawings: For flagpoles.
 - 1. Include plans, elevations, and attachment details. Show general arrangement, jointing, fittings, accessories, grounding, anchoring, and support.
 - 2. Include section, and details of foundation system.
 - 3. Include connection and integration of flagpole lighting and electrical connection.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For flagpoles to include in operation and maintenance manuals.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Spiral wrap flagpoles with heavy paper and enclose in a hard fiber tube or other protective container.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain flagpoles as complete units, including fittings, accessories, bases, and anchorage devices, from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Flagpole assemblies shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- B. Structural Performance: Flagpole assemblies, including anchorages and supports, shall withstand design loads indicated within limits and under conditions indicated.
 - 1. Wind Loads: Determine according to NAAMM FP 1001. Basic wind speed for Project location is 115 MPH.
 - 2. Base flagpole design on polyester, nylon or cotton flags of maximum standard size suitable for use with flagpole or flag size indicated, whichever is more stringent.

2.3 ALUMINUM FLAGPOLES

- A. Aluminum Flagpoles: Cone-tapered flagpoles fabricated from seamless extruded tubing complying with ASTM B241/B241M, Alloy 6063, with a minimum wall thickness of 3/16 inch (4.76 mm).
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Liberty Flagpoles.
 - b. Substitutions: See section 016000 - Product Requirements
- B. Exposed Height: 30 feet (914.4 cm).
- C. Construct flagpoles in one piece if possible. If more than one piece is necessary, comply with the following:
 - 1. Fabricate shop and field joints without using fasteners, screw collars, or lead calking.
 - 2. Provide flush hairline joints using self-aligning, snug-fitting, internal sleeves.
- D. Metal Foundation Tube: Manufacturer's standard corrugated-steel foundation tube, 0.060-inch wall thickness with 3/16-inch steel bottom plate and support plate; 3/4-inch- diameter, steel ground spike; and steel centering wedges welded together. Galvanize foundation tube after assembly. Furnish loose hardwood wedges at top of foundation tube for plumbing pole.
 - 1. Flashing Collar: Same material and finish as flagpole.
- E. Ground sleeve for Aluminum Flagpole: Corrugated Steel ground sleeve and lighting spike, made to fit flagpole, for casting into concrete foundation.
 - 1. Flashing Collar: Same material and finish as flagpole.
- F. Cast-Metal Shoe Base: Made from aluminum with same finish and color as flagpoles for anchor-bolt mounting; furnish with anchor bolts.
 - 1. Furnish ground spike.
- G. Hinged Baseplate: Cast-metal tilting hinged base and anchor plate joined by permanently secured pivot rod. Furnish with stainless-steel screws for securing tilting base to anchor plate when not tilted; furnish with anchor bolts.
 - 1. Finish: Same as flagpole.

2. Furnish aluminum base or aluminum flashing collar finished to match flagpole.
3. Furnish ground spike.

2.4 FITTINGS

- A. Finial Ball: Flush-seam ball, sized as indicated or, if not indicated, to match flagpole-butt diameter.
 1. 0.063-inch spun aluminum finished to match flagpole.
 2. Dome Finish: Gold.
- B. Internal Halyard, Winch System: Manually operated winch with control stop device and removable handle, stainless-steel cable halyard, and concealed revolving truck assembly with plastic-coated counterweight and sling. Furnish flush access door secured with cylinder lock. Finish truck assembly to match flagpole.
 1. Halyard Flag Snaps: Stainless-steel swivel snap hooks. Furnish two per halyard.
 2. Plastic Halyard Flag Clips: Made from injection-molded, UV-stabilized, acetal resin (Delrin). Clips attach to flag and have two eyes for inserting both runs of halyards. Furnish two per halyard.
 - a. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Liberty Flagpoles.

2.5 MISCELLANEOUS MATERIALS

- A. Non-shrink, Nonmetallic Grout: Factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M.
- B. Drainage Material: Crushed stone or crushed or uncrushed gravel; coarse aggregate.
- C. Sand: ASTM C33/C33M, fine aggregate.
- D. Elastomeric Joint Sealant: Manufacturers standard joint sealant complying with requirements in Section 079200 "Joint Sealants."

2.6 ASSOCIATED PRODUCTS

- A. Flag illumination light fixture not included in scope of this section, see electrical drawings.
 1. Coordinate with electrical for providing a hole/slot for installing exterior mounted flagpole light fixture. The intent is for extending the wiring serving the light fixture inside the flag pole to the height of the light fixture installation.

2.7 ALUMINUM FINISHES

- A. Natural Satin Finish: AA-M32, fine, directional, medium satin polish; buff complying with AA-M20; seal aluminum surfaces with clear, hard-coat wax.
- B. Clear Anodic Finish: AAMA 611, manufacturers standard

PART 3 EXECUTION

3.1 PREPARATION

- A. Prepare uncoated metal flagpoles that are set in foundation tubes by painting below-grade portions with a heavy coat of bituminous paint.
- B. Foundation Excavation: Excavate neat clean lines in undisturbed soil. Remove loose soil and foreign matter from excavation and moisten earth before placing concrete. Place and compact drainage material at excavation bottom.
- C. Provide forms where required due to unstable soil conditions and for perimeter of flagpole base at grade. Secure and brace forms to prevent displacement during concreting.
- D. Foundation Tube: Place foundation tube, center, and brace to prevent displacement during concreting. Place concrete. Plumb and level foundation tube and allow concrete to cure.
- E. Sleeves: Locate and secure sleeves in forms by bracing to reinforcement and forms.
- F. Anchor Bolts: Locate and secure anchor bolts in forms with templates and by tying to reinforcement.
- G. Place concrete, as specified in Section 033000 "Cast-in-Place Concrete." Compact concrete in place by using vibrators. Moist-cure exposed concrete for no fewer than seven days or use non-staining curing compound. Follow manufacturer's requirements when installing flagpole.
- H. Trowel exposed concrete surfaces to a smooth, dense finish, free of trowel marks, and uniform in texture and appearance. Provide positive slope for water runoff to perimeter of concrete base.

3.2 FLAGPOLE INSTALLATION

- A. General: Install flagpoles where indicated and according to Shop Drawings and manufacturer's written instructions.
- B. Foundation Tube: Place flagpole in tube, seated on bottom plate between steel centering wedges, and install hardwood wedges to secure flagpole in place. Place and compact sand in foundation tube and remove hardwood wedges. Seal top of foundation tube with a 2-inch layer of elastomeric joint sealant and cover with flashing collar.
- C. Baseplate: Cast anchor bolts in concrete foundation. Install baseplate on washers placed over leveling nuts on anchor bolts and adjust until flagpole is plumb. After flagpole is plumb, tighten retaining nuts and fill space under baseplate solidly with non-shrink, nonmetallic grout. Finish exposed grout surfaces smooth and slope 45 degrees away from edges of baseplate.

END OF SECTION 107516

SECTION 263213.13 - STAND-BY GENERATOR - DIESEL

GENERAL

WORK INCLUDED

Provide all labor, materials, and equipment to furnish, install, and place in operation the Standby power generation system in accordance with the contract documents and manufacturer's drawings and installation instructions. All equipment shall be new, factory tested, and delivered ready for field installation.

The responsibility for performance to this specification shall not be divided among individual component manufacturers but must be assumed solely by the primary manufacturer. This includes generating system design, manufacture, test, and having a local supplier responsible for service, parts, and warranty for the total system.

Generator set mounted subassemblies such as cooling system, base, fuel tank, air intake system, exhaust outlet fittings, and generator set mounted controls and switchgear shall also be designed, built, and assembled as a complete unit by the engine/generator manufacturer.

Apply and obtain all permitting required by the local jurisdiction for the generator.

RELATED SECTIONS

Section 260000 Electrical General Conditions

Section 263623 Automatic Transfer Switches Time Delay Neutral

REFERENCE STANDARDS

The work shall comply with the latest edition of the applicable Standards and Codes.

ASTM D975 - Standard Specification for Diesel Fuel.

NECA 1 - Standard for Good Workmanship in Electrical Construction.

NECA/EGSA 404 - Standard for Installing Generator Sets.

NEMA MG 1 - Motors and Generators.

NFPA 30 - Flammable and Combustible Liquids Code.

NFPA 37 - Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines.

NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction,
Including All Applicable Amendments and Supplements.

NFPA 99 - Health Care Facilities Code.

NFPA 110 - Standard for Emergency and Standby Power Systems.

UL 142 - Steel Aboveground Tanks for Flammable and Combustible Liquids; Current Edition, Including
All Revisions.

UL 1236 - Battery Chargers for Charging Engine-Starter Batteries; Current Edition, Including All
Revisions.

UL 2085 - Protected Aboveground Tanks for Flammable and Combustible Liquids; Current Edition,
Including All Revisions.

UL 2200 - Stationary Engine Generator Assemblies; Current Edition, Including All Revisions.

IFC 2000 – Chapter 34 Engine Generator Above Ground Fuel Tank

SUBMITTALS

Product Data

Stand-by Generator

Shop Drawings

Stand-by Generator
Generator Housekeeping Pad

Testing

Prototype Test Results
Commissioning Test Plan
Commissioning Test Results
Base Tank Pressure Test Results

Warranty

Manufacturer Warranty Information

Training

Stand-by Generator

O&M Manuals

All Information from Previous Submittals
Mfg. Maintenance Manual
Recommended Maintenance Procedures

PRODUCT DATA

Manufacturer produced generator set specification or data sheet identifying make and model of engine and generator and including relevant component design and performance data. Included features shall be clearly indicated. If selected features are not indicated, the submittal will be rejected.

Component List - A breakdown of all components and options.

Auxiliary Equipment - Specification or data sheets, including switchgear, transfer switch, vibration isolators, and fuel tank.

SHOP DRAWINGS

Drawings - General dimensions drawings showing overall generator set measurements, mounting location, and interconnect points for load leads, fuel, exhaust, cooling and drain lines.

Wiring Diagrams - Wiring diagrams, schematics and control panel outline drawings published by the manufacturer for controls and switchgear showing interconnected points and logic diagrams for use by contractor and owner.

Stamped housekeeping pad shop drawings for Authority having Jurisdiction (AHJ) approval.

PROTOTYPE TESTS

The system manufacturer must certify that engine, generator, controls, and switchgear have been tested as complete system of representative engineering models (not on equipment sold). Prototype testing shall include:

- Fuel consumption at 1/4, 1/2, 3/4, and full load
- Exhaust emissions
- Mechanical and exhaust noise
- Governor speed regulation at 1/4, 1/2, 3/4, and full load; and during transients
- Motor starting kVA
- Generator temperature rise in accordance with NEMA MG1-22.40
- Voltage regulation at 1/4, 1/2, 3/4, and full load; and during transients
- Harmonic analysis, voltage waveform deviation and telephone influence factor
- Generator short circuit capability
- Cooling system performance
- Force factor calculations
- Torsional analysis
- Linear vibration analysis
- Generator revolving field assembly at 2250 rpm (125% overspeed) at room temperature.

WARRANTY/SERVICE

A one year or 2000 hours (whichever occurs first) for the generator set shall be included to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from date of start-up. Optional 2 and 5-year warranties shall be available upon request.

The generator set manufacturer, and its distributor shall maintain a 24-hour parts and service organization. This organization shall be regularly engaged in a maintenance contract program to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions, adjustment to the generator, transfer switch as required and certification in the owner's maintenance log of repairs made and proper functioning of all systems. OPTIONAL: Annual (or semi-annual) preventive maintenance service per manufacturers recommendations shall be included in the cost of the proposal.

PRODUCTS

APPROVED MANUFACTURERS

The engine and generator shall be the product of an ISO 9001 certified manufacturer. The design is based on a Cummins engine/generator set. Any changes to the design based on other manufacturers will be the responsibility of the installing contractor at no additional cost to the owner.

Approved Alternate Manufacturers: Caterpillar, Kohler, MTU .

SYSTEM RATING

The electric power generating system including engine mounted radiator shall have a site capability of:
(See drawings for kW size).

Generator	kVA shall be @ 0.8 PF, standby rating
277/480v	Volts AC, Wye connected, 3 Phase, 60 Hertz
100	Altitude (Feet)
104	Maximum Engine ambient temperature (oF)
-20	Minimum Outside temperature (oF)

SYSTEM PERFORMANCE

The power generating system shall conform to the following performance criteria at the site conditions:

Rating - Engine brake horsepower shall be sufficient to deliver full rated generator set kW/kVA when operated at rated rpm and equipped with all engine-mounted parasitic and external loads such as radiator fans and power generators.

Start Time and Load Acceptance - Engines shall start, achieve rated voltage and frequency, and be capable of accepting load within 10 seconds when properly equipped and maintained.

With the power generating system at normal operating temperature, it shall accept a 100% block load, less applicable derating factors, in accordance with NFPA 110.

Steady state frequency regulation shall be +/- 0.33 % with no load to full load speed droop less than 3 %.

Voltage regulation shall be +/- 2% for any steady state load between no load and full load.

DIESEL ENGINE

The diesel engine shall be a stationary, liquid cooled, 1800-rpm, four-cycle design, vertical in-line, with dry exhaust manifolds. It shall have 6 cylinders and be manufactured in the United States. Two cycle engines are not acceptable.

ENGINE ACCESSORY EQUIPMENT

The engine shall be cooled by an engine mounted, vertical radiator with blower type fan, using a 50% antifreeze/coolant mixture. Antifreeze shall have a service life of 3000 hours without maintenance. The radiator shall properly cool the engine while the engine is operating at full load and 0.25-inch H₂O external air restriction. The minimum ambient capability shall be 104 deg F (40 deg C).

Electric starting motor and control circuit capable of three complete starting cycles without overheating.

Mechanical, positive displacement lube oil pump with replaceable full flow filter, oil cooler, and dip stick.

Mechanical, positive displacement fuel transfer pump with replaceable full flow filter.

Fuel Filter and serviceable fuel system components shall be located to prevent fuel from spilling onto genset batteries.

Manually operated fuel-priming pump.

Replaceable dry element air filter.

Engine mounted electrically powered, thermostatically controlled jacket water heater sized to ensure proper starting at 0° F. Shall include isolation valves and adjustable thermostat.

Flexible, stainless steel exhaust connector.

Flexible fuel lines.

The use of charging alternators as the only means of charging the unit batteries is not acceptable.

Remote engine shut off switch mounted within clear weatherproof cover, with name plate "Emergency Generator Shut Off Switch". Attached with stainless steel screws. Locate within sight of generator.

GENERATOR

The generator shall be close coupled, drip proof and guarded, constructed to NEMA 1 and IP 22 standards, single bearing, salient pole, revolving field, synchronous type with amortisseur windings in the pole faces of the rotating field and skewed stator windings to produce optimum voltage waveform.

The generator pitch shall be selected to optimize the generator efficiency and minimize the total harmonic distortion, especially the third harmonics which are detrimental to AC motors.

The generator shall be capable of delivering rated kVA at 60 Hz and 0.8 PF within +/-5% of rated voltage.

All insulation systems shall meet NEMA MG-1 standards for Class H systems. The actual generator temperature shall be limited to Class F levels (130° Crise by resistance over 40°C ambient). Materials, which support fungus growth, shall not be used.

The revolving field coils shall be precision wet layer wound with epoxy-based material applied to each layer of magnet wire. The revolving field assembly shall be prototype tested at 2250 rpm (125% overspeed) at room temperature. The revolving field assembly shall be balanced to 0.5 mil peak-peak. The stator shall have two dips and bakes using Class H impregnating varnish.

The self-excited, brushless exciter shall consist of a three-phase armature and a three-phase full wave bridge rectifier mounted on the rotor shaft. Surge suppressers shall be included to protect the rotating diodes from voltage spikes.

The automatic voltage regulator (AVR) shall maintain generator output voltage within +/- 2% for any constant load between no load and full load. The regulator shall be a totally solid-state design which includes electronic voltage buildup, volts per Hertz regulation, three phase sensing, over excitation protection, loss of sensing protection, temperature compensation, shall limit voltage overshoot on startup, and shall be environmentally sealed.

The automatic voltage regulator and all low voltage control wiring shall be located in a separate enclosure.

CIRCUIT BREAKER - GENERATOR SET MOUNTED

The three-pole main line circuit breakers shall be provided to protect the generator against external faults and provide a positive disconnect device at the generator output terminals. The breaker shall be UL listed with shunt trip device connected to engine/generator safety shutdowns. The breaker shall be mounted on the generator in a NEMA 1P22 guarded drip-proof enclosure, which provides direct access for cable from the top or bottom.

CONTROLS - GENERATOR SET MOUNTED

The control panel shall be designed and built by the engine-generator manufacturer. It shall be mounted on the generator set and incorporate 100% solid state microprocessor-based control circuitry and digital instrumentation. All electronic control components are to be mounted in sealed, dust tight, watertight, metal housings. Housings which must be opened for service or set-up are not acceptable. All output circuits greater than 100mA shall be fuse or circuit breaker protected. The panel shall be labeled with ISO symbols and comply with IEC 144, IP 22, and NEMA 12 for external environmental resistance, and IP 44 and NEMA 12 for resistance of the internal sealed modules. The control panel shall be capable of facing the right, left, or rear and shall be vibration isolated.

The panel shall include the following equipment/functions:

Automatic remote start capability with mode of operation selectable from a panel-mounted 4-position switch (Stop, Manual, Automatic, Reset).

Generator will accept remote signal from ATS for automatic starting and exercising.

Cycle crank with adjustable "crank" and "rest" times.

Adjustable cooldown timer.

Emergency Stop push button requiring manual reset.

Voltage adjustment potentiometer to adjust voltage +/- 5% of rated.

Individual flashing LED's or a Graphical User Interface shall be provided. The use of a common alarm or shutdown lamp, which depends on a separate display to determine the alarm or fault condition, is not acceptable. Annunciation shall be provided for:

Overspeed (red)

Overcrank (red)

High Coolant temperature (red)

Low Oil pressure (red)

Emergency Stop (red)

Low Coolant Level (red - programmable as alarm or shutdown)

Digital displays shall be provided for the engine and generator parameters. These displays shall allow the simultaneous display of AC parameters and at least one (selectable) engine parameter to be displayed at the same time. Requirements for these displays are as follows:

Digital display and phase selector switch for generator operational parameters. True RMS sensing of these parameters shall be utilized to minimize distortion due to non-linear loads and ensure accuracy.

AC volts (+/- 0.5% accuracy)

AC amps (+/- 0.5% accuracy)

Hertz (+/- 0.3 Hz accuracy)

Digital display for:

Engine RPM (+/- 0.5% accuracy)

DC voltage (+/- 0.5% accuracy)

Oil pressure (+/- 0.5% accuracy)

Coolant temperature (+/- 0.5% accuracy)

Operating hours

Diagnostic Capability: Must provide dual level diagnostics identifying both system level and component level. The diagnostic codes shall be maintained in a history log specifying the number of occurrences, and second/minute/hr. at which they occur.

Sensors: Sensors providing a pulse width modulated output shall be utilized for oil pressure, coolant temperature sensing and shall be protected against a fault to (+/-) battery. The usable output range of the sensor shall be limited to 5% to 95% duty cycle. Output outside the usable range shall be diagnosed as a fault condition and appropriate diagnostic shall be provided. Separate speed sensing signals shall be provided for overspeed protection and electronic governing.

Ambient Parameters:

Operating: -40C to +70C (-40 F to +158 F)

Storage: -55 C to +85 C (-67 F to +185 F)

Humidity: 0 to 100% relative humidity

Must be impervious to salt spray, fuel, oil and oil additives, coolant, spray cleaners, chlorinated solvents, hydrogen sulfide and methane gas, and dust.

REMOTE ALARM ANNUNCIATOR

LED indicator light labeled with proper alarm conditions must identify each alarm event, and a common audible signal must sound for each alarm condition in accordance with NFPA 110. Silencing switch in face of panel must silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Controls to include "Lamp Test" momentary switch wired to illuminate all LED indicator lights regardless of alarm state while switch is on. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated.

