

PRE-BID CONFERENCE MINUTES

**JOINT VEHICLE MAINTENANCE FACILITY, SACO, MAINE
DVEM PROJECT 230125, BGS PROJECT 3100, BID NO. 22-018
16 JUNE 2022
EASTVIEW PARKWAY, SACO, MAINE**

A. Attendees on Behalf of the Owner

a. Owner DVEM

- i. Ralph F. Turner, PE, DVEM Owner Project Manager (PM)
- ii. Rick Darveau, PE, Facility Design & Projects Manager (Not Present)
- iii. Ms. Sherrill Hallett, Contract Grant Specialist (Not Present)
- iv. Normand Michaud, Owner's Technical Consultant

b. Consultant

- i. Mr. Jeff Walker, Wood Environmental and Infrastructure Solutions, Inc. (Wood) Design Manager
- ii. Lisa Maxwell, Wood, Electrical Designer

c. MEARNG

- i. LTC Phillip Trevino, G4 Surface Maintenance Manager (Not Present)
- ii. SFC Peter Pierce, FMS#1 Supervisor (Not Present)

d. MEANG

- i. MSgt Elisabeth K (Kate) Hewitt, Unit Training Manager
- ii. Maj Taylor McDonald, Fire OIC; Readiness & Emergency Management OIC

e. BGS

- i. Mr. David Schoenherr, State Project Manager (Not Present)

B. General Information on Bid Process (Ralph Turner)

1) Pre-Bid Sign In Sheet

- a) All attendees to sign attendance sheet Must be legibly filled out to ensure firms are credited with attending the mandatory Pre-Bid meeting. Make sure addressee is someone you want to receive communications that are project and bidding related.

2) Mandatory attendance at this Pre-Bid Meeting for all General Contractors intending to submit a bid. Sub-contractors that may have requested bid documents are not required to attend Pre-Bid meeting.

3) Contractors not listed on the sign-in sheet WILL NOT be able to submit a bid.

4) Contract Award timeline:

- a) Invitation to Bid 4 June 2022
- b) Bid Docs Available 4 June 2022
- c) Pre Bid Conference 16 June 2022
- d) Deadline for Substitution Requests 30 June 2022
- e) Deadline for Bid RFIs 8 July 2022, 12:00 noon
- f) Final Addendum issued 11 July 2022, 12:00 noon
- g) Bid Opening 14 July 2022, 2:00pm
- h) NOTICE OF INTENT TO AWARD LETTER NLT 21 July 2022
- i) Award Contract NLT 5 August 2022

5) Bid Bond requirements:

- a) Bid Bond or Cashier's Check for 5% of the bid amount required.

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- b) Bid amount shall be equal to the subtotal from the Bid Form
- c) Use Contractor Bid Bond form provided in section 00 43 13
- 6) Performance and Payment bonds:
 - a) Selected Contractor shall be required to furnish 100% Contract Performance and Payment Bonds in the contract amount prior to contract award. Cost of bonds to be included in base bid amount. (Electronic version of Forms available on the BGS website)
- 7) Access to bidding documents, including Addenda:
 - a) The Owner PM will distribute electronic version of contract documents to contractors upon request. Email: ralph.f.turner4.nfg@army.mil.
 - b) Hard Copies of bid documents are available for a cost from Xpress Copy, Portland, Maine. Partial sets will not be issued.
 - c) All Addenda will be issued electronically ONLY by the Contract Grant Specialist, Ms. Sherrill Hallett to registered Contractors. Registered Contractors are those who have ensured that all required information is provided on the Pre-Bid sign-in sheet and all contractors that requested bid documents from either Owner PM or Express copy.
 - d) For large files, the U.S. Military's DoD Safe file exchange site will be used. Download instructions will be provided to registered contractors as addenda are issued.
 - e) Addendum #1 to be issued 21 June 2022.
- 8) Clarifications during bidding (RFIs)
 - a) Written request via email with "FMS #1 Bid RFI" in the subject line.
 - b) Submit RFIs to Owner PM, Mr. Ralph Turner at ralph.f.turner4.nfg@army.mil
 - i) CC all RFIs to Mr. Jeff Walker, Wood, Design Manager, jeff.walker@woodplc.com
 - c) One question per RFI.
 - d) Deadline for submittal of RFIs is 12:00pm (noon), 8 July 2022
 - e) If you do not receive an answer to your question via addendum, please contact Mr. Ralph Turner at ralph.f.turner4.nfg@army.mil.
 - f) Bidders are strongly requested to submit RFIs early in this Bidding process.
- 9) Wage Rates:
 - a) State of Maine wage rates are in effect for this project and are included in the bid documents, section 00 73 46 DAVIS BACON wage rates are NOT applicable on this project.
 - b) Monthly payroll records shall be submitted to the owner.
 - c) A representative from the Department of Labor may be at the Bid Opening.
 - d) Refer to 00 72 13 General Conditions, Section 5 for other requirements.
- 10) Taxes
 - a) This project is exempt from the payment of federal excise tax and federal transportation taxes on all shipments as well as Maine sales and use taxes.
 - b) Refer to 00 72 13, section 6.
- 11) Bid Submission
 - a) Bids shall be addressed, packaged and labeled as specified in 00 11 13, section 1.

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- b) Contractors are responsible to ensure their bids are received by the contracting office prior to the 2:00pm deadline. This deadline will be STRICTLY enforced. Late bids will not be accepted by the contracting office.
 - c) Contractors are responsible to ensure their bids are complete and have the required bonds.
 - d) Contractors will acknowledge that they have carefully examined any and all addenda. See Section 00 41 13, Paragraph 1.
 - e) If you drop your bid off in person, make sure it is received and stamped in prior to leaving. The only people who can receive bids are Ms. Elena Crowley at the front desk, Ms. Sherrill Hallett or Ms. Sheri Brooker from the contracting office. If your bid is mailed in, ensure that it is clearly marked in accordance with the bidding instruction and that it will arrive prior to the bid opening. Make sure it arrives at the early FedEx delivery and not the delivery at 3:30pm.
 - f) Copies of Bid Form 00 41 13 are acceptable. The bid form MUST be legible, completely filled out and signed.
 - g) The basis of award shall be low price. Low price will be determined by the sum of the base bid plus alternate bid items by the Owner. According to bid documents, the cost of allowances is to be included in the base bid amount provided by bidder.
 - h) The Owner's intent is to award as many alternate bid items as possible.
 - i) Alternate bid items are not listed in any particular order of precedence or priority.
- 12) Bid Allowance
- a) Allowance total of \$350,798 will be carried by all bidders and this amount shall be included in the Base Bid.
- 13) Insurances:
- a) Bidders to note all insurance requirements, including Builder's Risk insurance, IAW 00 72 13, General Conditions.
- 14) Contract
- a) The selected Contractor shall execute a State of Maine Bureau of General Services Construction Contract IAW 00 52 13.
 - b) Bonds and insurance certificates will be required prior to contract execution.
 - c) It is the Owner's intent to execute this contract on or about 17 Augusta 2022.
 - d) Contract and bonds forms in bidding documents are samples.
- 15) Bidders to review all project requirements.
- 16) Bid Opening, open to the public, will be held on **14 July 2022**, at **2:00pm** in the conference room of Bldg #7, Camp Keyes, Augusta, Maine.
- 17) Notice of Intent to Award Letter – The following submittals will be required within 10 days: after the issuance of the Letter of Notice of Intent to Award:
- a) Performance and Payment Bonds
 - b) Certificates of Insurance
 - c) List of Subcontractors and suppliers
 - d) Schedule of Values
 - e) Controls Contractor Qualifications
 - f) Project Schedule

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- g) Unit Prices
- h) OTHER Items as required (TBD)

C. Specific Information on Project (Jeff Walker)

- 1) Overall scope of work:
 - a) Site:
 - i) Clearing and grubbing.
 - ii) Geotechnical preload, engineered fill, erosion control.
 - iii) Existing utilities connection location, stormwater management, access drives, parking, walkways, loading area, concrete aprons, retaining walls, utilities (water, sanitary, electricity, telephone and LP gas), site lighting, site excavation, backfill, engineered fill, grading, erosion control, final restoration, plantings, site signage, fencing and others.
 - b) Building features: steel framed with metal wall panels on metal stud back up, asphalt roof, aluminum framed windows and curtain walls, access control, IDS and CCTV infrastructure, controlled access in building, fire alarm and suppression, mass notification, wireless access points, CATV infrastructure, cell phone repeater, lighting, lighting controls, information technology infrastructure and others.
 - c) Permit compliance:
 - i) Summary Checklist provided to assist contractor
 - ii) Third party inspector requirements
 - iii) Proactive inspections, documentation, reporting and compliance plan.
 - d) LEED Certification: This facility is required to achieve LEED Silver certification.
 - e) Commissioning: The Owner will contract with a third-party independent Commissioning Agent- to provide the Commissioning Services (TBD)
- 2) Parking:
 - a) The Contractor shall coordinate temporary parking.
 - b) Parking will be in accordance with the requirements of the local AHJ.
 - c) Eastview Parkway, Dawn Marie Drive, and US Route 1 shall remain unobstructed and trafficable at all times.
- 3) Access to the site:
 - a) The contractor has full control of the site during construction.
 - b) Contractor shall be responsible for all utilities connections and service fees for the temporary service and permanent service installation. Contractor shall be responsible for all use fees during construction. Owner will assume responsibility for utility use charges upon Substantial Completion.
- 4) **Safety and Security**
 - a) Contractor is responsible for all site safety and security of the premises during construction
 - b) Contractor shall ensure that all OSHA and applicable safety requirements are met.
 - c) Contractor shall provide a site safety plan and appoint a site safety officer.
 - d) Owner and any contractor of the Owner shall comply with Contractor's site safety plan.

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- 5) Lay-down areas, location for trailers
- 6) Work hours: Work hours will be IAW the local Authority Having Jurisdiction (AHJ).
 - a) The Owner will not be working on holidays or weekends. Contractor shall schedule work requiring Owner presence accordingly.
- 7) Project Schedule:
 - a) SEE ABOVE FOR CONTRACT AWARD SCHEDULE
 - b) The Contractor can start upon execution of a valid contract.
 - c) Basis of Bid Construction Start Date on or about 2 September 2022
 - d) Preconstruction ConferenceNLT 9 September 2022
 - e) Substantial Completion..... 30 September 2024
 - f) Final Completion30 November 2024
 - g) Contract Termination 31 December 2024
- 8) Roles of the parties
 - a) Owner Project Manager (PM): Responsible for: Project execution, changes, payments coordinating and verifying that background checks on personnel have been performed (background checks should only have to be conducted on personnel working on the project AFTER Substantial Completion), etc.
 - b) Resident Engineer – Owners on-site representative TBD.
 - c) A&E Consultant: Includes but not limited to: Ensures project is completed IAW design intent, plans and specifications. Answer all technical RFIs, Approve all changes to the work, Project Closeout and As Built drawings
 - d) General Contractor: Includes but is not limited to: Project schedule including phasing of the work, schedule of values, project execution, obtaining all permits as indicated on the plans, performance and conduct of all workers to include sub-contractors. Timely submission of required paperwork, red line drawings, notifying PM of any discrepancies between plans and specifications and actual field condition and any issues on the project site that would hamper project execution or timeline. GC is responsible to assure that all equipment has been installed IAW manufacturers requirements, that equipment and systems are fully functional in accordance with the required sequence of operation, to assist with commissioning to document that everything functions as required, and to make any necessary repairs, alterations or adjustments necessary prior to commissioning approval. All of the foregoing not exceeding contracted project cost without approval from PM in writing.
- 9) Controls Contractor shall be contracted directly by the General Contractor and qualified and certified per the Specifications.
- 10) Testing and Inspections
 - i) Contractor is responsible for engaging Owner approved independent and third party testing and inspection agents.
 - ii) Engage implies: contract with, coordinate services and pay all fees.
 - iii) As stated in the contract documents, any retest due to failure will be the responsibility of the Contractor and will be at no additional cost to the Owner.
- 11) Tour of the site and facility; other pre-bid possibilities for access:

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- a) Registered contractors are allowed to visit the site before submitting their bid. No prior notification is needed, as the site is open and accessible. Contractors are encouraged to park off of the roadway to the greatest extent possible.
- 12) Buy America Act:
 - a) This contract is subject to the provisions of the Buy America Act.
 - b) Refer to specification 00 73 00 Special Conditions, section 15.
- 13) Permits:
 - a) City of Saco, Maine Building permits required
 - b) Refer to specification 00 72 13 General Conditions, section 5.
- 14) Payments:
 - a) Submitted not more than once each month unless otherwise approved by the Owner.
 - b) Five percent retainage will be withheld from each requisition for payment. Refer to specification 00 72 13 General Conditions, section 33.
 - c) Payment terms: twenty-five days from date of proper invoice. Refer to Construction Contract 00 52 13 Article 1.2.1.
- 15) Liquidated Damages: For this contract, Liquidated Damages may be over \$2,500 per calendar day. (Exact amount depends on original contract amount) Refer to 00 72 13, section 37.

D. Contractor Questions and Comments:

1) Please submit all questions in writing to assure equal access to all information provided in the pre-bid meeting.

2) Meeting Questions and Responses

a. Ducas Construction

Q - Has the project been designed certified to meet Leed Silver?

A - Yes, Revised Specification Section 01 81 13 Sustainable Design Requirements and revised Checklist will be provided in Addendum 2.

Q - Who is responsible to pay CMP?

A - Service installation will be from the allowance in Specification Section 01 21 00 Allowances, utilities use will not, Contractor is responsible for the cost of utility use until substantial completion.

b. Geopier

Q - Who can we contact about taking a different avenue to the site work that might avoid the 6 month waiting period.

A - Please submit this question as an RFI.

c. Grondin

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Q - Can we gain access to civil cad files for estimating?
A - Yes, you will sign a waiver and be specific in your request. Submit an RFI.

Q - Does GC hired independent Testing include the preload? Can GC use the original Geotechnical Engineer who created the report?
A - Yes, GC testing should include preload. Wood was the geotechnical engineer, so no, the original geotechnical engineer cannot be hired by the GC.

Q - Question on the installation of the wick drains.
A - Submit an RFI to the State of Maine.

Q - Any specific PM/QC certifications?
A - All requirements are outlined in the project specifications. Meeting EM-385 is not required.

d. Sheridan

Q - Could you expand on the unit prices and any escalation?
A - Unit prices will be required in the Notice of Intent to Award Letter which will be issued to the successful bidder. The Unit Prices will be provided as a baseline. GC will not be required to hold these prices for the duration of the contract.

Q - Do you want RFI request to come from the official GC?
A - No we can take request from anyone.

E. **Closing of the Pre Bid Conference:**

- 1) Submitted RFI Questions, answers, and attendance list will be distributed in the next Addendum (Addendum #1).

CONTACTS FOR BIDDING

A. Address all correspondence related to this bid to:

- a. Ralph F. Turner, PE, DVEM Owner Project Manager (PM)
 - i. Phone: (207) 430-5693
 - ii. Cell: (207) 831-2182
 - iii. email: ralph.f.turner4.nfg@army.mil
- b. Allternate: Please CC all correspondence to Mr. Jeff Walker (Wood)
 - i. Cell: (615) 521-4610
 - ii. Email: jeff.walker@woodplc.com

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- B. Technical questions will be answered ONLY by Addendum
- C. All addenda will be issued electronically ONLY by:
 - a. Ms. Sherrill Hallett, Contract Grant Specialist
 - i. Phone: (207) 430-5694
 - ii. Email: sherrill.l.hallett@maine.gov

Addendum #1

Directorate of Facilities Engineering

21 June 2022

This Addendum modifies, amends, and supplements designated parts of the Contract Documents, Specifications and Drawings for:

Joint Vehicle Maintenance Facility, FMS #1, Saco, Maine, Project Number 230125, BGS Project Number 3100, Bid Number 22-018.

It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers for various portions of the work of any changes or modifications contained in this Addendum.

Notice of Bid Opening Extension

Due to the complexity of this Addendum No1, the date of the Bid Opening has been extended to **July 21, 2022**. All other provisions of the bid opening remain the same. Please see the Specification section below for reference to the revised Section 00 11 13 Notice to Contractors.

Pre-Bid Meeting Minutes

Minutes and Sign-In Sheet of the 16 June 2022 Pre-Bid meeting are **attached**.

RFIs/Clarification Items:

1) **Question:** Could you please provide direction and clarification on the following question:

- Preload Sequence note 9 on Sheet C-101-A states the following:
9. INSTALL LOWER GEOGRID LAYER WHERE REQUIRED AND PRE-CUT HOLES IN GEOGRID TO ALLOW FOR PENETRATION OF WICK DRAINS, GEOTECHNICAL INSTRUMENTS, AND DOWNHOLE TOOLING. INSTALL THE PRELOAD DRAINAGE COURSE 12-INCH THICK IN WICK DRAIN AREAS.

Additionally, Note 3 on Sheet C-101-A adds the following:

3. CONTRACTOR SHALL PRE-CUT HOLES IN LOWER GEOGRID LAYER FOLLOWING INSTALLATION TO ALLOW WICK DRAINS AND INSTRUMENTATION TO PENETRATE GEOGRID WITHOUT CAUSING DAMAGE TO THE GEOGRID. MAXIMUM HOLE SIZE CUT IN THE GEOGRID SHALL BE LIMITED TO A REASONABLE SIZE TO ACCOMMODATE INSTALLATION EQUIPMENT AND/OR DOWNHOLE TOOLING. CONTRACTOR SHALL PROVIDE MEANS TO LOCATE AND VERIFY PRE-CUT LOCATIONS PRIOR TO WICK DRAIN AND INSTRUMENT INSTALLATION.

Often times with wick installation, the wick may fail to “stick” in the soil strata below the marine clay. This sometimes causes the wick to need to be slightly relocated. If this situation occurs the new location may not have the geo-grid cut to accept the mandrel and wick drain at the new location. Please give direction on the size hole that we are to cut in the geogrid at the proposed location and the procedure required if a relocation of a wick drain is moved out of this pre-cut location.

Answer: A 12” maximum hole size is allowed in the geogrid to for wick relocation. Larger holes will impact the integrity of the geogrid. If a larger offset is required, the cover material will need to be removed to cut a new smaller hole. The understanding is that this would be a relatively infrequent occurrence.

- 2) **Question:** Can the Civil CAD files be made available to all bidders pre-bid with the completion of a CAD Release Form? CAD file should include original ground data and all proposed design data used to create the bid plans for the civil portion of the project. This will facilitate accuracy and time saving in the preparation of the bid helping to ensure the most competitive pricing and complete scope of work for the owner. If allowed, release of the CAD file should be as soon as possible as it will be used to complete the quantity takeoff for the bid.

Answer: Agreement for Release of Electronic Files Per Section 01 31 00 Project Management and Coordination, paragraph 1.6.C and form is also **Attached to this Addendum**; Once filled out, signed by the Contractor and returned electronically to DVEM; it will be signed, dated, and returned to the Contractor with the electronic files by the DVEM project manager.

Specification Items:

1. Remove Section 00 11 13 Notice to Contractors. Replace with **attached** revised Section 00 11 13 Notice to Contractors. Note the following Change:
 - a. Bid Opening date changed to 21 July, 2022.
2. Remove Section 00 41 13 Contractor Bid Form. Replace with attached revised Section 00 41 13 Contractor Bid Form (**Attached**). Note the following changes:
 - a. The Owner has deleted ABI#6 Metal Roof.
 - b. The Owner has added ABI#15 Wash Pad Enclosure
3. Remove Section 00 01 10 Table of Contents. Replace with revised Section 00 01 10 Table of Contents (**Attached**). Note the changes described below.
4. Remove Section 01 23 00 Alternates. Replace with Attached Section 01 23 00 (**Attached**). Note the following changes:
 - a. Part 3, Paragraph J is struck.
 - b. Part 3, Paragraph R Alternate No. 15: Wash Pad Enclosure has been added
5. Add Section 06 64 00 Plastic Paneling.(**Attached**)
6. Remove Section 09 91 23 Interior Painting. Replace with Section 09 91 23 Interior Painting (**Attached**).

Drawing Items:

1. Drawing Changes In This Addendum - Replace the following drawings “ISSUED FOR BID” Rev 0, DATED 04-22-22, with the updated “ADDENDUM #1” Rev 1 (**Attached**). Changes in the Drawings are related to:
 - a. Base Bid
 - b. Additive Bid Items:
 - i. The Owner has deleted ABI#6 Metal Roof.
 - ii. The Owner has added ABI#15 Wash Bay Enclosure.

G-004	GENERAL INFORMATION ABI 6 Deleted ABI 15 Added	4	OF	244
G111	LIFE SAFETY INFORMATION ABI 15 Added	5	OF	244
C101	OVERVIEW – EXISTING CONDITIONS AND EROSION CONTROL PLAN Base Bid	7	OF	244
C102	EXISTING CONDITIONS AND SITE SOILS PLAN 1 Base Bid	9	OF	244
C104	OVERVIEW – SITE LAYOUT Base Bid	11	OF	244
C-104-A	ALTERNATIVE BID ITEMS ABI 15 Added	12	OF	244
C-105	SITE LAYOUT AND UTILITY PLAN-1 Base Bid	13	OF	244
C-106	SITE LAYOUT AND UTILITY PLAN-2 Base Bid	14	OF	244
C-107	GRADING AND DRAINAGE PLAN-1	15	OF	244

	ABI 15 Added			
C-108	GRADING AND DRAINAGE PLAN-2	16	OF	244
	Base Bid			
C301	STORMWATER MANAGEMENT AREA – TREATMENT PLAN AND PROFILES – 1	19	OF	244
	Base Bid			
C302	STORMWATER MANAGEMENT AREA – TREATMENT PLAN AND PROFILES – 2	20	OF	244
	Base Bid			
C505	SITE DETAILS – STORMWATER	25	OF	244
	Base Bid			
S-101	AREA A FOUNDATION PLAN	38	OF	244
	Base Bid			
S-105	AREA A GRADE SLAB PLAN	42	OF	244
	Base Bid			
S-121	AREA A ROOF FRAMING PLAN	48	OF	244
	ABI 15 Added			
S-201	AREA A FRAMING ELEVATIONS	52	OF	244
	ABI 15 Added			
S-202	AREA A FRAMING ELEVATIONS	53	OF	244
	ABI 15 Added			
S-210	AREA A GIRT FRAMING ELEVATIONS	61	OF	244
	ABI 15 Added			
S-509	PIER SECTIONS	73	OF	244
	Base Bid			
AE101	AREA A FIRST LEVEL FLOOR PLAN	83	OF	244
	ABI 15 Added			
AE121	AREA A FIRST LEVEL REFLECTED CEILING PLAN	89	OF	244
	Base Bid			
AE131	AREA A ROOF PLAN	93	OF	244
	ABI 15 Added			
AE201	EXTERIOR ELEVATIONS - AREA A	97	OF	244
	ABI 15 Added			
AE601	PARTITION INFORMATION	118	OF	244
	ABI 15 Added			
AE611	DOOR INFORMATION	121	OF	244
	ABI 15 Added			
AF101	AREA A FIRST LEVEL FINISH PLAN	125	OF	244
	ABI 15 Added			
FA101	AREA A FIRST LEVEL FIRE ALARM PLAN	131	OF	244
	ABI 15 Added			
FP011	FIRST LEVEL HAZARD CLASSIFICATION PLAN	137	OF	244
	ABI 15 Added			
FP101	AREA A FIRST LEVEL FIRE PROTECTION PLAN	138	OF	244
	ABI 15 Added			
FP501	FIRE PROTECTION DETAILS	143	OF	244
	ABI 15 Added			
PL101	AREA A FIRST LEVEL UNDERSLAB PLUMBING PLAN	146	OF	244
	ABI 15 Added			
PL111	AREA A FIRST LEVEL DWV PIPING PLAN	150	OF	244
	ABI 15 Added			
PL121	AREA A FIRST LEVEL SUPPLY PIPING PLAN	154	OF	244
	ABI 15 Added			
PL502	PLUMBING DETAILS	160	OF	244
	ABI 15 Added			

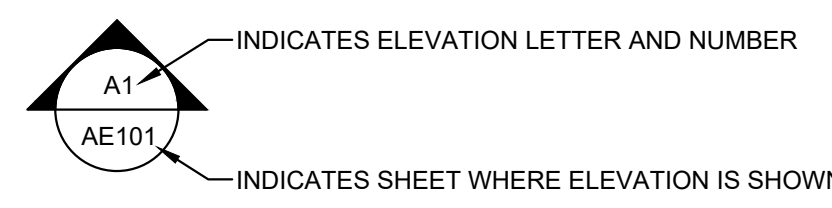
PL503	PLUMBING DETAILS ABI 15 Added	161	OF	244
MH101	AREA A FIRST LEVEL DUCTWORK PLAN ABI 15 Added	167	OF	244
MP101	AREA A FIRST LEVEL MECHANICAL PIPING PLAN ABI 15 Added	171	OF	244
M-601	MECHANICAL SCHEDULES ABI 15 Added	190	OF	244
M-602	MECHANICAL SCHEDULES ABI 15 Added	191	OF	244
M-603	MECHANICAL SCHEDULES ABI 15 Added	192	OF	244
M-604	MECHANICAL SCHEDULES ABI 15 Added	193	OF	244
M-653	MECHANICAL CONTROLS DIAGRAMS Base Bid	196	OF	244
M-655	MECHANICAL CONTROLS DIAGRAMS ABI 15 Added	198	OF	244
ES101	SITE PLAN, LIGHTING FIXTURE SCHEDULE AND DETAILS Base Bid	204	OF	244
EG101	GROUNDING PLAN Base Bid	207	OF	244
EG111	LIGHTNING PROTECTION PLAN ABI 15 Added	208	OF	244
EP101	AREA A FIRST LEVEL POWER PLAN ABI 15 Added	210	OF	244
EP102	AREA B FIRST LEVEL POWER PLAN Base Bid	211	OF	244
EP104	AREA D FIRST LEVEL POWER PLAN Base Bid	213	OF	244
EL101	AREA A FIRST LEVEL LIGHTING PLAN ABI 15 Added	214	OF	244
E-403	AREAS A AND D ENLARGED POWER PART PLANS Base Bid ABI 15 Added	220	OF	244
E-601	LIGHTING FIXTURE SCHEDULE AND DIAGRAMS ABI 15 Added	223	OF	244
E-602	PANEL SCHEDULES ABI 15 Added	224	OF	244
E-603	PANEL SCHEDULES ABI 15 Added	225	OF	244
E-604	PANEL SCHEDULES Base Bid ABI 15 Added	226	OF	244
T-101	AREA A FIRST LEVEL TELECOM PLAN ABI 15 Added	230	OF	244
TY101	AREA A FIRST LEVEL SECURITY PLAN ABI 15 Added	240	OF	244

Attachments:

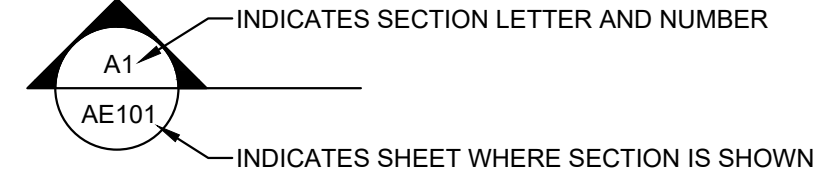
- 1) Saco FMS1 Pre-Bid Conference Minutes Addendum 1
- 2) Saco FMS 1 Pre Bid Sign In Sheet Addendum 1
- 3) Saco FMS 1 Section 00 01 10 Table of Contents Addendum 1
- 4) Saco FMS 1 00 11 13 Notice to Contractors Addendum 1

- 5) Saco FMS 1 Section 00 41 13 Contractor Bid Form Addendum 1
- 6) Saco FMS 1 Section 01 23 00 Alternates Addendum 1
- 7) Saco FMS 1 Section 06 64 00 Plastic Paneling Addendum 1
- 8) Saco FMS 1 Section 09 91 23 Interior Painting Addendum 1
- 9) Saco FMS 1 Addendum 1 - 20220610
- 10) Agreement for Release of Electronic Files Form

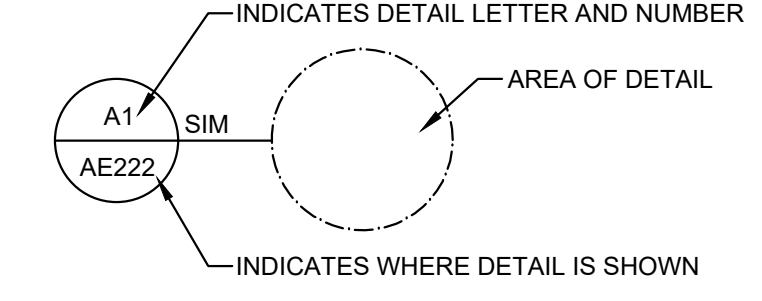
LEGEND



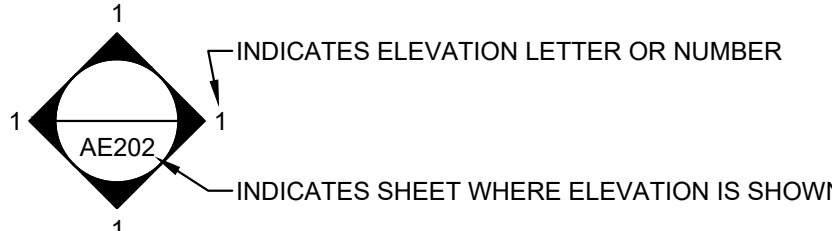
EXTERIOR ELEVATION INDICATOR



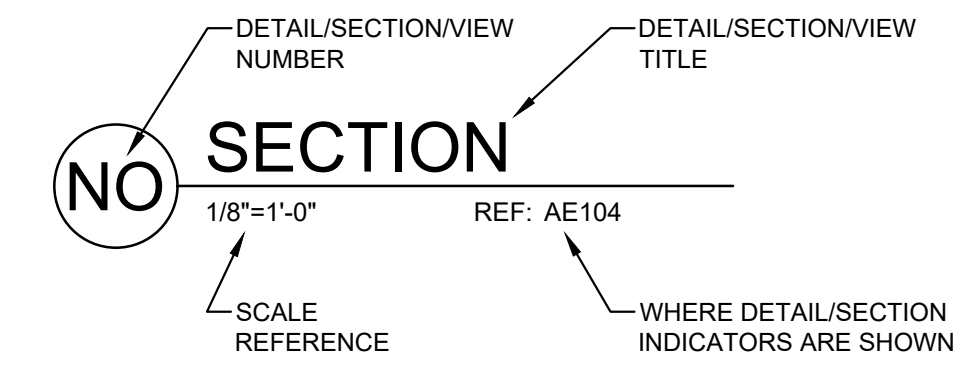
SECTION INDICATOR



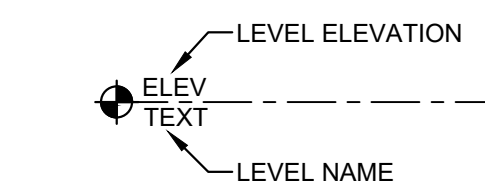
DETAIL INDICATOR



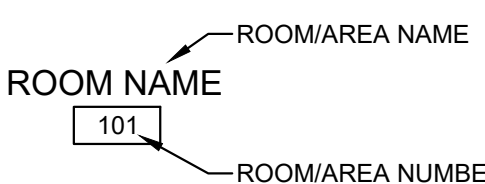
INTERIOR ELEVATION INDICATOR



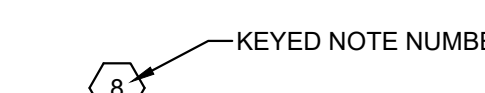
VIEW/DETAIL/SECTION TITLE INDICATOR



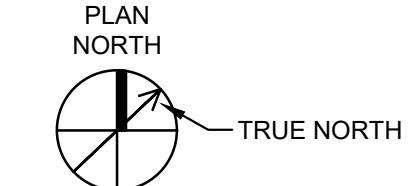
ELEVATION INDICATOR



ROOM/AREA INDICATOR



KEYED NOTE INDICATOR



NORTH ARROW

ABBREVIATIONS

Table of abbreviations including symbols like @, A/E, ABA, etc., and their corresponding full names such as ARCHITECT/ENGINEER, ARCHITECTURAL BARRIERS ACT, etc.

PROJECT DESCRIPTION

CONSTRUCTION OF A NEW NATIONAL GUARD VEHICLE MAINTENANCE SHOP FOR BOTH THE MAINE ARMY NATIONAL GUARD (ARNG) AND MAINE AIR NATIONAL GUARD (ANG). THE PROJECT IS LOCATED ON A 27.5 ACRE STATE OWNED PARCEL ALONG EASTVIEW PARKWAY IN SACO, MAINE AND IS THE FIRST PHASE OF A PLANNED CAMPUS.

GENERAL NOTES

- 1. WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL STATE, NATIONAL AND OTHER CODES AND ORDINANCES WHICH APPLY TO THIS PROJECT. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS WHICH ARE REQUIRED FOR THE SATISFACTORY COMPLETION OF WORK...

ALTERNATE BID ITEMS

Table with columns for TITLE and DESCRIPTION. Items include LOADING DOCK RAMP, WORK BAY APRONS, HEAVY DUTY PAVEMENT, PURCHASE PROPANE TANKS, METAL ROOFING, RECESSED WALK-OFF MATS, etc.

APPLICABLE CODES AND STANDARDS

THIS PROJECT SHALL CONFORM TO THE FOLLOWING APPLICABLE CODES AND GOVERNMENT REQUIREMENTS: UNIFIED FACILITY CRITERIA (UFC) 1-200-01: DoD BUILDING CODE, 1-200-02: HIGH PERFORMANCE AND SUSTAINABLE BUILDING REQUIREMENTS; CHANGE 4, etc.

PROJECT DATA

OCCUPANCY CLASSIFICATION: PRIMARY BUILDING OCCUPANCY: FACTORY INDUSTRIAL, GROUP F-1 WITH NON-SEPARATED MIXED OCCUPANCY GROUPS. BUSINESS GROUP B (IBC), NEW BUSINESS (NFPA 101), MODERATE HAZARD STORAGE, GROUP S-1 (IBC), STORAGE (NFPA 101), MODERATE-HAZARD FACTORY INDUSTRIAL, GROUP F-1 (IBC), SPECIAL PURPOSE INDUSTRIAL (NFPA 101).

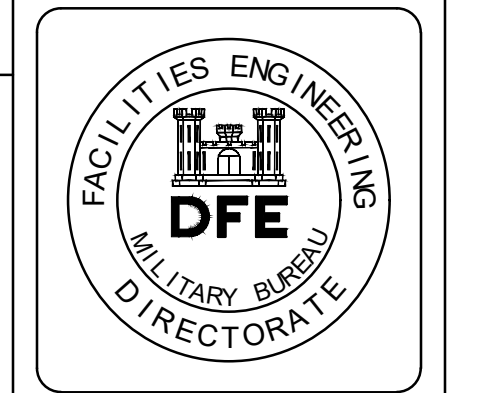


Table for Plan Revisions with columns for Date, Description, and Revision number.

Table for Design/Drawn/Checked/Scale/Date/AS NOTED/DFE PROJECT NO. with values like CAM, CAM, MSD, 06-10-2022, 230125.

STATE OF MAINE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT. Includes logo for wood.

NATIONAL GUARD VEHICLE MAINTENANCE SHOP SACO, MAINE GENERAL INFORMATION.

PLAN PROGRESS table with checkboxes for DRAFT, 35% REVIEW, 60% REVIEW, 95% REVIEW, FINAL REVIEW, FOR BIDDING, ISSUED FOR CONSTRUCTION, RECORD DRAWINGS.

SHEET ID: G-004 SHEET: 4 OF 244



NOT FOR CONSTRUCTION

EXIT ACCESS

	MAXIMUM DISTANCE (FT)	
	ALLOWABLE	PROVIDED
DEAD END CORRIDOR	50	20
COMMON PATH OF TRAVEL	100	66
TOTAL TRAVEL DISTANCE	250	183
TOTAL TRAVEL TO ALTERNATE EXIT	250	98

EGRESS CAPACITY WIDTH

	MINIMUM WIDTH (IN)	
	REQUIRED	PROVIDED
CAPACITY (0.2 IN/PERSON)	74	165
CORRIDORS	44	64
DOOR OPENING	32	33

LEGEND

- (FE) MULTI PURPOSE ABC DRY CHEMICAL (AMMONIUM PHOSPHATE) FIRE EXTINGUISHER ON BRACKET MIN 4-A:80-B:C RATING
- (FE) MULTI PURPOSE ABC DRY CHEMICAL (AMMONIUM PHOSPHATE) FIRE EXTINGUISHER ON BRACKET MIN 2-A:10-B:C RATING
- (FE) CLEAN AGENT (FE-36) FIRE EXTINGUISHER ON BRACKET M IN 2-A:10-B:C RATING
- (FE) (FE) (FE) FIRE EXTINGUISHER IN CABINET
- EXIT SIGN - WALL MOUNTED
- EXIT SIGN - CEILING MOUNTED
- CP = XX FT COMMON PATH OF TRAVEL
- EGRESS TRAVEL DISTANCE
- DE = XX FT DEAD END
- 30 MIN FIRE RATED PARTITION PER NFPA 75
- ONE HOUR FIRE RATED PARTITION PER NFPA 75
- TWO HOUR FIRE RATED PARTITION PER NFPA 75
- A1 TRAVEL PATH IDENTIFIER
- TD=104'-0" TOTAL TRAVEL DISTANCE
- WIDTH = XX IN * EXIT & CLEAR OPENING WIDTH
- OCC LOAD = X ALLOWABLE OCCUPANT LOAD OF DOOR
- ACTUAL OCC LOAD = X ACTUAL OCCUPANT LOAD PASSING THROUGH DOOR
- (EES) EMERGENCY EYEWASH AND SHOWER

NOTES

1. SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES.
2. FIXTURES AND FURNISHINGS ARE SHOWN FOR COORDINATION BUT ARE NOT INCLUDED IN SCOPE.
3. SEE G-004 FOR ADDITIONAL CODE INFORMATION AND PROJECT DATA.
4. FIRE EXTINGUISHERS ARE OFOI (OWNER FURNISHED, OWNER INSTALLED), FIRE EXTINGUISHER LABELING, CABINETS AND BRACKETS ARE CFCI (CONTRACTOR FURNISHED, CONTRACTOR INSTALLED). PROVIDE BLOCKING IN WALL FOR MOUNTING BRACKETS.

ALTERNATE BID ITEM

SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE

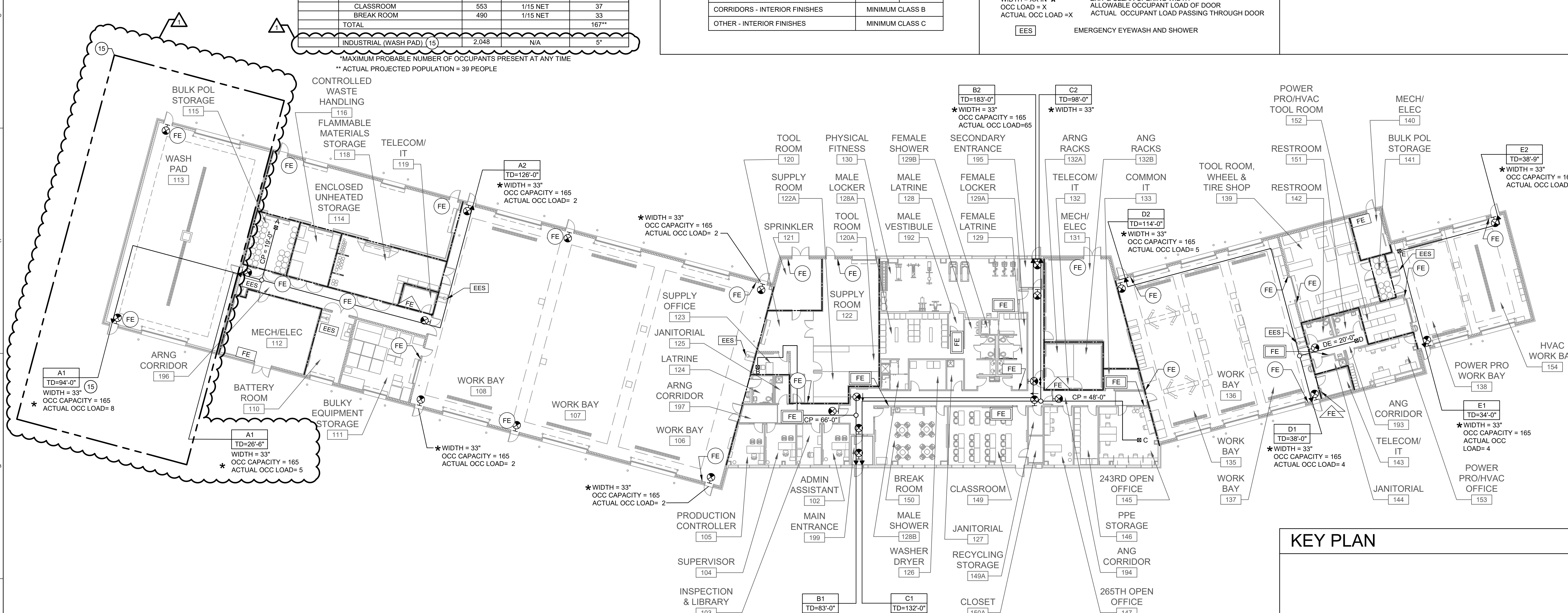
OCCUPANT LOADS

ROOM NO.	USE	AREA (SF)	AREA (SF) PER OCCU	OCCUPANT LOAD
BUSINESS				
	EXERCISE (W/EQUIPMENT)	916	1/50 GROSS	18
	LOCKERS/SHOWERS	670	1/50 GROSS	13
	BUSINESS (OTHER)	4,435	1/150 GROSS	30
	ACCESSORY (EQUIPMENT)	1,691	1/500 GROSS	5
	ACCESSORY (IT)	807	1/300 GROSS	3
	INDUSTRIAL	12,967	N/A	15*
	STORAGE	6,807	1/500 GROSS	13
ASSEMBLY				
	CLASSROOM	553	1/15 NET	37
	BREAK ROOM	490	1/15 NET	33
	TOTAL			167**
INDUSTRIAL (WASH PAD) (15)				
		2,048	N/A	5*

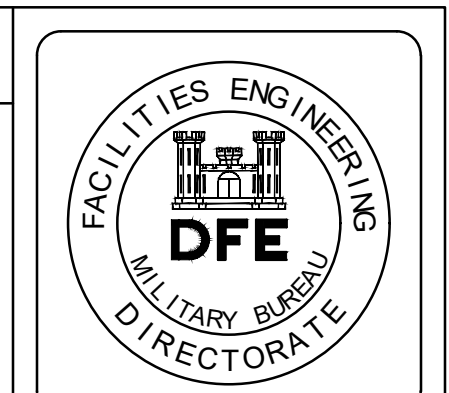
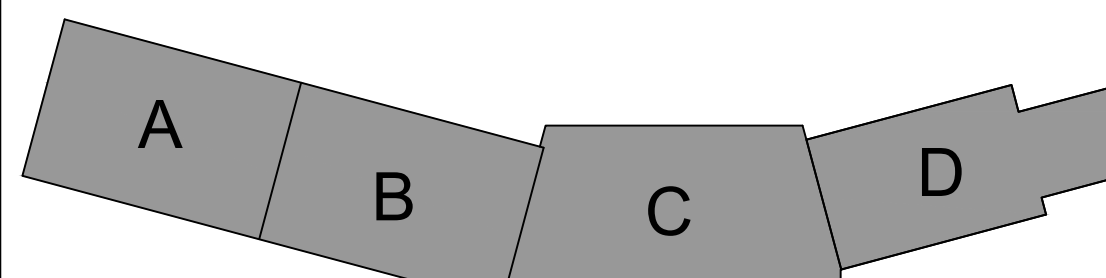
*MAXIMUM PROBABLE NUMBER OF OCCUPANTS PRESENT AT ANY TIME
 **ACTUAL PROJECTED POPULATION = 39 PEOPLE

FIRE RESISTANCE

BUILDING ELEMENT (HOURS)	REQUIRED	PROVIDED
PRIMARY STRUCTURE	0	0
BEARING WALLS - EXTERIOR	0	0
INTERIOR	0	0
NON-BEARING WALLS - EXTERIOR	0	0
INTERIOR	0	0
FLOOR CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0
CORRIDORS	0	0
CORRIDORS - INTERIOR FINISHES	MINIMUM CLASS B	
OTHER - INTERIOR FINISHES	MINIMUM CLASS C	



KEY PLAN



PLAN REVISIONS	Date	Appr.
1	06-10-22	JRW
0	04-22-22	JRW

DESIGNED BY:	EAH
DRAWN BY: <td>JLR</td>	JLR
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DPE PROJECT NO.: <td>230125</td>	230125

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

LIFE SAFETY INFORMATION

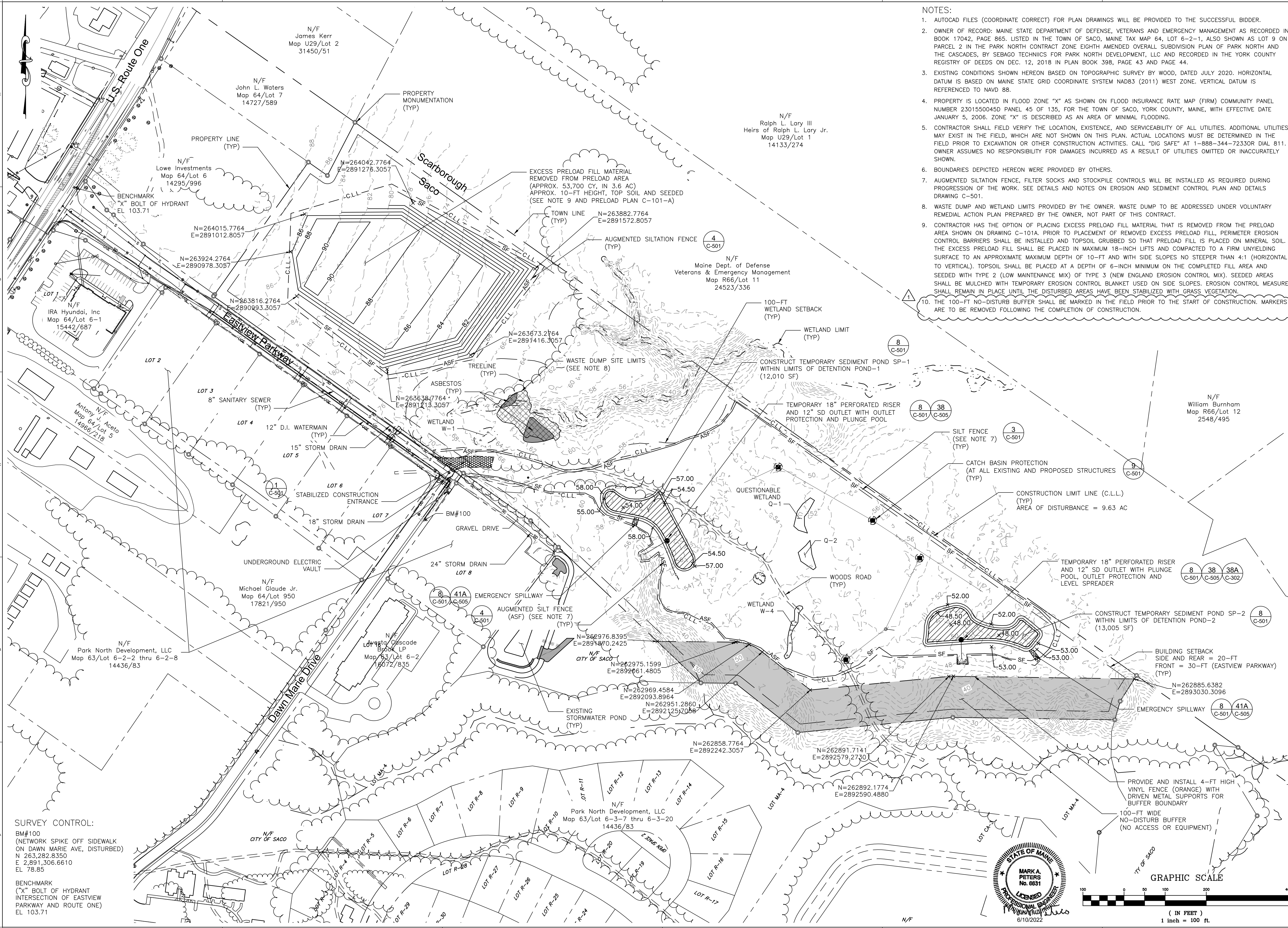
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<input type="checkbox"/> 35% REVIEW
<input type="checkbox"/> 60% REVIEW
<input type="checkbox"/> 95% REVIEW
<input type="checkbox"/> FINAL REVIEW
<input checked="" type="checkbox"/> FOR BIDDING
<input type="checkbox"/> ISSUED FOR CONSTRUCTION
<input type="checkbox"/> RECORD DRAWINGS

SHEET ID:
G-111
 SHEET: 5 OF 244

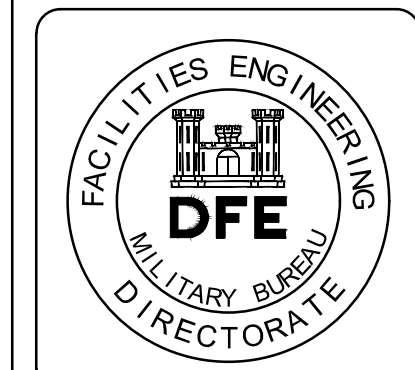
A1 LIFE SAFETY INFORMATION
 NOT TO SCALE



NOT FOR CONSTRUCTION



- NOTES:
- AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
 - OWNER OF RECORD: MAINE STATE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT AS RECORDED IN BOOK 17042, PAGE 865, LISTED IN THE TOWN OF SACO, MAINE TAX MAP 64, LOT 6-2-1, ALSO SHOWN AS LOT 9 ON PARCEL 2 IN THE PARK NORTH CONTRACT ZONE EIGHTH AMENDED OVERALL SUBDIVISION PLAN OF PARK NORTH AND THE CASCADES, BY SEBAGO TECHNIQS FOR PARK NORTH DEVELOPMENT, LLC AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS ON DEC. 12, 2018 IN PLAN BOOK 398, PAGE 43 AND PAGE 44.
 - EXISTING CONDITIONS SHOWN HEREON BASED ON TOPOGRAPHIC SURVEY BY WOOD, DATED JULY 2020. HORIZONTAL DATUM IS BASED ON MAINE STATE GRID COORDINATE SYSTEM NAD83 (2011) WEST ZONE. VERTICAL DATUM IS REFERENCED TO NAVD 88.
 - PROPERTY IS LOCATED IN FLOOD ZONE "X" AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NUMBER 2301550045D PANEL 45 OF 135, FOR THE TOWN OF SACO, YORK COUNTY, MAINE, WITH EFFECTIVE DATE JANUARY 5, 2006. ZONE "X" IS DESCRIBED AS AN AREA OF MINIMAL FLOODING.
 - CONTRACTOR SHALL FIELD VERIFY THE LOCATION, EXISTENCE, AND SERVICEABILITY OF ALL UTILITIES. ADDITIONAL UTILITIES MAY EXIST IN THE FIELD, WHICH ARE NOT SHOWN ON THIS PLAN. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES. CALL "DIG SAFE" AT 1-888-344-7233 OR DIAL 811. OWNER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
 - BOUNDARIES DEPICTED HEREON WERE PROVIDED BY OTHERS.
 - AUGMENTED SILTATION FENCE, FILTER SOCKS AND STOCKPILE CONTROLS WILL BE INSTALLED AS REQUIRED DURING PROGRESSION OF THE WORK. SEE DETAILS AND NOTES ON EROSION AND SEDIMENT CONTROL PLAN AND DETAILS DRAWING C-501.
 - WASTE DUMP AND WETLAND LIMITS PROVIDED BY THE OWNER. WASTE DUMP TO BE ADDRESSED UNDER VOLUNTARY REMEDIAL ACTION PLAN PREPARED BY THE OWNER, NOT PART OF THIS CONTRACT.
 - CONTRACTOR HAS THE OPTION OF PLACING EXCESS PRELOAD FILL MATERIAL THAT IS REMOVED FROM THE PRELOAD AREA SHOWN ON DRAWING C-101A. PRIOR TO PLACEMENT OF REMOVED EXCESS PRELOAD FILL, PERIMETER EROSION CONTROL BARRIERS SHALL BE INSTALLED AND TOPSOIL GRUBBED SO THAT PRELOAD FILL IS PLACED ON MINERAL SOIL. THE EXCESS PRELOAD FILL SHALL BE PLACED IN MAXIMUM 18-INCH LIFTS AND COMPACTED TO A FIRM UNYIELDING SURFACE TO AN APPROXIMATE MAXIMUM DEPTH OF 10-FT AND WITH SIDE SLOPES NO STEEPER THAN 4:1 (HORIZONTAL TO VERTICAL). TOPSOIL SHALL BE PLACED AT A DEPTH OF 6-INCH MINIMUM ON THE COMPLETED FILL AREA AND SEEDED WITH TYPE 2 (LOW MAINTENANCE MIX) OF TYPE 3 (NEW ENGLAND EROSION CONTROL MIX). SEEDING AREAS SHALL BE MULCHED WITH TEMPORARY EROSION CONTROL BLANKET USED ON SIDE SLOPES. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN STABILIZED WITH GRASS VEGETATION.
 - THE 100-FT NO-DISTURB BUFFER SHALL BE MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. MARKERS ARE TO BE REMOVED FOLLOWING THE COMPLETION OF CONSTRUCTION.



PLAN REVISIONS	
NO.	DESCRIPTION
1	ADDENDUM #1
0	ISSUED FOR BID

DESIGNED BY:	WJW	230125
DRAWN BY:	WJW	
CHECKED BY:	MAP	
DATE:	06-10-2022	
SCALE:	1" = 100'	
DFE PROJECT NO.:		

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

WOOD.
ENGINEERING & ARCHITECTURE
1000 WOODVILLE ROAD, SUITE 100
PORTLAND, ME 04108
P: (207) 762-8100, F: (207) 762-8101, WWW.WOODENR.COM

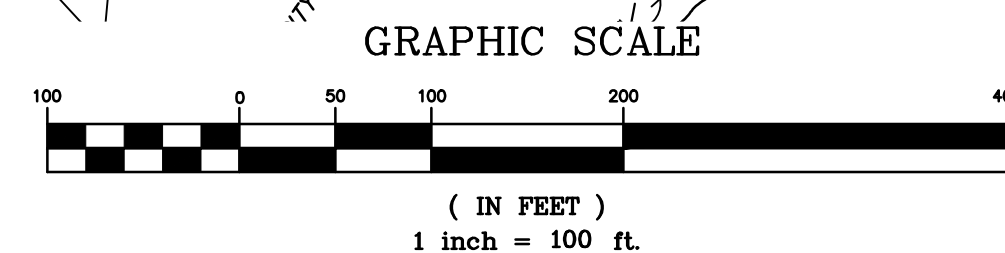
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

OVERVIEW - EXISTING CONDITIONS
AND EROSION CONTROL PLAN

PLAN PROGRESS	
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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

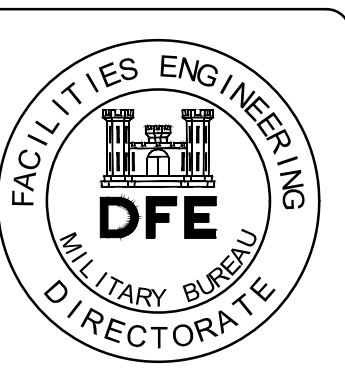
SHEET ID:
C-101

SHEET: 7 OF 244



SURVEY CONTROL:
BM#100
(NETWORK SPIKE OFF SIDEWALK
ON DAWN MARIE AVE, DISTURBED)
N 263,282.8350
E 2,891,306.6610
EL 78.85

BENCHMARK
("X" BOLT OF HYDRANT
INTERSECTION OF EASTVIEW
PARKWAY AND ROUTE ONE)
EL 103.71



PLAN REVISIONS	W/JW	W/JW	MSD	JRW	JRW	Date	Appr.
1				06-10-22	JRW	04-22-22	
0				ISSUED FOR BID	JRW		

DESIGNED BY:	W/JW	230125
DRAWN BY:	W/JW	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	1" = 40'	
DFE PROJECT NO.:		

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

WOOD.
Environmental & Infrastructure Solutions, Inc.
671 Congress St., Suite 200, Portland, ME 04101
P: (207) 761-1100 F: (207) 761-1101 www.woodinc.com

NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

EXISTING CONDITIONS AND
SITE SOILS PLAN-1

PLAN PROGRESS	
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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

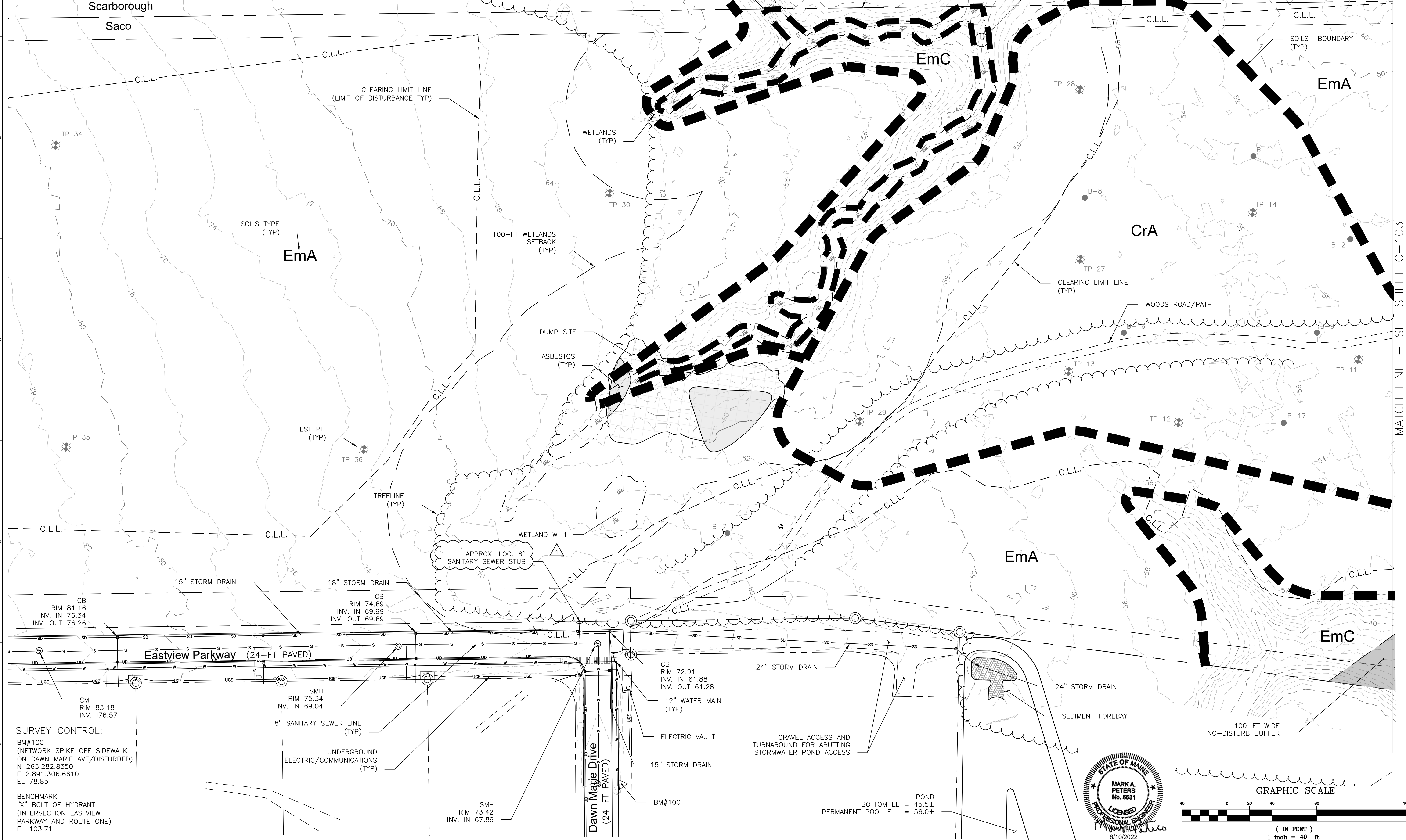
SHEET ID:
C-102
SHEET: 9 OF 244

SOILS KEY				
MAP SYMBOL	SOIL SERIES	DRAINAGE CONDITION	SLOPE (%)	HYDROGEOLOGIC GROUP
CrA	CROGHAN FINE SAND	MODERATELY WELL	0-8	B
EmA	ELMWOOD FINE SANDY LOAM	MODERATELY WELL	0-8	C
EmB	ELMWOOD FINE SANDY LOAM	MODERATELY WELL	8-15	C
EmC	ELMWOOD FINE SANDY LOAM	MODERATELY WELL	15-25	C
Sn	SCANTIC SILT LOAM	POORLY	0-8	D

LEGEND	
TP 30	TEST PIT
B-4	GEOTECHNICAL BORING
(Dashed line)	SOIL SERIES BOUNDARY
(Wavy line)	WETLAND
55	CONTOURS

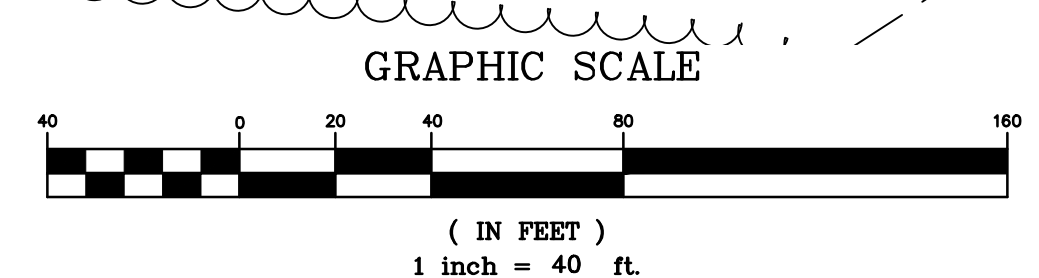
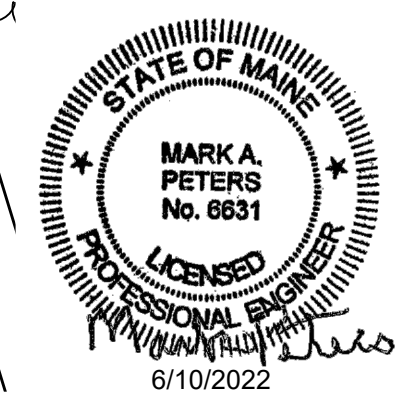
NOTE:
1. SOIL SERIES AND CORRESPONDING HYDROGEOLOGIC GROUPS DEPICTED ON THIS DRAWING WERE ESTABLISHED BY IAN BROADWATER SS NO. 305 BETWEEN OCTOBER 2020 AND MARCH 2021. SOIL BOUNDARIES WERE DEVELOPED IN ACCORDANCE WITH MAINE GUIDELINES FOR SOIL IDENTIFICATION AND MAPPING (MARCH 2009).

HYDROGEOLOGIC GROUP FROM SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND, SSSNNE SPECIAL PUBLICATION NO. 5 SEPTEMBER, 2009

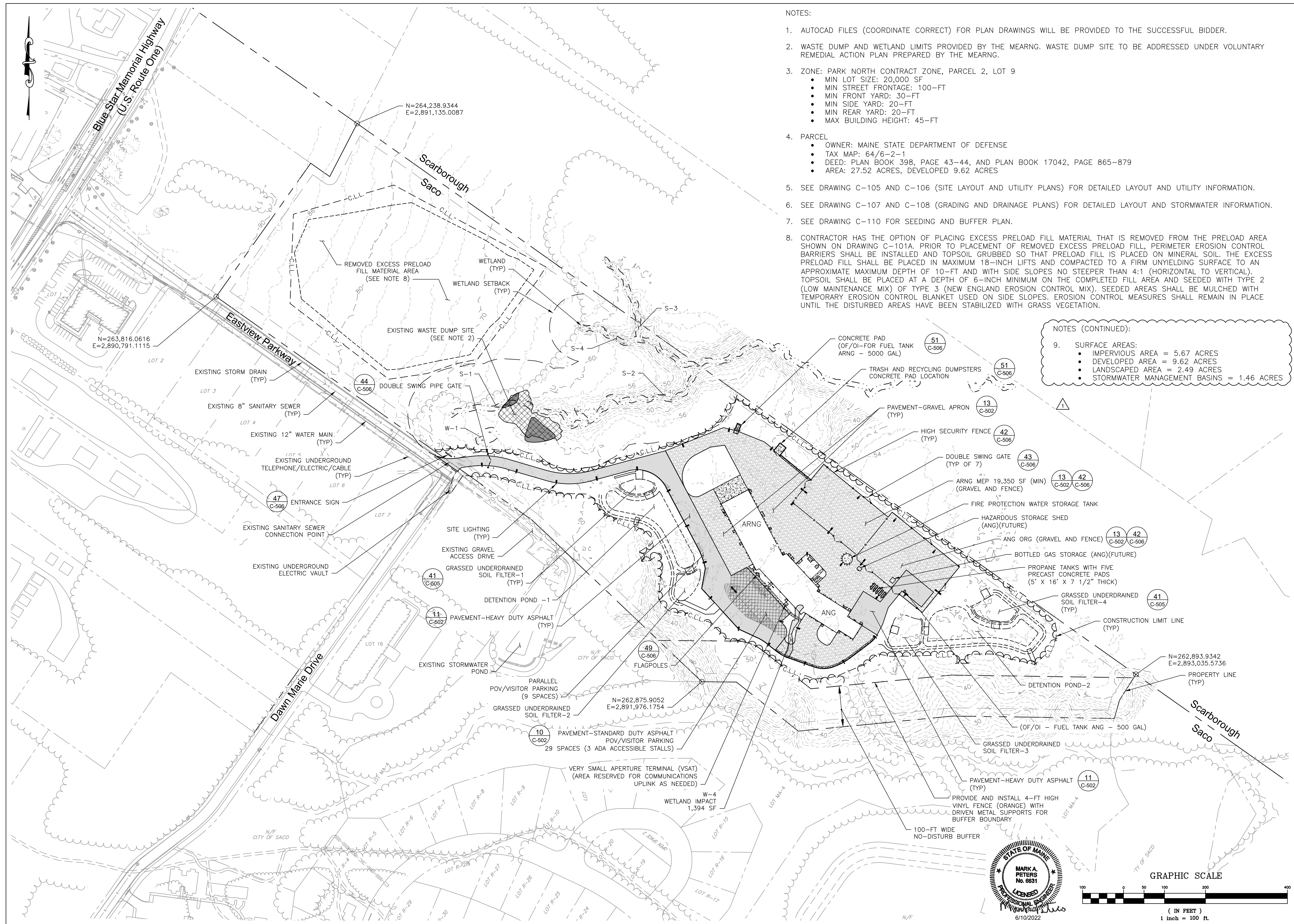


SURVEY CONTROL:
BM#100
(NETWORK SPIKE OFF SIDEWALK ON DAWN MARIE AVE/DISTURBED)
N 263,282.8350
E 2,891,306.6610
EL 78.85

BENCHMARK
"X" BOLT OF HYDRANT
(INTERSECTION EASTVIEW PARKWAY AND ROUTE ONE)
EL 103.71



MATCH LINE - SEE SHEET C-103

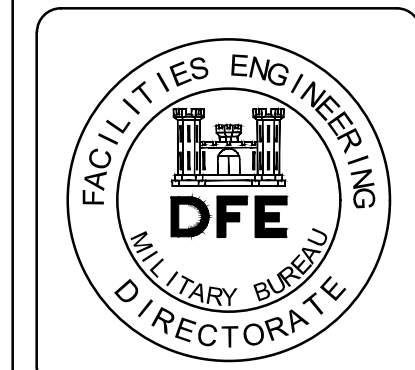


NOTES:

- AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
- WASTE DUMP AND WETLAND LIMITS PROVIDED BY THE MEARNG. WASTE DUMP SITE TO BE ADDRESSED UNDER VOLUNTARY REMEDIAL ACTION PLAN PREPARED BY THE MEARNG.
- ZONE: PARK NORTH CONTRACT ZONE, PARCEL 2, LOT 9
 - MIN LOT SIZE: 20,000 SF
 - MIN STREET FRONTAGE: 100-FT
 - MIN FRONT YARD: 30-FT
 - MIN SIDE YARD: 20-FT
 - MIN REAR YARD: 20-FT
 - MAX BUILDING HEIGHT: 45-FT
- PARCEL
 - OWNER: MAINE STATE DEPARTMENT OF DEFENSE
 - TAX MAP: 64/6-2-1
 - DEED: PLAN BOOK 398, PAGE 43-44, AND PLAN BOOK 17042, PAGE 865-879
 - AREA: 27.52 ACRES, DEVELOPED 9.62 ACRES
- SEE DRAWING C-105 AND C-106 (SITE LAYOUT AND UTILITY PLANS) FOR DETAILED LAYOUT AND UTILITY INFORMATION.
- SEE DRAWING C-107 AND C-108 (GRADING AND DRAINAGE PLANS) FOR DETAILED LAYOUT AND STORMWATER INFORMATION.
- SEE DRAWING C-110 FOR SEEDING AND BUFFER PLAN.
- CONTRACTOR HAS THE OPTION OF PLACING EXCESS PRELOAD FILL MATERIAL THAT IS REMOVED FROM THE PRELOAD AREA SHOWN ON DRAWING C-101A. PRIOR TO PLACEMENT OF REMOVED EXCESS PRELOAD FILL, PERIMETER EROSION CONTROL BARRIERS SHALL BE INSTALLED AND TOPSOIL GRUBBED SO THAT PRELOAD FILL IS PLACED ON MINERAL SOIL. THE EXCESS PRELOAD FILL SHALL BE PLACED IN MAXIMUM 18-INCH LIFTS AND COMPACTED TO A FIRM UNYIELDING SURFACE TO AN APPROXIMATE MAXIMUM DEPTH OF 10-FT AND WITH SIDE SLOPES NO STEEPER THAN 4:1 (HORIZONTAL TO VERTICAL). TOPSOIL SHALL BE PLACED AT A DEPTH OF 6-INCH MINIMUM ON THE COMPLETED FILL AREA AND SEEDED WITH TYPE 2 (LOW MAINTENANCE MIX) OF TYPE 3 (NEW ENGLAND EROSION CONTROL MIX). SEEDED AREAS SHALL BE MULCHED WITH TEMPORARY EROSION CONTROL BLANKET USED ON SIDE SLOPES. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN STABILIZED WITH GRASS VEGETATION.

NOTES (CONTINUED):

- SURFACE AREAS:
 - IMPERVIOUS AREA = 5.67 ACRES
 - DEVELOPED AREA = 9.62 ACRES
 - LANDSCAPED AREA = 2.49 ACRES
 - STORMWATER MANAGEMENT BASINS = 1.46 ACRES



PLAN REVISIONS	
Rev#	Description
1	ADDENDUM #1
0	ISSUED FOR BID

DESIGNED BY:	WJM	230125
DRAWN BY:	WJM	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	1" = 100'	
DPE PROJECT NO.:		

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

wood.
Engineering & Architecture, Inc.
611 Congress St., Suite 2020, Portland, ME 04101
P: (207) 725-2121, F: (207) 725-2122, www.woodinc.com

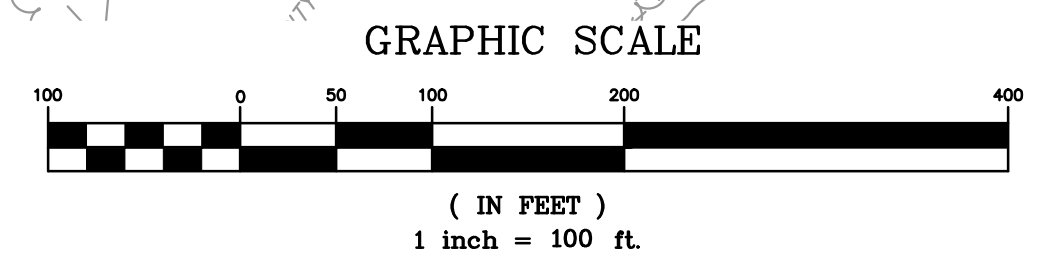
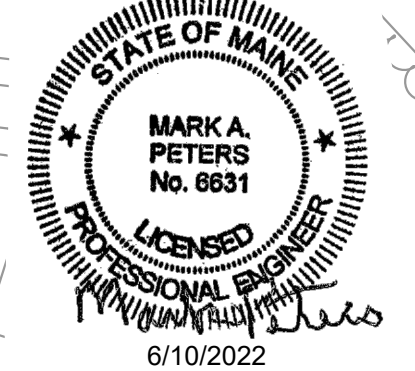
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

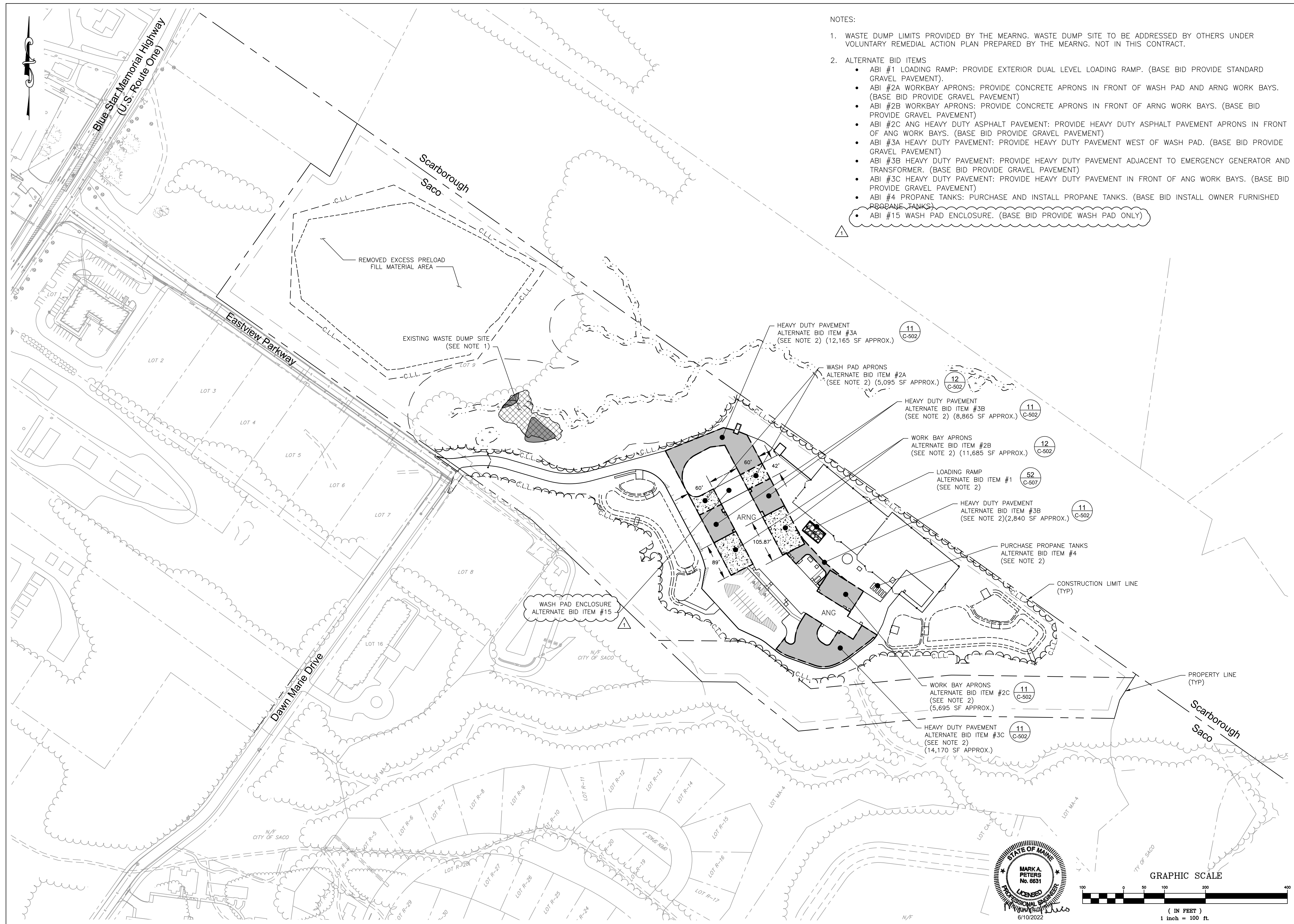
OVERVIEW - SITE LAYOUT

PLAN PROGRESS

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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

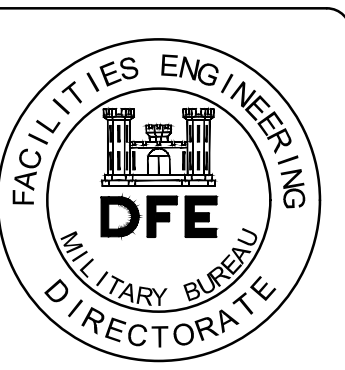
SHEET ID:
C-104
SHEET: 11 of 244





NOTES:

- WASTE DUMP LIMITS PROVIDED BY THE MEARNG. WASTE DUMP SITE TO BE ADDRESSED BY OTHERS UNDER VOLUNTARY REMEDIAL ACTION PLAN PREPARED BY THE MEARNG. NOT IN THIS CONTRACT.
- ALTERNATE BID ITEMS
 - ABI #1 LOADING RAMP: PROVIDE EXTERIOR DUAL LEVEL LOADING RAMP. (BASE BID PROVIDE STANDARD GRAVEL PAVEMENT).
 - ABI #2A WORKBAY APRONS: PROVIDE CONCRETE APRONS IN FRONT OF WASH PAD AND ARNG WORK BAYS. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #2B WORKBAY APRONS: PROVIDE CONCRETE APRONS IN FRONT OF ARNG WORK BAYS. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #2C ANG HEAVY DUTY ASPHALT PAVEMENT: PROVIDE HEAVY DUTY ASPHALT PAVEMENT APRONS IN FRONT OF ANG WORK BAYS. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #3A HEAVY DUTY PAVEMENT: PROVIDE HEAVY DUTY PAVEMENT WEST OF WASH PAD. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #3B HEAVY DUTY PAVEMENT: PROVIDE HEAVY DUTY PAVEMENT ADJACENT TO EMERGENCY GENERATOR AND TRANSFORMER. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #3C HEAVY DUTY PAVEMENT: PROVIDE HEAVY DUTY PAVEMENT IN FRONT OF ANG WORK BAYS. (BASE BID PROVIDE GRAVEL PAVEMENT)
 - ABI #4 PROPANE TANKS: PURCHASE AND INSTALL PROPANE TANKS. (BASE BID INSTALL OWNER FURNISHED PROPANE TANKS)
 - ABI #15 WASH PAD ENCLOSURE. (BASE BID PROVIDE WASH PAD ONLY)



PLAN REVISIONS

Rev#	Description	Date	JRW	Appr.
1	ADDENDUM #1	06-10-22	JRW	
0	ISSUED FOR BID	04-22-22	JRW	

DESIGNED BY: WJW
 DRAWN BY: WJW
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: 1" = 100'
 DFE PROJECT NO: 230125

STATE OF MAINE
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 Environmental & Infrastructure Solutions, Inc.
 611 Congress St., Suite 2020, Portland, ME 04101
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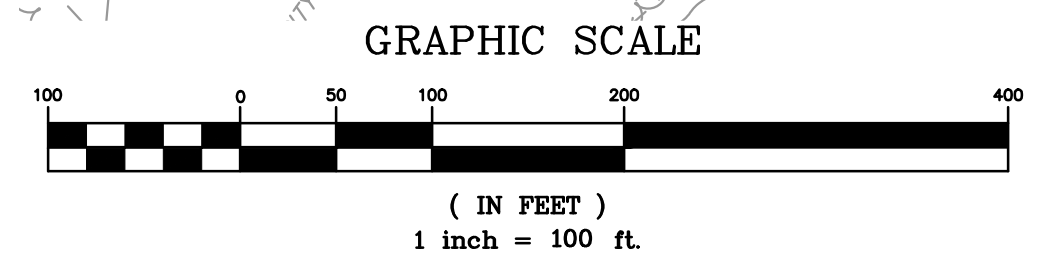
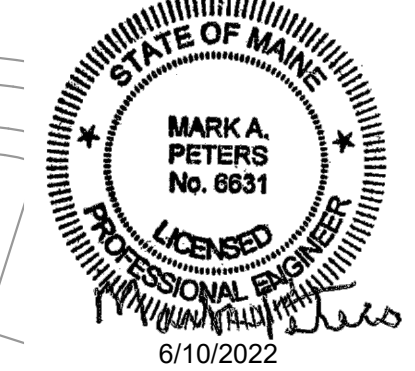
NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

ALTERNATE BID ITEMS

PLAN PROGRESS

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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
C-104.A
 SHEET: 12 of 244

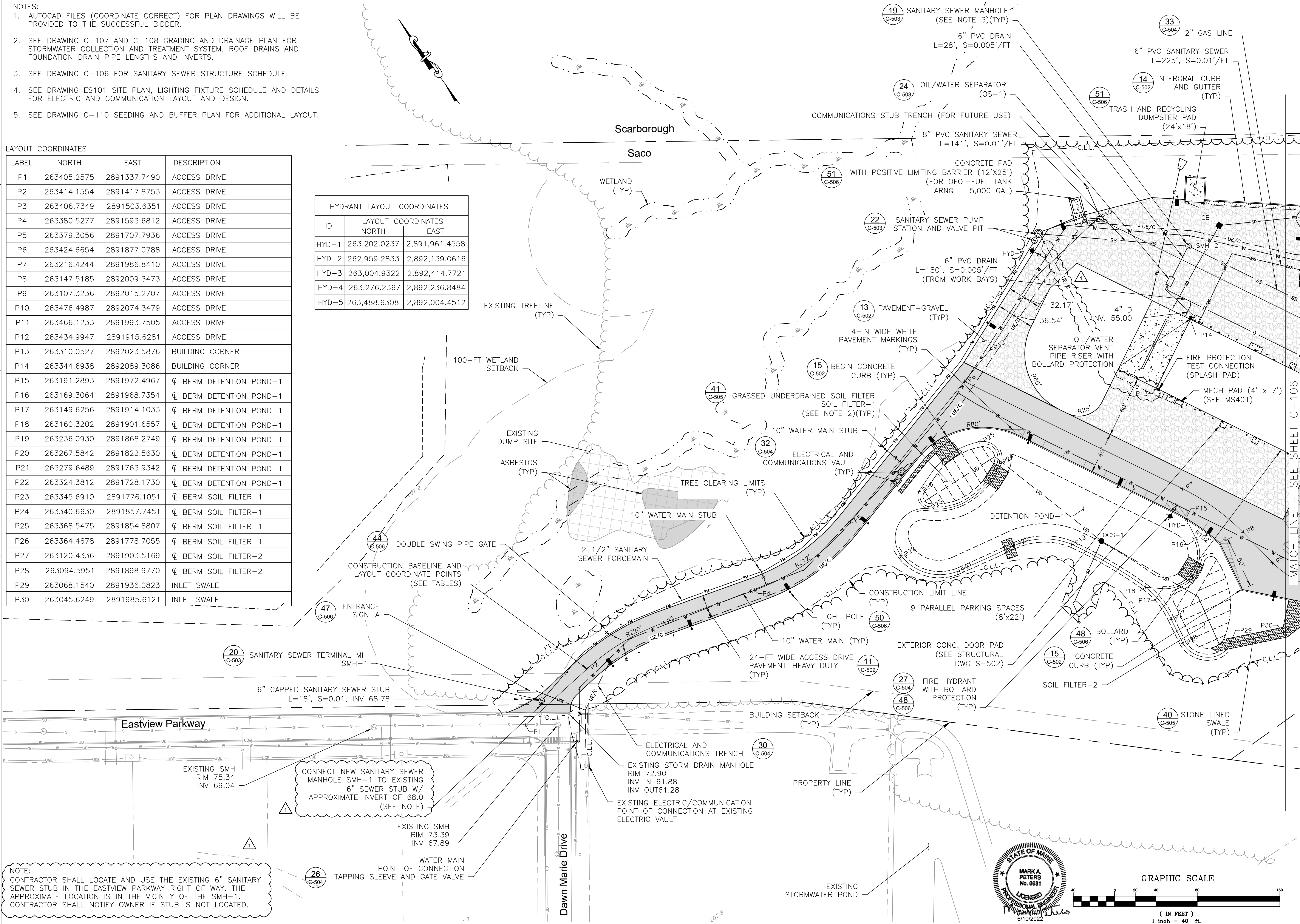


- NOTES:
1. AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
 2. SEE DRAWING C-107 AND C-108 GRADING AND DRAINAGE PLAN FOR STORMWATER COLLECTION AND TREATMENT SYSTEM, ROOF DRAINS AND FOUNDATION DRAIN PIPE LENGTHS AND INVERTS.
 3. SEE DRAWING C-106 FOR SANITARY SEWER STRUCTURE SCHEDULE.
 4. SEE DRAWING ES101 SITE PLAN, LIGHTING FIXTURE SCHEDULE AND DETAILS FOR ELECTRIC AND COMMUNICATION LAYOUT AND DESIGN.
 5. SEE DRAWING C-110 SEEDING AND BUFFER PLAN FOR ADDITIONAL LAYOUT.

