

# STRUCTURAL NOTES

**CONCRETE**

- Cast-in-place concrete work shall conform to the American Concrete Institute (ACI) Standards: ACI-301, "Specification for Structural Concrete Buildings" and ACI-318, "Building Code requirements for Structural Concrete" and "Manual of Standard Practice" of the Concrete Reinforced Steel Institute (CRSI).
- Concrete shall be ready Mix type in accordance with ASTM-D94, "Standard Specification for Ready-Mix concrete".
- Physical properties of concrete shall be as follows:

	Min 28 day		Max		Air Entrainment
	Compressive Strength	Allowable Slump	Min Cement Content	5 sack	
Footings	3000 psi	3 inches	5 sack	Not Required	
Interior Slabs	3500 psi	4 inches	5.5 sack	Not Required	
Exterior Slabs	4000 psi	4 inches	5.5 sack	Required	

Where noted as required, air entrainment shall be at 6% +/- 1%.
- Finish concrete in exterior areas with a light broom finish. All other areas shall be steel trowel finish.
- Cure and protect concrete in accordance with ACI 305, 306, and 308.

All concrete slabs shall be saw cut as soon as the concrete will support the sawing equipment and does not ravel during the sawing operation. Saw cuts shall be 1/8" wide with depths of at least 25% of the slab thickness. Joining pattern shall be in a square pattern with maximum spacing of 15 feet for slabs less than 6" thick and 20 feet for slabs greater than 6" thick.

**ROUGH FRAMING**

- Lumber shall conform to Product Standard PS-20 and shall be seasoned, surfaced four sides (S4S) and kiln dried to 19% moisture content as follows:

Studs, plates, misc light framing:	Stud or Construction Grade SPF
Girts, Purlins	No. 2 or Construction Grade SPF
Truss Carriers	No. 1 Grade SYP
Preservative Treated Wood	No. 2 Grade SYP
- Set rough carpentry to required level and lines, with members plumb, true to line, cut and fitted to construction.

Rough framing shall comply with American forest & Paper Association's (AF&PA), "Details for Conventional Wood Frame Construction".

Securely attach carpentry work to substrate by anchoring and fastening in compliance with Table 2304.9.1, "Fastening Schedule" in MBC.

Install engineered wood products to comply with manufacturer's written instructions.
- Wood trusses shall be designed by manufacturer in accordance with ANSI/TPI 1, latest edition, "National Design Standard for Metal-Plate-Connected Wood truss Construction" and NDS, latest edition, "National Design Specification for Wood Construction".

Drawings bearing the seal of an engineer registered in the State of Michigan and showing the truss design and all applied loads shall be provided prior to fabrication.

The fabricator shall submit documentation demonstrating an agreement with an independent agency providing for periodic inspections at the fabricators plant at a frequency to assure conformance to the requirements of the agency's approved quality assurance program.

Wood trusses shall be handled, erected and braced in accordance with truss Plate Institute, HIB-91, "Handling, Installing & Bracing Metal Plate Connected Wood Trusses".
- Preservative treated lumber shall conform to American Wood Preservers Association (AWPA) Standard C2 or C9, "...preservative treatment by pressure process". Preservative treated lumber shall be treated and labeled for intended application.

# PROJECT INFORMATION

**CODES**

MICHIGAN DEPARTMENT of LICENSING and REGULATORY AFFAIRS, BUREAU of CONSTRUCTION CODES, MICHIGAN BUILDING CODE (MBC) Incorporating the 2015 EDITION of the INTERNATIONAL BUILDING CODE.

**PROJECT DESCRIPTION**

CONSTRUCT A 5,120 sf WOOD POST FRAMED APPARATUS GARAGE

**USE OR OCCUPANCY**

OCCUPANCY: MIXED USE- NONSEPARATED  
S-2 FIRE APPARATUS GARAGE  
S-1 EQUIPMENT STORAGE  
B OFFICE

**GENERAL BUILDING LIMITATIONS**

TYPE OF CONSTRUCTION	TYPE VB	PROPOSED
CRITERIA	ALLOWABLE	
NUMBER OF STORIES	2	1
BUILDING HEIGHT T504.3	40 ft	21 ft
BUILDING AREA T506.2	9,000 sf	5,120 sf

**FIRE PROTECTION**

AUTOMATIC SPRINKLER SYSTEM: NOT REQUIRED (903)

INTERIOR FINISHES: INTERIOR WALL AND CEILING FINISHES T803.11 SHALL BE CLASS "C" IN ACCORDANCE WITH ASTM E 84

**MEANS OF EGRESS ILLUMINATION**

MEANS OF EGRESS ILLUMINATION REQUIRED MBC 1006  
ILLUMINATED EXIT REQUIRED REQUIRED MBC 1011

**ENGINEERING DATA**

**DESIGN LOADS**

ROOF LOADS	
ROOF LIVE LOAD	20 psf
GROUND SNOW LOAD, Pg	50 psf
SNOW EXPOSURE FACTOR, Ce	1.0
SNOW IMPORTANCE FACTOR, I	1.0
THERMAL FACTOR, Ct	1.1
FLAT ROOF SNOW LOAD, Pf	39 psf
FLOOR LOADS	
UNIFORM LIVE LOAD	125 psf
DEAD LOAD	50 psf
BASIC WIND SPEED	115 mph
WIND LOAD IMPORTANCE	1.0
WIND EXPOSURE CATEGORY	"B"
DESIGN WIND LOAD	14.6 psf
DESIGN STRESSES	
SOIL BEARING CAPACITY	2000psf

# GENERAL NOTES

**GENERAL**

- All work shall conform with applicable Federal, State and Local Codes and ordinances.
- All construction shall be in accordance with the barrier free requirements of the Michigan Department of Labor & Economic Growth BCCFS Building Code rules, latest edition and the American with Disabilities Act (ADA).
- All building plans shall be submitted to the building official for Plan Review. Owner or Owners Representative shall notify Engineer of any Plan Review comments or Corrections Lists prior to commencement of construction.
- Do not scale drawings. Dimension shown are to face of framing.
- Contractor shall review and verify all dimension and shall notify Engineer of any discrepancies.
- Coordinate and confirm location and access of all utilities and site.
- The Engineer is not responsible for the Contractors means, methods, sequences or procedures of construction or for safety precautions and programs incident to the Contractor's work in progress nor for the Contractor's failure to comply applicable laws and regulations.

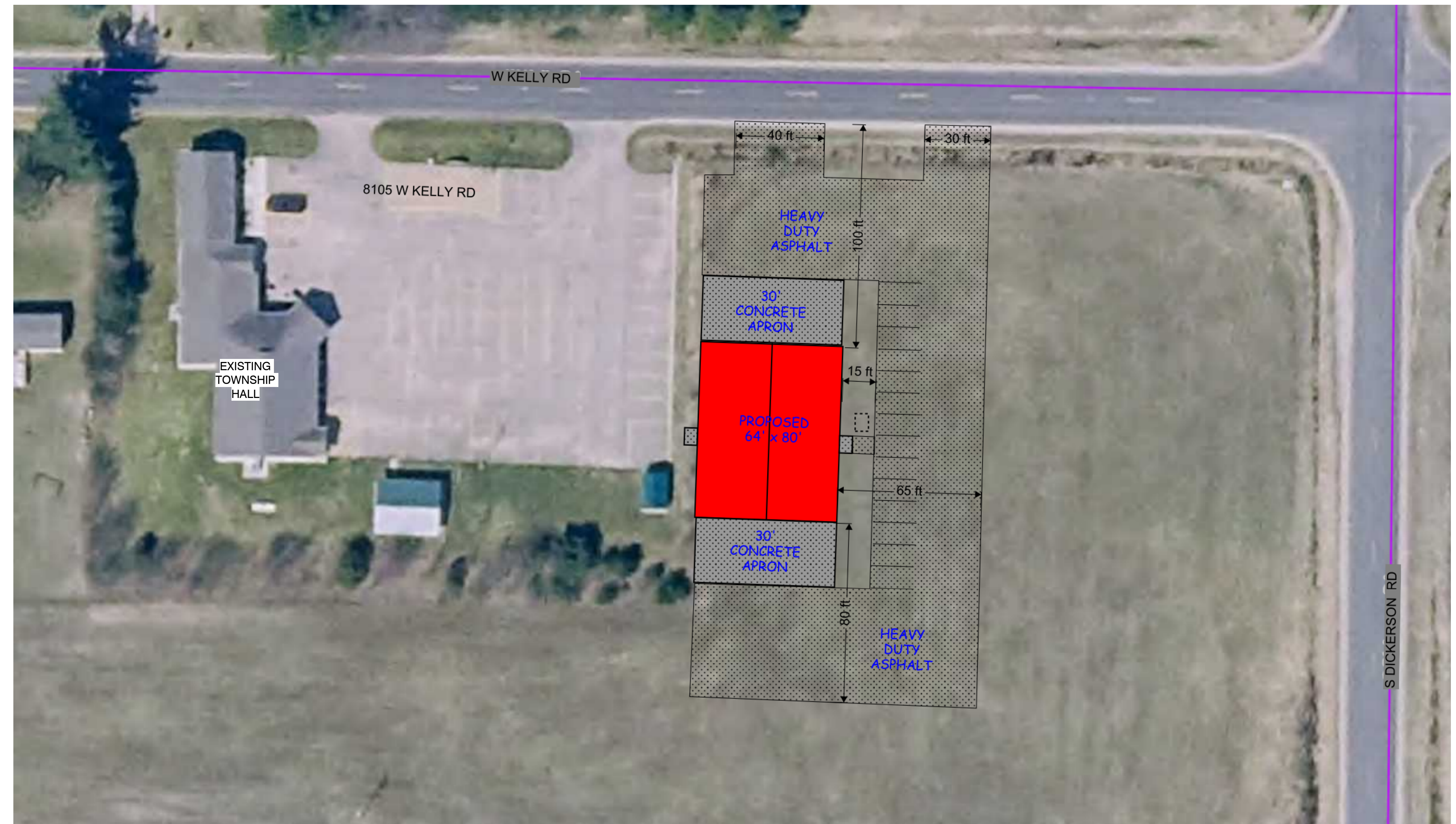
**POST FRAMED COLUMNS**

- All columns shall be 3 ply 2x6 nail-lam wood with precast concrete base. Precast bases shall be Perma-Column PC6300 or Equal and shall include steel column saddle and attached uplift anchors



**SITE MAP**  
1" = 300'-0"

DRAWING INDEX	
SHEET NO.	SHEET NAME
A0.1	SITE PLAN
A1.0	BUILDING PLAN
A1.1	FLOOR PLAN DETAILS
A2.0	EXTERIOR ELEVATION
A2.1	EXTERIOR ELEVATION
A3.0	BUILDING SECTIONS
A3.1	BUILDING SECTIONS
AS1.0	ROOF FRAMING PLAN
E1.0	ELECTRICAL PLAN
M1.0	MECHANICAL PLAN



**SITE PLAN**  
1" = 30'-0"

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

issue/revise  
BIDS 04/04/24

**pressell**  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

Drawn By: **mik**  
Checked By: **MAP**

Sheet Title  
**SITE PLAN**  
NOTES

**A0.1**  
Sheet Number

CARRIER SCHEDULE			
Tag	Span	Carrier	Fastener
C1	8'	2-2x12 No. 1 SYP	8-5/16" x 5" GRK RSS per 2x12
C2	8'	2-1 3/4" x 11 7/8" 2.0e LVL	10-5/16" x 5" GRK RSS per LVL
C3	6'	2-2x8 No. 2 SPF	6-1/4" x 3 1/2" GRK RSS per 2x8

FOOTING SCHEDULE			
TAG	SIZE, LxW	THICKNESS	COMMENTS
F-1	18" Dia	8" FTG	
F-2	36" Dia	10" FTG	
F-3	12" Dia	7" PIER	w/ POST BASE SIMPSON ABU or EQ

**LEGEND**

	Room name	ROOM TAG
	DOOR TAG	
	WINDOW TAG	
	CARRIER TAG	
	FOOTING TAG	
	SELF POWERED EXIT SIGN w/ 2 HEAD EMERGENCY LIGHT	
	SELF POWERED 2 HEAD EMERGENCY LIGHT	

**BRACED WALL SCHEDULE**

	POST FRAMED BUILDING K-Brace INTERIOR of WALL GIRT See Detail
	POST FRAMED BUILDING SHEATHING Brace INTERIOR of WALL GIRT See Detail
	POST FRAMED BUILDING STRAP X-Brace ONE SIDE of FLUSH GIRT See Detail

**ROOM FINISH SCHEDULE**

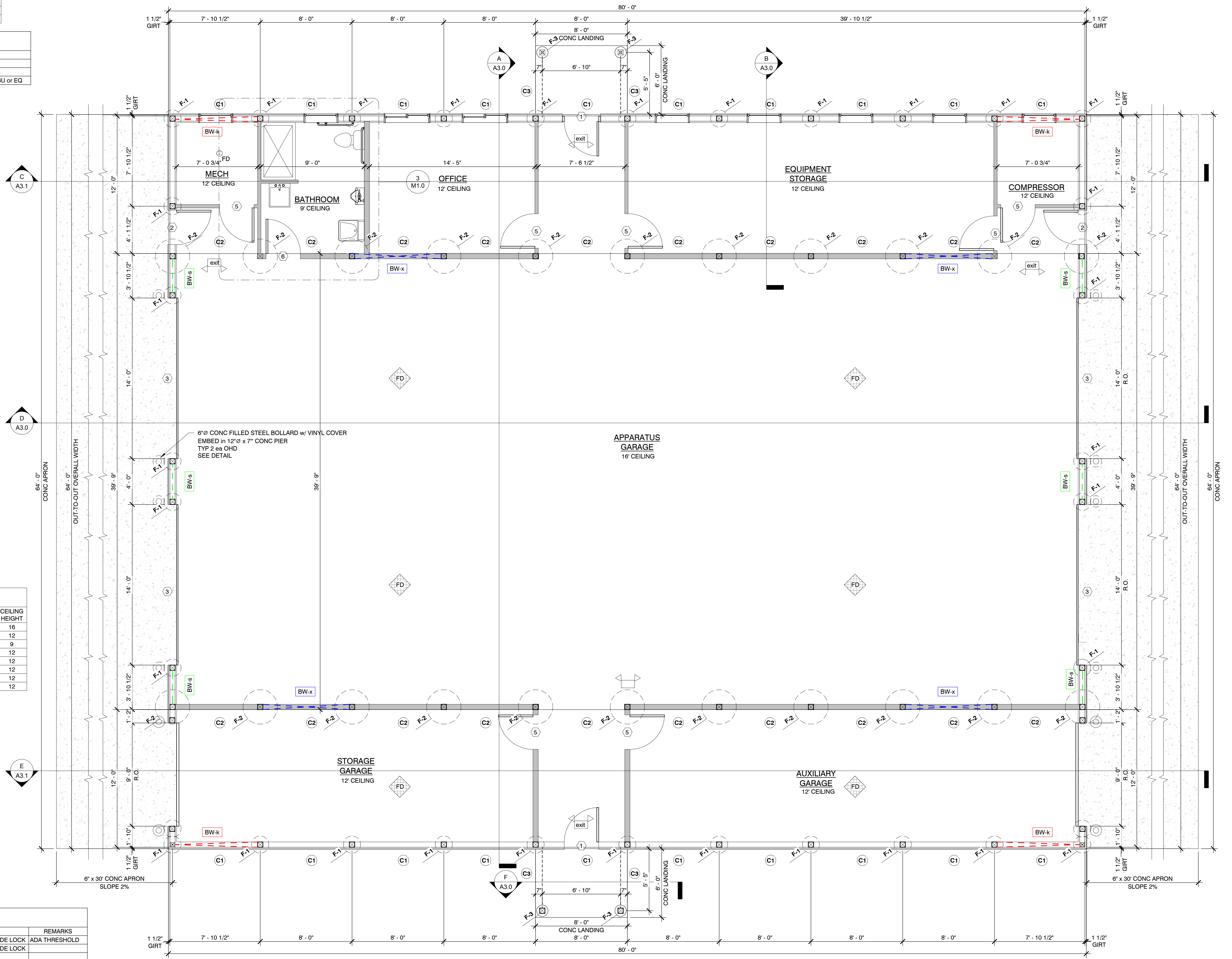
ROOM NAME	FLOOR FINISH	WALL FINISH	CEILING FINISH	CEILING HEIGHT
APPARATUS GARAGE	CONC	STEEL LINER	STEEL LINER	16'
MECH	CONC	STEEL LINER	STEEL LINER	12'
BATHROOM	PORCELAIN TILE	9" PORCELAIN TILE	GRID CEILING	9'
OFFICE	CONC	GWB	GWB	12'
EQUIPMENT STORAGE	CONC	STEEL LINER	STEEL LINER	12'
COMPRESSOR	CONC	STEEL LINER	STEEL LINER	12'
STORAGE GARAGE	CONC	STEEL LINER	STEEL LINER	12'
AUXILIARY GARAGE	CONC	STEEL LINER	STEEL LINER	12'

**WINDOW SCHEDULE**

TAG	DESCRIPTION	WIDTH	HEIGHT	REMARKS
A	SLIDING	4'-0"	4'-0"	
B	AWNING	3'-0"	1'-6"	

**DOOR SCHEDULE**

TAG	DESCRIPTION	WIDTH	HEIGHT	Hardware	REMARKS
1	EXTERIOR ENTRY	3'-0"	6'-8"	LEVER LATCH w/ PASS CODE LOCK	ADA THRESHOLD
2	EXTERIOR ENTRY	3'-0"	6'-8"	LEVER LATCH w/ PASS CODE LOCK	
3	INSULATED OVERHEAD	14'-0"	14'-0"	AUTOMATIC OPENER	
4	INSULATED OVERHEAD	9'-0"	10'-0"	AUTOMATIC OPENER	
5	INTERIOR STEEL FLUSH	3'-0"	6'-8"	LEVER LATCH	
6	INTERIOR STEEL FLUSH	3'-0"	6'-8"	LEVER LATCH w/ PRIVACY LOCK	



