

A Project For :

# Centerville-Abington Community Schools

# Centerville-Abington Transportation Building

Centerville, Indiana

473003

## Architect:

Moake Park Group, Inc.  
7223 Engle Rd. Suite 200  
Ft. Wayne, IN 46804  
ph. (260) 424-6516  
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web: www.moakepark.com

## MEP Engineer:

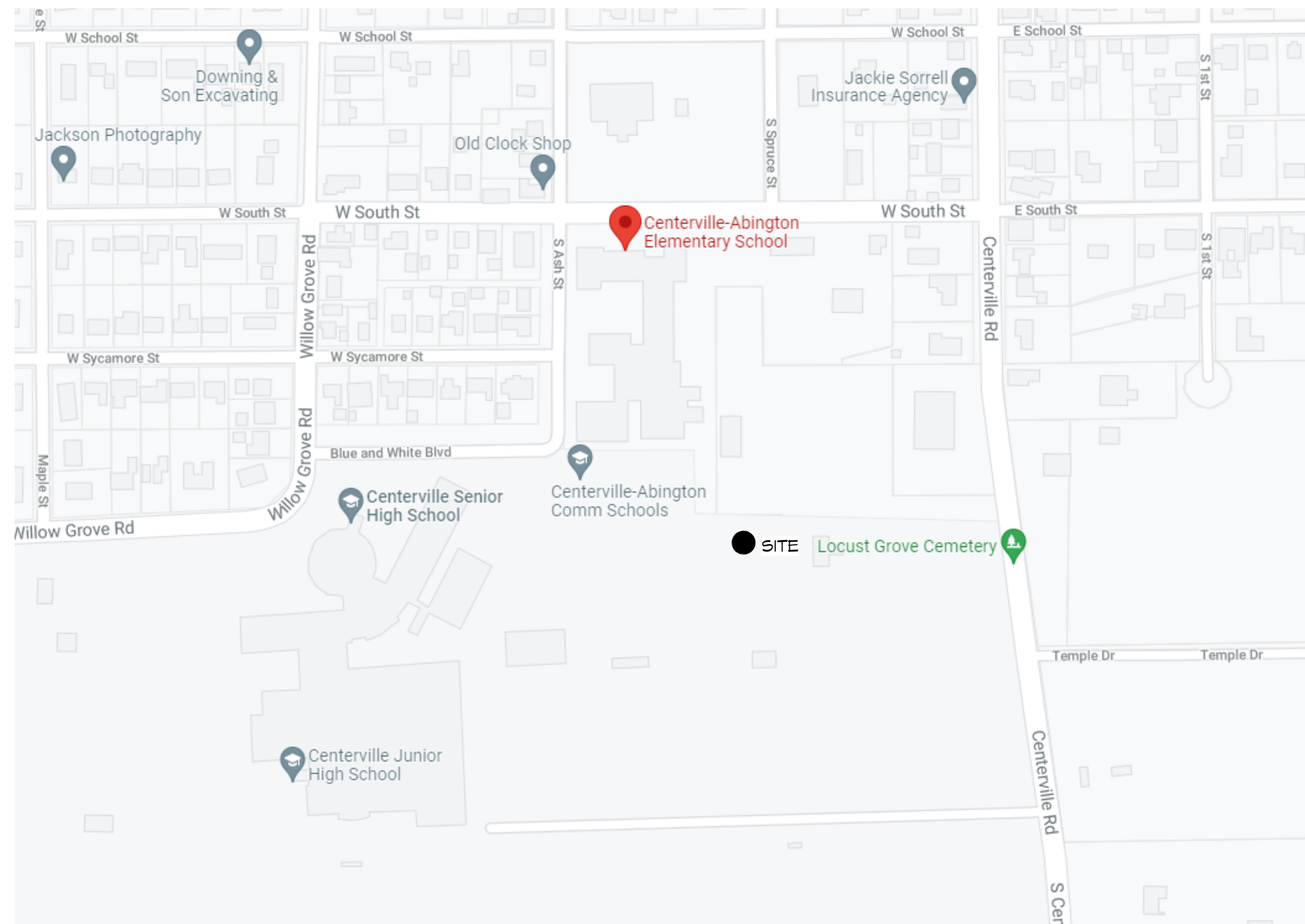
SCO Engineering, LLC  
6534 Constitution Dr.  
Ft. Wayne, IN 46804  
ph. (260) 436-9213  
fx. (260) 432-5481  
web: http://www.sco-llc.com

## Structural Engineer:

Structural Engineering Services, LLC  
15610 Lima Rd.  
Huntertown, IN 46748  
ph. (260) 637-7867  
web: www.structuralengr.com

## Civil Engineer:

Engineering Resources, Inc.  
4175 New Vision Dr.  
Ft. Wayne, IN 46845  
ph. (260) 490-1025  
web: www.eri.consulting



**1** Site Location Map  
1/8" = 1'-0"

Drawing List

- Civil
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  - C1.0 Site Demolition Plan
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  - C5.0 Site Construction Erosion Control Plan
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  - S1.1a Lift Pit Enlarged Plan and Details
  - S2.1 Mezzanine Framing Plan
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  - E3.1 First Floor Electrical Systems Plan
  - E3.2 Second Floor Electrical Systems Plan
  - E5.1 Electrical Details
  - E6.1 Electrical Schedules
  - EG1.0 Electrical General Notes




Commission No. 473003  
Date: 3/2/2022



Set No.

**ForeSight Consulting, LLC**  
Professional Engineers & Surveyors  
1910 St. Joe Center Road, Suite #51  
Fort Wayne, Indiana 46825  
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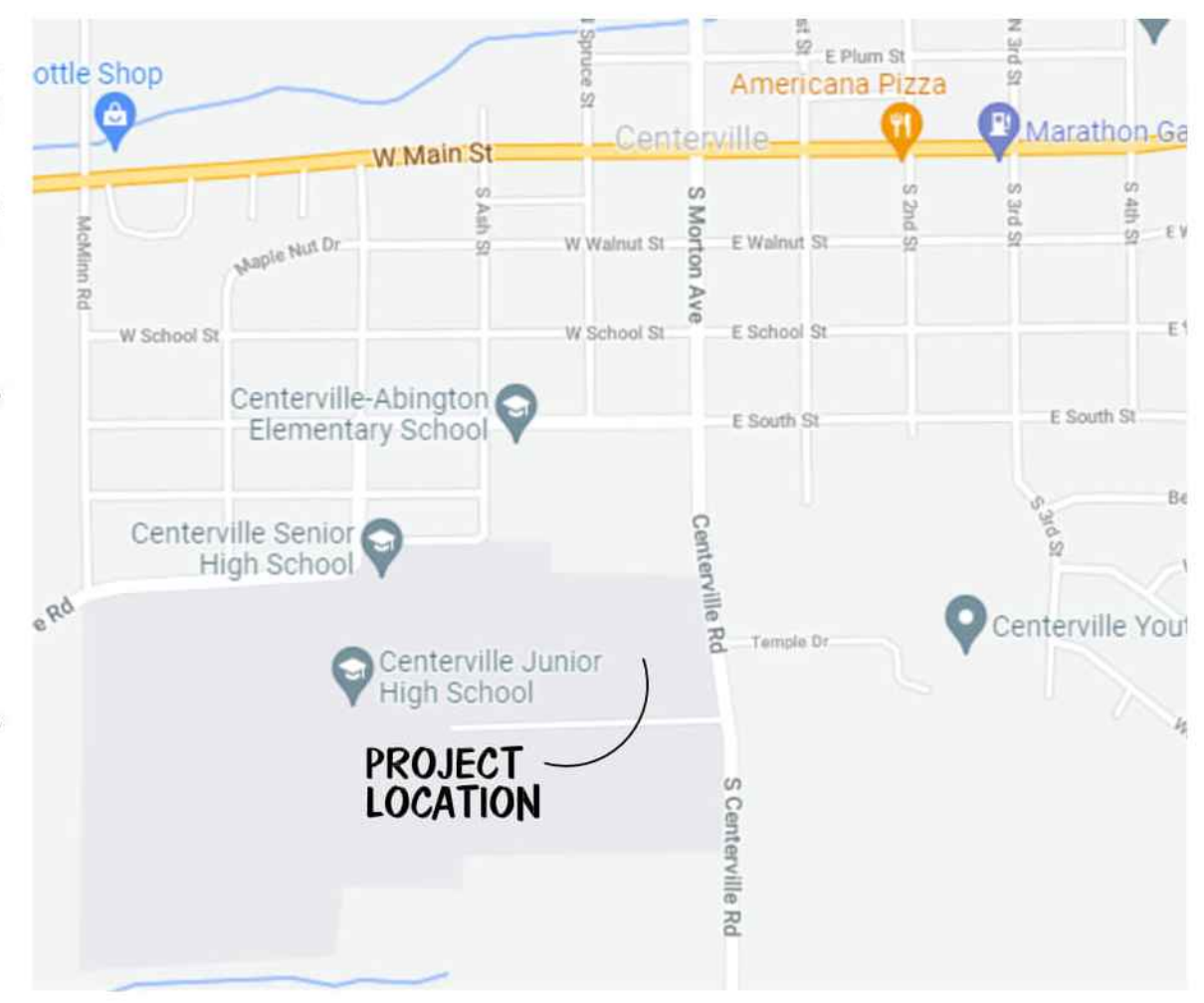
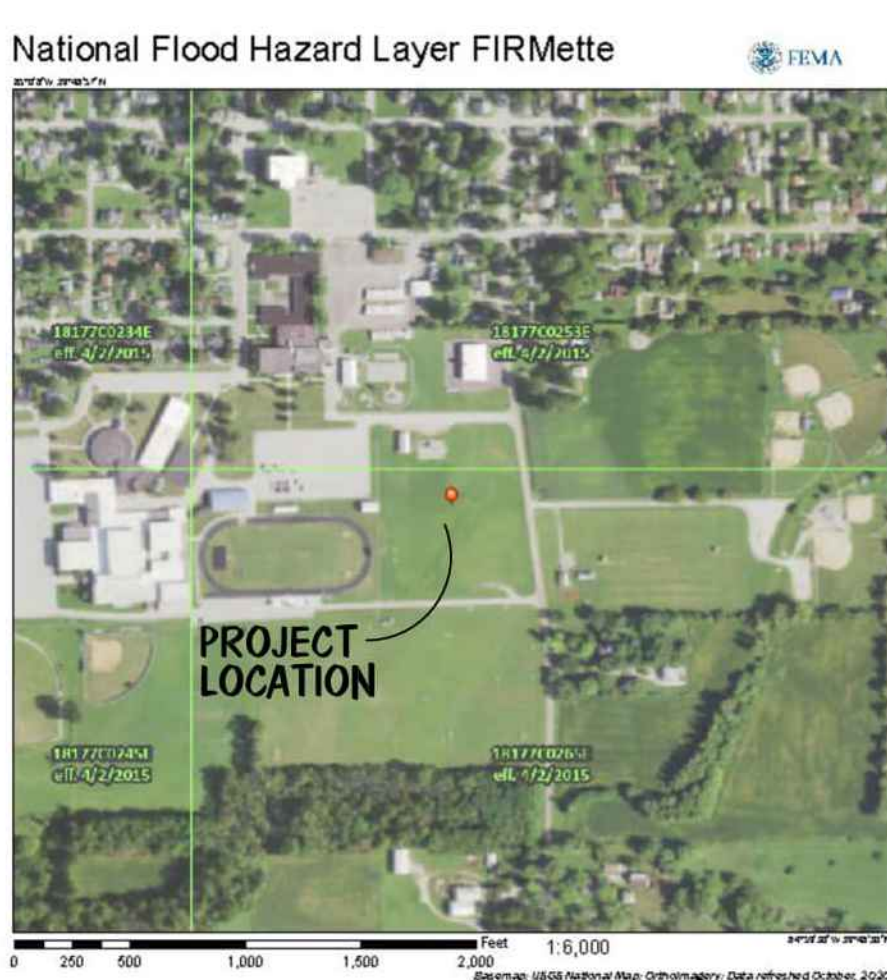
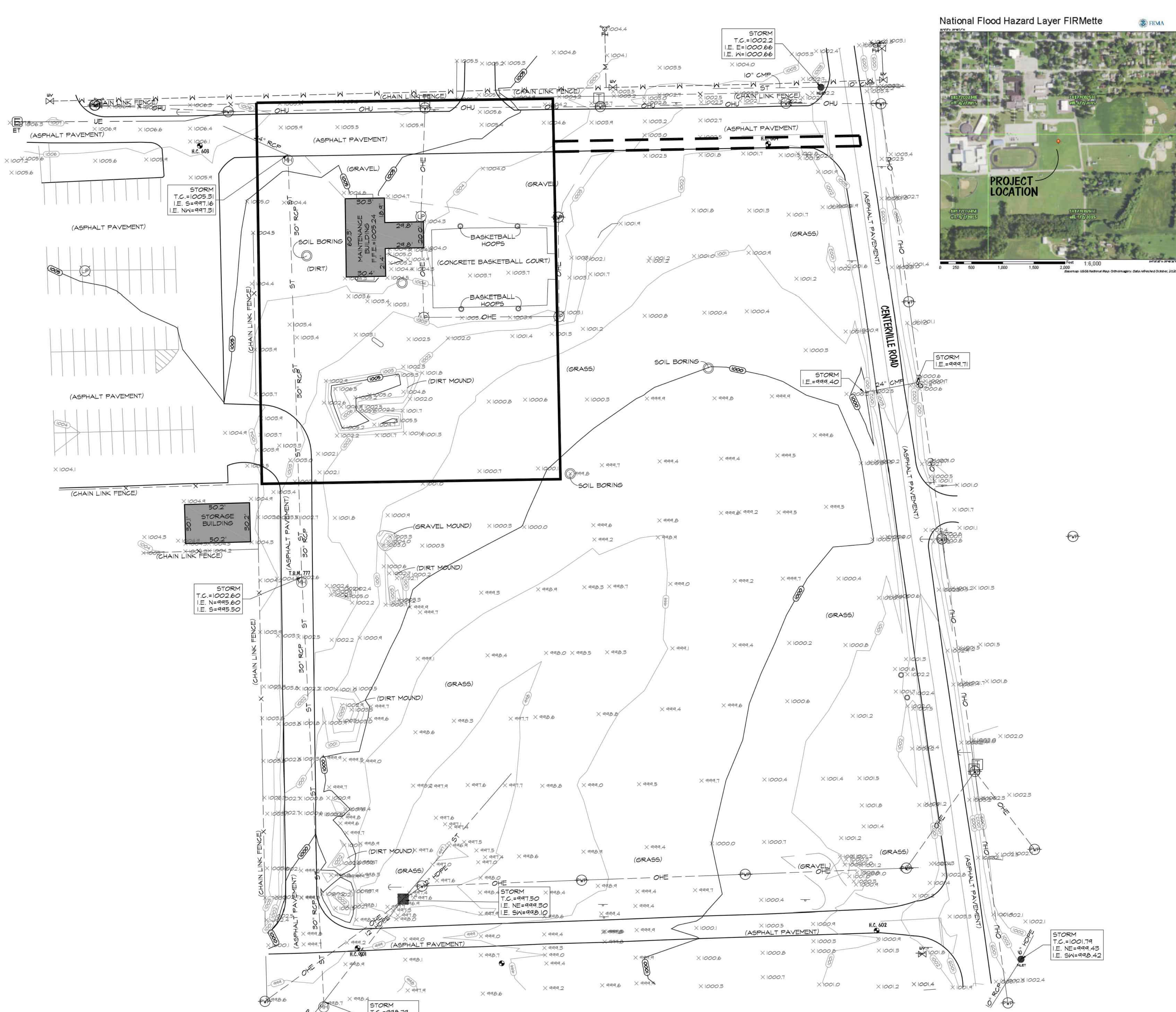


EXPERIENCE. INNOVATION. RESULTS.

THE STATE OF INDIANA, BEING FIRST, HATH ENACTED, AS PART OF ITS PUBLIC POLICY TO PROMOTE THE INTERESTS OF THE STATE IN THE SURVEYING PROFESSION, THAT ANY INDIVIDUAL WHOSE SURVEYING LICENSE, REPORTS, CERTIFICATIONS AND ANY INSTRUMENTS PREPARED BY THEM, IN CONSULTING WITH AN UNLICENSED PERSON, VIOLATE THE COPYRIGHT LAWS OF THE UNITED STATES OF AMERICA, SHALL BE SUBJECT TO THE PENALTIES OF SAID LAWS. THE STATE OF INDIANA, BEING FIRST, HATH ENACTED, AS PART OF ITS PUBLIC POLICY TO PROMOTE THE INTERESTS OF THE STATE IN THE SURVEYING PROFESSION, THAT ANY INDIVIDUAL WHOSE SURVEYING LICENSE, REPORTS, CERTIFICATIONS AND ANY INSTRUMENTS PREPARED BY THEM, IN CONSULTING WITH AN UNLICENSED PERSON, VIOLATE THE COPYRIGHT LAWS OF THE UNITED STATES OF AMERICA, SHALL BE SUBJECT TO THE PENALTIES OF SAID LAWS. THE STATE OF INDIANA, BEING FIRST, HATH ENACTED, AS PART OF ITS PUBLIC POLICY TO PROMOTE THE INTERESTS OF THE STATE IN THE SURVEYING PROFESSION, THAT ANY INDIVIDUAL WHOSE SURVEYING LICENSE, REPORTS, CERTIFICATIONS AND ANY INSTRUMENTS PREPARED BY THEM, IN CONSULTING WITH AN UNLICENSED PERSON, VIOLATE THE COPYRIGHT LAWS OF THE UNITED STATES OF AMERICA, SHALL BE SUBJECT TO THE PENALTIES OF SAID LAWS.

# CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING

## Centerville Abington School Centerville Road, Centerville, IN 47330



Horizontal and Vertical Control	
<b>HORIZONTAL CONTROL #601 (H.C. 601)</b> A MAGNAIL LOCATED NEAR THE SOUTH EDGE OF PAVEMENT OF THE SOUTH EAST-WEST ACCESS ROAD, APPROXIMATELY 71 FEET EAST OF THE WEST NORTH-SOUTH CHAIN LINK FENCE. NORTHING=1462647.09 EASTING=516266.84 ELEVATION=444.12	
<b>HORIZONTAL CONTROL #602 (H.C. 602)</b> A MAGNAIL LOCATED NEAR THE SOUTH EDGE OF PAVEMENT OF THE SOUTH EAST-WEST ACCESS ROAD APPROXIMATELY 5 FEET WEST OF THE WEST END OF THE CENTER PAVEMENT STRIPING. NORTHING=1462650.54 EASTING=516465.17 ELEVATION=1001.41	
<b>HORIZONTAL CONTROL #603 (H.C. 603)</b> THE NORTH END OF AN EXISTING STORM MANHOLE LOCATED NEAR THE CENTER OF THE WESTERN NORTH-SOUTH ACCESS DRIVE, APPROXIMATELY 21 FEET SOUTH OF THE SOUTHEAST CORNER OF THE 30'x50' STORAGE BUILDING. NORTHING=1462265.15 EASTING=515441.24 ELEVATION=1006.09	
<b>TEMPORARY ONSITE BENCHMARK #777 (T.B.M. #777)</b> THE NORTH END OF AN EXISTING STORM MANHOLE LOCATED NEAR THE CENTER OF THE WESTERN NORTH-SOUTH ACCESS DRIVE, APPROXIMATELY 21 FEET SOUTH OF THE SOUTHEAST CORNER OF THE 30'x50' STORAGE BUILDING. ELEVATION=1002.60 (NAVD 1988)	

Topographic Survey Positional Accuracy Standards		
Based on the National Society of Professional Surveyors' Model Standards for Topographic Surveys		
Item	Vertical Accuracy (Feet)	Horizontal Accuracy (Feet)
Contour Line (1 Foot Interval)	0.65' plus or minus	1' plus or minus
Contour Line (5 Foot Interval)	3.20' plus or minus	4' plus or minus
Contour Line (10 Foot Interval)	6.50' plus or minus	8' plus or minus
Finish Floor Elevations	0.05' plus or minus	1' plus or minus
Spot Paving Elevations	0.05' plus or minus	1' plus or minus
Spot Ground Elevations	0.20' plus or minus	2' plus or minus
Sewer Invert Elevations	0.05' plus or minus	1' plus or minus
Well Defined Planimetric Features	0.10' plus or minus	1' plus or minus

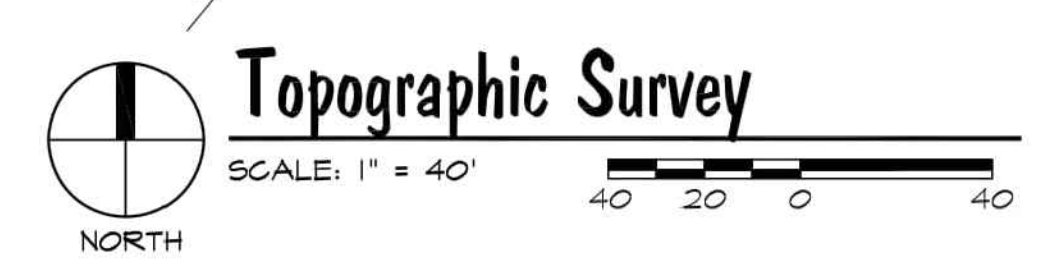
- General Notes:**
- THE LOCATION AND DIMENSIONS OF ALL BUILDING STRUCTURES ON THE FACE OF THIS SURVEY (IF APPLICABLE) ARE NOT INTENDED FOR STRUCTURAL DESIGN.
  - UTILITIES DEPICTED ON THE WITHIN PLAT OF SURVEY HERE LOCATED FROM ABOVE-GROUND PHYSICAL EVIDENCE AND APPURTENANCES. NO UTILITY LOCATION SERVICE HAS BEEN REQUESTED FOR THIS SURVEY. DISTURBING UNDERGROUND UTILITIES MAY RESULT IN SUBSTANTIAL PENALTIES AND DAMAGES FOR WHICH YOU WILL BE LIABLE. BEFORE DIGGING OR EXCAVATING ON YOUR PROPERTY YOU ARE REQUIRED TO CHECK FOR THE PRESENCE OF UTILITIES BY CALLING 1-800-582-5844. ADDITIONAL UTILITIES MAY NOT BE INCLUDED IN THE ONE-CALL UTILITY LOCATION SERVICE AND IT IS YOUR ADDITIONAL RESPONSIBILITY TO CONTACT EACH OF THESE UTILITY PROVIDERS.
  - THE IDENTIFICATION AND DELINEATION OF WETLANDS HERE NOT A PART OF THE SURVEYING SERVICES PROVIDED. FEDERAL AND STATE LEGISLATION HAS DEFINED AND ESTABLISHED RESTRICTIONS FOR THE PROTECTION OF WETLANDS. THE PRESENCE OF WETLANDS ON OR NEAR YOUR PROPERTY WILL LIMIT OR RESTRICT THE USE AND IMPROVEMENT OF YOUR PROPERTY. YOU SHOULD CONSULT WITH YOUR STATE ENVIRONMENTAL PROTECTION AGENCY FOR A MORE DETAILED EXPLANATION ON IDENTIFYING WETLANDS AND LAWS MEANT TO ENSURE THEIR PROTECTION.
  - ELEVATIONS ON THIS SURVEY ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM 1988.
  - THIS DRAWING IS NOT INTENDED TO BE PRESENTED AS A TRACEMENT OR ORIGINAL BOUNDARY SURVEY, A ROUTE SURVEY, OR A SURVEYOR LOCATION REPORT.

**Professional Surveyor's Certification**  
THE UNDERSIGNED LAND SURVEYOR, REGISTERED UNDER THE LAWS OF THE STATE OF INDIANA, HEREBY CERTIFIES THAT HE HAS CONDUCTED THIS TOPOGRAPHICAL AND UTILITY SURVEY, UNDER HIS DIRECT SUPERVISION.

COMMISSION NUMBER: 213154  
CLIENT: MOAKE PARK GROUP  
DATES OF FIELD WORK: AUGUST 25TH, 2021  
FIELD WORK COMPLETED: AUGUST 25TH, 2021

IN WITNESS WHEREOF, I HERETO PLACE MY HAND AND SEAL, THIS 31ST DAY OF AUGUST, 2021.

Todd R. Bauer, PLS No. 29880007  
todd@4site.biz



Topographic Survey Symbols Legend			
○ MANHOLE	○ FORESIGHT CONTROL	○ SHRUB	○ CABLE TV PEDESTAL
○ CLEAN OUT	○ P.K. NAIL FOUND	○ BOULDER	○ TELEPHONE PEDESTAL
○ ROUND INLET	○ IRON PIN FOUND	○ BOLLARD	○ FLAG POLE
○ SQUARE INLET	○ RIGHT-OF-WAY MARKER	○ YARD LIGHT	○ LIGHT POLE
○ GAS-CAST INLET	○ SECTION CORNER	○ POST	○ HOODED AREAS
○ DOWN SPOUT	○ BENCH MARK	○ POST INDICATOR VALVE	○ UNDERGROUND FIBER
○ MONITORING WELL	○ SIGN	○ FIRE HYDRANT	○ OPTIC CABLE
○ WELL	○ EXISTING FINISH FLOOR	○ YARD HYDRANT	○ STORM SEWER LINE
○ WATER VALVE	○ SOFT ANCHOR	○ GAS METER	○ SANITARY SEWER LINE
○ HANDICAP STRIPING	○ PARKING BLOCK	○ GAS VALVE	○ OVERHEAD TELEPHONE
○ HANDICAP ACCESS RAMP	○ ELECTRIC BOX	○ GAS PUMP	○ OVERHEAD ELECTRIC
○ SOIL BORING	○ ELECTRIC PANEL	○ POWER POLE	○ OVERHEAD UTILITY
○ CONIFEROUS TREE	○ MAIL BOX	○ ELECTRIC METER	○ UNDERGROUND ELECTRIC
○ DECIDUOUS TREE	○ AIR CONDITIONING UNIT	○ WATER METER	○ UNDERGROUND TELEPHONE
		○ UNDERGROUND GAS LINE	

SITE TOPOGRAPHIC SURVEY FOR:

**Centerville Abington School**  
Centerville Road, Centerville, IN 47330

Drawing Revisions

Commission Number  
213154  
Date  
August 31st, 2021  
Title

Sheet Number  
**S1.1**  
SHEET 1 OF 1

A PROJECT FOR:



mark	date	description

February 28, 2022 2:33 PM  
 S:\Projects\Projects (5000-5999)\Projects (5450-5499)\Centerville Bus Garage Site\Drawings\Plans\5481-C1.0 Site Demolition Plan.dwg



- DEMOLITION LEGEND:**
- SAWCUT AND REMOVE ASPHALT PAVEMENT.
  - SAWCUT AND REMOVE CONCRETE SIDEWALK, DRIVE, OR SLAB.
  - REMOVE STONE DRIVE.
  - REMOVE FENCE.
  - REMOVE OR ABANDON UTILITY, AS REQUIRED, FOR NEW CONSTRUCTION. COORDINATE ALL WORK WITH UTILITY OWNER.

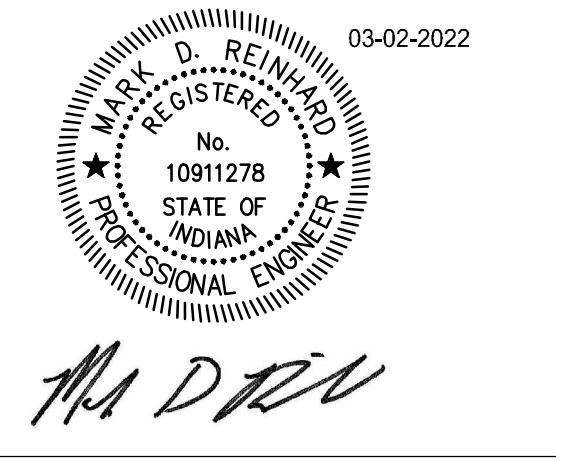
- DEMOLITION NOTES:**
- 1 REMOVE BUILDING INCLUDING FOUNDATION.
  - 2 ALTERNATE #7: SAWCUT AND REMOVE 12" OF ASPHALT PAVEMENT TO PROVIDE CLEAN EDGE.
  - 3 ALTERNATE #8: REMOVE 4" FENCE POST INCLUDING FOUNDATION AND INSTALL FENCE POST FOR 6' TALL FENCE. SEE SITE PLAN LAYOUT PLAN.
  - 4 SAWCUT AND REMOVE CONCRETE SIDEWALK/PAVEMENT.
  - 5 REMOVE STONE AREA.
  - 6 REMOVE PROPANE TANK INCLUDING ANY TANK PAD AND ASSOCIATED LINES.
  - 7 REMOVE AND SALVAGE BASKETBALL POST AND BACKBOARD / RIM FOR OWNER.
  - 8 REMOVE POST.
  - 9 REMOVE LIGHT POLE, INCLUDING FOUNDATION.
  - 10 REMOVE UTILITY / LIGHT POLE, INCLUDING FOUNDATION.
  - 11 REMOVE OVERHEAD ELECTRIC LINE.
  - 12 REMOVE STORM SEWER AND BULKHEAD AT STORM STRUCTURE.
  - 13 REMOVE FENCE INCLUDING FOUNDATIONS.
  - 14 SAWCUT AND REMOVE ASPHALT PAVEMENT AS NEEDED FOR UTILITY CONSTRUCTION.

- GENERAL NOTES:**
1. OBTAIN ALL REQUIRED PERMITS AND COORDINATE INSPECTIONS FROM AUTHORITIES HAVING JURISDICTION, INCLUDING:
  2. CONTRACTOR SHALL NOT INTERRUPT ANY SERVICE TO ADJACENT PROPERTIES WITHOUT WRITTEN AUTHORIZATION FROM PROPERTY OWNER. AN EMERGENCY PLAN SHALL BE PROVIDED TO THE ENGINEER PRIOR TO CONSTRUCTION TO OUTLINE CORRECTIVE MEASURES IN THE EVENT OF ANY UNAUTHORIZED UTILITY SHUTDOWN.
  3. CONTRACTOR SHALL STUDY ALL DRAWINGS PRIOR TO CONSTRUCTION, RESEARCH PUBLIC UTILITY RECORDS, CONTACT THE LOCAL UTILITY LOCATOR SERVICE, AND FIELD VERIFY ALL EXISTING STRUCTURES PRIOR TO CONSTRUCTION. CONTACT ENGINEER FOR DIRECTION IF EXISTING UTILITY CONDITIONS CONFLICT WITH PROPOSED WORK, OR ANY ALTERATIONS SHALL BE THE CONTRACTORS RESPONSIBILITY.
  4. EXISTING UTILITIES ARE APPROXIMATIONS BASED ON BEST AVAILABLE DATA. CAUTION SHALL BE EXERCISED TO NOT INTERRUPT SERVICE TO ANY BUILDING. EXPLORATORY TRENCH TO VERIFY DEPTH AND LOCATION OF SEWERS PRIOR TO CONSTRUCTION OF NEW SEWER UTILITIES. ASSURE ALL SANITARY FLOW IS DIRECTED INTO THE SANITARY SEWER ON-SITE AND ALL STORM WATER IS DIRECTED INTO THE STORM SEWER SYSTEM.
  5. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION REQUIRED BY UTILITY OWNERS TO CONSTRUCT PROJECT.
  6. PROVIDE RECORD DRAWINGS TO THE OWNER FOR BELOW GRADE IMPROVEMENTS: INCLUDE: MATERIALS OF CONSTRUCTION, SIZE, ELEVATIONS, AND LOCATION DESCRIPTIONS IN THE RECORD. RECORD DRAWINGS SHALL BE CERTIFIED BY A LAND SURVEYOR REGISTERED IN THE STATE OF INDIANA.
  7. CONTRACTOR SHALL COORDINATE WITH EACH UTILITY PROVIDER TO DETERMINE TOTAL COST OF SERVICE TO BUILDING AND TO INCLUDE IN THE COST OF THE PROJECT.
  8. CONTRACTOR SHALL LOCATE ALL PRIVATE UTILITIES NOT COVERED BY THE PUBLIC LOCATING SERVICE.
  9. CONSTRUCTION DE-WATERING AS NECESSARY BY CONTRACTOR.
  10. ADJUST ANY EXISTING MANHOLES, VALVES, HYDRANTS, AND HANDHOLES, LOCATED WITHIN PROJECT LIMITS, TO PROPOSED GRADES.
  11. CONTRACTOR SHALL SUPPORT AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION OF ADJACENT WORK.
  12. SEE SITE SURVEY FOR EXISTING CONDITIONS.
  13. COORDINATE ALL DEMOLITION WORK WITH OWNER.
  14. CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT FEES, TAPPING FEES, INSPECTION FEES, ETC.

**ALTERNATE NOTE:**

ALTERNATE #7: REMOVE PAVEMENT TO PROVIDE A CLEAN EDGE TO NORTH SITE ENTRANCE	REMOVE PAVEMENT TO PROVIDE A CLEAN EDGE TO INSTALL NORTH SITE ENTRANCE PAVEMENT.
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**1 Site Demolition Plan**  
 1" = 20'-0"



**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**



A PROJECT FOR:

mark	date	description

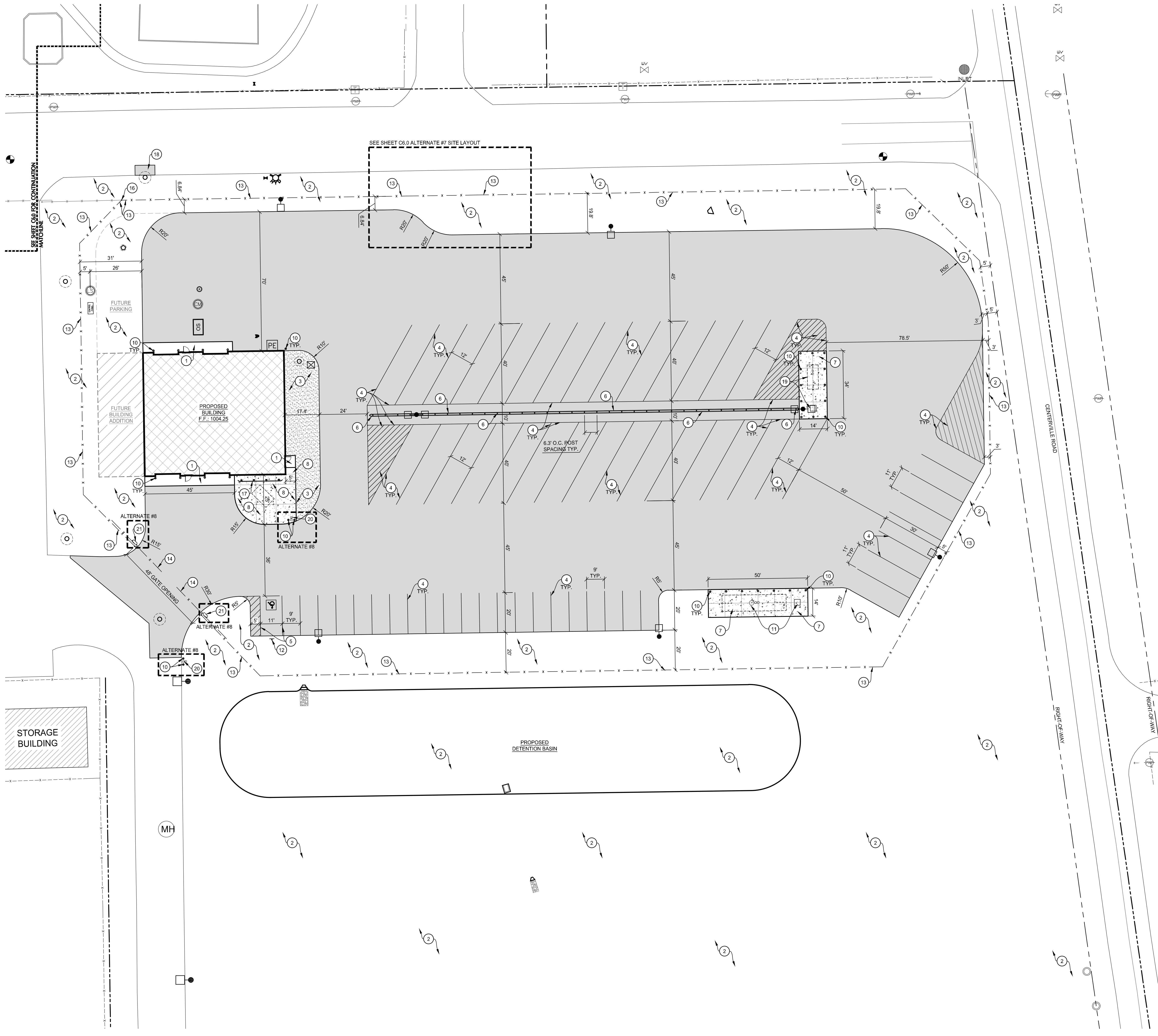
Site Demolition Plan

date:	March 2, 2022
project:	473003
coordinator:	DLR
drawn:	KRK
checked:	MDR

**C1.0**



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**LAYOUT LEGEND:**

- TYPE "A" PAVEMENT PER DETAIL #1/C7.0.
- 8" CONCRETE PAD PER DETAIL #2/C7.0.
- STONE MULCH.

NOTE: ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

**PROPOSED LEGEND:**

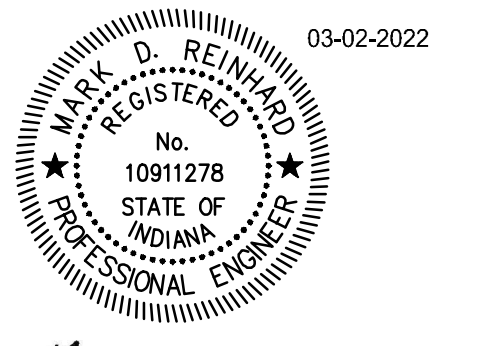
- STORM INLET / MANHOLE
- STORM END SECTION
- STORM TRASH RACK
- SANITARY MANHOLE
- SANITARY CLEANOUT / TYPE IV INLET
- CONTROL MANHOLE
- LIFT STATION
- OIL SEPARATOR
- GATE VALVE
- PIV
- FIRE HYDRANT
- SIGN
- HANDICAP SYMBOL PER DETAIL #3/C7.0.
- LIGHT POLE

**LAYOUT NOTES:**

- 1 CONCRETE STOOP. SEE STRUCTURAL DRAWINGS.
- 2 GRASS AREA. ALL DISTURBED AREAS TO RECEIVE PERMANENT SEEDING. SEE SPECIFICATIONS SECTION 320200 "LAWNS & GRASSES".
- 3 4" DEEP STONE MULCH. STONE MULCH SHALL BE #2 RIVER ROCK (1 1/2" TO 2") WITH WEED BARRIER. PROVIDE A NON-WOVEN FABRIC CONSISTING OF POLYPROPYLENE OR POLYESTER FABRIC, 3 OZ. PER SQ. YD. MIN. TO ALL STONE MULCH BEDS. COMPLETELY COVER AREA TO BE MULCHED-OVERLAPPING EDGES A MIN. OF 6".
- 4 PAVEMENT MARKING SHALL BE 4" YELLOW WATERBORNE PAINT.
- 5 HANDICAP PAVEMENT MARKINGS SHALL BE 4" BLUE WATERBORNE PAINT.
- 6 DOUBLE-FACE, METAL GUARDRAIL WITH I-BEAM POSTS PER DETAIL #5/C7.0.
- 7 8" CONCRETE FUELING PAD AREA PER DETAIL #2/C7.0.
- 8 8" CONCRETE DUMPSTER PAD AREA PER DETAIL #2/C7.0.
- 9 ALTERNATE #7: 12" MINIMUM ASPHALT PAVEMENT TO PROVIDE A CLEAN EDGE PER DETAIL #1/C7.0.
- 10 6" PIPE BOLLARD PER DETAIL #5/C7.0.
- 11 ABOVE GROUND DIESEL FUEL TANK AND FUEL PUMP, BY OTHERS.
- 12 "VAN ACCESSIBLE" HANDICAP SIGN PER DETAIL #4/C7.0.
- 13 ALTERNATE #6: 6' TALL CHAIN LINK FENCE PER DETAIL #8/C7.0.
- 14 ALTERNATE #6: 6' TALL CHAIN LINK FENCE DOUBLE SLIDING GATE PER DETAIL #7/C7.0.
- 15 ALTERNATE #6 & #7: 6' TALL CHAIN LINK FENCE SINGLE SLIDING GATE PER DETAIL #7/C7.0.
- 16 ALTERNATE #6: 6' TALL CHAIN LINK FENCE CORNER END / POST. CONNECT EXISTING 4' TALL CHAIN LINK FENCE TO PROPOSED 6' TALL CHAIN LINK FENCE PER DETAIL #8/C7.0.
- 17 SINGLE-FACE, METAL GUARDRAIL WITH SURFACE MOUNTED I-BEAM POSTS, PER DETAIL #5/C7.0.
- 18 ASPHALT PAVEMENT AS NEEDED FOR UTILITY INSTALLATION PER DETAIL #1/C7.0.
- 19 ABOVE GROUND GAS FUEL TANK AND FUEL PUMP, BY OTHERS.
- 20 AUTOMATIC SLIDE GATE CARD READER POST WITH ACCESS CONTROL PANEL PER DETAIL #11/C7.0.
- 21 ALTERNATE #6: LINEAR HSLG-421, 1/2", HP, 230 VOLT, SINGLE PHASE, COMMERCIAL SLIDE GATE OPERATOR WITH CARD READER OPERATION, OR APPROVED EQUAL, MOUNTED ON TWO - 3" O.D. PIPE PER DETAIL #10/C7.0. SEE SITE ELECTRICAL PLANS FOR POWER INFORMATION.
- 22 ALTERNATE #6: LINEAR HSLG-121, 1", HP, 230 VOLT, SINGLE PHASE, COMMERCIAL SLIDE GATE OPERATOR WITH CARD READER OPERATION, OR APPROVED EQUAL, MOUNTED ON TWO - 3" O.D. PIPE PER DETAIL #10/C7.0. SEE SITE ELECTRICAL PLANS FOR POWER INFORMATION.

**ALTERNATE NOTES:**

ALTERNATE #6: SITE FENCING	PROVIDE AND INSTALL SITE FENCING AND MAIN ENTRANCE DOUBLE SLIDING GATE, MANUAL OPERATION. IF ALTERNATE #7 IS ADOPTED, PROVIDE AND INSTALL NORTH ENTRANCE SINGLE SLIDING GATE, MANUAL OPERATION.
ALTERNATE #7: NORTH SITE ENTRANCE	PROVIDE AND INSTALL NORTH SITE ENTRANCE PAVEMENT.
ALTERNATE #8: MAIN ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO MAIN ENTRANCE DOUBLE SLIDING GATE IN ALTERNATE #6.
ALTERNATE #9: NORTH ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO NORTH SLIDING GATE IN ALTERNATE #6 & #7



*M. D. Reiff*

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:



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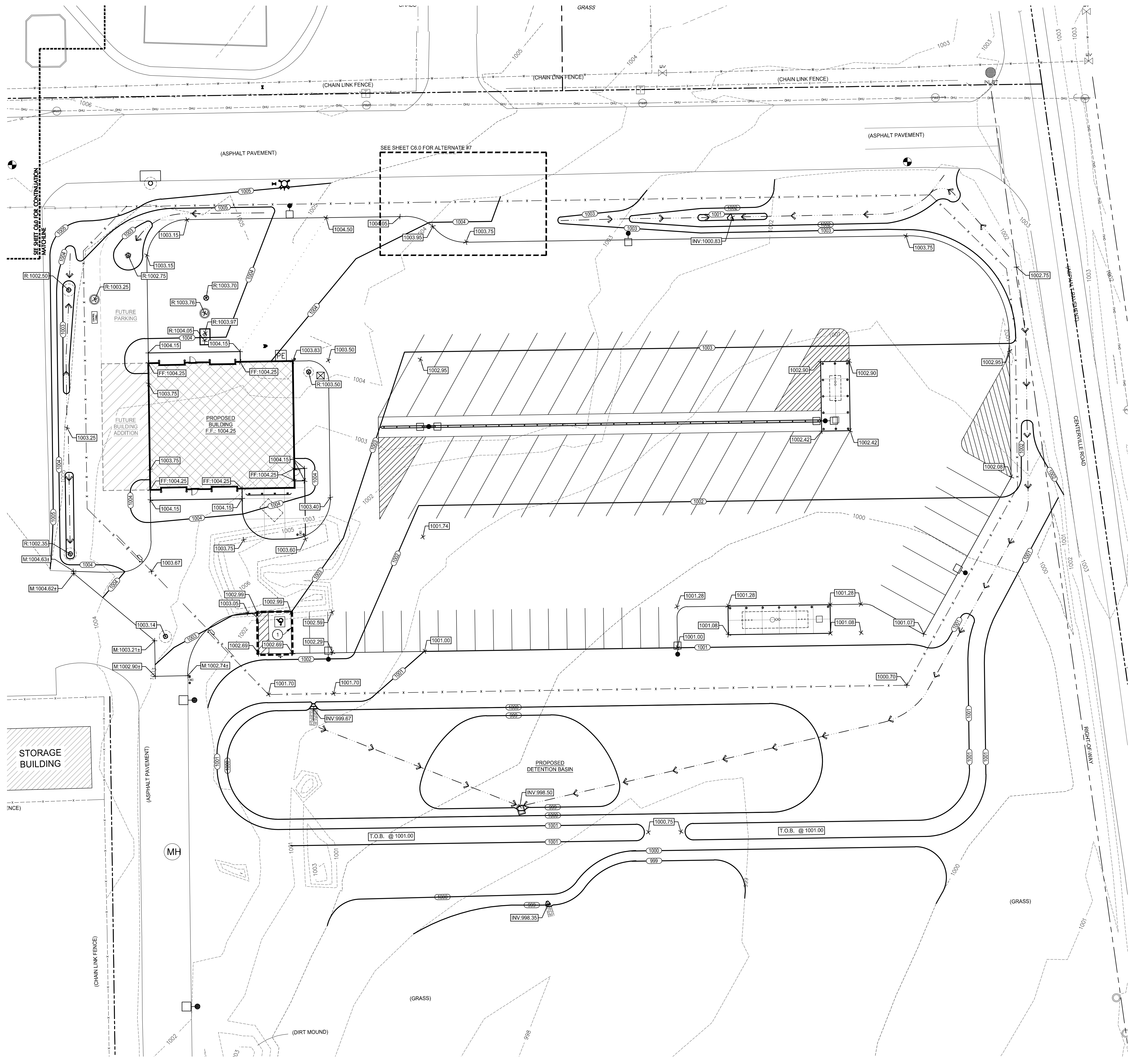
Site Layout Plan

date: March 2, 2022  
 project: 473003  
 coordinator: DLR  
 drawn: KRK  
 checked: MDR

**1 Site Layout Plan**  
 1" = 20'-0"

C2.0

February 28, 2022, 2:33 PM  
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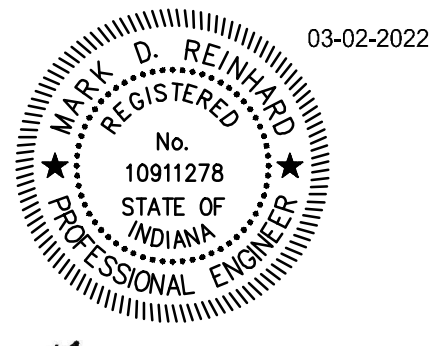
- GRADING LEGEND:**
- 800 — PROPOSED CONTOUR
  - - - 801 - - - EXISTING CONTOUR
  - XXXX.XX — MATCH EXISTING SPOT
  - XXX.XX — PROPOSED SPOT
  - XXX.XX — PROPOSED RIM
  - INV.XXX.XX — PROPOSED TOP OF WALK
  - INV.XXX.XX — PROPOSED BOTTOM OF WALK
  - — — PROPOSED DRAINAGE SWALE
  - — — PROPOSED DRAINAGE INTENT
- NOTE:** ALL ELEVATIONS ARE TO TOP OF PAVEMENT OR LAWN UNLESS NOTED OTHERWISE.

**GRADING NOTE:**

1 HANDICAP ACCESSIBLE PARKING STALLS TO BE CONSTRUCTED WITH LESS THAN 2.0% MAXIMUM SLOPE IN ALL DIRECTIONS.

**ALTERNATE NOTES:**

ALTERNATE #6: SITE FENCING	PROVIDE AND INSTALL SITE FENCING AND MAIN ENTRANCE DOUBLE SLIDING GATE, MANUAL OPERATION. IF ALTERNATE #7 IS ADOPTED, PROVIDE AND INSTALL NORTH ENTRANCE SINGLE SLIDING GATE, MANUAL OPERATION.
ALTERNATE #7: NORTH SITE ENTRANCE	PROVIDE AND INSTALL NORTH SITE ENTRANCE PAVEMENT.
ALTERNATE #8: MAIN ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO MAIN ENTRANCE DOUBLE SLIDING GATE IN ALTERNATE #6.
ALTERNATE #8: NORTH ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO NORTH SLIDING GATE IN ALTERNATE #6 & #7.



*M. D. R.*

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:



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mark	date	description

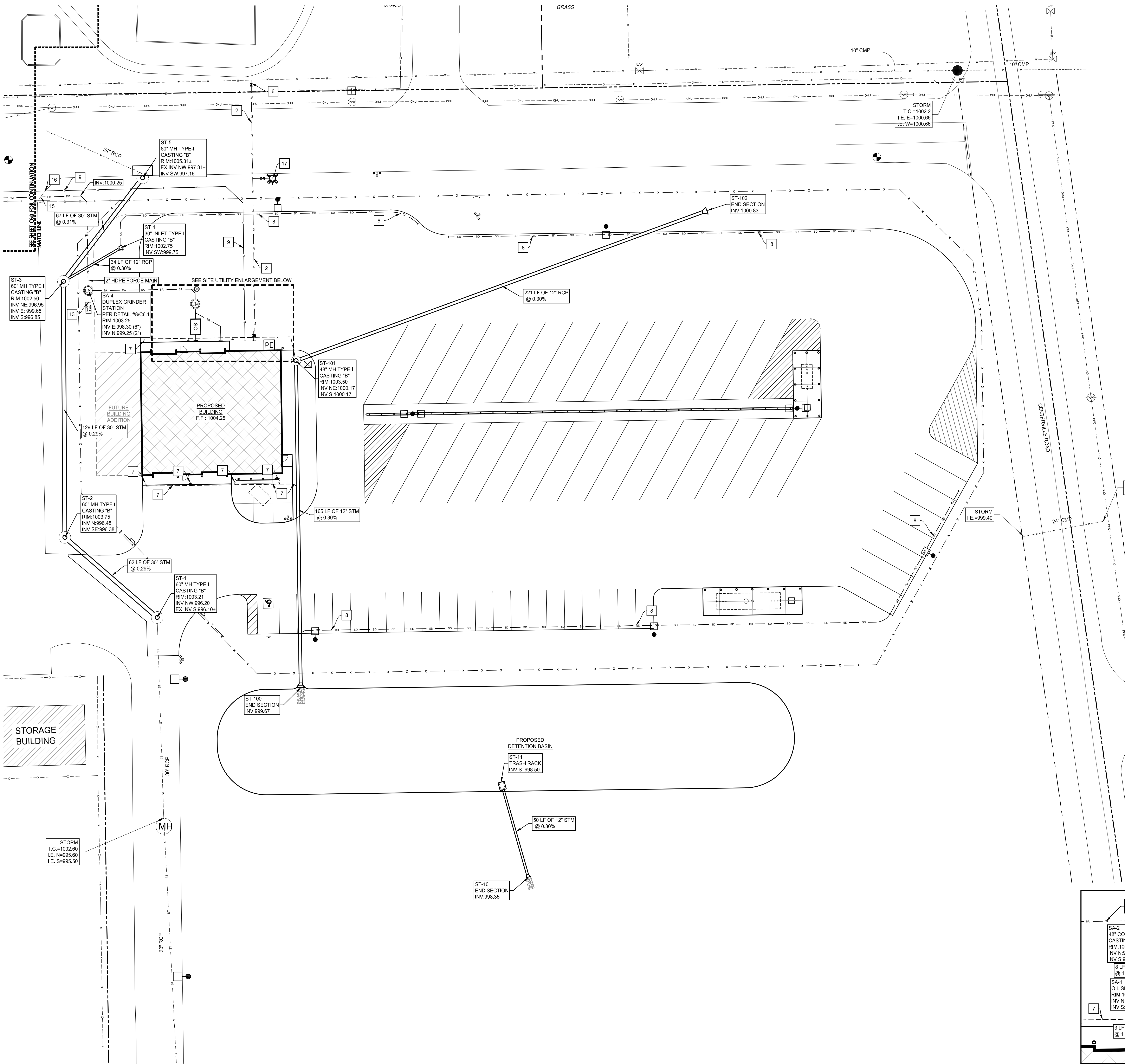
Site Grading Plan

date: March 2, 2022  
 project: 473003  
 coordinator: DLR  
 drawn: CMF  
 checked: MDR

**1 Site Grading Plan**  
 1" = 20'-0"

**C3.0**

February 28, 2022, 2:33 PM  
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**PROPOSED LEGEND:**

	STORM INLET / MANHOLE		STORM SEWER
	SANITARY CLEANOUT		SANITARY SEWER
	CONTROL MANHOLE		GAS LINE
	LIFT STATION		WATER LINE
	OIL SEPARATOR		FORCE MAIN
	GATE VALVE		GAS LINE
	PIV		SUBDRAIN

NOTE: PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES AND THE END OF END SECTIONS/TRASH RACKS UNLESS OTHERWISE NOTED.

NOTE: ADJUST ALL EXISTING MANHOLES, VALVES, HYDRANTS AND HANDHOLES TO PROPOSED GRADES.

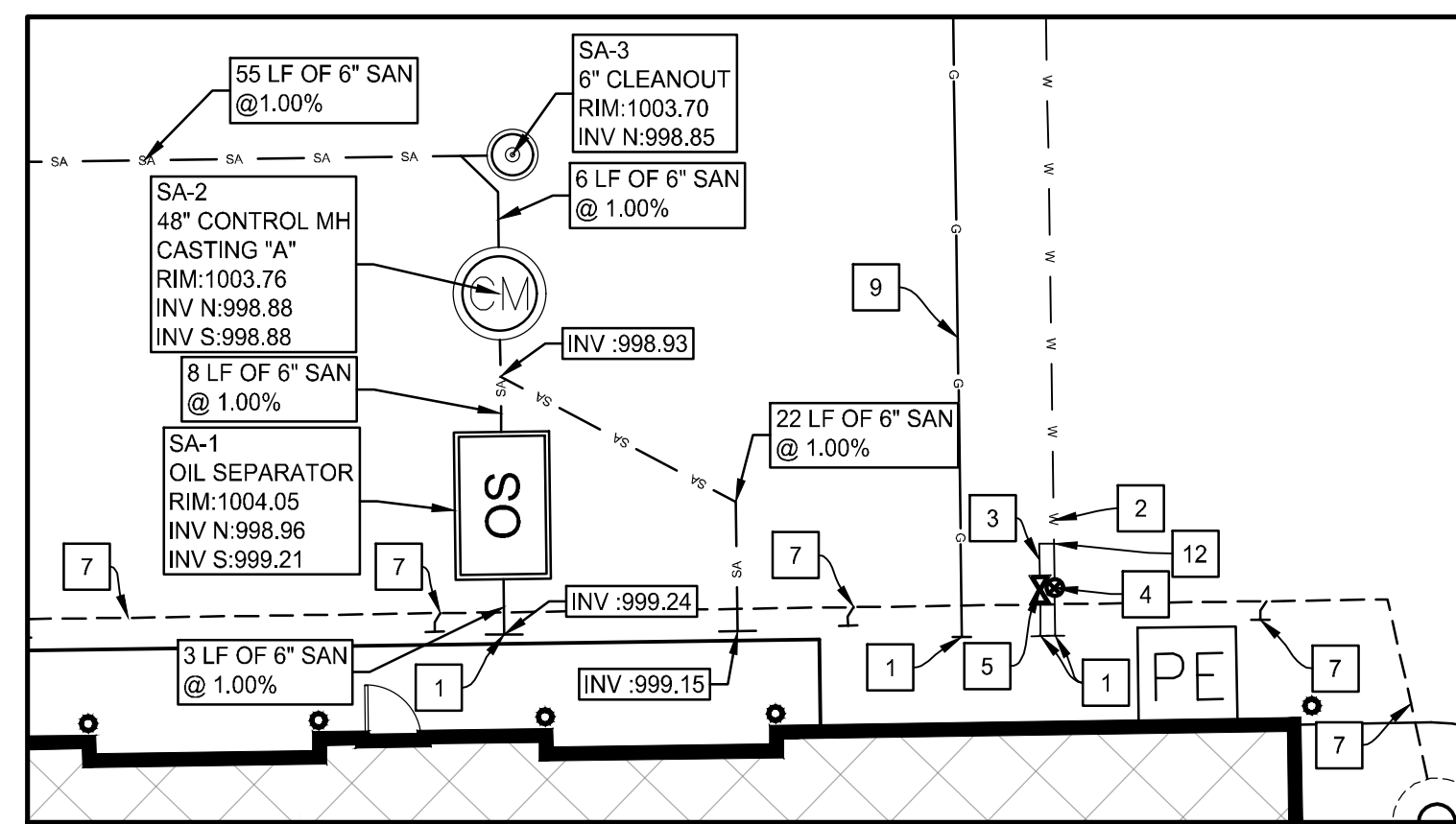
NOTE: CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY STATE AND LOCAL AUTHORITIES.

- UTILITY NOTES:**
- COORDINATE CONNECTION WITH THE BUILDING DRAWINGS.
  - 6" WATER LINE
  - 4" WATER LINE
  - 6" GATE VALVE, VALVE BOX, AND POST INDICATOR WITH STATUS SWITCH. SEE FIRE PROTECTION FOR CONNECTION TO CONTROL SYSTEM.
  - 4" GATE VALVE AND VALVE BOX
  - WATER CONNECTION, 6" X 6" TAPPING SLEEVE, VALVE & VALVE BOX.
  - DOWNSPOUT DRAIN @ MINIMUM 1.00%. CONNECT TO DOWNSPOUTS AS REQUIRED. MAINTAIN 3" MINIMUM COVER. SEE BUILDING PLANS.
  - 4" SUBDRAIN @ MIN. 2.0% PER DETAIL #7/C7.1.
  - FOR REFERENCE ONLY: GAS (BY UTILITY COMPANY).
  - TYPE "T" FIRE HYDRANT ASSEMBLY PER DETAIL #3/C7.1
  - FIELD VERIFY DEPTH AND LOCATION OF EXISTING UTILITY, NOTIFY ENGINEER AND WAIT FOR INSTRUCTION IF CONFLICTS WITH PROPOSED CONSTRUCTION.
  - 6X4" TEE
  - INSTALL STAHLIN ENCLOSURES CONTROL PANEL MODEL # "R11816HPI" OR APPROVED EQUAL. MOUNT CONTROL PANEL ON MOUNTING SYSTEM PER DETAIL ON ELECTRICAL PLAN. CONNECT SPECIFIED CONTROL PANEL TO DUPLEX GRINDER STATION PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH SITE ELECTRIC PLANS.
  - CORE HOLE IN EXISTING MANHOLE FOR PROPOSED SANITARY CONNECTION. PROVIDE WATER TIGHT CONNECTION.
  - 2" FORCE MAIN TO BE DIRECTIONALLY DRILLED BELOW ASPHALT.
  - GAS LINE TO BE DIRECTIONALLY DRILLED BELOW ASPHALT.

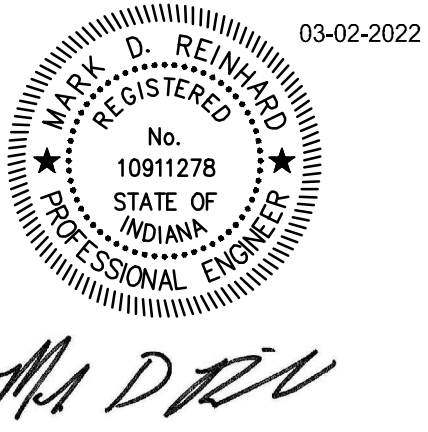
- STORM SEWER NOTES:**
- MATERIAL AND WORKMANSHIP SHALL COMPLY WITH THE TOWN OF CENTERVILLE STANDARDS AND SPECIFICATIONS.
  - ALL PIPE 12" AND SMALLER SHALL BE SDR 35 PVC. OR ADS N-12 HDPE UNLESS OTHERWISE NOTED. ALL PIPE LARGER THAN 12" SHALL BE ADS N-12 HDPE OR C76 CL-111 RCP UNLESS OTHERWISE NOTED. ALL PIPE SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS AND PIPE TRENCH DETAIL #1/C7.1.
  - MAINTAIN 10'-0" MINIMUM HORIZONTAL AND 18" MINIMUM VERTICAL SEPARATION BETWEEN ALL SEWER PIPING AND POTABLE WATER PIPING. WHEN MINIMUM TOLERANCES CAN'T BE MAINTAINED, USE WATERWORKS GRADE PIPE AND FITTINGS OF MATERIAL SELECTED.
  - COORDINATE TAP LOCATIONS FOR DOWNSPOUTS WITH BUILDING DRAWINGS. ASSURE ALL REQUIRED FITTINGS ARE INSTALLED ON THE MAIN LINE PRIOR TO BACKFILLING. INCLUDE ADAPTER FITTING FOR DOWNSPOUTS.
  - ALL UNDERGROUND PIPING FOR DOWNSPOUT COLLECTION SYSTEM SHALL BE 6" SDR 35 PVC STORM @ 1.00% MIN. SLOPE UNLESS NOTED OTHERWISE.

NOTE:  
NOT ALL KEYNOTES ARE USED ON THIS SHEET.

**1 Site Utility Plan**  
1" = 20'-0"



**2 Site Utility Enlargement**  
1" = 10'-0"



**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**

A PROJECT FOR:



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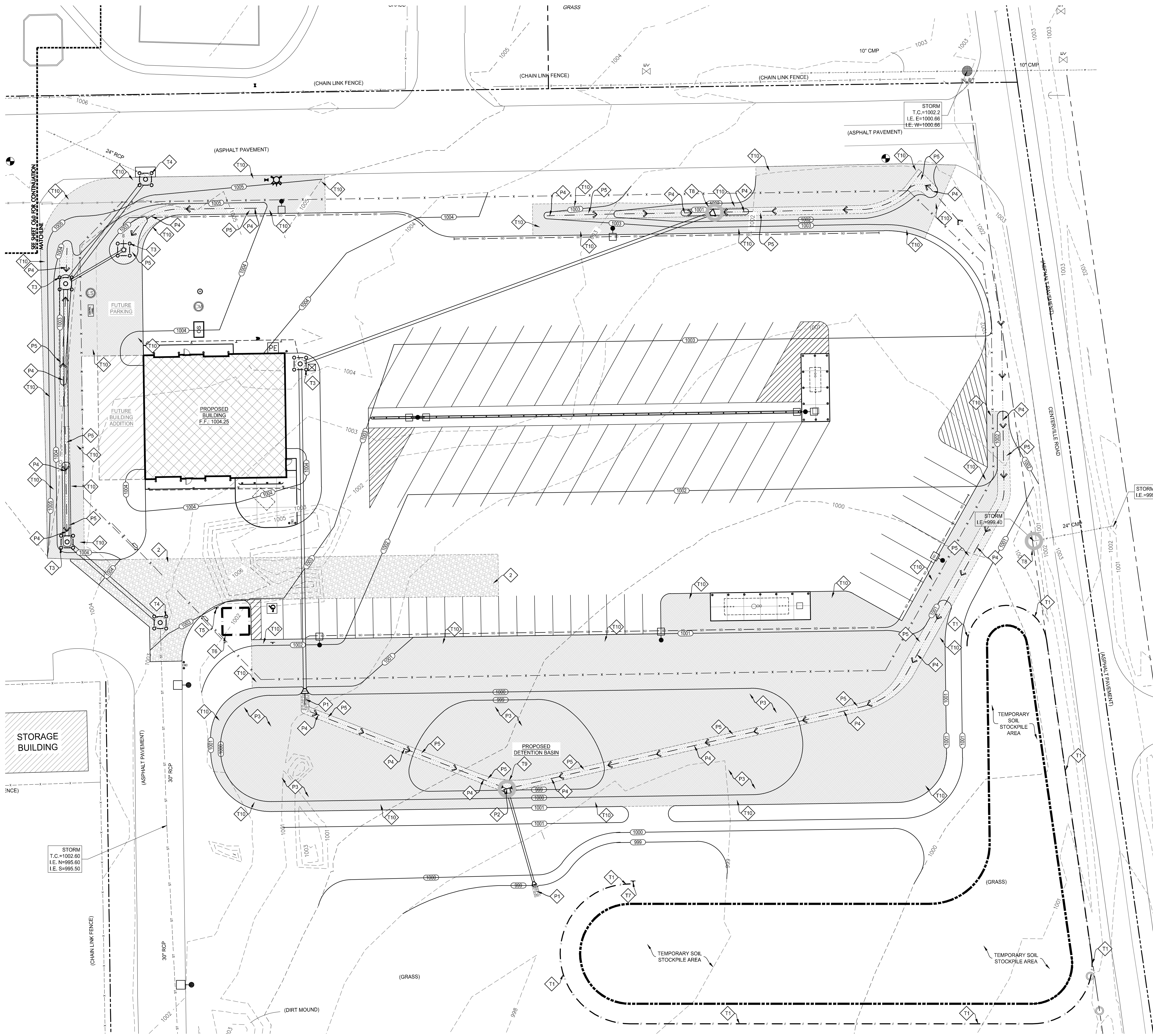
mark	date	description

Site Utility Plan

date: March 2, 2022  
project: 473003  
coordinator: DLR  
drawn: CMF  
checked: MDR

**C4.0**

February 28, 2022, 2:33 PM  
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**EROSION CONTROL LEGEND:**

- SILT FENCE
- AGGREGATE BASE FOR STABLE CONSTRUCTION ENTRANCE
- INLET PROTECTION
- SOIL STOCKPILE AREA
- CONCRETE WASHOUT AREA
- CONSTRUCTION LIMITS
- EROSION CONTROL SIGNAGE
- RIP-RAP DONUT AND END SECTION INLET PROTECTION
- TRASH RACK
- ENERGY DISSIPATER
- EROSION CONTROL BLANKET
- TURF REINFORCEMENT MAT

**EROSION CONTROL KEY:**

TEMPORARY EROSION CONTROL DEVICES AND MEASURES	PERMANENT EROSION CONTROL DEVICES AND MEASURES
T1	P1
T2	P2
T3	P3
T4	P4
T5	P5
T6	
T7	
T8	
T9	
T10	

**NOTE:**  
 STORM WATER SEWER LINES SHOWN ARE FOR REFERENCE ONLY. SEE SITE UTILITY PLANS FOR STORM WATER SEWER LINE SIZE, INVERT, ETC.

**PUBLIC INFORMATION NOTE:**  
 THE PROJECT OWNER/CONTRACTOR MUST POST NEAR THE ENTRANCE OR NEAR THE PROJECT FIELD OFFICE AND BE ACCESSIBLE TO THE PUBLIC SUCH THAT IT DOES NOT CREATE TRESPASS CONCERNS

- A COPY OF THE COMPLETED NOTICE OF INTENT (NOI) LETTER WITH PERMIT NUMBER. THE PERMIT NUMBER CAN BE FOUND ON THE NOTICE OF SUFFICIENCY LETTER RECEIVED FROM IDEM.
- CONTACT INFORMATION ADDRESS, PHONE, AND EMAIL OF THE PROJECT SITE OWNER OR DESIGNATED CONTACT PERSON. THE NOI CONTAINS THIS INFORMATION.
- LOCATION OF THE CONSTRUCTION PLAN, IF ONE IS NOT STORED ON-SITE.

**PERMANENT OFF-SITE EXCESS SOIL AREA AND WETLAND NOTE:**

EXCESS SOIL IS TO BE REMOVED FROM PROJECT SITE TO A PERMANENT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIND A SITE TO PERMANENTLY PLACE THE EXCESS SOIL. EXECUTE ANY CONTRACTS NEEDED WITH THE PROPERTY OWNER, AND RESEARCH FOR THE POSSIBILITY OF WETLANDS ON THE EXCESS SOIL SITE. IF WETLANDS ARE FOUND, ANOTHER SITE SHOULD BE CHOSEN. IF THE CONTRACTOR WISHES TO USE A SITE THAT CONTAINS WETLANDS IT IS THE CONTRACTOR'S FINANCIAL RESPONSIBILITY TO HAVE THE WETLANDS ASSESSED AND DELINEATED BY A CERTIFIED ENVIRONMENTAL CONSULTING FIRM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE EROSION CONTROL DRAWINGS OF THE EXCESS SOIL SITE TO THE WAYNE COUNTY SOIL AND WATER CONSERVATION DISTRICT TECHNICIAN FOR INSPECTION AND APPROVAL. TO ASSURE APPROPRIATE MEASURES WILL BE TAKEN TO PROTECT THE WETLANDS AND THAT THE WETLANDS WILL NOT BE DISTURBED, THE EXCESS SOIL PROPERTY SHALL HAVE EROSION CONTROL MEASURES AND DEVICES IN PLACE IN ACCORDANCE WITH THE LATEST INDIANA STORM WATER QUALITY MANUAL AND ANY LOCAL ORDINANCE. CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL MEASURES AND DEVICES USED, IN ACCORDANCE WITH THE LATEST INDIANA STORM WATER QUALITY MANUAL AND LOCAL ORDINANCES. THE SITE SHALL BE FINE GRADED, SOIL STABILIZED, AND TEMPORARY EROSION CONTROL DEVICES AND MEASURES REMOVED AT THE COMPLETION OF SOIL PLACEMENT.

**1** Site Construction Erosion Control Plan  
 1" = 20'-0"

**MOAKE PARK GROUP**  
 ARCHITECTURE INTERIORS PLANNING  
 7223 Engle Rd. Suite 200, Fort Wayne, IN 46804 260-424-6516  
 www.moakpark.com

**ENGINEERING RESOURCES, INC.**  
 11020 Diebold Road, Fort Wayne, IN 46845  
 Ph: (260) 400-1025 Fax: (260) 400-1026  
 www.eri.consulting

03-02-2022  
 M. D. DEW

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
 TRANSPORTATION BUILDING**

A PROJECT FOR:

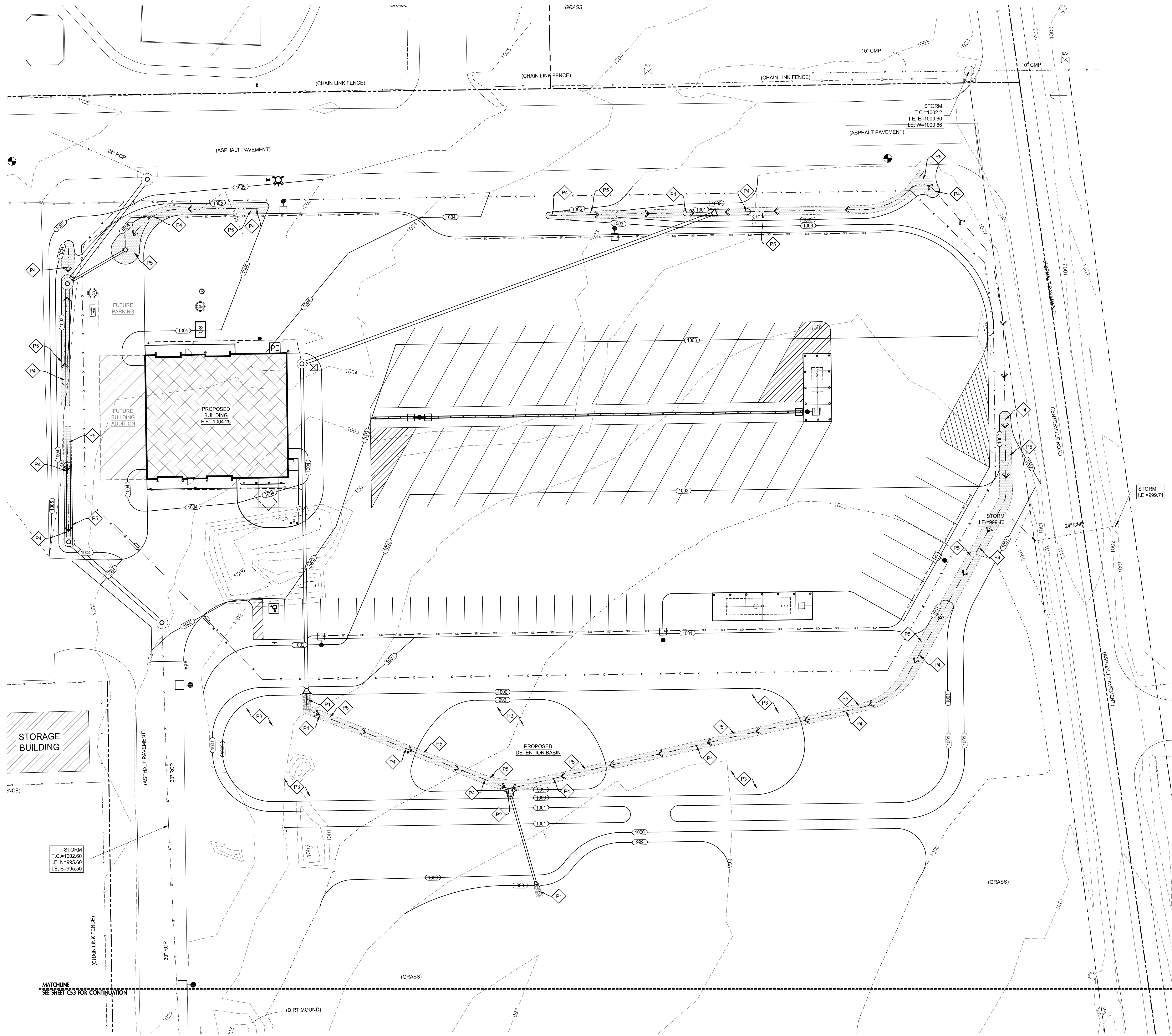
mark date description

mark	date	description

Site Construction Erosion Control Plan

date: March 2, 2022  
 project: 473003  
 coordinator: DLR  
 drawn: KRK  
 checked: MDR

**C5.0**



**EROSION CONTROL LEGEND:**

- TRASH RACK
- ENERGY DISSIPATER
- TURF REINFORCEMENT MAT

**EROSION CONTROL KEY:**

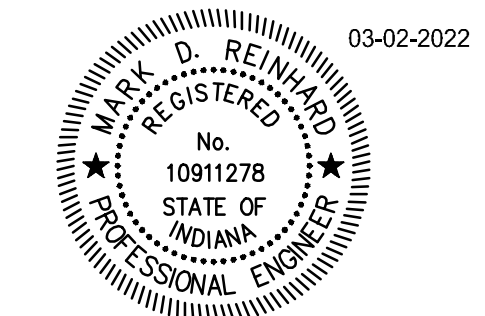
PERMANENT EROSION CONTROL DEVICES AND MEASURES	DESCRIPTION
P1	INSTALL ENERGY DISSIPATER PER DETAIL #14/CS.2.
P2	INSTALL TRASH RACK PER DETAIL #11/CS.2.
P3	DRY DETENTION BASIN.
P4	INSTALL VEGETATED SWALE PER DETAIL #12/CS.2.
P5	INSTALL OVERFLOW WEIR PER DETAIL #15/CS.2.
P6	INSTALL TURF REINFORCEMENT MAT (TRM) PER DETAIL #13/CS.2.

**NOTE:**

STORM WATER SEWER LINES SHOWN ARE FOR REFERENCE ONLY. SEE SITE UTILITY PLANS FOR STORM WATER SEWER LINE SIZE, INVERT, ETC.

**PERMANENT EROSION CONTROL DEVICES AND MEASURES NOTE:**

THE CONTRACTOR SHALL CLEAN THE EROSION CONTROL DEVICES AND MEASURES OF, BUT NOT LIMITED TO, SEDIMENT, DEBRIS, AND ANY HYDROCARBONS WHEN CONSTRUCTION IS COMPLETE. WATER AND SEDIMENT FROM CLEANING PROCEDURES SHALL BE DISPOSED OF PROPERLY AND MUST NOT BE DEPOSITED INTO ANY SANITARY SEWER SYSTEM. DISPOSAL OF ALL SEDIMENT, DEBRIS AND HYDROCARBONS MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.



M. D. DEW

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:



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mark	date	description

**Site Post-Construction Erosion Control Plan**

date: March 2, 2022  
project: 473003  
coordinator: DLR  
drawn: KRK  
checked: MDR  
**C5.1**

**1** Site Post-Construction Erosion Control Plan  
1" = 20'-0"



*M. D. DEW*

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

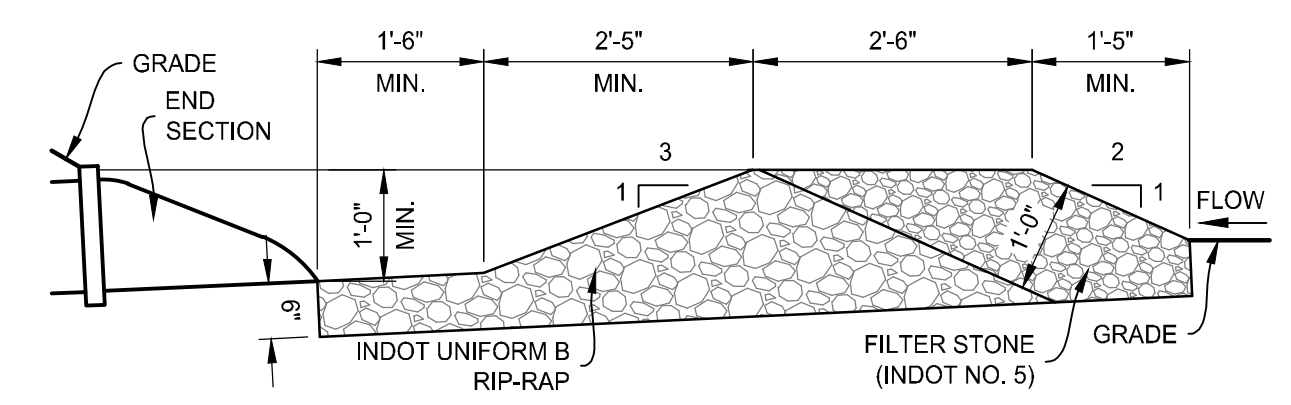
A PROJECT FOR:



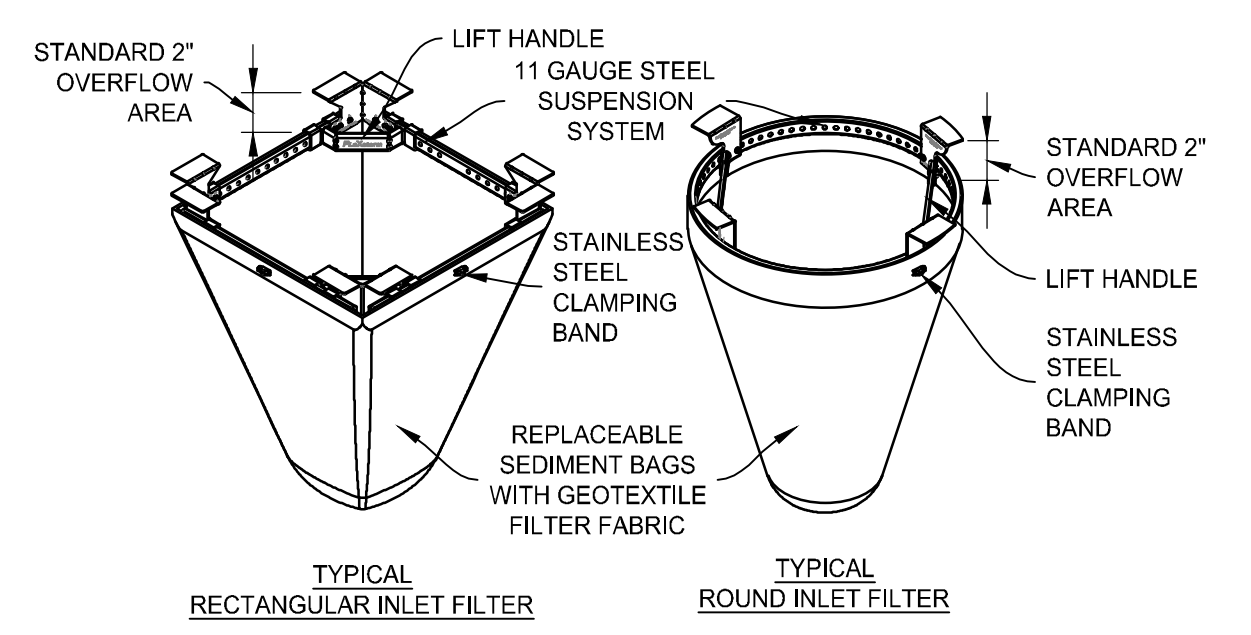
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mark	date	description

Site Erosion Control Details  
 date: March 2, 2022  
 project: 473003  
 coordinator: DLR  
 drawn: KRK  
 checked: MDR



**5 END SECTION INLET PROTECTION**  
 Scale: 1/2" = 1'-0"

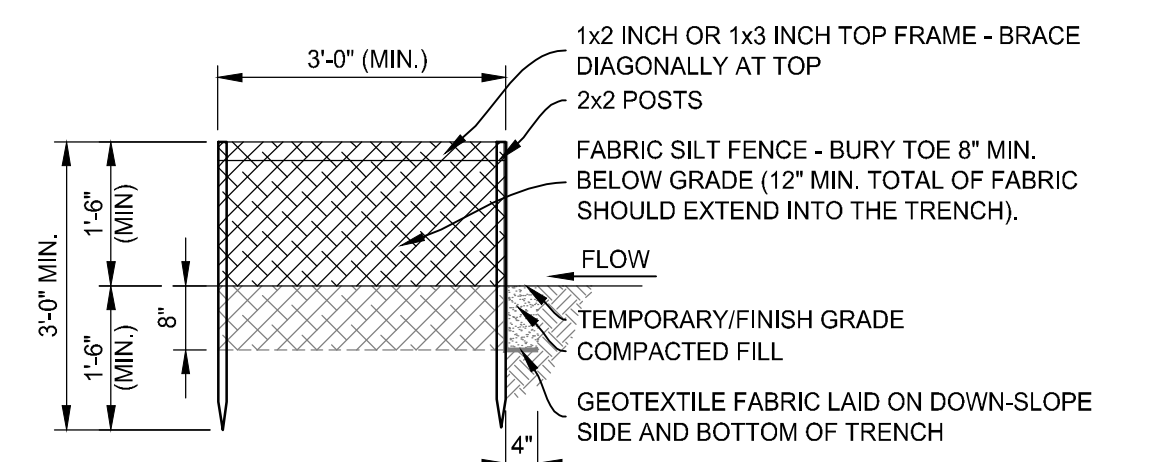


**FLEXSTORM DISTRIBUTED BY: ADS AND MANUFACTURED BY:**  
**INLET & PIPE PROTECTION, INC.**  
 24137 W. 111TH ST., UNIT A  
 NAPERVILLE, IL 60564  
 PH: (630) 307-8655  
 FAX: (630) 355-3477  
 WWW.INLETFILTERS.COM  
 INFO@INLETFILTERS.COM

**INSTALLATION:**

- REMOVE GRATE
- DROP FLEXSTORM INLET FILTER INTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
- REPLACE GRATE

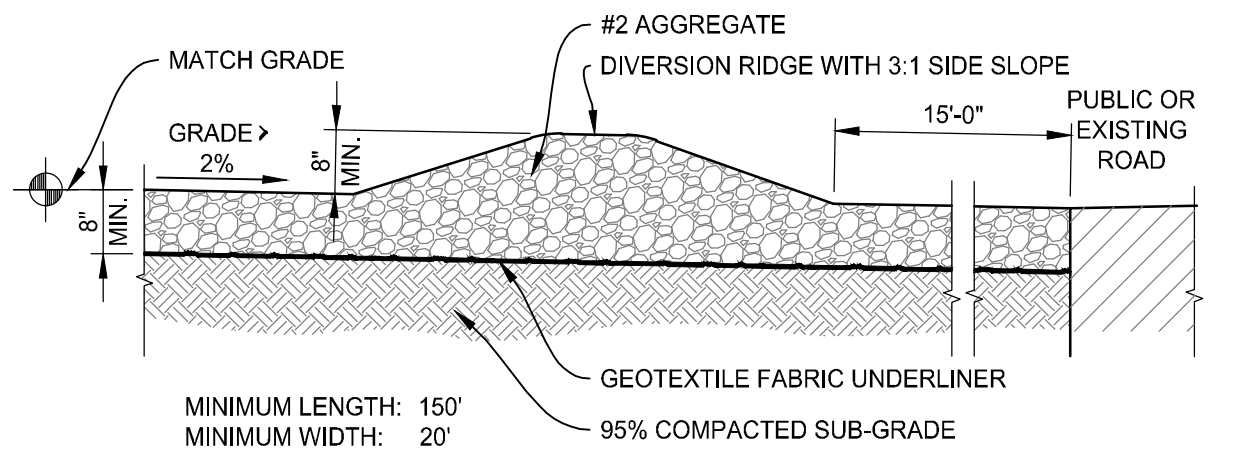
**4 PAVEMENT INLET PROTECTION**  
 Scale: None



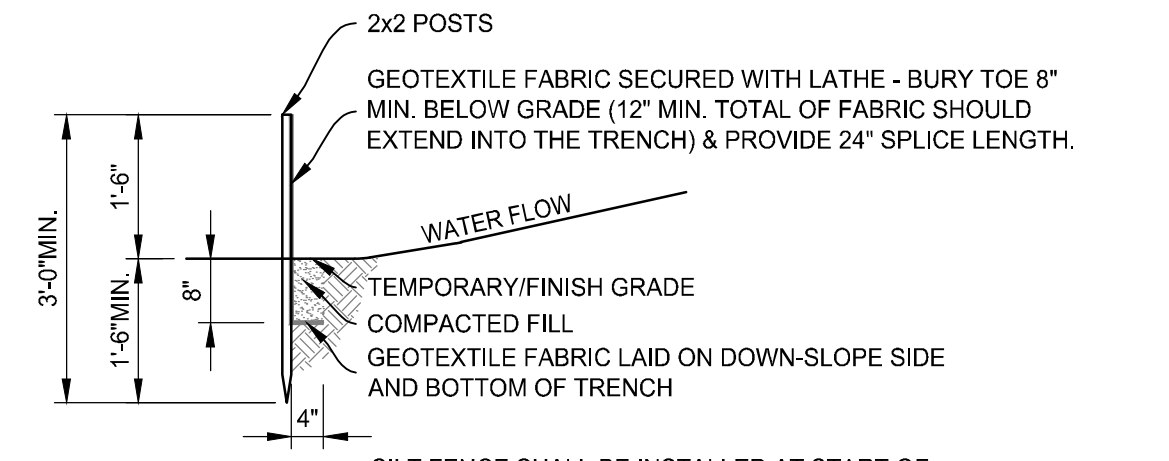
**SPECIFICATIONS:**

- INSPECT THE FABRIC BARRIER AFTER STORM EVENTS, AND MAKE NEEDED REPAIRS IMMEDIATELY.
- REMOVE SEDIMENT FROM THE POOL AREA TO PROVIDE STORAGE FOR THE NEXT STORM. AVOID DAMAGING OR UNDERCUTTING THE FABRIC DURING SEDIMENT REMOVAL.
- REMOVE AND PROPERLY DISPOSE OF ALL CONSTRUCTION MATERIAL AND SEDIMENT WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. GRADE THE AREA TO THE ELEVATION OF THE TOP OF THE INLET, THEN STABILIZE.

**3 YARD INLET PROTECTION**  
 Scale: 1/2" = 1'-0"



**2 CONSTRUCTION ENTRANCE**  
 Scale: 1/2" = 1'-0"



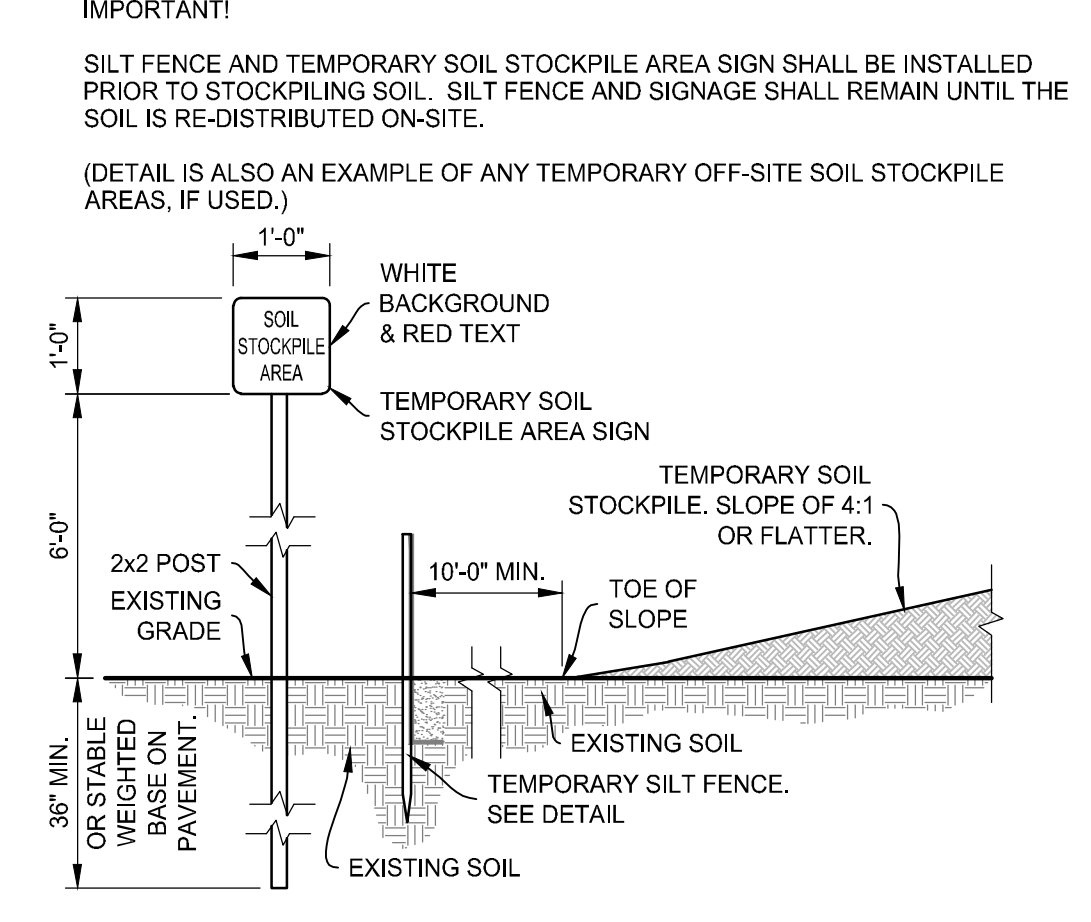
**SPECIFICATIONS:**

- INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- AVOID UNDERMINING THE FENCE DURING CLEANOUT.
- REMOVE THE FENCE AND SEDIMENT DEPOSITS AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

**1 SILT FENCE**  
 Scale: 1/2" = 1'-0"

- INSTALLATION:**
- CONTRACTOR TO SELECT A 12-MONTH PHOTODEGRADABLE EROSION CONTROL BLANKET RATED FOR 3:1 TO 2:1 SLOPES.
  - INSTALL EROSION CONTROL MEASURES AND PRACTICES NEEDED TO CONTROL EROSION AND RUNOFF. SUCH AS TEMPORARY OR PERMANENT DIVERSION, SEDIMENT BASIN OR TRAP, AND SILT FENCE.
  - GRADE THE SITE AS SPECIFIED IN THE CONSTRUCTION PLAN.
  - ADD TOPSOIL WHERE APPROPRIATE.
  - PREPARE THE SEEDBED, FERTILIZE (AND LIME, IF NEEDED), AND SEED THE AREA IMMEDIATELY AFTER GRADING.
  - FOLLOWING MANUFACTURER'S DIRECTIONS, LAY THE BLANKETS ON THE SEEDBED AREA SUCH THAT THEY ARE IN CONTINUOUS CONTACT WITH THE SOIL AND THAT THE UPSLOPE OR UPSTREAM ONES OVERLAP THE LOWER ONES BY AT LEAST 8 INCHES.
  - TUCK THE UPPERMOST EDGE OF THE UPPER BLANKETS INTO A CHECK SLOT (SILT TRENCH), BACKFILL WITH SOIL AND TAMP DOWN.
  - ANCHOR THE BLANKETS AS SPECIFIED BY THE MANUFACTURER. THIS TYPICALLY INVOLVES DRIVING 6" TO 8" METAL STAPLES INTO THE GROUND IN A PATTERN DETERMINED BY THE SITE CONDITIONS AND TYPE OF EROSION CONTROL BLANKET.

