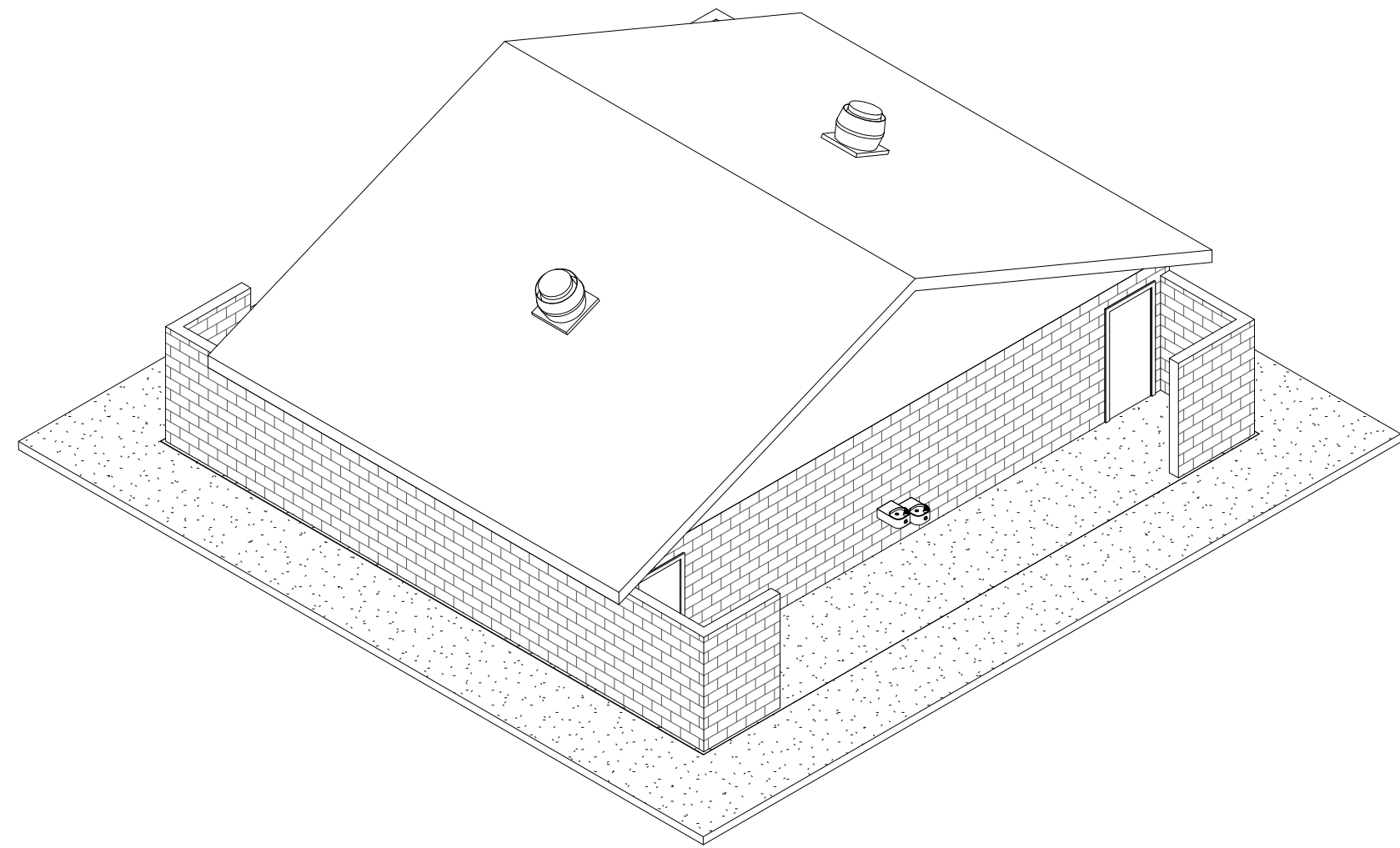
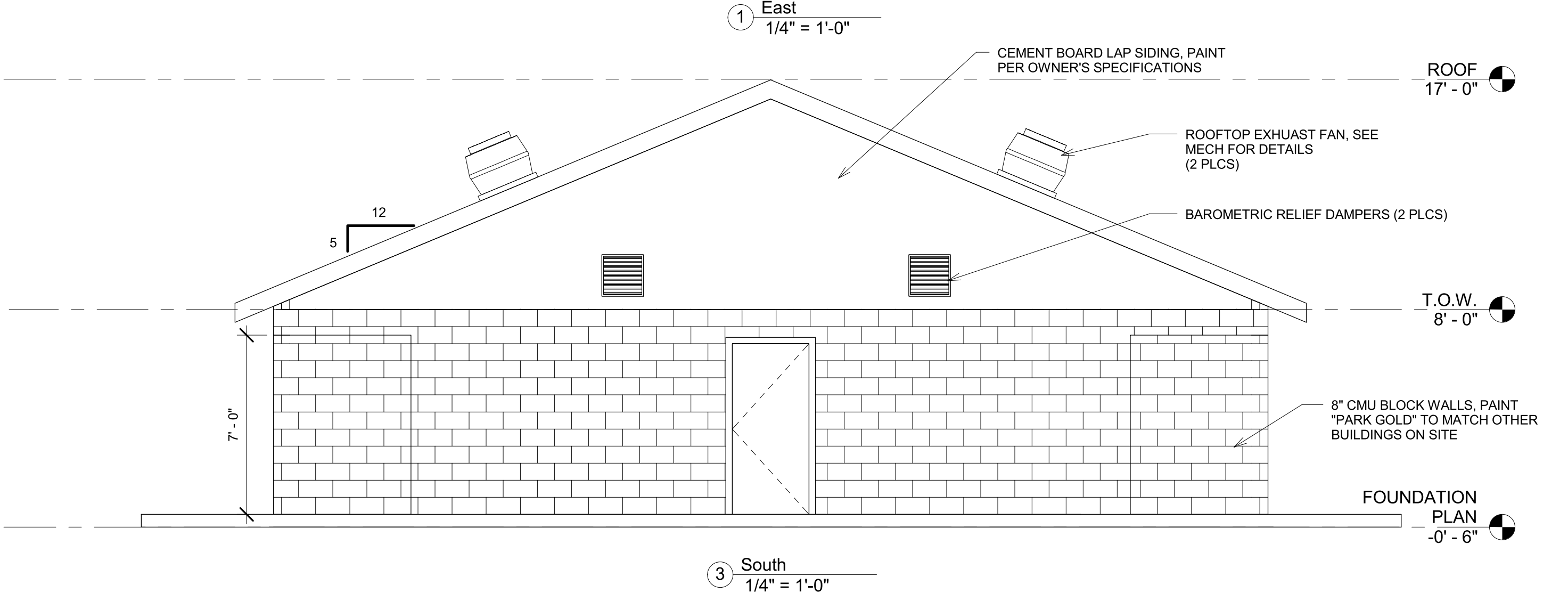
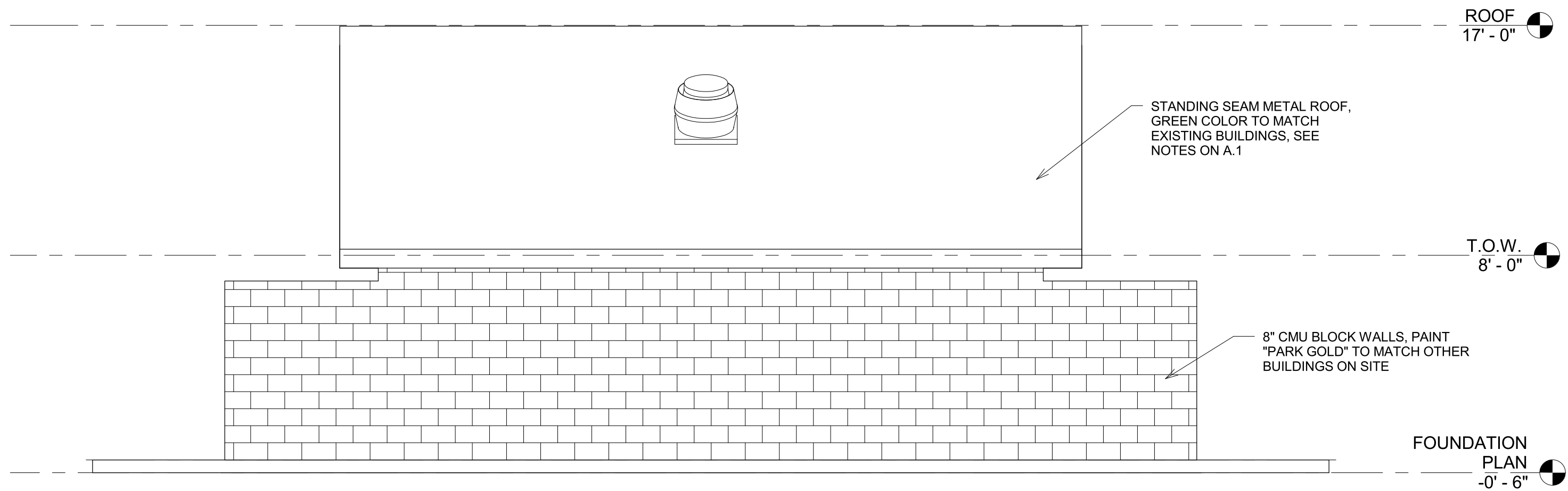


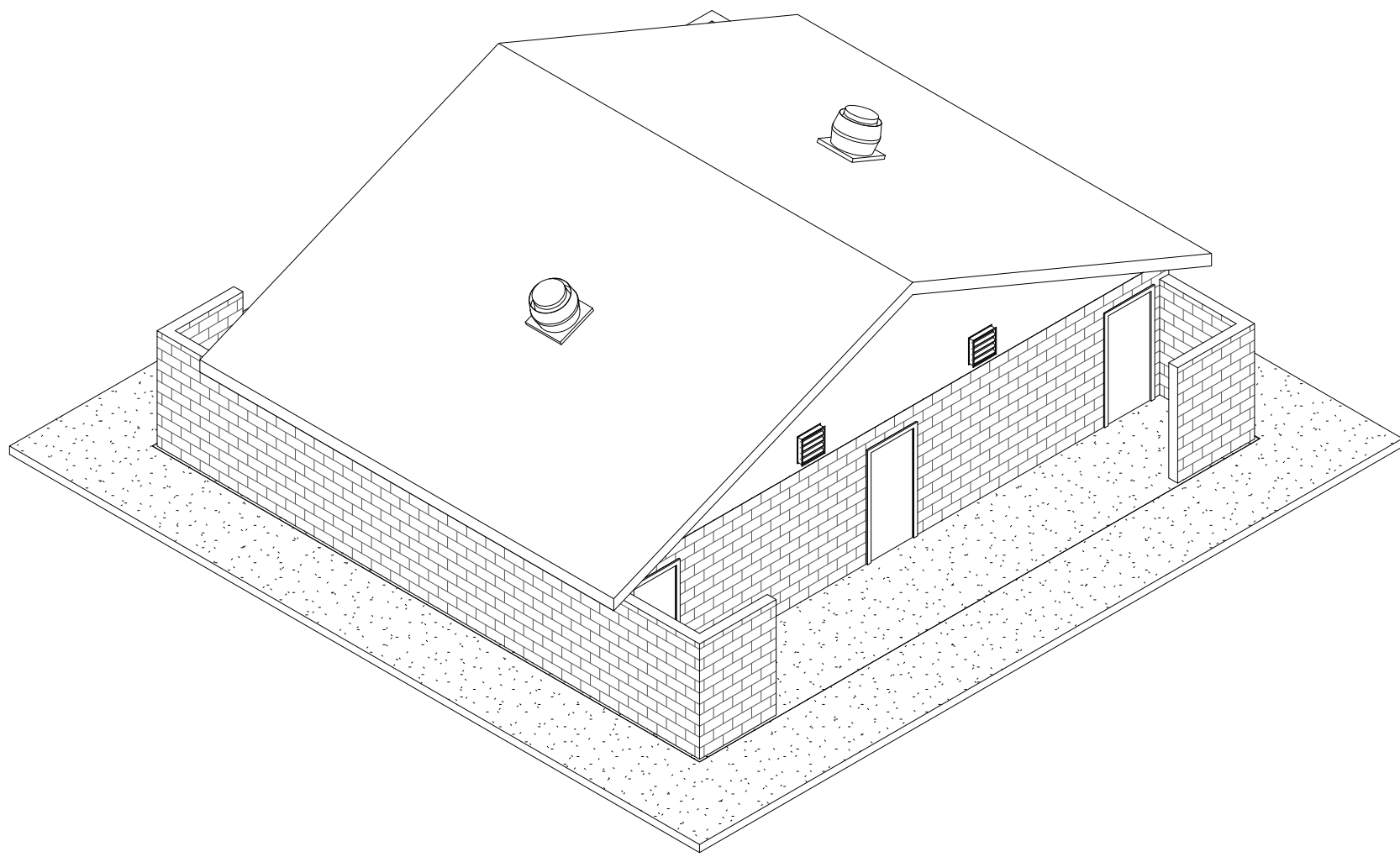
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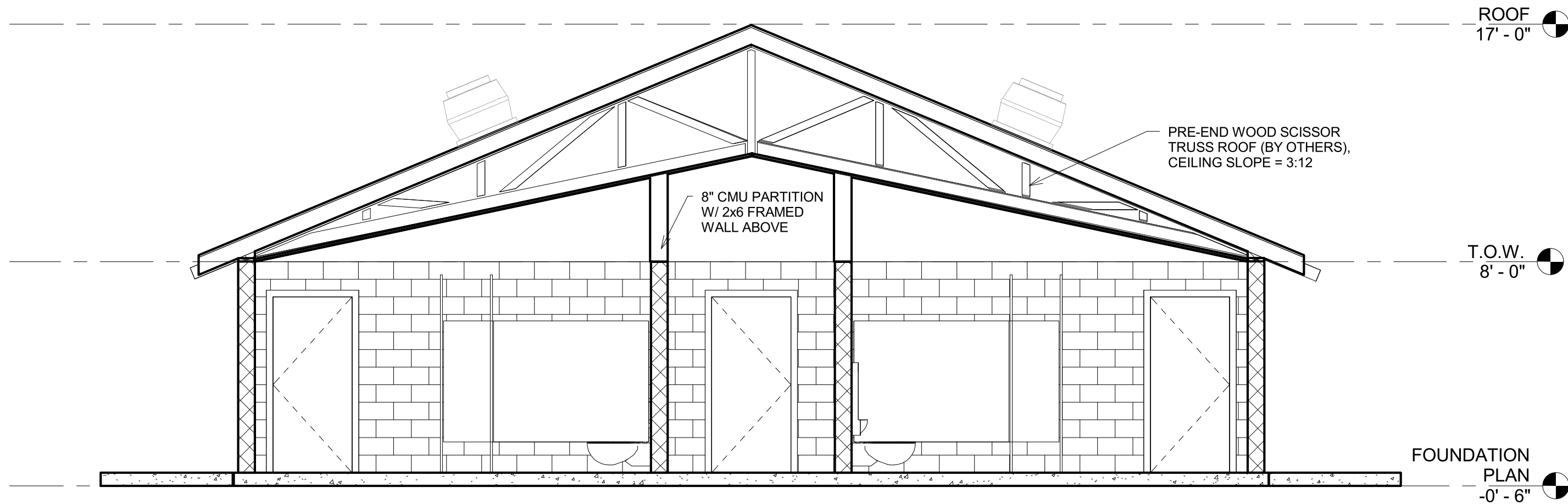
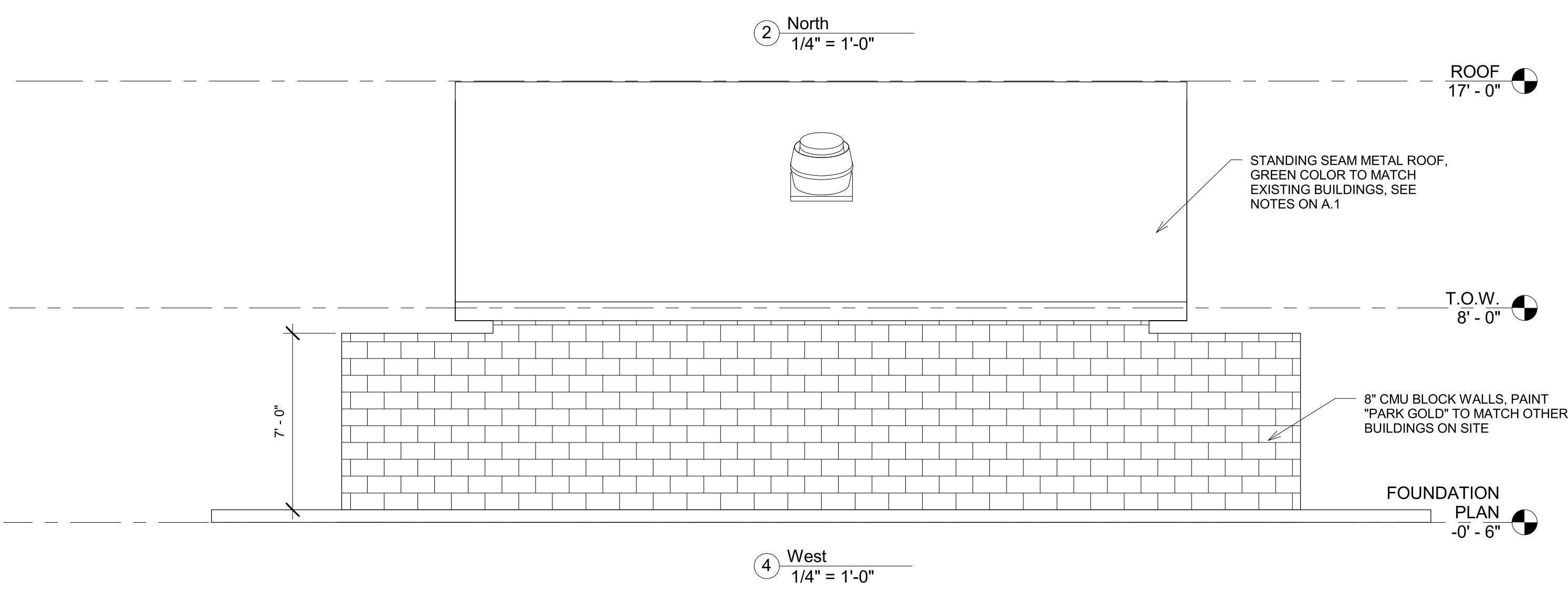
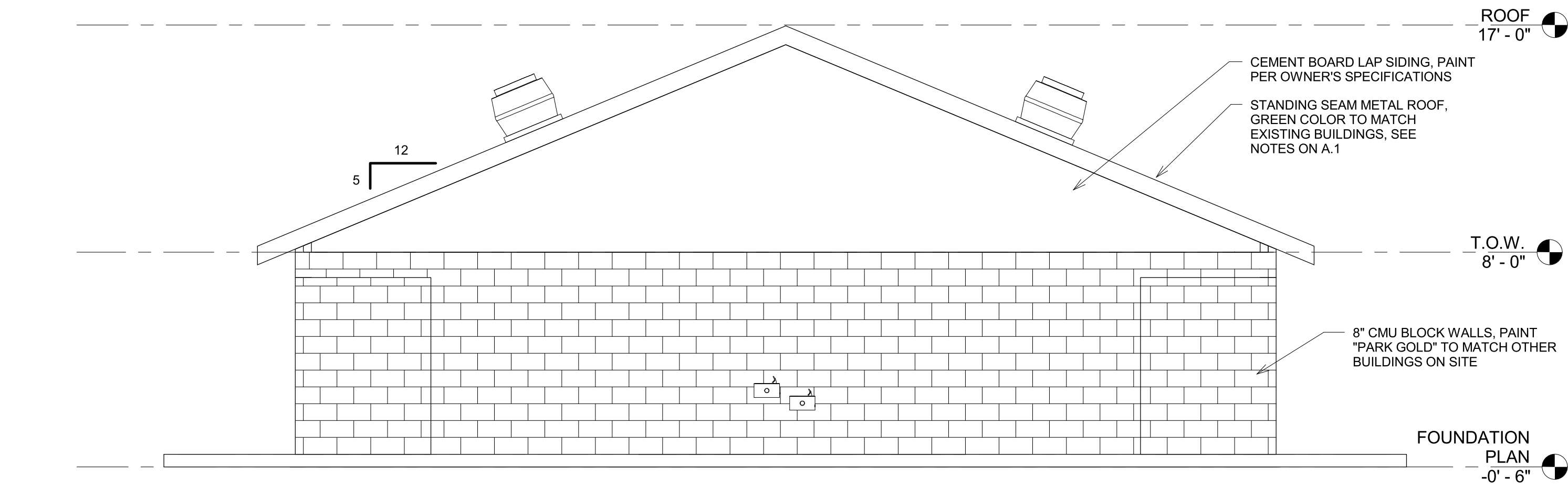
Exhibit C



⑤ NORTHEAST ISOMETRIC



⑥ SOUTHWEST ISOMETRIC



REVISIONS

**T.E.D.**  
WWW.TECHNIKA-DESIGN.COM  
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CHARLESTON, SC 29416  
843-580-3769



ELEVATIONS

PROPOSED ENGINEERING DESIGN FOR THE  
**MCCURRY PARK RESTROOM**  
185 McDONOUGH RD. - FAYETTEVILLE, GA 30215

NOTES:

TECH  
JCW  
7-10-17  
DATE:  
JOB NO.: T17-034  
SHEET 2 OF 9  
SHEET NUMBER:  
**A.2**

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH THE GEORGIA STATE MINIMUM STANDARD BUILDING CODE, 2012 EDITION (2012 INTERNATIONAL RESIDENTIAL CODE WITH SC STATE AMENDMENTS), REFERENCE TO OTHER STANDARD SPECIFICATIONS OR CODES SHALL MEAN THE LATEST STANDARD OR CODE ADOPTED AND PUBLISHED.
2. NOTES ON THIS DRAWING SHEET PROVIDE MINIMUM VALUES, DIMENSIONS, QUANTITIES, CHARACTERISTICS AND CONDITIONS. IF INFORMATION ON OTHER PLAN SHEETS EXCEED THE REQUIREMENTS SPECIFIED IN THESE NOTES, THEY SHALL GOVERN.
3. DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.
4. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. NOTIFY STRUCTURAL ENGINEER OF ANY DISCREPANCY.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. THE STRUCTURAL ELEMENTS ARE NOT STABLE UNTIL THE STRUCTURE IS COMPLETED.
6. FABRICATION, ERECTION OR INSTALLATION OF COMPONENTS SHALL NOT PROCEED UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED, REVIEWED AND APPROVED BY THE ENGINEER.
7. COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS. NOTIFY STRUCTURAL ENGINEER OF ANY CONFLICT AND/OR OMISSION. REFER TO ARCHITECT FOR DIMENSIONS NOT SHOWN.
8. COORDINATE AND VERIFY FLOOR AND ROOF OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS. FOR ADDITIONAL OPENINGS, INSERTS, SLEEVES, CURBS, PADS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
9. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATIONS OF SHOP DRAWINGS.
11. UNLESS NOTED OTHERWISE, TESTING AND INSPECTION SERVICES SHALL BE PAID PROVIDED BY THE OWNER AND ARE NOT PART OF THE BASIC DESIGN SERVICES.

