

NEW FMDC GROUNDS & MAINTENANCE BUILDING

JEFFERSON CITY, MISSOURI

OWNER: STATE OF MISSOURI
MIKE PARSON, GOVERNOR

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT
DESIGN AND CONSTRUCTION

APPLICABLE CODES: 2021 INTERNATIONAL BUILDING CODE
2020 NATIONAL ELECTRICAL CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL FUEL GAS CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

DESIGNER: CASCO DIVERSIFIED CORPORATION

PROJECT NUMBER: O2301-03

SITE NUMBER: 1002
ASSET NUMBER: 3101002008

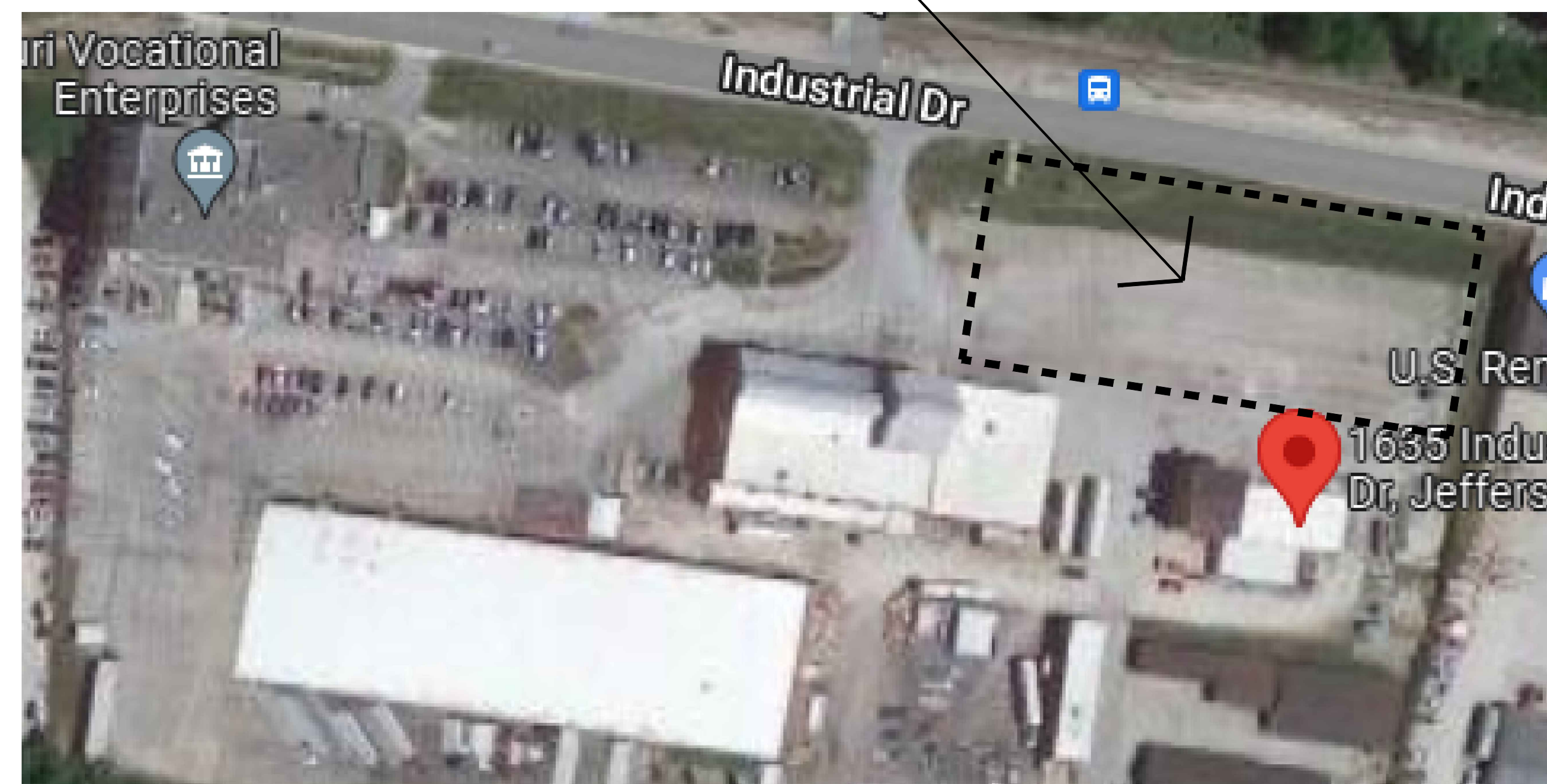
SCOPE: CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

CASCO

12 SUNNEN DR, SUITE 100,
ST. LOUIS, MO 63143
ARCHITECTS/ ENGINEERS
T: 314.821.1100

CASCO DIVERSIFIED CORPORATION
MISSOURI STATE CERTIFICATE OF AUTHORITY #000329 ARCH.
MISSOURI STATE CERTIFICATE OF AUTHORITY #000613 ENG.

SITE:
FMCD Maintenance Complex
1635 Industrial Drive
Jefferson City, MO 65101



VICINITY MAP
SCALE: 6" = 1'-0"
BUILDING NORTH

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E-601	ELECTRICAL ONELINE DIAGRAM & SCHEDULES



MICHAEL S. SUNDERMEYER
License Number: 2014020655
Expiration Date: 12/31/24

SHEET NUMBER:

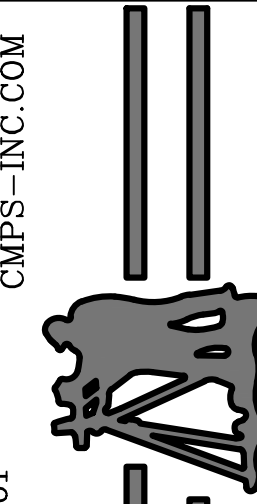
G-001

01 OF 33 SHEETS
05/08/2023



PAUL SAMSON
PROFESSIONAL ENGINEER
NO. PE-2002016730

Central Missouri Professional Services, Inc.
ENGINEERING - SURVEYING - MATERIALS TESTING
2500 E. MCCARTHY
JEFFERSON CITY, MISSOURI 65101
CMLS-INC.COM



Missouri State Certificate of Authority #001658

**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
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ISSUE DATE: 05/08/2023

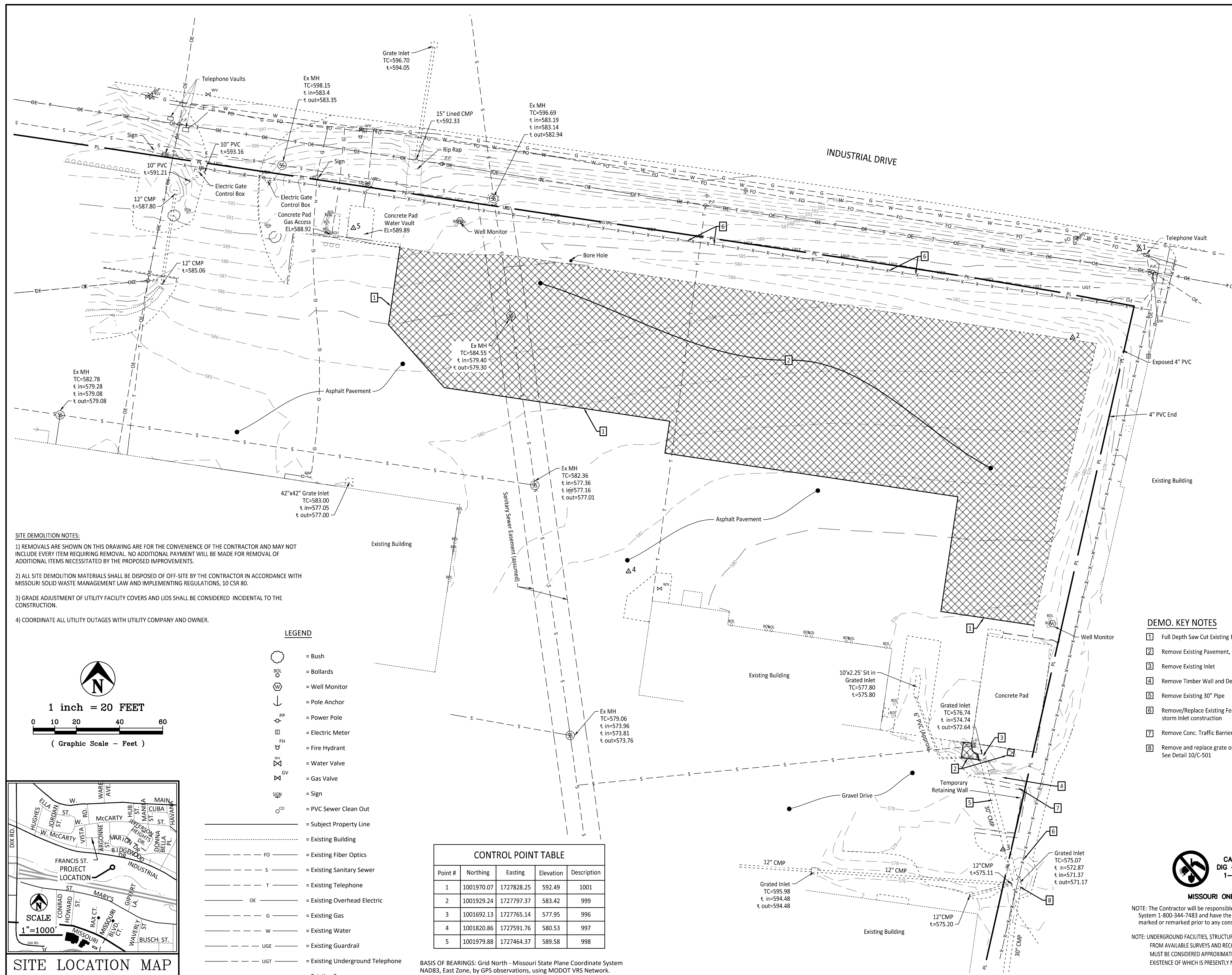
CAD DWG FILE: _____
DRAWN BY: G.J.S.
CHECKED BY: P.L.S.
DESIGNED BY: P.L.S.

**SHEET TITLE:
TOPOGRAPHIC SURVEY
& DEMOLITION PLAN**

SHEET NUMBER:

C-001

2 OF 33 SHEETS
05/08/2023



- SITE DEMOLITION NOTES:**
- 1) REMOVALS ARE SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR AND MAY NOT INCLUDE EVERY ITEM REQUIRING REMOVAL. NO ADDITIONAL PAYMENT WILL BE MADE FOR REMOVAL OF ADDITIONAL ITEMS NECESSITATED BY THE PROPOSED IMPROVEMENTS.
 - 2) ALL SITE DEMOLITION MATERIALS SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR IN ACCORDANCE WITH MISSOURI SOLID WASTE MANAGEMENT LAW AND IMPLEMENTING REGULATIONS, 10 CSR 80.
 - 3) GRADE ADJUSTMENT OF UTILITY FACILITY COVERS AND LIDS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION.
 - 4) COORDINATE ALL UTILITY OUTAGES WITH UTILITY COMPANY AND OWNER.

LEGEND

- = Bush
- = Bollards
- = Well Monitor
- = Pole Anchor
- = Power Pole
- = Electric Meter
- = Fire Hydrant
- = Water Valve
- = Gas Valve
- = Sign
- = PVC Sewer Clean Out
- = Subject Property Line
- = Existing Building
- = Existing Fiber Optics
- = Existing Sanitary Sewer
- = Existing Telephone
- = Existing Overhead Electric
- = Existing Gas
- = Existing Water
- = Existing Guardrail
- = Existing Underground Telephone
- = Existing Fence

Point #	Northing	Easting	Elevation	Description
1	1001970.07	1727828.25	592.49	1001
2	1001929.24	1727797.37	583.42	999
3	1001692.13	1727765.14	577.95	996
4	1001820.86	1727591.76	580.53	997
5	1001979.88	1727464.37	589.58	998

BASIS OF BEARINGS: Grid North - Missouri State Plane Coordinate System NAD83, East Zone, by GPS observations, using MODOT VRS Network.

DEMO. KEY NOTES

- 1 Full Depth Saw Cut Existing Pavement/Sidewalk/Curb.
- 2 Remove Existing Pavement, Curb & Gutter.
- 3 Remove Existing Inlet
- 4 Remove Timber Wall and Debris
- 5 Remove Existing 30" Pipe
- 6 Remove/Replace Existing Fence as needed for utility/storm inlet construction
- 7 Remove Conc. Traffic Barrier. To be retained by State.
- 8 Remove and replace grate on existing inlet. See Detail 10/C-501



**CALL BEFORE YOU
DIG - DRILL - BLAST
1-800-344-7483
(TOLL FREE)**

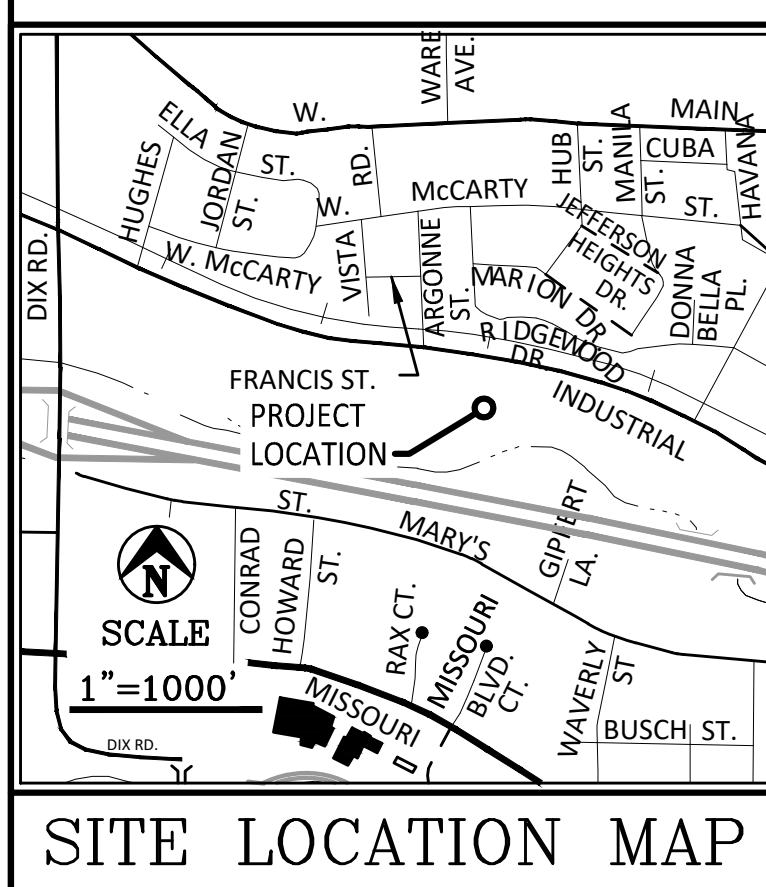
MISSOURI ONE CALL SYSTEM, INC.

NOTE: The Contractor will be responsible to call the Missouri One Call System 1-800-344-7483 and have the underground utilities marked or remarked prior to any construction.

NOTE: UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.



1 inch = 20 FEET
0 10 20 40 60
(Graphic Scale - Feet)

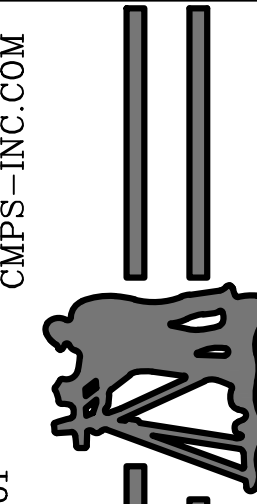




5/18/23

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Central Missouri Professional Services, Inc.
Missouri State Certificate of Authority #001558

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GROUNDS &
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**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
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FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

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ISSUE DATE: 05/08/2023

CAD DWG FILE: _____
DRAWN BY: G.J.S.
CHECKED BY: P.L.S.
DESIGNED BY: P.L.S.

SHEET TITLE:

**SITE
PLAN**

SHEET NUMBER:

C-101

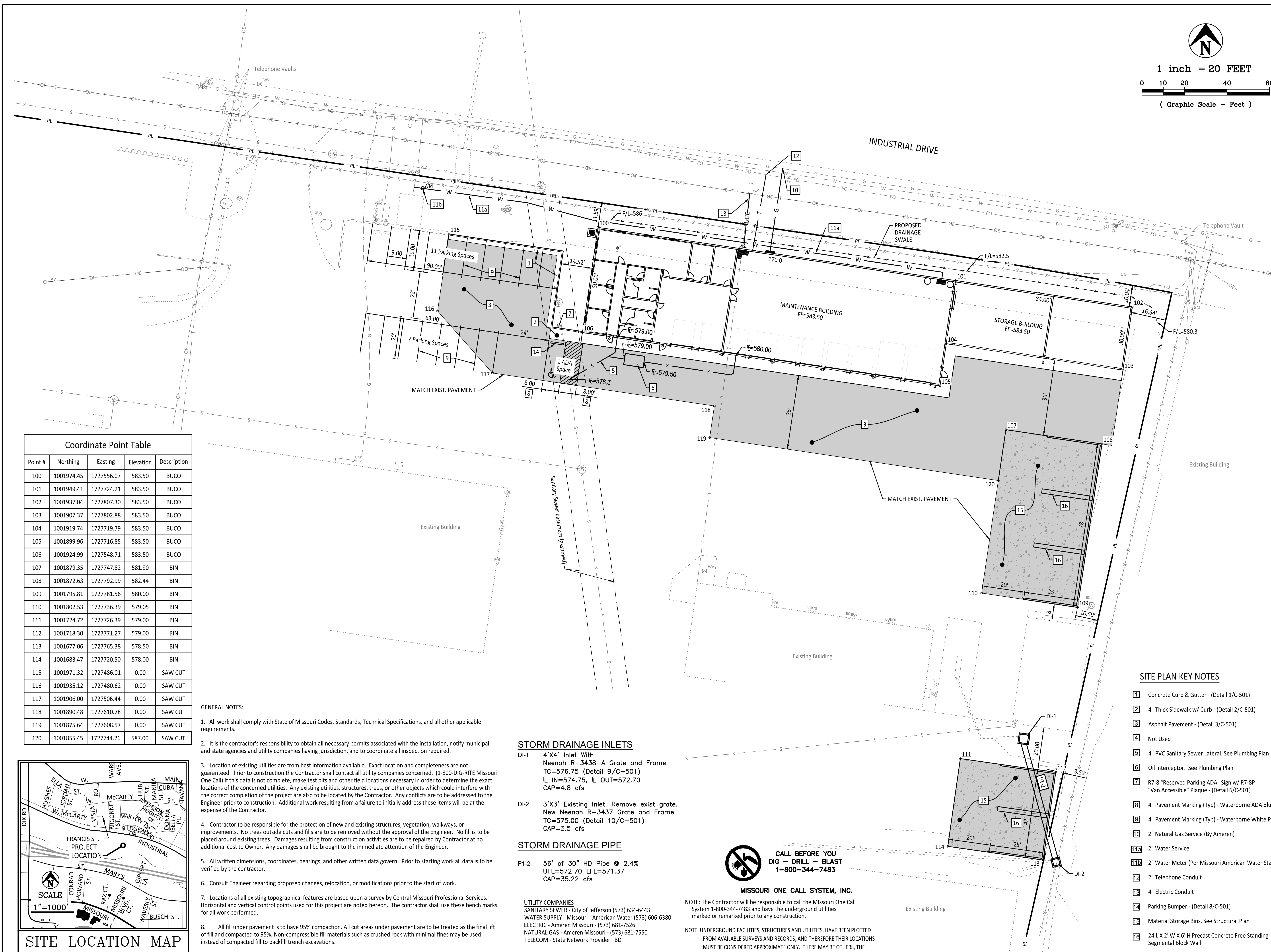
3 OF 33 SHEETS
05/08/2023



1 inch = 20 FEET



(Graphic Scale - Feet)



Coordinate Point Table				
Point #	Northing	Easting	Elevation	Description
100	1001974.45	1727556.07	583.50	BUCO
101	1001949.41	1727724.21	583.50	BUCO
102	1001937.04	1727807.30	583.50	BUCO
103	1001907.37	1727802.88	583.50	BUCO
104	1001919.74	1727719.79	583.50	BUCO
105	1001899.96	1727716.85	583.50	BUCO
106	1001924.99	1727548.71	583.50	BUCO
107	1001879.35	1727747.82	581.90	BIN
108	1001872.63	1727792.99	582.44	BIN
109	1001795.81	1727781.56	580.00	BIN
110	1001802.53	1727736.39	579.05	BIN
111	1001724.72	1727726.39	579.00	BIN
112	1001718.30	1727771.27	579.00	BIN
113	1001677.06	1727765.38	578.50	BIN
114	1001683.47	1727720.50	578.00	BIN
115	1001971.32	1727486.01	0.00	SAW CUT
116	1001935.12	1727480.62	0.00	SAW CUT
117	1001906.00	1727506.44	0.00	SAW CUT
118	1001890.48	1727610.78	0.00	SAW CUT
119	1001875.64	1727608.57	0.00	SAW CUT
120	1001855.45	1727744.26	587.00	SAW CUT

GENERAL NOTES:

- All work shall comply with State of Missouri Codes, Standards, Technical Specifications, and all other applicable requirements.
- It is the contractor's responsibility to obtain all necessary permits associated with the installation, notify municipal and state agencies and utility companies having jurisdiction, and to coordinate all inspection required.
- Location of existing utilities are from best information available. Exact location and completeness are not guaranteed. Prior to construction the Contractor shall contact all utility companies concerned. (1-800-DIG-RITE Missouri One Call) If this data is not complete, make test pits and other field locations necessary in order to determine the exact locations of the concerned utilities. Any existing utilities, structures, trees, or other objects which could interfere with the correct completion of the project are also to be located by the Contractor. Any conflicts are to be addressed to the Engineer prior to construction. Additional work resulting from a failure to initially address these items will be at the expense of the Contractor.
- Contractor to be responsible for the protection of new and existing structures, vegetation, walkways, or improvements. No trees outside cuts and fills are to be removed without the approval of the Engineer. No fill is to be placed around existing trees. Damages resulting from construction activities are to be repaired by Contractor at no additional cost to Owner. Any damages shall be brought to the immediate attention of the Engineer.
- All written dimensions, coordinates, bearings, and other written data govern. Prior to starting work all data is to be verified by the contractor.
- Consult Engineer regarding proposed changes, relocation, or modifications prior to the start of work.
- Locations of all existing topographical features are based upon a survey by Central Missouri Professional Services. Horizontal and vertical control points used for this project are noted hereon. The contractor shall use these bench marks for all work performed.
- All fill under pavement is to have 95% compaction. All cut areas under pavement are to be treated as the final fill of fill and compacted to 95%. Non-compressible fill materials such as crushed rock with minimal fines may be used instead of compacted fill to backfill trench excavations.

STORM DRAINAGE INLETS

DI-1 4'X4' Inlet With
Neehan R-3438-A Grate and Frame
TC=576.75 (Detail 9/C-501)
I_N=574.75, I_O=572.70
CAP=4.8 cfs

DI-2 3'X3' Existing Inlet. Remove exist grate.
New Neehan R-3437 Grate and Frame
TC=575.00 (Detail 10/C-501)
CAP=3.5 cfs

STORM DRAINAGE PIPE

P1-2 56' of 30" HD Pipe @ 2.4%
UFL=572.70 LFL=571.37
CAP=35.22 cfs

UTILITY COMPANIES
SANITARY SEWER - City of Jefferson (573) 634-6443
WATER SUPPLY - Missouri - American Water (573) 606-6380
ELECTRIC - Ameren Missouri - (573) 681-7526
NATURAL GAS - Ameren Missouri - (573) 681-7550
TELECOM - State Network Provider TBD

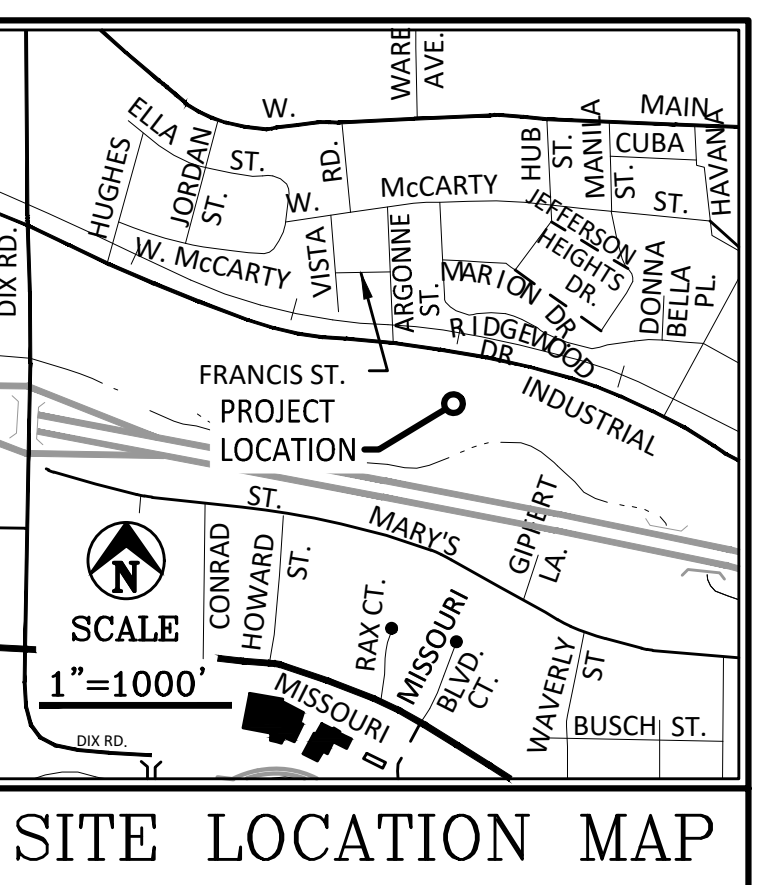


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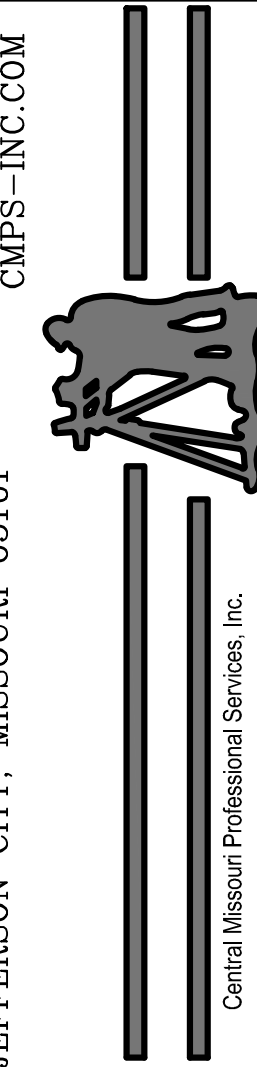
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(573) 634-3455



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1635 INDUSTRIAL DRIVE
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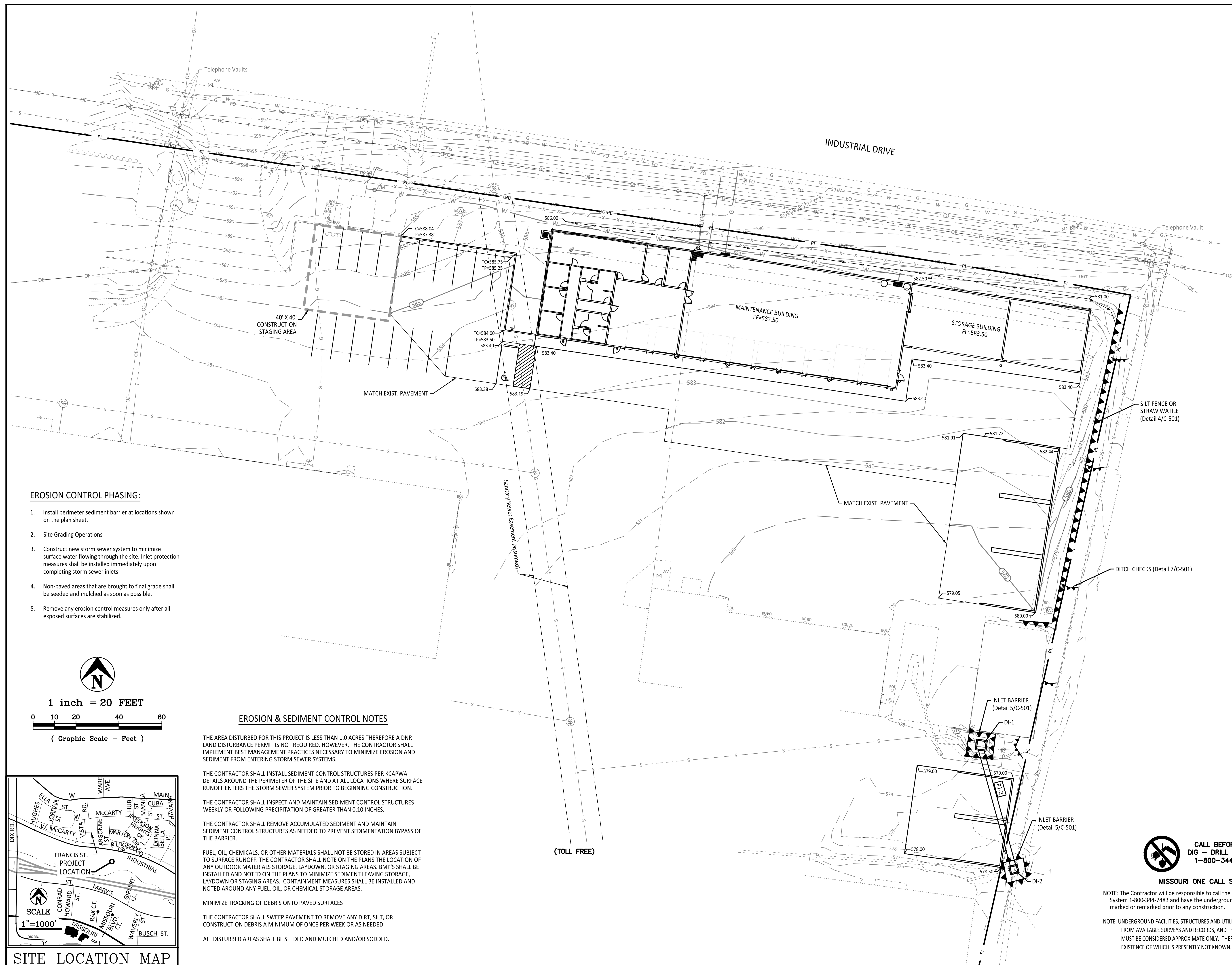
CAD DWG FILE: _____
DRAWN BY: G.J.S.
CHECKED BY: P.L.S.
DESIGNED BY: P.L.S.

SHEET TITLE:
**GRADING & EROSION
CONTROL PLAN**

SHEET NUMBER:

C-201

4 OF 33 SHEETS
05/08/2023



EROSION CONTROL PHASING:

1. Install perimeter sediment barrier at locations shown on the plan sheet.
2. Site Grading Operations
3. Construct new storm sewer system to minimize surface water flowing through the site. Inlet protection measures shall be installed immediately upon completing storm sewer inlets.
4. Non-paved areas that are brought to final grade shall be seeded and mulched as soon as possible.
5. Remove any erosion control measures only after all exposed surfaces are stabilized.



1 inch = 20 FEET



(Graphic Scale - Feet)

EROSION & SEDIMENT CONTROL NOTES

THE AREA DISTURBED FOR THIS PROJECT IS LESS THAN 1.0 ACRES THEREFORE A DNR LAND DISTURBANCE PERMIT IS NOT REQUIRED. HOWEVER, THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES NECESSARY TO MINIMIZE EROSION AND SEDIMENT FROM ENTERING STORM SEWER SYSTEMS.

THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL STRUCTURES PER KCAPIWA DETAILS AROUND THE PERIMETER OF THE SITE AND AT ALL LOCATIONS WHERE SURFACE RUNOFF ENTERS THE STORM SEWER SYSTEM PRIOR TO BEGINNING CONSTRUCTION.

THE CONTRACTOR SHALL INSPECT AND MAINTAIN SEDIMENT CONTROL STRUCTURES WEEKLY OR FOLLOWING PRECIPITATION OF GREATER THAN 0.10 INCHES.

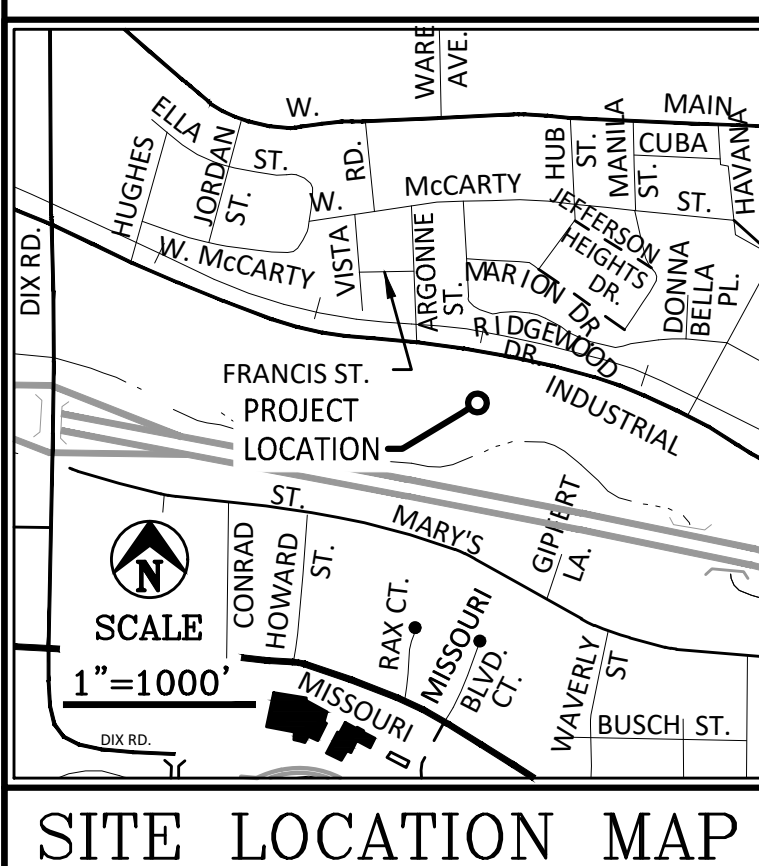
THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT AND MAINTAIN SEDIMENT CONTROL STRUCTURES AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.

FUEL, OIL, CHEMICALS, OR OTHER MATERIALS SHALL NOT BE STORED IN AREAS SUBJECT TO SURFACE RUNOFF. THE CONTRACTOR SHALL NOTE ON THE PLANS THE LOCATION OF ANY OUTDOOR MATERIALS STORAGE, LAYDOWN, OR STAGING AREAS. BMP'S SHALL BE INSTALLED AND NOTED ON THE PLANS TO MINIMIZE SEDIMENT LEAVING STORAGE, LAYDOWN OR STAGING AREAS. CONTAINMENT MEASURES SHALL BE INSTALLED AND NOTED AROUND ANY FUEL, OIL, OR CHEMICAL STORAGE AREAS.

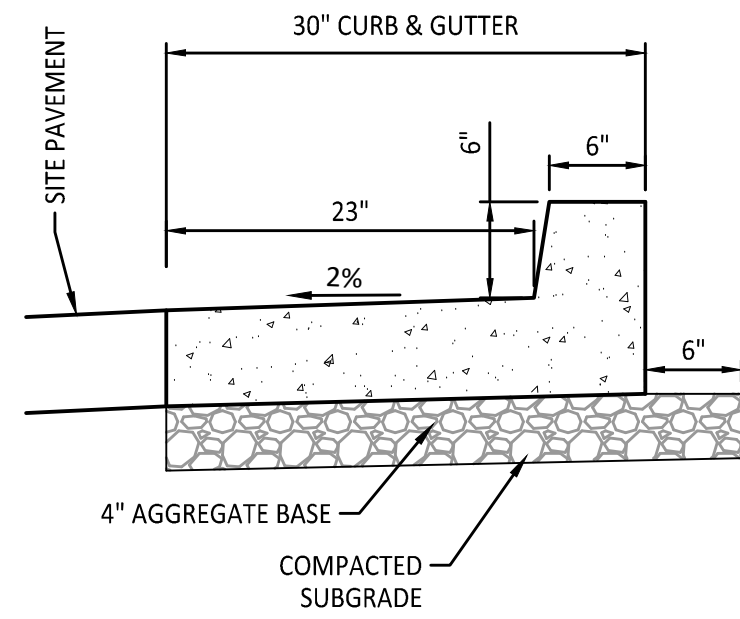
MINIMIZE TRACKING OF DEBRIS ONTO PAVED SURFACES

THE CONTRACTOR SHALL SWEEP PAVEMENT TO REMOVE ANY DIRT, SILT, OR CONSTRUCTION DEBRIS A MINIMUM OF ONCE PER WEEK OR AS NEEDED.

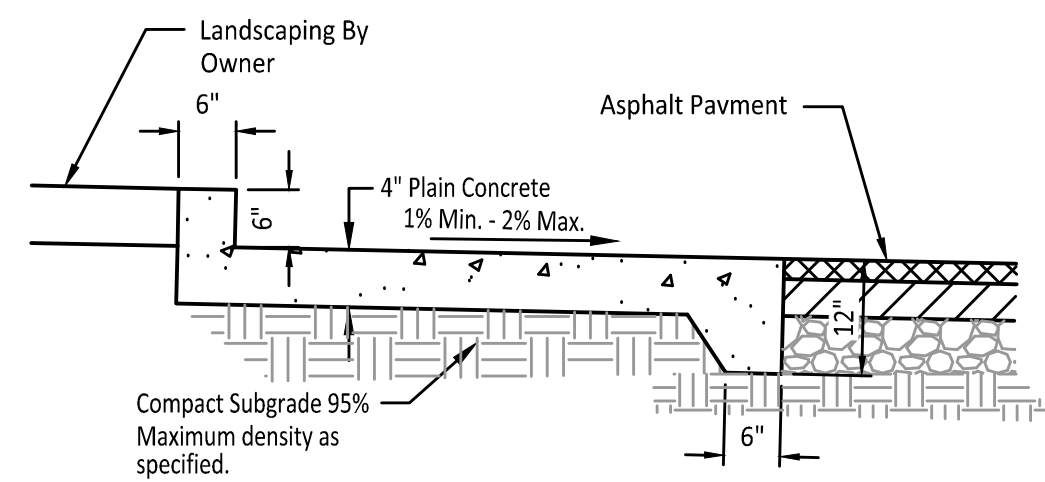
ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AND/OR SODDED.



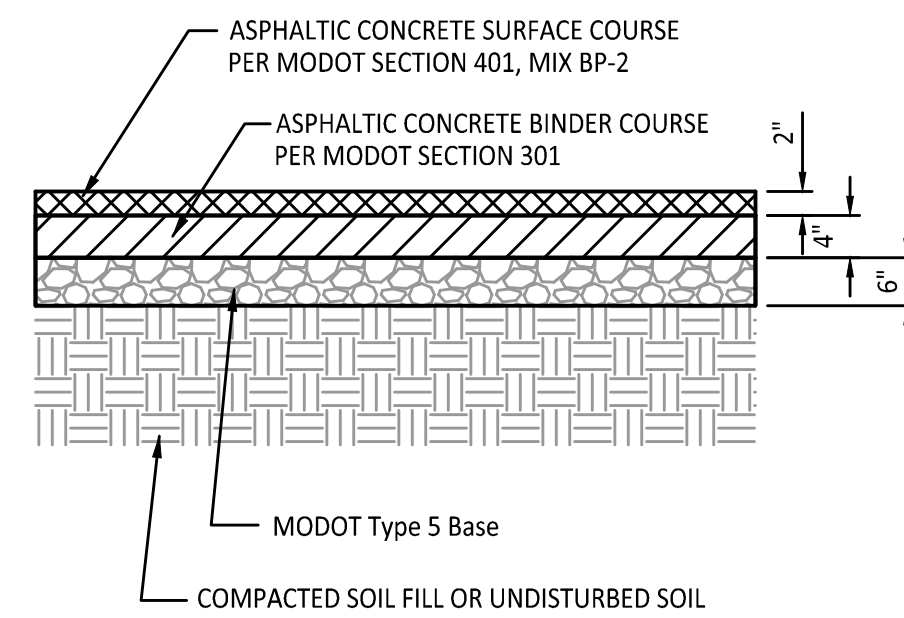
P:\02301-03\11 CAD\04\FMDC Grounds Management\11 CAD\FMDC Grounds Map_4.17.23.dwg, 05/08/2023 11:48:02 AM



1 CURB & GUTTER DETAIL
C-501 NOT TO SCALE

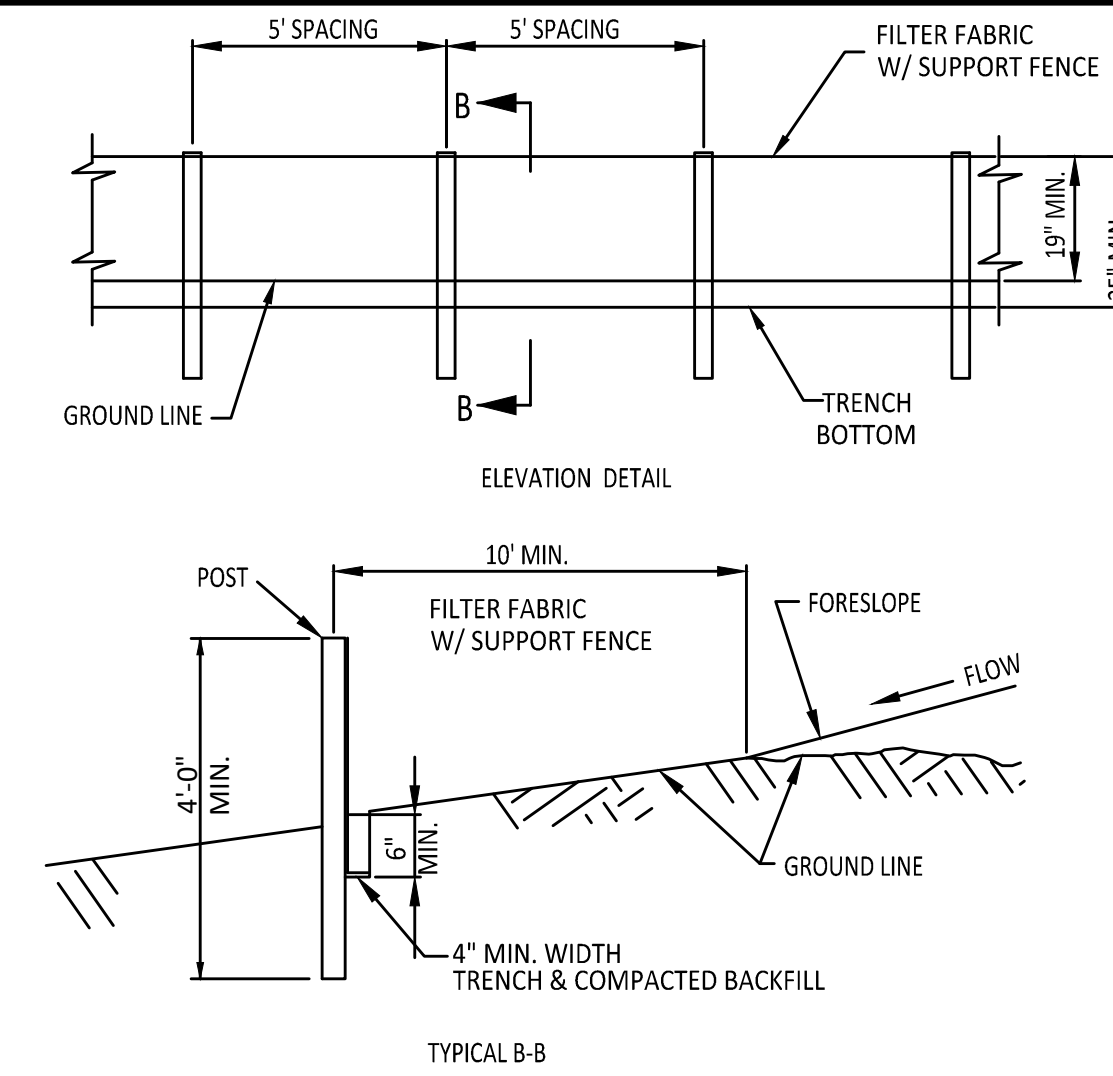


2 SIDEWALK DETAIL
C-501 NOT TO SCALE

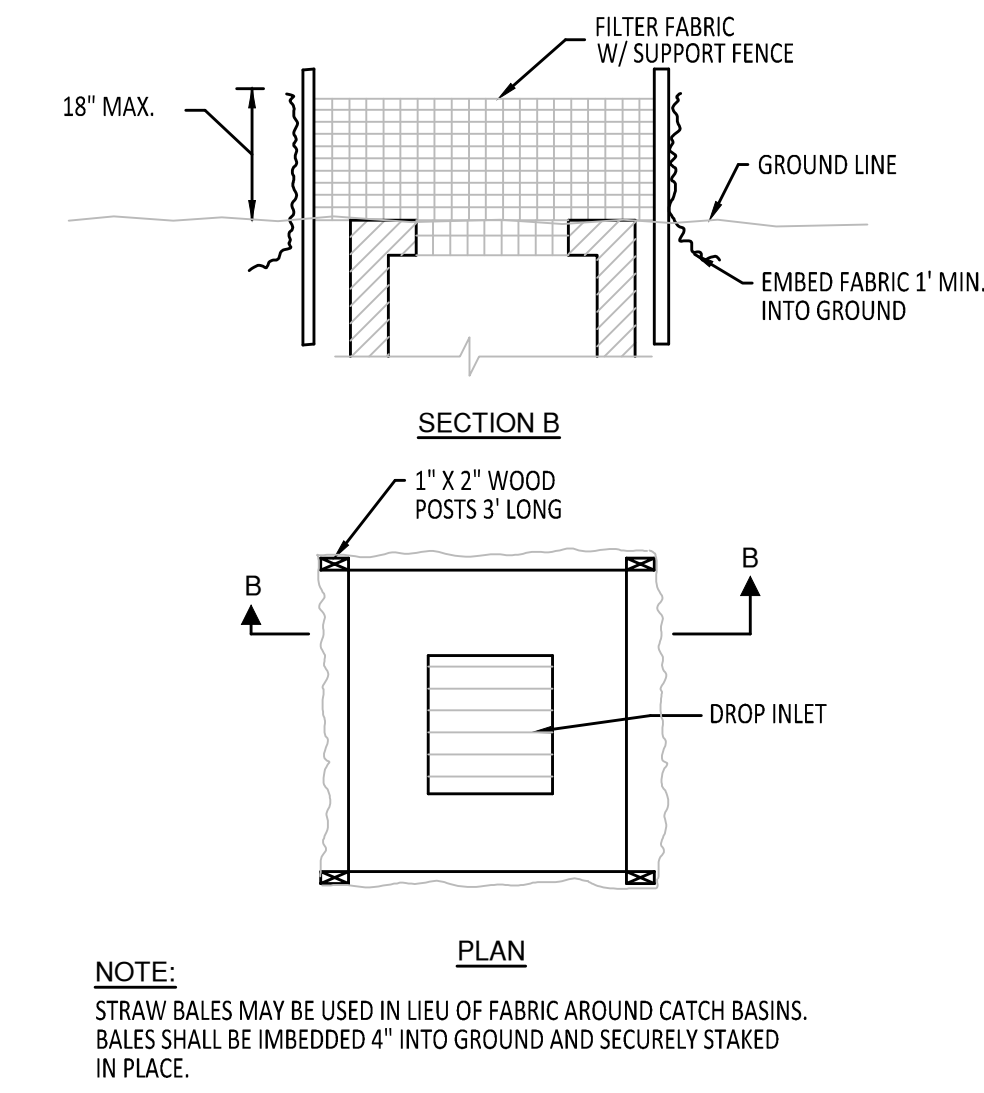


NOTES:
1. COMPACT AGGREGATE BASE COURSES TO 95% OR GREATER OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST IN ACCORDANCE WITH ASTM D-1557
2. COMPACT SUBGRADE IN FILL AREAS TO 90% OR GREATER OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST IN ACCORDANCE WITH ASTM D-1557.

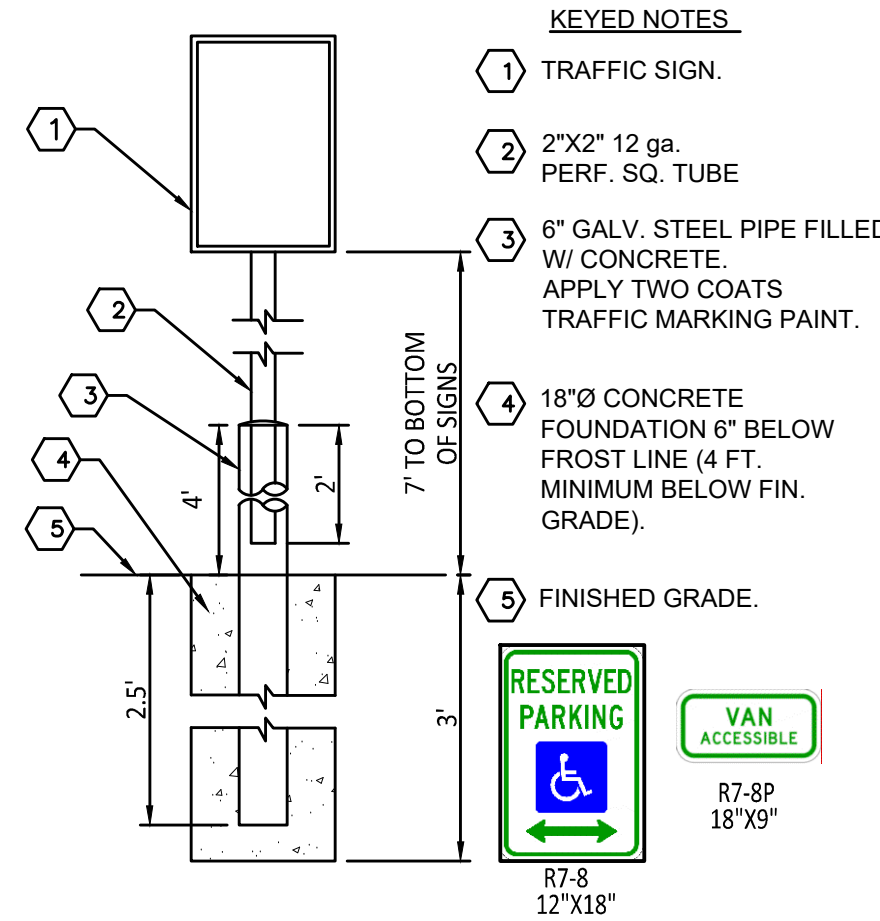
3 HEAVY DUTY ASPHALT PAVEMENT
C-501 NOT TO SCALE



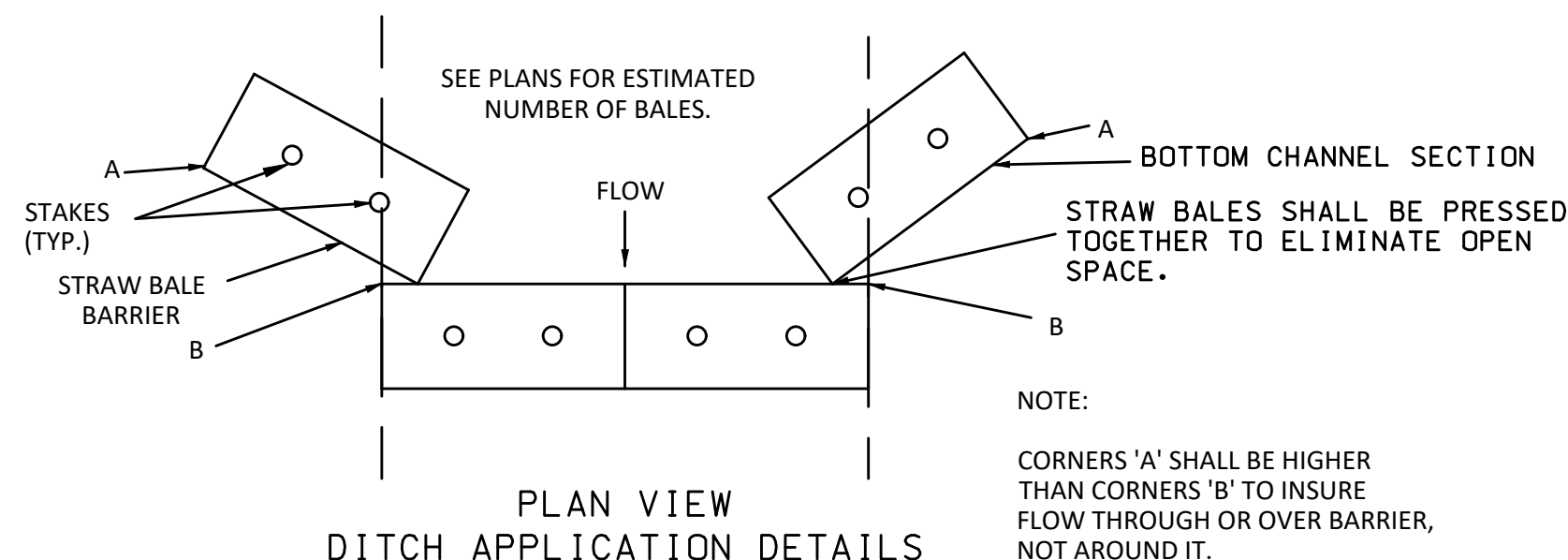
4 SILT FENCE PERIMETER BARRIER
C-501 NOT TO SCALE



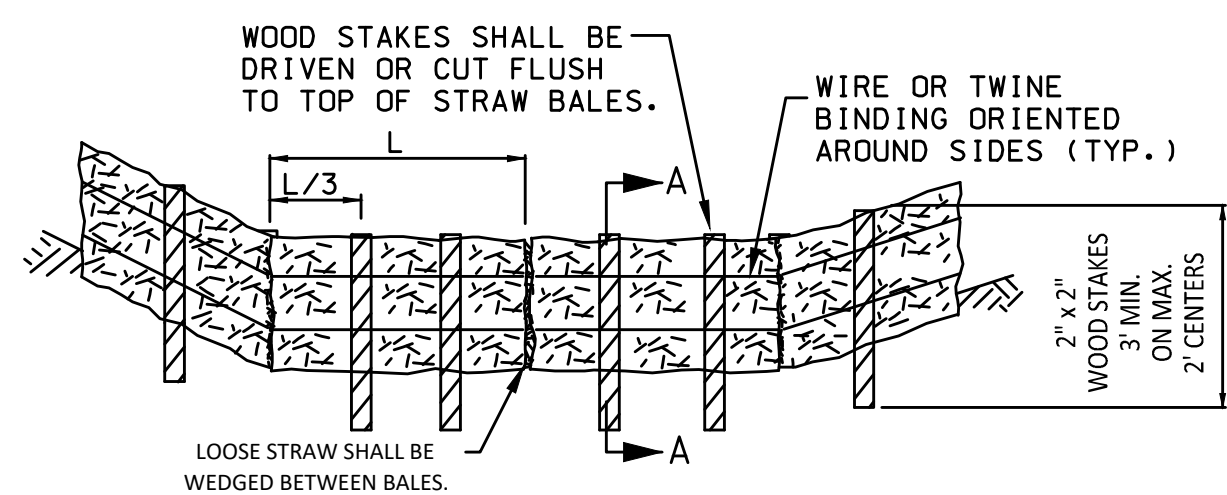
5 SILT FENCE INLET BARRIER
C-501 NOT TO SCALE



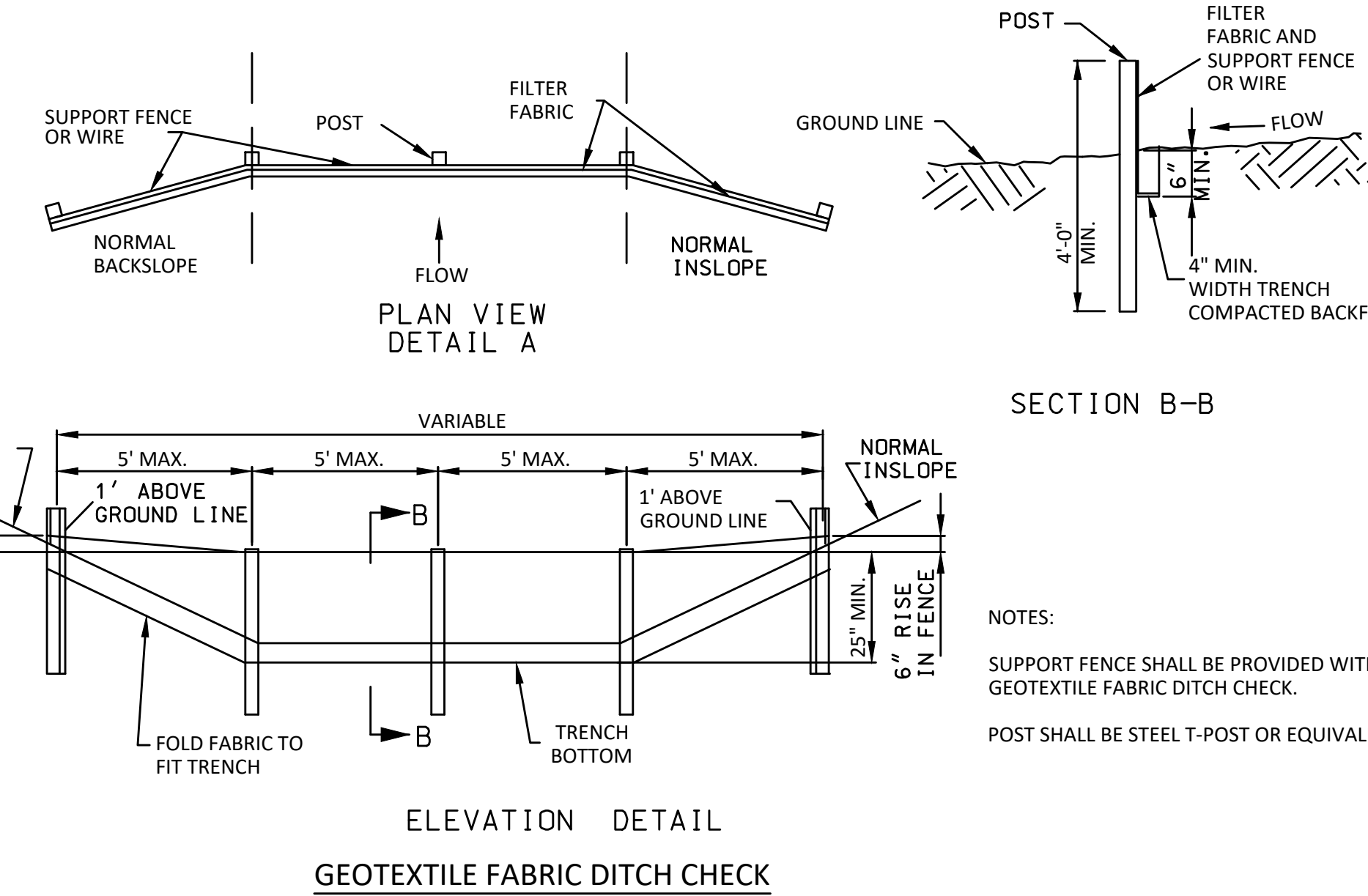
6 ADA SIGN DETAIL
C-501 NOT TO SCALE



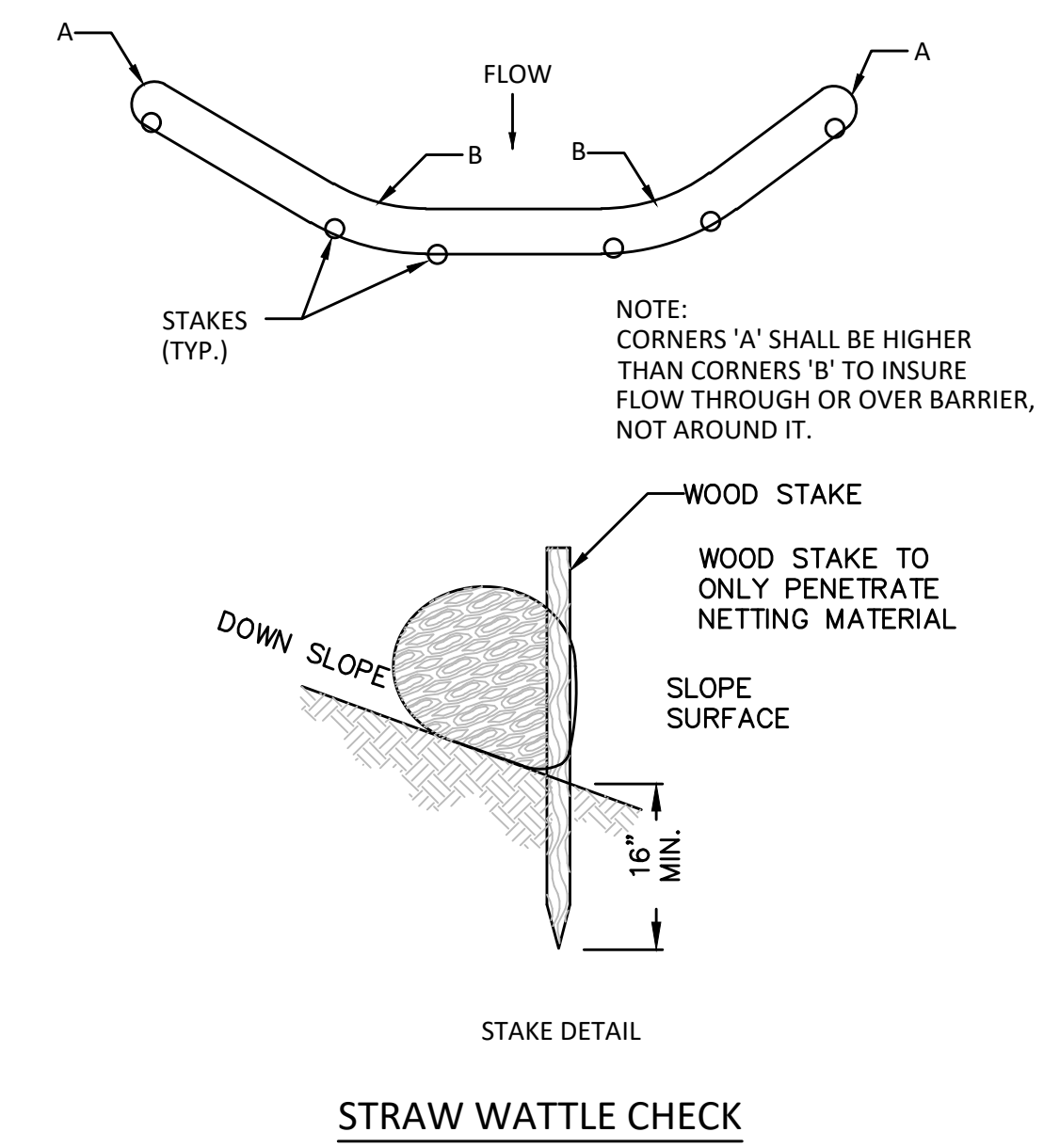
7 DITCH CHECKS
C-501 NOT TO SCALE



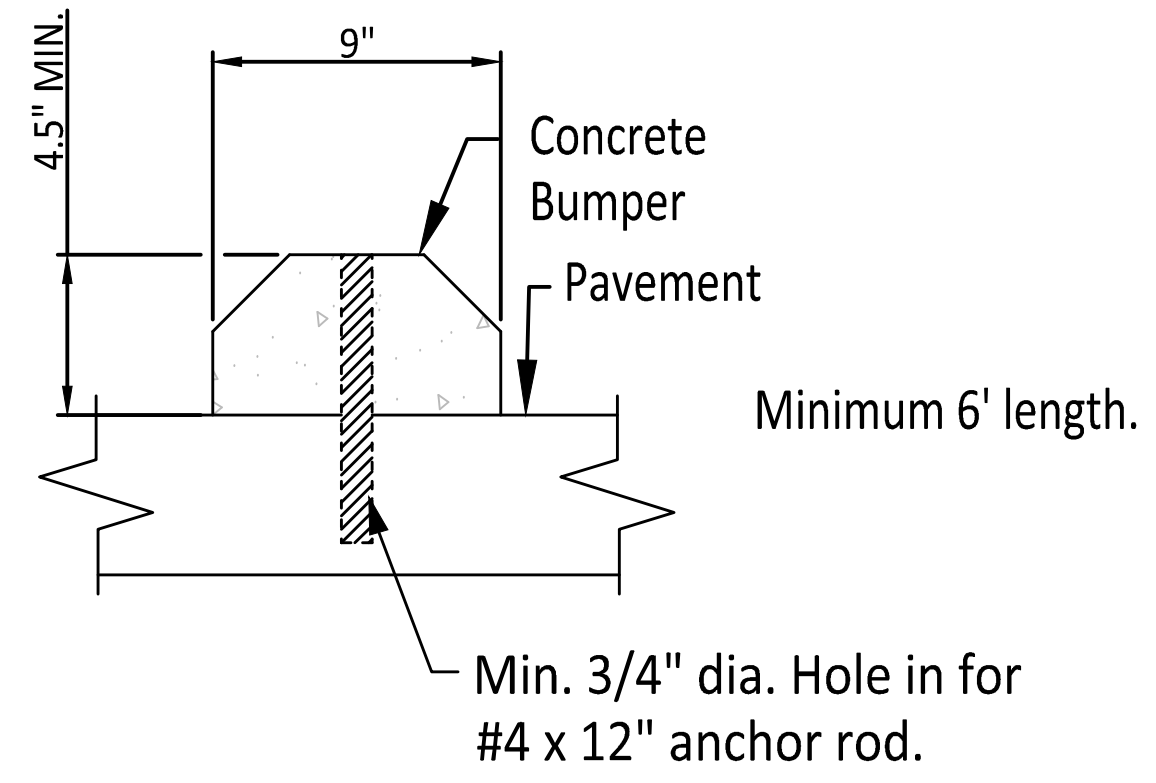
STRAW BALE DITCH CHECK



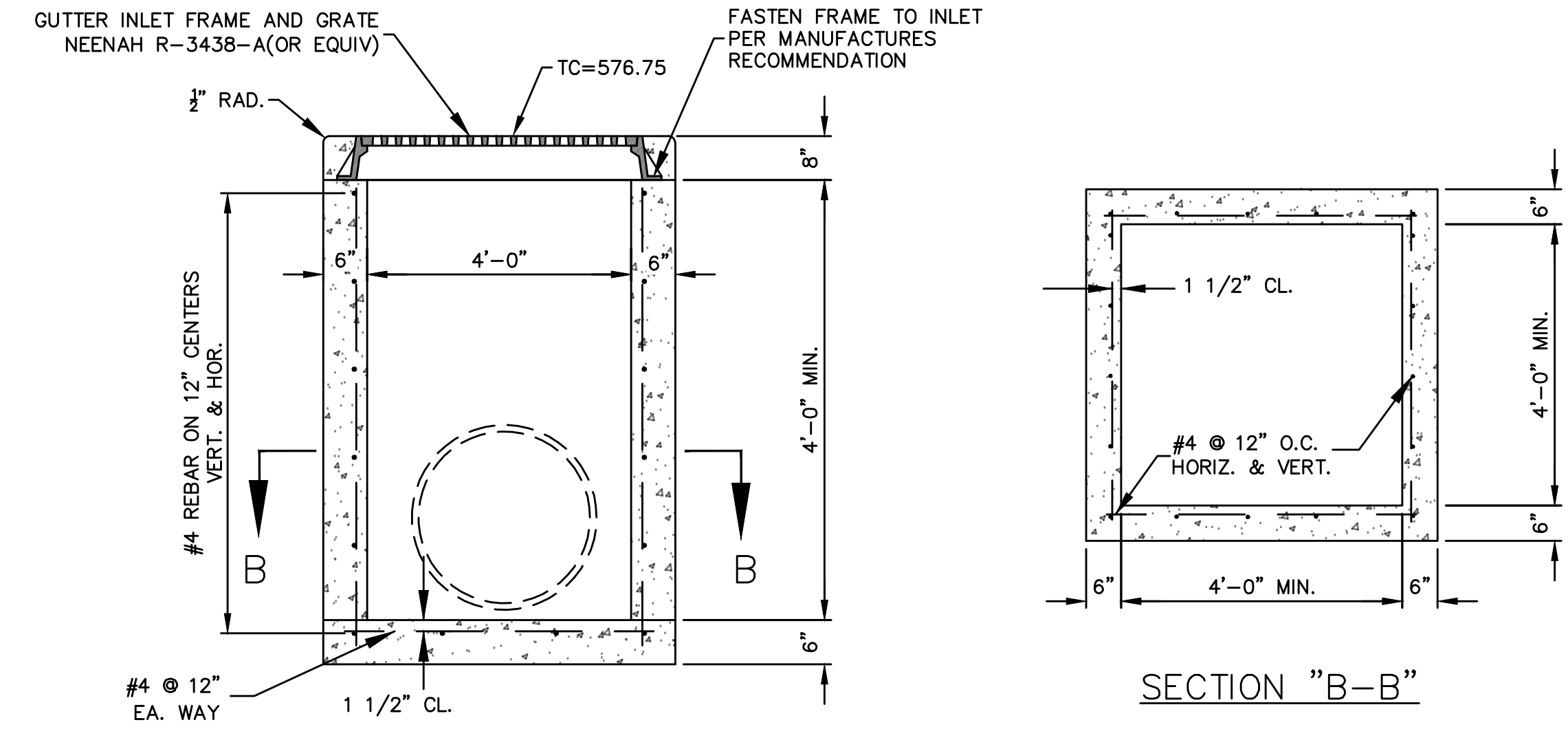
GEOTEXTILE FABRIC DITCH CHECK



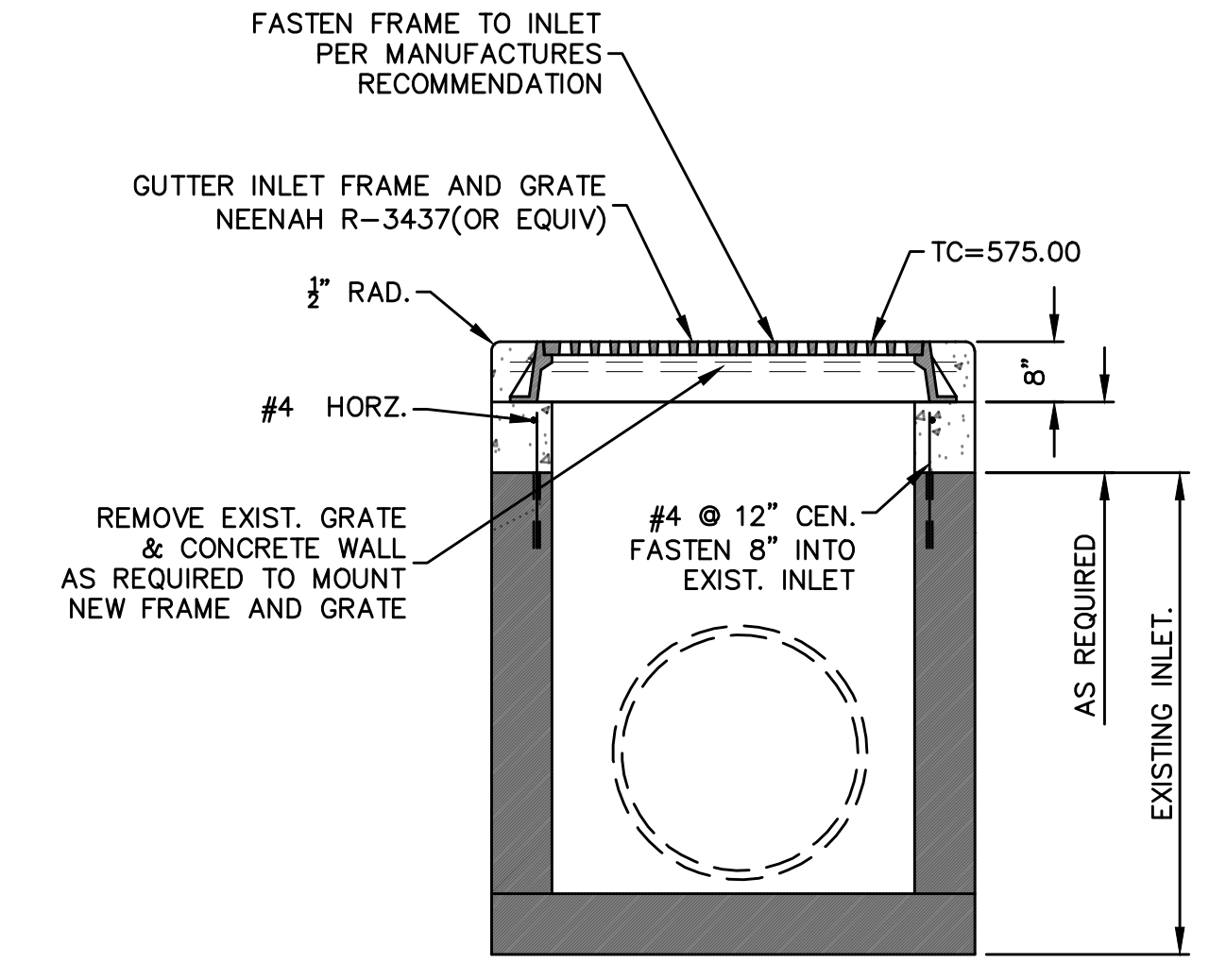
STRAW WATTLE CHECK



8 PARKING BUMPER
C-501 NOT TO SCALE



9 4'x4' STORM GRATE INLET
C-501 NOT TO SCALE



10 EXIST. STORM GRATE INLET
C-501 NOT TO SCALE



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DRAWN BY: G.J.S.
CHECKED BY: P.L.S.
DESIGNED BY: P.L.S.