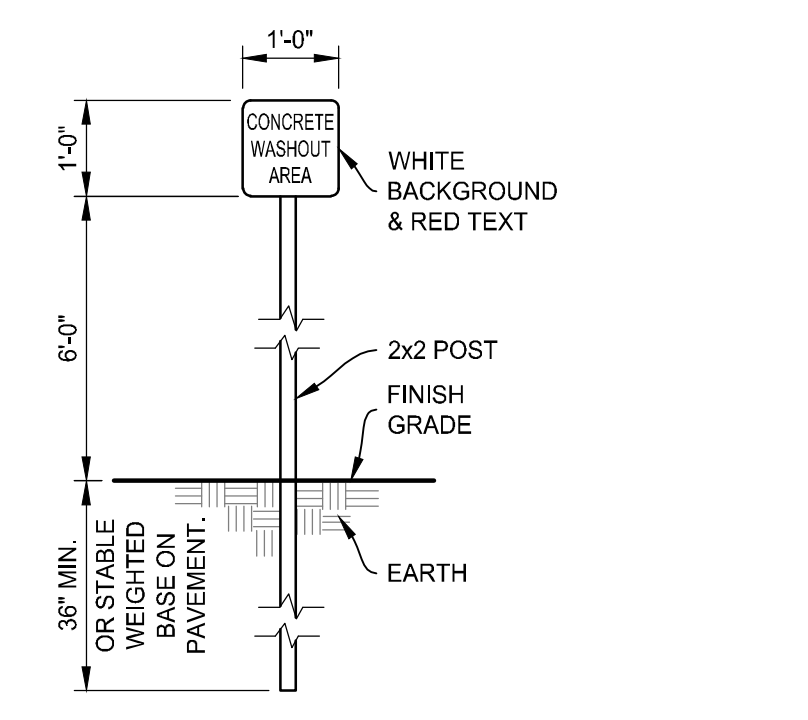
**9 EROSION CONTROL BLANKET**  
 Scale: NONE



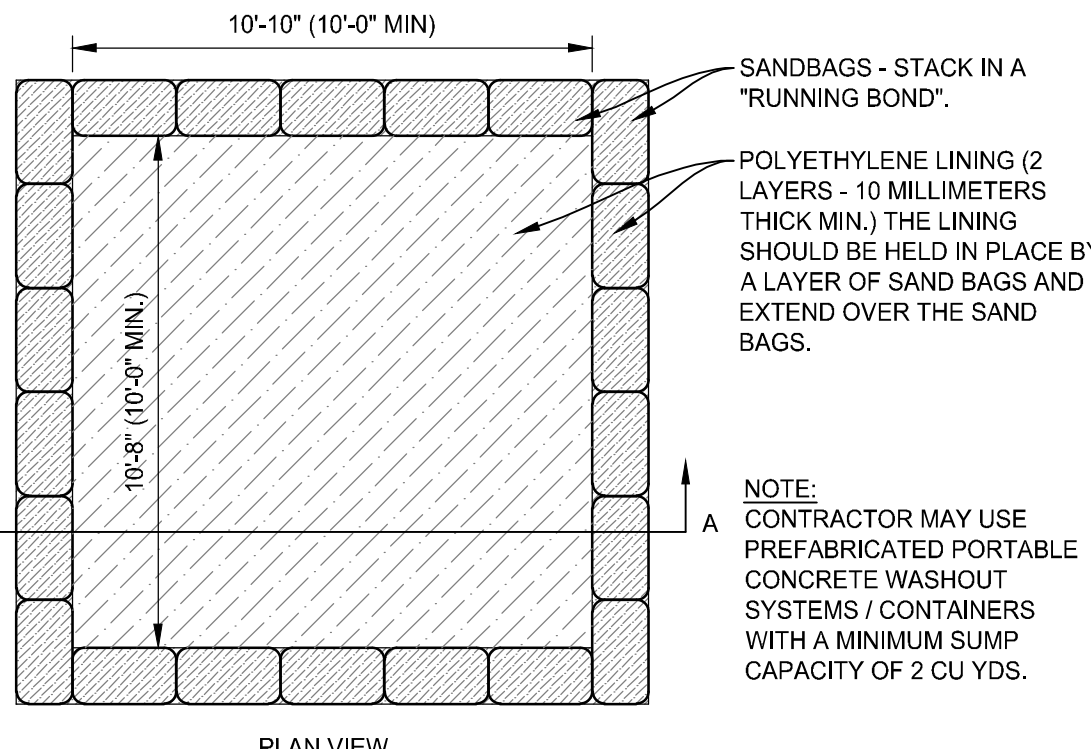
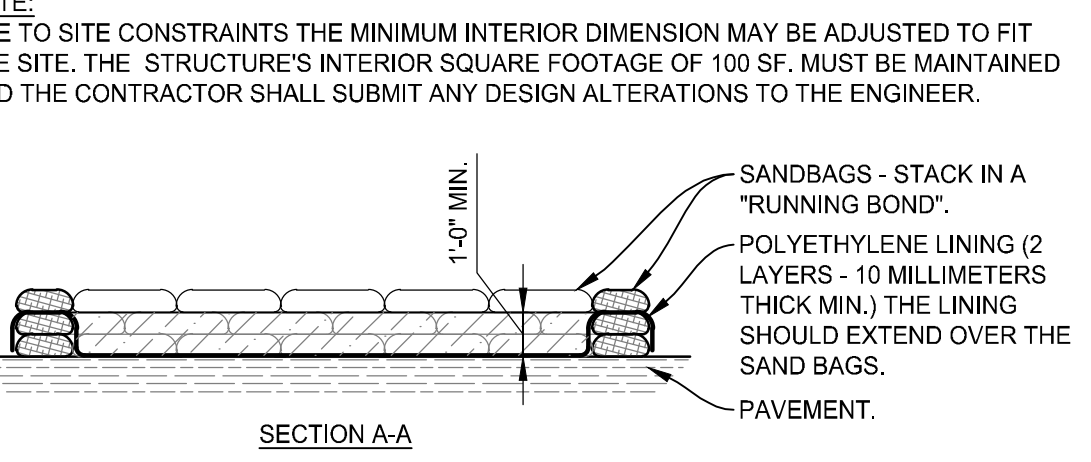
**SPECIFICATIONS:**

- INSPECT THE SILT FENCE AND TEMPORARY SOIL STOCKPILE PERIODICALLY AND AFTER EACH 1/2" STORM EVENT.
- STOCKPILED SOIL SHOULD BE TEMPORARILY SEEDED OR COVERED WITH A TARP IF IT IS TO BE LEFT INACTIVE FOR 15 DAYS OR MORE.
- IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
- REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- AVOID UNDERMINING THE SILT FENCE DURING THE REMOVAL OF DEPOSITED SEDIMENT.
- REMOVE THE SIGN, SILT FENCE, AND SEDIMENT DEPOSITS AFTER THE SOIL IS RE-DISTRIBUTED. BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

**8 TEMP. SOIL STOCKPILE AREA**  
 Scale: None



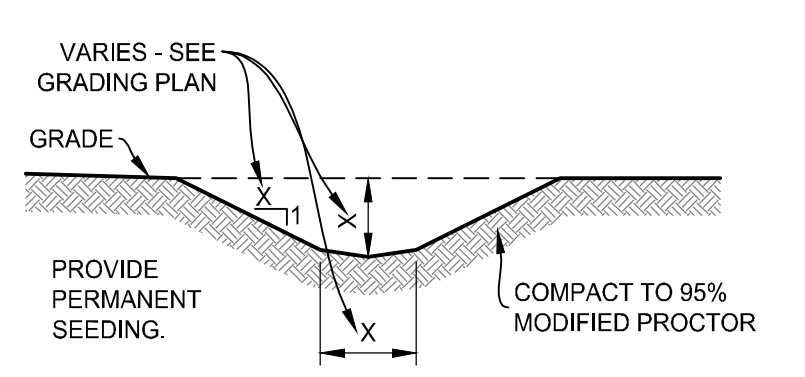
**7 CONCRETE WASHOUT SIGN**  
 Scale: 1/2" = 1'-0"



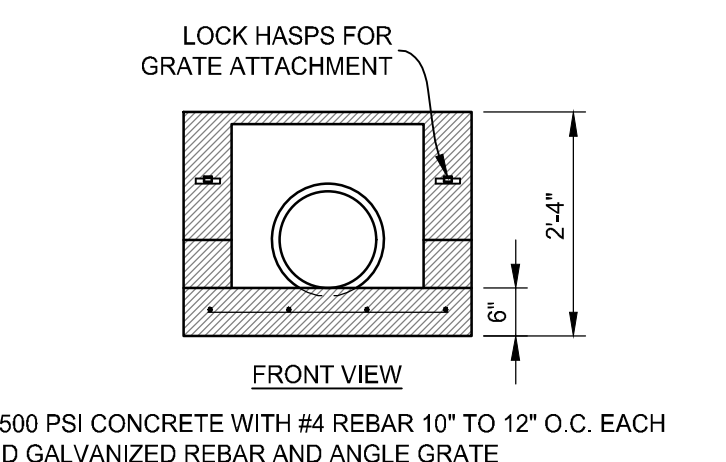
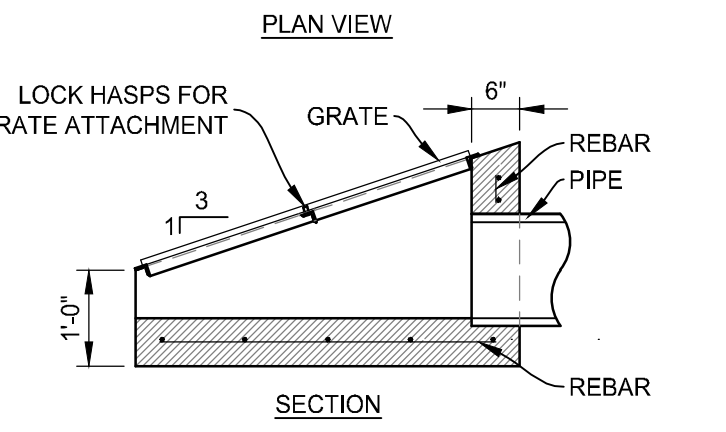
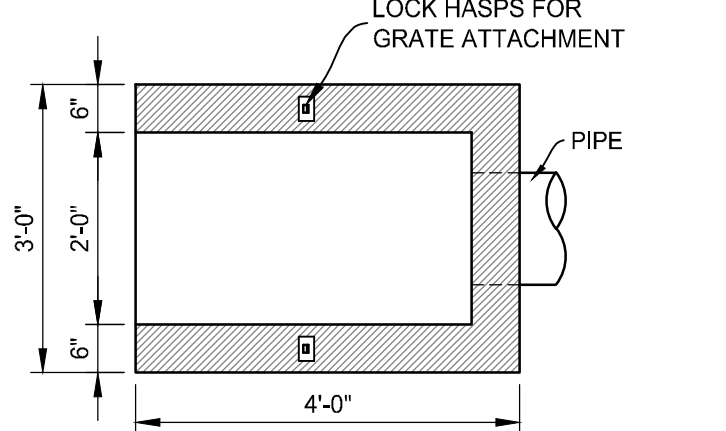
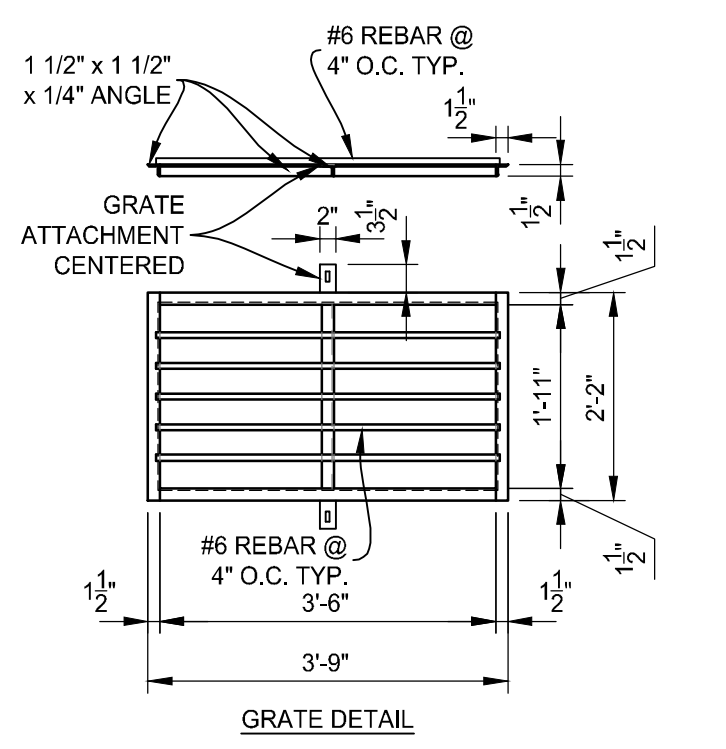
**6 CONC. WASHOUT STRUCTURE**  
 Scale: 1/4" = 1'-0"

- INSTALLATION:**
- CONTRACTOR TO SELECT A PERMANENT TURF REINFORCEMENT MAT. THE MAT WOULD HAVE THE FOLLOWING PROPERTIES 8.0-LB., UV-STABLE POLYPROPYLENE TOP & BOTTOM NETS, 24.0 LB., UV-STABLE POLYPROPYLENE CORRUGATED CENTER NET AND A 100% COCONUT FIBER MATRIX RATED FOR HIGH FLOW CHANNELS, 1:1 & GRATER SLOPES ALLOWING FOR A 36 MONTH GROW-IN PERIOD.
  - GRADE AND PREPARE THE SOIL FOUNDATION FOR MAT INSTALLATION AS PER MANUFACTURER'S INSTRUCTIONS.
  - INSTALL THE MAT ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, INCLUDING BURYING THE EDGES IN CHECK SLOTS OR TRENCHES.
  - ANCHOR THE BLANKETS AS SPECIFIED BY THE MANUFACTURER. THIS TYPICALLY INVOLVES DRIVING 6" TO 12" METAL STAPLES INTO THE GROUND IN A PATTERN DETERMINED BY THE SITE CONDITIONS AND TYPE OF TURF REINFORCEMENT MAT.

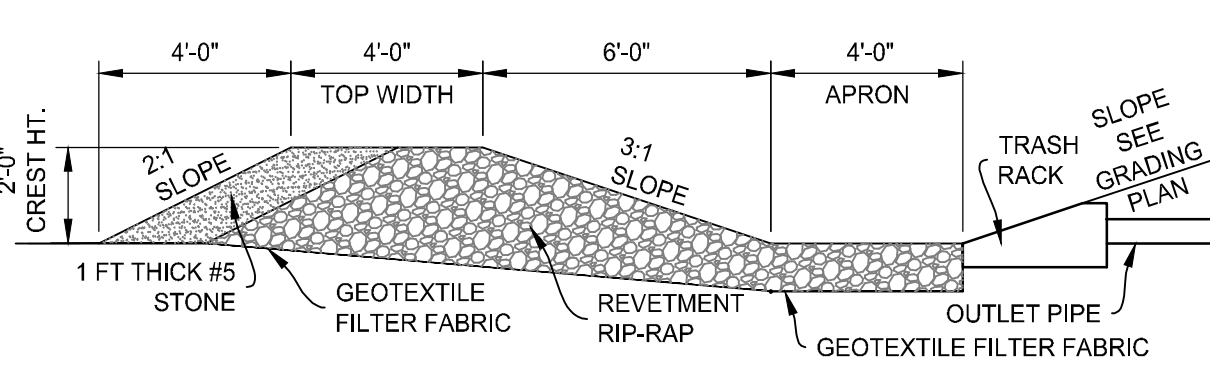
**13 TURF REINFORCEMENT MAT**  
 Scale: NONE



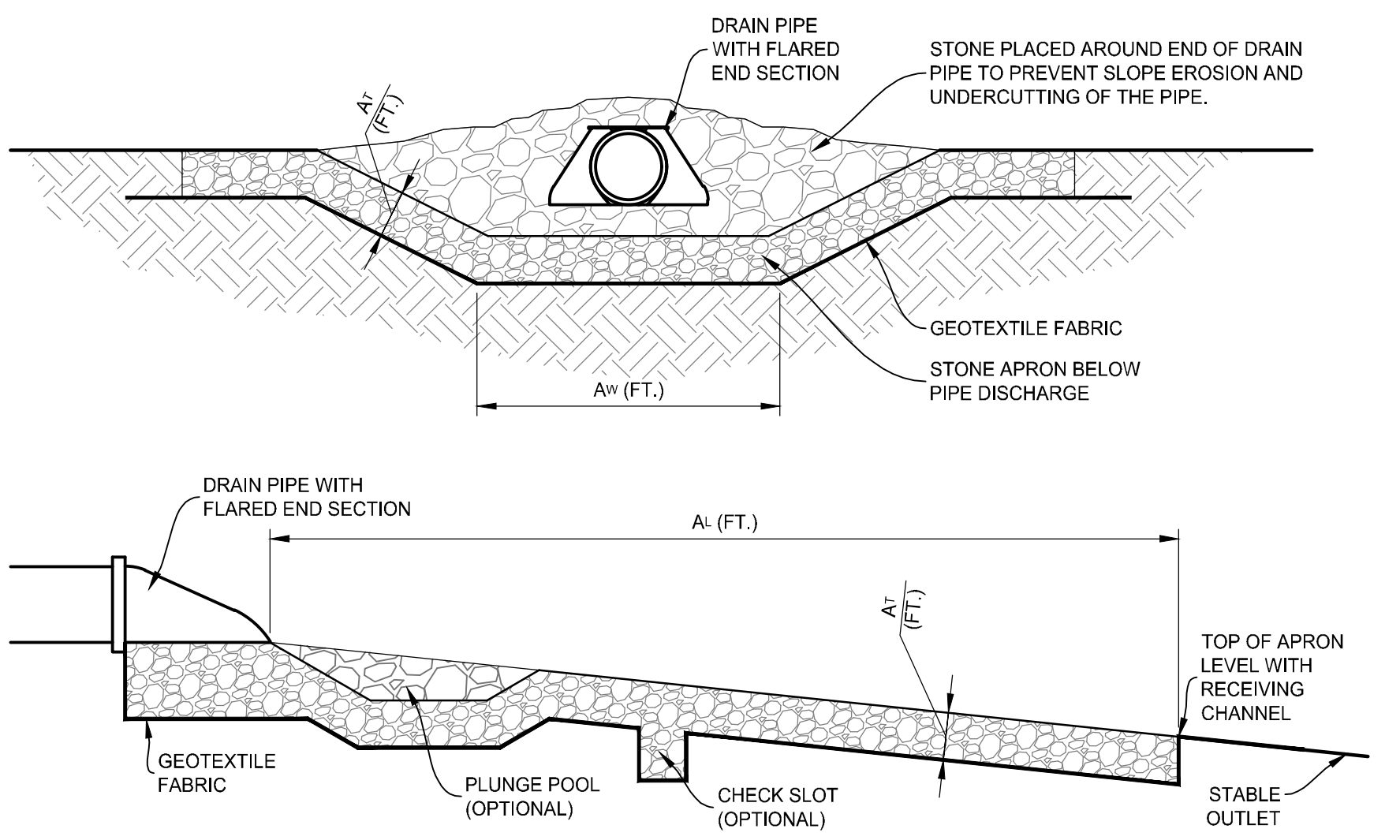
**12 VEGETATED SWALE**  
 Scale: NONE



**11 12\"/>**



**10 RIP-RAP DONUT**  
 Scale: NONE



**14 ENERGY DISSIPATER**  
 Scale: NONE

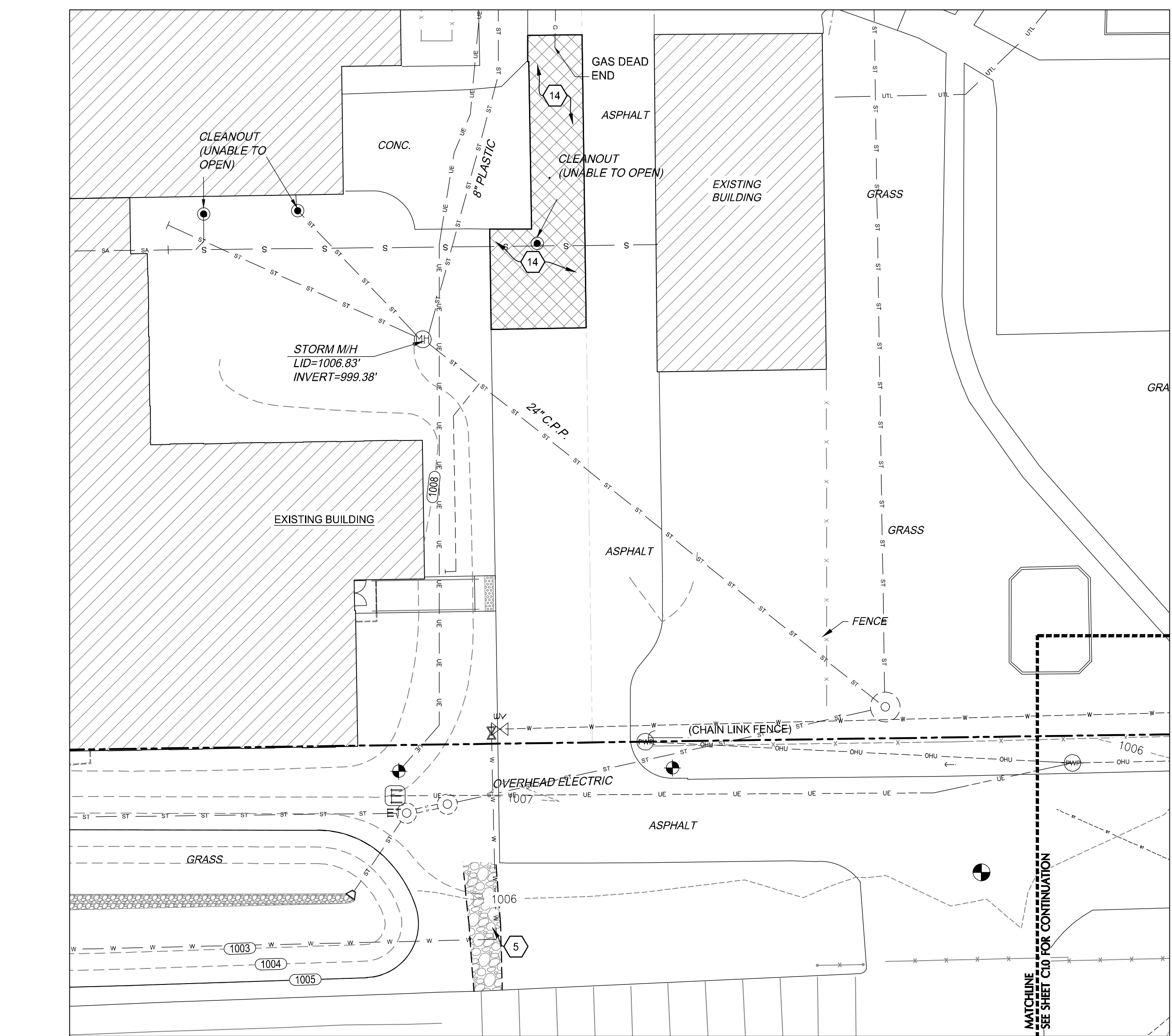
PIPE SIZE (IN.)	AVERAGE RIP-RAP DIAMETER (IN.)	APRON WIDTH (Aw) (FT.)	APRON LENGTH (Al) (FT.)
8	3	2-3	5-7
12	5	3-4	6-12
15	6	3.5-5	7-15
18	8	4-6	8-18
24	10	6-8	12-22
30	12	8-10	14-28
36	14	10-12	16-32

Al = APRON THICKNESS (FT.)  
 Al = APRON LENGTH (FT.)  
 Aw = APRON WIDTH (FT.) AT THE NARROW END OF THE APRON.

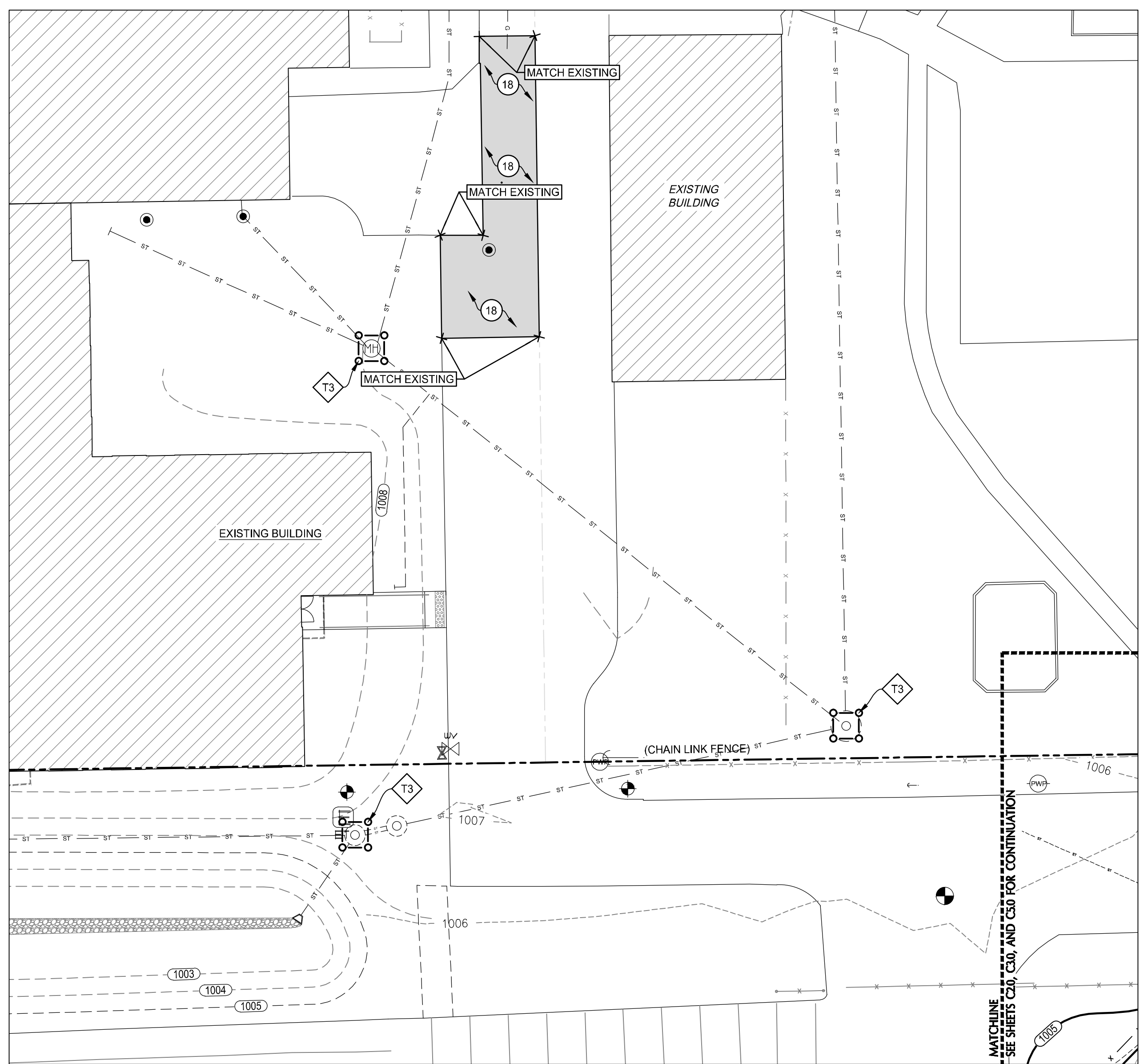
**APRON THICKNESS (At):**

- 1.2 TIMES THE MAXIMUM STONE DIAMETER FOR A STONE SIZE OF 15 INCHES OR LARGER.
- 1.5 TIMES THE MAXIMUM STONE DIAMETER FOR A STONE SIZE OF 15 INCHES OR LESS.

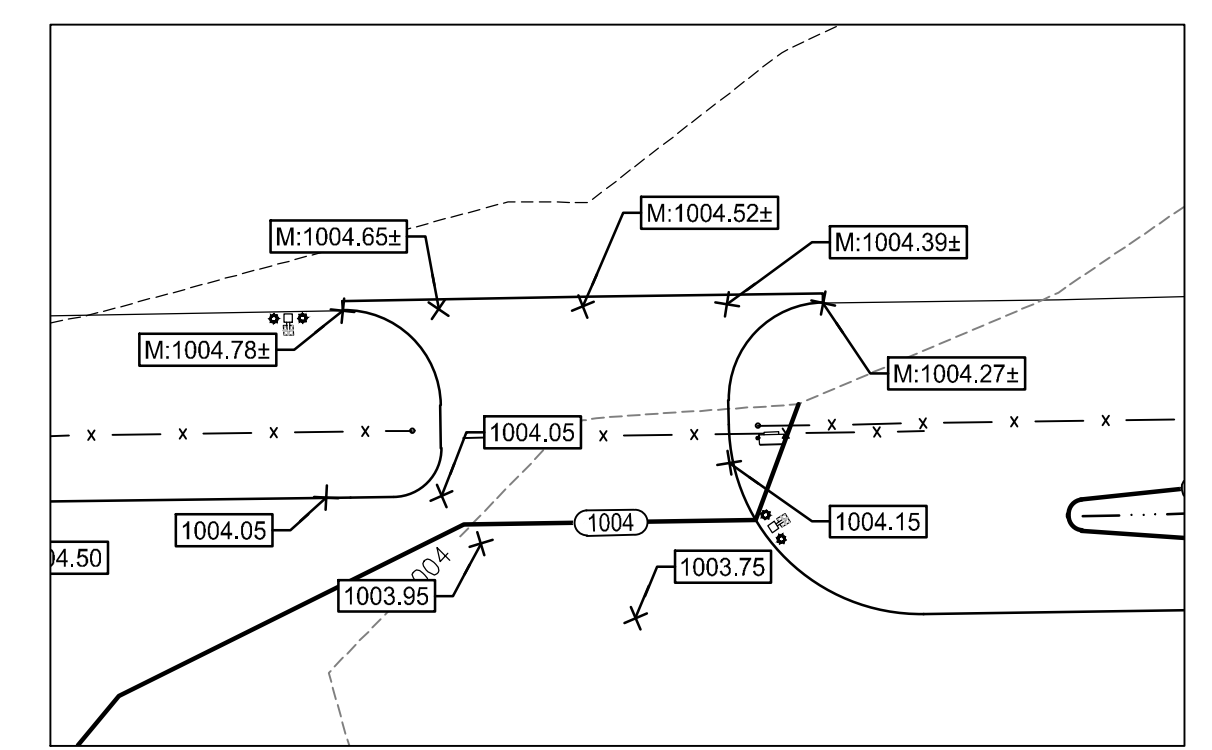
**14 ENERGY DISSIPATER**  
 Scale: NONE



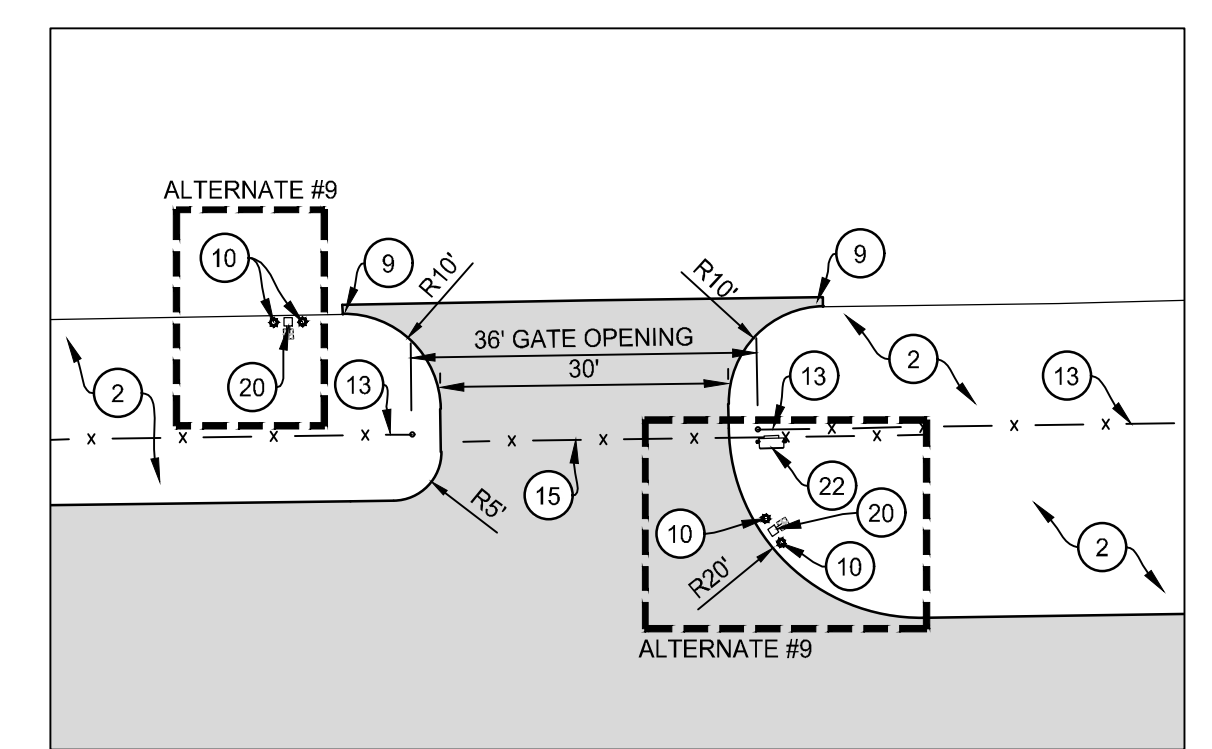
**1** Site Demolition Plan - Northwest  
1" = 20'-0"



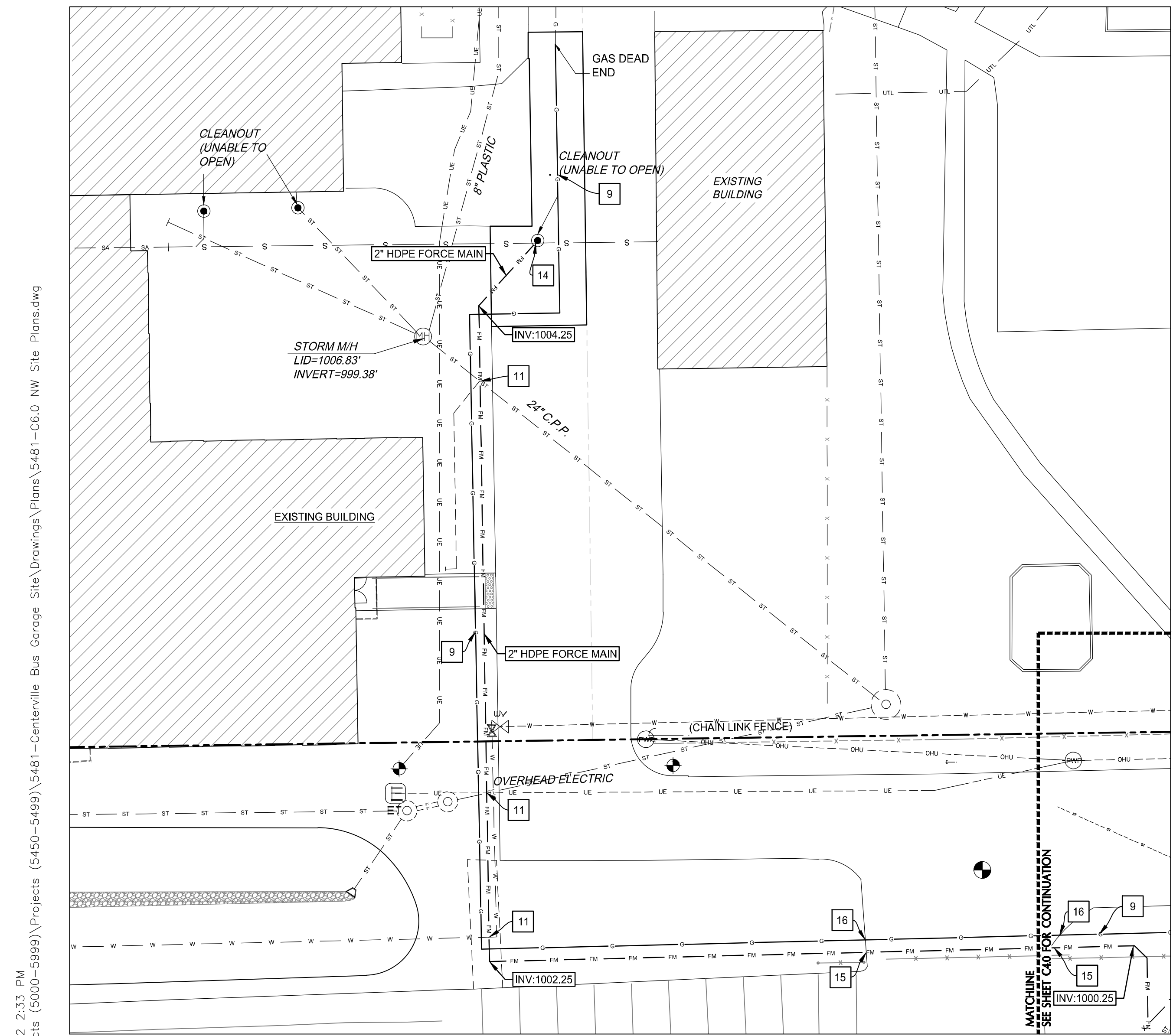
**2** Site Plan - Northwest  
1" = 20'-0"



**3** Alternate #7 Site Grading  
1" = 20'-0"



**4** Alternate #7 Site Layout  
1" = 20'-0"



**5** Site Utility Plan - Northwest  
1" = 20'-0"

**DEMOLITION LEGEND:**

- SAWCUT AND REMOVE ASPHALT PAVEMENT.
- REMOVE STONE AREA.

**DEMOLITION NOTES:**

- 5 REMOVE AND SALVAGE STONE AREA. RESET AFTER CONSTRUCTION IS COMPLETE.
- 14 SAWCUT AND REMOVE ASPHALT PAVEMENT AS NEEDED FOR UTILITY CONSTRUCTION.

**UTILITY NOTES:**

- 9 FOR REFERENCE ONLY. GAS (BY UTILITY COMPANY).
- 11 FIELD VERIFY DEPTH AND LOCATION OF EXISTING UTILITY. NOTIFY ENGINEER AND WAIT FOR INSTRUCTION IF CONFLICTS WITH PROPOSED CONSTRUCTION.
- 14 CORE HOLE IN EXISTING MANHOLE FOR PROPOSED SANITARY CONNECTION. PROVIDE WATER TIGHT CONNECTION.
- 15 2" FORCE MAIN TO BE DIRECTIONALLY DRILLED BELOW ASPHALT.
- 16 GAS LINE TO BE DIRECTIONALLY DRILLED BELOW ASPHALT.

**PROPOSED LEGEND:**

- GAS LINE
  - FORCE MAIN
- NOTE: PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES AND THE END OF END SECTIONS/TRASH RACKS UNLESS OTHERWISE NOTED.
- NOTE: ADJUST ALL EXISTING MANHOLES, VALVES, HYDRANTS AND HANDHOLES TO PROPOSED GRADES.
- NOTE: CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY STATE AND LOCAL AUTHORITIES.

**LAYOUT LEGEND:**

- TYPE "A" PAVEMENT PER DETAIL #1/C7.0.

NOTE: ALL DIMENSIONS ARE TO FACE OF CURB OR EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

**LAYOUT NOTES:**

- 2 GRASS/LANDSCAPE AREA. ALL DISTURBED AREAS TO RECEIVE PERMANENT SEEDING. SEE SPECIFICATIONS SECTION 329200 "LAWNS & GRASSES" AND LANDSCAPE PLANS.
- 9 ALTERNATE #7: 12" MINIMUM ASPHALT PAVEMENT TO PROVIDE A CLEAN EDGE PER DETAIL #1/C7.0.
- 10 6" PIPE BOLLARD PER DETAIL #5/C7.0.
- 13 ALTERNATE #6: 6" TALL CHAIN LINK FENCE PER DETAIL #6/C7.0.
- 15 ALTERNATE #6 & #7: 6" TALL CHAIN LINK FENCE SINGLE SLIDING GATE PER DETAIL #7/C7.0.
- 18 ASPHALT PAVEMENT AS NEEDED FOR UTILITY INSTALLATION PER DETAIL #1/C7.0.
- 20 AUTOMATIC SLIDE GATE CARD READER POST WITH ACCESS CONTROL PANEL PER DETAIL #11/C7.0.
- 22 ALTERNATE #9: LINEAR HSL-G-121, 1 HP, 230 VOLT, SINGLE PHASE, COMMERCIAL SLIDE GATE OPERATOR WITH CARD READER OPERATION, OR APPROVED EQUAL, MOUNTED ON TWO (2) 3" O.D. PIPE PER DETAIL #10/C7.0. SEE SITE ELECTRICAL PLANS FOR POWER INFORMATION.

**GRADING LEGEND:**

- PROPOSED CONTOUR
  - EXISTING CONTOUR
  - MATCH EXISTING SPOT
  - PROPOSED SPOT
  - PROPOSED DRAINAGE SWALE
  - PROPOSED DRAINAGE INTENT
- NOTE: ALL ELEVATIONS ARE TO TOP OF PAVEMENT OR LAWN UNLESS NOTED OTHERWISE.

**EROSION CONTROL LEGEND:**

- INLET PROTECTION

**EROSION CONTROL KEY:**

- INSTALL YARD INLET PROTECTION DEVICE PER DETAIL #3/C5.2.

**NOTE:**

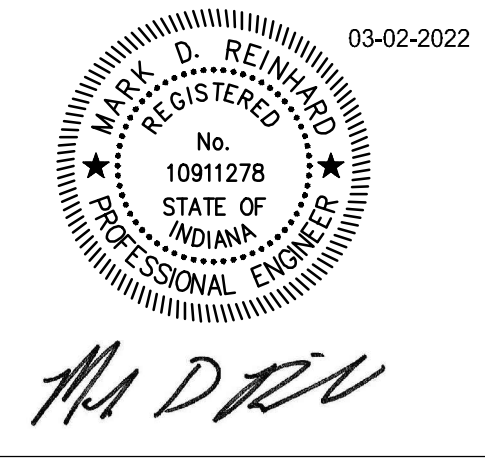
STORM WATER SEWER LINES SHOWN ARE FOR REFERENCE ONLY. SEE SITE UTILITY PLANS FOR STORM WATER SEWER LINE SIZE, INVERT, ETC.

**ALTERNATE NOTES:**

ALTERNATE #6: SITE FENCING	PROVIDE AND INSTALL SITE FENCING AND MAIN ENTRANCE DOUBLE SLIDING GATE, MANUAL OPERATION. IF ALTERNATE #7 IS ADOPTED, PROVIDE AND INSTALL NORTH ENTRANCE SINGLE SLIDING GATE, MANUAL OPERATION.
ALTERNATE #7: NORTH SITE ENTRANCE	PROVIDE AND INSTALL NORTH SITE ENTRANCE PAVEMENT.
ALTERNATE #8: MAIN ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO MAIN ENTRANCE DOUBLE SLIDING GATE IN ALTERNATE #6.
ALTERNATE #9: NORTH ENTRANCE GATE OPERATOR AND ACCESS CONTROL	PROVIDE AND INSTALL AUTOMATIC GATE OPERATOR AND KEY PAD AND FOB ACCESS TO NORTH SLIDING GATE IN ALTERNATE #6 & #7.



February 28, 2022, 2:33 PM  
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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**

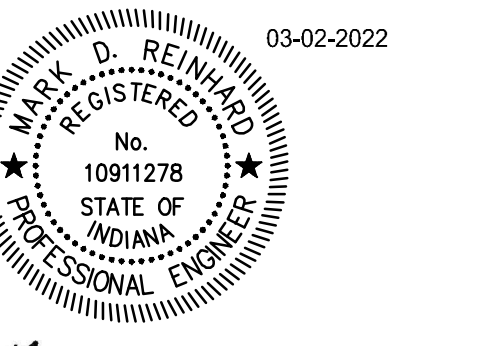
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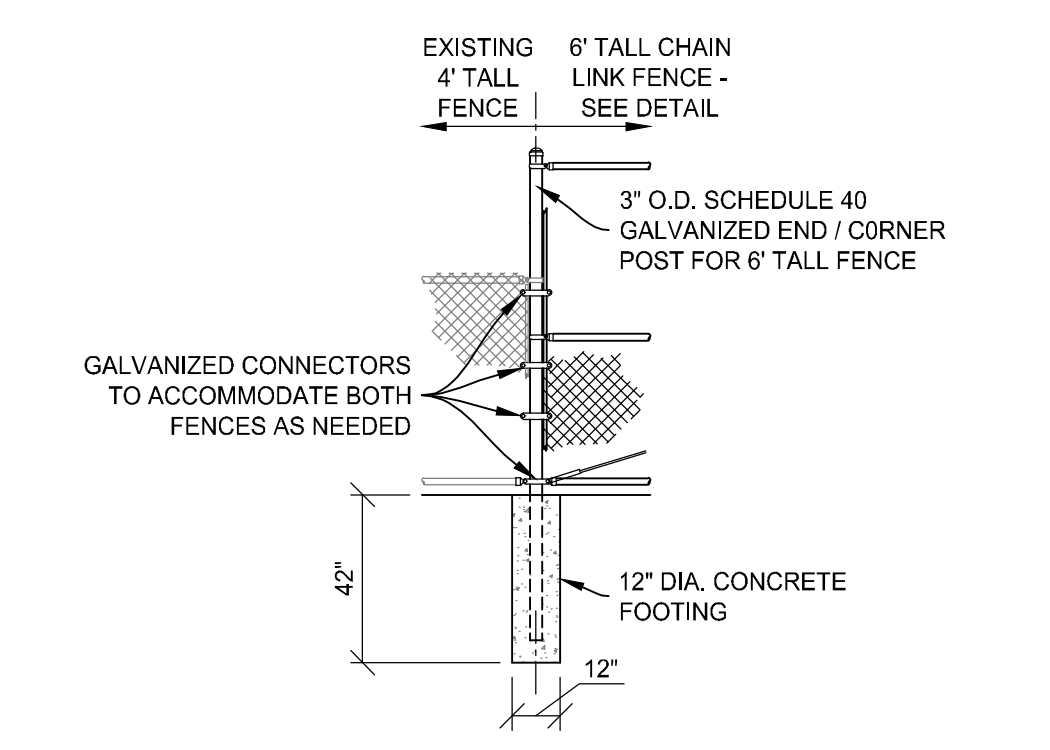
Site Plans - Northwest and Alternate #7 Plans

date: March 2, 2022  
project: 473003  
coordinator: DLR  
drawn: KRK  
checked: MDR  
**C6.0**

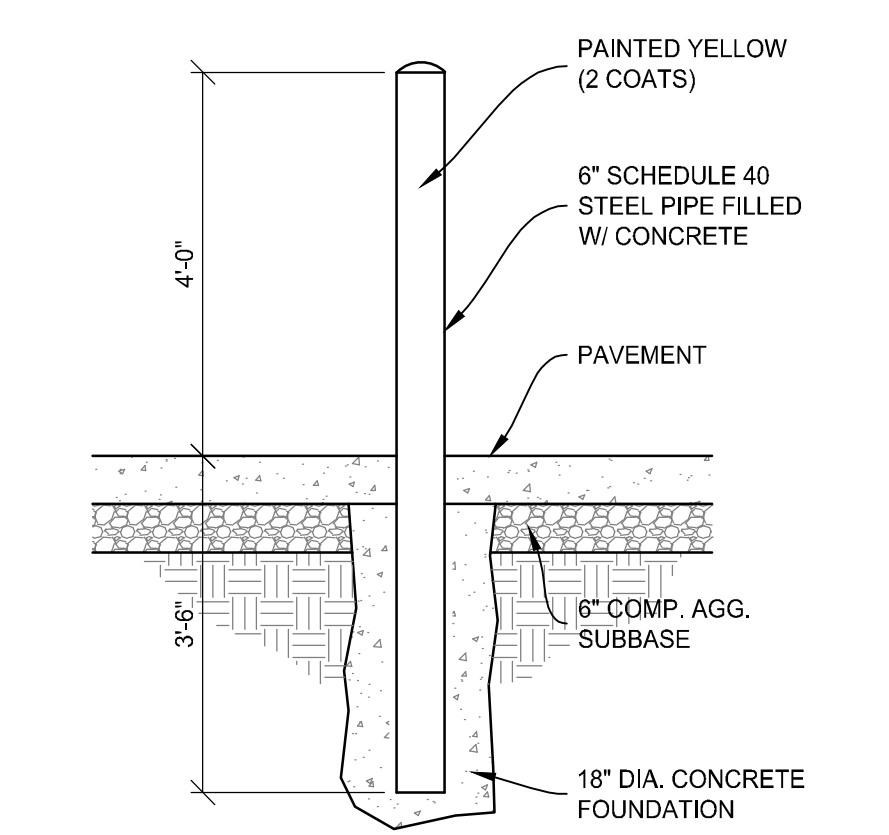


M.D. REINFELD

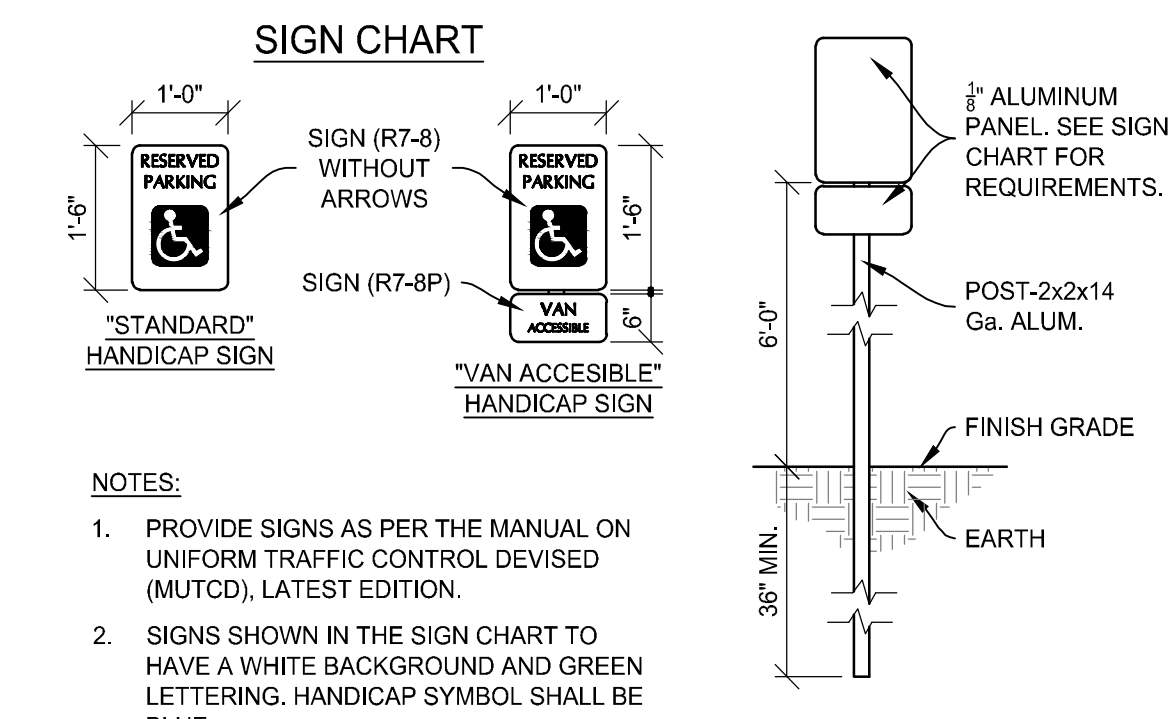
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



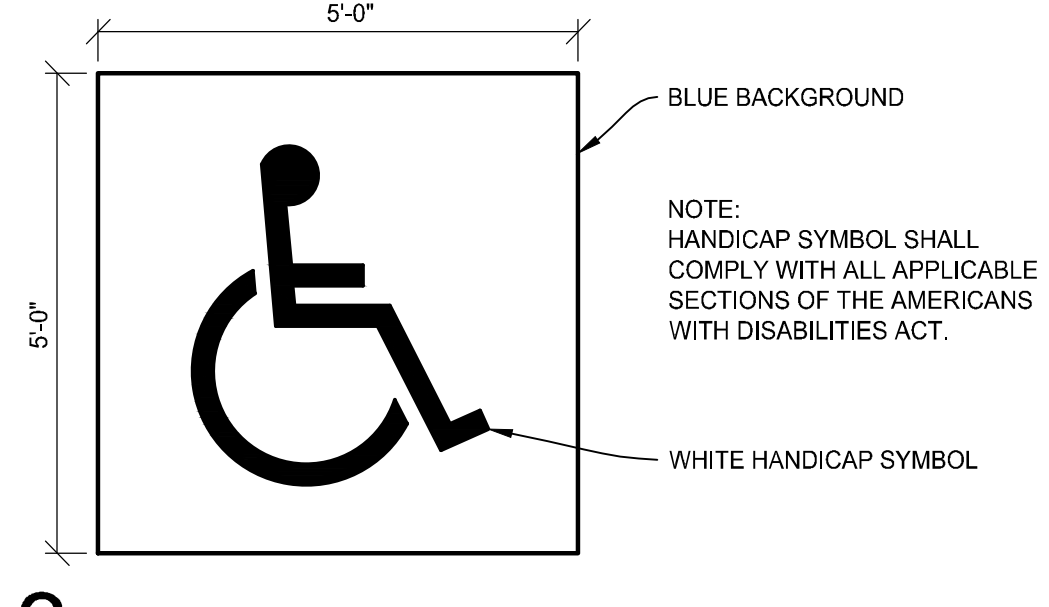
**6 FENCE POST**  
Scale: NONE



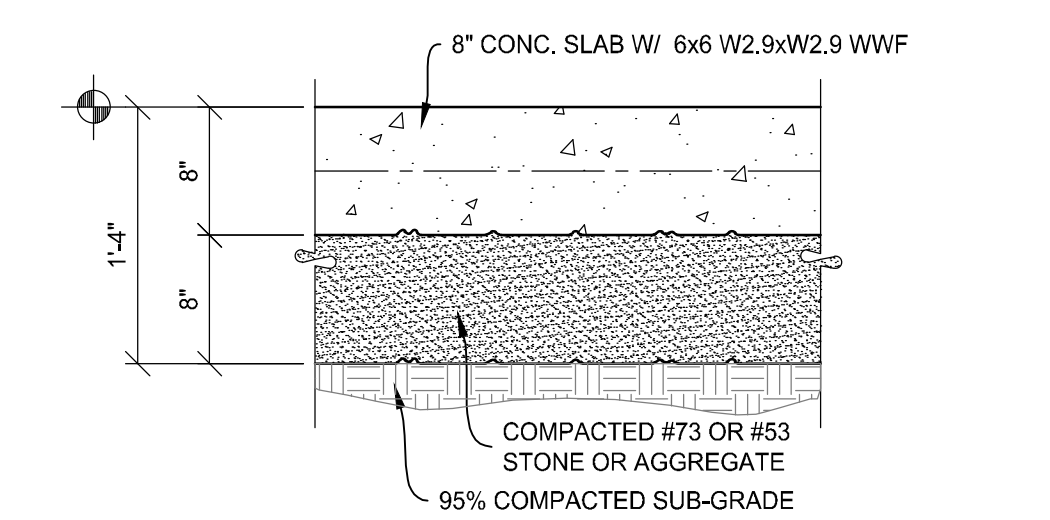
**5 6\" PIPE BOLLARD**  
Scale: 1/2\" = 1'-0\"



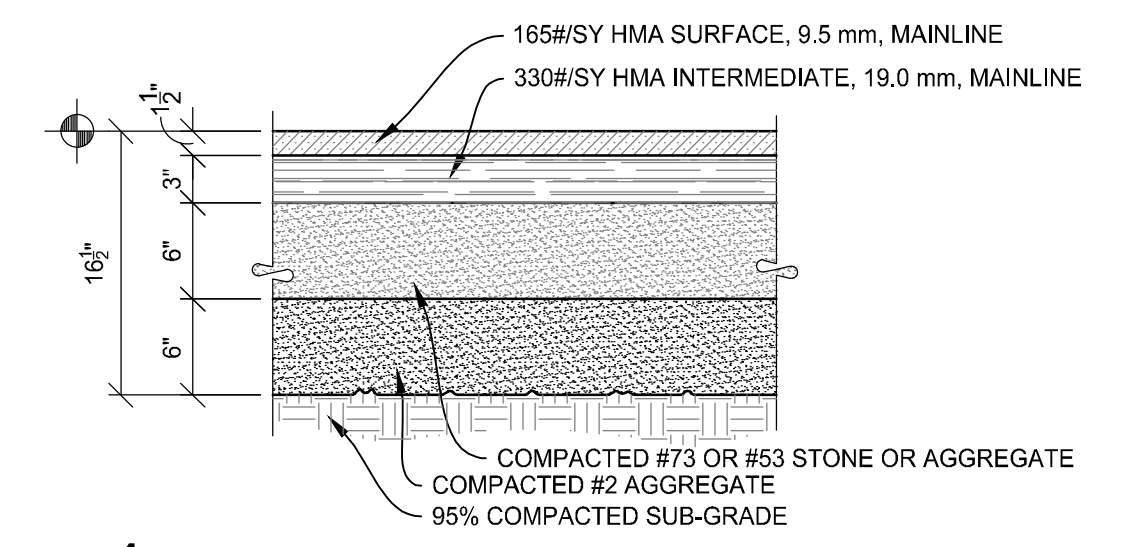
**4 HANDICAP SIGNS**  
Scale: 1/2\" = 1'-0\"



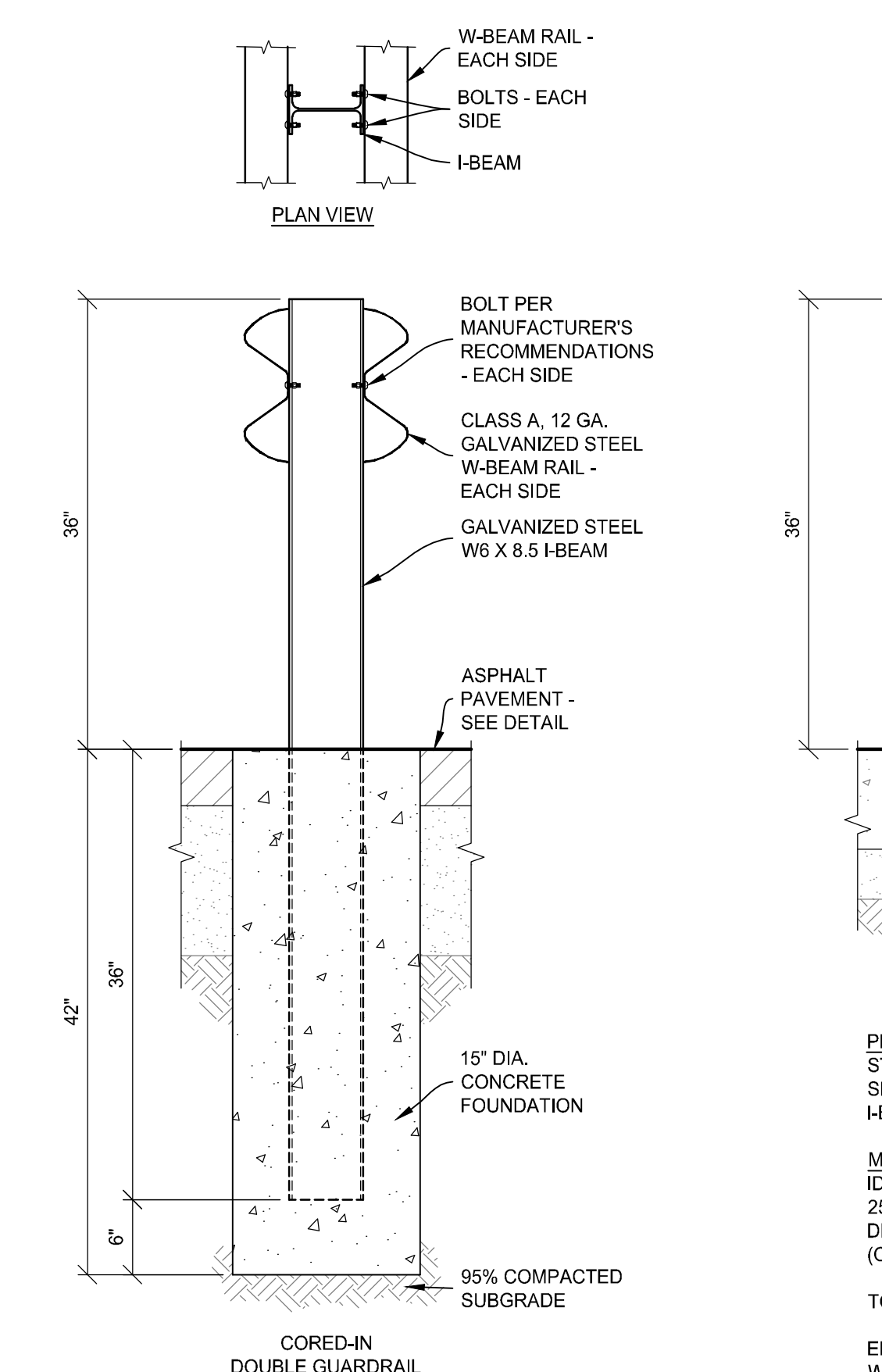
**3 PAVEMENT MARKING-HANDICAP**  
Scale: 1/2\" = 1'-0\"



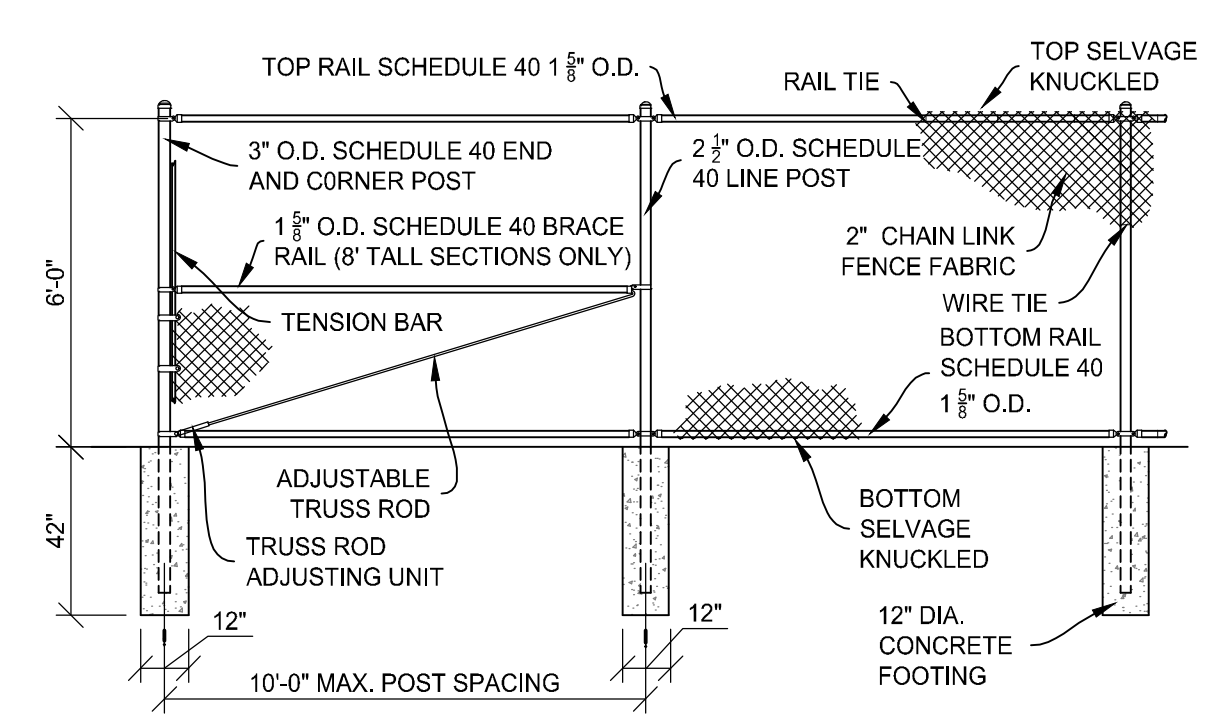
**2 8\" CONCRETE PAVEMENT**  
SCALE: 1\" = 1'-0\"



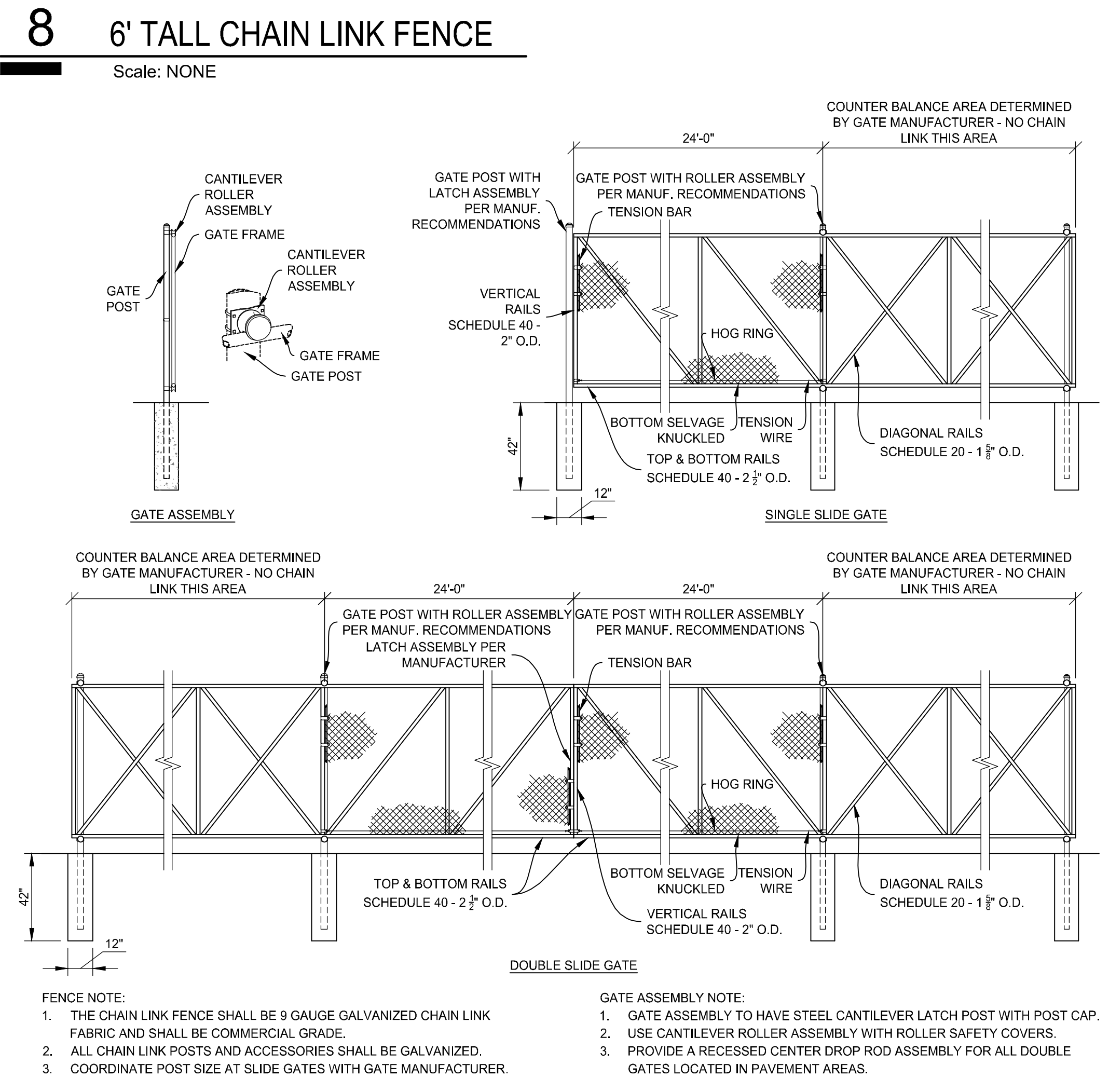
**1 PAVEMENT TYPE \"A\"**  
SCALE: 1\" = 1'-0\"



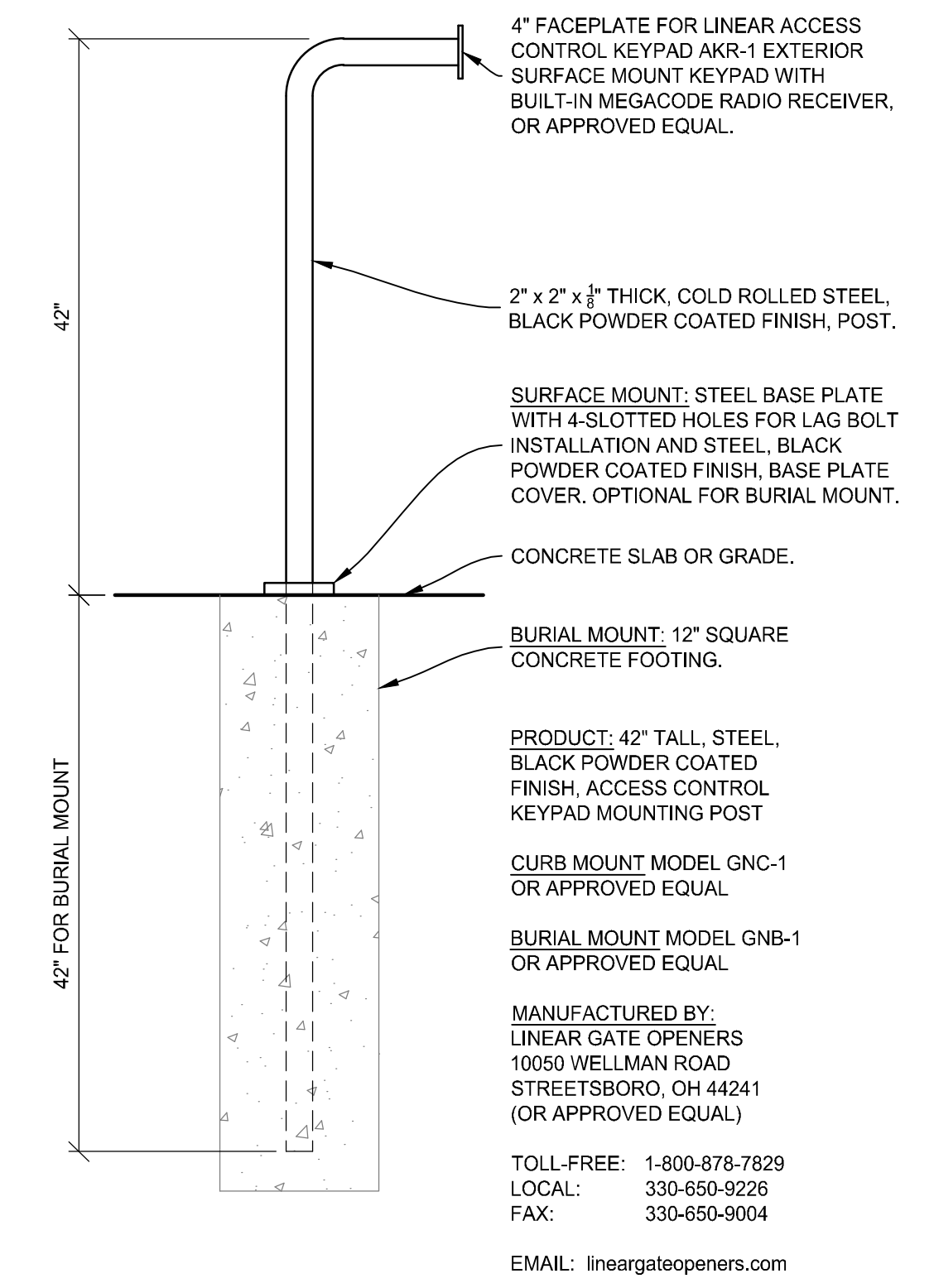
**9 GUARDRAIL**  
Scale: NONE



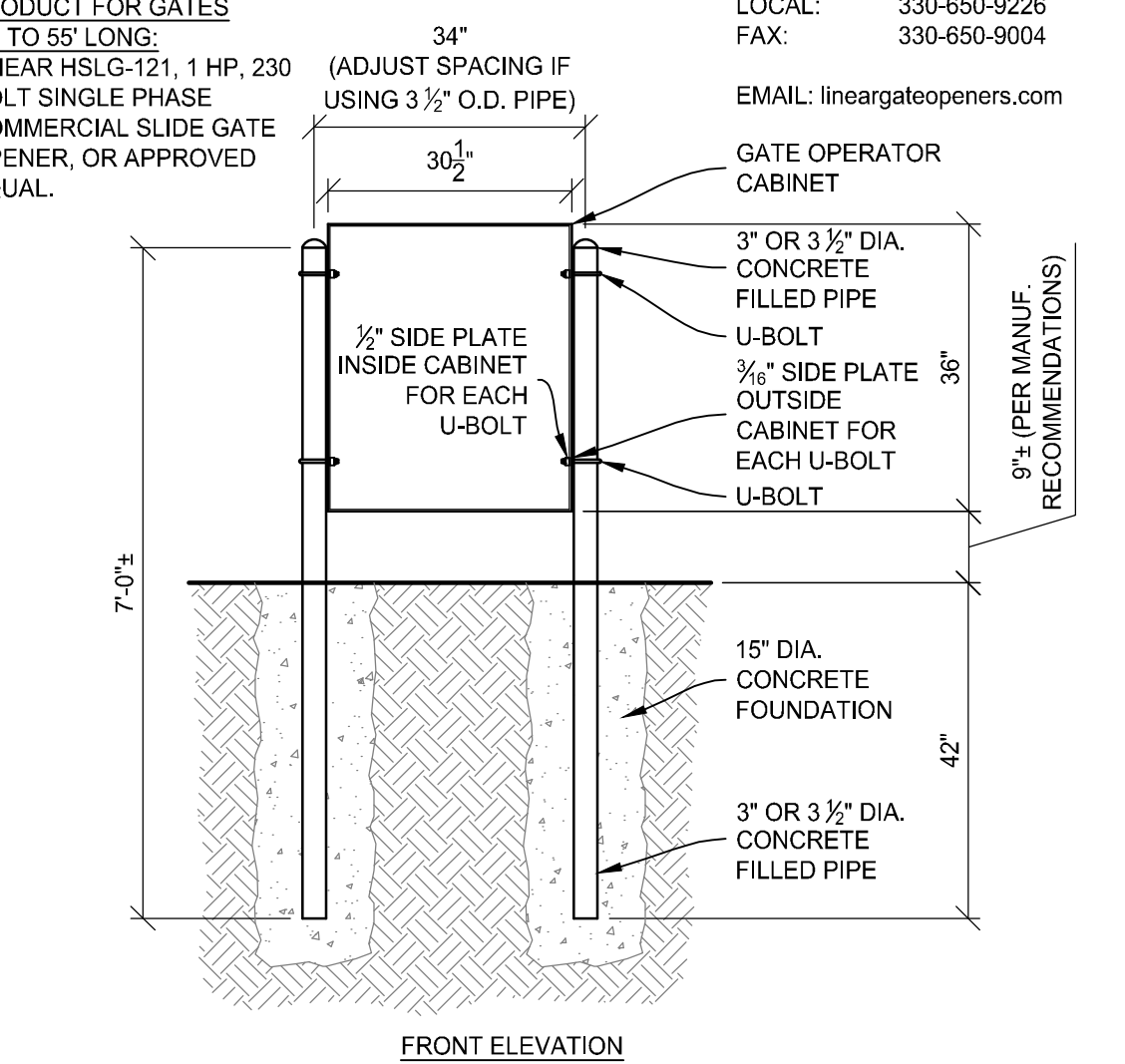
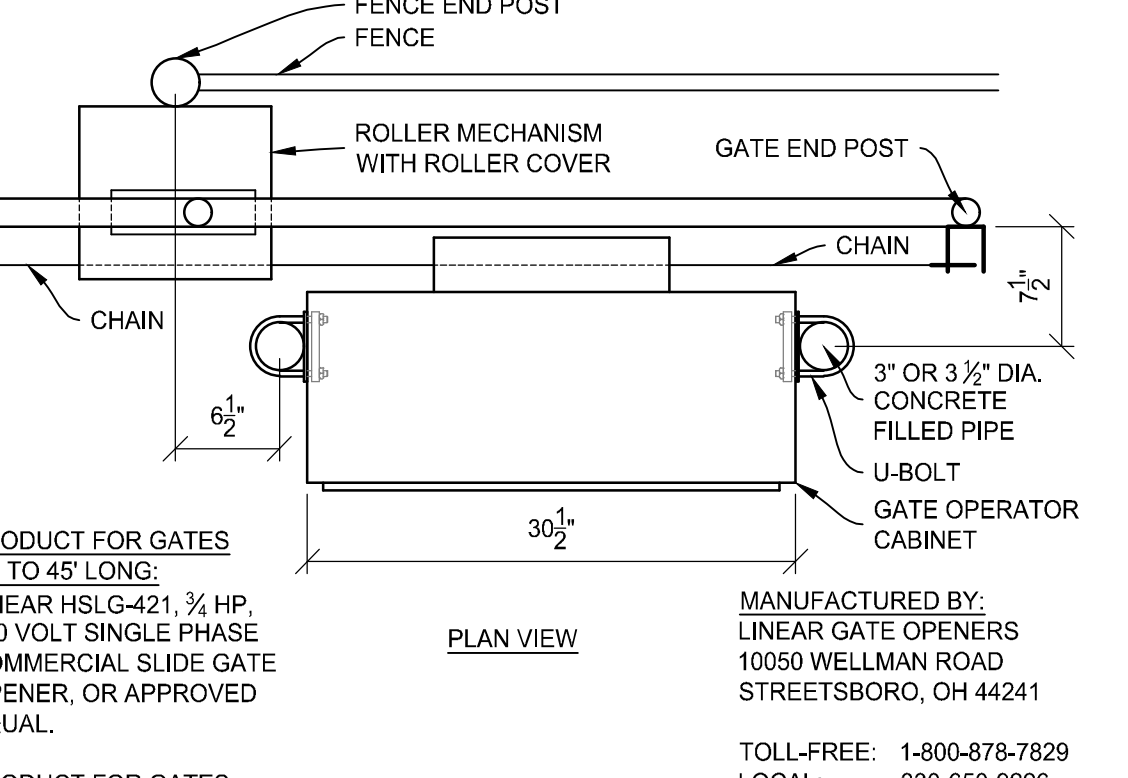
**8 6' TALL CHAIN LINK FENCE**  
Scale: NONE



**7 SLIDING GATE AND POSTS**  
Scale: NONE



**11 CARD READER POST**  
Scale: NONE



**10 SLIDE GATE MECHANISM**  
Scale: NONE

February 28, 2022 2:33 PM  
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A PROJECT FOR:



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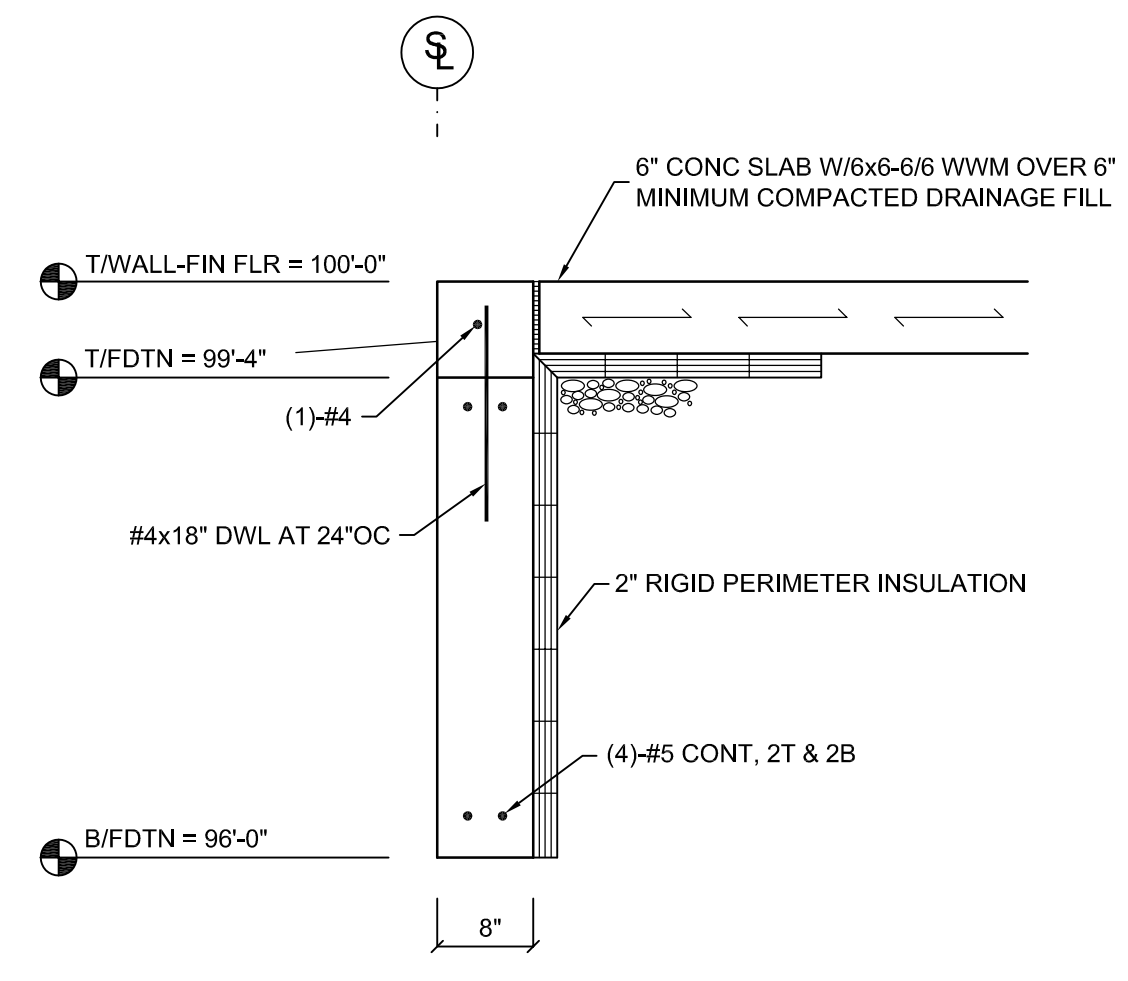
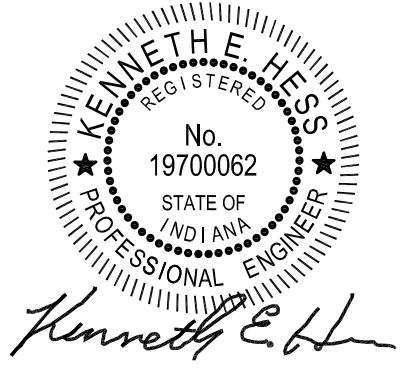
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**Site Details**

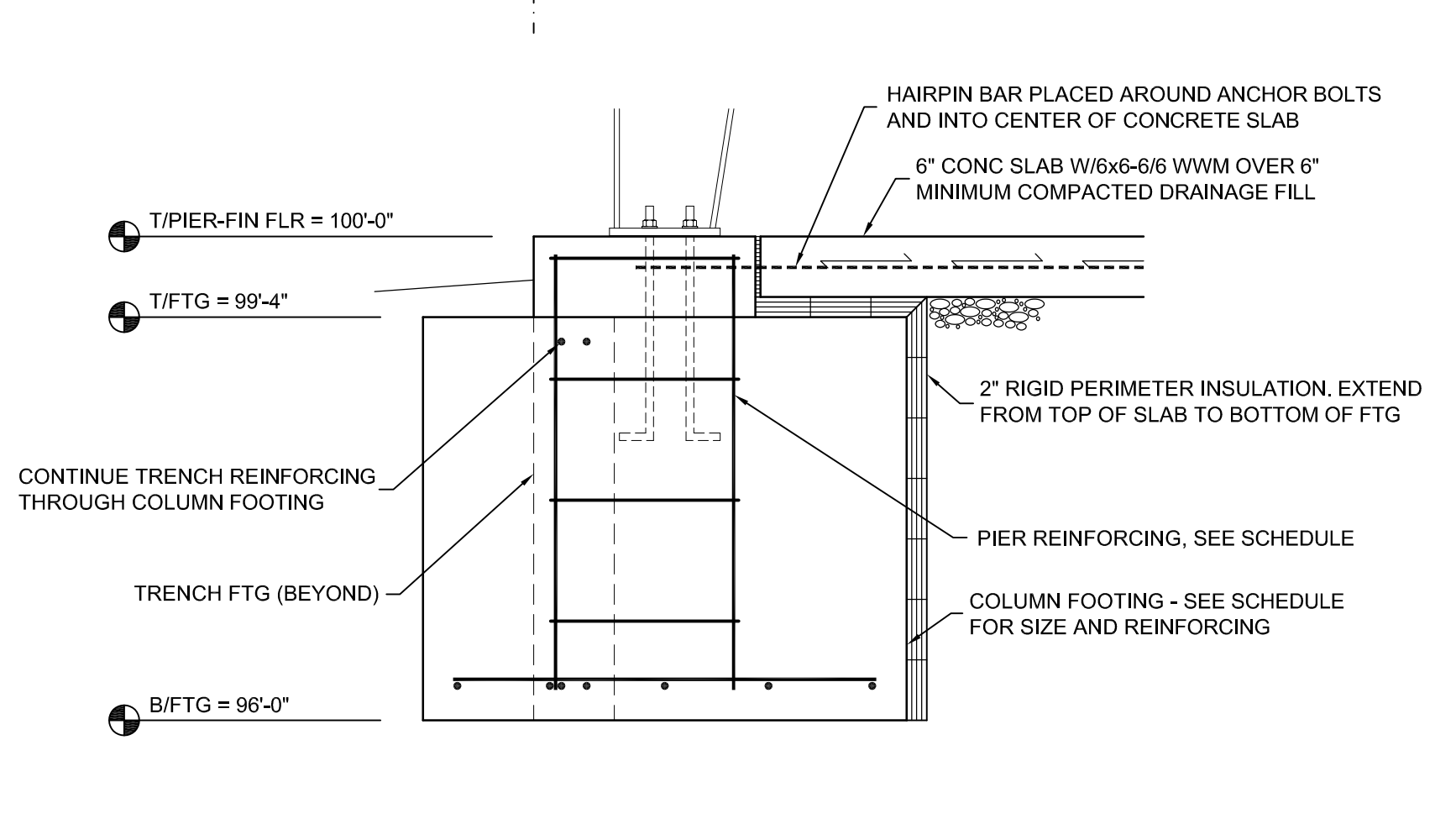
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project: 473003  
coordinator: DLR  
drawn: KRK  
checked: MDR

**C7.0**

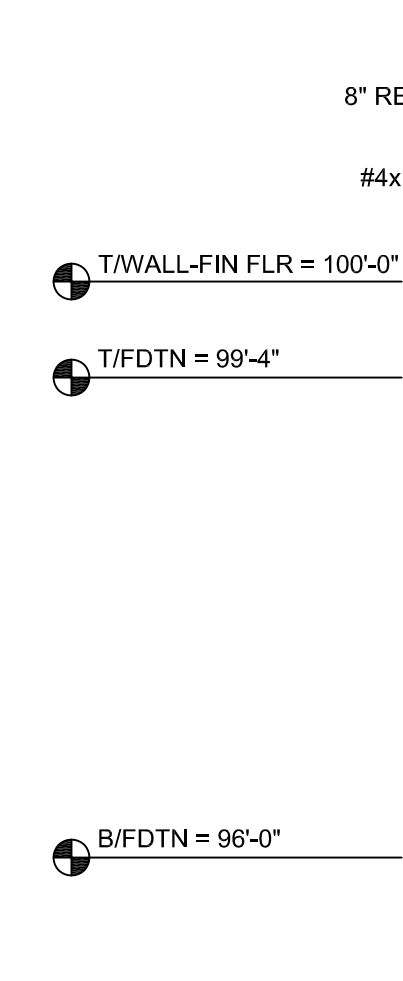




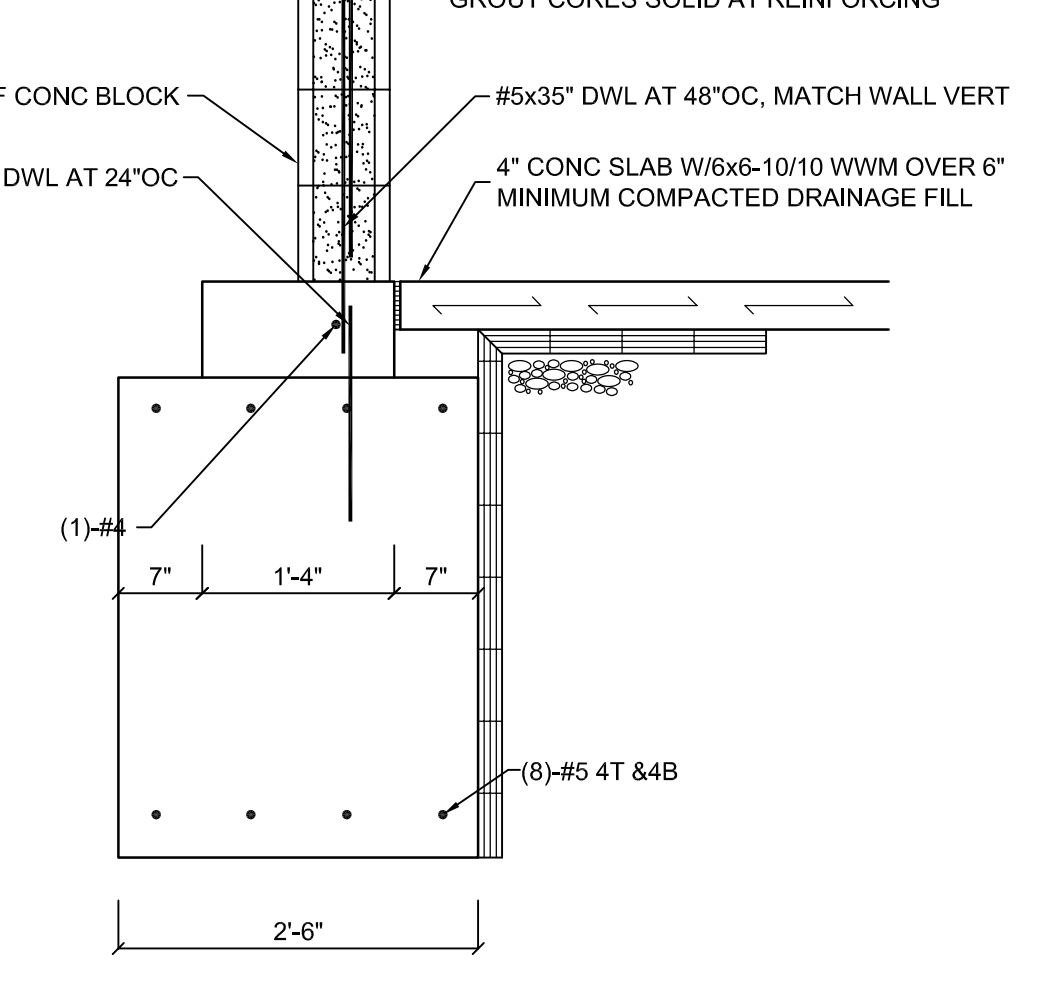
**1 Section**  
SCALE: 3/4" = 1'-0"



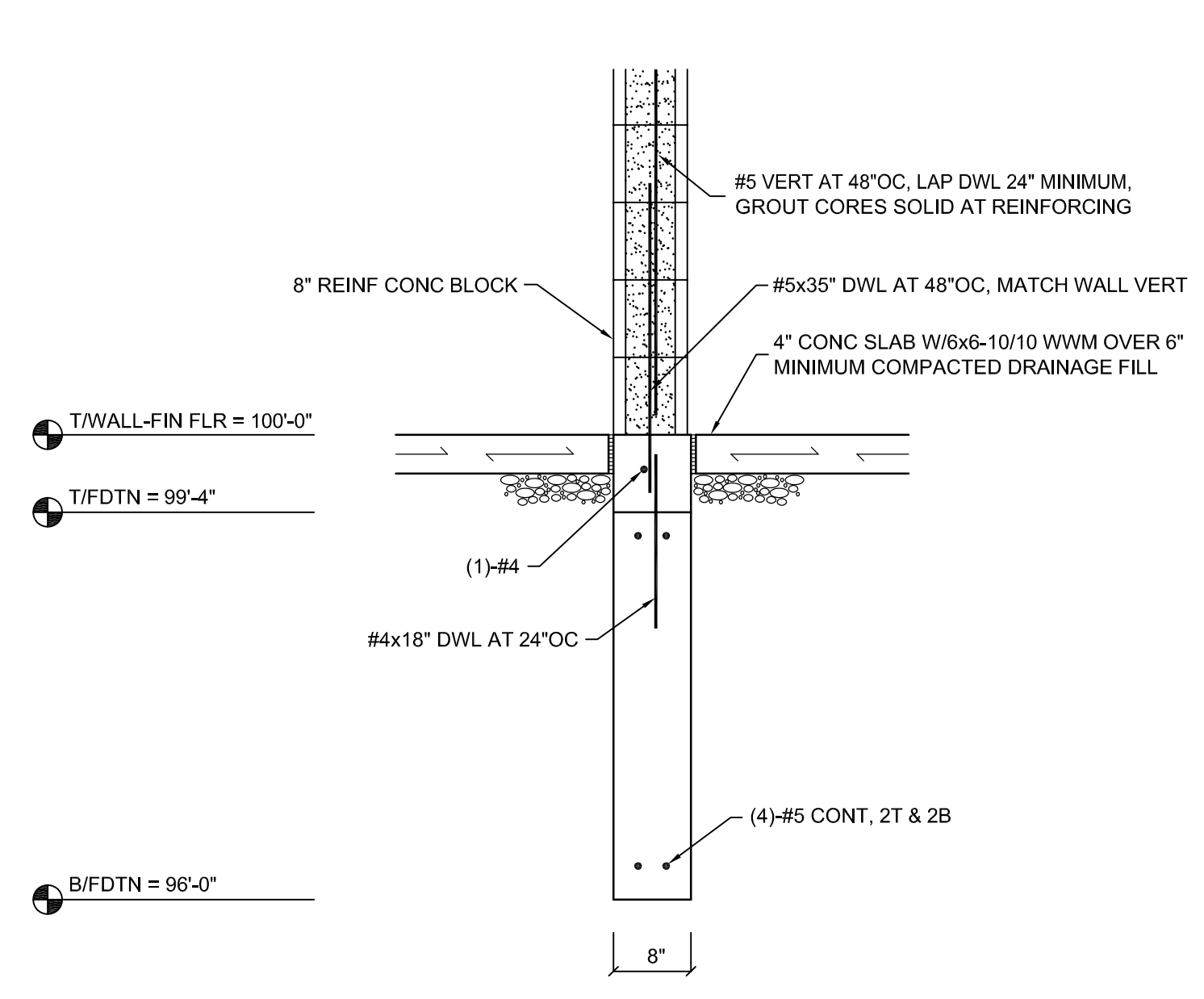
**2 Section**  
SCALE: 3/4" = 1'-0"



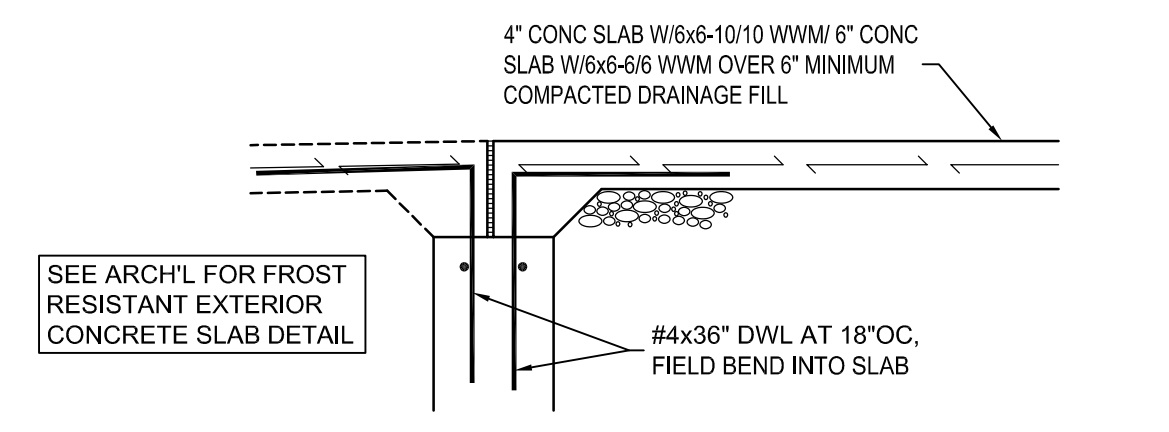
**3 Section**  
SCALE: 3/4" = 1'-0"



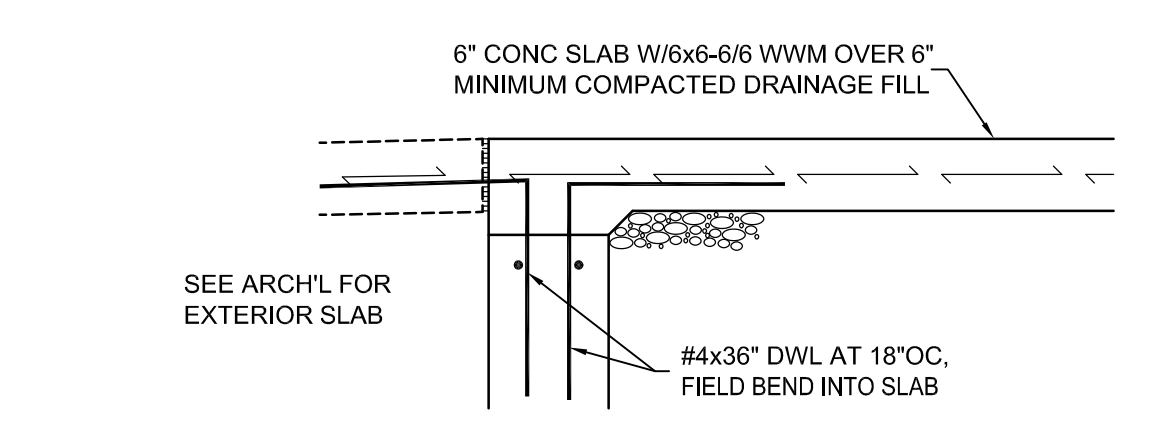
**4 Section**  
SCALE: 3/4" = 1'-0"



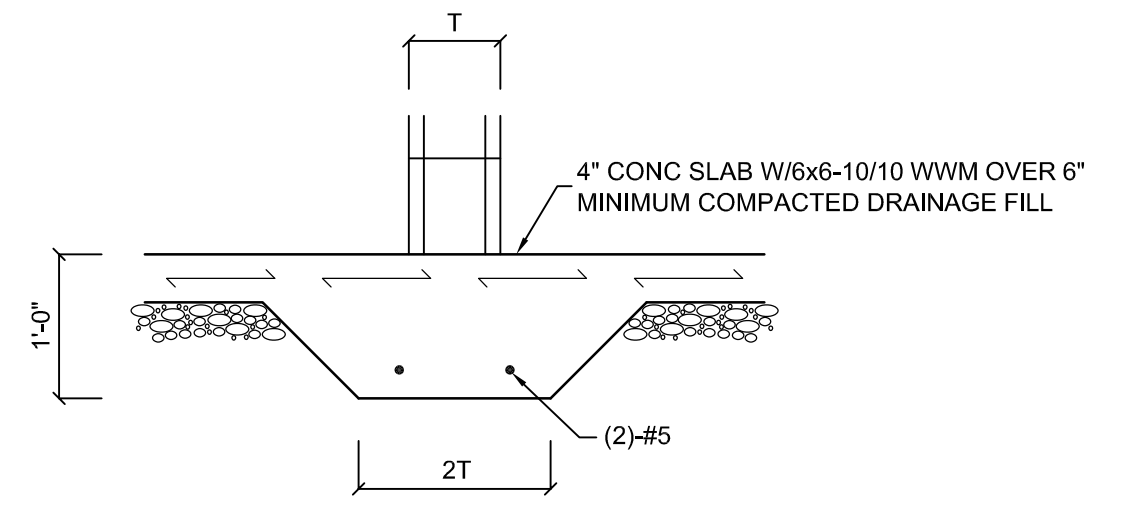
**5 Section**  
SCALE: 3/4" = 1'-0"



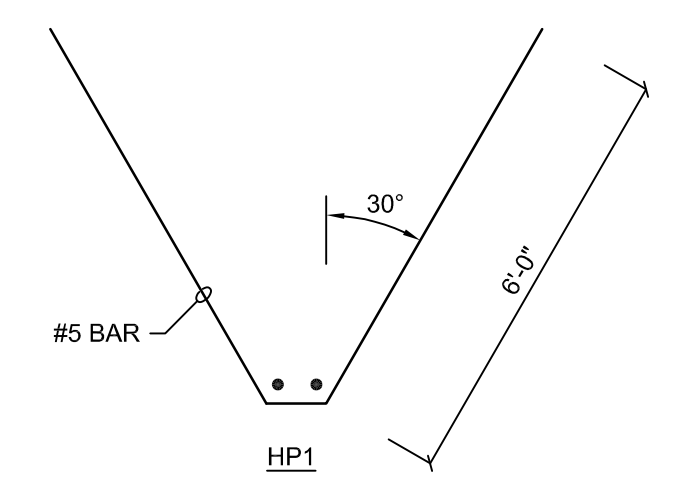
**Typ Section at Exterior Man Door**  
SCALE: NTS



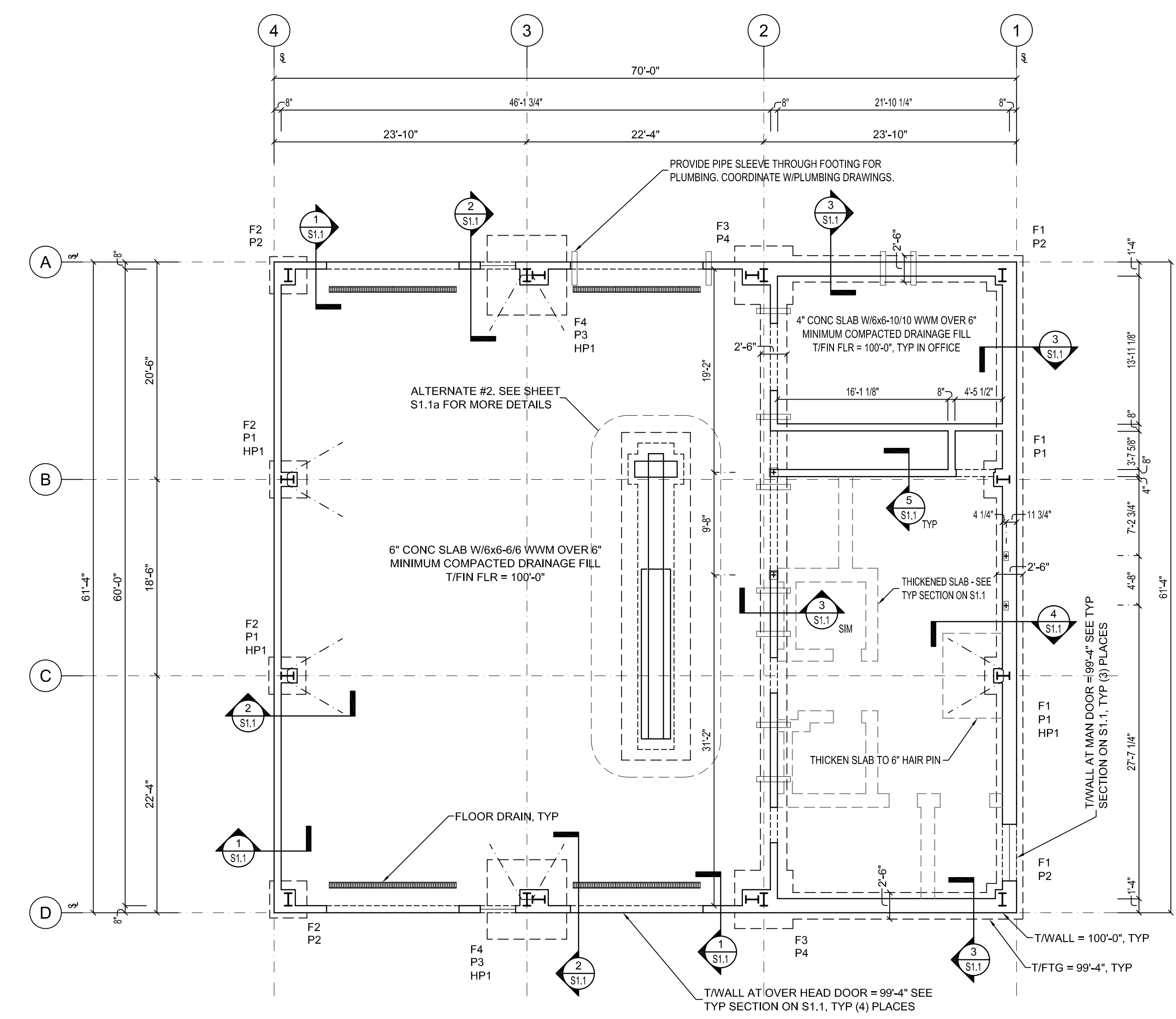
**Typ Section at Exterior Overhead Door**  
SCALE: NTS



