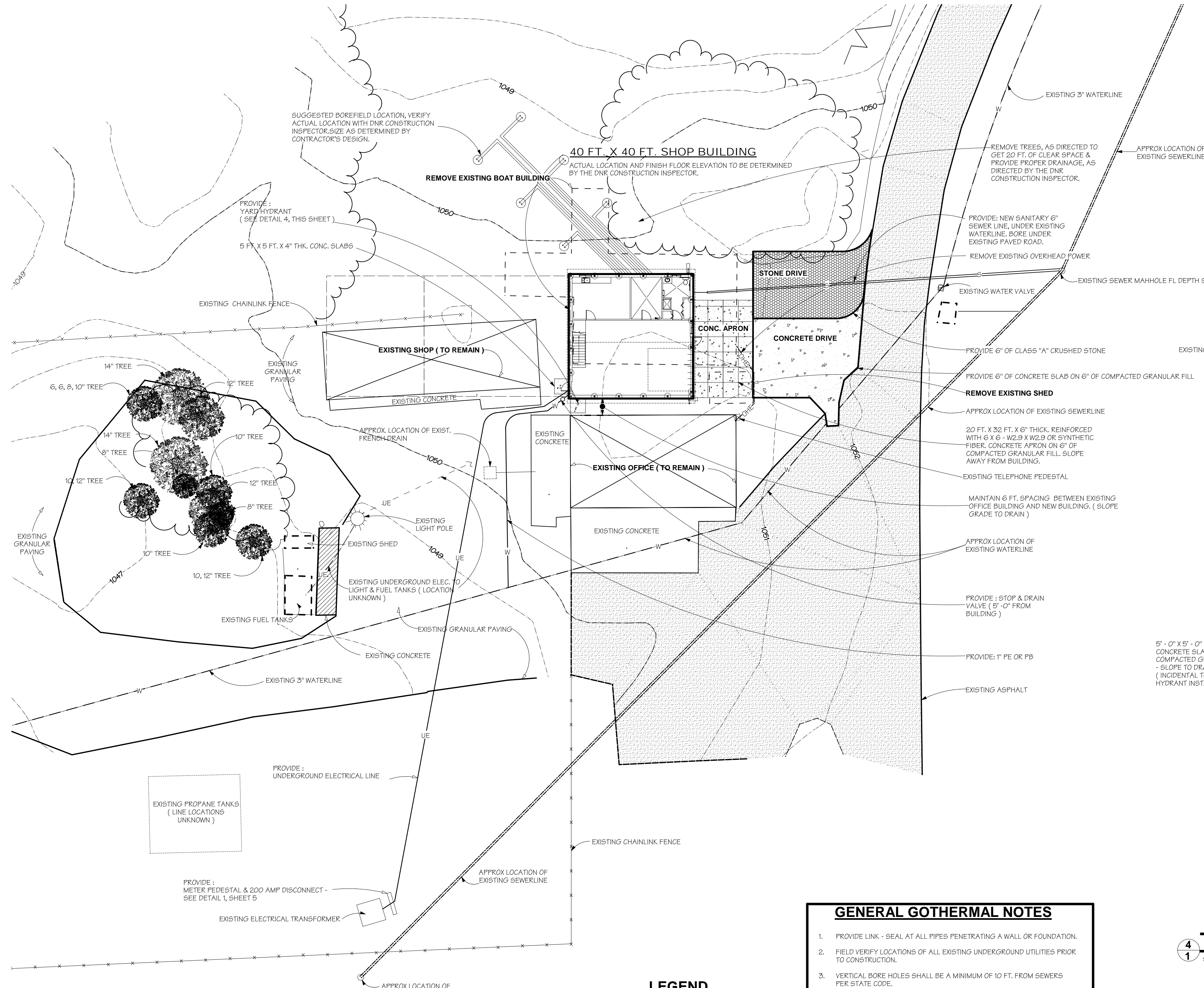


MISSOURI RIVER FISHERIES SHOP BUILDING MONONA COUNTY, IOWA PROJECT NO. 09-04-67-02



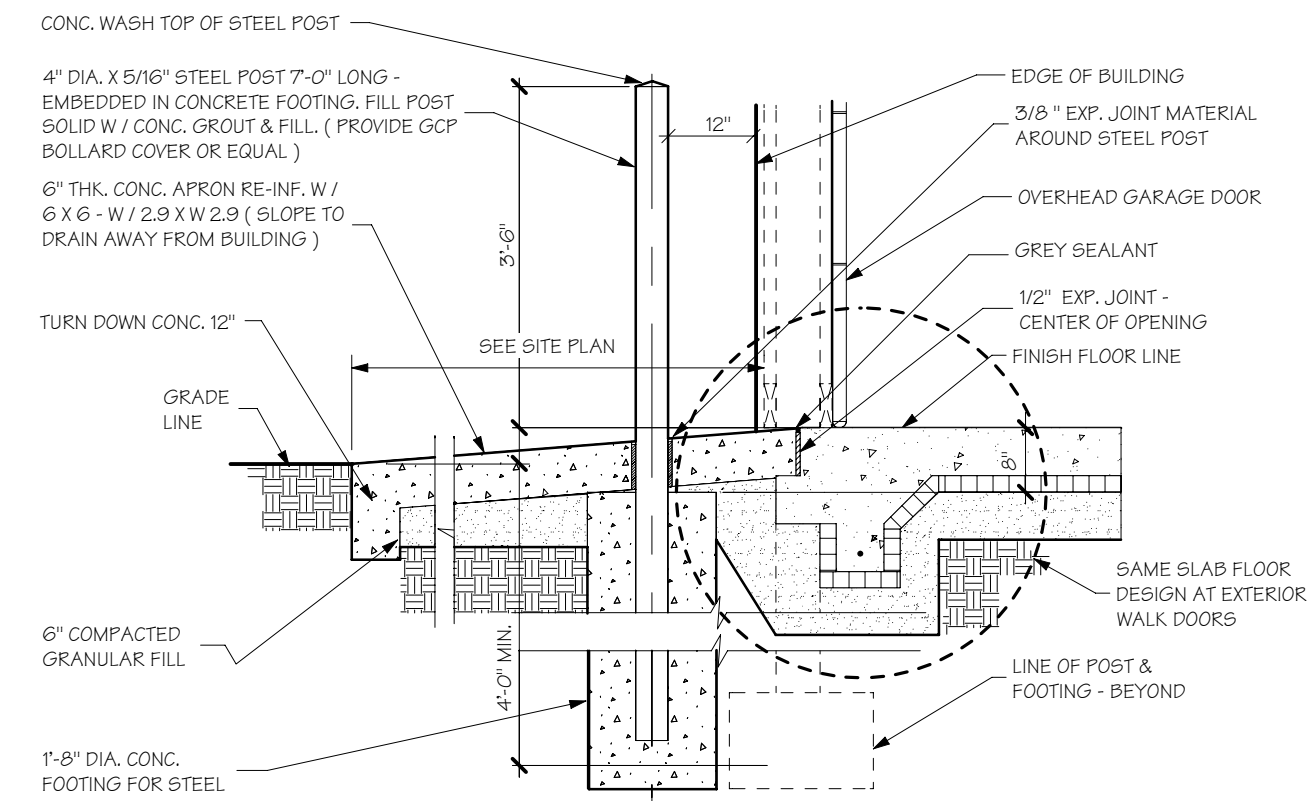
LEGEND

- UE -- EXISTING UNDERGROUND ELECTRICAL
- - - - - OHC - EXISTING OVERHEAD PRIMARY ELECTRICAL
- ==== S ==== EXISTING SEWERLINE
- W --- EXISTING WATERLINE
- ==== S ==== NEW SEWERLINE
- W --- NEW WATERLINE

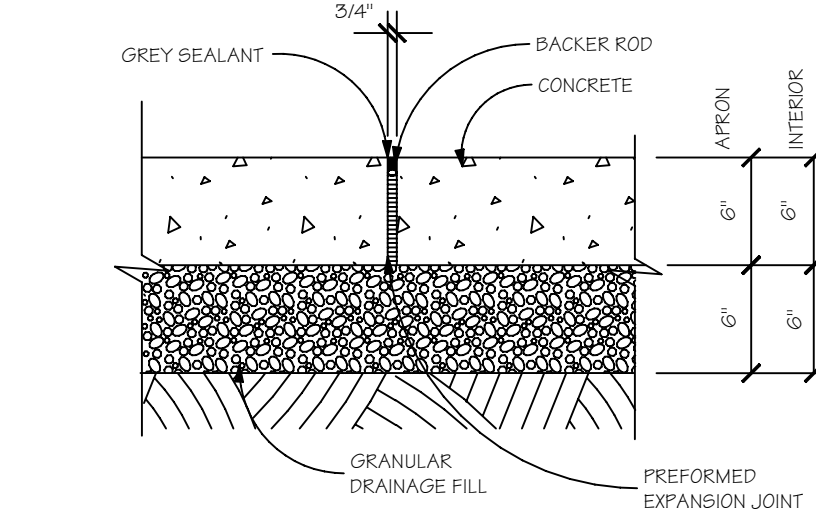
SITE PLAN SCALE 1" = 20'-0"

GENERAL GOTHERMAL NOTES

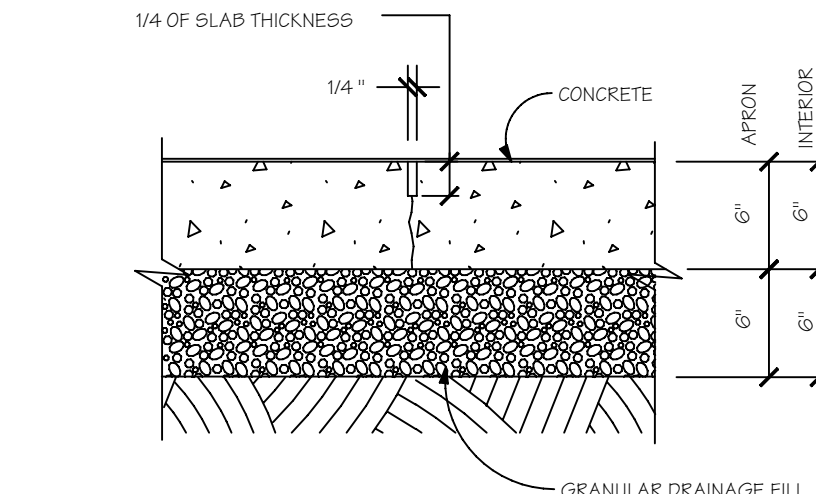
1. PROVIDE LINK - SEAL AT ALL PIPES PENETRATING A WALL OR FOUNDATION.
2. FIELD VERIFY LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
3. VERTICAL BORE HOLES SHALL BE A MINIMUM OF 10 FT. FROM SEWERS PER STATE CODE.
4. LOOP FIELD CONTRACTOR SHALL COORDINATE LOOP FIELD INSTALLATION WITH BUILDING CONTRACTOR. CONTRACTORS TO COORDINATE UTILITY LOCATION AND INSTALLATION.
5. RESTORE ALL GRADES TO CONDITIONS EXISTING PRIOR TO COMMENCING OF WORK. GROUT AND BACKFILL BORE HOLES SAME DAY AS DRILLED. DO NOT LEAVE ANY BORE HOLE OPEN OVERNIGHT OR WHEN SITE IS UNATTENDED.
6. INSTALL ALL LOOP FIELD PIPING WITH UNIFORM SLOPE TO AVOID AIR POCKETS.
7. GROUND - COUPLED HEAT PUMP WELL FIELD
6 FOUR INCH DIAMETER WELLS SPACED 20' - 0" APART.
8. WELL SIZE AND DEPTH TO BE DETERMINED BY THE GEOTHERMAL DESIGN - BUILD CONTRACTOR AFTER THE SOIL CONDUCTIVITY TESTS HAVE BEEN PERFORMED.
9. SEE ADDITIONAL NOTES ON SHEET 5 MECHANICAL/ELECTRICAL