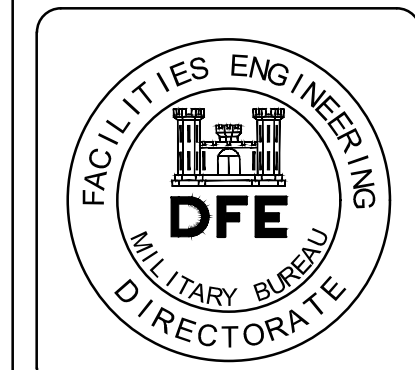
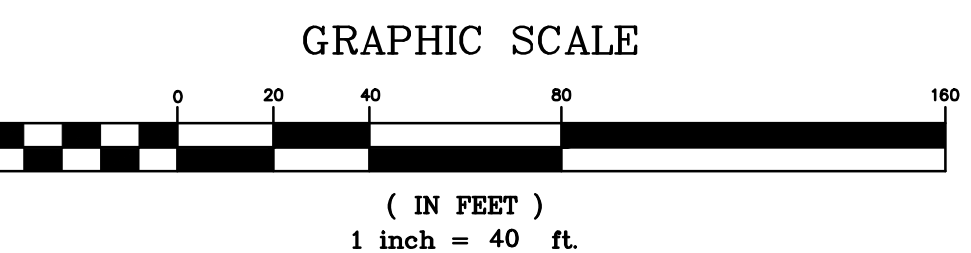
LAYOUT COORDINATES:

LABEL	NORTH	EAST	DESCRIPTION
P1	263405.2575	2891337.7490	ACCESS DRIVE
P2	263414.1554	2891417.8753	ACCESS DRIVE
P3	263406.7349	2891503.6351	ACCESS DRIVE
P4	263380.5277	2891593.6812	ACCESS DRIVE
P5	263379.3056	2891707.7936	ACCESS DRIVE
P6	263424.6654	2891877.0788	ACCESS DRIVE
P7	263216.4244	2891986.8410	ACCESS DRIVE
P8	263147.5185	2892009.3473	ACCESS DRIVE
P9	263107.3236	2892015.2707	ACCESS DRIVE
P10	263476.4987	2892074.3479	ACCESS DRIVE
P11	263466.1233	2891993.7505	ACCESS DRIVE
P12	263434.9947	2891915.6281	ACCESS DRIVE
P13	263310.0527	2892023.5876	BUILDING CORNER
P14	263344.6938	2892089.3086	BUILDING CORNER
P15	263191.2893	2891972.4967	CL BERM DETENTION POND-1
P16	263169.3064	2891968.7354	CL BERM DETENTION POND-1
P17	263149.6256	2891914.1033	CL BERM DETENTION POND-1
P18	263160.3202	2891901.6557	CL BERM DETENTION POND-1
P19	263236.0930	2891868.2749	CL BERM DETENTION POND-1
P20	263267.5842	2891822.5630	CL BERM DETENTION POND-1
P21	263279.6489	2891763.9342	CL BERM DETENTION POND-1
P22	263324.3812	2891728.1730	CL BERM DETENTION POND-1
P23	263345.6910	2891776.1051	CL BERM SOIL FILTER-1
P24	263340.6630	2891857.7451	CL BERM SOIL FILTER-1
P25	263368.5475	2891854.8807	CL BERM SOIL FILTER-1
P26	263364.4678	2891778.7055	CL BERM SOIL FILTER-1
P27	263120.4336	2891903.5169	CL BERM SOIL FILTER-2
P28	263094.5951	2891898.9770	CL BERM SOIL FILTER-2
P29	263068.1540	2891936.0823	INLET SWALE
P30	263045.6249	2891985.6121	INLET SWALE

HYDRANT LAYOUT COORDINATES		
ID	LAYOUT COORDINATES	
	NORTH	EAST
HYD-1	263,202.0237	2,891,961.4558
HYD-2	262,959.2833	2,892,139.0616
HYD-3	263,004.9322	2,892,414.7721
HYD-4	263,276.2367	2,892,236.8484
HYD-5	263,488.6308	2,892,004.4512



NOTE:
CONTRACTOR SHALL LOCATE AND USE THE EXISTING 6" SANITARY SEWER STUB IN THE EASTVIEW PARKWAY RIGHT OF WAY. THE APPROXIMATE LOCATION IS IN THE VICINITY OF THE SMH-1. CONTRACTOR SHALL NOTIFY OWNER IF STUB IS NOT LOCATED.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-2022	JRW
0	ISSUED FOR BID	04-22-22	JRW

DESIGNED BY:	WJW	SCALE:	1" = 40'
DRAWN BY:	WJW	DATE:	06-10-2022
CHECKED BY:	MSD	PROJECT NO.:	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
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NATIONAL GUARD
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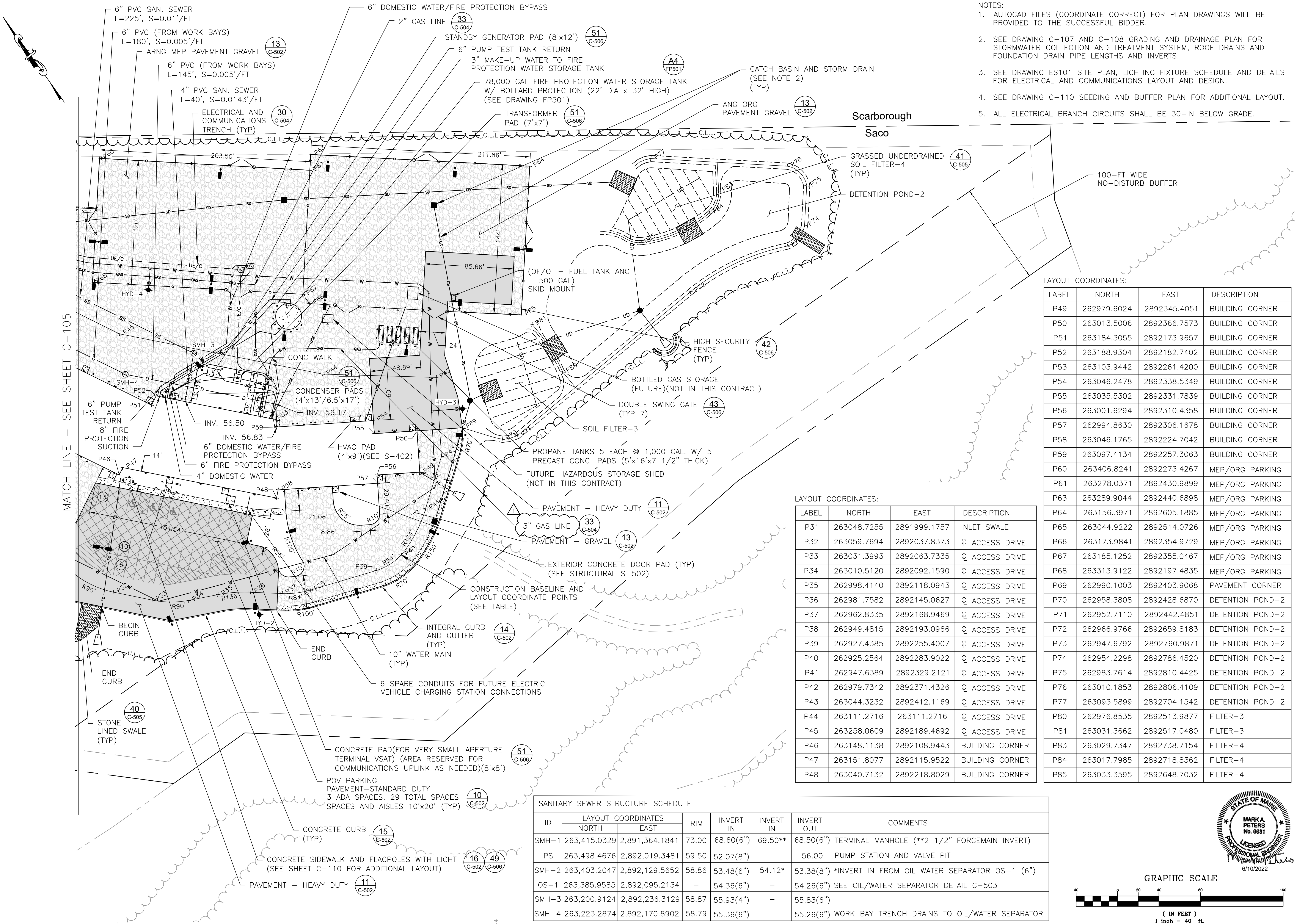
SACO, MAINE

SITE LAYOUT AND
UTILITY PLAN-1

PLAN PROGRESS	
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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
C-105

SHEET: 13 of 244



- NOTES:
1. AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
 2. SEE DRAWING C-107 AND C-108 GRADING AND DRAINAGE PLAN FOR STORMWATER COLLECTION AND TREATMENT SYSTEM, ROOF DRAINS AND FOUNDATION DRAIN PIPE LENGTHS AND INVERTS.
 3. SEE DRAWING ES101 SITE PLAN, LIGHTING FIXTURE SCHEDULE AND DETAILS FOR ELECTRICAL AND COMMUNICATIONS LAYOUT AND DESIGN.
 4. SEE DRAWING C-110 SEEDING AND BUFFER PLAN FOR ADDITIONAL LAYOUT.
 5. ALL ELECTRICAL BRANCH CIRCUITS SHALL BE 30-IN BELOW GRADE.

LAYOUT COORDINATES:

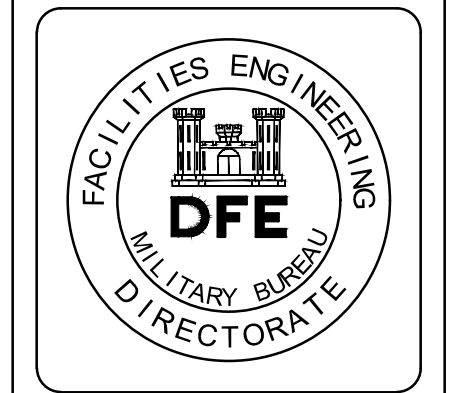
LABEL	NORTH	EAST	DESCRIPTION
P49	262979.6024	2892345.4051	BUILDING CORNER
P50	263013.5006	2892366.7573	BUILDING CORNER
P51	263184.3055	2892173.9657	BUILDING CORNER
P52	263188.9304	2892182.7402	BUILDING CORNER
P53	263103.9442	2892261.4200	BUILDING CORNER
P54	263046.2478	2892338.5349	BUILDING CORNER
P55	263035.5302	2892331.7839	BUILDING CORNER
P56	263001.6294	2892310.4358	BUILDING CORNER
P57	262994.8630	2892306.1678	BUILDING CORNER
P58	263046.1765	2892224.7042	BUILDING CORNER
P59	263097.4134	2892257.3063	BUILDING CORNER
P60	263406.8241	2892273.4267	MEP/ORG PARKING
P61	263278.0371	2892430.9899	MEP/ORG PARKING
P63	263289.9044	2892440.6898	MEP/ORG PARKING
P64	263156.3971	2892605.1885	MEP/ORG PARKING
P65	263044.9222	2892514.0726	MEP/ORG PARKING
P66	263173.9841	2892354.9729	MEP/ORG PARKING
P67	263185.1252	2892355.0467	MEP/ORG PARKING
P68	263313.9122	2892197.4835	MEP/ORG PARKING
P69	262998.4140	2892118.0943	CL ACCESS DRIVE
P36	262981.7582	2892145.0627	CL ACCESS DRIVE
P37	262962.8335	2892168.9469	CL ACCESS DRIVE
P38	262949.4815	2892193.0966	CL ACCESS DRIVE
P39	262927.4385	2892255.4007	CL ACCESS DRIVE
P40	262925.2564	2892283.9022	CL ACCESS DRIVE
P41	262947.6389	2892329.2121	CL ACCESS DRIVE
P42	262979.7342	2892371.4326	CL ACCESS DRIVE
P43	263044.3232	2892412.1169	CL ACCESS DRIVE
P44	263111.2716	263111.2716	CL ACCESS DRIVE
P45	263258.0609	2892189.4692	CL ACCESS DRIVE
P46	263148.1138	2892108.9443	BUILDING CORNER
P47	263151.8077	2892115.9522	BUILDING CORNER
P48	263040.7132	2892218.8029	BUILDING CORNER
P85	263033.3595	2892648.7032	FILTER-4

LAYOUT COORDINATES:

LABEL	NORTH	EAST	DESCRIPTION
P31	263048.7255	2891999.1757	INLET SWALE
P32	263059.7694	2892037.8373	CL ACCESS DRIVE
P33	263031.3993	2892063.7335	CL ACCESS DRIVE
P34	263010.5120	2892092.1590	CL ACCESS DRIVE
P35	262998.4140	2892118.0943	CL ACCESS DRIVE
P36	262981.7582	2892145.0627	CL ACCESS DRIVE
P37	262962.8335	2892168.9469	CL ACCESS DRIVE
P38	262949.4815	2892193.0966	CL ACCESS DRIVE
P39	262927.4385	2892255.4007	CL ACCESS DRIVE
P40	262925.2564	2892283.9022	CL ACCESS DRIVE
P41	262947.6389	2892329.2121	CL ACCESS DRIVE
P42	262979.7342	2892371.4326	CL ACCESS DRIVE
P43	263044.3232	2892412.1169	CL ACCESS DRIVE
P44	263111.2716	263111.2716	CL ACCESS DRIVE
P45	263258.0609	2892189.4692	CL ACCESS DRIVE
P46	263148.1138	2892108.9443	BUILDING CORNER
P47	263151.8077	2892115.9522	BUILDING CORNER
P48	263040.7132	2892218.8029	BUILDING CORNER

SANITARY SEWER STRUCTURE SCHEDULE

ID	LAYOUT COORDINATES		RIM	INVERT IN	INVERT IN	INVERT OUT	COMMENTS
	NORTH	EAST					
SMH-1	263,415.0329	2,891,364.1841	73.00	68.60(6")	69.50**	68.50(6")	TERMINAL MANHOLE (**2 1/2" FORCEMAIN INVERT)
PS	263,498.4676	2,892,019.3481	59.50	52.07(8")	-	56.00	PUMP STATION AND VALVE PIT
SMH-2	263,403.2047	2,892,129.5652	58.86	53.48(6")	54.12*	53.38(8")	*INVERT IN FROM OIL WATER SEPARATOR OS-1 (6")
OS-1	263,385.9585	2,892,095.2134	-	54.36(6")	-	54.26(6")	SEE OIL/WATER SEPARATOR DETAIL C-503
SMH-3	263,200.9124	2,892,236.3129	58.87	55.93(4")	-	55.83(6")	
SMH-4	263,223.2874	2,892,170.8902	58.79	55.36(6")	-	55.26(6")	WORK BAY TRENCH DRAINS TO OIL/WATER SEPARATOR



PLAN REVISIONS

Date	Appr.	JRW	JRW	JRW
06-10-2022				
04-22-22				

DESIGNED BY: WJW
 DRAWN BY: WJW
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: 1" = 40'
 DFE PROJECT NO: 230125

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

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 ENGINEERS & ARCHITECTS
 61 Congress St., 3rd Floor, Portland, ME 04101
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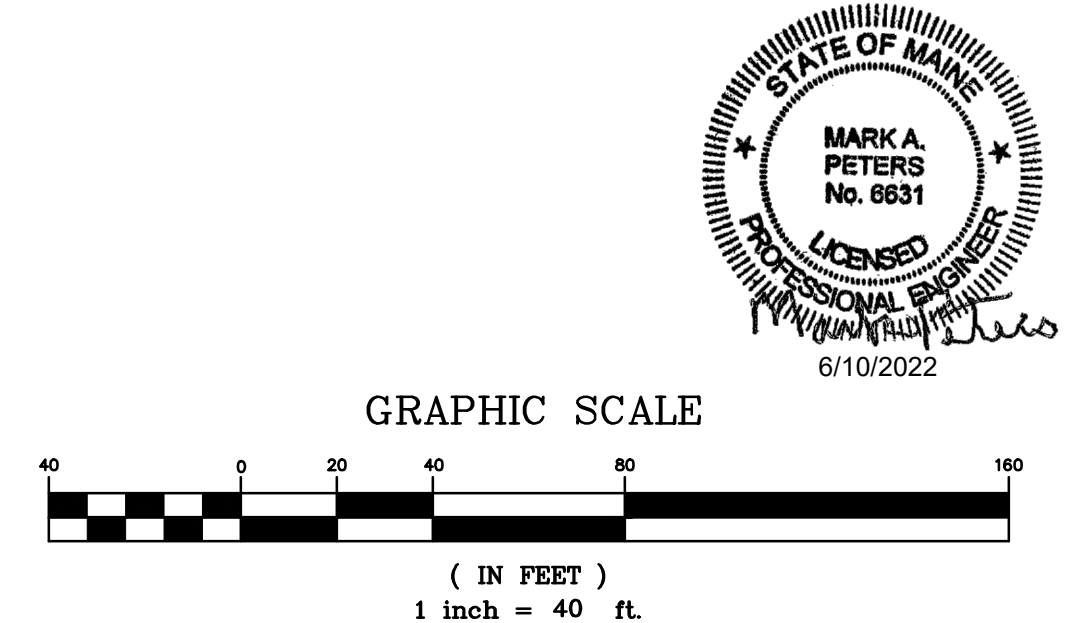
NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

SITE LAYOUT AND
 UTILITY PLAN-2

PLAN PROGRESS

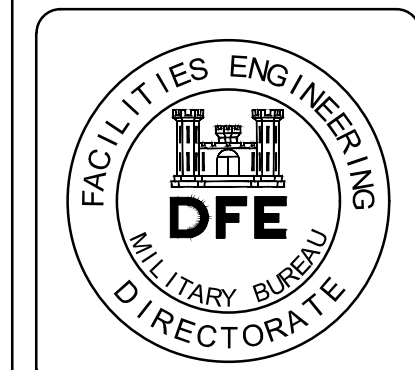
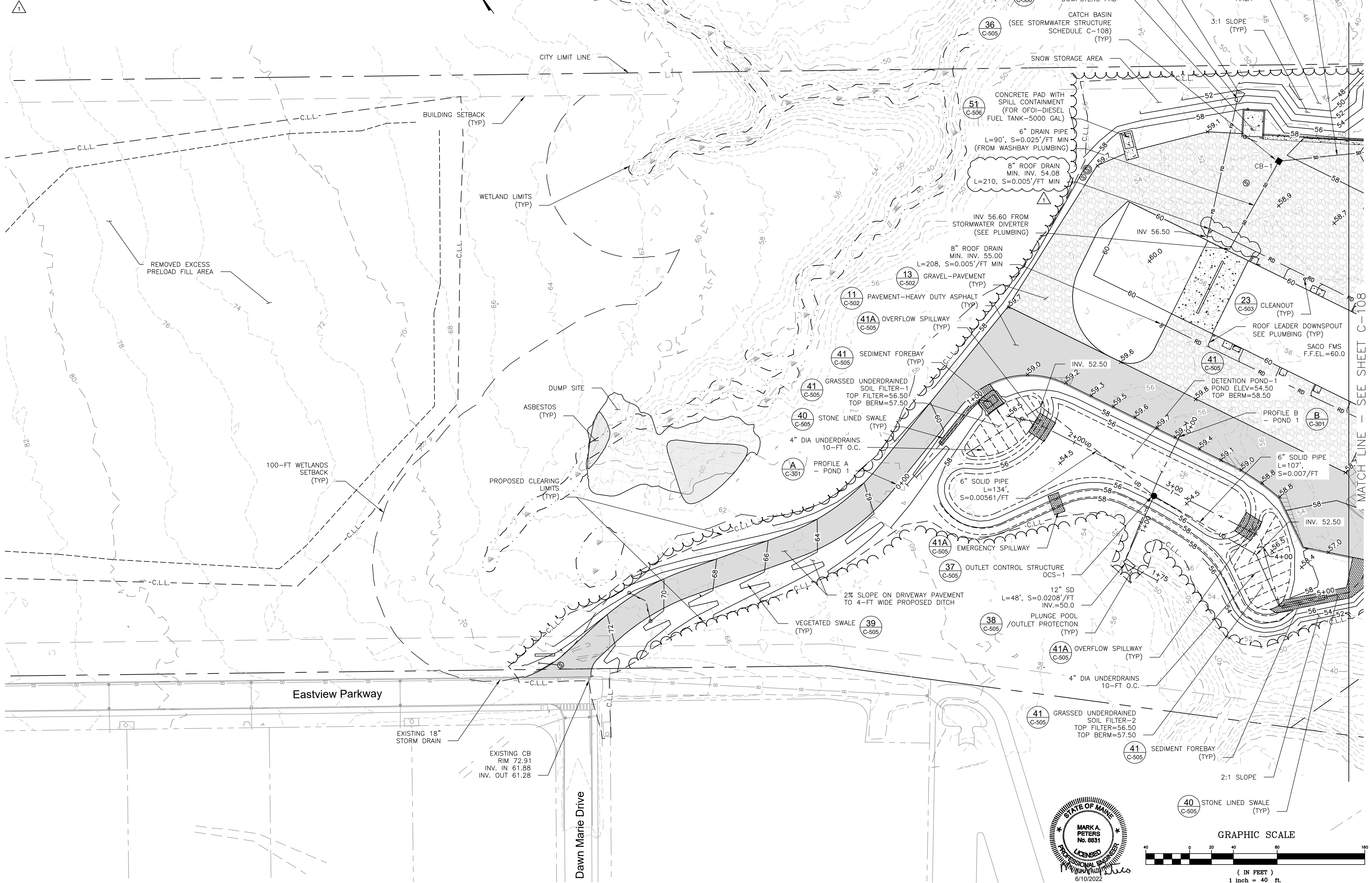
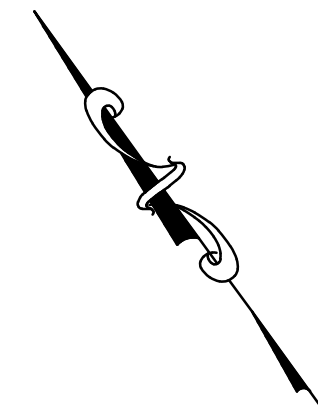
- DRAFT
- 35% REVIEW
- 60% REVIEW
- 95% REVIEW
- FINAL REVIEW
- FOR BIDDING
- ISSUED FOR CONSTRUCTION
- RECORD DRAWINGS

SHEET ID:
C-106
 SHEET: 14 of 244



MATCH LINE - SEE SHEET C-105

- NOTES:
1. AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
 2. SEE DRAWING C-108 FOR STORMWATER STRUCTURE SCHEDULE.
 3. ALL DISTURBED AREAS NOT SHOWN AS BUILDING OR PAVEMENT (ASPHALT, CONCRETE OR GRAVEL) SHALL RECEIVE 4-IN TOPSOIL (SEED AND MULCH). SEE DRAWING C-110 FOR SEED TYPES.
 4. FOUNDATION DRAINS 6" DIA. BOTTOM OF PIPE EL 56.50, SEE DETAIL C5 ON STRUCTURAL DRAWING S-502.
 5. DUMPSTERS ARE REQUIRED TO BE COVERED AND WATERTIGHT TO AVOID STORMWATER DISCHARGE VIOLATIONS.



PLAN REVISIONS	
Rev#	Description
1	ADDITION #1
0	ISSUED FOR BID

DESIGNED BY:	WJW	230125
DRAWN BY:	WJW	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	1" = 40'	
DFE PROJECT NO.:		

STATE OF MAINE
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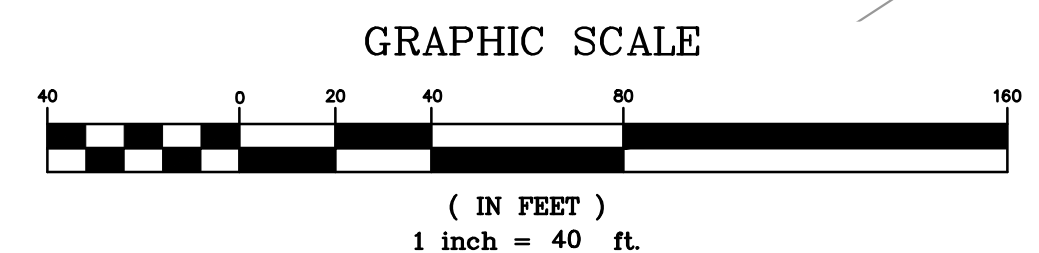
SACO, MAINE

GRADING AND
DRAINAGE PLAN-1

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<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
C-107

SHEET: 15 of 244



MATCH LINE - SEE SHEET C-108



PLAN REVISIONS	
Rev#	Description
1	ADDITION #1
0	ISSUED FOR BID

DESIGNED BY:	WJW
DRAWN BY: <td>WJW</td>	WJW
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>1" = 40'</td>	1" = 40'
DFE PROJECT NO.: <td>230125</td>	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

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Environmental & Infrastructure Solutions, Inc.
811 Corporate Blvd., Suite 200, Bethel, ME 04215
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GRADING AND
DRAINAGE PLAN-2

PLAN PROGRESS

DRAFT

35% REVIEW

60% REVIEW

95% REVIEW

FINAL REVIEW

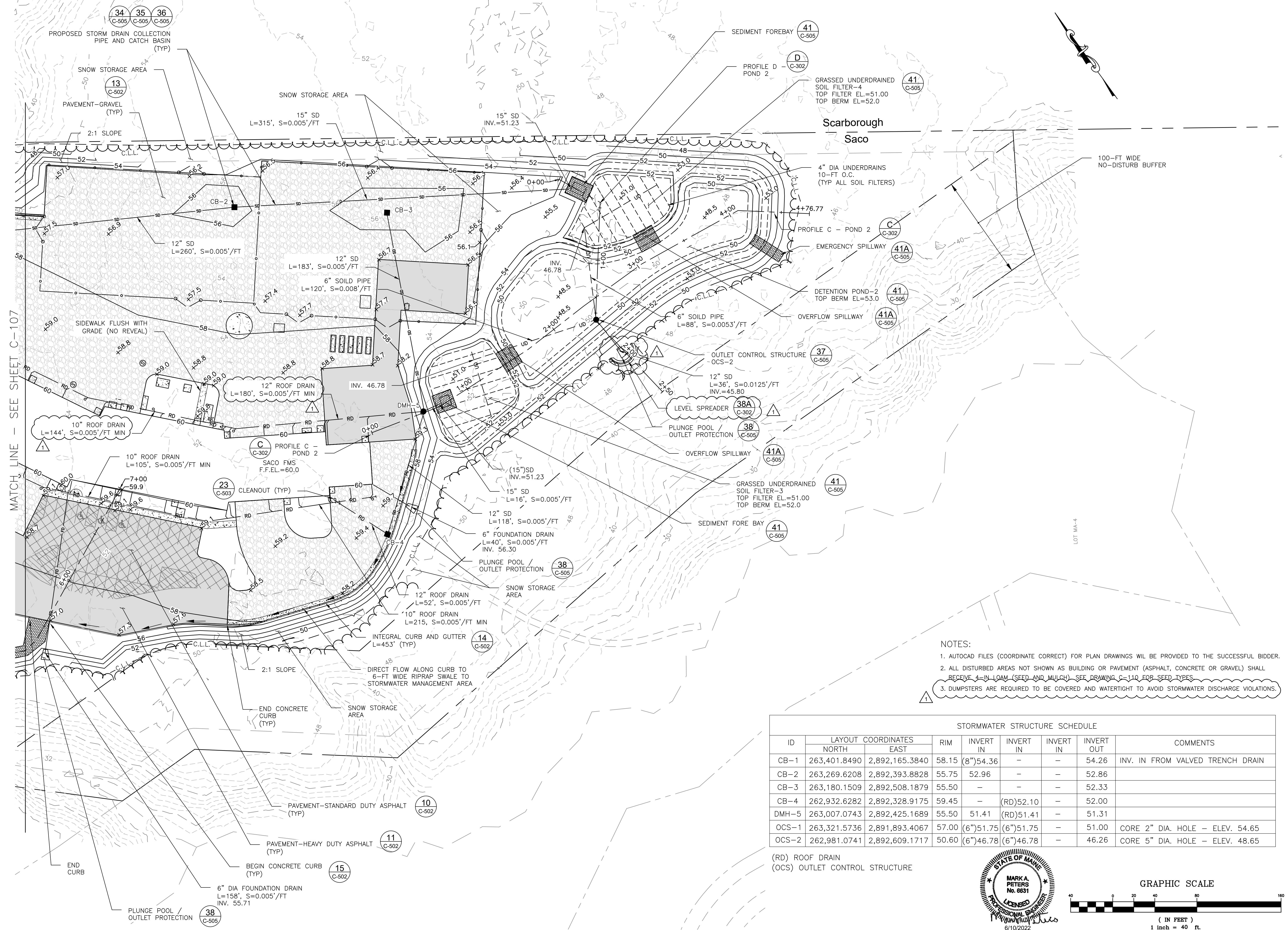
FOR BIDDING

ISSUED FOR CONSTRUCTION

RECORD DRAWINGS

SHEET ID:
C-108

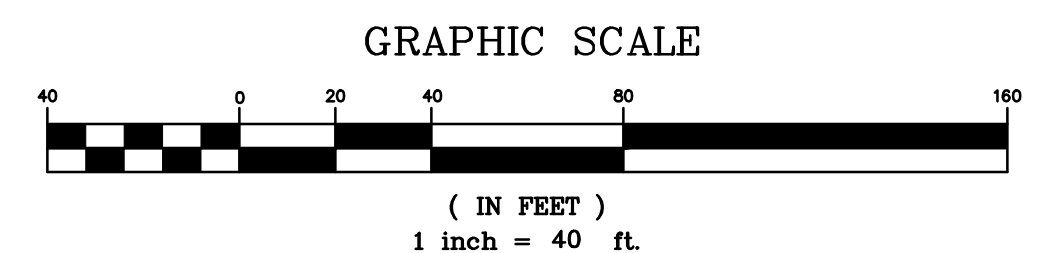
SHEET: 16 of 244



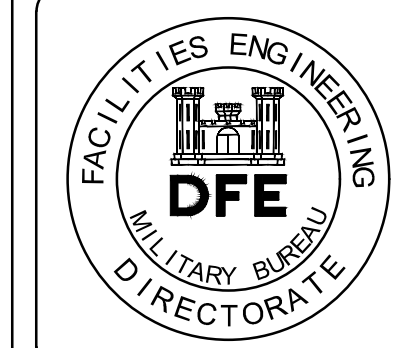
- NOTES:
1. AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
 2. ALL DISTURBED AREAS NOT SHOWN AS BUILDING OR PAVEMENT (ASPHALT, CONCRETE OR GRAVEL) SHALL RECEIVE 4-IN LOAM (SEED AND MULCH) - SEE DRAWING C-110 FOR SEED TYPES.
 3. DUMPSTERS ARE REQUIRED TO BE COVERED AND WATERTIGHT TO AVOID STORMWATER DISCHARGE VIOLATIONS.

ID	LAYOUT COORDINATES		RIM	INVERT IN	INVERT IN	INVERT IN	INVERT OUT	COMMENTS
	NORTH	EAST						
CB-1	263,401.8490	2,892,165.3840	58.15	(8")54.36	-	-	54.26	INV. IN FROM VALVED TRENCH DRAIN
CB-2	263,269.6208	2,892,393.8828	55.75	52.96	-	-	52.86	
CB-3	263,180.1509	2,892,508.1879	55.50	-	-	-	52.33	
CB-4	262,932.6282	2,892,328.9175	59.45	-	(RD)52.10	-	52.00	
DMH-5	263,007.0743	2,892,425.1689	55.50	51.41	(RD)51.41	-	51.31	
OCS-1	263,321.5736	2,891,893.4067	57.00	(6")51.75	(6")51.75	-	51.00	CORE 2" DIA. HOLE - ELEV. 54.65
OCS-2	262,981.0741	2,892,609.1717	50.60	(6")46.78	(6")46.78	-	46.26	CORE 5" DIA. HOLE - ELEV. 48.65

(RD) ROOF DRAIN
(OCS) OUTLET CONTROL STRUCTURE



MATCH LINE - SEE SHEET C-107



Rev#	Description	Date	Appr.
1	ISSUED FOR BID	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

DESIGNED BY:	WJW	230125
DRAWN BY:	WJW	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DFE PROJECT NO.:		

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

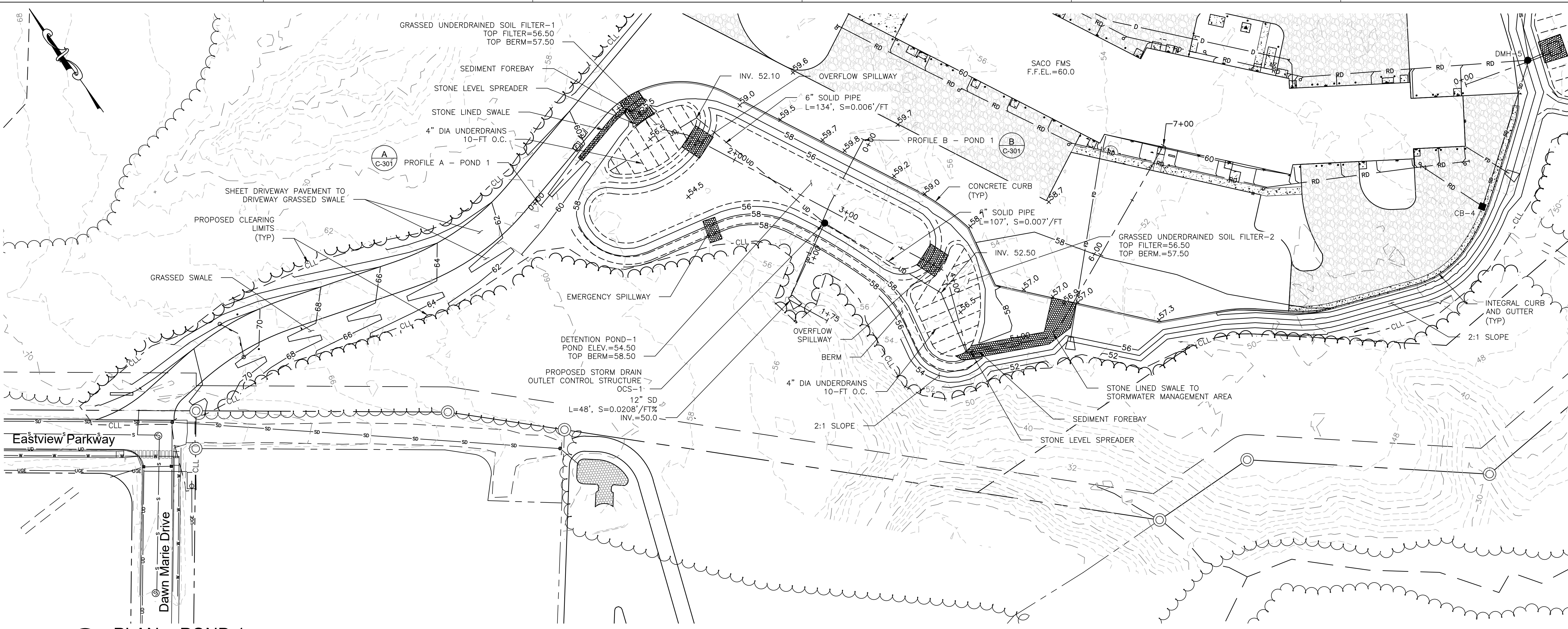
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ENGINEERING & ARCHITECTURE
151 Corporate Blvd., Suite 100, Portland, ME 04106
P: (207) 761-1000 F: (207) 761-1001 woodeng.com

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SACO, MAINE

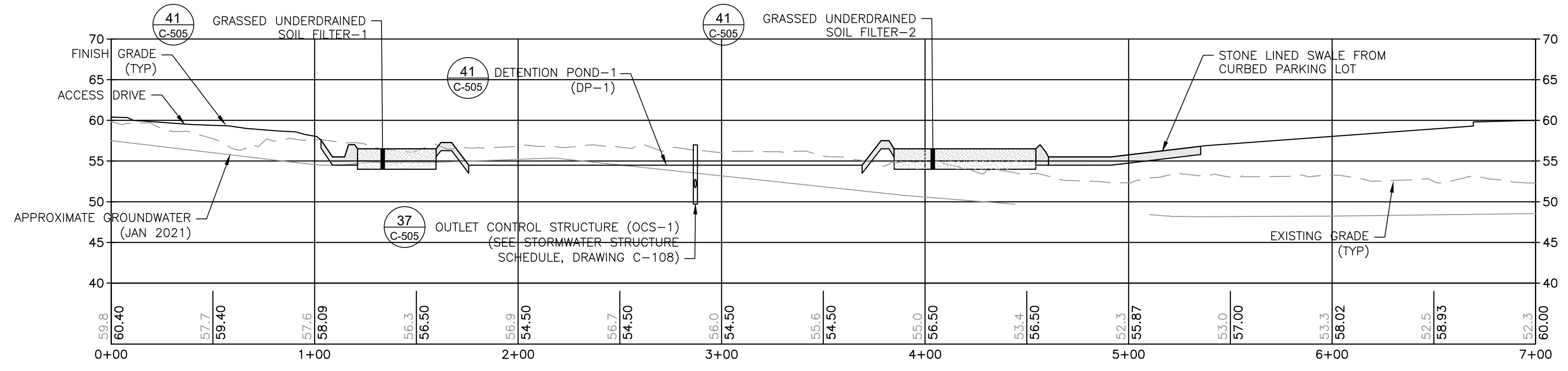
STORMWATER MANAGEMENT AREA
TREATMENT PLAN AND PROFILES-1

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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

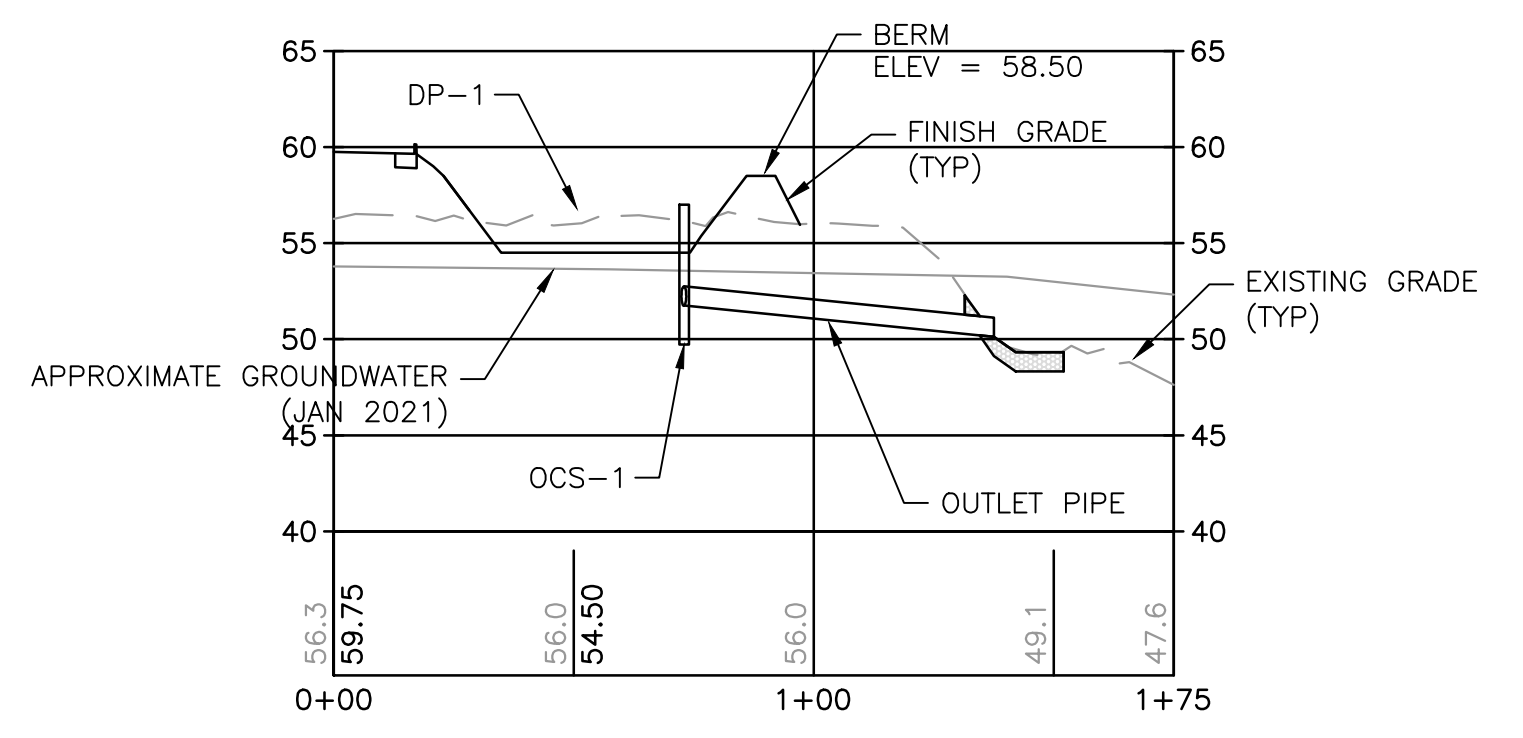
SHEET ID:
C-301
SHEET: 19 of 244



A PLAN - POND 1



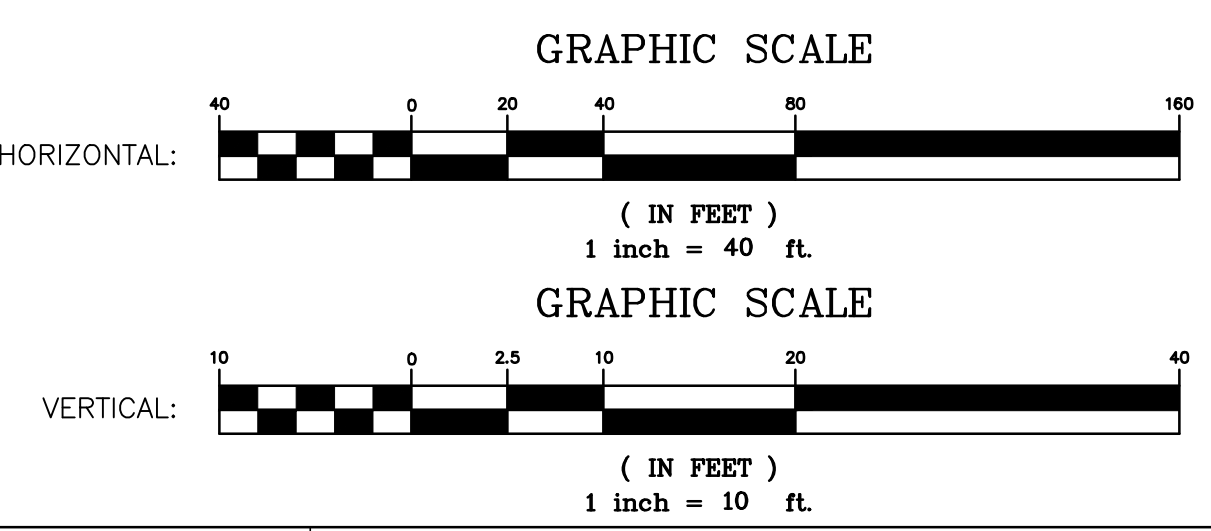
A PROFILE - POND 1
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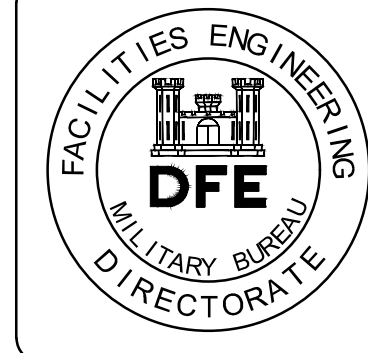


B PROFILE - POND 1
REF: C-107

NOTES:

- AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
- THE OWNER SHALL BE REQUIRED TO INSPECT THE STORMWATER MANAGEMENT SYSTEM ON AN ANNUAL BASIS, PERFORM REQUIRED ANNUAL MAINTENANCE, AND SUBMIT AN ANNUAL REPORT TO CITY OF SACO DEPARTMENT OF PUBLIC WORKS BY JULY 15TH OF EACH CALENDAR YEAR.





PLAN REVISIONS			
Rev#	Date	JRW	Appr.
1	06-10-22	JRW	
0	04-22-22	JRW	

DESIGNED BY:	WJW	PROJECT NO:	230125
DRAWN BY:	WJW		
CHECKED BY:	MSD		
DATE:	06-10-2022		
SCALE:	AS NOTED		
DFE PROJECT NO:			

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

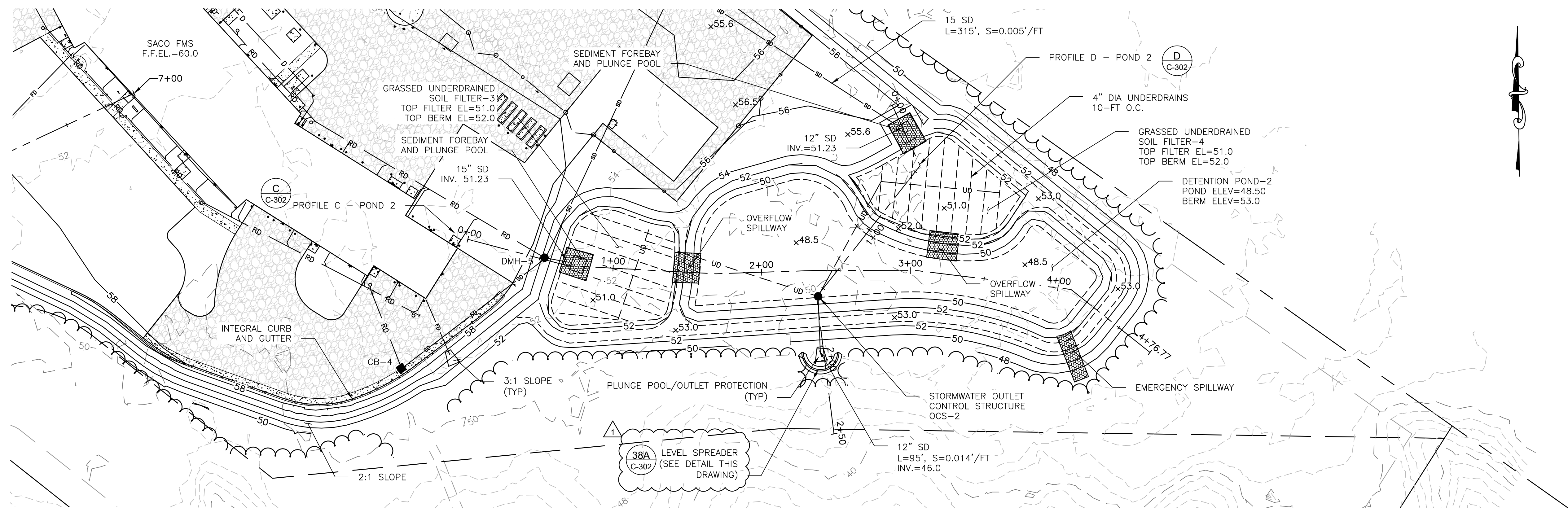
wood.
ENGINEERING & ARCHITECTURE, INC.
151 Corporate Blvd., Suite 200, Bethel, ME 04217
P: (207) 752-6100 F: (207) 752-6101 WWW.WOODENR.COM

NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

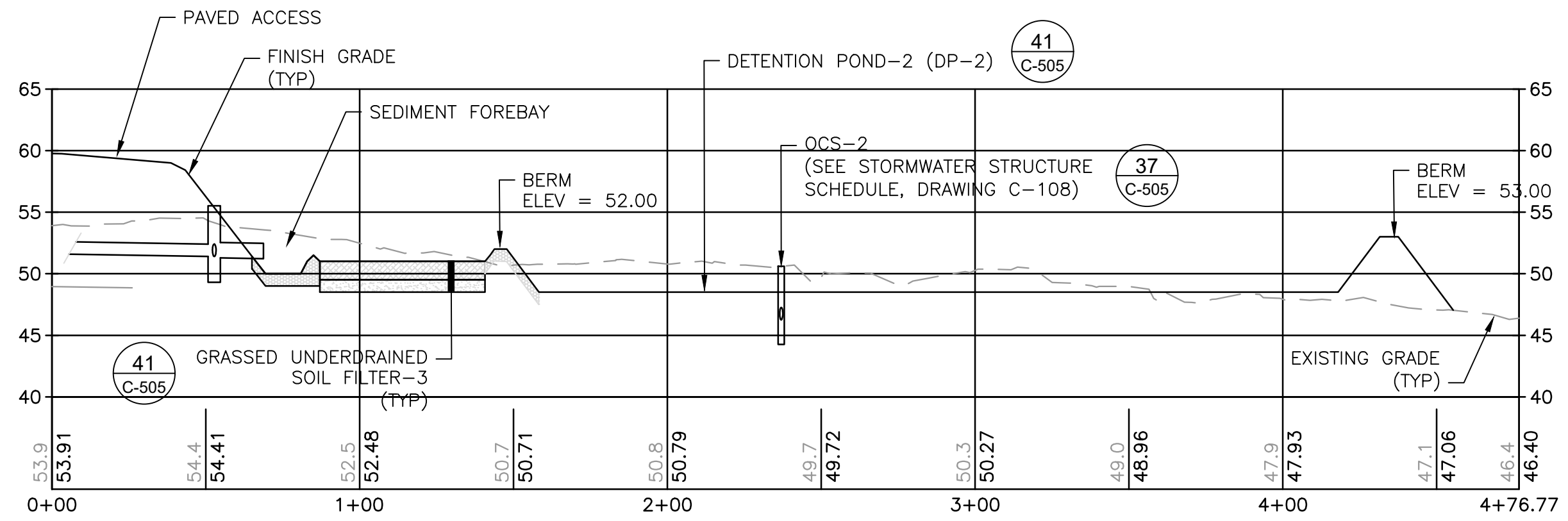
STORMWATER MANAGEMENT AREA
TREATMENT PLAN AND PROFILES-2

PLAN PROGRESS	
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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

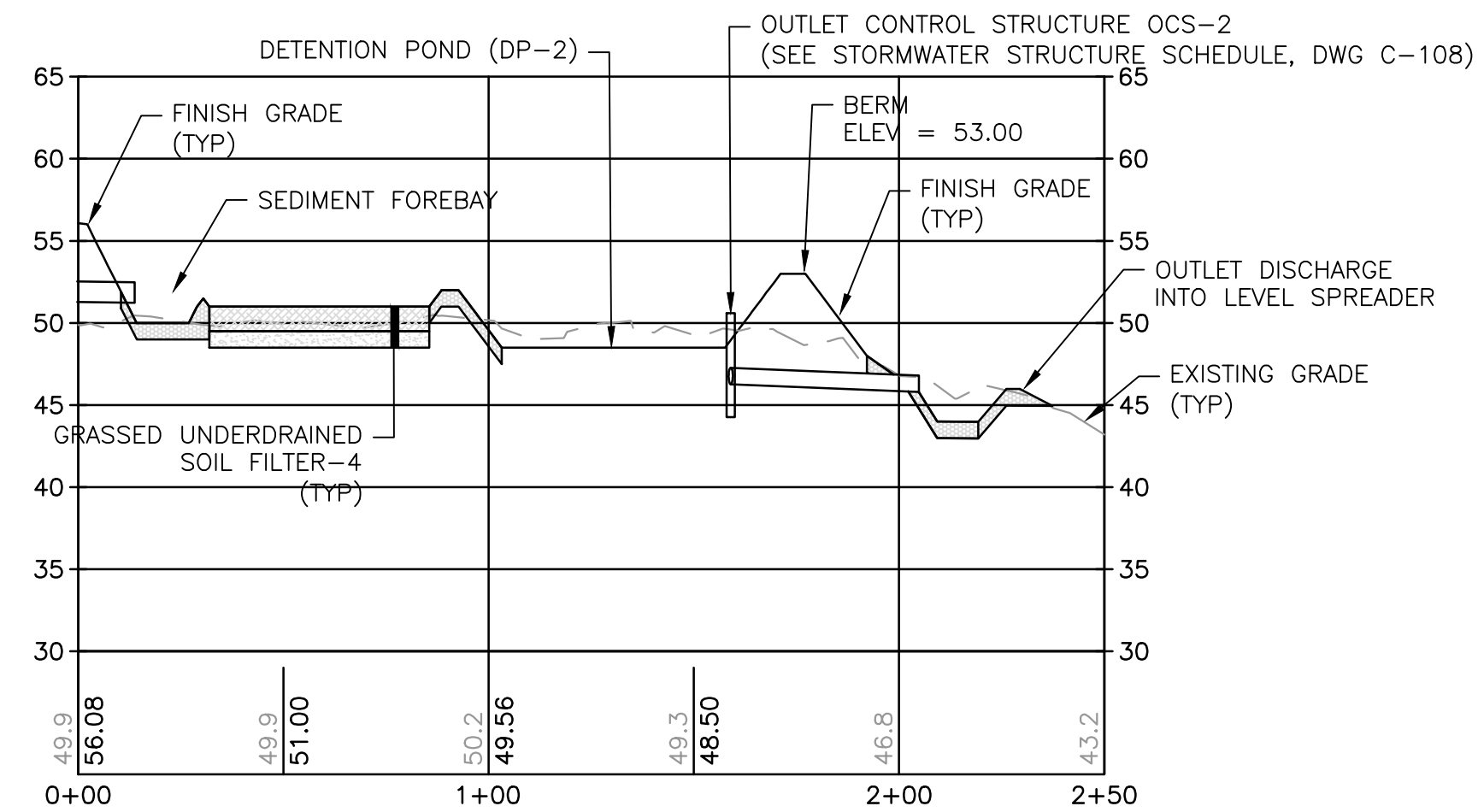
SHEET ID:
C-302
SHEET: 20 of 244



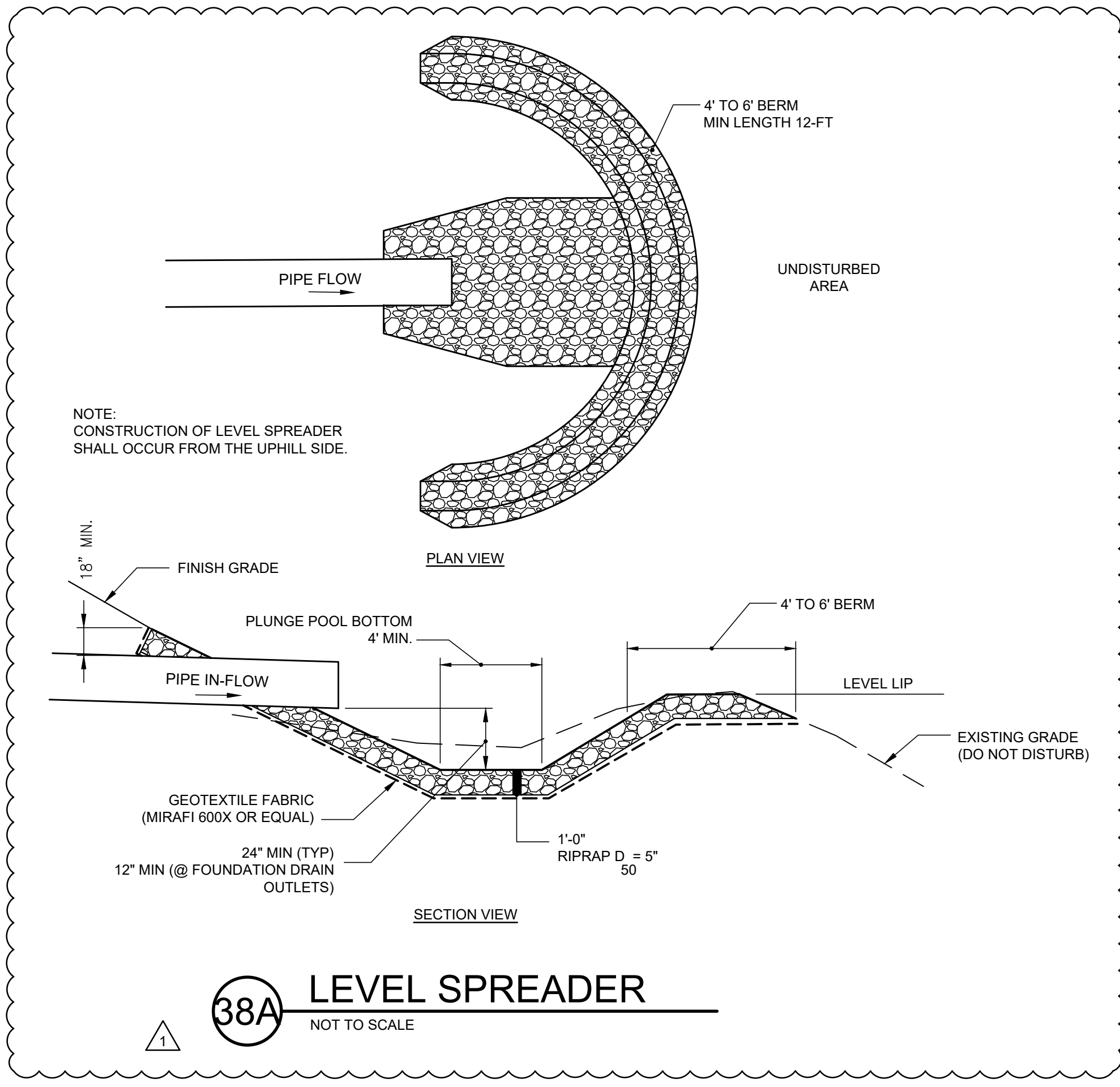
PLAN - POND 2



PROFILE - POND 2
REF: C-108

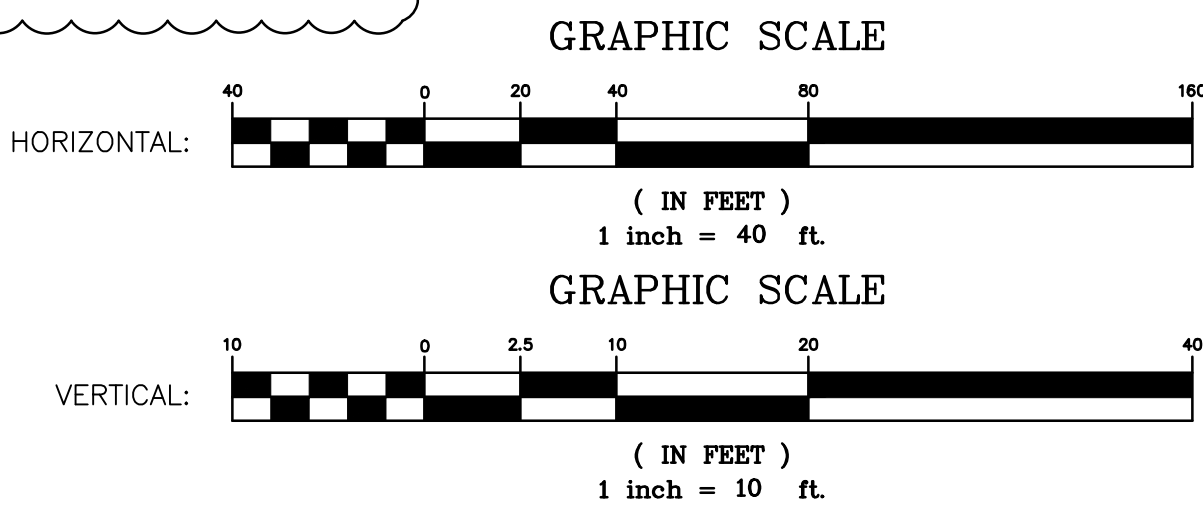


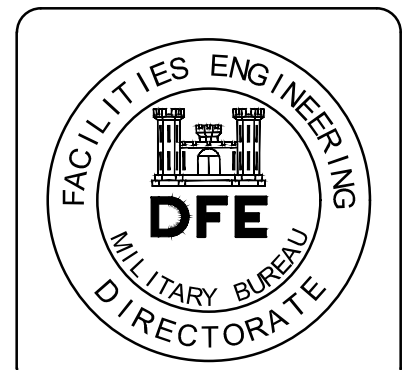
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REF: C-108



NOTES:

- AUTOCAD FILES (COORDINATE CORRECT) FOR PLAN DRAWINGS WILL BE PROVIDED TO THE SUCCESSFUL BIDDER.
- THE OWNER SHALL BE REQUIRED TO INSPECT THE STORMWATER MANAGEMENT SYSTEM ON AN ANNUAL BASIS, PERFORM REQUIRED ANNUAL MAINTENANCE, AND SUBMIT AN ANNUAL REPORT TO CITY OF SACO DEPARTMENT OF PUBLIC WORKS BY JULY 15TH OF EACH CALENDAR YEAR.





PLAN REVISIONS			
NO.	DATE	BY	APP.
1	06-10-22	JRW	
0	04-22-22	JRW	

DESIGNED BY:	WJW
DRAWN BY:	WJW
CHECKED BY:	MAP
DATE:	06-10-2022
SCALE:	AS NOTED
DFE PROJECT NO.:	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

wood.
Environmental & Infrastructure Solutions, Inc.
811 Congress St., 30th Floor, Portland, ME 04101
P: (207) 752-2222, F: (207) 752-2222, wood@woodeng.com

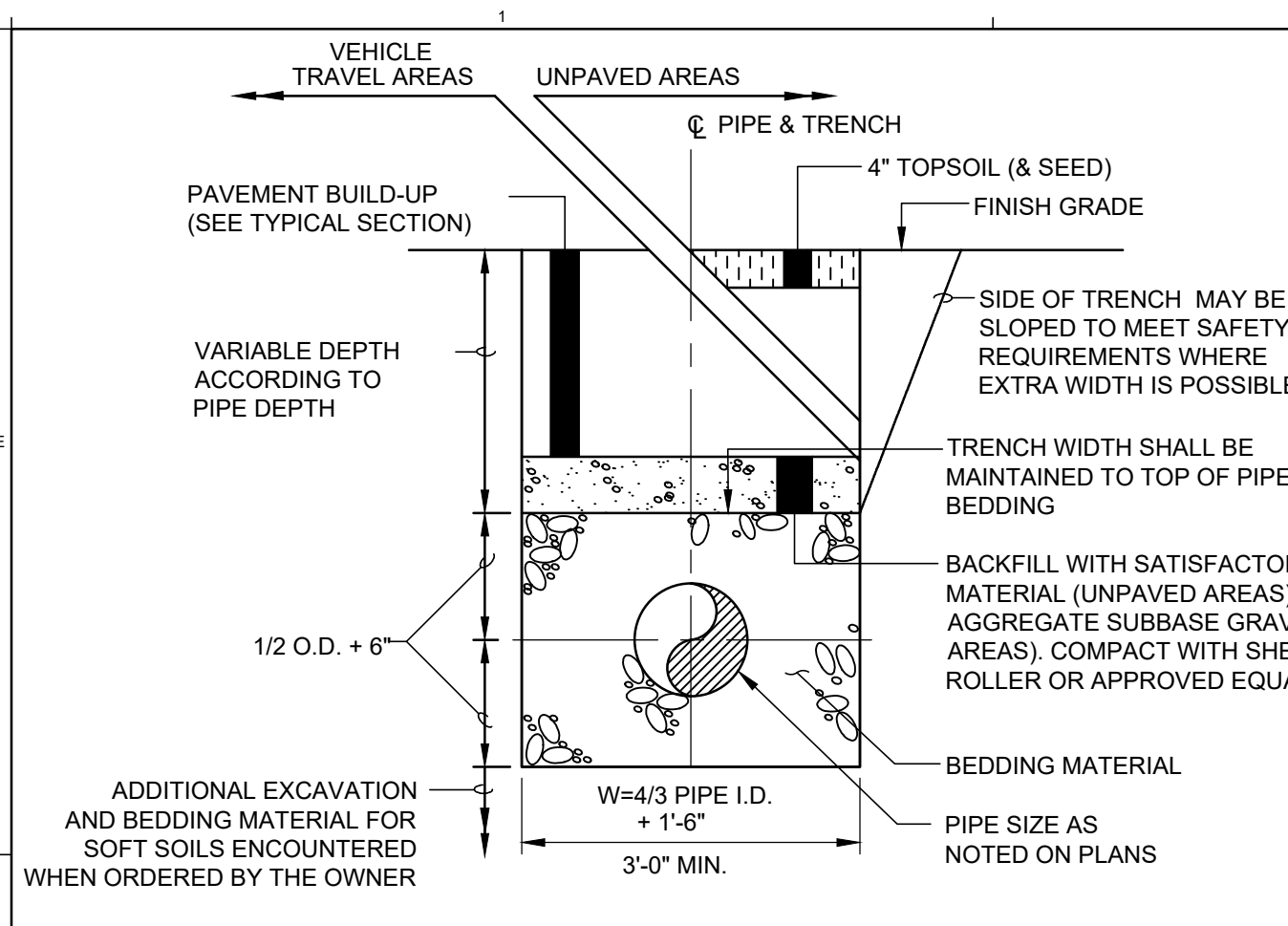
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP

SACO, MAINE

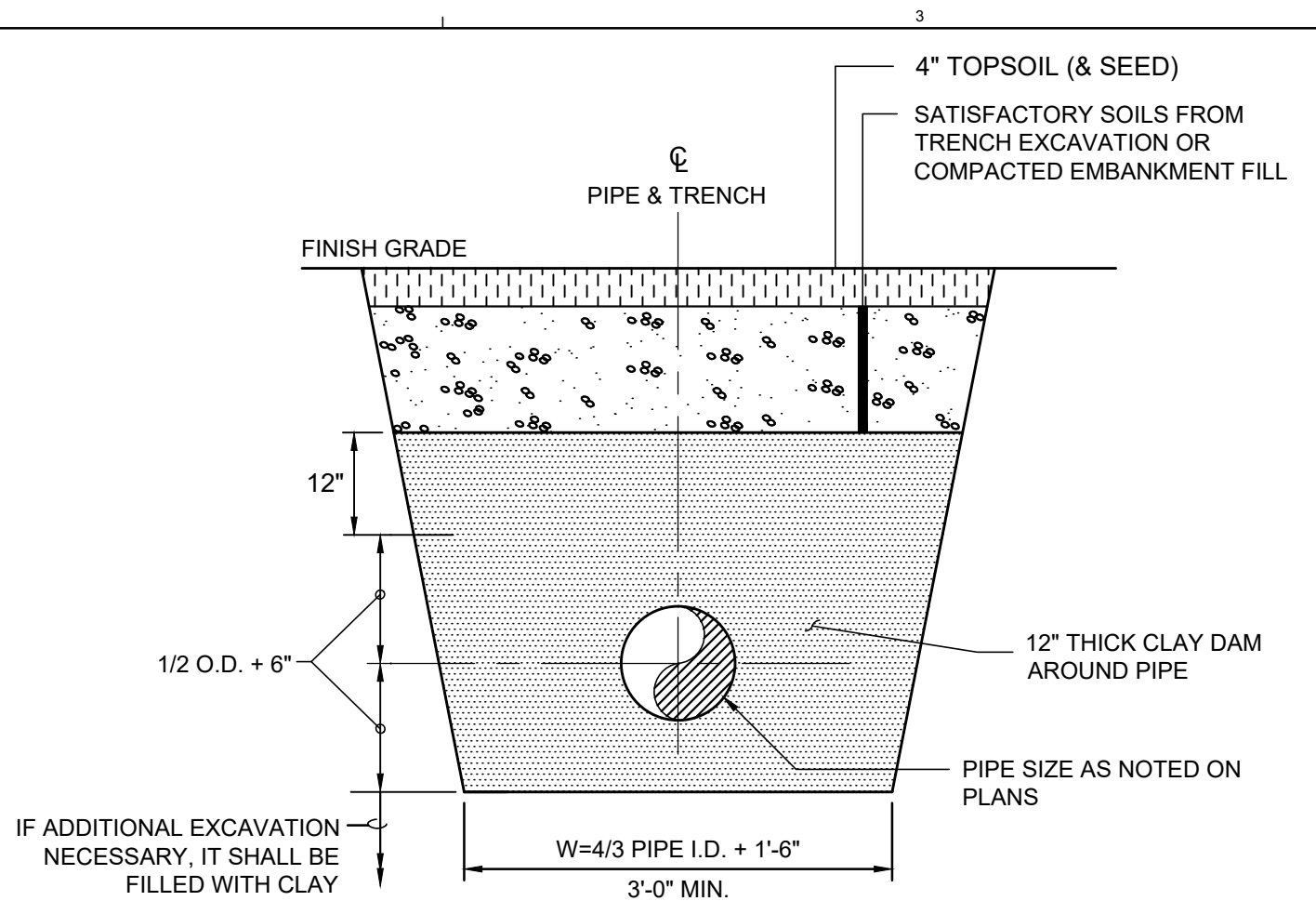
SITE DETAILS
STORMWATER

PLAN PROGRESS	
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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

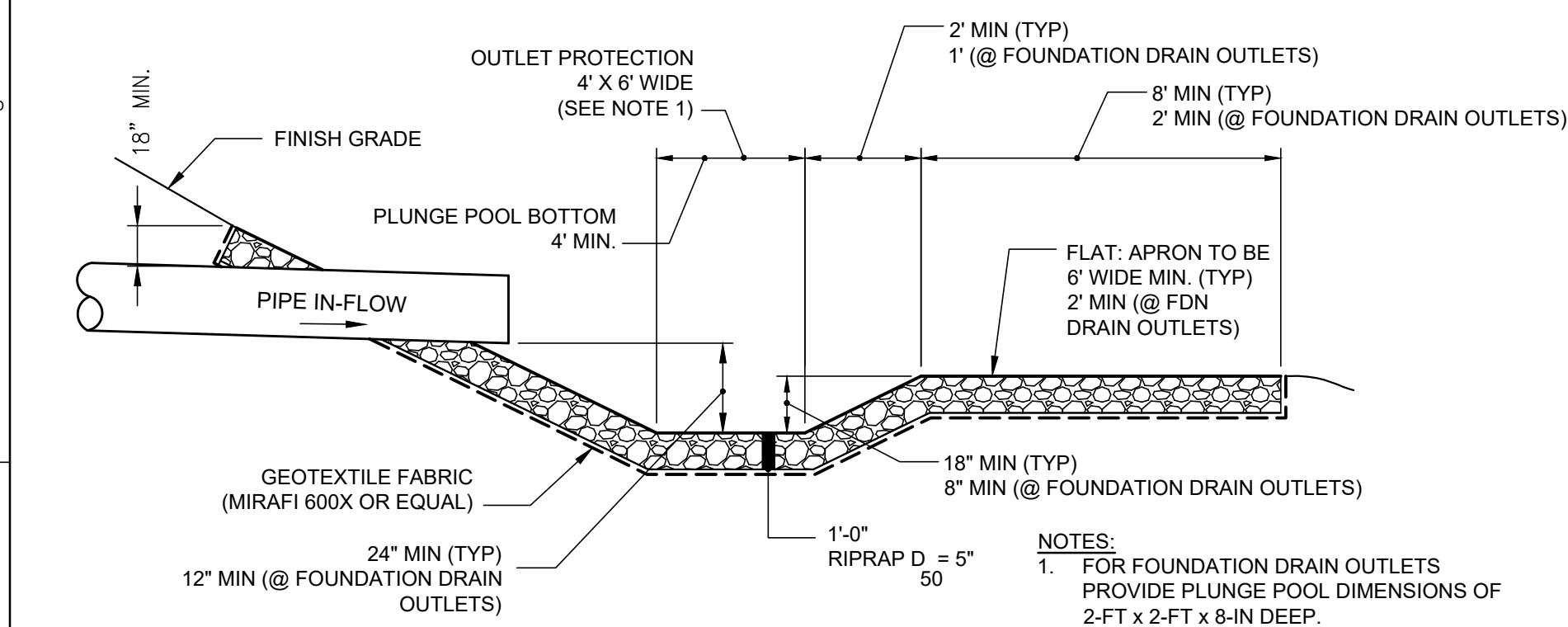
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C-505
SHEET: 25 of 244



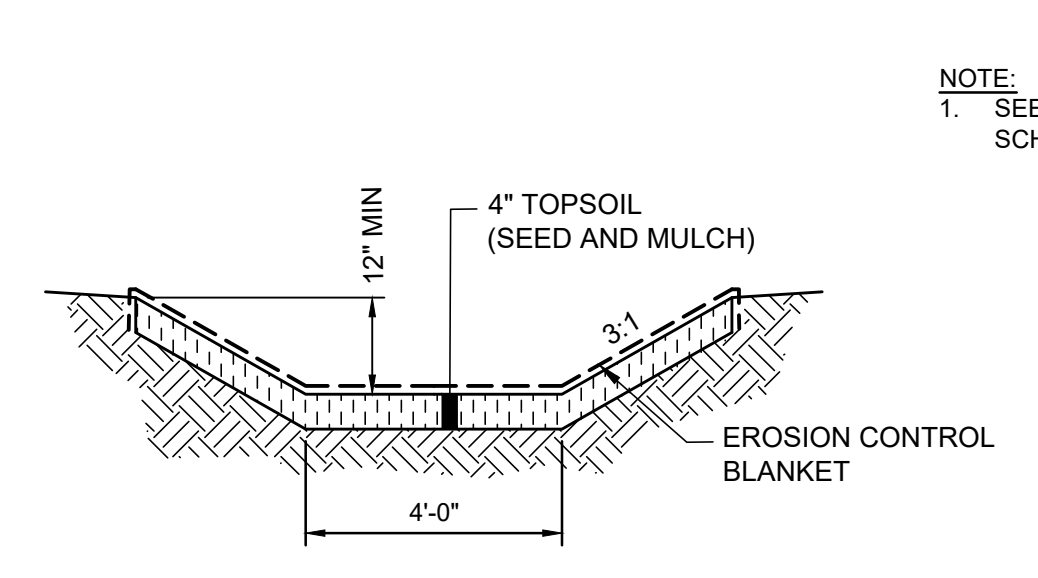
34 STORM DRAIN TRENCH
NOT TO SCALE REF: C-107, C-108



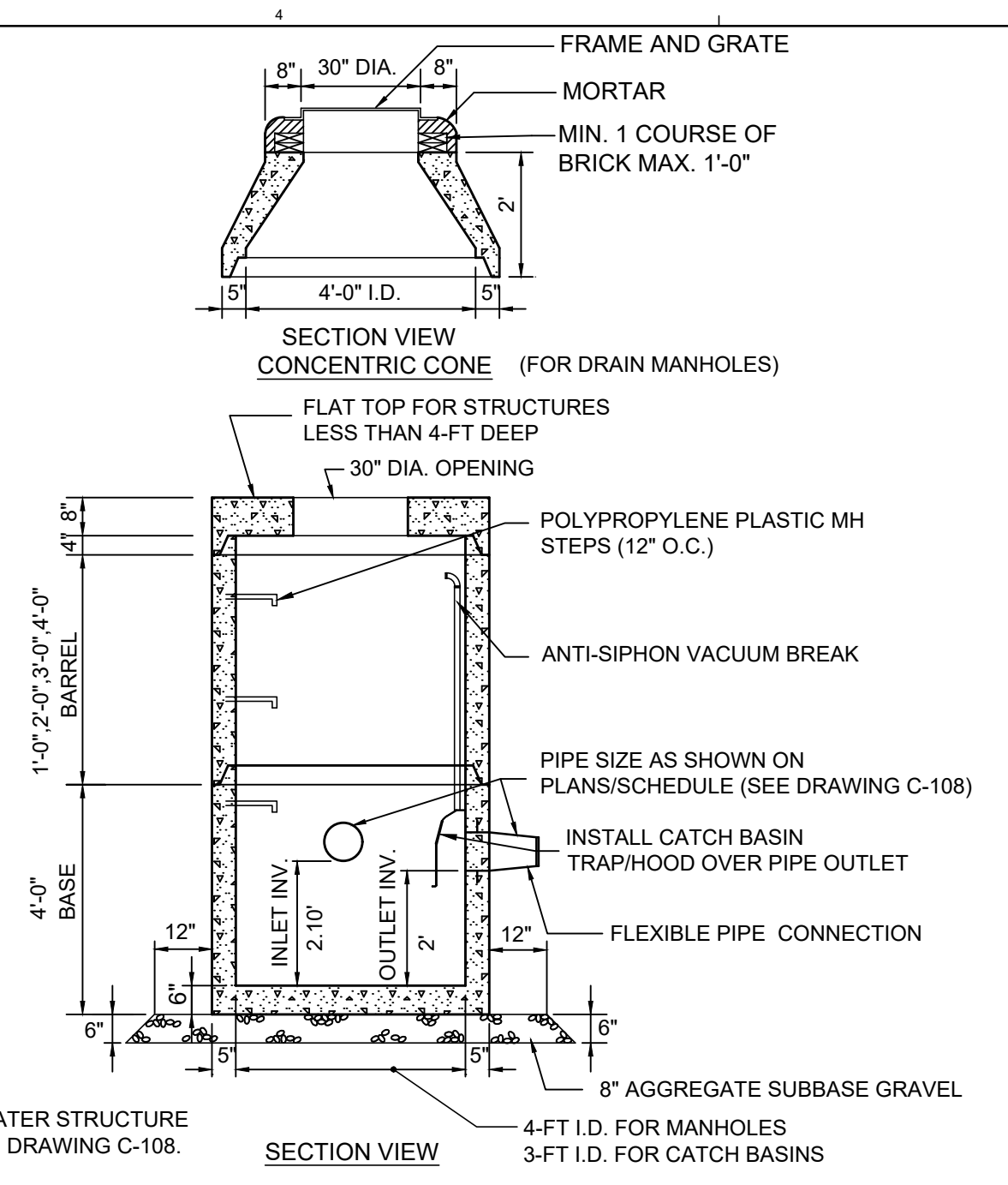
35 TRENCH DAM
NOT TO SCALE REF: C-107, C-108, C-501



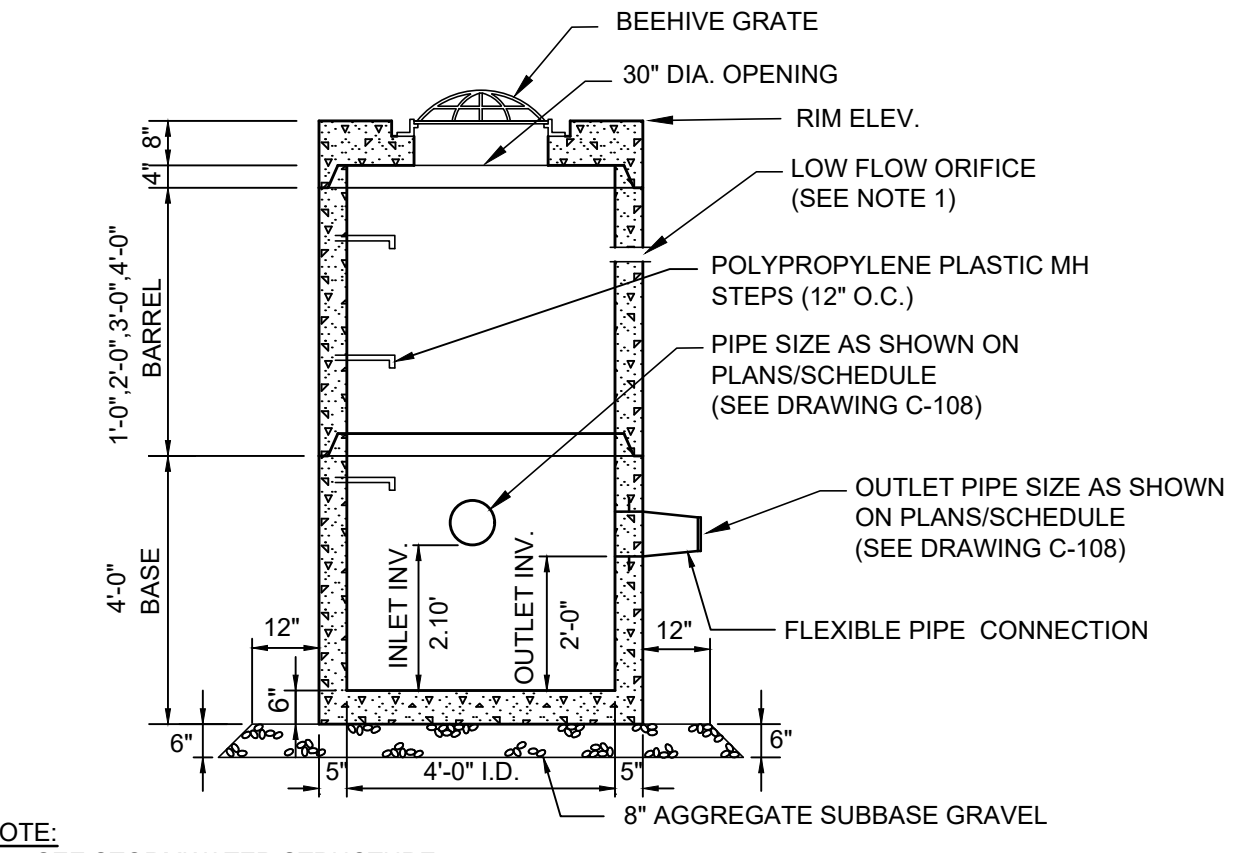
38 PLUNGE POOL / OUTLET PROTECTION
NOT TO SCALE REF: C-107, C-108, C-101



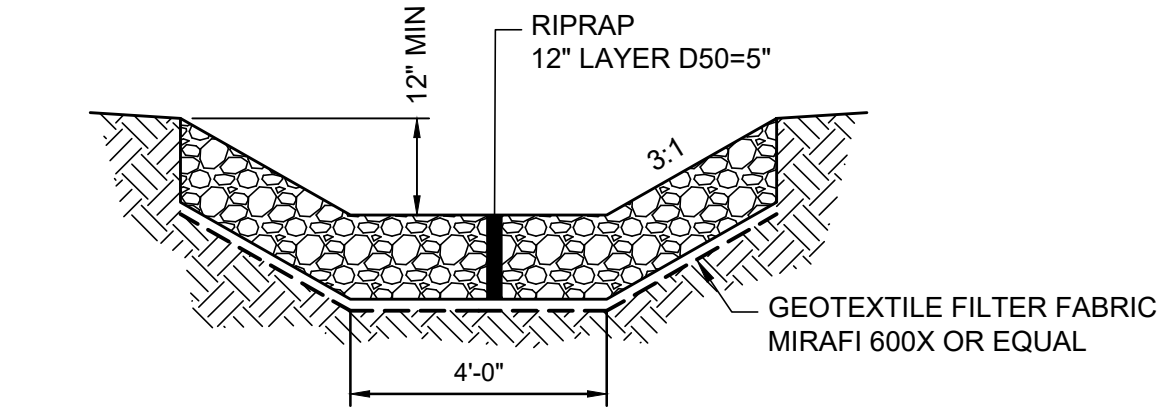
39 VEGETATED SWALE
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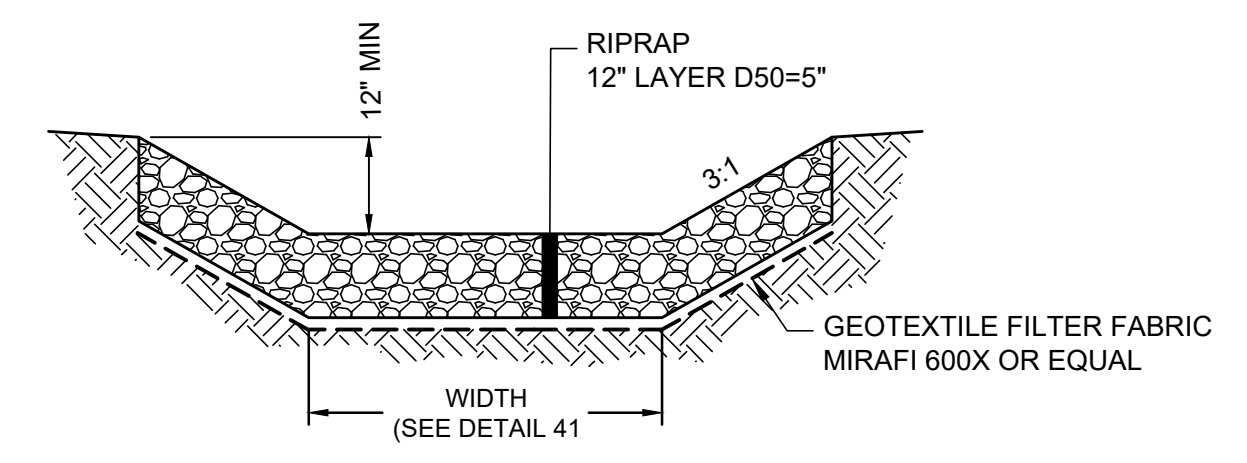
36 CATCH BASIN
NOT TO SCALE REF: C-107, C-108



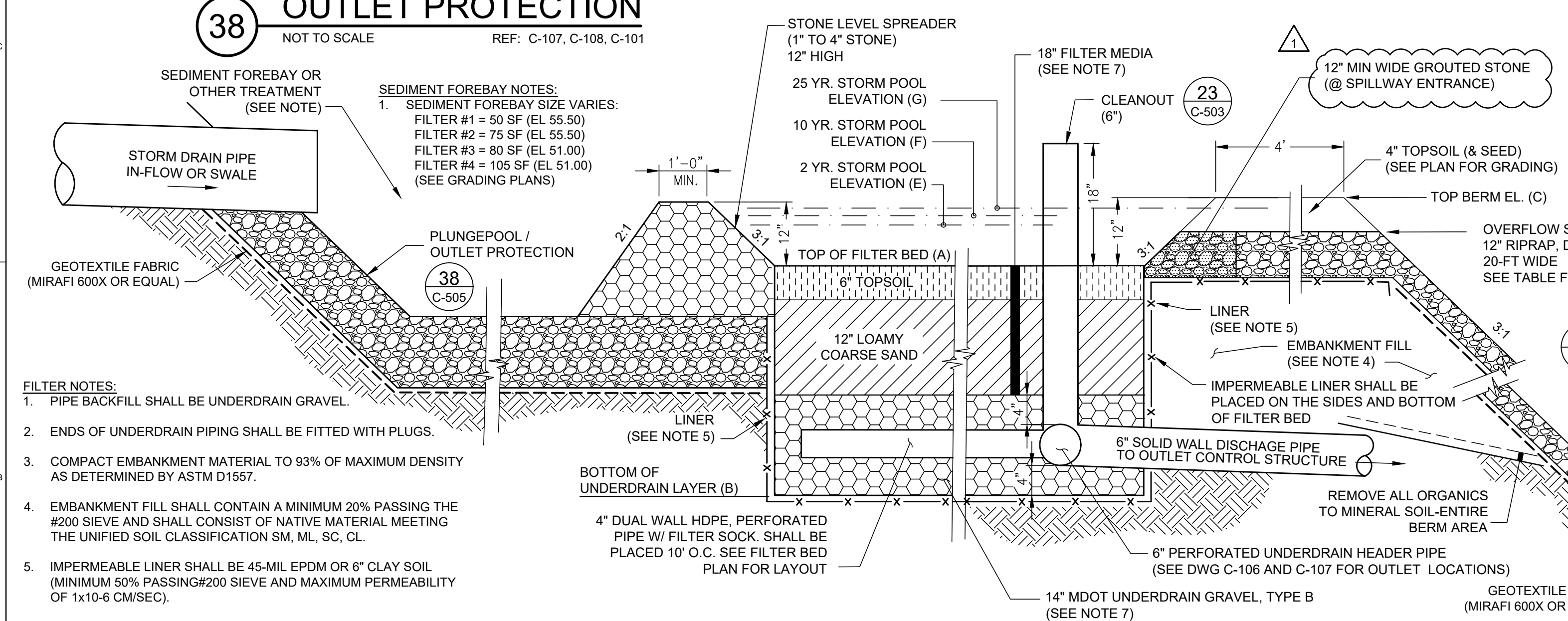
37 OUTLET CONTROL STRUCTURE
NOT TO SCALE REF: C-107, C-108



40 STONE LINED SWALE
NOT TO SCALE REF: C-107, C-108, C-105, C-106



41A EMERGENCY OR OVERFLOW SPILLWAY
NOT TO SCALE REF: C-101, C-107, C-108



FILTER NOTES:

- PIPE BACKFILL SHALL BE UNDERDRAIN GRAVEL.
- ENDS OF UNDERDRAIN PIPING SHALL BE FITTED WITH PLUGS.
- COMPACT EMBANKMENT MATERIAL TO 93% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557.
- EMBANKMENT FILL SHALL CONTAIN A MINIMUM 20% PASSING THE #200 SIEVE AND SHALL CONSIST OF NATIVE MATERIAL MEETING THE UNIFIED SOIL CLASSIFICATION SM, ML, SC, CL.
- IMPERMEABLE LINER SHALL BE 45-MIL EPDM OR 6" CLAY SOIL (MINIMUM 50% PASSING #200 SIEVE AND MAXIMUM PERMEABILITY OF 1x10-6 CM/SEC).
- MDOT UNDERDRAIN GRAVEL, TYPE B SPECIFICATION:

UNDERDRAIN GRAVEL		LOAMY COARSE SAND	
SIEVE	% BY WEIGHT	SIEVE	% BY WEIGHT
1"	90-100	#10	85-100
1/2"	75-100	#20	70-100
#4	50-100	#60	15-40
#20	15-80	#200	8-15
#50	0-15	#200(CLAY SIZE)	<2.0
#200	0-5		

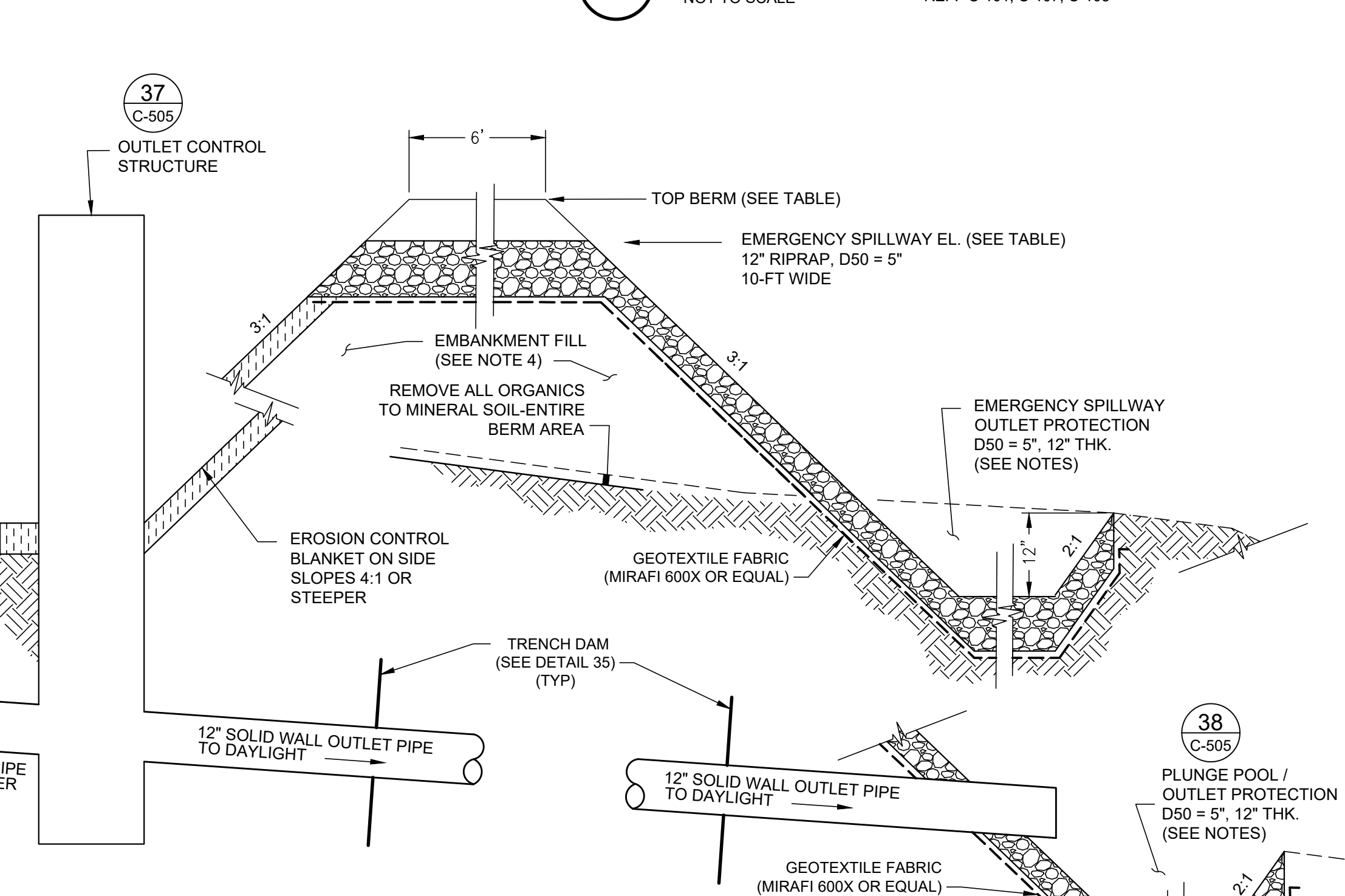
(FILTER MEDIA NOTES CONTINUED)

- A 12 INCHES LAYER OF LOAMY COARSE SAND AND MEETS THE GRAIN SIZE SPECIFICATION OF TABLE
- A LAYER OF HAY SHALL BE PLACED TO SEPARATE THE UNDERDRAIN GRAVEL FROM THE FILTER MEDIA TREATMENT LAYER ABOVE TO PREVENT SUBSIDENCE OR PLUGGING OF THE SAND/GRAVEL/STONE LAYER AND/OR PIPE
- CONSTRUCTION OVERSIGHT: INSPECTION OF THE FILTER BASIN MUST BE PROVIDED FOR EACH PHASE OF CONSTRUCTION BY THE DESIGN ENGINEER WITH REQUIRED REPORTING TO THE DEP. ALL MATERIAL INTENDED FOR THE FILTER BASIN MUST BE APPROVED BY THE DESIGN ENGINEER AFTER TESTS BY A CERTIFIED LABORATORY SHOW THAT THE MATERIAL CONFORMS TO ALL DEP SPECIFICATIONS. AT A MINIMUM, INSPECTIONS WILL OCCUR:
 - AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED (NOT BACKFILLED);
 - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE SOIL FILTER MEDIA;
 - AFTER THE SOIL FILTER MEDIA HAS BEEN INSTALLED, SEEDING AND MULCHED; AND
 - AFTER ONE YEAR, TO INSPECT VEGETATION AND MAKE CORRECTION.