BASE

The engine and generator shall be assembled to the base using vibration isolators spring/pad type. Isolators shall include seismic restraints, which comply with seismic zone 4. The generator set base shall be designed and built by the engine-generator manufacturer to resist deflection, maintain alignment, and minimize resonant linear vibration.

BASE TANK

The generator skid base shall contain an integral, UL listed, steel fuel storage tank with diked rupture basin for containment of fuel resulting from a tank rupture or leak. The base tank shall be UL 142 listed for "Steel Above Ground Tanks for Flammable and Combustible Liquids."

The tank shall be manufactured entirely of 8-gauge steel with continuously welded seams and steel channel side beams. The tank shall have leak detection.

Unless otherwise specified, the tank shall be sized for 48 hours of generator operation at full load.

Provide venting of base tank as required by local jurisdiction.

All above ground and exposed piping shall be labeled with contents and flow direction per ANSI A13.1. Label piping every 20' and at bends and penetrations with black letters on yellow background.

Accessories per International Fire Code:

- 5 gal. fuel fill container mounted on a side of the enclosure. Fill to be piped to the fuel fill on the tank.

- Fuel fill tube to be extended inside the tank and terminated within 6" from the bottom.

- 90% high fuel alarm and float switch.

- Normal vent to be extended and terminated 12' above grade.

- Primary and secondary emergency vents to be extended outside of the enclosure.

- Provide a permanent sign posted at the tank documenting filling procedures and tank calibration chart.

BATTERY CHARGER

A dual rate 10-ampere battery charger shall be provided which shall accept 120-volt AC single-phase input to provide 12-volt DC output. It shall be fused on the AC input and DC output, incorporate current limiting circuitry, and include a DC ammeter and voltmeter. The use of a crank disconnect relay to protect the charger during starting is not acceptable. The charger shall be housed in a NEMA 1 enclosure and vibration mounted on the genset.

BATTERIES

12 volt starting batteries; sized as recommended by the generator set manufacturer to comply with the starting and temperature specifications; battery cables, and base mounted battery rack shall be provided. Shall be warranted by the gen set manufacturer.

EXHAUST SILENCER

A critical exhaust silencer providing 26 dba attenuation shall be sized and supplied by the engine supplier. The silencer and associated piping shall not impose more than 27 in H₂O restriction.

The silencer shall utilize a high temperature coating system to prevent rusting and shall be mounted near the engine to minimize noise and condensation. A provision for draining moisture shall be included.

GENERATOR HOUSING

Provide a level 2 sound attenuated enclosure at no more than 70db. at 23' around the complete generator set. Housing shall allow ample cooling air flow. The housing shall be made of heavy gauge, reinforced steel and attach directly to the generator set skid base. Service access to the engine-generator shall be through hinged doors on each side of the housing and a rear hinged door for access to the generator set control panel. Housing shall be corrosion resistant, NEMA 3R and protect from the elements, animal intrusion and unwanted entry.

WIRING AND CONDUIT

Engine and generator control wiring shall be multi-strand annealed copper conductors encased by cross-linked polyethylene insulation resistant to heat, abrasion, oil, water, antifreeze, and diesel fuel. Wiring shall be suitable for continuous use at 120C (250F) with insulation not brittle at -50C (-60F). Each cable will be heat stamped throughout the entire length to identify the cable's origin and termination. Cables shall be enclosed in nylon flexible conduit which is slotted to allow easy access and moisture to escape. Reusable bulkhead fittings will attach the conduit to generator set mounted junction boxes.

GENERATOR PLATFORM

The complete generator set assembly with the 48-hour base tank shall comply with the working clearance and access required by code. If the generator operating components, display and other devices required for operation is above the height restrictions, the generator assembly shall be provided complete with the premanufactured platform and stairs to comply with electrical required access and equipment clearances.

ADDITIONAL LOCAL AUTHORITY REQUIREMENTS

Provide diesel, hazardous-material and no smoking signs with proper wording as required by the local Authority Having Jurisdiction.

Provide a fuel tank exhaust pipe to approximately 15' AFF or as required by the local jurisdiction.

EXECUTION

INSTALLATION/ON SITE TESTING

The installation shall be performed in accordance with shop drawings, specifications, and the manufacturer's instructions; and shall comply with applicable state and local codes.

Equipment shall be installed on concrete housekeeping pads. Equipment shall be permanently fastened to the pad in accordance with manufacturer's instructions and seismic requirements of the site. Bottom of integral base tank shall not be more than 12" above the ground.

The generator set shall be tested as defined below by the manufacturers authorized dealer to show it is free of any defects and will start automatically and carry full load. This testing is to be performed at the jobsite. Testing shall be completed in the presence of the owner's engineer or his appointed representative. With the exception of fuel, all consumables necessary for testing shall be furnished by the bidder. Any defects which become evident during the test, shall be corrected by the bidder at his own expense. Scheduling of tests shall be coordinated with Owner and Engineer with 7 days maximum notice.

Proper operation of the following shall be demonstrated:
All auxiliary equipment supplied to this specification.
Starting and charging system components.
All controls, engine shutdowns, and safety devices

Cold Start Test: The unit shall demonstrate the ability to start from a "cold" standby condition (i.e., normal standby mode with engine coolant temperature at normal temperature established by properly functioning jacket water heater.

Load Bank Test: The unit shall be operated at 80% of full load rating for one hour followed by two hours operation at 100% full load. After the first half-hour stabilization period at full load, the following shall be recorded at fifteen-minute intervals:

Voltage and amperage (3 phase), frequency
Fuel pressure, oil pressure and water temperature
Exhaust gas temperature at engine exhaust outlet
Ambient temperature

Simulated Power Failure Test: Starting of test shall be by simulated power failure. Contractor shall test all components of generator system including transfer switch.

BASE TANK TEST

The following tests shall be observed by the local Fire Prevention Bureau Inspector. It is the contractor's responsibility to coordinate all witness testing with the local authority.

The 90% high fuel alarm and 5 gal. fuel fill container shall be tested for proper operation.
Prior to any filling of combustible or flammable liquids the base tank shall be pressure tested per NFPA 30, Section 2.4.2.

SERVICE MANUALS AND PARTS BOOKS

The system manufacturer's authorized local dealer shall furnish one copy each of the manuals and books listed below for each unit under this contract:

OPERATING INSTRUCTIONS - with description and illustration of all switchgear controls and indicators; and engine and generator controls and indicators.

PARTS BOOKS - that illustrates and list all assemblies, subassemblies and components, except standard fastening hardware (nuts, bolts, washers, etc.).

PREVENTATIVE MAINTENANCE INSTRUCTIONS - on the complete system that cover daily, weekly, monthly, and annual maintenance requirements and include a complete lubrication chart.

ROUTINE TEST PROCEDURES - for all electronic and electrical circuits and for the main AC generator.

TROUBLESHOOTING CHART - covering the complete generator set showing description of trouble, probable cause, and suggested remedy.

RECOMMENDED SPARE PARTS LIST - showing all consumables anticipated to be required during routine maintenance and test.

WIRING DIAGRAMS AND SCHEMATICS - showing function of all electrical components.

END OF SECTION 263213.13

SECTION 323300 - SITE FURNISHINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following site furnishings that are Contractor furnished and installed at the project site:
 - 1. Fixed Bollards
 - 2. Flagpole
 - 3. Ledge Stone Walls
 - 4. Wrought Iron Handrails
 - 5. Basalt Stone Benches
 - 6. Mosaic Tiles
 - 7. Low Voltage Lighting
 - 8. Stamped Concrete
 - 9. Bike Rack
 - 10. Mortared Flagstone
 - 11. Accessories
- B. Related Sections include the following:
 - 1. Division 03 Section "Cast-In-Place Concrete" for site furnishings footings.
 - 2. Division 31 Section "Earth Moving" for subgrade preparation, grading, base course under structures, and drainage course under play surfacing.

1.2 DEFINITIONS

- A. WSDOT: Washington Department of Transportation.
- B. WSDOT "Standard Specifications for Road, Bridge, and Municipal Construction 2025," hereby known as the Standard Specifications.
- C. Owner: Gig Harbor Fire & Medic One.
- D. MUTCD: Manual on Uniform Traffic Control Devices, 11th Edition, effective January 18, 2024.

1.3 QUALITY ASSURANCE

- A. Manufacturing standards: provide each item of equipment as a complete unit produced by a single manufacturer, including fittings, accessories, bases and anchorage devices.
 - 1. Construction: construct each item & ship to the site in minimum sections.
 - 2. Submit manufacturer's shop drawings of all products for approval by Owner's Representative prior to fabrication or supplying. If conflicts arise between shop drawings and the Plans, notify Owner's Representative before proceeding with the Work.
 - 3. Conflicts: Compare manufacturer's shop drawings of all products with the products shown on the Drawings. If conflicts arise between the shop drawings and the Drawings, notify Owner's Representative before proceeding with the Work.
- B. Installer Qualifications: An experienced installer who has specialized in installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer of playground equipment as indicated on the Drawings.

1.4 SUBMITTALS:

- A. Product Data: For each type of product indicated, include construction details, material descriptions, dimensions of individual components and profiles, finishes, field-assembly requirements, anchoring hardware and installation details.
- B. Product Schedule: For site furnishings and play equipment, use same designations indicated on Drawings.
- C. Color Samples: Submit manufacturer's complete color samples for stamped concrete, mortared flagstone and ledgerstone walls for initial color selection and approval by Owner's Representative.

PART 2 - PRODUCTS

2.1 FIXED BOLLARDS

- A. Metal Bollards: Schedule 40 galvanized powder coated steel pipe as follows:
 - 1. 6" nominal size
 - 2. Fill above and below grade pipe sections with concrete or commercial grout
 - 3. Powder Coat Color: Safety Yellow, gloss finish
 - 4. Galvanized prior to powder coating
 - 5. Concrete footing, other install details and height as shown in plans
- B. Reflective Striping Tape: 3M Scotchlite Reflective Striping Tape 79921, White (Silver) 1/2" tape width. Contractor to furnish and install reflective tape as shown in the Plans.
 - 1. Post Anchors for Removable Bollards:

2. 8.625" OD x 0.875" Wall x 6.875" ID seamless steel pipe, 12" length
3. 10" x 10" x 1/8" welded baseplate w/ 3/4" diam. drain hole (on center)
4. 10" x 10" x 1/8" welded top plate w/ 6 7/8" diam. opening (on center)
5. 10" x 10" x 1/8" welded cover plate w/ 7 3/4" diam opening (on center)
6. 7 1/4" x 1/8" cap w/ 2" x 1 1/4" weld-on hinge

2.2 SITE SIGNAGE

- A. Sign Posts: In accordance with Gig Harbor standard drawing 2-43.
- B. Sign Face:
 1. MUTCD R7-8, "RESERVED PARKING", 12-inch x 18-inch
 2. MUTCD R7-8a, "VAN ACCESSIBLE", 12-inch x 6-inch
 3. MUTCD R7-111, "NO PARKING EXCEPT ELECTRIC VEHICLES", 12-inch x 18-inch

~~2.3 FLAGPOLE~~

~~A. American Flagpole Titan Series IWW30D72-SAT (or approved equal).~~

- ~~1. Cone tapered~~
- ~~2. External stainless steel aircraft cable halyard~~
- ~~3. 30' mounting height~~
- ~~4. Two stainless steel flag snaps~~
- ~~5. Aluminum alloy, seamless, directional satin ground finish~~
- ~~6. Heavy duty gold anodized aluminum ball~~
- ~~7. Heavy duty spun aluminum flash collar~~
- ~~8. Sized for two flags as specified~~
- ~~9. Design Wind Load: Pole, base and anchorage devices shall be designed to withstand wind velocities of 130 MPH (LRFD) unflagged.~~

~~B. Flags:~~

- ~~1. Nylon USA Flag—American Flagpole Part Number FLAG-US-03 or appr. equal~~
 - ~~a. Flag shall be outdoor nylon flag and measure 4' x 6'~~
- ~~2. Washington State Flag—American Flagpole Part Number FLAG-WA-03~~
 - ~~a. Flag shall be outdoor nylon flag and measure 4' x 6'~~
 - ~~b. Mounted below USA flag~~

~~C. Accessories:~~

- ~~1. Solar LED Illumination Light~~
 - ~~a. Double Row Solar Flagpole Top Light Model: DRSFPTL~~
 - ~~b. Mounted to top of flagpole, install per manufacturer's written instructions~~
 - ~~c. Website:~~
 - ~~1) <https://www.polepalsolarlightingsystem.com/catalog/p-100077/double-row-solar-flagpole-top-light#.X0QVHehKiUk>~~

2.4 WROUGHT IRON HANDRAILS

- A. Model: Ornamental Grab Rail Posts Only
 1. Height: Per drawings.
 2. Posts: Concrete Set per Manufacturer Recommendation
- B. Manufacturer: Bare Ornamental Iron LLC (or approved equal)
 1. <https://www.bareiron.com/> 253-503-3314

2.5 BASALT STONE BENCHES

- A. Model: Polished Column Bench
 1. Basalt Stone
 2. 6' Length
- B. Manufacturer: Coverall Stone (or approved equal)
 1. <https://www.coverallstone.com/furniture/polished-column-bench/> 800-779-3234

2.6 MOSAIC TILES

- A. Models: Various, Diameters as listed (custom per image and stock models). Install per manufacturer's written instructions, typical.
 1. Nautical Compass (30"): <https://www.mozaico.com/collections/fish-mosaics/products/mosaics-designs-marine-life-nautical-marble-mosaic-medallion-pool-bath-wall-floor-tabletop-sailfish-mm301>
 2. GHFMO Logo Mosaic (30"): Submit picture file to manufacturer listed below for fabrication.
 - a. Images to be provided by owner to contractor for fabrication
- B. Manufacturer: Living Mosaics Mozaico (or approved equal)
 1. <https://www.mozaico.com/>
 2. 773-207-3131

2.7 LOW VOLTAGE LIGHTING

- A. Transformer (Provide model listed, or approved equal):

1. Manufacturer: Alcon Lighting
2. Model: SST75W MULTI-TAP
3. Install per manufacturer's written instructions and local electrical code. Coordinate with electrical contractor.

B. LED Step/Bench Light (Model listed, or approved equal):

1. Manufacturer: Alcon Lighting
2. Model: 14046 LED Step Light
3. Install per manufacturer's written instructions and local electrical code. Coordinate with electrical contractor.

2.8 STAMPED CONCRETE

A. Manufacturer: Glob Marble (or approved equal)

1. <https://globmarble.com/>
2. Install per manufacturer's written instructions.

B. Axe Paved Area

1. Seamless Texture Barn Wood Plank 9" #SKM 5600

C. Irregular Stone

1. Random Stone 29" #SM 1901

D. Colors (**verify all colors with owner prior to procurement**)

1. Tru Tique: Stamped Concrete Colored Power Release Agent (or approved equal)
 - a. <https://globmarble.com/stamped-concrete-colored-powder-release-pail.html>
2. Axe Main Stock Area Color (per plans): Brown Derby
3. Axe Handle Area and Band at Head Color (per plans): Charcoal
4. Axe Head Color: No color, standard broom finish concrete
5. Random Stone: Sand Buff

2.9 BIKE RACK

A. Manufacturer: FairWeather Site Furnishings

1. Color: Galvanized (HDG)

B. Model: BR-1.7 (or approved equal)

2.10 ACCESSORIES

- A. Anchors, Fasteners, Fittings, and Hardware: Stainless Steel Corrosion-resistant-coated or non-corrodible materials; commercial quality; tamperproof, vandal and theft resistant; concealed, recessed, and capped or plugged. Provide as required for site furnishing assembly, mounting, and secure attachment.
- B. Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout for exterior applications as recommended in writing by manufacturer.
- C. Thin-Set Mortar: VersaBond Professional Thin-Set Mortar. Install per manufacturer's written instructions (or approved equal).

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces or conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance.
- B. Notify the Owner's Representative of any conditions detrimental to the proper and timely completion of the work. Do not proceed with installation until unsatisfactory conditions have been corrected and are acceptable to the installer. Notify Owner's Representative for inspection of layout prior to installation.

3.2 INSTALLATION, GENERAL

- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings, where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed. Obtain approval of layout location from Owner's Representative prior to installing.
- C. Install site furnishings level, plumb, true, and securely anchored at locations indicated on Drawings.
- D. Post Setting: Set cast-in support posts in concrete footing with smooth top, shaped to shed water. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at correct angle and are aligned and at correct height and spacing. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
- E. For installing items requiring concrete footings within concrete install item and footing prior to paving. Allow paving to be placed over top of footing. Where this is not feasible, see subparagraph below.
- F. For installing products in sawcut or blocked-out concrete or asphalt paving, match exposed grout, concrete, or asphalt with color and texture of surrounding pavement.
- G. When anchor bolts are exposed after setting of site furnishing, cut tops of bolts flush with nuts and grind to a smooth finish. Apply matching finish.

3.3 FIELD QUALITY CONTROL

- A. Notify Owner's Representative 48 hours in advance of requested final site furnishing inspections date and time.

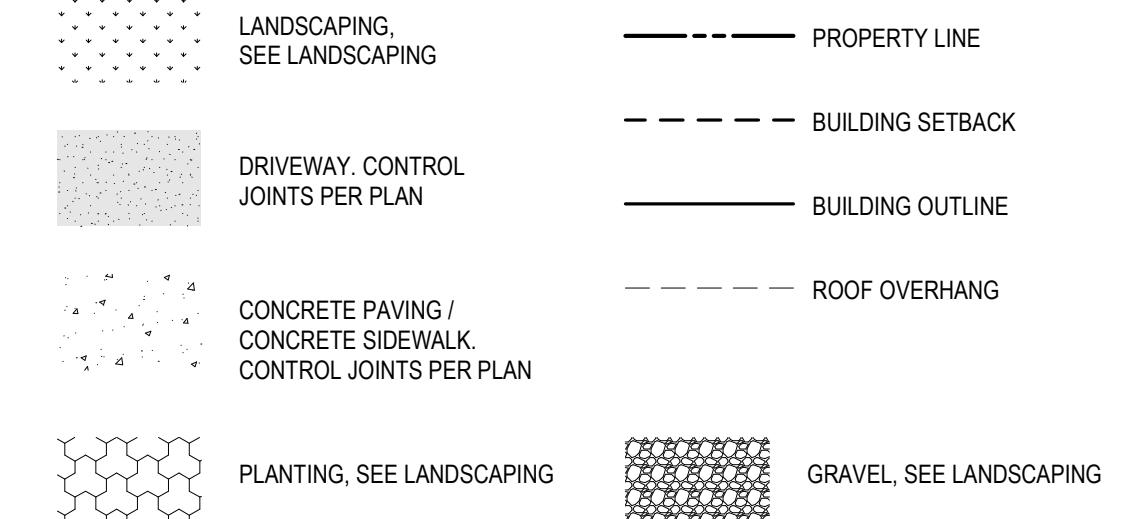
3.4 CLEANING

- A. After completing site furnishing installation, inspect components. Remove spots, dirt, and debris. Repair finishes matching original finish or replace component.