**Typ Section at Thickened Slab**  
SCALE: 3/4" = 1'-0" Occurs at 6" or wider block walls



**Hairpin Detail**  
SCALE: NTS



**Foundation Plan**  
SCALE: 1/8" = 1'-0"

FOOTING SCHEDULE		
MK	SIZE	REINFORCING
F1	3'-0" x 3'-0" x 3'-4"	(4)#5 EACH WAY *
F2	3'-6" x 3'-6" x 3'-4"	(4)#5 EACH WAY *
F3	5'-6" x 5'-6" x 3'-4"	(6)#6 EACH WAY 1&B
F4	7'-6" x 7'-6" x 3'-4"	(8)#6 EACH WAY 1&B

\* PROVIDE STANDARD 180° ACI HOOK AT EACH END

- NOTES:
1. PROVIDE THICKENED SLABS AT 6" WIDE OR WIDER BLOCK WALLS. SEE SECTION ON S1.1.
  2. FOR PEMB ANCHOR BOLT LAYOUT SEE TYP BASE PLATE DETAILS ON PEMB DRAWINGS.
  3. SEE ARCH'L FOR AREAS WHERE SLAB IS DERESSED FOR FLOOR FINISH AND UNDER SLAB VAPOR BARRIER REQUIREMENTS.
  4. AT PEMB: FOR TYPICAL COLUMN TO FOUNDATION CONNECTION SEE PEMB DRAWINGS. AT CONVENTIONAL FRAMING: FOR TYPICAL COLUMN TO FOUNDATION CONNECTION SEE S2.1.
  5. P1: 18"x28" CONC PIER W/(8)# VERT & #3 TIES AT 12"OC. TPIER = 100'-0". P2: 24"x28" CONC PIER W/(12)# VERT & #3 TIES AT 12"OC. TPIER = 100'-0". P3: 28"x32" CONC PIER W/(12)# VERT & #3 TIES AT 12"OC. TPIER = 100'-0". P4: 28"x40" CONC PIER W/(12)# VERT & #3 TIES AT 12"OC. TPIER = 100'-0". PROVIDE MATCHING DOWELS INTO FOOTING. PIER DIMENSIONS TAKEN FROM OUTSIDE FACE OF FDTN WALL AT PEMB COLUMNS.
  6. ANCHOR BOLT EMBEDMENTS AND HOOKS AT PEMB BUILDING: 3/4" DIA: 8" EMBED, AND 3"-90° HOOK. 1" DIA: 12" EMBED, AND 4"-90° HOOK. SEE PEMB BOLT DRAWINGS FOR PROJECTION REQUIREMENTS

A PROJECT FOR:



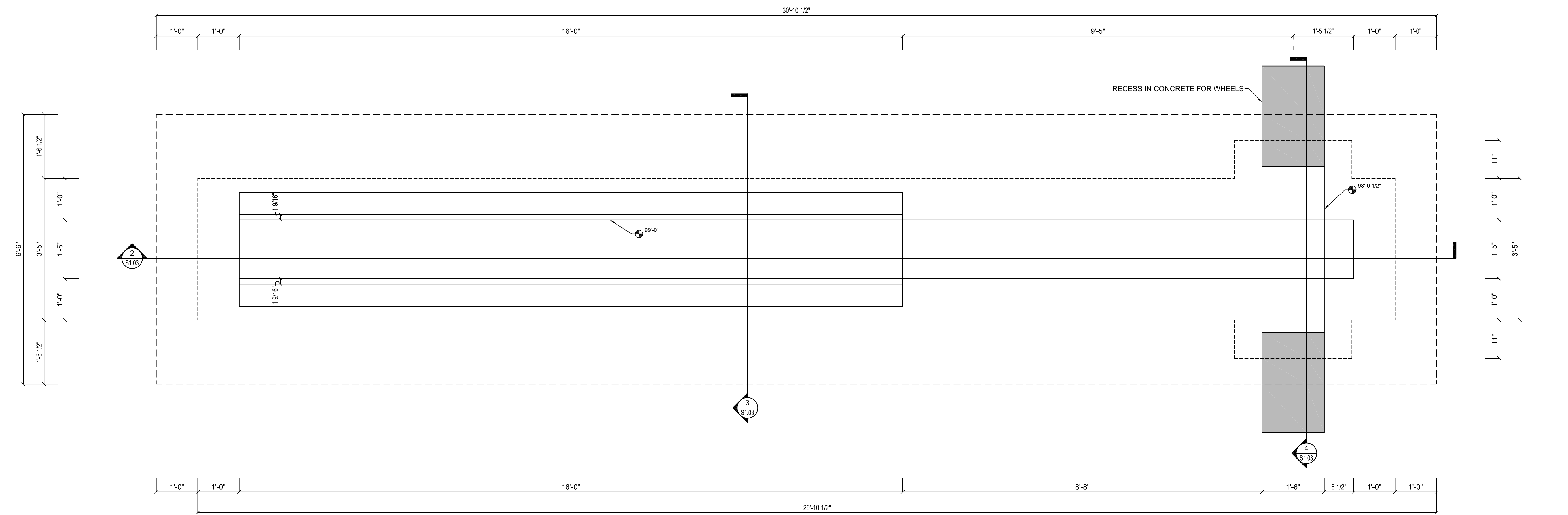
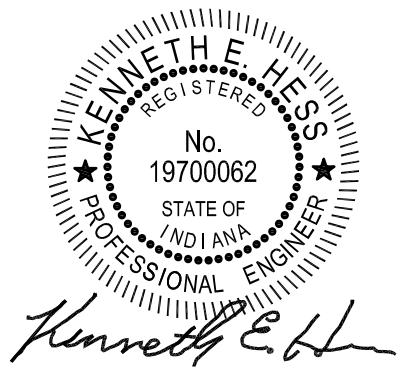
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date	mark	description

**FOUNDATION PLAN**

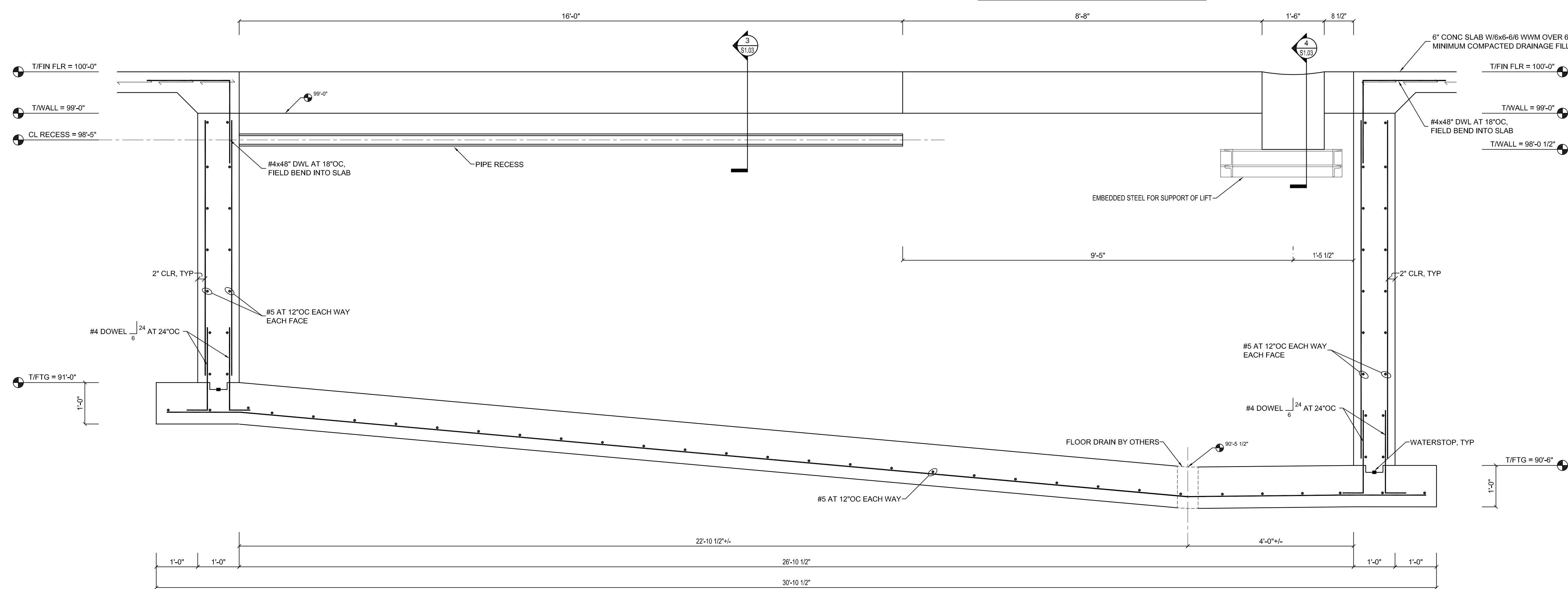
date: 3/2/2022  
project: 473003  
coordinator: JMO  
drawn: EPH  
checked: KEH

**S1.1**

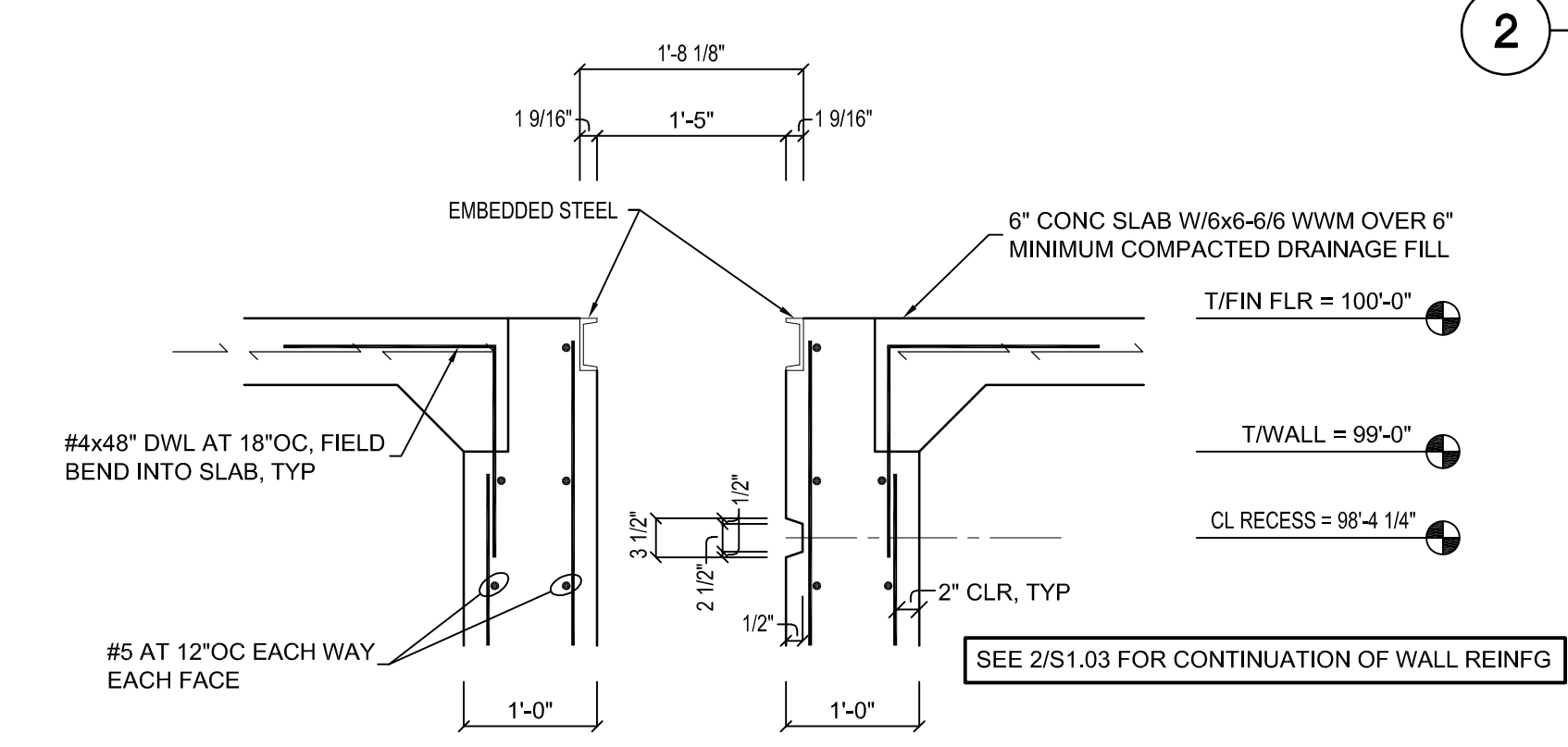


**1 Enlarged Plan**  
SCALE: 3/4" = 1'-0"

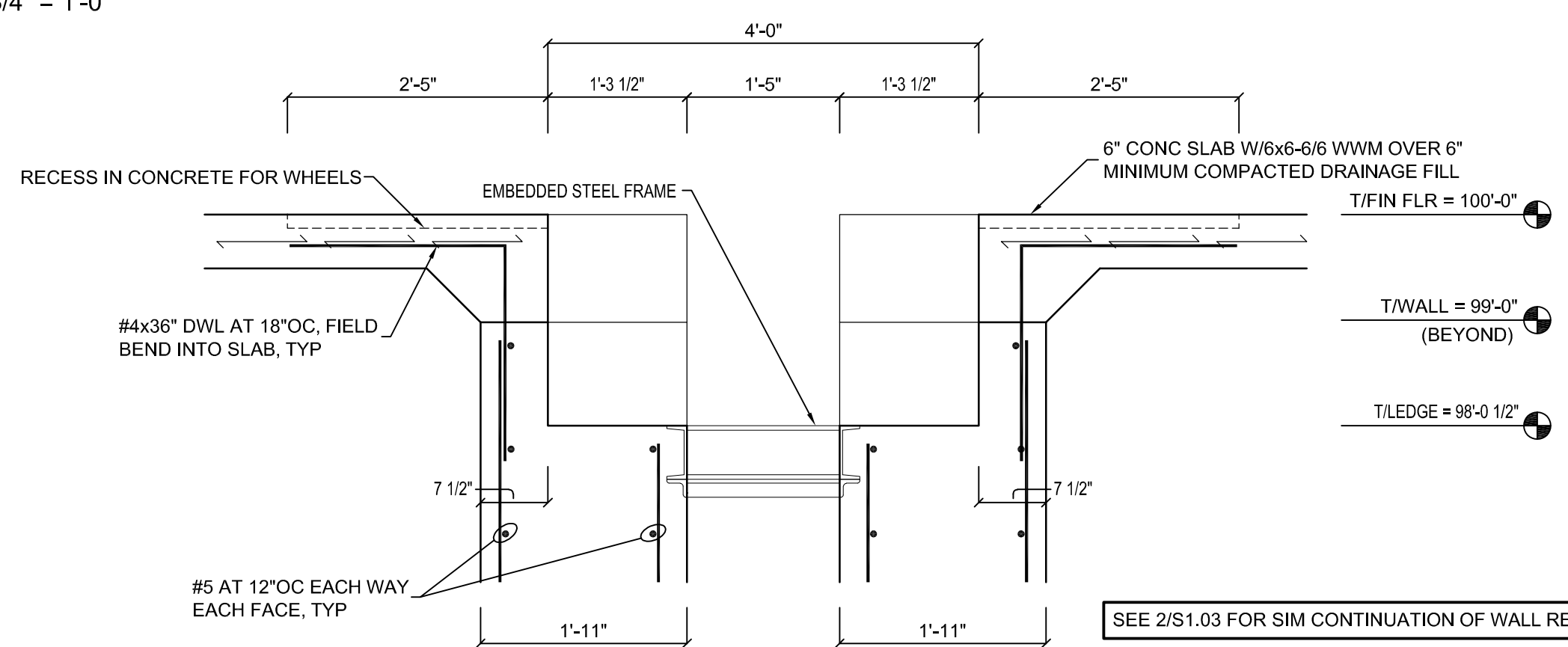
SEE LIFT SUPPLIER DRAWINGS FOR MORE INFORMATION. ALL DIMENSIONS TO BE COORDINATED AND CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION. ALL EMBEDDED STEEL BY SUPPLIER.



**2 Section**  
SCALE: 3/4" = 1'-0"



**3 Section**  
SCALE: 3/4" = 1'-0"



**4 Section**  
SCALE: 3/4" = 1'-0"

A PROJECT FOR:

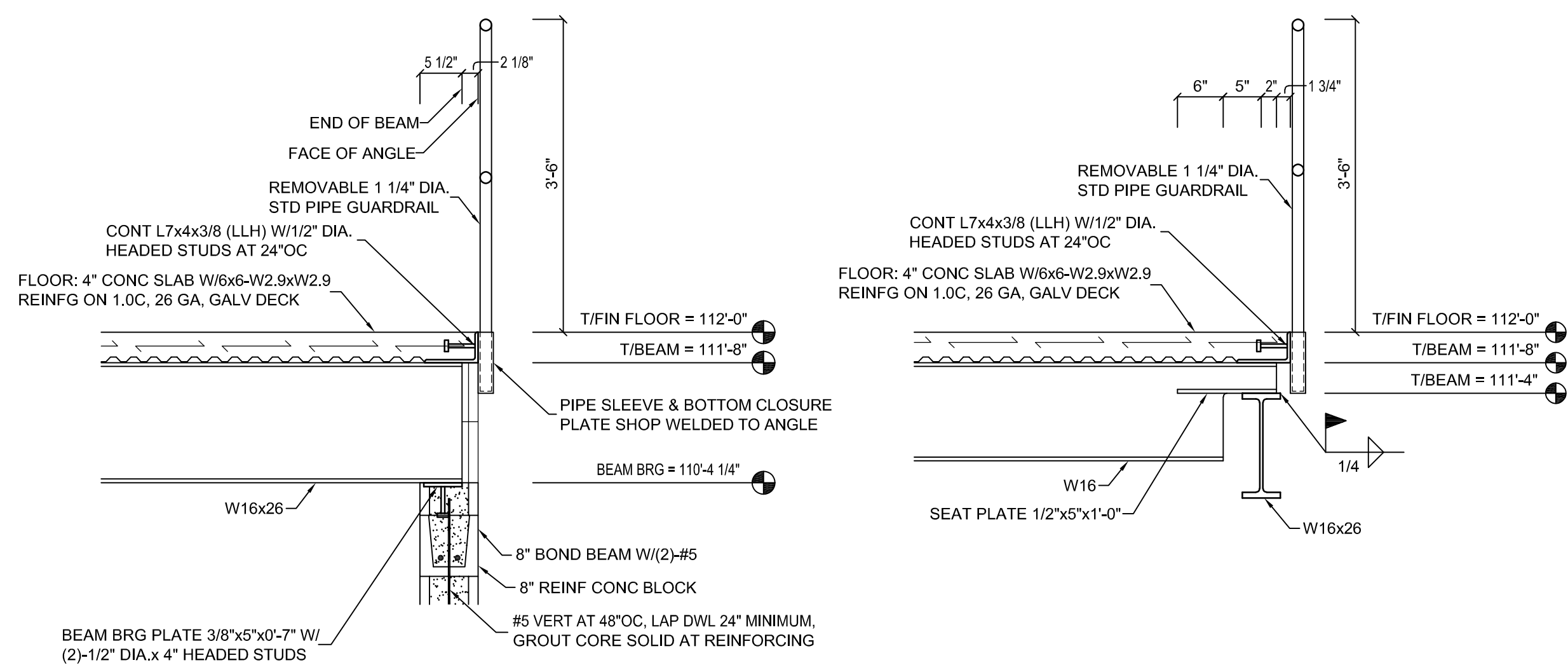


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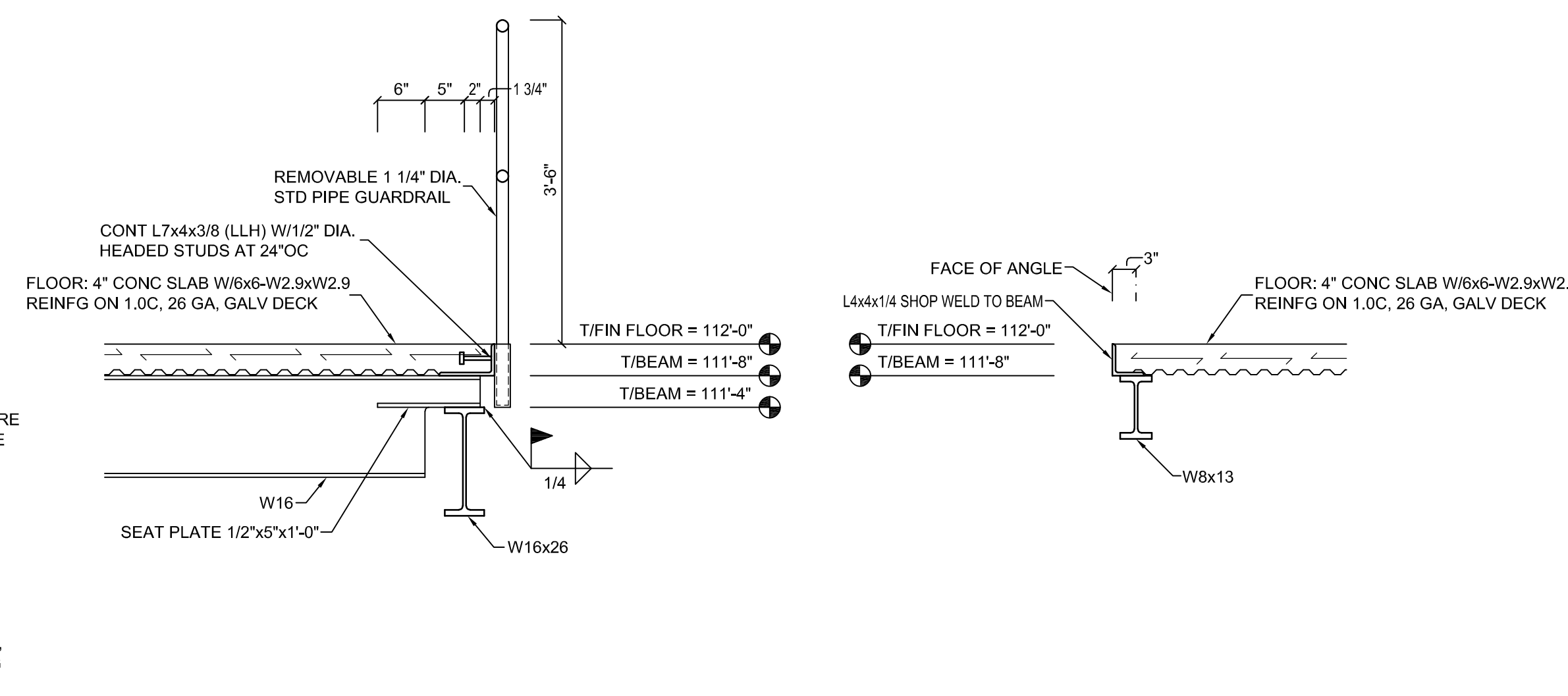
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**LIFT PIT ENLARGED PLAN AND DETAILS**

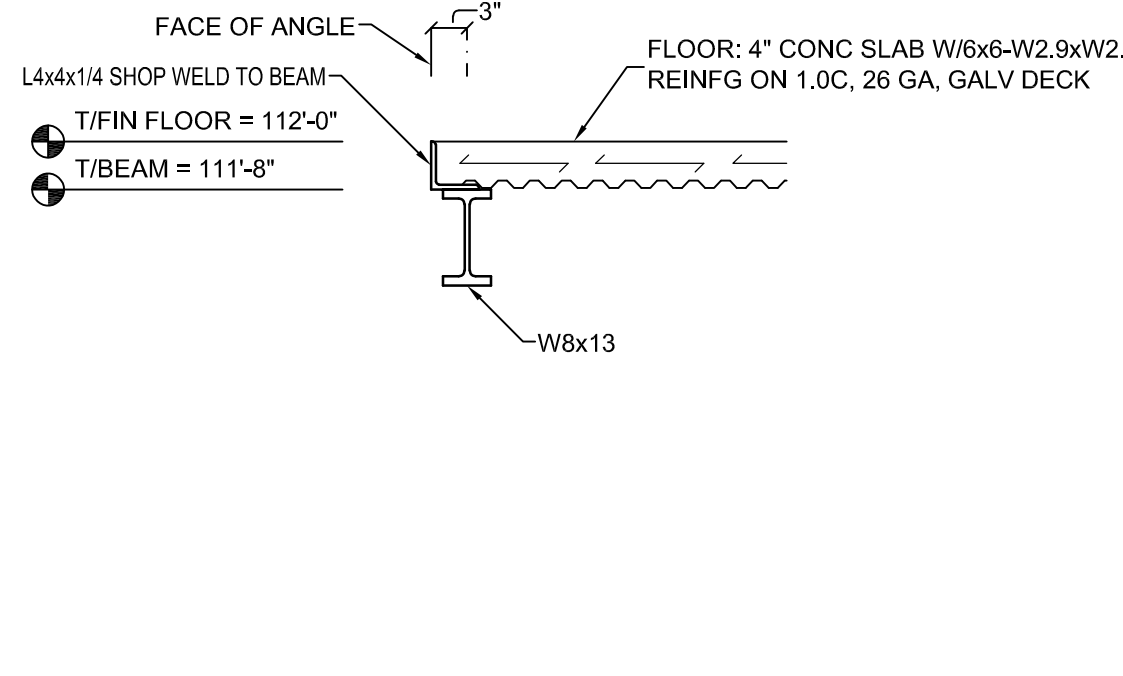
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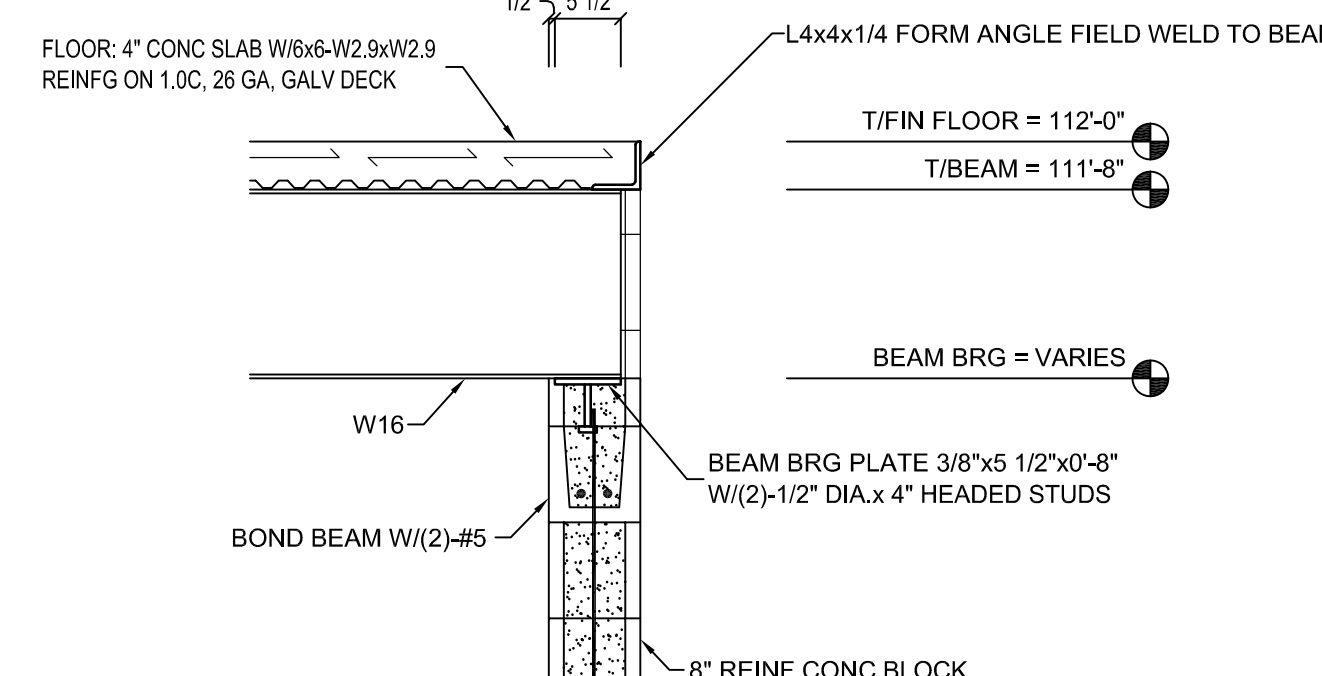
**1 Section**  
SCALE: 3/4" = 1'-0"



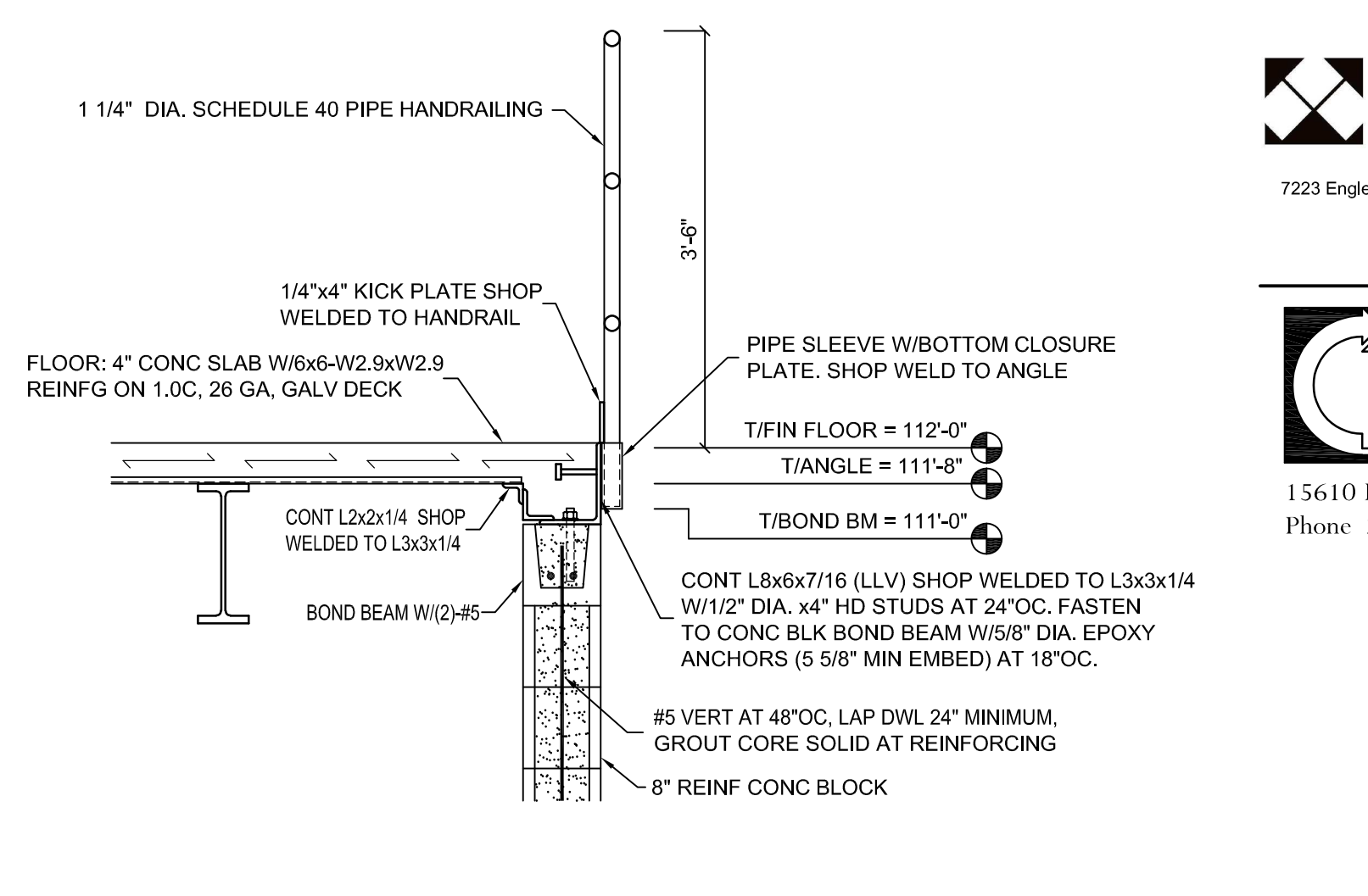
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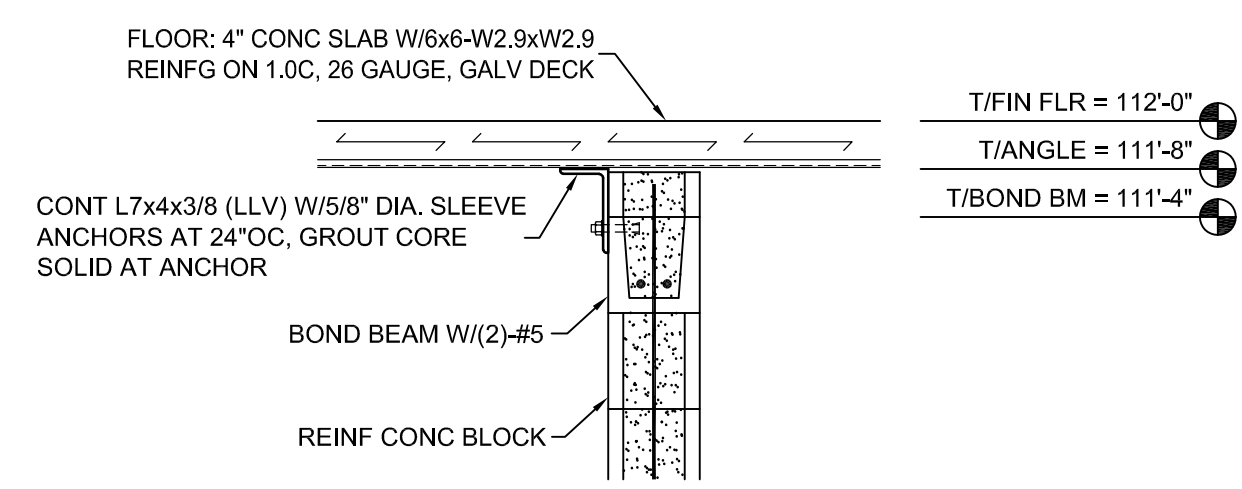
**3 Section**  
SCALE: 3/4" = 1'-0"



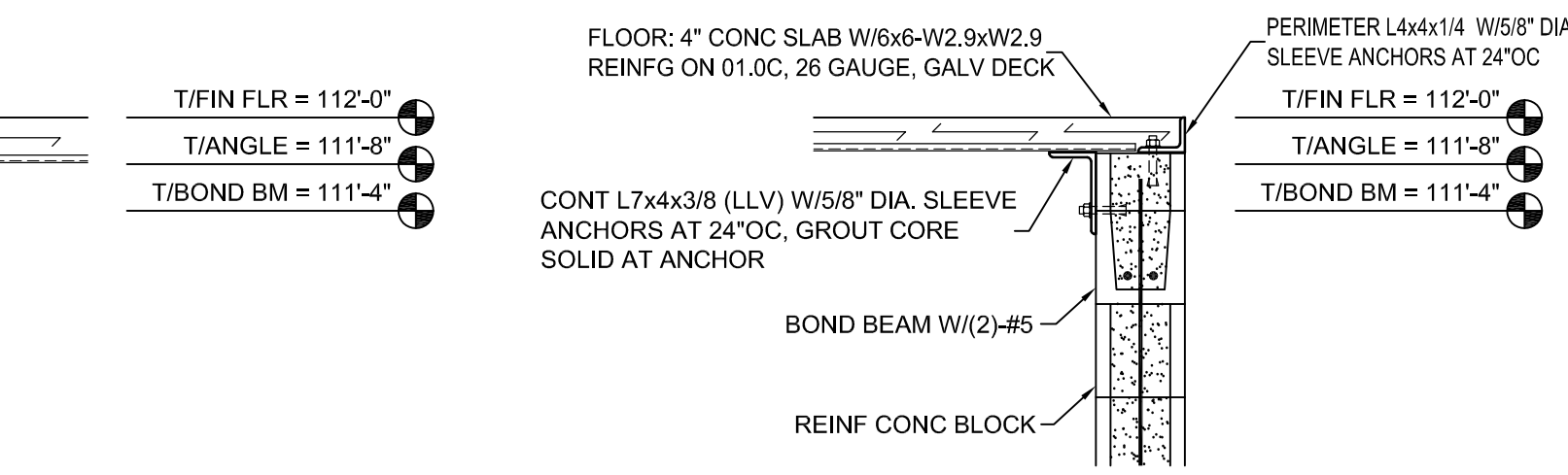
**4 Section**  
SCALE: 3/4" = 1'-0"



**5 Section (Alt #1)**  
SCALE: 3/4" = 1'-0"



**WHERE DECK EXTENDS OVER WALL**



**WHERE DECK EXTENDS OVER WALL AT CHASE**

**GENERAL**

- Contractor shall be responsible for all existing dimensions and job site conditions. If discrepancies between actual conditions and those shown on documents exist, notify Architect/Engineer in writing prior to construction.
- Governing building codes are as follows:
  - Latest International Building Code and Indiana Construction Rules.
  - A.C.I. Building Code Requirements for Reinforced Concrete (A.C.I. 318-11)
  - Code of Standard Practice for Steel Construction, A.I.S.C. 14th Edition.
- The structure is designed to be self-supporting and stable after the building is fully completed. It is solely the contractor's responsibility to determine erection procedure and sequence and to insure the safety of the building and its component parts during erection. This includes the addition of whatever shoring, sheeting, temporary bracing, guys or tiesdowns which might be necessary. Such material shall remain the contractor's property after completion of the project.
- Do not determine dimensions by "scaling" off the plans. The Contractor shall accept all risk associated with "scaling" and shall be responsible for all inadequate work resulting therefrom. Questions regarding missing or conflicting dimensions shall be directed, in writing, to the Structural Engineer.
- The Contractor shall coordinate and check all dimensions relating to architectural finishes, structural framing, mechanical openings, equipment, etc. Notify Architect/Engineer of any discrepancies before proceeding with work in area under question.

**FOUNDATION NOTES AND REQUIREMENTS**

- Remove topsoil, existing fill material, debris, organic pockets, etc. from building and pavement areas. After stripping, proof roll areas and remove soft pockets. Structural fill shall be compacted to 95% modified proctor density under floor slabs (4" minimum drainage fill under floor slabs). Structural fill under footings must be compacted to 98% modified proctor density. Fill material shall be placed in layers not to exceed 6" in loose thickness. See soils report by GME Testing dated August 30, 2021.
- Bottoms of all footings shall be protected from moisture damage by placing 2" seal of lean concrete if the foundation cannot be cast immediately.
- Backfilling of all walls shall be of clean granular fill compacted in 6" maximum layers except the top 18" of backfill occurring outside of the building (not including sidewalks adjacent to building) shall be of well compacted clay as a seal against surface water intrusion. Backfill occurring against both faces of any wall shall be placed simultaneously.
- Net allowable soil bearing pressures are as follows:
  - Spread footings: 2000 psf
  - Continuous wall footings: 1500 psf
- Owner's soil engineer shall field inspect all footings at depths indicated to confirm that soil bearing pressure is as noted on these documents. If suitable bearing is not obtained or depth indicated, soil engineer shall direct method of obtaining stated bearing pressure. Method shall be approved by Architect/Engineer prior to construction. Under no condition shall footings be placed on soft or filled material.
- Exterior footings shall bear 3'-0" minimum below finish grade and shall bear on undisturbed soil.
- Minimum concrete strengths and densities shall be as follows: (28 days)
  - Foundations and interior concrete: 3,000 psi
  - Interior flat work: 4,000 psi
  - Exterior flat work: 4,000 psi
- Minimum concrete coverage over reinforcing steel shall be as follows:
  - At foundations: 3"
  - At all dirt faces of walls and wall faces exposed to weather: 2"
  - All pier, ties and beam stirrups: 1 1/2"
- All reinforcing steel shall be ASTM A-615, Grade 60. All W.W.M. shall be of cold drawn wire and shall meet all requirements of ASTM A-185.
- Provide shop drawings and/or manufacturer's data for reinforcing steel, forming accessories, admixtures, joint materials and concrete mix design information. Shop drawings shall be approved prior to construction.
- For exact size, number and location of anchor bolts, see approved structural drawings prepared by metal building manufacturer or structural steel supplier.
- All footings shall be centered at centerline of column base plate, unless noted otherwise.
- All hairpins shall be placed around anchor bolts and into center of slab.
- Contractor shall verify that the concrete piers shown on the drawings are adequate in size to accept column base plates. Pier shall be minimum of 1" larger than column base plate on all sides.
- Contractor shall submit to Architect/Engineer, final column reactions for verification of footing sizes and reinforcement prior to commencing construction.
- All slabs on grade shall have a 15'-0" maximum distance between construction or control joints. Control joints shall be located along column lines wherever possible. Provide expansion joint (diamond shape) isolation at columns. Saw cuts shall be a quarter of the thickness of the slab. No portion of slab between joints shall have a length which exceeds 150% of the width.

**MASONRY**

- Hollow load-bearing normal weight units shall conform to ASTM C-90, Grade A, minimum  $f_m = 1,350$  psi.
- Bond beam block units and plaster block units shall be of same aggregate and surface texture as wall units.
- Install horizontal reinforcement, Dur-Q-Wall or equal, in alternate joints of walls starting with the first joint above starting course.
- Concrete block shall be laid up in running bond with 3/8" thick mortar joints.
- Mortar shall conform to the latest edition of ASTM C-270. Mortar shall be Type N for interior non-load bearing walls. For exterior and load bearing walls, mortar shall be Type M below grade and Type S above grade.
- Intersecting masonry walls and partitions shall be bonded by use of steel ties at 24" oc maximum. Corners shall have a standard masonry bond by overlapping units.
- Mortar droppings shall be kept out of grout space.
- All grout shall be puddled or vibrated in place.
- Hollow unit masonry shall be grouted in vertical lifts not to exceed 4'-0".
- Where steel framing bearing plates bear on masonry without a masonry pilaster grout two block courses full beneath bearing elevation.
- Install CMU bond beams with (2)#5 bars beneath structural bearing plate elevations and also beneath deck bearing angles on load bearing walls, at top of block walls and at intermediate locations as noted by architectural/structural drawings.

**REINFORCED MASONRY**

- Reinforcing steel shall be lapped 40 bar diameters minimum where spliced (U.N.O.).
- Vertical reinforcing shall have a minimum clearance of 1/4" from masonry.
- Cells containing reinforcement shall be solidly filled with grout and pours shall be stopped 1 1/2" below top of a course to form a key at pour joints.
- All reinforcing bars shall be Grade 60.
- Provide shop drawings and/or manufacturer's data for the following: reinforcing steel and masonry units. Shop drawings shall show location, size and placement details for all reinforcing bars. Work shall not be started until shop drawings have been approved.
- Where the grout pour exceeds 4'-0" in height, cleanouts shall be provided by suitable openings in the face shells in the bottom course of each cell to be grouted or other approved locations. The cleanouts shall be sealed after inspection and before grouting.
- All cells containing reinforcement shall be filled solidly with grout. Grout shall be a workable mix suitable for pumping without segregation and shall be thoroughly mixed. Grout shall be placed before initial set or hardening occurs. Grout shall be consolidated by puddling or mechanical vibration during placing and reconsolidated after excess moisture has been absorbed but before workability is lost. The grouting of any section of wall shall be completed in one (1) day with no interruptions greater than one (1) hour.
- All reinforcing shall be in place prior to grouting. Vertical reinforcing bars shall be held in position at the top, bottom and at intervals not farther apart than 192 bar diameters. Provide "Heckmann" rebar positioner no. 376 or equal.
- Grout for reinforced masonry wall:
  - For minimum cell dimension of 2"x3" use the grout.
  - For minimum cell dimension of 4" use course grout.
  - For minimum cell dimension of 6" to 8": the grout space may be filled with concrete with  $f_c = 3000$  psi and maximum aggregate size of 1".
  - Grout shall be of fluid consistency and conform to ASTM C-476. Cement content of grout ranges from 6 to 8 bags of portland cement per cubic yard of grout. Grout shall meet minimum 3000 psi at 28 days, having a 3/4" maximum aggregate size, and an 8 to 11 inch maximum slump.
- Vertical cells to be filled shall have vertical alignment sufficient to maintain a clear, unobstructed, continuous vertical cell measuring not less than 2"x3". If walls are battered or if alignment is offset, the 2"x3" clear opening shall be maintained as measured from course to course. Excessive mortar fins and any other obstructions shall be removed.
- Provide vertical reinforcing above masonry openings in exterior/interior walls to match wall vertical reinforcing adjacent to openings.

**STRUCTURAL STEEL**

- All structural steel shall be detailed with load transmitting field connections made with bearing-type 3/4" diameter ASTM A-325 bolts (snug-tight) UNO. All high strength bolts shall be designed as bearing "N" type so that continuous special inspection is not needed unless indicated otherwise on drawings. Shop connections shall be welded. Use no more than two bolt diameters for the project UNO. Skip one size between bolt diameters.
- Hinged beam web splices where required are shown on the plan by the following symbol:  $\text{---} \text{---}$ . A flexible hinge splice shall be provided sufficient for shear. All connections and splices shall be clearly detailed on the shop drawings for approval. Splicing of members at locations not detailed on drawings is prohibited without approval of Engineer as to location and connection details.
- Structural steel material is as follows:
  - Wide flange shapes: ASTM A992
  - Structural steel plates and rolled shapes other than wide flange shapes: ASTM A500, Grade B
  - Structural steel tubing: ASTM A500, Grade B
  - Structural steel pipe: ASTM A53, Grade B
- Provide 1/4" beam stiffeners to all beams at center line of columns crossed over by beams except where framed connections of other beams occur.
- Set leveling or bearing plates on cleaned bearing surfaces using wedges or other adjustments as required. Solidly pack open spaces with non-shrink, non-metallic grout.
- Field welds to be made with E70XX electrodes according to AWS. Welded connections using ASTM A992 steel as a base metal shall be made with E70XX low hydrogen electrodes.
- All design, fabrication and erection of structural steel shall be in accordance with AISC and AWS specifications.
- All connections not specifically detailed on contract documents shall be designed and detailed by the structural steel fabricator in compliance with AISC standards. All connections shall be clearly shown on final shop drawings submitted for approval prior to fabrication.
- Lintels not indicated on plans are as follows:
  - Provide angle lintels over all openings and recesses in both interior and exterior walls unless otherwise noted.
  - All lintels for mechanical and electrical openings are not shown. See mechanical and electrical plans for locations of lintels and lengths required for ductwork, pipes, electrical conduits, etc.
  - Angle lintels shall have a minimum end bearing on masonry of 4 1/2", but not less than 1" of such bearing for each foot of opening width. Angles in pairs shall be welded or bolted together with 1/2" diameter bolts at 18" oc. In case of single angle, anchor to concrete or masonry backup with 1/2" diameter expansion type anchors at 18" oc.
  - For 6" block partitions use two (2)-L3 1/2x 2 1/2x 5/16 (LLV) for spans up to 10'-0". For 8" to 10" block partitions use two (2)-L4 3 1/2x 5/16 (LLV) for spans up to 7'-0". For spans 7'-0" to 10'-0" use two (2)-L5 3 1/2x 3/8 (LLV).
  - For 12" walls use three (3) angles as specified for 8" to 10" walls above.
  - Coordinate masonry rough openings with all trades.
- Shop drawings shall show complete details and schedules for fabrication, layout and erection. Submit shop drawings for approval prior to fabrication.
- All beams and beam lintels shall be field welded to bearing plates with 3/16" fillet weld each side of bottom flange.
- All exposed steel lintels shall be galvanized. See architectural for painting specifications.
- Field drilled holes shall be reamed, cleaned and deburred prior to assembly of the connection.
- Beams with specified camber shall be cambered upward. Beams without specified camber shall be fabricated so that after erection any minor camber due to rolling or shop assembly is upward.
- Thermal cutting shall preferably be done by machine. Hand thermally cut edges subjected to substantial stress or are to be welded, shall be reasonably free of notches or gouges. Notches or gouges larger than 3/16" that remain from cutting shall be removed by grinding. Re-entrant corners shall be shaped notch-free to a radius of at least 1/2".
- Erector shall maintain minimum temporary bracing at each bay in each direction until the roof diaphragm and permanent lateral load resisting system construction are complete.
- Fabricator shall be responsible for design of all connections not specifically detailed on the plans. Where end reaction are not shown on the plans, design simple beam connections for at least 50% of the allowable uniform load given in the beam tables in Chapter 3 of the AISC Steel Construction Manual - Allowable Stress Design (14th Ed.) for the given span and beam size. Use ASD values unless noted otherwise.

**METAL STAIRS**

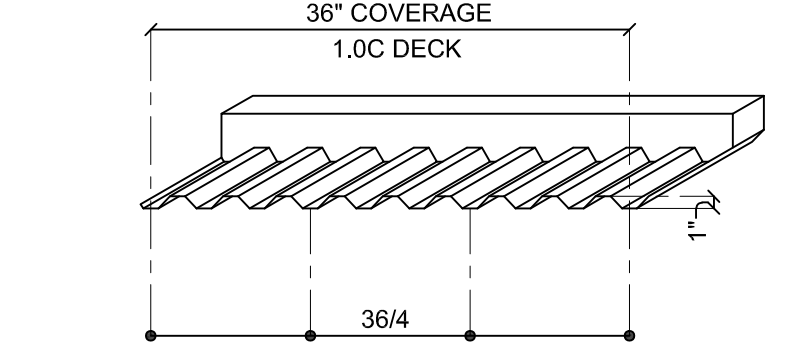
- Steel fabricator shall design and provide metal stairs as required by the International Building Code and schematically shown by architectural drawings for layout and specific details.
- All embedded items for stair support shall be shown on erection drawings and coordinated with general and masonry contractors.
- Provide shop drawings to Architect for approval prior to fabrication.

**PREENGINEERED METAL BUILDING**

- All structural members shall be designed to resist the following loads:
  - Live load - 20 psf
  - Wind load - per Latest I.B.C. Exposure C.
  - Lateral deflection - drift h/360.
  - Collateral - 5 psf.
  - Piping and sprinklers
  - Mechanical units, ducts and lighting
- Combining of normal and auxiliary loads for design purposes shall be as prescribed by Latest International Building Code and Indiana Construction Rules.
- Members not sized or shown on plans and sections shall be as designed by building manufacturer.
- Building manufacturer shall provide anchor bolt layout plan.
- Building manufacturer shall submit complete structural analysis and shop drawings of building system to engineer prior to fabrication.

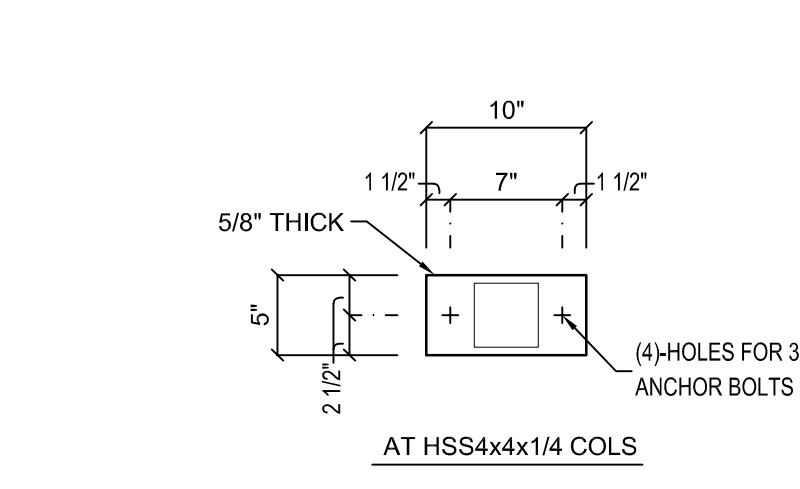
**METAL DECK**

- Provide shop drawing details and layout of metal roof and form deck for approval.
- All design, fabrication and erection of metal roof and form deck shall be in accordance with SDI "Metal Deck Specifications". Fasten deck to supporting steel members according to manufacturer's recommendations.
- Provide deck units in lengths to span at least three (3) supports; nested 2" end laps; nested or interlocking side laps.
- Provide L3 1/2x3 1/2x1/4 welded frame at all floor/roof openings 12"x12" or larger. See typical floor/roof opening detail.
- Provide formdeck bearing angle at all (4) sides of columns that penetrate floor/roof. Shop weld angles to columns.
- Provide 14 gauge pour stop closure plates where floor decks at different elevations meet and are not separated by a wall, or bolted together with 1/2" diameter bolts at 18" oc.
- At longspan deck provide units in lengths to span at least three (3) supports with 12" nested end laps; nested or interlocking side laps. Where longspan deck is unable to span three (3) supports for continuity, provide increased lap or flat top plate as required to resist negative moment.



DECK TYPE	FASTENER PATTERN	FRAME FASTENER TYPE
GALV 0.6C, 26 GA.	35/4	HILTI X-HSN 24
GALV 1.0C, 24 GA.	36/4	HILTI X-HSN 24

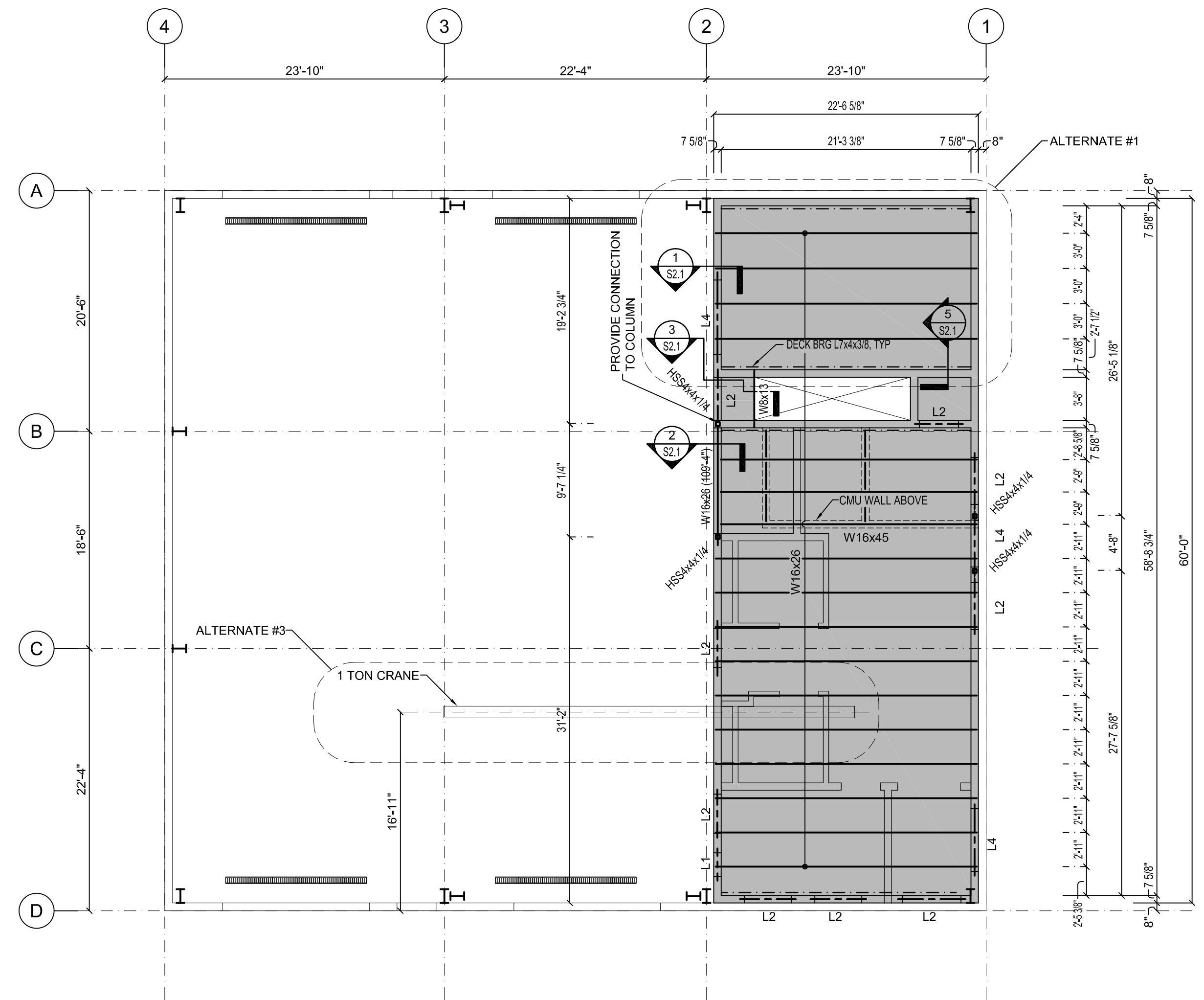
SIDELAP: HILTI S-SLC 01 M-HWN SCREWS



**Base Plate Details**  
SCALE: 1" = 1'-0" AT CONVENTIONAL COLUMNS

**Typ Deck End Bearing at Floor**  
SCALE: 3/4" = 1'-0"

**Typ Column to Fdn Connection**  
SCALE: NTS AT CONVENTIONAL COLUMNS



**Mezzanine Framing Plan**  
SCALE: 1/8" = 1'-0"

MK	SIZE	DETAIL
L1	(2) L4x3 1/2x5/16 (LLV)	---
L2	(2) L5x3 1/2x3/8 (LLV)	---
L3	(2) L6x3 1/2x3/8 (LLV)	---
L4	W8x10 + BOT PLATE 1/4"x 7"	A

DO NOT EXTEND BOTTOM PLATE BEYOND MASONRY OPENING. SECURE INFILL BLOCK TO BEAM WITH METAL TIES WELDED TO BEAM. L (MECH): DESIGNATES LINTELS LOCATED AT MECHANICAL OPENINGS AND ARE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.

- NOTES:**
- FLOOR (SHADED AREA): 4" CONCRETE SLAB W/6x6-W2.9xW2.9 REINFORCING ON 1.0C, 26 GAUGE, GALVANIZED DECK. T/FINISH FLOOR = 112'-0". FOR TYP SECTIONS AT FLOOR JOIST BEARING AND DECK BEARING SEE SHEET S2.1.
  - PROVIDE BEAM BRG PLATES 3/8"x5"x7'-7" AT FLOOR BEAMS.
  - BRG PLATES SHALL HAVE (2)-1/2" DIA-x 4" HEADED STUDS INTO BOND BEAM.
  - INSTALL (2)-#5 IN BOND BEAMS.
  - SEE FDTN PLANS AND SECTIONS FOR CONG BLOCK VERTICAL WALL REINF.
  - (005'-0") DESIGNATES TOP OF BEAM.
  - SEE STRUCTURAL STEEL NOTE #9, SHEET S2.1 FOR NON-LOAD BEARING LINTELS (UNO). THESE WOULD INCLUDE ALL NEW DOORS, WINDOWS, WALL OPENINGS AND MECHANICAL WALL PENETRATIONS NOT INDICATED ON PLANS.
  - PROVIDE BRG PLATES 12"x7'-0" UNDER EACH END OF BEAMS AND BEAM LINTELS. WELD BEAMS/BEAM LINTELS TO PLATE (TYP UNO).
  - ALL BRG PLATES SHALL HAVE (2)-1/2" DIA-x 4" HEADED STUDS.
  - ALL BRG PLATES SHALL HAVE (2) COURSES OF GROUTED SOLID UNDER PLATE.
  - BEAMS AND BEAM LINTELS SHALL HAVE FULL LENGTH (OR WIDTH) BRG ON BRG PLATES (UNO).
  - PROVIDE 5/8" (MINIMUM) CAP PLATES AT COLUMNS.
  - PROVIDE 1/4" STIFFENER PLATES EACH SIDE OF WEB WHERE BEAM EXTENDS OVER COLUMN.

**A PROJECT FOR:**



date	mark	description
3/2/2022		
4/7/2003		
JMO		
EPH		
KEH		



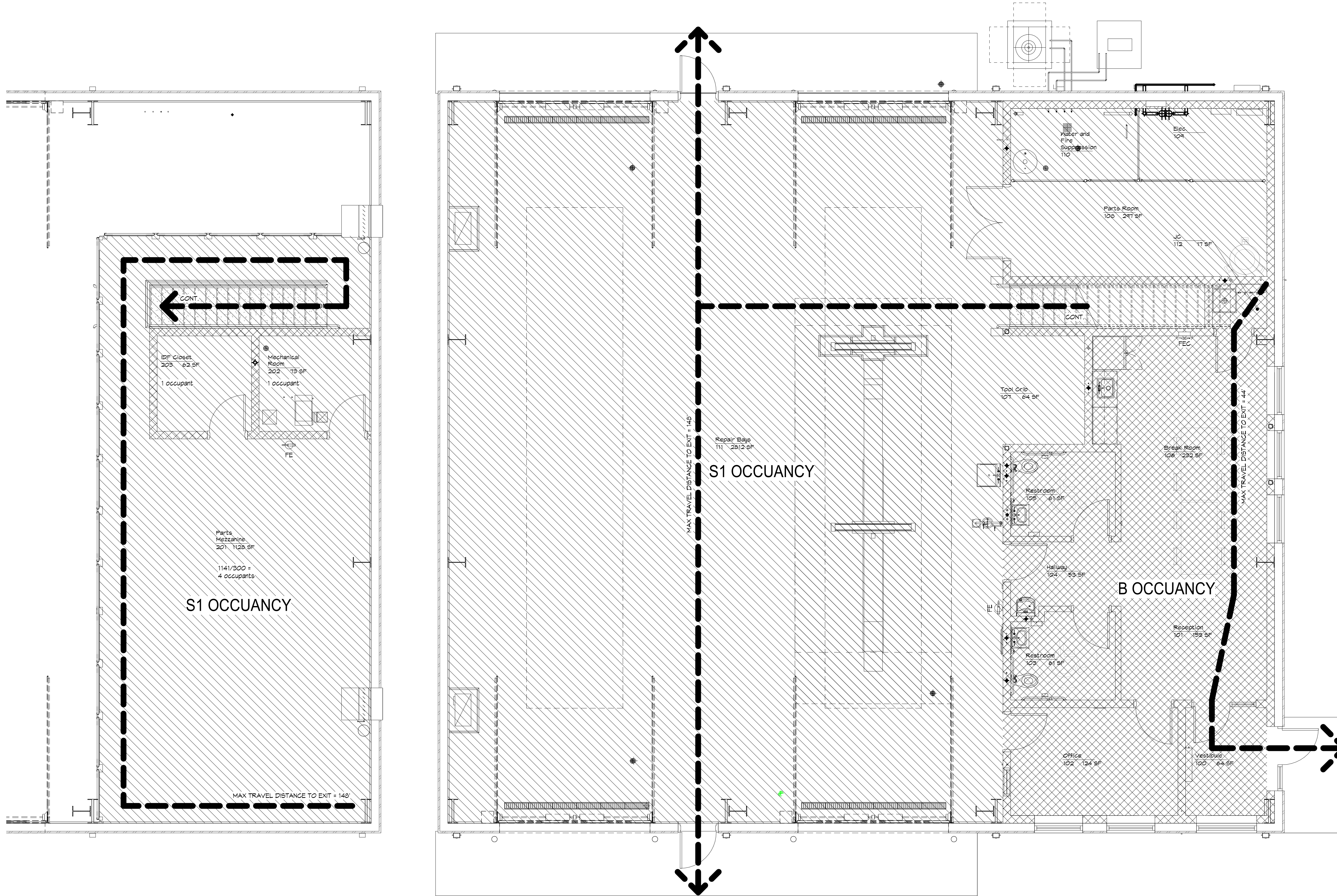
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**

CODE REQUIREMENTS	
2012 INTERNATIONAL BUILDING CODE WITH INDIANA AMENDMENTS	
CITY / COUNTY :	Centerville, Wayne County
ADDRESS:	200 W South Street Centerville, IN 47930
CLOSEST INTERSECTION:	Ash Street and W South Street
DIRECTION FROM INTERSECTION :	East
SEWER TYPE :	Public
FACILITY USE :	Maintenance Facility
SCOPE OF WORK :	New Construction
BUILDING OCCUPANCY GROUP :	B, S1
CONSTRUCTION TYPE :	II-B
MAXIMUM HEIGHT (STORY) :	2
MAXIMUM ALLOWABLE AREA :	UNLIMITED, 507.3
AUTOMATIC FIRE EXTINGUISHING SYSTEM :	YES
NO. OF PERSONS ( PUBLIC ) :	20
NO. OF PERSONS ( STAFF ) :	2
HANDICAP ACCESSIBILITY :	YES
NO. OF STORIES :	1
GROSS BUILDING AREA 1ST FLR. :	4,300 SF
GROSS BUILDING AREA MEZZANINE :	1,303 SF
TOTAL GROSS BUILDING AREA :	5,603 SF

LEGEND	
	EXIT PATH
	1 HR FIRE BARRIER
	WALL MOUNTED FIRE EXTINGUISHER
	SEMI-RECESSED FIRE EXTINGUISHER CABINET LOCATION
SEE ELEC. DWGS. FOR MANUAL FIRE ALARM PULL STATION LOCATIONS	

FIRESTOPPING	
A.	FOR ALL FLOOR AND/ OR FLOOR & CEILING ASSEMBLIES IDENTIFIED AS A FIRE RATED ASSEMBLY, THE CONTRACTOR SHALL ISOLATE ALL THROUGH & MEMBRANE PENETRATIONS WITH SPECIFIED FIRESTOPPING SYSTEM TO MAINTAIN THE RATINGS OF THE ADJACENT FLOOR AND/ OR FLOOR & CEILING ASSEMBLY.
B.	FOR ALL WALL ASSEMBLIES IDENTIFIED AS A FIRE RATED WALL ASSEMBLY CONTRACTOR SHALL ISOLATE ALL THROUGH & MEMBRANE PENETRATIONS, AND TOP OF WALL TO DECK TRANSITIONS WITH SPECIFIED FIRESTOPPING SYSTEM TO MAINTAIN THE RATINGS OF THE ADJACENT WALL ASSEMBLY.
C.	FOR ALL ROOF AND/ OR ROOF & CEILING ASSEMBLIES IDENTIFIED AS A FIRE RATED ASSEMBLY, THE CONTRACTOR SHALL ISOLATE ALL THROUGH & MEMBRANE PENETRATIONS WITH SPECIFIED FIRESTOPPING SYSTEM TO MAINTAIN THE RATINGS OF THE ADJACENT ROOF AND/ OR ROOF & CEILING ASSEMBLY.
D.	THROUGH & MEMBRANE PENETRATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: 1. STRUCTURAL FRAMING 2. MECHANICAL COMPONENTS 3. ELECTRICAL COMPONENTS 4. PLUMBING COMPONENTS 5. FIRE PROTECTION COMPONENTS 6. FOOD SERVICE COMPONENTS 7. AUDIO/DATA/SECURITY/COMMUNICATION COMPONENTS
E.	WALL SECTIONS AND/ OR DETAILS MAY ILLUSTRATE SELECTED COMPONENTS THAT PENETRATE A FIRE RATED ASSEMBLY, HOWEVER THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE ENTIRE SCOPE OF FIRESTOPPING WORK WITH THE CONSTRUCTION DOCUMENTS.
F.	ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE UNDERWRITERS LABORATORY, INC. DIRECTORY FIRE RESISTANCE MANUAL - VOLUME 2
G.	A THIRD PARTY TESTING AGENCY SHALL VERIFY THAT ALL THROUGH AND MEMBRANE PENETRATIONS IN ALL DESIGNATED FLOOR, FLOOR & CEILING, WALL, ROOF & ROOF & CEILING RATED ASSEMBLIES HAVE BEEN FIRESTOPPED, ARE LABELED ACCORDING TO THE APPLICABLE U.L. TESTED ASSEMBLY, AND REFERENCE THE RATINGS OF THE ASSEMBLY.
H.	PAINTING CONTRACTOR SHALL LABEL ALL FIRE RATED WALL ASSEMBLIES THROUGHOUT THE PROJECT. IDENTIFICATION SHALL CONSIST OF 2" HIGH STENCILED LETTERING IN SAFETY ORANGE COLOR 1'-0" ABOVE THE FINISHED CEILING. IDENTIFICATION SHALL BE LOCATED AT ALL CROSS CORRIDOR LOCATIONS AND A MAXIMUM OF 20'-0" ON CENTER ALL OTHER LOCATIONS.

FIRE RESISTANCE RATING REQUIREMENTS		
Construction Type II-B *		
NFPA 101 Const. Type II (000)		
STRUCTURAL FRAME	RATING	U.L. DESIGN NOS.
COLLUMNS	0 hrs	-
BEARING WALLS	0 hrs	-
EXTERIOR	0 hrs	-
INTERIOR	0 hrs	-
NON-BEARING WALLS AND PARTITIONS	0 hrs	-
EXTERIOR	0 hrs	-
INTERIOR	0 hrs	**
FLOOR CONSTRUCTION	0 hrs	-
SUPPORTING BEAMS	0 hrs	-
JOISTS	0 hrs	-
SLAB/MTL FLR DECK	0 hrs	-
ROOF CONSTRUCTION	0 hrs	-
SUPPORTING BEAMS	0 hrs	-
JOISTS	0 hrs	-
METAL ROOF DECK	0 hrs	-
* NONCOMBUSTIBLE CONSTRUCTION REQUIRED ** SEE DRAWINGS AND LEGEND FOR HIGHER REQUIRED RATINGS		
Incidental Use Area Separation		
CLINICAL LABORATORY	AUTO. FIRE-EXT. SYSTEM	
FURNACE ROOM WHERE LARGEST PIECE OF EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT	AUTO. FIRE-EXT. SYSTEM	
BOILERS OVER 15 PSI AND 10 HP	AUTO. FIRE-EXT. SYSTEM	
LAUNDRY ROOM OVER 100 SQUARE FEET	1 hour or AUTO. FIRE-EXT. SYSTEM	
STORAGE ROOM OVER 100 SQUARE FEET	1 hour or AUTO. FIRE-EXT. SYSTEM	
WASTE AND LINEN COLLECTION ROOM OVER 100 SQUARE FEET	1 hour or AUTO. FIRE-EXT. SYSTEM	



**2** Mezzanine Plan  
1/4" = 1'-0"

**1** First Floor Plan  
1/4" = 1'-0"

A PROJECT FOR:



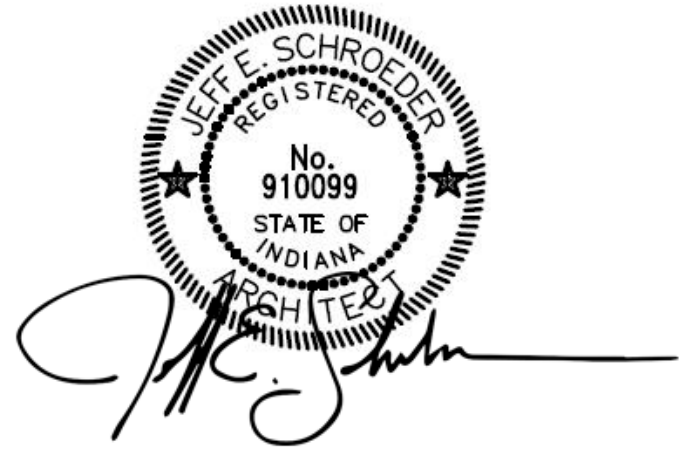
The concepts, ideas, plans, and details shown on this document are the sole property of Moake Park Group, Inc. and were created, developed, and prepared for the use on this specific project. None of the contents, ideas, designs, plans and details shall be used by any person, firm, or corporation for any purpose whatsoever without expressed written consent of Moake Park Group, Inc. The Owner shall be permitted to reproduce copies for information and reference in connection with this project.

mark	date	description

First Floor Code Study,  
Life Safety Plans,  
Legends and Notes

date: March 2, 2022  
project: 473003  
coordinator: JMO  
drawn: JMO  
checked: CDH





**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



A PROJECT FOR:

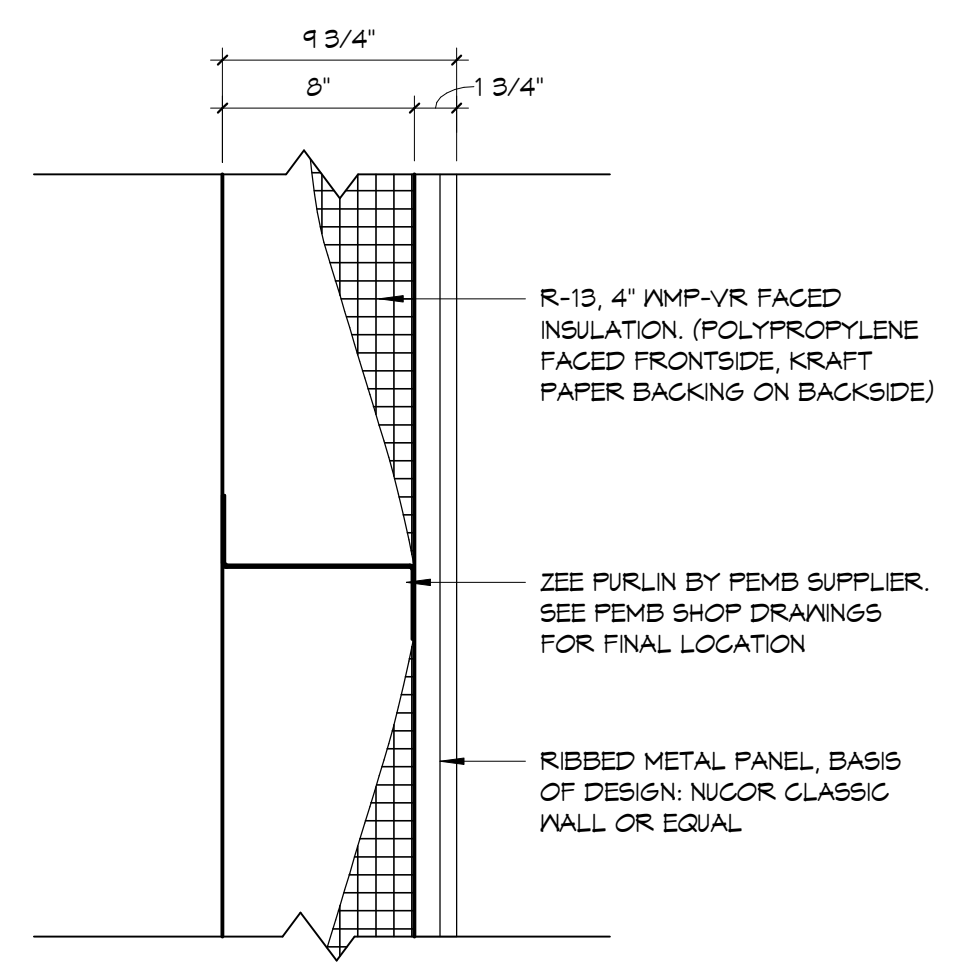
mark	date	description

date: March 2, 2022  
project: 473003  
coordinator: JMO  
drawn: LNG  
checked: CDH

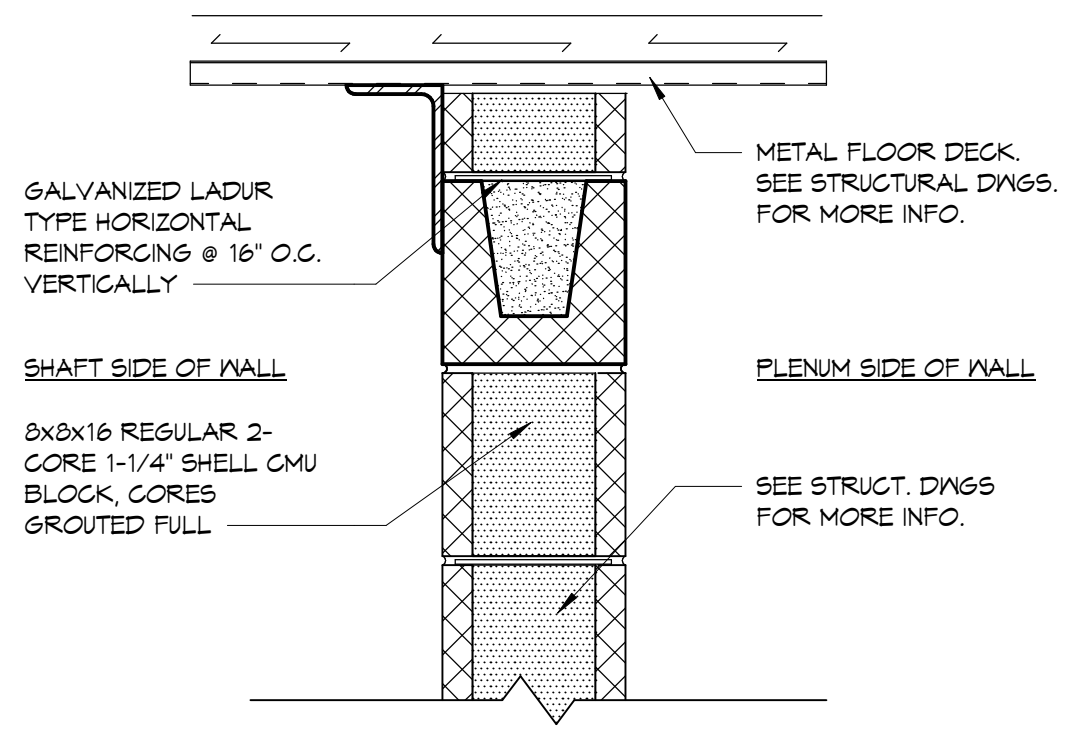
- ### FLOOR PLAN GENERAL NOTES
- A. CONTRACTOR TO PROVIDE ALL NECESSARY PERMITS & FEES REQUIRED TO COMPLETE THE PROJECT.
  - B. CONSTRUCTION & INSTALLATION SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, & NATIONAL BUILDING CODES AND THE AMERICANS WITH DISABILITY ACT.
  - C. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS RELATIVE TO THE PROJECT AS ILLUSTRATED AND CONFLICTS OR DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT / ENGINEER IMMEDIATELY FOR RESOLUTION.
  - D. ANY PENETRATIONS IN DESIGNATED FIRE WALLS SHALL MAINTAIN THE REQUIRED FIRE SEPARATIONS BETWEEN AREAS. SEE THE CODE STUDY SHEETS FOR ADDITIONAL FIRESTOPPING REQUIREMENTS.
  - E. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE EQUIPMENT MANUFACTURER TO ENSURE APPROPRIATE CLEARANCE FOR EQUIPMENT INSTALLATION AND USE.
  - F. DO NOT SCALE THE DRAWINGS.
  - G. ALL DIMENSIONS ARE FROM THE FINISHED FACE OF BLOCK OR STEEL STUDS, UNLESS NOTED OTHERWISE.
  - H. CONTRACTOR SHALL LAYOUT & MARK ALL WALLS & OPENINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
  - J. REFERENCE RELATED ELECTRICAL, STRUCTURAL, MECHANICAL, & PLUMBING DOCUMENTS FOR NEW CONSTRUCTION.

- ### FLOOR PLAN LEGEND
- RIBBED METAL PANEL OVER PEMB STRUCTURE
  - CMU WALL PARTITION
  - SEE A4.0 FOR ALL INTERIOR AND EXTERIOR WINDOW ELEVATIONS

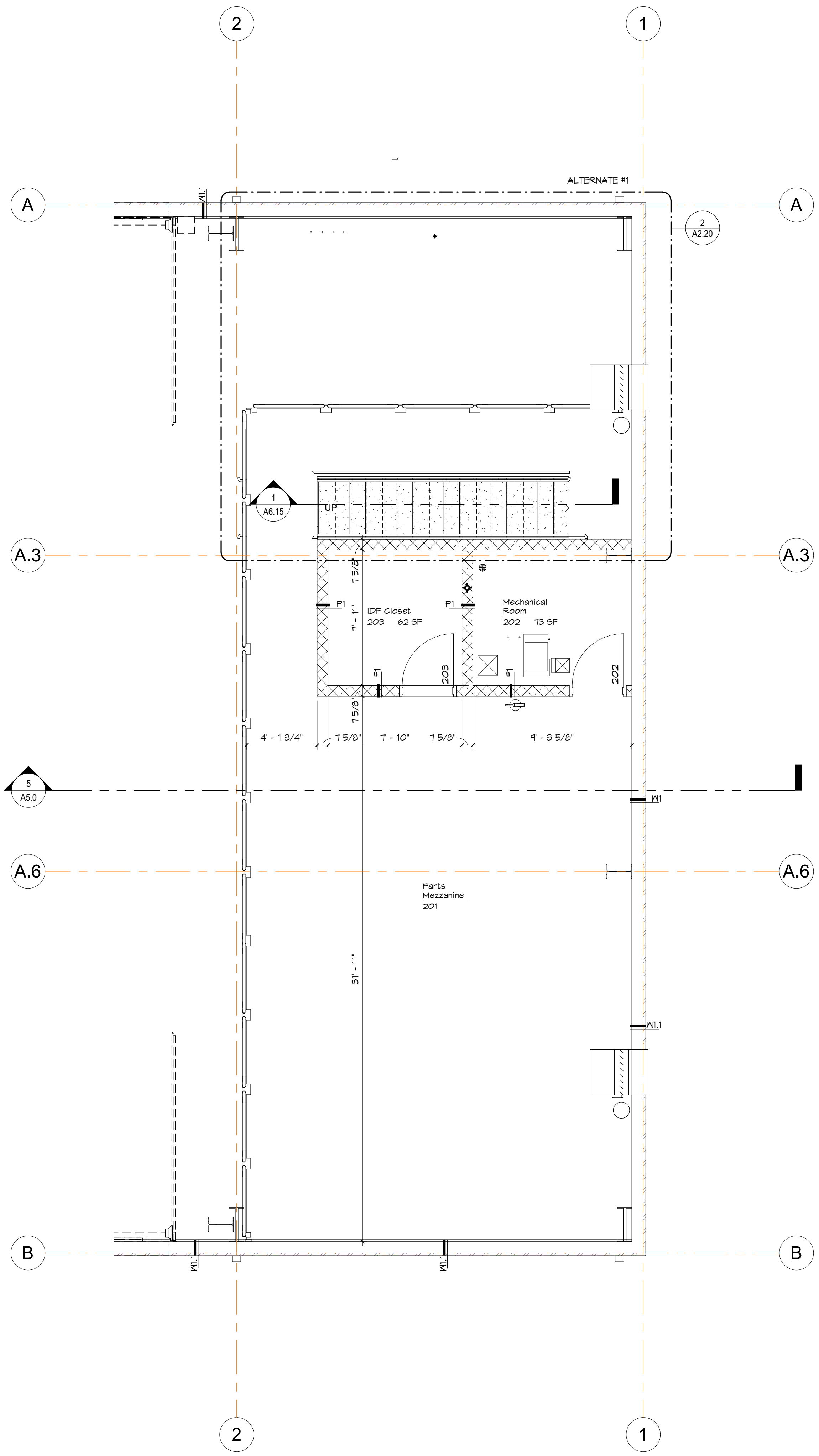
- ### Specific Floor Plan Notes
- 1 REINFORCED CONC. SIDEWALK. SEE CIVIL DWGS. FOR MORE INFO.
  - 2 REINFORCED CONC. STOOP. SEE 1/A4.10 DWGS. FOR MORE INFO.
  - 3 SEMI-RECESSED FIRE EXTINGUISHER CABINET. SEE SPECS. FOR MORE INFO.
  - 4 NEW DOWNSPOUT, PROVIDED BY PEMB MANUFACTURER.
  - 5 OWNER-PROVIDED AIR COMPRESSOR. SEE MEP DWGS. FOR MORE INFO.
  - 6 INGROUND BUS LIFT, PROVIDED BY SEPARATE OWNER CONTRACT. BASIS OF DESIGN: ROTARY HD180 T00. SEE SPECS FOR MORE INFO. CONTRACTOR TO PROVIDE EXCAVATION, CONCRETE FIT, AND MEP. COORDINATE W/ OWNER CONTRACTOR. SEE STRUCT. DWGS. FOR CONCRETE FIT DESIGN.
  - 7 EMERGENCY EYE WASH. SEE MEP DWGS. FOR MORE INFO.
  - 8 NEW EXTERIOR PIPE BOLLARDS. SEE DETAIL 3-A6.30 FOR MORE INFO.
  - 9 CHAIN LINK FENCE WITH (2) GATES.
  - 10 OWNER PROVIDED, OWNER INSTALLED TV AND WALL MOUNTING BRACKET. COORDINATE FINAL LOCATION WITH OWNER.
  - 11 4" MECHANICAL PAD. SEE MEP DWGS. FOR LOCATION AND SIZE.
  - 12 GUARD RAIL AROUND DUCT. MAINTAIN 6" CLEAR FROM DUCT. COORDINATE WITH MEP DWGS. FOR FINAL LOCATION. PAINT SAFETY YELLOW.
  - 13 BREAK METAL TRIM AT CMU TO STRUCTURE CORNERS, TYP. SEE DETAIL 2/A4.0 FOR MORE INFO.



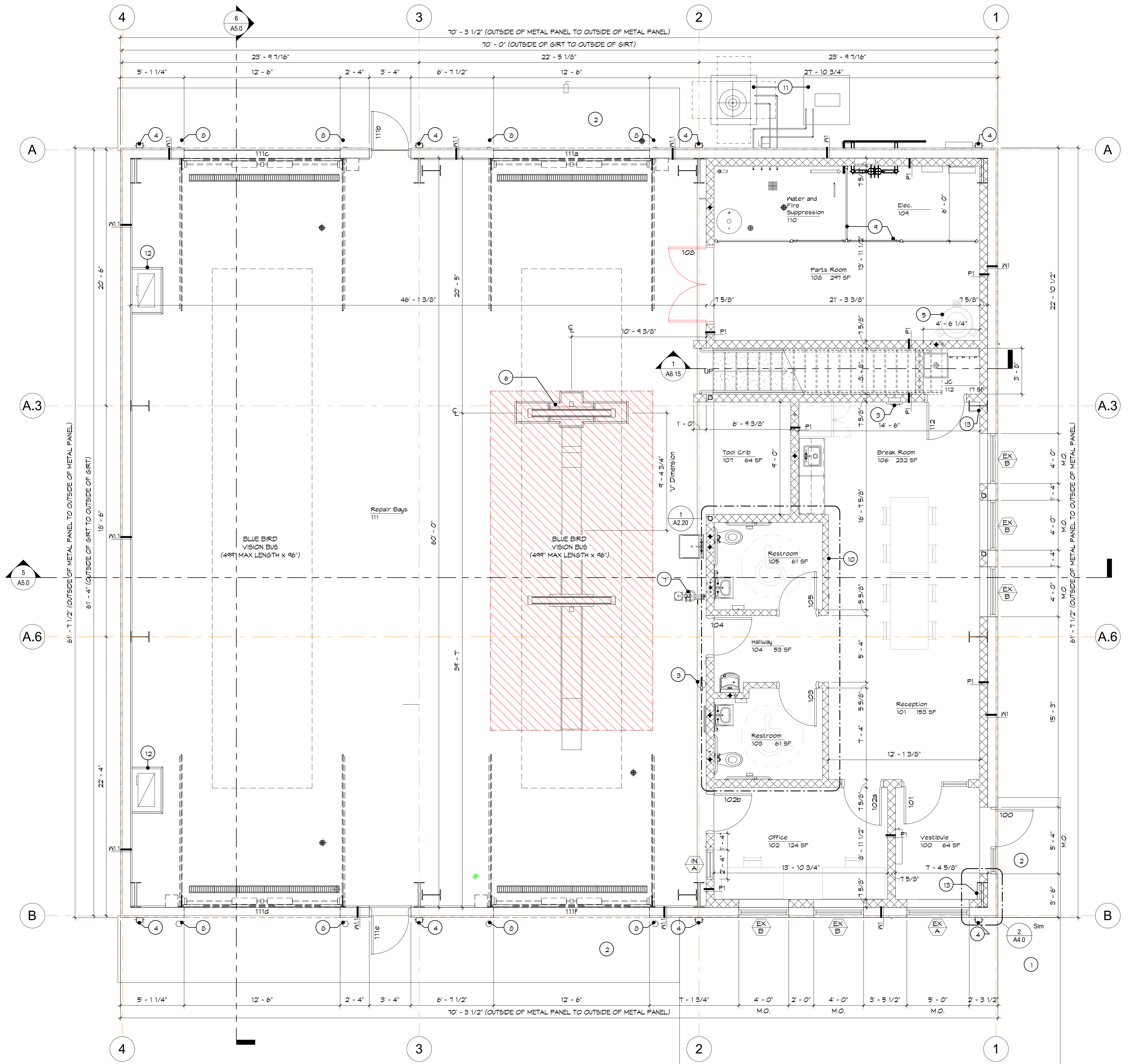
**W1 PEMB Wall Type**  
1 1/2" = 1'-0"



**P1 CMU Wall Type**  
1 1/2" = 1'-0"



**2 Mezzanine Plan**  
1/4" = 1'-0"



**1 First Floor Plan**  
1/4" = 1'-0"



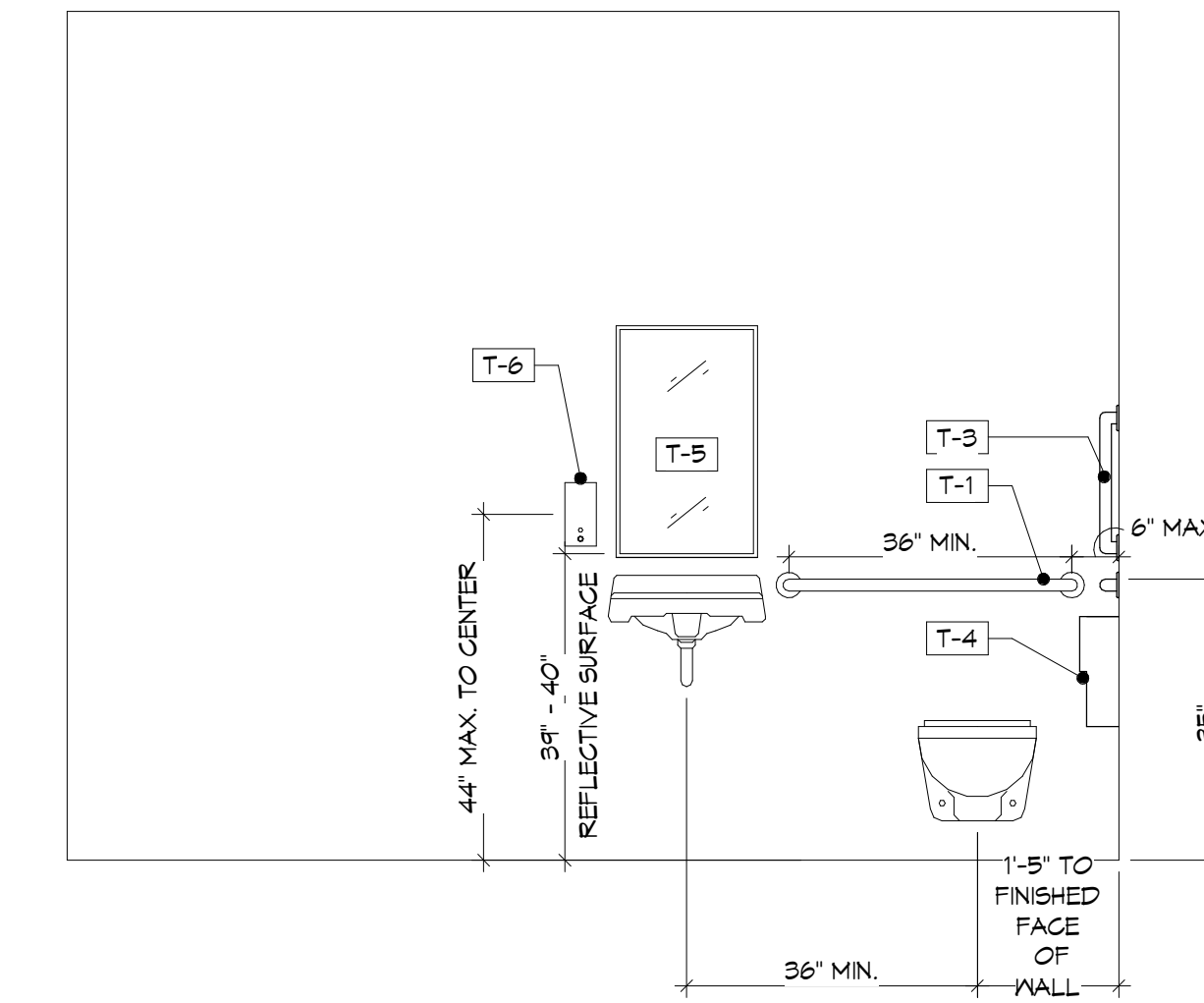
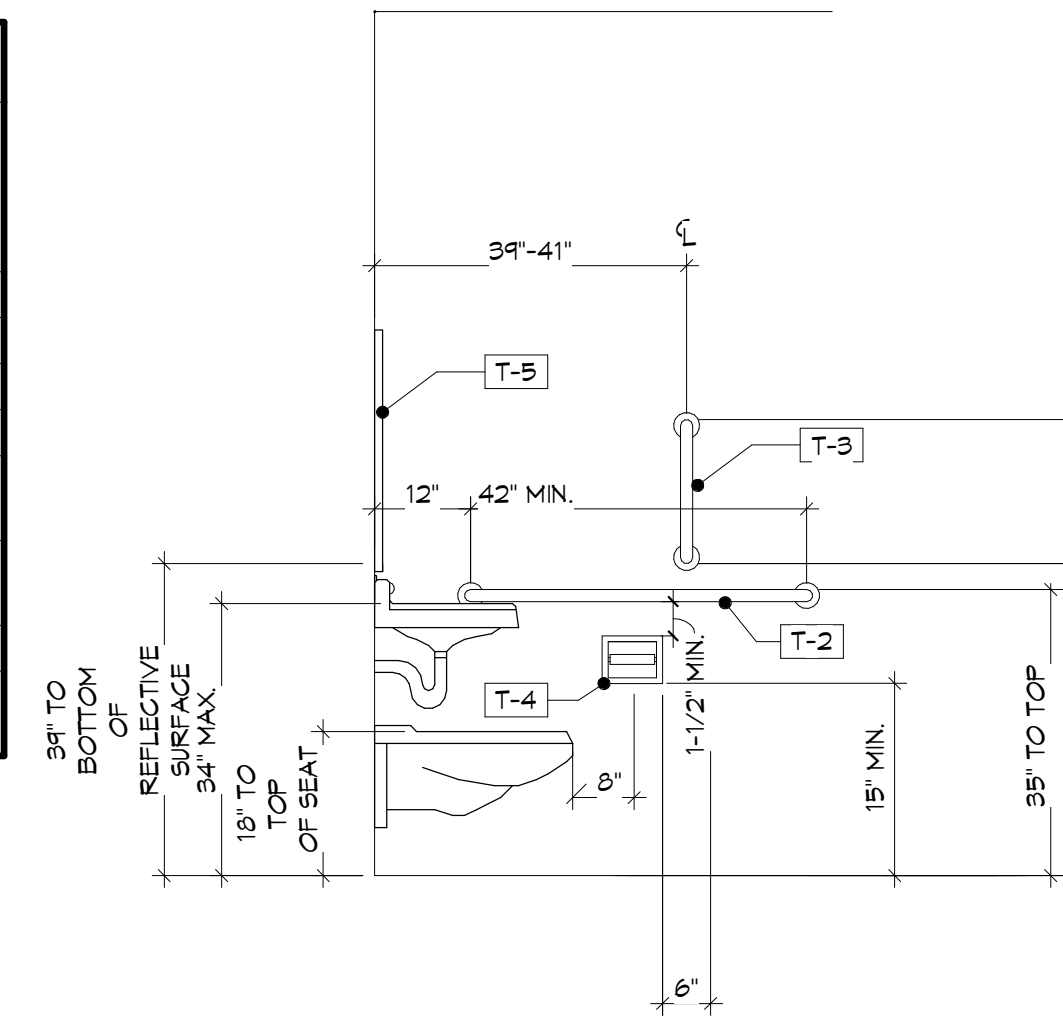
Accessory Schedule						
Type Mark	Description	Manufacturer	Model	Supplier	Installer	Comments
T-1	36" GRAB BAR	American Specialties, Inc.	3800x36	G.C.	G.C.	
T-2	42" GRAB BAR	American Specialties, Inc.	3800x42	G.C.	G.C.	
T-3	18" VERTICAL GRAB BAR	American Specialties, Inc.	3800x18	G.C.	G.C.	
T-4	TOILET PAPER DISP.	Owner Provided	TBD	Owner	G.C.	
T-5	Mirror - Stainless Steel, Chan-Lok Frame - Plate Glass - 24"W X 36"H (0620-2436)	American Specialties Inc.	0620-2436	G.C.	G.C.	
T-6	Soap Dispenser - Liquid, Push Button Valve - 40 oz. - Surface Mounted (0347)	American Specialties Inc.	0347	G.C.	G.C.	
T-7	PAPER TOWEL DISP.	Bobrick	B-263	G.C.	G.C.	
T-8	Shelf/Utility Hook & Mop Strip w/ Drying Rod - 2 Hooks, 3 Holders - 30"L - Surface Mounted (1315-3)	American Specialties Inc.	1315-3	G.C.	G.C.	