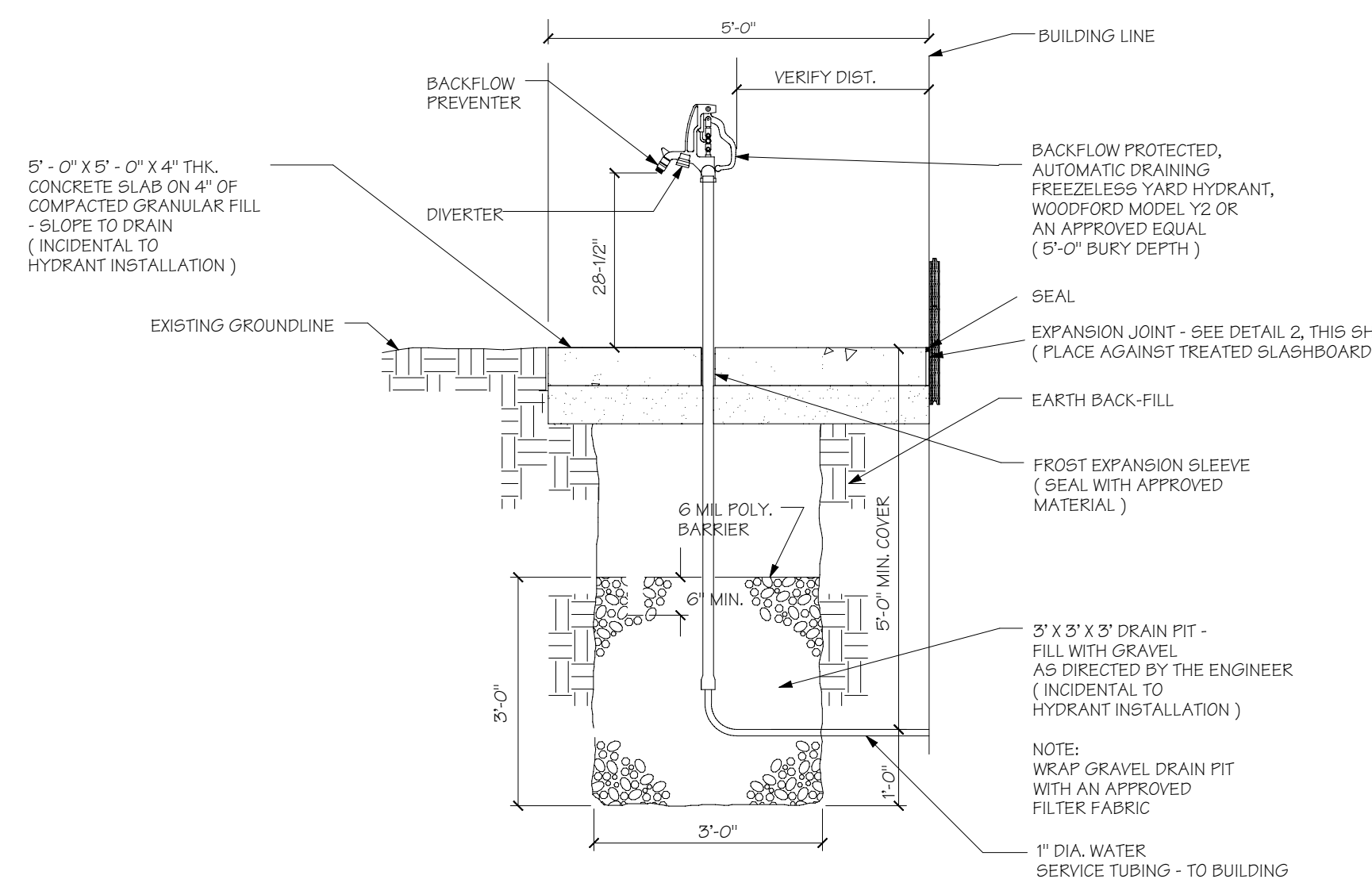
1 BOLLARD STEEL POST DETAIL SCALE: 1/2" = 1'-0"



2 TYP. EXPANSION JOINT DETAIL SCALE: 1/2" = 1'-0"

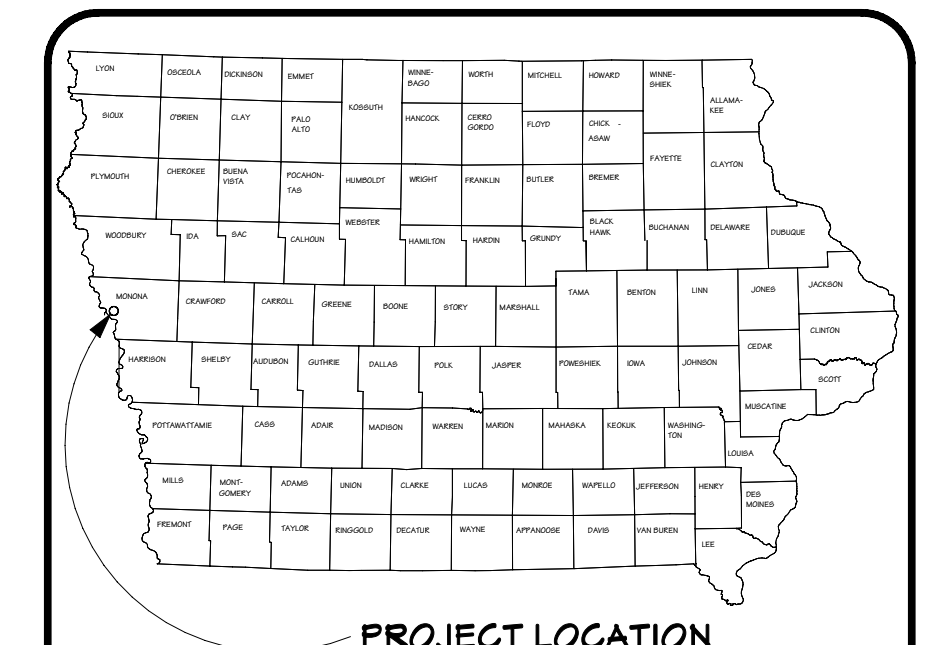


3 TYP. CONTROL JOINT DETAIL SCALE: 1/2" = 1'-0"

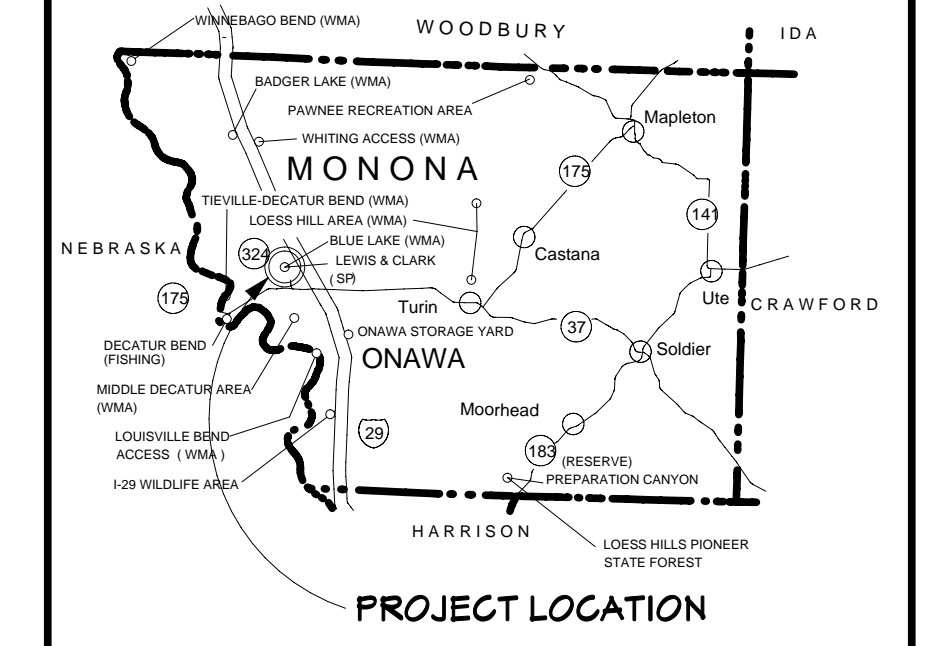


4 TYP. Y2 YARD HYDRANT DETAIL SCALE: 1/2" = 1'-0"

_____	DON LABATE, CHIEF - ENGINEERING	_____	DATE
_____	KEN HERRING, ADMINISTRATOR - CONSERVATION AND RECREATION DIVISION	_____	DATE
_____	LIZ CHRISTIANSEN, DEPUTY DIRECTOR - DEPARTMENT OF NATURAL RESOURCES	_____	DATE



KEY MAP



ESTIMATE OF QUANTITIES

QUANTITIES BELOW ARE ESTIMATE TO FACILITATE CONTRACTORS OWN BIDDING CALCULATIONS. THESE DO NOT RELIEVE CONTRACTOR IN PROVIDING A COMPLETE SYSTEM AS REQUIRED IN THE CONTRACT DOCUMENT. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL QUANTITIES, WHERE NECESSARY, TO FULLFILL THE CONTRACT AND NO ADDITIONAL PAYMENTS SHALL BE MADE FOR THESE QUANTITIES.

ITEM	QUANTITY	LUMP SUM
DEMOLITION		
EARTHWORK		LUMP SUM
6" CONCRETE APRON, DRIVE & (2) 4" THK. SLABS	1,620 SQFT	
6" COMPACTED CLASS "A" CRUSHED STONE SURFACING	23 TON	
SITE RESTORATION		LUMP SUM
6' X 40' X 40' INTERIOR CONCRETE SLAB	1600 SQFT	
40' X 40' POLE BUILDING	1600 SQFT	
UNDERFLOOR RADIANT HEATING 40' X 40'	1600 SQFT	
HVAC		LUMP SUM
WATER SERVICE	1000 L.F.	
6" SEWER LINE	1400 L.F.	
ELECTRICAL SERVICE	2400 L.F.	
GEOTHERMAL		LUMP SUM

DRAWING INDEX

TITLE	SHEET NO.
COVER SHEET, SITE PLAN & SITE DETAILS	1
EXTERIOR ELEVATIONS, DETAILS & SECTIONS	2
FLR. PLAN, MEZZANINE PLAN, DTL. / SECTION & SCHEDULES	3
INTERIOR ELEVATIONS & SECTIONS	4
MECHANICAL / ELECTRICAL	5

GENERAL NOTES

1. CONSTRUCT ENTIRE PROJECT IN ACCORDANCE WITH STATE BUILDING CODE ANSI 1771 AND THE AMERICAN WITH DISABILITY ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS & FACILITIES.
2. VERIFY ACTUAL LOCATIONS AND ELEVATIONS W/ D.N.R. CONSTRUCTION INSPECTOR. DO NOT ALLOW CHANGE OF ELEVATION GREATER THAN 1'-0" OF RISE EVERY 20'-0" OF RUN ON ACCESSIBLE ROUTE. FROM ACCESSIBLE PARKING STALL AND EACH FACILITY.
3. ALL DIMENSIONAL LUMBER IN CONTACT WITH THE GROUND AND CONCRETE TO BE TREATED.
4. PROVIDE MANUFACTURER STANDARD ANCHORING DEVICES.