TIMBER

1. COMPLY WITH THE LATEST EDITION OF THE APFA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 1997 SPC AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION TIMBER CONSTRUCTION MANUAL, FOURTH EDITION.
2. PROVIDE NEW LUMBER AND PLYWOOD WITH GRADE WHICH INDICATES SPECIES, MILL NUMBER, MOISTURE CONTENT WHEN SURFACED, AND GRADE OR STRESS RATING STAMPS FROM THE ASSOCIATIONS HAVING JURISDICTION.
3. PROVIDE APA STRUCTURAL 1 RATED PLYWOOD SHEATHING, C-C GRADE WITH EXTERIOR GLUE (EXPOSURE 1), GROUP 1 SPECIES, C GRADE WITH EXPOSURE 1 GLUE ON INNER PLYS ON EXTERIOR WALLS, ROOFS, DESIGNATED INTERIOR WALLS, AND ROOFING DIAPHRAGMS.
4. REFER TO THE IBC FASTENING SCHEDULE FOR NAILING OF SHEAR WALLS IF NOT SHOWN ON THE DRAWINGS.
5. FASTEN STUDS AND RAFTERS WITH WIND TIES/CILLS, JOISTS AND RAFTERS TO SIDES OF BEAMS WITH HANGERS; AND SHEAR WALLS WITH HOLD-DOWNS USING PROPRIETARY STEEL CONNECTORS.
6. METAL CONNECTOR PLATES SHOWN ON DRAWINGS ARE SHOWN STRONG-TIE & HILTI'S NOTATION. OTHER MANUFACTURER'S PRODUCTS MAY BE SUBSTITUTED PENDING APPROVAL BY THE ENGINEER.
7. CUTTING, MODIFYING OR REPAIR OF TRUSSES IS PROHIBITED. CONTACT ENGINEER FOR GUIDANCE.
8. CUTTING, NOTCHING & DRILLING OF BEAMS AND JOIST TO COMPLY WITH IBC REQUIREMENTS. MODIFICATIONS OF BEAMS/JOIST WITHIN SPAN 3/3 OF SUPPORTS IS PROHIBITED. CONTACT ENGINEER FOR GUIDANCE.
9. SHEATHED CONSTRUCTION, AT MINIMUM, PROVIDE 5/8" APA RATED PLYWOOD ATTACHED TO TRUSSES WITH 10d COMMON NAILS SPACED AT 6" ALONG EDGES AND 12" AT INTERMEDIATE SUPPORTS. FLOOR SHEATHING TO BE 3/4" APA RATED PLYWOOD ATTACHED TO SUPPORTING MEMBERS WITH 10d COMMON NAILS SPACED AT 6" ALONG EDGES AND 12" AT INTERMEDIATE SUPPORTS. EXTERIOR WALL SHEATHING TO BE 1/2" APA EXTERIOR RATED PLYWOOD ATTACHED TO SUPPORTING STUDS WITH 10d COMMON NAILS SPACED AT 6" ALONG EDGES AND 12" AT INTERMEDIATE SUPPORTS.
10. WALL CONSTRUCTION, AT MINIMUM, PROVIDE SOUTHERN PINE NO. 2 GRADE KILN-DRIED STUDS WITH MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF DRESSING. PROVIDE SOLID WALL BRIDGING SPACED AT 4'-0" O.C. VERTICALLY. VERTICALLY ALIGN STUDS AND OPENINGS IN BEARING WALLS AND EXTERIOR WALLS. IF BRIDGING IS PROVIDED, PROVIDE 2" MINIMUM JACK STUD TO SUPPORT LINTEL'S OVER EACH SIDE OPENINGS BETWEEN 16" TO 48" WIDE. IN 6 INCH STUD WALLS, PROVIDE 3 - 2" X 8" HEADFOE SPANS UP TO 4'-0" AND 3-2"x10" UP TO 6'-0". FORM CORNERS WITH A MINIMUM OF 3 STUDS SPIKED TOGETHER. PROVIDE SINGLE BOTTOM SHOE AND DOUBLE TOP PLATE IN ALL BEARING WALLS. EXTERIOR - ANCHOR SILLS WITH 5/8" DIAMETER BOLTS 16" AND SPACED NO MORE THAN 4'-0" APART AND LOCATED AT CORNERS AND 12" FROM OPENINGS AND ENDS OF WALLS. INTERIOR - ANCHOR SILLS WITH 0.145 POWDER ACTUATED FASTENERS EMBEDDED 11/4" AND SPACED AT 2'-0" ON CENTER. FABRICATE BUILT-UP POSTS AS FOLLOWS: 2-2X4'S FASTENED WITH ONE ROW OF STAGGERED 10D NAILS @ 6"; 3-2X4 FASTENED WITH ONE ROW OF STAGGERED 30D 3-2X6 FAS. FASTENED WITH TWO ROWS OF 30D NAILS.
11. FLOOR AND ROOF CONSTRUCTION: PROVIDE SOUTHERN PINE NO. 2 OR BETTER LUMBER FOR JOISTS AND RAFTERS SURFACED DRY WITH MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF DRESSING. LOCATE JOISTS AND RAFTERS DIRECTLY OVER WALL STUDS. PROVIDE DOUBLE JOISTS UNDER WALLS PARALLEL TO JOISTS. NOTCHES IN JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH AND SHALL NOT IN THE MIDDLE THIRD OF THE SPAN. BORED HOLES SHALL NOT BE WITHIN 2" OF THE JOIST EDGES AND NOT EXCEED 1/3 THE DEPTH OF THE JOIST. INSTALL ONE LINE 1" X 3" CROSS BRIDGING FOR EACH 8' OF FLOOR FRAMING. INSTALL 2" SOLID BLOCKING BETWEEN JOISTS OVER ALL BEAMS OR OTHER SUPPORTING MEMBERS. IN AREAS TO RECEIVE CEILING, STRAP THE UNDERSIDE OF JOISTS WITH 1" X 3" MERCHANTABLE SPRUCE, SHIM STRAPPING TO PRODUCE A LEVEL CEILING. 3/4" THICK TONGUE-AND-GROOVE, INTERIOR TYPE WITH EXTERIOR GLUE, UNDERLAYMENT GRADE PLYWOOD.

ENGINEERED STRUCTURAL WOOD

1. I-JOIST DESIGNATIONS PROVIDED ON DRAWINGS ARE WEYERHAEUSER'S NOTATION. OTHER MANUFACTURER'S PRODUCTS MAY BE SUBSTITUTED PENDING APPROVAL BY THE ENGINEER.
2. PROVIDE LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) MADE UNDER PROCESSES APPROVED BY THE NATIONAL RESEARCH BOARD. COMPLY WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION TIMBER CONSTRUCTION MANUAL, FOURTH EDITION, FOR THE DESIGN, FABRICATION, AND CONSTRUCTION OF ENGINEERED STRUCTURAL WOOD.
3. PROVIDE LVL LUMBER HAVING THE FOLLOWING GRADE AND DESIGN VALUES: GRADE = 3100 FB SP; FLEXURAL STRESS (FB) = 3,100 PSI; MODULUS OF ELASTICITY (E) = 2,000,000 PSI; AND HORIZONTAL SHEAR STRESS (FV) = 290 PSI.
4. PROVIDE PSL TIMBER HAVING THE FOLLOWING GRADE AND DESIGN VALUES: GRADE = 2.0E; FLEXURAL STRESS (FB) = 2,900 PSI; MODULUS OF ELASTICITY (E) = 2,000,000 PSI; SHEAR MODULUS OF ELASTICITY (G) = 125,000 PSI; AND HORIZONTAL SHEAR STRESS (FV) = 290 PSI.
5. NAIL EACH LAYER OF LVL MEMBERS TOGETHER WITH (3) 16d NAILS PER FOOT.
6. CUTTING, NOTCHING & DRILLING OF BEAMS AND JOIST TO COMPLY WITH IBC REQUIREMENTS. MODIFICATIONS OF BEAMS/JOIST WITHIN SPAN 1/3 OF SUPPORTS IS PROHIBITED. CONTACT ENGINEER FOR GUIDANCE.

CONCRETE NOTES

1. ALL CONCRETE WORK SHALL COMPLY WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", LATEST EDITION. DESIGN BASED ON ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION.
2. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28 DAY STRENGTH: FOUNDATIONS: 3000PSI, RETAINING WALLS: 3000PSI, SLAB-ON-GRADE: 3000PSI, COMPOSITE FLOOR SLABS 4000PSI.
3. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE TESTING AGENCY AND THE STRUCTURAL ENGINEER, IN ACCORDANCE WITH ACI 318 SECTION 5.3. APPROVAL OF MIX DESIGN SHALL BE RESPONSIBILITY OF TESTING AGENCY.
4. MIX MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNER'S TESTING LABORATORY. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE REQUIRED DESIGN STRENGTH.
5. USE OF CALCIUM CHLORIDE, CHLORIDE IONS, OR OTHER SALTS IN THE CONCRETE IS PROHIBITED.
6. THE AIR CONTENT IN ALL CONCRETE EXPOSED TO WEATHER SHALL BE 4 ± 1/2% ± 1 ± 1/2%.
7. UNLESS NOTED OTHERWISE, SAMPLES FOR STRENGTH TESTING OF EACH CLASS OF CONCRETE PLACED SHALL BE TAKEN BY THE TESTING AGENCY AT MINIMUM: ONCE A DAY, FOR EACH 100 CUBIC YARDS OF CONCRETE, OR FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS AND WALLS. SAMPLING TO COMPLY WITH ASTM C172. TESTING TO COMPLY WITH: ASTM C143, AIR CONTENT; ASTM C173, COMPRESSIVE STRENGTH; ASTM C39, UNIT WEIGHT OF LIGHTWEIGHT CONCRETE; ASTM C172.
8. CHAMFER OR ROUND ALL EXPOSED CORNERS MINIMUM 3/4".
9. DETAIL CONCRETE REINFORCEMENT AND ACCESSORIES IN ACCORDANCE WITH ACI 315, "DETAILING MANUAL", LATEST EDITION. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. DRAWINGS TO SHOW ALL DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. DO NOT BEGIN FABRICATION UNTIL SHOP DRAWINGS ARE COMPLETED AND REVIEWED.
10. UNLESS NOTED OTHERWISE, REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO ASTM A615.
11. WELDED WIRE MESH (FABRIC) SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. ROLLS (ROLLED WELDED WIRE MESH/FABRIC) IS PROHIBITED.
12. PRIOR TO PLACING CONCRETE ALL REINFORCING STEEL AND EMBEDMENTS SHALL BE TIED SECURELY IN PLACE AND SUFFICIENTLY SUPPORTED TO MAINTAIN THE POSITION OF THE REINFORCEMENT DURING ALL CONSTRUCTION ACTIVITIES. "STICKING" DOWELS INTO WET CONCRETE IS NOT PERMITTED.
13. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICES WHEREVER POSSIBLE. USE CLASS "B" TENSION SPLICE UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH THE SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH CLASS "B" TENSION SPLICE. UNLESS NOTED OTHERWISE LAP LENGTHS EXPRESSED IN NUMBER OF BAR DIAMETERS SHALL BE AS PRESCRIBED IN ACI 318-05.
14. INCREASE THE LAP LENGTHS BY 1.3 FOR TOP BARS AND BY 1.3 FOR LIGHTWEIGHT CONCRETE.
15. REINFORCING STEEL SHALL HAVE THE MINIMUM CONCRETE COVER AS REQUIRED BY ACI 318-05.
16. DO NOT PLACE OBJECTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS.
17. DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
18. FLOOR FINISH TOLERANCES FOR INTERIOR SLABS SHALL BE MEASURED IN ACCORDANCE WITH ACI 302.1 AND ASTM E1155. MINIMUM FLATNESS VALUES SHALL BE AS FOLLOWS: SPECIFIED OVERALL VALUE (SOV), F/F GREATER THAN OR EQUAL TO 25, F/L GREATER THAN OR EQUAL TO 20, MINIMUM LOCAL VALUE (MLV), F/F GREATER THAN OR EQUAL TO 17, F/L GREATER THAN OR EQUAL TO 15.
19. EXTERIOR SLABS SHALL DRAIN FREELY WITH A MAXIMUM VARIATION FROM THE INDICATED PLANE OF 1/4" IN 10'-0". REINFORCING PLACEMENT SHALL BE INSPECTED IN ACCORDANCE WITH ACI 318 SECTION 1.3.3, OR UNDER THE SUPERVISION OF, A REGISTERED STRUCTURAL ENGINEER, UNLESS NOTED OTHERWISE, THESE INSPECTIONS ARE NOT INCLUDED IN THE BASIC SERVICES OF THE STRUCTURAL ENGINEER OF RECORD.
21. PROVIDE FOR AN ALLOWANCE OF 1% OF TOTAL REINFORCING STEEL FOR THE PROJECT TO BE FABRICATED, AND PLACED DURING PRELIMINARY WORK AS MAY BE DIRECTED BY THE STRUCTURAL ENGINEER. IN ADDITION TO REINFORCING STEEL INDICATED ON THE DRAWINGS, CREDIT THE OWNER ANY UNUSED QUANTITY AT THE END OF THE PROJECT.

PREFABRICATED TRUSSES

1. DESIGN, FABRICATE, AND INSTALL METAL PLATE-CONNECTED TRUSSES MEETING TRUSS PLATE INSTITUTE TPI 1-1995 AND THE AMERICAN FOREST & PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 1997 SPC.
2. SUBMIT SHOP DRAWINGS TO THE STRUCTURAL SHOWING ERECTION PLANS, FABRICATED ASSEMBLIES, AND ACCESSORIES. SHOW MEMBER DESIGNATIONS, SIZES, AND CONNECTIONS. SUBMIT DESIGN CALCULATIONS PREPARED BY A LICENSED STRUCTURAL ENGINEER INDICATING STRENGTHS, STABILITY, AND SERVICEABILITY OF MEMBERS AND CONNECTIONS.
3. PROVIDE KILN-DRIED LUMBER MEETING OR EXCEEDING THE FOLLOWING DESIGN VALUES: FB = 1,400 PSI, FT = 925 PSI, FC = 1,500 PSI, AND E = 1,600,000 PSI. APPLY DESIGN ADJUSTMENT FACTORS ACCORDING TO THE NDS.
4. BRACE ROOF TRUSSES TO PROVIDE STABILITY DURING AND AFTER CONSTRUCTION.

EPOXY ADHESIVE HARDWARE ANCHORAGE

1. LOCATIONS FOR HOLES/HARDWARE ANCHORAGE TO BE LOCATED PER THE DESIGN DRAWINGS, CONSIDERING ANY FIELD VERIFICATIONS/CONDITIONS AS APPLICABLE.
2. DRILL HOLES TO THE EMBEDMENT / HOLE DEPTH SPECIFIED IN THE DRAWINGS. HOLES FOR #4 REBAR TO BE 9/16" DIA. FOR 3/4"-10 THREADED ROD TO BE 7/8" DIA.
3. DRILL HOLES TO BE THOROUGHLY CLEANED PRIOR TO APPLICATION OF EPOXY ADHESIVE. CLEANING OF HOLES SHALL UTILIZE A BRUSH OF APPROPRIATE DIAMETER (SLIGHTLY LARGER THAN THE HOLE) AND EITHER COMPRESSED AIR OR A VACUUM.
4. EPOXY ADHESIVE TO BE PROPORTIONED AND COMBINED PER THE MANUFACTURER'S INSTRUCTIONS. PRE-PACKAGED UNITS THAT AUTOMATICALLY COMBINE THE CONSTITUENTS SHALL BE CHECKED TO VERIFY PROPER OPERATION.
5. INSERT EPOXY ADHESIVE INTO THE HOLE PER THE MANUFACTURER'S INSTRUCTIONS. HOLES TO BE FILLED TO A LEVEL IN WHICH ALLOWS THE EPOXY ADHESIVE TO RISE UP TO THE SURFACE OF THE CONCRETE AFTER INSERTION OF HARDWARE (TEST APPLICATIONS FOR EACH HARDWARE TYPE ARE RECOMMENDED).
6. INSERT HARDWARE WITHIN THE EMBEDMENT, ALLOWING AFTER FULL INSERTION. DO NOT MOVE, RE-POSITION OR LOAD THE HARDWARE FOR ONE AND HALF HOURS.
7. THE "WORKING TIME" FOR MIXED EPOXY ADHESIVE SHALL BE FIVE MINUTES. ANY EPOXY THAT HAS BEEN MIXED SHALL BE DISCARDED AND NOT USED FOR ANCHORAGE AFTER FIVE MINUTES HAS ELAPSED.

FOUNDATIONS AND SLABS ON GRADE

1. A GEOTECHNICAL INVESTIGATION OF THE SITE IS RECOMMENDED FOR ALL PROJECTS REQUIRING FOUNDATIONS. IF THE OWNER OMITS A GEOTECHNICAL INVESTIGATION AN ALLOWABLE SOIL CAPACITY OF 2000 PSF WILL BE ASSUMED. SITE CONDITIONS FAILING TO ACHIEVE THIS SOIL CAPACITY INVALIDATE THIS FOUNDATION DESIGN. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR SITE SOIL CONDITIONS OR CHARACTERISTICS.
2. A REGISTERED GEOTECHNICAL ENGINEER, FAMILIAR WITH THE REGION, SHALL INSPECT THE CONDITION AND ENSURE THE ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, AND WALLS. THE GEOTECHNICAL ENGINEER SHALL SUBMIT REPORTS OF ALL FINDINGS TO THE STRUCTURAL ENGINEER.
3. SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS CAST AGAINST EARTH REQUIRE SLOPES OF IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND CLEAN UP OF ACCUMULATED WATER AND RUBBISH PRIOR TO CONCRETE PLACEMENT.
4. WHERE FOOTING STEPS ARE NECESSARY THEY SHALL BE NO STEEPER THAN ONE VERTICAL AND TWO HORIZONTAL.
5. BASEMENT WALLS (WALLS SUPPORTED AT THE TOP AND BOTTOM BY SLABS) SHALL NOT BE BACKFILLED PRIOR TO THE SLABS AT THE TOP AND BOTTOM OF THEIR DESIGN STRENGTHS.
6. UNLESS NOTED OTHERWISE, SLABS-ON-GRADE SHALL BE MINIMUM 4" THICK PLACED ON COMPACTED SUBGRADE, REINFORCED WITH 6X6 - W2, 1XW2.1 W.W.M. IN FLAT SHEETS (ROLLS NOT PERMITTED). SUPPORT MESH WITH FORMED CHAIRS @ 4'-0" EACH WAY AT A DEPTH OF 1-1/2" CLEAR FROM THE TOP OF THE SLAB. LAP MESH TWO SQUARES AT SPLICES AND STAGGER SPLICES. PROVIDE VAPOR BARRIER BENEATH THE FLOOR SLAB WITH JOINTS LAPPED. PLACE JACK STUD TO SUPPORT LINTEL'S AS SHOWN ON PLANS SUCH THAT AREA OF EACH PANEL DOES NOT EXCEED 400 SQUARE FEET. LOCATE CONSTRUCTION JOINTS AT CONTROL JOINTS LOCATIONS. PLACE ON 4" MINIMUM GRADE AGGREGATE BASE.
7. SLABS-ON-GRADE CONSISTING OF FIBER-REINFORCED CONCRETE ("FIBERCRETE") WITHOUT STEEL REINFORCEMENT ARE OF SLABS-ON-GRADE. SUPPORTING WALLS, POSTS OR OTHER LOADS MUST HAVE STEEL REINFORCEMENT. A MINIMUM OF 6X6-W2.1XW2.1 OR #4 @ 24" ON CENTER, EACH WAY SHOULD BE PROVIDED TO ENSURE PROPER PERFORMANCE.

MASONRY NOTES

1. CONCRETE MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO THE FOLLOWING:
2. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, ACI 530/ASCE 5/ TMS 402, LATEST EDITION ADOPTED.
3. SPECIFICATIONS FOR MASONRY STRUCTURES, ACI 530.1/ASCE 5/ TMS 602, LATEST EDITION ADOPTED.
4. UNLESS NOTED OTHERWISE, PROVIDE HOLLOW, LOAD-BEARING CONCRETE MASONRY UNITS (CMU) CONFORMING TO ASTM C90, TYPE 1, WITH A MAXIMUM DENSITY OF 105 PCF.
5. PROVIDE CONCRETE MASONRY WITH MINIMUM COMPRESSIVE STRENGTH, Fm = 1,500 PSI, CORRESPONDING TO UNIT STRENGTH OF 2,000 PSI, OR CMU DETERMINED IN ACCORDANCE WITH ASTM C140.
6. PROVIDE TYPE "S" MORTAR IN ACCORDANCE WITH ASTM C270, UNLESS NOTED OTHERWISE. MORTAR BED JOINTS SHALL NOT EXCEED 5/8" THICKNESS.
7. PROVIDE GROUT FOR REINFORCED MASONRY IN ACCORDANCE WITH ASTM C476 WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS NOTED OTHERWISE.
8. CELLS TO BE GROUTED OVER 5 HIGHS SHALL HAVE CLEAN-OUT HOLES PROVIDED AT THE BASE.
9. LAP REINFORCING BARS 50 BAR DIAMETERS AT SPLICES, UNLESS OTHERWISE NOTED.
10. PROVIDE TRUSS OR LADDER TYPE HORIZONTAL JOINT REINFORCEMENT COMPLYING WITH ASTM A82, WITH MIN. TWO 9 GA. - LONGITUDINAL LINES, ZINC COATED, PLACED 16 INCHES ON CENTER UNLESS NOTED OTHERWISE. AT CORNERS, PROVIDE HORIZONTAL JOINT REINFORCEMENT SPECIFICALLY DESIGNED FOR SUCH.
11. ALL CMU WALLS SHALL BE REINFORCED, AT MINIMUM, AS FOLLOWS:
12. ERTICAL ORIENTATION FOR PRIMARY REINFORCEMENT OF EXTERIOR WALLS SHOULD BE #5 AT 32" ON CENTER MINIMUM.
13. VERTICAL ORIENTATION FOR PRIMARY REINFORCEMENT OF INTERIOR WALLS SHOULD BE #4 AT 48" ON CENTER MINIMUM.
14. VERTICAL ORIENTATION AT ENDS, CORNERS, OR ADJACENT TO CONTROL JOINTS SHOULD BE #5, FULL HEIGHT MINIMUM.
15. VERTICAL ORIENTATION FOR SIDES OF OPENINGS SHOULD BE #5 MINIMUM. SEE LINTEL SCHEDULE.
16. HORIZONTAL ORIENTATION OF TOP OF OPENINGS SHOULD BE #5.
17. HORIZONTAL ORIENTATION OF BOTTOM OF OPENINGS #5 EXTENDING 2'-0" PAST OPENING EDGES.
18. HORIZONTAL ORIENTATION OF TOP OF WALLS (2) #4 CONTINUOUS.
19. MASONRY UNITS TO BE LAID IN RUNNING BOND, UNLESS NOTED OTHERWISE.
20. SIDES AND TOP OF MASONRY WALLS SHALL BE ANCHORED TO STRUCTURE BY DOVETAIL ANCHORS, METAL STRAPS, OR EQUIVALENT, UNLESS NOTED OTHERWISE.
21. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL, SHOWING ALL FABRICATION DIMENSIONS AND LOCATIONS FOR PLACING REINFORCING STEEL AND ACCESSORIES. SHOW WALL STEEL IN ELEVATION. NO FABRICATION SHALL BEGIN UNTIL SHOP DRAWINGS ARE COMPLETED, REVIEWED AND APPROVED.
22. UNLESS NOTED OTHERWISE, PROVIDE FIELD CONTROL JOINTS ACCORDING TO THE FOLLOWING CRITERIA:
23. AT 40'-0" ON CENTER MAXIMUM.
24. 20'-0" FROM BUILDING CORNERS, MAXIMUM.
25. NO CLOSER THAN 1'-4" TO OPENING EDGES.
26. NO CLOSER THAN 1'-4" TO MAJOR BEAM OR JOIST BEARINGS.
27. UNLESS NOTED OTHERWISE, PROVIDE HOLLOW, LOAD-BEARING CONCRETE MASONRY UNITS (CMU) CONFORMING TO ASTM C90, TYPE 1, WITH A MAXIMUM DENSITY OF 105 PCF.