**GENERAL TOILET ACCESSORY NOTES:**

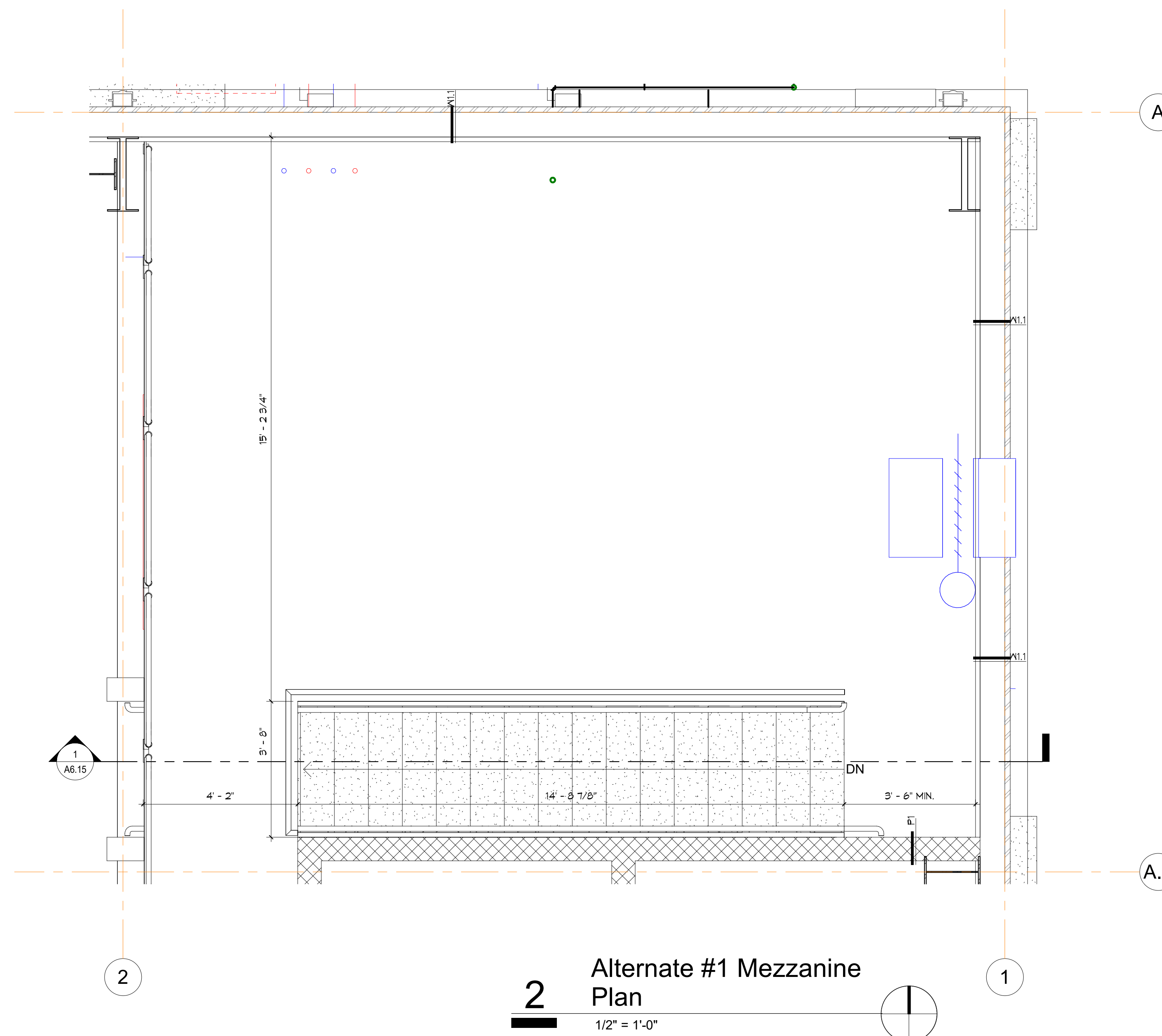
- A. MANUFACTURERS AND MODEL NUMBERS ARE USED FOR QUALITY CONTROL ONLY. THEY ARE NOT INTENDED TO LIMIT TO ONE MANUFACTURER. SUBMIT ALTERNATE PRODUCT INFORMATION AS PER THE PROVISIONS OF THE BID DOCUMENTS.
- B. PROVIDE BLOCKING FOR ALL GRAB BARS, TONEL BARS, AND ALL ACCESSORIES.
- C. SEE FLOOR PLANS, ENLARGED PLANS, AND FINISH PLANS FOR ADDITIONAL TOILET ACCESSORY NOTATION.
- D. CONTRACTOR TO LOCATE CHASE ACCESS DOORS IN HANDICAP TOILET STALLS ABOVE THE GRAB BARS UNLESS NOTED OTHERWISE.
- E. CONTRACTOR TO COORDINATE & ADJUST HORIZONTAL MOUNTING LOCATIONS WITH ADJACENT ACCESSORIES TO MAINTAIN CLEARANCE WITHIN THE STALL & TO COMPLY WITH ADA ACCESSIBILITY REQUIREMENTS.
- F. SEE REFLECTED CEILING PLANS FOR CEILING MOUNTED SHOWER CURTAIN TRACKS AND CURTAINS.
- G. CONTRACTOR TO INSTALL ACCESSORIES TO COMPLY WITH CURRENT ADA CODE. SEE SHEET A2.20 FOR MOUNTING HEIGHT DIAGRAMS.
- H. ALL SINKS TO HAVE T-6 SOAP DISPENSER UNLESS NOTED OTHERWISE.
- J. ALL J.C.'S TO HAVE MOP AND BROOM HOLDER, TYP.

**SPECIFIC TOILET ACCESSORY REMARKS:**

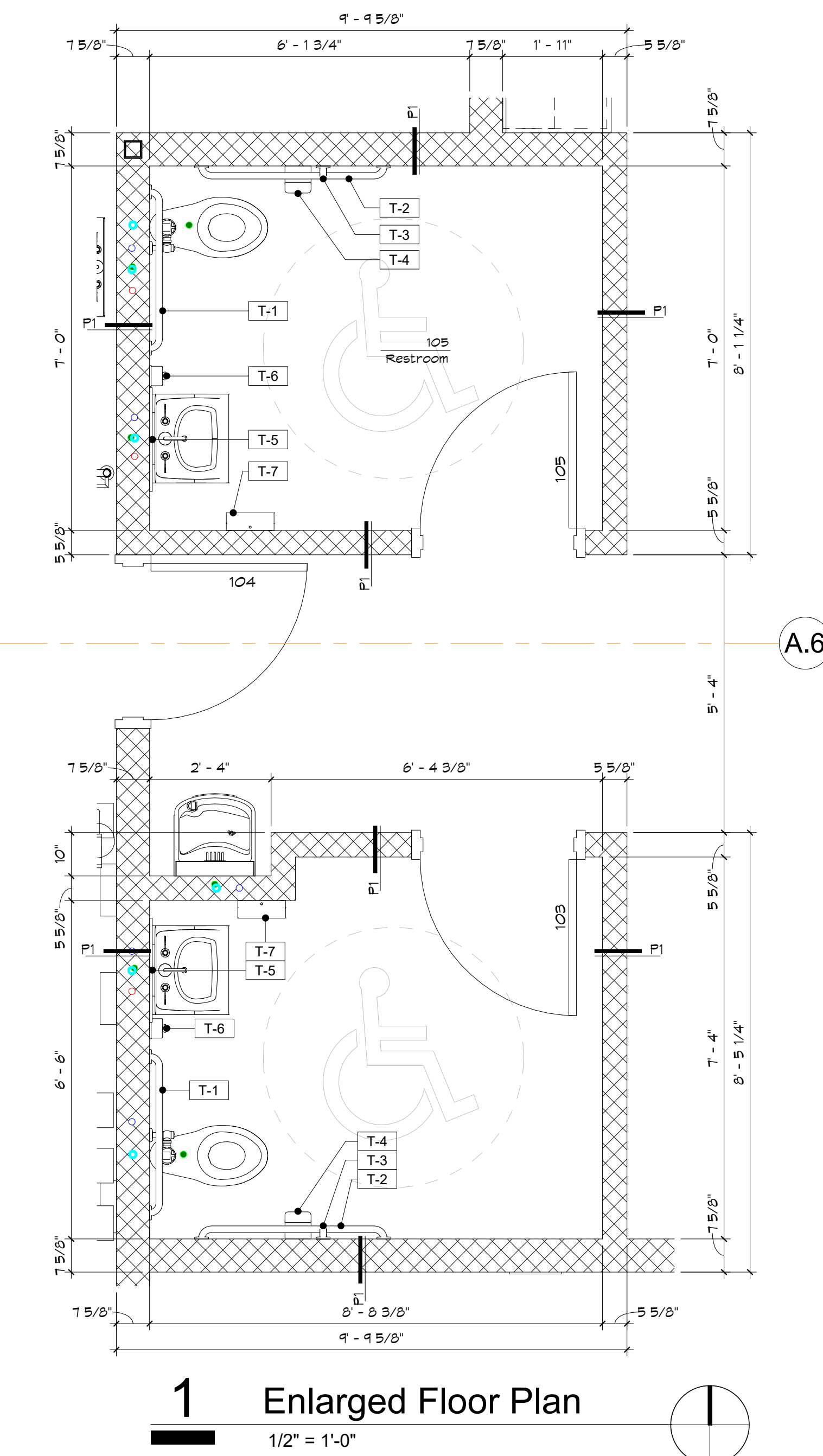
- 1. THIS ITEM ALSO APPEARS ON THE EQUIPMENT SCHEDULE. SEE FLOOR FINISH PLANS FOR OTHER LOCATIONS/NOTATIONS.
- 2. COORDINATE EXACT MOUNTING LOCATION W/ OWNER PRIOR TO INSTALLATION. LOCATIONS MUST COMPLY WITH ADA REQUIREMENTS.
- 3. VERIFY MANUFACTURERS HEIGHT INSTALLATION REQUIREMENTS.
- 4. SEE SPECS. FOR MORE INFO.



**3 ADA Elevations**  
1/2" = 1'-0"



**2 Alternate #1 Mezzanine Plan**  
1/2" = 1'-0"



**1 Enlarged Floor Plan**  
1/2" = 1'-0"

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:



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mark	date	description

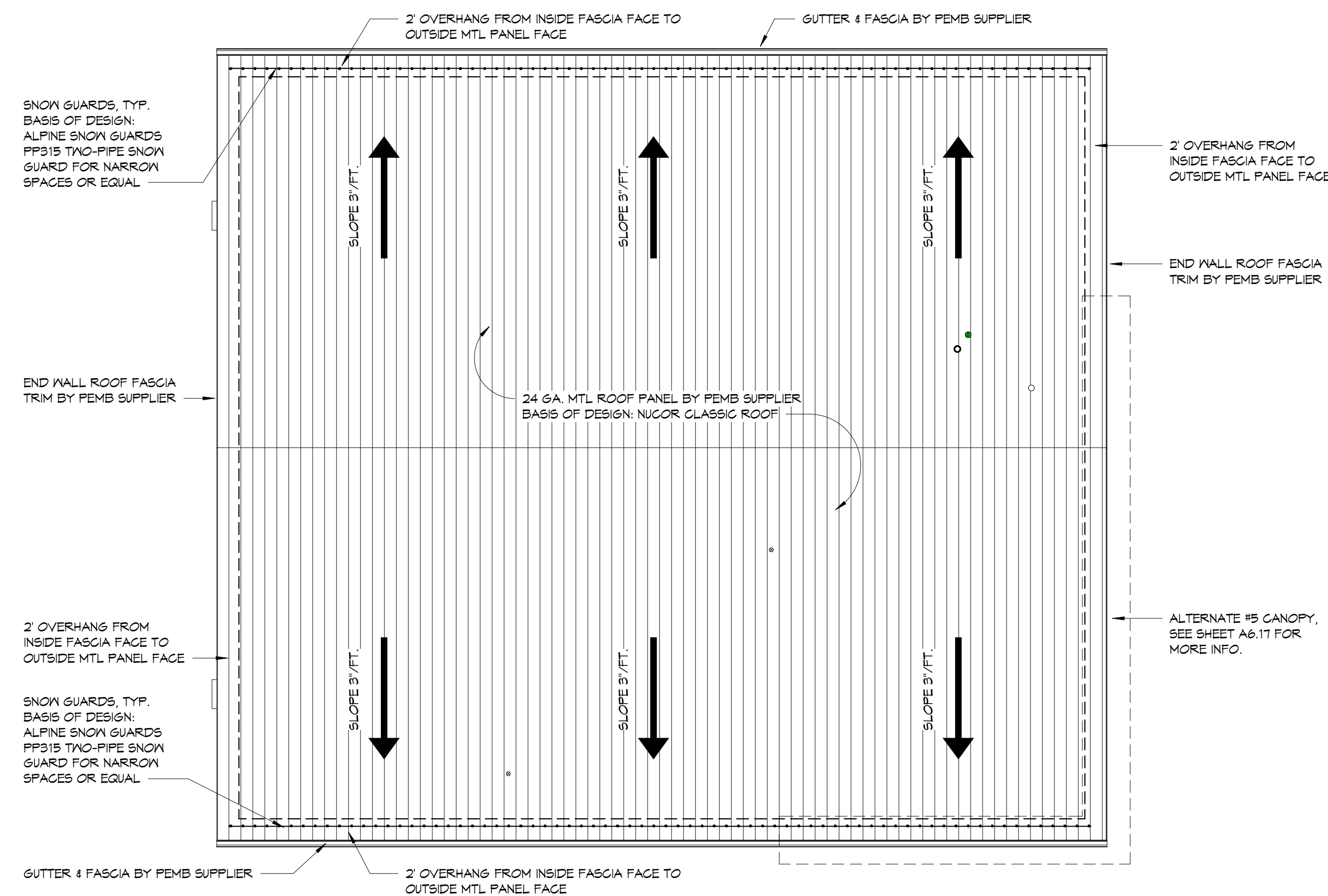
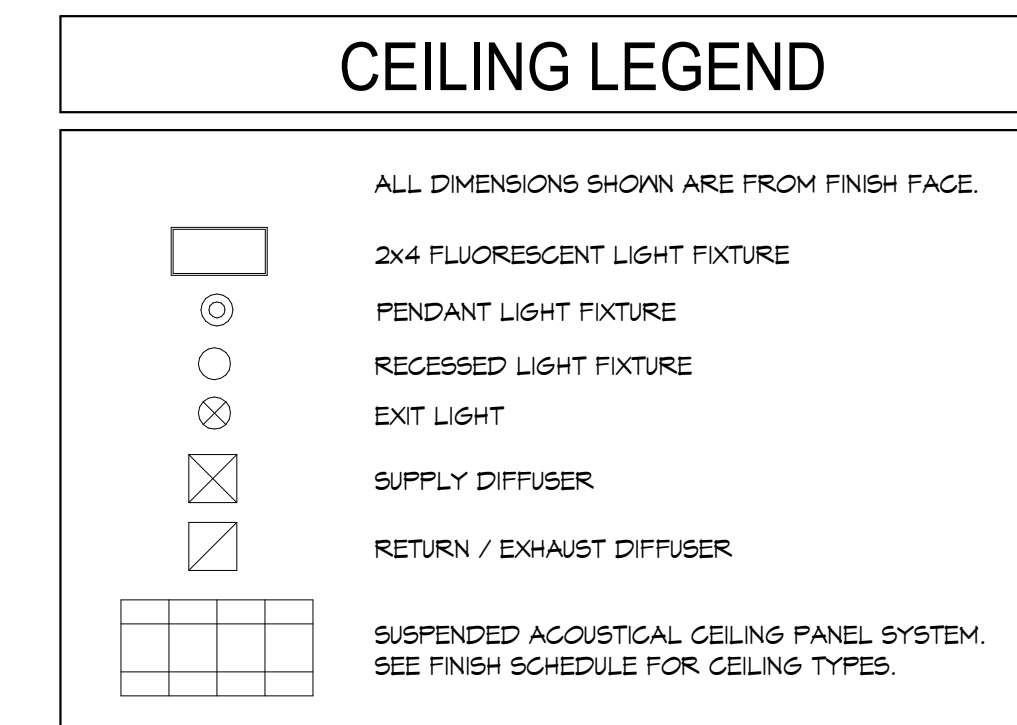
**Enlarged Floor Plans & Toilet Accessory Schedule**

date: March 2, 2022  
project: 473003  
coordinator: JMO  
drawn: LNG  
checked: CDH

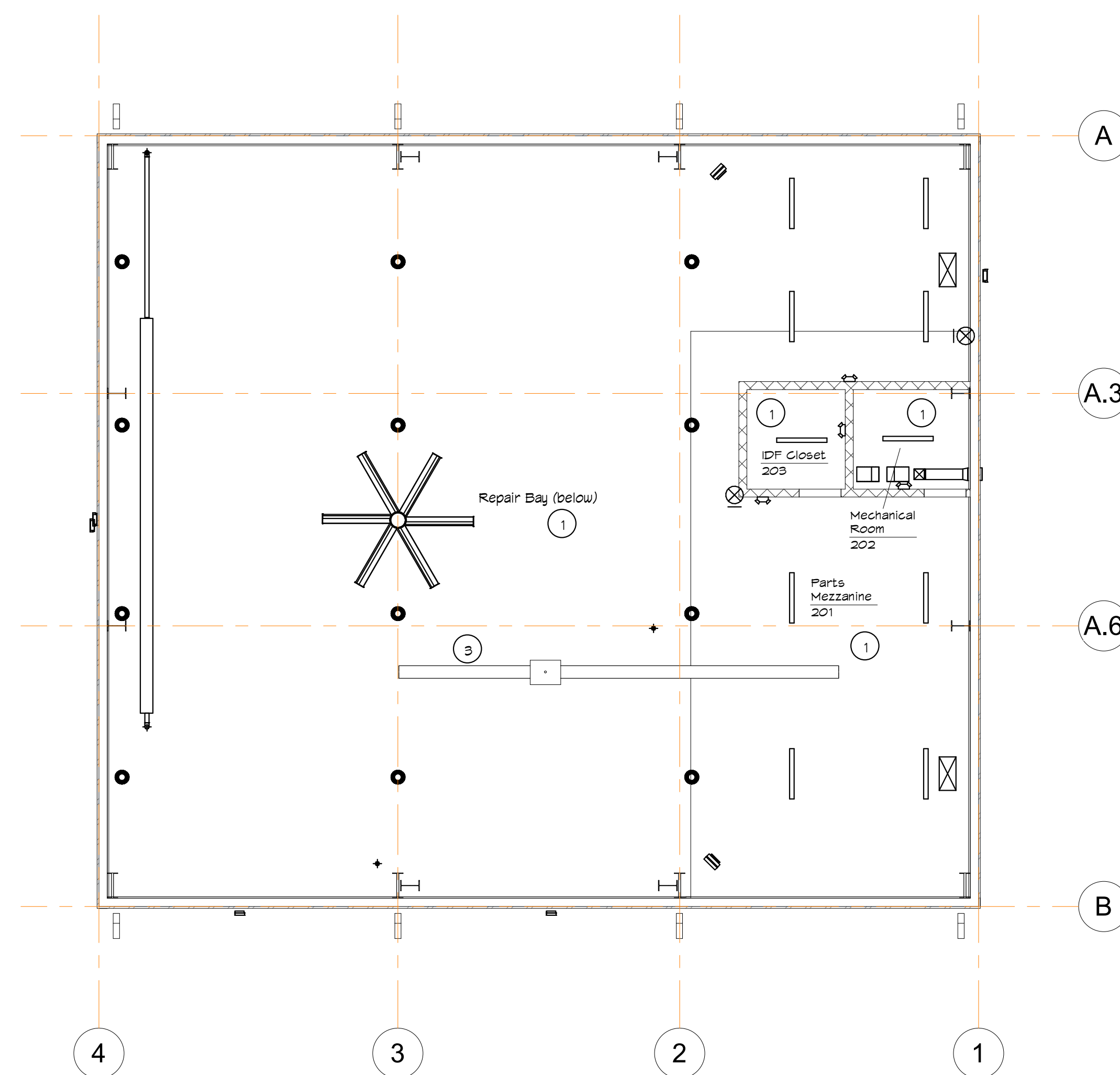
**A2.20**



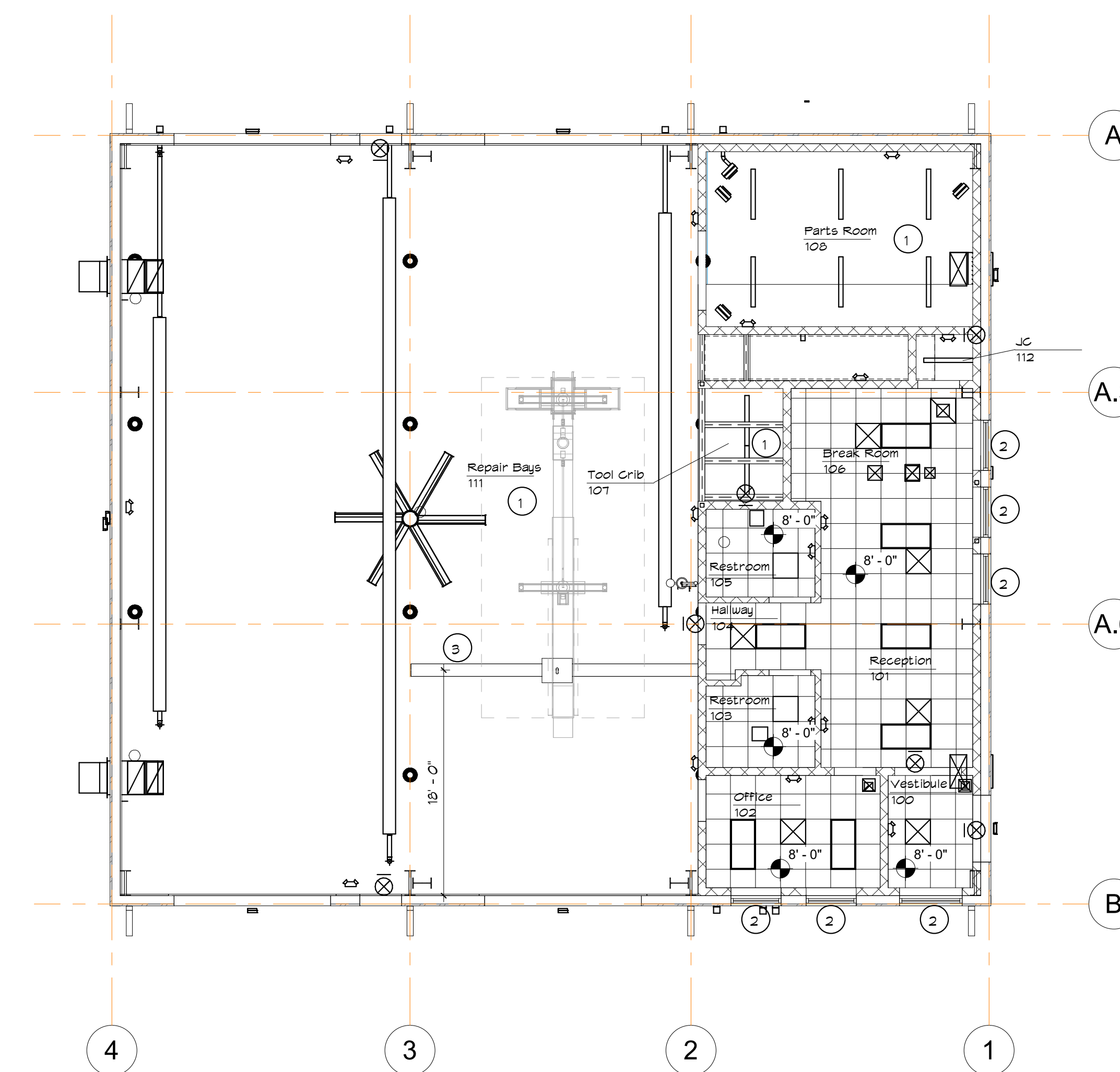
- ### Specific Ceiling Plan Notes
- 1 NO CEILING IN THIS AREA. SEE FINISH SCHEDULE FOR AREAS TO BE PAINTED.
  - 2 STEEL LINTEL ASSEMBLY AND CMU BULKHEAD. STEEL LINTEL SHALL BE SHOP PRIMED AND FIELD PAINTED. SEE STRUCTURAL DWGS. FOR LINTEL BEARING.
  - 3 MONORAIL CRANE SYSTEM. SEE SPECS FOR MORE INFO.



**3 Roof Plan**  
1/8" = 1'-0"



**2 Mezzanine Ceiling Plan**  
1/8" = 1'-0"



**1 First Floor Ceiling Plan**  
1/8" = 1'-0"

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

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mark	date	description

**First Floor Reflected Ceiling Plan & Roof Plan**

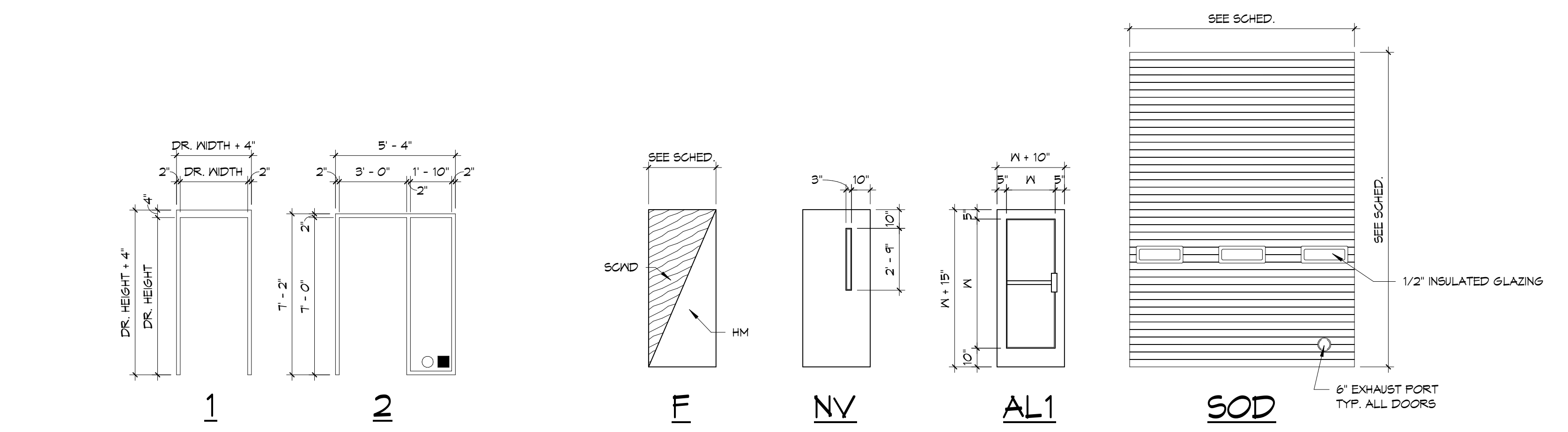
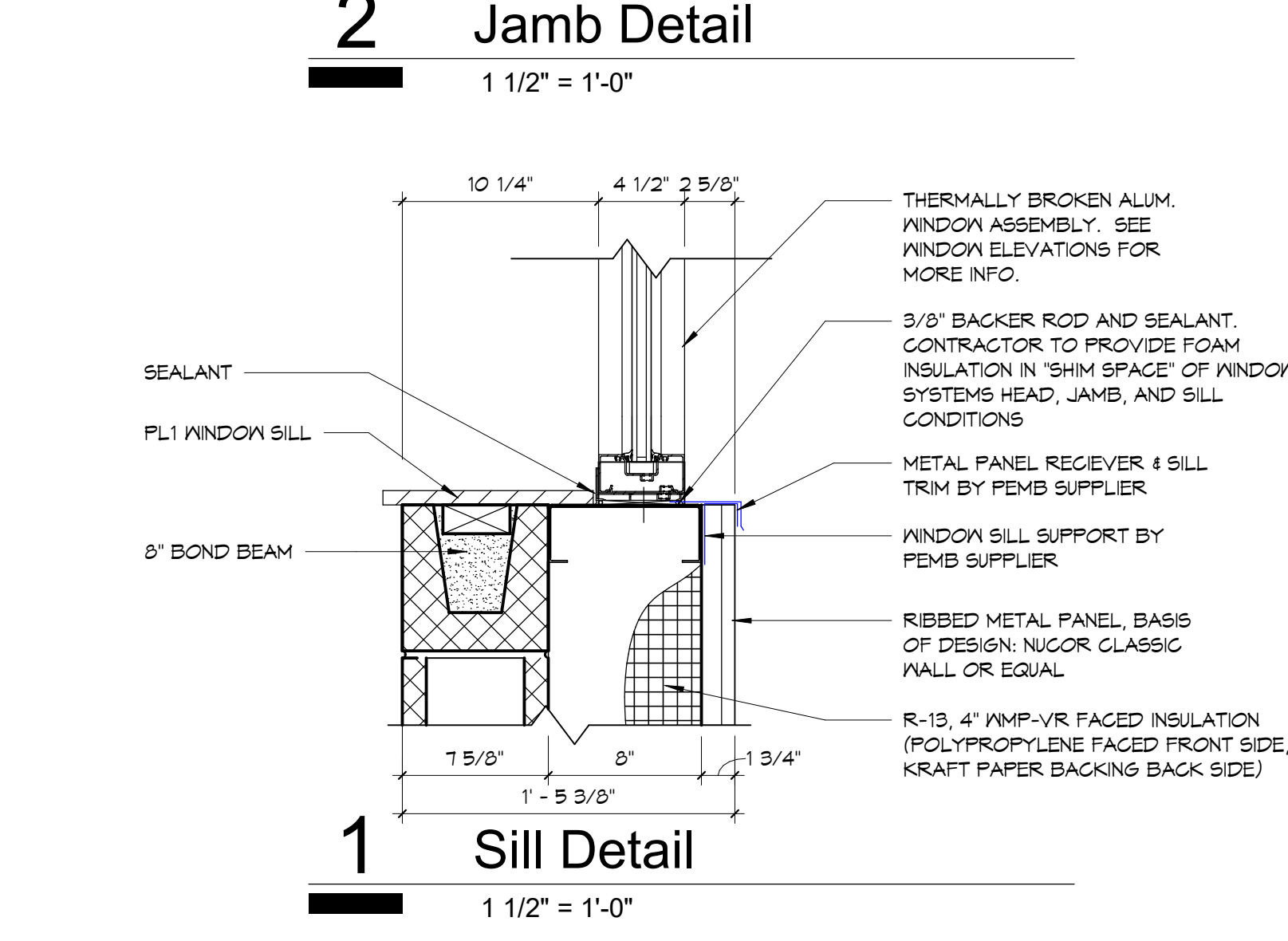
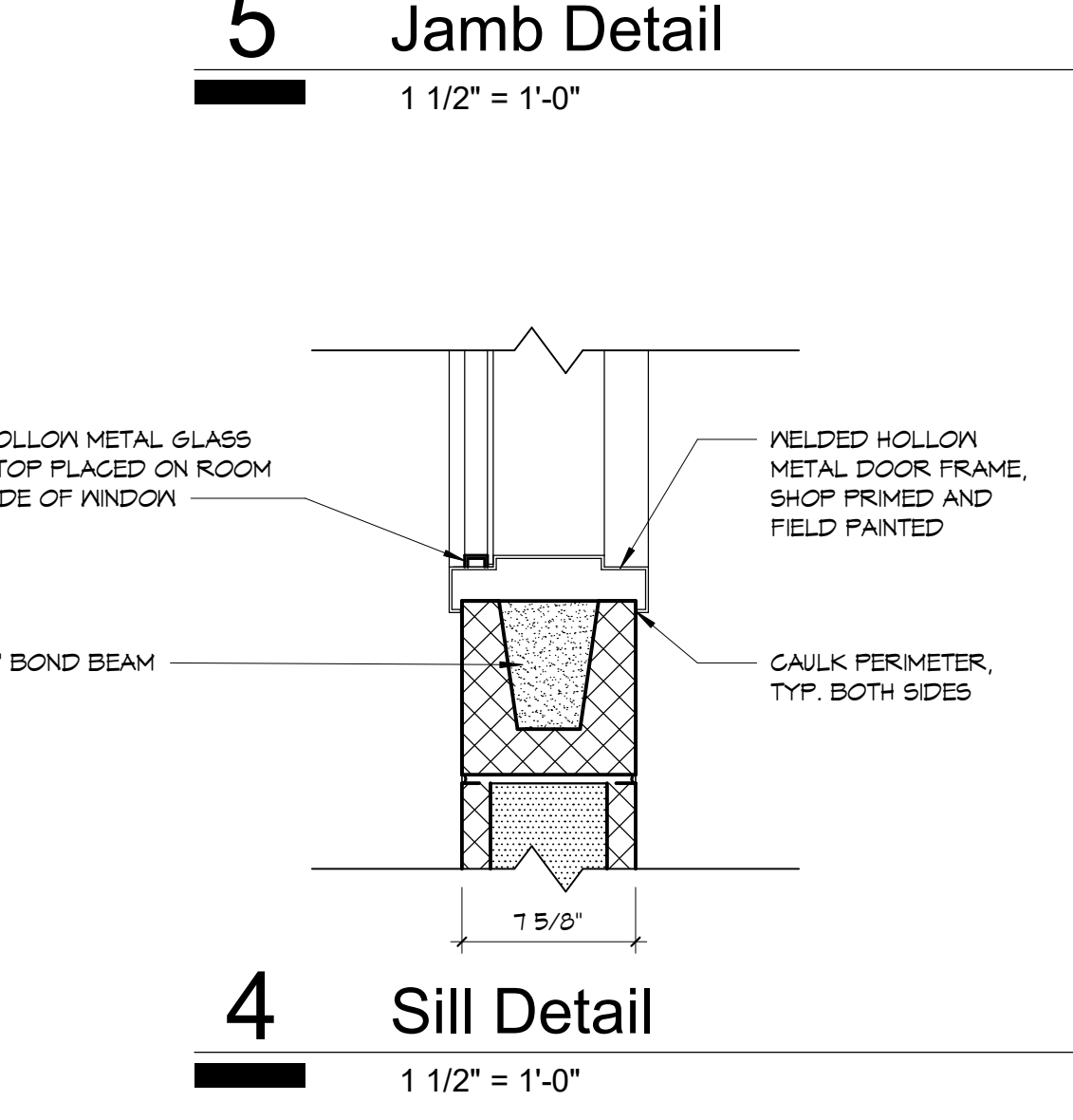
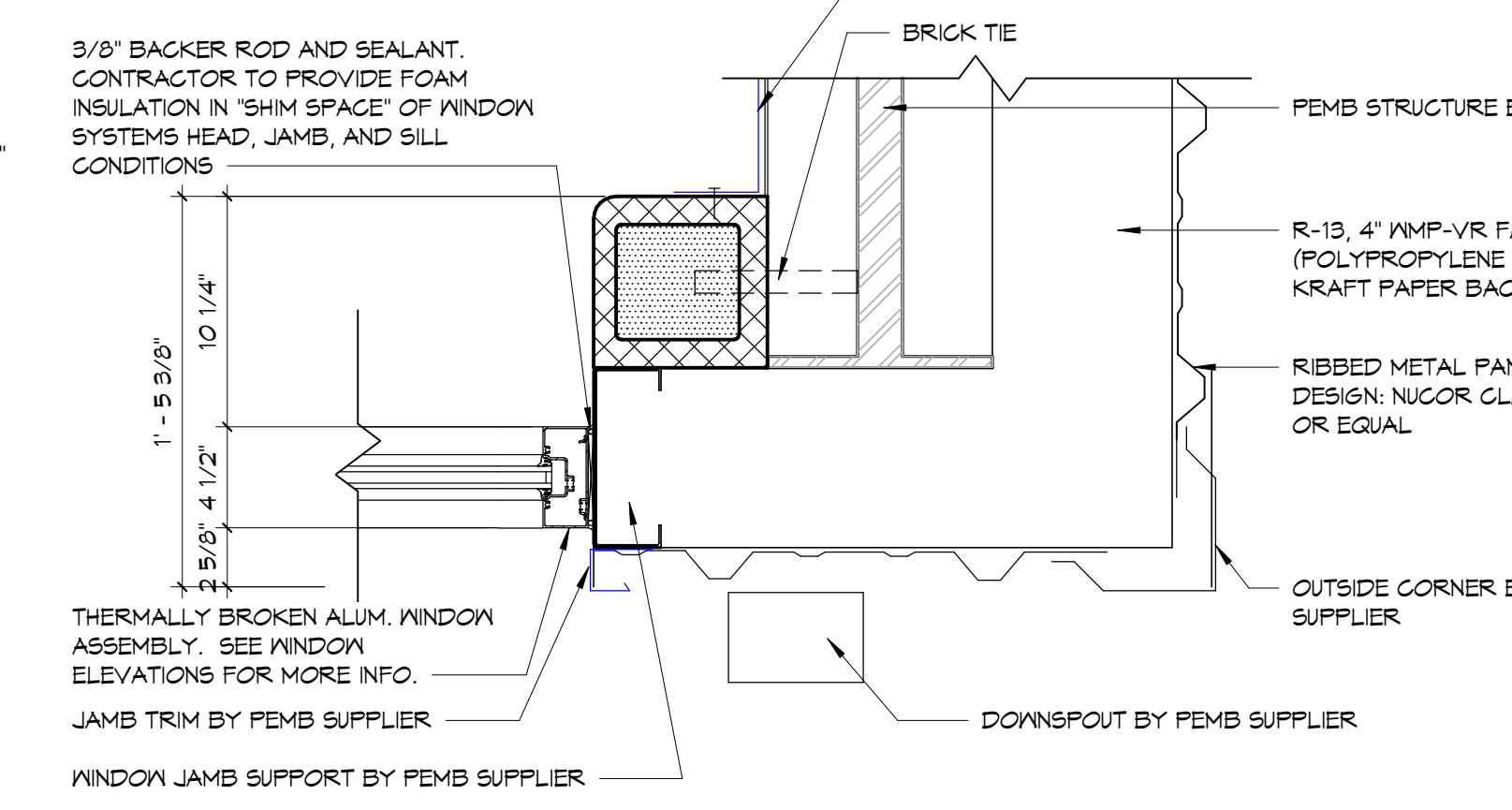
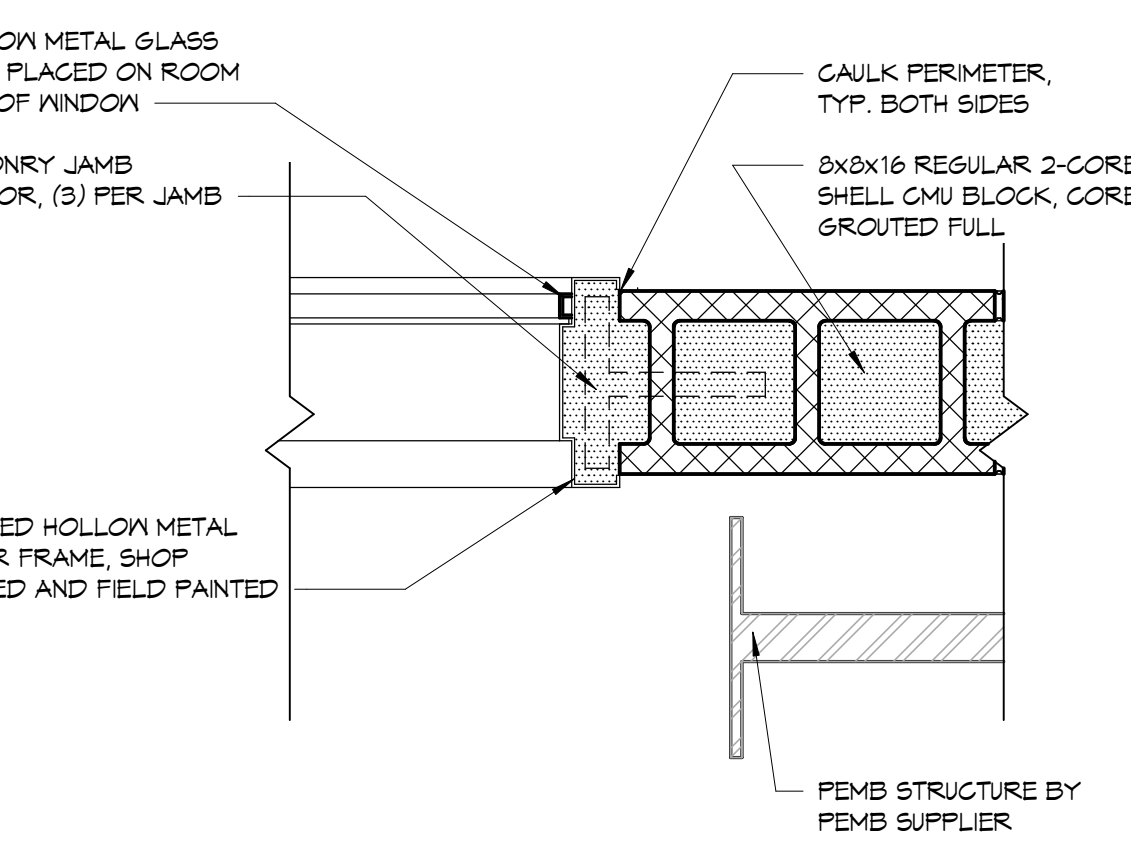
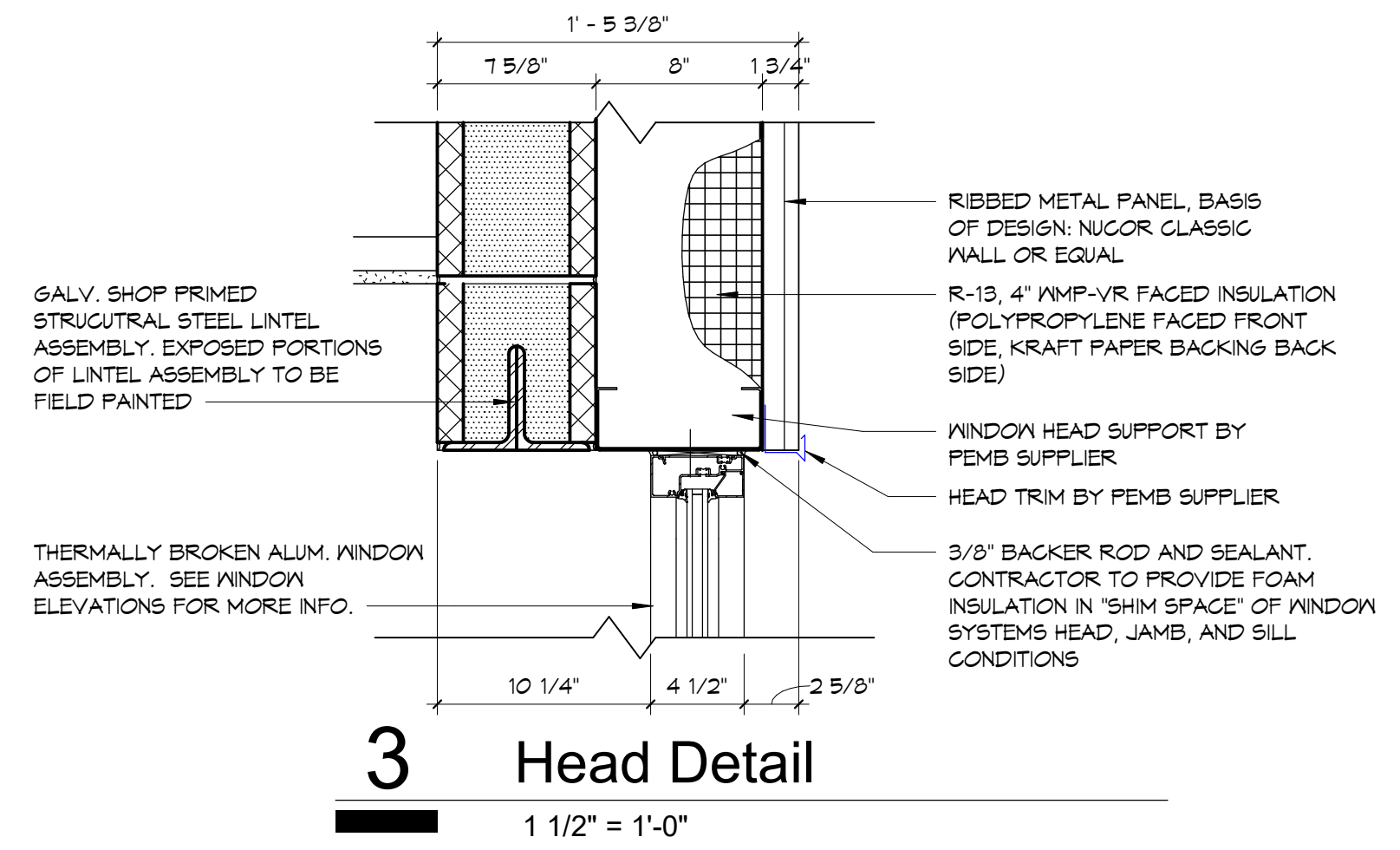
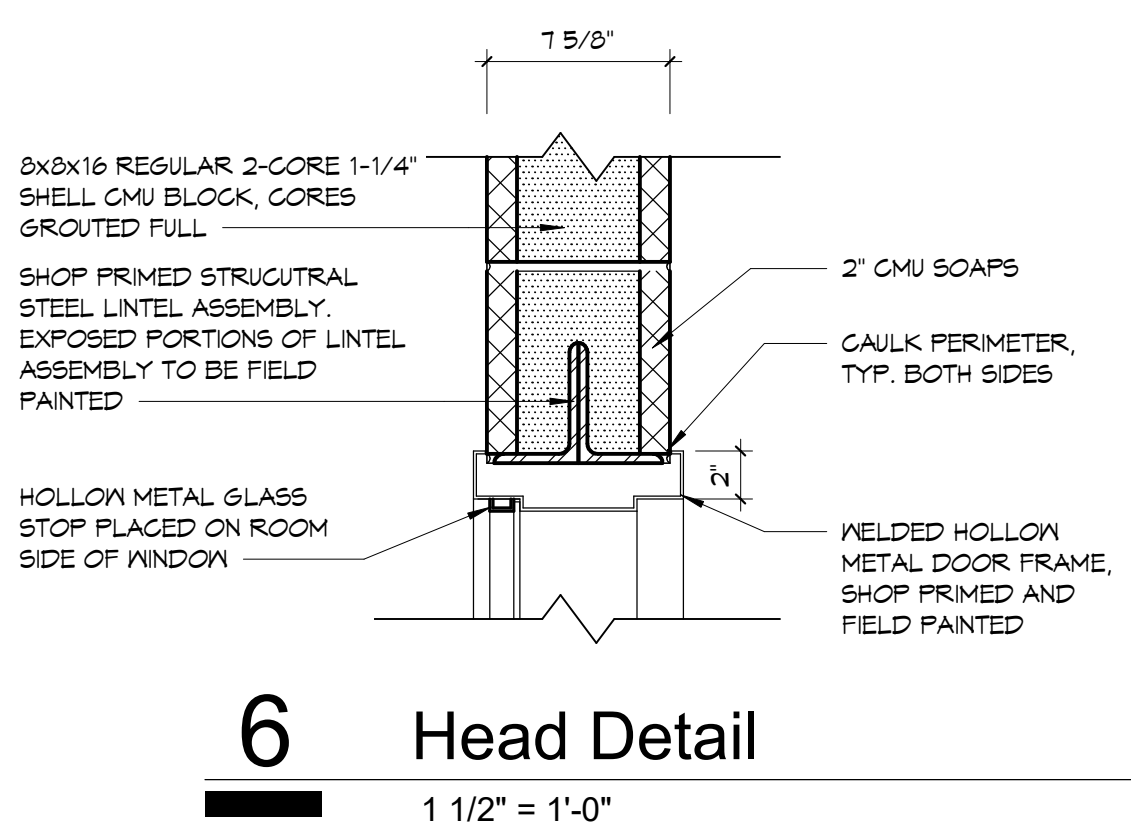
date: March 2, 2022  
 project: 473003  
 coordinator: JMO  
 drawn: LNG  
 checked: CDH

**A3.1**

DOOR NUMBER	DOOR SLAB					DOOR FRAME					GLAZING	RATING	HARDWARE SET	ELECTRICAL REQ'D	REMARKS
	WIDTH	HEIGHT	THICKNESS	ELEVATION	MATERIAL	ELEVATION	MATERIAL	HEAD	JAMB	SILL					
100	3'-0"	7'-0"	2 1/4"	AL1	ALUM	2	ALUM	3/A4.10	2/A4.10	1/A4.10	4 1/2"	1" INSUL	0		
101	3'-0"	7'-0"	1 3/4"	AL1	ALUM	2	ALUM	3/A4.10	4/A4.10		4 1/2"	1/4" TEMP	0		
102a	3'-0"	7'-0"	1 3/4"	NV	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	1/4" TEMP	0		
102b	3'-0"	7'-0"	1 3/4"	NV	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	1/4" TEMP	0		
103	3'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		6 3/4"	-	0		
104	3'-0"	7'-0"	1 3/4"	NV	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	1/4" TEMP	0		
105	3'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		6 3/4"	-	0		
109	6'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	-	0		DOUBLE DOOR.
111a	12'-6"	14'-0"	2"	SOD	ISTL	0	STL	3/A4.10	7/A4.10	6/A4.10	2"	1/2" INSUL	0		
111b	3'-0"	7'-0"	1 3/4"	F	HMI6	1	HMI6	12/A4.10	11/A4.10	6/A4.10	8 3/4"	-	0		
111c	12'-6"	14'-0"	2"	SOD	ISTL	0	STL	3/A4.10	7/A4.10	6/A4.10	2"	1/2" INSUL	0		
111d	12'-6"	14'-0"	2"	SOD	ISTL	0	STL	3/A4.10	7/A4.10	6/A4.10	2"	1/2" INSUL	0		
111e	3'-0"	7'-0"	1 3/4"	F	HMI6	1	HMI6	12/A4.10	11/A4.10	6/A4.10	8 3/4"	-	0		
111f	12'-6"	14'-0"	2"	SOD	ISTL	0	STL	3/A4.10	7/A4.10	6/A4.10	2"	1/2" INSUL	0		
112	3'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	-	0		
202	3'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	-	0		
203	3'-0"	7'-0"	1 3/4"	F	HM	1	HM	10/A4.10	9/A4.10		8 3/4"	-	0		



**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**Glazing Legend**

- 1/4" CLEAR TEMPERED SAFETY GLASS
- 1" LOW-E INSULATED GLAZING CONSISTING OF 1/4" TINTED, TEMPERED OUTSIDE LITE AND 1/4" CLEAR, TEMPERED INSIDE LITE w/ SOFT-COAT, LOW-E FILM AND 1/2" AIR SPACE

NOTE: BORROWED LIGHT / INTERIOR WINDOW SYSTEM TO HAVE GLASS STOPS INSTALLED ON OPPOSITE SIDE OF CORRIDOR.

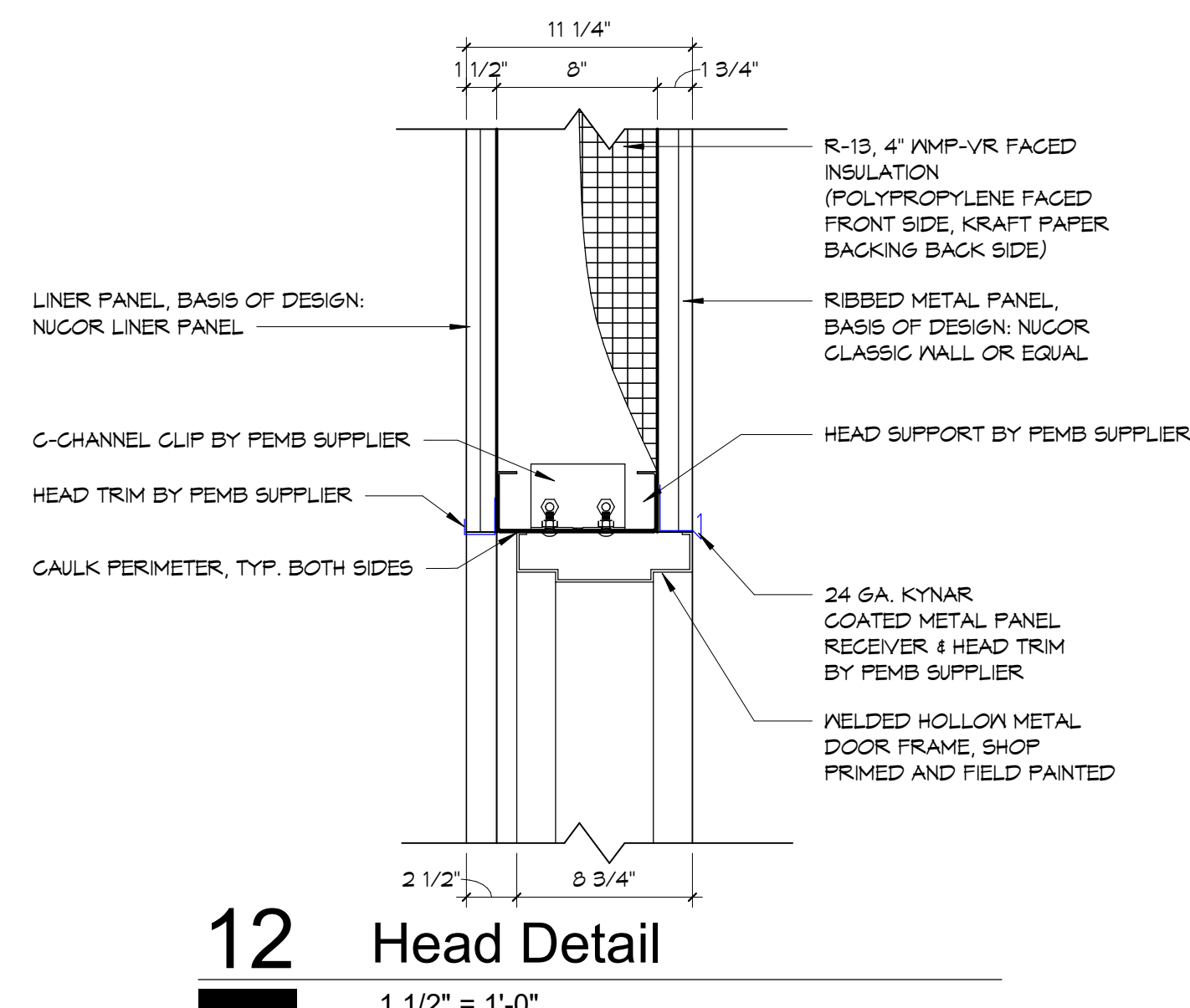


A PROJECT FOR:

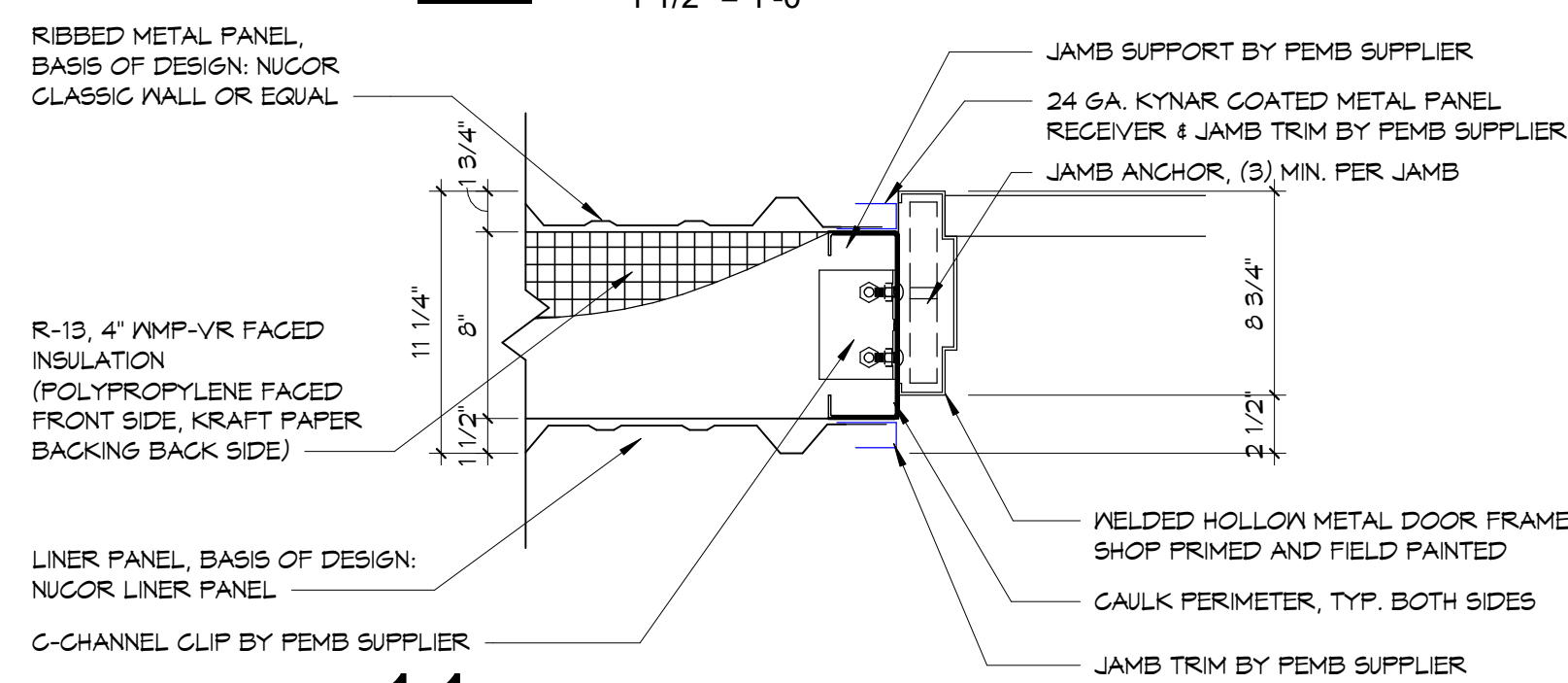
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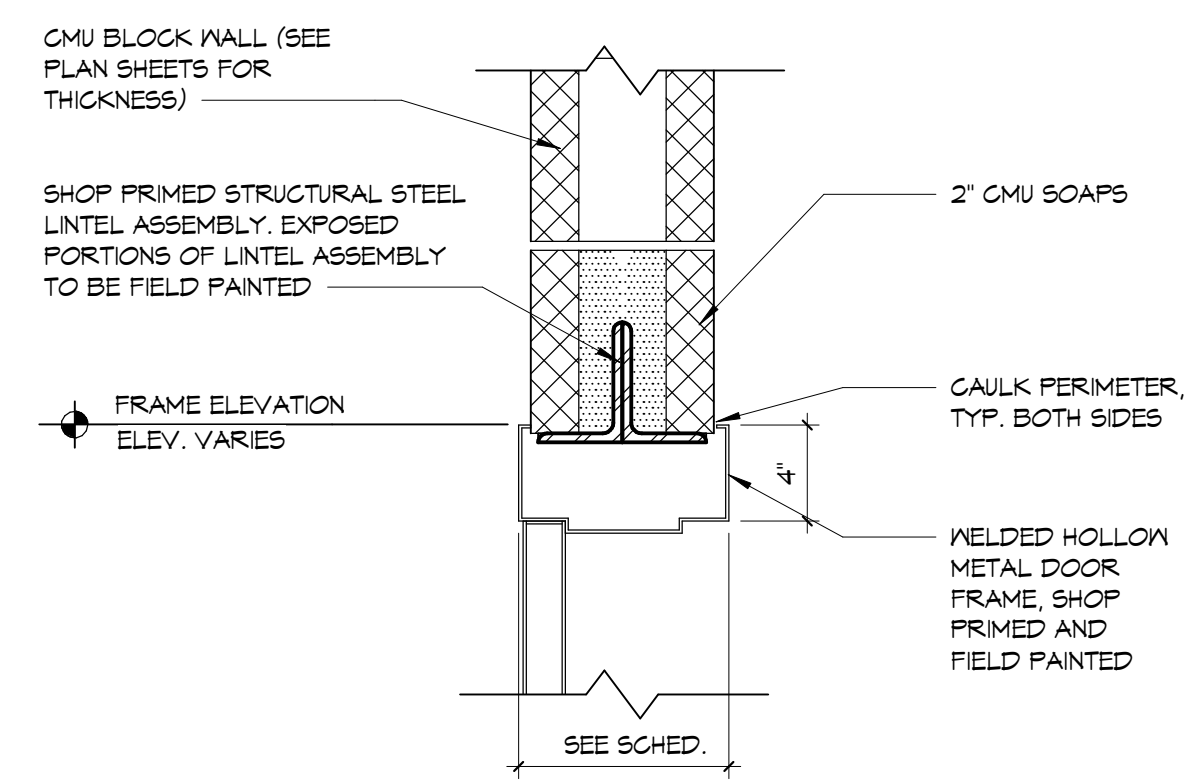
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
 TRANSPORTATION BUILDING**



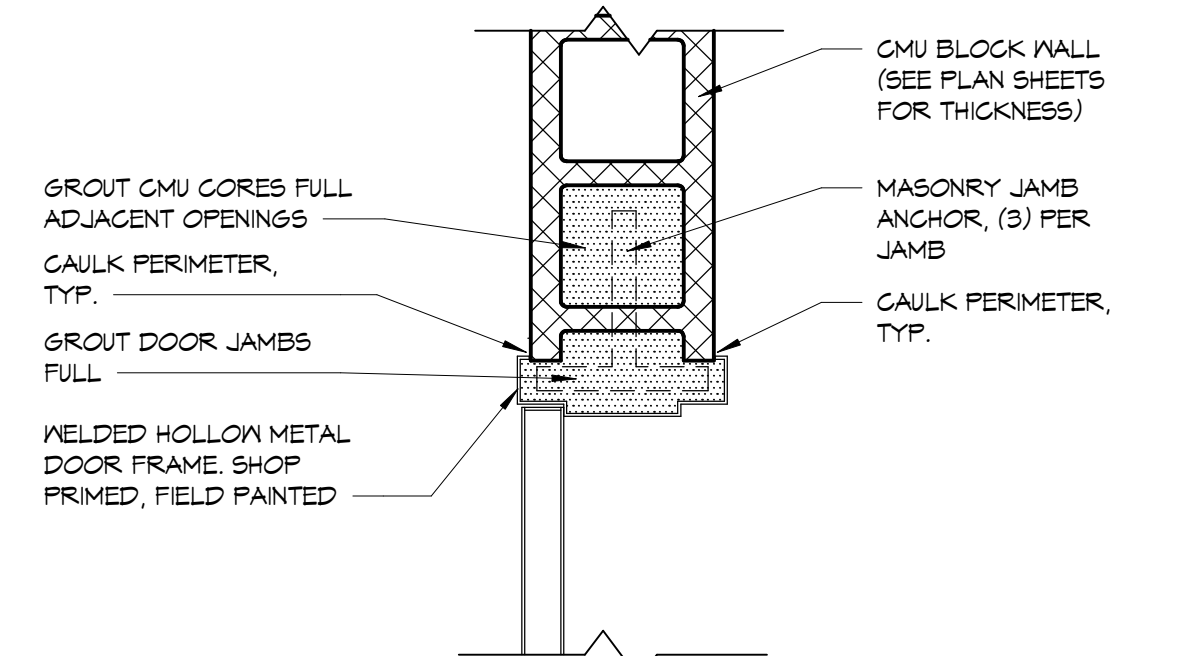
**12 Head Detail**  
 1 1/2" = 1'-0"



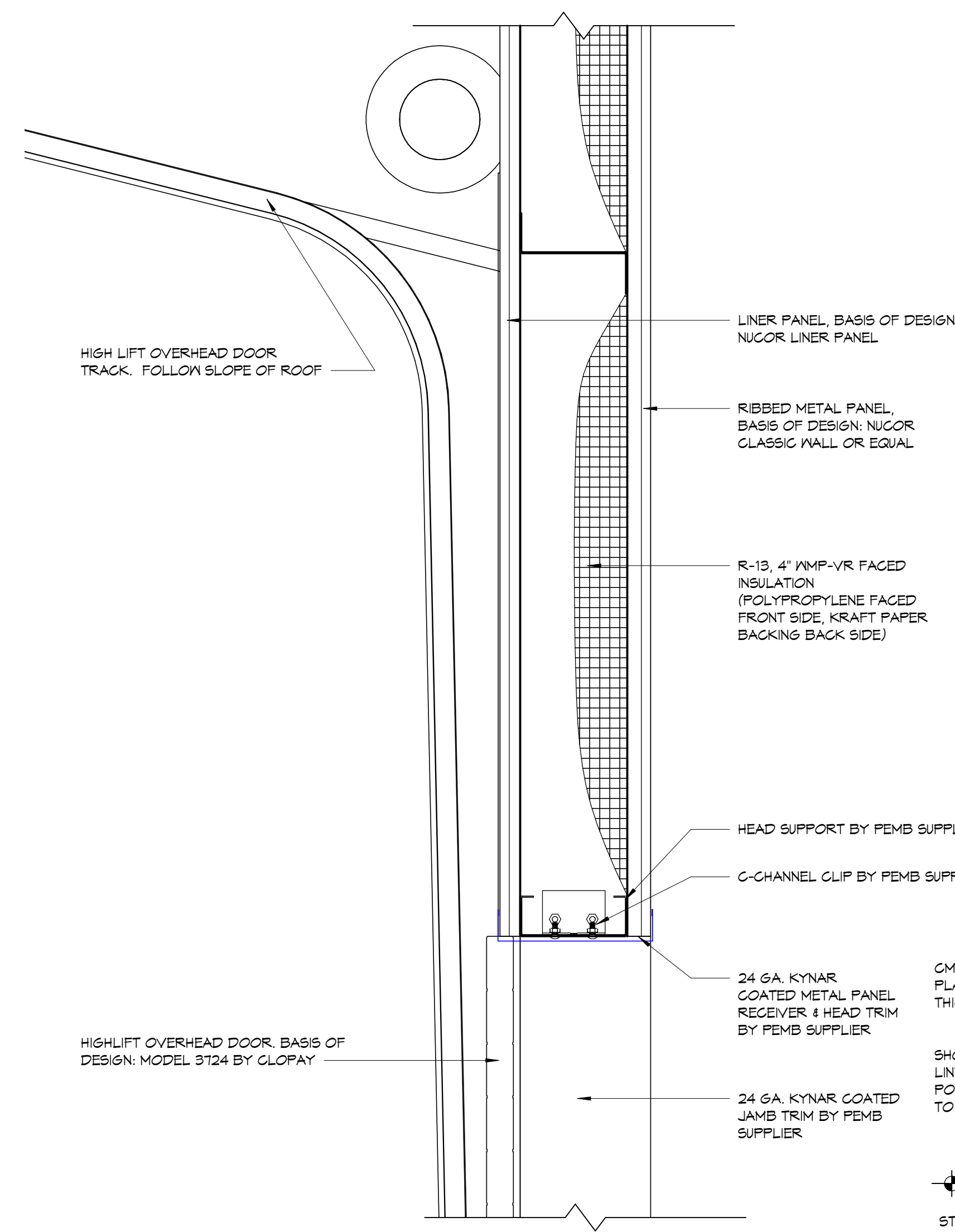
**11 Jamb Detail**  
 1 1/2" = 1'-0"



**10 Typ. Head Detail**  
 1 1/2" = 1'-0"



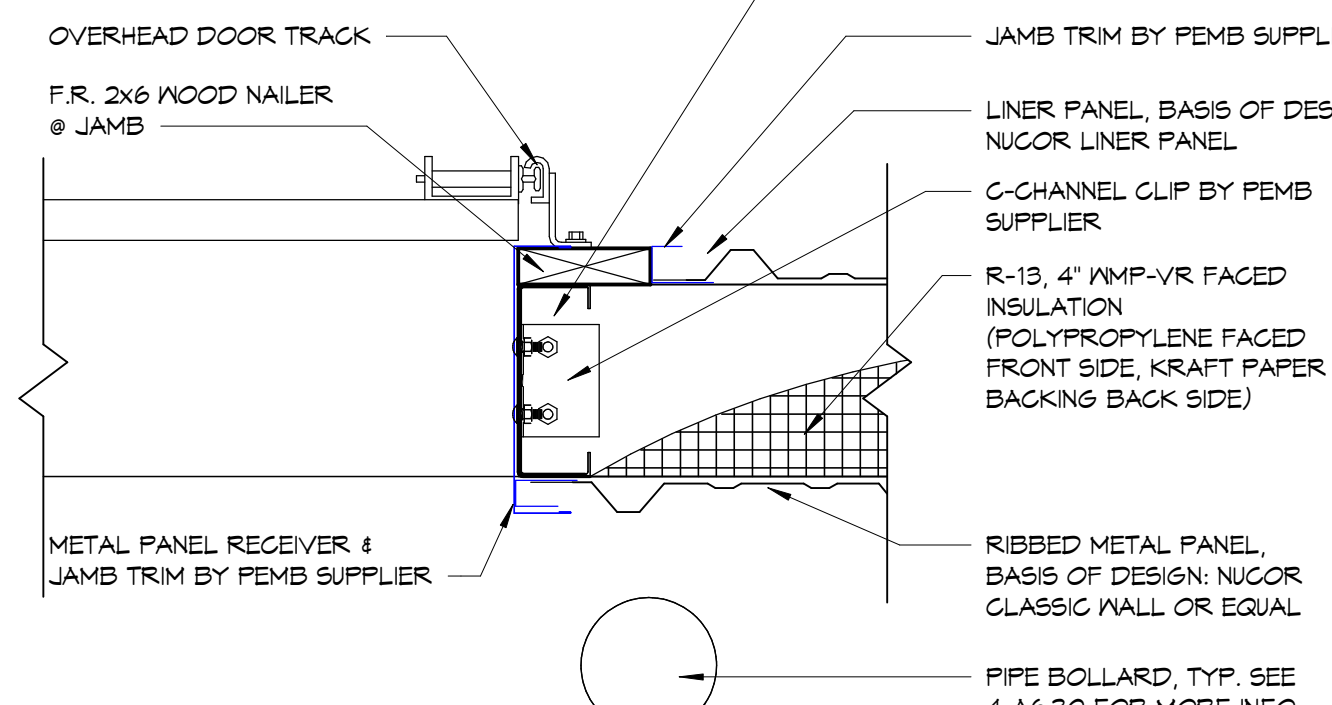
**9 Typ. Jamb Detail**  
 1 1/2" = 1'-0"



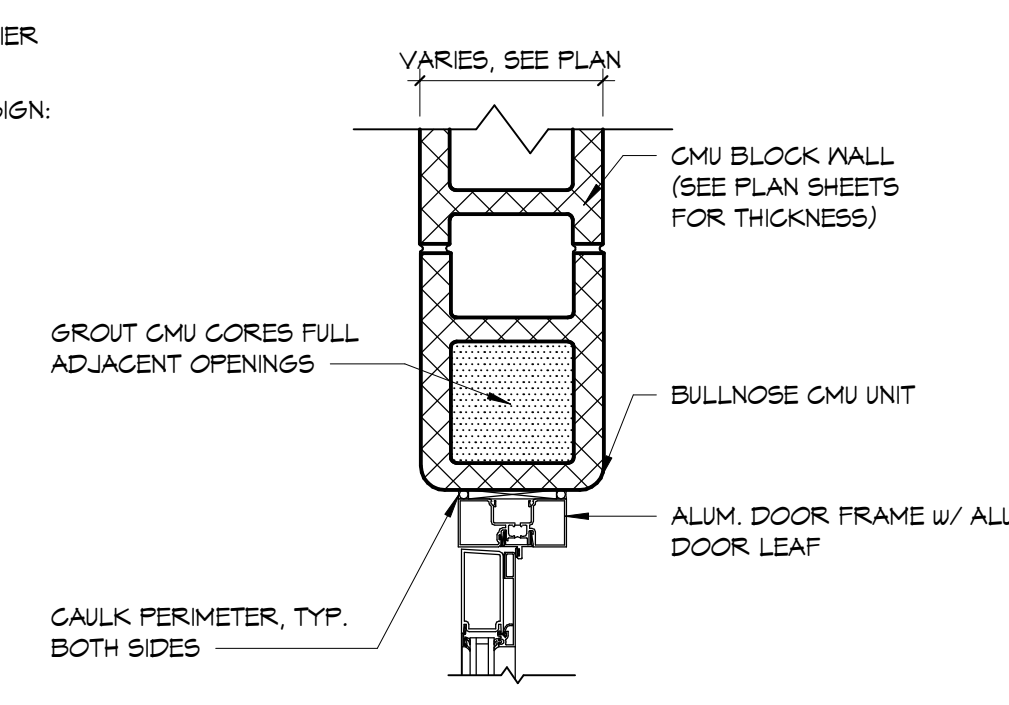
**8 Head Detail**  
 1 1/2" = 1'-0"



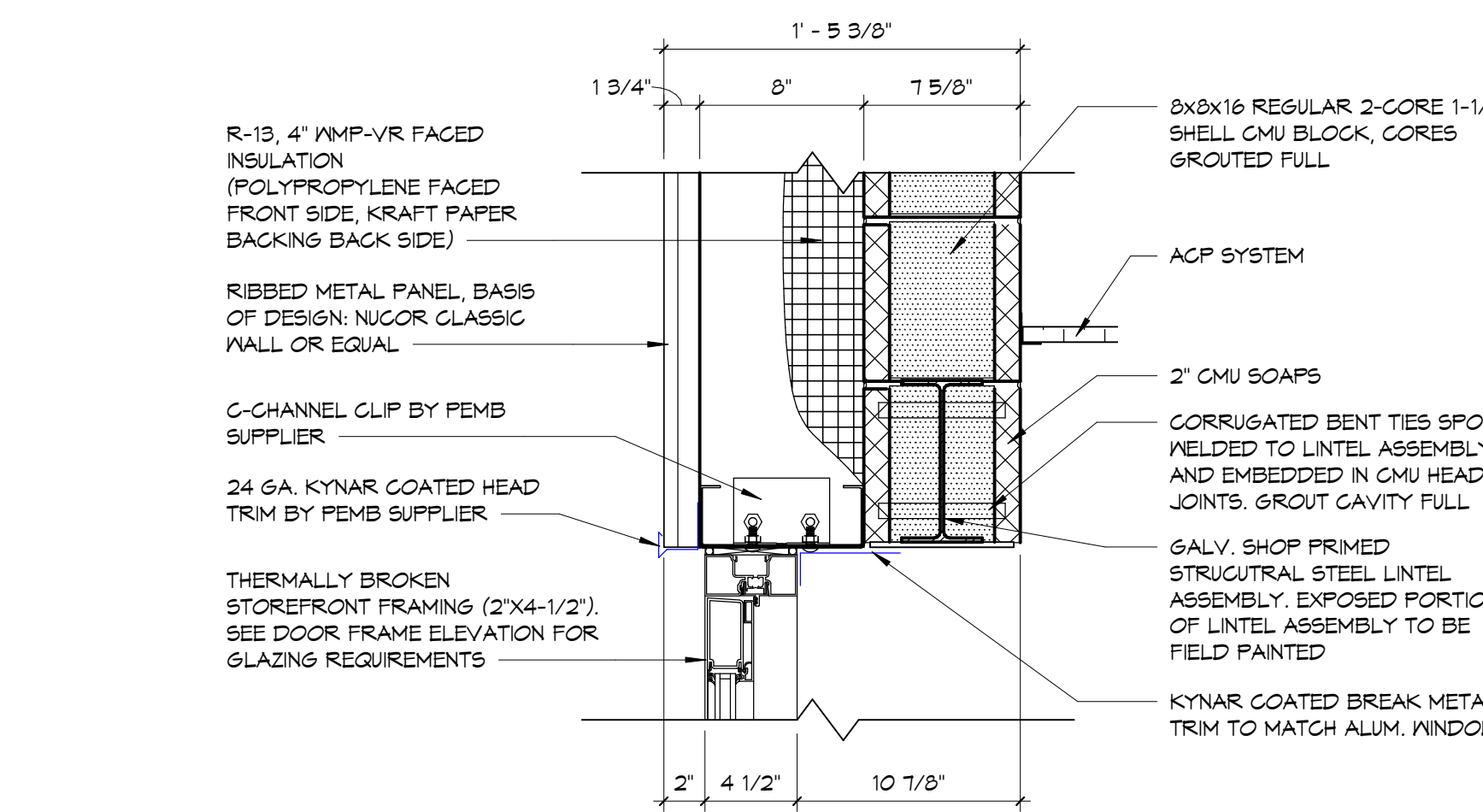
**5 Typ. Head Detail**  
 1 1/2" = 1'-0"



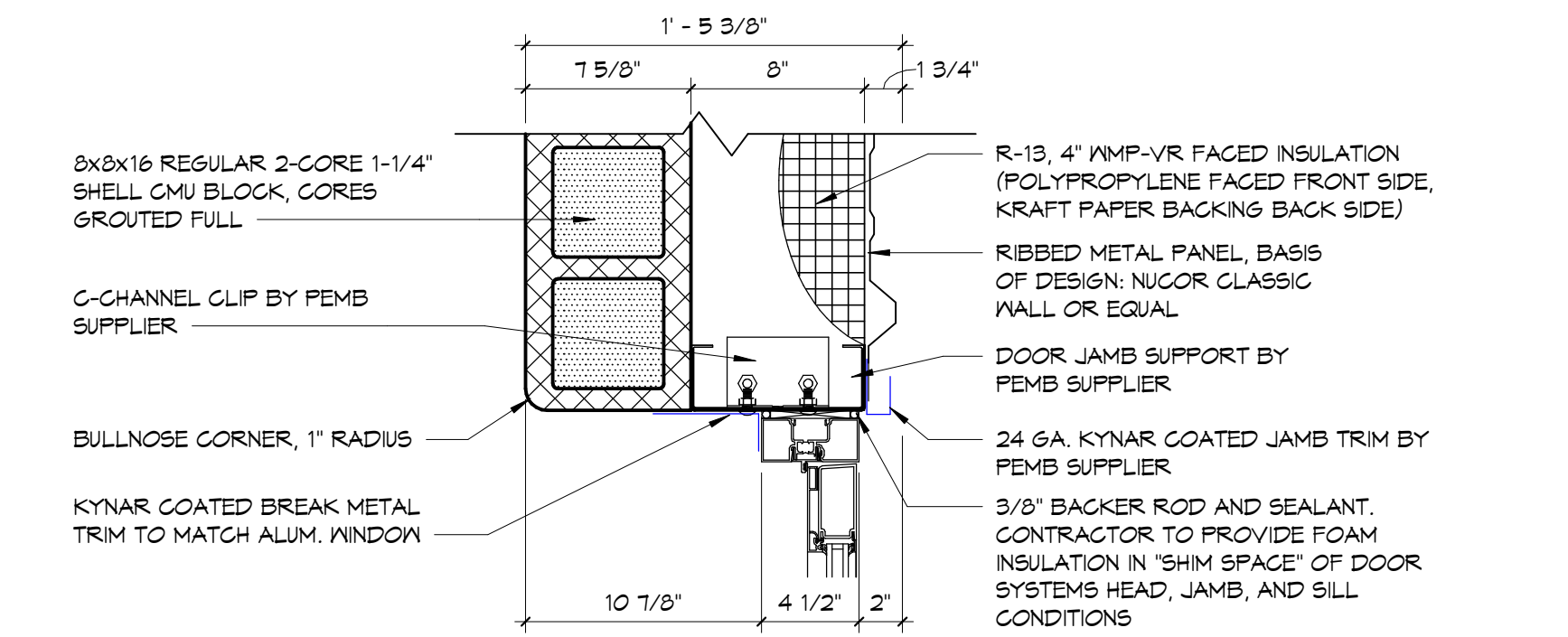
**7 Jamb Detail**  
 1 1/2" = 1'-0"



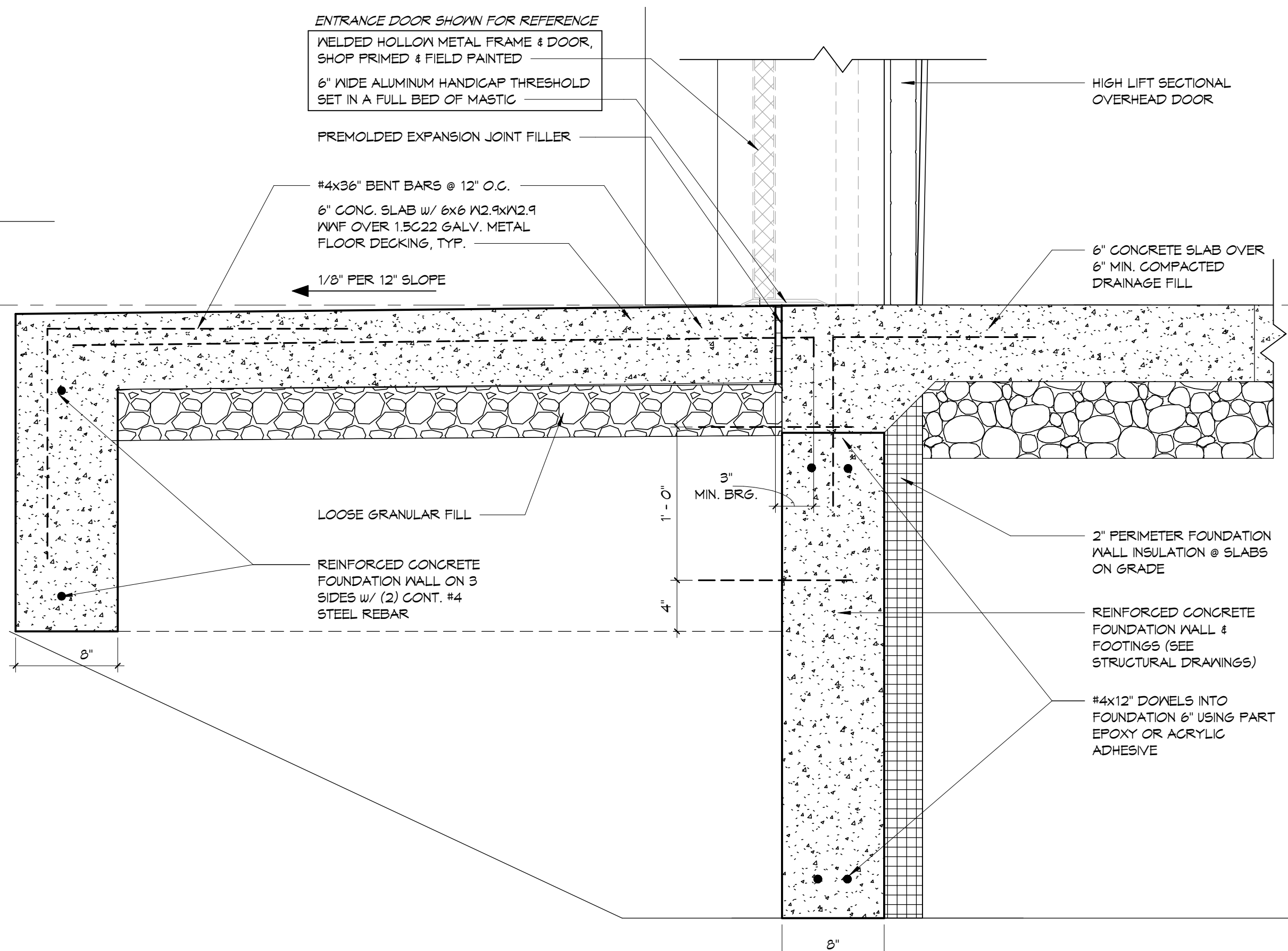
**4 Typ. Jamb Detail**  
 1 1/2" = 1'-0"



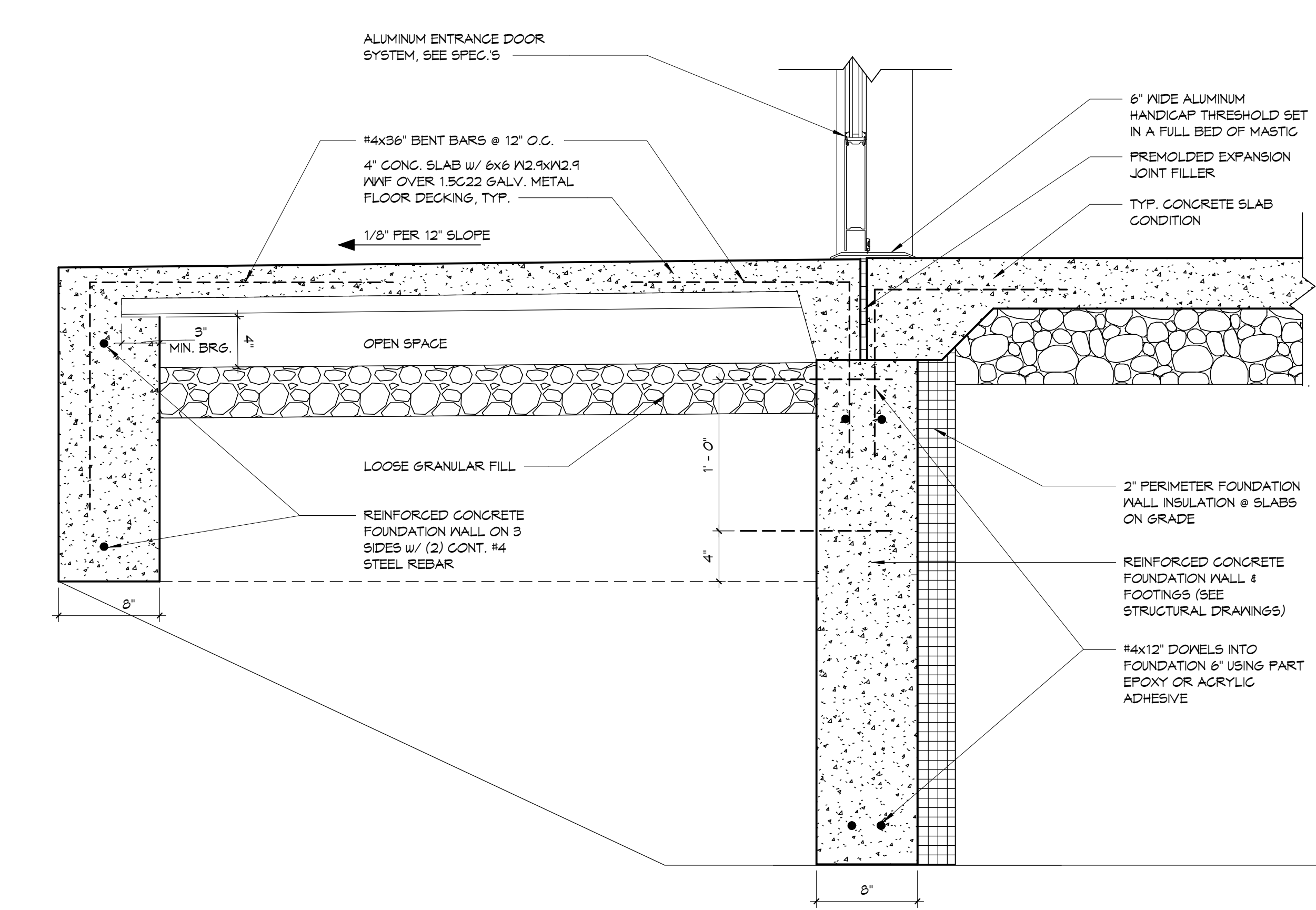
**3 Head Detail**  
 1 1/2" = 1'-0"



**2 Jamb Detail**  
 1 1/2" = 1'-0"



**6 Typ. Stoop Detail**  
 1 1/2" = 1'-0"



**1 Typ. Stoop Detail**  
 1 1/2" = 1'-0"

A PROJECT FOR:



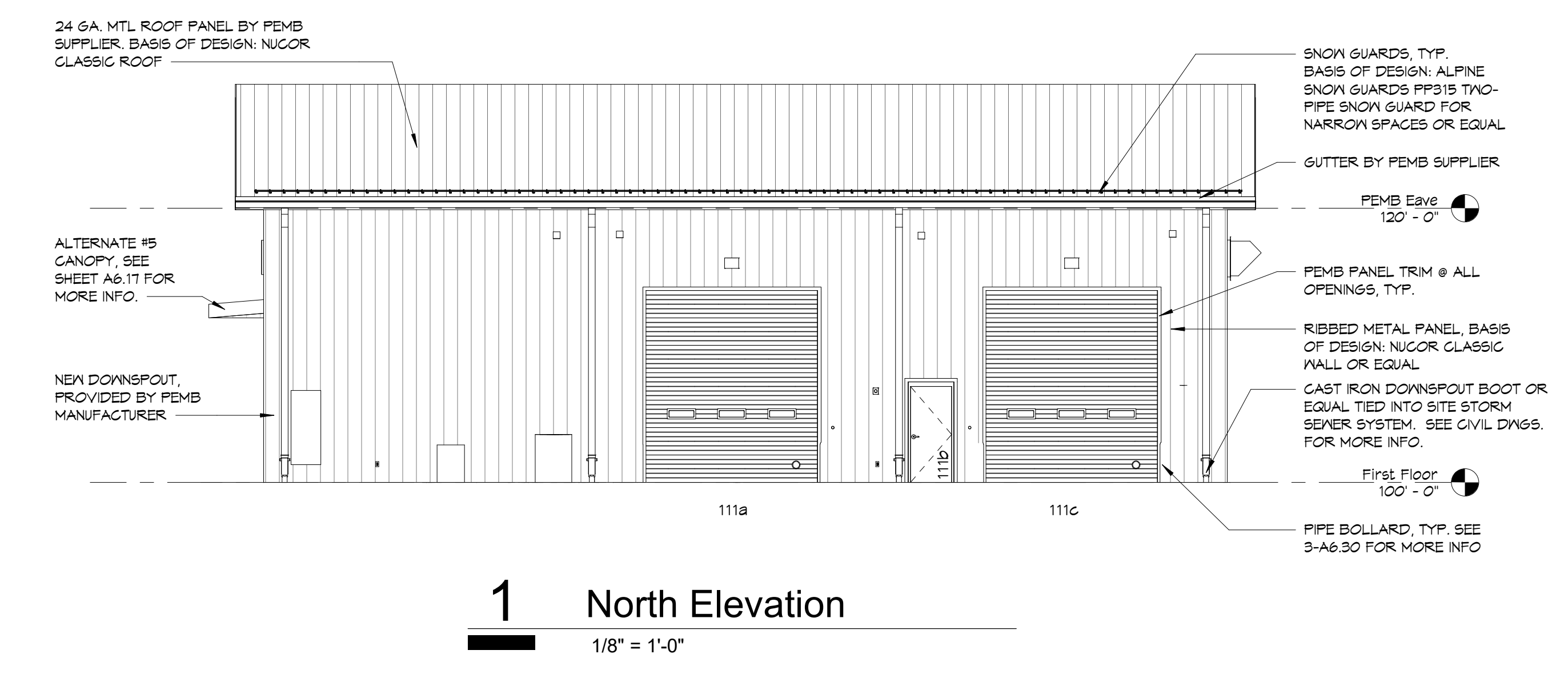
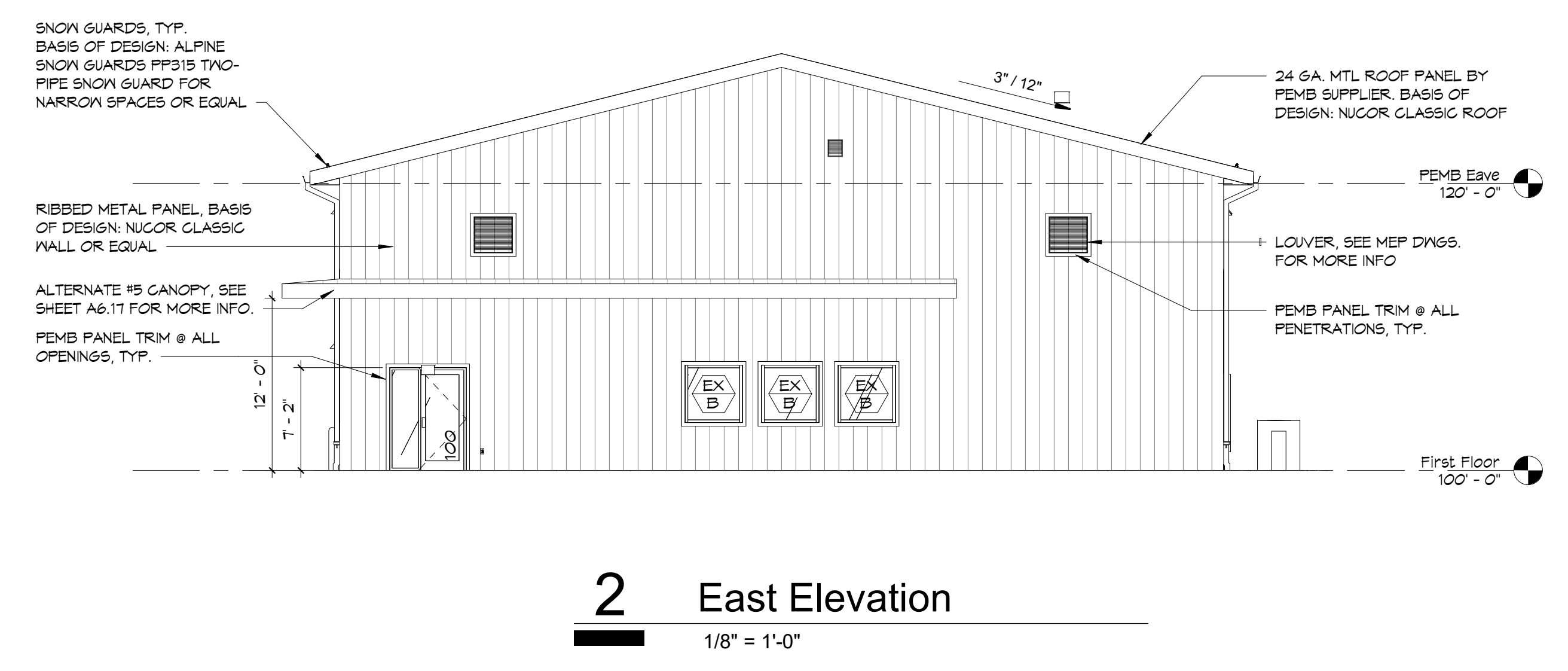
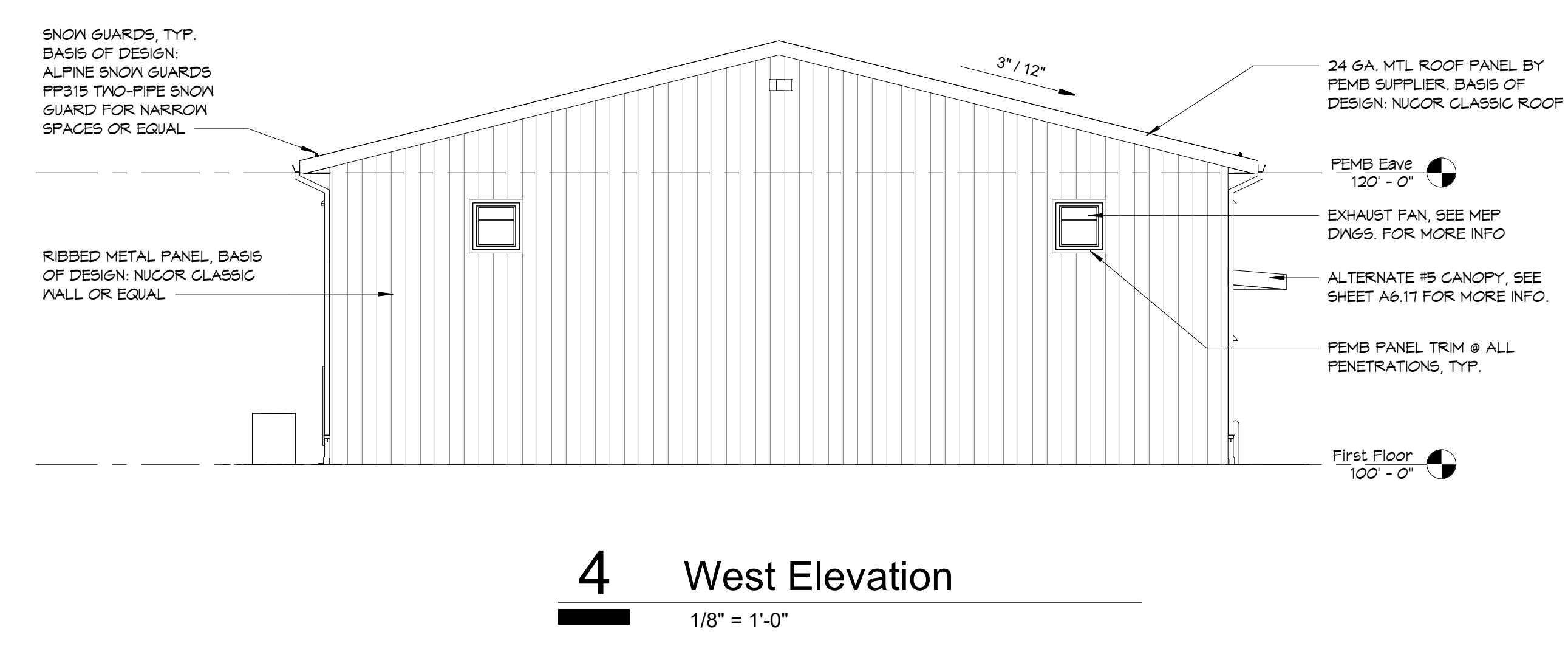
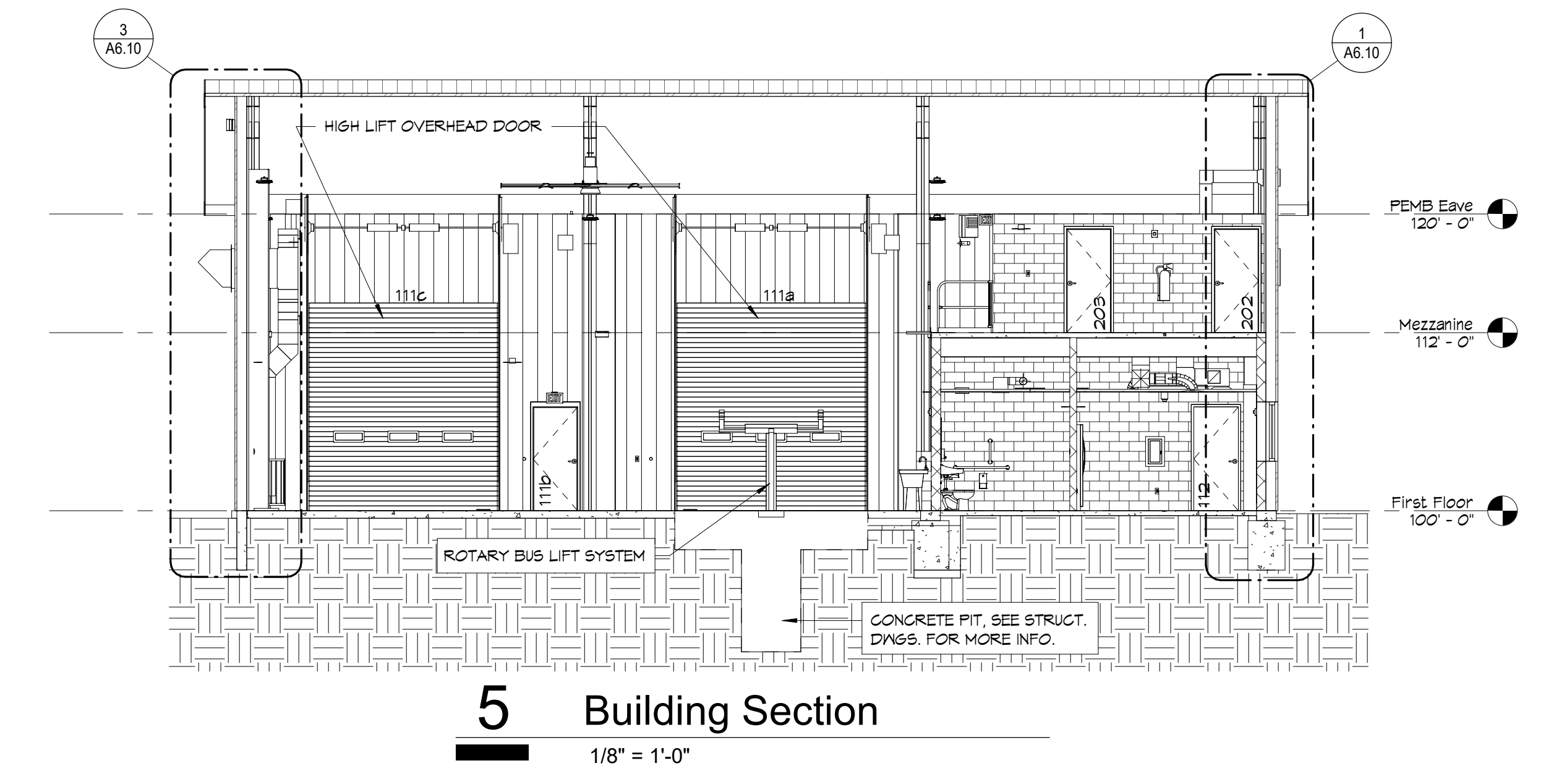
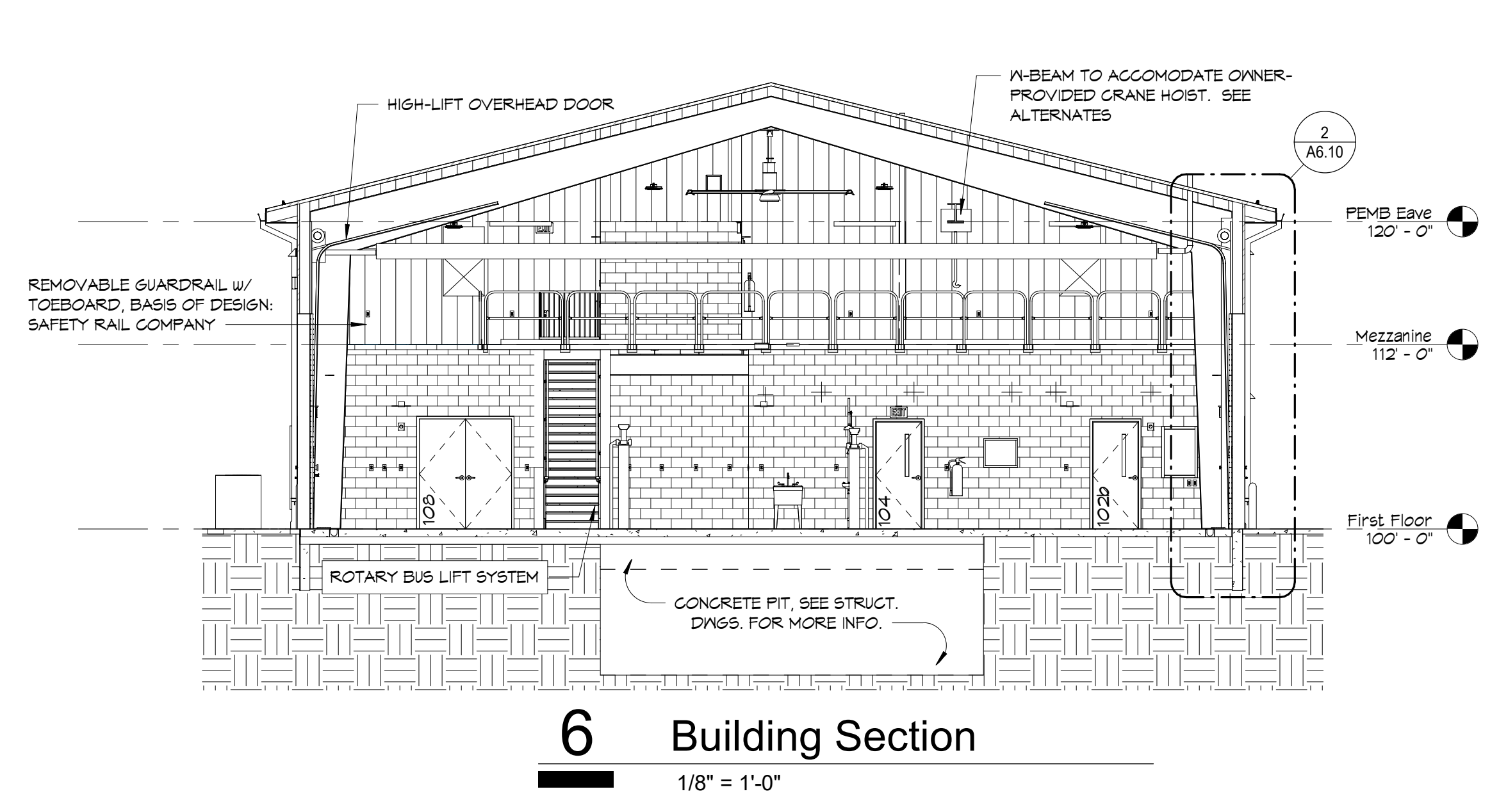
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mark	date	description