SHEET TITLE:
SITE DETAILS

SHEET NUMBER:

C-501

5 OF 33 SHEETS
05/08/2023

BUILDING DESIGN DATA:

GOVERNING BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE (IBC)

- 1. ROOF DEAD LOADS, D
ASPHALT SHINGLES INSULATION = 3.0 PSF
1/2" PLYWOOD ROOF DECK = 1.0 PSF
WOOD TRUSSES = 2.0 PSF
GIRDERS = 5.0 PSF
CEILING, MECHANICAL, ELECTRICAL, & FIRE PROTECTION = 5.0 PSF
2. TOTAL DEAD LOAD = 18.0 PSF
3. MINIMUM ROOF LIVE LOADS, Lr
A. METAL DECK = 20 PSF
B. JOISTS, JOIST GIRDERS, BEAMS, COLUMNS, & FOOTINGS = 20 PSF
1- TRIBUTARY LOADED AREA (Ai): 0 TO 200 SF = 20(1+2.0.001*Ai) PSF
2- TRIBUTARY LOADED AREA (Ai): 201 TO 599 SF = 20(1+1.0.001*Ai) PSF
3- TRIBUTARY LOADED AREA (Ai): 600 SF. AND GREATER = 12 PSF
5. ROOF SNOW LOADS, S
A. GROUND SNOW LOAD, Pg = 20 PSF
B. SNOW EXPOSURE FACTOR, Ce = 1.0
C. SNOW LOAD IMPORTANCE FACTOR, Is = 1.0
D. THERMAL FACTOR, Ct = 1.0
E. MINIMUM ROOF SNOW LOAD*, Pm = 20 PSF (GOVERNS)
6. WIND LOADS, W
A. BASIC WIND SPEED (3 SECOND GUST), V = 110 MPH
B. WIND LOAD IMPORTANCE FACTOR, Iw = 1.0
C. BUILDING CATEGORY: ENCLOSED, SIMPLE DIAPHRAGM
D. OVERALL EXPOSURE CATEGORY: = C
E. HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENT = 1.32 (Kzt=1.0)
F. MAIN-WIND-FORCE-RESISTING-SYSTEM WIND DESIGN (ULTIMATE) PRESSURES, W:

Table with 2 columns: LOCATION, DESIGN PRESSURE (PSF). Rows include INTERIOR ZONE, END ZONE, HORIZONTAL, VERTICAL, etc.

- G. COMPONENTS AND CLADDING WIND DESIGN (SERVICE LOAD) PRESSURES: PER TABLE BELOW.

Table with 4 columns: ZONE, EFFECTIVE WIND AREA (SF), WINDWARD PRESSURE, LEEWARD PRESSURE. Rows for ROOF and WALLS zones 1-5.

- * ZONE 1 INCLUDES THOSE ROOF ELEMENTS LOCATED OUTSIDE OF 5 FEET OF A ROOF EDGE.
ZONE 2 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 5 FEET OF A ROOF EDGE.
ZONE 3 INCLUDES THOSE ROOF ELEMENTS LOCATED WITHIN 5 FEET OF A ROOF EDGE AND WITHIN 5 FEET OF A BUILDING CORNER.
ZONE 4 INCLUDES THOSE WALL ELEMENTS LOCATED OUTSIDE OF 5 FEET OF A BUILDING CORNER.
ZONE 5 INCLUDES THOSE WALL ELEMENTS LOCATED WITHIN 5 FEET OF A BUILDING CORNER.

- 7. SEISMIC DESIGN DATA
A. SEISMIC USE GROUP = II
B. MAPPED SPECTRAL RESPONSE COEFFICIENTS
1- Ss = 0.191
2- S1 = 0.105
C. SITE CLASS (PER GEOTECHNICAL REPORT) = D
D. SPECTRAL RESPONSE COEFFICIENTS
1- Sps = 0.204
2- Ss1 = 0.188
E. SEISMIC DESIGN CATEGORY = C
F. BASIC SEISMIC-FORCE-RESISTING SYSTEM: BEARING WALL SPECIAL REINFORCED MASONRY SHEAR WALLS
G. RESPONSE MODIFICATION COEFFICIENT = 5.0
H. DEFLECTION AMPLIFICATION FACTOR = 3.5
I. SYSTEM OVERSTRENGTH FACTOR = 2.5
J. ANALYSIS PROCEDURE BASED UPON EQUIVALENT LATERAL FORCE PROCEDURE
K. BASE SHEAR: V (ULTIMATE) = 31.2 kips

STRUCTURAL STEEL:

- 1. STEEL SHALL CONFORM TO THE FOLLOWING GRADES:
WIDE FLANGE SHAPES A992 OR A572 GR. 50 (Fy = 50 KSI)
CHANNELS, ANGLES, PLATES, ETC. (UNO) A36 (Fy = 36 KSI)
STRUCTURAL TUBE A500 (Fy = 46 KSI)
STEEL PIPE A53 (Fy = 35 KSI)
THREADED RODS F1554, A36 OR A307
BOLTS A325
WELDING ELECTRODES E70XX
2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (AISC 303-16), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
3. ALL STRUCTURAL STEEL TO HAVE A SHOP GRADE PRIMER UNLESS NOTED OTHERWISE.

FOUNDATIONS:

- 1. THE FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE "SUBSURFACE INVESTIGATION, ANALYSIS AND GEOTECHNICAL ENGINEERING RECOMMENDATIONS FOR 02301-03 FMDC GROUNDS & MAINTENANCE BUILDING, JEFFERSON CITY, MISSOURI" DATED JANUARY 7, 2023. PREPARED BY GREDELL ENGINEERING RESOURCES, INC.
2. SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 1.5 KSF FOR INDIVIDUAL COLUMN FOOTINGS AND 1.5 KSF FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE DEAD AND LIVE LOADS.
3. THE EXISTING SITE SUBGRADE SHALL BE PREPARED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS IN THE PROJECT GEOTECHNICAL ENGINEERING REPORT.
4. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
5. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
6. THE TOP OF EXTERIOR FOOTING ELEVATION SHALL BE SET A MINIMUM OF 8" BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE AND A MINIMUM 16" BELOW FINISHED FLOOR. THE BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 30" BELOW LOWEST FINAL ADJACENT EXTERIOR GRADE.
7. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE, OR UNTIL THE CONCRETE OR MASONRY HAS ATTAINED ITS FULL COMPRESSIVE STRENGTH FOR CANTILEVER WALLS.
8. WHERE FOUNDATION WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, PLACE FILL SIMULTANEOUSLY SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF THE WALL.
9. VERIFY THE USE AND EXTENT OF PERIMETER INSULATION WITH THE ARCHITECTURAL DRAWINGS PRIOR TO THE INSTALLATION OF FOUNDATIONS. INSTALL PERIMETER INSULATION AS REQUIRED.

CONCRETE:

- 1. ALL CONCRETE SHALL BE NORMAL WEIGHT (DENSITY=145 PCF) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
ALL FOUNDATIONS, INTERIOR SLAB 3000 PSI
EXTERIOR SLABS, CURBS, SIDEWALKS 4000 PSI
ALL OTHER CONCRETE (U.N.O.) 3000 PSI
2. THE SLUMP OF ALL CONCRETE SHALL NOT EXCEED 4 IN. UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4 IN. THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 8 IN.
3. ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH 5% +/- 1.5% AIR CONTENT.
4. THE COARSE AGGREGATE SIZE SHALL MEET AASHTO #57.
5. THE MINIMUM PORTLAND CEMENT CONTENT (ASTM C150 TYPE III) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE (FLY ASH NOT PERMITTED):

Table with 3 columns: SPECIFIED COMPRESSIVE STRENGTH (PSI), NON AIR-ENTRAINED CONCRETE (LBS.), AIR-ENTRAINED CONCRETE (LBS.). Rows for 3000, 4000 PSI.

- 6. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD.
7. CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
8. CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
10. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL.
11. ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
12. THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:
UNFORMED SURFACE IN CONTACT WITH THE GROUND 3 IN.
FORMED SURFACES EXPOSED TO EARTH OR WEATHER:
#5 BARS AND SMALLER 1 1/2 IN.
SLABS, WALLS, AND JOISTS:
#11 BARS AND SMALLER 3/4 IN.
13. ALL BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC., WHICH ARE BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.
14. ALL LAP SPLICES SHALL BE IN ACCORDANCE WITH THAT SHOWN ON THE DRAWINGS.

REINFORCED MASONRY:

- 1. THE REINFORCED CONCRETE MASONRY FOR THIS PROJECT HAS BEEN DESIGNED AND DETAILED IN ACCORDANCE WITH THE ALLOWABLE STRESS DESIGN METHOD OF THE BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES.
2. REINFORCED MASONRY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, fm, OF 2000 PSI. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90 AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2000 PSI. MORTAR SHALL CONFORM TO ASTM C270, TYPE S. GROUT SHALL CONFORM TO ASTM C476 AND SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD- DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS.
5. ALL REINFORCED CELLS, ALL CELLS BELOW GRADE AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.
6. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING. GROUT THE CELL FOR THE FULL HEIGHT OF THE DOWEL.
7. REINFORCING STEEL SHALL BE CENTERED IN THE MASONRY UNIT CELL, UNLESS NOTED OTHERWISE.
8. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM GROUT COVER OF 1/2" OF AN INCH TO THE INSIDE FACE OF MASONRY UNIT AND A MINIMUM TOTAL MASONRY COVER NOT LESS THAN TWO INCHES.
9. PARALLEL ADJACENT VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEAR DISTANCE NOT LESS THAN 1 1/2 BAR DIAMETERS NOR 1 1/2 INCHES.
10. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"x4".
11. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
12. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
13. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS, SHALL BE GROUTED SOLID INTO POSITION.
14. SPLICED REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 72 BAR DIAMETERS.

STRUCTURAL LUMBER:

- 1. SAWN LUMBER:
A. ALL SAWN LUMBER MUST BE GRADE STAMPED, VISUALLY INSPECTED, WITH 19% MAX MC AND SHALL CONFORM TO THE MINIMUM STANDARDS OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND CHAPTER 23 OF THE INTERNATIONAL BUILDING CODE.
B. UNLESS NOTED OTHERWISE USE #2 OR BETTER SOUTHERN PINE FOR ALL SAWN LUMBER.
C. ALL SAWN LUMBER IN CONTACT WITH CONCRETE OR PERMANENTLY EXPOSED TO WEATHER SHALL BE PRESERVATIVE-TREATED TO CONFORM TO THE REQUIREMENTS OF THE APPLICABLE AWPA STANDARD FOR THE SPECIES, PRODUCT, PRESERVATIVE, AND END USE. ALL LUMBER REQUIRED TO BE PRESERVATIVE-TREATED SHALL BE CLEARLY STAMPED WITH THE MARK OF AN INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING, AND INSPECTION OVER THE QUALITY OF THE PRESERVATIVE-TREATED WOOD.
2. ROOF SHEATHING:
A. ROOF SHEATHING SHALL BE A MINIMUM 19/32" APA RATED SHEATHING, EXPOSURE 1 WITH 32/16 SPAN RATING. UNLESS NOTED OTHERWISE, ROOF SHEATHING SHALL BE NAILED WITH A MINIMUM 10G NAILS AT 6" O.C. AT DIAPHRAGM BOUNDARY (ROOF PERIMETER), 6" O.C. AT ALL OTHER PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS (INSTALL PLYCLIPS AT ALL UNSUPPORTED PANEL EDGES).
3. PRE-ENGINEERED WOOD ROOF TRUSSES:
A. DESIGN ALL TRUSSES FOR THE UNIFORM LOADS SHOWN IN ADDITION TO A CONCENTRATED LOAD OF 100 POUNDS APPLIED DIRECTLY TO THE BOTTOM CHORD AT ANY POINT ALONG THE SPAN. TRUSSES TO BE DESIGN FOR A 500 LBS. AXIAL LOAD (ASD).
B. ALL TRUSSES SHALL BE BRACED DURING ERECTION PER COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES, HIB-91" BY THE TRUSS PLATE INSTITUTE, UNLESS MORE STRICT BRACING IS REQUIRED BY THE TRUSS MANUFACTURER. THIS BRACING SHALL REMAIN AS PERMANENT BRACING. BRACING IN THE PLANE OF THE TOP CHORD MAY BE REMOVED WHEN THE TOP CHORD IS LATERALLY BRACED BY ROOF SHEATHING.
D. BOTTOM CHORD OF WOOD TRUSSES SHALL BE DESIGN AS UNBRACED FOR A LENGTH EQUAL TO THE SPACING BETWEEN BOTTOM CHORD BRACES. BOTTOM CHORD BRACES SHALL BE SUPPLIED BY TRUSS MANUFACTURER.
E. TRUSSES TO BE A DEFERRED SUBMITTAL PER 2021 INTERNATIONAL BUILDING CODE.
4. FASTENERS:
A. CONNECT ALL FRAMING SECURELY TOGETHER WITH NAILS, SPIKES, SCREWS, BOLTS, OR FRAMING CONNECTORS.
B. MINIMUM NAILING MUST BE IN ACCORDANCE WITH THE SCHEDULES PROVIDED IN THE GOVERNING MODEL BUILDING CODE.
C. ALL NAILS, BOLTS, LAG SCREWS, NUTS, WASHERS, ETC. USED IN FIRE-RETARDED LUMBER AND PLYWOOD MUST BE HOT-DIPPED GALVANIZED.
D. ALL BOLTS, STRAPS, ANCHORS, ETC., THAT ARE IN DIRECT CONTACT WITH ACQ TYPE TREATED LUMBER MUST BE HOT-DIPPED GALVANIZED (G 185 MIN) OR STAINLESS STEEL FASTENERS.
E. ALL BOLT HOLES AND PLATES SHALL BE PLACED AS SPECIFIED IN THE DETAILS. PROVIDE SPECIFIED SPACING, EDGE DISTANCES, AND END DISTANCES, OR AS REQUIRED BY CONNECTION DESIGN SPECIFICATIONS.
MISCELLANEOUS:
1. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
2. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
3. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
4. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.
5. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
6. ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.
7. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

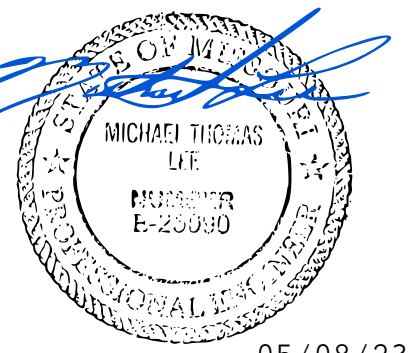
SPECIAL INSPECTIONS:

- 1. THE STATE OF MISSOURI WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE STATE OF MISSOURI AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS, THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE STATE OF MISSOURI, THE PROFESSIONAL-OF-RECORD AND THE REGISTERED DESIGN PROFESSIONAL. IMMEDIATE ATTENTION OF THE PROFESSIONAL-OF-RECORD FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE STATE OF MISSOURI AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
5. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLE:

Table with 3 columns: SPECIAL INSPECTION, FREQ., REFERENCED STANDARD(S). Rows include SOILS, GEOTECHNICAL ENGINEERING REPORT, etc.

Table with 3 columns: SPECIAL INSPECTION, FREQ., REFERENCED STANDARD(S). Rows include STEEL CONSTRUCTION, MASONRY CONSTRUCTION, CONCRETE CONSTRUCTION, etc.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR



05/08/23

MICHAEL L. LEE
License Number: 025090
Expiration Date: 12/31/23
CASCO Diversified Corporation
140 Northside at Ashway
#003029 ARCHITECTURAL and #006163 ENGINEERING

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 04/27/2023

CAD DWG FILE:
DRAWN BY: RDM
CHECKED BY: RDM
DESIGNED BY: RDM

SHEET TITLE:

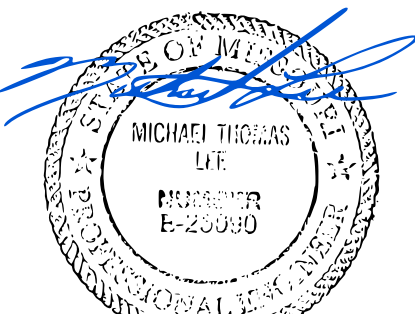
STRUCTURAL GENERAL NOTES

SHEET NUMBER:

S-001

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05/08/2023

CASCO
12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314-821-1100



CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.

DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
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DESIGNED BY: _____ RDM

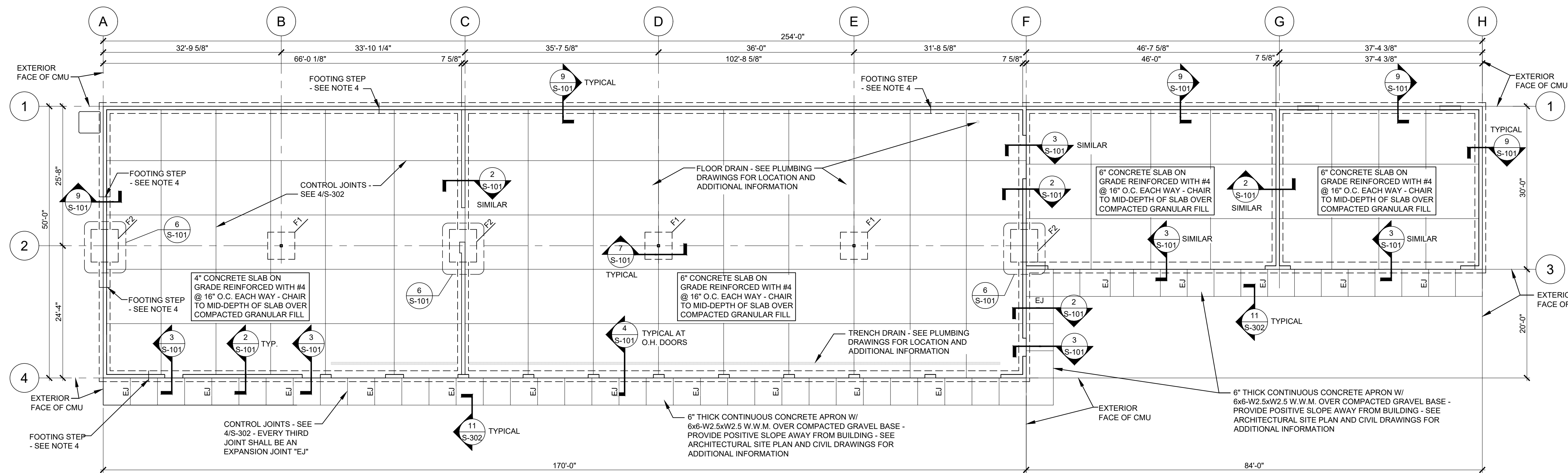
SHEET TITLE:

FOUNDATION
PLAN, SECTIONS
& DETAILS

SHEET NUMBER:

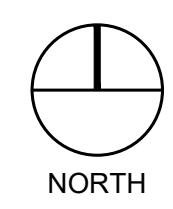
S-101

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05/08/2023

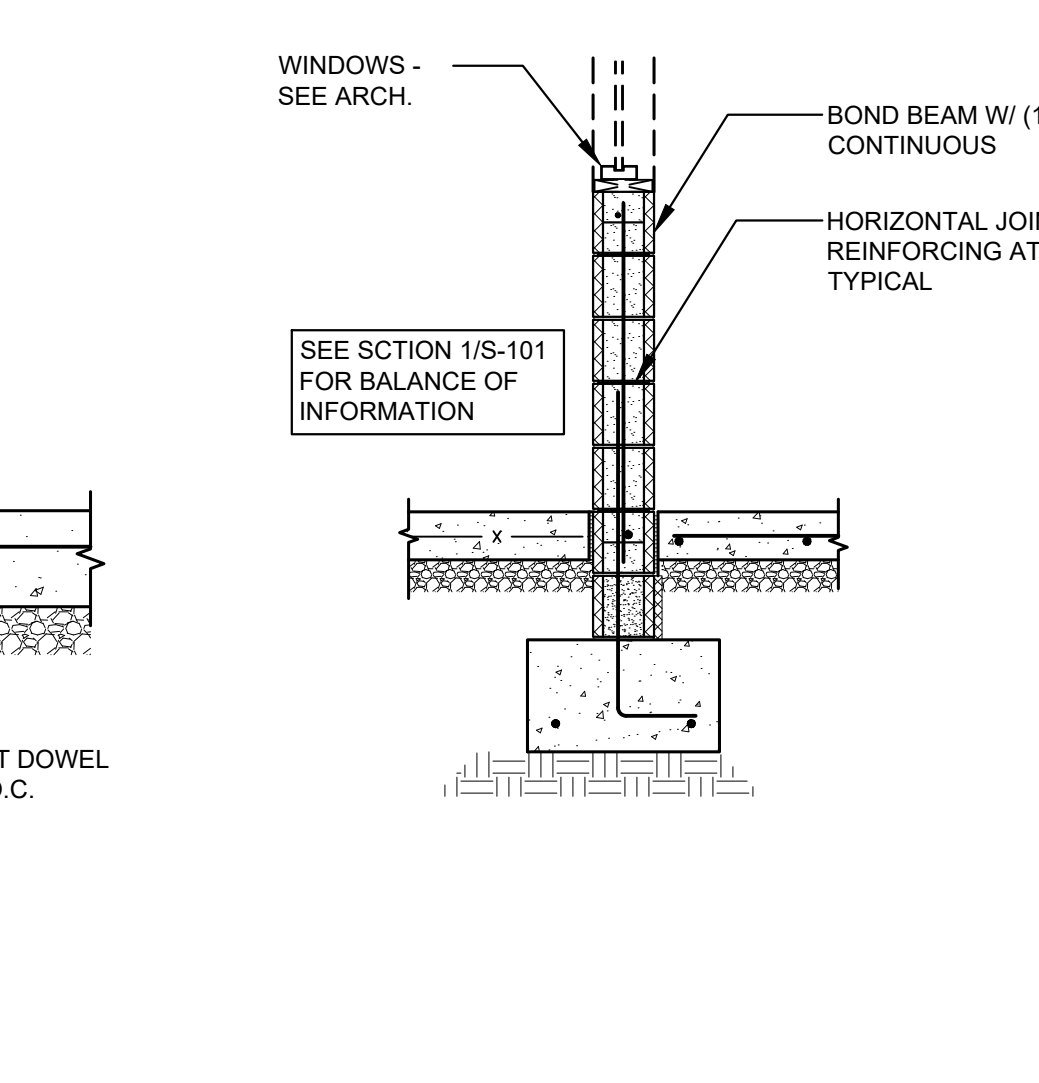
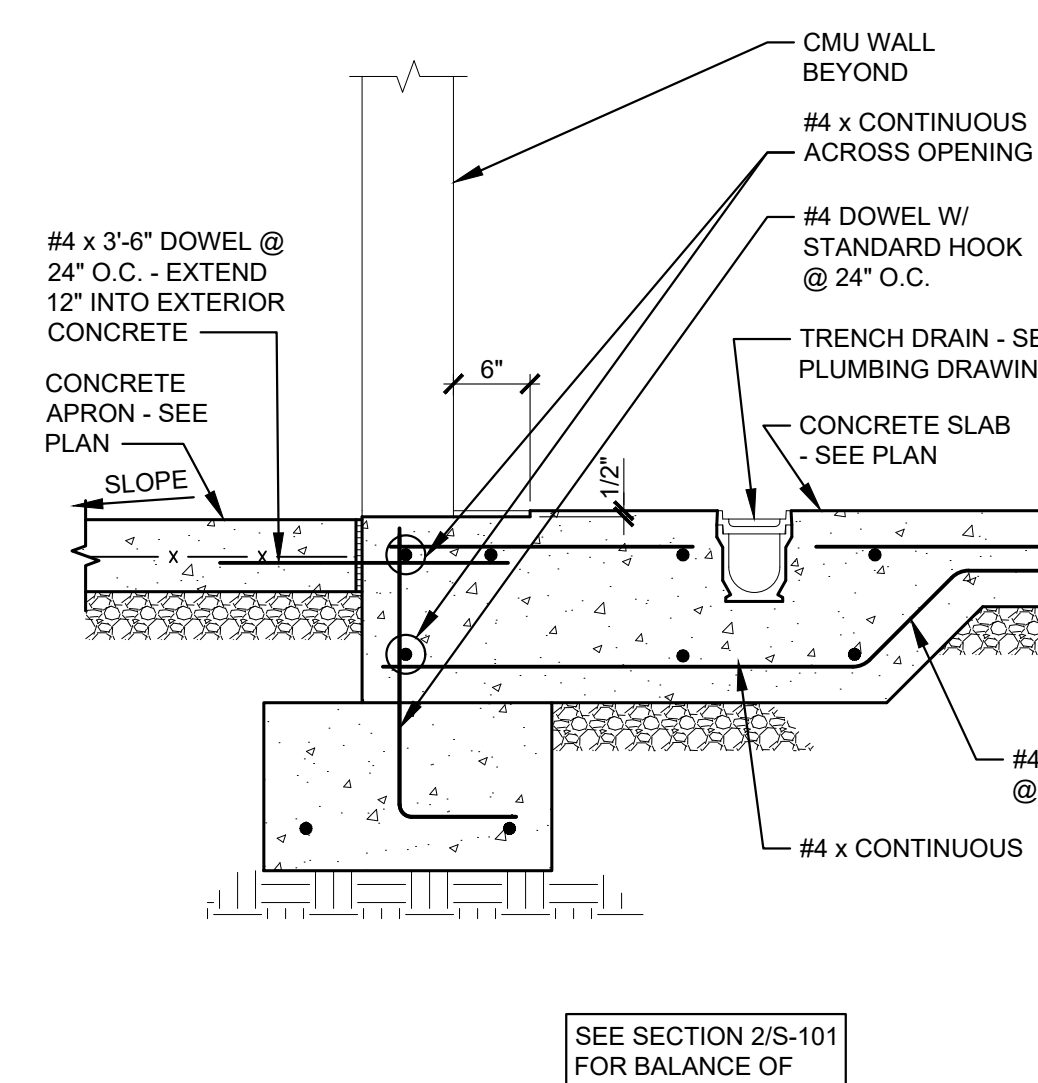
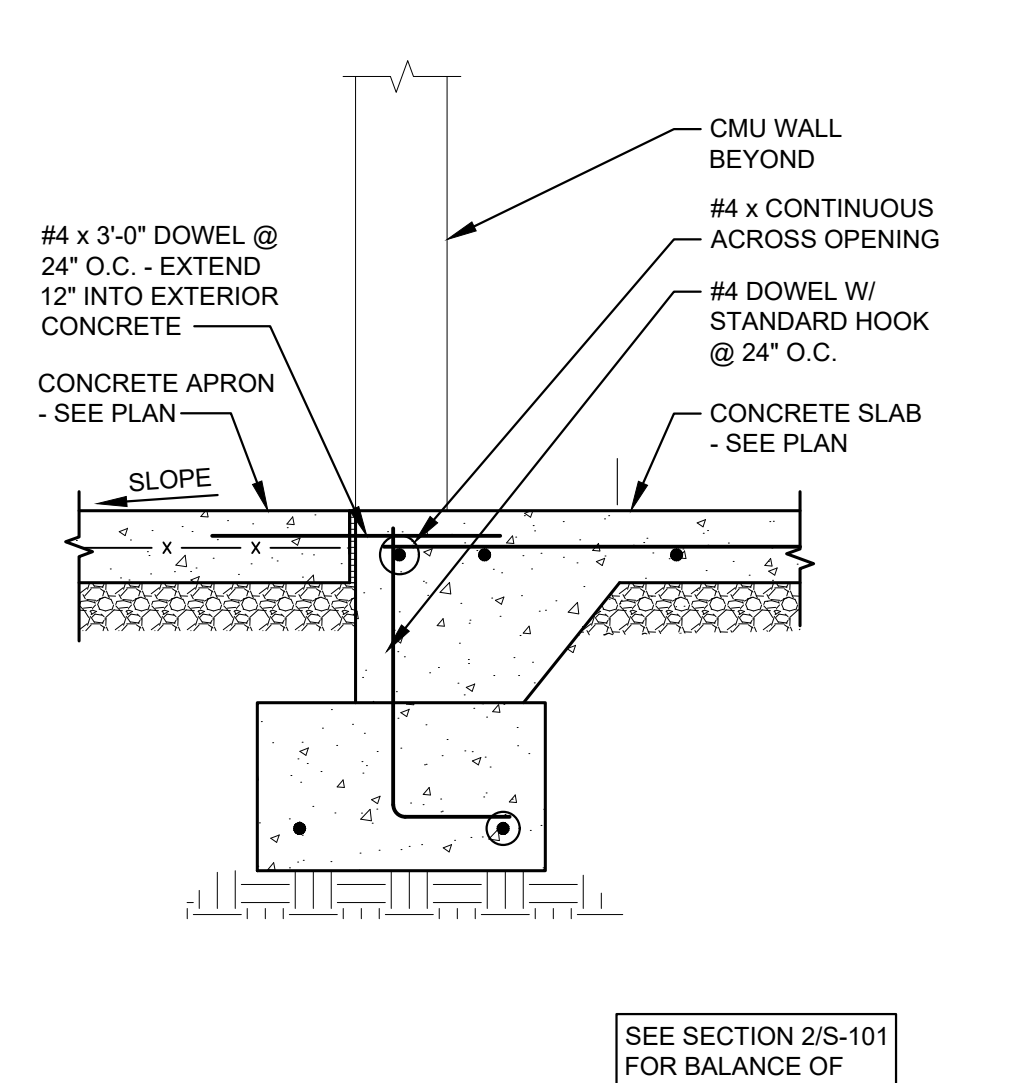
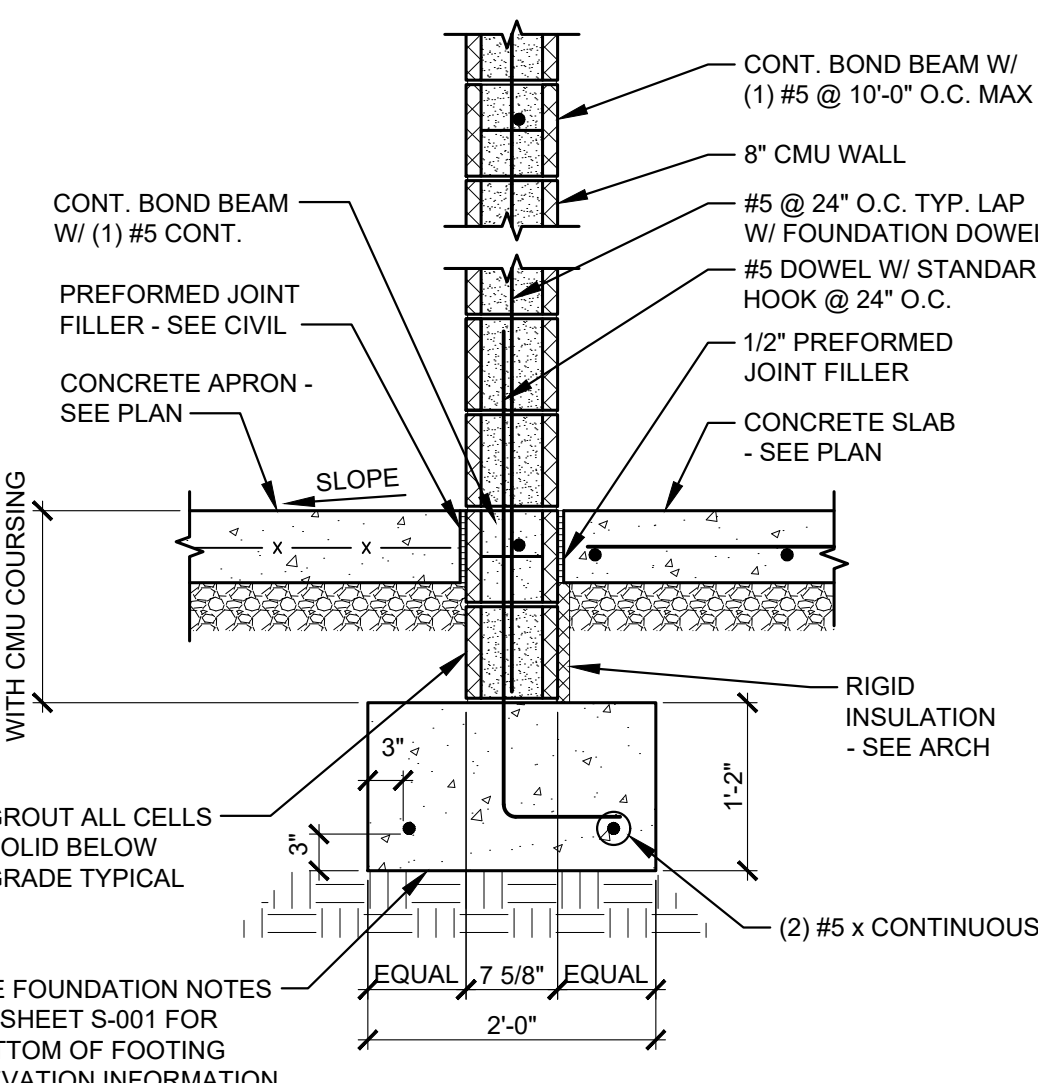


FOUNDATION SCHEDULE		
MARK	FOOTING SIZE	FOOTING REINFORCEMENT
F1	6'-0"x6'-0"x1'-4"	(6) #5's EACH WAY, TOP & BOTTOM
F2	5'-0"x7'-0"x1'-2"	(5) #5's ACROSS ALONG DIMENSION & (7) 35's ALONG LONG DIMENSION

- FOUNDATION NOTES:**
- SEE SHEET S-001 FOR GENERAL NOTES AND S-302 FOR TYPICAL DETAILS
 - ALL ELEVATIONS BASED ON FINISH FLOOR ELEVATION = 100'-0" FOR REFERENCE ONLY. SEE CIVIL DRAWINGS FOR ACTUAL FINISH FLOOR ELEVATIONS.
 - PROVIDE CORNER BARS IN ALL CORNERS AND INTERSECTIONS. LAP SPLICE FOOTING CORNER BAR REINFORCING PER TABLE ON SHEET S-001.
 - FOOTING STEPS ARE SHOWN FOR BIDDING PURPOSES ONLY - SEE DETAIL 2/S-302. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF FOOTING STEPS WITH FINAL GRADE ELEVATIONS.



1 FOUNDATION PLAN
S-101 SCALE: 3/32" = 1'-0"



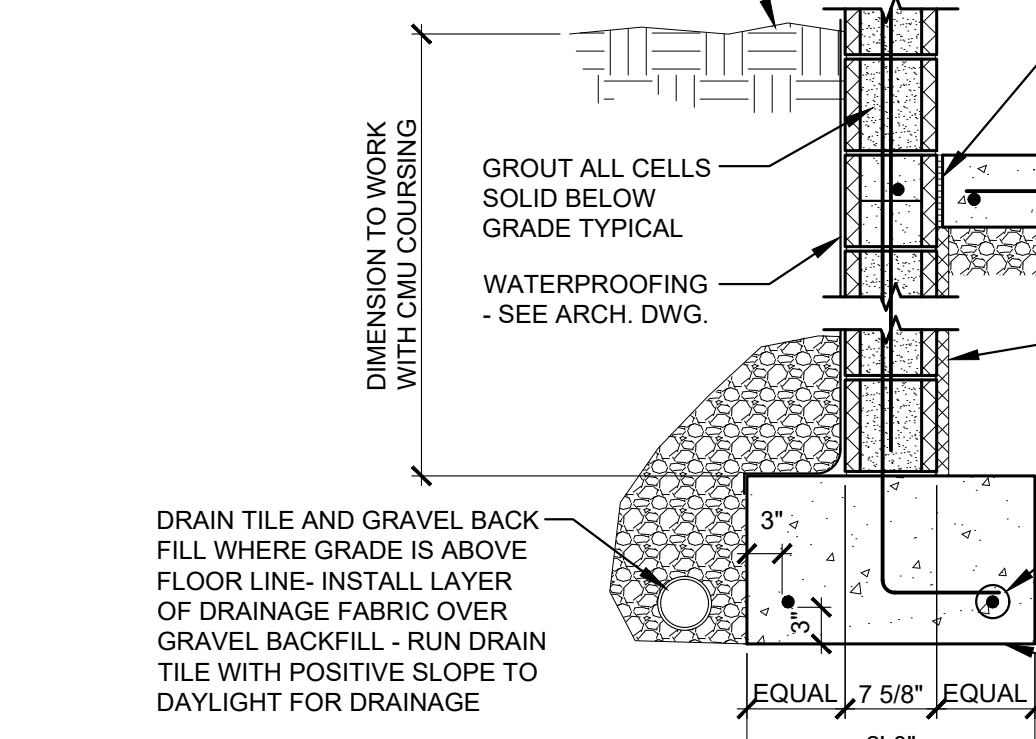
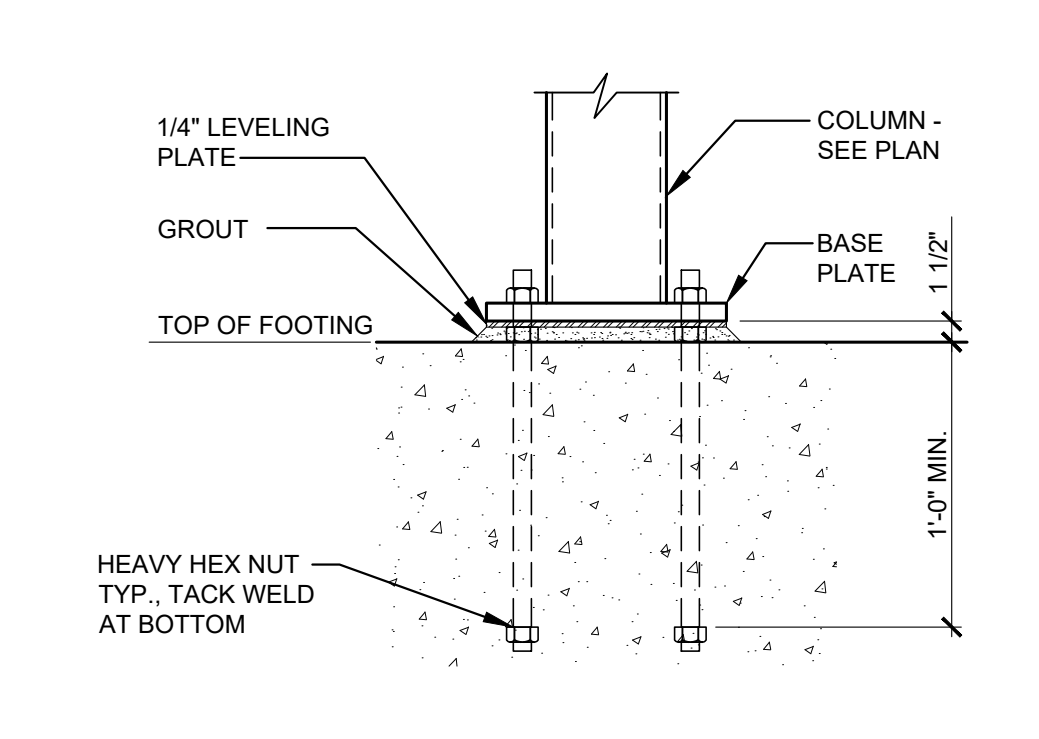
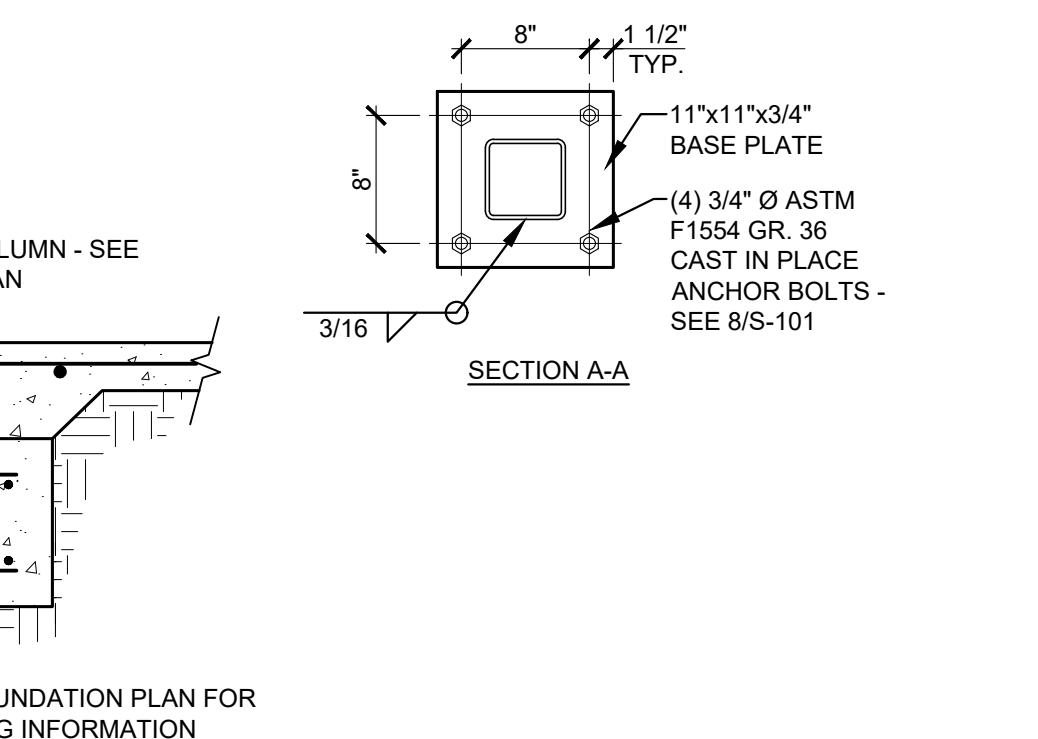
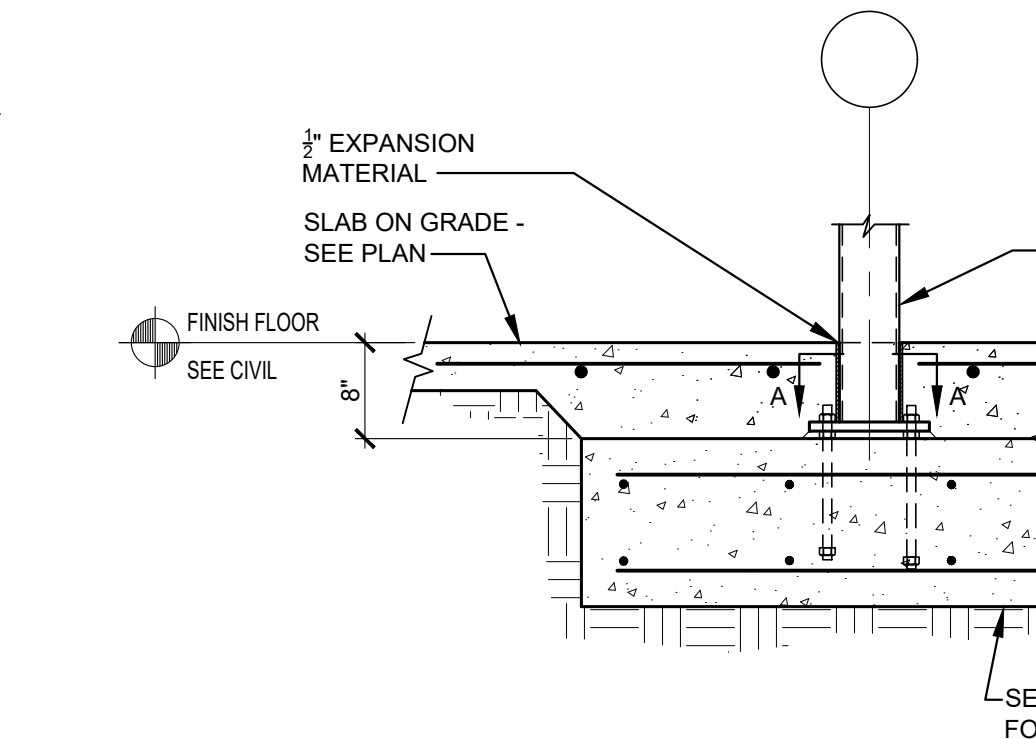
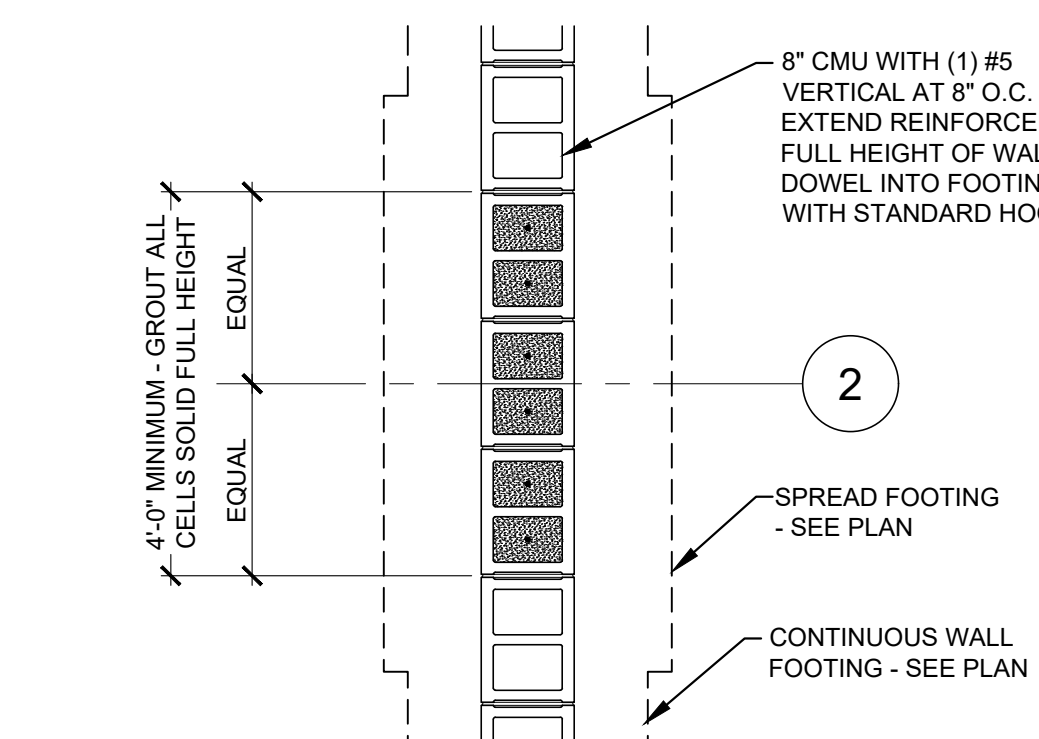
- NOTES:**
- REINFORCING SHOWN IS THE MINIMUM REQUIRED. SEE PLANS, DETAILS, NOTES, AND SPECIFICATIONS FOR ADDITIONAL REINFORCING REQUIRED.
 - LOCATE VERTICAL REINFORCING AT CORNERS, AT EACH SIDE OF OPENINGS, WITHIN 8 INCHES OF EACH SIDE OF WALLS CONTROL JOINTS AND WITHIN 8 INCHES OF THE END OF WALLS.
 - ALL WALLS SHALL BE REINFORCED WITH HORIZONTAL JOINT REINFORCING AT 16" ON CENTER, UNLESS NOTED OTHERWISE.
 - PROVIDE CORNER BARS IN ALL BOND BEAMS AT ALL CORNERS AND INTERSECTIONS. LAP SPLICE BOND BEAM REINFORCING PER TYPICAL DETAIL ON S-302.
 - WALLS SHALL BE GROUTED AT ALL CELLS CONTAINING HORIZONTAL AND VERTICAL REINFORCING. ALL BOND BEAMS, ALL CELLS BELOW FINISHED FLOOR OR GRADE. ALL CELLS TO RECEIVE ANCHOR BOLTS OR EMBEDDED PLATES, AND ALL OTHER LOCATIONS NOTED ON THE DRAWINGS TO BE GROUTED SOLID.
 - PROVIDE 180° STANDARD HOOK AROUND VERTICAL REINFORCEMENT FOR ALL TERMINATED HORIZONTAL REINFORCEMENT. TYP. BOND BEAM LOCATIONS AND REINFORCING SHALL BE AS FOLLOWS, U.N.O.:
A. (1) #5 AT TOP OF WALL
B. (1) #5 AT FLOOR LINE, U.N.O.
C. (1) #5 AT 10'-0" SPACING ABOVE FINISHED FLOOR LINE
D. (1) #5 ALONG TOP OF SLOPED WALL. REINFORCEMENT TO BE LAPPED WITH ADJACENT BOND BEAM REINFORCEMENT.
E. ADDITIONAL BOND BEAMS AS SHOWN IN WALL DETAILS.
 - REFER TO ARCHITECTURAL ELEVATIONS FOR MASONRY CONTROL JOINT LOCATIONS.
 - SEE TYPICAL MASONRY REINFORCEMENT DETAIL ON S-302 FOR ADDITIONAL INFORMATION.

2 SECTION
S-101 SCALE: 3/4" = 1'-0"

3 SECTION
S-101 SCALE: 3/4" = 1'-0"

4 SECTION
S-101 SCALE: 3/4" = 1'-0"

5 SECTION AT WINDOW
S-101 SCALE: 1/2" = 1'-0"

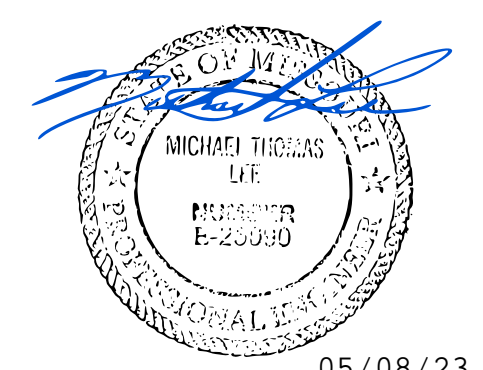


6 PLAN DETAILS
S-101 NOT TO SCALE

7 TYPICAL INTERIOR COLUMN FOOTING
S-101 SCALE: 3/4" = 1'-0"

8 TYPICAL COLUMN BASE DETAIL
S-101 SCALE: 1 1/2" = 1'-0"

9 SECTION
S-101 SCALE: 3/4" = 1'-0"



**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENACE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

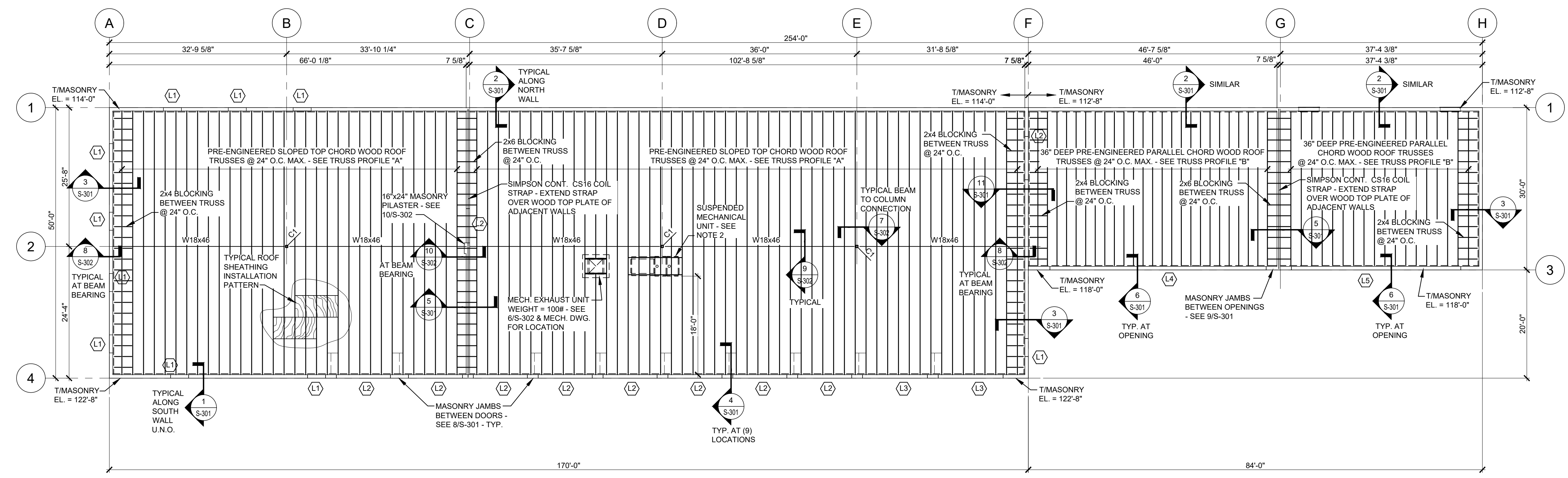
PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: _____ RDM
CHECKED BY: _____ RDM
DESIGNED BY: _____ RDM

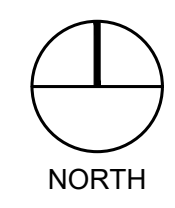
SHEET TITLE:
**ROOF FRAMING
PLAN**

SHEET NUMBER:
S-102
8 OF 33 SHEETS
05/08/2023



ROOF FRAMING PLAN NOTES

- SEE SHEET S-001 FOR GENERAL NOTES AND TYPICAL DETAILS.
- MECHANICAL UNIT SUPPORTED ALONG BOTTOM CHORD OF ROOF TRUSS (SPREAD ACROSS 5 TRUSSES MINIMUM). MECHANICAL UNIT WEIGHT = 1050# - SEE DETAIL 5/S-302 AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- "C1" - HSS5"x5"x3" STEEL COLUMN WITH 11"x11"x3" BASE PLATE AND (3) 3/4"Ø F1554 (GRADE 36) ANCHOR BOLTS, 12" MINIMUM EMBED

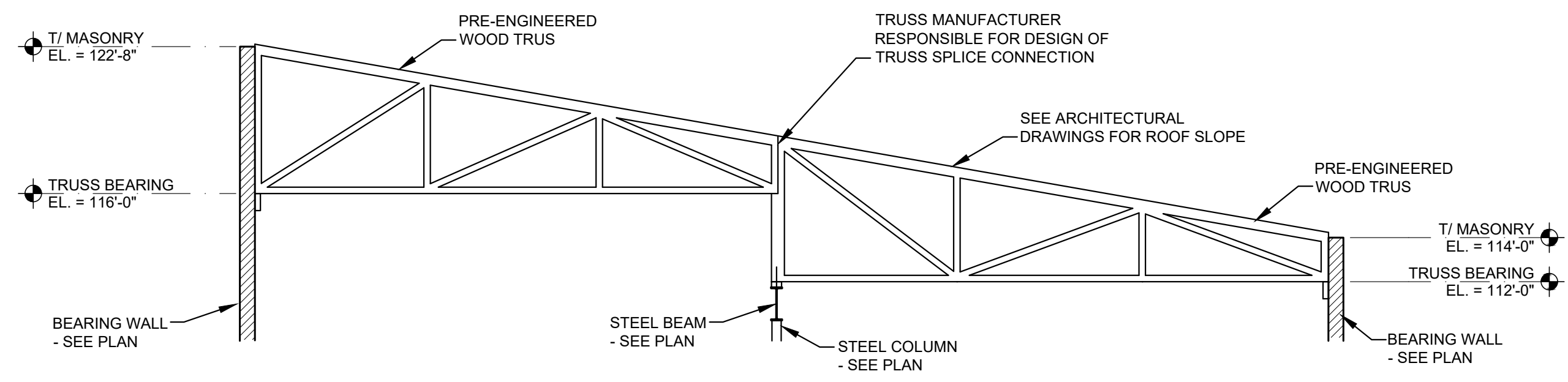
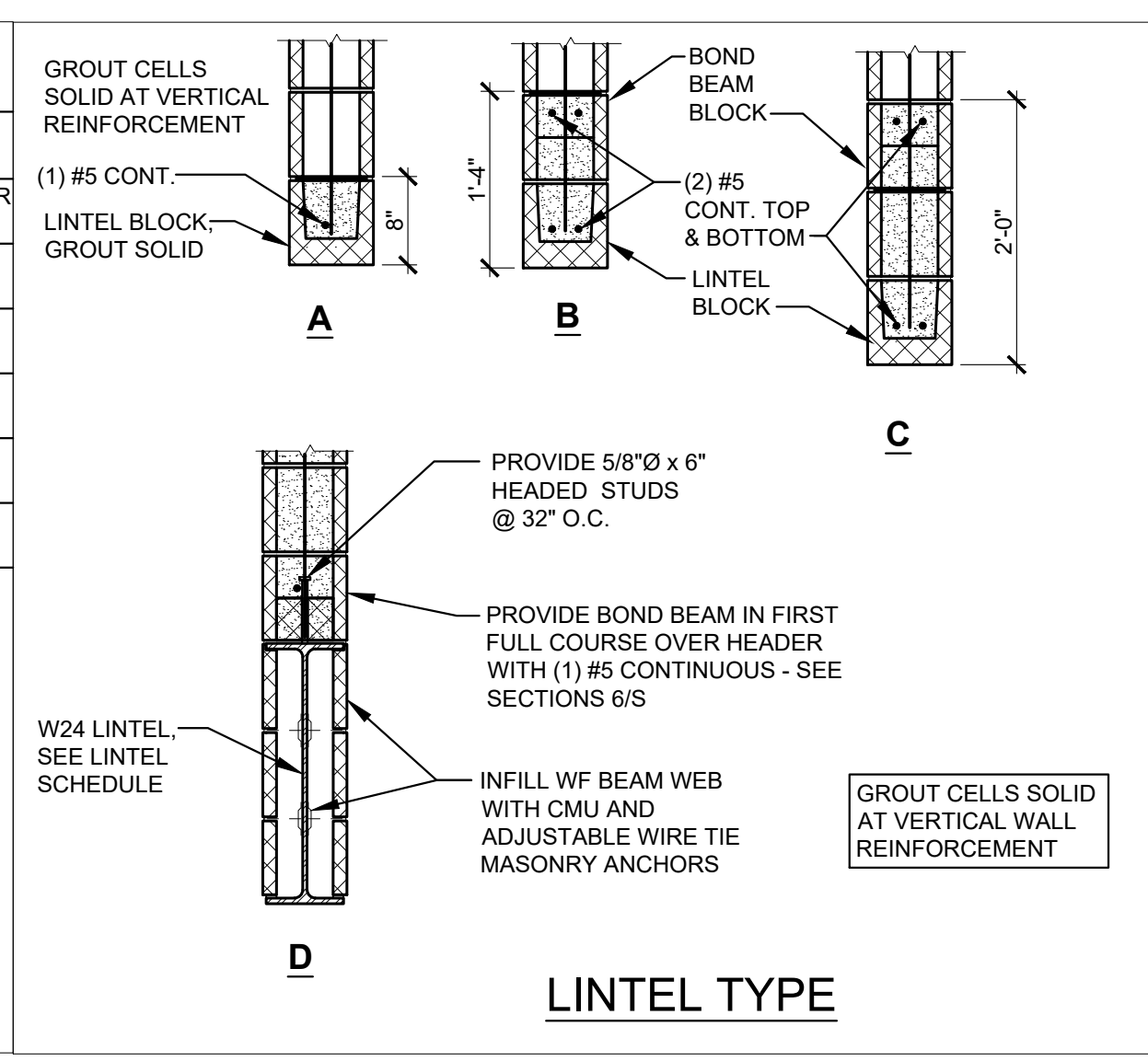


1
S-101 **ROOF FRAMING PLAN**
SCALE: 3/32" = 1'-0"

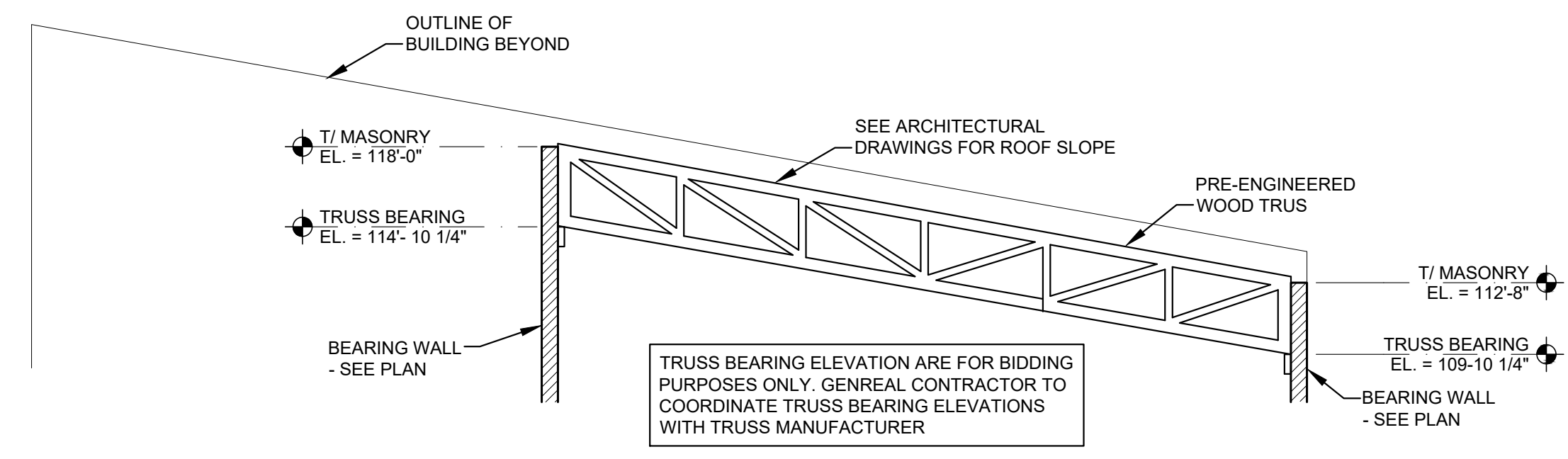
LINTEL SCHEDULE					
MARK	CLEAR SPAN	WALL TYPE	LINTEL TYPE	LINTEL SECTION	REMARKS
L1	4'-4" OR LESS	8" CMU	A	CMU	TYPICAL AT ALL LOUVER OPENINGS, U.N.O.
L2	10'-0"	8" CMU	B	CMU	
L3	12'-0"	8" CMU	C	CMU	
L4	40'-0"	8" CMU	D	W24x76	
L5	32'-0"	8" CMU	D	W24x55	

CMU LINTEL NOTES:

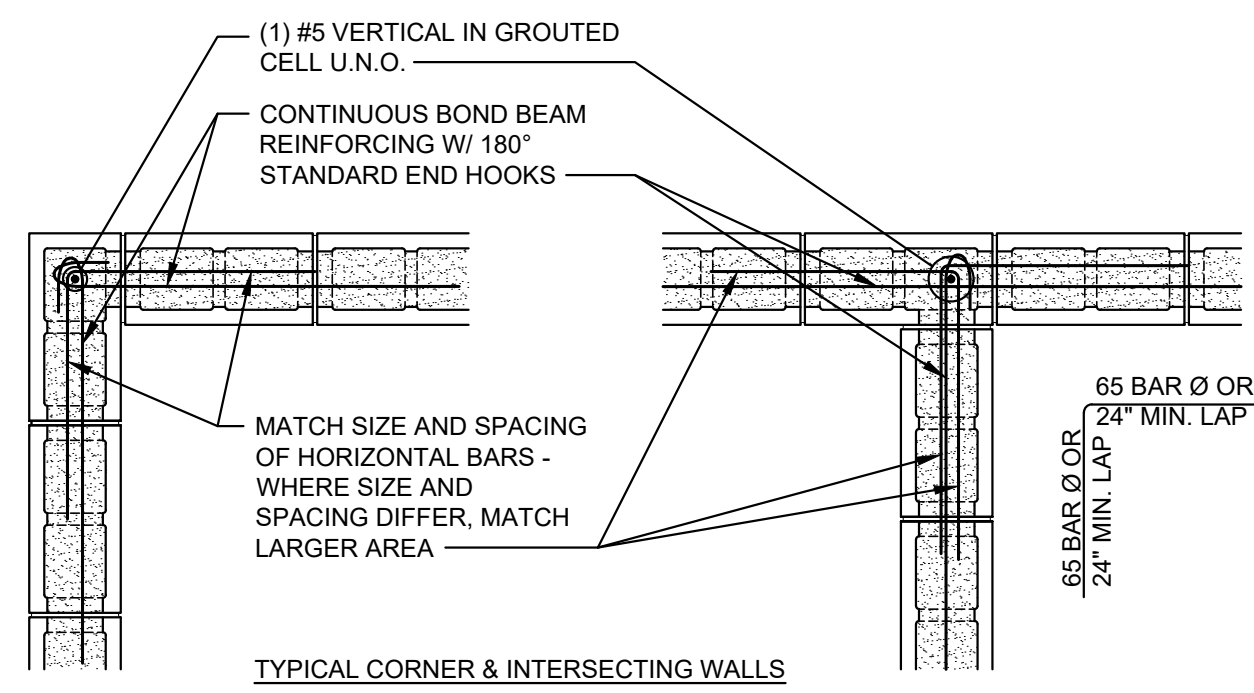
- EXTEND REINFORCING 24" BEYOND EACH SIDE OF OPENING (MINIMUM).
- ALL CELLS SHALL BE FULLY GROUTED.
- SEE DETAILS 7/S-301, 8/S-301 AND 10/S-301 FOR JAMB REINFORCING.
- SEE ROOF FRAMING PLAN FOR LINTEL MARK.
- LINTELS SHALL BE SHORED DURING CONSTRUCTION UNTIL THE MASONRY HAS ATTAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT (24 HOURS MINIMUM).
- LINTEL TYPE "A" FOR ALL DUCT PENETRATIONS THROUGH INTERIOR MASONRY WALLS. SEE MECHANICAL DRAWINGS FOR OPENING LOCATIONS.