**BUILDING PLAN**  
1/4" = 1'-0"

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

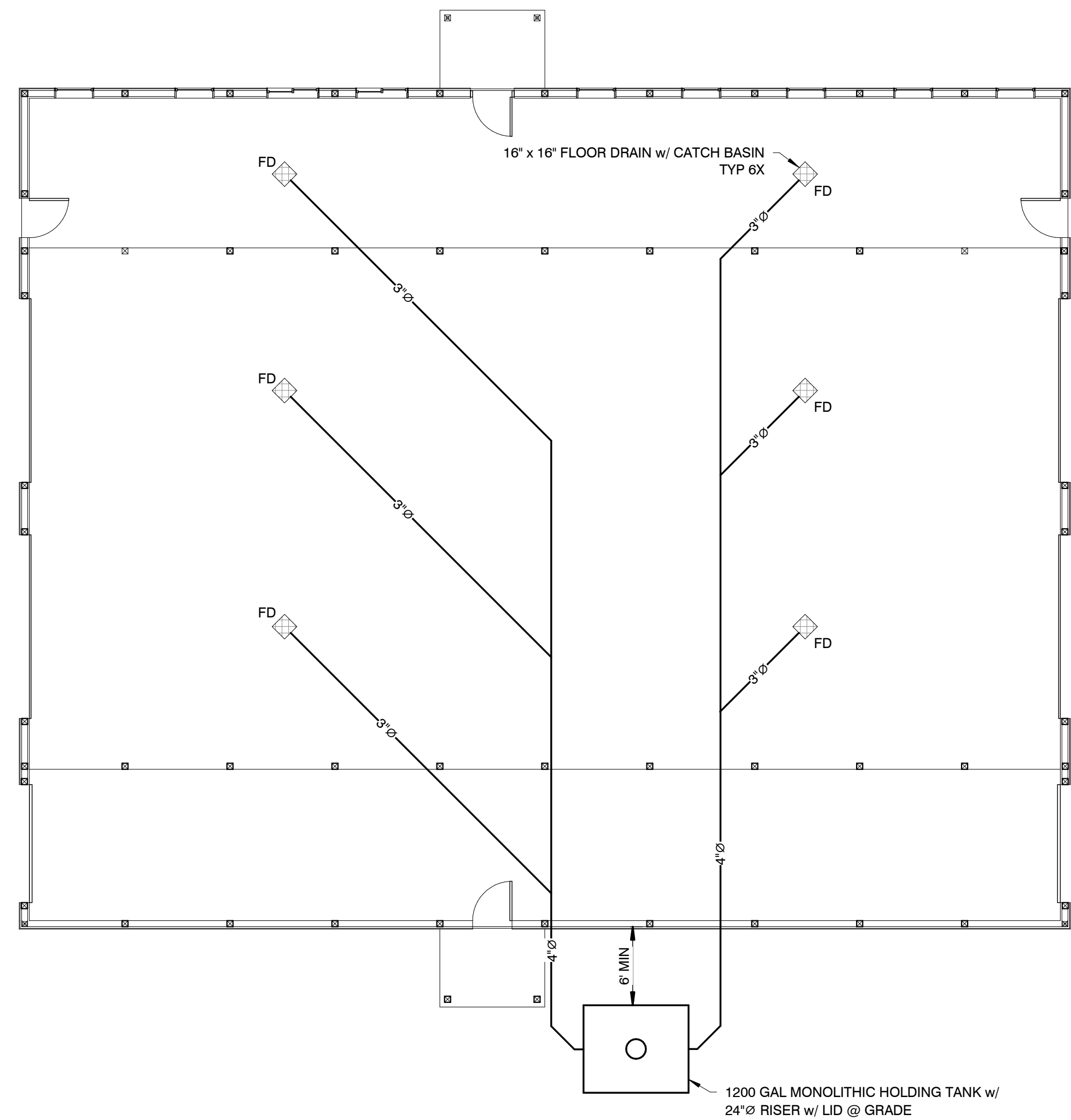
Issue/revise  
BIDS 04/04/24

pressell  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

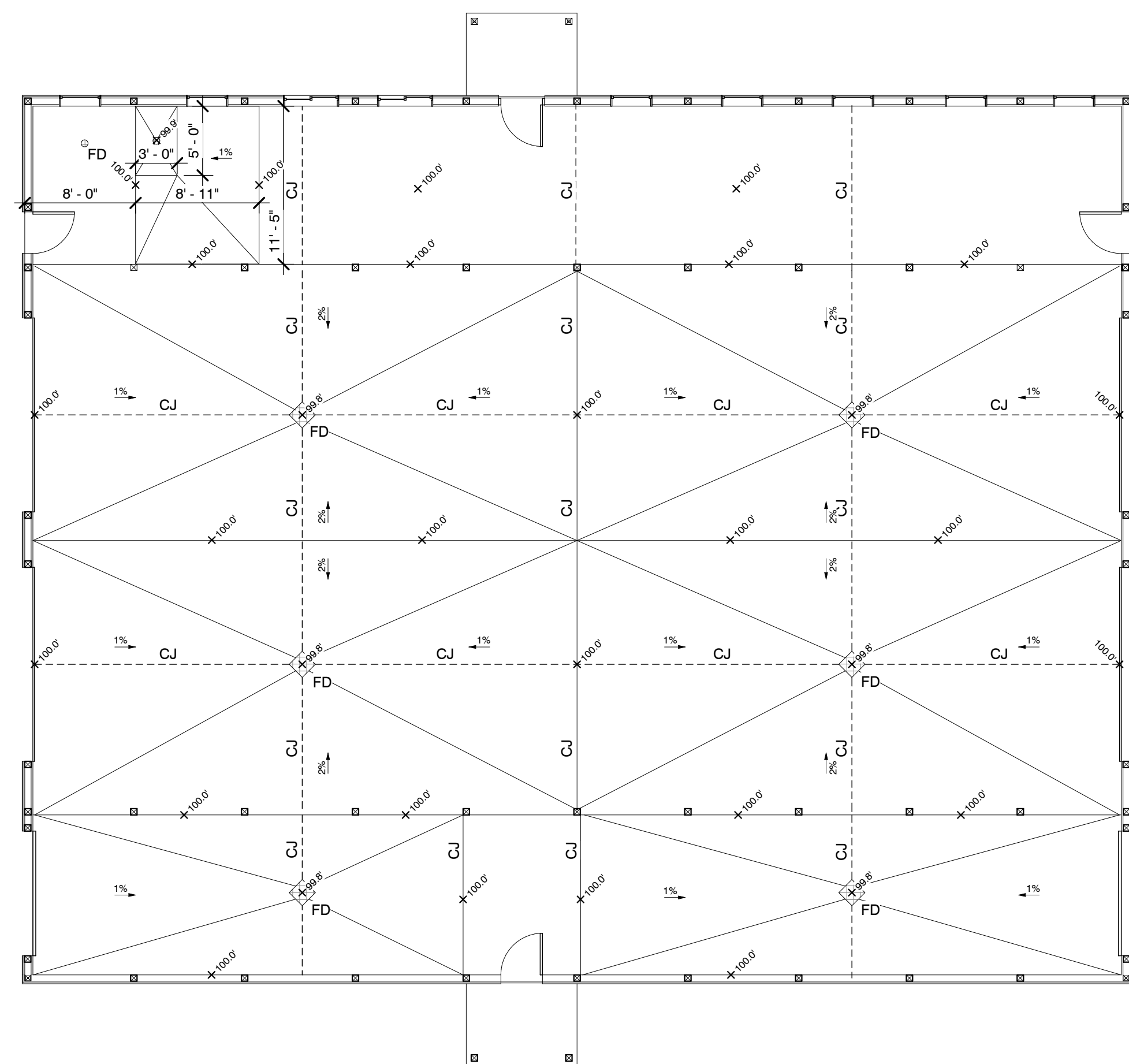
Project No.  
**2357**

Drawn By: **mik**  
Checked By: **MAP**

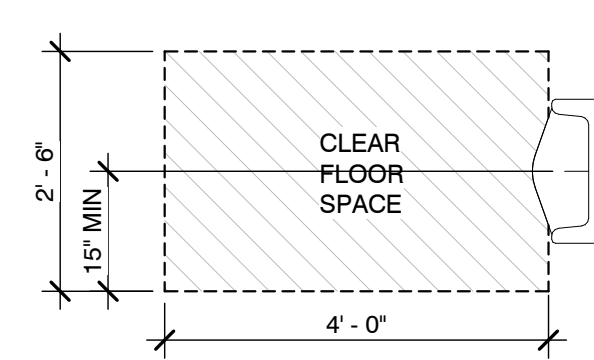
Sheet Title  
BUILDING PLAN  
SCHEDULES  
NOTES  
**A1.0**  
Sheet Number



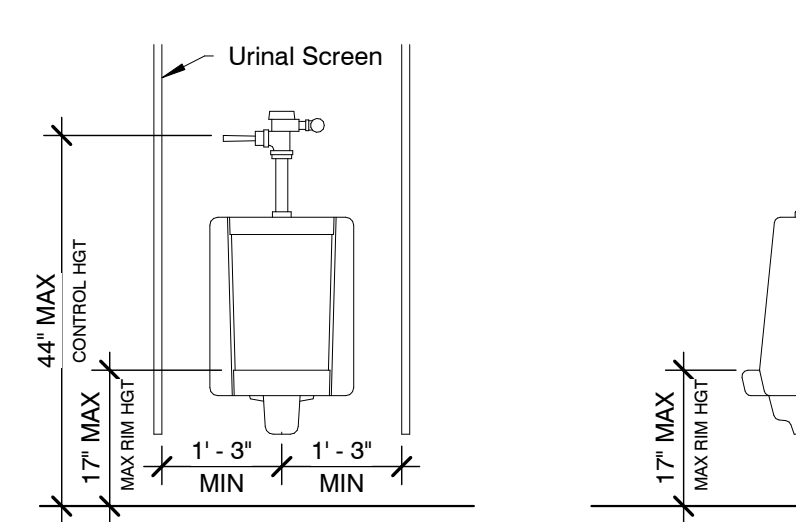
**FLOOR DRAIN PLAN**  
1/8" = 1'-0"



