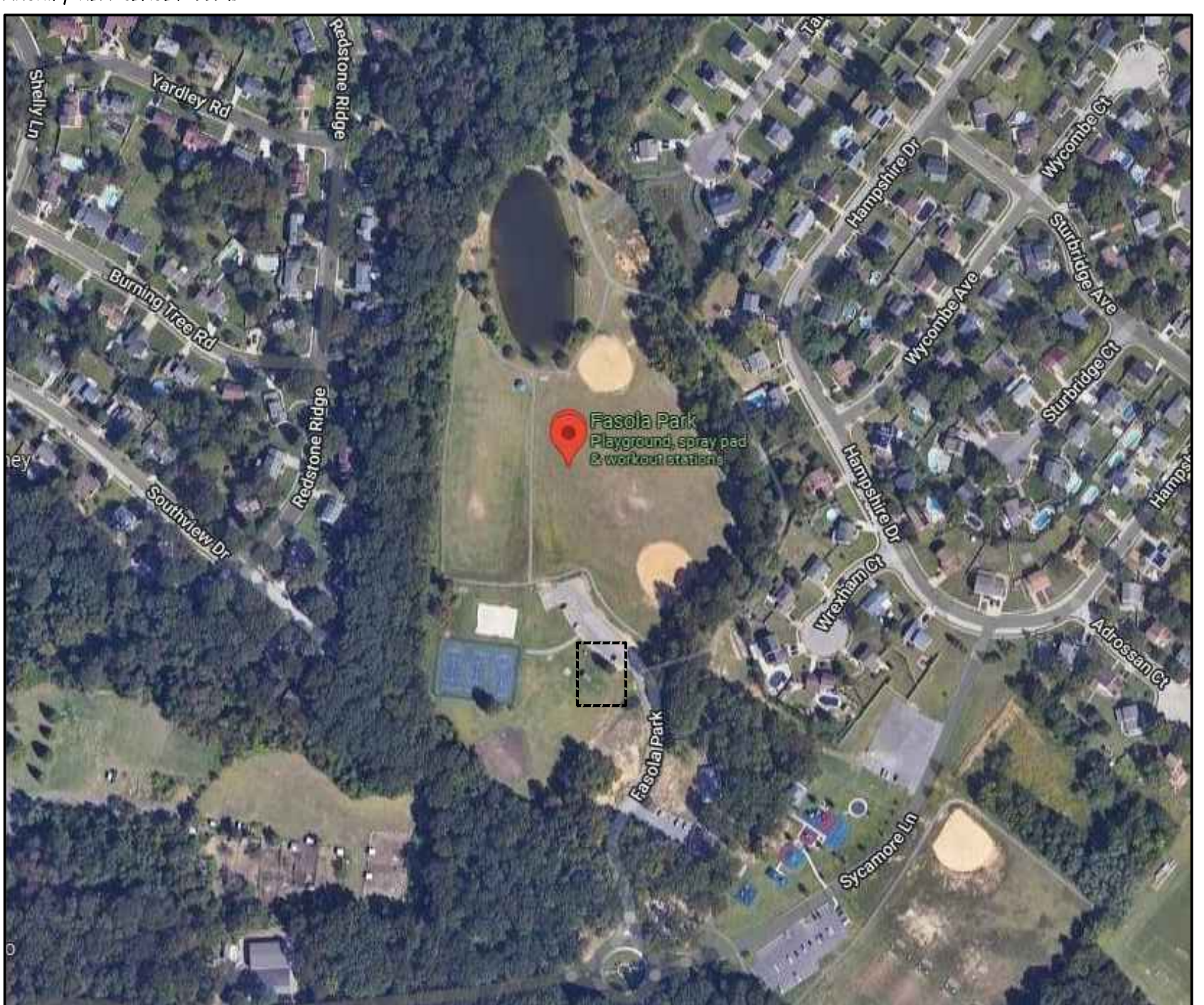


# NEW RESTROOM BUILDINGS FOR FASOLA PARK AND ANDALORO FARM

DRAWING INDEX			CONSULTANTS								
FASOLA PARK	ANDALORO FARM	SITE IMPROVEMENTS & UTILITIES									
PD-1 PROJECT DATA SHEET  <u>ARCHITECTURE</u>  A-1 PLANS & DETAILS A-2 BUILDING ELEVATIONS A-3 BUILDING SECTIONS, WALL SECTIONS & DETAILS A-4 ROOF PLAN & ROOF FRAMING PLAN  <u>ENGINEERING DRAWINGS</u>  M-1 FIRST FLOOR MECHANICAL PLAN, MECHANICAL PLANS * DETAILS  E-1 FIRST FLOOR POWER & LIGHTING PLAN  P-1 FIRST FLOOR PLUMBING PLAN P-2 PLUMBING SCHEDULES & DETAILS	PD-1 PROJECT DATA SHEET  <u>ARCHITECTURE</u>  A-1 PLANS & DETAILS A-2 BUILDING ELEVATIONS A-3 BUILDING SECTIONS, WALL SECTIONS & DETAILS A-4 ROOF PLAN & ROOF FRAMING PLAN  <u>ENGINEERING DRAWINGS</u>  M-1 FIRST FLOOR MECHANICAL PLAN, MECHANICAL SCHEDULES & DETAILS  E-1 FIRST FLOOR POWER & LIGHTING PLAN  P-1 FIRST FLOOR PLUMBING PLAN P-2 PLUMBING SCHEDULES & DETAILS	1 - LEGEND & NOTES  2 - EXISTING CONDITIONS- FASOLA PARK 3 - GENERAL UTILITY PLAN- FASOLA PARK 4 - SITE GRADING & UTILITY PLAN- FASOLA PARK  5 - EXISTING CONDITIONS- ANDALORO FARM 6 - SITE GRADING & UTILITY PLAN- ANDALORO FARM  7 - CONSTRUCTION DETAILS- BOTH PROJECTS 8 - CONSTRUCTION DETAILS- BOTH PROJECTS  9 - SOIL EROSION & SEDIMENT CONTROL PLANS- BOTH PROJECTS 10 - SOIL EROSION & SEDIMENT CONTROL PLANS- BOTH PROJECTS	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>ARCHITECT</u> MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J. 08034 TEL: (856) 616-2960 FAX: (856) 616-2463</p> </div> <div style="width: 45%;"> <p><u>MEP ENGINEER</u> HOLSTEIN WHITE INC. 210 E. STREET ROAD, SUITE 2D FEASTERVILLE, PA 19053 TEL: (215) 322-7711 FAX: (215) 322-7709</p> </div> </div> <hr/> <p style="text-align: center;"><u>TOWNSHIP ENGINEER</u></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>SITE ENGINEER</u> BRYSON &amp; YATES CONSULTING ENGINEERS 307 GREENTREE ROAD SEWELL, NJ 08080 TEL: (856) 589-1400 FAX: (856) 582-7476</p> </div> </div>								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">No.</th> <th style="width: 10%;">DATE</th> <th style="width: 75%;">DESCRIPTION</th> <th style="width: 10%;">REV'D BY</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>				No.	DATE	DESCRIPTION	REV'D BY	REVISIONS			
No.	DATE	DESCRIPTION	REV'D BY								
REVISIONS											
<p>APPROVAL:</p>		<p>PROJECT: <b>NEW RESTROOM BUILDINGS FOR FASOLA PARK &amp; ANDALORO FARM</b></p>									
<b>Joseph F. McKernan Jr., Architects &amp; Associates</b> 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		<p>TITLE: <b>COVER SHEET</b></p>									
<p>SEAL: JOSEPH F. MCKERNAN JR., R.A. REGISTERED ARCHITECT - PA 0000000000 - 07 0000 0000</p>		<p>SCALE: AS NOTED DRAWING NO: <b>CS-1</b></p>									

# NEW RESTROOM BUILDING FOR FASOLA PARK

12 SYCAMORE LANE,  
DEPTFORD TOWNSHIP, NJ 08096

ABBREVIATIONS	SYMBOLS	LOCATION MAP	DRAWING INDEX- FASOLA PARK	BUILDING CHARACTERISTICS- FASOLA PARK											
<p>AL. TH. ALUMINUM THRESHOLD A.T. AIR TERMINAL B.L.P. BURNISHED LIGHT PANEL B.P. BEARING PLATE BRG. BEARING BRK. BRICK C.A.B.C. CABINET C.A.R.P. CARPET C.B. CATCH BASIN C.J. CONTROL JOINT C.L. CEILING C.L. CLOSET C.L.L. CONTRACT LIGHT LINE C.L.R. CLEAR - CLEARANCE C.I. CAST IRON C.M.U. CONCRETE MASONRY UNIT C.O. CLEAN OUT C.O.L. CULPIN C.O.N.C. CONCRETE C.O.N.T. CONTINUOUS C.O.N.T.R. CONTRACTOR C.O.R.R. CORRIDOR C.O.R.R.U. CORRUGATED C.S. CONSTRUCTION SHIMMING C.S.P. CONSTRUCTION SHIMMING PAINTED C.T. CERAMIC TILE C.T.C.B. CERAMIC TILE COVE BASE C.H. COLD WATER D.E.P.O. DEPOLISH D.A. DIAMETER D.F. DRINKING FOUNTAIN D.L. DOUBLE LOAD D.R. DOOR D.W.G. DRAWING D.R. DRAWING E.A. EACH E.L.E.C. ELECTRIC - ELECTRICAL E.L.E.V. ELEVATION E. P.N.L. ELECTRICAL PANEL E.Q.U.I.P. EQUIPMENT E.M.C. ELECTRIC WATER COOLER E.P. J.T. EXPANSION JOINT E.H. EXHAUST E.X.I.S.T.G. EXISTING E.T.R. EXISTING TO REMAIN F.A.B.C. FINE AGGREGATE BITUMINOUS CONCRETE F.B. FACE BRICK F.D. FLOOR DRAIN F.E. FIRE EXTINGUISHER F.N. FL. FINISH FLOOR F.N. GR. FINISH GRADE F.L. FLOOR F.D.N. FOUNDATION F.T.G. FOOTING G.Y.P. GYPSUM BOARD H.R.D. HD. HARDWOOD I.N.S.U.L. INSULATION I.N.T. INTERIOR I.N.V. INVERT J.A.N. JANITOR J.S.T. JOIST J.T. JOINT K.I.T. KITCHEN L.A.V. LAVATORY L.I.K.T. LIGHT HEIGHT L.F. LINEAR FEET M.A.X. MAXIMUM M.B.T.H. MARBLE THRESHOLD M.E.C.H. MECHANICAL M.F.R. MANUFACTURER M.F.N. FINISH M.F.R. FINISOR M.O. MASONRY OPENING M.T.P. METAL TOILET PARTITION M.R. MAT RECESS M. REC. MOP RECEPTOR M.T.L. METAL THRESHOLD M.T.L. METAL N.L.C. NOT IN CONTRACT N.T.S. NOT TO SCALE O.C. ON CENTER O.D. OUTSIDE DIAMETER O.F. OFFICE O.H.D. OVERHEAD DOOR O.P.N.G. OPENING O.P.N.G. OPENING P.E.R.F. PERFORATED P.L.A.S.T. PLASTIC P.L.A.T. PLATFORM P.L.Y.W.O.O.D. PLYWOOD P.S.F. POUNDS PER SQUARE FOOT P.S.I. POUNDS PER SQUARE INCH P.T. PORCELAIN TILE P.T.C.B. PORCELAIN TILE COVE BASE P.T.D. PAINTED P.V.C. POLYVINYL CHLORIDE Q.T. QUARRY TILE Q.T.C.B. QUARRY TILE COVE BASE R. RISER R.A.D. RADIUS R.D. ROOF DRAIN R.E.Q.D. REQUIRED R.O.O.F.I.N.G. ROOFING R.F.S. RECESSED FLOOR SLEEVE R.H. ROOF R.O. ROUGH OPENING R.O.M. RIGHT OF WAY R.W.C. RAIN WATER CONDUCTOR S.A. SOUND ATTENUATION BLANKET S.A.N. SANITARY S.C.H.E.D.U.L.E. SCHEDULE S.D. SOAP DISPENSER S.E.C.T. SECTION S.E.R. SINK S.L. SKYLIGHT S.P.E.C. SPECIFICATIONS S.S. SERVICE SINK S.T.L. STEEL S.T.S.L. STAINLESS STEEL S.T.O.R. STORAGE S.U. SINK UNIT T. TREAD T.O.K. TOP OF CONCRETE T.O.M.S. TONGUE AND GROOVE T.I.L. THRESHOLD T.I.K. THICK - THICKNESS T.O.F. TOP OF FOOTING T.O.M. TOP OF MASONRY T.O.S. TOP OF STEEL T.P.N.L. TELEPHONE PANEL T.P. TYPICAL T.P. TOILET PARTITION U.C. UNDERCUT U.D. UNIT OVERHUNG U.G. UNDERGROUND U.H. UNIT HEATER U.N.D.E.R. UNDESIGNATED OTHERWISE U.S. UNDER SLAB U.V. UNIT VENTILATOR V. VENT V.C.B. VINYL COVE BASE V.C.T. VINYL COMPOSITION TILE V.S.B. VINYL STRAIGHT BASE V.E.S.T. VESTIBULE V.T.R. VENT THRU ROOF W. WITH W.A.R.N.E.R. W.R. CEMENTATION BACKER W.C. WATER CLOSET W.D. WOOD W.I.T.H.O.U.T. WITHOUT W.H.S.C.T. HANSCOT M.T.L. MOTT M.H.E.L.D. HELD WIRE MESH</p>	<p>EARTH COMPACTED FILL CONCRETE CONCRETE BLOCK SPLIT FACE BLOCK BRICK STEEL RIGID INSULATION BATT INSULATION FINISH LUMBER ROUGH LUMBER SECTION NUMBER SECTION INDICATOR SHEET NUMBER ELEVATION DOOR NUMBERS ROOM NUMBERS F.E. FIRE EXTINGUISHERS MASONRY WALL CEILING HTD.LIGHT FIXTURES EXHAUST FAN E.F. FLOOR DRAIN</p>	<p>LOCATION MAP SITE LOCATION 12 SYCAMORE LN, DEPTFORD TOWNSHIP, NEW JERSEY 08096</p>  <p>LIST OF CONSULTANTS</p> <table border="1"> <tr> <td> <p><b>ARCHITECT</b> MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J 08034 TEL: (856) 616-2960 FAX: (856) 616-2963</p> </td> <td> <p><b>M.E.P. ENGINEER</b> HOLSTEIN WHITE INC. 210 E. STREET ROAD, SUITE 2D FEASTERVILLE, PA 19053 TEL: (215) 322-7711 FAX: (215) 322-7709</p> </td> <td> <p><b>SITE ENGINEER</b> BRYSON &amp; YATES CONSULTING ENGINEERS 307 GREENTREE ROAD SEWELL, NJ 08080 TEL: (856) 589-1400 FAX: (856) 582-7476</p> </td> </tr> </table> <p>TOWNSHIP ENGINEER</p>	<p><b>ARCHITECT</b> MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J 08034 TEL: (856) 616-2960 FAX: (856) 616-2963</p>	<p><b>M.E.P. ENGINEER</b> HOLSTEIN WHITE INC. 210 E. 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CODE- 2018 INTERNATIONAL EMERGENCY CODE- 2018</p>	<p>BUILDING CHARACTERISTICS- FASOLA PARK</p> <p>BLOCK _____ 223 LOT _____ 64</p> <p>USE GROUP _____ U</p> <p>CONSTRUCTION TYPE _____ III (1 STORY MASONRY STRUCTURE)</p> <p>NUMBER OF STORIES _____ 1</p> <p>HEIGHT OF STRUCTURE _____ 11'7"</p> <p>BUILDING AREA _____ 1804 S.F.</p> <p><b>ROOF DESIGN LOADS</b></p> <p>LIVE LOAD ----- 30 P.S.F. SHINGLE ROOF ----- 7 CEILING AND MISC. ----- 7 TOTAL ----- 44</p> <p><b>MISCELLANEOUS LOADS</b></p> <p>WIND LATERAL ----- 20 P.S.F. &amp; 1/3 FOR IMPACT WIND UPLIFT LOAD ON CANOPIES &amp; OVERHANGS ----- 40 P.S.F. WIND UPLIFT ON GENERAL ROOF AREA ----- 15 P.S.F. SEISMIC LOADS ----- SAME AS WIND LATERAL LOADS SNOW LOADS ----- 20 P.S.F.</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>REV'D BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>APPROVAL</p> <p>PROJECT: <b>NEW RESTROOM BUILDING FOR FASOLA PARK</b> 12 SYCAMORE LN, DEPTFORD TOWNSHIP, NJ 08096</p> <p>TITLE: <b>PROJECT DATA SHEET</b></p> <p>SEAL: <b>Joseph F. McKernan Jr., Architects &amp; Associates</b> 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034</p> <p>SCALE: AS NOTED DRAWING NO: <b>PD-1</b> DATE: 9/23/22 REV'D: _____ DRAWN BY: TC CHECKED BY: _____</p>	NO.	DATE	DESCRIPTION	REV'D BY				
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NO.	DATE	DESCRIPTION	REV'D BY												

DOOR SCHEDULE											
DOOR NO.	OPENING SIZE	TYPE	THICK	MAT.	FRAME					REMARKS	
					TYPE	MAT.	HEAD	JAMB	SILL		HDW. SET
1	3'-0" x 7'-0"	1	2"	FRP	A	AL.	2	2	AL.	1	KICKPLATE
2	3'-0" x 7'-0"	1	2"	FRP	A	AL.	2	2	AL.	1	KICKPLATE
3	3'-0" x 7'-0"	1	2"	HM	A	HM	1	1	-	2	

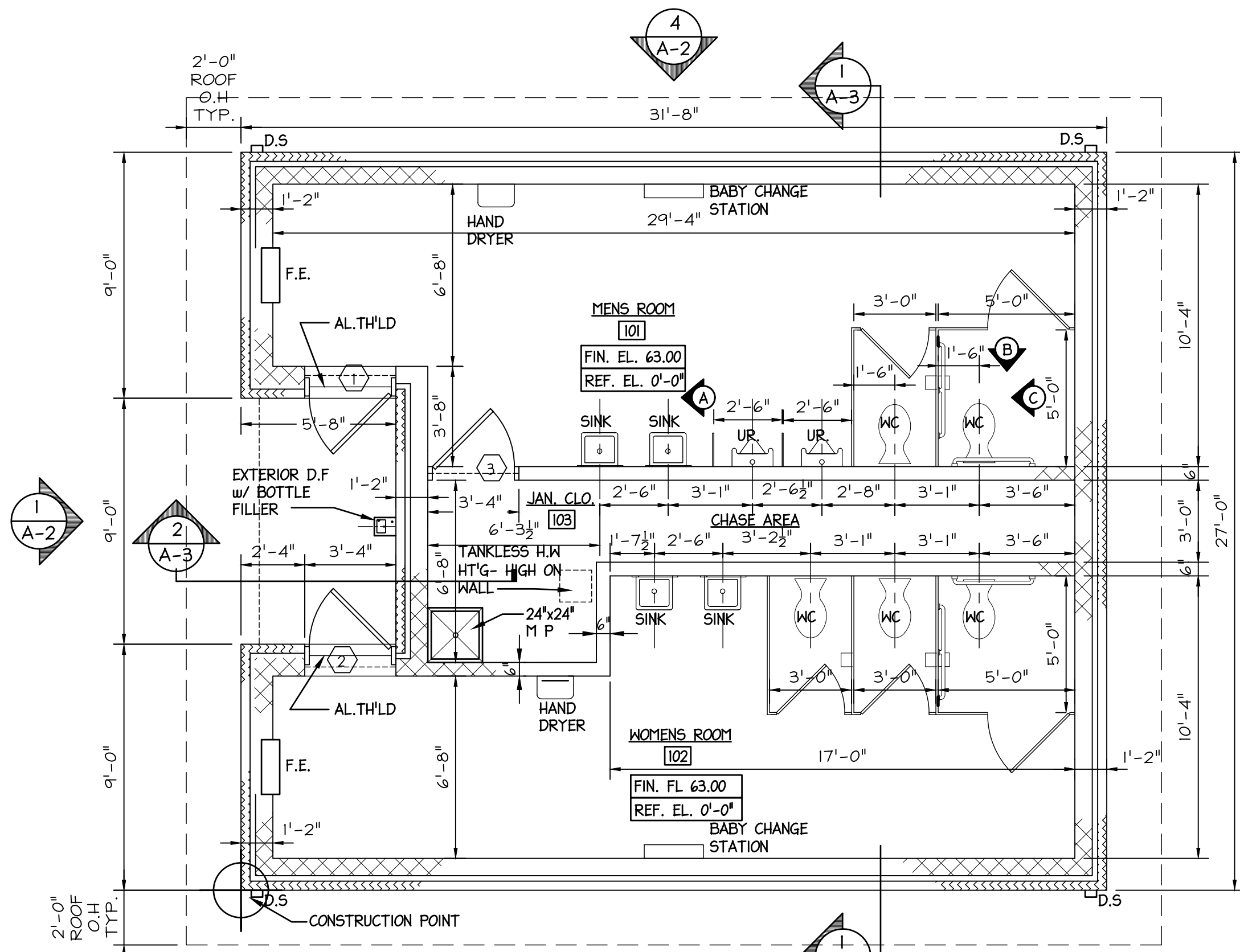
ROOM FINISH SCHEDULE: RENOVATED AREA (FIRST FLOOR)							
ROOM NO.	ROOM NAME	FLOOR	WALLS	CEILING	HEIGHT	REMARKS	
101	WOMENS ROOM	RESINOUS FLOORING	EPOXY PTD.	PTD. GYP. BD.	10'-0"	RESINOUS FLR. COATING- EXTEND 4" UP WALL	
102	MENS ROOM	RESINOUS FLOORING	EPOXY PTD.	PTD. GYP. BD.	10'-0"	RESINOUS FLR. COATING- EXTEND 4" UP WALL	
103	JANITORS CLOSET	CONCRETE	---	---	---	#SEAL CONC. FLOOR SLAB	

**GENERAL NOTES:**

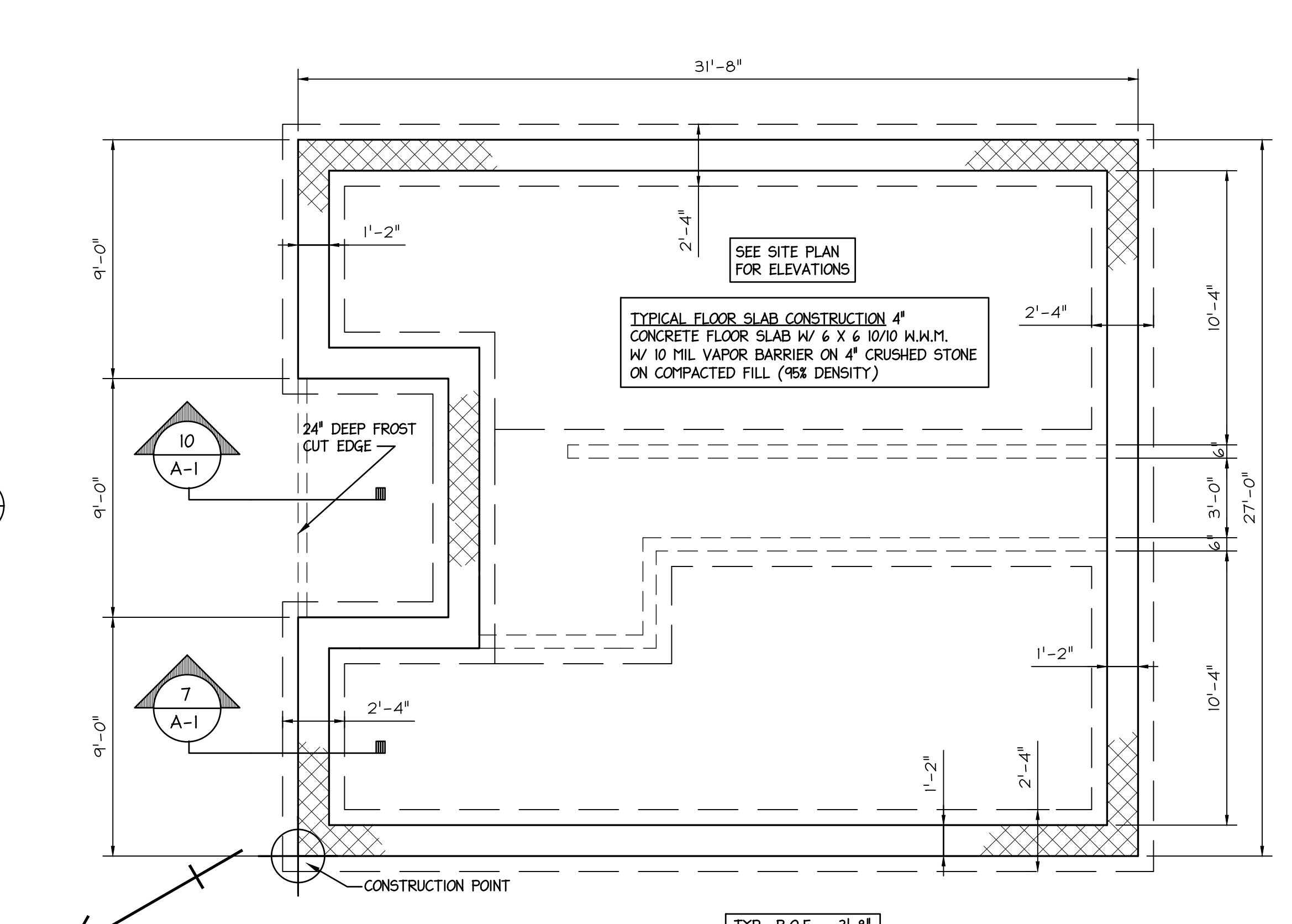
- PROVIDE AND INSTALL FIRE EXTINGUISHER & SEMI-RECESSED CABINET AS FOLLOWS: MULTIPURPOSE DRY-CHEMICAL TYPE, UL-RATED 4-A-60-BC, 10 LBS. NOMINAL CAPACITY IN ENAMELED STEEL CONTAINER. MULTIPURPOSE DRY-CHEMICAL TYPE, UL-RATED 4-A-60-BC, 10 LBS. NOMINAL CAPACITY IN ENAMELED STEEL CONTAINER. J.L. SAF-T-LOK SEMI-RECESSED CABINET, MODEL: "AMBASSADOR" MODEL NO. 10710 W/ SAF-T-LOK
- CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION OF SITE AROUND PERIMETER OF BUILDING 120'-0".

SEE BRYSON & YATES SHEET 4 OF 10 FOR FIN. FL. ELEV: 63.00 REF. EL. 0'-0"

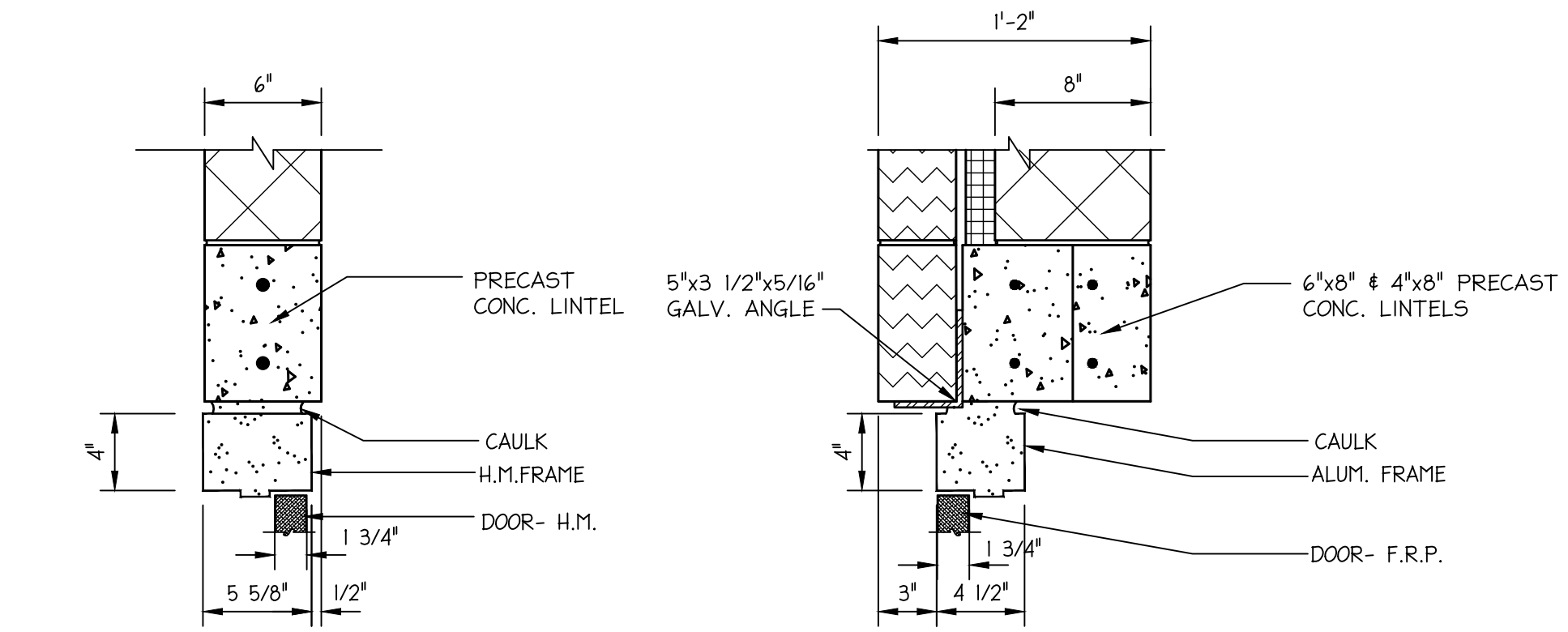
SEE BRYSON & YATES SHEET 3 OF 10 FOR ELEVATION BENCH MARK



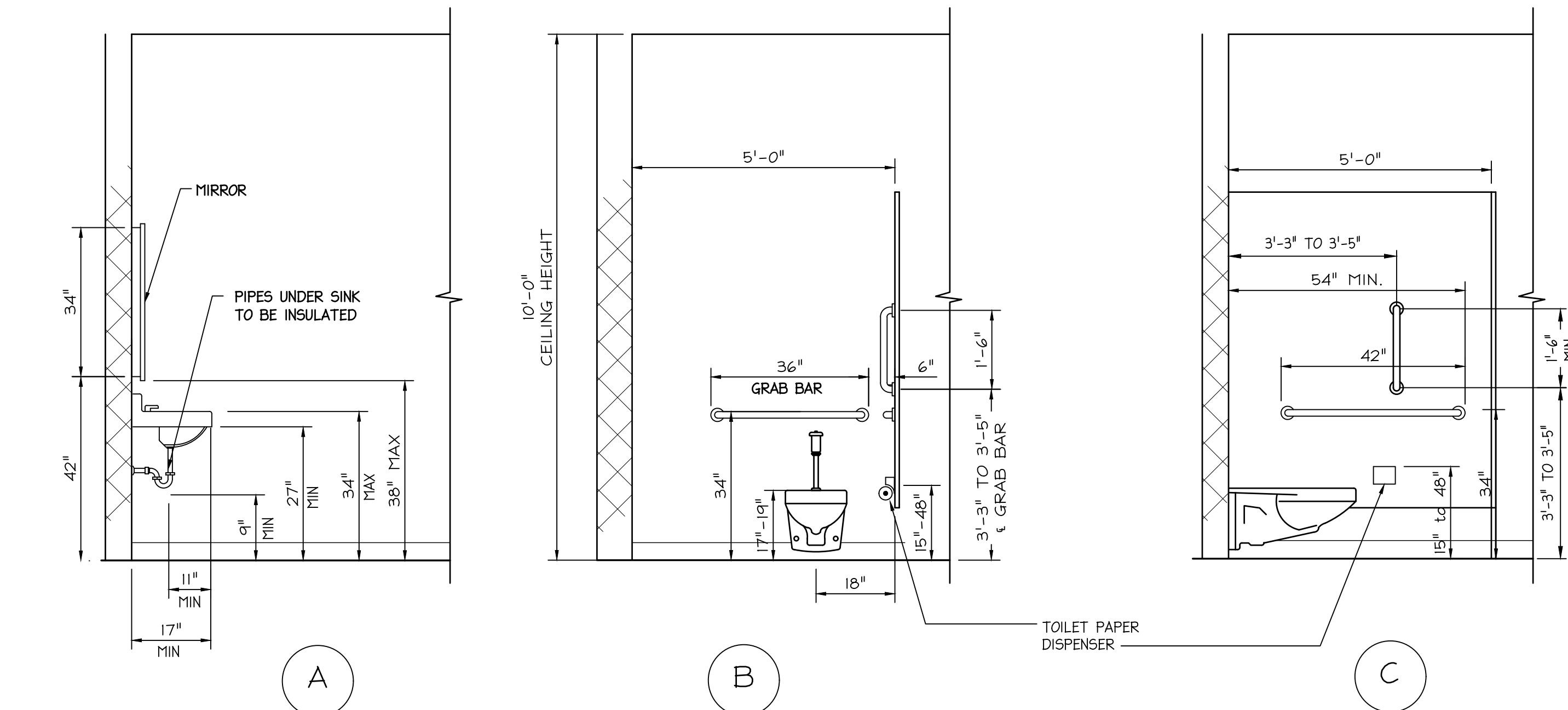
**FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



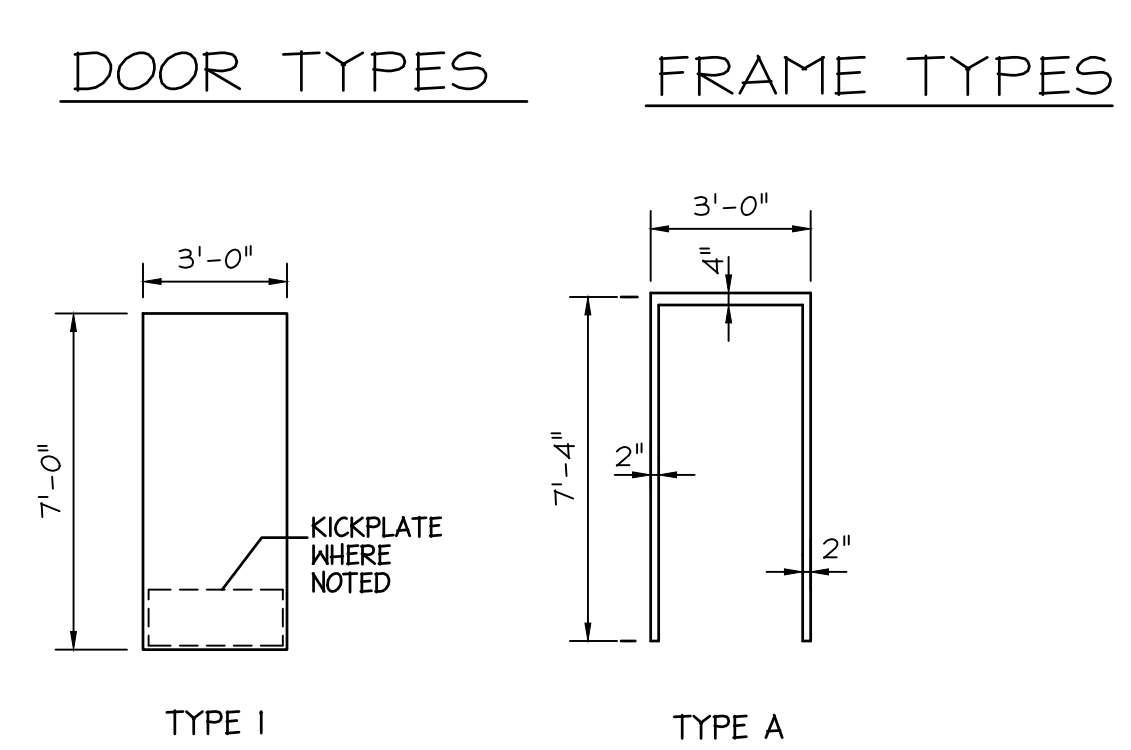
**FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"



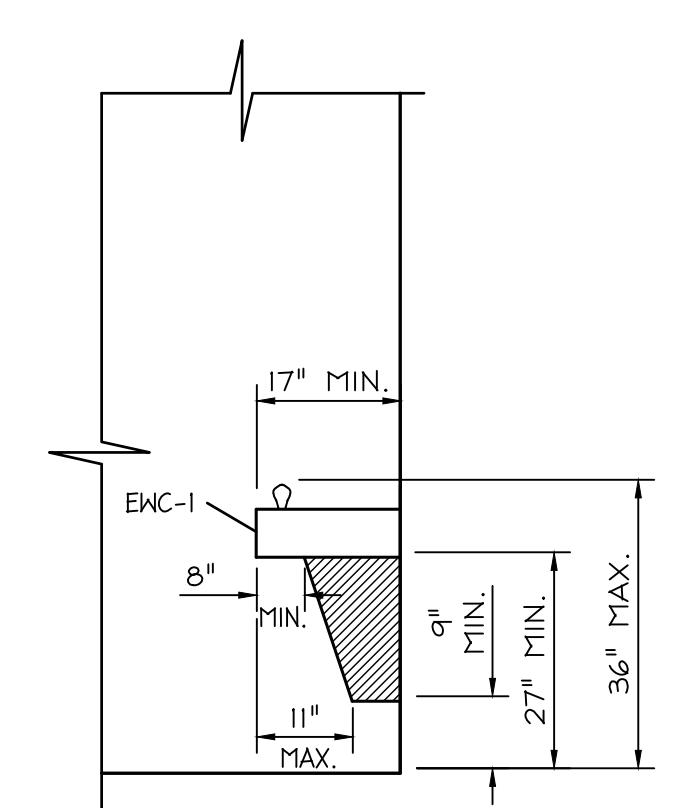
**3 HEAD & JAMB DETAIL**  
SCALE: 1/2" = 1'-0"



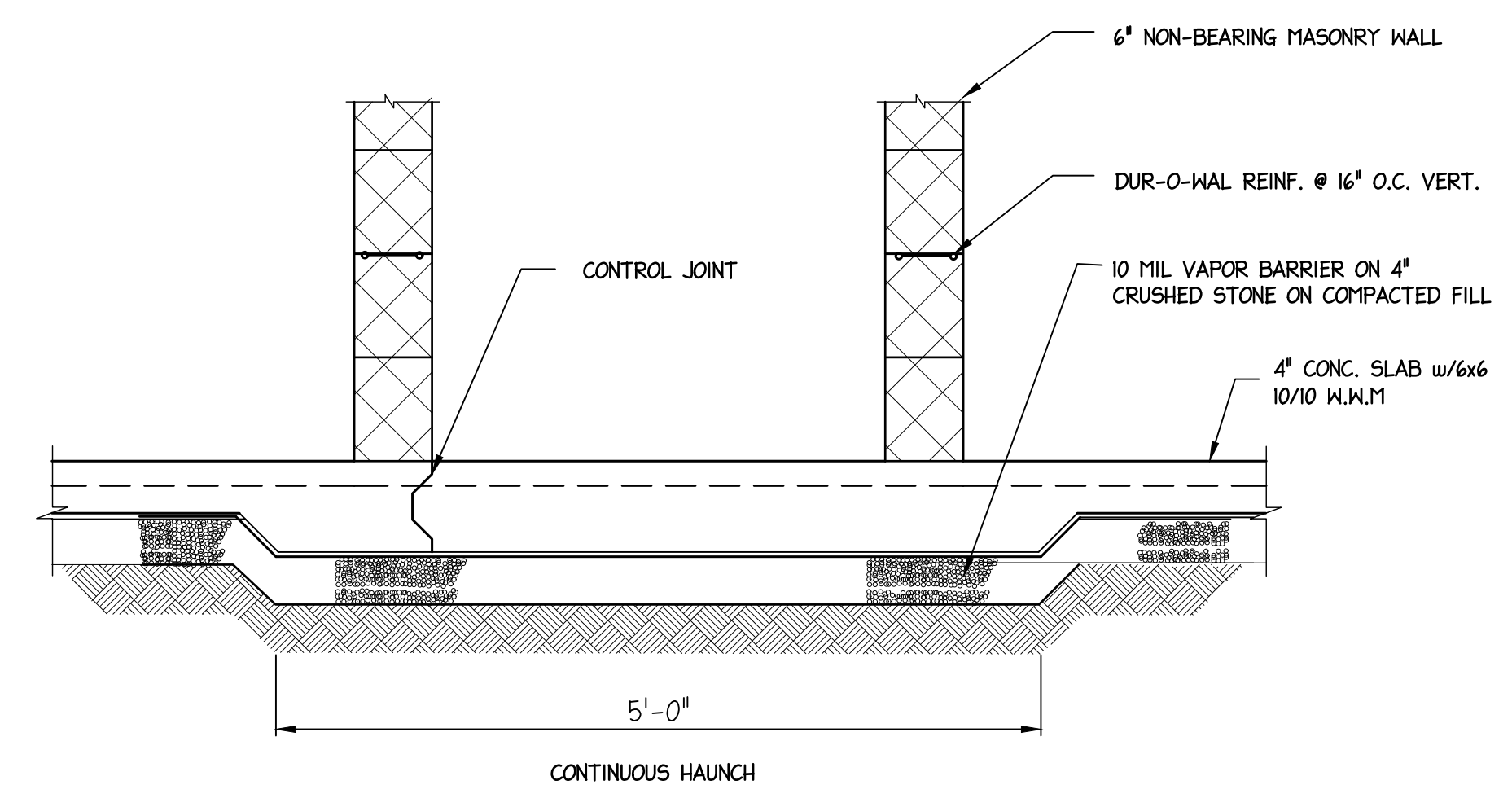
**4 HANDICAP LAV. & TOILETS**  
SCALE: 1/2" = 1'-0"



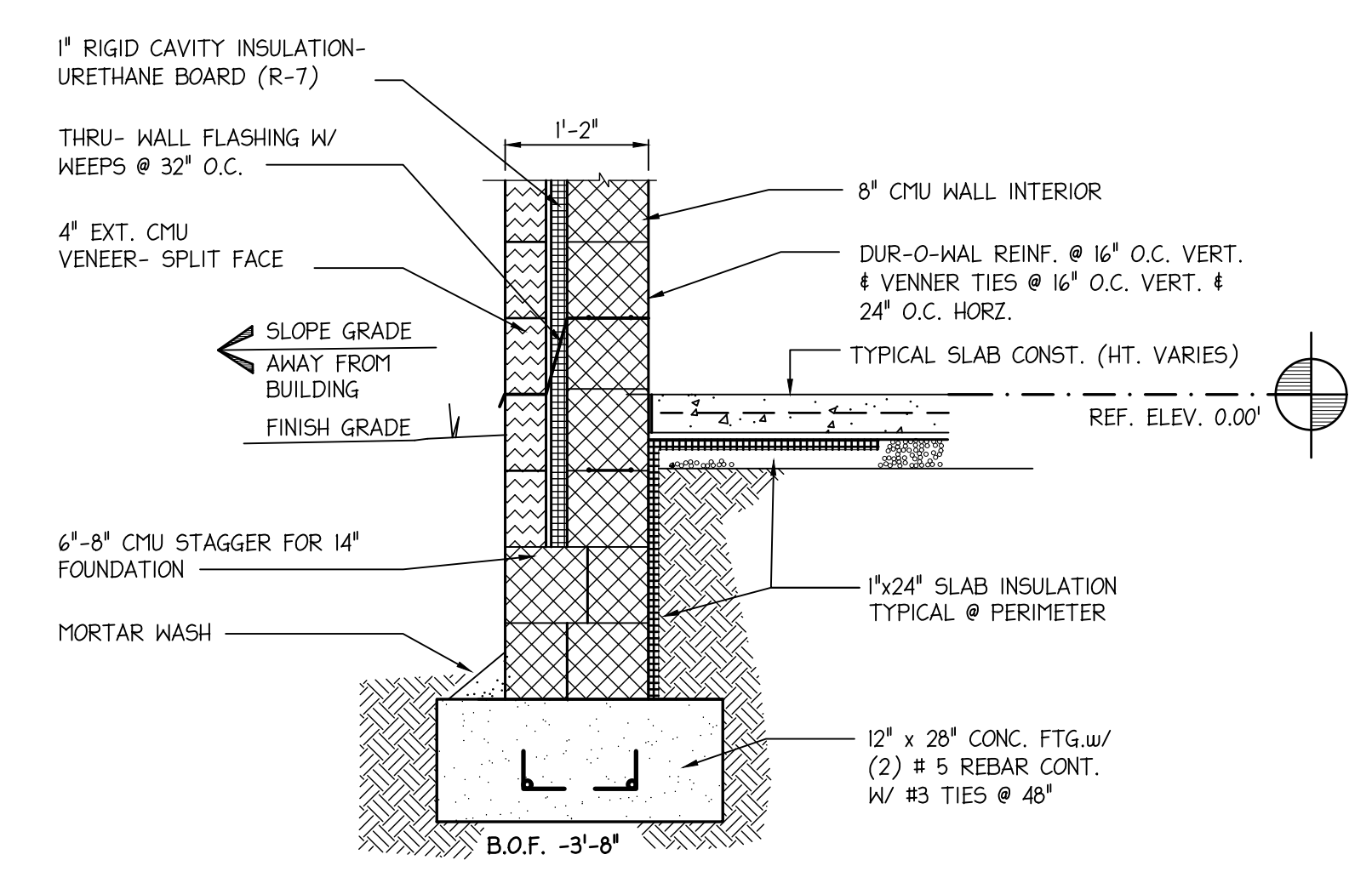
**4 DOOR & FRAME TYPES**  
SCALE: 1/4" = 1'-0"



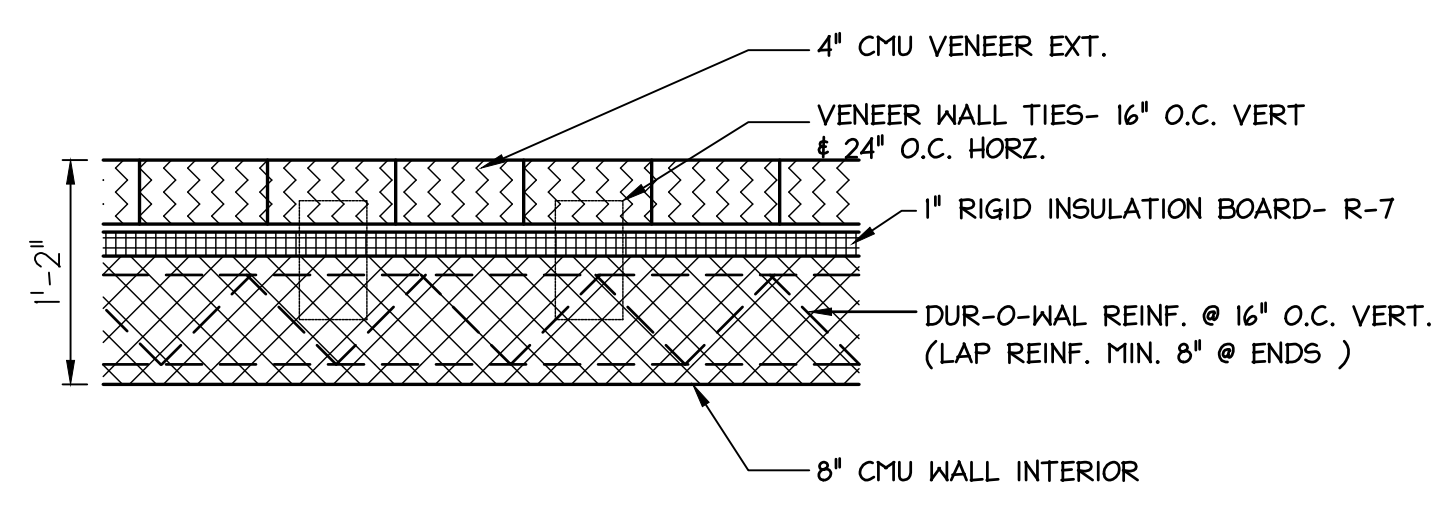
**5 EXT. WATER FOUNTAIN**  
SCALE: 1/2" = 1'-0"



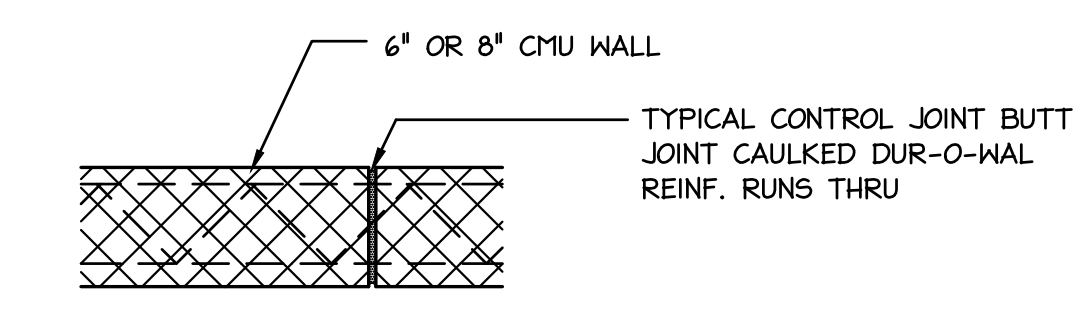
**6 NON-BEARING WALL HAUNCH**  
SCALE: 1" = 1'-0"



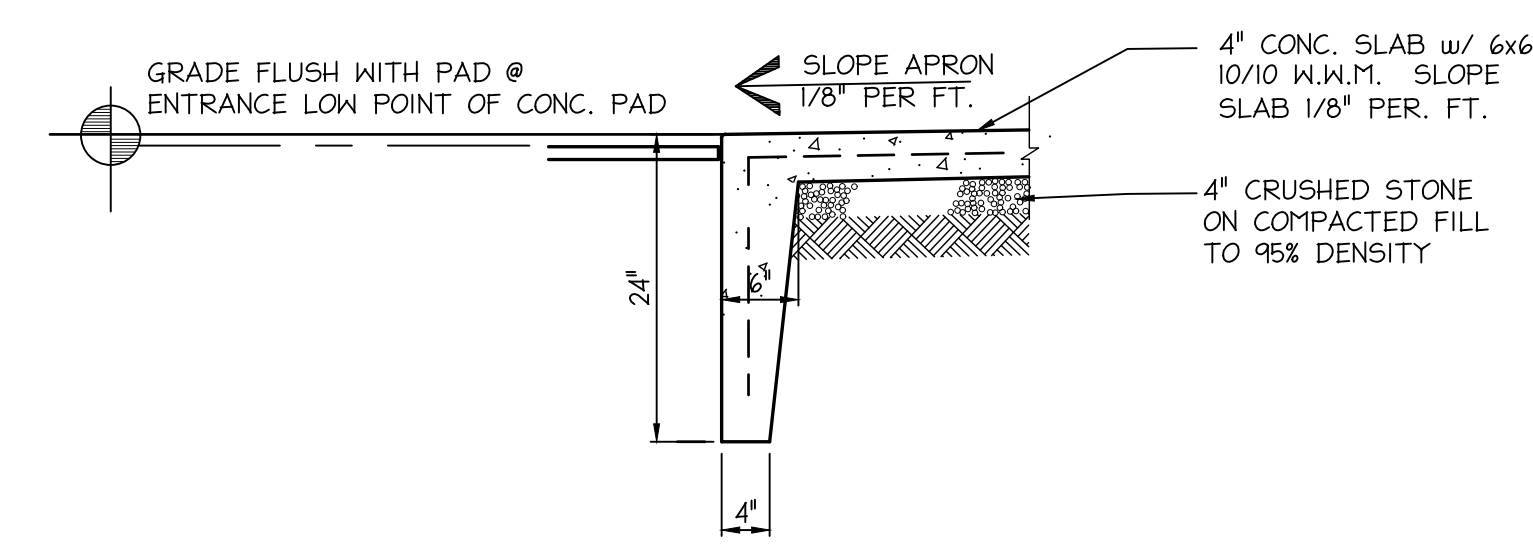
**7 FOOTING DETAIL**  
SCALE: 3/4" = 1'-0"



**8 WALL REINFORCING DETAIL**  
SCALE: 1" = 1'-0"



**9 CMU JOINT DETAIL**  
SCALE: 1" = 1'-0"



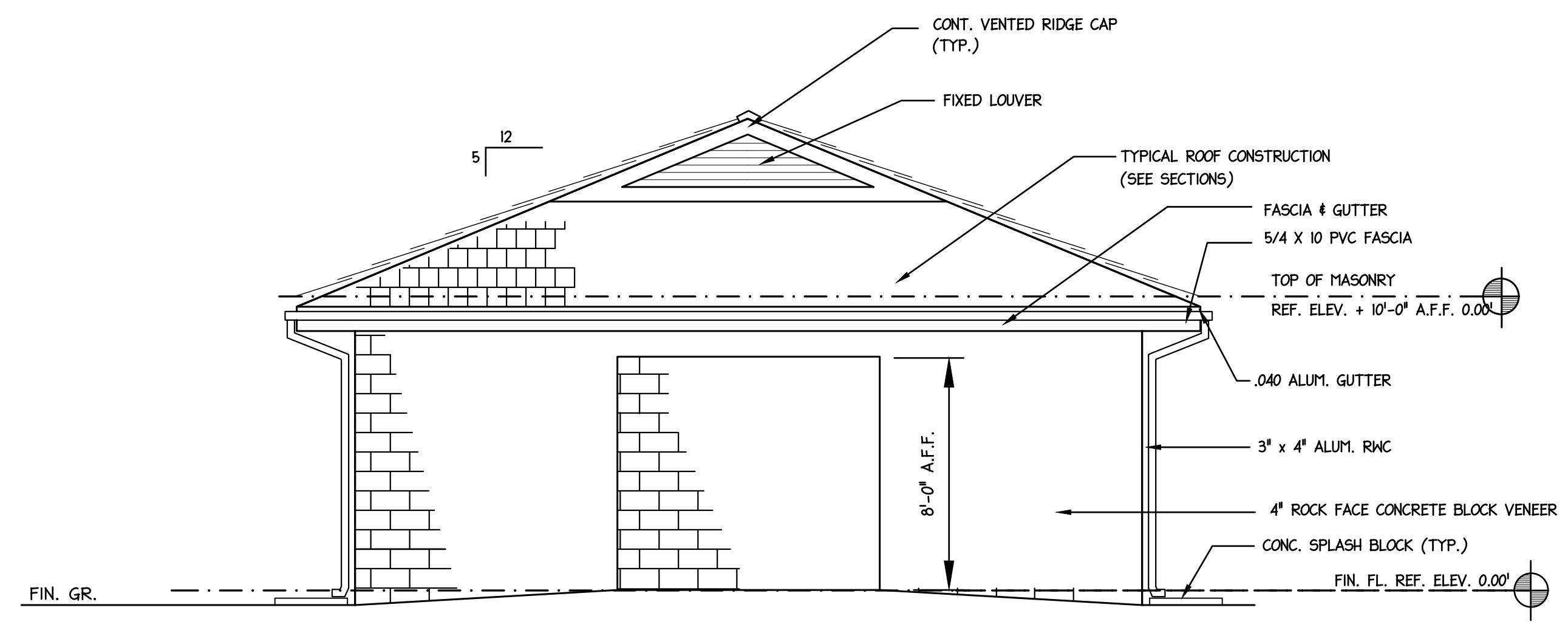
**10 FROST-CUT SLAB DETAIL**  
SCALE: 3/4" = 1'-0"

- FOUNDATION NOTES**
- ALL FOOTINGS TO BE FORMED AND WELL TAMPED. IF FOOTINGS ARE PERMITTED BY ARCHITECT TO BE POURED WITHOUT FORMS, TRENCHES MUST BE SHARP AND TRUE IF NOT, FORMS MUST BE USED.
  - ALL FOOTING ELEVATIONS ARE TO BOTTOM OF FOOTING (B.O.F.)
  - ALL FLOOR SLABS ARE TO BE 4" WITH 6 X 6 X 6 10/10 WELDED WIRE MESH.
  - INSTALL 10 MIL. VAPOR BARRIER UNDER ENTIRE BUILDING.
  - ALL FOOTINGS SHALL BE A MINIMUM OF 12" BELOW EXISTING UNDISTURBED GRADE, AND 3'-0" BELOW FINISH GRADE. B.O.F. (BOTTOM OF FOOTING) IS GIVEN AS A GUIDE ONLY. SHOULD EXISTING GRADE BE OTHER THAN INDICATED, THE G.C. SHALL COMPENSATE FOR THE DIFFERENCE.
  - ALL REINFORCED CONCRETE SHALL BE INSTALLED ACCORDING TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AC 318-63, APPROVED AS AMERICAN STANDARD BY THE AMERICAN STANDARD ASSOCIATION.
  - ALL MASONRY WALLS ARE TO COMPLY WITH THE AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY.
  - ALL HOLLOW BLOCK IS TO COMPLY WITH THE A.S.T.M. SPECIFICATION DESIGNATION C-90-59, GRADE "A", WITH 1-1/4" FACE SHELL THICKNESS BELOW GRADE AND ABOVE GRADE ON EXTERIOR WALLS WHERE EXPOSED.
  - MORTAR AS SPECIFIED IS A.S.T.M., TYPE N/S (1000 #/SQ. INCH). LOADS ON MASONRY ARE TO BE CALCULATED NOT TO EXCEED CODE VALUES OF: 75#/SQ. INCH ON HOLLOW BLOCK 110#/SQ. INCH ON SOLID BLOCK 250#/SQ. INCH ON CONCRETE.

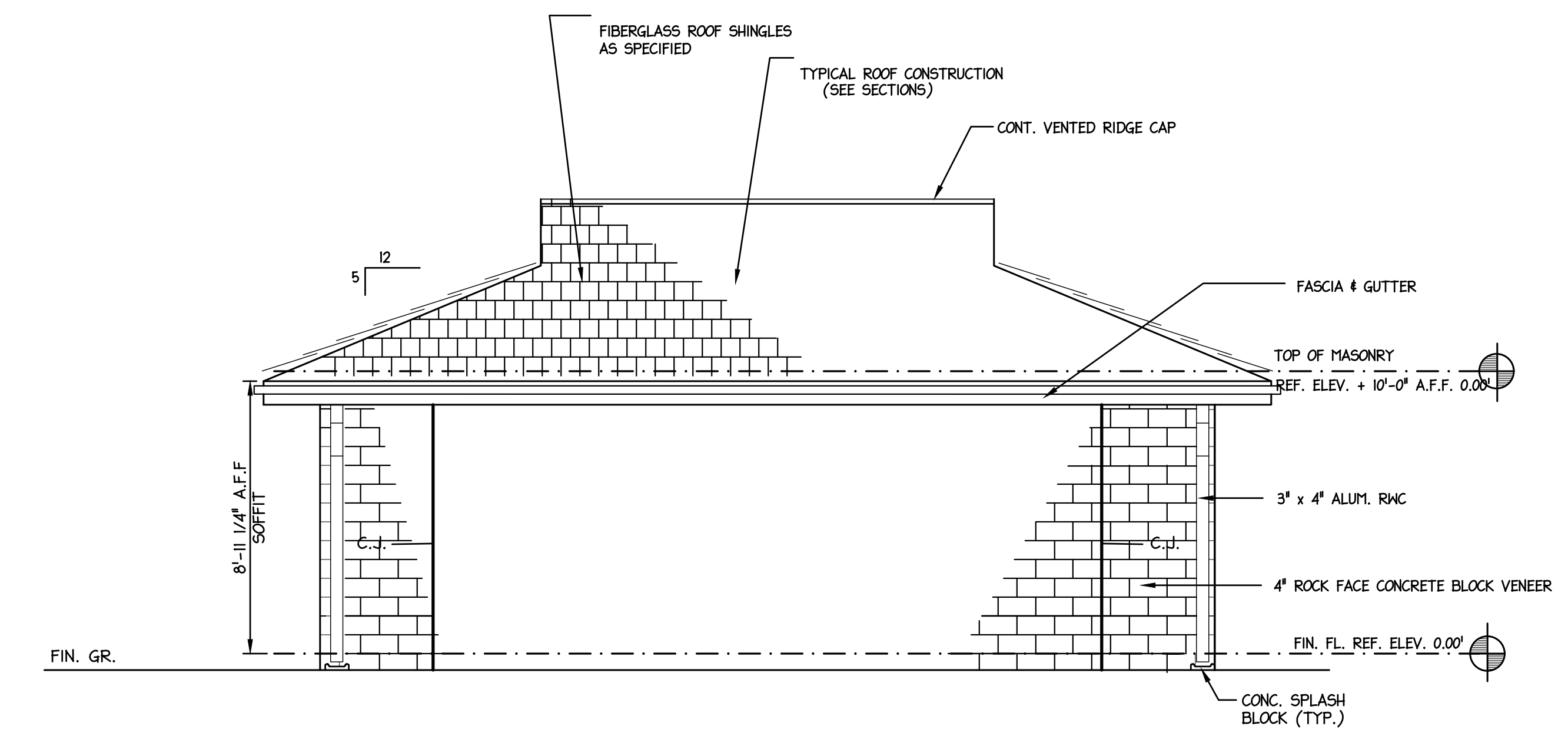
NO.	DATE	DESCRIPTION	REVISIONS	REV'D BY

APPROVAL: _____ PROJECT: <b>RESTROOM BUILDING FOR FASOLA PARK</b> 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08046	TITLE: <b>PLANS, SCHEDULES &amp; DETAILS</b> DRAWING NO: <b>A-1</b>
Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034	SCALE: AS NOTED DATE: 4/29/20 REVD: _____ DRAWN BY: TC CHECKED BY: DMF

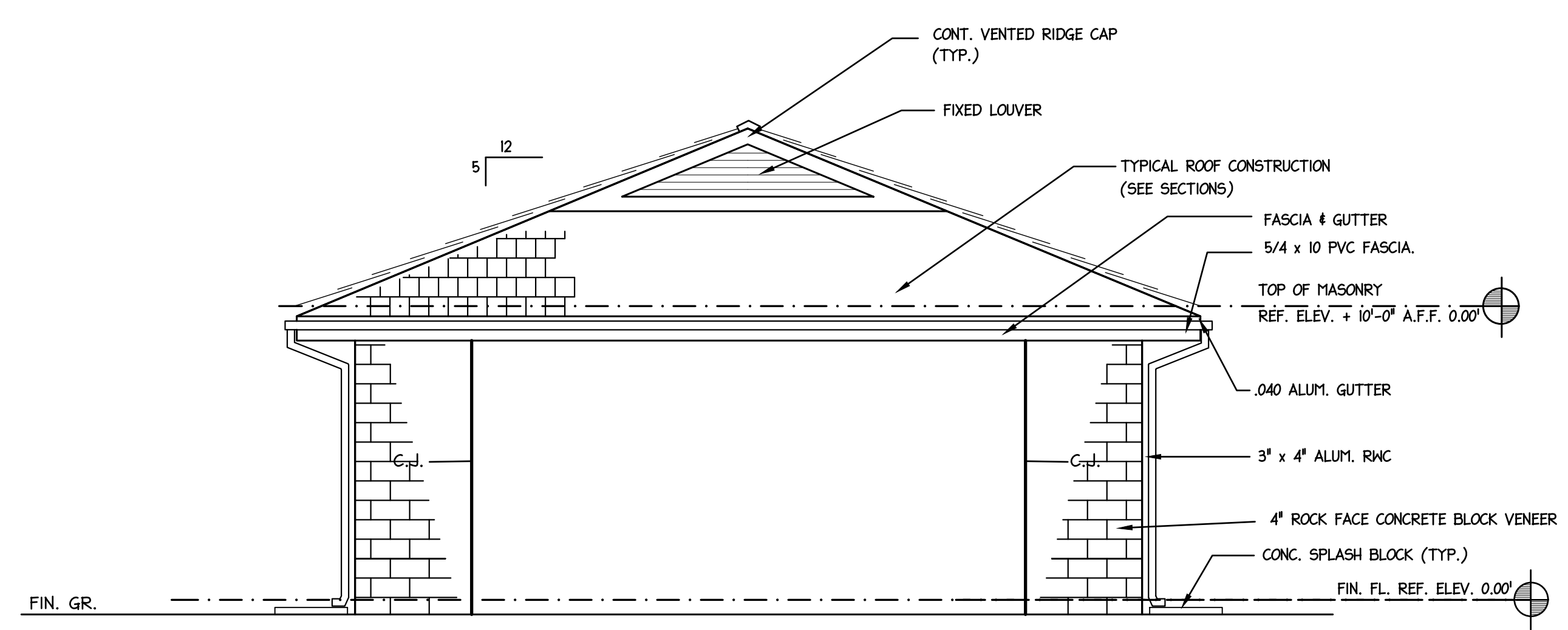


1 FRONT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

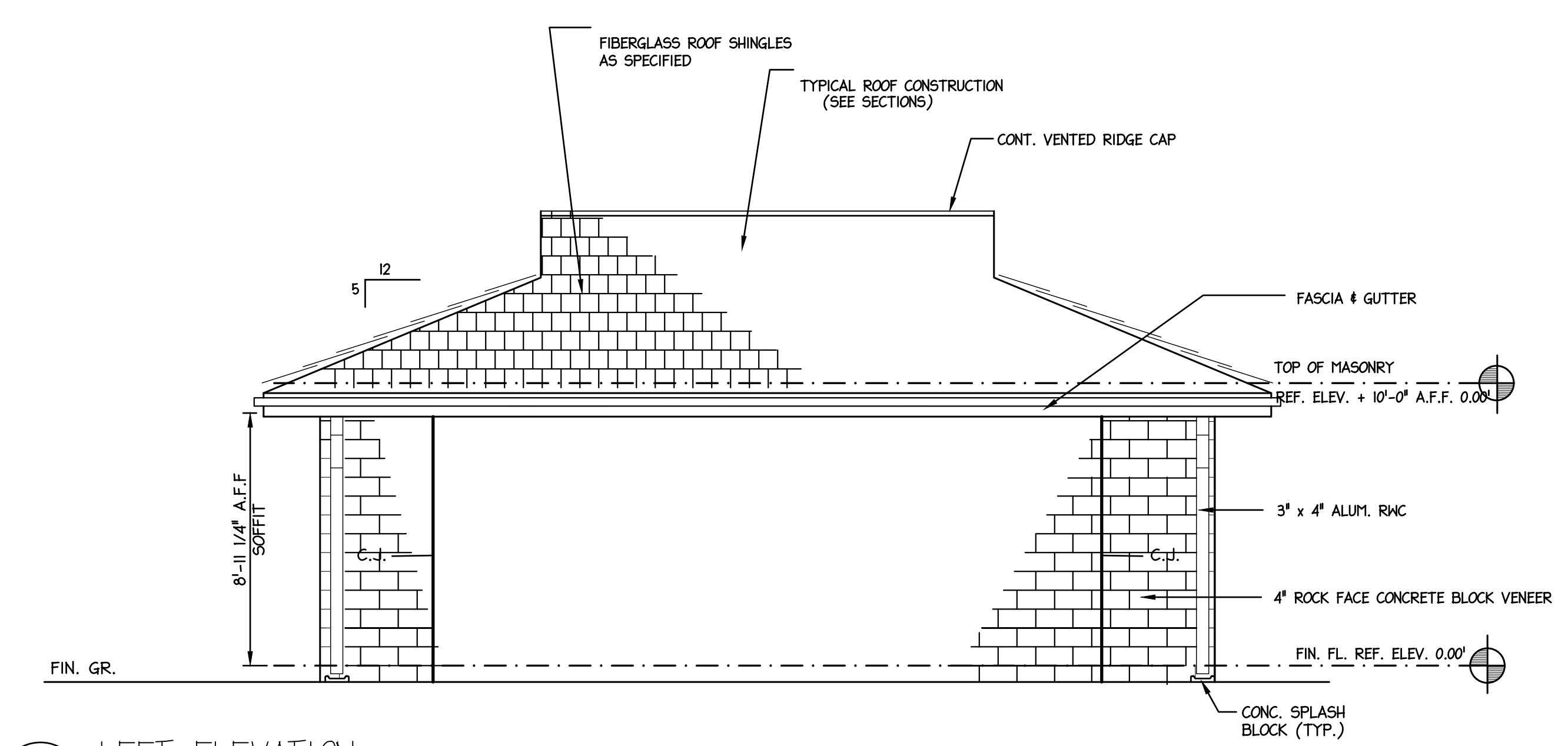


2 RIGHT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

NOTE:  
FINISH GRADE VARIES AROUND THE  
BUILDING—REFER TO CIVIL ENGINEER'S  
SITE PLAN

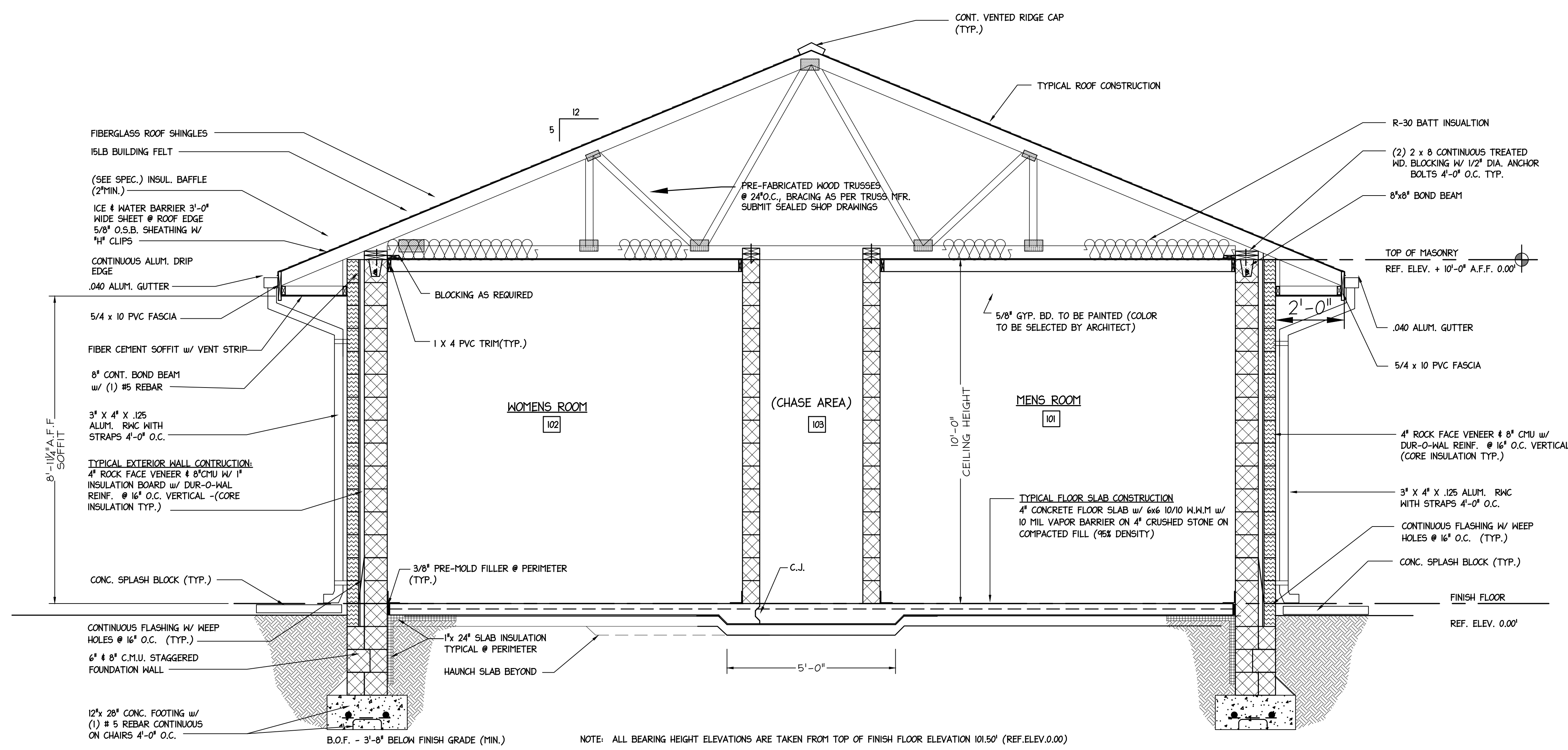


3 REAR ELEVATION  
A-2 SCALE 1/4" = 1'-0"

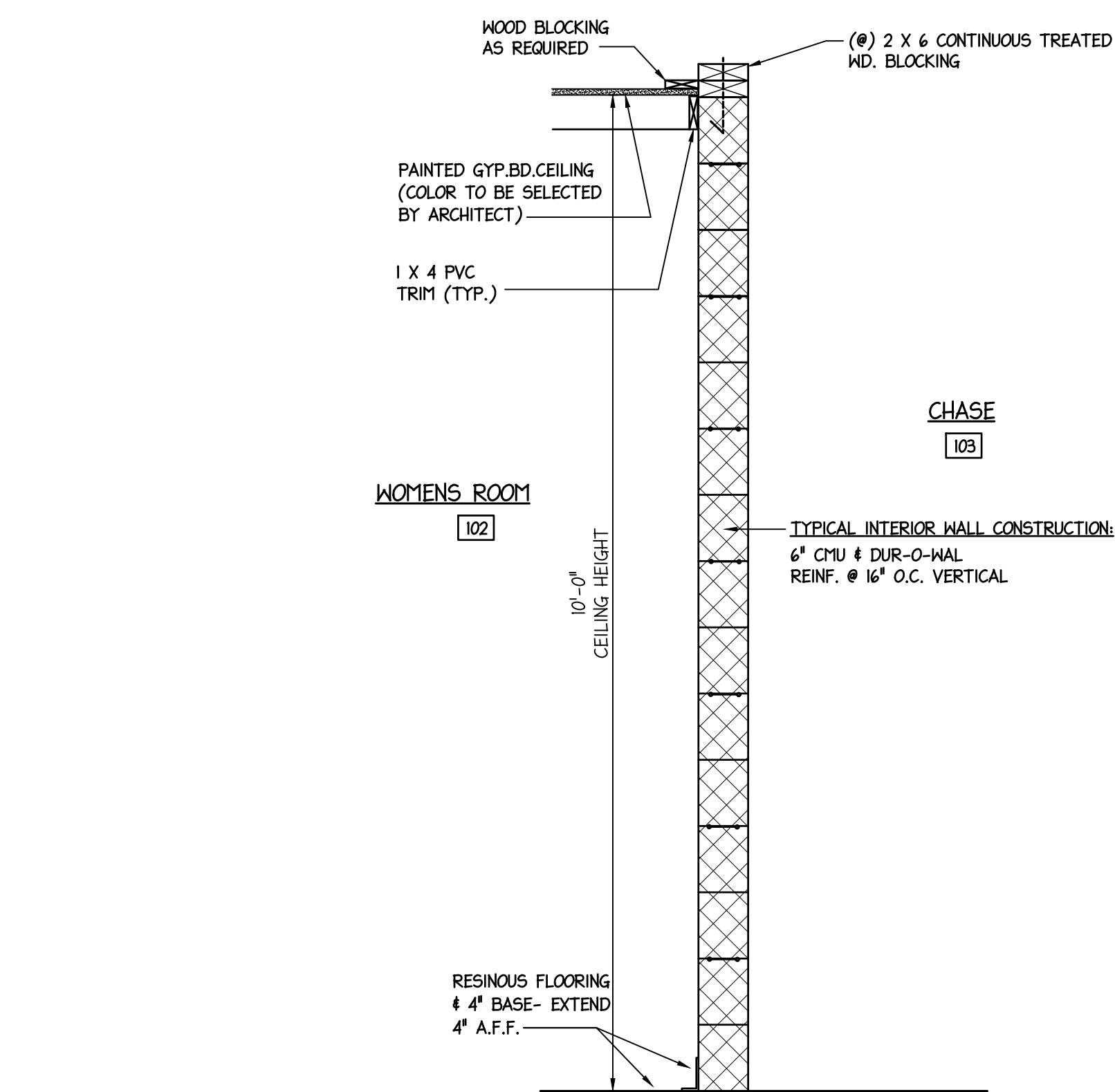


4 LEFT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

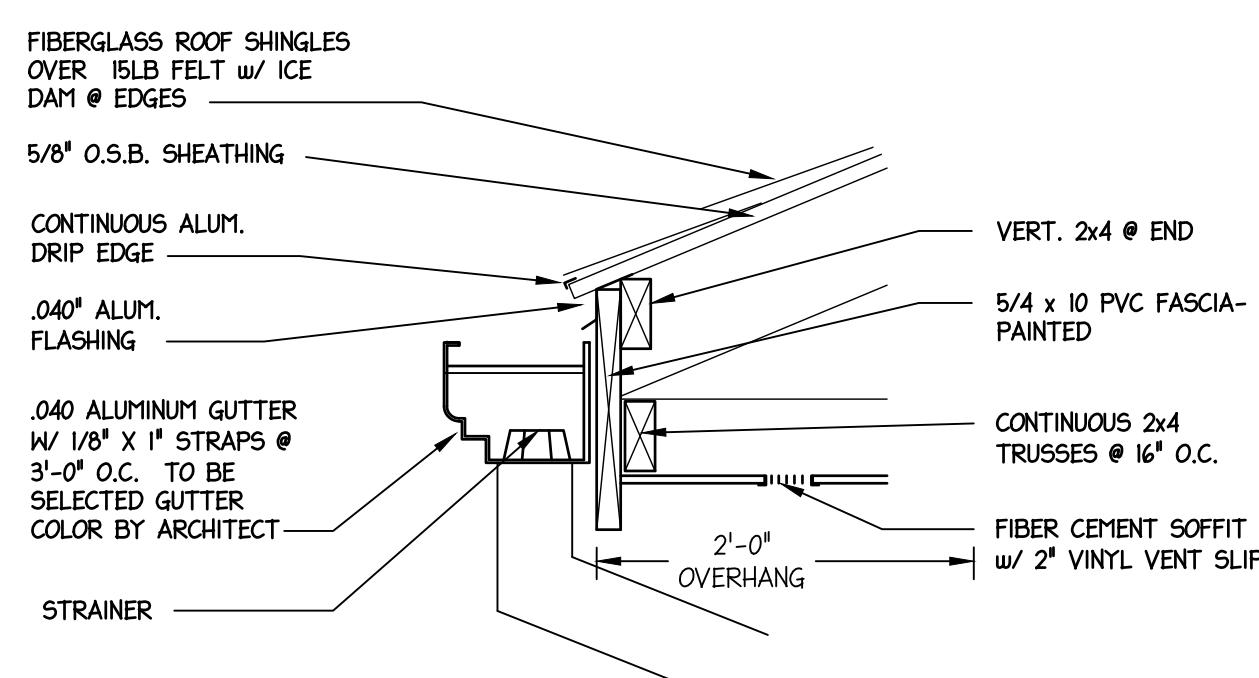
No.	DATE	DESCRIPTION	REV'D BY
APPROVAL:			
PROJECT:		<b>RESTROOM BUILDING</b> FOR <b>FASOLA PARK</b> 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08036	
Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: <b>BUILDING ELEVATIONS</b>	
JOSEPH F. MCKERNAN JR., R.A. <small>NJ ARCH. AL. 0004, PA. ARCH. EX-000001-0, CT. ARCH. 1004</small>		SCALE: AS NOTED PROJ. NO.: 180 DATE: 4/29/22 REV'D:	DRAWING NO: <b>A-2</b>
DRAWN BY: TC CHECKED BY: DDF		DATE: 4/29/22	