**Door Details**



**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
 TRANSPORTATION BUILDING**



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mark	date	description

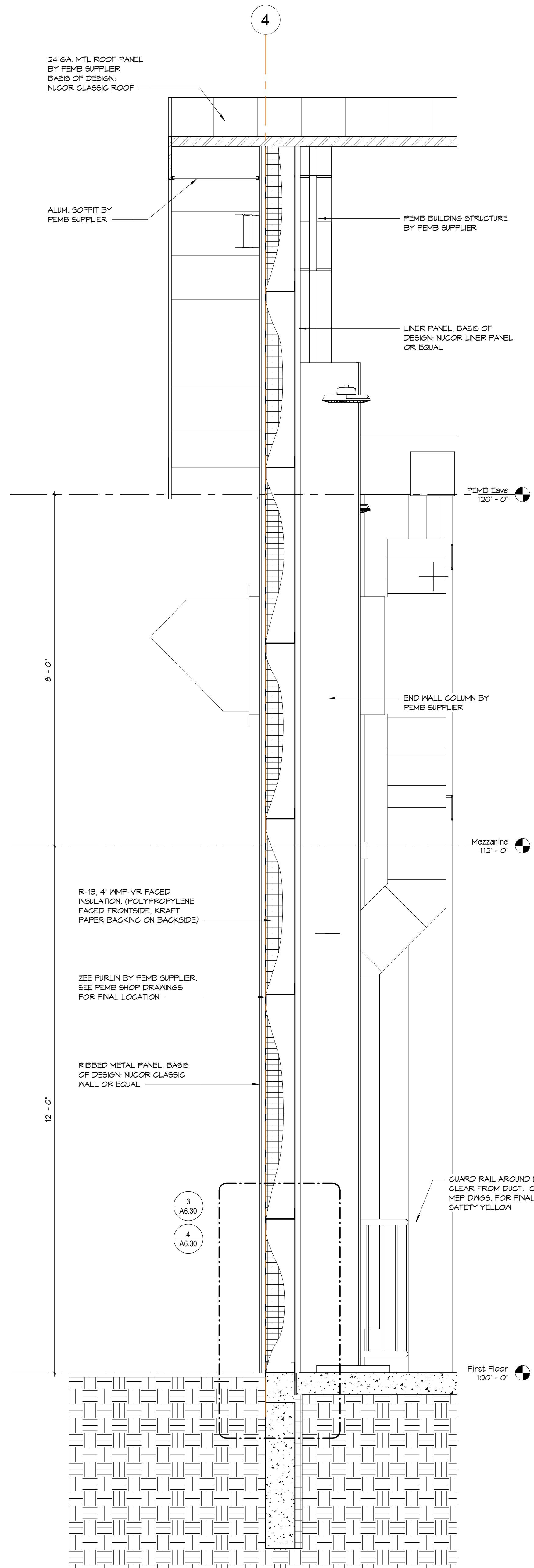
**Overall Reference Building Elevations and Sections**

date: March 2, 2022  
 project: 473003  
 coordinator: JMO  
 drawn: LNG  
 checked: CDH

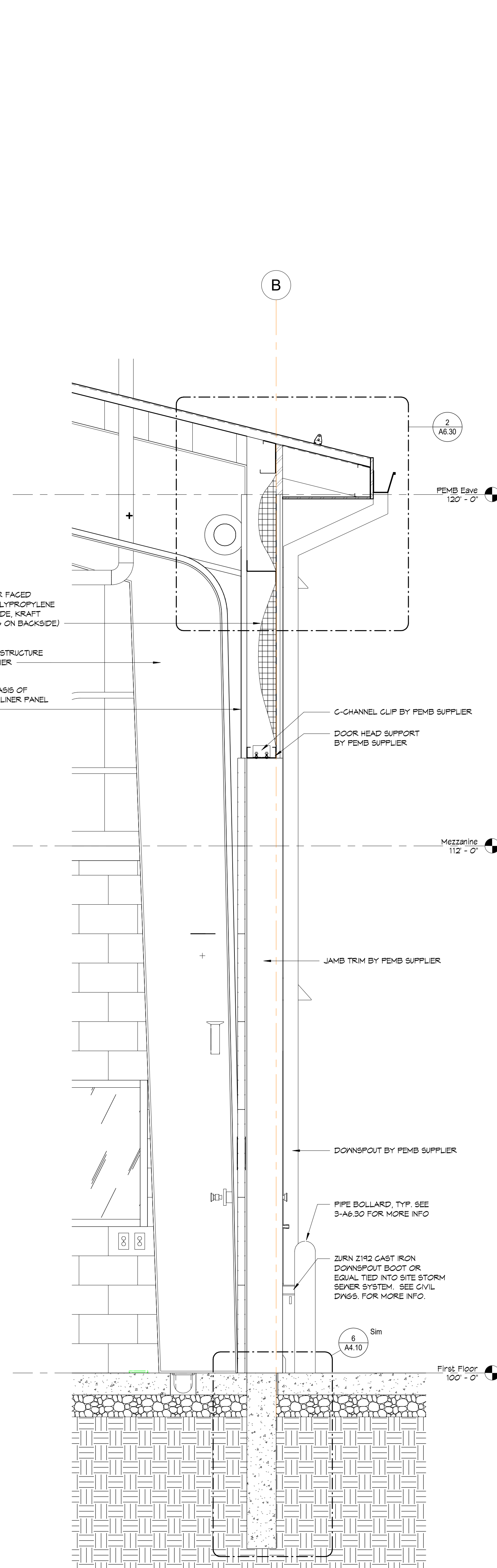
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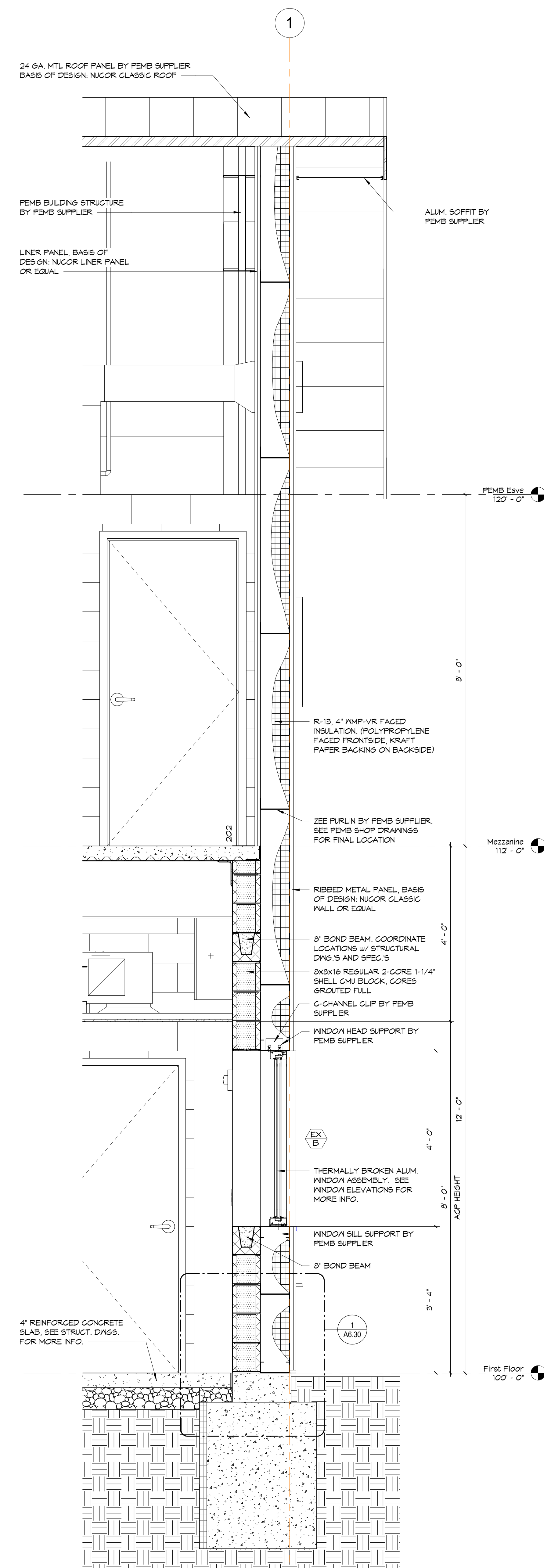
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**3** Wall Section  
3/4" = 1'-0"



**2** Wall Section  
3/4" = 1'-0"



**1** Wall Section  
3/4" = 1'-0"

A PROJECT FOR:



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mark	date	description

Typ. Wall Sections

date: March 2, 2022  
project: 473003  
coordinator: JMO  
drawn: LNG  
checked: CDH

**A6.10**

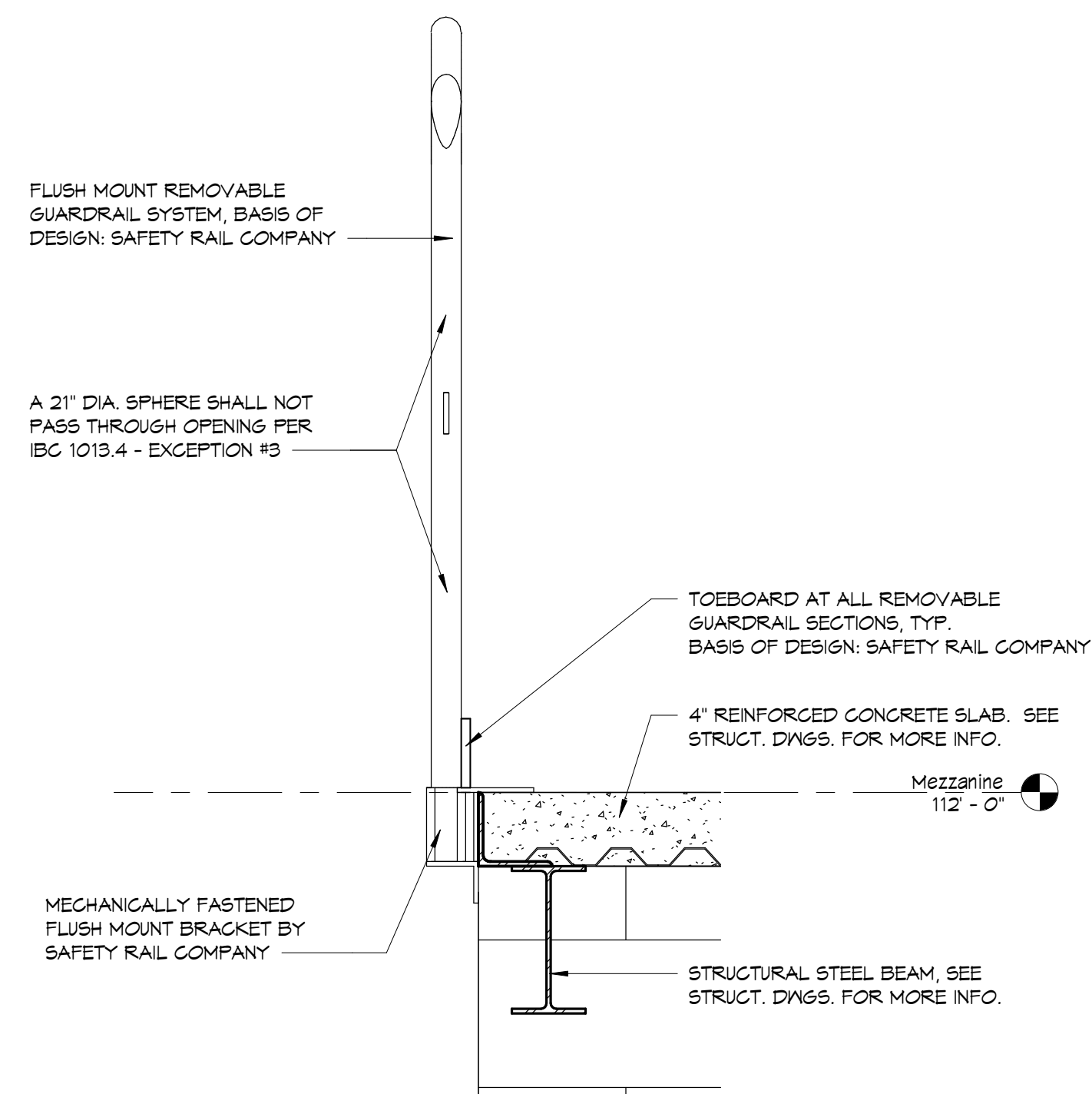


**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
 TRANSPORTATION BUILDING**

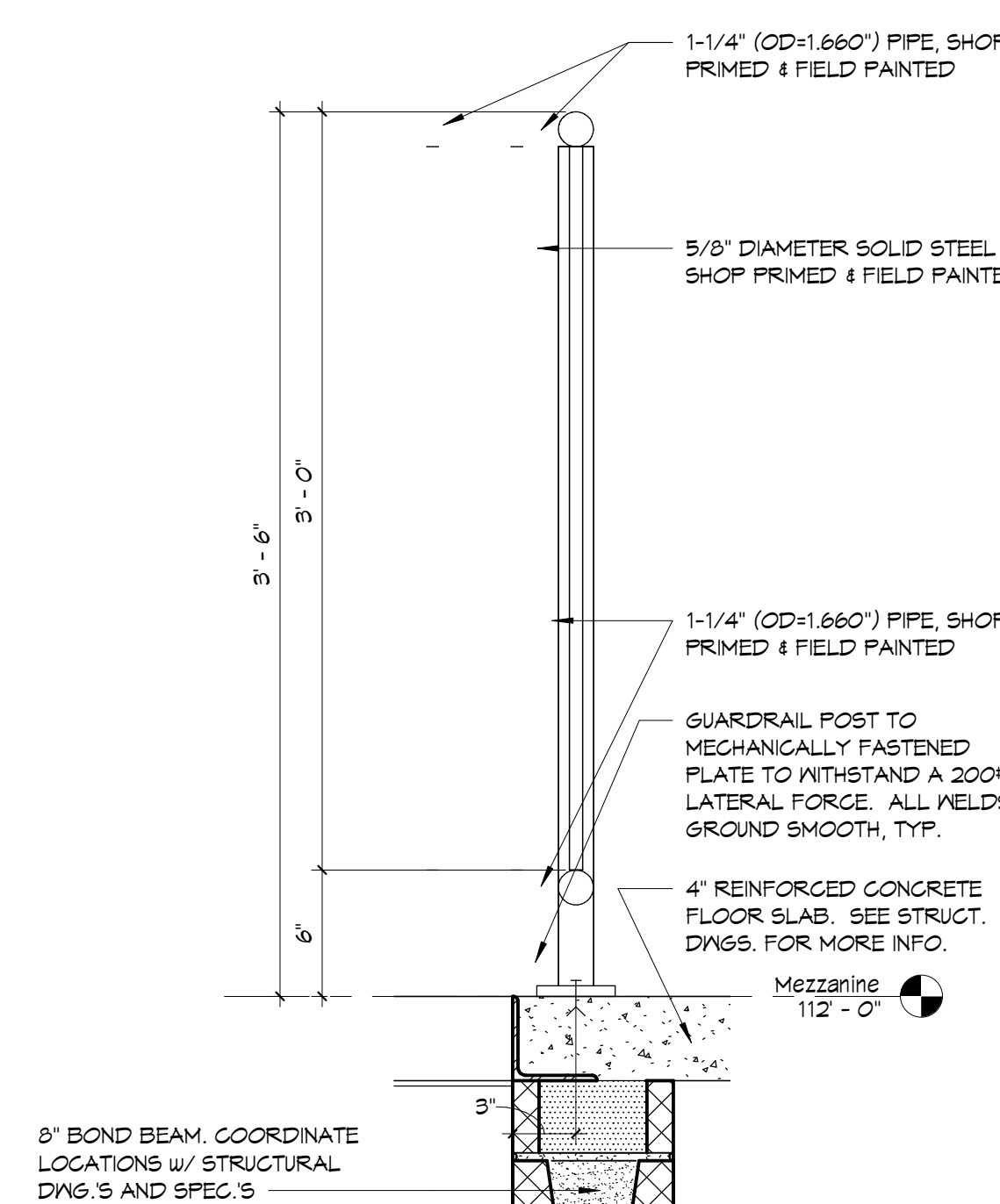
- TYPICAL STAIRWELL CONSTRUCTION:**
- STAIR AND PERIMETER LANDING STRINGERS:**
    - 1-1/4" (OD-1.660") STD. HEIGHT PIPE, SHOP PRIMED & FIELD PAINTED.
    - ALL WELDS TO BE GRIND SMOOTH.
    - BALUSTER SPACING SHALL BE AS DETERMINED BY THE STAIR MANUFACTURER'S PROFESSIONAL ENGINEER TO COMPLY WITH LOADING REQUIREMENTS.
    - BALUSTERS SHALL BE WELDED TO THE TOP OF THE STEEL STRINGERS, TYPICAL.
    - GUARDRAILINGS SHALL BE MAINTAINED AT 3'-6" ABOVE HORIZONTAL LANDING SURFACES AND NOSINGS, TYPICAL.
  - TREAD PANS:**

SEE FIGURE 1, 5TH EDITION - METAL STAIRS MANUAL. THE TREAD SECTION CONSISTS OF A 1/4 GAUGE MINIMUM STEEL SUB-TREAD AND RISER SLOPED TO MEET A FORMED NOSING. TREAD TO BE CONCRETE FILLED WITH A MINIMUM OF 4000 PSI CONCRETE. CONCRETE THAT IS LESS THAN 4000 PSI SHALL BE REINFORCED WITH WIRE MESH OR REINFORCING BARS.

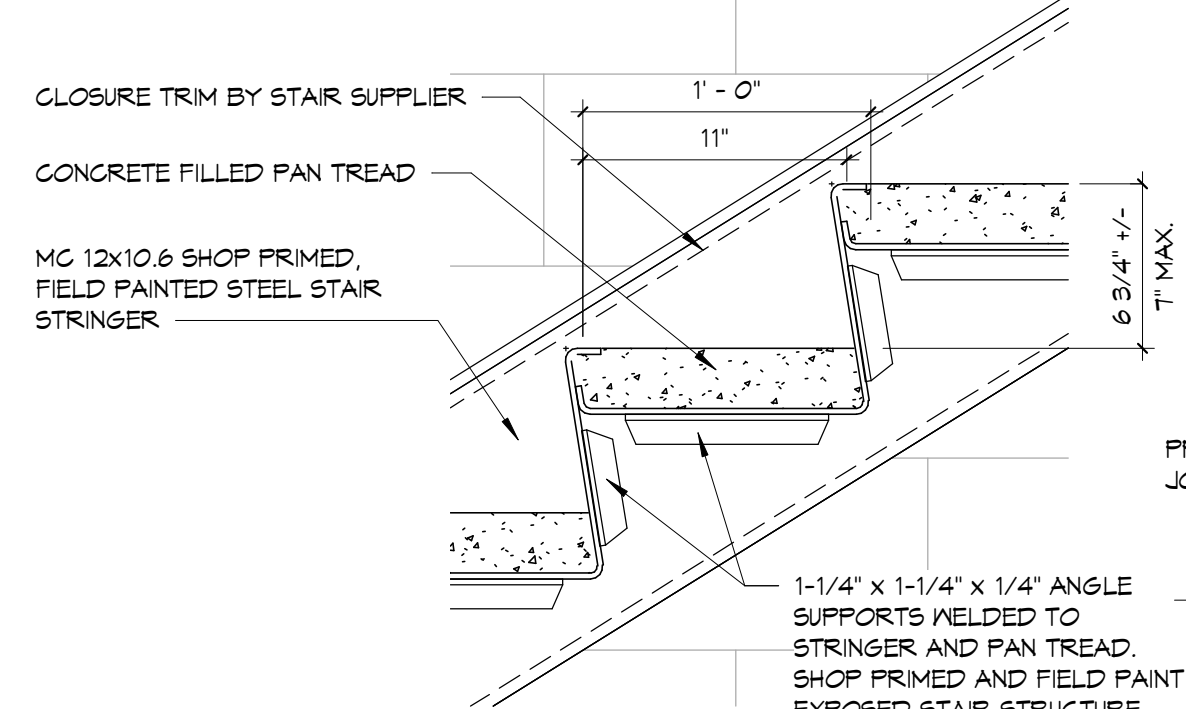
    - 1-1/4" X 1-1/4" X 1/4" MINIMUM STEEL TREAD/ RISER SUPPORT ANGLES WELDED TO THE INSIDE FACE OF THE STEEL STRINGERS.
  - HANDRAILINGS (TYP.):**
    - 1-1/4" DIA. (OD-1.660") STD. HEIGHT PIPE RAILING FOR ADA GRIP REQUIREMENTS. HANDRAILING SHALL BE SHOP PRIMED AND FIELD PAINTED.
    - OUTSIDE EDGE OF HANDRAILINGS SHALL NOT PROJECT INTO THE STAIRWAY MORE THAN 3". HOWEVER A MINIMUM OF 1-1/2" CLEAR SHALL BE MAINTAINED FROM THE BACK EDGE OF THE HANDRAILING AND THE WALL OR GUARDRAILINGS.
    - ALL WELDS TO BE GRIND SMOOTH.
    - HANDRAILS SHALL BE SUPPORTED AT 4'-0" O.C. MAXIMUM.
    - HANDRAILINGS SHALL BE MAINTAINED AT 2'-10" ABOVE HORIZONTAL LANDING SURFACES AND NOSINGS, TYPICAL.
    - HANDRAILINGS SHALL BE RETURNED TO WITHIN 1/4" OF ADJACENT WALLS AT THE END OF EACH RUN, TYPICAL.
  - BALUSTERS, TOP AND BOTTOM RAILS OF GUARDRAIL SYSTEM:**
    - 1-1/4" (OD-1.660") STD. HEIGHT PIPE, SHOP PRIMED & FIELD PAINTED.
    - ALL WELDS TO BE GRIND SMOOTH.
    - BALUSTER SPACING SHALL BE AS DETERMINED BY THE STAIR MANUFACTURER'S PROFESSIONAL ENGINEER TO COMPLY WITH LOADING REQUIREMENTS.
    - BALUSTERS SHALL BE WELDED TO THE TOP OF THE STEEL STRINGERS, TYPICAL.
    - GUARDRAILINGS SHALL BE MAINTAINED AT 3'-6" ABOVE HORIZONTAL LANDING SURFACES AND NOSINGS, TYPICAL.
  - GUARD RAILING PICKETS:**
    - 5/8" DIAMETER SOLID STEEL PICKETS, SHOP PRIMED & FIELD PAINTED.
    - ALL WELDS TO BE GRIND SMOOTH.
    - MAXIMUM CLEAR SPACE BETWEEN PICKETS AND OTHER STRUCTURAL STEEL STAIR FRAMING COMPONENTS = 3-3/4"
  - LANDING CONSTRUCTION:**
    - 3" MINIMUM THICK CONCRETE LANDING SLAB, 3000 PSI MINIMUM. CONCRETE THAT IS LESS THAN 3000 PSI SHALL BE REINFORCED WITH WIRE MESH OR REINFORCING BARS.
    - 12 GA. MINIMUM STEEL SHEET LANDING PLATE.
    - 4" X 3" X 3/8" MINIMUM STEEL LANDING DECK SUPPORT ANGLES AT THE PERIMETER OF THE LANDING, WELDED TO THE STRUCT. C/I0 FRAMING MEMBERS.
    - MINIMUM C/I0 X 15.9 STEEL LANDING CHANNEL HEADERS AND FLOOR FRAMING @ 2'-0" O.C. CONNECTED TO THE PERIMETER MC12 STEEL STRINGER FRAMING.
    - 14 GA. MINIMUM FORMED STEEL ANGLE CLOSURES AS REQUIRED FOR CONCRETE POUR STOPS.
  - ANCHORAGE REQUIREMENTS:**
    - STEEL STRINGERS, HEADERS, ETC. SHALL BE MECHANICALLY ATTACHED TO THE CONCRETE SHEAR TOWERS OR STRUCTURALLY REINFORCED CMU WALLS.
    - WHERE INBED PLATES ARE REQUIRED, CONTRACTOR SHALL FURNISH THE MATERIAL TO THE CONCRETE AND/OR MASONRY CONTRACTOR. FOR THOSE ITEMS TO BE FIELD SET PRIOR TO INSTALLATION POURING OF CONCRETE OR SETTING OF MASONRY WALLS. CONTRACTOR TO FIELD VERIFY AND COORDINATE SCOPE OF WORK.
  - PAINTING REQUIREMENTS:**
    - ALL EXPOSED STEEL STAIR COMPONENTS SHALL BE SHOP PRIMED AND FIELD PAINTED.
- SIZES SHOWN IN DETAILS AND TYPICAL STAIR CONSTRUCTION DESCRIPTION ARE FOR REFERENCE ONLY. STAIR SUPPLIER IS RESPONSIBLE FOR DESIGNING A STAIR ASSEMBLY THAT MEETS BOTH OSHA AND ADA REQUIREMENTS. SEE SPECIFICATIONS FOR MORE INFO.



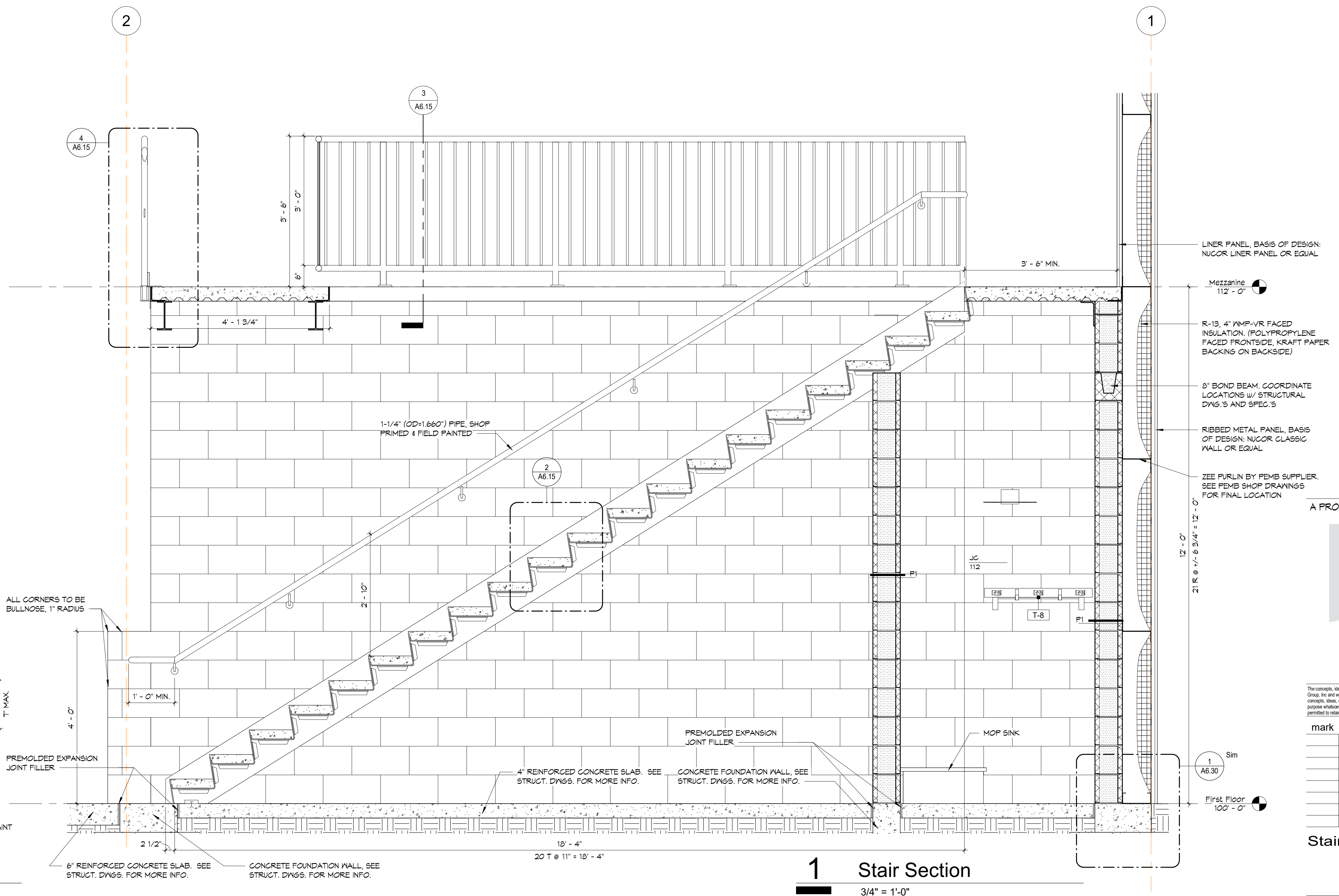
**4 Removable Guardrail Section**  
 1 1/2" = 1'-0"



**3 Typ. Guardrail Section**  
 1 1/2" = 1'-0"



**2 Enlarged Stair Detail**  
 1 1/2" = 1'-0"



**1 Stair Section**  
 3/4" = 1'-0"

A PROJECT FOR:



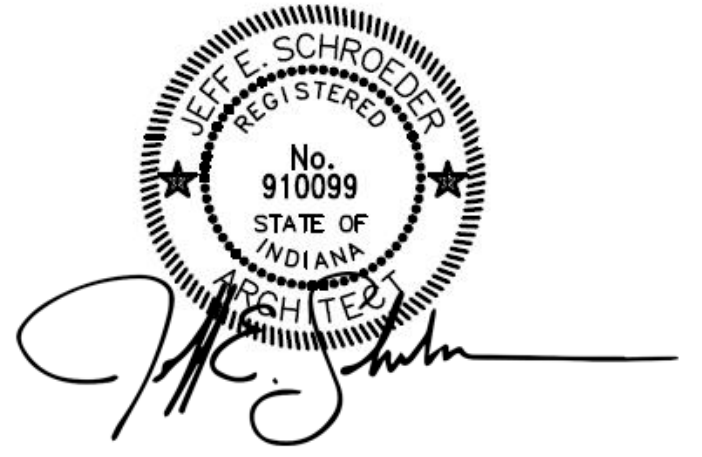
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mark	date	description
1		Sim
A6.30		First Floor 100'-0"

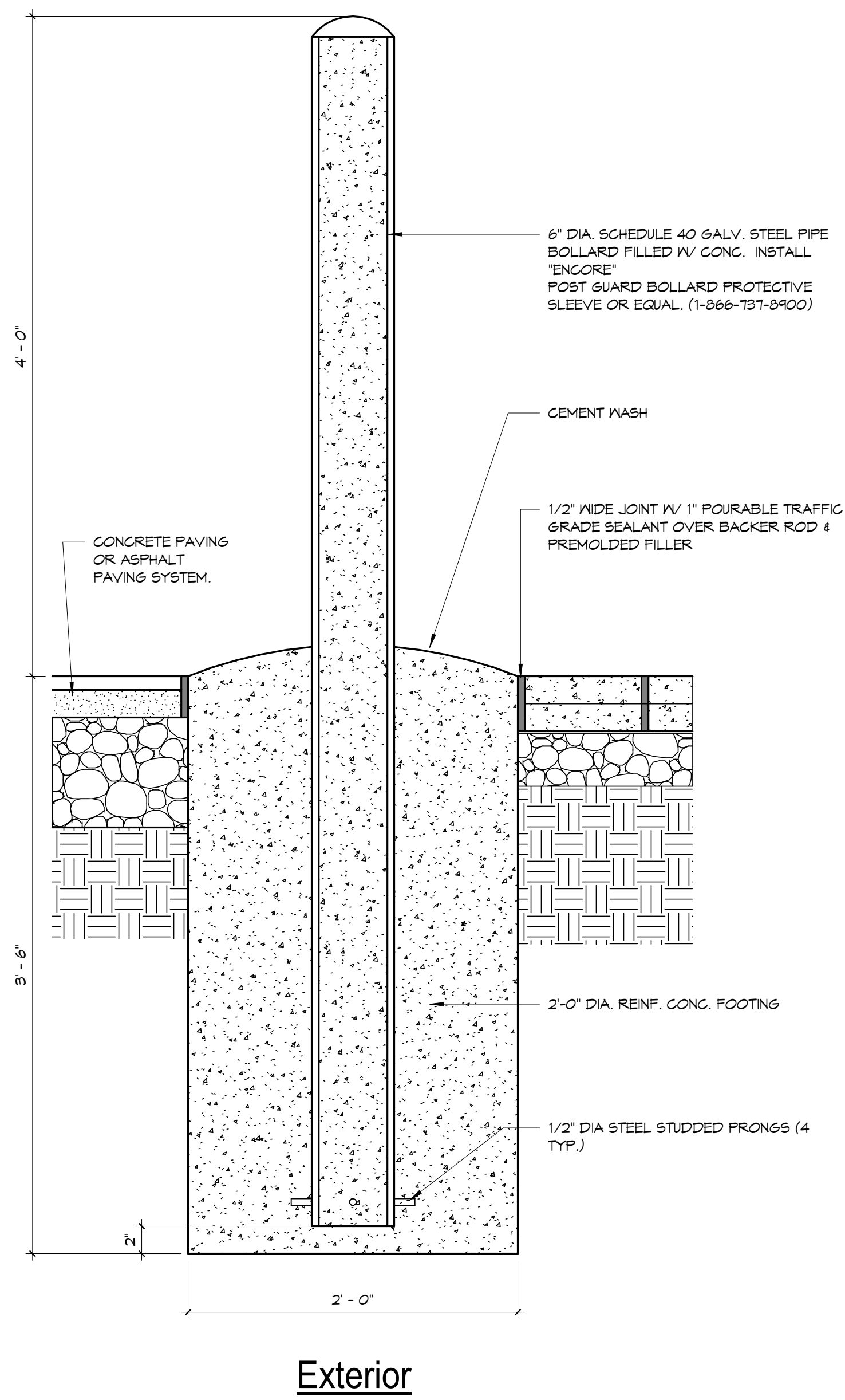
date: March 2, 2022  
 project: 473003  
 coordinator: JMO  
 drawn: LNG  
 checked: CDH

**A6.15**

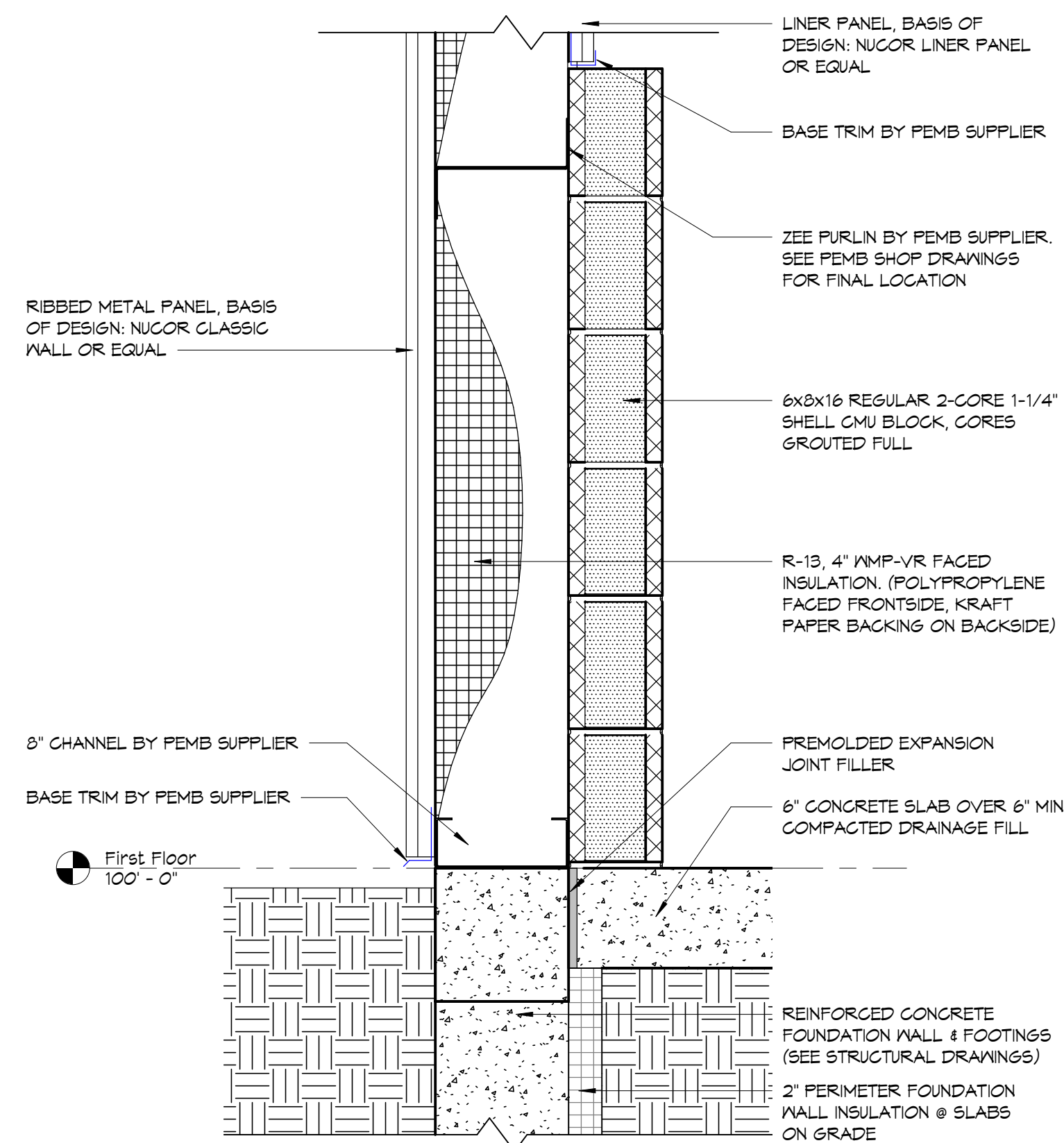




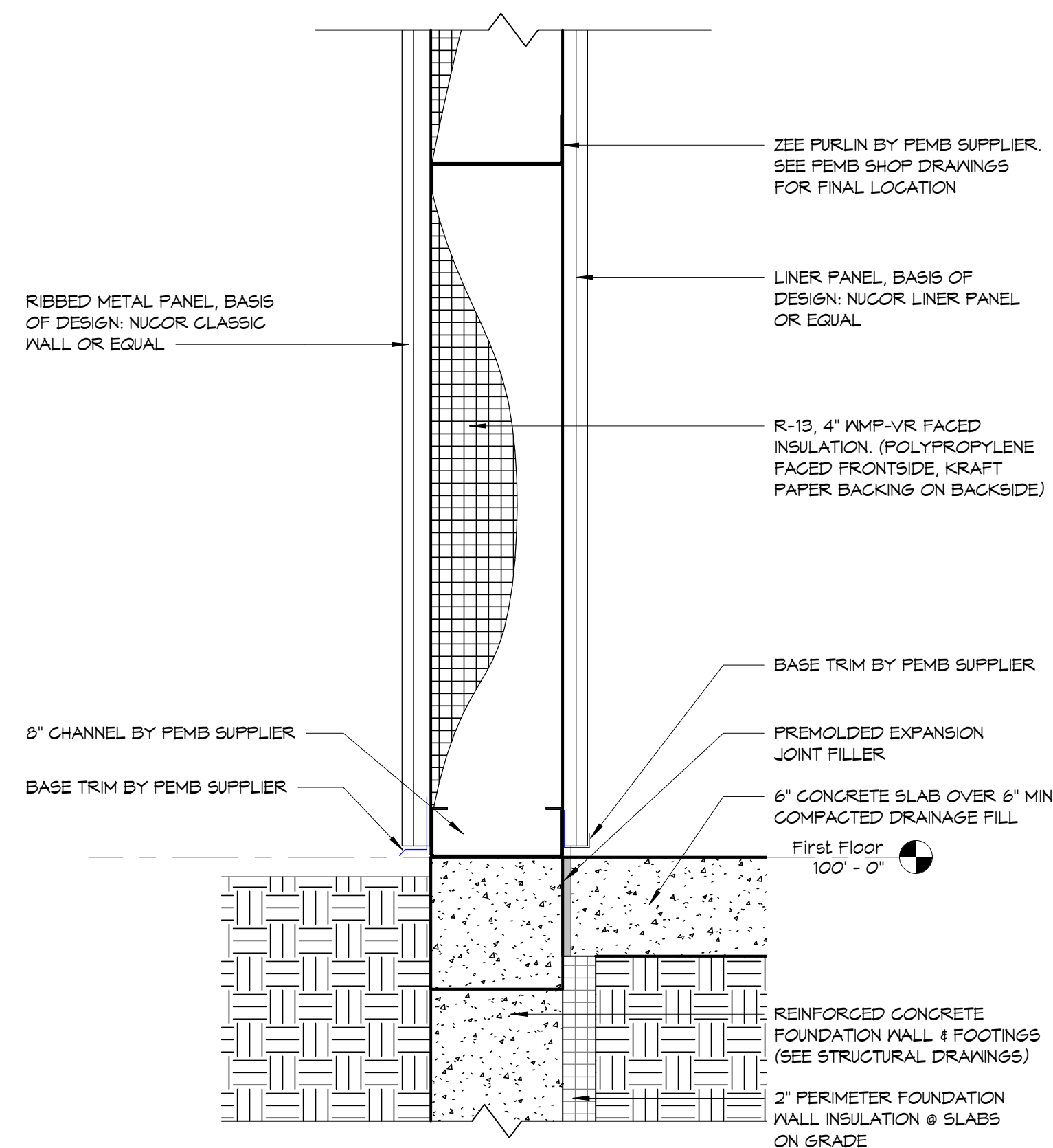
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
 TRANSPORTATION BUILDING**



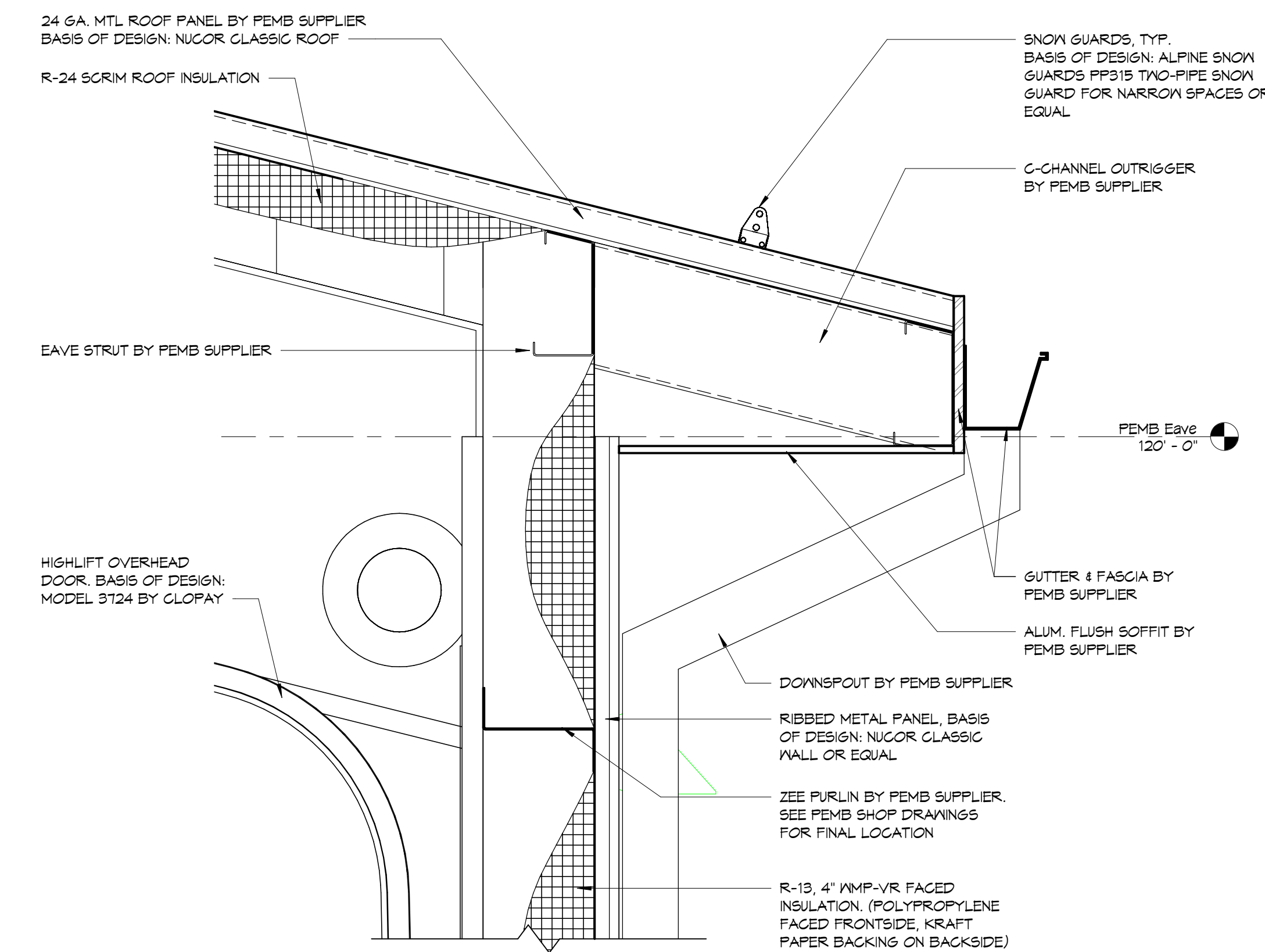
**5** Pipe Bollard Detail  
 1 1/2" = 1'-0"



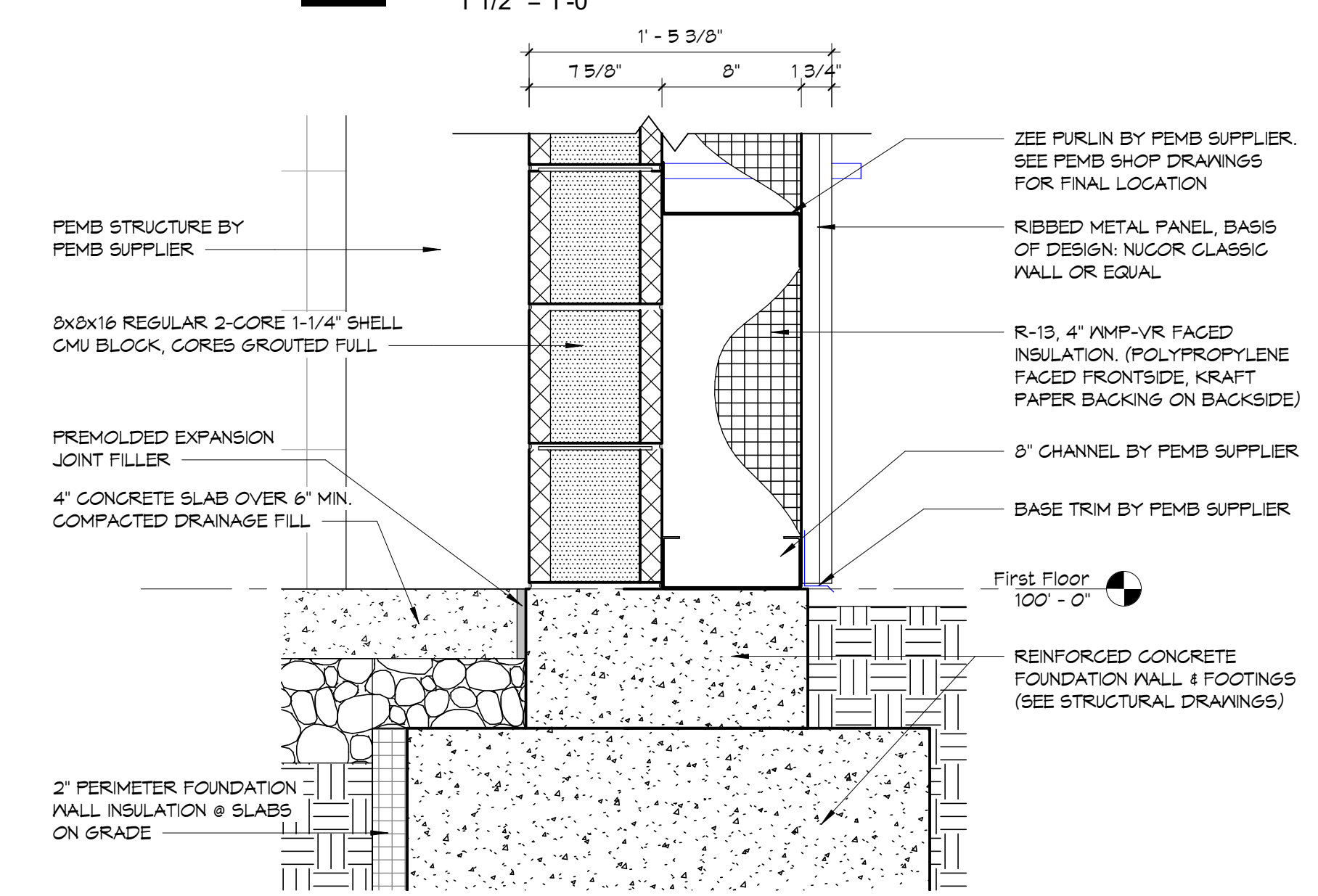
**4** Alternate Base of Wall Detail  
 1 1/2" = 1'-0"



**3** Base of Wall Detail  
 1 1/2" = 1'-0"



**2** Eave Detail  
 1 1/2" = 1'-0"



**1** Base of Wall Detail  
 1 1/2" = 1'-0"

A PROJECT FOR:



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mark	date	description

Enlarged Floor and Roof Conditions

date: March 2, 2022  
 project: 473003  
 coordinator: JMO  
 drawn: LNG  
 checked: CDH

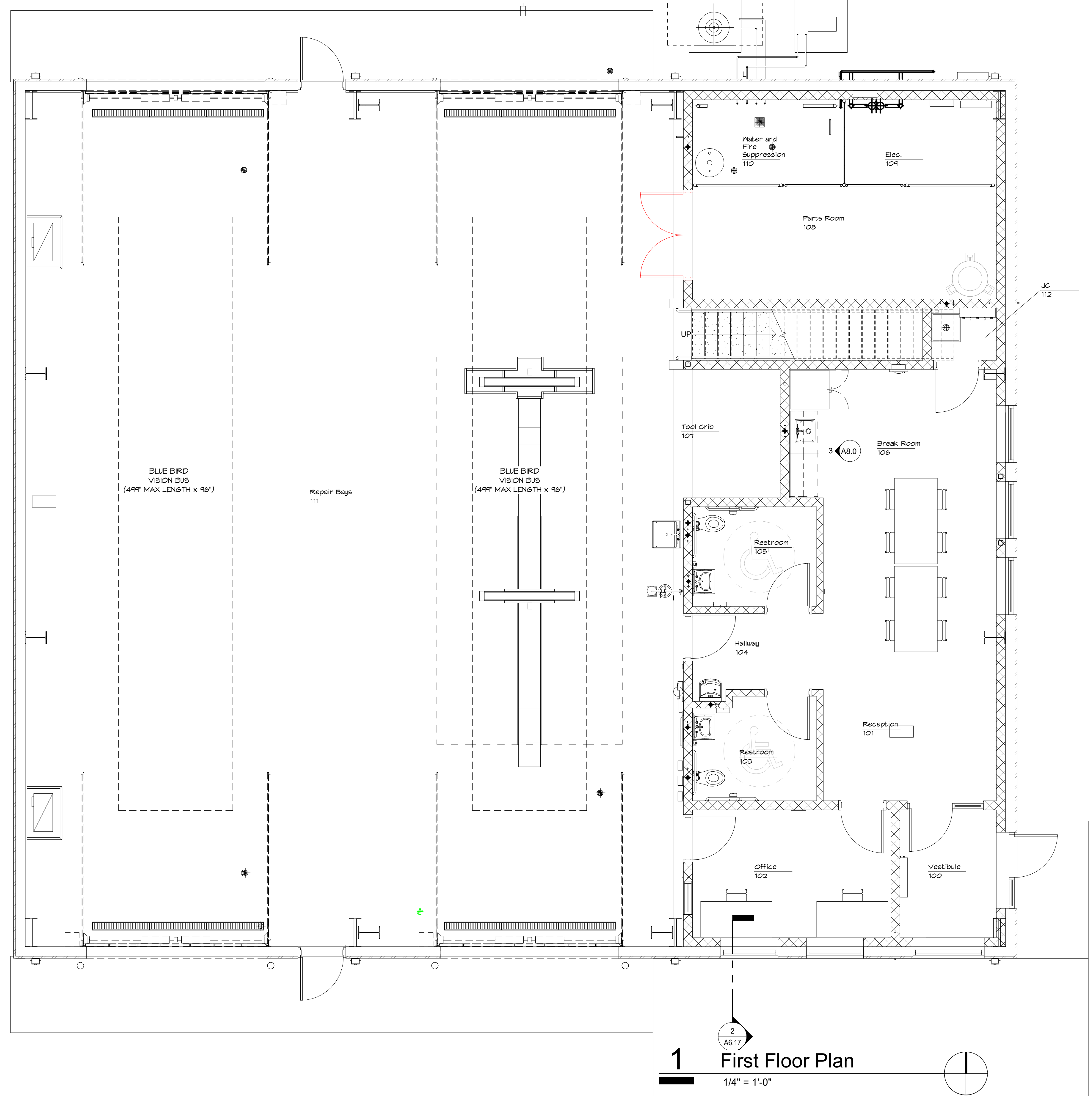
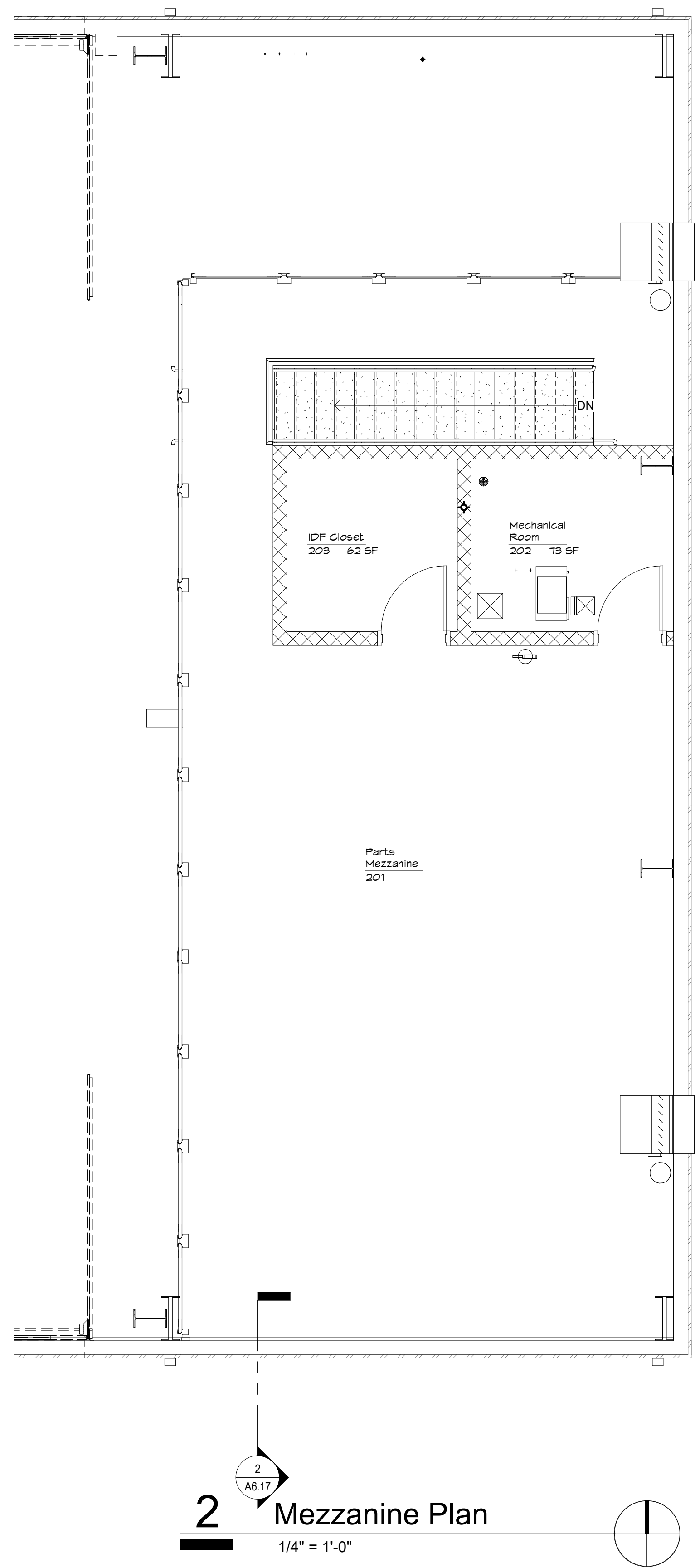
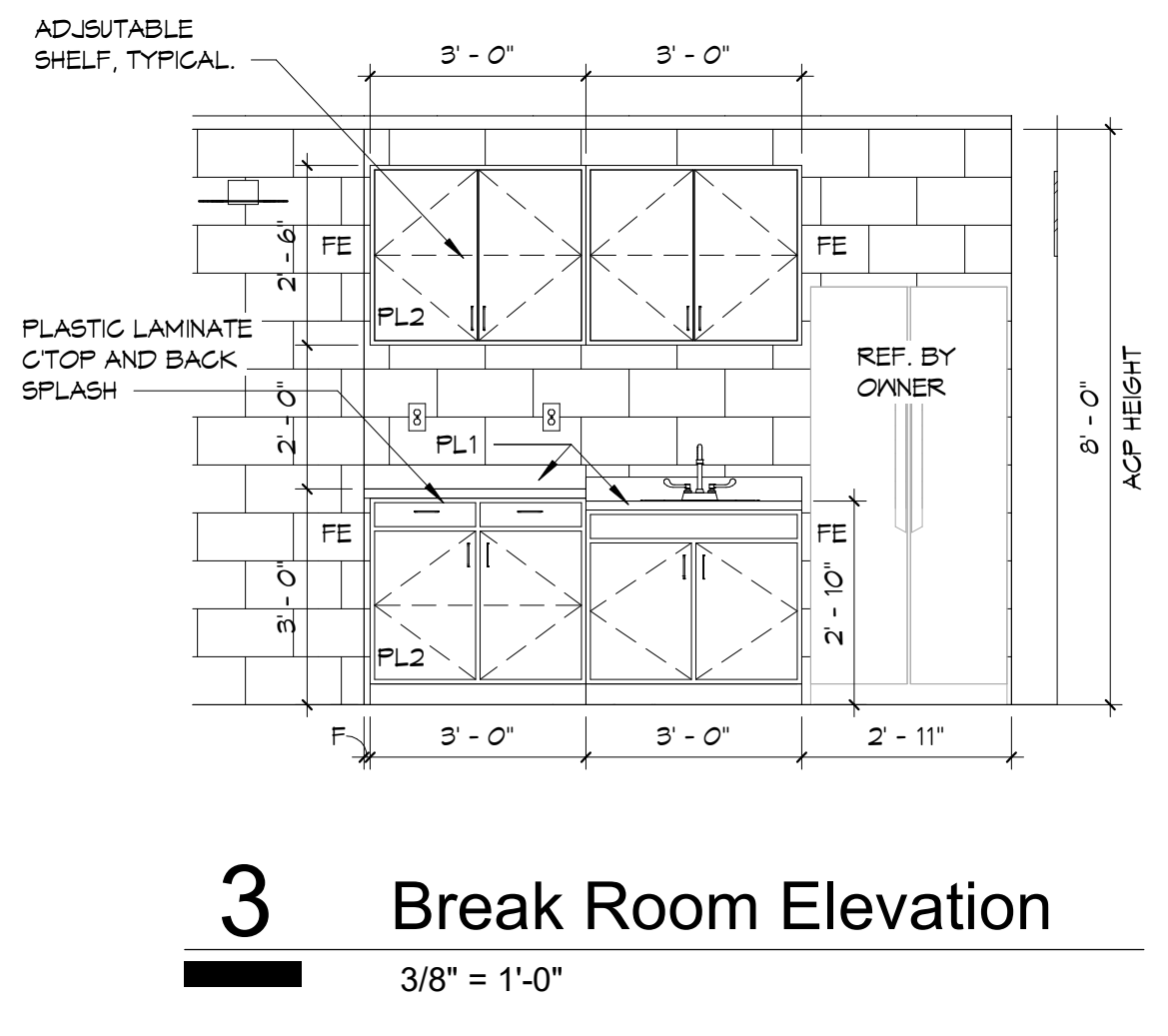
Room Finish Schedule											
Room Number	Room Name	Floor Finish	Base Finish	Walls				Ceiling Finish	Comments	Cabinets	C'Top
				North	South	East	West				
100	Vestibule	WOM1	RB1	PT1	PT1	PT1	PT1	APG1			
101	Reception	VCT1	RB1	-	PT1	PT1	PT1	APG1			
102	Office	VCT1	RB1	PT1	PT1	PT1	PT1	APG1			
103	Restroom	VCT1	RB1	PT1	PT1	PT1	PT1	APG1			
104	Hallway	VCT1	RB1	PT1	PT1	-	PT1	APG1			
105	Restroom	VCT1	RB1	PT1	PT1	PT1	PT1	APG1			
106	Break Room	VCT1	RB1	PT1	-	PT1	PT1	APG1	PL2	PL1	
107	Tool Crib	SC	RB1	PT1	PT1	PT1	-	EXP1			
108	Parts Room	SC	RB1	-	PT1	PT1	PT1	EXP1			
109	Elec.	SC	RB1	PT1	-	PT1	PT1	EXP1			
110	Water and Fire Suppression	SC	RB1	PT1	-	PT1	PT1	EXP1			
111	Repair Bays	SC	RB1	PT1	PT1	PT1	PT1	EXP1			
112	JC	SC	RB1	PT1	PT1	PT1	PT1	EXP2			
201	Parts Mezzanine	SC	RB1	PT1	PT1	PT1	-	EXP2			
202	Mechanical Room	SC	RB1	PT1	PT1	PT1	PT1	EXP2			
203	IDF Closet	SC	RB1	PT1	PT1	PT1	PT1	EXP2			

FINISH LEGEND		
<b>FLOOR</b>	<b>BASE</b>	<b>CEILING</b>
WOM1 - WALK OFF MAT STYLE: STEP UP II COLOR: COBALT NUMBER: 855 SIZE: 24X24 INSTALL: 1/4 TURN	RB - RUBBER BASE RB1 - TARKETT STYLE: MATL COVE COLOR: GRAY NUMBER: 45 SIZE: 4"	ACP - ACOUSTICAL CEILING SYSTEM ACP1 - ARMSTRONG STYLE: DUNE NUMBER: 1853 SIZE: 24X24 EDGE: TEGULAR GRID: STANDARD
VGT - VINYL COMPOSITION TILE VGT1 - ARMSTRONG STYLE: STANDARD EXCELON IMPERIAL TEXTURE COLOR: STERLING NUMBER: 51904 SIZE: 12'X12' INSTALL: 1/4 TURN	PT - PAINT COLOR PT1 - SHERWIN WILLIAMS COLOR: MISTY NUMBER: 5W6232 FINSH: EGG SHELL PT2 - SHERWIN WILLIAMS COLOR: SPECIAL GRAY NUMBER: 5W6271 FINSH: ENAMEL	EXP - EXPOSED CEILING EXP1 - PAINTED PT1 EXP2 - UNFINISHED
RST - RUBBER STAIR TREAD & NOSE RST1 - TARKETT OR EQUAL STYLE: SERVICE HEIGHT TYPE: SQUARE NOSE COLOR: MEDIUM GREY NUMBER: 25	PL - PLASTIC LAMINATE PL1 - KILSONART COLOR/PATTERN: NEW AGE OAK NUMBER: D90-60 PL2 - KILSONART COLOR/PATTERN: NEW AGE OAK NUMBER: 1939-33	CASEWORK/MILLWORK
SC - SEALED CONCRETE		

MISC. GENERAL REMARKS
a. WINDOW SILLS SHALL BE LAMINATE, PL1. SEE 1-A4.0 FOR DETAIL.
GENERAL PAINT/WALL FINISH REMARKS
a. PAINT ALL NEW HOLLOW METAL DOOR FRAMES, SIDE LIGHT FRAMES AND WINDOW FRAMES PT2 U.N.O.
b. PAINT FACE AND UNDERSIDE OF GYP. BD. BULKHEADS TO MATCH ADJ. WALL, U.N.O.
c. ALL STAINED WOOD IN BUILDING SHALL BE STAINED TO MATCH PROJECT DOORS. OBTAIN APPROVED ACTUAL DOOR SAMPLE FROM G.G.
d. WALL FINISHES FOR ANY GIVEN WALL SHALL CONTINUE INTO MAJOR AND MINOR OFFSETS INCLUDING, BUT NOT LIMITED TO GYP. BD. WINDOW HEAD AND JAMBS.
e. PAINT STAIR STRINGER, RISERS & HANDRAIL PT2
GENERAL FLOORING REMARKS
a. ONLY A STRAIGHT EDGE METAL SCHLUTER STRIP SHALL BE USED BETWEEN TWO DIFFERENT MATERIALS TO PROTECT THE EDGES. A SLOPE PROFILE METAL SCHLUTER IS NOT ACCEPTABLE.
b. PROVIDE RFT1 FOR STAIR PANS.



**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS**  
**TRANSPORTATION BUILDING**



A PROJECT FOR:

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mark	date	description

**Building Floor Finish, Equipment and Casework Plan**

date: March 2, 2022  
project: 473003  
coordinator: JMO  
drawn: FCC/JMO  
checked: CDH

**A8.0**

THIS CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE EXACT PIPE ROUTING WITH THE PLUMBING, MECHANICAL, AND ELECTRICAL CONTRACTORS. FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL DRAINS, FITTINGS, PIPING, AND OFFSETS AS REQUIRED TO ROUTE FIRE SUPPRESSION PIPING AROUND ALL NEW PLUMBING, MECHANICAL, AND ELECTRICAL PIPING AND EQUIPMENT TO BE INSTALLED AS PART OF THIS PROJECT.

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW, COORDINATE AND INCLUDE ALL DIVISION 21 WORK INDICATED ON ANY OF THE PROJECT DRAWINGS AS WORK OF THIS PROJECT. TO INCLUDE BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, PLUMBING, MECHANICAL, DRAWINGS, ETC.

COORDINATE ROUTING OF ALL PIPING WITH ELECTRICAL PANEL LOCATIONS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS AND PROVIDE ALL WORKING CLEARANCES PER THE NATIONAL ELECTRICAL CODE.

AT ANY LOCATION WHERE FIRE PROTECTION PIPING PENETRATES AND ROUTES THROUGH A FINISHED WALL, CEILING, FLOOR, ETC., THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL EITHER AN PIPE ESCUTCHEON OR A FABRICATED ENCLOSURE TO COVER ANY OPENING WITHIN THE FINISHED WALL/CEILING. PROVIDE A MOCK UP OF THE FABRICATED ENCLOSURE FOR THE ARCHITECT AND OWNERS APPROVAL PRIOR TO THE INITIATION OF ANY WORK.

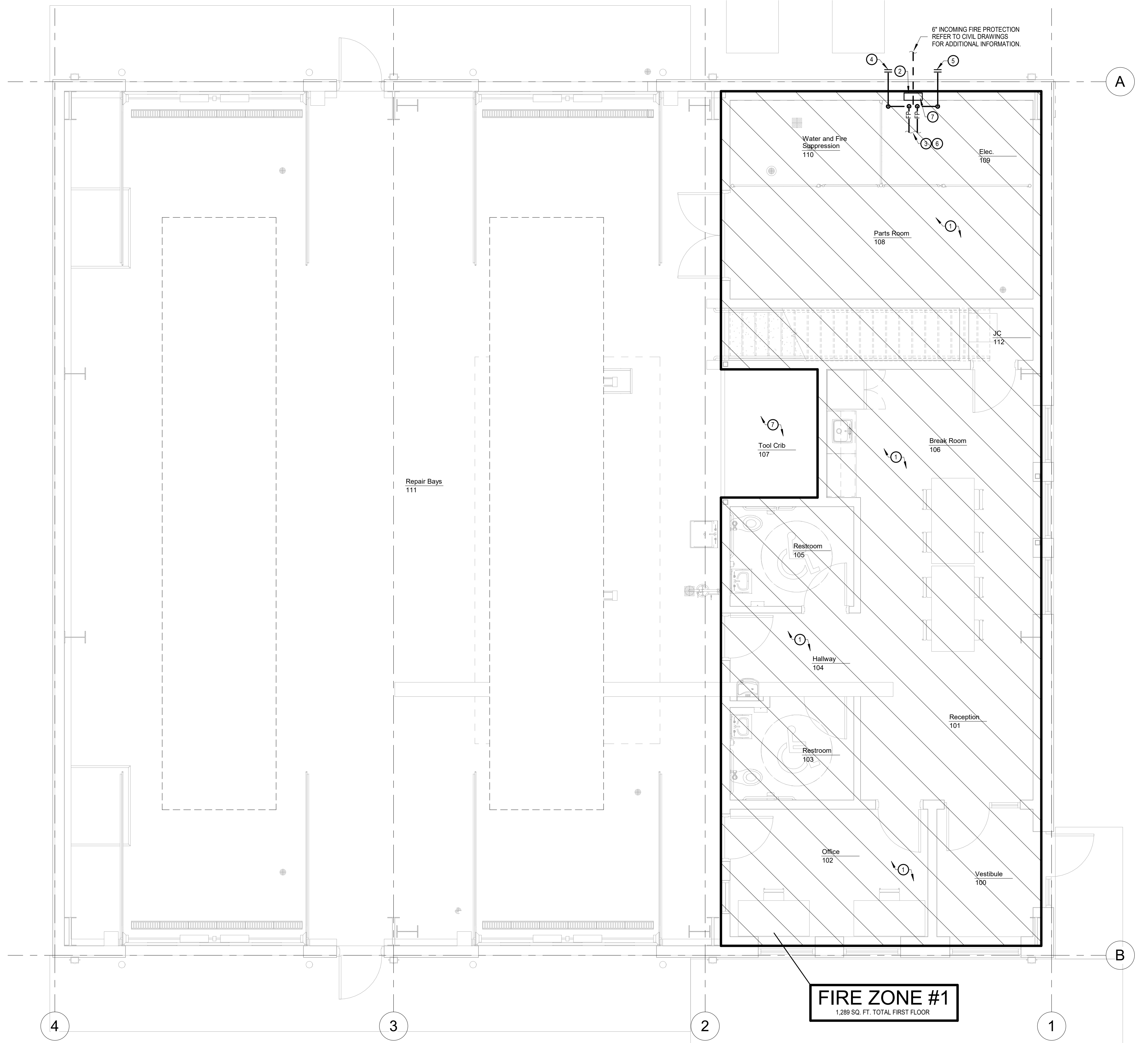
FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS FOR CEILING CONDITIONS IN ALL SPACES. PROVIDE SPRINKLER HEADS AND SPACING AS REQUIRED BY NFPA 13 AND AUTHORITY HAVING JURISDICTION.

FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL SPRINKLER PROTECTION UP WITHIN ANY OPEN CEILING CAVITY(S) AS REQUIRED BY NFPA 13 AND AUTHORITY HAVING JURISDICTION. FIRE PROTECTION CONTRACTOR SHALL REVIEW ALL DRAWINGS AND COORDINATE WITH ALL TRADES TO IDENTIFY ALL AREAS THAT REQUIRE TO BE PROTECTED WITH THE FIRE SPRINKLER SYSTEM.

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL THROUGH PENETRATION FIRESTOP SYSTEMS AS REQUIRED TO SEAL WHERE PIPING PENETRATES A FIRE RATED WALL, FLOOR, OR OTHER LISTED ASSEMBLY. THE FIRE PROTECTION CONTRACTOR IS TO REVIEW LIFE SAFETY, AND ALL OTHER ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF FIRE RATED ASSEMBLIES.

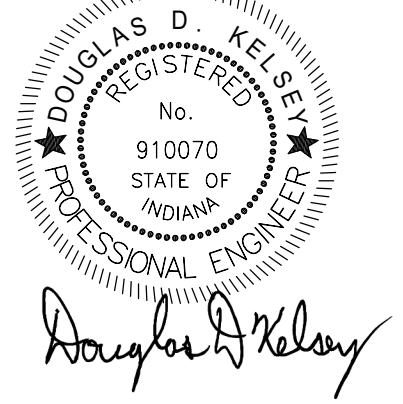
**FIRE PROTECTION PLAN NOTES**

- 1 PROVIDE AND INSTALL A NEW WET PIPE SPRINKLER SYSTEM WITHIN THE CROSSHATCHED AREA FOR PROPER COVERAGE PER NFPA UNLESS NOTED OTHERWISE. ALL SPRINKLER HEADS ARE TO BE INSTALLED WITHIN EITHER THE CENTER OF THE ROOM THEY PROTECT AND/OR THE CENTER OF ALL CORRIDORS. IN ANY LOCATION WHERE SPRINKLERS ARE TO BE INSTALLED WITHIN A SUSPENDED ACoustical CEILING GRID, THE SPRINKLER HEADS ARE TO BE INSTALLED IN THE CENTER OF THE CEILING TILE. COORDINATE EXACT PIPE ROUTING WITH ALL TRADES. PROVIDE RISERS AND DRAINS AS REQUIRED TO TEST AND MAINTAIN SYSTEMS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2 NEW 1/2" FIRE PROTECTION SERVICE ENTRANCE PIPING ROUTED UP THROUGH SLAB AND INTO SPRINKLER ROOM TO NEW VERTICAL FIRE PROTECTION WET PIPE SPRINKLER RISER WITH DOUBLE CHECK DETECTOR ASSEMBLY WITH OS&Y GATE VALVES AND LOW POINT DRAIN. FIRE PROTECTION CONTRACTOR SHALL SLOPE ALL PIPING TO THIS LOCATION. COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH THE CENTERVILLE FIRE DEPARTMENT AND WATER UTILITY PRIOR TO THE INITIATION OF ANY WORK. REFER TO UNDERGROUND PLUMBING PLAN FOR CONTINUATION. COORDINATE LOCATION WITH OTHER TRADES AND AUTHORITIES HAVING JURISDICTION.
- 3 PROPOSED LOCATION OF ZONE #1 FLOW SWITCH, TAMPER SWITCH AND CONTROL VALVE, AND SPRINKLER MAIN PIPING ROUTED OUT TO SERVE THE ADMINISTRATIVE SUITE AND ZONE #2 DRY PIPE RISER, DRY VALVE, AIR COMPRESSOR, FLOW AND TAMPER SWITCH, AND SPRINKLER MAIN PIPING ROUTED OUT TO SERVE THE VEHICLE BAY. PROVIDE AND INSTALL RISERS AND LOW POINT DRAINS AS REQUIRED TO TEST AND MAINTAIN THE SYSTEM. FIRE PROTECTION CONTRACTOR SHALL SLOPE ALL PIPING BACK TO DRAINS. REFER TO ALL PROJECT DRAWINGS TO DETERMINE BEST ROUTINGS AND TO MAINTAIN CLEARANCES FROM WORK OF OTHER TRADES AND CEILING HEIGHTS. COORDINATE TAMPER SWITCH LOCATIONS WITH WORK OF OTHER TRADES. REFER TO SHEET FPG-1.0 FOR ADDITIONAL INFORMATION.
- 4 FIRE DEPARTMENT CONNECTION FOR BUILDING COMBINATION WET/DRY SPRINKLER SYSTEM. PROVIDE AND INSTALL A 6" NPT x 5' STORAGE DEPT. CONNECTION WITH 90° ANGLE PATTERN ADAPTER WITH CAP AND DRAIN. PROVIDE AND INSTALL IDENTIFICATION PLATE THAT READS "AUTO SPKR". COORDINATE EXACT MOUNTING LOCATION WITH THE CENTERVILLE FIRE DEPARTMENT PRIOR TO THE INITIATION OF ANY WORK.
- 5 2" MAIN AND AUXILIARY FIRE DEPARTMENT DRAIN THROUGH WALL WITH 30" DOWN TURN SHOWN HERE FOR CLARITY. IT IS THE INTENT OF THE DRAWINGS THAT THE DRAIN LINE BE ROUTED AS TIGHT TO THE WALL AS POSSIBLE.
- 6 PROVIDE AND INSTALL ALL THROUGH PENETRATION FIRESTOP SYSTEMS AS REQUIRED TO SEAL WHERE PIPING PENETRATES A FIRE RATED WALL, FLOOR, OR OTHER LISTED ASSEMBLY. THE FIRE PROTECTION CONTRACTOR IS TO REVIEW LIFE SAFETY, AND ALL OTHER ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF FIRE RATED ASSEMBLIES.
- 7 PROPOSED LOCATION FOR FIRE DEPARTMENT WALL MOUNT INDICATOR VALVE, SHOWN HERE FOR REFERENCE ONLY. COORDINATE EXACT INSTALLATION LOCATION WITH ARCHITECT, OWNER, SITE CONTRACTOR, AND THE CENTERVILLE FIRE DEPARTMENT PRIOR TO THE INITIATION OF ANY WORK. COORDINATE WORK WITH THE ELECTRICAL CONTRACTOR.
- 8 REFER TO SECOND FLOOR FIRE PROTECTION PLAN FOR FIRE PROTECTION AND SPRINKLER PIPING REQUIREMENTS WITHIN THIS AREA.



PORT WAINNE, IN 46158  
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Douglas D. Kelsey

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:

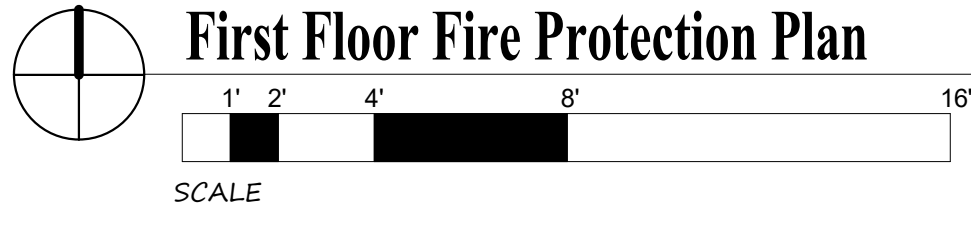


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mark	date	description

**First Floor Fire Protection Plan**

date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJB  
drawn: TEH FP2.1  
checked: DDK



THIS CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE EXACT PIPE ROUTING WITH THE PLUMBING, MECHANICAL, AND ELECTRICAL CONTRACTORS. FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL DRAINS, FITTINGS, PIPING, AND OFFSETS AS REQUIRED TO ROUTE FIRE SUPPRESSION PIPING AROUND ALL NEW PLUMBING, MECHANICAL, AND ELECTRICAL PIPING AND EQUIPMENT TO BE INSTALLED AS PART OF THIS PROJECT.

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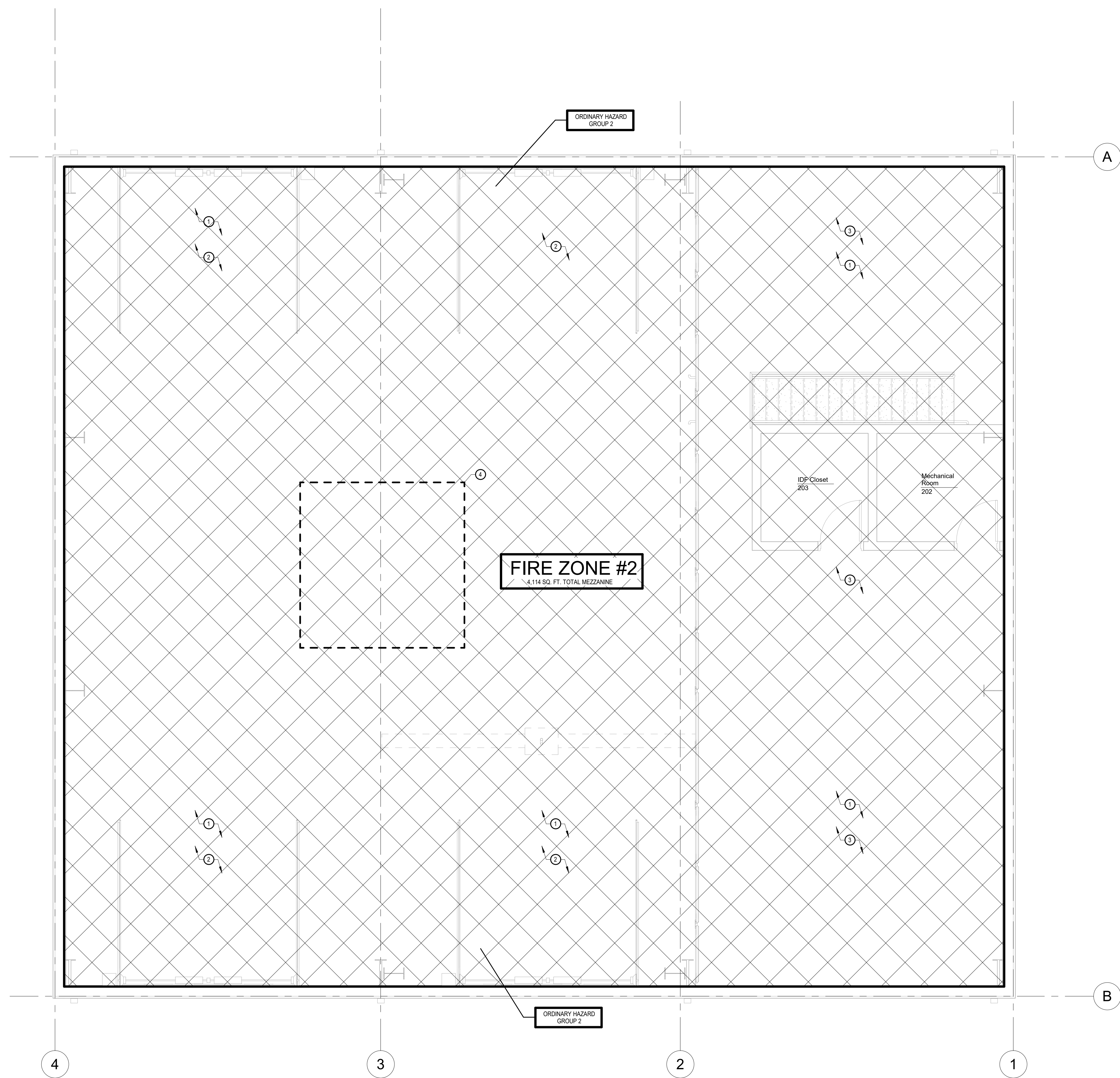
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### FIRE PROTECTION PLAN NOTES

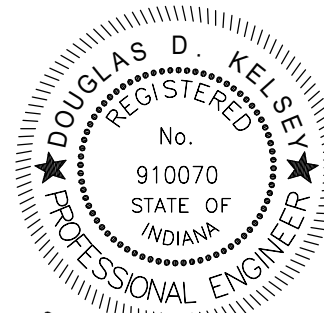
- PROVIDE AND INSTALL A NEW WET PIPE SPRINKLER SYSTEM WITHIN THE CROSSHATCHED AREA FOR PROPER COVERAGE PER NFPA UNLESS NOTED OTHERWISE. ALL SPRINKLER HEADS ARE TO BE INSTALLED WITHIN EITHER THE CENTER OF THE ROOM THEY PROTECT AND/OR THE CENTER OF ALL CORRIDORS. IN ANY LOCATION WHERE SPRINKLERS ARE TO BE INSTALLED WITHIN A SUSPENDED ACoustICAL CEILING GRID, THE SPRINKLER HEADS ARE TO BE INSTALLED IN THE CENTER OF THE CEILING TILE. COORDINATE EXACT PIPE ROUTING WITH ALL TRADES. PROVIDE RISERS AND DRAINS AS REQUIRED TO TEST AND MAINTAIN SYSTEMS. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- NEW 6" FIRE PROTECTION SERVICE ENTRANCE PIPING ROUTED UP THROUGH SLAB AND INTO SPRINKLER ROOM TO NEW VERTICAL FIRE PROTECTION WET PIPE SPRINKLER RISER WITH DOUBLE CHECK DETECTOR ASSEMBLY WITH OS&Y GATE VALVES AND LOW POINT DRAIN. FIRE PROTECTION CONTRACTOR SHALL SLOPE ALL PIPING TO THIS LOCATION. COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH THE CENTERVILLE FIRE DEPARTMENT AND WATER UTILITY PRIOR TO THE INITIATION OF ANY WORK. REFER TO UNDERGROUND PLUMBING PLAN FOR CONTINUATION. COORDINATE LOCATION WITH OTHER TRADES AND AUTHORITIES HAVING JURISDICTION.
- PROPOSED LOCATION OF ZONE #1 FLOW SWITCH, TAMPER SWITCH AND CONTROL VALVE, AND SPRINKLER MAIN PIPING ROUTED OUT TO SERVE THE ADMINISTRATIVE SUITE AND ZONE #2 DRY PIPE RISER, DRY VALVE, AIR COMPRESSOR, FLOW AND TAMPER SWITCH, AND SPRINKLER MAIN PIPING ROUTED OUT TO SERVE THE VEHICLE BAY. PROVIDE AND INSTALL RISERS AND LOW POINT DRAINS AS REQUIRED TO TEST AND MAINTAIN THE SYSTEM. FIRE PROTECTION CONTRACTOR SHALL SLOPE ALL PIPING BACK TO DRAINS. REFER TO ALL PROJECT DRAWINGS TO DETERMINE BEST ROUTINGS AND TO MAINTAIN CLEARANCES FROM WORK OF OTHER TRADES AND CEILING HEIGHTS. COORDINATE TAMPER SWITCH LOCATIONS WITH WORK OF OTHER TRADES. REFER TO SHEET FPG-1.0 FOR ADDITIONAL INFORMATION.
- FIRE DEPARTMENT CONNECTION FOR BUILDING COMBINATION WET/DRY SPRINKLER SYSTEM. PROVIDE AND INSTALL A 6" NPT x 5" STORZ FIRE DEPT. CONNECTION WITH 30° ANGLE PATTERN ADAPTER WITH CAP AND CHAIN. PROVIDE AND INSTALL IDENTIFICATION PLATE THAT READS "AUTO SPRINK". COORDINATE EXACT MOUNTING LOCATION WITH THE CENTERVILLE FIRE DEPARTMENT PRIOR TO THE INITIATION OF ANY WORK.



Mezzanine Fire Protection Plan  
SCALE 1" = 8'

**FOR WYANE**  
6534 Constitution Drive (260) 436-6213  
Fort Wayne, IN 46824 (260) 436-8467 fax  
www@seo-llc.com

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Douglas D. Kelso

# CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING

A PROJECT FOR:



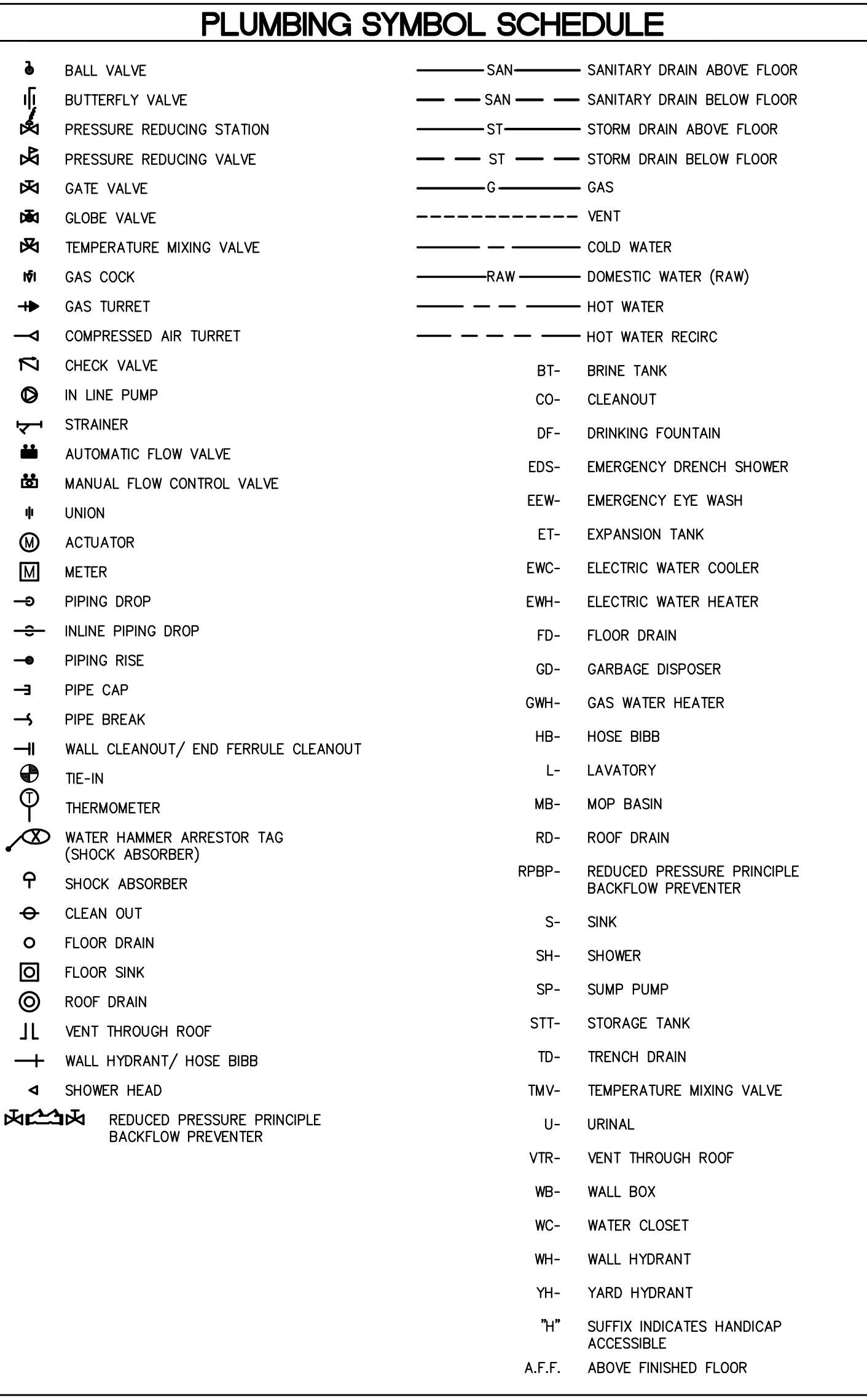
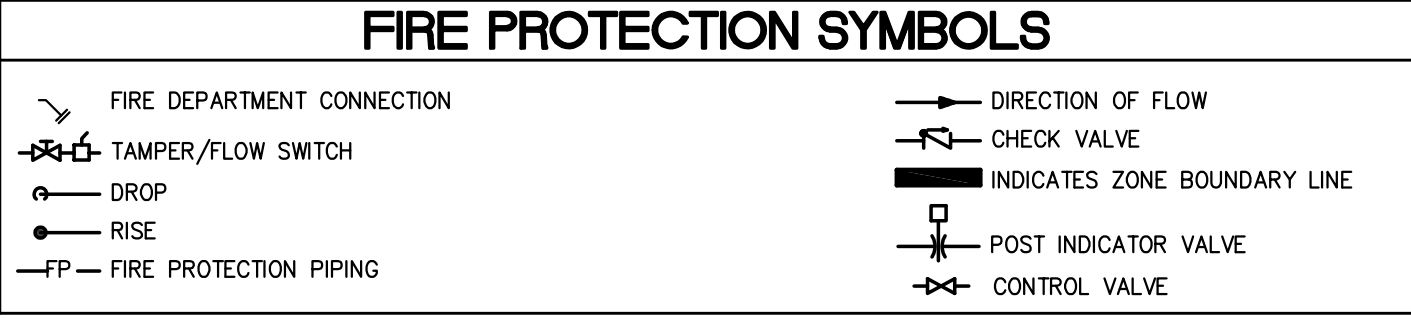
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mark	date	description

### Mezzanine Fire Protection Plan

date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJB  
drawn: TEH FP2.2  
checked: DDK

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**



### GENERAL FIRE PROTECTION NOTES

ALL WORK SHALL CONFORM TO NFPA 13, STATE AND LOCAL PLUMBING AND BACKFLOW PREVENTION CODES, AND THE REQUIREMENTS OF THE LOCAL WATER UTILITY.