**CONC SLAB PLAN**  
1/8" = 1'-0"



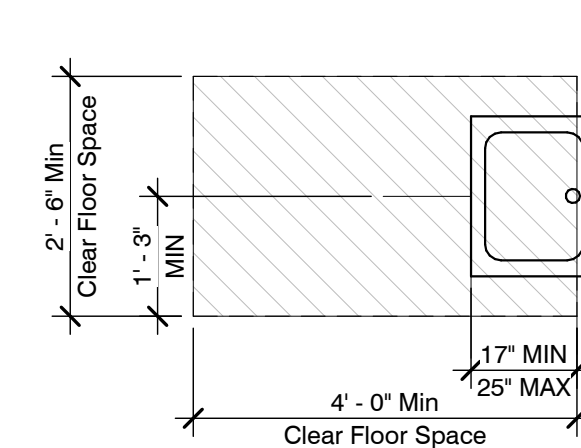
**CLEAR FLOOR SPACE AT URINALS**



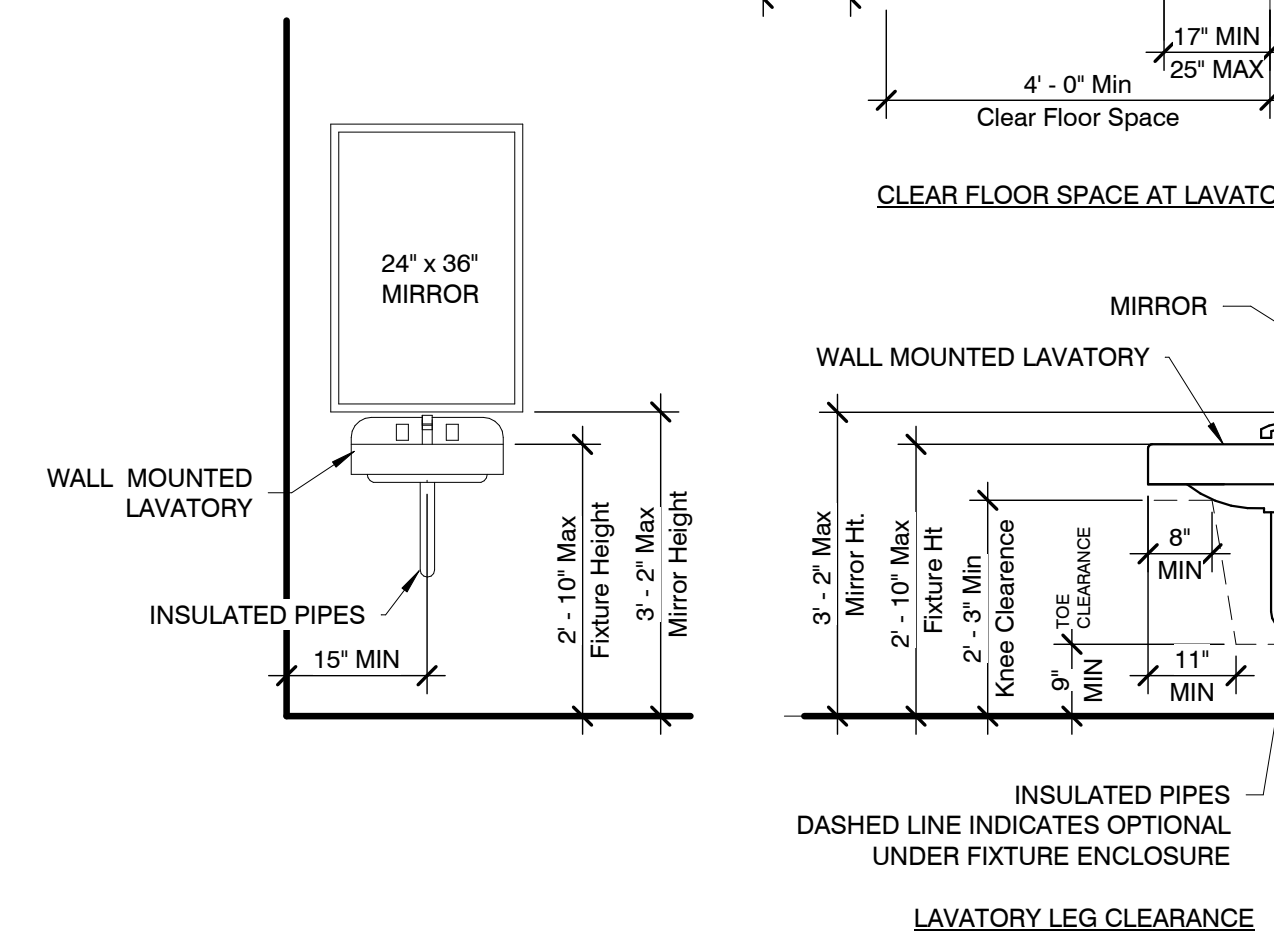
**Front Elevation Side Elevation**

**TYP ACCESSIBLE URINAL**

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

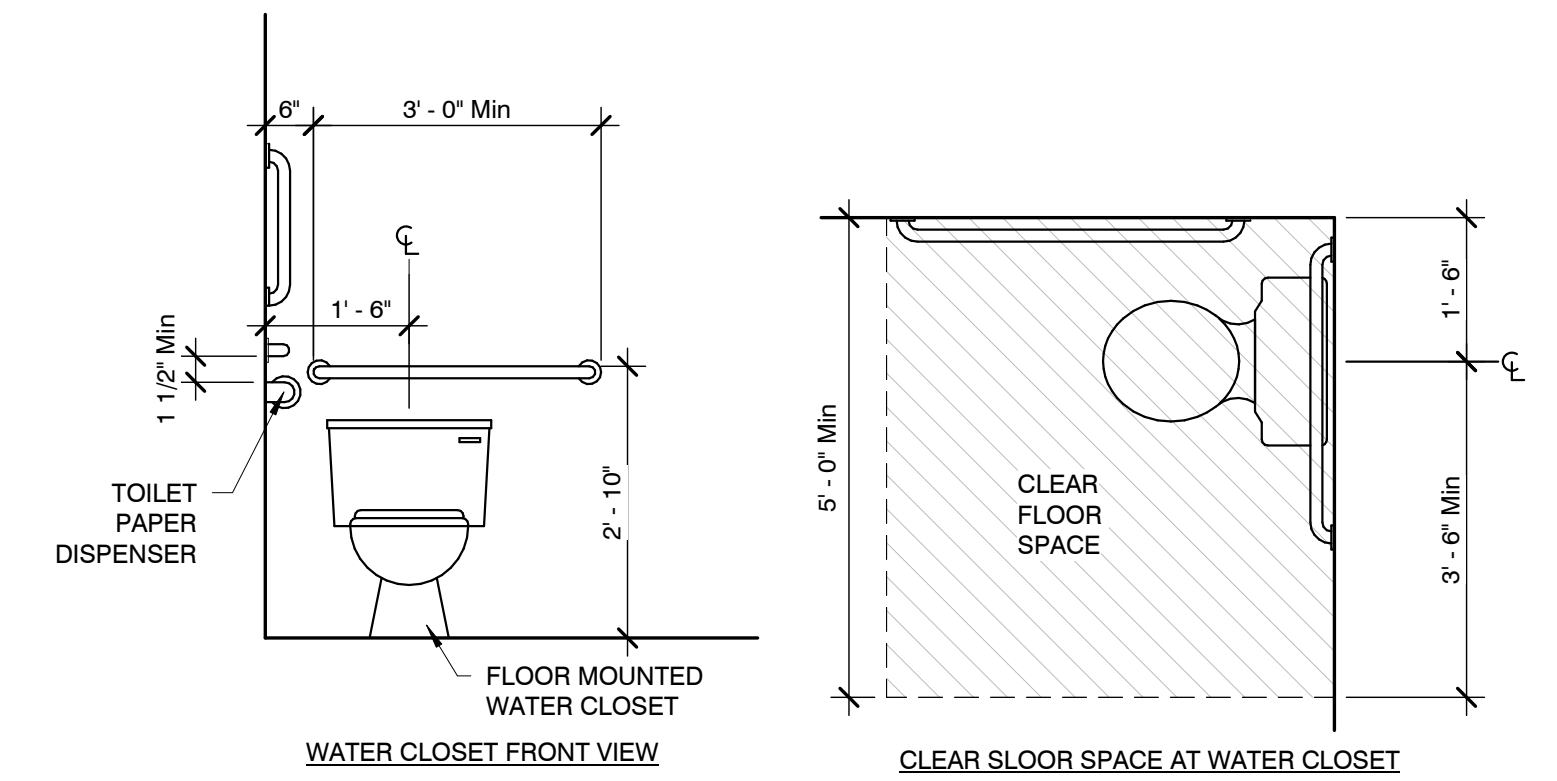


**CLEAR FLOOR SPACE AT LAVATORY**



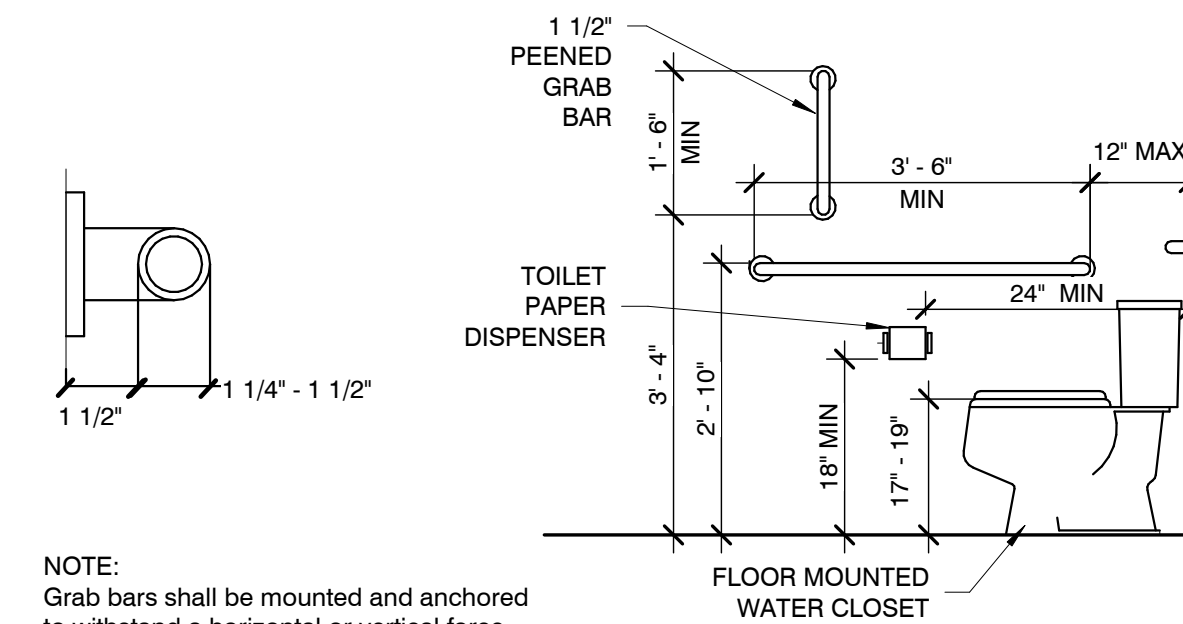
**TYP ACCESSIBLE LAVATORY**

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



**WATER CLOSET FRONT VIEW**

**CLEAR FLOOR SPACE AT WATER CLOSET**



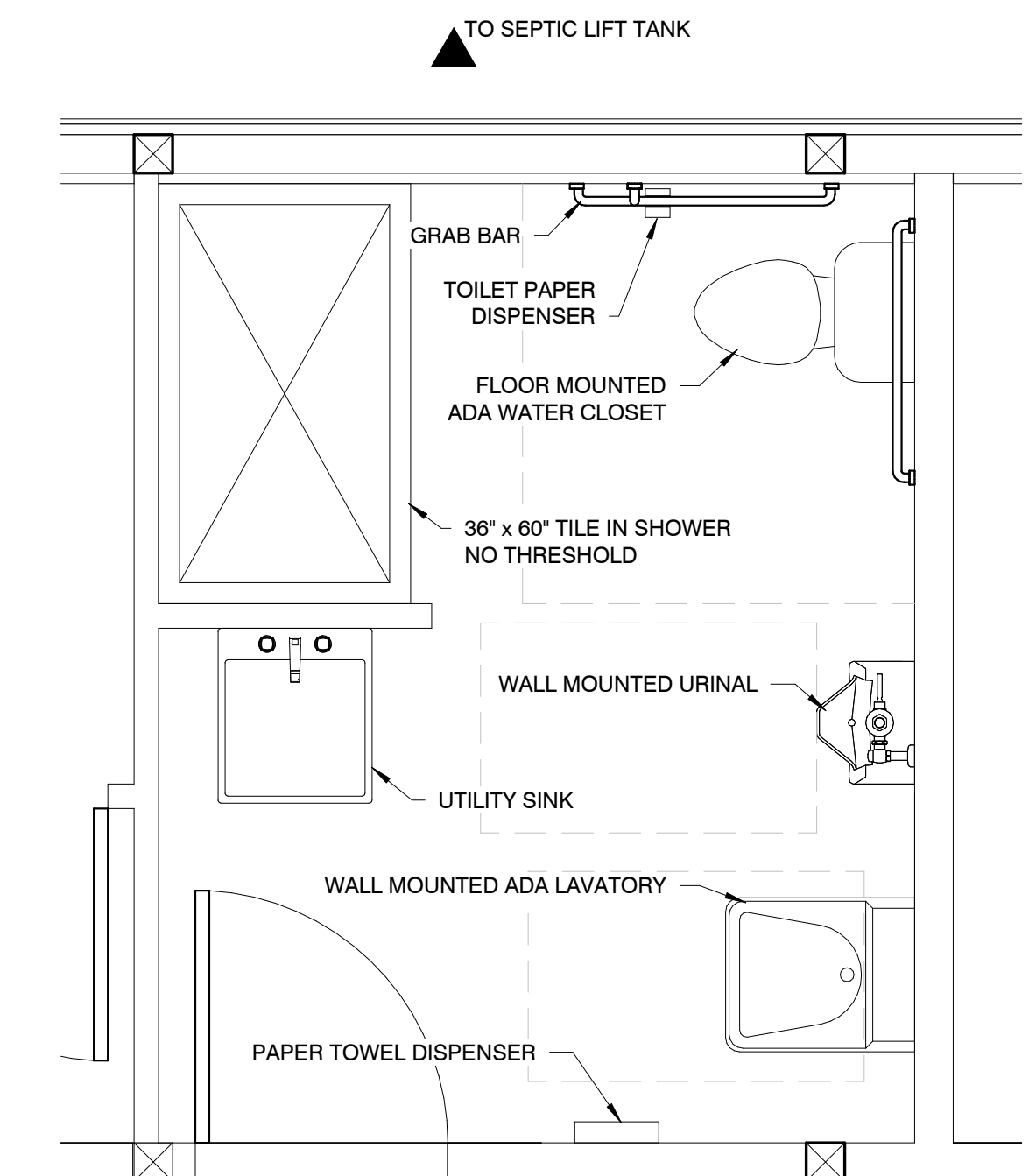
NOTE:  
Grab bars shall be mounted and anchored to withstand a horizontal or vertical force of 250 lb applied at any point.

**SIZE & SPACING GRAB BAR**

**WATER CLOSET SIDE VIEW**

**TYPICAL ACCESSIBLE WATER CLOSET**

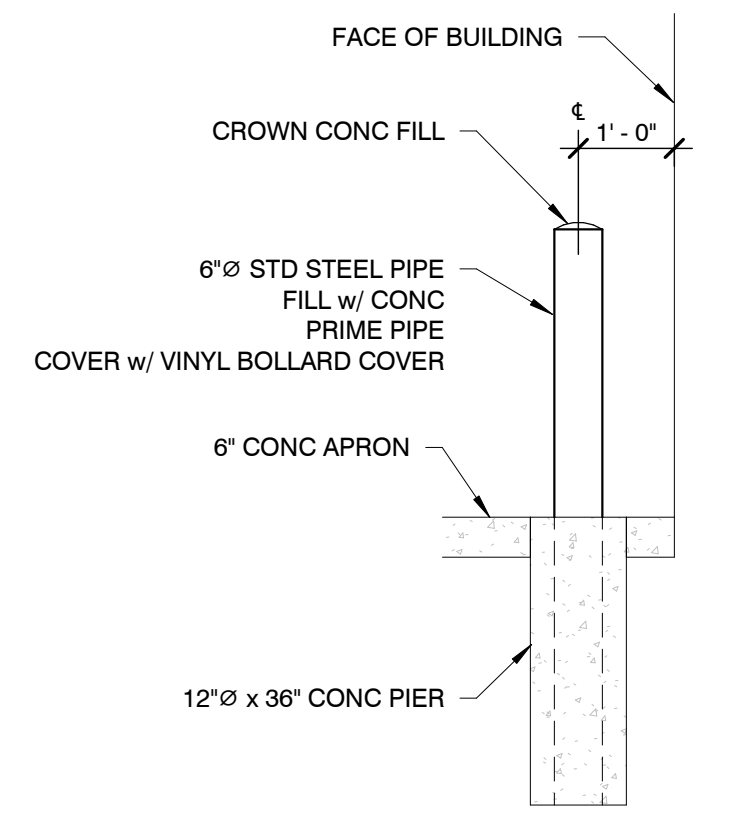
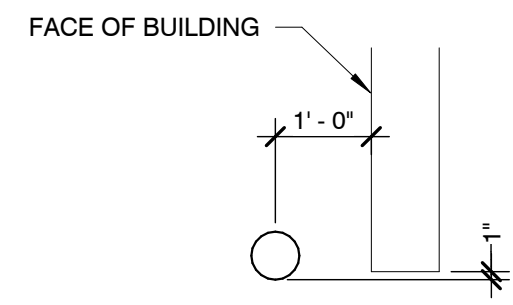
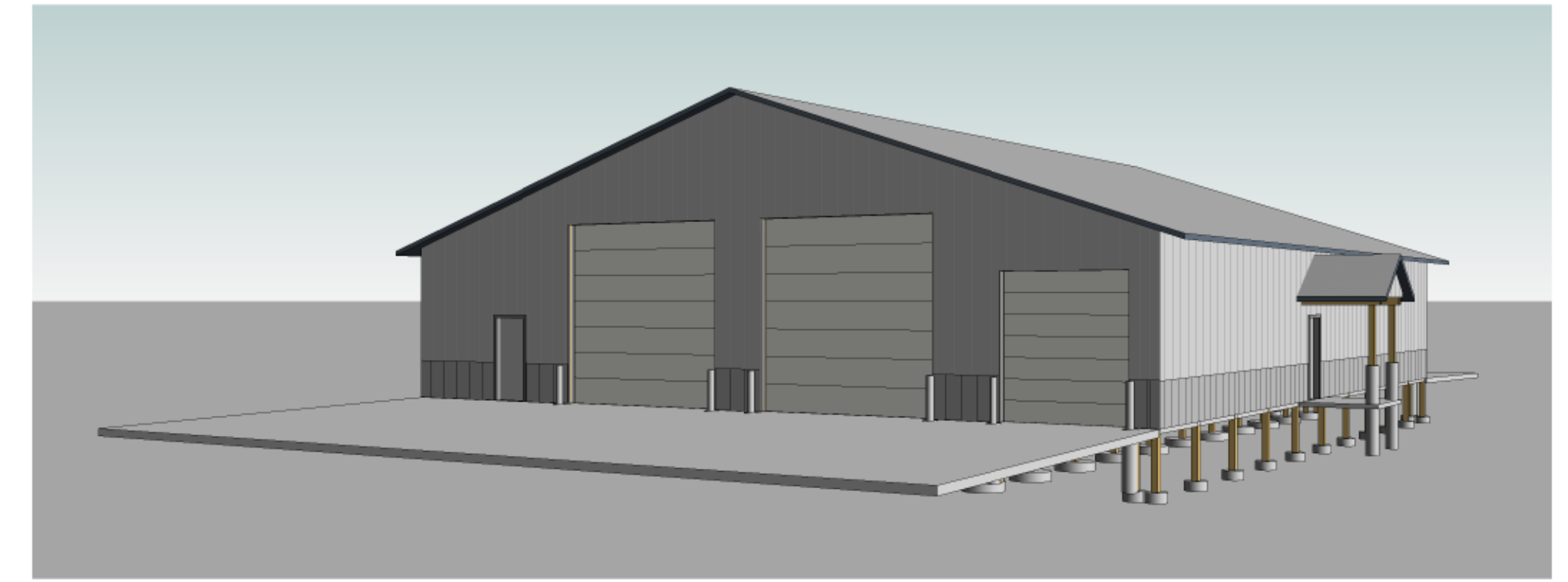
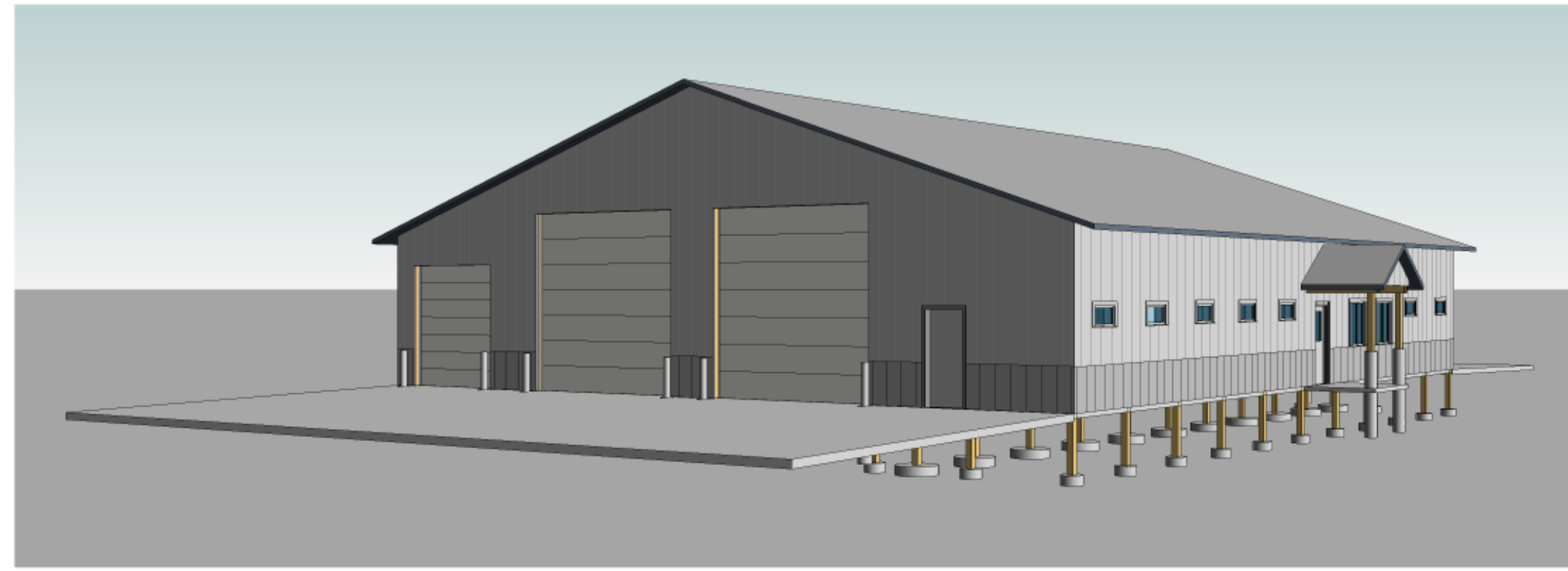
SCALE: VARIES



**FLOOR PLAN DETAIL**

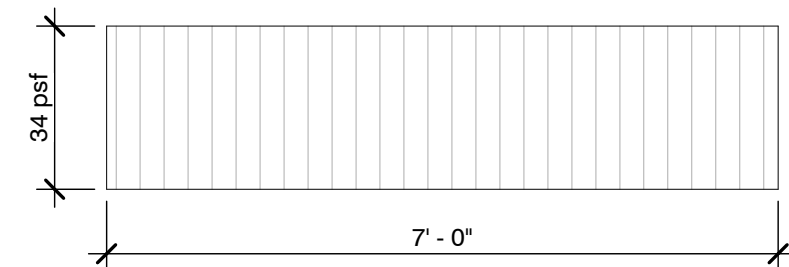
1/2" = 1'-0"

FIXTURE SCHEDULE	
WATER CLOSET	Floor mounted Flush Valve Type Water Closet, ADA height American Standard Madera or approved equal white vitreous china, elongated bowl 1 1/2" Top Spud, 1.6 gal/flush Fittings shall include: Sloan Flush Valve w/ vacuum breaker, Olsonite #95 or approved equal white open front seat less cover. Control for flush mounted on wide side of toilet area
LAVATORY	Wall Hung Lavatory, white vitreous china, Barrier Free American Standard Lucerne or approved equal, faucet holes 4" o.c., w/ Wade or approved equal concealed arm support Fittings shall include: Delta model single metal handle deck faucet polished chrome, 1.5 gpm flow device, polished chrome w/ aerator, metal grid drain, p-trap, tail piece, chrome stops Water Temperature Limiting device; ASSE 1070
UTILITY SINK	Leg mounted utility/service sink, Mustee Utilitub 28F Fittings shall include: heavy duty swivel faucet, chrome, brass drain
TRAP SEAL	SureSeal SS2009 (2"), SS3000 (3"), SS3509 (3.5"), SS4009 (4") as manufactured by Sure Seal Manufacturing, LLC or approved equal ICC-ES PMG-1070
Undercounter Lavatory Protective Cover	TCI Products "Skald Gard" or equal shall be installed on all lavatories exposed drain, CW and HW piping and valve stops to meet ADA requirements



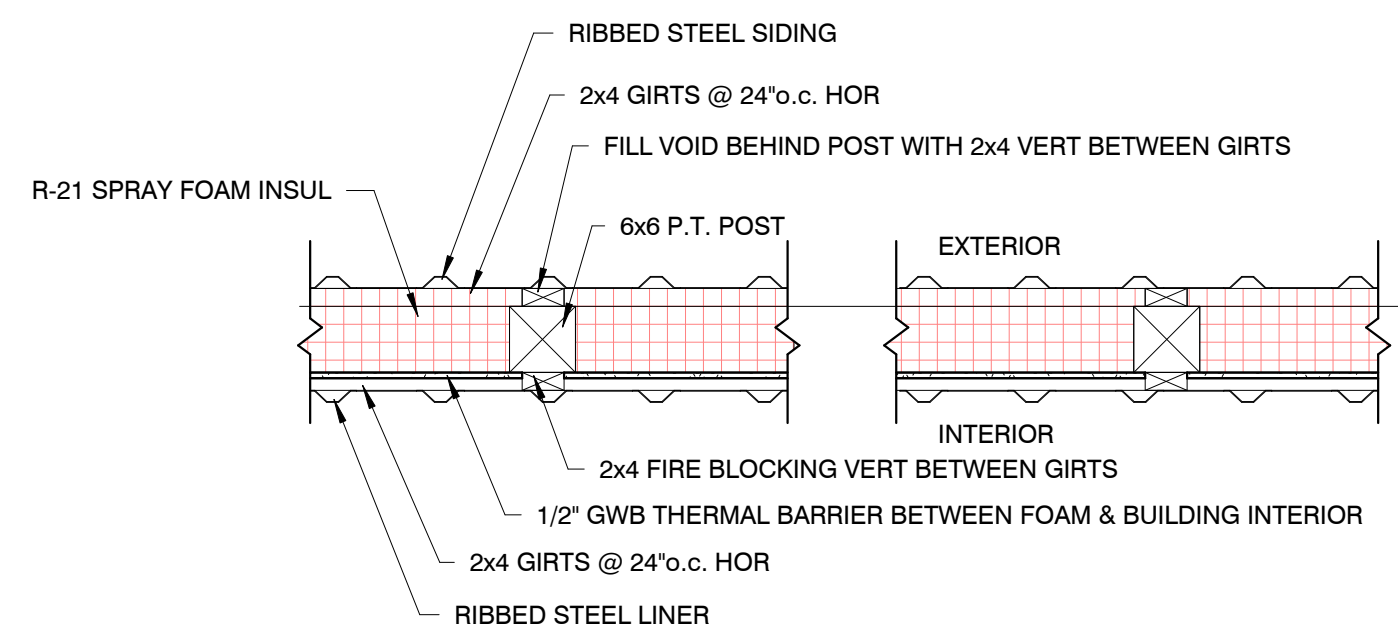
**DOOR BOLLARD**

1/2" = 1'-0"