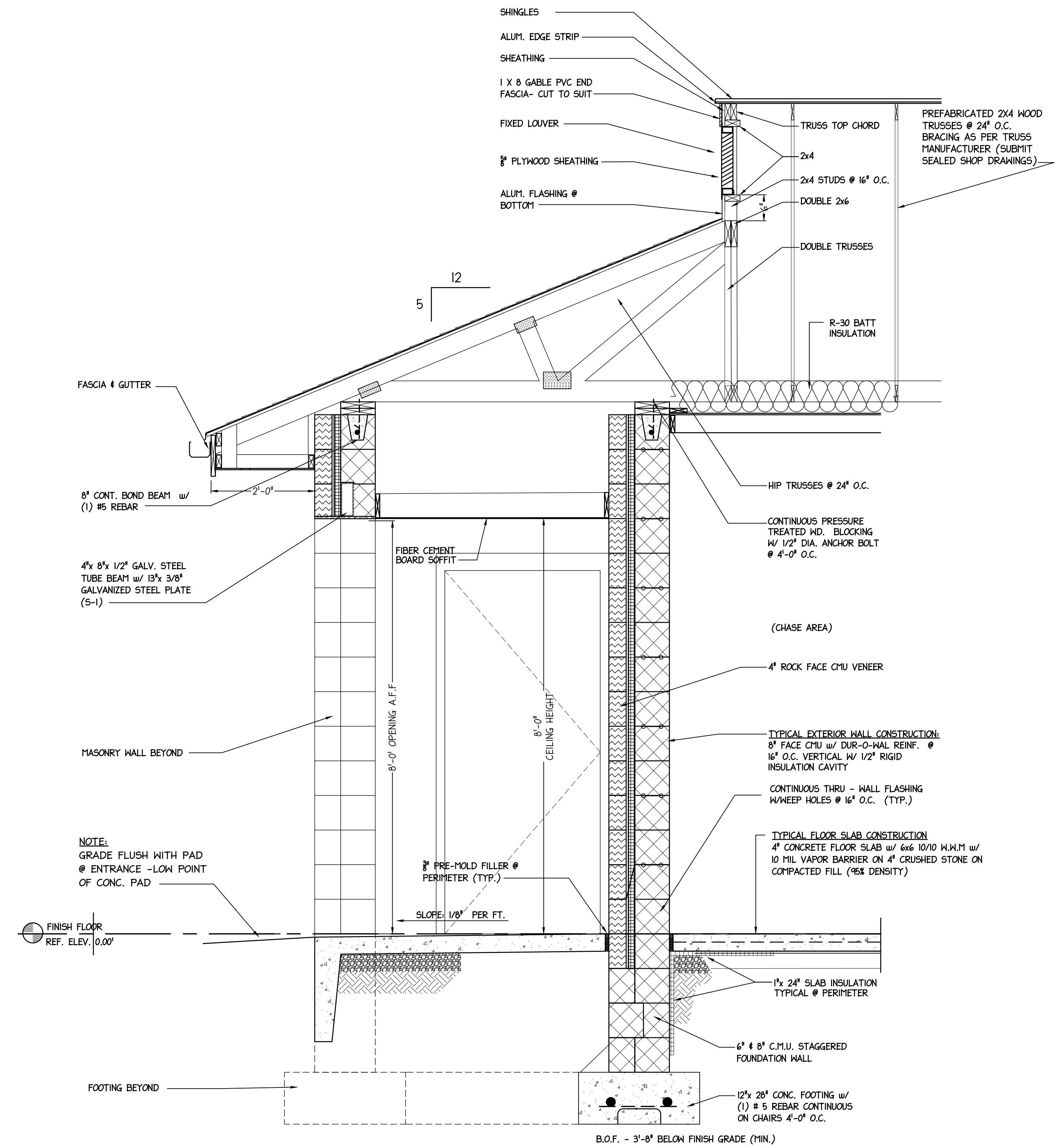
1 BUILDING SECTION  
SCALE: 1/2" = 1'-0"



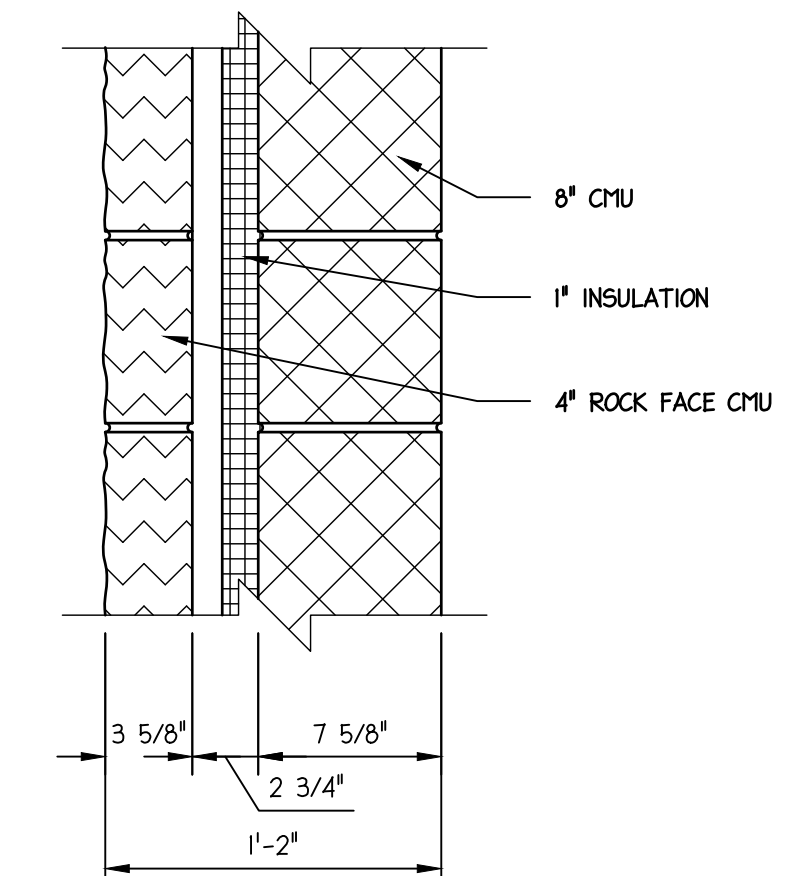
3 INTERIOR PARTITION  
SCALE: 3/4" = 1'-0"



4 DETAIL @ GUTTER  
SCALE: 1 1/2" = 1'-0"



2 EXTERIOR WALL SECTION @ CANOPY  
SCALE: 3/4" = 1'-0"

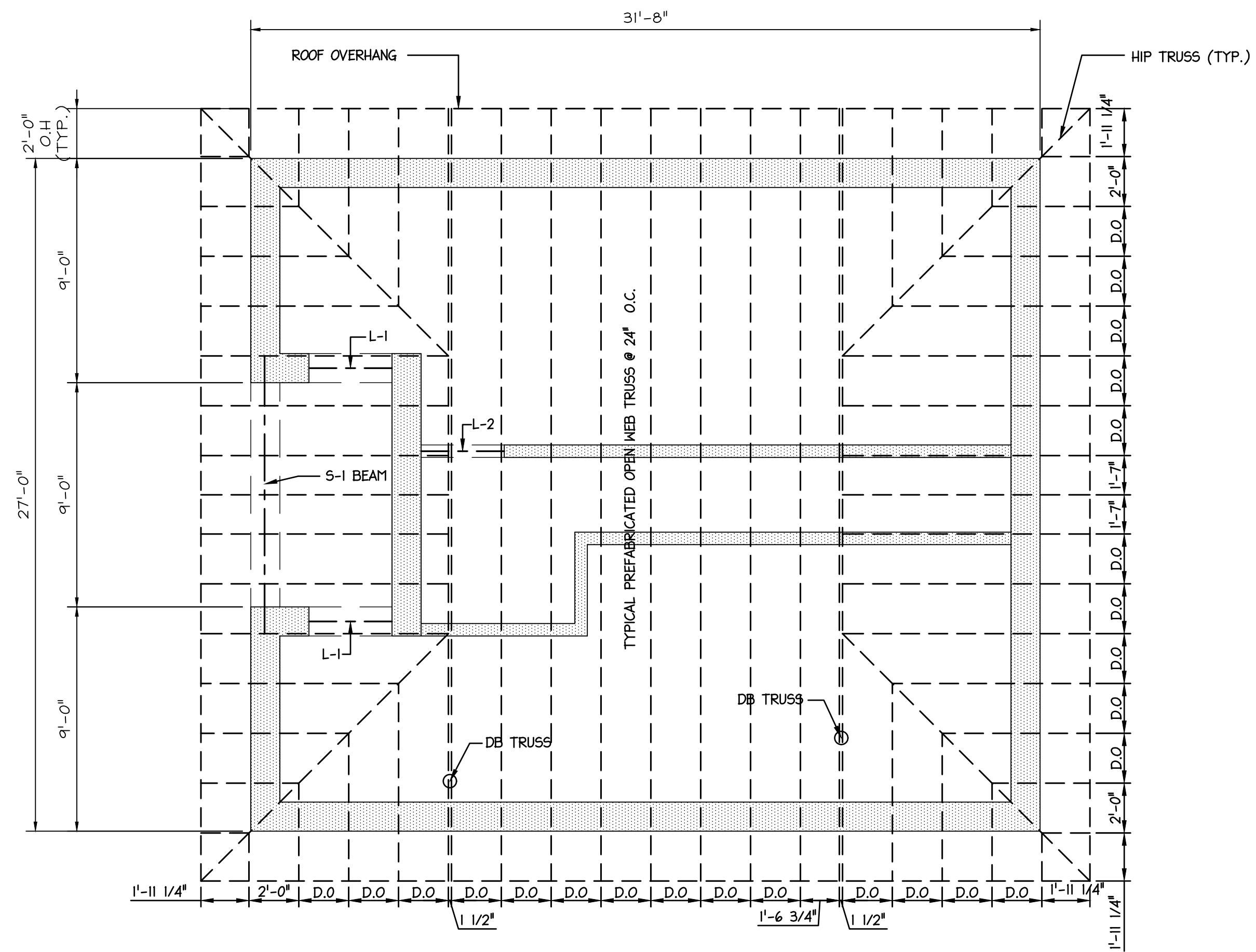


5 TYP. WALL DETAIL  
SCALE: 1 1/2" = 1'-0"

No.	DATE	DESCRIPTION	REVISED BY

APPROVAL:	PROJECT:	RESTROOM BUILDING FOR FASOLA PARK
		12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08026
	TITLE:	BUILDING SECTIONS, WALL SECTIONS & DETAILS
	DESIGNED BY:	JOSEPH F. MCKERNAN JR., R.A.
	DRAWN BY:	TC
	CHECKED BY:	DFP
	DATE:	4/25/22
	SCALE:	AS NOTED
	DRAWING NO.:	A-3



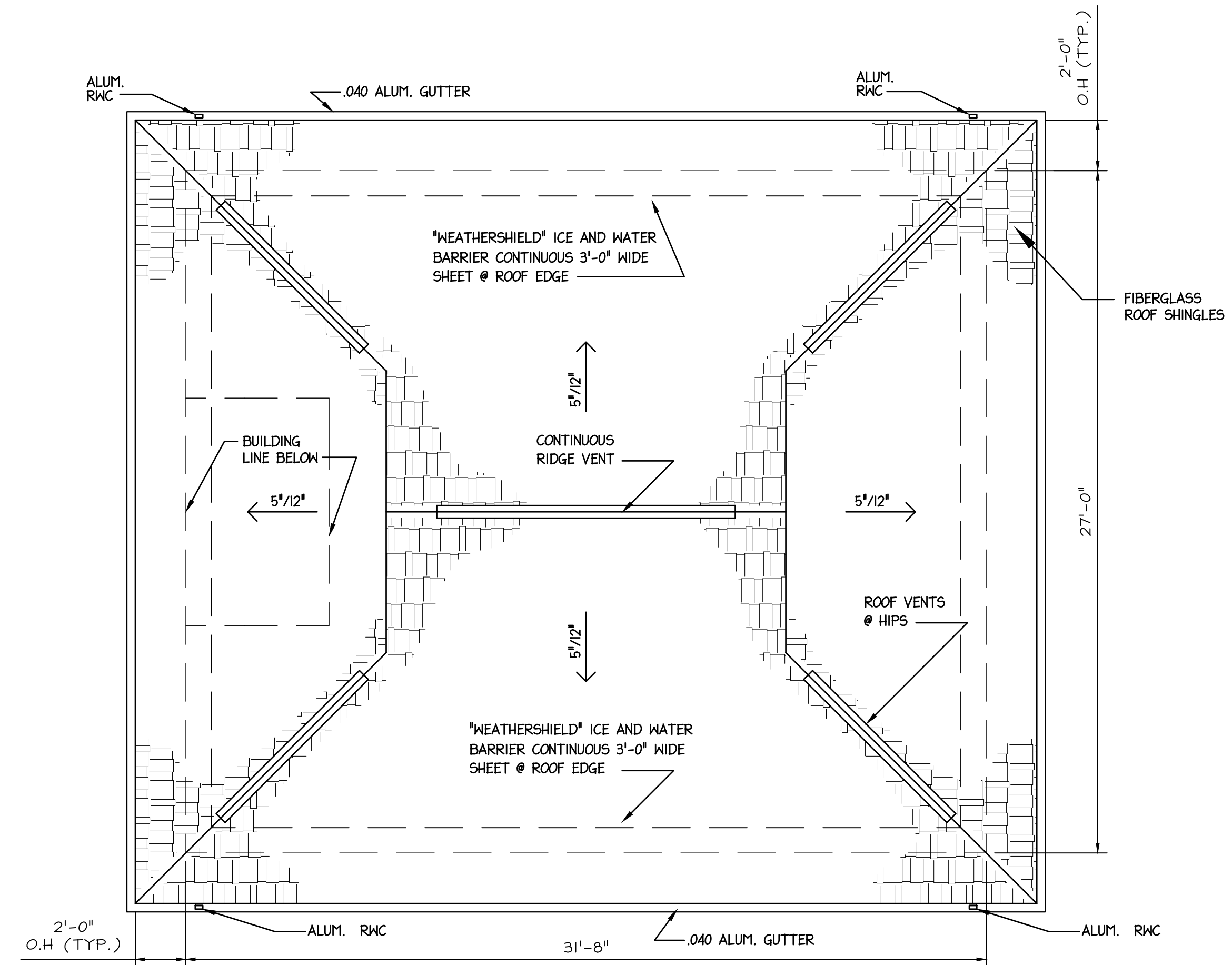
1 ROOF FRAMING PLAN  
A-4 SCALE: 1/4" = 1'-0"

**LINTEL SCHEDULE:**

L-1 (2) 6' x 8' PRE-CAST CONC. LINTEL w/ #4 BARS T & B w/ 3 1/2" x 5/16" GALV. STEEL ANGLE MINIMUM BEARING 8" ON BOTH ENDS

L-2 6' x 8' PRECAST CONC. LINTEL w/ (4) #4 BARS T & B

S-1 4"x8" x 1/2" GALV. STEEL TUBE BEAM w 13"x3/8" GALV. PLATE MINIMUM BEARING 8" ON BOTH ENDS

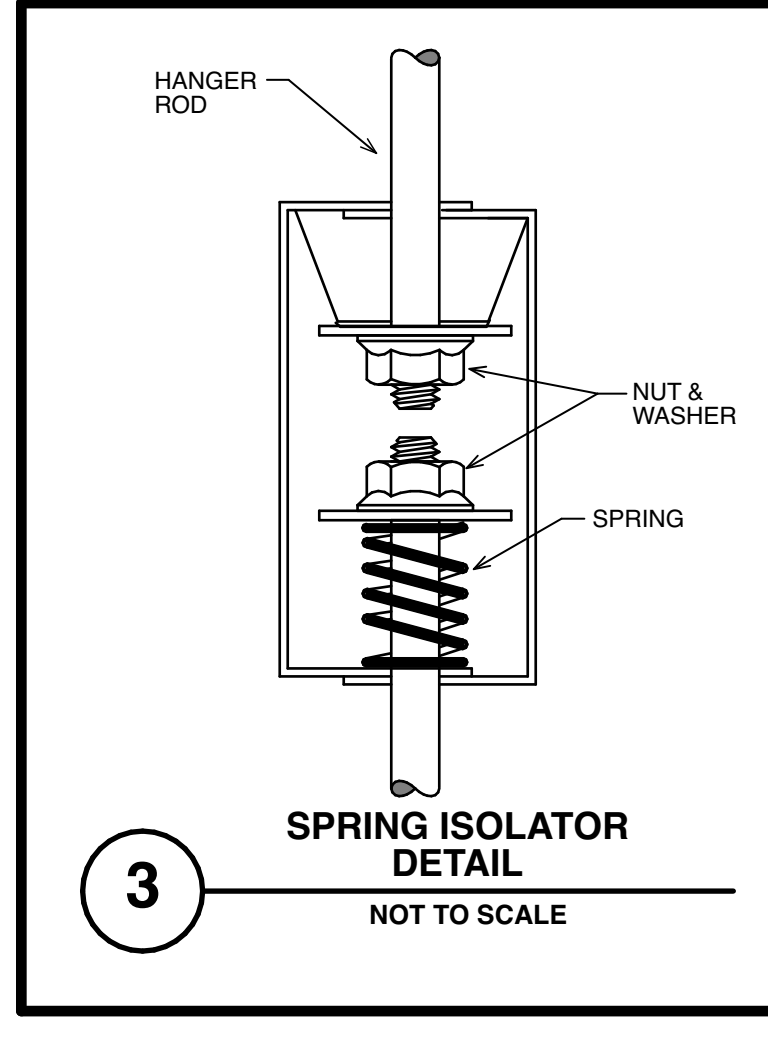
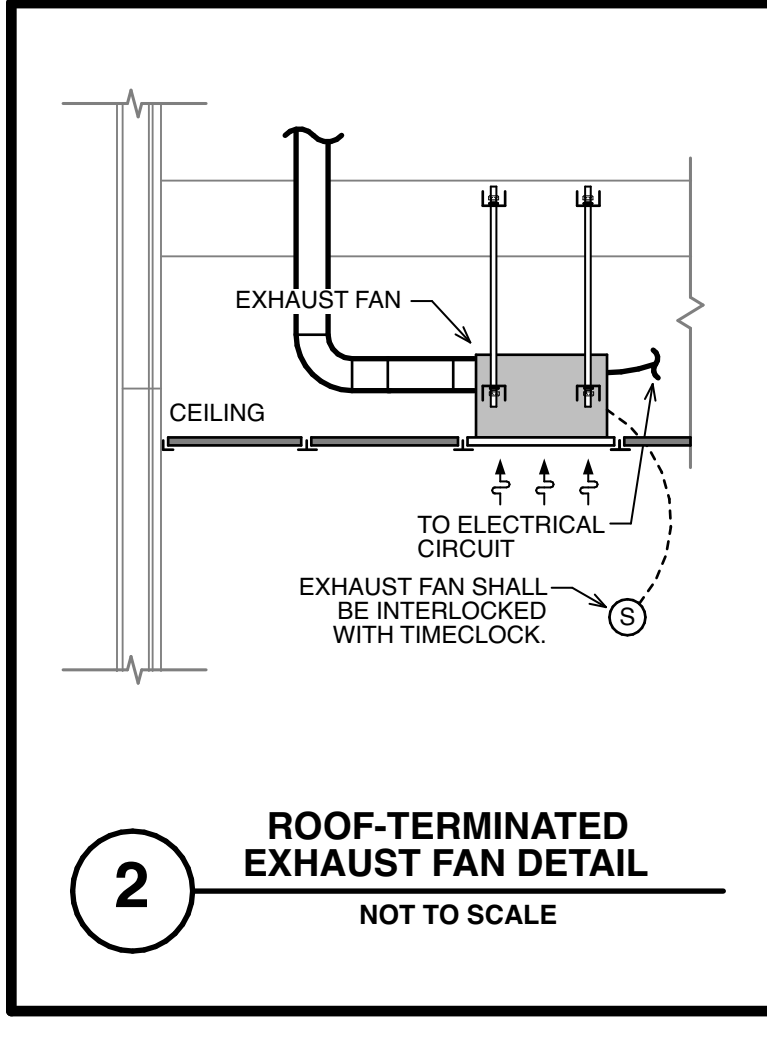


2 ROOF PLAN  
A-4 SCALE: 1/4" = 1'-0"

No.	DATE	DESCRIPTION	REV'D BY
REVISIONS			
APPROVAL:	PROJECT: RESTROOM BUILDING FOR FASOLA PARK 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08026		
Joseph F. McKernan Jr., R.A. 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: ROOF PLAN & ROOF FRAMING PLAN SCALE: AS NOTED DRAWING NO: A-4	
JOSEPH F. MCKERNAN JR., R.A. NJ ARCH. AL. 0004 PA ARCH. EX-0000000-0 CT ARCH. 1004		SEAL: [Blank] PREPARED BY: [Blank] DATE: 4/29/22 CHECKED BY: [Blank] DRAWN BY: TC CADD BY: DDF	

### DRAWING NOTES

- MECHANICAL CONTRACTOR SHALL VERIFY THE LOCATIONS & SIZES OF THE DOMESTIC WATER PIPING, SANITARY PIPING AND STRUCTURAL ELEMENTS IN THE FIELD. COORDINATE THE INSTALLATION OF HVAC COMPONENTS WITH ALL OTHER TRADES.
- COORDINATE LOCATIONS OF ALL CEILING MOUNTED MECHANICAL EQUIPMENT WITH LIGHTING AND REFLECTED CEILING PLANS.
- IT IS THE INTENT TO MAINTAIN THE CEILING HEIGHTS AS SHOWN ON THE REFLECTED CEILING PLANS.
- MECHANICAL CONTRACTOR SHALL FURNISH ALL REQUIRED CEILING ACCESS PANELS AND WALL OPENINGS TO SERVICE ALL MECHANICAL EQUIPMENT. INSTALLED BY G.C. COORDINATE ALL LOCATIONS AND SIZES WITH ARCHITECT PRIOR TO INSTALLATION.
- ALL INTAKE AIR OPENINGS SHALL BE A MINIMUM OF 10'-0" FROM ALL EXHAUST AIR LOCATIONS. CONTRACTOR SHALL VERIFY THE EXACT TIE-IN LOCATION IN THE FIELD.
- ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS SHALL BE SEALED WITH RCD#9 LOW-VOC MASTIC. ALL DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA'S SEAL CLASS "B".
- CONTRACTOR REQUIRED TO PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
- ALL DUCTWORK SIZES SHOWN ON PLAN ARE CLEAR I.D. DIMENSIONS. ALL SUPPLY AND RETURN DUCTWORK WILL BE INSULATED (REFER TO INSULATION SCHEDULE FOR MORE INFORMATION).
- MECHANICAL CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF THE THERMOSTATS WITH THE OWNER PRIOR TO INSTALLATION OF THE CONTROLS.
- THERMOSTATS/SENSORS SHALL HAVE A 3.5 DEGREE TEMPERATURE RANGE CONTROL LIMIT, THAT CAN BE SET BY THE OWNER.



### SHEET NOTES

- EXHAUST FAN OPERATION SHALL BE ON A TIMELOCK. COORDINATE ALL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

### CEILING HUNG UNIT HEATER SCHEDULE

Unit Designation	Description	UH-1
---	Unit Heater	---
---	QMARK	---
---	Model Number	MUH03-21
---	Mount	Ceiling - Vertical
---	Dimensions (L x W x H) (in.)	7-1/2 x 14 x 16
---	Weight (lbs)	27
---	Location	Refer to Plans
---	Quantity	1
<b>Electrical</b>		
---	Capacity (KW)	2.2
---	Number of Elements	1
---	Unit FLA	11.0 Amps
<b>Accessories</b>		
---	Finish	---
---	Mounting Kit	Yes
---	Disconnect Switch	Yes
---	Over Current Protection	Yes
---	Automatic Reset Thermal Limit	Yes
---	Automatic Fan Delay Circuit	No
---	Dust Shield	Yes
---	Fan Guard	Yes
<b>Control</b>		
---	Unit Mounted Thermostat	Yes, Set to 55°F (ADJ.)

### EXHAUST FAN SCHEDULE

Unit Designation	EF-1	EF-2	EF-3
Basis of Design	Cook	Cook	Cook
Model Number	GC-422	GC-422	GC-148
CFM	210	280	100
E.S.P. (in. W.C.)	0.25	0.25	0.25
Drive Type	Direct	Direct	Direct
Dim (L x W x H)(in.)	14-1/4" x 21" x 11-7/8"	14-1/4" x 21" x 11-7/8"	13-1/4" x 15-1/2" x 9"
Weight (lbs.)	24	24	15
Location	Ceiling Mounted	Ceiling Mounted	Ceiling Mounted
Service	Refer to Plans	Refer to Plans	Refer to Plans
<b>Electrical</b>			
Motor Power	73 Watts	98 Watts	38 Watts
Motor HP	0.044	0.044	0.040
<b>Accessories</b>			
Backdraft Damper	Yes	Yes	Yes
Roof Curb	No	No	No
Wall Cap	No	No	No
Roof Cap	No	No	No
Exhaust Grille	Yes, White	Yes, White	Yes, White
Vibration Isolation Kit	Yes	Yes	Yes
Standard Disconnect	Yes	Yes	Yes
<b>Control</b>			
Speed Controller	Yes	Yes	Yes
Time Delay Switch	No	No	No
<b>Interlock</b>			
	Interconnect w/ Timeclock Coordinate w/ E.C.	Interconnect w/ Timeclock Coordinate w/ E.C.	Interconnect w/ Timeclock Coordinate w/ E.C.

### MATERIAL AND INSULATION SCHEDULE

System	Material	Insulation			Remarks
		Basis of Design	Type	Wall Vapor Barrier	
Ductwork, Exhaust Air	Galvanized Steel	Certafoam	Duct Wrap	1-1/2"	ASHRAE 2" Pressure class, Seal Class "A"
Ductwork, Outside Air	Galvanized Steel				ASHRAE 2" Pressure class, Seal Class "A"

### AIR DEVICE SCHEDULE

No.	CFM	Size	Neck	Mfr.	Model #	Finish	Damper	Mtd. Surface	Material	Remarks
AD-1	0-280	12x12	10"x3"	Krueger	5880	Nbk #1	No	Ceiling	Aluminum	Double Deflection Supply Grille w/ 3/4" Spacing

**Air Device Notes:**

- Unless otherwise indicated, provide duct connection the full size of duct shown on drawing.
- Provide air device frames to suit wall and ceiling construction.
- Paint return air plenums above return and transfer grilles track.
- Coordinate finish of all diffusers, registers and grilles with Architect.

### ELECTRICAL COORDINATION

- IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE LOCATIONS OF SUPPRESSION SYSTEM PIPING WITH THE ELECTRICAL CONTRACTOR. DUCTWORK SHALL NOT BE INSTALLED WITHIN THE DEDICATED EQUIPMENT SPACE REQUIRED FOR EXISTING OR NEW ELECTRICAL EQUIPMENT.
- COORDINATION OF DUCTWORK LOCATIONS SHALL BE SOLELY THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. APPROVAL OF SHEET METAL SUBMITTAL DRAWINGS DOES NOT RELEASE THE CONTRACTOR FROM COORDINATION RESPONSIBILITY. FINAL COORDINATION SHALL OCCUR IN FIELD WITH ELECTRICAL CONTRACTOR. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN RELOCATION OF SUPPRESSION SYSTEM PIPING AT CONTRACTOR'S EXPENSE.
- PER NFPA 70, ARTICLE 110.2(B)(F), DEDICATED EQUIPMENT SPACE SHALL APPLY TO SWITCHBOARDS, DISTRIBUTION PANELS, AND MOTOR CONTROL CENTERS. THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 8' ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED TO THE ELECTRICAL INSTALLATION. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE.

### PIPING AND DUCT CRITERIA

- ALL DUCTWORK SHALL BE SIZED USING A STANDARD DUCTULATOR. THE FOLLOWING CRITERIA SHALL BE USED TO CALCULATE DUCT SIZES:
  - SUPPLY DUCTS SHALL BE NO MORE THAN 0.10 IN. PER 100 FEET OF PRESSURE DROP.
  - RETURN AND EXHAUST DUCTS SHALL BE NO MORE THAN 0.05 IN. PER 100 FEET OF PRESSURE DROP.
  - VENTILATION DUCTS SHALL BE NO MORE THAN 0.075 IN. PER 100 FEET OF PRESSURE DROP.
- CONDENSATE SHALL BE COLLECTED AND RUN WITH ADEQUATE PITCH TO THE CLOSEST SAFE-WASTE. PROVIDE CONDENSATE PUMPS IF PITCH CAN NOT BE ACHIEVED. CONDENSATE PIPING SHALL BE SIZED AS FOLLOWS:
 

TONS	SIZE
0-20	3/4"
20-40	1"
40-60	1-1/4"
60-80	1-1/2"
80-125	2"
125-250	2"
- ALL CONDENSATE DRAINS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

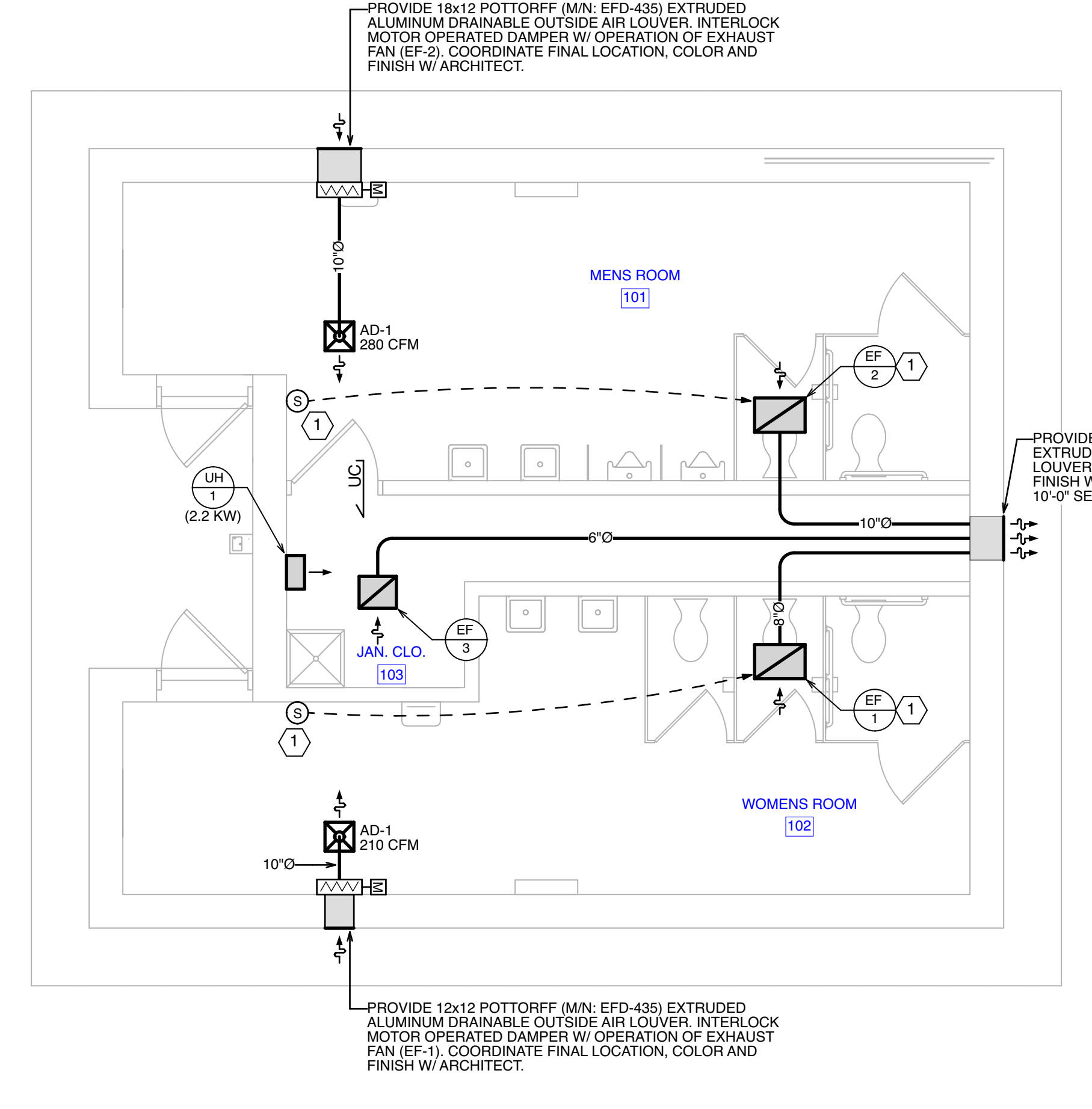
### MECHANICAL DRAWING NOTES

**GENERAL NOTES:**

- Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract documents, codes, ordinances, and accepted trade practices.
- The Contractor shall review all of the contract documents including those of the other trades in order to acquaint himself with the existing and related conditions that may, will or could affect his work. He shall be experienced, skilled and knowledgeable with this type of construction and shall be expert and proficient in the preparation of estimates and the comprehension, implementation and interpretation of contract documents such as those prepared for this project.
- The Contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. Submission of the proposal shall be considered evidence that this requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
- The Contractor by his acceptance of the contract documents that all work installed shall be free from all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that if, during a period of one (1) year from the date of completion and acceptance of the work, any such defects in workmanship, material or performance appear, such defects shall be remedied by him without cost to the Owner. If the Contractor fails to remedy the defects as outlined within a reasonable length of time, to be specified in a notice from the Owner's authorized representative to the Contractor, the Owner will have such work done and he will charge the cost to the Contractor.
- Mechanical equipment shall be installed in a neat and workmanlike manner in accordance with the latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by the Contractor for this division in the execution of this work.
- The contract drawings are diagrammatic and indicate the general arrangement of systems. The Contractor shall provide all work required of contract documents such as those prepared for this project. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
- The Contractor shall follow the contract drawings in laying out his work, and he shall also check the contract drawings of the other trades to verify spaces in which his work shall be provided. Equipment locations shall be coordinated with the Architect and the G.C.
- The Contractor shall, without additional costs to the Owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of his work.
- The Contractor shall provide and maintain in good order a complete set of blue-line prints of the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the expiration of the work, the contractor shall, at his own expense, obtain a set of reproducible copies of the original contract drawings and the symbols on the contract drawings, shall incorporate all "as-built" data in a clearly legible and reproducible manner. All schedules shall be corrected to indicate "as-built" conditions. All revisions shall be incorporated on these reproducible copies and all sketches and written directives. All concealed equipment, manifolds, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition of acceptance of the work, the "as-built" reproducible copies shall be signed, dated and delivered to the Engineer.
- The Contractor shall supply all labor required to perform all work which may be claimed by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the Owner regardless of which section of the contract documents the work is for or completed. The Contractor shall be responsible to verify with all local organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades and provide and install his work in accordance with the accepted trade practice in the area.
- The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state and federal authorities. The National Board of Fire Underwriters, the codes of the International Codes Council, the National Fire Protective Association and all other regulatory bodies having jurisdiction. All materials and equipment shall bear the stamps or seals of the NFPA, ASME, NEMA, IEEE, UL and other recognized industry regulatory groups.
- The Contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
- The Contractor shall be responsible for all working conditions and shall maintain a safe environment at the job site for all employees.
- All work shall be installed in strict accordance with the equipment manufacturer's recommendations and requirements.
- Openings around ductwork and piping passing through the construction shall be sealed with fire barrier caulking.
- All systems are to be tested, adjusted and balanced to provide performance as indicated on the drawings. Test and adjust all safety controls.
- Coordinate to assure that all work of all trades will be concealed within the wall and ceiling construction and without the need to reduce ceiling heights. Report exceptions to the Architect prior to construction and erection of the work.
- All work shall be supported from the building structural system. Work shall not be supported from the ceiling suspension system, from plumbing work, sprinkler piping, electrical work, nor from other mechanical work.
- The HVAC and Plumbing trades shall coordinate all work with the General Contractor prior to installation.
- All work shall be located to avoid conflicts with other work and provide adequate clearances for architectural design, proper operation, adjustments, filter replacement, component service and provide a minimum 2" clearance between all piping, ductwork, conduit and other work.
- The Contractor shall maintain as-built drawings and deliver them to the Owner upon completion of the project.
- Provide supports, hangers, flexible pipe connections, vibration isolation, supplementary supports, controls and wiring, cleaning, painting, specialties and all other labor, materials, devices and services required for a complete, quality installation. Unless otherwise indicated, fun all pipes, ductwork and conduit be high pressure. Provide starters for all motor driven equipment.
- The HVAC trades shall coordinate all electrical loads with the Electrical Contractor.

**HVAC NOTES:**

- The Contractor shall coordinate with the General Contractor. Locate all required cutting and patching and the like required by the installation of the Mechanical work.
- Provide all specialties, accessories, controls and the like to provide a complete, quiet, properly operating automatically controlled systems.
- The HVAC trade shall provide all safety and operating controls, transformers, motor starters, devices and control wiring required for the systems to operate in a safe and satisfactory manner.
- Do not operate the air conditioning systems during construction except for testing and provide new filters for all units and immediately prior to substantial completion.
- Ductwork shall be constructed of galvanized sheet metal fabricated and erected in accordance with ASHRAE and SMACNA standards. Provide turning vanes in all elbows, manual volume dampers in all branches, air equalizers and similar devices as required to properly balance the systems and produce quiet, draftless operation. Ductwork sizes shown on the plans are sheet metal (D), free area.
- Ductwork shall be constructed to the sizes shown and made airtight during erection with caulked, taped or hardcast joints to restrict leakage to 5% or less of circulated air.
- All ductwork shall be closely coordinated prior to fabrication. The Architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information. Full sheet metal shop drawings drawings shall be developed with all special requirements worked out and shown on drawings. These drawings must show locations of openings to be cut through the building's exterior, floors, etc. and any problems. These drawings shall be submitted for review by the Architect and Engineer prior to fabrication.
- Provide UL labeled and inspected fire dampers for all ducts and openings passing through floors, fire rated walls and ceilings, where shown on the drawings and in locations required by codes.
- Balance all air quantities to within 5% of the CFM shown on the drawings. Finally balance individual outlets to the occupants' satisfaction. Install all devices required for balancing in the system during construction. Provide balancing reports by a certified testing and balancing agency for review by the Engineer.
- Provide written operating and maintenance instructions including all warranty certificates, in duplicate, to the Architect.
- Contractor shall coordinate all diffuser, grille and register locations with architectural ceiling plans and lighting layouts.
- All flexible ductwork shall conform with the UL rating under flexible air duct test UL-181.



**1 FIRST FLOOR MECHANICAL PLAN**  
SCALE: 1/4" = 1' - 0"

### MECHANICAL SYMBOLS, INDICATIONS & ABBREVIATIONS

	EQUIPMENT DESIGNATION TAG		FLEXIBLE DUCTWORK
	SUPPLY AIR DIFFUSER (CEILING)		DUCT W/ ACOUSTICAL LINING
	SUPPLY AIR DIFFUSER (SIDEWALL)		RETURN/EXHAUST AIR DUCT DN
	SUPPLY AIR DIFFUSER (LINEAR, CEILING)		RETURN/EXHAUST AIR DUCT DN
	SUPPLY AIR DIFFUSER (LINEAR, WALL)		SUPPLY/MAKE-UP AIR DUCT DN
	RETURN AIR DIFFUSER (CEILING)		SUPPLY/MAKE-UP AIR DUCT DN
	RETURN AIR DIFFUSER (SIDEWALL)		MOTORIZED DAMPER
	EXHAUST AIR DIFFUSER (CEILING)		DIRECTION OF FLOW
	RETURN/EXHAUST AIR DIFFUSER (SIDEWALL)		CONDENSATE DRAIN
	BRANCH DAMPER		PIPE TURNING DOWN
	VOLUME DAMPER		PIPE TURNING UP
	2" DOOR UNDERCUT		CAPPED FLANGE
	THERMOSTAT	AD	AIR DEVICE
	DUCT MOUNTED SMOKE DETECTOR	A.F.F.	ABOVE FINISHED FLOOR
	DUCT SIZE TRANSITION	CFM	CUBIC FEET OF AIR PER MINUTE
	EXHAUST FAN	EA	EXHAUST AIR
		EN	EXHAUST AIR
		EF	EXHAUST FAN
		EFH	FAN FORCED HEATER
		M.O.D.	MOTORIZED DAMPER
		OA	OUTSIDE AIR
		RA	RETURN AIR
		RTU	ROOF TOP UNIT
		SA	SUPPLY AIR
		UC	UNDERCUT

NO.	DATE	DESCRIPTION	REV'D BY

APPROVAL: PROJECT: **RESTROOM BUILDING FOR FASOLA PARK**

12 SYCAMORE LN.  
DERPTFORD TOWNSHIP, NJ 08004

TITLE: **FIRST FLOOR MECHANICAL PLAN & MECHANICAL SCHEDULES & DETAILS**

Joseph F. McKernan Jr., Architects & Associates  
100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034

SCALE: AS NOTED DRAWING NO: **M-1.0**

PROJ. NO: 080302  
DATE: 09/20/22  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

SCOTT A. WHITE  
REGISTERED ARCHITECT & ENGINEER  
NO. 12345678901

**CALL BEFORE YOU DIG !**

NEW JERSEY STATUTE 2C:17-5 OF 1979  
REQUIRES (3) WORKING DAYS NOTICE FOR  
CONSTRUCTION PHASE AND (5) WORKING  
DAYS IN DESIGN STAGE -- STOP CALL

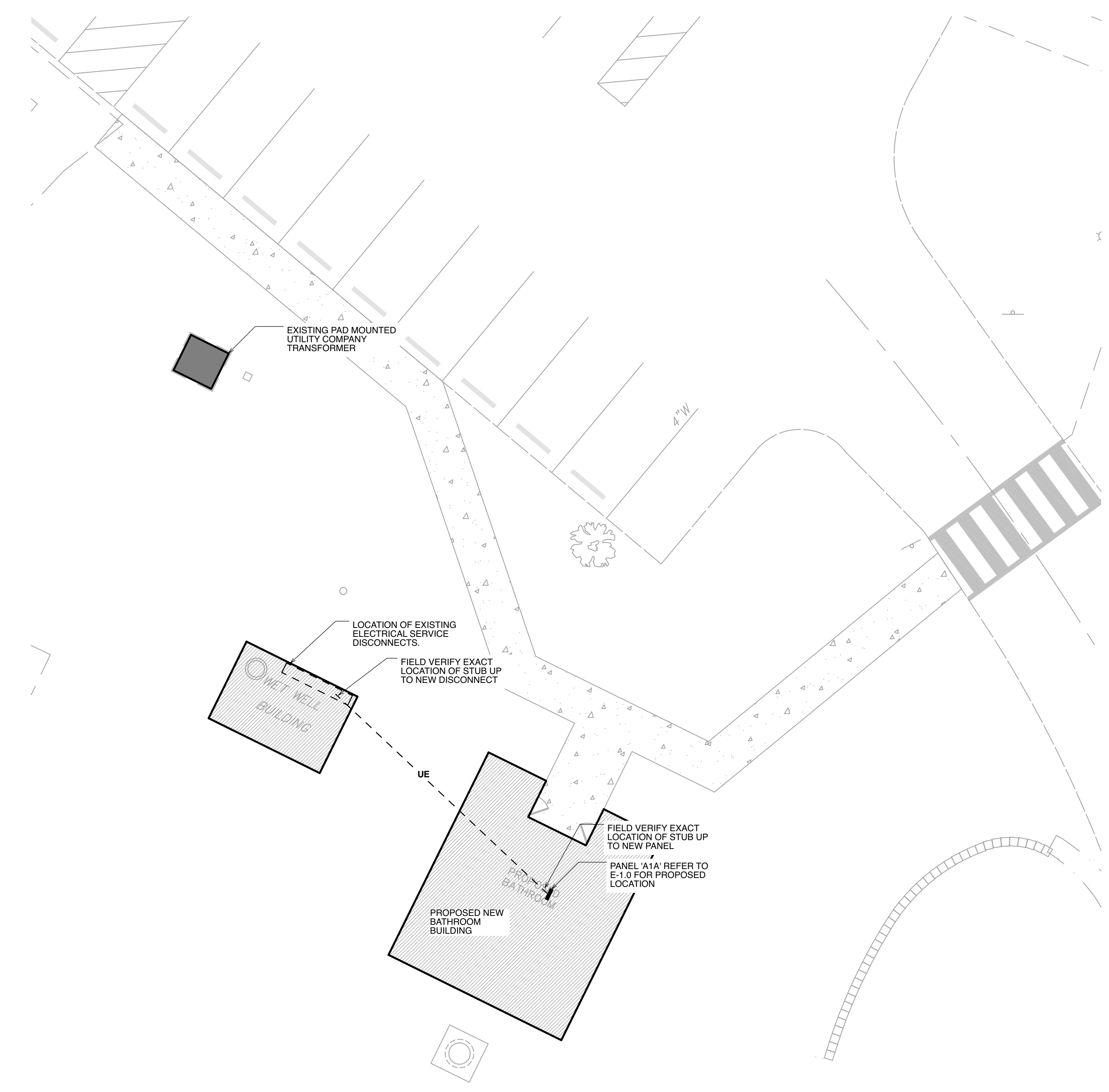
**Garden State Underground  
Utility Locator Service**



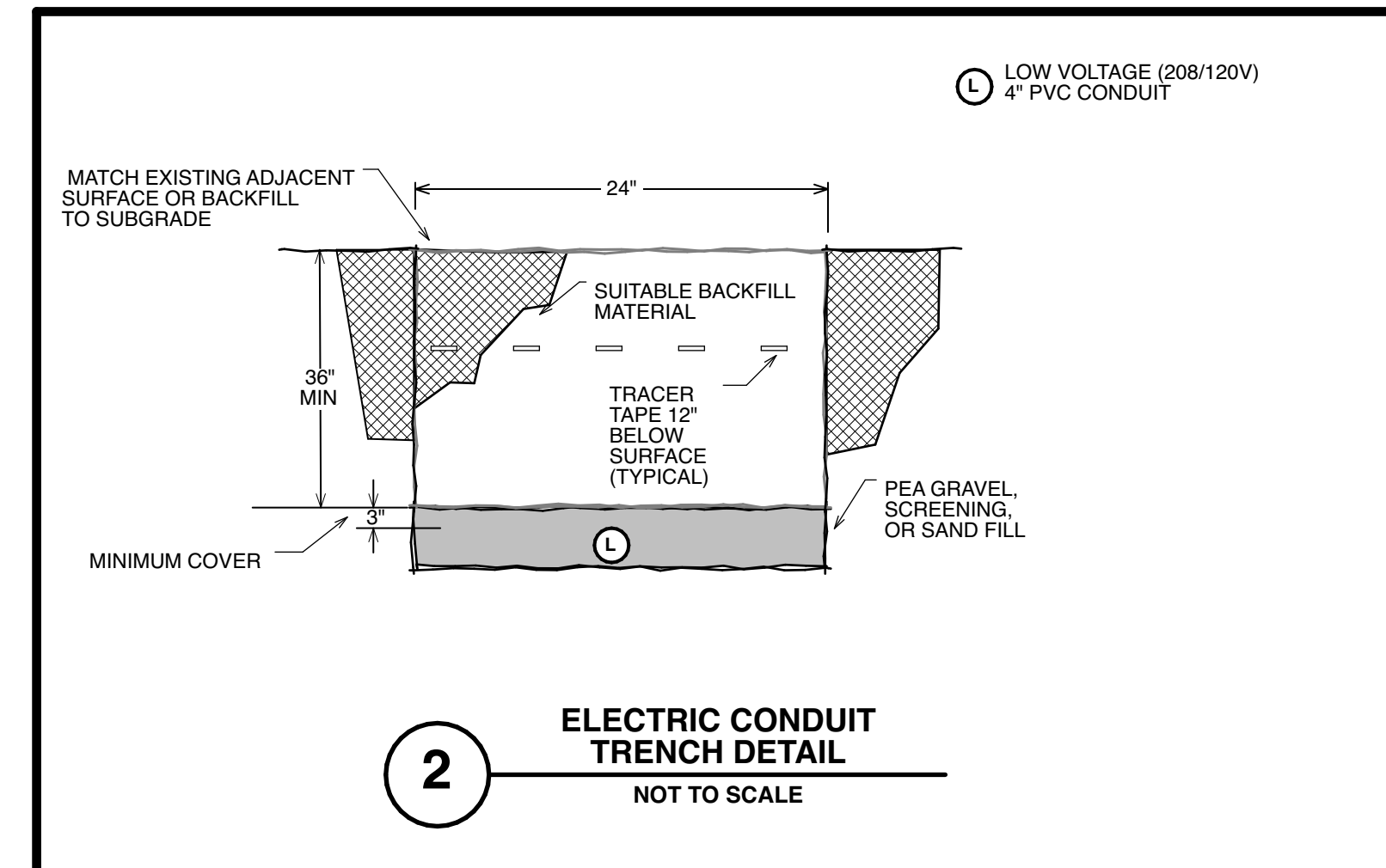
(908) 232 - 1232

**SITE ELECTRICAL NOTES**

1. PLAN IS DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS OF ALL EQUIPMENT AND SITE WORK WITH OWNER, ARCHITECT, AND CIVIL ENGINEER PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF UNDERGROUND SERVICES WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
3. EXACT ROUTING AND TERMINATION POINTS OF UNDERGROUND SERVICES SHALL BE VERIFIED WITH THE UTILITY COMPANY AND OTHER CONTRACTORS.
4. IN ADDITION TO THE LENGTH SHOWN, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE PER 25' OF RUN FOR SECONDARY ELECTRIC SERVICE CONDUITS, RELATED TRENCHING, AND BACKFILL.
5. IN ADDITION TO THE LENGTH SHOWN, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE PER 25' OF RUN FOR TELEPHONE SERVICE CONDUITS, RELATED TRENCHING, AND BACKFILL.
6. COORDINATE FINAL INTERCONNECTIONS TO EACH UTILITY COMPANY. PROVIDE ALL MATERIALS AND LABOR REQUIRED FOR SERVICE CONNECTIONS IN ACCORDANCE WITH EACH UTILITY (POWER AND COMMUNICATIONS) COMPANY SERVICE STANDARDS.
7. UNLESS OTHERWISE NOTED, UNDERGROUND ELECTRICAL AND COMMUNICATIONS CONDUITS SHALL BE 2" MINIMUM BELOW GRADE. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC.
8. PROVIDE, IN TRENCH CONTAINING ELECTRIC AND COMMUNICATION DUCT SYSTEMS, AN UNDERGROUND UTILITY MARKING TAPE. TAPE SHALL BE BURIED 1 FOOT BELOW GRADE AND RUN CONTINUOUS THE ENTIRE LENGTH OF DUCT TRENCH. TAPE SHALL BE BRIGHTLY COLORED RED POLYETHYLENE LONG LIFE TYPE WITH PRINTED WARNINGS TO READ "CAUTION, BURIED ELECTRIC LINE BELOW".
9. PROVIDE ALL REQUIRED EXCAVATION TRENCHING, BACKFILLING, COMPACTING IN ACCORD WITH THIS DIVISION.
10. PROVIDE APPROVED GROUNDING CONDUCTOR IN ALL CONDUIT.
11. PROVIDE PVC CONDUIT BURIED 30 INCHES MINIMUM BELOW FINISHED GRADE, OR AS OTHERWISE INDICATED, FOR SERVICES AND FEEDERS.
12. PROVIDE UNDERGROUND DUCTS IN A STRAIGHT LINE. POCKETS WHERE WATER CAN ACCUMULATE IN CONDUITS WILL NOT BE PERMITTED.
13. ALL UNDERGROUND CONDUITS SHALL BE WATER-TIGHT. DOPE THREADS OF STEEL CONDUIT BEFORE JOINING. PVC CONDUITS SHALL BE CHEMICALLY BONDED AROUND ENTIRE CIRCUMFERENCE OF THE CONDUIT AT EACH JOINT. PROVIDE A MINIMUM OF 6 FEET OF RIGID STEEL CONDUIT WHEN ENTERING OR RUNNING UNDER MANHOLES, TRANSFORMER PADS, AT BUILDING WALLS OR FOUNDATIONS AND ON BOTH SIDES OF ROADS. CONDUITS UNDER ROADS SHALL BE STEEL.
14. PROVIDE ALL EXCAVATION, TRENCHING AND BACKFILLING INCLUDING SHORING, SHEETING, PUMPING, GRADING, BARRICADING AND OTHER RELATED WORK NECESSARY FOR INSTALLATION OF ELECTRICAL WORK.
15. EXCAVATION SHALL BE PERFORMED ON AN UNCLASSIFIED BASIS AND SHALL INCLUDE THE REMOVAL OF MATERIALS ENCOUNTERED.
16. TRENCHES SHALL BE OF SUFFICIENT DEPTH TO ALLOW ADEQUATE COVER OVER RACEWAYS. BOTTOMS OF TRENCHES SHALL BE INSTRUMENT GRADED IN DIRECTION OF FLOW. EARTH SHALL BE SCOOPED OUT SO RACEWAYS WILL HAVE SOLID BEARINGS ON UNDISTURBED EARTH. WHERE RACEWAYS ARE INSTALLED IN FILLED GROUND CONCRETE ENVELOPE ENCASUREMENT SHALL SPAN FULL WIDTH OF TRENCH.
17. BACKFILL SHALL BE MADE WITH CLEAN EARTH FREE OF ROCKS, FROZEN EARTH, DEBRIS OR OTHER FOREIGN MATERIAL. DEPOSIT BACKFILL IN UNIFORM LAYERS NOT OVER 6" THICK. TAMP EACH LAYER BEFORE APPLYING NEXT LAYER. CINDERS IN BACKFILL ARE PROHIBITED.
18. EXCAVATED MATERIAL REMAINING AFTER THE BACKFILLING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
19. REPAIR STREETS, PAVEMENTS, LAWNS, CURBS AND OTHER FINISHED SURFACES DAMAGED BY EXCAVATION AND RESTORE SAME TO ORIGINAL CONDITION.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND AVOIDING EXISTING UNDERGROUND FACILITIES. HAND EXCAVATE AREAS OF CONFLICT WITH EXISTING UNDERGROUND PIPING AND OR CABLING. AREAS SHALL BE FIELD INSPECTED AND MARKED BY LICENSED AND INSURED LOCATING CONTRACTOR PRIOR TO COMMENCING WORK IN AREA.



**1 SITE ELECTRICAL PLAN**  
SCALE: 1" = 10' - 0"



**2 ELECTRIC CONDUIT TRENCH DETAIL**  
NOT TO SCALE

NO.	DATE	DESCRIPTION	REV'D BY
<b>RESTROOM BUILDING FOR FASOLA PARK</b> 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08034			
<b>APPROVAL:</b> Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		<b>TITLE:</b> SITE ELECTRICAL PLAN	
<b>SCALE:</b> AS NOTED <b>DRAWING NO:</b> E-0.0		<b>DATE:</b> 09/20/22 <b>REV'D BY:</b> JF	
<b>SEAL:</b> JEFFREY E. HOLSTEIN NJ REG. NO. 262684400 212 E. Street Road, Suite 101 Lawrenceville, GA 30046 P. (770) 222-7709 www.holsteinwhite.com		<b>DRAWN BY:</b> JF	

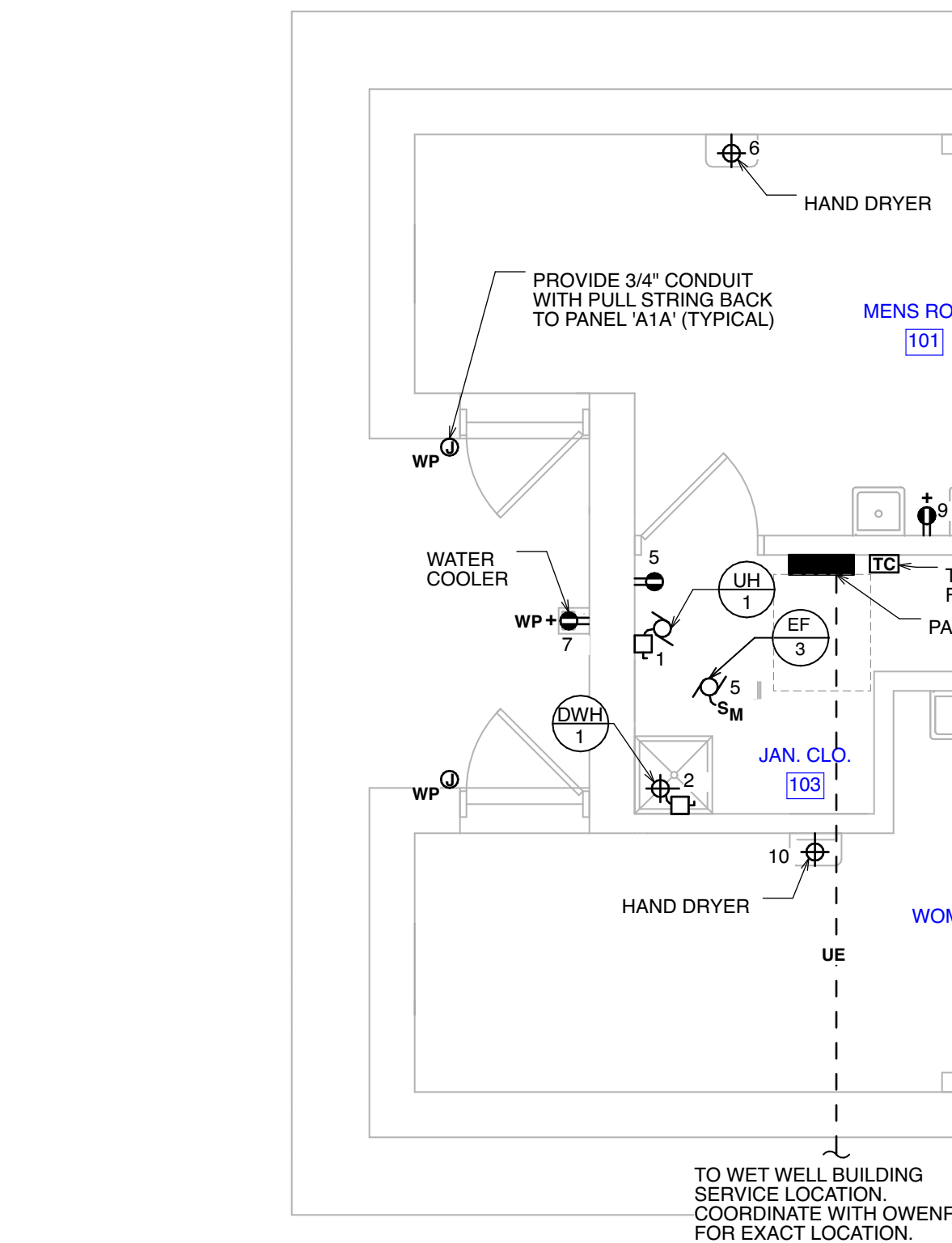


### ELECTRICAL SPECIFICATIONS

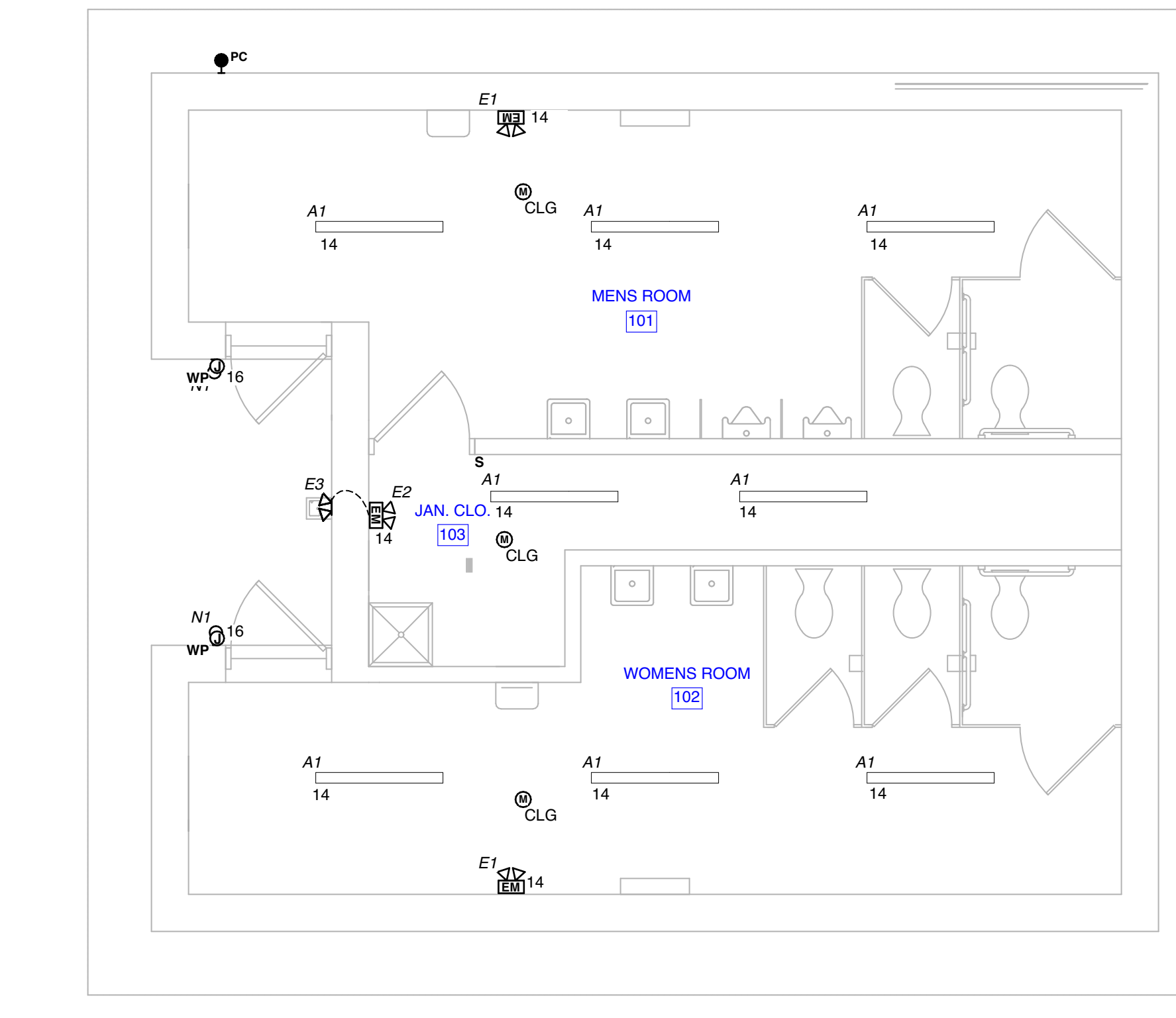
- Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract documents, codes, laws and ordinances, and accepted trade procedures.
- The contractor by his acceptance of the contract guarantees that all work installed shall be free from all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that it, during a period of one (1) year from the date of the certificate of completion and acceptance of the work, any such defects in workmanship, material or performance appear, such defects shall be remedied by him without cost to the owner. If the contractor fails to remedy the defects as outlined within a reasonable length of time, to be specified in a notice from the owner's authorized representative to the contractor, the owner will have such work done, and he will charge the cost to the contractor.
- The contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. The submission of the proposal shall be considered evidence that this requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
- Electrical equipment shall be installed in a neat and workmanlike manner in accordance with latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by Contractor for this Division in the execution of this Work.
- The contract drawings are diagrammatic and indicate the general arrangement of all systems and work included in the contract. The contract drawings are not to be scaled. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
- The contractor shall, without additional costs to the owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of its work.
- The contractor shall provide and maintain in good order a complete set of blueprints prior to the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the conclusion of the work, the contractor shall, at his own expense, obtain a set of reproducible of the original contract drawings, and utilizing the symbols on the contract drawings, shall incorporate all "as built" data in a clearly legible and reproducible manner. All schedules shall be corrected to indicate "as built" conditions. All revisions shall be incorporated on these reproducible including all sketches and written directives. All concealed equipment, mainfeeders, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition for acceptance of the work, the "as built" reproducible and one (1) set of prints shall be signed, dated and delivered to the engineer.
- The contractor shall supply all labor required to perform all work which may be located by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the owner regardless of which section of the contract documents the work is described. The contractor shall be responsible to verify with all local organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades, and provide and install his work in accordance with the accepted trade practice in the area.
- The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state, and federal authorities, the National Board of Fire Underwriters, the codes of the International Codes Council, the codes of the National Fire Protective Association, the New Jersey Uniform Construction Codes, and all other regulatory bodies having jurisdiction. All materials and equipment shall bear the name or seal of the NFPA, ASME, NEMA, IEEE, UL, and other recognized industry regulatory groups.
- The contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans, and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
- Before starting any work under this Contract, file for inspection with the Middle Department Inspection Agency or other certified Agency. Upon completion of the work, furnish Electrical Certificates from said Agency for all Electrical equipment and systems installed or furnished and installed as part of the Contract.
- The contractor shall at all times keep the premises free from the accumulation of waste materials or rubbish caused by his employees or work. At the completion of the work, he shall remove all superfluous materials, equipment and debris resulting from the work.
- All feeder wiring shall be soft drawn copper of 98% conductivity, installed in conduit conforming to applicable codes and cable assemblies. All wiring shall be copper, thermoplastic covered insulated Type 75° C, THW or 90° C, Type THHN, 600-volt rating. Wire No. 8 AWG and smaller shall be solid. Wire larger than No. 8 shall be stranded.
- All wiring shall be insulated copper conductors installed in conduit conforming to applicable codes and cable assemblies.
- All wiring shall be run concealed wherever possible. All exposed conduit shall be EMT or rigid steel as required. Flexible conduit shall be smooth lightweight and shall extend from above ceiling shall be structurally secured and supported. Cable assemblies shall be permitted exposed for final connections to Mechanical and Plumbing equipment and shall be limited to a feet total length, routing shall conform with equipment workspace.
- Where conductors connect directly to equipment, the insulation temperature rating of the conductor shall meet or exceed the equipment temperature rating.
- Color code conductors to designate neutral conductor and phases. Color coding shall conform with existing building standard.
- Exercise great care in maintaining a uniform and consistent arrangement of phase conductors on all systems. Throughout the entire wiring systems, each phase conductor must always be in the same physical position with respect to the other phase wires at equipment terminals.
- Grounding shall comply with Article 250 of NEC and to approval of local Underwriters inspection authorities.
- Panelboards shall be dead front type with plated aluminum bus, bolt-on breakers, fully rated neutral bus and grounding bus block. Cabinet shall be code grade painted steel, NEMA 1, minimum 3/4" deep. Cover shall have door and trim and adjustable clamps, gray baked finish, and turnbuckle key lock. "Spaces" shall be fully bussed and drilled, and rated by breaker installation.
- Contractor shall provide typical updated panel schedules at completion of project for all panels affected by scope of work.
- Circuit Breakers shall be molded case, bolted, thermal magnetic trip in each pole, enclosure-constructed to carry full rated load at 40°C., trip-free handles shall clearly indicate trip, and of condition, quick-make and quick-break action. Lugs approved for copper and aluminum conductors and compression type. Ground Fault type breakers shall be provided with thermal and magnetic protection, UL Class A, 5 ampere ground fault sensitivity, where required. Circuit breakers used as switches in 120 volt circuits feeding incandescent, fluorescent, and/or HID fixtures shall be approved for such use and marked "SWD" per NEC. Circuit breakers serving Heating and Air Conditioning equipment shall be HACR rated.
- Provide all labor, materials and equipment required to provide electric power to meet the requirements for heating, ventilating, air-conditioning and plumbing systems. Fully coordinate installation of electrical wiring and equipment with installation of electrical, mechanical and plumbing equipment provided by the Mechanical and Plumbing Contractors. Install disconnect switches, motor starters, and control transformers furnished by Mechanical and Plumbing Contractors. Provide final electrical terminations. All internal equipment wiring shall be by manufacturer.
- Test equipment, including panelboards and all other equipment and wiring for unintended grounds, short circuits, open circuits, continuity, current leakage, and that equipment will operate as specified. Test feeders for insulation resistance; for load balance of the final installation, and for overall operation of systems. Furnish labor and material required for making such tests and make corrections necessary to balance the load and to obtain proper operation.
- Where existing facilities are being altered, disconnect and remove or relocate all existing electrical work that interferes with or is necessary because of new construction as specified, shown or required.
- Perform alterations and additions to present electrical systems with a minimum interruption in the operation of these systems. Obtain written clearance from Owner for such interruptions and schedule same at whatever time specified in writing by Owner.
- Perform alteration of utilities and services in accordance with the rules, regulations and requirements of the involved utility companies and regulatory agencies having jurisdiction.
- Arrange and pay for the relocation, disconnection or removal of existing utilities and services where shown and where such utilities or services interfere with new construction, whether shown or not. Provide all excavation, backfilling and paving, manholes, and cables required by such work.
- Coordinate with Power Company, inform them of the proposed work; obtain their approval before beginning work; comply with their requirements for details of installation and materials used.
- Verify locations of existing underground services in the area of construction. Verify existing locations of underground electrical services, natural gas piping, water services and sanitary piping, which may affect work.

### DRAWING NOTES

- FIELD VERIFY LOCATION OF ALL WIRING DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.
- COORDINATE INSTALLATION OF HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR. INSTALL AND WIRE DISCONNECT SWITCHES FURNISHED BY MECHANICAL CONTRACTOR.
- MOTORIZED DAMPERS REFER TO MECHANICAL PLAN FOR EXACT LOCATION. INTERCONNECT TO LOCAL AHU AS DIRECTED BY M.C.
- FIELD VERIFY EXACT LOCATIONS OF ALL LIGHTING FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN.
- UNLESS OTHERWISE NOTED, ALL POWER SHALL BE CIRCUITED TO PANEL 'A1A'.
- UNLESS OTHERWISE NOTED ALL LIGHTING SHALL BE CIRCUITED TO PANEL 'A1A'.
- EMERGENCY LIGHTING AND EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE OF LOCAL LIGHTING CONTROL.
- COORDINATE ALL LOW VOLTAGE WORK WITH OWNER AND OWNERS LOW VOLTAGE VENDOR. ELECTRICAL CONTRACTORS SHALL FURNISH AND INSTALL ALL BACKBOARDS WITH CONDUIT AND FULL STRING TO ACCESSIBLE CEILING SPACE.



**1 FIRST FLOOR POWER PLAN**  
SCALE: 1/4" = 1' - 0"



**2 FIRST FLOOR LIGHTING PLAN**  
SCALE: 1/4" = 1' - 0"

### LIGHTING FIXTURE SCHEDULE

Type	Manufacturer	Catalog No.	No.	Watts	Type	Volts	Mounting	Remarks
A1	CertoLux	VRSE-3556 48LED 8 35 048L UNV	53	LED	120V	Surface	Surface mounted vandal resistant fixture.	
N1	Performance IN Lighting	SH113.5-X-35K-120V-NA	13.5	LED	120V	Surface	Surface mounted wall pack. Color selected by Architect.	
E1	Eventite	TEBL3W	2	3	LED	120/9.6VDC	Surface	Indoor battery pack w/ dual 9.6V/3W LED lighting heads, nickel-cadmium battery, white housing.
E2	Eventite	PRWLED2-MV	2	1	LED	9.6VDC	Surface	Indoor battery pack w/ dual 9.6V/3W LED lighting heads, nickel-cadmium battery, white housing.
E3	Eventite	PRWLED2-MV	2	1	LED	9.6VDC	Surface	Outdoor dual remote heads 9.6V/2W LED lighting heads.
X1	Eventite	TLX-EM-RIU-W	1	1	LED	120VAC / 3.6VDC	As Indicated	LED exit sign, red letters, number of faces and directional arrows as indicated on plan or required by installed location, integral battery to provide 90 minutes of illumination.