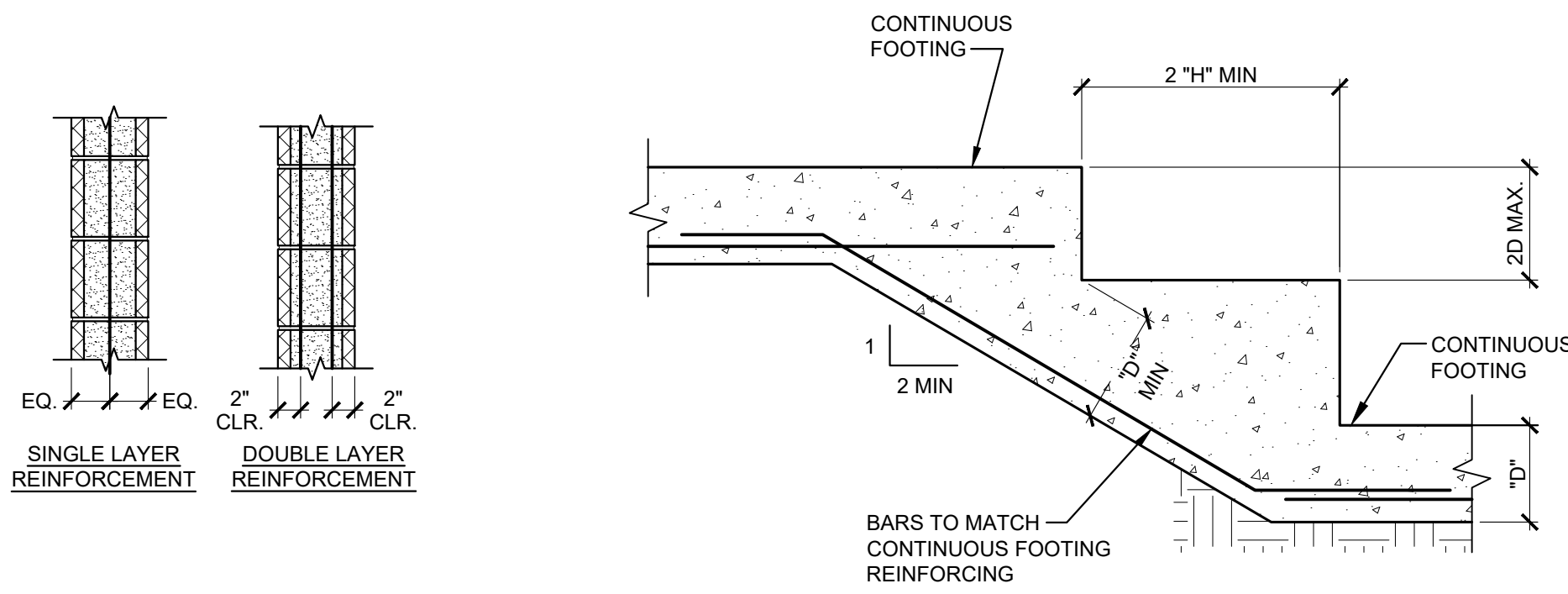
TRUSS PROFILE - A



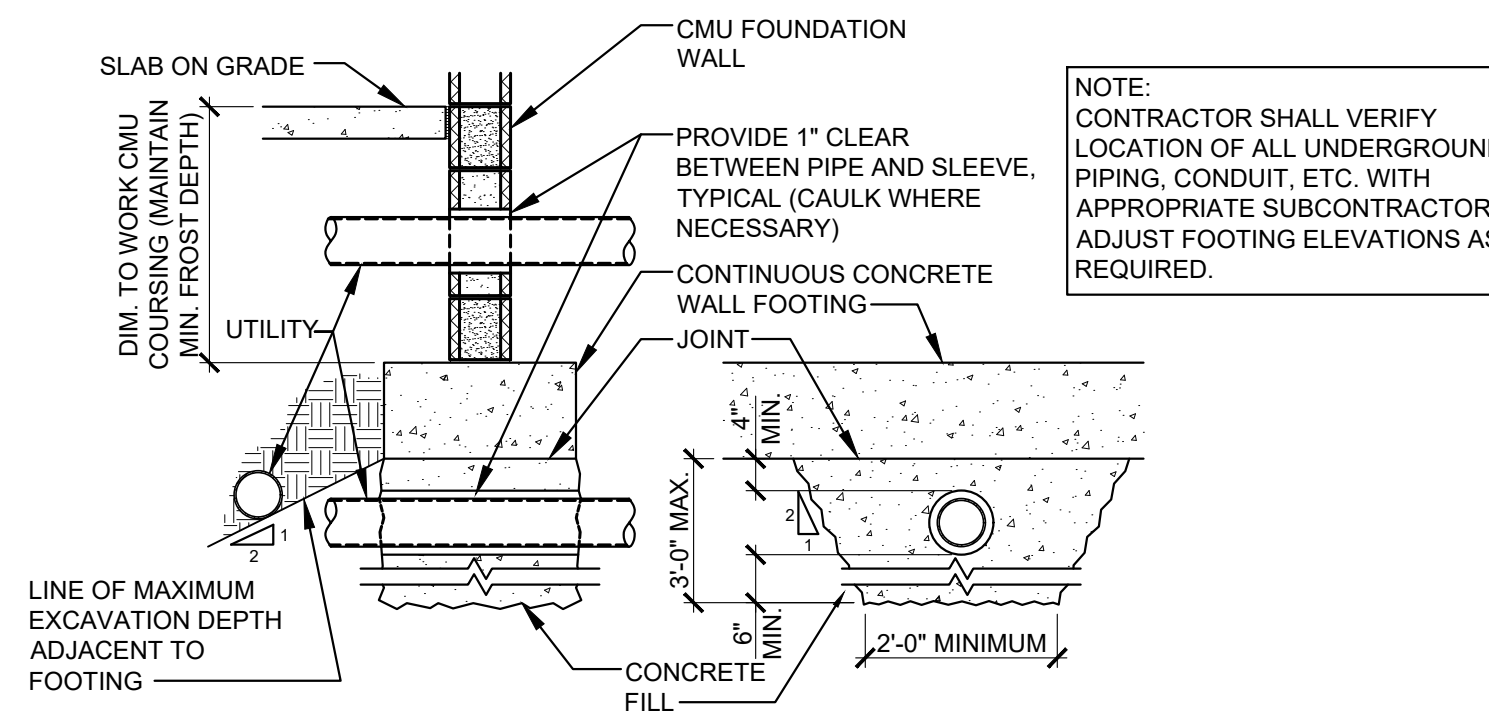
TRUSS PROFILE - B



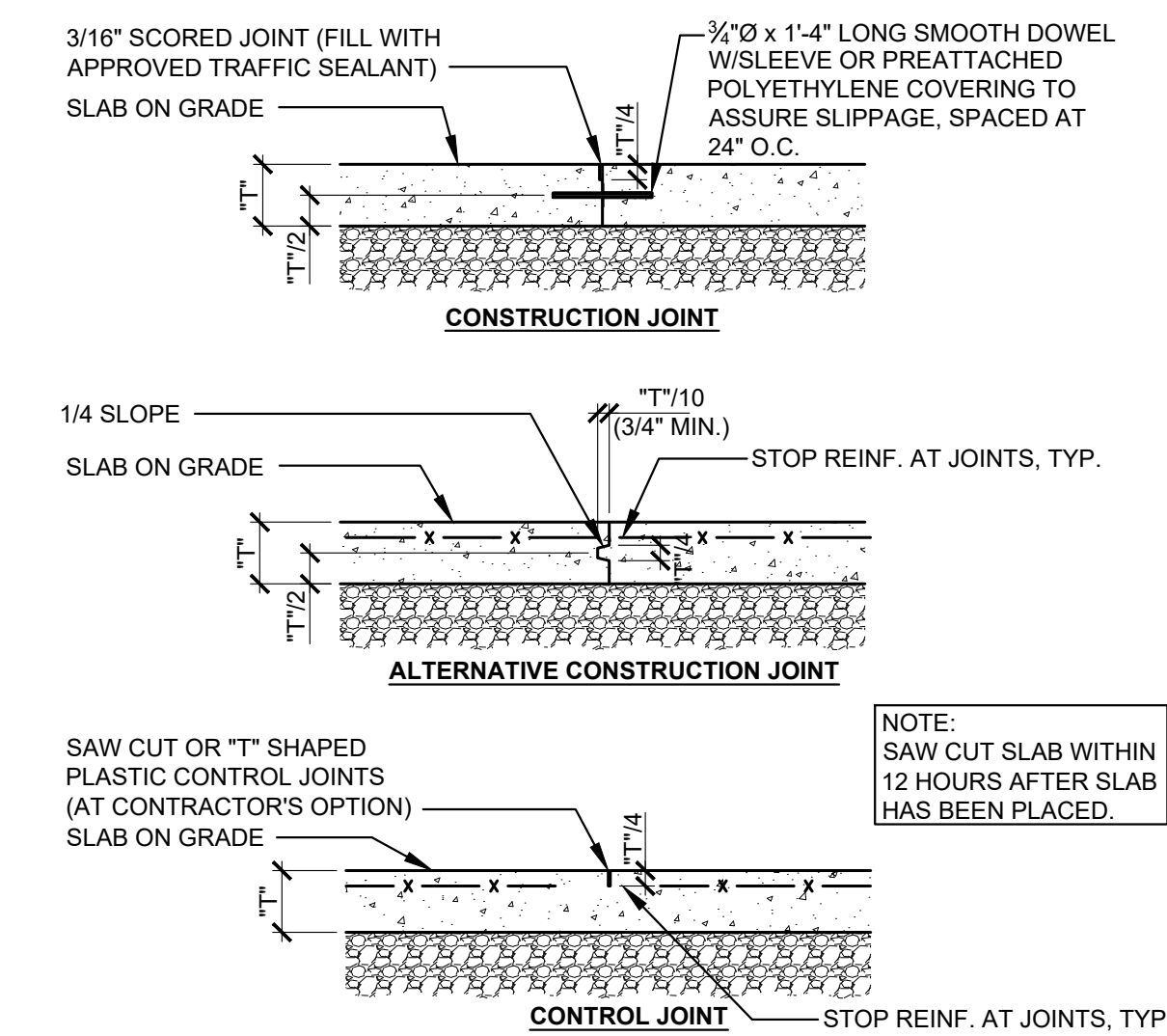
1 TYPICAL MASONRY REINFORCEMENT DETAILS
S-302 SCALE: 3/4" = 1'-0"



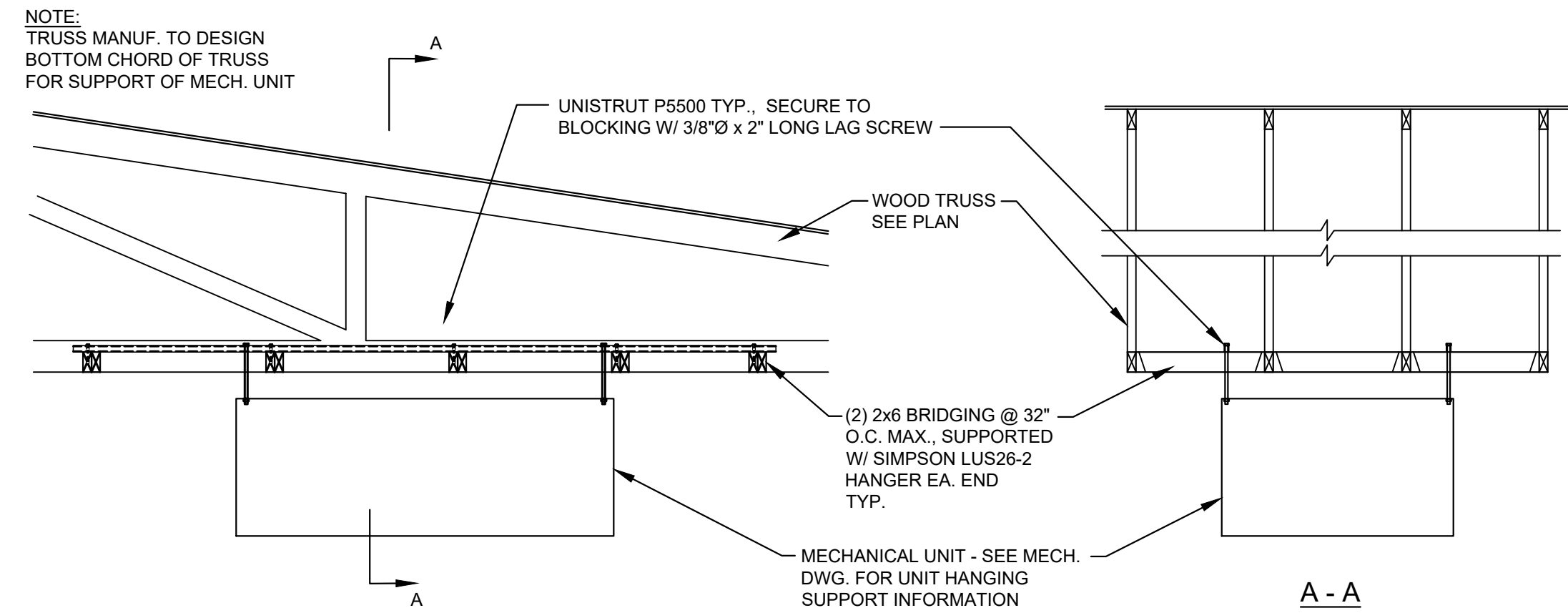
2 TYPICAL STEPPED FOOTING DETAIL
S-302 SCALE: 3/4" = 1'-0"



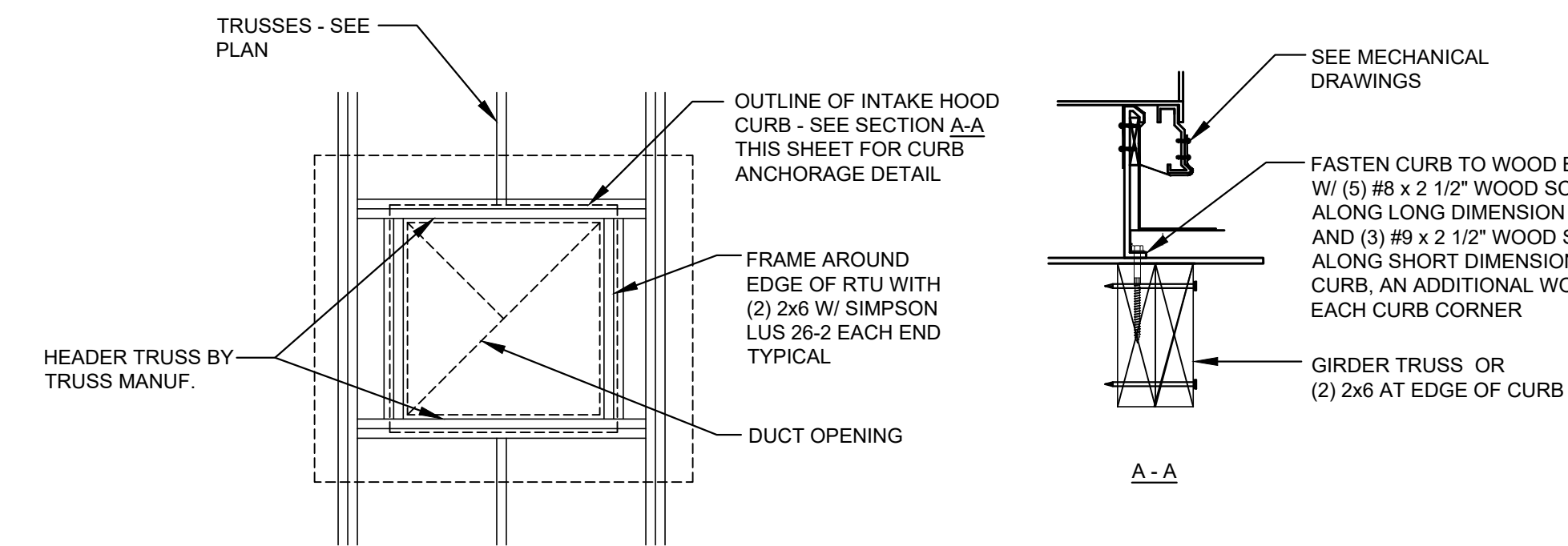
3 TYPICAL PIPE AT FOOTING DETAIL
S-302 SCALE: 1/2" = 1'-0"



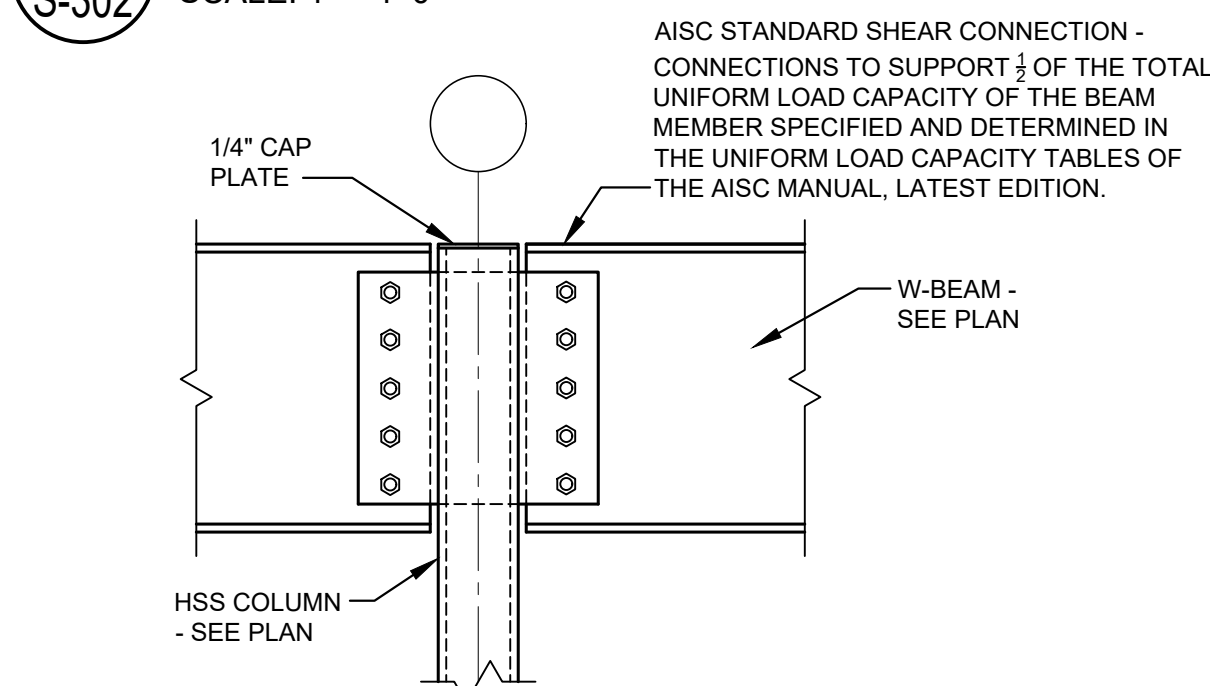
4 SLAB JOINT DETAILS
S-302 SCALE: 1" = 1'-0"



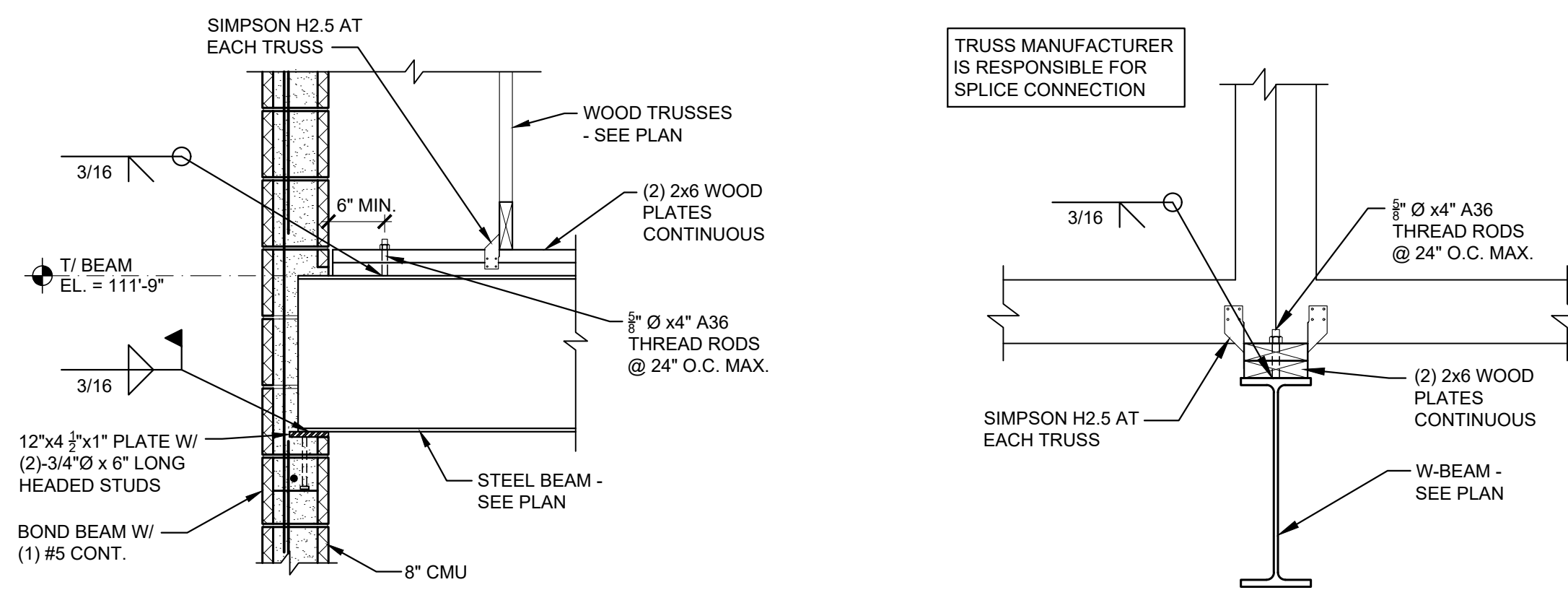
5 MECHANICAL UNIT SUPPORT
S-302 SCALE: 1/2" = 1'-0"



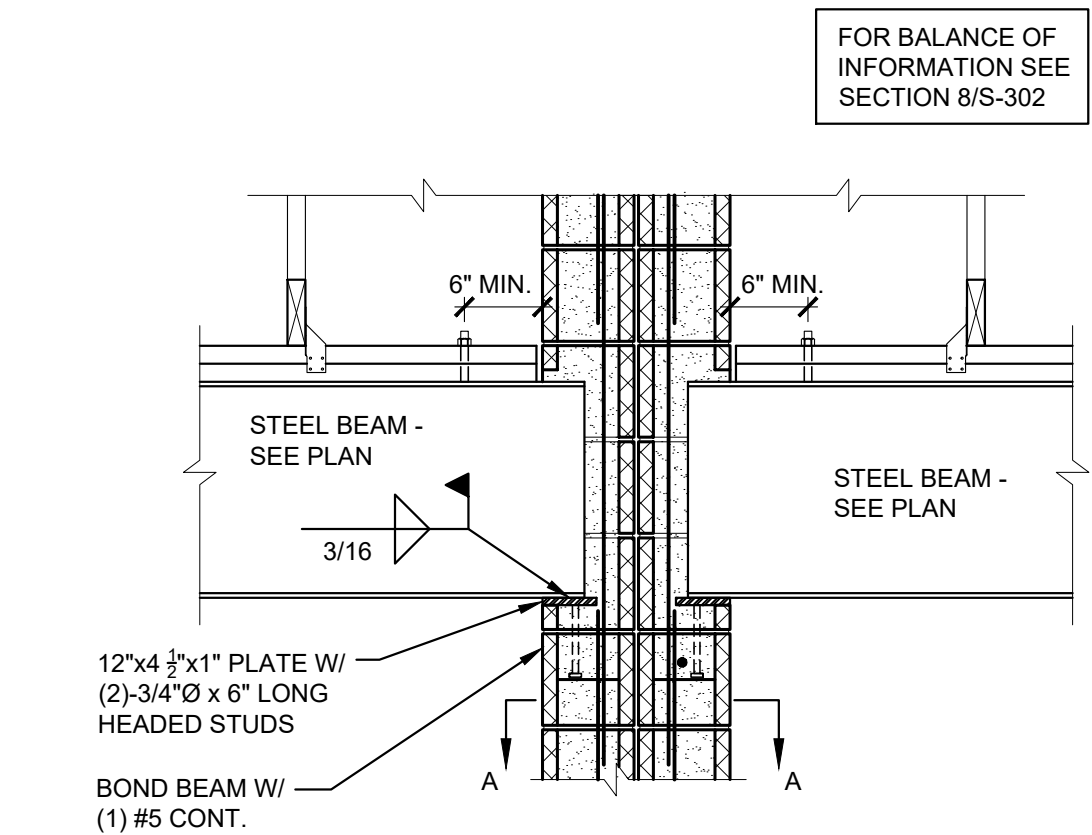
6 TYPICAL DECK OPENING SUPPORT PLAN AND DETAIL
S-302 SCALE: 1/2" = 1'-0"



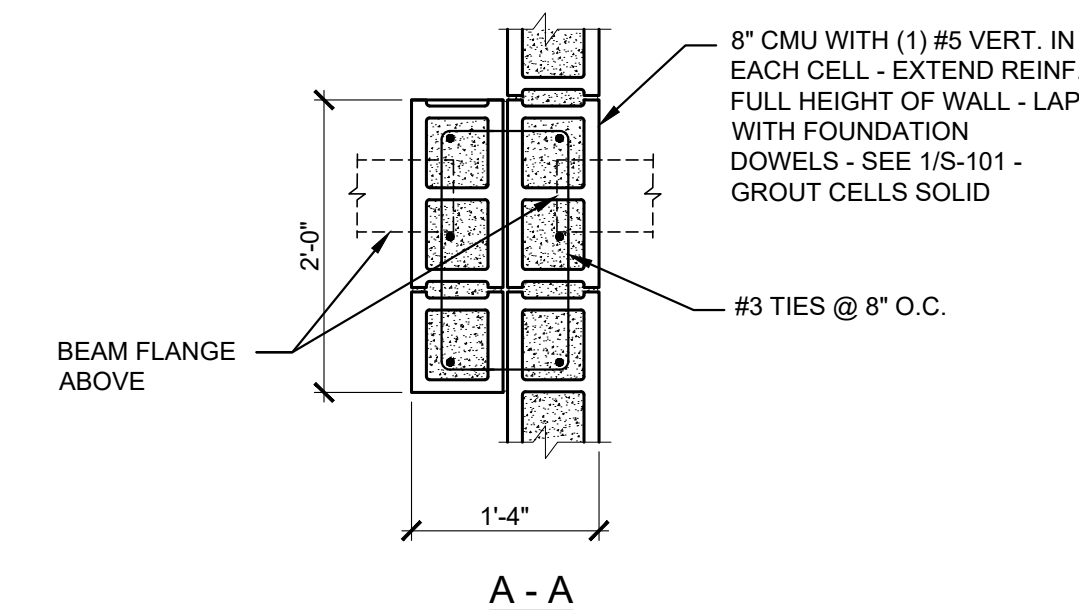
7 DETAIL
S-302 SCALE: 1" = 1'-0"



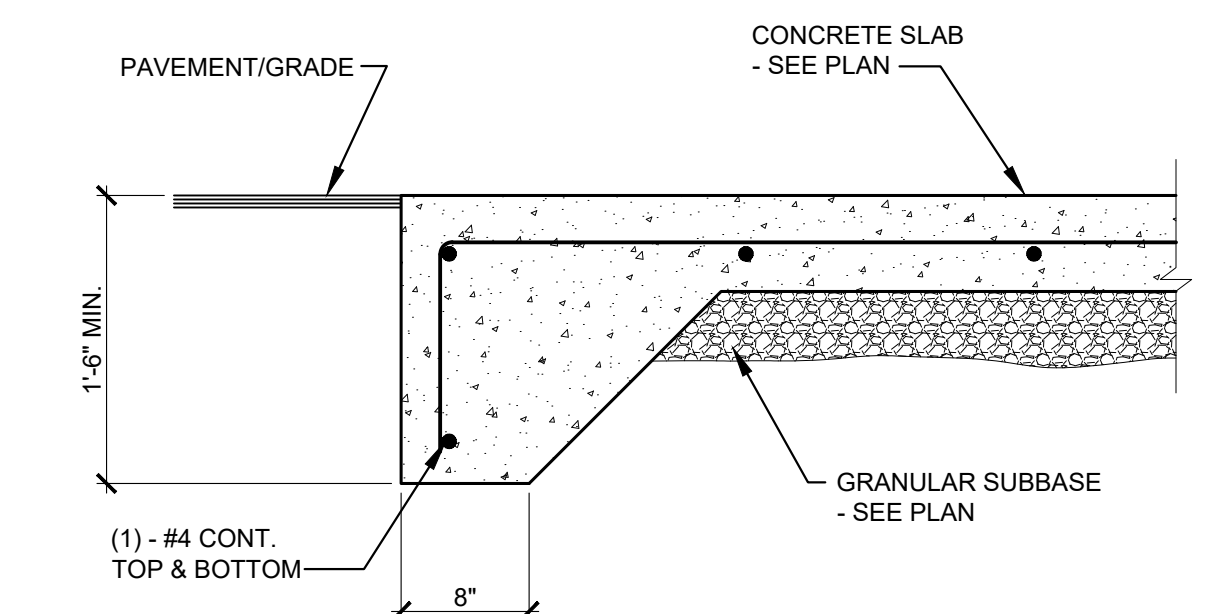
8 SECTION
S-302 SCALE: 3/4" = 1'-0"



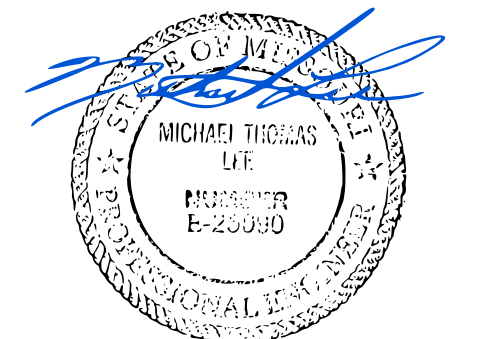
9 DETAIL
S-302 SCALE: 1" = 1'-0"



10 SECTION
S-302 SCALE: 3/4" = 1'-0"



11 DETAIL
S-302 SCALE: 1" = 1'-0"





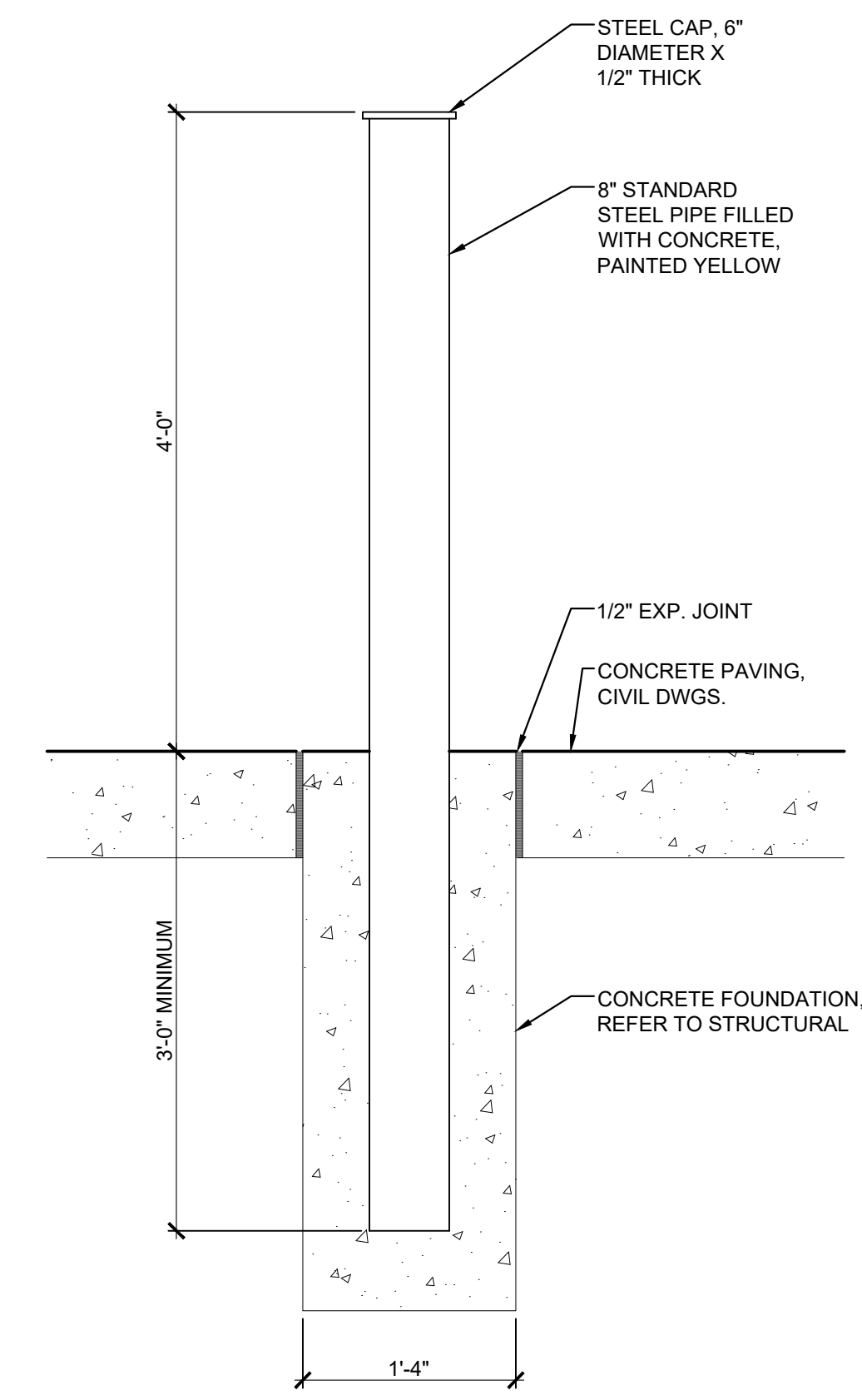
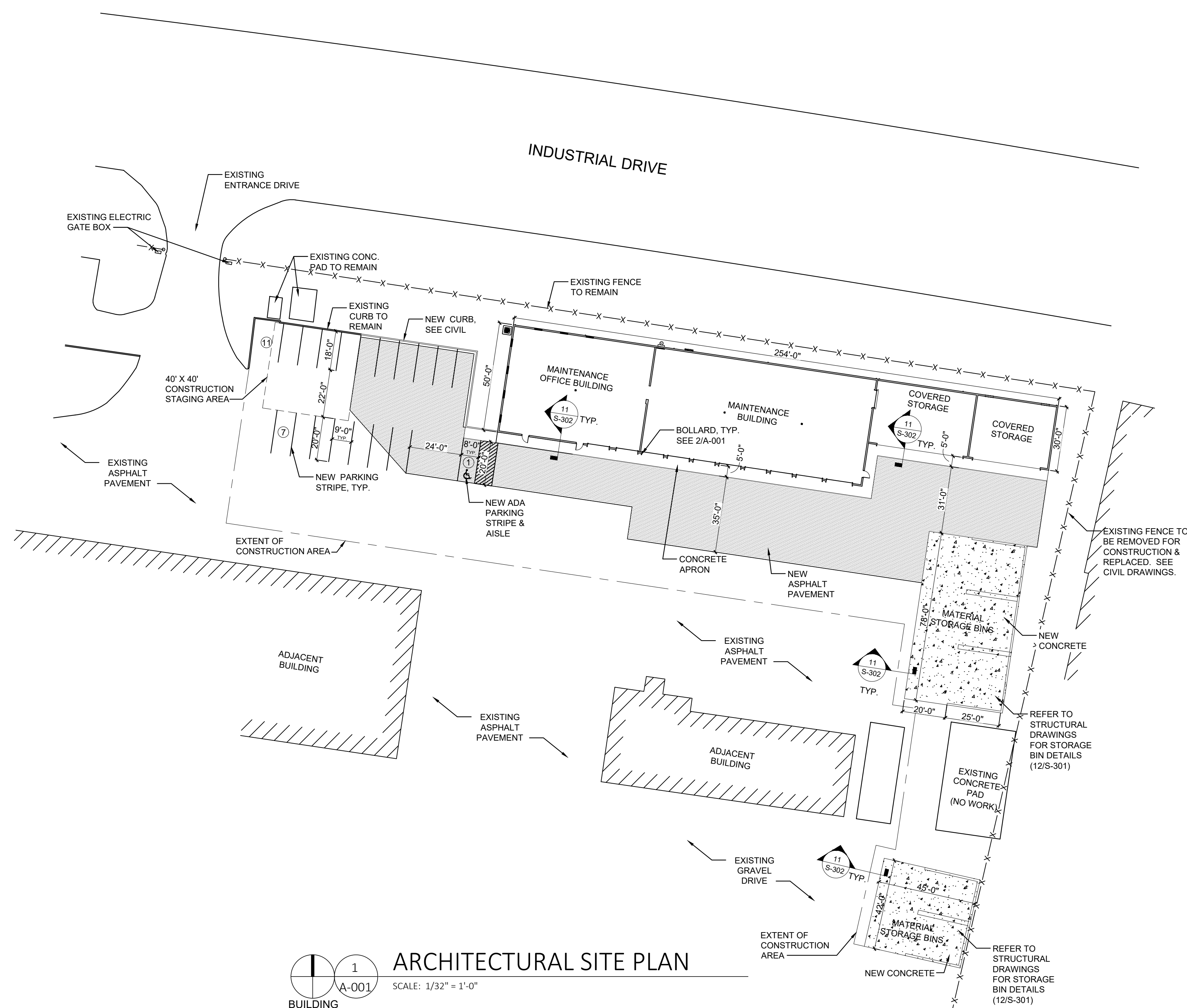
MICHAEL S. SUNDERMEYER
License Number: 2014026855
Expiration Date: 12/31/24
CASCO Diversified Corporation
MO Certificate of Authority
#000329 ARCHITECTURAL and #006913 ENGINEERING

CASCO
12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

ARCHITECTURAL SITE PLAN GENERAL NOTES:

- THIS ARCHITECTURAL SITE PLAN IS PROVIDED FOR COORDINATION PURPOSES ONLY. ALL SITE DESIGN SHALL BE CONFIRMED WITH AND COMPLETED PER THE APPROVED CIVIL SITE DRAWINGS AS PREPARED BY:

CENTRAL MISSOURI PROFESSIONAL SERVICES, INC.
2500 E. MCCARTY
JEFFERSON CITY, MO 65101
(573) 634-3455
CMPS-INC.COM
- THE G.C. SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES, COMPLIANCE WITH APPLICABLE JURISDICTIONAL JOB SITE REQUIREMENTS, AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- REFER TO THE CIVIL DRAWINGS FOR ALL SITE DIMENSIONS, GRADING AND EROSION CONTROL, UTILITY INFORMATION, AND ALL OTHER REQUIRED SITE RELATED IMPROVEMENTS.
- PRIOR TO PROCEEDING WITH ROUGH GRADING, THE G.C. SHALL COORDINATE CIVIL GRADES WITH ELEVATIONS SPECIFIED AS PART OF THE ARCHITECTURAL SCOPE OF WORK (INCLUDING, BUT NOT LIMITED TO COMPARISON OF TOP OF FINISH GRADES AT PERIMETER OF BUILDING, FLAT WORK AND ADJOINING SITE AREAS). REQUEST FOR INFORMATION SHALL BE SUBMITTED IN WRITING TO THE CIVIL ENGINEER AND ARCHITECT PRIOR TO START OF WORK.
- THE G.C. SHALL ROUGH GRADE AND COMPACT BUILDING PAD PER THE SOILS REPORT AS PART OF THE SITE SCOPE OF WORK.
- ALL GRADING AND CONCRETE PAVING SHALL SLOPE AWAY FROM THE BUILDING. CONTACT THE ARCHITECT AND CIVIL ENGINEER IN WRITING REGARDING ANY AREAS THAT CANNOT SLOPE AWAY DUE TO EXISTING CONDITIONS.
- THE G.C. SHALL VERIFY ALL SITE DIMENSIONS TO APPLICABLE BOUNDARIES AND SETBACK INFORMATION WITH SURVEY AND NOTIFY ARCHITECT AND CIVIL ENGINEER IN WRITING OF ANY QUESTIONS IN THIS REGARD.
- THE G.C. SHALL COORDINATE ALL SITE UTILITY RUNS WITH THE APPROPRIATE UTILITY COMPANIES AND PER THE PLANS.
- THE G.C. SHALL PROTECT EXISTING CONDITIONS TO REMAIN FROM DAMAGE. DAMAGED ITEMS SHALL BE REPLACED, REPAIRED, OR RESTORED BY THE G.C. IF, IN THE OPINION OF THE G.C., EXISTING CONDITIONS TO REMAIN WILL BE DAMAGED, IDENTIFY THESE TO THE OWNER PRIOR TO PROCEEDING WITH REMOVAL.
- BOLLARDS SHALL BE PROVIDED AS VEHICLE PROTECTION TO BUILDING.
- REFERENCE DETAIL 2/A-001 FOR BOLLARD DETAIL.



1
A-001
ARCHITECTURAL SITE PLAN
SCALE: 1/32" = 1'-0"
BUILDING NORTH

2
A-001
TYPICAL BOLLARD DETAIL
SCALE: 1" = 1'-0"

**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 05/08/2023

CAD DWG FILE: _____
DRAWN BY: MAM
CHECKED BY: RAR
DESIGNED BY: _____

SHEET TITLE:

**ARCHITECTURAL
SITE PLAN**

SHEET NUMBER:

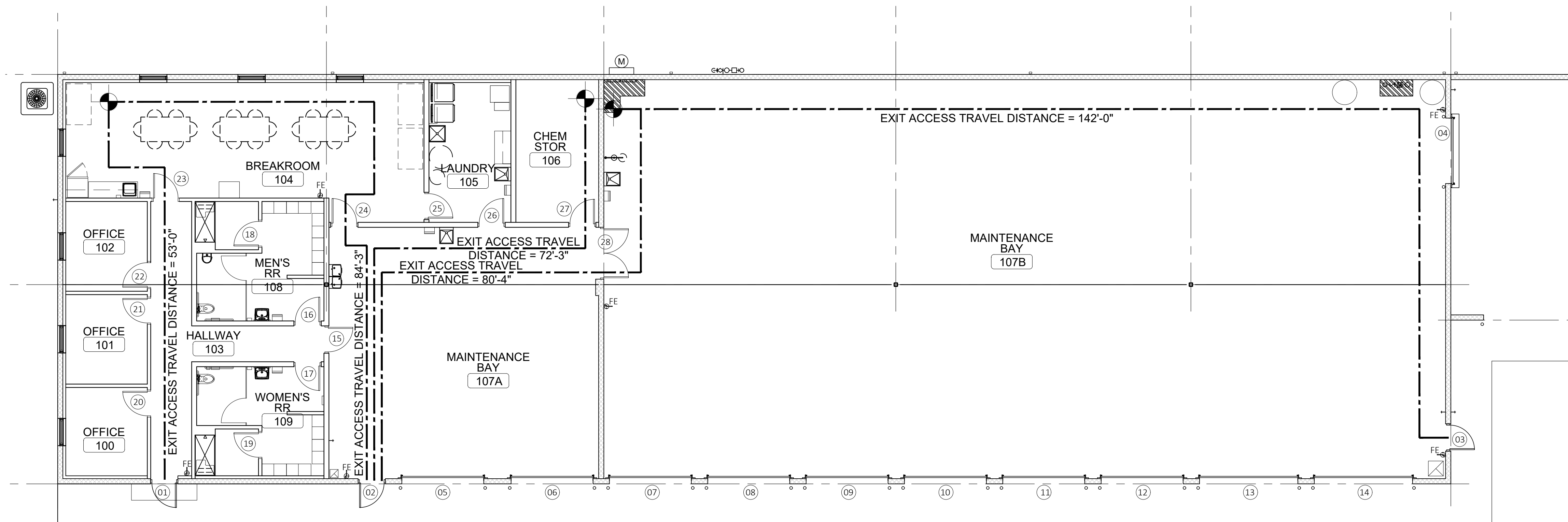
A-001



MICHAEL S. SUNDERMEYER
License Number: 2014028855
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CASCO Diversified Corporation
MO Certificate of Authority
#000329 ARCHITECTURAL and #000613 ENGINEERING

CASCO
12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

GENERAL NOTES:	ABBREVIATIONS	SYMBOL LEGEND	CODE DATA
<p>1. THE GENERAL CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITY (WHICH SHALL INCLUDE STORAGE OF MATERIALS AND EQUIPMENT) WITHIN LIMITS OF CONSTRUCTION OR WITHIN THE DESIGNATED STAGING AREAS INDICATED IN DRAWINGS (SEE SITE PLAN ON A-001).</p> <p>2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY SURFACES DAMAGED BY CONSTRUCTION ACTIVITY THAT IS UNDER CONTROL OF THE GENERAL CONTRACTOR (THIS INCLUDES ALL SUBCONTRACTOR WORK). REPAIRS SHALL MATCH EXISTING MATERIALS AND BE APPROVED BY THE OWNER.</p> <p>3. THE GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION.</p> <p>4. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL MOISTURE AND DEBRIS HAVE BEEN ELIMINATED PRIOR TO INSTALLING NEW MATERIALS AND PREPARE SURFACE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. REFERENCE SPECIFICATIONS FOR FURTHER DIRECTION.</p> <p>5. THE CONTRACTOR WORK SHALL INCLUDE FURNISHING ALL MATERIAL, EQUIPMENT, TOOLS, LABOR & SERVICES NECESSARY FOR COMPLETION OF THE PROJECT.</p> <p>6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF WORKMANSHIP & FOR COMPLIANCE WITH THE DESIGN. THE GENERAL CONTRACTOR SHALL CORRECT ALL ERRORS & DEVIATIONS AS REQUESTED BY THE OWNER.</p> <p>7. THE GENERAL CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE AFFECTED WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO PROCEEDING WITH AFFECTED WORK.</p> <p>8. SHOULD ANY OF THE DETAILED INSTRUCTIONS ON THE DRAWINGS CONFLICT WITH THE NOTES OR SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISIONS SHALL APPLY.</p> <p>9. JOB SITE CLEANING: DURING CONSTRUCTION, THE JOB SITE SHALL BE CLEANED ON A DAILY BASIS, INCLUDING REMOVAL OF TRASH, RUBBLE, DEBRIS & ORGANIZATION OF MATERIALS & EQUIPMENT UPON COMPLETION OF THE WORK. THE JOB SITE SHALL BE THOROUGHLY CLEANED, INCLUDING AREAS OF THE BUILDING MADE DIRTY BY CONSTRUCTION WORK. THE GENERAL CONTRACTOR SHALL REMOVE TRASH, RUBBLE, TOOLS, EQUIPMENT & EXCESS MATERIALS FROM THE PREMISES. THE BUILDING IS TO BE LEFT IN A CLEAN CONDITION.</p> <p>10. THE GENERAL CONTRACTOR IS TO PROVIDE SUPERVISION OF ALL TRADES / SUBS AT ALL TIMES, AS WELL AS ON-SITE SUPERVISION AND COORDINATION WITH OWNER'S VENDORS.</p> <p>11. THE GENERAL CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL DUMPSTERS REQUIRED FOR EXECUTION OF THE PROJECT SCOPE. ALL REFUSE SHALL BE PROPERLY DISPOSED OF IN STATE APPROVED LOCATION(S).</p> <p>12. HOURS OF OPERATION SHALL NOT CONFLICT WITH LOCAL OPERATIONS OF ORDINANCES.</p> <p>13. SANITARY SEWER CONNECTION INSPECTION IS REQUIRED WITH THE CITY OF JEFFERSON CITY. COORDINATE WITH MATTHEW KREYLING, CBO CITY OF JEFFERSON 320 E MCCARTY STREET JEFFERSON CITY, MO 65101 573-634-6410 mkreyling@jeffersoncitymo.gov</p>	<p>AFF ABOVE FINISHED FLOOR AC ACOUSTICAL A/C AIR CONDITIONING ALT ALTERNATE ALUM ALUMINUM AB ANCHOR BOLT ARCH ARCHITECT(URAL) BRG BEARING BM BENCH MARK BLK BLOCK BLKG BLOCKING BD BOARD B.O. BOTTOM OF BOD BASIS OF DESIGN BRK BRICK BLDG BUILDING CAB CABINET CLG CEILING CL CENTER LINE C/O CENTER OF CC CENT TO CENTER CLR CLEAR COL COLUMN CONC CONCRETE CMU CONCRETE MASONRY UNIT CONST CONSTRUCTION CONTR CONTRACTOR CONT CONTINUOUS CNTR COUNTER CFL COUNTER FLASHING CSK COUNTERSUNK CRS COURSE(S) CF CUBIC FOOT CY CUBIC YARD DL DEAD LOAD DEMO DEMOLISH, DEMOLITION DTL DETAIL DIAG DIAGONAL DIAM DIAMETER DIM DIMENSION DR DOOR DS DOWNSPOUT D DRAIN DWG DRAWING DF DRINKING FOUNTAIN E EAST EIFS EXTERIOR INSULATION AND FINISH SYSTEM ELEC ELECTRIC(AL) EWC ELECTRIC WATER COOLER ELEV ELEVATION EMER EMERGENCY EQ EQUAL EXIST EXISTING EXP EXPOSED EXT EXTERIOR FOF FACE OF FINISH FO FACE OF</p> <p>FOM FACE OF MASONRY FOS FACE OF STUDS FRP FIBERGLASS REINFORCED PLASTIC FIN FINISH(ED) FFE FINISHED FLOOR ELEV. FFL FINISHED FLOOR LINE FE FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET FT FIRE TREATED FLG FLASHING FLR FLOOR FD FLOOR DRAIN FTG FOOTING FDN FOUNDATION FRT FIRE RETARDENT TREATED FUR FURRED(ING) GA GAGE, GAUGE GALV GALVANIZED GC GENERAL CONTRACTOR GL GLASS, GAZING GYP GYPSUM GWB GYPSUM WALL BOARD HTG HEATING HVAC HEATING/VENTILATION/AIR CONDITIONING HT HEIGHT HC HOLLOW CORE HM HOLLOW METAL HK HOOK(S) HOR HORIZONTAL HIB HOSE BIBB INSUL INSULATE(D), (ION) INT INTERIOR JST JOIST JT JOINT LH LEFT HAND LF LINEAL FOOT L LINTEL LL LIVE LOAD MACH MACHINE MH MAN HOLE MFR MANUFACTURER MAS MASONRY MO MASONRY OPENING MAX MAXIMUM MECH MECHANIC(AL) MED MEDIUM MTL METAL M METER(S) MWK MILLWORK MIN MINIMUM MISC MISCELLANEOUS MT MOUNT(ED), (ING) NOM NOMINAL N NORTH NIC NOT IN CONTRACTO NTS NOT TO SCALE</p> <p>OC ON CENTER(S) OPNG OPENING OPH OPPOSITE HAND OD OUTSIDE DIAMETER OO OUT TO OUT OA OVERALL OH OVERHEAD PTD PAINT(ED) PKG PARKING PLAM PLASTIC LAMINATE PL PLATE PWD PLYWOOD PVC POLYVINYL CHLORIDE PSF POUNDS PER SQUARE FT. PSI POUNDS PER SQUARE IN. PT PRESSURE TREATED PL PROPERTY LINE REM REMOVE RET RETURN RH RIGHT HAND RD ROOF DRAIN RFG ROOFING RM ROOM RO ROUGH OPENING SLNT SEALANT SECT SECTION SHTG SHEATHING SHT SHEET SIM SIMILAR SC SOLID CORE S SOUTH SF SQUARE FOOT SI SQUARE INCH SY SQUARE YARD STD STANDARD STO STORAGE SUSP SUSPENDED SYM SYMMETRY, (ICAL) TEL TELEPHONE TV TELEVISION THK THICK(NESS) T&G TONGUE & GROOVE TOM TOP OF MASONRY TPO THERMOPLASTIC POLYLEFIN TOS TOP OF STEEL TOW TOP OF WALL TYP TYPICAL UNO UNLESS NOTED OTHERWISE VERT VERTICAL VT VINYL TULE WSCT WASINSCOT WC WATER CLOSET WWF WELDED WIRE FABRIC W WEST WIN WINDOW W/O WITHOUT WD WOOD</p>	<p># DOOR TAG # MATERIAL TAG W88 WALL TAG # WINDOW TAG 11 EQUIPMENT TAG # A8888 ELEVATION TAG ROOM NAME [2-D-101] WALL FINISH FLOOR FINISH</p> <p>RESTROOM ACCESSORY TAG SPOT ELEVATION MARKER KEYED NOTE TAG ROOM TAG REVISION TAG SECTION TAG EMERGENCY SHOWER</p> <p>NEW DOOR NEW WALL REQ'D CLEARANCE FOR EQUIPMENT</p> <p>EXIT SIGN FIRE EXTINGUISHER EMERGENCY SHOWER</p>	<p>THESE PLANS WERE PREPARED AND SHALL COMPLY WITH THE FOLLOWING CODES: 2021 INTERNATIONAL BUILDING CODE 2012 INTERNATIONAL ENERGY CONSERVATION CODE 2021 INTERNATIONAL PLUMBING CODE 2021 INTERNATIONAL MECHANICAL CODE 2020 NATIONAL ELECTRICAL CODE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN</p> <p>OCCUPANCY CLASSIFICATION (302): MIXED USE OCCUPANCY (508.4) NO SEPARATION REQUIRED: S-1: (MODERATE HAZARD STORAGE) SERVICE AREA & STORAGE B: (BUSINESS) OFFICES AND BREAK AREA</p> <p>ALLOWABLE (SECTION 506.2): AREA RESTRICTIONS: 9,000 S.F. DESIGNED BUILDING AREA: 8,430 S.F. (GROSS ENCLOSED AREA)</p> <p>HEIGHT RESTRICTIONS (504.3 and 504.4): ALLOWABLE BUILDING HEIGHT = (1) STORIES OR 40'-0" DESIGNED BUILDING HEIGHT = (1) STORIES - 23'-0"</p> <p>BUILDING CONSTRUCTION TYPE (601): V-B - EXTERIOR WALL BASED ON FIRE SEPARATION DISTANCE: ALL SIDES >10, 0 HOUR RATING (TABLE 602)</p> <p>BUILDING IS NOT SPRINKLERED</p> <p>FIRE PROTECTION SYSTEMS - NOT REQUIRED (CHAPTER 9) USE GROUP TYPES: GROUP S-1 (SECTION 903.2.9.1) AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS USED AS REPAIR GARAGES IN ACCORDANCE WITH SECTION 406, AS LISTED BELOW. (THIS BUILDING DOES NOT MEET THESE CONDITIONS AND THEREFORE DOES NOT REQUIRE A SPRINKLER SYSTEM).</p> <ol style="list-style-type: none"> BUILDINGS HAVING TWO OR MORE STORIES ABOVE GRADE PLANE, INCLUDING BASEMENTS, WITH A FIRE AREA CONTAINING A REPAIR GARAGE EXCEEDING 10,000 S.F. BUILDINGS NO MORE THAN ONE STORY ABOVE GRADE PLANE WITH A FIRE AREA CONTAINING A REPAIR GARAGE EXCEEDING 12,000 S.F. BUILDINGS WITH REPAIR GARAGES SERVICING VEHICLES PARKED IN BASEMENTS. A GROUP S-1 FIRE AREA USED FOR THE REPAIR OF COMMERCIAL TRUCKS* OR BUSES WHERE THE FIRE AREA EXCEEDS 5,000 S.F. <p>* COMMERCIAL TRUCK (MoDOT - MO TRUCKING GUIDE AUGUST, 2021): WHEN USED IN INTRASTATE COMMERCE - THAT IS, WHOLLY WITHIN MISSOURI'S BORDERS - A VEHICLE IS DEFINED AS A COMMERCIAL MOTOR VEHICLE WHEN IT: • HAS A GVWR, GCWR OR AN ACTUAL WEIGHT OF 26,001 LBS. OR MORE, OR IS DESIGNED OR USED TO TRANSPORT 16 OR MORE PASSENGERS - INCLUDING THE DRIVER - FOR COMPENSATION, OR • IS DESIGNED OR USED TO TRANSPORT 16 OR MORE PASSENGERS - INCLUDING THE DRIVER- REGARDLESS OF THE COMPENSATION, OR • IS USED IN TRANSPORTING HAZARDOUS MATERIALS IN A QUANTITY THAT REQUIRES PLACARDS, OR • HAS A GVWR, GCWR OR AN ACTUAL WEIGHT OF 10,001 LBS. OR MORE AND IS USED TO TRANSPORT ANY QUANTITY OR HAZARDOUS MATERIAL.</p> <p>FIRE EXTINGUISHERS (IFC 906 (and NFPA 10)): PROVIDE (2) FIRE EXTINGUISHERS, MINIMUM, AS SHOWN ON THE EGRESS PLAN, THIS SHEET. FIRE MARSHALL WILL MAKE FINAL DETERMINATION OF SIZE AND LOCATIONS.</p> <p>EXIT REQUIREMENTS: TRAVEL DISTANCE 200' (TABLE 1017.2) MAXIMUM DEAD END CORRIDOR 20' (SECTION 1020.5) EGRESS WIDTH (INCHES PER OCC) 0.2" (SECTION 1005.1) MINIMUM CORRIDOR WIDTH 44" (TABLE 1020.3) MINIMUM CLEAR OPENING EXIT DOOR 32" (SECTION 1010.1.1) MINIMUM DOOR HEIGHT 80" (SECTION 1010.1.1)</p> <p>REQUIRED NUMBER OF EXITS (SECTION 1006): REQUIRED: (2) EXITS PROVIDED: (3) EXITS</p> <p>OCCUPANT LOAD (TABLE 1004.5): ACCESSORY (BREAK AREA & OFFICE 1.13 SF/150 GROSS) = 8 OCCUPANTS STORAGE / SERVICE AREA (6.876 SF/300 GROSS) = 23 OCCUPANTS ANCILLARY SPACES (RESTROOMS = N/A) TOTAL OCCUPANTS FOR MEANS OF EGRESS = 31 OCCUPANTS</p> <p>EXIT WIDTH (SECTION 1005): REQUIRED EXIT DOORS = 31 OCCUPANTS X .2" = 6.2" PROVIDED = (3) DOORS @ 32" = 96" 96" PROVIDED > 6.2" REQUIRED</p> <p>EYE WASH & SAFETY SHOWER REQUIREMENTS (ANSI Z358.1): LOCATION: ACCESSIBLE WITHIN 10 SECONDS (APPROXIMATELY 55 FEET) OBSTRUCTIONS: SAME FLOOR LEVEL SINGLE DOOR FOR NON-CORROSIVE ELEMENTS, ALLOWED IF SWING IN DIRECTION OF TRAVEL TO FLUSHING STATION</p> <p>REQUIRED PLUMBING FIXTURES (TABLE 2902.1) BASED ON S-1 OCCUPANCY WATER CLOSETS: 1 PER 100 REQUIRED LAVATORIES: 1 PER 100 REQUIRED DRINKING FOUNTAINS: 1 PER 1000 REQUIRED SERVICE SINK: 1 REQUIRED</p> <p>MINIMUM REQUIRED PER OCCUPANCY WATER CLOSET: 1 REQUIRED PER SEX; 1 PROVIDED PER SEX **1 URINAL PROVIDED LAVATORIES: 1 REQUIRED PER SEX; 1 PROVIDED PER SEX DRINKING FOUNTAINS: 1 REQUIRED; 1 HI-LOW PROVIDED SERVICE SINK: 1 REQUIRED; 1 PROVIDED</p>



1
A-002
EGRESS PLAN
SCALE: 1/16" = 1'-0"
BUILDING NORTH

CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.

DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION

FMDC MAINTENACE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION:
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REVISION: _____
DATE: _____
ISSUE DATE: 05/08/2023

CAD DWG FILE: _____
DRAWN BY: MAM
CHECKED BY: RAR
DESIGNED BY: _____

SHEET TITLE:
CODE DATA,
EGRESS FLOOR
PLAN, NOTES, &
SYMBOLS

SHEET NUMBER:

A-002

12 OF 33 SHEETS
05/08/2023



MICHAEL S. SUNDERMEYER
License Number: 014602655
Expiration Date: 12/31/24
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140 Certificate of Authority
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CASCO

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**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

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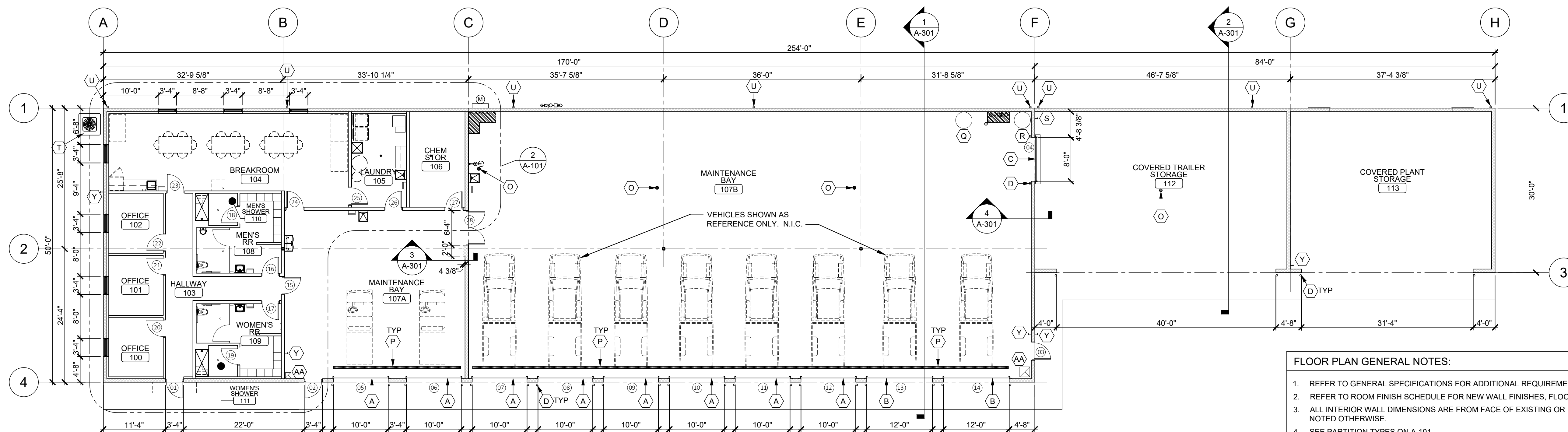
SHEET TITLE:

FLOOR PLANS

SHEET NUMBER:

A-101

13 OF 33 SHEETS
05/08/2023



FLOOR PLAN GENERAL NOTES:

- REFER TO GENERAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- REFER TO ROOM FINISH SCHEDULE FOR NEW WALL FINISHES, FLOOR FINISH AND CEILING HEIGHTS. (A-601)
- ALL INTERIOR WALL DIMENSIONS ARE FROM FACE OF EXISTING OR NEW CMU AND GYPSUM WALLBOARD UNLESS NOTED OTHERWISE.
- SEE PARTITION TYPES ON A-101.

EQUIPMENT SUPPORT NOTES:

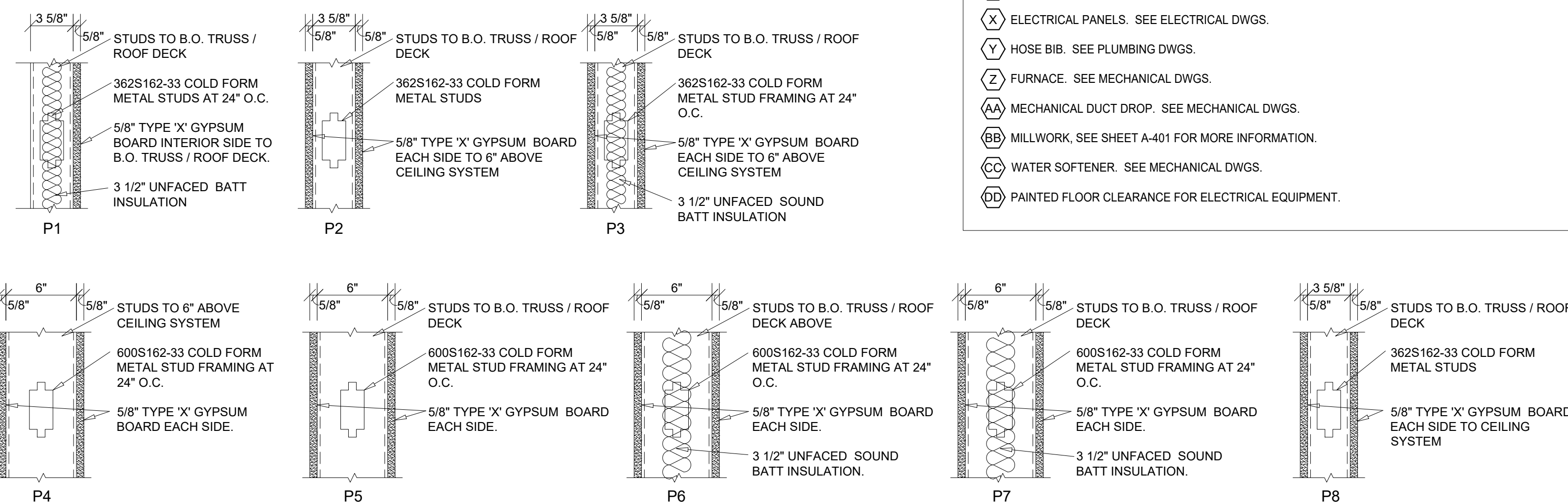
- DO NOT PUNCH OR USE DECK ABOVE TO SUPPORT ANY ITEMS SUCH AS: MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC. SHALL BE SUPPORTED FROM STRUCTURAL SUPPORT MEMBERS. GENERAL CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL SUB-CONTRACTORS PRIOR TO WORK TO BE PERFORMED.
- ALL LIGHTS MUST BE PROPERLY INSTALLED AND SUPPORTED TO STRUCTURAL SUPPORT MEMBERS ABOVE CEILING SYSTEM AND ATTACHED DIAGONALLY ON LIGHT FIXTURE OR WHERE SURFACE MOUNT LIGHT FIXTURES OCCURS AT SUSPENDED CEILING SYSTEM. DO NOT SUPPORT FROM FINISH CEILING MATERIAL.

KEYED NOTES:

- A 10'-0" x 10'-0" MOTORIZED OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- B 12'-0" x 14'-0" MOTORIZED OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- C 8'-0" x 8'-0" MOTORIZED COILING OVERHEAD DOOR, SEE DOOR SCHEDULE ON SHEET A-601
- D BOLLARD, SEE DETAIL 2/A-001.
- E SERVICE SINK. SEE PLUMBING DWGS.
- F WASHER & DRYER. FURNISHED BY OWNER.
- G REFRIGERATOR. FURNISHED BY OWNER.
- H ICE MACHINE. FURNISHED BY OWNER. SEE PLUMBING DWGS.
- I HI-LO WATER COOLER. SEE PLUMBING AND ELECT. DWGS.
- J NEW EYE WASH AND EMERGENCY SHOWER.
- K EYE WASH ATTACHMENT TO SERVICE SINK. SEE PLUMBING DWGS.
- L WORK STATIONS. FURNISHED BY OWNER.
- M TABLES. FURNISHED BY OWNER.
- N MOP SINK. SEE PLUMBING DWGS.
- O FLOOR DRAINS. SEE PLUMBING DWGS.
- P TRENCH DRAIN. SEE PLUMBING DWGS.
- Q AIR COMPRESSOR. FURNISHED BY OWNER.
- R WATER HEATER. SEE PLUMBING DWGS.
- S HOT WATER HOSE BIB (FOR POWERWASHING). SEE PLUMBING DWGS.
- T CONDENSING UNIT. SEE MECHANICAL DWGS.
- U DOWNSPOUT, DRAIN TO DAYLIGHT. SEE ELEVATIONS AND PLUMBING DWGS.
- V LOCKERS. REFER TO SHEET A-401.
- W PAPER TOWEL DISPENSER, FURNISHED BY OWNER. SEE SHEET A-401.
- X ELECTRICAL PANELS. SEE ELECTRICAL DWGS.
- Y HOSE BIB. SEE PLUMBING DWGS.
- Z FURNACE. SEE MECHANICAL DWGS.
- AA MECHANICAL DUCT DROP. SEE MECHANICAL DWGS.
- BB MILLWORK. SEE SHEET A-401 FOR MORE INFORMATION.
- CC WATER SOFTENER. SEE MECHANICAL DWGS.
- DD PAINTED FLOOR CLEARANCE FOR ELECTRICAL EQUIPMENT.