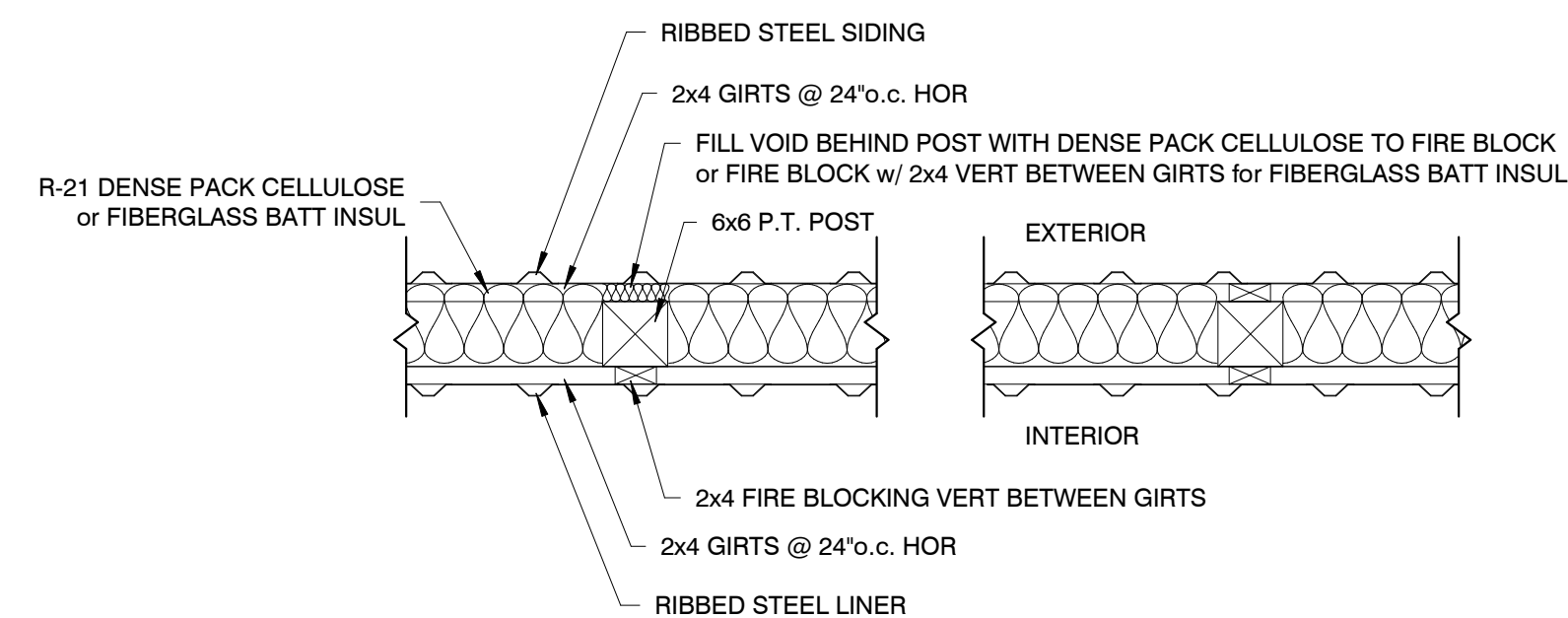


**SLIDING SNOW SURCHARGE LOAD**

1/2" = 1'-0"



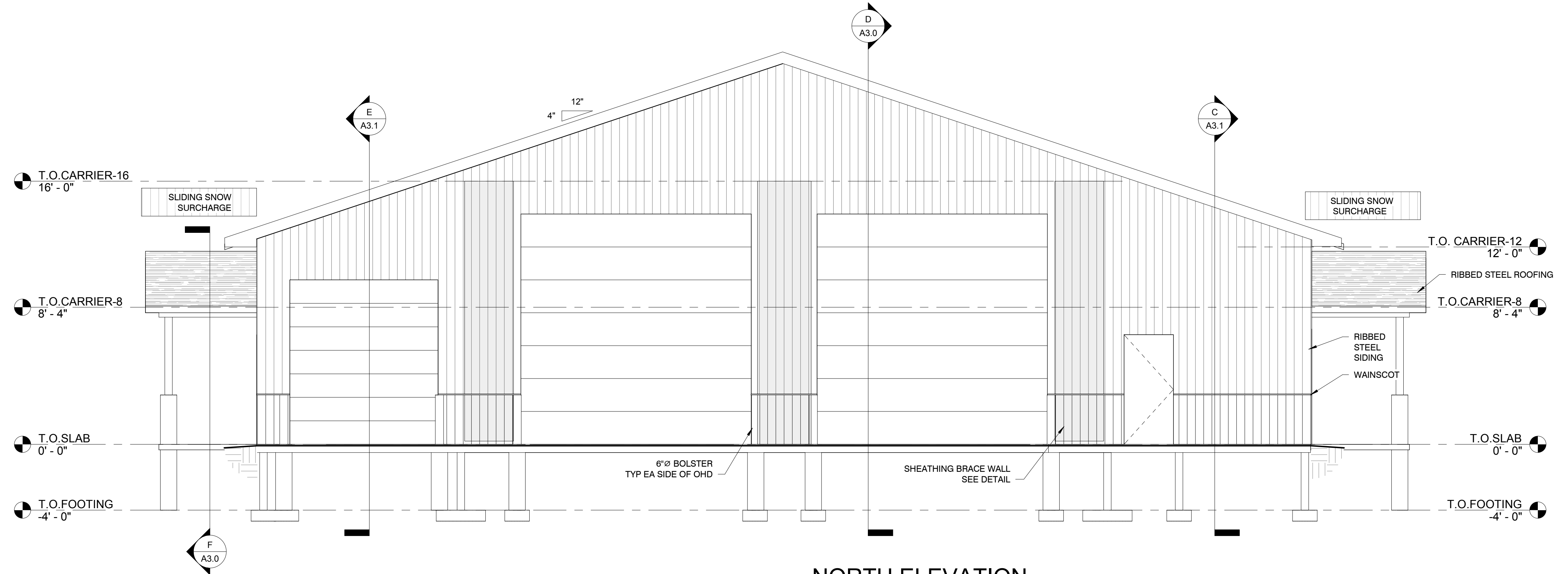
**DETAIL-SPRAY FOAM INSULATION**



**CELLULOSE or FIBERGLASS BATT INSULATION**

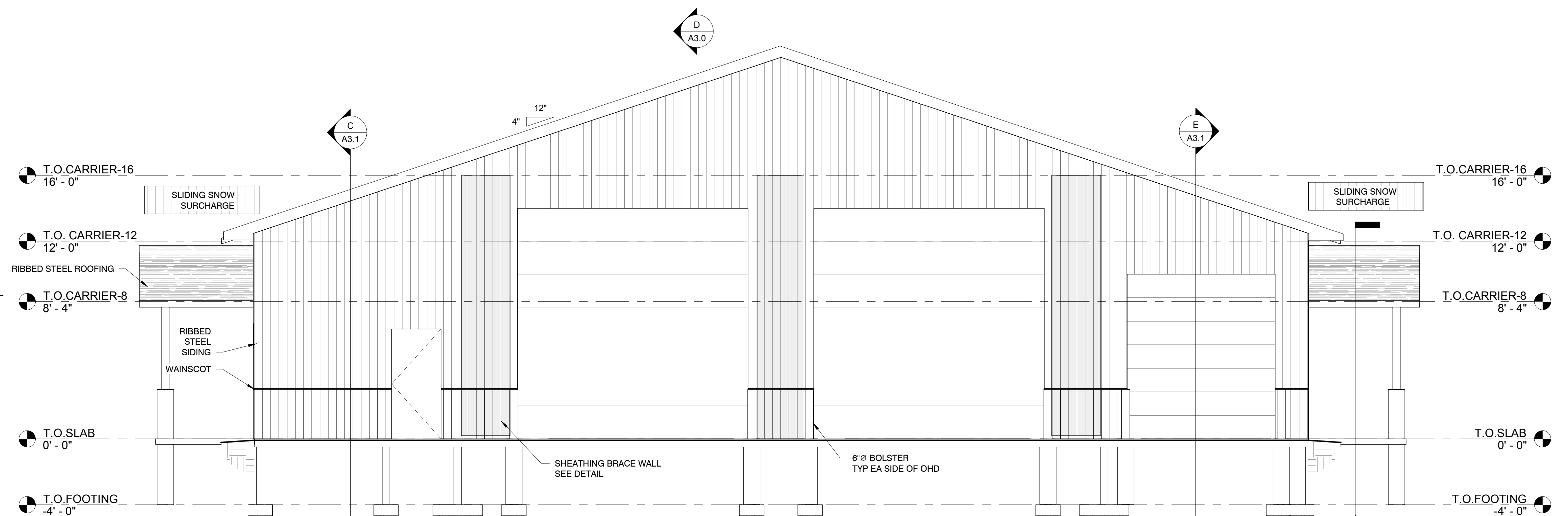
**EXTERIOR WALL FIRE BLOCKING DETAIL**

3/4" = 1'-0"



**NORTH ELEVATION**

1/4" = 1'-0"



**SOUTH ELEVATION**

1/4" = 1'-0"

Project Status  
**Lake Township Fire Station**  
 Green Rd  
 Lake City, MI

Issue/revise  
 BIDS 04/04/24

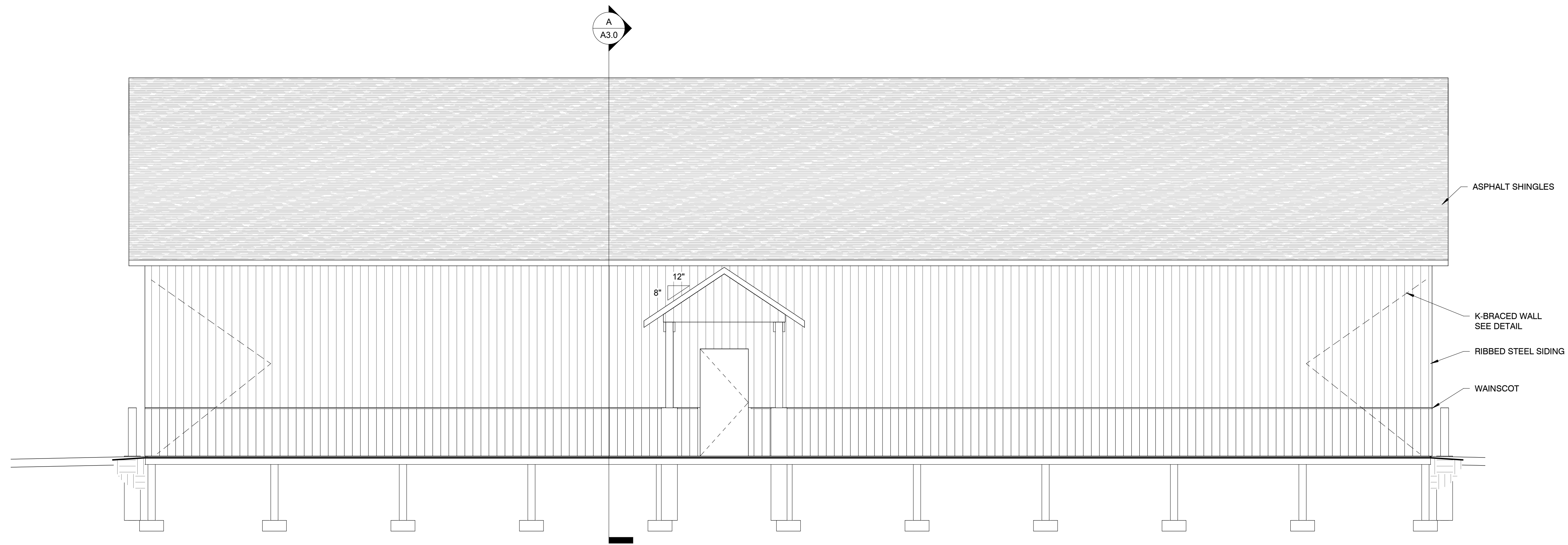
**pressell**  
 engineering  
 design  
 8995 W. Kelly Rd.  
 Lake City, MI 49651  
 231.839.3969

Project No.  
**2357**

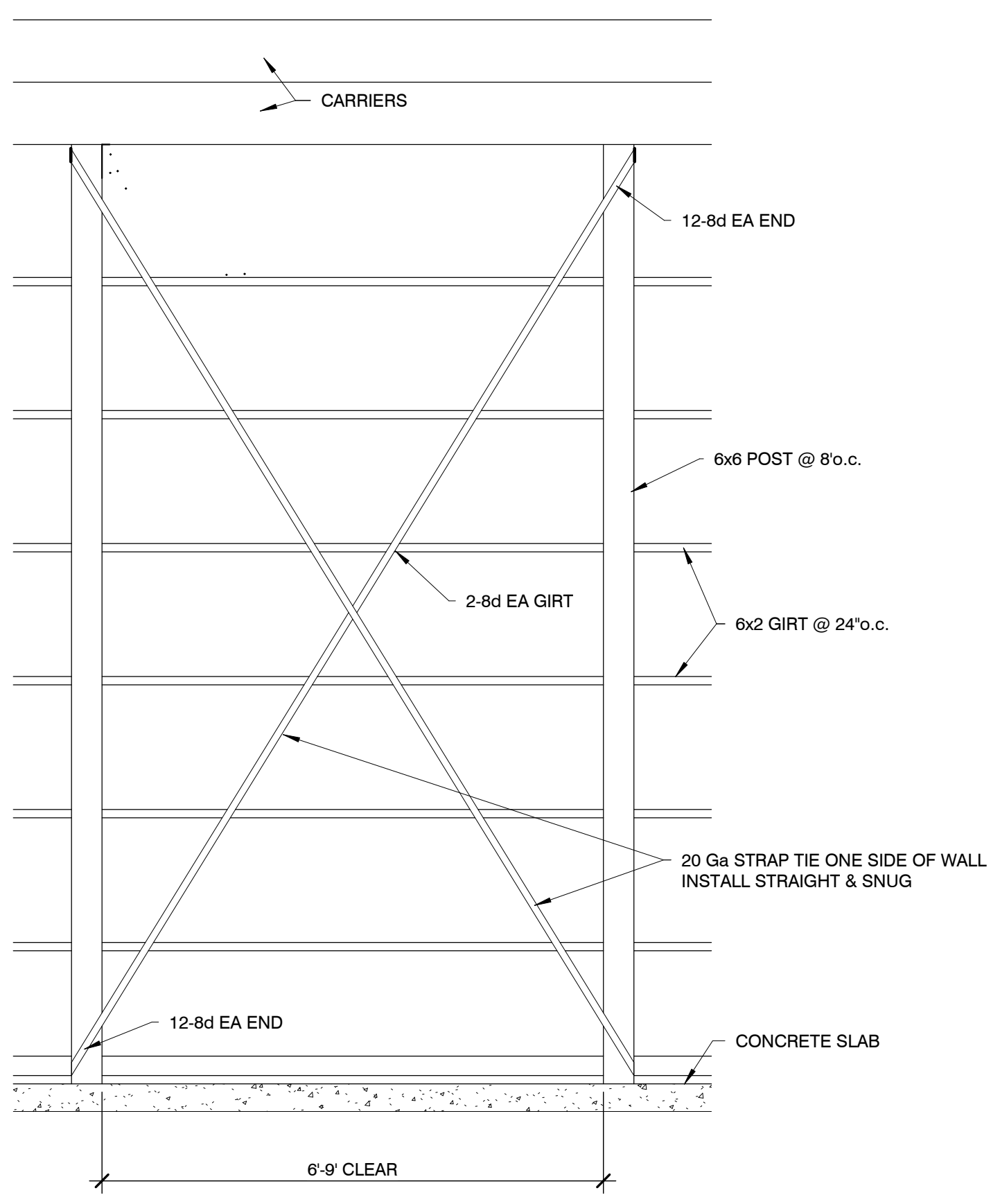
Drawn By: **mik**  
 Checked By: **MAP**