FILTER TABLE

FILTER	TOP OF FILTER EL. (A)	BOTTOM UNDERDRAIN GRAVEL (B)	UNDERDRAIN PIPE INV. (C)	TOP BERM EL. (D)	OVERFLOW SPILLWAY EL. (E)	2 YR. STORM EL. (F)	10 YR. STORM EL. (G)	25 YR. STORM EL. (H)	TREATMENT VOLUME ELEV.
1	56.50	53.83	52.50	57.50	56.90	56.99	57.11	57.17	56.87
2	56.50	53.83	52.50	57.50	56.90	57.07	57.15	57.26	56.87
3	51.00	48.33	46.78	52.00	51.40	51.64	51.72	51.76	51.37
4	51.00	48.33	46.78	52.00	51.40	51.64	51.74	51.83	51.37

41 GRASSED UNDERDRAINED SOIL FILTER
NOT TO SCALE REF: C-104, C-107, C-108



DETENTION POND TABLE

POND	POND BOTTOM ELEV.	TOP BERM ELEV.	OUTLET CONTROL STRUCTURE *		EMERGENCY SPILLWAY
			RIM**	LOW FLOW ORIFICE (2" DIA)	
DP-1	54.50	58.50	57.00	54.65	57.50
DP-2	48.50	53.00	50.65	-	52.00

* 4-FT ROUND OR SQUARE PRECAST CONCRETE BASIN
** 30" DIA OPENING WITH BEEHIVE GRATE

NOTE:
FILTER CROSS SECTION IS SHOWN FOR GRAPHICAL PURPOSES ONLY. NOT TRUE SCALE. (SEE DRAWINGS C-301 AND C-302 PROFILE VIEWS FOR TRUE SCALE)

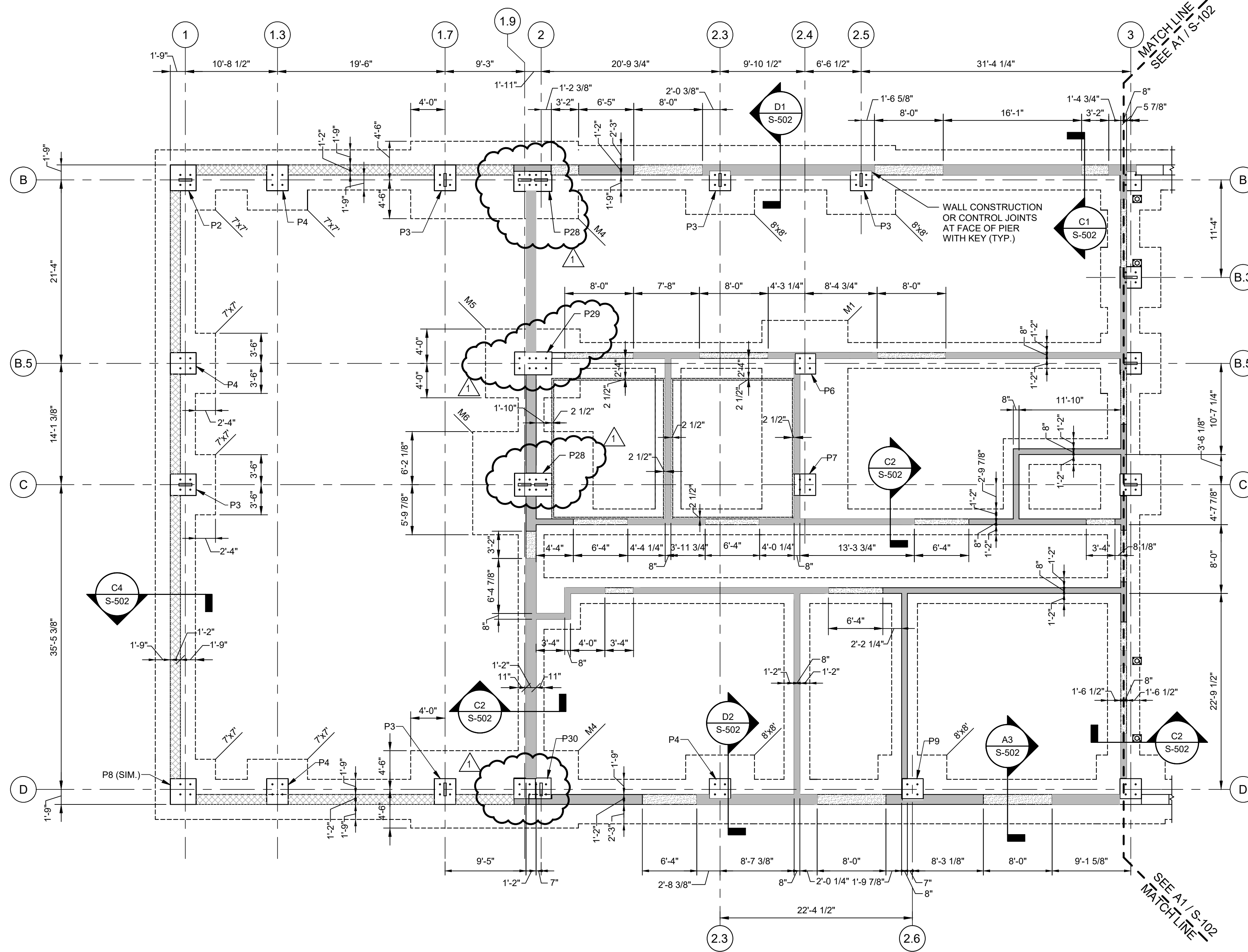
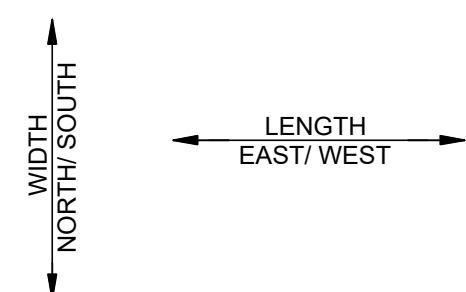


COLUMN FOOTING SCHEDULE						
FOOTING TYPE	FOOTING WIDTH	FOOTING LENGTH	FOOTING THICKNESS	T/FOOTING ELEVATION	FOOTING REINFORCING BARS WITH STANDARD HOOK EACH END	
					NORTH/SOUTH BARS TOP AND BOTTOM	EAST/WEST BARS TOP AND BOTTOM
5x5'	5'-0"	5'-0"	1'-6"	-4'-0"	(5) #6	(5) #6
7x7'	7'-0"	7'-0"	1'-6"	-4'-0"	(7) #6	(7) #6
8x8'	8'-0"	8'-0"	1'-6"	-4'-0"	(8) #6	(8) #6
10x10'	10'-0"	10'-0"	1'-6"	-4'-0"	(10) #6	(10) #6
M1	24'-11 1/4"	10'-0"	1'-6"	-4'-0"	(10) #6	(25) #6
M2	19'-0"	11'-10"	1'-6"	-4'-0"	(12) #6	(19) #6
M3	27'-3"	11'-10"	1'-6"	-4'-0"	(12) #6	(27) #6
M4	9'-0"	19'-6"	1'-6"	-4'-0"	(19) #6	(9) #6
M5	8'-0"	11'-0"	1'-6"	-4'-0"	(11) #6	(8) #6
M6	12'-0"	14'-0"	1'-6"	-4'-0"	(14) #6	(12) #6

COLUMN PIER SCHEDULE				
PIER TYPE	PIER DIMENSIONS (LxW)	T/PIER ELEVATION	VERTICAL REINFORCING	PIER SECTION
P1	36" x 36"	-1'-2"	(16) #8	D1/S-507
P2	36" x 36"	-1'-2"	(16) #8	D2/S-507
P3	30" x 36"	-1'-2"	(14) #8	D4/S-507
P4	36" x 30"	-1'-2"	(12) #8	C1/S-507
P5	36" x 30"	-1'-2"	(16) #8	C2/S-507
P6	30" x 30"	-1'-2"	(16) #8	C4/S-507
P7	30" x 30"	-1'-2"	(16) #8	A1/S-507
P8	36" x 36"	-1'-2"	(16) #8	A2/S-507
P9	30" x 36"	-1'-2"	(14) #8	A4/S-507
P10	30" x 36"	-1'-2"	(16) #8	D1/S-508
P11	30" x 36"	-1'-2"	(16) #8	D2/S-508
P12	26" x 26"	-1'-2"	(16) #8	D4/S-508
P13	30" x 30"	-1'-2"	(16) #8	C1/S-508

COLUMN PIER SCHEDULE CONTINUED				
PIER TYPE	PIER DIMENSIONS (LxW)	T/PIER ELEVATION	VERTICAL REINFORCING	PIER SECTION
P14	36" x 36"	-1'-2"	(16) #8	C2/S-508
P15	30" x 32"	-1'-2"	(14) #8	C5/S-508
P16	30" x 30"	-1'-2"	(12) #8	A1/S-508
P17	30" x 30"	-1'-2"	(16) #8	A2/S-508
P18	36" x 36"	-1'-2"	(14) #8	A4/S-508
P19	24" x 24"	-1'-2"	(17) #8	A5/S-508
P20	52" x 45"	-1'-2"	(29) #8	D1/S-509
P21	30" x 30"	-1'-2"	(16) #8	D3/S-509
P22	52" x 32"	-1'-2"	(26) #8	D4/S-509
P23	30" x 41"	-1'-2"	(22) #8	C1/S-509
P24	30" x 41"	-1'-2"	(16) #8	C3/S-509
P25	22" x 22"	-1'-2"	(23) #8	C4/S-509
P26	32" x 30"	-1'-2"	(12) #8	C5/S-509
P27	24" x 24"	-1'-2"	(12) #8	A1/S-509
P28	52" x 32"	-1'-2"	(26) #8	A3/S-509
P29	52" x 32"	-1'-2"	(26) #8	A4/S-509
P30	52" x 32"	-1'-2"	(26) #8	A5/S-509

NOTE:
1. FOOTING AND MAT FOUNDATION WIDTH AND LENGTH ARE FURNISHED PARALLEL TO THE MAIN BUILDING AXIS AS INDICATED.



A1 AREA A FOUNDATION PLAN
1/8" = 1'-0" REF: 0 4' 8' 16'

NOTES

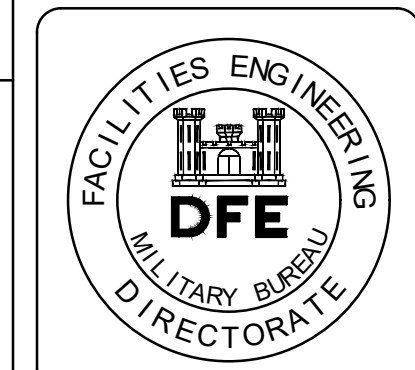
- REFER TO SHEETS S-001 THROUGH S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
- SEE SPECIFICATION SECTION NO. 033000 FOR ADDITIONAL CAST-IN-PLACE CONCRETE FOOTING, GRADE WALL, PIER AND SLAB-ON-GRADE CONSTRUCTION REQUIREMENTS.
- PROVIDE CONSTRUCTION JOINTS AT 60 FT MAXIMUM FOR ALL FOOTINGS, GRADE BEAMS, FOUNDATION WALLS AND AT FACE OF COLUMN PIERS. ALL CONSTRUCTION JOINTS SHALL BE LOCATED BY THE CONTRACTOR ON THE REINFORCEMENT BAR PLACEMENT DRAWINGS FOR THE OWNER'S APPROVAL. REINFORCING MAY BE CONTINUOUS IN PLACEMENT WITHOUT CONSTRUCTION JOINTS.

LEGEND

- [Solid Grey] - INDICATES TOP OF CONCRETE ELEVATION = 0'-0"
- [Dotted Grey] - INDICATES TOP OF CONCRETE ELEVATION = -1'-2"
- [Diagonal Lines] - INDICATES TOP OF CONCRETE ELEVATION = -0'-3 1/2"
- [Cross-hatched Grey] - INDICATES TOP OF CONCRETE ELEVATION = -1'-2"
- [Dashed Line] - INDICATES OUTLINE OF FOUNDATION FOOTING

ALTERNATE BID ITEM

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE



PLAN REVISIONS	
NO.	DESCRIPTION
1	ADDENDUM #1
0	ISSUED FOR BID

GSL	CAM	MSD	DATE	BY
			06-10-2022	JRW
			04-22-22	JRW

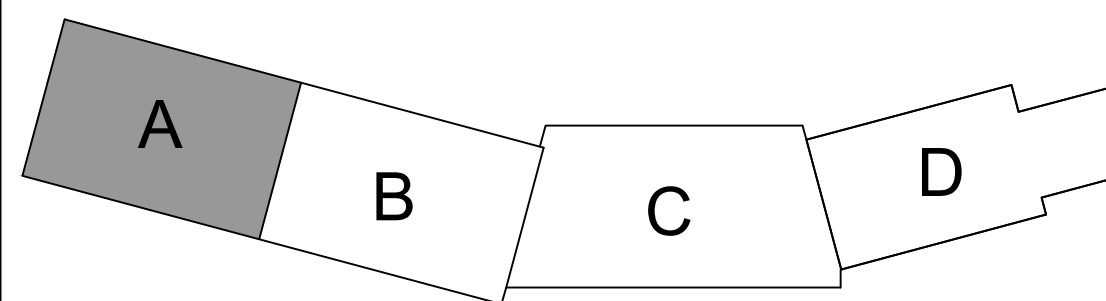
STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT

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Engineers & Surveyors, Inc.
811 Congress St., Suite 2020, Portland, ME 04101
P: (207) 725-2221, F: (207) 725-2222, www.woodinc.com

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AREA A
FOUNDATION PLAN

KEY PLAN

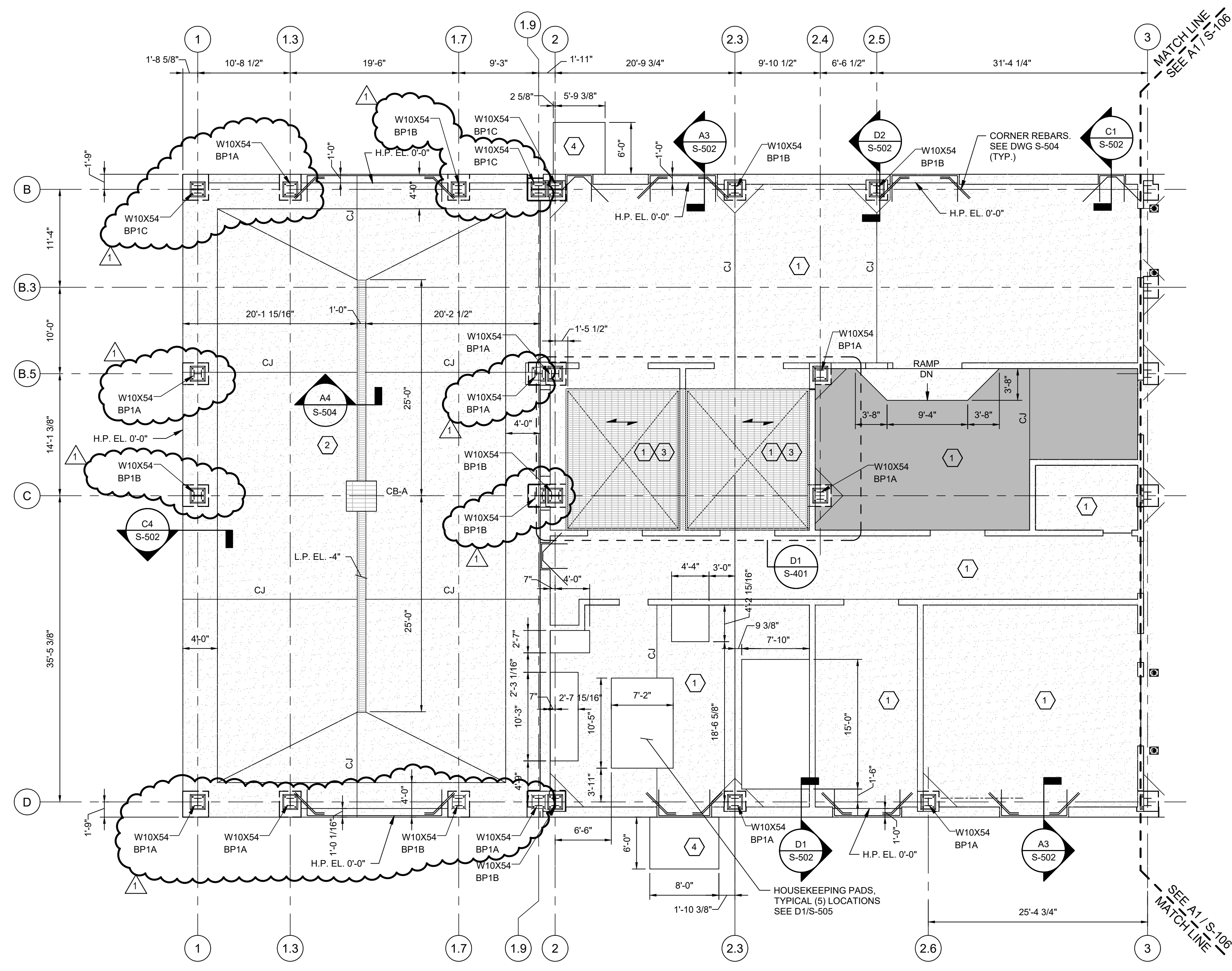


PLAN PROGRESS

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<input type="checkbox"/>	95% REVIEW
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

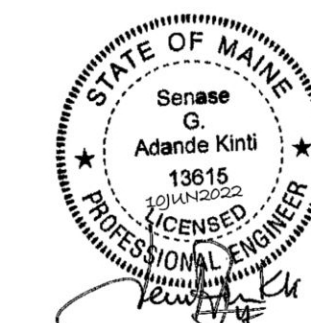


NOT FOR CONSTRUCTION



A1 AREA A GRADE SLAB PLAN
 1/8" = 1' - 0" REF. 0 4' 8' 16'

TOP OF CONCRETE GRADE SLAB EL = 0'-0" (H.P.) REFERENCE, U.N.O.
 LIVE LOAD = 250 PSF UNIFORM OR VEHICLE LOAD IN DESIGNATED AREAS
 CJ = CONSTRUCTION OR CONTROL JOINT, SEE DETAILS ON SHEET S-504



NOTES

- REFER TO SHEETS S-001 THROUGH S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
- SEE SPECIFICATION SECTION NO. 033000 FOR ADDITIONAL CAST-IN-PLACE SLAB-ON-GRADE CONSTRUCTION REQUIREMENTS.
- TOP OF SLAB-ON-GRADE REFERENCE EL. 0' - 0" = ABSOLUTE EL. 60' - 0" ABOVE MEAN SEA LEVEL. SEE CIVIL DRAWINGS.
- SLAB-ON-GRADE INSTALLATION SHALL CONFORM TO ALL REQUIREMENTS IN THE GENERAL STRUCTURAL NOTES AND SPECIFICATIONS INCLUDING:
 - TOP OF SLAB SURFACE SHALL BE SLOPED TO DRAINS. CONTRACTOR SHALL HAVE THE OPTION TO SLOPE THE BOTTOM OF SLAB SURFACE TO MAINTAIN A LEVEL BOTTOM OF SLAB BEARING ELEVATION WITH THE MINIMUM REQUIRED THICKNESS AT THE SLAB (L.P.). SLAB (L.P.) EL IS AT THE TOP OF TRENCH AND FLOOR DRAINS.
 - THE CONTRACTOR SHALL PROVIDE A GRADE SLAB PLACEMENT PLAN TO THE OWNER FOR REVIEW PRIOR TO COMMENCING WORK. THE PLACEMENT PLAN SHALL PROVIDE THE LOCATION OF ALL CONSTRUCTION AND SAW-CUT CONTROL JOINTS AND DEMONSTRATE THE CAPABILITY TO PLACE SLAB AREAS LARGER THAN 50' X 50' IN A SINGLE PLACEMENT, IF PRACTICAL.
 - COMPLETE REINFORCING BAR PLACEMENT DRAWINGS SHOWING THE LOCATION OF ALL BAR SPLICES SHALL BE SUBMITTED TO THE OWNER FOR REVIEW.
 - MAXIMUM SPACING BETWEEN CONSTRUCTION AND SAW-CUT CONTROL JOINTS SHALL BE 30 FEET (+/-) AND LOCATED AT THE CENTERLINE OF COLUMN GRID LINES OR AT THE MID POINTS BETWEEN COLUMNS.
 - FLOOR SLAB SHALL RECEIVE A STEEL TROWEL FINISH FOLLOWED BY ONE OF THE APPROVED CURING METHODS IN THE CAST-IN-PLACE CONCRETE SPECIFICATION NO. 033000.
- INTERIOR SLAB-ON-GRADE BEARING SURFACE SHALL BE BUILT-UP WITH PREPARED STRUCTURAL FILL MATERIAL. COMPACTED FILL MATERIAL SHALL BE PLACED IN 8" MAXIMUM LIFTS TO PROVIDE THE REQUIRED BOTTOM OF SLAB ELEVATION.
- THE TOP SURFACE BEARING LAYER SHALL BE A MINIMUM OF 6" CRUSHED STONE WITH FINES IN THE TOP 2 INCHES TO PROVIDE UNIFORM WORKING SURFACE AND CAPILLARY WATER BREAK.
- INTERIOR SLABS-ON-GRADE SHALL BE PLACED DIRECTLY ON A 2" THICK LAYER OF RIGID INSULATION WITH A MINIMUM RATED COMPRESSIVE STRENGTH OF 60 PSI. IMMEDIATELY BELOW THE RIGID INSULATION SHALL BE A 15 MIL VAPOR RETARDER WITH TAPED LAPS AND ALL ACCESSORIES REQUIRED FOR A COMPLETE SYSTEM. SEE ARCHITECTURAL DRAWINGS FOR INSULATION SPECIFICATION.
- REFERENCE SHEET S-501 FOR BASE PLATE INFORMATION.

KEYED NOTES

- ENCLOSED UNHEATED STORAGE, ARNG CORRIDOR, MECH/ELEC ROOM, BULKY EQUIPMENT STORAGE, TELECOM/IT AND BATTERY ROOM SLAB SHALL BE 8" THICK AND REINFORCED WITH #5 @ 9" O.C. EA WAY LOCATED 2" FROM TOP OF SLAB AND #4 @ 9" O.C. EA WAY LOCATED 2 1/2" FROM BOTTOM OF SLAB.
- WASH PAD GRADE SLAB SHALL BE 10" THICK AND REINFORCED WITH #5 @ 9" O.C. EACH WAY LOCATED 2" FROM TOP OF SLAB ... AND #4 @ 9" O.C. EA WAY LOCATED 2 1/2" FROM SLAB BOTTOM. BOTTOM REBAR TO BE WITH 6" HK AT EA END.
- TOP OF 8" RECESSED SLAB EL = -2'-0" TYP WITH 1/2" SLOPE TO (L.P.) AT CENTER. FOR STEEL FRAMING AND GRATING IN THIS AREA SEE S-401.
- EXTERIOR 6" CONCRETE DOOR PAD LANDING. SEE TYPICAL EXTERIOR CONCRETE DOOR PAD DETAIL ON SHEET S-505.

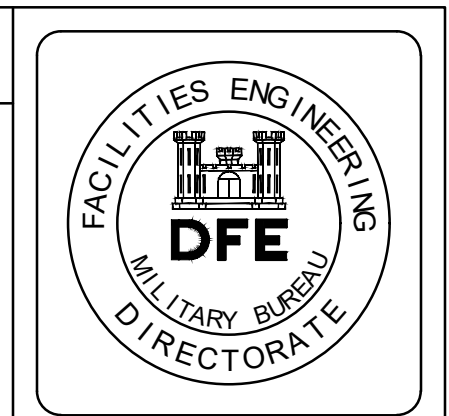
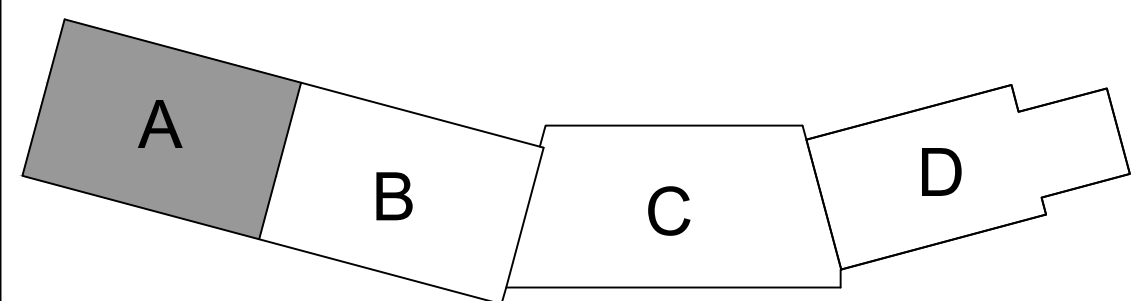
LEGEND

- INDICATES CONCRETE SLAB EXTENTS. TOP OF SLAB ELEVATION = 0'-0" (U.N.O.)
- INDICATES CONCRETE RECESS SLAB EXTENTS. TOP OF SLAB ELEVATION = -0'-4" (U.N.O.)
- INDICATES GRATING EXTENTS. TOP OF GRATING ELEVATION = 0'-0" (U.N.O.)

ALTERNATE BID ITEM

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
 15. WASH PAD ENCLOSURE

KEY PLAN



PLAN REVISIONS	
NO.	DESCRIPTION
1	ADDENDUM #1
0	ISSUED FOR BID

GSL	CAM	MSD	DATE	BY
			04-20-2022	JRW
			04-22-22	JRW

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 AREA A
 GRADE SLAB PLAN

PLAN PROGRESS

<input type="checkbox"/>	DRAFT
<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

NOT FOR CONSTRUCTION



NOTES

1. REFER TO SHEETS S-001 THROUGH S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
2. SEE SPECIFICATION SECTION NO. 05 12 00 FOR ADDITIONAL STRUCTURAL STEEL FABRICATION AND ERECTION REQUIREMENTS.
3. COORDINATE ROOF OPENING LOCATIONS WITH MECHANICAL AND PLUMBING DRAWINGS (TYP.) SEE ROOF PENETRATION DETAIL ON SHEET S-512.

LEGEND

- Ax = INDICATES AXIAL FORCES
- V = INDICATES VERTICAL SHEAR FORCES
- M = INDICATES MOMENT
- [Hatched Box] INDICATES METAL DECK
- E.O.D. EDGE OF METAL DECK
- [Shaded Box] DIAPHRAM ZONE 1
36/7 PATTERN WITH (3) #10 SIDE LAP SCREWS PER SPAN, OTHERWISE 36/5 PATTERN WITH (2) #10 SIDE LAP SCREWS PER SPAN

ALTERNATE BID ITEM

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE

PLAN REVISIONS	
NO.	DESCRIPTION
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0	ISSUED FOR BID

GSL	CAM	MSD	DATE	BY
			04-20-2022	As indicated

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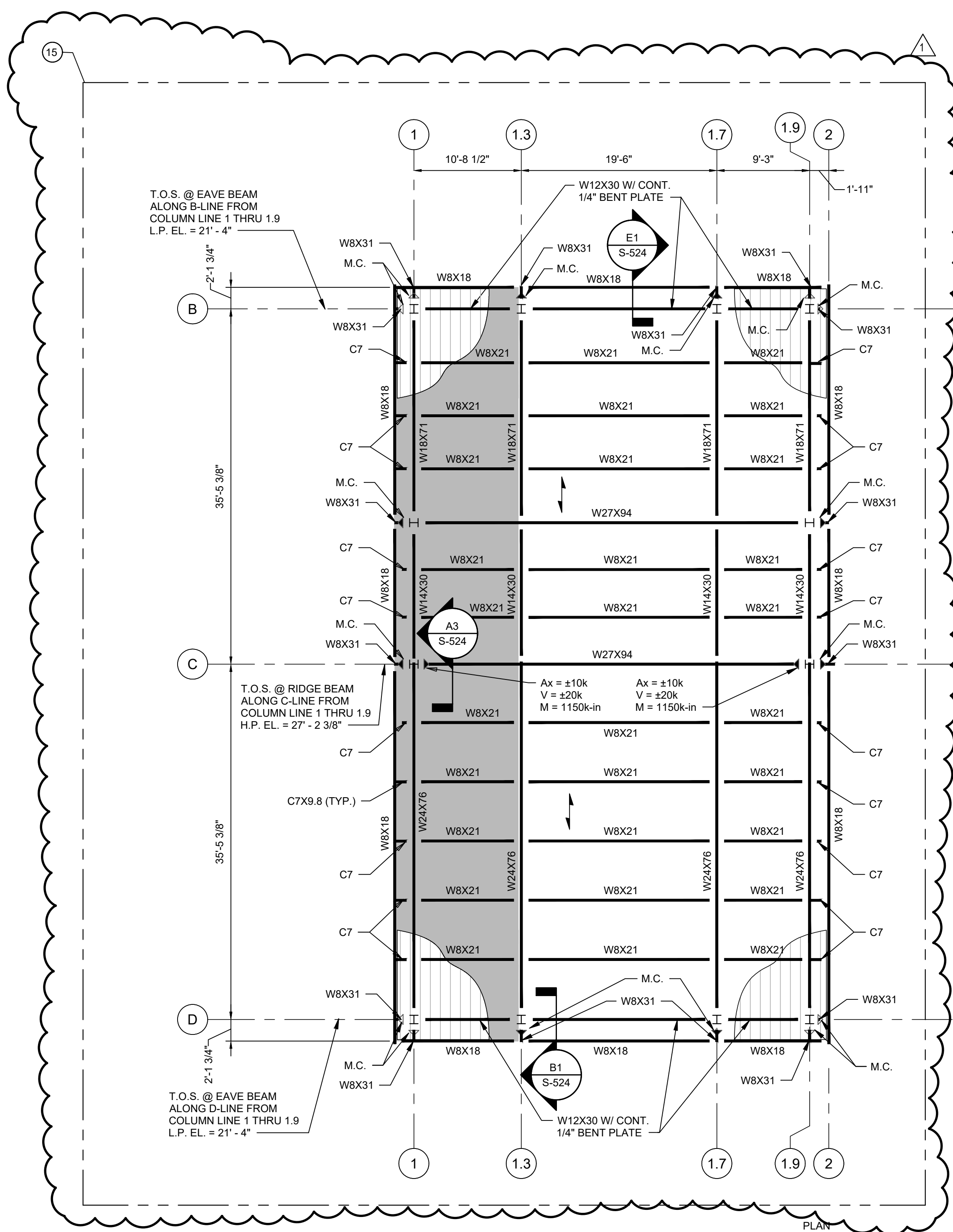
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AREA A
ROOF FRAMING PLAN

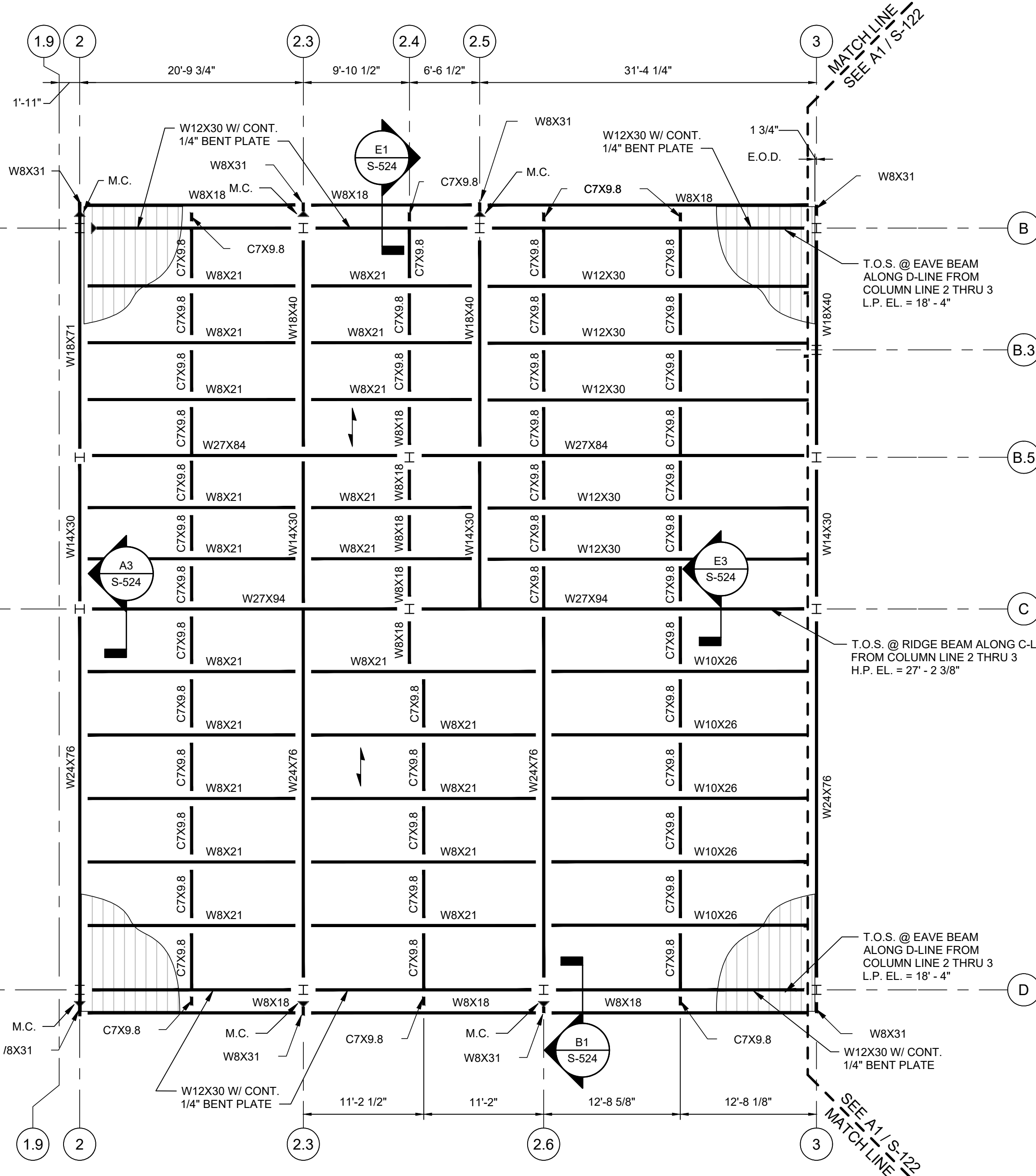
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NOT FOR CONSTRUCTION

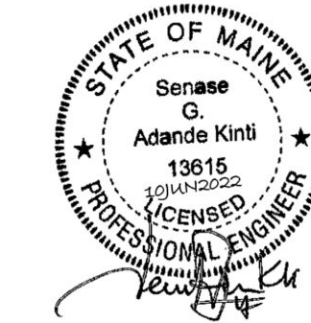
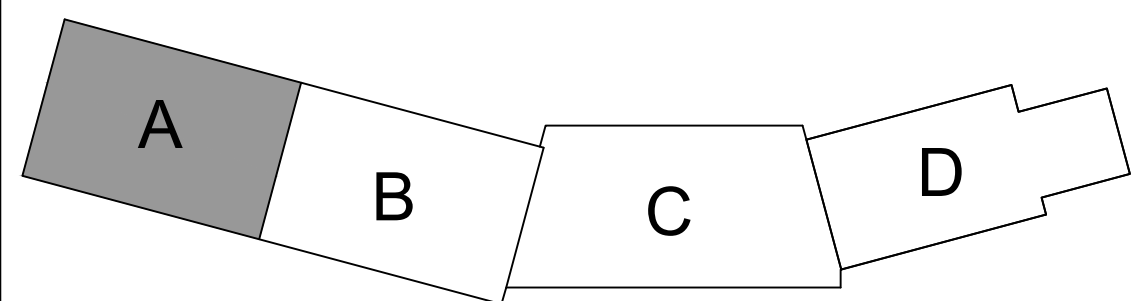


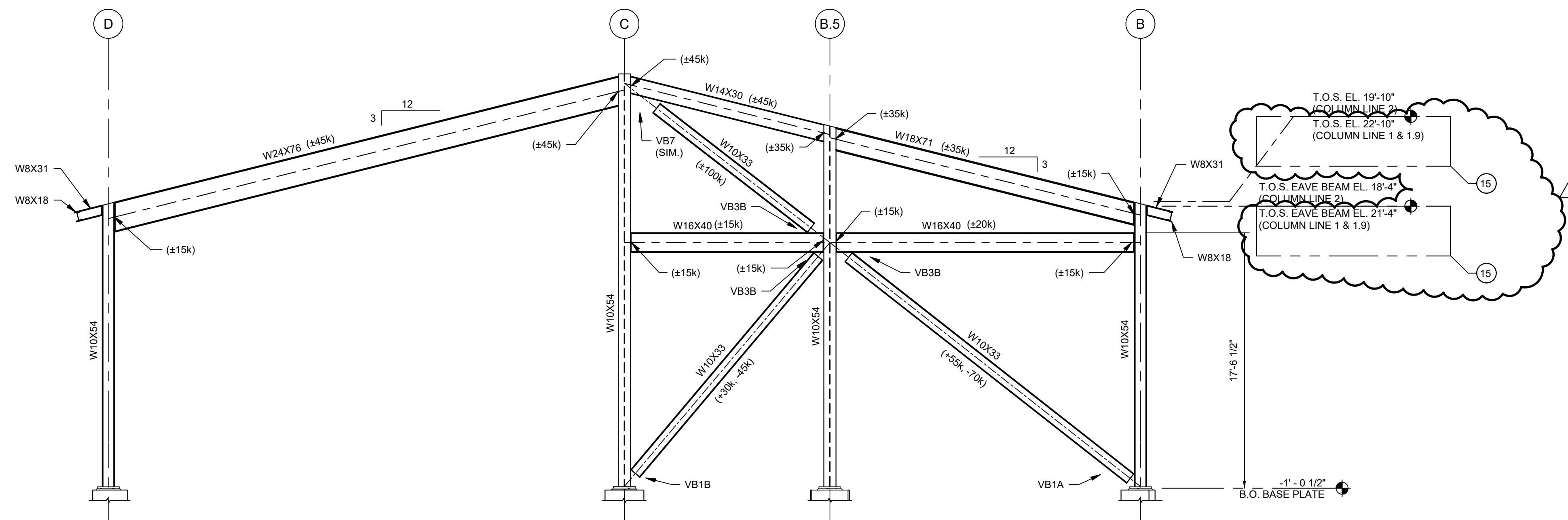
1 AREA A WASH PAD ROOF FRAMING PLAN
1/8" = 1' - 0" REF: [Scale Bar] PLAN NORTH



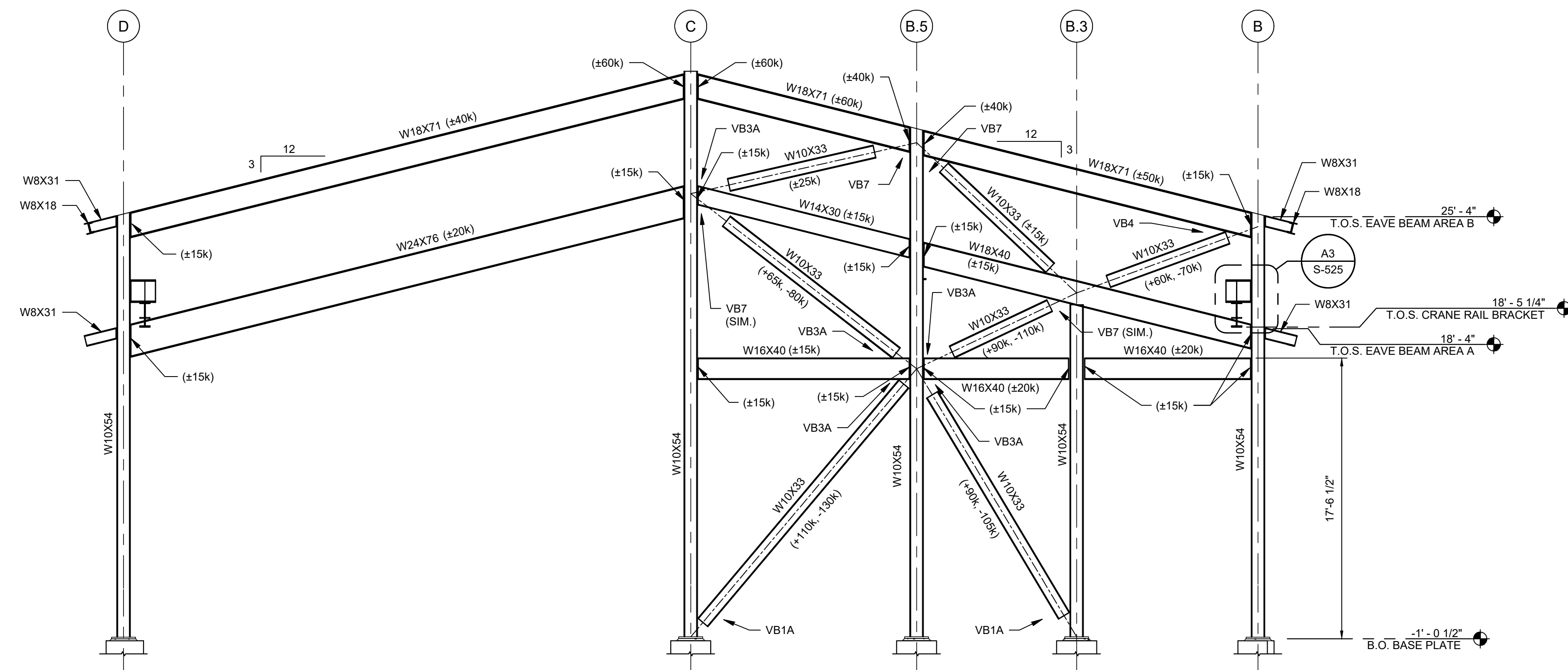
A1 AREA A ROOF FRAMING PLAN
1/8" = 1' - 0" REF: [Scale Bar] PLAN NORTH

KEY PLAN





D1 AREA A FRAMING ELEVATION (COLUMN LINE 1, 1.9 AND 2)
 3/16" = 1'-0" REF: ZA101 (LOOKING WEST)



A1 AREA A FRAMING ELEVATION (COLUMN LINE 3)
 3/16" = 1'-0" REF: ZA101 (LOOKING WEST)

NOTES

- REFER TO SHEETS S-001 THRU S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
- SEE SPECIFICATION SECTION NO. 05 12 00 FOR ADDITIONAL STRUCTURAL STEEL FABRICATION AND ERECTION REQUIREMENTS.
- FOR CONNECTION DESIGN REQUIREMENTS REFER TO THE GENERAL REQUIREMENTS ON SHEET S-521 THRU S-525.

CONNECTION DESIGN NOTES:

- MEMBER END CONNECTIONS SHALL BE DESIGNED FOR THE AXIAL LOADS AND JOINT TRANSFER FORCES AT JOINT LOCATIONS SHOWN AS:

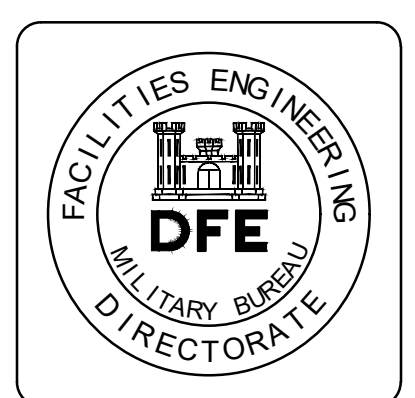
A = + (TENSION) KIP
 - (COMPRESSION) KIP

WHERE "A" ARE THE JOINT TRANSFER LOADS. THE AXIAL AND TRANSFER FORCES SHALL BE COMBINED WITH THE VERTICAL SHEAR REACTIONS FOR UNIFORMLY LOADED BEAMS, LATERALLY SUPPORTED, AS GIVEN IN THE AISC 15th EDITION MANUAL. THE MEMBER AXIAL LOADS AND JOINT TRANSFER FORCES SHOWN AT MEMBER INTERSECTIONS ARE MAXIMUM COMPONENT FORCES AND MAY NOT BE FOR THE SAME ASCE 7-16 LOAD COMBINATION. THE CONNECTION DESIGN ENGINEER SHALL CONSIDER THE MOST CRITICAL COMBINATION OF THE FORCE COMPONENTS FURNISHED FOR ALL CONNECTION DESIGNS.

- ALL FORCES FURNISHED ON THIS DRAWING ARE LOAD COMBINATIONS FOR ULTIMATE-LEVEL LOADS, INCLUDING OVERSTRENGTH FOR SEISMIC DESIGN AND SHALL NOT BE REDUCED FOR CONNECTION DESIGN.
- THE TYPICAL BRACING CONNECTIONS SHOWN ARE FOR DESIGN CONCEPT ONLY. THE CONNECTION DESIGN DETAILING AND CALCULATIONS SHALL BE PERFORMED BY AN ENGINEER REGISTERED IN THE STATE OF MAINE. AT THE DISCRETION OF THE AUTHORITY HAVING JURISDICTION (AHJ) THE CONNECTION DESIGN ENGINEER MAY BE PERMITTED TO USE THEIR "HOME" STATE REGISTRATION, PROVIDED THEY ARE AUTHORIZED TO PERFORM THAT DESIGN SERVICE IN THE STATE IN WHICH THE FIRM OR INDIVIDUAL PROPRIETOR IS REGISTERED.

ALL BRACING CONNECTIONS SHALL FURNISH THE REQUIRED APPLIED LOADING AS SHOWN ON THE DESIGN DRAWING. CONNECTION DESIGN REQUIREMENTS INCLUDE:

- LENGTH AND SIZE OF WELDS, NUMBER OF BOLTS, THICKNESS OF BUTT PLATE OR CLIP ANGLES, COLUMN AND CLIP ANGLE STIFFENER PLATES FURNISHED TO DEVELOP VERTICAL AND HORIZONTAL COMPONENTS OF FORCES SHOWN ON DESIGN DRAWINGS PLUS THE APPLIED AXIAL TRANSFER FORCES COMBINED WITH THE MAXIMUM REACTIONS FOR LATERALLY SUPPORTED BEAMS AND GIRDERS AS GIVEN BY THE AISC 15th EDITION MANUAL.
 - LENGTH AND SIZE OF WELD OR NUMBER OF BOLTS AS REQUIRED TO DEVELOP FORCES SHOWN ON DESIGN DRAWINGS. (MINIMUM 8 BOLT CONNECTION AT WIDE FLANGE TO COLUMN FLANGE OR WEB GUSSET PLATES).
 - FOR SEISMIC CONNECTIONS, THE BUCKLING ZONE SHALL BE CALCULATED AS TWO TIMES THE GUSSET PLATE THICKNESS FROM THE END OF THE BRACE CONNECTION. WHEN THE GUSSET CONNECTION PLATE IS BELOW THE TOP OF CONCRETE GRADE SLAB, THE BUCKLING LINE SHALL BE CALCULATED ABOVE THE DESIGNED HIGH POINT OF CONCRETE FOR UNRESTRAINED FREE EDGE BUCKLING. FOR NON-SEISMIC CONNECTIONS, THE 2T FOLD LINE CAN BE OMITTED.
- CONNECTION DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING FABRICATION OF STRUCTURAL STEEL.
 - ALL VERTICAL BRACING CONNECTIONS SHALL COMPLY WITH THE FOLLOWING MINIMUM MATERIAL AND CONNECTOR REQUIREMENTS FOR CONDITIONS NOT GOVERNED BY THE DESIGN FORCES:
 - BRACE TO GUSSET - MINIMUM OF (4) 3/4" DIA. ASTM A325-N BOLTS EACH SIDE OF CONNECTION PLANE WITH 3/8" THICK SPLICE PLATES EACH SIDE OF COLUMN WEB, 5 1/2" WIDE WITH 3" HORIZONTAL SPACING AT W10'S AND 9" WIDE WITH 5" HORIZONTAL SPACING AT W12'S.
 - GUSSET PLATE TO COLUMN AND BEAM FLANGE - MINIMUM PLATE THICKNESS OF 1/2", 1/4" FILLET EACH SIDE DIRECT WELDED OR 3/8" THICK BOLTED ANGLES.
 - BEAM WEB TO COLUMN WHERE AXIAL FORCES A = + (TENSION) KIP - (COMPRESSION) KIP PROVIDE MINIMUM OF 1/2" THICK FULL DEPTH BOLTED AND WELDED CLIP ANGLES.
 - THE STRUCTURAL STEEL FABRICATOR MAY SUBMIT ALTERNATE TYPES OF BRACING CONNECTIONS SUCH AS USING FLANGE CLAW ANGLES, END PLATES, OR OTHERS AS JUSTIFIED BY THEIR CALCULATIONS. FABRICATION DRAWINGS WILL NOT BE APPROVED UNLESS THE ABOVE MINIMUM REQUIREMENTS ARE PROVIDED.



PLAN REVISIONS	
NO.	DESCRIPTION
1	ADDENDUM #1
0	ISSUED FOR BID

GSL	CAM	MSD	DATE	BY
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AREA A
 FRAMING ELEVATIONS

ALTERNATE BID ITEM

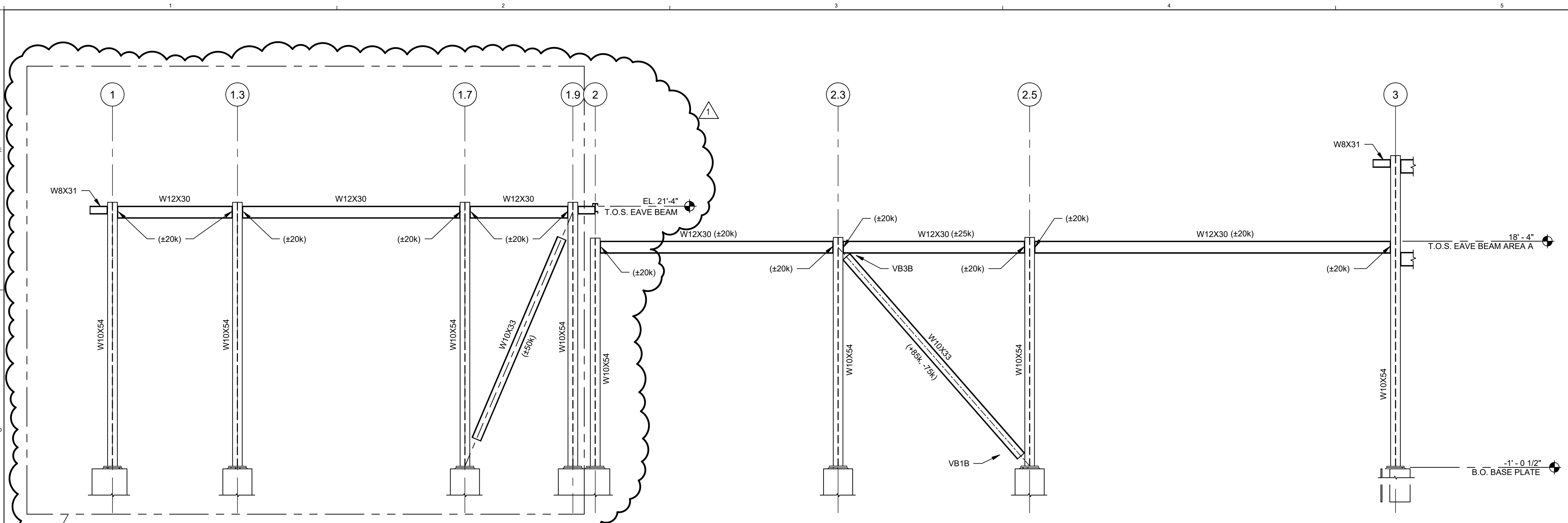
- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

PLAN PROGRESS

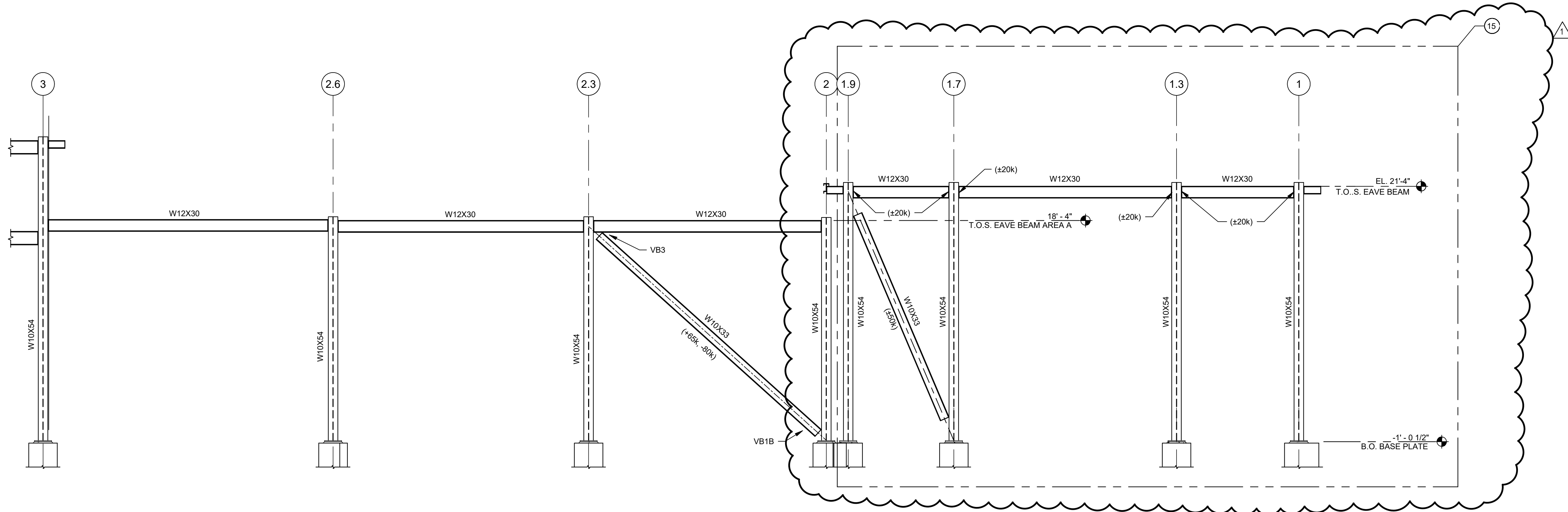
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS



NOT FOR CONSTRUCTION



D2 AREA A FRAMING ELEVATION (COLUMN LINE B)
 3/16" = 1' - 0" REF: (LOOKING NORTH)
 0 2' 4' 8' 12'



B2 AREA A FRAMING ELEVATION (COLUMN LINE D)
 3/16" = 1' - 0" REF: (LOOKING SOUTH)
 0 2' 4' 8' 12'

NOTES

1. REFER TO SHEETS S-001 THRU S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
2. SEE SPECIFICATION SECTION NO. 05 12 00 FOR ADDITIONAL STRUCTURAL STEEL FABRICATION AND ERECTION REQUIREMENTS.
3. FOR CONNECTION DESIGN REQUIREMENTS REFER TO THE GENERAL REQUIREMENTS ON SHEET S-521 THRU S-525.

○ **ALTERNATE BID ITEM**

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE



PLAN REVISIONS	
NO.	DESCRIPTION
1	ADDENDUM #1
0	ISSUED FOR BID

JAS	CAM	MSD	04-20-2022	As indicated	230125
			06-10-22	JRW	
			04-22-22	JRW	
DFE PROJECT NO:					

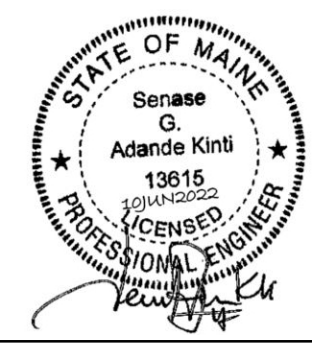
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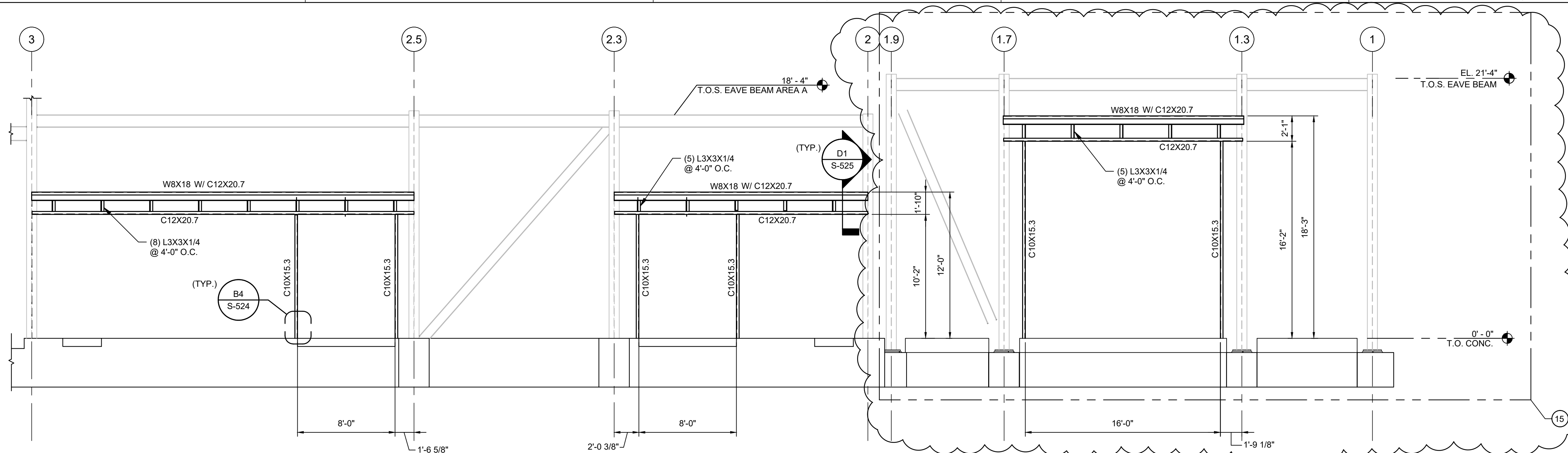
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 AREA A
 FRAMING ELEVATIONS

PLAN PROGRESS

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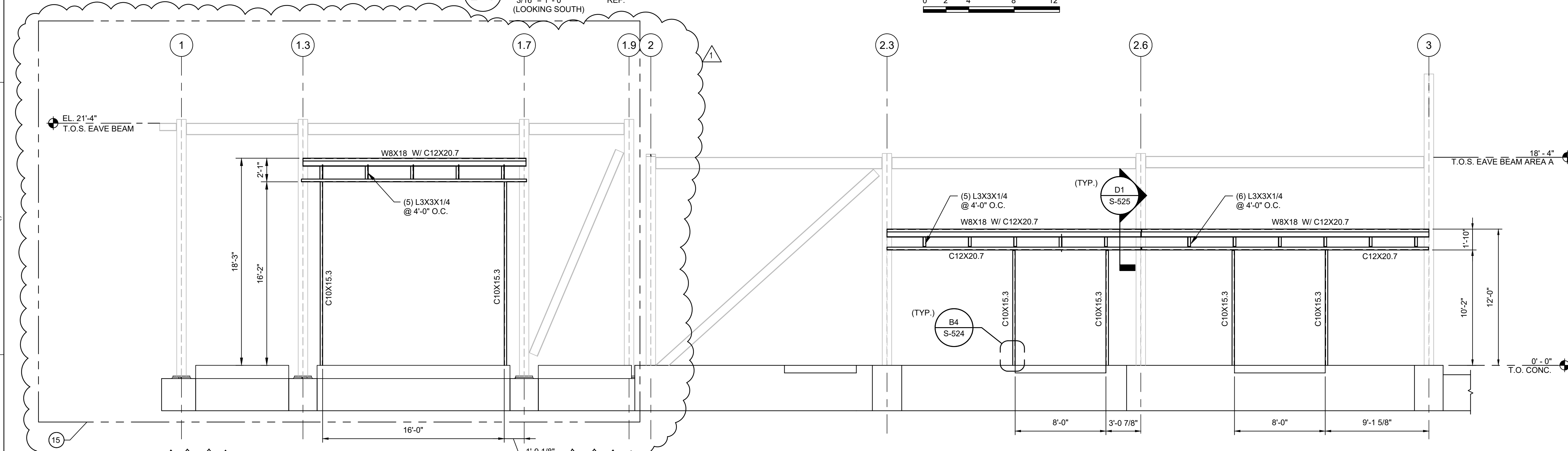


AREA A GIRT FRAMING ELEVATION (COLUMN LINE B)

D1

3/16" = 1' - 0" (LOOKING SOUTH)

REF:

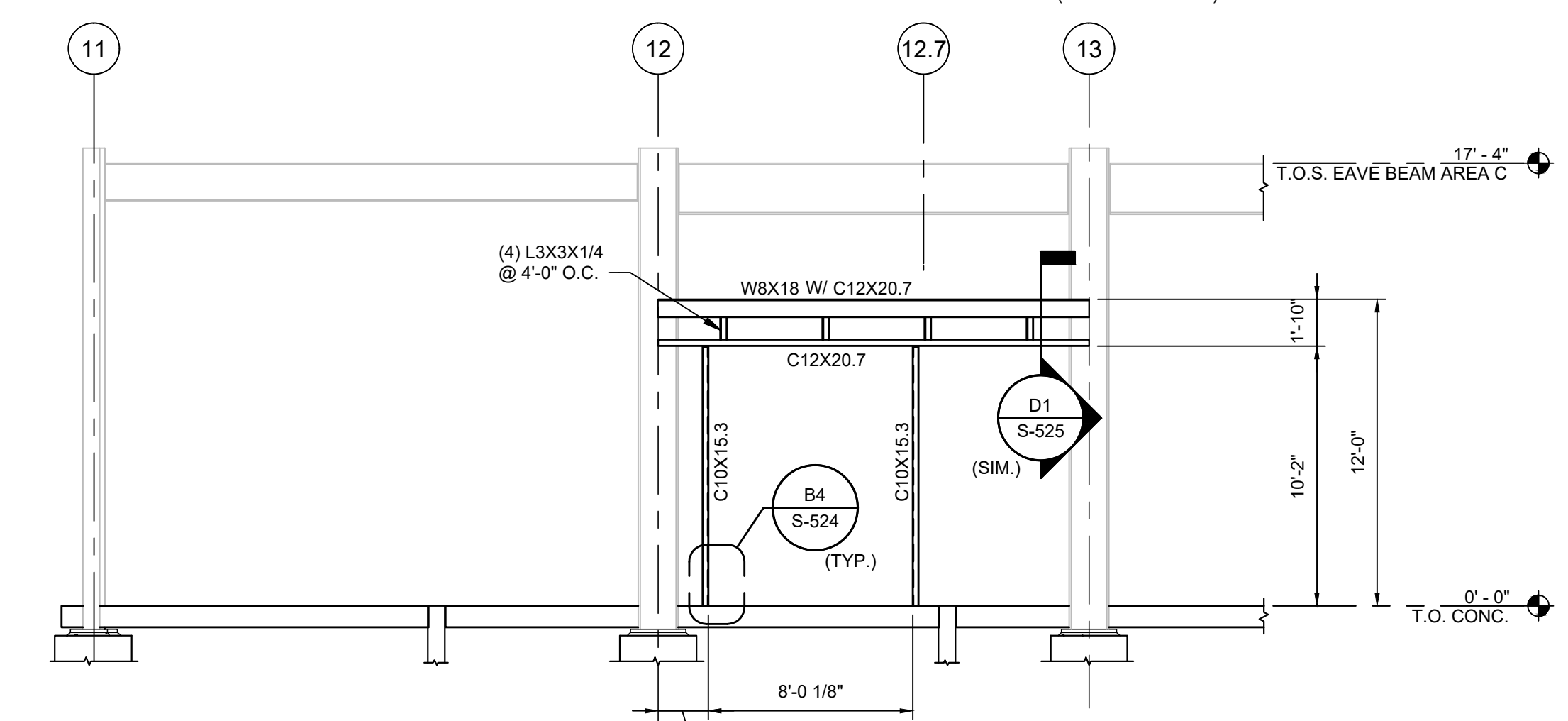


AREA A GIRT FRAMING ELEVATION (COLUMN LINE D)

B1

3/16" = 1' - 0" (LOOKING NORTH)

REF:

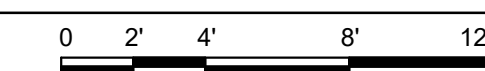


AREA C GIRT FRAMING ELEVATION (COLUMN LINE A)

A1

3/16" = 1' - 0"

REF:

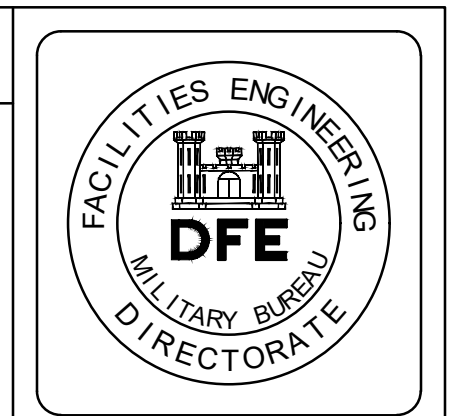


NOTES

1. REFER TO SHEETS S-001 THRU S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
2. SEE SPECIFICATION SECTION NO. 05 12 00 FOR ADDITIONAL STRUCTURAL STEEL FABRICATION AND ERECTION REQUIREMENTS.
3. FOR CONNECTION DESIGN REQUIREMENTS REFER TO THE GENERAL REQUIREMENTS ON SHEET S-521 THRU S-525.

ALTERNATE BID ITEM

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE



PLAN REVISIONS	
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				DFE PROJECT NO:	

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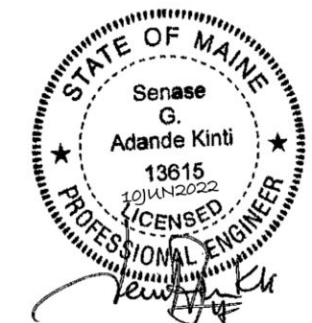
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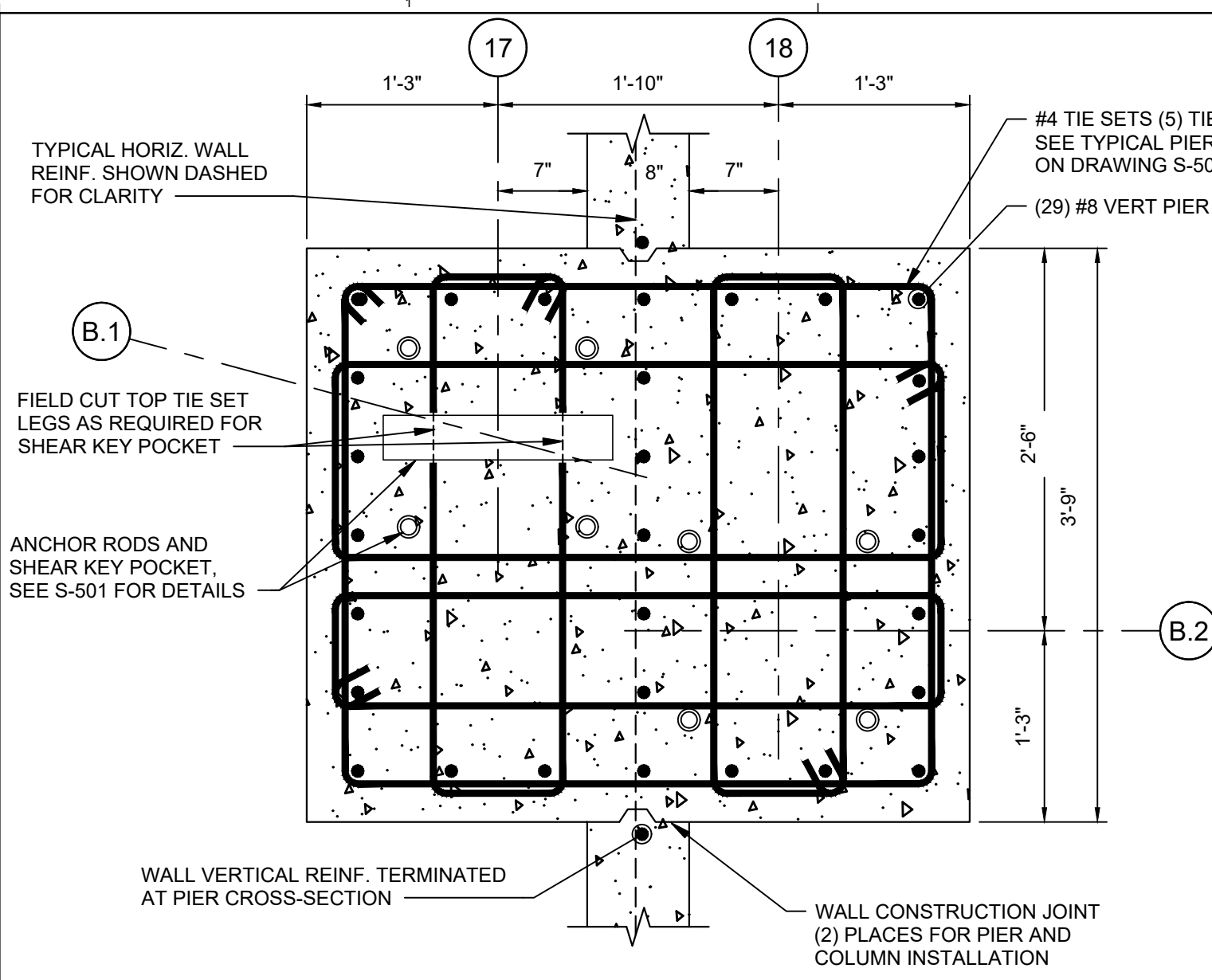
AREA A AND AREA C
GIRT FRAMING ELEVATIONS

PLAN PROGRESS

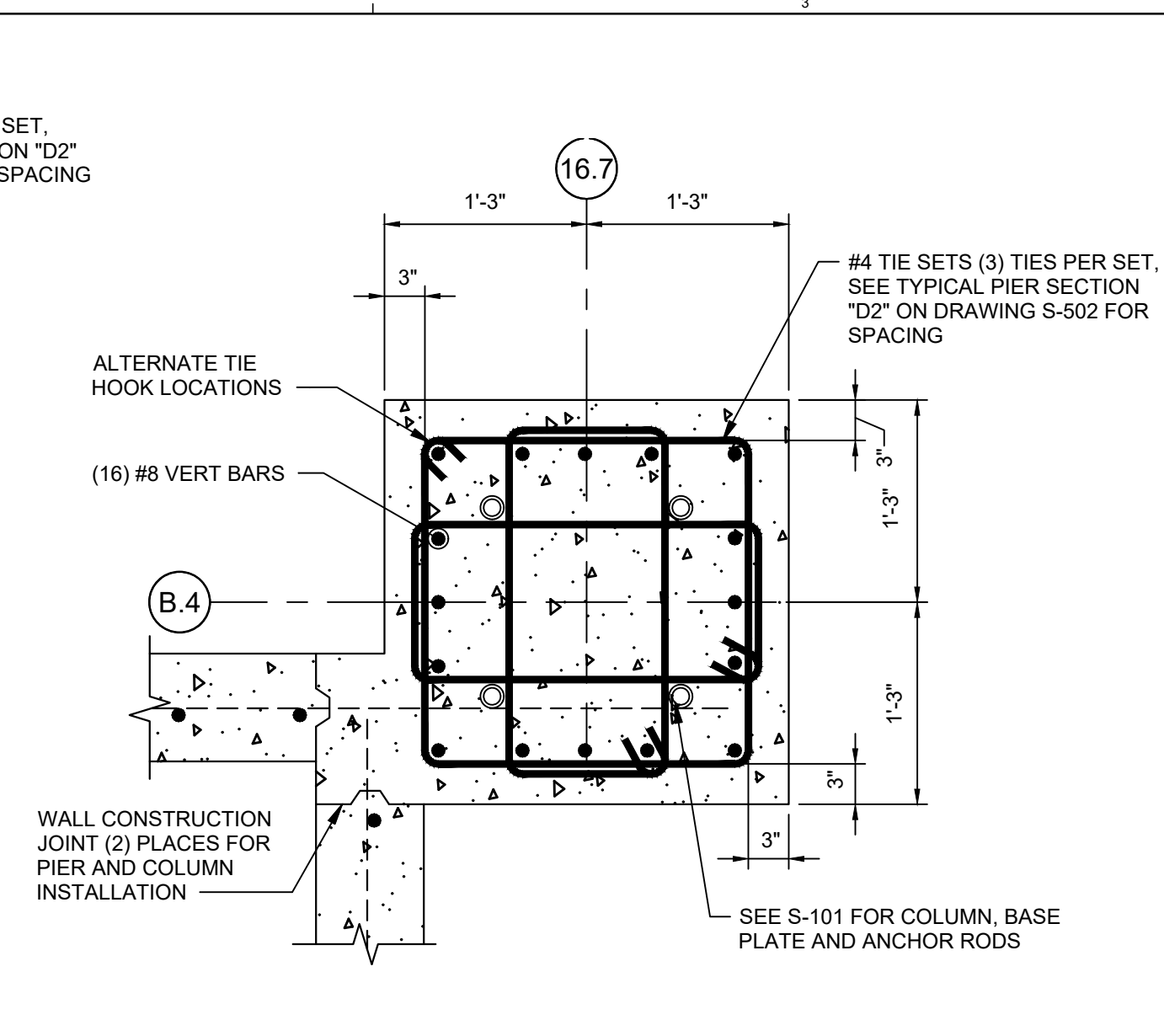
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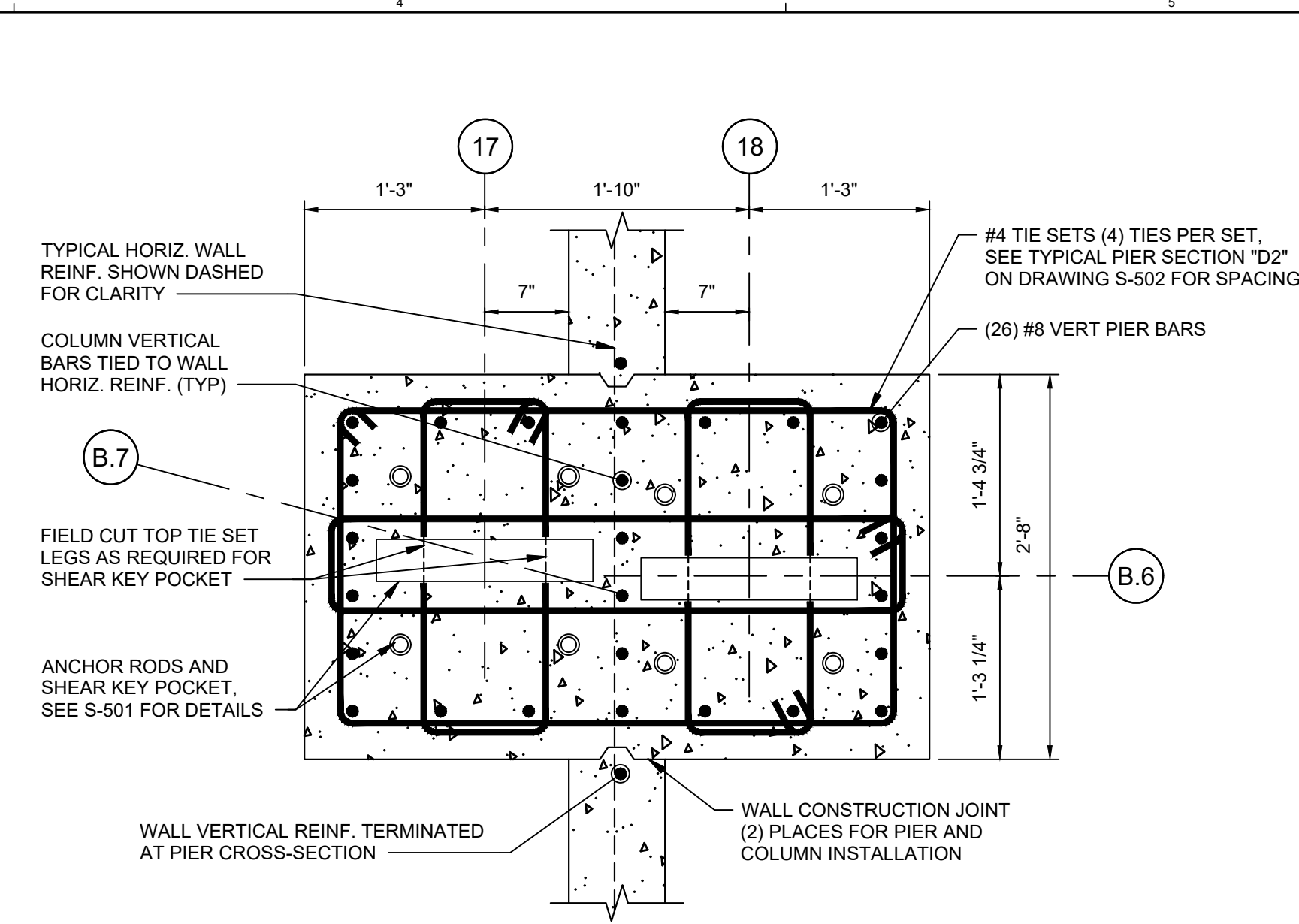
NOT FOR CONSTRUCTION



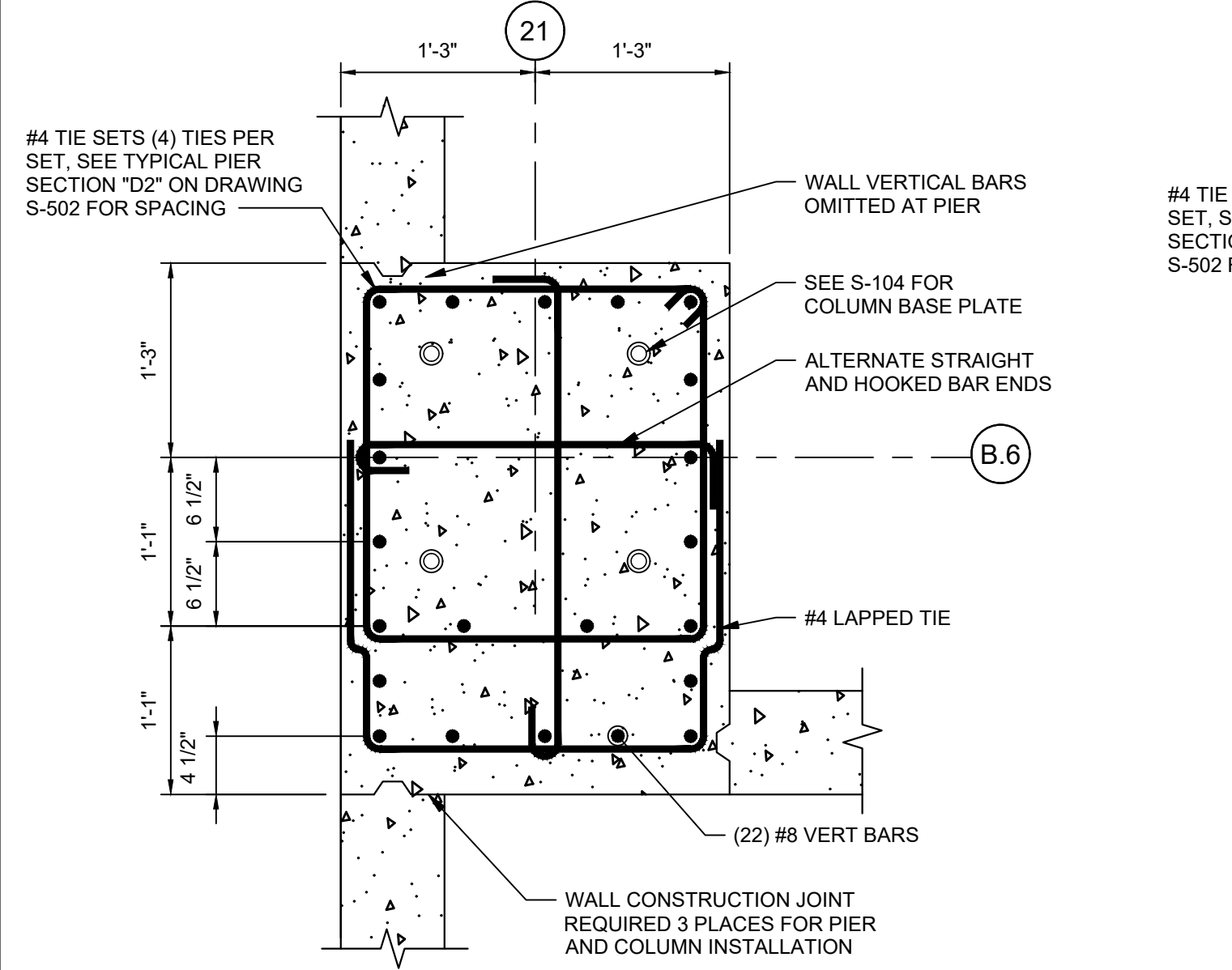
D1 PIER SECTION - P20
1" = 1'-0" REF: 0 1/2' 1' 2'



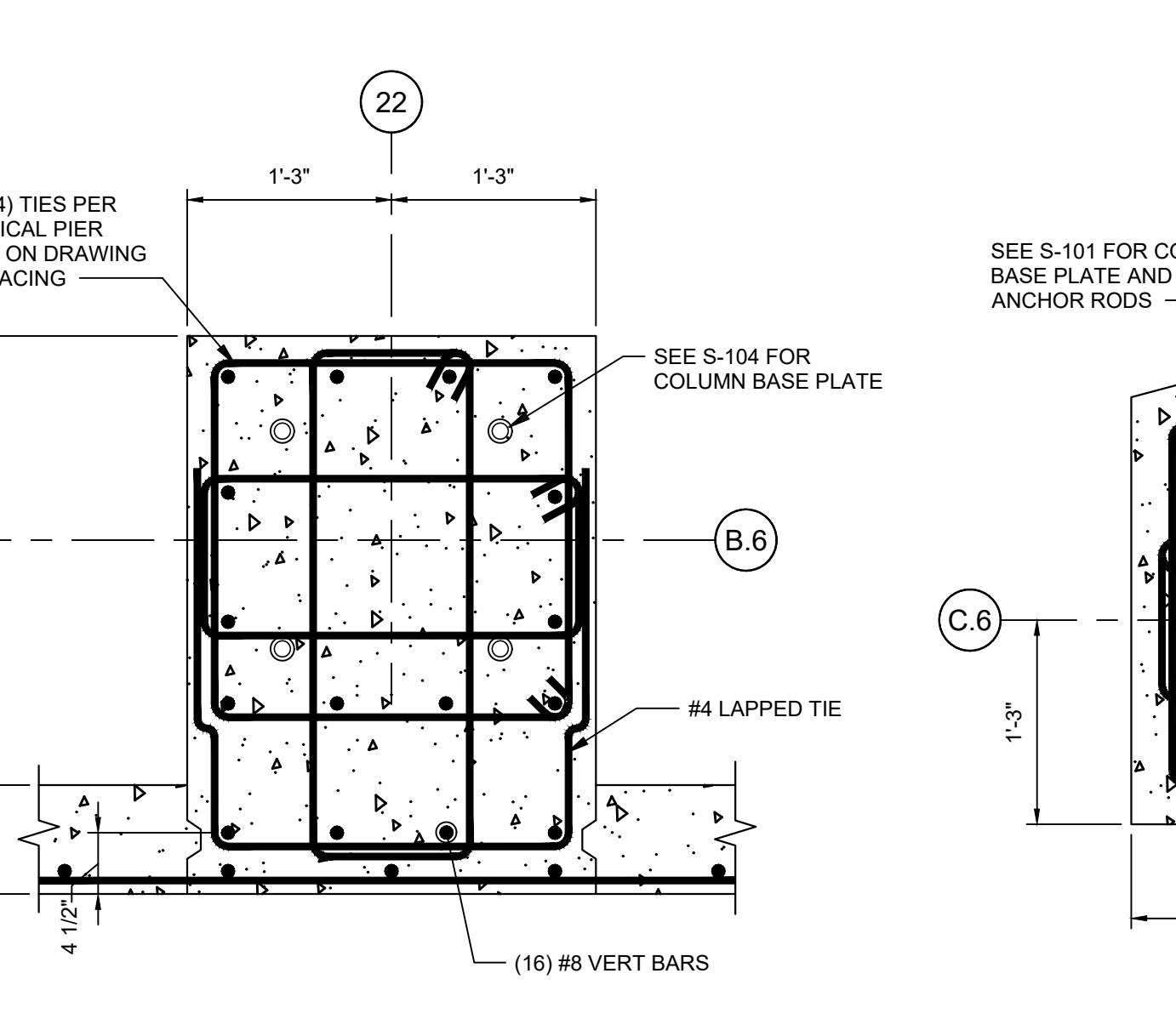
D3 PIER SECTION - P21
1" = 1'-0" REF: 0 1/2' 1' 2'