END OF SECTION 323300

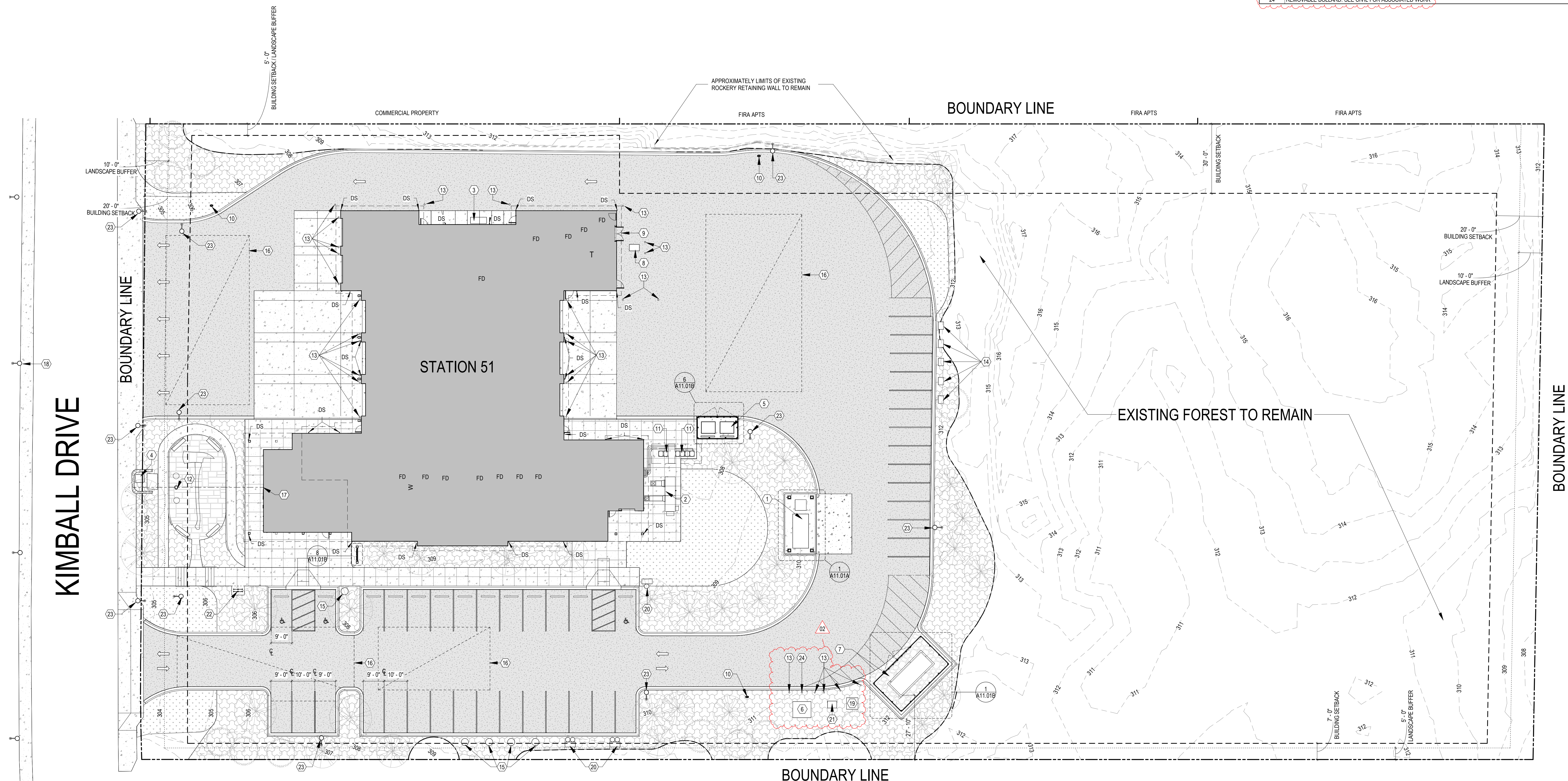
NOTES & LEGEND - SITE PLAN

1. REFERENCE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
2. DOWNSPOUTS CONNECTED TO A BUILDING STORM SEWER SHALL HAVE A CLEANOUT INSTALLED AT THE BASE OF THE OUTSIDE DOWNSPOUT OR OUTSIDE CONDUCTOR, SEE CIVIL



KEY NOTES - SITE PLAN

#	NOTE DESCRIPTION
1	PRE-ENGINEERED FUEL ISLAND CANOPY WITH EXISTING, RELOCATED ABOVE GROUND FUEL TANK & EXISTING DEF TANK SALVAGE & PROTECT THE EXISTING CONCRETE FUEL TANK FOR RELOCATION ON SITE. THE EXISTING DEF TANK WILL BE REMOVED BY OWNER PRIOR TO DEMOLITION/ CONSTRUCTION TO COORDINATE WITH OWNER FOR INSTALLATION BY OWNER.
2	EXISTING DEF TANK TO BE DEMOLISHED BY OWNER ON TYPING OF OWNER PROVIDED AND INSTALLED FUEL DISPENSING AND FUEL MANAGEMENT SYSTEMS. SEE CIVIL & ELECTRICAL FOR ASSOCIATED WORK. FUEL ISLAND CANOPY SYSTEM TO BE BY THE CONTRACTOR UNDER A SEPARATE PERMIT.
3	ENERGY RECOVERY VENTILATOR (ERV), SEE MECHANICAL.
4	GAS METER, SEE PLUMBING
5	VAULT LID, SEE CIVIL
6	TRASH ENCLOSURE, SEE 6A11.01B
7	NEW TRANSFORMER, SEE ELECTRICAL
8	EMERGENCY GENERATOR, SEE ELECTRICAL & STRUCTURAL FOR ASSOCIATED WORK
9	HEAT PUMP WATER HEATER, SEE MECHANICAL
10	LINE OF ROOF OVERHANG EXTENSION, TYP
11	FIRE HYDRANTS, TYP. SEE CIVIL FOR WORK AND LOCATIONS
12	HVAC SYSTEM EQUIPMENT, SEE MECHANICAL
13	FLAGPOLE, SEE DETAIL 2A11.01B
14	BOLLARDS, TYP. SEE CIVIL FOR ASSOCIATED WORK
15	EV CAPABLE PARKING SPACE, SEE ELECTRICAL FOR ASSOCIATED WORK
16	EV READING STALL, SEE ELECTRICAL FOR ASSOCIATED WORK
17	UNDERGROUND STORM WATER DETENTION SYSTEM, SEE CIVIL
18	CENTERLINE OF LOWER PORTION OF THE FACADE
19	KIMBALL DRIVE STREET LIGHTING UPGRADE, SEE ELECTRICAL
20	AUTOMATIC TRANSFER SWITCH, SEE ELECTRICAL FOR ASSOCIATED WORK
21	EV CHARGING STATION, SEE ELECTRICAL FOR ASSOCIATED WORK
22	NEW DOUBLE CHECK VALVE ASSEMBLY, SEE CIVIL AND ELECTRICAL FOR ASSOCIATED WORK
23	BIKE RACK, SEE CIVIL FOR CONCRETE PAD, SEE LANDSCAPE FOR BIKE RACK.
24	LIGHT POLE, SEE ELECTRICAL
25	REMOVABLE BOLLARD, SEE CIVIL FOR ASSOCIATED WORK



1 SITE PLAN
1" = 20'-0"
0 10' 20' 40'

RICE*fergus***MILLER**
ARCHITECTURE INTERIORS PLANNING VIZLAB
275 FIFTH STREET, SUITE 100
BREMERTON, WA 98337
360-377-8773
RFMARCH.COM

22020863
REGISTERED
ARCHITECT
GUNNAR R. GLADICS
STATE OF WASHINGTON

GIG HARBOR FIRE STATION 51
GIG HARBOR FIRE & MEDIC ONE
6711 KIMBALL DRIVE
GIG HARBOR, WA 98335

[illegible]

SITE PLAN

SHEET #

A11.01

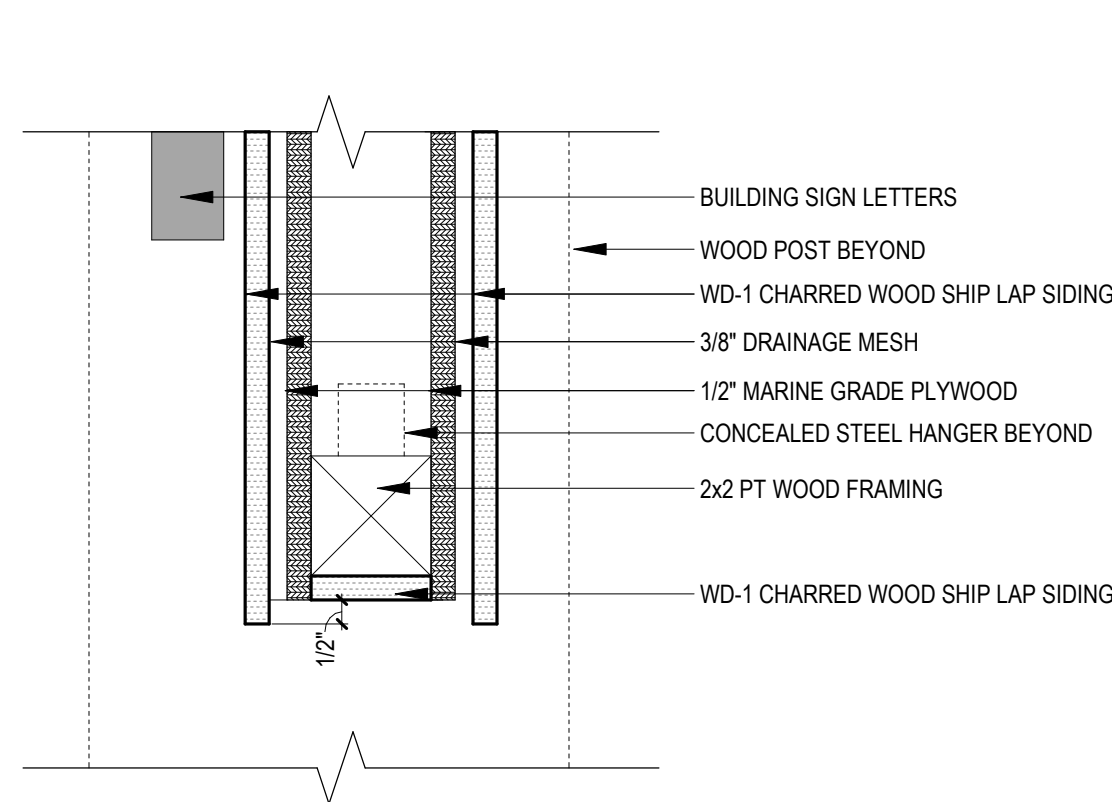
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BID SET	
ISSUE DATE	AUGUST 15, 2025
REVISION SCHEDULE	
02 ADDENDUM #02	9/12/2025

AHJ APPROVAL STAMP

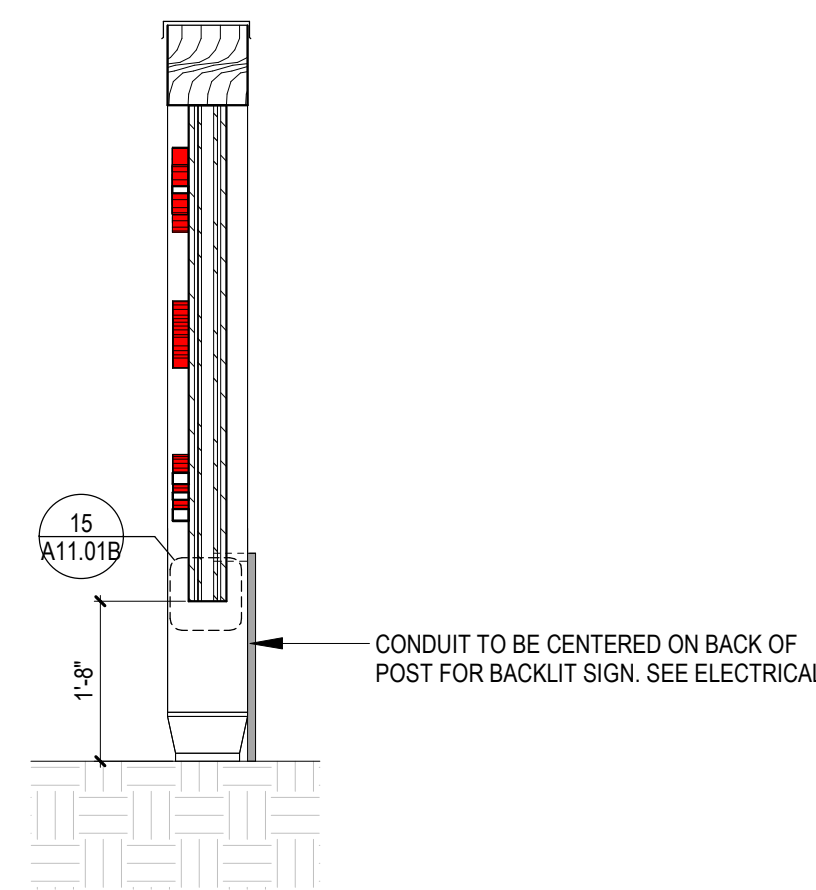
SITE DETAILS

SHEET #

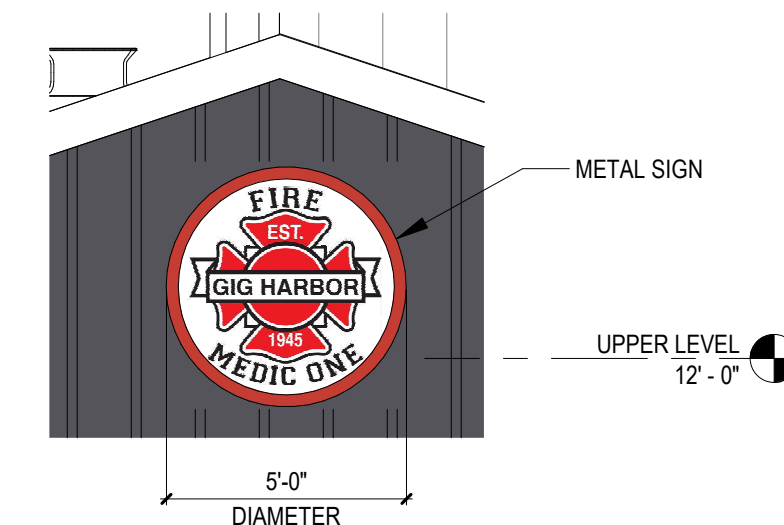
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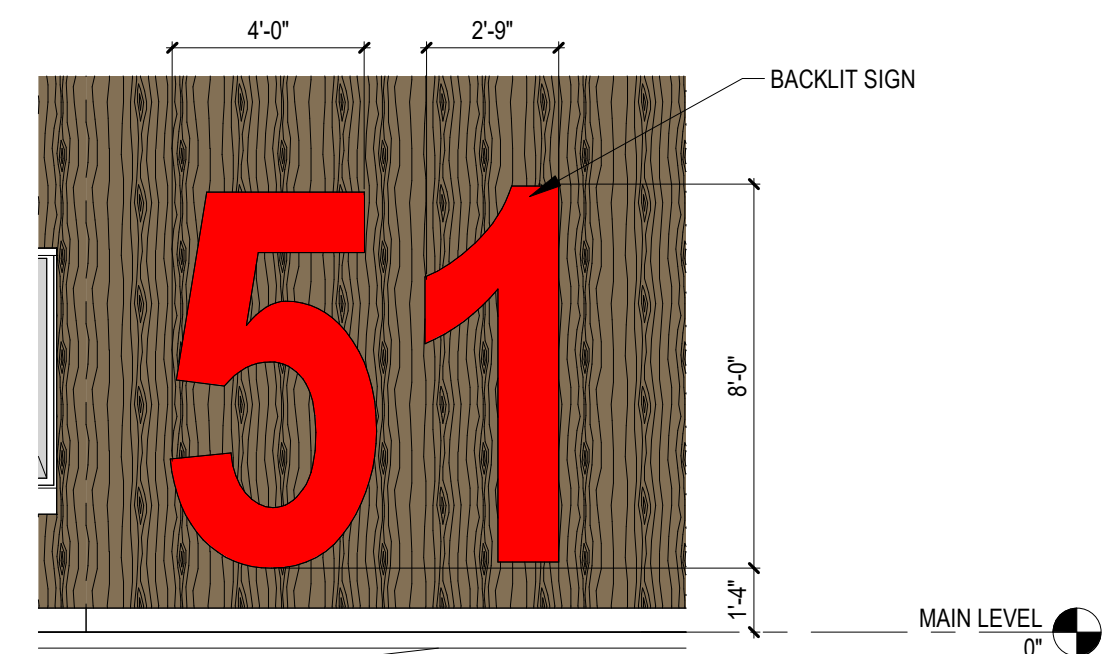
15 SECTION DETAIL - BUILDING SIGN
3\"/>



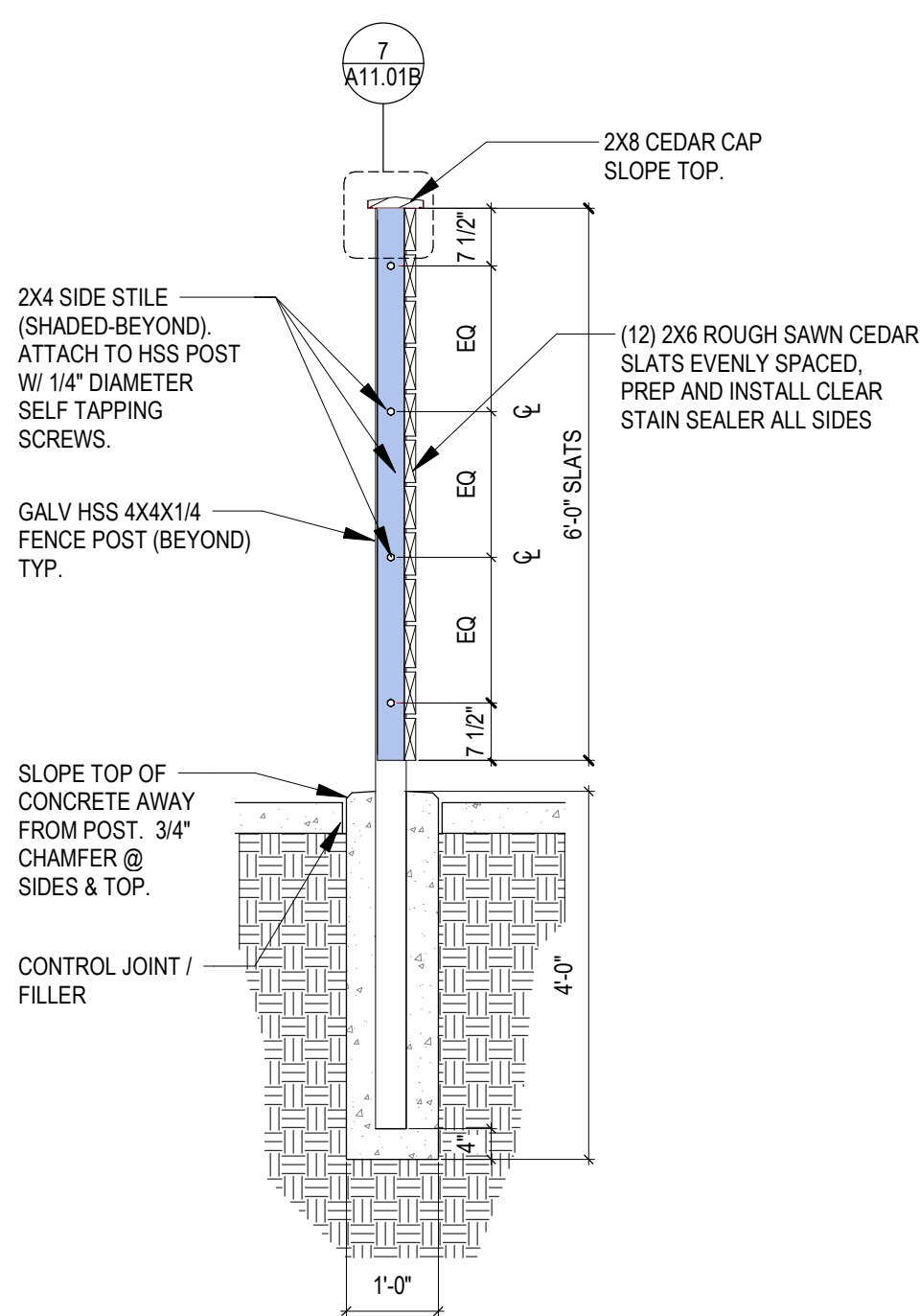
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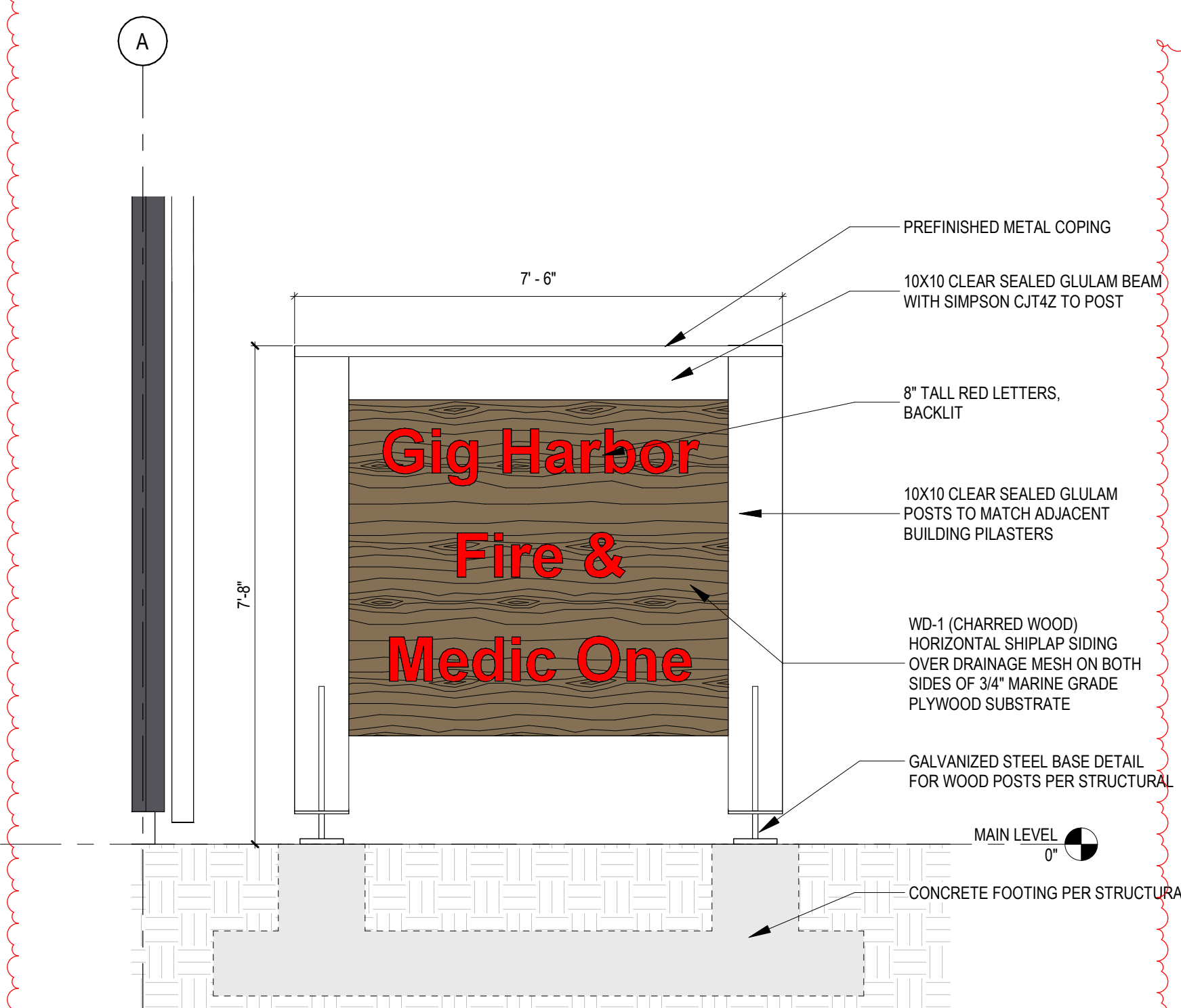
13 EXTERIOR ELEVATION - APP BAY SIGN
1/4\"/>