Sheet Title  
 EXTERIOR ELEVATION

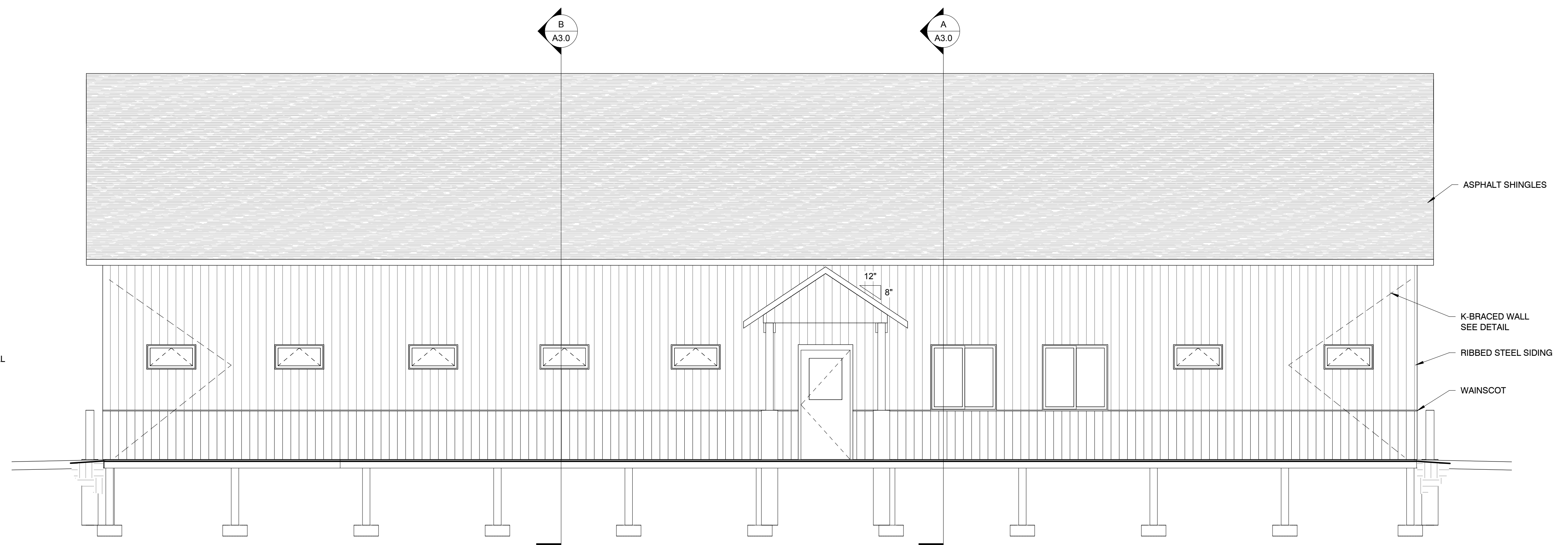
**A2.0**  
 Sheet Number



**EAST ELEVATION**  
1/4" = 1'-0"



**DETAIL-X BRACED WALL**  
1/2" = 1'-0"



**WEST ELEVATION**  
1/4" = 1'-0"

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

issue/revise  
BIDS 04/04/24

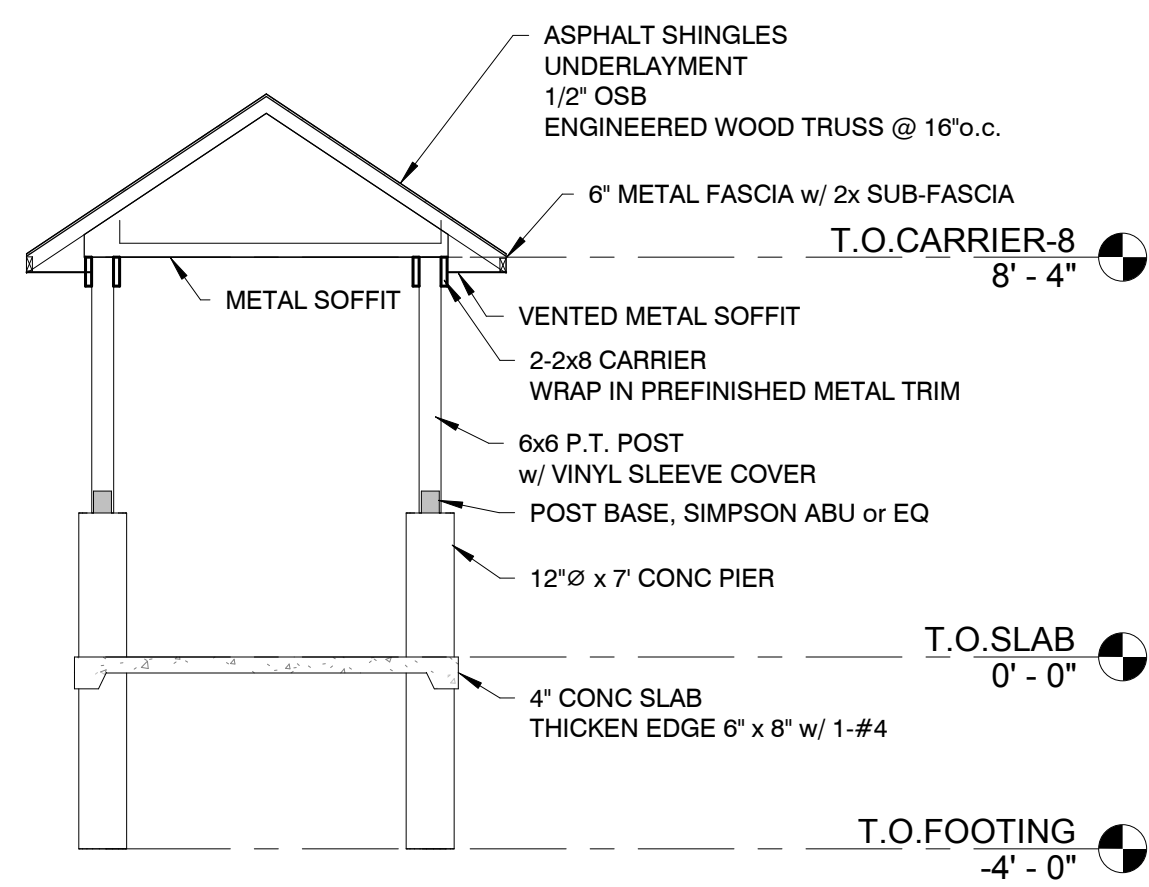
**pressell**  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

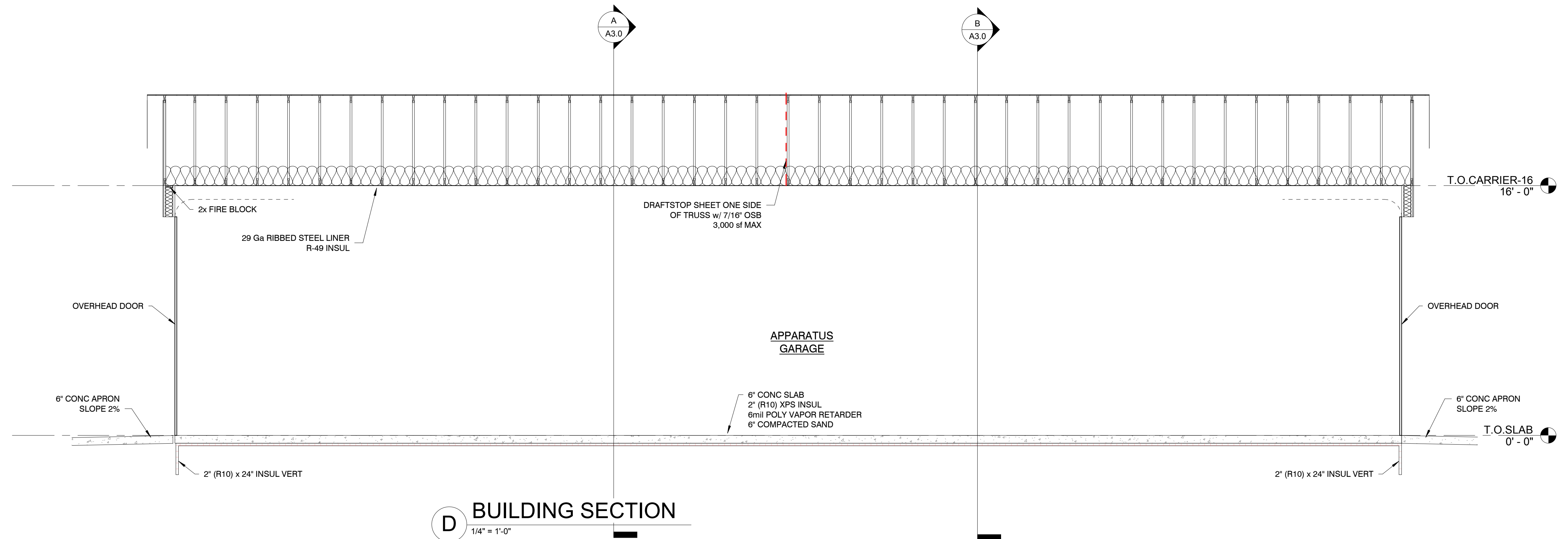
Drawn By: **mik**  
Checked By: **MAP**

Sheet Title  
EXTERIOR ELEVATION

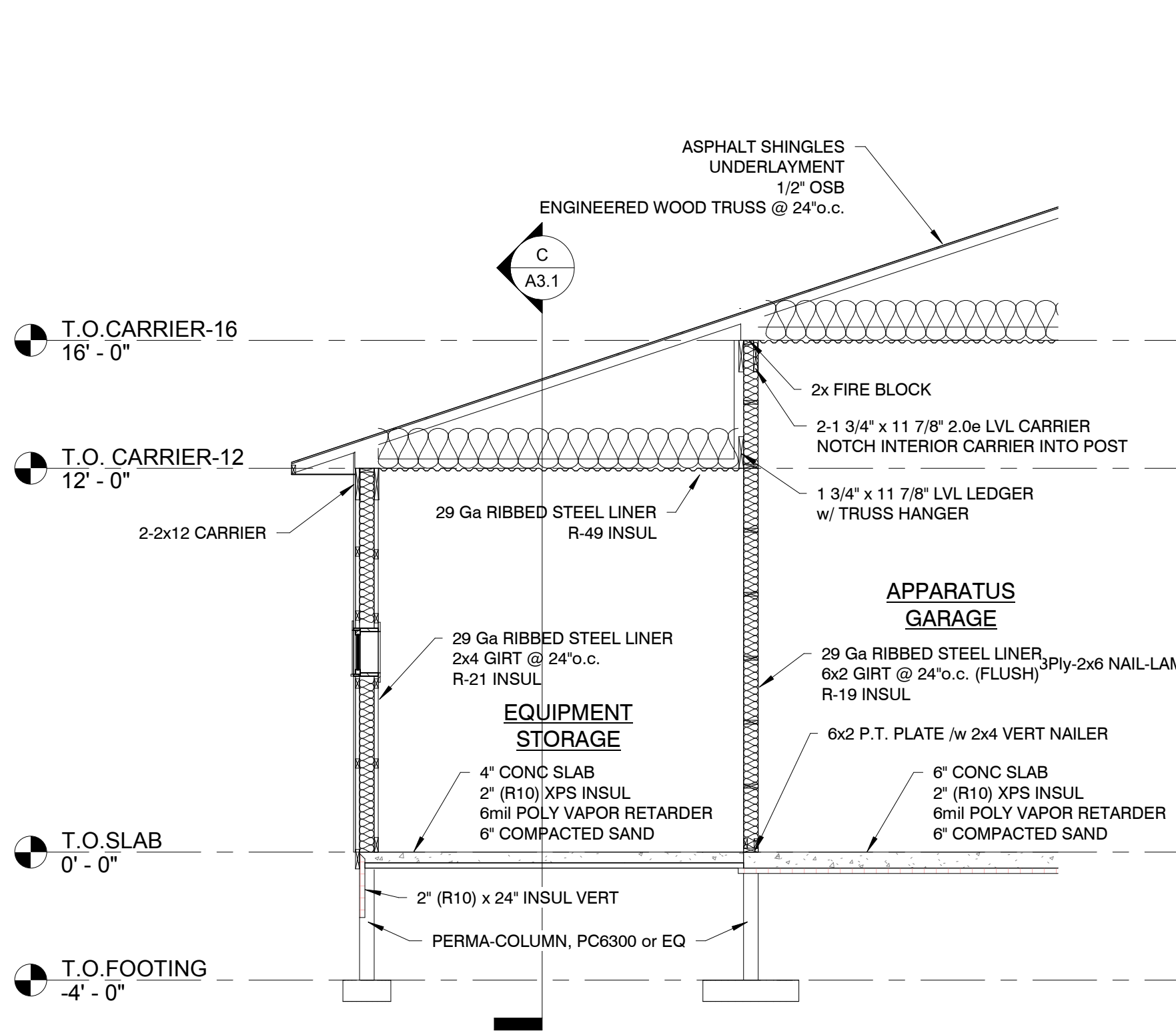
**A2.1**  
Sheet Number



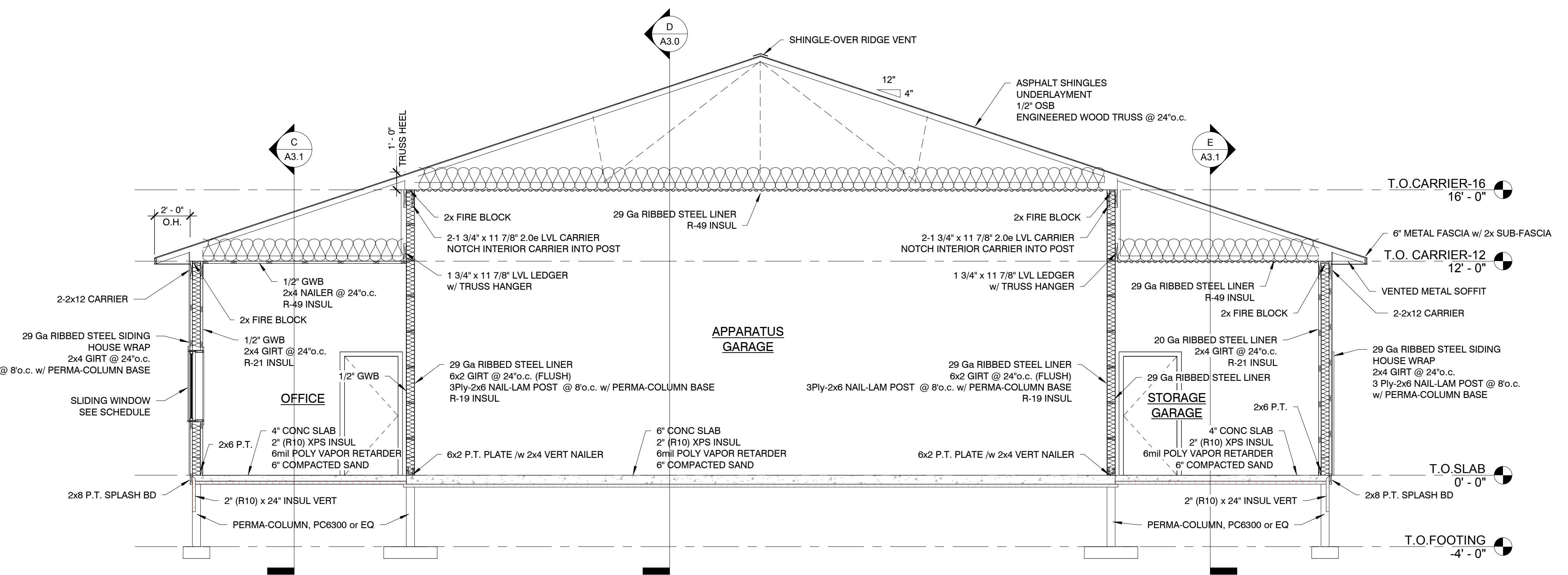
**F BUILDING SECTION**  
1/4" = 1'-0"



**D BUILDING SECTION**  
1/4" = 1'-0"



**B BUILDING SECTION**  
1/4" = 1'-0"



**A BUILDING SECTION**  
1/4" = 1'-0"

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

issue/revise  
BIDS 04/04/24

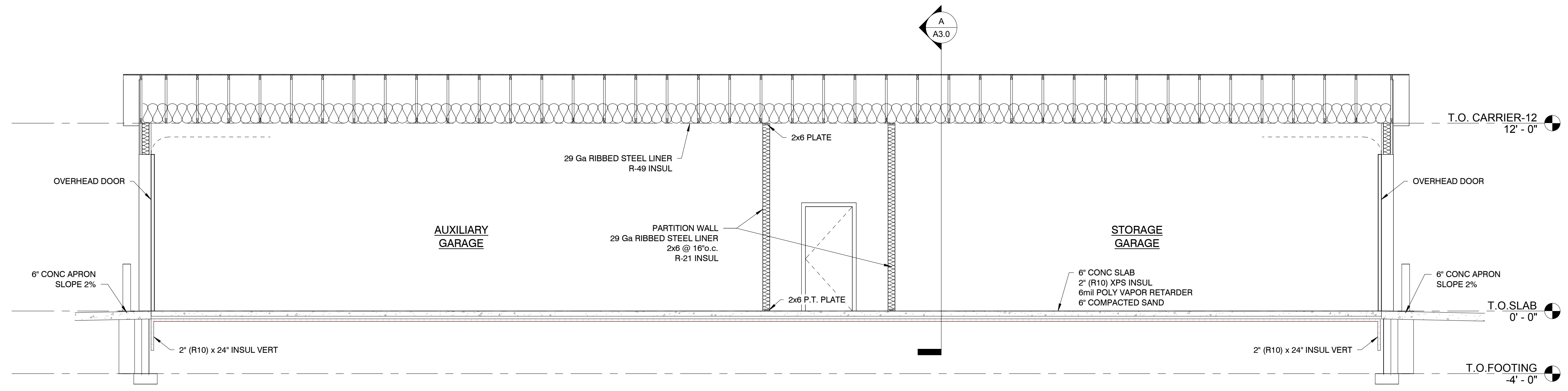
pressell  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