SIDEWALK PAVING:

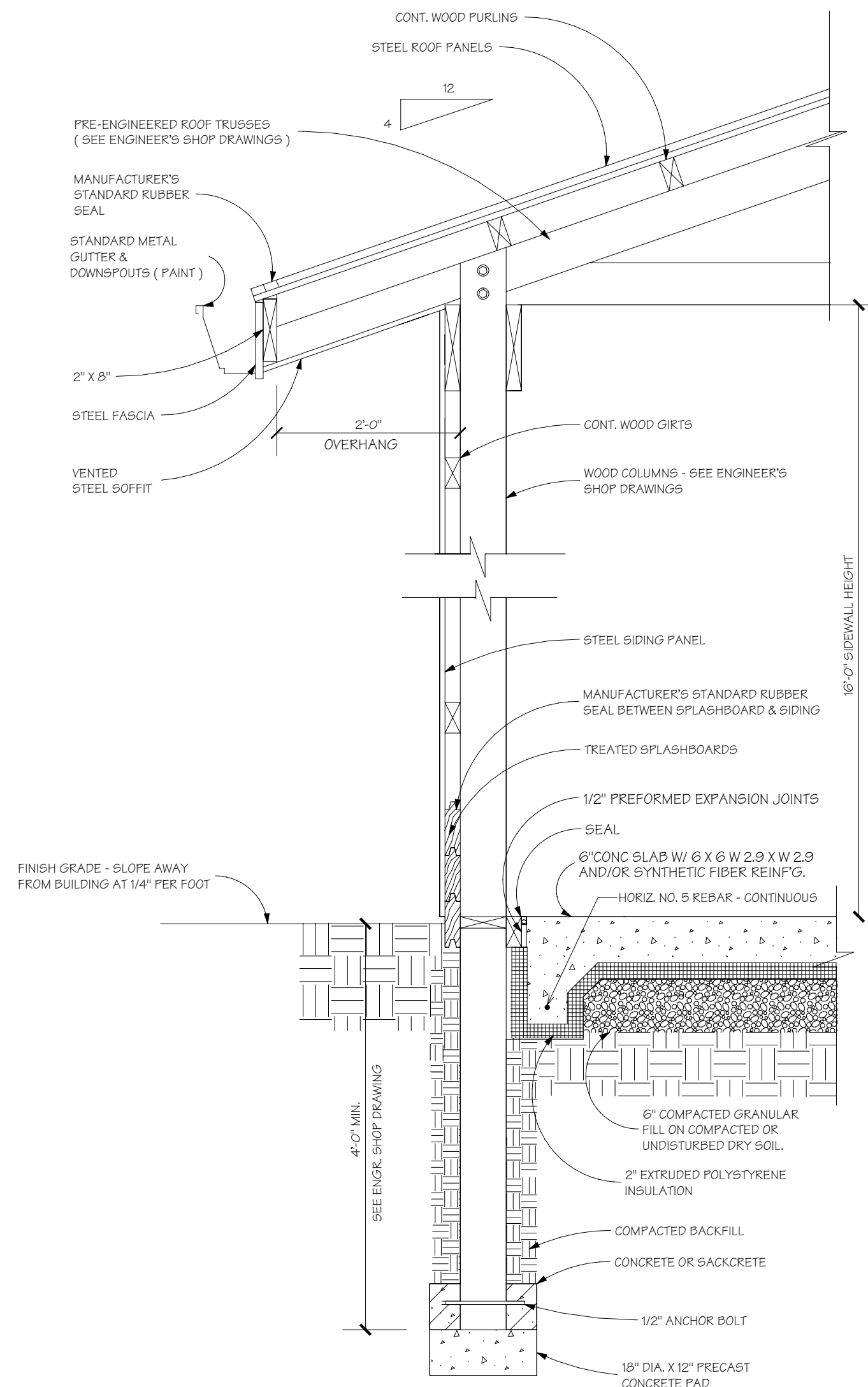
1. PROVIDE 3/4" EXPANSION JOINTS WHERE WALKS MEET OTHER WALKS, CURBS, SLABS AND AT EVERY 45' INTERVALS.
2. PROVIDE 1/8" WIDE BY 1/4" CONTROL JOINT EVERY 5'-0" INTERVAL OR AS SHOWN.

DESIGNED BY R. NEWELL	DATE 06/20/07
CHECKED BY T. AMICE	DATE 06/20/07
APPROVED BY T. AMICE	DATE 07/10/08
PROJECT NO. FR 5692	PROJECT NO. 09-04-67-02

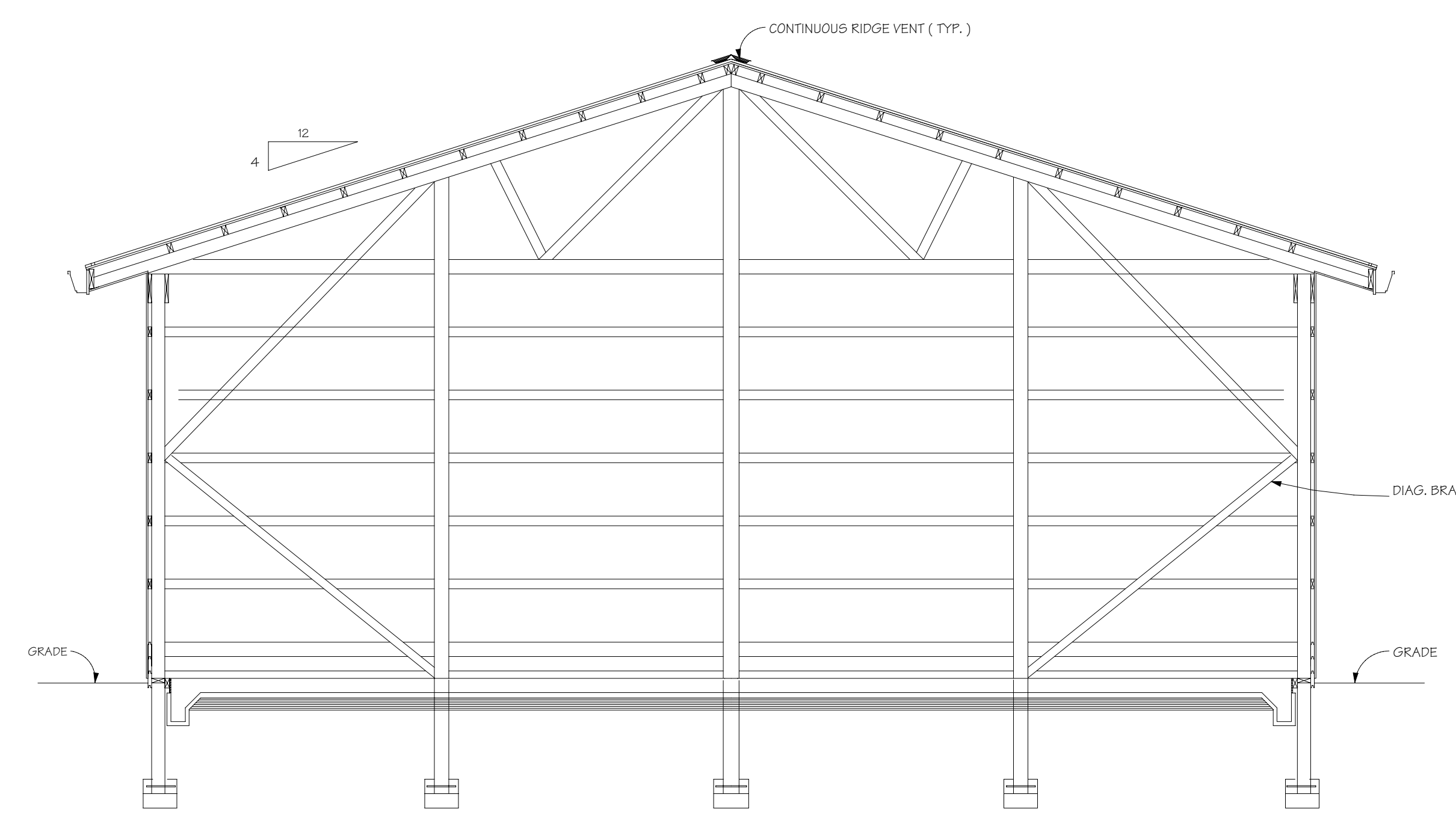
MISSOURI RIVER FISHERIES
 SHOP BUILDING
 MONONA COUNTY, IOWA
 COVER SHEET, SITE PLAN & SITE DETAILS
 PROJECT NO. 09-04-67-02