ABBREVIATIONS

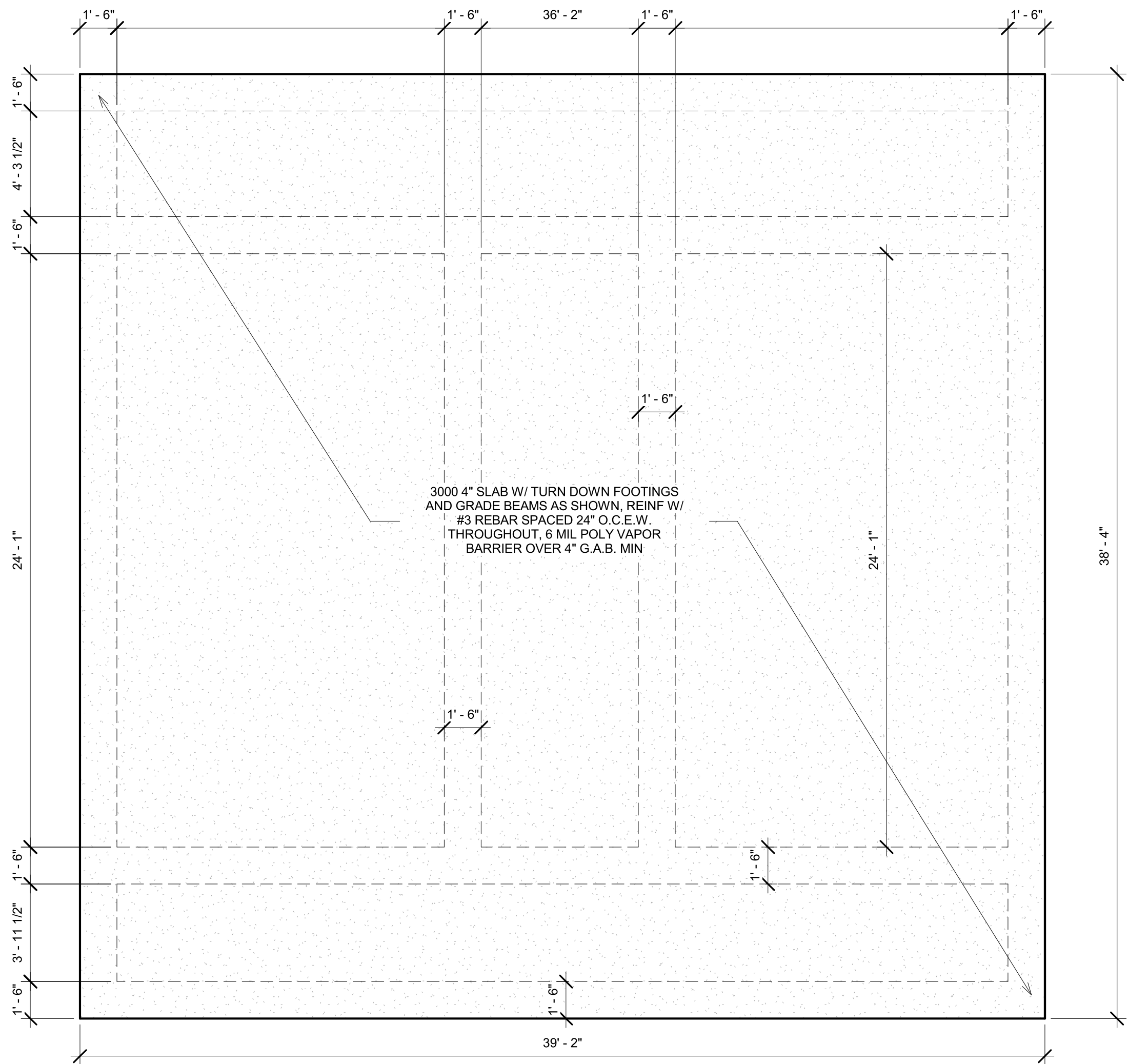
A.F.F.	ABOVE FINISH FLOOR	LB(S)	POINTS(S)
ARCH	ARCHITECTURAL	LFRS	LATERAL FORCE RESISTING SYSTEM
BOTT	BOTTOM	LLH/L.V.	LONG LEG HORIZONTAL/VERTICAL
BLDG	BUILDING	LWT	LIGHTWEIGHT
BM	BEAM	MN	MINIMUM
BRG	BEARING	MTL	METAL
C.I.P.	CAST-IN-PLACE (CONCRETE)	N/A	NOT APPLICABLE
C.I.	CONTROL JOINT	N.I.C.	NOT IN CONTRACT
C	CENTERLINE	N.T.S.	NOT TO SCALE
CLR	CLEAR	O.C.	ON CENTER
COL	COLUMN	O.C.W.	ON CENTER EACH WAY
CONC	CONCRETE	O.D.	OUTER DIAMETER
CONT	CONTINUOUS	O/O	OUTSIDE FACE TO OUTSIDE FACE
D.B.A	DEFORMED BAR ANCHOR	OPNG	OPENING
BIM	DIMENSION	OPP	OPPOSITE
DWG	DRAWING	P.A.F.	POUNDS PER SQUARE FOOT
DWL	DOWEL	PSF/I	POUNDS PER SQUARE FOOT / INCH
EA	EACH	REF	REFERENCE
E.F.	EACH FACE	REV	REVISION
E.J.	EXPANSION JOINT	REINF	REINFORCING (REINFORCEMENT)
ELEV	ELEVATION	SCHEDULE	SCHEDULE
E.O.S.	EDGE OF SLAB	SF	SQUARE FOOT (FEET)
EQ	EQUAL	SIM	SIMILAR
EXT	EXTERIOR	STD	STANDARD
E.W.	EACH WAY	STRUCT	STRUCTURAL
FDN	FOUNDATION	SUSP	SUSPENDED
F.F.E	FINISH FLOOR ELEVATION	T&G	TONGUE & GROOVE
FIN	FINISH	THRD	THREADED
FLR	FLOOR	THK	THICKNESS
F.O.B	FACE OF BRICK	T.O.C.	TOP OF CONCRETE
F.O.G	FACE OF GIRT	T.O.F.	TOP OF FOOTING
F.O.W.	FACE OF WALL	T.O.S.	TOP OF STEEL
F.S.	FACE SIDE	T.O.W.	TOP OF WALL
FT	FOOT	TYP	TYPICAL
FTG	FOOTING	U.N.O.	UNLESS NOTED OTHERWISE
GA	GAGE (GAUGE)	V.B.	VAPOR BARRIER
G.A.B	GRADED AGGREGATE BASE	VERT	VERTICAL
GR	GRADE	WITH	WITH
HORZ	HORIZONTAL	W/O	WITHOUT
I.D.	INSIDE DIAMETER	WT	WEIGHT
INT	INTERIOR	W.W.M.	WELDED WIRE MESH (FABRIC)
JT	JOINT	#	POUNDS
KSF/KSI	KIPS PER SQUARE FOOT/INCH	Ø / DIA	DIAMETER

SCHEDULE OF SPECIAL INSPECTIONS				
IBC SECTION	MATERIAL / ACTIVITY	SERVICE	Y/N	APPLICABLE EXTENT
1704.4	CONCRETE CONSTRUCTION			
	INSPECTION OF REINFORCING STEEL INSTALLATION	FIELD INSPECTION	Y	PERIODIC
	INSPECTION OF PRESTRESSING STEEL INSTALLATION	IN-PLANT / FIELD REVIEW	N	PERIODIC
	INSPECTION OF PRESTRESSED CONCRETE	IN-PLANT / FIELD REVIEW	N	CONTINUOUS
	A. APPLICATION OF PRESTRESSING FORCE			
	B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE BASIC JOIST BEARING DETAIL			
	INSPECTION OF CAST-IN-PLACE BOLTS PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED PER IBC SECTION 1705.4	FIELD INSPECTION	N	CONTINUOUS
	VERIFICATION OF REQUIRED DESIGN MIX	REVIEW SUBMITTALS	Y	PERIODIC
	FRESH CONCRETE SAMPLING	FIELD REVIEW	N	CONTINUOUS
	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	FIELD REVIEW	N	CONTINUOUS
1704.5	MASONRY CONSTRUCTION			
	VERIFY PROPORTIONS OF SITE PREPARED MORTAR, GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	FIELD AND SUBMITTAL REVIEW	Y	PERIODIC
	VERIFY CONSTRUCTION OF MORTAR JOINTS	FIELD INSPECTION	Y	PERIODIC
	VERIFY LOCATION OF REINFORCEMENT AND CONNECTORS AND PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES	FIELD INSPECTION	N	PERIODIC
	VERIFY PRESTRESSING TECHNIQUE	FIELD INSPECTION	N	PERIODIC
	VERIFY SIZE AND LOCATION OF STRUCTURAL MASONRY ELEMENTS	FIELD AND SUBMITTAL REVIEW	N	PERIODIC
	VERIFY TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION	FIELD INSPECTION	N	LEVEL 1 - PRE LEVEL 2 - CONT.
	VERIFY SIZE, GRADE, AND TYPE OF REINFORCEMENT	FIELD INSPECTION	Y	PERIODIC
	VERIFY WELDING OF REINFORCING BARS	FIELD INSPECTION	N	CONTINUOUS
	VERIFY PROTECTION OF MASONRY DURING HOT/COLD WEATHER	FIELD INSPECTION	N	PERIODIC
1704.6	WOOD CONSTRUCTION			
	INSPECTION OF THE FABRICATION PROCESS OF WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES IN ACCORDANCE WITH SECTION 1704.2	IN-PLANT / REVIEW	N	PERIODIC
	FOR CONJOINED DIAPHRAGMS: VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, NAIL OR STAPLE DIAMETER AND LENGTH, NUMBER OF FASTENERS, LINES, AND THAT SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGES, MARGINS AGGESS WITH APPROVED BLDG PLANS	FIELD INSPECTION	N	PERIODIC
	SOILS			
	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	FIELD INSPECTION	Y	PERIODIC
	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE BEEN BACKFILLED PROPER MATERIAL	FIELD INSPECTION	Y	PERIODIC
	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS	FIELD INSPECTION	N	PERIODIC
	VERIFY SITE PREPARATION COMPLES WITH APPROVED SOILS REPORT	FIELD INSPECTION	Y	CONTINUOUS
	VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL	FIELD INSPECTION	N	CONTINUOUS
	PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	FIELD INSPECTION	N	PERIODIC
1704.7	SOILS			
	VERIFY DRY DENSITY OF CONTROLLED FILL COMPLES WITH APPROVED SOILS REPORT	REVIEW FIELD TESTING	N	PERIODIC

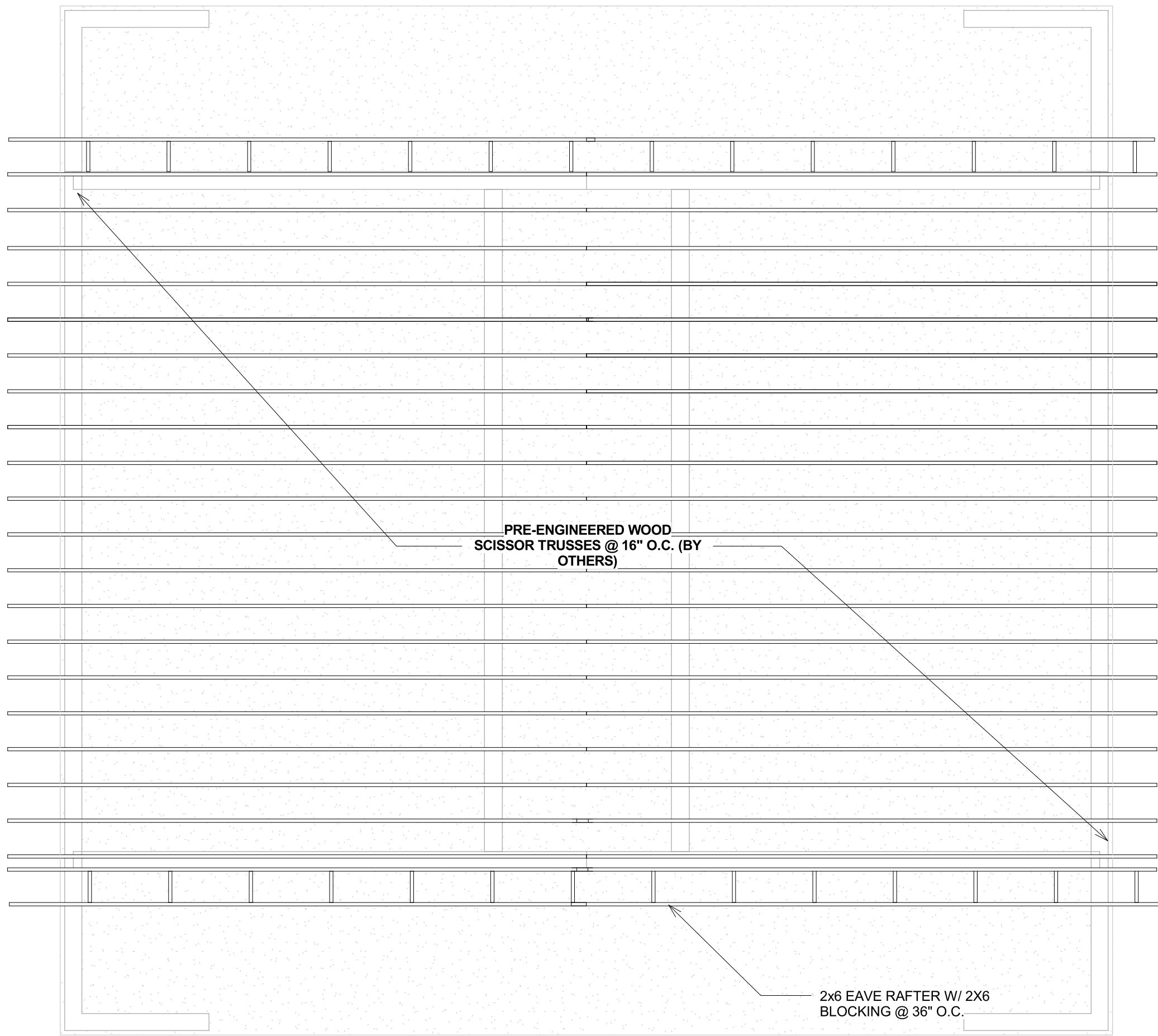
FASTENING SCHEDULE 2012 IBC TABLE 2004.9.1		
CONNECTION	FASTENING **	LOCATION
JOIST TO SILL OR GIRDER	(3) - 8d COMMON	TORNAIL
BRIDGING TO JOIST	(3) - 8d COMMON	TORNAIL EACH END
1x6 SUBFLOOR OR LESS TO EACH JOIST	(3) - 8d COMMON	FACE NAIL
WIDER THAN 1x6 SUBFLOOR TO EACH JOIST	(3) - 8d COMMON	FACE NAIL
2 SUBFLOOR TO EACH JOIST	(3) - 16d COMMON	BLIND AND FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING	(6) COMMON @ 9" O.C.	TYPICAL FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING AT A BRACED WALL	(3) - 16d COMMON @ 9" O.C.	BRACED WALL PANELS
TOP PLATE TO STUD	(3) - 16d COMMON	END NAIL
STUD TO SOLE PLATE	(3) - 16d COMMON	TORNAIL
DOUBLE STUD	(3) - 16d COMMON @ 24" O.C.	END NAIL
DOUBLE TOP PLATES	(6) COMMON @ 9" O.C.	FACE NAIL
DOUBLE TOP PLATES	(3) - 16d COMMON @ 9" O.C.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	(3) - 16d COMMON @ 9" O.C.	LAP SPLICE
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	(3) - 16d COMMON	TORNAIL
SM. JOIST TO TOP PLATE	(6) COMMON @ 9" O.C.	FACE NAIL
TOP PLATES, LAPS AND INTERSECTIONS	(3) - 16d COMMON	FACE NAIL
CONTINUOUS HEADER - TWO PIECES	(6) COMMON	16" O.C. ALONG EDGE
CEILING JOIST DETAIL	(3) - 16d COMMON	TORNAIL
CONTINUOUS HEADER TO STUD	(4) - 8d COMMON	TORNAIL
CEILING JOIST LEFT OVER PARTITION	(3) - 16d COMMON	FACE NAIL
CEILING JOIST PARALLEL TO RAFTERS	(3) - 16d COMMON	FACE NAIL
RAFTER TO PLATE	(3) - 8d COMMON	TORNAIL
DIAGONAL BRACE TO EACH STUD AND PLATE	(3) - 8d COMMON	FACE NAIL
1x6 SHEATHING TO EACH BEARING	(3) - 8d COMMON	FACE NAIL
WIDER THAN 1x6 SHEATHING TO EACH BEARING	(3) - 8d COMMON	FACE NAIL
BUILT UP CORNER STUDS	(6) COMMON	24" O.C.
BUILT UP GIRDERS AND BEAMS	(20) COMMON 32" O.C.	
2 PLANKS	(3) - 20d COMMON	FACE NAIL AT ENDS AND EACH SPLICE
COLLAR TIE TO RAFTER	(3) - 10d COMMON	AT EACH BEARING
JOIST RAFTER TO JOIST	(3) - 16d COMMON	FACE NAIL
ROOF RAFTER TO 2x8Y ROOF BEAM	(3) - 16d COMMON	FACE NAIL
JOIST TO BAND JOIST	(3) - 16d COMMON	TORNAIL
LEADER STIFF	(3) - 16d COMMON	FACE NAIL

- a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.
- b. NAILS SPACED AT 8 INCHES ON CENTER AT EDGES & 16 INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES AT SPLICES WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REPT. BOTTOM 20% NAILS FOR WALLS AND NAILS ARE PERMITTED TO BE COMMON, BOX OR CASING.
- c. COMMON OR DEFORMED SHANK (S): 2" x 0.137" (S): 3/8" x 0.137" (S): 1/2" x 0.148"
- d. COMMON (S): 2" x 0.137" (S): 3/8" x 0.137" (S): 1/2" x 0.148"
- e. DEFORMED SHANK (S): 2" x 0.137" (S): 3/8" x 0.137" (S): 1/2" x 0.148"
- f. CORROSION RESISTANT SIONS (S): 1 1/2" x 0.065" (S): 2 1/2" x 0.028" OR CASING (S): 2" x 0.099" (S): 2 1/2" x 0.159" NAIL.
- g. FASTENERS SPACED 6 INCHES ON CENTER AT EXTERIOR EDGES AND 4 INCHES ON CENTER AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING, SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 9 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
- h. CORROSION RESISTANT ROOFING NAILS WITH 1/2 INCH DIAMETER HEAD AND 1/2 INCH LENGTH FOR 1/2 INCH SHEATHING AND 1 1/2 INCH LENGTH FOR 3/4 INCH SHEATHING.
- i. CORROSION RESISTANT STAPLES WITH NOMINAL 1/2 INCH CROWN AND 1/2 INCH LENGTH FOR 1/2 INCH SHEATHING AND 1 1/2 INCH LENGTH FOR 3/4 INCH SHEATHING. PANEL SUPPORTS AT 8 INCHES (20 INCHES) STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL,

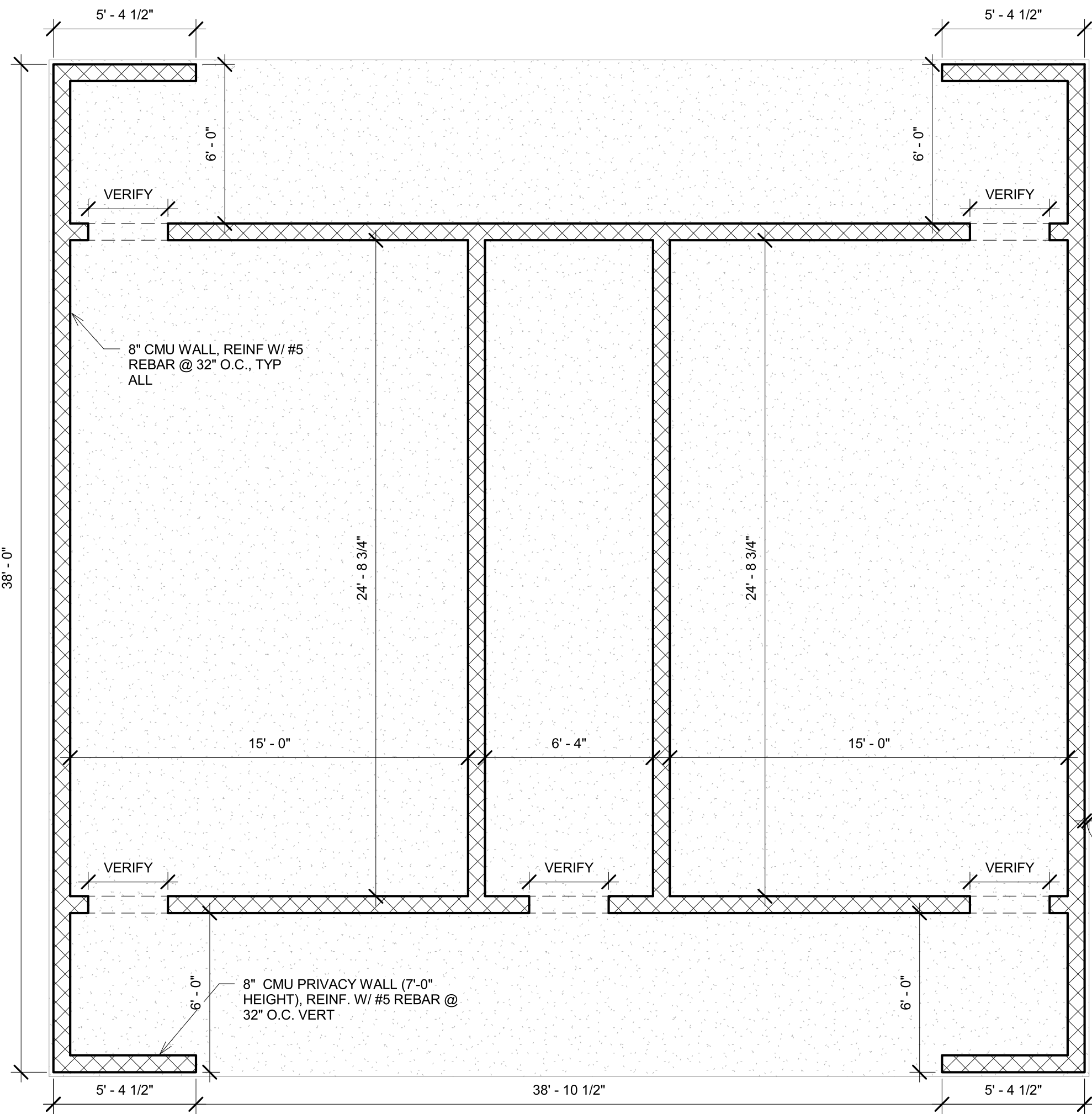
Exhibit C



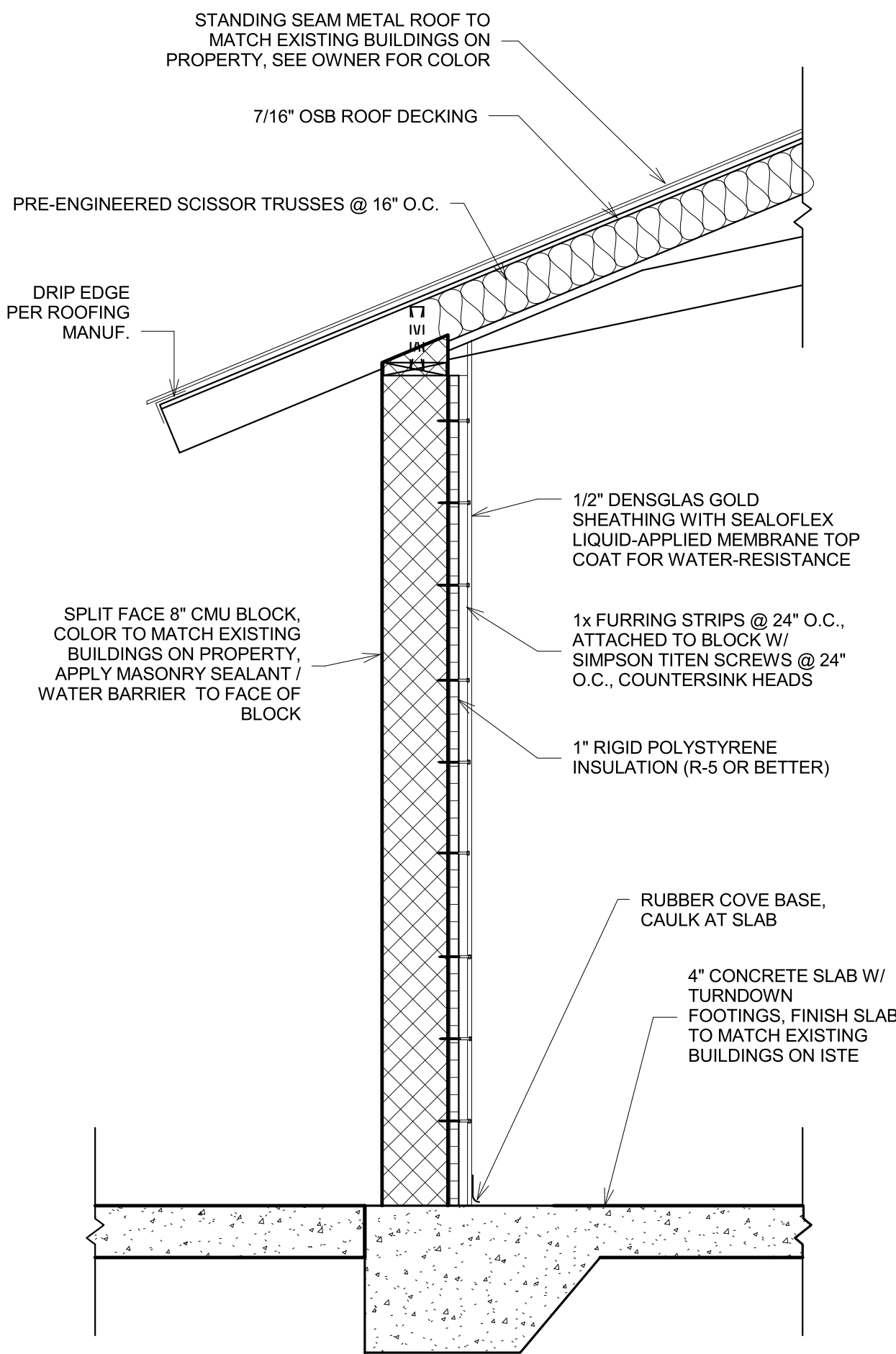
1 FOUNDATION PLAN  
1/4" = 1'-0"