Notes:  
 1. In addition to those indicated above, refer to Architectural drawings and provide all fixtures specified.  
 2. All fixtures shall be provided with lamping.  
 3. Confirm final fixture options and color selection with Architect prior to purchase.  
 4. Refer to specifications for detailed requirements for construction, handling, ballasts, lamps, etc.  
 5. Coordinate fixture location and mounting requirements with Architectural drawings and details.  
 6. Refer to Architectural reflected ceiling plans for ceiling types and conditions affecting mounting and installation of lighting fixtures.  
 7. Coordinate exact fixture color temperature with owner and architect prior to purchase.

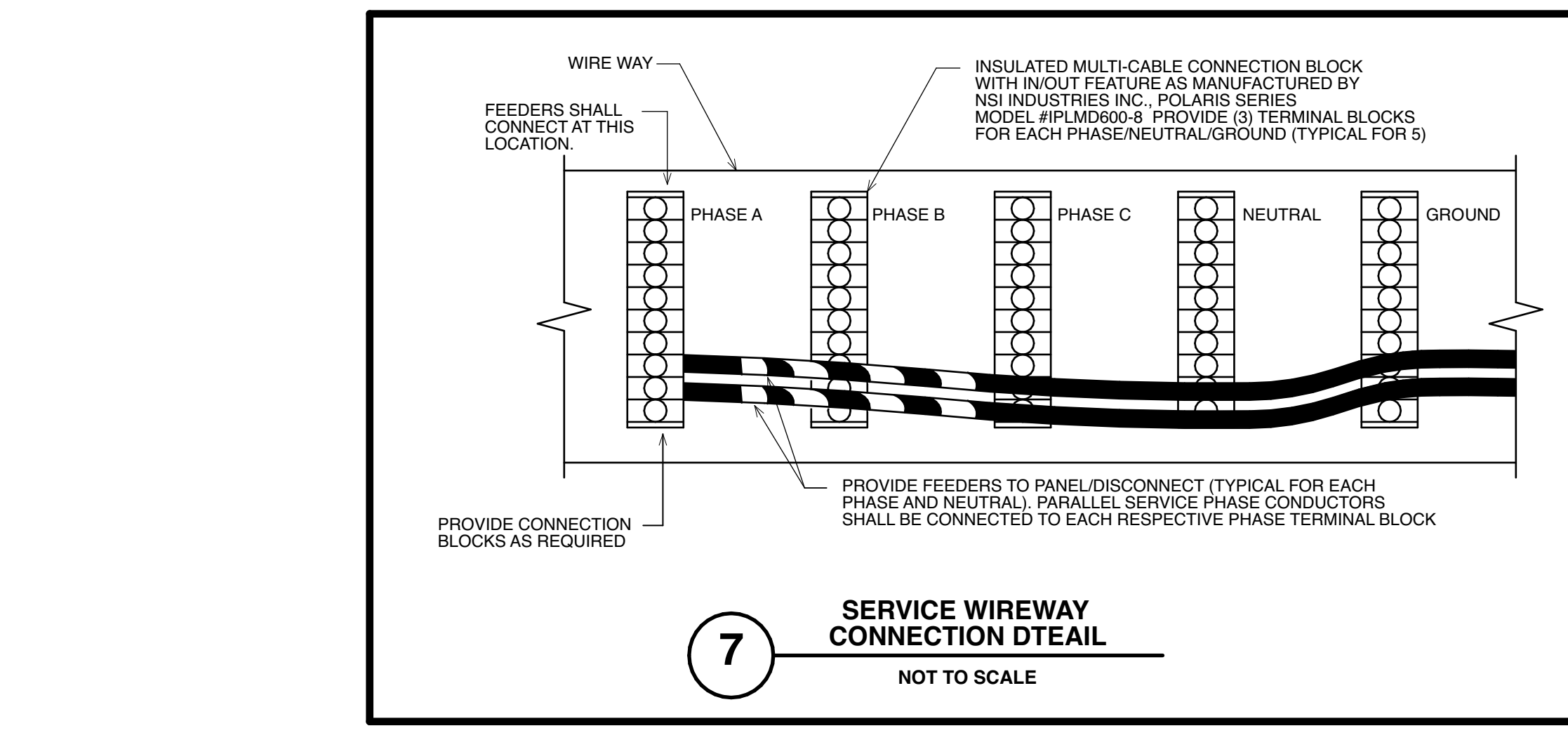
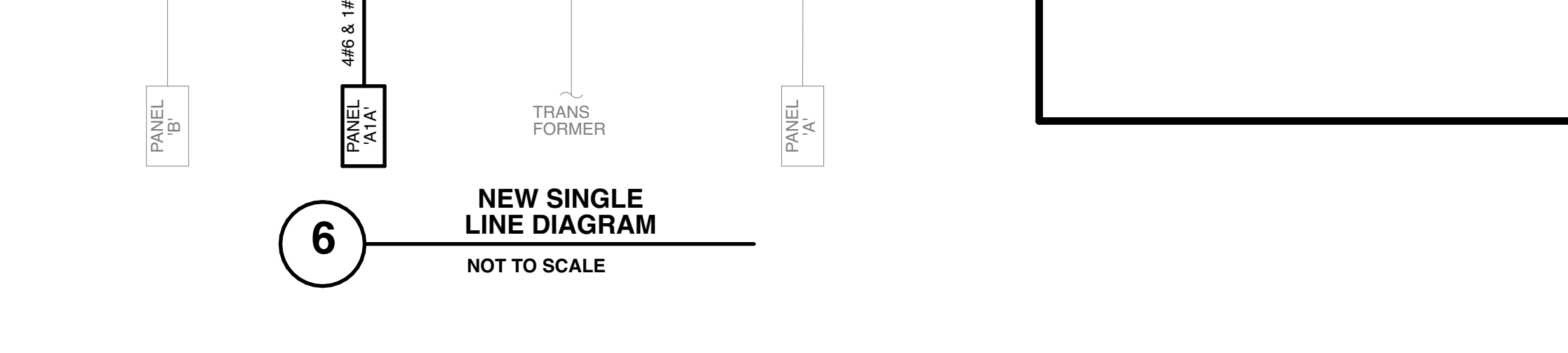
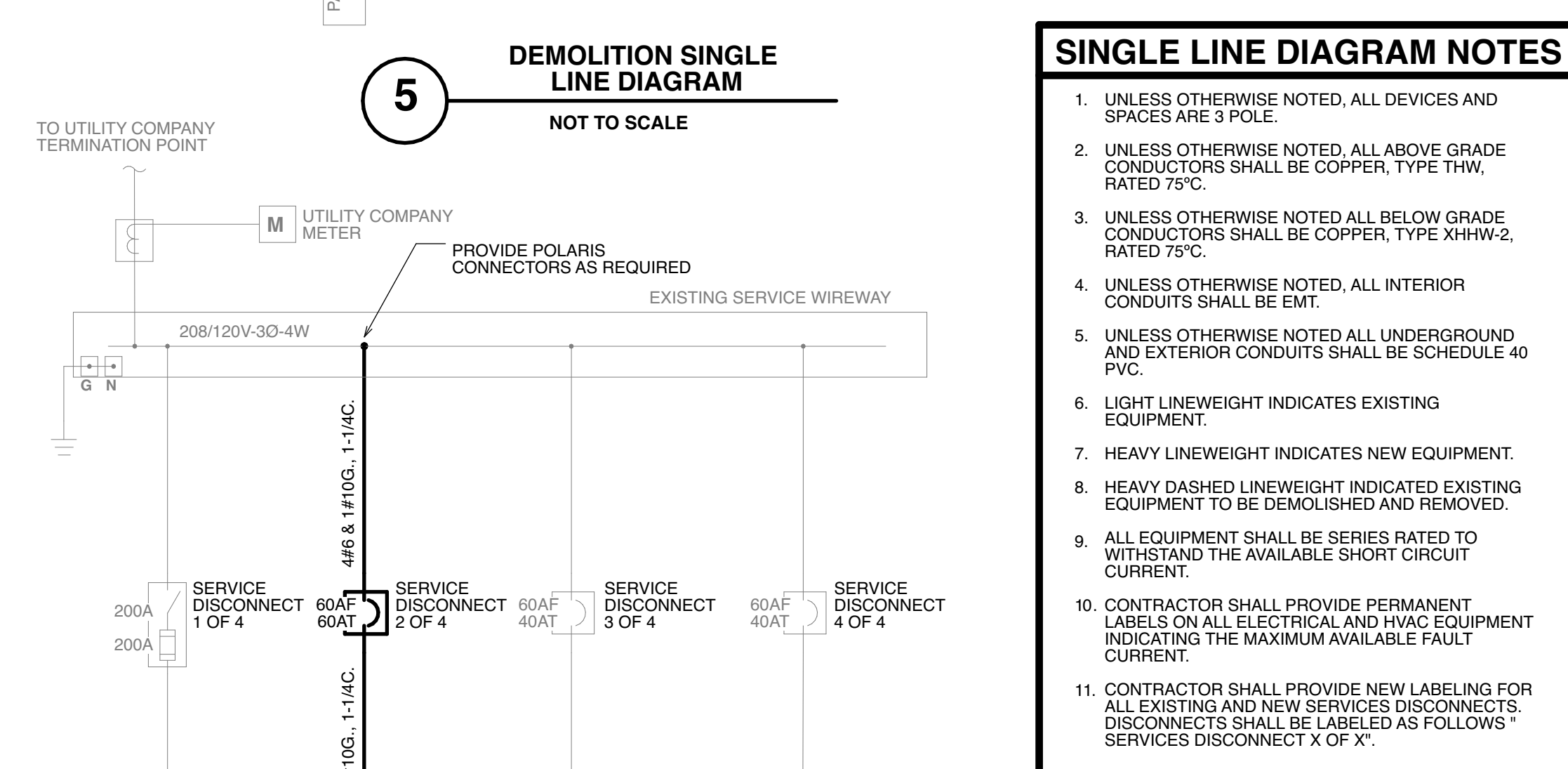
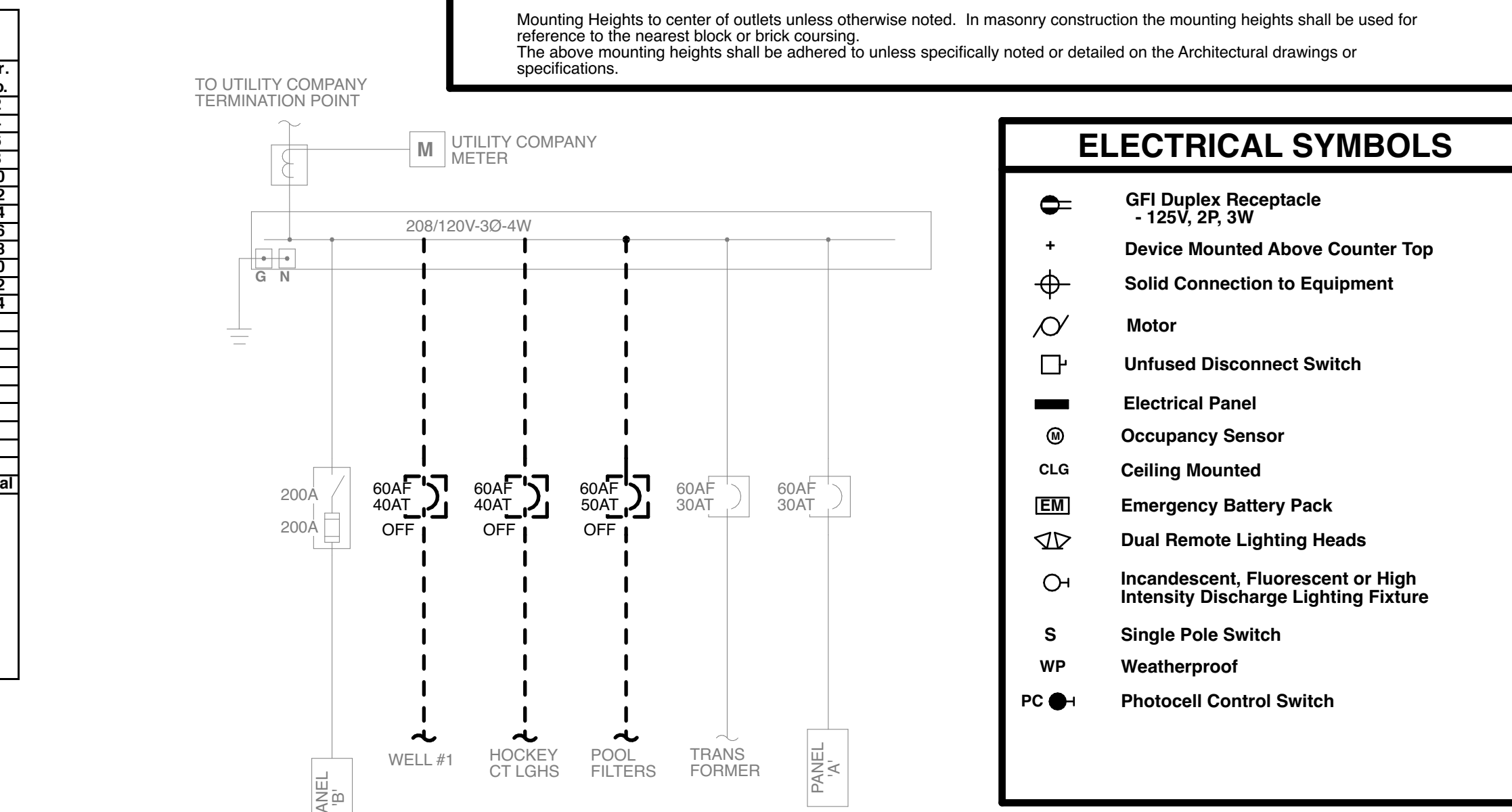
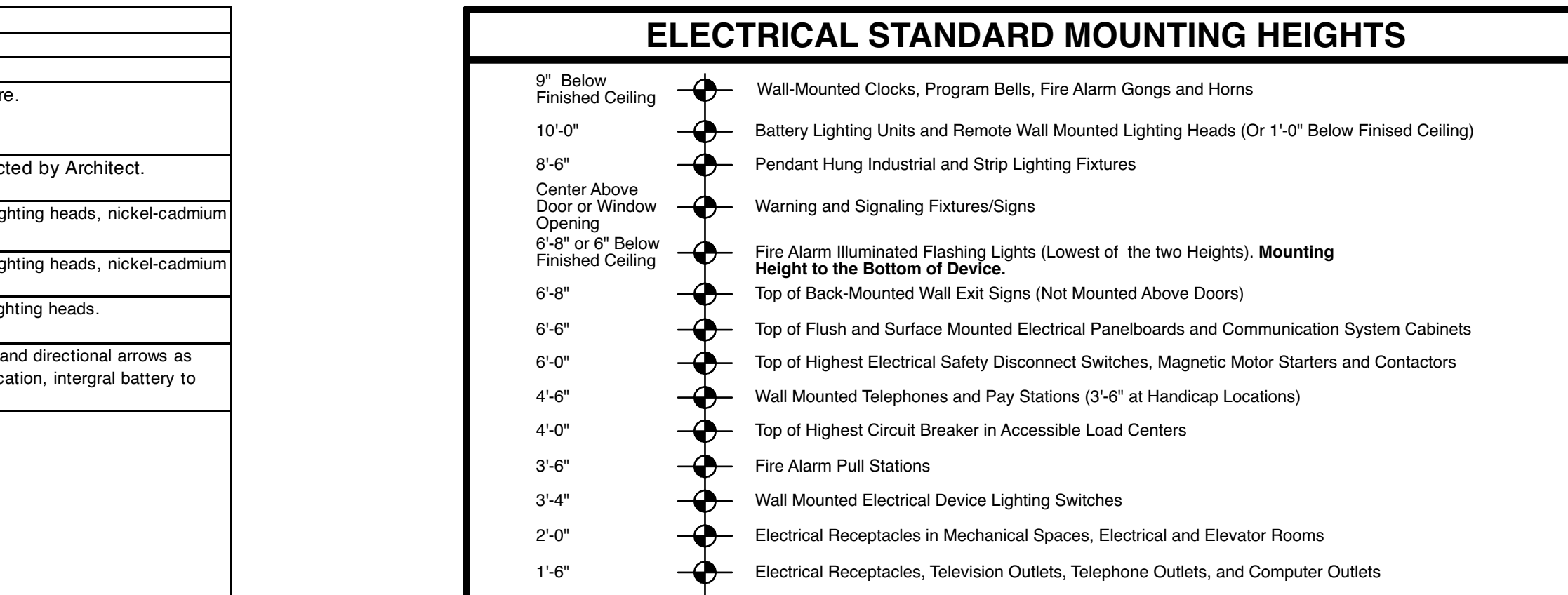
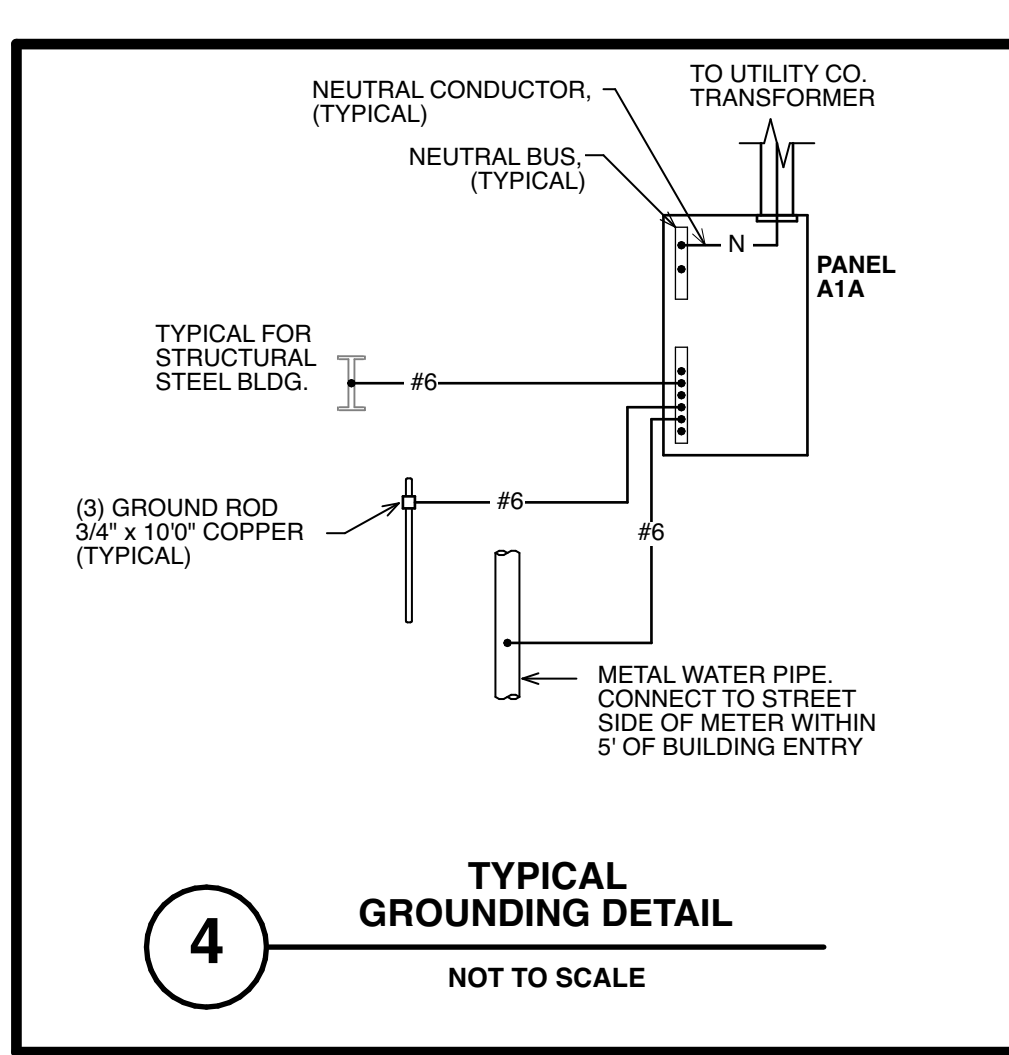
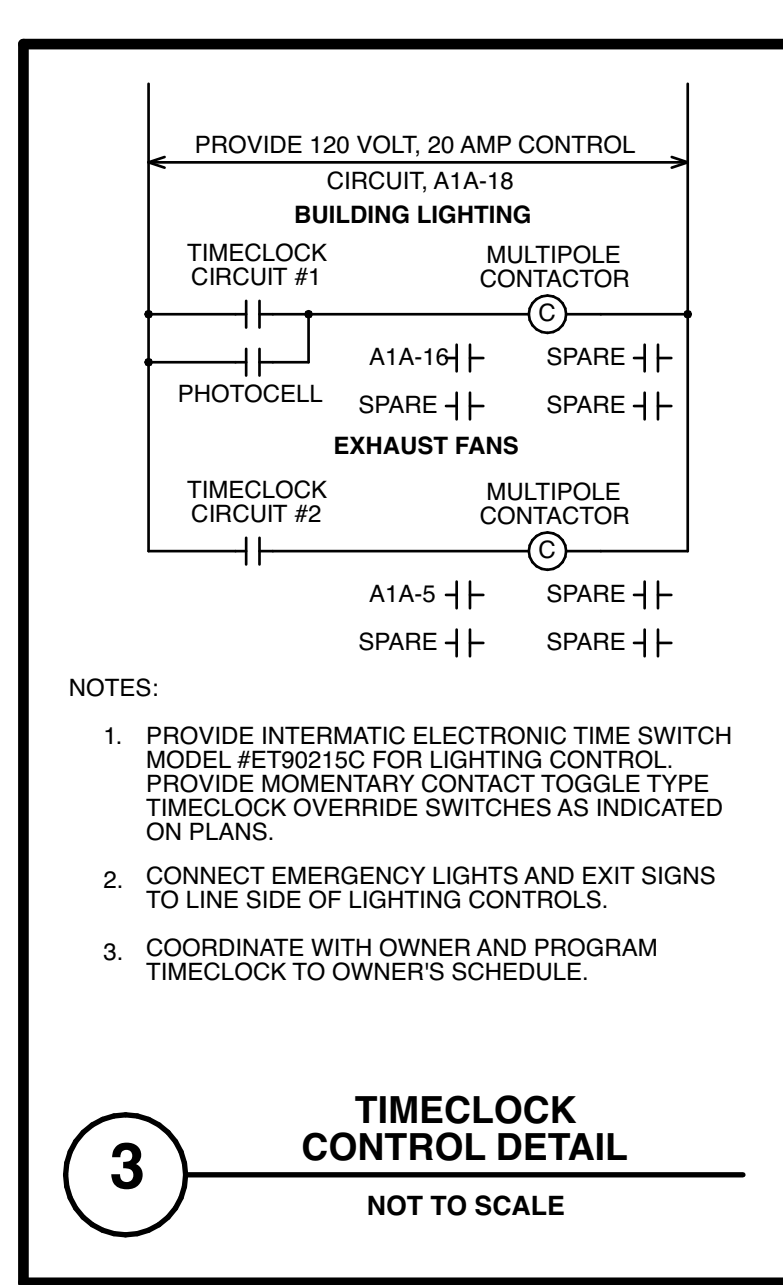
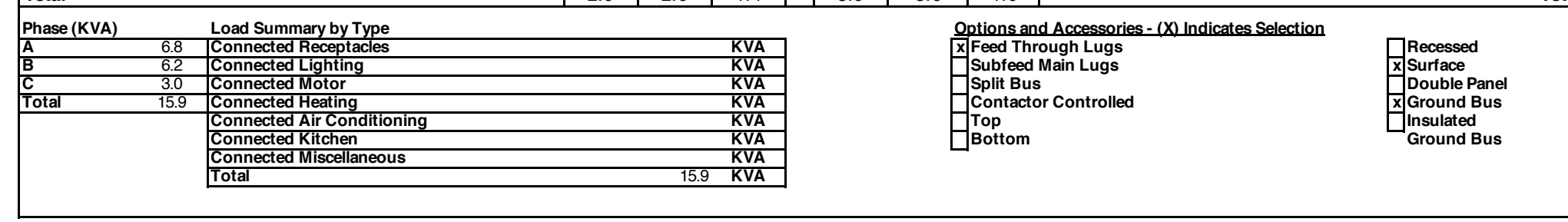
Panel	Cir.	Wire Size	Description	Load - KVA	Description	Wire Size	Cir.	Watts
A1A	1	#12	UHF-1	1.5	DWF-1	#12	302	4
	5	#12	EF-1, 2, 3	0.5	Mens Hand Dryer	#12	202	6
	7	#12	Water Cooler	0.7	Womens Hand Dryer	#12	202	10
	9	#12	Mens Receptacle	0.2	Womens Receptacle	#12	202	16
	11	#12	Womens Receptacle	0.2	Interior Lighting	#12	201	12
	13	#12	Space	0.4	Exterior Lighting	#12	201	14
	18	#12	Grinder Pump	0.9	Time Clock Control Panel	#12	201	18
	19	-	Space	0.9	Space	-	-	20
	21	#12	Space	-	Space	-	-	22
	23	#12	Space	-	Space	-	-	24
<b>Total</b>			<b>2.9</b>	<b>3.9</b>			<b>1.8</b>	<b>Total</b>

Phase (KVA) Load Summary by Type

Phase	Connected Receptacles	Connected Lighting	Connected Motor	Connected Heating	Connected Air Conditioning	Connected Kitchen	Connected Miscellaneous	Total
A	83	39	39	39	39	39	39	39
B	83	39	39	39	39	39	39	39
C	83	39	39	39	39	39	39	39
<b>Total</b>	<b>255</b>	<b>117</b>	<b>117</b>	<b>117</b>	<b>117</b>	<b>117</b>	<b>117</b>	<b>117</b>

Options and Accessories - (X) Indicates Selection  
 (X) Feed Through Lugs  
 (X) Surface  
 (X) Split Bus  
 (X) Contactor Controlled  
 (X) Top  
 (X) Bottom

Legend:  
 [ ] Receptacle  
 [ ] Surface  
 [ ] Double Panel  
 [ ] Insulated  
 [ ] Ground Bus



NO.	DATE	DESCRIPTION	REV'D BY

PROJECT: RESTROOM BUILDING FOR FASOLA PARK  
 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08034

TITLE: FIRST FLOOR POWER AND LIGHTING PLAN

Joseph F. McKernan Jr., Architects & Associates  
 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034

SCALE: AS NOTED  
 DRAWING NO: E-1.0

DATE: 09/20/23  
 REV'D: JF

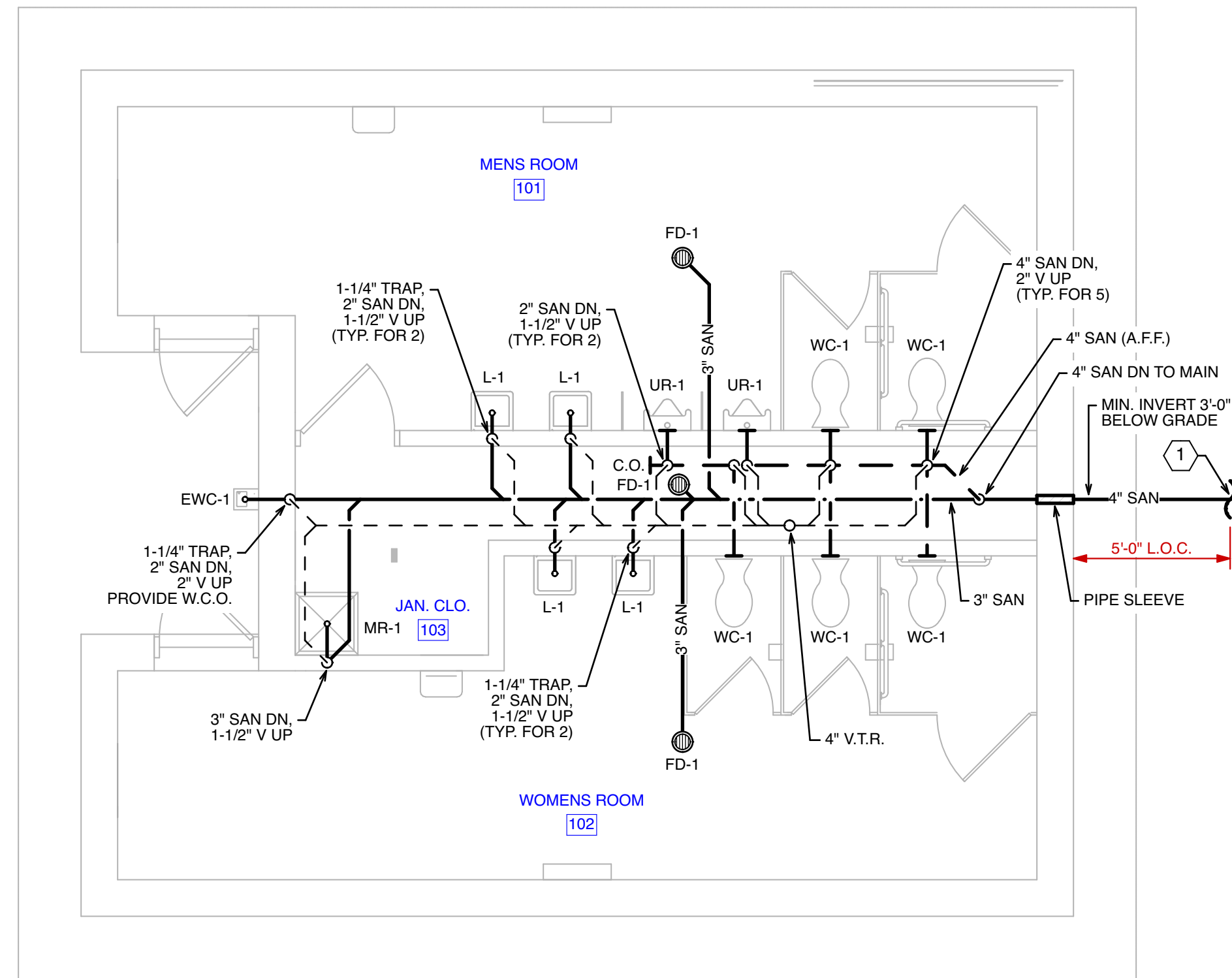
DRAWN BY: JF  
 CHECKED BY: JF

**SHEET NOTES**

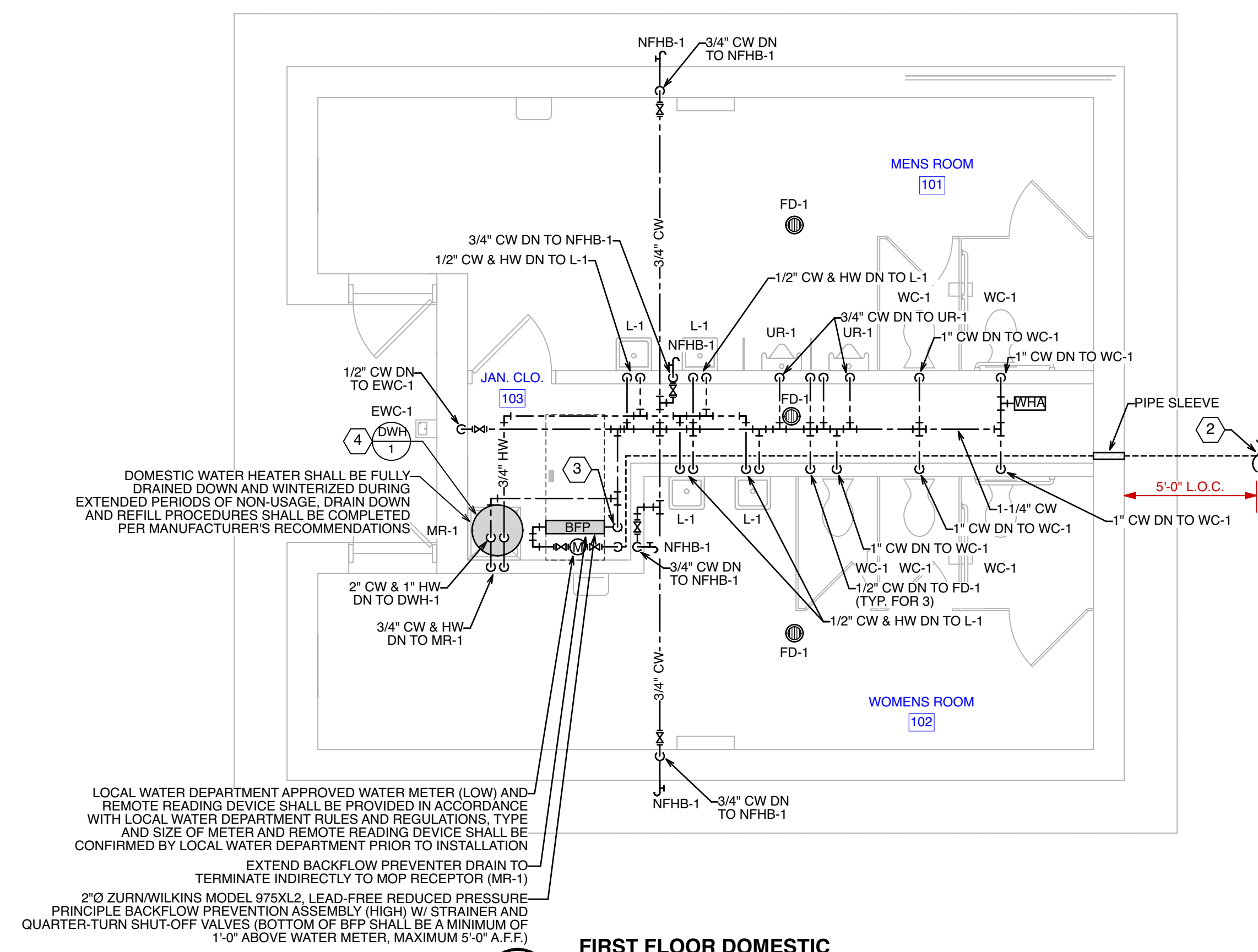
1. 4" Ø SANITARY SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCH PREPARATION, TRENCHING, EXCAVATION, AND BACKFILL. COORDINATE THE INSTALLATION AND LOCATION OF THE SERVICE WITH THE CIVIL ENGINEER'S PLANS & THE LOCAL WATER DEPARTMENT.
2. 2" Ø DOMESTIC WATER SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCH PREPARATION, TRENCHING, EXCAVATION AND BACKFILL (INV. MIN. 48" B.F.F.). COORDINATE THE INSTALLATION AND LOCATION OF THE SERVICE WITH THE CIVIL ENGINEER'S PLANS & THE LOCAL WATER DEPARTMENT.
3. ALL DOMESTIC WATER PIPING SHALL BE PITCHED BACK TO METER LOCATION FOR WINTER DRAIN DOWN PURPOSES. PROVIDE DRAIN DOWN FAUCET NEAR METER TO ALLOW DRAIN DOWN TO NEARBY MOP RECEPTOR (MR-1).
4. DOMESTIC WATER HEATER (DWH-1) SHALL BE MOUNTED ABOVE MOP RECEPTOR (MR-1) ON STRUCTURAL STAND. PLATFORM SHALL BE SUSPENDED FROM STRUCTURE ABOVE. PROVIDE EMERGENCY DRAIN PAN BELOW UNIT AND PIPE DISCHARGE TO MOP RECEPTOR BELOW. PROVIDE FLOODMASTER HOT WATER HEATER FEED WATER ALARM SHUT-OFF FOR LEAK DETECTION.

**GENERAL NOTES**

1. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATIONS OF ALL THE FURNITURE, PLUMBING FIXTURES, AND EQUIPMENT.
2. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PIPING WITH THE LOCATION OF ALL FOOTERS AND UTILITY PIPING.
3. ALL SANITARY PIPING 4" Ø AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT. ALL SANITARY PIPING 3" Ø AND SMALLER SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT. CONTRACTOR SHALL VERIFY THE EXACT INVERTS IN THE FIELD.
4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE NEW PIPING WITH ALL OTHER TRADES TO AVOID CONFLICTS.
5. ALL FLOOR DRAINS SHALL HAVE A TRAP PRIMER CONNECTION. REFER TO SANITARY FLOOR PLANS FOR LOCATIONS OF ALL FLOOR DRAINS. PROVIDE TRAP PRIMER AND 1/2" CW PIPE FROM TRAP PRIMER TO FLOOR DRAIN CONNECTION. WRAP ALL CW PIPE WITH 1/2" ARMAFLEX.
6. REFER TO PLUMBING FIXTURE SCHEDULE AND RISER DIAGRAMS FOR MORE INFORMATION REGARDING SANITARY, VENT, COLD WATER AND HOT WATER PIPING SIZES.



**1** FIRST FLOOR SANITARY PLAN  
SCALE: 1/4" = 1' - 0"



**2** FIRST FLOOR DOMESTIC WATER PLAN  
SCALE: 1/4" = 1' - 0"

NO.	DATE	DESCRIPTION	REV'D BY
APPROVAL		PROJECT: <b>RESTROOM BUILDING FOR FASOLA PARK</b> 12 SYCAMORE LN, DERPTFORD TOWNSHIP, NJ 08034	
<b>Joseph F. McKernan Jr., Architects &amp; Associates</b> 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: <b>FIRST FLOOR PLUMBING PLAN</b>	
<b>HOLSTEN WHITE</b> 215 E. River Road, Suite 101 Freehold, NJ 07728 P: (732) 322-7729 www.holstenwhite.com		SCALE: AS NOTED DRAWING NO: <b>P-1.0</b> DATE: 09/20/22 REV'D BY: HW DRAWN BY: HW CHECKED BY: HW	

## PLUMBING DRAWING NOTES

- GENERAL WORK:**
- The Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract drawings, codes, laws and ordinances and accepted trade procedures.
  - In preparing his estimate, the Contractor shall review all of the contract documents including those of the other trades in order to acquaint himself with existing and related conditions that may, will, or could affect his work. He shall be experienced, skilled and knowledgeable with this type of construction and shall be expert and proficient in the preparation of estimates and the comprehension, implementation and interpretation of contract documents such as those prepared for this project.
  - The Contractor by his acceptance of the contract guarantees that all work installed shall be free from all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that if, during a period of one (1) year from the date of certificate of completion and acceptance of the work, any such defects in workmanship, material or performance appear, such defects shall be remedied by him without cost to the Owner. If the Contractor fails to remedy the defects as outlined within a reasonable length of time to be specified in a notice from the Owner's authorized representative to the Contractor, the Owner will have such work done and he will charge the cost to the Contractor.
  - The Contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. The submission of the proposal shall be considered evidence that this requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
  - Plumbing work shall be installed in a neat and workmanlike manner in accordance with latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by Contractor for this Division in the execution of this work.
  - The contract drawings are diagrammatic and indicate the general arrangement of all systems and work included in the contract. The contract drawings are not to be taken as a final schedule. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
  - The Contractor shall follow the contract drawings in laying out his work, and he shall also check the contract drawings of the other trades to verify spaces in which his work shall be provided.
  - The Contractor shall, without additional costs to the Owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of his work.
  - The Contractor shall supply all labor required to perform all work which may be claimed by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the Owner regardless of which section of the contract documents the work is in. The Contractor shall be responsible to verify with all organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades, and provide and install his work in accordance with the accepted trade practice in the area.
  - The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state and federal authorities, The National Board of Fire Underwriters Building Code, the 2018 National Standard Plumbing Code, the National Fire Protection Association and all other regulatory bodies having jurisdiction. All materials and equipment shall be clear of the streets or seats of the NFA, ASME, NEMA, IEEE, UL and other regulatory groups.
  - The Contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans, and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
  - The Contractor shall coordinate with the General Contractor and locate all required cutting and patching and the like required by the installation of the plumbing work.
  - All work shall be installed in strict accordance with the equipment manufacturer's recommendations and requirements. All systems are to be tested, adjusted and balanced to provide performance as indicated on the drawings. Test and adjust all safety controls.
  - Coordinate to assure that all work of all trades will be concealed within the walls and ceiling construction and without the need to reduce ceiling heights. Report exceptions to the Architect prior to construction and erection of the work. Openings around piping passing through the construction shall be sealed with fire barrier caulking. All materials located within the return air plenum shall be non-combustible with flame spread ratings of 25 or less and smoke developed ratings of 50 or less. All control wiring located within ceiling return air plenums shall be plenum rated or shall be run in conduit. All work shall be located to avoid conflicts with other work and provide adequate clearance for architectural design, proper operation, adjustments, component service and provide a minimum 2" clearance between all piping and other work.
  - Provide supports, hangers, flexible pipe connections, vibration isolation, supplementary supports, controls and wiring, cleaning, painting specialties and all other labor, materials, devices and services required for a complete, first quality installation. All work shall be supported from the building structural system. Work shall not be supported from the ceiling suspension system, from electrical work, nor from other mechanical work. Unless otherwise indicated, run all piping as high as possible. Provide starters for all motor driven equipment.
  - The Contractor shall provide and maintain in good order a complete set of blue-line prints of the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the conclusion of the work, the Contractor shall, at his own expense, obtain a set of reproductions of the original contract drawings, and utilizing the symbols on the contract drawings, shall incorporate all "as-built" data in a clearly legible and reproducible manner. All work shall be corrected to indicate "as-built" conditions. All revisions shall be incorporated on these reproductions including all sketches and written directives. All concealed equipment, main-feeders, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition for acceptance of the work, the "as-built" reproductions and one (1) set of prints shall be signed, dated and delivered to the Engineer.
- PLUMBING:**
- Gate valves shall be all red bronze, 125 psi WP, solid wedge disc, non-rising stem, soldered ends and equivalent to Stockham B-109. Provide shut-off valves for all concealed equipment.
  - The Contractor shall provide a sanitary drain from all fixtures. The Contractor shall provide all required vent piping for all fixtures installed. Pitch drainage piping 1/8" per foot (1%) unless otherwise noted. Snake all lines and test system just prior to turn over to owner. Provide cleanouts in new sanitary and piping 50 feet or more in length, at direction changes of 45° or more and elsewhere required by codes. Cleanouts accessible through walls shall be provided with chrome-plated covers and frame, in floors with recessed top to receive floor finishing material.
  - The Contractor shall sterilize all new domestic water piping as required by the 2018 National Standard Plumbing Code. The Plumbing Contractor shall provide water hammer arresters as required. Water hammer arresters: Smith Standard 5000 stainless steel Hydrostop, P.D.I. certified and A.S.S.E. approved.
  - Alternate sanitary vent piping shall be standard weight uncoated cast iron bell and spigot soil pipe and fittings conforming to ASTM A74 with caulked oakum and lead, no-HUB or permitted by code. DWV Copper, or standard weight galvanized steel with galvanized cast iron band and recessed screw drainage fittings, ASTM A126. Alternate sanitary piping within the building shall be standard weight, uncoated cast iron bell and spigot soil pipe and fittings conforming to ASTM A74 with caulked oakum and lead joints or DWV copper. Codes permitting, no-HUB may be used.
  - Provide trap primers where required by the local Plumbing Inspector. All plumbing must be tested and approved by plumbing inspector and meet the requirements of section 2018 National Standard Plumbing Code. Floor drains shall be installed according to the 2018 National Standard Plumbing Code. All potable water outlets shall be protected from cross connection as required under the 2018 National Standard Plumbing Code.
  - All potable water outlets shall be protected from cross connection as required under section 2018 National Standard Plumbing Code.
  - Provide an unconditional one-year written guarantee to replace or repair all defective work.
  - All hole drilling for pipe hangers or floor and wall penetrations shall be by the Plumbing Contractor for plumbing work.
  - All piping shall be supported by pipe hangers of similar material as piping being supported. Suspend from building structure with spacing of hangers not to exceed requirements of the latest edition of the 2018 NSPC and IRC 2018 as well as the local authority having jurisdiction. Do not use wire or perforated metal strap to support piping. Do not rest piping on any part of building structure for support.
  - Seismic protection for the plumbing system shall be provided as required by the 2018 International Building Code.
  - The following system components shall be provided with seismic restraints:
    - Plumbing system piping having hangers longer than 12".
    - Plumbing system piping in mechanical rooms larger than 1-1/4" I.D.
    - Plumbing system piping outside of mechanical rooms larger than 2-1/2" I.D.
    - Domestic water heaters.

### ELECTRIC DOMESTIC WATER HEATER SCHEDULE

Unit Designation	DWH-1	
Basis of Design	Bradford White	
Model Number	LE230LN3-3	
Design Pressure (PSI)	150	
Operating Pressure (PSI)	300	
DOE Storage Capacity (Gal.)	28	
Recovery (GPH @ 100°F Rise)	23 @ 100°F Rise	
Operating Temperature (°F)	140	
Dimensions (Diameter x Height) (in.)	23"Ø x 29-9/16"	
Approx. Operating Weight (lbs.)	350	
<b>Electrical</b>		
Standard kW Rating	208/120/60	
No. / Capacity of Elements	1 @ 5.5 kW	
FL(per Element)	---	
<b>Accessories</b>		
ASME T&P Relief Valve	Yes	
Brass Drain Valve	Yes	
Immersion Thermostat (ASME)	No	
Wall Mounting Hardware	Yes	
Manual Reset Energy Cutoff	Yes	
Drain Pan	Yes	
Drain Pan with Alarm	Yes	
2" Non-CFC Foam Insulation	Yes	
Factory Installed Heat Trap	Yes	
Temp. & Pressure Gauge	Yes	
Voltage and Wattage Conversion Kit	No	
Ceiling Mounted Water Heater Platform	Yes	

### MATERIAL AND INSULATION SCHEDULE

System	Material		Insulation		Remarks
	Basis of Design	Alternate Material	Basis of Design	Type	
Domestic Cold Water - Above Grade	Type "L" Copper	-----	Certainified	500' Snap On	Lead free solder shall conform to ASTM B32. Flux shall conform to ASTM B813.
Domestic Hot Water - Above Grade	Type "L" Copper	-----	Certainified	500' Snap On	Lead free solder shall conform to ASTM B32. Flux shall conform to ASTM B813.
Sanitary Piping - Above Grade	Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301.
Sanitary Piping - Below Grade	Service Wt. Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301.
Sanitary Vent Piping	Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301.

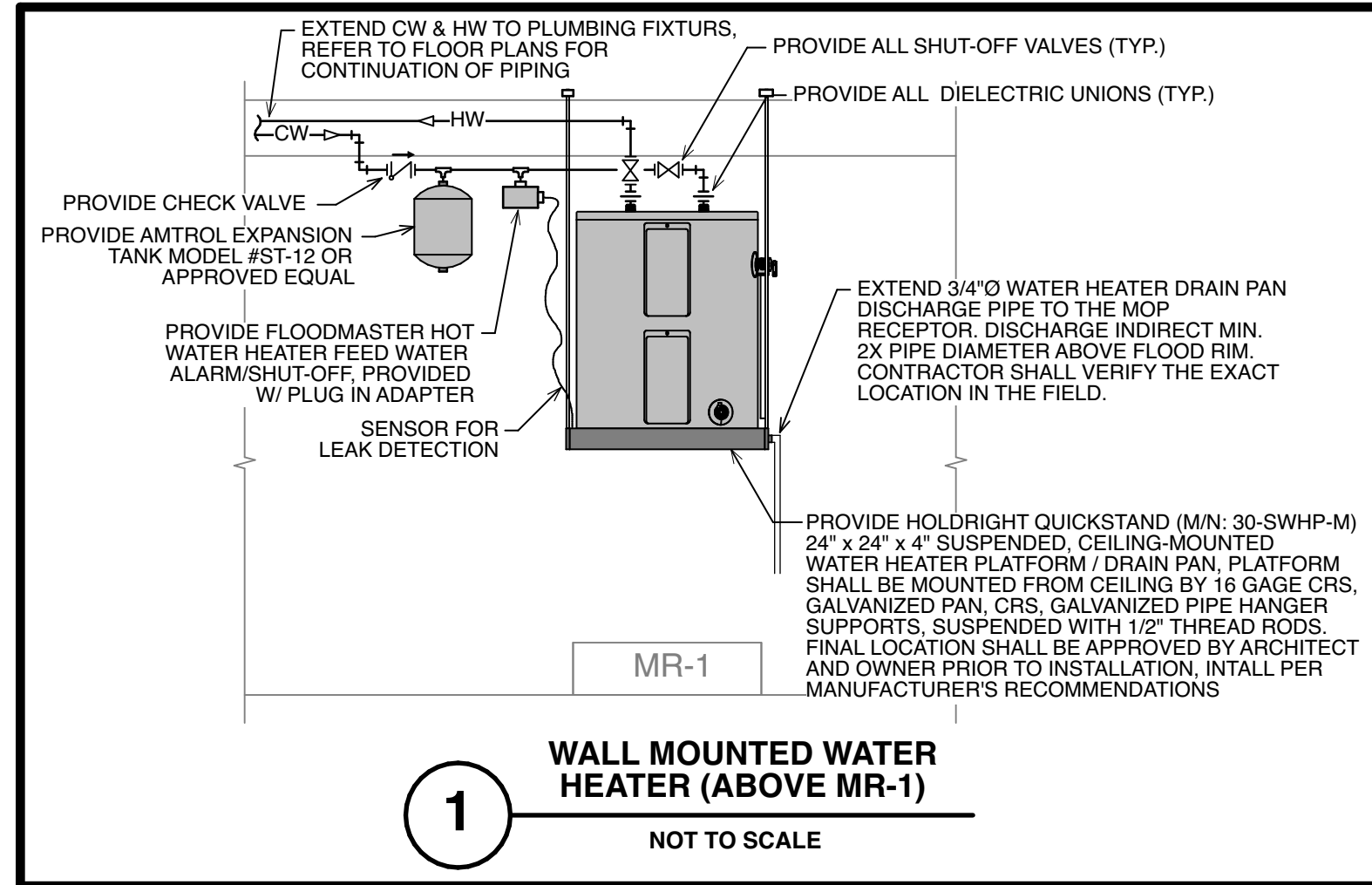
### PLUMBING FIXTURE SCHEDULE

**NOTE: ALL PLUMBING FIXTURES AND FAUCETS SHALL BE PROVIDED IN CUSTOM COLORS AND FINISHES. COORDINATE COLOR & FIXTURE SELECTION WITH THE ARCHITECT AND OWNER.**

Tag	Fixture Type	Mfg.	Model No.	CWS	HWS	Drain	Faucet	Drain	Flush Valve	Seat	Mount	Remarks
WC-1	Water Closet	Zurn	Z5615-BWL	1"	---	4"	---	---	Zurn ZTR6200E-VLL	Zurn ZS955SS-L	Wall	Wall Mounted, Vitreous China, Top Spud Toilet w/ Sensor-Operated, Battery-Powered, Exposed Flush Valve (1.28 GPF), High Efficiency, Siphon Jet Flushing Action, Fully Glazed Trap-way and Elongated Flirt Rim, Provide Elongated, White, Open Front Toilet Seat, Less Cover, with Stainless Steel Check Hinges. Mount at ADA Required Height.
L-1	Lavatory	Zurn	Z5364	1/2"	1/2"	1-1/4"	Zurn Z6915-XL	---	---	---	Wall	Wall-Hung, Vitreous China, 20" x 18" Lavatory w/ Battery-Power, Sensor-Operated Faucet, 4" Center Faucet Hole, Pre-mixed Water Supply, Provide w/ Hanger Plate and Holes for Concealed Arm-Carrier System (Model Z2311). Provide Lead-Free ADA Compliant Sensor-Operated, 1.3 GPM Faucet w/ Variable Resistance Arm, 30-Second Top Out Feature. Provide Zurn Standard Supply Kits w/ 1/2" Flexible Stainless Steel Supply Hoses, Provide Zurn ZPTAB-PPC Solder Top, Open Grid Drain and Zurn ZPTX0-D Cast Brass, Chrome Plated 1 1/2" Trap, Provide Trap and Supply Stop Protection (Zurn Z866-14T) and Below Deck Manual Temperature Setting Valve Zurn Z955-14T.
UR-1	Urinal	Zurn	Z5755-U	3/4"	---	2"	---	---	Zurn ZTR6203-ORT-LL	---	Wall	Wall-Hung, Vitreous China, Top Spud, Washdown Urinal w/ Long-Life, Battery-Powered, Sensor-Operated, Exposed Flush Valve (0.5 GPF), Washdown Urinal Complete w/ Asymmetric Backwash Resulting in Reduced Soapback, High Efficiency, Wash-down Flushing Action, 3/4" Top Spud, 2" Outlet w/ Integral Trap, 1 1/2" Extended Rim for ADA Compliance, Mount at ADA Required Height. Provide Zurn Z1252 Wall Line Support System.
MR-1	Mop Receptor	Stem Williams	HL-1800	3/4"	3/4"	3"	---	---	---	---	Floor	Floor Mounted, 24" x 24" x 12"H, Terrazzo Mop Receptor w/ 12" Side Walls and 6" Front Drop, One-Piece Stainless Steel Cap on Threshold, Backsplash and Two Handle Faucet. Provide Polished Chrome Plated Cast Brass 8" Sink Faucet w/ Quarter-Turn Ceramic Disc Cartridge, Integral Leveling Stop and 1/2" Centrifugal Cast Brass Spout w/ Chemical Resistant Finish, 2 1/4" Hose Threaded Outlet, Full Hook and Adjustable Wall Bracket.
FD-1	Floor Drain	Zurn	Z415-BZ	1/2"	---	3"	---	---	---	---	Floor	Floor Drain Body Assembly w/ Type BZ Leveling Strainer, Dura-Coated Cast Iron Body w/ Bottom Outlet, Combination Invertible Membrane Clamp and Adjustable Collar w/ Seepage Slots and Type BZ Polished Nickel Bronze, Light Duty, Leveling Strainer, Provide PTFE Industries Trap Primer w/ 1/2" CW Pipe to Trap Primer Connections at all Floor Drains, Wap 1/2" CW Pipes w/ 1" Ammatec If Installed Under Slab.
NFHB-1	Non-Freeze Bibb	Zurn	Z1320XL	3/4"	---	---	---	---	---	---	Wall	Encased, Lead-Free, Non-Freeze, Automatic Draining Wall Hydrant w/ Integral Backflow Preventer for Flush Installation, 1/2" Turn, Long-Life Ceramic Disc Cartridge, 1/2" Hose Threaded Outlet, 2 1/4" Hose Threaded Outlet, Locking Hinged Cover Stamped "WATER", includes operating key.
EW-C-1	Electronic Water Cooler	Elkey	VRC8WSK	1/2"	---	1-1/4"	---	---	---	---	Wall	62H2 Bottle Filling Station, Single Cooler, Stainless Steel, Green Ticker, Lamina Flow, Real Drain, and Vandal Resistant, Chilling Capacity of 8.0 GPH @ 50°F Drinking Water.

**NOTES:**

- Provide Water Hammer Arrestors similar to P.P.P. Industries Series SWA on the domestic water branch pipes serving the flush valve fixtures. Install and size per manufacturer's recommendations.
- Provide Trap Primer Valves similar to P.P.P. Industries Series PR-500 for all floor drains. Install and size per manufacturer's recommendations.
- All electronic flush valves shall be equipped with manual overrides. Coordinate all colors and finishes of all plumbing fixtures with the Architect.
- All Wall Cleanouts (W.C.O.) shall be similar to Zurn Z1400-BZ.
- All Floor Cleanouts (F.C.O.) shall be similar to Zurn Z1400-BZ.

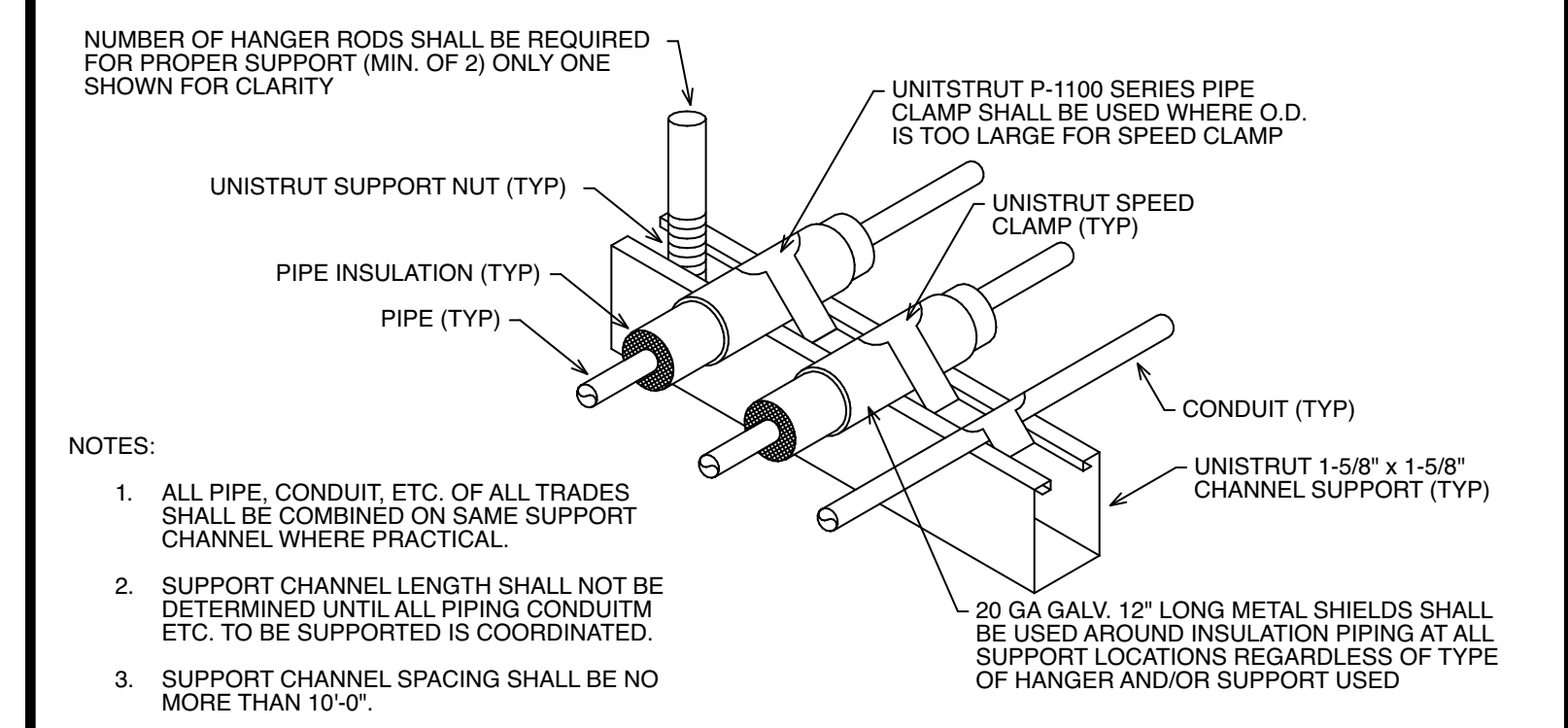


### WALL MOUNTED WATER HEATER (ABOVE MR-1)

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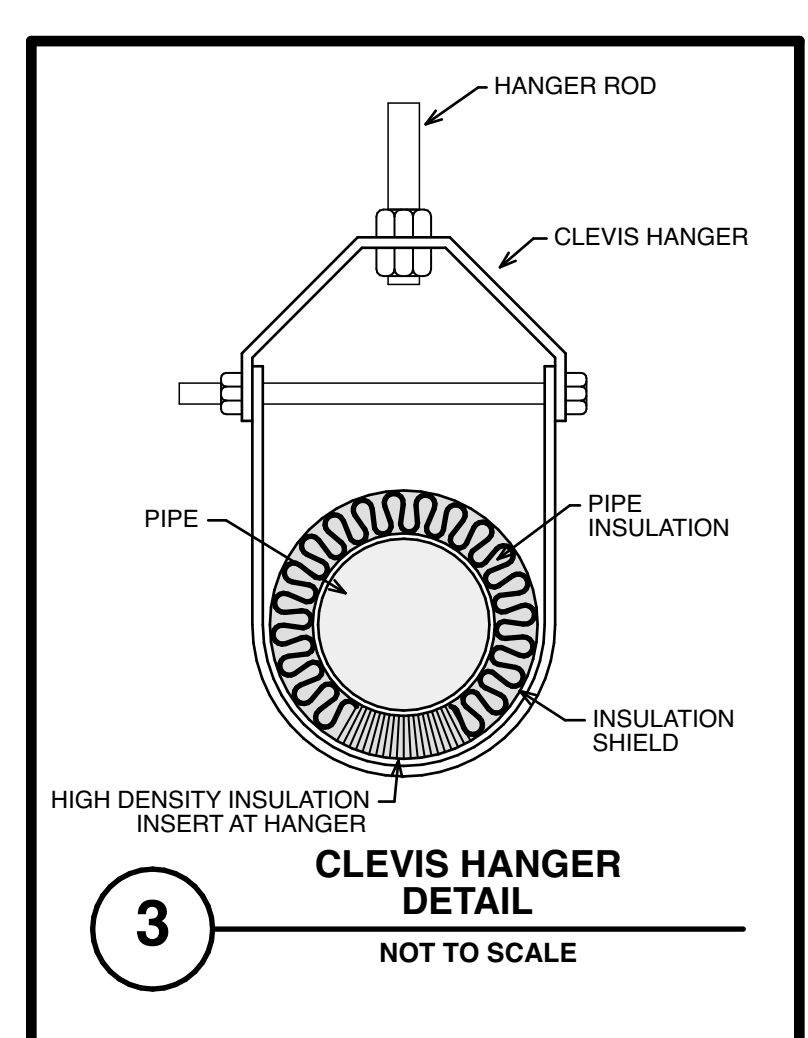
**DISCLAIMER**

THE DESIGN INTENTION FOR THIS PROJECT IS TO WINTERIZE THE BUILDING AND ITS CONTENTS EACH SEASON. THE OWNER HAS ASSUMED RESPONSIBILITY TO DRAIN DOWN THE ENTIRE BUILDING'S PLUMBING SYSTEM AND REMOVE ANY OTHER ASSOCIATED ITEMS THAT COULD POTENTIALLY FREEZE WITHIN THE BUILDING. HWI HOLDS NO RESPONSIBILITY FOR FREEZE PROTECTION OF THIS BUILDING OR ITS CONTENT.



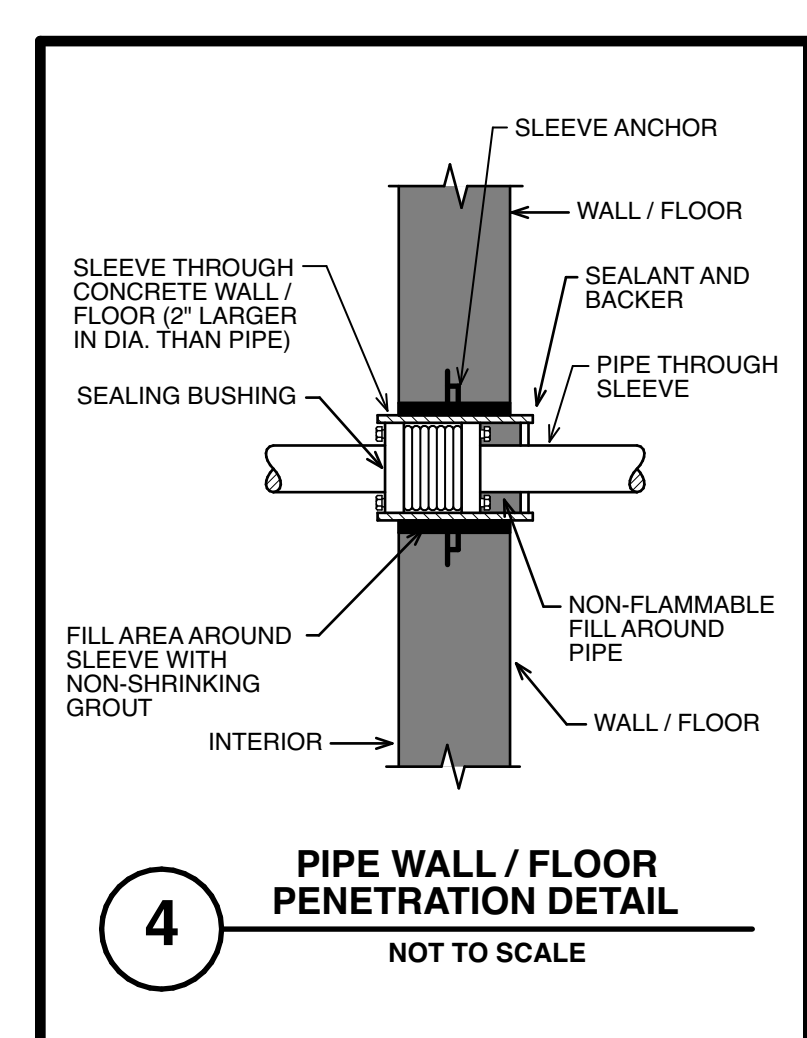
### PIPING SUPPORT ABOVE CEILING DETAIL

NOT TO SCALE



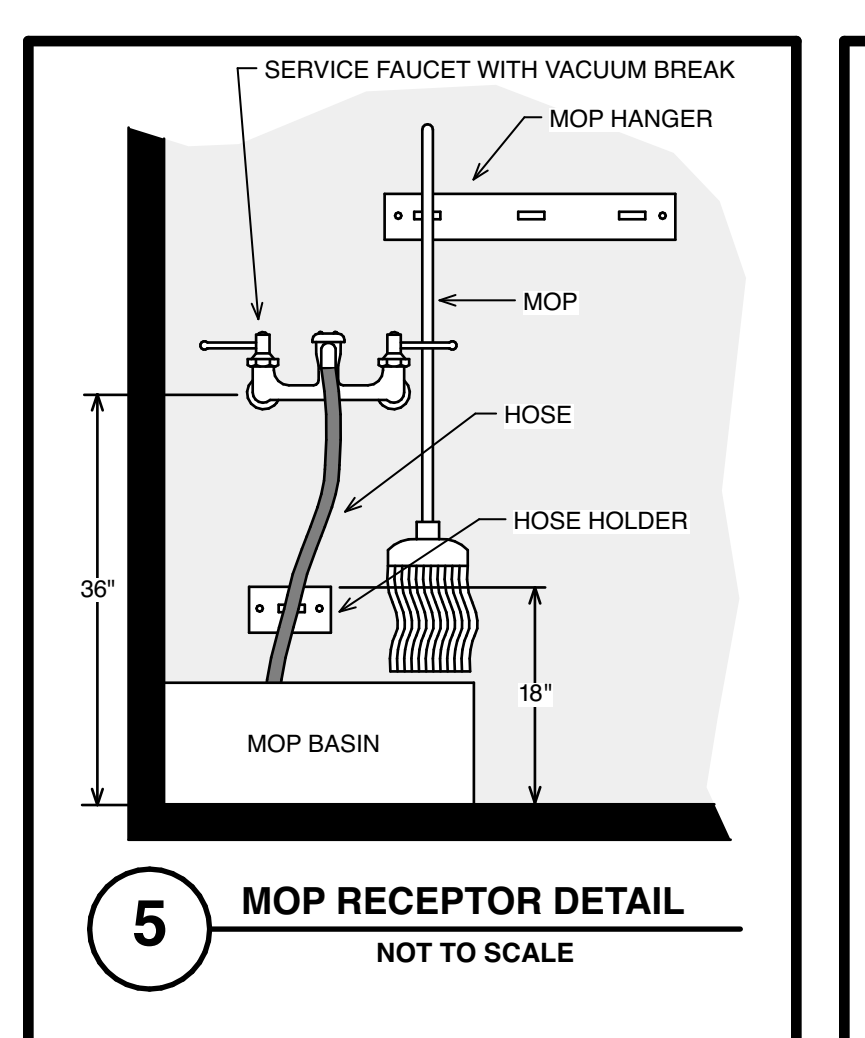
### CLEVIS HANGER DETAIL

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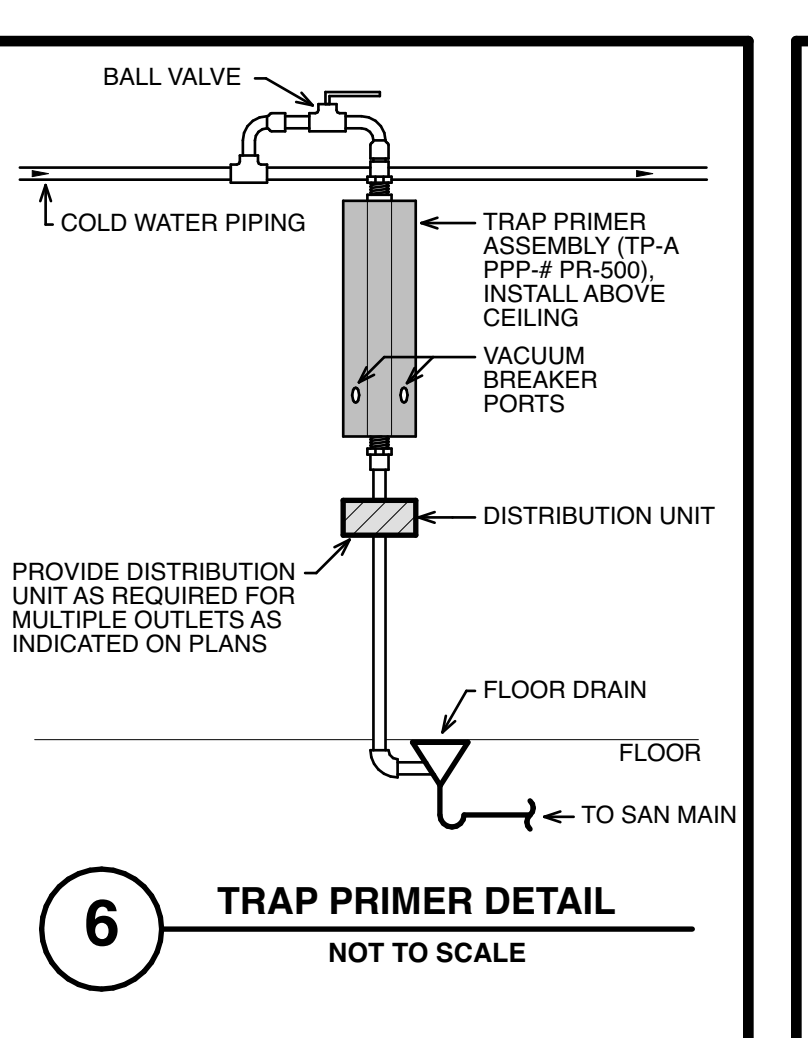
### PIPE WALL / FLOOR PENETRATION DETAIL

NOT TO SCALE



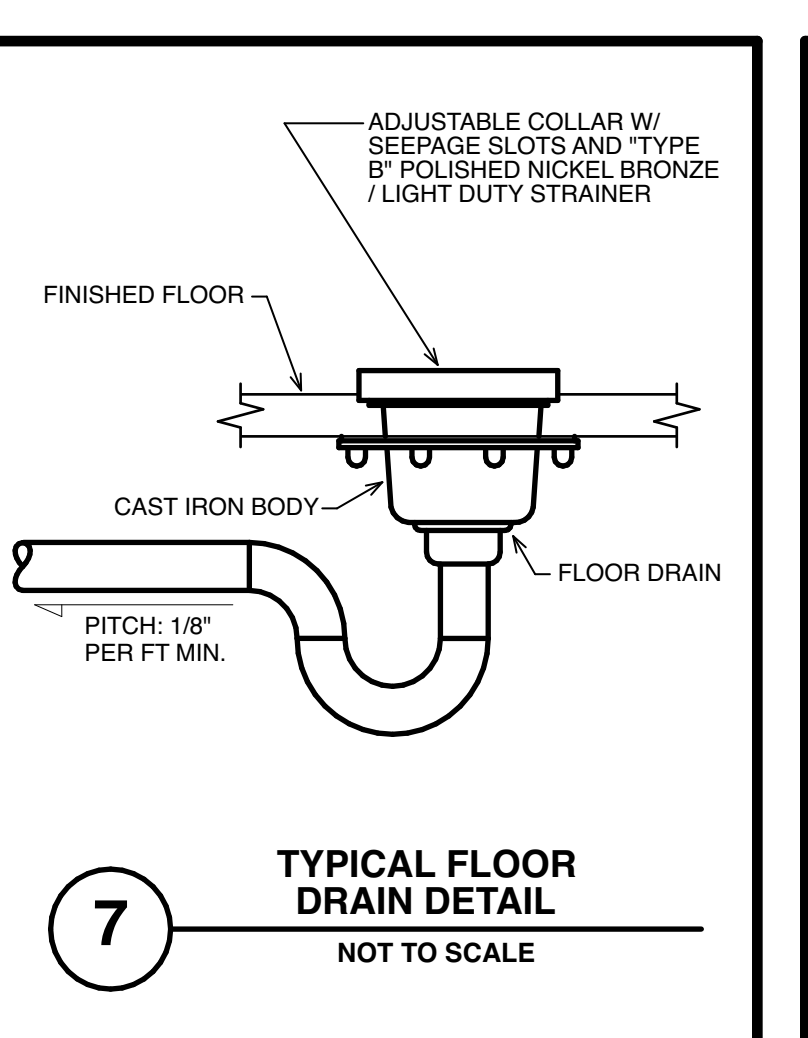
### MOP RECEPTOR DETAIL

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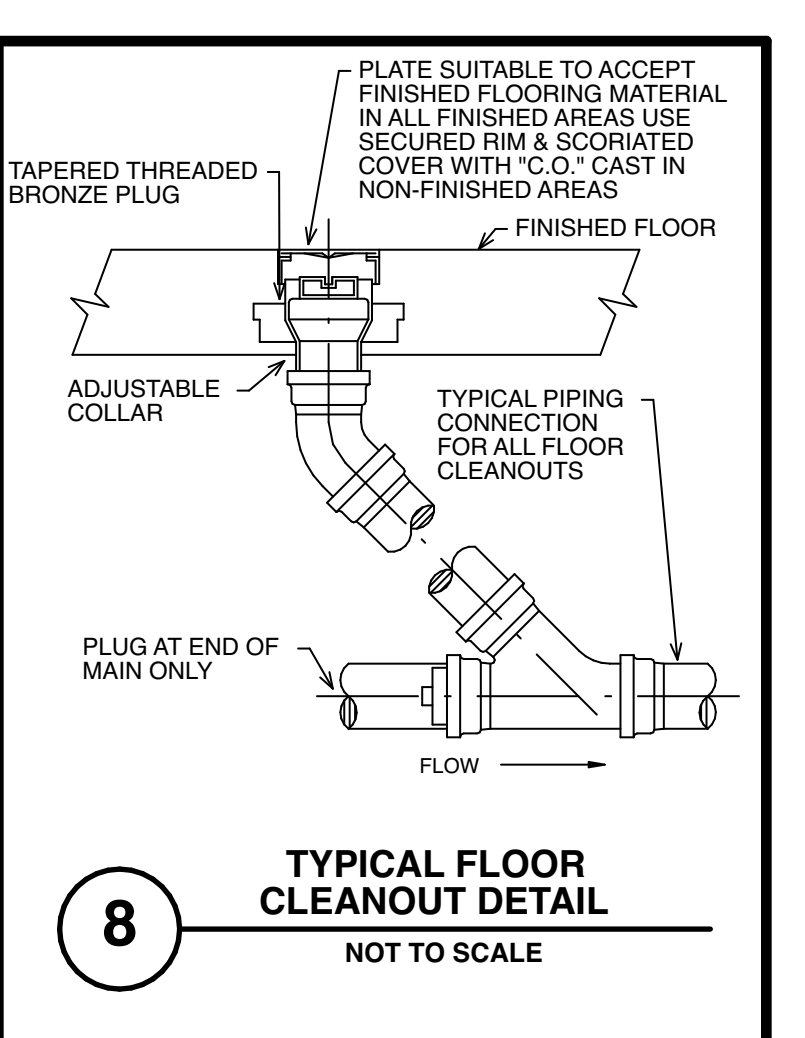
### TRAP PRIMER DETAIL

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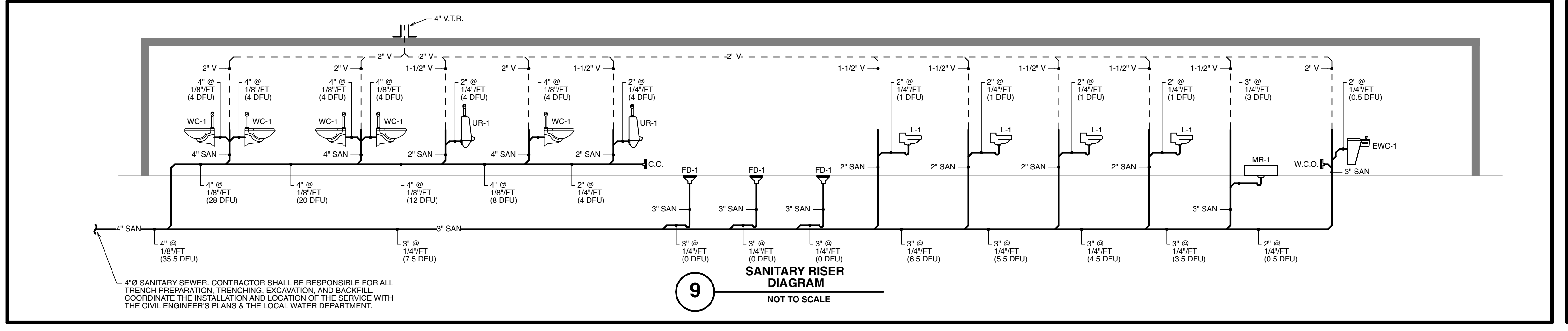
### TYPICAL FLOOR DRAIN DETAIL

NOT TO SCALE



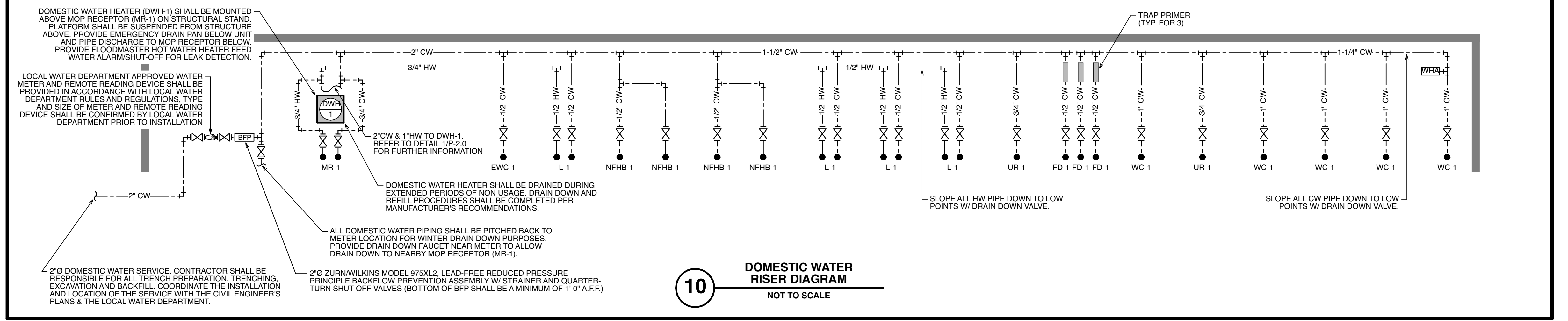
### TYPICAL FLOOR CLEANOUT DETAIL

NOT TO SCALE



### ELECTRICAL COORDINATION

- IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO COORDINATE THE LOCATIONS OF PIPING WITH THE ELECTRICAL CONTRACTOR. PLUMBING PIPING SHALL NOT BE INSTALLED WITHIN THE DEDICATED EQUIPMENT SPACE REQUIRED FOR EXISTING OR NEW ELECTRICAL EQUIPMENT.
- COORDINATION OF PIPING LOCATIONS SHALL BE SOLELY THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. APPROVAL OF PLUMBING SUBMITTAL DRAWINGS DOES NOT RELEASE THE CONTRACTOR FROM COORDINATION RESPONSIBILITY. FINAL COORDINATION SHALL OCCUR IN FIELD WITH ELECTRICAL CONTRACTOR. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN RELOCATION OF SUPPRESSION SYSTEM PIPING AT CONTRACTOR'S EXPENSE.
- PER NFPA 70, ARTICLE 110.26(F), DEDICATED EQUIPMENT SPACE SHALL APPLY TO SWITCHBOARDS, DISTRIBUTION PANELS, AND MOTOR CONTROL CENTERS. THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 8' ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED TO THE ELECTRICAL INSTALLATION. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE.