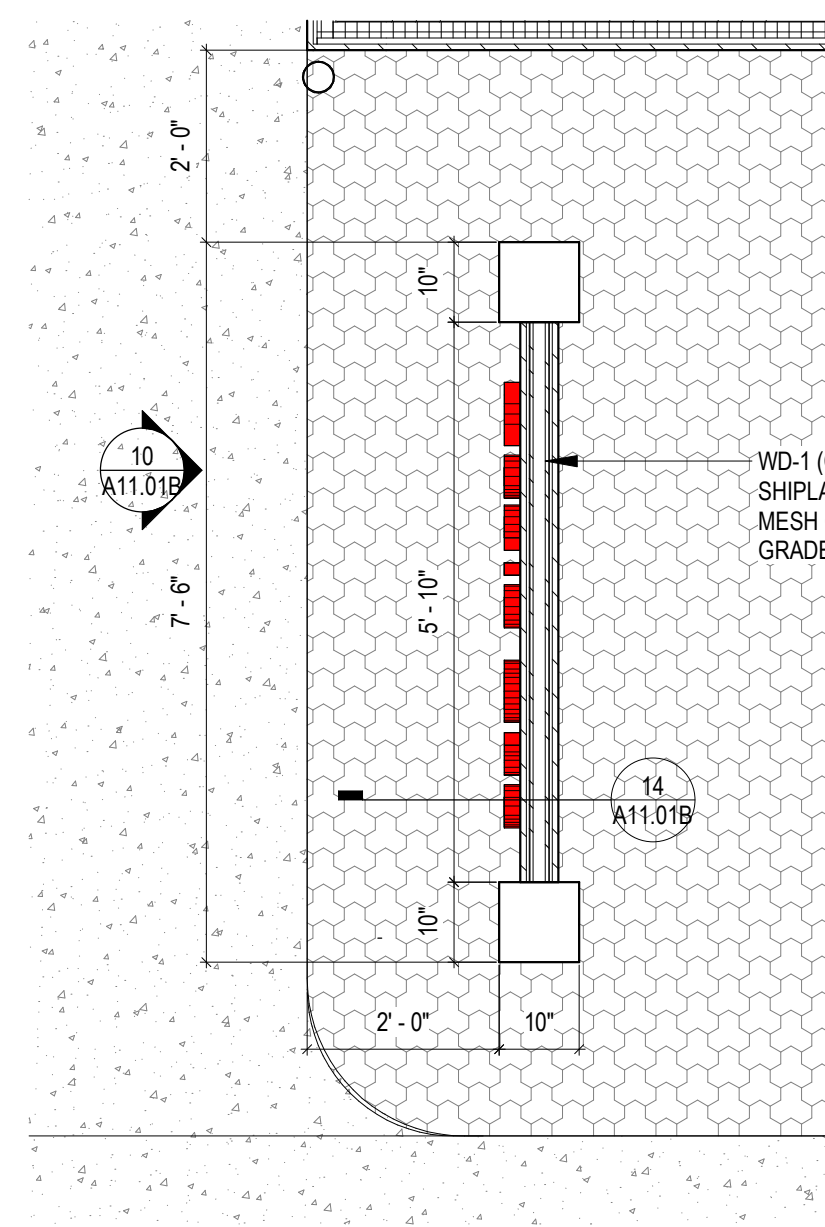
12 EXTERIOR ELEVATION - 51 SIGN
1/4\"/>



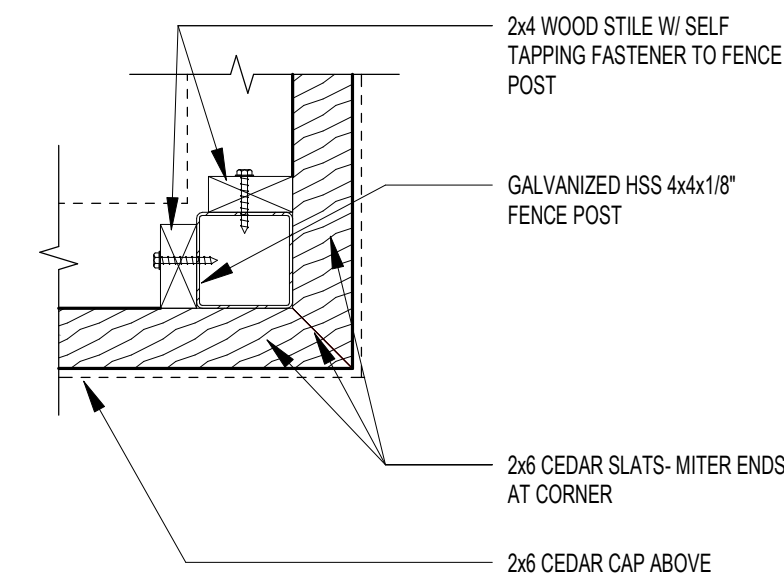
11 WOOD ENCLOSURE SECTION
1/2\"/>



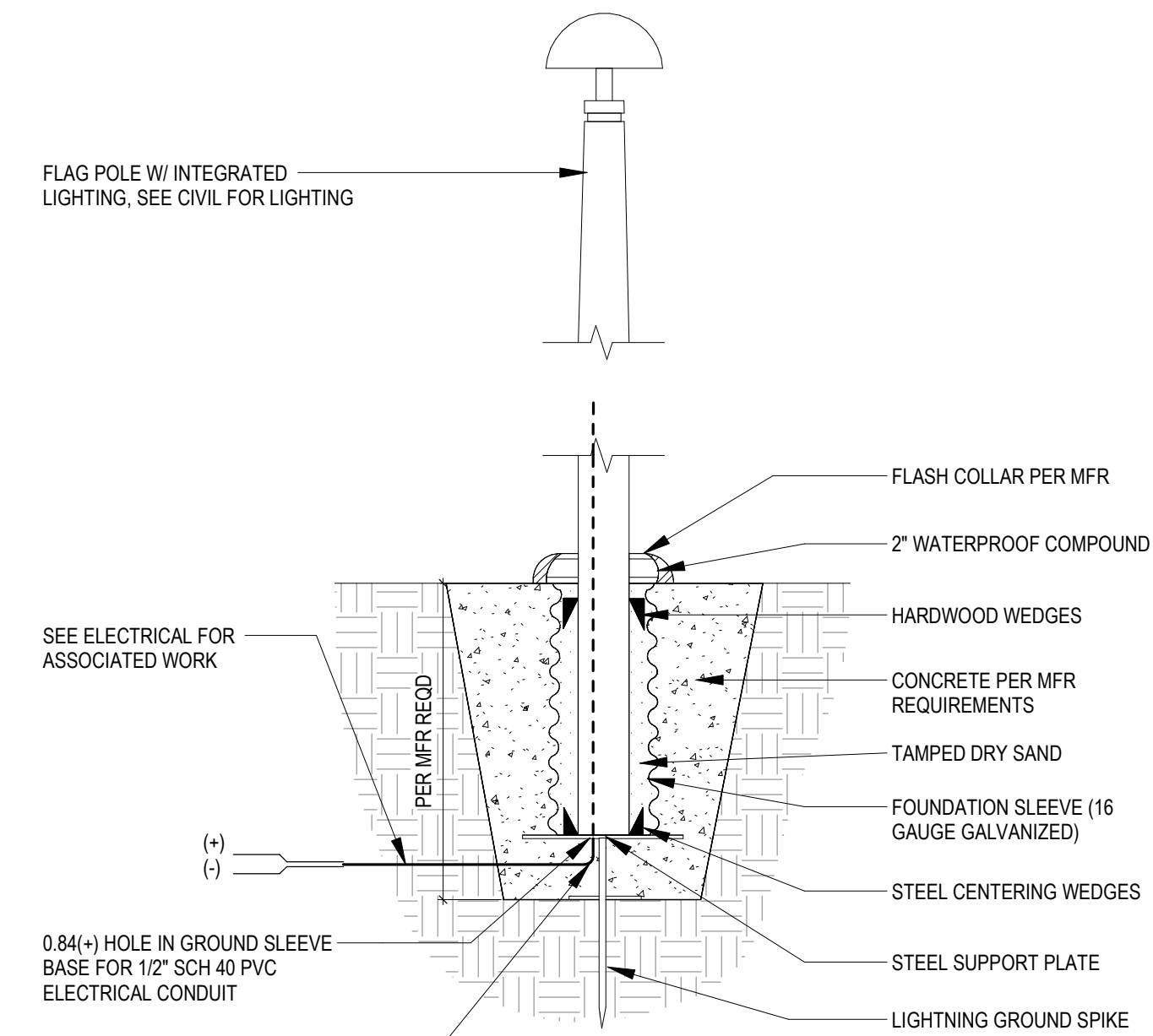
10 EXTERIOR ELEVATION - BUILDING SIGN
1/2\"/>



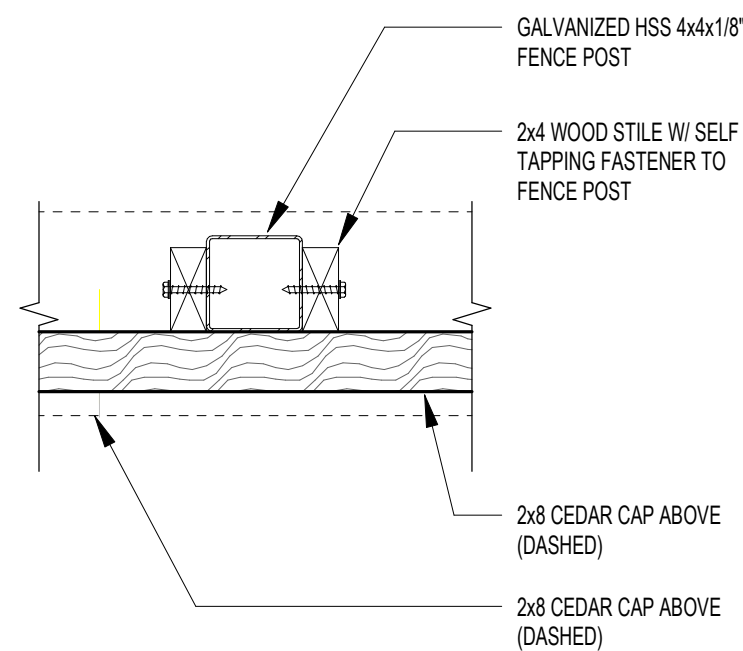
8 ENLARGED PLAN - BUILDING SIGN
1/2\"/>



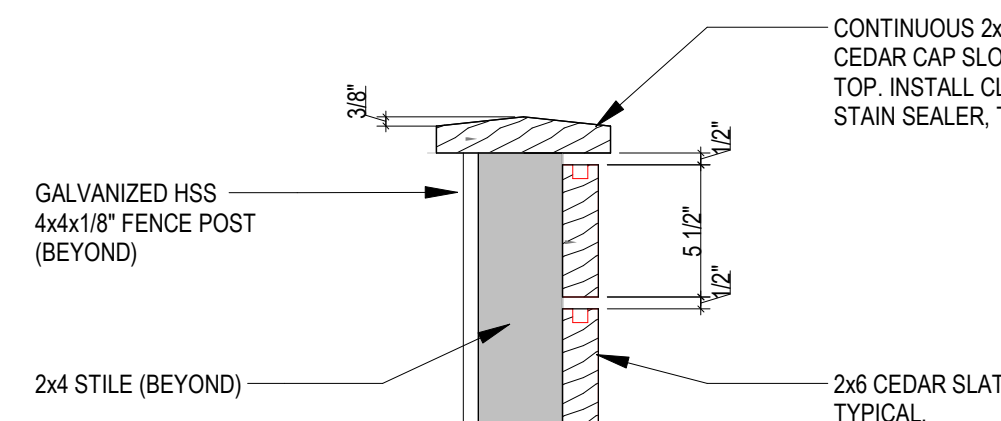
5 DETAIL @ ENCLOSURE CORNER POST
1 1/2\"/>



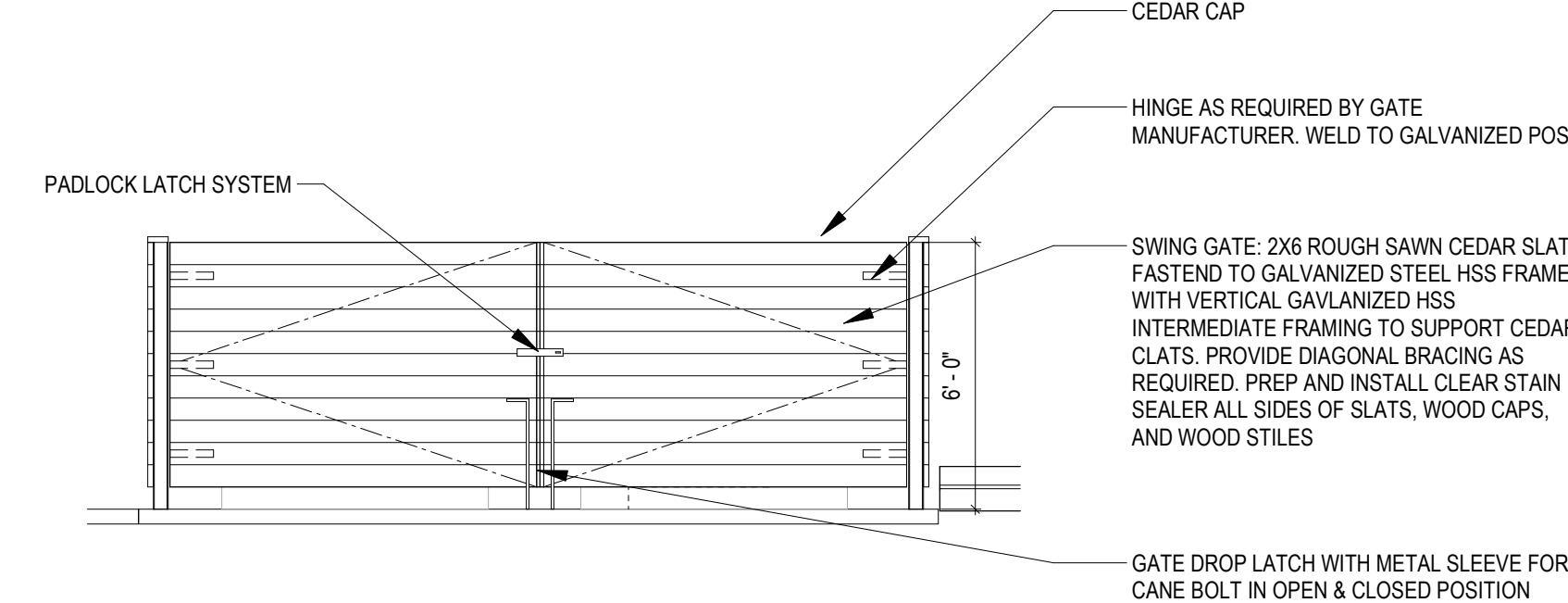
2 FLAG POLE SECTION
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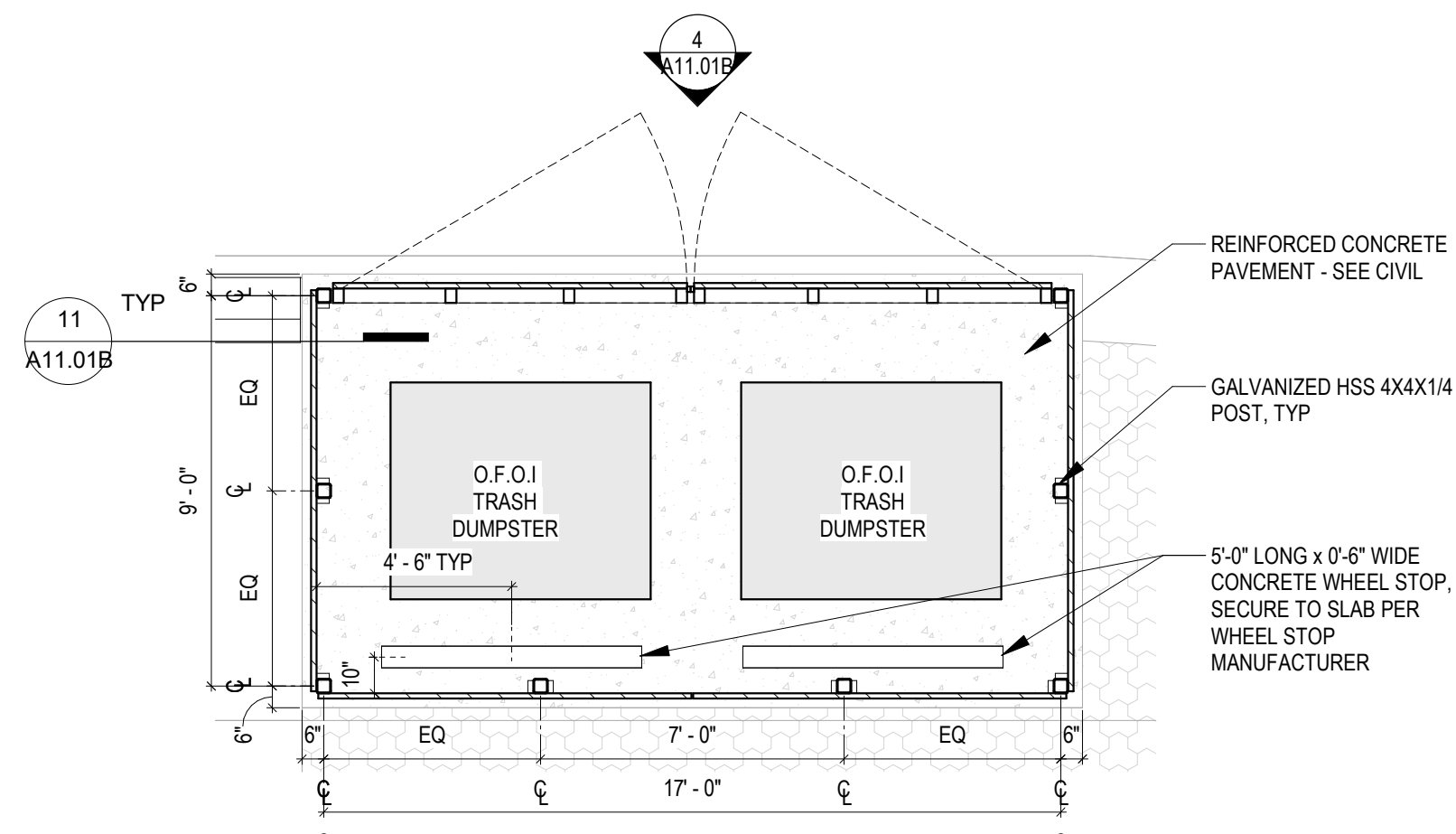
9 DETAIL @ ENCLOSURE POST
1 1/2\"/>