A CROSS-CONNECTION CONTROL DEVICE INSPECTOR SHALL TEST ALL BACKFLOW DEVICES AT THE TIME OF INSTALLATION AND SUBMIT REPORTS TO THE LOCAL WATER UTILITY AS REQUIRED.

ALL MATERIALS INSTALLED WITHIN PLENUM SHALL HAVE FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50 IN ACCORDANCE WITH STATE CODES.

THIS CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR FOR CORE DRILLING AS REQUIRED FOR INSTALLATION OF PIPING PENETRATING BUILDING CONSTRUCTION.

REFERENCE ARCHITECTURAL PLANS FOR ALL DIMENSIONS, TYPICAL.

ZONE AREA LISTED ARE FOR INFORMATION PURPOSES. CONTRACTOR IS TO CONFIRM AREAS AND ZONING TO MEET DESIGN REQUIREMENTS.

COORDINATE INSTALLATION WITH OTHER TRADES IN AVAILABLE CEILING SPACE. PROVIDE OFFSETS IN PIPING AS REQUIRED AROUND STRUCTURE, DUCTWORK, ETC. ROUTE PIPING ALONG WITH PLUMBING AND HYDRONIC PIPING MAINS.

ALL DRAIN CONNECTIONS TO SEWER PIPING ARE TO BE INDIRECT CONNECTIONS WITH AIR GAP.

ALL NEW FIRE PROTECTION PIPING 3" AND LARGER MUST BE DISINFECTED PER ANS/AWWA C651-92. SAMPLES FROM 2 CONSECUTIVE DAYS MUST BE TAKEN TO AN APPROVED TEST LAB. LAB ANALYSIS REPORTS SHALL BE SUBMITTED TO THE LOCAL WATER UTILITY AS REQUIRED FOR COMPLIANCE.

FIRE RISERS ARE SHOWN AS POSSIBLE ROUTING LOCATIONS. CONTRACTOR IS TO CONFIRM NUMBER AND LOCATION OF RISERS TO MEET COVERAGE REQUIREMENTS.

### GENERAL PLUMBING NOTES

ALL WORK SHALL CONFORM TO STATE AND LOCAL PLUMBING AND BACKFLOW PREVENTION CODES, AND THE REQUIREMENTS OF THE LOCAL WATER UTILITY.

EQUIPMENT, DOMESTIC WATER PIPING, SANITARY WASTE, SANITARY VENT, AND STORM PIPING LAYOUTS ARE SCHEMATIC IN NATURE. CONTRACTOR MUST ADJUST TO FIELD CONDITIONS AND COORDINATE WITH OTHER TRADES DURING CONSTRUCTION BY ADDING OFFSETS AND ELBOWS WHERE REQUIRED.

VACUUM BREAKERS MUST BE INSTALLED ON ALL EXISTING OR PROPOSED HOSE THREAD FITTINGS, INCLUDING BUT NOT LIMITED TO HOSE BIBBS, WALL/ YARD HYDRANTS, MOP/ SERVICE SINKS.

A CROSS-CONNECTION CONTROL DEVICE INSPECTOR SHALL TEST ALL BACKFLOW DEVICES AT THE TIME OF INSTALLATION AND SUBMIT REPORTS TO THE LOCAL WATER UTILITY AS REQUIRED.

ALL WATER LINES 3" AND LARGER MUST BE DISINFECTED PER ANS/AWWA C651-92. SAMPLES FROM 2 CONSECUTIVE DAYS MUST BE TAKEN TO AN APPROVED TEST LAB. LAB ANALYSIS REPORTS SHALL BE SUBMITTED TO THE LOCAL WATER UTILITY AS REQUIRED FOR COMPLIANCE.

COORDINATE EXACT LOCATION OF ROOF DRAINS WITH ARCHITECTURAL AND STRUCTURAL PLANS.

ALL MATERIALS INSTALLED WITHIN PLENUM SHALL HAVE FLAME SPREAD RATING OF NOT MORE THEN 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50 IN ACCORDANCE WITH STATE CODES.

THIS CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND LABOR FOR CORE DRILLING AS REQUIRED FOR INSTALLATION OF PIPING PENETRATING BUILDING CONSTRUCTION.

TYPE "K" COPPER TUBING SHALL BE USED FOR ALL DOMESTIC SUPPLY PLUMBING BELOW SLAB. NO FITTINGS SUCH AS COUPLINGS, TEES, OR ELBOWS SHALL BE USED BELOW OR WITHIN SLAB.

ALL EQUIPMENT USING NATURAL GAS SHALL HAVE A GAS COOK AND DIRT LEG FOR EACH PIECE OF EQUIPMENT. REFERENCE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, TYPICAL.

ALL EQUIPMENT AND MATERIALS SHALL BE UL LISTED AND LABELED FOR TYPE OF EQUIPMENT AND MATERIALS FOR WHICH LISTING AND LABELING IS AVAILABLE.

### GENERAL CONDITIONS NOTE

ALL CONTRACTORS, BY MAKING THEIR BID, REPRESENT THAT THEY HAVE READ AND UNDERSTAND THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL REFER TO THE ENTIRE CONSTRUCTION DOCUMENT SET FOR GUIDANCE ON DIMENSIONS, HEIGHTS, DETAILING, ETC., AND INSTALL THEIR WORK SO AS NOT TO INTERFERE WITH THE INSTALLATION OF ANOTHER DISCIPLINE'S WORK OR THE GENERAL INTENT OF THE CONSTRUCTION DOCUMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND/ OR DRAWINGS, THE ARCHITECT SHALL DETERMINE WHICH INFORMATION GOVERNS.

M/PE TRADES NOTE: IN REFERRING TO THIS SHEET YOU ACKNOWLEDGE:  
1.) REVIEWING THE ENTIRE DRAWING SET INCLUDING ALL 'S', 'C' & 'H' SERIES;  
2.) COORDINATING WITH THE GENERAL TRADES CONTRACTOR OR C.M. FOR EXACT DETAILING, HEIGHTS, ETC. PRIOR TO INSTALLING WORK.

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL THROUGH PENETRATION FIRESTOP SYSTEMS AS REQUIRED TO SEAL WHERE PIPING PENETRATES A FIRE RATED WALL, FLOOR, OR OTHER LISTED ASSEMBLY. THE FIRE PROTECTION CONTRACTOR IS TO REVIEW LIFE SAFETY, AND ALL OTHER ARCHITECTURAL, DRAWINGS FOR THE EXACT LOCATION OF FIRE RATED ASSEMBLIES.

THIS CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE EXACT PIPE ROUTING WITH THE PLUMBING, MECHANICAL, AND ELECTRICAL CONTRACTORS. FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL DRAINS, FITTINGS, PIPING, AND OFFSETS AS REQUIRED TO ROUTE FIRE SUPPRESSION PIPING AROUND ALL NEW PLUMBING, MECHANICAL, AND ELECTRICAL PIPING AND EQUIPMENT TO BE INSTALLED AS PART OF THIS PROJECT.

COORDINATE ROUTING OF ALL PIPING WITH ELECTRICAL PANEL LOCATIONS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS AND PROVIDE ALL WORKING CLEARANCES PER THE NATIONAL ELECTRICAL CODE.

FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS FOR CEILING CONDITIONS IN ALL SPACES. PROVIDE SPRINKLER HEADS AND SPACING AS REQUIRED BY NFPA 13 AND AUTHORITY HAVING JURISDICTION.

THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW, COORDINATE AND INCLUDE ALL DIVISION 21 WORK INDICATED ON ANY OF THE PROJECT DRAWINGS AS WORK OF THIS PROJECT, TO INCLUDE BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, PLUMBING, MECHANICAL, DRAWINGS, ETC.

AT ANY LOCATION WHERE FIRE PROTECTION PIPING PENETRATES AND ROUTES THROUGH A FINISHED WALL, CEILING, FLOOR, ETC., THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL EITHER AN PIPE ESCUTECHON OR A FABRICATED ENCLOSURE TO COVER ANY OPENING WITHIN THE FINISHED WALL/CEILING. PROVIDE A MOCK UP OF THE FABRICATED ENCLOSURE FOR THE ARCHITECT AND OWNERS APPROVAL PRIOR TO THE INITIATION OF ANY WORK.

FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL SPRINKLER PROTECTION UP WITHIN ANY OPEN CEILING (CAVITY) AS REQUIRED BY NFPA 13 AND AUTHORITY HAVING JURISDICTION. FIRE PROTECTION CONTRACTOR SHALL REVIEW ALL DRAWINGS AND COORDINATE WITH ALL TRADES TO IDENTIFY ALL AREAS THAT REQUIRE TO BE PROTECTED WITH THE FIRE SPRINKLER SYSTEM.

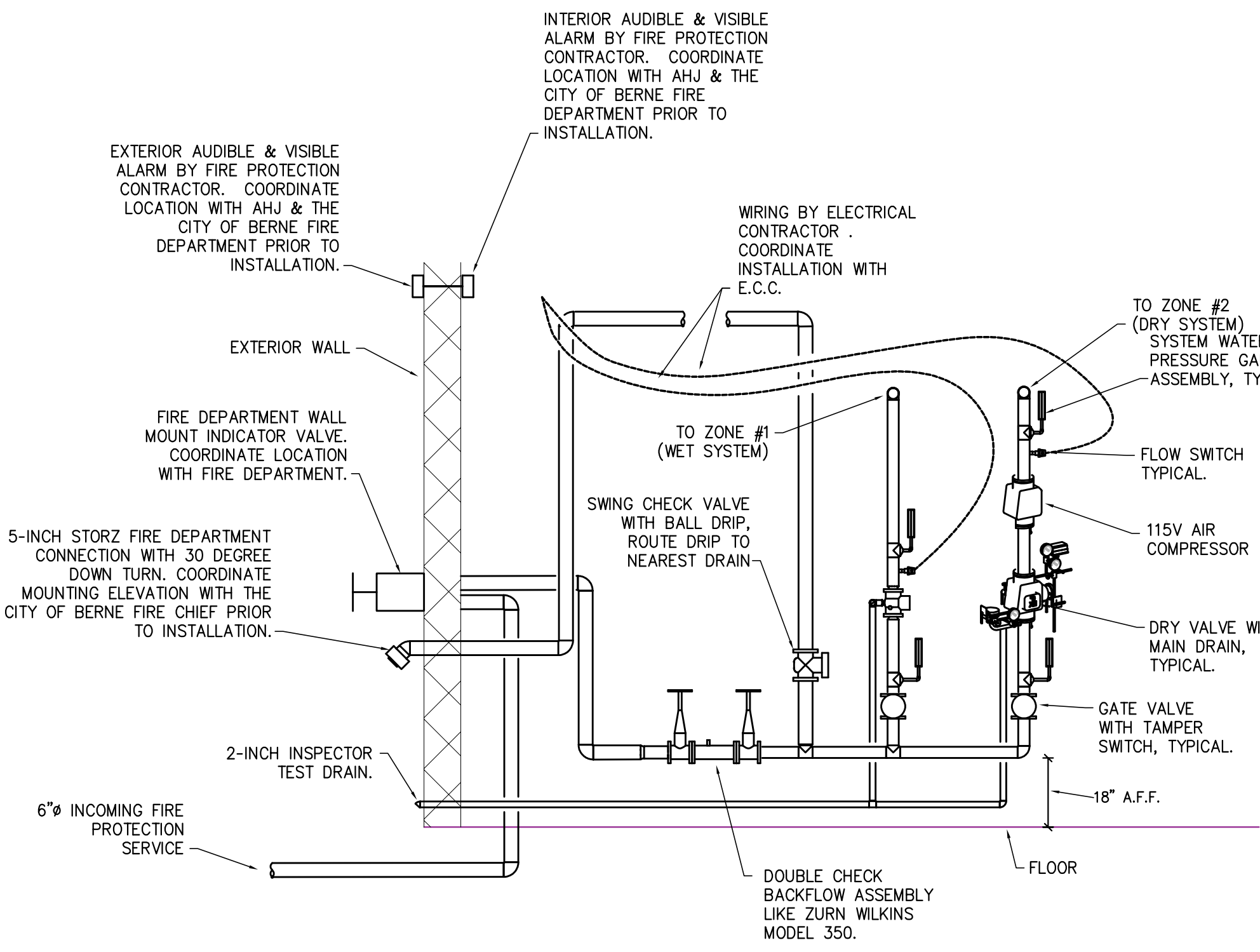
THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL ALL THROUGH PENETRATION FIRESTOP SYSTEMS AS REQUIRED TO SEAL WHERE PIPING PENETRATES A FIRE RATED WALL, FLOOR, OR OTHER LISTED ASSEMBLY. THE PLUMBING CONTRACTOR IS TO REVIEW LIFE SAFETY, AND ALL OTHER ARCHITECTURAL, DRAWINGS FOR THE EXACT LOCATION OF FIRE RATED ASSEMBLIES.

COORDINATE ROUTING OF ALL PIPING WITH ELECTRICAL PANEL LOCATIONS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS AND PROVIDE ALL WORKING CLEARANCES PER ELECTRICAL CODE. COORDINATE ROUTING WITH ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL DRAWINGS FOR PANEL LOCATIONS.

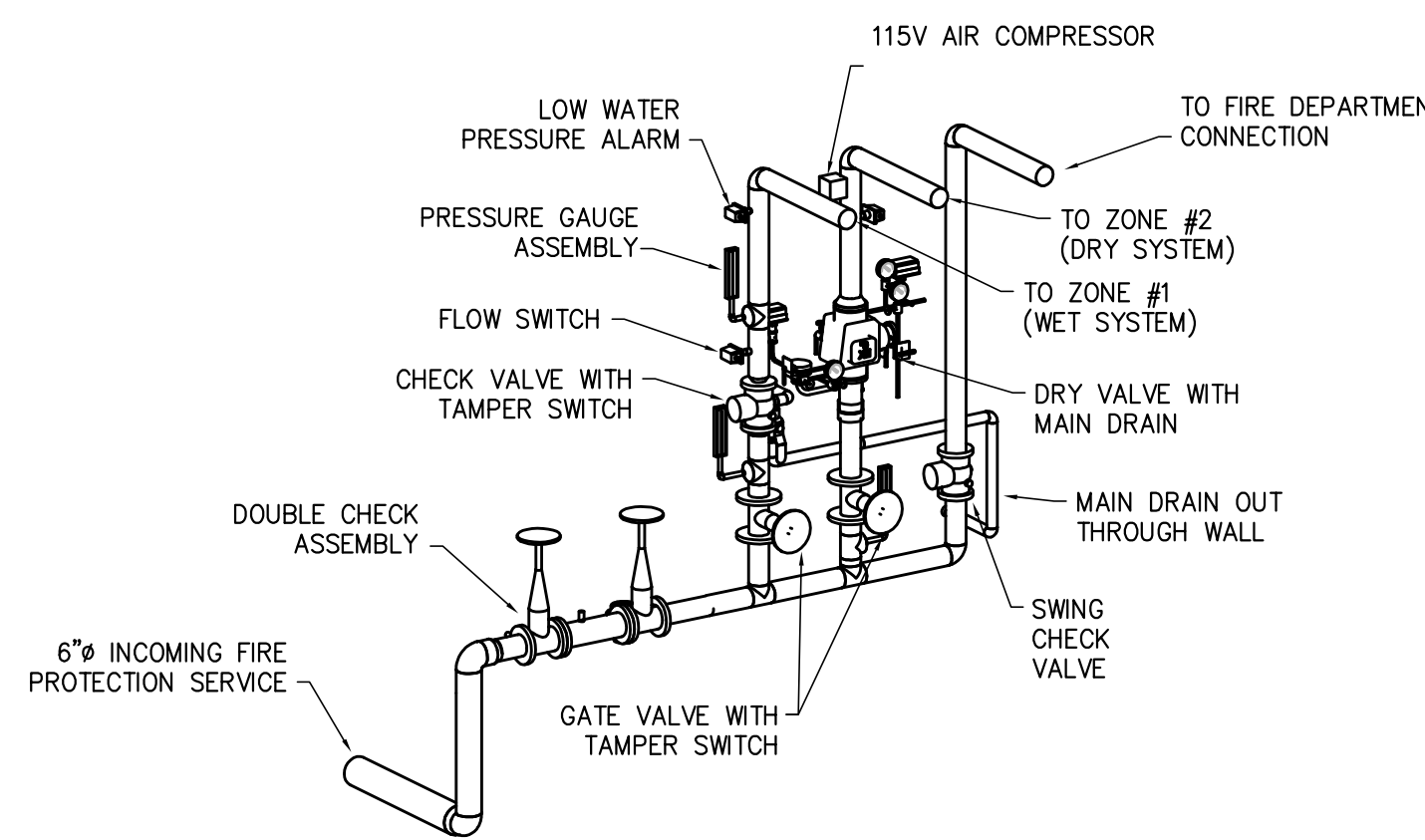
ALL MATERIALS INSTALLED WITHIN PLENUM SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50 IN ACCORDANCE WITH STATE CODES.

THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW, COORDINATE AND INCLUDE ALL DIVISION 22 WORK INDICATED ON ANY OF THE PROJECT DRAWINGS AS WORK OF THIS PROJECT, TO INCLUDE BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, PLUMBING, MECHANICAL, DRAWINGS, ETC.

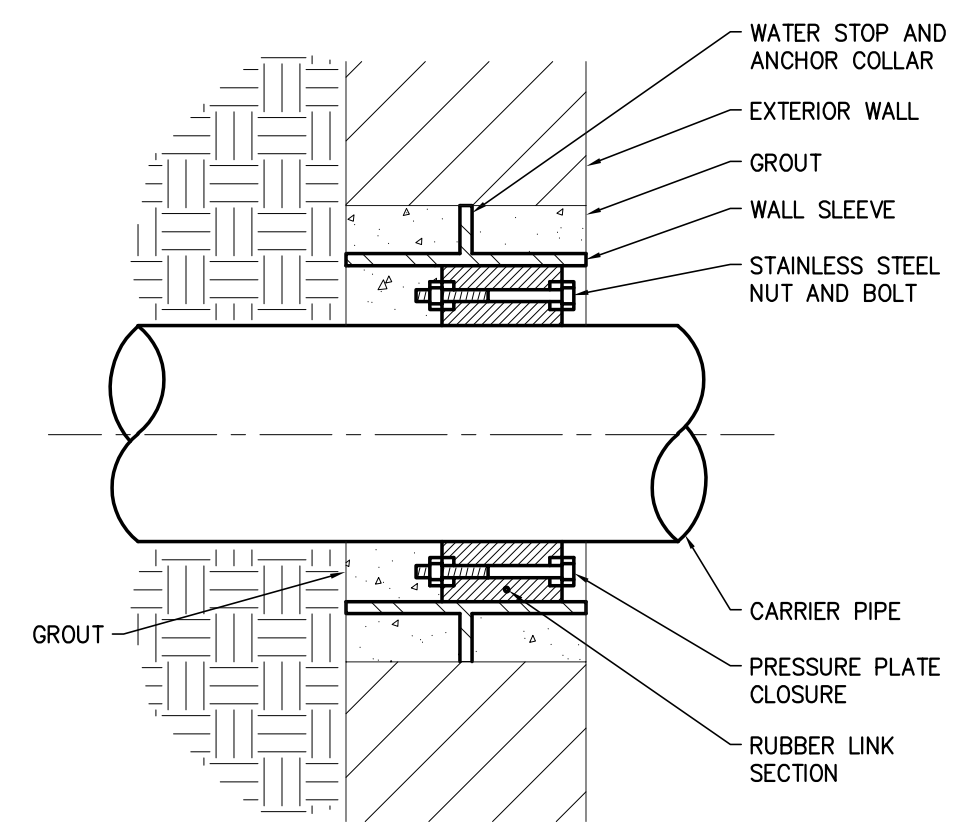
BUILDING STRUCTURE IS NOT SHOWN. PROVIDE ALL FITTINGS, OFFSETS, AND DRAINS AS REQUIRED FOR INSTALLATION OF FIRE PROTECTION SYSTEM. CONTRACTOR SHALL MOUNT ALL PIPING TIGHT TO BUILDING STRUCTURE.



**FIRE PROTECTION RISER DIAGRAM**  
NOT TO SCALE



**FIRE PROTECTION RISER ISOMETRIC**  
NOT TO SCALE



**EXTERIOR WALL SLEEVE DETAIL**  
NOT TO SCALE

A PROJECT FOR:



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mark	date	description

Fire Protection and Plumbing General Notes

date: March 2, 2022  
project: 473003 (212600)  
coordinator: XXX  
drawn: XXX FPG1.0  
checked: XXX

**PLUMBING PLAN NOTES**

- ① MINIMUM INVERT ELEVATION SHALL BE 2'-3" (67'-4") BELOW FINISHED FLOOR. PROVIDE NOT LESS THAN MINIMUM SLOPE 1/8" PER FOOT OVER THE ENTIRE LENGTH OF SANITARY PIPING PER THE 2012 INDIANA PLUMBING CODE. COORDINATE INVERT ELEVATION WITH THE SITE CONTRACTOR.
- ② MINIMUM INVERT ELEVATION SHALL BE 2'-1" (67'-11") BELOW FINISHED FLOOR. PROVIDE NOT LESS THAN MINIMUM SLOPE 1/8" PER FOOT OVER THE ENTIRE LENGTH OF SANITARY PIPING PER THE 2012 INDIANA PLUMBING CODE. COORDINATE INVERT ELEVATION WITH THE SITE CONTRACTOR.
- ③ TO OIL / SAND OIL SEPARATOR. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- ④ 4" SANITARY PIPING TO BE CONNECTED DOWNSTREAM OF THE OIL / SAND SEPARATOR. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- ⑤ REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.

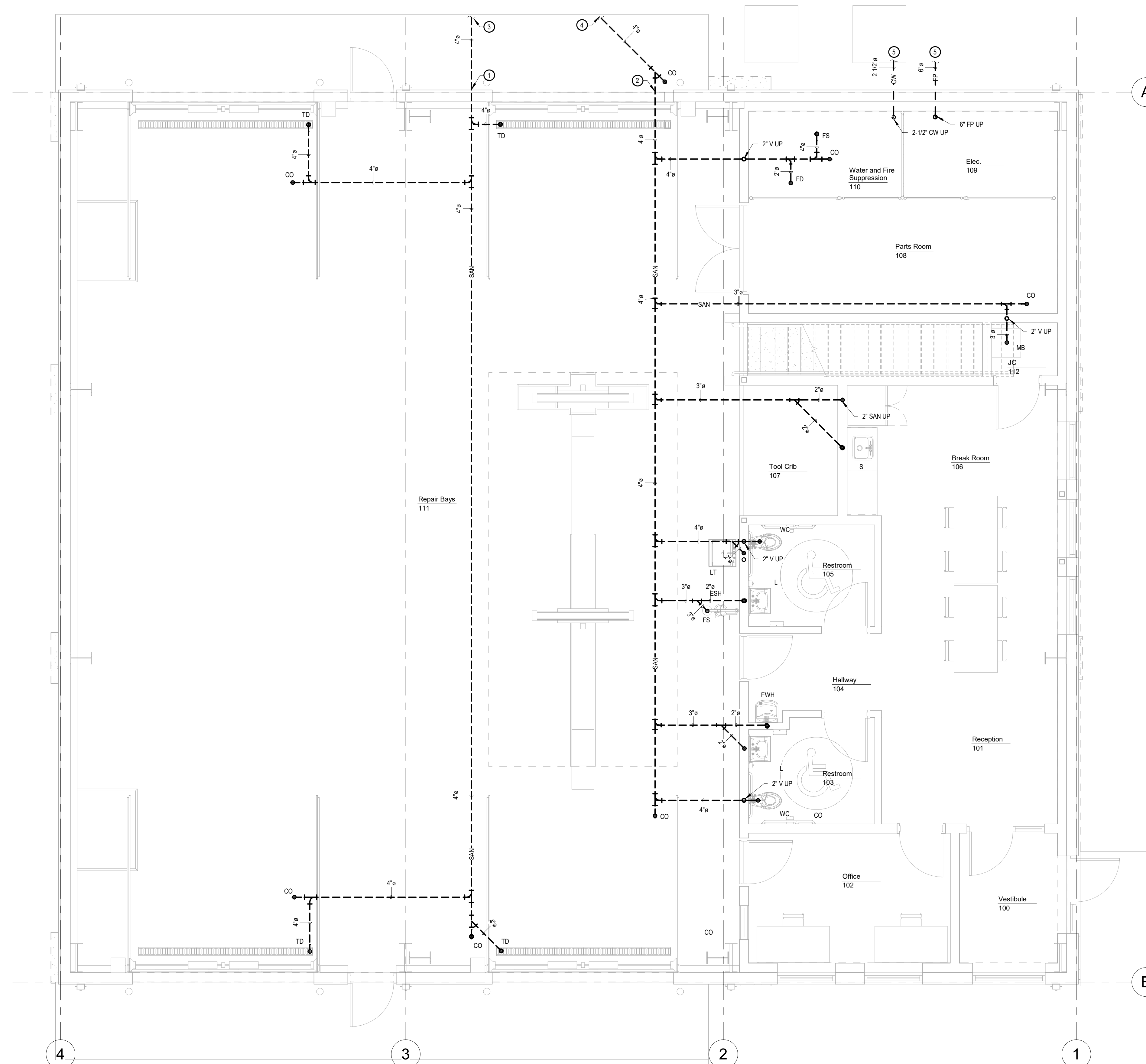
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*Douglas D. Kelsey*

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**Underground Plumbing Plan**  
SCALE 1" = 4'

A PROJECT FOR:



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mark	date	description

**Underground Plumbing Plan**

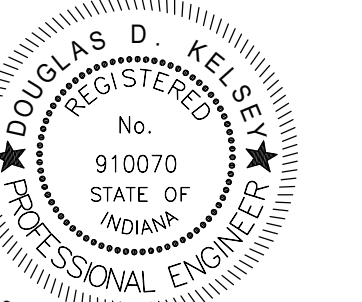
date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJB  
drawn: TEH P1.1  
checked: DDK

### PLUMBING PLAN NOTES

- ① ROUTE 3/4" CW, 3/4" HW, AND 1-1/2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURE. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ② ROUTE 3/4" CW, 3/4" HW, AND 2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURE. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ③ ROUTE 1" CW, 3/4" HW, AND 1-1/2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURES. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ④ ROUTE 3/4" CW AND 1-1/2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURE. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ⑤ ROUTE 1" CW AND 2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURES. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ⑥ ROUTE 1-1/2" CW, 1-1/2" HW, AND 1-1/2" VENT PIPING DOWN WITHIN WALL FOR FINAL CONNECTION TO PLUMBING FIXTURES. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ⑦ PROVIDE AND INSTALL IN-LINE CHECK VALVE ON BOTH THE COLD WATER AND HOT WATER SUPPLY PIPING ROUTED DOWN TO MOP BASIN.
- ⑧ PROVIDE AND INSTALL WATER HAMMER ARRESTORS ON COLD AND HOT WATER PIPING. REFER TO WATER HAMMER ARRESTOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ⑨ APPROXIMATE LOCATION FOR WALL HYDRANTS. COORDINATE EXACT ELEVATIONS OF HYDRANTS WITH ARCHITECT PRIOR TO INSTALLATION.
- ⑩ REFER TO ELECTRIC WATER HEATER DETAIL FOR ADDITIONAL INFORMATION.
- ⑪ REFER TO INCOMING DOMESTIC WATER DETAIL FOR ADDITIONAL INFORMATION.
- ⑫ PROVIDE AND INSTALL HYDRAULIC LEAK DETECTION SYSTEM IN THE BOTTOM OF THE LIFT PIT LIKE DORLAN PRODUCTS INC., MODEL - "OL ALERT" LIQUID LEAK DETECTOR. PROVIDE SYSTEM WITH (2) 2100 FLOOR MOUNTED SENSORS, WALL MOUNT SERIES 2100 MONITOR, DORLAN TYPE P INTERCONNECT CABLE, AND AUDIBLE ALARM. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL WIRING, RELAYS, AND ACCESSORIES AS REQUIRED TO INTERLOCK THE FLOOR SENSOR IN THE LIFT PIT AND THE WALL MOUNTED MONITOR FOR A COMPLETE AND FUNCTIONING SYSTEM. WIRING SHALL BE INSTALLED PER ELECTRICAL SPECIFICATIONS. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

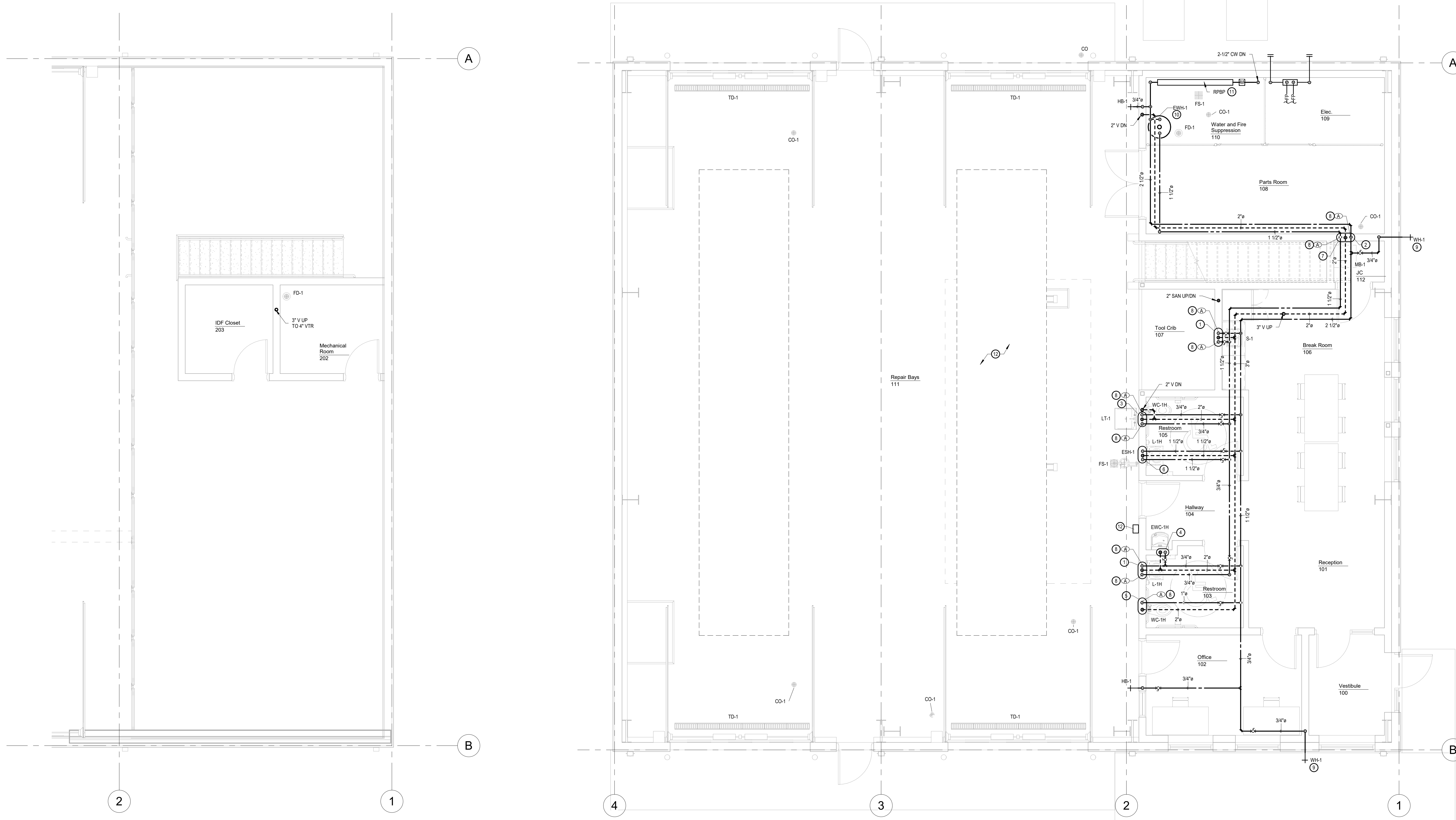
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*Douglas D. Kelsey*

# CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING



**Mezzanine Plumbing Plan**  
SCALE 1" = 4'

**First Floor Plumbing Plan**  
SCALE 1" = 4'

A PROJECT FOR:



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mark	date	description

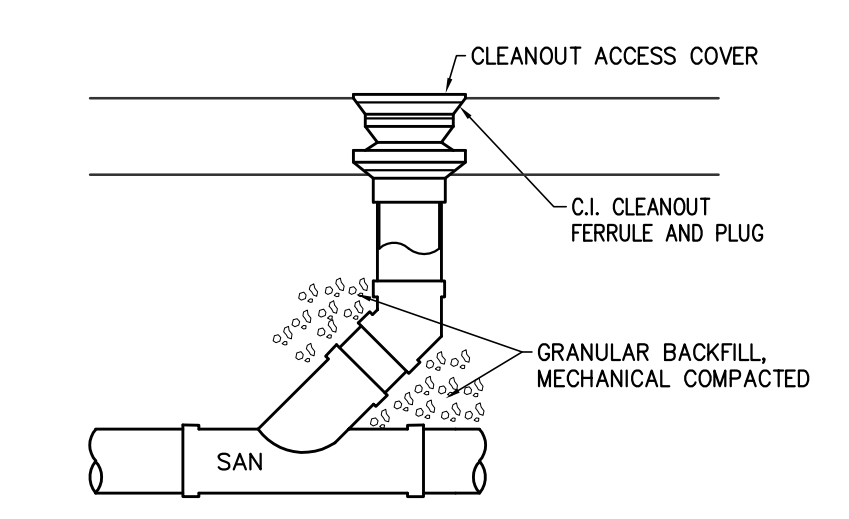
**Plumbing Plans**

date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJB  
drawn: TEH **P2.1**  
checked: DDK

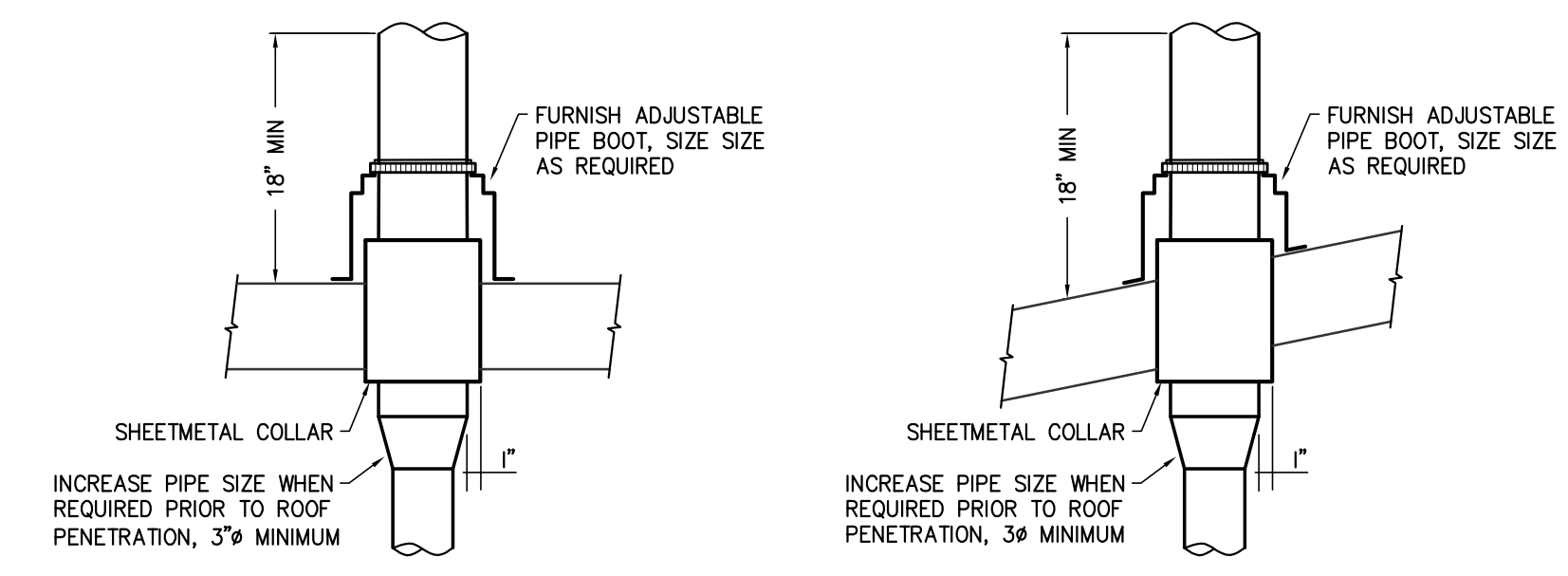
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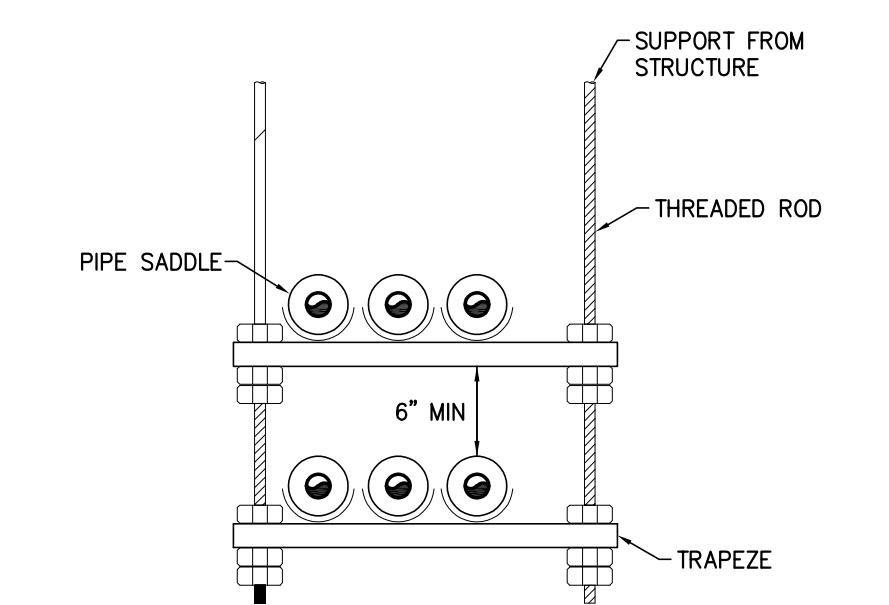
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**



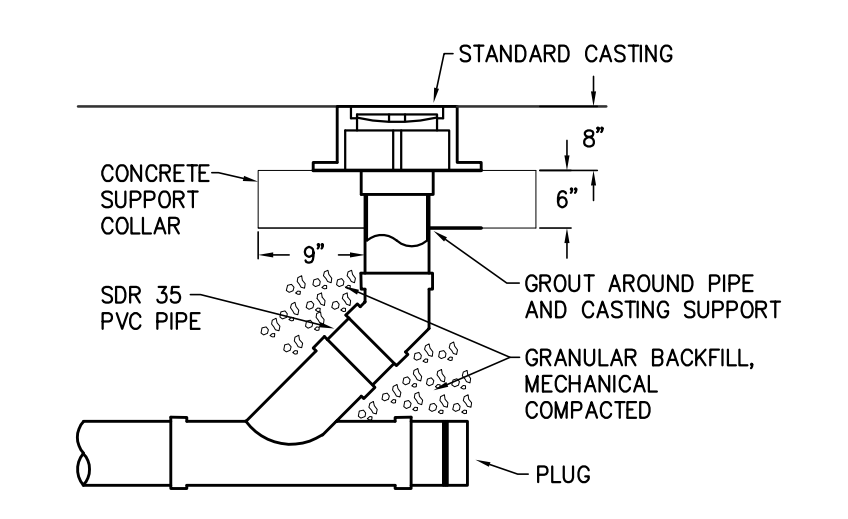
**INTERIOR CLEANOUT DETAIL**  
 NOT TO SCALE



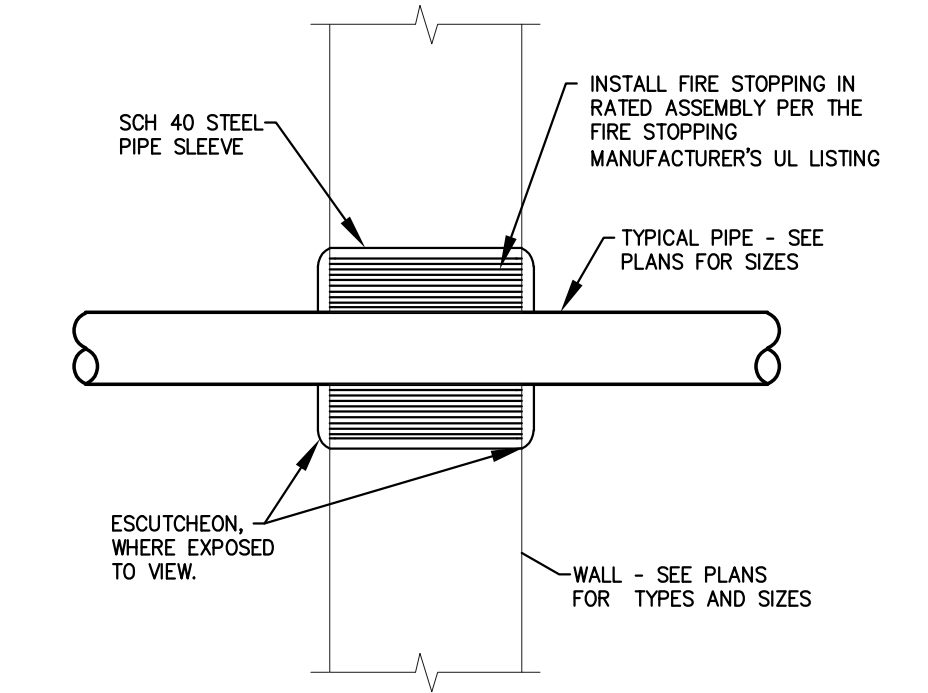
**VENT THRU ROOF**  
 NOT TO SCALE



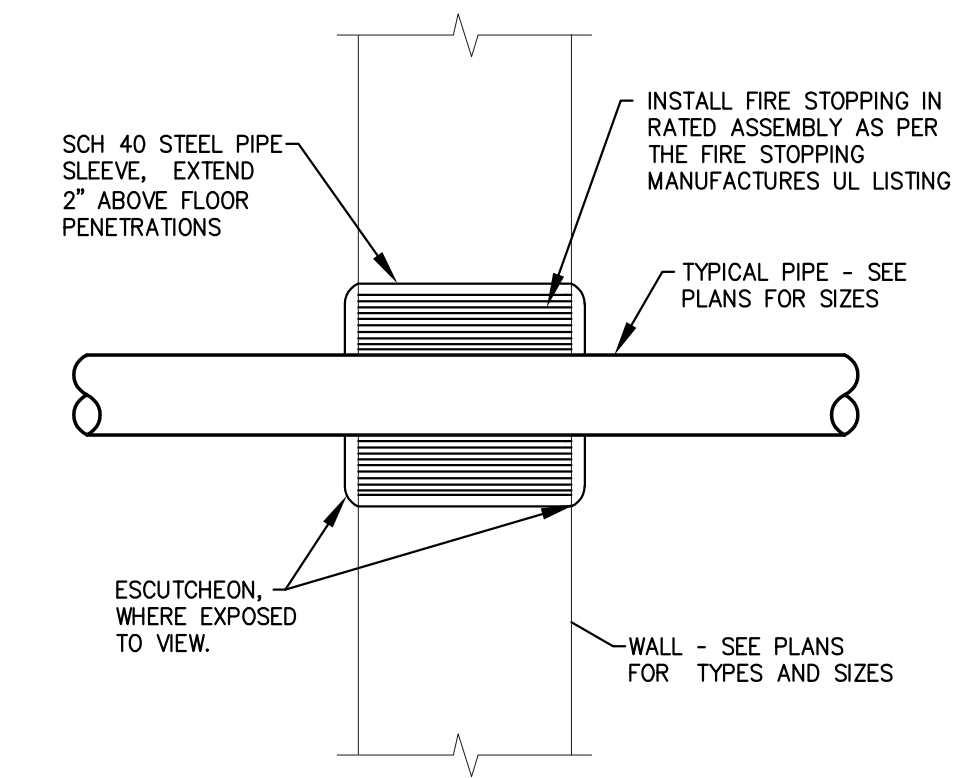
**PIPE SUPPORT DETAIL**  
 NOT TO SCALE



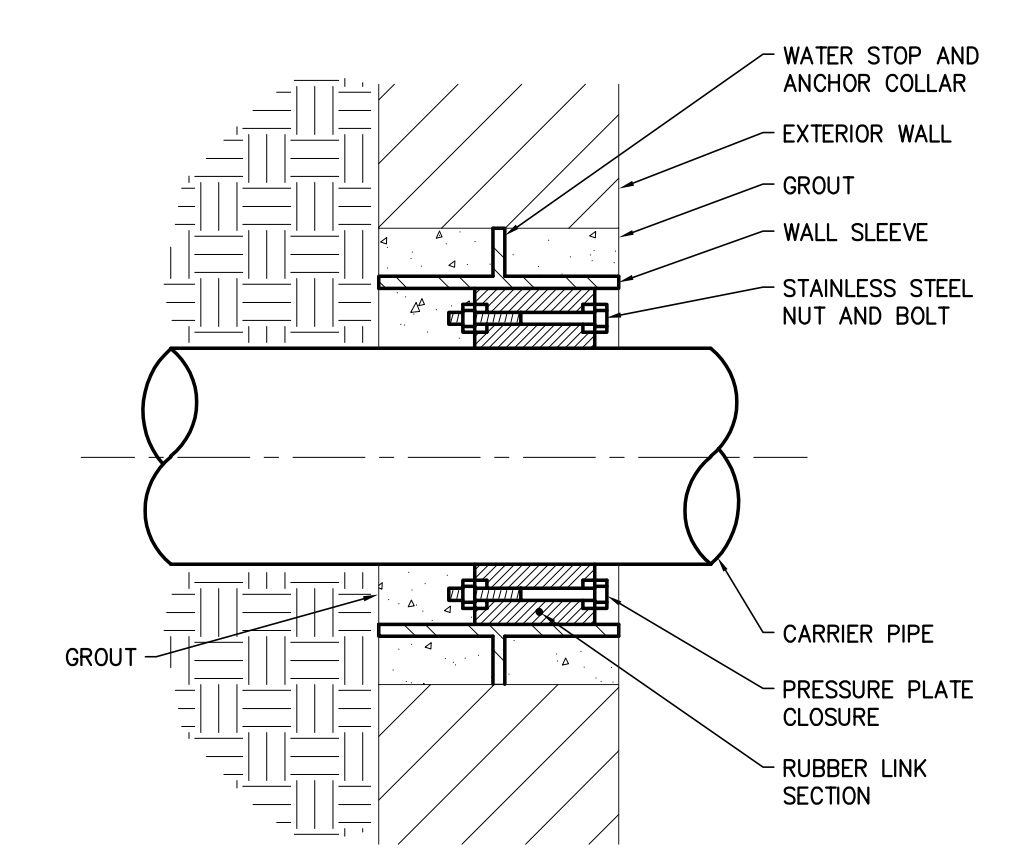
**EXTERIOR CLEANOUT DETAIL**  
 NOT TO SCALE



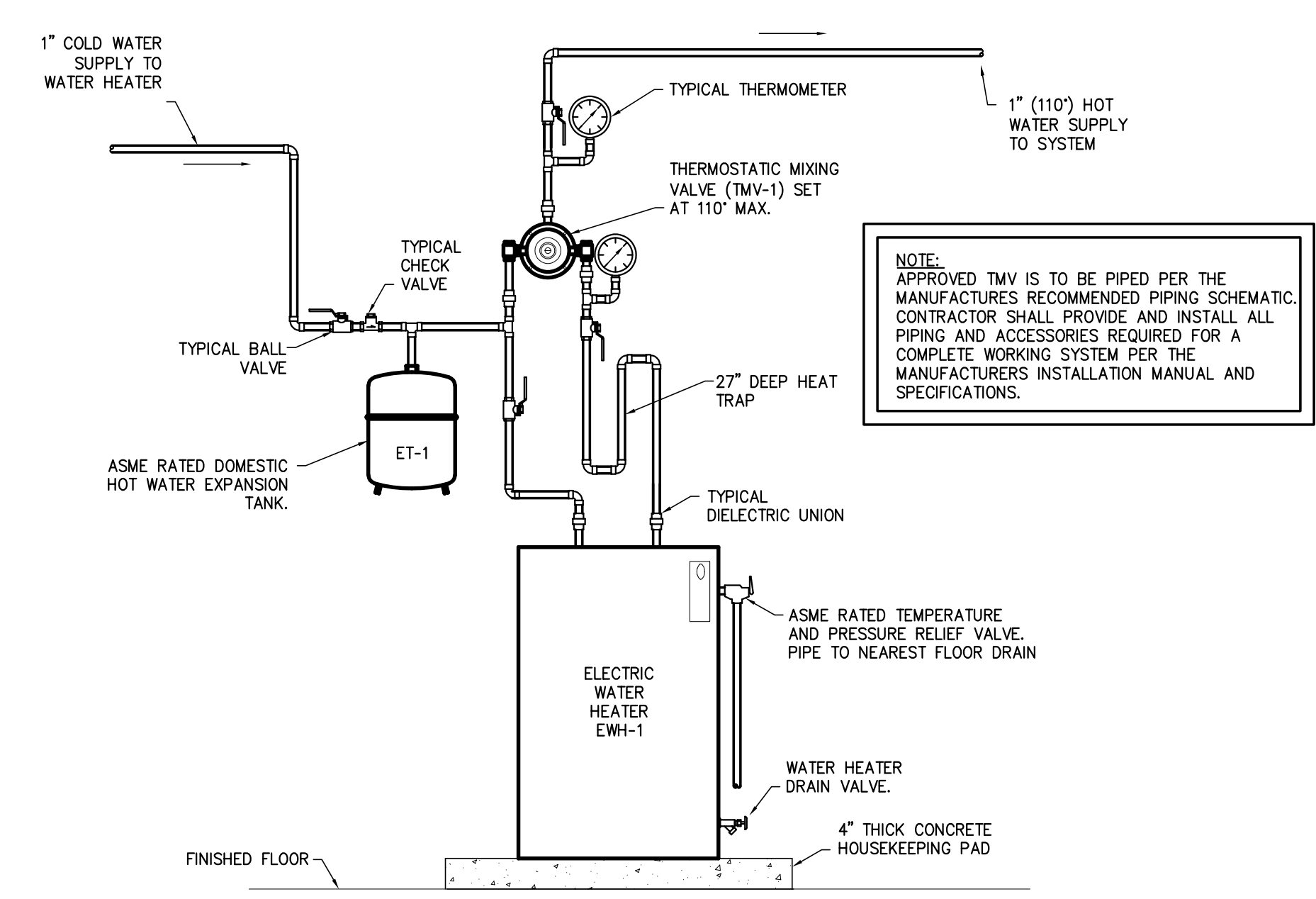
**TYPICAL PIPING FIRE WALL OR CEILING PENETRATION DETAIL**  
 NOT TO SCALE



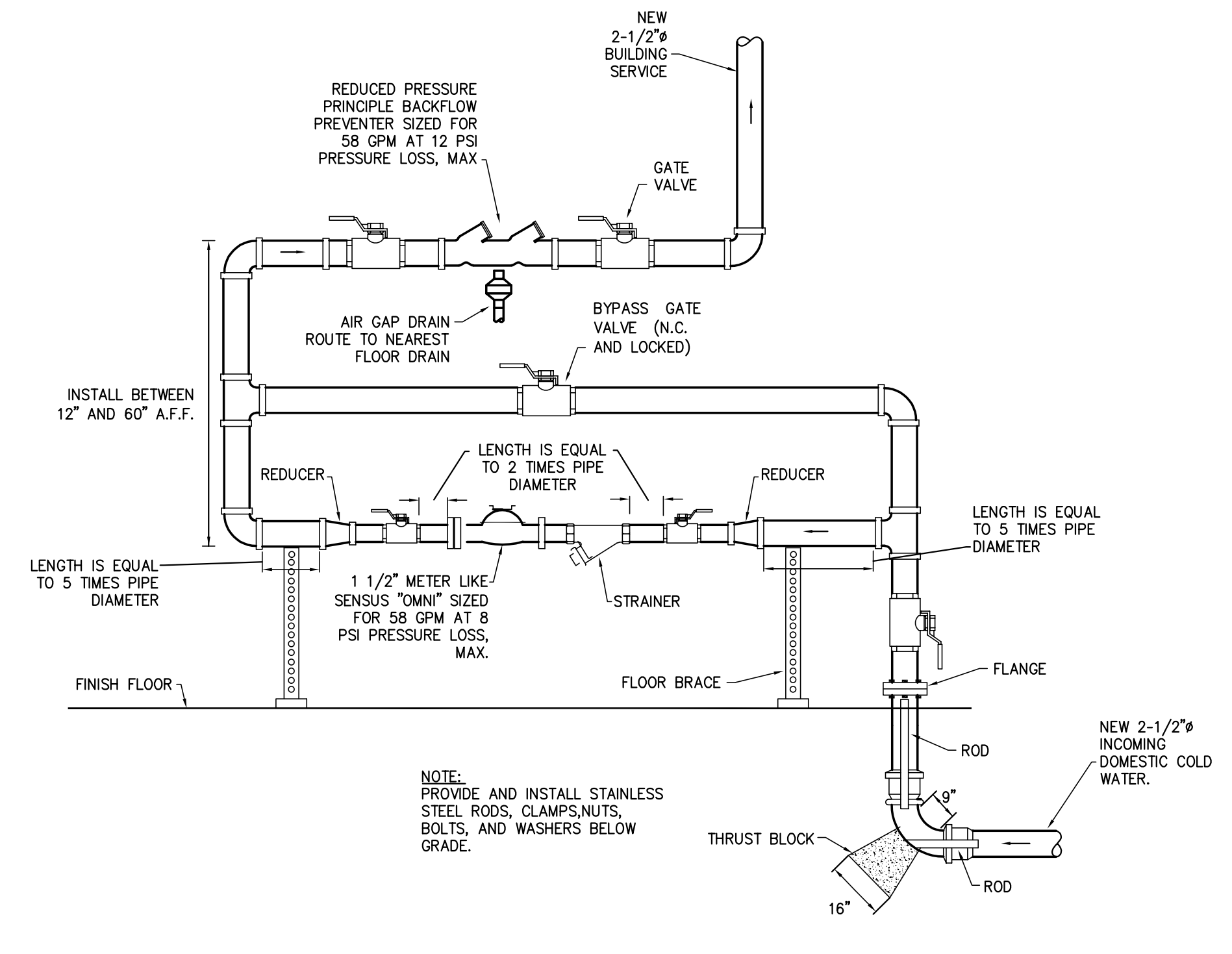
**TYPICAL PIPING FIRE WALL FLOOR PENETRATION DETAIL**  
 NOT TO SCALE



**EXTERIOR WALL SLEEVE DETAIL**  
 NOT TO SCALE



**ELECTRIC WATER HEATER DETAIL**  
 NOT TO SCALE



**DOMESTIC WATER ENTRANCE DETAIL**  
 NOT TO SCALE

A PROJECT FOR:



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mark	date	description

**Plumbing Details**

date: March 2, 2022  
 project: 473003 (212600)  
 coordinator: XXX  
 drawn: XXX P5.1  
 checked: XXX



PLUMBING FIXTURE SCHEDULE											
FIXTURE	MFR	FIXTURE MODEL	TRIM			PIPE CONNECTIONS				REMARKS	
			MFR	MODEL	TYPE	W	V	HW	CW		COLOR
WC-1H	AMERICAN STANDARD	2467-016	---	---	TANK TYPE	3"	2"	---	1/2"	WHITE	1, 3, 4
L-1H	AMERICAN STANDARD	G355-012	CHICAGO	802-1000ABC	LEVER HANDLE	1 1/2"	1 1/2"	1/2"	1/2"	WHITE	6, 7, 8, 13, 14
S-1	ELKAY	LR 1720	CHICAGO	78E-GNBAE3ABCP	LEVER HANDLE	2"	1 1/2"	1/2"	1/2"	STAINLESS	9, 27
EW-C-1H	ELKAY	EZSBL	----	----	----	1 1/4"	1 1/4"	----	1/2"	STAINLESS	9, 10, 11
ESH-1	HANS	8336	----	----	----	1 1/2"	----	1"	1"	GREEN	34, 35
CD-1	JOSAM	55000-1-22	----	----	----	----	----	----	----	----	15, 16
FD-1	JOSAM	30000-A	----	----	----	----	----	----	----	----	17, 18, 19, 20
FS-1	JOSAM	48340A-NB	----	----	----	----	----	----	----	----	21, 22
TD-1	EAST JORDAN	6954	----	----	----	----	----	----	----	----	36
MB-1	FIAT	MSB2424	CHICAGO	897	FAUCET	3"	1 1/2"	1/2"	1/2"	WHITE	12
LT-1	FIAT	TATI	----	----	----	2"	1 1/2"	1/2"	1/2"	WHITE	37, 38
WH-1	WOODFORD	W65	----	----	----	----	----	3/4"	----	BRONZE	23
HB-1	WOODFORD	24	----	----	----	----	----	3/4"	----	BRONZE	33

REMARKS:

1. PROVIDE HEAVY DUTY ELONGATED WHITE OPEN FRONT PLASTIC SEAT WITH CHECK HINGE AMERICAN STANDARD MODEL 5905/100 OR EQUIVALENT.
2. MOUNT RIM AT 15" A.F.F.
3. PROVIDE AND INSTALL UNIT WITH 3/8" ANGLE SUPPLY WITH STOPS.
4. INSTALL TRIP LEVER ON THE WIDE SIDE OF THE STALL.
5. NOT USED.
6. PROVIDE AND INSTALL JOSAM SERIES 17000 SERIES FLOOR MOUNTED CONCEALED ARM CARRIER.
7. PROVIDE AND INSTALL WITH 17 GAUGE P-TRAP, ANGLE STOPS WITH LOOSE KEY HANDLES, AND VANDAL PROOF GRID STRAINER.
8. PROVIDE AND INSTALL UNIT WITH PIPE WRAP KIT EQUAL TO TRUBRO OR PLUMBEREX PRO.
9. MOUNT MAXIMUM OF 34" A.F.F. TO BOILER WITH A MINIMUM OF 27" CLEARANCE BELOW TO MEET A.D.A. REQUIREMENTS.
10. PROVIDE AND INSTALL 17 GAUGE P-TRAP AND ANGLE STOPS WITH LOOSE KEY HANDLES.
11. PROVIDE UNIT WITH MOUNTING FRAME, COOLING UNIT, AND ALL REQUIRED PANELS AND MISCELLANEOUS PARTS REQUIRED BY MANUFACTURER FOR INSTALLATION.
12. PROVIDE AND INSTALL VACUUM BREAKER, PAL, HOOK, HOSE MODEL 632-AA AND MOP HANGER, AND STRAINER.
13. MOUNT RIM AT 24" A.F.F. TO BOTTOM OF APRON.
14. PROVIDE AND INSTALL WITH BRAIDED STAINLESS STEEL SUPPLIES.
15. CLEANOUTS SHALL BE SIZED PER PLANS.
16. PROVIDE AND INSTALL UNIT FOR FINISHED FLOOR, ROUND TOP.
17. FLOOR DRAINS SHALL BE SIZED PER PLANS.
18. PROVIDE AND INSTALL UNIT WITH NIKALOY ROUND TOP.
19. PROVIDE AND INSTALL UNIT WITH DEEP SEAL TRAP.
20. PROVIDE AND INSTALL UNIT WITH SURE SEAL, INLINE FLOOR DRAIN TRAP SEAL.
21. MOUNT RIM AT 17" A.F.F.
22. MOUNT RIM AT 24" A.F.F.
23. UNIT TO BE NON-FREEZE, AUTOMATIC DRAIN TYPE WITH LOOSE KEY STOPS AND VACUUM BREAKER.
24. ROOF DRAINS SHALL BE SIZED PER PLANS.
25. CUSTOM COLOR TO BE SELECTED BY ARCHITECT.
26. PROVIDE UNIT WITH MANUFACTURER SUPPLIED NAVIGATOR THERMOSTATIC MIXING ASSEMBLY.
27. PROVIDE AND INSTALL WITH 17 GAUGE P-TRAP, ANGLE STOPS WITH LOOSE KEY HANDLES. FAUCETS SHALL BE ADA COMPLIANT.
28. PROVIDE AND INSTALL UNIT WITH INFRARED FAUCETS AND PLUG-IN ADAPTERS.
29. PROVIDE AND INSTALL JOSAM SERIES 17560-UR FLOOR MOUNTED URINAL CHAIR CARRIER WITH DEEP SEAL TRAP.
30. PROVIDE AND INSTALL UNIT WITH ROUGH-INS FOR DRAIN THROUGH FLOOR AND WATER SUPPLY CONNECTION THROUGH WALL.
31. PROVIDE AND INSTALL UNIT WITH THERMOSTATIC MIXING VALVE.
32. UNIT TO BE STANDARD HEIGHT.
33. PROVIDE AND INSTALL UNIT WITH VACUUM BREAKER AND METAL WHEEL HANDLE.
34. UNIT TO BE FLOOR MOUNTED.
35. PROVIDE AND INSTALL WITH ARON MSR DRENCH SHOWER HEAD AND EYE/FACE WASH HEAD, AND MODEL 9201E THERMOSTATIC MIXING VALVE WITH ASSE 1071 LISTING.
36. PROVIDE AND INSTALL 14-INCH WIDE HEAVY DUTY, UNBOLTED DUCTILE IRON SLOTTED GRATE AND INSTALLATION FRAME AS REQUIRED FOR INSTALLATION INTO 12-WIDE CONCRETE TRENCH.
37. PROVIDE AND INSTALL WITH MANUFACTURER PROVIDED CHROME DUCTILE FAUCET WITH 4" CENTERED, 4" WRISTBLADE HANDLES, SWING SPOUT, AERATOR, AND HOSE ADAPTOR.
38. PROVIDE AND INSTALL WITH 4" CENTERS, ELKAY LK-18 DRAIN, 17 GAUGE P-TRAP, AND ANGLE STOPS WITH LOOSE KEY HANDLES.

WATER HAMMER ARRESTOR SCHEDULE					
MARK	MANUFACTURE	MODEL #	MAX. FIXTURE UNIT CAPACITY	CONNECTION SIZE	REMARKS
A	SIoux CHEF	652-A	1 TO 11	1/2"	1
B	SIoux CHEF	653-B	12 TO 32	3/4"	1
C	SIoux CHEF	654-C	33 TO 60	1"	1
D	SIoux CHEF	655-D	61 TO 113	1 1/4"	1
E	SIoux CHEF	656-E	114 TO 154	1 1/2"	1
F	SIoux CHEF	657-F	155 TO 330	2"	1

REMARKS:

1. PLUMBING CONTRACTOR SHALL INSTALL SHOCK ABSORBER AT EACH WATER LINE SERVING A BANK OF PLUMBING FIXTURE DOWNSTREAM OF MAIN SHUT-OFF VALVE PER ABOVE SCHEDULE OR AS SHOWN ON DESIGN DRAWINGS.

TEMPERATURE MIXING VALVE SCHEDULE								
TAG	MANUFACTURE	MODEL	MIN. / MAX. FLOW (GPM)	DESIGN FLOW (GPM)	DESIGN PRESS. DROP (PSI)	OUTLET TEMP. (DEG. F)	SERVICE	REMARKS
TMV-1	LAWLER	67-25	1 / 10	8	10	110	ADMIN. SUITE	1, 2, 3

REMARKS:

1. PROVIDE AND INSTALL UNIT WITH CHECK VALVES ON HOT AND COLD WATER SUPPLY, INTEGRAL OUTLET THERMOMETER AND SHUT-OFF VALVE ON TEMPERED WATER OUTLET.
2. PROVIDE AND INSTALL AN EXPOSED ASSEMBLY WITH ROUGH BRASS FINISH.
3. VALVE SHALL FAIL TO THE COLD SUPPLY.

ELECTRIC WATER HEATER SCHEDULE								
TAG	MANUFACTURE	MODEL	ELEMENT KW	STORAGE CAPACITY GAL.	100 DEG. RISE RECOVERY GPH	ELECTRICAL (V / PH)	AREA SERVED	REMARKS
EW-1	LOCHINVAR	LDT-50 TK	4.5 (x2)	50	19	208 / 3	ADMIN. SUITE	1, 2, 3, 4

REMARKS:

1. PROVIDE AND INSTALL UNIT WITH ASME TEMPERATURE AND PRESSURE RELIEF VALVE AND EMERGENCY DRAIN PAN.
2. UNIT IS TO BE PROVIDED WITH DUAL 4500 WATT, IMMERSION HEATING ELEMENTS AND IS TO BE WIRED FOR NON-SIMULTANEOUS OPERATION.
3. PROVIDE UNIT WITH ADJUSTABLE THERMOSTAT CONTROL, AND MANUAL RESET HIGH LIMIT SAFETY CONTROL, AND TANK SAVER ANODE.
4. SET OUTLET TEMPERATURE TO BE 140 DEGREES F. MAX.

HOT WATER EXPANSION TANK SCHEDULE							
TAG	MANUFACTURE	MODEL	TANK VOL. (GAL.)	ACCEPTANCE (GAL.)	MOUNTING	INLET SIZE	REMARKS
ET-1	AMTROL	ST-12-C	6.4	3.2	VERTICAL	3/4"	1, 2, 3, 4

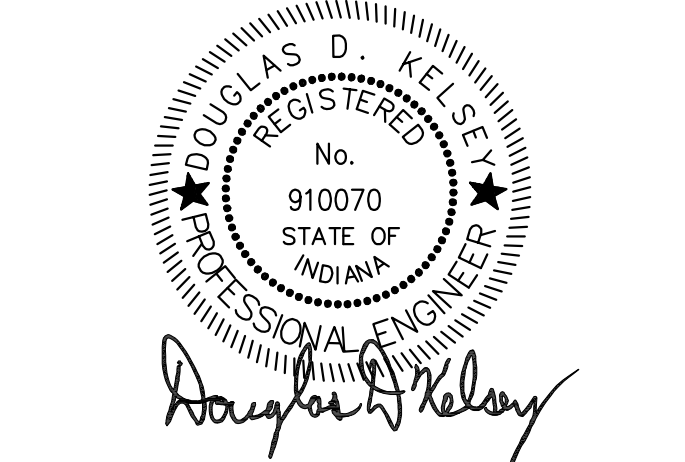
REMARKS:

1. PROVIDE TANK WITH CORROSION PROOF LINER WITH ANTIMICROBIAL PROTECTION AND FRESH WATER TURBULATOR.
2. TANK SHALL BE RATED FOR 125 PSIG WORKING PRESSURE, 200 DEGREES F MAXIMUM OPERATING TEMPERATURE.
3. TANK SHALL BE SPECIFICALLY DESIGNED FOR POTABLE HOT WATER SYSTEMS.
4. TANK IS TO BE ASME RATED.

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CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING



A PROJECT FOR:

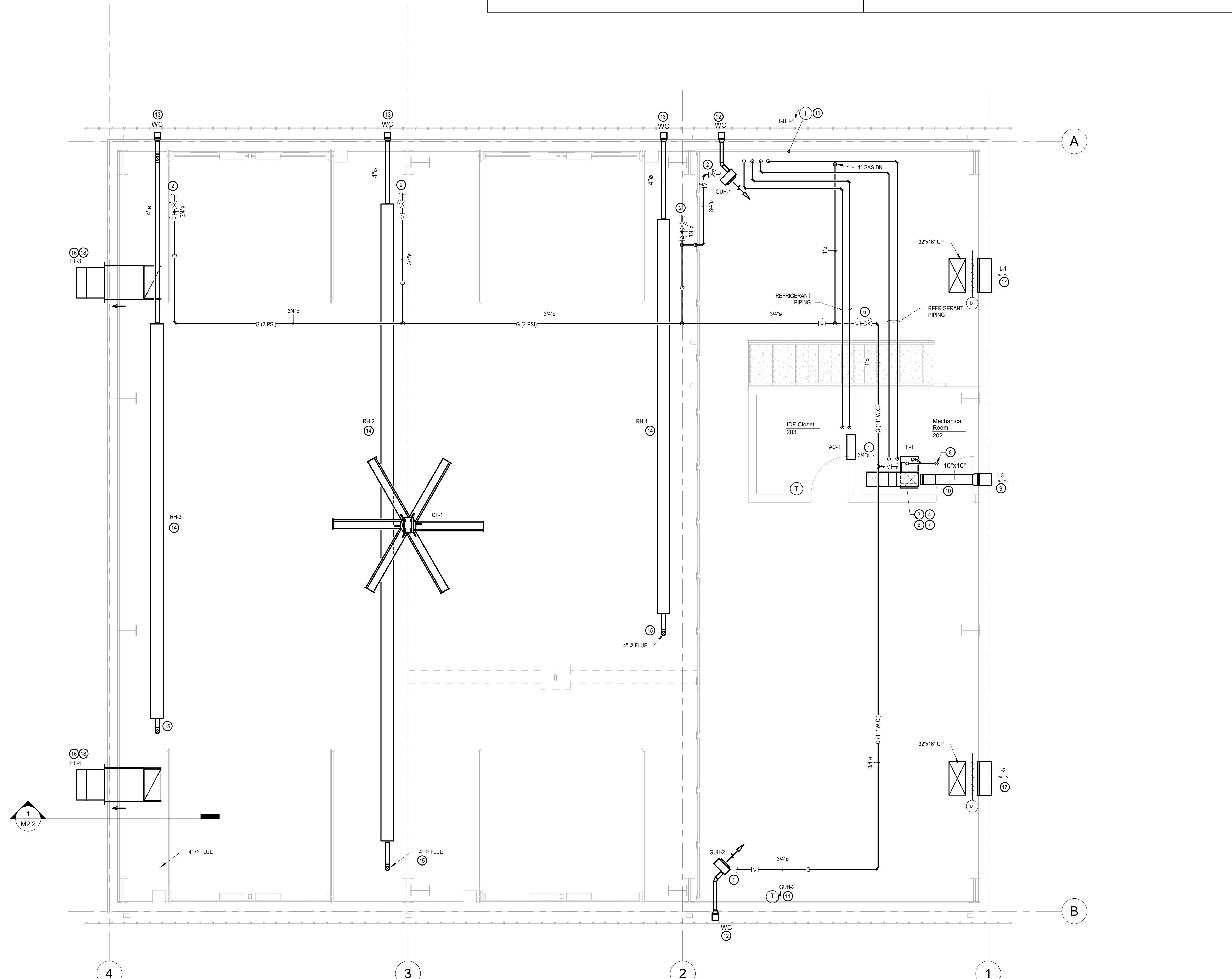
mark	date	description

date: March 2, 2022  
 project: 473003 (212600)  
 coordinator: SJB  
 drawn: TEH P6.1  
 checked: DDK



### EXHAUST FAN SEQUENCE OF OPERATION

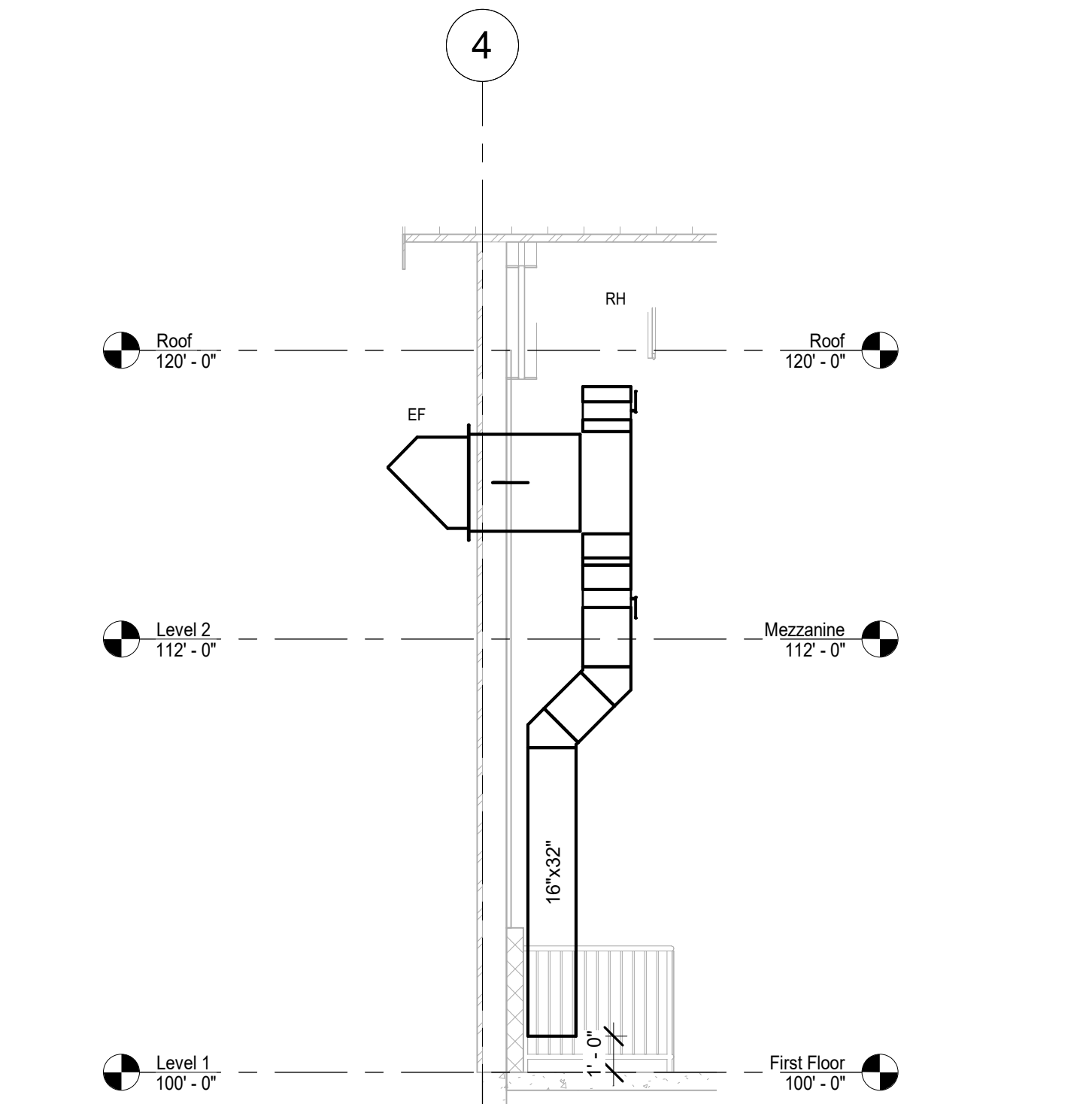
- GENERAL:**
- IT IS THE INTENT OF THIS PROJECT THAT EXHAUST FANS EF-3 AND EF-4 THAT ARE LOCATED WITHIN THE GARAGE AREA ARE TO BE CONTROLLED THROUGH THE MULTI-PORT GAS DETECTION AND CONTROL SYSTEM AND THE MOTOR CONTROL CENTER AS PROVIDED BY THE EXHAUST FAN MANUFACTURER. ALL FANS SHALL BE INDEXED TO THE AUTOMATIC MODE TO FULLY VENTILATE THE ENCLOSED GARAGE.
- CARBON MONOXIDE CONTROL SEQUENCE:**
- WHEN THE SYSTEM IS INDEXED TO THE ON POSITION, THE MOTOR CONTROL CENTER SHALL ENERGIZE THE MOTORIZED DAMPER ON LOUVER L-1 AND SHALL OPEN THE DAMPER TO ALLOW 425 CFM OF OUTSIDE AIR INTO THE SPACE. LOUVER L-2 IS TO REMAIN CLOSED.
  - WHEN THE SYSTEM IS INDEXED TO THE ON POSITION, THE MOTOR CONTROL CENTER SHALL ENERGIZE EXHAUST FAN EF-3 AND ITS ASSOCIATED VFD SHALL OPERATE EF-3 AT A SPEED TO MAINTAIN THE MINIMUM EXHAUST VENTILATION RATE OF 425 CFM. EF-4 SHALL REMAIN OFF.
  - ON AN INCREASE OF CO LEVELS ABOVE THE 25 PPM SETPOINT (OWNER ADJUSTABLE), AS DETECTED BY THE CO SENSORS LOCATED IN THE ENCLOSED GARAGE, THE MOTOR CONTROL CENTERS SHALL INCREASE THE MOTORIZED DAMPERS ON LOUVERS L-1 TO THE FULLY OPEN POSITION TO ALLOW FOR FULL FLOW THROUGH THE LOUVER. LOUVER L-2 IS TO REMAIN CLOSED.
  - ON AN INCREASE OF CO LEVELS ABOVE THE 25 PPM SETPOINT (OWNER ADJUSTABLE), AS DETECTED BY THE CO SENSORS LOCATED IN THE ENCLOSED GARAGE, THE MOTOR CONTROL CENTERS SHALL INCREASE THE EXHAUST VENTILATION RATE OF EF-3 THROUGH ITS ASSOCIATED VFD TO ITS MAXIMUM EXHAUST AIRFLOW RATE AS SCHEDULED ON THE EXHAUST FAN SCHEDULE. EF-4 SHALL REMAIN OFF.
  - IF THE CO LEVELS CONTINUE TO RISE IN THE ENCLOSED GARAGE ABOVE 50 PPM, THE MOTOR CONTROL CENTERS SHALL ENERGIZE THE MOTORIZED DAMPERS ON LOUVERS L-2 AND SHALL OPEN THE DAMPER TO ALLOW 425 CFM OF OUTSIDE AIR INTO THE SPACE. EXHAUST FAN EF-4 SHALL BE ENERGIZED ON AND SHALL BE OPERATED IN CONJUNCTION WITH EF-3. EF-3 ASSOCIATED VFD SHALL OPERATE THE EXHAUST FAN TO ITS MINIMUM EXHAUST AIRFLOW RATE AS SCHEDULED ON THE EXHAUST FAN SCHEDULE. EF-4 SHALL REMAIN OFF.
  - IF THE CO LEVELS CONTINUE TO RISE IN THE ENCLOSED GARAGE ABOVE 75 PPM, THE MOTOR CONTROL CENTERS SHALL INCREASE THE EXHAUST VENTILATION RATE OF EF-3 THROUGH ITS ASSOCIATED VFD TO ITS MAXIMUM EXHAUST AIRFLOW RATE AS SCHEDULED ON THE EXHAUST FAN SCHEDULE. EF-4 SHALL REMAIN OFF.
  - WHEN THE CO LEVEL IN THE ENCLOSED GARAGE DROPS BELOW 25 PPM (OWNER ADJUSTED), DE-ENERGIZE EXHAUST FAN EF-4.
  - WHEN THE CO LEVEL IN THE ENCLOSED GARAGE DROPS BELOW 25 PPM (OWNER ADJUSTED), DE-ENERGIZE THE MOTORIZED DAMPER ON LOUVER L-2 AND RETURN TO THE FULLY CLOSED POSITION.
- NITROGEN DIOXIDE CONTROL SEQUENCE:**
- WHEN THE SYSTEM IS INDEXED TO THE ON POSITION, THE MOTOR CONTROL CENTER SHALL ENERGIZE THE MOTORIZED DAMPER ON LOUVER L-1 AND SHALL OPEN THE DAMPER TO ALLOW 425 CFM OF OUTSIDE AIR INTO THE SPACE. LOUVER L-2 IS TO REMAIN CLOSED.
  - WHEN THE SYSTEM IS INDEXED TO THE ON POSITION, THE MOTOR CONTROL CENTER SHALL ENERGIZE EXHAUST FAN EF-3 AND ITS ASSOCIATED VFD SHALL OPERATE EF-3 AT A SPEED TO MAINTAIN THE MINIMUM EXHAUST VENTILATION RATE OF 425 CFM. EF-4 SHALL REMAIN OFF.
  - ON AN INCREASE OF NO2 LEVELS ABOVE THE 3 PPM SETPOINT (OWNER ADJUSTABLE), AS DETECTED BY THE NO2 SENSORS LOCATED IN THE ENCLOSED GARAGE, THE MOTOR CONTROL CENTERS SHALL INCREASE THE MOTORIZED DAMPERS ON LOUVERS L-1 AND SHALL OPEN THE DAMPER TO ALLOW FOR FULL FLOW THROUGH THE LOUVER. LOUVER L-2 IS TO REMAIN CLOSED.
  - IF THE NO2 LEVELS CONTINUE TO RISE IN THE ENCLOSED GARAGE, AS DETECTED BY THE NO2 SENSORS LOCATED IN THE ENCLOSED GARAGE, THE MOTOR CONTROL CENTERS SHALL INCREASE THE MOTORIZED DAMPERS ON LOUVERS L-1 AND SHALL OPEN THE DAMPER TO ALLOW 425 CFM OF OUTSIDE AIR INTO THE SPACE. EXHAUST FAN EF-4 SHALL BE ENERGIZED ON AND SHALL BE OPERATED IN CONJUNCTION WITH EF-3. EF-4 ASSOCIATED VFD SHALL OPERATE THE EXHAUST FAN TO ITS MINIMUM EXHAUST AIRFLOW RATE OF 425 CFM.
  - IF THE NO2 LEVELS CONTINUE TO RISE IN THE ENCLOSED GARAGE, AS DETECTED BY THE NO2 SENSORS LOCATED IN THE ENCLOSED GARAGE, THE MOTOR CONTROL CENTERS SHALL INCREASE THE MOTORIZED DAMPER ON LOUVERS L-2 TO THE FULLY OPEN POSITION TO ALLOW FOR FULL FLOW THROUGH THE LOUVER AND SHALL INCREASE THE EXHAUST VENTILATION RATE OF EF-4 THROUGH ITS ASSOCIATED VFD TO ITS MAXIMUM EXHAUST AIRFLOW RATE AS SCHEDULED ON THE EXHAUST FAN SCHEDULE. ACTIVATE THE CONTROLLER'S HORN AND ALARM LED. ALL TWO EXHAUST FANS SHALL BE OPERATING AT FULL SPEED TO FLUSH THE ENCLOSED GARAGE.
  - WHEN THE NO2 LEVEL IN THE ENCLOSED GARAGE DROPS BELOW 3 PPM (OWNER ADJUSTED), DE-ENERGIZE EXHAUST FAN EF-4.
  - WHEN THE NO2 LEVEL IN THE ENCLOSED GARAGE DROPS BELOW 3 PPM (OWNER ADJUSTED), DE-ENERGIZE THE MOTORIZED DAMPER ON LOUVER L-2 AND RETURN TO THE FULLY CLOSED POSITION.



**Mezzanine Mechanical Plan**  
SCALE 1" = 4'-0"

### MECHANICAL HVAC AND PIPING PLAN NOTES

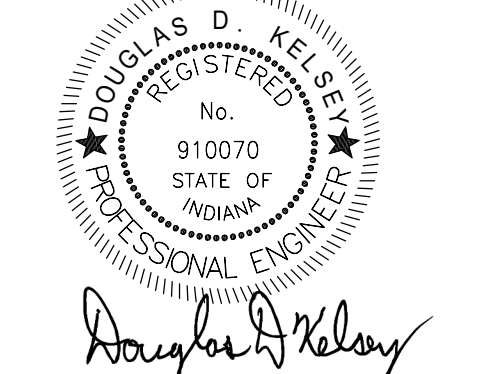
- CONNECT NEW 3/4" NATURAL GAS PIPING TO HVAC UNIT. CONTRACTOR SHALL CLEAN, PRIME, AND PAINT ALL NATURAL GAS PIPING AND WITH RUST INHIBITING PAINT. ARCHITECT TO SELECT COLOR. REFER TO HVAC UNIT NATURAL GAS HOOK UP DETAIL FOR CONNECTION REQUIREMENTS AND ADDITIONAL INFORMATION.
- CONNECT NEW 3/4" NATURAL GAS PIPING TO HVAC UNIT. PROVIDE GAS PRESSURE REDUCING VALVE TO REDUCE INCOMING 2 PSI GAS PRESSURE TO 10" W.C. WITH MAXIMUM 2" DROP. VERIFY REQUIRED GAS PRESSURE WITH APPROVED EQUIPMENT. CONTRACTOR SHALL CLEAN, PRIME, AND PAINT ALL NATURAL GAS PIPING AND WITH RUST INHIBITING PAINT. ARCHITECT TO SELECT COLOR. REFER TO HVAC UNIT NATURAL GAS HOOK UP DETAIL FOR CONNECTION REQUIREMENTS AND ADDITIONAL INFORMATION.
- PROVIDE AND INSTALL 3/4" CONDENSATE DRAIN AND P-TRAP TO BE CONNECTED TO CASED COOLING COIL AND ROUTE DOWN THE SIDE OF THE FURNACE AND ALONG THE FLOOR FOR DISCHARGE OF CONDENSATE INTO FLOOR DRAIN. TERMINATE PIPING PER MANUFACTURER'S RECOMMENDATIONS.
- ROUTE REFRIGERANT PIPING FROM CASED COOLING COIL AT HIGHEST POSSIBLE ELEVATION AND ROUTE DOWN WITHIN INTERIOR WALL AND THROUGH EXTERIOR WALL AT 3" ABOVE GRADE FOR CONNECTION TO GROUND MOUNTED CONDENSING UNIT. CORE DRILL OPENINGS AS REQUIRED FOR PIPING PENETRATION AND SEAL WEATHER TIGHT APPLY 1/2" COATING TO AIRMALEX INSULATION INSTALLED OUTDOORS. PIPING AT WALL PENETRATION SHALL BE ENCASED IN A PROTECTIVE PIPE SLEEVE AND SHALL BE SEALED WEATHER TIGHT. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL REQUIRED REFRIGERANT LINESETS AND REFRIGERANT FOR CONNECTION FROM AIR HANDLER TO OUTDOOR UNIT AS REQUIRED FOR EXTENDED LENGTHS. INSTALL PIPING PER MANUFACTURER'S RECOMMENDATION.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SERVICE TYPE REGULATOR TO REDUCE THE 2 PSI GAS PRESSURE TO 10" W.C. GAS PRESSURE.
- PROVIDE AND INSTALL GAS FURNACE AND DX REFRIGERANT COIL IN LOCATION AS SHOWN. ROUTE DUCTWORK DOWN THROUGH FLOOR AND INTO CEILING SPACE ON FLOOR BELOW. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL WIRING, RELAYS, AND ACCESSORIES AS REQUIRED TO INTERLOCK FURNACE AND ACCU FOR A COMPLETE AND FUNCTIONING SYSTEM. WIRING SHALL BE INSTALLED PER ELECTRICAL SPECIFICATIONS.
- MAINTAIN MANUFACTURER REQUIRED CLEARANCE FOR SERVICE ACCESS AND PROPER PERFORMANCE. COORDINATE EXACT LOCATION WITH ALL TRADES.
- 3" SCHEDULE 40 PVC COMBUSTION AIR DUCT AND FLUE DUCT TO BE ROUTED FROM FURNACE AND UP FOR CONNECTION TO CONCENTRIC VENT KIT FOR TERMINATION THROUGH ROOF. PROVIDE AND INSTALL CONCENTRIC VENT KIT LIKE DIVERSITECH "TOVENT SERIES" AND TERMINATE PER MANUFACTURER'S RECOMMENDATIONS AND ARCHITECT. WALL CAP AND PIPING THAT IS ROUTED UP THROUGH ROOF AND EXPOSED TO THE EXTERIOR IS TO BE CLEANED AND PAINTED. ARCHITECT TO SELECT COLOR. REFER TO CONCENTRIC VENT TERMINATION DETAIL FOR ADDITIONAL INFORMATION.
- PROVIDE AND INSTALL NEW SIDEWALL LOUVER. PROVIDE AND INSTALL BACKER ROD AND NON-SHRINKING CAULK AROUND THE PERIMETER OF THE LOUVER FOR A WEATHER TIGHT INSTALLATION. CAULKING SHALL BE INSTALLED TO PREVENT THE INFILTRATION OF OUTDOOR AIR INTO THE BUILDING ENVELOPE. COORDINATE LOUVER ELEVATION WITH ARCHITECT PRIOR TO THE INITIATION OF WORK.
- ROUTE 10"x10" OUTSIDE AIR DUCT DOWN FROM LOUVER FOR CONNECTION INTO RETURN AIR DUCT THAT IS CONNECTED TO THE FURNACE. INSTALL MANUAL BALANCE DAMPER IN EACH DUCT AND BALANCE TO OUTSIDE AIR CFM AS SHOWN ON THE FURNACE SCHEDULE.
- PROVIDE AND INSTALL NEW TEMPERATURE SENSOR IN LOCATION SHOWN. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL WIRING, RELAYS, AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM. WIRING SHALL BE INSTALLED PER ELECTRICAL SPECIFICATIONS.
- 3" Ø FLUE AND 3" Ø COMBUSTION AIR DUCT TO BE ROUTED FROM GAS UNIT HEATER OUT THROUGH SIDEWALL AS SHOWN. PROVIDE AND INSTALL CONCENTRIC VENT KIT AND TERMINATE PER MANUFACTURER'S RECOMMENDATIONS. SEAL PENETRATION WATER TIGHT. VENT PIPING THAT IS ROUTED UP THROUGH WALL AND EXPOSED TO THE EXTERIOR IS TO BE CLEANED AND PAINTED. ARCHITECT TO SELECT COLOR. REFER TO CONCENTRIC VENT TERMINATION DETAIL FOR ADDITIONAL INFORMATION.
- ROUTE 4" Ø COMBUSTION AIR FROM RADIANT TUBE HEATER OUT THROUGH EXTERIOR WALL AS SHOWN AND TERMINATE WITH MANUFACTURER RECOMMENDED WALL CAP (WC) WITH BIRD SCREEN. COORDINATE EXTERIOR WALL PENETRATION HEIGHT AND LOCATION WITH MANUFACTURER'S RECOMMENDATIONS AND ARCHITECT. WALL CAP AND PIPING THAT IS ROUTED UP THROUGH WALL AND EXPOSED TO THE EXTERIOR IS TO BE CLEANED AND PAINTED. ARCHITECT TO SELECT COLOR. REFER TO CONCENTRIC VENT TERMINATION DETAIL FOR ADDITIONAL INFORMATION.
- RADIANT HEATER SHALL BE MOUNTED AT 17'-6" A.F.F. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED STEEL UNISTRUT AND 2" ANGLE IRON FRAMING AS REQUIRED FOR INSTALLATION PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION GUIDE.
- 4" Ø DOUBLE WALL B-VENT FLUE DUCT TO BE ROUTED UP THROUGH ROOF FOR CONNECTION TO MANUFACTURER PROVIDED 4-INCH ROOF TOP VENT KIT WHICH IS TO INCLUDE ROOF TOP VENT CAP, DRAFT HOOD CONNECTION, ROOFTOP FIRESTOP SPACER, ADJUSTABLE ROOFTOP FLANGE, STORM COLLAR, AND VENT TEE. FLUE DUCT IS TO BE EXTENDED FROM THE RADIANT TUBE HEATER AND ROUTED UP THROUGH THE ROOF ON THE BACK SIDE OF THE ROOF RIDGE. PROVIDE AND INSTALL ALL NECESSARY OFFSETS, TRANSITIONS, AND FITTINGS IN DUCTWORK AS REQUIRED FOR INSTALLATION. MECHANICAL CONTRACTOR SHALL CLEAN AND PAINT THE ROOF CAP. ARCHITECT IS TO SELECT COLOR.
- PROVIDE AND INSTALL SIDEWALL EXHAUST FAN WHERE INDICATED. COORDINATE EXTERIOR WALL PENETRATION HEIGHT AND LOCATION WITH MANUFACTURER'S RECOMMENDATIONS AND ARCHITECT PRIOR TO THE INITIATION OF WORK.
- PROVIDE AND INSTALL A MOTORIZED DAMPER THAT DURING NORMAL OPERATION. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROL WIRING, RELAYS, AND ACCESSORIES AS REQUIRED TO INTERLOCK THE EXHAUST FAN AND THE FRESH AIR INTAKE LOUVER FOR A COMPLETE AND FUNCTIONING SYSTEM. WIRING SHALL BE INSTALLED PER ELECTRICAL SPECIFICATIONS. COORDINATE WITH ELECTRICAL CONTRACTOR. REFER TO SEQUENCE OF OPERATIONS.
- REFER TO EXHAUST FAN SECTION



**Exhaust Fan Section**  
1/4" = 1'-0"

**PORT WAIRNE**  
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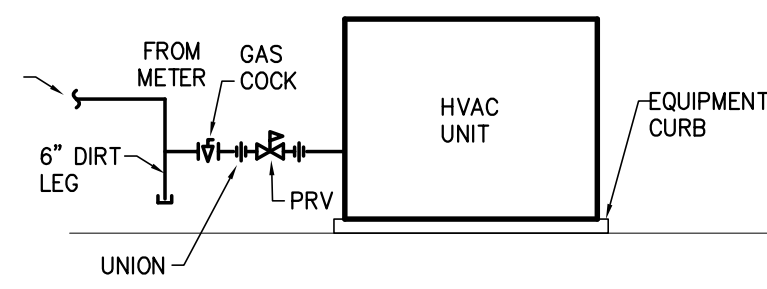
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**Mezzanine Mechanical Plan**

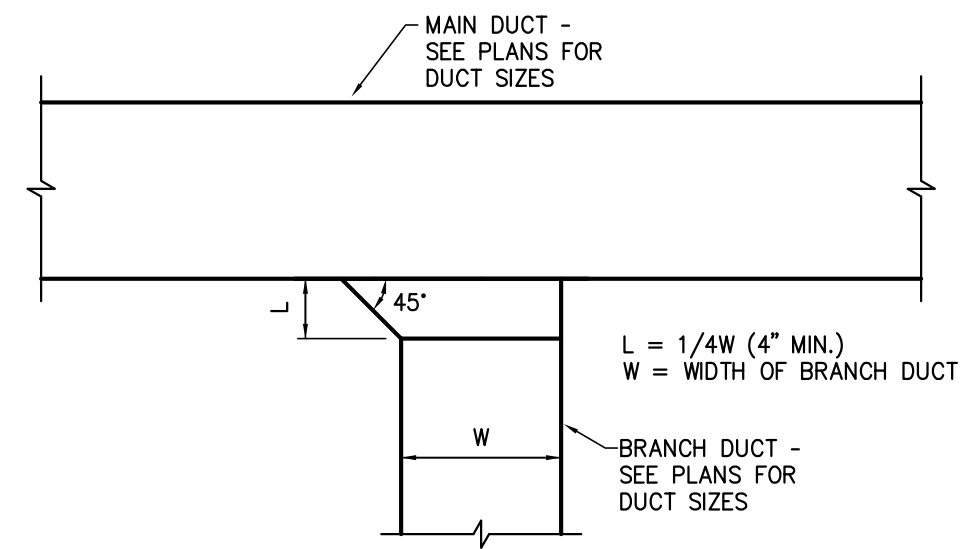
date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJH  
drawn: TEH  
checked: DDK

**M2.2**

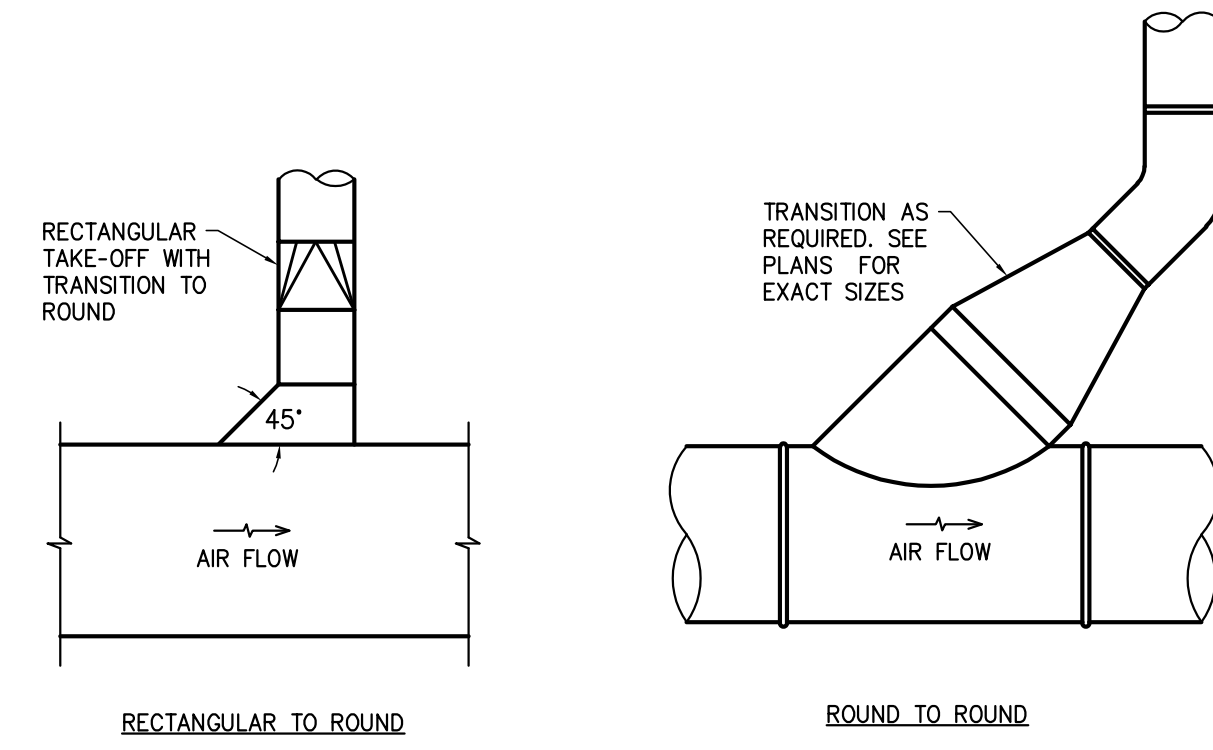
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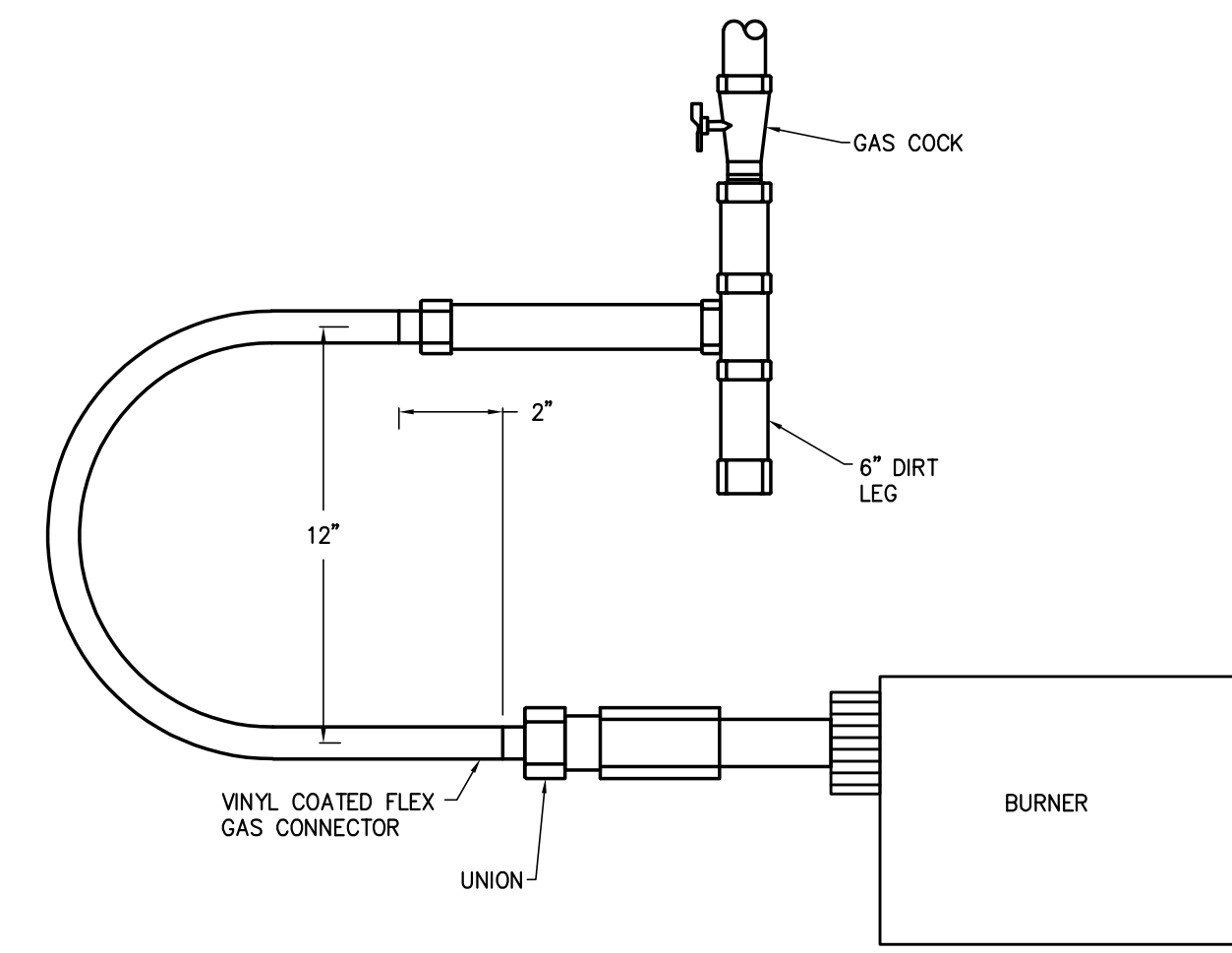
**HVAC UNIT NATURAL GAS HOOK UP DETAIL**  
NOT TO SCALE