### PLUMBING SYMBOLS & INDICATIONS

--- Condensate Piping	BFP Backflow Preventer
--- Sanitary Piping	BT Bathroom
--- Sanitary Vent Piping	CO Cleanout
--- Domestic Cold Water Piping - Above Grade	CW Cold Water
--- Domestic Cold Water Piping - In Raised Floor	DFU Drainage Fixture Unit
--- Domestic Hot Water Piping - Above Grade	DWV Down
--- Domestic Hot Water Piping - In Raised Floor	DWH Domestic Water Heater
--- Domestic Hot Water Piping (110°F)	EA Each
--- Existing Piping	FD Floor Drain
--- Existing Piping	FDD Funnel Floor Drain
---	FU Fixture Unit
---	G Gas
---	GC General Contractor
---	HC Hot Water
---	HW Lavatory
---	RD Roof Drain
---	SAN Sink
---	SH Shower
---	SOFT Square Foot
---	WC Water Closet
---	WH Water Hydrant
---	VTR Vent Thru Roof
---	Mixing Valve
---	Back Flow Preventer
---	Balancing Valve
---	Existing - to - New Connection
---	Pump

NO.	DATE	DESCRIPTION	REV'D BY

**RESTROOM BUILDING**  
**FASOLA PARK**  
12 STANHOPE LN,  
DERPTFORD TOWNSHIP, NJ 08046

**PLUMBING SCHEDULES & DETAILS**

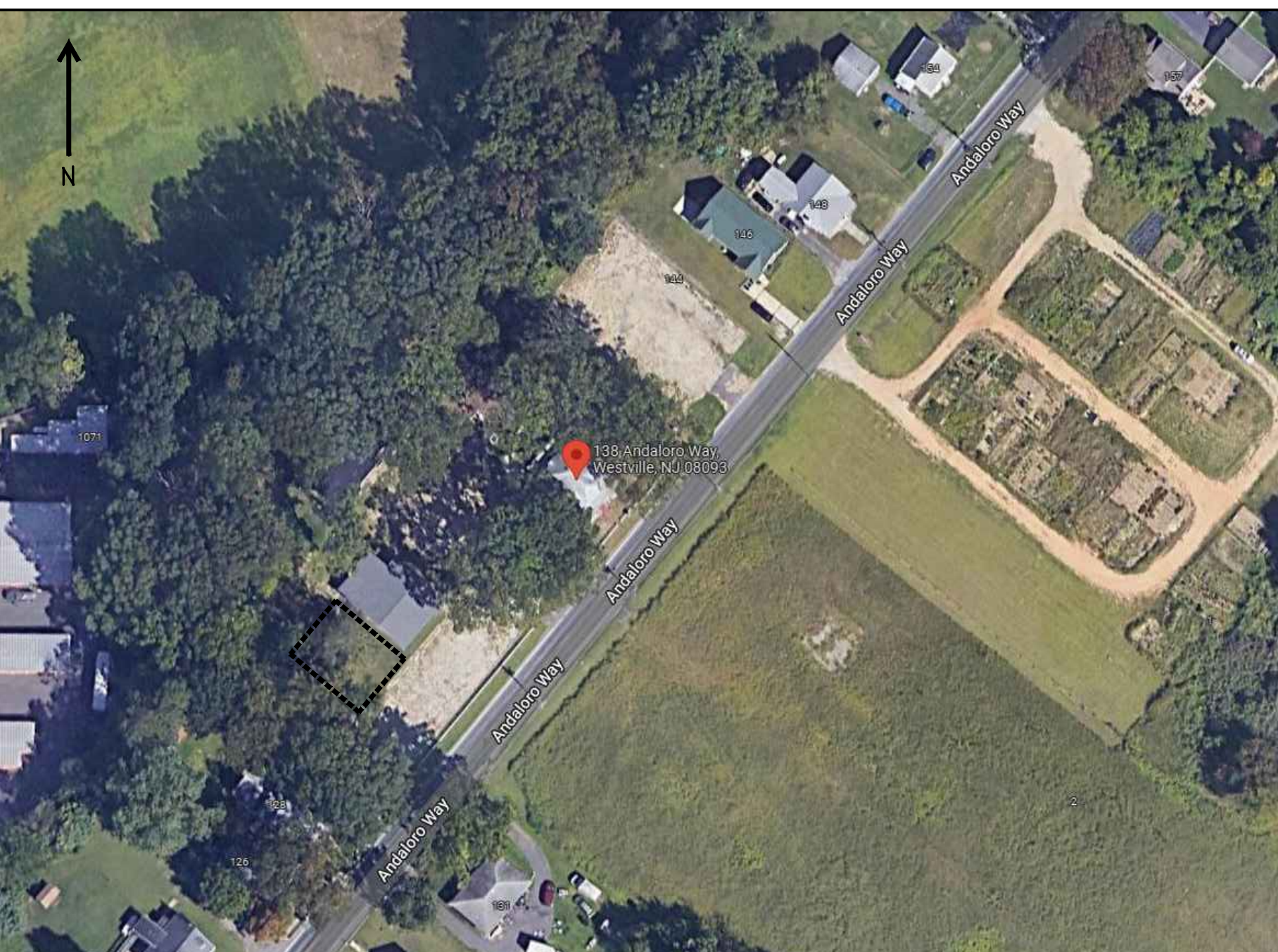
Joseph F. McKernan Jr., Architects & Associates  
100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034

**SCALE:** AS NOTED  
**DATE:** 09/03/20  
**REV'D BY:** SW  
**DRAWN BY:** SW  
**CHECKED BY:** SW

**P-2.0**

# NEW RESTROOM BUILDING FOR ANDALORO FARM

138 ANDALORO WAY,  
WESTVILLE, NJ 08093

ABBREVIATIONS	SYMBOLS	LOCATION MAP	DRAWING INDEX- ANDALORO FARM	BUILDING CHARACTERISTICS- ANDALORO FARM													
<p>AL. TH. ALUMINUM THRESHOLD A.T. AIR TERMINAL B.L.P. BURNISHED LIGHT PANEL B.P. BEARING PLATE BRG. BEARING BRK. BRICK C.A.B.C. CABINET C.A.R.P. CARPET C.B. CATCH BASIN C.I. CONTROL JOINT C.L.G. CEILING C.L. CLOSET C.L.L. CONTRACT LIFT LINE C.L.R. CLEAR - CLEARANCE C.I. CAST IRON C.T.U. CONCRETE MASONRY UNIT C.O. CLEAN OUT C.O. COLUMN C.O.C. CONCRETE C.O.N.T. CONTRACTOR C.O.N.T.R. CONTRACTOR C.O.R.R. CORRIDOR C.O.R.R.U. CORRUGATED C.S. CONSTRUCTION SHIMMING C.S.P. CONSTRUCTION SHIMMING PAINTED C.T. CERAMIC TILE C.T.C.B. CERAMIC TILE COVE BASE C.H. COLD WATER D.E.P.O. DEPOSITS D.A. DIAMETER D.F. DRINKING FOUNTAIN D.L. DOUBLE LOAD D.R. DOOR D.W.G. DRAWING E.A. EACH E.L.E.C. ELECTRICAL E.L.E.V. ELEVATION E. P.N.L. ELECTRICAL PANEL E.Q.U.I.P. EQUIPMENT E.M.C. ELECTRIC WATER COOLER E.X.P. J.T. EXPANSION JOINT E.X.H. EXHAUST E.X.I.S.T.G. EXISTING E.T.R. EXISTING TO REMAIN F.A.B.C. FINE AGGREGATE BITUMINOUS CONCRETE F.B. FACE BRICK F.D. FLOOR DRAIN F.E. FIRE EXTINGUISHER F.N. FINISH FLOOR F.N. GR. FINISH GRADE F.L. FLOOR F.D.N. FOUNDATION F.T.G. FOOTING G.Y.P. GYPSUM BOARD H.R.D. HD. HARDWOOD I.N.S.U.L. INSULATION I.N.T. INTERIOR I.N.V. INVERT J.A.N. JANITOR J.S.T. JOIST J.T. JOINT K.I.T. KITCHEN L.A.V. LAVATORY L.I.K.T. LIGHT HEIGHT L.F. LINEAR FEET M.A.X. MAXIMUM M.B.T.H. MARBLE THRESHOLD M.E.C.H. MECHANICAL M.F.R. MANUFACTURER M.F.N. FINISH M.F.R. MASONRY M.O. MASONRY OPENING M.T.P. METAL TOILET PARTITION P.A.T. RECESS H. REC. POP RECEPTOR M.T.L. METAL THRESHOLD M.T.L. METAL N.L.C. NOT IN CONTRACT N.T.S. NOT TO SCALE O.C. ON CENTER O.D. OUTSIDE DIAMETER O.F.F. OFFICE O.V.H.D. OVERHEAD DOOR O.P.N.G. OPENING O.P.N.G. OPENING P.I.P.E. PIPERATED P.L.A.S.T. PLASTIC P.L.A.T. PLATFORM P.L.Y.W.O.D. PLYWOOD P.S.F. POUNDS PER SQUARE FOOT P.S.I. POUNDS PER SQUARE INCH P.T. PORCELAIN TILE P.T.C.B. PORCELAIN TILE COVE BASE P.N.T. PAINTED P.V.C. POLYVINYL CHLORIDE Q.T. QUARRY TILE Q.T.C.B. QUARRY TILE COVE BASE R. RISER R.A.D. RADIUS R.D. ROOF DRAIN R.E.Q.D. REQUIRED R.O.O.F. ROOFING R.F.S. RECESSED FLOOR SLEEVE R.F. ROOF R.O. ROUGH OPENING R.O.H. RIGHT OF WAY R.W.C. RAIN WATER CONDUCTOR S.A. SOUND ATTENUATION BLANKET S.A.N. SANITARY S.C.H. SCHEDULE S.D. SOAP DISPENSER S.E.C.T. SECTION S.E.R. SERVICE S.L. SKYLIGHT S.P.E.C. SPECIFICATIONS S.S. SERVICE SINK S.T. STEEL S.T.L. STAINLESS STEEL S.T.O.R. STORAGE S.U. SINK UNIT T. TREAD T.O. TOP OF CONCRETE T.O.D. TONGUE AND GROOVE T.A.G. TONGUE AND GROOVE T.H. THRESHOLD T.H.K. THICKNESS T.O.F. TOP OF FOOTING T.O.M. TOP OF MASONRY T.O.S. TOP OF STEEL T.P.N.L. TELEPHONE PANEL T.P. TYPICAL T.P. TYPICAL PARTITION U.C. UNDERCUT U.D. UNIT DIMENSION U.G. UNDERGROUND U.H. UNIT HEATER U.N.O. UNLESS NOTED OTHERWISE U.S. UNDER SLAB U.V. UNIT VENTILATOR V. VENT V.C.B. VINYL COVE BASE V.C.T. VINYL COMPOSITION TILE V.S.B. VINYL STRAIGHT BASE V.E.S.T. VESTIBULE V.T.R. VENT THRU ROOF W. WITH W.A.S. WANNER NO. CEMENTITIOUS BACKER W.C. WATER CLOSET W.D. WOOD W.H. WITHOUT W.H.S.C.T. HANDSCOT M.H. MOUTH H.E.L.D. HELD WIRE MESH</p>	<p>EARTH COMPACTED FILL CONCRETE CONCRETE BLOCK SPLIT FACE BLOCK BRICK STEEL RIGID INSULATION BATT INSULATION FINISH LUMBER ROUGH LUMBER SECTION NUMBER SECTION INDICATOR SHEET NUMBER ELEVATION DOOR NUMBERS ROOM NUMBERS F.E. FIRE EXTINGUISHERS MASONRY WALL CEILING HTD.LIGHT FIXTURES EXHAUST FAN E.F. EXHAUST FAN F.D.-I FLOOR DRAIN</p>	<p>LOCATION MAP SITE LOCATION 138 ANDALORO WAY, WESTVILLE, NEW JERSEY 08093</p>  <p>LIST OF CONSULTANTS</p> <table border="1"> <tr> <td data-bbox="1083 1827 1320 1942"> <p>ARCHITECT MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J 08034 TEL: (856) 616-2960 FAX: (856) 616-2963</p> </td> <td data-bbox="1320 1827 1528 1942"> <p>M.E.P. ENGINEER HOLSTEIN WHITE INC. 210 E. STREET ROAD, SUITE 2D FEASTERVILLE, PA 19053 TEL: (215) 322-7711 FAX: (215) 322-7709</p> </td> <td data-bbox="1528 1827 1751 1942"> <p>SITE ENGINEER BRYSON &amp; YATES CONSULTING ENGINEERS 307 GREENTREE ROAD SEWELL, NJ 08080 TEL: (856) 589-1400 FAX: (856) 582-7476</p> </td> </tr> </table> <p>TOWNSHIP ENGINEER</p>	<p>ARCHITECT MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J 08034 TEL: (856) 616-2960 FAX: (856) 616-2963</p>	<p>M.E.P. ENGINEER HOLSTEIN WHITE INC. 210 E. 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CODE- 2017 NATIONAL STD PLB.G CODE- 2018 INTERNATIONAL EMERGENCY CODE- 2018</p>	<p>BUILDING CHARACTERISTICS- ANDALORO FARM</p> <p>BLOCK _____ 9 LOT _____ 3 USE GROUP _____ U CONSTRUCTION TYPE _____ III (1 STORY MASONRY STRUCTURE) NUMBER OF STORIES _____ 1 HEIGHT OF STRUCTURE _____ 41' BUILDING AREA _____ 1651 S.F.</p> <p>ROOF DESIGN LOADS</p> <p>LIVE LOAD ----- 30 P.S.F. SHINGLE ROOF ----- 7 CEILING AND MISC. ----- 7 TOTAL ----- 44</p> <p>MISCELLANEOUS LOADS</p> <p>WIND LATERAL ----- 20 P.S.F. &amp; 1/3 FOR IMPACT WIND UPLIFT LOAD ON CANOPIES &amp; OVERHANGS ----- 40 P.S.F. WIND UPLIFT ON GENERAL ROOF AREA ----- 15 P.S.F. SEISMIC LOADS ----- SAME AS WIND LATERAL LOADS SNOW LOADS ----- 20 P.S.F.</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>REV'D BY</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> <p>APPROVAL</p> <table border="1"> <tr> <td data-bbox="2418 1827 2567 1942"> <p>JOSEPH F. MCKERNAN JR., R.A. 100 DOBBS LANE SUITE 204 CHERRY HILL, NEW JERSEY 08034</p> </td> <td data-bbox="2567 1827 2923 1942"> <p>PROJECT: <b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> 138 ANDALORO WAY, WESTVILLE, NJ 08093 TITLE: <b>PROJECT DATA SHEET</b></p> </td> </tr> </table> <p>SCALE: AS NOTED DRAWING NO: <b>PD-1</b> DATE: 9/23/22 REV'D: _____ DRAWN BY: TC CHECKED BY: _____</p>	NO.	DATE	DESCRIPTION	REV'D BY					<p>JOSEPH F. MCKERNAN JR., R.A. 100 DOBBS LANE SUITE 204 CHERRY HILL, NEW JERSEY 08034</p>	<p>PROJECT: <b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> 138 ANDALORO WAY, WESTVILLE, NJ 08093 TITLE: <b>PROJECT DATA SHEET</b></p>
<p>ARCHITECT MCKERNAN ARCHITECTS &amp; ASSOCIATES 100 DOBBS LANE SUITE 204 CHERRYHILL, N.J 08034 TEL: (856) 616-2960 FAX: (856) 616-2963</p>	<p>M.E.P. ENGINEER HOLSTEIN WHITE INC. 210 E. STREET ROAD, SUITE 2D FEASTERVILLE, PA 19053 TEL: (215) 322-7711 FAX: (215) 322-7709</p>	<p>SITE ENGINEER BRYSON &amp; YATES CONSULTING ENGINEERS 307 GREENTREE ROAD SEWELL, NJ 08080 TEL: (856) 589-1400 FAX: (856) 582-7476</p>															
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DOOR SCHEDULE											
DOOR NO.	OPENING SIZE	TYPE	THICK	MAT.	FRAME					REMARKS	
					TYPE	MAT.	HEAD	JAMB	SILL		HDW. SET
1	3'-0" x 7'-0"	1	1 1/2"	FRP	A	AL.	2	2	AL.	1	KICKPLATE
2	3'-0" x 7'-0"	1	1 1/2"	FRP	A	AL.	2	2	AL.	1	KICKPLATE
3	3'-0" x 7'-0"	1	1 1/2"	HM	A	HM	1	1	AL.	2	

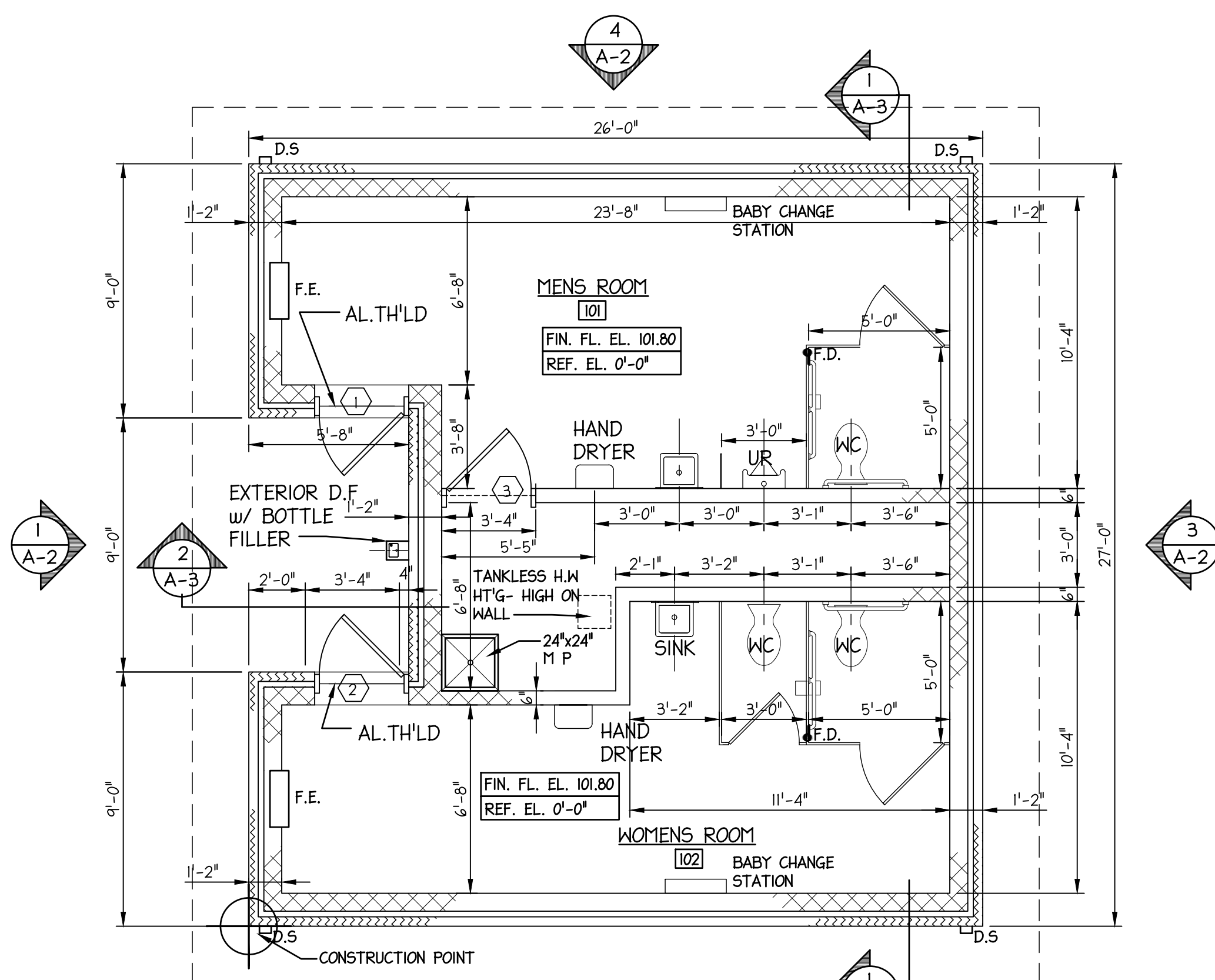
ROOM FINISH SCHEDULE: RENOVATED AREA (FIRST FLOOR)							
ROOM NO.	ROOM NAME	FLOOR	WALLS	CEILING	HEIGHT	REMARKS	
101	WOMENS ROOM	RESINOUS FLOORING	EPOXY PTD.	PTD. GYP. BD.	10'-0"	RESINOUS FLR. COATING- EXTEND 4" UP WALL	
102	MENS ROOM	RESINOUS FLOORING	EPOXY PTD.	PTD. GYP. BD.	10'-0"	RESINOUS FLR. COATING- EXTEND 4" UP WALL	
103	JANITORS CLOSET	CONCRETE	---	---	---	#SEAL CONC. FLOOR SLAB	

**GENERAL NOTES:**

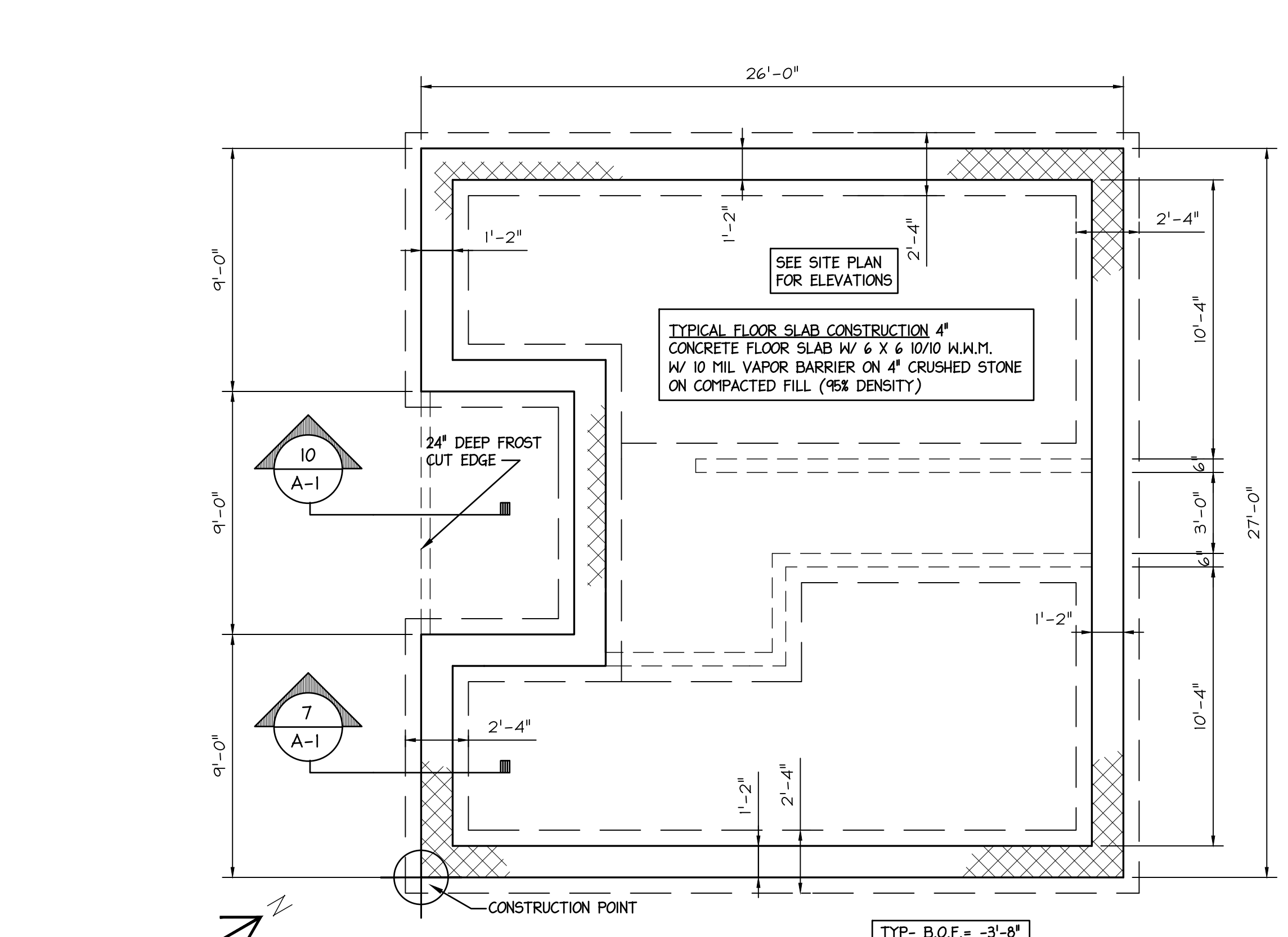
- PROVIDE AND INSTALL FIRE EXTINGUISHER & SEMI-RECESSED CABINET AS FOLLOWS: MULTIPURPOSE DRY-CHEMICAL TYPE, UL-RATED 4-A-60-BC, 10 LBS. NOMINAL CAPACITY IN ENAMELED STEEL CONTAINER. MULTIPURPOSE DRY-CHEMICAL TYPE, UL-RATED 4-A-60-BC, 10 LBS. NOMINAL CAPACITY IN ENAMELED STEEL CONTAINER. J.L. SAF-T-LOK SEMI-RECESSED CABINET, MODEL: "AMBASSADOR" MODEL NO. 107610 W/ SAF-T-LOK
- CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION OF SITE AROUND PERIMETER OF BUILDING 120'-0".

SEE BRYSON & YATES SHEET 6 OF 10 FOR FIN. FL. ELEV. 101.80 - REFERENCE 0'-0"

SEE BRYSON & YATES SHEET 5 OF 10 FOR ELEVATION BENCH MARK

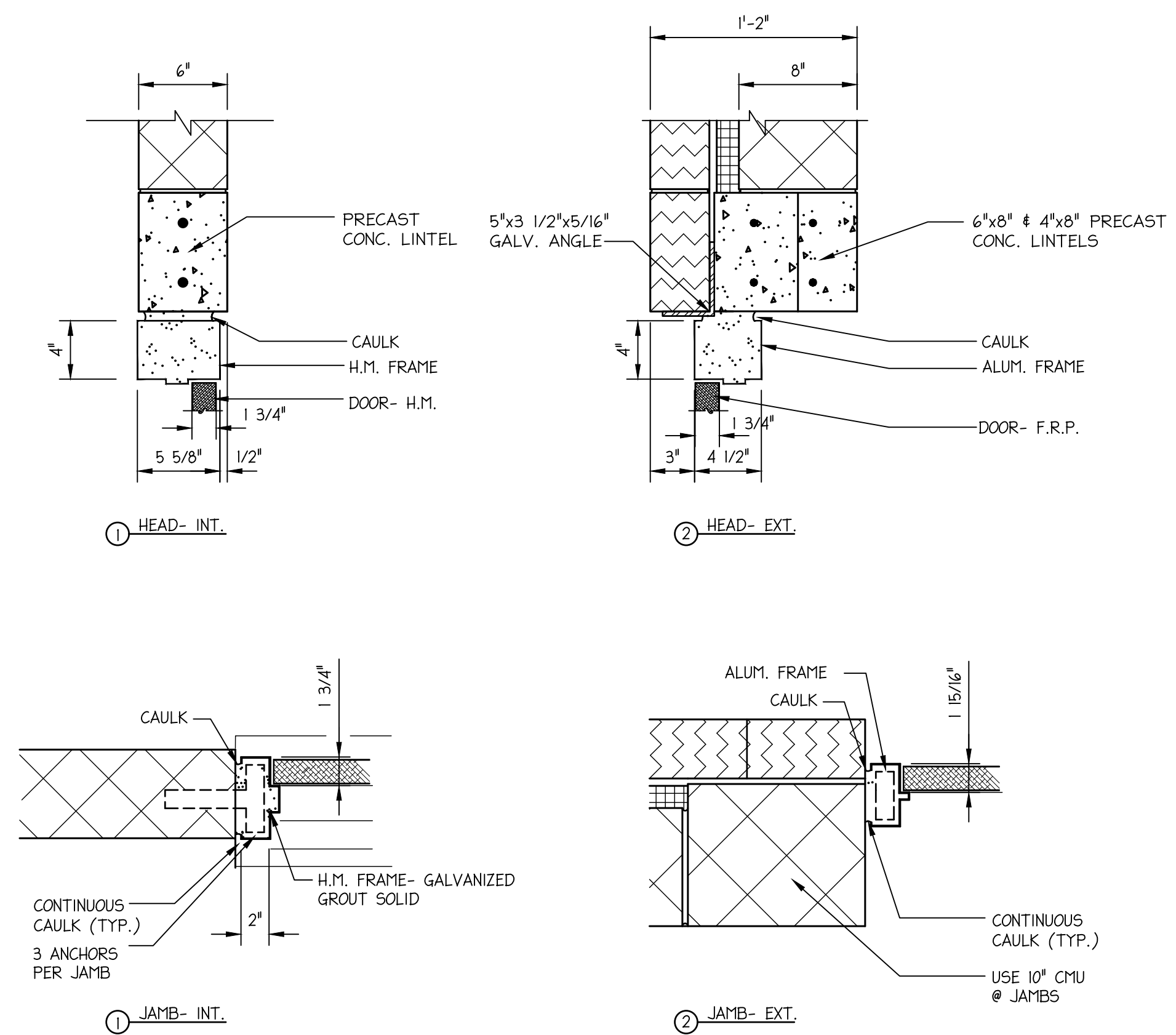


1 FLOOR PLAN  
SCALE: 1/4" = 1'-0"

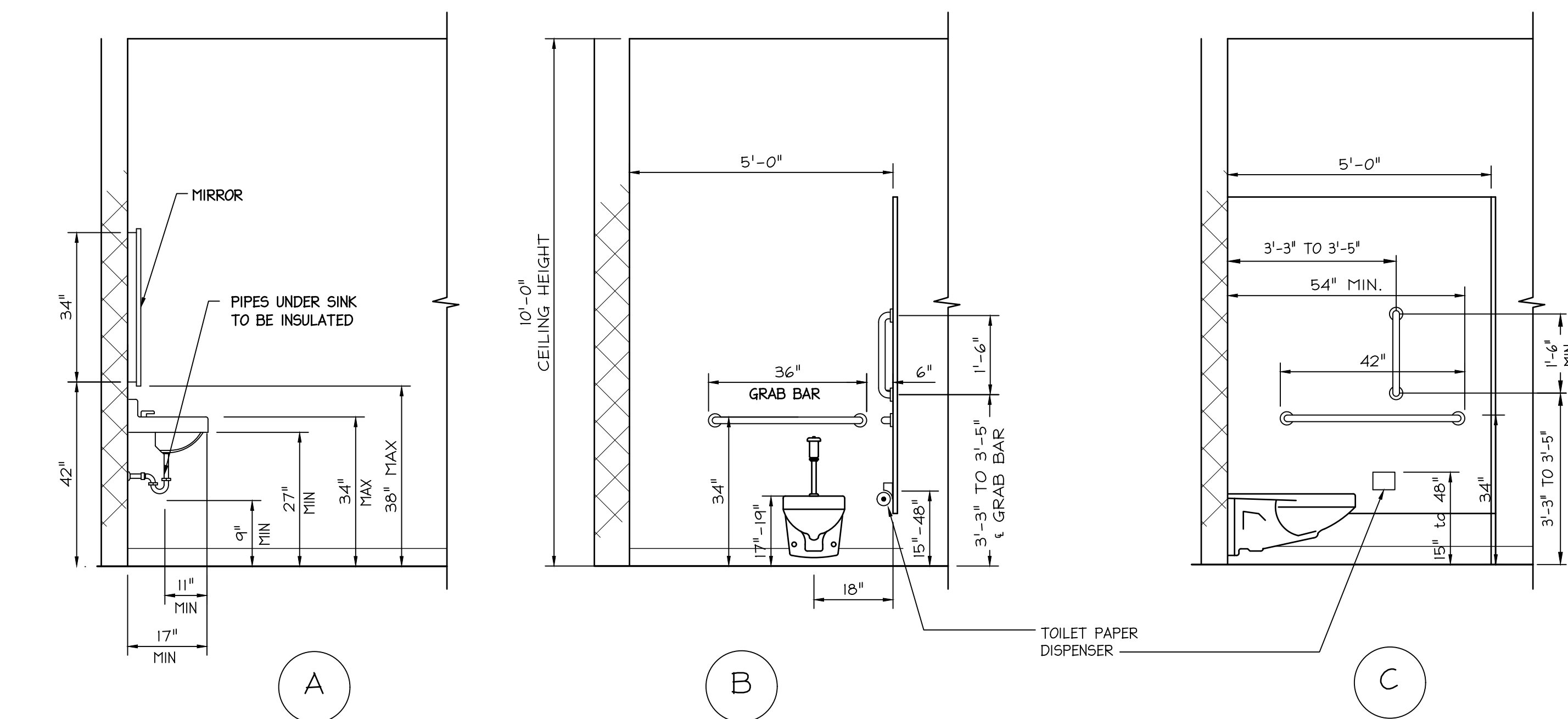


2 FOUNDATION PLAN  
SCALE: 1/4" = 1'-0"

SEE SITE PLAN FOR EXACT LOCATION OF THIS CONSTRUCTION POINT

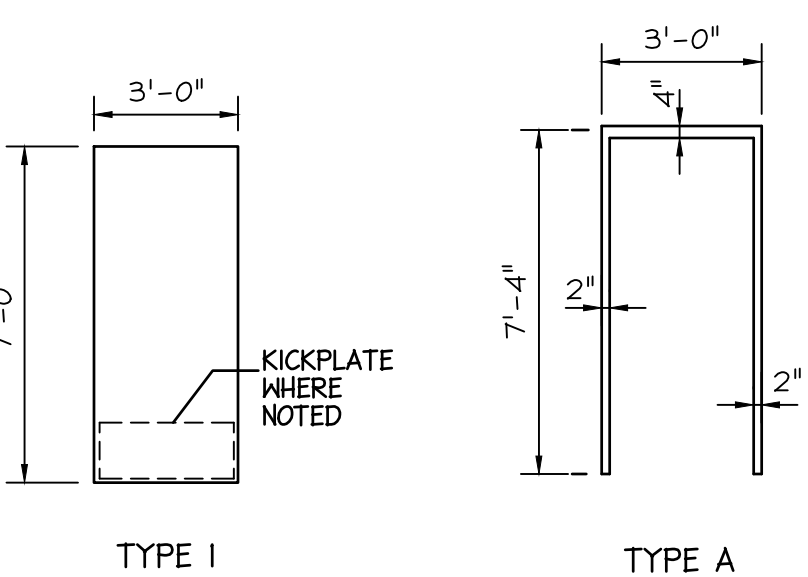


3 HEAD & JAMB DETAIL  
SCALE: 1/2" = 1'-0"

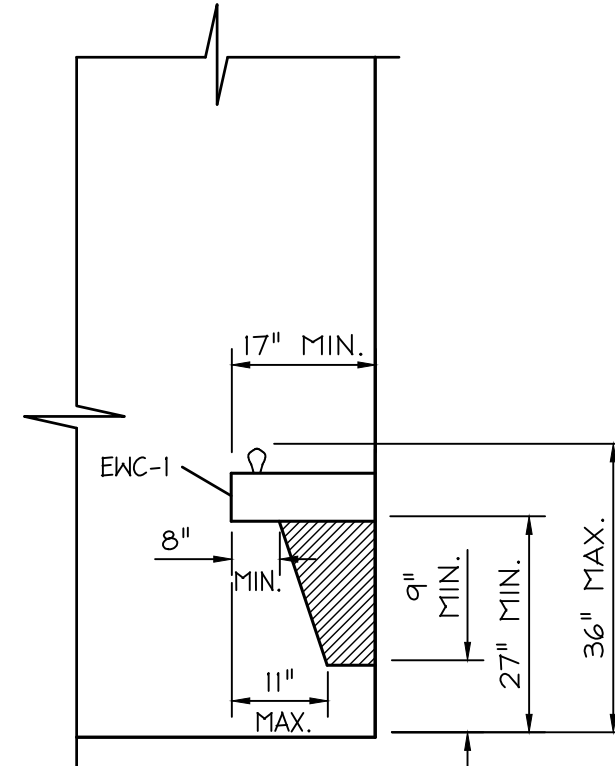


4 HANDICAP LAV. & TOILETS  
SCALE: 1/2" = 1'-0"

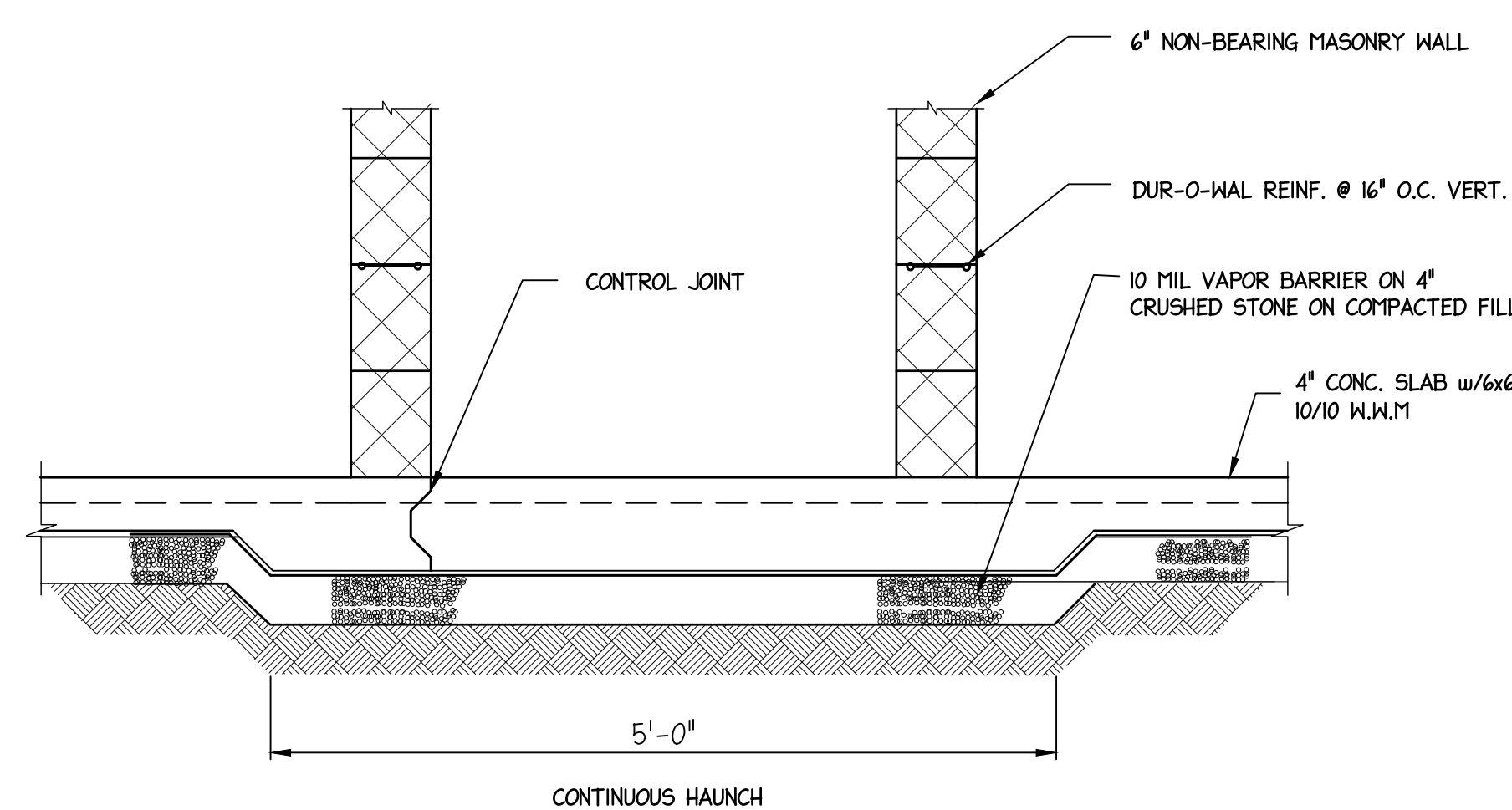
**DOOR TYPES**      **FRAME TYPES**



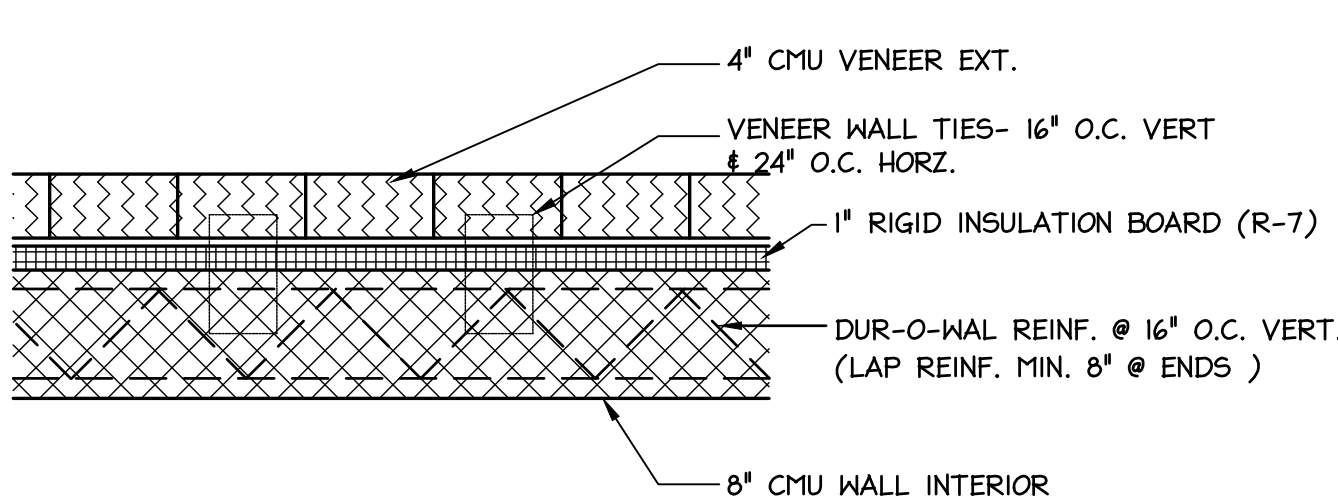
4 DOOR & FRAME TYPES  
SCALE: 1/4" = 1'-0"



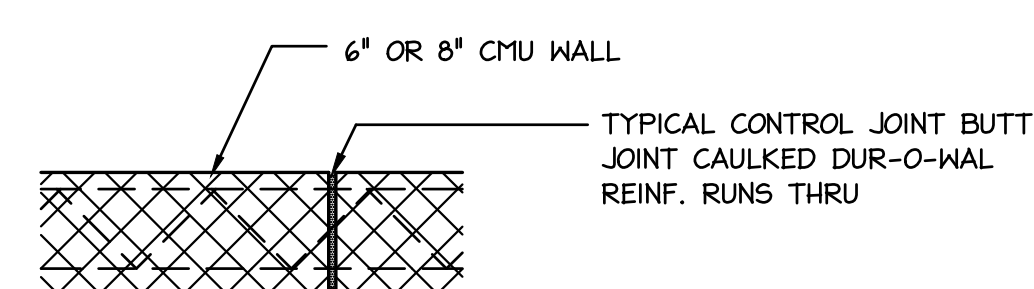
5 EXT. WATER FOUNTAIN  
SCALE: 1/2" = 1'-0"



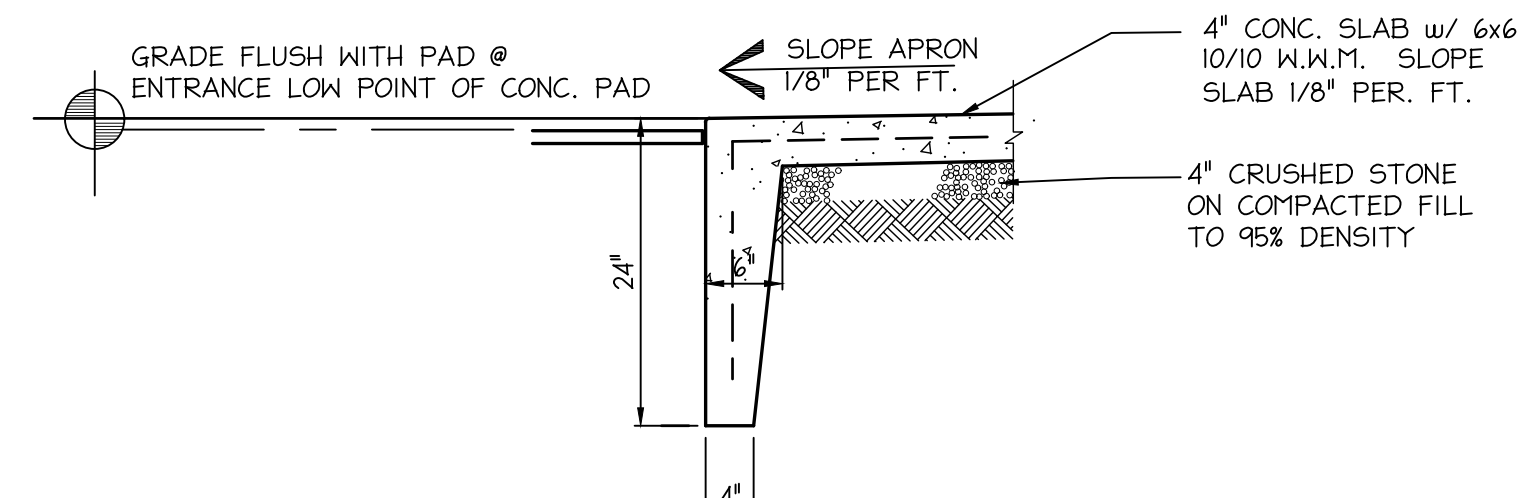
6 NON-BEARING WALL HAUNCH  
SCALE: 1" = 1'-0"



8 WALL REINFORCING DETAIL  
SCALE: 1" = 1'-0"

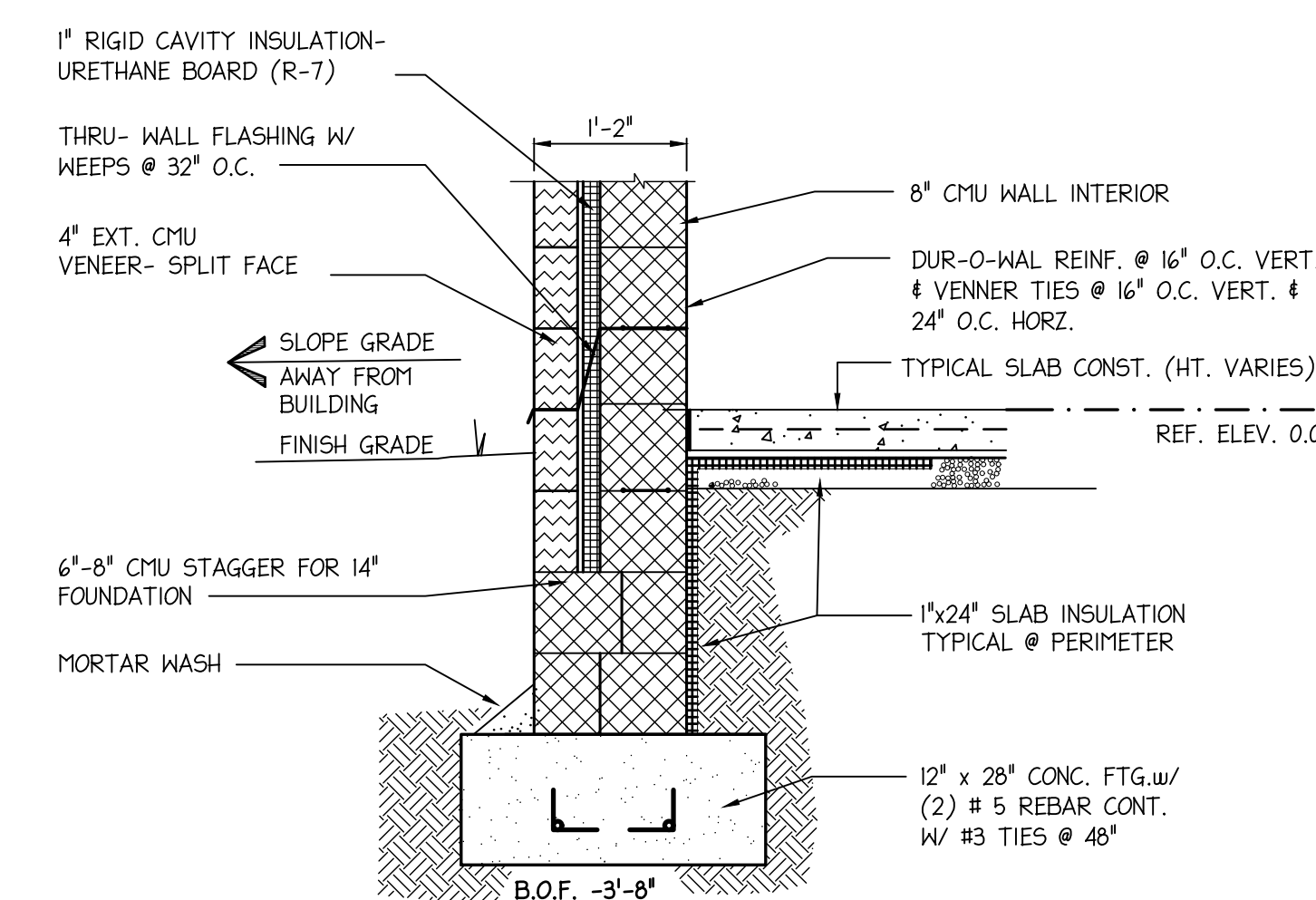


9 CMU JOINT DETAIL  
SCALE: 1" = 1'-0"  
#SEE ELEVATIONS FOR C.J. IN 4" EXT. VENEER



10 FROST-CUT SLAB DETAIL  
SCALE: 3/4" = 1'-0"

- FOUNDATION NOTES**
- ALL FOOTINGS TO BE FORMED AND WELL TAMPED. IF FOOTINGS ARE PERMITTED BY ARCHITECT TO BE POURED WITHOUT FORMS, TRENCHES MUST BE SHARP AND TRUE IF NOT, FORMS MUST BE USED.
  - ALL FOOTING ELEVATIONS ARE TO BOTTOM OF FOOTING (B.O.F.)
  - ALL FLOOR SLABS ARE TO BE 4" WITH 6 X 6 X 6/10 WELDED WIRE MESH.
  - INSTALL 10 MIL. VAPOR BARRIER UNDER ENTIRE BUILDING.
  - ALL FOOTINGS SHALL BE A MINIMUM OF 12" BELOW EXISTING UNDISTURBED GRADE, AND 3'-0" BELOW FINISH GRADE. B.O.F. (BOTTOM OF FOOTING) IS GIVEN AS A GUIDE ONLY. SHOULD EXISTING GRADE BE OTHER THAN INDICATED, THE G.C. SHALL COMPENSATE FOR THE DIFFERENCE.
  - ALL REINFORCED CONCRETE SHALL BE INSTALLED ACCORDING TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AC 318-63, APPROVED AS AMERICAN STANDARD BY THE AMERICAN STANDARD ASSOCIATION.
  - ALL MASONRY WALLS ARE TO COMPLY WITH THE AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY.
  - ALL HOLLOW BLOCK IS TO COMPLY WITH THE A.S.T.M. SPECIFICATION DESIGNATION C-90-59, GRADE "A", WITH 1-1/4" FACE SHELL THICKNESS BELOW GRADE AND ABOVE GRADE ON EXTERIOR WALLS WHERE EXPOSED.
  - MORTAR AS SPECIFIED IS A.S.T.M., TYPE N/S (1000 #/SQ. INCH). LOADS ON MASONRY ARE TO BE CALCULATED NOT TO EXCEED CODE VALUES OF: 75#/SQ. INCH ON HOLLOW BLOCK 110#/SQ. INCH ON SOLID BLOCK 250#/SQ. INCH ON CONCRETE.

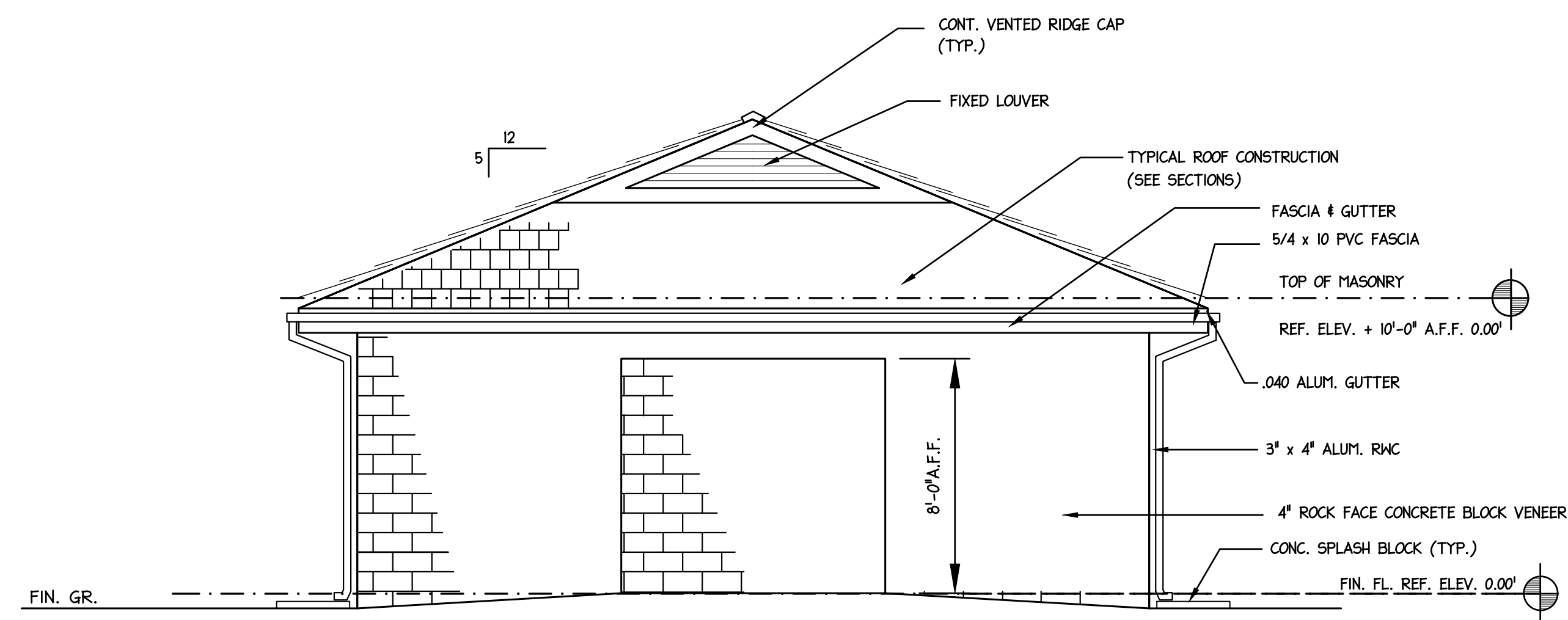


7 FOOTING DETAIL  
SCALE: 3/4" = 1'-0"

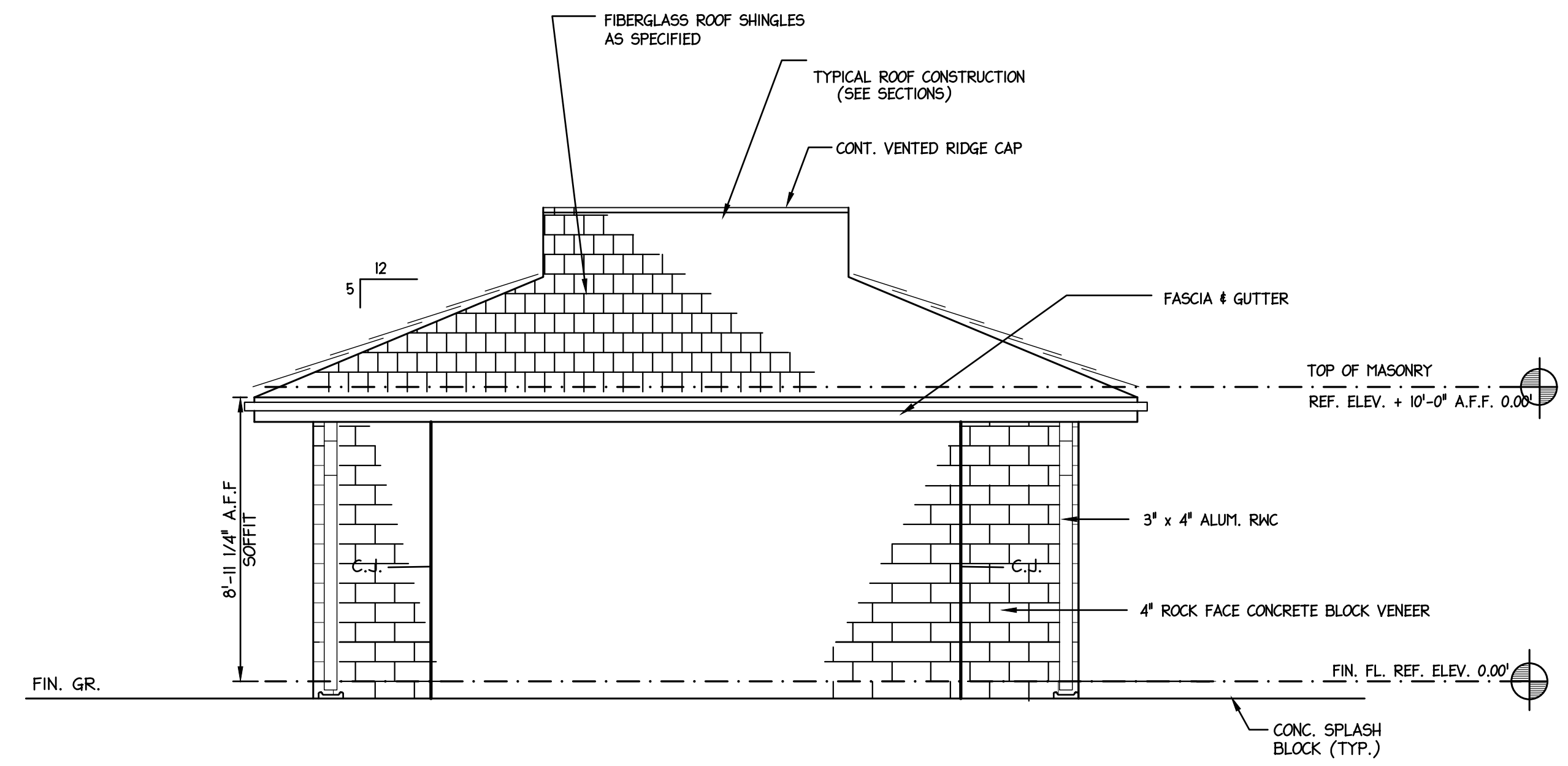
NO.	DATE	DESCRIPTION	REV'D BY

APPROVAL:	PROJECT:	DESCRIPTION:	REV'D BY:

<b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> DEPTFORD, NEW JERSEY 08006		TITLE: <b>PLANS, SCHEDULES &amp; DETAILS</b>
JOSEPH F. MCKERNAN JR., P.A. 100 Bobba Lane Suite 204 Cherry Hill, New Jersey 08034	SCALE: AS NOTED DATE: 12/29/22 REV'D: TC DRAWN BY: TC CHECKED BY: DDF	DRAWING NO: <b>A-1</b>

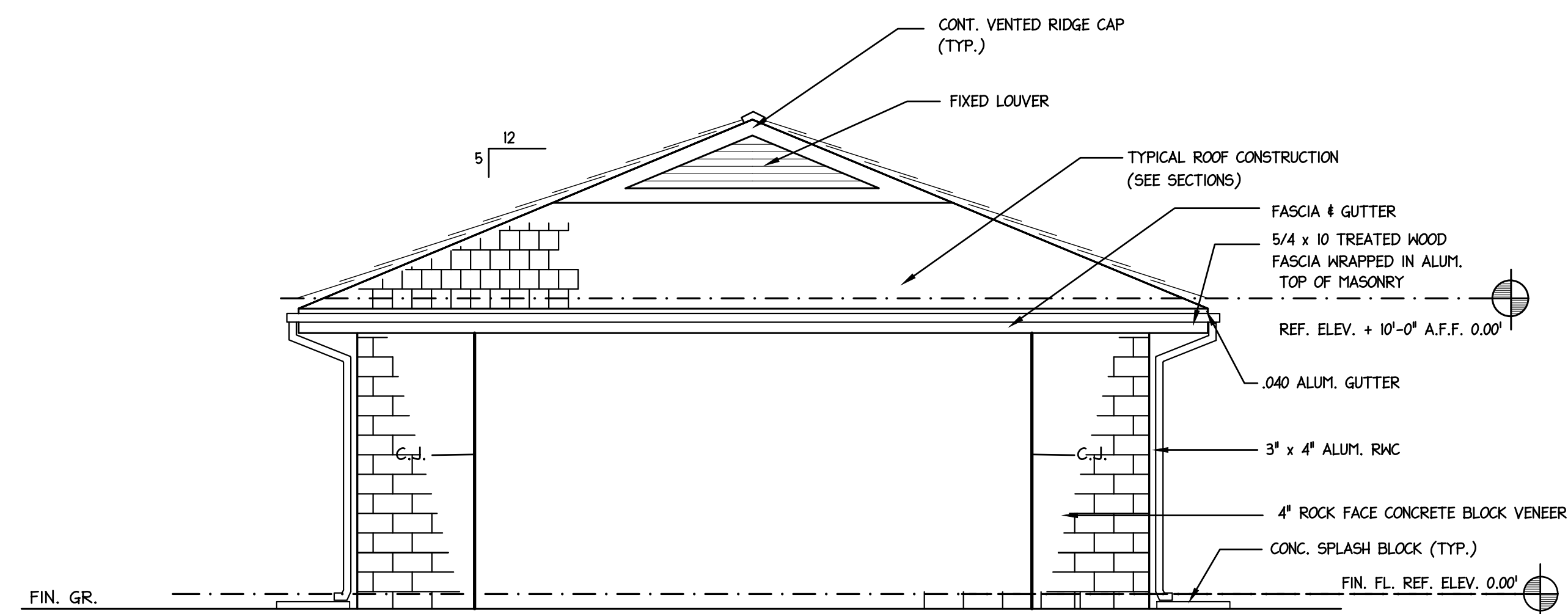


1 FRONT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

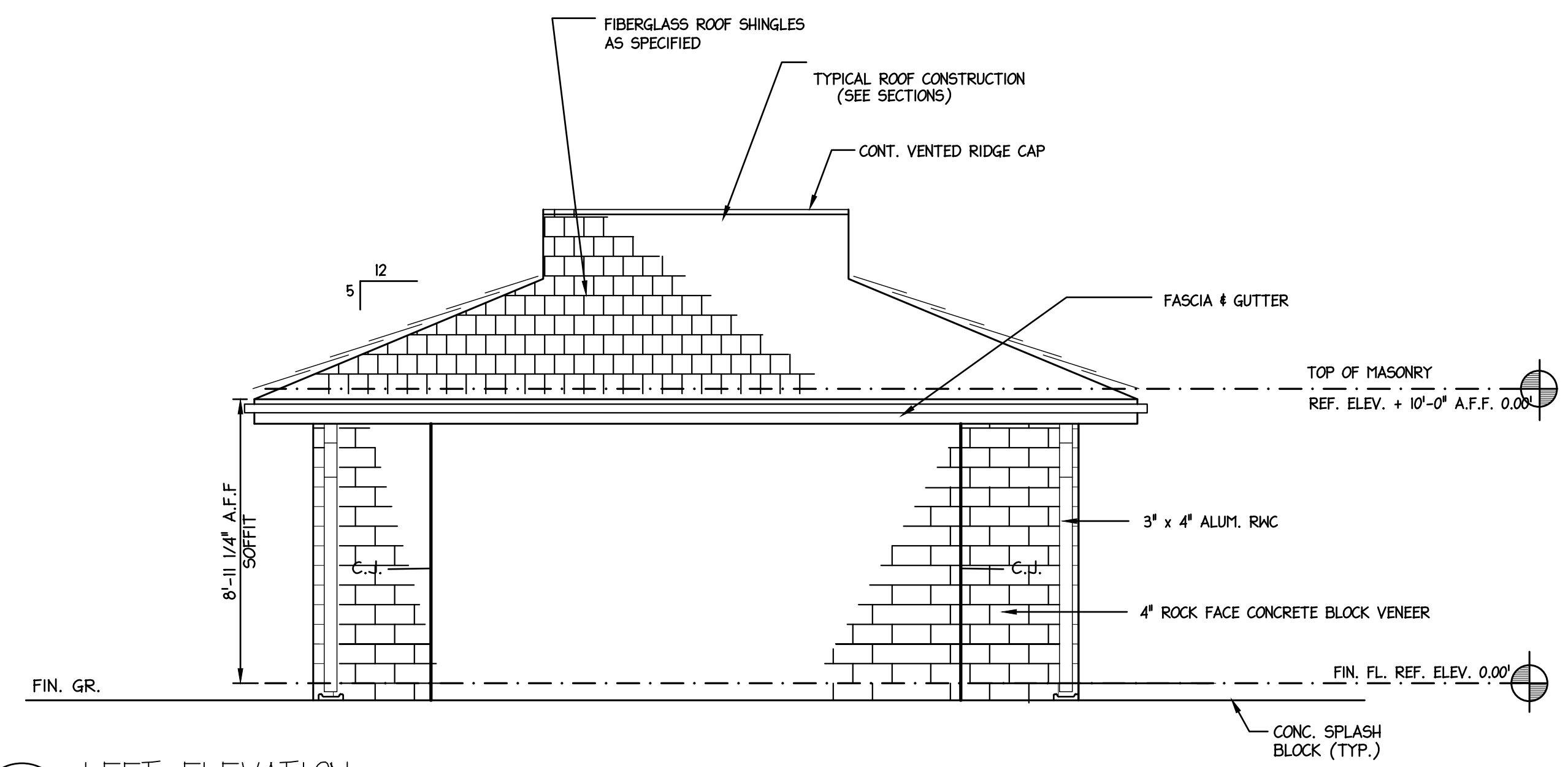


2 RIGHT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

NOTE:  
FINISH GRADE VARIES AROUND THE  
BUILDING—REFER TO CIVIL ENGINEER'S  
SITE PLAN

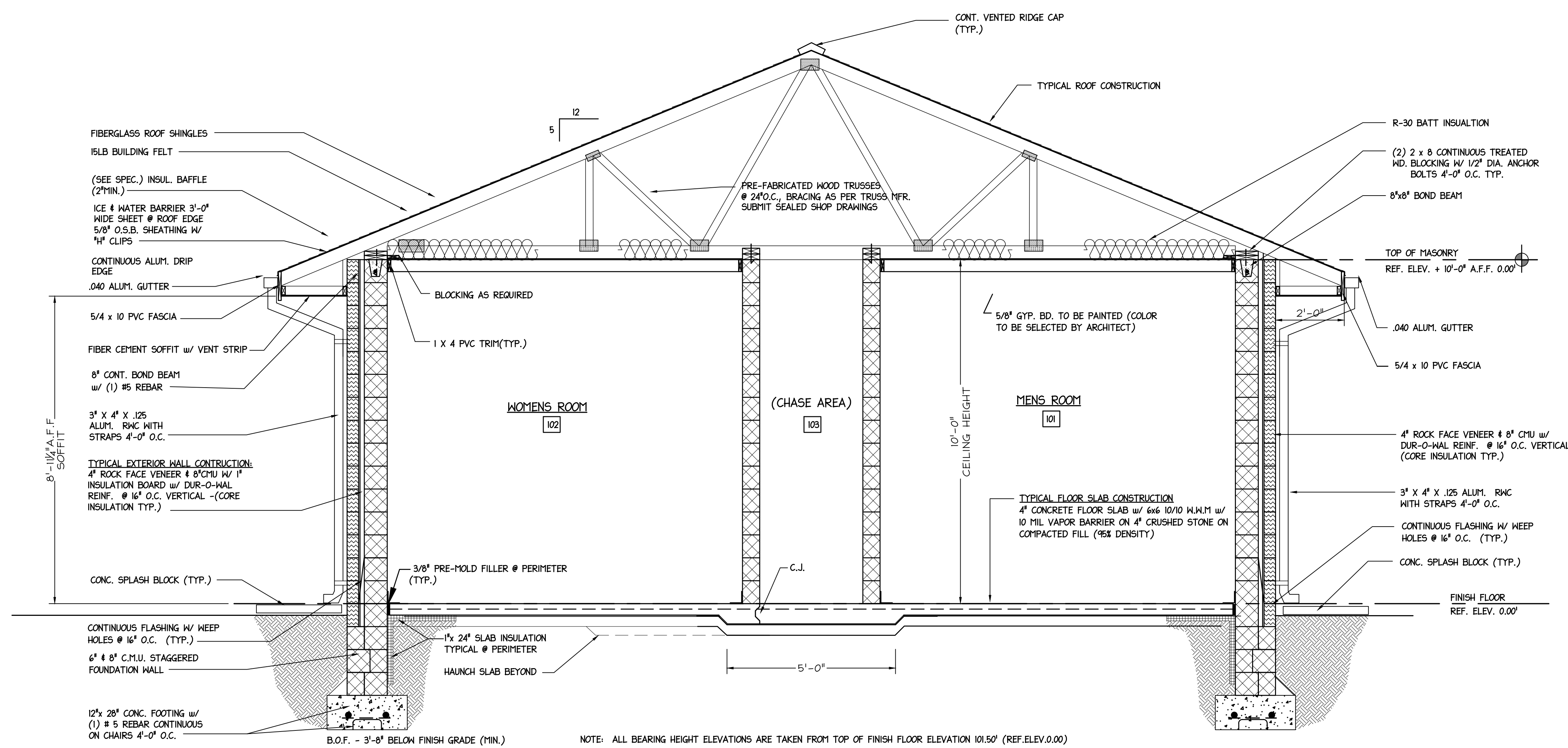


3 REAR ELEVATION  
A-2 SCALE 1/4" = 1'-0"

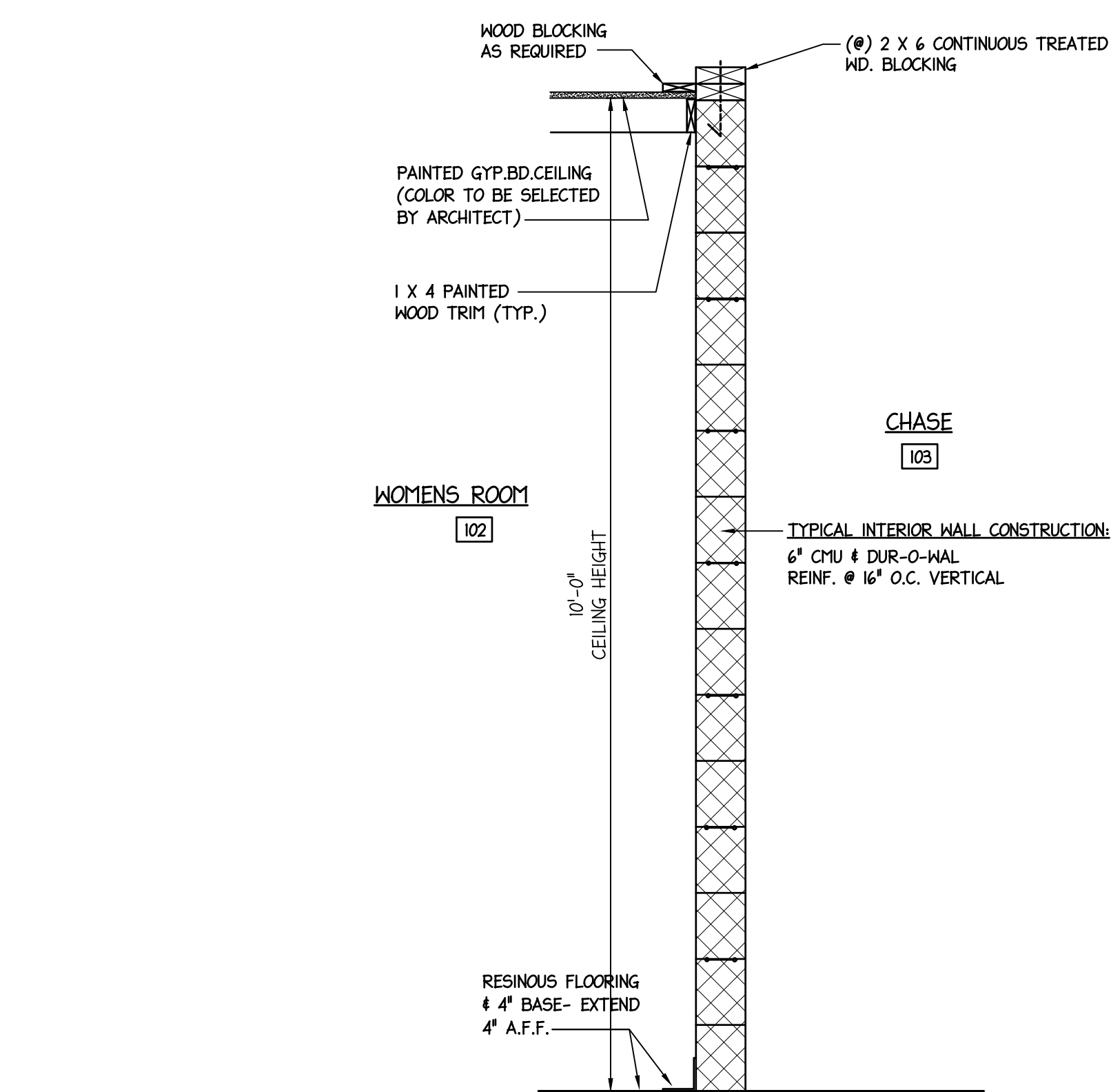


4 LEFT ELEVATION  
A-2 SCALE 1/4" = 1'-0"

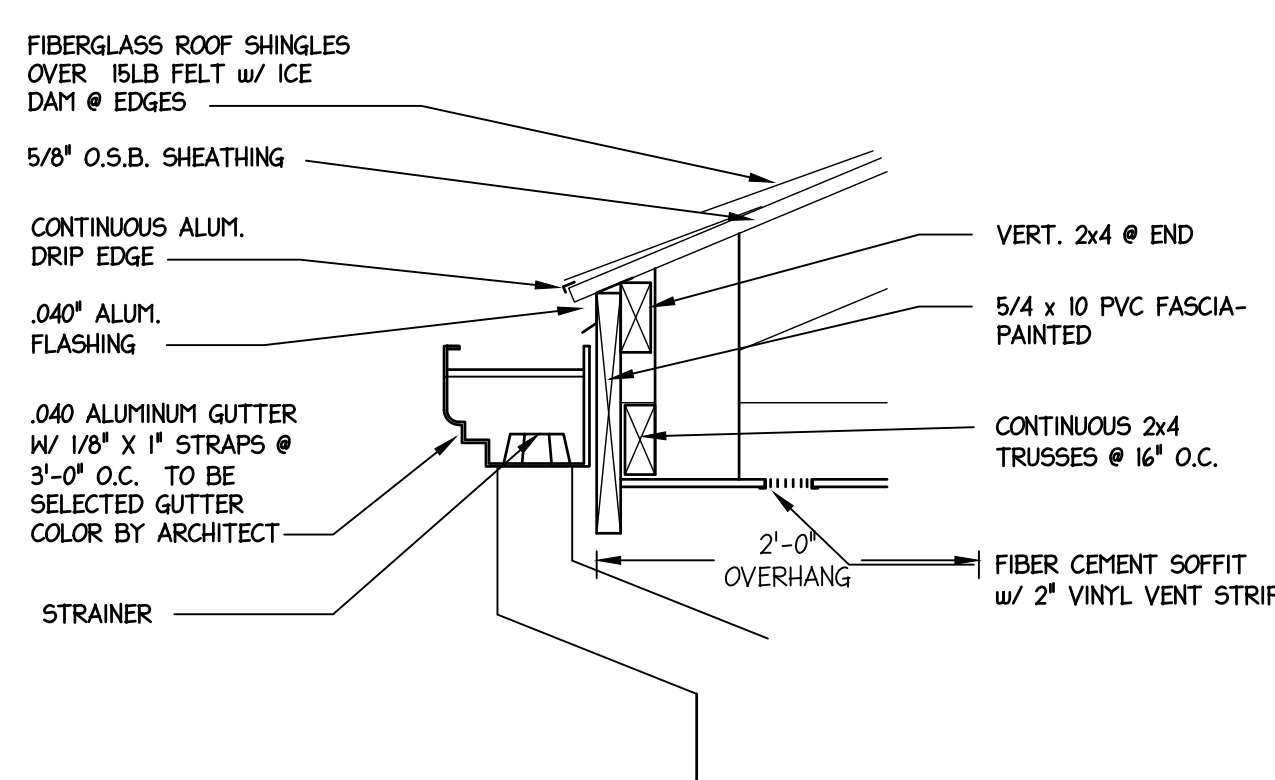
No.	DATE	DESCRIPTION	REV'D BY																
<table border="1"> <tr> <td>APPROVAL:</td> <td>PROJECT:</td> <td colspan="2"> <b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> DEPTFORD, NEW JERSEY 08016         </td> </tr> <tr> <td colspan="2">           JOSEPH F. MCKERNAN JR., R.A. 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034         </td> <td colspan="2">           TITLE: BUILDING ELEVATIONS         </td> </tr> <tr> <td>           JOSEPH F. MCKERNAN JR., R.A.  <small>REGISTERED PROFESSIONAL ARCHITECT NO. 123456789 PA. ARCH. REG. NO. 123456789 CT. ARCH. 1234</small> </td> <td>           SEAL:         </td> <td>           SCALE: AS NOTED            PROJECT NO. 1234            DATE: 12/23/23            REV'D:         </td> <td>           DRAWING NO:  <b>A-2</b> </td> </tr> <tr> <td colspan="2">           DRAWN BY: TC         </td> <td colspan="2">           CHECKED BY: DMF         </td> </tr> </table>				APPROVAL:	PROJECT:	<b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> DEPTFORD, NEW JERSEY 08016		JOSEPH F. MCKERNAN JR., R.A. 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: BUILDING ELEVATIONS		JOSEPH F. MCKERNAN JR., R.A. <small>REGISTERED PROFESSIONAL ARCHITECT NO. 123456789 PA. ARCH. REG. NO. 123456789 CT. ARCH. 1234</small>	SEAL:	SCALE: AS NOTED PROJECT NO. 1234 DATE: 12/23/23 REV'D:	DRAWING NO: <b>A-2</b>	DRAWN BY: TC		CHECKED BY: DMF	
APPROVAL:	PROJECT:	<b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b> DEPTFORD, NEW JERSEY 08016																	
JOSEPH F. MCKERNAN JR., R.A. 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: BUILDING ELEVATIONS																	
JOSEPH F. MCKERNAN JR., R.A. <small>REGISTERED PROFESSIONAL ARCHITECT NO. 123456789 PA. ARCH. REG. NO. 123456789 CT. ARCH. 1234</small>	SEAL:	SCALE: AS NOTED PROJECT NO. 1234 DATE: 12/23/23 REV'D:	DRAWING NO: <b>A-2</b>																
DRAWN BY: TC		CHECKED BY: DMF																	