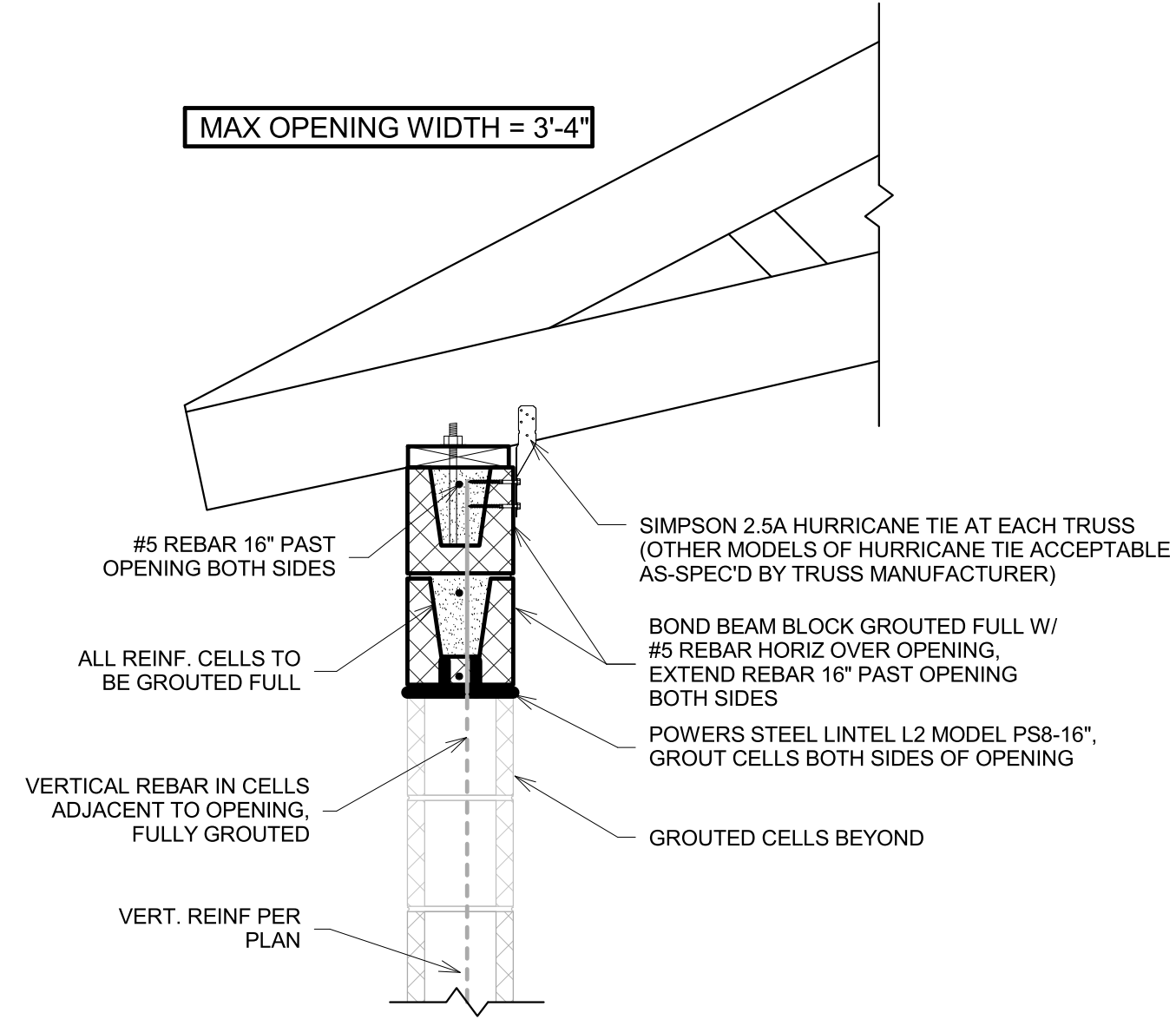
3 ROOF FRAMING  
1/4" = 1'-0"



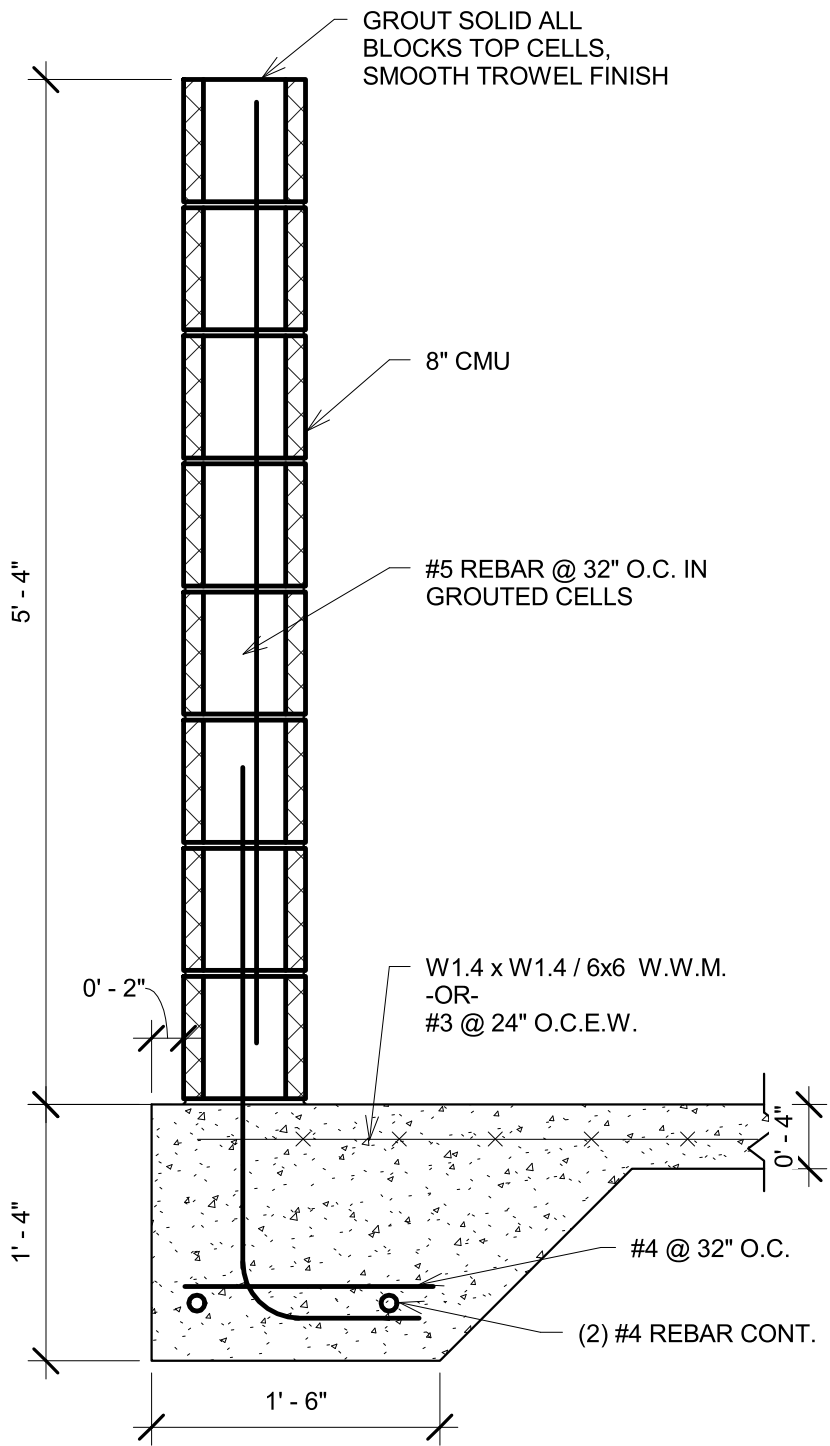
2 CMU WALL PLAN  
1/4" = 1'-0"



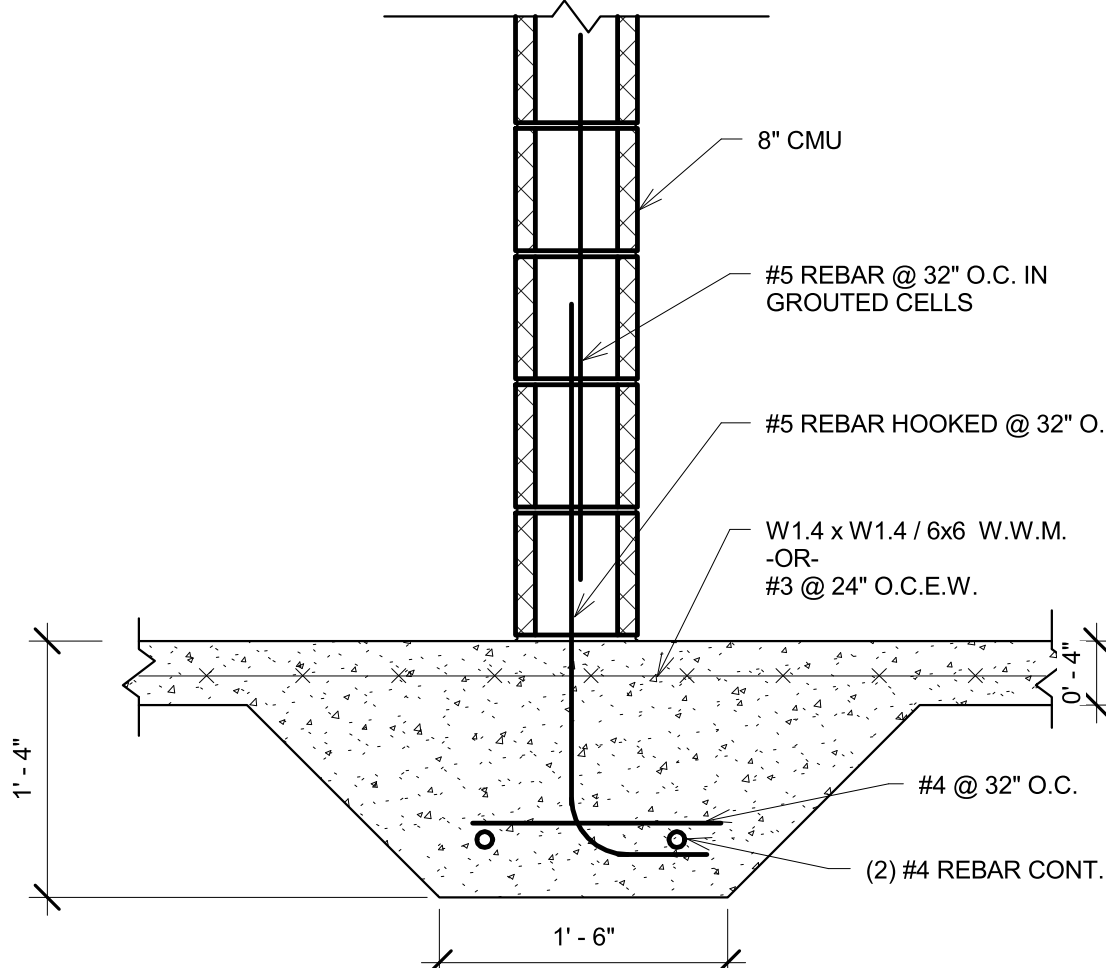
7 TYP WALL SECTION  
3/4" = 1'-0"



6 CMU - WALL OPENING REINF.  
1" = 1'-0"

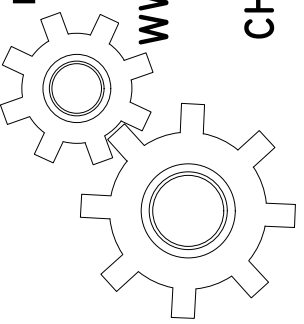


4 PRIVACY WALL SECTION  
1" = 1'-0"

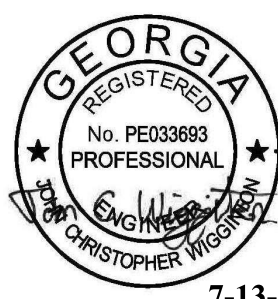


5 CMU WALL @ GRADE BEAM  
1" = 1'-0"

REVISIONS	

**T.E.D.**  
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CHARLESTON, SC 29416  
843-580-3769



SEAL: 7-13-17

**STRUCTURAL PLANS AND DETAILS**

PROPOSED ENGINEERING DESIGN FOR THE  
**McCURRY PARK RESTROOM**  
185 McDONOUGH RD. - FAYETTEVILLE, GA 30215

NOTES:

DRAWN:	TECH	<b>S.1</b>		
	JCW			
	APPROVED:			
	7-10-17			
DATE:	T17-034			
JOB NO.:	4			
SHEET	OF			
SHEET NUMBER:	9			

Exhibit C

MECHANICAL EQUIPMENT SCHEDULE							
MARK	MANUFACTURER	MODEL	FLOW RATE	ESP	POWER	DRIVE	TYPE COMMENTS
BR-1	GREENHECK	BR-30 SERIES	400 CFM	0.05	-	-	18"x18" BAROMETRIC RELIEF DAMPER WITH BIRD SCREEN
BR-2	GREENHECK	BR-30 SERIES	400 CFM	0.05	-	-	18"x18" BAROMETRIC RELIEF DAMPER WITH BIRD SCREEN
EF-1	GREENHECK	G-095-E	400 CFM	0.05	0.04 HP	DIRECT	ROOFTOP DIRECT DRIVE EXHAUST FAN
EF-2	GREENHECK	G-095-E	400 CFM	0.05	0.04 HP	DIRECT	ROOFTOP DIRECT DRIVE EXHAUST FAN
UH-1	MARKEL	H3424T	-	-	4000 W	-	WALLMOUNT ELECTRIC UNIT HEATER
UH-2	MARKEL	H3424T	-	-	4000 W	-	WALLMOUNT ELECTRIC UNIT HEATER
UH-3	MARKEL	H3424T	-	-	4000 W	-	WALLMOUNT ELECTRIC UNIT HEATER
UH-4	MARKEL	H3424T	-	-	4000 W	-	WALLMOUNT ELECTRIC UNIT HEATER

- SHEET NOTES:**
- EXHAUST IN BATHROOMS TO BE PROVIDED BY GREENHECK MODEL G-096-E ROOFTOP MOUNTED FANS (1 PER SIDE OF THE RESTROOM BUILDING, 2 TOTAL). FANS SHALL BE INTERLOCKED WITH LIGHTS, SIZED TO PROVIDE 400 CFM PER SIDE (800 CFM TOTAL BUILDING EXHAUST).
  - BATHROOM HEAT TO BE PROVIDED BY MARKEL MODEL H3424T UNIT HEATERS MOUNTED AT WALLS 8'-6" ABOVE FLOOR. HEATERS ARE TO BE 4kW EACH AND SHALL HAVE INTERGRAL THERMOSTATS.

- MECHANICAL SPECIFICATIONS:**
- REFER TO ALL OTHER DRAWINGS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPLICABLE PROVISIONS THEREIN.
  - GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. NOTES SPECIFIC TO INDIVIDUAL MECHANICAL DRAWINGS WILL BE SHOWN ON THE RESPECTIVE MECHANICAL DRAWING.
  - FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY APPLIANCES OR MATERIALS OBVIOUSLY A PART OF THE SYSTEM AND NECESSARY FOR ITS PROPER OPERATION, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE FURNISHED AND INSTALLED AS IF CALLED FOR IN DETAIL.
  - PRIOR TO SUBMITTING PROPOSAL, THE CONTRACTOR IS STRONGLY ENCOURAGED TO VISIT THE SITE AND THOROUGHLY INSPECT ALL EXISTING CONDITIONS TO INSURE THAT THE WORK REPRESENTED IN THE DRAWINGS CAN BE INSTALLED AS INDICATED.
  - ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT, AND WORKMANSHIP, SHALL CONFORM WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS OF MUNICIPAL, STATE AND FEDERAL AUTHORITIES.
  - THIS PROJECT SHALL CONFORM TO ALL APPLICABLE IBC, ASHRAE, NFPA, AND SMACNA CODES AND STANDARDS HAVING JURISDICTION OVER THE CLASS OF WORK.
  - MATERIALS AND EQUIPMENT SHALL HAVE STAMPS OR SEALS OF ARI, ASME, UL, AND/OR ASTM.
  - ALL EQUIPMENT MUST MEET OR EXCEED ALL REQUIREMENTS OF THE IECC-2006.
  - THE CONTRACTOR SHALL MAKE TESTS FOR ACCEPTANCE AND APPROVAL AS REQUIRED BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES.
  - THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, LICENSES, DOCUMENTS, AND SERVICES RELATED TO INSTALLATION OF THE WORK.
  - MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AGAINST DEFECTS FOR ONE YEAR. PROVIDE ADDITIONAL FOUR-YEAR WARRANTY ON ALL COMPRESSORS.
  - PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE.
  - EQUIPMENT AND MATERIALS SHALL BE NEW, UNLESS OTHERWISE SPECIFIED.
  - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER TRADES IN ORDER TO RESOLVE ANY CONFLICT THAT MIGHT ARISE DUE TO THE LOCATION OF EQUIPMENT OR THE USE OF SPACE.
  - SPLIT SYSTEM HEAT PUMPS, ELECTRIC HEAT, AIR CONDITIONERS, AND GAS FURNACES EQUIVALENT BY CARRIER, LENNOX, OR TRANE. OUTSIDE AIR FANS AND EXHAUST FANS EQUIVALENT BY GREENHECK, LORENCOOK, OR ACME. AIR DISTRIBUTION DEVICES EQUIVALENT BY TITUS, PRICE, OR HART&COOLEY.
  - LOCATIONS SHOWN FOR EQUIPMENT ARE APPROXIMATE LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND/OR STRUCTURAL ENGINEER TO ACCOMMODATE FIELD CONDITIONS.
  - DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY FITTING AND DETAIL. INSTALL DUCTS, PIPING, EQUIPMENT AND CONTROLS IN A NEAT WORKMAN LIKE MANNER, AND IN ACCORDANCE WITH GOOD PRACTICE FOR A COMPLETE WORKABLE INSTALLATION. AVOID CONFLICT WITH OTHER WORK; MAKE ADEQUATE PROVISIONS FOR PREVENTING NOISE AND VIBRATION. ARRANGE EQUIPMENT INTO THE AVAILABLE SPACE IN A MANNER TO MAKE ALL WORKING PARTS ACCESSIBLE FOR MAINTENANCE AND SERVICE.
  - CONSTRUCT AIR DUCTS IN ACCORDANCE WITH SMACNA DUCT MANUALS LATEST EDITION.
  - DUCTWORK MATERIALS SHALL BE GALVANIZED SHEET METAL AS MADE BY ARMO-CO OR EQUAL.
  - CONTRACTOR SHALL FIELD VERIFY AVAILABLE SPACE FOR DUCTWORK BEFORE FABRICATING. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD OF CONFLICTING FIELD CONDITIONS BEFORE PROCEEDING WITH ALTERATIONS.
  - PROVIDE INTERNAL INSULATION 1" THICK ACOUSTIC LINER WITH A NEOPRENE COATING ON THE AIR STREAM SIDE OF THE RETURN AIR DUCTWORK FOR A MINIMUM OF 10' FROM THE AIR HANDLER. ADHERE LINER TO DUCT WITH A 100% COVERAGE OF MINNESOTA MINING #33 AND WELDED PINS 18" O.C. INSULATING APPLIED TO TOP SURFACE SHALL OVERLAP SIDE PIECES. 2" DUCT BOARD MAY BE SUBSTITUTED FOR LINED SHEET METAL DUCT WHEN APPROVED BY OWNER AND INSTALLED IN ACCORDANCE WITH NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARD.
  - INSULATE SUPPLY AIR DUCTS WITH 2" THICK GLASS FIBER BLANKET NOT LESS THAN 3/4 LB. DENSITY, WITH HEAVY ALUMINUM FOIL BARRIER. SECURE WITH ANNEALED STAINLESS STEEL WIRE AT 12" ON CENTER. SEAL ALL JOINTS AND PUNCTURES IN JACKET.
  - RUN ALL HORIZONTAL PIPING AND DUCTWORK ABOVE CEILING UNLESS OTHERWISE NOTED.
  - DUCTWORK SIZES ARE INSIDE CLEAR DIMENSIONS.
  - ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS WITH A CENTERLINE RADIUS OF 1.5 X DUCT WIDTH, UNLESS OTHERWISE NOTED. SQUARE ELBOWS ARE TO HAVE TURNING VANES.
  - RUN ALL EXPOSED PIPING AND DUCTWORK AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. ALLOW FOR RISES, DROPS AND OFFSETS AS REQUIRED. ALL EXPOSED DUCTWORK TO BE SPIRAL DUCT WITH APPROPRIATE FITTINGS.
  - FOR ROUND DUCT TAKE-OFF FROM SHEET METAL DUCTS, USE GENFLEX MODEL NO. SM-10EL SPIN-IN FITTING WITH SCOOP AND DAMPER.
  - FLEXIBLE DUCTWORK SHALL BE ATCO TYPE #36 OR APPROVED EQUAL.
  - FLEXIBLE DUCT RUNOUTS TO CEILING DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. ALL BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE INLET/NECK OF THE DIFFUSERS SERVED.
  - PORTIONS OF DUCTWORK VISIBLE THROUGH SUPPLY AND RETURN AIR OPENINGS SHALL BE PAINTED FLAT BLACK.
  - MAKE DUCT PENETRATIONS OF ALL WALLS WITH SHEET METAL DUCTS. FLEXIBLE DUCT PENETRATIONS OF WALLS ARE NOT ACCEPTABLE.
  - COORDINATE WITH REFLECTED CEILING PLANS AND LIGHTING PLANS FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, GRILLES, AND EXHAUST FANS. FINISHES AND COLORS TO BE SELECTED BY OWNER.
  - GRILLES, REGISTERS AND DIFFUSERS - REFER TO SCHEDULES.
  - UNDERCUT DOORS 1" IN ROOMS WITHOUT RETURN, DOOR GRILL OR TRANSFER DUCTS.
  - PROVIDE DYNAMIC FIRE DAMPERS IN ACCORDANCE WITH THEIR U.L. LISTING AND THE REQUIREMENTS OF IBC-2006 AND NFPA-90A.
  - INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. PIPING SHALL NOT INTERFERE WITH FILTER PULL OR COIL REMOVAL.
  - EXTEND DRAIN LINES TO NEAREST DRAIN OR AS INDICATED. ALL CONDENSATE DRAIN PIPING SHALL BE TRAPPED AND PITCHED DOWN IN DIRECTION OF FLOW A MINIMUM OF 1" PER 10 FEET.
  - PROVIDE AUXILIARY DRAIN PANS UNDER ALL EQUIPMENT WHICH IS NOT LOCATED WITHIN CURBED CONTAINMENT AREAS CONTAINING FLOOR DRAINS.
  - LOCATE AND SIZE 6" THICK CONCRETE HOUSEKEEPING PADS AND CURBS IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED. EXTEND PAD BEYOND EQUIPMENT 6" IN ALL DIRECTIONS.
  - PROVIDE VIBRATION SPRING ISOLATORS FOR ALL MOTORIZED EQUIPMENT.
  - DO NOT INSTALL EQUIPMENT, PIPING OR DUCTWORK IN ANY WAY THAT ENCROACHES ON ELECTRICAL EQUIPMENT OR ELECTRICAL SERVICE SPACE.
  - COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING.
  - FOR PACKAGED EQUIPMENT, THE MANUFACTURER SHALL PROVIDE CONTROLLERS INCLUDING THE REQUIRED MONITORS AND TIMED RESTART. PROVIDE REDUCED VOLTAGE STARTERS FOR ALL MOTORS 25 HP AND LARGER.
  - DISCONNECT AND CONVENIENCE OUTLET TO BE PROVIDED WITH ALL ROOF TOP UNITS. MECHANICAL WORK SHALL INCLUDE CONTROL AND INTERLOCK WIRING REQUIRED FOR PROPER OPERATION OF THE SYSTEM, AND SHALL INCLUDE FURNISHING OF RELAYS, MAGNETIC STARTERS OR CONTACTORS WHERE REQUIRED.
  - ALL DISCONNECT SWITCHES, VFD'S, MOTOR STARTERS - ADD NOTES FOR ELECTRICAL DISCONNECTS AND OUTLETS MECHANICAL WORK SHALL INCLUDE CONTROL AND INTERLOCK WIRING REQUIRED FOR PROPER OPERATION OF THE SYSTEM, AND SHALL INCLUDE FURNISHING OF RELAYS, VFD'S, MAGNETIC STARTERS OR CONTACTORS WHERE REQUIRED.
  - ANY EQUIPMENT MOTORS POWERED BY VFD SHALL BE VFD MOTORS.
  - ALL AIR HANDLERS TO BE PROVIDED WITH AT LEAST ONE MANUALLY OPERABLE MEANS TO STOP THE OPERATION OF THE SUPPLY, RETURN AND EXHAUST FANS IN AN EMERGENCY. COORDINATE EMERGENCY STOP LOCATION WITH ARCHITECTURAL PLANS.
  - CONTROLS CONTRACTOR SHALL PROVIDE AUTOMATIC CONTROL DEVICES, SUCH AS TEMPERATURE SENSORS, RELAYS, PRESSURE SWITCHES WHICH ARE ASSOCIATED WITH MECHANICAL EQUIPMENT AND ASSOCIATED CONTROL WIRING FROM STARTER TO THE CONTROL DEVICE. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING FROM POWER SOURCE TO DISCONNECT SWITCH, FROM DISCONNECT SWITCH TO STARTER, AND FROM STARTER TO THE EQUIPMENT.
  - ALL CONTROL WIRING EXCEPT IN EQUIPMENT ROOMS SHALL BE RUN CONCEALED. WIRING IN WALLS SHALL BE IN CONDUIT. ALL WIRING SHALL BE PLENUM RATED. CONTROL WIRING IN EXPOSED AREAS SHALL BE BUNDLED AND SECURED OR RUN IN CONDUIT. NO WIRING SHALL BE SURFACE MOUNTED IN FINISHED SPACES. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
  - ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE OR IN CONDUIT.
  - LOCATE THERMOSTATS/TEMPERATURE SENSORS 54" ABOVE FINISHED FLOOR OR AS NOTED ON THE PLANS.
  - MECHANICAL CONTRACTOR SHALL PROVIDE AUTOMATIC CONTROL DEVICES, SUCH AS TEMPERATURE SENSORS, RELAYS, PRESSURE SWITCHES WHICH ARE ASSOCIATED WITH MECHANICAL EQUIPMENT AND ASSOCIATED CONTROL WIRING FROM STARTER TO THE CONTROL DEVICE. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING FROM POWER SOURCE TO DISCONNECT SWITCH TO STARTER, AND FROM STARTER TO THE EQUIPMENT, UNLESS NOTED OTHERWISE. CONTROL CONTRACTOR SHALL WIRE CONTROL VALVES AND DAMPERS.
  - COMPLETION AND TESTS SHALL INCLUDE CLEANING AND LUBRICATION OF ALL EQUIPMENT, AND ADJUSTMENTS FOR PROPER OPERATION. ADJUST DAMPERS, REGISTERS AND DIFFUSERS FOR PROPER AIR DISTRIBUTION. CHECK SYSTEM UNDER ACTUAL OPERATING CONDITIONS AND MAKE ADJUSTMENTS FOR A UNIFORM TEMPERATURE THROUGH THE CONDITIONED SPACE.
  - FURNISH TO THE OWNER ONE COPY OF OPERATING INSTRUCTIONS, MANUFACTURER'S PARTS DATA AND SERVICE INSTRUCTIONS.
  - THE CONTRACTOR SHALL HAVE AN INDEPENDENT A.A.B.C. CERTIFIED TEST AND BALANCE COMPANY PERFORM AND SUBMIT 3 COPIES OF THE TEST AND BALANCE REPORT PRIOR TO ARCHITECTS FINAL PUNCH LIST.