IOWA DEPARTMENT OF NATURAL RESOURCES
 WALLACE STATE OFFICE BUILDING
 DES MOINES, IOWA 50319-0034

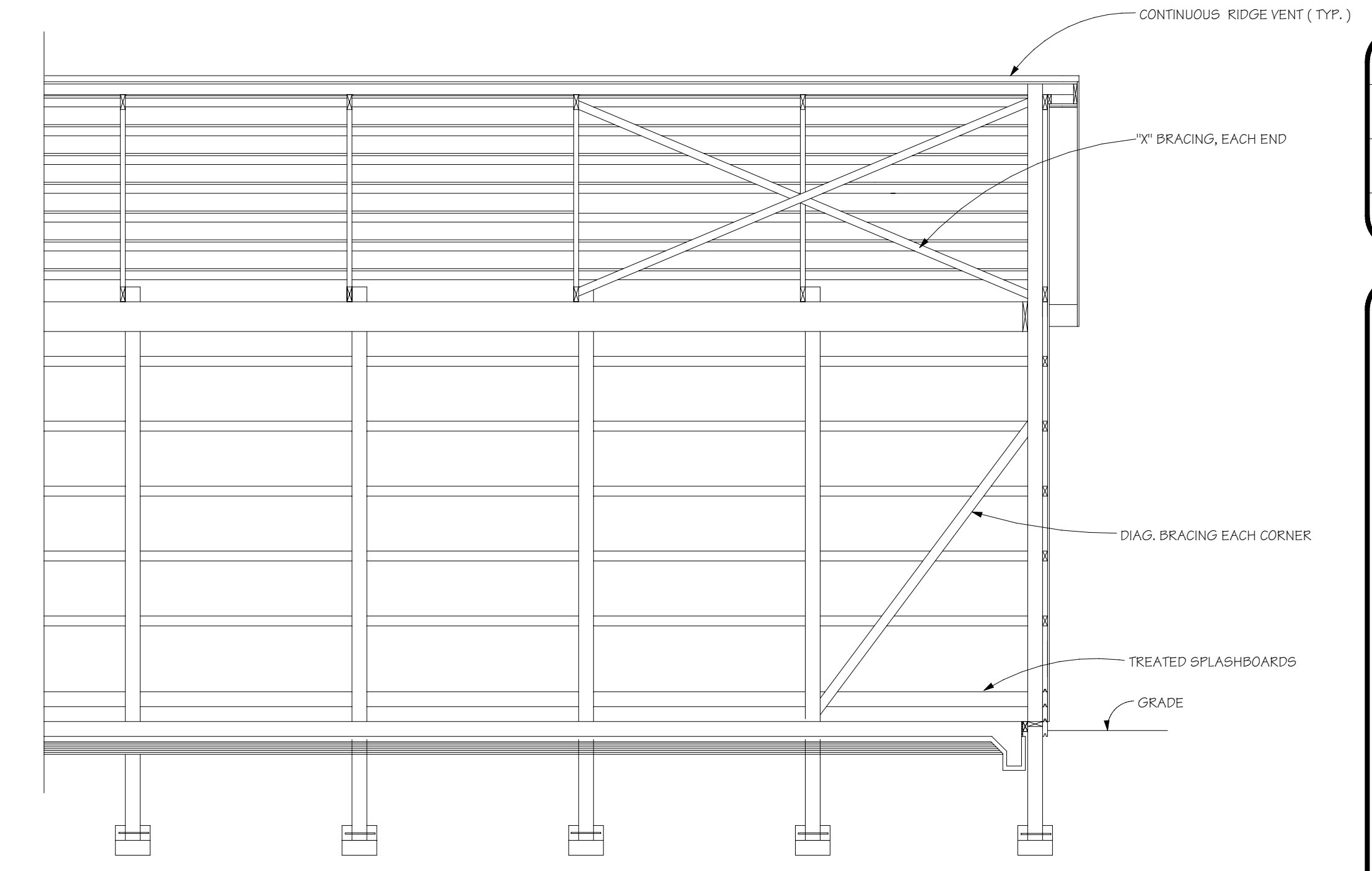




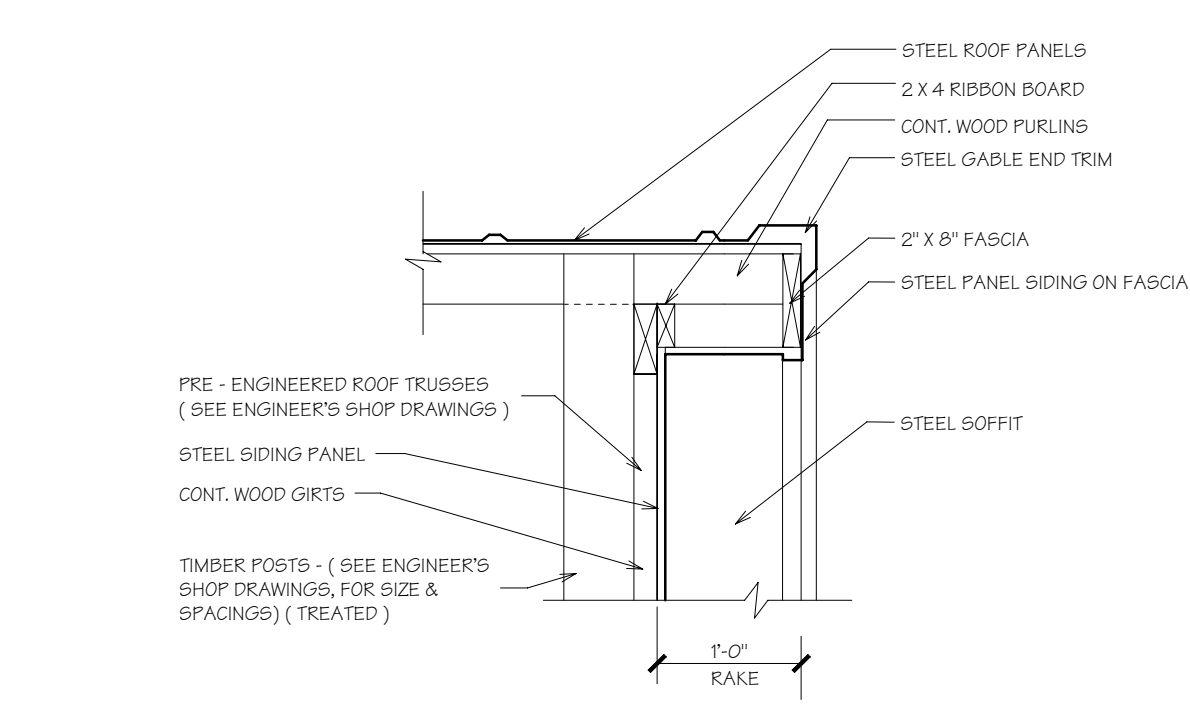
TYPICAL POLE BUILDING WALL SECTION
SCALE: 3/4" = 1'-0"



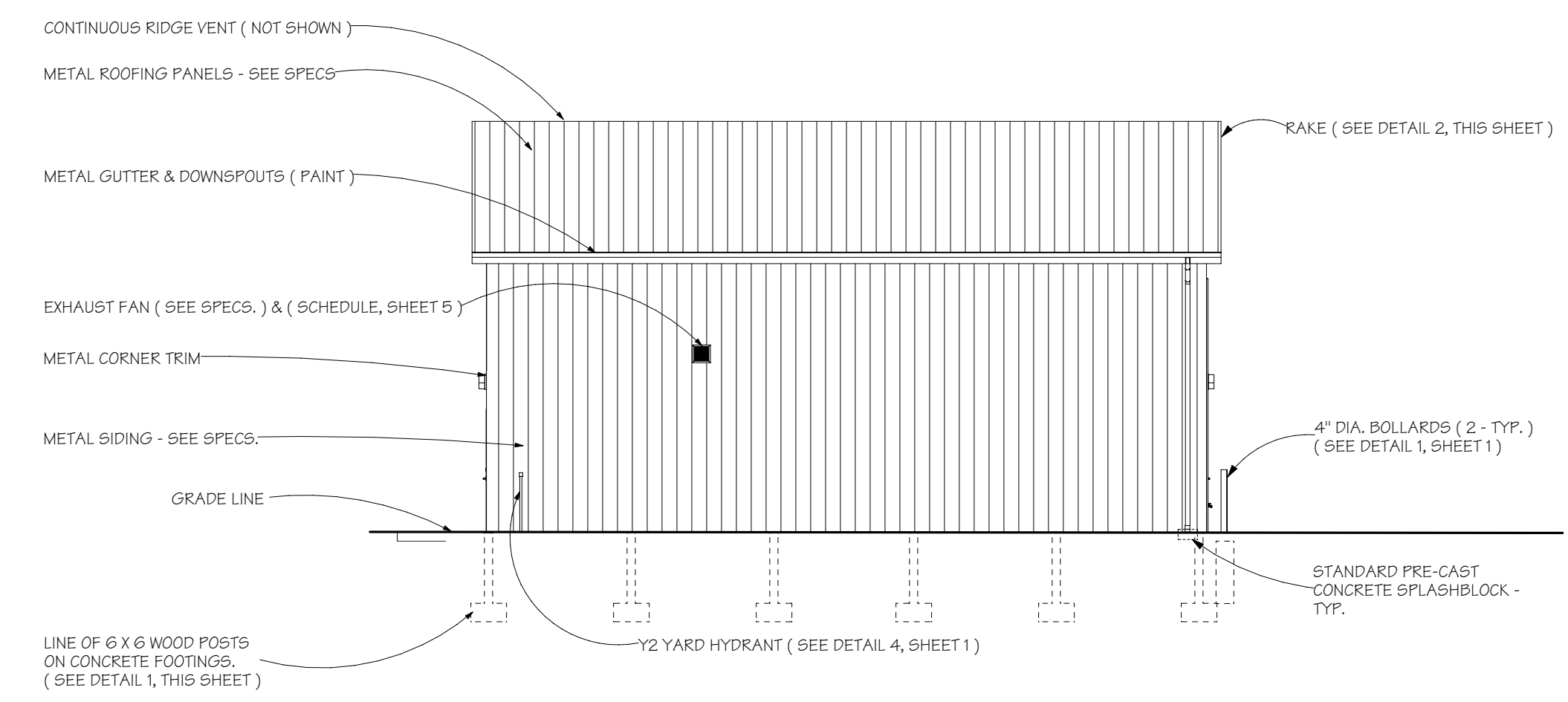
TRANSVERSE SECTION
SCALE: 1/4" = 1'-0"



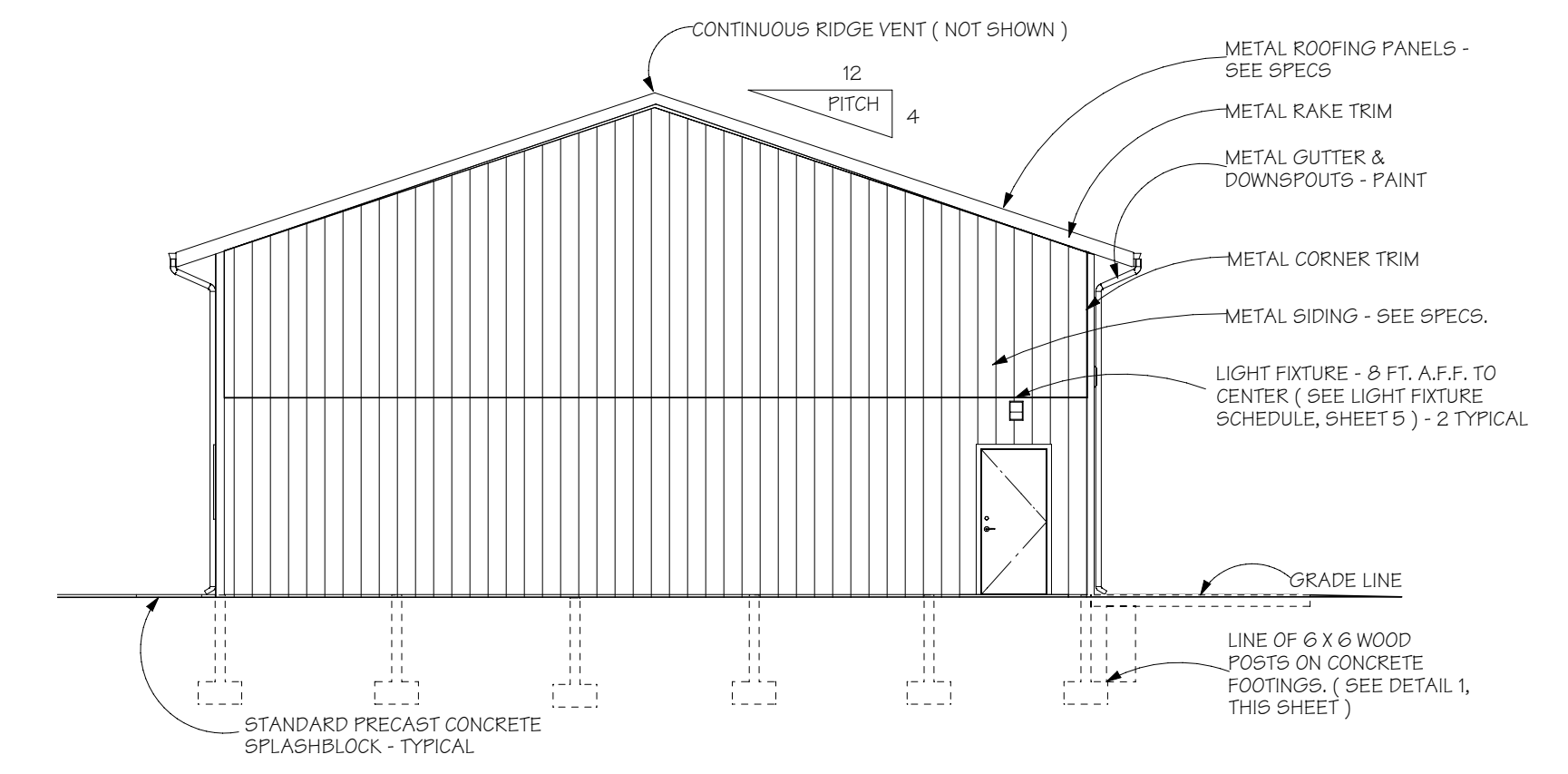
LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"



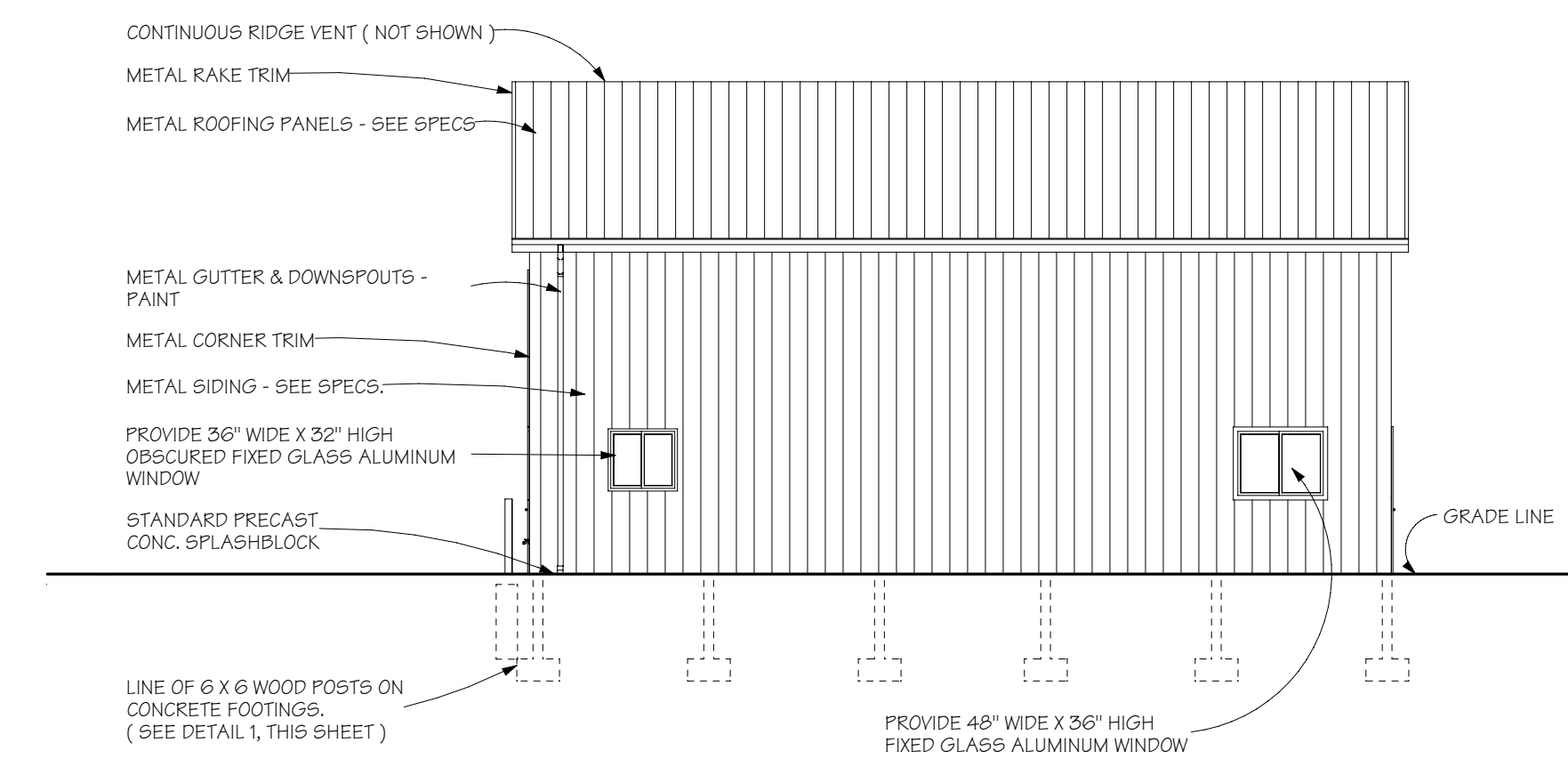
TYPICAL RAKE DETAIL
SCALE: 3/4" = 1'-0"