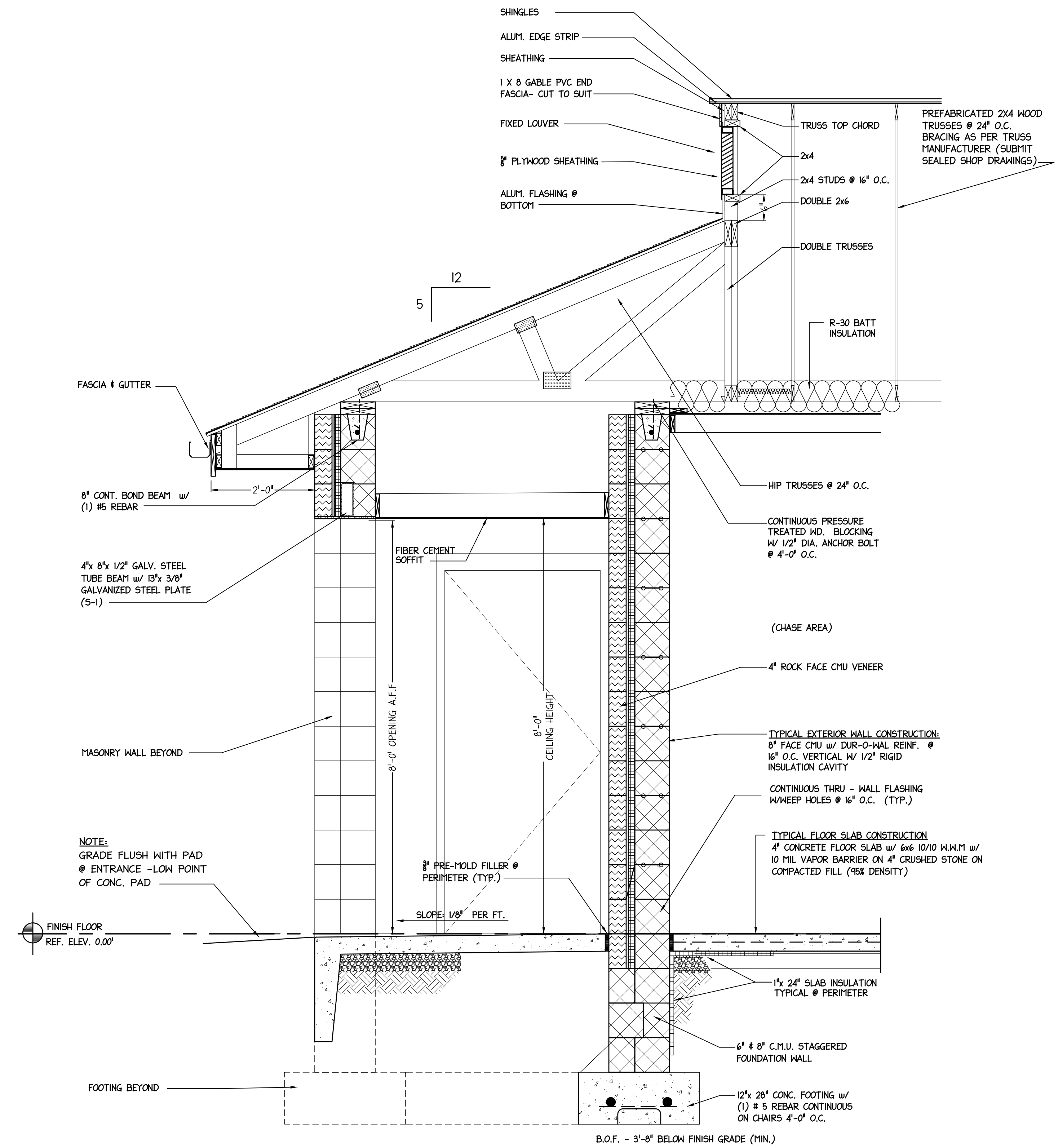
1 BUILDING SECTION  
A-3 SCALE: 1/2" = 1'-0"



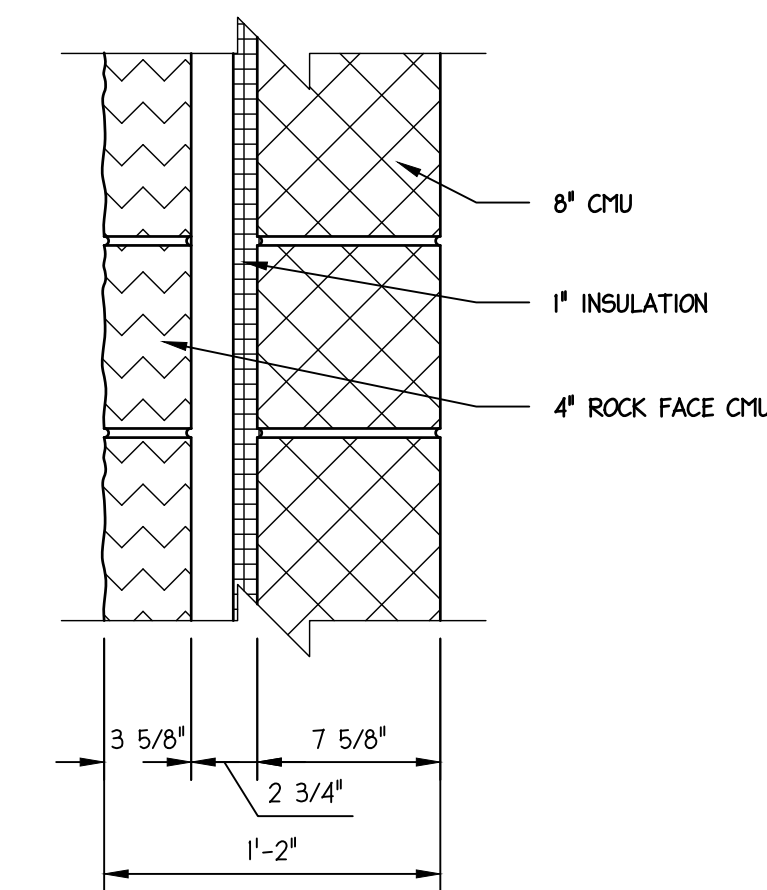
3 INTERIOR PARTITION  
A-3 SCALE: 3/4" = 1'-0"



4 DETAIL @ GUTTER  
A-3 SCALE: 1 1/2" = 1'-0"



2 EXTERIOR WALL SECTION @ CANOPY  
A-3 SCALE: 3/4" = 1'-0"



5 TYP. WALL DETAIL  
A-3 SCALE: 1 1/2" = 1'-0"

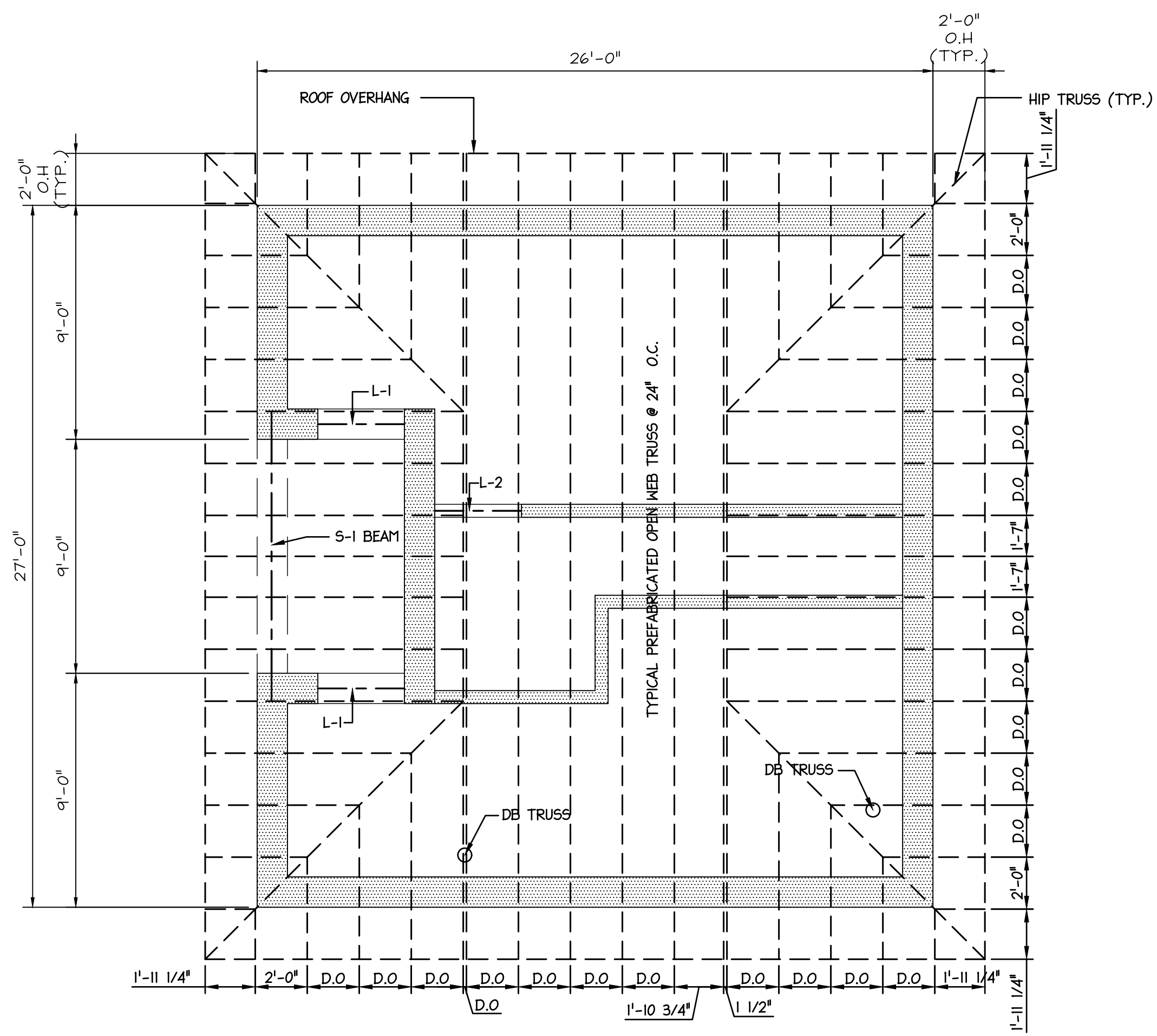
No.	DATE	DESCRIPTION	REV'D BY

APPROVAL:	PROJECT:	DESCRIPTION:	REV'D BY:
		NEW RESTROOM BUILDING FOR ANDALORO FARM	
		DEPTFORD, NEW JERSEY 08076	

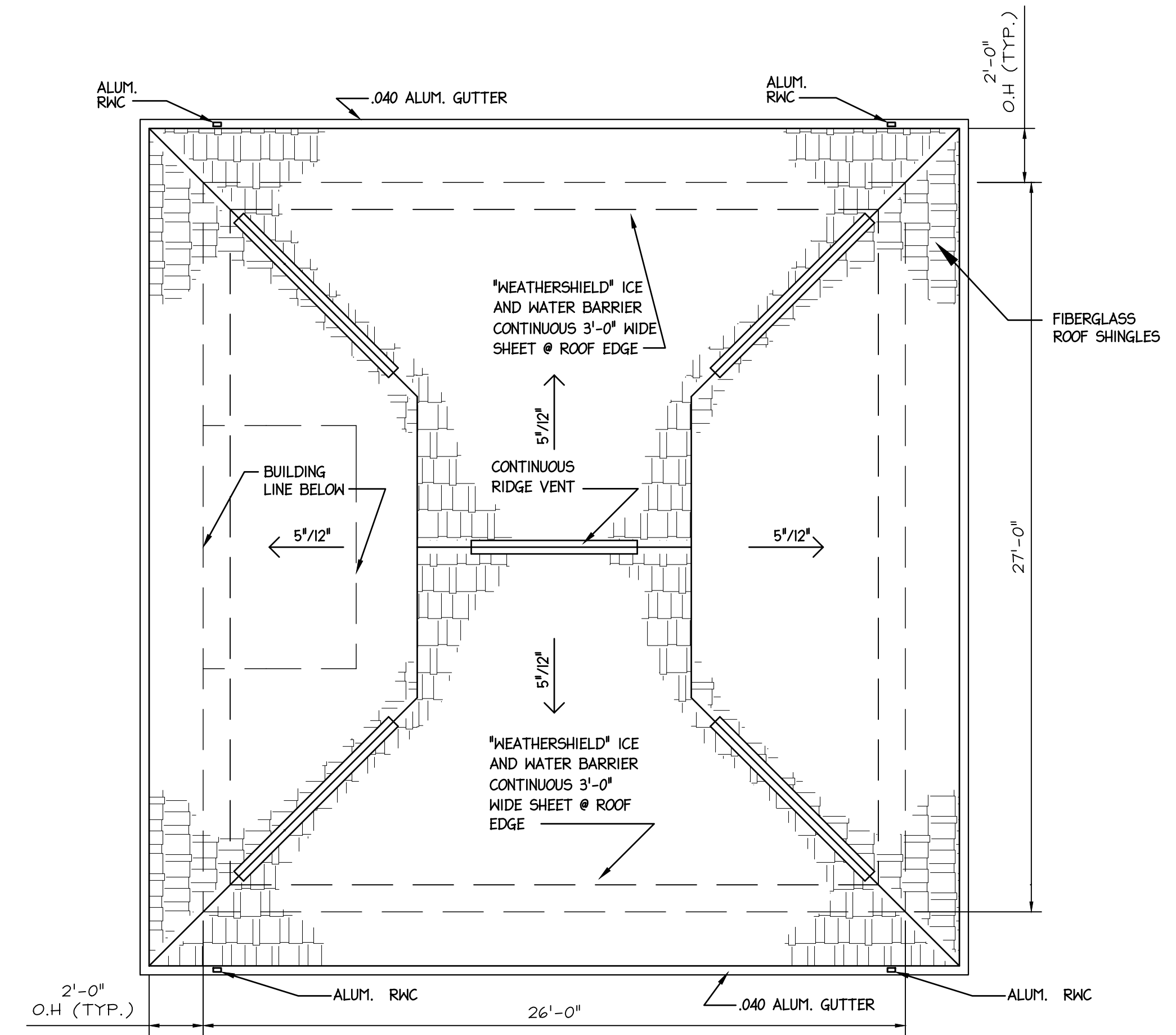
JOSEPH F. MCKERNAN JR., R.A. 100 DOBBS LANE SUITE 204 CHERRY HILL, NEW JERSEY 08034	SCALE: AS NOTED PROJECT: 182 DATE: 9/29/22 REV'D: DRAWN BY: TC CHECKED BY: DMF	TITLE: BUILDING SECTIONS, WALL SECTIONS & DETAILS DRAWING NO: A-3
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1 ROOF FRAMING PLAN  
A-4 SCALE: 1/4" = 1'-0"

**LINTEL SCHEDULE:**

- L-1 (2) 6' X 8" PRE-CAST CONC. LINTEL w/ #4 BARS T & B W/ 3 1/2" X 5" X 5/16" GALV. STEEL ANGLE MINIMUM BEARING 8" ON BOTH ENDS
- L-2 6' X 8" PRECAST CONC. LINTEL W/ (4) #4 BARS T & B
- S-1 4"x8" X 1/2" GALV. STEEL TUBE BEAM W 13 3/8" GALV. PLATE MINIMUM BEARING 8" ON BOTH ENDS

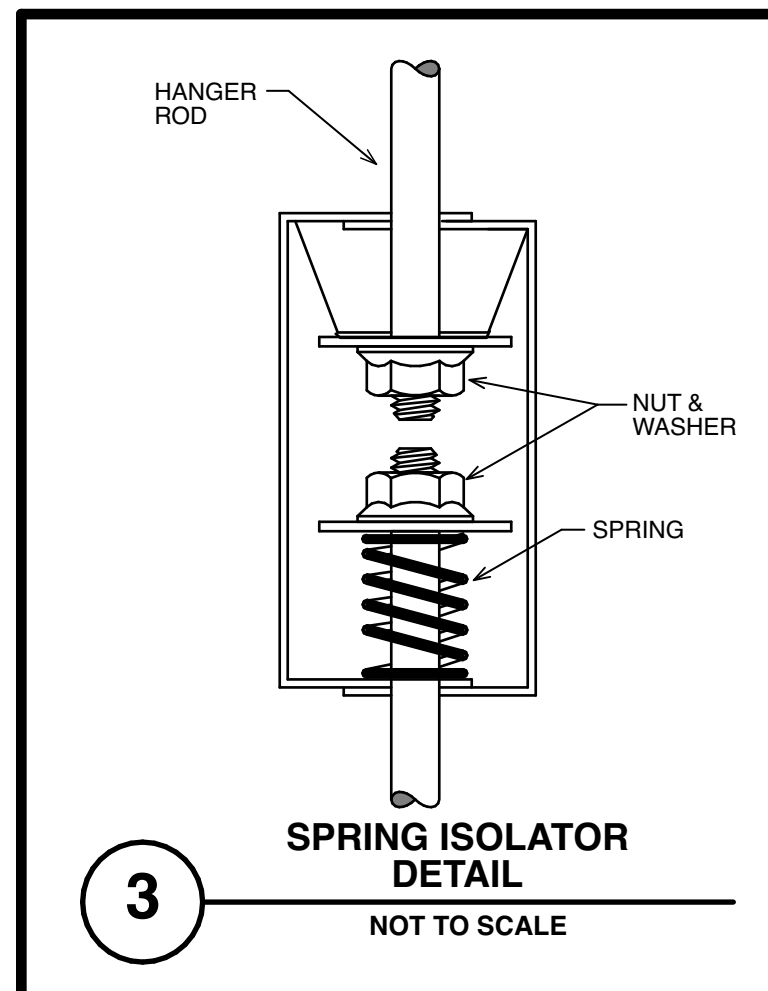
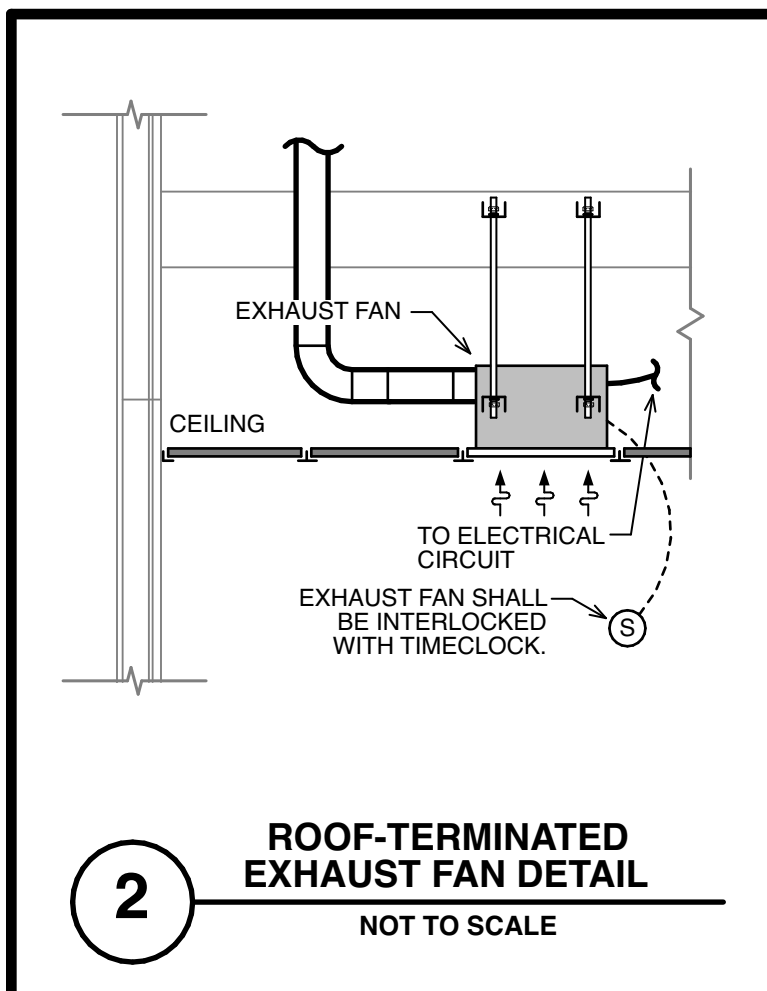


2 ROOF PLAN  
A-4 SCALE: 1/4" = 1'-0"

No.		DATE	DESCRIPTION	REVISIONS	REV'D BY
APPROVAL:					
PROJECT: <b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b>					
DEPTFORD, NEW JERSEY 08036					
Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034			TITLE: <b>ROOF PLAN &amp; ROOF FRAMING PLAN</b> SCALE: AS NOTED PROJECT NO: 182 DATE: 12/29/22 REV'D: DRAWN BY: TC CHECKED BY: DDF		
JOSEPH F. MCKERNAN JR., P.A. <small>100 DOBBS LANE SUITE 204 CHERRY HILL, NJ 08034</small>			SEAL:		
<b>A-4</b>					



- ### DRAWING NOTES
- MECHANICAL CONTRACTOR SHALL VERIFY THE LOCATIONS & SIZES OF THE DOMESTIC WATER PIPING, SANITARY PIPING AND STRUCTURAL ELEMENTS IN THE FIELD. COORDINATE THE INSTALLATION OF HVAC COMPONENTS WITH ALL OTHER TRADES.
  - COORDINATE LOCATIONS OF ALL CEILING MOUNTED MECHANICAL EQUIPMENT WITH LIGHTING AND REFLECTED CEILING PLANS.
  - IT IS THE INTENT TO MAINTAIN THE CEILING HEIGHTS AS SHOWN ON THE REFLECTED CEILING PLANS.
  - MECHANICAL CONTRACTOR SHALL FURNISH ALL REQUIRED CEILING ACCESS PANELS AND WALL OPENINGS TO SERVICE ALL MECHANICAL EQUIPMENT, INSTALLED BY G.C. COORDINATE ALL LOCATIONS AND SIZES WITH ARCHITECT PRIOR TO INSTALLATION.
  - ALL INTAKE AIR OPENINGS SHALL BE A MINIMUM OF 10'-0" FROM ALL EXHAUST AIR LOCATIONS. CONTRACTOR SHALL VERIFY THE EXACT TIE-IN LOCATION IN THE FIELD.
  - ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS SHALL BE SEALED WITH RCD#8 LOW-VOC MASTIC. ALL DUCTWORK SHALL BE IN ACCORDANCE WITH SMACNA'S SEAL CLASS "B".
  - CONTRACTOR REQUIRED TO PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
  - ALL DUCTWORK SIZES SHOWN ON PLAN ARE CLEAR I.D. DIMENSIONS. ALL SUPPLY AND RETURN DUCTWORK WILL BE INSULATED (REFER TO INSULATION SCHEDULE FOR MORE INFORMATION).
  - MECHANICAL CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF ALL THERMOSTATS WITH THE OWNER PRIOR TO INSTALLATION OF THE CONTROLS.
  - THERMOSTATS/SENSORS SHALL HAVE A 3.5 DEGREE TEMPERATURE RANGE CONTROL LIMIT, THAT CAN BE SET BY THE OWNER.



- ### SHEET NOTES
- EXHAUST FAN OPERATION SHALL BE ON A TIMECLOCK. COORDINATE ALL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

### CEILING HUNG UNIT HEATER SCHEDULE

Unit Designation	Description	UH-1
---	Unit Heater	---
---	Q-MARK	---
---	Model Number	MUH03-21
---	Mount	Ceiling - Vertical
---	Dimensions (L x W x H) (in.)	7-1/2 x 14 x 16
---	Weight (lbs)	27
---	Location	Refer to Plans
---	Quantity	1
Electrical	Capacity (kW)	2.2
---	Number of Elements	1
---	Unit FLA	11.0 Amps
Accessories	Finish	---
---	Mounting Kit	Yes
---	Disconnect Switch	Yes
---	Over Current Protection	Yes
---	Automatic Reset Thermal Limit	Yes
---	Automatic Fan Delay Circuit	No
---	Dust Shield	Yes
---	Fan Guard	Yes
Control	Unit Mounted Thermostat	Yes, Set to 55°F (ADJ.)

### EXHAUST FAN SCHEDULE

Unit Designation	EF-1	EF-2	EF-3
Basis of Design	Cook	Cook	Cook
Model Number	GC-166	GC-166	GC-148
CFM	140	140	100
E.S.P. (in. W.C.)	0.25	0.25	0.25
Drive Type	Direct	Direct	Direct
Dim (L x W x H)(in.)	13-1/4" x 15-1/2" x 9"	13-1/4" x 15-1/2" x 9"	13-1/4" x 15-1/2" x 9"
Weight (lbs.)	15	15	15
Location	Ceiling Mounted	Ceiling Mounted	Ceiling Mounted
Service	Refer to Plans	Refer to Plans	Refer to Plans
Electrical	115/10/60	115/10/60	115/10/60
Motor Power	48 Watts	48 Watts	38 Watts
Motor HP	0.040	0.040	0.040
Accessories			
Backdraft Damper	Yes	Yes	Yes
Roof Curb	No	No	No
Wall Cap	No	No	No
Roof Cap	No	No	No
Exhaust Kit	Yes, White	Yes, White	Yes, White
Vibration Isolation Kit	Yes	Yes	Yes
Standard Disconnect	Yes	Yes	Yes
Control			
Speed Controller	Yes	Yes	Yes
Time Delay Switch	No	No	No
Interlock	Interconnect w/ Timeclock Coordinate w/ E.C.	Interconnect w/ Timeclock Coordinate w/ E.C.	Interconnect w/ Timeclock Coordinate w/ E.C.

### MATERIAL AND INSULATION SCHEDULE

System	Material		Insulation		Remarks
	Basis of Design	Type	Wall (in.)	Vapor Barrier	
Ductwork, Exhaust Air	Galvanized Steel	Galvanized Steel	---	---	ASHRAE 2" Pressure class, Seal Class "A"
Ductwork, Outside Air	Galvanized Steel	Certainteed	Duct Wrap	1-1/2	ASHRAE 2" Pressure class, Seal Class "A"

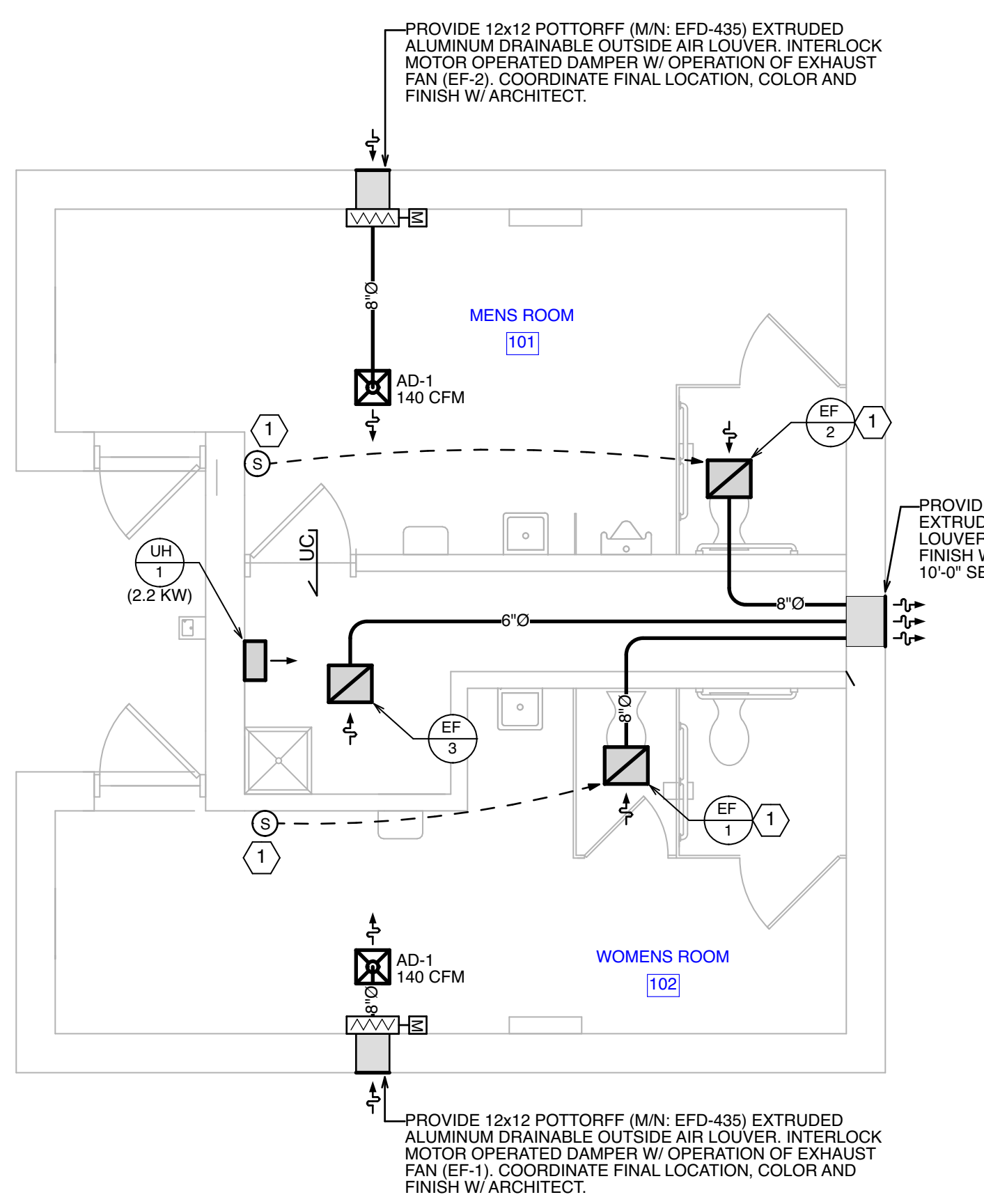
- ### ELECTRICAL COORDINATION
- IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE LOCATIONS OF SUPPRESSION SYSTEM PIPING WITH THE ELECTRICAL CONTRACTOR. DUCTWORK SHALL NOT BE INSTALLED WITHIN THE DEDICATED EQUIPMENT SPACE REQUIRED FOR EXISTING OR NEW ELECTRICAL EQUIPMENT.
  - COORDINATION OF DUCTWORK LOCATIONS SHALL BE SOLELY THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. APPROVAL OF SHEET METAL SUBMITTAL DRAWINGS DOES NOT RELEASE THE CONTRACTOR FROM COORDINATION RESPONSIBILITY. FINAL COORDINATION SHALL OCCUR IN FIELD WITH ELECTRICAL CONTRACTOR. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN RELOCATION OF SUPPRESSION SYSTEM PIPING AT CONTRACTOR'S EXPENSE.
  - PER NFPA 70, ARTICLE 110.28(F), DEDICATED EQUIPMENT SPACE SHALL APPLY TO SWITCHBOARDS, DISTRIBUTION PANELS, AND MOTOR CONTROL CENTERS. THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 8' ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED TO THE ELECTRICAL INSTALLATION. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE.

### PIPING AND DUCT CRITERIA

- ALL DUCTWORK SHALL BE SIZED USING A STANDARD DUCTULATOR. THE FOLLOWING CRITERIA SHALL BE USED TO CALCULATE DUCT SIZES:
  - SUPPLY DUCTS SHALL BE NO MORE THAN 0.10 IN. PER 100 FEET OF PRESSURE DROP.
  - RETURN AND EXHAUST DUCTS SHALL BE NO MORE THAN 0.05 IN. PER 100 FEET OF PRESSURE DROP.
  - VENTILATION DUCTS SHALL BE NO MORE THAN 0.075 IN. PER 100 FEET OF PRESSURE DROP.
- CONDENSATE SHALL BE COLLECTED AND RUN WITH ADEQUATE PITCH TO THE CLOSEST SAFE-WASTE. PROVIDE CONDENSATE PUMPS IF PITCH CAN NOT BE ACHIEVED. CONDENSATE PIPING SHALL BE SIZED AS FOLLOWS:
 

CONDENSATE PIPE SIZING CHART	TONS	SIZE
	0-20	3/4"
	20-40	1"
	40-60	1-1/4"
	60-80	1-1/2"
	80-125	1-1/2"
	125-250	2"
- ALL CONDENSATE DRAINS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- ### MECHANICAL DRAWING NOTES
- GENERAL NOTES:**
- Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract documents, codes, ordinances, and accepted trade practices.
  - The Contractor shall review all of the contract documents including those of the other trades in order to acquaint himself with the existing and related conditions that may, will or could affect his work. He shall be experienced, skilled and knowledgeable with this type of construction and shall be expert and proficient in the preparation of estimates and the comprehension, implementation and interpretation of contract documents such as those prepared for this project.
  - The Contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. Submission of the proposal shall be considered evidence that this requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
  - The Contractor by his acceptance of the contract documents that all work installed shall be free from all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that if, during a period of one (1) year from the date of completion and acceptance of the work, any such defects in workmanship, material or performance appear, such defects shall be remedied by him without cost to the Owner. If the Contractor fails to remedy the defects as outlined within a reasonable length of time, to be specified in a notice from the Owner's authorized representative to the Contractor, the Owner will have such work done and he will charge the cost to the Contractor.
  - Mechanical equipment shall be installed in a neat and workmanlike manner in accordance with the latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by the Contractor for this division in the execution of this work.
  - The contract drawings are diagrammatic and indicate the general arrangement of systems. The Contractor shall provide all work required for contract documents such as those prepared for this project. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
  - The Contractor shall follow the contract drawings in laying out his work, and he shall also check the contract drawings of the other trades to verify spaces in which his work shall be done. Equipment locations shall be coordinated with the Architect and the G.C.
  - The Contractor shall, without additional costs to the Owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of his work.
  - The Contractor shall provide and maintain in good order a complete set of blue-line prints of the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the conclusion of the work, the contractor shall, at his own expense, submit a set of reproducible of the original contract drawings and utilizing the symbols on the contract drawings, shall incorporate all "as-built" data in a clearly legible and reproducible manner. All schedules shall be corrected to indicate "as-built" conditions. All revisions shall be incorporated on these reproducible including all sketches and written directives. All concealed equipment, manifolds, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition for acceptance of the work, the "as-built" reproducible shall be 1) set of prints, dated and delivered to the Engineer.
  - The Contractor shall supply all labor required to perform all work which may be claimed by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the Owner irregardless of which section of the contract documents the work is to be completed. The Contractor shall be responsible to verify with all local organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades and provide and install his work in accordance with the accepted trade practice in the area.
  - The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state and federal authorities. The National Board of Fire Underwriters, the codes of the International Codes Council, the National Fire Protective Association and all other regulatory bodies having jurisdiction. All materials and equipment shall bear the stamps or seals of the NFPA, ASME, NEMA, IEEE, UL and other recognized industry regulatory groups.
  - The Contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
  - The Contractor shall be responsible for all working conditions and shall maintain a safe environment at the job site for all employees.
  - All work shall be installed in strict accordance with the equipment manufacturer's recommendations and requirements.
  - Openings around ductwork and piping passing through the construction shall be sealed with fire barrier caulking.
  - All systems are to be tested, adjusted and balanced to provide performance as called out on the drawings. Test and adjust air safety controls.
  - Coordinate to assure that all work of all trades will be concealed within the wall and ceiling construction and without the need to reduce ceiling heights. Report exceptions to the Architect prior to construction and erection of the work.
  - All work shall be supported from the building structural system. Work shall not be supported from the ceiling suspension system, from plumbing work, sprinkler piping, electrical work, nor from other mechanical work.
  - The HVAC and Plumbing trades shall coordinate all work with the General Contractor prior to installation.
  - All work shall be located to avoid conflicts with other work and provide adequate clearances for architectural design, proper operation, adjustments, filter replacement, component service and provide a minimum 2" clearance between all piping, ductwork, conduit and other work.
  - The Contractor shall maintain as-built drawings and deliver them to the Owner upon completion of the project.
  - Provide supports, hangers, flexible pipe connections, vibration isolation, supplementary supports, controls and wiring, cleaning, painting, specialties and all other labor, materials, devices and services required for a complete, quality installation. Unless otherwise indicated, run all pipes, ductwork and conduit as high as possible. Provide starters for all motor driven equipment.
  - The HVAC trades shall coordinate all electrical loads with the Electrical Contractor.
- HVAC NOTES:**
- The Contractor shall coordinate with the General Contractor. Locate all required cutting and patching and the like required by the installation of the Mechanical work.
  - Provide all specialties, accessories, controls and the like to provide a complete, quiet, properly operating automatically controlled systems.
  - The HVAC trade shall provide all safety and operating controls, transformers, motor starters, devices and control wiring required for the systems to operate in a safe and satisfactory manner.
  - Do not operate the air conditioning systems during construction except for testing and provide new filters for all units and immediately prior to substantial completion.
  - Ductwork shall be constructed of galvanized sheet metal fabricated and erected in accordance with ASHRAE and SMACNA standards. Provide turning vanes in all elbows, manual volume dampers in all branches, air equalizers and similar devices as required to properly balance the systems and produce quiet, draftless operation. Ductwork sizes shown on the plans are sheet metal I.D. free area.
  - Ductwork shall be constructed to the sizes shown and made airtight during erection with caulked, taped or hardcast joints to restrict leakage to 5% or less of circulated air.
  - All ductwork shall be closely coordinated prior to fabrication. The Architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information. Full sheet metal shop drawings drawings shall be developed with all special requirements worked out and shown on drawings. These drawings must show locations of openings to be cut through the building's exterior, floors, etc. and any problems. These drawings shall be submitted for review by the Architect and Engineer prior to fabrication.
  - Provide UL labeled and inspected fire dampers for all ducts and openings passing through floors, fire rated walls and ceilings, where shown on the drawings and in locations required by codes.
  - Balance all air quantities to within 5% of the CFM shown on the drawings. Fully balance individual outlets to the occupants' satisfaction. Install all devices required for balancing in the system during construction. Provide balancing reports by a certified testing and balancing agency for review by the Engineer.
  - Provide written operating and maintenance instructions including all warranty certificates, in duplicate, to the Architect.
  - Contractor shall coordinate all diffuser, grille and register locations with architectural ceiling plans and lighting layouts.
  - All flexible ductwork shall conform with the UL rating under flexible air duct test UL-181.



**1 FIRST FLOOR MECHANICAL PLAN**  
SCALE: 1/4" = 1' - 0"

### MECHANICAL SYMBOLS, INDICATIONS & ABBREVIATIONS

	EQUIPMENT DESIGNATION TAG		FLEXIBLE DUCTWORK
	SUPPLY AIR DIFFUSER (CEILING)		DUCT W/ ACOUSTICAL LINING
	SUPPLY AIR DIFFUSER (SIDEWALL)		RETURN/EXHAUST AIR DUCT DN
	SUPPLY AIR DIFFUSER (LINEAR, CEILING)		RETURN/EXHAUST AIR DUCT UP
	SUPPLY AIR DIFFUSER (LINEAR, WALL)		SUPPLY/MAKE-UP AIR DUCT UP
	RETURN AIR DIFFUSER (CEILING)		SUPPLY/MAKE-UP AIR DUCT DN
	EXHAUST AIR DIFFUSER (CEILING)		MOTORIZED DAMPER
	RETURN/EXHAUST AIR DIFFUSER (SIDEWALL)		DIRECTION OF FLOW
	BRANCH DAMPER		PIPE TURNING DOWN
	VOLUME DAMPER		PIPE TURNING UP
	2" DOOR UNDERCUT		CAPPED FLANGE
	THERMOSTAT	AD	AIR DEVICE
	DUCT MOUNTED SMOKE DETECTOR	A.F.F.	ABOVE FINISHED FLOOR
	DUCT SIZE TRANSITION	CFM	CUBIC FEET OF AIR PER MINUTE
	EXHAUST FAN	DN	DOWN
		EA	EXHAUST AIR
		EF	EXHAUST FAN
		FEH	FAN FORCED HEATER
		M.O.D.	MOTORIZED DAMPER
		OA	OUTSIDE AIR
		RA	RETURN AIR
		RTU	ROOF TOP UNIT
		SA	SUPPLY AIR
		UC	UNDERCUT

NO.	DATE	DESCRIPTION	REV'D BY

APPROVAL: \_\_\_\_\_ PROJECT: **NEW RESTROOM BUILDING FOR ANDALORO FARM**

DEPTFORD, NEW JERSEY 08046

Joseph F. McKernan Jr., Architects & Associates  
100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034

TITLE: **FIRST FLOOR MECHANICAL PLAN & MECHANICAL SCHEDULES & DETAILS**

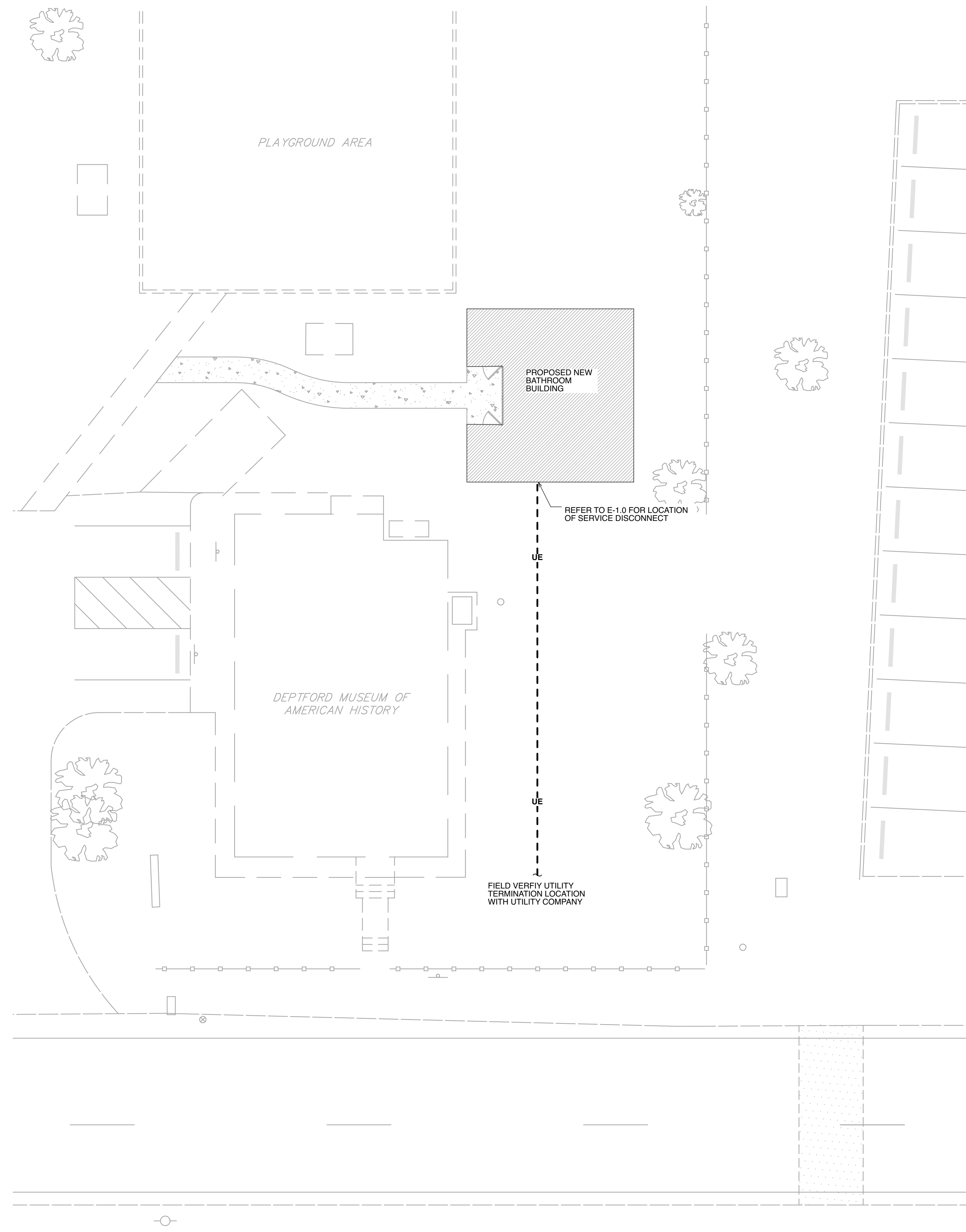
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DATE: 09/20/22

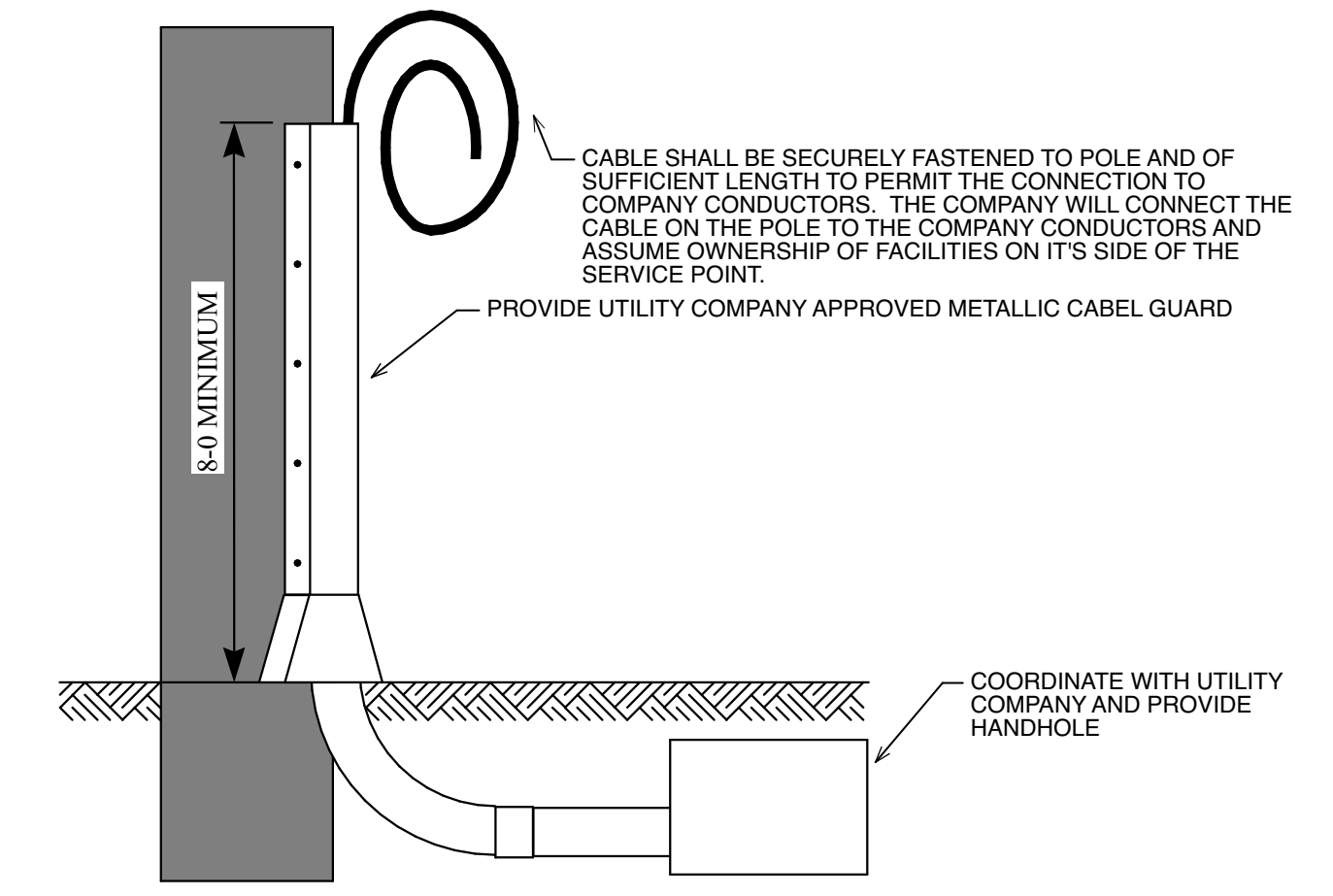
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DRAWING NO: **M-1.0**

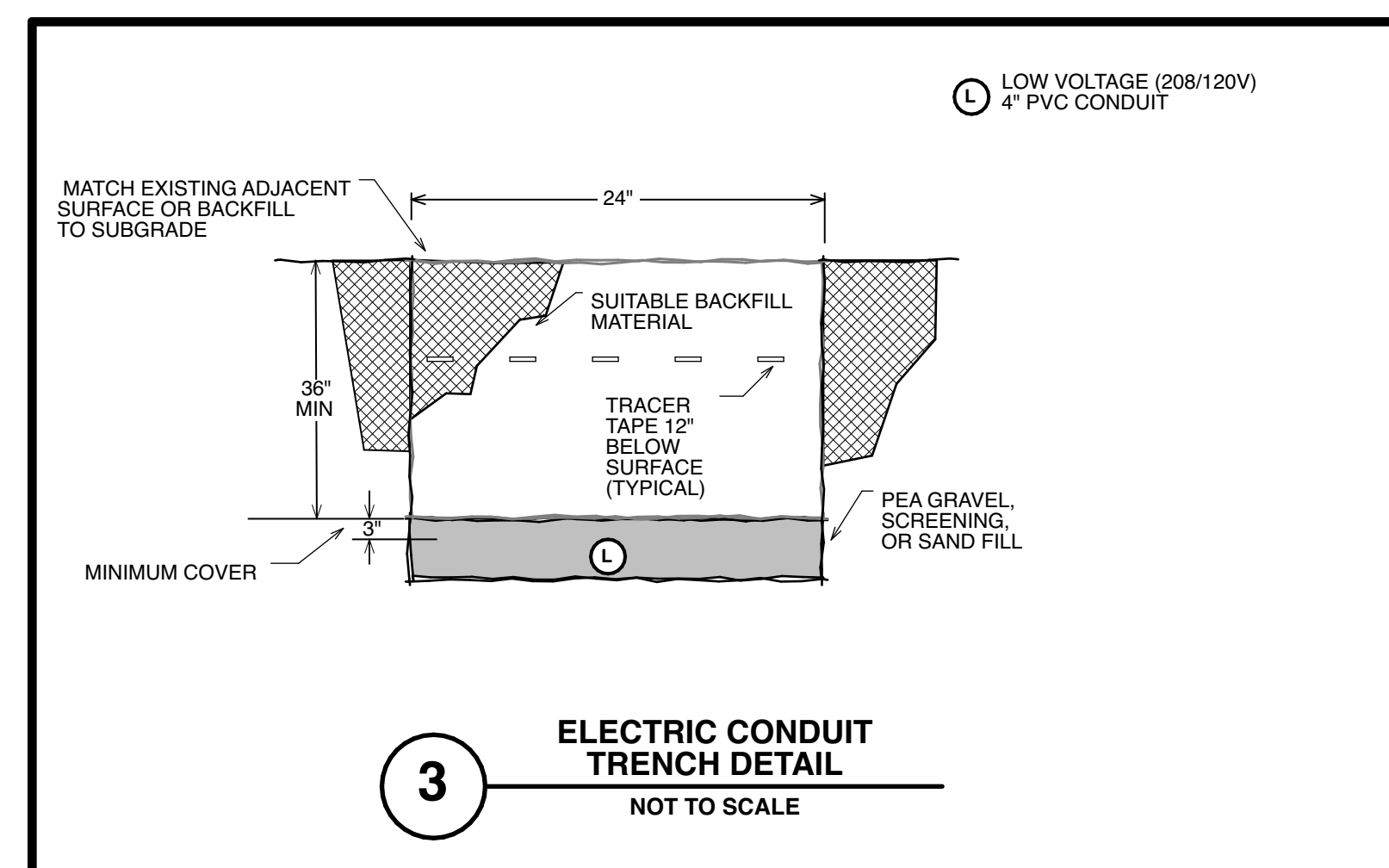
SCOTT A. WHITE  
REGISTERED ARCHITECT & ENGINEER  
NO. 00000000000000000000



**1 SITE ELECTRICAL PLAN**  
SCALE: 1" = 10' - 0"



**2 CABLE GUARD DETAIL**  
NOT TO SCALE



**3 ELECTRIC CONDUIT TRENCH DETAIL**  
NOT TO SCALE


**SITE ELECTRICAL NOTES**

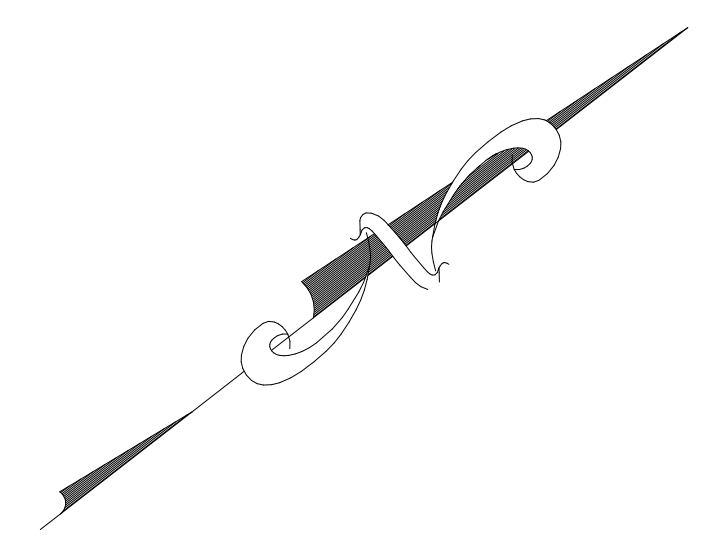
1. PLAN IS DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS OF ALL EQUIPMENT AND SITE WORK WITH OWNER, ARCHITECT, AND CIVIL ENGINEER PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF UNDERGROUND SERVICES WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
3. EXACT ROUTING AND TERMINATION POINTS OF UNDERGROUND SERVICES SHALL BE VERIFIED WITH THE UTILITY COMPANY AND OTHER CONTRACTORS.
4. IN ADDITION TO THE LENGTH SHOWN, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE PER 25' OF RUN FOR SECONDARY ELECTRIC SERVICE CONDUITS, RELATED TRENCHING, AND BACKFILL.
5. IN ADDITION TO THE LENGTH SHOWN, THE CONTRACTOR SHALL PROVIDE A UNIT PRICE PER 25' OF RUN FOR TELEPHONE SERVICE CONDUITS, RELATED TRENCHING, AND BACKFILL.
6. COORDINATE FINAL INTERCONNECTIONS TO EACH UTILITY COMPANY. PROVIDE ALL MATERIALS AND LABOR REQUIRED FOR SERVICE CONNECTIONS IN ACCORDANCE WITH EACH UTILITY (POWER AND COMMUNICATIONS) COMPANY SERVICE STANDARDS.
7. UNLESS OTHERWISE NOTED, UNDERGROUND ELECTRICAL AND COMMUNICATIONS CONDUITS SHALL BE 4" MINIMUM BELOW GRADE. UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC.
8. PROVIDE, IN TRENCH CONTAINING ELECTRIC AND COMMUNICATION DUCT SYSTEMS, AN UNDERGROUND UTILITY MARKING TAPE. TAPE SHALL BE BURIED 1 FOOT BELOW GRADE AND RUN CONTINUOUS THE ENTIRE LENGTH OF DUCT TRENCH. TAPE SHALL BE BRIGHTLY COLORED RED POLYETHYLENE LONG LIFE TYPE WITH PRINTED WARNINGS TO READ "CAUTION, BURIED ELECTRIC LINE BELOW".
9. PROVIDE ALL REQUIRED EXCAVATION TRENCHING, BACKFILLING, COMPACTING IN ACCORD WITH THIS DIVISION.
10. PROVIDE APPROVED GROUNDING CONDUCTOR IN ALL CONDUIT.
11. PROVIDE PVC CONDUIT BURIED 30 INCHES MINIMUM BELOW FINISHED GRADE, OR AS OTHERWISE INDICATED, FOR SERVICES AND FEEDERS.
12. PROVIDE UNDERGROUND DUCTS IN A STRAIGHT LINE. POCKETS WHERE WATER CAN ACCUMULATE IN CONDUITS WILL NOT BE PERMITTED.
13. ALL UNDERGROUND CONDUITS SHALL BE WATER TIGHT. DOPE THREADS OF STEEL CONDUIT BEFORE JOINING. PVC CONDUITS SHALL BE CHEMICALLY BONDED AROUND ENTIRE CIRCUMFERENCE OF THE CONDUIT AT EACH JOINT. PROVIDE A MINIMUM OF 6 FEET OF RIGID STEEL CONDUIT WHEN ENTERING OR RUNNING UNDER MANHOLES, TRANSFORMER PADS, AT BUILDING WALLS OR FOUNDATIONS AND ON BOTH SIDES OF ROADS. CONDUITS UNDER ROADS SHALL BE STEEL.
14. PROVIDE ALL EXCAVATION, TRENCHING AND BACKFILLING INCLUDING SHORING, SHEETING, PUMPING, GRADING, BARRICADING AND OTHER RELATED WORK NECESSARY FOR INSTALLATION OF ELECTRICAL WORK.
15. EXCAVATION SHALL BE PERFORMED ON AN UNCLASSIFIED BASIS AND SHALL INCLUDE THE REMOVAL OF MATERIALS ENCOUNTERED.
16. TRENCHES SHALL BE OF SUFFICIENT DEPTH TO ALLOW ADEQUATE COVER OVER RACEWAYS. BOTTOMS OF TRENCHES SHALL BE INSTRUMENT GRADED IN DIRECTION OF FLOW. EARTH SHALL BE SCOOPED OUT SO RACEWAYS WILL HAVE SOLID BEARINGS ON UNDISTURBED EARTH. WHERE RACEWAYS ARE INSTALLED IN FILLED GROUND CONCRETE ENVELOPE ENCASEMENT SHALL SPAN FULL WIDTH OF TRENCH.
17. BACKFILL SHALL BE MADE WITH CLEAN EARTH FREE OF ROCKS, FROZEN EARTH, DEBRIS OR OTHER FOREIGN MATERIAL. DEPOSIT BACKFILL IN UNIFORM LAYERS NOT OVER 6" THICK. TAMP EACH LAYER BEFORE APPLYING NEXT LAYER. GINDERS IN BACKFILL ARE PROHIBITED.
18. EXCAVATED MATERIAL REMAINING AFTER THE BACKFILLING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
19. REPAIR STREETS, PAVEMENTS, LAWNS, CURBS AND OTHER FINISHED SURFACES DAMAGED BY EXCAVATION AND RESTORE SAME TO ORIGINAL CONDITION.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND AVOIDING EXISTING UNDERGROUND FACILITIES. HAND EXCAVATE AREAS OF CONFLICT WITH EXISTING UNDERGROUND PIPING AND OR CABLING. AREAS SHALL BE FIELD INSPECTED AND MARKED BY LICENSED AND INSURED LOCATING CONTRACTOR PRIOR TO COMMENCING WORK IN AREA.

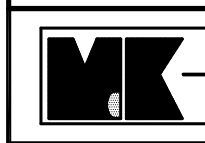

**CALL BEFORE YOU DIG !**

NEW JERSEY STATUTE 2C:17-5 OF 1979 REQUIRES (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND (5) WORKING DAYS IN DESIGN STAGE -- STOP CALL

**Garden State Underground Utility Locator Service**

 (908) 232 - 1232



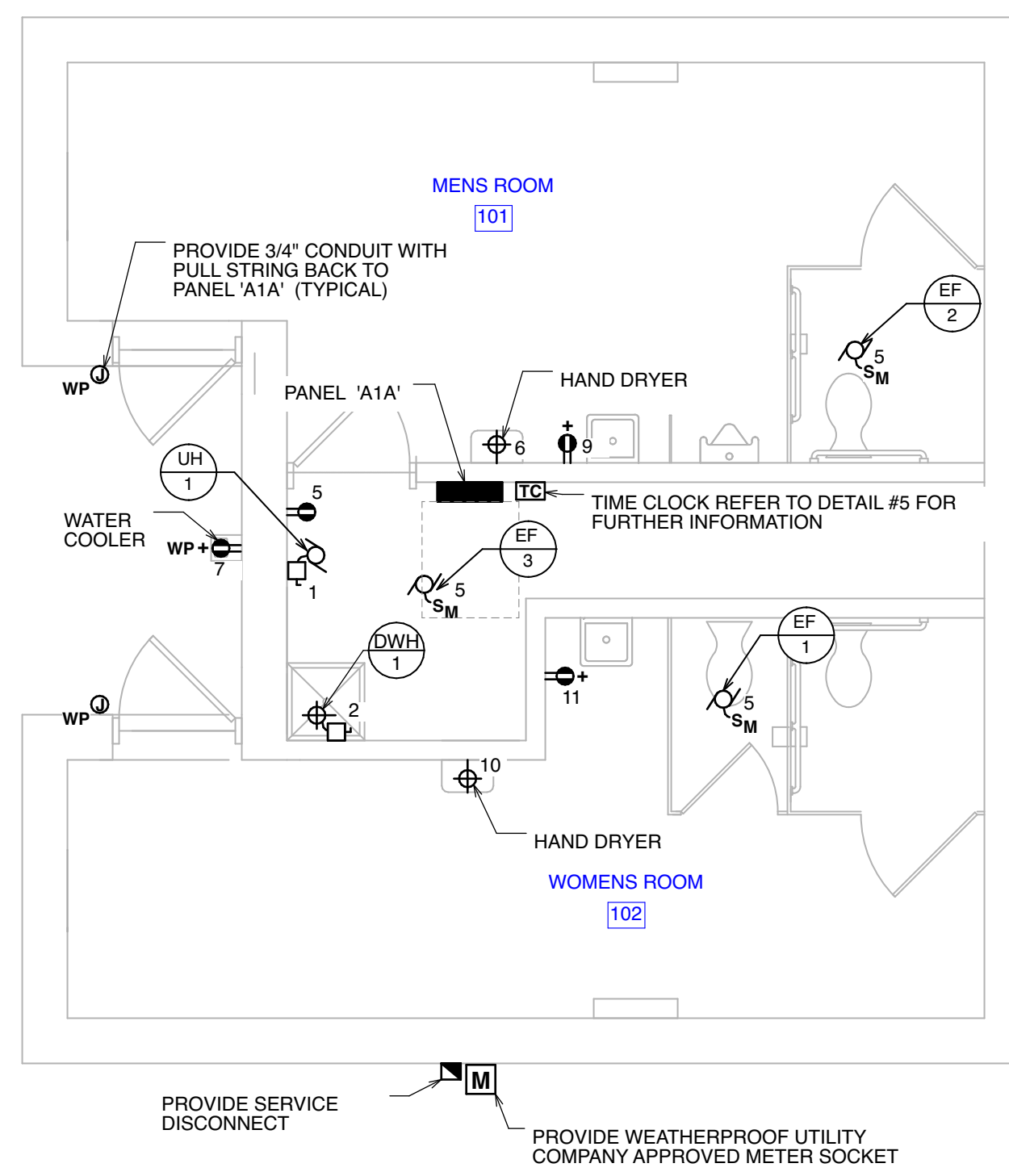
NO.	DATE	DESCRIPTION	REV'D BY
APPROVAL:		PROJECT: <b>NEW RESTROOM BUILDING FOR ANDALORO FARM</b>	
		DEPTFORD, NEW JERSEY 08034	
 <b>Joseph F. McKernan Jr., Architects &amp; Associates</b> 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		TITLE: <b>SITE ELECTRICAL PLAN</b>	
 <b>HOLSTEN WHITE</b> 215 E. Street Road, Suite 10 Lansdale, PA 19380 P: (215) 232-7700 www.holstenwhite.com		SCALE: AS NOTED DRAWING NO: <b>E-0.0</b>	DATE: 09/20/22 REV'D: JH DRAWN BY: JC CHECKED BY: JH

## ELECTRICAL SPECIFICATIONS

- Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract documents, codes, laws and ordinances, and accepted trade procedures.
- The contractor by his acceptance of the contract guarantees that all work installed shall be free from all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that, during a period of one (1) year from the date of the certificate of completion and acceptance of the work, any such defects in workmanship, material or performance appear, such defects shall be remedied by him without cost to the owner. If the contractor fails to remedy the defects as outlined within a reasonable length of time to be specified in a notice from the owner's authorized representative to the contractor, the owner will have such work done, and he will charge the cost to the contractor.
- The contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. The submission of the proposal shall be considered evidence that the requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
- Electrical equipment shall be installed in a neat and workmanlike manner in accordance with latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by Contractor for the execution of this Work.
- The contract drawings are diagrammatic and indicate the general arrangement of all systems and work included in the contract. The contract drawings are not to be scaled. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
- The contractor shall, without additional costs to the owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of his work.
- The contractor shall provide and maintain in good order a complete set of blueprints of the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the conclusion of the work, the contractor shall, at his own expense, obtain a set of reproductions of the original contract drawings, and utilizing the symbols on the contract drawings, shall incorporate all "as built" data in a clearly legible and reproducible manner. All schedules shall be corrected to indicate "as built" conditions. All revisions shall be incorporated on these reproductions including all sketches and written directives. All concealed equipment, mainfeeders, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition for acceptance of the work, the "as built" reproductions and one (1) set of prints shall be signed, dated and delivered to the engineer.
- The contractor shall supply all labor required to perform all work which may be claimed by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the owner regardless of which section of the contract documents the work is described. The contractor shall be responsible to verify with all local organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades, and provide and install his work in accordance with the accepted trade practice in the area.
- The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state, and federal authorities, the National Board of Fire Underwriters, the codes of the International Codes Council, the codes of the National Fire Protective Association, the New Jersey Uniform Construction Codes, and all other regulatory bodies having jurisdiction. All materials and equipment shall bear the name of the manufacturer, and shall be stamped with the name of the manufacturer, and shall be stamped with the name of the manufacturer.
- The contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans, and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
- Before starting any work under this Contract, file for inspection with the Middle Department Inspection Agency or other certified Agency. Upon completion of the work, furnish Electrical Certificates from said Agency for all Electrical equipment and systems installed or furnished and installed as part of the work.
- The contractor shall at all times keep the premises free from the accumulation of waste materials or rubbish caused by his employees or work. At the completion of the work, he shall remove all superfluous materials, equipment and debris resulting from the work.
- All feeder wiring shall be soft drawn copper of 98% conductivity, installed in code conforming metallic raceways or cable assemblies. All wiring shall be copper, thermoplastic covered insulated Type 75° C, THW or 90° C, Type THHN, 600-volt rating. Wire No. 8 AWG and smaller shall be solid. Wire larger than No. 8 shall be stranded.
- All wiring shall be insulated copper conductors installed in code conforming raceways or cable assemblies.
- All wiring shall be run concealed wherever possible. All exposed conduit shall be EMT or rigid steel as required. Flexible conduit shall be smooth lightweight with approved fittings. Conduit runs from above ceiling shall be structurally secured and supported. Cable assemblies used for branch circuits shall not be run exposed. Cable assemblies shall be permitted exposed for final connections to Mechanical and Plumbing equipment and shall be limited to a feet total length, routing shall not interfere with equipment workspace.
- Where conductors connect directly to equipment, the insulation temperature rating of the conductor shall meet or exceed the equipment temperature rating.
- Color code conductors to designate neutral conductor and phases. Color coding shall conform with existing building standard.
- Exercise great care in maintaining a uniform and consistent arrangement of phase conductors on all systems. Throughout the entire wiring systems, each phase conductor must always be in the same physical position with respect to the other phase wires as equipment terminals.
- Grounding shall comply with Article 250 of NEC and to approval of local Underwriters inspection authorities.
- Panelboards shall be dead front with plated aluminum bus, bolt-on breakers, fully rated neutral bus and grounding bus block. Cabinet shall be code gauge galvanized steel, NEMA 1, minimum 3/8" deep, 5/8" x 3/4" deep. Cover shall have door and trim and adjustable clamps, gray baked finish, and tumblers type lock. "Spaces" shall be fully bused and drilled, ready for breaker installation.
- Contractor shall provide typical updated panel schedules at completion of project for all panels effected by scope of work.
- Circuit Breakers shall be molded case, bolted, thermal magnetic trip in each pole, enclosure-constructed to carry full rated load at 40°C, trip-free handles shall clearly indicate trip, on and off condition, quick-make and quick-break action. Lugs approved for copper and aluminum conductors and compression type. Ground Fault type breakers shall be provided with thermal and magnetic protection, UL Class A, 5 millampere ground fault sensitivity, where required. Circuit breakers used as switches in 120 volt circuits feeding incandescent, fluorescent, and/or HID fixtures shall be approved for such use and marked "SWD" per NEC. Circuit breakers serving Heating and Air Conditioning equipment shall be HACR rated.
- All labor, materials and equipment required to provide electric power to meet the requirements for heating, ventilating, air-conditioning and plumbing systems. Fully coordinate installation of electrical wiring and equipment with installation of electrically operated mechanical equipment provided by the Mechanical and Plumbing Contractors. Install disconnect switches, motor starters, and control transformers furnished by Mechanical and Plumbing Contractors. Provide final equipment electrical terminations. All internal equipment wiring shall be by manufacturer.
- Test equipment, including panelboards and all other equipment and wiring for unenergized grounds, short circuits, open circuits, continuity, current leakage, and that equipment will operate as specified. Test feeders for insulation resistance, for load balance of the final installation, and for overall operation of systems. Furnish labor and material required for making such tests and make corrections necessary to balance the load and to obtain proper operation.
- Where existing facilities are being altered, disconnect and remove or relocate all existing electrical work that interferes with or is necessary because of new construction as specified, shown or required.
- Perform alterations and additions to present electrical systems with a minimum interruption in the operation of these systems. Obtain written clearance from Owner for such interruptions and schedule same at whatever time specified in writing by Owner.
- Perform alteration of utilities and services in accordance with the rules, regulations and requirements of the involved utility companies and regulatory agencies having jurisdiction.
- Arrange and pay for the relocation, disconnection or removal of existing utilities and services where shown and where such utilities or services interfere with new construction, whether shown or not. Provide all excavation, backfilling and paving, manholes, and cables required by such work.
- Coordinate with Power Company, inform them of the proposed work; obtain their approval before beginning work; comply with their requirements for details of installation and materials used.
- Verify locations of existing underground services in the area of construction. Verify existing locations of underground electrical services, natural gas piping, water services and sanitary piping, which may affect work.