EXHAUST CALCULATIONS (PER ASHRAE 62.1-2007)

RESTROOM AREA = 742 SF TOTAL  
MECHANICAL AREA = 157 SF TOTAL

TOTAL AREA = 899 SF

FOR BATHROOM SPACES, 70 CFM EXHASUT REQUIRED PER FIXTURE  
# FIXTURES TOTAL = 10

10 FIXTURES x 70 CFM/FIXTURE = 700 CFM EXHAUST REQUIRED

FOR MECHANICAL SPACE, 1 CFM EXHASUT REQUIRED PER SF AREA  
AREA = 157 SF

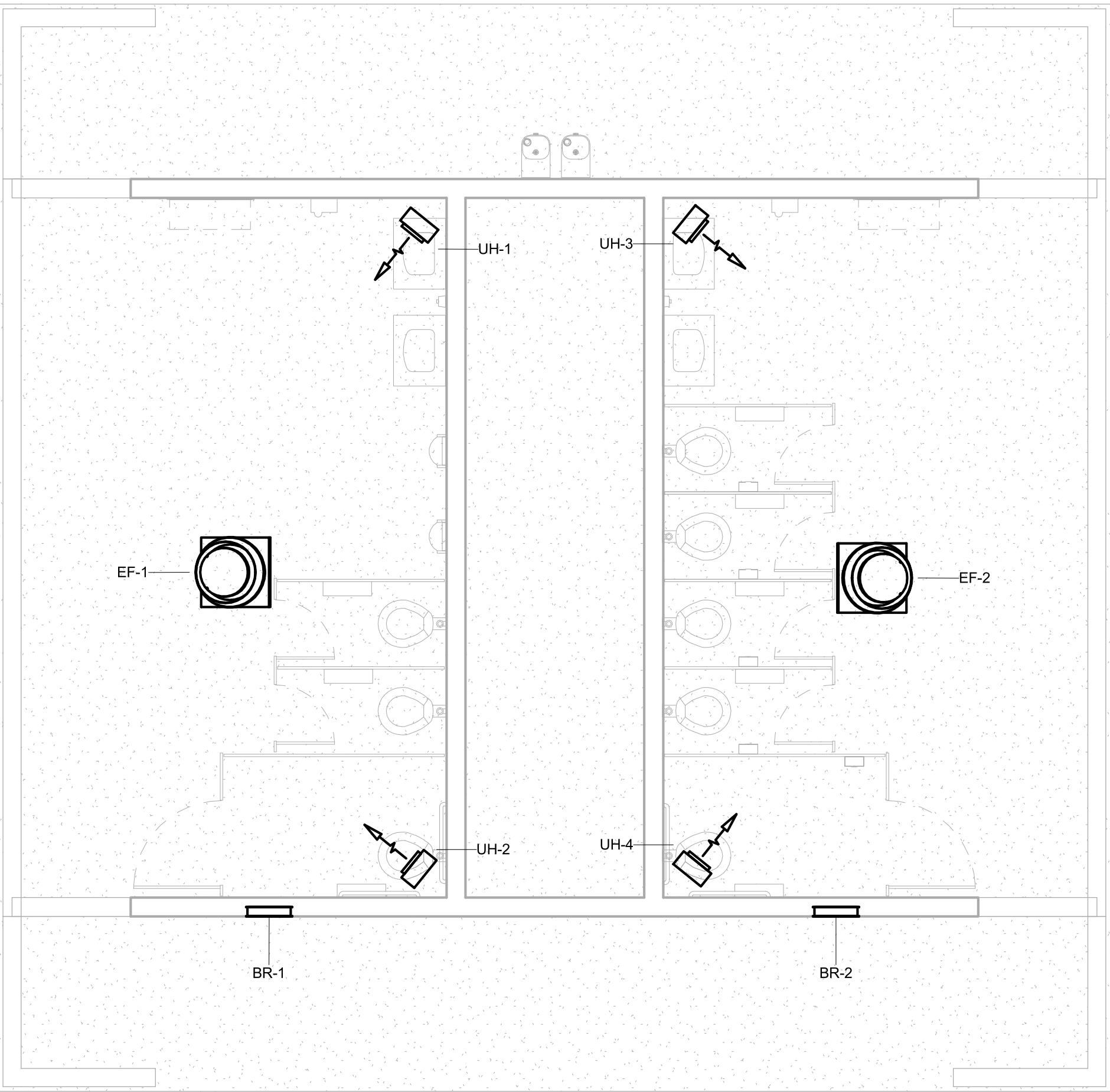
157 SF x 1 CFM/SF = 157 CFM EXHAUST REQUIRED

TOTAL EXHAUST REQUIRED = 700 CFM + 157 CFM = 857 CFM

DESIGN CONDITIONS:

OUTSIDE SUMMER DRY BULB TEMPERATURE = 94 F  
OUTSIDE SUMMER WET BULB TEMPERATURE = 74 F  
OUTSIDE WINTER DRY BULB TEMPERATURE = 17 F

INDOOR DESIGN CONDITIONS = N/A (HEATERS HAVE BEEN SIZED TO MAINTAIN TEMPERATURE NECESSARY FOR FUNCTIONALITY OF PLUMBING AND FIXTURES, NOT COMFORT; NO A/C IS PROVIDED)

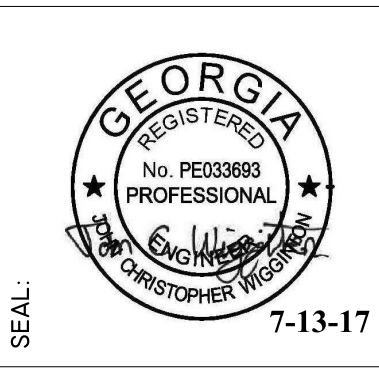


1 MECHANICAL PLAN  
1/4" = 1'-0"

REVISIONS				



**T.E.D.**  
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MECHANICAL PLANS AND DETAILS

PROPOSED ENGINEERING DESIGN FOR THE  
**McCURRY PARK RESTROOM**  
185 McDONOUGH RD. - FAYETTEVILLE, GA 30215

NOTES:

TECH	JCW
APPROVED:	7-10-17
DATE:	T17-034
JOB NO.:	5
SHEET:	OF 9
SHEET NUMBER:	M.1

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE GEORGIA STATE MINIMUM STANDARD ELECTRIC CODE (NFFA 70: NATIONAL ELECTRICAL CODE WITH GEORGIA STATE AMMENDMENTS) AND ALL LOCAL AMMENDMENTS, CONSTRUCTION CODES, AND ORDINANCES.
2. DRAWINGS SHOWING ELECTRICAL WORK ARE DIAGRAMMATIC. THE CONSTRUCTION MANAGER SHALL REFER TO ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS FOR GUIDANCE AS TO DIMENSIONS, CEILING HEIGHTS, DOOR SWINGS, ROOM FINISHES, ARCHITECTURAL DETAILS, AND LOCATIONS OF EQUIPMENT. PIPES, MECHANICAL SYSTEM EQUIPMENT AND OUTLETS, AND THE LIKE, AND SHALL: A. INSTALL THE ELECTRICAL SYSTEMS WITHOUT INTERFERENCE WITH OBSTRUCTIONS. B. LOCATE LIGHTING FIXTURES AS INDICATED ON REFLECTED CEILING PLANS AND INTERIOR DETAILS IN CORRECT RELATION TO FINISHED AREAS (MAKE MINOR ADJUSTMENTS IN FIXTURE LOCATIONS AS NECESSARY TO CLEAR OBSTRUCTIONS). C. PROVIDE ADDITIONAL STEEL SUPPORTS FOR MOTOR CONTROLLERS, FIXTURES, RACEWAYS, CABINETS, BOXES, AND THE LIKE WHERE THE BUILDING, EQUIPMENT, OR STRUCTURE IS NOT SUITABLE FOR MOUNTING SAME DIRECTLY THEREON.
3. THE CONTRACTOR SHALL HAVE ONE SIGNED COPY OF THE PLANS (APPROVED BY THE AHJ), ONE COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED AT THE JOB SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAYING ALL FEES REQUIRED BY THE CONSTRUCTION PROPOSED IN THESE PLANS.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND THE DESIGN ENGINEER. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL, ALL SITE VISITORS, AND THE GENERAL PUBLIC WHO MAY BE AFFECTED BY THE CONSTRUCTION.
6. ALL ESTIMATES OF QUANTITIES SHOWN IN THESE PLANS SHALL BE VERIFIED BY THE CONTRACTOR / SUBCONTRACTOR, WHO SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND PROVIDING THE WORK AND MATERIALS AS SHOWN ON THESE PLANS.
7. ON WIRING PLANS, A NUMERAL BESIDE A BRANCH CIRCUIT OUTLET INDICATES THE PANELBOARD CIRCUIT CONNECTION. A LOWER CASE LETTER BESIDE A LIGHTING FIXTURE SHALL INDICATE THE SWITCH LEG CONNECTION. UPPER CASE LETTER BESIDE LIGHTING FIXTURE INDICATES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE.
8. WHERE HOME RUNS TO A MULTIPLE POLE BREAKER ARE SHOWN, THE CIRCUIT IS IDENTIFIED ONLY BY THE NUMBER OF THE FIRST POLE.
10. THE TERM "PROVIDE" USED IN THE SPECIFICATIONS AND DRAWINGS SHALL MEAN "TO FURNISH, INSTALL, CONNECT, AND PLACE IN SERVICE. COMPLETELY IN THE SPECIFIED OR APPROVED MANNER, THE ITEM DESCRIBED."
11. ELECTRICAL EQUIPMENT ENCLOSURES SHALL BE NEMA 1 FOR INDOOR USE, NEMA 3R FOR OUTDOOR USE WHEN EQUIPMENT IS MOUNTED GREATER THAN 18" ABOVE GRADE, AND NEMA 3X FOR OUTDOOR USE WHEN EQUIPMENT IS MOUNTED LESS THAN 18" ABOVE GRADE.
12. ELECTRICAL WORK EMBEDDED IN CONCRETE OR OTHERWISE PERMANENTLY CONCEALED SHALL NOT BE COVERED UNTIL INSPECTED BY THE OWNER'S REPRESENTATIVE.
13. ALL PENETRATIONS THROUGH FIRE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH FIRESTOPPING SPECIFICATIONS.
14. REFER TO PARTITION LEGEND ON ARCHITECTURAL FLOOR PLANS FOR FIRE RATINGS OF WALL PARTITIONS.

BASIC MATERIALS AND METHODS:

- GENERAL
1. ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
2. ALL MATERIAL SHALL BE NEW, CLEAN AND RATED FOR THE USE IN THE AREA FOR WHICH IT IS TO BE INSTALLED.
3. LISTED OR LABELED EQUIPMENT SHALL BE INSTALLED AND USED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING OR LABELING.

IDENTIFICATION

1. CONTRACTOR SHALL LEGIBLY LABEL EACH DISCONNECTING MEANS TO INDICATE ITS PURPOSE. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
2. UPON COMPLETION OF WORK, ALL BREAKERS SHALL BE LABELED WITH TYPED SCHEDULES AND AFFIXED TO THE INSIDE COVER.
3. SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE IN OTHER THAN DWELLING OCCUPANCIES SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR REMOVAL OF THE EQUIPMENT.

CONDUCTORS AND CONDUIT

1. ALL CONDUCTORS SHALL BE COPPER. ALL CONDUCTORS SHALL BE 12 AWG AND RATED FOR 75°C UNLESS NOTED ON PLANS.
2. ALL WIRING SHALL BE INSTALLED IN EMT CONDUIT (IN ACCORDANCE WITH ARTICLE 358) OR MC TYPE CABLE (IN ACCORDANCE WITH ARTICLE 330).
3. CONDUIT INSTALLED IN CONCRETE FLOOR SHALL BE RIGID METAL (IN ACCORDANCE WITH ARTICLE 344).
4. EQUIPMENT FIXTURE WHIPS LESS THAN 6 FEET IN LENGTH CONNECTING THE EQUIPMENT TO THE DISCONNECTING MEANS SHALL BE INSTALLED IN LIQUID TIGHT NONMETALLIC FLEXIBLE CONDUIT (LFNC) FOR EXTERIOR PPLICATIONS (IN ACCORDANCE WITH ARTICLE 356) AND IN FLEXIBLE METAL CONDUIT (FMC) FOR INTERIOR APPLICATIONS (IN ACCORDANCE WITH ARTICLE 348).
5. ALL WIRING SHOWN ON PLANS TO CONSIST OF (2)#12 AWG AND (1)#12 AWG EQUIPMENT GROUND. U.N.O.
6. NON-METALLIC SHEATHED (NM) WIRE MAY BE USED FOR 20 AMPERE BRANCH AND LIGHTING CIRCUITS IN TYPE-V CONSTRUCTION WITH WRITTEN PERMISSION OF THE AHJ. CONTRACTOR TO DE-RATE WIRE SIZES SHOWN ON PLANS TO 60°C AND UPSIZE NM WIRES ACCORDINGLY.
7. ALL WIRING SHALL BE INSTALLED WITH SUITABLE BENDING SPACE DEFINED BY ARTICLE 314.28.
8. BRANCH CIRCUIT CONDUCTORS SHALL BE IDENTIFIED USING THE PROVISIONS OF ARTICLE 210.5
9. FEEDER CIRCUIT CONDUCTORS SHALL BE IDENTIFIED USING THE PROVISIONS OF ARTICLE 215.12
10. PROVIDE IDENTIFICATION FOR GROUNDING CONDUCTORS OF SEPARATE SYSTEMS IN ACCORDANCE WITH ARTICLE 200.6(D).

EQUIPMENT

1. ALL DEVICES SHALL BE RATED FOR THE CIRCUIT IN WHICH IT IS ATTACHED.
2. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH WORKING SPACES AS REQUIRED BY ARTICLE 110.26.
3. UNUSED CABLE OR RACEWAY OPENINGS IN BOXES, RACEWAYS, AUXILIARY GUTTERS, CABINETS, CUTOUT BOXES, METER SOCKET ENCLOSURES, EQUIPMENT CASES, OR HOUSINGS SHALL BE EFFECTIVELY CLOSED TO AFFORD PROTECTION SUBSTANTIALLY EQUIVALENT TO THE WALL OF THE EQUIPMENT. WHERE METALLIC PLUGS OR PLATES ARE USED WITH NONMETALLIC ENCLOSURES, THEY SHALL BE RECESSED AT LEAST 6 MM (1/4 IN.) FROM THE OUTER SURFACE OF THE ENCLOSURE.
4. CONTRACTOR SHALL TORQUE ALL MECHANICAL FASTENERS AND CONNECTIONS IN ACCORDANCE WITH MANUFACTURERS LISTED SPECIFICATIONS/INSTRUCTIONS. IF TORQUE VALUES ARE NOT LISTED, FOLLOW THE TORQUE RECOMMENDATIONS IN THE NEC HANDBOOK, COMMENTARY TABLES 1.2 THRU 1.5.
5. PROVIDE PROPERLY SIZED BOLTS FOR THE CONNECTION BEING MADE. UNDERSIZED BOLTS AND FENDER WASHERS ARE NOT ACCEPTABLE.
6. OWNER SHALL SELECT THE COLOR OF ALL EXPOSED OUTLETS, RECEPTACLES, AND COVER PLATES.

LIGHTING

1. PROVIDE AND INSTALL LIGHTING FIXTURES AS SPECIFIED AND APPROVED BY OWNER. PRIOR TO ORDERING OR INSTALLING, PROVIDE CUT SHEETS TO OWNER FOR APPROVAL. NO FIXTURE SHALL EXCEED THE POWER RATING SPECIFIED IN THE FIXTURE SCHEDULE. PROVIDE NEW CREEP BULBS.

GROUNDING

1. CONTRACTOR SHALL USE ALL AVAILABLE METHODS OF GROUNDING TO FORM A GROUNDING SYSTEM PER NEC ARTICLE 250.50.
2. PROVIDE A MAIN BONDING JUMPER INSIDE SERVICE EQUIPMENT CONNECTING THE EQUIPMENT GROUNDING BUS BAR WITH THE GROUNDING CONDUCTOR (NEUTRAL) BUS BAR.
3. MAIN BONDING JUMPERS ARE NOT REQUIRED FOR FEEDER PANELBOARDS PROVIDED THEY ARE FED WITH A SEPARATE EQUIPMENT GROUNDING CONDUCTOR (GREEN WIRE).
4. WHERE THE MAIN BONDING JUMPER IS A SCREW ONLY, THE SCREW SHALL BE IDENTIFIED WITH A GREEN FINISH AND BE VISIBLE WITH THE SCREW INSTALLED.
5. ELECTRICAL CONTRACTOR TO PROVIDE A (4) LUG MINIMUM EXTERIOR-RATED EQUIPMENT GROUNDING BUS BAR CONNECTED TO THE GROUNDING SYSTEM AT THE SERVICE ENTRANCE TO EFFECTIVELY GROUND ALL LOW VOLTAGE WIRING BEFORE IT ENTERS THE BUILDING.

LOW VOLTAGE

1. COORDINATE EXACT PHONE AND DATA OUTLETS WITH OWNER.
2. AT ALL PHONE AND DATA OUTLET LOCATIONS, ELECTRICAL CONTRACTOR TO PROVIDE A JUNCTION BOX AND 3/4" EMT CONDUIT STUBBED UP ABOVE CEILING WITH A PULL STRING.

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
GENERAL	
	LA - 19 ADJACENT TO ARROW INDICATES HOMERUN OF CIRCUIT 19 TO PANEL "LA" MARKS ACROSS RACEWAYS FOR LIGHTING AND RECEPTACLE LOADS INDICATE THE NUMBER OF #12 AWG PHASE AND #12 NEUTRAL CONDUCTORS IN RACEWAY. WHEN #10 IS SHOWN ADJACENT TO HOMERUN IT SHALL INDICATE THAT PHASE AND NEUTRAL CONDUCTORS ARE #10 AWG FOR ENTIRE BRANCH CIRCUIT. UNO. NO MARKS ACROSS RACEWAY INDICATE ONE PHASE AND ONE NEUTRAL CONDUCTORS. WHEN #12G IS SHOWN ADJACENT TO HOMERUN IT SHALL INDICATE THAT THE GROUND WIRE IS #12 AWG FOR THE ENTIRE BRANCH CIRCUIT. WHEN "3" C IS SHOWN ADJACENT TO HOMERUN IT SHALL INDICATE THAT THE CONDUIT SIZE IS 3/4" EMT. MULTI-CIRCUIT HOMERUNS TO BE 1" EMT CONDUIT UNO. SINGLE CIRCUIT HOMERUNS TO 3/8" EMT CONDUIT UNO.
LIGHTING	
	FLUORESCENT LIGHT FIXTURE AND OUTLET BOX. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	DOWNLIGHTING FIXTURE. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	WALL MOUNT LIGHT FIXTURE. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	FLOOD LIGHT. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	TRACK LIGHTING. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	UNDERCABINET LIGHTING. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	WALL MOUNTED FLUORESCENT LIGHTING. LETTER INDICATES FIXTURE IDENTIFICATION, SEE LIGHTING FIXTURE SCHEDULE
	CEILING OR WALL MOUNTED EXIT SIGN, PROVIDE ARROWS AS INDICATED, SINGLE FACE OR DOUBLE FACE AS INDICATED BY SHADING
	CEILING OR WALL MOUNTED EMERGENCY LIGHTING
	CEILING OR WALL MOUNTED COMBINATION EXIT AND EMERGENCY LIGHTS, PROVIDE ARROWS AS INDICATED, SINGLE FACE OR DOUBLE FACE AS INDICATED BY SHADING
	EGRESS/EMERGENCY LIGHT FIXTURE. LETTER INDICATES FIXTURE TYPE
	NIGHT LIGHT OR SECURITY LIGHT, FIXTURE IS CONTROLLED BY CIRCUIT BREAKER
RECEPTACLES & COMMUNICATIONS	
	SINGLE RECEPTACLE. NEMA 5 —20R, UNO.
	SINGLE RECEPTACLE. NEMA 5 —20R, UNO. MT 44" AFF OR 6" ABOVE COUNTER TOP
	DUPLEX RECEPTACLE. NEMA 5 —20R, UNO. SUBSCRIPT: TV=TELEVISION POWER OUTLET, (IG INDICATES ISOLATED GROUND) (E INDICATES EMERGENCY RECEPTACLE), (GFI INDICATES GROUND FAULT INTERRUPT PROTECTED)
	DUPLEX RECEPTACLE. NEMA 5 —20R, UNO. MT 44" AFF OR 6" ABOVE COUNTER TOP SUBSCRIPT: (IG INDICATES ISOLATED GROUND), (GFI INDICATES GROUND FAULT INTERRUPT PROTECTED)
	QUADRAPLEX RECEPTACLE NEMA 5 —20R, UNO. (IG INDICATES ISOLATED GROUND)
	SUSPENDED FROM CEILING OR WALL MOUNTED SPECIAL PURPOSE RECEPTACLE TO MATCH EQUIPMENT PLUG OR AS NOTED
	FLOOR BOX RECEPTACLE. 120V, 20A. PROVIDE BRASS COVER AND TRIM
	CEILING MOUNTED RECEPTACLE. 120V, 20A
	WALL MOUNTED CABLE TELEVISION OUTLET BY OTHERS. PROVIDE 3/4" EMPTY CONDUIT.
	WALL MOUNTED DATA OUTLET BY OTHERS. PROVIDE 3/4" EMPTY CONDUIT.
	WALL MOUNTED (VOICE) TELEPHONE OUTLET. PROVIDE 2 GANG BOX WITH SINGLE GANG PLASTER RING. EXTEND 3/4" C FROM BOX TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH AN INSULATED BUSHING. PROVIDE PULL STRING IN CONDUIT.
	COMBINATION WALL MOUNTED COMMUNICATIONS OUTLETS. PROVIDE ONE VOICE & ONE DATA OUTLET. OUTLETS BY OTHERS. ELECTRICAL CONTRACTOR TO PROVIDE 1" EMPTY CONDUIT W/ PULL LINE
	JUNCTION BOX. TO BE MOUNTED ABOVE CEILING. UNO. SUBSCRIPT: T = TELECOMMUNICATIONS, D = DATA
	JUNCTION BOX. TO BE WALL MOUNTED. UNO. SUBSCRIPT: T = TELECOMMUNICATIONS, D = DATA
SWITCHES	
	SINGLE POLE SWITCH. SUBSCRIPT: L = LOCKING COVER; HUBBELL CAT. NO. 96061, K = KEYTYPE, P = PILOT LIGHT
	THREE-WAY SWITCH. SUBSCRIPT: K = KEY TYPE
	FOUR-WAY SWITCH
	SWITCH: PROVIDE MOTION ACTIVATED SWITCH TO TURN OFF LIGHTS 30 MIN AFTER ROOM WAS LAST OCCUPIED, LITHONIA LIRY MVO/LT WH U.N.O., PER IECC 701.1
	MOTOR RATED SWITCH WITH NO OVERLOADS
	2000 W, 120V SLIDE DIMMER, HUBBELL CAT AS203
	2 HOUR ROTARY TIMER SWITCH WITHOUT HOLD FEATURE
DEVICES	
	MOTOR, HORSEPOWER AS INDICATED BY NUMBER
	MOTOR, FRACTIONAL HORSEPOWER. 1/4 = HP
	FLUSH OR SURFACE MOUNTED. 277/480V, 3 PHASE, 4W PANEL BOARD, REFER TO PANEL SCHEDULES
	FLUSH OR SURFACE MOUNTED. 120/208V, 3 PHASE, 4W PANEL BOARD, REFER TO PANEL SCHEDULES
	NON-FUSED SAFETY SWITCH: SWITCH AMPS/POLES/NEMA ENCLOSURE
	FUSED SAFETY SWITCH: FUSE SIZE/SWITCH AMPS/POLES/NEMA ENCLOSURE
	COMBINATION STARTER/FUSED DISCONNECT SWITCH: FUSE SIZE/SWITCH AMPS/NEMA SIZE/NEMA ENCLOSURE
	MAGNETIC MOTOR STARTER: NEMA SIZE/NEMA ENCLOSURE
	CIRCUIT BREAKER IN NEMA ENCLOSURE: SIZE/NEMA ENCLOSURE
	DRY TYPE TRANSFORMER, TA = IDENTIFICATION
	TELEPHONE / TELECOMMUNICATIONS BACKBOARD
	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR. WATT STOPPER CAT. NO. WT-2200 OR EQUAL. DIRECTIONAL ARROWS INDICATE SENSOR ORIENTATION
	CONTACTOR
	PHOTOCELL
CIRCUITRY	
	CONDUIT UP / CONDUIT DOWN
	RACEWAY INSTALLED CONCEALED IN / OR BELOW SLAB
	RACEWAY INSTALLED CONCEALED ABOVE OR IN WALLS
	RACEWAY INSTALLED EXPOSED
	FIXTURE WHIP

BRANCH CIRCUIT AND FEED CIRCUIT LENGTHS (3% VOLTAGE DROP)

WIRE	VOLTAGE	LINE CURRENT															
		10A	20A	25A	30A	35A	40A	45A	55A	60A	80A	90A	100A	125A	150A	200A	300A
#12	120V	90	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
#10	120V	143	72	57	48	-	-	-	-	-	-	-	-	-	-	-	-
#8	120V	230	114	92	77	66	57	51	47	-	-	-	-	-	-	-	-
#6	120V	353	177	141	117	101	89	78	71	59	-	-	-	-	-	-	-
#4	120V	-	-	225	108	90	140	125	103	93	80	71	-	-	-	-	-
#3	120V	-	-	-	238	203	177	158	141	119	101	89	78	71	-	-	-
#2	120V	-	-	-	-	257	224	210	179	150	128	113	99	90	-	-	-
#1	120V	-	-	-	-	-	291	225	188	161	141	125	113	90	-	-	-
1/0	120V	-	-	-	-	-	-	238	203	177	158	141	114	95	-	-	-
2/0	120V	-	-	-	-	-	-	-	235	224	198	179	143	119	-	-	-
3/0	120V	-	-	-	-	-	-	-	-	227	193	159	113	-	-	-	-
4/0	120V	-	-	-	-	-	-	-	-	-	230	192	144	128	-	-	-
250KCM	120V	-	-	-	-	-	-	-	-	-	-	225	188	150	135	-	-
350KCM	120V	-	-	-	-	-	-	-	-	-	-	-	203	160	162	-	-
350KCM	120V	-	-	-	-	-	-	-	-	-	-	-	-	236	210	189	158
450KCM	120V	-	-	-	-	-	-	-	-	-	-	-	-	-	242	218	182
500KCM	120V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	242	227
600KCM	120V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323

NOTES:

1. THE ABOVE LENGTHS ARE LISTED FOR A 3% VOLTAGE DROP OF 120V CIRCUIT RECOMMENDED BY THE N.E.C. TO CONVERT LENGTHS TO 208V, 240V, 277V, OR 480V MULTIPLY BY THE FACTORS BELOW.