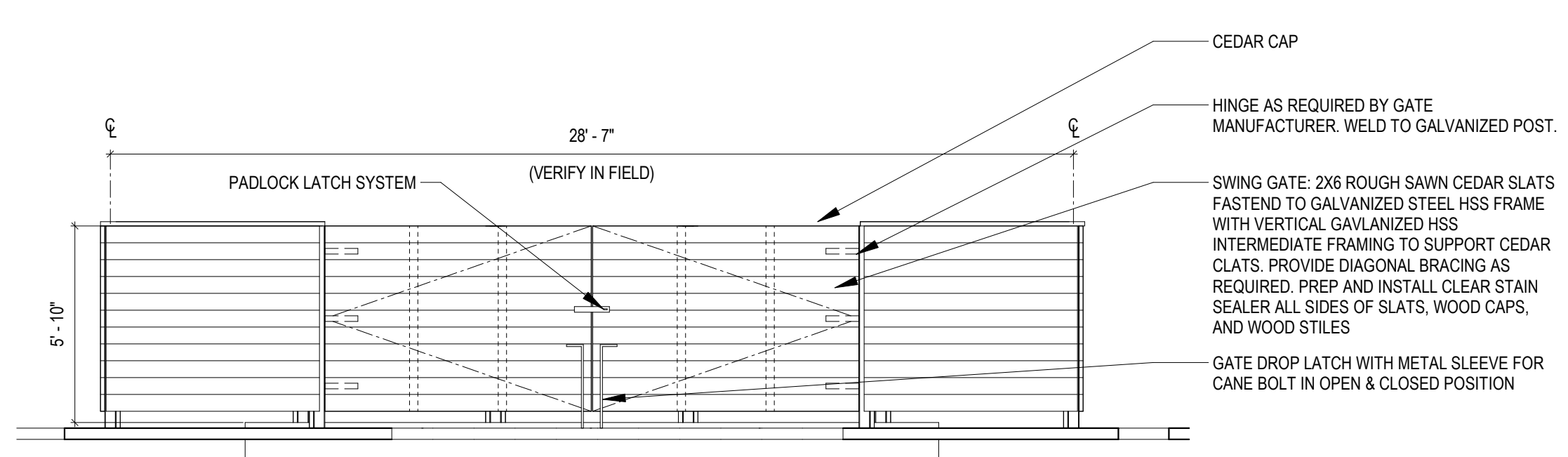
7 ENCLOSURE POST CAP SECTION
1 1/2\"/>



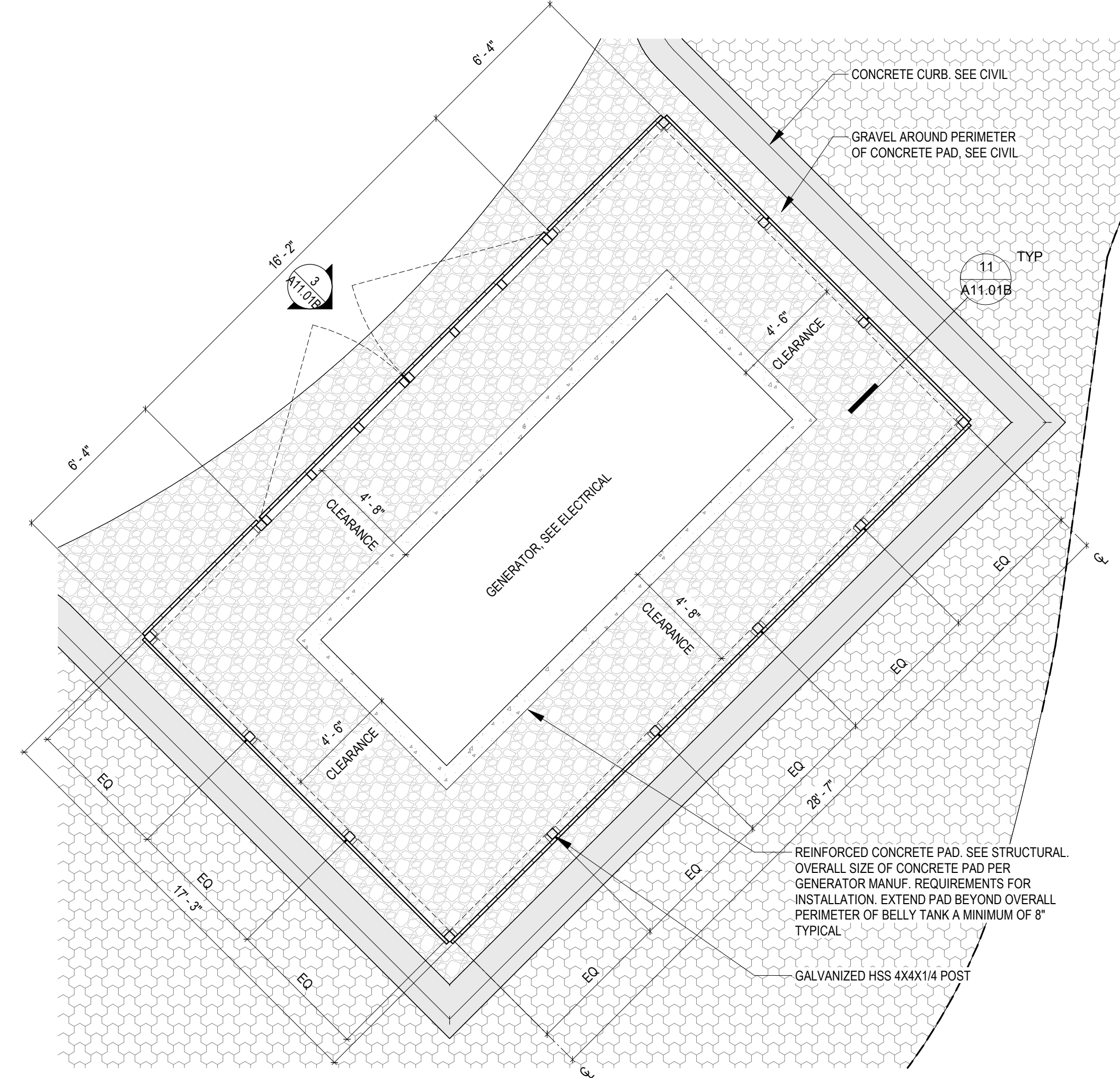
4 EXTERIOR ELEVATION - NORTH - TRASH ENCLOSURE
1/4\"/>



6 ENLARGED PLAN - TRASH ENCLOSURE
1/4\"/>



3 EXTERIOR ELEVATION - NORTH - GENERATOR
1/4\"/>



1 ENLARGED PLAN - GENERATOR
1/4\"/>

02	CONC-2	TROWELED AND SEALED CONCRETE	TYP IN APP BAY AND SUPPORT SPACES
	CPT-1	CARPET TILE	
	CPT-2	CARPET TILE	
	F-1	DECORATIVE FILM	TRAINING ROOM CEILING GRAPHIC
	LAM-1	HIGH PRESSURE LAMINATE	PER ELEVATIONS
	LAM-2	HIGH PRESSURE LAMINATE	PER ELEVATIONS
02	MB-1	STAINLESS STEEL WALL BASE	WALL AND CEILING PAINT, TYP UNO
	P-1	INTERIOR PAINT	

SST-1	STAINLESS STEEL COUNTER	APP BAY
ST-1	WOOD DOOR STAIN	MATCH LAM-1
T-1	PORCELAIN FLOOR TILE	12" X 24"
T-2	PORCELAIN TILE BASE	6" X 12"
T-3	CERAMIC WALL TILE	12" X 12"
T-4	CAST METAL WALL TILE	KITCHEN BACKSPLASH
WD-1	WOOD CEILING / EXTERIOR SOFFIT	SELECT EXTERIOR LOCATIONS, PER R/C
WD-2	SOLID WOOD TRIM	CVG FR. CLEAR FINISH. NO EXPOSED STAMPS ROUND-OVER ON EDGES
WDC-1	WOOD CEILING	
WDC-2	WOOD REGULAR CEILING 2X2	FIBERGLASS INFILL
WDC-3	WOOD REGULAR CEILING 1X4	FIBERGLASS INFILL

1. WALL FINISHES TRANSITION AT INSIDE CORNERS UNC
2. ALIGN FLOORING TRANSITIONS WITH DOOR LEAF UNC



GIG HARBOR FIRE STATION 51
GIG HARBOR FIRE & MEDIC ONE
6711 KIMBALL DRIVE
GIG HARBOR, WA 98335

AHJ APPROVAL STAMP

FINISH PLAN & SCHEDULE - MAIN LEVEL

SHEET #

A23.01

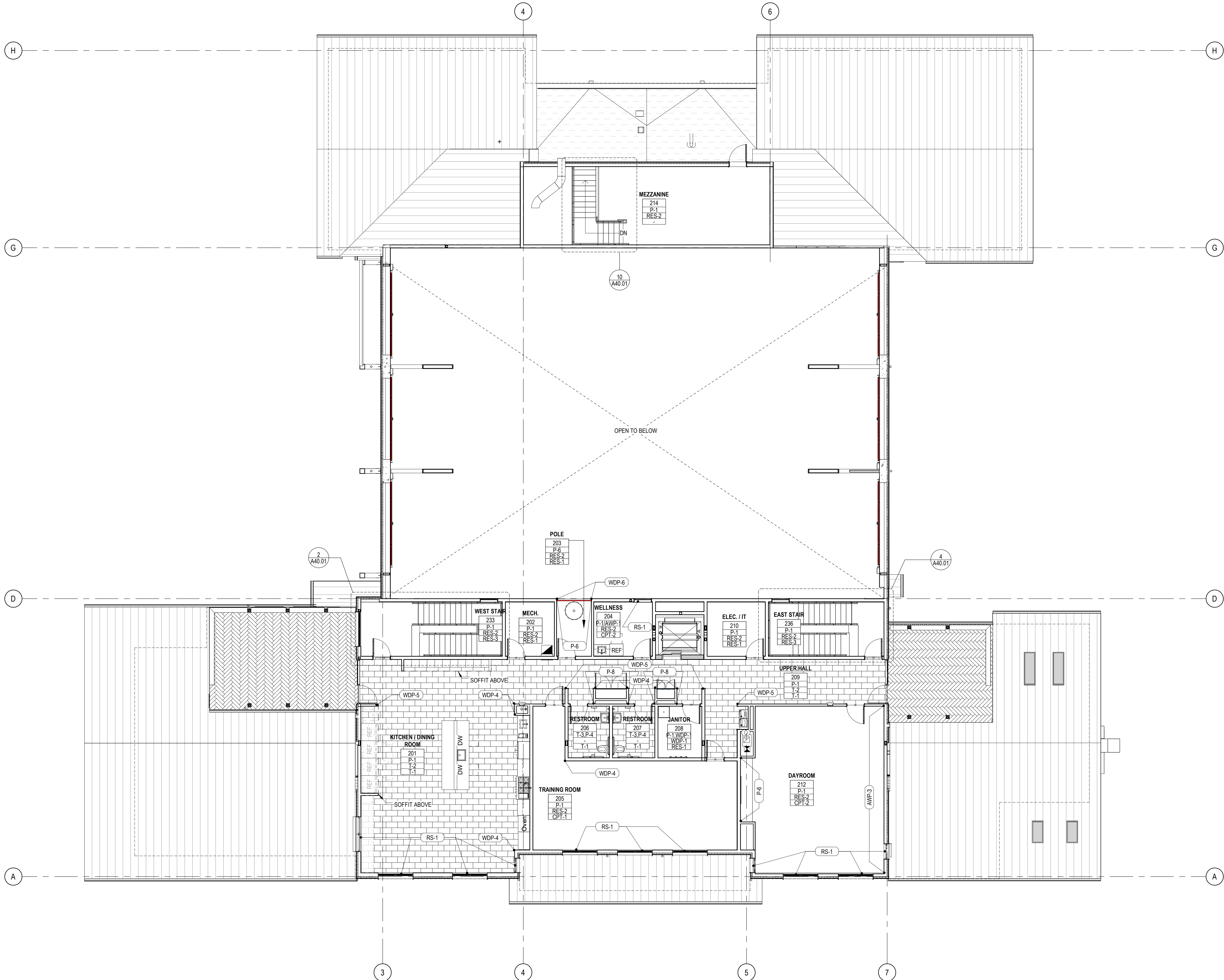
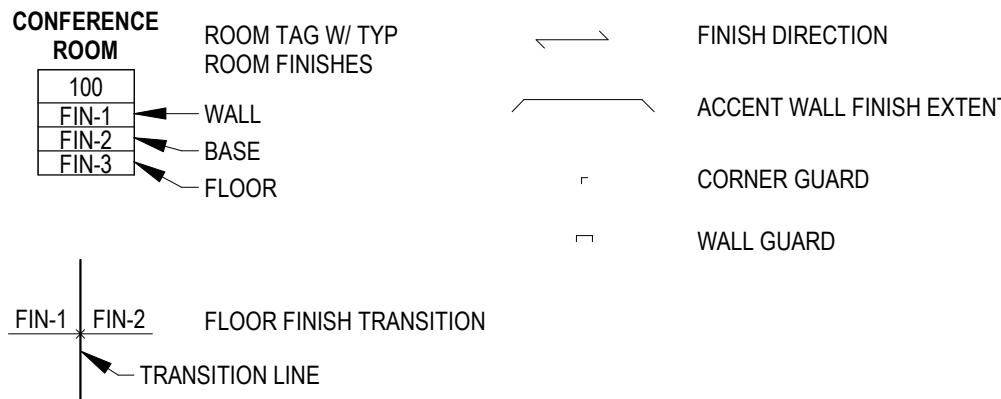
INTERIOR FINISH SCHEDULE		
TAG	MATERIAL	NOTES
ACP-1	ACOUSTICAL CEILING PANEL (WOOD CLAD)	TO FIT SNUGLY BETWEEN EXPOSED JOISTS
ACP-2	ACOUSTICAL CEILING PANEL (GRAY)	TO FIT SNUGLY BETWEEN EXPOSED JOISTS
ACT-1	ACOUSTIC CEILING TILE	PER RCP
AWP-1	WALL COVERING	WELLNESS ROOM
AWP-2	WALL COVERING	SLEEP ROOM ACCENT WALL
AWP-3	WALL COVERING	DAYROOM
CONC-1	POLISHED CONCRETE	TYP IN LIVING QUARTERS AND ADMIN WING
CONC-2	TROWELED AND SEALED CONCRETE	TYP IN APP BAY AND SUPPORT SPACES
CPT-1	CARPET TILE	
CPT-2	CARPET TILE	
FT-1	DECORATIVE FILM	TRAINING ROOM CEILING GRAPHIC
LAM-1	HIGH PRESSURE LAMINATE	PER ELEVATIONS
LAM-2	HIGH PRESSURE LAMINATE	PER ELEVATIONS
MB-1	STAINLESS STEEL WALL BASE	
P-1	INTERIOR PAINT	WALL AND CEILING PAINT, TYP UNO
P-2	INTERIOR PAINT	WALL AND CEILING PAINT IN ALL RESTROOMS, LAUNDRY, AND JANITOR CLOSETS
P-3	INTERIOR PAINT	HM DOOR FRAMES AND OTS CEILINGS PER RCP
P-4	INTERIOR PAINT	ACCENT WALL AND CEILING PAINT PER FINISH PLAN AND RCP
P-5	INTERIOR PAINT	NOT USED
P-6	INTERIOR PAINT	DAYROOM ACCENT PAINT
P-7	INTERIOR PAINT	HM DOORS & FRAMES
P-8	INTERIOR PAINT	APP BAY BL FOLD DOORS
PLY-1	PLYWOOD WALL PANEL	CLEAR SEALER/FINISH

INTERIOR FINISH SCHEDULE		
TAG	MATERIAL	NOTES
QIZ-1	QUARTZ COUNTERTOP	COUNTERTOPS, TYP UNO
QIZ-2	QUARTZ COUNTERTOP	DAYROOM
RES-1	RESILIENT FLOOR TILE	PER FINISH PLAN
RES-2	RUBBER BASE	
RES-3	RUBBER STAIR TREADS, RISERS & STRINGERS	
RES-4	RUBBER ATHLETIC FLOOR	
RS-1	LIGHT FILTERING WINDOW SHADE	
RS-2	BLACKOUT WINDOW SHADE	SIDE CHANNELS
SOL-1	SOLID SURFACE	WINDOW SILLS
SOL-2	SOLID SURFACE	
SST-1	STAINLESS STEEL COUNTER	APP BAY
ST-1	WOOD DOOR STAIN	MATCH LAM-1
T-1	PORCELAIN FLOOR TILE	12" X 24"
T-2	PORCELAIN TILE BASE	8" X 12"
T-3	CERAMIC WALL TILE	10" X 14"
T-4	CAST METAL WALL TILE	KITCHEN BACKSPLASH
WD-1	WOOD CEILING / EXTERIOR SOFFIT	SELECT EXTERIOR LOCATIONS, PER RCP
WD-4	SOLID WOOD TRIM	CVG FIR, CLEAR FINISH, NO EXPOSED STAMPS, ROUNDOVER ON EDGES
WDC-1	WOOD CEILING	
WDC-2	WOOD TEGULAR CEILING 2X2	FIBERGLASS INFILL
WDC-3	WOOD TEGULAR CEILING 1X4	FIBERGLASS INFILL

INTERIOR FINISH SCHEDULE		
TAG	MATERIAL	NOTES
WDP-1	RIGID REINFORCED WALLCOVERING	INSTALL VERTICALLY PER FINISH PLAN
WDP-2	RIGID REINFORCED WALLCOVERING	INSTALL HORIZONTALLY PER FINISH PLAN
WDP-3	RIGID REINFORCED WALLCOVERING	INSTALL VERTICALLY PER FINISH PLAN
WDP-4	CORNER GUARD	
WDP-5	END GUARDS	INSTALL ABOVE WALL BASE
WDP-6	CORNER GUARDS	SEE DETAIL
WDP-7	END GUARDS	SEE DETAIL
WOM-1	CARPET	

NOTES & LEGEND - FINISH PLAN

- WALL FINISHES TRANSITION AT INSIDE CORNERS UNO.
- ALIGN FLOORING TRANSITIONS WITH DOOR LEAF UNO.