## DRAWING NOTES

- FIELD VERIFY LOCATION OF ALL WIRING DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN.
- COORDINATE INSTALLATION OF HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR. INSTALL AND WIRE DISCONNECT SWITCHES FURNISHED BY MECHANICAL CONTRACTOR.
- MOTORIZED DAMPERS REFER TO MECHANICAL PLAN FOR EXACT LOCATION, INTERCONNECT TO LOCAL AHU AS DIRECTED BY M.C.
- FIELD VERIFY EXACT LOCATIONS OF ALL LIGHTING FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN.
- UNLESS OTHERWISE NOTED, ALL POWER SHALL BE CIRCUITED TO PANEL 'A1A'.
- UNLESS OTHERWISE NOTED ALL LIGHTING SHALL BE CIRCUITED TO PANEL 'A1A'.
- EMERGENCY LIGHTING AND EXIT SIGNS SHALL BE CONNECTED TO LINE SIDE OF LOCAL LIGHTING CONTROL.
- COORDINATE ALL LOW VOLTAGE WORK WITH OWNER AND OWNERS LOW VOLTAGE VENDOR. ELECTRICAL CONTRACTORS SHALL FURNISH AND INSTALL ALL BACKBOARDS WITH CONDUIT AND PULL STRING TO ACCESSIBLE CEILING SPACE.



**1 FIRST FLOOR POWER PLAN**  
SCALE: 1/4" = 1' - 0"

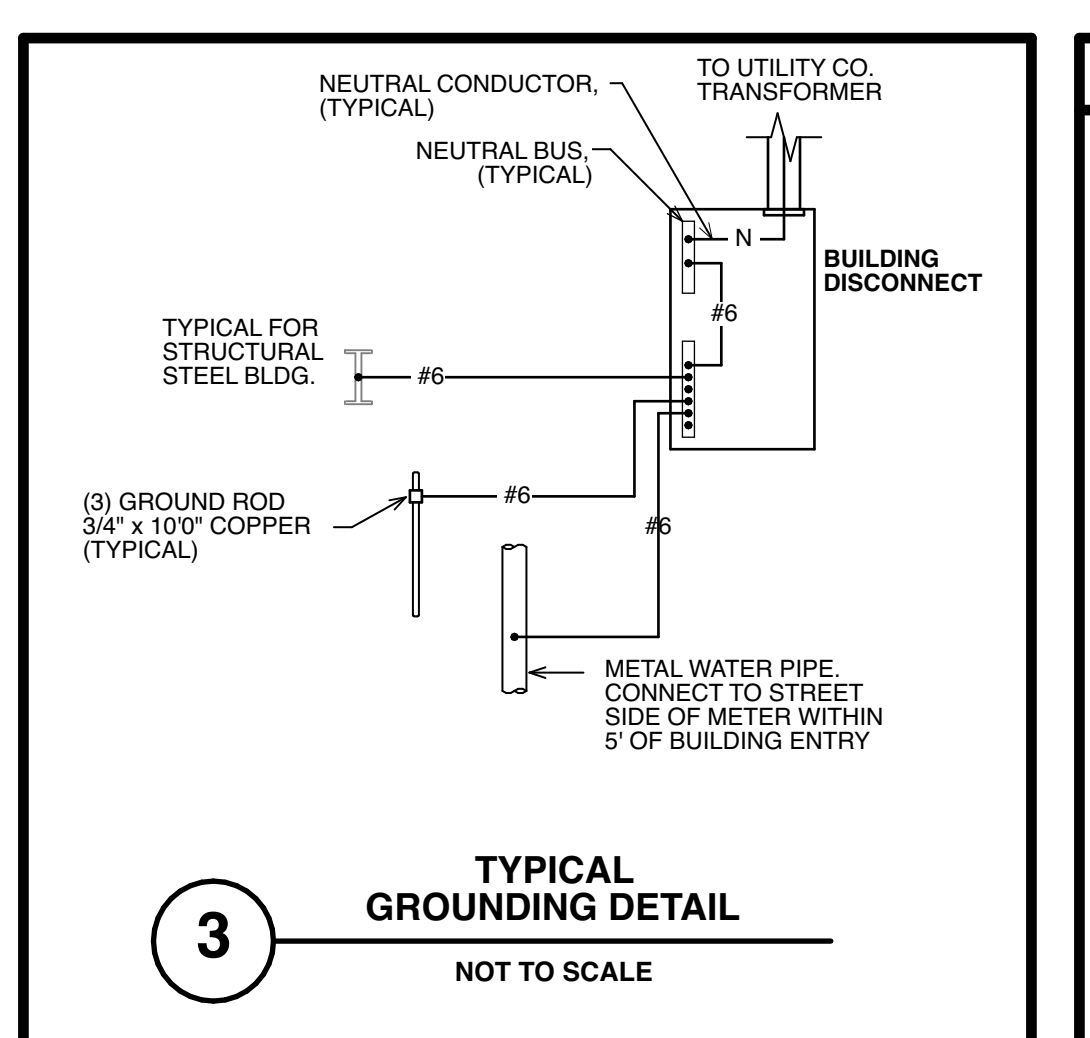
## LIGHTING FIXTURE SCHEDULE

Type	Manufacturer	Catalog No.	No.	Watts	Type	Volts	Mounting	Remarks
A1	CercoLux	VRSE-3556 48LED 8 35 048L UNV	53		LED	120V	Surface	Surface mounted vandal resistant fixture.
N1	Performance IN Lighting	SH113.5-X35K-120V-NA	13.5		LED	120V	Surface	Surface mounted wall pack. Color selected by Architect.
E1	Eventite	TEBL3W	2	3	LED	120/9.6VDC	Surface	Indoor battery pack w/ dual 9.6V/3W LED lighting heads, nickel-cadmium battery, white housing.
E2	Eventite	PRWLED2-MV	2	1	LED	9.6VDC	Surface	Indoor battery pack w/ dual 9.6V/3W LED lighting heads, nickel-cadmium battery, white housing.
E3	Eventite	PRWLED2-MV	2	1	LED	9.6VDC	Surface	Outdoor dual remote heads 9.6V/2W LED lighting heads.
X1	Eventite	TLX-EM-RU-W	1	1	LED	120VAC / 3.6VDC	As Indicated	LED exit sign, red letters, number of faces and directional arrows as indicated on plan or required by installed location, integral battery to provide 90 minutes of illumination.

### Notes:

- In addition to those indicated above, refer to Architectural drawings and provide all fixtures specified.
- All fixtures shall be provided with lamping.
- Confirm final fixture options and color selection with Architect prior to purchase.
- Refer to specifications for detailed requirements for construction, handling, ballasts, lamps, etc.
- Coordinate fixture location and mounting requirements with Architectural drawings and details.
- Refer to Architectural reflected ceiling plans for ceiling types and conditions affecting mounting and installation of lighting fixtures.
- Coordinate exact fixture color temperature with owner and architect prior to purchase.

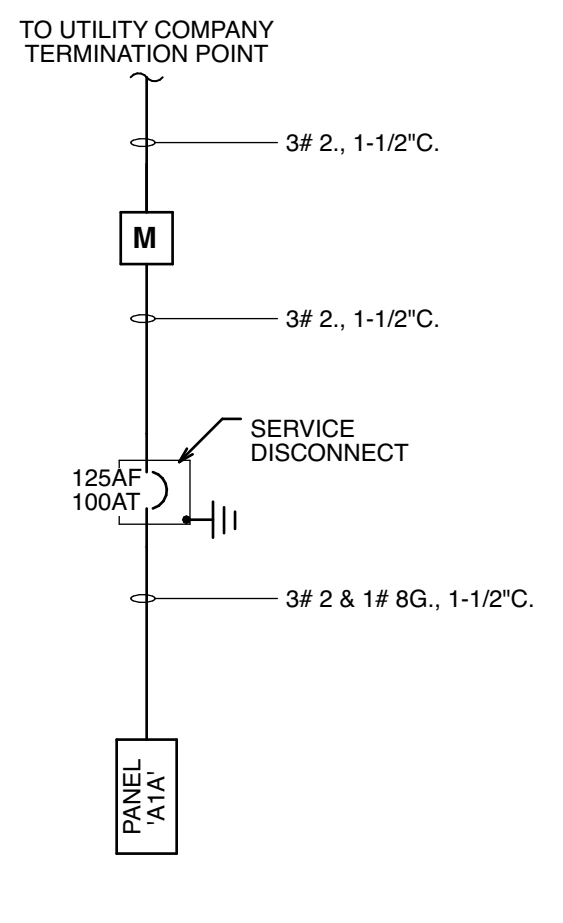
PANEL A1A		100 A MCB 22 KAICV		24 POLE		240/120V - 1Ø - 3Ø	
Chr. No.	Chr. Size	Wiring Description	Lead - KVA	Lead - KVA	Description	Wiring Description	Chr. No.
1	20/2	LF-1	1.5	1.5	DWF-1	#12	302
5	20/1	#12	0.3	0.3	Mens Hand Dryer	#12	202
7	20/1	#12	0.2	0.2	Water Cooler	#12	202
9	20/1	#12	0.2	0.2	Womens Hand Dryer	#12	202
11	20/1	#12	0.2	0.2	Womens Receptacle	#12	201
13	20/1	Spare			Interior Lighting	#12	201
15	20/2	Spare			Exterior Lighting	#12	201
17	20/2	Spare			Time Clock Control Panel	#12	201
19	20/4	Spare			Space		20
21	20/5	Spare			Space		22
23	20/6	Spare			Space		24
<b>Total</b>			<b>2.0</b>	<b>2.2</b>			<b>Total</b>



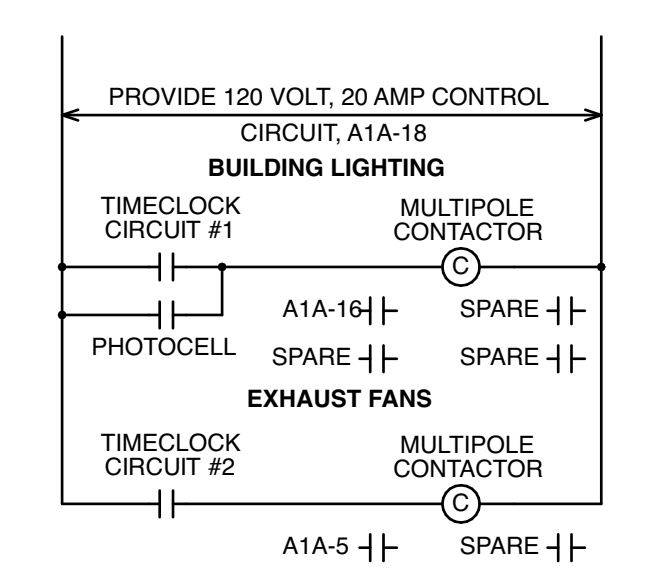
## ELECTRICAL SYMBOLS

- ⊖ GF Duplex Receptacle - 125V, 2P, 3W
- + Device Mounted Above Counter Top
- ⊕ Split Connection to Equipment
- ⊘ Motor
- ⊖ Unfused Disconnect Switch
- ⊖ Electrical Panel
- ⊖ Occupancy Sensor
- ⊖ Ceiling Mounted
- ⊖ Emergency Battery Pack
- ⊖ Dual Remote Lighting Heads
- ⊖ Incandescent, Fluorescent or High Intensity Discharge Lighting Fixture
- S Single Pole Switch
- WP Weatherproof
- PC Photocell Control Switch

**2 FIRST FLOOR LIGHTING PLAN**  
SCALE: 1/4" = 1' - 0"



**4 SINGLE LINE DIAGRAM**  
NOT TO SCALE



- NOTES:**
- PROVIDE INTERMATIC ELECTRONIC TIME SWITCH MODEL ET90215C FOR LIGHTING CONTROL. PROVIDE MOMENTARY CONTACT TOGGLE TYPE TIMECLOCK OVERRIDE SWITCHES AS INDICATED ON PLANS.
  - CONNECT EMERGENCY LIGHTS AND EXIT SIGNS TO LINE SIDE OF LIGHTING CONTROLS.
  - COORDINATE WITH OWNER AND PROGRAM TIMECLOCK TO OWNER'S SCHEDULE.
- 5 TIMECLOCK CONTROL DETAIL**  
NOT TO SCALE

## SINGLE LINE DIAGRAM NOTES

- UNLESS OTHERWISE NOTED, ALL DEVICES AND SPACES ARE 2 POLE.
- UNLESS OTHERWISE NOTED, ALL ABOVE GRADE CONDUCTORS SHALL BE COPPER, TYPE THW, RATED 75°C.
- UNLESS OTHERWISE NOTED ALL BELOW GRADE CONDUCTORS SHALL BE COPPER, TYPE XHHW-2, RATED 75°C.
- UNLESS OTHERWISE NOTED, ALL INTERIOR CONDUITS SHALL BE EMT.
- UNLESS OTHERWISE NOTED ALL UNDERGROUND AND EXTERIOR CONDUITS SHALL BE SCHEDULE 40 PVC.
- LIGHT LINEWEIGHT INDICATES EXISTING EQUIPMENT.
- HEAVY LINEWEIGHT INDICATES NEW EQUIPMENT.
- ALL EQUIPMENT SHALL BE SERIES RATED TO WITHSTAND THE AVAILABLE SHORT CIRCUIT CURRENT.
- CONTRACTOR SHALL PROVIDE PERMANENT LABELS ON ALL ELECTRICAL AND HVAC EQUIPMENT INDICATING THE MAXIMUM AVAILABLE FAULT CURRENT.
- COORDINATE WITH UTILITY COMPANY FOR ALL NEW SERVICE WORK. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED CONNECTIONS, POLES, EQUIPMENT, CABLES, CONDUITS, ETC. FOR A COMPLETE INSTALLATION.
- CONTRACTOR SHALL COORDINATE WITH TOWNSHIP AND SUBMIT ELECTRICAL UTILITY COMPANY SERVICE AND METER APPLICATION FOR NEW SERVICE.

## ELECTRICAL STANDARD MOUNTING HEIGHTS

9' Below Finished Ceiling	Wall-Mounted Clocks, Program Bells, Fire Alarm Gongs and Horns
10'-0"	Battery Lighting Units and Remote Wall Mounted Lighting Heads (Or 1'-0" Below Finished Ceiling)
8'-6"	Pendant Hung Industrial and Strip Lighting Fixtures
Center Above Door or Window Opening	Warning and Signaling Fixtures/Signs
6'-8" or 6" Below Finished Ceiling	Fire Alarm Illuminated Flashing Lights (Lowest of the two Heights). Mounting Height to the Bottom of Device.
6'-8"	Top of Back-Mounted Wall Exit Signs (Not Mounted Above Doors)
6'-6"	Top of Flush and Surface Mounted Electrical Panelboards and Communication System Cabinets
6'-0"	Top of Highest Electrical Safety Disconnect Switches, Magnetic Motor Starters and Contactors
4'-6"	Wall Mounted Telephones and Pay Stations (3'-6" at Handicap Locations)
4'-0"	Top of Highest Circuit Breaker in Accessible Load Centers
3'-6"	Fire Alarm Pull Stations
3'-4"	Wall Mounted Electrical Device Lighting Switches
2'-0"	Electrical Receptacles in Mechanical Spaces, Electrical and Elevator Rooms
1'-6"	Electrical Receptacles, Television Outlets, Telephone Outlets, and Computer Outlets
0'-0"	Finished Floor

Mounting Heights to center of outlets unless otherwise noted. In masonry construction the mounting heights shall be used for reference to the nearest block or brick coursing. The above mounting heights shall be adhered to unless specifically noted or detailed on the Architectural drawings or specifications.

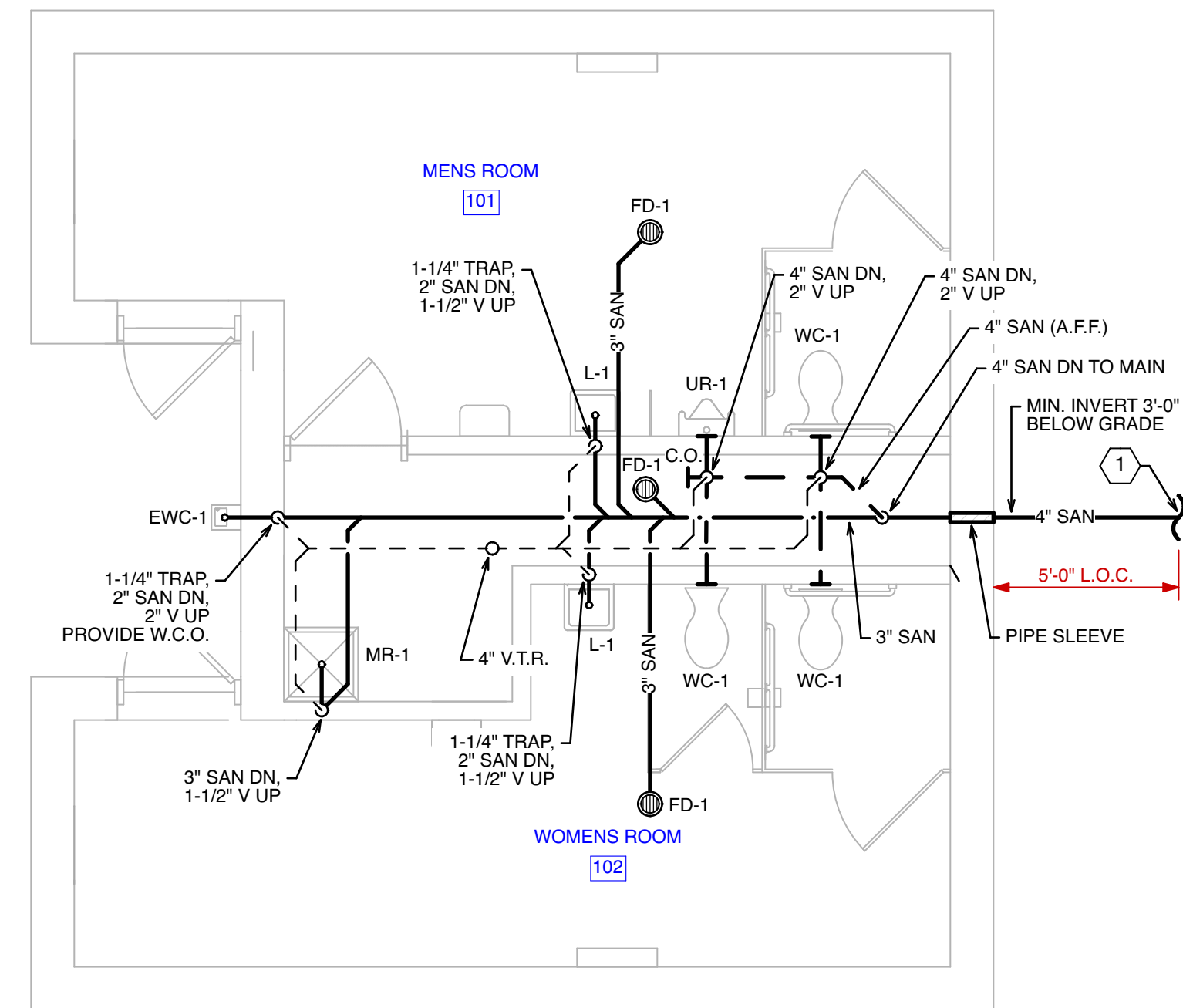
NO.	DATE	DESCRIPTION	REV'D BY
APPROVAL:			
PROJECT:		NEW RESTROOM BUILDING FOR ANDALORO FARM	
DEPTFORD, NEW JERSEY 08034		TITLE: FIRST FLOOR POWER AND LIGHTING PLAN	
Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		SCALE: AS NOTED DRAWN: J.E.H. DATE: 09/20/22 REV'D: J.E.H. DRAWN BY: J.E.H. CHECKED BY: J.E.H.	
SEAL:		SCALE: AS NOTED DRAWN: J.E.H. DATE: 09/20/22 REV'D: J.E.H. DRAWN BY: J.E.H. CHECKED BY: J.E.H.	
JERRY E. HOLSTEIN REGISTERED PROFESSIONAL ENGINEER NO. 001 265 000 000		E-1.0	

**SHEET NOTES**

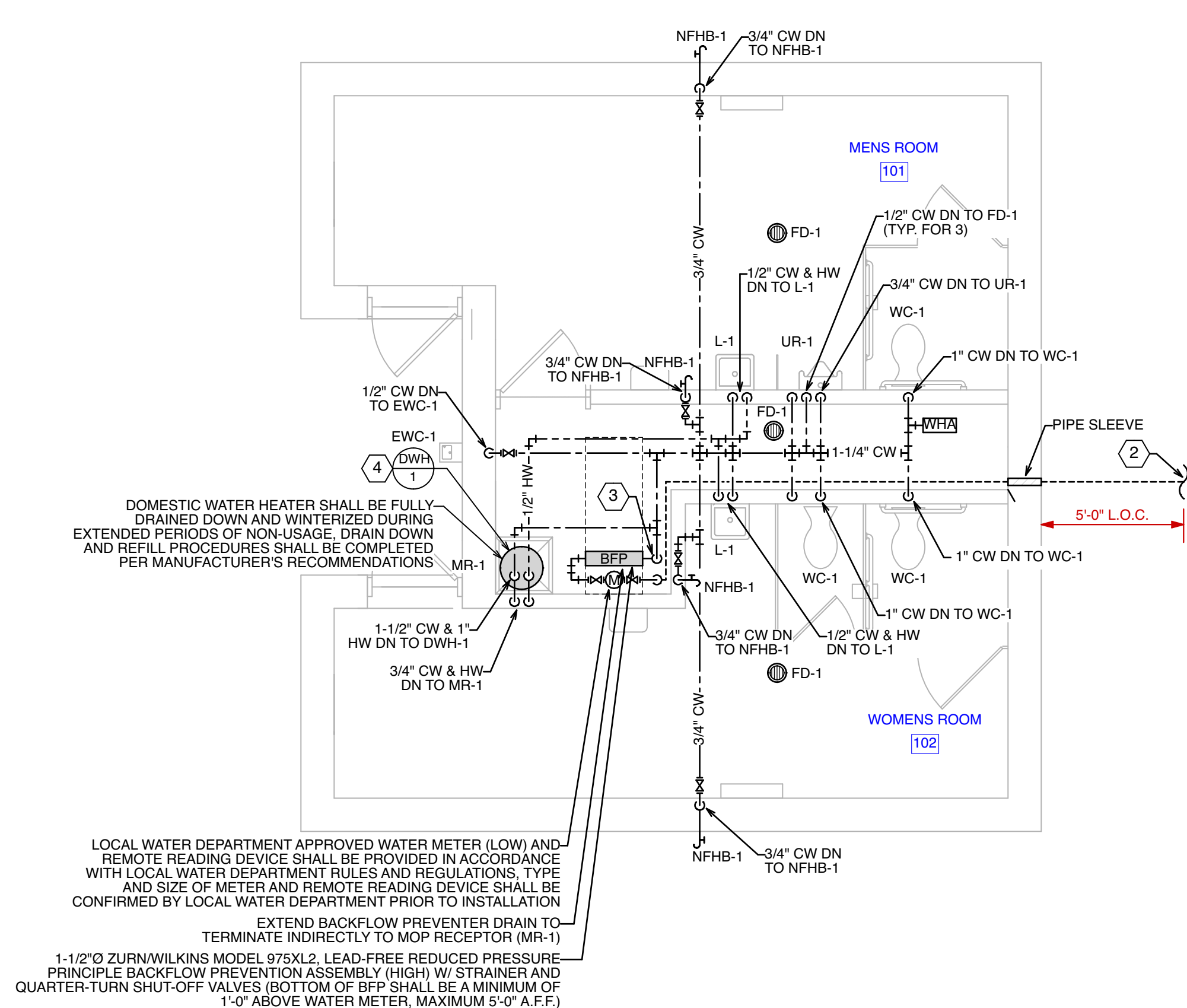
1. 4" SANITARY SEWER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCH PREPARATION, TRENCHING, EXCAVATION, AND BACKFILL. COORDINATE THE INSTALLATION AND LOCATION OF THE SERVICE WITH THE CIVIL ENGINEER'S PLANS & THE LOCAL WATER DEPARTMENT.
2. 1-1/2" DOMESTIC WATER SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCH PREPARATION, TRENCHING, EXCAVATION AND BACKFILL (INV. MIN. 48" B.F.F.). COORDINATE THE INSTALLATION AND LOCATION OF THE SERVICE WITH THE CIVIL ENGINEER'S PLANS & THE LOCAL WATER DEPARTMENT.
3. ALL DOMESTIC WATER PIPING SHALL BE PITCHED BACK TO METER LOCATION FOR WATER DRAIN DOWN PURPOSES. PROVIDE DRAIN DOWN FAUCET NEAR METER TO ALLOW DRAIN DOWN TO NEARBY MOP RECEPTOR (MR-1).
4. DOMESTIC WATER HEATER (DWH-1) SHALL BE MOUNTED ABOVE MOP RECEPTOR (MR-1) ON STRUCTURAL STAND. PLATFORM SHALL BE SUSPENDED FROM STRUCTURE ABOVE. PROVIDE EMERGENCY DRAIN PAN BELOW UNIT AND PIPE DISCHARGE TO MOP RECEPTOR BELOW. PROVIDE FLOODMASTER HOT WATER HEATER FEED WATER ALARM/SHUT-OFF FOR LEAK DETECTION.

**GENERAL NOTES**

1. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATIONS OF ALL THE FURNITURE, PLUMBING FIXTURES, AND EQUIPMENT.
2. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PIPING WITH THE LOCATION OF ALL FOOTERS AND UTILITY PIPING.
3. ALL SANITARY PIPING 4" AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT. ALL SANITARY PIPING 3" AND SMALLER SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT. CONTRACTOR SHALL VERIFY THE EXACT INVERTS IN THE FIELD.
4. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE NEW PIPING WITH ALL OTHER TRADES TO AVOID CONFLICTS.
5. ALL FLOOR DRAINS SHALL HAVE A TRAP PRIMER CONNECTION. REFER TO SANITARY FLOOR PLANS FOR LOCATIONS OF ALL FLOOR DRAINS. PROVIDE TRAP PRIMER AND 1/2" CW PIPE FROM TRAP PRIMER TO FLOOR DRAIN CONNECTION. WRAP ALL CW PIPE WITH 1/2" ARMAFLEX.
6. REFER TO PLUMBING FIXTURE SCHEDULE AND RISER DIAGRAMS FOR MORE INFORMATION REGARDING SANITARY, VENT, COLD WATER AND HOT WATER PIPING SIZES.



**1** FIRST FLOOR SANITARY PLAN  
SCALE: 1/4" = 1' - 0"

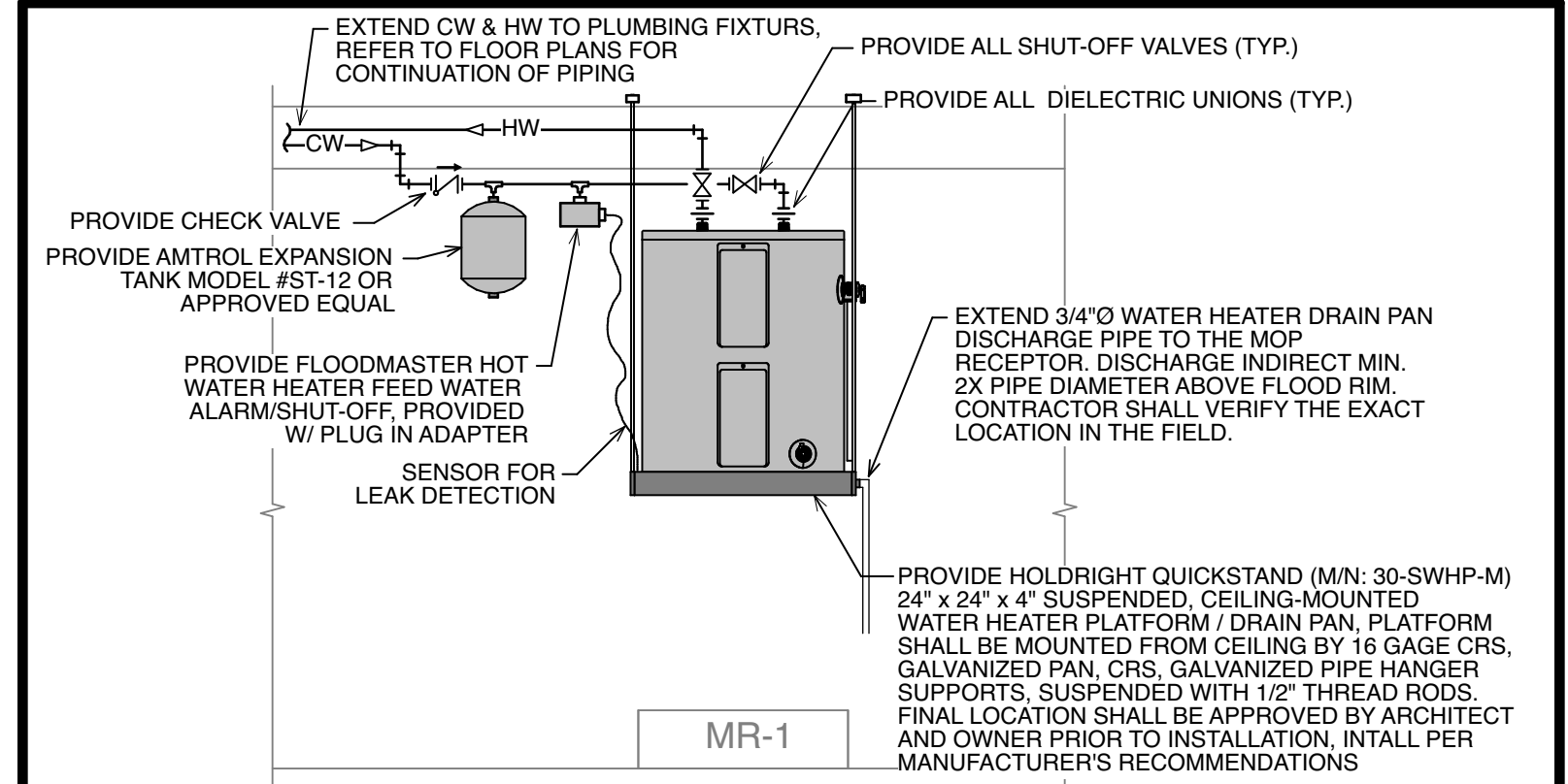


**2** FIRST FLOOR DOMESTIC WATER PLAN  
SCALE: 1/4" = 1' - 0"

NO.	DATE	DESCRIPTION	REV'D BY
APPROVAL			
PROJECT:		NEW RESTROOM BUILDING FOR ANDALORO FARM	
DEPTFORD, NEW JERSEY 08034		TITLE: FIRST FLOOR PLUMBING PLAN	
Joseph F. McKernan Jr., Architects & Associates 100 Dobbs Lane Suite 204 Cherry Hill, New Jersey 08034		SCALE: AS NOTED DRAWING NO: P-1.0 DATE: 09/20/22 REV'D: BY:	
HOLSTEN WHITE 215 E. Street Road, Suite 101 Cherry Hill, NJ 08034 P: (856) 222-7729 www.holstenwhite.com		SCOTTA WHITE NJ REG. NO. 2426007006 NO ALTERING SIGNATURES	

**PLUMBING DRAWING NOTES**

- GENERAL WORK:**
- The Contractor shall provide all labor, materials, tools, apparatus and equipment required to complete his work in accordance with the contract documents, codes, laws and ordinances and accepted trade procedures.
  - In preparing his estimate, the Contractor shall review all of the contract documents including those of the other trades in order to acquaint himself with existing and related conditions that may, will, or could affect his work. He shall be experienced, skilled and knowledgeable with this type of construction and shall be expert and proficient in the preparation of estimates and the comprehension, interpretation and interpretation of contract documents such as those prepared for this project.
  - The Contractor by his acceptance of the contract guarantees that he will install all work in accordance with all defects in workmanship and materials and that all apparatus furnished by him shall develop the capacities and characteristics specified. He further guarantees that if, during a period of one (1) year from the date of certificate of completion and acceptance of the work, any such defects in workmanship or performance appear, such defects shall be remedied by him without cost to the Owner. If the Contractor fails to remedy the defects as outlined within a reasonable time to be specified in a notice from the Owner's authorized representative to the Contractor, the Owner will have such work done and he will charge the cost to the Contractor.
  - The Contractor shall visit the site before he submits his proposal. He shall examine all existing conditions which affect the work. The submission of the proposal shall be considered evidence that this requirement has been fulfilled. No extra payment will be allowed for additional work made necessary by the failure to visit the site.
  - Plumbing work shall be installed in a neat and workmanlike manner in accordance with latest and best practices of the trade. Only mechanics skilled in this type of work shall be employed and utilized by Contractor for this Division in the execution of his work.
  - The contract drawings are diagrammatic and indicate the general arrangement of all systems and work included in the contract. The contract drawings are not to be scaled. The architectural contract drawings and details together with the other contract documents shall be examined for all dimensional information.
  - The Contractor shall, without additional costs to the Owner, make reasonable modifications in the layout of his work in order to prevent conflicts with the work of other trades or for the proper execution of his work.
  - The Contractor shall supply all labor required to perform all work which may be claimed by trade organizations within his jurisdiction. All work shall be performed without any additional cost to the Owner regardless of which section of the contract documents the work is in. The Contractor shall be responsible to verify with all organizations the extent of any collective bargaining agreements and/or any jurisdictional decisions rendered regarding disputes between the respective trades, and provide and install his work in accordance with the accepted trade practice in the area.
  - The entire installation shall conform with all pertinent codes and regulations of the local, municipal, county, state and federal authorities, The National Board of Fire Underwriters Building Code, the 2018 National Standard Plumbing Code, the National Fire Protection Association and all other regulatory bodies having jurisdiction. All materials and equipment shall bear the stamps or seals of the NSF, ASME, NEMA, IEEE, UL and other industry regulatory groups.
  - The Contractor shall give all necessary notices, obtain all permits, pay all governmental taxes, fees and other costs in connection with his work. He shall file all necessary plans, and prepare all other documents including additional detailed plans that are required for compliance with all applicable laws, ordinances, rules and regulations.
  - The Contractor shall coordinate with the General Contractor and locate all required cutting and patching and the like required by the installation of the plumbing work.
  - All work shall be installed in strict accordance with the equipment manufacturer's recommendations and requirements. All systems are to be tested, adjusted and balanced to provide performance as indicated on the drawings. Test and adjust all safety controls.
  - Coordinate to assure that all work of all trades will be concealed within the walls and ceiling construction and without the need to reduce ceiling heights. Report exceptions to the Architect prior to construction and erection of the work. Openings around piping passing through the construction shall be sealed with fire barrier caulking. All materials located within the return air plenum shall be non-combustible with flame spread ratings of 25 or less and smoke developed ratings of 50 or less. All control wiring located within ceiling return air plenums shall be plenum rated or shall be run in conduit. All work shall be located to avoid conflicts with other work and provide adequate clearance for architectural design, proper operation, adjustments, component service and provide a minimum 2" clearance between all piping and other work.
  - Provide supports, hangers, flexible pipe connections, vibration isolation, supplementary supports, controls and wiring, cleaning, painting specialties and all other labor, materials, devices and services required for a complete, first quality installation. All work shall be supported from the building structural system. Work shall not be supported from the ceiling suspension system, from electrical work, nor from other mechanical work. Unless otherwise indicated, run all piping as high as possible. Provide starters for all motor driven equipment.
  - The Contractor shall provide and maintain in good order a complete set of blue-line prints of the contract drawings. As the work progresses, the actual location of all work shall be clearly recorded, including all changes to the contract and equipment size and type. These prints shall be available at the site for inspection at all times. At the conclusion of the work, the Contractor shall, at his own expense, obtain a set of reproducible of the original contract drawings, and utilizing the symbols on the contract drawings, shall incorporate all "as-built" data in a clearly legible and reproducible manner. All work shall be corrected to indicate "as-built" conditions. All revisions shall be incorporated on these reproducible including all sketches and written directives. All concealed equipment, main-feeders, pull and junction boxes, etc. shall be dimensionally located from the building structure. As a condition for acceptance of the work, the "as-built" reproducible and one (1) set of prints shall be signed, dated and delivered to the Engineer.
- PLUMBING:**
- Gate valves shall be all red bronze, 125 psi WP, solid wedge disc, non-rising stem, soldered ends and equivalent to Stockham B-109. Provide shut-off valves for all controlled equipment.
  - The Contractor shall provide a sanitary drain from all fixtures. The Contractor shall provide all required vent piping for all fixtures installed. Pitch drainage piping 1/8" per foot (1%) unless otherwise noted. Snake all lines and test system just prior to turn over to Owner. Provide cleanouts in new sanitary and piping 50 feet in length on all horizontal piping, at direction changes of 45° or more and elsewhere required by codes. Cleanouts accessible through walls shall be provided with chrome-plated covers and frame, in floors with recessed top to receive floor finishing material.
  - The Contractor shall sterilize all new domestic water piping as required by the 2018 National Standard Plumbing Code. The Plumbing Contractor shall provide water hammer arresters as required. Water hammer arresters: Smith Standard 5000 stainless steel HydroTots, P.D.I. certified and A.S.S.E. approved.
  - Alternate sanitary vent piping shall be standard weight uncoated cast iron bell and spigot soil pipe and fittings conforming to ASTM A74 with caulked oakum and lead, no-hub if permitted by code, DWV Copper, or standard weight galvanized steel with galvanized cast iron banded and recessed screwed drainage fittings, ASTM A128. Alternate sanitary piping within the building shall be standard weight, uncoated cast iron bell and spigot soil pipe and fittings conforming to ASTM A74 with caulked oakum and lead joints or DWV copper. Codes permitting, no-hub may be used.
  - Provide trap primers where required by the local Plumbing Inspector. All plumbing must be tested and approved by plumbing inspector and meet the requirements of section 2018 National Standard Plumbing Code. Floor drains shall be installed according to the 2018 National Standard Plumbing Code.
  - All plumbing must be tested and approved by plumbing inspector and meet the requirements of section 2018 National Standard Plumbing Code.
  - All potable water outlets shall be protected from cross connection as required under section 2018 National Standard Plumbing Code.
  - Provide an unconditional one-year written guarantee to replace or repair all defective work.
  - All hole drilling for pipe hangers or floor and wall penetrations shall be by the Plumbing Contractor for plumbing work.
  - All piping shall be supported by pipe hangers of similar material as piping being supported. Suspend from building structure with spacing of hangers not to exceed requirements of the latest edition of the 2018 NSPC and IRC 2018 as well as the local authority having jurisdiction. Do not use wire or perforated metal strap to support piping. Do not rest piping on any part of building structure for support.
  - Seismic protection for the plumbing system shall be provided as required by the 2018 International Building Code.
  - The following system components shall be provided with seismic restraints:
    - Plumbing system piping having hangers longer than 12".
    - Plumbing system piping in mechanical rooms larger than 1'-1/4" I.D.
    - Plumbing system piping outside of mechanical rooms larger than 2'-1/2" I.D.
    - Domestic water heaters.



**WALL MOUNTED WATER HEATER (ABOVE MR-1)**  
NOT TO SCALE

**ELECTRIC DOMESTIC WATER HEATER SCHEDULE**

Unit Designation	Basis of Design	Model No.
DWH-1	Bradford White	LE115UJ-1
	Design Pressure (PSI)	150
	Operating Pressure (PSI)	300
	DOE Storage Capacity (Gal.)	15
	Recovery (GPH @ 100°F Rise)	20 @ 100°F Rise
	Operating Temperature (°F)	140
	Dimensions (Diameter x Height) (in.)	18"Ø x 20'-1/4"
	Approx. Operating Weight (lbs.)	200

**Accessories**

ASME T&P Relief Valve	Yes
Brass Drain Valve	Yes
Immersion Thermostat (ASME)	No
Wall Mounting Hardware	Yes
Manual Reset Energy Cutoff	Yes
Drain Pan	Yes
Pan Drain with Alarm	Yes
2" Non CFC Foam Insulation	Yes
Factory Installed Heat Trap	Yes
Temp. & Pressure Gauge	No
Voltage and Wattage Conversion Kit	Yes
Ceiling Mounted Water Heater Platform	Yes

**MATERIAL AND INSULATION SCHEDULE**

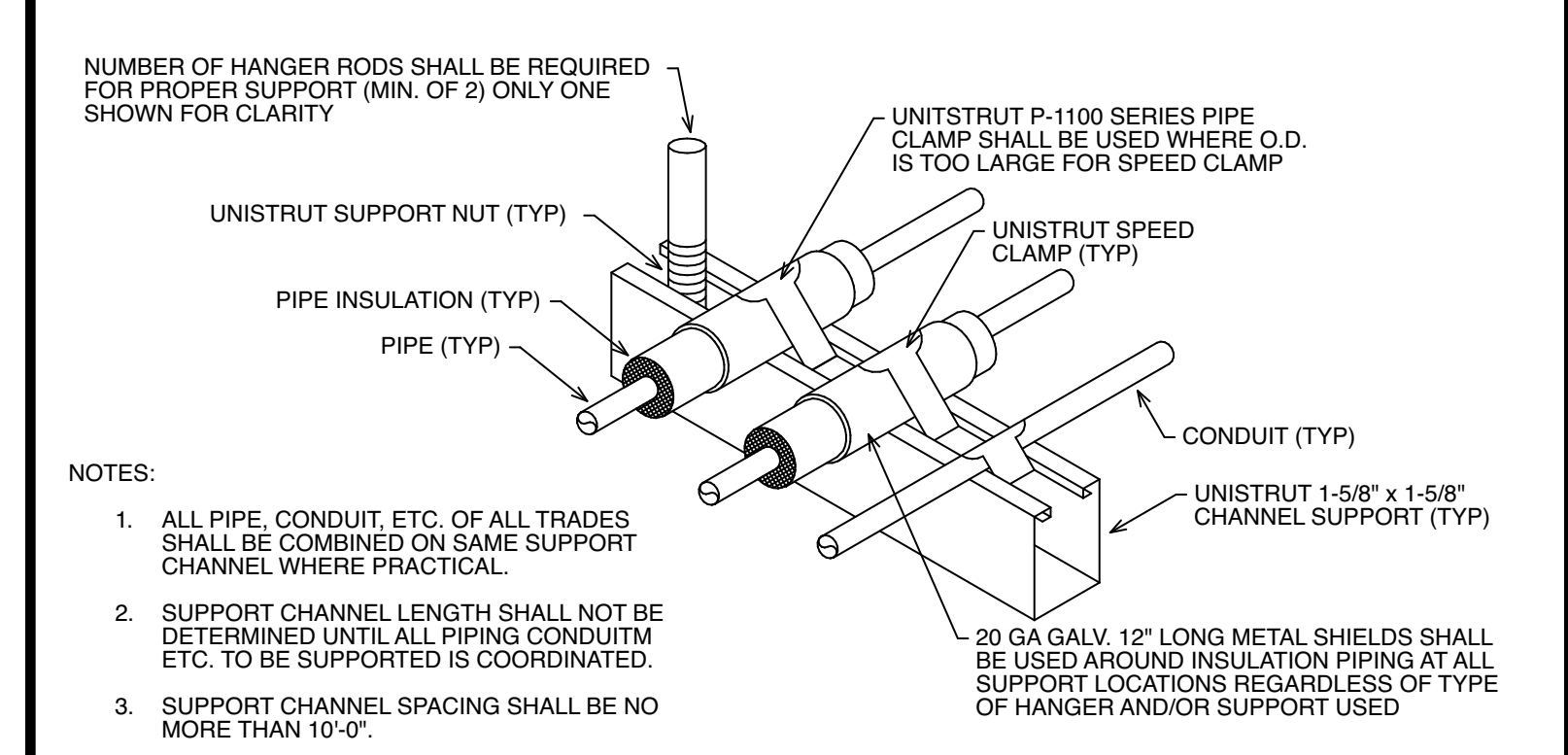
System	Basis of Design	Alternate Material	Insulation		Wall (in)	Vapor Barrier	Remarks
			Type	Thickness			
Domestic Cold Water - Above Grade	Type "L" Copper	-----	Certainified	500" Snap On	1/2	1	Lead free solder shall conform to ASTM B32. Flux shall conform to ASTM B813
Domestic Hot Water - Above Grade	Type "L" Copper	-----	Certainified	500" Snap On	1/2	1	Lead free solder shall conform to ASTM B32. Flux shall conform to ASTM B813
Sanitary Piping - Above Grade	Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301
Sanitary Piping - Below Grade	Service Wt. Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301
Sanitary Vent Piping	Cast Iron	Sch. 40 PVC (Solid Wall)	-----	-----	-----	-----	Cast Iron Pipe shall meet ASTM A74, ASTM A888 or CISPI 301

**PLUMBING FIXTURE SCHEDULE**  
NOTE: ALL PLUMBING FIXTURES AND FAUCETS SHALL BE PROVIDED IN CUSTOM COLORS AND FINISHES. COORDINATE COLOR & FIXTURE SELECTION WITH THE ARCHITECT AND OWNER.

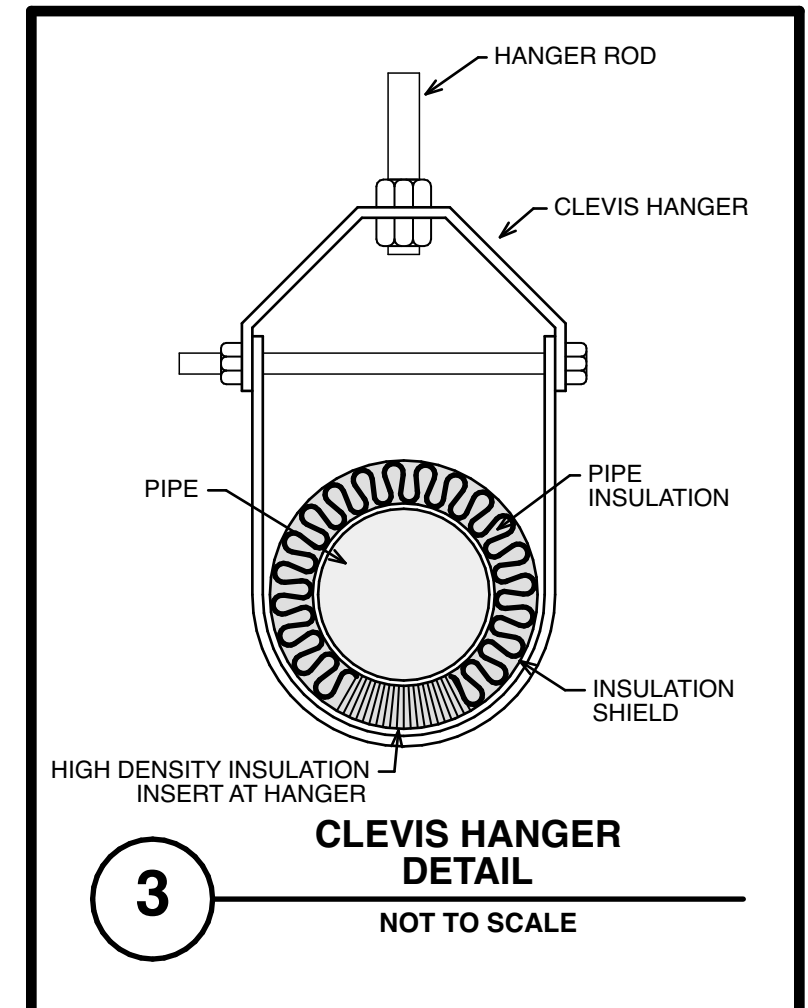
Tag	Fixture Type	Mfg.	Model No.	CWS	HWS	Drain	Faucet	Drain	Flush Valve	Seat	Mount	Remarks
WC-1	Water Closet	Zurn	Z5615-BWL	1"	---	4"	---	---	Zurn ZTR6200E-VLL	Zurn ZS9555S-LL	Wall	Wall-Mounted, Vitreous China, Top Spud Toilet w/ Sensor-Operated, Battery-Powered, Exposed Flush Valve (1.28 GPF), High Efficiency, Siphon Jet Flushing Action, Fully Glazed Trap-way and Elongated Flirt Rim. Provide Elongated, White, Open Front Toilet Seat, Less Cover, with Stainless Steel Check Hinges. Mount at ADA Required Height.
L-1	Lavatory	Zurn	Z5364	1/2"	1/2"	1-1/4"	Zurn Z6915-XL	---	---	---	Wall	Wall-Hung, Vitreous China, 20" x 18" Lavatory w/ Battery-Power, Sensor-Operated Faucet, 4" Center Faucet Hole, Pre-mixed Water Supply, Provide w/ Hanger Plate and Holes for Concealed Arm Carrier System (Model Z2311). Provide Lead-Free ADA Compliant Sensor-Operated, 1.3 GPM Faucet w/ Variable Resistance Arm, 20-Second Top Out Feature. Provide Zurn Standard Supply Kits w/ 1/2" Flexible Stainless Steel Supply Hoses. Provide Zurn ZTR7A3-PF Soler Top, Open Grid Drain and Zurn ZTR700-D Cast Brass, Chrome Plated 1/2" Trap, Provide Trap and Supply Stop Protection (Zurn Z866-1-RT) and Below Deck Manual Temperature Setting Valve Zurn Z9555-LL.
UR-1	Urinal	Zurn	Z5755-U	3/4"	---	2"	---	---	Zurn ZTR6203-ORT-LL	---	Wall	Wall-Hung, Vitreous China, Top Spud, Washdown Urinal w/ Long-Life, Battery-Powered, Sensor-Operated, Exposed Flush Valve (0.5 GPF), Washdown Urinal Complete w/ Asymmetric Backwash Resulting in Reduced Soapback, High Efficiency, Wash-down Flushing Action, 3/4" Top Spud, 2" Outlet w/ Integral Trap, 1-1/2" Extended Rim for ADA Compliance, Mount at ADA Required Height. Provide Zurn Z1252 Wall Line Support System.
MR-1	Mop Receptor	Stem Williams	HL-1800	3/4"	3/4"	3"	---	---	---	---	Floor	Floor-Mounted, 24"Ø x 5 1/4" x 12 1/4", Terrazzo Mop Receptor w/ 12" Side Walls and 6" Front Drop, One-Piece Stainless Steel Cap on Threshold, Backsplash and Two Handle Faucet. Provide Polished Chrome Plated Cast Brass 8" Sink Faucet w/ Quarter-Turn Ceramic Disc Cartridge, Integral Service Stop and 6" Centrifugal Cast Brass Spout w/ Chemical Resistant Hose, 2 1/2" Hose Threaded Outlet, Pull Hook and Adjustable Wall Brace.
FD-1	Floor Drain	Zurn	Z415-BZ	1/2"	---	3"	---	---	---	---	Floor	Floor Drain Body Assembly w/ Type BZ Leveling Strainer, Dura-Coated Cast Iron Body w/ Bottom Outlet, Combination Invertible Membrane Clamp and Adjustable Collar w/ Grip Rings and Type BZ Polished Nickel Bronze, Light Duty, Leveling Strainer. Provide PTFE Industrial Trap Primer w/ 1/2" CW Pipe to Trap Primer Connections at all Floor Drains. Wrap 1/2" CW Pipes w/ 1" Armaflex if Installed Under Slab.
NFHB-1	Non-Freeze Hose Bibb	Zurn	Z1302XL	3/4"	---	---	---	---	---	---	Wall	Encased, Lead-Free, Non-Freeze Automatic Draining Wall Hydrant w/ Integral Backflow Preventer for Flush Installation, 1/2" Turn, Long-Life Ceramic Disc Cartridge, Hydrant Furnished w/ Type 304 Stainless Steel Housing w/ Locking Hinged Cover Stamped "WATER", includes operating key.
EWC-1	Electronic Water Cooler	Elkey	VRC8WSK	1/2"	---	1-1/4"	---	---	---	---	Wall	62H2 Bottle Filling Station, Single Cooler, Stainless Steel, Green Ticker, Lamina Flow, Real Drain, and Vandal Resistant, Chilling Capacity of 6.0 GPH @ 50°F Drinking Water.

- NOTES:**
- Provide Water Hammer Arresters similar to P.P.P., Industries Series SWA on the domestic water branch pipes serving the flush valve fixtures. Install and size per manufacturer's recommendations.
  - Provide Trap Primer Valves similar to P.P.P., Industries Series PR-500 for all floor drains. Install and size per manufacturer's recommendations.
  - All electronic flush valves shall be equipped with manual overrides. Coordinate all colors and finishes of all plumbing fixtures with the Architect.
  - All Wall Cleanouts (W.C.O.) shall be similar to Zurn Z1400-BZ.
  - All Floor Cleanouts (F.C.O.) shall be similar to Zurn Z1400-BZ.

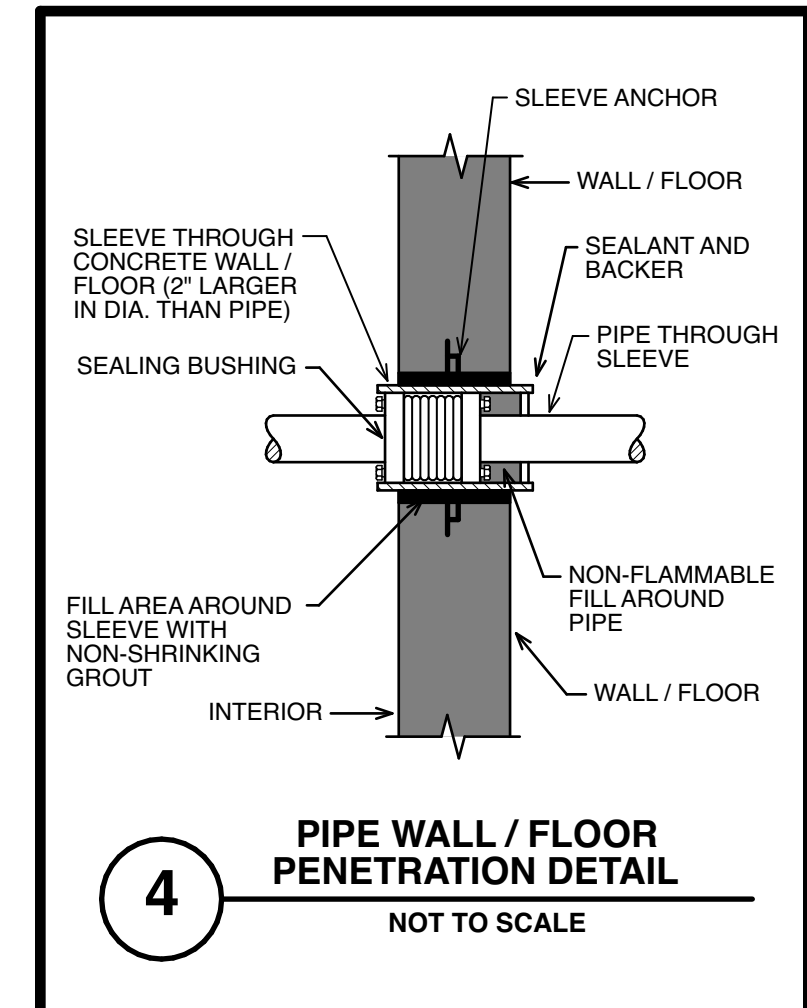
**DISCLAIMER**  
THE DESIGN INTENTION FOR THIS PROJECT IS TO WINTERIZE THE BUILDING AND ITS CONTENTS EACH SEASON. THE OWNER HAS ASSUMED RESPONSIBILITY TO DRAIN DOWN THE ENTIRE BUILDING'S PLUMBING SYSTEM AND REMOVE ANY OTHER ASSOCIATED ITEMS THAT COULD POTENTIALLY FREEZE WITHIN THE BUILDING. HWI HOLDS NO RESPONSIBILITY FOR FREEZE PROTECTION OF THIS BUILDING OR ITS CONTENT.



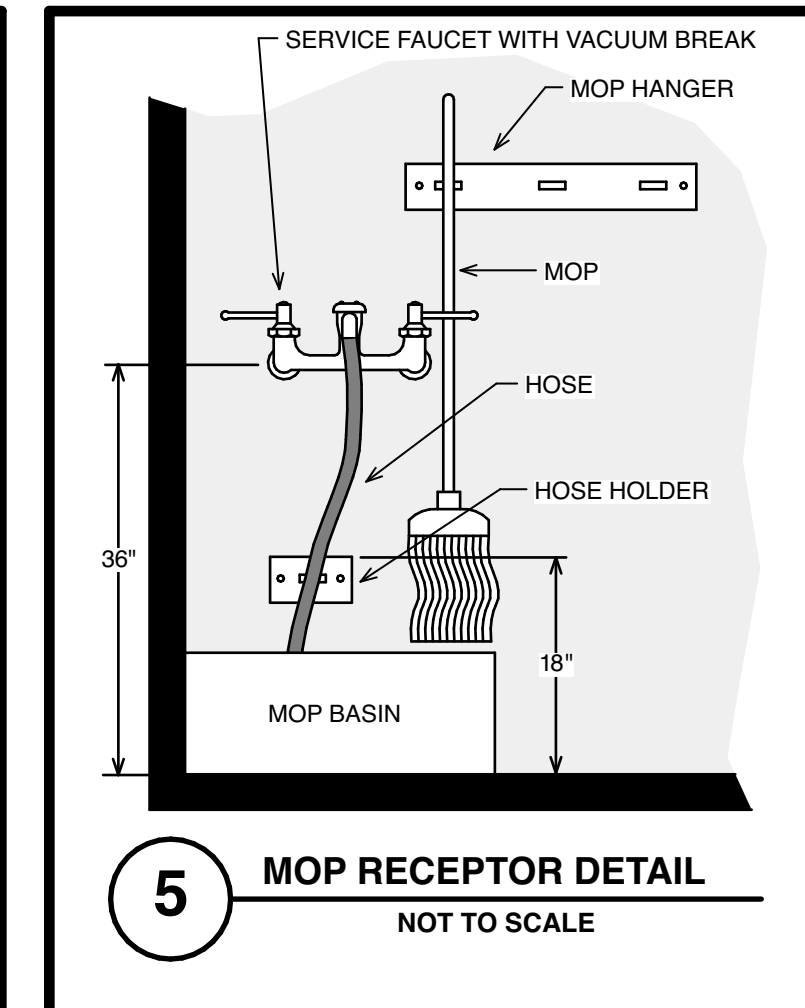
**PIPING SUPPORT ABOVE CEILING DETAIL**  
NOT TO SCALE



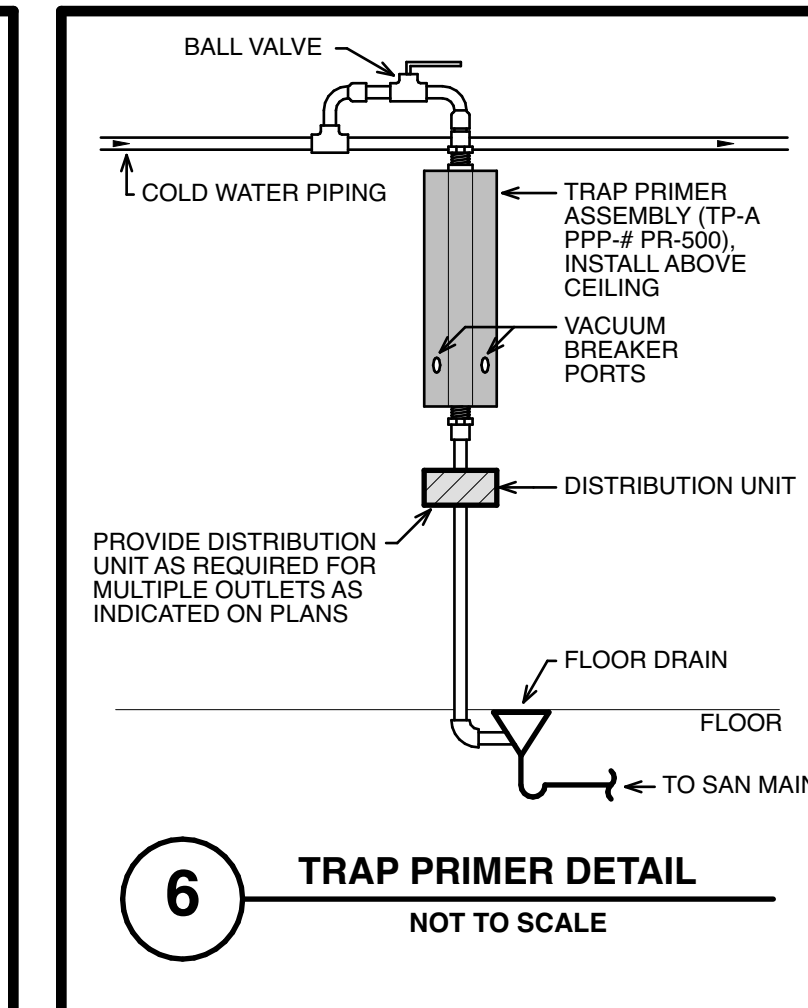
**CLEVIS HANGER DETAIL**  
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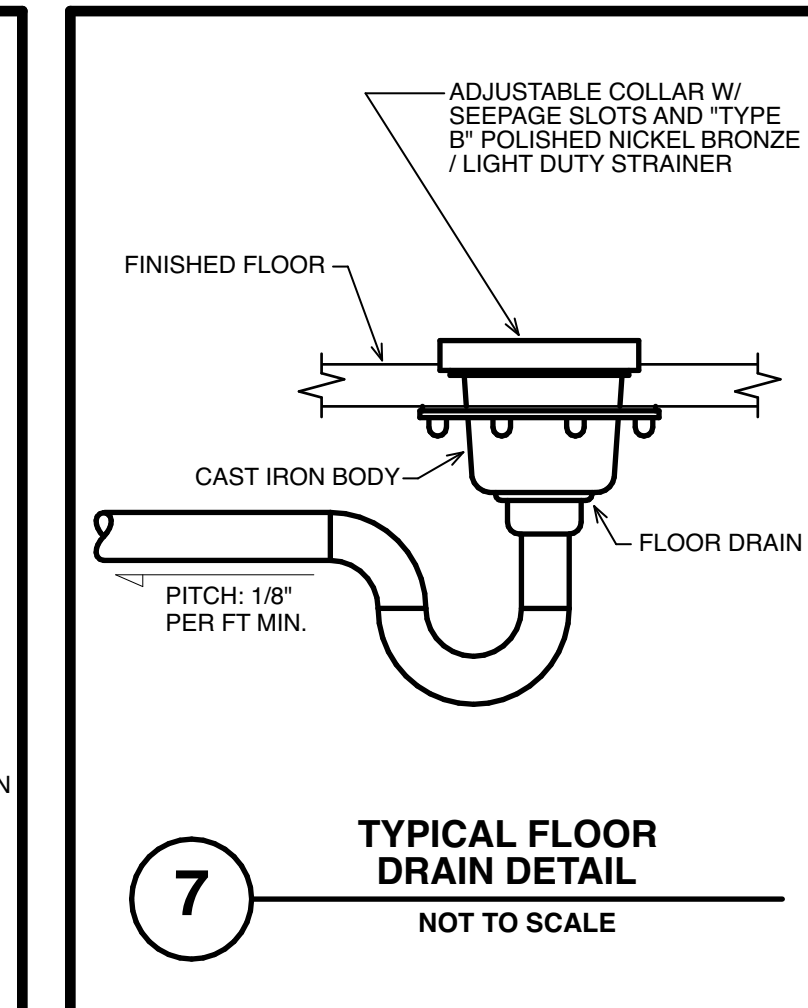
**PIPE WALL/FLOOR PENETRATION DETAIL**  
NOT TO SCALE



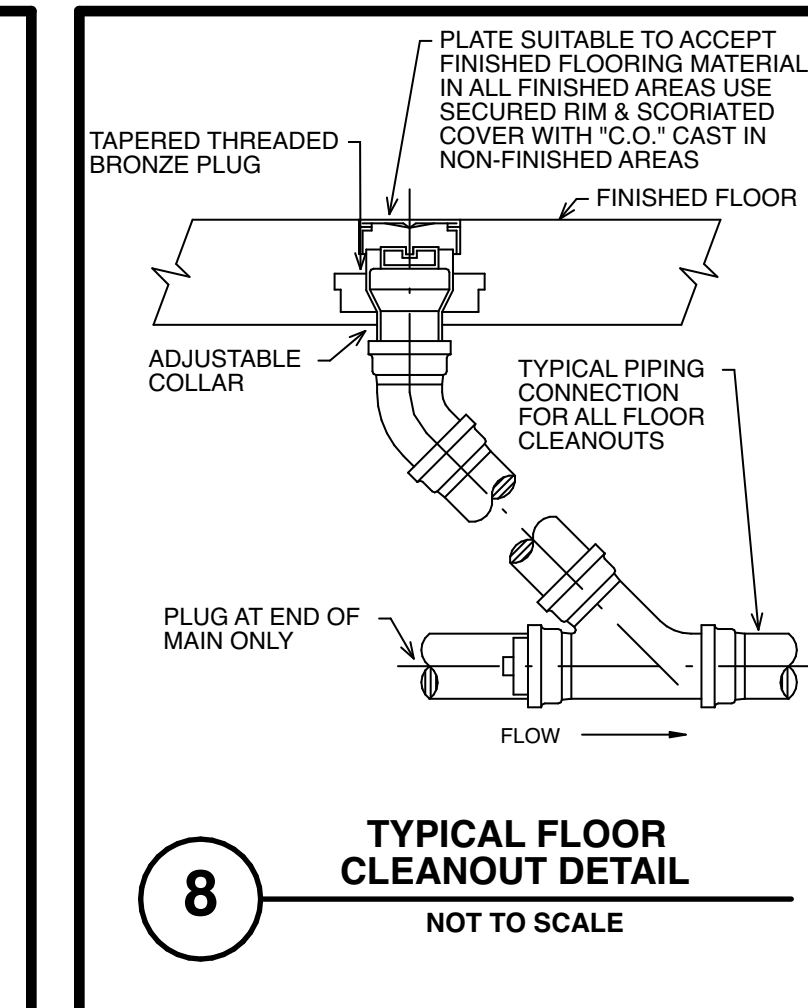
**MOP RECEPTOR DETAIL**  
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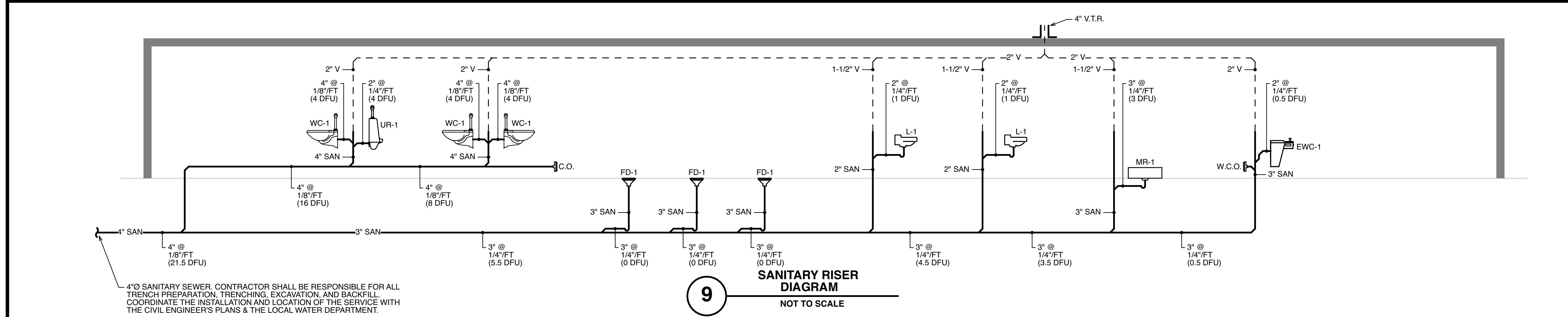
**TRAP PRIMER DETAIL**  
NOT TO SCALE



**TYPICAL FLOOR DRAIN DETAIL**  
NOT TO SCALE



**TYPICAL FLOOR CLEANOUT DETAIL**  
NOT TO SCALE



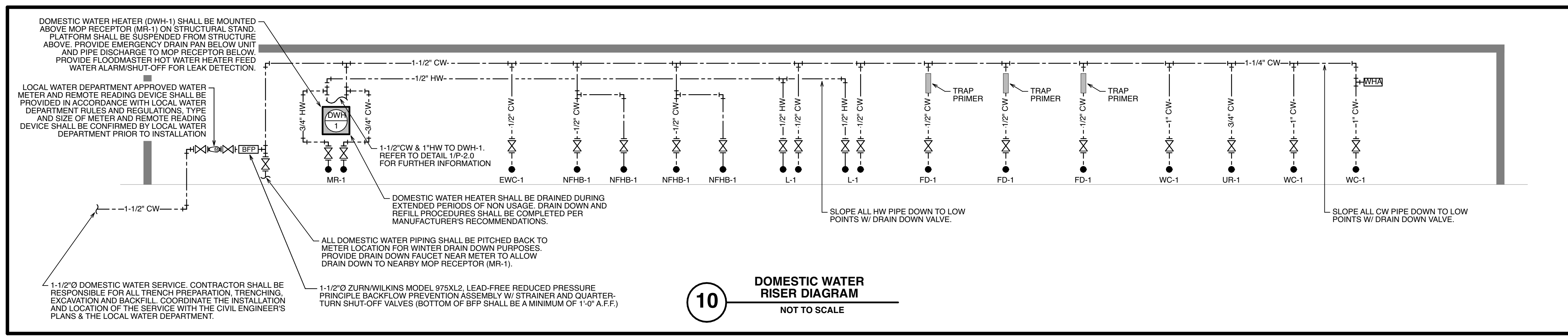
**SANITARY RISER DIAGRAM**  
NOT TO SCALE

**ELECTRICAL COORDINATION**

- IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO COORDINATE THE LOCATIONS OF PIPING WITH THE ELECTRICAL CONTRACTOR. PLUMBING PIPING SHALL NOT BE INSTALLED WITHIN THE DEDICATED EQUIPMENT SPACE REQUIRED FOR EXISTING OR NEW ELECTRICAL EQUIPMENT.
- COORDINATION OF PIPING LOCATIONS SHALL BE SOLELY THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR. APPROVAL OF PLUMBING SUBMITTAL DRAWINGS DOES NOT RELEASE THE CONTRACTOR FROM COORDINATION RESPONSIBILITY. FINAL COORDINATION SHALL OCCUR IN FIELD WITH ELECTRICAL CONTRACTOR. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN RELOCATION OF SUPPRESSION SYSTEM PIPING AT CONTRACTOR'S EXPENSE.
- PER NFPA 70, ARTICLE 110.26(F), DEDICATED EQUIPMENT SPACE SHALL APPLY TO SWITCHBOARDS, DISTRIBUTION PANELS, AND MOTOR CONTROL CENTERS. THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT AND EXTENDING FROM THE FLOOR TO A HEIGHT OF 8' ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER IS LOWER, SHALL BE DEDICATED TO THE ELECTRICAL INSTALLATION. NO PIPING, DUCTS, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE.