- 208V: MULTIPLY LENGTHS BY 1.73
- 240V: MULTIPLY LENGTHS BY 2.00
- 277V: MULTIPLY LENGTHS BY 2.31
- 480V: MULTIPLY LENGTHS BY 4.00

REVISIONS

T.E.D.

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CHARLESTON, SC 29416

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ELECTRICAL NOTES

PROPOSED ENGINEERING DESIGN FOR THE  
McCURRY PARK RESTROOM  
185 McDONOUGH RD. - FAYETTEVILLE, GA 30215

NOTES:

TECH  
JCW  
APPROVED:  
DATE:  
JOB NO.:  
SHEET NUMBER:

7-10-17  
T17-034  
6 OF 9

E.O.

- SHEET NOTES:**
1. PROVIDE AN ULTRASONIC WALL SWITCH SENSOR AT 4' ABOVE FINISHED FLOOR. SENSOR SHALL BE HUBBELL MODEL #LH-US-RR-W. ONE SWITCH PER EACH RESTROOM (1 MEN'S, 1 WOMEN'S).
  2. CONTACTORS FOR EXHAUST FANS SHALL BE NEMA SIZE 1 W/ 120V COILS. ENCLOSURE SHALL BE NEMA-1. INSTALL CONTACTORS 8'-6" A.F.E. PROVIDE ALL CONDUIT AND WIRING IN ACCORDANCE WITH THE DIAGRAM SHOWN.
  3. PROVIDE OUTLET PER THE REQUIREMENTS OF THE DRINKING FOUNTAIN MANUFACTURER. OUTLET TO BE PROTECTED AND VANDAL-RESISTANT.
  4. PANEL TO BE 120V/240V, SINGLE PHASE. 3W, 100A MAIN CB, COPPER PHASE AND GROUND BUSBARS, 22KA R.M.S. SYMMETRICAL SHORT CIRCUIT RATING, U.L. LISTED FOR SERVICE ENTRANCE. REFER TO SINGLE LINE DIAGRAM, THIS SHEET. THE PANEL SHALL BE SQUARE-DCUTLER-HAMMER, SIEMENS, OR G.E. SURGE SUPPRESSOR SHALL HAVE SURGE RATING OF 160KVA AND SHALL BE LISTED UNDER UL 1449, UL 1283, AND INTERGAL DISCONNECT, LEDS, AND SURGE COUNTER SHALL BE PROVIDED. THE ENCLOSURE SHALL BE NEMA-4. THE SURGE SUPPRESSOR SHALL BE LIEBERT MODEL S1016-220-220V-S-A-R-C-E OR EQUAL BY APPROVED EQUIVALENT.
  6. WALL HEATERS TO BE MARKEL MODEL H3424T. 4KW, 240V, 1 PHASE, WITH INTEGRAL THERMOSTAT. INSTALL HANGING FROM CEILING 8'-6" A.F.E.

Lighting Fixture Schedule				
Mark	Manufacturer	Wattage	Comments	
A	HUBBELL MRK-S70-MT-PE-DBZ	70 W	70W HIGH PRESS. SODIUM WALL MOUNT DARK BRONZE 120V BALLAST, PHOTOCELL	
4				
B	COLUMBIA KL4-232-EBB	64 W	PENDANT MOUNTED, 4' FLOURESCENT LIGHT FIXTURE W/ (20 32W LAMPS, 120V ZERO DEGREE BALLAST	
2				
C	COLUMBIA VRN4-232-EBB	64 W	WALL MOUNTED, VANDAL RESISTANT 4' FLOURESCENT LIGHT FIXTURE W/ (20 32W LAMPS, 120V ZERO DEGREE BALLAST	
6				

Mechanical Equipment Schedule				
Mark	Manufacturer / Model	Description	Circuit Number	Comments
WH-1	A.O. SMITH / DEL-30	30 GALLON COMMERCIAL ELECT WATER HEATER	13,15	(2) 3000W ELEMENTS, 240V, SINGLE PHASE
UH-2	MARKEL / H3424T	WALL-MOUNT ELECTRIC UNIT HEATER	6,8	4000W, 240V, SINGLE PHASE
UH-4	MARKEL / H3424T	WALL-MOUNT ELECTRIC UNIT HEATER	10,12	4000W, 240V, SINGLE PHASE
UH-1	MARKEL / H3424T	WALL-MOUNT ELECTRIC UNIT HEATER	5,7	4000W, 240V, SINGLE PHASE
UH-3	MARKEL / H3424T	WALL-MOUNT ELECTRIC UNIT HEATER	9,11	4000W, 240V, SINGLE PHASE
EF-1	GREENHECK / G-095-E	ROOFTOP DIRECT DRIVE EXHUAST FAN	14	0.04HP, 120V, SINGLE PHASE
EF-2	GREENHECK / G-095-E	ROOFTOP DIRECT DRIVE EXHUAST FAN	4	0.04HP, 120V, SINGLE PHASE
HD-1	BRADLEY / 2903-28000	SENSOR OPERATED WARM AIR HAND DRYER	19	
HD-2	BRADLEY / 2903-28000	SENSOR OPERATED WARM AIR HAND DRYER	10	

**FAULT CURRENT CALCULATION**

SPECIFY FOR 300MCM AL CONDUCTOR TO FEEDER PANEL

100' OF 300 MCM AL CONDUCTOR = (.071 OHMS / 1000') x (200'/1000') = .0142 OHMS

240V / .0142 = **16,901 A MAX FAULT CURRENT IN CONDUCTOR**

**Branch Panel: MDP**

Location: Room 2

Supply From:

Mounting: Surface

Enclosure:

Volts: 120/240 Single

Phases: 1

Wires: 3

A.I.C. Rating: 22KA

Mains Type: MCB

Mains Rating: 200 A

MCB Rating: 200 A

Notes: PANEL TO BE FED FROM NEARBY BUILDING VIA 200A BREAKER

CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	MECH RM LIGHTS	15 A	1	128 VA	280 VA				15 A	EXTERIOR LIGHTS	2
3	RECEPTACLES / WATER FOUNTAIN	20 A	1			540 VA	30 VA	1	15 A	WOMENS EXHAUST FAN	4
5	MENS HTR #1	20 A	2	2000 VA	2000 VA			2	20 A	MENS HTR #2	6
7	--	--	--			2000 VA	2000 VA	--	--	--	8
9	WOMENS HTR #1	20 A	2	2000 VA	2000 VA			2	20 A	WOMENS HTR #2	10
11	--	--	--			2000 VA	2000 VA	--	--	--	12
13	WATER HEATER	30 A	2	2250 VA	30 VA			1	15 A	MENS EXHAUST FAN	14
15	--	--	--			2250 VA	192 VA	1	15 A	WOMENS LIGHTS	16
17	MENS LIGHTS	15 A	1	192 VA							18
19	MENS HAND DRYER	20 A	1		2400 VA						20
21											22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42

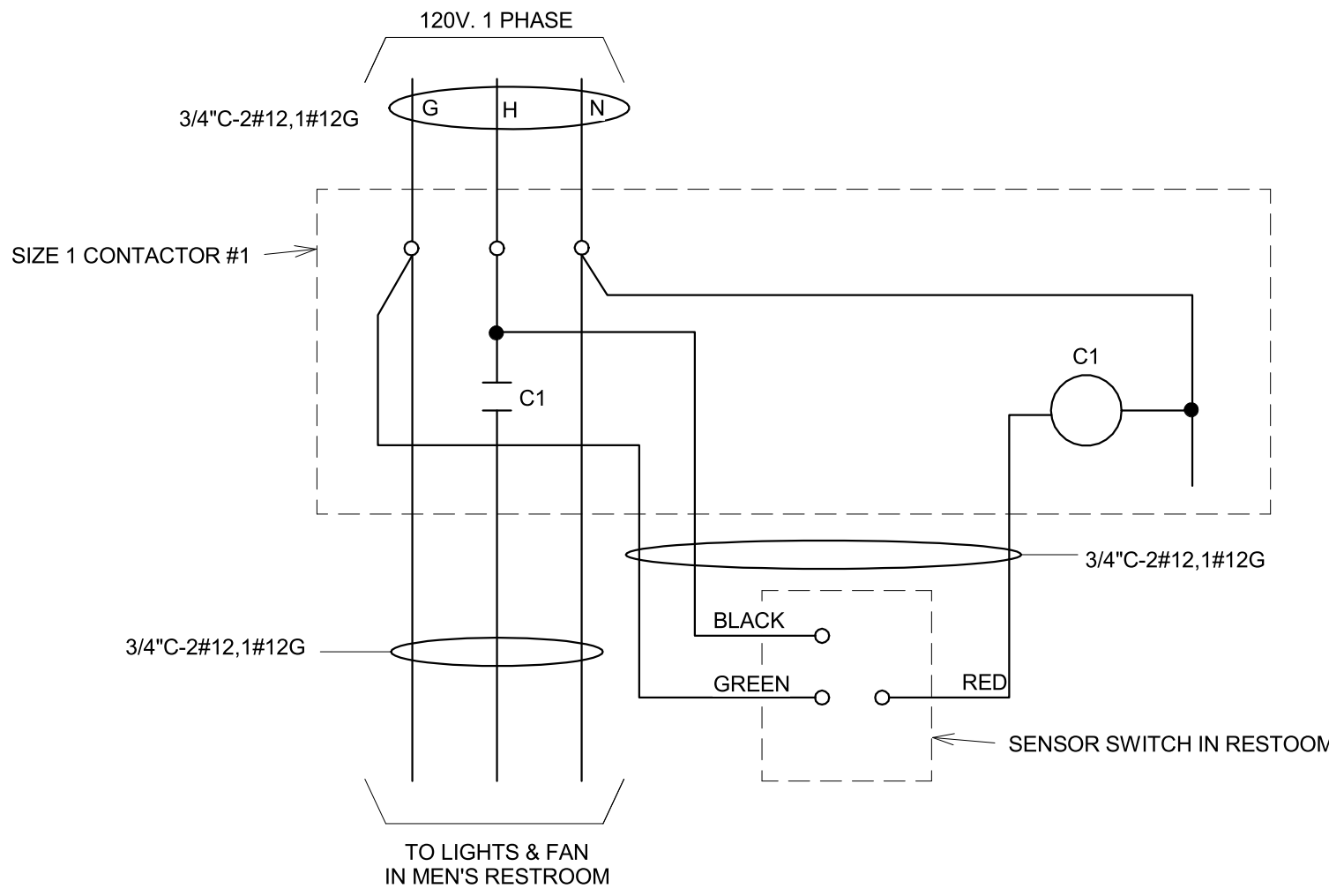
Total Load: 13280 VA 13412 VA

Total Amps: 111 A 112 A

Legend:

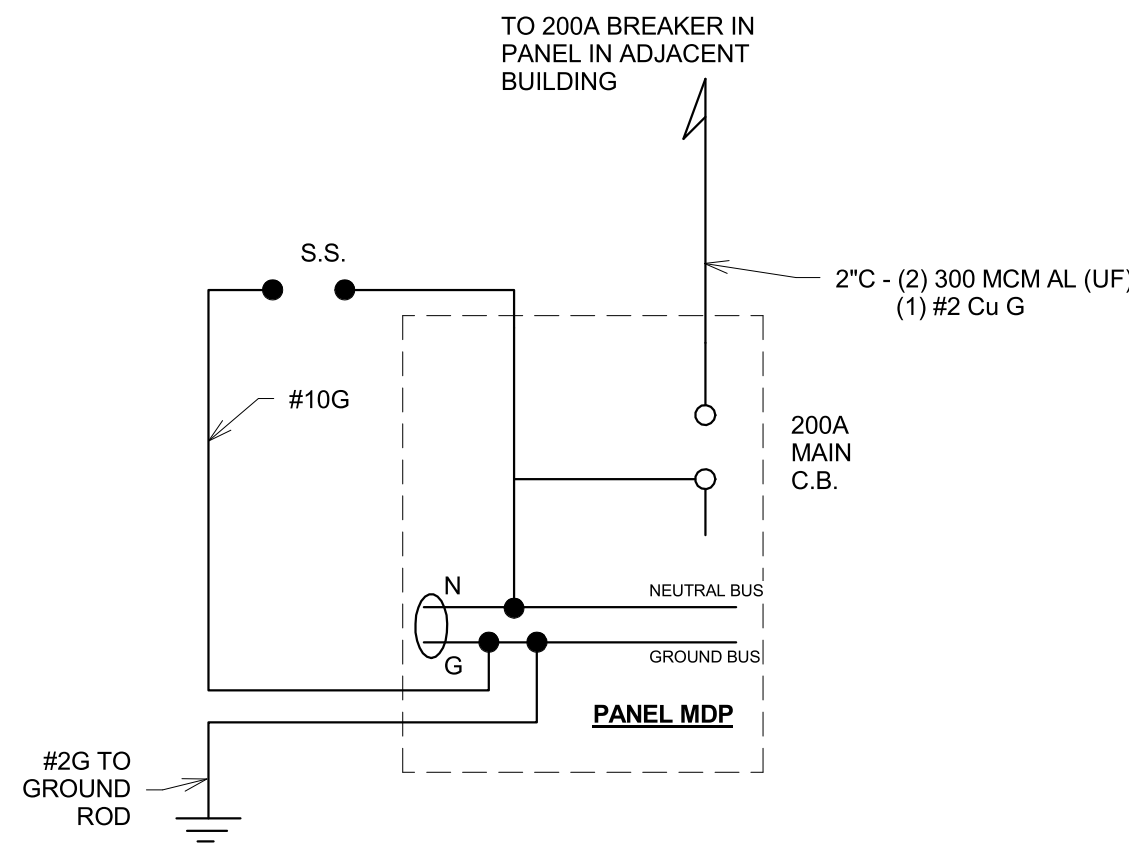
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Appliance - Dwelling Unit	4500 VA	100.00%	4500 VA		
Cooling	60 VA	100.00%	60 VA	Total Conn. Load:	26692 VA
Heating	16000 VA	100.00%	16000 VA	Total Est. Demand:	26762 VA
Lighting - Dwelling Unit	512 VA	100.00%	512 VA	Total Conn.:	111 A
Lighting - Exterior	280 VA	125.00%	350 VA	Total Est. Demand:	112 A
Other	0 VA	0.00%	0 VA		
Receptacle	540 VA	100.00%	540 VA		
Power	4800 VA	100.00%	4800 VA		

Notes:



(SHOWN FOR MEN'S RESTROOM- TYP. FOR BOTH RESTROOMS)

④ RESTROOM LIGHTS AND FANS  
1/2" = 1'-0"



③ MDP PANEL DIAGRAM  
1/2" = 1'-0"

**LIGHTING POWER DENSITY CALCULATIONS**  
(PER IECC 2009 SECTION 505.5)

**INTERIOR POWER DENSITY**

TOTAL CONNECTED INTERIOR LIGHTING POWER

(8) 64W FLOURSECENT FIXTURES = 512W

TOTAL AREA = 899 SF

ALLOWANCE PER TABLE 505.5.2 = 1.1 W/SF (SPORTS ARENA)

**TOTAL ALLOWED INTERIOR LIGHTING POWER = 989 W, O.K.**

**EXTERIOR POWER DENSITY**

TOTAL CONNECTED EXTERIOR LIGHTING POWER

(4) 70W H.P.S. LAMPS = 280W

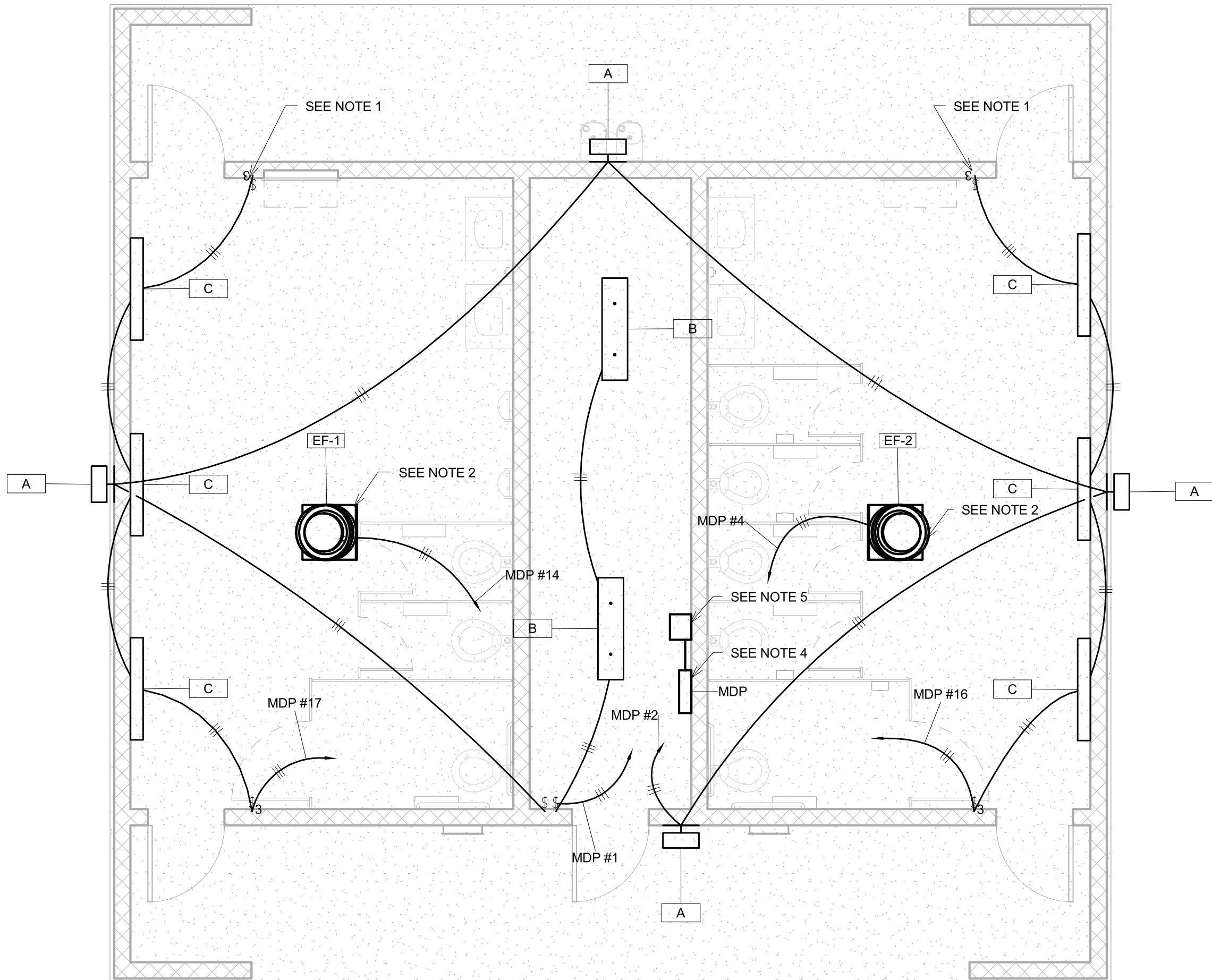
ALLOWANCE PER TABLE 505.6.2(2) = 20 W/LF ENTRANCE OR EXIT (ZONE 2)

= 0.1 W/SF FACADE (ZONE 2)

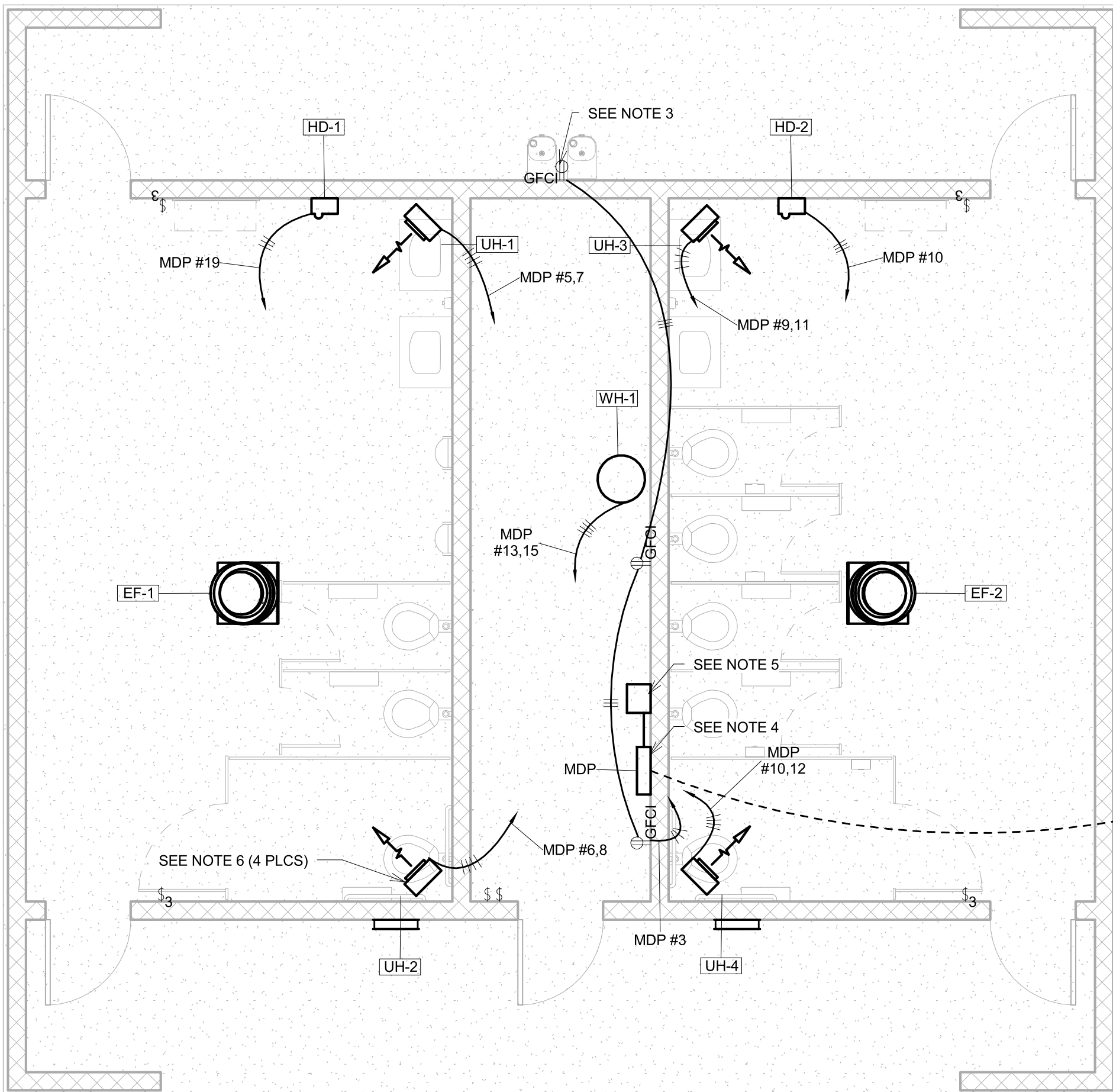
20 W/LF x 15 LF DOOR OPENING (5 DOORS @ 3 FT EACH) = 300 W