1 FINISH PLAN - UPPER LEVEL

1/8" = 1'-0"

PROJECT #	2022011
BID SET	
ISSUE DATE	AUGUST 15, 2025
REVISION SCHEDULE	
02 ADDENDUM #02	9/12/2025

AHJ APPROVAL STAMP

FINISH PLAN &
SCHEDULE - UPPER
LEVEL

SHEET #

A23.02

NOTES & LEGEND - EXTERIOR ELEVATION

1. GRAPHIC REPRESENTATION OF EXTERIOR MATERIALS AND/OR LIGHTING MAY BE NOT TO SCALE.
2. ALL METAL WINDOW TRIM AND EXTERIOR WALL BASE METAL TO MATCH COLOR "GALVALUME"
3. ALL METAL COPING, FASCIA TRIM AND FLASHING TO MATCH PAINT COLOR P-7
4. ALL METAL DOWNSPOUTS AND GUTTERS TO MATCH PAINT COLOR P-7
5. TYPICAL PERFORATED METAL PANEL, MANHOLLS, STAINLESS STEEL, TYPE 304, 16 GAUGE, 1/4" ROUND ON 5/16" STAGGERED CENTERS, 58% OPEN AREA.

CMT-1 - FIBER CEMENT BOARD & BATTEN SIDING

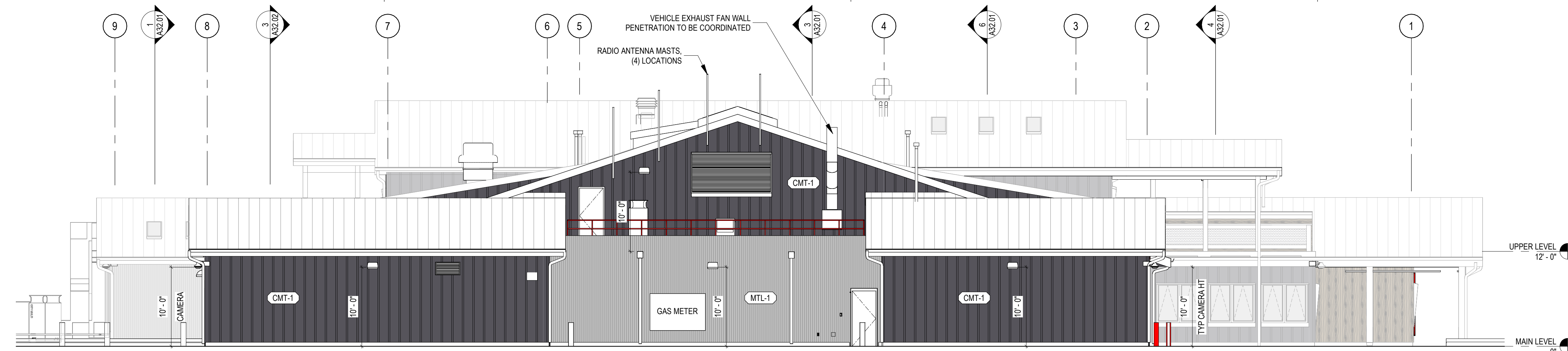
MTL-1 - PROFILE METAL PANEL SIDING

EXTERIOR LIGHTING, SIZES VARY - SEE ELEC

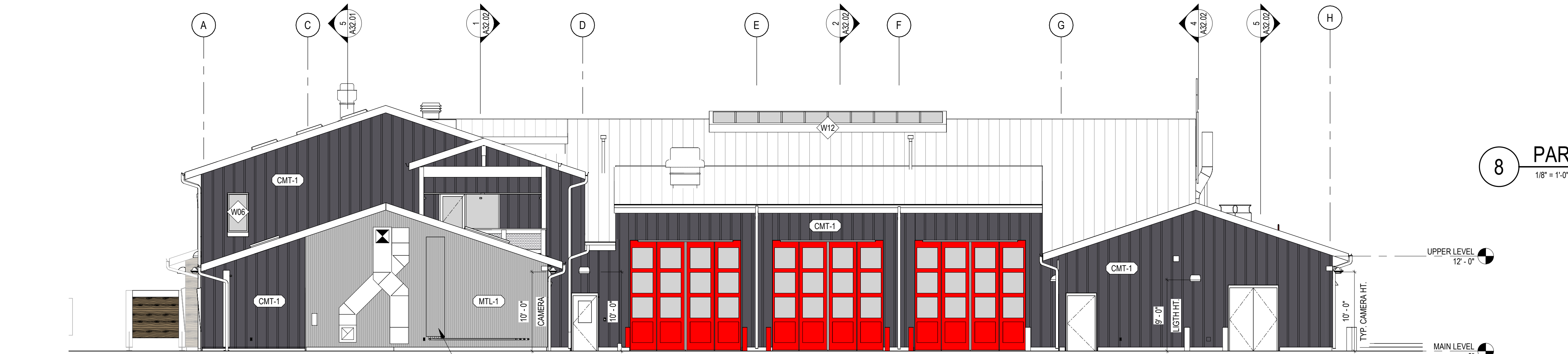
WD-1 - CHARRED WOOD HORIZONTAL SHIPLAP SIDING

PERFORATED METAL

LOUVER, SIZES VARY SEE MECH



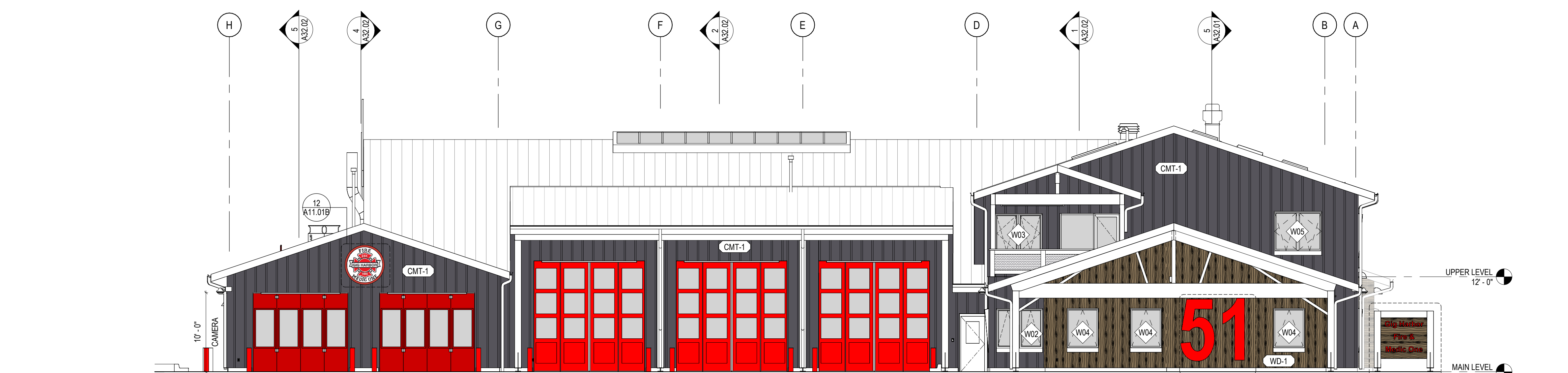
4 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"



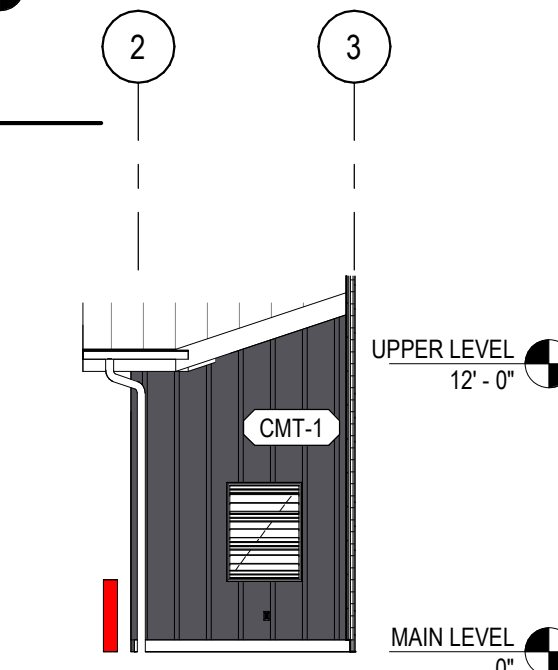
3 EXTERIOR ELEVATION - EAST
1/8" = 1'-0"



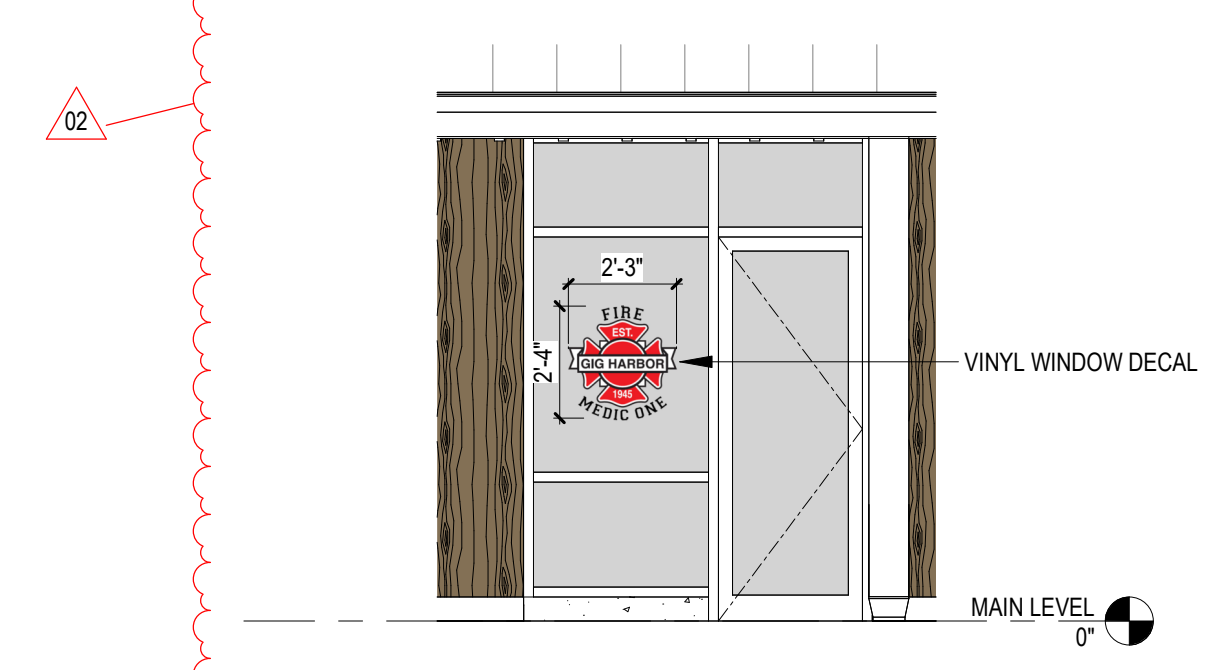
2 EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"



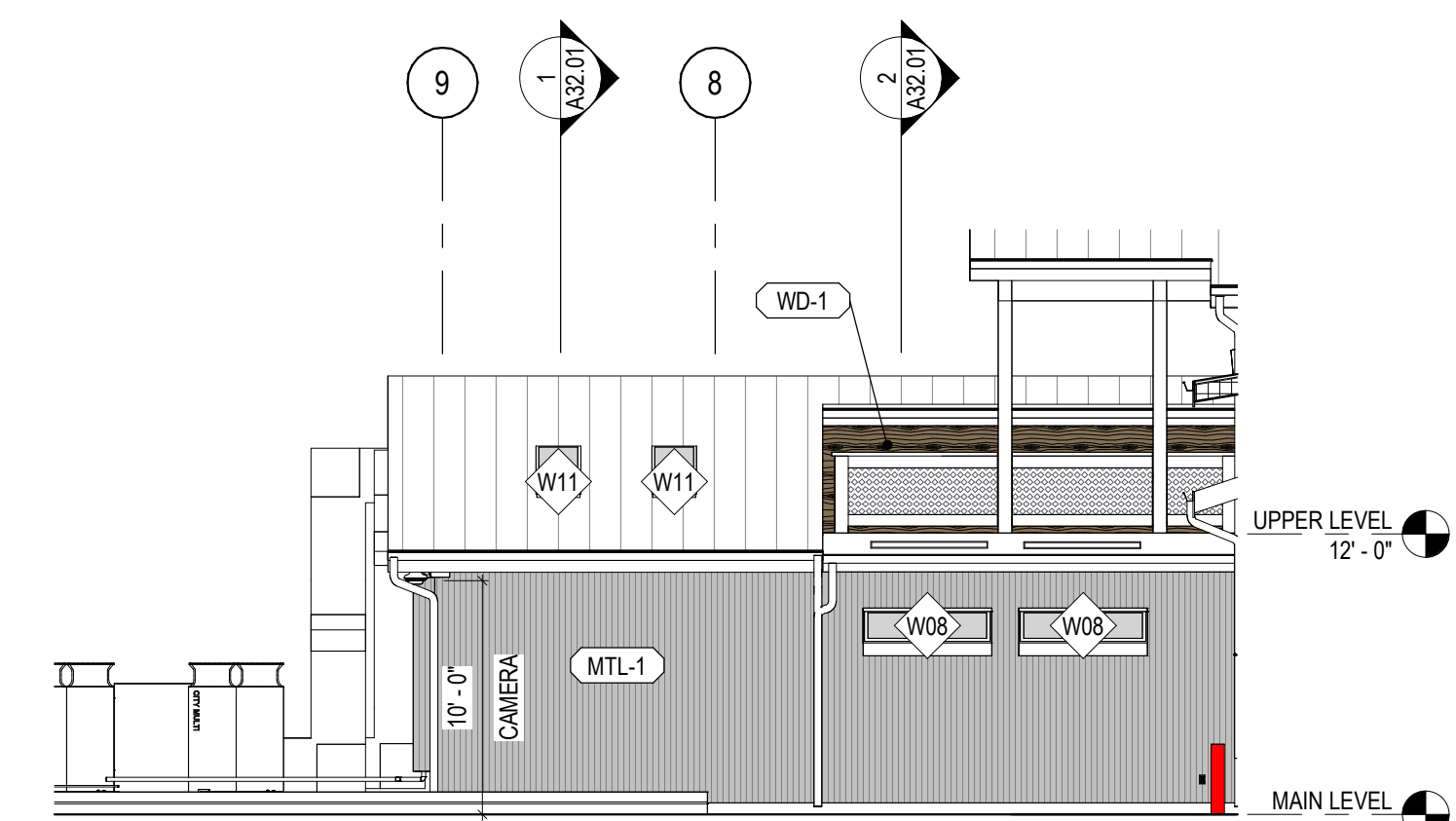
1 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



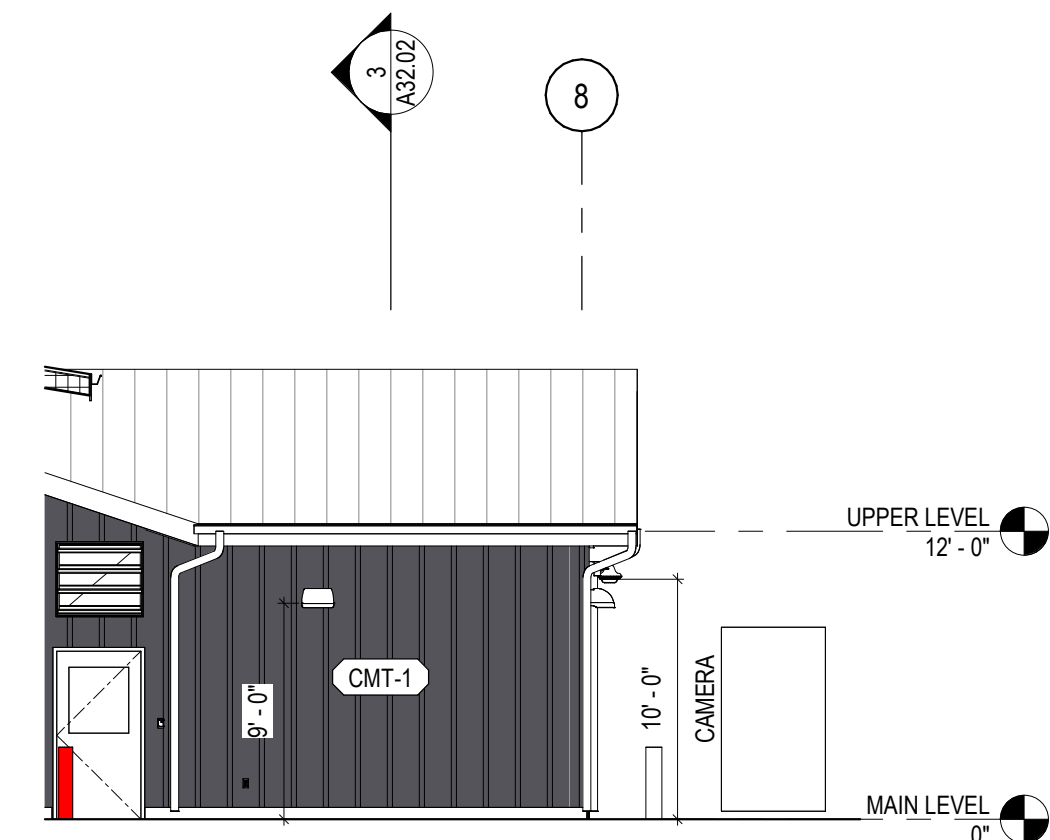
8 PARTIAL EXTERIOR ELEVATION - SOUTH 2
1/8" = 1'-0"