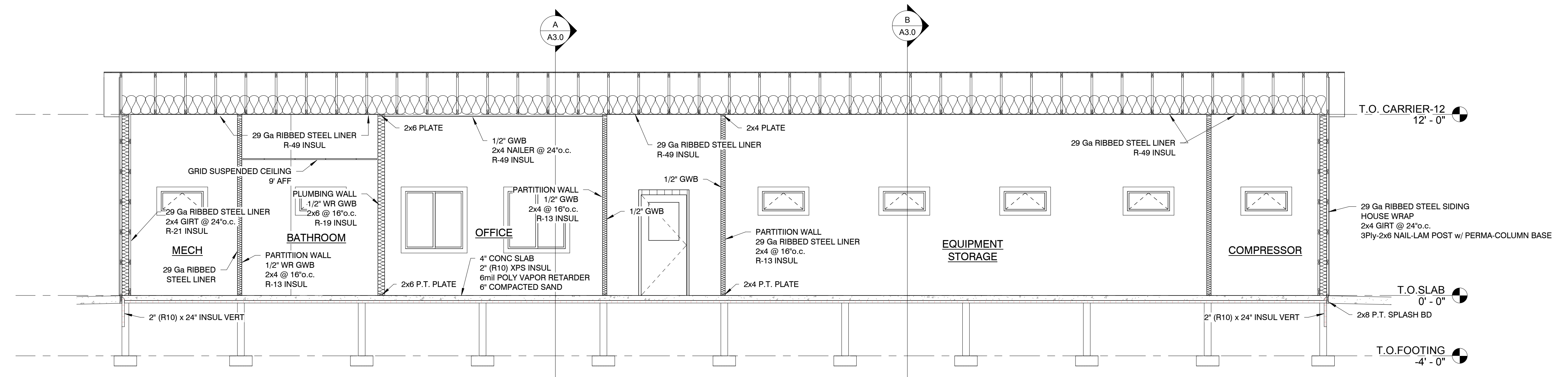
Drawn By: mtk  
Checked By: MAP

Sheet Title  
BUILDING SECTIONS

**A3.0**  
Sheet Number



**E BUILDING SECTION**  
1/4" = 1'-0"



**C BUILDING SECTION**  
1/4" = 1'-0"

Project Status  
**Lake Township Fire Station**  
 Green Rd  
 Lake City, MI

issue/revise  
 BIDS 04/04/24

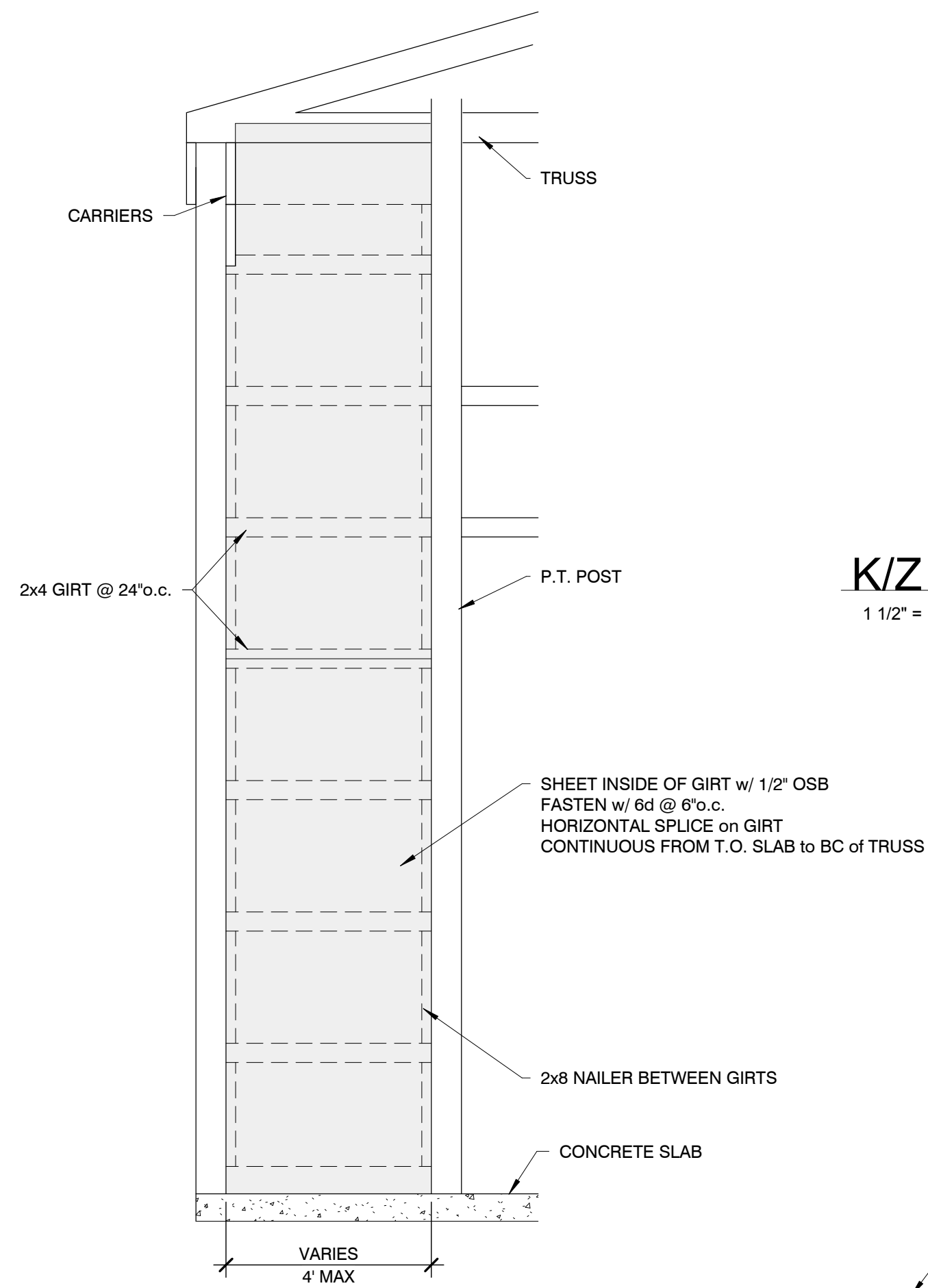
**pressell**  
 engineering  
 design  
 8995 W. Kelly Rd.  
 Lake City, MI 49651  
 231.839.3969

Project No.  
**2357**

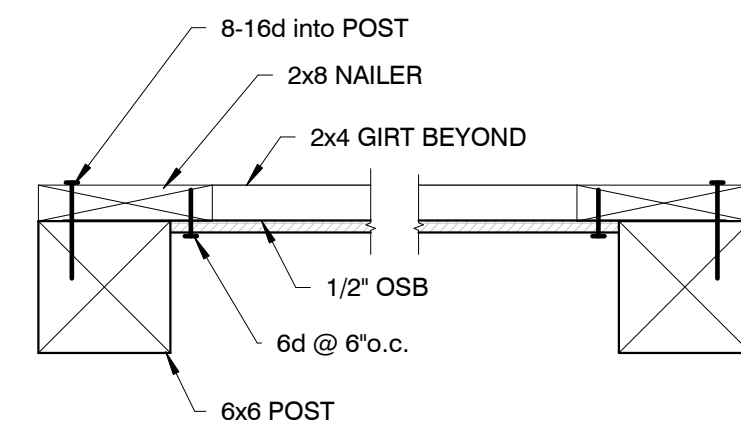
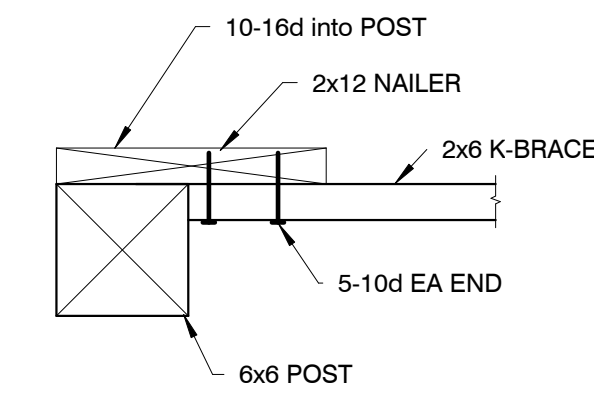
Drawn By: Author  
 Checked By: Checker

Sheet Title  
 BUILDING SECTIONS  
 Approver  
 Designer

**A3.1**  
 Sheet Number

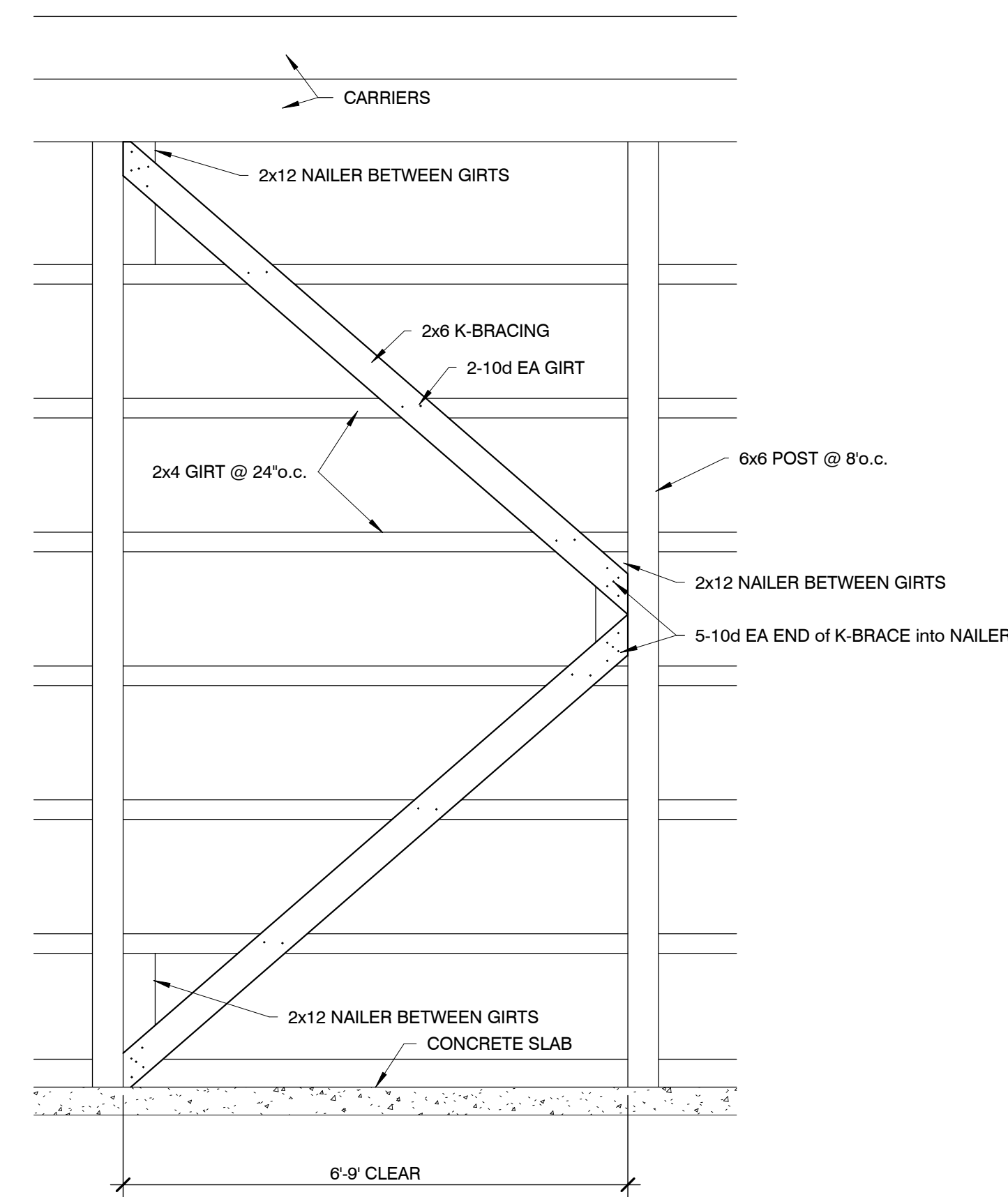


**K/Z BRACED WALL DETAIL**  
1 1/2" = 1'-0"

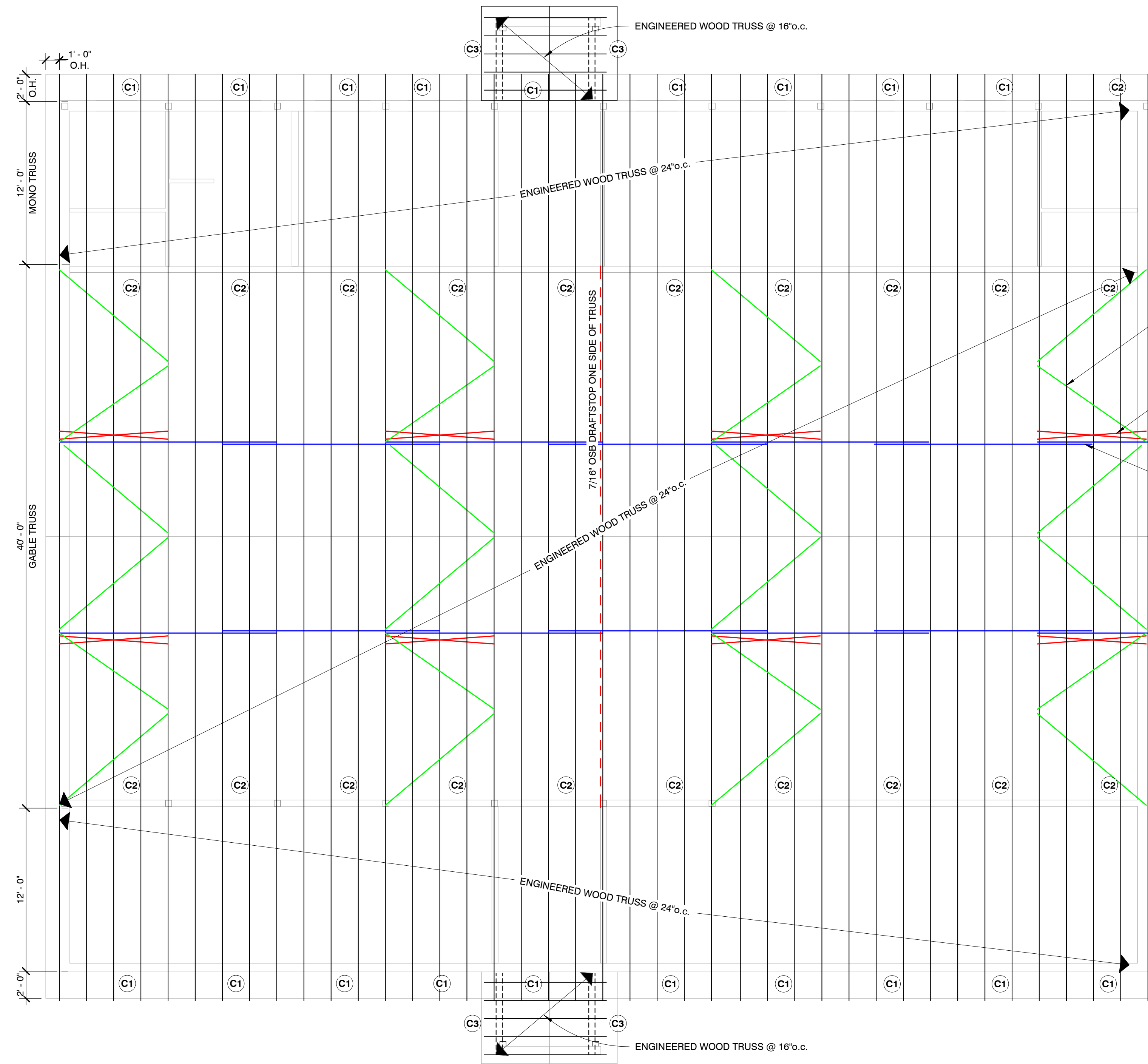


**DETAIL- SHEATHING BRACED WALL**  
1/2" = 1'-0"

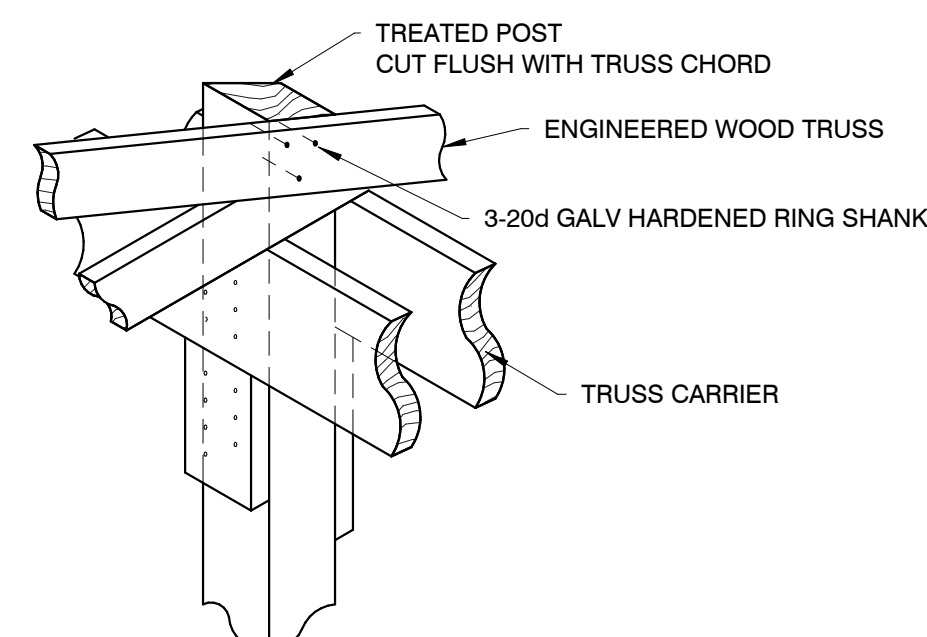
**SHEATHING BRACED WALL DETAIL**  
1 1/2" = 1'-0"



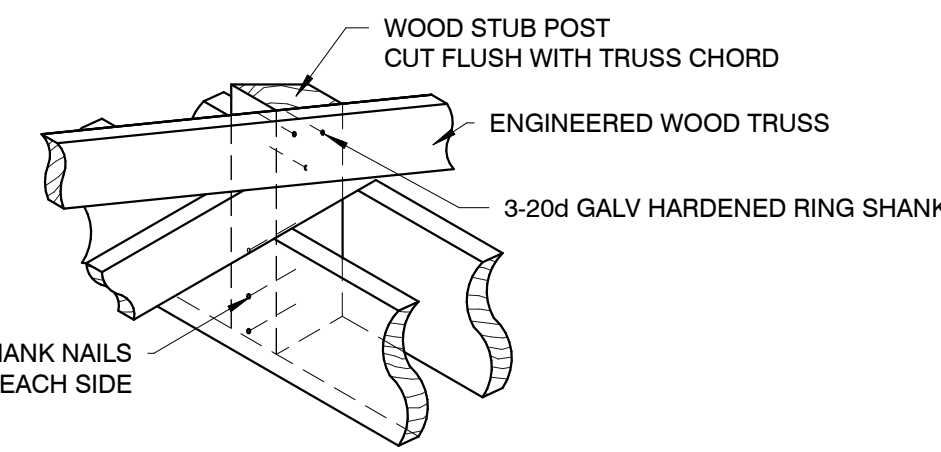
**DETAIL-K BRACED WALL**  
1/2" = 1'-0"