**PLUMBING SYMBOLS & INDICATIONS**

Condensate Piping	BFP	Backflow Preventer
Sanitary Piping	BT	Bathub
Cleanout	CO	Cleanout
Cold Water	CW	Cold Water
Drainage Fixture Unit	DFU	Drainage Fixture Unit
Down	DN	Down
Domestic Cold Water Piping - Above Grade	DWA	Domestic Water Heater
Each	EA	Each
Floor Drain	FD	Floor Drain
Funnel Floor Drain	FED	Funnel Floor Drain
Future Unit	FU	Future Unit
Gas	G	Gas
Domestic Hot Water Piping (110°F)	DHW	Domestic Hot Water Piping (110°F)
General Contractor	GC	General Contractor
Hot Water	HW	Hot Water
Lavatory	LAV	Lavatory
Roof Drain	RD	Roof Drain
Sink	SK	Sink
Shower	SH	Shower
Sink	SK	Sink
Square Feet	SQFT	Square Feet
Water Closet	WC	Water Closet
Wall Hydrant	WH	Wall Hydrant
Vent Through Roof	VTR	Vent Through Roof
Shut-Off Valve w/ Drain	SV	Mixing Valve
Direction of Flow Arrow	FA	Back Flow Preventer
Cleanout	CO	Balancing Valve
Pipe Turning Down	PD	Existing - to - New Connection
Pipe Turning Up	PU	Pump
Equipment Designation	EQ	
Shut-Off Valve	SV	



**DOMESTIC WATER RISER DIAGRAM**  
NOT TO SCALE

**NEW RESTROOM BUILDING FOR ANDALORO FARM**  
DEPTFORD, NEW JERSEY 08004

Joseph F. McKernan Jr., Architects & Associates  
100 Dobbins Lane Suite 204 Cherry Hill, New Jersey 08034

SCOTT A. WHITE  
1000 N. 10TH ST. DEPT. 1000  
MILWAUKEE, WI 53233-1000  
TEL: 414.224.7777  
WWW.SAWHITE.COM

SCALE: AS NOTED  
DATE: 09/20/22  
REV'D: 08  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]

**P-2.0**

## LEGEND

**North Point To Be Used On Standard Construction Sheets Where Bearings Refer to N.J. Plane Coordinate System**

Slant Lettering = Existing      Vertical Lettering = Proposed

Sanitary Sewer Main		PROPOSED MH RIM ELEV. INV. ELEV.	
Sanitary Sewer Main by DTMUA		BY DTMUA	
Water Service		BY DTMUA	
Water Service by DTMUA		BY DTMUA	
Gas Main		BY DTMUA	
Storm Sewer Main		BY DTMUA	
Roof Drain		BY DTMUA	
Cable Conduit		BY DTMUA	
Electrical Conduit		BY DTMUA	
Overhead Wire		BY DTMUA	
Fiber Optic Conduit		BY DTMUA	
Unknown Utility		BY DTMUA	
Edge Of Pavement		BY DTMUA	
Pavement Marking Stripes		BY DTMUA	
Cut and Fill Slope Lines		BY DTMUA	
Center Line Or Base Line (If Both Label As Such)		BY DTMUA	
Property Lines		BY DTMUA	
Curb		BY DTMUA	
Wooden Fence		BY DTMUA	
Steel / Chainlink Fence		BY DTMUA	
Beam Guide Rail		BY DTMUA	
Railroad Track		BY DTMUA	
Block Wall		BY DTMUA	
Treeline		BY DTMUA	
Seam		BY DTMUA	
Saw-Cut Line		BY DTMUA	
Limit of Disturbance		BY DTMUA	
Silt Fence		BY DTMUA	
Tree Protection		BY DTMUA	
Major Contour		BY DTMUA	
Minor Contour		BY DTMUA	
Cable TV		BY DTMUA	
18" Pole No. & Type		BY DTMUA	
Pole with Guy Wire		BY DTMUA	
Luminaire		BY DTMUA	
Lantern		BY DTMUA	
Water Gate Valve		BY DTMUA	
Gas Gate Valve		BY DTMUA	
Junction Box		BY DTMUA	
Loop Detector		BY DTMUA	
Inlet Type 'A'		BY DTMUA	
Inlet Type 'B'		BY DTMUA	
Inlet Type 'E'		BY DTMUA	
Manhole		BY DTMUA	
Benchmark Label		BY DTMUA	

**BENCHMARK**  
N: 0.00  
E: 0.00  
ELEV.=0.00

## ABBREVIATIONS

Approximate Bituminous Surface	APPROX. BIT.	High-Density Polyethylene	H.D.P.E.	Rim Elevation	RIM
Cast Iron Pipe	C.I.P.	Hot Mix Asphalt	H.M.A.	Reinforced Concrete Pipe	R.C.P.
Cement Lined Ductile Iron Pipe	C.L.D.I.P.	Invert Elevation	INV.	Right Of Way	R.O.W.
Corrugated Metal Pipe	C.M.P.	Linear Foot	L.F.	Sanitary Manhole	SAN. MH
Cleanout	CO	Limit Of Cut	LOC	Square Feet	S.F.
Concrete Surface	CONC.	Limit Of Disturbance	LOD	Station	STA
Curb Stop	CS	Limit Of Fill	LOF	Storm Manhole	ST. MH
Cubic Yard	C.Y.	Limit Of Milling	LOM	Square Yard	S.Y.
Ductile Iron Pipe	D.I.P.	Limit Of Paving	LOP	Top Of Curb Elevation	TC
Elevation	ELEV.	Lump Sum	L.S.	To Be Removed	TBR
Edge Of Pavement	E.O.P.	Manhole	MH	Utility Pole	UP
Fire Hydrant	FH	Match Existing Elevation	M.E.	Water Service	WS
Found Monument	FND. MON.	Man-Hour	M.H.	Water Valve	WV
Found Rebar	FND. RB	Not To Scale	N.T.S.	4" Solid Blue Stripe	4" B
Gas Valve	GV	On Center	O.C.	4" Solid Double Yellow Stripe	4" D Y
Inlet Grate Elevation	GR.	PK Nail	PK	4" Solid White Stripe	4" W
		Polyvinyl Chloride Pipe	P.V.C.	4" Solid Yellow Stripe	4" Y
				24" Solid White Stripe	24" W

## SURVEY NOTES

- THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY EASEMENT, RESTRICTION AND/OR COVENANTS THAT A CURRENT REPORT OF TITLE, OR COMPLETE SEARCH OF THE PUBLIC RECORD, MAY DISCLOSE.
- BLOCK AND LOT NUMBER REFER TO THE OFFICIAL TAX MAPS OF THE TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY.
- THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS ILLUSTRATED ARE BASED UPON UTILITY MARKOUT ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD. THE STATE OF NEW JERSEY REQUIRES NOTIFICATION PRIOR TO ANY EXCAVATION BY UTILIZING THE NEW JERSEY ONE-CALL SYSTEM (1-800-272-1000).
- SURVEY BASED ON N.J.S.P.C.S. (NAV '83) (2011). VERTICAL DATUM: NAVD 1988 (GEOID 12A).

## SITE NOTES

- LOCATION OF EXISTING SURFACE SUBSURFACE UTILITIES AND FEATURES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ANY DIFFERING SITE CONDITIONS WHICH WOULD AFFECT THE PERFORMANCE OF THE WORK MUST BE REPORTED TO THE ENGINEER.
- ALL CONSTRUCTION METHODS, MATERIALS AND DETAILS SHALL BE IN ACCORDANCE WITH DEPTFORD TOWNSHIP REQUIREMENTS.
- PLANS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS PREPARED BY OTHERS.
- REFER TO DETAILS SHEETS FOR MATERIAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THE CONSTRUCTION OF THE APPROVED IMPROVEMENTS.
- THE OWNER OR HIS REPRESENTATIVE IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5.23-2.21 (e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32(f) (OSHA COMPETENT PERSON).
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING SITE SAFETY DEVICES AND SAFETY TRAINING FOR PERSONNEL, AND SHALL MAINTAIN SAFE PRACTICES ON SITE AT ALL TIMES.
- ALL TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS MUST BE INSTALLED IN ACCORDANCE WITH THE MOST RECENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)".
- ALL PAINTED TRAFFIC, MARKINGS/STRIPING SUBJECT TO VEHICLE MOVEMENTS MUST BE HOT EXTRUDED THERMOPLASTIC PAINT WITH GLASS BEADS THAT IS IN COMPLIANCE WITH THE LATEST NJDOT SPECIFICATIONS.
- ALL TRAFFIC CONTROL SIGNS MUST BE PLACED ON BREAK AWAY POSTS THAT ARE IN COMPLIANCE WITH THE MUTCD.

## GRADING NOTES

- MATERIAL PLACED IN FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD. ROOTS, FROZEN SOIL, STONES MORE THAN SIX (6) INCHES, AND OTHER OBJECTIONABLE MATERIAL.
- DRAIN FILL SHALL BE KEPT FROM BEING CONTAMINATED BY ADJACENT SOIL MATERIALS DURING PLACEMENT BY EITHER PLACING IT IN A CLEARLY EXCAVATED TRENCH, OR BY KEEPING THE DRAIN AT LEAST ONE FOOT ABOVE THE ADJACENT EARTH FILL.
- SELECTED DRAIN FILL AND BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES PIPE CONDUITS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING. FILL MATERIAL SHALL BE PLACED AND SPREAD BEGINNING AT THE LOWEST POINT IN THE FOUNDATION, AND THEN BROUGHT UP IN CONTINUOUS HORIZONTAL LAYERS THICK ENOUGH THAT THE REQUIRED COMPACTION CAN BE OBTAINED.
- THE DISTRIBUTION GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL SHALL DIFFER SUBSTANTIALLY IN TEXTURE OR GRADATION FROM SURROUNDING MATERIAL.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE DESIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL BE WETTED AND MIXED UNTIL THE REQUIREMENT IS MET. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER OF FILL TO ENSURE THAT THE REQUIRED LEVEL OF COMPACTION IS OBTAINED.
- FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, OR DRAIN FILL SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY HAND TAMPING, OR BY USING MANUALLY DIRECTED POWER TAMPERS OR PLATE VIBRATORS. FILL ADJACENT TO CONCRETE STRUCTURES SHALL NOT BE COMPACTED UNTIL THE CONCRETE HAS HAD TIME TO GAIN ENOUGH STRENGTH TO SUPPORT THE LOAD.
- GRADING SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.
- PROVIDE A MINIMUM OF 1.5% SLOPE IN ALL SHEET FLOW LAWN AREAS.
- MINIMUM SLOPE OF 1.0% SHALL BE PROVIDED IN SWALES.
- THERE SHALL BE A MINIMUM OF SIX (6) INCHES OF DROP WITHIN THE FIRST TEN (10) FEET OF THE BUILDING FOUNDATIONS.
- THE PROPOSED LAWN AREAS WILL BE GRADED WITH LIGHT-WEIGHT CONSTRUCTION EQUIPMENT.
- NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL WITHOUT FIRST OBTAINING THE APPROPRIATE PERMITS AND APPROVALS FROM THE PROPERTY OWNER AND MUNICIPALITY.

## BACKFILLING NOTES

- BACKFILL SHALL CONSIST OF SUITABLE ON-SITE MATERIAL OR IMPORTED SELECT FILL MEETING THE FOLLOWING UCS CLASSIFICATION: GW, GP, GW-GM, GP-GM, SW, SP, SW-SM, SP-SM, OR NJDT SOIL AGGREGATE CLASSIFICATION: 1-13, 1-5.
- BACKFILL SHALL BE FREE OF CLAY MATERIAL, STUMPS, TREE PARTS, TRASH, DEBRIS OR MATERIAL OVER 2" IN SIZE.
- BACKFILL SHALL BE COMPACTED IN A MAXIMUM OF EIGHT (8) INCH LIFTS TO 95% OF THE MAXIMUM IN-SITU DRY DENSITY OF THE MATERIAL BEING PLACED FOR AREAS BELOW STRUCTURES, ROADWAYS, SIDEWALKS, PIPING.
- BACKFILL SHALL BE COMPACTED IN A MAXIMUM OF ONE (1) FOOT LIFTS TO 90% OF THE MAXIMUM IN-SITU DRY DENSITY OF THE MATERIAL BEING PLACED FOR ALL OTHER AREAS.
  - CONTRACTOR SHALL CONTACT THE TOWNSHIP ENGINEER TO DISCUSS SAMPLING FREQUENCY AND ANALYTICAL PARAMETERS IF/ONCE A MATERIAL SOURCE HAS BEEN SELECTED. THE RESULTS OF THIS TESTING, IF NECESSARY, SHOULD BE PROVIDED TO THE TOWNSHIP AND TOWNSHIP ENGINEER FOR REVIEW PRIOR TO IMPORTING TO THE SITE.
  - CONTRACTOR SHALL PROVIDE ARCHITECT/ENGINEER WITH SOIL TESTING RESULTS FOR BACKFILL MATERIAL INCLUDING, BUT NOT LIMITED TO, UCS CLASSIFICATION, OPTIMUM MOISTURE CONTENT, MAXIMUM DRY DENSITY AND SCREENING FOR PESTICIDES AND CONTAMINANTS IN ACCORDANCE WITH THE NJDEP PRIORITY POLLUTANT LIST.
  - ONE SAMPLE SHALL BE TESTED FOR EACH 500 C.Y. OF BACKFILL MATERIAL TO BE UTILIZED AND THE RESULTS SUBMITTED TO THE ARCHITECT/ENGINEER PRIOR TO INITIATING BACKFILLING OPERATIONS.
- COMPACTION SHALL BE MONITORED BY CONTRACTOR'S GEOTECHNICAL ENGINEER, UTILIZING THE DENSITY CONTROL METHOD PER SECTION 203.10 OF THE NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. A MINIMUM OF TWO (2) MEASUREMENTS SHALL BE TAKEN PER LIFT FOR EACH STRUCTURE/AREA BEING BACKFILLED. COMPACTION TESTING RESULTS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PERFORMING ABOVE GRADE ACTIVITIES ON THE AREAS RECEIVING BACKFILL.

## UTILITY NOTES

- THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AT NO COST TO THE DEPTFORD TOWNSHIP INCLUDING BUT NOT LIMITED TO ROAD OPENING PERMITS FROM THE TOWNSHIP AND COUNTY.
- THE LOCATION AND DEPTHS OF EXISTING UTILITIES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES OF PROPOSED EXCAVATIONS IN THE VICINITY OF SAID UTILITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER TRAFFIC CONTROL TO THE SATISFACTION OF LOCAL, COUNTY, AND STATE AUTHORITIES.
- NO MATERIAL SHALL BE PLACED OR DISTURBED BEYOND THE PROPERTY LINE OR RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION OF THE PROPERTY OWNER DIRECTLY INVOLVED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING PAVING, PLANTING, ETC. IN KIND AND TOPSOILING, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. ROAD PAVEMENT REPLACEMENT AND ALL RESTORATION IN DISTURBED AREAS SHALL MEET THE REQUIREMENTS OF THE TOWNSHIP OR TOWNSHIP ENGINEER.
- WHENEVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, THE TRENCH BOTTOM SHALL BE OVER EXCAVATED AND STABILIZED WITH SIX (6) INCH MINIMUM THICK LAYERS OF CRUSHED STONE, AS DIRECTED BY THE TOWNSHIP ENGINEER.
- ALL TRENCHES WILL BE BACKFILLED BY COMPACTION IN SIX (6) INCH LAYERS IN STRICT ACCORDANCE WITH THE TRENCH DETAILS AND SPECIFICATIONS.
- THE CONSTRUCTION SITE MUST BE SWEEPED AND CLEANED DAILY WITH NO TRENCHES OPEN OVERNIGHT.
- INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY THE ENGINEER, OR THE ENGINEER'S REPRESENTATIVE, OR THE TOWNSHIP SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND APPLICABLE LAWS.
- THE CONTRACTOR SHALL SUPPLY THE AUTHORITY ENGINEER WITH COMPLETE AS-BUILTS OF ALL UTILITY INSTALLATIONS AND APPURTENANCES PRIOR TO THE AUTHORITY ENGINEER WITNESSING TESTING OF THE SYSTEMS.
- COVER OVER ALL WATER SERVICES SHALL BE FOUR (4) FOOT MINIMUM.
- ALL PROPOSED WATER MAINS SHALL HAVE THRUST BLOCKS AT ALL BENDS AND TEES.
- WATER MAINS AND SANITARY SEWER MAINS SHALL BE SEPARATED BY TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE; OTHERWISE, THE SANITARY SEWER AND WATER PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SANITARY SEWER EIGHTEEN (18) INCHES MINIMUM BELOW THE BOTTOM OF THE WATER MAIN. THE SEWER SHALL BE EIGHTEEN (18) INCHES BELOW THE WATER MAIN AND/OR STORM PIPE AT ALL CROSSINGS. WHERE THE SANITARY SEWER CROSSES OVER OR WITHIN EIGHTEEN (18) INCHES UNDER A WATER MAIN AND/OR STORM PIPE, THE SANITARY SEWER SHALL BE DUCTILE IRON PIPE WITH SLIP-ON JOINTS FOR TEN (10) FEET ON EACH SIDE OF THE CROSSING.
- LOCATIONS AND SLOPES OF THE MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.
- LOCATIONS AND SLOPES OF THE LATERALS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
- SANITARY SEWER LATERALS SHALL CONFORM TO STANDARD INSTALLATION REQUIREMENTS AND MAY NOT BE CONNECTED DIRECTLY INTO MANHOLES.
- WATER AND SEWER SERVICES AND PLUMBING SHALL CONFORM TO THE REQUIREMENTS OF THE PLUMBING SUBCODE OF THE NEW JERSEY STATE UNIFORM CONSTRUCTION CODE.
- PIPE DIMENSIONS ARE ROUNDED TO THE NEAREST FOOT BETWEEN THE OUTER EDGES OF STRUCTURES. MINOR FIELD ADJUSTMENT MAY BE NECESSARY.
- ALL CONSTRUCTION, MATERIALS, TESTING, INSPECTION AND ACCEPTANCE OF WATER AND SEWER FACILITIES MUST BE COMPLETED IN ACCORDANCE WITH UTILITY PROVIDER STANDARDS, INVERT ELEVATIONS OF THE COMPLETED SANITARY SEWER SYSTEM SHALL BE SUBMITTED TO THE D.T.M.U.A. AND INVERT ELEVATIONS OF THE COMPLETED WATER MAIN SHALL BE SUBMITTED TO THE D.T.M.U.A. PRIOR TO ANY LATERAL CONNECTIONS BEING MADE TO ENSURE THAT THE SYSTEMS WERE CONSTRUCTED ACCORDING TO THE APPROVED PLANS.

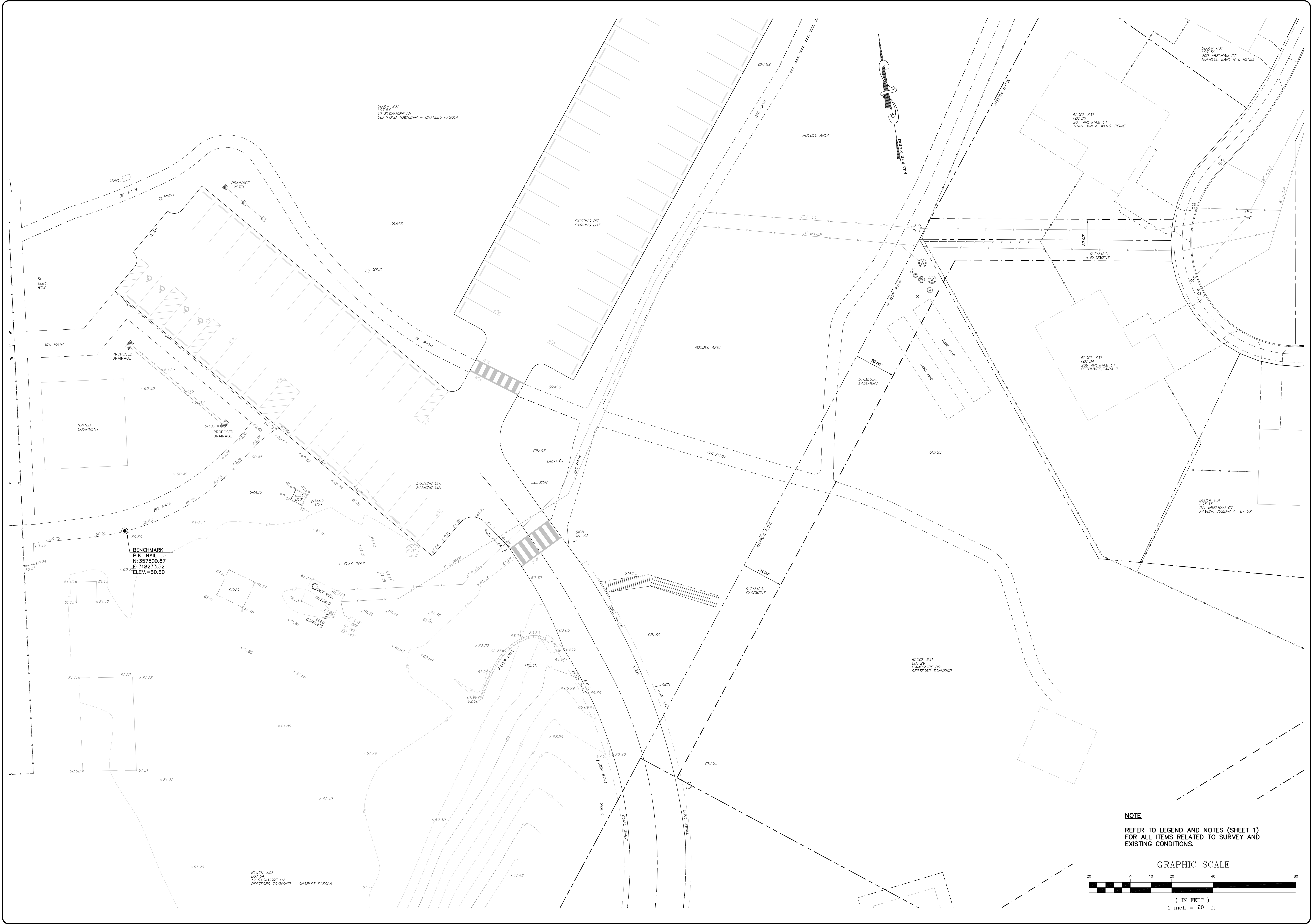
**EDWARD F. FARRELL III**  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. 6846154

NO.	DATE	REVISIONS	BY	CHECKED BY

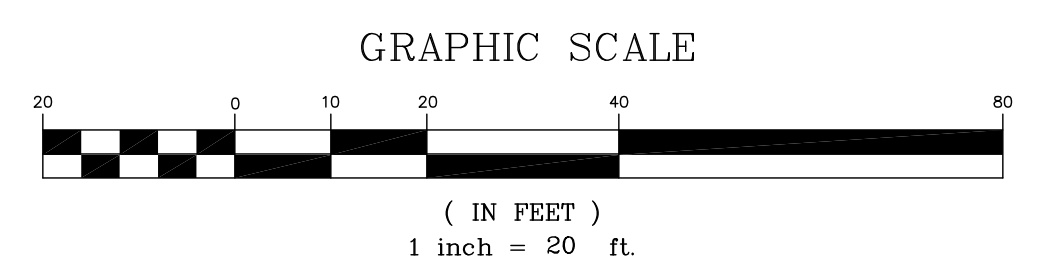
**LEGEND & NOTES**  
**FASOLA PARK & THE DEPTFORD MUSEUM**  
**BATHROOM IMPROVEMENTS**  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYSON & YATES**  
CONSULTING ENGINEERS, LLC  
307 Greentree Road, Sewell, New Jersey 08080  
Phone: (856) 589-1400 Fax: (856) 582-7976

JOB NO.:	22323
DATE:	9/19/2022
SCALE:	AS SHOWN
DRAWN BY:	K.D.A.
CHECKED BY:	E.F.F.3



**NOTE**  
REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO SURVEY AND  
EXISTING CONDITIONS.



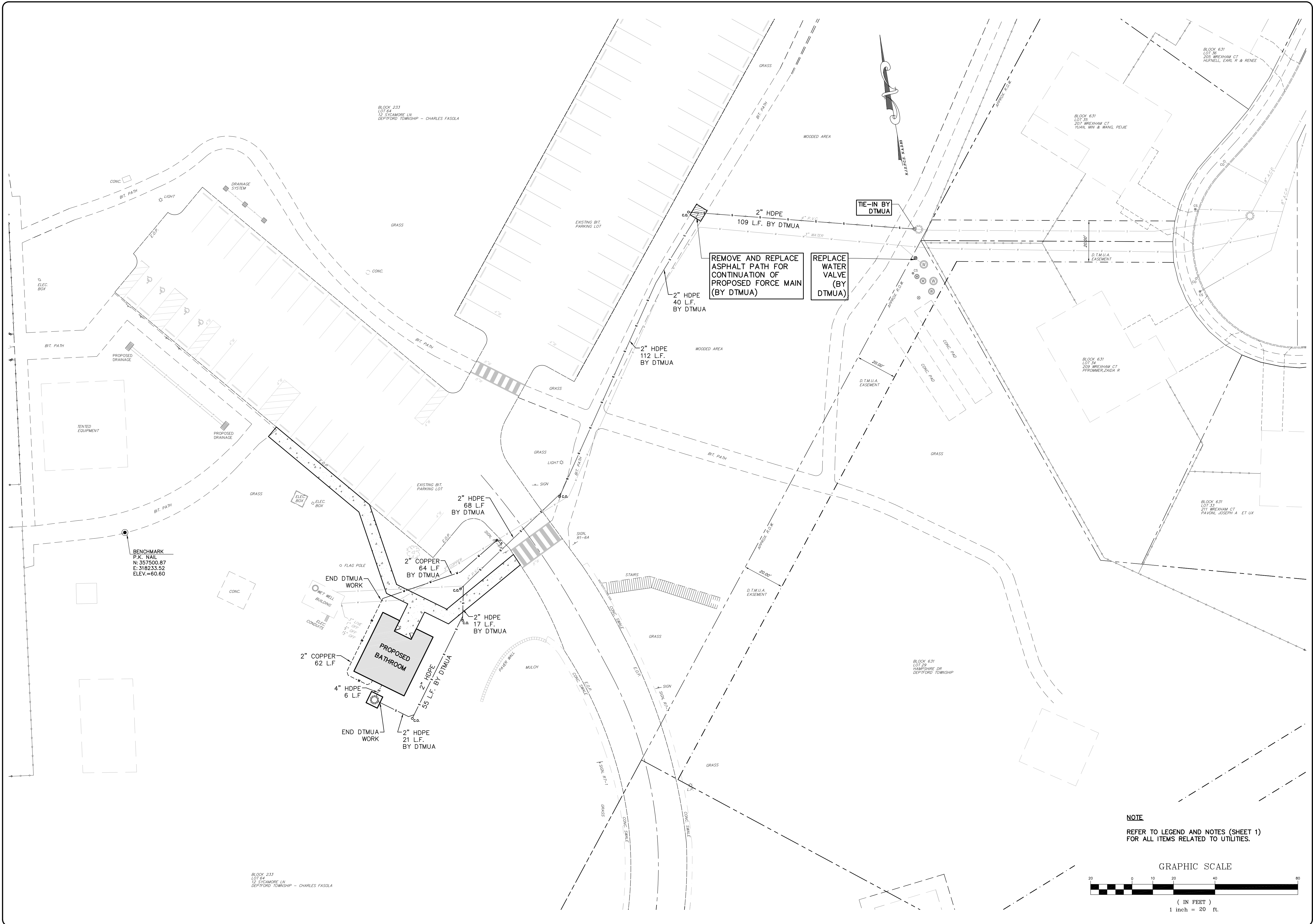
**EDWARD F. FARRELL III**  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. CE46154

NO.	DATE	REVISIONS	BY	CHECKED BY

**EXISTING CONDITIONS PLAN 1**  
**FASOLA PARK**  
**BATHROOM IMPROVEMENTS**  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYSON & YATES**  
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307 Greentree Road Sewell, New Jersey 08080  
Phone: (856) 587-1400 Fax: (856) 582-7976

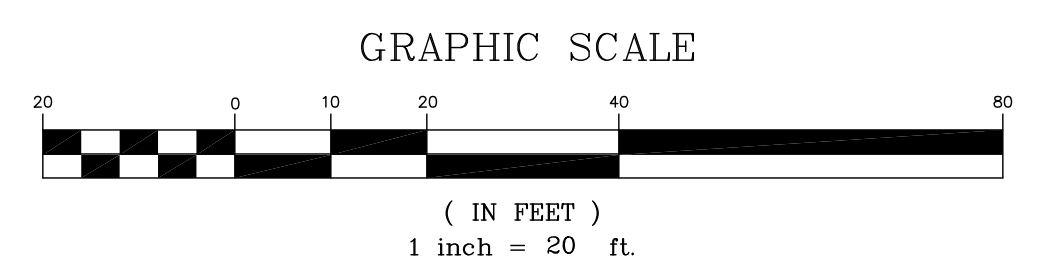
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DATE: 9/19/2022  
SCALE: AS SHOWN  
DRAWN BY: K.D.A.  
CHECKED BY: E.F.F.3  
SHEET: **2 OF 10**



BENCHMARK  
P.K. NAIL  
N: 357500.87  
E: 318233.52  
ELEV.=60.60

BLOCK 233  
LOT 64  
12 SISKIYOU LN  
DEPTFORD TOWNSHIP - CHARLES FASOLA

NOTE  
REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO UTILITIES.

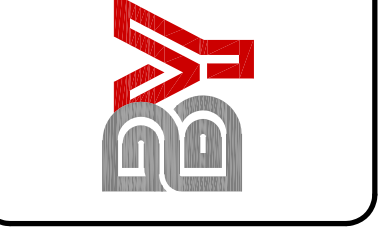


EDWARD F. FARRELL III  
PROFESSIONAL ENGINEER N.J. LICENSE NO. CE46154

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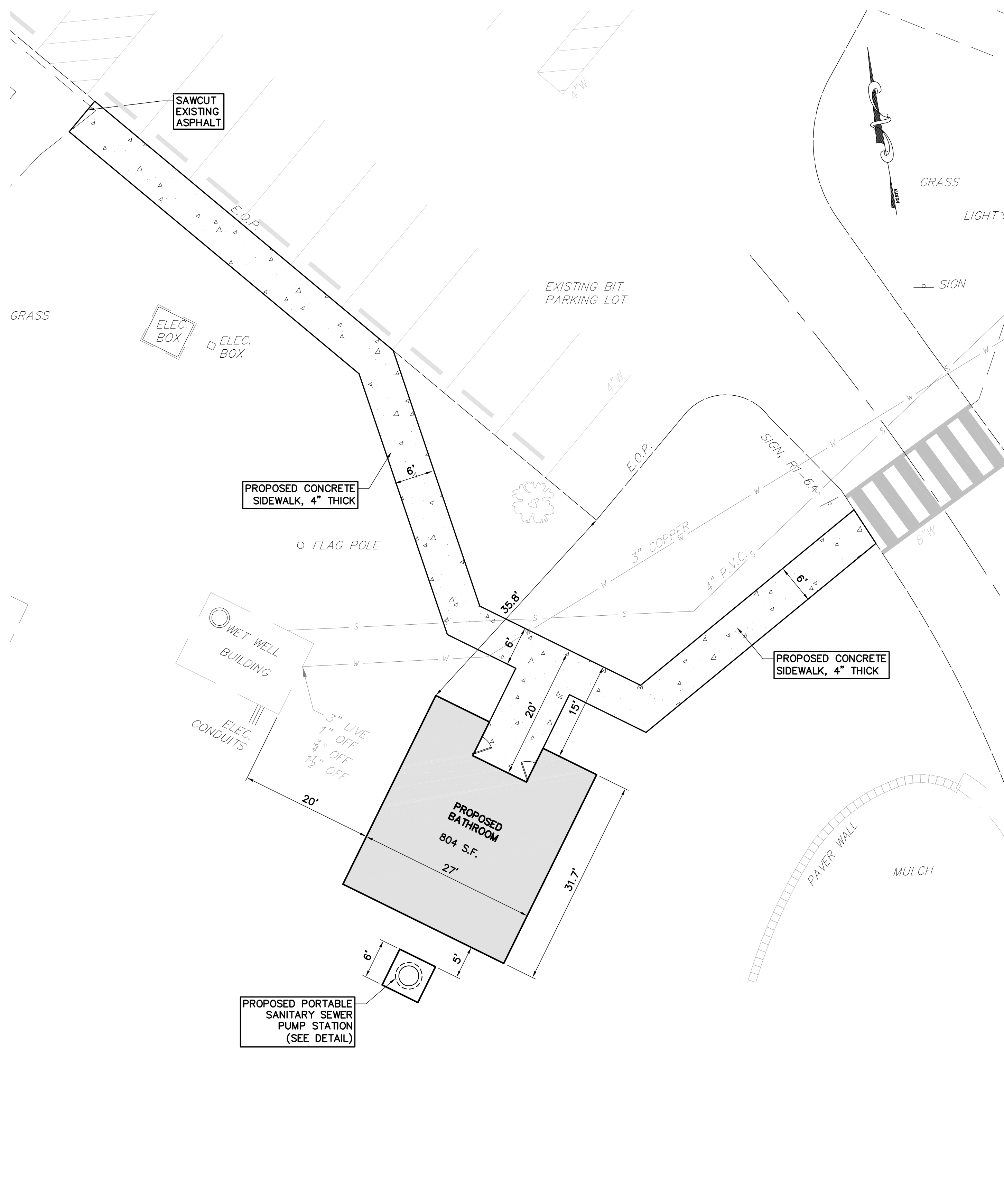
OVERALL UTILITY PLAN  
FASOLA PARK  
BATHROOM IMPROVEMENTS  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYNSON & YATES**  
CONSULTING ENGINEERS, LLC  
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Phone: (856) 587-1400 Fax: (856) 582-7776



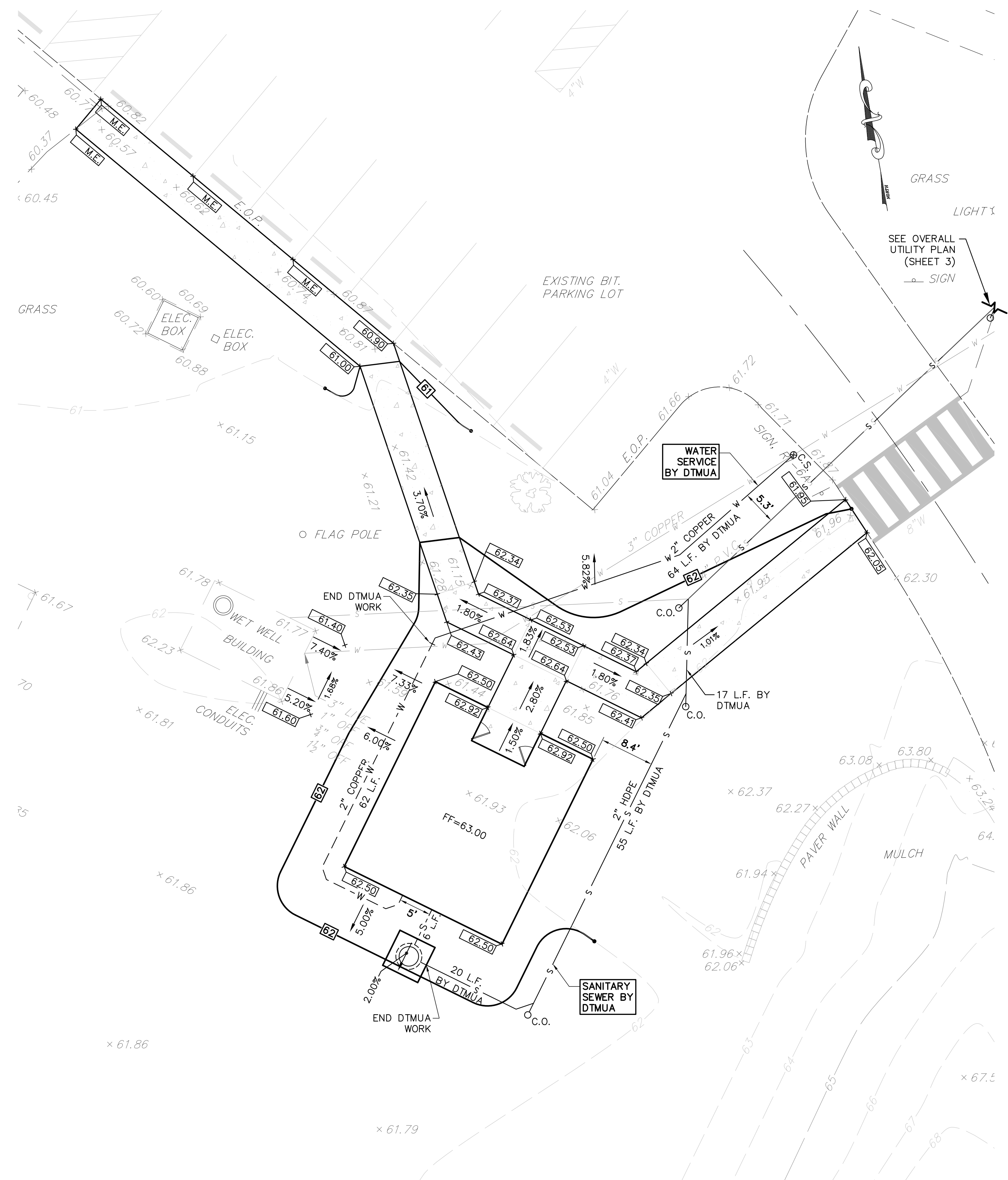
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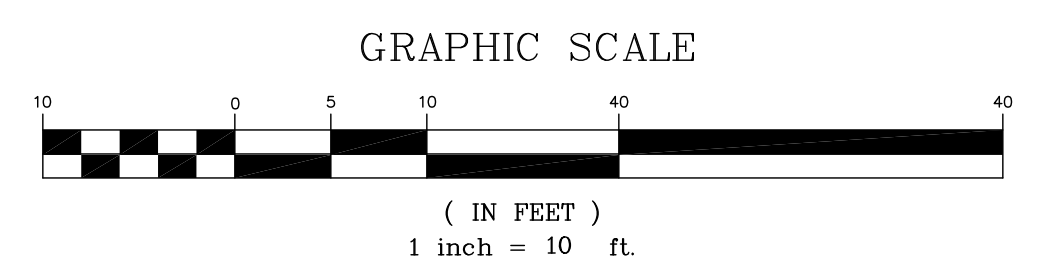
**SITE PLAN**  
SCALE: 1"=10'

**NOTE**  
REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO SITE WORK.



**GRADING & UTILITY PLAN**  
SCALE: 1"=10'

**NOTE**  
REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO GRADING,  
BACKFILLING, AND UTILITY WORK.

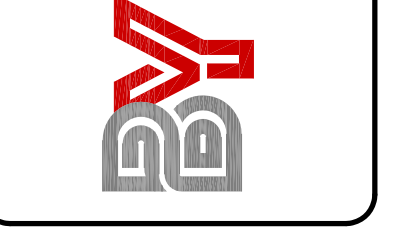


**EDWARD F. FARRELL III**  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. GE46154

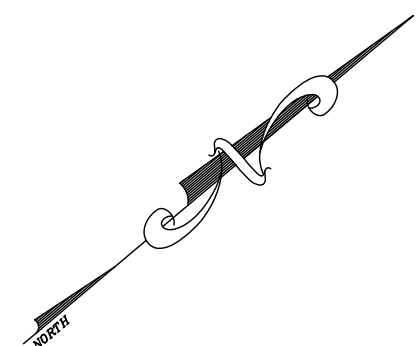
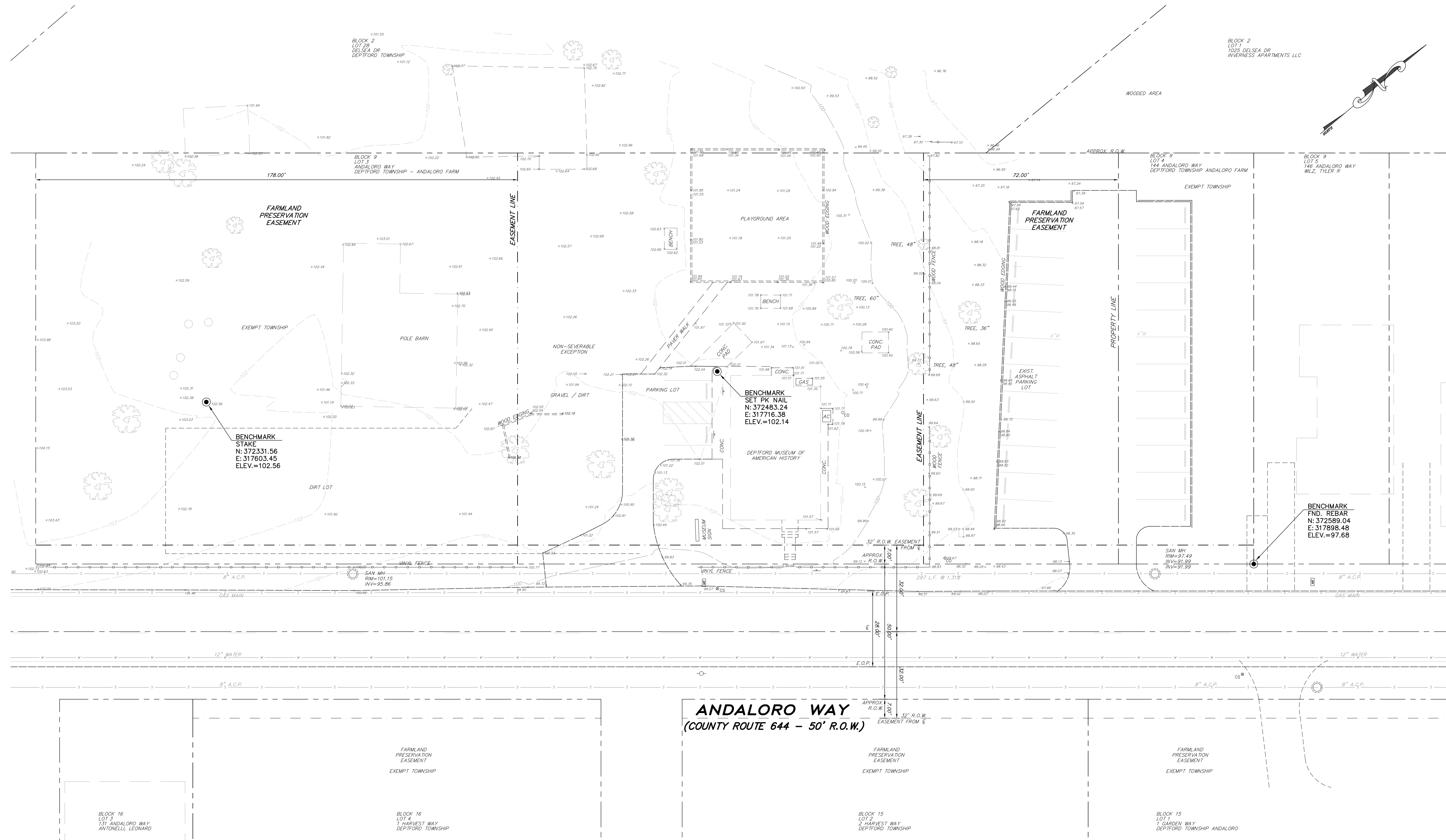
NO.	DATE	REVISIONS

**SITE, GRADING & UTILITY PLAN**  
**FASOLA PARK**  
**BATHROOM IMPROVEMENTS**  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYSON & YATES**  
CONSULTING ENGINEERS, LLC  
307 Greentree Road Sewell, New Jersey 08080  
Phone: (856) 587-1400 Fax: (856) 582-7776



JOB NO.:	22323
DATE:	9/19/2022
SCALE:	AS SHOWN
DRAWN BY:	K.D.A.
CHECKED BY:	E.F.F.3



**EDWARD F. FARRELL III**  
 PROFESSIONAL ENGINEER  
 N.J. LICENSE NO. 6E46154

NO.	DATE	REVISIONS	BY	CHECKED BY

**EXISTING CONDITIONS PLAN 2**  
**THE DEPTFORD MUSEUM**  
**BATHROOM IMPROVEMENTS**

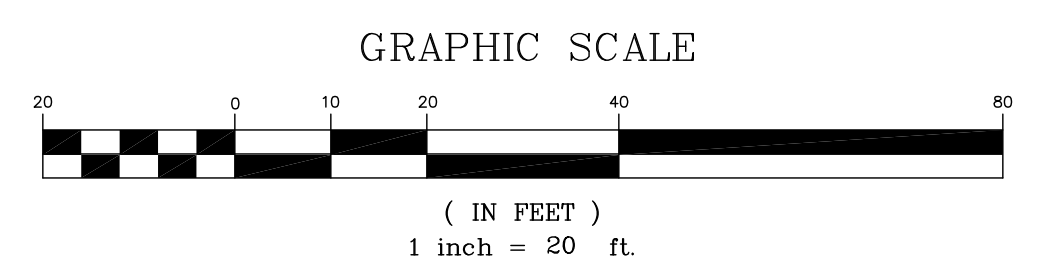
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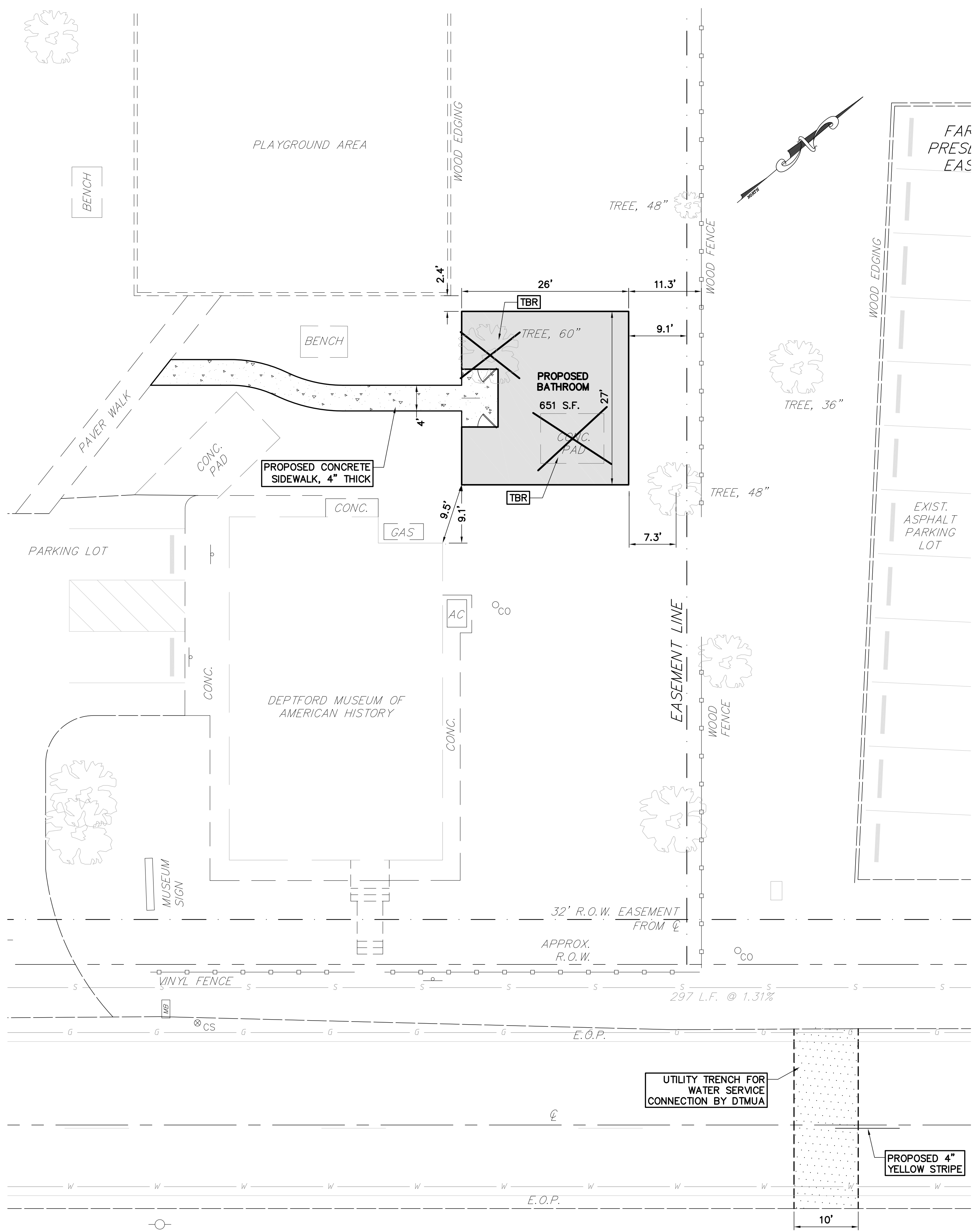
**BRYSON & YATES**  
 CONSULTING ENGINEERS, LLC  
 307 Greentree Road Sewell, New Jersey 08080  
 Phone: (856) 587-1400 Fax: (856) 582-7776

JOB NO.: 22323  
 DATE: 9/19/2022  
 SCALE: AS SHOWN  
 DRAWN BY: K.D.A.  
 CHECKED BY: E.F.F.3  
 SHEET: **5 OF 10**

**ANDALORO WAY**  
 (COUNTY ROUTE 644 - 50' R.O.W.)

**NOTE**  
 REFER TO LEGEND AND NOTES (SHEET 1)  
 FOR ALL ITEMS RELATED TO SURVEY AND  
 EXISTING CONDITIONS.

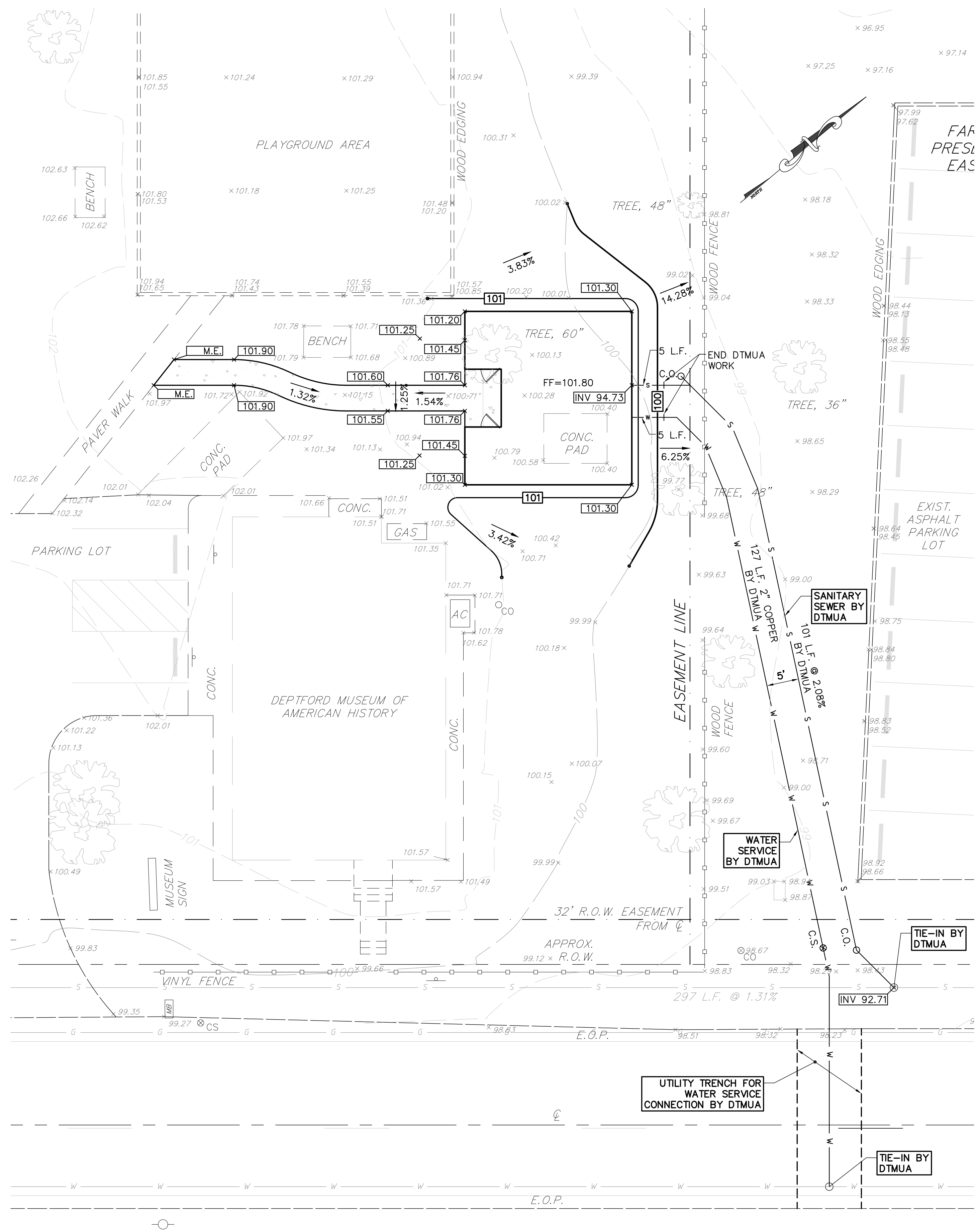




**SITE PLAN**

SCALE: 1"=10'

**NOTE**  
REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO SITE WORK.

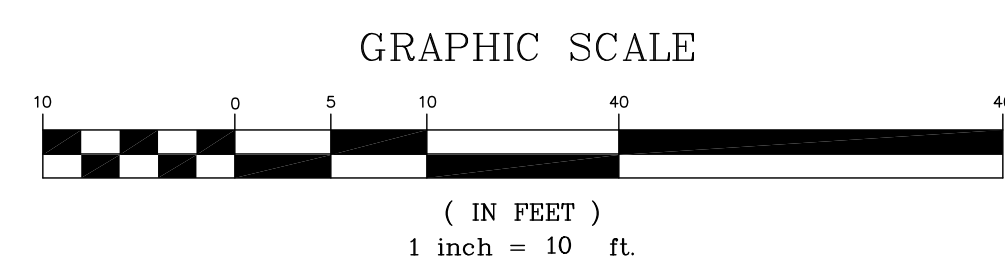


**GRADING & UTILITY PLAN**

SCALE: 1"=10'

**NOTE**

REFER TO LEGEND AND NOTES (SHEET 1)  
FOR ALL ITEMS RELATED TO GRADING,  
BACKFILLING, AND UTILITY WORK.



**EDWARD F. FARRELL III**  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. GE46154

NO.	DATE	REVISIONS	BY	CHECKED BY

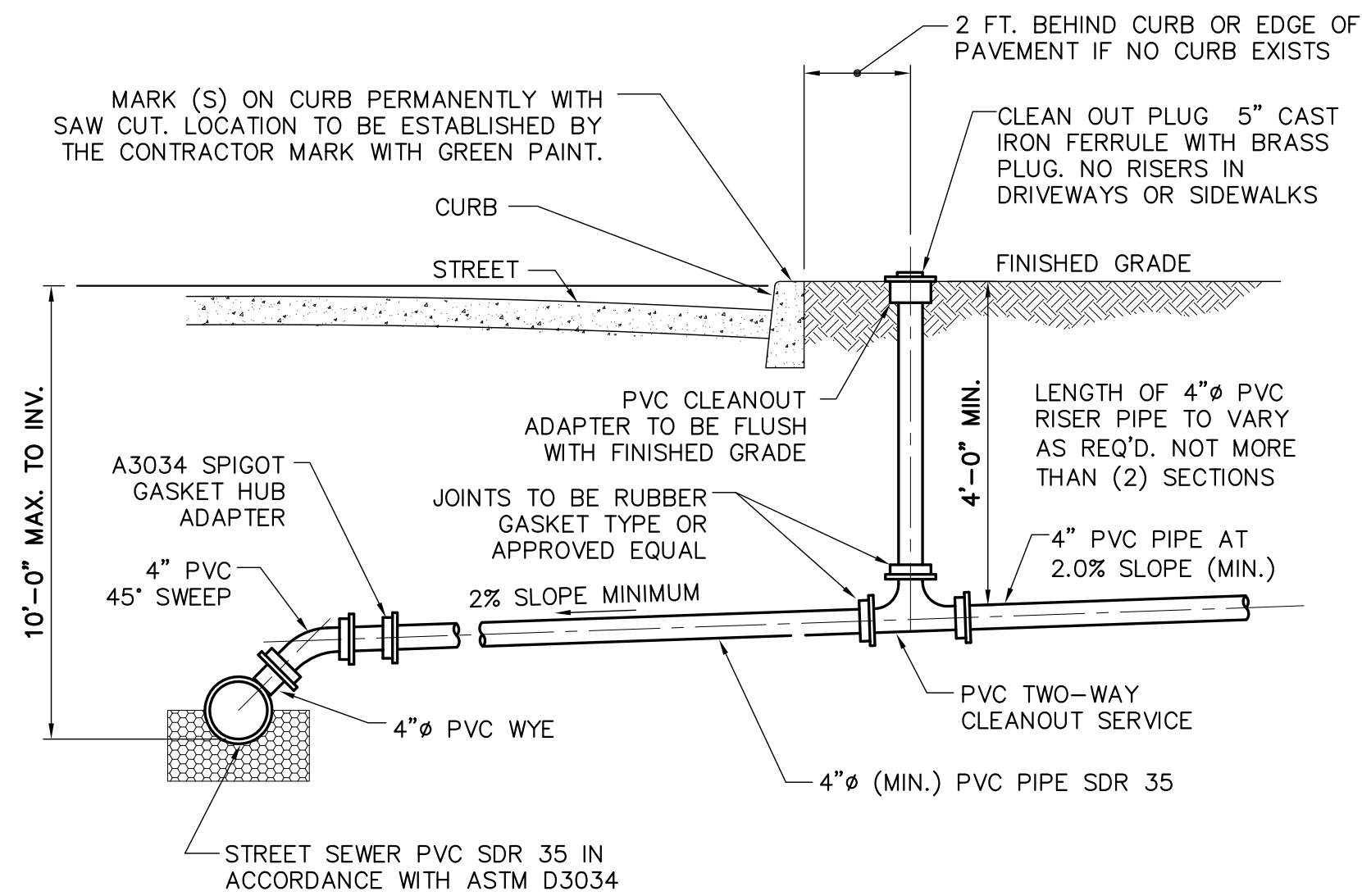
**SITE, GRADING & UTILITY PLAN**  
**THE DEPTFORD MUSEUM**  
**BATHROOM IMPROVEMENTS**  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYSON & YATES**  
CONSULTING ENGINEERS, LLC  
307 Greentree Road Sewell, New Jersey 08080  
Phone: (856) 587-1400 Fax: (856) 582-1776



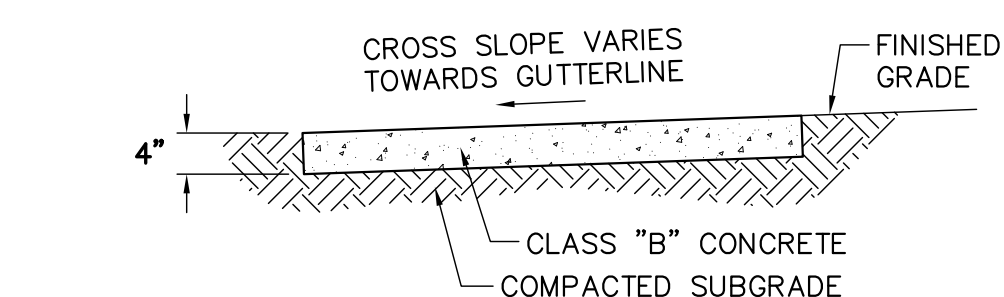
JOB NO.: 22323  
DATE: 9/19/2022  
SCALE: AS SHOWN  
DRAWN BY: K.D.A.  
CHECKED BY: E.F.F.3

SHEET: 6 OF 10



**SANITARY SERVICE LATERAL DETAIL**

N.T.S.



**NOTES**

1. PROVIDE TRANSVERSE SURFACE GROOVES AT INTERVALS EQUAL TO THE WIDTH OF THE SIDEWALK BETWEEN THE EXPANSION JOINTS.
2. EXPANSION JOINTS SHALL BE PROVIDED WITH FILLER MATERIAL AT TWENTY (20) FOOT INTERVALS.
3. ALL CONCRETE SHALL BE CONSTRUCTED OF CLASS "B" AIR-ENTRAINED CONCRETE WITH A COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

**CONCRETE SIDEWALK DETAIL**

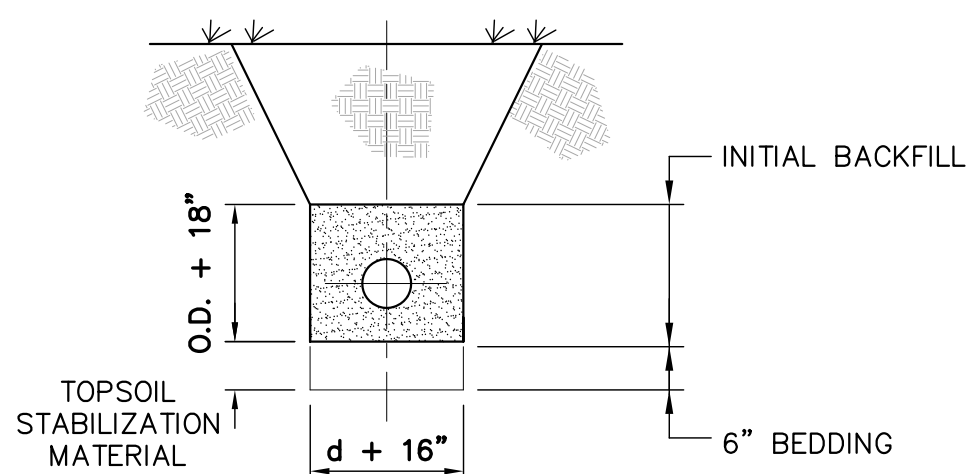
N.T.S.

SPECIFIED CLASS OF PVC PIPE WITH 3-12' OF COVER

BEDDING AND INITIAL BACKFILL REQUIREMENTS FOR SPECIFIED PIPE CLASS & COVER CONDITION

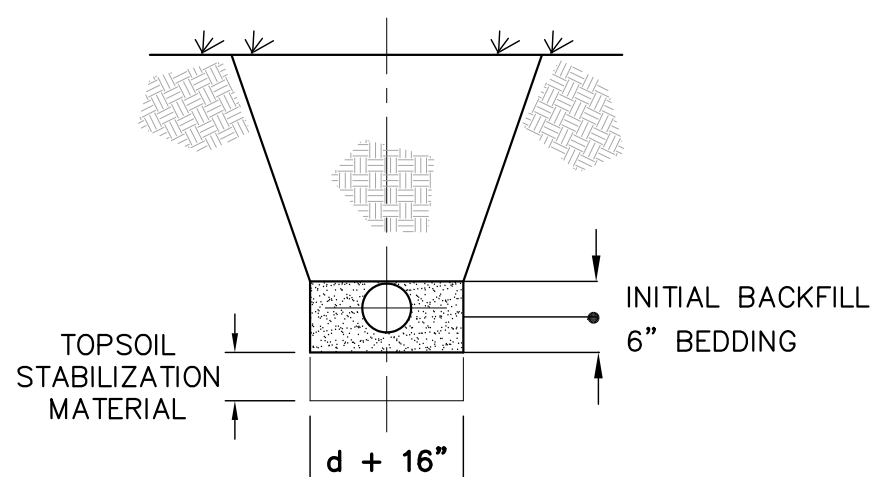
SPECIFIED CLASS OF PVC PIPE WITH 12-16' OF COVER

SDR-35



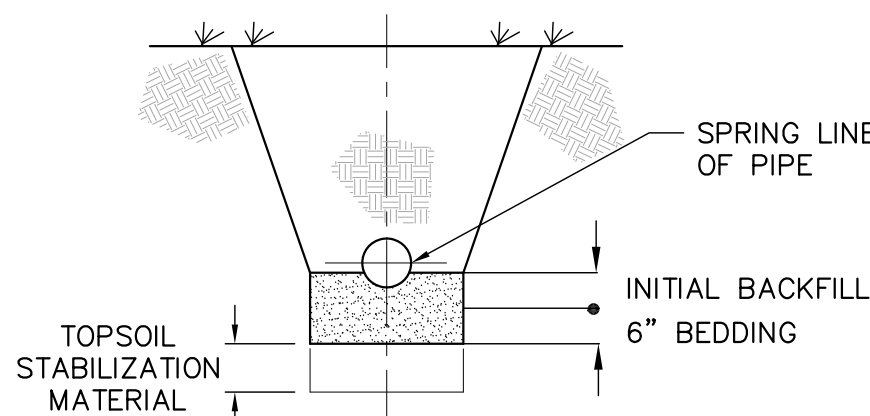
SDR-35

N/A



CLASS 100 SDR-25

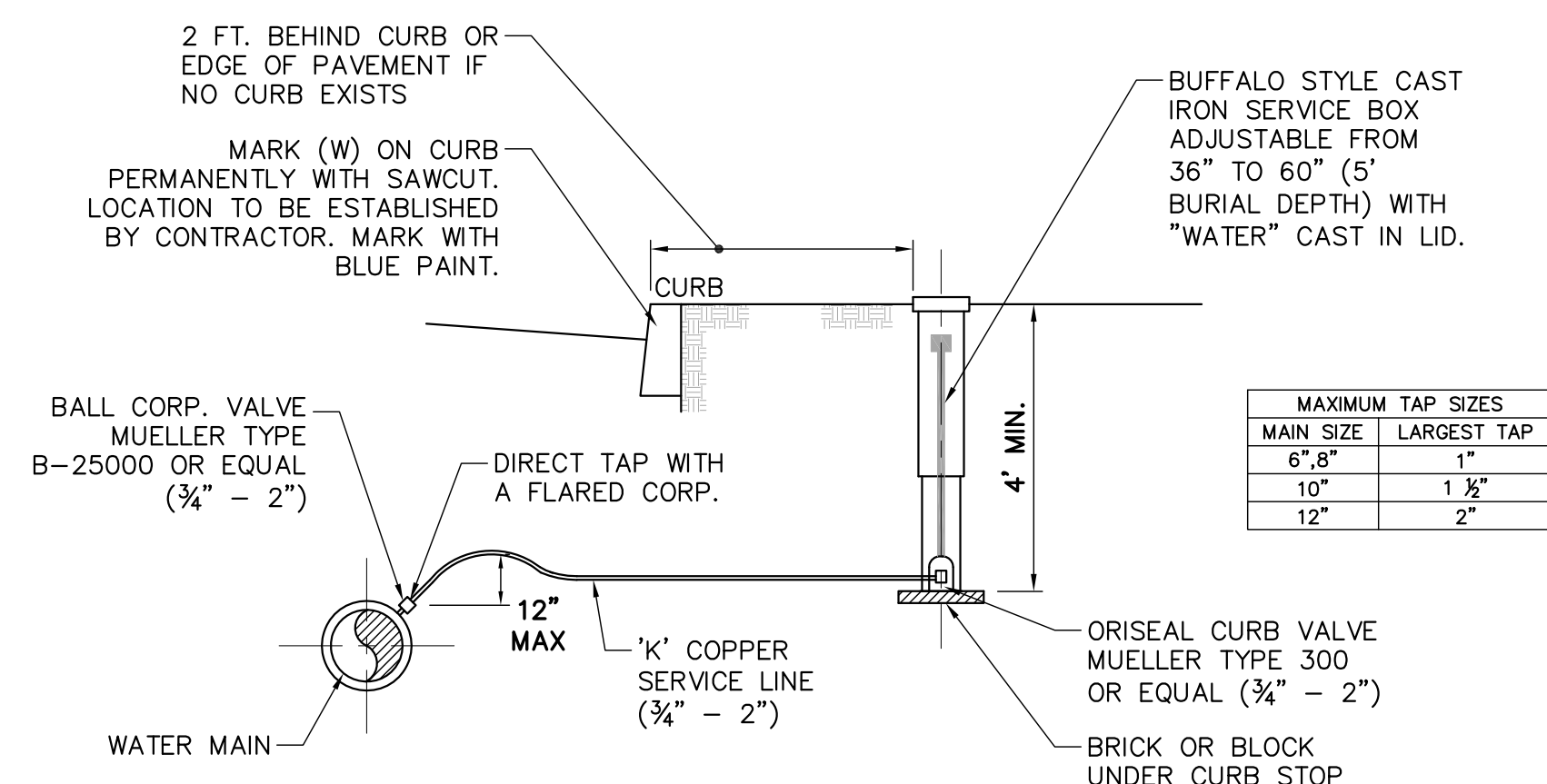
CLASS 100 SDR-35



CLASS 150 SDR-18

**PVC/DIP SANITARY SEWER TRENCH DETAIL**

N.T.S.

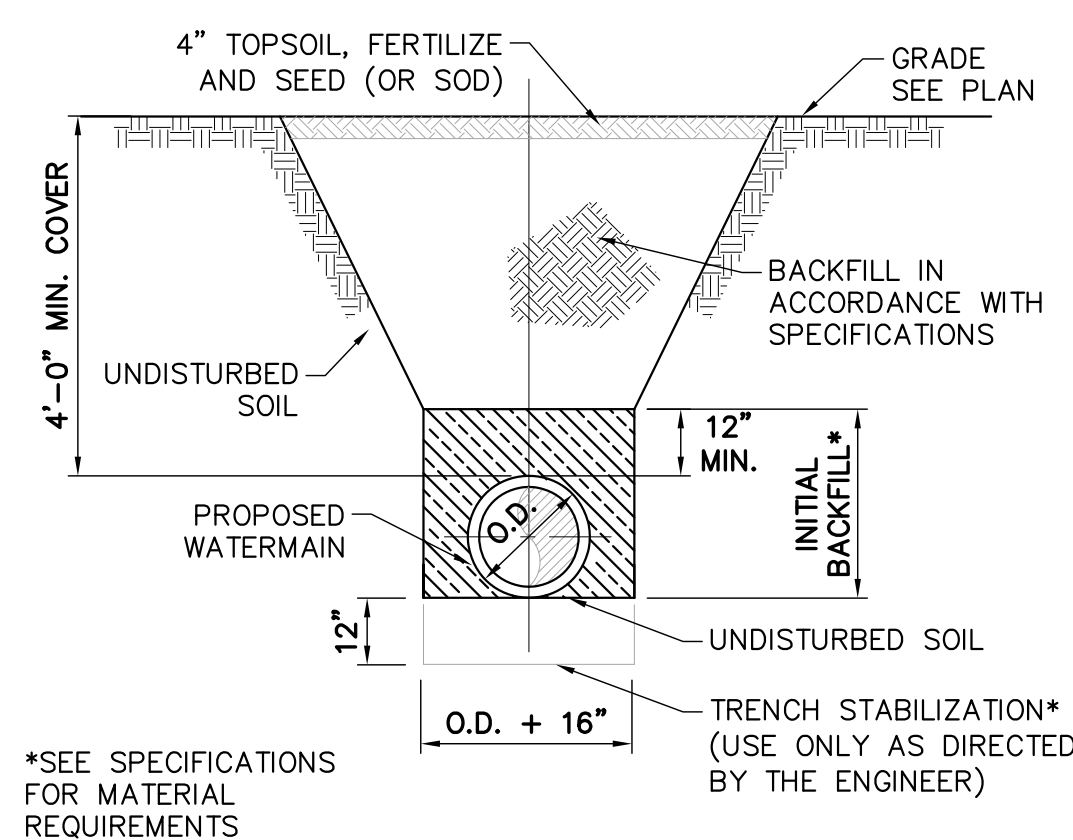


**NOTES**

1. CURB STOPS SHALL NOT BE LOCATED IN SIDEWALKS OR DRIVEWAYS.
2. STAINLESS STEEL TAPPING SADDLES ONLY APPROVED FOR ACP, SMITH BLAIR MODEL #275 OR APPROVED EQUAL.
3. WATER SERVICE TO HAVE TEN FEET HORIZONTAL SEPARATION FROM SANITARY SEWER LATERAL. UNDER NO CIRCUMSTANCES SHALL THE HORIZONTAL SEPARATION BE LESS THAN FIVE FEET.

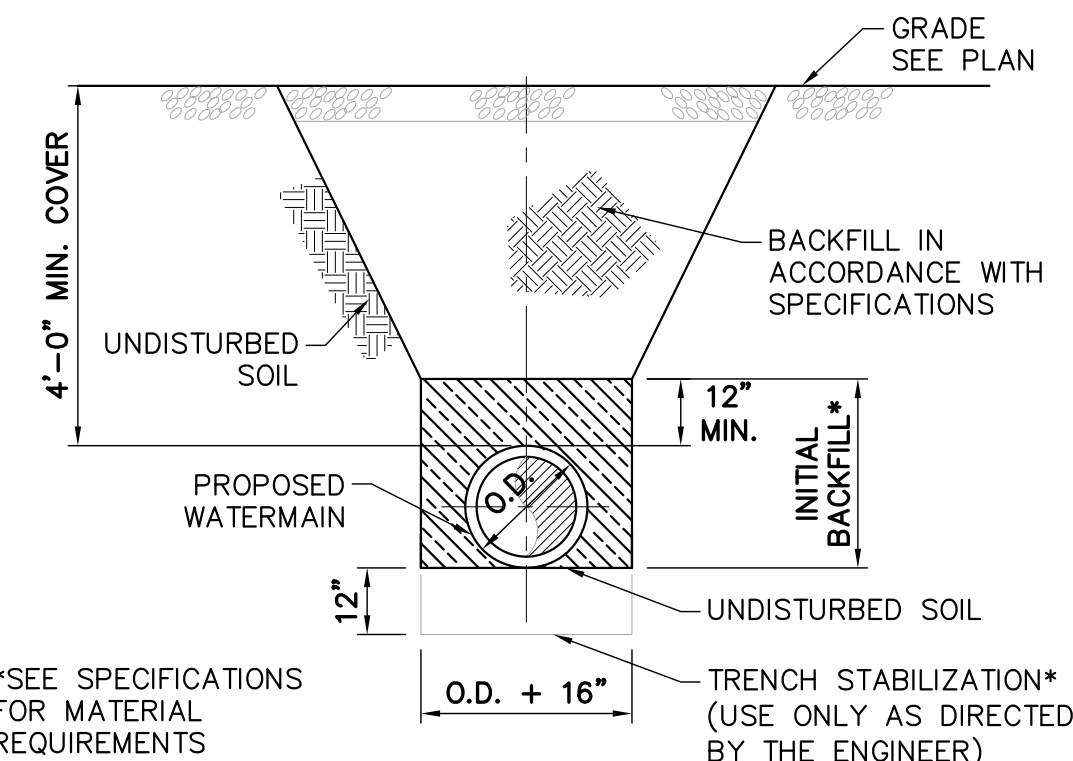
**WATER SERVICE CONNECTION DETAIL**

N.T.S.