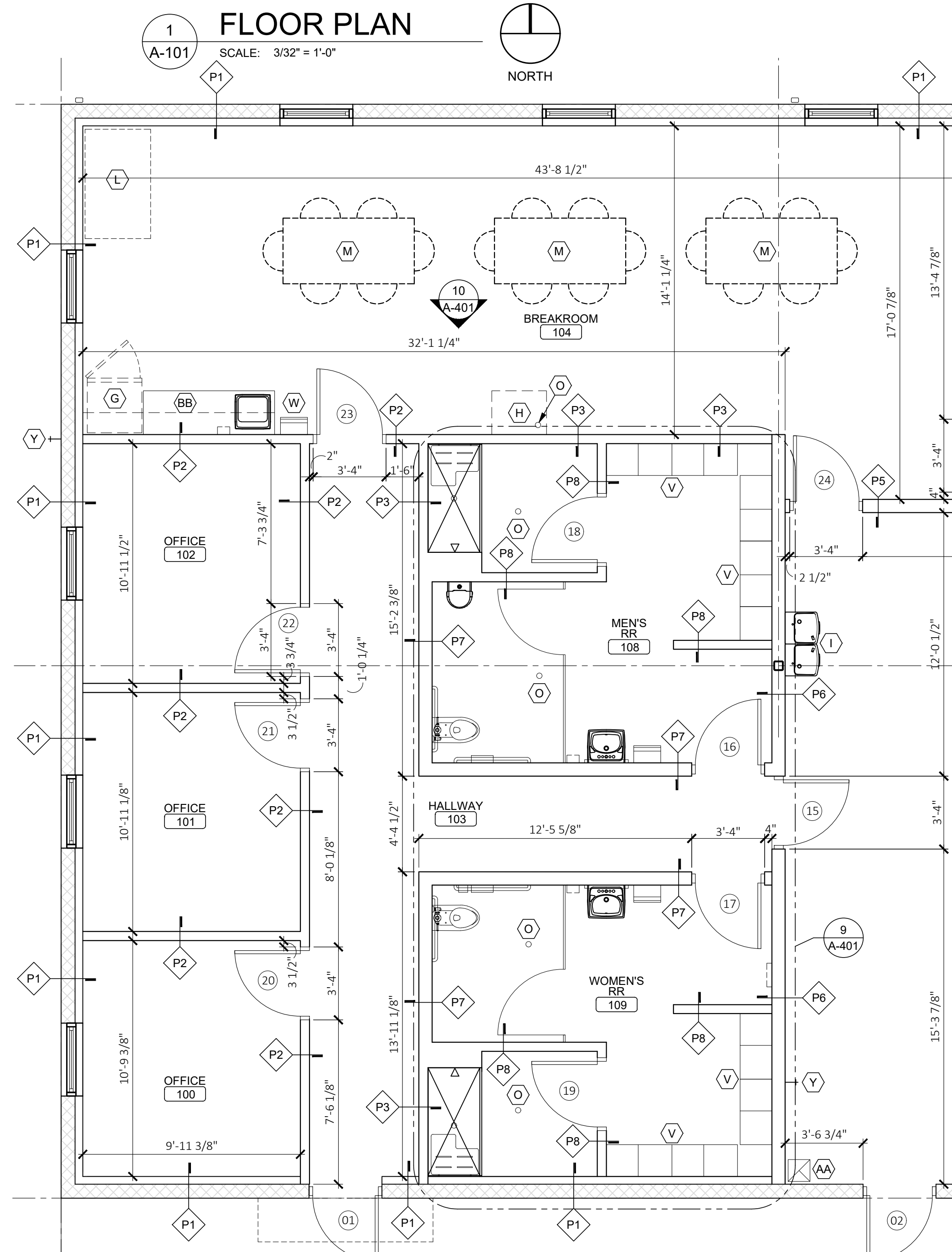
PARTITION TYPES

(SCALE 1 1/2" = 1'-0")



FLOOR PLAN

SCALE: 3/32" = 1'-0"



ENLARGED PLAN

SCALE: 1/4" = 1'-0"





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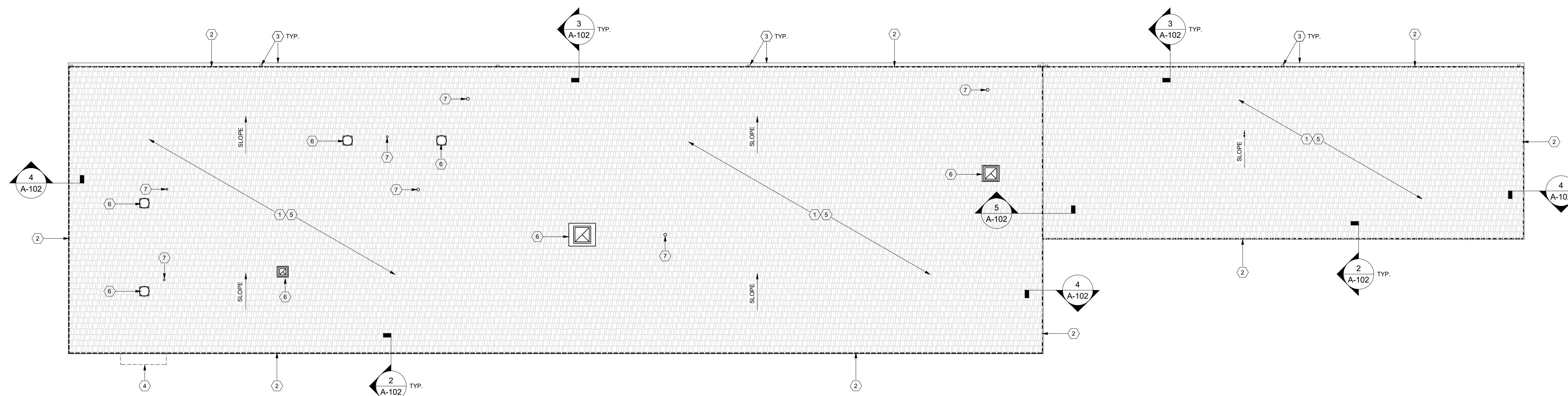
SHEET TITLE:

**ROOF PLAN
AND DETAILS**

SHEET NUMBER:

A-102

14 OF 33 SHEETS
05/08/2023



1 ROOF PLAN
SCALE: 3/32" = 1'-0"

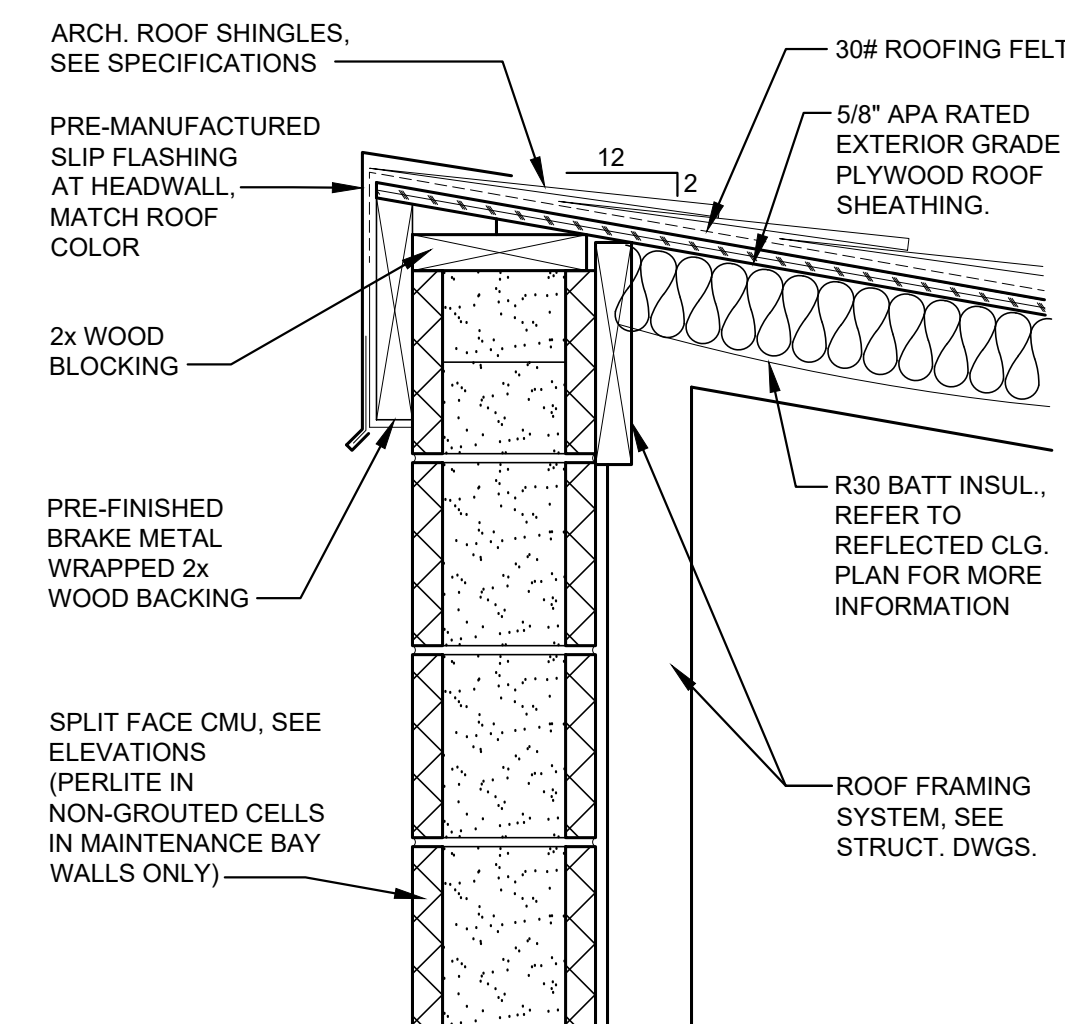
ROOF PLAN GENERAL NOTES:

ALTERNATE #1 - REPLACE ASPHALT SHINGLE ROOF SYSTEM WITH STANDING SEAM METAL ROOF SYSTEM. SEE DETAILS 2ALT & 3ALT FOR TYP. ROOF EDGE AND GUTTER DETAILS FOR STANDING SEAM METAL ROOF. COLOR AS SELECTED BY ARCHITECT, SEE SPECIFICATIONS

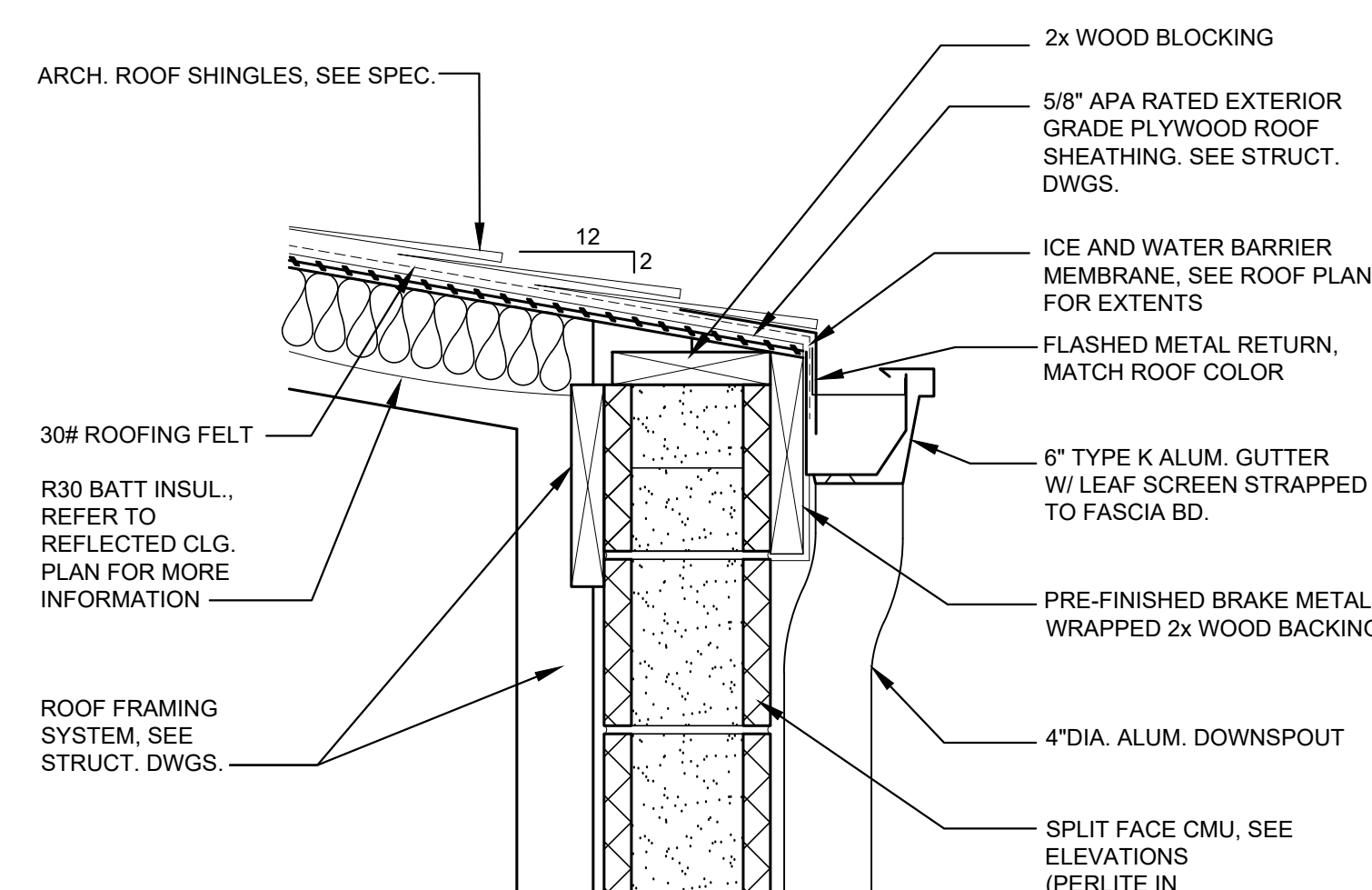
- GENERAL CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND NOTIFY ARCHITECT IN WRITING OF ANY QUESTIONS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION FOR ROOFING, FLASHING REQUIREMENTS, AND MATERIALS.
- INSTALL ASPHALT SHINGLES PER MANUFACTURERS RECOMMENDATIONS.
- REFER TO WALL SECTIONS FOR ADDITIONAL INFORMATION.
- VERIFY & COORDINATE ROOF PENETRATION LOCATIONS. REFER TO MECHANICAL / ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND COORDINATION.
- ALL SHEET METAL FLASHING TO COMPLY WITH THE "ARCHITECTURAL SHEET METAL MANUAL", CURRENT EDITION AS PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA).
- ALL SHEET METAL FLASHING EXPOSED TO THE PUBLIC SHALL BE PREFINISHED TO MATCH ASPHALT ROOFING COLOR. SEE BUILDING ELEVATIONS FOR COLOR SPECIFICATIONS. ALL OTHER NON-EXPOSED FLASHING TO BE GALVANIZED.
- UPON COMPLETION OF CONSTRUCTION AND PRIOR TO OWNER OCCUPANCY, G.C. SHALL ENSURE THAT THE ENTIRE ROOF, ALL GUTTERS AND DOWNSPOUTS ARE COMPLETELY CLEAR OF ANY AND ALL DEBRIS (CONSTRUCTION, NATURAL, OR OTHERWISE).

KEYED NOTES: GAF (B.O.D.) ASPHALT SHINGLE ROOF - COLOR AS SELECTED BY OWNER.
APPROVED EQUIVALENTS: CERTAINTEED, OWENS CORNING

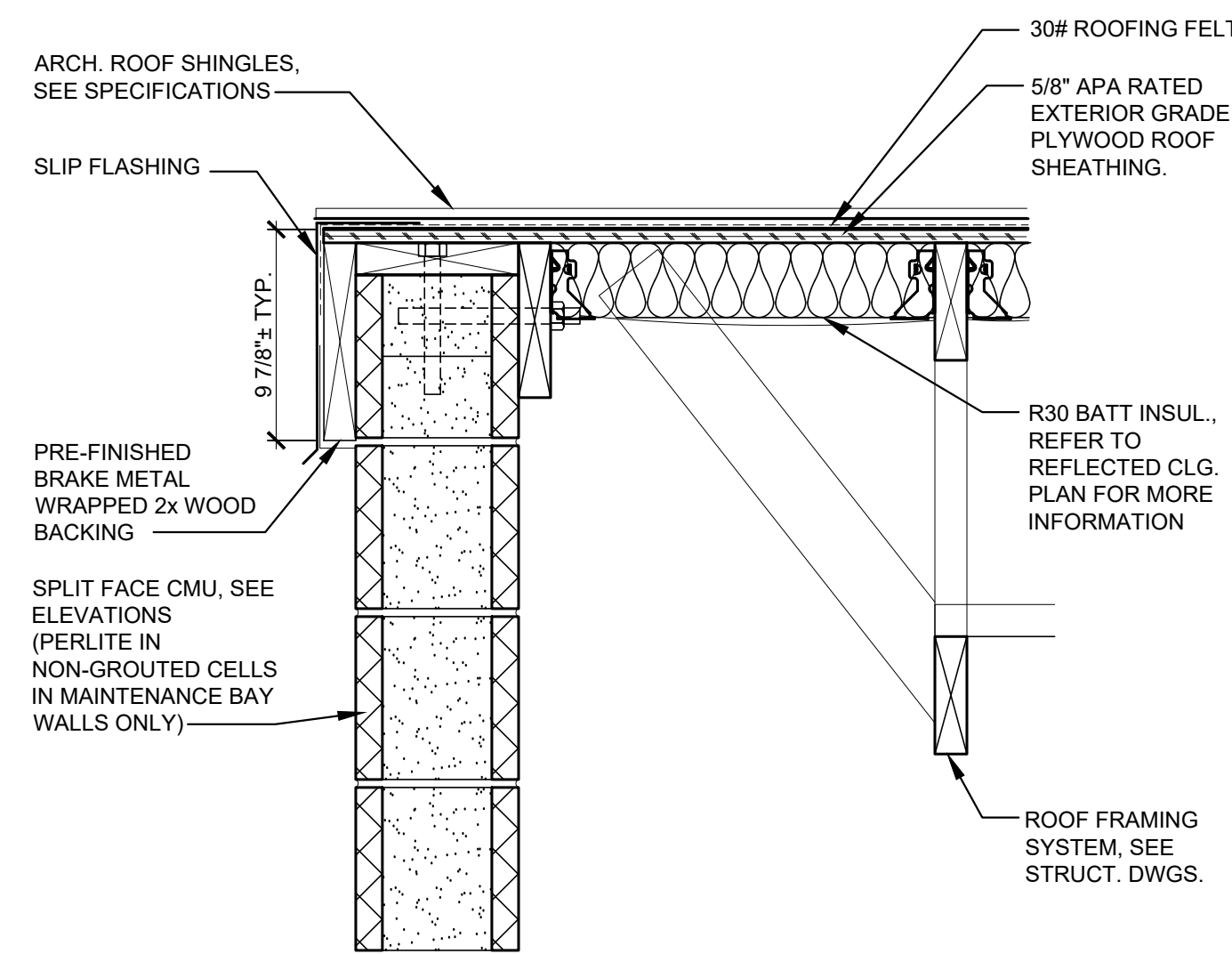
- ASPHALT SHINGLE ROOF SYSTEM.
- OUTLINE OF BUILDING PERIMETER WALL.
- GUTTER AND DOWNSPOUT SYSTEM. REFER TO ELEVATIONS FOR ADDITIONAL INFORMATION.
- PREFABRICATED METAL CANOPY AT ENTRY DOOR BELOW.
- ICE AND WATER SHIELD, TYP. ENTIRE ROOF.
- ROOF HOOD - SEE MECHANICAL DRAWINGS.
- ROOF VENT / FLUE - SEE MECHANICAL DRAWINGS.



2 ROOF EDGE DETAIL (H.P.)
SCALE: 1 1/2" = 1'-0"

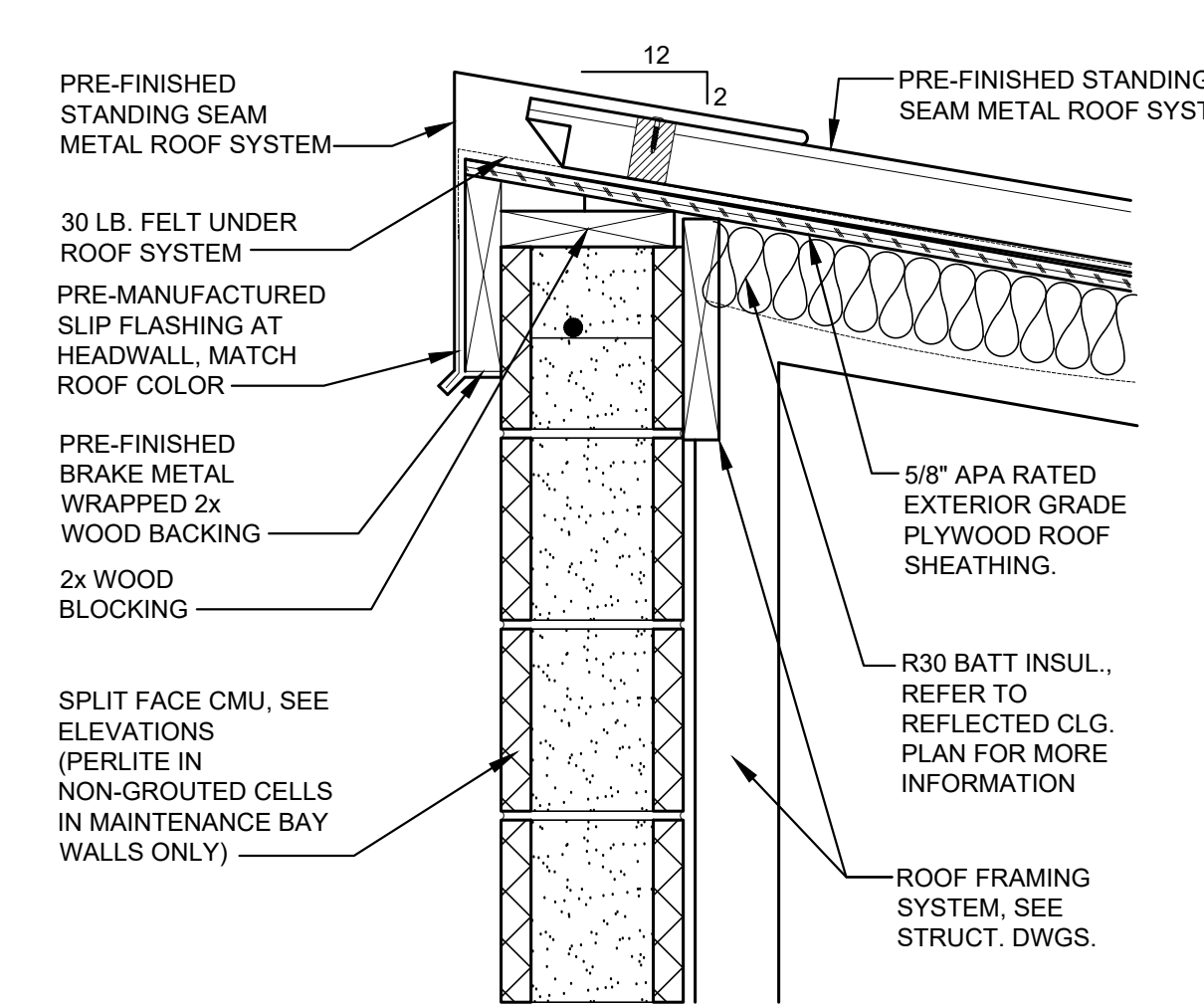


3 GUTTER / FASCIA DTL.
SCALE: 1 1/2" = 1'-0"

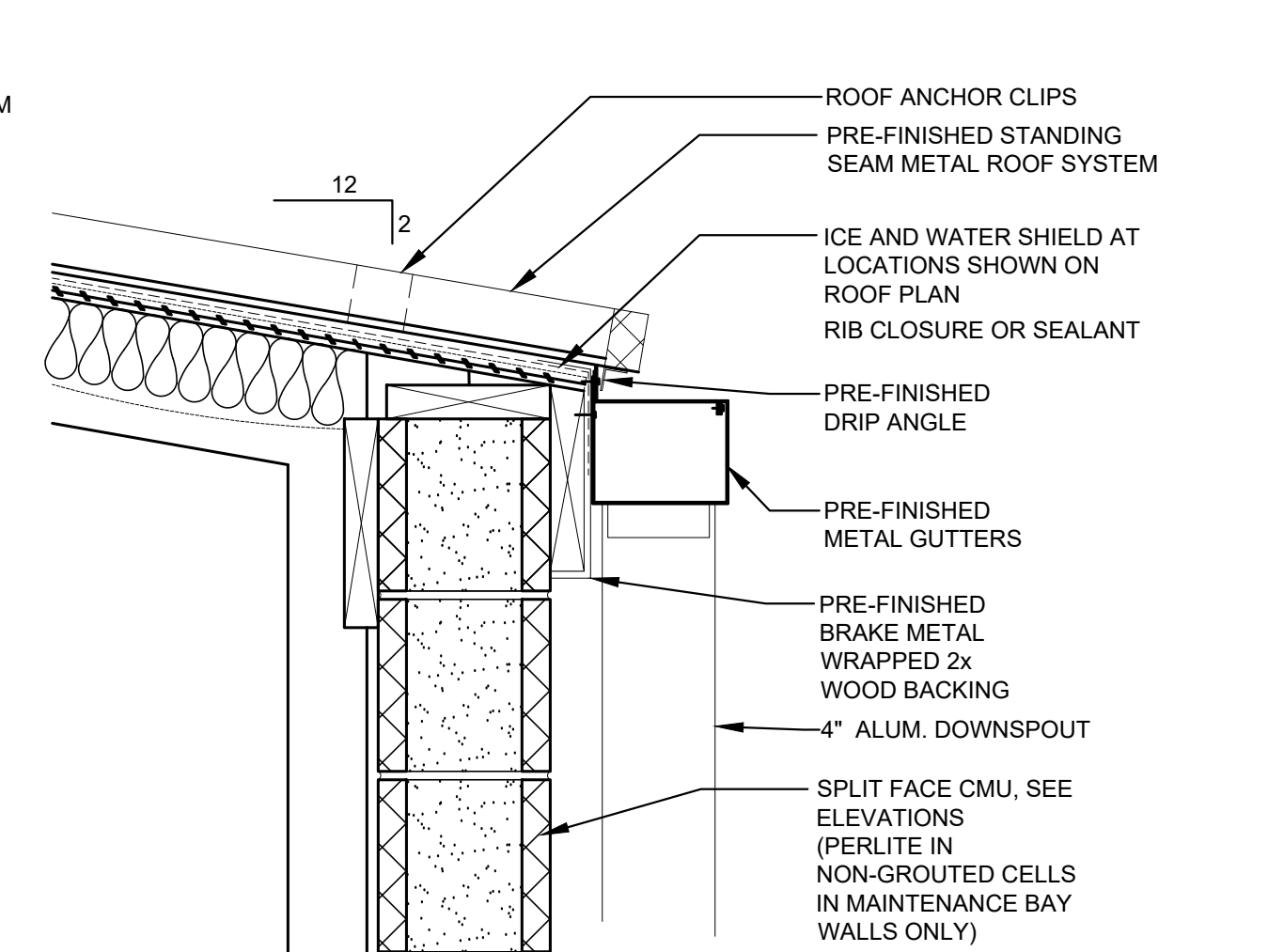


4 ROOF EDGE DETAIL
SCALE: 1 1/2" = 1'-0"

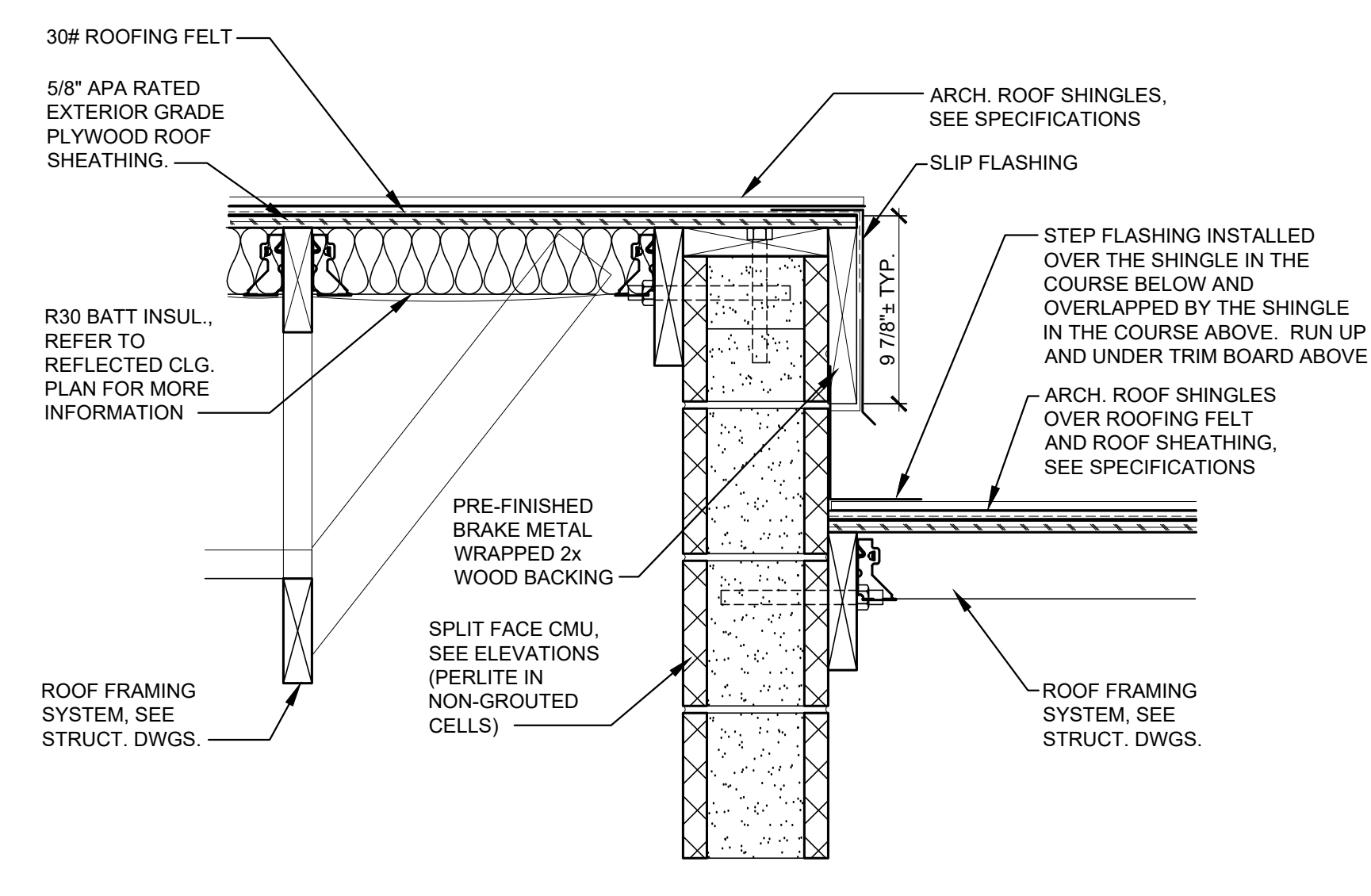
ALTERNATE #1 - STANDING SEAM METAL DETAILS



2ALT ROOF EDGE DTL. (SIDES SIM.)
SCALE: 1 1/2" = 1'-0"



3ALT GUTTER / FASCIA DTL.
SCALE: 1 1/2" = 1'-0"



5 ROOF EDGE DETAIL
SCALE: 1 1/2" = 1'-0"



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FACILITY # 3101002008

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CAD DWG FILE: _____
DRAWN BY: MS
CHECKED BY: RAR
DESIGNED BY: _____

SHEET TITLE:

EXTERIOR
ELEVATIONS

SHEET NUMBER:

A-201

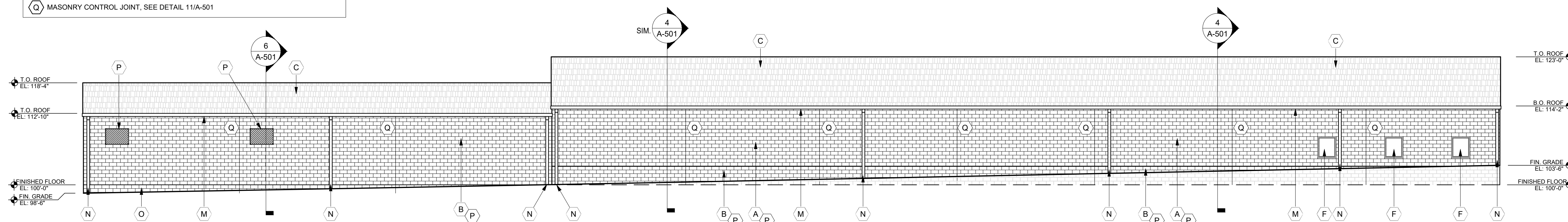
15 OF 33 SHEETS
05/08/2023

GENERAL NOTES:

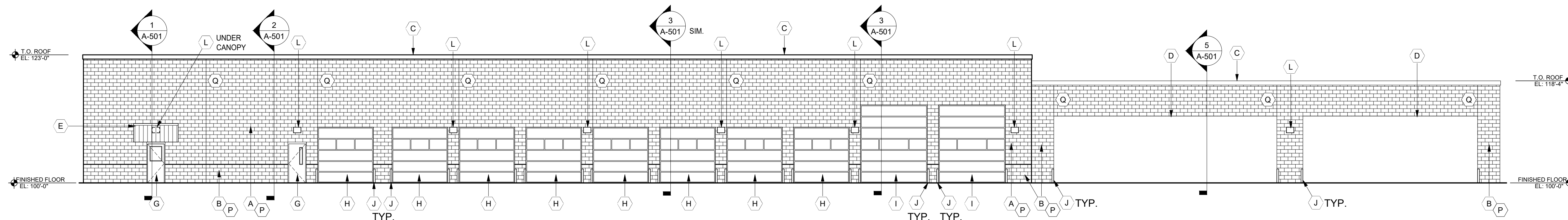
1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. REFER TO ROOF PLAN FOR ADDITIONAL INFORMATION.
3. ALL GLAZING SHALL BE LOW-E GLASS.
4. ALL FINISH MATERIALS AND COLORS TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.

KEYED NOTES:

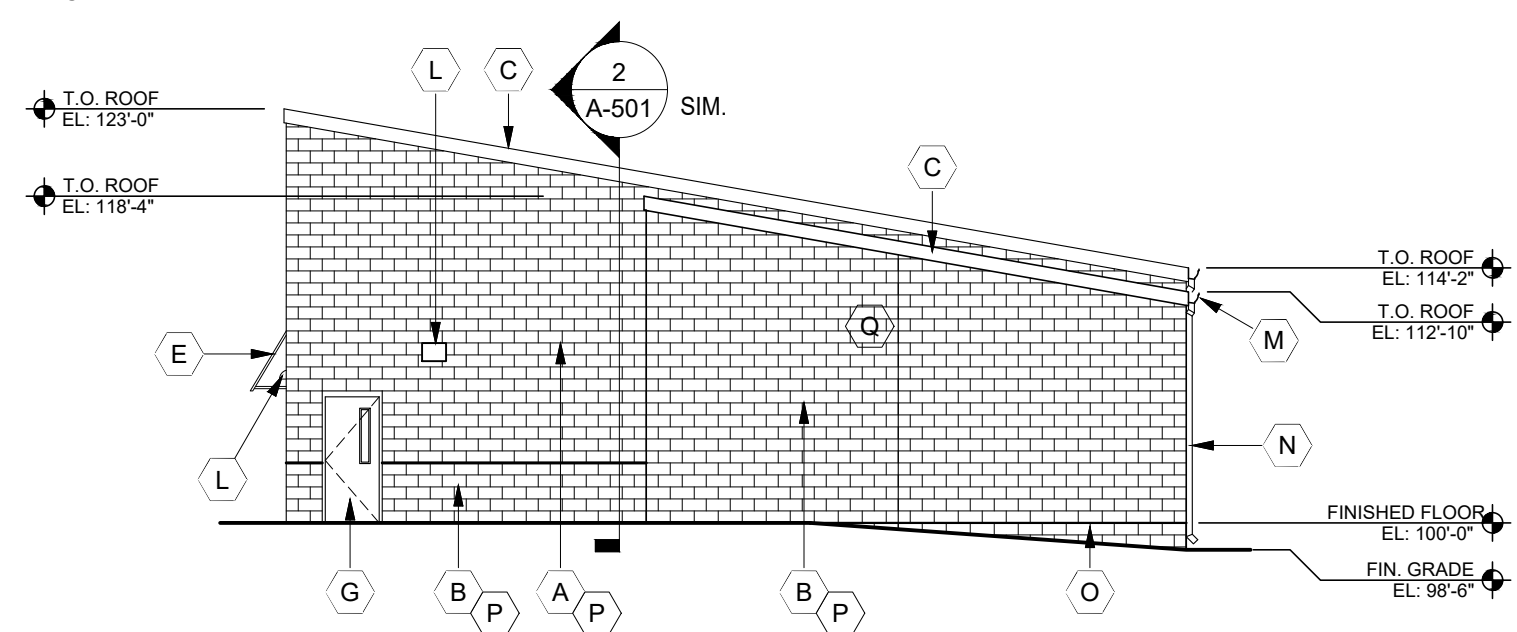
- (A) CMU, SPLIT FACE. COLOR AS SELECTED BY OWNER
- (B) CMU, SPLIT FACE. COLOR AS SELECTED BY OWNER
- (C) ASPHALT SHINGLE ROOF SYSTEM. COLOR AS SELECTED BY OWNER
- (D) CLEAR OPENING.
- (E) METAL CANOPY BY LAWRENCE FABRIC & METAL STRUCTURES: LFS-SLP (BASIS OF DESIGN) (GENERAL AWNINGS, AWNTech). COLOR AS SELECTED BY OWNER.
- (F) WINDOW & FRAME. SEE FLOOR PLAN AND SCHEDULE ON A-601 AND DETAIL 10/A-501.
- (G) HOLLOW METAL DOOR & FRAME. SEE DOOR SCHEDULE ON A-601
- (H) OVERHEAD DOOR (10'-0" x 10'-0"). SEE DOOR SCHEDULE ON A-601
- (I) OVERHEAD DOOR (12'-0" x 14'-0"). SEE DOOR SCHEDULE ON A-601
- (J) CONCRETE FILLED, STEEL BOLLARD AT OVERHEAD DOORS, SEE DETAIL 3/A-102
- (K) CONDENSING UNIT. SEE MECHANICAL DRAWINGS
- (L) NEW WALL LIGHTS. SEE ELECTRICAL DWGS.
- (M) PREFINISHED GUTTER
- (N) PREFINISHED DOWNSPOUT - DRAIN TO DAYLIGHT
- (O) ASPHALTIC WATERPROOFING, WHERE NOTED (SUB GRADE LOCATIONS ONLY). SEE SPECIFICATONS
- (P) STATIC LOUVER. SEE MECHANICAL DWGS.
- (Q) MASONRY CONTROL JOINT. SEE DETAIL 11/A-501



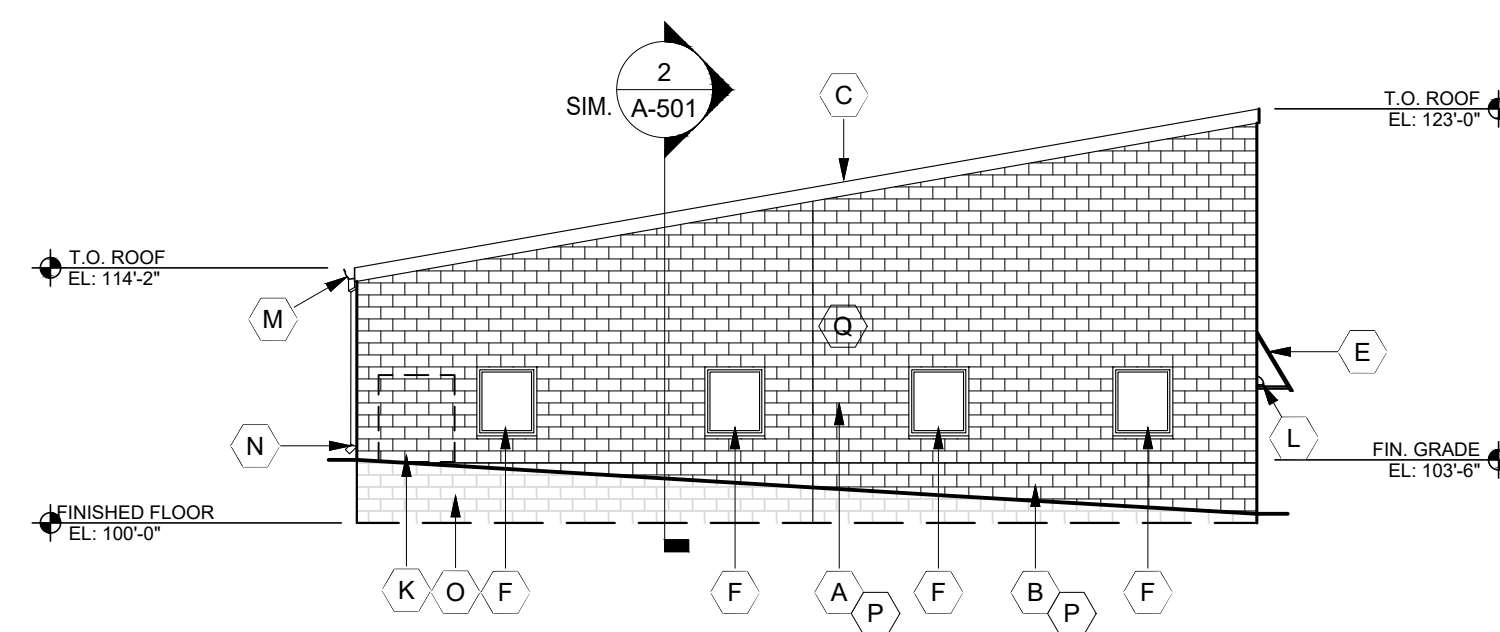
1 REAR ELEVATION
A-201 SCALE: 3/32" = 1'-0"



2 FRONT ELEVATION
A-201 SCALE: 3/32" = 1'-0"



3 RIGHT SIDE ELEVATION
A-201 SCALE: 3/32" = 1'-0"



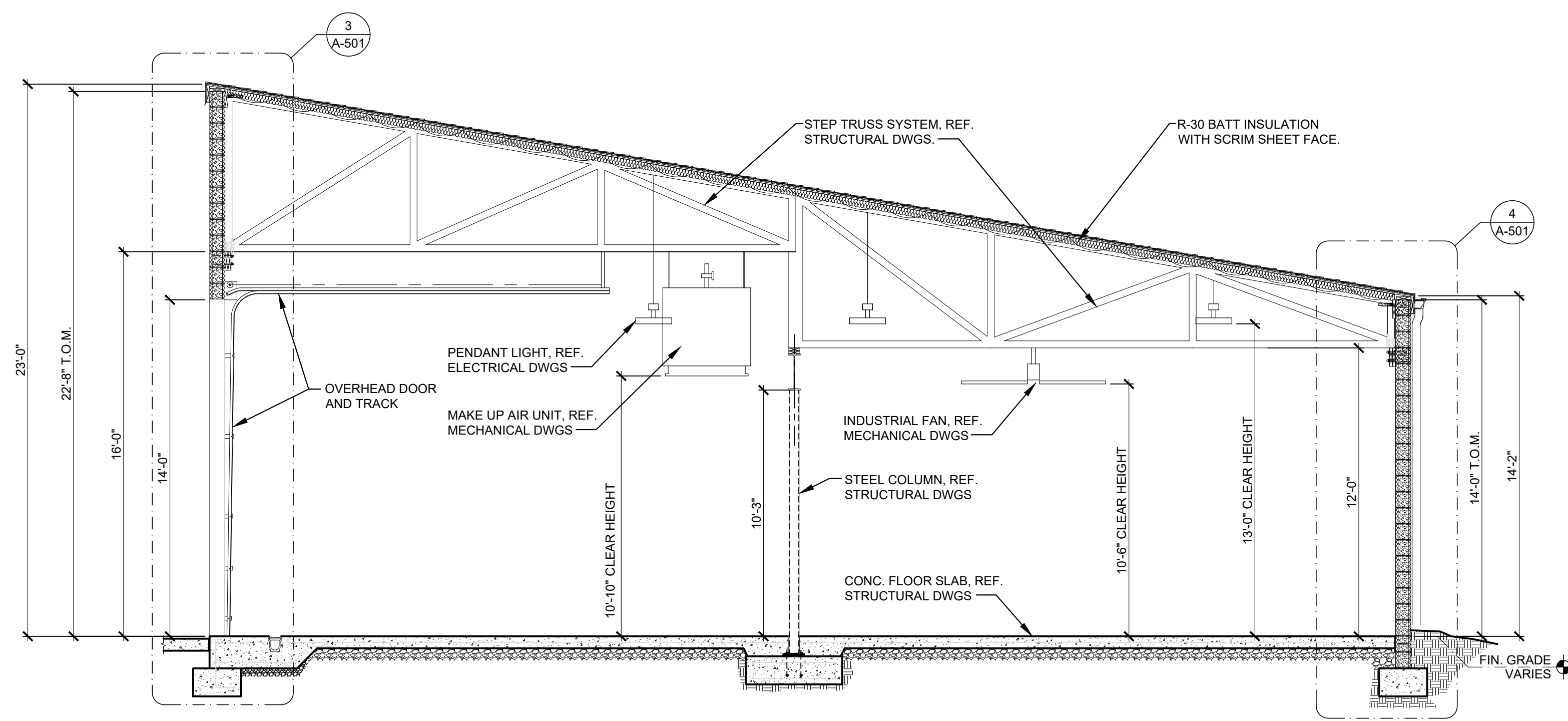
4 LEFT SIDE ELEVATION
A-201 SCALE: 3/32" = 1'-0"



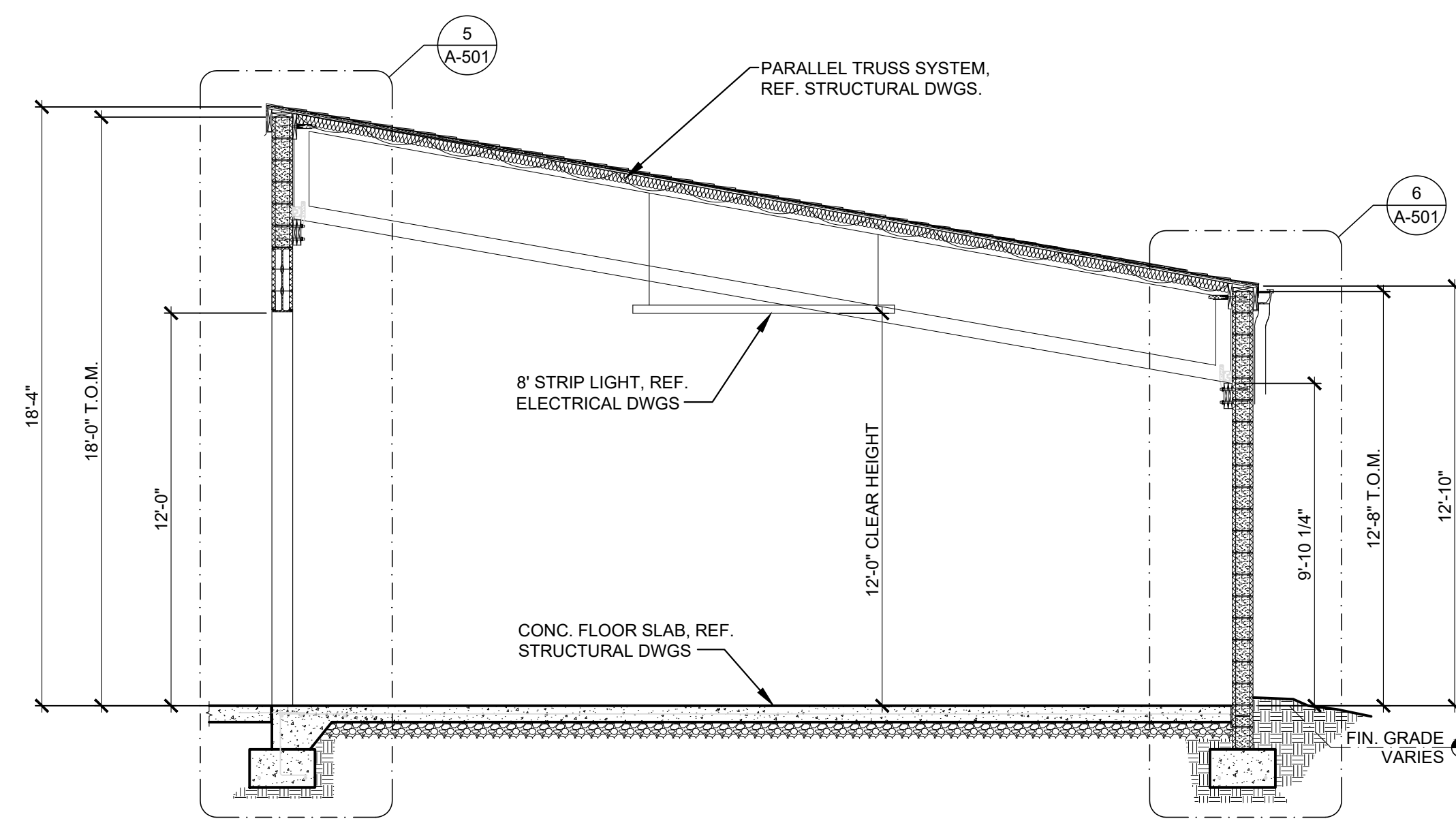
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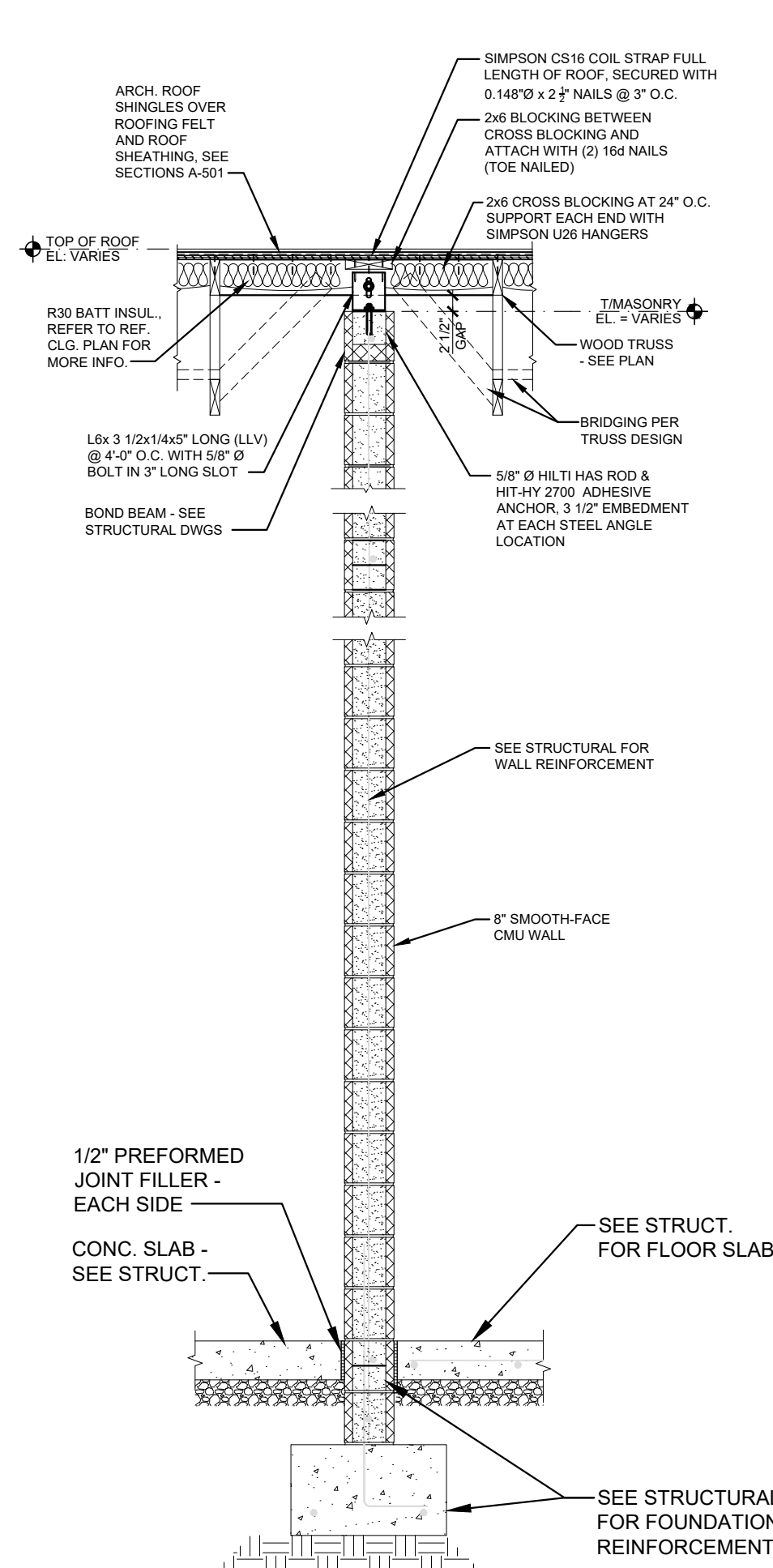
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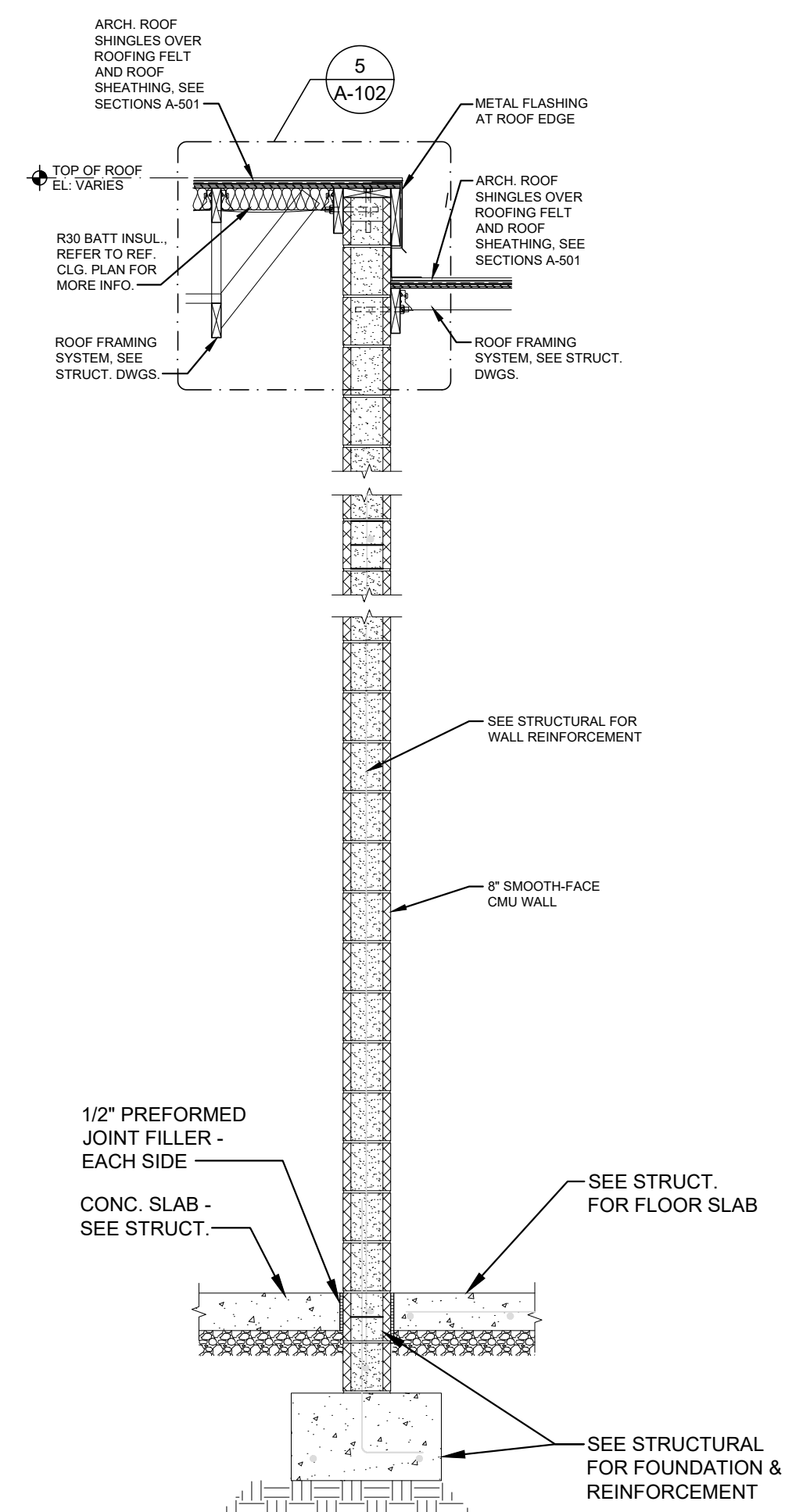
1
A-301 BUILDING SECTION - MAINTENANCE BAYS
SCALE: 1/4" = 1'-0"



2
A-301 BUILDING SECTION - OUTDOOR STORAGE AREAS
SCALE: 1/4" = 1'-0"



3
A-301 WALL SECTION
SCALE: 1/2" = 1'-0"



4
A-301 WALL SECTION
SCALE: 1/2" = 1'-0"

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DRAWN BY: _____ MAM
CHECKED BY: _____ RAR
DESIGNED BY: _____

SHEET TITLE:
**BUILDING AND
WALL SECTIONS**

SHEET NUMBER:
A-301
16 OF 33 SHEETS
05/08/2023



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SHEET TITLE:
ENLARGED PLANS &
INTERIOR
ELEVATIONS

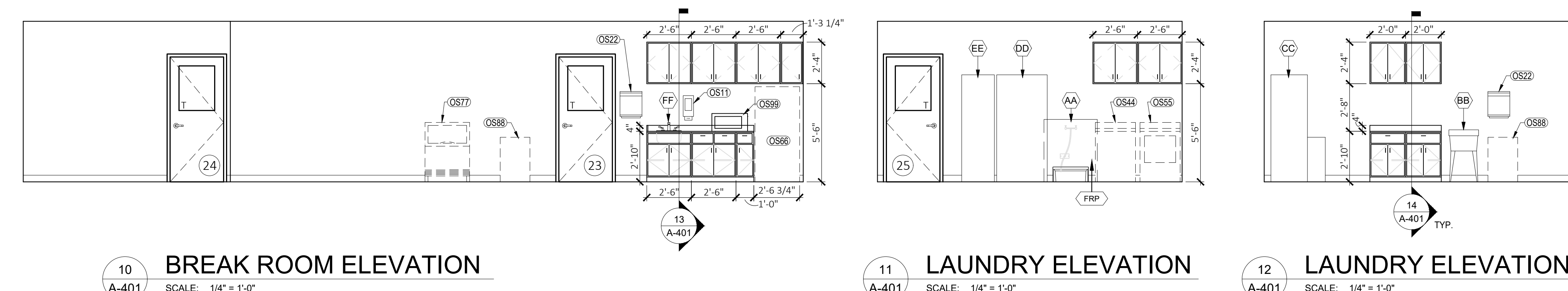
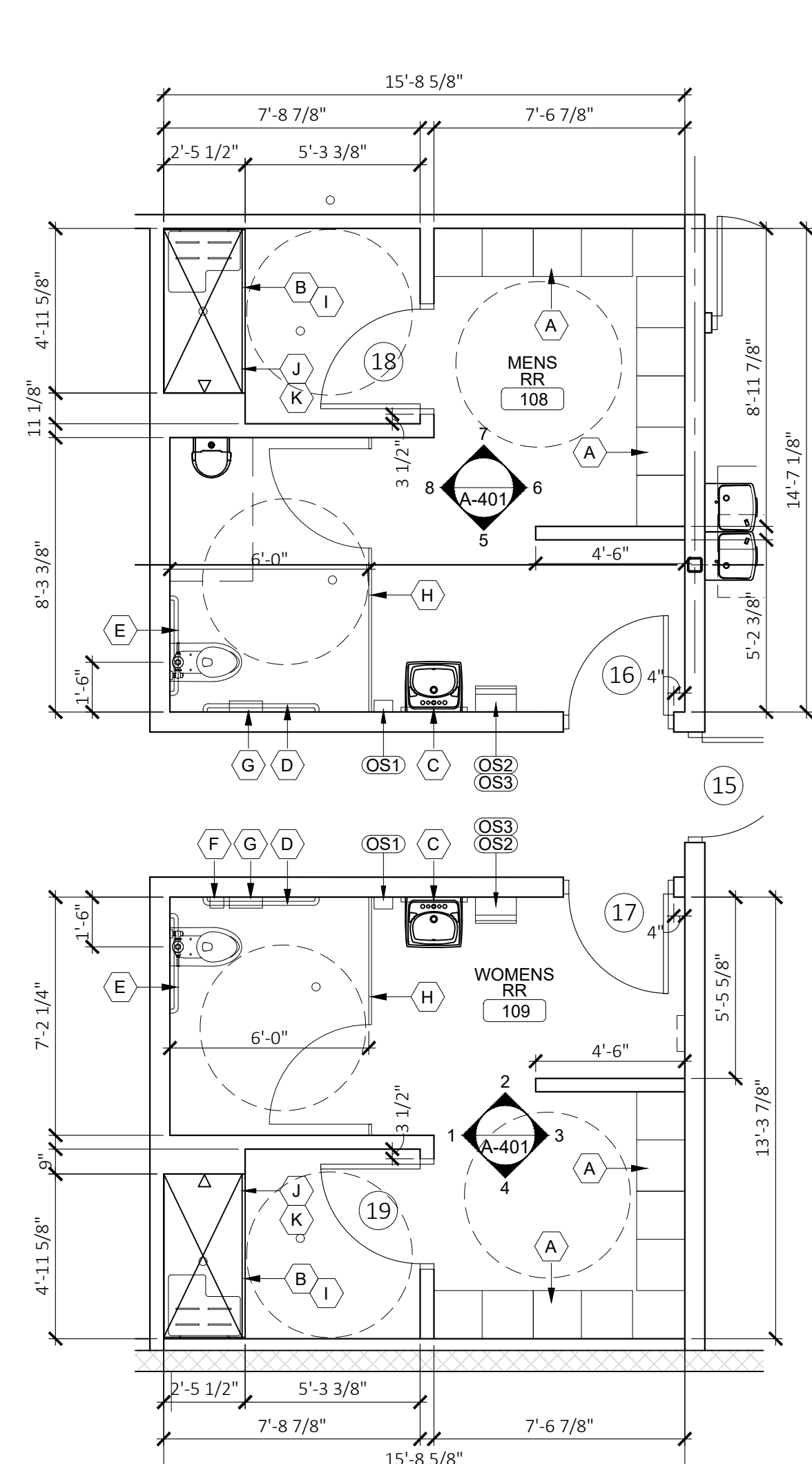
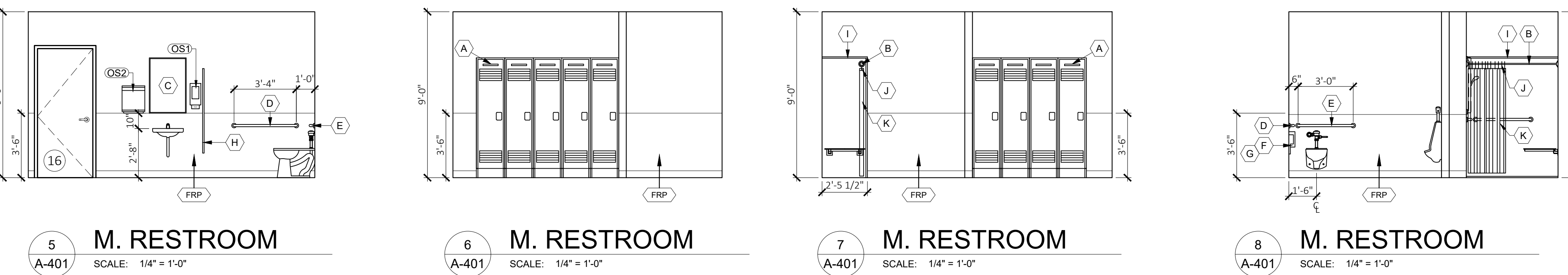
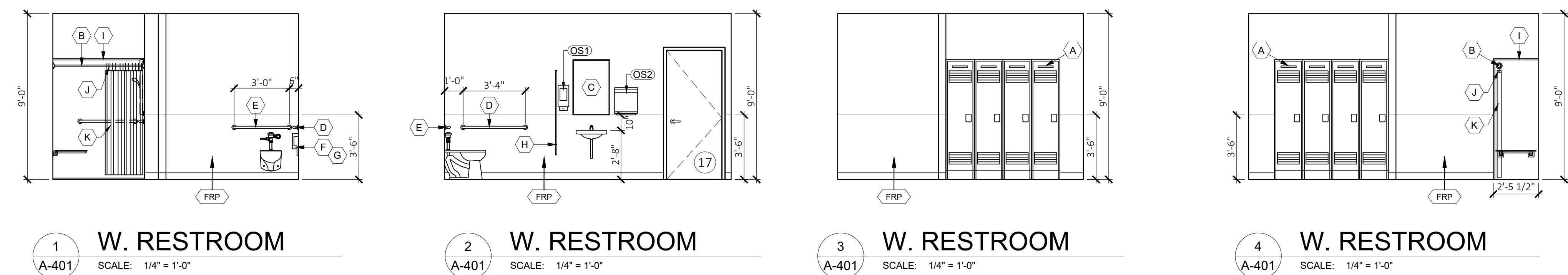
SHEET NUMBER:

A-401

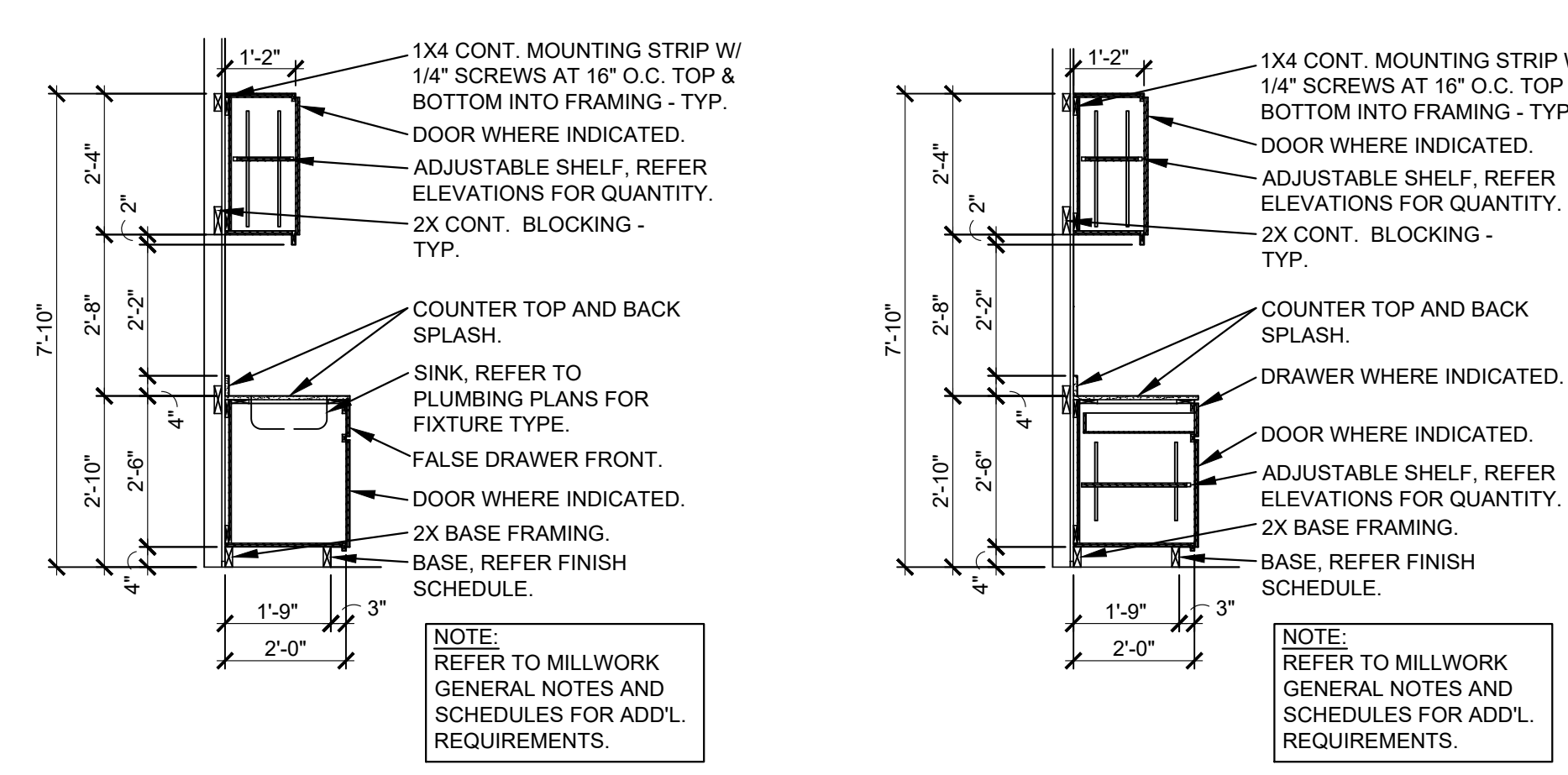
17 OF 33 SHEETS
05/08/2023

TOILET ACCESSORIES LEGEND		
MFGR. - USED FOR BASIS OF DESIGN SEE SPEC'S FOR EQUIVALENT MFGR.	ITEM DISCRPTION	QUANTITY
A	PENCO PRODUCTS, INC. 18"x18"x72" METAL LOCKERS	17
B	BOBRICK HEAVY DUTY SHOWER CURTAIN ROD	2
C	BOBRICK 24"x36" MIRROR WITH FRAME	2
D	BOBRICK 42" GRAB BAR 6806x42	2
E	BOBRICK 36" GRAB BAR 6806x36	2
F	BOBRICK NAPKIN DISPOSAL	1
G	BOBRICK TOILET PAPER DISPENSER	2
H	HINY HIDERS	2
I	AP FREEDOM ADA ROLL-IN SHOWER	2
J	BOBRICK S.S. SHOWER CURTAIN HOOK	2
K	BOBRICK VINYL SHOWER CURTAIN	2
	OWNER SUPPLIED*	
OS1	SOAP	2
OS2	PAPER TOWELS	2
OS3	TRASH RECEPTAL	2

- OWNER SUPPLIED ITEMS SHOWN FOR COORDINATION ONLY.
- MANUFACTURERS SHOWN ARE FOR BASIS OF DESIGN ONLY. SEE THE SPECIFICATIONS FOR ACCEPTABLE EQUIVALENT MANUFACTURERS.
- PROVIDE FIRE-TREATED WOOD BLOCKING FOR ALL GRAB BARS.