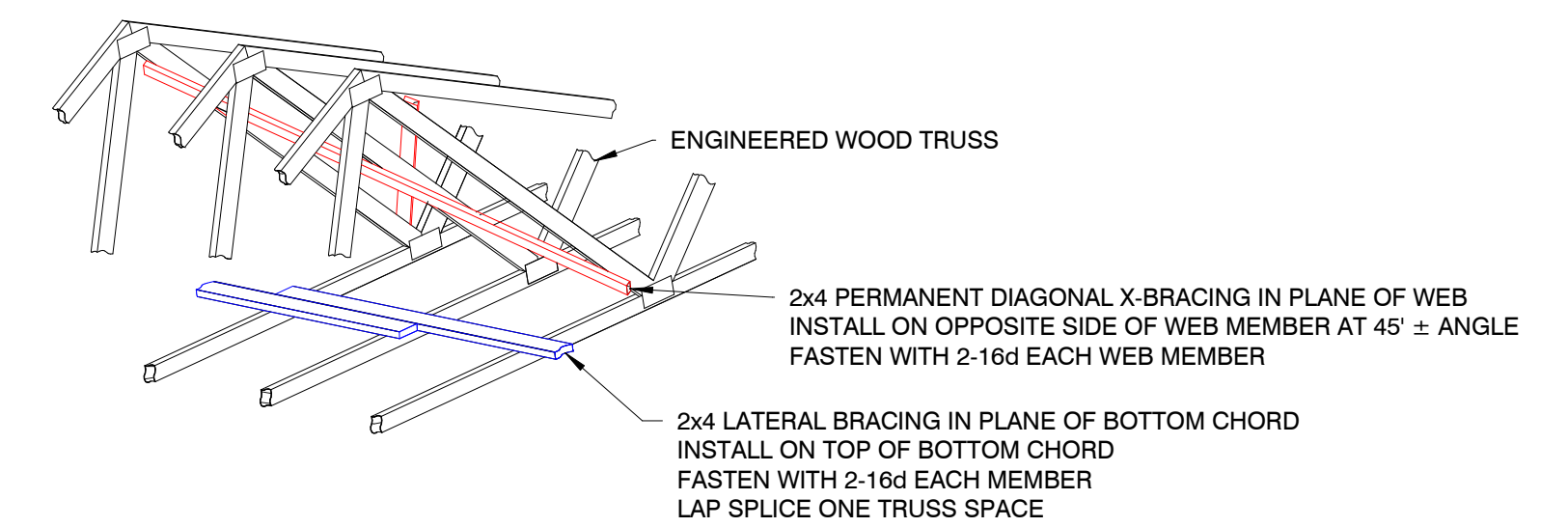
**ROOF FRAMING PLAN**  
3/16" = 1'-0"



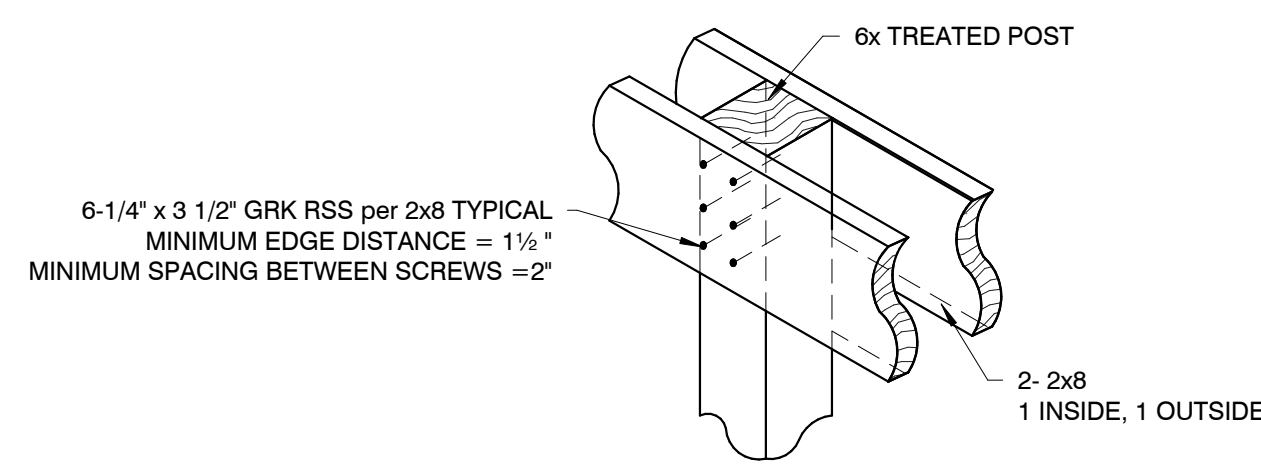
**DETAIL- TRUSS @ POST**



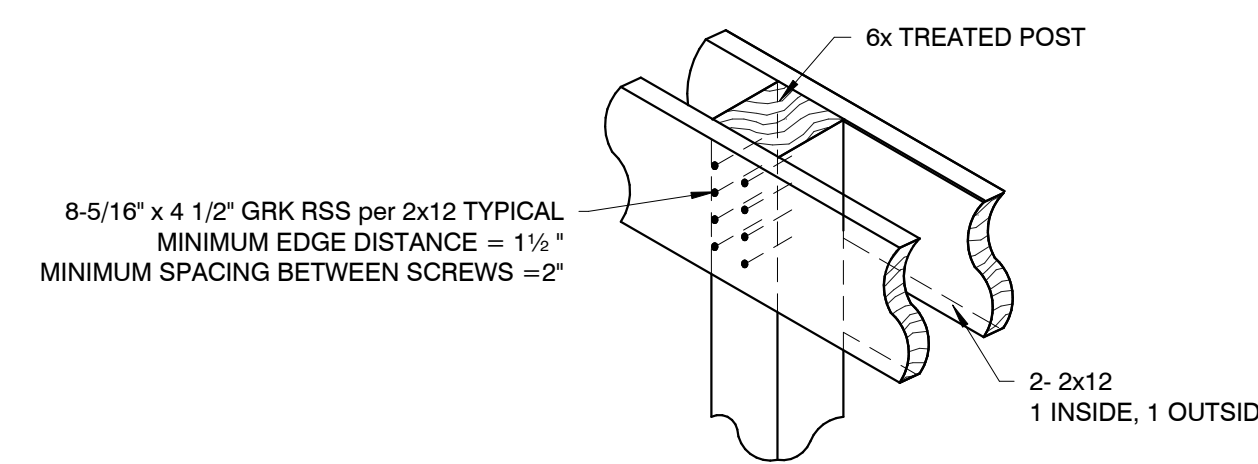
**DETAIL- INTERMEDIATE TRUSS**



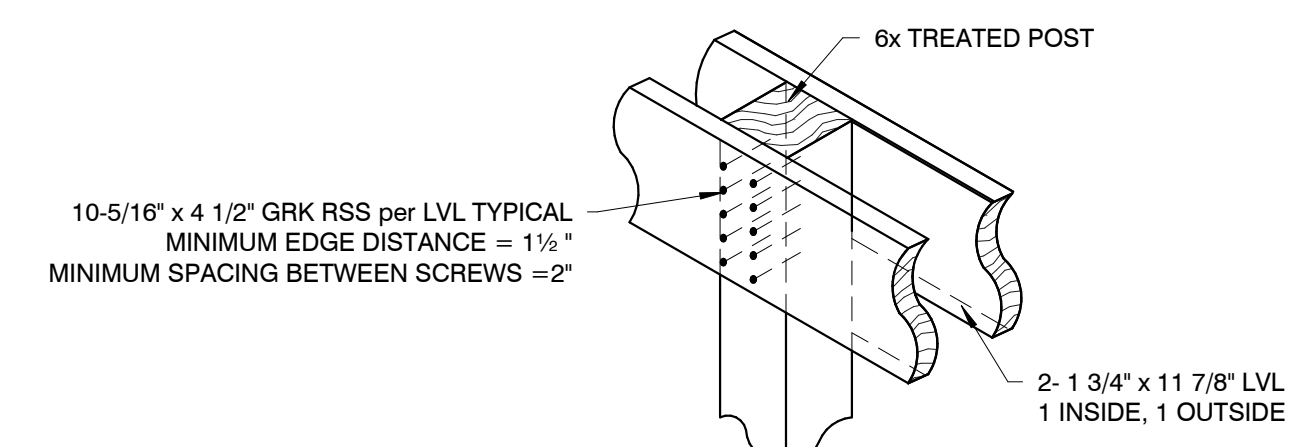
**DETAIL - TRUSS BRACING**  
SCALE : NONE



**NAILING DETAIL- TRUSS CARRIER**  
2-2x8



**NAILING DETAIL- TRUSS CARRIER**  
2-2x12



**NAILING DETAIL- TRUSS CARRIER**  
2-LVL

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

Issue/revise  
BIDS 04/04/24

**pressell**  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

Drawn By: **mik**  
Checked By: **MAP**

Sheet Title  
**ROOF FRAMING PLAN**  
FRAMING DETAILS

**AS1.0**  
Sheet Number



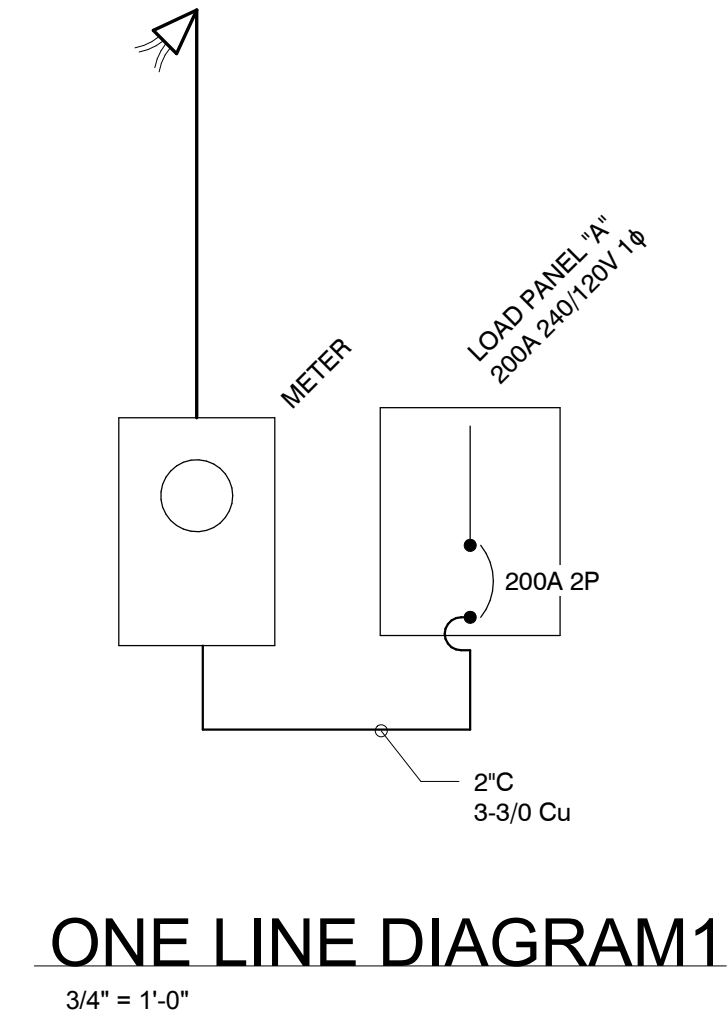
**FIXTURE SCHEDULE**

- A** 12,000 LUMEN LED HIGH BAY SURFACE MOUNT LITHONIA IBE L24 40k
- B** 4,000 LUMEN LED STRIP SURFACE MOUNT LITHONIA CSS L48 40k
- C** 6,000 LUMEN LED FLAT PANEL SURFACE MOUNT LITHONIA CPANL 2x4 35k
- D** 4,000 LUMEN LED FLAT PANEL SURFACE MOUNT LITHONIA CPANL 2x2 40k
- De** 4,000 LUMEN LED FLAT PANEL w/ EMERGENCY BATTERY PACK SURFACE MOUNT LITHONIA CPANL 2x2 40k
- E** 1,600 LUMEN LED FLAT PANEL SURFACE MOUNT 12x12 40k
- F** LED WALL PAK w/ PHOTOCCELL LITHONIA LED 30C 40k
- EXIT** SELF POWERED EXIT SIGN w/ 2 HEAD EMERGENCY LIGHT

**DEVICE SCHEDULE**

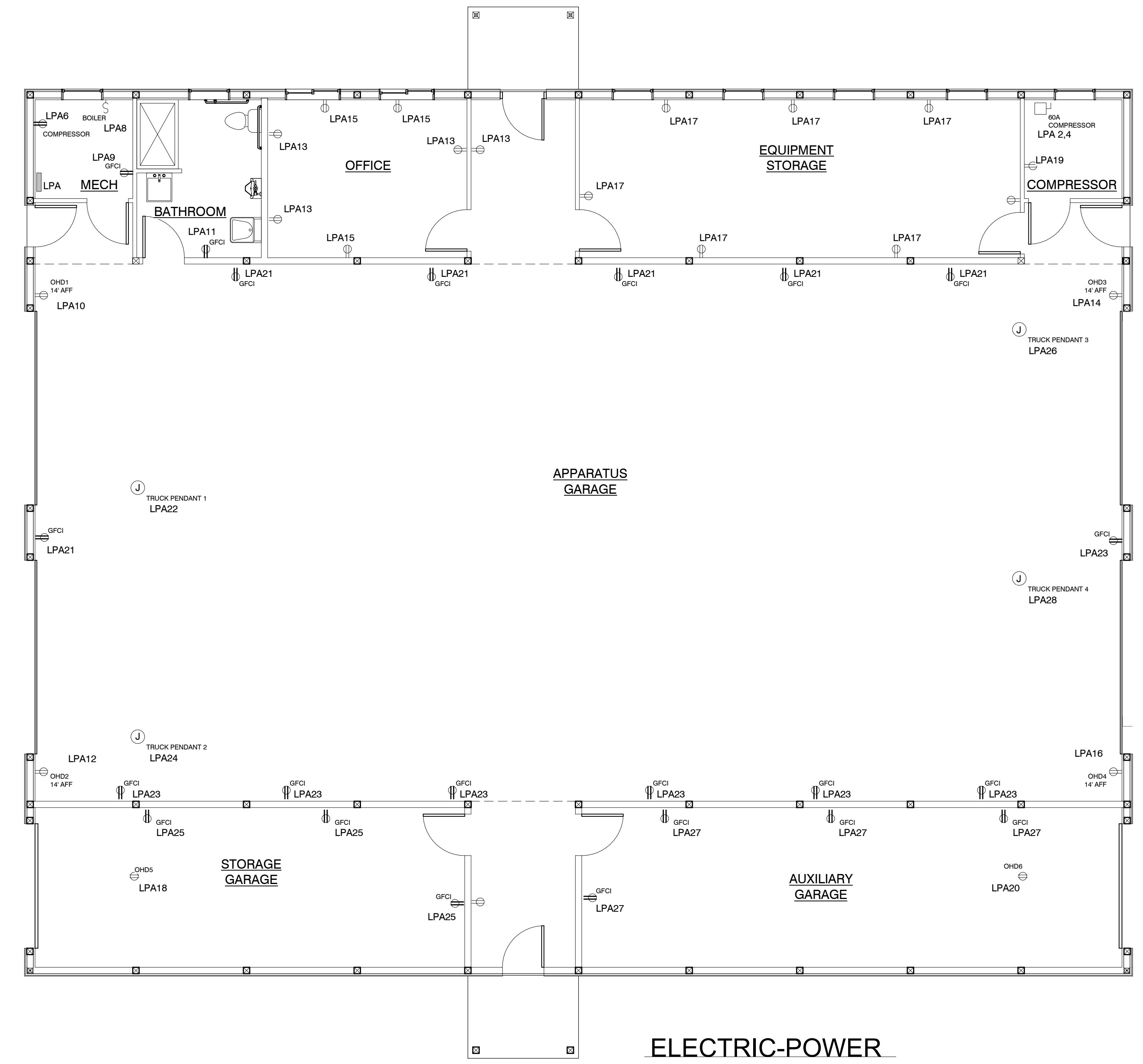
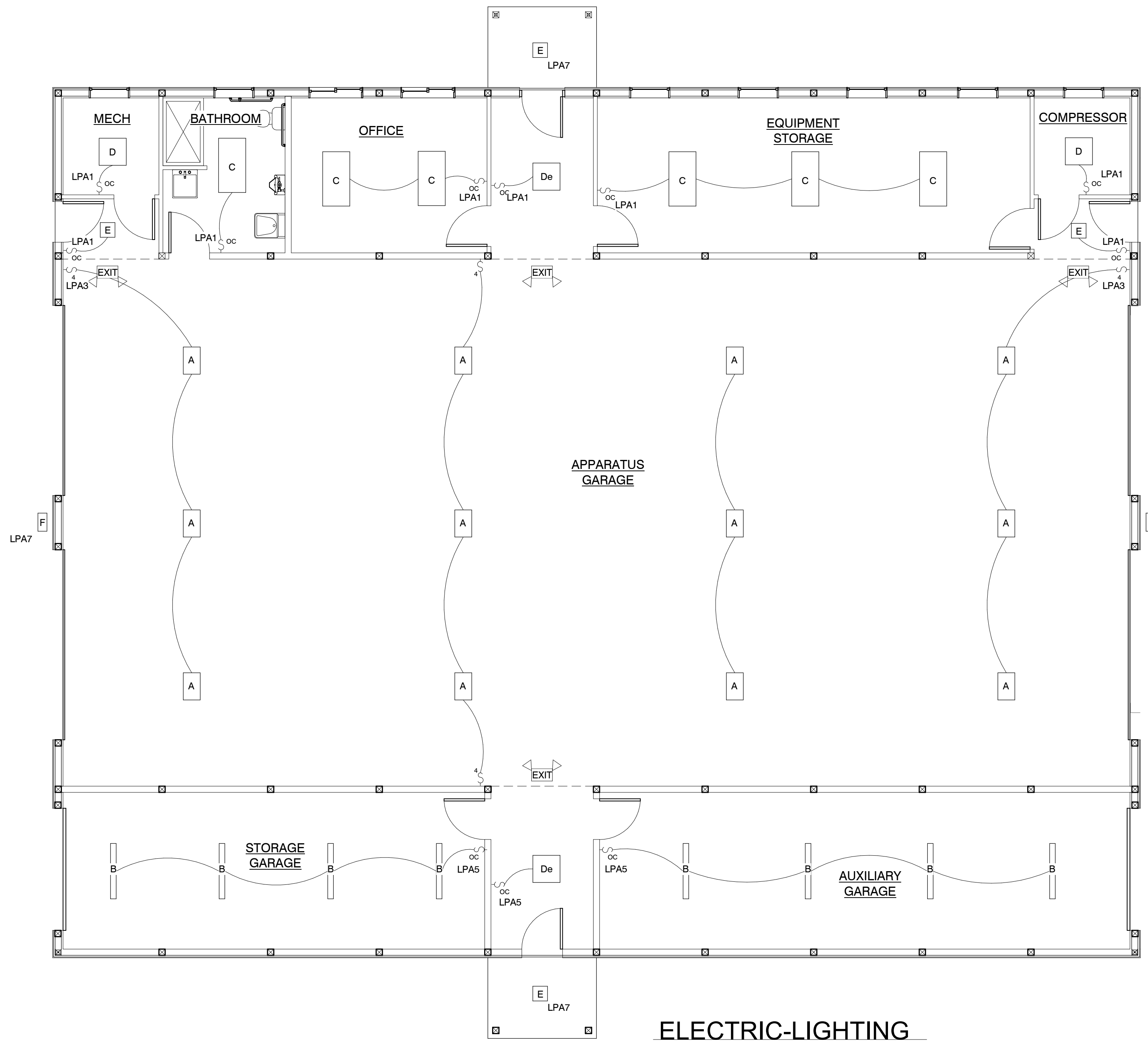
- S** SINGLE POLE SWITCH
- S4** SINGLE POLE SWITCH 4-WAY
- S OC** SINGLE POLE SWITCH OCCUPANT SENSOR
- DP** 15A DUPLEX RECEPTACLE
- DP GFCI** 20A DUPLEX GFCI RECEPTACLE
- DP** 15A DUPLEX RECEPTACLE CEILING MOUNTED