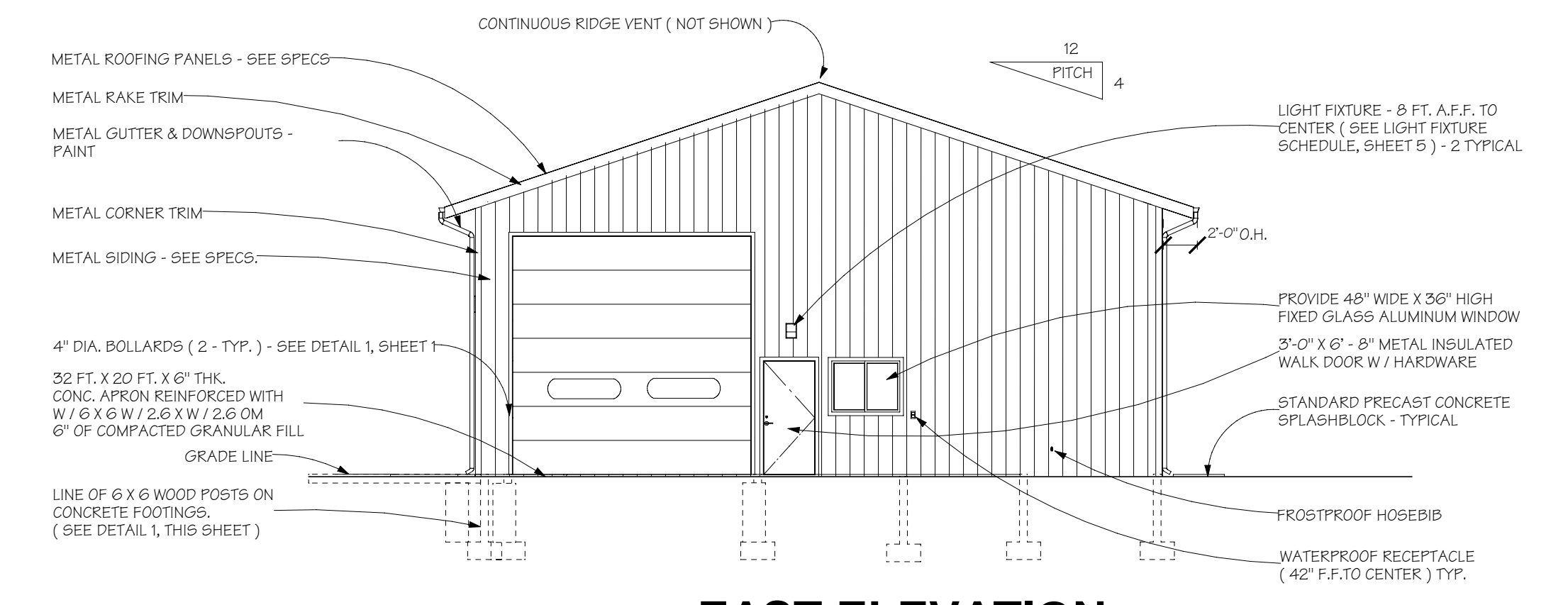
SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



WEST ELEVATION
SCALE: 1/8" = 1'-0"



NORTH ELEVATION
SCALE: 1/8" = 1'-0"



EAST ELEVATION
SCALE: 1/8" = 1'-0"

DESIGNED BY	R. NEWELL	DATE	06/20/07
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ACT. CODE NO.	FR 5692	PROJECT NO.	09-04-67-02

MISSOURI RIVER FISHERIES
SHOP BUILDING
MONONA COUNTY, IOWA
EXTERIOR ELEVATIONS, DETAILS & SECTIONS
PROJECT NO. 09-04-67-02