GENERAL NOTES	MILLWORK HARDWARE SCHEDULE (BASIS OF DESIGN)
REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.	PROVIDE CABINET HARDWARE AS FOLLOWS WHERE INDICATED.
MILLWORK DIMENSIONS ARE TO FACE OF FRAMING OR FINISH UNLESS OTHERWISE INDICATED.	A. ALL HARDWARE TO BE BHMA GRADE 1 COMPLY WITH ANSI / BHMA STANDARDS. QUALITY, AND PERFORMANCE REQUIREMENTS.
ALL CONSTRUCTION TO COMPLY WITH ADA STANDARDS AND GOVERNING ACCESSIBILITY CODES. REFER TO CODE ANALYSIS SHEETS FOR ADDITIONAL INFORMATION.	B. ALL EXPOSED TO VIEW HARDWARE FINISH TO BE BHMA 619 (US15) BRUSHED NICKEL OR BHMA 626 (US200) BRUSHED CHROME, UNLESS OTHERWISE INDICATED.
MILLWORK GENERAL NOTES	C. ADJUSTABLE SHELF SUPPORTS TO BE STEEL CONTINUOUS PLASTER TYPE WITH VERTICAL SLOTS WITH REMOVABLE CLIPS. 500 LB LOAD RATING PER SHELF.
A. SUBMIT SHOP DRAWINGS AND FINISH SAMPLES FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. FIELD VERIFY ROUGH OPENING DIMENSIONS PRIOR TO FABRICATION.	D. CABINET HINGES TO BE CONCEALED TYPE WITH PIVOT BEARING, ADJUSTABLE AND SELF CLOSING, MAXIMUM HINGE SWING REQUIRED FOR APPLICATION.
B. ALL COUNTER TOPS AND SPLASHES TO BE 3/4" THICK FORMICA COMPLYING WITH ICPSA SS-1 WITH JOINTS FULLY ADHERED.	E. PROVIDE BUMPER AND SILENCERS ON ALL DOORS AND DRAWERS.
C. ALL CONCEALED INTERIOR PARTITIONS, BASE, TOPS, BACKS, SIDES AND SHELVES TO BE 3/4" 40P DENSITY (MIN.) PARTICLE BOARD WITH EXPOSED SURFACES COVERED WITH PLASTIC LAMINATE UNLESS OTHERWISE INDICATED.	F. GUIDES TO BE FULL EXTENSION, STEEL BALL BEARING, 100 LB. LOAD RATING.
D. ALL DRAWER BOTTOMS AND UNEXPOSED CABINET BACKS TO BE 1/4" HARDBOARD WITH PLASTIC LAMINATE FINISH.	CABINET HARDWARE QUALITY TO BE EQUAL TO:
E. ALL DRAWER SIDES TO BE 1/2" FIBERWOOD OR EQUAL WITH PLASTIC LAMINATE FINISH.	1. DOOR HINGES: "STANLEY" 1511 SERIES WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. (AMEROCK, EVERBILT)
F. SHELF EDGES AND FACE FRAMES TO BE PLASTIC LAMINATE FINISH UNLESS OTHERWISE INDICATED.	2. DOOR AND DRAWER PULLS: "STANLEY" 4484 SERIES (ZURICH, AMEROCK)
G. ALL EXPOSED SURFACING FACES AND EDGES SHALL HAVE CONCEALED JOINTS.	3. DRAWER SLIDES: "ACCURIDE" 3800A X LENGTH REQUIRED (EVERBILT, RICHELIEU)
H. PROVIDE ACCESS TO FLOOR SINKS, DRAINS, AND PLUMBING SYSTEMS. COORDINATE WITH PLUMBING DRAWINGS. PROVIDE MOISTURE RESISTANT CONSTRUCTION ADJACENT TO WET LOCATIONS.	4. DRAWER AND DOOR SILENCERS: "BUMPER SPECIALTIES" SERIES B588D, ROUND 0.60" DIA. X 0.20" HIGH, SELF-ADHESIVE MOLDED POLYURETHANE. (DOR-JO, IVES)
MILLWORK FINISH SCHEDULE	5. DOOR SURFACE BOLTS (INACTIVE LEAF): "IVES" 0432, (RICHELIEU, DOR-JO)
1. PLASTIC LAMINATE FINISH SURFACES EQUAL TO FORMICA. (BASIS OF DESIGN ONLY). COLOR AS SELECTED BY OWNER.	6. END SUPPORT STANDARDS: "KNAPE & VOGT" 255E X LENGTH REQUIRED (KASON, HAFELE)
2. EXPOSED WOOD FINISH SURFACES TO BE COLOR BY OWNER.	7. SHELF SUPPORTS: "KNAPE & VOGT" 256RZC (RICHELIEU, HAFELE)
3. FINISH SURFACES COLOR AS SELECTED BY OWNER.	



9 ENLARGED RESTROOM PLAN SCALE: 1/4" = 1'-0"
13 SECTION SCALE: 1/4" = 1'-0"
14 SECTION SCALE: 1/4" = 1'-0"



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ISSUE DATE: 05/08/2023

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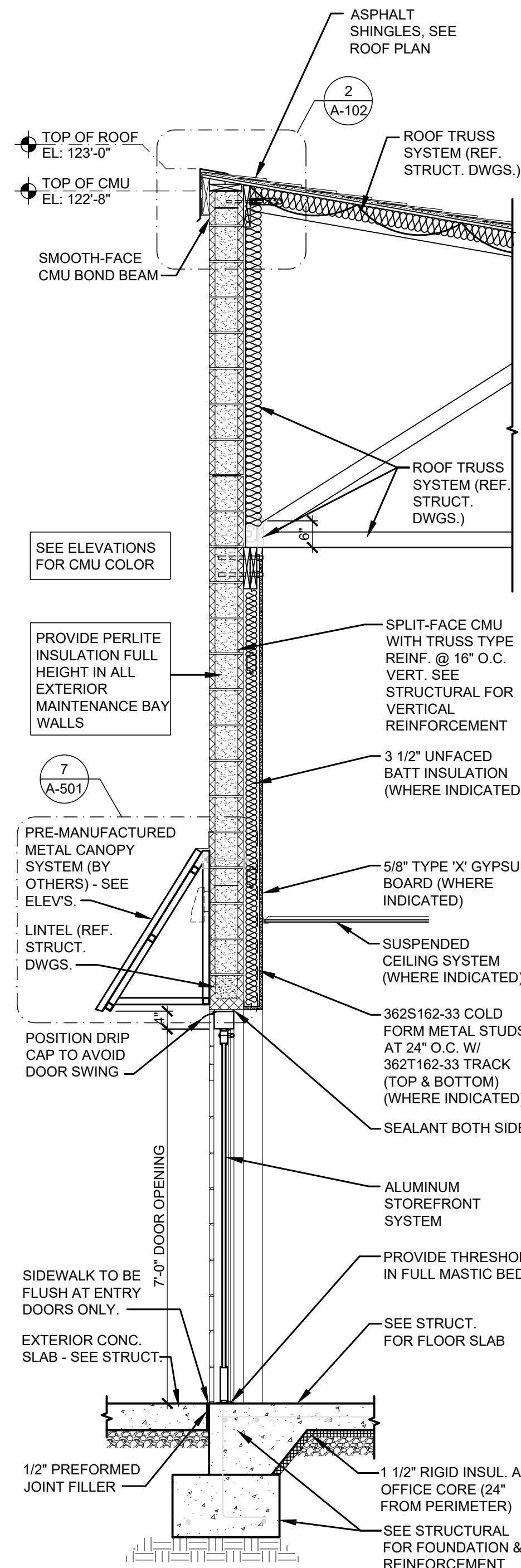
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**WALL SECTIONS
& DETAILS**

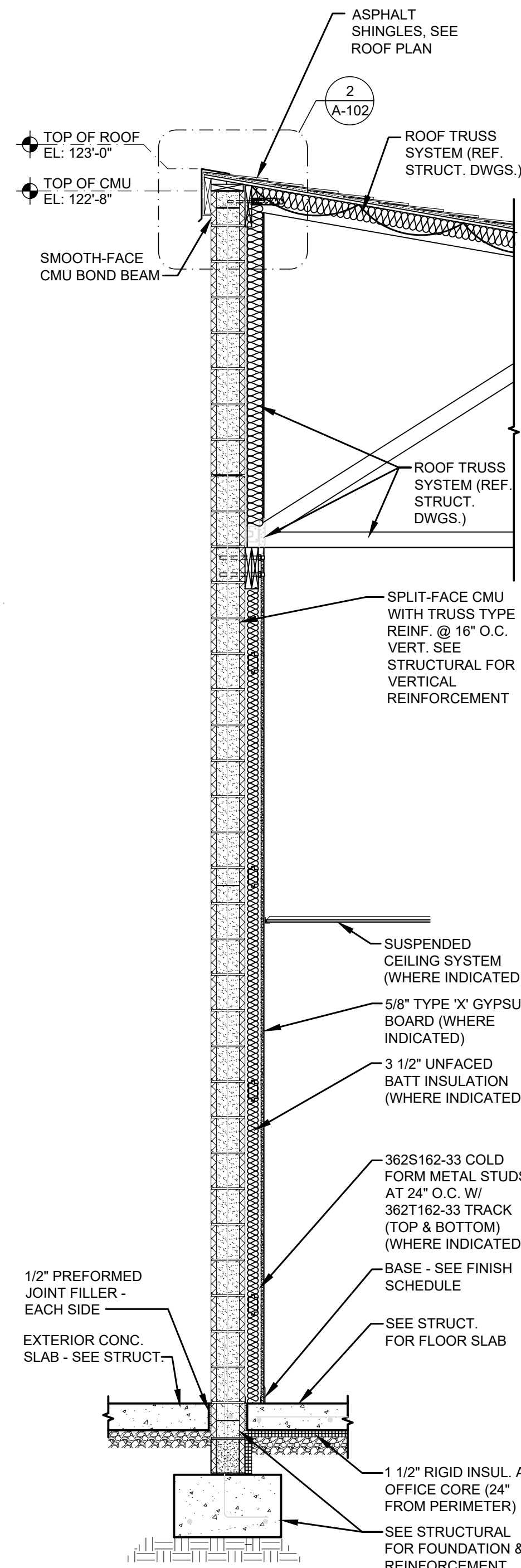
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A-501

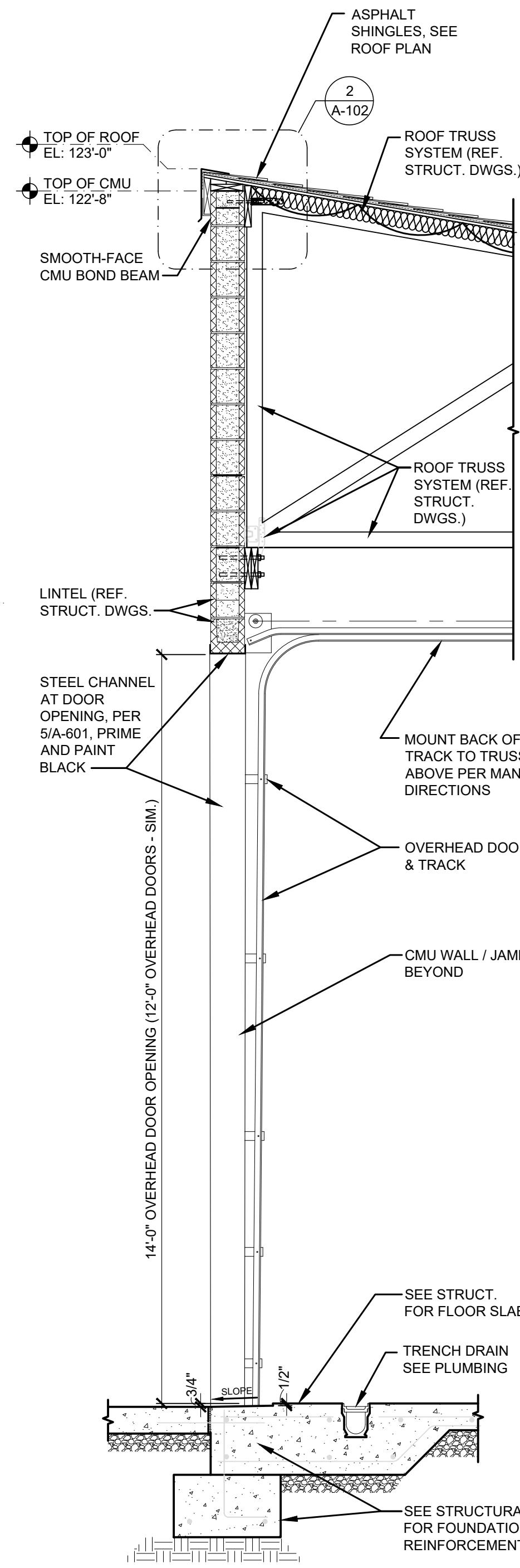
18 OF 33 SHEETS
05/08/2023



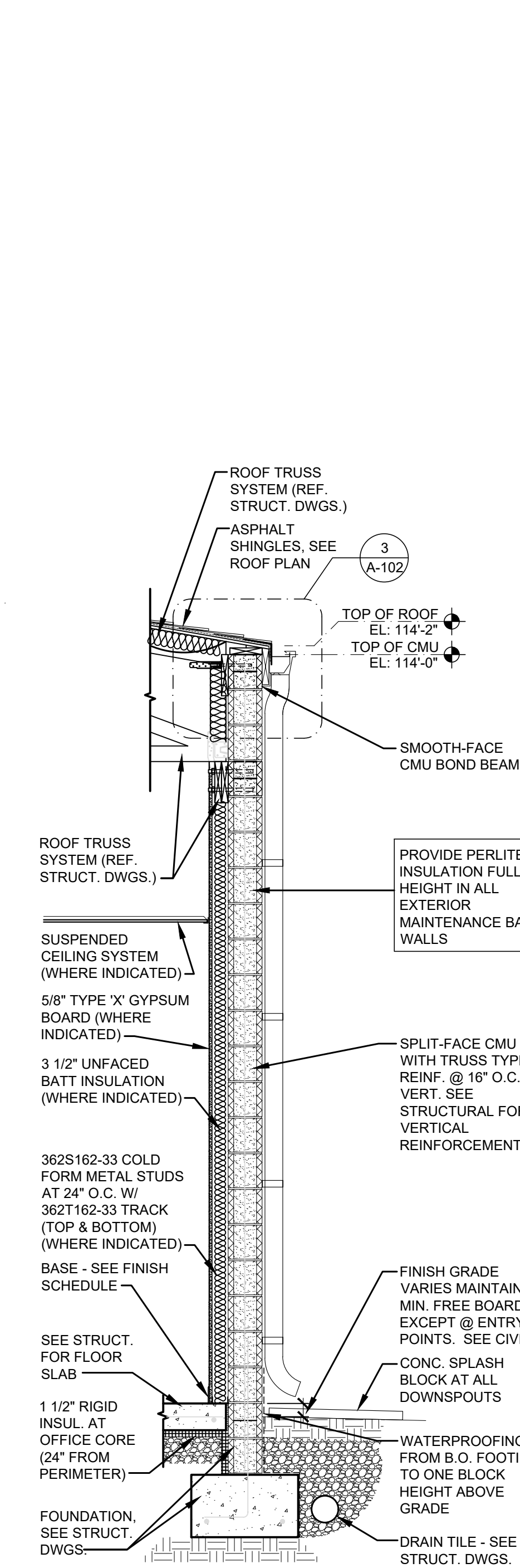
1 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



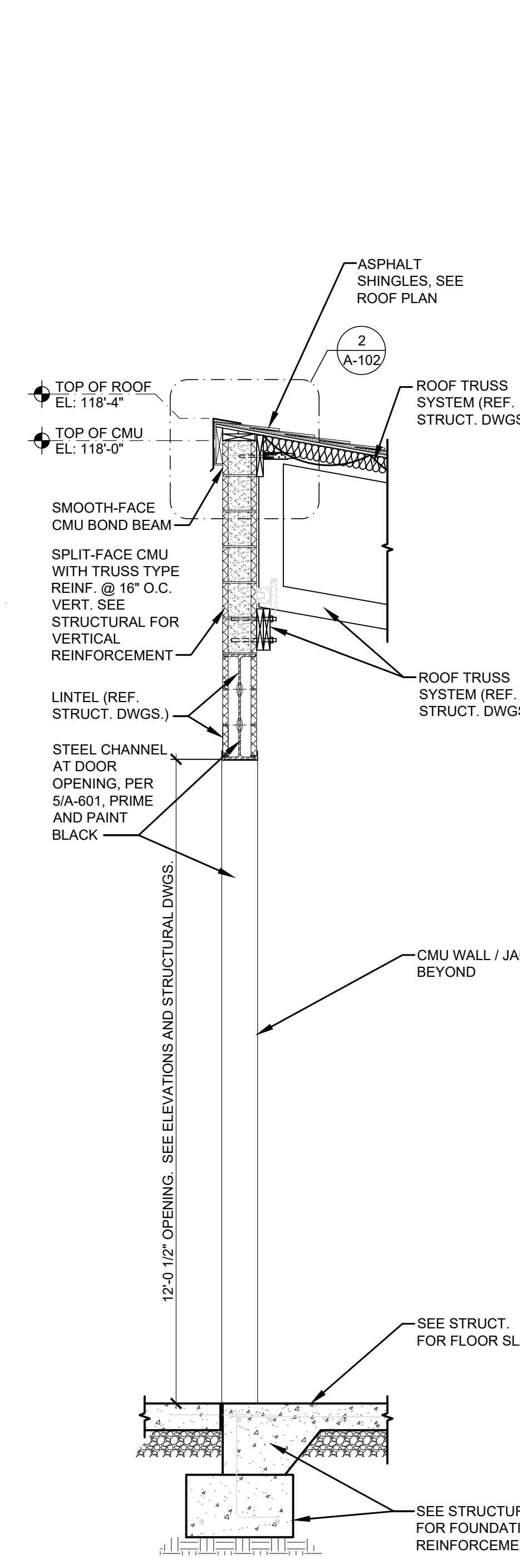
2 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



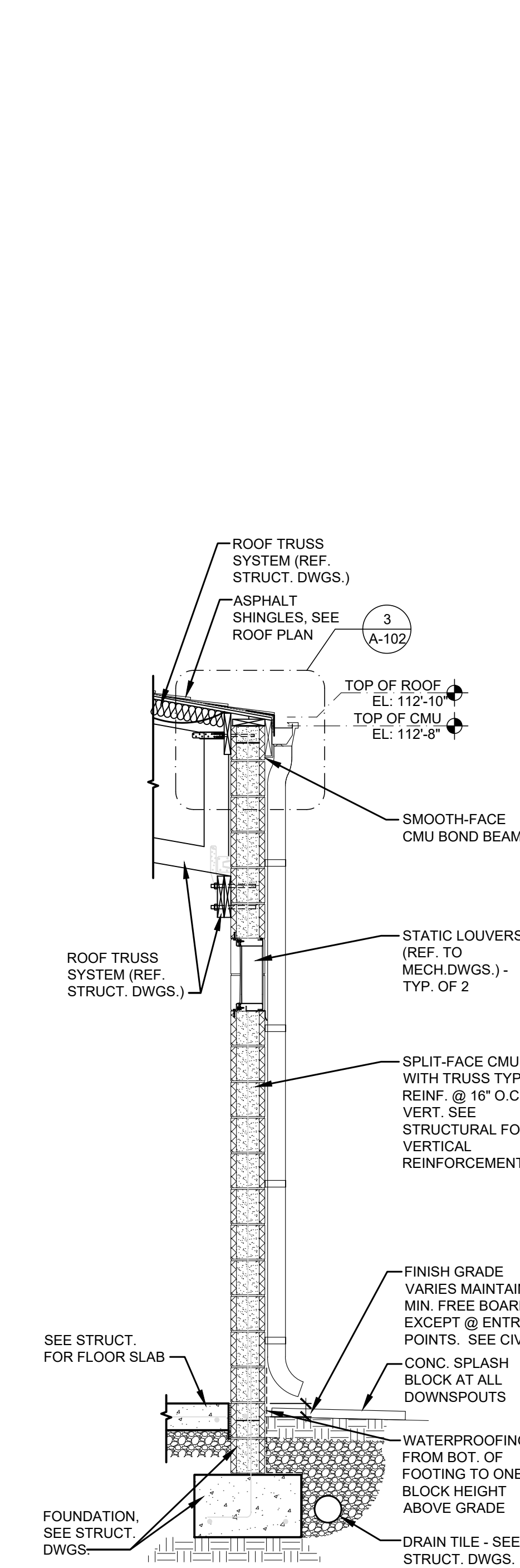
3 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



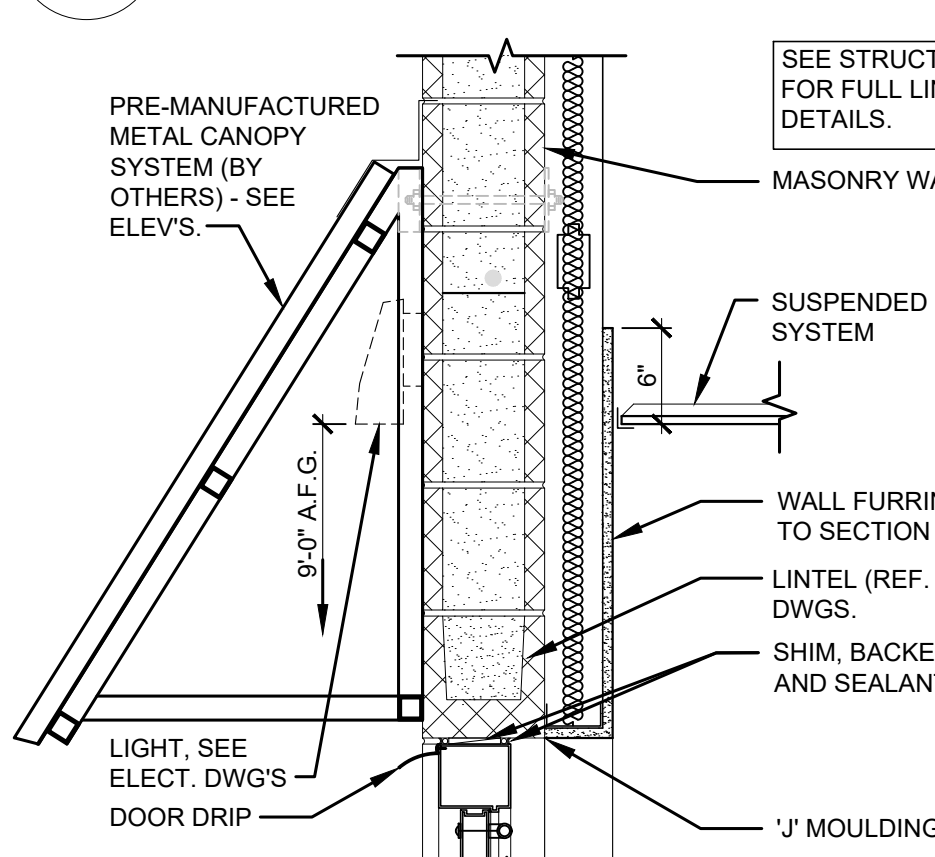
4 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



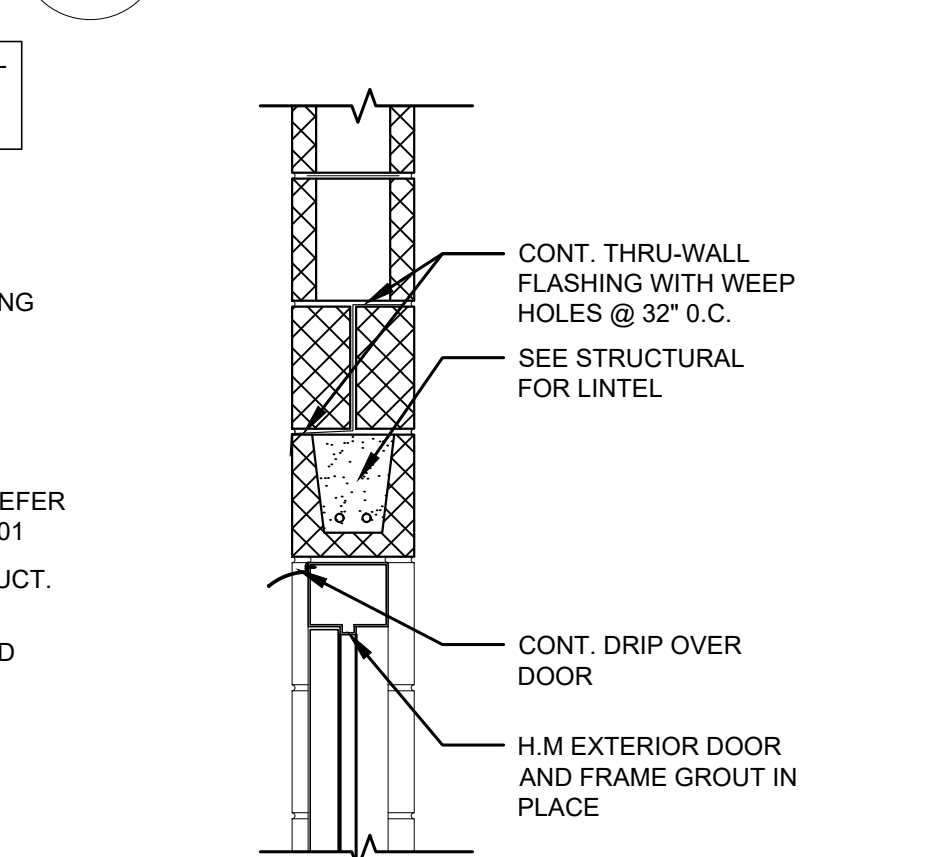
5 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



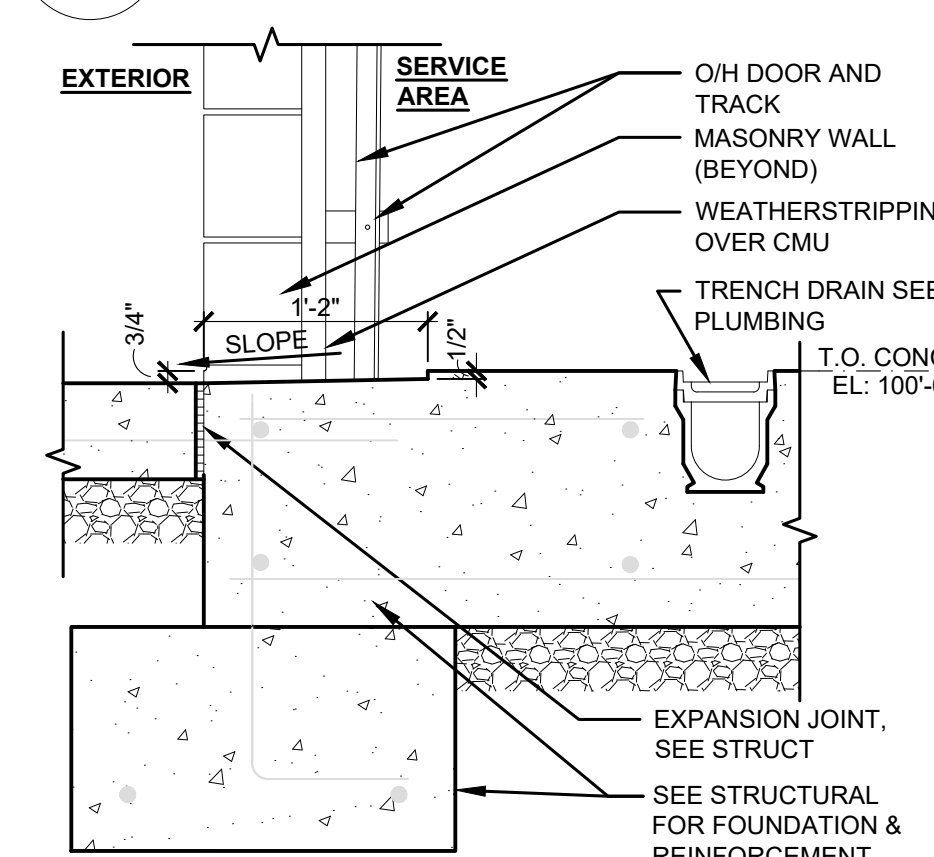
6 WALL SECTION
A-501 SCALE: 1/2" = 1'-0"



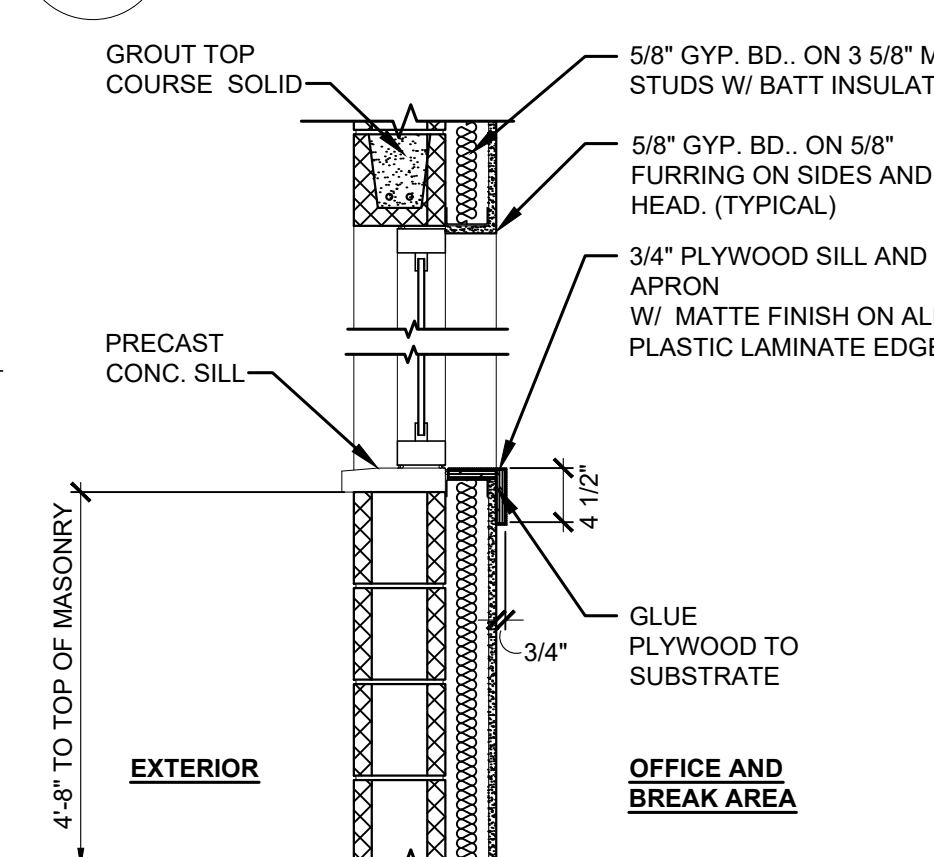
7 ENTRY DOOR HEAD DTL.
A-501 SCALE: 1" = 1'-0"



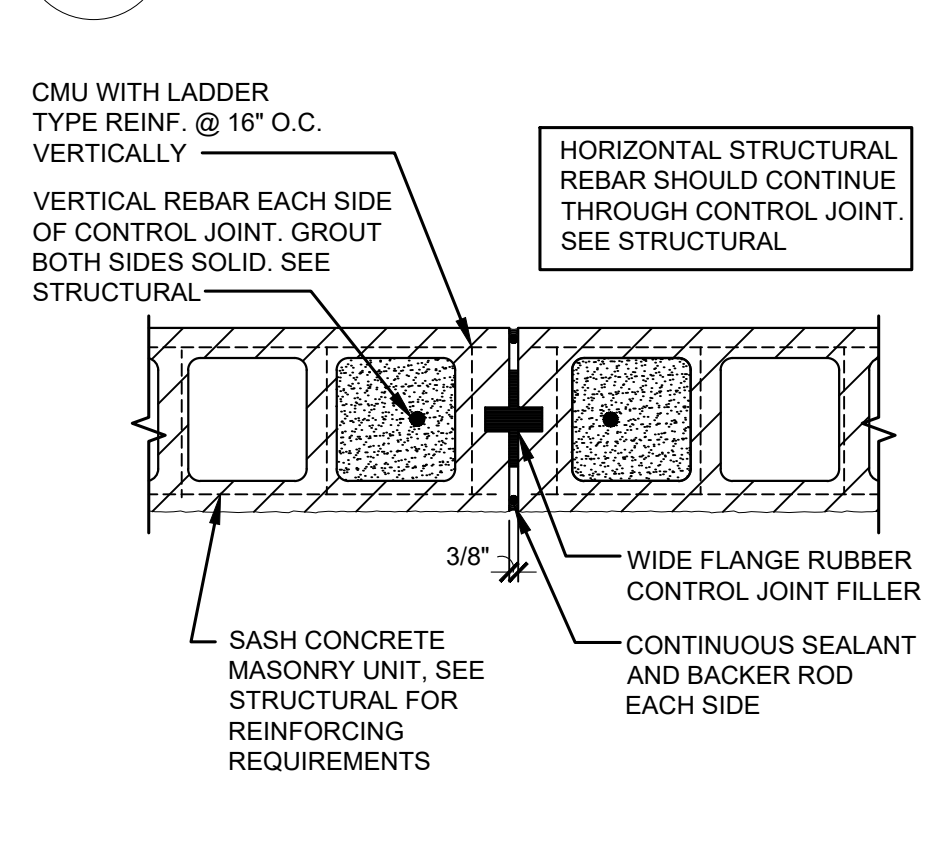
8 TYP. DOOR HEAD DTL.
A-501 SCALE: 1" = 1'-0"



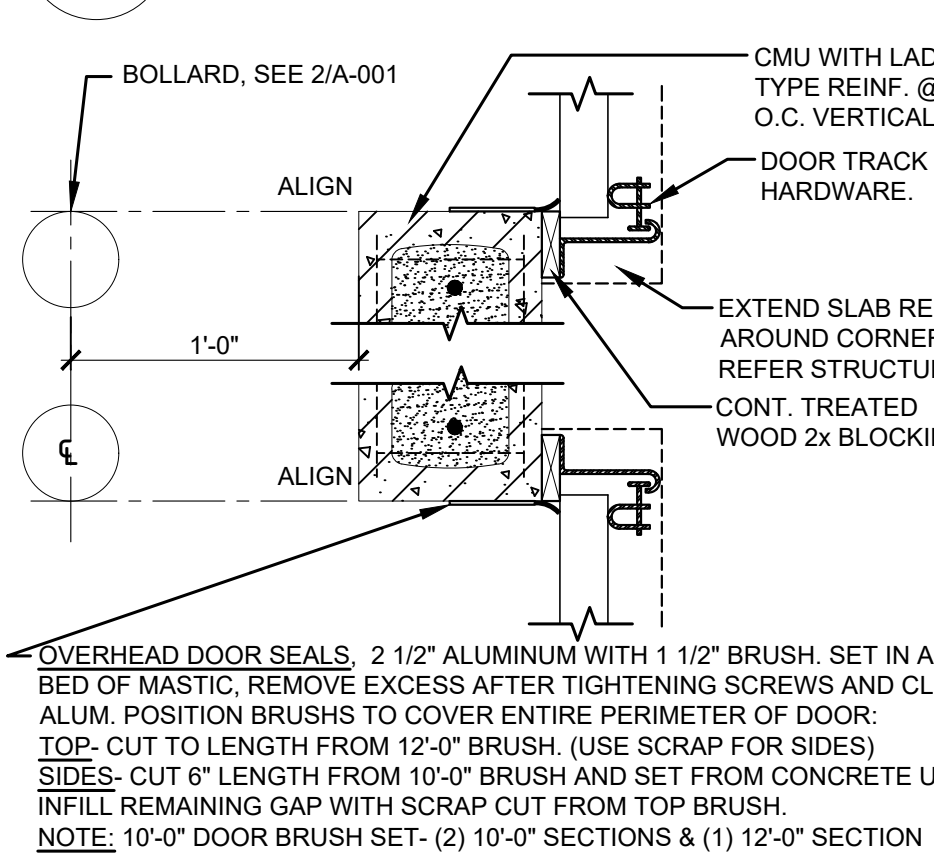
9 O.H. DOOR THRESHOLD
A-501 SCALE: 1" = 1'-0"



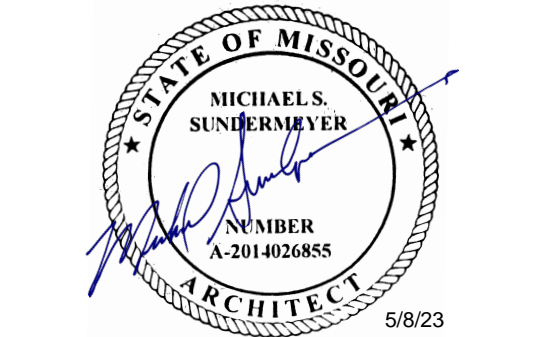
10 SECTION AT WINDOW
A-501 SCALE: 3/4" = 1'-0"



11 CMU CONTROL JOINT
A-501 SCALE: 1 1/2" = 1'-0"



12 OVERHEAD DOOR PIER
A-501 SCALE: 1 1/2" = 1'-0"



MICHAEL S. SUNDERMEYER
License Number: 2014026855
Expiration Date: 12/31/24
CASCO Diversified Corporation
180 Certificate of Authority
#003029 ARCHITECTURAL and #006163 ENGINEERING

CASCO

12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

ROOM FINISH SCHEDULE

SYM.	ROOM	WALLS				FLOOR		CEILING		COMMENTS
		NORTH	WEST	SOUTH	EAST	FLOOR BASE	FLOOR	MATERIAL	FINISH	
100	OFFICE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT1	-	
101	OFFICE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT1	-	
102	OFFICE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT1	-	
103	HALLWAY	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT1	-	
104	BREAKROOM	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT1	-	SS-1 AT COUNTERS
105	LAUNDRY ROOM	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	ACT2	-	SS-1 AT COUNTERS
106	CHEMICAL STORAGE	PT-1	PT-1	PT-1	PT-1	RB-1	CONC1	GBC	N/A	
107A, 107B	BAY AREA	N/A	N/A	N/A	N/A	N/A	CONC1	EXP	N/A	
108, 109	M & W RESTROOM	PT-2/PT-5	PT-2/PT-5	PT-2/PT-5	PT-2/PT-5	RB-1	CONC1	GBC	PT-3	GR-1 AT FLOOR ONLY
110, 111	M & W SHOWER	PT-2/PT-5	PT-2/PT-5	PT-2/PT-5	PT-2/PT-5	RB-1	CONC1	GBC	PT-3	GR-1 AT FLOOR ONLY
112, 113	COVERED STORAGE	N/A	N/A	N/A	N/A	N/A	CONC1	EXP	N/A	

NOTES: PAINT ALL HOLLOW METAL DOORS AND FRAMES AND OVERHEAD DOOR TO BULK STORAGE PT-4.

DOOR SCHEDULE

SYM.	ROOM	SIZE		DOOR		FRAME		HEAD DETAIL	JAMB DETAIL	HWR. GROUP	COMMENTS
		WIDTH	HEIGHT	MATERIAL	TYPE	MATERIAL	TYPE				
01	EXTERIOR TO OFFICE HALLWAY	3'-0"	7'-0"	ALUM.	B	H.M.	2	3/A601	4/A601	A	
02	EXTERIOR TO BAY AREA	3'-0"	7'-0"	H.M.	C	H.M.	2	3/A601	4/A601	A	
03	EXTERIOR TO BAY AREA	3'-0"	7'-0"	H.M.	C	H.M.	2	3/A601	4/A601	A	
04	EXT. STORAGE TO BAY AREA	8'-0"	6'-0"	METAL	D	-	-	-	5/A601	-	MOUNT TRACKS AND DOOR HOUSING ON WORK BAY SIDE; HARDWARE PER MANUFACTURER STANDARD
05-12	BAY AREA	10'-0"	10'-0"	METAL	E	-	-	-	5/A601	-	HARDWARE PER MANUFACTURER STANDARD
13, 14	BAY AREA	12'-0"	14'-0"	METAL	E	-	-	-	5/A601	-	HARDWARE PER MANUFACTURER STANDARD
15	HALLWAY	3'-0"	7'-0"	H.M.	B	H.M.	2	6/A601	7/A601	J	
16, 17	M & W RESTROOM	3'-0"	7'-0"	H.M.	A	H.M.	1	6/A601	7/A601	C	24"x28" LOUVER, PAINT GRIP GALV.
18, 19	M & W SHOWER ROOM	3'-0"	7'-0"	H.M.	A	H.M.	1	6/A601	7/A601	D	24"x28" LOUVER, PAINT GRIP GALV.
20-22	OFFICE DOOR	3'-0"	7'-0"	H.M.	B	H.M.	1	6/A601	7/A601	E	
23	BREAK ROOM	3'-0"	7'-0"	H.M.	B	H.M.	1	6/A601	7/A601	G	
24	BREAK ROOM	3'-0"	7'-0"	H.M.	B	H.M.	2	6/A601	7/A601	F	
25	LAUNDRY ROOM	3'-0"	7'-0"	H.M.	B	H.M.	1	6/A601	7/A601	B	
26	LAUNDRY ROOM	3'-0"	7'-0"	H.M.	B	H.M.	2	6/A601	7/A601	B	24"x28" LOUVER
27	CHEMICAL STORAGE	3'-0"	7'-0"	H.M.	A	H.M.	1	6/A601	7/A601	H	24"x28" LOUVER
28	MAIN. BAY TO MAIN. BAY	(PR) 3'-0"	7'-0"	H.M.	B	H.M.	2	3/A601	4/A601	I	

FINISH LEGEND:

ALL PRODUCTS LISTED ARE USED AS BASIS OF DESIGN, SEE SPECIFICATIONS FOR EQUIVALENT MATERIALS

FLOORING / COVE BASE MATERIALS:

- (CONC) GEMITE GEM-COTE EP 100 (CLEAR) CONCRETE EPOXY COATING.
- (GR-1) GRIP ADDITIVE USED WITH SEALER TO CREATE A SLIP RESISTANCE SURFACE. INSTALL PER MANUFACTURERS DIRECTIONS. BY EAGLE I/P CO. (WWW.EAGLESEALER.COM) OTHER ACCEPTABLE MANUFACTURERS: SUREGRIP, CONCRETE SEALERS USA AND CLEAR GRIP.
- (RB-1) 4" RUBBER WALL BASE - SEE SPECIFICATIONS, COLOR AS SELECTED BY OWNER.
- (SS-1) PLASTIC LAMINATE CASEWORK AND COUNTERTOPS. COLOR AS SELECTED BY OWNER.

WALL MATERIALS / FINISHES:

- (PT-1) WATER-BASED LATEX PAINT - SEMI-GLOSS, MATCH COLOR TO PT-2
- (PT-2) SHERWIN-WILLIAMS, SW PRO INDUSTRIAL PRE-CATALYZED, WATER BASED EPOXY, COLOR AS SELECTED BY OWNER, (SEMI-GLOSS SHEEN)
- (PT-3) SHERWIN-WILLIAMS, SW PRO INDUSTRIAL PRE-CATALYZED, WATER BASED EPOXY, MATCH SW 7007 CEILING BRIGHT WHITE, SEMI-GLOSS SHEEN
- (PT-4) SHERWIN-WILLIAMS - FOR HOLLOW METAL DOORS & FRAMES, COLOR: MATCH COLOR TO PT-2
- (PT-5) FRP, COLOR AND FINISH: AS SELECTED BY OWNER

CEILING:

- (GBC) 1/2" MOISTURE RESISTANT GYPSUM BOARD
- (EXP) EXPOSED STRUCTURE
- (ACT1) ARMSTRONG, 2'x4' ACOUSTIC CEILING TILES, CORTEGA, TEGULAR EDGE
- (ACT2) ARMSTRONG, 2'x4' ACOUSTIC CEILING TILES, FINE FISSURED W/ BIOBLOCK, TEGULAR EDGE

MISC:

- (PL-1) PLASTIC LAMINATE PANELS - EXTERIOR FACE OF CABINETS, OCTOLAM, COLOR: TO BE BY OWNER (WHITE MELAMINE PANELS - INTERIOR FACE OF CABINETS & DRAWINGS, AND EXPOSED SURFACES OF LOCKER ROOM BENCHES)
- (SP-1) SHOWER ENCLOSURE, FREEDOM SHOWERS (B.O.D.) SEE SPECIFICATIONS. APPROVED ALTERNATES: BARRIER FREE ARCHITECTURALS, INC., BEST BATH, OR APPROVED EQUAL.

HARDWARE GROUPS:

ALL PRODUCTS LISTED ARE USED AS BASIS OF DESIGN, SEE SPECIFICATIONS FOR EQUIVALENT MATERIALS

GROUP A - EXTERIOR

- 3 SETS "HAGER I VES" HINGE #8B1191 NRP (STAINLESS STEEL) 4-1/2" X 4-1/2" 626 SATIN CHROME FINISH (US26D)
- 1 CLASSROOM LEVER "BEST" 9K37R-15-D-S3 626 SATIN CHROME FINISH (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY 626 SATIN CHROME FINISH
- 1 CLOSER "FALCON" SC71A RWPA WITH METAL COVER 689 (ALUMINUM) (NORTON, DORMAKABA)
- 1 WEATHERSTRIP "ZERO" 4885-BK SILICONE SELF-ADHESIVE BLACK
- 1 THRESHOLD "ZERO" 655A-223 X 36" ALUMINUM MILL FINISH
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)
- 1 DOOR DRIP "NGP" 16A (PEMCO, HAGER)

GROUP B - LAUNDRY

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 PASSAGE LEVER "BEST" 9K30M-15-D-S3 626 SATIN CHROME FINISH (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY 626 SATIN CHROME FINISH
- 1 CLOSER LCN 4020T WITH METAL COVER (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 WALL STOP "VES" W5447 SATIN CHROME FINISH (US26D) DRYWALL MOUNTING (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP C - LOCKER ROOM

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 "VES" PUSH/PULL SET #200, #X16 AND #302-8, #X16 (BALDWIN, HAGER)
- 1 CLOSER LCN 4020T WITH METAL COVER (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 DOME WALL BUMPER "VES" MODEL #WS406/407 (CONVEX) SATIN STAINLESS STEEL (US32D) (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP D - SHOWER

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 "VES" PUSH/PULL SET #200, #X16 AND #302-8, #X16 (BALDWIN, HAGER)
- 1 CLOSER LCN 4021T STD WITH METAL COVER (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 DOME WALL BUMPER "VES" MODEL #WS406/407 (CONVEX) SATIN STAINLESS STEEL (US32D) (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP E - OFFICE

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 ENTRY LEVER "BEST" 9K37AB-15-D-S3 626 SATIN CHROME FINISH (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY, 626 SATIN CHROME FINISH
- 1 DOME WALL BUMPER "VES" MODEL #WS406/407 (CONVEX) SATIN STAINLESS STEEL (US32D) (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP F - BREAK ROOM

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 "VES" PUSH/PULL SET #200, #X16 AND #302-8, #X16 (BALDWIN, HAGER)
- 1 CLOSER "FALCON" SC71A RWPA WITH METAL COVER 689 (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 WALL STOP "VES" W5447 SATIN CHROME FINISH (US26D) DRYWALL MOUNTING (DON-JO, ROCKWOOD)
- 1 WEATHERSTRIP "ZERO" 4885-BK SILICONE SELF-ADHESIVE BLACK
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP G - BREAK ROOM

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 "VES" PUSH/PULL SET #200, #X16 AND #302-8, #X16 (BALDWIN, HAGER)
- 1 CLOSER "FALCON" SC71A RWPA WITH METAL COVER 689 (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 DOME WALL BUMPER "VES" MODEL #WS406/407 (CONVEX) SATIN STAINLESS STEEL (US32D) (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP H - CHEMICAL STORAGE

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 ENTRY LEVER "BEST" 9K37AB-15-D-S3 626 SATIN CHROME FINISH (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY, 626 SATIN CHROME FINISH
- 1 CLOSER "FALCON" SC71A RWPA WITH METAL COVER 689 (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 WALL STOP "VES" W5447 SATIN CHROME FINISH (US26D) DRYWALL MOUNTING (DON-JO, ROCKWOOD)
- 1 WEATHERSTRIP "ZERO" 4885-BK SILICONE SELF-ADHESIVE BLACK
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP I - DOUBLE DOOR

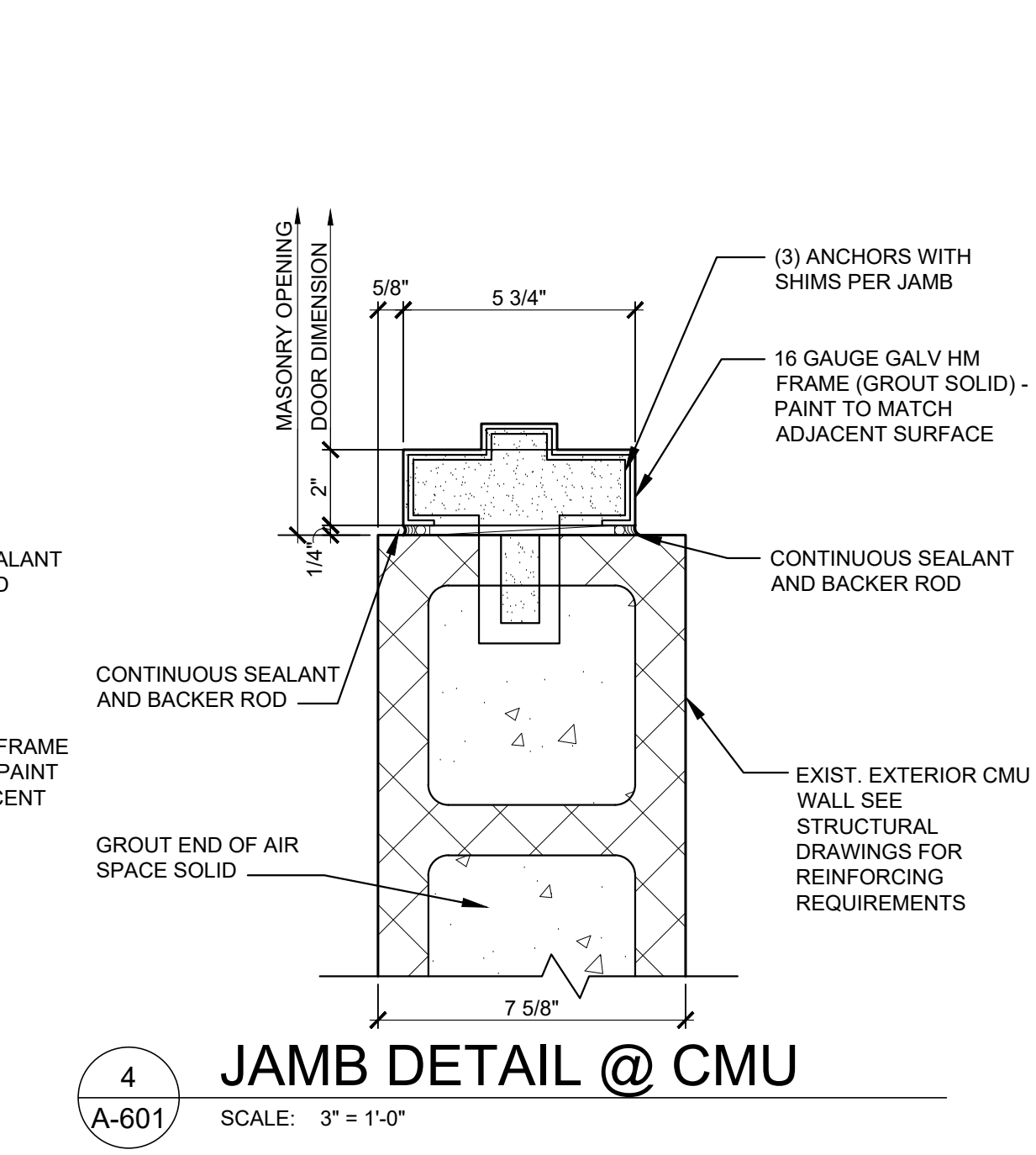
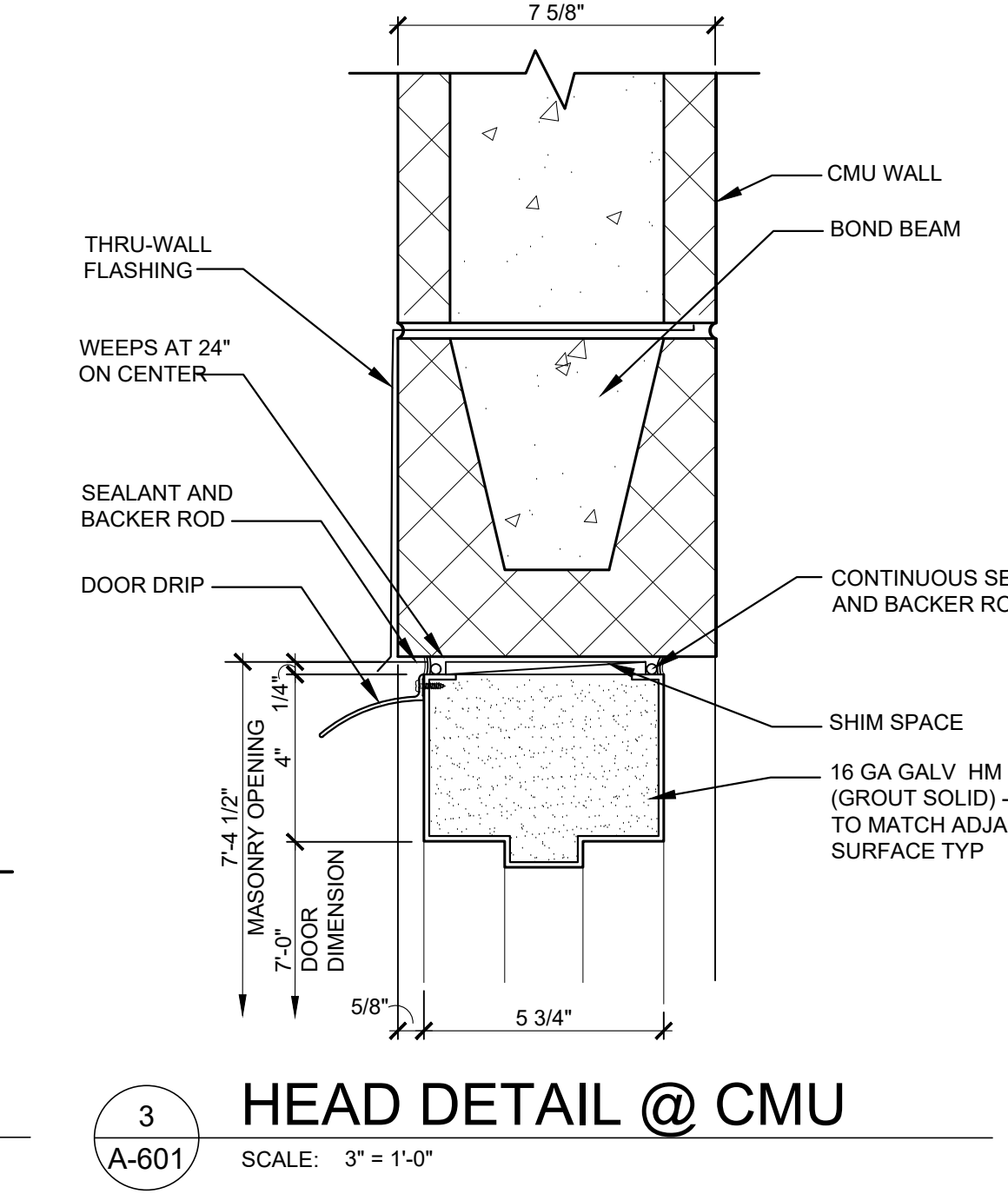
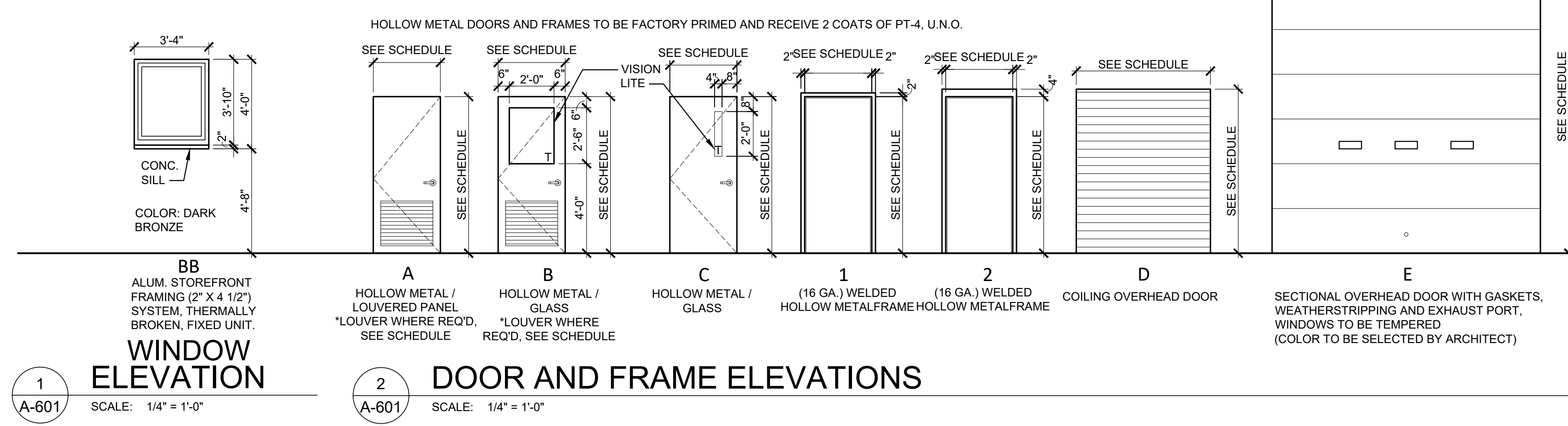
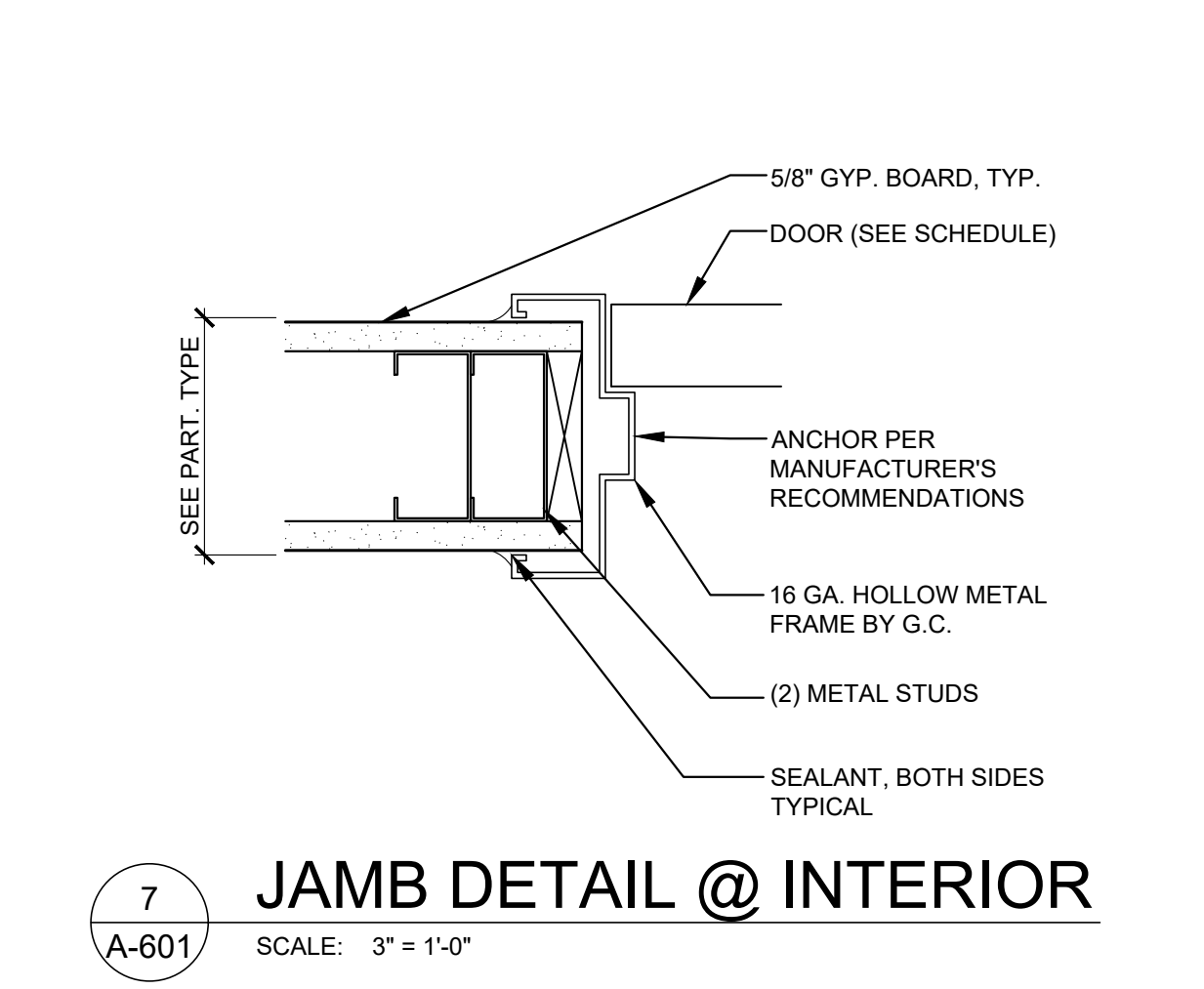
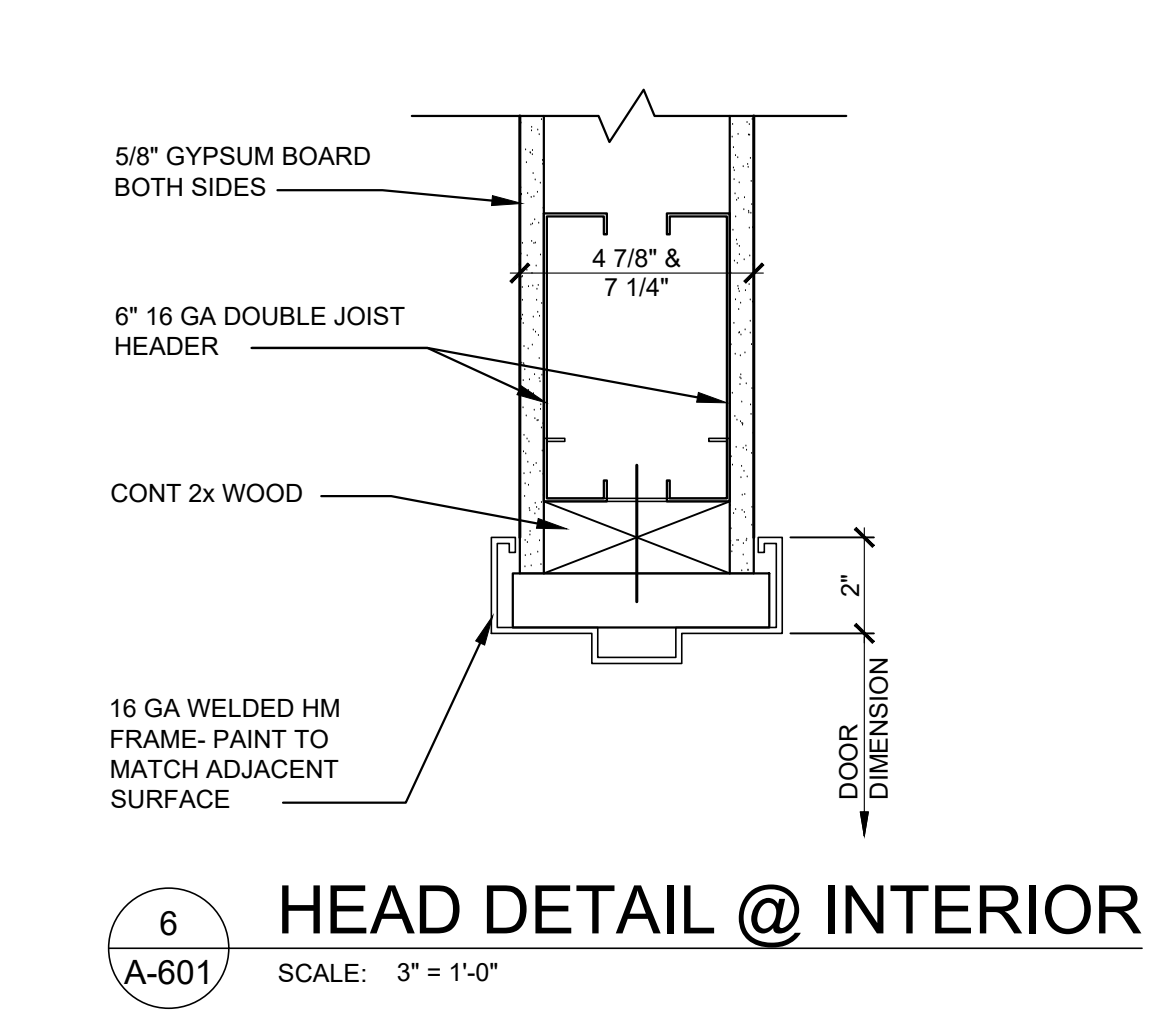
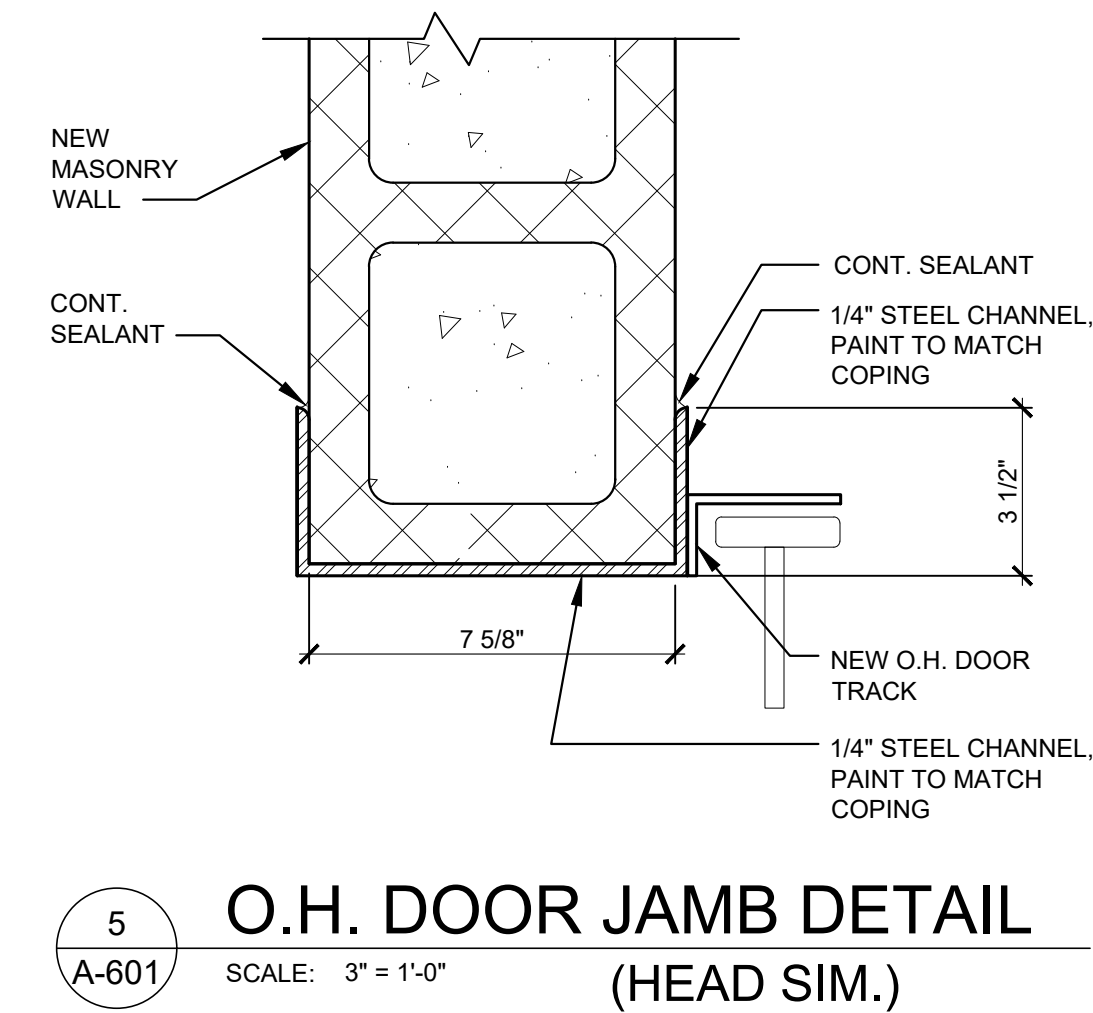
- 6 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 ENTRY LEVER "BEST" 9K37AB-15-D-S3, 626 SATIN CHROME FINISH (US26D) (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY, 626 SATIN CHROME FINISH
- 1 PASSAGE "BEST" 9K4-0-N-C-S3 ON RHR PANEL, 626 SATIN CHROME FINISH
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 WALL STOP "VES" W5449 SATIN CHROME FINISH (US26D) DRYWALL MOUNTING (DON-JO, ROCKWOOD)
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GROUP J - HALLWAY

- 3 SETS "VES" HINGE #8B11 (STAINLESS STEEL) 4-1/2" X 4-1/2" 652 SATIN CHROME FINISH (US26D) (STANLEY, BALDWIN)
- 1 ENTRY LEVER "BEST" 9K37AB-15-D-S3, 626 SATIN CHROME FINISH (US26D) (FALCON, SCHLAGE)
- 1 INTERCHANGEABLE CORE "BEST" 1C7A1 (7-PIN) UNCOMBINATIONED SFIC CORE W/ A KEYWAY, 626 SATIN CHROME FINISH
- 1 CLOSER "FALCON" SC71A RWPA WITH METAL COVER 689 (ALUMINUM) (NORTON, DORMAKABA)
- 1 KICKPLATE "VES" #400 10" X 34" B-CS, STAINLESS STEEL (US32D), MOUNTED 1" FROM BOTTOM OF DOOR ON BOTH SIDES
- 1 FLOOR STOP "VES" F540 SATIN CHROME FINISH (US26D) (DON-JO, ROCKWOOD)
- 1 WEATHERSTRIP "ZERO" 4885-BK SILICONE SELF-ADHESIVE BLACK
- 3 DOOR SILENCERS "VES" SR84 (ROCKWOOD, BALDWIN)

GENERAL NOTES:

- BEST LOCKS PROVIDED BY CONTRACTOR; CORES TURNED OVER TO THE OWNER PRIOR TO INSTALLATION.



CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.

DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 05/08/2023

CAD DWG FILE: _____
DRAWN BY: MAM
CHECKED BY: RAR
DESIGNED BY: _____

SHEET TITLE:

SCHEDULES
AND LEGENDS

SHEET NUMBER:

A-601

19 OF 33 SHEETS
05/08/2023



MICHAEL S. SUNDERMEYER
License Number: 2014026855
Expiration Date: 12/31/24
CASCO Diversified Corporation
140 Certificate of Authority
#000329 ARCHITECTURAL and #000613 ENGINEERING

CASCO

12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
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REVISION: _____
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DESIGNED BY: _____

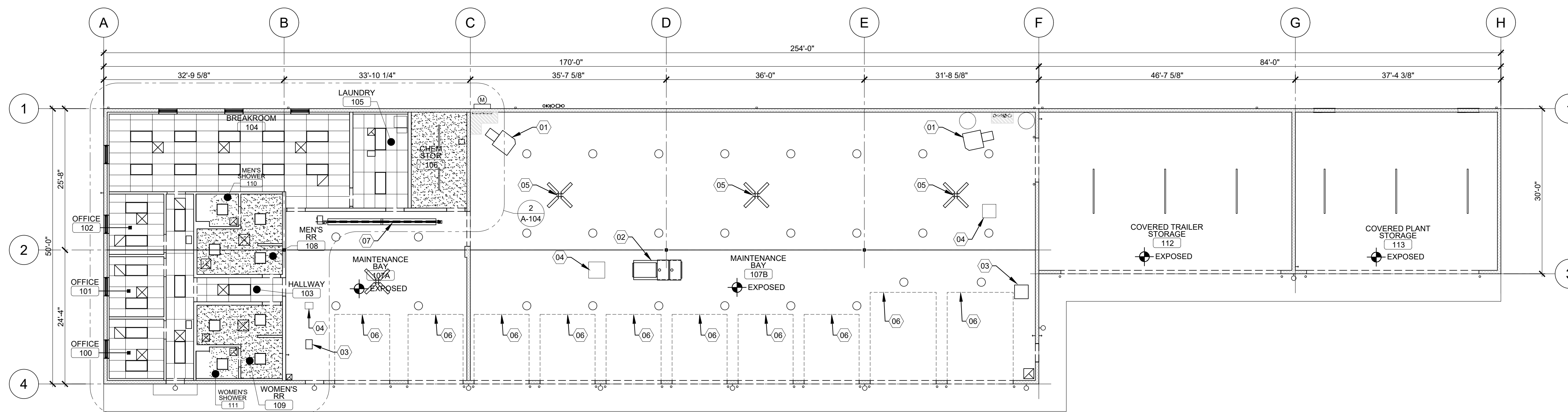
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**REFLECTED
CEILING PLANS**

SHEET NUMBER:

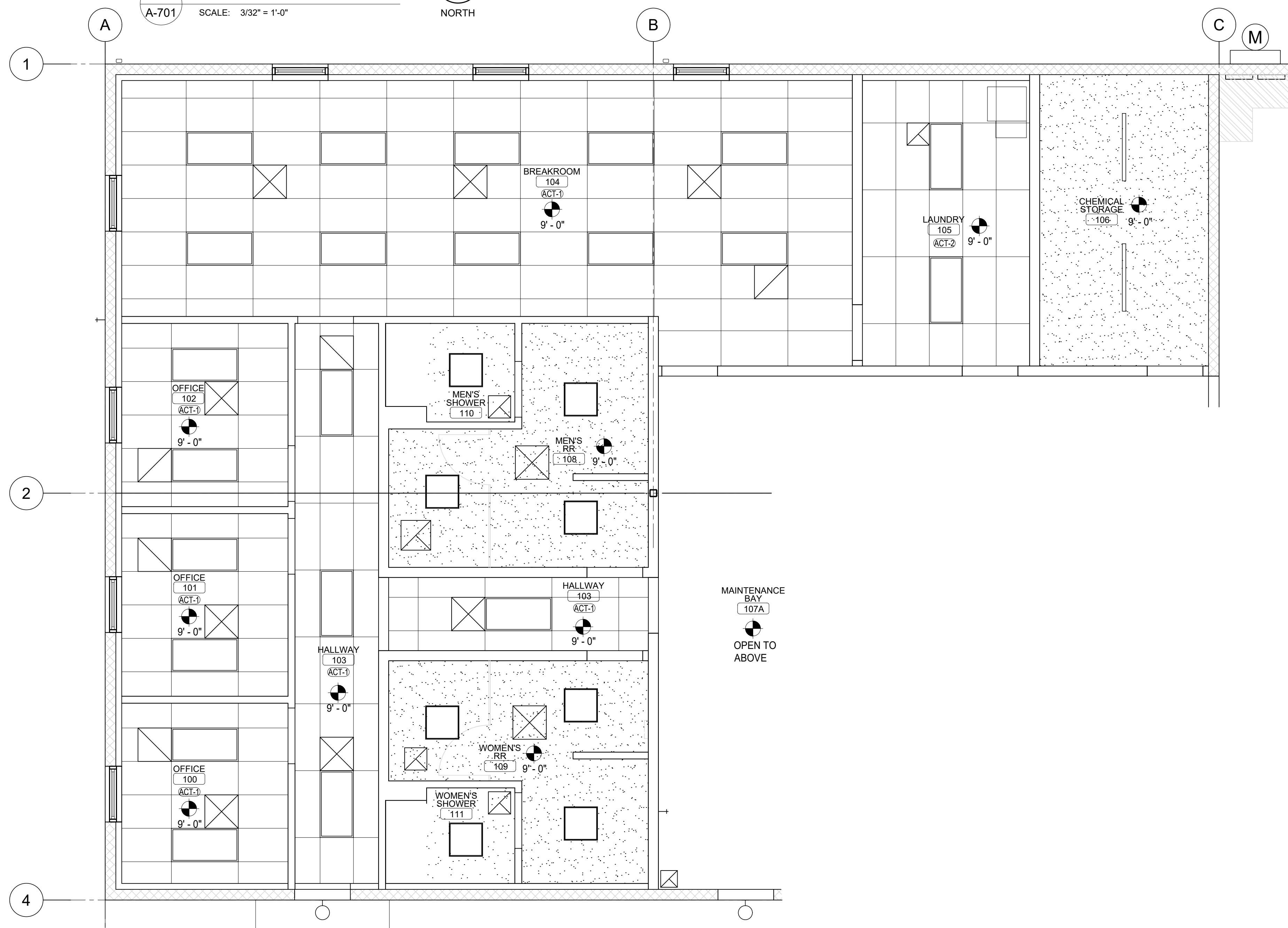
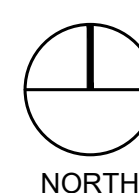
A-701

20 OF 33 SHEETS
05/08/2023



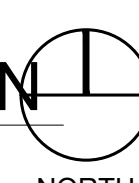
REF. CLG. PLAN

1 A-701 SCALE: 3/32" = 1'-0"



ENLARGED REF. CLG. PLAN

2 A-701 SCALE: 1/4" = 1'-0"



REFLECTED CEILING PLAN GENERAL NOTES

- GC TO COORDINATE MECHANICAL AROUND LIGHTING PLACEMENT
- DO NOT PUNCH OR USE DECK ABOVE TO SUPPORT ANY ITEMS SUCH AS CEILING GRID, MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC. EQUIPMENT SHALL BE SUPPORTED FROM STRUCTURAL SUPPORT MEMBERS ONLY. GC TO BE RESPONSIBLE FOR NOTIFYING SUB-CONTRACTORS PRIOR TO PERFORMING ANY WORK.
- GC SHALL COORDINATE THE INSTALLATION OF THE VARIOUS TRADE ITEMS WITHIN THE SPACE ABOVE ALL CEILINGS (INCLUDING, BUT NOT LIMITED TO: STRUCTURAL MEMBERS, MECHANICAL DUCTS AND INSULATION, CONDUITS, RACEWAYS, LIGHT FIXTURES, CEILING SYSTEMS, AND ANY SPECIAL STRUCTURAL SUPPORTS REQUIRED) AND SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISH CEILING HEIGHT ABOVE THE FINISHED FLOOR INDICATED ON THE DRAWINGS.
- GC SHALL BE RESPONSIBLE FOR REPAIRING ANY SURFACES DAMAGED BY CONSTRUCTION ACTIVITY THAT IS UNDER THE CONTROL OF THE GC (INCLUDING ALL SUBCONTRACTOR WORK).
- PROTECT ALL SURFACES OF AREA TRAVELED THROUGH WHILE MATERIALS AND EQUIPMENT ARE BROUGHT TO THE AREA OF WORK. PROTECT ALL FLOORS WHILE CEILING WORK IS BEING COMPLETED.
- CENTER NEW CEILING GRIDS U.N.O.

RCP KEYED NOTE LEGEND

01	UNIT HEATER - REFER TO MECHANICAL DRAWINGS
02	MAKE UP AIR UNIT - REFER TO MECHANICAL DRAWINGS
03	EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
04	ROOF HOOD - REFER TO MECHANICAL DRAWINGS
05	CEILING HUNG INDUSTRIAL FAN
06	OUTLINE OF OVERHEAD DOOR
07	CEILING HUNG RADIANT HEATER - REFER TO MECHANICAL DRAWINGS

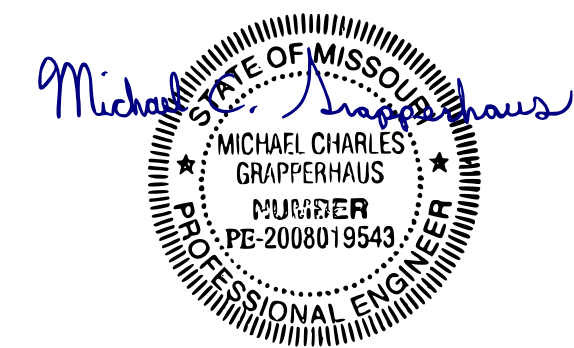
ROOF INSULATION

PROVIDE NEW R-30 (MIN.) BATT INSULATION HELD WITH SELF-SUPPORTING SCRIM SYSTEM (IN MAIN BUILDING ONLY-NOT OUTDOOR COVERED STORAGE AREAS). THE G.C. SHOULD INSTALL A POLYPROPYLENE FACED VAPOR RETARDER MEMBRANE (FIRE RETARDER)(COLOR: WHITE).

RCP LEGEND NOTE: SEE ELECT. AND MECH. DRAWINGS FOR MORE INFORMATION

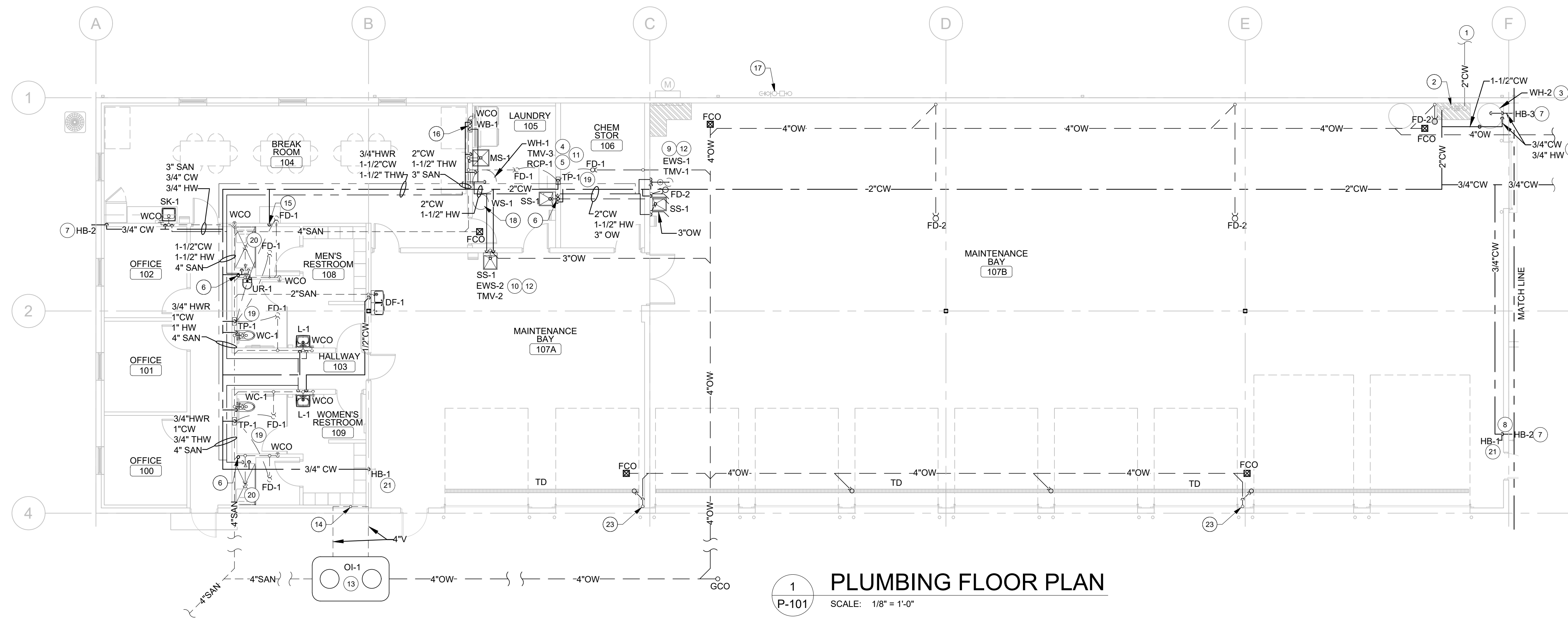
	2X2 LAY-IN FIXTURES - U.N.O.
	2X4 LAY-IN FIXTURES - U.N.O.
	STRIP LIGHT - U.N.O.
	HIGHBAY LED PENDANT - U.N.O.
	SUPPLY AIR DIFFUSER-SEE MECH.
	RETURN AIR DIFFUSER
	EXHAUST FAN
	2x4 ACT CEILING (ACT#) • ACT1 - ACOUSTIC CEILING TILES • ACT2 - WASHABLE, MOLD & MILDEW RESISTANT ACOUSTIC CEILING TILES
	NEW GYPSUM CEILING U.N.O.

NOTE: SEE ROOM FINISH SCHEDULE FOR MORE INFORMATION.

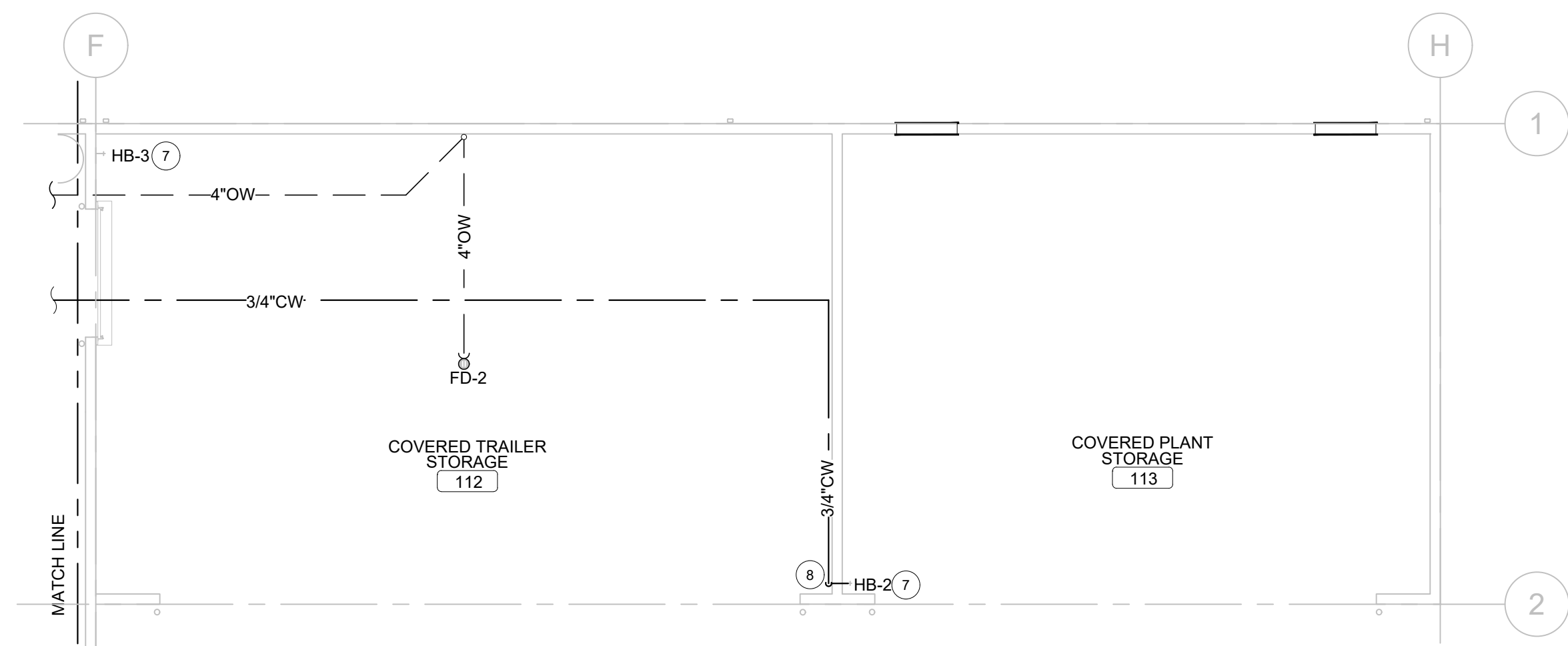


05/08/23

MICHAEL C. GRAPPNERHAUS
License Number: PE-2008019543
Expiration Date: 12/31/24
CASCO Diversified Corporation
MO Certificate of Authority
#000329 ARCHITECTURAL and #000613 ENGINEERING



1 PLUMBING FLOOR PLAN
SCALE: 1/8" = 1'-0"



PLUMBING KEYED NOTES

- 2" WATER SERVICE FROM WATER MAIN ON SITE. FIELD COORDINATE INVERT, ROUTING AND MATERIALS PRIOR TO FABRICATION AND INSTALLATION.
- NEW WATER METER, RPZA SHALL BE INSTALLED INSIDE BUILDING. COORDINATE LOCATION, ROUTING AND REQUIREMENTS WITH CIVIL PLANS, EQUIPMENT LAYOUT AND ALL OTHER DISCIPLINES PRIOR TO FABRICATION AND INSTALLATION.
- GAS-FIRED WATER HEATER IN DRAIN PAN. CONNECT HOT WATER TO HOSE BIBB HB-3.
- FLOOR MOUNTED GAS-FIRED WATER HEATER IN DRAIN PAN. FIELD COORDINATE LOCATION AND PIPE ROUTING WITH LAUNDRY ROOM LAYOUT PRIOR TO INSTALLATION.
- MOUNT RECIRCULATING HOT WATER PUMP TO WALL NEXT TO WATER HEATER IN LAUNDRY ROOM AT MINIMUM OF 5'-0" A.F.F.
- PLUMBING CONTRACTOR TO PROVIDE AND INSTALL NEW 4" VENT THRU ROOF. TERMINATION OF VENT THRU ROOF TO BE LOCATED A MINIMUM OF 10 FT DISTANCE FROM ANY FRESH AIR INTAKE. FIELD VERIFY CONDITIONS AND LOCATION PRIOR TO INSTALLATION.
- INSTALL FREEZEPROOF EXTERIOR WALL HOSE BIBB FLUSH TO WALL SURFACE. FIELD COORDINATE ROUTING OF PIPING AS NEEDED.
- WATER PIPING SHALL BE INSTALLED TIGHT TO FACE OF WALL AND INSULATED AS REQUIRED BY CODE. PROVIDE SHUT-OFF VALVES IN VERTICAL DROP AT ACCESSIBLE LOCATION.
- EYEWASH SHOWER STATION SHALL BE INSTALLED PER MANUFACTURER INSTALLATION INSTRUCTION. PROVIDE TEMPERED WATER CONNECTION FROM THERMOSTATIC MIXING VALVE.
- HAND HELD EYEWASH SYSTEM MOUNTED ON WALL NEXT TO MOP SINK. PROVIDE TEMPERED WATER CONNECTION FROM THERMOSTATIC MIXING VALVE.
- CONTRACTOR TO SUPPLY AND INSTALL A THERMOSTATIC MIXING VALVE NEAR WATER HEATER AND SET MAX DISCHARGE TEMPERATURE NOT TO EXCEED 110°F FROM REACHING PLUMBING FIXTURES PER CODE.
- CONTRACTOR TO SUPPLY AND INSTALL A THERMOSTATIC MIXING VALVE AT EYEWASH STATION & EYEWASH SHOWER STATION. SET MAX DISCHARGE TEMPERATURE NOT TO EXCEED 85°F ASSE 1071
- CONTRACTOR SHALL PROVIDE AND INSTALL HIGH DENSITY POLYETHYLENE OIL INTERCEPTOR PER LOCAL CODE, AHJ AND MANUFACTURER INSTALLATION REQUIREMENTS. PROVIDE WITH TRAFFIC RATED COVERS. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION AND ROUTING OF PIPING OUTSIDE OF BUILDING PRIOR TO START OF FABRICATION OR INSTALLATION.
- 4" UNDERGROUND VENTS UP WALL. EXTEND UP 6" ABOVE FIXTURE RIM LEVEL. COMBINE VENTS INTO (1) 4" VENT THRU ROOF. OFFSET 36" FROM OUTER WALL PRIOR TO ROOF PENETRATION.
- PROVIDE 1/2" COLD WATER SUPPLY WITH BACKFLOW AND SHUTOFF 18" A.F.F. FOR FUTURE ICE MACHINE.
- INSTALL WASHER BOX 60" A.F.F. AT PROPOSED WASHER AND DRYER LOCATION.
- NEW GAS SERVICE AND METER. COORDINATE LOCATION, SIZE AND ROUTING WITH CIVIL PLANS AND LOCAL UTILITY. REFER TO SHEET P-102 FOR GAS PIPE ROUTING AND SIZING INSIDE BUILDING.
- WATER SOFTENER SYSTEM PROVIDED AND INSTALLED BY CONTRACTOR. FIELD COORDINATE REQUIREMENTS AND SPECIFICATIONS. ALL HOSE BIBBS ARE **NOT** ATTACHED TO THIS SYSTEM.
- 1/2" COPPER LINE UNDERGROUND TO FLOOR DRAIN TRAP PRIMER CONNECTION. FIELD COORDINATE ROUTING.
- 2" SHOWER DRAIN STUB THRU FLOOR. COORDINATE LOCATION AND CONNECTION WITH SHOWER DRAIN FITTING PROVIDED WITH SHOWER ASSEMBLY.
- INSTALL INTERIOR WALL HOSE BIBB AT 24" A.F.F.
- WATER HEATER SHALL BE INSTALLED ON A 18" SUPPORT STAND. PROVIDE WALL SUPPORT BRACING FOR WATER HEATER. REFER TO DETAIL ON SHEET P-501.
- INSTALL VENT LINE TIGHT TO WALL AS NEEDED.

PLUMBING SYMBOLS LEGEND

- SAN — NEW SANITARY SEWER
- V — NEW SANITARY VENT
- OW — OIL WASTE PIPING
- CA — COMPRESSED AIR PIPING
- G — NATURAL GAS PIPING
- HW — HOT WATER PIPING
- THW — TEMPERED HOT WATER PIPING
- HWR — HOT WATER RETURN PIPING
- CW — DOMESTIC COLD WATER PIPING
- X — SHUT OFF VALVE
- XXX EQUIPMENT/FIXTURE DESIGNATION
- # KEYED NOTE
- REVISION NUMBER
- △ POINT OF CONNECTION (NEW TO EXISTING)
- TYP. TYPICAL
- V.I.F. VERIFY IN FIELD

CIVIL ENGINEERING DESIGN COORDINATION NOTICE

NOTICE TO ALL PARTIES HAVING AN INTEREST IN THIS CONSTRUCTION PROJECT

- CIVIL ENGINEERING FOR THIS PROJECT IS BEING PERFORMED BY OTHERS.
- CONTRACTORS RELYING ON DOCUMENTS NOT COORDINATED WITH THE CIVIL ENGINEERING WORK SHALL DO SO AT THEIR OWN RISK.
- COORDINATION WITH THE CIVIL ENGINEERING DOCUMENTS HAS BEEN COMPLETED ONLY AS SHOWN BELOW.

CIVIL ENGINEERING CONSULTANT IS: Central Missouri Professional Services
Jefferson City, MO

CIVIL SHT. DWG. NO.	CIVIL SHEET DWG. TITLE	REV. NO.	REV. DATE	REV. NO.	REV. DATE	REV. NO.	REV. DATE
C101	Site Plan	---	04/27/23				

COORDINATION CHECKED BY	INITIAL	DATE	INITIAL	DATE	INITIAL	DATE
DISCIPLINE: PLUMB	SAJ	04/27/23				

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 04/27/2023

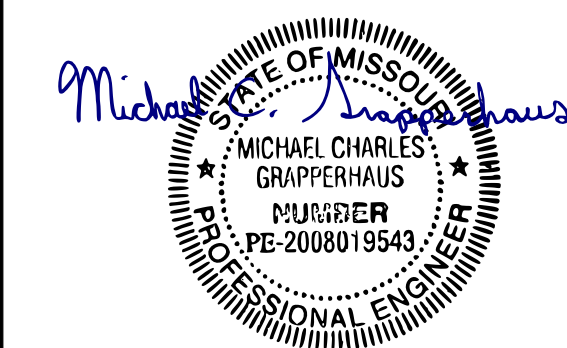
CAD DWG FILE: _____
DRAWN BY: SAJ
CHECKED BY: MCG
DESIGNED BY: SAJ

SHEET TITLE:

PLUMBING FLOOR PLAN

SHEET NUMBER:

CASCO
12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

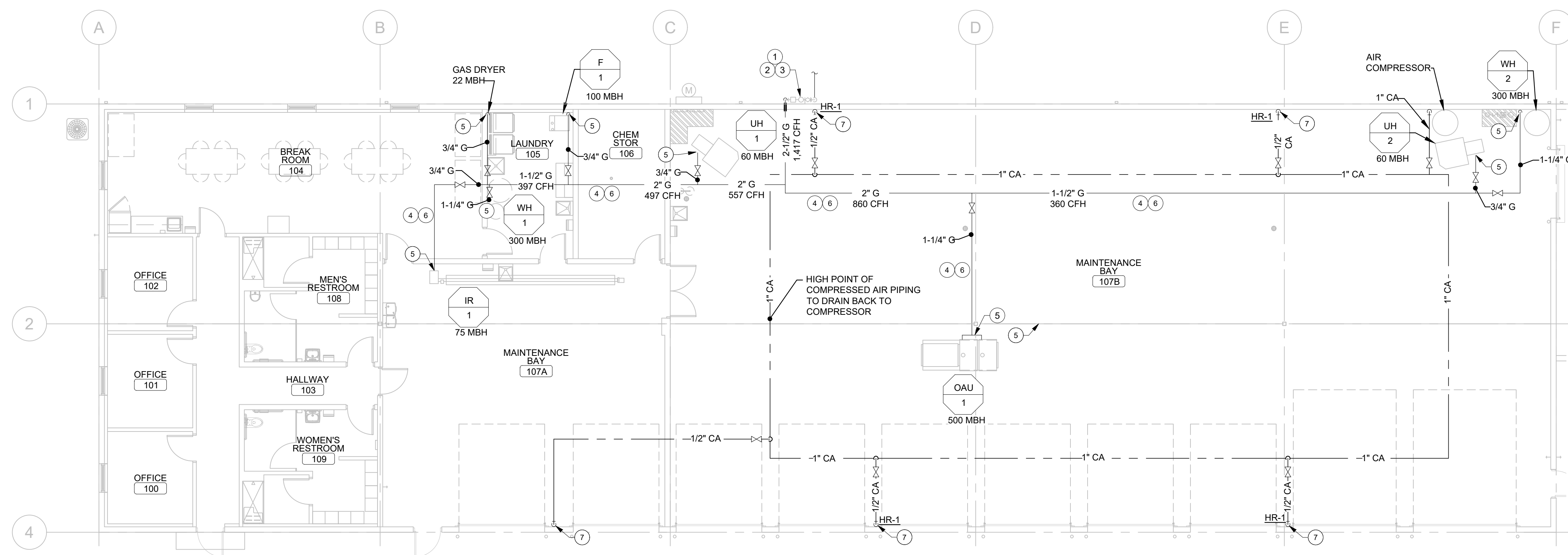


05/08/23

MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
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CASCO Diversified Corporation
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12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

CASCO



1
P-102
GAS & AIR FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

- AIR PIPING NOTES**
1. PROVIDE SHUTOFF VALVES IN EACH BRANCH USING BALL VALVES. REFER TO AIR SUPPLY.
 2. INSTALL/ROUTE ALL PIPING TIGHT TO BOTTOM CHORD OF TRUSS WHERE POSSIBLE.
 3. ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY FOR COMPLETION OF COMPRESSED AIR SYSTEM SHOWN ON DRAWINGS OR REFERRED TO IN SPECIFICATIONS TO BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE.
 4. WHERE DRAWINGS OR SPECIFICATIONS EXCEED GOVERNING CODE REQUIREMENTS, DESIGN SHALL GOVERN. INSTALL NO WORK CONTRARY TO OR BELOW MINIMUM LEGAL STANDARDS, WHETHER DRAWINGS AND SPECIFICATIONS FULLY COMPLY OR NOT.
 5. CAUTION: ALL AIR LINES SHALL BE PROPERLY CLEANED AND BLOWN OUT PRIOR TO CONNECTION.
 6. ALL BRANCH LINE CONNECTIONS TO MAIN CIRCUIT SHALL BE TAPPED FROM THE TOP OF THE LINE.

- # KEYED NOTES**
1. GAS METER BY UTILITY. CONTRACTOR SHALL VERIFY THAT NEW GAS SERVICE IS REGULATED FOR 7 IN. W.C. AND THE GAS METER HAS A MINIMUM CAPACITY OF 1,417 CFH. ANY DISCREPANCIES IN THIS INFORMATION SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND/OR PROJECT ENGINEER.
 2. ROUTE GAS PIPE UP TIGHT TO EXTERIOR WALL AND AS REQUIRED FROM GAS METER. COORDINATE LOCATION OF ROUGH IN AND OR INSTALLATION OF GAS PIPE. GAS PIPING IS SIZED BASED ON 7 IN. W.C. PRESSURE AND A 0.5 W.C. PRESSURE DROP AND A TOTAL DEVELOPED LENGTH OF 150 FT PER THE 2021 INTERNATIONAL FUEL GAS CODE, TABLE 402.4(2).
 3. CONTRACTOR SHALL PROVIDE GAS PRESSURE REGULATOR ON CUSTOMER SIDE OF METER TO SUPPLY BUILDING EQUIPMENT WITH 7" W.C. PRESSURE IF UTILITY COMPANY CAN NOT PROVIDE REQUESTED PRESSURE. REFER TO PRESSURE REGULATOR SCHEDULE FOR SIZING REQUIREMENTS. REFER TO REGULATOR MANUFACTURER'S INSTALLATION INSTRUCTION.
 4. ALL GAS PIPING SHALL BE ROUTED INSIDE BUILDING, TIGHT TO BOTTOM CHORD OF STRUCTURE UNLESS NOTED OTHERWISE. PROVIDE NECESSARY DROPS AND SHUT-OFF AT EACH PIECE OF EQUIPMENT. NO GAS PIPING SHALL BE ROUTED INSIDE WALL CAVITY UNLESS PROPERLY VENTED PER CODE.
 5. GAS PIPING SHALL BE ROUTED TIGHT TO FACE OF WALL AND DOWN TO GAS FIRED EQUIPMENT AS NEEDED. FIELD COORDINATE MOUNTING HEIGHT WITH EQUIPMENT PRIOR TO FABRICATION AND INSTALLATION.
 6. COORDINATE ROUTING WITH ALL OTHER DISCIPLINES PRIOR TO INSTALLATION. PAINT ALL EXTERIOR EXPOSED GAS PIPING RUST RESISTANT COLOR TO MATCH EXTERIOR BUILDING AND ALL GAS PIPING INSIDE BUILDING SAFETY YELLOW.
 7. 1/2" COMPRESSED AIR LINE DROP DOWN TIGHT TO WALL TO WALL MOUNTED HOSE REEL AT 60" A.F.F.

GAS TABLE		
MARK	MFR	GAS INPUT (BTU/H)
F-1	TRANE	100,000
OAH-1	TRANE	500,00
UH-1	REZNOR	60,000
UH-2	REZNOR	60,000
IR-1	DETROIT RADIANT	75,000
WH-1	A.O. SMITH	300,000
WH-2	A.O. SMITH	300,000
DRYER	BY TENANT	22,000
TOTAL		1,417,000

**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

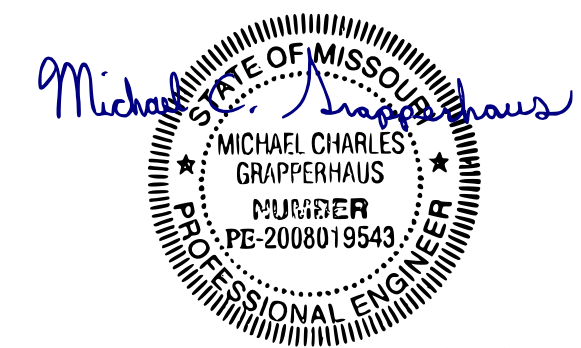
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DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: SAJ _____
CHECKED BY: MCG _____
DESIGNED BY: SAJ _____

SHEET TITLE:
**AIR AND GAS
FLOOR PLAN**

SHEET NUMBER:

P-102
22 OF 33 SHEETS
05/08/2023



05/08/23
MICHAEL C. GRAPPERHAUS
License Number: PE-2008019543
Expiration Date: 12/31/24
CASCO Diversified Corporation
MDO Certificate of Authority
#000329 ARCHITECTURAL and #006163 ENGINEERING

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DIVISION OF FACILITIES
MANAGEMENT, DESIGN
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JEFFERSON CITY, MO 65101

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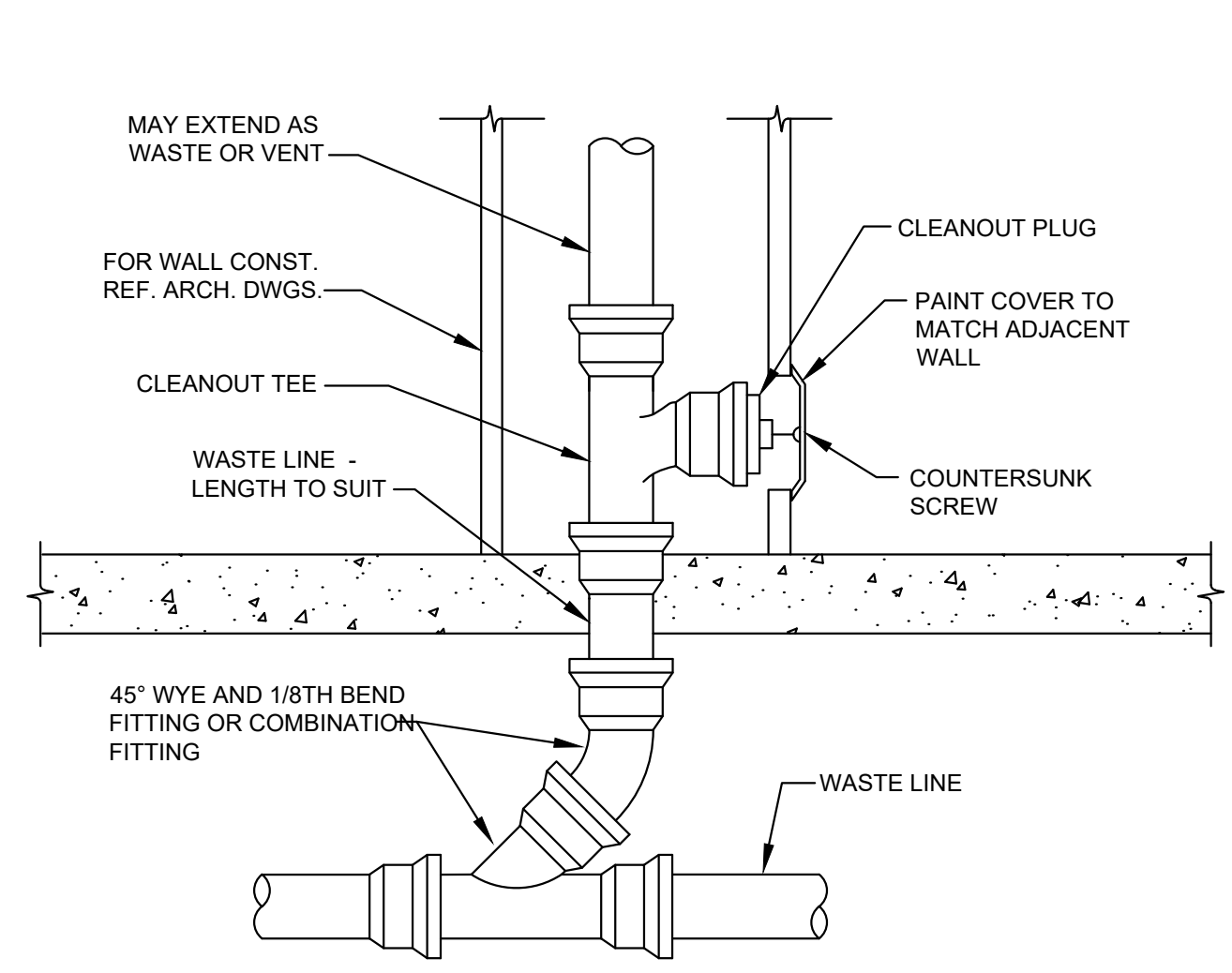
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PLUMBING
DETAILS

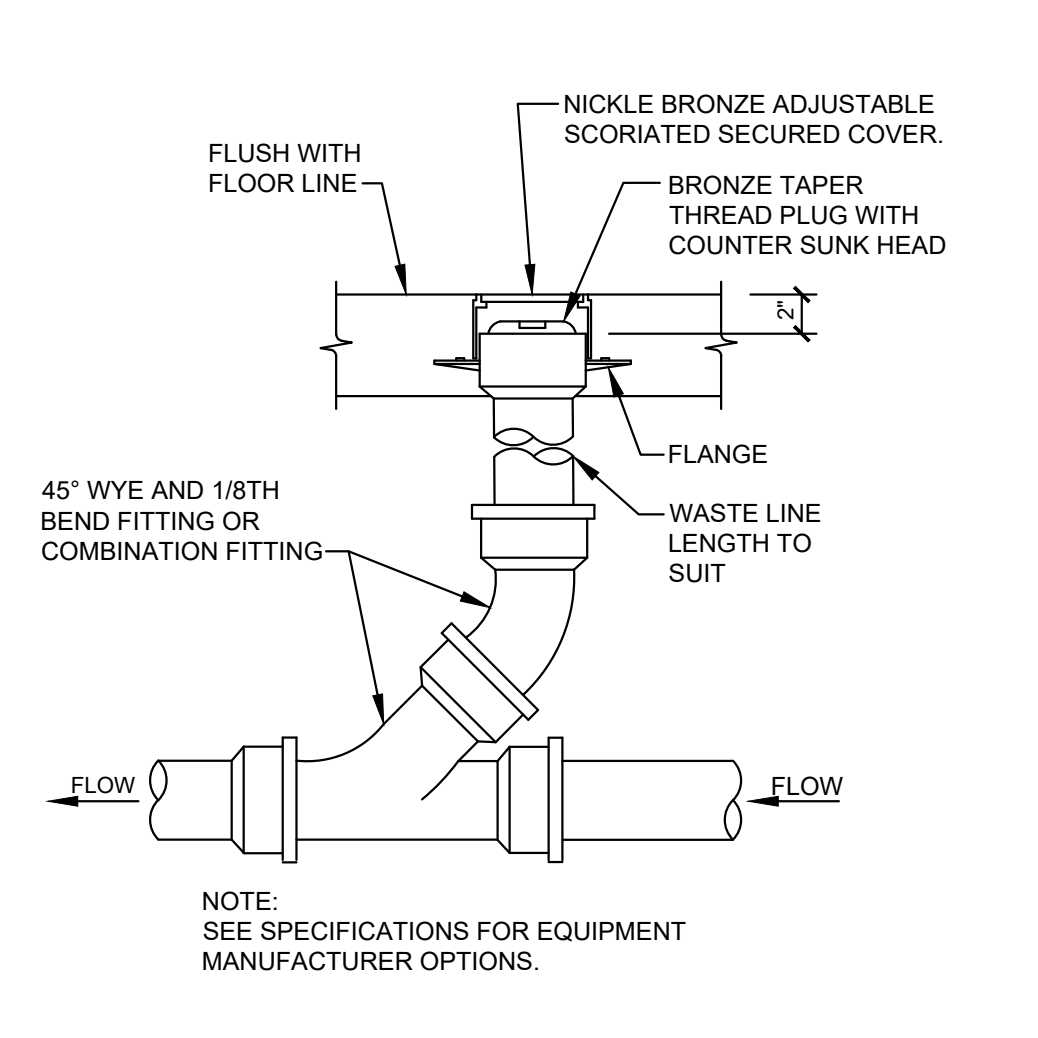
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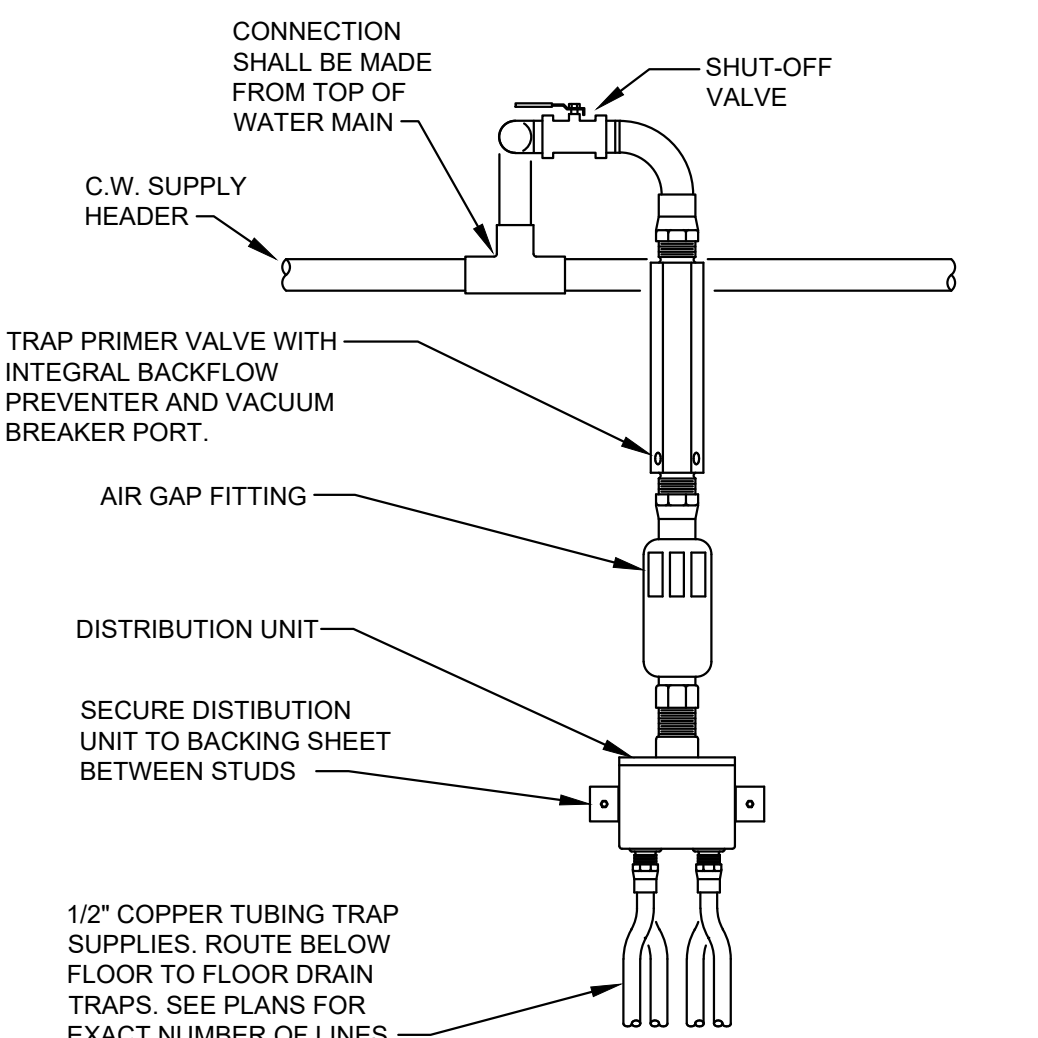
23 OF 33 SHEETS
05/08/2023



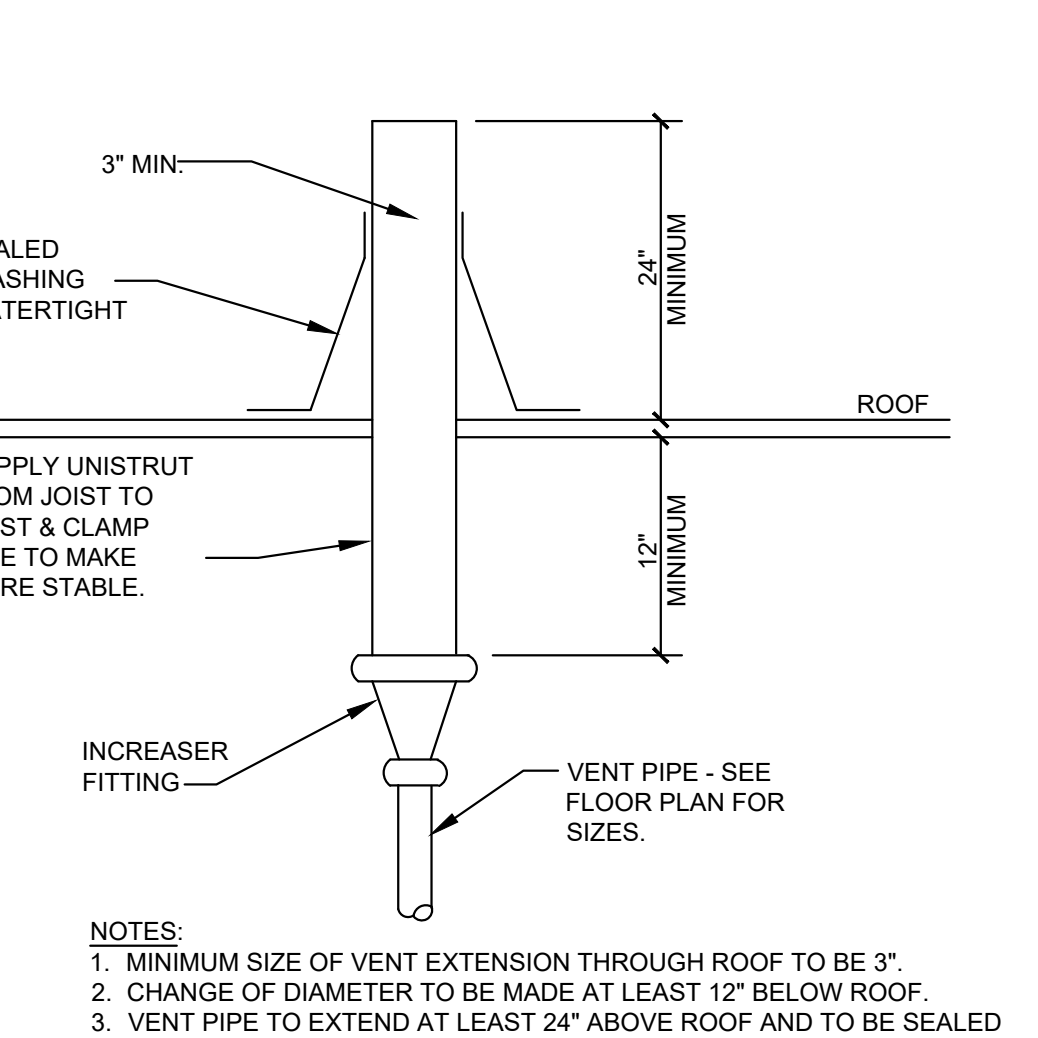
1 WALL CLEANOUT DETAIL
P-501 SCALE: NONE



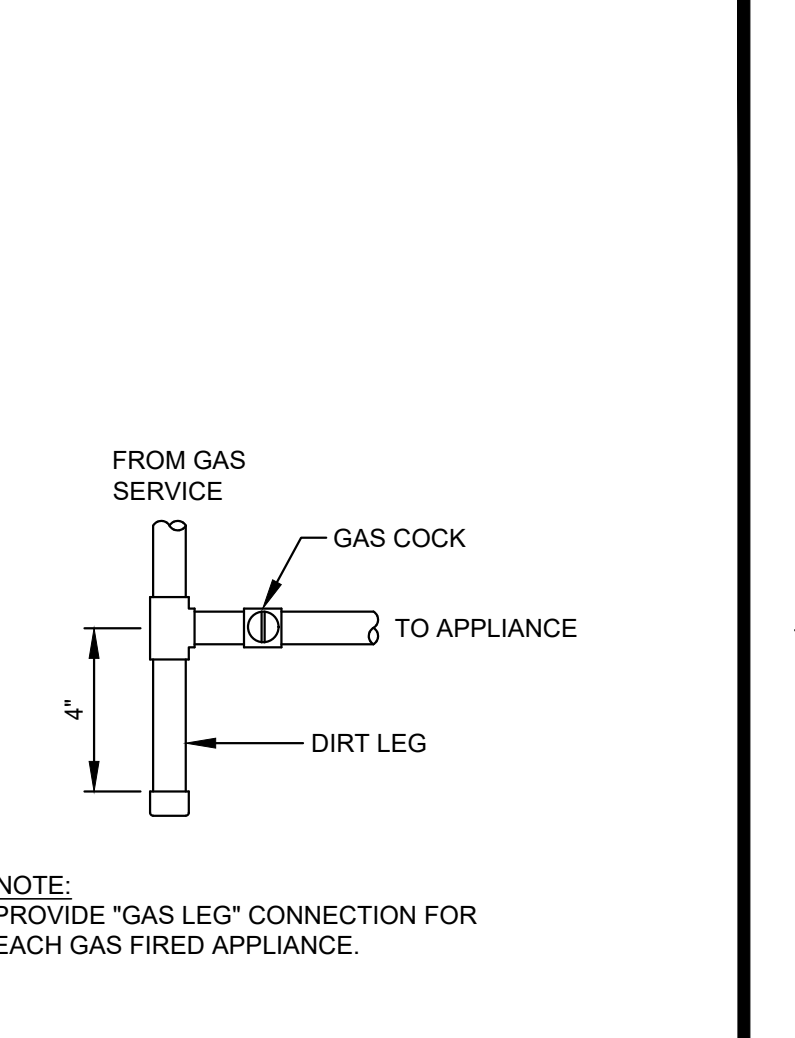
2 FLOOR CLEANOUT DETAIL
P-501 SCALE: NONE



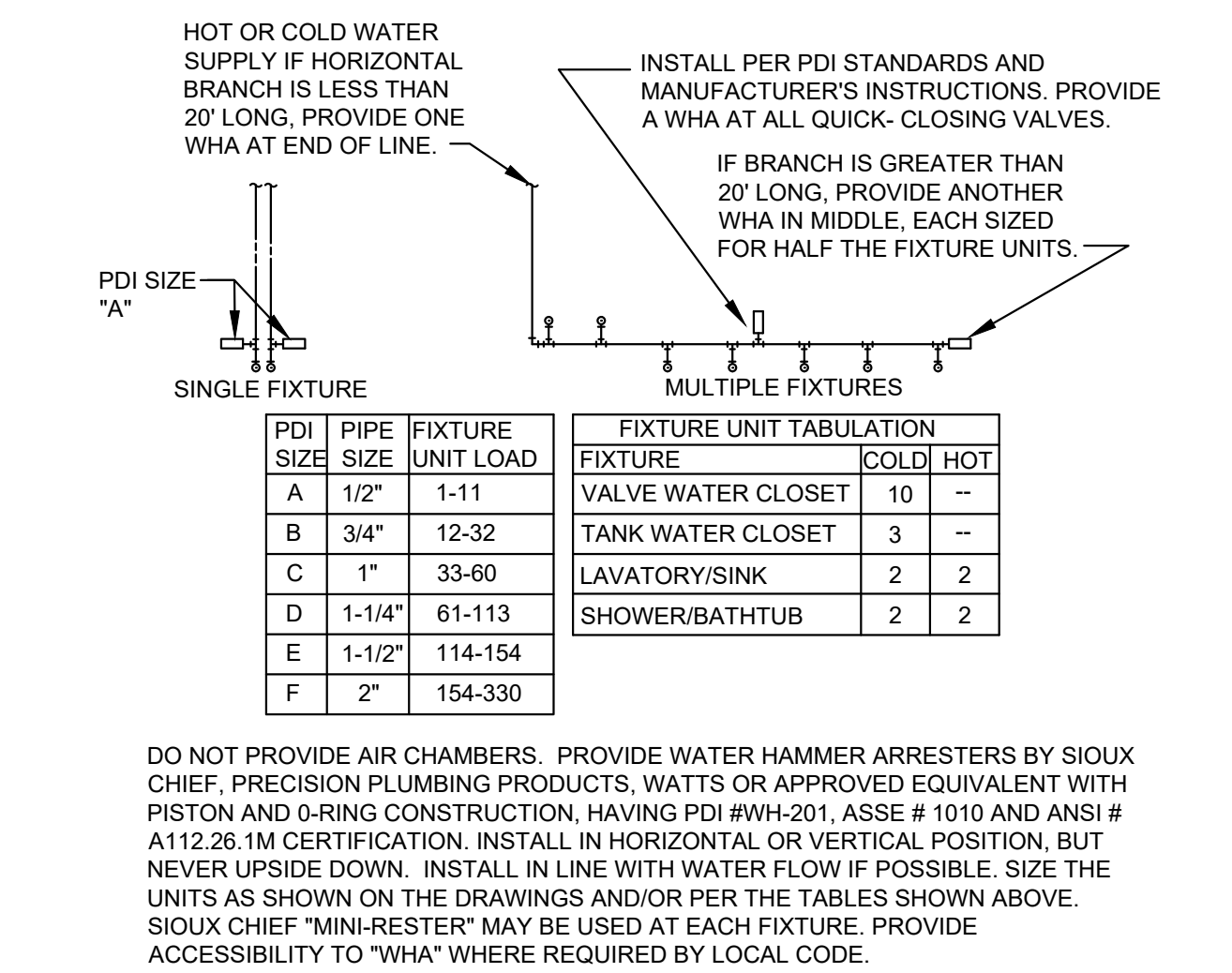
3 TRAP PRIMER DETAIL
P-501 SCALE: NONE



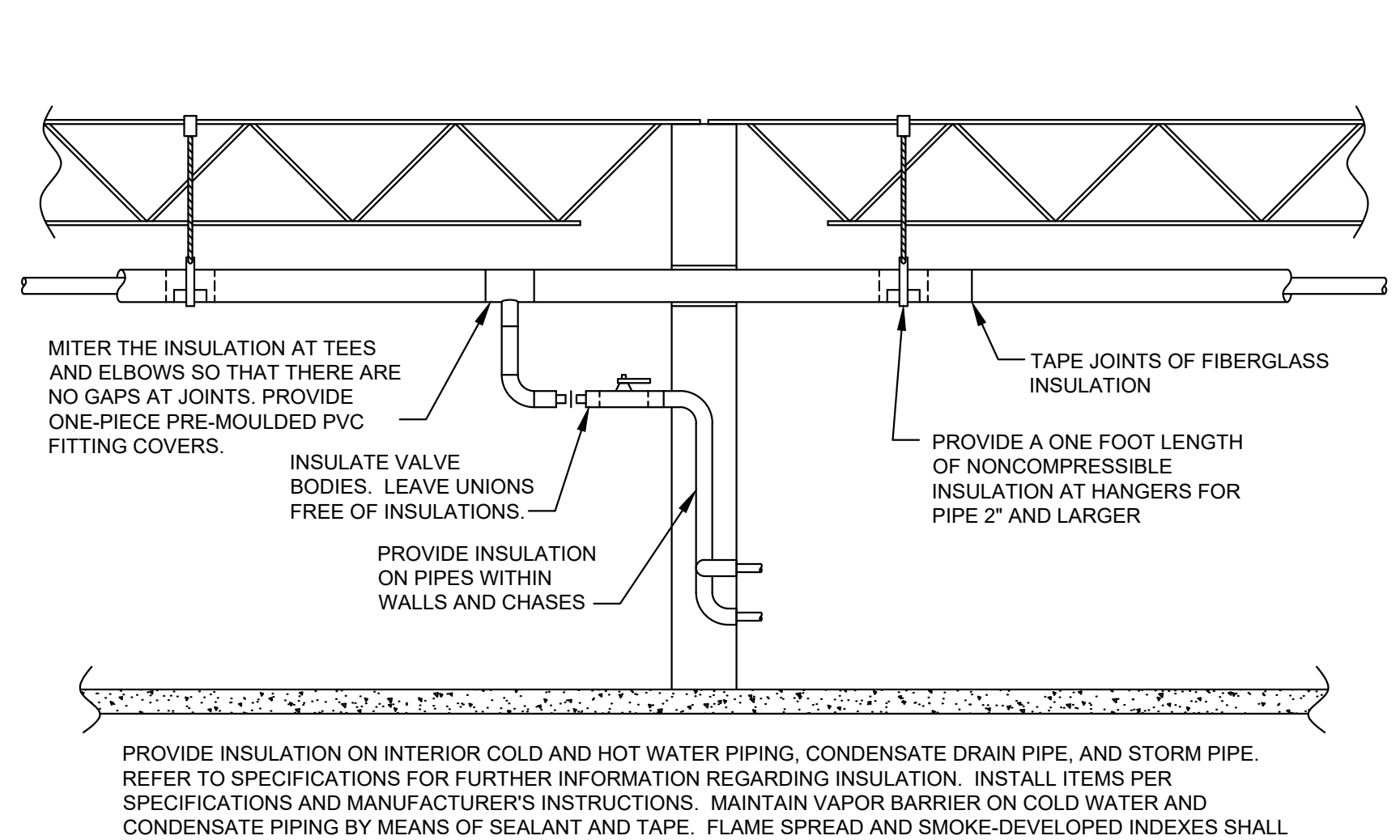
4 VENT THRU ROOF DETAIL
P-501 SCALE: NONE



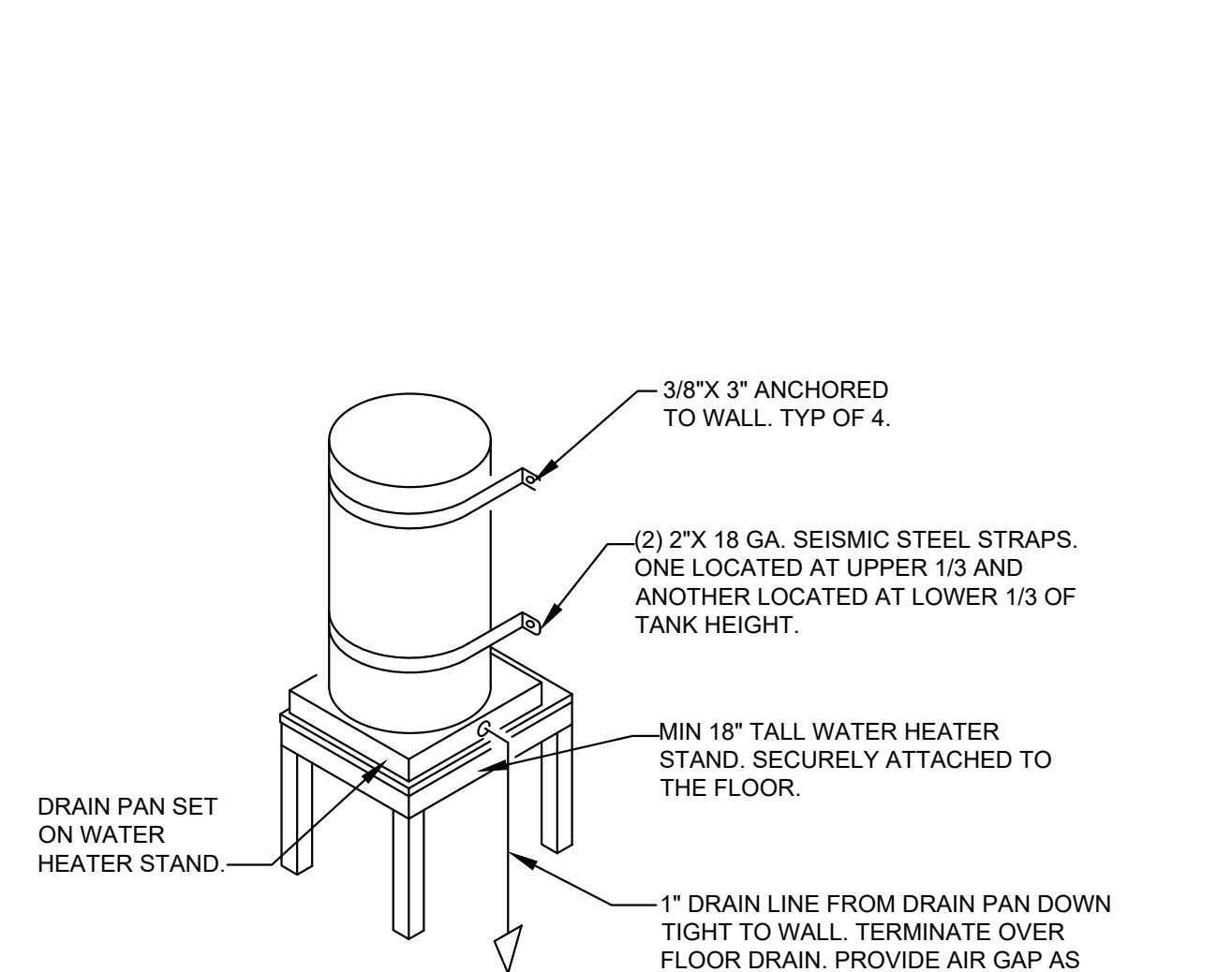
5 GAS LEG DETAIL
P-501 SCALE: N.T.S.



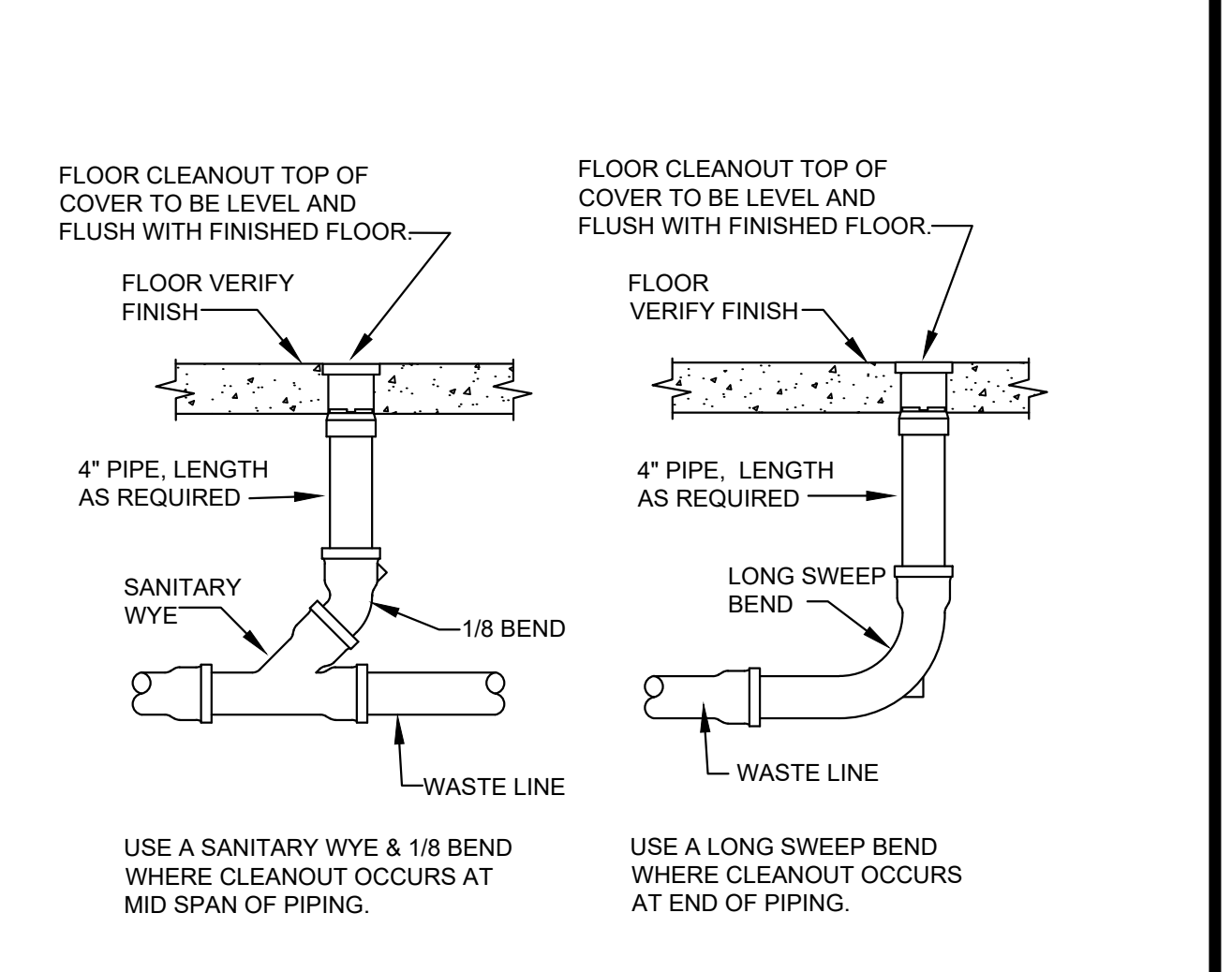
6 WATER HAMMER ARRESTERS
P-501 SCALE: NONE



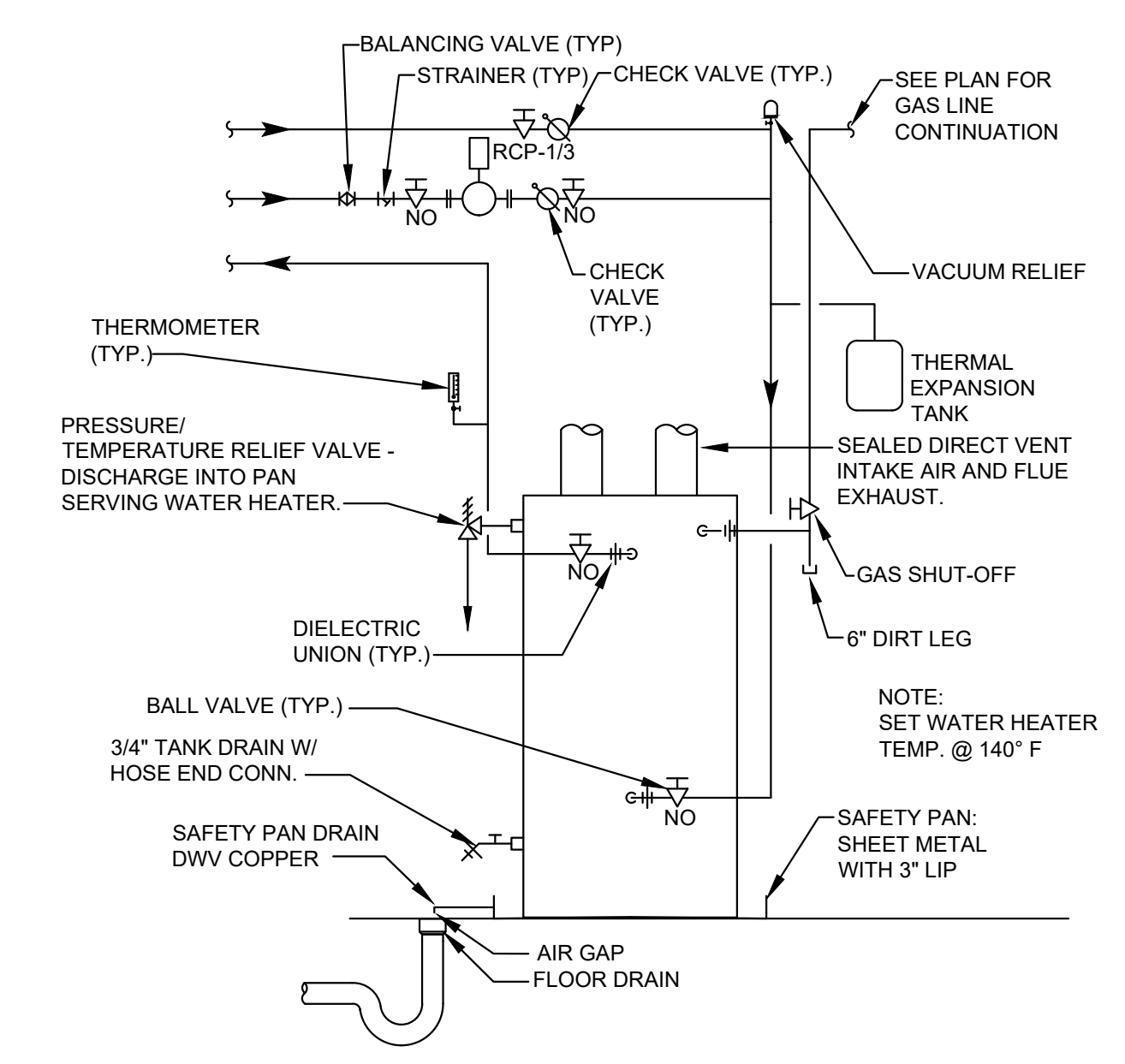
7 PIPE INSULATION DETAIL
P-501 SCALE: N.T.S.