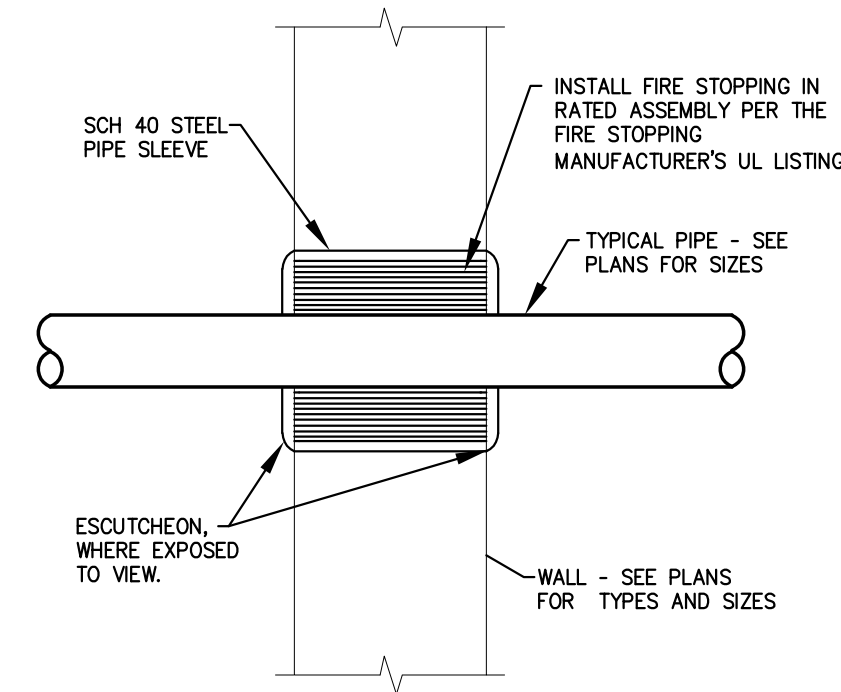
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NOT TO SCALE



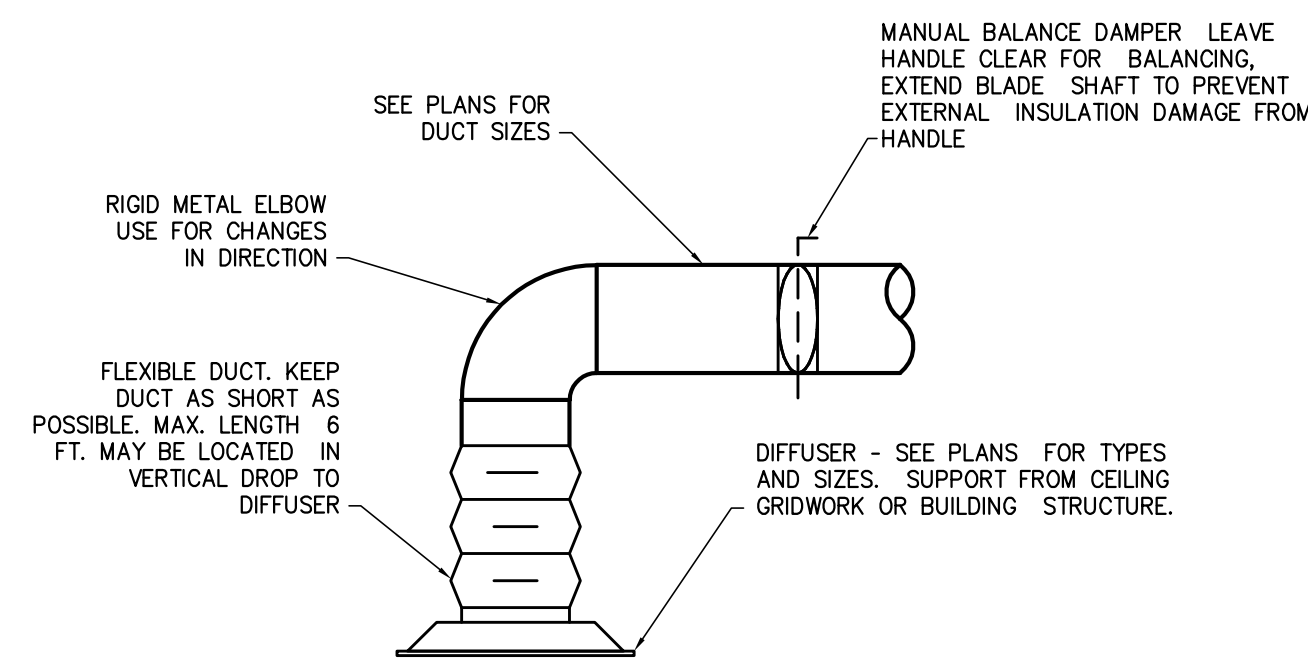
**TYPICAL DUCT TAKE-OFF**  
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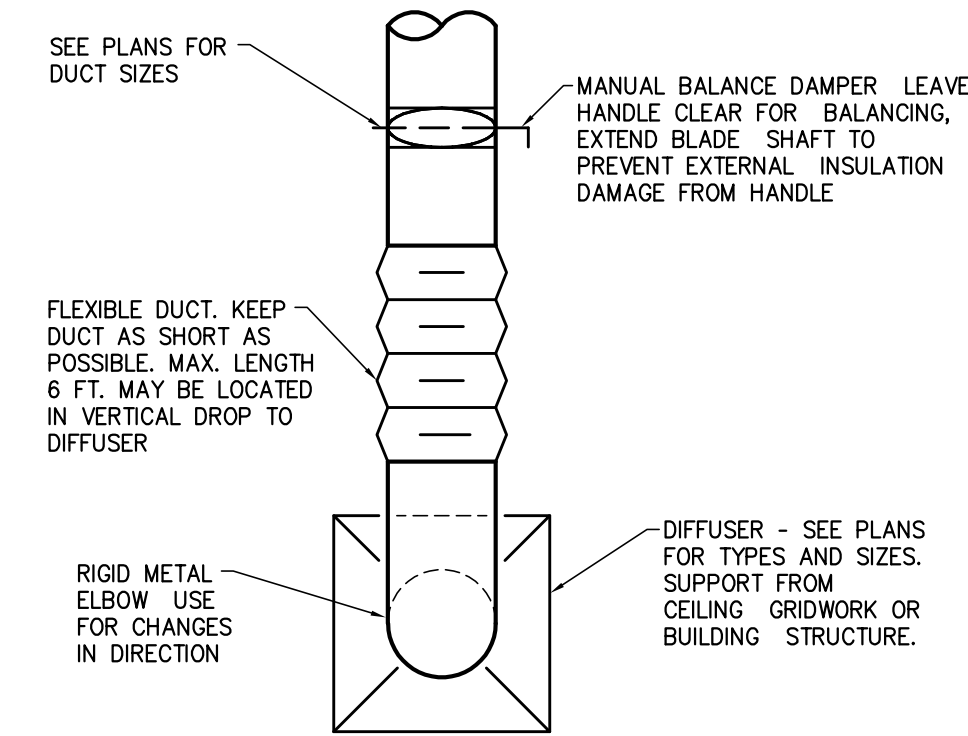
**GAS FIRED INFARED HEATER HOOK UP**  
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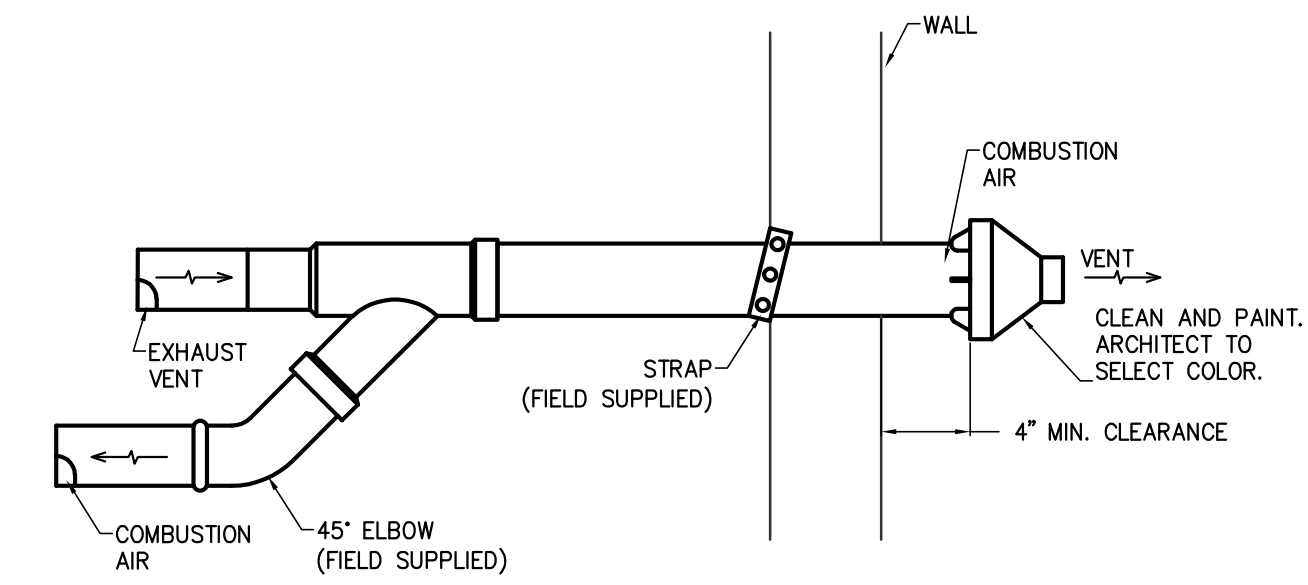
**TYPICAL PIPING FIRE WALL OR CEILING PENETRATION DETAIL**  
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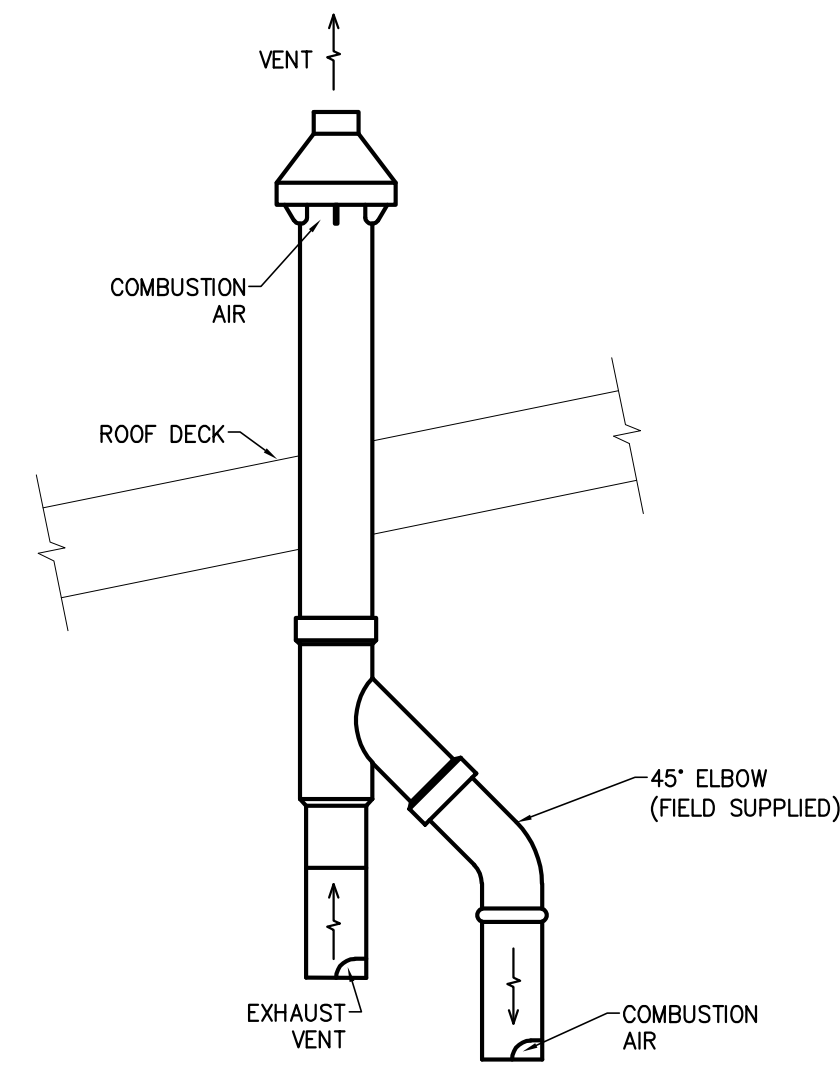
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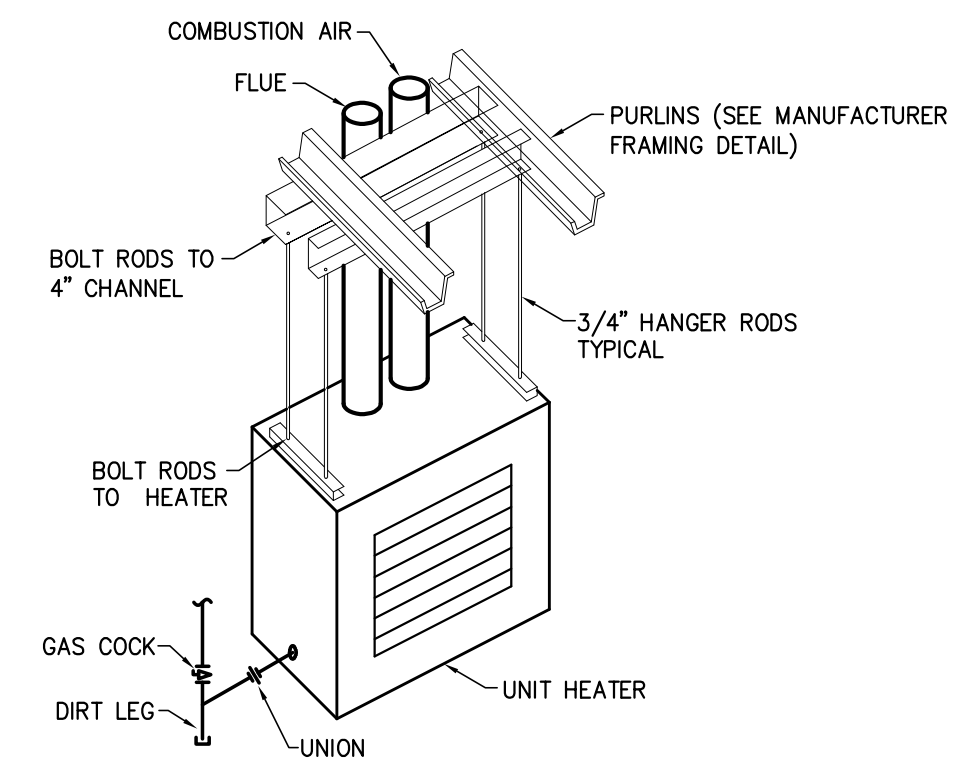
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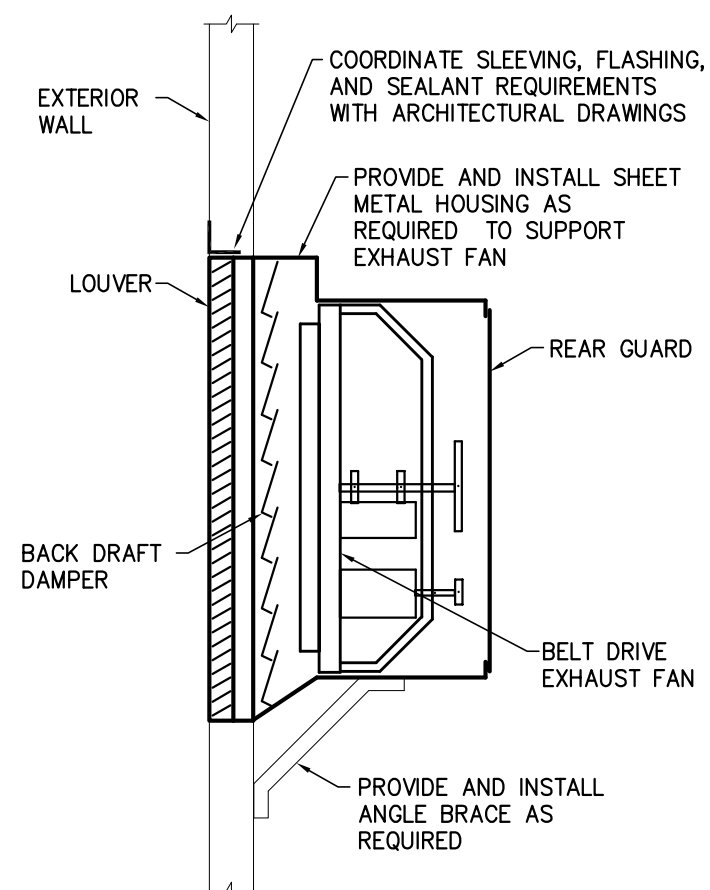
**CONCENTRIC VENT TERMINATION DETAIL**  
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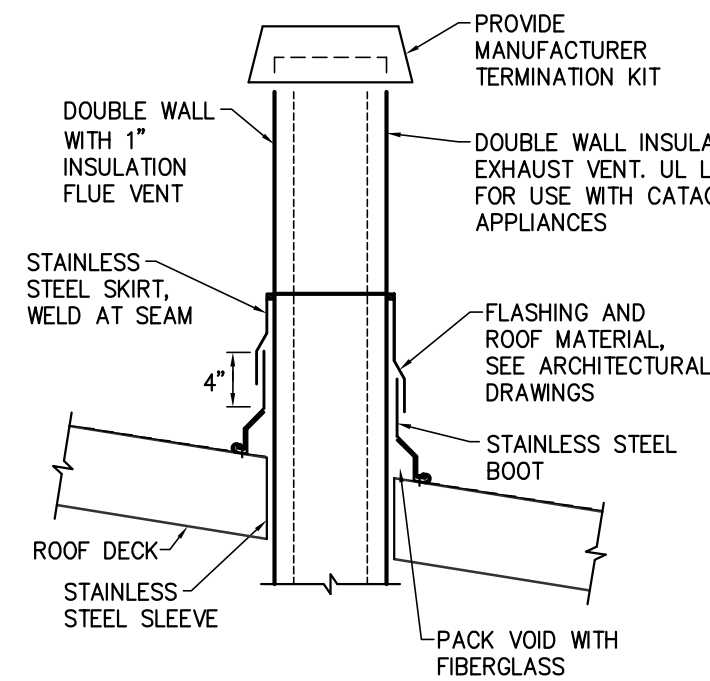
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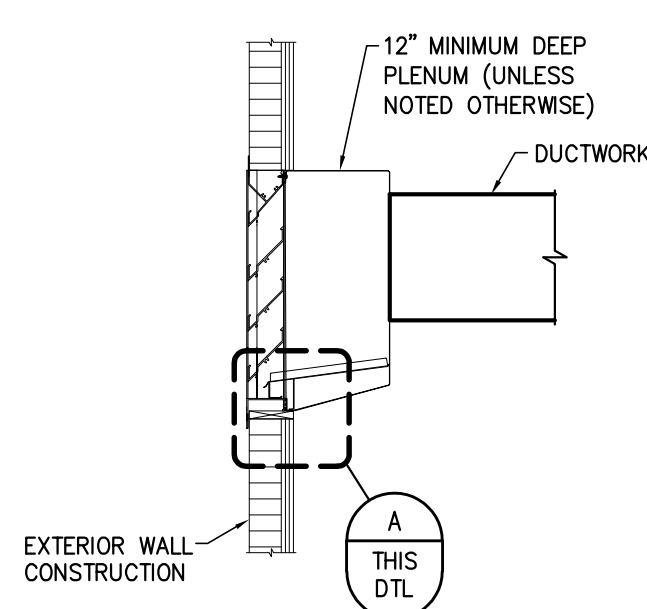
**UNIT HEATER & HANGER DETAIL**  
NOT TO SCALE (VERIFY HANGER DETAIL W/ MANUFACTURER'S DETAILS)



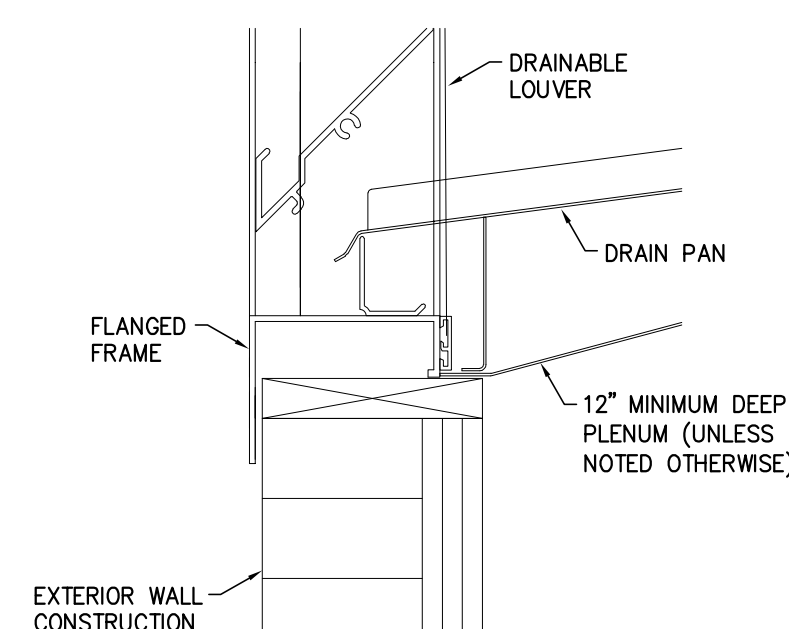
**SIDEWALL EXHAUST FAN DETAIL**  
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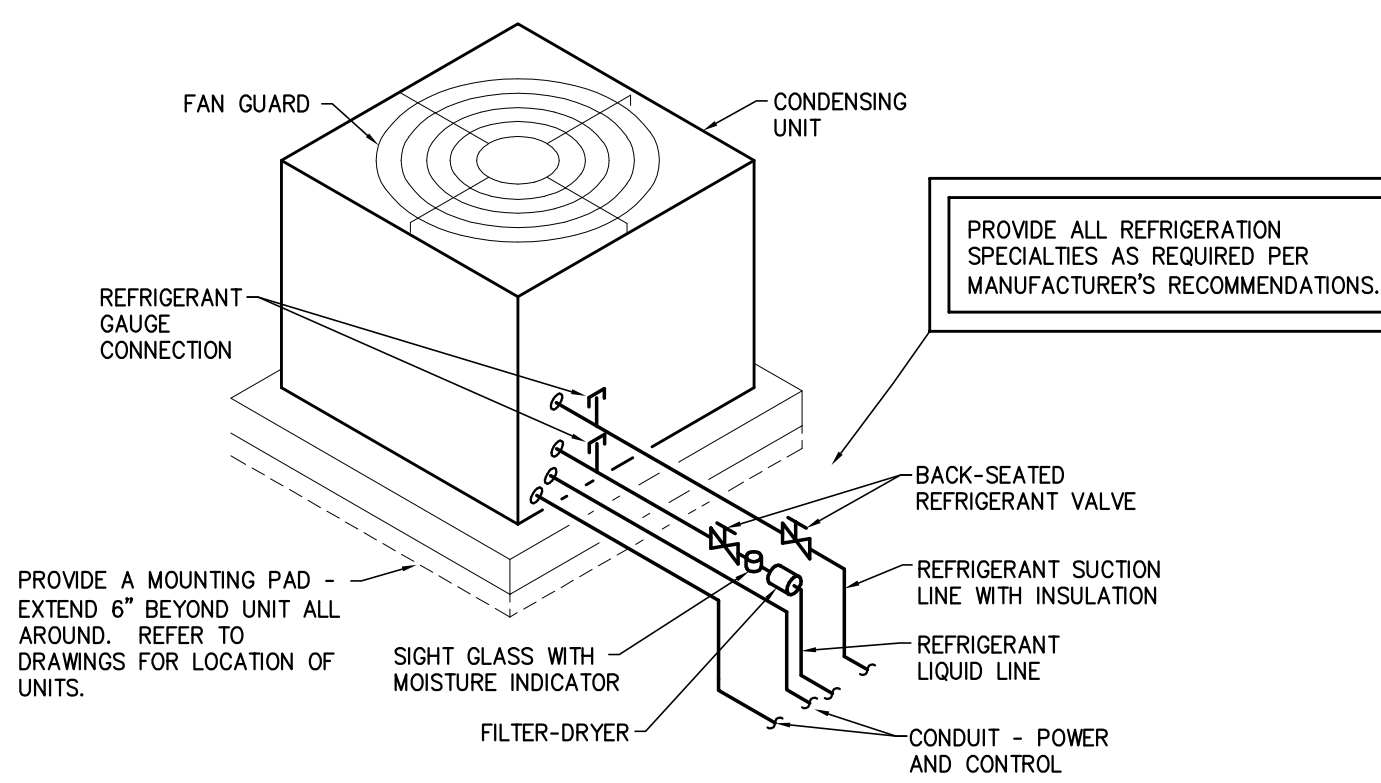
**TYPICAL DUCT ROOF PENETRATIONS**  
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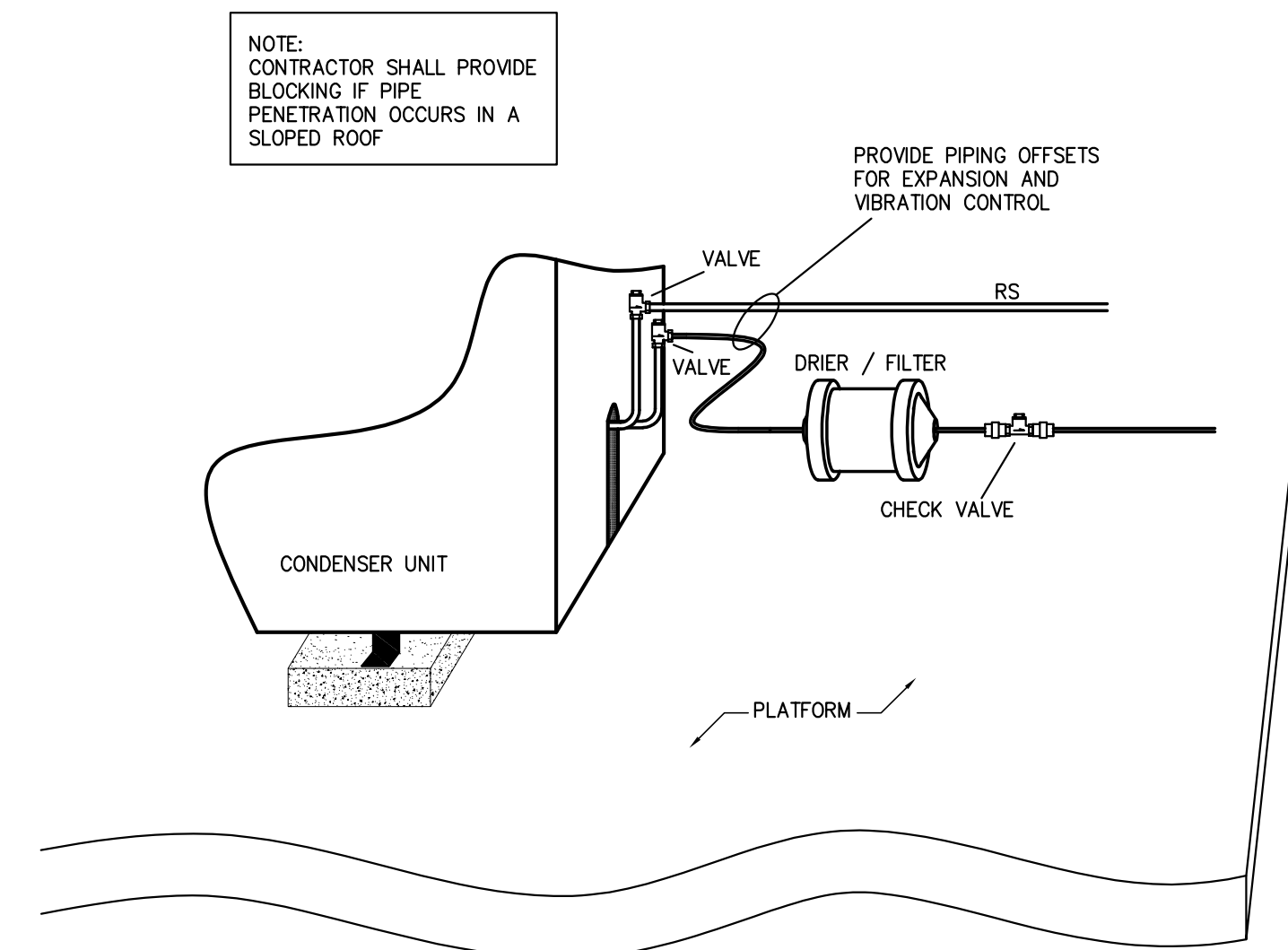
**LOUVER PLENUM SECTION**  
NOT TO SCALE



**LOUVER PLENUM SECTION ENLARGED PLAN**  
NOT TO SCALE



**TYPICAL ACCU - SLAB MOUNTED AT GRADE**  
NOT TO SCALE



**REFRIGERANT PIPING DETAIL**  
NOT TO SCALE

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

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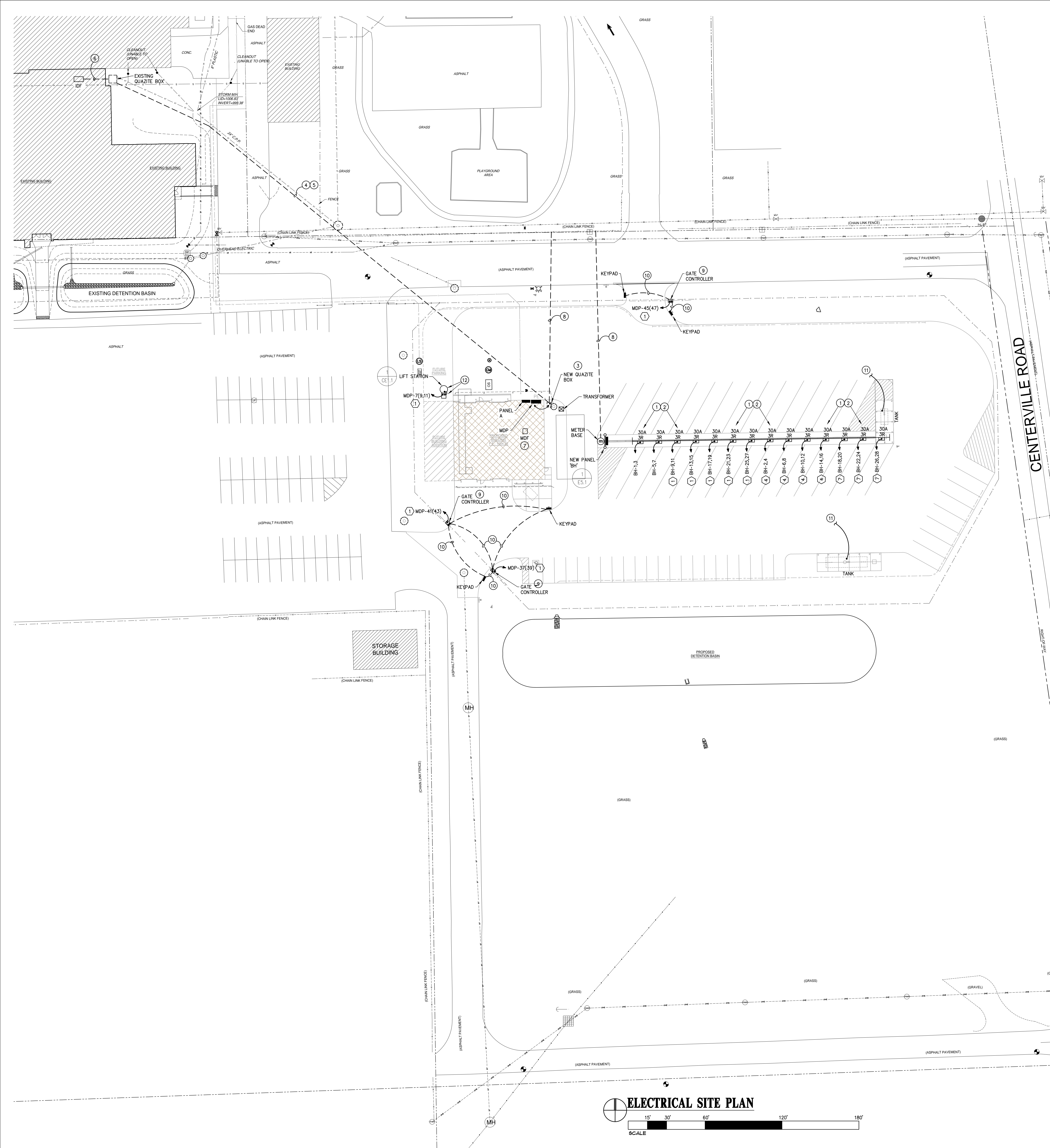
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**Mechanical Details**

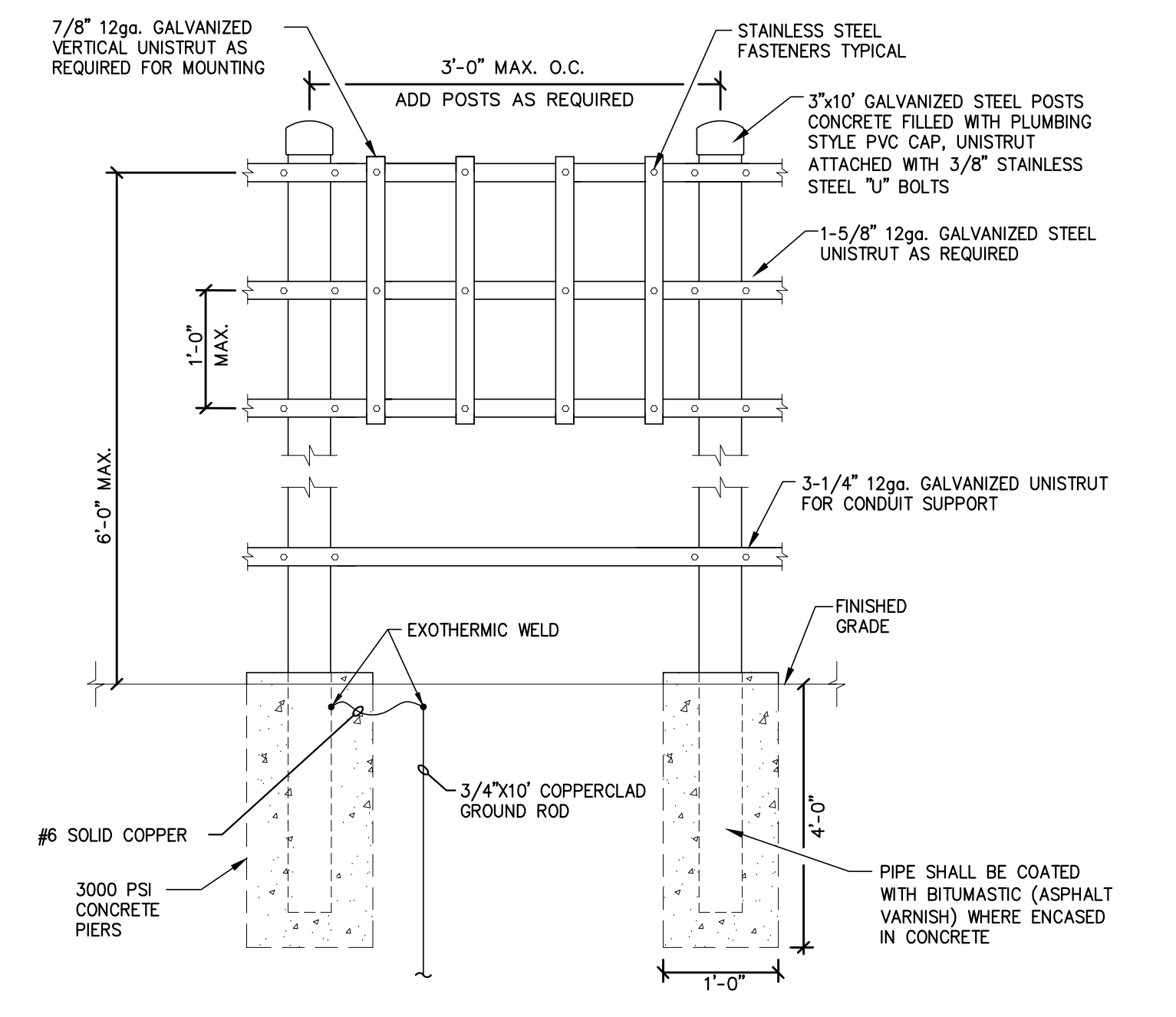
date: March 2, 2022  
project: 473003 (212600)  
coordinator: SJB  
drawn: TEH  
checked: DDK  
M5.1





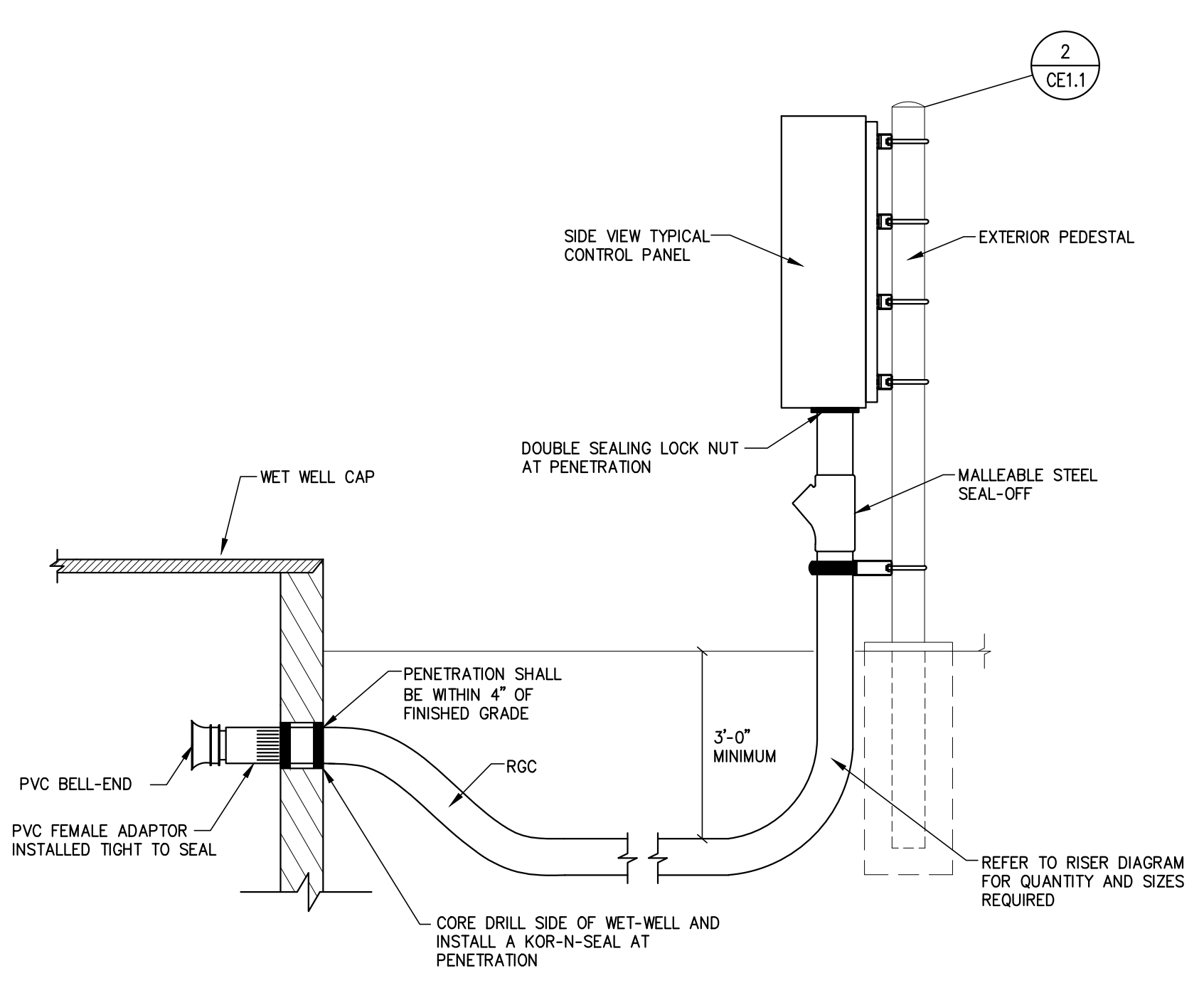


- ### ELECTRICAL PLAN NOTES
- ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 30A NEMA 3R METAL ENCLOSURE WITH (2)-20A/120V GFCI DUPLEX RECEPTACLES. ENCLOSURE SHALL BE MOUNTED ON BUS STOP BARRIERS. EACH RECEPTACLE SHALL BE A DEDICATED CIRCUIT AS NOTED. COORDINATE ALL WORK WITH GENERAL CONTRACTOR, TYPICAL.
  - ELECTRICAL CONTRACTOR SHALL ROUTE ALL CONDUIT HORIZONTALLY TO INDIVIDUAL ENCLOSURES AND TRANSFER FROM NEMA 3R JUNCTION BOX TO ENCLOSURE WITH SEAL-TIGHT FLEX, TYPICAL.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW 24"x24"x12" QUARTZITE BOX WITH HINGED COVER FOR NEW FIBER. ROUTE 2" FROM QUARTZITE BOX TO MDF.
  - ELECTRICAL CONTRACTOR SHALL DIRECTIONAL-BORE A NEW 2" FROM EXISTING QUARTZITE BOX TO NEW QUARTZITE BOX. ROUTE 2" FROM NEW QUARTZITE BOX INTO ELECTRICAL ROOM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE, INSTALL, AND TERMINATE AT BOTH ENDS 12-STRAND SINGLE MODE FIBER IN INNER DUCT. PROVIDE 10' SERVICE LOOP AT EACH END FROM ELEMENTARY 10P TO TRANSPORTATION BUILDING 'MDF'. PROVIDE AND INSTALL 25 PAIR CABLE WET LABELED AND TERMINATE AT EACH END FROM ELEMENTARY 10P TO TRANSPORTATION BUILDING 'MDF'. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - EXISTING 2".
  - MDF LOCATED ON MEZZANINE.
  - UNDERGROUND CONDUIT FOR SERVICES. REFER TO DRAWING 'E6.1' FOR FURTHER INFORMATION.
  - GATE CONTROLLER AND KEYPAD PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL TERMINATE AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 3/4" WITH PULL-STRING FROM KEYPAD TO GATE CONTROLLER. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL (1)-1" FROM MDF TO TANK, (2)-3/4" LOCATED IN ELECTRICAL ROOM ADJACENT TO EXTERIOR WALL TO TANK. STUB 6" A.F.F. AND CAP FOR FUTURE. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - LIFT STATION AND CONTROLLER PROVIDED BY OTHERS. ELECTRICAL CONTRACTOR SHALL MOUNT CONTROLLER ON SIDE OF BUILDING AND ROUTE (1)-4" FROM CONTROLLER TO WET WALL. TERMINATE AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.



NOTE: CUT ENDS OF GALVANIZED UNISTRUT AND CUT THREADS OF RGC MUST BE SPRAYED WITH (2) COATS OF COLD GALVANIZING PAINT.

**2 EXTERIOR PEDESTAL CONSTRUCTION DETAIL**  
NOT TO SCALE



**1 LIFT STATION/WET-WELL SIDE PENETRATION**  
NOT TO SCALE

**ELECTRICAL SITE PLAN**  
SCALE: 0 15' 30' 60' 120' 180'

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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS TRANSPORTATION BUILDING**

A PROJECT FOR:



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mark	date	description

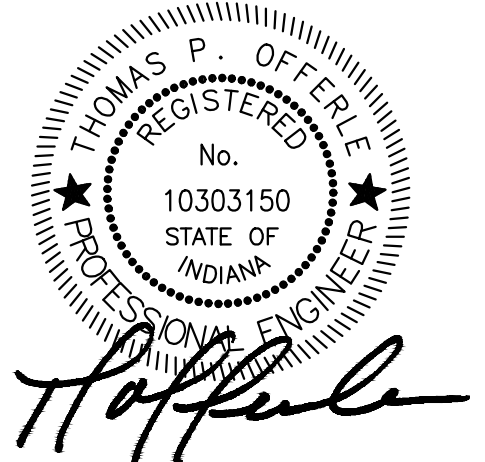
**Electrical Site Power Plan**

date: March 2, 2022  
project: 473003 (212600)  
coordinator: JM  
drawn: SJB  
checked: TPO  
**CE1.1**

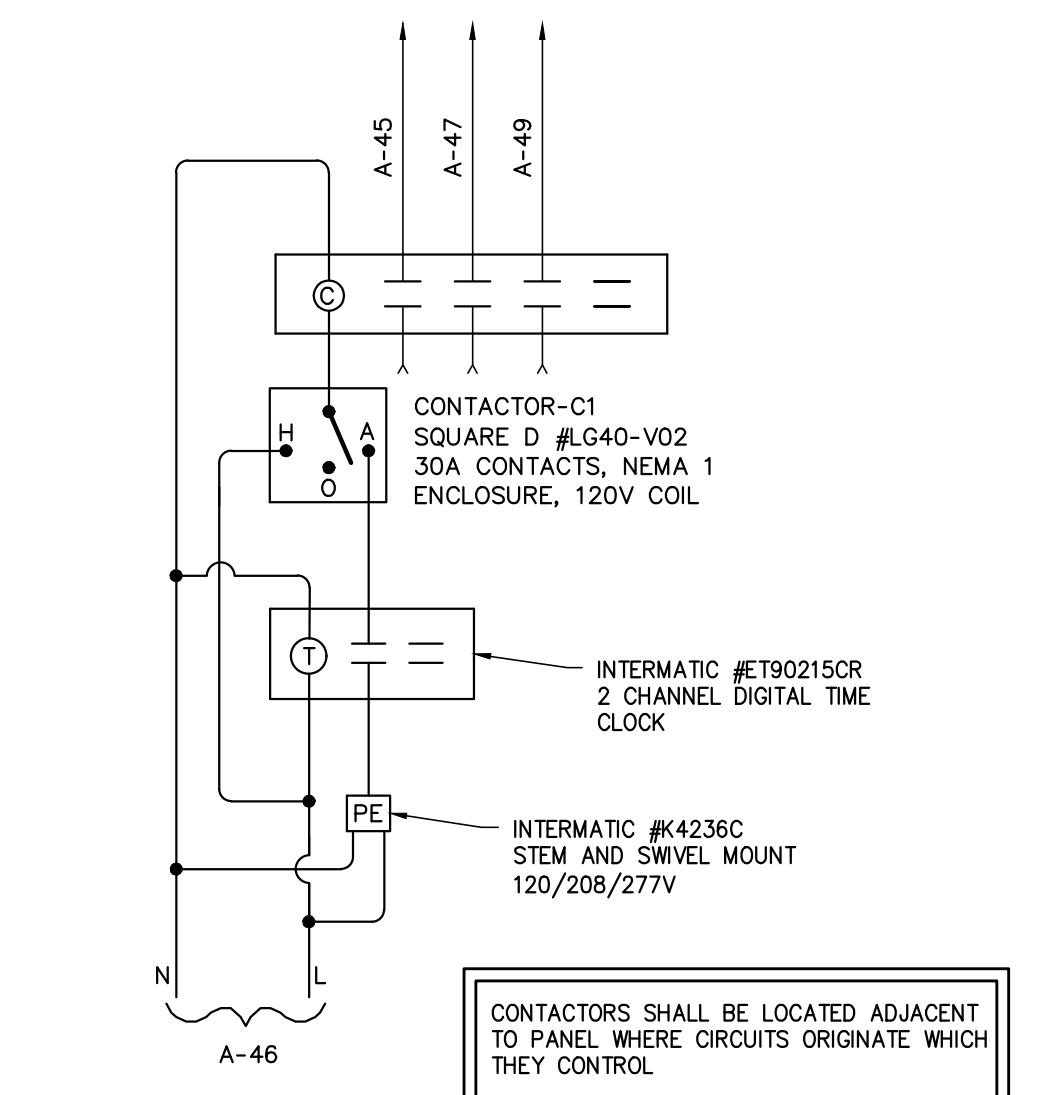
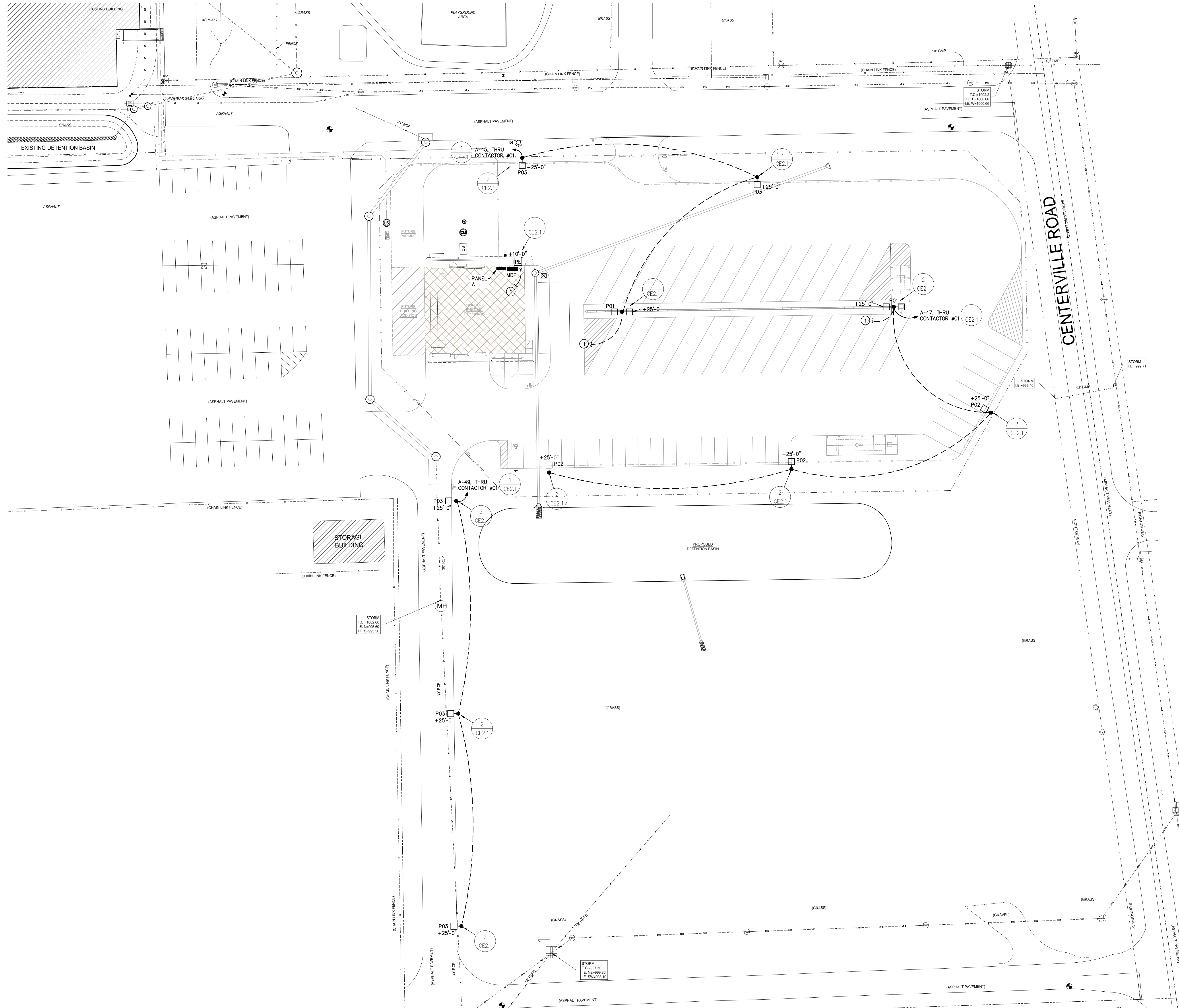
**ELECTRICAL PLAN NOTES**

① ELECTRICAL CONTRACTOR SHALL ROUTE (1)-1" TO WITH PULL-STRING FROM CORNER OF ELECTRICAL ROOM TO EACH POLE-BASE FOR OWNER PROVIDED AND INSTALLED CAMERAS. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.

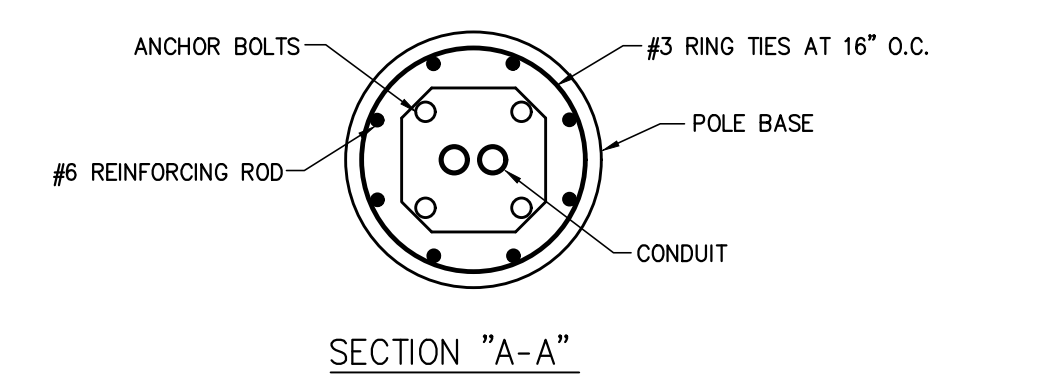
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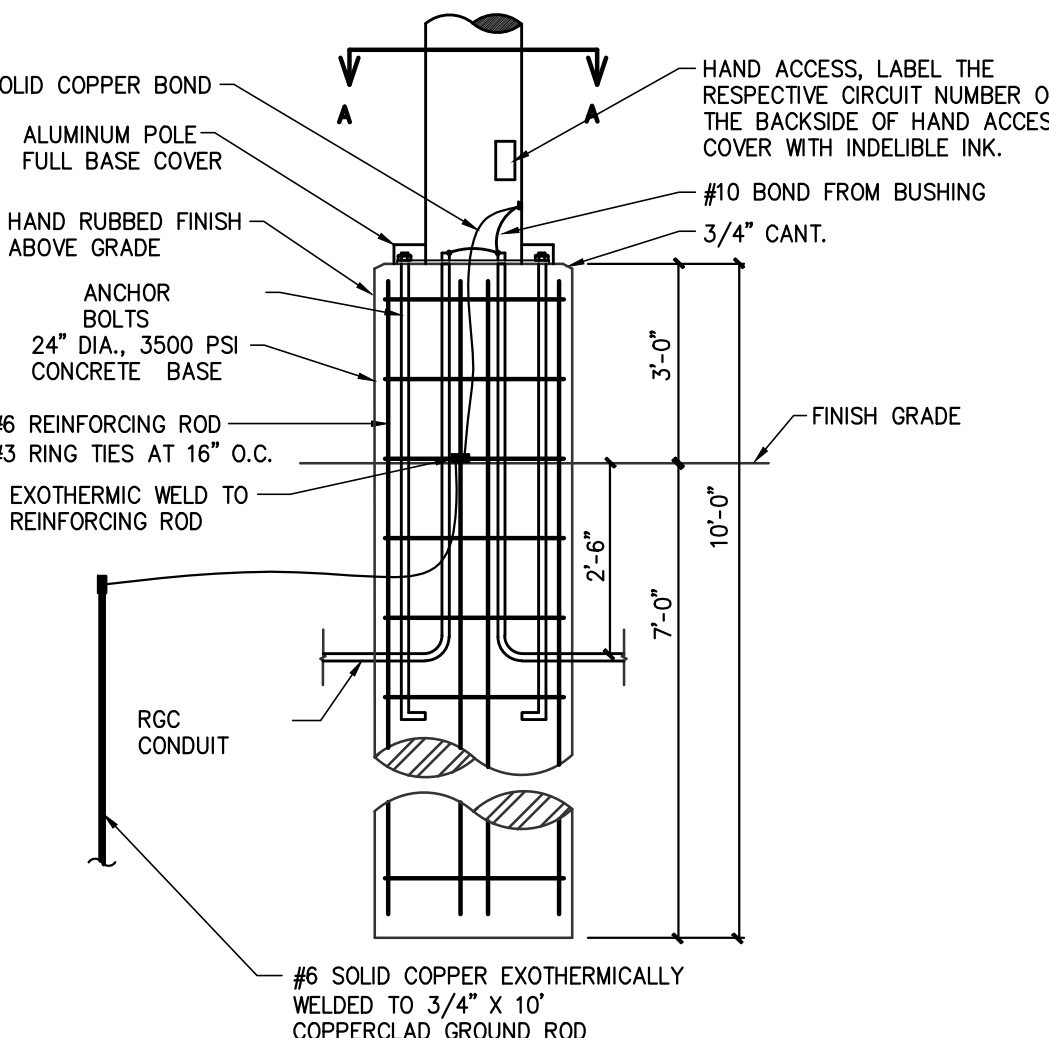
**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**1 EXTERIOR LIGHTING DIAGRAM**  
NOT TO SCALE



POLE BASE SHALL BE SET BACK FROM THE EDGE OF PAVEMENT TO THE EDGE OF THE CONCRETE BASE 3', UNLESS OTHERWISE NOTED.



**2 POLE BASE DETAIL**  
NOT TO SCALE



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mark	date	description

**Electrical Site Lighting Plan**

date: March 2, 2022  
project: 473003 (212600)  
coordinator: NJ  
drawn: SJB  
checked: TPO

CE2.1



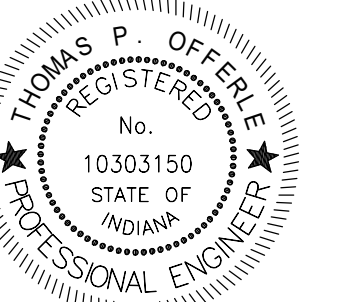


**ELECTRICAL PLAN NOTES**

- 1 FLUSH MOUNTED JUNCTION FOR OWNER PROVIDED AND INSTALLED SECURITY CAMERAS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN / INSTALLATION.
- 2 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL 4" x 4" x 3/4" SHEET OF FIRE-RATED PLYWOOD. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
- 3 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES AS REQUIRED FOR INCOMING FIBER / PHONE AND SECURITY CABLING. FIRE-STOP UPON COMPLETION. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.

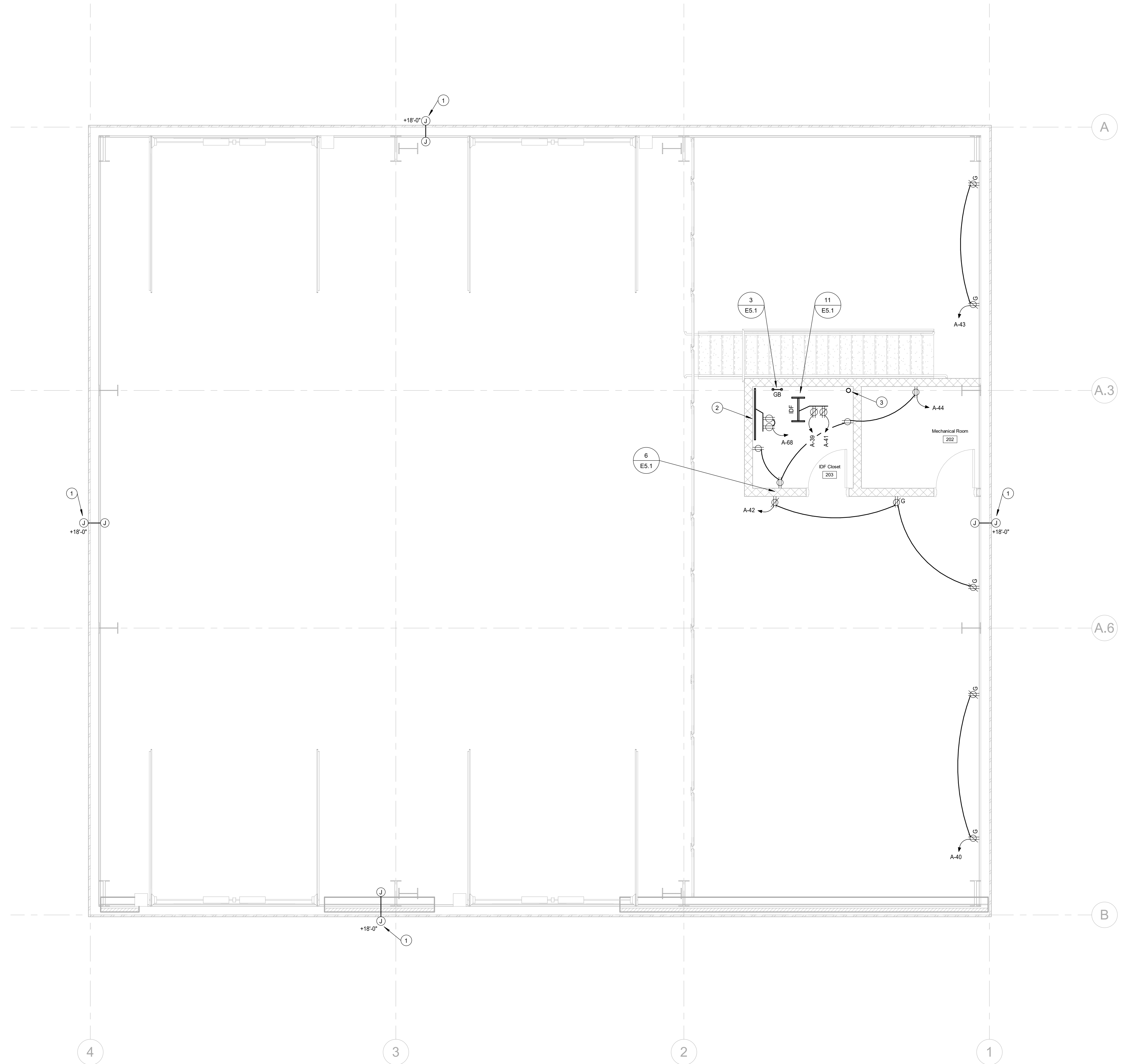
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*T.P.O.*

**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**SECOND FLOOR ELECTRICAL POWER PLAN**  
SCALE 1" = 4'

A PROJECT FOR:



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mark	date	description

**Second Floor Electrical Power Plan**

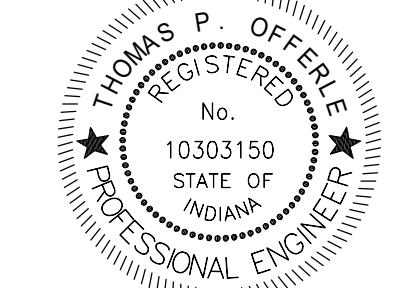
date: March 2, 2022  
project: 487001 (212600)  
coordinator: J.M.  
drawn: S.J.B. **E1.2**  
checked: T.P.O.

**ELECTRICAL PLAN NOTES**

- ① TERMINATE EXIT, EM, AND EM1 FIXTURES TO LINE SIDE OF RESPECTIVE ROOM LIGHTING CIRCUIT.
- ② ELECTRICAL CONTRACTOR SHALL REFER TO SHEET E2.2 FOR CONTINUATION OF LIGHTING CIRCUIT. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.
- ③ CONTRACTOR SHALL SURFACE MOUNT FIXTURE TYPE L03. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.
- ④ REFER TO SHEET E2.2 FOR LIGHTING FIXTURES OPERATED BY LIGHTING CONTROL SHOWN. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.

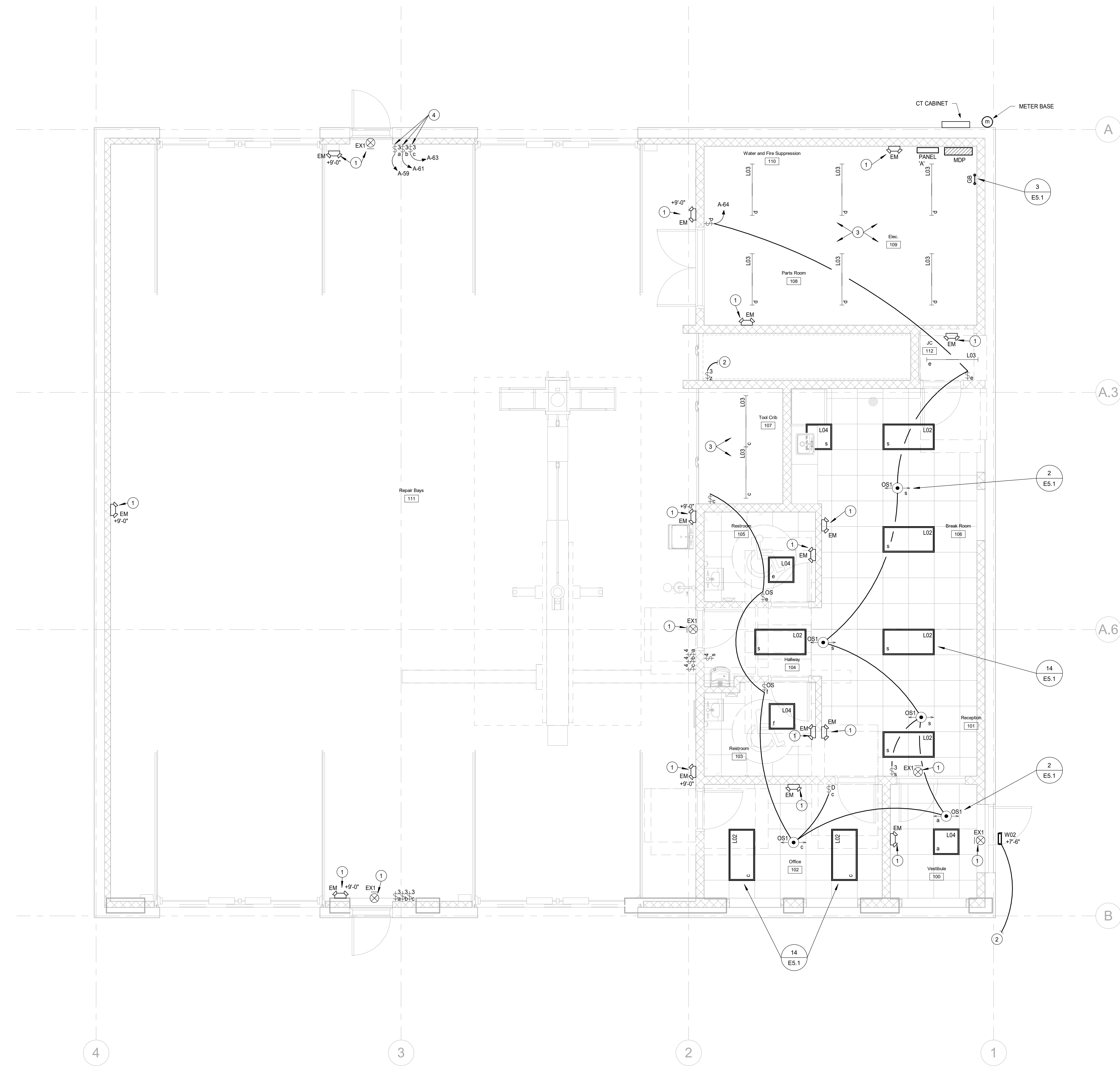
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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**FIRST FLOOR ELECTRICAL LIGHTING PLAN**  
SCALE 1" = 4'

A PROJECT FOR:



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mark	date	description

**First Floor Electrical Lighting Plan**

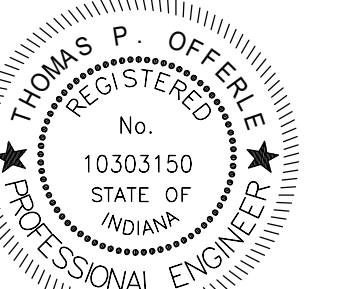
date: March 2, 2022  
project: 487001 (212600)  
coordinator: J.M.  
drawn: Author **E2.1**  
checked: Checker

**ELECTRICAL PLAN NOTES**

- ① TERMINATE EXT. EM, AND EM1 FIXTURES TO LINE SIDE OF RESPECTIVE ROOM LIGHTING CIRCUIT.
- ② ELECTRICAL CONTRACTOR SHALL REFER TO SHEET E2.1 FOR CONTINUATION OF LIGHTING CIRCUIT. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.
- ③ CONTRACTOR SHALL SUSPEND FIXTURE TYPE 'L03' AT SPECIFIED HEIGHT. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.
- ④ REFER TO SHEET E2.1 FOR LIGHTING FIXTURES OPERATED BY LIGHTING CONTROLS AND CONTINUATION OF LIGHTING CIRCUITS. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.
- ⑤ CONTRACTOR SHALL REFER TO SHEET CE2.1 FOR CONTINUATION OF LIGHTING CIRCUIT. COORDINATE ALL WORK WITH CONSTRUCTION MANAGER.

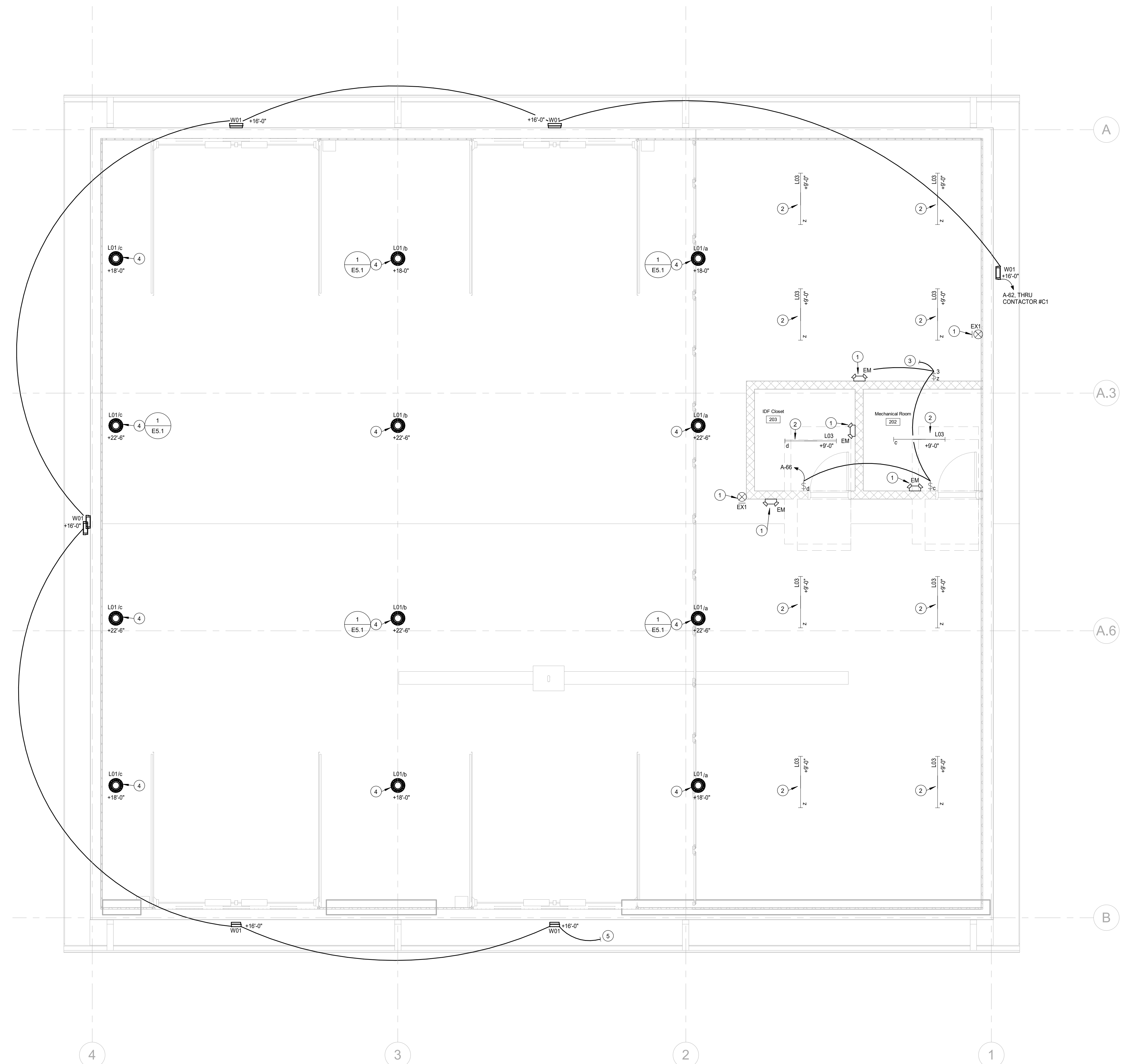
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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**SECOND FLOOR ELECTRICAL LIGHTING PLAN**  
SCALE 1" = 4'

A PROJECT FOR:



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mark	date	description

**Second Floor Electrical Lighting Plan**

date: March 2, 2022  
project: 487001 (212600)  
coordinator: J.M.  
drawn: Author  
checked: Checker

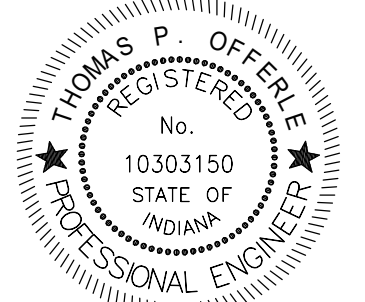
**E2.2**

**ELECTRICAL PLAN NOTES**

- ① EQUIPMENT IS PROVIDED AND INSTALLED BY ANOTHER CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, AND PLUMBING DRAWING SHEETS TO COORDINATE THE EXACT LOCATION OF EQUIPMENT WITH EQUIPMENT PROVIDER. ELECTRICAL CONTRACTOR SHALL TERMINATE EQUIPMENT AS REQUIRED. WHERE NO STARTERS, DISCONNECTS, OR SWITCHES ARE INDICATED, THEY WILL BE FACTORY MOUNTED AND LOAD-SIDE WIRED.
- ② OVERHEAD DOORS AND CONTROLLERS PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL TERMINATE MOTORS AND CONTROLLERS FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
- ③ MOTOR STARTER PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL MOUNT AND TERMINATE AS DIRECTED FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
- ④ REFER TO DRAWING 'E3.2' FOR CONTINUATION.
- ⑤ 3/4" C, 2-#12, 1-#12G TERMINATED TO 'AC-1'.
- ⑥ OIL LEAK DETECTION CONTROL PANEL PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL TERMINATE AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- ⑦ ROTARY LIFT PROVIDED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL TERMINATE FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
- ⑧ CLASS 1, DIVISION 1 WIRING PER N.E.C.
- ⑨ TAMPER AND FLOW SWITCHES PROVIDED BY OTHERS. TERMINATE TO FACP FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- ⑩ CRANE CONTROLLER. ELECTRICAL CONTRACTOR SHALL TERMINATE AS REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
- ⑪ DUPLEX RECEPTACLE FOR AIR-COMPRESSOR ASSOCIATED WITH DRY-SYSTEM. COORDINATE EXACT LOCATION WITH FIRE-PROTECTION CONTRACTOR PRIOR TO ROUGH-IN/INSTALLATION.

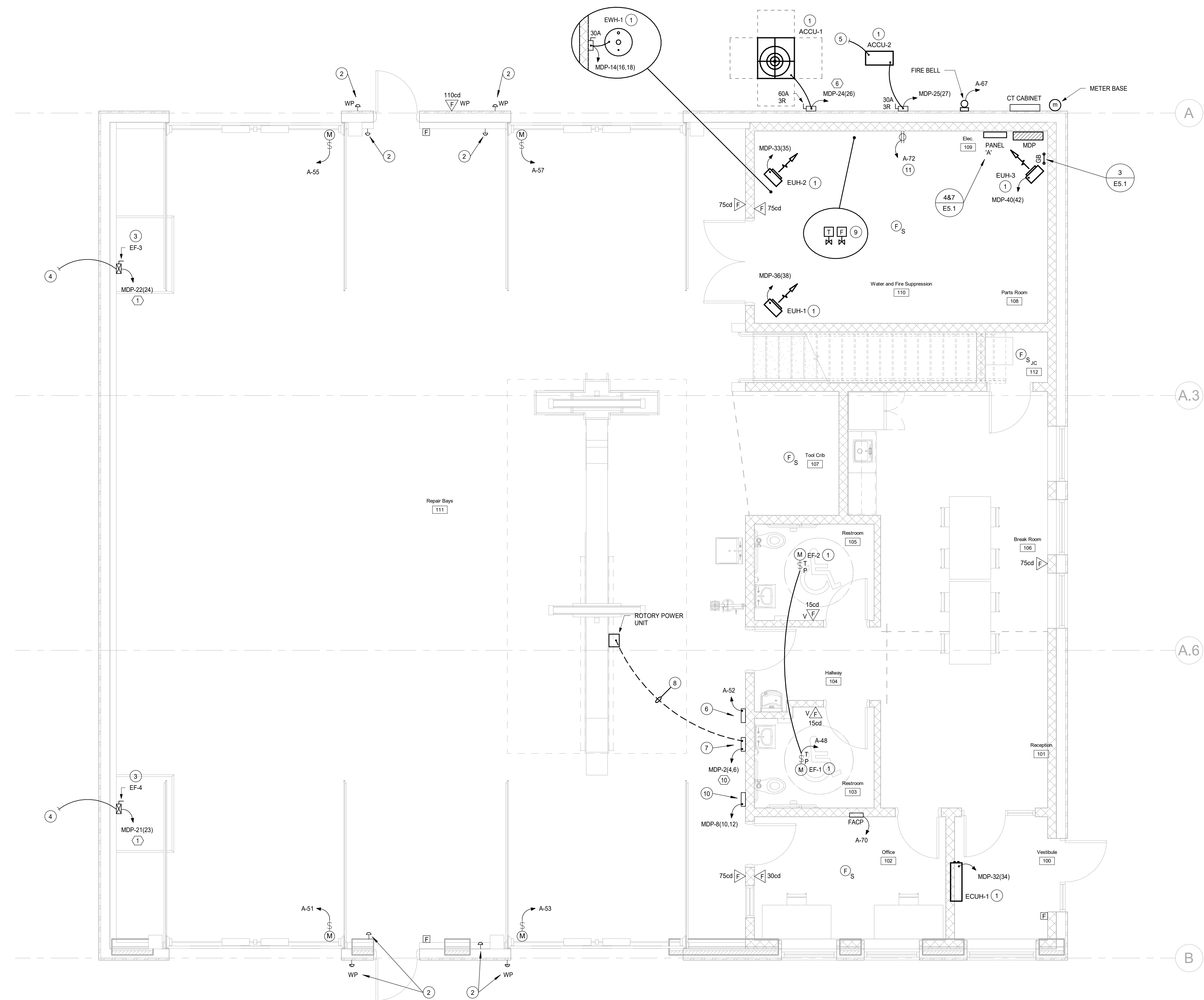
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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**FIRST FLOOR ELECTRICAL SYSTEMS PLAN**  
SCALE: 1" = 4'

A PROJECT FOR:



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mark	date	description

**First Floor Electrical Systems Plan**

date: March 2, 2022  
project: 487001 (212600)  
coordinator: J.M.  
drawn: Author **E3.1**  
checked: Checker

**ELECTRICAL PLAN NOTES**

- ① EQUIPMENT IS PROVIDED AND INSTALLED BY ANOTHER CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, AND PLUMBING DRAWING SHEETS TO COORDINATE THE EXACT LOCATION OF EQUIPMENT WITH EQUIPMENT PROVIDER. ELECTRICAL CONTRACTOR SHALL TERMINATE EQUIPMENT AS REQUIRED. WHERE NO STARTERS, DISCONNECTS, OR SWITCHES ARE INDICATED, THEY WILL BE FACTORY MOUNTED AND LOAD-SIDE WIRED.
- ② ELECTRICAL CONTRACTOR SHALL REFER TO DRAWING 'E3.1' FOR CONTINUATION.
- ③ ELECTRICAL CONTRACTOR SHALL COORDINATE RH-1.2.3 TERMINATION POINTS WITH MECHANICAL CONTRACTOR. TERMINATE FOR A COMPLETE AND FUNCTIONAL SYSTEM.

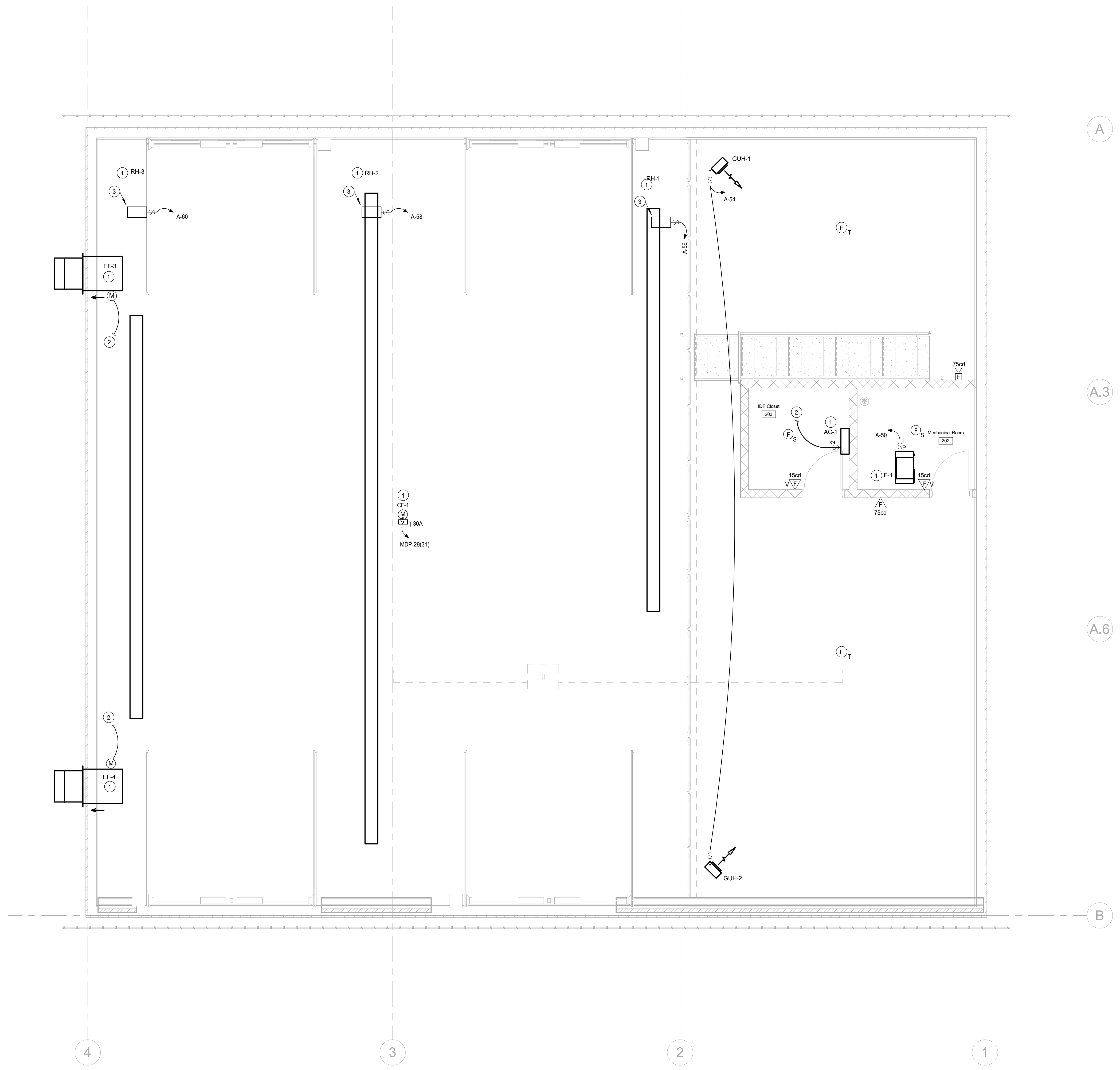
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**CENTERVILLE-ABINGTON COMMUNITY SCHOOLS  
TRANSPORTATION BUILDING**



**SECOND FLOOR ELECTRICAL SYSTEMS PLAN**  
SCALE: 1" = 2' 0"

A PROJECT FOR:

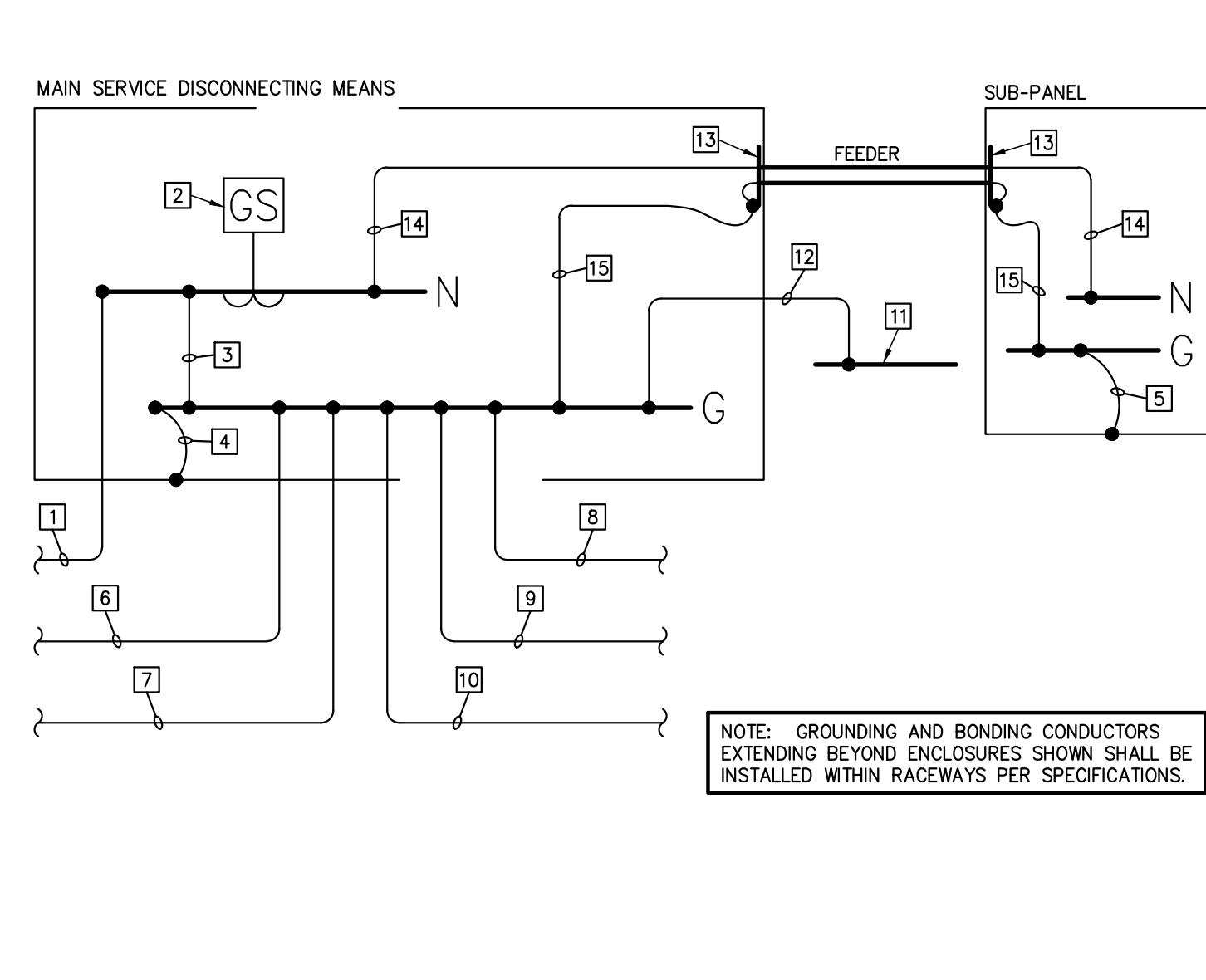


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mark	date	description

**Second Floor Electrical Systems Plan**

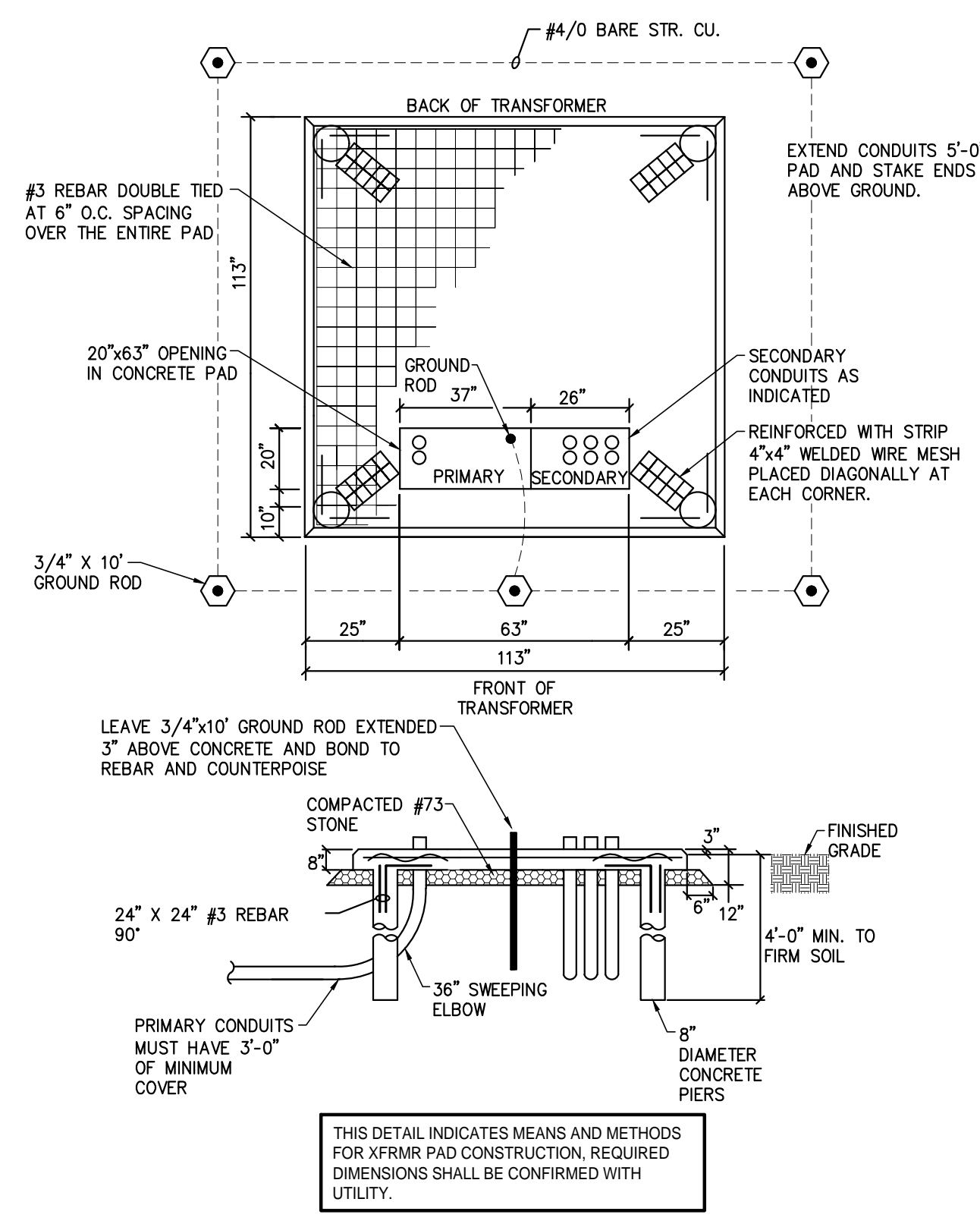
date: March 2, 2022  
project: 487001 (212600)  
coordinator: J.M.  
drawn: SJB **E3.2**  
checked: TPO



- 1 GROUNDING CONDUCTOR (NEUTRAL) EXTENDS TO UTILITY XFMR BANK OR PAD MOUNT WITHIN SERVICE ENTRANCE FEEDERS.
- 2 GFCI SENSOR WHEN SHOWN OR SPECIFIED.
- 3 MAIN BONDING JUMPER AS PROVIDED BY MANUFACTURER OR SIZED PER TABLE 250.66.
- 4 MAIN BONDING SYSTEM JUMPER AS PROVIDED BY MANUFACTURER OR SIZED PER TABLE 250.66.
- 5 EQUIPMENT BONDING JUMPER AS PROVIDED BY MANUFACTURER OR SIZED PER TABLE 250.122.
- 6 #6 CU TO GROUNDING ELECTRODE TRIANGLE WITH ELECTRODES SPACED 11'-0" APART, EXOTHERMIC WELD REQUIRED.
- 7 #2/0 CU TO COUNTERPOISE LOOP WHEN SHOWN OR SPECIFIED.
- 8 BOND TO UNDERGROUND METALLIC PIPING SYSTEMS (DOMESTIC WATER, FIRE PROTECTION, NATURAL GAS) WITHIN 5'-0" OF ENTERING THE BUILDING. #6 CU MINIMUM UNLESS OTHERWISE NOTED. A JUMPER SHALL BE INSTALLED ACROSS ANY REMOVABLE ITEMS THAT WILL REQUIRE PERIODIC MAINTENANCE (METERS, FILTERS, BACK-FLOW PREVENTERS, ETC.).
- 9 BOND TO STRUCTURAL STEEL WHEN AVAILABLE, SIZED PER 250.66.
- 10 #4 CU, UNLESS NOTED OTHERWISE, TO FOUNDATION FOOTING RE-BAR, EXOTHERMIC WELD REQUIRED.
- 11 MASTER TEL/COM GROUND BAR AT SERVICE ENTRANCE WHEN SHOWN OR SPECIFIED.
- 12 #2/0 CU, UNLESS NOTED OTHERWISE.
- 13 THREADED BONDING BUSHING WITH INSULATED THROAT INSTALLED ON ALL FEEDERS.
- 14 GROUNDING CONDUCTOR (NEUTRAL) SIZED THE SAME AS PHASE CONDUCTORS OF EACH FEEDER. AS NOTED ON RISER DIAGRAM.
- 15 GROUNDING CONDUCTOR (EQUIPMENT GROUND) SIZED AS NOTED ON RISER DIAGRAM LOOPED THRU BOND LUG.

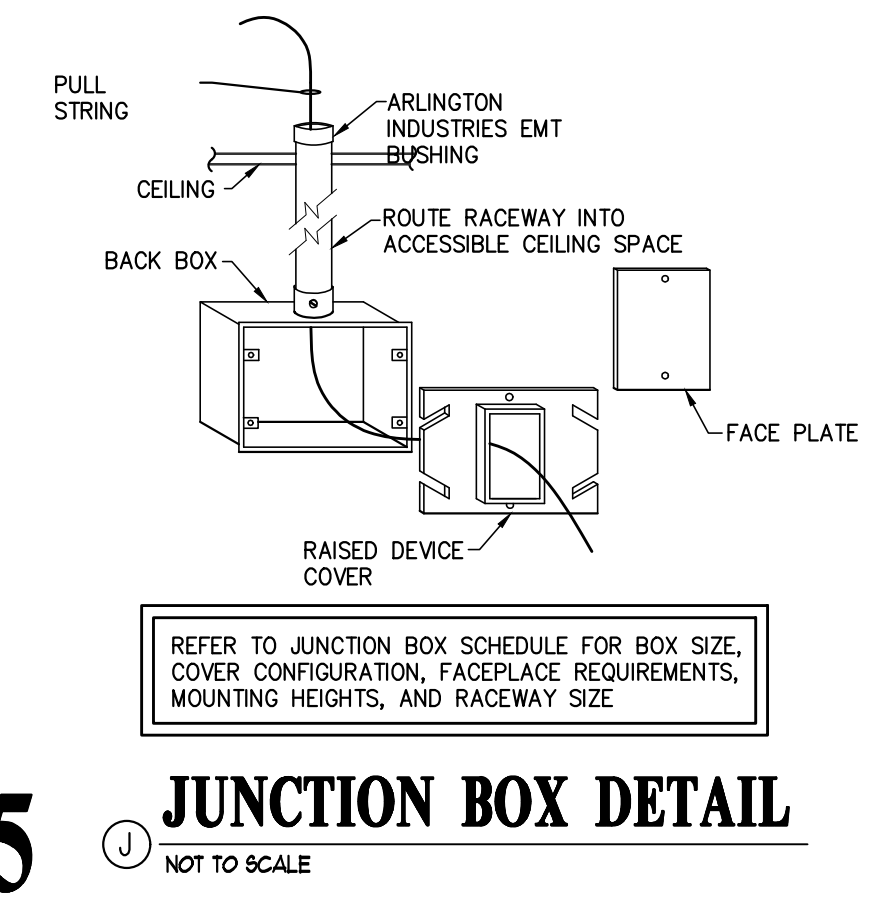
NOTE: GROUNDING AND BONDING CONDUCTORS EXTENDING BEYOND ENCLOSURES SHOWN SHALL BE INSTALLED WITHIN RACEWAYS PER SPECIFICATIONS.