IOWA DEPARTMENT OF NATURAL RESOURCES
WALLACE STATE OFFICE BUILDING
DES MOINES, IOWA 50319-0034

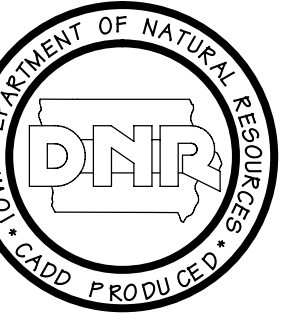


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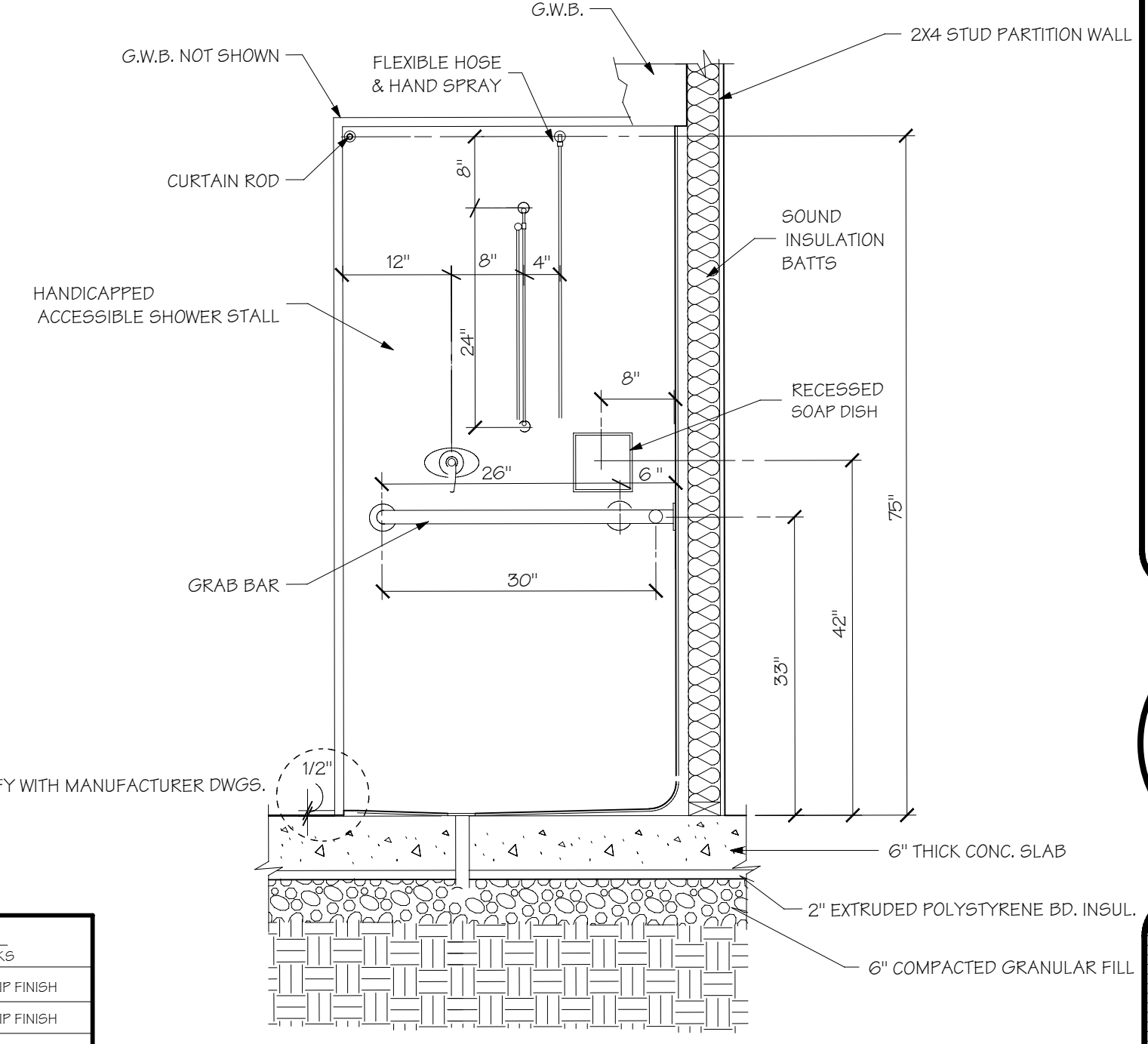
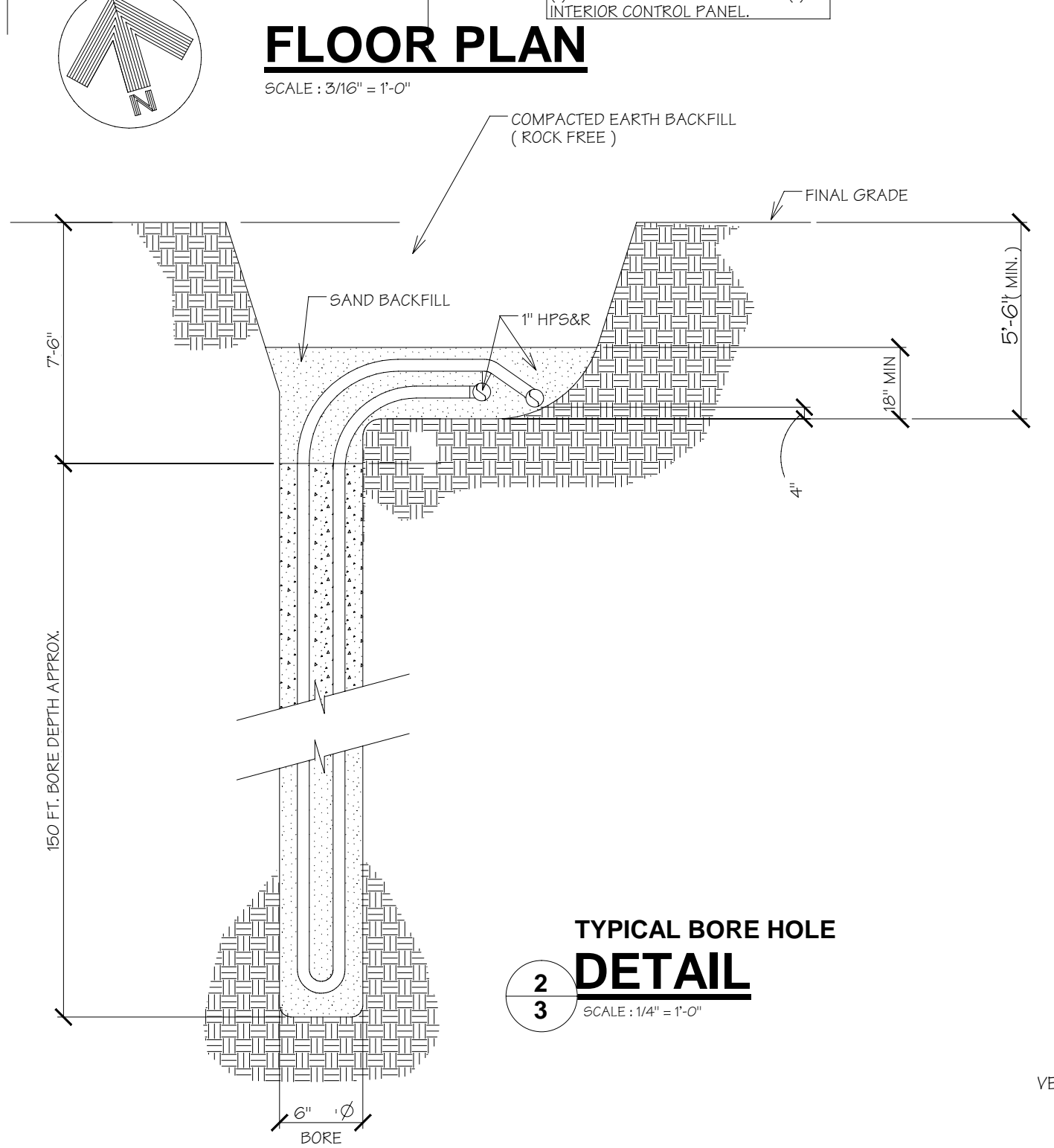
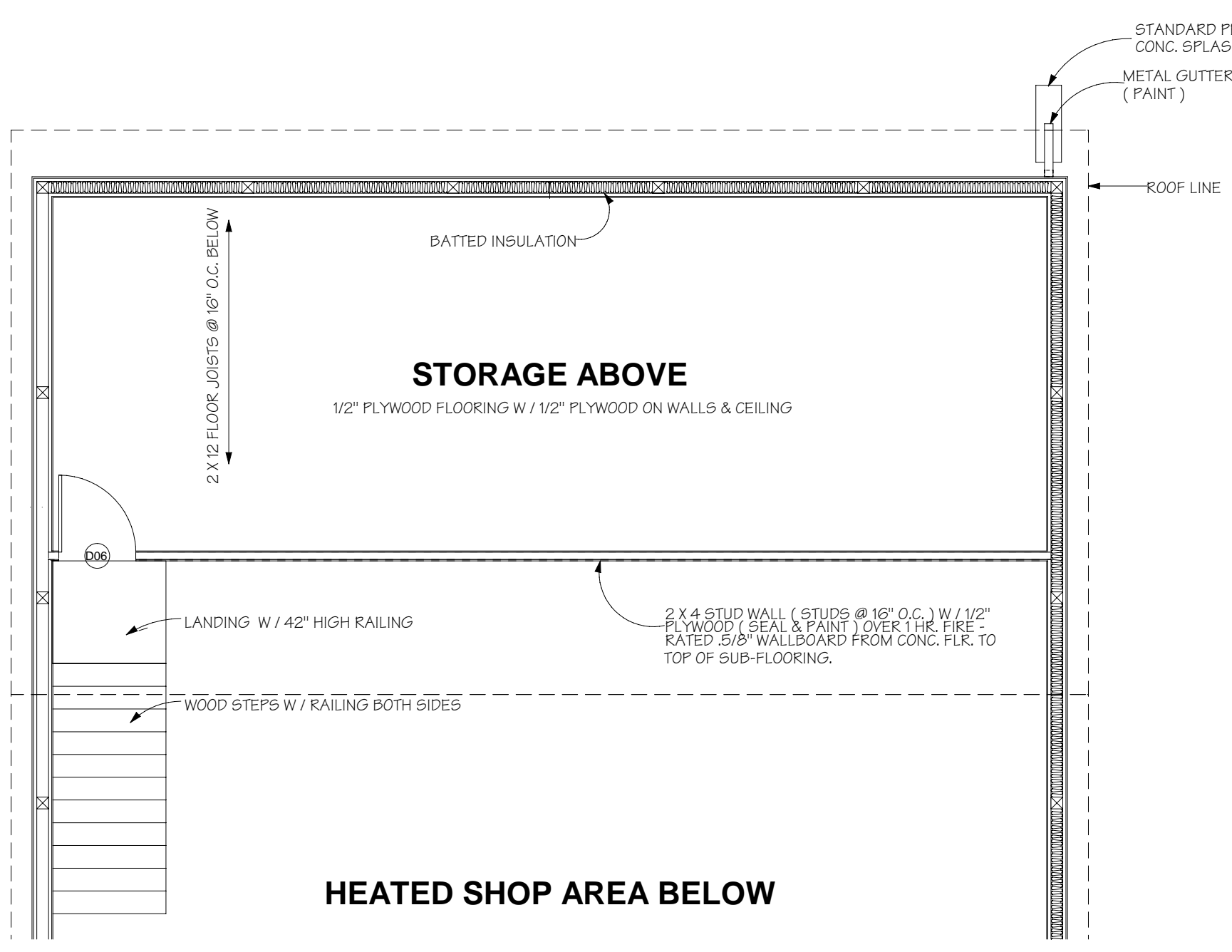
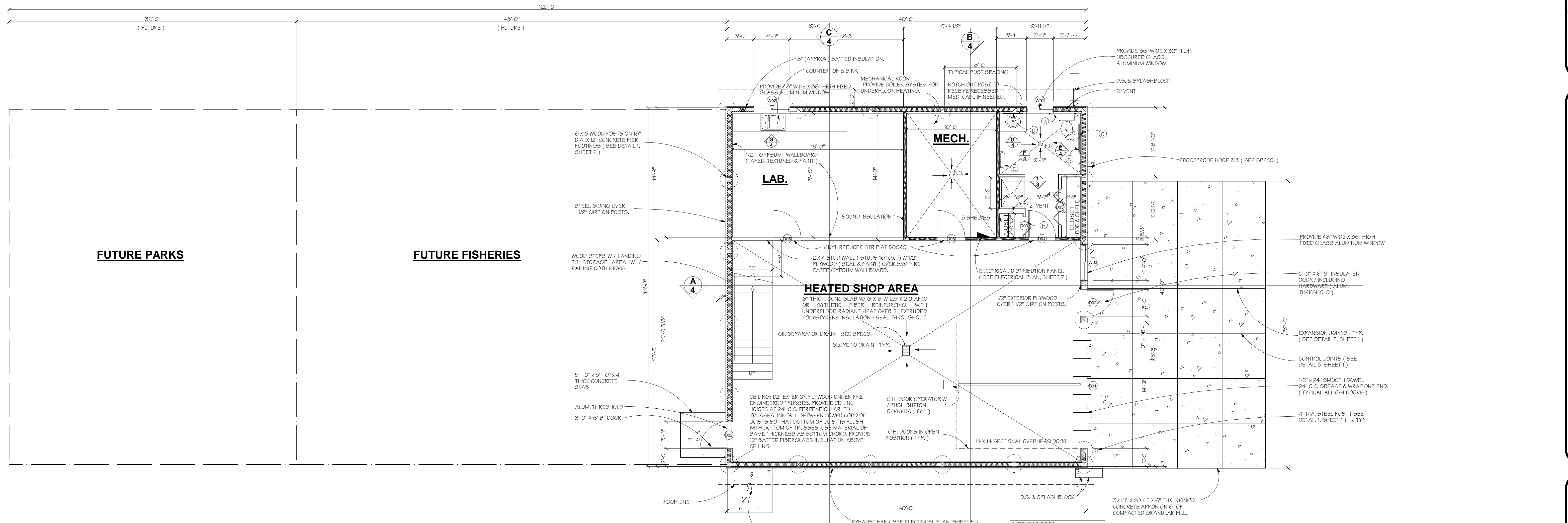
DESIGNED BY R. NEWELL	DATE 06/20/07
DESIGNED BY T. AMICE	DATE 06/20/07
CHECKED BY T. AMICE	DATE 07/01/08
ACT. CODE NO. FR 5692	PROJECT NO. 09-04-67-02

MISSOURI RIVER FISHERIES
 SHOP BUILDING
 MONONA COUNTY, IOWA
 FLOOR PLAN, MEZZANINE PLAN, DETAIL / SECTION & SCHEDULES
 PROJECT NO. 09-04-67-02

IOWA DEPARTMENT OF NATURAL RESOURCES
 WALLACE STATE OFFICE BUILDING
 DES MOINES, IOWA 50319-0034
OWNERSHIP OF DOCUMENTS: THE DOCUMENT AND THE IDEAS AND DESIGN INCORPORATED HEREIN ARE AN ORIGINAL DESIGN PROFESSIONAL EMPLOYED BY THE CONSTRUCTION SERVICES BUREAU OF THE IOWA DEPARTMENT OF NATURAL RESOURCES. AND SHALL BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THE IOWA DEPARTMENT OF NATURAL RESOURCES.



3

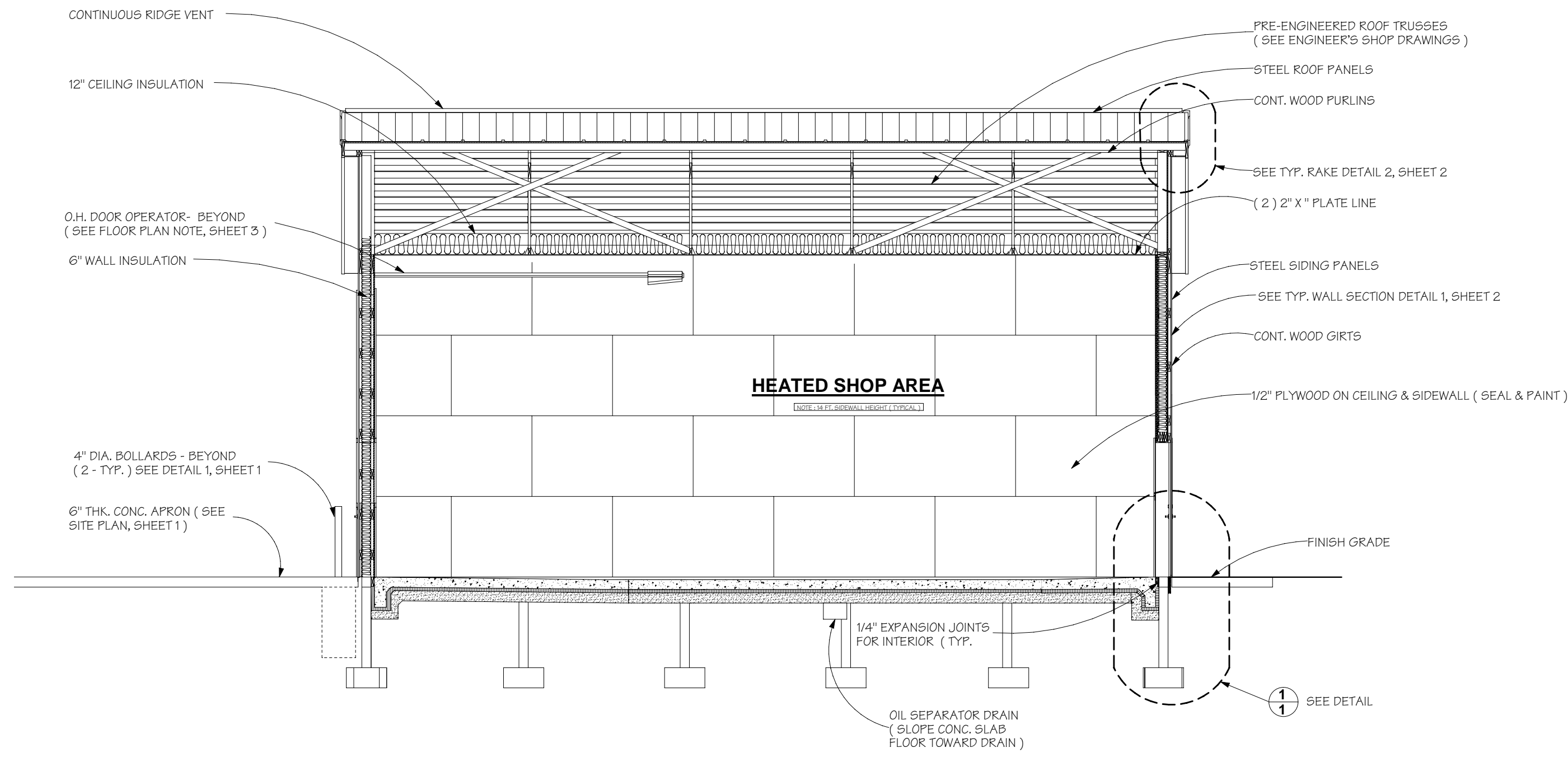


WINDOW SCHEDULE						
NUMBER	QTY	SIZE	WIDTH	HEIGHT	DESCRIPTION	COMMENTS
W01	1	302B	36"	32"	RIGHT SLIDING	
W02	2	403C	48"	36"	RIGHT SLIDING	