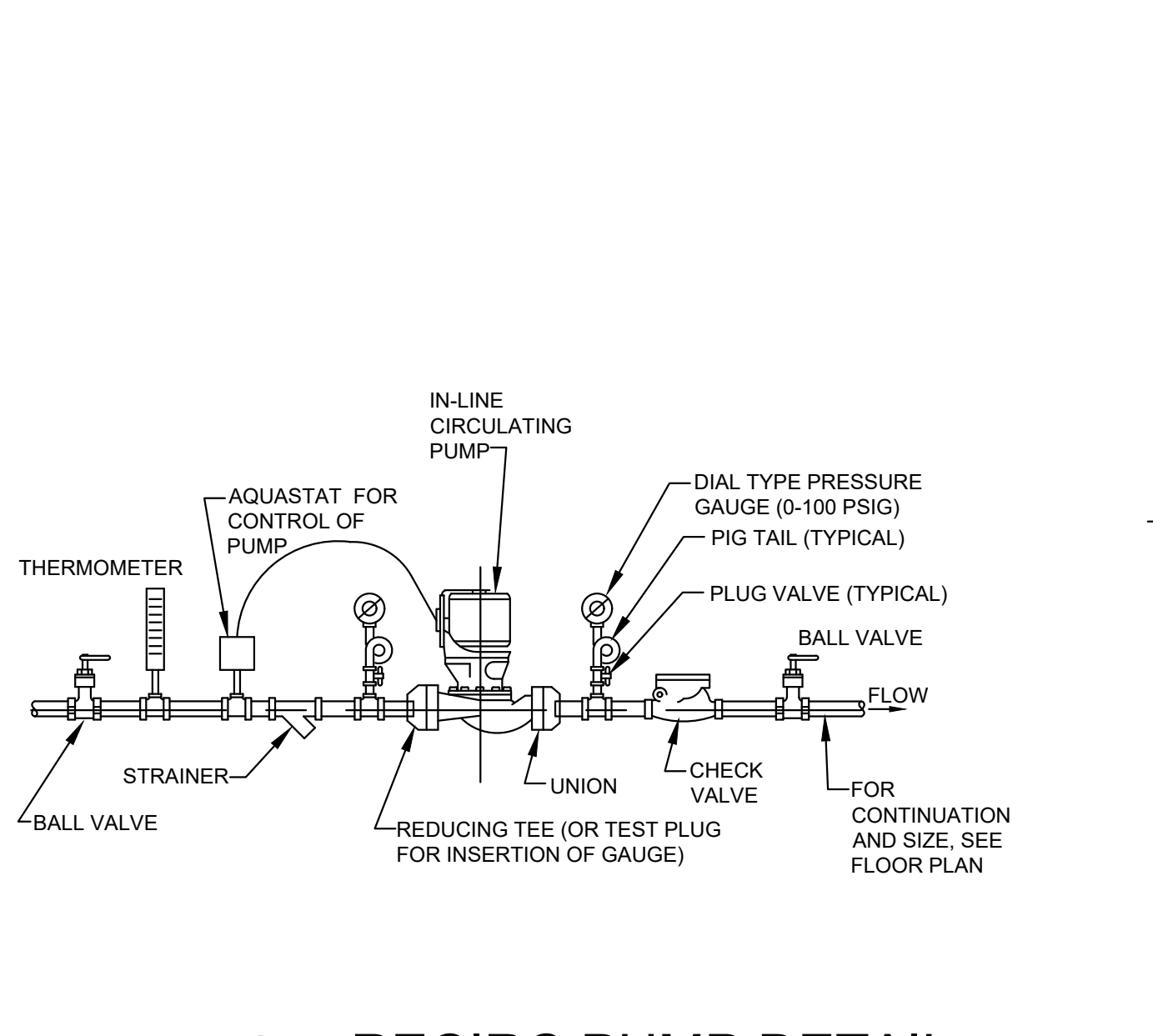
8 WATER HEATER SUPPORT DETAIL
P-501 SCALE: N.T.S.



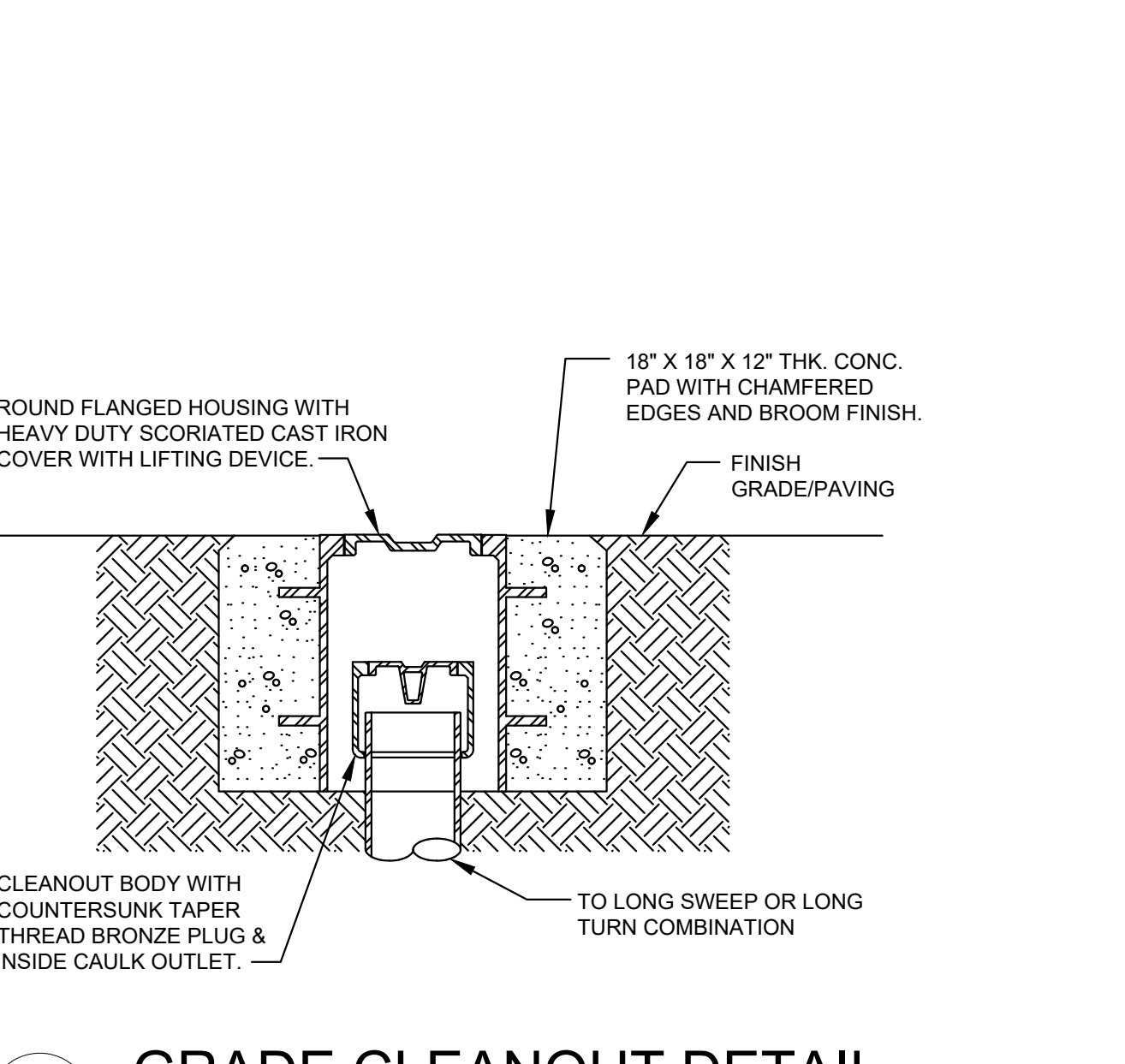
9 FLOOR CLEANOUT DETAIL
P-501 SCALE: N.T.S.



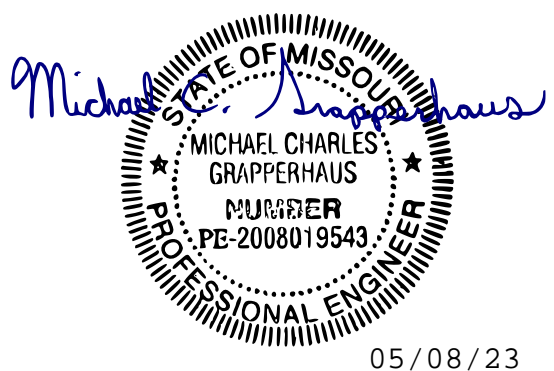
10 GAS WATER HEATER DETAIL
P-501 SCALE: NONE



11 RECIRC PUMP DETAIL
P-501 SCALE: N.T.S.



12 GRADE CLEANOUT DETAIL
P-501 SCALE: N.T.S.



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DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
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REVISION: _____
DATE: _____

ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: SAJ
CHECKED BY: MCG
DESIGNED BY: SAJ

SHEET TITLE:

PLUMBING
SCHEDULES

SHEET NUMBER:

P-601

24 OF 33 SHEETS
05/08/2023

EXPANSION TANK SCHEDULE (BASIS OF DESIGN)						
MARK NO.	MFG	MODEL	SYSTEM SERVED	MAX. PRESS. (PSIG)	TANK VOL. (GAL.)	MAX. ACCEPTANCE FACTOR
EXP-1	AMTROL	ST-35CL	WATER HEATER WH-1 & 2	150	10	1.0
1. CARBON STEEL SHELL WITH HEAVY DUTY 0.87 THICK BLADDER. 1" SYSTEM CONNECTION, FLOOR MOUNTED. APPROVED EQUIVALENT MANUFACTURER: WATTS, ZORO, ZURN						

DOMESTIC HOT WATER RECIRC. PUMP SCHEDULE (BASIS OF DESIGN)							
MARK NO.	MFR	MODEL	GPM / HD (FT)	VOLTS/PHASE/HTZ	FLA	HP	REMARKS
RCP-1	BELL & GOSSETT	PL-30B	2 GPM @ 23 FT	115/1/60	1.4	1/12	1, 2
NOTES: 1. ALL BRONZE BODY AND IMPELLER 2. PROVIDE THERMOSTAT TO OPERATE CIRCULATION PUMP APPROVED EQUIVALENT MANUFACTURER: TACO, GRUNDFOS							

OIL INTERCEPTOR SCHEDULE (BASIS OF DESIGN)							
MARK NO.	SYSTEM SERVED	MFG	MODEL	LIQUID HOLDING CAPACITY (GALLONS)	OIL STORAGE CAPACITY (GALLONS)	FLOW RATE (GPM)	UNIT WEIGHT
OI-1	MAINTENANCE BAYS	MIFAB	SUPER-500-O	539	310	250	960
1. PROVIDE WITH ANCHOR KIT, LID EXTENSIONS (AS NEEDED), DUCTILE IRON LID AND COLLAR, ALL INLETS / OUTLETS AND PIPING AS NEEDED. APPROVED EQUIVALENT MANUFACTURER: ZURN, SCHIER							

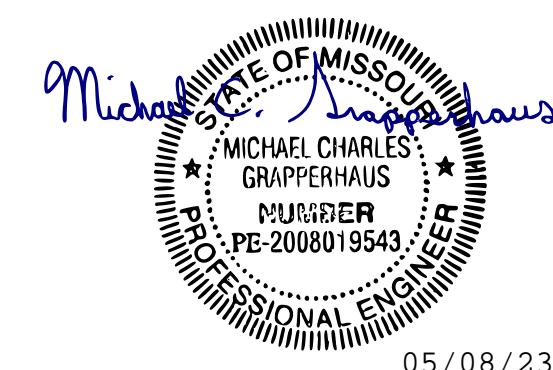
TRENCH DRAIN SCHEDULE (BASIS OF DESIGN)							
MARK NO.	SYSTEM SERVED	MFG	MODEL	TRENCH WIDTH	GRATE WIDTH	UNIT LENGTH	UNIT WEIGHT
TD	MAINTENANCE BAYS	ZURN	Z882-DGC	9-1/4"	12"	96"	960
NOTES: 1. HIGH DENSITY POLYETHYLENE WITH STEEL FRAME AND HEAVY DUTY SLOTTED GRATE FOR FORKLIFT TRAFFIC. 2. PROVIDE ALL END CAPS, DRAIN OUTLETS, ANCHORS & BRACING. APPROVED EQUIVALENT MANUFACTURER: SWIFTDRAIN, DURA TRENCH							

WATER SOFTENER SCHEDULE (BASIS OF DESIGN)							
MARK NO.	SYSTEM SERVED	MFG	MODEL	TRENCH WIDTH	GRATE WIDTH	UNIT LENGTH	UNIT WEIGHT
WS-1	BUILDING	CULLIGAN	CTM-60-DF	9-1/4"	12"	96"	960
NOTES: 1. PROVIDE WITH CTM PLUMBING ADAPTOR - 2" INLET/OUTLET, AQUA-SENSOR KIT (OUTDOOR RATED) BRINE SYSTEM WITH DUBL-SAFE BRINE REFILL - 250 LB SALT CAPACITY (GREY) APPROVED EQUIVALENT MANUFACTURER: WATTS, PURE AQUA INC							

WATER AND WASTE SERVICE CALCULATIONS							
JOB NAME: State of Missouri FMDC Building 04/27/23							
FIXTURE TYPE	NO.	WASTE		COLD WATER		HOT WATER	
		DFU	TOTAL	WSFU	TOTAL	WSFU	TOTAL
SHOWER HEAD	2	2	4	1	2	1	2.67
FLOOR DRAIN (3" Trap)	5	6	30	0	0	0	0.00
FLOOR DRAIN (4" Trap)	0	8	0	0	0	0	0.00
EMPLOYEE BREAKROOM SINK	1	2	2	1.5	1.5	1.5	2.00
SERVICE SINK	3	2	6	1	3	1	4.00
MOP SINK	1	2	2	2.25	2.25	2.25	3.00
DRINKING FOUNTAIN, first	1	0.5	0.5	0.25	0.25	0	0.25
LAVATORY (Hand Sink)	2	1	2	0.5	1	0.5	1.33
URINAL, 1.0 GPF	1	2	2	5	5	0	5.00
EYEWASH SHOWER	1	0	0	2	2	0	2.00
WATER CLOSET (1.28 GPF - Flush Valve)	2	4	8	6	12	0	12.00
HOSE BIBB	6	0	0	2.5	15	0	15.00
WASHER	1	2	2	1	1	1	1.33
TOTAL FU			58.5		45.0		10.8
TOTAL FU							48.6
EQUIVALENT COLD WATER FLOW RATE (GPM):							48
ADDITIONAL DEMAND LOAD (GPM)							0
PRESSURE AVAILABLE AT MAIN (PSI):							70
PRESSURE BOOSTER PUMP							0
MINIMUM REQUIRED FIXTURE PRESSURE (PSI):				IN FEET			20
ELEVATION RISE (CONVERTED TO PSI):							9
METER LOSS (PSI):							3
BACKFLOW PREVENTER LOSS (PSI):							10
ADDITIONAL LOSSES (PSI):							0
EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT):							260
FRICITION LOSS PRESSURE AVAILABLE (PSI):							33.27
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):							12.80
WATER FLOW VELOCITY (FPS):							4.98
CALCULATED FRICTION HEAD LOSS (PSI/100 FT):							2.55
MINIMUM REQUIRED "WATER" PIPE SIZE (INCHES):							2
MINIMUM REQUIRED "WASTE" PIPE SIZE (INCHES):							4
(PER 2021 IPC)							

PLUMBING FIXTURE/EQUIPMENT SCHEDULE (BASIS OF DESIGN)									
MARK	FIXTURE TYPE	MANUFACTURER	MODEL	DRAIN	VENT	CW	HW	SPECIFICATIONS	
WC-1	WATER CLOSET	AMERICAN STANDARD	MADERA 3461.001	4"	2"	3/4"	---	1.28 GPF, 16-1/2" HIGH, ELONGATED BOWL, FLOOR MOUNT - 12" ROUGH IN, ADA APPROVED, COLOR: WHITE. PROVIDE WITH: SLOAN FLUSH VALVE "ROYAL 111-1.28", OPEN FRONT SEAT	
LAV-1	LAVATORY	AMERICAN STANDARD	LUCERNE 0356.015	2"	1-1/2"	1/2"	1/2"	WALL MOUNTED WITH WALL HANGER, VITREOUS CHINA, 4" CENTERS, FRONT OVERFLOW, 20.5"x18.5", COLOR - WHITE, PROVIDE DELTA "CLASSIC SERIES" - 500-HGM-DST, SINGLE HANDLE DECK MOUNT, 0.5 GPM AERATOR, LESS POP-UP DRAIN. COLOR - STAINLESS.	
UR-1	UNINAL	AMERICAN STANDARD	WASHBROOK 6590.001	4"	1-1/2"	1"	---	WALL-MOUNT ELONGATED 1.0 GPM 14" RIM URINAL WITH STRAINER, WHITE VITREOUS CHINA, WASHOUT FLUSH ACTION, 1" TOP SPUD, PROVIDE WITH SLOAN LEVER OPERATED DIAPHRAM FLUSH VALVE "ROYAL 186.1.0" AND J.R. SMITH 0636 URINAL SUPPORT. MOUNT AS REQUIRED PER ADA.	
SK-1	SINK	MOEN	G204573	2"	1-1/2"	1/2"	1/2"	20 GA STAINLESS STEEL, CENTER DRAIN, TOP MOUNT, 8" O.C. FAUCET HOLES. FAUCET: DELTA MODEL#26C3944 (1.5 GPM) GOOSENECK WITH ADA COMPLIANT LEVER HANDLES. CHROME FINISH.	
MS-1	MOP SINK	FIAT	MSB-2424	3"	2"	3/4"	3/4"	24"x24"x10" DEEP, ONE PIECE MOLDED STONE, IMPACT RESISTANT FLOOR MOUNTED. COLOR: WHITE. PROVIDE WITH FIAT FAUCET - 830-AA - VACUUM BREAKER, INTEGRAL STOPS, PAIL HOOK AND 3" THREAD ON SPOUT, HOSE & HOSE BRACKET - 832-AA, MOP BRACKET - 889-CC & STAINLESS STEEL STRAINER - 1453-BB AND 24" ALUMINUM BUMPER GUARD - 1239-BB.	
SS-1	SERVICE SINK	FIAT	FL-1	3	2	3/4"	3/4"	ONE PIECE IMPACT RESISTANT FLOOR MOUNTED MOLDED TUB WITH ANGLED LEGS, COLOR: WHITE. PROVIDE WITH FAUCET - MODEL A-1 AND FAUCET BLOCK.	
EW-1	B-LEVEL WATER COOLER	ELKAY	EZSTL8LC	1-1/2	1-1/4"	3/4"	---	SAFETY STATION WITH SHOWER & EYE/FACE WASH. 11-1/8" DIA STAINLESS STEEL BOWL WITH TWO FS-PLUS SPRAY-TYPE OUTLET HEADS AND DUST COVERS, 1-1/4" SUPPLY INLET, 1-1/4" WASTE OUTLET. PROVIDE WITH THERMOSTATIC MIXING VALVE - G6040, STAINLESS STEEL SHOWER HEAD - SSH, AUDIBLE / VISUAL ACTIVATION ALARM - AP275-200	
EWS-1	EYEWASH SHOWER	GUARDIAN	G1950	2"	1-1/2"	1-1/4"	---	SAFETY STATION WITH SHOWER & EYE/FACE WASH. 11-1/8" DIA STAINLESS STEEL BOWL WITH TWO FS-PLUS SPRAY-TYPE OUTLET HEADS AND DUST COVERS, 1-1/4" SUPPLY INLET, 1-1/4" WASTE OUTLET. PROVIDE WITH THERMOSTATIC MIXING VALVE - G6040, STAINLESS STEEL SHOWER HEAD - SSH, AUDIBLE / VISUAL ACTIVATION ALARM - AP275-200	
EWS-2	EYEWASH STATION	GUARDIAN	G5026BP	---	---	1/2"	---	WALL MOUNTED EYEWASH / DRENCH HOSE UNIT. PROVIDE WITH 8" HOSE, MOUNTING BRACKET AND IN-LINE DUAL CHECK BACKFLOW PREVENTER. ANSI Z358.1 CERTIFIED.	
TMV-1	THERMOSTATIC MIXING VALVE	GUARDIAN	G6040	---	---	1"	1"	1" INLETS / 1-1/4" OUTLET CONNECTIONS, LEAD FREE CONSTRUCTION. SET FOR 85° F TEMPERED WATER. ASSE Z358.1-2014 CERTIFIED.	
TMV-2	THERMOSTATIC MIXING VALVE	GUARDIAN	G6020	---	---	1/2"	1/2"	1/2" INLETS / 1/2" OUTLET, LEAD FREE CONSTRUCTION. SET FOR 85° F TEMPERED WATER. ASSE Z358.1-2014 CERTIFIED.	
TMV-3	THERMOSTATIC MIXING VALVE	WATTS	LFN-170-M3-CSUT	---	---	1-1/4"	1-1/4"	1-1/4" CHECK STOP INLET, 1-1/2" TEMP OUTLET, LEAD FREE CONSTRUCTION. SET AT 110° F. CONFORM TO: ASSE 1017.	
HB-1	HOSE BIBB	WOODFORD	24	---	---	3/4"	---	INTERIOR PIPE MOUNTED NON FREEZE PROOF WALL HYDRANT WITH VACUUM BREAKER & METAL WHEEL HANDLE. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS.	
HB-2	HOSE BIBB	WOODFORD	65	---	---	3/4"	---	EXTERIOR WALL MOUNTED ANTI-SYPHON FREEZELESS WALL HYDRANT WITH VACUUM BREAKER, 3/4" INLET & OUTLET. INSTALL FLUSH TO WALL. SERFACE. PROVIDE FREEZELESS WALL ROD ASSEMBLY AS NEEDED, LOOSE KEY SHUT-OFF. CHROME FINISH. REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS. ASSE 1019-B CERTIFIED.	
HB-3	HOSE BIBB	WOODFORD	B22	---	---	3/4"	---	HOT AND COLD FREEZELESS WALL FAUCET WITH INTEFRAL BACKFLOW PROTECTION & METAL WHEEL HANDLE, RECESSED BOX, BRASS FINISH. MOUNT BOX FLUSH WITH WALL AND REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS.	
FCO	FLOOR CLEANOUT	J.R. SMITH	4020	4"	---	---	---	5-3/4" Ø ROUND "TWIST TO FLOOR" ADJUSTABLE TOP NICKEL BRONZE TOP	
WCO	WALL CLEANOUT	J.R. SMITH	4472T	SEE PLAN	---	---	---	STAINLESS STEEL COVER PLATE	
GCO	GRADE CLEANOUT	J.R. SMITH	4250	4"	---	---	---	8-3/4" Ø ROUND CLEANOUT FOR UNFINISHED AREA CAST IRON TOP	
FD-1	FLOOR DRAIN	ZURN	Z415B	3"	2"	---	---	CAST IRON BOTTOM OUTLET BODY WITH ADJUSTABLE COLLAR, SEEPAGE SLOT, TRAP PRIMER CONNECTION, 6" DIA POLISHED BRONZE LIGHT-DUTY STRAINER AND SEDIMENT BUCKET.	
FD-2	FLOOR DRAIN	ZURN	Z415B	4"	2"	---	---	CAST IRON BOTTOM OUTLET BODY WITH ADJUSTABLE COLLAR, SEEPAGE SLOT, TRAP PRIMER CONNECTION, 8" DIA POLISHED BRONZE HEAVY-DUTY SLOTTED GRATE AND SEDIMENT BUCKET.	
TP-1	TRAP PRIMER	MIFAB	MR-500-NPB	---	---	1/2"	---	PRESSURE DROP ACTIVATED TRAP SEAL PRIMER, REQ'D 3 PSI DROP FOR ACTIVATION, REPLACEABLE SEDIMENT FILTER, 0.5 oz WATER DISCHARGE, UP TO 6 DRAIN SERVED. PROVIDE WITH DISTRIBUTION UNIT - MI-DU-500 WITH 1/2" COMPRESSION CONNECTION AND AIR GAP FITTING.	
WB-1	WASHER BOX	OATLY	QUADTRO	2"	---	1/2"	1/2"	1/4 TURN VALVES, HIGH IMPACT POLYSTYRENE FRAME, SNAP-ON FACEPLATE, IAPMO LISTED, ASME A112.18.1 / CSA B125.1 VALVES. COLOR: WHITE	
RPZA-1	REDUCED PRESSURE ZONE BACKFLOW	WATTS	LF009	---	---	2"	---	BRONZE, LEAD FREE, QUARTER TURN BALL VALVES, AIR GAP DRAIN AND STRAINER. ASSE 1013.	
BF-1	BACKFLOW	WATTS	LF9D	---	---	1/2"	---	DUAL CHECK VALVE, INTERMEDIATE ATMOSPHERIC VENT, LEAD FREE. ASSE 1012.	
HR-1	AIR HOSE REEL	COXREELS	EZ-P-PL-150	---	---	---	---	STEEL CONSTRUCTION, SPRING DRIVEN, 1/2" DIA HOSE LOW PRESSURE HOSE AND FITTINGS, WALL MOUNTING BRACKET	
NOTES: 1. ALL FIXTURES, EQUIPMENT, TRIM, FITTINGS, ETC. SHALL COMPLY WITH LOCAL, STATE AND/OR FEDERAL REGULATIONS AND CODES, INCLUDING BUT NOT LIMITED TO WATER AND ENERGY CONSERVATION CODES, AND THE AMERICANS WITH DISABILITIES ACT (ADA). THE SCHEDULE REFLECTS FIXTURES AND EQUIPMENT WHICH ARE MINIMUM CRITERIA. THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR THE SUBSTITUTIONS OF COMPLYING FIXTURES, EQUIPMENT, FITTINGS, ETC. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTORS BASE BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS AND CODES. 2. PROVIDE CAULK ALL AROUND ALL FIXTURE REQUIRING BUT NOT LIMITED TO WATER CLOSETS, URINALS AND WALL MOUNTED LAVATORIES AT TILED RESTROOM WALL. 3. SEE SPECIFICATIONS FOR APPROVED EQUIVALENT MANUFACTURERS.									

WATER HEATER SCHEDULE (BASIS OF DESIGN)																
MARK	SERVICE	MANUFACTURER	MODEL	TYPE	SOURCE	STORAGE CAPACITY	INPUT MBH	EFF	ELECTRICAL			AMPS	FINAL TEMP.	TEMP. RISE	WATER INLET / OUTLET	RECOVERY GPH
									V	Ø	HZ					
WH-1	LAUNDRY	A.O. SMITH	CYCLONE Mxi	COMMERCIAL GAS	NATURAL	119 GAL.	300	96	120	1	60	5	140°F	90°F	1-1/2"	388
WH-2	MAINTENANCE	A.O. SMITH	CYCLONE Mxi	COMMERCIAL GAS	NATURAL	119 GAL.	300	96	120	1	60	5	140°F	90°F	1-1/2"	388
1. WATER HEATERS ARE HIGH EFFICIENCY, SEALED COMBUSTION CONDENSING UNITS. PROVIDE WITH CONCENTRIC VENT, CONDENSATE KIT, LEAK DETECTION KIT, DRAIN PAN AND MANUFACTURER RECOMMENDED FLUE PIPE. ROUTE THRU ROOF OR WALL PER MANUFACTURER INSTALLATION INSTRUCTIONS FOR VENTING REQUIREMENTS. 2. PROVIDED WITH A 18" HIGH SUPPORT STAND. APPROVED EQUIVALENT MANUFACTURER: STATE, RHEEM, BRADFORD WHITE																



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**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENACE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

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DATE: _____
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DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: SAJ
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DESIGNED BY: SAJ

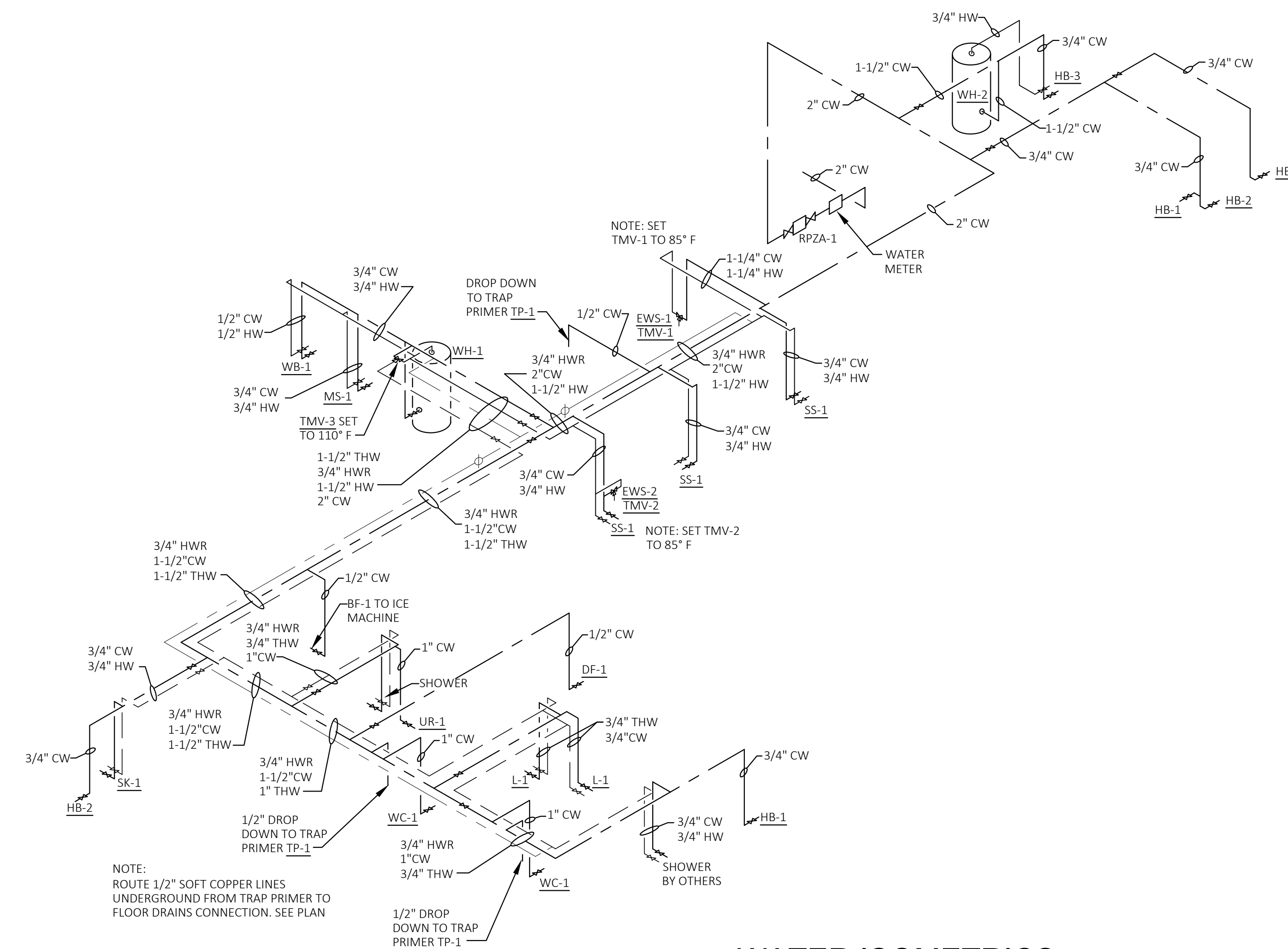
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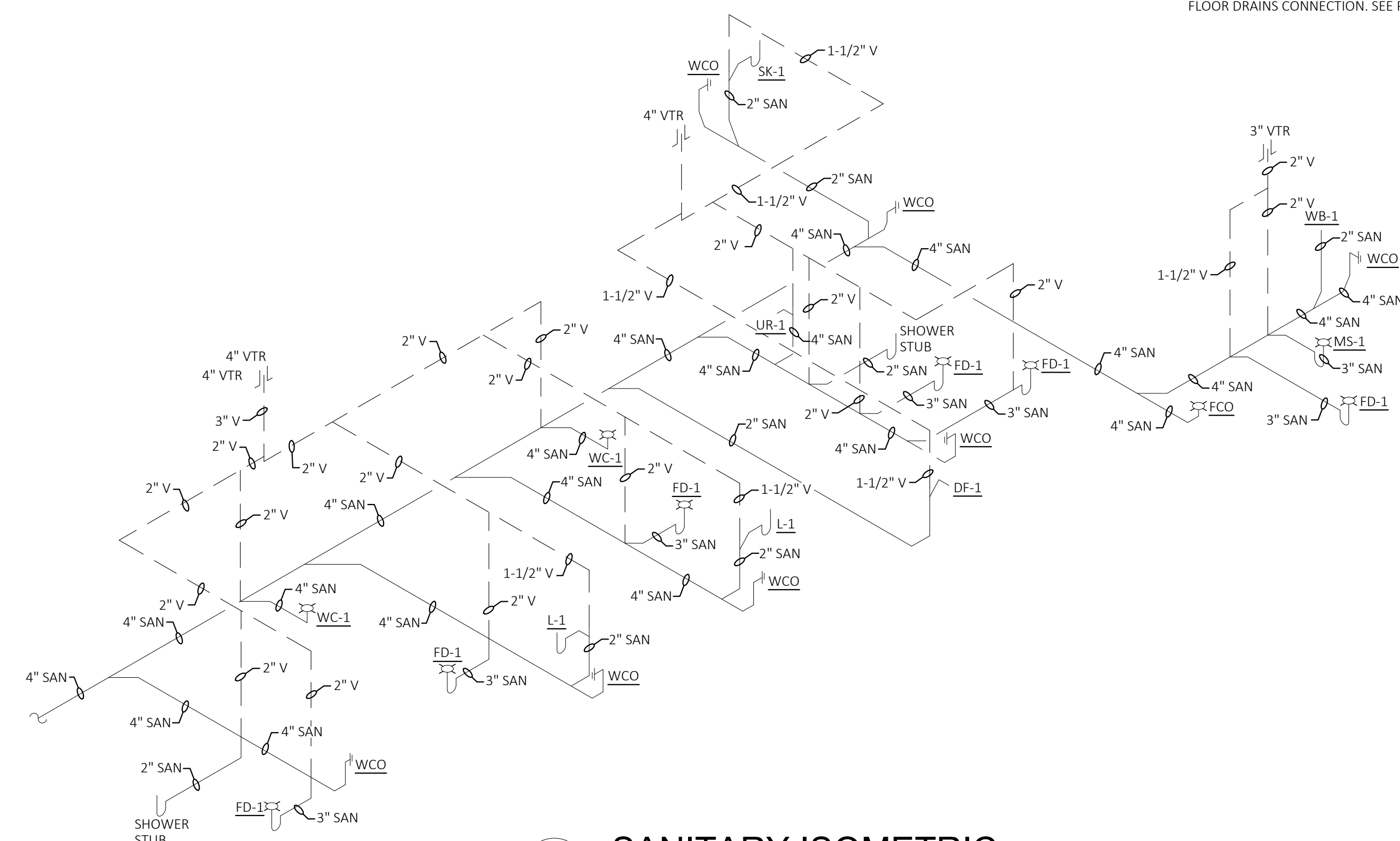
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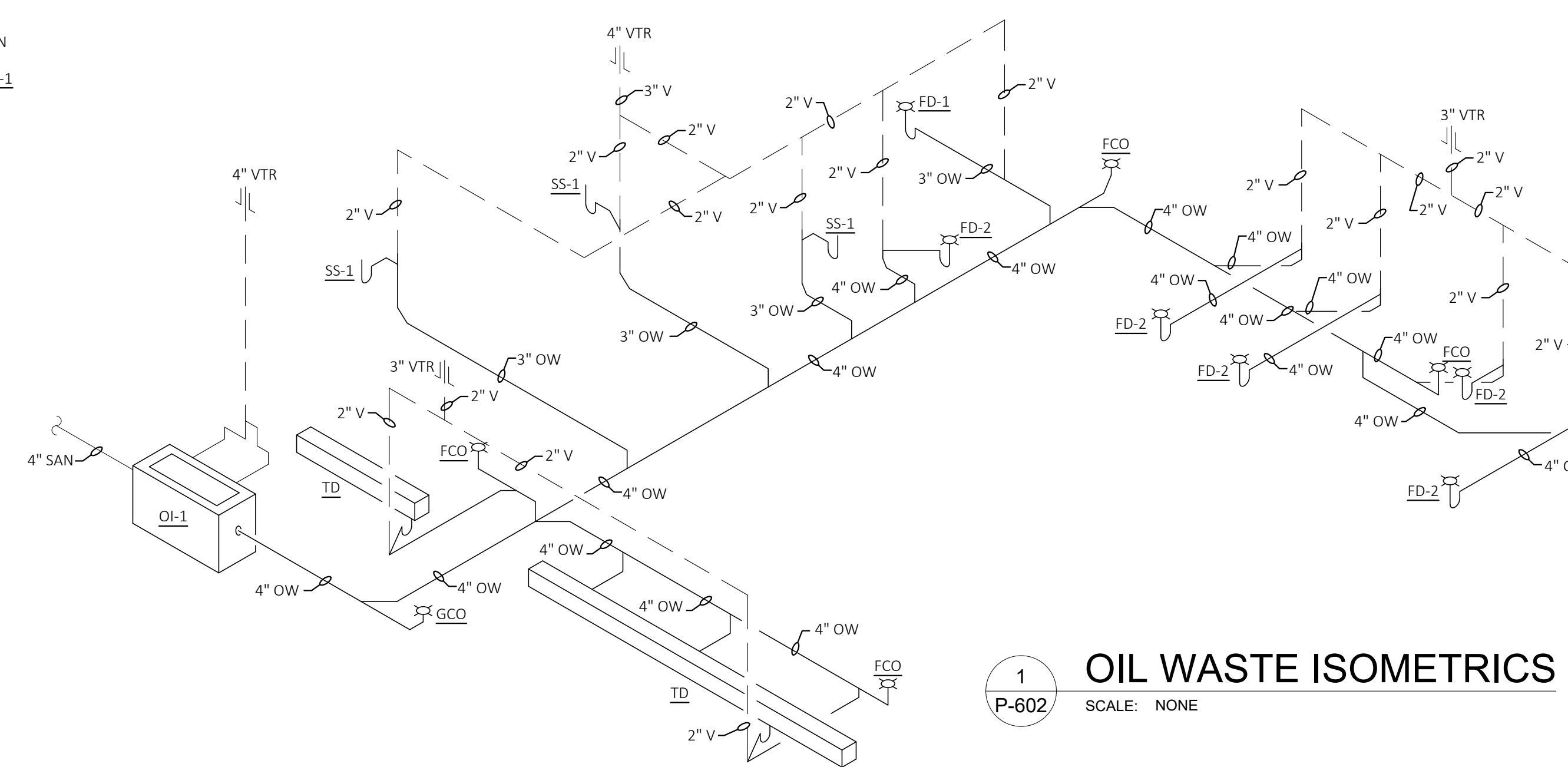
25 OF 33 SHEETS
05/08/2023



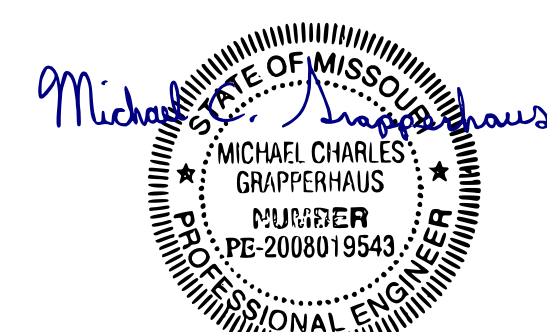
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2 SANITARY ISOMETRIC
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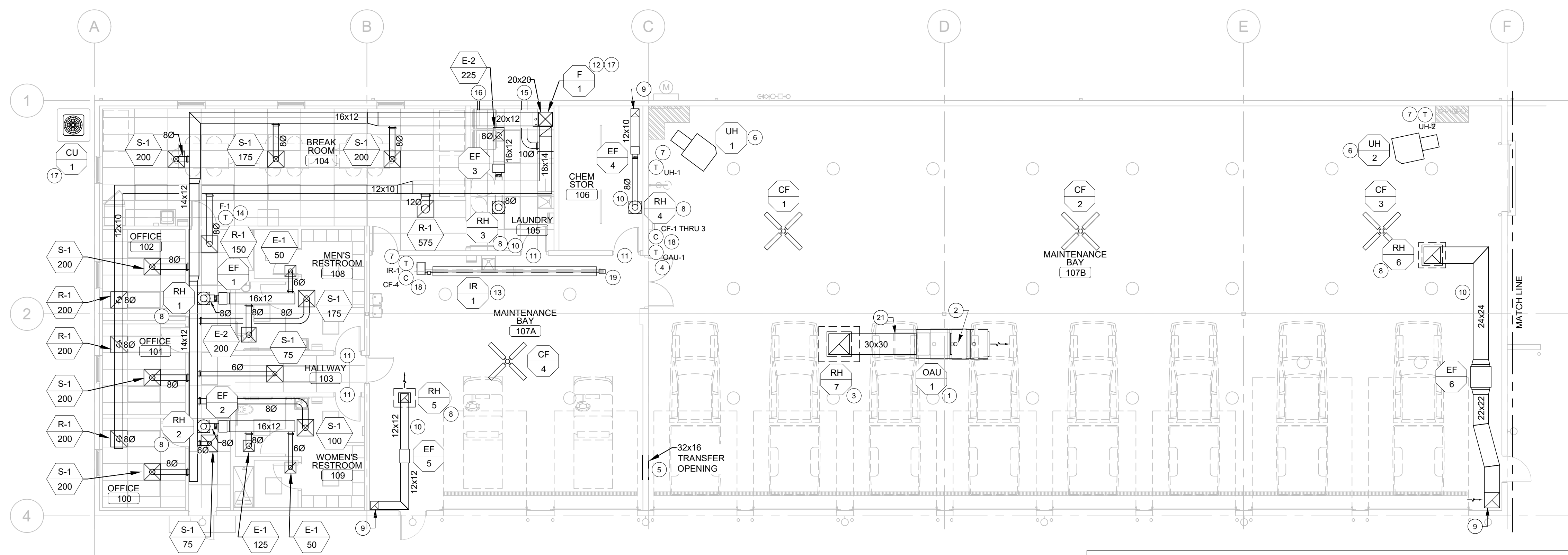
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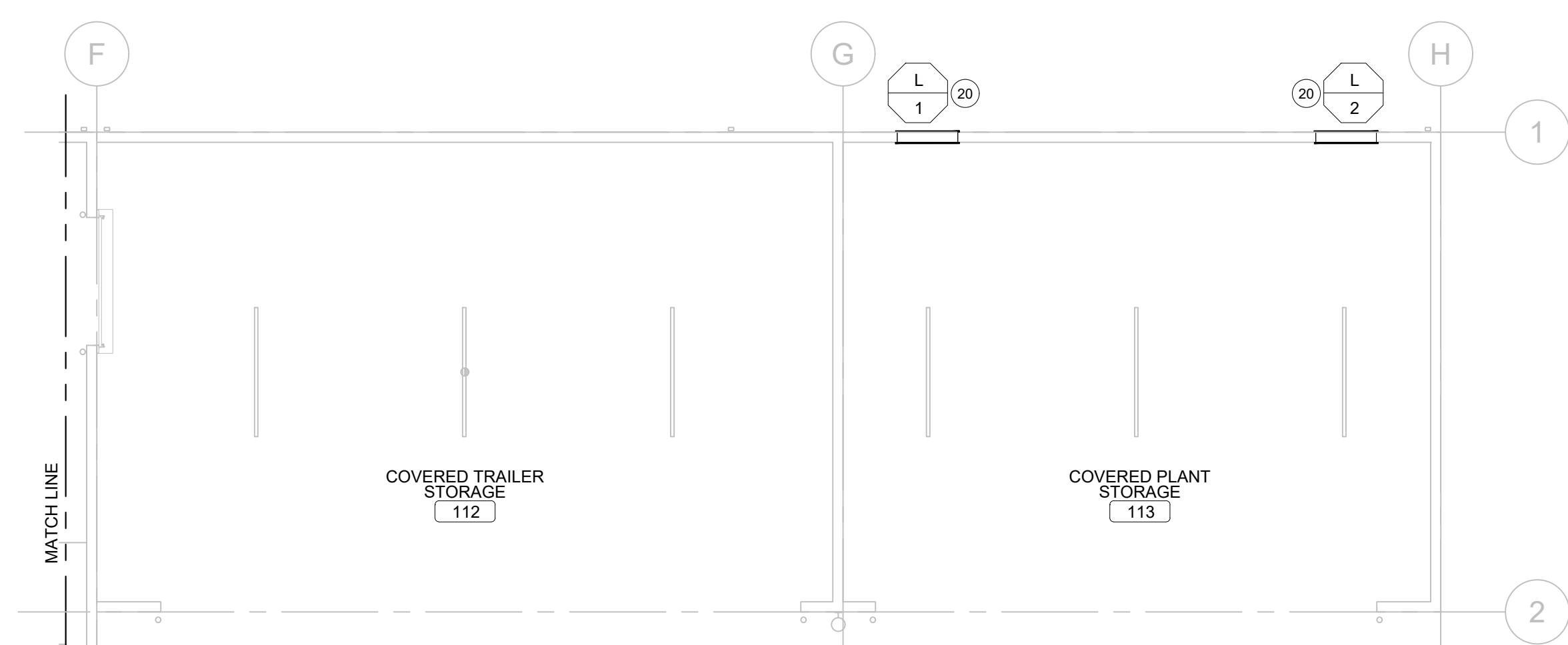
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1 MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



- MECHANICAL GENERAL NOTES**
- PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ENGINEER OF RECORD OF DISCREPANCIES BEFORE STARTING WORK.
 - DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
 - ALL WORK SHALL COMPLY WITH STATE CODE REQUIREMENTS.
 - USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE CEILING SPACE. MATERIALS USED IN THE CEILING SPACE SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE CEILING SPACE PLENUM SHALL BE CEILING PLENUM RATED.
 - INSULATE NEW SUPPLY DUCTWORK WITH MINIMUM 2" THICK FOIL-BACKED DUCT WRAP.
 - WITHIN THE OFFICE AND RESTROOM AREAS, EQUIVALENTLY SIZED RECTANGLE DUCTWORK IS ALLOWED IN LIEU OF ROUND DUCTWORK. DUCTWORK SHALL BE SIZED FOR MAXIMUM PRESSURE DROP OF 0.08"WC/100 FT OF DUCT, AND MAXIMUM VELOCITY NOT TO EXCEED 1500 FPM.
 - ALL NEW DUCTWORK AND DUCTWORK FITTINGS & TRANSITIONS SHALL BE IN ACCORDANCE TO THE REQUIREMENTS OF SMACNA DUCT CONSTRUCTION STANDARDS.
 - CONTRACTOR SHALL FIELD VERIFY ALL BUILDING CONDITIONS AND HVAC EQUIPMENT, IN ENTIRETY, PRIOR TO COMMENCING WITH WORK. NOTIFY OWNER'S REPRESENTATIVE OF ALL POSSIBLE CONFLICTS UPON VERIFICATION OF FIELD CONDITIONS.
 - CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT OF THE ASSOCIATED HVAC SYSTEMS UPON COMPLETION OF THE PROJECT. ANY DIFFUSER AIR FLOW DISCREPANCIES FROM THE REPORT SHALL BE FIXED BY THE CONTRACTOR.
 - FLEXIBLE INSULATED DUCT PERMITTED ONLY ABOVE LAY-IN CEILINGS, AND SHALL NOT BE A SUBSTITUTE FOR HARD-DUCT 90 DEG ELBOWS. MAXIMUM LENGTH OF INSULATED FLEX DUCT SHALL NOT EXCEED 5 FEET.
 - ALL HARD ELBOW DUCT TURNS SHALL BE PROVIDED WITH TURNING VANES.

GENERAL NOTES

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE CONTRACT DOCUMENTS. THE ENGINEER AND OWNER SHALL BE NOTIFIED OF ANY UNFORESEEN CONDITIONS WHICH MAY AFFECT PROGRESS OR COST OF WORK PERFORMED.
- THE CONTRACT WORK SHALL INCLUDE FURNISHING ALL MATERIAL, EQUIPMENT, TOOLS, LABOR, AND SERVICES NECESSARY FOR COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY OF WORKMANSHIP AND FOR COMPLIANCE WITH THE DESIGN.
- THE CONTRACTOR SHALL CORRECT ALL ERRORS AND DEVIATIONS AS REQUESTED BY THE OWNER.
- THE CONTRACTOR SHALL CONTACT THE OWNER/ENGINEER IMMEDIATELY IF ANY WORKER ENCOUNTERS HAZARDOUS MATERIALS.
- THE CONTRACTOR SHALL COORDINATE MECHANICAL DRAWINGS WITH THE ELECTRICAL DRAWINGS AND SPECIFICATIONS BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY. ALL DISCREPANCIES SHALL BE RESOLVED PRIOR TO THE CONTRACTOR PROCEEDING WITH WORK.
- ALL PRECAUTIONS SHALL BE TAKEN NOT TO DISTURB EXISTING SERVICES AND UTILITIES.
- THERMOSTATS, & REMOTE TEMPERATURE SENSORS SHALL BE MOUNTED AT 48" A.F.F.
- ALL COMPONENTS OF HVAC SYSTEM INCLUDING BUT NOT LIMITED TO MECHANICAL UNIT, DUCTWORK, DUCTWORK INSULATION, DIFFUSERS, AND GRILLS SHALL BE INSTALLED BY CONTRACTOR.
- INTERNAL DUCT LINER SHALL NOT BE ALLOWED. EXTERIOR WRAP FOR SUPPLY & RETURN DUCT SHALL BE R-8 TWO (2) INCH +/- THICK, 3/4 LB. DENSITY. ALL DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH THE LATEST ISSUE OF SMACNA'S AND NESCA'S MINIMUM INSTALLATION STANDARDS.
- ALL COMPONENTS OF THE NEW GAS FIRED INFRARED HEATING SYSTEMS SHALL BE INSTALLED BY A FACTORY-TRAINED CONTRACTOR IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

MECHANICAL KEYED NOTES

- MOUNT GAS FIRED HORIZONTAL OUTDOOR AIR UNIT FROM STRUCTURE AS HIGH AS POSSIBLE. FIELD COORDINATE MOUNTING HEIGHT AND LOCATION WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.
- GAS FIRED INDOOR PACKAGE UNIT CONCENTRIC FLUE UP THRU ROOF. CONTRACTOR SHALL FIELD COORDINATE INSTALLATION AND ROOF PENETRATION LOCATION WITH ALL MANUFACTURER INSTALLATION INSTRUCTIONS, OTHER DISCIPLINES AND FRESH AIR INTAKE OPENING PRIOR TO INSTALLATION. MAINTAIN CODE REQUIRED 10'-0" CLEARANCE.
- ROOF MOUNTED FRESH AIR INTAKE HOOD WITH DAMPER. COORDINATE LOCATION WITH STRUCTURAL LAYOUT AND OTHER DISCIPLINES PRIOR TO INSTALLATION.
- WALL MOUNTED PROGRAMMABLE SPACE TEMPERATURE SENSOR PROVIDED WITH UNIT. REFER TO SEQUENCE OF OPERATION FOR MINIMUM SET POINTS.
- 36x18 TRANSFER AIR OPENING. INSTALL AT 14'-0" A.F.F. OR AS COORDINATED WITH CMU BLOCKING. PROVIDE 1-1/2"x1-1/2" WIRE MESH ON EACH SIDE OF OPENING.
- GAS FIRED UNIT HEATERS MOUNTED AS HIGH AS POSSIBLE. OFFSET AS NEEDED PER MANUFACTURER INSTALLATION INSTRUCTIONS. COORDINATE LOCATION AND ROUTING WITH ALL OTHER DISCIPLINES PRIOR TO FABRICATION AND INSTALLATION.
- THERMOSTAT SUPPLIED BY MANUFACTURER WITH EACH PIECE OF EQUIPMENT. THERMOSTAT TO BE INSTALLED ON AN INSULATED SUB-BASE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND MOUNTED SO THAT THE HIGHEST OPERABLE CONTROL IS NOT MORE THAN 48" AFF.
- ROOF MOUNTED RELIEF HOOD WITH DAMPER. COORDINATE LOCATION WITH STRUCTURAL LAYOUT AND OTHER DISCIPLINES PRIOR TO INSTALLATION.
- EXHAUST AIR DUCTWORK. OFFSET AS NEEDED DOWN TIGHT TO WALL AND TERMINATE AT 6" A.F.F. BOTTOM OF DUCT SHALL BE OPEN ENDED.
- EXHAUST DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE TO ROOF MOUNTED RELIEF HOOD. EXTEND AND TRANSITION AS NEEDED.
- DOOR SHALL BE PROVIDED WITH LOUVER. SEE DOOR SCHEDULE ON ARCHITECTURAL DRAWINGS.
- FLOOR MOUNTED FURNACE ON VIBRATIONS PADS. TRANSITION ALL DUCTWORK AS NEEDED TO ABOVE CEILING AND ROUTE AS SHOWN.
- RADIANT TUBE HEATER MOUNTED PER MANUFACTURER INSTALLATION INSTRUCTIONS FOR CLEARANCES TO COMBUSTIBLES. REFLECTOR SHALL BE ANGLED AT 45 DEG.
- CONTRACTOR SHALL FURNISH A 7 DAY PROGRAMMABLE THERMOSTAT WITH 4 SETBACK PERIODS PER DAY. THERMOSTAT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNT THERMOSTAT SO THAT THE HIGHEST OPERABLE CONTROL IS NOT MORE THAN 48" AFF.
- OUTSIDE AIR DUCT SHALL BE ROUTED AS HIGH AS POSSIBLE ON EXTERIOR WALL TO A WALL BRICK VENT WITH BIRD SCREEN AND DAMPER.
- DRYER EXHAUST DUCT SHALL BE ROUTED TO EXTERIOR WALL BRICK VENT AS NEEDED TIGHT TO FLOOR. FIELD COORDINATE SIZE AND LOCATION WITH SUPPLIED DRYER.
- MECHANICAL UNIT REFRIGERANT LINE SET SHALL BE SIZED AND ROUTED PER VENDOR REQUIREMENTS. LINE SET SHALL BE ROUTED ABOVE CEILING AND SLEEVED THRU EXTERIOR WALL TO CONDENSER.
- WALL MOUNTED CIRCULATOR FAN CONTROLLER. FIELD COORDINATE LOCATION AS NEEDED.
- ROUTE 4" RADIANT HEATER FLUE THRU ROOF. OFFSET AS NEEDED PER MANUFACTURER INSTALLATION INSTRUCTIONS. COORDINATE LOCATION AND ROUTING WITH ALL OTHER DISCIPLINES PRIOR TO FABRICATION AND INSTALLATION.
- STATIONARY WALL LOUVER WITH BUG SCREEN. INSTALL TOP OF LOUVER THREE CMU COURSES BELOW TOP OF WALL.
- COORDINATE MOUNTING LOCATION WITH STRUCTURAL SUPPORT AND MAINTAIN MANUFACTURER REQUIRED CLEARANCES FROM INTAKE OPENING.

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**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

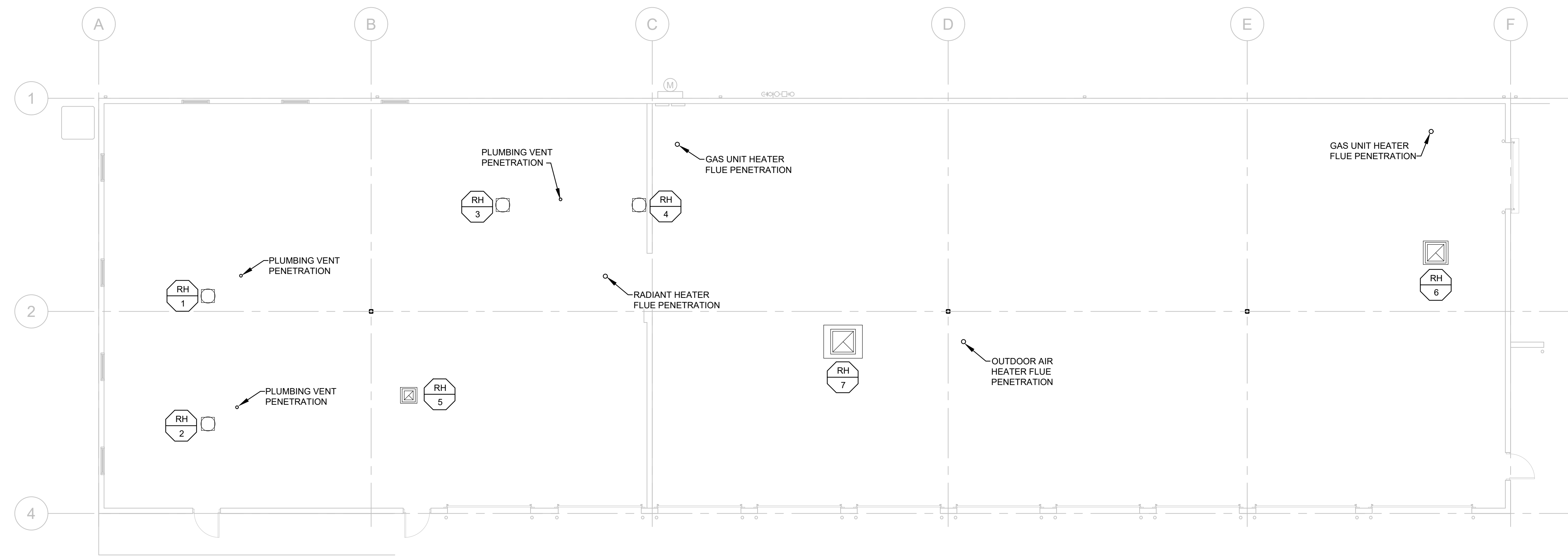
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DATE: _____
ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: SAJ
CHECKED BY: MCG
DESIGNED BY: SAJ

SHEET TITLE:
**MECHANICAL
FLOOR PLAN**

SHEET NUMBER:

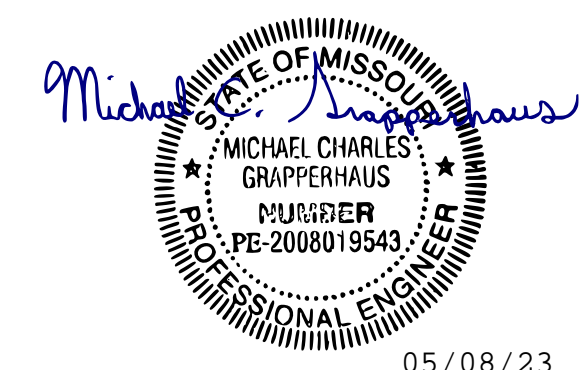
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05/08/2023



MECHANICAL ROOF PLAN
 SCALE: 1/8" = 1'-0"

- ROOF PLAN GENERAL NOTES**
1. CONTRACTOR SHALL COORDINATE ALL ROOF CURB SLOPES WITH PITCH STATED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS.
 2. ENSURE ALL EXHAUST AND RELIEF OPENINGS MAINTAIN CODE REQUIRED 10'-0" CLEARANCE FROM ALL FRESH AIR INTAKE OPENINGS.
 3. MAINTAIN CODE REQUIRED 10'-0" CLEARANCE FROM EDGE OF ROOF FOR ALL MAINTENANCE REQUIRED MECHANICAL ITEMS.