**TURF AREAS**

\*SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS

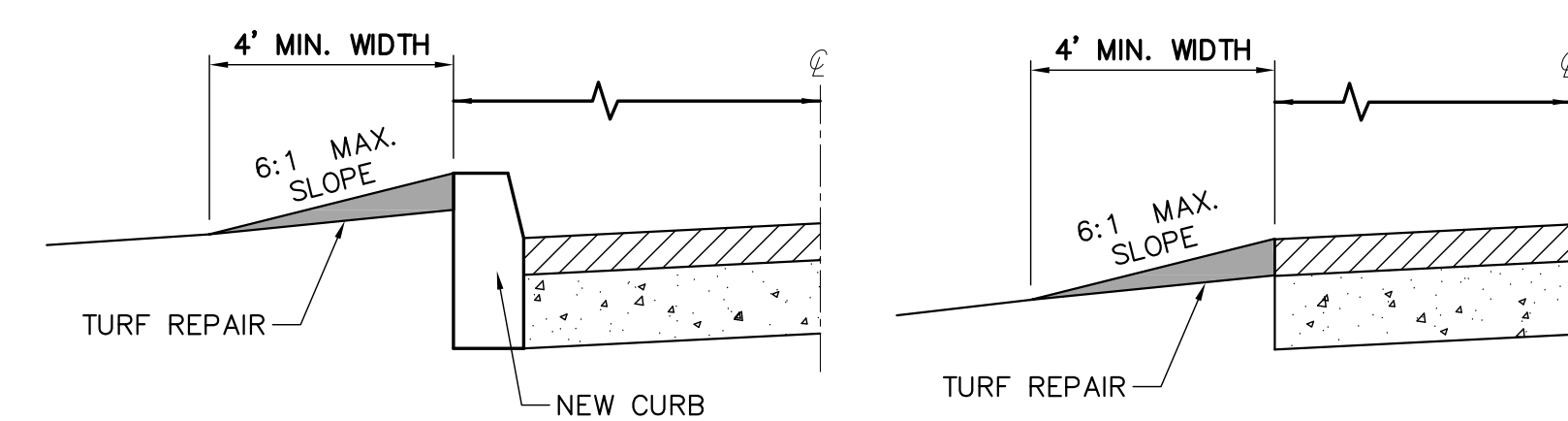


**GRAVEL OR STONE AREAS**

\*SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS

**WATER MAIN TRENCHING & ROAD RESTORATION DETAIL**

N.T.S.



**TURF REPAIR DETAIL AREA OF NEW CURBING**

**TURF REPAIR DETAIL AREA OF NO CURBING**

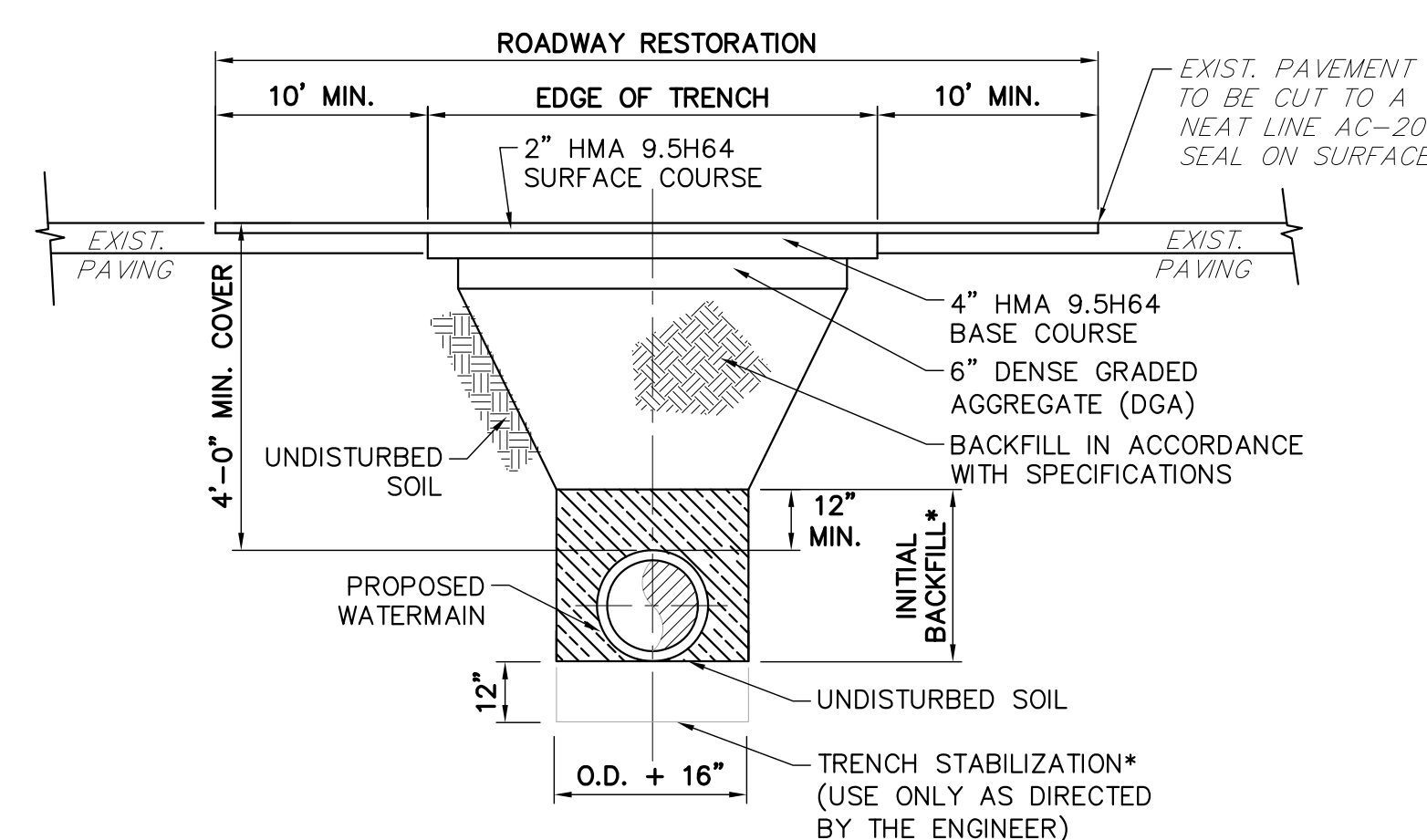
FILL OPERATIONS FOR THESE AREAS SHALL BE DONE USING ON-SITE EXCAVATION MATERIAL, PRIOR TO FURNISHING BORROW MATERIAL. THERE IS NO SPECIFIC PAYMENT FOR HAULING, PLACING AND COMPACTING ON-SITE ROADWAY EXCAVATION MATERIAL, AND THE COST THEREOF SHOULD BE INCLUDED IN THE UNIT PRICE BID FOR 'EXCAVATION, UNCLASSIFIED.'

**NOTES**

1. ANY AREAS IN WHICH THE NEW TOP OF CURB OR TOP OF SIDEWALK IS GREATER IN HEIGHT THAN 1/2" ABOVE THE EXISTING GROUND SURFACE, THE PROPOSED EDGE OF ROAD TREATMENT AS CALLED FOR IN THIS CONTRACT SHALL BE CONSTRUCTED AS SOON AS POSSIBLE AFTER THE SIDEWALK OR CURBING HAS BEEN CONSTRUCTED. THIS WORK SHALL BE DONE CONCURRENTLY WITH THE OVERLAY WORK, NOT AS A SEPARATE PHASE AFTER THE OVERLAY WORK HAS BEEN COMPLETED.
2. TURF REPAIR STRIP WORK SHALL BE PERFORMED WITHIN TEN (10) CALENDAR DAYS AFTER FINAL PAVING IS COMPLETED, BUT SHALL NOT OCCUR UNTIL THE STRIPING IS COMPLETED.
3. SEED MIXTURE SHALL BE SOWN INTO T.R.S. SOIL STRIP BY HAND; SOIL SHALL THEN BE IMMEDIATELY COMPACTED WITH MECHANICAL PLATE TAMPER TO THE EXACT ELEVATION OF THE TOP OF CURB OR SIDEWALK ELEVATION. ANY SETTLED T.R.S. AREAS SHALL BE RESTORED WITH ADDITIONAL SOIL AND RECOMPACTED TO THE TOP OF CURB OR TOP OF SIDEWALK GRADES.
4. FURNISH, PLACE, AND COMPACT ON-SITE SOIL ADJACENT TO THE CURB AND SIDEWALK WORK, WHEN THE FILL DEPTHS EXCEED 4-INCHES; PLACE TOPSOIL, MINIMUM THICKNESS 2 TO 3 INCHES, ATOP ON-SITE GRAVEL MATERIAL, TO ESTABLISH THE FINISH SURFACE, AT A MAXIMUM SLOPE OF 4H:1V. TOPSOIL DEPTHS SHALL NOT EXCEED 4". STABILIZATION MATTING SHALL BE USED IF & WHERE DIRECTED BY THE ENGINEER AND THE COST THEREOF SHALL BE INCLUDED IN THE COST OF VARIOUS OTHER ITEMS.
5. CONTRACTOR SHALL REVIEW GRADE SHEETS AND DETERMINE SCOPE OF WORK TO COMPLETE THE TURF REPAIR STRIP OPERATIONS. THE CONTRACTOR SHALL ONLY BE PAID FOR THE AREAS REPAIRED UP TO THE LIMIT APPROVED BY THE ENGINEER IN THE FIELD. ANY DISTURBANCE PAST THE LIMIT APPROVED BY THE ENGINEER WILL BE REPAIRED BY THE CONTRACTOR AT NO FURTHER COST TO THE OWNER.

**TURF REPAIR STRIP DETAIL**

N.T.S.



**RESTORATION ON ANY PUBLIC ROAD OR PUBLIC ACCESS DRIVE/PARKING AREA**

**NOTES**

1. PROPER SIZED PLUG SHALL BE INSERTED INTO PIPE END AT ALL TIMES DURING CONSTRUCTION.
2. ON ANY COUNTY ROAD, LOW-STRENGTH FLOWABLE FILL SHALL BE USED FOR ENTIRE TRENCH BACKFILL, IF THE TRENCH IS 7-FT. OR GREATER IN DEPTH.
3. FLOWABLE FILL SECTION SHALL BE STEEL-PLATED FOR 24-HOURS PRIOR TO ANY LOADING.
4. TO ACCELERATE CURE-TIME, ADD 'RAPIDSET CEMENT' TO MIX PRIOR TO PLACEMENT.
5. 15:1 MIX MAY BE SUBSTITUTED FOR FLOWABLE FILL, AND REQUIRES COMPACTION IN 12-INCH LIFTS.
6. ANY TRENCHES ACROSS PUBLIC PROPERTY SHALL BE BASE PAVED TO THE TOP OF THE TRENCH, AND THEN PERMITTED TO SETTLE FOR AT LEAST FOUR (4) MONTHS, PRIOR TO THE FINAL ROADWAY RESTORATION CONSISTING OF MILL/RESURFACE TO 10-FT. BEYOND THE ORIGINAL TRENCH LIMITS AS SHOWN.
7. FINAL RESTORATION SHALL NOT OCCUR PRIOR TO AS-BUILT PLANS BEING SUBMITTED AND ACCEPTED BY THE AUTHORITY ENGINEER ALONG WITH ANY OTHER TESTS REQUIRED.

CONSTRUCTION DETAILS  
FASOLA PARK & THE DEPTFORD MUSEUM  
BATHROOM IMPROVEMENTS

TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYSON & YATES**  
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307 Greentree Road, Sewell, New Jersey 08080  
Phone: (856) 587-1400 Fax: (856) 582-7976

JOB NO.: 22323  
DATE: 9/19/2022  
SCALE: AS SHOWN  
DRAWN BY: K.D.A.  
CHECKED BY: E.F.F.3

SHEET: 7 OF 10

EDWARD F. FARRELL III  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. 6846154



### TECHNICAL INFORMATION

#### DESIGNED FOR RESIDENTIAL, LIGHT COMMERCIAL & INDUSTRIAL APPLICATIONS

The Myers WG/WGX20 Series are rugged 2 horsepower submersible centrifugal grinder pumps designed for residential, light commercial or industrial applications. It is especially suited for use in pressure sewer applications or in systems with long discharge runs or high static heads. The WG/WGX20 Series features a patented cutter mechanism and recessed impeller design to efficiently grind typical domestic sewage solids into a fine slurry. These pumps are available in standard construction and construction for use in Class 1, Group D hazardous locations.

The WG/WGX20 Series can be installed in a variety of packaged systems. Factory-assembled simplex or duplex packages with guide rail systems or suspended systems are available. Individual rail components are also available for installation in on-site concrete systems. Myers offers a complete line of submersible sump, sewage, effluent, grinder, solids handling wastewater pumps, controls, basins, and accessories. For additional information, please contact your local Myers representative or this Myers Ashland, Ohio sales office at 419-289-1144.

#### Ideal for use in pressure sewer systems.

- Choice of standard or high flow designs.
- Recessed impeller provides steep non-overloading operating curve.

#### Durable motor will deliver many years of reliable service.

- Oil-filled motor for maximum heat dissipation and constant bearing lubrication.
- Recessed impeller reduces radial bearing loads, increases bearing life.
- High torque capacitor start/run single phase or three phase motors for assured starting under heavy load.
- Seal leak probes and on-winding heat sensors warn of seal leak condition and stop motor if motor overheats. Helps prevent costly motor damage.

#### The WG/WGX20 Series is designed for easy maintenance.

- Shredding ring and grinder impeller are replaceable without dismantling pump or motor.

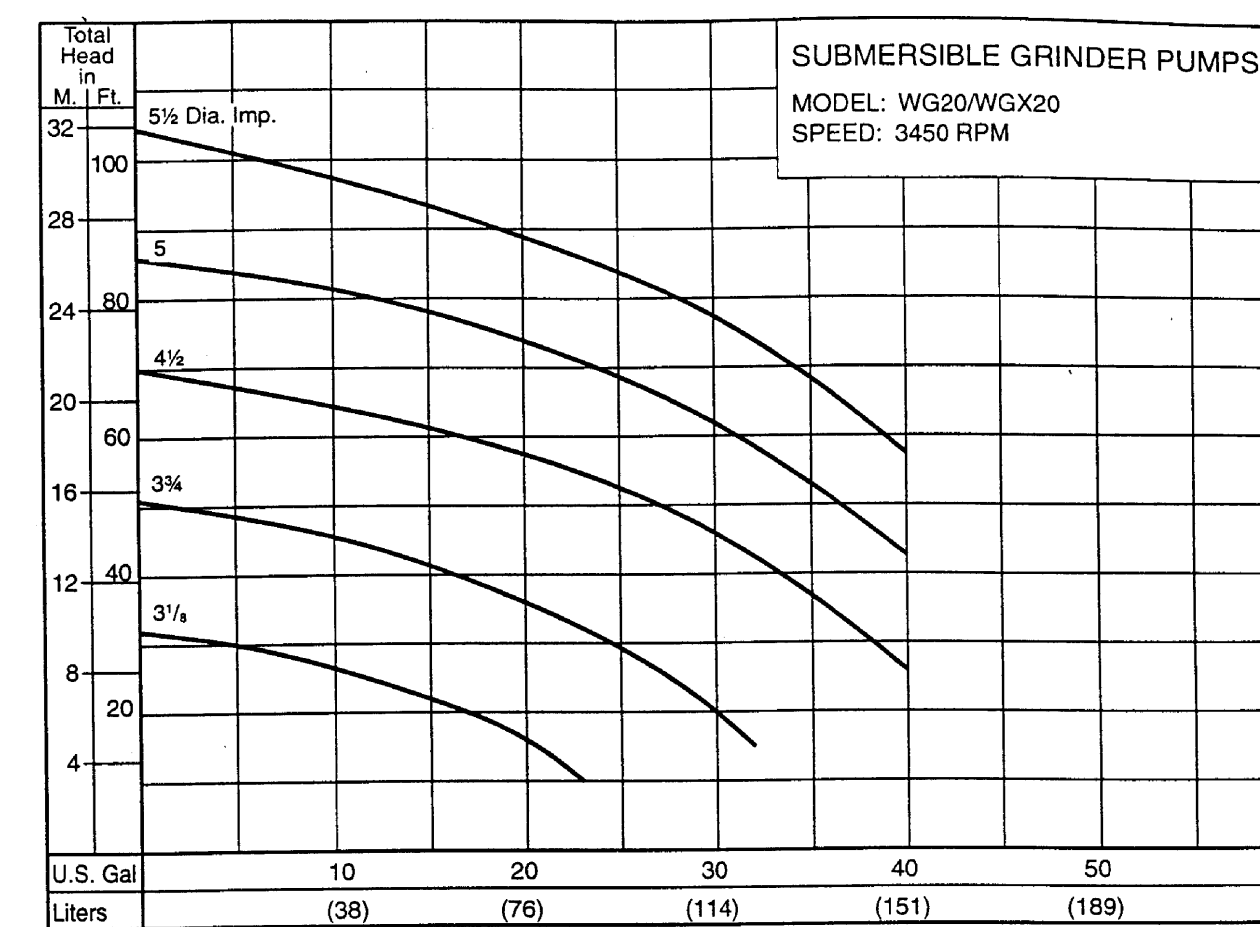


Product Capabilities	
Capacities To	70 gpm / 260 lpm
Heads To	105 ft / 32.1 m
Liquids Handling	domestic raw sewage
Maximum Liquid Temp.	up to 140°F / up to 60°C
Winding Insulation Temp. (Class F)	311°F / 155°C
Motor Electrical Data	2 HP, 3450 RPM
(Single phase motor uses capacitor start and capacitor run type. Motor control panel or capacitor kit is required for proper operation and warranty)	1 ph - capacitor start/run, 200 or 230 volts, 60 Hz 3 ph - induction run, 200, 230, 440, 575 volts, 60 Hz
Third Party Approvals	UL, CSA, WGX, CSA, FM
Acceptable pH Range	6 - 9
Specific Gravity	9 - 1.1
Viscosity	28 - 35 SSU
Discharge, NPT	1 1/2 in / 31.75 mm
Min. Sump Dia. (Impeller Dia.)	24 in / 61.0 cm
	24 in / 61.4 cm

Construction Materials	
Motor Housing, Seal Housing, Cast Cap. and Volute Case	cast iron, Class 30, A513M A&B
Impeller	recessed, bronze
Power Cord	14/4, 500W
Control Cord	18/5, 500W
Mechanical Seals	dbl. tandem carbon & ceramic
Standard Options	low voltage cable
Pump, Motor Shaft	416 S316
Flowers	300 series S5T
Shredding Ring	440 S5T
Grinder Impeller	SS-60 Rockwell

NOTE: Contact factory for applications outside of these recommendations.

#### Pump Performance

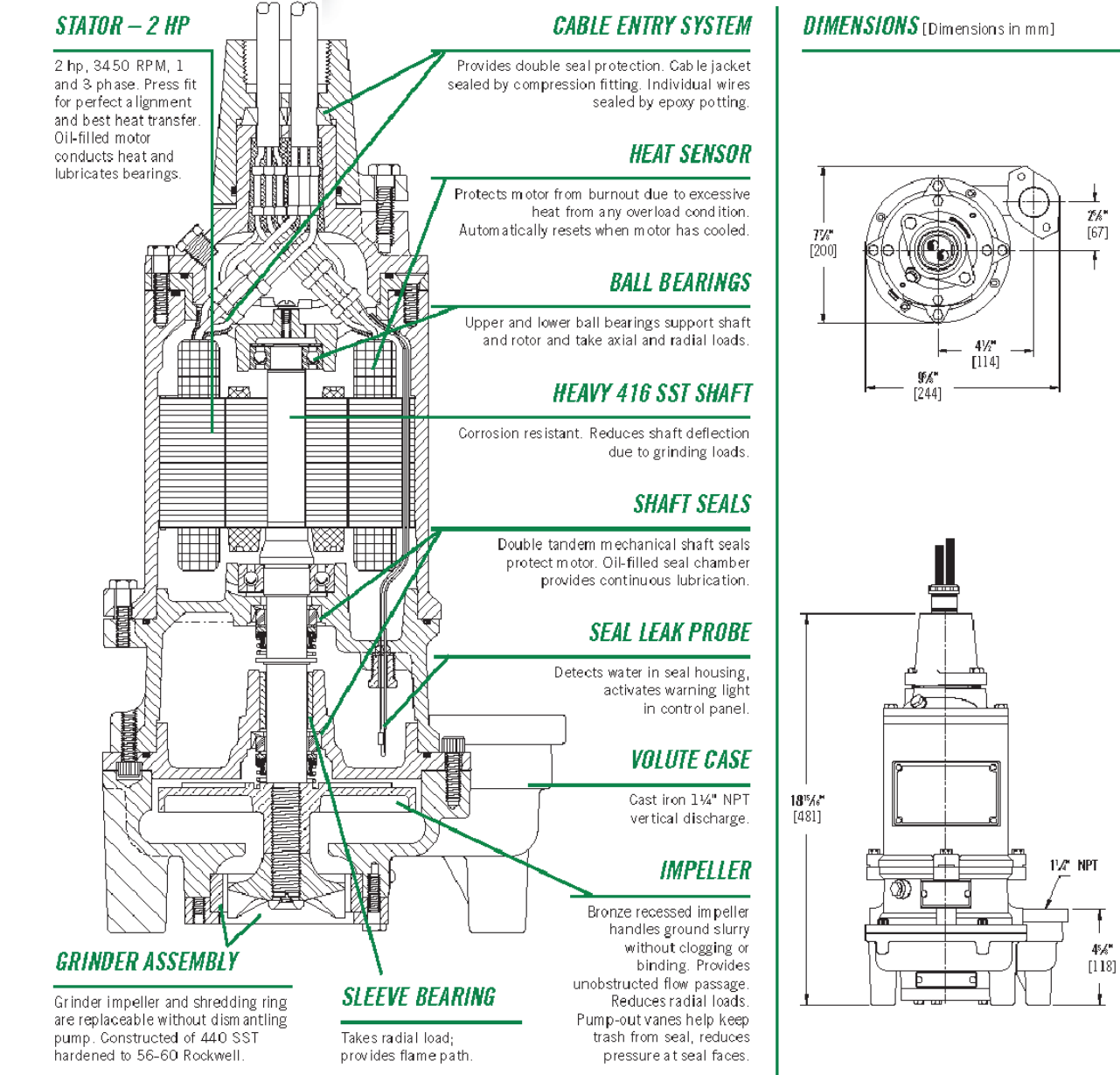


Available Models		Motor Electrical Data										
Standard	Explosion Proof	HP	Volts	Phase	Hertz	Start Amps	Run Amps	Run KW	Start KVA	Run KVA	NEC Code Letter	Service Factor
WG20-01-15	WG20-01-15	2	200	1	60	50.0	15.0	2.8	10.0	3.0	F	1.25
WG20-01-15	WG20-01-15	2	230	1	60	44.0	12.0	2.8	10.1	2.8	F	1.25
WG20-03-15	WG20-03-15	2	200	3	60	30.0	9.5	2.9	10.4	3.3	F	1.25
WG20-03-15	WG20-03-15	2	230	3	60	27.5	8.4	2.9	11.0	3.3	F	1.25
WG20-43-15	WG20-43-15	2	460	3	60	13.8	4.2	2.9	11.0	3.3	F	1.25

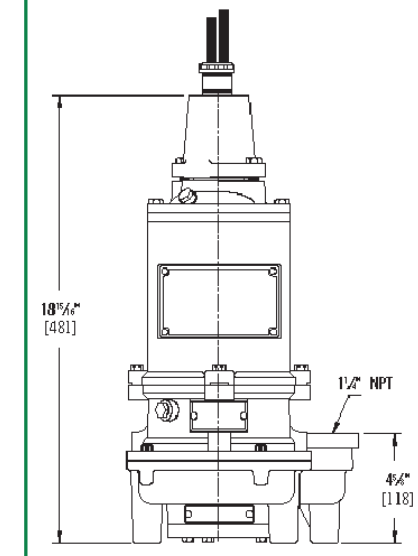
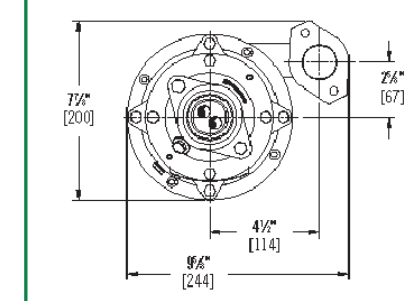
MID ATLANTIC PUMP & EQUIPMENT CO.  
228 N RTE 73/ BERLIN, NJ 08009  
PH-856-768-3880 FAX-856-768-0925  
EMAIL-SALES@MAPECO.COM



### ADVANTAGES BY DESIGN

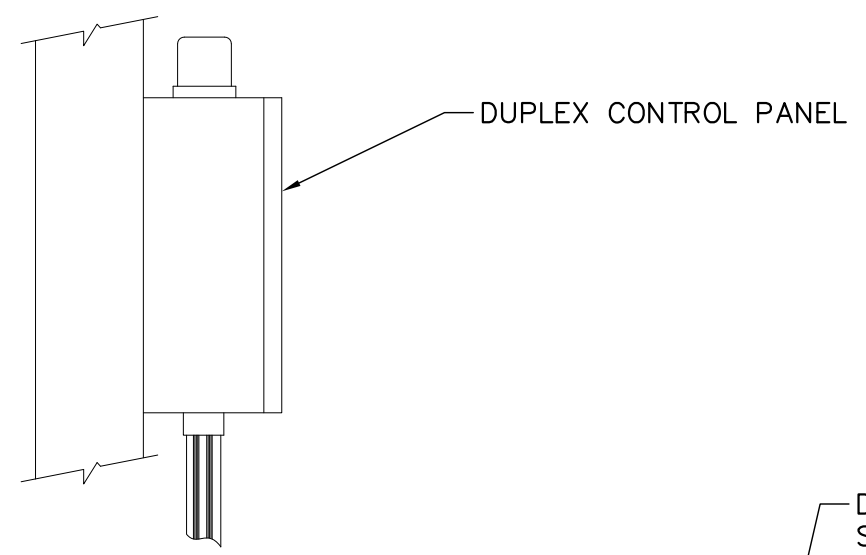


DIMENSIONS (Dimensions in mm)



1101 Myers Parkway  
Ashland, Ohio 44805  
Tel: (419) 289-1144  
Fax: (419) 281-9980  
  
269 Trillium Drive  
Kitchener, Ontario  
Canada N2G 4W6  
Tel: (519) 748-5470  
Fax: (519) 748-2553  
  
www.femeyers.com

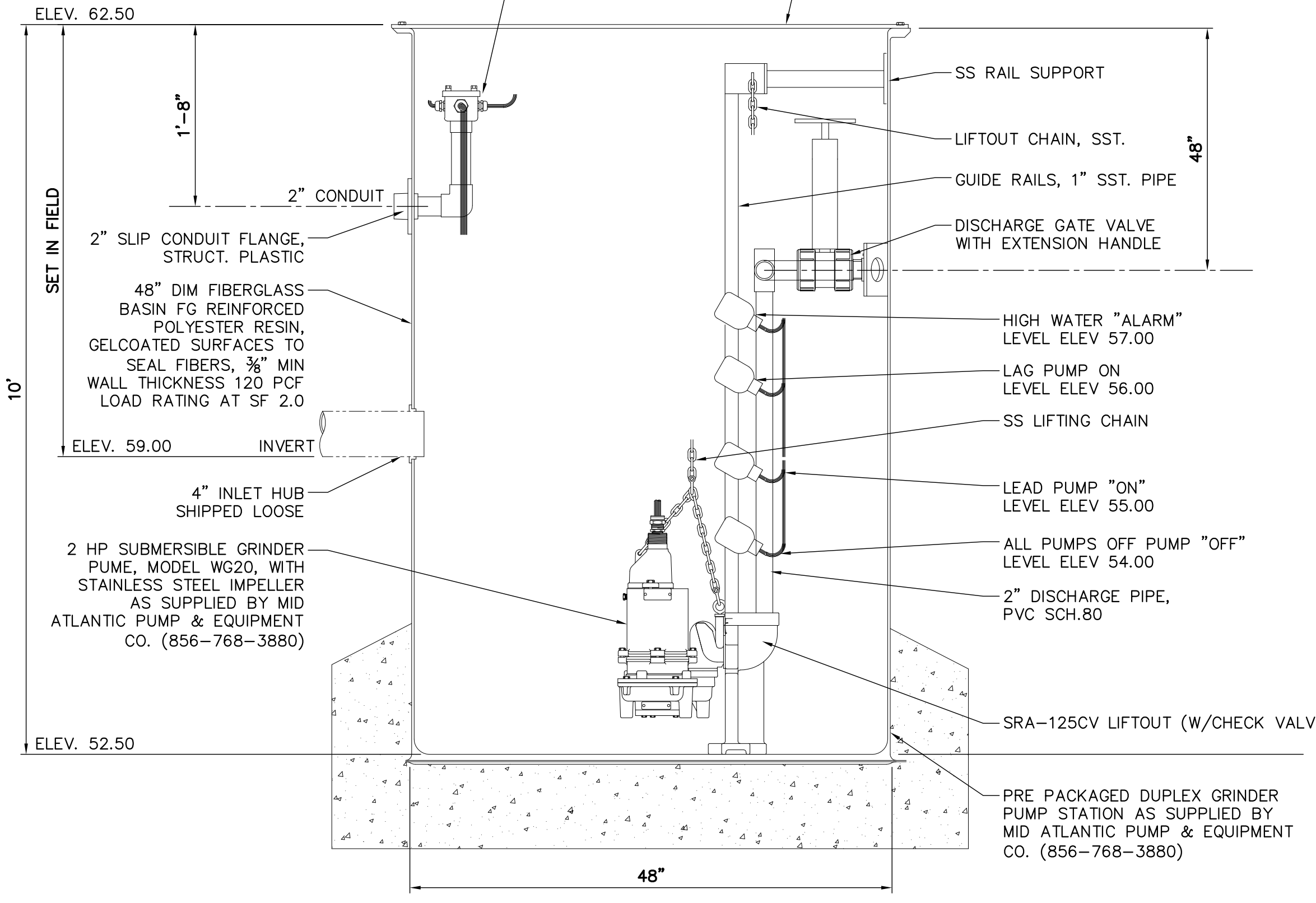
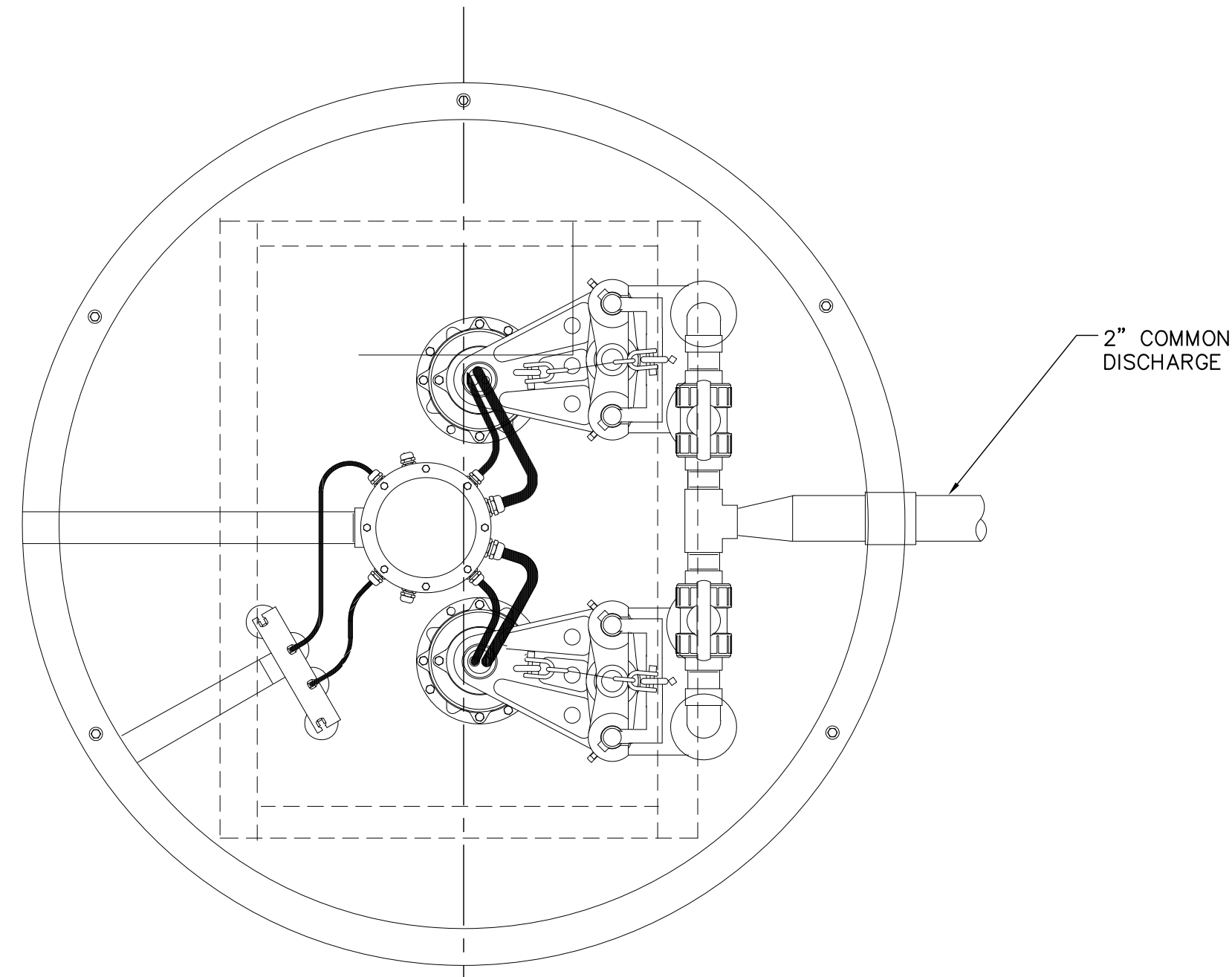
K3368 01/10



### SANITARY SEWER PUMP DETAIL

(FASOLA PARK)

N.T.S.



### PORTABLE SANITARY SEWER PUMP STATION DETAIL

(FASOLA PARK)

N.T.S.

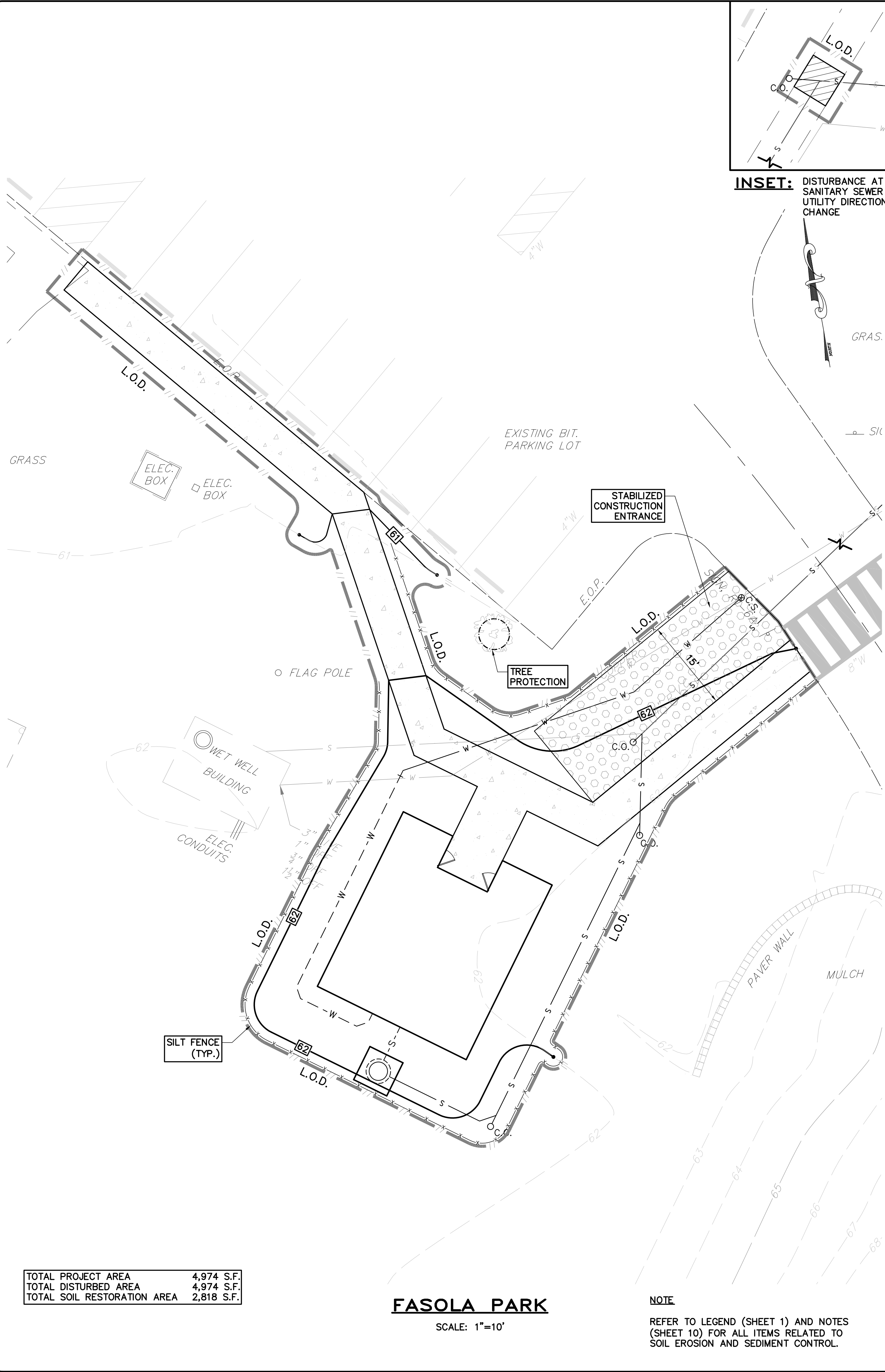
EDWARD F. FARRELL III  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. CE46154

NO.	DATE	REVISIONS	BY	CHECKED BY

CONSTRUCTION DETAILS  
FASOLA PARK & THE DEPTFORD MUSEUM  
BATHROOM IMPROVEMENTS  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYN & YATES**  
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307 Greentree Road, Sewell, New Jersey 08080  
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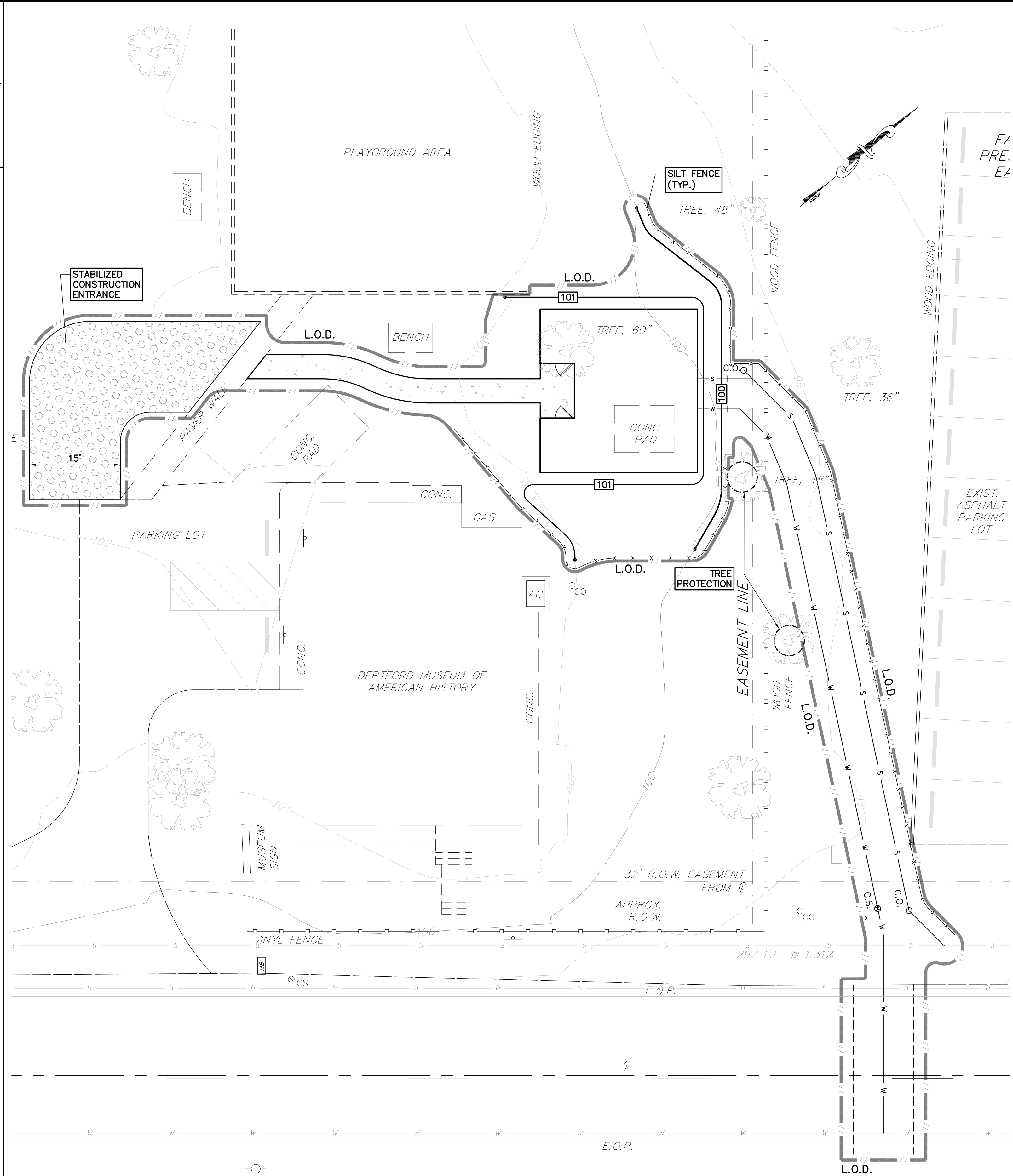
JOB NO.:	22323
DATE:	9/19/2022
SCALE:	AS SHOWN
DRAWN BY:	K.D.A.
CHECKED BY:	E.F.F.
SHEET:	8 OF 10



TOTAL PROJECT AREA	4,974 S.F.
TOTAL DISTURBED AREA	4,974 S.F.
TOTAL SOIL RESTORATION AREA	2,818 S.F.

**FASOLA PARK**  
SCALE: 1"=10'

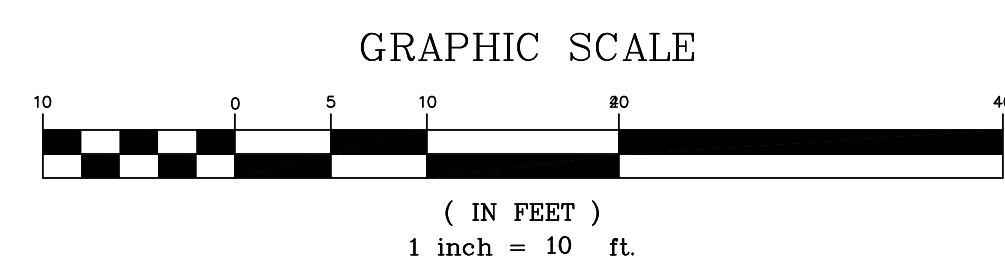
**NOTE**  
REFER TO LEGEND (SHEET 1) AND NOTES (SHEET 10) FOR ALL ITEMS RELATED TO SOIL EROSION AND SEDIMENT CONTROL.



TOTAL PROJECT AREA	4,505 S.F.
TOTAL DISTURBED AREA	4,505 S.F.
TOTAL SOIL RESTORATION AREA	2,613 S.F.

**THE DEPTFORD MUSEUM**  
SCALE: 1"=10'

**NOTE**  
REFER TO LEGEND (SHEET 1) AND NOTES (SHEET 10) FOR ALL ITEMS RELATED TO SOIL EROSION AND SEDIMENT CONTROL.



**EDWARD F. FARRELL III**  
PROFESSIONAL ENGINEER  
N.J. LICENSE NO. GE46154

CHECKED BY:	
BY:	
REVISIONS	
NO.	DATE

**SOIL EROSION & SEDIMENT CONTROL PLAN**  
**FASOLA PARK & THE DEPTFORD MUSEUM**  
**BATHROOM IMPROVEMENTS**  
TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

**BRYNSON & YATES**  
CONSULTING ENGINEERS, LLC  
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**JBY**  
JOB NO.: 22323  
DATE: 9/19/2022  
SCALE: AS SHOWN  
DRAWN BY: K.D.A.  
CHECKED BY: E.F.F.3  
SHEET: 9 OF 10

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOILS STABILIZATION

Seedbed Preparation:  
 A. Apply limestone and fertilizer according to soil test recommendations such as those offered by Rutgers University Soil Testing Laboratory. Soil sample millers are available from the local Cooperative Extension Service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-20 or equivalent. If seed is drilled over banded fertilizer, the rate of fertilizer is reduced 50 percent. Apply limestone (equivalent to 50 percent calcium plus magnesium oxides) as follows:

TABLE 7-1

Soil Texture	Limestone	
	Tons/Acre	Lbs./1,000 Sq.Ft.
Clay-clay loam, and high organic soil	3	136
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

B. Work lime and fertilizer into the soil as nearly as practical to depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.  
 C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retiled as above.  
 D. Soils high on sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1.

Seeding:  
 A. Select seed from recommendations in Table 7-2. (For application and mulching see below)

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES & DEPTH

SEED SELECTIONS	SEEDING RATES <sup>1</sup> (pounds)	OPTIMUM SEEDING DATE <sup>2</sup> Based on Plant Hardiness Zone <sup>3</sup>			OPTIMUM SEED DEPTH <sup>4</sup> (inches)
		Per Acre	Per 1,000 Sq. Ft.	Zone 6B	
COOL SEASON GRASSES					
Perennial ryegrass	100	1.0	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.6
Spring oats	86	2.0	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0
Winter barley	96	2.2	8/15-10/1	8/15-10/15	1.0
Winter cereal rye	112	2.8	8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES					
Pearl millet	20	0.5	5/15-8/15	5/1-8/1	1.0
Millet (German or Hungarian)	30	0.7	5/15-8/15	5/1-8/1	1.0
Weeping lovegrass	5	0.2	6/15-8/15	6/1-9/1	0.25

SEE SHEET 2 FOR TEMPORARY SEEDING RATES

1. Seeding rate for warm season grass, selections 6-7 shall be adjusted to reflect the amount of Pure Live Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.  
 2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.  
 3. Plant Hardiness Zone (see Figure 7-1, pg. 7-4).  
 4. Twice the depth for sandy soils  
 Zone 6B - Portions of Bergen, Passaic, Morris, Essex, Hudson, Union, Somerset, Middlesex, Mercer, Hunterdon, Monmouth, Ocean, Burlington, Camden, Gloucester, Atlantic Cumberland and Cape May Counties  
 Zone 7A - Portions of Camden, Gloucester, Salem, Cumberland, Cape May, Atlantic, Burlington, Ocean and Monmouth counties of Somerset, Sussex, Union and Warren Counties  
 Zone 7B - Portions of Cape May, Atlantic, Ocean and Monmouth Counties

B. For seed application see below  
 Mulching see below

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Seedbed Preparation:  
 A. Apply limestone and fertilizer according to soil test recommendations such as those offered by Rutgers University Soil Testing Laboratory. Soil sample millers are available from the local Cooperative Extension Service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-20 or equivalent. If seed is drilled over banded fertilizer, the rate of fertilizer is reduced 50 percent. Apply limestone (equivalent to 50 percent calcium plus magnesium oxides) as follows:

TABLE 4-1

Soil Texture	Limestone	
	Tons/Acre	Lbs./1,000 Sq.Ft.
Clay-clay loam, and high organic soil	3	136
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the seedbed wherever feasible.

C. Remove from the surface all stones two inches or larger in dimension. Remove all of the debris, such as wire, cable, tree roots, pieces of concrete, clods, lumps or other unsuitable material.  
 D. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retiled and firmed as above.

Acid Soil Conditions:  
 Soils having a pH of 4 or less, or containing iron sulfide, shall be covered with a minimum of 12 inches of soil having a pH of 5 or more, before seedbed preparation. The added soil shall be limed as above.

Seeding:  
 A. Select a mixture from Table 3.2-1 or use mixture recommended by the Cooperative Extension Service or Soil Conservation Service, which is approved by the Soil Conservation District.

Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill, cultipacker seeder, or hydroseeder. The latter may be justifiable for large, steep areas where conventional vehicles cannot travel. Mulch shall not be included in the tank with the seed. Except for drilled, hydroseeded or cultivated seedings, seed shall be incorporated into the soil, to a depth of 3/4 to 1 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

PERMANENT STABILIZATION MIXTURES FOR VARIOUS USES

Application	PLANTING MIXTURES BY SOIL DRAINAGE CLASS <sup>1</sup> (see Table 4.3)		
	Excessively Drained	Moderately Well Drained	Somewhat Poorly to Poorly Drained
Residential/ Commercial sites	12, 14, 17	12, 14, 15, 16, 17	18

1. Refer to Soil Survey for drainage class descriptions.

TABLE 4.3 PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES<sup>1</sup>

SEED MIXTURE <sup>2</sup>	PLANTING <sup>3</sup> RATE <sup>4</sup> (lbs./1,000 sq. ft.)	PLANTING DATES Optimal Planting Period = Acceptable Planting Period									MAINTENANCE <sup>5</sup> LEVEL	REMARKS
		Zone 5b, 6a	Zone 6b	Zone 7a, 7b			Zone 7c	Zone 7d	Zone 7e	Zone 7f		
12. Tall fescue (turf-type) Redtop or Perennial ryegrass	50 1.1	3/15- 5/31	8/1- 7/31	8/1- 10/31	3/1- 4/30	8/1- 9/14	8/15- 11/15	2/1- 4/30	8/1- 9/14	8/15- 11/30	C-O	Birdfoot trefoil to be seeded to Zone 5
14. Turf-type Tall fescue (blend of 3 cultivars)	150 3.5	0	A	0	0	A	0	0	A	0	C-O	Use in a managed filter strip for nutrient uptake
15. Hard Fescue Perennial ryegrass Ky. bluegrass (blend)	120 2.7	0	0	0	0	A	0	0	A	0	C-O	General lawns/recreation
16. Tall Fescue Ky. bluegrass (blend) Perennial Ryegrass (blend)	160 3.7	0	0	0	0	A	0	0	A	0	C-O	Athletic field/mix 3 cultivars of Kentucky bluegrass
17. Hard Fescue Creeping fescue Perennial ryegrass	120 2.7	0	A	0	0	A	0	0	A	0	C-O	Low maintenance fine fescue lawn mix
18. Rough bluegrass Strong Creeping red fescue	90 2.0	0	A	0	0	A	0	0	A	0	C-O	Moist shade

1. See Appendix B for descriptions of turf grass mixtures and cultivars. The actual amount of warm season grass mixture used in Table 3 (see mix 1-7) shall be adjusted to reflect the amount of Pure Live Seed (PLS) as determined by germination testing results. No adjustment is required for cool season grasses (see mixtures 8-20).  
 2. Seeding mixtures and/or rates not listed above may be used if recommended by the local Soil Conservation District, Natural Resources Conservation Service, or recommendations of Rutgers Cooperative Extension may be used if approved by the Soil Conservation District. Legumes (fescue, crownvetch, trefoil, lespedeza) should be mixed with the proper inoculant prior to planting.  
 3. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage of the seeded area and mowed once.  
 4. Grass seed mixture checked by the State Seed Analyst, New Jersey Department of Agriculture, Trenton, New Jersey, will assure the purchaser that the seed mixture obtained is the mixture ordered. Pursuant to the N.J. State Seed Law, N.J.S.A. 4:8-17.3 et. seq.  
 O = optimal planting period A = acceptable planting period

Maintenance Level:  
 A. Intensive mowing, (2-4 days), fertilization, lime, pest control and irrigation (Examples - high maintenance lawns, commercial and recreation areas, public facilities).  
 B. Frequent mowing, (4-7 days), occasional fertilization, lime and weed control (Examples - home lawns, commercial sites, school sites).  
 C. Periodic mowing (7-14 days), occasional fertilization and lime (Examples - home lawns, parks).  
 D. Infrequent or no mowing, fertilization and lime the first year of establishment (Examples - roadsides, recreation areas, public open spaces).

1. Seeding mixtures and/or rates not listed above may be used if recommended by the local Soil Conservation District, Soil Conservation Service, or recommendations of the Cooperative Extension Service may be used if approved by the Soil Conservation District. Legumes (fescue, crownvetch, trefoil, lespedeza) should be mixed with proper inoculant prior to planting.  
 2. Grass seed mixture checked by the chief of the Bureau of Seed Certification, New Jersey Department of Agriculture, Trenton, New Jersey, will assure the purchaser that the mixture obtained is the mixture ordered.  
 3. Plant Hardiness Zone (see map, pg. 4-15)  
 Zone 6B - Portions of Bergen, Passaic, Morris, Essex, Hudson, Union, Somerset, Middlesex, Mercer, Hunterdon, Monmouth, Ocean, Burlington, Camden, Gloucester, Atlantic Cumberland and Cape May Counties  
 Zone 7A - Portions of Camden, Gloucester, Salem, Cumberland, Cape May, Atlantic, Burlington, Ocean and Monmouth counties of Somerset, Sussex, Union and Warren Counties  
 Zone 7B - Portions of Cape May, Atlantic, Ocean and Monmouth Counties

If seeding dates are missed, use temporary stabilization as per Standards for Temporary Vegetative Cover for Soil Stabilization p. 3.1.1. (In Standards for Soil Erosion and Sediment Control in New Jersey), or Standards for Stabilization with Mulch Only pg. 5-1.

Mulching:  
 Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. (The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.)

A. Mulch materials should be unrotted small grain straw, hay, feed of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimpers is used instead of a liquid mulchbinder (locking or adhesive agent), the rate of application must be double the lower rate. Mulch chopper-blowers must not grind the material.  
 B. Spread uniformly by hand or mechanically so that approximately 75% to 95% of the soil surface will be covered. Make a uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 90 pounds within each section.  
 C. Mulch anchoring should be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.  
 1. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.  
 2. Mulch Nettings - Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.  
 3. Crimper (mulch anchoring tool) - A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate shall be 3 tons per acre. No locking or adhesive agent is required.  
 D. Wood-fiber or paper-fiber mulch at the rate of 1,500 pounds per acre may be applied by a hydroseeder. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

GUIDE FOR CONSTRUCTION SPECIFICATIONS

The following are examples of requirements that may be used for preparing construction specifications. Incompleteness of such requirements, will help assure protection of disturbed areas, especially where critical soil erosion problems may exist.  
 The contractor shall perform all work, furnish all materials, and install all measures required to reasonably control soil erosion, resulting from construction operations and minimize loss of sediment from the construction site. The contractor shall adhere to the certified soil erosion and sediment control plan, showing the methods to be used for controlling erosion during construction, which includes sequence of construction operations. When no work will be performed on critical areas for more than 60 days, they shall be protected by temporary seeding, mulching, or sodding, or the slope lengths shall be reduced by the installation of diversions or other means.  
 The contractor shall install erosion controls on all disturbed critical areas or disturbances adjacent to critical areas.  
 Critical areas are any areas subject to excessive erosion due to highly erodible soils, slope length, steepness, water concentration or other factors. Areas may become critical when the vegetation or other soil surface protection is removed.  
 Excavated soil material shall not be placed adjacent to rivers, streams, or bodies of water, in a manner that will cause it to be washed away by high water or runoff. Excess borrow material removed from the construction site shall be stabilized at the point of placement.  
 The contractor shall comply with applicable State and local regulations for prevention and abatement of pollution.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- All applicable erosion and sediment control practices shall be in place prior to any grading operation and/or installation of proposed structures or utilities.
- Soil erosion and sediment control practices on this plan shall be constructed in accordance with The Standards for Soil Erosion and Sediment Control in New Jersey.
- Applicable erosion and sediment control practices shall be left in place until construction is completed and/or the area is stabilized. The contractor shall perform all work, furnish all materials and install all measures required to reasonably control soil erosion resulting from construction operations and prevent excessive flow of sediment from the construction site.
- Any disturbed area that is to be left exposed for more than thirty (30) days and not subject to construction traffic shall immediately receive a temporary seeding and fertilization in accordance with the New Jersey Standards and their rates should be included in the narrative. If the season prohibits temporary seeding, the disturbed areas will be mulched with soil hay or equivalent and anchored in accordance with the New Jersey Standards (i.e. peg and twine, mulch netting or liquid mulch binder).
- It shall be the responsibility of the developer to provide confirmation of lime, fertilizer and seed application and rates of application at the request of the Gloucester Soil Conservation District.
- All critical areas subject to erosion will receive a temporary seeding in combination with straw mulch at a rate of 2 tons per acre, according to the New Jersey Standards immediately following rough grading.
- The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
- All sedimentation structures will be inspected and maintained on a regular basis and after every storm event.
- A crushed stone, the cleaning pad will be installed wherever a construction access exists, the stabilized pad will be installed according to the standard for stabilized construction access.
- All driveways must be stabilized with 3/4" crushed stone or subbase prior to individual lot construction.
- Paved areas must be kept clean at all times.
- All catch basin inlets will be protected according to the certified plan.
- All storm drainage outlets will be stabilized, as required, before the discharge points become operational.
- All dewatering operations must discharge directly into a sediment filter area. The sediment filter must be composed of a suitable sediment filter fabric. (See detail.) The basin must be designed to contain a normal pool within 10 days of the design storm.
- USA 4-24-39, PL 55a, requires that a certificate of occupancy be issued before all provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures. All site work for the project must be completed prior to the district issuing a report of compliance as a prerequisite to the issuance of a certificate of occupancy by the municipality.
- Mulching is required on all seeded areas to insure against erosion before grass is established to promote earlier vegetation cover.
- Off-site sediment disturbance may require additional control measures to be determined by the erosion control inspector.
- A copy of the certified soil erosion and sediment control plan must be maintained on the project site during construction.
- The Gloucester Soil Conservation District shall be notified 48 hours prior to any land disturbance.
- Any conveyance of this project prior to its completion will transfer full responsibility for compliance with the certified plan to any subsequent owners.
- Immediately after the completion of stripping and stockpiling of topsoil, the stockpile must be stabilized according to the standard for temporary vegetative cover, stabilize topsoil stockpile with straw mulch for protection if the season does not permit the application and establishment of temporary seeding, all soil stockpiles are not to be located within fifty (50) feet of a floodplain, slope, roadway or drainage facility and the base must be protected with a sediment barrier.
- Any changes to the site plan will require the submission of a revised soil erosion and sediment control plan to the Gloucester Soil Conservation District. The revised plan must be in accordance with the current New Jersey Standards for Soil Erosion and Sediment Control.
- Methods for the management of high acid producing soils shall be in accordance with the standards. High acid producing soils are those found to contain iron sulfides or have a pH of 4 or less.
- Temporary and permanent seeding measures must be applied according to the New Jersey Standards, and mulched with soil hay or equivalent and anchored in accordance with the New Jersey Standards (i.e. peg and twine, mulch netting or liquid mulch binder).
- Maximum slope sides of all exposed surfaces shall not be constructed steeper than 3:1 unless otherwise approved by the district.
- Dust is to be controlled by an approved method according to the New Jersey Standards and may include watering with a solution of calcium chloride and water.
- Adjoining properties shall be protected from excavation and filling operations on the proposed site.
- Use staged construction methods to minimize exposed surfaces, where applicable.
- All vegetative material shall be selected in accordance with American Standards for Nursery Stock of the American Association of the Nurserymen and in accordance with the New Jersey Standards.
- Natural vegetation and species shall be retained where specified on the landscaping plan.
- The soil erosion inspector may require additional soil erosion measures to be installed, as directed by the district inspector.

STANDARD FOR MAINTAINING VEGETATION

Methods and Materials:  
 A preventative maintenance program anticipates requirements and accomplishes work when it can be done with least effort and expense to insure adequate vegetative cover.  
 Maintenance should occur on a regular basis, consistent with favorable plant growth, soil, and climatic conditions. This involves regular seasonal work for mowing, fertilizing, liming, watering, pruning, fire control, weed and pest control, reseeding, and timely repairs.  
 The degree of preventative maintenance depends upon the category of the vegetation and land; i.e., improved, semi-improved, and unimproved grounds.  
 A. Mowing is a recurring practice and its intensity depends upon the function of the ground cover. On improved areas, such as lawns, certain recreation fields, and picnic areas, mowing will be frequent. On semi-improved areas, mowing will be infrequent. Unimproved areas may be left unmowed to permit natural succession.  
 B. Fertilizer should be applied as needed to maintain a dense stand of desirable species. Frequently mowed areas and those on sandy soils will require more fertilization.  
 C. Lime requirement should be determined by soil testing every two (2) or three (3) years. Fertilization increases the need for liming.  
 D. Weed invasion may result from abusive mowing and inadequate fertilization and liming. Brush invasion is a common consequence of lack of mowing. The amount of weeds or brush that can be tolerated in any protective planting depends upon the land category and its intended use. Drainage ways are subject to rapid infestation by weeds and woody plants. These should be controlled since they often reduce drainage ways efficiency. Control of weeds or brush is accomplished by using herbicides or mechanical methods.  
 E. Pest and disease controls are more necessary on improved areas than on unimproved areas.  
 F. Fire hazard is greater where dry vegetation has accumulated. The taller the vegetation, the greater the hazard.

STANDARD FOR DUST CONTROL

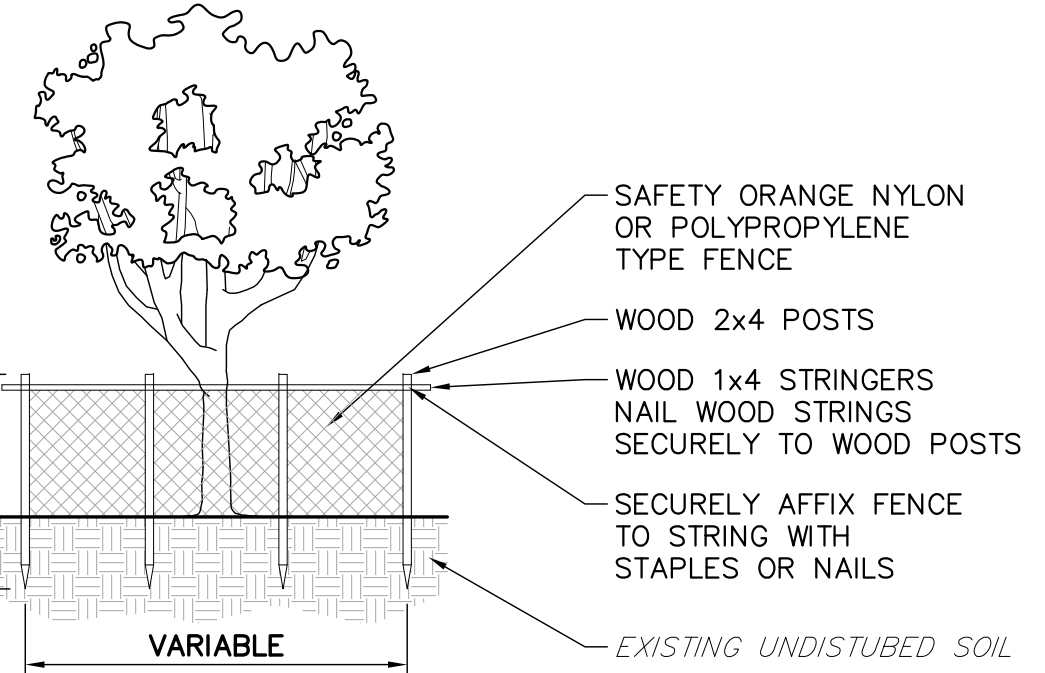
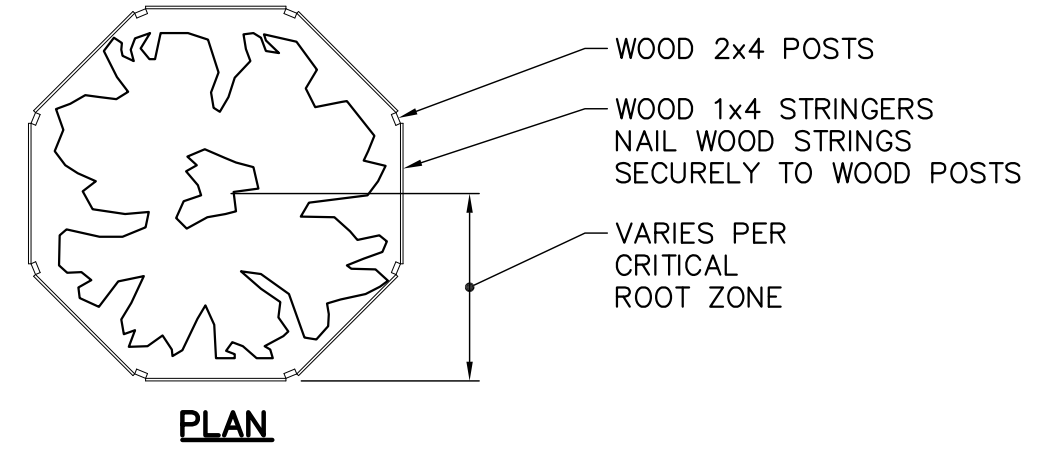
Tillage - To roughen surface and bring clods to the surface. This is a temporary emergency measure, which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel type plows, spaced about 12 inches apart, and spring toothed harrows are examples of equipment, which may produce the desired effect.  
 Sprinkling - Site is sprinkled until the surface is wet.  
 Barriers - Solid board fences, snow fences, burlap fences, crate walls, bales of hay, and similar material can be used to control air currents and soil blowing.  
 Stones - Cover surface with crushed stone or coarse gravel.

MAINTENANCE OF STRUCTURAL MEASURES

Maintenance is the work required to keep practices in, or restore them to, their original physical and functional condition.  
 Maintenance, as it applies to this section, is divided into two periods: that which is necessary to allow for continuing performance of erosion control during the construction period and long term maintenance, following completion of construction, for the life of structural measures.  
 Maintenance During Construction Phase:  
 All structural measures for control of soil erosion and sedimentation must have timely maintenance if the measures are to endure and efficiently perform their design function. Particular attention should be given to temporary structures.  
 Maintenance Following Completion of Construction:  
 At the completion of construction and final stabilization, responsibility for lifetime maintenance of structural measures is usually transferred to a subsequent owner, such as the homeowner, municipality, homeowner association, etc. A comprehensive maintenance program should be prescribed for use of those who will accept such responsibility. All structures should be inspected at least semiannually, and following intensive rainfalls.  
 Maintenance items should include, but not be limited to, those shown for each of the following examples.

CONSTRUCTION SEQUENCE

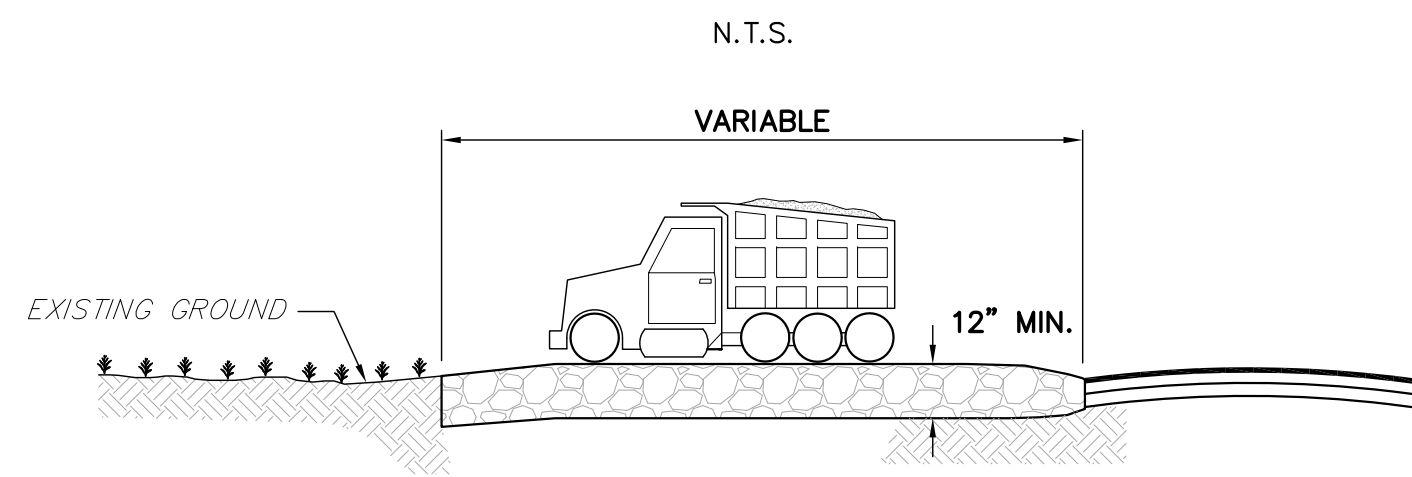
THE FOLLOWING SEQUENCE OF CONSTRUCTION WILL BE FOLLOWED:	DURATION (DAYS)
1. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION, SILT FENCE AND MAINTAIN FOR PROJECT DURATION	1-5
2. EXCAVATE SUITABLE SOILS AND STOCKPILE	1-10
3. DEMOLITION PER DESIGN PLANS	1-10
4. CONSTRUCT UTILITIES PER DESIGN PLANS (THE DEPTFORD MUSEUM: REMOVE TREE AND CONCRETE)	(+3)
5. CONSTRUCT BATHROOM STRUCTURE (FASOLA PARK: CONSTRUCT PUMP STATION)	1-10
6. CONSTRUCT EARTHWORK FOR GRADING	1-10
7. CONSTRUCT/INSTALL CONCRETE SIDEWALK PER DESIGN PLANS	1-10
8. INSTALL PERMANENT STABILIZATION MEASURES TO DISTURBED SOILS	1-5
9. FINAL CLEANUP	1-10



NOTES

- INSTALLATION OF TREE PROTECTION BARRICADES SHALL BE PERFORMED BEFORE ANY SITE DEVELOPMENT ACTIVITY TAKES PLACE.
- THE TREE PROTECTION BARRICADES SHALL REMAIN IN PLACE BEFORE ALL CONSTRUCTION ACTIVITIES, THROUGHOUT THE CONSTRUCTION PHASE AND UNTIL ALL ACTIVITIES ARE FULLY COMPLETE.
- ANY DAMAGE THAT MAY OCCUR TO THE BARRICADES SHALL BE REPAIRED OR REPLACED TO THE ORIGINAL SPECIFICATIONS WITHIN 24 HOURS OF THE DAMAGE OCCURRING.
- THE AREA WITHIN THE TREE PROTECTION BARRICADES SHALL NOT BE USED FOR THE STORAGE OF ANY MATERIALS, SUPPLIES OR DEBRIS OR THE DISPOSAL OF ANY MATERIALS.
- ANY PROPOSED UNDERGROUND UTILITIES SHALL BE ROUTED AROUND PROTECTED TREES TO THE OUTSIDE OF THE TREE'S DRIPLINE.
- TREE PROTECTION BARRICADES SHALL BE LOCATED TO PROTECT A MINIMUM OF 75% OF THE CRITICAL ROOT ZONE.

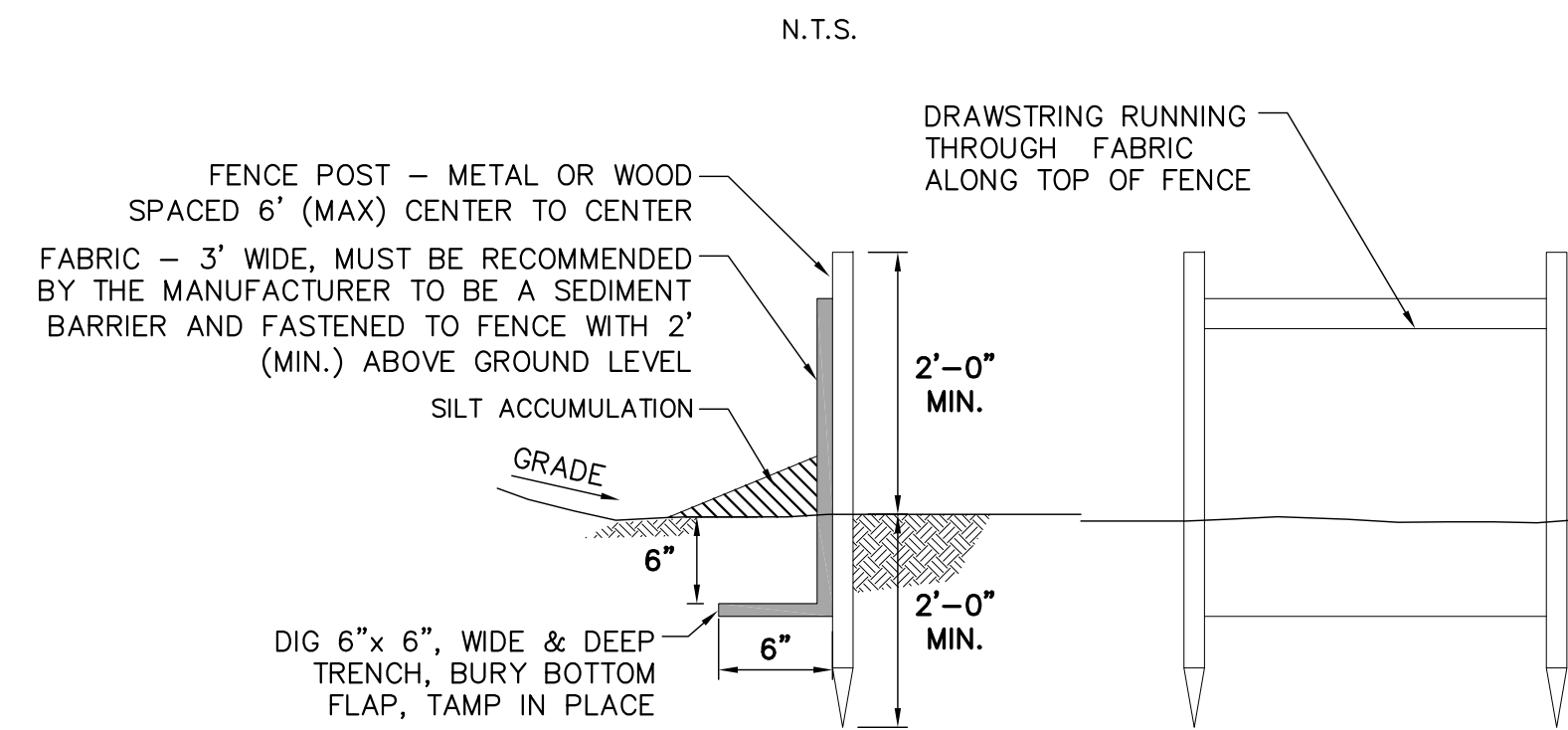
TREE PROTECTION DETAIL



NOTES

- PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.
- MAINTAIN STABILIZED CONSTRUCTION ENTRANCE FOR DURATION OF PROJECT UNTIL ENTRANCE POINT IS PAVED AND SOILS ARE STABILIZED
- REPLENISH STONE ON A REGULAR BASIS TO MAINTAIN MINIMUM 12" THICKNESS.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL



NOTES

- FABRIC SHALL HAVE A DRAWSTRING IN THE TOP PORTION OF THE FENCE.
- FABRIC SHALL BE SECURED TO POST WITH METAL FASTENERS AND REINFORCEMENT BETWEEN FASTENER AND FABRIC.

SILT FENCE DETAIL

N.T.S.

EDWARD F. FARRELL III  
 PROFESSIONAL ENGINEER  
 N.J. LICENSE NO. 6646154

CHECKED BY:	
REVISIONS:	
NO.	DATE

SOIL EROSION CONTROL NOTES & DETAILS  
 FASOLA PARK & THE DEPTFORD MUSEUM  
 BATHROOM IMPROVEMENTS  
 TOWNSHIP OF DEPTFORD, COUNTY OF GLOUCESTER, STATE OF NEW JERSEY

BRYSON & YATES  
 CONSULTING ENGINEERS, LLC  
 307 Greentree Road, Sewell, New Jersey 08080  
 Phone: (609) 597-1400 Fax: (609) 592-7976

JOB NO.: 22323  
 DATE: 9/19/2022  
 SCALE: AS SHOWN  
 DRAWN BY: K.D.A.  
 CHECKED BY: E.F.F.3