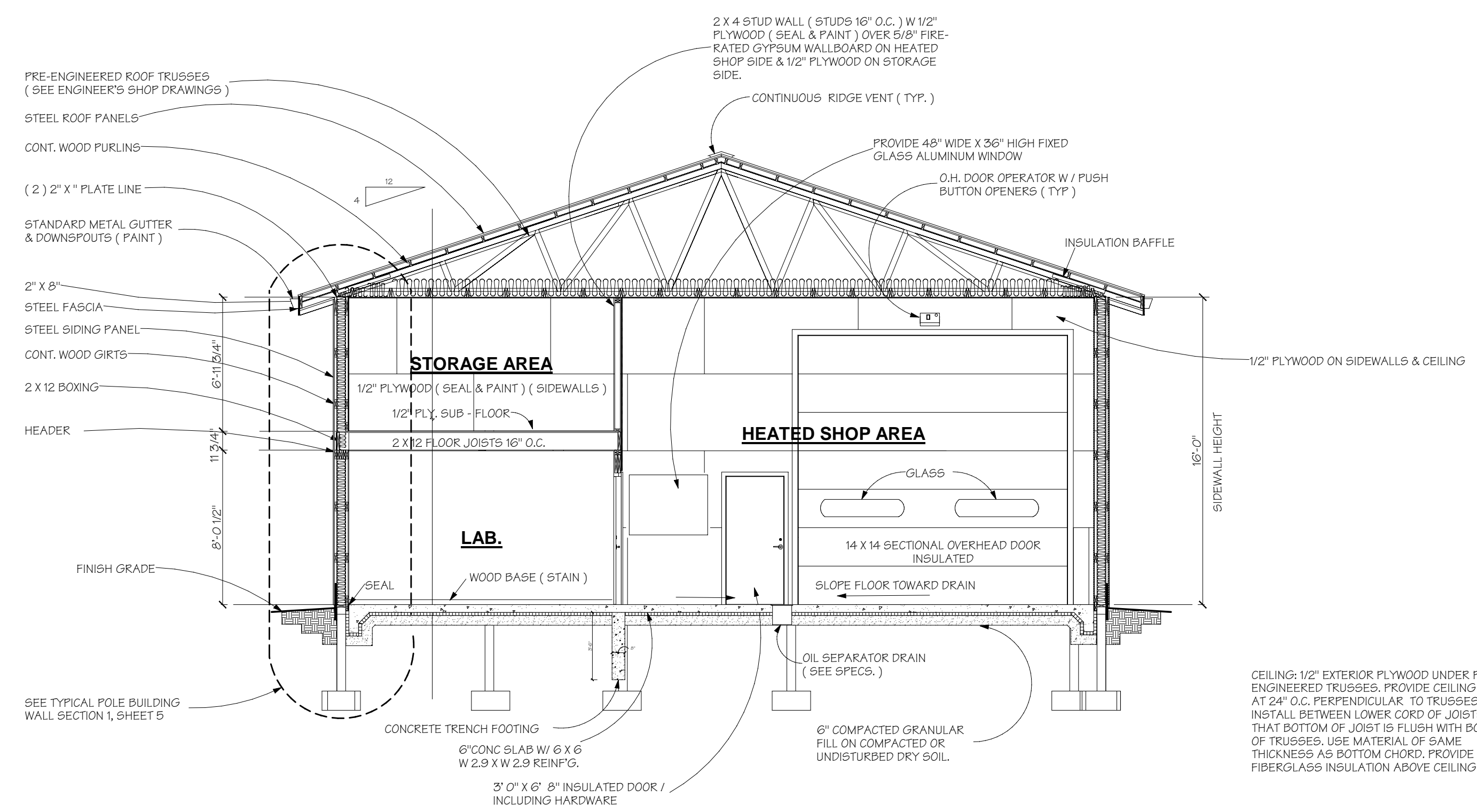
ROOM FINISH SCHEDULE									
ROOM NAME	FLOOR	BASE	WALL	CEILING	REMARKS	THICKNESS	COMMENTS	MT. HGT	REMARKS
LAB.	•	•	•	•	PROVIDE GYPSUM WALLBOARD WALLS & CEILING WITH SPRAY TEXTURED TREATMENT AND PAINT				
RESTROOM	•	•	•	•	SEAL AND PAINT PLYWOOD				
MECHANICAL ROOM	•	•	•	•	WOOD BASE - STAIN				
HEATED SHOP AREA	•	•	•	•					

DOOR SCHEDULE									
NUMBER	QTY	WIDTH	HEIGHT	DESCRIPTION	THICKNESS	COMMENTS	MT. HGT	REMARKS	
D01	1	168"	168"	STEEL SECTIONAL OVERHEAD DOOR	1.5/4	HARDWARE SET #105			
D02	2	36"	80"	METAL DOOR AND FRAME	1.3/4	HARDWARE SET #101			
D03	2	24"	80"	WOOD DOOR & FRAME - BIFOLD	1.3/8	HARDWARE SET #104			
D04	1	36"	80"	WOOD DOOR & FRAME	1.3/8	HARDWARE SET #102			
D05	2	36"	80"	WOOD DOOR & FRAME	1.3/8	HARDWARE SET #102			
D06	1	36"	80"	WOOD DOOR & FRAME	1.3/8	HARDWARE SET #102 TO MEZZANINE			

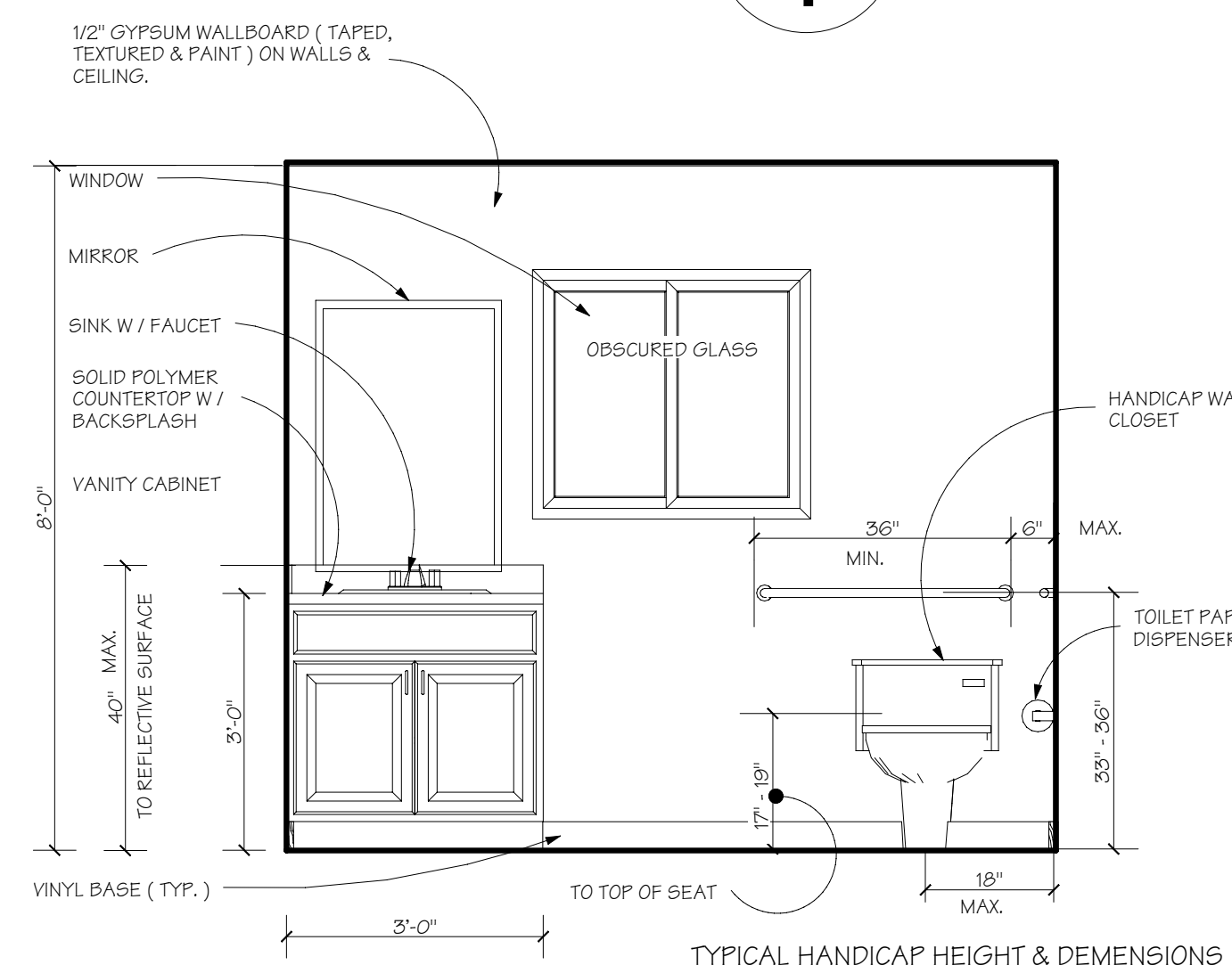
TOILET ACCESSORIES				
LT#	DESCRIPTION	MFR'S MODEL NO.	MT. HGT	REMARKS
A	GRAB BAR-CONCEALED MT.	ASI 3100 - 11/4" TYPE F-42"	36" A.F.F.	NON-SLIP FINISH
B	GRAB BAR-CONCEALED MT.	ASI 3100 - 11/4" TYPE F-36"	36" A.F.F.	NON-SLIP FINISH
C	TOILET PAPER DISPENSER	ASI 0021	30" A.F.F. TO BOTTOM	
D	RECESSED MED. CAB. W/ MIRROR	ASI 0982	40" A.F.F. TO BOTTOM	
E	TOWEL BAR 24" LONG	ASI 7265	36" A.F.F.	
F	COAT HOOKS - 2	ASI 7245	60" AND 26" A.F.F.	