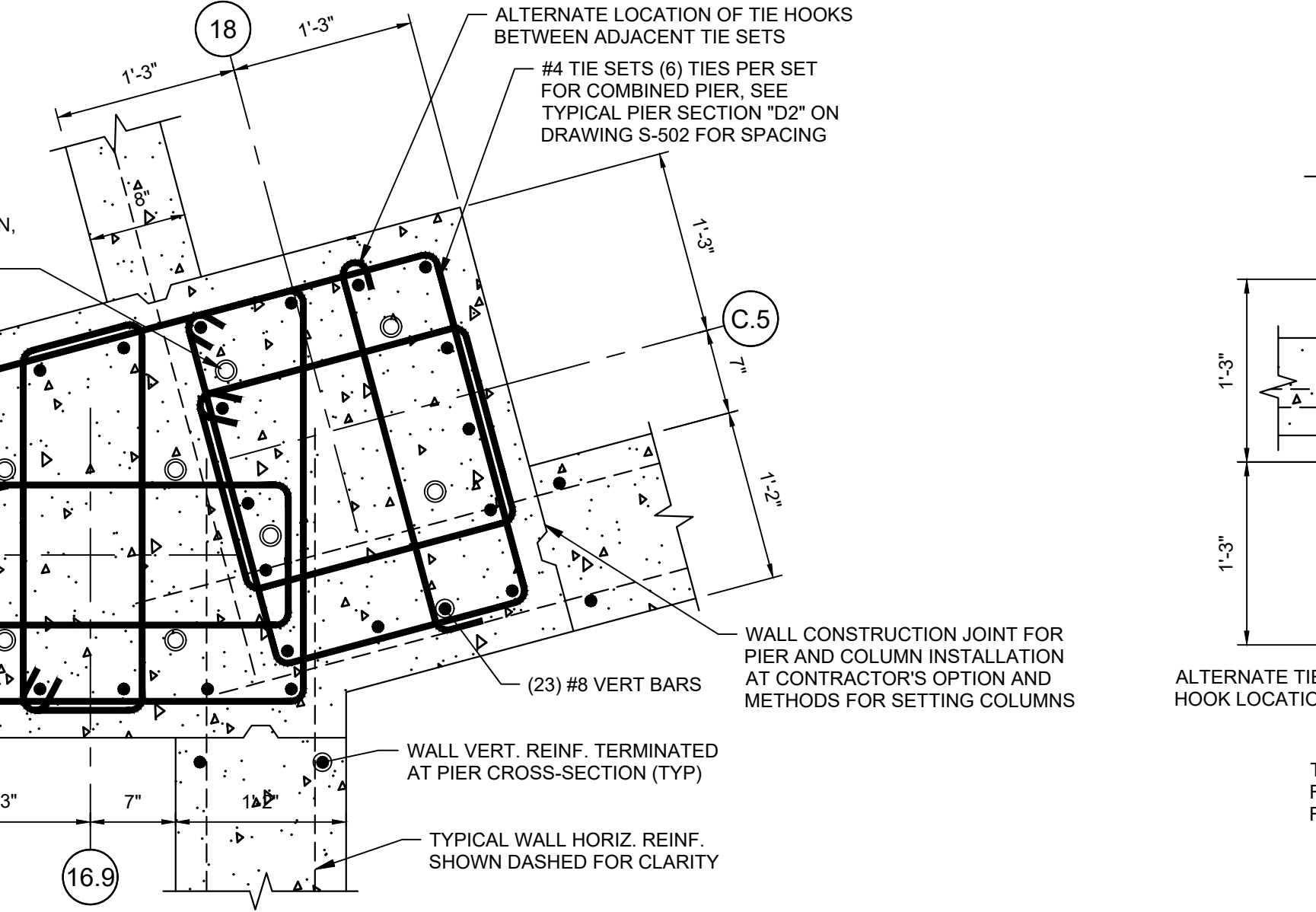
D4 PIER SECTION - P22
1" = 1'-0" REF: 0 1/2' 1' 2'



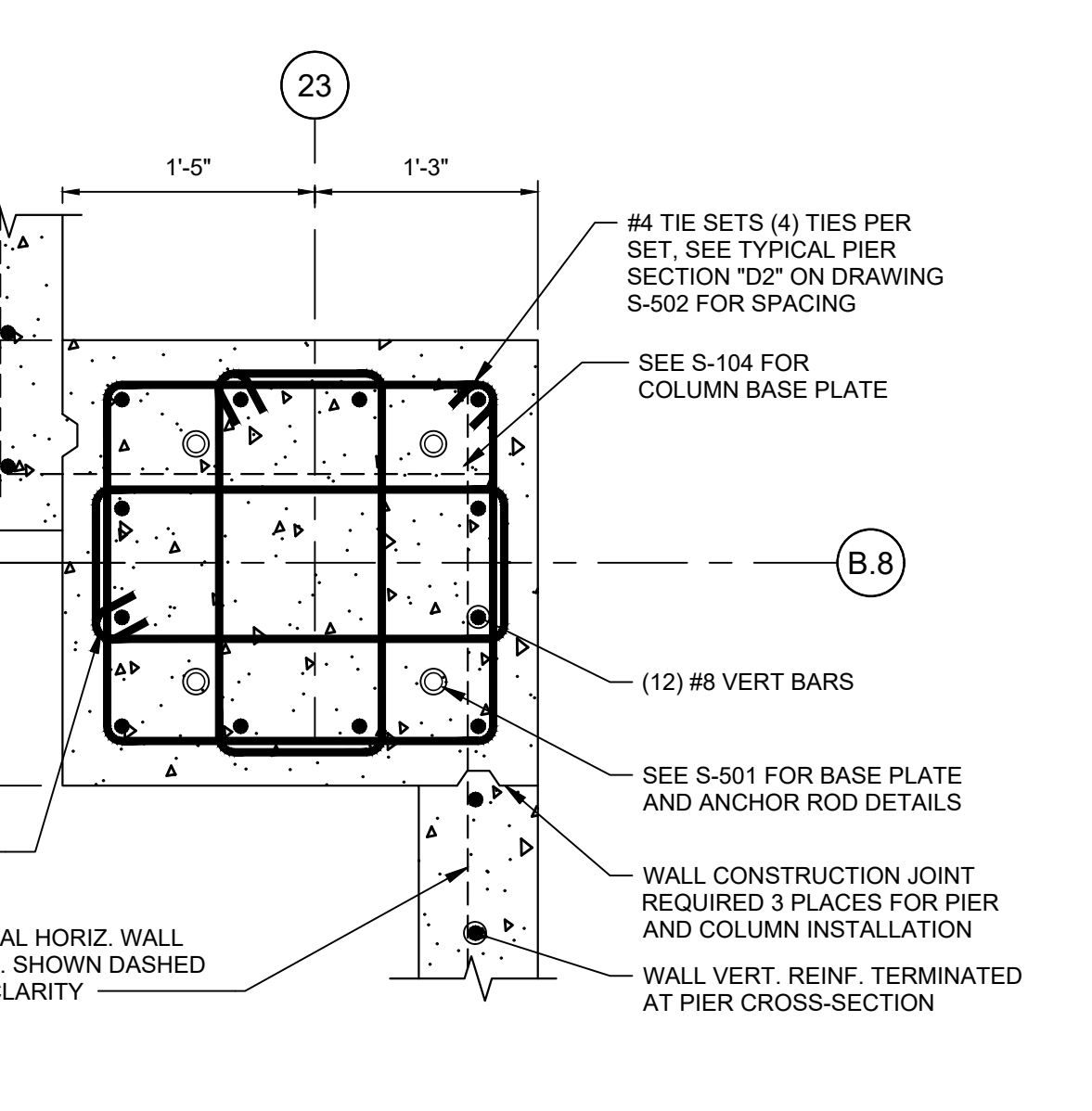
C1 PIER SECTION - P23
1" = 1'-0" REF: 0 1/2' 1' 2'



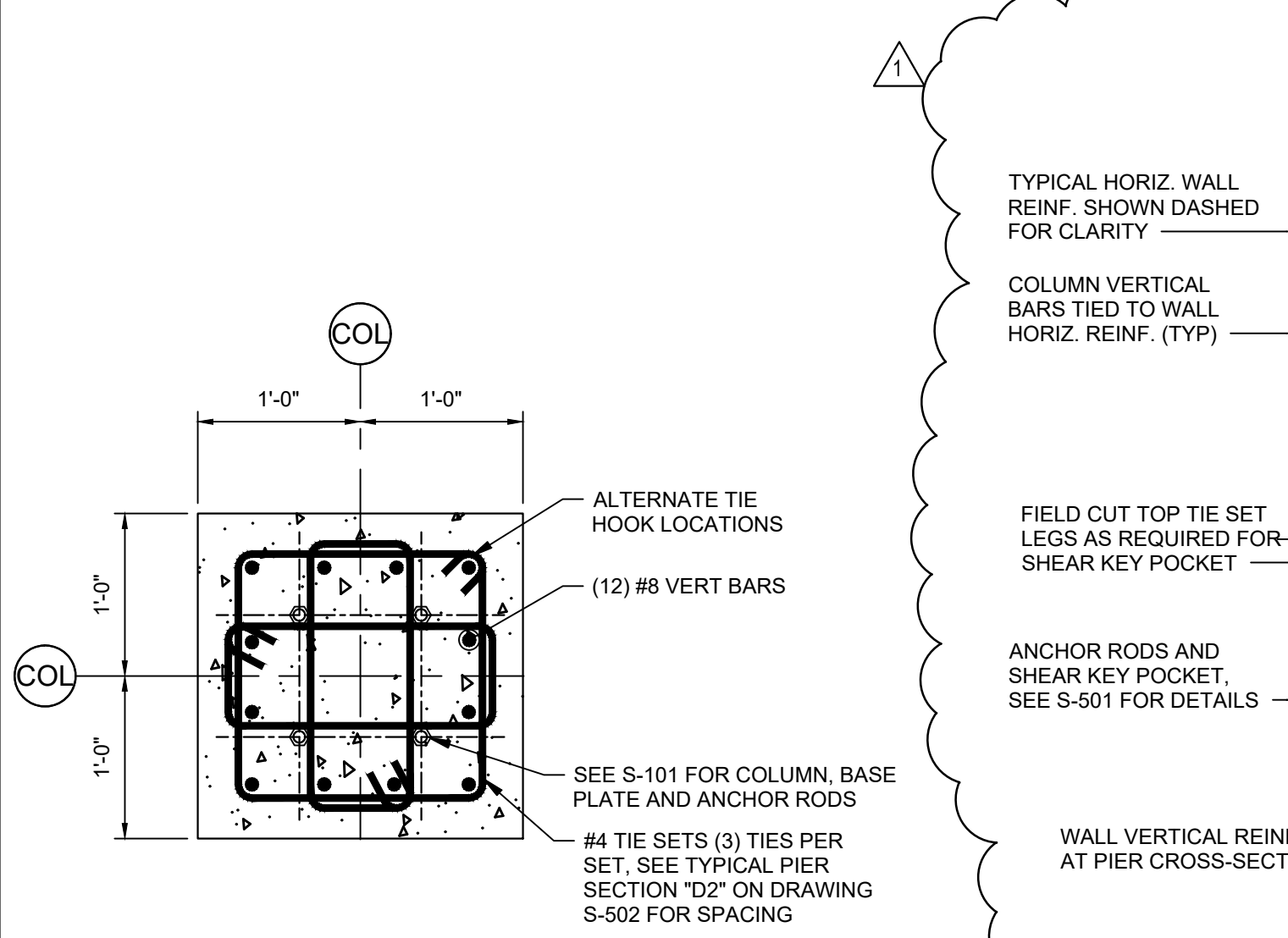
C3 PIER SECTION - P24
1" = 1'-0" REF: 0 1/2' 1' 2'



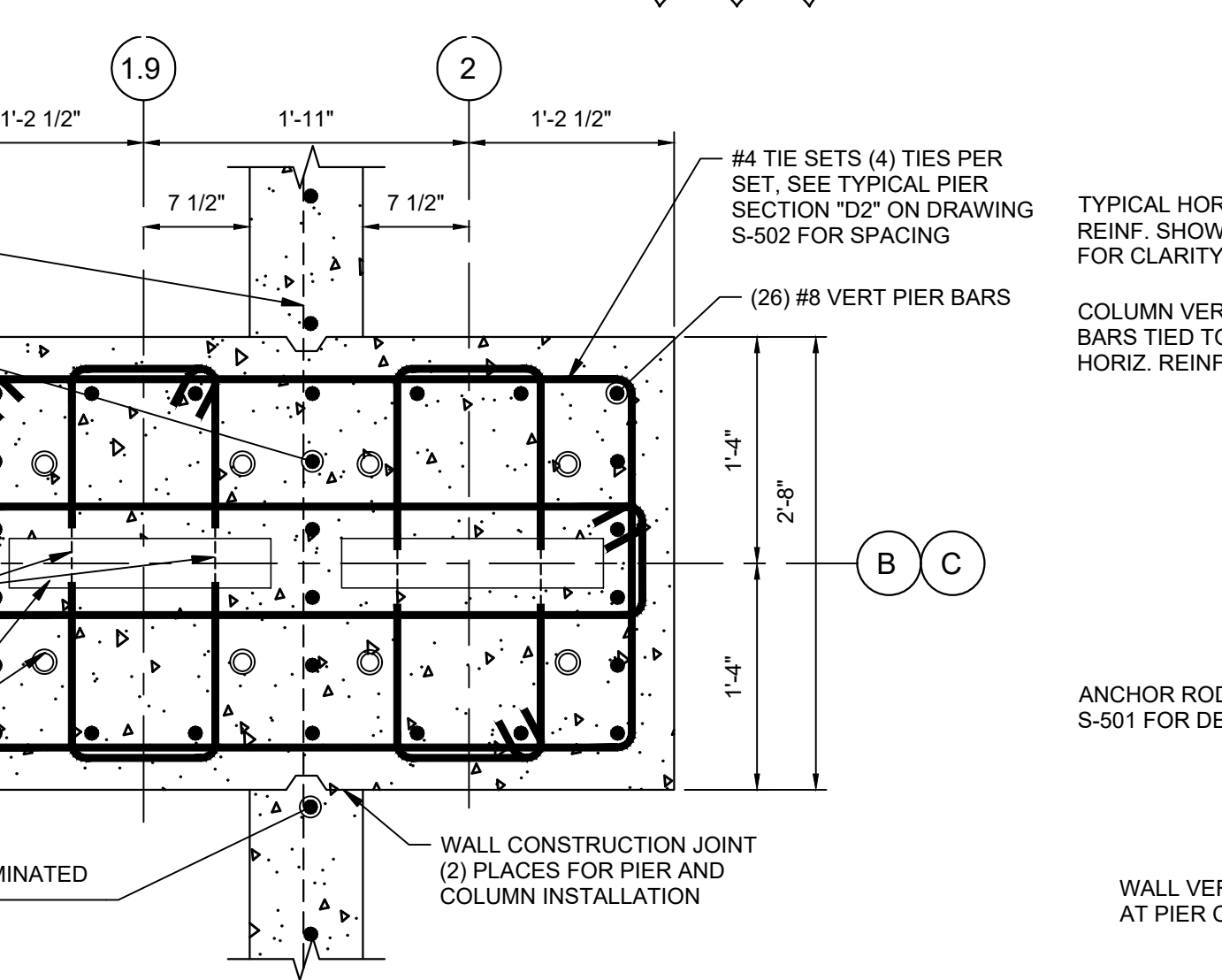
C4 PIER SECTION - P25
1" = 1'-0" REF: 0 1/2' 1' 2'



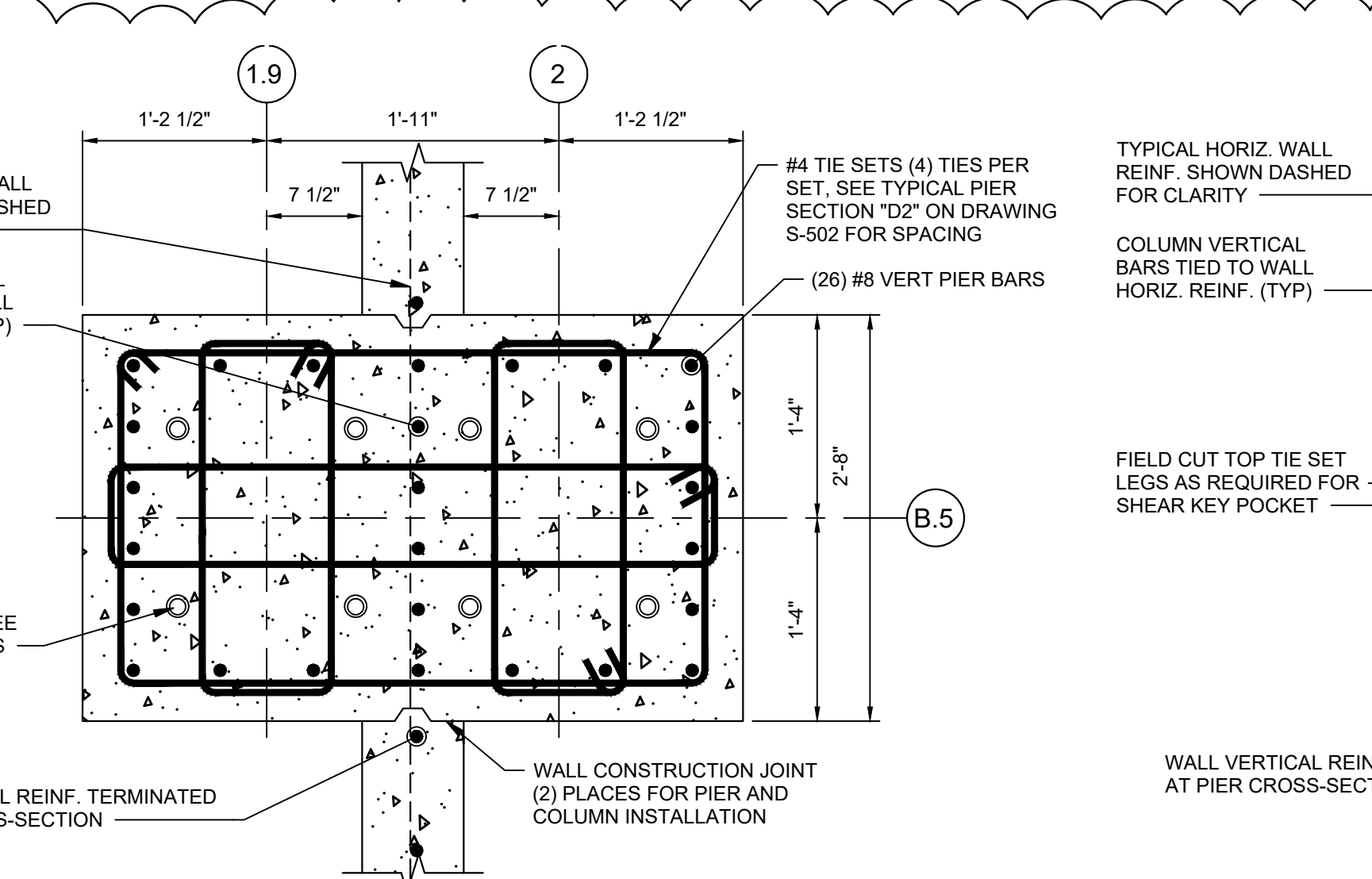
C5 PIER SECTION - P26
1" = 1'-0" REF: 0 1/2' 1' 2'



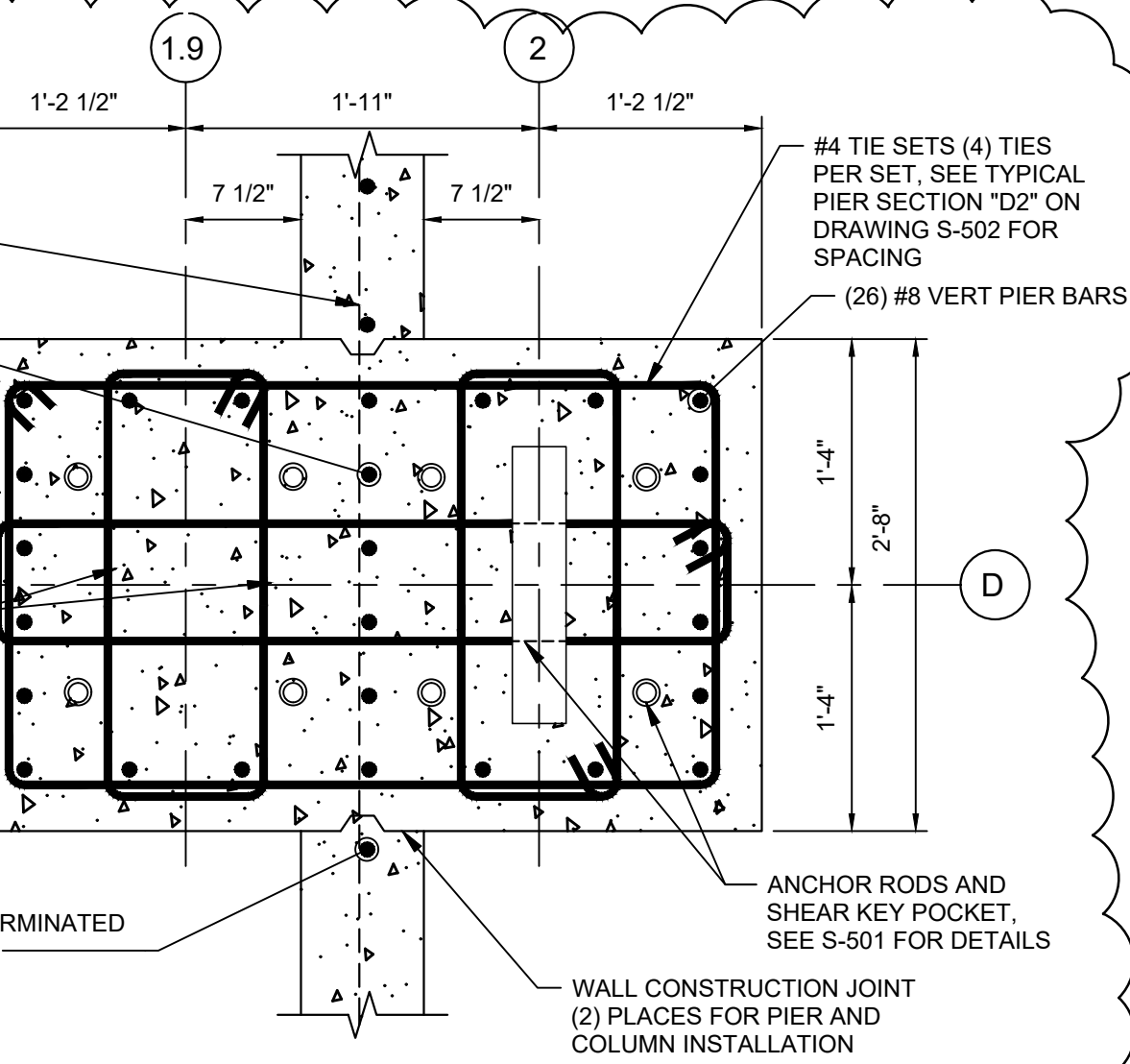
A1 PIER SECTION - P27
1" = 1'-0" REF: 0 1/2' 1' 2'



A3 PIER SECTION - P28
1" = 1'-0" REF: 0 1/2' 1' 2'



A4 PIER SECTION - P29
1" = 1'-0" REF: 0 1/2' 1' 2'



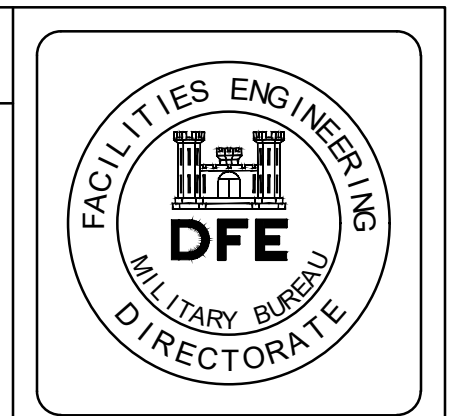
A5 PIER SECTION - P30
1" = 1'-0" REF: 0 1/2' 1' 2'

NOTES

- REFER TO SHEETS S-001 THROUGH S-003 FOR DESIGN CRITERIA, GENERAL AND MATERIAL CONSTRUCTION NOTES.
- FOR PIER ORIENTATION SEE SHEETS S-101 THROUGH S-104. PIER SECTIONS ARE ALL SHOWN PARALLEL TO BUILDING PLAN NORTH AND SHALL BE ORIENTED BY REFERENCE TO SHEETS S-101 THROUGH S-104.

ALTERNATE BID ITEM

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE



PLAN REVISIONS	
NO.	DESCRIPTION
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DATE	BY	DESCRIPTION
06-10-2022	JRW	AS INDICATED
04-22-22	JRW	AS INDICATED

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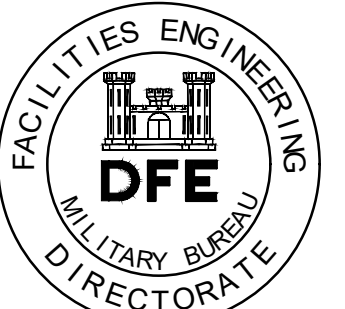
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PIER SECTIONS

PLAN PROGRESS

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<input type="checkbox"/>	RECORD DRAWINGS

NOT FOR CONSTRUCTION



NOTES

- SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES
- SEE SHEET AE001 FOR ACCESSORY MOUNTING HEIGHTS AND LOCATIONS NOT SHOWN.
- SEE SHEETS AE211 AND AE212 FOR ACCESSORY LEGEND.
- SEE SHEETS IN AE600 SERIES FOR PARTITION TYPES AND DOOR AND WINDOW SCHEDULE AND DETAILS.
- HINGE SIDE OF DOORS IN STUD WALLS SHALL BE 4" FROM ADJACENT WALL, UNO. HINGE SIDE OF DOORS IN MASONRY WALLS SHALL BE 8" FROM ADJACENT WALL, UNO.
- MASONRY DIMENSIONS ARE NOMINAL, UNO.
- DIMENSIONS ARE TO CENTER OF STUD AND FACE OF MASONRY, UNO.
- WHERE COLUMN WRAPS ARE SHOWN, WRAP TIGHT TO STRUCTURE WITH DESIGNATED PARTITION TYPE, UNO.
- FOR FIRE EXTINGUISHER INFORMATION, SEE SHEET GI111.

KEYED NOTES

- EMERGENCY EYEWASH AND SHOWER, SEE PLUMBING
- BOLLARD, SEE STRUCTURAL AND CIVIL
- TRENCH DRAIN, SEE STRUCTURAL AND PLUMBING
- RECESSED SLAB WITH METAL GRATING FLOOR, SEE STRUCTURAL
- TRANSITION FROM (2) LAYERS TO (1) LAYER GYPSUM BOARD, PROVIDE "L" TRIM MOLDING
- RECESSED SLAB WITH ACCESS RAMP, SEE STRUCTURAL
- PAINTED FIRE RETARDANT TREATED BACKERBOARD, SIZE 8'-0" X 3'-4" X 4'-0" OR LENGTH OF WALL AS SHOWN. MOUNT VERTICAL WITH BOTTOM EDGE 6" AFF EXCEPT AT STRUCTURAL CROSS BRACING MOUNT TO 2 1/2" METAL FRAMING JUST PROUD OF BRACING AT 24" OC, BRACED BACK TO WALL TOP AND BOTTOM, SECURE WITH WALL ANCHORS AND STAINLESS STEEL, FLAT HEAD, COUNTERSUNK SCREWS.
- HOUSEKEEPING PAD, SEE STRUCTURAL
- CONCRETE PAD AT ENTRY, SEE STRUCTURAL

PLAN REVISIONS

Rev#	Date	Description
1	06-10-22	JRW
0	04-22-22	JRW

DESIGNED BY:	EAH
DRAWN BY: <td>JLR</td>	JLR
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO.: <td>230125</td>	230125

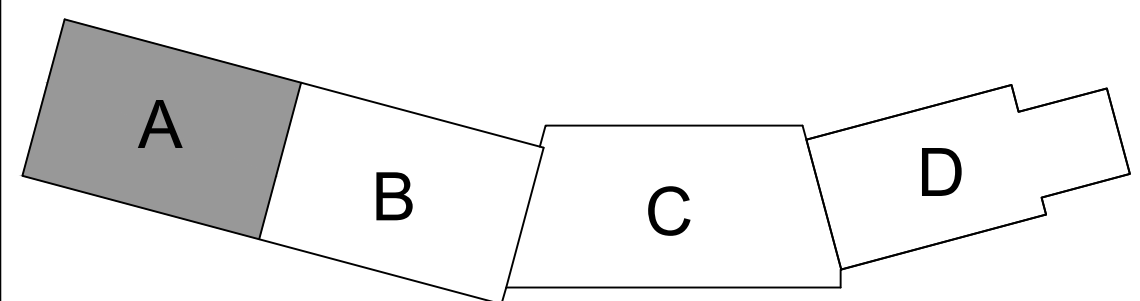
STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT



ALTERNATE BID ITEM

- SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

KEY PLAN

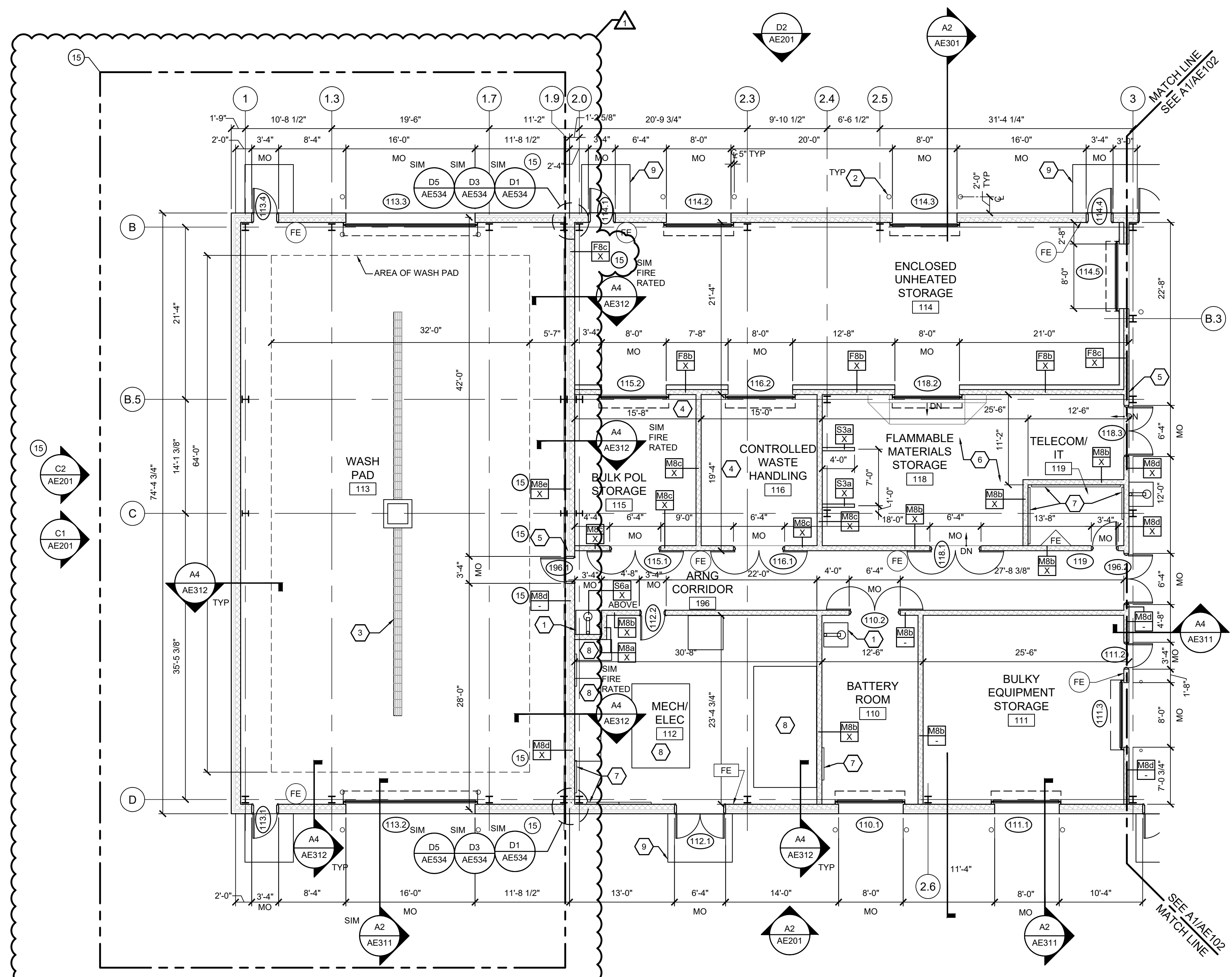


NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE
AREA A FIRST LEVEL
FLOOR PLAN

PLAN PROGRESS

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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

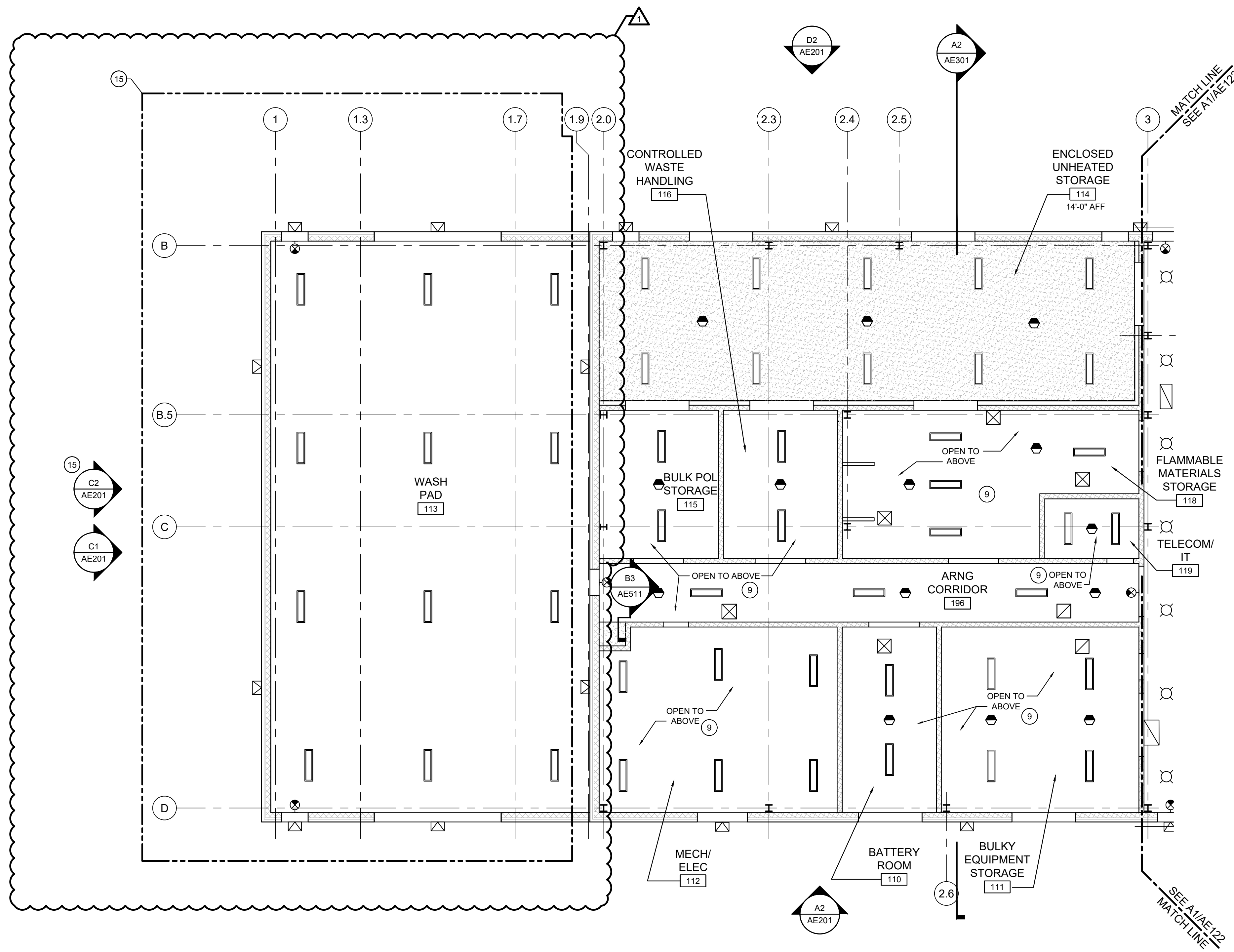
SHEET ID:
AE101
SHEET: 83 of 244



A1 AREA A FIRST LEVEL FLOOR PLAN
1/8" = 1' - 0" REF: AE101
0 4' 8' 16'
PLAN NORTH



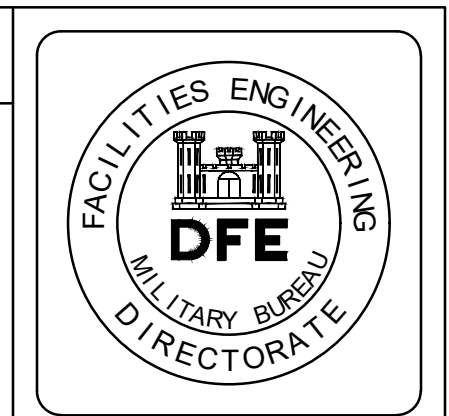
NOT FOR CONSTRUCTION



A1 AREA A FIRST LEVEL REFLECTED CEILING PLAN
 1/8" = 1'-0" REF: AE101
 0 4' 8' 16'
 PLAN NORTH



- ### NOTES
- SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES.
 - SEE SHEET AF701-AF704 (FINISH PLANS) FOR CEILING FINISHES.
 - CENTER CEILING GRID IN SPACE UNLESS NOTED OTHERWISE.
 - CENTER EQUIPMENT AND DEVICES IN CEILING TILE UNLESS NOTED.
 - COORDINATE WITH MECHANICAL AND ELECTRICAL REQUIREMENTS FOR LOCATION OF ACCESS PANELS. LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE OWNER.
 - LOCATIONS OF SPRINKLER HEADS ARE NOT SHOWN. QUANTITY, LOCATIONS AND LAYOUT TO BE DETERMINED BY SPRINKLER SUB CONTRACTOR. CENTER HEADS IN CEILING TILES.
 - COORDINATE INSTALLATION AND LOCATION OF CEILING MOUNTED FIRE ALARM DEVICES WITH FIRE ALARM DRAWINGS.
 - IN AREAS OPEN TO ABOVE OR WITH GYPSUM BOARD CEILING, CENTER LIGHT FIXTURES IN SPACE AND DISTRIBUTE EVENLY AS SHOWN UNLESS NOTED OTHERWISE.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ISSUED FOR BID	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

ALTERNATE BID ITEM

SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- PAINT EXPOSED ROOF FRAMING

DESIGNED BY:	EAH	230125
DRAWN BY:	JLR	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DFE PROJECT NO.:		

ALTERNATE BID ITEM

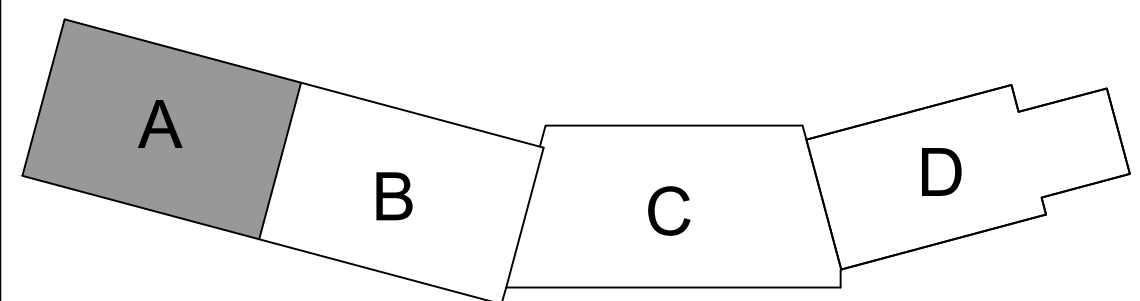
SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- WASH PAD ENCLOSURE

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KEY PLAN



NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

AREA A FIRST LEVEL
 REFLECTED CEILING PLAN

PLAN PROGRESS	
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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
AE121
 SHEET: 89 of 244

NOT FOR CONSTRUCTION



NOTES

- SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES.
- REFERENCE PLUMBING DRAWINGS FOR PIPE LOCATIONS BELOW ROOF. REFERENCE MECHANICAL DRAWINGS FOR ROOFTOP EQUIPMENT.
- SEE SHEET AE536 FOR ROOF PENETRATION DETAILS.
- REFERENCE PLUMBING DRAWINGS FOR RADON VENT LOCATIONS BELOW ROOF.

PLAN REVISIONS		Revised	Date	Appr.
1	ISSUED FOR BID		06-10-22	JRW
0	ISSUED FOR BID		04-22-22	JRW

DESIGNED BY:	EAH	230125
DRAWN BY:	JLR	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DFE PROJECT NO:		

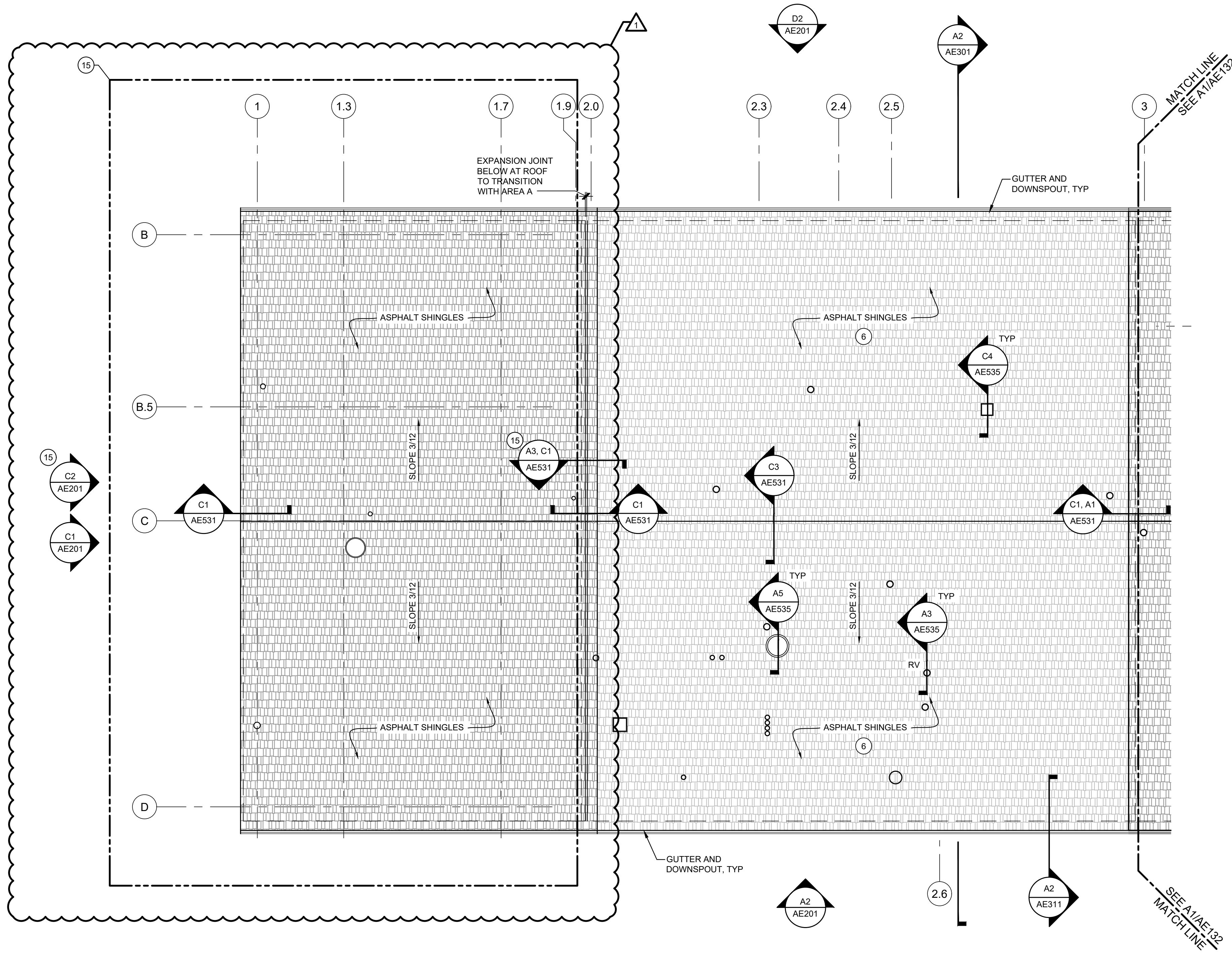
STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

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Engineering & Construction Solutions, Inc.
811 Congress St., Suite 201, Portland, ME 04101
P: (207) 725-2121 F: (207) 725-2122 wood.com

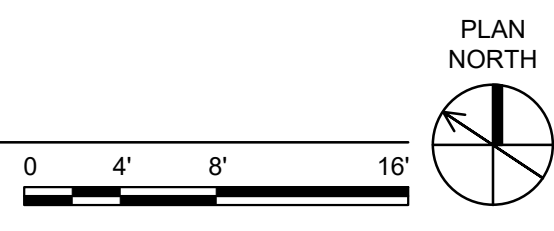
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE
AREA A
ROOF PLAN

PLAN PROGRESS	
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<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
AE131
SHEET: 93 of 244



A1 AREA A ROOF PLAN
1/8" = 1' - 0"

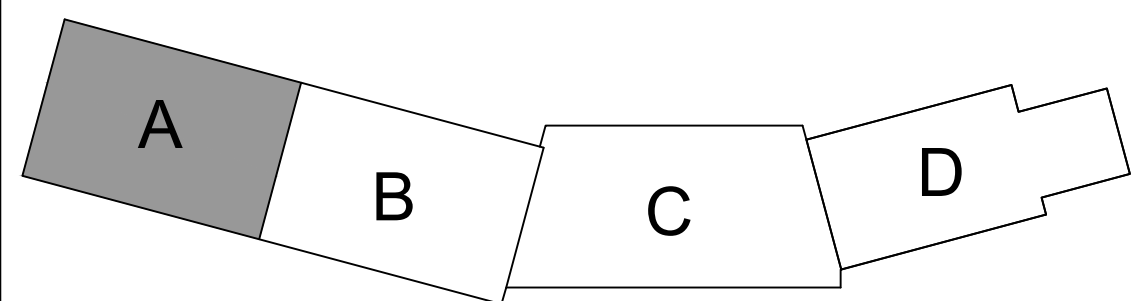


ALTERNATE BID ITEM

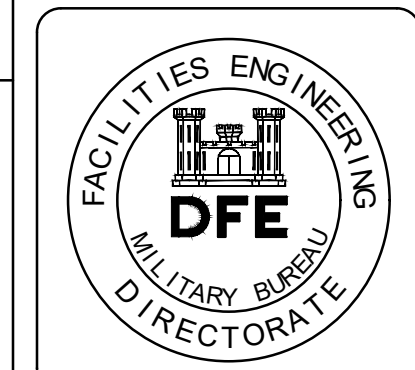
SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- 6. METAL ROOFING
- 15. WASH PAD ENCLOSURE

KEY PLAN

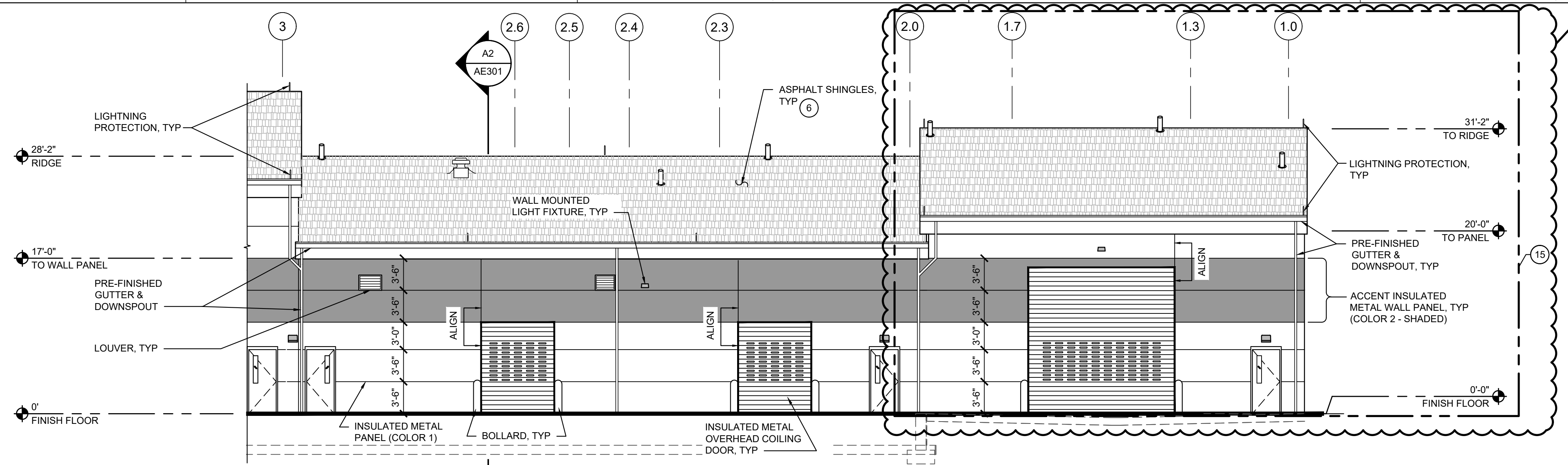


NOT FOR CONSTRUCTION

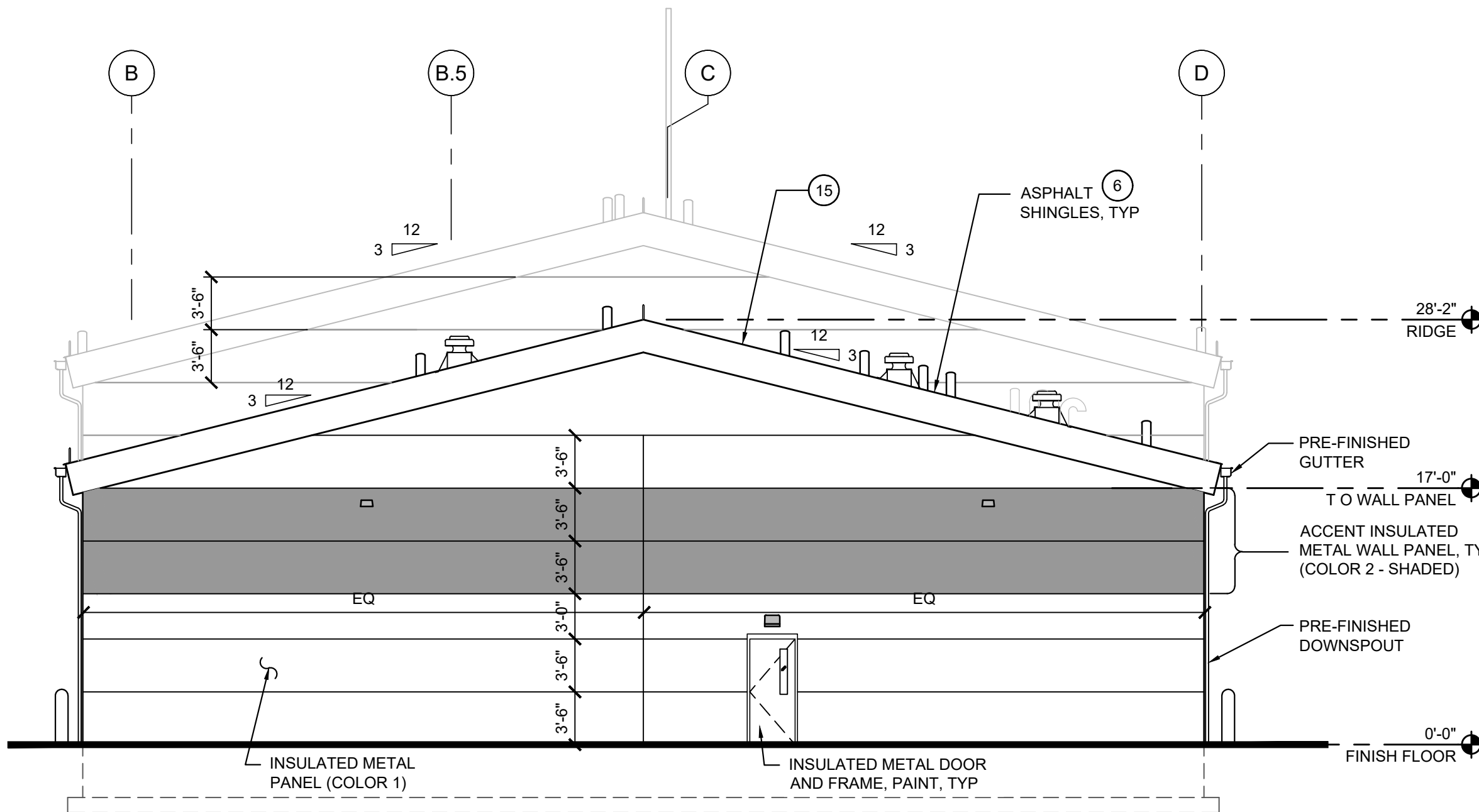


- ### NOTES
- SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES
 - SEE STRUCTURAL FOR LINTEL SCHEDULE
 - SEE ELECTRICAL FOR LOCATIONS OF LIGHT FIXTURES AND LIGHTNING PROTECTION.
 - SEE CIVIL FOR BOLLARD DETAIL.
 - PROVIDE BOOT AT DOWNSPOUT TERMINATION AT GRADE. SEE PLUMBING FOR CONTINUATION TO STORM DRAIN.
 - SEE SHEET AE612 FOR LOUVER DETAILS. SEE MECHANICAL FOR LOUVER SCHEDULE.

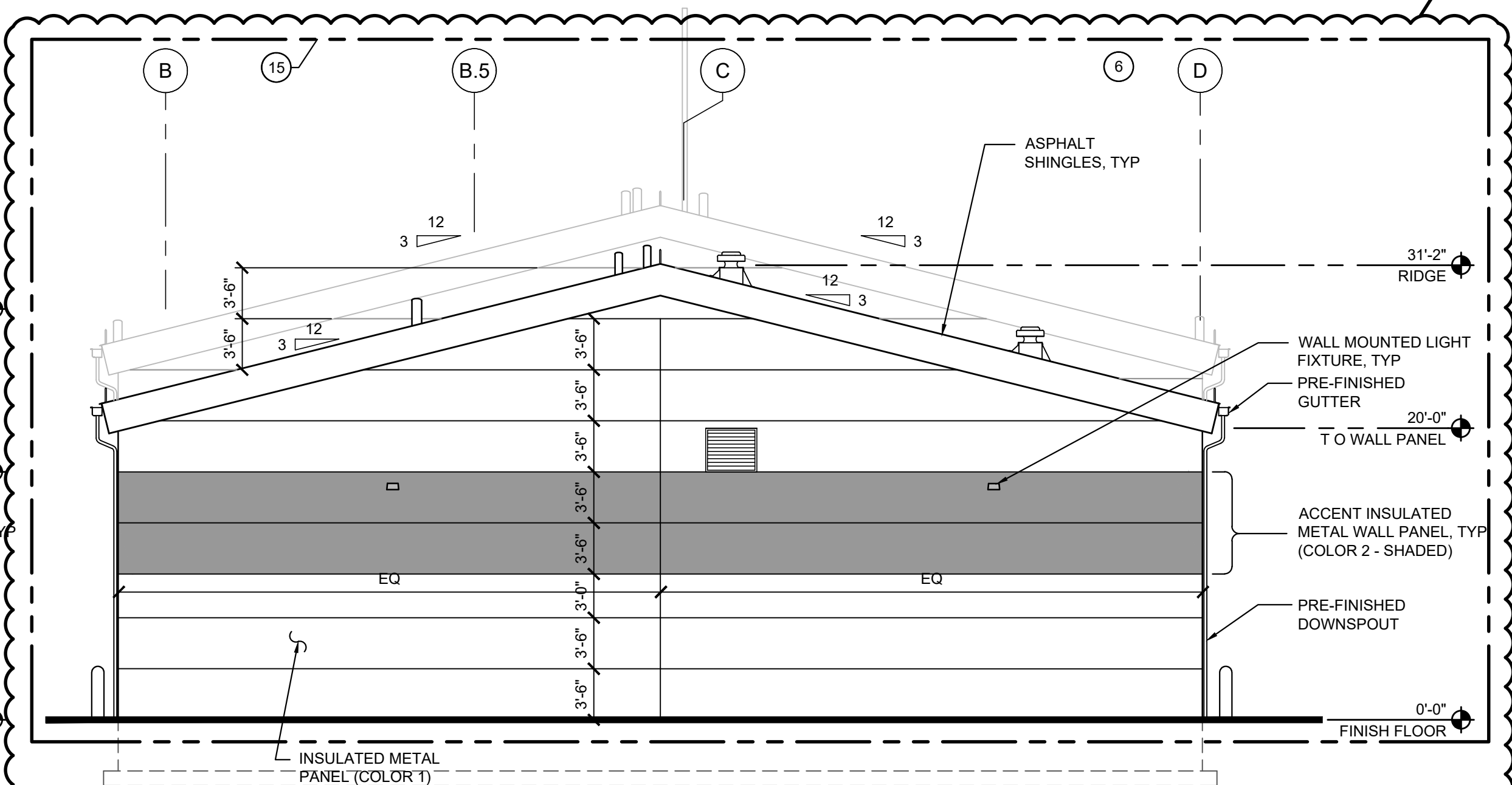
PLAN REVISIONS		Date	Appr.
1	ISSUED FOR BID	06-10-2022	JRW
0	ISSUED FOR BID	04-22-22	JRW
	Rev#	Description	



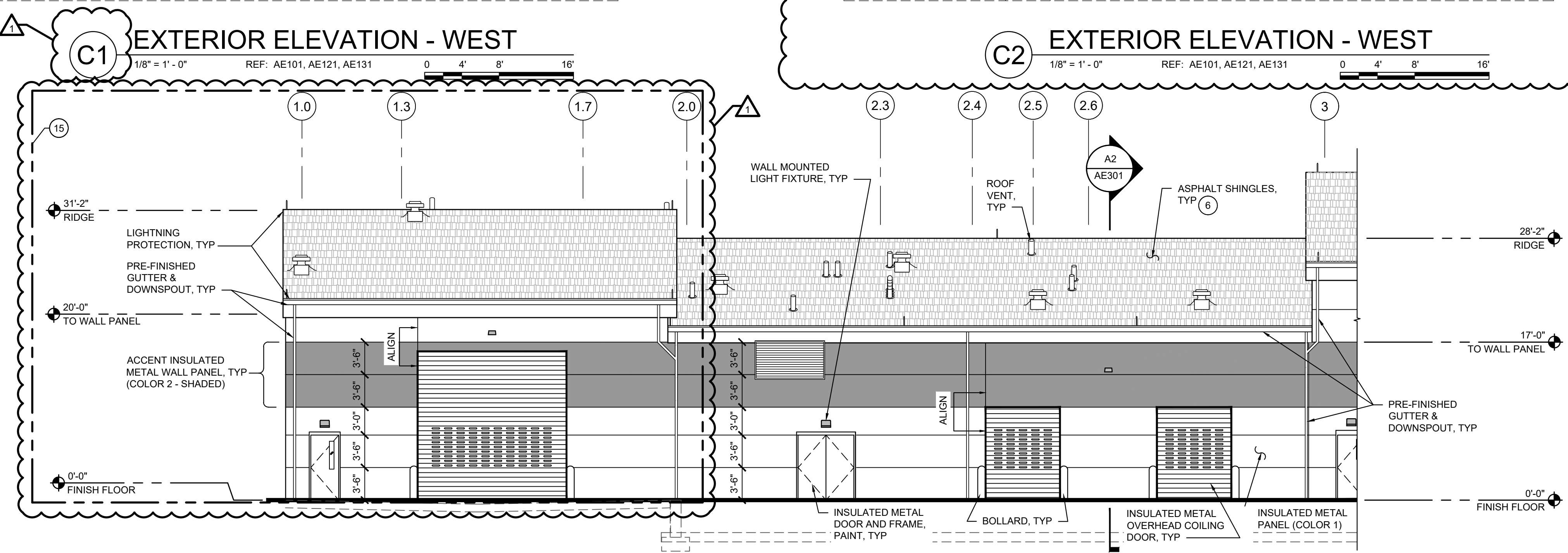
D2 EXTERIOR ELEVATION - NORTH
1/8" = 1' - 0" REF: AE101, AE121, AE131



C1 EXTERIOR ELEVATION - WEST
1/8" = 1' - 0" REF: AE101, AE121, AE131



C2 EXTERIOR ELEVATION - WEST
1/8" = 1' - 0" REF: AE101, AE121, AE131



A2 EXTERIOR ELEVATION - SOUTH
1/8" = 1' - 0" REF: AE101, AE121, AE131

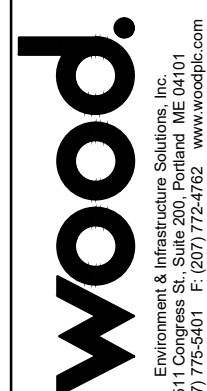
ALTERNATE BID ITEMS

SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- 6. METAL ROOFING
- 15. WASH PAD ENCLOSURE

DESIGNED BY:	EAH	230125
DRAWN BY:	JLR	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DFE PROJECT NO.:		

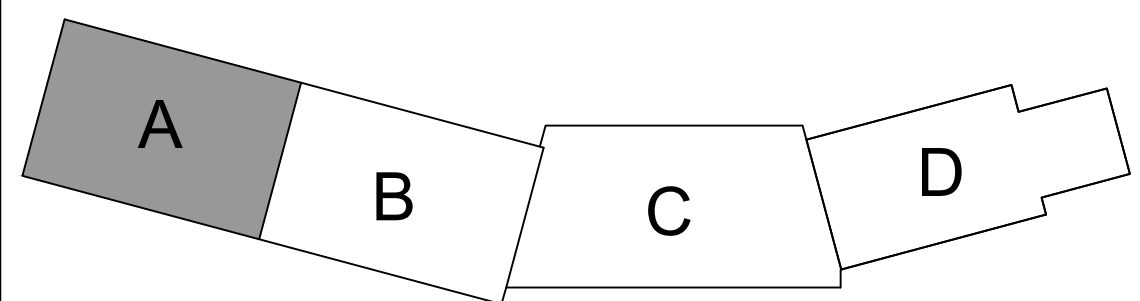
STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT



NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

EXTERIOR ELEVATIONS - AREA A

KEY PLAN

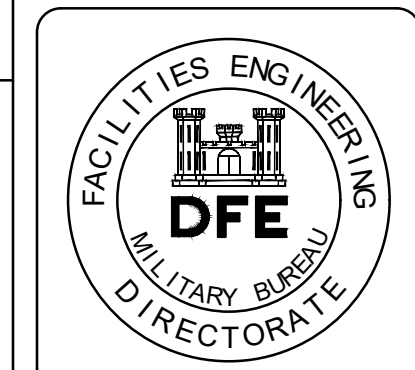


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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
AE201
SHEET: 97 of 244



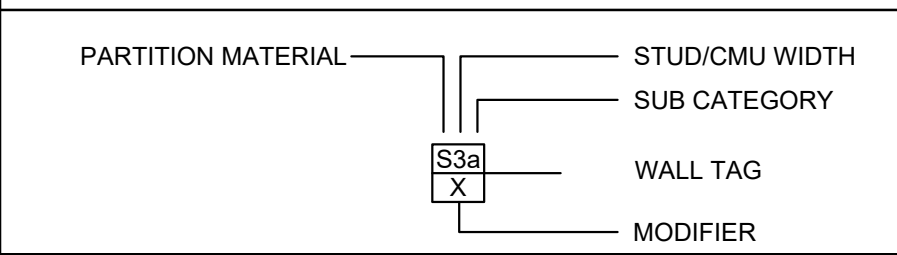
NOT FOR CONSTRUCTION



NOTES

- SEE SHEET AE001 FOR SYMBOLS, LEGENDS AND GENERAL NOTES
- SEE AE603 FOR TOP OF WALL CONDITIONS
- ALL BATT INSULATION IS TO BE FULL THICKNESS AND FULL HEIGHT UNO
- REFER TO FINISH PLAN FOR EXTENT OF FINISHES APPLIED TO WALLS.
- BRACE WALLS WHICH DO NOT EXTEND FULL HEIGHT TO STRUCTURE FOR ALL WALL LENGTHS GREATER THAN 8' BETWEEN CORNERS. BRACE WITH 45° STUD TO STRUCTURE AT 8'-0" ON CENTER MAX.
- REFER TO STRUCTURAL FOR REQUIRED REINFORCING OF MASONRY WALLS.
- REFER TO AE533 FOR PENETRATION DETAILS THROUGH FIRE RATED PARTITIONS.
- WHERE FIRE RATED PARTITION INTERSECTS WITH NON-FIRE RATED CMU CONSTRUCTION, GROUT CMU SOLID AT INTERSECTION.

PARTITION TAG LEGEND



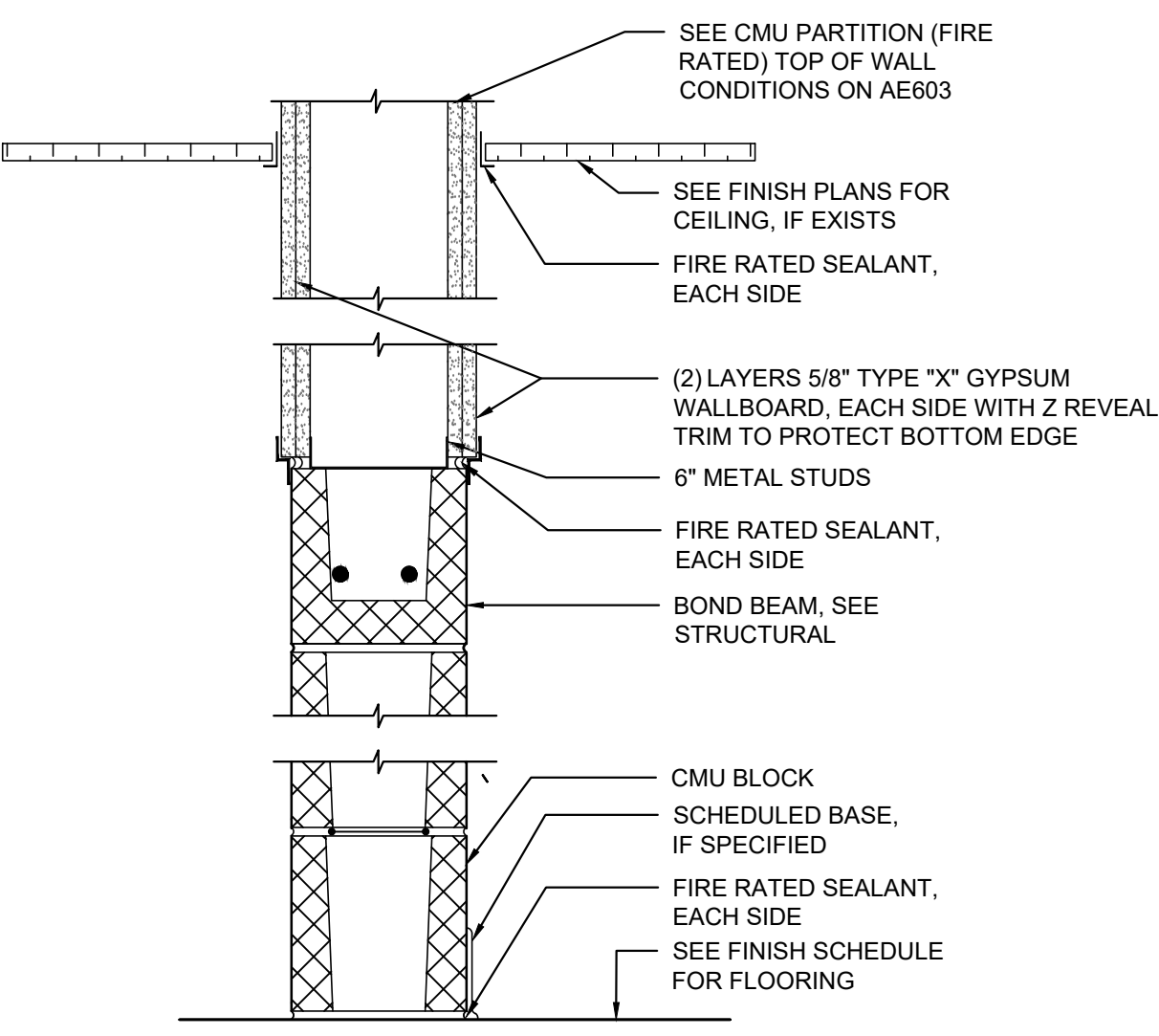
PARTITION MATERIAL	MATERIAL DESCRIPTION
S	INTERIOR STUD PARTITION
M	INTERIOR MASONRY PARTITION
C	CONCRETE WALL SYSTEM
H	CHASE WALL SYSTEM
F	FURRED WALL SYSTEM
L	WIRE MESH PARTITION
MODIFIER	
MATERIAL DESCRIPTION	
X	FIRE RATED PARTITION -
Y	SMOKE RATED PARTITION
Z	SOUND RATED PARTITION

STUD/CMU WIDTH		
NUMERIC CHARACTER	STUD WIDTH	CMU WIDTH
1	1 5/8"	
2	2 1/2"	
3	3 5/8"	
4	4"	3 5/8"
6	6"	5 5/8"
8	8"	7 5/8"
12	12"	11 5/8"

ALTERNATE BID ITEM

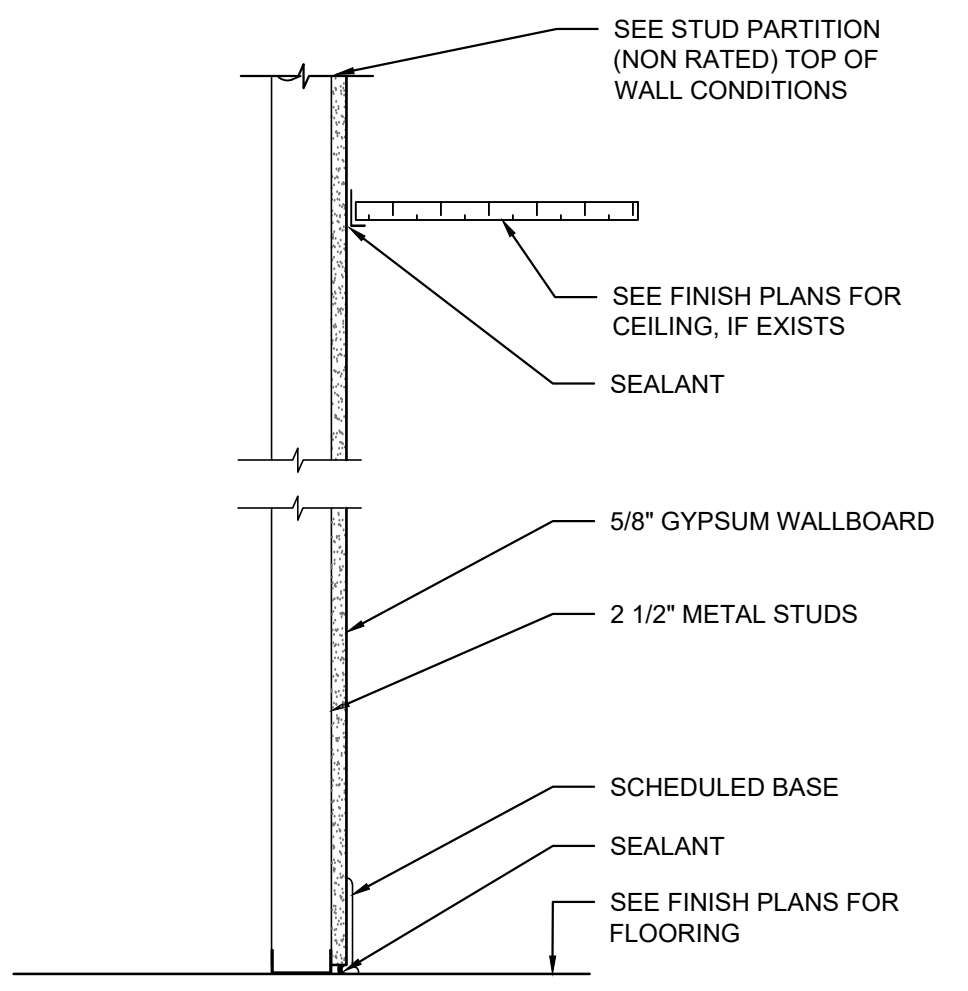
SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- WASH PAD ENCLOSURE



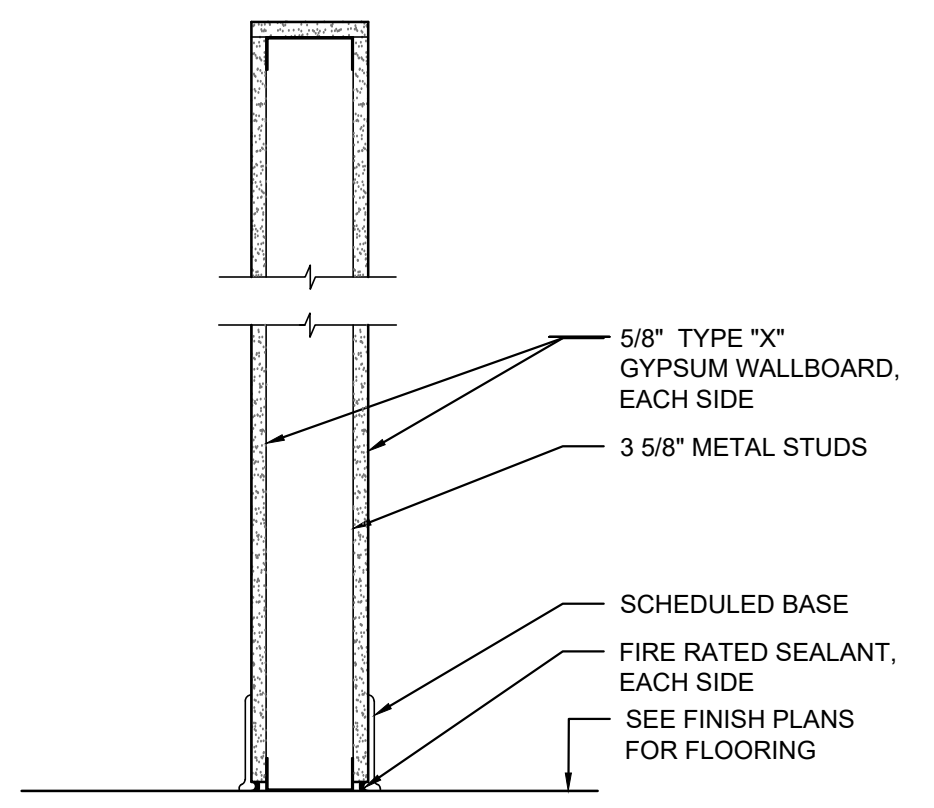
CMU PARTITION TYPE FIRE RATED

TAG	DESCRIPTION
M8c X	MIN 2-HOUR FIRE RATED UL U901 & U419 8\"/>



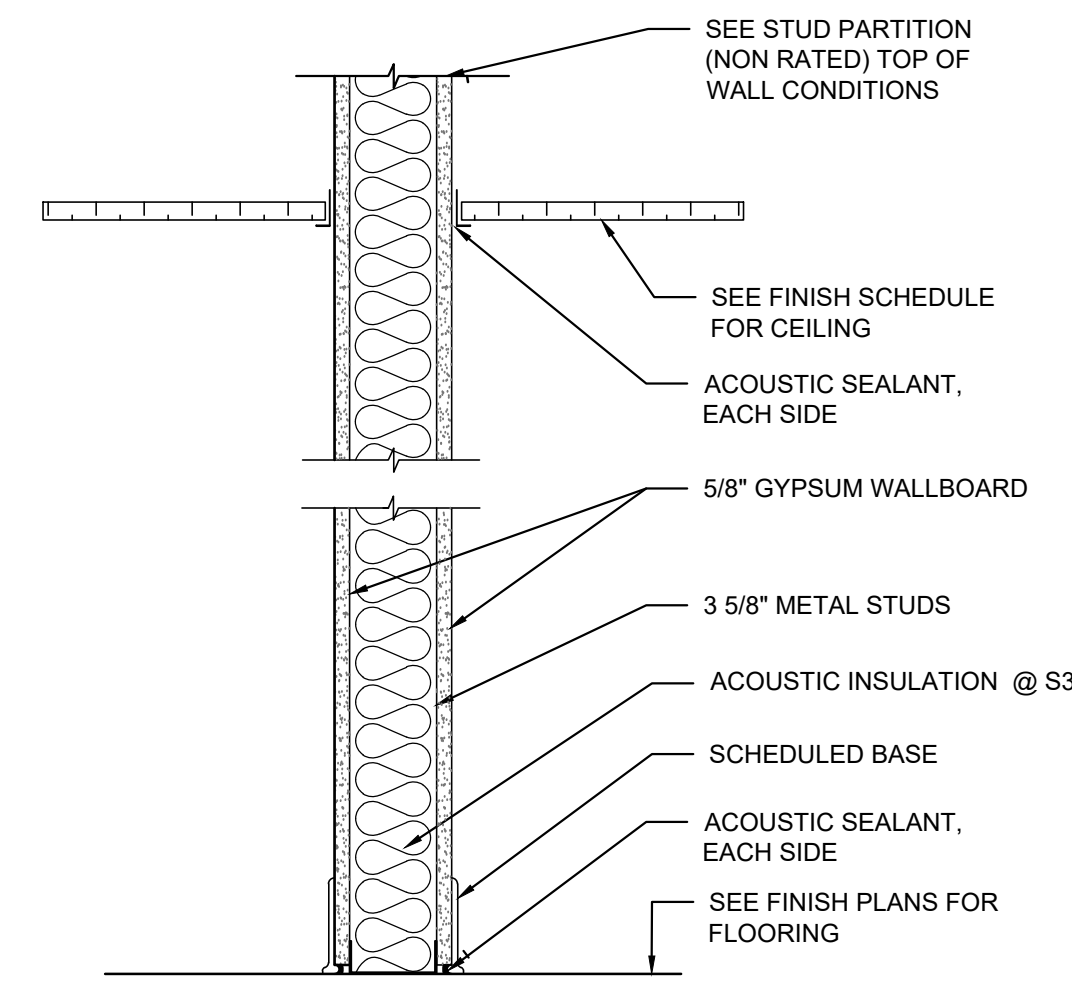
STUD PARTITION TYPE NON RATED

TAG	DESCRIPTION
S2a -	2 1/2\"/>



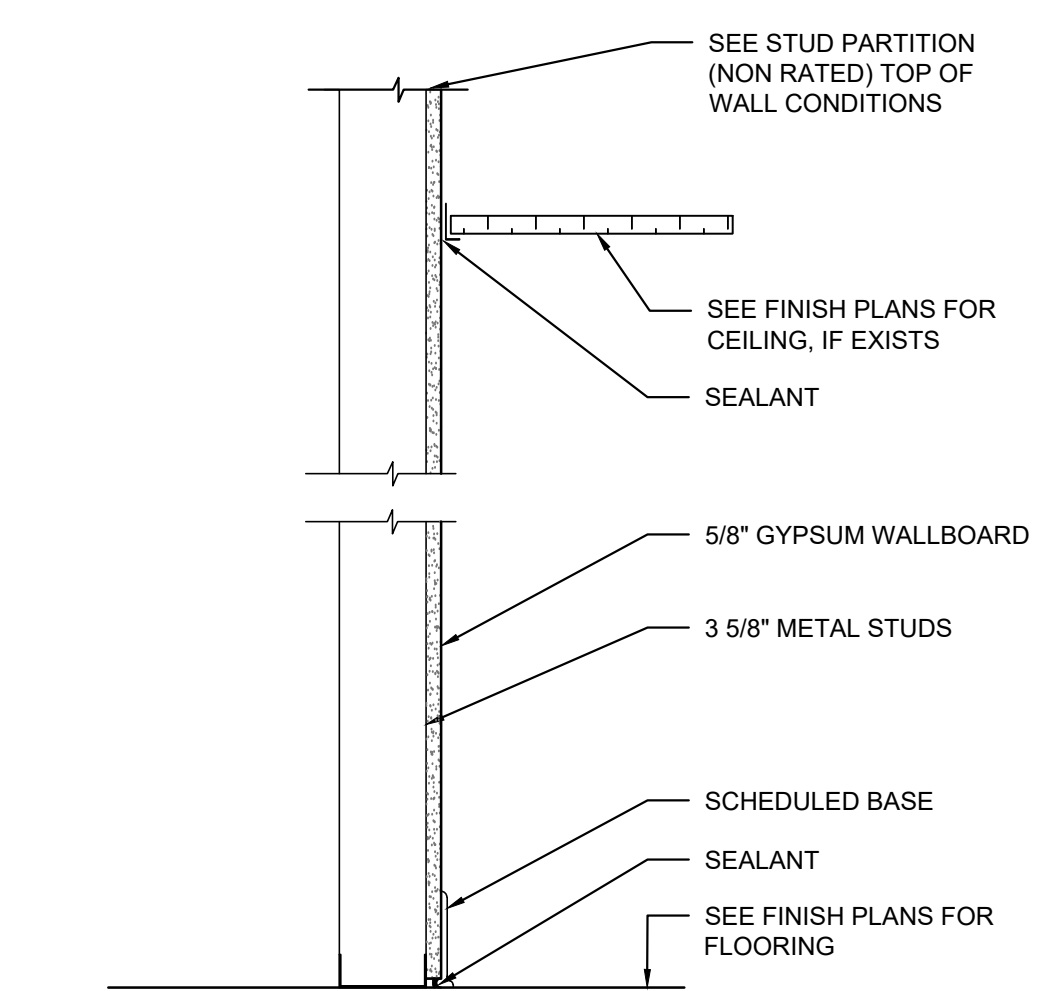
STUD PARTITION TYPE FIRE RATED

TAG	DESCRIPTION
S3a X	MIN 30-MINUTE FIRE RATED UL DESIGN W411; 3 5/8\"/>



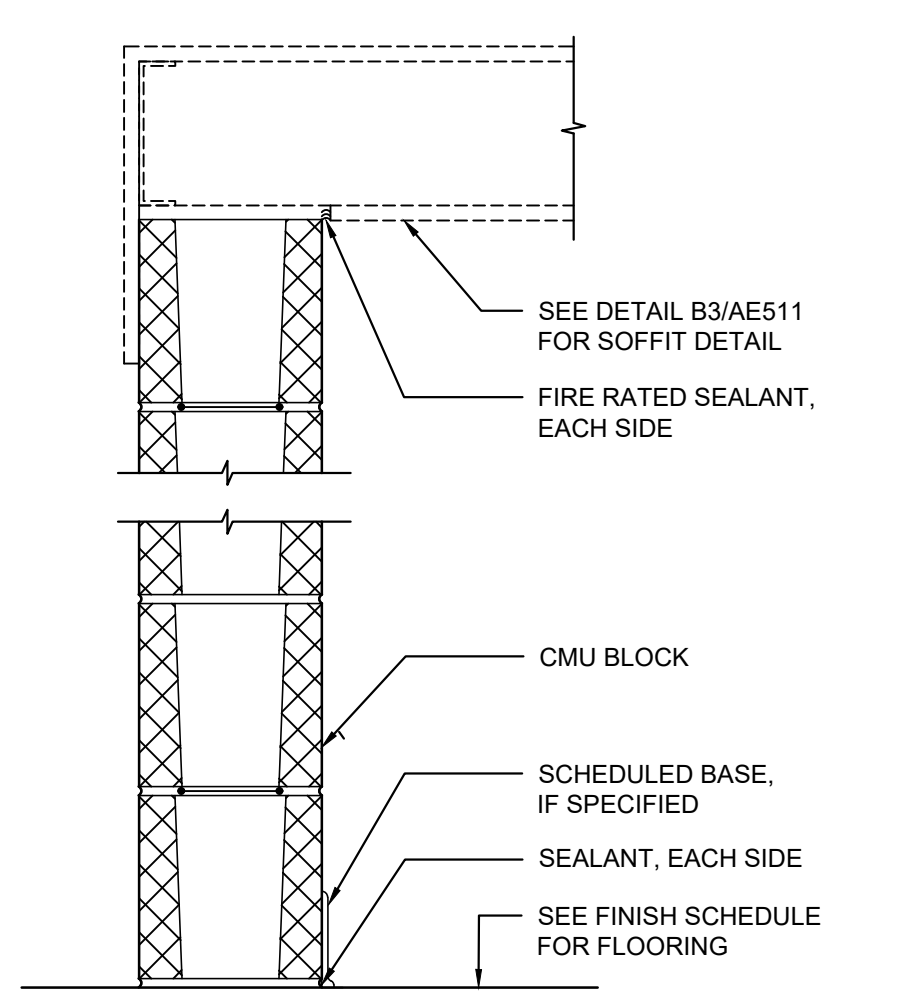
STUD PARTITION TYPE NON RATED

TAG	DESCRIPTION
S3a Z	STC-46 (NGC 2018106) 3 5/8\"/>
S3b -	3 5/8\"/>



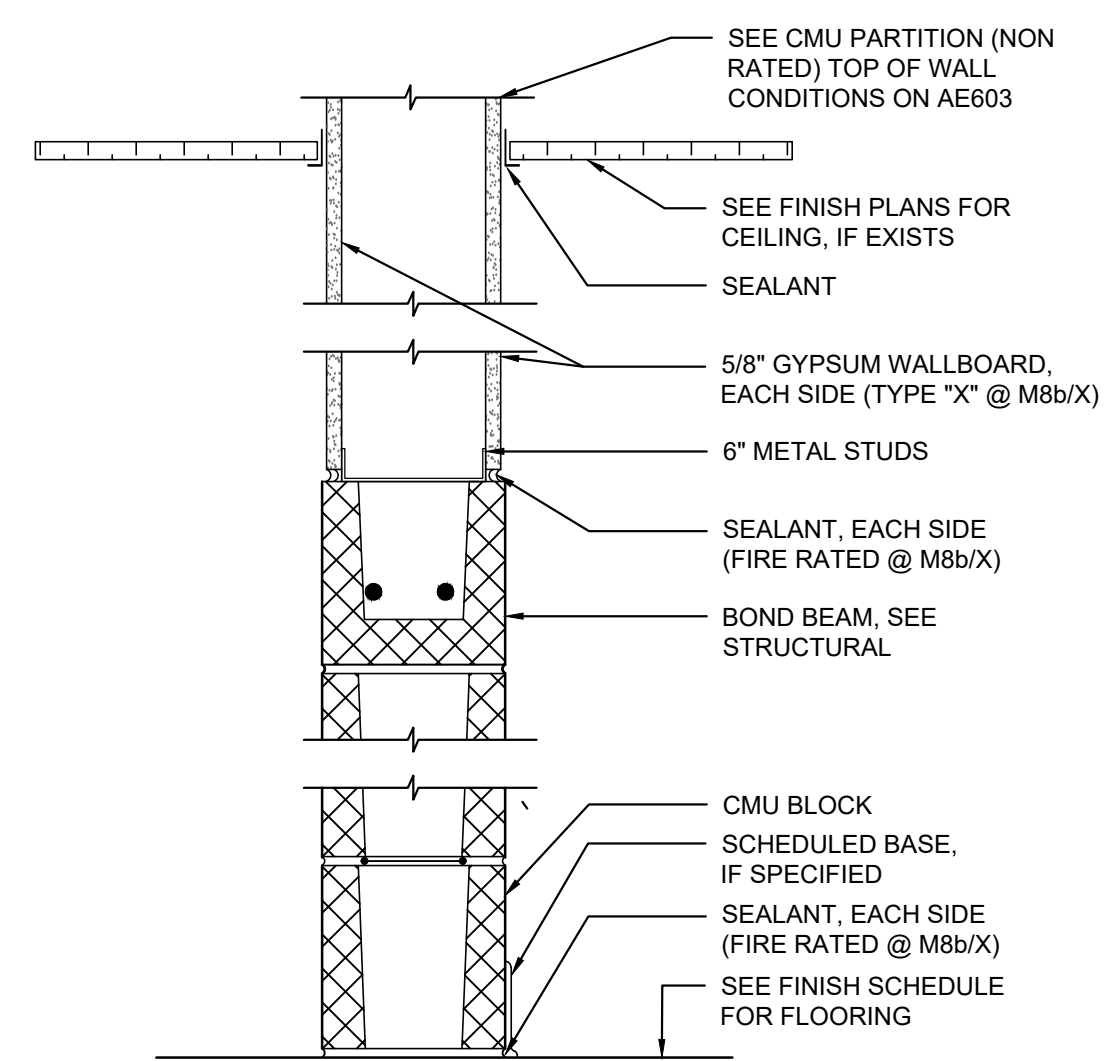
STUD PARTITION TYPE NON RATED

TAG	DESCRIPTION
S3c -	3 5/8\"/>



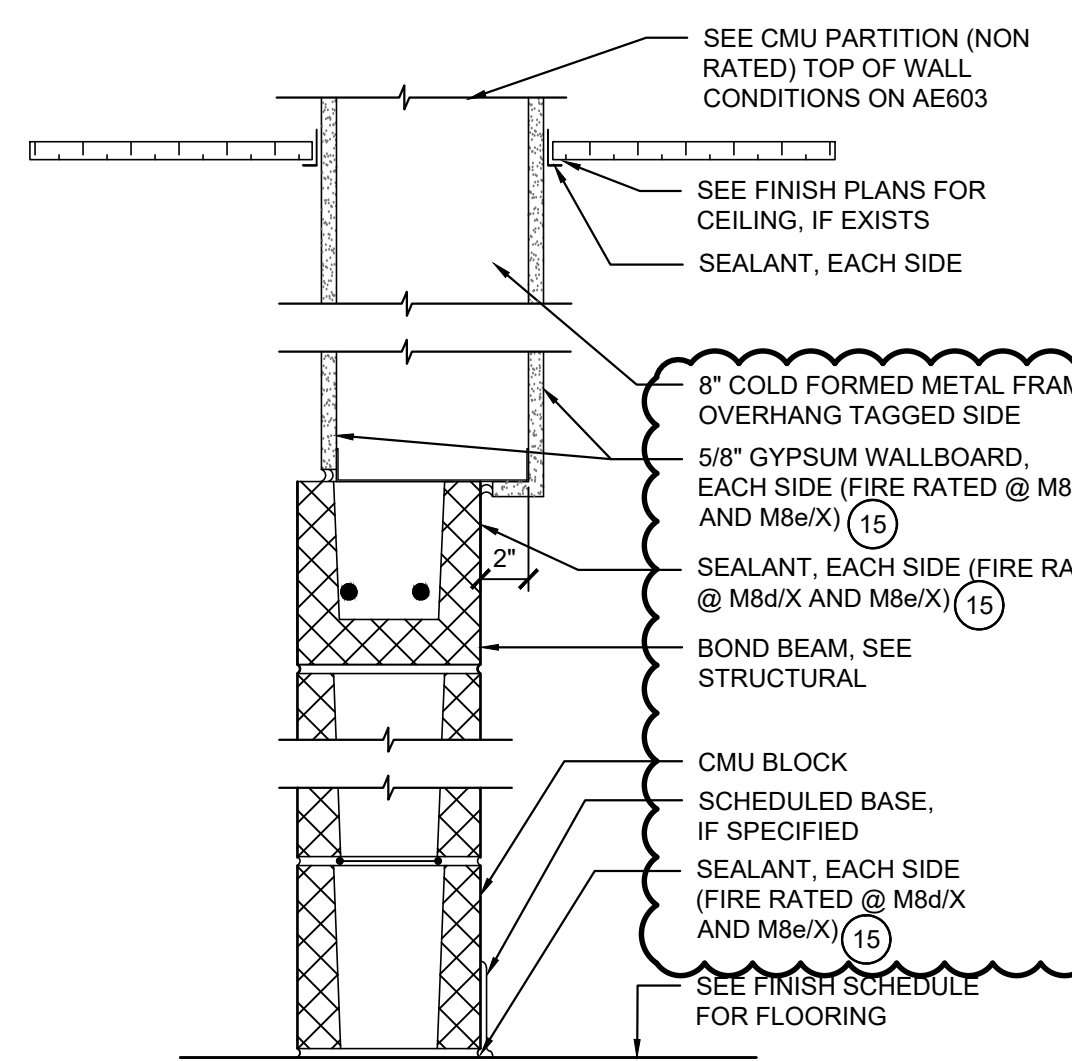
CMU PARTITION TYPE FIRE RATED

TAG	DESCRIPTION
M8a X	MIN 1-HOUR FIRE-RATED UL U901; 8\"/>



CMU PARTITION TYPE NON RATED & FIRE RATED

TAG	DESCRIPTION
M8b -	8\"/>
M8b X	MIN 1-HOUR FIRE RATED UL U901 & U419 8\"/>



CMU PARTITION TYPE NON RATED & FIRE RATED

TAG	DESCRIPTION
M8a -	8\"/>
M8a X	MIN 1-HOUR FIRE RATED UL U901 & U419 8\"/>



PLAN REVISIONS

Date	JRW	JRW	Appr.
06-10-2022			
04-22-22			

DESIGNED BY: EAH
DRAWN BY: JLR
CHECKED BY: MSD
DATE: 06-10-2022
SCALE: AS NOTED
PROJECT NO: 230125
ISSUED FOR BID: 0
REVISION: 1

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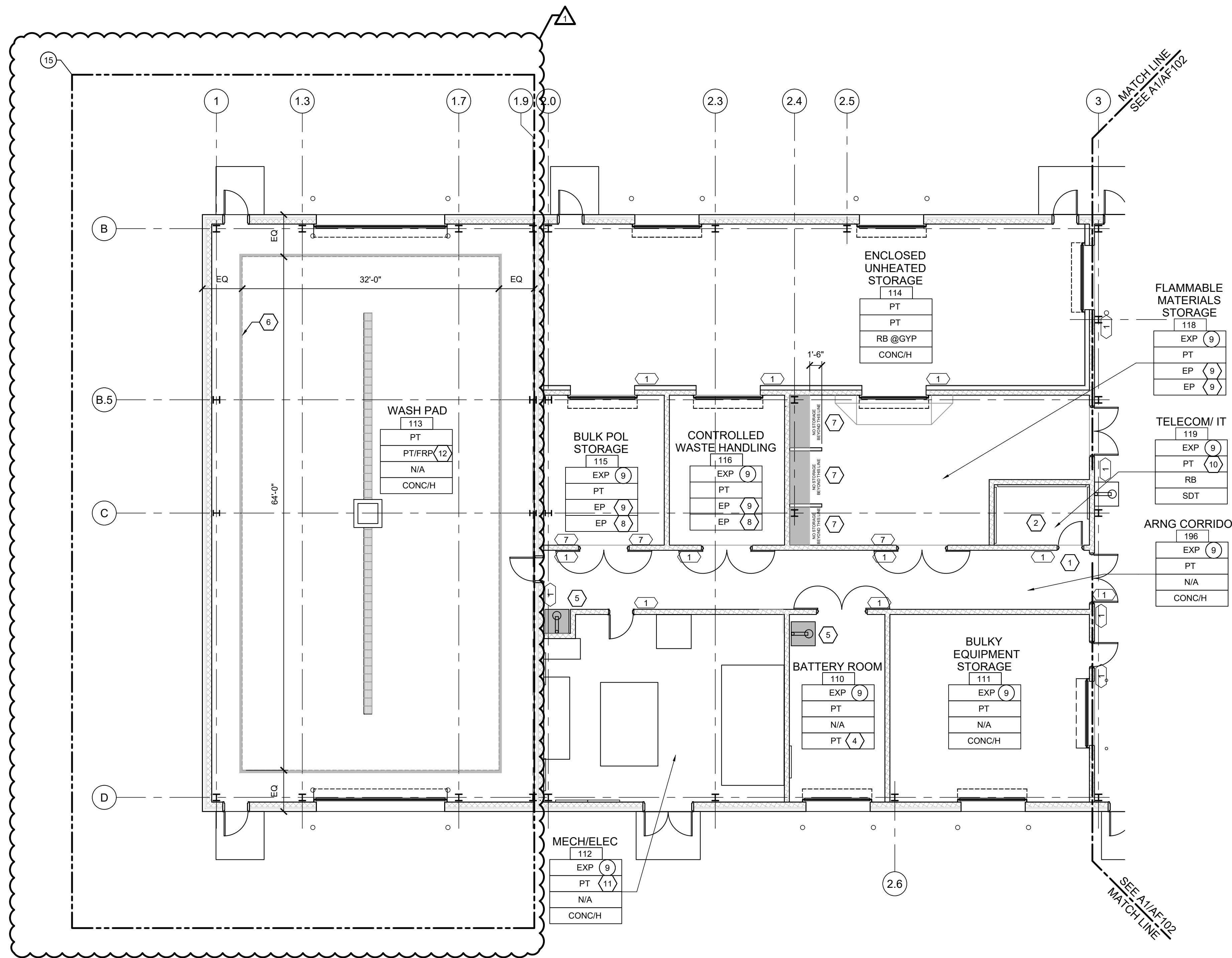
PARTITION INFORMATION

PLAN PROGRESS

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<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
AE601
SHEET: 118 OF 244

NOT FOR CONSTRUCTION



A1 AREA A FIRST LEVEL FINISH PLAN
 1/8" = 1' - 0" REF: AE101
 0 4' 8' 16'
 PLAN NORTH



- ### NOTES
- SEE SHEET AE001 FOR LEGENDS, SYMBOLS AND GENERAL NOTES
 - SEE SHEET AE614 FOR FLOOR TRANSITION DETAILS
 - SEE SHEET AG701 FOR SIGN TYPES AND DETAILS
 - WHERE "PT" WALL FINISH IS DESIGNATED FOR ROOMS WITH BOTH CMU AND GWB, PAINT BOTH SUBSTRATES FULL HEIGHT, INCLUDING GWB STACKED ABOVE CMU.
 - SIGN MESSAGE TEXT AND ROOM NUMBER, WHERE APPLICABLE, TO BE DETERMINED DURING SUBMITTAL REVIEW PROCESS.
 - WHERE "PT" WALL FINISH IS DESIGNATED, PAINT EXPOSED NON-ROOF STRUCTURE TO MATCH ADJACENT WALL.
 - WHERE PAINTED CMU IS EXPOSED WALL FINISH WITHOUT A BASE, PROVIDE TOOLED JOINT WHERE CMU WALL MEETS CONCRETE SLAB.
 - ALL RECEPTACLE AND SWITCH COVER PLATES SHALL BE STAINLESS STEEL. ALL RECEPTACLES AND SWITCHES SHALL BE GRAY; SUBMIT SAMPLE FROM MANUFACTURER'S STANDARD AVAILABLE COLORS FOR APPROVAL BY ARCHITECT.