STATE OF MISSOURI
 MICHAEL L. PARSON,
 GOVERNOR



05/08/23
 MICHAEL C. GRAPPERHAUS
 License Number: PE-2008019543
 Expiration Date: 12/31/24
 CASCO Diversified Corporation
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 #000329 ARCHITECTURAL and #00613 ENGINEERING

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**CONSTRUCT FMDC
 GROUNDS &
 MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
 MANAGEMENT, DESIGN
 AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
 1635 INDUSTRIAL DRIVE
 JEFFERSON CITY, MO 65101

PROJECT # O2301-03
 SITE # 1002
 FACILITY # 3101002008

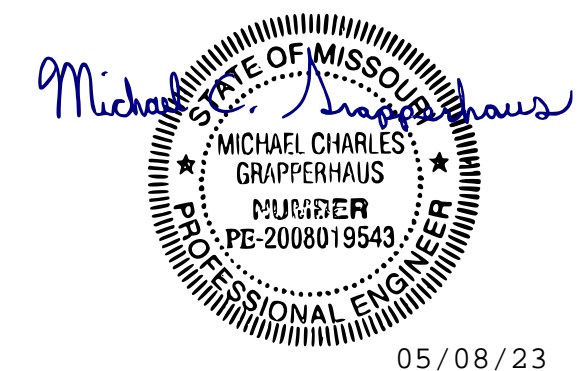
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 DATE: _____
 ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
 DRAWN BY: SAJ
 CHECKED BY: MCG
 DESIGNED BY: SAJ

SHEET TITLE:
**MECHANICAL
 ROOF PLAN**

SHEET NUMBER:

M-102
 27 OF 33 SHEETS
 05/08/2023



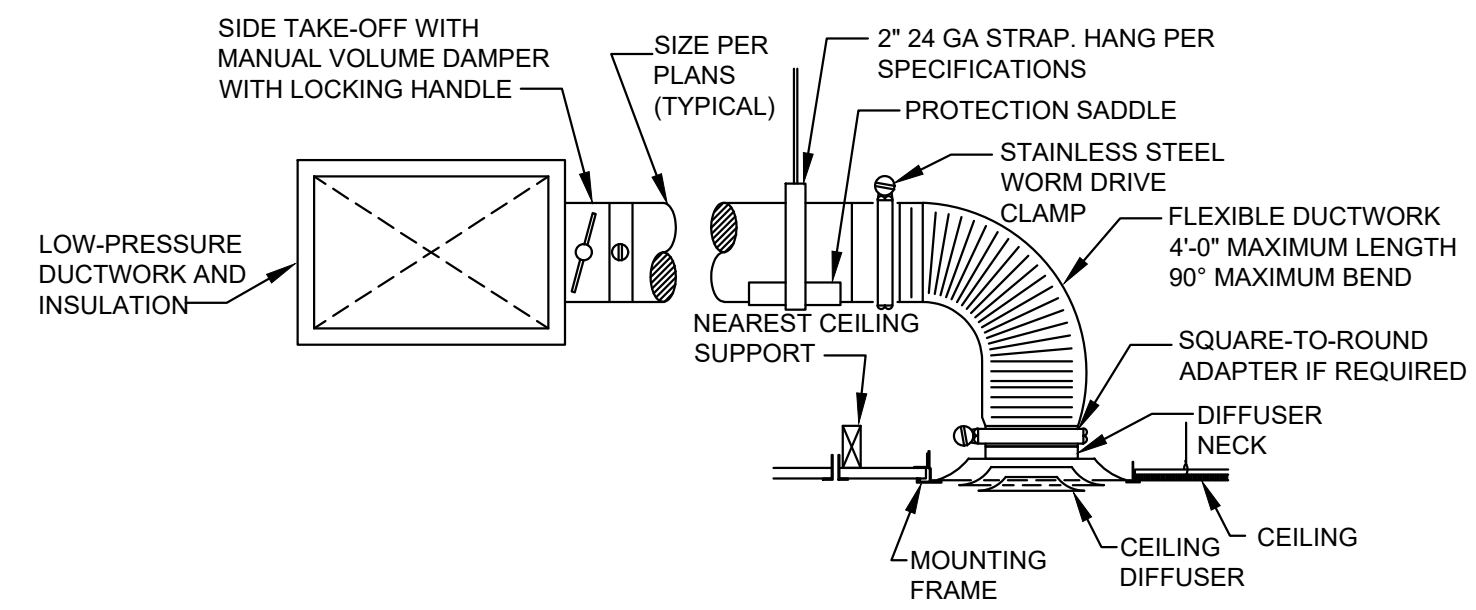
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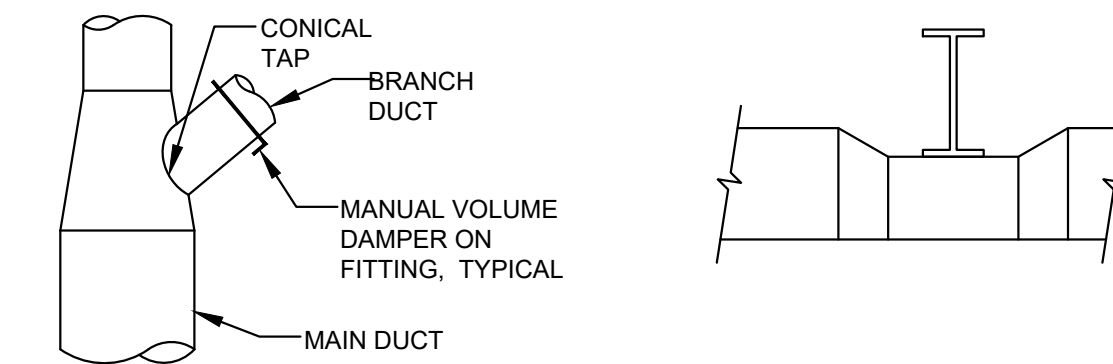
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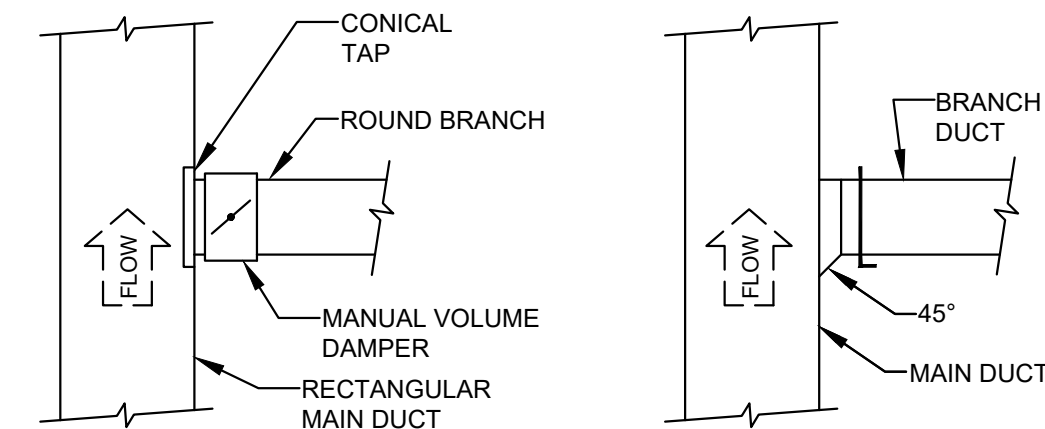


NOTE:
FOR DIFFUSERS INSTALLED IN DRYWALL CEILINGS WHERE BRANCH DAMPER IS INACCESSIBLE, PROVIDE:
• MOUNTING FRAME

1
M-501
CEILING DIFFUSER DETAIL
SCALE: NONE

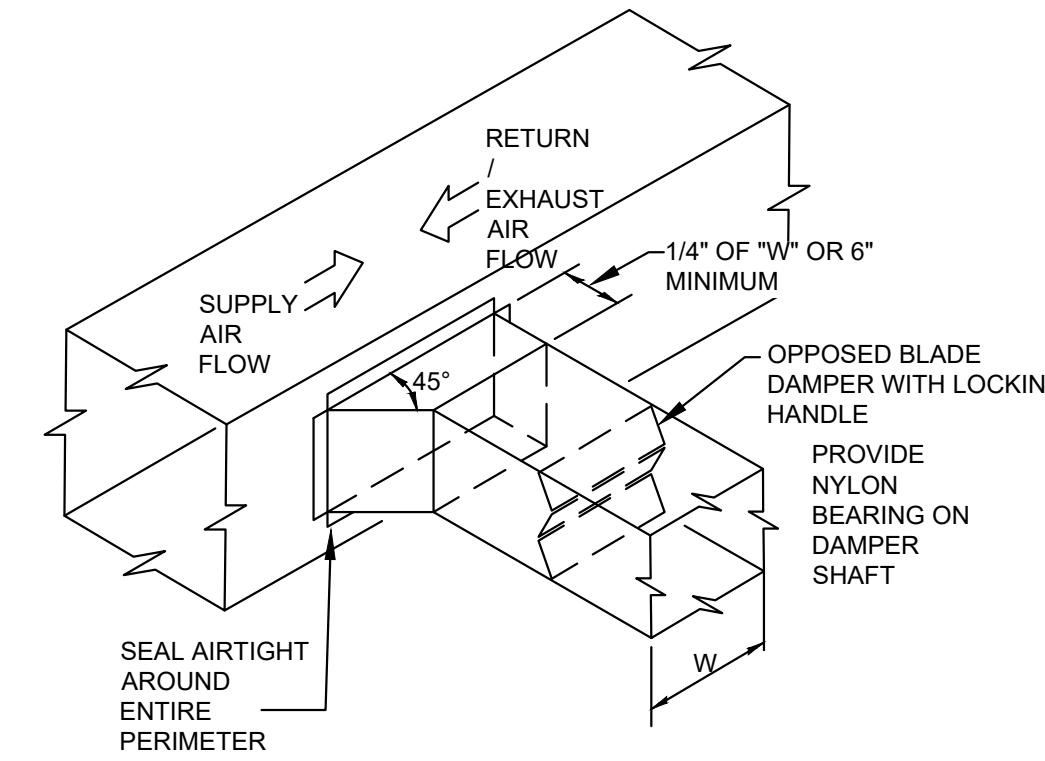


ROUND BRANCH DUCT
DUCT UNDER BEAM OR CROSSOVER SECTION

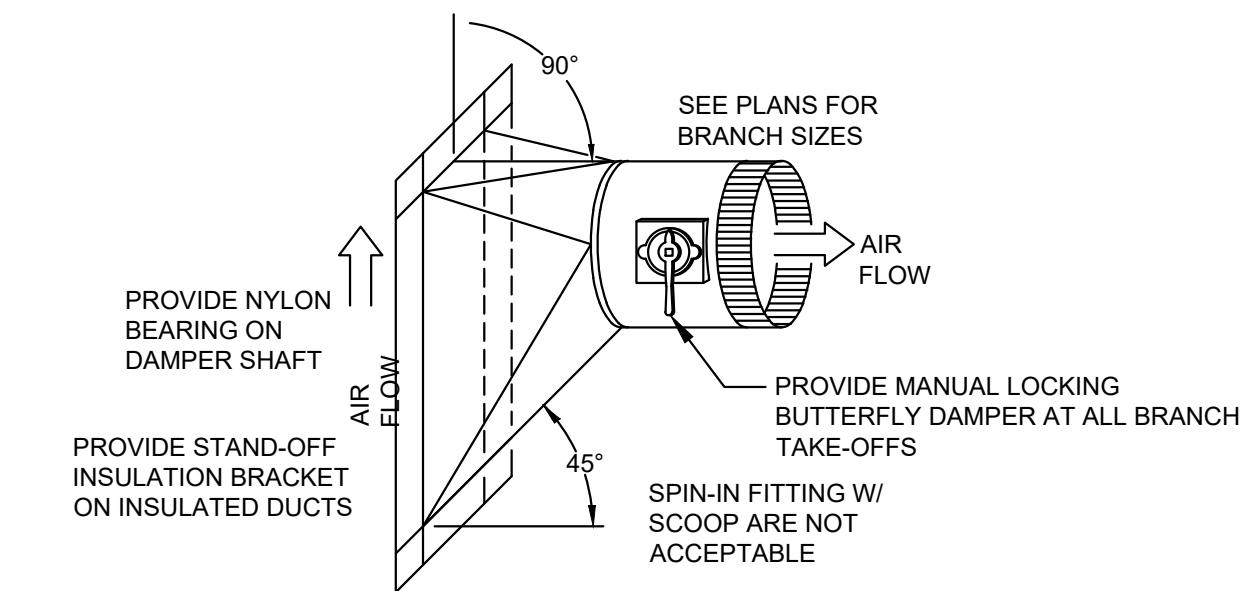


RECTANGULAR MAIN / ROUND BRANCH DUCT
RECTANGULAR BRANCH DUCT

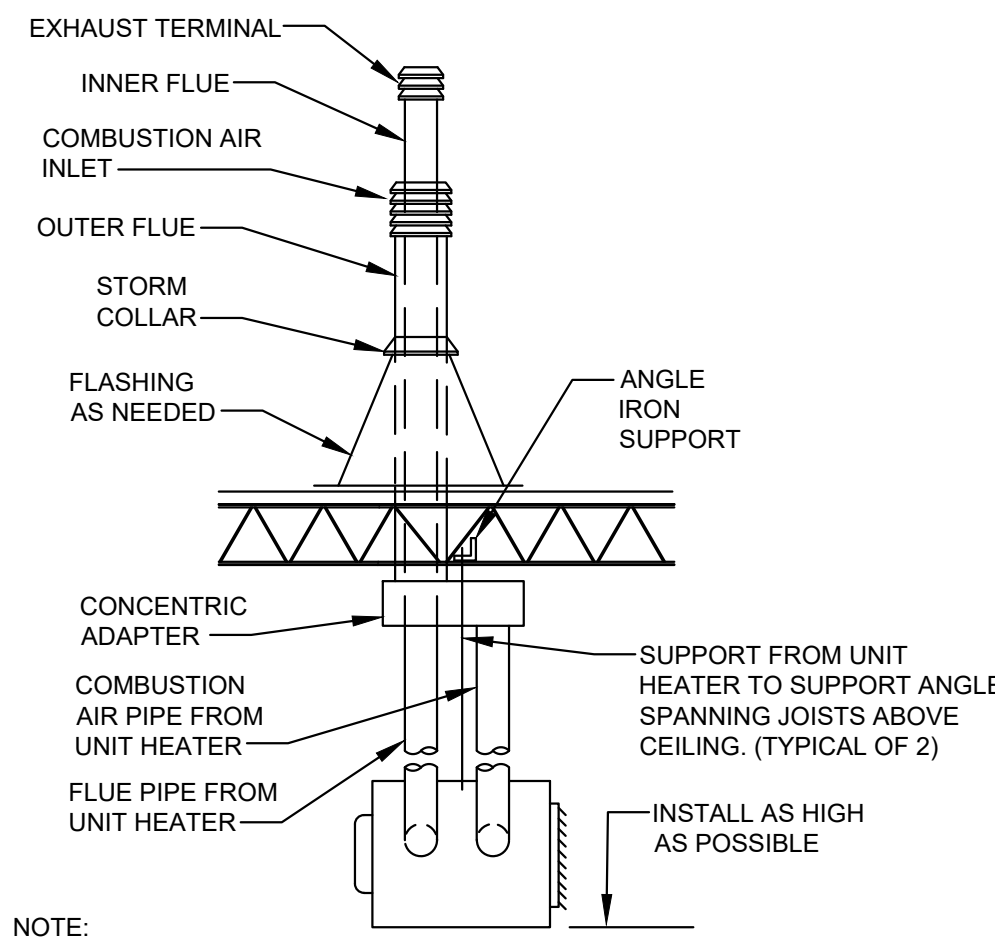
2
M-501
DUCT CONSTRUCTION DETAIL
SCALE: NONE



3
M-501
RECTANGULAR BRANCH DETAIL
SCALE: NONE



4
M-501
ROUND BRANCH TAKE-OFF DETAIL
SCALE: NONE



NOTE:
1. MAINTAIN CLEARANCES PER MANUFACTURER'S REQUIREMENTS.
2. INCREASER AND/OR REDUCERS FOR FLUE/COMBUSTION AIR CONNECTION TO UNIT TO BE SUPPLIED BY THE INSTALLER IF ONE IS REQUIRED.
3. INSTALL UNIT HEATER AND CONCENTRIC AIR/VENT KIT PER MANUFACTURER'S REQUIREMENTS. SIZE VENT & COMBUSTION AIR PER MANUFACTURER'S REQUIREMENTS.

5
M-501
GAS UNIT HEATER DETAIL
SCALE: NONE

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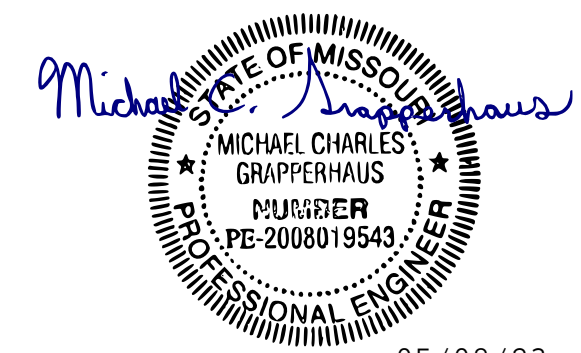
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SHEET TITLE:

**MECHANICAL
DETAILS**

SHEET NUMBER:

M-501
28 OF 33 SHEETS
05/08/2023



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SHEET TITLE:

**MECHANICAL
SCHEDULES**

SHEET NUMBER:

M-601

29 OF 33 SHEETS
05/08/2023

GAS-FIRED INDOOR PACKAGE UNIT SCHEDULE (BASIS OF DESIGN)													
MARK	MFG	MODEL	AIR FLOW CFM	TSP IN WC	HEATING CAPACITY		VOLTS/ PHASE	HP	BHP	MCA	MOP	WEIGHT LBS ±	REMARKS
					INPUT MBH	OUTPUT MBH							
OAU-1	TRANE	GGAA50PD*F0NBZ301A	5,000	0.8	500	400	208/3	5	4.14	20.96	33.19	1,035	1,2,3,4
1. PROVIDE UNIT INSTALLATION PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNT UNIT INDOOR, HORIZONTAL & LEVEL FROM STRUCTURE WITH THREADED ROD AND VIBRATION ISOLATORS AS NEEDED. REFER TO STRUCTURAL DRAWINGS AND MANUFACTURER'S INSTALLATION MANUAL FOR ADDITIONAL INFORMATION. 2. PROVIDE UNIT WITH STAINLESS STEEL HEAT EXCHANGER, VFD BLOWER MOTOR, POWER VENT, HIGH EFFICIENCY SINGLE SPEED MOTOR, TWO POSITION DAMPER, 2 STAGE MODULATING ELECTRONIC GAS CONTROL, PROGRAMMABLE T-STAT, FILTER RACK WITH 2" FILTERS, INSULATED CABINET, DUCT CONNECTION FLANGES. 3. SELECT UNIT DIRECTIONAL HAND (LEFT OR RIGHT) FOR APPROPRIATE UNIT CONTROLS ACCESS BASED ON FLOOR PLAN LAYOUT. APPROVED EQUIVALENT MANUFACTURERS: REZNOR, GREENHECK, STERLING, MODINE													

GAS FIRED FURNACE SCHEDULE (BASIS OF DESIGN)																	
TAG	MFR.	MODEL	NOMINAL TON	ENTERING AIR CONDITIONS	ARI SEER	SUPPLY CFM	RETURN CFM	O.A. CFM	GAS MBH		ELECTRICAL DATA				D/X COIL	WT.	
									INPUT	OUTPUT	VOLTS	PHASE	AMPS	MCA			
F-1	TRANE	S9V2C100U5PSB	4	80°F DB 67°F WB @ 95°F AMBIENT	---	1600	1600	350	100.0	97.0	120	1Ø	13.9	15.0	4TXCC009DS3	220 ±	
NOTES: 1. MECHANICAL UNIT SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. 2. UNIT SHALL BE COMPLETE FOR VERTICAL INSTALLATION, FACTORY MOUNTED CONTROLS, LOW AMBIENT KIT, COMBINATION MAGNETIC MOTOR STARTERS AND SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTION STAINLESS STEEL HEAT EXCHANGER, 2 - STAGE HEAT, CONCENTRIC VENT & FLUE FOR ROOF PENETRATION, FLOOR MOUNT, CONDENSATE NEUTRALIZER, CONDENSATE TRAP. 3. INSTALL NEW FILTERS IN UNIT AFTER ALL DUCTWORK HAS BEEN COMPLETED AND PRIOR TO TEST AND BALANCING OF UNIT. ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT: CARRIER, LENNOX, YORK, GOODMAN																	

AIR DISTRIBUTION DEVICE SCHEDULE (BASIS OF DESIGN)								
MARK	TYPE	MANUFACTURER	MODEL #	FACE	STYLE	BORDER TYPE	FINISH	ACCESSORIES
S-1	SUPPLY	TITUS	TMS	24x24	LOUVERED	LAY-IN (TYPE 3)	WHITE ENAMEL	
R-1	RETURN	TITUS	PAR	24x24	PERFORATED	LAY-IN (TYPE 3)	WHITE ENAMEL	
E-1	EXHAUST	TITUS	350	12x12	LOUVERED	SURFACE MOUNT (TYPE 1)	WHITE ENAMEL	
E-2	EXHAUST	TITUS	350	16x16	LOUVERED	SURFACE MOUNT (TYPE 1)	WHITE ENAMEL	
NOTES: 1. ROUND CONNECTION TO MATCH ROUND DUCT DIMENSION AS SHOWN ON FLOOR PLAN. 2. SUPPLY AND RETURN AIR DIFFUSERS SHALL BE SELECTED AT A MAX NOISE CRITERIA OF 30. APPROVED EQUIVALENT MANUFACTURERS: PRICE, METALAIRE, KRUEGER								

CONDENSING UNIT SCHEDULE (BASIS OF DESIGN)														
TAG	MFR.	MODEL	NOMINAL TON	ENTERING AIR CONDITIONS	NET COOLING CAPACITY		ARI (SEER)	CONDENSER FAN FLA	CONDENSER FAN VOLTAGE	REFG.	CHARGE LBS.	MCA	MOCP	WEIGHT ±
					TOTAL	SENSIBLE								
CU-1	TRANE	4TTR6048N	4	95°F AMBIENT	49.57	37.45	---	1.0	208/230 1/60	R-410A	---	28.0	45.0	308
NOTES: 1. UNIT TO BE MOUNTED ON 4" THICK CONCRETE HOUSEKEEPING PAD. 2. UNIT TO HAVE LOW AMBIENT KIT. 3. FILTER DRYER, SIGHT GLASS AND THERMAL EXPANSION VALVE. 4. LINE SET APPROVED EQUIVALENT MANUFACTURERS: CARRIER, LENNOX, YORK, GOODMAN														

ROOF HOOD SCHEDULE (BASIS OF DESIGN)							
TAG	DESCRIPTION	MFR.	MODEL	CFM	THROAT		PRESSURE DROP (IN W.C.)
					W	L	
RH-1	MEN'S LOCKER ROOM	GREENHECK	GRSR-8	250	8"Ø		0.047
RH-2	WOMEN'S LOCKER ROOM	GREENHECK	GRSR-8	175	8"Ø		0.023
RH-3	LAUNDRY EXHAUST HOOD	GREENHECK	GRSR-8	225	8"Ø		0.038
RH-4	CHEMICAL ROOM	GREENHECK	GRSR-8	175	8"Ø		0.023
RH-5	MAINTENANCE BAY EXHAUST HOOD	GREENHECK	FGR-13x13	900	12x12		0.081
RH-6	MAINTENANCE BAY EXHAUST HOOD	GREENHECK	FGR-24x24	4,000	24x24		0.17
RH-7	MAINTENANCE BAY INTAKE HOOD	GREENHECK	FGI-30x30	5,000	30x30		0.094
ACCESSORIES: 1. ALUMINUM INSECT AND BIRD SCREEN, HINGED HOOD, DAMPER TRAY AND BACKDRAFT DAMPER 2. INSULATED ROOF CURB WITH RAISED CANT, WOOD NAILER, AND CURB FASTENING FLANGE APPROVED EQUIVALENT MANUFACTURERS: PENN-BARRY, COOK							

EXHAUST FAN SCHEDULE (BASIS OF DESIGN)									
TAG	DESCRIPTION	MFR.	MODEL	CFM	ESP	MOTOR			NOTES
						HP / AMPS	PHASE	VOLTS	
EF-1	MEM'S RESTROOM	GREENHECK	CSP-A410	250	0.3	72 WATTS	1	120	1, 3, 5
EF-2	WOMEN'S RESTROOM	GREENHECK	CSP-A390	175	0.4	34 WATTS	1	120	1, 3, 5
EF-3	LAUNDRY	GREENHECK	CSP-A390	225	0.3	45 WATTS	1	120	1, 3, 5
EF-4	CHEMICAL ROOM	GREENHECK	CSP-A200	175	0.3	122 WATTS	1	120	1, 4, 5
EF-5	MAINTENANCE BAY A	GREENHECK	BSQ-100	900	0.45	1/3 HP	1	120	2, 4, 5
EF-6	MAINTENANCE BAY B	GREENHECK	BSQ-200	4000	0.45	1.0 HP	1	120	2, 4, 5
NOTES: 1. EXHAUST FANS TO BE PROVIDED WITH BACKDRAFT DAMPERS, FAN SPEED CONTROLLERS, HANGING ISOLATOR KIT WITH VIBRATION ISOLATION, SUSPENSION ROD AND DISCONNECTS. 2. MAINTENANCE BAY FAN TO BE COMPLETE WITH VIBRATION ISOLATION, SUSPENSION RODS, FLANGE DUCT CONNECTION, DUCT CONNECTION DISCHARGE PACKAGE, DISCONNECTS AND BELT GUARD. 3. EXHAUST FAN INTERLOCKED WITH ROOM LIGHT MOTION SENSORS. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION. 4. EXHAUST FAN INTERLOCKED WITH TIME CLOCK FOR CONTINUOUS OPERATION DURING OCCUPANCY. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION. 5. ALL DISCONNECTS PROVIDED WITH EQUIPMENT IF POSSIBLE. IF NOT AVAILABLE, COORDINATE WITH ELECTRICAL CONTRACTOR. APPROVED EQUIVALENT MANUFACTURERS: PENN-BARRY, COOK									

CIRCULATOR FAN SCHEDULE (BASIS OF DESIGN)									
TAG	AREA SERVING	MFR.	MODEL	FAN DIA.	ELECTRICAL				WEIGHT
					HP	VOLTS	PHASE	HZ	
CF-1 THRU 4	MAINTENANCE BAY	SKYBLADE FAN CO	MP-0618-312-1	6 FT	1.35	120	1	60	96
ACCESSORIES: 1. 1 - SINGLE YOKE CONTROLLER #DP-779 AND 1 - TRIPLE YOKE CONTROLLER #DP-787, INDICATED WITH (C). 2. PURLIN MOUNTING SYSTEM #BP-913 3. FIELD SUPPLIED ANGLE IRON OR URISTRUT SUPPORTS. APPROVED EQUIVALENT MANUFACTURERS: HUNTER, BIG ASS FAN									

GAS FIRED UNIT HEATER SCHEDULE (BASIS OF DESIGN)													
TAG	AREA SERVING	MFR.	MODEL	MBH INPUT	MBH OUTPUT	AFUE	CFM	WEIGHT	MOTOR				
									FLA	MOCP	PHASE	VOLTS	
UH-1	MAINTENANCE BAY	REZNOR	UBZ	60	49.2	80	1012	103	7.1	15	1	120	
UH-2	MAINTENANCE BAY	REZNOR	UBZ	60	49.2	80	1012	103	7.1	15	1	120	
NOTES: 1. UNIT SHALL BE COMPLETE WITH THERMOSTAT, DISCONNECT, HANGER SUPPORT KIT WITH RODS & VIBRATION ISOLATION, FAN GUARD, CONCENTRIC ADAPTER WITH THRU THE ROOF VENTING AND ADJUSTABLE THROW LOUVERS. 2. PROVIDE GAS SHUTOFF COCK AT EACH UNIT. APPROVED EQUIVALENT MANUFACTURERS: MODINE, STERLING, TRANE													

LOUVER SCHEDULE (BASIS OF DESIGN)						
TAG	DESCRIPTION	MFR.	MODEL	SIZE		TYPE
				W	H	
L-1 & L-2	COVERED PLANT STORAGE LOUVER	RUSKIN	L6375D	48	x 32	DRAINABLE / STATIONARY
APPROVED EQUIVALENT MANUFACTURERS: GREENHECK, McMASTER-CARR NOTES: 1. LOUVERS TO BE PRIMED FOR FIELD PAINTING AND PROVIDED WITH BIRD / INSECT SCREEN.						

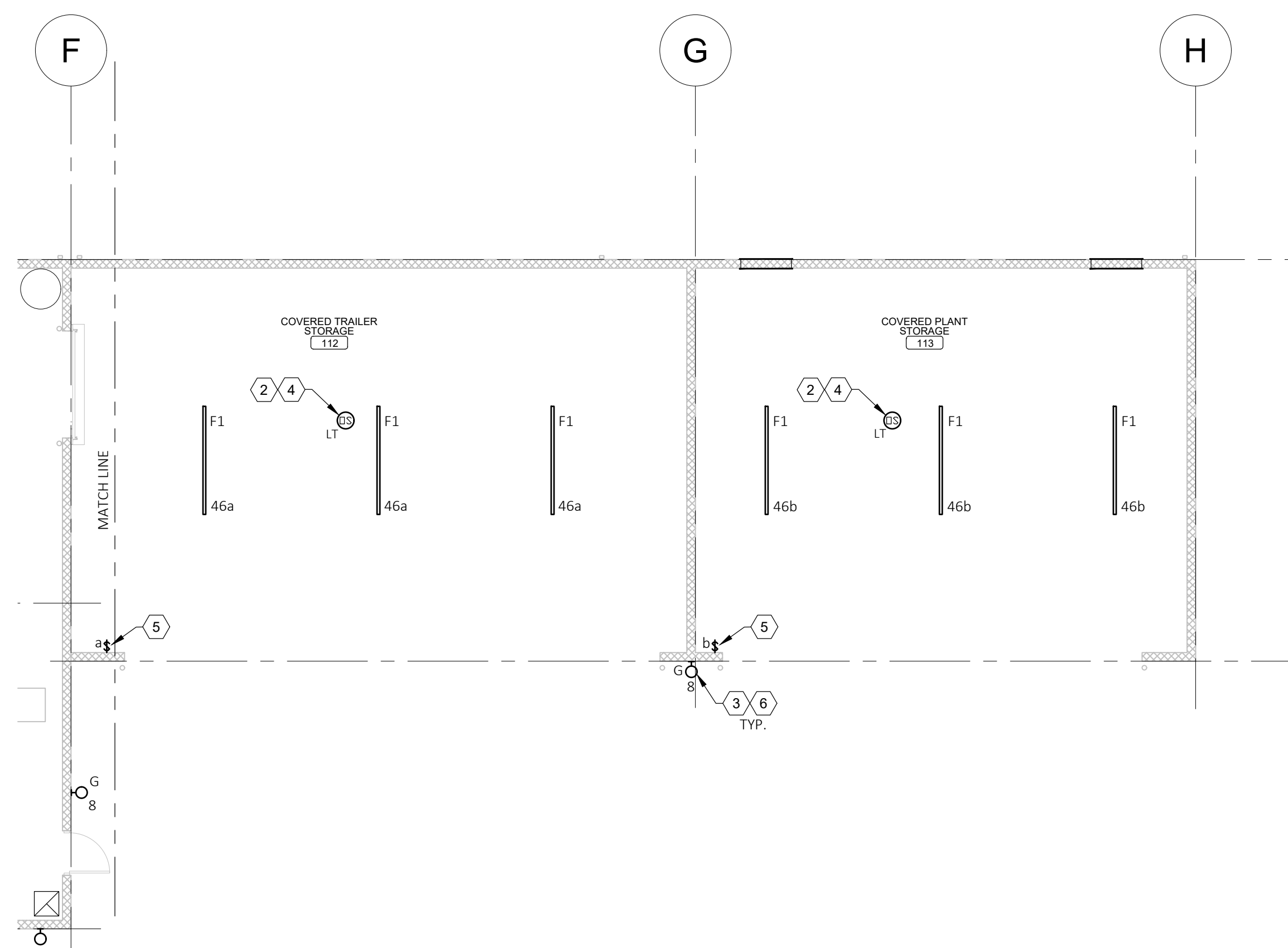
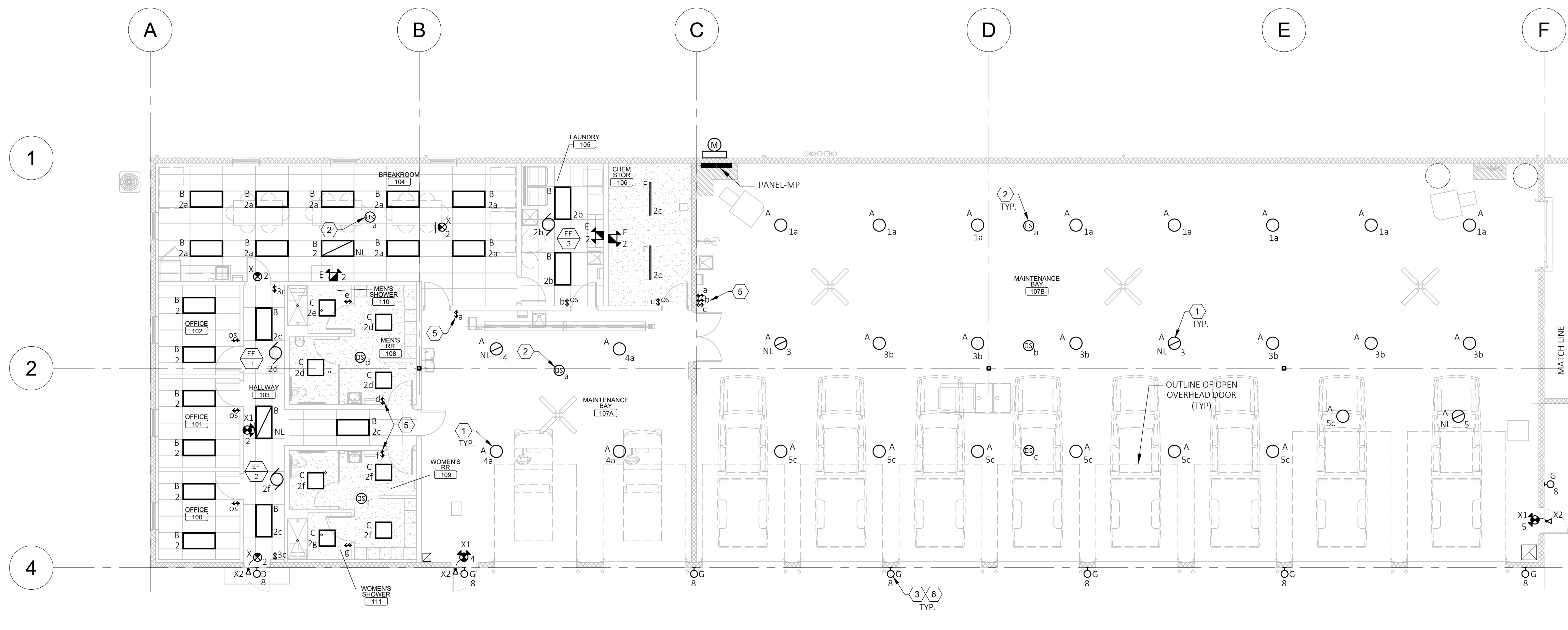
GAS FIRED INFRA-RED HEATER SCHEDULE (BASIS OF DESIGN)											
TAG	MANUFACTURER	MODEL	INPUT MBH	GAS CONNECTION	ELECTRICAL DATA				TUBE TYPE	TUBE LENGTH	
					VOLTS	PHASE	START DRAW	RUN DRAW			
IR-1	DETROIT RADIANT PRODUCTS	SV-20-75N	75	1/2" Ø	120	1Ø	3.0 AMP	2.0 AMP	STRAIGHT TUBE	20 FT	
NOTES: 1. HEATERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. 2. HEATER SHALL BE CONTROLLED BY A TWO-STAGE PROGRAMMABLE 7 DAY DIGITAL THERMOSTAT, MOUNTED 4'-0" ABOVE THE FINISHED FLOOR. SEE MECHANICAL PLAN FOR LOCATIONS. 3. HEATER SHALL BE NEGATIVE PRESSURE VACUUM SYSTE WITH 16 GA - 4" O.D. COATED ALUMINIZED STEEL EMITTER TUBES. TUBES SHALL HAVE CORROSION RESISTANT BLACK COATING. 4. HEATERS SHALL OPERATE UNDER A NEGATIVE PRESSURE AT ALL TIMES TO PRECLUDE THE ESCAPE OF COMBUSTION GASSES INSIDE OF THE BUILDING. 5. HEATERS SHALL BE FURNISHED WITH CHAIN SET AND HOOKS, REFLECTOR ADJUSTABLE KIT AND ALL NEED CONNECTIONS. APPROVED EQUIVALENT MANUFACTURERS: SPACE-REY, ROBERTS / GORDON, RELECT O-RAY (COMBUSTION RESEARCH CORP)											



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GENERAL NOTES:

A. FOR LIGHT FIXTURE SCHEDULE, SEE SHEET E601.

B. SEE SHEET E601 FOR ELECTRICAL GENERAL NOTES AND ELECTRICAL LEGENDS.

C. LIGHT FIXTURES: ELECTRICAL CONTRACTOR'S BID SHALL INCLUDE THE INSTALLATION OF ALL LIGHT FIXTURES AND ASSOCIATED LAMPS. SOME FIXTURES REQUIRE ASSEMBLY AND E.C. IS RESPONSIBLE TO ENSURE THE ADJUSTMENT AFTER INSTALLATION. IF THE CEILING SYSTEMS ARE FIRE RATED, E.C. SHALL CLOSELY COORDINATE RECESSED FIXTURE REQUIREMENTS WITH OWNER AND SUPPLIER TO MAINTAIN THE FIRE RATING OF THE CEILING.

D. NIGHT LIGHTS: ALL NIGHT LIGHTS (SHOWN WITH "NL" DESIGNATION) SHALL BE PROVIDED WITH AN UNSWITCHED "HOT" TO PROVIDE CONTINUOUS POWER.

E. EMERGENCY LIGHTS: EMERGENCY BALLASTS SHALL BE PROVIDED WITH UNSWITCHED "HOT" TO PROVIDE CONTINUOUS POWER TO BALLAST/DRIVER EVEN WHEN FIXTURE IS OFF.

F. CIRCUITING: LIGHTING SHALL BE CIRCUITED AS SHOWN ON PLANS. CIRCUITING SHALL BE THRU-WIRING WHEREVER POSSIBLE. MULTIPLE CONNECTIONS TO A SINGLE LIGHT FIXTURE FOR VOLTAGE DROP CONDITIONS OR AS A RESULT OF A FIELD CONDITION IS ACCEPTABLE. LIGHTING FIXTURES SHALL BE MANUFACTURED TO ACCOMMODATE THRU-WIRING, ANY RELATED COSTS FOR MULTIPLE CONNECTIONS SHALL BE INCLUDED IN THE BID.

G. CONDUIT AND OUTLET BOXES: ALL CONDUITS SHALL BE CONCEALED IN WALLS AND OUTLET BOXES SHALL BE FLUSH WITH FINISHED WALL UNLESS OTHERWISE NOTED.

H. DEVICE COORDINATION: COORDINATE DEVICE AND DEVICE COVERPLATE COLORS WITH ARCHITECTURAL FINISH SCHEDULES PRIOR TO ORDERING.

KEYED NOTES:

1. **PENDANT LIGHT FIXTURE:** MOUNT AT 13'-0" AFF TO BOTTOM OF FIXTURE.

2. **CEILING LIGHT SENSOR:** PROVIDE CEILING MOUNT LIGHT FIXTURE OCCUPANCY SENSOR TO STRUCTURE ABOVE IN OPEN CEILING AREA AND SURFACE MOUNT ON CEILING IN FINISH AREAS. CONNECT TO LIGHT FIXTURES AND WALL SWITCH IN ROOM AS NOTED.

3. **EXTERIOR WALL LIGHT FIXTURE:** TO BE MOUNTED AT 9'-0" AFF TO BOTTOM OF FIXTURE, UNO.

4. **STRIP PENDANT FIXTURE:** MOUNT BETWEEN TRUSSES AT 12'-0" AFG TO BOTTOM OF FIXTURE, UNO.

5. **WALL LIGHT SWITCH:** PROVIDE WALL OVER-RIDE SWITCH(ES) FOR CEILING LIGHT FIXTURE OCCUPANCY SENSOR.

6. **EXTERIOR WALL LIGHTS CONTROLLED BY TIMECLOCK.** SEE DETAIL 2/E601.

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SHEET TITLE:

**ELECTRICAL
LIGHTING FLOOR
PLAN**

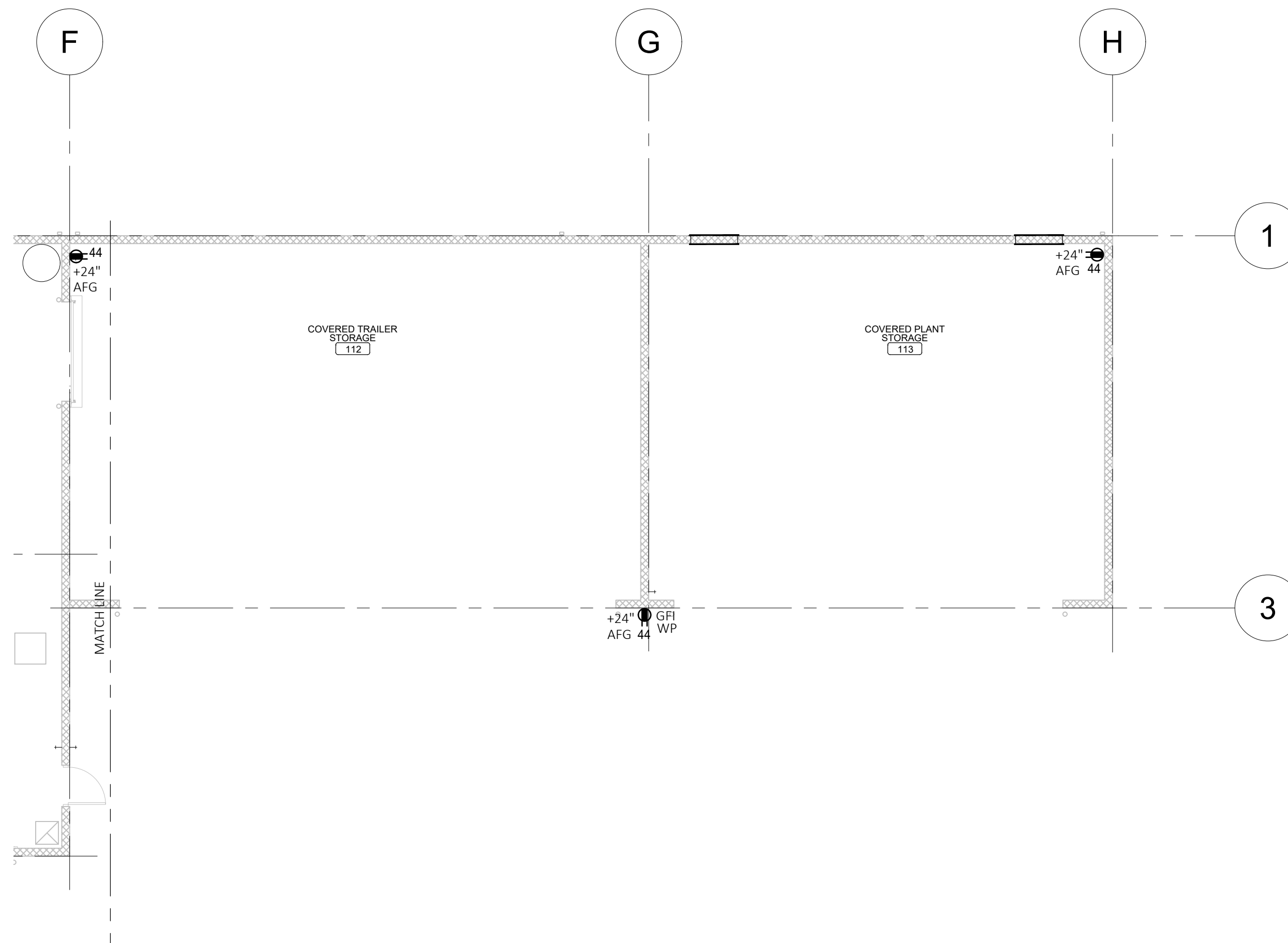
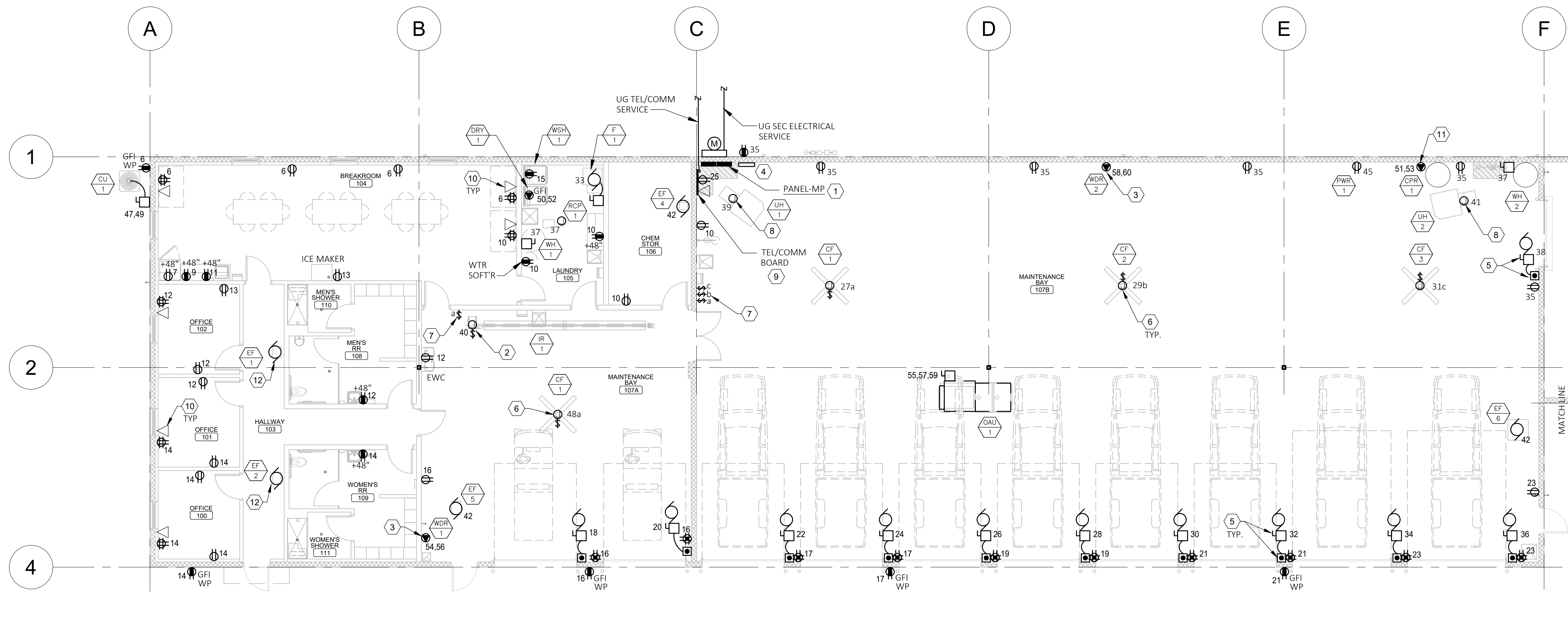
SHEET NUMBER:

E-101

30 OF 33 SHEETS
05/08/2023

1
E-101 SCALE: 1/8" = 1'-0"

ELECTRICAL LIGHTING FLOOR PLAN



GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE, AND ANY OTHER LOCAL CODES AND ORDINANCES.
- WORKMANSHIP SHALL BE FIRST QUALITY AND IN ACCORDANCE WITH BEST PRACTICES FOR THE TRADE BY SKILLED WORKERS.
- ALL MATERIALS SHALL BE NEW, WITH "UL" APPROVED LABELS.
- ALL ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE TESTED AND ADJUSTED FOR PROPER OPERATION. COMPLETE WIRING SYSTEM SHALL BE FREE OF SHORT AND OPEN CIRCUITS.
- ALL ELECTRICAL EQUIPMENT SHOWN SHALL BE ELECTRICALLY PROTECTED AND PROPERLY WIRED IN ACCORDANCE WITH LOCAL BUILDING CODES. COORDINATE LOCATIONS AND ELECTRICAL DATA WITH THE OWNER.
- SUPPLY AND INSTALL NEW ELECTRICAL DEVICES AS SHOWN.
- DEVICE LOCATIONS SHOWN ON THE PLAN SHALL BE PLACED EXACTLY AS SHOWN. COORDINATE WITH INTERIOR ELEVATIONS AND ARCHITECTURAL DRAWINGS.
- ALL WALL OUTLETS SHALL BE INSTALLED 18" AFF TO CENTER OF OUTLET, UNLESS NOTED OTHERWISE.
- ALL FIXTURES, WIRE, AND ELECTRIC DEVICES SHALL BE UL APPROVED.
- ALL WIRING SHALL BE AS SPECIFIED UNDER ELECTRICAL SPEC SECTION.
- ALL BRANCH LIGHTING AND RECEPTACLE CIRCUITS IN EXCESS OF 100 FT. TO LOAD CENTER FROM PANEL SHALL BE #10 AWG.
- PROVIDE 3/4" C WITH PULLCORD FROM TEL/DATA OUTLET LOCATION SHOWN ON DRAWING TO ACCESSIBLE CEILING SPACE FOR OWNER FURNISHED COMMUNICATION CABLES.

KEYED NOTES:

- ELECTRICAL EQUIPMENT:** REFER TO SHEET E602 FOR ONE-LINE DIAGRAM AND PANEL SCHEDULES.
- RADIANT HEATER:** PROVIDE HP RATED TOGGLE TYPE DISCONNECT SWITCH FOR RADIANT HEATER AND CONNECT.
- WELDER OUTLET:** PROVIDE 50A-2P-208V SPECIAL WALL OUTLET FOR WELDER. VERIFY EQUIPMENT CORD/PLUG CONFIGURATION WITH OUTLET.
- CONTROL EQUIPMENT:** PROVIDE TIME CLOCK AND CONTACTOR. REFER TO DETAIL 2/E602.
- OVERHEAD DOOR:** AFTER OVERHEAD DOOR MOTORIZED OPERATOR AND WALL CONTROLLER IS IN-PLACE, CONNECT TO CIRCUIT AS REQUIRED AND PROVIDE 30A-1P NF DISCONNECT SWITCH. CONNECT PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE JUNCTION BOX WITH MOTOR RATED MANUAL SWITCH FOR CEILING MOUNTED CIRCULATOR FAN AND CONNECT TO CIRCUIT SHOWN.
- CIRCULATOR FAN CONTROLLER SWITCH. INSTALL AND CONNECT TO FAN BY EC.
- PROVIDE JUNCTION BOX WITH CIRCUIT FOR CEILING MOUNT UNIT HEATER, CONTROLLED BY WALL MOUNT THERMOSTAT FURNISHED AND INSTALLED BY MC.
- TELEPHONE BOARD:** PROVIDE 3/4" X 4" W X 8" H PLYWOOD BOARD FOR TELEPHONE/ COMMUNICATIONS EQUIPMENT.
- TEL/DATA:** PROVIDE BACKBOX AT 18" AFF WITH 3/4" C AND PULLCORD TO ACCESSIBLE CEILING SPACE FOR COMMUNICATION CABLING BY OWNER'S VENDOR.
- COMPRESSOR OUTLET:** PROVIDE 30A-2P-208V SPECIAL WALL OUTLET FOR COMPRESSOR. VERIFY EQUIPMENT CORD/PLUG CONFIGURATION WITH OUTLET.
- EXHAUST FAN CONTROLLED BY ROOM LIGHTING OCCUPANCY SENSOR. SEE SHEET E101 FOR WORK.

1 ELECTRICAL POWER FLOOR PLAN
SCALE: 1/8" = 1'-0"



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License Number: 051293
Expiration Date: 12/31/23
CASCO Diversified Corporation
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CASCO
12 Sumner Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

**CONSTRUCT FMDC
GROUNDS &
MAINTENANCE BLDG.**

**DIVISION OF FACILITIES
MANAGEMENT, DESIGN
AND CONSTRUCTION**

FMDC MAINTENANCE COMPLEX
1635 INDUSTRIAL DRIVE
JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 04/27/2023

CAD DWG FILE: _____
DRAWN BY: RA
CHECKED BY: _____
DESIGNED BY: _____

SHEET TITLE:
**ELECTRICAL
POWER FLOOR
PLAN**

SHEET NUMBER:



05/08/23
DAVID A. TRETTER
License Number: 021293
Expiration Date: 12/31/23
CASCO Diversified Corporation
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DRAWN BY: RA
CHECKED BY: DAT
DESIGNED BY: _____

SHEET TITLE:

**ELECTRICAL
LEGEND, NOTES &
SCHEDULES**

SHEET NUMBER:

E-601

LIGHTING FIXTURE SCHEDULE							
TYPE	MANF	CATALOG NO.	LAMP DATA			REMARKS	WATTS
			**	NO.	LAMPS		
A	METALUX	BMK-15-WFL-UNV-L850-CD-C6-U	L	1	15423 LUMENS 5000K LED	18" DIAMETER X 16"HT LED PENDANT FIXTURE, CABLE MOUNT, WIDE FROSTED LENS, 0-10V DIMMABLE FIXTURE, WHITE FINISH, MOUNT 13-FT AFF TO BOTTOM OF FIXTURE	95W
A	HUBBELL (EQUIVALENT)	CRN2-50K-LX-ED-U-FP WITH CR2WA18 REFLECTOR	L	1	14444 LUMENS 5000K LED	14-1/2" DIAMETER X 8"HT LED PENDANT FIXTURE, CABLE MOUNT, WIDE FROSTED LENS, 0-10V DIMMABLE FIXTURE, WHITE FINISH, MOUNT 13-FT AFF TO BOTTOM OF FIXTURE	101W
A	LITHONIA (EQUIVALENT)	JHBL-12000L-ACL-MD-MVOLT-50K-80CRI	L	1	12158 LUMENS 5000K LED	22-3/8" DIAMETER X 17"HT LED PENDANT FIXTURE, CABLE MOUNT, WIDE FROSTED LENS, 0-10V DIMMABLE FIXTURE, WHITE FINISH, MOUNT 13-FT AFF TO BOTTOM OF FIXTURE	83W
B	METALUX	24C22-40-S-UNV-L840-CD1-U	L	1	4000 LUMENS 4000K LED	2" X 4" LED TROFFER, RECESSED MTD, 0-10V DIMMABLE FIXTURE, SMOOTH CURVED FROSTED ACRYLIC FROSTED LENS, WHITE FINISH	33W
B	HUBBELL (EQUIVALENT)	LCA24-40-LW-G-ED-U	L	1	4465 LUMENS 4000K LED	2" X 4" LED TROFFER, RECESSED MTD, 0-10V DIMMABLE FIXTURE, SMOOTH CURVED ACRYLIC FROSTED LENS, WHITE FINISH	36W
B	LITHONIA (EQUIVALENT)	2BLT4-40L-ADSM-MVOLT-GZ1-LP840	L	1	4000 LUMENS 4000K LED	2" X 4" LED TROFFER, RECESSED MTD, 0-10V DIMMABLE FIXTURE, SMOOTH CURVED ACRYLIC FROSTED LENS, WHITE FINISH	32W
C	METALUX	22C22-39-S-UNV-L840-CD1-U WITH DF-22W-U FRAME KIT	L	1	3900 LUMENS 4000K LED	2" X 2" LED TROFFER, RECESSED MTD WITH DRYWALL FRAME KIT, 0-10V DIMMABLE FIXTURE, SMOOTH FROSTED ACRYLIC FROSTED LENS, WHITE FINISH	31W
C	HUBBELL (EQUIVALENT)	LCA22-40-HL-G-ED-U WITH FK22 FLANGE FRAME KIT	L	1	3900 LUMENS 4000K LED	2" X 2" LED TROFFER, RECESSED MTD WITH DRYWALL FRAME KIT, 0-10V DIMMABLE FIXTURE, SMOOTH FROSTED ACRYLIC FROSTED LENS, WHITE FINISH	32W
C	LITHONIA (EQUIVALENT)	2BLT4-40L-ADSM-MVOLT-GZ1-LP840	L	1	3900 LUMENS 4000K LED	2" X 2" LED TROFFER, RECESSED MTD WITH DRYWALL FRAME KIT, 0-10V DIMMABLE FIXTURE, SMOOTH FROSTED ACRYLIC FROSTED LENS, WHITE FINISH	27W
D	HUBBELL	SG1-30-4K7-FT-UNV-DBT-EH	L	1	3060 LUMENS 4000K LED	EXTERIOR WALL LED FIXTURE ABOVE DOOR, INTEGRAL EMERGENCY BATTERY, BRONZE FINISH	30W
D	LITHONIA (EQUIVALENT)	OVWP-LED-40K-PE-BZ	L	1	1242 LUMENS 4000K LED	EXTERIOR WALL LED FIXTURE ABOVE DOOR, IMPACT RESISTANT POLYCARBONATE COVER, BRONZE FINISH	14W
D	LUMARK (EQUIVALENT)	XTOR2B	L	1	2135 LUMENS 4000K LED	EXTERIOR WALL LED FIXTURE ABOVE DOOR, IMPACT RESISTANT POLYCARBONATE COVER, BRONZE FINISH	18W
E	COOPER	SURE-LITE APEL-H2-WH	L	2	FURN W/FIXT	WALL MOUNT 2-HEAD LED EMERGENCY FIXTURE, 90-MIN BATTERY, WHITE FINISH	2W
E	EXITRONIX (EQUIVALENT)	LED-95-WH-G2	L	2	FURN W/FIXT	WALL MOUNT 2-HEAD LED EMERGENCY FIXTURE, 90-MIN BATTERY, WHITE FINISH	2W
E	LITHONIA (EQUIVALENT)	ELM4L-WH	L	2	FURN W/FIXT	WALL MOUNT 2-HEAD LED EMERGENCY FIXTURE, 90-MIN BATTERY, WHITE FINISH	2W
F	METALUX	4SNLED-LD5-41SL-LW-UNV-L850-CD1-U	L	1	4214 LUMENS 5000K LED	SURFACE MOUNT 4-FT LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	35W
F	HUBBELL (EQUIVALENT)	LCL4-50ML-ED-U	L	1	5556 LUMENS 5000K LED	SURFACE MOUNT 4-FT LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	42W
F	LITHONIA (EQUIVALENT)	ZL1D-L48-3000LM-FST-MVOLT-50K-80CRI-WH	L	1	3000 LUMENS 5000K LED	SURFACE MOUNT 4-FT LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	30W
F1	LITHONIA	FEM-L96-9000LM-IMAFL-WD-MVOLT-GZ10-40K-80CRI (LOW TEMP)	L	1	9000 LUMENS 5000K LED	PENDANT MOUNT 8-FT LOW TEMP LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	55W
F1	HUBBELL (EQUIVALENT)	LCL8-50ML-ED-U (LOW TEMP)	L	1	11111 LUMENS 5000K LED	PENDANT MOUNT 8-FT LOW TEMP LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	84W
F1	LITHONIA (EQUIVALENT)	TZL1D-L96-6000LM-FST-MVOLT-50K-80CRI-WH (LOW TEMP)	L	1	6000 LUMENS 5000K LED	PENDANT MOUNT 8-FT LOW TEMP LED STRIP LIGHT FIXTURE WITH ROUND FROSTED LENS, 0-10V DIMMABLE FIXTURE	60W
G	LITHONIA	TWPX2-LED-ALO-50K-MVOLT-DOBXD	L	1	5000 LUMENS 5000K LED	WALL MOUNT LED FIXTURE, FIELD ADJUSTABLE LIGHT OUTPUT, POLYCARBONATE LENS, 0-10V DIMMABLE FIXTURE, BRONZE FINISH	54W
G	SYLVANIA (EQUIVALENT)	WALPAK-1N-050-UNV07-50-BZ	L	1	5300 LUMENS 5000K LED	WALL MOUNT LED FIXTURE, FIELD ADJUSTABLE LIGHT OUTPUT, POLYCARBONATE LENS, 0-10V DIMMABLE FIXTURE, BRONZE FINISH	50W
G	RAB (EQUIVALENT)	WP2LED-49L-750-BRZ-U	L	1	5000 LUMENS 5000K LED	WALL MOUNT LED FIXTURE, FIELD ADJUSTABLE LIGHT OUTPUT, POLYCARBONATE LENS, 0-10V DIMMABLE FIXTURE, BRONZE FINISH	46W
X	COOPER	SURE-LITE APX-7R-WH	L	1	FURN W/FIXT	WALL/CEILING LED EXIT SIGN WITH 90-MIN BATTERY, WHITE FINISH	1W
X	EXITRONIX (EQUIVALENT)	QXT-R-WH	L	1	FURN W/FIXT	WALL/CEILING LED EXIT SIGN WITH 90-MIN BATTERY, WHITE FINISH	1W
X	LITHONIA (EQUIVALENT)	LQM-S-W-3-R-MVOLT-ELN	L	1	FURN W/FIXT	WALL/CEILING LED EXIT SIGN WITH 90-MIN BATTERY, WHITE FINISH	1W
X1	EXITRONIX	VLED-1-WH-EL90-R	L	2	FURN W/FIXT	SINGLE FACE COMBINATION EXIT/EMERGENCY LIGHT (90 MIN BATT) WITH REMOTE HEAD CAPABILITY, CEILING OR WALL MOUNT	2W
X1	EXITRONIX (EQUIVALENT)	VLED-1-WH-EL90-G2	L	2	FURN W/FIXT	WALL MOUNT 2-HEAD COMBINATION EXIT & EMERGENCY LED FIXTURE, 90-MIN BATTERY, REMOTE HEAD CAPABILITY, WHITE FINISH	1W
X1	LITHONIA (EQUIVALENT)	LHQH-LED-R-SD	L	2	FURN W/FIXT	WALL MOUNT 2-HEAD COMBINATION EXIT & EMERGENCY LED FIXTURE, 90-MIN BATTERY, REMOTE HEAD CAPABILITY, WHITE FINISH	1W
X2	EXITRONIX	CLED-WP	L	1	FURN W/FIXT	EXTERIOR EMERGENCY LIGHT (90 MIN BATT), CIRCUIT VIA TYPE X1, WALL MOUNT	1W

ABBREVIATIONS (NOTE: NOT ALL ABBREVIATIONS ARE USED)			
AFF	ABOVE FINISHED FLOOR	EWC	ELECTRIC WATER COOLER
AL	ALUMINUM	EXIST'G	EXISTING
AMP	AMPERE	GFCI OR GFI	GROUND FAULT CURRENT INTERRUPTER
AFG	ABOVE FINISHED GRADE	GRS	GALVANIZED RIGID STEEL CONDUIT
BFG	BELOW FINISHED GRADE	FL	FLOOR
BLDG	BUILDING	FLUOR	FLUORESCENT
CB	CIRCUIT BREAKER	GND OR (G)	GROUND
CKT	CIRCUIT	IG	ISOLATED GROUND
CLG	CEILING	JB	JUNCTION BOX
COND OR "C"	CONDUIT	MCB	MAIN CIRCUIT BREAKER
CONN	CONNECT	MDP	MAIN DISTRIBUTION PANEL
CONT	CONTRACTOR	MLO	MAIN LUG ONLY
CU	COPPER	MTD HT	MOUNTING HEIGHT
C/T	CURRENT TRANSFORMER	NF	NON FUSED
DIM	DIMMER	NIC	NOT IN CONTRACT
DISC SW	DISCONNECT SWITCH	RTU	ROOF TOP UNIT
DP	DOUBLE POLE	SW	SWITCH
DT	DOUBLE THROW	UG	UNDER GROUND
DPP	DISTRIBUTION POWER PANEL	UNO	UNLESS NOTED OTHERWISE
EC	ELECTRICAL CONTRACTOR	VIF	VERIFY IN FIELD
EF	EXHAUST FAN	WP	WEATHER-PROOF
EM	EMERGENCY	XFMR	TRANSFORMER

ELECTRICAL GENERAL NOTES:	
1.	REVIEW DRAWINGS OF ALL DIVISIONS OF WORK. COORDINATE THIS WORK WITH ALL OTHER DIVISIONS OF WORK AND ALL SUBCONTRACTORS. PROVIDE ALL SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
2.	ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND REPRESENT THE GENERAL SCOPE OF THE WORK. SIZES AND LOCATION OF EQUIPMENT AND WIRING DEVICES ARE SHOWN TO SCALE WHERE POSSIBLE, BUT MAY BE DISTORTED FOR CLARITY ON THE DRAWINGS. FINAL LOCATION OF WIRING DEVICES AND EQUIPMENT SHALL BE AS APPROVED BY THE ARCHITECT OR THEIR REPRESENTATIVE.
3.	CONTRACTOR SHALL COORDINATE LOCATIONS AND ROUTING OF ALL CONDUITS. IT IS NOT WITHIN THE SCOPE OF DRAWINGS TO SHOW ALL NECESSARY BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ALL WORK TO CONFORM TO THE STRUCTURE, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAN.
4.	ELECTRICAL CONTRACTOR SHALL REQUEST A SET OF ARCHITECTURAL PLANS FOR REFERENCE FROM THE GENERAL CONTRACTOR.
5.	COORDINATE FOR ANY CONSTRUCTION PHASING REQUIREMENTS.
6.	ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH AHJ'S ADOPTED NEC, BUILDING CODES, AND INDUSTRY STANDARDS.
7.	UPON COMPLETION OF ALL ELECTRICAL WORK, ELECTRICAL CONTRACTOR SHALL ADJUST AND TEST ALL CIRCUITS, OUTLETS, SWITCHES, LIGHTS, MOTORS, AND OTHER ELECTRICAL ITEMS. DAMAGED ITEMS SHALL BE IMMEDIATELY REPAIRED OR REPLACED WITH ALL NEW EQUIPMENT AND THAT PART OF THE SYSTEM SHALL THEN BE RETESTED. ALL SUCH REPLACEMENT OR REPAIR SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
8.	AFTER COMPLETION OF WORK UNDER THIS SECTION, CLEAN-UP ALL RESULTANT DEBRIS FROM THIS WORK AND REMOVE FROM THE SITE.
9.	VERIFY LOCATIONS FOR ALL WIRING DEVICES AND ELECTRICAL EQUIPMENT WITH ARCHITECTURAL DRAWINGS FOR INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, CEILING AND ASSOCIATED CONDITIONS, AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
10.	CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH ALL TRADES AND ELECTRICAL REFERENCES ON ARCHITECTURAL DRAWINGS.
11.	COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES.
12.	COORDINATE EXACT ROUTE FOR INSTALLATION OF ELECTRICAL AND TELEPHONE SERVICES.
13.	CONTRACTOR SHALL UTILIZE A LICENSED FIRE ALARM CONTRACTOR FOR FIRE ALARM WORK.
14.	ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR PARTITIONS SHALL BE PROPERLY SEALED TO PREVENT THE SPREAD OF SMOKE AND FIRE. THE RATING OF THE PENETRATION SEAL SHALL AT A MINIMUM BE THE SAME RATING AS THAT OF THE WALL, FLOOR OR PARTITION ASSEMBLY. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
15.	PROVIDE A SEPARATE CODE SIZED GREEN EQUIPMENT GROUND CONDUCTOR IN ALL CONDUITS AND RACEWAYS CONTAINING LINE VOLTAGE CIRCUITS. FOR ALL 20A CIRCUITS, EQUIPMENT GROUND CONDUCTOR SIZE SHALL MATCH PHASE CONDUCTOR SIZE. FOR CIRCUITS UPSIZED FOR VOLTAGE DROP INCREASE EQUIPMENT GROUNDING CONDUCTOR SIZE PER ELECTRICAL CODE.
16.	ALL WIRING SHALL BE IN RACEWAY (EMT OR RIGID). FLEXIBLE METAL CONDUIT MAY ONLY BE USED FOR FINAL CONNECTIONS FROM OUTLET BOXES TO LIGHT FIXTURES, MOTORS, APPLIANCES, ETC., MAXIMUM LENGTH 6'-0". NO "BX", "ROMEX", ARMORED CABLE, ETC., ALLOWED. ALL CONDUITS SHALL BE CONCEALED WHENEVER POSSIBLE.
17.	EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL WITH OR AT RIGHT ANGLES TO THE BUILDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE.
18.	FLEXIBLE CONDUIT IS NOT PERMITTED WITHIN DEMISING WALLS. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE.
19.	HORIZONTAL OR CROSS RUNS OF CONDUIT AND WIRING IN WALLS AND PARTITIONS IS NOT PERMITTED.
20.	PASS RACEWAYS OVER WATER AND OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3" OF HOT WATER PIPES, OR APPLIANCES, EXCEPT CROSSING WHERE RACEWAY SHALL BE AT LEAST 1" FROM PIPE COVER.
21.	SECURE ALL SUPPORTS TO BUILDING STRUCTURE AS REQUIRED. SUPPORT HORIZONTAL AND VERTICAL RUNS OF METALLIC RACEWAYS PER THE ELECTRICAL CODE.
22.	COORDINATE FINAL CONNECTION LOCATIONS, TYPES, AND REQUIREMENTS FOR EQUIPMENT WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
23.	COORDINATE NEUTRAL CONDUCTOR REQUIREMENTS FOR ALL EQUIPMENT. PROVIDE NEUTRAL CONDUCTOR AS REQUIRED FOR MULTI-PHASE EQUIPMENT.
24.	PROVIDE NYLON BUSHINGS FOR ALL CONDUIT STUB-UP LOCATIONS TERMINATED WITHOUT A JUNCTION BOX UNLESS NOTED OTHERWISE.
25.	ALL JUNCTION BOXES SHALL BE RIGIDLY ATTACHED TO STRUCTURE OR MILLWORK.
26.	ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS TO MILLWORK. CONFIRM FINAL CONNECTION LOCATION AND REQUIREMENTS WITH MILLWORK CONTRACTOR PRIOR TO ROUGH-IN.
27.	PROVIDE ALL MISCELLANEOUS STEEL AS REQUIRED FOR THE PROPER INSTALLATION OF ELECTRICAL EQUIPMENT AND SYSTEMS.
28.	ALL ELECTRICAL DEVICES AND COVER PLATES SHALL BE DECORATOR STYLE, UNO.
29.	CONFIRM WIRING DEVICE AND COVER PLATE FINISHES WITH ARCHITECT.
30.	COORDINATE FINAL LOCATION, MOUNTING HEIGHT, AND COLOR OF ALL LIGHT FIXTURES, WALL MOUNTED AND CEILING MOUNTED DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED DEVICES AND LOCATIONS. ALL CEILING MOUNTED DEVICES SHALL BE EVENLY SPACED FROM ADJACENT LIGHT FIXTURES AND CENTERED IN CEILING TILES WHEN POSSIBLE.
31.	LIGHT FIXTURES AND ASSOCIATED EQUIPMENT SHOWN ON ELECTRICAL DRAWINGS REPRESENT GENERAL ARRANGEMENTS ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR MORE EXACT LOCATIONS. COORDINATE LOCATIONS WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO AVOID CONFLICTS.
32.	COORDINATE FINAL LIGHT FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
33.	PROVIDE UN-SWITCHED HOT CONDUCTOR TO ALL EMERGENCY AND EXIT SIGN FIXTURES WITH BATTERY BACKUP DRIVER AND NIGHT LIGHT FIXTURES. REFER TO LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
34.	PROVIDE NEUTRAL CONDUCTOR TO ALL LINE VOLTAGE WALL LIGHT SWITCH LOCATIONS. IF NEUTRAL TERMINATION IS NOT REQUIRED, CAP CONDUCTOR AND TAG AS "NEUTRAL FOR FUTURE USE".
35.	PROVIDE A DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS, SHARED NEUTRAL IS NOT ALLOWED.
36.	PROVIDE ALL REQUIRED MOUNTING AND SUPPORT HARDWARE FOR LIGHT FIXTURES TO MEET MOUNTING HEIGHTS INDICATED ON ELECTRICAL AND ARCHITECTURAL DRAWINGS.
37.	PROVIDE ALL CONDUIT, WIRING, AND APPURTENANCES FOR LIGHTING, POWER, SECURITY, AUDIO/VISUAL, AND TELECOMMUNICATIONS SYSTEMS AS REQUIRED FOR A COMPLETE INSTALLATION. REFER TO VENDOR LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
38.	INSTALL AND MAKE POWER CONNECTIONS TO ALL LOW-VOLTAGE LIGHT FIXTURES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
39.	MAINTAIN 3" CLEARANCE MINIMUM BETWEEN NON-IC RATED LIGHT FIXTURE HOUSINGS AND ALL DUCTWORK AND ENVELOPE INSULATION.
40.	ALL SECURITY INFORMATION SHOWN ON ELECTRICAL PLANS IS FOR INFORMATION ONLY. ALL WORK TO BE COORDINATED WITH OWNER'S SECURITY VENDOR.
41.	ALL LOW VOLTAGE CONDUITS SHALL BE 1" MINIMUM UNLESS NOTED OTHERWISE.
42.	GENERAL CONTRACTOR SHALL PROCURE LOW VOLTAGE AND COMMUNICATIONS PERMIT FOR OWNER'S LOW VOLTAGE VENDOR. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO BID.
43.	ENSURE INSTALLATION COMPLIANCE WITH THE 2020 NATIONAL ELECTRICAL CODE.

ELECTRICAL SYMBOLS (NOT ALL SYMBOLS ARE USED)	
	2' X 4' LED LIGHT FIXTURE, RECESSED
	2' X 2' LED LIGHT FIXTURE, RECESSED
	4-ft, 8-ft LED STRIP LIGHT FIXTURE
	PENDANT LED FIXTURE
	SINGLE POLE SW-20A-120V/277V-LEVITON CSB1-20 IVORY OR EQ, MOUNT 48" AFF
	SINGLE POLE SW-20A-120V/277V-3-WAY LEVITON CSB3-20 IVORY OR EQ, MOUNT 48" AFF
	SINGLE POLE SWITCH, MOTOR RATED, MOUNT 48" AFF
	SINGLE POLE WALL MOUNTED OCCUPANCY SENSOR, LEVITON OSSMT-GD WITH OVER-RIDE OR APPROVED EQUAL, MOUNT 48" AFF
	CEILING MOUNTED OCCUPANCY SENSOR, 1,000 SF COVERAGE, LEVITON ODC10-MDW
	CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR, 1,000 SF COVERAGE, LEVITON ODC10-MDW
	CEILING MOUNTED LOW TEMP OCCUPANCY SENSOR, 900 SF COVERAGE, LOW TEMP, LEVITON OSFHU-CTW
	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSOR, LEVITON OSP20-INDO
	DUPLEX RECEPTACLE, LEVITON 5320 IVORY, 18" AFF UNO
	GROUND FAULT RECEPTACLE, LEVITON T-7599 IVORY, 18" AFF UNO
	EQUIP OUTLET, WITH FLEX TO EQUIP, MOUNT 18" AFF UNO, PROVIDE APPROPRIATE RECEPTACLE, GROUNDED
	TELEPHONE OUTLET, 18" AFF UNO
	COMPUTER OUTLET, 18" AFF UNO
	WALL MOUNTED TWIN HEAD BATTERY OPERATED EMERGENCY LIGHT FIXTURE, MOUNT 84" AFF
	BATTERY POWERED EMERGENCY EXIT LIGHT W/EMERGENCY LIGHT HEADS
	ELECTRIC MOTOR
	JUNCTION BOX, SIZE AS REQUIRED
	DISTRIBUTION PANELBOARD
	BRANCH PANELBOARD
	DISCONNECT SWITCH, SIZE AS NOTED
	FA MANUAL PULL STATION, MOUNT 48" AFF
	FA SMOKE DETECTOR
	BRANCH CIRCUIT HOMERUN TO PANELBOARD; ALPHA-NUMERIC NOTATION INDICATES PANEL DESIGNATION AND CIRCUIT NUMBER