0.1 W/SF x (400 SF SIDE WALLS + 874 SF FRONT AND REAR) = 127.4 W

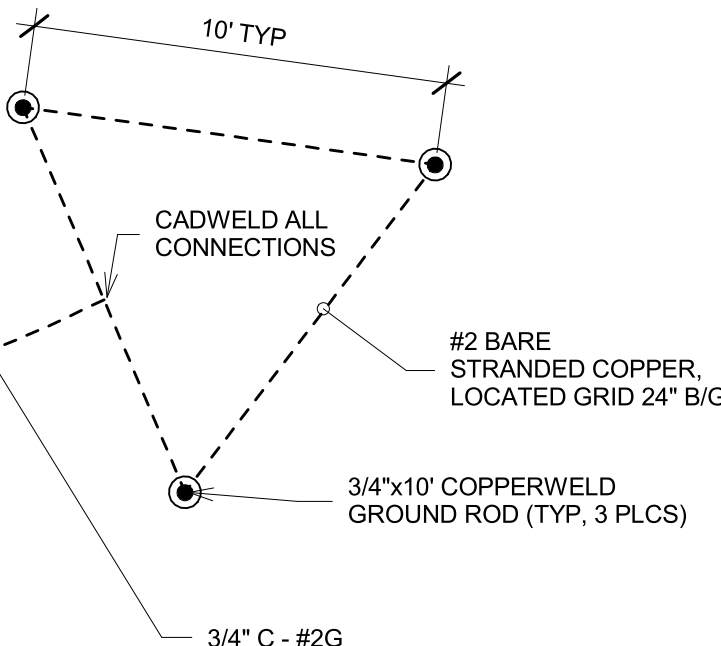
**TOTAL ALLOWED EXTERIOR LIGHTING POWER = 427.4 W, O.K.**



① LIGHTING PLAN  
1/4" = 1'-0"



② POWER PLAN  
1/4" = 1'-0"



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SEAL: 7-13-17

**ELECTRICAL PLANS AND DETAILS**

PROPOSED ENGINEERING DESIGN FOR THE  
**McCURRY PARK RESTROOM**  
185 McDONOUGH RD. - FAYETTEVILLE, GA 30215

NOTES:

TECH: JCW  
APPROVED: 7-10-17  
DATE: T17-034  
JOB NO.: 7 OF 9  
SHEET NUMBER: **E.1**

PLUMBING FIXTURE SCHEDULE								
MARK	MANUFACTURER	MODEL	DESCRIPTION	SANITARY	VENT	COLD	HOT	COMMENTS
DF	MDF	480 EZ WM	DRINKING FOUNTAIN	1 1/2"	1 1/4"	1/2"		
FCO	GENERIC	---	PVC CLEANOUT WITH CAP	3"				SEE CLEANOUT INSTALLATION DETAILS
FD	J.R. SMITH	2005	FLOOR DRAIN WITH GRATE	2"	1 1/2"			PROVIDE TRAP PRIMER, SET AT FINISHED FLOOR ELEVATION
HWC	AMERICAN STANDARD	3043.511	ADA FLUSH VALVE WC	4"	2"	1"		SLOAN ROYAL 111-1.28 FLUSHOMETER VALVE, 15" SEAT HEIGHT
LAV	AMERICAN STANDARD	0124.024	ADA WALL MOUNT LAV			1/2"	1/2"	FAUCET TO BE DELTA 515-WFHGMHDF, 516 METAL STRAINER
NFHB	WOODFORD	B65 SERIES				3/4"		
UR	AMERICAN STANDARD	6581.001EC	FLUSH VALVE URINAL	2"	1 1/2"	1"		SLOAN ROYAL 111-1.28 FLUSHOMETER VALVE, 17" RIM HEIGHT
WC	AMERICAN STANDARD		FLUSH VALVE WC	4"	2"	1"		SLOAN ROYAL 111-1.28 FLUSHOMETER VALVE, 16" SEAT HEIGHT

PLUMBING EQUIPMENT SCHEDULE						
MARK	MANUF.	MODEL	STORAGE CAP.	STORAGE TEMP.	1ST HR RECOVERY	COMMENTS
WH-1	A.O. SMITH	DEL-30	30 GAL	115 F	32 GAL	30 GALLON UPRIGHT WATER HEATER, (2) 3000 W ELEMENTS

BASIC MATERIALS & METHODS

- PROVIDE A COMPLETE PLUMBING SYSTEM, LEFT IN PROPER WORKING ORDER. PROVIDE HEREIN MEANS INSTALLED COMPLETELY, INCLUDING LABOR AND MATERIALS. CONTRACTOR RESPONSIBLE FOR ALL COST FOR REDESIGNS, REINSPECTIONS, ETC., CAUSED OR CREATED BY THE CONTRACTOR. SECURE AND PAY FOR ALL FEES, LICENSES, PERMITS, AND INSPECTIONS. COORDINATE AND VERIFY ALL DETAILS OF THE UTILITIES. MEET AND COMPLY WITH ALL FEDERAL, STATE, COUNTY AND CITY CODES AND REGULATIONS.
- THE INSTALLING CONTRACTOR PROVIDING FOR THIS WORK SHALL BE A FIRM LICENSED FOR THIS TYPE OF WORK AND SHALL PROVIDE COPIES OF LICENSES, BUSINESS LICENSES, BONDING LIMITS AND INSURANCE COVERAGE. THE CONTRACTORS FIELD PERSONNEL SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED PLUMBER(S).
- PROVISIONS INCLUDE LABOR, SUPPLIES AND MATERIALS, TOOLS 1EQUIPMENT, ETC. PROVIDE COMPLETE SUBMITTALS AND SHOP DRAWINGS ON ALL ITEMS. PRIOR APPROVAL IS REQUIRED FOR ANY SUBSTITUTIONS. PROVIDE FINAL CONNECTIONS TO ALL ITEMS. COORDINATE WITH OTHER TRADES PRIOR TO ROUGH IN AND PROVIDE ANY NECESSARY ADJUSTMENTS. CONTRACTOR IS RESPONSIBLE FOR MATERIAL SHIPPING, DELIVERY, RECEIVING, STORAGE & PROTECTION, EXCAVATION, BACKFILLING, CUTTING PATCHING AND CLEANING. ALL WORK AND MATERIALS SHALL BE GUARANTEED FOR ONE YEAR, PLUS ANY EXTENDED MANUFACTURER'S WARRANTIES. PROVIDE AS-BUILT REPRODUCIBLE RECORD DOCUMENTS, AND COMPLETE PARTS, MAINTENANCE AND SERVICE MANUALS, ALONG WITH THE NECESSARY TRAINING OF OWNER'S PERSONNEL.
- ALL MATERIALS SHALL BE NEW, AND CURRENTLY MANUFACTURED. ALL MATERIALS SHALL BE U.L. LABELED, AND MEET ALL INDUSTRY STANDARDS. PROVIDE PIPE LABELING FOR ALL POTABLE WATER AND OTHER LINES. PROVIDE 3000-PSI CLASS CONCRETE FOR EQUIPMENT BASES. BACKFILL % COMPACTION. PAINT ALL AND COMPACT FILL TO A MINIMUM OF 95 MATERIALS EXPOSED TO VIEW AS DIRECTED BY ARCHITECT. FIRE/SMOKE. SEAL EACH PENETRATION OF ANY RATED BARRIER (FLOOR, WALL, ETC).
- EXISTING CONDITIONS INFORMATION IS BASED ON HISTORICAL INFORMATION, CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO DEMOLITION/MODIFICATIONS AND IMMEDIATELY ADVISE OF ANY DISCREPANCIES. MAINTAIN CONTINUITY OF ALL EXISTING SYSTEMS. PROVIDE FOR REMOVAL, RECONNECTION, ETC. TO EXISTING SYSTEMS. PROVIDE 72 HOUR ADVANCE NOTICE (MIN.) OF ANY INTERRUPTIONS. INTERRUPTIONS OF TWO OR MORE HOURS SHALL BE AT NIGHTS OR WEEKENDS. REMOVED MATERIALS SHALL BECOME PROPERTY OF CONTRACTOR, UNLESS NOTED OTHERWISE.

GENERAL PIPING REQUIREMENTS

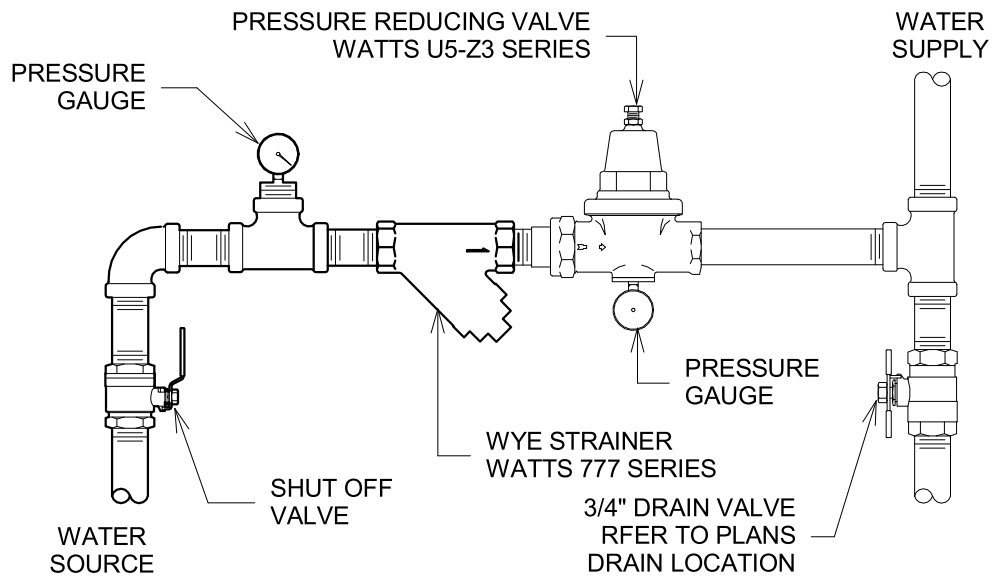
- DRAWINGS ARE DIAGRAMATIC TO INDICATE THE REQUIRED PLUMBING SYSTEM. EVERY FITTING AND DETAIL IS NOT NECESSARILY INDICATED. THE CONTRACTOR SHALL PROVIDE FOR AND INSTALL FOR A COMPLETE AND PROPERLY FUNCTIONING SYSTEM(S) IN A PROFESSIONAL MANNER. ALL WORK SHALL BE INSTALLED SO THAT VALVES AND OTHER WORKING COMPONENTS ARE ACCESSIBLE FOR SERVICE. PROVIDE FLUSH MOUNTED HINGED COVER ACCESS PANELS FOR ACCESS TO ANY CONCEALED VALVES, ETC.
- CONTRACTOR SHALL CHECK AND VERIFY THE UTILITY SOURCE WATER PRESSURE. IF THE PRESSURE EXCEEDS 80 PSI THE CONTRACTOR SHALL PROVIDE A LINE SIZE PRESSURE REDUCING VALVE, WATTS MODEL 223SB TYPE. ALL VENT, WATER, AND WASTE PIPING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS, UNLESS NOTED OTHERWISE. ANY PIPING ROUTED THROUGH COUNTER WORK SHALL BE LOCATED OUT-OF-THE-WAY TO THE REAR OF THE COUNTER AND WELL SECURED WITH THE COUNTER MANUFACTURER AND ARCHITECT FOR ROUTING OF ANY PIPING.
- ANY EXPOSED PIPING SHALL BE PROTECTED FROM PHYSICAL DAMAGE. ALL PIPING EXPOSED BELOW SINKS, LAVATORIES, ETC. SHALL BE INSULATED AND PROTECTED IN ACCORDANCE WITH ANSI/ADA REQUIREMENTS, UTILIZING PROWRAP BY MCGUIRE MANUFACTURING OR EQUAL.
- THE CONTRACTOR SHALL PROVIDE FINAL FIELD COORDINATION AND VERIFICATION OF THE EXACT LOCATION OF STUB-UP AND STUB-OUT LOCATION PRIOR TO ROUGH IN. EACH FLOOR SLAB PENETRATIONS SHALL FIRST BE CHECKED AND VERIFIED WITH STRUCTURAL TO AVOID STRUCTURAL DAMAGE. FLOOR SLAB PENETRATIONS SHALL BE SLEEVED AND SEALED. ALL FLOOR DRAINS, FLOOR SINKS, AND FLOOR CLEANOUTS SHALL BE FLASHED TO THE WATERPROOFING MEMBRANE AND SEALED. SLOPE FLOOR TO DRAIN PER ARCHITECTURAL REQUIREMENTS. ANY ROOF PENETRATIONS SHALL BE MADE AS DIRECTED BY OWNERS ROOFING INSTALLER TO MAINTAIN ROOF WARRANTY. PROVIDE ALL NECESSARY ROOF FLANGES, ETC.
- PIPING SUPPORT - PROVIDE PIPE HANGERS & SUPPORTS WITH WIDE SADDLES THAT SUPPORT BOTH THE INSULATION AND PIPING WITHOUT CRUSHING THE INSULATION. SPACE HANGERS TO PROVIDE NO MOVEMENT OR SAGGING BETWEEN SUPPORTS. PROTECT ALL PIPING PASSING THROUGH SLABS AND OTHER OPENINGS WITH SLEEVES. ALL PIPING PENETRATING WALLS, CEILINGS AND OTHER FINISHED SURFACES SHALL HAVE CHROME-PLATED ESCUTCHEONS. ALL PIPING PENETRATING EXTERIOR WALLS, ROOFS, ETC. SHALL BE FLASHED AND SEALED IN AN APPROVED MANNER. THE SW&V DESIGN IS BASED ON 1/4 INCH SLOPE PER FOOT. PROVIDE SLEEVES FOR ALL WALL AND OTHER PENETRATIONS.
- PIPING INSULATION - INSULATE ALL HW & CW PIPING SYSTEMS WITH 1/2 INCH THICK PREFORMED AND JACKETED INSULATION LABELED FOR USE IN RETURN AIR PLENUMS. INSULATION SHALL BE ARMAFLEX TYPE AP WITH MANUFACTURER'S RECOMMENDED ADHESIVE. INSULATE P-TRAPS OF CONDENSATE REMOVAL AND WATER HEATER RELIEFS WITH 1/2 INCH THICK PLENUM RATED ARMAFLEX OR EQUAL.
- THE CONTRACTOR SHALL TEST EACH WATER AND DRAINAGE PIPING SYSTEM, PRIOR TO COVERING UP ANY PIPING, IN ACCORDANCE WITH THE CODE. ALL TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. ANY DEFECTIVE MATERIALS SHALL BE REPLACED WITH NEW MATERIALS AND THE SYSTEM RETESTED. ONCE ALL WORK IS COMPLETED THEN EACH SYSTEM SHALL BE SANITIZED IN ACCORDANCE WITH THE CODE AND THEN FLUSHED CLEAN WITH POTABLE WATER.

WATER PIPING SYSTEM MATERIALS

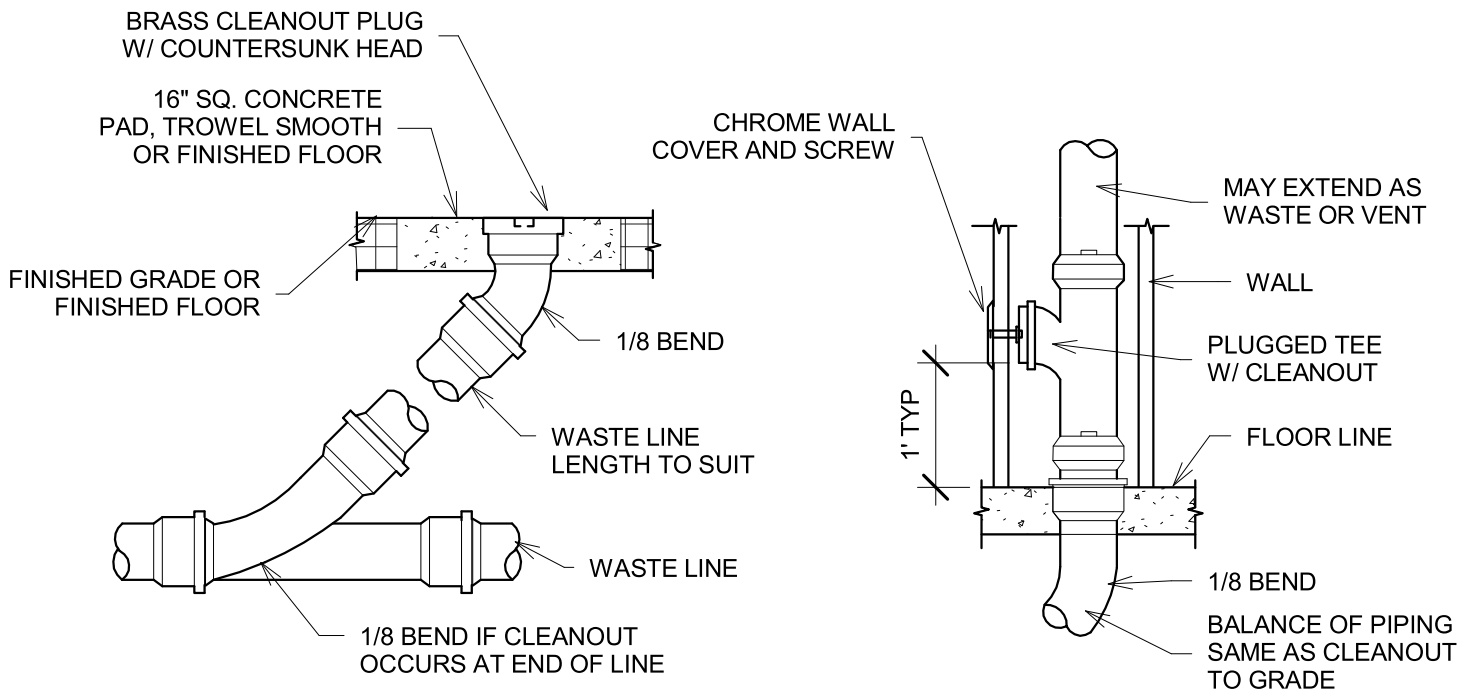
- WATER SERVICE UNDERGROUND - TYPE K COPPER TUBE, SEAMLESS AND JOINTLESS
- WATER PIPING IN GRADE - TYPE K HARD DRAWN COPPER WITH NO JOINTS OR CONNECTIONS.
- WATER PIPING ABOVE GRADE - TYPE L COPPER TUBE. SOLDER JOINT FITTINGS AND CONNECTORS, COPPER TO STEEL CONNECTIONS SHALL UTILIZE INSULATING UNIONS, CAPITOL MANUFACTURING OR EQUAL.
- FITTINGS & FIXTURE CONNECTIONS - FITTINGS SHALL BE APPROVED FOR THE PURPOSE. UTILIZE SWEAT JOINTS AND BE CAST OR WROUGHT IRON FITTINGS. PROVIDE STOP OR GATE VALVES ON EACH CW AND HW SUPPLY TO EACH FIXTURE. PROVIDE CHROME-PLATED ESCUTCHEONS AT EACH PIPE PENETRATION OF A FINISHED WALL OR SURFACE. PROVIDE UNION FITTING ON FIXTURE SIDE OF VALVE. PROVIDE LABELED STAINLESS STEEL FLEXIBLE TUBING WITH SLACK FOR CONNECTIONS TO ANY FIXTURE, EQUIPMENT OR ITEM THAT VIBRATES OR IS SUBJECT TO MOVEMENT.
- SOLDER - ALL SOLDER JOINTS SHALL UTILIZE NO-LEAD SOLDER, 95% TIN / 5 % ANTIMONY.
- GATE VALVES - PROVIDE LINE SIZE, BRASS OR BRONZE BODY, RATED FOR 125 PSI SHOCK WATER PRESSURE, CRANE, NIBCO, OR HAMMOND. TAG OR LABEL EACH VALVE.
- SHUT-OFF VALVES - PROVIDE CHROME PLATED VALVES, TO MATCH LINE SIZE AHEAD OF EACH EQUIPMENT WATER CONNECTION POINT. PROVIDE UNION CONNECTION ON FIXTURE SIDE.
- HOSE BIBBS - PROVIDE BRASS OR BRONZE CASING WITH BRONZE INTERIOR PARTS, REPLACEABLE SEAT AND SEAT WASHER. HOSE BIBBS SHALL HAVE VACUUM BREAKER FEATURE. HOSE BIBBS EXPOSED TO EXTERIOR OR UNCONDITIONED SPACES SHALL BE NON-FREEZE WALL HYDRANT TYPE.
- SHOCK ABSORBERS - SHALL BE PROVIDED AND INSTALLED PER P.D.I. STANDARDS, UTILIZE J.R. SMITH HYDROTOL WATER HAMMER ARRESTERS, SIZED PER THE MANUFACTURER'S RECOMMENDATION.
- GAUGES - PRESSURE GAUGES SHALL BE STAINLESS STEEL CASE & RING WITH BALANCED ADJUSTABLE POINTER AND BRASS SOCKET, 4.5 INCH DIAL, WITH PISTON TYPE PRESSURE SNUBBERS AND BRASS NEEDLE VALVES. 0-200 PSI FOR WATER SERVICE GAUGES. 0-100 PSI FOR WATER DISTRIBUTION SYSTEM. TEMPERATURE GAUGES SHALL BE ADJUSTABLE ANGLE TYPE WITH RED READING GAUGE AGAINST A CONTRASTING TEMPERATURE SCALE.
- TESTING - ALL PIPING SYSTEM(S) SHALL BE PRESSURE TESTED, BEFORE INSULATED & CONCEALED, AT 125 PSI AND HOLD THIS PRESSURE WITH NO LOSS FOR 24 HOURS.
- DISINFECTION - THE COMPLETE PIPING SYSTEM(S) SHALL BE DISINFECTED IN ACCORDANCE WITH THE CODE, THEN FLUSHED CLEAN. ALL FIXTURES SHALL BE CLEANED PRIOR TO DISINFECTION. A WATER SAMPLE FROM THE FURTHERMOST OUTLET SHALL BE TAKEN AND TESTED BY AN INDEPENDENT LAB TO CERTIFY THE WATER QUALITY.