- ### KEYED NOTES
- FLOOR TRANSITION
 - CONNECT SDT FLOORING TO BUILDING GROUNDING, SEE TELECOMMUNICATION SHEETS
 - NOT USED
 - URETHANE-BASED PAINT
 - 3'-0"x3'-0" PAINTED RED SQUARE, TYP AT EYEWASH EYEWASH AND STATIONS
 - 4" WIDE PAINTED YELLOW LINE
 - EXTENTS SHOWN PAINTED RED. 4" HIGH PAINTED RED TEXT, "NO STORAGE BEYOND THIS LINE"
 - METAL GRATING OVER RECESSED SLAB, SEE STRUCTURAL
 - EXTEND FLOOR COATING UP VERTICAL FACE OF CONCRETE TO INTERSECTION WITH CMU WALL AT AREA OF RECESSED SLAB
 - PAINT WALLS SHERWIN WILLIAMS ALABASTER WHITE SW 7008. PAINT BACKER BOARDS MEDIUM GRAY, OWNER TO APPROVE EXACT COLOR. STENCIL "FIRE RATED" IN RED ON BACKER BOARD.
 - PAINT BACKER BOARDS BLACK, STENCIL "FIRE RATED" IN RED ON BACKER BOARD.
 - FRP WALL FINISH ON GYPSUM BOARD PORTION OF WALL FROM 8'-0" AFF TO DECK ABOVE.

ABBREVIATIONS

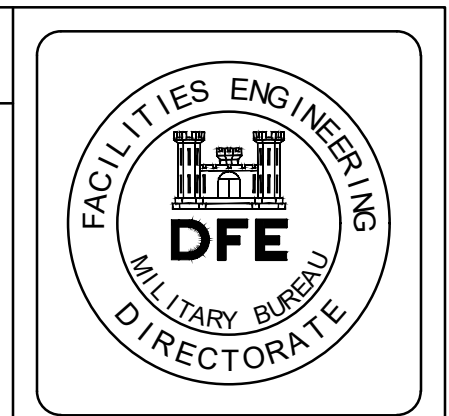
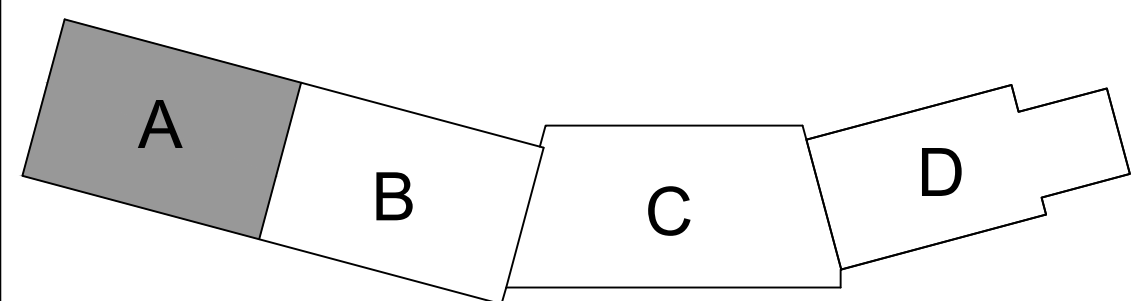
ACT	ACOUSTICAL CEILING TILE
CONC/H	CONCRETE (WITH HARDENER/SEALER)
CT	CERAMIC TILE
EP	EPOXY PAINT
ER	POLYAMIDE-EPOXY RESINOUS FLOORING
EXP	OPEN/EXPOSED CONSTRUCTION
FRP	FIBER REINFORCED PANEL
PT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RESILIENT BASE
SDT	STATIC DISSIPATING TILE W/ ANTI-STATIC FLOOR MAT
WOM	WALK-OFF MAT

LEGEND

ROOM NAME	ROOM TAG
CEILING FINISH	FINISH TAG
WALL FINISH	
BASE FINISH	
FLOOR FINISH	
(1)	SIGN IDENTIFICATION TAG
(■)	INDICATES PAINTED FLOOR

- ### ALTERNATE BID ITEMS
- SEE G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- 9. PAINT EXPOSED ROOF FRAMING
 - 15. WASH PAD ENCLOSURE

KEY PLAN



DESIGNED BY:	EAH
DRAWN BY:	JLR
CHECKED BY:	MSD
DATE:	06-10-2022
SCALE:	AS NOTED
DFE PROJECT NO.:	230125

PLAN REVISIONS	ADDENDUM #1	ISSUED FOR BID	JRW	JRW	Appr.
Rev#	Description	Date	Date		
1	ADDENDUM #1	06-10-22	JRW		
0	ISSUED FOR BID	04-22-22	JRW		

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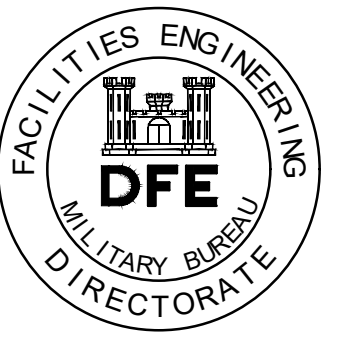
AREA A FIRST LEVEL
 FINISH PLAN

PLAN PROGRESS

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SHEET ID:
AF101
 SHEET: 125 OF 244

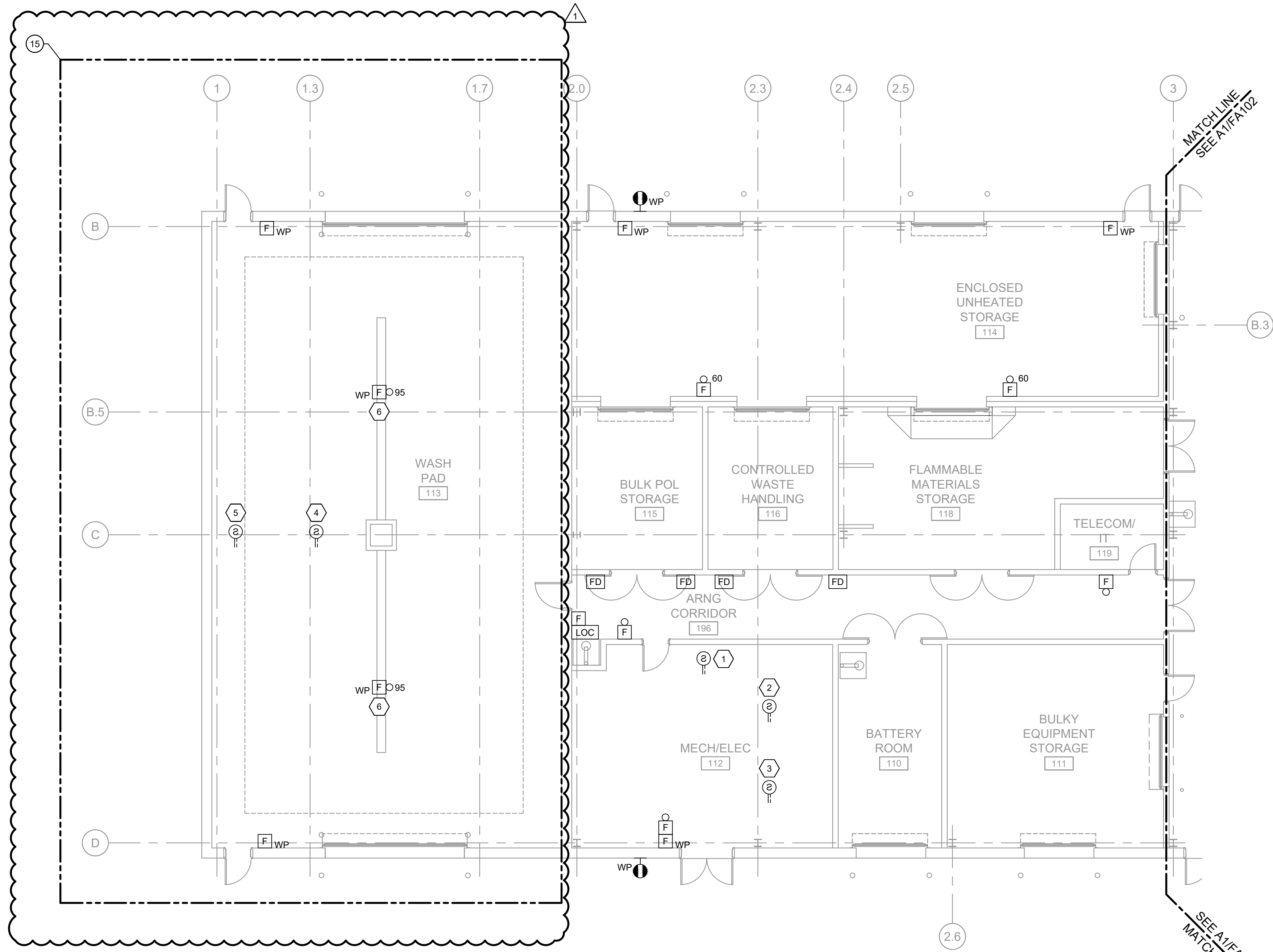
NOT FOR CONSTRUCTION



NOTE

1. SEE SHEET FA001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.

PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW



KEYED NOTES

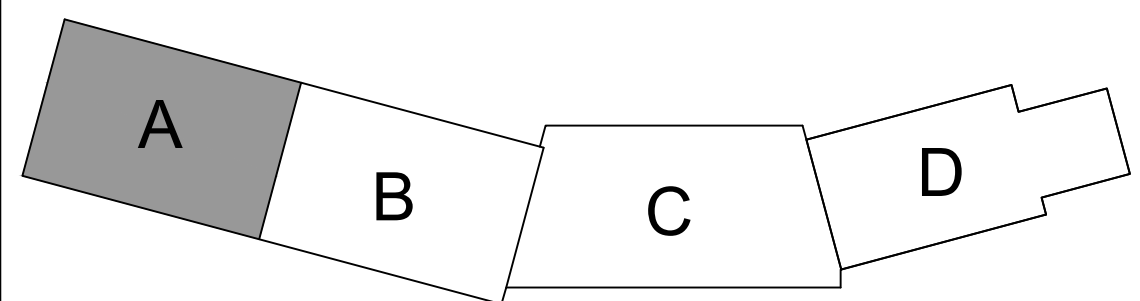
- 1. DOAS-1 SUPPLY
- 2. ERV-5 SUPPLY
- 3. ERV-5 RETURN
- 4. ERV-11 SUPPLY (15)
- 5. ERV-11 RETURN (15)
- 6. CEILING MOUNTED (15)

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

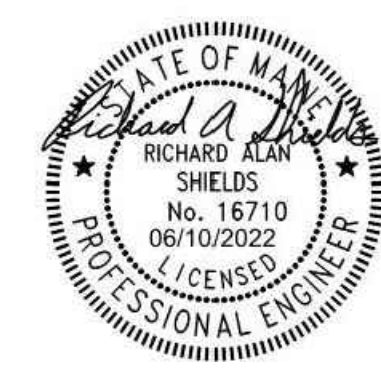
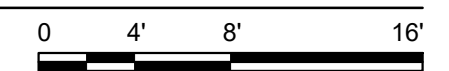
- 15. WASH PAD ENCLOSURE

KEY PLAN



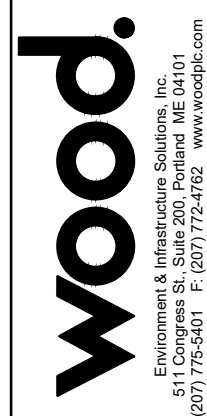
A1 AREA A FIRST LEVEL FIRE ALARM PLAN

1/8" = 1' - 0"



DESIGNED BY:	RDL / BHG
DRAWN BY:	STR
CHECKED BY:	MSD
DATE:	06-10-2022
SCALE:	AS NOTED
DPE PROJECT NO.:	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT



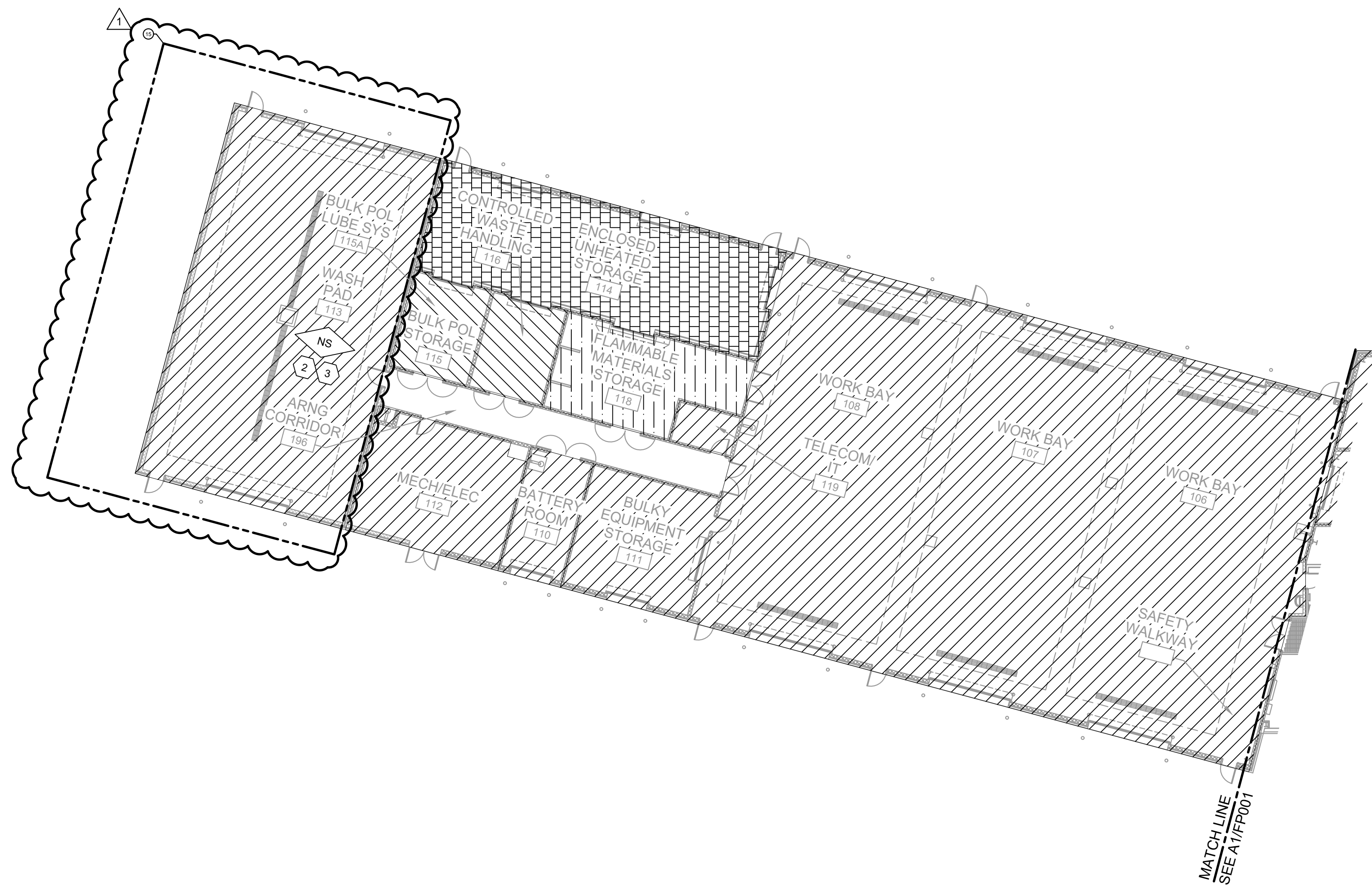
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

AREA A
FIRST LEVEL FIRE ALARM PLAN

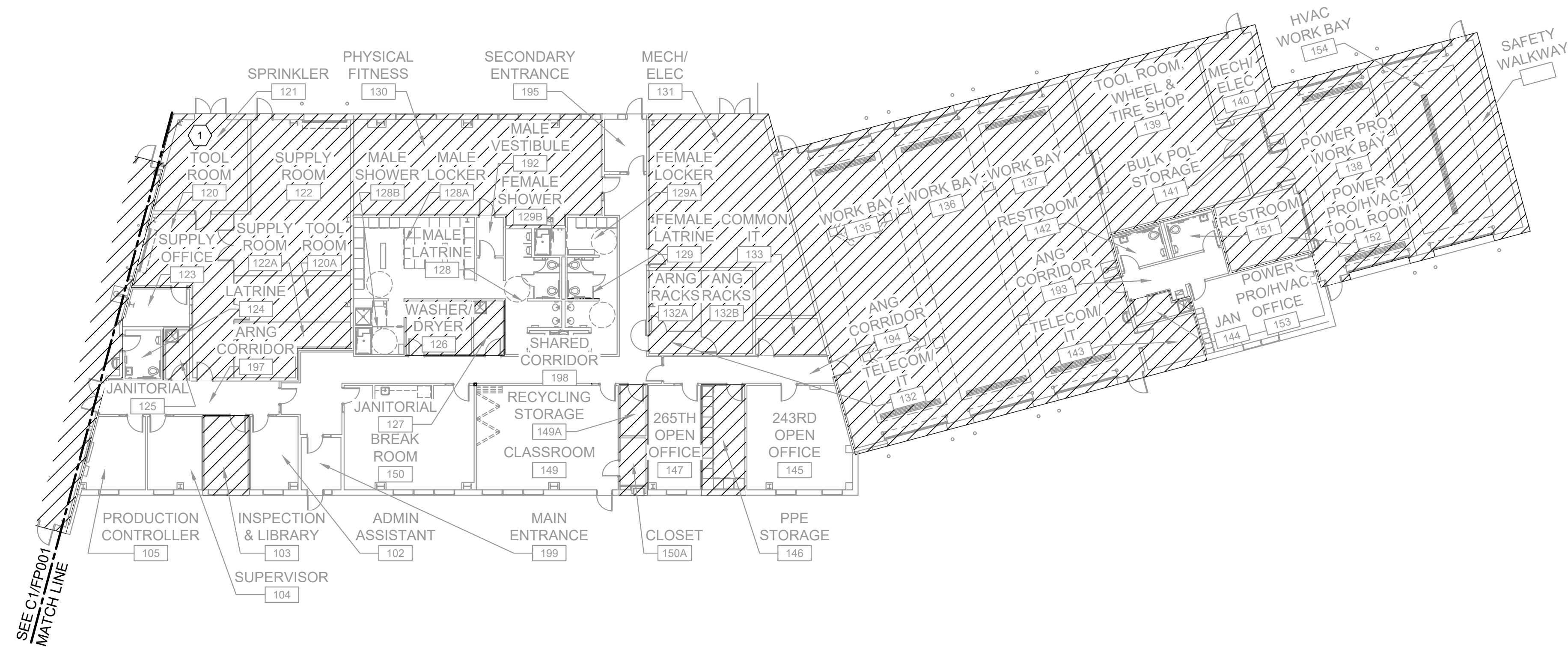
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
FA101
SHEET: 131 of 244

NOT FOR CONSTRUCTION



C1 FIRST LEVEL HAZARD CLASSIFICATION PLAN
 1/16" = 1' - 0"
 0 8' 16' 32'
 PLAN NORTH



A1 FIRST LEVEL HAZARD CLASSIFICATION PLAN
 1/16" = 1' - 0"
 0 8' 16' 32'
 PLAN NORTH

NOTES

- SEE SHEET FP001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.
- THIS BUILDING SHALL BE FULLY SPRINKLERED I.A.W. UFC 3-600-01 AND NFPA 13, UNLESS OTHERWISE NOTED.
- SPRINKLERS NOT REQUIRED ABOVE NONCOMBUSTIBLE DROPPED CEILINGS WITH CONCEALED SPACES OF NONCOMBUSTIBLE CONSTRUCTION AND CONTENT.
- SPRINKLERS SHALL BE INSTALLED UNDER DUCTWORK AND EQUIPMENT OVER 4 FEET WIDE.

KEYED NOTES

- SEE DETAIL A3 ON SHEET FP401.
- CONCRETE PAD ONLY, NO SPRINKLERS FOR THIS CONTRACT IN WASH BAY AREA.
- IF ABI 15 IS ACCEPTED, KEYED NOTE 2 AND THE NS SYMBOL WILL BE DELETED AND SPRINKLERS WILL BE INSTALLED AS SHOWN BY ABI 15 ON THE C1 HAZARD CLASSIFICATION PLAN.

LEGEND

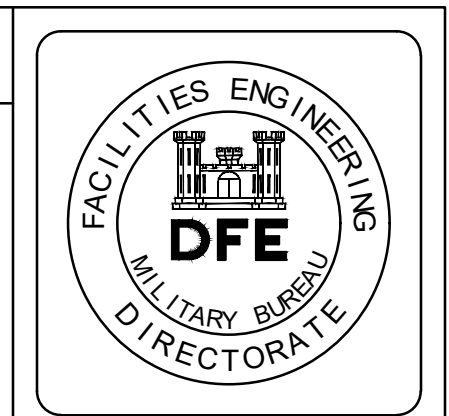
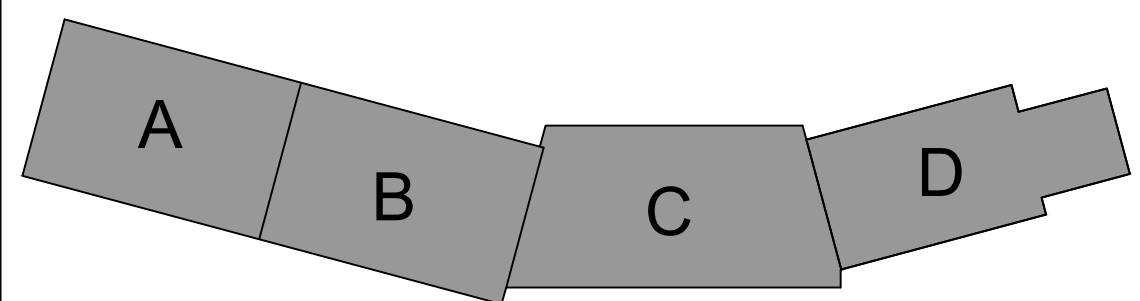
	SPRINKLER HAZARD CLASSIFICATION: LIGHT HAZARD WET PIPE SYSTEM DENSITY: 0.10 GPM/SF AREA: 1500 SF EXTERIOR HOSE ALLOWANCE: 250 GPM MAX. COVERAGE PER SPRINKLER: 225 SF SPRINKLER TYPE: QUICK RESPONSE K FACTOR: = 5.6
	SPRINKLER HAZARD CLASSIFICATION: ORDINARY HAZARD WET PIPE SYSTEM DENSITY: 0.20 GPM/SF AREA: 2500 SF AREA: 3250 SF WHEN ROOF SLOPE EXCEEDS 2:12 EXTERIOR HOSE ALLOWANCE: 250 GPM MAX. COVERAGE PER SPRINKLER: 130 SF SPRINKLER TYPE: QUICK RESPONSE K FACTOR: = 8.0
	SPRINKLER HAZARD CLASSIFICATION: EXTRA HAZARD 1 - 12 FT MAX HT CLASS IV STG DRY PIPE SYSTEM DENSITY: 0.30 GPM/SF AREA: 3500 SF (1,350 SF CUT-OFF ROOM) EXTERIOR HOSE ALLOWANCE: 500 GPM MAX. COVERAGE PER SPRINKLER: 100 SF SPRINKLER TYPE: STANDARD RESPONSE K FACTOR: = 11.2
	SPRINKLER HAZARD CLASSIFICATION: POL SYSTEM AND STORAGE AND CONTROLLED WASTE HANDLING AREAS WET PIPE SYSTEM DENSITY: 0.60 GPM/SF [POL QUANTITY IS > 660 GAL] AREA: CUT-OFF ROOM AREA EXTERIOR HOSE ALLOWANCE: 500 GPM MAX. COVERAGE PER SPRINKLER: 100 SF SPRINKLER TYPE: STANDARD RESPONSE K FACTOR: = 11.2
	SPRINKLER HAZARD CLASSIFICATION: FLAMMABLE MATERIALS STORAGE AREA WET PIPE SYSTEM DENSITY: 0.30 GPM/SF AREA: CONTROL ROOM AREA EXTERIOR HOSE ALLOWANCE: 500 GPM MAX. COVERAGE PER SPRINKLER: 100 SF OR AS LISTED SPRINKLER TYPE: STANDARD RESPONSE K FACTOR: = 11.2

NOTE: THE ABOVE HOSE EXTERIOR HOSE ALLOWANCES ARE ALL TAKEN FROM THE PUBLIC SUPPLY AND NOT THE FIRE PUMP/TANK SUPPLY.

ALTERNATE BID ITEMS

- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

KEY PLAN



REV#	DATE	ISSUED FOR BID	JRW	Appr.
1	06-10-22	0	JRW	
0	04-22-22	0	JRW	

DESIGNED BY:	RDJ	STR	MSD	DATE:	06-10-2022	AS NOTED	230125
DRAWN BY:				SCALE:			
CHECKED BY:				DFE PROJECT NO:			

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

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 81 Congress St., 3rd Floor, Portland, ME 04101
 P. (207) 725-2121 F. (207) 725-2122 W. woodma.com

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 VEHICLE MAINTENANCE SHOP
 SACO, MAINE
 FIRST LEVEL
 HAZARD CLASSIFICATION PLAN

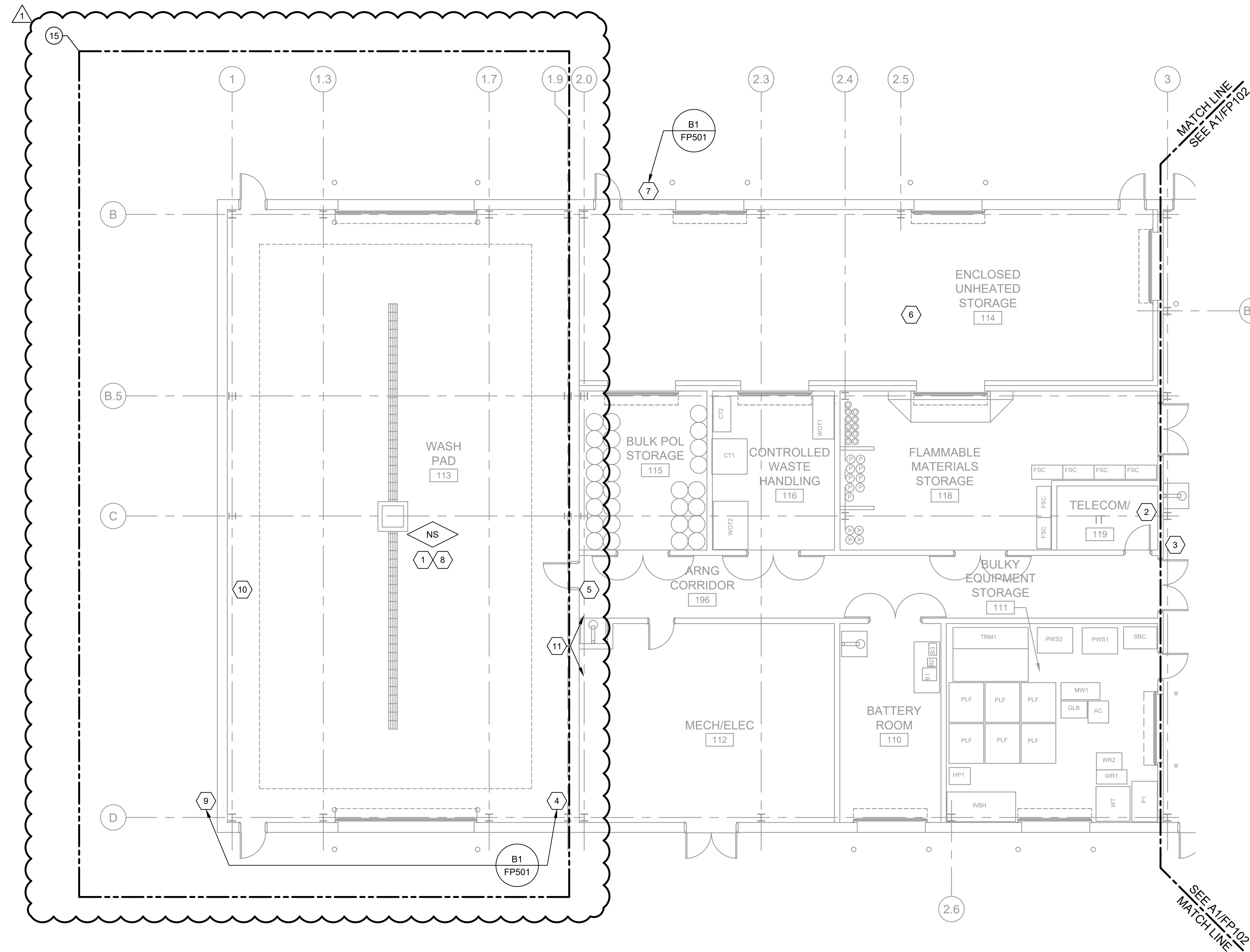
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<input type="checkbox"/> RECORD DRAWINGS

SHEET ID:
FP011
 SHEET: 137 of 244



NOT FOR CONSTRUCTION



A1 AREA A FIRST LEVEL FIRE PROTECTION PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH



NOTES

- SEE SHEET FP001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- THIS BUILDING SHALL BE FULLY SPRINKLERED I.A.W THE PROJECT SPECIFICATIONS, UFC 3-600-01, NFPA 13 (2019 ED) AND NFPA 13 (2016 ED) AS ADOPTED BY THE MAINE STATE RULES OF THE STATE FIRE MARSHAL CHAPTER 4, UNLESS OTHERWISE NOTED.
- SPRINKLERS NOT REQUIRED ABOVE NONCOMBUSTIBLE DROPPED CEILING/Acoustical CONCEALED SPACES OF NONCOMBUSTIBLE CONSTRUCTION AND CONTENT.
- WHERE POSSIBLE CONCEAL SPRINKLER PIPING ABOVE DROPPED CEILINGS.
- LOCATE SPRINKLER PIPING AWAY FROM ELECTRICAL PANELS I.A.W NFPA 70. INSTALL DRIP PANS WHERE INSTALLING PIPING WITHIN DEDICATED EQUIPMENT SPACE IS UNAVOIDABLE.
- SPRINKLERS SHALL BE INSTALLED UNDER DUCTWORK & EQUIPMENT OVER 4 FEET IN WIDTH.
- INSTALL GUARDS ON SPRINKLERS THAT ARE 7 FEET OR LESS ABOVE FF OR ARE OTHERWISE SUSCEPTIBLE TO MECHANICAL DAMAGE.
- SPRINKLER PIPING TO BE LOCATED AND SIZED PER CONTRACTOR'S SHOP DRAWINGS AND HYDRAULIC CALCULATIONS. INSTALL SPRINKLERS PER DESIGN PARAMETERS ON SHEET FP501.

KEYED NOTES

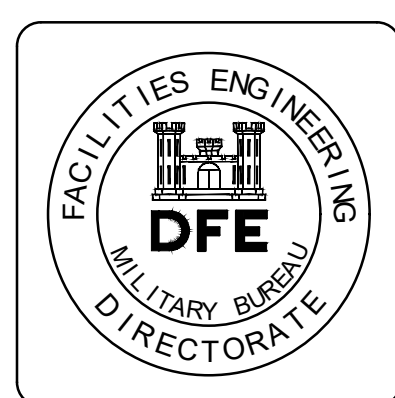
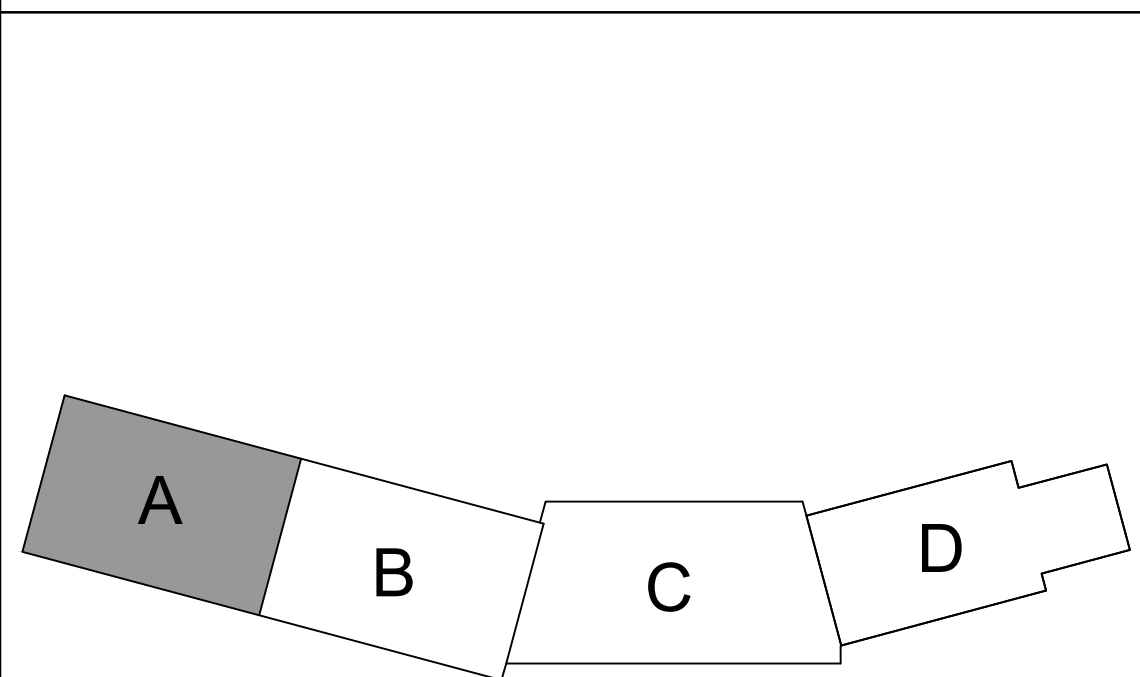
- ONLY A FLOOR SLAB FOR WASH PAD PROVIDED FOR THIS CONSTRUCTION PHASE. SPRINKLERS NOT INSTALLED IN THIS BAY UNDER THIS CONTRACT. CONTRACTOR'S HYDRAULIC CALCULATIONS SHALL DEMONSTRATE THAT THE FUTURE WASH PAD AND FUTURE APPROXIMATE 45-FT WIDE WARMUP BAY ON WEST SIDE OF WASH PAD (NOT SHOWN) CAN BE ADEQUATELY PROTECTED MEETING THE FIRE SUPPRESSION SYSTEM CRITERIA ON SHEET FP501 BY EXTENDING A FUTURE CROSS MAIN / FEED MAIN INTO THIS AREA.
- IN IT AREAS WHERE SPRINKLERS AND PIPING ARE EXPOSED, INSTALL SPRINKLERS WITH HEAD GUARDS/CAGES.
- PROVIDE TELECOM / IT ROOM WITH SEPARATE SUPERVISED SPRINKLER ZONE CONTROL VALVE ASSEMBLY WHICH INCLUDES THE CONTROL VALVE, CHECK VALVE, WATER FLOW SWITCH AND INSPECTOR'S TEST CONNECTION. LOCATE ZONE CONTROL VALVE OUTSIDE THE ROOM IN A LOCATION ACCESSIBLE TO EMERGENCY RESPONDERS. TEST CONNECTION SHALL BE AN APPROVED RECIRCULATING PUMP FLOW SWITCH (SEE TECHNICAL SPECIFICATIONS).
- INSTALL INSPECTOR'S TEST CONNECTION NEAR THE REMOTE END OF THE SPRINKLER SYSTEM. INSTALL WITH CONCRETE SPLASH BLOCK TO PREVENT EROSION WHERE DISCHARGE IS AT UNPAVED SURFACE. CAN BE LOCATED TO DISCHARGE ON WASH PAD SLAB. TO BE LATER RELOCATED TO REMOTE END OF SYSTEM WHEN SPRINKLER SYSTEM IS EXTENDED INTO FUTURE WASH PAD ENCLOSURE. LOCATE THE TEST VALVE APPROXIMATELY 7 FEET ABOVE FF. LOCATE THE DISCHARGE ORIFICE NO GREATER THAN 2 FEET ABOVE FINISHED GRADE.
- CAP OR PLUG END OF CROSSMAIN / FEEDMAIN WITHIN AREA A BUILDING FOR FUTURE EXTENSION INTO THE FUTURE WASH PAD ENCLOSURE AND WARMUP BAY (WARMUP BAY NOT SHOWN).
- PROTECT THE ENCLOSED UNHEATED STORAGE (ROOM 114) WITH A DRY PIPE SYSTEM. ALL OTHER BUILDING AREAS ARE PROTECTED WITH WET PIPE SYSTEMS.
- INSTALL INSPECTOR'S TEST CONNECTION AT THE REMOTE END OF THE DRY PIPE SPRINKLER SYSTEM IN THE ENCLOSED UNHEATED STORAGE AREA. TO MINIMIZE CONDENSATION OF WATER IN THE DROP TO THE TEST CONNECTION, PROVIDE A NIPPLE-UP OFF OF THE BRANCH LINE. PROVIDE WITH REMOVEABLE UNIONED SECTION OF PIPE BETWEEN THE TEST VALVE AND DISCHARGE PIPE TO BE INSTALLED ONLY DURING TESTING. INSTALL WITH CONCRETE SPLASH BLOCK TO PREVENT EROSION WHERE DISCHARGE IS AT UNPAVED SURFACE. LOCATE THE TEST VALVE APPROXIMATELY 7 FEET ABOVE FF. LOCATE THE DISCHARGE ORIFICE NO GREATER THAN 2 FEET ABOVE FINISHED GRADE. REFER TO NFPA 13 SECTION 16.14.2 AND SPECIFICATION SECTION 211316.
- IF ABI 15 IS ACCEPTED, KEYED NOTE 1 WILL BE MODIFIED. THE NS SYMBOL WILL BE DELETED AND SPRINKLERS WILL BE INSTALLED WITHIN THE WASH PAD ENCLOSURE.
- IF ABI 15 IS ACCEPTED, KEYED NOTE 4 WILL BE MODIFIED AND SHOWN AT KEYED NOTE 9 LOCATION.
- IF ABI 15 IS ACCEPTED, KEYED NOTE 5 WILL BE MODIFIED AND SHOWN AT KEYED NOTE 10 LOCATION TO STATE TO CAP OR PLUG END OF CROSSMAIN / FEEDMAIN FOR FUTURE EXTENSION INTO THE FUTURE WARMUP BAY (WARMUP BAY NOT SHOWN).
- IF ABI 15 IS ACCEPTED, KEYED NOTE 11 WILL BE ADDED TO PROVIDE SEISMIC SEPARATION ASSEMBLY OR LISTED FLEXIBLE PIPING ON ALL SPRINKLER FEEDMANS / CROSSMANS WHICH CROSS AT THE BUILDING SEISMIC SEPARATION JOINT LOCATED AT THE COLUMN LINE 1.9/2.0.

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- WASH PAD ENCLOSURE

KEY PLAN



PLAN REVISIONS		Date	Appr.
1	ADDENDUM #1	06-10-2022	JRW
0	ISSUED FOR BID	04-22-22	JRW
	Revised		

DESIGNED BY:	RDL / BHG	STR	MSD	DATE:	06-10-2022	AS NOTED	DFE PROJECT NO:	230125
DRAWN BY:	STR	MSD		SCALE:				
CHECKED BY:								

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

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 Engineers & Architects
 81 Congress St., 3rd Floor, Portland, ME 04101
 P: (207) 725-2221, F: (207) 725-2222, www.woodeng.com

NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

AREA A FIRST LEVEL
 FIRE PROTECTION PLAN

PLAN PROGRESS	
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<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

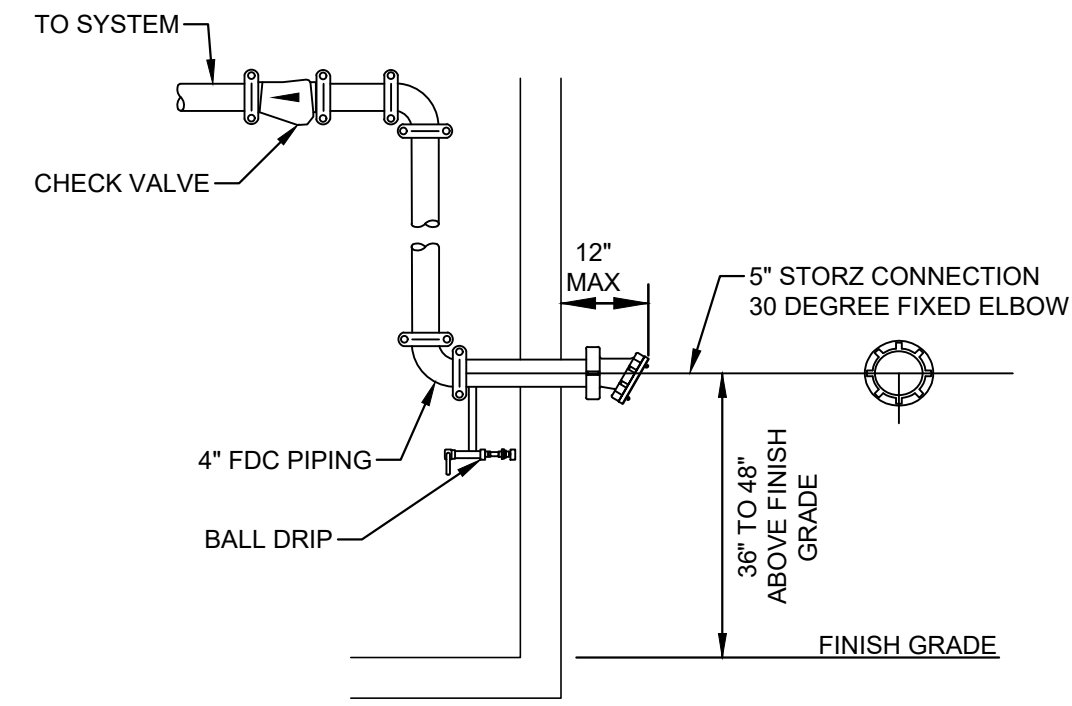
SHEET ID:
FP101
 SHEET: 138 of 244

NOT FOR CONSTRUCTION

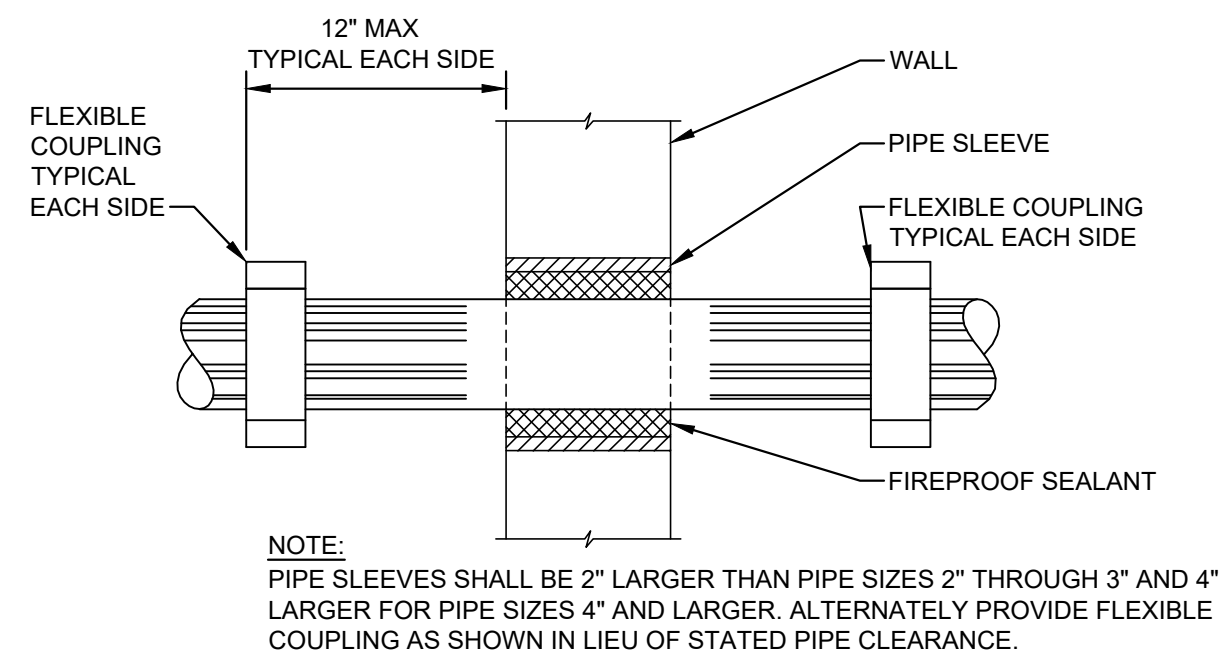
FIRE SUPPRESSION SYSTEM SCHEDULE

OCCUPANCY	BUILDING AREA / ROOM	FIRE PROTECTION CRITERIA	REFERENCE
LIGHT HAZARD	OFFICES, LOCKER, BATHROOMS, HALLWAYS, STAIRWAYS	0.1 GPM/SF OVER 1,500 SF; K=5.6; 250 GPM HOSE STREAMS; 60 MIN DURATION	UFC 3-600-01 SECTION B-1.1 TABLES 9-3 & 9-4
ORDINARY HAZARD	VEHICLE WORK BAYS, ANG POL STG MECHANICAL/ELECTRICAL ROOMS, OTHER ASSOCIATED SUPPORT AREAS FUTURE WASH PAD AND FUTURE WARMUP BAY (NOT SHOWN)	0.2 GPM/SF OVER 3,250 SF (INCLUDES 30% PENALTY FOR > 2:12 ROOF SLOPE); K=8.0; 250 GPM HOSE STREAMS; 60 MIN DURATION	UFC 3-600-01 SECTION B-1.2 TABLES 9-3 & 9-4
EXTRA HAZARD	ARNG POL STORAGE / LUBE SYSTEM AND CONTROLLED WASTE HANDLING AREA (GREATER THAN 660 GAL STORAGE)	0.6 GPM/SQ.FT. OVER CUT-OFF ROOM SIZE; K=11.2; 500 GPM;	UFC 3-600-01, SECTIONS 4-37, 4-17, 1.1.2 REF NFPA 30; NFPA 30 SECTION 18.5
EXTRA HAZARD	FLAMMABLE MATERIAL STORAGE AND GAS STORAGE	0.3 GPM/SQ.FT. OVER CUT-OFF ROOM SIZE; K=11.2; 500 GPM	UFC 3-600-01 SECTION B-1.2 TABLES 9-3 & 9-4; NFPA 30, TABLE 9.6.1; AND NFPA 55 SECTION 6.11.2.2 / UFC 3-600-01 TABLE 9-3 EX HAZ
RACK OR BACK TO BACK SHELF STORAGE EXTRA HAZARD	ENCLOSED UNHEATED STORAGE AREA	0.3 GPM/SF OVER 1,350 SF (CUT-OFF ROOM SIZE); DRY SYSTEM; K=11.2; 500 GPM HOSE STREAMS; 120 MIN DURATION	UFC 3-600-01 SECTION 4-46.2.3.1; NFPA 13 TABLE 4.3.1.7.1

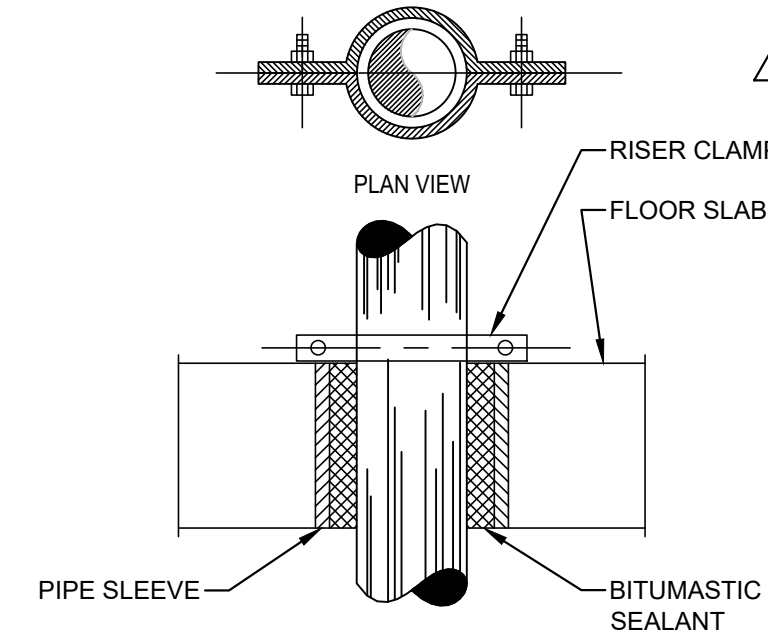
NOTE: THE ABOVE EXTERIOR HOSE ALLOWANCES ARE ALL TAKEN FROM THE PUBLIC SUPPLY AND NOT THE FIRE PUMP/TANK SUPPLY.



D2 FIRE DEPARTMENT STORZ CONNECTION
SCALE: NOT TO SCALE



D3 PIPE SLEEVE THROUGH WALL
NOT TO SCALE



D5 PIPE SLEEVE THROUGH FLOOR SLAB
NOT TO SCALE

NOTE

1. SEE SHEET FP001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES

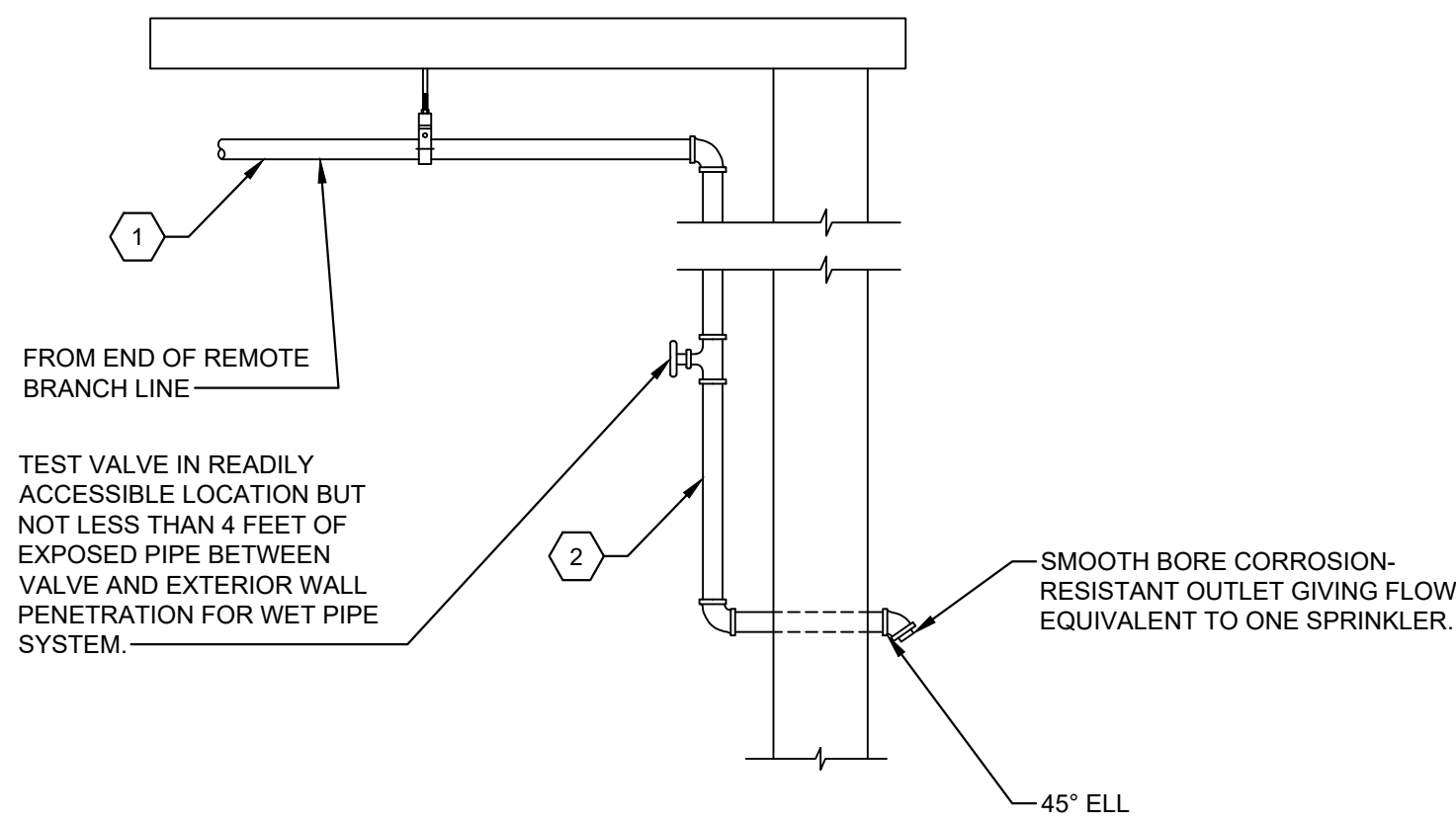
KEYED NOTES

1. IF ABI 15 IS ACCEPTED, "FUTURE WASH PADS" WILL BE CHANGED TO "WASH PAD".

ALTERNATE BID ITEMS

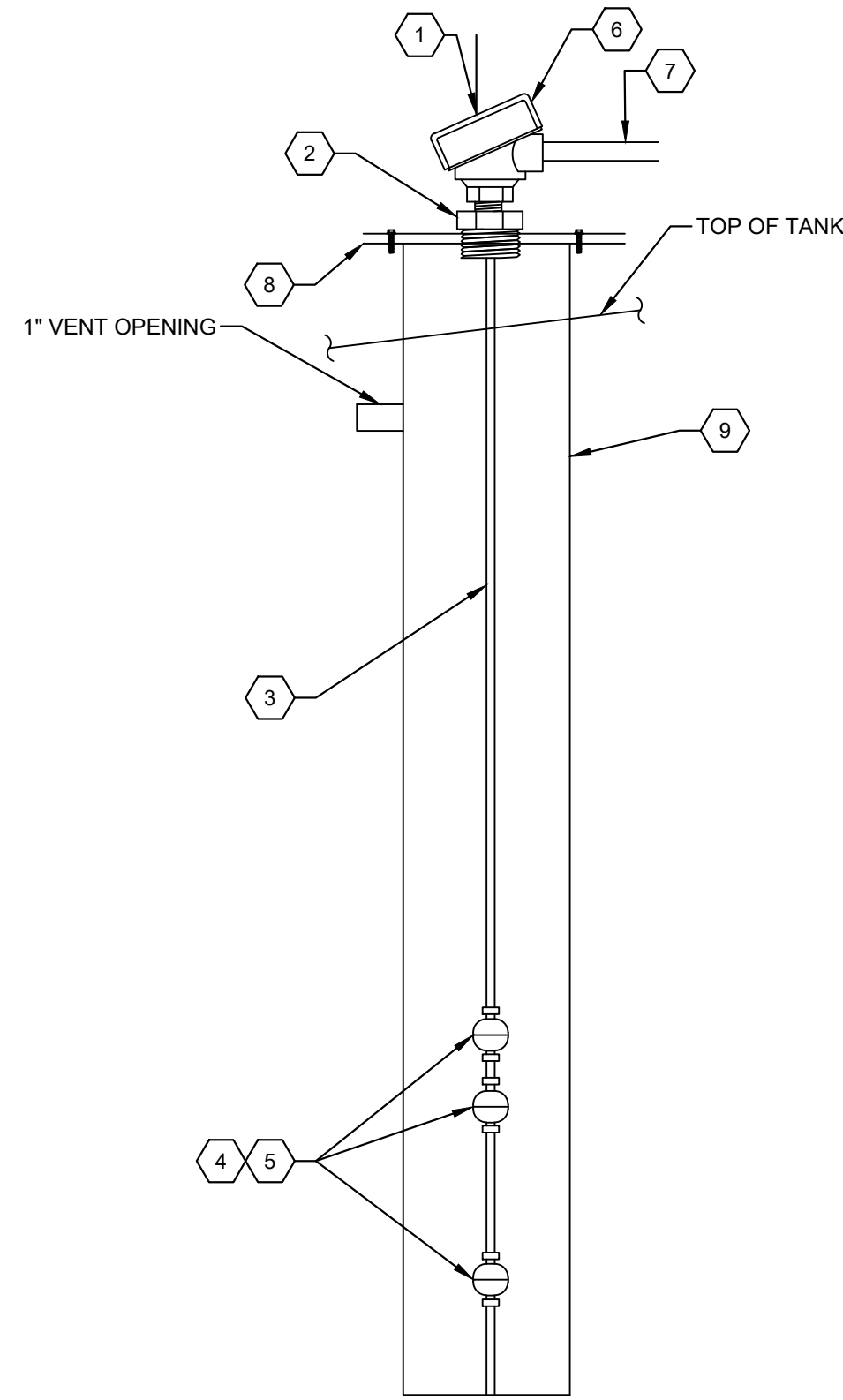
SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE



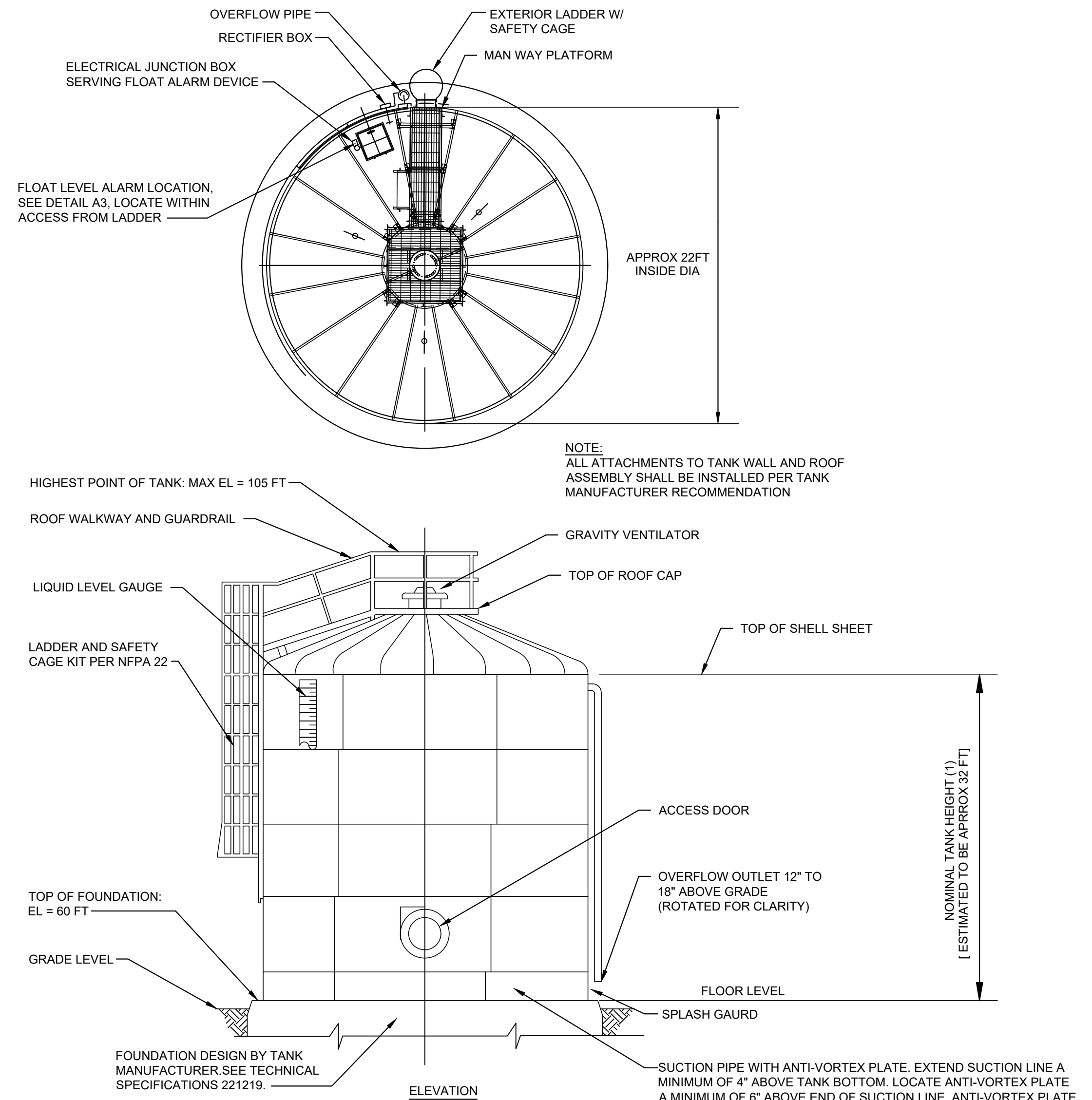
- 1 FOR DRY PIPE SYSTEM, NIPPLE UP OFF BRANCH LINE AND PITCH TEST CONNECTION PIPE TOWARD TEST VALVE. SEE NFPA 13, FIG A.16.14.2
- 2 FOR DRY PIPE SYSTEM, PROVIDE PLUG AT VALVE AND TEMPORARY UNIONED CONNECTION TO DISCHARGE PIPE. SEE NFPA 13, FIG A.16.14.2

B1 WET PIPE INSPECTOR'S TEST CONNECTION
(SEE NOTES FOR DRY PIPE TEST CONNECTION)
SCALE: NOT TO SCALE



- 1 TANK FLOAT SWITCH ASSEMBLY FOR WATER LEVEL TROUBLE SIGNALS PER NFPA 72 AND NFPA 22. MOUNT ON TOP OF TANK. AUTOMATION PRODUCTS GROUP INC (APG), MODEL FILE-4T2-S6-H3-A33SS OR APPROVED EQUAL. THREE SWITCH POINTS:
A. OFF-NORMAL (DROP TO 4" AND FOR OVERFLOW)
B. LOW-LEVEL (DROP TO 12")
- 2 PLUG MOUNT TYPE 2, 2" NPT, 316SS, CABLE ENTRY 3/4" FITTING.
- 3 STEM 316LSS; LENGTH: APPROXIMATELY 72" BUT CONTRACTOR TO VERIFY BASED ON FINAL MOUNTING LOCATION.
- 4 THREE SWITCHES, TYPE A, 20 VA
- 5 FLOATS: TYPE S.S.; 316SS, 0.65 SG; 316 S.S. FLOAT STOP COLLARS
A. SET L1 AT APPROXIMATE OVERFLOW; L2 AT 4" BELOW OVERFLOW AND L3 AT 12" BELOW OVERFLOW.
- 6 JUNCTION BOX/HOUSING: 316SS
- 7 INSTALL PVC COATED RIGID STEEL CONDUIT DOWN OUTSIDE OF TANK AND TERMINATE WITHIN RECTIFIER BOX.
- 8 6" FLANGED ACCESS NOZZLE; 316SS S. W/316SS FASTENERS. INSTALL CLOSE TO ROOF HATCH FOR ACCESS FROM INTERNAL LADDER.
- 9 6" STILLING WELL, SCH 40 PVC PIPE.

A3 FLOAT LEVEL ALARM - DETAIL
SCALE: NOT TO SCALE

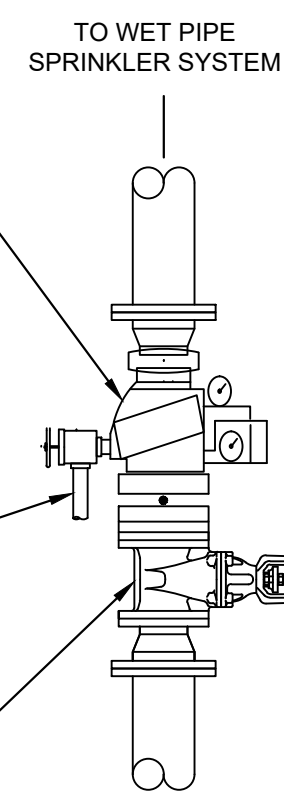


NOTES:

1. DIMENSIONS ARE NOMINAL FOR TANK HAVING USABLE CAPACITY OF 78000 GAL. DIMENSIONS SHOWN INCLUDE A MINIMUM OF 1.25" SEISMIC FREEBOARD AND 6" ANTI-VORTEX PLATE CLEARANCE.
2. FINAL DIMENSIONS TO BE DETERMINED BASED ON VENDORS APPROVED SHOP DRAWINGS.
3. DESIGN SHALL BE BASED ON 112 MPH WIND SPEED AND SEISMIC DESIGN CATEGORY D. SEE TECHNICAL SPECIFICATION 221219 FOR ADDITIONAL PERFORMANCE DESIGN PARAMETERS.
4. NOMINAL DIMENSIONS SHOWN ARE A VENDOR'S STOCK DIMENSIONS. OTHER NOMINAL TANK DIMENSIONS ARE ACCEPTABLE PROVIDING MINIMUM USABLE CAPACITY REQUIREMENTS ARE ACHIEVED.
5. TANK TO BE INSULATED, HEATED AND PROVIDED WITH CATHODIC PROTECTION. SEE TECHNICAL SPECIFICATION SECTIONS 221219 AND 134713.
6. FOR UNDERGROUND PIPING, APPURTENANCE AND TRENCHING DETAILS, REFER TO CIVIL DRAWING C-504 AND TECHNICAL SPECIFICATION SECTION 221113.
7. FOR TANK HEATING, AND MONITORING DETAILS REFER TO ELECTRICAL AND FIRE ALARM RISER DIAGRAM DRAWINGS AND TECHNICAL SPECIFICATIONS.

A4 TANK DETAIL
SCALE: NOT TO SCALE

PROVIDE 6" RISER CHECK VALVE WITH ASSOCIATED TRIM AND FLOW SWITCH. SEE SPECIFICATION SECTION 211313 FOR TRIM REQUIREMENTS.

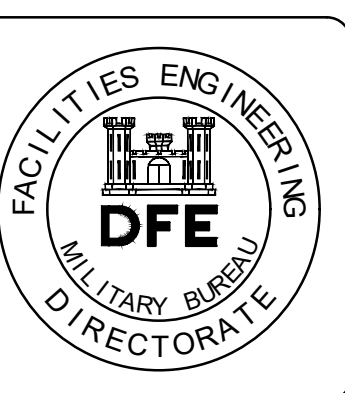


PROVIDE BUTTERFLY OR OS&Y VALVE WITH TAMPER SWITCH ON RISER

NOTES:

FOR UNDERGROUND WATER SERVICE, PIPING, APPURTENANCE AND TRENCHING DETAILS, REFER TO CIVIL DRAWING C-504.

A1 SPRINKLER RISER MANIFOLD SECTION
SCALE: NOT TO SCALE



PLAN REVISIONS	Date	Appr.
1	06-10-22	JRW
0	04-22-22	JRW

DESIGNED BY:	RDJ
DRAWN BY:	STR
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DATE:	06-10-2022
SCALE:	AS NOTED
DFE PROJECT NO:	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
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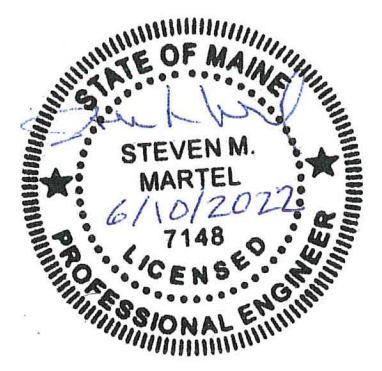
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Environmental & Infrastructure Solutions, Inc.
81 Congress St., 30th Floor, Portland, ME 04101
P: (207) 725-2221, F: (207) 725-2222, www.woodgroup.com

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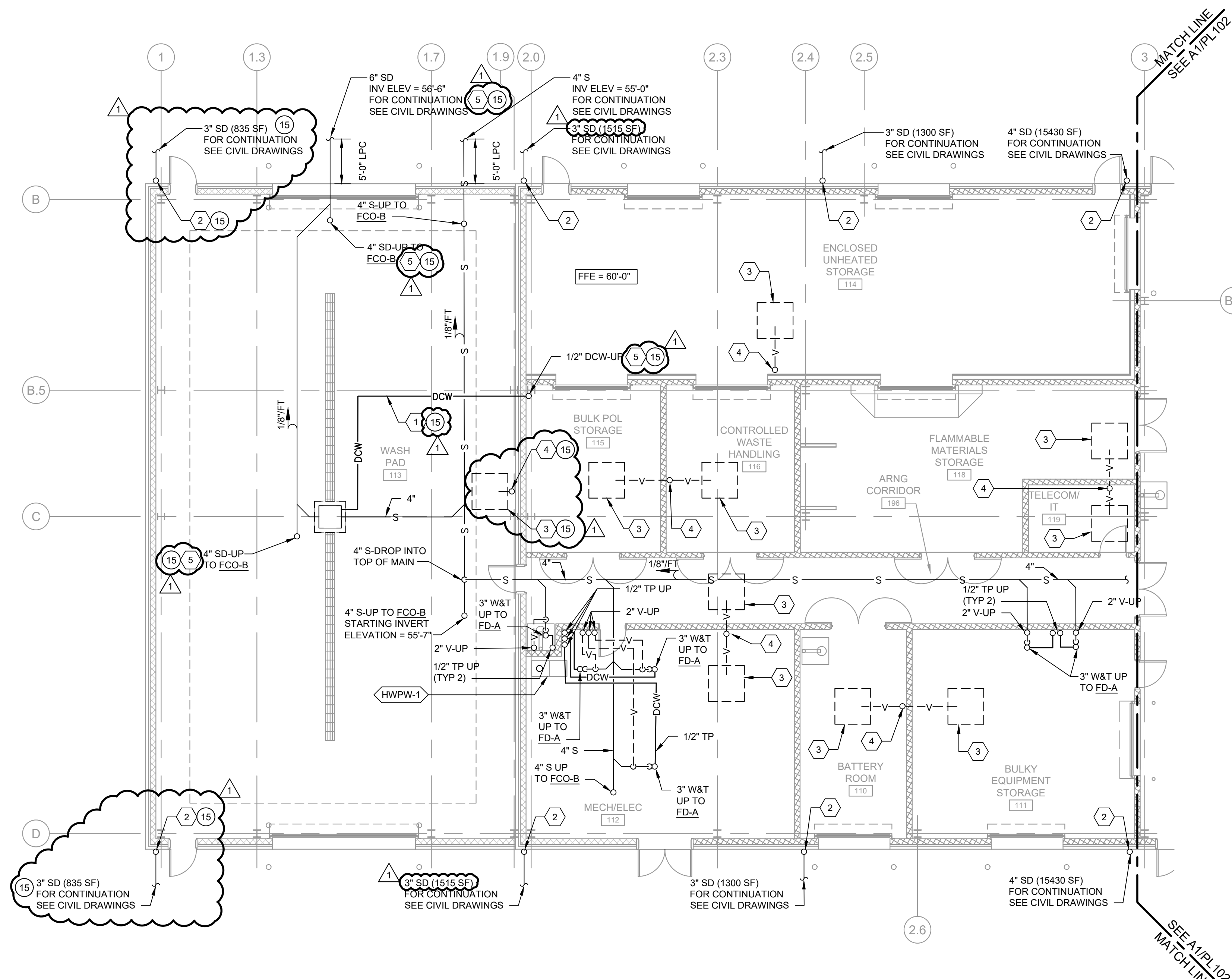
FIRE PROTECTION DETAILS

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SHEET ID:
FP501
SHEET: 143 of 244



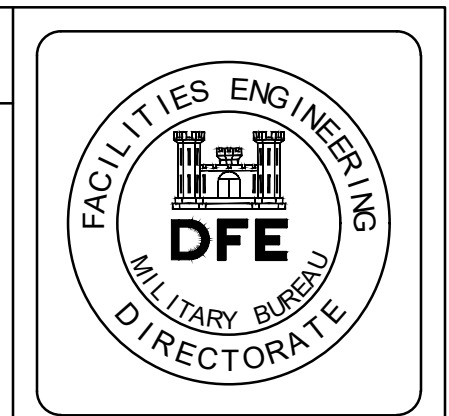
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A1 AREA A FIRST LEVEL UNDERSLAB PLUMBING PLAN
 1/8" = 1' - 0"
 PLAN NORTH
 0 4' 8' 16'

NOTE

- SEE SHEET P-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES



PLAN REVISIONS		Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW
	Rev#	Description	

KEYED NOTES

- 1/2" DCW BELOW SLAB. ROUTE FULL SIZE TO CB-A DRIVE LINE PORT AS PART OF BASE BID. PROVIDE INSULATION AND SELF REGULATING HEAT TRACE PER SPECIFICATIONS. RUN HEAT TRACE ALONG ENTIRE PIPE LENGTH BELOW SLAB AND ON VALVES IN CB-A AS PART OF BASE BID. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR. DO NOT PROVIDE DCW AND HEAT TRACE AS PART OF ABI 15.
- SD PIPING UP TO DOWNSPOUT FROM GUTTERS. REFER TO ARCHITECTURAL DRAWINGS FOR CONTINUATION.
- RADON PIT WITH 6" UNDERSLAB PIPING TO VENT. SEE STRUCTURAL DRAWINGS FOR RADON PIT DETAIL.
- 6" RADON UP THROUGH ROOF.
- BASE BID INCLUDES DIVERTING VALVE, UNDERSLAB DCW LINE, AND STORM DRAIN PIPING. ABI 15 SCOPE DOES NOT INCLUDE FCO-B, DIVERTING VALVE, UNDERSLAB PIPING AND CONNECTION TO SITE.