PANEL: LPA			VOLTS: 240/120		SQUARE D QO						
ENCLOSURE: TYPE 1			PHASES: 1		MAINS RATING: 200A						
MOUNTING: SURFACE			WIRES: 3		SPACES: 40						
CKT	DESCRIPTION	TRIP	POLES	A		B		POLES	TRIP	DESCRIPTION	CKT
				VA	AMP	VA	AMP				
1	LIGHTS-WEST	20A	1	480	6000			2	60A	AIR COMPRESSOR, 10hp	2
3	LIGHTS- GARAGE	20A	1			1000	6000				4
5	LIGHTS-EAST	20A	1	318	2900			1	20A	AIR COMPRESSOR, 2hp	6
7	LIGHTS-EXTERIOR	20A	1			260	1200	1	20A	BOILER	8
9	RECEPT-MECH	20A	1	480	1200			1	20A	OHD OPENER 1, 1/2 hp	10
11	RECEPT- BATH	20A	1			1200	1200	1	20A	OHD OPENER 2, 1/2 hp	12
13	RECEPT-OFFICE1	15A		720	1200			1	20A	OHD OPENER 3, 1/2 hp	14
15	RECEPT- OFFICE 2	15A	1			720	1200	1	20A	OHD OPENER 4, 1/2 hp	16
17	RECEPT- EQUIPMENT	20A	1	900	1200			1	20A	OHD OPENER 5, 1/2 hp	18
19	RECEPT- COMPRESSOR	20A	1			480	1200	1	20A	OHD OPENER 6, 1/2 hp	20
21	RECEPT- APPARATUS1	20A		1080	480			1	20A	TRUCK PENDANT 1	22
23	RECEPT- APPARATUS 2	20A	1			1080	480	1	20A	TRUCK PENDANT 2	24
25	RECEPT- STORAGE	20A		480				1	20A	TRUCK PENDANT 3	26
27	RECEPT- AUX	20A	1			700	480	1	20A	TRUCK PENDANT 4	28
29	-										30
31	-										32
33	-										34
35	-										36
37	-										38
39	1/2 hp SEWER PUMP					1200	3400	2	40A	5hp WELL PUMP	40
TOTAL LOAD:				3978	16860	6640	15160				
				20,838 VA		21,800 VA					
				174A		182A					
TOTAL CONNECTED						42,638 VA		178A			



**ELECTRICAL NOTES**

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF MICHIGAN ELECTRICAL CODE, NFPA 70, AND LOCAL CODE REQUIREMENTS.
- ALL MATERIALS AND EQUIPMENT FURNISHED FOR INSTALLATION ON THIS PROJECT SHALL BE NEW. ALL ELECTRICAL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABEL.
- THE CONTRACTOR SHALL CONFER WITH THE OTHER TRADES REGARDING THE LOCATION AND SIZE OF PIPES, EQUIPMENT, FIXTURES, ETC. IN ORDER THAT THERE MAY BE NO INTERFERENCE IN THE INSTALLATION OF THE WORK OF ANY TRADES OR DELAY IN THE PROGRESS OF ANY WORK.
- CONDUCTORS SHALL BE #12 AWG, unless otherwise noted. COPPER WITH 600 Volt Type THHN INSULATION. CONDUCTORS IN UNDERGROUND CONDUITS SHALL BE WITH Type XHHW INSULATION APPROVED FOR WET LOCATIONS.
- UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM BURIAL COVER OF 24".
- ALL EXIT AND EMERGENCY LIGHTS SHALL BE WIRED TO THE LOCAL LIGHTING SERVING THE SAME AREA, BUT CONNECTED AHEAD OF ANY LOCAL SWITCHING



Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

issue/revise  
BIDS 04/04/24

pressell  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

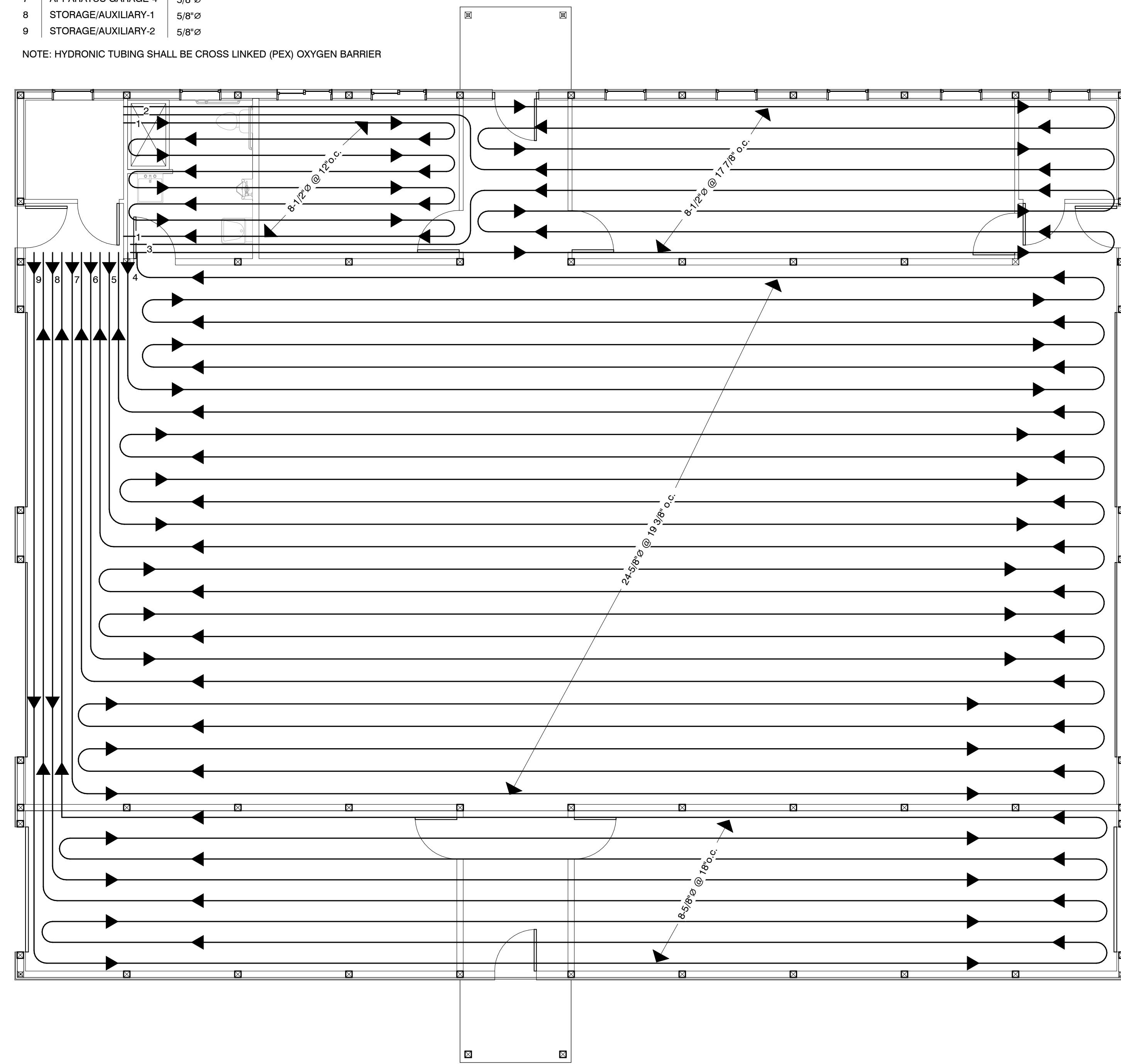
Drawn By: **mik**  
Checked By: **MAP**

Sheet Title  
ELECTRICAL PLAN  
SCHEDULES  
NOTES

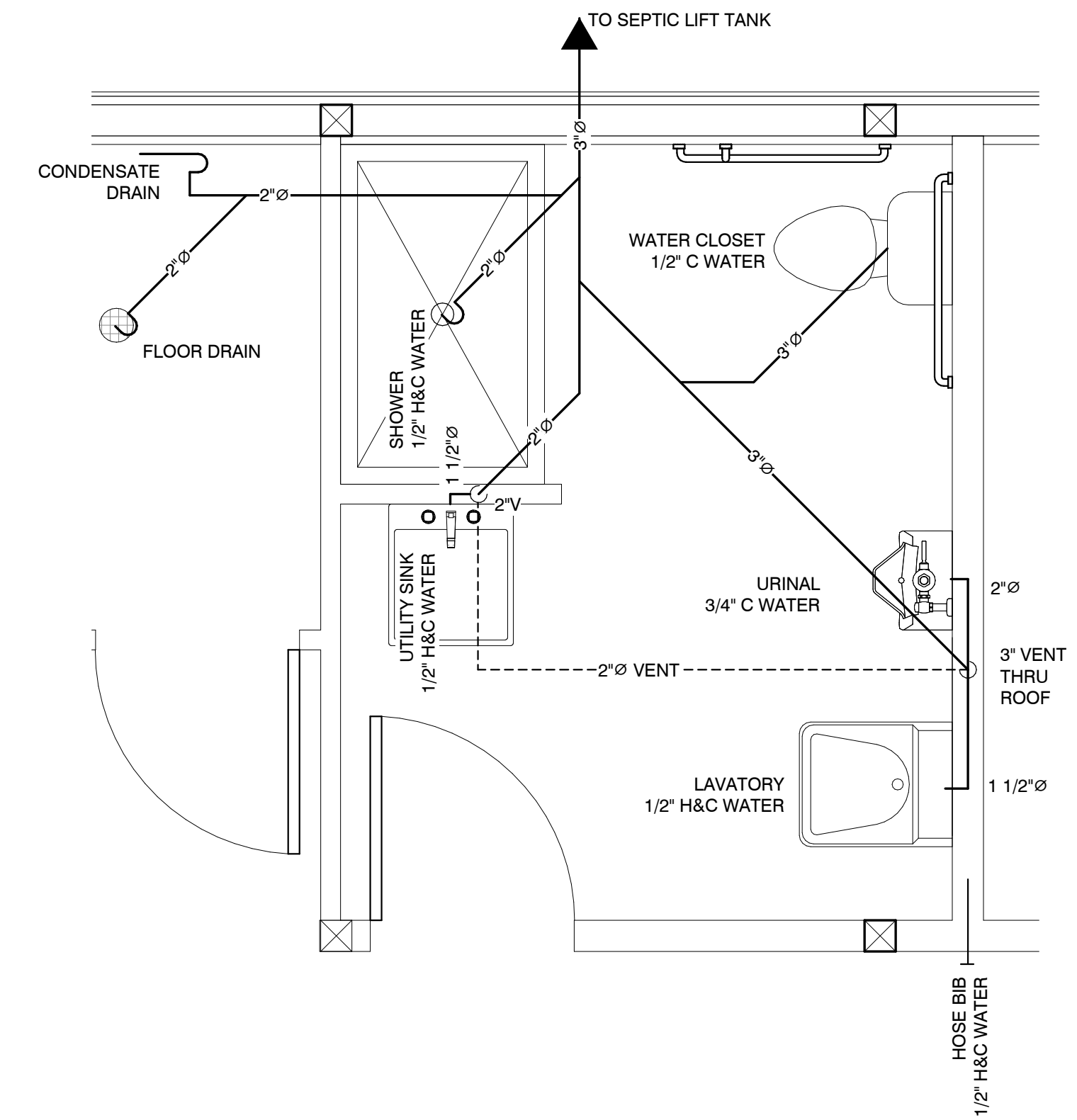
**E1.0**  
Sheet Number

LOOP	AREA	TUBE
1	OFFICE/BATH	1/2"Ø
2	EQUIPMENT STORAGE-1	1/2"Ø
3	EQUIPMENT STORAGE-2	1/2"Ø
4	APPARATUS GARAGE-1	5/8"Ø
5	APPARATUS GARAGE-2	5/8"Ø
6	APPARATUS GARAGE-3	5/8"Ø
7	APPARATUS GARAGE-4	5/8"Ø
8	STORAGE/AUXILIARY-1	5/8"Ø
9	STORAGE/AUXILIARY-2	5/8"Ø

NOTE: HYDRONIC TUBING SHALL BE CROSS LINKED (PEX) OXYGEN BARRIER



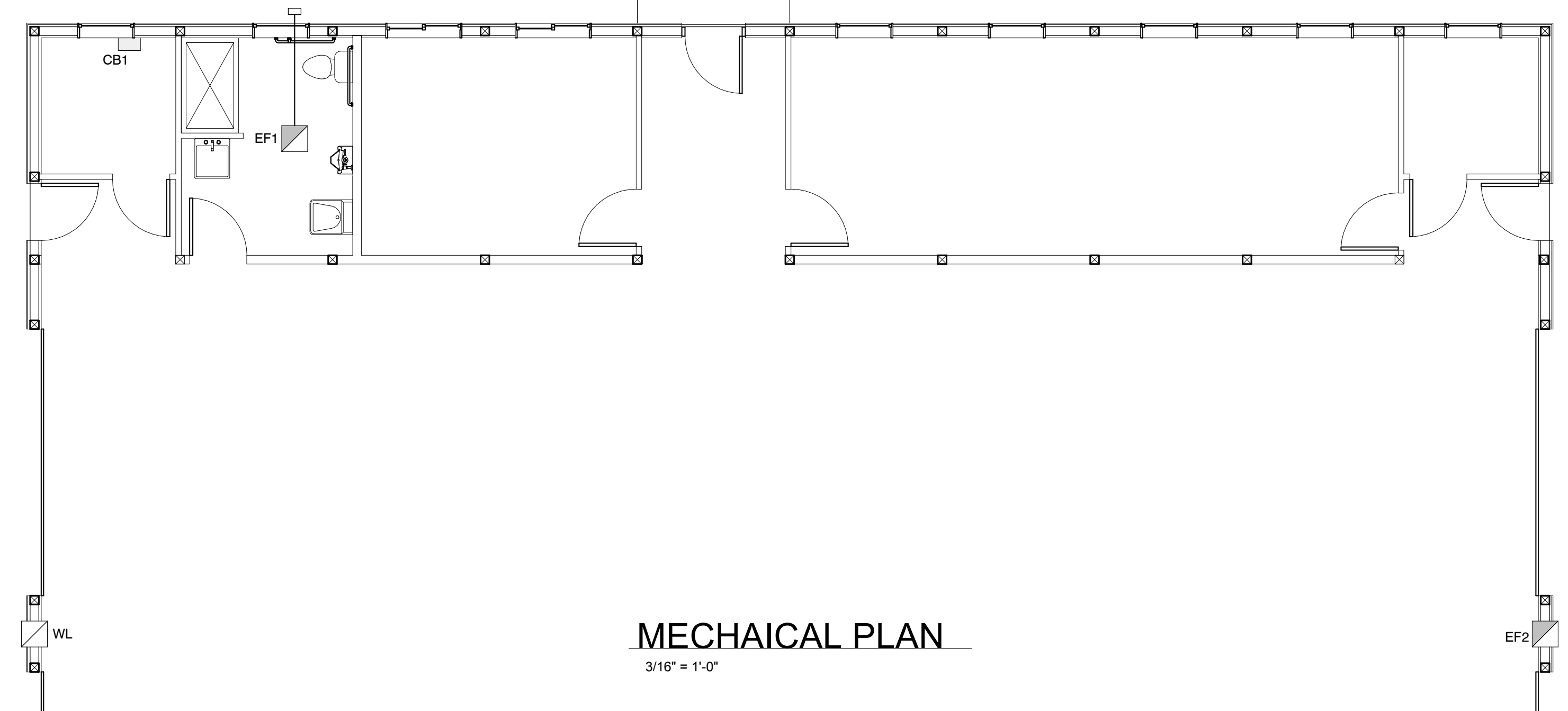
**PEX HYDRONIC PLAN**  
3/16" = 1'-0"



**PLUMBING PLAN**  
1/2" = 1'-0"

**MECH SCHEDULE**

- EF1 CEILING MOUNT EXHAUST FAN  
130 cfm w/ 6" dia DUCT and WALL CAP
- EF2 WALL MOUNT EXHAUST FAN  
2500 cfm w/ MOTOR ACTUATED LOUVER & WEATHER HOOD  
AUTOMATIC OPERATION w CO MONITOR & TIMED MANUAL SWITCHING
- WL WALL MOUNT INTAKE AIR MOTOR ACTUATED LOUVER  
w/ WEATHER HOOD
- CB1 COMBI MODULATING BURNER HOT WATER CONDENSING BOILER, 199 MBH  
LOCKINVAR NOBLE or APPROVED EQUAL  
w/ 10 ZONE HYDRONIC MANIFOLD



**MECHAICAL PLAN**  
3/16" = 1'-0"

Project Status  
**Lake Township Fire Station**  
Green Rd  
Lake City, MI

issue/revise  
BIDS 04/04/24

pressell  
engineering  
design  
8995 W. Kelly Rd.  
Lake City, MI 49651  
231.839.3969

Project No.  
**2357**

Drawn By: Author  
Checked By: Checker

Sheet Title  
MECHANICAL PLAN  
Approver  
Designer

**M1.0**  
Sheet Number