9 SOUTH ELEVATION - DOOR SIGN
1/4" = 1'-0"



5 PARTIAL EXTERIOR ELEVATION - NORTH 1
1/8" = 1'-0"



7 PARTIAL EXTERIOR ELEVATION - SOUTH 1
1/8" = 1'-0"



6 PARTIAL EXTERIOR ELEVATION - NORTH 2
1/8" = 1'-0"

GIG HARBOR FIRE STATION 51
GIG HARBOR FIRE & MEDIC ONE
6711 KIMBALL DRIVE
GIG HARBOR, WA 98336

PROJECT # 2022011

BID SET

ISSUE DATE AUGUST 15, 2025

REVISION SCHEDULE		
01	ADDENDUM #01	9/5/2025
02	ADDENDUM #02	9/12/2025

AHJ APPROVAL STAMP

EXTERIOR
ELEVATIONS

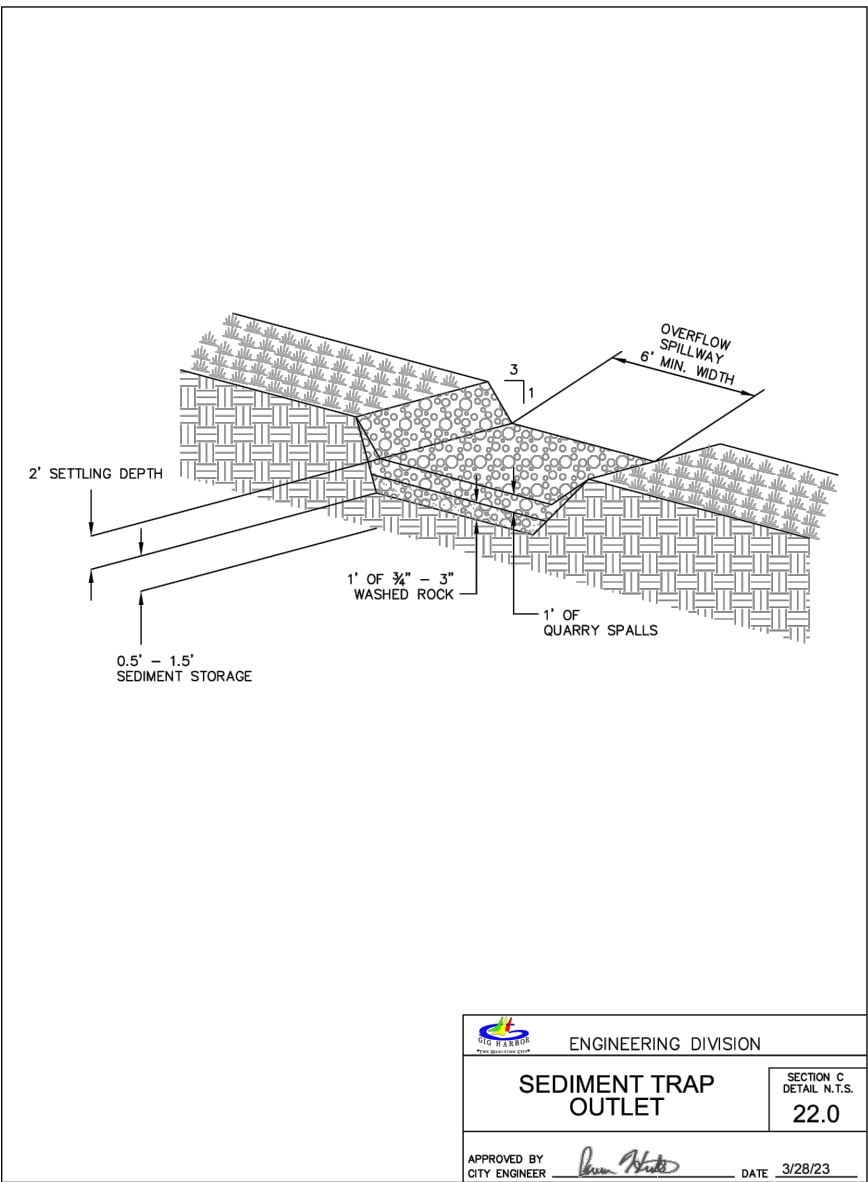
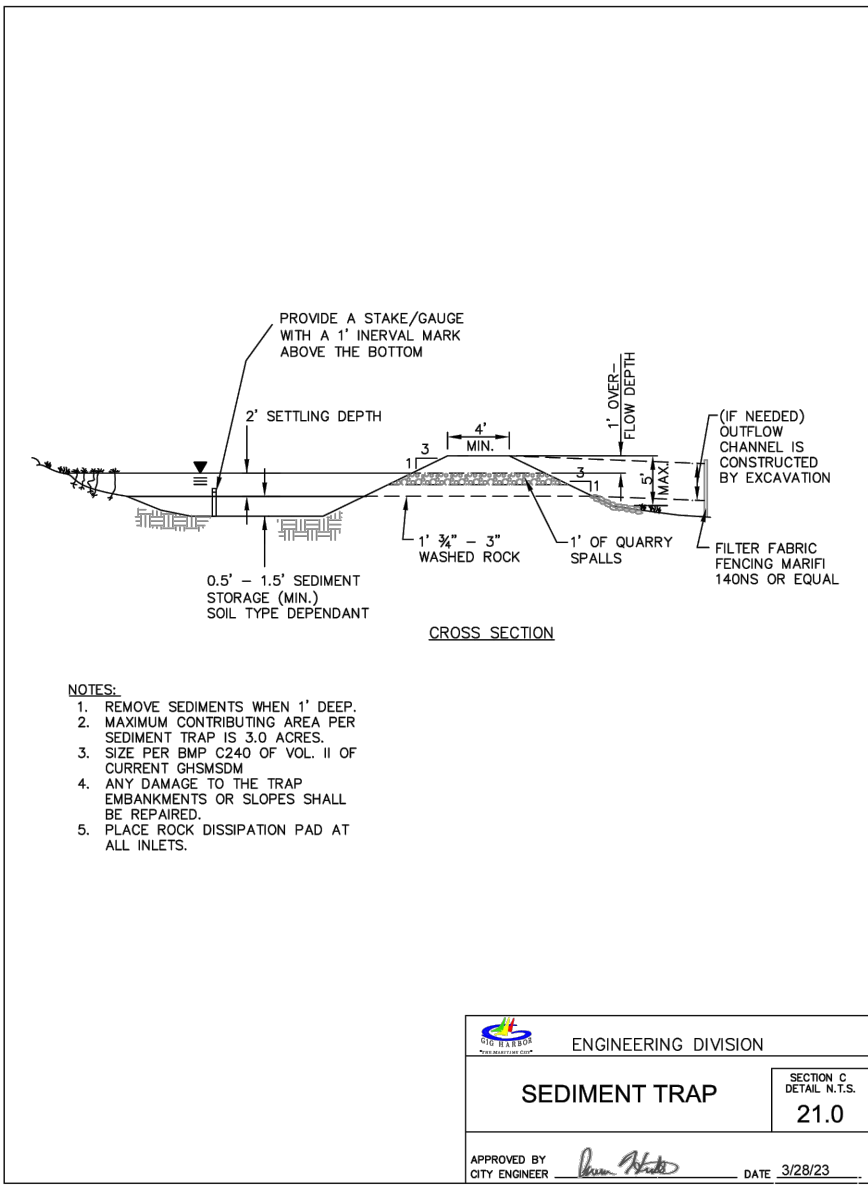
SHEET #

A31.01

GENERAL NOTES:
THESE PLANS REFLECT THE MINIMUM LEVEL OF TEMPORARY EROSION AND SEDIMENT CONTROL (TESC) AS NEEDED FOR PERMITTING PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESC MEASURES, MAINTENANCE, AND CLEANUP AS NEEDED TO PREVENT SEDIMENT FROM BEING TRACKED FROM THE SITE. THIS MAY INCLUDE STREET SWEEPING ON AN AS-NEEDED BASIS AND/OR DEPLOYMENT OF A WHEEL WASH.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ENCROACHMENT PERMITS NEEDED TO PERFORM WORK WITHIN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTAL DOCUMENTATION AS NEEDED TO OBTAIN THE PERMITS (E.G., TRAFFIC CONTROL PLAN).

THE OWNER HAS APPLIED FOR COVERAGE UNDER WA DEPT. OF ECOLOGY'S CONSTRUCTION STORMWATER GENERAL PERMIT. COVERAGE WILL BE TRANSFERRED TO THE CONTRACTOR, WHO SHALL SERVE AS THE OPERATOR. THE CONTRACTOR SHALL SUBMIT MONTHLY DISCHARGE MONITORING REPORTS AS REQUIRED BY ECOLOGY.



EROSION CONTROL KEY NOTES

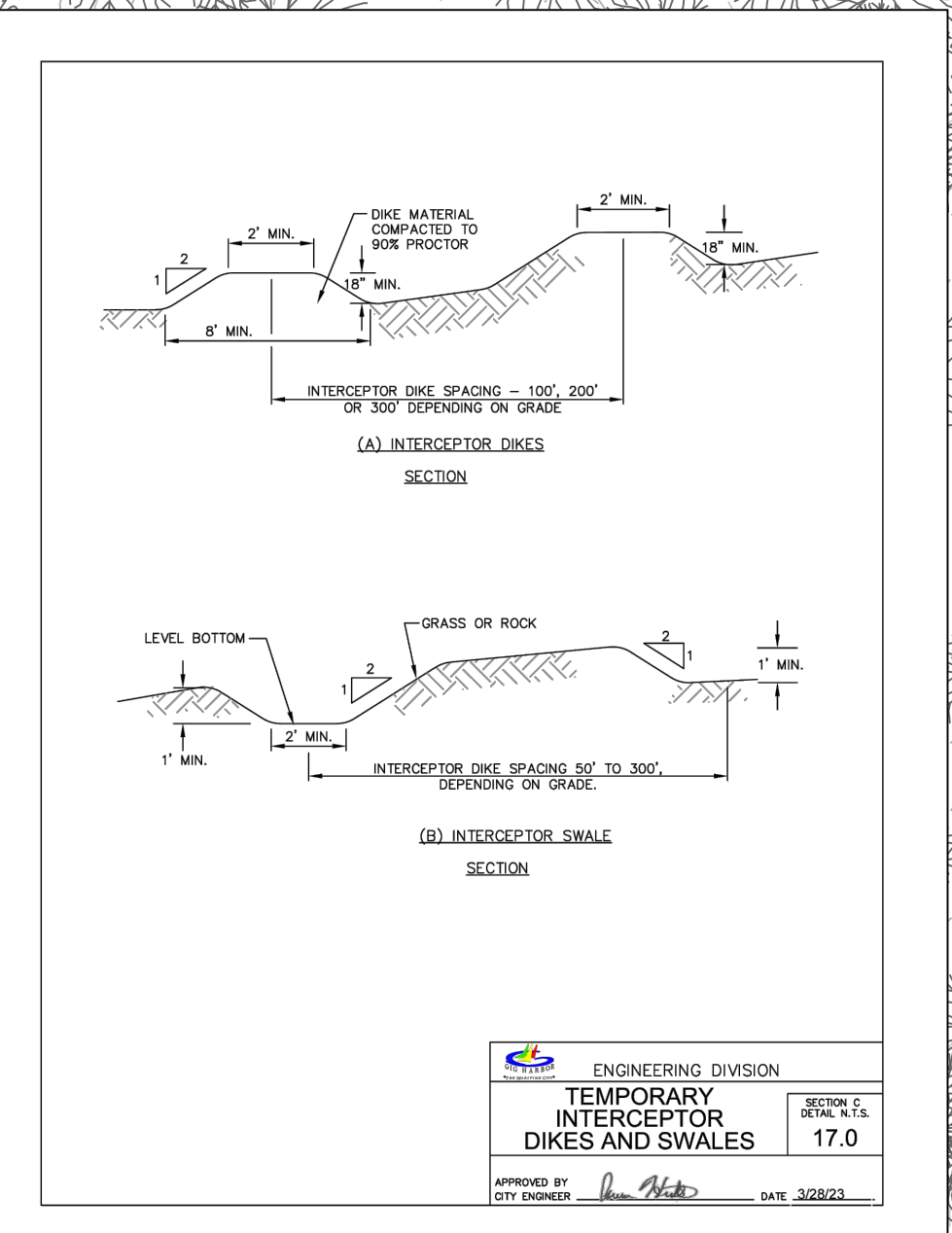
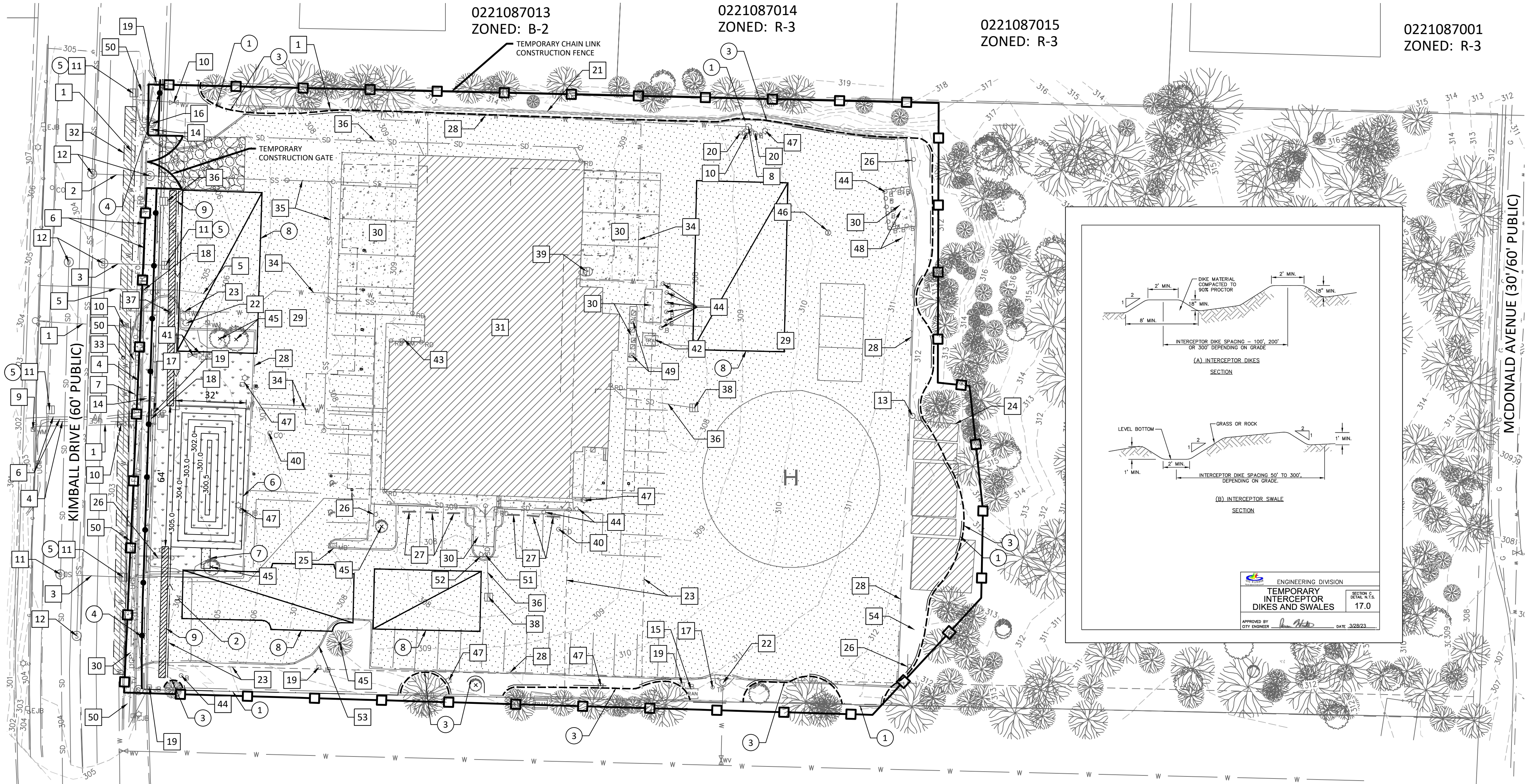
- 1 LIMIT OF DISTURBANCE
- 2 CONSTRUCTION ENTRANCE. SEE DETAIL 1 ON SHEET C01.02
- 3 TREE PROTECTION FENCE. SEE DETAIL 2 ON SHEET C01.02
- 4 SILT FENCE. SEE DETAIL 3 ON SHEET C01.02
- 5 INLET PROTECTION. SEE DETAIL 4 ON SHEET C01.02
- 6 TEMPORARY SEDIMENT TRAP. SEE DETAIL 21.0, THIS SHEET. RUNOFF FROM ALL SUB-BASINS SHALL BE DIRECTED TO SEDIMENT TRAP THROUGH THE USE OF BERMS, SWALES, AND OTHER MEASURES AS NEEDED.
- 7 SEDIMENT TRAP OUTLET. SEE DETAIL 22.0, THIS SHEET.
- 8 EXCAVATIONS FOR STORMWATER CHAMBERS SHALL BE PROTECTED FROM SEDIMENT LADEN RUNOFF AND SOIL OVER-COMPACTION. DO NOT PARK CONSTRUCTION EQUIPMENT OR STOCKPILE MATERIALS WITHIN STORMWATER CHAMBER EXCAVATIONS.
- 9 TEMPORARY INTERCEPTOR DIKE AND SWALE. SEE DETAIL 17.0, THIS SHEET.

DEMOLITION KEY NOTES

- 1 PRESERVE & PROTECT WATER LINE
- 2 PRESERVE & PROTECT SEWER PIPE
- 3 PRESERVE & PROTECT STORM PIPE
- 4 PRESERVE & PROTECT UNDERGROUND ELECTRIC LINE
- 5 PRESERVE & PROTECT UNDERGROUND GAS LINE
- 6 PRESERVE & PROTECT UNDERGROUND TV LINE
- 7 PRESERVE & PROTECT UNDERGROUND FIBER OPTIC LINE
- 8 REPLACE FIRE HYDRANT WITH NEW
- 9 PRESERVE & PROTECT WATER METER
- 10 PRESERVE & PROTECT WATER VALVE
- 11 PRESERVE & PROTECT STORM CATCHBASIN
- 12 PRESERVE & PROTECT SEWER MANHOLE
- 13 REMOVE AND DISPOSE POWER POLE
- 14 PRESERVE & PROTECT ELECTRIC BOX
- 15 PRESERVE & PROTECT ELECTRIC TRANSFORMER
- 16 RELOCATE LIGHT POST/REPLACE FIXTURE AND REMOVE BLOCK WALL. SEE ELEC.
- 17 PRESERVE & PROTECT TELEPHONE PEDESTAL
- 18 PRESERVE & PROTECT GAS VALVE
- 19 PRESERVE & PROTECT JUNCTION BOX
- 20 PRESERVE & PROTECT BOLLARD
- 21 PRESERVE & PROTECT ROCKERY
- 22 REMOVE & DISPOSE FIRE HYDRANT
- 23 EXISTING UNDERGROUND COMMUNICATIONS EASEMENT (AFN 201609290121) TO BE MODIFIED
- 24 OWNER WILL REMOVE 2 OF 3 CONEX BOXES. REMOVE REMAINING CONEX BOX AND ENCLOSURES. (TYP.)
- 25 SALVAGE MAILBOX. CONFIRM REINSTALLATION WITH OWNER.
- 26 SALVAGE SIGN. CONFIRM REINSTALLATION WITH OWNER.
- 27 REMOVE AND DISPOSE WHEELSTOP
- 28 DEMOLISH & DISPOSE CURB
- 29 DEMOLISH & DISPOSE ASPHALT PAVEMENT

- 0221087016
ZONED: B-2
- 30 OWNER WILL REMOVE GENERATOR. DEMOLISH & DISPOSE CONCRETE PAVEMENT
 - 31 DEMOLISH & DISPOSE BUILDING & FOUNDATION SEE ARCH. FOR EXISTING FIRE STATION DRAWINGS.
 - 32 SAWCUT ASPHALT PAVEMENT
 - 33 GRIND & OVERLAY ASPHALT PAVEMENT. SEE DETAIL PC.A10.1 ON SHEET RW4.1
 - 34 REMOVE & DISPOSE WATER LINE
 - 35 REMOVE & DISPOSE SEWER PIPE
 - 36 REMOVE & DISPOSE STORM PIPE
 - 37 REMOVE & DISPOSE FIRE DEPARTMENT CONNECTION IN ACCORDANCE WITH AWWA STANDARD. DECOMMISSIONING SHALL OCCUR AT THE MAIN IN KIMBALL. CALL CITY INSPECTOR PRIOR TO DECOMMISSIONING.
 - 38 REMOVE & DISPOSE CATCH BASIN
 - 39 REMOVE & DISPOSE AREA DRAIN AND ASSOCIATED PIPING
 - 40 REMOVE & DISPOSE CLEANOUT
 - 41 REMOVE & DISPOSE IRRIGATION CONTROL VALVE
 - 42 PENINSULA LIGHT WILL REMOVE TRANSFORMER AND WIRING. REMOVE & DISPOSE VAULT AND CONDUIT TO LIMIT OF DISTURBANCE, AND CAP.