ALTERNATE BID ITEMS

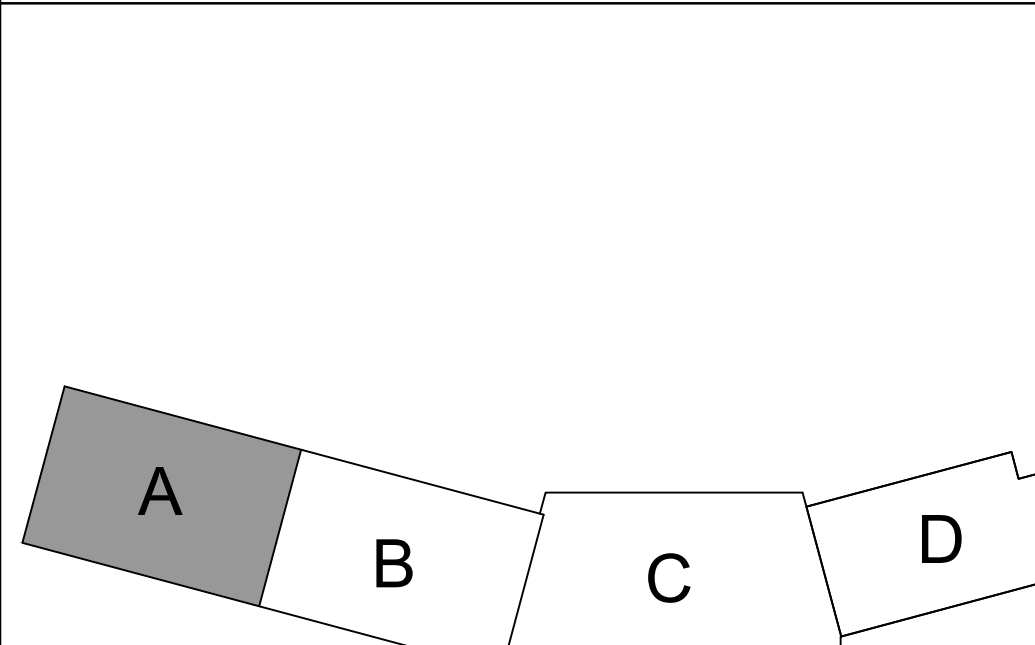
- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE

DESIGNED BY:	JSG
DRAWN BY: <td>MEB</td>	MEB
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO.: <td>230125</td>	230125

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 811 Congress St., Suite 2020, Portland, ME 04101
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KEY PLAN

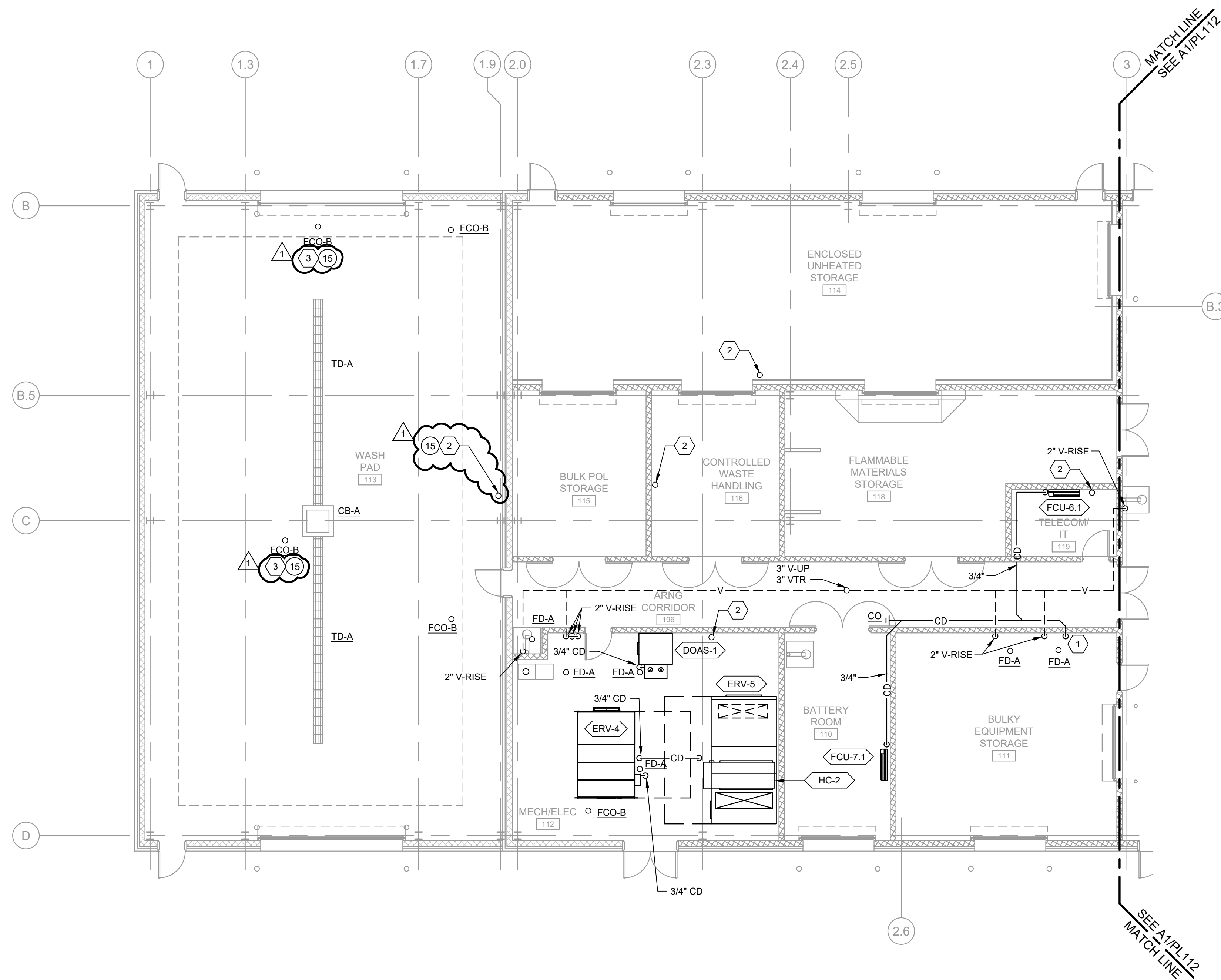


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<input type="checkbox"/>	RECORD DRAWINGS

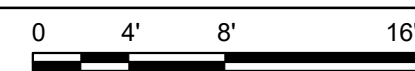
SHEET ID:
PL101
 SHEET: 146 of 244



NOT FOR CONSTRUCTION

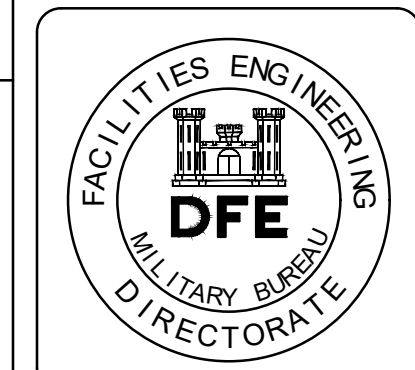


A1 AREA A FIRST LEVEL DWV PIPING PLAN
 1/8" = 1' - 0"
 PLAN NORTH



NOTE

1. SEE SHEET P-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ISSUED FOR BID	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

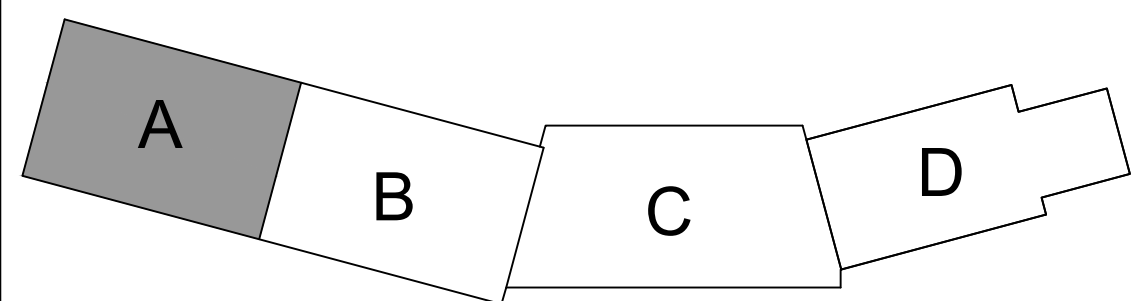
KEYED NOTES

- 3/4" CONDENSATE DRAIN DROP. ROUTE 3/4" CONDENSATE TO FD-A AND SPILL.
- 6" RADON VENT THRU ROOF. PROVIDE SCHEDULE 80 PVC PIPE FOR FIRST 8' OF RUN AFF BEFORE SWITCHING TO SCHEDULE 40 PVC.
- BASE BID INCLUDES FCO. ABI 15 SCOPE DOES NOT INCLUDE FCO.

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
 15. WASH PAD ENCLOSURE

KEY PLAN



DESIGNED BY:	JSG
DRAWN BY: <td>MEB</td>	MEB
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO.: <td>230125</td>	230125

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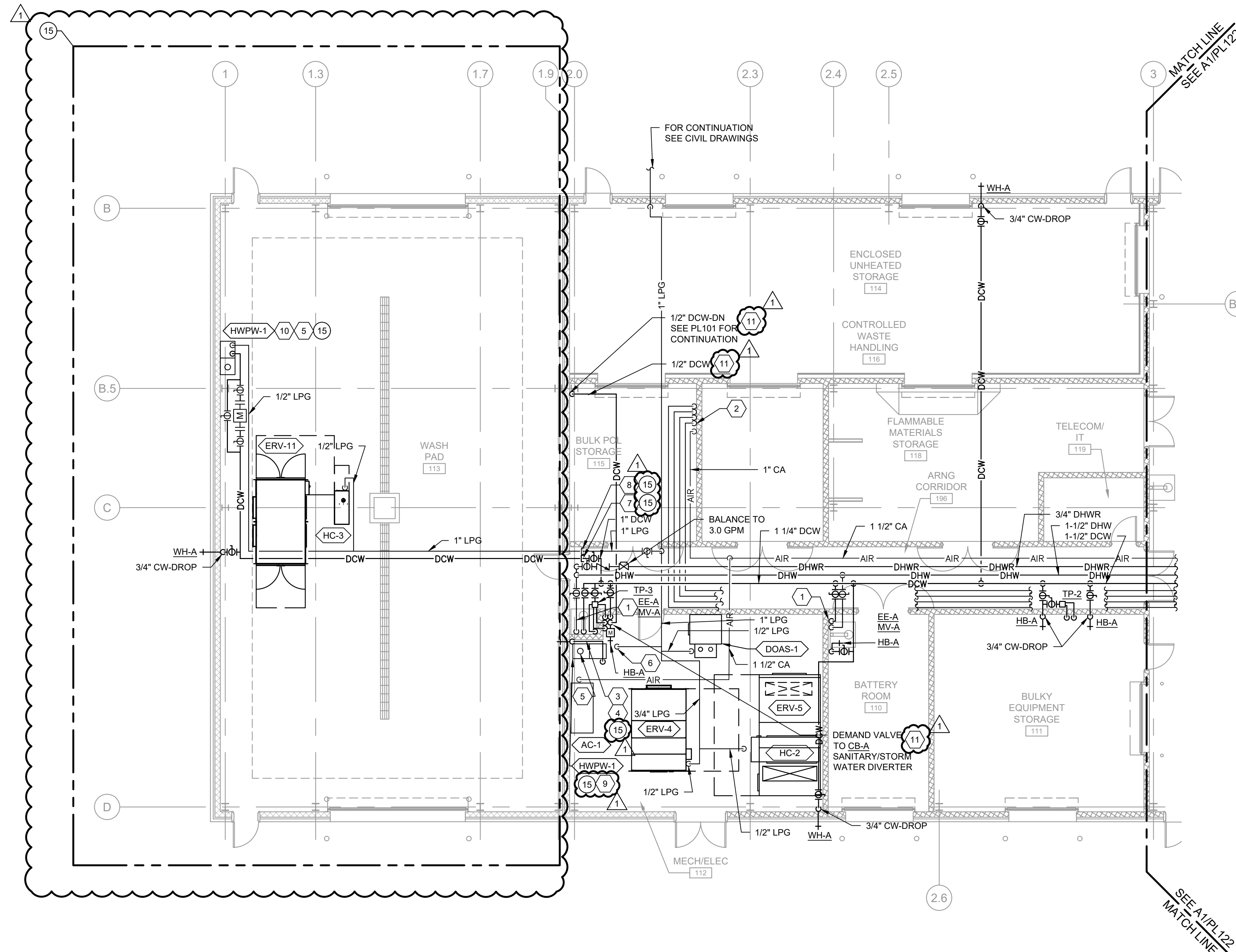
NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE
 AREA A FIRST LEVEL
 DWV PIPING PLAN

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SHEET ID:
PL111
 SHEET: 150 of 244



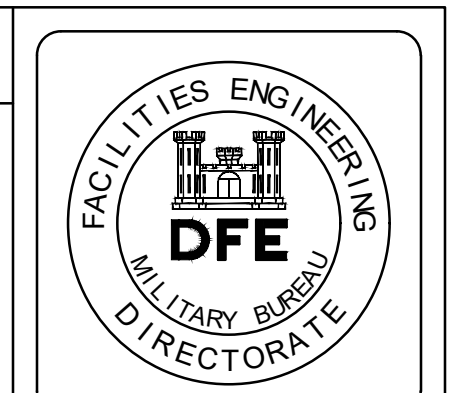
NOT FOR CONSTRUCTION



A1 AREA A FIRST LEVEL SUPPLY PIPING PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH

NOTE

- SEE SHEET P-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES
- POL DISTRIBUTION SYSTEM US DELEGATED DESIGN. REFER TO SPECIFICATION SECTIONS 01100 AND 221114.
- BASE BID INCLUDES DIVERTING VALVE AND STORM DRAIN PIPING. ABI 15 SCOPE DOES NOT INCLUDE FCO-B, DIVERTING VALVE, UNDERSLAB PIPING AND CONNECTION TO SITE.



PLAN REVISIONS

Rev#	Description	Date	Appr.
1	ISSUED FOR BID	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

KEYED NOTES

- 1" DCW AND 1" DHW DROP TO MV-A. ROUTE 1 1/4" TW FROM MV-A TO EE-A. PROVIDE ACCESSIBLE SHUT-OFF VALVES FOR MV-A AND EE-A.
- POL DISTRIBUTION PUMPS (AIR DRIVEN) AND DUAL FILTERS MOUNTED ON WALL. REFER TO DETAIL B4 ON PL 501.
- PROVIDE HIGH PRESSURE RATED 1/2" GALVANIZED PIPING FROM HWPW-1 THROUGH WALL TO COUPLER CONNECTION ON EXTERIOR AS PART OF BASE BID. PROVIDE BALL VALVE SHUT OFF RATED FOR HIGH PRESSURE AS PART OF BASE BID. ABI 15 SCOPE DOES NOT INCLUDE PIPING, WALL PENETRATION, OR SHUTOFF VALVE.
- PROVIDE WHEELED PRESSURE WASHER HOSE THAT CONNECTS TO COUPLER ON WALL AS PART OF BASE BID. PROVIDE UNIT MOUNTED PRESSURE WASHER HOSE AS PART OF ABI 15.
- ROUTE 8" EXHAUST PIPING THROUGH ROOF. COORDINATE EXHAUST LOCATION WITH OUTSIDE AIR INTAKES TO ENSURE VENT DISCHARGE IS A MINIMUM OF 10'-0" FROM INTAKES.
- 1/2" LPG PIPING DN.
- CAP DCW LINE FOR FUTURE EXPANSION AS PART OF BASE BID. DO NOT PROVIDE CAP AS PART OF ABI 15.
- CAP LPG LINE FOR FUTURE EXPANSION AS PART OF BASE BID. DO NOT PROVIDE CAP AS PART OF ABI 15.
- BASE BID INCLUDES HWPW IN THIS LOCATION. ABI INCLUDES HWPW IN ALTERNATE LOCATION. DCW AND LPG CONNECTIONS IN THIS LOCATION ARE BASE BID.
- ALTERNATE LOCATION FOR HWPW FOR ABI 15.
- BASE BID ITEM, DO NOT INCLUDE IN ABI 15.

DESIGNED BY: JSG
 DRAWN BY: MEB
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: AS NOTED
 DFE PROJECT NO: 230125

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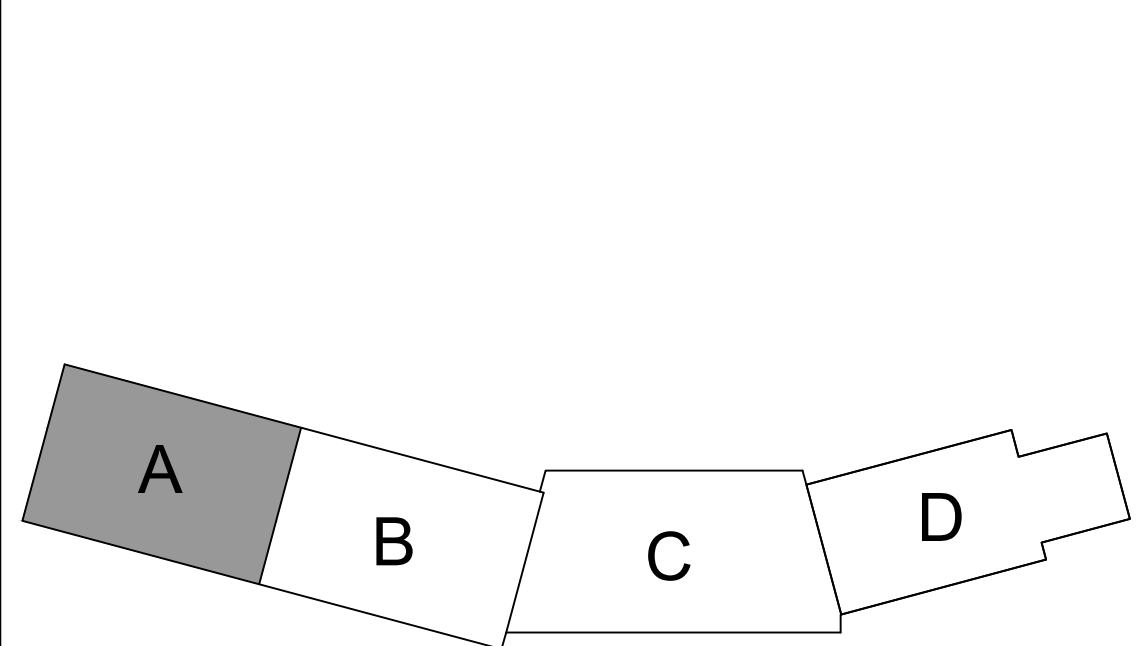
ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- WASH PAD ENCLOSURE

NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE
 AREA A FIRST LEVEL
 SUPPLY PIPING PLAN

KEY PLAN



PLAN PROGRESS

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<input type="checkbox"/>	60% REVIEW
<input type="checkbox"/>	95% REVIEW
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SHEET ID:
PL121
 SHEET: 154 of 244



NOT FOR CONSTRUCTION

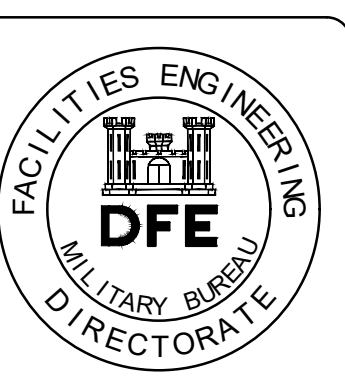
NOTE

1. SEE SHEET P-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE



Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

DESIGNED BY:	JSG
DRAWN BY: <td>STR</td>	STR
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO.: <td>230125</td>	230125

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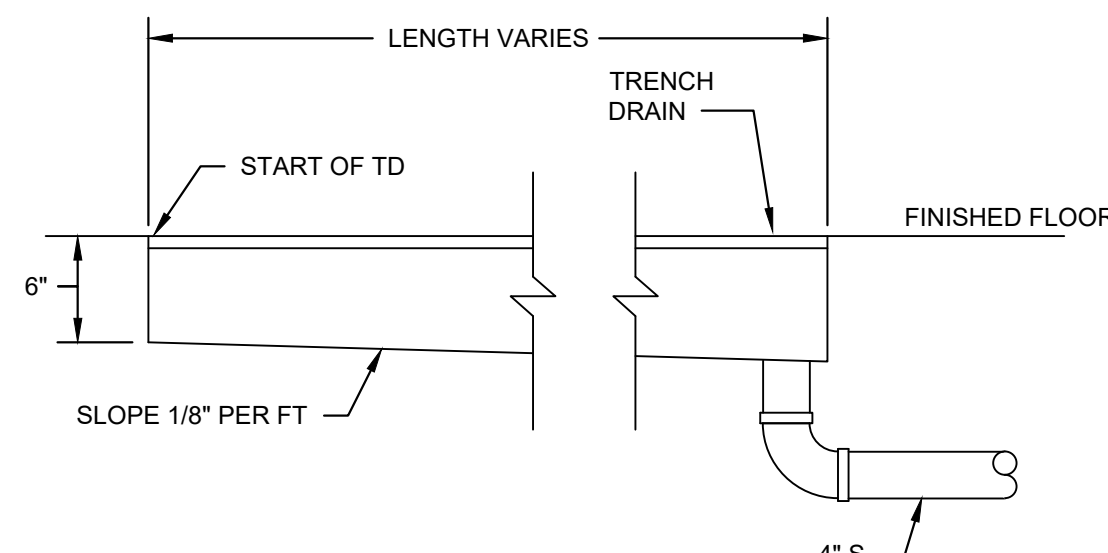
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

PLUMBING DETAILS

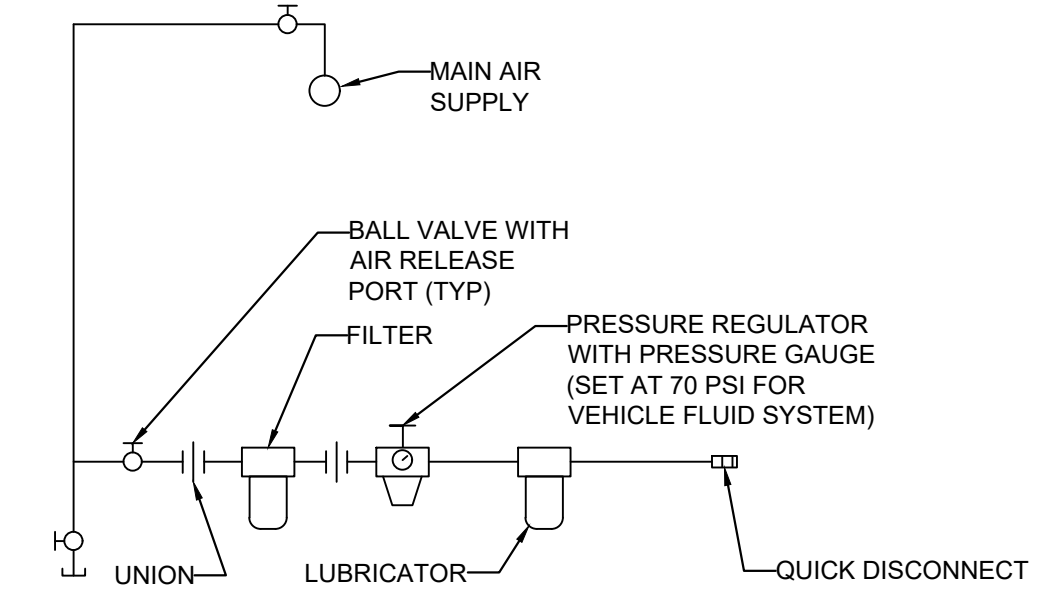
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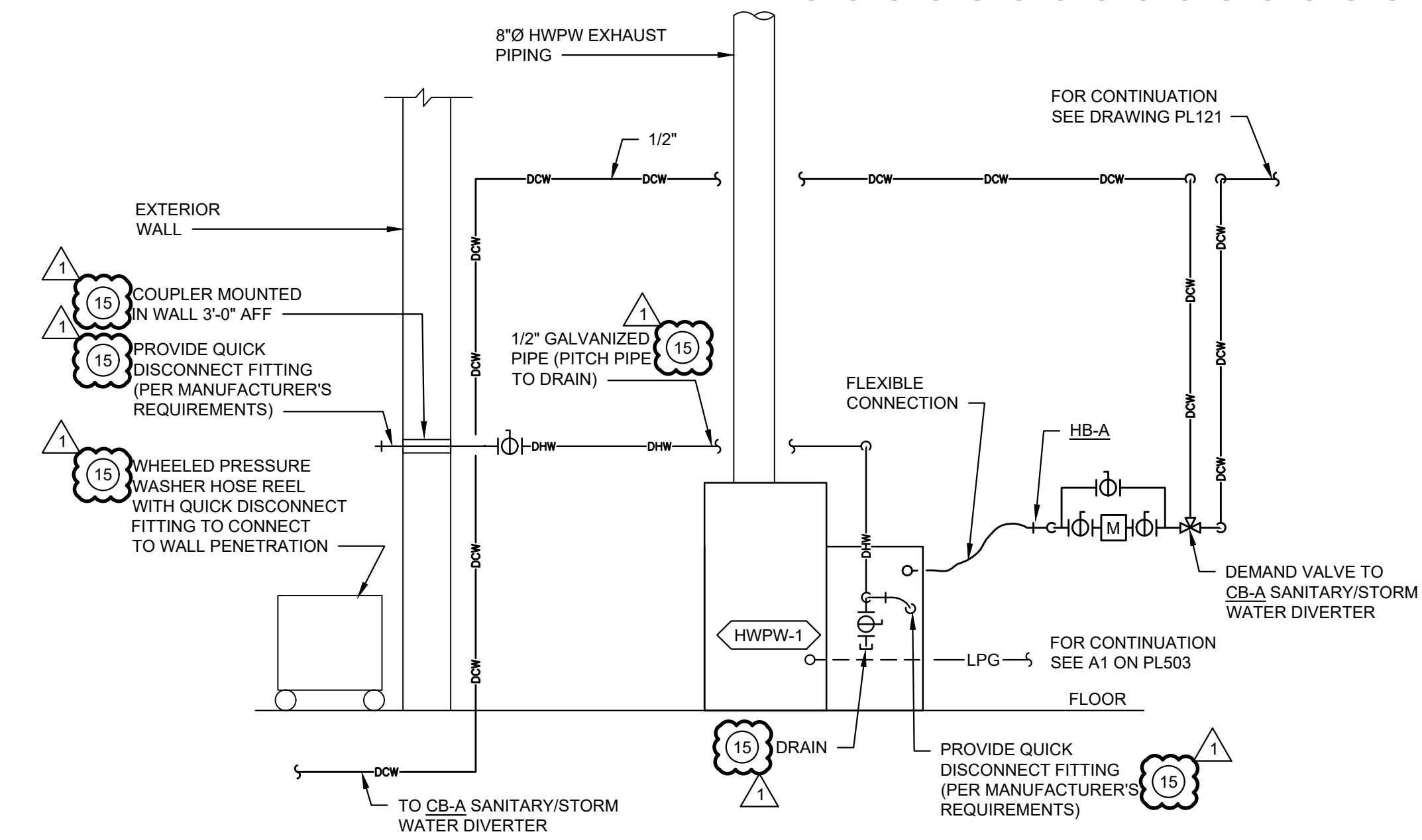
SHEET ID:
PL502
SHEET: 160 of 244



D2 DETAIL - TRENCH DRAIN
NOT TO SCALE REF: PL101, PL102 & PL104



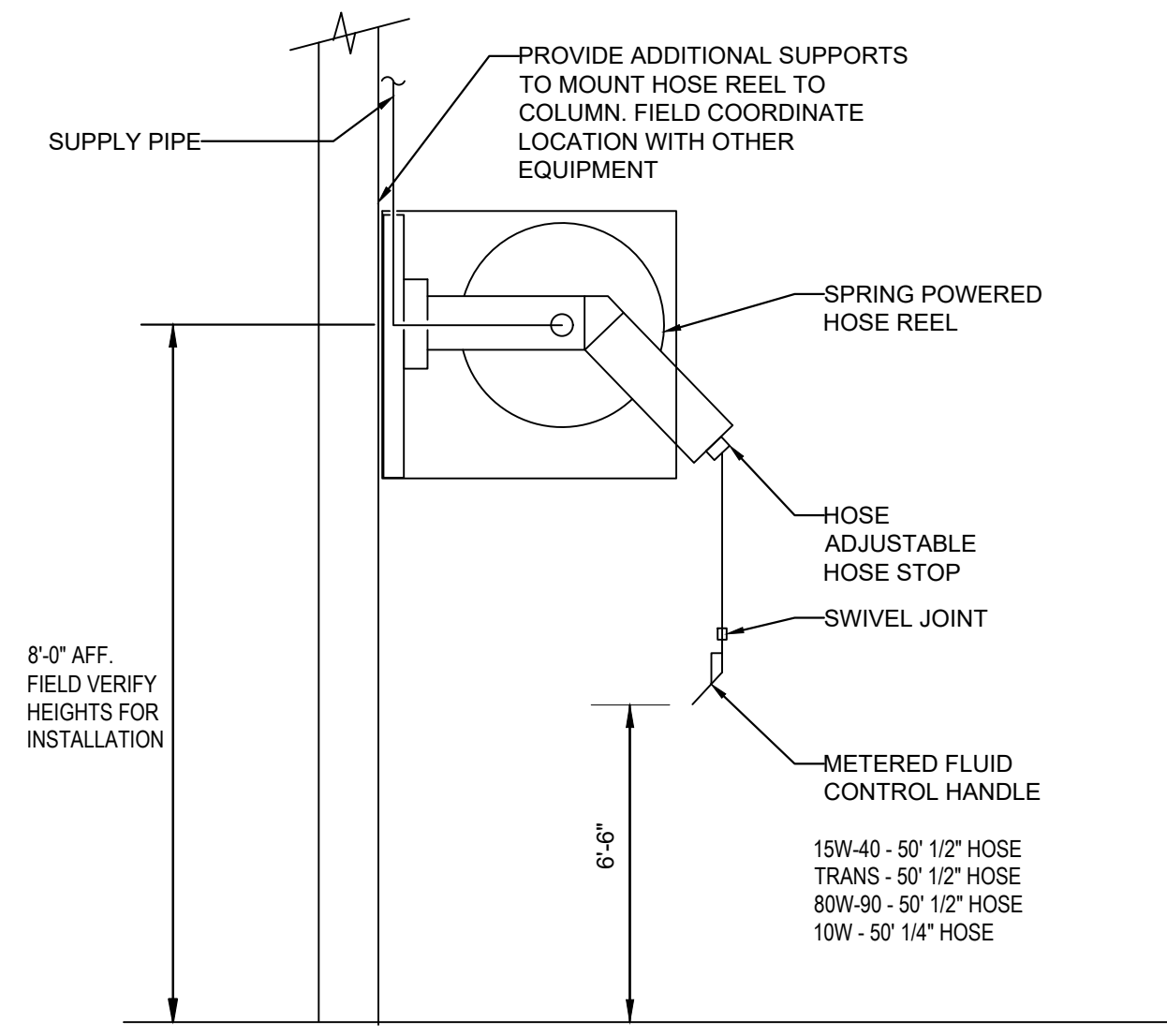
C3 DETAIL - LUBE STATION AIR PIPING
NOT TO SCALE



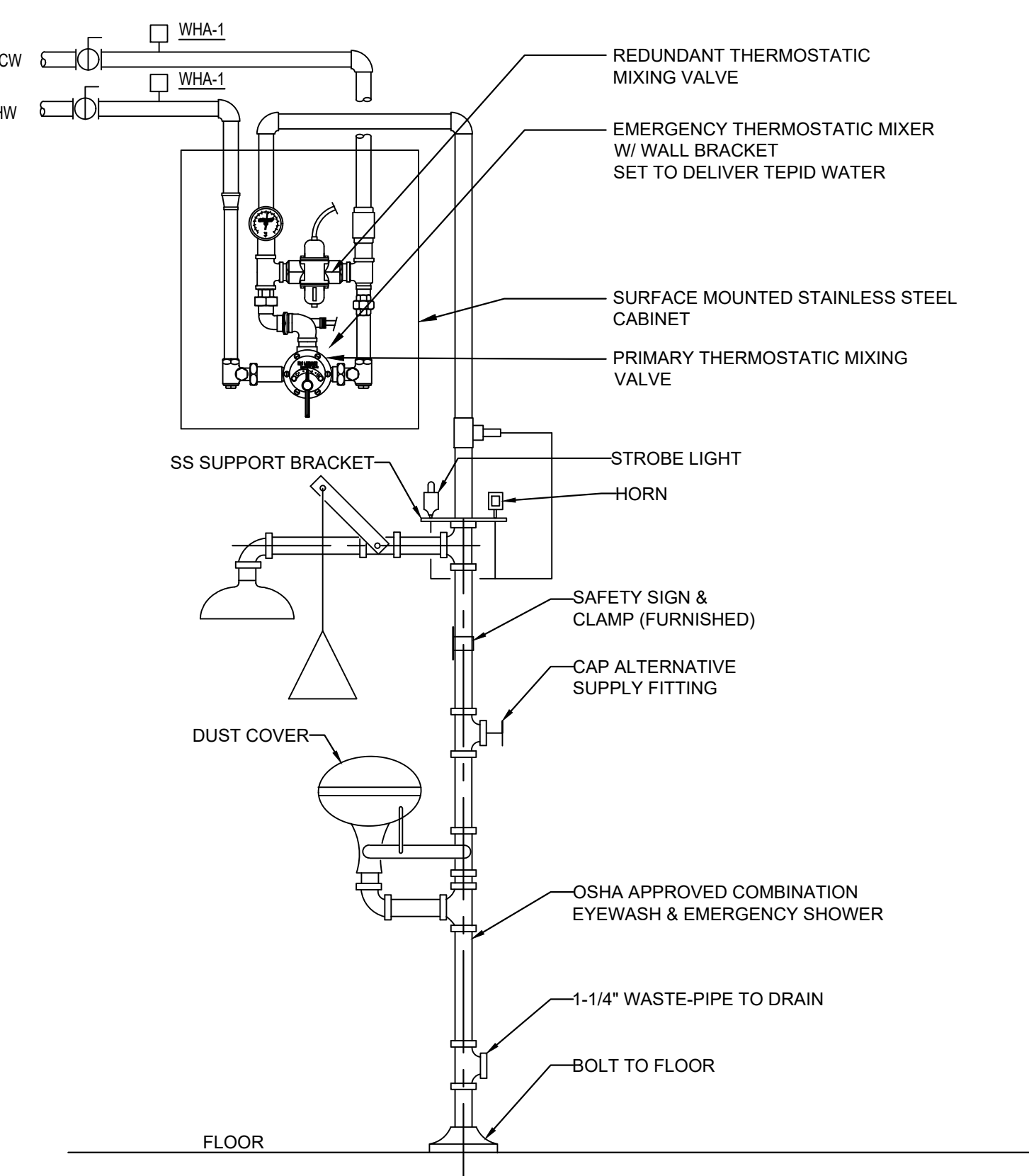
NOTE:

- ALL PIPING, VALVES, AND APPURTENANCES FROM HWPW TO WHEELED PRESSURE WASHER CONNECTION SHALL BE RATED FOR 30,000 PSI. VERIFY PRESSURE RATING WITH HWPW OUTLET PRESSURE BEFORE INSTALLATION OF PIPING.
- BASE BID INCLUDES WALL PENETRATION, WHEELED PRESSURE WASHER HOSE REEL, WALL MOUNTED QUICK DISCONNECT, AND HIGH PRESSURE RATED PIPING CONNECTION. ABI 15 INCLUDES A HWPW MOUNTED PRESSURE HOSE AND DOES NOT INCLUDE THE PREVIOUS ITEMS.

C4 DETAIL - HOT WATER PRESSURE WASHER (HWPW)
NOT TO SCALE REF: PL121



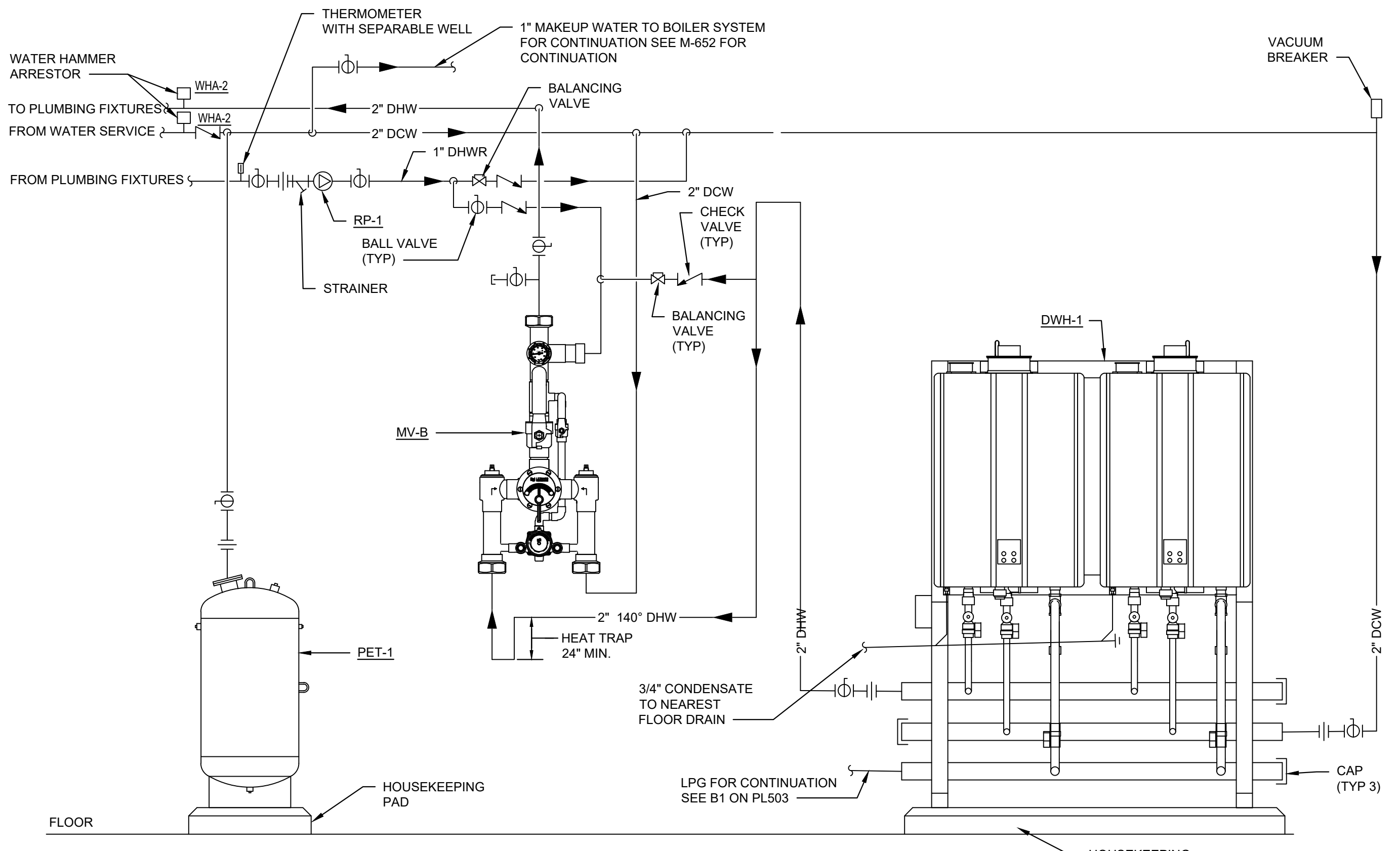
C1 DETAIL - HOSE REEL
NOT TO SCALE REF: PL122 & PL124



NOTE:

- PROVIDE WITH INTERNAL COLD WATER BYPASS LINE MEETING MANUFACTURER'S RECOMMENDED FLOW RATE

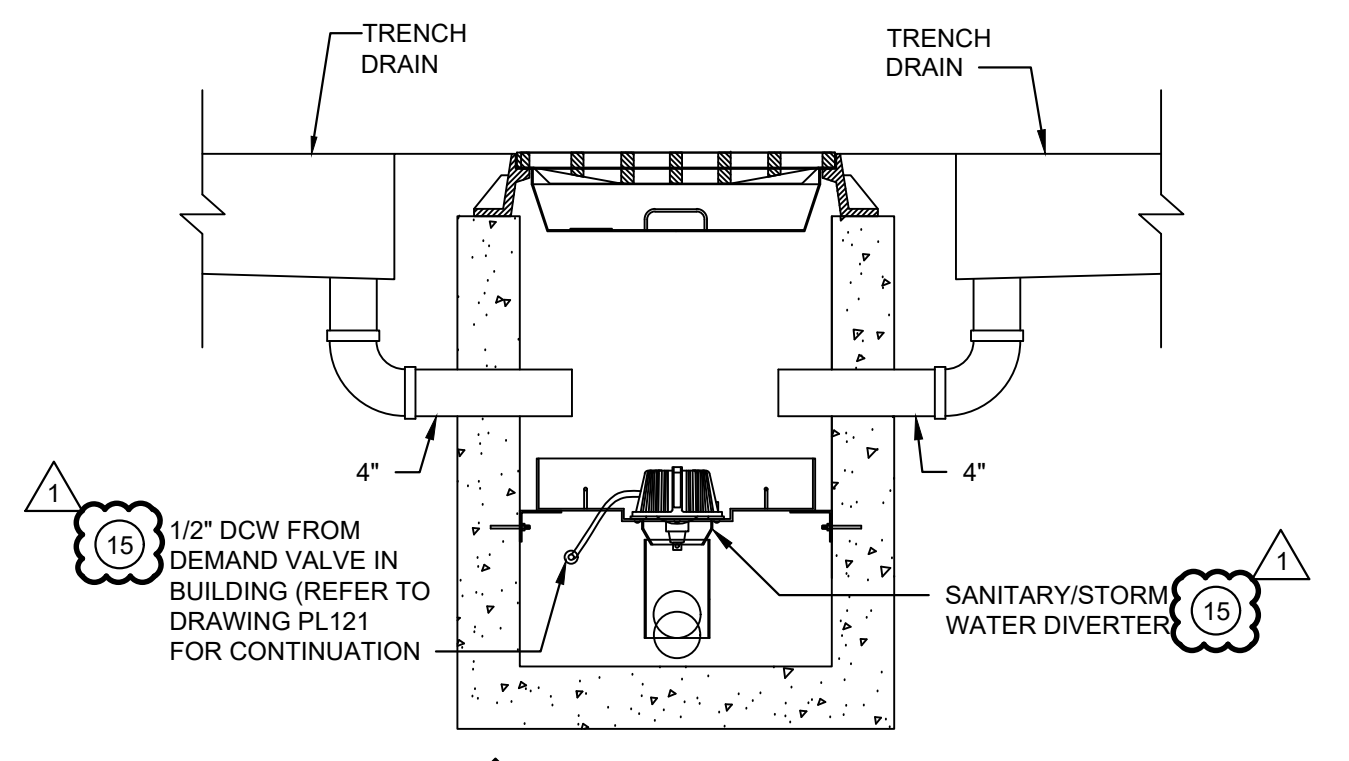
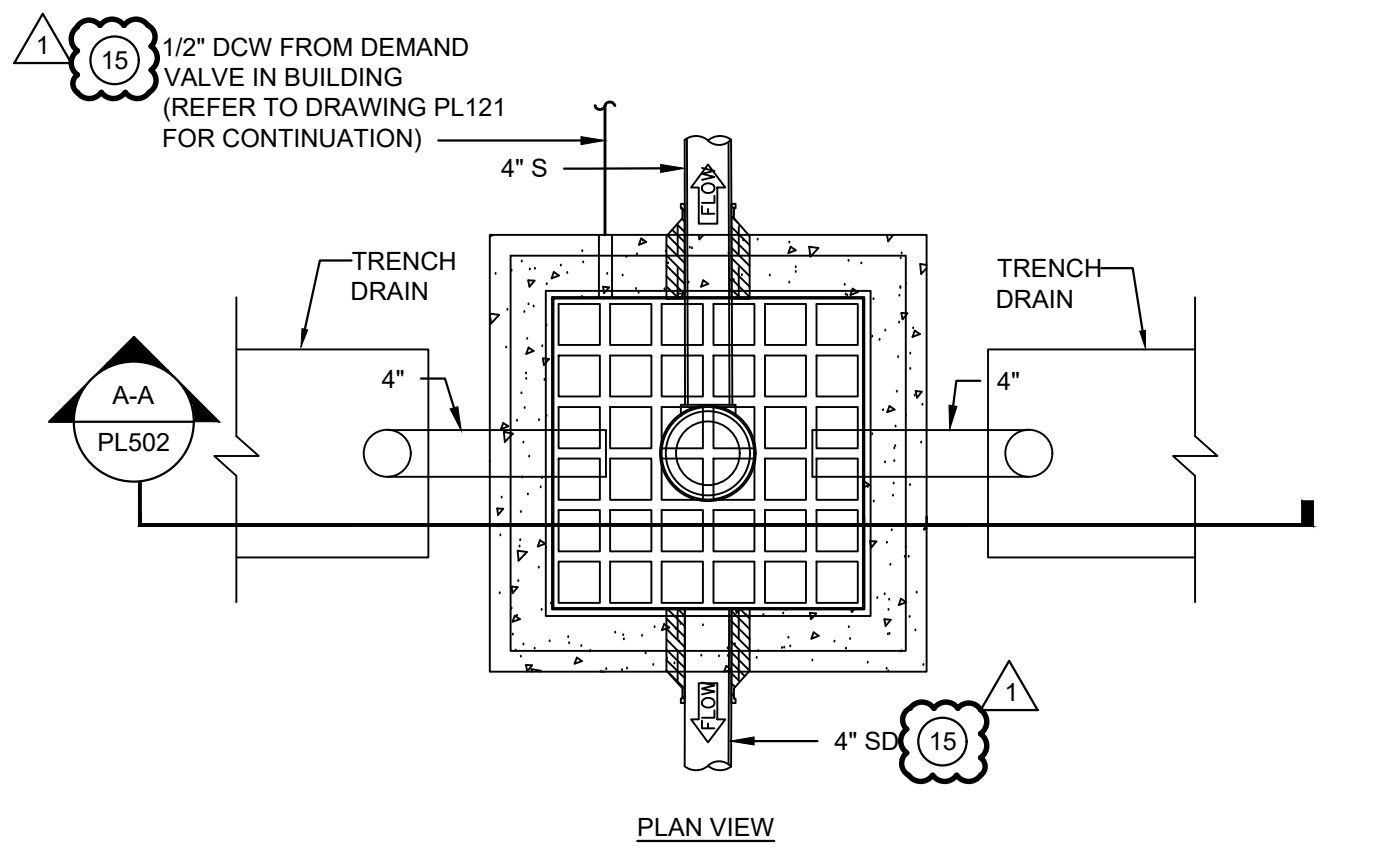
A1 DETAIL - EMERGENCY EYEWASH/SHOWER
NOT TO SCALE REF: PL121, PL122 & PL124



NOTE:

- PROVIDE WITH INTERNAL COLD WATER BYPASS LINE MEETING MANUFACTURER'S RECOMMENDED FLOW RATE

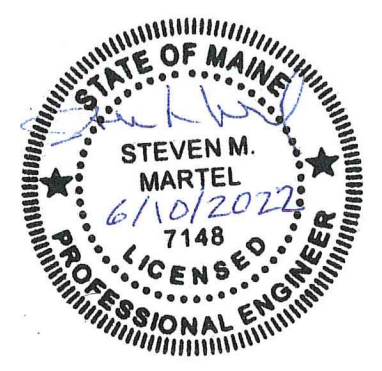
A2 DETAIL - DOMESTIC HOT WATER HEATER & MIXING VALVE
NOT TO SCALE REF: PL123



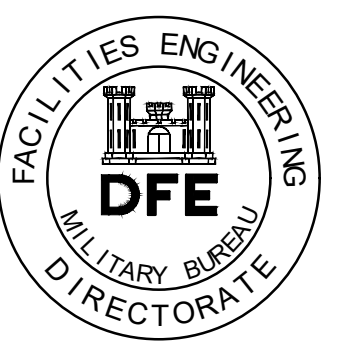
NOTE:

- BASE BID INCLUDES DIVERTING VALVE AND ASSOCIATED DIVERTING VALVE, DCW PIPING, AND STORM DRAIN PIPING. ABI 15 DOES NOT INCLUDE THESE ITEMS.

A5 DETAIL - CATCH BASIN
NOT TO SCALE REF: PL101



NOT FOR CONSTRUCTION



NOTE

- SEE SHEET P-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES
- ALTERNATE BID ITEMS**
- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- PURCHASE PROPANE TANKS
- COMBINED HEAT AND POWER UNITS
- WASH PAD ENCLOSURE

PLAN REVISIONS

Rev#	Date	Description
1	06-10-22	JRW
0	04-22-22	JRW

DESIGNED BY: JSG
 DRAWN BY: MEB
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: AS NOTED
 DFE PROJECT NO: 230125

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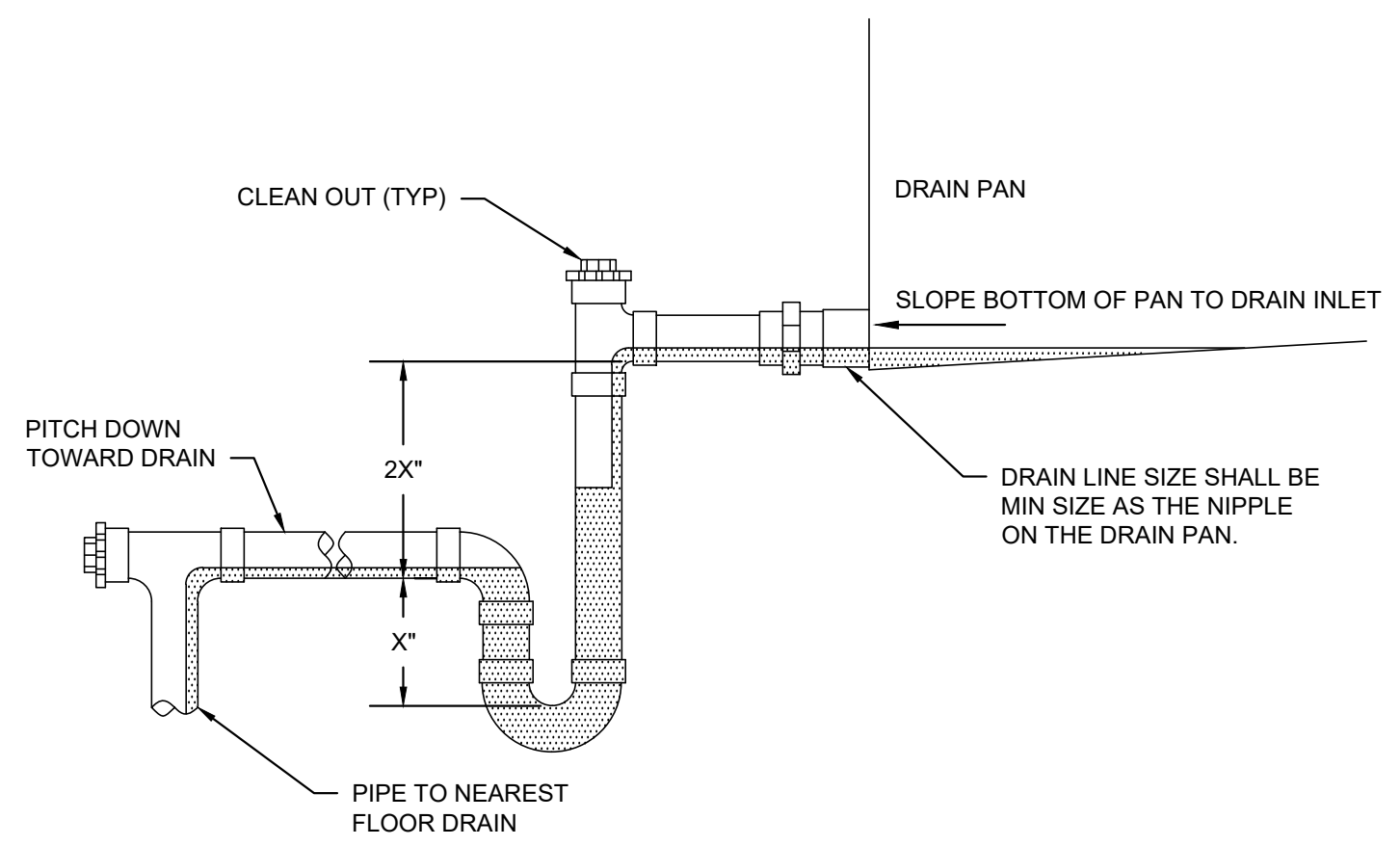
NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE
 PLUMBING DETAILS

PLAN PROGRESS

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<input type="checkbox"/>	60% REVIEW
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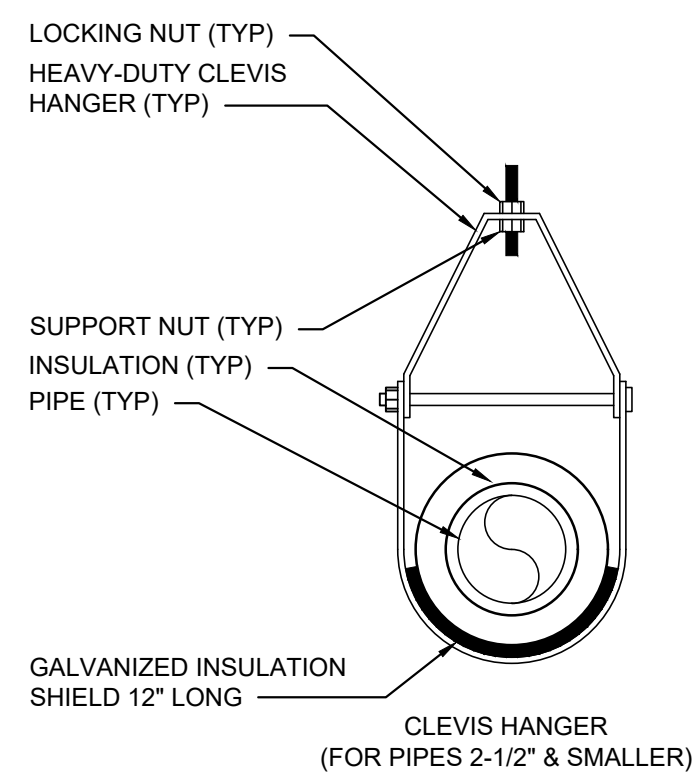
SHEET ID:
PL503
 SHEET: 161 of 244

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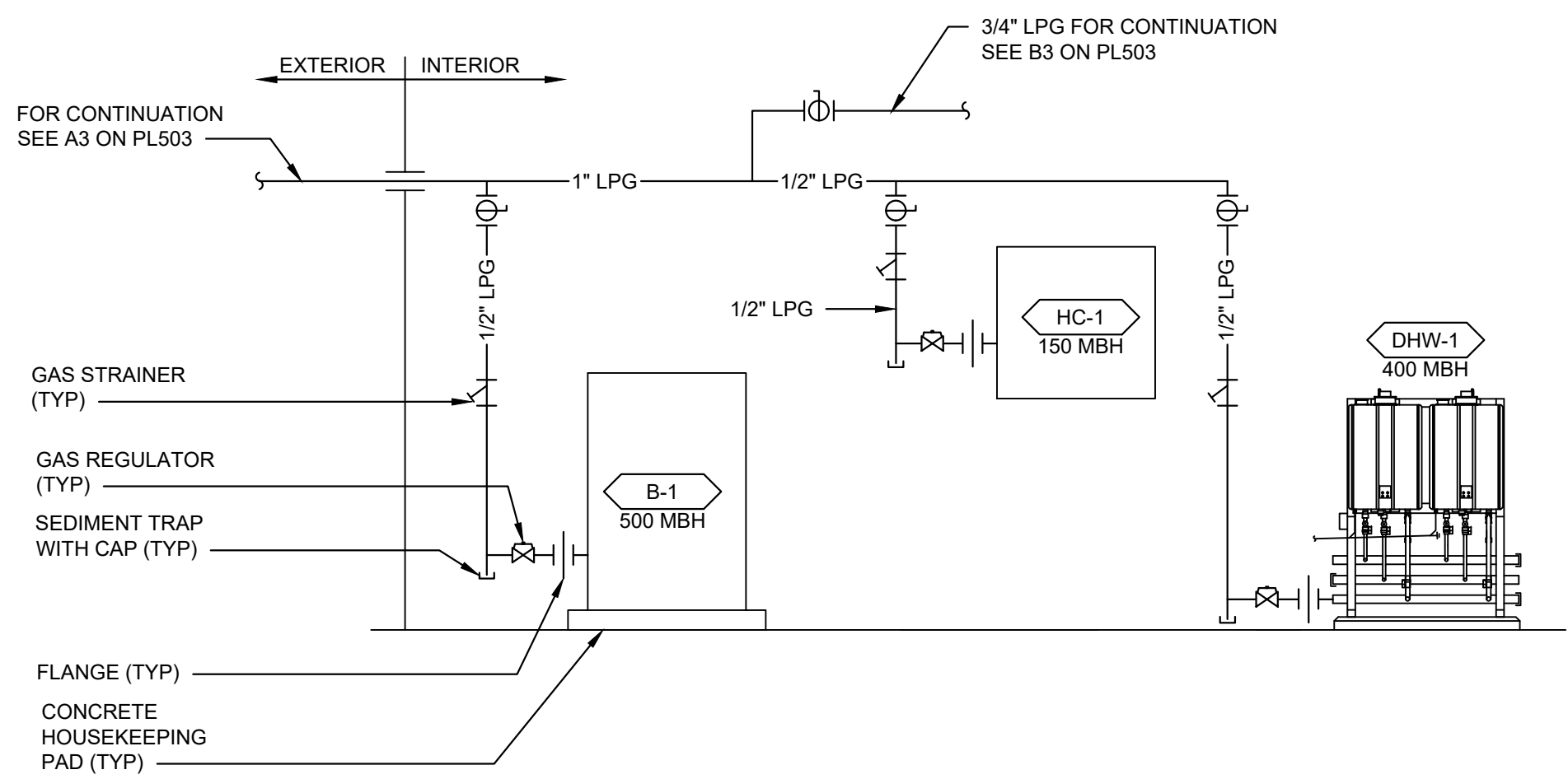
- NOTE:**
- THIS DETAIL FOR NEGATIVE PRESSURE TRAPPING ONLY
 - DRAIN SLOPE SHALL BE MINIMUM OF 1/8" PER FOOT

D1 **DETAIL - CONDENSATE DRAIN TRAP**
 NOT TO SCALE



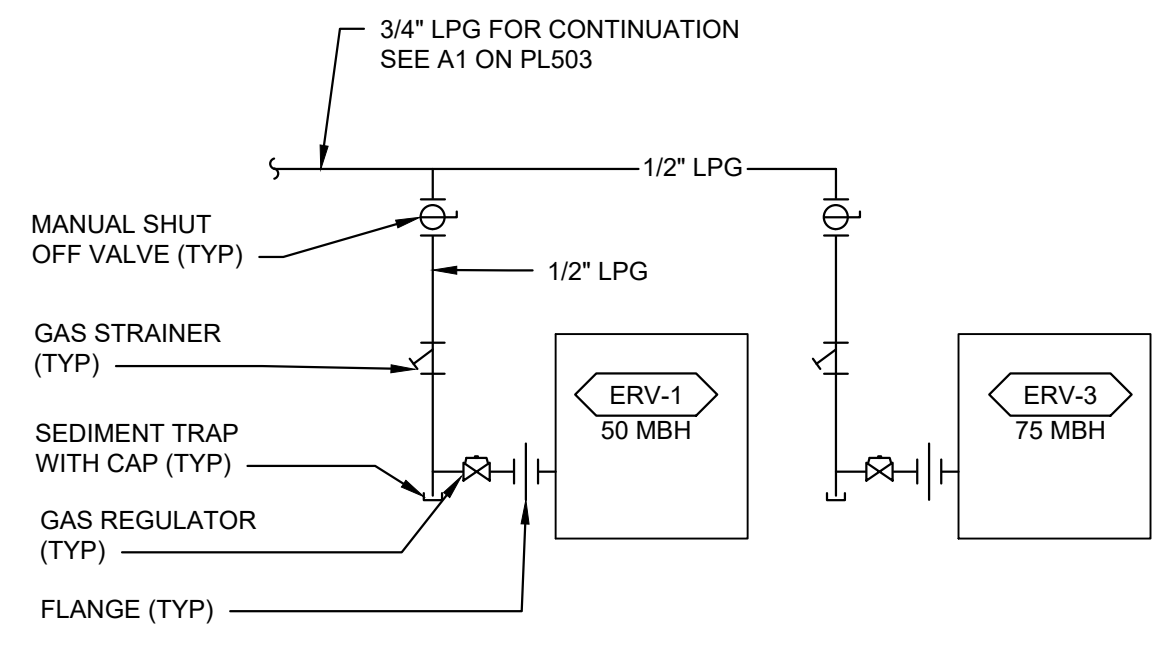
- NOTE:**
- SEE SPECIFICATIONS FOR APPROPRIATE ATTACHMENT TO STRUCTURE

D3 **DETAIL - PIPE CLEVIS HANGER**
 NOT TO SCALE



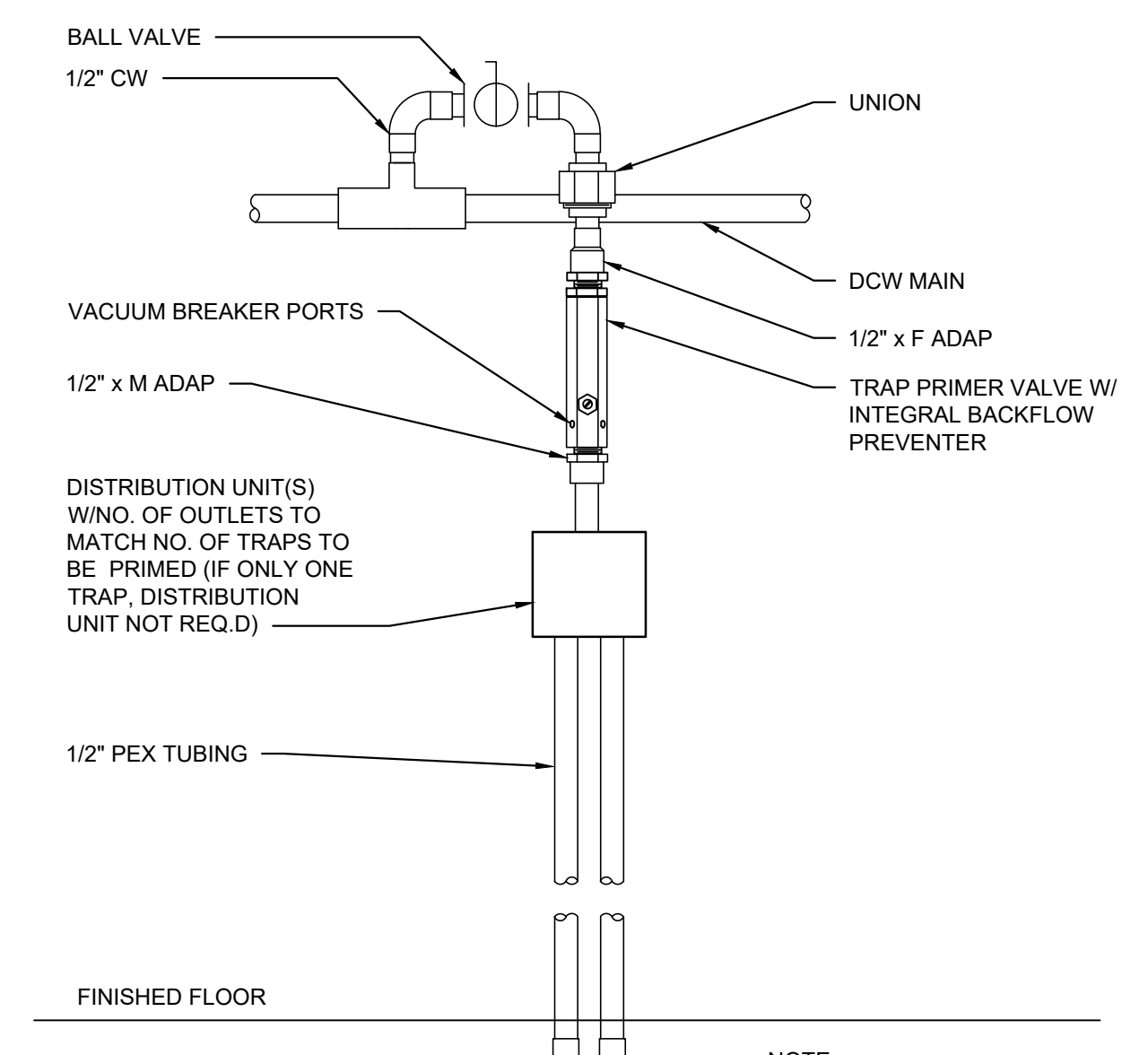
- NOTE:**
- SET GAS REGULATOR TO PROVIDE MANUFACTURER RECOMMENDED PRESSURE TO UNITS.
 - PROVIDE VENT PIPING OF PRESSURE REGULATOR ROUTED TO OUTSIDE AIR AS REQUIRED.
 - EQUIPMENT SERVED BY LPG SHALL BE PROVIDED WITH GAS VALVE RECOMMENDED BY MANUFACTURER. PIPING FROM REGULATOR TO EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATION.

B1 **AREA C - MECH/ELEC 131 GAS PIPING DIAGRAM**
 NOT TO SCALE REF: PL123



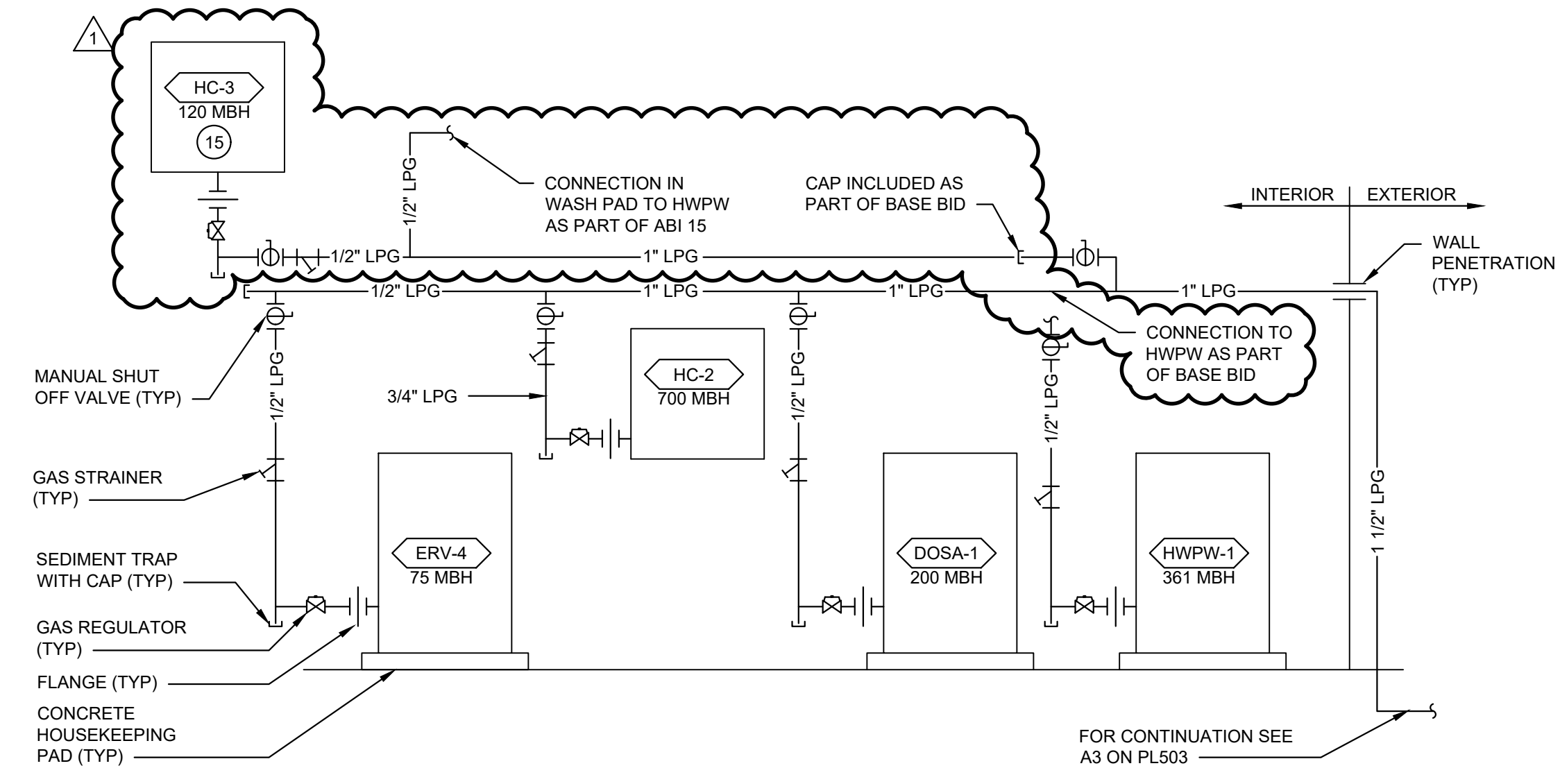
- NOTE:**
- SET GAS REGULATOR TO PROVIDE MANUFACTURER RECOMMENDED PRESSURE TO UNITS.
 - PROVIDE VENT PIPING OF PRESSURE REGULATOR ROUTED TO OUTSIDE AIR AS REQUIRED.
 - EQUIPMENT SERVED BY LPG SHALL BE PROVIDED WITH GAS VALVE RECOMMENDED BY MANUFACTURER. PIPING FROM REGULATOR TO EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATION.

B3 **AREA D - GAS PIPING DIAGRAM**
 NOT TO SCALE REF: PL124



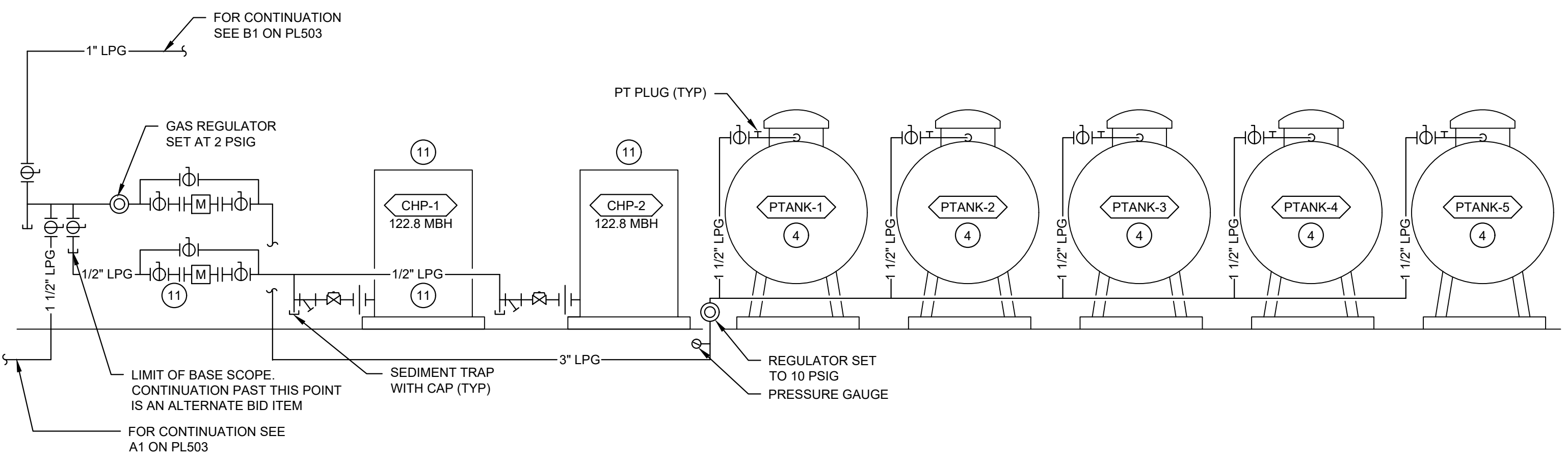
- NOTE:**
- IN FINISHED AREAS CONCEAL TRAP PRIMER IN UTILITY AREAS, IF PIPING IS EXPOSED, PROVIDE PROTECTION OF PEX TUBING AS IT RUNS TO FLOOR WITH JACKET.
 - TYPICAL OF TP-1, TP-2 AND TP-3.
 - TRAP PRIMER IS RUN UNDERSLAB.

B5 **DETAIL - TRAP PRIMER**
 NOT TO SCALE



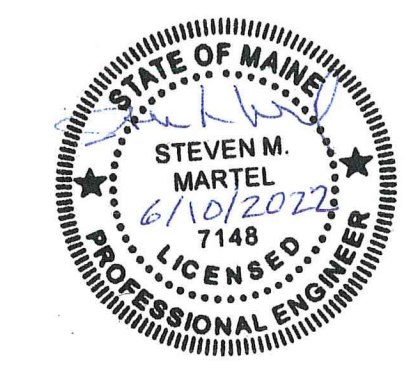
- NOTE:**
- SET GAS REGULATOR TO PROVIDE MANUFACTURER RECOMMENDED PRESSURE TO UNITS.
 - PROVIDE VENT PIPING OF PRESSURE REGULATOR ROUTED TO OUTSIDE AIR AS REQUIRED.
 - EQUIPMENT SERVED BY LPG SHALL BE PROVIDED WITH GAS VALVE RECOMMENDED BY MANUFACTURER. PIPING FROM REGULATOR TO EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATION.
 - BASE BID INCLUDES CAPPED OFF CONNECTION. ABI 15 SCOPE INCLUDES CONNECTION TO HC AND MOVING CONNECTION TO HWPW.

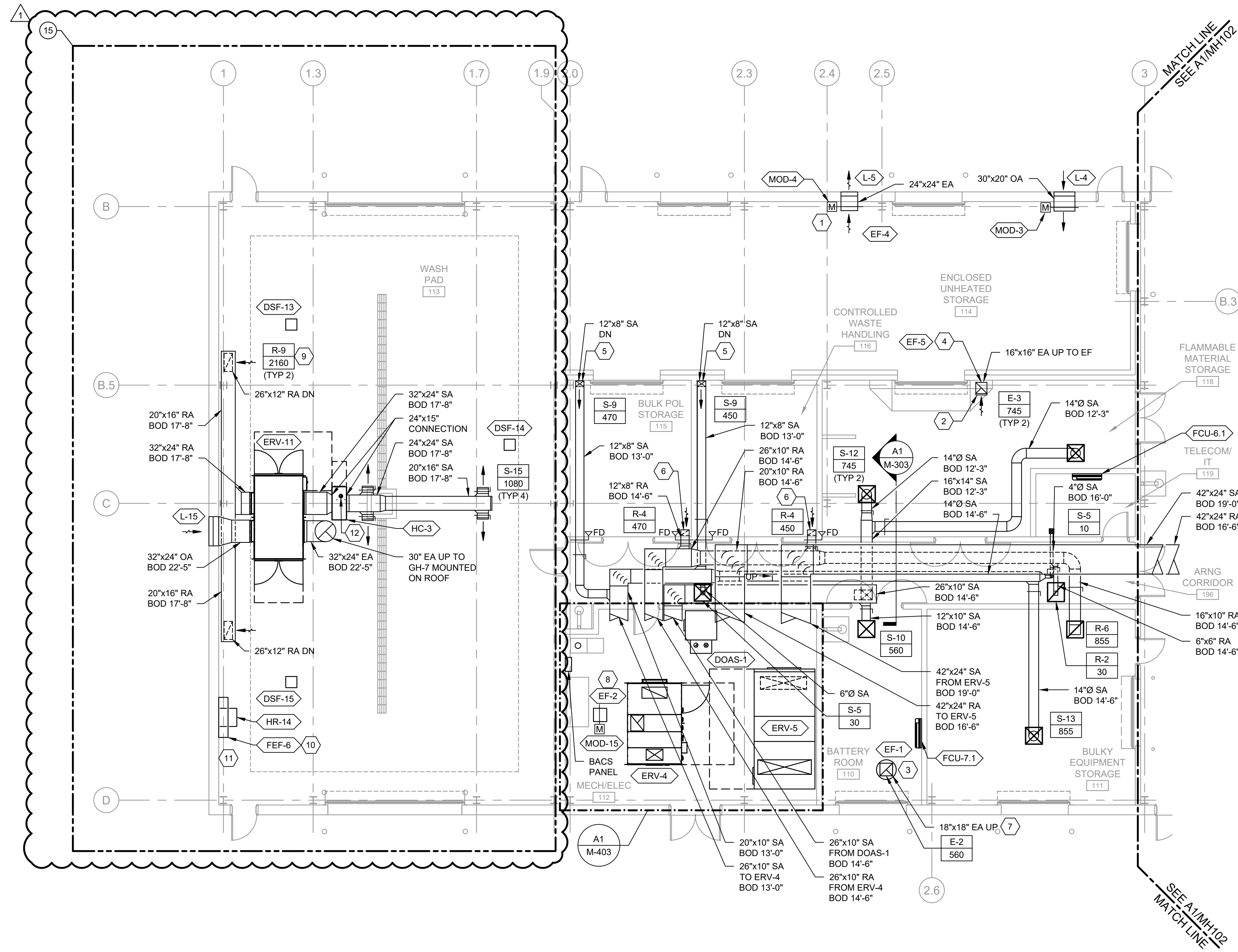
A1 **AREA A - MECH/ELEC 112 GAS PIPING DIAGRAM**
 NOT TO SCALE REF: PL121



- NOTE:**
- SET GAS REGULATOR TO PROVIDE CHP MANUFACTURER RECOMMENDED PRESSURE TO UNITS.
 - SET PROPANE TANKS TO PROVIDE 10 PSIG.
 - UNDERGROUND PIPING IS SIZED FOR POLYETHYLENE PLASTIC PIPE.
 - EQUIPMENT SERVED BY LPG SHALL BE PROVIDED WITH GAS VALVE RECOMMENDED BY MANUFACTURER. PIPING FROM REGULATOR TO EQUIPMENT SHALL BE PER MANUFACTURER'S RECOMMENDATION.

A3 **EXTERIOR GAS PIPING DIAGRAM**
 NOT TO SCALE REF: PS101

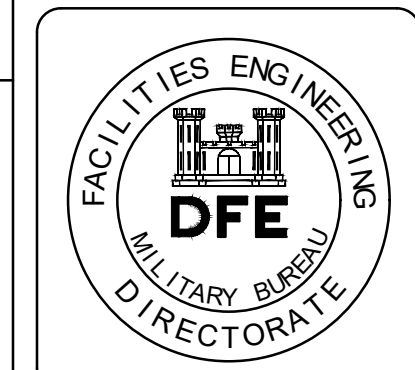




A1 AREA A FIRST LEVEL DUCTWORK PLAN
 1/8" = 1'-0"
 0 4' 8' 16'
 PLAN NORTH

NOTE

1. SEE SHEET M-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES



PLAN REVISIONS		DATE	BY	APPR.
1	ADDENDUM #1	06-10-22	JRW	
0	ISSUED FOR BID	04-22-22	JRW	

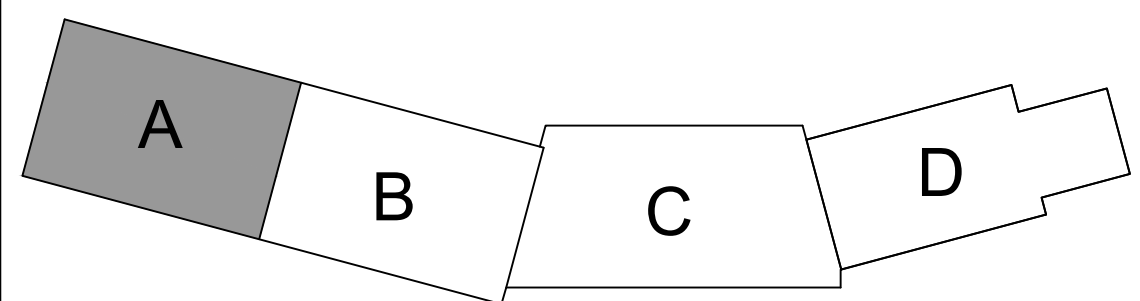
KEYED NOTES

- EXHAUST FAN MOUNTED 10' AFF.
- PROVIDE DUCT MOUNTED EXHAUST GRILLE AT 12" BELOW ROOF DECK AND AT 10' AFF.
- ROOF MOUNTED EXHAUST FAN. MOD-14 LOCATED IN VERTICAL DUCTWORK LEADING TO EXHAUST FAN.
- ROOF MOUNTED EXHAUST FAN. MAINTAIN 50' BETWEEN EXHAUST FAN AND OUTSIDE AIR INTAKES. MOD-17 LOCATED IN THE VERTICAL DUCTWORK.
- SUPPLY DUCT MOUNTED SUPPLY DIFFUSER MOUNTED 12" AFF.
- RETURN DUCT MOUNTED RETURN GRILLE MOUNTED 12" AFF.
- EXHAUST GRILLE MOUNTED AT BOTTOM OF EXHAUST DUCTWORK.
- ROOF MOUNTED EXHAUST FAN. MOD-15 LOCATED IN VERTICAL DUCTWORK LEADING TO EXHAUST FAN. EXHAUST GRILLE MOUNTED AT BOTTOM OF EXHAUST DUCTWORK.
- MOUNT RETURN AIR GRILLE NO HIGHER THAN 10' AFF. PROVIDE VOLUME DAMPER IN VERTICAL.
- MOUNT AT 18" AFF. PROVIDE 5" PENETRATION THROUGH ROOF FOR EXHAUST DUCTWORK. PROVIDE 6" DROP TO HOSE REEL.
- WALL MOUNTED FEF SWITCH MOUNTED 4'-6" AFF.
- 6" VENT AND COMBUSTION AIR THROUGH ROOF.

ALTERNATE BID ITEMS

- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

KEY PLAN



DESIGNED BY: JSG
 DRAWN BY: STR
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: AS NOTED
 DFE PROJECT NO: 230125

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 AREA A FIRST LEVEL
 DUCTWORK PLAN

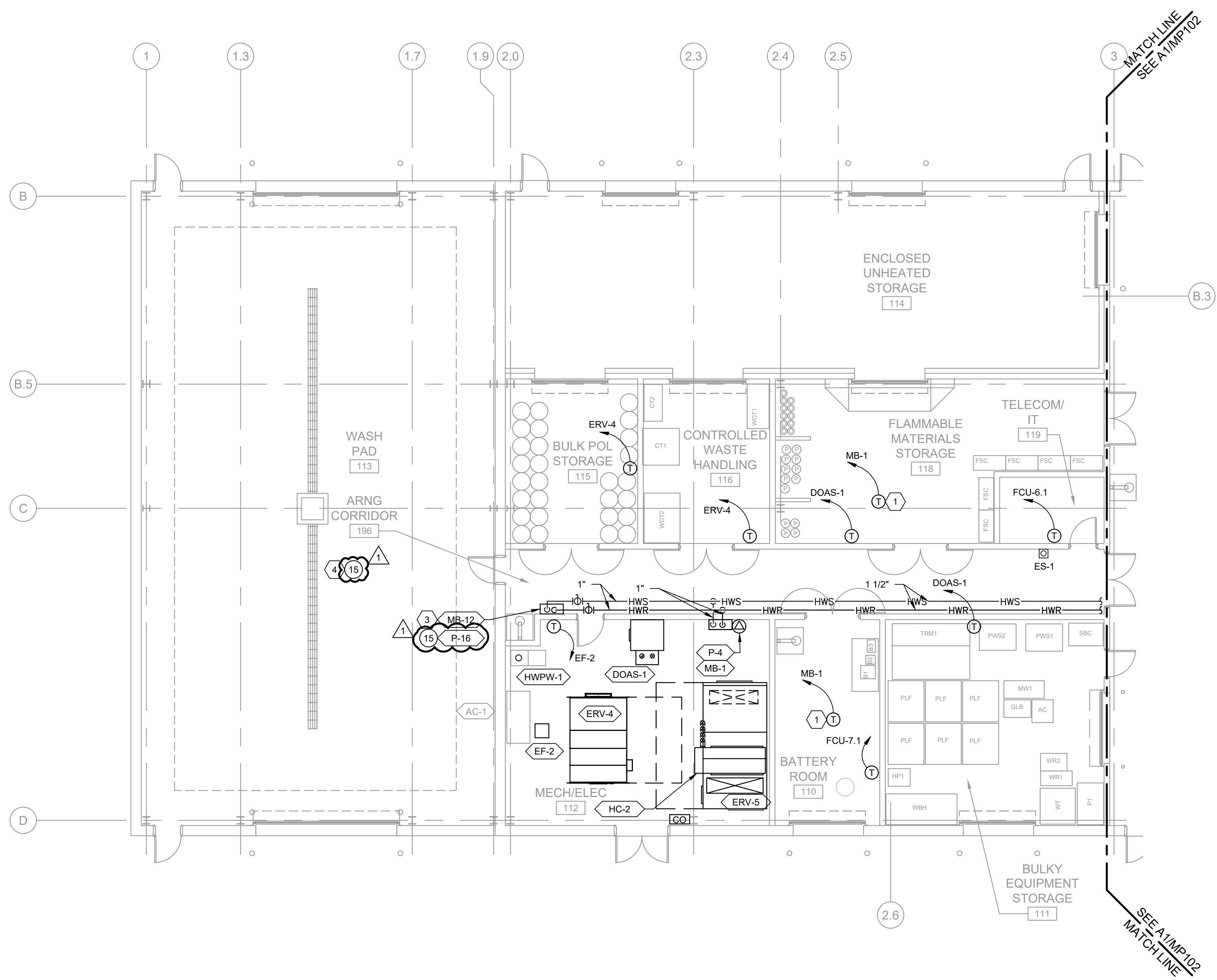
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SHEET ID:
MH101
 SHEET: 167 of 244



NOT FOR CONSTRUCTION

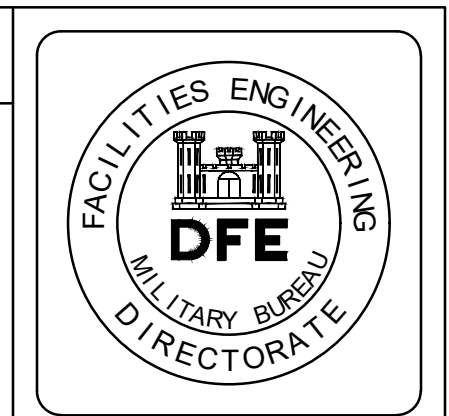


A1 AREA A FIRST LEVEL MECHANICAL PIPING PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH



NOTE

- SEE SHEET M-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.
- SENSORS ARE WALL MOUNTED UNLESS NOTED OTHERWISE.



PLAN REVISIONS		ADDENDUM #1	JRW	JRW	Appr.
Rev#	Description	0	06-10-22	04-22-22	Date
1	ISSUED FOR BID	0			

KEYED NOTES

- SLAB MOUNTED TEMPERATURE SENSOR. SENSOR SHALL BE INSTALLED WITHIN A PLASTIC SLEEVE TO GUARANTEE FUTURE ACCESS TO THE THERMOSTAT TO ALLOW FOR REPLACEMENT. LOCATE SENSOR 1" BELOW SLAB SURFACE AND EQUIDISTANT BETWEEN RADIANT TUBING. SENSOR SHALL BE LOCATED NO MORE THAN 5' FROM PULL ACCESS.
- HEATING COIL INSTALLED IN DUCTWORK.
- PROVIDE ALL UNDERSLAB PIPING AND CAP ALL LINES IN MB AS BASE BID. PROVIDE VALVED AND CAPPED HWS/HWR CONNECTIONS FOR BASE BID. PUMP AND CONNECTING ALL LINES IN MB AND HWS/HWR ARE PART OF ABI 15.
- SLAB MOUNTED TEMPERATURE SENSOR. INSTALL PLASTIC SLEEVE TO ALLOW FOR FUTURE INSTALLATION AS PART OF BASE BID. LOCATE SENSOR 1" BELOW SLAB SURFACE EQUIDISTANT BETWEEN RADIANT TUBING NO MORE THAN 5' FROM PULL ACCESS. ABI 15 INCLUDES INSTALLATION OF SENSOR.