**9 SERVICE ENTRANCE GROUNDING/BONDING DIAGRAM**  
NOT TO SCALE

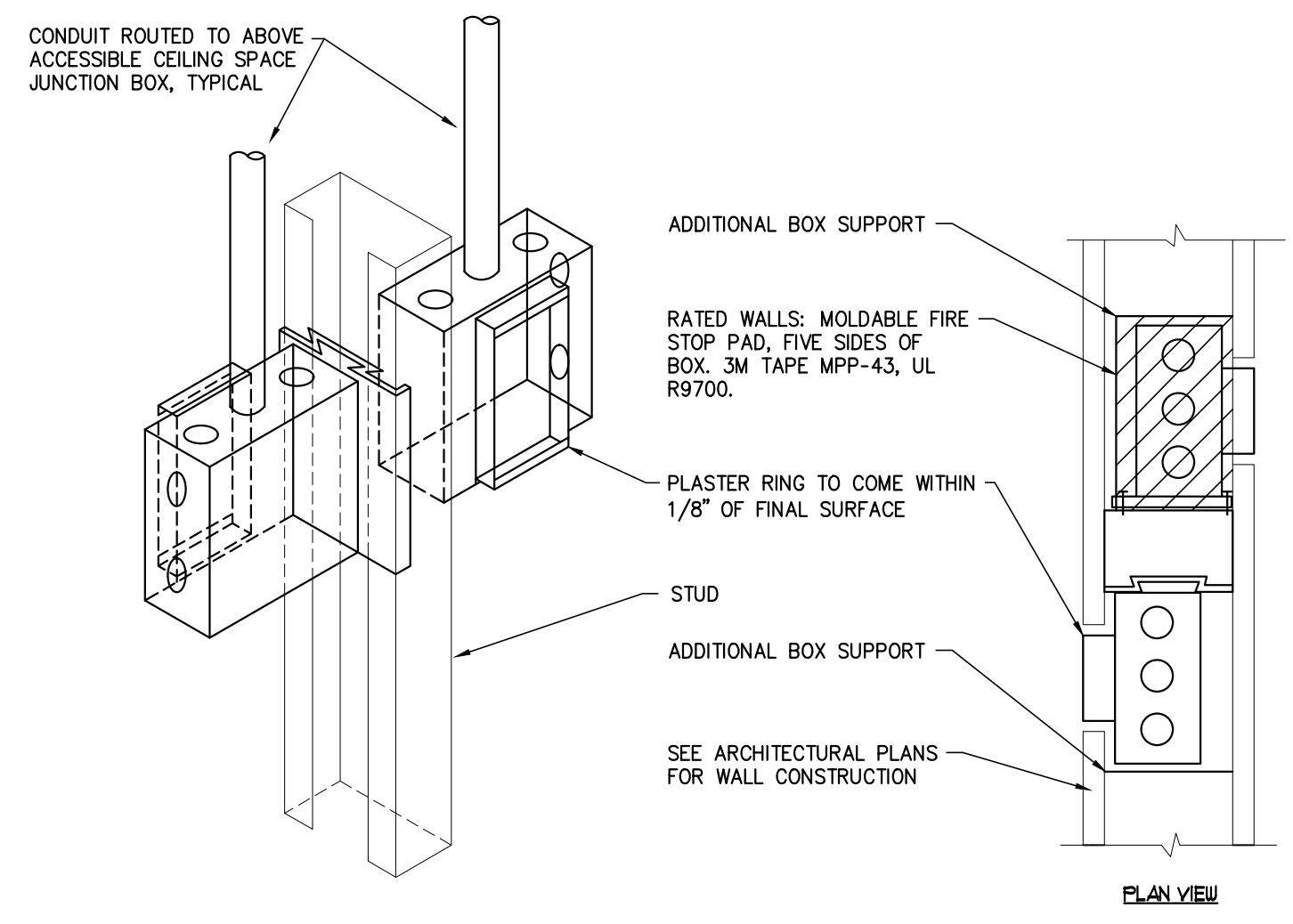


**8 PAD MOUNT XFRM**  
NOT TO SCALE

THIS DETAIL INDICATES MEANS AND METHODS FOR XFMR PAD CONSTRUCTION. REQUIRED DIMENSIONS SHALL BE CONFIRMED WITH UTILITY.

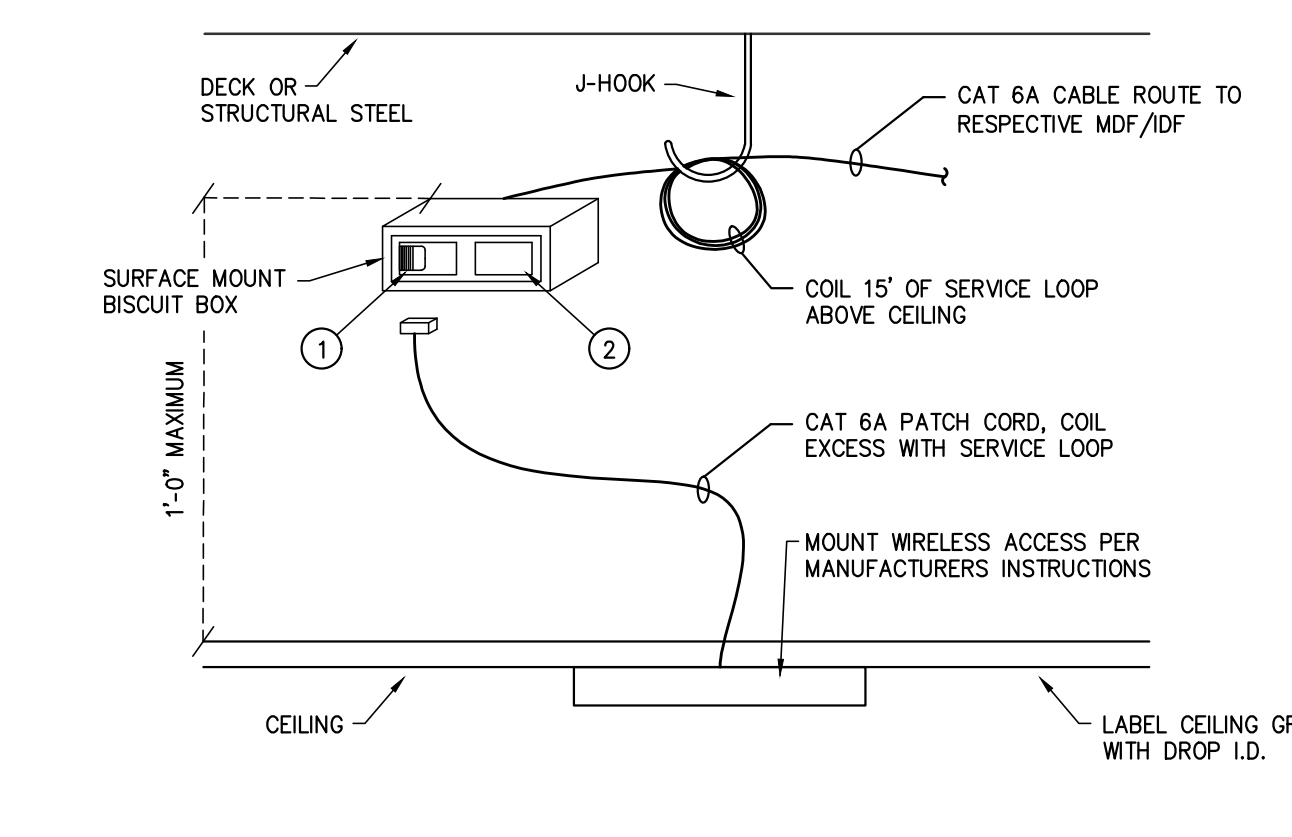


**5 JUNCTION BOX DETAIL**  
NOT TO SCALE

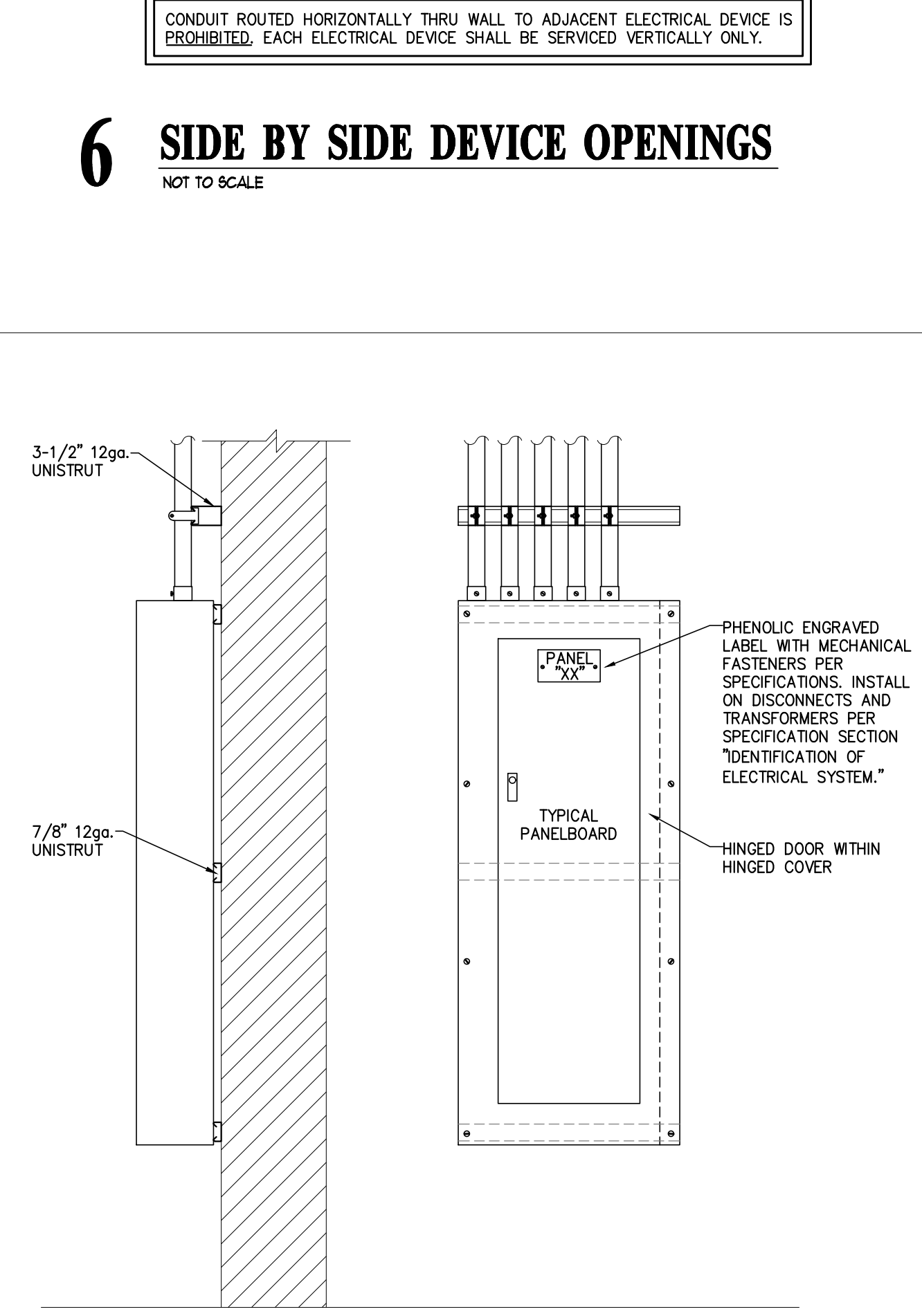


**6 SIDE BY SIDE DEVICE OPENINGS**  
NOT TO SCALE

- DETAIL NOTES**
- 1 CAT. 6A OUTLET, ROUTE CAT 6A CABLE TO RESPECTIVE MDF/IDF.
  - 2 BLANK.

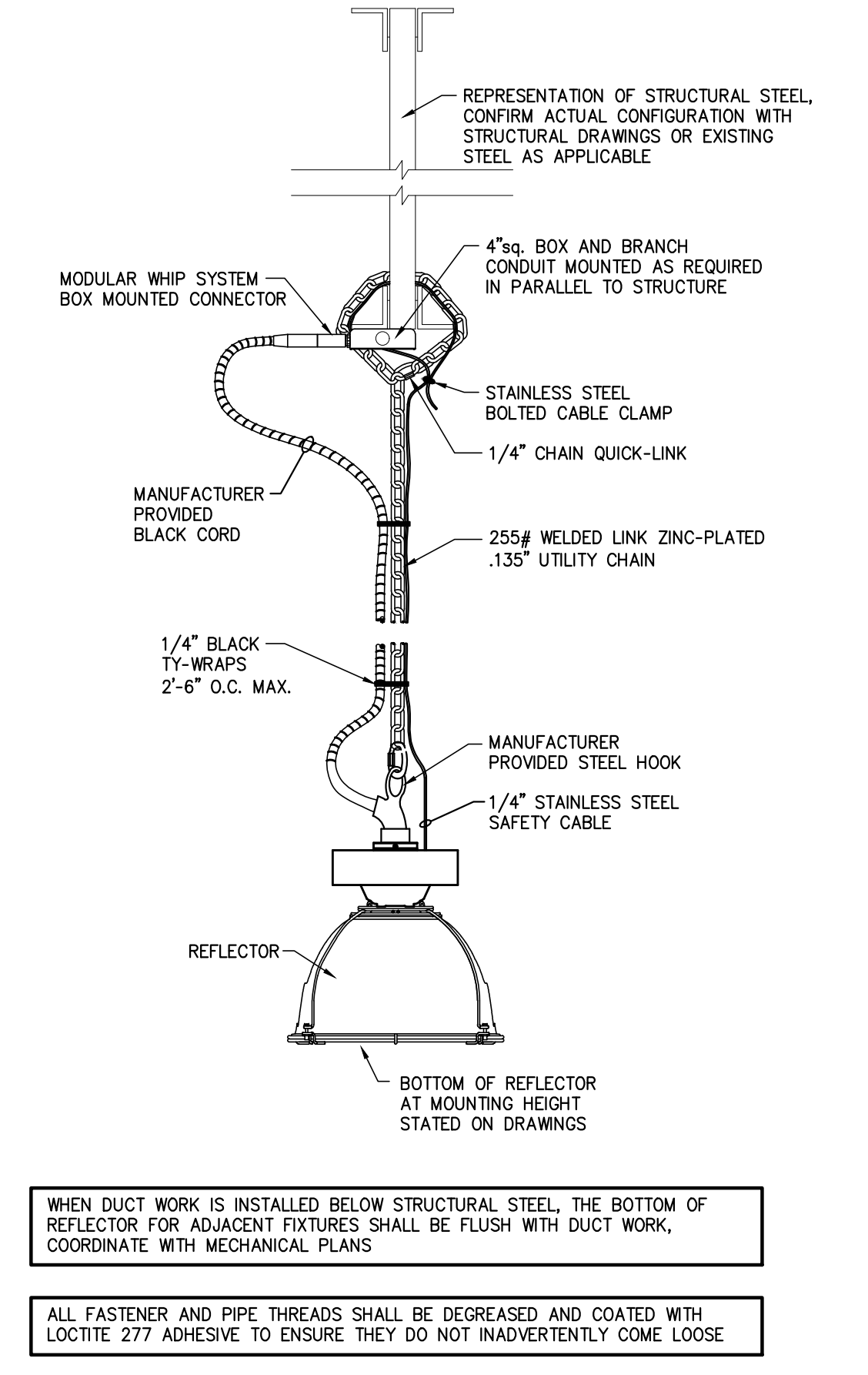


**10 WIRELESS ACCESS POINT CEILING MOUNT DETAIL**  
NOT TO SCALE



**7 SURFACE MOUNTED PANEL DETAIL**  
NOT TO SCALE

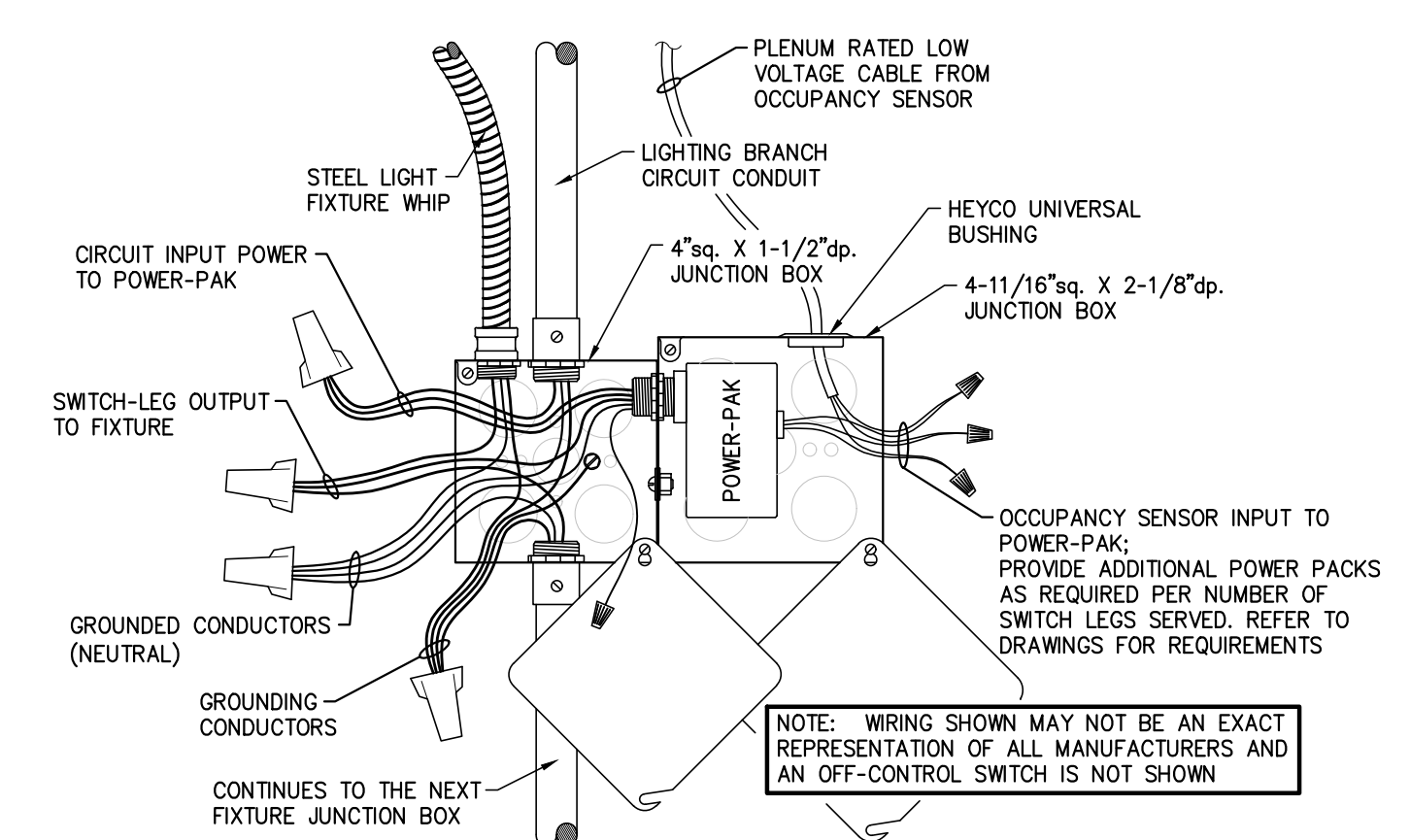
A REFERENCE TO THIS DETAIL MAY NOT APPEAR ON THE FLOOR PLAN; MEANS AND METHODS DEPICTED ARE STILL REQUIRED TO BE FOLLOWED WHERE TYPICAL SITUATION OCCURS ON THIS PROJECT



**1 HI-BAY FIXTURE MOUNTING**  
NOT TO SCALE

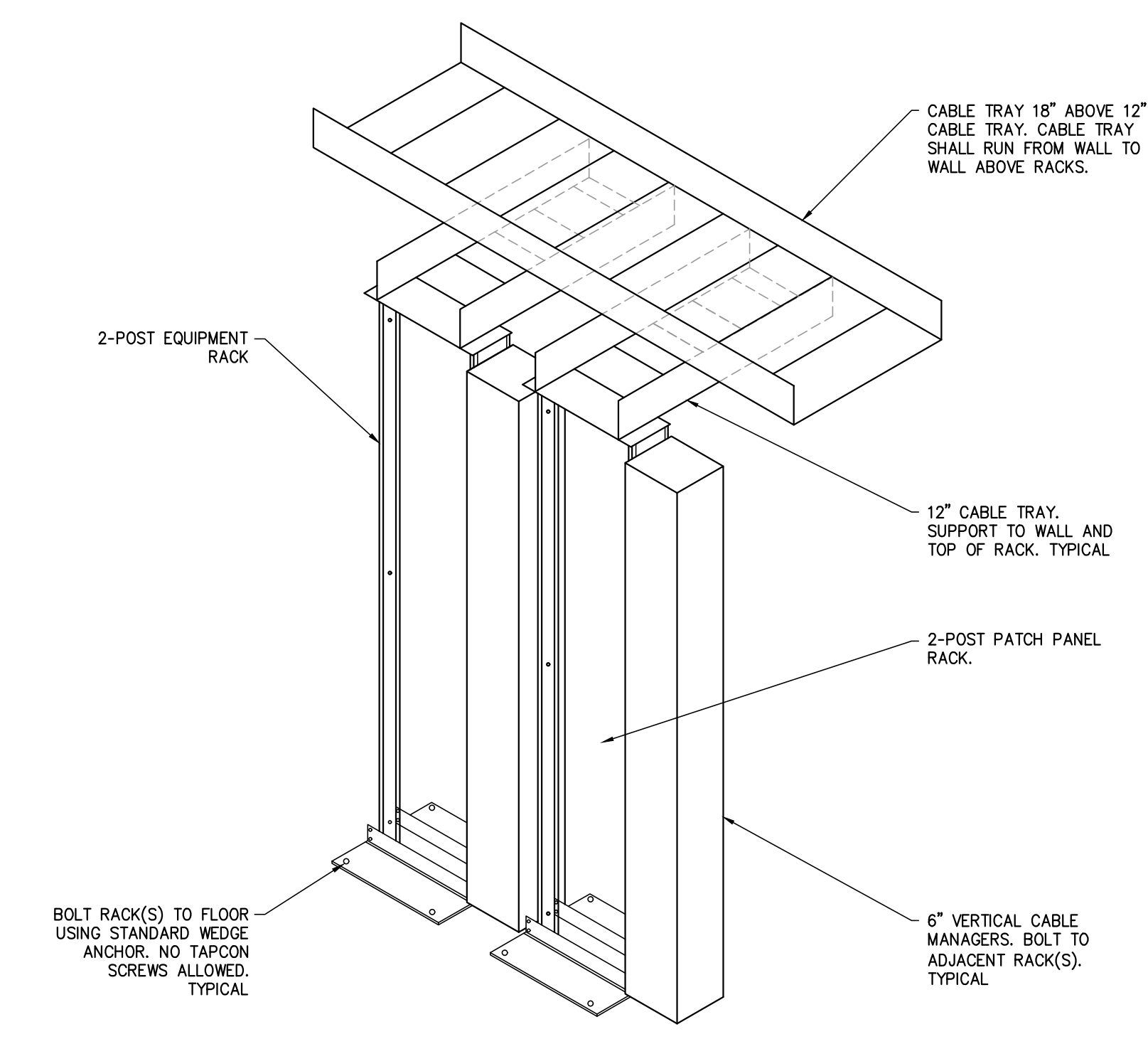
WHEN DUCT WORK IS INSTALLED BELOW STRUCTURAL STEEL, THE BOTTOM OF REFLECTOR FOR ADJACENT FIXTURES SHALL BE FLUSH WITH DUCT WORK, COORDINATE WITH MECHANICAL PLANS

ALL FASTENER AND PIPE THREADS SHALL BE DEGREASED AND COATED WITH LOCITE 277 ADHESIVE TO ENSURE THEY DO NOT INADVERTENTLY COME LOOSE

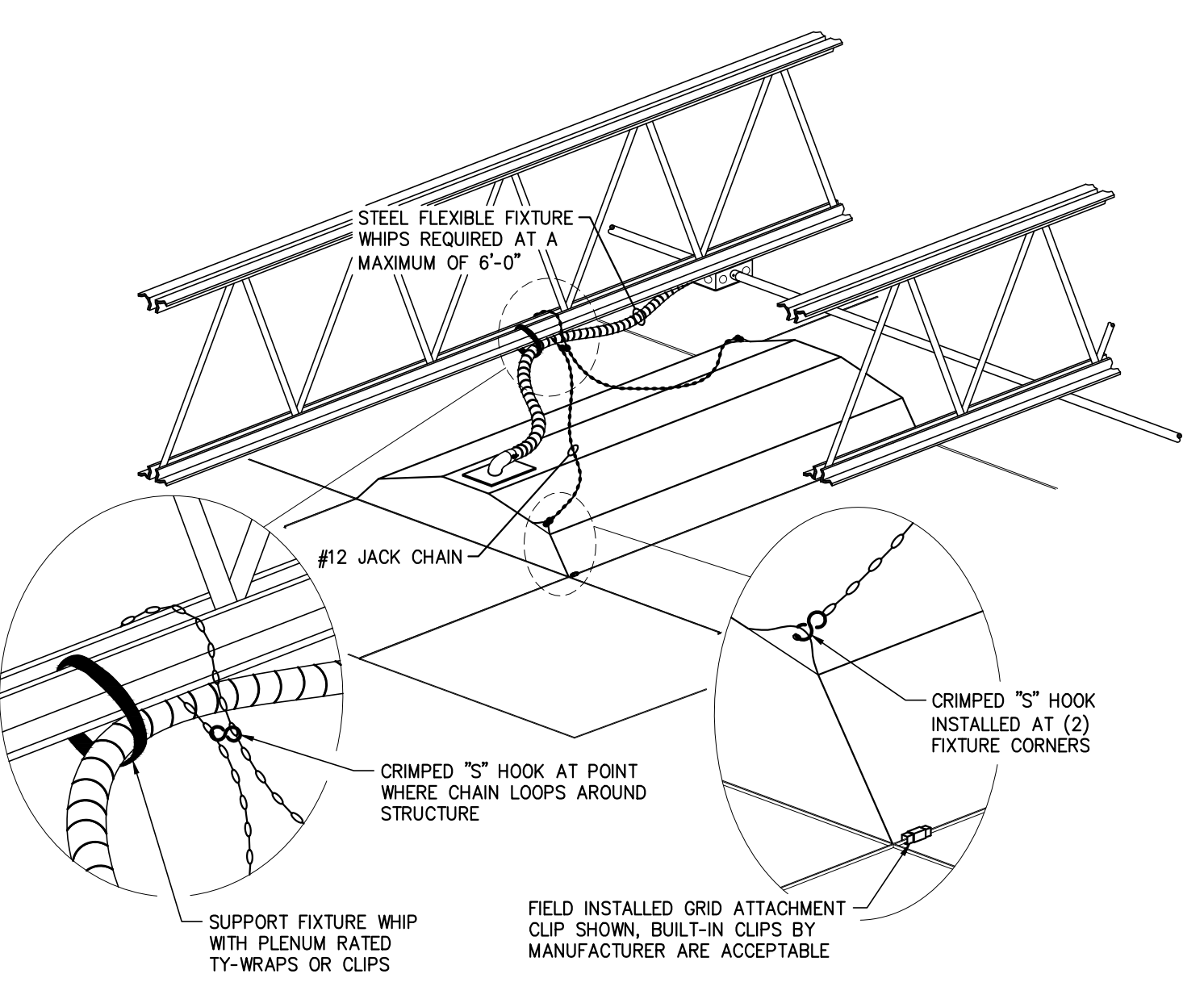


**2 OCCUPANCY SENSOR POWER-PAK MOUNTING DETAIL**  
NOT TO SCALE

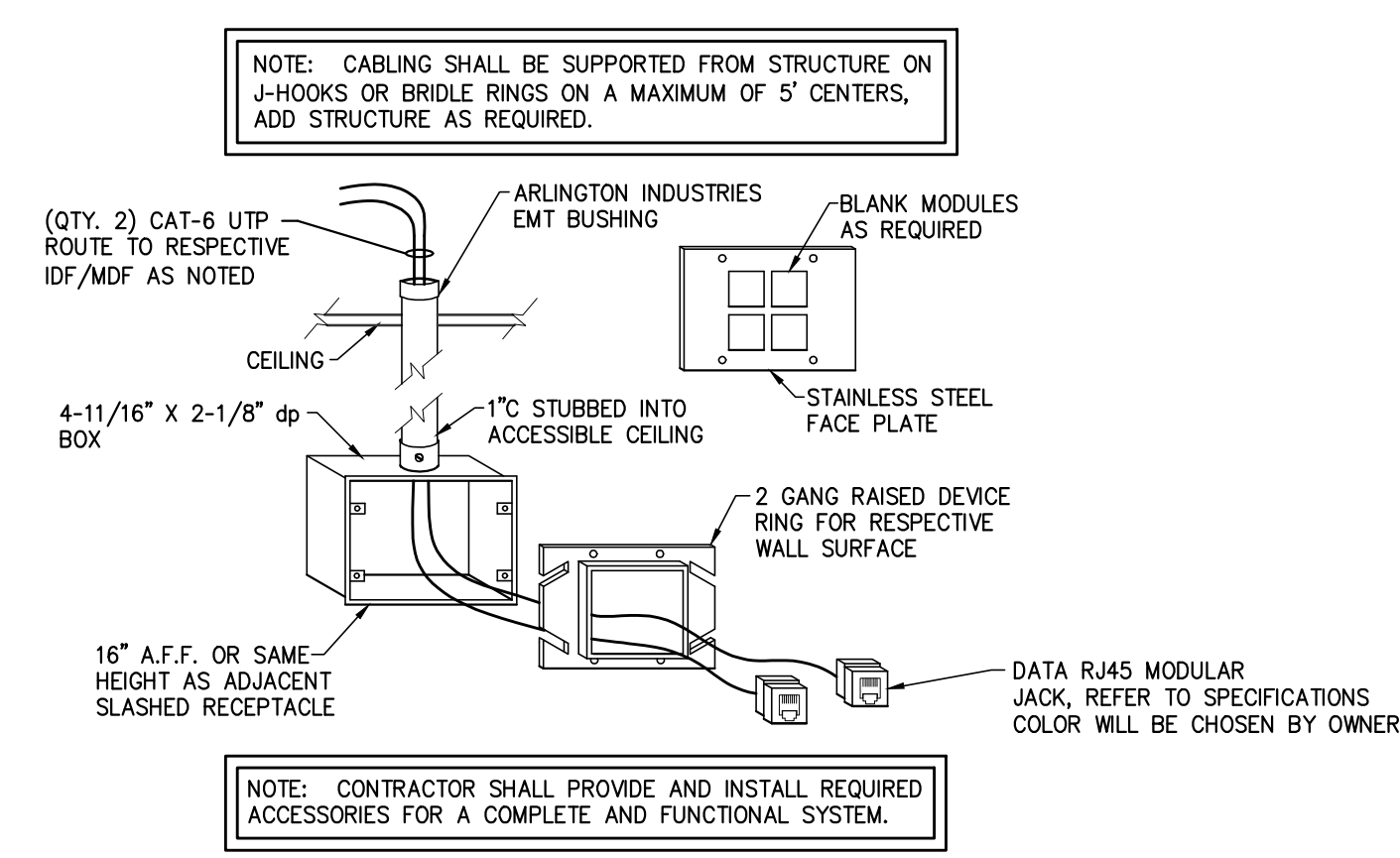
NOTE: WIRING SHOWN MAY NOT BE AN EXACT REPRESENTATION OF ALL MANUFACTURERS AND AN OFF-CONTROL SWITCH IS NOT SHOWN.



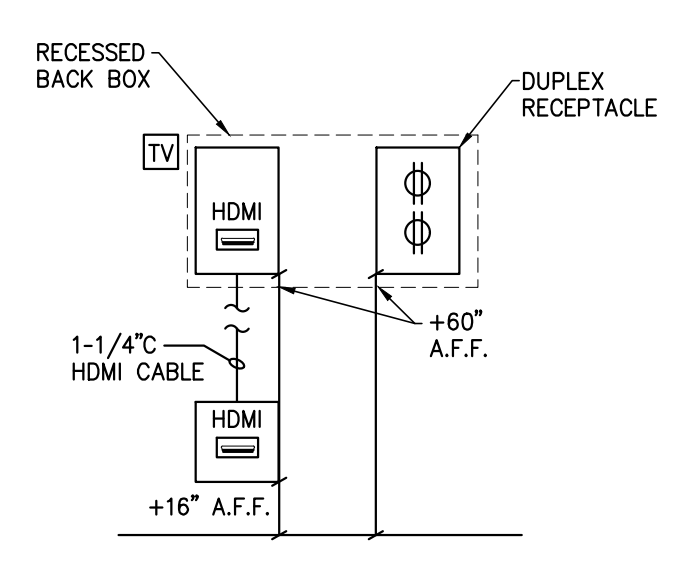
**11 TWO RACK DETAIL (TYPICAL)**  
NOT TO SCALE



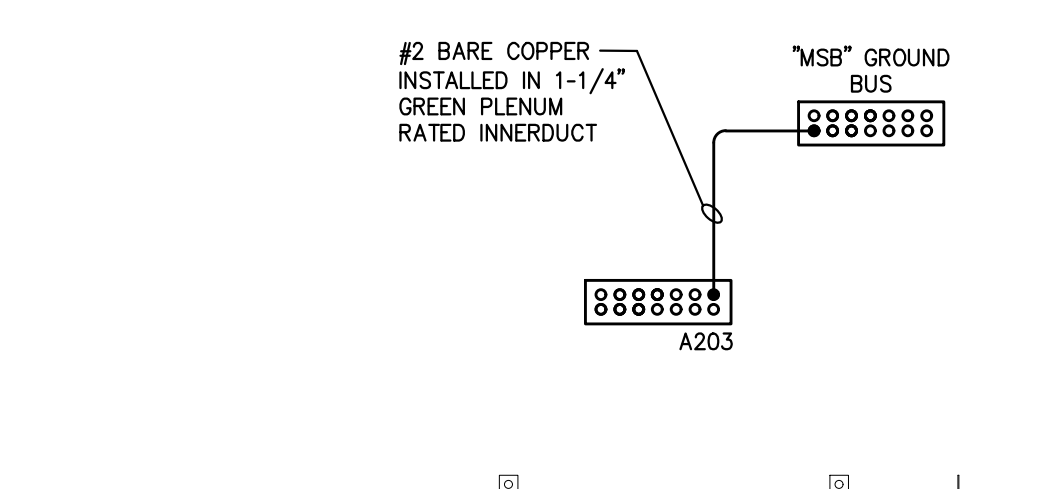
**14 LAY-IN FIXTURE INSTALLATION, TYPICAL**  
NOT TO SCALE



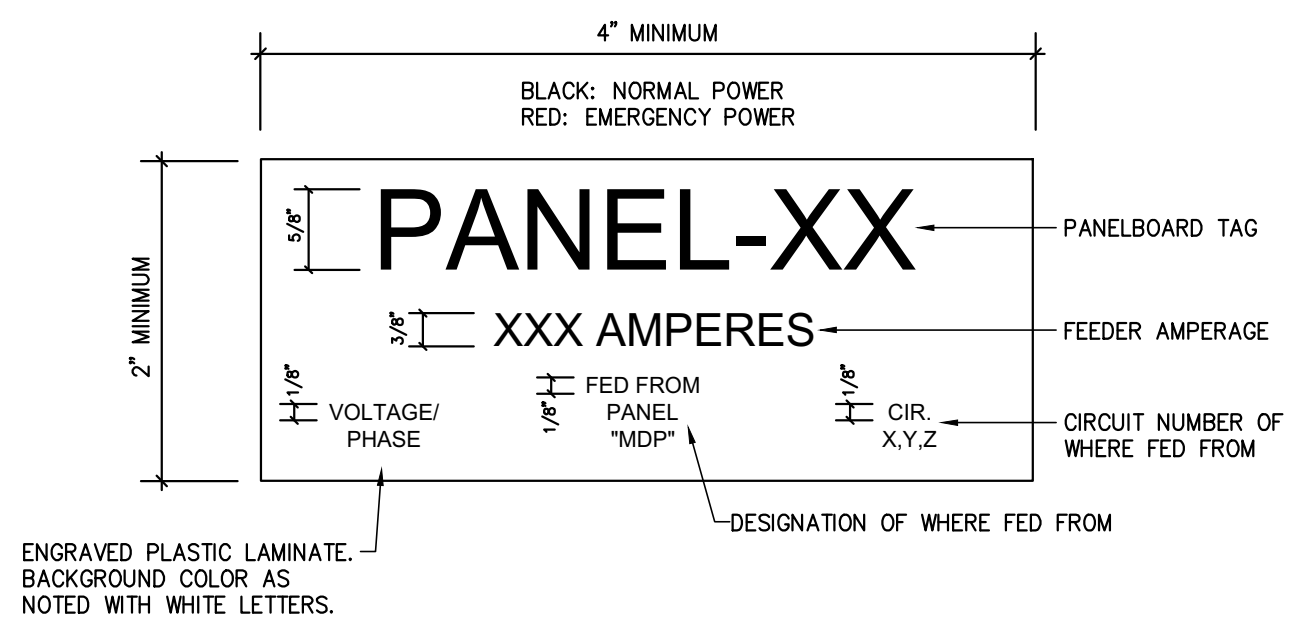
**13 DATA "2" OUTLET CONNECTION**  
NOT TO SCALE



**12 TV2 DETAIL**  
NOT TO SCALE



**3 GROUND BUS DETAIL**  
NOT TO SCALE



**4 EQUIPMENT TAG DETAIL, TYPICAL**  
NOT TO SCALE

ENGRAVED PLASTIC LAMINATE. BACKGROUND COLOR AS NOTED WITH WHITE LETTERS.

A PROJECT FOR:



mark	date	description

Electrical Details

date: March 2, 2022  
project: 473003 (212600)  
coordinator: JIM  
drawn: SJB  
checked: TPO

PANEL: A TYPE: NO MOUNT: SURFACE REMARKS:		VOLTAGE: 208Y120, 3Ø, 4W MCO: 225A AIC: 20K R-RECEPTACLE		L-LITES			
CKT NO.	BREAKER SIZE	LOAD DESCRIPTION	PHASE A (KVA)	PHASE B (KVA)	PHASE C (KVA)	BREAKER SIZE	CKT NO.
1	30A1P	POWER WASHER	1.30				2
3	20A1P	R: RM # 111	0.60	0.60			4
5	20A1P	R: RM # 111	0.60	0.60			6
7	20A1P	R: RM # 111	0.60	0.60			8
9	20A1P	R: RM # 111	0.60	0.60			10
11	20A1P	R: RM # 111	0.60	0.60			12
13	20A1P	R: RM # 111	0.60	0.60			14
15	20A1P	R: RM # 108	0.60	0.60			16
17	20A1P	R: RM # 107	0.60	0.60			18
19	20A1P	R: RM # 108	0.60	0.60			20
21	20A1P	R: RM # 107	0.60	0.60			22
23	20A1P	R: RM # 107	0.60	0.60			24
25	20A1P	R: RM # 107	0.60	0.60			26
27	20A1P	R: RM # 111	0.60	0.60			28
29	20A1P	R: RM # 111	0.60	0.60			30
31	20A1P	R: RM # 102	0.40	0.40			32
33	20A1P	R: RM # 105	0.40	0.40			34
35	20A1P	R: RM # 105	0.40	0.40			36
37	20A1P	R: RM # 105	0.40	0.40			38
39	20A1P	R: RM # 203	0.40	0.40			40
41	20A1P	R: RM # 203	0.40	0.40			42
43	20A1P	R: MEZZANINE	0.40	0.40			44
45	20A1P	L: SITE	0.20	0.20			46
47	20A1P	L: SITE	0.20	0.20			48
49	20A1P	L: SITE	0.20	0.20			50
51	20A1P	OHD	1.00	1.00			52
53	20A1P	OHD	1.00	1.00			54
55	20A1P	OHD	0.60	0.60			56
57	20A1P	OHD	0.60	0.60			58
59	20A1P	L: RM # 111	0.60	0.60			60
61	20A1P	L: RM # 111	0.60	0.60			62
63	20A1P	L: RM # 111	0.60	0.60			64
65	20A1P	TV	1.00	1.00			66
67	20A1P	FIRE BELL	0.20	0.20			68
69	20A1P	SPARE					70
71	20A1P	SPARE					72
73	20A1P	SPARE					74
75	20A1P	SPARE					76
77	20A1P	SPARE					78
79	20A1P	SPARE					80
81	20A1P	SPARE					82
83	20A1P	SPARE					84

PANEL: MDP TYPE: LINE MOUNT: SURFACE REMARKS: TVSS		VOLTAGE: 208Y120, 3Ø, 4W MCO: 600A AIC: 20K					
CKT NO.	BREAKER SIZE	LOAD DESCRIPTION	PHASE A (KVA)	PHASE B (KVA)	PHASE C (KVA)	BREAKER SIZE	CKT NO.
1			15.00				2
3	225A3P	PANEL A	4.00	15.00	4.00		4
5			1.50	4.00	1.50		6
9	30A3P	LIFT STATION	1.20	1.50	1.20		8
11	60A2P	COMPRESSOR	3.00	1.50	1.50		10
15			1.50	3.00	1.50		14
17	50A2P	WELDER	4.20	1.50	1.50		16
19			4.20	1.50	1.50		18
21	25A2P	EF-4	4.20	1.00	1.00		22
23	15A2P	ACCU-2	1.30	2.70			24
25			1.30	2.70			26
27	15A2P	CF-1	1.30	1.00			28
29	15A2P	CF-1	1.00	1.00			30
31	15A2P	EUH-2	1.00	1.00			32
33	15A2P	EUH-2	1.00	1.00			34
35	15A2P	EUH-2	1.00	1.00			36
37	15A2P	GATE CONTROLLER	1.00	1.00			38
41	15A2P	GATE CONTROLLER	1.00	1.00			40
43			1.00				44
45	15A2P	GATE CONTROLLER	1.00	1.00			46
47	1P	SPACE					48
49	1P	SPACE					50
51	1P	SPACE					52
53	1P	SPACE					54

PANEL: BH TYPE: NO MOUNT: SURFACE REMARKS: NEMA 3R LOCKABLE ENCLOSURE		VOLTAGE: 208Y120, 3Ø, 4W MCO: 200A AIC: 16K					
CKT NO.	BREAKER SIZE	LOAD DESCRIPTION	PHASE A (KVA)	PHASE B (KVA)	PHASE C (KVA)	BREAKER SIZE	CKT NO.
1	20A1P	BUS HEATER	1.80				2
3	20A1P	BUS HEATER	1.80				4
5	20A1P	BUS HEATER	1.80				6
7	20A1P	BUS HEATER	1.80				8
9	20A1P	BUS HEATER	1.80				10
11	20A1P	BUS HEATER	1.80				12
13	20A1P	BUS HEATER	1.80				14
15	20A1P	BUS HEATER	1.80				16
17	20A1P	BUS HEATER	1.80				18
19	20A1P	BUS HEATER	1.80				20
21	20A1P	BUS HEATER	1.80				22
23	20A1P	BUS HEATER	1.80				24
25	20A1P	BUS HEATER	1.80				26
27	20A1P	BUS HEATER	1.80				28
29	20A1P	SPACE					30
31	20A1P	SPACE					32
33	20A1P	SPACE					34
35	20A1P	SPACE					36
37	20A1P	SPACE					38
39	20A1P	SPACE					40
41	20A1P	SPACE					42

LUMINAIRE SCHEDULE									
TYPE	MANUFACTURER'S CATALOG NUMBER	MOUNT	LED		VOLTAGE	INPUT WATTS	REMARKS		
			LUMENS	COLOR					
L01	LITHONIA #JBL-2400LM-QL-MVOLT-40K-80CRI-SCF240	HOOK	24181	40K	120/277	174	CONTRACTOR SHALL PROVIDE AND INSTALL COMPATIBLE SWITCHING AND CABLING REQUIRED FOR 0-10V DIMMING, DIMMING DOWN TO 10%		
L02	LITHONIA #JBL-2X4-4000LM-80CRI-40K-ADSM-MINI0-ZT-MVOLT	RECESSED	4034	40K	120/277	32	CONTRACTOR SHALL PROVIDE AND INSTALL COMPATIBLE SWITCHING AND CABLING REQUIRED FOR 0-10V DIMMING, DIMMING DOWN TO 10%		
L03	LITHONIA #JCLX-L48-7000LM-SEF-FDL-MVOLT-GZ10405K-80CRI-WH	SURFACE/PENDANT	6628	40K	120/277	49	MOUNTED BELOW DROPPED CEILING OR AS NOTED ON DRAWINGS. CONTRACTOR SHALL PROVIDE AND INSTALL COMPATIBLE SWITCHING AND CABLING REQUIRED FOR 0-10V DIMMING, DIMMING DOWN TO 10%. PROVIDE 10 FT AIRCRAFT CABLE WITH "Y" HANGER (ZACVH).		
L04	LITHONIA #JBL-2X2-3000LM-80CRI-40K-ADSM-MINI0-ZT-MVOLT	RECESSED	3329	40K	120/277	30			
W01	LITHONIA #WPX2-LED-30K-MVOLT-DOBXD	WALL	6000	30K	120/277	47	CONTRACTOR SHALL PROVIDE AND INSTALL COMPATIBLE SWITCHING AND CABLING REQUIRED FOR 0-10V DIMMING, DIMMING DOWN TO 10%		
W01E	SAME AS W01 EXCEPT WITH E14WC BATTERY PACK; TERMINATE TO LINE SIDE OF CIRCUIT SUCH THAT UPON LOSS OF POWER, LAMPS ENERGIZE. BATTERY PACK SHALL BE FACTORY INSTALLED.								
W02E	LITHONIA #WPX1-LED-P2-30K-MVOLT-DOBXD-E14WC	WALL	6000	30K	120/277	47	CONTRACTOR SHALL PROVIDE AND INSTALL COMPATIBLE SWITCHING AND CABLING REQUIRED FOR 0-10V DIMMING, DIMMING DOWN TO 10%		
P01	LITHONIA #DSX2-LED-P2-30K-T5M-MVOLT-RPA-HS-DOBXD (DUAL HEAD)	POLE	23182/HEAD	30K	120/277	370	22" ROUND STRAIGHT ALUMINUM POLE; MINIMUM WALL THICKNESS OF 0.156; WITH VIBRATION DAMPERS; FINISH SHALL MATCH POLE HEAD. CONTRACTOR SHALL PROVIDE SEPARATE FUSE IN HAND BOX OF THE POLE BASE.		
P02	LITHONIA #DSX2-LED-P2-30K-T4M-MVOLT-RPA-HS-DF-DOBXD (DUAL HEAD)	POLE	23182	30K	208	185	22" ROUND STRAIGHT ALUMINUM POLE; MINIMUM WALL THICKNESS OF 0.156; WITH VIBRATION DAMPERS; FINISH SHALL MATCH POLE HEAD. CONTRACTOR SHALL PROVIDE SEPARATE FUSE IN HAND BOX OF THE POLE BASE.		
P02	LITHONIA #DSX2-LED-P2-30K-T4M-MVOLT-RPA-HS-DF-DOBXD (DUAL HEAD)	POLE	23182	30K	208	185	22" ROUND STRAIGHT ALUMINUM POLE; MINIMUM WALL THICKNESS OF 0.156; WITH VIBRATION DAMPERS; FINISH SHALL MATCH POLE HEAD. CONTRACTOR SHALL PROVIDE SEPARATE FUSE IN HAND BOX OF THE POLE BASE.		
EM	LITHONIA #ELM2-LED-HO-SD	WALL	-	3000K	120	3	-		
DUAL-LITE, SURE-LITE									
EX1	LITHONIA #LOM-S-W-R-ELN-SD	UNIVERSAL	-	RED	120	1.5	-		
DUAL-LITE, SURE-LITE									

THESE REMARKS APPLY TO ALL LUMINAIRE TYPES:

- LUMINAIRES HAVE BEEN SPECIFIED ON A PERFORMANCE BASIS.
- LUMINAIRES LISTED ARE APPROVED, EQUALS MUST BE SUBMITTED FOR APPROVAL PRIOR TO BID.
- LUMINAIRE SHALL BE COMPARABLE IN APERTURE SIZE
- LEDS SHALL HAVE THE SAME KELVIN TEMPERATURE
- LUMINAIRE SHALL MEET OR EXCEED THE LUMEN OUTPUT OF SPECIFIED LUMINAIRE
- LUMINAIRE SHALL NOT EXCEED THE WATTAGE BY MORE THAN 10%
- PROVIDED SUBMITTAL SHALL INCLUDE INFORMATION ON LM-79LM-80 TESTING, NUMBER OF LED'S AND ENGINEER, DRIVER INFORMATION (INCLUDING DRIVE CURRENT), SYSTEM WATTAGE, AND WARRANTY INFORMATION
- ANY APPROVED LUMINAIRES SHALL BE LISTED DURING THE ADDENDA PROCESS. NO VERBAL APPROVALS SHALL BE GIVEN OR ACKNOWLEDGED.

- REFER TO FLOOR PLAN FOR SINGLE OR DUAL SWITCHING REQUIREMENTS
- LISTED EMERGENCY BATTERY PACKS/TRANSFER DEVICES SHALL BE FACTORY MOUNTED WITHIN LUMINAIRE AND TERMINATED AS REQUIRED
- UNLESS SPECIFICALLY NOTED, LED DRIVERS SHALL BE INTERNAL TO THE FIXTURE, NOT REMOTE
- FIXTURES SHALL BE SUPPLIED WITH FACTORY INSTALLED WHIPS
- ADDITIONAL EXITS AND EMERGENCY LIGHTING MAY BE REQUIRED PENDING AHJ REVIEW. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL FIXTURES AS REQUIRED.
- MATERIAL ALLOWANCES LISTED ARE ONLY FOR THE COST OF THE LUMINAIRE OR LUMINAIRE COMBINATION AS NOTED.
- BASE BID SHALL INCLUDE ALL HARDWARE, CONDUIT, WIRE AND LABOR NEEDED FOR A COMPLETE AND FUNCTIONAL INSTALLATION OF ALL LUMINAIRES.
- ELECTRICAL CONTRACTOR SHALL VERIFY EXISTING EXIT SIGN COLOR IN EXISTING BUILDING, AND ENSURE THAT ANY EXIT SIGNS THAT ARE ADDED/REPLACED IN THE BUILDING SHALL MATCH EXISTING EXIT SIGN COLOR.

OCCUPANCY SENSOR SCHEDULE				
SYMBOL	MANUFACTURER	MOUNT	COVERAGE	REMARKS
	SENSOR SWITCH #CM-PDT-9	CEILING	DUAL TECHNOLOGY; ISOLATED RELAY; SMALL MOTION; 12H	
	SENSOR SWITCH #WV-PDT-KIT	WALL	DUAL TECHNOLOGY; WALL MOUNT; SMALL MOTION; 40H - LRG MOTION: 70H; ISOLATED RELAY	
	SENSOR SWITCH #WSX-PDT	WALL	AUTOMATIC SWITCH-DUAL TECHNOLOGY SWITCH BUTTON; 180; SMALL MOTION: 20H - LRG MOTION: 36H	
	SENSOR SWITCH #WSX-PDT-D	WALL	AUTOMATIC SWITCH-DUAL TECHNOLOGY, DIMMABLE SWITCH; 180; SMALL MOTION: 20H - LRG MOTION: 36H (PHOTOSENSOR ACTIVATED FOR DAYLIGHT CONTROL)	

GENERAL SENSOR NOTES:

- ALL SENSORS SHALL HAVE TIME DELAY AND SENSITIVITY ADJUSTMENT CAPABILITIES.
- ONE POWER PACK IS REQUIRED FOR EVERY SENSOR.
- CEILING MOUNTED OCCUPANCY SENSORS SHOULD BE LOCATED A MINIMUM OF SIX FEET FROM HVAC SUPPLY/RETURN VENTS.
- OCCUPANCY SENSORS MOUNTED OVER A DOOR MUST BE PLACED ONE FOOT INSIDE THE THRESHOLD.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL SENSITIVITY AND TIME DELAY SETTINGS.

EQUAL MANUFACTURERS:

SENSOR SWITCH IS THE BASIS OF DESIGN CRITERIA UNDER PARAMETERS LISTED.

ACCEPTED MANUFACTURERS: GREENGATE, HUBBELL, LUTRON, LEVITON, AND WATT STOPPER, UNLESS NOTED OTHERWISE.

ACCEPTED MANUFACTURERS SHALL MEET OR EXCEED DESIGN PARAMETERS. IF PARAMETERS CAN NOT BE MATCHED, PROVIDE DETAILED SUBMITTALS FOR ENGINEERING REVIEW AND APPROVAL INDICATING NUMBER OF ADDITIONAL SENSORS REQUIRED TO MEET PARAMETERS WITH A 30% OVERLAP OF COVERAGE. ANY ADDITIONAL SENSORS REQUIRED TO MEET PARAMETERS ALONG WITH ANY REQUIRED HARDWARE, WIRING, ACCESSORIES AND LABOR SHALL BE AT THE EXPENSE OF THE EQUIPMENT SUPPLIER.

PACKAGE SHALL BE SUPPLIED BY SINGLE MANUFACTURER CAPABLE OF MEETING 100% OF SPECIFICATION.

EXTRA MATERIALS:

ELECTRICAL CONTRACTOR SHALL PROVIDE MATERIAL AND LABOR AS REQUIRED FOR THE COMPLETE INSTALLATION OF (2) ADDITIONAL OCCUPANCY SENSORS AND ASSOCIATED POWER PACKS OF EACH TYPE TO BE LOCATED BY THE ENGINEER DURING CONSTRUCTION.

POWER CONDUIT AND CONDUCTORS SCHEDULE (CU)			
NOTE NO.	CONDUIT, CONDUCTORS, GROUND	NOTE NO.	CONDUIT, CONDUCTORS, GROUND
①	3/4", 2-#10, 1-#10	②8	3", 3-#350KGMIL, 1-#4
②	3/4", 3-#10, 1-#10	②9	3", 4-#350KGMIL, 1-#4
③	3/4", 4-#10, 1-#10	③0	4", 3-#500KGMIL, 1-#3
④	3/4", 2-#8, 1-#10	③1	4", 4-#500KGMIL, 1-#3
⑤	3/4", 3-#8, 1-#10	③2	4", 3-#600KGMIL, 1-#3
⑥	1", 4-#8, 1-#10	③3	4", 4-#600KGMIL, 1-#3
⑦	1", 2-#8, 1-#8	③4	2 SETS OF (2 1/2", 3-#4/0, 1-#2)
⑧	1", 3-#8, 1-#8	③5	2 SETS OF (2 1/2", 4-#4/0, 1-#2)
⑨	1 1/4", 4-#8, 1-#8	③6	2 SETS OF (3", 4-#250KGMIL, 1-#2)
⑩	1 1/4", 3-#4, 1-#8	③7	2 SETS OF (3", 4-#250KGMIL, 1-#2)
⑪	1 1/4", 4-#4, 1-#8	③8	2 SETS OF (3", 4-#350KGMIL, 1-#1)
⑫	1 1/4", 3-#3, 1-#8	③9	2 SETS OF (3", 4-#350KGMIL, 1-#1)
⑬	1 1/4", 4-#3, 1-#8	④0	2 SETS OF (4", 4-#500KGMIL, 1-#1/0)
⑭	1 1/4", 3-#2, 1-#8	④1	2 SETS OF (4", 4-#500KGMIL, 1-#3/0)
⑮	1 1/2", 4-#2, 1-#8	④2	2 SETS OF (4", 4-#600KGMIL, 1-#1/0)
⑯	1 1/2", 3-#1, 1-#8	④3	2 SETS OF (4", 4-#600KGMIL, 1-#1/0)
⑰	2", 4-#1, 1-#8	④4	3 SETS OF (4", 4-#350KGMIL, 1-#2/0)
⑱	2", 3-#1/0, 1-#8	④5	3 SETS OF (4", 4-#350KGMIL, 1-#2/0)
⑲	2", 4-#1/0, 1-#8	④6	3 SETS OF (4", 4-#500KGMIL, 1-#3/0)
⑳	2", 3-#2/0, 1-#8	④7	3 SETS OF (4", 4-#600KGMIL, 1-#3/0)
㉑	2", 4-#2/0, 1-#8		[SERVICE ENTRANCE SETS]
㉒	2", 3-#3/0, 1-#8	④8	2 SETS OF (4", 4-#600KGMIL, W(1) 4" SPARE]
㉓	2 1/2", 4-#3/0, 1-#8	④9	3 SETS OF (4", 4-#600KGMIL, W(1) 4" SPARE]
㉔	2 1/2", 3-#4/0, 1-#4	⑤0	4 SETS OF (4", 4-#600KGMIL, W(1) 4" SPARE]
㉕	2 1/2", 4-#4/0, 1-#4	⑤1	5 SETS OF (4", 4-#600KGMIL, W(1) 4" SPARE]
㉖	2 1/2", 3-#250KGMIL, 1-#4	⑤2	6 SETS OF (4", 4-#600KGMIL,



COMMUNICATIONS SPECIFICATION STANDARDS		
ITEM	REQUIREMENTS	ACCEPTED MANUFACTURERS OR APPROVED EQUIVALS
DATA/PHONE CABLE	DATAGAN CATEGORY 6, BLUE, PLENUM RATED #66-240-2B OR APPROVED EQUAL FROM SAME MANUFACTURER	SUPERIOR ESSEX
WIRELESS ACCESS CABLE	CATEGORY 6A, BLUE, PLENUM RATED #6H-272-2B OR APPROVED EQUAL FROM SAME MANUFACTURER.	SUPERIOR ESSEX
FIBER OPTIC CABLE	6-STRAND, PLENUM RATED, INTERLOCK ARMORED, TIGHT BUFFER, OM4 MULTIMODE (#4008940)	SUPERIOR ESSEX
FIBER OPTIC PATCH PANEL	- MDF: 2U RACK MOUNT FIBER CABINET, #0R-FC02U-P - IDF: 1U RACK MOUNT FIBER CABINET, #0R-FC0U-P - PROVIDE WITH BLANKS, ORTRONICS #0R-07-BLANK	ORTRONICS
FIBER OPTIC TERMINATIONS	SC MULTIMODE AQUA ADAPTERS WITH CERAMIC ALIGNMENT SLEEVES, #0R-0FF-S021L.C	ORTRONICS
JACKS-CATEGORY 6	CLARITY CATEGORY 6 TRACJACK, #PBC, T568A/B, 180 DEGREE, BLACK, #0R-T600-00	ORTRONICS
JACKS-CATEGORY 6A	CLARITY CATEGORY 6A TRACJACK, #PBC, T568A/B, 180 DEGREE, YELLOW, #0R-T6A-44	ORTRONICS
FACEPLATES	- ORTRONICS SINGLE GANG, 6-PORIT PLASTIC, TRACJACK FACEPLATE, CLOUD WHITE, #0R-40300545-88 - WIREMOLD, ORTRONICS 6-PORIT PLASTIC, TRACJACK FACEPLATE, CLOUD WHITE, #5507-617	ORTRONICS, WIREMOLD
FACEPLATE ACCESSORIES	- TRACJACK BLANK MODULES, CLOUD WHITE, #0R-42100002-88	ORTRONICS
ABOVE CEILING TERMINATIONS	TRACJACK PLASTIC SURFACE MOUNT BOX, 2-PORT, CLOUD WHITE, #0R-0412-88	ORTRONICS
PATCH PANEL-CATEGORY 6	- CLARITY 6 48-PORT CATEGORY 6, 6-PORT MODULES, PATCH PANEL #0R-PHD66U48 - CLARITY 24-PORT CATEGORY 6, 6-PORT MODULES, PATCH PANEL #0R-PHD66U24 - THE 24-PORT PANEL SHALL ONLY BE USED FOR CABLE TO CLOSEST BACKSIDE CABLEING.)	ORTRONICS
PATCH PANEL-CATEGORY 6A	CLARITY 6A/10G 48-PORT CATEGORY 6A, 6-PORT MODULES, PATCH PANEL #0R-PHD6AU48	ORTRONICS
PATCH CORDS	- END DEVICE, AP: 7', YELLOW, CATEGORY 6A #0R-MC8A07-04 - END DEVICE, DATA/PHONE: 15', BLACK, CATEGORY 6 #0R-MC815-00 - END DEVICE, CAMERA: 7', WHITE, CATEGORY 6 #0R-MC807-09 - CLOSET END, AP: 7', YELLOW, CATEGORY 6A #0R-MC8A07-04 - CLOSET END, DATA: 7', ORANGE, CATEGORY 6 #0R-MC807-03 - CLOSET END, PHONE: 7', BLUE, CATEGORY 6 #0R-MC807-06 - CLOSET END, CAMERA: 7', WHITE, CATEGORY 6 #0R-MC807-09	ORTRONICS
WAP	- WIRELESS ACCESS POINT: CISCO #8151	AS NOTED
RACK	APC NETSHELTER 2-POST OPEN FRAME RACK, BLACK, #AR201, RACK U'S ARE TO BE NUMBERED ON BOTH RAILS (LEFT AND RIGHT) AND FRONT AND BACK.	APC
RACK CABLE MANAGER	6" VERTICAL CABLE MANAGERS DUAL SIDED #0R-DVM5706	ORTRONICS
CABLE TRAY	- PW LADDER CABLE TRAY, 6" RUNG SPACING, 3" LOAD DEPTH, 12" WIDE #06-4412B-S144-12 - PW LADDER CABLE TRAY, 6" RUNG SPACING, 3" LOAD DEPTH, 18" WIDE #06-4412B-S144-18 - PW LADDER CABLE TRAY, 6" RUNG SPACING, 3" LOAD DEPTH, 24" WIDE #06-4412B-S144-24	LEGRAND
CABLE TRAY ACCESSORIES	- PW 90 DEGREE CONNECTOR TO SECURE LADDER CABLE TRAY TO WALL, #4A-90SP-S6 - J-BOLT TO SECURE LADDER CABLE TRAY TO TOP OF RACK #E2B 5/16 E2 - PW LADDER CABLE TRAY DROP OUT KIT #A-00-06-56	LEGRAND
LOW VOLTAGE CABLE SUPPORT / MANAGEMENT SYSTEM	THE HOOK H-233/H-433 - COLOR CODED STAKING HOOK SYSTEM.	MONOSYSTEMS
HDMI CABLES	- RAPIDRUN OPTICAL RUNNER; LENGTH AS REQUIRED WITH A 5' SERVICE LOOP #2212-CUSTOM	-
HDMI CONNECTORS	- RAPIDRUN HDMI RECEIVER FLYING LEAD AT DISPLAY END #2212-60131-001 - RAPIDRUN HDMI TRANSMITTER FLYING LEAD AT INPUT END #2212-60175-001	-

ELECTRICAL COMMUNICATION SPECIFICATIONS		
REQUIREMENTS FOR COMMUNICATIONS CABLING AND PATHWAYS		
<ol style="list-style-type: none"> <li>TERMINATE CATEGORY CABLES PER EIA/TIA 568B STANDARDS.</li> <li>INSTALL PATCH PANELS NO LOWER THAN 18" ABOVE FINISHED FLOOR. DO NOT INSTALL PATCH PANELS IN THE EQUIPMENT ONLY RACK, COORDINATE PATCH PANEL PLACEMENT WITH FNC'S IT DEPARTMENT.</li> <li>COMPLY WITH BICSI TDMM AND TIA-568-B FOR SEPARATION FROM POTENTIAL EMI SOURCES.</li> <li>ALL WALL AND FLOOR/CEILING PENETRATIONS REQUIRE A SLEEVE. FIRE RATED WALLS AND FLOOR/CEILING PENETRATIONS REQUIRE FIRE RATED SLEEVE. CONTRACTOR MAY REUSE EXISTING SLEEVES.</li> <li>DO NOT SHARE SLEEVES AND PATHWAYS WITH FIRE ALARM CABLE.</li> <li>THE CONTRACTOR IS RESPONSIBLE FOR FIRE STOPPING ANY PENETRATIONS PUT IN FLOOR, CEILING, OR FIRE RATED WALLS.</li> <li>INSTALL CABLES WITH A 15' SERVICE LOOP AT EACH END, PROVIDE A J-HOOK AT ALL WORKSTATION END SERVICE LOOP LOCATIONS.</li> <li>SUPPORT CABLES AT A MINIMUM OF EVERY 5'.</li> <li>CABLES SHALL NEVER BE SUPPORTED BY CEILING GRID AND/OR CEILING TILES. PROVIDE ADEQUATE SUPPORTS.</li> <li>ALWAYS ROUTE CABLES AT PERPENDICULAR AND PARALLEL TO THE DOOR WALL, NO CABLES SHALL BE RAN IN A DIAGONAL MANNER. MAINTAIN A MINIMUM OF A 1" BEND RADIUS.</li> <li>NEVER SUPPORT CABLES BY STRUCTURE, PIPING, DUCT WORK, CONDUIT, SPRINKLER PIPING, ETC.</li> <li>SUPPORT CABLES AT LEAST 2" ABOVE SUSPENDED CEILING UNLESS 2" IS UNAVAILABLE, THEN CABLE SHALL BE SUPPORTED AS HIGH AS POSSIBLE.</li> <li>TERMINATE DATA CABLES TO 48-PORT PATCH PANELS IN MDF/DF. CONTRACTOR SHALL NOT USE 24-PORT PATCH PANELS EXCEPT FOR BACKBONE CABLING BETWEEN MDF/DF'S.</li> <li>CONTRACTOR SHALL USE EITHER REAR MOUNTED HORIZONTAL CABLE MANAGERS OR LACING BARS FOR CABLE MANAGEMENT ON THE BACK SIDE OF THE RACKS.</li> <li>IN THE MDF/DF USE ONLY VELCRO FOR SECURING CABLES TOGETHER. NO ZIP TIES MAY BE USED.</li> <li>INCORPORATE INTO DOCUMENTS (S) FIVE EXTRA DATA DROPS INCLUDING ALL LABOR, MATERIAL, TESTING AND TERMINATION FOR PLACEMENT BY OWNER DURING CONSTRUCTION.</li> <li>INCORPORATE INTO DOCUMENTS (S) THREE EXTRA WIRELESS ACCESS POINTS INCLUDING ALL LABOR, MATERIAL, TESTING AND TERMINATION FOR PLACEMENT BY OWNER DURING CONSTRUCTION.</li> </ol>		
REQUIREMENTS FOR COMMUNICATIONS LABELING		
<ol style="list-style-type: none"> <li>ALL CABLES SHALL BE NUMBERED PRIOR TO RUNNING THE CABLE.</li> <li>PERMANENTLY LABEL CABLES WITH PANDUIT TURN-TELL LABELS ON CLOSET END.</li> <li>LABEL EACH MDF/DF RACK WITH EITHER MDF OR THE IDF NUMBER.</li> <li>EACH PATCH PANEL SHALL BE LABELED ALPHABETICALLY IN SEQUENTIAL ORDER STARTING WITH 'A' ON THE TOP LEFT MOST PATCH PANEL.</li> <li>EACH FIBER OPTIC PATCH PANEL SHALL BE LABELED WITH THE MDF/DF LOCATION THAT THE CABLE IS BEING TERMINATED. ALSO INCLUDE THE TYPE OF FIBER IN THE LABEL.</li> <li>FOR CABLES THAT TERMINATE ABOVE THE CEILING PROVIDE A LABEL FOR THE SURFACE MOUNTED BOX AND THE CEILING GRID SO THAT IT CAN BE SEEN FROM THE FLOOR.</li> <li>WORKSTATION END LABELING REQUIREMENTS: <ul style="list-style-type: none"> <li>A. FONT - HELVETICA OR GENEVA</li> <li>B. PITCH - 10</li> <li>B. PRINT IN BOLD</li> <li>D. CLEARLY DISTINGUISH ZERO "0" AND THE LETTER "O".</li> </ul> </li> <li>WORKSTATION END LABELING SCHEME: <ul style="list-style-type: none"> <li>XXXXZ</li> <li>XX = TWO-DIGIT NUMBER WHERE MDF = 00, IDF1 = 01, IDF2 = 02.</li> <li>Y = PATCH PANEL ID. THE TOP LEFT MOST PATCH PANEL STARTS WITH 'A' AND CONTINUES IN SEQUENTIAL</li> <li>ZZ = TWO-DIGIT NUMBER THAT IS THE SAME NUMBER ON THE PATCH PANEL LABEL 1-48.</li> </ul> </li> </ol>		
REQUIREMENTS FOR MDF/DF DESIGN		
<ol style="list-style-type: none"> <li>MDF/DF LOCATIONS <ul style="list-style-type: none"> <li>A. CLEARANCE OF 3' SHALL BE PROVIDED IN THE FRONT OF EACH RACK AND BEHIND EACH RACK.</li> <li>B. OUTSIDE CLEARANCE OF 2' SHALL BE PROVIDED NEXT TO THE PATCH PANEL RACK FOR ACCESS BEHIND THE RACKS.</li> <li>C. FINAL APPROVAL REQUIRED BY THE IT DEPARTMENT.</li> </ul> </li> <li>PROVIDE TWO (2) DESIGNATED 20A DUPLEX RECEPTACLES IN EACH MDF/DF WITHIN 6' OF THE BACK SIDE OF THE RACKS.</li> <li>PROVIDE AND INSTALL 6-STRAND (OM3) FIBER IN MULTI-MODE INNER-DUCT CABLE OR 6-STRAND, 10GBIT OPTIMIZED, 50/125 (OM3), PLENUM-RATED, ARMORED, PLAIN-JACKET FIBER OPTIC CABLE, TERMINATED WITH SC CONNECTORS FROM MDF TO IDF.</li> </ol>		
<ol style="list-style-type: none"> <li>PROVIDE A MINIMUM OF TWO (2) 2-POST RACKS FOR EACH MDF/DF CLOSET. <ul style="list-style-type: none"> <li>A. ONE RACK FOR EQUIPMENT.</li> <li>B. ONE RACK FOR PATCH PANELS.</li> <li>C. DESIGN MORE RACKS AS REQUIRED PER PATCH PANEL REQUIREMENTS.</li> </ul> </li> <li>DESIGN A MINIMUM OF 20% SPARE CAPACITY FOR PATCH PANELS.</li> <li>PROVIDE TWO (2) CATEGORY 6 CABLES BETWEEN THE MDF AND EACH IDF LOCATION. TERMINATE TO A 24-PORT PATCH PANEL ON EACH END.</li> <li>DESIGN AND LAYOUT HALLWAY PATHWAYS USING EITHER CABLE TRAY OR J-HOOKS.</li> </ol>		
REQUIREMENTS FOR AS-BUILT		
<ol style="list-style-type: none"> <li>TEST EACH DATA OUTLET.</li> <li>PERFORM THE FOLLOWING COPPER TESTS ACCORDING TO TIA/EIA-568-B.1 AND TIA/EIA-568-B.2: <ul style="list-style-type: none"> <li>A. WIRE MAP.</li> <li>B. LENGTH.</li> <li>C. INSERTION LOSS.</li> <li>D. NEXT LOSS.</li> <li>E. P-SKIN LOSS.</li> <li>F. ELFEXT.</li> <li>G. PSELFEXT.</li> <li>H. RETURN LOSS.</li> <li>I. PROPAGATION DELAY.</li> <li>J. DELAY SKEW.</li> </ul> </li> <li>PERFORM THE FOLLOWING FIBER OPTIC TESTS PER TIA-568-C.1: <ul style="list-style-type: none"> <li>A. LINK END-TO-END ATTENUATION TESTS <ul style="list-style-type: none"> <li>1. TEST AT 850 NM AND 1300 NM IN BOTH DIRECTIONS.</li> <li>11. ATTENUATION TEST RESULTS SHALL BE LESS THAN 2.0 DB.</li> </ul> </li> <li>B. P-SKIN TEST RESULTS TO THE OWNER ON REMOVABLE MEDIA.</li> </ul> </li> </ol>		
REQUIREMENTS FOR AS-BUILT DRAWING THAT INCLUDES THE ROOM DESIGNATOR, DROP ID AND IF APPLICABLE THE ACCESS POINT ID OR CAMERA NUMBER FOR EACH LOCATION.		

FIRE ALARM SPECIFICATIONS		
A COMPLETE AND FULLY FUNCTIONAL FIRE ALARM SYSTEM SHALL BE PROVIDED AND INSTALLED AS INDICATED ON DRAWINGS AND AS DESCRIBED HEREIN.		
FIRE ALARM SYSTEM SHALL BE COMPLIANT WITH APPLICABLE VERSION OF NFPA 72 AND ALL STATE AND LOCAL CODES.		
FIRE ALARM SYSTEM VENDOR SHALL INCLUDE ON-SITE SERVICES OF A NICET LEVEL THREE CERTIFIED TECHNICIAN FOR ASSISTANCE TO THE INSTALLATION CONTRACTOR FOR FIRE ALARM CONTROL PANEL COMMISSIONING AND FINAL SYSTEM CHECKOUT INCLUDING STATE FILINGS.		
FIRE ALARM SYSTEM VENDOR SHALL MAINTAIN A FACTORY AUTHORIZED SERVICE ORGANIZATION WITHIN 50 MILES OF THE PROJECT SITE WHICH AFFORDS THE OWNER 24 HOUR SERVICE WITH A 2 HOUR RESPONSE TIME.		
FIRE ALARM SYSTEM SHALL BE WARRANTED FOR A PERIOD OF 1 YEAR INCLUDING ANY STATE REQUIRED INSPECTIONS, TESTS, AND FILINGS.		
FIRE ALARM SYSTEM SHALL BE A FULLY ADDRESSABLE POWER-LIMITED ELECTRICALLY SUPERVISED FIRE DETECTION SYSTEM WITH A MINIMUM OF 100 ADDRESS POINTS. EXTENSION PANELS SHALL BE ADDED TO ACCOMMODATE NOTIFICATION CIRCUITS AS REQUIRED. BATTERY BACK-UP SHALL BE PER NFPA 72 MINIMUM REQUIREMENTS.		
MANUFACTURERS: <ul style="list-style-type: none"> <li>NOTIFIER - FIRE WARDEN 100</li> <li>EDWARDS - QUICK START</li> <li>SIEMENS - F5250</li> </ul>		
SYSTEM SHALL INCLUDE AN AUTO-DIALER WITH 8 CHANNELS (8 PHONE NUMBERS) AND 4 SEPARATE RECORDABLE MESSAGES. (UNITED SECURITY PRODUCTS AD-2000F)		
FIRE ALARM SYSTEM ANNUNCIATOR SHALL BE GRAPHIC STYLE WITH LED DISPLAY.		
HORN/STROBES SHALL BE UL LISTED FOR PROTECTIVE SERVICE AND PROVIDE STROBE CANDELA OUTPUT NOTED ON DRAWINGS AND 103DBA SOUND OUTPUT LEVEL FROM HORN.		
STROBES SHALL BE UL LISTED FOR PROTECTIVE SERVICE AND PROVIDE STROBE CANDELA OUTPUT NOTED ON DRAWINGS. CANDELA RATINGS NOTED ON THE DRAWING ARE AN OFF-AXIS MEASUREMENT PER SECTION 4 OF NFPA 72, EACH DEVICE IS STILL REQUIRED TO MEET THE ADA 75dB MINIMUM ON-AXIS MEASUREMENT.		
ALL INITIATING DEVICES SHALL BE ADDRESSABLE.		
MANUAL PULL STATIONS SHALL BE OF DOUBLE-ACTION CONSTRUCTION.		
DETECTORS SHALL BE SOLID STATE PHOTOELECTRIC TYPE OR FIXED TEMPERATURE HEAT TYPE AS INDICATED.		
BEAM DETECTORS SHALL BE TWO-COMPONENT INFRARED DETECTORS CONSISTING OF A SEPARATE TRANSMITTER AND RECEIVER.		
DUCT MOUNTED DETECTORS SHALL BE SOLID STATE PHOTOELECTRIC TYPE AND SHALL INCLUDE REQUIRED MOUNTING, AIR SAMPLING, AND HVAC UNIT CONTROL COMPONENTS AND LED REMOTE INDICATORS WHEN SHOWN ON DRAWINGS.		
PIV AND TAMPER/FLOW VALVES WILL BE PROVIDED AND INSTALLED BY ANOTHER CONTRACTOR, PROVIDE MONITORING COMPONENTS AS REQUIRED WHEN SHOWN ON DRAWINGS.		
HOLD OPENS SHALL BE 120V MAGNETIC TYPE WITH BRUSHED ALUMINUM FINISH, FLUSH MOUNTED DESIGN.		
FIRE ALARM SYSTEM CABLING SHALL HAVE A PLENUM RATED JACKET AND MAY BE INSTALLED AS OPEN CABLE PROPERLY SUPPORTED BY THE BUILDING STRUCTURE ABOVE ACCESSIBLE CEILING. WHERE THERE IS OPEN STRUCTURE (NO CEILING) OR CEILING ARE NOT ACCESSIBLE, CABLING SHALL BE INSTALLED IN CONDUIT.		
WHERE FIRE ALARM CABLE PENETRATES WALLS OR FLOORS, EMT SLEEVES WITH ARLINGTON INDUSTRIES BUSHINGS SHALL BE INSTALLED A MINIMUM OF 1" IN DIAMETER.		
PROVIDE BOXES BY MANUFACTURER FOR SURFACE MOUNTED DEVICES WHEN SHOWN ON EXISTING WALLS THAT HAVE THE SAME DIMENSIONS AS THE DEVICE.		

GENERAL ELECTRICAL NOTES		
VERIFY ALL DIMENSIONS FROM THE ARCHITECTURAL PLANS.		
DIMENSIONS SHOWN OR NOTED FOR OUTLET BOXES AND DEVICES SHALL BE TO THE BOTTOM OF THE BOX.		
COORDINATE LOCATION OF LIGHT FIXTURES IN AREAS OF MECHANICAL, DUCTWORK AND PIPING WITH MECHANICAL CONTRACTOR. RELOCATE LIGHT FIXTURES, WIRING AND CONDUIT IF NECESSARY AS DIRECTED BY THE ARCHITECT/ENGINEER.		
VERIFY LOCATION OF ALL BACK BOXES IN LABORATORY EQUIPMENT AND BUILT-IN FURNITURE WITH EQUIPMENT SUPPLIER BEFORE ROUGH-IN.		
CIRCUIT ARCS SHOWN FROM LIGHT SWITCH TO LIGHT SWITCH INDICATE BRANCH CIRCUIT FEED FOR POWER, SWITCH-LEG BRANCH BETWEEN FIXTURES AND INTERLOCK (TRAVELERS) BETWEEN SWITCHES SHALL BE AS REQUIRED.		
VERIFY HEIGHT AND LOCATION OF RECEPTACLES BEHIND ELECTRIC WATER COOLERS WITH THE MECHANICAL CONTRACTOR BEFORE ROUGH-IN.		
THE ELECTRICAL DRAWINGS ARE FOR LAYOUT PURPOSES AND DIAGNOSTIC IN NATURE. REFER TO THE ENTIRE CONSTRUCTION DRAWING SET AND SPECIFICATIONS FOR GUIDANCE ON DIMENSIONS, CEILING HEIGHTS, DOOR SWINGS, ROOM FINISHES, STRUCTURAL DETAILS, LOCATIONS OF DUCTWORK, PIPING AND STRUCTURAL MEMBERS. INSTALL THE ELECTRICAL SYSTEMS SO AS NOT TO INTERFERE WITH THE INSTALLATION OR FUNCTION OF ANOTHER DISCIPLINE'S WORK.		
AT NO TIME SHALL A BACK-TO-BACK DEVICE BOX BE USED, DEVICES THAT APPEAR DIAGRAMMATICALLY BACK-TO-BACK ON THE DRAWINGS SHALL BE ROUGHED-IN ON OPPOSITE SIDES OF A FRAMING MEMBER OR IN SEPARATE OMI CELLS.		
ALL DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES, AND EQUIPMENT TO VERIFY DIMENSIONS SHOWN ON THE DRAWINGS PRIOR TO BID. PROVIDE PROPER DIMENSIONS NOT SHOWN PRIOR TO EQUIPMENT FABRICATION. ALL COST FOR MODIFICATIONS OF NEW CONSTRUCTION DUE TO LACK OF CORROBORATION OF DIMENSIONS BY FIELD MEASUREMENTS SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.		
PROVIDE ADDITIONAL SUPPORT FOR SWITCHES, STARTERS, RACEWAYS, GROUPING SYSTEMS, AND OTHER ELECTRICAL EQUIPMENT WHEREVER THE BUILDING STRUCTURE IS NOT SUITABLE FOR DIRECT MOUNTING.		
PROVIDE FIRE STOPPING AROUND ALL ELECTRICAL COMPONENTS PENETRATING FIRE RATED WALLS, FLOORS OR CEILING. ST1 SPECIAL 3M, OR HULTI FIRESTOP PRODUCTS SHALL BE INSTALLED PER MANUFACTURERS APPLICATION GUIDE. ALTERNATE MANUFACTURERS MUST RECEIVE ENGINEER'S PRIOR APPROVAL.		
COORDINATE ALL ELECTRICAL REQUIREMENTS FOR EQUIPMENT WIRING. ANY CHANGES REQUIRED DUE TO EQUIPMENT BEING SUPPLIED OTHER THAN WHAT IS SPECIFIED SHALL BE BORNE BY THE CONTRACTOR WHO INSTIGATED THE CHANGE.		
SIZING OF BRANCH CIRCUITS AND FEEDERS FOR EQUIPMENT IS BASED ON DESIGN LOADS. PRIOR TO INSTALLATION CONFIRM EXACT LOADS WITH RELEASED SHOP DRAWINGS. BRING DISCREPANCIES TO THE ENGINEER'S ATTENTION FOR DESIGN CHANGES PRIOR TO ROUGH-IN.		
ALL BRANCH CIRCUITS SHALL BE WIRED WITH A MINIMUM OF 3/4" #12 PHASE CONDUCTOR, #12 GROUNDED (NEUTRAL) CONDUCTOR, AND A #12 EARTH CONDUCTOR UNLESS NOTED OTHERWISE ON THE PLANS. MULTIWIRE BRANCH CIRCUITS, SHARING A SINGLE GROUNDED CONDUCTOR SHALL NOT BE USED.		
WHERE CONDUIT AND WIRING HAS NOT BEEN SHOWN ON THE DRAWINGS THE ARRANGEMENT AND ROUTING OF LIGHTING AND RECEPTACLE BRANCH CIRCUITS WILL BE AT THE CONTRACTORS DISCRETION IN ACCORDANCE WITH GENERALLY ACCEPTED GOOD PRACTICE, I.E.C. REQUIREMENTS AND THE FOLLOWING LIMITATIONS:		
EXCEPT WHERE NOTED OTHERWISE, SIZE BRANCH CIRCUIT CONDUCTORS WITHIN THE FOLLOWING MAXIMUM LENGTH LIMITS: (MEASURE TO THE CENTER OF THE LOAD. FOR LIGHTING AND MOST REMOTE OUTLET FOR RECEPTACLE CIRCUITS).		
CIRCUIT BREAKER	CIRCUIT LENGTH	CONDUCTOR SIZE
120V, 20A	65 FEET 110 FEET 165 FEET 270 FEET	#12 #10 #8 #6
PROVIDE #12 AWG MINIMUM FOR ALL 120 VOLT CIRCUITS. PROVIDE ADDITIONAL DERATING PER NEC TABLES (405)(G) FOR ALL BRANCH CIRCUITS WITH MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A RACEWAY.		
HVAC CONTROL WIRING SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH SPECIFICATIONS UNLESS OTHERWISE NOTED.		
THE ELECTRICAL CONTRACTOR SHALL REVIEW ALL SPECIFICATION SECTIONS, EQUIPMENT SCHEDULES, AND/OR DETAILS THROUGHOUT DOCUMENTS THAT PERTAIN TO EQUIPMENT PROVIDED BY OTHERS AND INCLUDE ALL WIRING AND DEVICES REFERENCED IN THEIR BIDS. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF THIS EQUIPMENT WITH RESPECTIVE CONTRACTOR PRIOR TO ROUGH-IN.		
ALL CONDUIT, BOXES, AND WIRING DEVICES IN ALL AREAS SHALL BE RAN IN CONCEALED SPACES OR RECESSED IN WALLS EXCEPT IN MECHANICAL/ELECTRICAL ROOMS OR WITH SPECIFIC PERMISSION FROM ARCHITECT/ENGINEER.		
WHERE PATCHING OF THE EXISTING BUILDING ROOF, FLOORS, WALLS AND/OR CEILING ARE REQUIRED TO COMPLETE ELECTRICAL CONSTRUCTION AND NO OTHER IS CALLED FOR BY OTHER CONSTRUCTION TRADES WITHIN DOCUMENTS, THE ELECTRICAL CONTRACTOR SHALL BEAR ENTIRE COST FOR RESTORATION TO MATCH ADJACENT FINISHES. WORK SHALL BE PERFORMED BY PROPER CORRESPONDING ON-SITE CONTRACTOR AND PAID FOR BY ELECTRICAL CONTRACTOR. REFER TO ENTIRE SET OF DRAWINGS AND SPECIFICATIONS FOR COORDINATION.		
ELECTRICAL CONTRACTOR SHALL PAY ALL FEES AND OTHER COSTS NOT BORNE BY THE LOCAL POWER COMPANY TO PROVIDE COMPLETE NEW ELECTRICAL SERVICE.		
ELECTRICAL CONTRACTOR SHALL RELOCATE OR REMOVE ANY OF ALL EXISTING SERVICES, POLES, ETC., AS MAY BE REQUIRED TO ACCOMMODATE ANY NEW CONSTRUCTION, UNLESS OTHERWISE NOTED.		
ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UNDERGROUND UTILITIES BOTH PUBLIC AND PRIVATE THAT MAY INTERFERE WITH ELECTRICAL CONSTRUCTION.		
ELECTRICAL CONTRACTOR SHALL VISIT SITE. VERIFY EXISTING CONDITIONS AND REMOVE ALL EXISTING FIXTURES, CONDUIT AND WIRE AND REPLACE WITH NEW AS INDICATED ON PLANS.		
ALL WORK SHOWN ON THESE DOCUMENTS IS NEW AND BY THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.		
ALL EQUIPMENT AND MATERIALS SHALL BE UL LISTED AND LABELED FOR TYPE OF EQUIPMENT AND MATERIALS FOR WHICH LISTING AND LABELING IS AVAILABLE.		

GENERAL CONDITIONS NOTE		
ALL CONTRACTORS, BY MAKING THEIR BID, REPRESENT THAT THEY HAVE READ AND UNDERSTAND THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL REFER TO THE ENTIRE CONSTRUCTION DOCUMENT SET FOR GUIDANCE ON DIMENSIONS, HEIGHTS, DETAILING, ETC. AND INSTALL THEIR WORK SO AS NOT TO INTERFERE WITH THE INSTALLATION OF ANOTHER DISCIPLINE'S WORK OR THE GENERAL INTENT OF THE CONSTRUCTION DOCUMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE SPECIFICATIONS AND/OR DRAWINGS, THE ARCHITECT SHALL DETERMINE WHICH INFORMATION GOVERNS.		
M/P/E TRADES NOTE: IN REFERRING TO THIS SHEET YOU ACKNOWLEDGE: <ol style="list-style-type: none"> <li>REVIEWING THE ENTIRE DRAWING SET INCLUDING ALL 'S', 'C' &amp; 'A' SERIES.</li> <li>COORDINATING WITH THE GENERAL TRADES CONTRACTOR OR C/M FOR EXACT DETAILING, HEIGHTS, ETC. PRIOR TO INSTALLING WORK.</li> </ol>		
DASHED ELECTRICAL ITEMS WHICH INCLUDE BUT ARE NOT LIMITED TO: RECEPTABLES, SWITCHES, LIGHT FIXTURES, DISCONNECTS, MOTOR STARTERS, PANELS, OCCUPANCY SENSORS, SPEAKERS, FIRE ALARM DEVICES, AND DATA/VOICE OUTLETS INDICATE EXISTING ITEMS TO REMAIN. DASHED ELECTRICAL ITEMS WITH "R" SUBSCRIPT OR DEMO NOTE INDICATES EXISTING ELECTRICAL ITEMS TO BE REMOVED WITH ALL ASSOCIATED BACK BOXES, COVER PLATES, ASSOCIATED COMPONENTS, CONDUIT, CONDUCTORS, AND SUPPORTS BACK TO ORIGINATOR, UNLESS OTHERWISE NOTED. EXISTING SINGLE OR DOUBLE GANG INSTALLED BACK BOXES ABANDONED FOR THIS RENOVATION SHALL HAVE BLANK STAINLESS STEEL COVER PLATES PER SPECIFICATIONS.		
EXISTING ELECTRICAL ITEMS INDICATED ON DRAWINGS ARE BELIEVED TO BE A REASONABLE REPRESENTATION OF ACTUAL BUILDING. FIELD VERIFY PRIOR TO BID FOR DETERMINATION OF EXACT QUANTITY AND LOCATION OF ELECTRICAL ITEMS THAT MAY NOT BE SHOWN. THESE DRAWINGS ARE INTENDED TO ONLY BE AN AID FOR BIDDING PURPOSES.		

ELECTRICAL SYMBOL SCHEDULE		
	DEMOLITION PLAN NOTE: X INDICATES A DEMOLITION NOTE FOUND IN THE ELECTRICAL DEMOLITION PLAN NOTE BOX SPECIFIC TO THE DRAWING ON WHICH IT APPEARS. (WILL NOT BE FOUND ON BUILDINGS THAT ARE NEW CONSTRUCTION)	
	PLAN NOTE: X INDICATES A PLAN NOTE FOUND IN THE ELECTRICAL PLAN NOTE BOX SPECIFIC TO THE DRAWING ON WHICH IT APPEARS.	
	POWER CONDUIT AND CONDUCTOR SCHEDULE: X INDICATES NOTE ON SCHEDULE DESCRIBING CONDUIT SIZE, CONDUCTOR SIZE AND QUANTITY. THE ENTIRE DRAWING OR DETAIL WHERE IT APPEARS.	
	DOUBLE BORDER NOTE BOX: A GENERAL NOTE THAT APPLIES TO THE ENTIRE DRAWING OR DETAIL WHERE IT APPEARS.	
	DETAIL BUBBLE: XX INDICATES DETAIL NUMBER. YY INDICATES SHEET NUMBER ON WHICH APPEARS. DETAIL BUBBLE WILL NOT BE SHOWN AT EVERY SITUATION ON THE FLOOR PLAN WHERE IT IS REQUIRED TO BE FOLLOWED. IT WILL SHOWN AT SEVERAL LOCATIONS TO GIVE THE CONTRACTOR A TYPICAL IDEA OF THE REQUIREMENTS.	
	METERBASE AS NOTED	
	DISTRIBUTION PANEL	
	SURFACE MOUNTED PANELBOARD	
	RECESSED MOUNTED PANELBOARD	
	INVERSE THERMAL-MAGNETIC CIRCUIT BREAKER UNLESS OTHERWISE NOTED	
	TRANSFORMER	
	FUSED SWITCH	
	NONFUSED HEAVY DUTY DISCONNECT SWITCH; XX INDICATES AMPERE RATING	
	FUSED HEAVY DUTY DISCONNECT SWITCH; XX INDICATES FUSE SIZE	
	MOTOR	
	SPECIAL PURPOSE RECEPTACLE; XX INDICATES REQUIRED AMPERAGE, NEMA CONFIGURATION SHALL MATCH CORD SET OF EQUIPMENT BEING PROVIDED	
	EXISTING RECEPTACLE	
	NEW DEVICE AS NOTED WITHIN EXISTING ROUGH-IN AND TERMINATED TO EXISTING BRANCH CIRCUIT	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE. MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE SINGLE RECEPTACLE. MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE ISOLATED GROUND SINGLE OR DUPLEX RECEPTACLE MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. EACH RECEPTACLE SHALL HAVE A DEDICATED GROUNDING CONDUCTOR TERMINATED TO ISOLATED GROUND BUS	
	120 VOLT, 20 AMPERE DOUBLE DUPLEX RECEPTACLE, MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE. MOUNT HORIZONTAL WITHIN CASEWORK TOTE-KICK; REFER TO DETAIL.	
	120 VOLT, 20 AMPERE DUPLEX OR SINGLE RECEPTACLE. MOUNT AT 42 INCHES ABOVE FINISHED FLOOR OR 4 INCHES ABOVE CASEWORK/COUNTER, OR 2 INCHES ABOVE CASEWORK/COUNTER WITH BACKLASH/UP	
	ELECTRIC CORD AND CABLE REEL. REFER TO DETAIL.	
	120 VOLT, 20 AMPERE TAMPERPROOF DUPLEX RECEPTACLE. MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE FOR ELECTRIC WATER COOLER. MOUNT 50 RECEPTACLE IS CONCEALED BEHIND WATER COOLER COVER	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER. MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE WITH USB CHARGER PORTS. MOUNT AT 16 INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED	
	120 VOLT, 20 AMPERE DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER WITH HUBBELL #PMP26M COVER. MOUNT HORIZONTAL AT 24 INCHES ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED	
	SURFACE RACEWAY MOUNTED DEVICE. REFER TO DETAILS FOR REQUIRED SURFACE RACEWAY - WHERE HATCHED RECTANGLE SYMBOL IS NOT SHOWN FOR DEVICE LOCATED ON AN EXISTING WALL, SURFACE MOUNTED CONDUIT IS ACCEPTABLE FOR LOCATION	
	DEVICE OR BRANCH CIRCUIT FEED THAT SHALL BE CUT-IN OR SLOTTED INTO EXISTING SURFACE - WHERE INDICATED ADJACENT TO UNOCCUPIED AREAS, SURFACE CONDUIT MAY BE INSTALLED AND FED THRU WALL INTO BACK OF THE SURFACE DEVICE	
	HOME RUN TO PANELBOARD	
	UNDER SLAB OR UNDERGROUND HOME RUN TO PANELBOARD	
	BRANCH CIRCUIT	
	UNDER SLAB OR UNDERGROUND BRANCH CIRCUIT	
	REFER TO JUNCTION BOX SCHEDULE	
	JUNCTION BOX AS REQUIRED FOR ROUGH-IN OR TERMINATION WHEN NOT SPECIFIED	
	COOLING COIL	
	THERMOSTAT	
	RELAY	
	RED MUSHROOM-HEAD EMERGENCY OFF PUSH BUTTON, MOUNT AT 44 INCHES ABOVE FINISHED FLOOR	
	ADA ACTUATOR BUTTON PROVIDED BY MANUFACTURER, COORDINATE ROUGH-IN REQUIREMENTS AND MOUNT AT 44 INCHES ABOVE FINISHED FLOOR	
	"ON-OFF" WITH PILOT LIGHT OR "OPEN-CLOSE-STOP" PUSH BUTTON STATION	
	PHOTO CELL	
	LIGHTING CONTACTOR, X INDICATES CONTACTOR NUMBER	
	HAIR OR HAND DRYER	
	FLUSH MOUNTED FLOOR BOX FOR POWER AND TEL/COM. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO ROUGH-IN/INSTALLATION WITH ARCHITECT. REFER TO DETAIL.	
	FLUSH MOUNTED FLOOR BOX FOR POWER AND TEL/COM. "XX" INDICATES QUANTITY OF DUPLEX RECEPTACLE(S) AND "DX" INDICATES QUANTITY OF DATA JACK(S). CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO ROUGH-IN/INSTALLATION WITH ARCHITECT. REFER TO DETAIL.	
	DATA OUTLET: X DENOTES NUMBER OF DATA DROPS PER OUTLET, REFER TO DETAIL	
	VOICE OUTLET, REFER TO DETAIL.	
	DATA/VOICE OUTLET: X INDICATES NUMBER OF DATA DROPS PER OUTLET. REFER TO DETAIL.	
	120V DOUBLE DUPLEX RECEPTACLE ADJACENT TO DATA OUTLET, X INDICATES NUMBER OF DATA OUTLETS, REFER TO DETAIL.	
	TELEVISION DISTRIBUTION OUTLET, REFER TO DETAIL.	
	CONTINUOUS CENTER HUNG RAIL/RUNG ALUMINUM CABLE TRAY	
	EMT SYSTEMS TEL/COM SLEEVE, PROVIDE WITH ARLINGTON INDUSTRIES EMT BUSHING AND FIRE STOP AT EACH END. X INDICATES INSIDE DIAMETER OF SLEEVE. (X) INDICATES QUANTITY.	
	TB - 4"x4"x1/4" FIRE-X PLYWOOD INSTALLED ON 1-5/8" UNSTRUT, PAINTED PER SPECIFICATIONS	
	2X2 LUMINAIRE; XX INDICATES FIXTURE TYPE, 0 INDICATES SWITCH LEG	
	2X2 LUMINAIRE; XX INDICATES FIXTURE TYPE, 0 INDICATES SWITCH LEG, LINES INDICATE INSTALLATION ALIGNMENT	
	2X4 LUMINAIRE; XX INDICATES LUMINAIRE TYPE, 0 INDICATES SWITCH LEG	
	1X4 LUMINAIRE, XX INDICATES LUMINAIRE TYPE, 0 INDICATES SWITCH LEG	
	EMERGENCY LUMINAIRE; XX INDICATES LUMINAIRE TYPE, 0 INDICATES SWITCH LEG, PROVID	