- 43 REMOVE & DISPOSE GAS METER AND ASSOCIATED PIPING
- 44 REMOVE & DISPOSE BOLLARD
- 45 REMOVE & DISPOSE TREE
- 46 DECOMMISSION, REMOVE & DISPOSE UNDERGROUND PUMP TANK AND VALVE.
- 47 REMOVE & DISPOSE LIGHT POLE & JUNCTION BOX
- 48 SALVAGE & PROTECT EXISTING 1,000-GALLON FUEL TANK. REINSTALL AT NEW LOCATION PER C02.01 AND ARCH. COORDINATE TIMING OF SALVAGE & RELOCATION WITH OWNER. THE OWNER WILL REMOVE EXISTING FUEL AND 200-GALLON DEF TANK. IF CONTAMINATED SOILS ARE DISCOVERED RELATED TO THIS TANK (OR PREVIOUSLY REMOVED TANKS), THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE WASHINGTON DEPT. OF ECOLOGY.
- 49 REMOVE & DISPOSE OUTDOOR HVAC UNITS
- 50 PRESERVE & PROTECT CONCRETE SIDEWALK
- 51 REMOVE & DISPOSE FLAG POLE
- 52 SALVAGE IN-GROUND MEMORIAL MARKER. PROVIDE TO OWNER.
- 53 REMOVE & DISPOSE WOODEN POST
- 54 FOOD BACKPACKS 4 KIDS SHED TO BE REMOVED BY OTHERS.

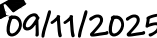


J:\18174 - GHFWO Station 51\500 Design\502 Drawings\Sheets\18174 - C01.01 Demolition & TESC.dwg



STATION 51 GIG HARBOR FIRE AND MEDIC ONE GIG HARBOR, WASHINGTON

PROJECT #		2022011
PERMIT SET		
ISSUE DATE		AUGUST 25, 2025
REVISION SCHEDULE		
2	ADDENDUM 2	9/13/2025
DEMOLITION & TESC		



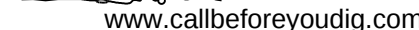
GIG HARBOR, WASHINGTON

"THE MARITIME CITY

ISSUED FOR CONSTRUCTION BY

CITY ENGINEER

DATE _____

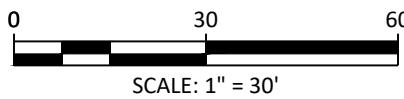


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13	ACCESSIBLE CROSSING STRIPING, LOW-VOC WATERBORN PER WSDOT STD 9-34.2
14	ACCESSIBLE PAVEMENT MARKING, LOW-VOC WATERBORN PER WSDOT STD 9-34.2
15	DUMPSTER ENCLOSURE. SEE ARCH.
16	FUEL TANK PAD. SEE ARCH. DETAIL 18 ON \$50.02 FOR FUEL TANK PAD (NON-VEHICULAR).
17	TRANSFORMER. SEE ELECTRICAL SITE PLAN.
18	CONCRETE PATIO. SEE LANDSCAPE PLANS
19	GENERATOR & ENCLOSURE. SEE ELECTRICAL SITE PLAN AND ARCHITECTURAL PLANS. SEE DETAIL 18 ON \$50.02 FOR GENERATOR PAD.
20	METAL CANOPY OVER FUEL PUMP AREA
21	EXISTING B-2/R-3 ZONING LINE
22	UNDERGROUND STRUCTURE MARKING: 4" RED PERIMETER, 4" RED DIAGONAL W/ 3" WHITE "CAUTION UNDERGROUND STRUCTURE" STENCIL
23	SITE FURNISHINGS (SEE LANDSCAPE PLANS)
24	PROPOSED RIGHT-OF-WAY LINE

- | | |
|----|--|
| 25 | GAS METER. SEE MECHANICAL. |
| 26 | HEAT PUMP. SEE MECHANICAL. |
| 27 | HVAC VENTILATOR & COMPRESSOR.
SEE MECHANICAL. |
| 28 | TELE/COMM VAULT. SEE ELECTRICAL. |
| 29 | LIGHT POLE. SEE ELECTRICAL SITE PLAN. |
| 30 | EV CHARGING STATION. SEE ELECTRICAL
SITE PLAN. |
| 31 | NOT USED |
| 32 | MONUMENT SIGN. SEE ARCH. |
| 33 | TAPER CURB HEIGHT FROM 0" AT BUILDING
TO 6" AT END OF CONCRETE APRON. |
| 34 | NOT USED |
| 35 | PROVIDE A 2.5-FOOT CURB TAPER
FROM 6" TO 0" HEIGHT. |
| 36 | 24-INCH WIDE CONCRETE
VALLEY GUTTER |



FOUNDATION AND FIRST FLOOR FRAMING PLAN NOTES:

- APPARATUS BAY SLAB-ON-GRADE SHALL BE 8" THICK CONCRETE REINFORCED WITH #5 @ 12" EACH WAY AT MID-DEPTH OF THE SLAB. PROVIDE VAPOR BARRIER PER SPECIFICATIONS BELOW SLAB OVER FREE DRAINING FILL PER THE GEOTECHNICAL REPORT.
- SLAB-ON-GRADE SHALL BE 4" THICK CONCRETE REINFORCED WITH #4 @ 16" EACH WAY AT MID-DEPTH OF SLAB. VAPOR BARRIER SHALL BE PLACED PER SPECIFICATIONS BELOW SLAB OVER FREE DRAINING FILL. PROVIDE CONTROL JOINTS EVERY 144 SF MAX. LAP REINFORCING PER 20/S50.01. SLOPE SLABS AS REQUIRED PER ARCHITECT.
- PROVIDE CONSTRUCTION / CONTROL JOINTS IN SLABS ON GRADE TO DIVIDE SLAB INTO RECTANGULAR AREAS 144 SQUARE FEET OR LESS. AREAS SHALL BE APPROXIMATELY SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS MUST BE APPROVED BY THE ARCHITECT. SEE 10/S50.02.
- TOP OF ALL FOOTINGS SHOWN IN THIS PLAN SHALL BE AT ELEVATION -1'-6", UNLESS NOTED OTHERWISE. OVER EXCAVATE PER THE OWNER-APPOINTED GEOTECHNICAL ENGINEER WHERE REQUIRED AND PLACE SUITABLE COMPACTED FILL AS DIRECTED BY OWNER-APPOINTED GEOTECHNICAL ENGINEER. CONTRACTOR SHALL COORDINATE WITH FINAL SITE GRADES AND MAINTAIN MINIMUM DEPTH OF FOOTINGS SHOWN ON THE DRAWINGS.
- SEE 20/S50.40 FOR SHEAR WALL SCHEDULE AND SHEAR WALL FRAMING REQUIREMENTS. SHEAR WALL CORNERS AND INTERSECTIONS SHALL BE FRAMED AND NAILED PER 10/S50.40, UNLESS NOTED OTHERWISE. SEE S50.40 AND S50.41 FOR HOLD-DOWN SCHEDULE AND FRAMING REQUIREMENTS. ALL EXTERIOR WALLS ARE SW4 PER SHEAR WALL SCHEDULE. UNO.
- SEE S50.01 AND S50.02 FOR CONCRETE TYPICAL DETAILS.
- SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSION AND SLOPE REQUIREMENTS. SEE 4/S50.02.
- EXTERIOR STUD WALLS AND INTERIOR SHEAR WALLS SHALL BE 2x6 LVL @ 16" OC UNLESS NOTED OTHERWISE ON PLAN. INTERIOR STUD WALLS SHALL BE 2x STUDS @ 16" OC (WALLS OVER 16'-0" NEED TO BE LVL STUDS), UNLESS NOTED OTHERWISE ON PLAN. SEE ARCHITECTURAL FOR WALL TYPES. SEE 20/S50.40 FOR SPECIAL STUD REQUIREMENTS AT HEAVILY NAILED SHEAR WALLS. SEE S50.42 FOR TYPICAL WALL FRAMING DETAILS AND ALLOWABLE PENETRATIONS THRU WALL STUDS AND PLATES.
- POSTS OR JAMB STUDS SUPPORTING BEAMS ABOVE SHALL BE (2) STUDS. UNO.
- AT PLYWOOD SHEATHED SHEAR WALLS, CONTRACTOR SHALL EXTEND SHEATHING TO ACHIEVE FULL COVERAGE OF ENTIRE WALL TO AVOID CONFLICTS BETWEEN VARYING PLYWOOD AND GWB THICKNESS.
- SEE ARCHITECTURAL / MECHANICAL / ELECTRICAL / CIVIL / UTILITIES DRAWINGS FOR UNDER SLAB PIPING. COORDINATE FOUNDATION DEPTHS AND PIPING IN ACCORDANCE WITH 18/S50.01.
- BOLLARDS PER ARCHITECT NOT SHOWN. SEE ARCHITECTURAL AND CIVIL FOR ADDITIONAL INFORMATION.
- FRAME OPENINGS IN STRUCTURAL WALLS PER 3/S50.42, UNLESS NOTED OTHERWISE. HEADERS IN EXTERIOR WALLS SHALL BE 5.25 x 7.25 LVL AND SPACED TO MATCH WIDTH OF WALL PER 3/S50.42, UNLESS NOTED OTHERWISE. HEADERS IN INTERIOR WALLS SHALL BE (3) 2x8 AND DROPPED BELOW STUD WALL TOP PLATE, UNLESS NOTED OTHERWISE. STRAP ALL SHEAR WALL OPENINGS PER 5/S50.40.
- PROVIDE (4) #5 REBAR DOWELS AT EACH CONCRETE WALL. EMBED DOWELS INTO CONC WALL PER DETAIL 2/S50.03. EXTEND DOWELS INTO THE APP BAY SLAB A MIN OF 12'-0". LOCATE DOWELS 12" FROM WALL ENDS & SHALL BE EQUALLY SPACED.
- SEE DETAIL 17/S50.02 FOR CONCRETE CURB UNDER NON-STRUCTURAL INTERIOR PARTITION WALLS PER ARCHITECT. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DWGS FOR INTERIOR CONCRETE CURB LOCATIONS.

LEGEND

<FX>	FOOTING MARK PER FOOTING SCHEDULE THIS SHEET
(x'-xx")	TOP OF FOOTING ELEVATION. SEE NOTE 4 UNO
□	POST OR COLUMN THIS LEVEL. SEE NOTE 9 UNO
▬	CONCRETE WALL THIS LEVEL
▬ SWX	SHEAR WALL THIS LEVEL PER SCHEDULE 20/S50.40 AND NOTES 5, 8, & 13
▬	STRUCTURAL WOOD WALL THIS LEVEL. SEE NOTE 8 & 13
⋈	HOLD-DOWN PER SCHEDULE 20/S50.41
⋈	MULTI-STUD POST WITH " X " STUDS
▬	8" THICK SLAB ON GRADE, PER PLAN NOTE #1

FOOTING SCHEDULE

MARK	WIDTH	LENGTH	DEPTH	TOP REINFORCING	BOTTOM REINFORCING	REMARKS
<F2>	2'-0"	2'-0"	1'-0"	-	(3) #5 EACH WAY	-
<F2.5>	2'-6"	2'-6"	1'-0"	-	(3) #5 EACH WAY	-
<F3>	3'-0"	3'-0"	1'-6"	(3) #5 EACH WAY	(3) #5 EACH WAY	-
<F3.5>	3'-6"	3'-6"	1'-6"	(4) #5 EACH WAY	(4) #5 EACH WAY	-
<F4>	4'-0"	4'-0"	2'-0"	(4) #5 EACH WAY	(4) #5 EACH WAY	CENTER ON SIMPSON STRONGWALL
<F4.5>	4'-6"	4'-6"	1'-6"	(5) #5 EACH WAY	(5) #5 EACH WAY	-
<FA>	5'-6"	8'-0"	2'-0"	(6) #6 LONGIT #5 @ 12" TRANS	(6) #6 LONGIT #5 @ 12" TRANS	CENTER CONC WALL ON FTG
<FB>	5'-0"	PER PLAN	1'-0"	-	(5) #5 LONGIT & #5 @ 12" TRANS	CENTER BTWN COLS

GIG HARBOR STATION 51 GIG HARBOR FIRE & MEDIC ONE

6711 KIMBALL DRIVE
GIG HARBOR, WA 98336

PROJECT # 262023.049

BID SET

ISSUE DATE AUGUST 15, 2025

REVISION SCHEDULE

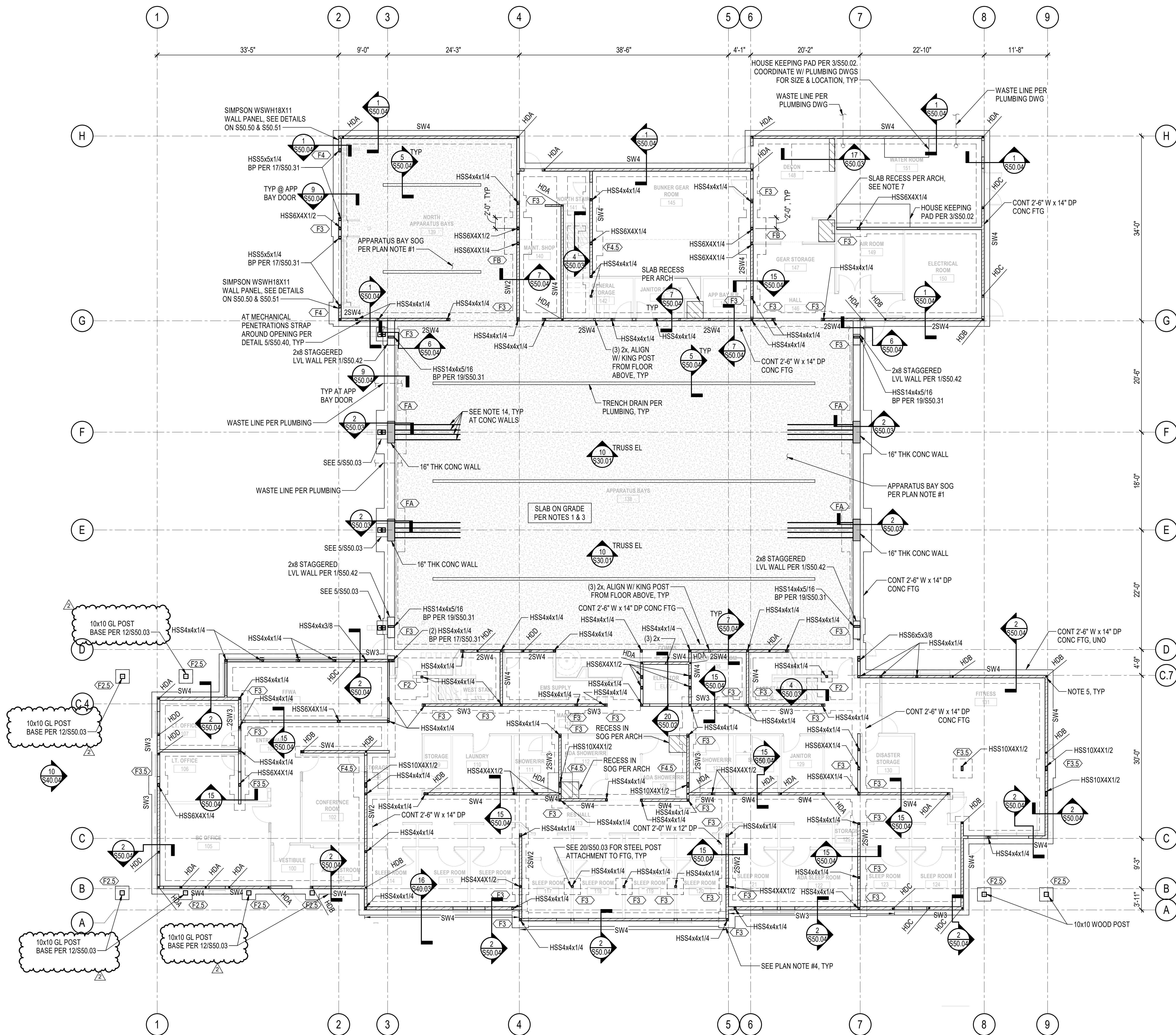
2 ADDENDUM 09/12/25

AHJ APPROVAL STAMP

FOUNDATION AND
LEVEL 1 FRAMING
PLAN

SHEET #

S22.01



FOUNDATION AND LEVEL 1 FRAMING PLAN

1/8" = 1'-0"



012500-A - SUBSTITUTION REQUEST FORM

To: Architect: Rice Fergus Miller, Inc.
275 5th Street, Suite 100
Bremerton, Washington 98337

Contractor: Denzel Northwest - Supplier

We hereby submit for consideration the following product instead of specified item for above project:

Section No. 09 54 26 Paragraph 2.4 A Specified Item Armstrong Woodworks Grille - WDC-1
Backer and Dowel

Proposed Substitution: CertainTeed Grille - Backer and Dowel

Attachments: (If not applicable, write N/A left of item number.)

- No. 1: Complete product data.
No. 2: Drawings showing dimensional changes and other change to drawings. N/A
No. 3: Complete description of all changes to specifications. N/A
No. 4: Description of effect on other trades, other contracts, and contract completion date. N/A
No. 5: List of differences between proposed and specified items.
No. 6: List of names and addresses of three similar projects on which product was used, date of installation and Architect's name and address.
No. 7: Cost impact. N/A

Undersigned attests function and quality equivalent or superior to specified item.

Submitted by: (Person and Firm) Daana Denzel, Denzel Northwest

Date 9/9/25 Phone (206) 900-3675 Signature Daana Denzel

Acceptance by Architect:

By: Howard Struve

Date: 9/11/25

- Remarks: 1. Red Oak stain on solid wood is not available as standard finish.
2. Removable backer grille is not available in 4 1/2" slat depth.
3. Rigid black ceiling tiles as acoustical backing not available.
4. Recessed light fixtures specified are by Armstrong.

Accepted

Accepted as Noted

Not Accepted

END OF SECTION 012500-A

012500-A - SUBSTITUTION REQUEST FORM

To: Architect: Rice Fergus Miller, Inc.
275 5th Street, Suite 100
Bremerton, Washington 98337

Contractor: Denzel Northwest - Supplier

We hereby submit for consideration the following product instead of specified item for above project:

Section No. 09 54 26 Paragraph 2.4 B & C Specified Item Armstrong Woodworks Tegular - WDC-2 & WDC-3

Proposed Substitution: CertainTeed Lay In Reveal/Narrow Reveal Panels

Attachments: (If not applicable, write N/A left of item number.)

- No. 1: Complete product data.
No. 2: Drawings showing dimensional changes and other change to drawings. N/A
No. 3: Complete description of all changes to specifications. N/A
No. 4: Description of effect on other trades, other contracts, and contract completion date. N/A
No. 5: List of differences between proposed and specified items.
No. 6: List of names and addresses of three similar projects on which product was used, date of installation and Architect's name and address.
No. 7: Cost impact. N/A

Undersigned attests function and quality equivalent or superior to specified item.

Submitted by: (Person and Firm) Daana Denzel, Denzel Northwest

Date 9/9/24 Phone (206) 900-3675 Signature Daana Denzel

Acceptance by Architect:

By: Howard Struve

Date: 9/11/25

Remarks:

Accepted

Accepted as Noted

Not Accepted

END OF SECTION 012500-A

012500-A - SUBSTITUTION REQUEST FORM

To: Architect: Rice Fergus Miller, Inc.
275 5th Street, Suite 100
Bremerton, Washington 98337

Contractor: Dahl Glass

We hereby submit for consideration the following product instead of specified item for above project:

Section No. 08 54 13 Paragraph 2.3 Specified Item Fiberglass Windows

Proposed Substitution: Quaker Window Products, Inc. C600 Fixed and Operable Aluminum Windows

Attachments: (If not applicable, write N/A left of item number.)

- No. 1: Complete product data.
n/a No. 2: Drawings showing dimensional changes and other change to drawings.
No. 3: Complete description of all changes to specifications.
n/a No. 4: Description of effect on other trades, other contracts, and contract completion date.
No. 5: List of differences between proposed and specified items.
No. 6: List of names and addresses of three similar projects on which product was used, date of installation and Architect's name and address.
No. 7: Cost impact.

Undersigned attests function and quality equivalent or superior to specified item.

Submitted by: (Person and Firm) Gordon Speck/ Quaker Window Products, Inc.

Date 09/09/2025 Phone 573-405-0267 Signature Gordon Speck

Acceptance by Architect:

By: Howard Struve

Date: 9/11/25

Remarks:

Accepted

Accepted as Noted

Not Accepted

END OF SECTION 012500-A