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

- WASH PAD ENCLOSURE

KEY PLAN

PLAN PROGRESS

- DRAFT
- 35% REVIEW
- 60% REVIEW
- 95% REVIEW
- FINAL REVIEW
- FOR BIDDING
- ISSUED FOR CONSTRUCTION
- RECORD DRAWINGS

DESIGNED BY: JSG
 DRAWN BY: STR
 CHECKED BY: MSD
 DATE: 06-10-2022
 SCALE: AS NOTED
 DFE PROJECT NO: 230125

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 AREA A FIRST LEVEL
 MECHANICAL PIPING PLAN

SHEET ID:
MP101
 SHEET: 171 of 244

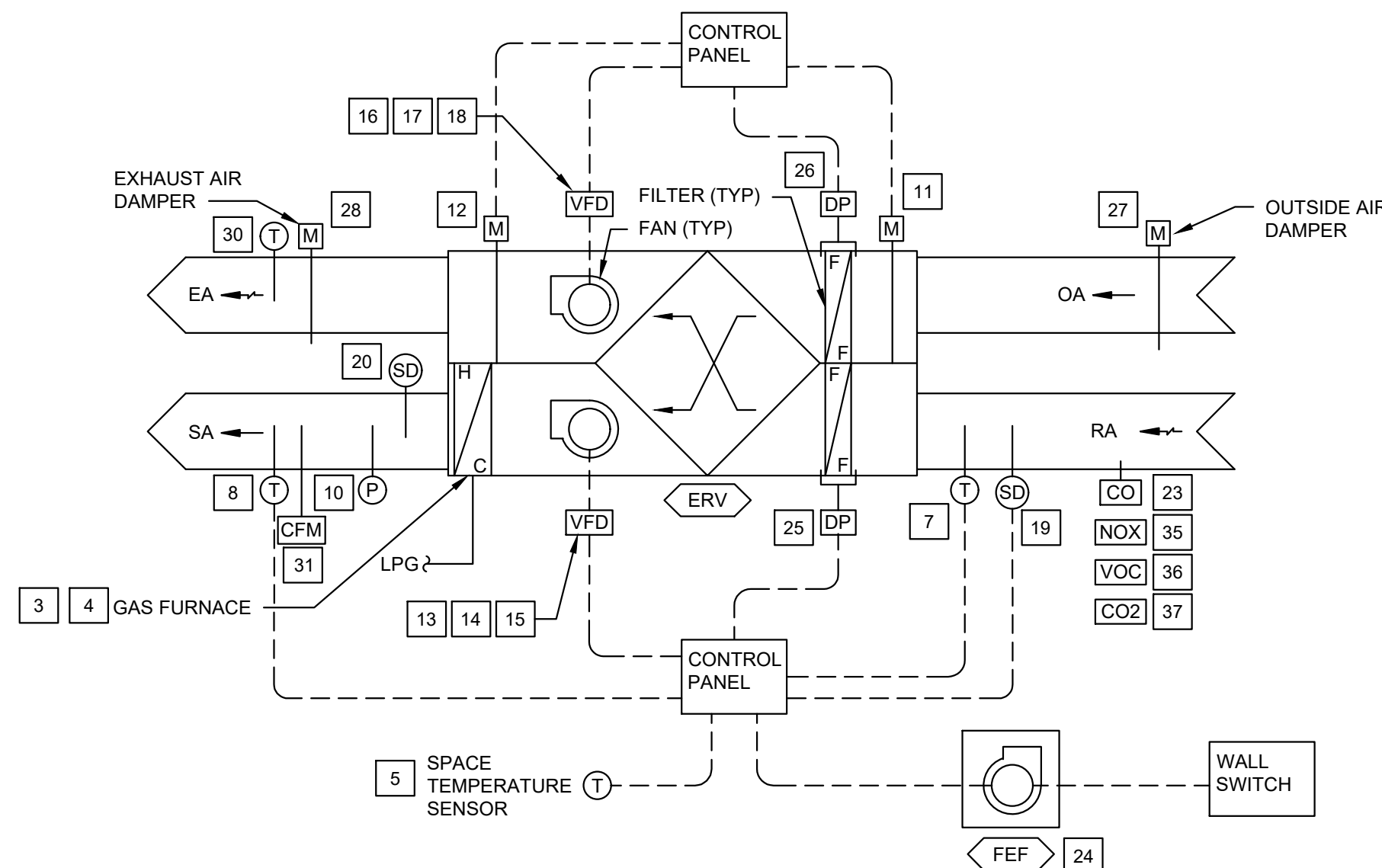
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WORKBAY ERV CONTROL POINTS SCHEDULE

TAG	DESCRIPTION	UNITS	CONTROL	HARDWARE POINTS					SOFTWARE POINTS			ALARM	BACS	NOTES	
				DIGITAL INPUTS	DIGITAL OUTPUTS	ANALOG INPUTS	ANALOG OUTPUTS	SCREEN DISPLAYED	USER OVERRIDE	SET POINT	OUT OF RANGE				STATUS
1	OA TEMPERATURE	°F	TS												GLOBAL
2	SPACE PRESSURE VS OUTSIDE	INCH WC	IN WC												
3	GAS HEATER FIRING RATE	%	HEATER												3
4	GAS HEATER ON/OFF	ON/OFF	HEATER												3
5	SPACE TEMPERATURE	°F	TS												
6	SPACE TEMPERATURE SETPOINT	°F	T												
7	RETURN AIR TEMPERATURE	°F	TS												
8	SUPPLY AIR TEMPERATURE	°F	TS												
9	SA TEMPERATURE SETPOINT	°F	T												RESET
10	SUPPLY AIR PRESSURE	INCH WC	PS												
11	ERV OUTSIDE AIR DAMPER	OPEN/CLOSED	DAMPER												4
12	ERV EXHAUST AIR DAMPER	OPEN/CLOSED	DAMPER												4
13	SUPPLY FAN COMMAND	ON/OFF	VFD												
14	SUPPLY FAN SPEED	%	VFD												
15	SUPPLY FAN VFD FAULT	FAULT	VFD												
16	EXHAUST FAN COMMAND	ON/OFF	VFD												
17	EXHAUST FAN SPEED	%	VFD												
18	EXHAUST FAN VFD FAULT	FAULT	VFD												
19	ERV RA SMOKE DETECTOR	NORMAL/ALARM	SD												
20	ERV SA SMOKE DETECTOR	NORMAL/ALARM	SD												
21	ERV FIRE ALARM CONTACTS	NORMAL/FIRE	ALARM												
22	SPACE CO	PPM	CO												1
	SPACE NOX	PPM	NOX												
	SPACE VOC	PPM	VOC/CO2												
	SPACE CO2	PPM	VOC/CO2												
23	CO AT RA	PPM	CO												1, 2
35	NOX AT RA	PPM	NOX												1, 2
36	VOC AT RA	PPM	VOC/CO2												1, 2
37	CO2 AT RA	PPM	VOC/CO2												1, 2
24	FEF STATUS	ON/OFF	CT												
25	OUTSIDE AIR FILTER ALARM	INCH WC	FILTER												
26	RETURN AIR FILTER ALARM	INCH WC	FILTER												
27	OUTSIDE AIR DAMPER	OPEN/CLOSED	DAMPER												4
28	EXHAUST AIR DAMPER	OPEN/CLOSED	DAMPER												4
29	CO DETECTOR (IN SPACE WITH ERV)	PPM	CO												5
30	EXHAUST AIR DISCHARGE TEMP	°F	TS												5
31	SUPPLY AIRFLOW SENSOR	CFM	CFM												5
TOTAL				10	7	16	4	31	12	13	14	16	11	25	

NOTES:
 1. REFER TO FLOOR PLANS FOR QUANTITY.
 2. DUCT MOUNTED SENSOR.
 3. SEE SCHEDULES TO DETERMINE IF GAS FURNACE IS PART OF ERV OR IS A SEPARATE HC.
 4. MOD AS REQUIRED, REFER TO ERV SCHEDULE AND FLOOR PLANS.
 5. REFER TO FLOOR PLANS FOR QUANTITY.

- 1 T GLOBAL OUTSIDE AIR TEMPERATURE SEBSOR
- 2 DP DIFFERENTIAL PRESSURE SENSOR VS. OUTSIDE MOUNTED IN SPACE
- 6 VIRTUAL SPACE TEMPERATURE SETPOINT
- 9 VIRTUAL SUPPLY AIR TEMPERATURE SETPOINT
- 21 ERV FIRE ALARM CONTACTS
- 22 CO SPACE CO SENSOR
- 29 CO CARBON MONOXIDE DETECTOR AT ERV
- 32 NOX SPACE NOX SENSOR
- 33 VOC SPACE VOC SENSOR
- 34 CO2 SPACE CO2 SENSOR



NOTES:
 1. TYPICAL FOR ERV-3, ERV-5, ERV-6, AND ALL FEF.
 2. DP SHALL HAVE A SHIELD ON THE EXTERIOR SENSOR TO PROTECT FROM WIND.
 3. TYPICAL FOR ERV-11 AND FEF-8.

A1 WORKBAY ERV CONTROL DIAGRAM

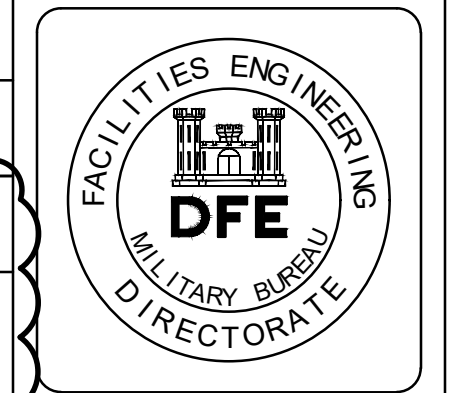
NOT TO SCALE

WORK BAY AREA HEATING AND VENTILATION CONTROL SEQUENCE OF OPERATIONS

- 1.1 GENERAL
- A. REFER TO GENERAL SEQUENCE OF OPERATIONS FOR CONTROLS REQUIREMENTS FOR ALL EQUIPMENT.
 - B. THE UNIT SHALL BE AVAILABLE 24 HOURS PER DAY, 7 DAYS PER WEEK.
 - C. FACTORY CONTROLS ON ERV SHALL CONTROL INDIVIDUAL ERV COMPONENTS. BACS SHALL MONITOR AND CONTROL FACTORY CONTROLS SYSTEM.
- 1.2 NORMAL OPERATION
- A. FILTER MONITORING: PRESSURE DROP ACROSS THE FILTERS SHALL BE MONITORED AND DISPLAYED ON THE GRAPHIC IN THE BACS. PROVIDE ADJUSTABLE SETPOINTS FOR PRESSURE DROP ACROSS THE SUPPLY AND RETURN FILTERS. IF PRESSURE DROP ACROSS EITHER FILTER EXCEEDS SETPOINT, AN ADVISORY ALARM INDICATING WHICH FILTER EXCEEDS SETPOINT SHALL BE SHOWN ON THE BACS WORKSTATION.
 - B. CONTAMINANT ALARMS: WHEN AIR CONTAMINANTS RISE ABOVE THE SETPOINT (BASED ON OSHA PEL LIMITS) AT ANY ONE OR MORE OF THE SPACE AIR CONTAMINANT SENSORS, A LOCAL ALARM SHALL SOUND, AN ALARM LIGHT SHALL ILLUMINATE, AND AN ALARM SHALL BE INDICATED ON THE BACS GRAPHIC. WHEN CONTAMINANT LEVELS FALL BELOW SETPOINT, THE ALARMS SHALL STOP. CONTAMINANT SENSORS ARE:
 - 1. CARBON MONOXIDE (CO)
 - a. AIR QUALITY SENSOR - INCLUDES HYDROCARBONS (VOC) AND CARBON DIOXIDE (CO2)
 - 2. NITROGEN OXIDES (NOx)
 - a. CONTAMINANT ALARM LEVEL PPM
 - b. CARBON MONOXIDE (CO) 50
 - c. CARBON DIOXIDE (CO2) 5000
 - d. VOC (IAQ SENSOR) 50
 - e. NOX 5
 - C. OCCUPIED HOURS
 - 1. ERV SHALL RUN CONTINUOUSLY. OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL BE OPEN.
 - 2. SUPPLY AND RETURN FANS: VARIABLE SPEED FANS SHALL START AT LOW SPEED (25%) THEN RAMP UP TO FULL SPEED (ADJUSTABLE) THEN RUN CONTINUOUSLY. THE RETURN FAN SPEED SHALL TRACK THE SUPPLY FAN SPEED.
 - 3. OCCUPIED SPACE TEMPERATURE SETPOINT (SPT) SHALL BE ADJUSTABLE USING A MASTER THERMOSTAT AS INDICATED ON THE DRAWINGS (INITIALLY SET TO 55 DEGREES, ADJUSTABLE). LIMIT TEMPERATURE SETPOINT ADJUSTMENT TO BETWEEN ±3 DEGREES F (ADJUSTABLE).
 - 4. SUPPLY AIR TEMPERATURE (SAT) RESET: THE SAT SETPOINT SHALL BE RESET BASED ON THE SPACE TEMPERATURE SETPOINT (ADJUSTABLE) AND THE RETURN AIR TEMPERATURE (RAT) AS FOLLOWS:
 - a. WHEN RAT IS GREATER THAN SPT SETPOINT, THE GAS FURNACE SHALL BE OFF.
 - b. WHEN RAT IS LESS THAN OR EQUAL TO THE SPT SETPOINT, SAT SETPOINT SHALL BE RESET USING THE FOLLOWING SCHEDULE:
 - 1) SAT = 80°F (ADJUSTABLE) WHEN RAT = 40°F (ADJUSTABLE).
 - 2) SAT = 60°F (ADJUSTABLE) WHEN RAT = 50°F (ADJUSTABLE).
 - 3) SAT = 55°F (ADJUSTABLE) WHEN RAT = 55°F (ADJUSTABLE).
 - c. GAS FURNACE: UPON A CALL FOR HEATING THE GAS FURNACE SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE (SAT) AT SETPOINT. THE GAS FURNACE PID LOOP CONTROL SHALL BE TUNED TO MAINTAIN SUPPLY AIR TEMPERATURE AT SETPOINT ±1°F WITHOUT HUNTING OR OVERSHOOT.
 - 5. VEHICLE EXHAUST OVERRIDE: EXHAUST AIR FAN SPEED SHALL BE DECREASED SO OUTSIDE MAKEUP AIR CFM FROM ERV IS 200 CFM MORE THAN EXHAUST CFM PLUS THE ACTIVE VEHICLE EXHAUST SYSTEMS, TO MAINTAIN THE BAY AREAS AT A SLIGHTLY NEGATIVE PRESSURE RELATIVE TO CONNECTED ADMINISTRATIVE AREAS. THE REQUIRED EXHAUST FAN SPEEDS WITH VEHICLE EXHAUST FANS RUNNING SHALL BE DETERMINED DURING BALANCING AND PROGRAMMED INTO THE BACS CONTROLLER.
 - 6. THE SYSTEM SHALL MONITOR THE FOLLOWING POINTS:
 - a. SUPPLY DISCHARGE AIRFLOW IN CFM
 - b. EXHAUST AIR TEMPERATURE
 - D. VEHICLE EXHAUST AND DOOR OPENING CONTROL
 - 1. THE VEHICLE EXHAUST SYSTEM SHALL BE SWITCHED ON AND OFF BY THE WALL MOUNTED SWITCH
 - 2. THE BACS SHALL CONTINUOUSLY MONITOR THE DIFFERENTIAL PRESSURE IN THE SPACE COMPARED TO THE EXTERIOR OF THE BUILDING.
 - a. THE SYSTEM SHALL CREATE A ROLLING PRESSURE AVERAGE OVER THE COURSE OF 3 MINUTES (ADJUSTABLE).
 - 1) IF THE AVERAGE PRESSURE IS NEGATIVE, THE ERV SHALL CONTINUE TO RUN IN NORMAL OPERATION.
 - 2) IF THE AVERAGE PRESSURE IS NEUTRAL OR POSITIVE, THE ERV SUPPLY FAN SHALL RAMP DOWN AT 25% PER MINUTE OR UNTIL THE PRESSURE IS NO LONGER POSITIVE.
 - 3) FAN SHALL TURN OFF. AFTER A DELAY OF 30 MINUTES (ADJUSTABLE), THE EXHAUST FAN SHALL RESTART. THE ERV EXHAUST FAN SHALL RUN FOR A MINIMUM OF 3 MINUTES (ADJUSTABLE) BEFORE CHECKING THE DIFFERENTIAL PRESSURE COMPARED TO THE EXTERIOR.
 - 3. THE RADIANT FLOOR SYSTEM SHALL MAINTAIN THE WORK BAYS AT THE OCCUPIED TEMPERATURE SETPOINT. THE INTENT IS FOR THE RADIANT FLOOR TO HEAT THE SPACE AND THE ERV HEATS THE VENTILATION AIR. THE RADIANT FLOOR SYSTEM SHALL OPERATE ACCORDING TO THE RADIANT FLOOR SEQUENCE OF OPERATIONS. IF THE SPACE TEMPERATURE SETPOINT CANNOT BE MAINTAINED USING ONLY THE RADIANT FLOOR SYSTEM, THE GAS FURNACE SHALL MODULATE TO PROVIDE ADDITIONAL HEAT TO THE SPACE UNTIL SETPOINT IS MET.
 - E. UNOCCUPIED HOURS
 - 1. ERV SHALL BE OFF AND THE GAS FURNACE SHALL BE OFF.
 - 2. UNOCCUPIED SPACE TEMPERATURE SETPOINT SHALL BE 55°F (ADJUSTABLE).
 - 3. THE RADIANT FLOOR SYSTEM SHALL MAINTAIN THE WORK BAYS AT THE OCCUPIED SETPOINT.
 - a. IF THE RADIANT FLOOR SYSTEM CANNOT MAINTAIN THE SPACE TEMPERATURE SETPOINT, THE ERV SHALL TURN ON AND MODULATE TO GAS FURNACE MINIMUM AIRFLOW. GAS FURNACE SHALL RUN UNTIL SPACE SETPOINT IS REACHED. THEN ERV AND GAS FURNACE SHALL SHUTDOWN.
 - 4. OVERRIDE: FAN SPEEDS SHALL BE SLOWLY MODULATED TOGETHER UP TO MAXIMUM WHEN THE OVERRIDE BUTTON ON THE SPACE THERMOSTAT IS PUSHED. OVERRIDE SHALL MAINTAIN FAN SPEEDS AT MAXIMUM SPEED FOR 1 HOUR (ADJUSTABLE), OR UNTIL OVERRIDE BUTTON IS PRESSED AND HELD AGAIN. GAS FURNACE SEQUENCE SHALL BE THE SAME AS OCCUPIED MODE.
- 1.3 SHUTDOWN
- A. WHEN ERV IS SHUTDOWN FOR SERVICE OR DUE TO FAILURE, THE UNIT FAN SHALL BE STOPPED, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE, AND THE GAS FURNACE SHALL BE OFF.
- 1.4 FAILURE
- A. UPON LOSS OF POWER, THE UNIT SHALL BE PLACED INTO SHUTDOWN MODE.
 - B. IF FAILURE OF ANY COMPONENT OF THE DOAS IS DETECTED, AN ADVISORY ALARM SHALL BE SENT TO THE BACS. FAILURE MODES SHALL INCLUDE BUT ARE NOT LIMITED TO ANY OF THE FOLLOWING:
 - 1. LOSS OF POWER
 - 2. FAN SHUT OFF AT DISCONNECT SWITCH
 - 3. FAN FAILURE
 - 4. FAN VFD FAILURE
 - 5. GAS FURNACE FAILURE
 - 6. NO AIRFLOW
 - 7. CARBON MONOXIDE DETECTED IN THE MECHANICAL ROOM.
 - 8. SUPPLY AIR TEMPERATURE EXCEEDS SETPOINT BY MORE THAN 5°F OR IS BELOW SETPOINT BY MORE THAN 10°F (ADJUSTABLE).

NOTES

- 1. SEE M-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- ALTERNATE BID ITEMS**
- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- 15. WASH PAD ENCLOSURE



PLAN REVISIONS	Date	Appr.
1	06-10-22	JRW
0	04-22-22	JRW

DESIGNED BY:	JSG
DRAWN BY: <td>STR</td>	STR
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO.: <td>230125</td>	230125

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MECHANICAL CONTROLS DIAGRAMS

PLAN PROGRESS
<input type="checkbox"/> DRAFT
<input type="checkbox"/> 35% REVIEW
<input type="checkbox"/> 60% REVIEW
<input type="checkbox"/> 95% REVIEW
<input type="checkbox"/> FINAL REVIEW
<input checked="" type="checkbox"/> FOR BIDDING
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SHEET ID:
M-655
 SHEET: 198 of 244

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LIGHTING FIXTURE SCHEDULE

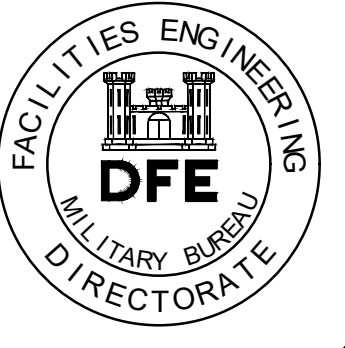
TYPE	DESCRIPTION	MFR	VOLT	LAMP			MOUNTING		REMARKS
				TYPE	WATTS	LM	STYLE	HGT	
AA	EXTERIOR POLE MOUNTED FIXTURE, DIE-CAST ALUMINUM HOUSING	HUBBELL RATIO SERIES RAR 1	277	LED	39	4960	POLE MOUNTED	25'-0"	RAR1-80L-39-3K7-2-UNV-ASQ-DBT-SCP-40F BUG RATING: B1, U0, G2
BB	EXTERIOR POLE MOUNTED FIXTURE, DIE-CAST ALUMINUM HOUSING	HUBBELL RATIO SERIES RAR 1	277	LED	39	4991	POLE MOUNTED	25'-0"	RAR1-80L-39-3K7-3-UNV-ASQ-DBT-SCP-40F BUG RATING: B1, U0, G2
CC	EXTERIOR POLE MOUNTED FIXTURE, DIE-CAST ALUMINUM HOUSING	HUBBELL RATIO SERIES RAR 1	277	LED	39	4900	POLE MOUNTED	25'-0"	RAR1-80L-39-3K7-4W-UNV-ASQ-DBT-SCP-40F BUG RATING: B1, U0, G2
DD	LED FLOODLIGHT WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE 3000K COLOR TEMP. WIDE DISTRIBUTION	HUBBELL RATIO FLOOD RFL2	277	LED	25	3223	GROUND	-	MOUNT 6'-0" FROM BASE OF SIGN PROVIDE WITH SHIELDING
EE	LED FLOODLIGHT WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE 3000K COLOR TEMP. NARROW DISTRIBUTION	HUBBELL RATIO FLOOD RFL2	277	LED	25	3285	GROUND	-	MOUNT 3'-0" FROM BASE OF FLAG POLE
POLE	SQUARE STRAIGHT STEEL POLE	HUBBELL SSS-H SERIES	-	-	-	-	-	21'-0"	SSS-H-21-40-A-1-B3-DBT-VM1 SSS-H-21-40-A-2-B3-DBT-VM1

LIGHTING CONTROLS NOTES

- ROADWAYS, VISITOR PARKING, PEDESTRIAN AREAS, BUILDING MOUNTED FIXTURES - LIGHTS COME ON AT DUSK, OFF AT DAWN, ACTIVATE TO FULL BRIGHTNESS VIA MOTION SENSOR, REDUCE BY 30% AFTER 15 MINUTES IF NO MOTION DETECTED AND FULLY OFF IF NO MOTION DETECTED AFTER 20 MINUTES.
- MEP/ORG PARKING AREA - LIGHTS COME ON AT DUSK, OFF AT DAWN, ACTIVATE TO FULL BRIGHTNESS VIA MOTION SENSOR, REDUCE BY 30% IF NO MOTION DETECTED FOR 20 MINUTES.
- ENTRANCE SIGN AND FLAG LIGHTING - LIGHTS COME ON AT DUSK, OFF AT DAWN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPONENTS REQUIRED TO FACILITATE CONTROL OF FIXTURES AS OUTLINED. SEE C1/E-601 FOR LCP2 LIGHTING CONTROL PANEL DIAGRAM.

NOTES

- SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES
- ROUTE 2#10 AWG & #10 GND, 1" C, SCHEDULE 40 PVC FOR SITE LIGHTING FIXTURES.
- EXTERIOR UNDERGROUND BRANCH CIRCUIT CONDUIT SHALL BE A MINIMUM OF 30" BELOW FINISHED GRADE.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

KEYED NOTES

- HANDHOLE FOR (1) 2" C POWER AND (1) 1" C COMMUNICATIONS W/PULL STRING FOR CONNECTION TO FUTURE ELECTRIC VEHICLE CHARGING STATION. RUN BACK TO PANELBOARD LC3 IN MECHELEC 131. FUTURE CHARGERS SHALL BE BASED ON CHARGEPOINT CT400 DUAL PORT LEVEL 2 CHARGING STATION WITH (2) 40 AMP, 208 VOLT, SINGLE PHASE CIRCUITS PER LOCATION.
- ROUTE 1" C FROM WATER TANK TO FACP FOR MONITORING OF TANK WATER LEVELS AND TEMPERATURE. REFER TO FIRE ALARM RISER DIAGRAM FOR FURTHER DETAILS. ROUTE CONDUCTORS AS PER MANUFACTURER'S RECOMMENDATIONS.
- FENCED IN AREA IS DESIGNATED AS MEP/ORG PARKING.
- ROUTE 2" C FROM FACP LOCATED IN MECHELEC 131 FOR FUTURE HAZARDOUS STORAGE SHED. STUB-UP ALONG OUTSIDE OF FENCE AND CAP W/PULL STRING.
- ROUTE 2" C FROM PANELBOARD LD1 IN MECHELEC 140 FOR FUTURE BOTTLE GAS STORAGE. STUB-UP ALONG INSIDE OF FENCE AND CAP W/PULL STRING.
- SINGLE POINT CONNECTION TO LIFT STATION. VENDOR PROVIDED CONTROL PANEL SHALL PROVIDE POWER TO LIGHTS AND RECEPTACLE AT LIFT STATION.
- PROVIDE DISCONNECT AND ROUTE 3#10AWG & #10 GND IN 3/4" C FOR CONNECTION TO WATER TANK HEATER VIA HEATER CONTROL PANEL LOCATED IN MECHELEC 131.
- CATHODIC PROTECTION RECTIFIER DESIGN BY OTHERS. COORDINATE FINAL CIRCUITING WITH APPROVED SHOP DRAWINGS AND SPECIFICATIONS. PROVIDE CONNECTION TO FIRE ALARM SYSTEM IF REQUIRED.

DESIGNED BY:	BHG	DATE:	06-10-2022	AS NOTED	230125
DRAWN BY: <td>LAM <td>CHECKED BY: <td>MSD <td>DATE: <td>06-10-2022 </td></td></td></td></td>	LAM <td>CHECKED BY: <td>MSD <td>DATE: <td>06-10-2022 </td></td></td></td>	CHECKED BY: <td>MSD <td>DATE: <td>06-10-2022 </td></td></td>	MSD <td>DATE: <td>06-10-2022 </td></td>	DATE: <td>06-10-2022 </td>	06-10-2022

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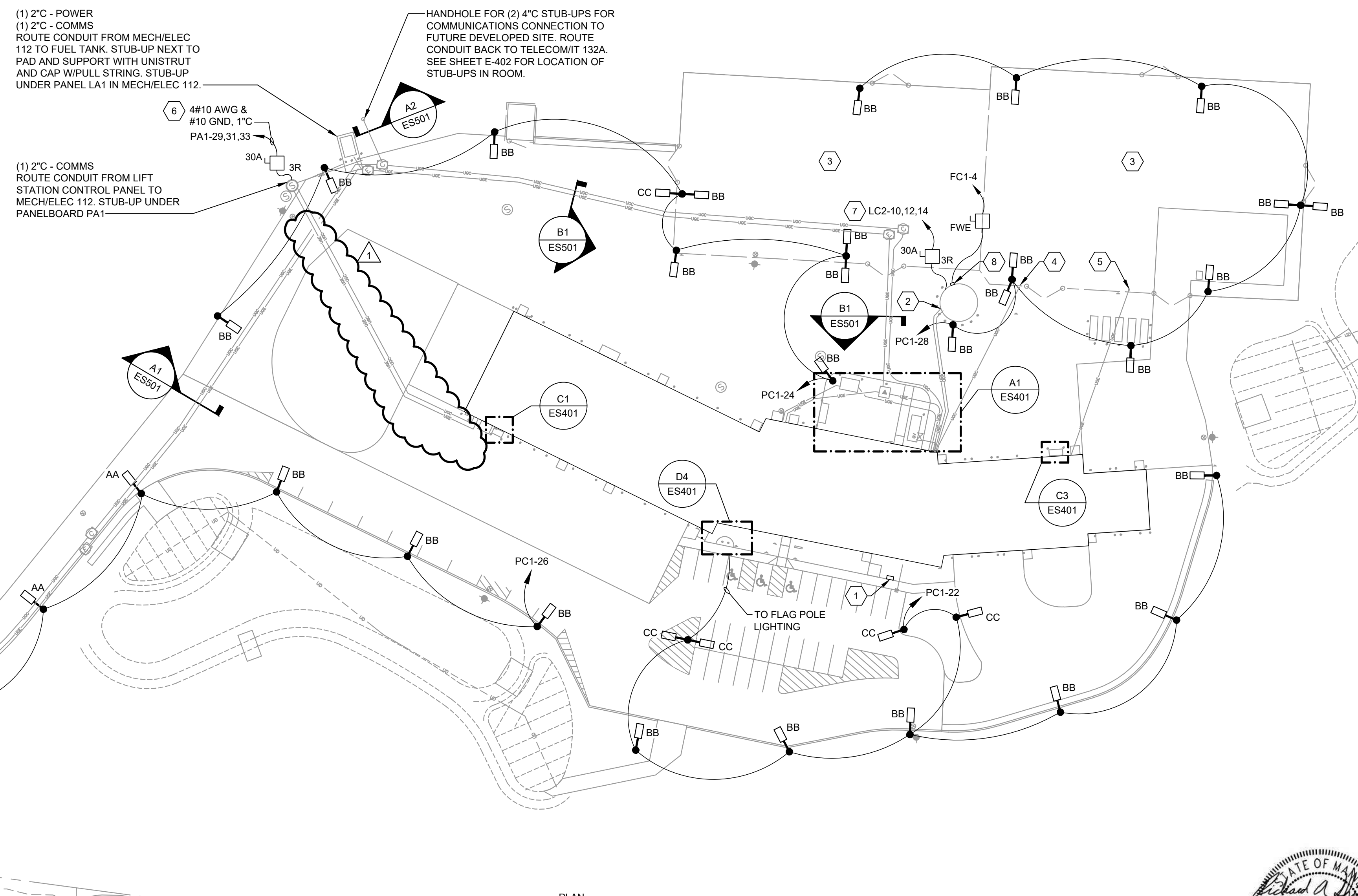
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SITE PLAN, LIGHTING
FIXTURE SCHEDULE AND DETAILS

PLAN PROGRESS	
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<input type="checkbox"/>	60% REVIEW
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ES101
SHEET: 204 of 244

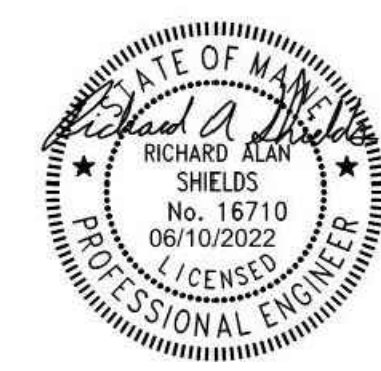


A1 SITE PLAN

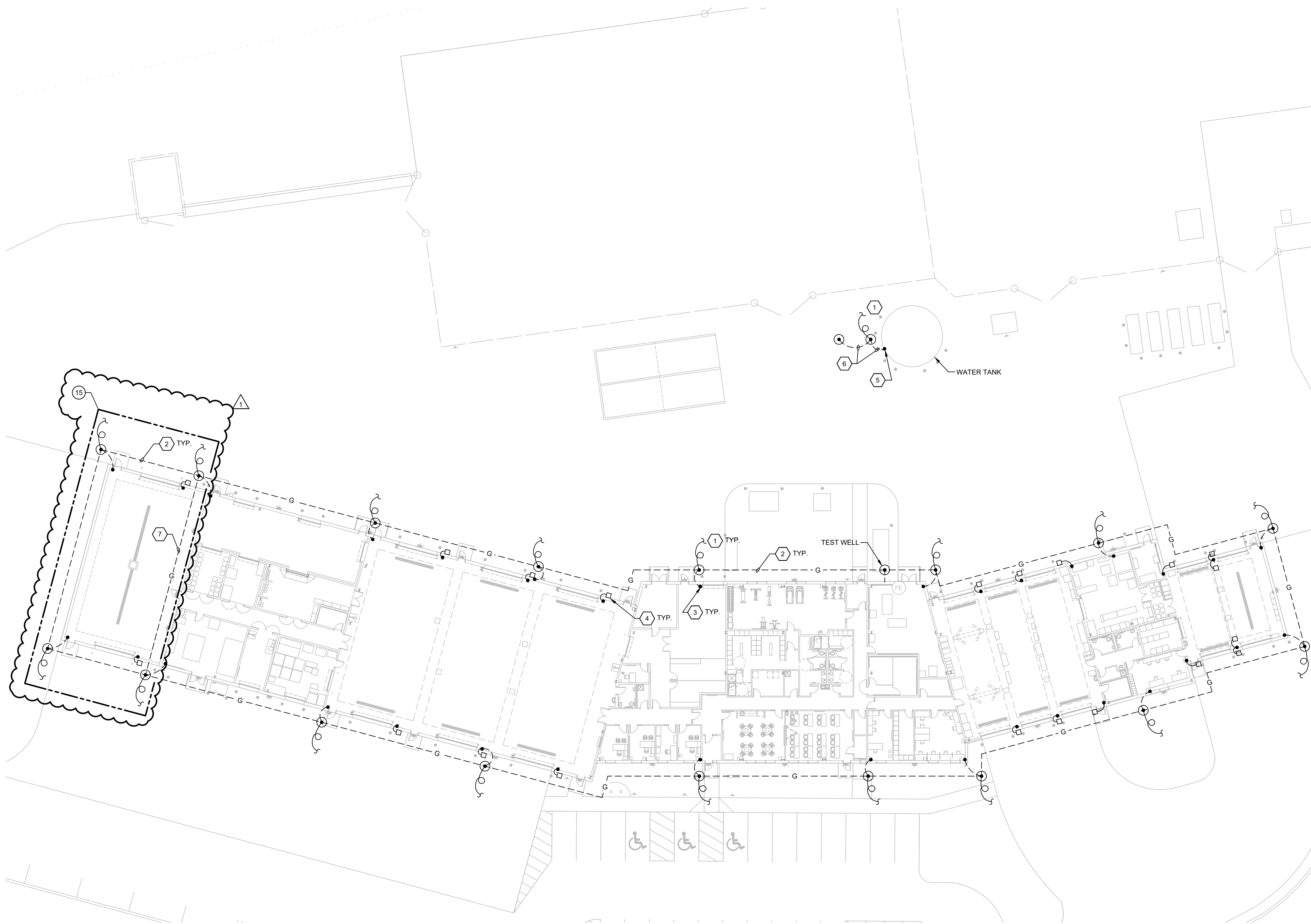
1" = 50'

0 25' 50' 100'

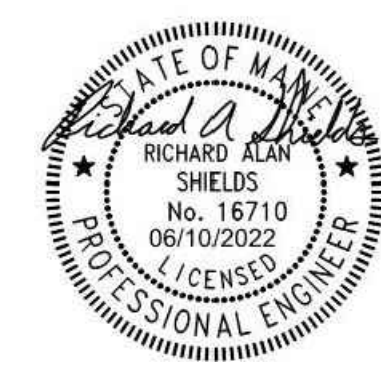
PLAN NORTH



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A1 GROUNDING PLAN
 3/64" = 1' - 0"
 0 8' 16' 32'
 PLAN NORTH



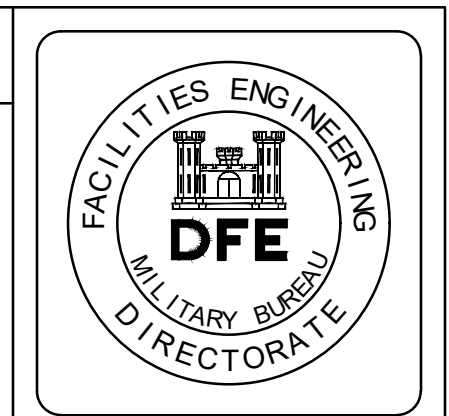
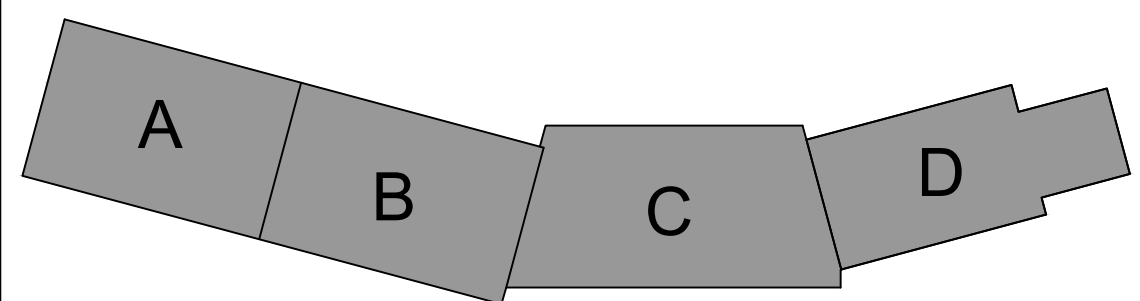
NOTE
 1. SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES

KEYED NOTES

- LIGHTNING PROTECTION DOWNLEADS. SEE SHEET EG111 LIGHTNING PROTECTION PLAN FOR CONTINUATION.
- PERIMETER BELOW GRADE GROUNDING GRID, 4/0 BARE STRANDED COPPER CONDUCTOR BURIED A MINIMUM OF 30".
- BOND TO NEAREST STEEL COLUMN
- 1/2" THREADED GROUND LUG MOUNTED IN COVER OF DEEP 4"x4" BOX RECESSED IN WALL AT 36" AFG. PROVIDE #2 BARE COPPER CONDUCTOR BONDED TO STRUCTURE.
- BOND TO TANK GROUNDING LUG OR TO TANK STEEL SUPPORT.
- 1/0 BARE STRANDED COPPER CONDUCTOR BURIED A MINIMUM OF 30"
- IF ABL-15 IS ACCEPTED THIS SEGMENT OF THE GROUNDING GRID WILL BE REMOVED (15)

ALTERNATE BID ITEMS
 SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
 15. WASH PAD ENCLOSURE

KEY PLAN



PLAN REVISIONS

Rev#	Description	Date	JRW	JRW	Appr.
1	ADDENDUM #1	06-10-22			
0	ISSUED FOR BID	04-22-22			

DESIGNED BY:	BHG	230125
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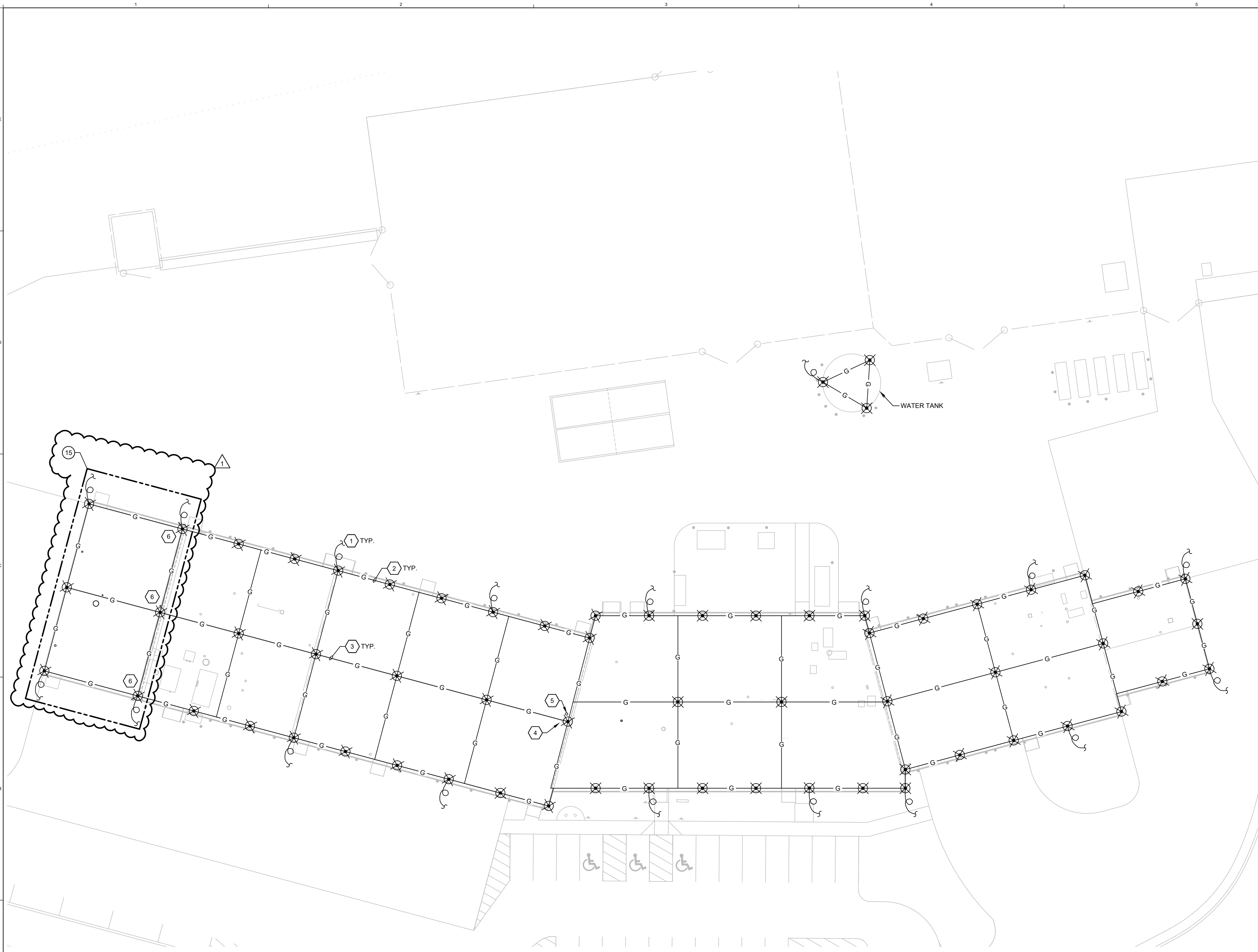
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 VEHICLE MAINTENANCE SHOP
 SACO, MAINE
 GROUNDING PLAN

PLAN PROGRESS

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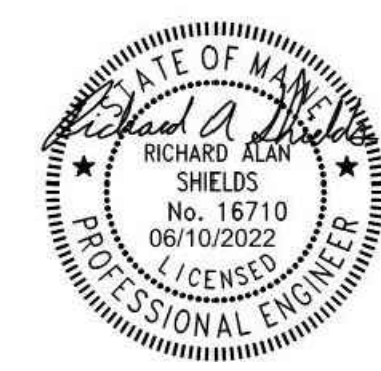
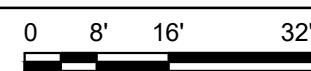
SHEET ID:
EG101
 SHEET: 207 of 244

NOT FOR CONSTRUCTION



A1 ANTENNA LOCATIONS AND LIGHTNING PROTECTION PLAN

3/64" = 1' - 0"



NOTES

- SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES
- THE LIGHTNING PROTECTION SYSTEM AS SHOWN ON DRAWING HAS BEEN DESIGNED IN ACCORDANCE WITH UL96A & NFPA-780 LIGHTNING PROTECTION SYSTEM STANDARDS.
- CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" SHAPED (DOWN AND UP) POCKETS.
- NO BEND OF CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90° NOR HAVE A RADIUS OF BEND LESS THAN 8".
- AIR TERMINALS SHALL BE SPACED 25'-0" APART MAXIMUM AROUND THE ROOF PERIMETER AND/OR ALONG ROOF RIDGES. AIR TERMINALS SHALL BE LOCATED WITHIN 2'-0" OF OUTSIDE CORNERS.
- AIR TERMINALS SHALL BE SPACED 50'-0" APART MAXIMUM ON CENTER RIDGELINE
- AIR TERMINALS SHALL BE 1/2" x 12" AND MADE OF ALUMINUM.
- BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM OR GALVALUM SURFACES, AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
- LIGHTNING PROTECTION CONDUCTORS ON ROOF SHALL BE ALUMINUM WITH A MINIMUM SIZE OF 98,600 CIRCULAR MILS. DOWN CONDUCTORS SHALL BE COPPER AND BE PROTECTED IN CONDUIT.
- LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED EVERY 3'-0" MAX.
- DOWNLEAD CONDUCTORS SHALL BE SPACED EVERY 100'-0" MAXIMUM.
- BOLTS ON BOLT-PRESSURE CONNECTORS SHALL BE TORQUED AT 150 POUND-INCHES (17N-m).
- CONNECTIONS MUST BE USED WITH UL LISTED CLASS I OR CLASS II CABLE OF SAME METAL TYPE.
- METALLIC BODIES OF INDUCTANCE SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR ANOTHER BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM, UNLESS INHERENTLY GROUNDED.
- BOND TO METAL BODIES OF CONDUCTANCE WITHIN 6'-0" OF THE MAIN LIGHTNING CONDUCTOR SUCH AS EXHAUST FANS, ROOF VENTS, METAL COOLING TOWERS, H.V.A.C. UNITS, LADDERS, RAILINGS, ANTENNAS, SKYLIGHTS, METAL STACKS AND ANY OTHERS LARGE METAL BODY WHOSE HEIGHT EXCEEDS THAT OF THE AIR TERMINAL IN USE.
- A LIGHTNING ARRESTOR, PROTECTOR OR ANTENNA DISCHARGE UNIT SHALL BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE AND RADIO AND TELEVISION ANTENNA LEAD-IN BY THE ELECTRICAL CONTRACTOR, IN ACCORDANCE WITH NFPA-70.
- LIGHTNING PROTECTION SYSTEM SHALL BE UL MASTER LABELED AT COMPLETION OF PROJECT.
- COORDINATE LIGHTNING PROTECTION SYSTEM WITH VHF ANTENNA AND HVAC EQUIPMENT LOCATED ON ROOF.

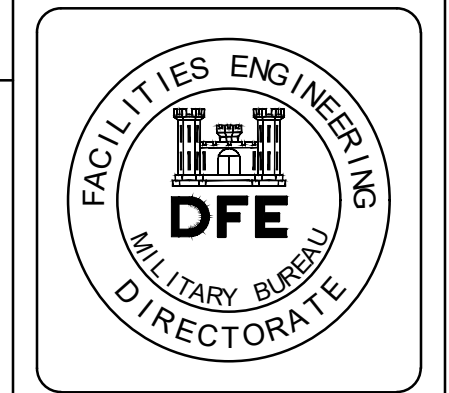
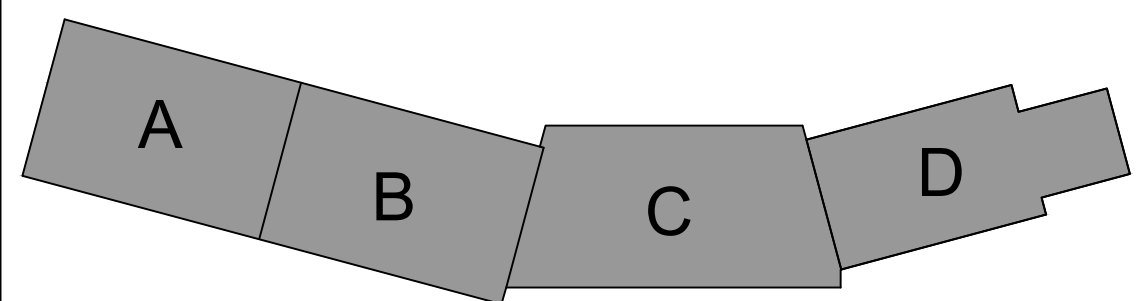
KEYED NOTES

- LIGHTNING PROTECTION DOWNLEAD, ROUTE CONDUCTOR DOWN BUILDING INTERIOR. FOR CONTINUATION SEE SHEET EG101 GROUNDING PLAN.
- PERIMETER ROOF LEADS CONDUCTOR (TYP.)
- INTERMEDIATE ROOF LEADS CONDUCTOR (TYP.)
- PROVIDE 12"x12"x8" NEMA 3R JUNCTION BOX AND MOUNT AT BASE OF VHF ANTENNA. ROUTE 3" WPULL STRING FROM BOX TO WALL MOUNTED RADIO RACK LOCATED IN ADMIN ASSISTANCE 102. PROVIDE AIR TERMINAL ON TOP OF ANTENNA AND TIE DOWNLEAD TO ROOF CONDUCTORS.
- ROUTE 1" WPULL STRING TO 12" ABOVE EDGE OF ROOF FOR CONNECTION TO CELL PHONE BOOSTER. CELL PHONE BOOSTER SHALL BE MOUNTED DIRECTLY TO CONDUIT. ROUTE CONDUIT BACK TO TELECOMIT ROOM 132. SEE SHEET E-402 AND TELECOM SHEETS FOR MORE INFORMATION
- IF ABI-15 IS ACCEPTED AIR TERMINALS WILL BE RELOCATED TO WASH PAD ENCLOSURE ROOF. (15)

ALTERNATE BID ITEMS

- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

KEY PLAN



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

DESIGNED BY:	BHG	230125
DRAWN BY: <td>LAM</td> <td></td>	LAM	
CHECKED BY: <td>MSD</td> <td></td>	MSD	
DATE: <td>06-10-2022</td> <td></td>	06-10-2022	
SCALE: <td>AS NOTED</td> <td></td>	AS NOTED	
DFE PROJECT NO.: <td></td> <td></td>		

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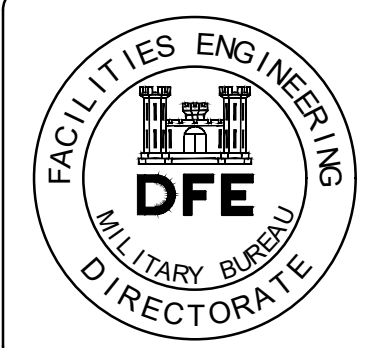
ANTENNA LOCATIONS AND LIGHTNING
PROTECTION PLAN

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SHEET ID:
EG111
SHEET: 208 of 244

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NOTE

1. SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES

KEYED NOTES

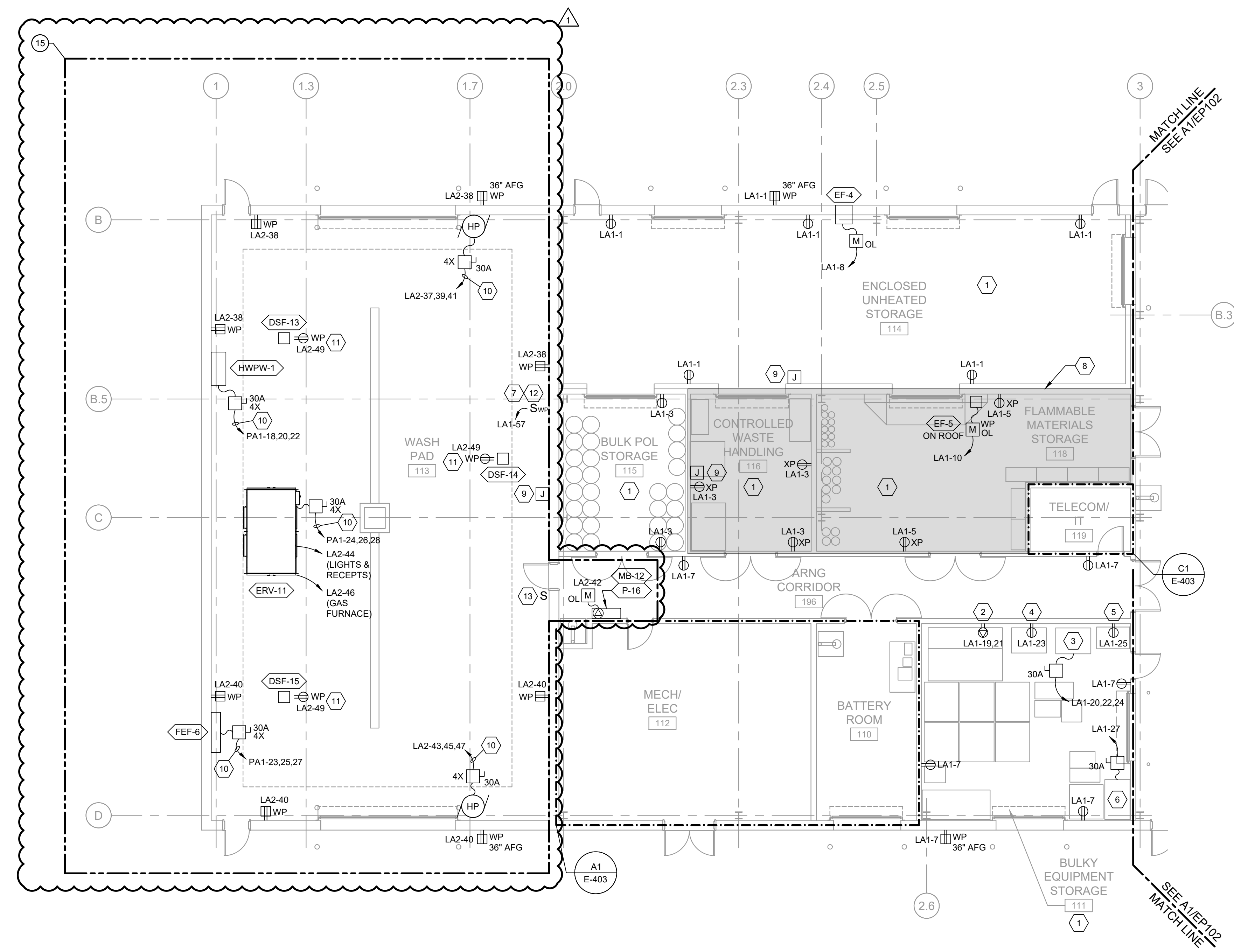
- RECEPTACLES WITHIN AREA MOUNTED 36" AFF
- TIRE RIM MACHINE NEMA 60-20R RECEPTACLE
- PARTS WASHER 1, ROUTE 3#10 AWG & #10 GND, 3/4"C
- PARTS WASHER 2
- SANDBLAST CABINET
- OIL FILTER PRESS
- MOUNT SWITCH 48" AFF. ROUTE CIRCUIT TO AND FROM SWITCH TO HEAT TRACE ON WASH PAD DOMESTIC COLD WATER PIPE. COORDINATE WITH MECHANICAL DRAWINGS.
- SHADED AREA REPRESENT ROOMS THAT ARE CLASSIFIED CLASS I, DIV. II SPACES. ALL DEVICES AND WIRING PRACTICES SHALL COMPLY WITH CLASS I, DIV. II RATING. PROVIDE CONDUIT SEAL OFFS AS REQUIRED BY NEC.
- PROVIDE JUNCTION BOX 6" BELOW CEILING OR 6" BELOW STRUCTURE IF NO CEILING AND ROUTE 3/4"C W/PULL STRING BACK TO PANELBOARD LA1 FOR FUTURE CONNECTION TO RADON SYSTEM FAN. LABEL BOX AND CONDUIT WITH THEIR INTENDED USE.
- 3#12 AWG & #12 GND, 3/4"C (15)
- SWITCHED RECEPTACLE MOUNTED NEAR CEILING FOR PLUG IN OF DESTRATIFICATION FAN. RECEPTACLE SHALL FUNCTION AS LOCAL DISCONNECT SWITCH. (15)
- IF ABI-15 IS ACCEPTED SWITCH SHALL BE REMOVED (15)
- SWITCH SHALL CONTROL DESTRATIFICATION FAN RECEPTACLES, ON/OFF. (15)

PLAN REVISIONS			
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1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

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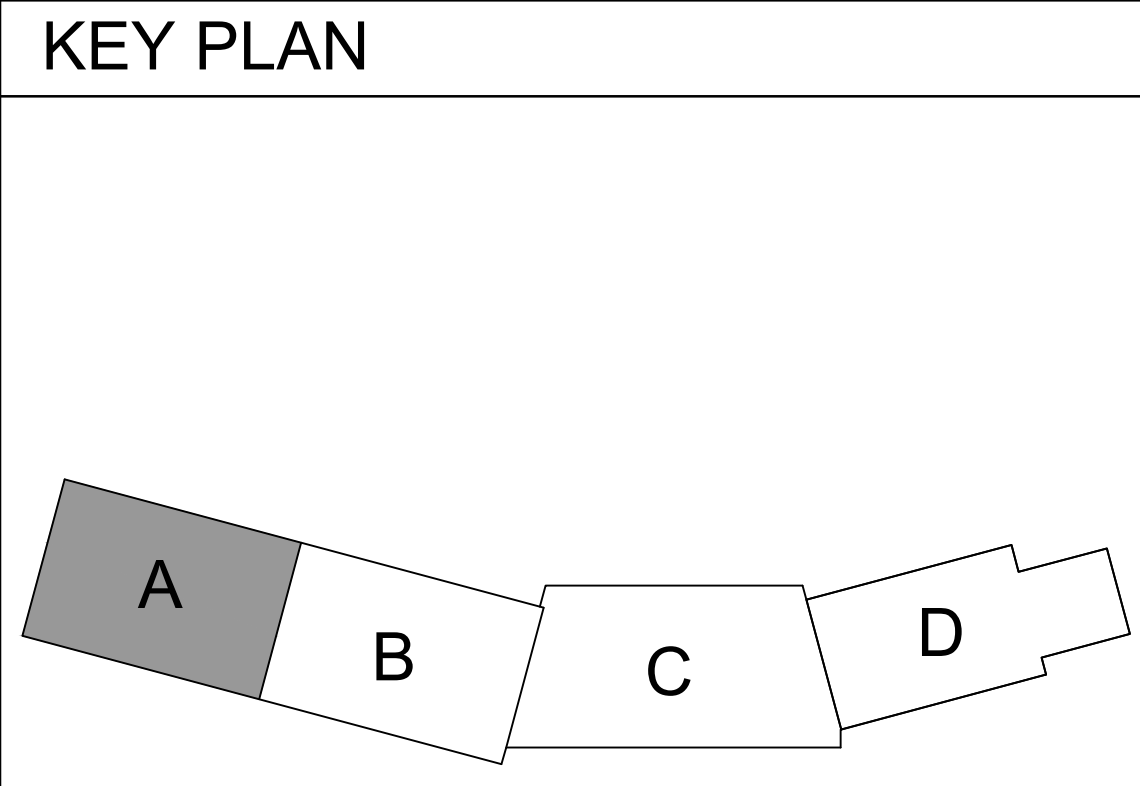
ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE

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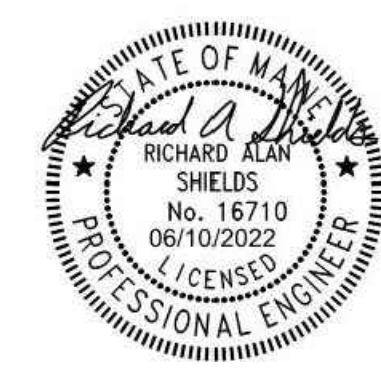
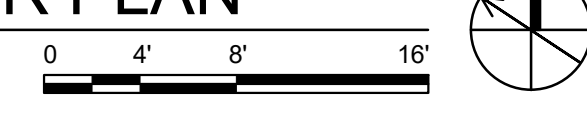
AREA A
FIRST LEVEL POWER PLAN



PLAN PROGRESS

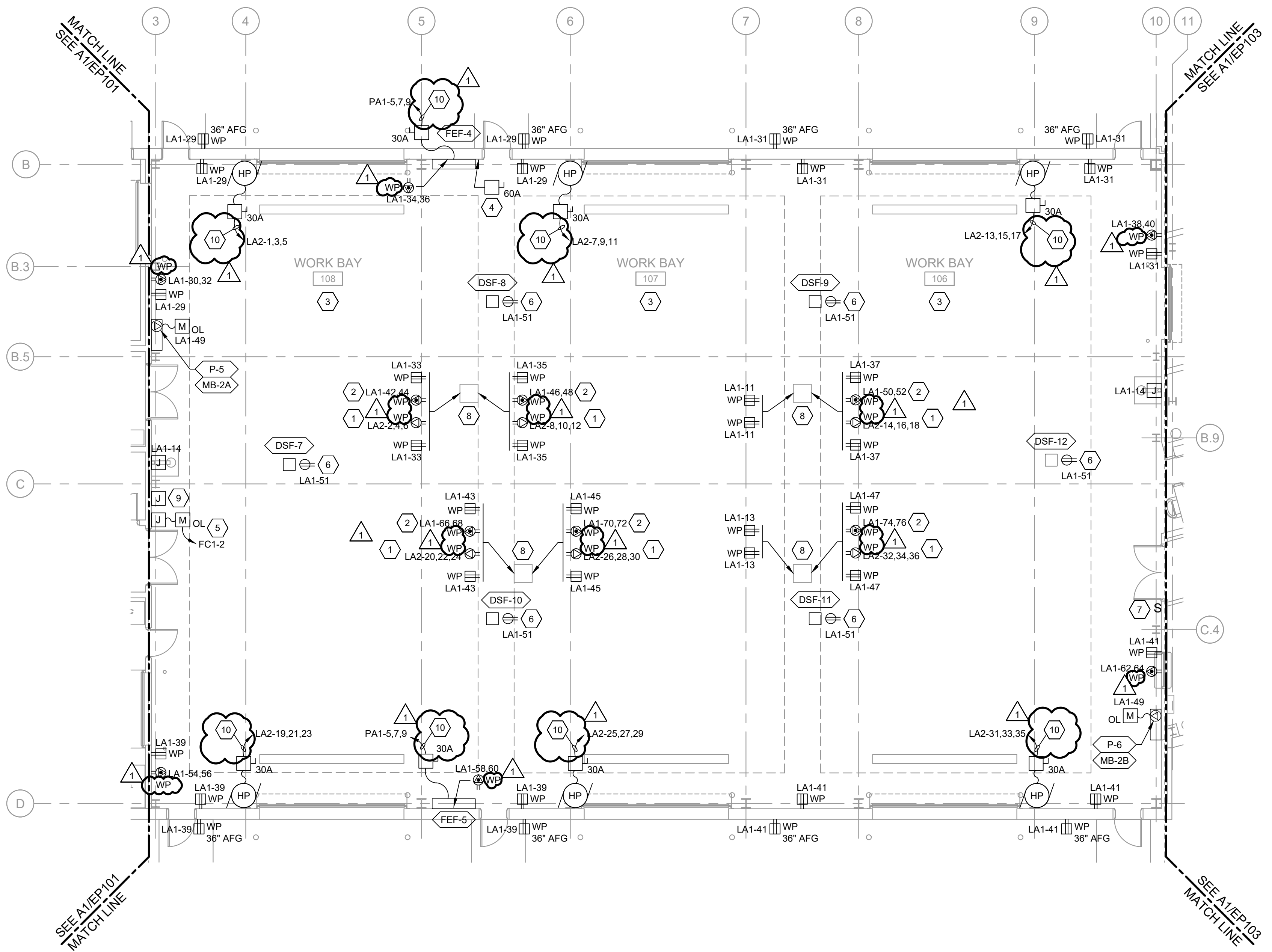
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- 95% REVIEW
- FINAL REVIEW
- FOR BIDDING
- ISSUED FOR CONSTRUCTION
- RECORD DRAWINGS

A1 AREA A FIRST LEVEL POWER PLAN
1/8" = 1' - 0"



SHEET ID:
EP101
SHEET: 210 of 244

NOT FOR CONSTRUCTION



A1 AREA B FIRST LEVEL POWER PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH

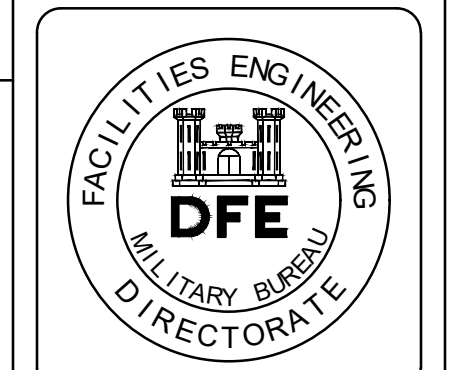
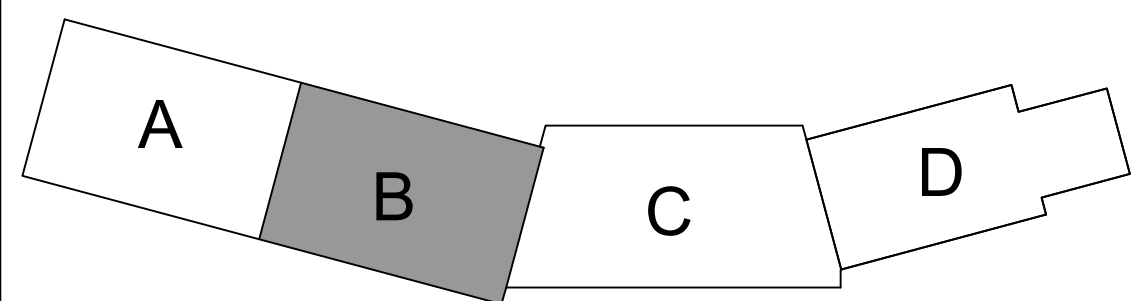
NOTES

- SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES
- ALL INTERIOR AND EXTERIOR RECEPTACLES IN AREA B SHALL BE MOUNTED 36" AFF UNLESS OTHERWISE NOTED.

KEYED NOTES

- PROVIDE APPLETON ACP6034BC 60A, 3P, 208V RECEPTACLE FOR PORTABLE VEHICLE LIFT. ROUTE 3#4 AWG & #8 GND, 1" C
- WELDING OUTLET, ROUTE 2#8 AWG & #10 GND, 3/4" C
- RECEPTACLES WITHIN AREA MOUNTED 36" AFF
- DISCONNECT FOR OVERHEAD BRIDGE CRANE. SEE SHEET E-651 ONE-LINE DIAGRAM FOR CONDUIT AND WIRE.
- 120V CIRCUIT FOR INLINE ZONECHECK TESTER. SEE FIRE ALARM AND FIRE PROTECTION DRAWINGS FOR MORE INFORMATION.
- SWITCHED RECEPTACLE MOUNTED NEAR CEILING FOR PLUG IN OF DESTRATIFICATION FAN. RECEPTACLE SHALL FUNCTION AS LOCAL DISCONNECT SWITCH.
- SWITCH SHALL CONTROL DESTRATIFICATION FAN RECEPTACLES, ON/OFF.
- CONDUITS TO PEDESTALS SHALL BE RUN BELOW GRADE. PROVIDE (2) 1" SPARE CONDUITS BACK TO MECHELEC 112.
- PROVIDE JUNCTION BOX 6" BELOW CEILING OR 6" BELOW STRUCTURE IF NO CEILING AND ROUTE 3/4" C W/PULL STRING BACK TO PANELBOARD LA1 FOR FUTURE CONNECTION TO RADON SYSTEM FAN. LABEL BOX AND CONDUIT WITH THEIR INTENDED USE.
- 3#12 AWG & #12 GND, 3/4" C

KEY PLAN



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ISSUED FOR BID	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

DESIGNED BY:	BHG	230125
DRAWN BY: <td>LAM</td> <td></td>	LAM	
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DATE: <td>06-10-2022</td> <td></td>	06-10-2022	
SCALE: <td>AS NOTED</td> <td></td>	AS NOTED	
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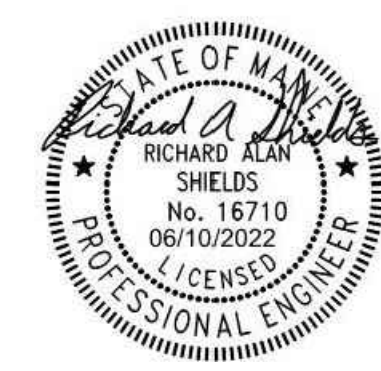
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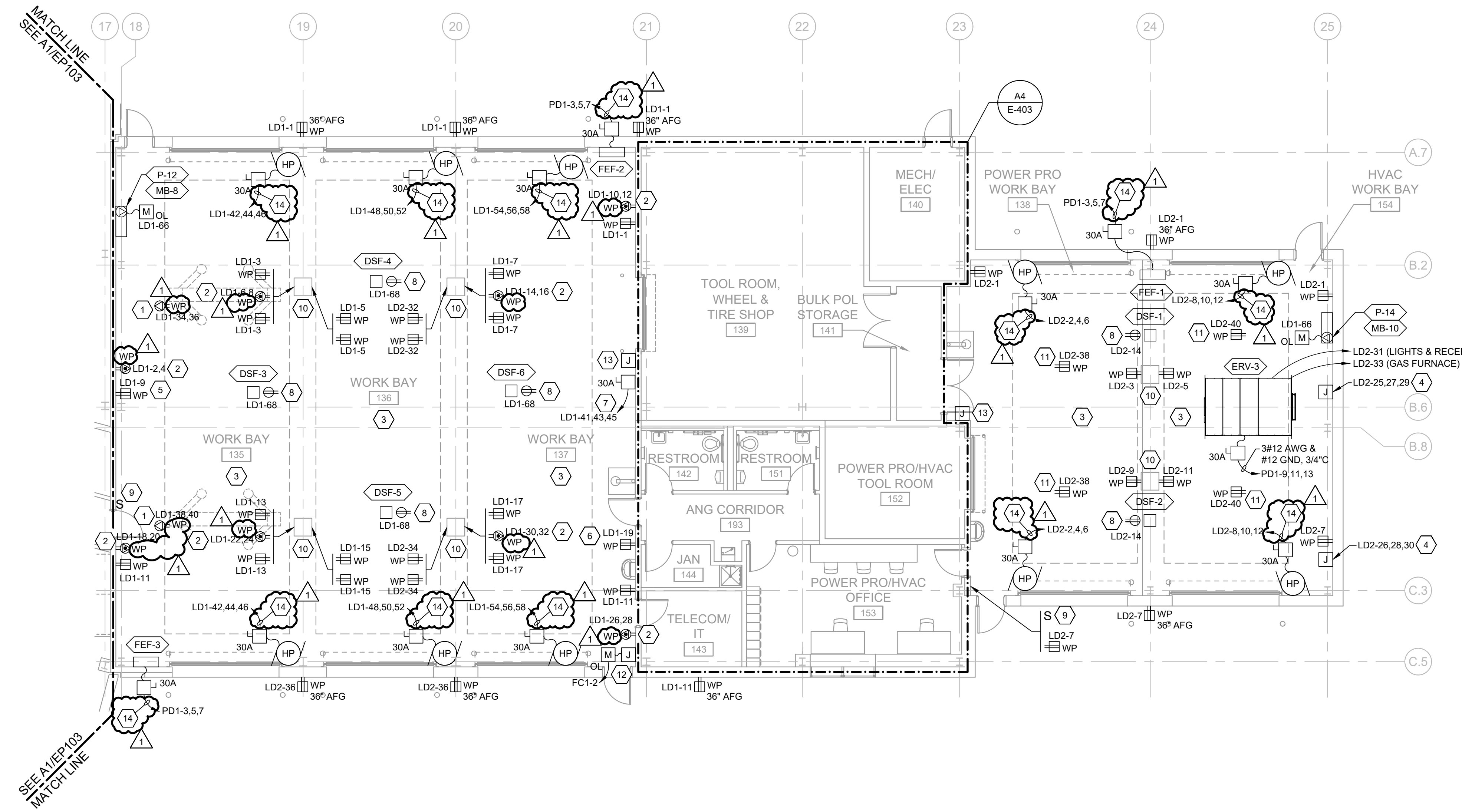
AREA B
 FIRST LEVEL POWER PLAN

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SHEET ID:
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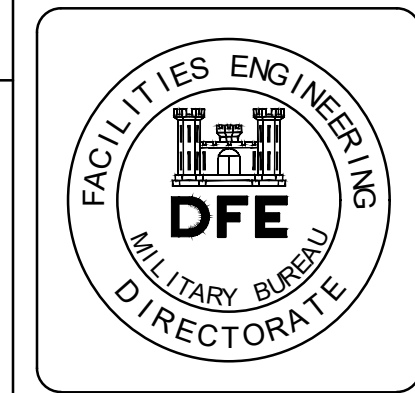


A1 AREA D FIRST LEVEL POWER PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH

NOTE
 1. SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES

- KEYED NOTES**
- RUN HEAVY DUTY SO CORD DOWN FROM CEILING WITH 2#10 AWG & #10 GND AND CONNECT TO VEHICLE LIFT RECEPTACLE, NEMA L14-20R, 20A, 208V, 3P. COORDINATE EXACT LOCATION & REQUIREMENTS WITH OWNER.
 - WELDING OUTLET, ROUTE 2#8 AWG & #10 GND, 3/4"C
 - RECEPTACLES WITHIN AREA MOUNTED 36" AFF
 - PROVIDE BENDIX 32-12, 60A, 5 PIN BULKHEAD CONNECTOR IN 12"x12"x6" BOX SECURED TO WALL. ROUTE 4#6 AWG & #10 GND, 1"C
 - DRILL PRESS
 - A/C MACHINE
 - ELECTRIC HOIST, ROUTE 3#10 AWG & #10 GND, 3/4"C
 - SWITCHED RECEPTACLE MOUNTED NEAR CEILING FOR PLUG IN OF DESTRATIFICATION FAN. RECEPTACLE SHALL FUNCTION AS LOCAL DISCONNECT SWITCH.
 - SWITCH SHALL CONTROL DESTRATIFICATION FAN RECEPTACLES, ON/OFF
 - CONDUITS TO PEDESTALS SHALL BE RUN BELOW GRADE. PROVIDE (2) 1" SPARE CONDUITS BACK TO MECH/ELEC 140.
 - PROVIDE RECEPTACLE NEAR CEILING FOR CONNECTION TO GOVERNMENT FURNISHED CORD REEL.
 - 120V CIRCUIT FOR INLINE ZONE CHECK TESTER. SEE FIRE ALARM AND FIRE PROTECTION DRAWINGS FOR MORE INFORMATION.
 - PROVIDE JUNCTION BOX 6" BELOW CEILING OR 6" BELOW ROOF DECK IF NO CEILING AND ROUTE 3/4"C W/PULL STRING BACK TO PANELBOARD LD1 FOR FUTURE CONNECTION TO RADON SYSTEM FAN. LABEL BOX AND CONDUIT WITH THEIR INTENDED USE.

14. 3#12 AWG & #12 GND, 3/4"C



PLAN REVISIONS

Rev#	Date	JRW	Appr.
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0	04-22-22	JRW	

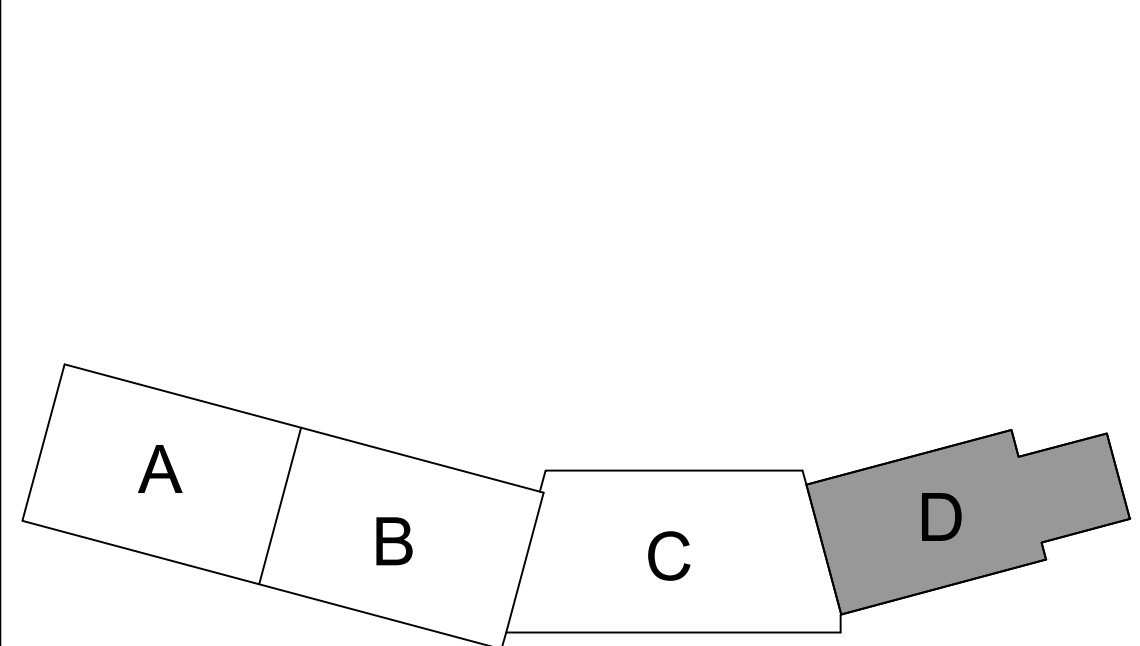
DESIGNED BY:	BHG	230125
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 AREA D
 FIRST LEVEL POWER PLAN

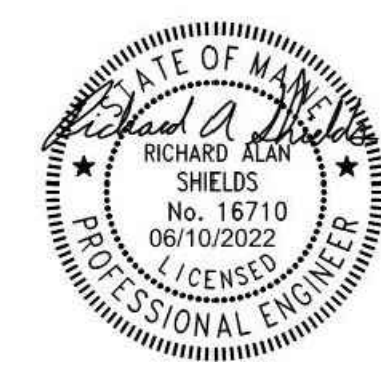
KEY PLAN



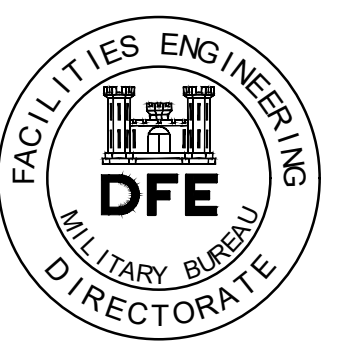
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SHEET ID:
EP104
 SHEET: 213 of 244



NOT FOR CONSTRUCTION



NOTES

- SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES
- PROVIDE FIRE TREATED PLYWOOD BACKBOARD IN ALL ELECTRICAL ROOMS AS NECESSARY FOR MOUNTING OF EQUIPMENT.
- SEE SHEET E-601 FOR SWITCHED RECEPTACLE CONTROL DETAILS

KEYED NOTES

- PROVIDE JUNCTION BOX 6" BELOW CEILING OR 6" BELOW STRUCTURE IF NO CEILING AND ROUTE 3/4" W/PULL STRING BACK TO PANELBOARD LD1 FOR FUTURE CONNECTION TO RADON SYSTEM FAN. LABEL BOX AND CONDUIT WITH THEIR INTENDED USE.
- MOUNT 6" ABOVE SINK OR COUNTER
- RECEPTACLES WITHIN AREA MOUNTED 48" AFF.
- PROVIDE TORK ELC74 LIGHTING CONTROL PANEL OR APPROVED EQUAL. SEE DIAGRAM C2/E-601 FOR MORE INFORMATION.
- ROUTE 2#12AWG & #12 GND, 3/4"C TO CU-8 LOCATED OUTSIDE OF TOOL ROOM WHEEL & TIRE SHOP 139A. ROUTE CONDUIT UNDERGROUND FROM EXTERIOR WALL TO CONDENSING UNIT (CU). SEE SHEET C3/ES401 FOR MORE INFORMATION.
- ROUTE 2#12 AWG & #12 GND, 3/4"C TO CU-6 LOCATED OUTSIDE OF MECH/ELEC 112. ROUTE CONDUIT UNDERGROUND FROM EXTERIOR WALL TO CONDENSING UNIT (CU). SEE SHEET C1/ES401 FOR MORE INFORMATION.
- ROUTE 2#12 AWG & #12 GND, 3/4"C TO CU-7 LOCATED OUTSIDE OF MECH/ELEC 112. ROUTE CONDUIT UNDERGROUND FROM EXTERIOR WALL TO CONDENSING UNIT (CU). SEE SHEET C1/ES401 FOR MORE INFORMATION.
- RECEPTACLES MOUNTED IN BOTTOM OF SERVER RACK. 240V RECEPTACLE SHALL BE 30A TWISTLOCK WITH NEMA CONFIGURATION MATCHING THAT OF THE RACK MOUNTED UPS.
- COMMERCIAL TIRE MOUNTING
- GP TIRE BALANCER
- FILTER CRUSHER
- MOUNT 72" AFF FOR TV.
- PROVIDE TORK ELC78 LIGHTING CONTROL PANEL OR APPROVED EQUAL. SEE DIAGRAM A2/E-601 FOR MORE INFORMATION.
- ROUTE 3#12 AWG, 1"C TO REMOTE ALARM FOR BATTERY ROOM EMERGENCY EYEWASH SHOWER. COORDINATE LOCATION IN FIELD.
- SWITCH FOR CONTROL OF ADJACENT RECEPTACLE FOR BATTERY CHARGING CIRCUIT.
- LIGHTING AND SWITCHED RECEPTACLE BRANCH CIRCUITS SHALL BE ROUTED VIA CONTROL RELAY FURNISHED BY CONTROLS CONTRACTOR TO PROVIDE INTERLOCK BETWEEN SWITCHED RECEPTACLES AND LIGHTING CIRCUITS IN THIS ROOM WITH EXHAUST FAN OPERATION. IF LIGHTING OR SWITCHED RECEPTACLES ARE ON THE EXHAUST FAN EF-1 MUST BE RUNNING.
- EMERGENCY POWER OFF (EPO) PUSHBUTTON USED TO DISCONNECT POWER TO ALL DEVICES IN ROOM. PROVIDE STAINLESS STEEL DEVICE PLATE AND CLEAR LEXAN NON-LOCK LIFT UP COVER TO PREVENT ACCIDENTAL TRIPPING. MOUNT AT 48" AFF. PROVIDE ENGRAVED NAMEPLATE, 1/8" HIGH WHITE LETTERS ON RED BACKGROUND STATING "EMERGENCY OFF PUSHBUTTON - DISCONNECTS ALL POWER TO THIS ROOM". SEE DETAIL A3/E-601 FOR MORE INFORMATION.
- HC-2 HAS TWO SEPARATE ELECTRICAL CONNECTIONS WHICH SHALL BE FED FROM THE SAME CIRCUIT
- IF ABI-15 IS ACCEPTED HWPW-1 WILL BE RELOCATED TO WASH PAD 113

PLAN REVISIONS			
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1	ADDENDUM #1	06-10-22	JRW
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SCALE: <td>AS NOTED</td> <td></td>	AS NOTED	
DFE PROJECT NO.: <td>230125</td> <td></td>	230125	

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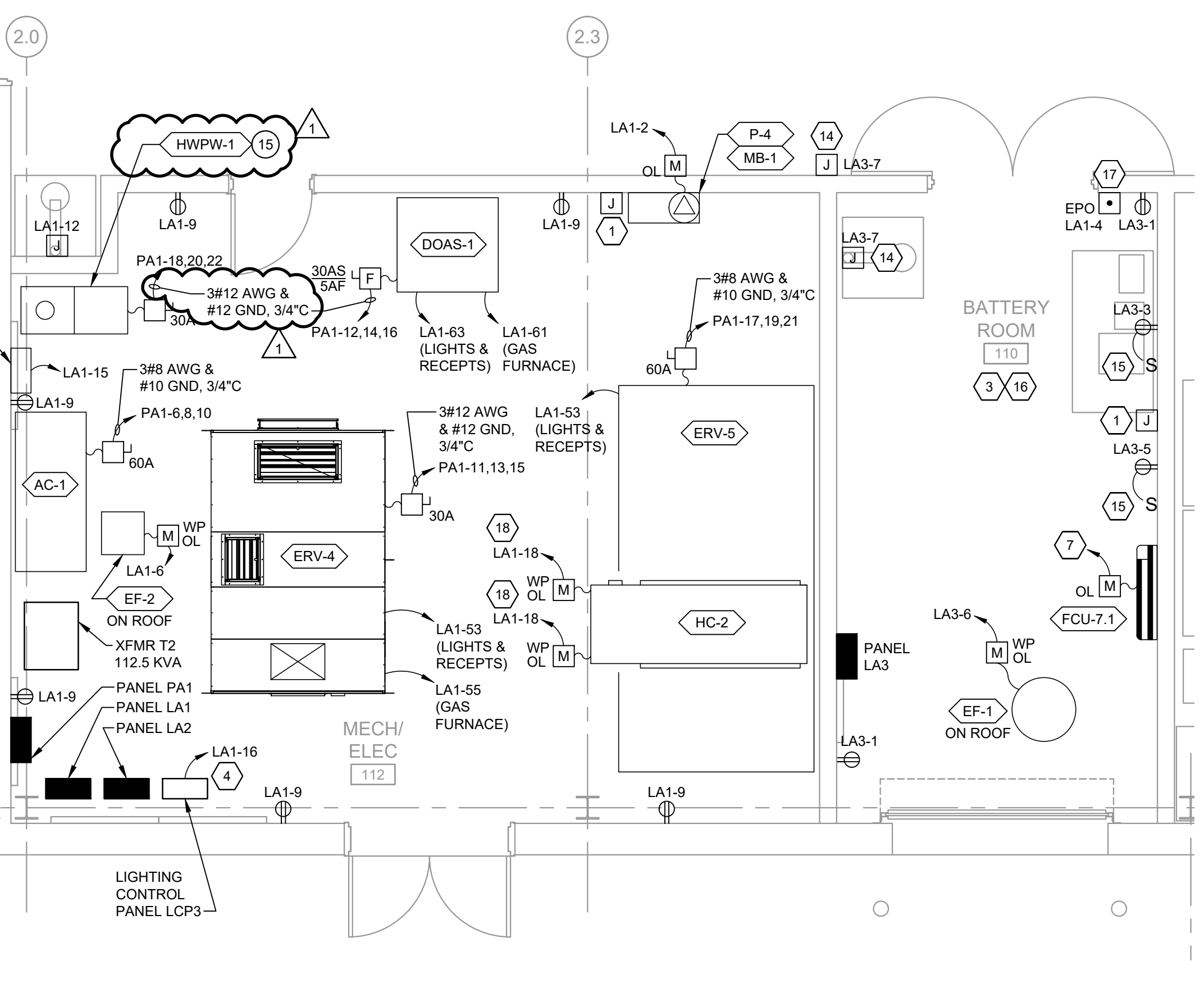
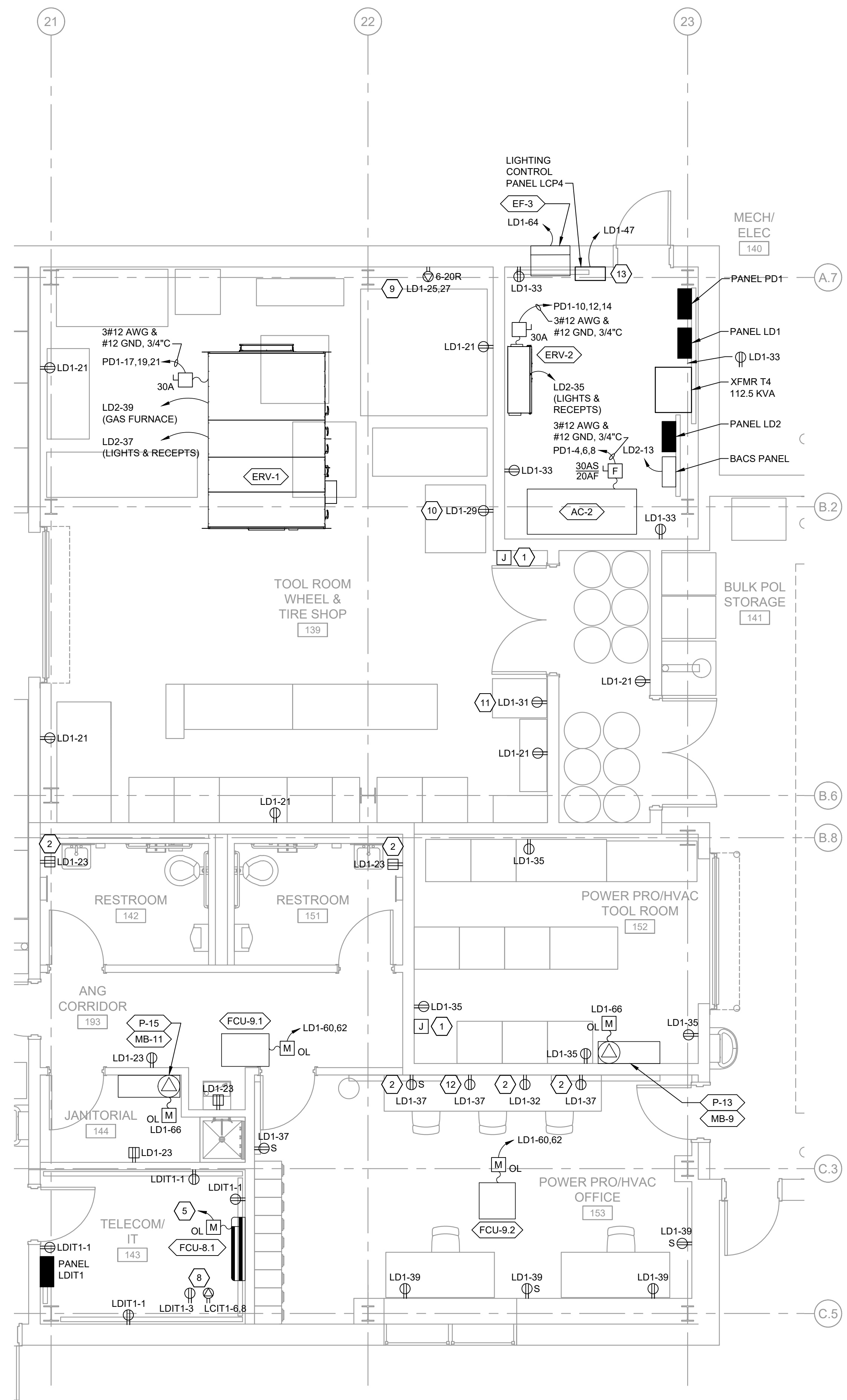
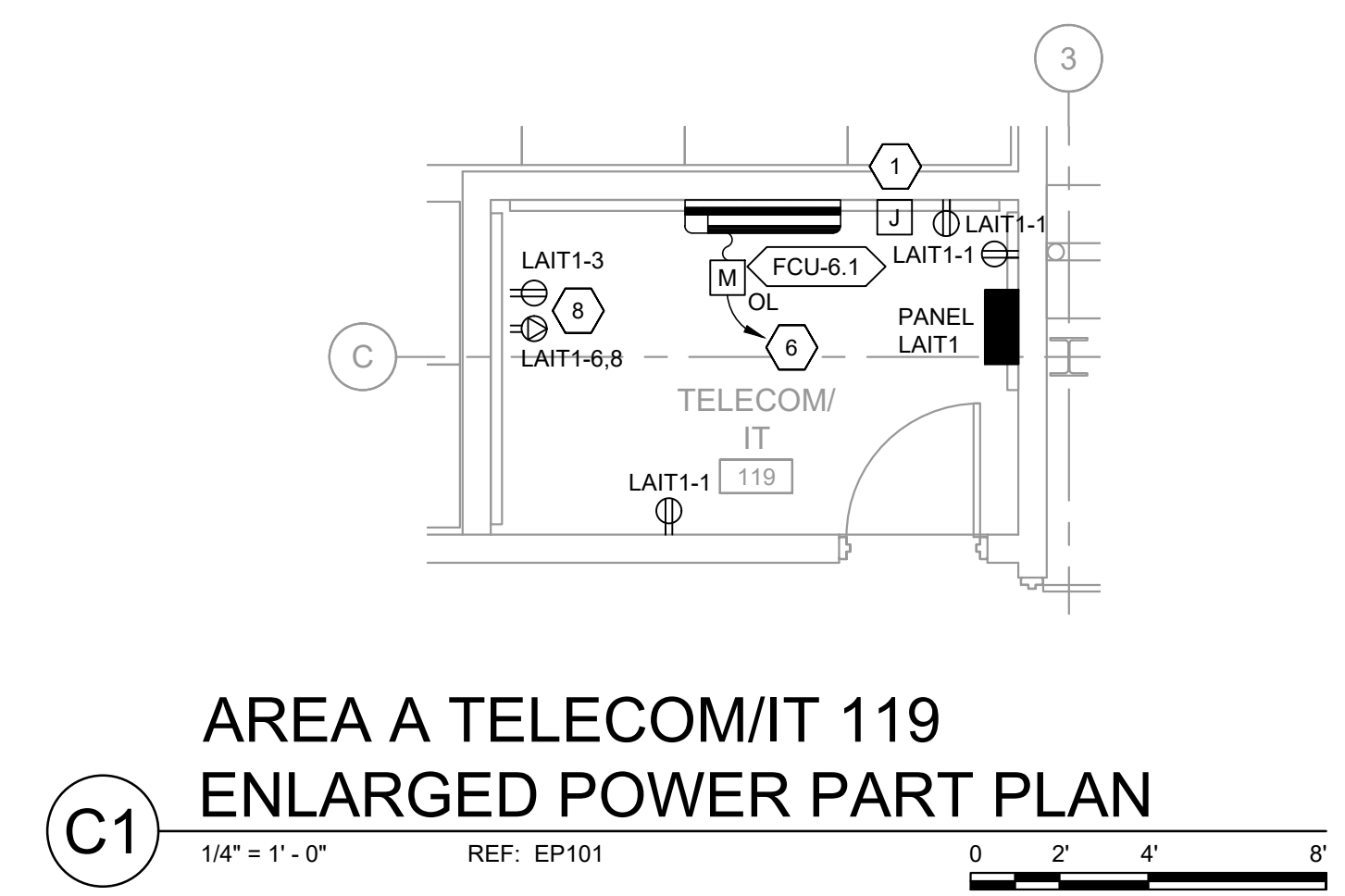
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AREAS A AND D
ENLARGED POWER PART PLANS