SOIL, WASTE & VENT PIPING SYSTEM MATERIALS

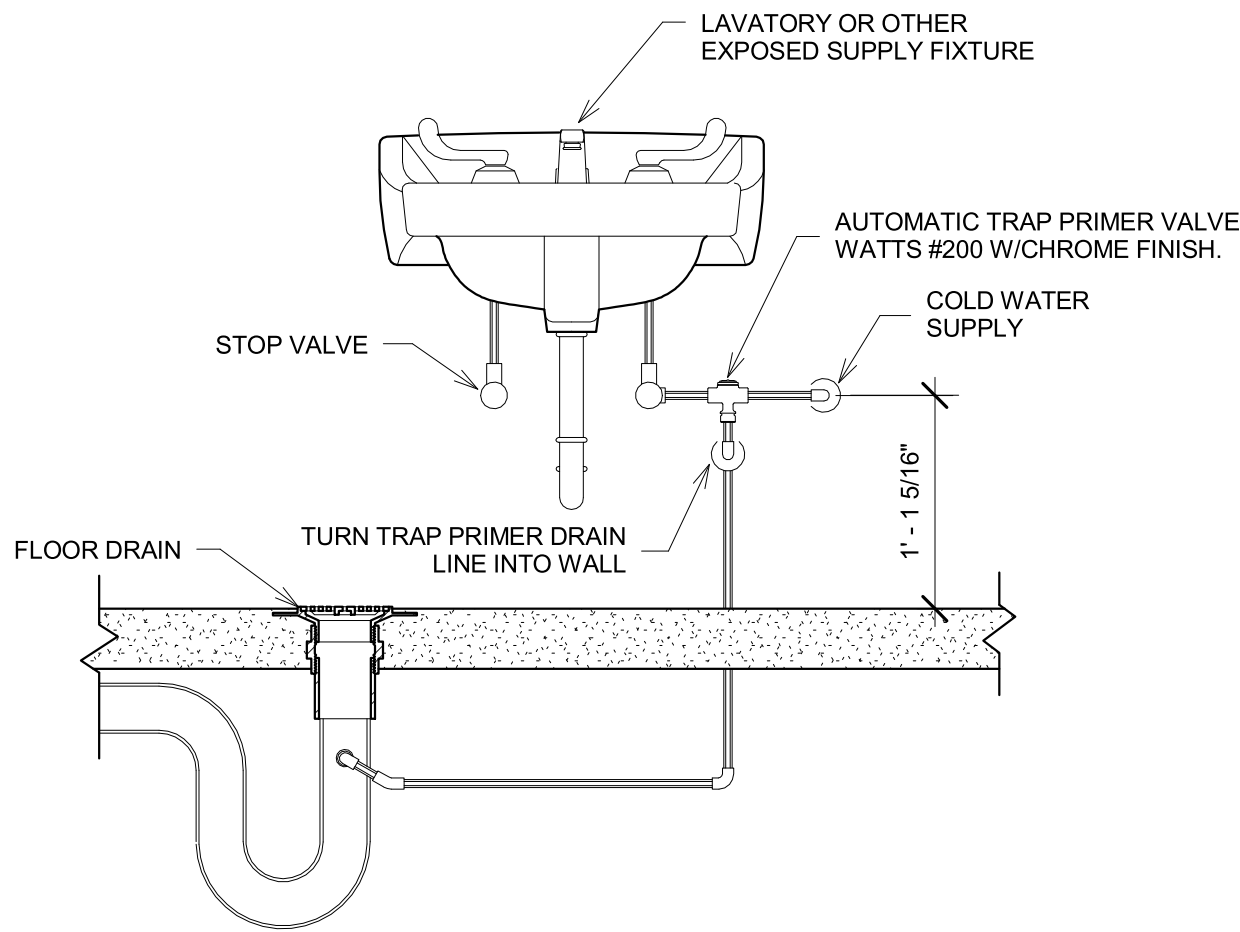
- SOIL, WASTE & VENT PIPING IN GRADE - SERVICE WEIGHT CAST IRON WITH HUB & SPIGOT JOINTS OR SCH 40 PVC.
- SOIL, WASTE & VENT PIPING ABOVE GRADE - HUBLESS CAST IRON PIPE WITH POSITIVE-SEAL ONE PIECE ELASTOMERIC COMPRESSION TYPE GASKET NO-HUB FITTINGS WITH STAINLESS STEEL CLAMPS OR SCH 40 PVC.
- P-TRAPS - PROVIDE ALL FIXTURES WITH P-TRAP SIZED IN ACCORDANCE WITH CODE.
- CLEANOUTS - SHALL BE PROVIDED PER CODE. WALL CLEANOUTS SHALL BE EXTRA HEAVY TEE WITH COUNTERSUNK BRONZE PLUG AND STAINLESS STEEL ACCESS COVER, J.R. SMITH 4531 OR 4402 SERIES. IN FLOOR CLEANOUTS SHALL BE ADJUSTABLE TYPE WITH COUNTER SUNK PLUG, J.R. SMITH 4245 OR 4045 TO MATCH FLOOR TYPE. IN GRADE CLEANOUTS SHALL BE CAST IRON FERRULE WITH COUNTERSUNK BRONZE PLUG SET IN A 12" X 12" X 6" D CONCRETE PAD, J.R. SMITH 4250 (IF SCHEDULE MAKE AND MODEL PROVIDED, CONTRACTOR SHALL USE SCHEDULE CALL OUT IN LEIU OF THIS NOTE).



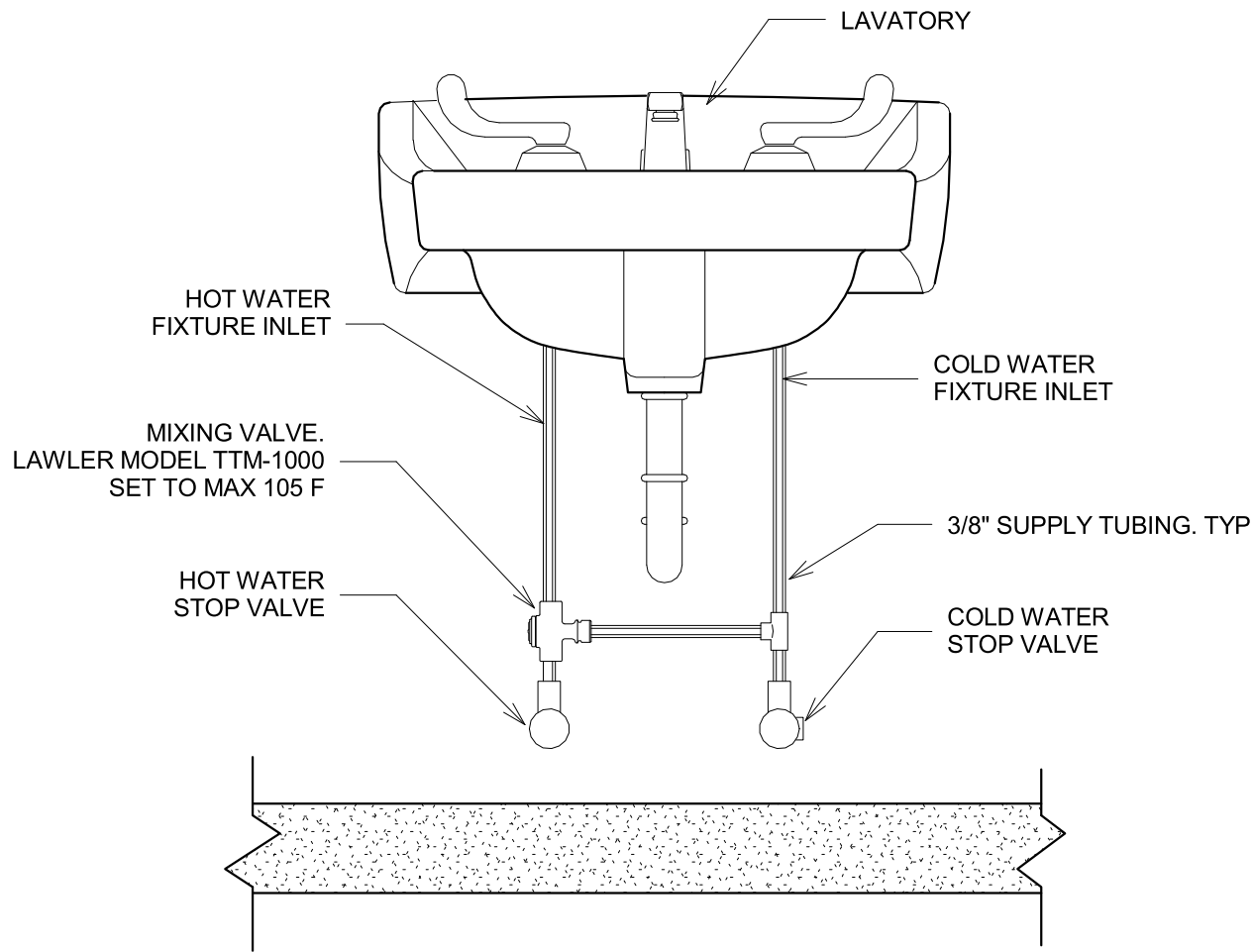
1 PRESSURE REGULATOR DETAIL  
1" = 1'-0"



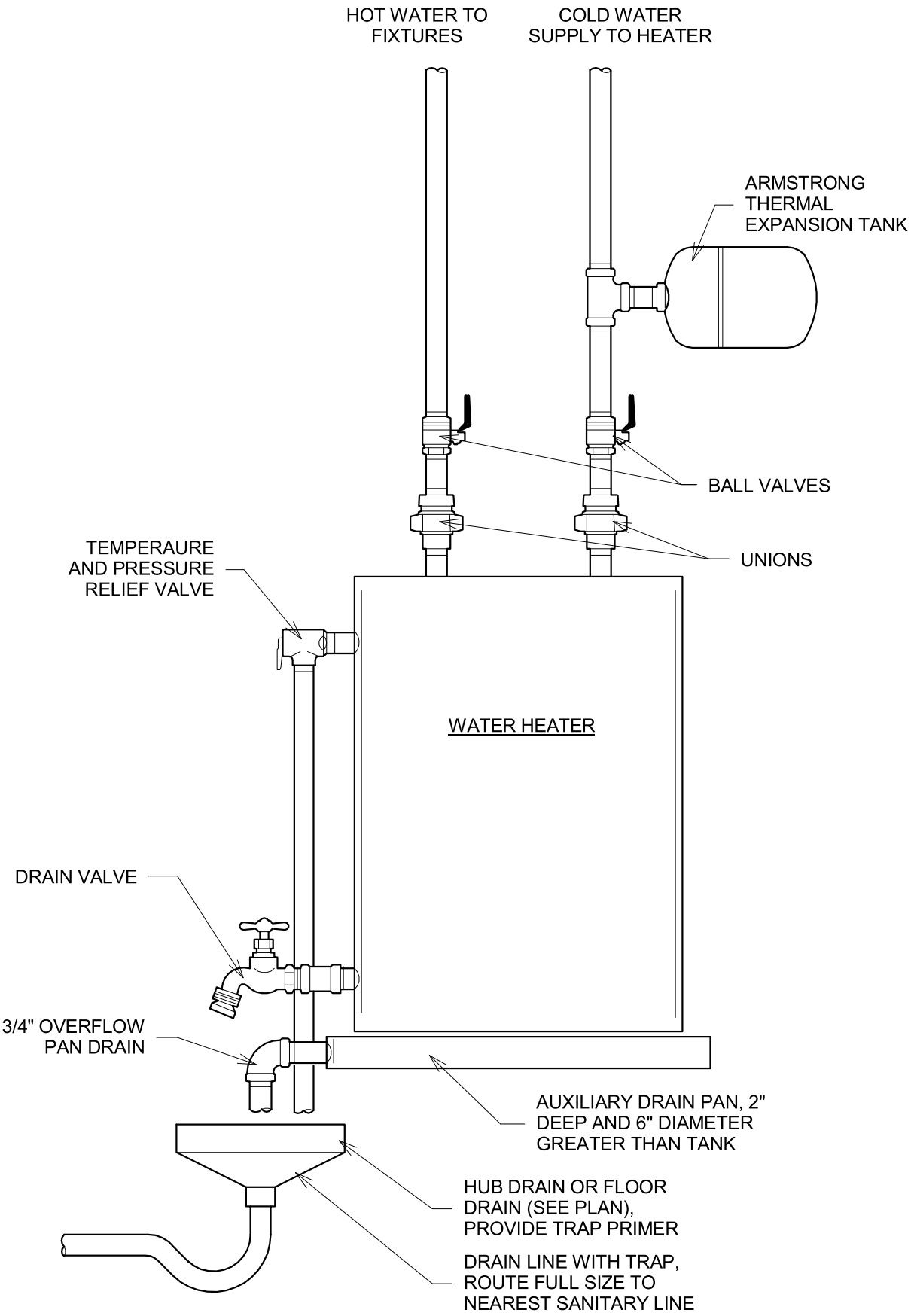
2 CLEANOUT DETAIL  
1" = 1'-0"



3 TRAP PRIMER DETAIL  
1" = 1'-0"



4 MIXING VALVE DETAIL  
1 1/2" = 1'-0"



5 WATER HEATER DETAIL  
1" = 1'-0"

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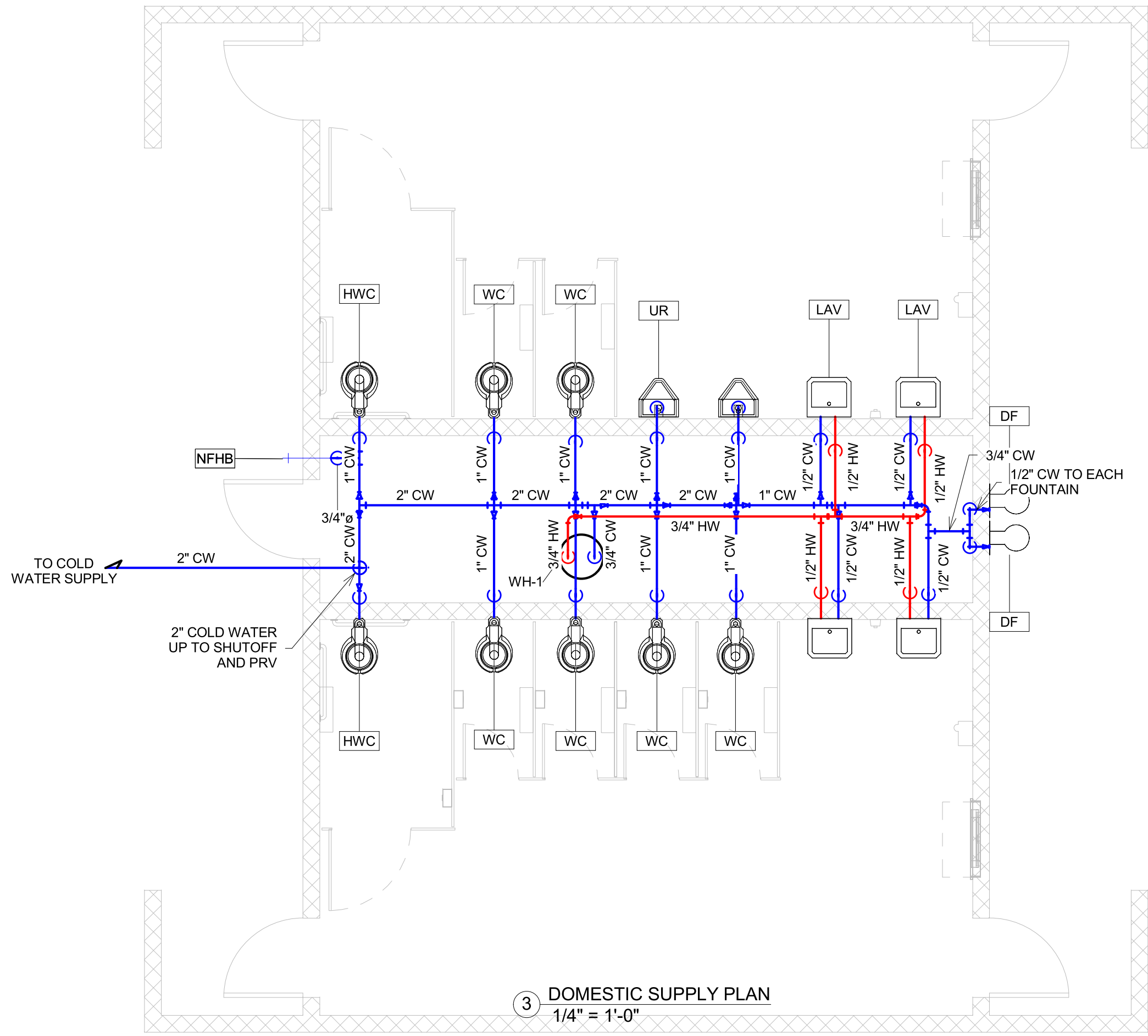
PLUMBING NOTES AND DETAILS

PROPOSED ENGINEERING DESIGN FOR THE  
**McCURRY PARK RESTROOM**  
185 McDONOUGH RD., FAYETTEVILLE, GA 30215

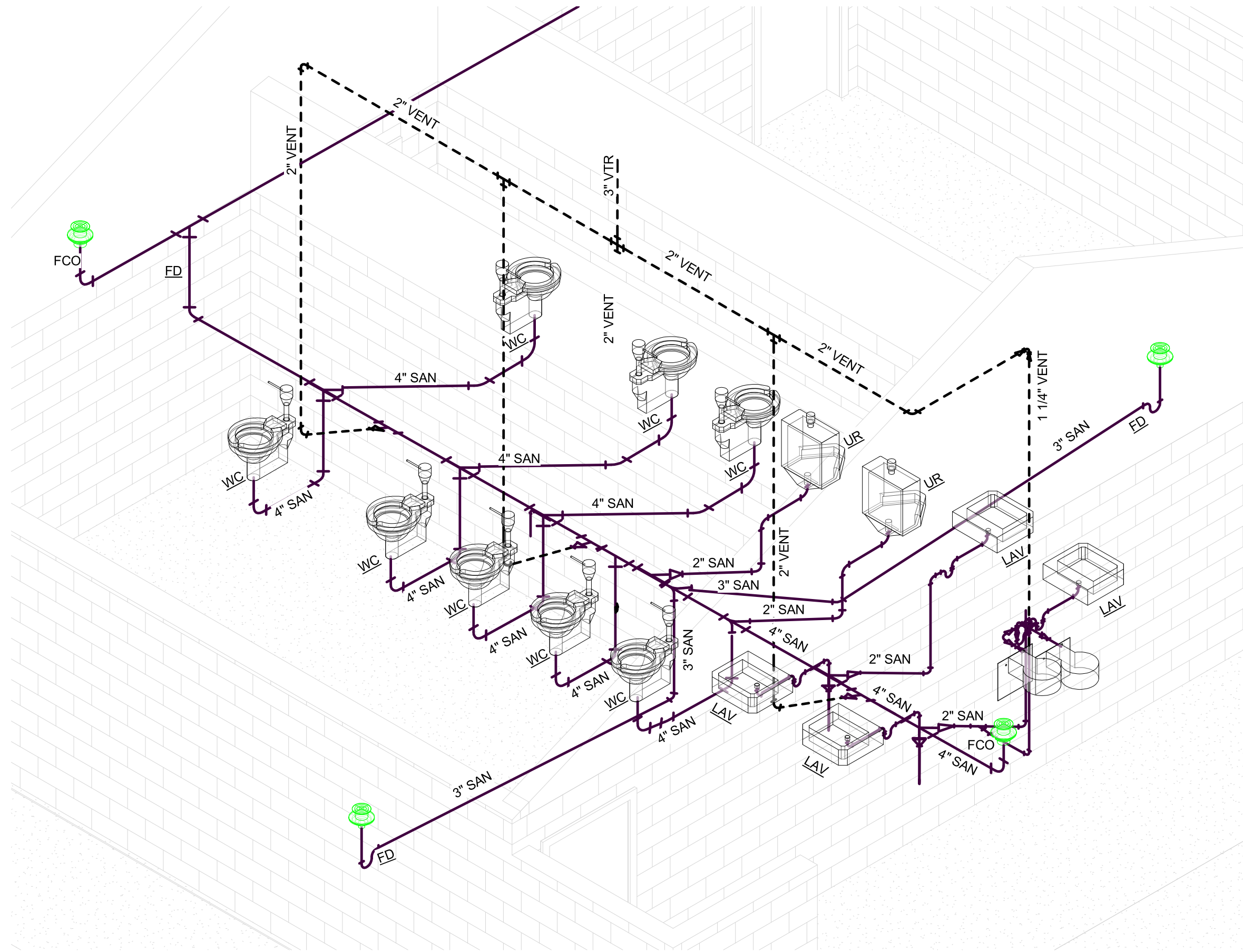
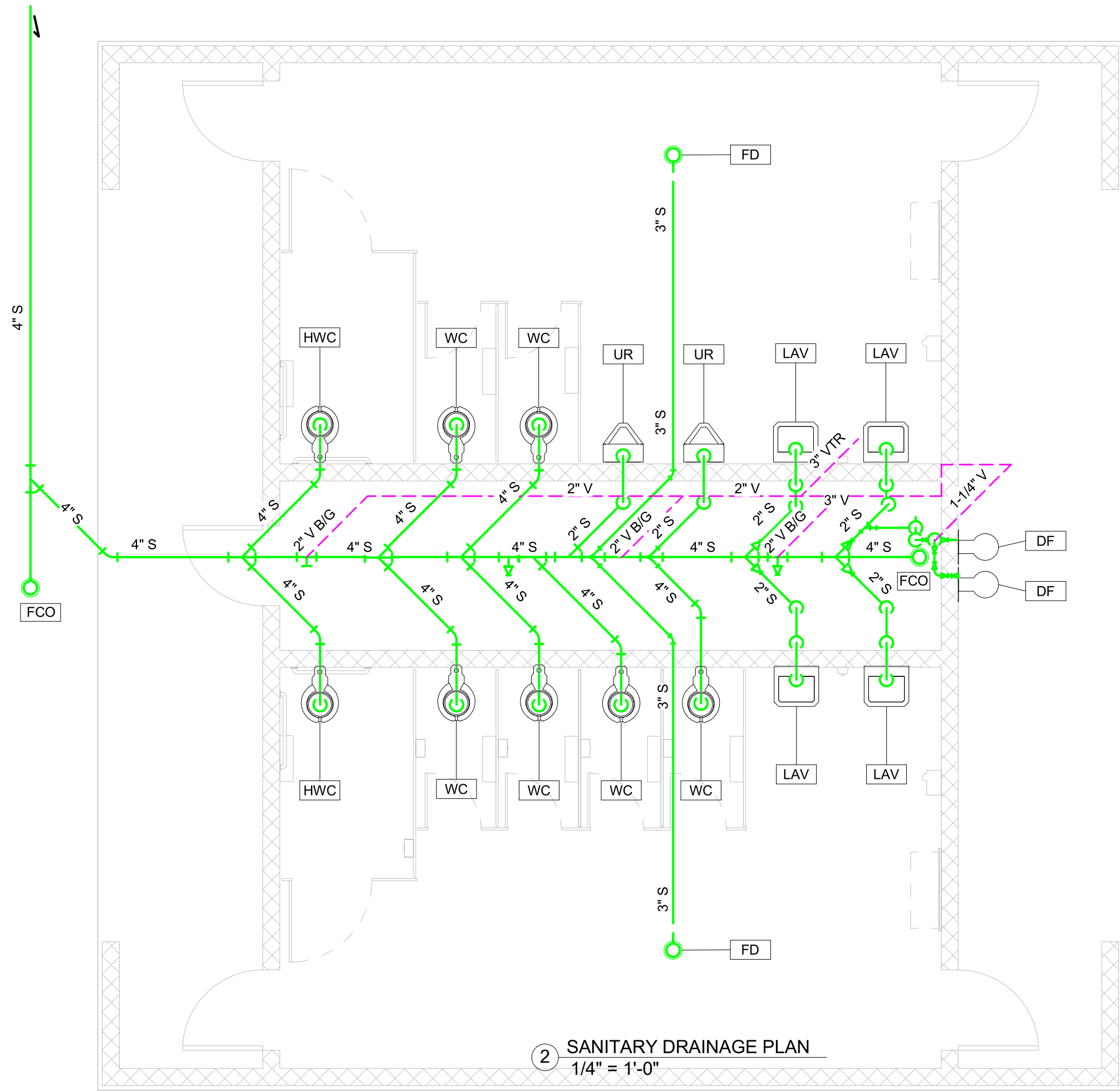
NOTES:

DRAWN:	TECH	JCW
APPROVED:	DATE:	7-10-17
JOB NO.:	T17-034	
SHEET:	8 OF	9
SHEET NUMBER:	P.0	

Exhibit C



4" SANITARY TO SEPTIC  
SYSTEM BY OTHERS

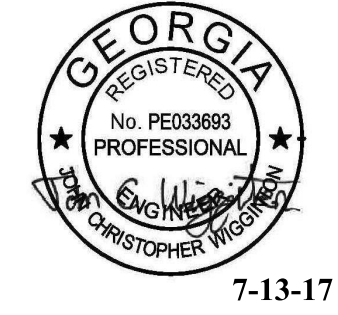


PLAN NOTES:

- SANITARY VENTING SYSTEM HAS BEEN DESIGNED TO UTILIZE CIRCUIT VENTS AS PRESCRIBED IN THE IPC 2012 SECTION 914. THIS SECTION ALLOWS FOR UP TO (8) FIXTURES TO BE VENTED FROM A SINGLE DRY VENT ATTACHING TABOVE TYE CENTERLINE OF A MAIN BRANCH SERVING AS A WET VENT. IN BETWEEN THE TWO MOST UPSTREAM FIXTURES. THE VENT MUST BE SIZED TO ACCOMODATE ALL SERVED FIXTURES, AND THE BRANCH SHALL BE SIZED TO ACCOMODATE THE DRAINAGE FFROM ALL FIXTURES CIRCUIT VENTED ALONG ITS ENTIRE LENGTH. THE CIRCUIT VENT SHALL BE EXTENDED UP AT 45 DEGREES TO THE HORIZONTAL, AND SHALL RISE ABOVE THE SLAB VERTICALLY AT LEAST 6" ABOBE RIM FLOOD LEVEL OF THE TALLEST FIXTURE, BEFORE TURNIGN HORIZONTAL.
- IF THE CIRCUIT VENTING SYSTEM SHOWN REQUIRES EXCESSIVE FALL FROM THE MOST UPSTREAM FIXTURE TO THE SEPTIC SYSTEM, SINGULAR, MORE TRADITIONAL VENTING MAY BE SUBSTITUTED, WITH ONE VENT PER FIXTURE SIZED IN ACCORDANCE WITH THE FIXTURE SCHEDULE PROVIDED. ENGINEERING APPROVAL FOR THIS CHANGE SHALL BE REQUESTED BY THE CONTRACTOR.

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PLUMBING PLANS

PROPOSED ENGINEERING DESIGN FOR THE  
**McCURRY PARK RESTROOM**  
185 McDONOUGH RD. FAYETTEVILLE, GA 30215

NOTES:

DRAWN: HEH  
APPROVED: JCW  
DATE: 7-10-17  
JOB NO.: T17-034  
SHEET: 9 OF 9  
SHEET NUMBER: **P.1**