PLAN PROGRESS	
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SHEET ID:
E-403
SHEET: 220 of 244



A1 AREA A ENLARGED POWER PART PLAN
1/4" = 1'-0" REF: EP101

A4 AREA D ENLARGED POWER PART PLAN
1/4" = 1'-0" REF: EP104

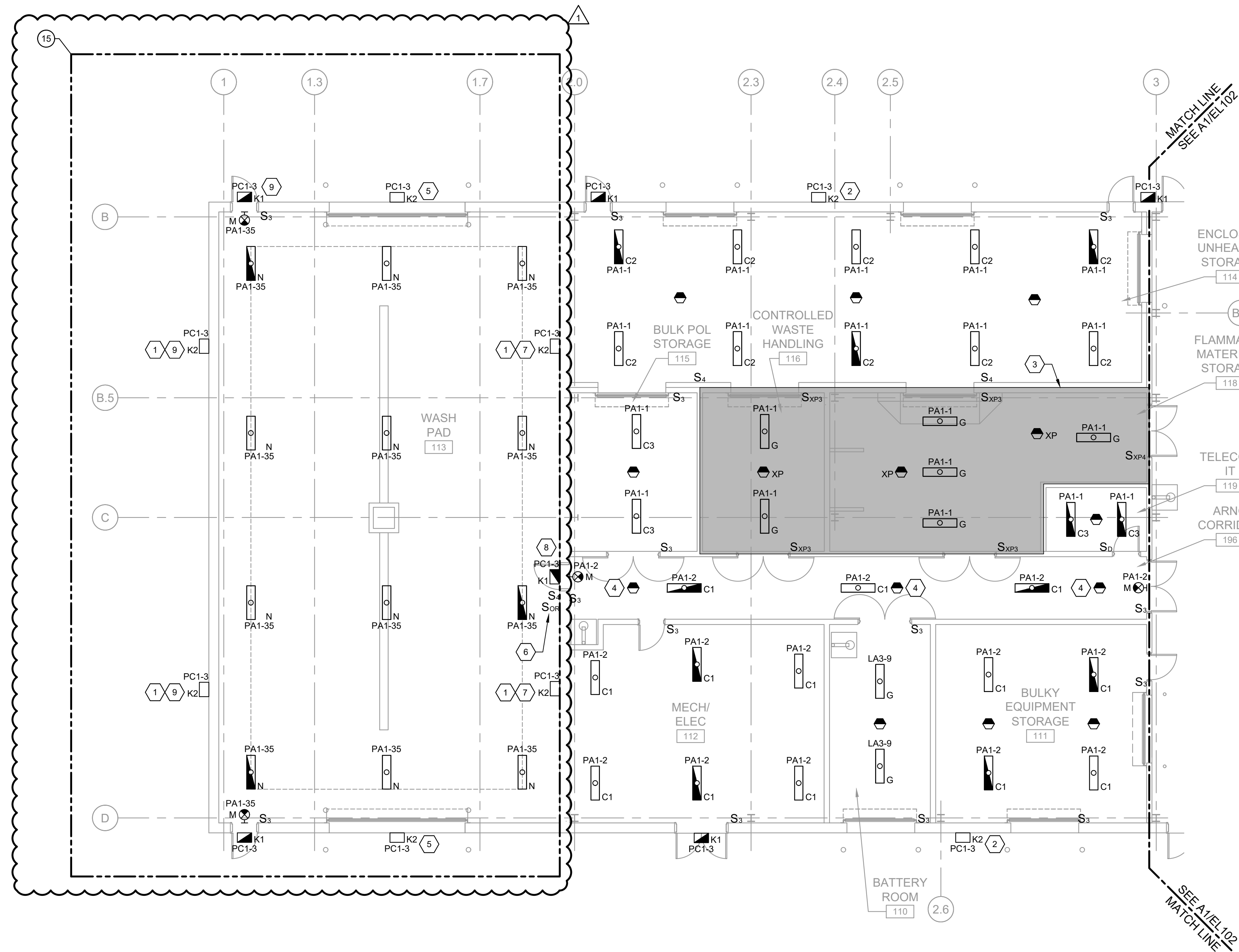
ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE



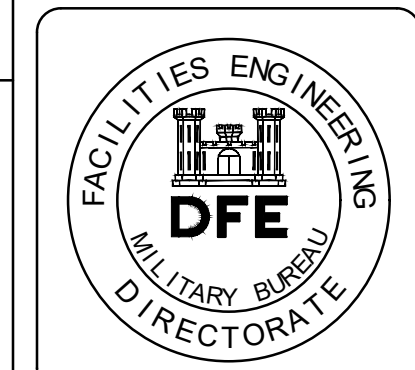
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A1 AREA A FIRST LEVEL LIGHTING PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH

NOTE

1. SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES



PLAN REVISIONS		Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW
	Rev#	Description	

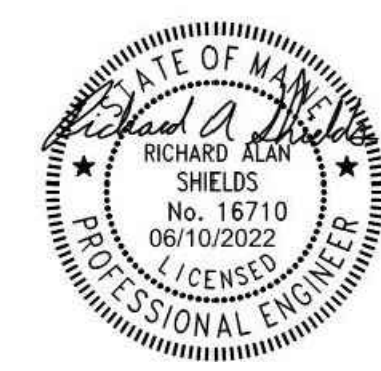
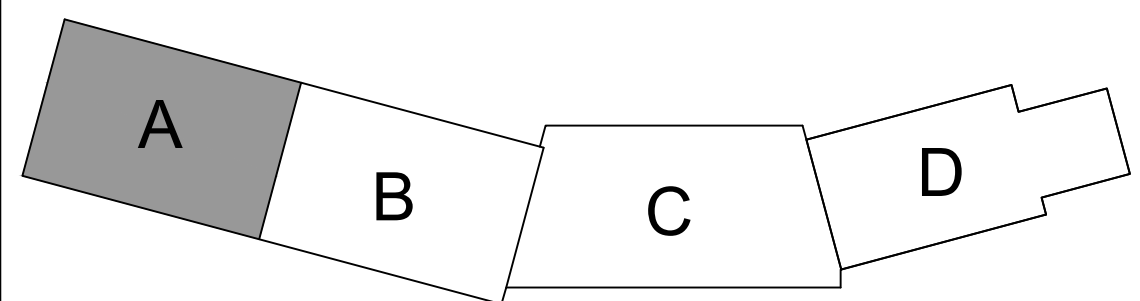
KEYED NOTES

1. FIXTURE MOUNTED 16'-0" AFG
2. FIXTURE MOUNTED 14'-0" AFG
3. SHADED AREA REPRESENT ROOMS THAT ARE CLASSIFIED CLASS I, DIV. II SPACES. DEVICES AND WIRING PRACTICES SHALL COMPLY WITH CLASS I, DIV. II RATING. PROVIDE CONDUIT SEAL OFFS REQUIRED BY NEC.
4. SENSORS IN PRIMARY CORRIDOR SHALL TURN LIGHTS ON AND OFF WHEN CONTROLLING SWITCH IS IN "ON" STATE.
5. FIXTURE MOUNTED 18'-0" AFG
6. WASH PAD LIGHTS: SCHEDULE CIRCUIT ACTIVATION VIA LIGHTING CONTROL PANEL LCP3 RELAYS. PROVIDE WITH TWO HOUR AFTER HOURS "ON" OVERRIDE VIA OVERRIDE SWITCH. MANUAL ON-OFF CONTROL DURING SCHEDULED ON PERIODS. OVERRIDE SWITCH SHALL CONTROL RELAY FOR THIS AREA. SEE C2/E-601 FOR LCP3 LIGHTING CONTROL PANEL DIAGRAM AND SHEET A1/E-403 FOR PANEL LOCATION.
7. IF ABI-15 IS ACCEPTED WALL PACKS SHALL BE RELOCATED TO THE WEST SIDE OF WASH PAD ENCLOSURE. (15)
8. IF ABI-15 IS ACCEPTED WALL PACK SHALL BE RELOCATED TO THE NORTH SIDE EXTERIOR DOOR OF WASH PAD ENCLOSURE. (15)
9. RELOCATED WALL PACK (15)

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
 15. WASH PAD ENCLOSURE

KEY PLAN



DESIGNED BY:	BHG	230125
DRAWN BY:	LAM	
CHECKED BY:	MSD	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DPE PROJECT NO.:		

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

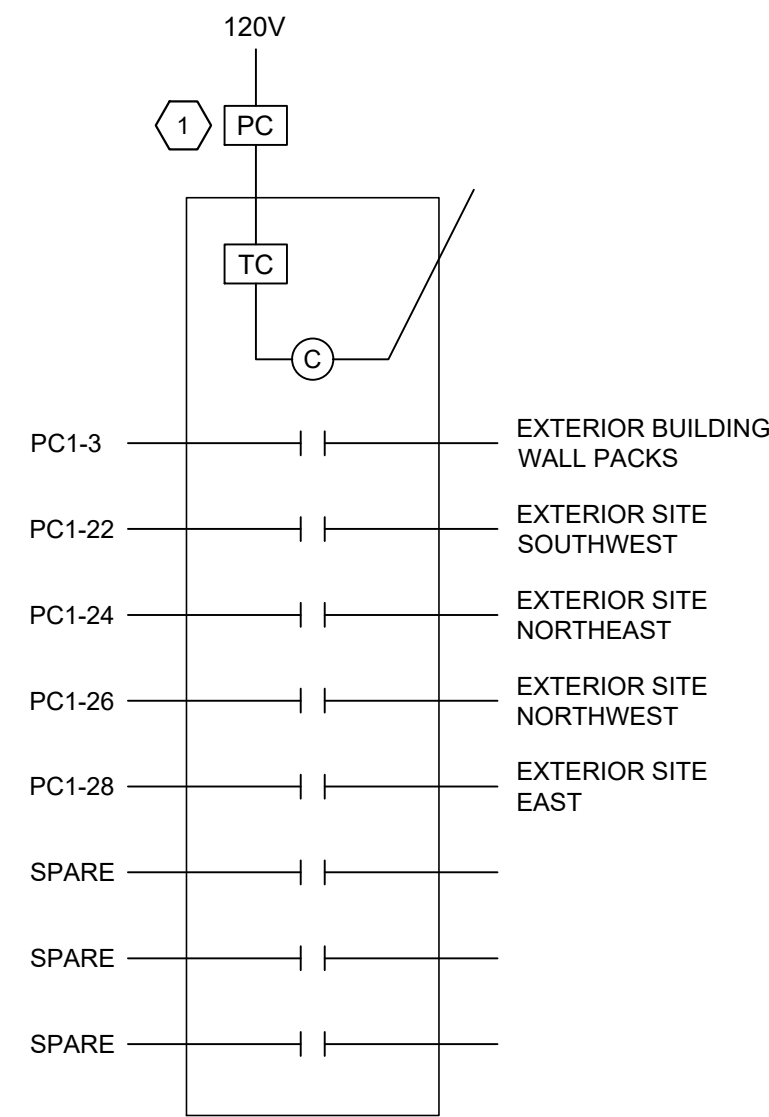
wood.
 ENGINEERING & ARCHITECTURE
 81 Congress St., Suite 202, Portland, ME 04101
 P: (207) 725-2121, F: (207) 725-2122, www.woodeng.com

NATIONAL GUARD VEHICLE MAINTENANCE SHOP	SACO, MAINE	AREA A FIRST LEVEL LIGHTING PLAN
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PLAN PROGRESS	
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<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
EL101
 SHEET: 214 of 244

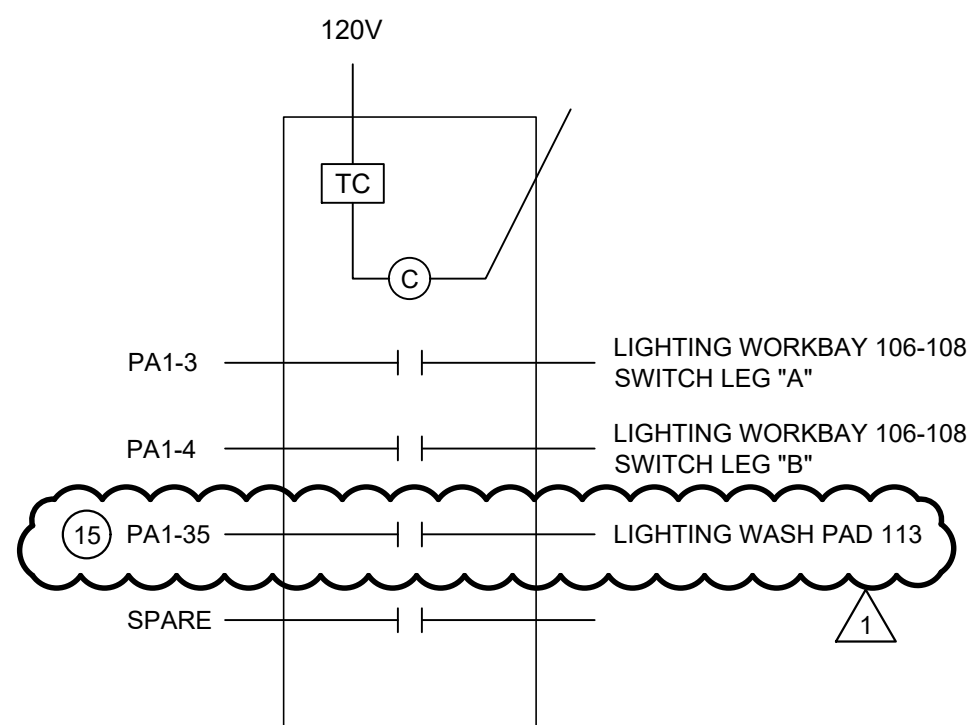
NOT FOR CONSTRUCTION



NOTE:
1. PROGRAM ALL RELAYS TO TURN ON AT DUSK AND OFF AT DAWN.

**LCP2
CONTROL DIAGRAM
MECH/ELEC 131**

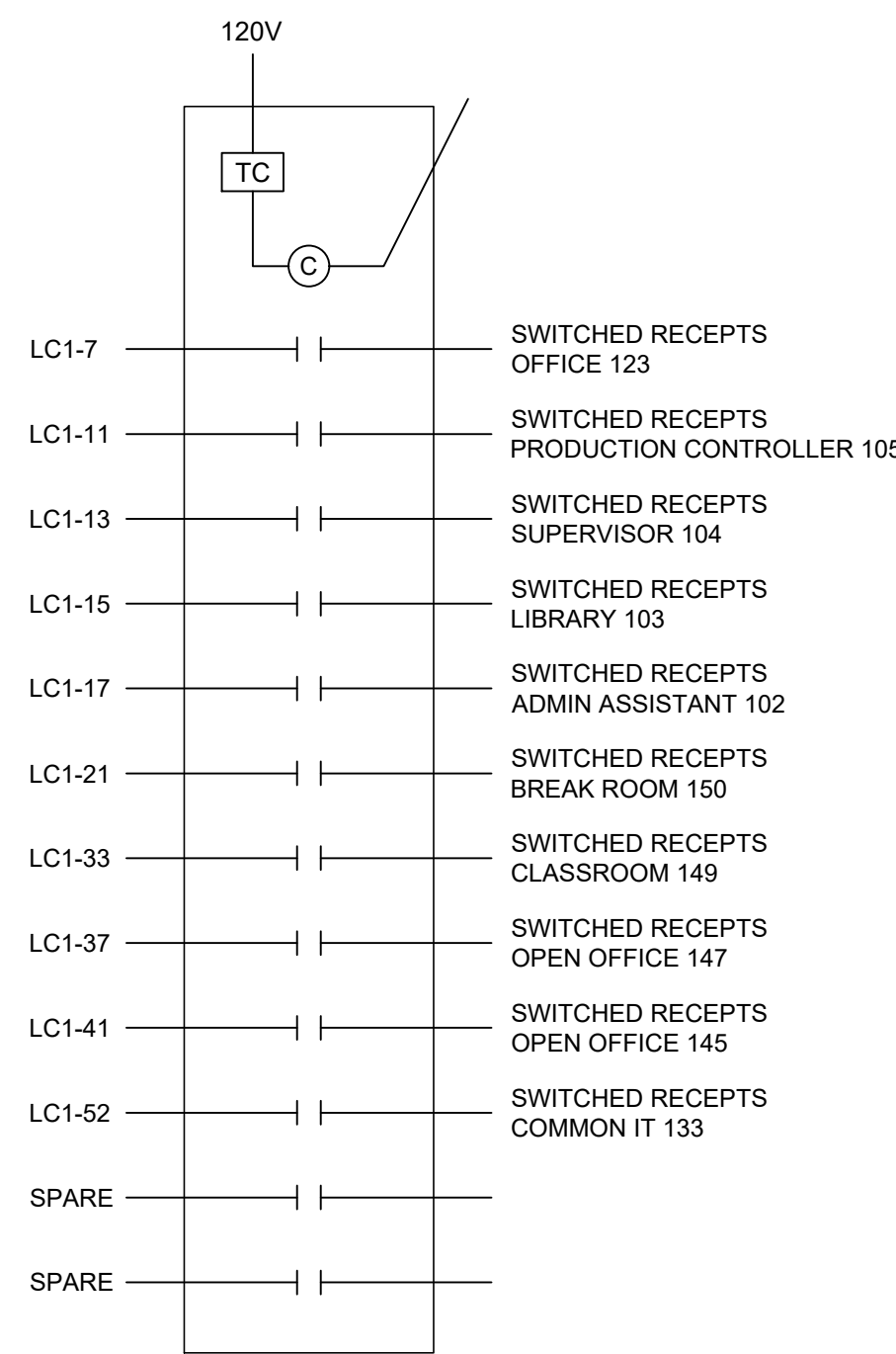
C1 NOT TO SCALE REF: E-402



NOTE:
1. PROGRAM ALL LIGHTING CONTROL RELAYS TO ACTIVATE CIRCUIT AT 6:00 AM AND DEACTIVATE AT 7:00 PM WITH TWO HOUR AFTER HOURS OVERRIDE VIA SWITCH.

**LCP3
CONTROL DIAGRAM
MECH/ELEC 112**

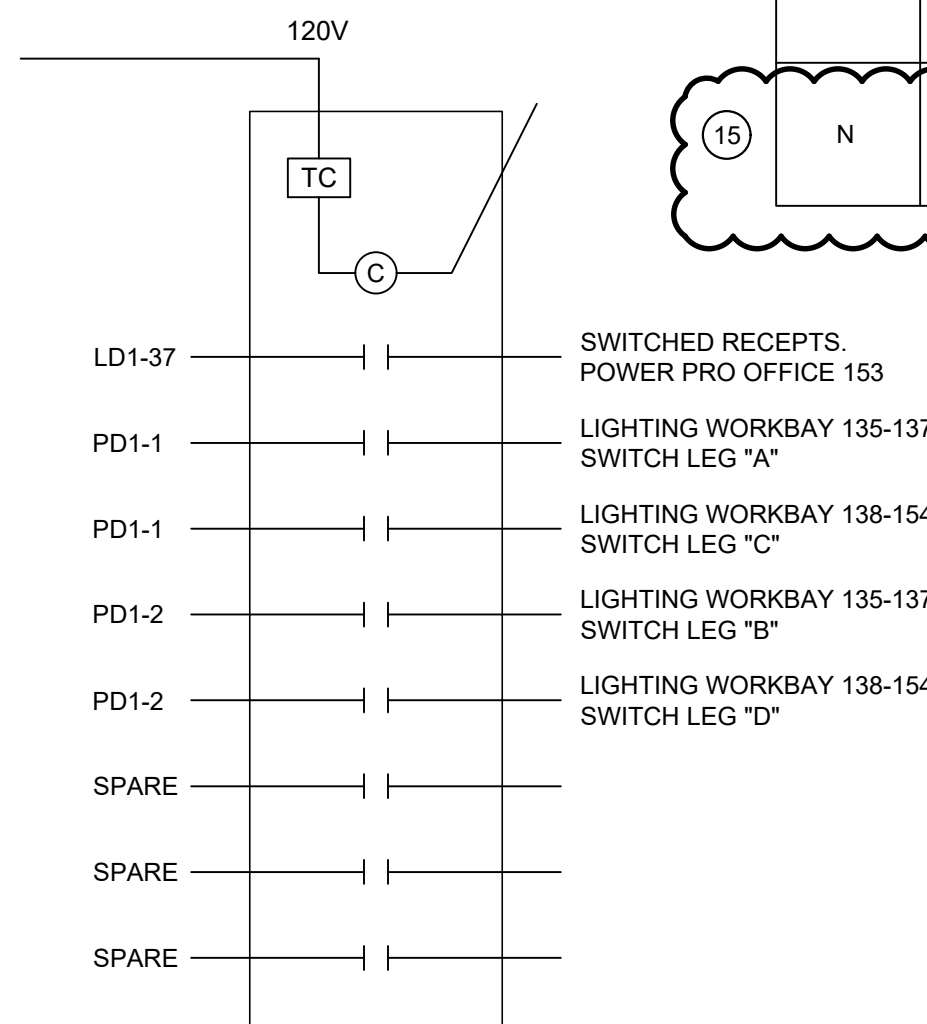
C2 NOT TO SCALE REF: E-403



NOTE:
1. PROGRAM ALL SWITCHED RECEPPTS TO TURN ON AT 7:00 AM AND OFF AT 5:00 PM.

**LCP1
CONTROL DIAGRAM
MECH/ELEC 131**

A1 NOT TO SCALE REF: E-402

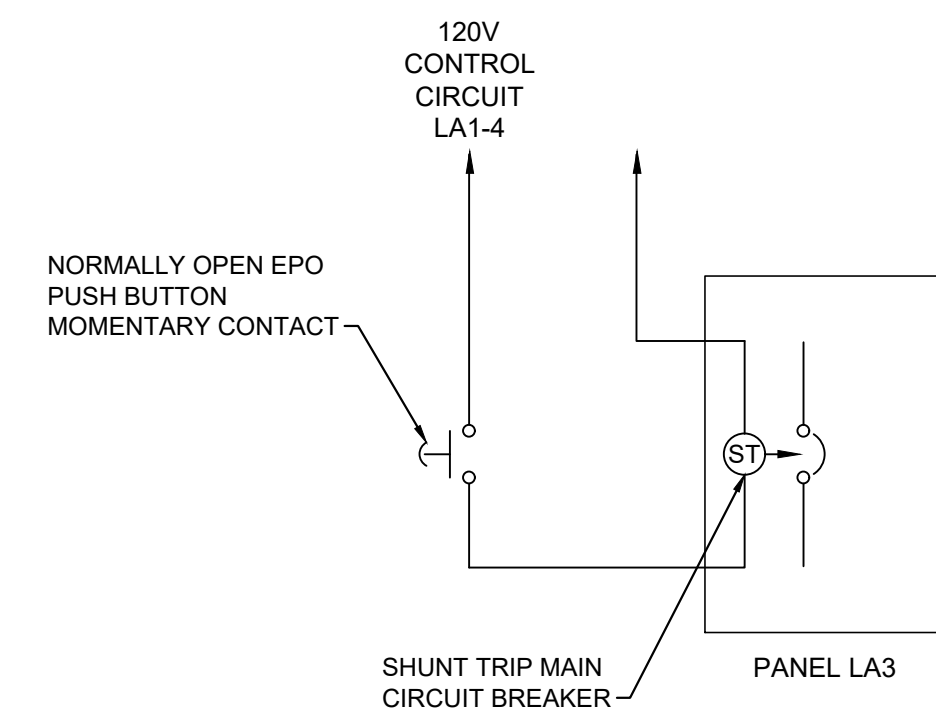


NOTES:
1. PROGRAM ALL SWITCHED RECEPPTS TO TURN ON AT 7:00 AM AND OFF AT 5:00 PM.
2. PROGRAM ALL LIGHTING CONTROL RELAYS TO ACTIVATE CIRCUIT AT 6:00 AM AND DEACTIVATE AT 7:00 PM WITH TWO HOUR AFTER HOURS OVERRIDE VIA SWITCH.

**LCP4
CONTROL DIAGRAM
MECH/ELEC 140**

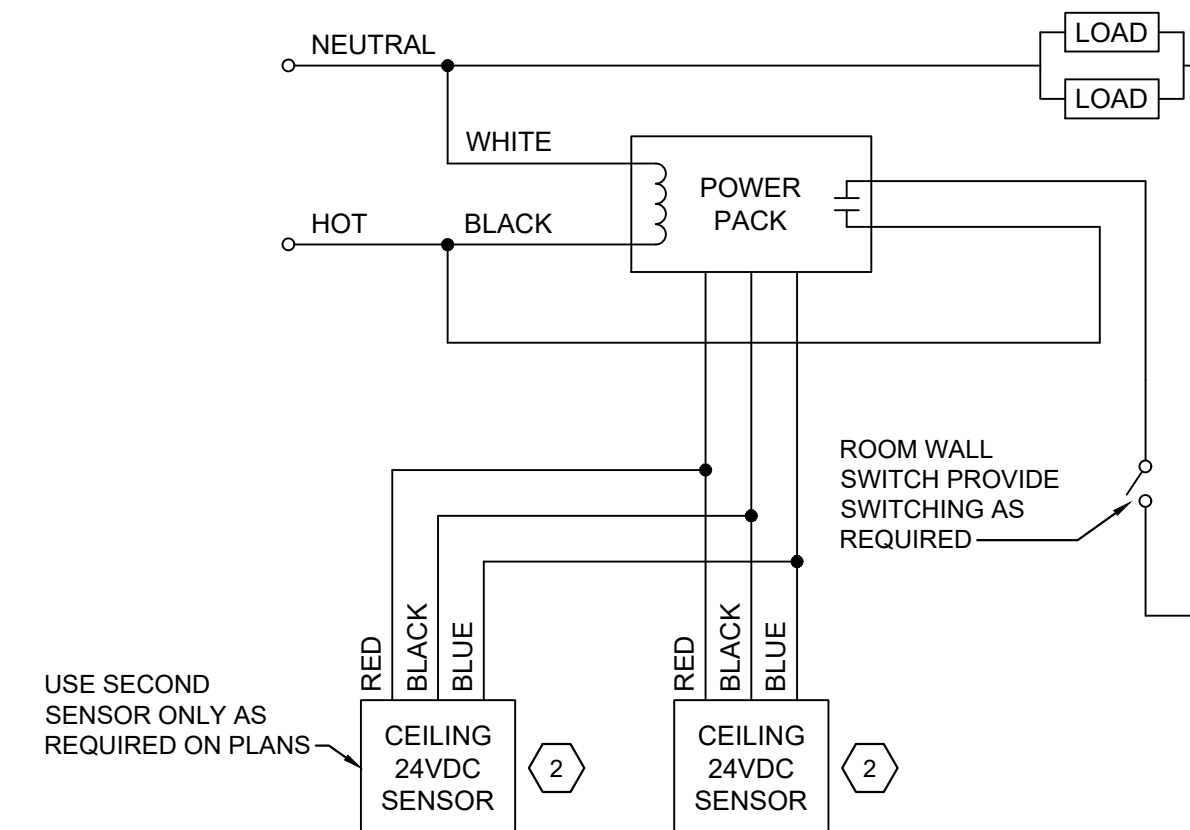
A2 NOT TO SCALE REF: E-403

TYPE	DESCRIPTION	MFR	VOLT	LAMP			MOUNTING		NOTES
				TYPE	WATTS	LM	STYLE	HGT	
A1	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES	COLUMBIA LCAT22-940HLG-EDU	120/277V	LED	31.8	3123	RECESSED	9'-0" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS. DAYLIGHT SENSOR ON FIXTURES INDICATED ON PLAN
A2	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES	COLUMBIA LCAT22-940HLSM-EDU	120/277V	LED	31.8	3123	SURFACE	TO CEILING	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
A3	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES	COLUMBIA LCAT22-940VLG-EDU	120/277V	LED	13.4	1399	RECESSED	9'-0" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
A4	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES	COLUMBIA LCAT22-940VLSM-EDU	120/277V	LED	38.9	4472	RECESSED	9'-0" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
A5	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES	COLUMBIA LCAT22-940HLSM-EDU	120/277V	LED	38.9	4472	SURFACE	TO CEILING	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
B	2'x2' LED ARCHITECTURAL TROFFER, 4000K COLOR TEMP, 90 CRI, CURVED SHIELDING W/DIMMING CAPABILITIES, RATED FOR DAMP LOCATION	COLUMBIA LCAT22-940HLG-EDU	120/277V	LED	31.8	3123	RECESSED	9'-0" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
C1	4' LOW PROFILE TROFFER, 4000K COLOR TEMP, 90 CRI, FROSTED ACRYLIC RIBBED LENS, W/DIMMING CAPABILITIES	LUMAX CDLLED7L4K47-9FAR	120/277V	LED	67	8139	PENDANT	SEE NOTE FOR MOUNTING HEIGHTS	MOUNT ALL FIXTURES 12'-0" AFF TO BOTTOM OF FIXTURE WITH THE EXCEPTION OF THE FOLLOWING AREA: WORK BAYS 138 & 157 - 14'-0" AFF TO BOTTOM OF FIXTURE. PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
C2	4' LOW PROFILE TROFFER, 4000K COLOR TEMP, 90 CRI, FROSTED ACRYLIC RIBBED LENS, W/DIMMING CAPABILITIES	LUMAX CDLLED7L4K47-9FAR	120/277V	LED	67	8139	SURFACE	14'-0" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
C3	4' LOW PROFILE TROFFER, 4000K COLOR TEMP, 90 CRI, FROSTED ACRYLIC RIBBED LENS, W/DIMMING CAPABILITIES	LUMAX CDLLED9L4K47-9FAR	120/277V	LED	86	9927	PENDANT	12'-0" AFF TO BOT. OF FIXT.	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
D	LED HIGH BAY FIXTURE, 4000K COLOR TEMP, 90 CRI, FROSTED ACRYLIC LENS W/DIMMING CAPABILITIES	HUBBELL UTB2-8-40-LXWE-WW-X-WA116-P95-YY-CGS	120/277V	LED	76.3	10674	PENDANT	SEE NOTE FOR MOUNTING HEIGHTS	MOUNT FIXTURES 25'-0" AFF TO BOTTOM OF LIGHT IN WORK BAYS 105-107 AND 21'-0" AFF IN WORK BAYS 135-137. PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.
F	4" ROUND SHOWER DOWNLIGHT, 3500K COLOR TEMP, 90 CRI, CLEAR ACRYLIC LENS, WHITE TRIM AND FLANGE, SUITABLE FOR WET LOCATIONS	PRESCOLITE LTR-4RD-H-SL15LDM1-LTR-4RD-T-SH135K9-WTACL	120/277V	LED	18.6	838	RECESSED	9'-0" AFF	
G	4' LED EXPLOSION PROOF FIXTURE, 4000K COLOR TEMP W/DIMMING CAPABILITIES	LUMAX EXPLED98L4K54-9FP-E	120/277V	LED	68	9801	PENDANT	12'-0" AFF TO BOT. OF FIXT.	
H	4' LED LINEAR TROFFER, 4000K COLOR TEMP, 90 CRI, FROSTED ACRYLIC LENS, W/DIMMING CAPABILITIES	COLUMBIA MPS49-40VL-CW-EDU	120/277V	LED	54.3	5732	PENDANT	12'-0" AFF TO BOT. OF FIXT.	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS. DAYLIGHT SENSOR ON FIXTURES INDICATED ON PLAN.
K1	EXTERIOR LED WALL PACK, 3K COLOR TEMP, TYPE III DISTRIBUTION, DIE-CAST ALUMINUM HOUSING, FULL CUT-OFF, DARK-SKY APPROVED	HUBBELL LNC2-9L-3K-070-3	120/277V	LED	21.4	1825	WALL	8'-0" AFG	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS. BUG RATNG: B0, U0, G1 SEE SHEET ES101 FOR DESCRIPTION OF LIGHTING CONTROLS
K2	EXTERIOR LOW PROFILE LED WALL PACK, FULL CUT-OFF, DARK SKY COMPLIANT, 3K COLOR TEMP, TYPE III DISTRIBUTION, DIE CAST ALUMINUM HOUSING	HUBBELL RWL1-48L-10-3K7-E-U	120/277V	LED	10.1	1303	WALL	AS NOTED	BUG RATNG: B0, U0, G1 SEE SHEET ES101 FOR DESCRIPTION OF LIGHTING CONTROLS
M	THERMOPLASITC LED EXIT SIGN, RED LETTERS, WHITE HOUSING WITH LITHIUM ION PHOSPHATE BATTERY. PROVIDE WITH SELF TESTING ELECTRONICS	DUAL-LITE EVCURWIO	120/277V	LED				CEILING OR WALL	7'-6" AFF
N	4' HIGH BAY TROFFER, 4000K COLOR TEMP, 90 CRI, CLEAR POLYCARBONATE DROP LENS, W/DIMMING CAPABILITIES	LUMAX VHILED160L4K48-9CP	120/277V	LED	149	16,500	PENDANT	16'-6" AFF	PROVIDE WITH EMERGENCY BALLAST WHERE INDICATED ON PLANS.



**EMERGENCY
POWER OFF DIAGRAM
BATTERY ROOM 110**

A3 NOT TO SCALE REF: E-403



**LIGHTING
OCCUPANCY/VACANCY
SENSOR WIRING DIAGRAM**

A4 NOT TO SCALE

NOTE

1. SEE SHEET E-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES

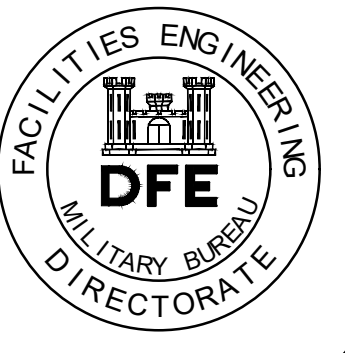
KEYED NOTES

1. PROVIDE PHOTOELECTRIC SENSOR WITH ADJUSTABLE LIGHT SHIELD AND MOUNT TO NORTH SIDE OF BUILDING IN WEATHERPROOF BOX. ROUTE CONDUIT AND WIRING AS REQUIRED.
2. PROVIDE EACH SENSOR WITH SPARE CONTACT FOR DIRECT CONNECTION TO BACS.

ALTERNATE BID ITEMS

SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS

15. WASH PAD ENCLOSURE



PLAN REVISIONS		DATE	APPR.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

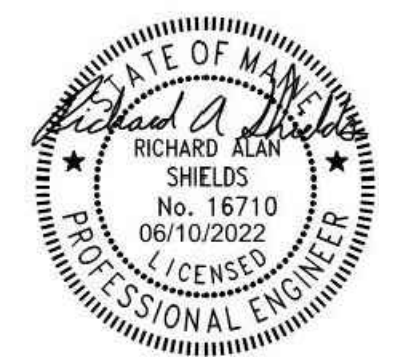
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DRAWN BY: <td>LAM</td>	LAM
CHECKED BY: <td>MSD</td>	MSD
DATE: <td>06-10-2022</td>	06-10-2022
SCALE: <td>AS NOTED</td>	AS NOTED
DFE PROJECT NO: <td>230125</td>	230125

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT



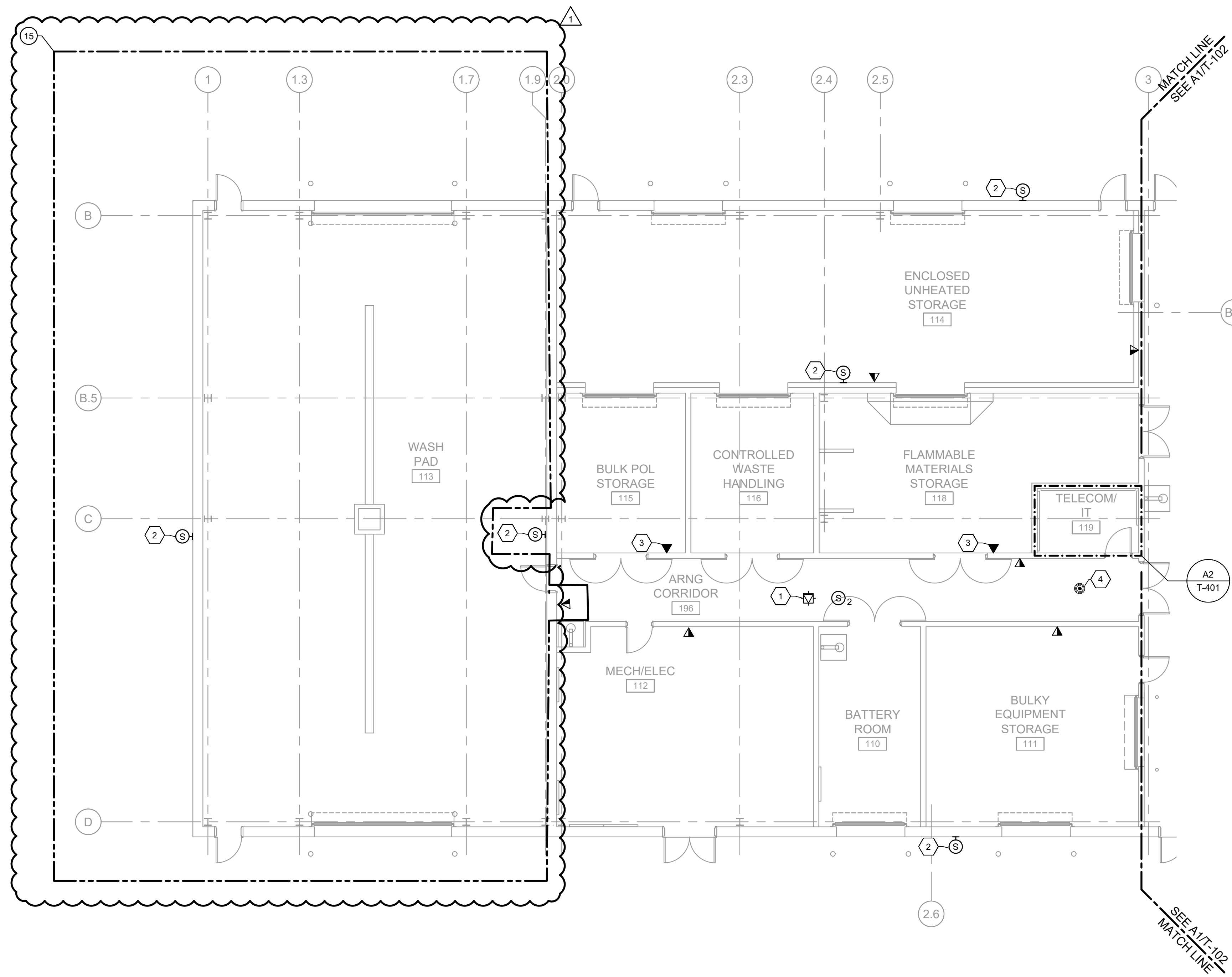
NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE
LIGHTING FIXTURE SCHEDULE
AND DIAGRAMS

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SHEET ID:
E-601
SHEET: 223 of 244

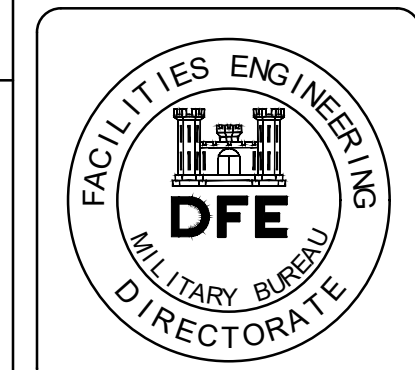
NOT FOR CONSTRUCTION



A1 AREA A FIRST LEVEL TELECOM PLAN
 1/8" = 1' - 0"
 0 4' 8' 16'
 PLAN NORTH

NOTES

- SEE SHEET T-001 FOR LEGEND ABBREVIATIONS AND GENERAL NOTES.
- ALL TELECOM OUTLETS IN THIS AREA SHALL BE ON THE ARMY NATIONAL GUARD (ARNG) NETWORK.
- REFER TO E-SHEETS FOR TELECOM OUTLET MOUNTING HEIGHT PER ROOM UNLESS OTHERWISE NOTED.
- ALL TELECOM OUTLETS SHALL BE HOMERUN BACK TO THE IDF ROOM 119 IN 1" CONDUIT U.O.N.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

KEYED NOTES

- PROVIDE SINGLE PORT KEYSTONE TERMINATION FOR WIRELESS ACCESS POINT (WAP). PROVIDE IMC PENDANT AND 2-GANG DEEP JUNCTION BOX AT LIGHT FIXTURE LEVEL AND PROVIDE FACTORY MADE PATCH CORD FOR CONNECTION TO WAP.
- WALL MOUNTED PA SPEAKER SHALL BE OUTDOOR RATED WEATHERPROOF.
- WALL MOUNTED PHONE JACK FOR EXPLOSION PROOF PHONE CONDUIT SHALL BE IMC WITH CONDUIT SEAL 3' FROM 1-GANG CAST J-BOX.
- PROVIDE LOW PROFILE DISTRIBUTED ANTENNA SYSTEM (DAS). PROVIDE IMC PENDANT AND 2-GANG DEEP JUNCTION BOX AT LIGHT FIXTURE LEVEL FOR MOUNTING.

DESIGNED BY:	AKC	230125
DRAWN BY:	AKC	
CHECKED BY:	MAG	
DATE:	06-10-2022	
SCALE:	AS NOTED	
DFE PROJECT NO.:		

STATE OF MAINE
 DEPARTMENT OF DEFENSE, VETERANS
 AND EMERGENCY MANAGEMENT

WOOD
 ENGINEERING & ARCHITECTURE, INC.
 811 Congress St., 3rd Floor, Portland, ME 04101
 P. (207) 725-2121 F. (207) 725-2122 WWW.WOODENR.COM

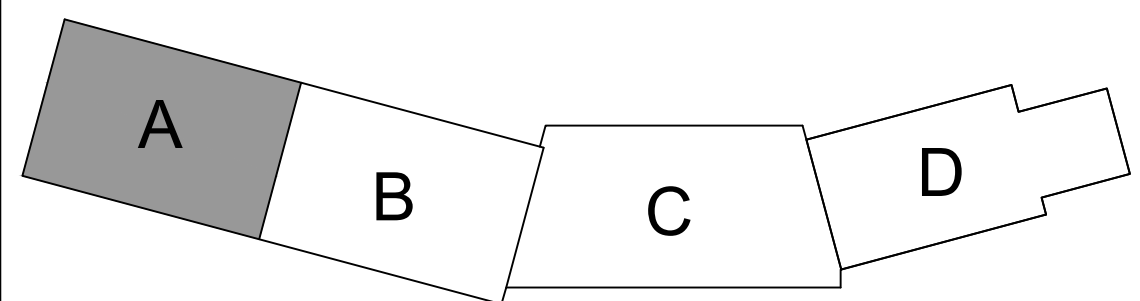
ALTERNATE BID ITEMS

- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
- WASH PAD ENCLOSURE

NATIONAL GUARD
 VEHICLE MAINTENANCE SHOP
 SACO, MAINE

AREA A FIRST LEVEL
 TELECOM PLAN

KEY PLAN

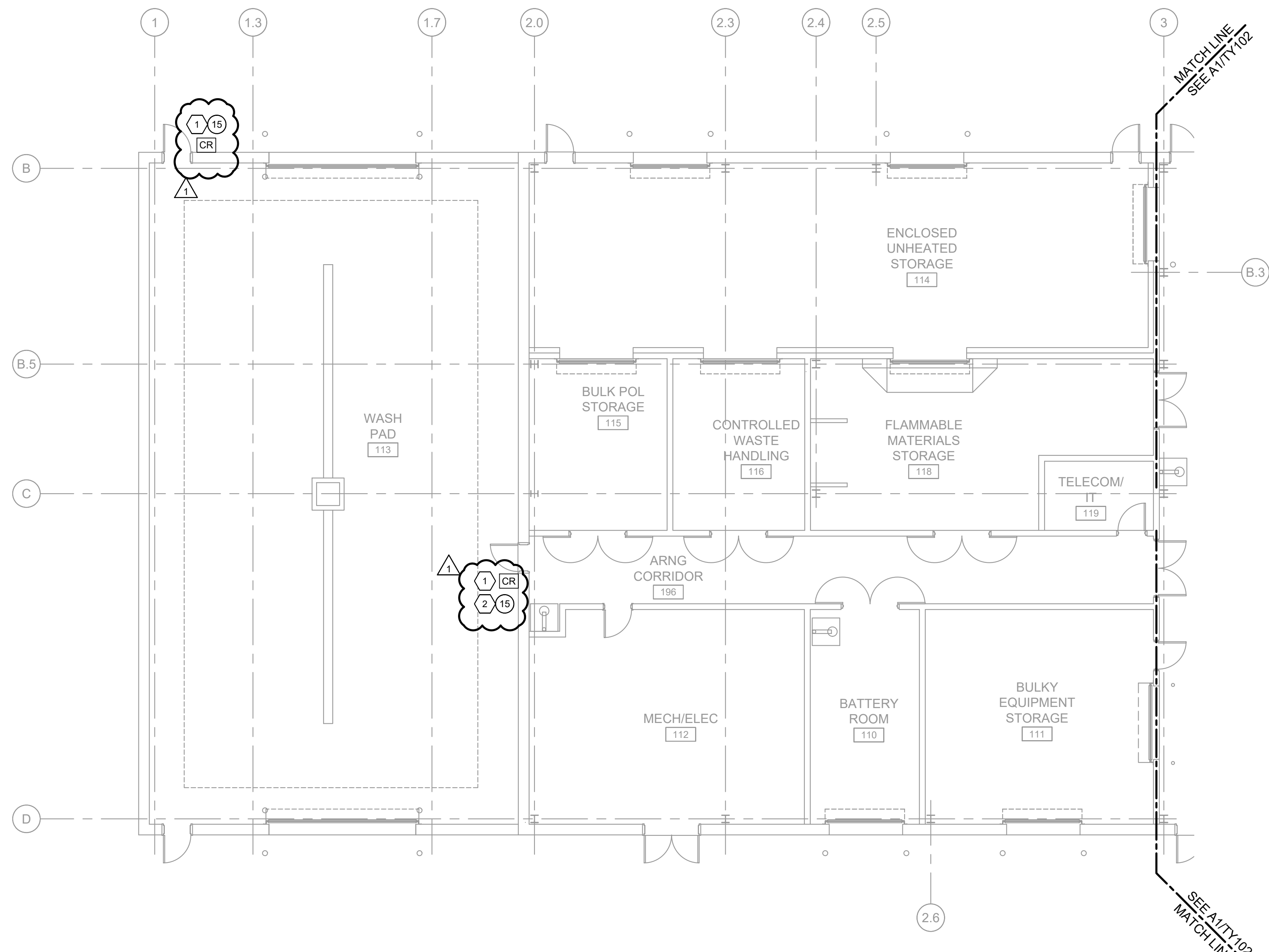


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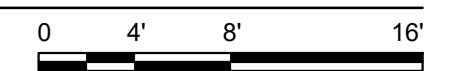
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T-101
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NOT FOR CONSTRUCTION



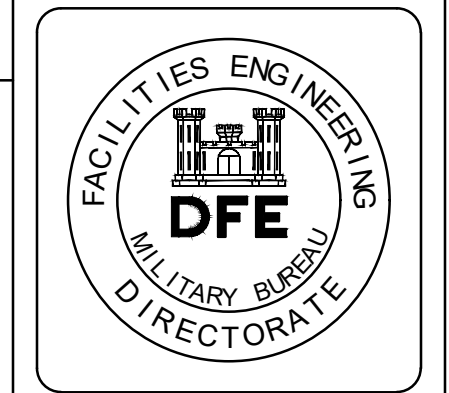
A1 AREA A FIRST LEVEL SECURITY PLAN

1/8" = 1' - 0"



NOTES

1. SEE SHEET TY001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES
2. CONDUIT RUNS SHALL BE HOME RUNS AND INSTALLED IN ACCORDANCE WITH ELECTRICAL SPECIFICATIONS.
3. CONDUITS SHALL BE LABELED WITH DESCRIPTION AND DESTINATION AT EACH JUNCTION BOX AND HEADEND LOCATION.
4. JUNCTION BOXES SHALL BE LABELED WITH INTENDED USE.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
1	ADDENDUM #1	06-10-22	JRW
0	ISSUED FOR BID	04-22-22	JRW

KEYED NOTES

1. SEE DETAIL A3/TY501 FOR INSTALLATION OF SYSTEM CONDUIT AND DEVICE BOXES ASSOCIATED WITH THE CARD READER.
2. IF ABI-15 IS ACCEPTED CARD READER SHALL BE RELOCATED TO NORTH SIDE EXTERIOR DOOR OF THE WASH PAD ENCLOSURE. 15

DESIGNED BY:	RDL/ BHG	STR	MSD	DATE:	06-10-2022	AS NOTED	230125
DRAWN BY:	STR			CHECKED BY:			
SCALE:				DATE:			
DFE PROJECT NO.:							

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS
AND EMERGENCY MANAGEMENT

WOOD
Engineering & Information Solutions, Inc.
851 Congress St., 30th Floor, Portland, ME 04101
P: (207) 725-2121 F: (207) 725-2122 W: woodinfo.com

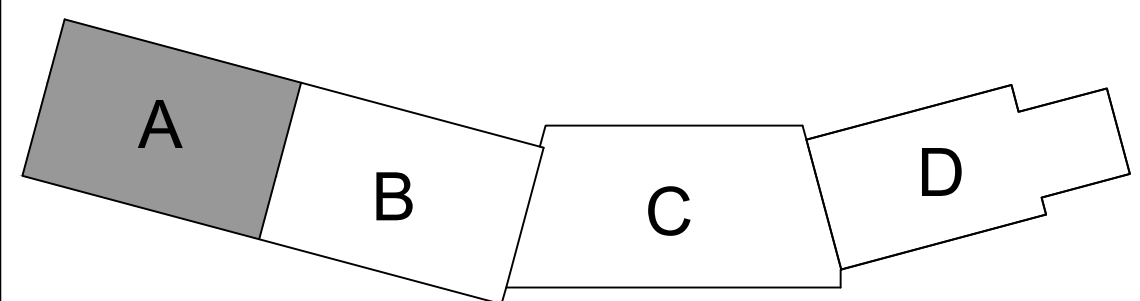
ALTERNATE BID ITEMS

- SEE SHEET G-004 FOR ALTERNATE BID ITEM DESCRIPTIONS
15. WASH PAD ENCLOSURE 15

NATIONAL GUARD
VEHICLE MAINTENANCE SHOP
SACO, MAINE

AREA A
FIRST LEVEL SECURITY PLAN

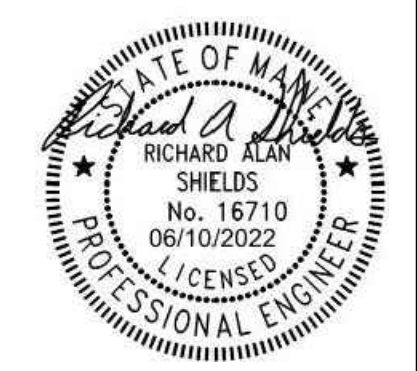
KEY PLAN



PLAN PROGRESS

- DRAFT
- 35% REVIEW
- 60% REVIEW
- 95% REVIEW
- FINAL REVIEW
- FOR BIDDING
- ISSUED FOR CONSTRUCTION
- RECORD DRAWINGS

SHEET ID:
TY101
SHEET: 240 of 244



NOT FOR CONSTRUCTION

Pre Bid Attendance Sheet

FMS #1 Joint Vehicle Maintenance Facility, Saco Maine

Fill out Completely and Please Print Clearly

Project Number	Bid Number	Attendee Name	Phone #	Facsimile #	e-mail	Time
Company name Street Address Mailing address	<i>Incomplete or illegible information may exclude you from bidding</i>					
ME ARNG BLDG 7	RALPH TURNER	207 831 2182			RALPH.F.TURNER4. RFBG@ARMY.MIL	
ME ARNG SOUTH PORTLAND	KATE HEWITT	207 837-1974			elizabeth.hewitt@ us.af.mil	
ME ARNG Bldg 7	NORMAN MICHAUD	207 592-1604			NORMAN.G.MICHAUD CNGI.ARMY.MIL	
ME ARNG BLDG 7	Annabelle Collins	207-779-6633			annabelle.w.collins.vol @army.mil	
ME ARNG south Portland	Taylor McDonald	207-949-1730			taylor.mcdonald@us.af.mil	
DUCCAS CONSTRUCTION 40 CENTER ST SUITE 1 SCARBOROUGH, ME 04074	Patrick DUCCAS	207-939-9448			Patrick.duccas@duccasconstruction.com	
Woods Excavating LLC Bl Cgr dr. Gorham ME. 04088	Gregg McPherson	207-899-7995			Gregg@woodsexcavatingllc.com	
BLANE CASEY BUILDING CONTRACTOR RIVERSIDE TR AUGUSTA	JEFF BECKER	207-687-5600			JEFFBECKER@BLANECASEY.COM	

Pre Bid Attendance Sheet

FMS #1 Joint Vehicle Maintenance Facility, Saco Maine

Fill out Completely and Please Print Clearly

Time

Bid Number

Project Number

Incomplete or illegible information may exclude you from bidding

Company name Street Address Mailing address	Attendee Name	Phone #	Facsimile #	e-mail
WOOD 511 CONGRESS ST PORTLAND, ME 04101	JEFF WALKER	605-521-460	N/A	JEFF.WALKER@WOODPLC.COM
WOOD 511 CONGRESS ST. Portland, ME 04101	Lisa Maxwell	207-650-0937	N/A	Lisa.Maxwell@WOODPLC.COM
MEARNG BLDG 7	Nouch Lessard	207-712-6851	N/A	Nouch.Lessard.mil@Army.mil
State of Maine - DOD PLDS 7	Scott McCallister	207-415-9055	N/A	Scott.J.McCallister.vol@Army.mil
Ciabro 360 US Route 1 Falmouth, ME 04105	Scott Tompkins	207-615-9770	/	Stompkins@Ciabro.com
" "	TODD DESMARRES	207-614-4392	/	Tdesmarra@CIABRO.COM
R.J. Grinding & Sons	Hannes Schneider	207-854-1147	N/A	estimators@rjgandin.com
SHAW BROTHERS CONST	KRAIG LUCAS	207-839-2552	207-839-6239	KLUCAS@SHAWBROTHERS.COM

Pre Bid Attendance Sheet

FMS #1 Joint Vehicle Maintenance Facility, Saco Maine

Fill out Completely and Please Print Clearly

Project Number	Bid Number	Time			
<i>Incomplete or illegible information may exclude you from bidding</i>					
Company name Street Address Mailing address	Attendee Name	Phone #	Facsimile #	e-mail	
Sheridan Construction 33 Sheridan Drive, Fairfield, ME	Jackson Swann Dave Whitney	207-453-9311		Sales@sheridancorp.com	
Geopac Portsmouth NH	Brin Nelson	603 978 5826		bnelson@geopac.com	
OPTIMUM CONSTRUCTION So. PORTLAND, ME	SEBASTIEN LECURE	207-747-9580		SLECURE@OPTIMUMBUILDINGS.COM	
SARGENT COMP 378 BARNUM RD SULLYVILLE, ME	Michelle W Tibodeau	207-817-7580		MTHERIDAN@SARGENT.US	

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00 41 13 CONTRACTOR BID FORM
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00 61 13.13 CONTRACTOR PERFORMANCE BOND
00 61 13.16 CONTRACTOR PAYMENT BOND
00 63 63 CHANGE ORDER FORMS
00 63 63.01 CHANGE ORDER FORM – LIST OF ITEMS
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SECTION 099123 - INTERIOR PAINTING (MPI STANDARDS)

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 surface preparation and the application of paint systems on the following interior substrates:
 - 1. Concrete.
 - 2. Concrete masonry units (CMUs).
 - 3. Steel and iron.
 - 4. Galvanized metal.
 - 5. Wood.
 - 6. Gypsum board.
- B. Related Requirements:
 - 1. Section 099600 "High-Performance Coatings" for tile-like coatings.

1.3 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D523.
- B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D523.
- D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D523.
- E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D523.
- F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D523.
- G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
 - 2. Indicate VOC content.
- B. Sustainable Design Submittals:
 - 1. Product Data: For paints and coatings, indicating VOC content.
 - 2. Laboratory Test Reports: For paints and coatings, indicating compliance with requirements for low-emitting materials.
 - 3. Environmental Product Declaration: For each product.
 - 4. Health Product Declaration: For each product.
 - 5. Sourcing of Raw Materials: Corporate sustainability report for each manufacturer.
 - 6. Manufacturer Inventory: For each product, provide manufacturer's manifest of ingredients.
 - 7. Manufacturer Inventory: For each product, provide manufacturer's manifest of ingredients.
- C. Samples for Initial Selection: For each type of topcoat product.
- D. Product List: Use same designations indicated on Drawings and in the Interior Painting Schedule to cross-reference paint systems specified in this Section. Include color designations.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures of less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- 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. Behr Paint Company; Behr Process Corporation.
 - 2. Benjamin Moore & Co.
 - 3. California Paints; ICP Building Solutions Group.
 - 4. Coronado Paint; Benjamin Moore & Co.
 - 5. Hempel (USA), Inc.
 - 6. Insl-X Products; Benjamin Moore & Co.
 - 7. Kelly-Moore Paints.
 - 8. McCormick Paints.
 - 9. Pratt & Lambert; a subsidiary of The Sherwin-Williams Company.
 - 10. Rodda Paint Co.
 - 11. Rust-Oleum Corporation; a subsidiary of RPM International, Inc.
 - 12. United Gilsonite Laboratories (UGL).
 - 13. Valspar; a brand of The Sherwin-Williams Company.
 - 14. Vista Paint Corporation.

2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. VOC Content: For field applications that are inside the weatherproofing system, verify paints and coatings comply with VOC content limits of authorities having jurisdiction and the following VOC content limits:
 - 1. Flat Paints and Coatings: 50 g/L.
 - 2. Nonflat Paints and Coatings: 50 g/L.
 - 3. Dry-Fog Coatings: 150 g/L.
 - 4. Primers, Sealers, and Undercoaters: 100 g/L.
 - 5. Rust-Preventive Coatings: 100 g/L.

6. Zinc-Rich Industrial Maintenance Primers: 100 g/L.
 7. Pretreatment Wash Primers: 420 g/L.
 8. Shellacs, Clear: 730 g/L.
 9. Shellacs, Pigmented: 550 g/L.
- D. Low-Emitting Materials: For field applications that are inside the weatherproofing system, verify 90 percent of paints and coatings comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- E. Colors: As selected by Architect from manufacturer's full range.
1. Ten percent of surface area will be painted with deep tones.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
1. Concrete: 12 percent.
 2. Masonry (Clay and CMUs): 12 percent.
 3. Wood: 15 percent.
 4. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected.
1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of

size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates (not shop primed): Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
1. SSPC-SP 3.
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Wood Substrates:
1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 2. Prime edges, ends, faces, undersides, and backsides of wood.
 3. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
- J. Cotton or Canvas Insulation Covering Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

3.3 INSTALLATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
1. Use applicators and techniques suited for paint and substrate indicated.

2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Electrical, Communication, and Electronic Safety and Security Work:
1. Paint the following work throughout the facility:
 - a. Metal conduit for compliance with specified color-coding requirements; do not paint prefinished materials.

3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Traffic Surfaces:
 1. Latex Floor Enamel System, MPI INT 3.2A for painted safety markings on concrete floors where indicated on Drawings:

- a. Prime Coat: Floor paint, latex, matching topcoat.
 - b. Topcoat: Floor paint, latex, low gloss (maximum MPI Gloss Level 3), MPI #60.
2. Water-Based Concrete Floor Sealer System, MPI INT 3.2G, exposed concrete floors throughout, unless noted otherwise on finish plans:
- a. First Coat: Sealer, water based, for concrete floors, matching topcoat.
 - b. Topcoat: Sealer, water based, for concrete floors, MPI #99.
- B. CMU Substrates:
1. High-Performance Architectural Latex System, MPI INT 4.2D:
 - a. Block Filler: Latex, interior/exterior, MPI #4.
 - b. Topcoat: Latex, interior, high performance architectural, semigloss (MPI Gloss Level 5), MPI #141.
 2. Water-Based Light-Industrial Coating System, MPI INT 4.2K
 - a. Block Filler: Latex, interior/exterior, MPI #4.
 - b. Intermediate Coat: Light-industrial coating, interior, water-based, matching topcoat.
 - c. Topcoat: Light-industrial coating, interior, water-based, semigloss (MPI Gloss Level 5), MPI #153.

b-1) Basis of Design: Sherwin Williams Pro Industrial Pre-Cat Epoxy.
- C. Steel Substrates:
1. High-Performance Architectural Latex System, MPI INT 5.1R:
 - a. Prime Coat: Primer, alkyd, quick dry, for metal (shop application for structural steel), MPI #76.
 - b. Topcoat: Latex, interior, high performance architectural, semigloss (MPI Gloss Level 5), MPI #141.
- D. Galvanized-Metal Substrates:
1. High-Performance Architectural Latex System, MPI INT 5.3M:
 - a. Prime Coat: Primer, galvanized, water based, MPI #134.
 - b. Topcoat: Latex, interior, high performance architectural, semigloss (MPI Gloss Level 5), MPI #141.
- E. Wood Substrates: Fire-retardant treated plywood backer boards.
1. Alkyd System, MPI EXT 6.4B:
 - a. Prime Coat: Primer alkyd for wood, MPI #5.
 - b. Topcoat: Alkyd, exterior, semigloss (MPI Gloss Level 5), MPI #94.

F. Gypsum Board Substrates:

1. High-Performance Architectural Latex System, MPI INT 9.2B:
 - a. Prime Coat: Primer sealer, latex, interior, MPI #50.
 - b. Topcoat for Gypsum Board walls throughout unless noted otherwise: Latex, interior, high performance architectural (MPI Gloss Level 3), MPI #139.
 - c. Topcoat for Gypsum Board walls and ceilings in shower room and adjoining locker rooms and restrooms: Latex, interior, high performance architectural, semigloss (MPI Gloss Level 5), MPI #141.

END OF SECTION 099123

00 11 13
Notice to Contractors

Joint National Guard Vehicle Maintenance Shop

DFE Project Number 230125-D
ANG Project Number- SCRV359001
BGS Project Number 3100
Bid Number 22-018

The proposed construction is a joint vehicle maintenance facility for both the Maine Army National Guard (ARNG) and Maine Air National Guard (ANG). The project is located on a 51-acre State-owned parcel along Eastview Parkway in Saco and Scarborough, Maine. The new facility will include separate high-bay maintenance spaces for the ARNG and ANG, an exterior vehicle wash pad, storage (equipment, tools, parts, POL, general), office space, break rooms, shower and locker rooms, classroom space, and a physical fitness room. Facilities are designed to a minimum lifespan of 50 years, including energy efficiencies, building envelope, and integrated building systems performance in accordance with ASA (IE&E) Sustainable Design and Development Policy. The project shall be LEED v4 SILVER. Supporting facilities for the site will include roadways, parking areas, fenced vehicle storage, fuel tanks, site utilities, and stormwater management measures. Flexible pavement will be used for roadways and parking areas. The Contractor shall furnish and install all items in accordance with Plans and Specifications prepared by: Wood Environment and Infrastructure Solutions, Inc., dated 22 April 2022. Completion date below is based on construction (on site activities) start date of no earlier than 2 September 2022.

The cost of the work is approximately \$ 21,000,000. The work to be performed under this contract shall be completed on or before the Final Completion date of 30 November 2024.

1. Bids shall be submitted in sealed envelopes plainly marked "**Bid for Joint National Guard Vehicle Maintenance Shop, DFE Project Number 230125-D, ANG Project Number SCRV359001, Bid No. 22-018 & BGS Project Number 3100**" and addressed to the Bid Administrator:

*Directorate of Facilities Engineering
Defense, Veterans, and Emergency Management
194 Winthrop Street, Building #7, Camp Keyes
Augusta, Maine 04330
Attn: Mrs. Sherrill Hallett*

The envelope shall contain a completed Contractor Bid Form, plus bid security when required, to be received no later than **2:00:00 p.m.** on **21 July 2022**. Bid submissions will be opened and read aloud at the address shown above at the time and date noted above.

Any bid submitted after the noted time will not be considered a valid bid and will remain unopened. Any bid submitted by any other means will not be considered a valid bid.

2. The bid shall be submitted on the Contractor Bid Form (section 00 41 13) provided in the Bid Documents. The Owner reserves the right to accept or reject any or all bids as may best serve the interest of the Owner.
3. Bid security *is required* on this project.
If noted above as required, the Bidder shall include a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with the completed bid form submitted to the Owner. The Bid Bond form is available on the BGS website.

00 11 13
Notice to Contractors

4. Performance and Payment Bonds *are required* on this project.
If noted above as required, or if any combination of Base Bid and Alternate Bids amounts selected in the award of the contract exceeds \$125,000.00, the selected Contractor shall furnish a 100% contract Performance Bond (section 00 61 13.13) and a 100% contract Payment Bond (section 00 61 13.16) in the contract amount to cover the execution of the Work. Bond forms are available on the BGS website.

5. Filed Sub-bids *are not required* on this project.

6. There *are no* Pre-qualified General Contractors on this project.
If Pre-qualified General Contractors are identified for this project, the name of each company, with their city and state, are listed below.
None

7. An on-site pre-bid conference *will* be conducted for this project.
If a pre-bid conference is scheduled, it is *mandatory* for General Contractors and optional for Subcontractors and suppliers. Contractors who arrive late or leave early for a mandatory meeting may be prohibited from participating in this meeting and bidding. *A Pre-Bid Conference is scheduled for 10:00 am on 16 June 2022. The Contractor Shall Arrive at Eastview Parkway, Saco, Maine, .*

8. Bid Documents - full sets only - will be available on or about *04 June 2022* and may be obtained from the Print Shop listed below. *A paper copy of the Plans and Specifications may be obtained for a non-refundable fee of \$950.00. The Contractor shall be responsible to contact the Print Shop (Xpress Copy) and shall be responsible for the cost of the plans and specifications and the cost for delivery method. The Contractor shall contact the Print Shop (Xpress Copy) to determine the method of payment required.* from:
*Xpress Copy
17 Westfield St
Portland, Maine 04101
207-775-2444, Fax 207-775-2481, email: orders@xcopy.com*

*A Digital Copy of the Plans and Specifications may be obtained at no cost by contacting:
Ralph Turner at ralph.f.turner4.nfg@army.mil*

*If the Contractor has any issues obtaining a copy of the Plans and Specifications contact:
Ralph Turner at ralph.f.turner4.nfg@army.mil*

9. Bid Documents may be examined at:

<i>AGC Maine 188 Whitten Road Augusta, ME 04330 Phone 207-622-4741 Fax 207-622-1625</i>	<i>Construction Summary 734 Chestnut Street Manchester, NH 03104 Phone 603-627-8856 Fax 603-627-4524</i>
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SECTION 066400 - PLASTIC PANELING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Plastic sheet paneling.
 - 2. Factory-laminated plastic sheet paneling.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Sustainable Design Submittals:
 - 1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
 - 2. Laboratory Test Reports: For wall materials, indicating compliance with requirements for low-emitting materials.
- C. Samples: For plastic paneling and trim accessories, in manufacturer's standard sizes.

1.3 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install plastic paneling until spaces are enclosed and weathertight and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

- A. Obtain plastic paneling and trim accessories from single manufacturer.

2.2 PLASTIC SHEET PANELING

- A. Glass-Fiber-Reinforced Plastic Paneling: Gelcoat-finished, glass-fiber-reinforced plastic panels complying with ASTM D5319.

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. Crane Composites, Inc.
 - b. Glasteel.
 - c. Marlite, Inc.
 - d. Newcourt, Inc.
 - e. Nudo.
 - f. Parkland Plastics.
2. Surface-Burning Characteristics: As follows when tested by a qualified testing agency in accordance with ASTM E84. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 200 or less.
 - b. Smoke-Developed Index: 450 or less.
3. Nominal Thickness: Not less than 0.075 inch.
4. Surface Finish: Smooth.
5. Color: As selected by Architect from manufacturer's full range.

2.3 ACCESSORIES

- A. Trim Accessories: Manufacturer's standard one-piece vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, outside corners, and caps as needed to conceal edges.
 1. Color: Match panels.
- B. Exposed Fasteners: Nylon drive rivets recommended by panel manufacturer.
- C. Adhesive: As recommended by plastic paneling manufacturer.
 1. Verify adhesives have a VOC content of 50 g/L or less.
- D. Sealant: Mildew-resistant, single-component, neutral-curing silicone sealant recommended by plastic paneling manufacturer and complying with requirements in Section 079200 "Joint Sealants."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove loose or soluble paint, and other materials that might interfere with adhesive bond.
- B. Prepare substrate by sanding high spots and filling low spots as needed to provide flat, even surface for panel installation.
- C. Clean substrates of substances that could impair adhesive bond, including oil, grease, dirt, and dust.
- D. Condition panels by unpacking and placing in installation space before installation according to manufacturer's written recommendations.
- E. Lay out paneling before installing. Locate panel joints to provide equal panels at ends of walls not less than half the width of full panels.
 - 1. Mark plumb lines on substrate at trim accessory locations for accurate installation.
 - 2. Locate trim accessories to allow clearance at panel edges according to manufacturer's written instructions.

3.3 INSTALLATION

- A. Install plastic paneling according to manufacturer's written instructions.
- B. Install panels in a full spread of adhesive.
- C. Install panels with fasteners. Layout fastener locations and mark on face of panels so that fasteners are accurately aligned.
 - 1. Drill oversized fastener holes in panels and center fasteners in holes.
 - 2. Apply sealant to fastener holes before installing fasteners.
- D. Install trim accessories with adhesive and nails. Do not fasten through panels.
- E. Fill grooves in trim accessories with sealant before installing panels, and bed inside corner trim in a bead of sealant.
- F. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths until no residue remains.

END OF SECTION 066400

SECTION 012300 - ALTERNATES

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 administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.
- B. ABI: Alternate Bid Item.

1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other Work of the Contract.
- C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Loading Dock Ramp

1. Alternate: Provide dual level loading ramp adjacent to ARNG MEP parking. Location of ramp indicated on drawing C-104.A, and details provided on C-507.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

B. Alternate No. 2a: Work Bay Aprons

1. Alternate: Provide concrete pavement at Wash Pad (113) in accordance with detail 12/C-502. Locations of paving are shown on drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

C. Alternate No. 2b: Work Bay Aprons

1. Alternate: Provide concrete pavement at ARNG Work Bays (106, 107, and 108) in accordance with detail 12/C-502. Locations of paving are shown on drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

D. Alternate No. 2c: Work Bay Aprons

1. Alternate: Provide heavy duty pavement in front of ANG Work Bays (135, 136, and 137) in accordance with detail 11/C-502. Locations of paving are shown on drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

E. Alternate No. 3a: Heavy Duty Pavement

1. Alternate: Provide heavy duty pavement at the north west end of site in accordance with detail 11/C-502. Locations of paving shown on Drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

F. Alternate No. 3b: Heavy Duty Pavement

1. Alternate: Provide heavy duty pavement at north and south sides of the building in accordance with detail 11/C-502. Locations of paving shown on Drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

G. Alternate No. 3c: Heavy Duty Pavement

1. Alternate: Provide heavy duty pavement in front of the ANG Work Bays (135, 136, and 137) in accordance with detail 11/C-502. Locations of paving shown on Drawing C-104.A.
2. Base Bid: Provide gravel pavement in accordance with detail 13/C-502.

H. Alternate No. 4: Purchase Propane Tanks

1. Alternate: Contractor to furnish and install five (5) 1,000-gallon propane tanks as located on Drawing C-104.A.
2. Base Bid: Contractor to install propane tanks furnished by Owner. Contractor responsible for coordination and scheduling of activities with Owner such that system can be installed and tested prior to substantial completion.

I. Alternate No. 5: Acoustical Metal Roof Deck

1. Alternate: Provide acoustical metal roof deck as indicated on drawing S-003 and section 053100.
2. Base Bid: Provide non-acoustic metal roof deck at all locations.

~~J.~~ ~~Alternate No. 6: Metal Roofing Disregard all references to ABI #6 in plans and specifications.~~

- ~~1. Alternate: Provide standing seam metal roofing and snow guards in Areas A, B, C, and D.~~
- ~~2. Base Bid: Provide asphalt shingles as show shown on Drawings in Areas A, B, C, and D.~~

~~K.J.~~ Alternate No. 7: Recessed Walk-Off Mats

1. Alternate: Provide recessed walk-off mats at entrances into Area C as located on drawing AF103 and detailed on A3/AE511 and section 124813.
2. Base Bid: Provide floor finish specified on Drawing AF103.

~~L.K.~~ Alternate No. 8: Classroom Operable Partition

1. Alternate: Provide operable partition between Classroom (149) and Break Room (150) as indicated on drawing AE103 and as detailed in section 102239.
2. Base Bid: Provide partition type S3a/Z as indicated on drawing AE103 and detailed on AE601.

~~M.L.~~ Alternate No. 9: Paint Exposed Roof Framing

1. Alternate: Provide shop primed structural steel. Provide galvanized and shop primed metal roof deck. Field finish paint exposed steel roof framing and metal deck at locations indicated on drawings AF101 through AF104.
2. Base Bid: Provide shop primed structural steel. Provide galvanized metal roof deck.

~~N.M.~~ Alternate No. 10: Bridge Crane

1. Alternate: Furnish, install, test, and commission complete 15-ton bridge crane and rail in Area B as indicated on drawing S-112 and as detailed section 411213.13.
2. Base Bid: Provide steel runway beams and cap channel as indicated on drawing S-112 and electrical service up to and including the disconnect switch shown on drawing EP102.

O.N. Alternate No. 11: Combine Heat and Power Units

1. Alternate: Furnish, install, test and commission two (2) Micro Combine Heat and Power (CHP) Units, their associated equipment, piping, electrical connections, and controls. CHP units are located on Drawing MS401, and are detailed and specified on drawings M-601, M-652, M-653, E-651, and section 263000.
2. Base Bid: Maintain space within the Mech/Elec Room (131) for future installation of CHP equipment. Provide capped valve connection in HWR line as shown on drawing M-652. Provide space in MDP panel for future breaker. Install and cap and provide pull string for underground/underslab conduit from future CHP panel and inverter locations to exterior concrete pad. See drawings ES401, E-402 and E-651.

P.O. Alternate No. 12: Work Bay Destratification Fans

1. Alternate: Furnish, install, test and commission destratification fans (DSF-1 through DSF-12) in Work Bays in Areas B and D. Fan locations are indicated on drawings MH102 and MH104, and specified on drawings M-602.
2. Base Bid: Install electrical receptacles, switches, conduits, and conductors.

Q.P. Alternate No. 13: Full Height Ceramic Tile

1. Alternate: Provide full height ceramic tile in Latrines, Locker Rooms, and Restrooms as indicated on drawings AF103 and AF104, and as detailed on drawings AE211 and AE212.
2. Base Bid: Provide painted gypsum wallboard and/or masonry above ceramic tile wainscot.

R.Q. Alternate No. 14: Full Vehicle Exhaust

1. Alternate: Furnish, install, test, and commission vehicle exhaust system (FEF-3 and FEF-5), hose reels (HR-5, HR-6, HR-7, HR-11, HR-12, HR-13), and control switches on south end of ARNG (106, 107, 108) and ANG (135, 136, 137) Work Bays as indicated on drawings MH102 and MH 104, and specified on drawings M-602 and M-603.
2. Base Bid: Provide electrical service up to and including receptacles and switches as indicated on Drawings EP102 and EP104.

R. Alternate No. 15: Wash Pad Enclosure

1. Alternate: Furnish, install, test, and commission all structural, architectural, fire protection, plumbing, mechanical, electrical, communications, and security components to enclose the Wash Pad (113).

2. Base Bid: Provide uncovered wash pad consisting of concrete slab, foundations, and plumbing as indicated on Drawings S-101, S-105, PL101, and PL111.

END OF SECTION 012300

Joint National Guard Vehicle Maintenance Shop, DFE Project Number 230125-D, ANG Project Number SCR359001, Bid Number 22-018, BGS Project Number 3100

Bid Form submitted by: *paper documents only to address below*

Bid Administrator:

Directorate of Facilities Engineering
DEFENSE VETERANS AND EMERGENCY MANAGEMENT

194 Winthrop Street, BLDG#7, Camp Keyes,
Augusta, Maine 04333 0033
Attn: Mrs. Sherrill Hallett

Bidder:

Signature: _____

Printed name and title: _____

Company name: _____

Mailing address: _____

City, state, zip code: _____

Phone number: _____

Email address: _____

State of incorporation, if a corporation: _____

List of all partners, if a partnership: _____

The Bidder agrees, if the Owner offers to award the contract, to provide any and all bonds and certificates of insurance, as well as Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers if required by the Owner, and to sign the designated Construction Contract within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, or a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the first available business day following the holiday, other closure day, Saturday, or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

**00 41 13
Contractor Bid Form**

1. The Bidder, having carefully examined the Joint National Guard Vehicle Maintenance Shop Addition/Alteration, Project Number 230139-D, Bid Number 22-012, BGS Project Number 3100 Project Manual dated 22 April 2022, prepared by Wood Environment and Infrastructure Solutions, Inc., as well as Specifications, Drawings, and any Addenda, the form of contract, and the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

\$ _____.00

2. Allowances *are included* on this project.
Bid amount above includes the following Allowances

Allowances Listed in Specification Section 012100 - Allowances

\$ 350,798.00

3. Alternate Bids *are included* on this project.

00 41 13
Contractor Bid Form

Alternate Bids are as shown below

Any dollar amount line below that is left blank by the Bidder shall be read as a bid of **\$0.00**.

<i>1 ABI#1 – Loading Ramp Sec 012300 Para 3.1A.</i>	\$ _____ .00
<i>2A ABI#2A – Work Bay Aprons Sec 012300 Para 3.1B.</i>	\$ _____ .00
<i>2B ABI#2B – Work Bay Aprons Sec 012300 Para 3.1C.</i>	\$ _____ .00
<i>2C ABI#2C – Work Bay Aprons Sec 012300 Para 3.1D.</i>	\$ _____ .00
<i>3A ABI#3A – Heavy Duty Pavement Sec 012300 Para 3.1E.</i>	\$ _____ .00
<i>3B ABI#3B – Heavy Duty Pavement Sec 012300 Para 3.1F.</i>	\$ _____ .00
<i>3C ABI#3C – Heavy Duty Pavement Sec 012300 Para 3.1G.</i>	\$ _____ .00
<i>4 ABI#4- Purchase Propane Tanks Sec 012300 Para 3.1H.</i>	\$ _____ .00
<i>5 ABI#5- Acoustical Metal Roof Deck Sec 012300 Para 3.1I.</i>	\$ _____ .00
<i>6 ABI#6- Deleted By Owner Sec 012300 Para 3.1J Stricken.</i>	\$ _____ .00
<i>7 ABI#7- Recessed Walk Off Mats Sec 012300 Para 3.1J.</i>	\$ _____ .00
<i>8 ABI#8- Classroom Operable Partition Sec 012300 Para 3.1K</i>	\$ _____ .00
<i>9 ABI#9- Paint Exposed Roof Framing Sec 012300 Para 3.1L</i>	\$ _____ .00
<i>10 ABI#10- Bridge Crane Sec 012300 Para 3.1M</i>	\$ _____ .00
<i>11 ABI#11- Combined Heat & Power Units Sec 012300 Para 3.1N</i>	\$ _____ .00
<i>12 ABI#12- Work Bay Destratification Fans Sec 012300 Para 3.1O</i>	\$ _____ .00
<i>13 ABI#13- Full Height Ceramic Tile Sec 012300 para. 3.1P</i>	\$ _____ .00
<i>14 ABI#14- Full Vehicle Exhaust Sec 012300 Para 3.1Q</i>	\$ _____ .00
<i>15 ABI#15- Wash Pad Enclosure Sec 012300 Para 3.1R</i>	\$ _____ .00

**00 41 13
Contractor Bid Form**

<i>16 not used</i>	\$ _____	<u>.00</u>
<i>17 not used</i>	\$ _____	<u>.00</u>
<i>18 not used</i>	\$ _____	<u>.00</u>

4. Bid security *is required* on this project.
If noted above as required, or if the Base Bid amount exceeds \$125,000.00, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.

5. Filed Sub-bids *are not required* on this project.
If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

Agreement for Release of Electronic Files

This agreement is made by and between Maine Department of Defense, Veterans, and Emergency Management, hereinafter called the *Owner*, and Contractor Name:

_____, hereinafter called the *Contractor*.

Subject Files: CAD Drawings for Joint Vehicle Maintenance Facility, Saco, Maine, DFE Project Number: 230125

The *Owner* is willing to release the subject files to the *Contractor* upon the following terms and conditions:

1. *Owner* shall, as soon as it can dedicate staff time to do so, copy the subject Files and provide them to *Contractor*.
2. In accepting the Files, *Contractor* agrees that such files are, and shall remain, the property of *Owner* and that *Owner* shall retain all common law, statutory, and other rights to the files.
3. *Contractor* agrees not to transfer these Files to others without prior written consent of *Owner*.
4. *Contractor* waives any claims against *Owner* resulting in any way from any use or reuse of the Files for any other project by anyone and shall not serve as the grounds for any claim by *Contractor* against *Owner*.
5. *Contractor* is aware that differences may exist between the Files delivered and the printed hard copies construction documents already provided, including changes to the contract and field conditions, and further understanding that in the event of a conflict between the signed construction documents and the Files, the signed or sealed hard copy construction documents shall govern.
6. *Contractor*, to the fullest extent permitted by law, shall indemnify and hold harmless *Owner* against any and all claims for damages, liabilities, and costs, including reasonable attorneys fees and defense loss arising from any use made by anyone of the Files without prior written consent by *Owner*.
7. *Owner* makes no warranties, either express or implied, relative to the merchantability or fitness for any particular purpose of the Files and in no event shall *Owner* be held liable for any indirect or consequential damages as a result of *Contractor's* use or reuse of Files.
8. This agreement shall not be deemed to anyway alter, amend, or modify the terms of the Contract.

9. This agreement is binding upon the successors and assigns of all parties hereto.
10. This agreement shall be construed and interpreted in accordance with the laws of the State of Maine.
11. This agreement constitutes the entire agreement between the parties with respect to the subject matter hereof.
12. No changes or modifications or additions shall be valid and binding unless the same shall be in writing and signed by the parties hereto.

IN WITNESS WHEREOF the parties hereto have executed this agreement this _____ day of _____.

	Contractor: _____
	By: _____
Witnessed	Printed Name: _____
	Title: _____
Printed Name	Date: _____

	Department of Defense, Veterans and Emergency Management
Owner:	_____
	By: _____
Printed Name:	Ralph F. Turner, PE
Title:	Project Manager, DFE
Date:	_____