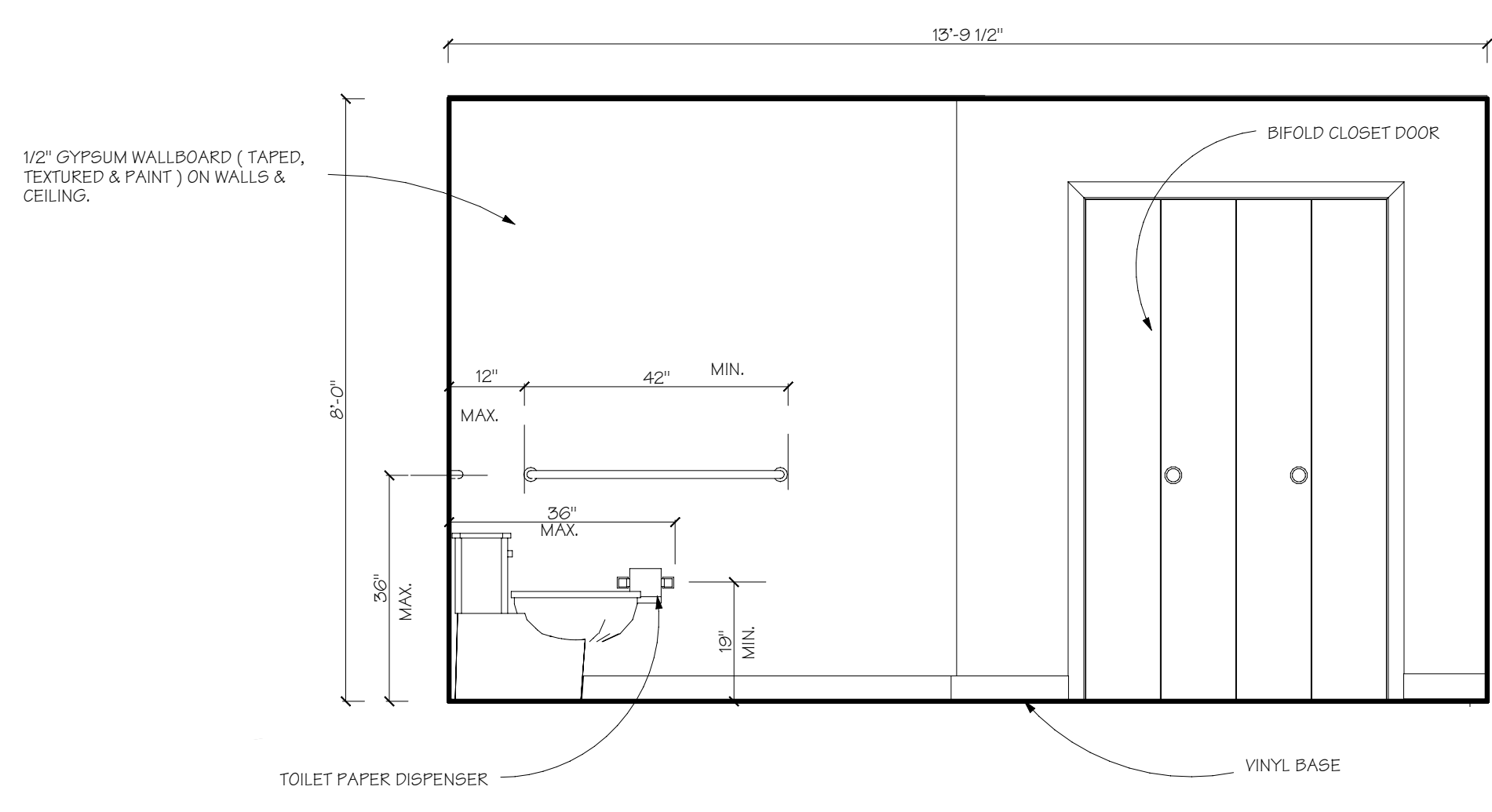
A
4 LONGITUDINAL SECTION
SCALE: 3/16" = 1'-0"



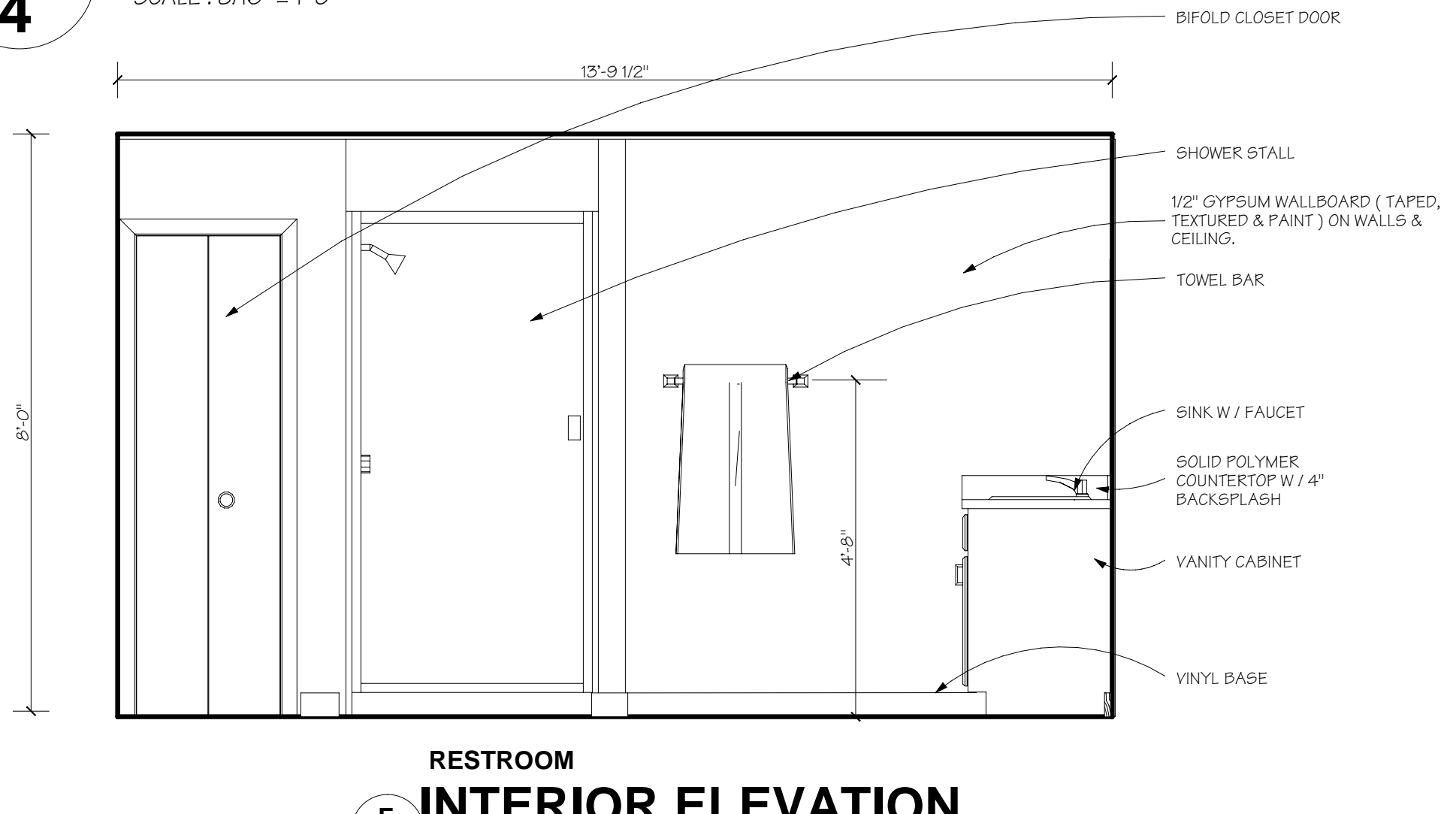
B
4 CROSS SECTION
SCALE: 3/16" = 1'-0"



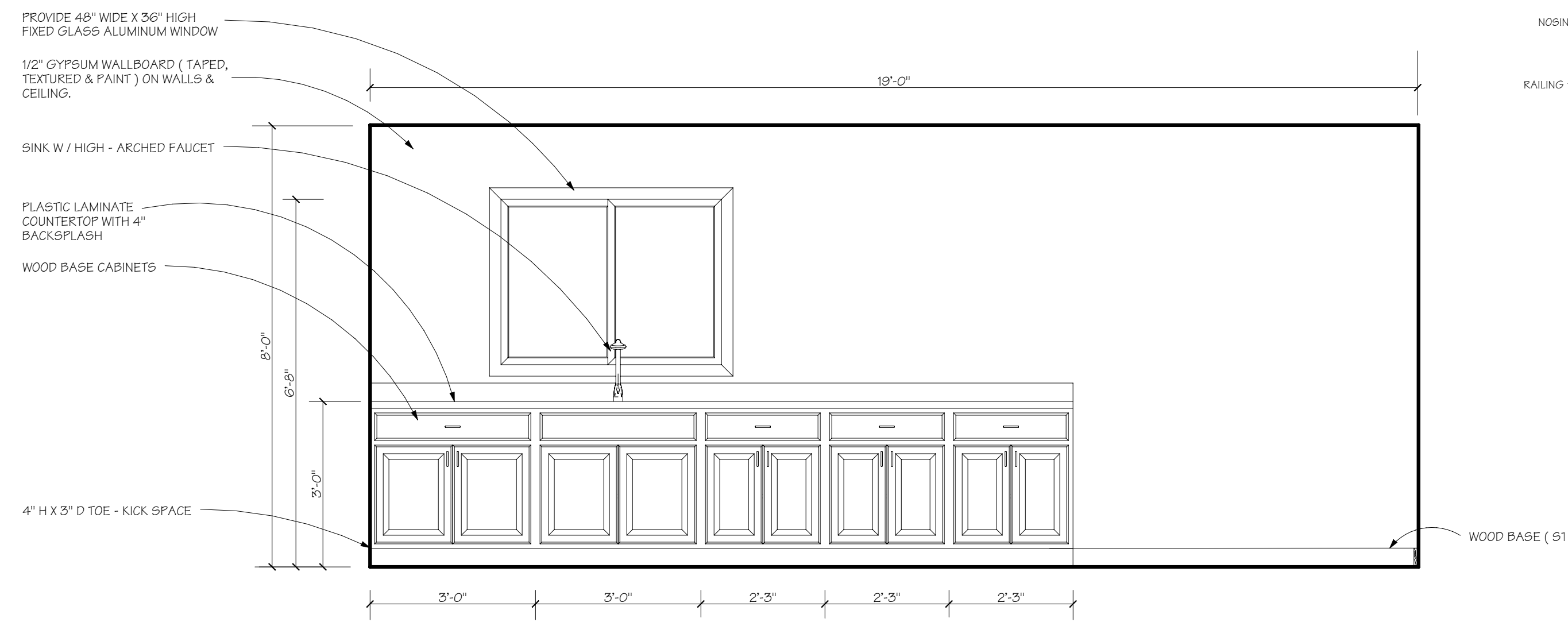
D
4 RESTROOM INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



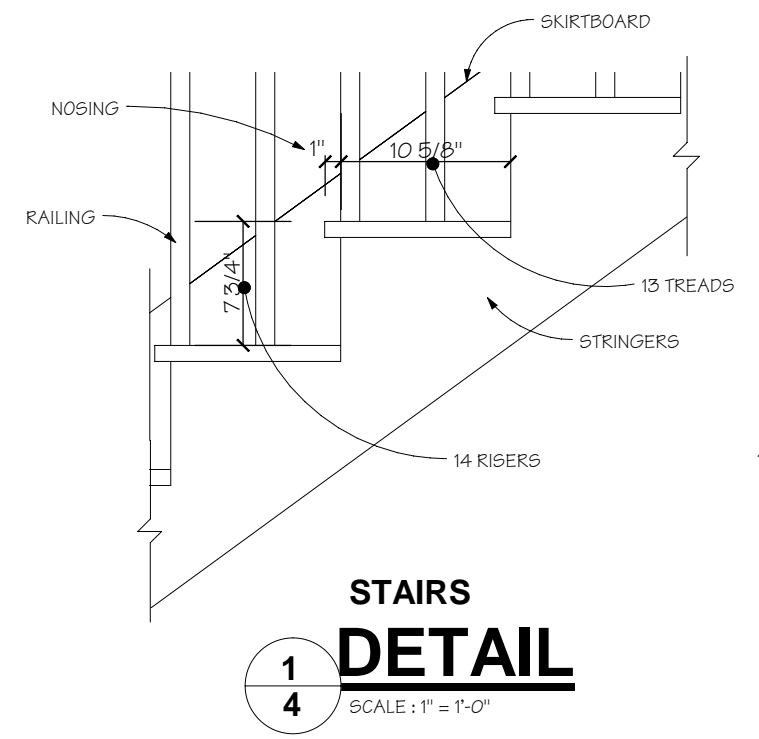
E
4 RESTROOM INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



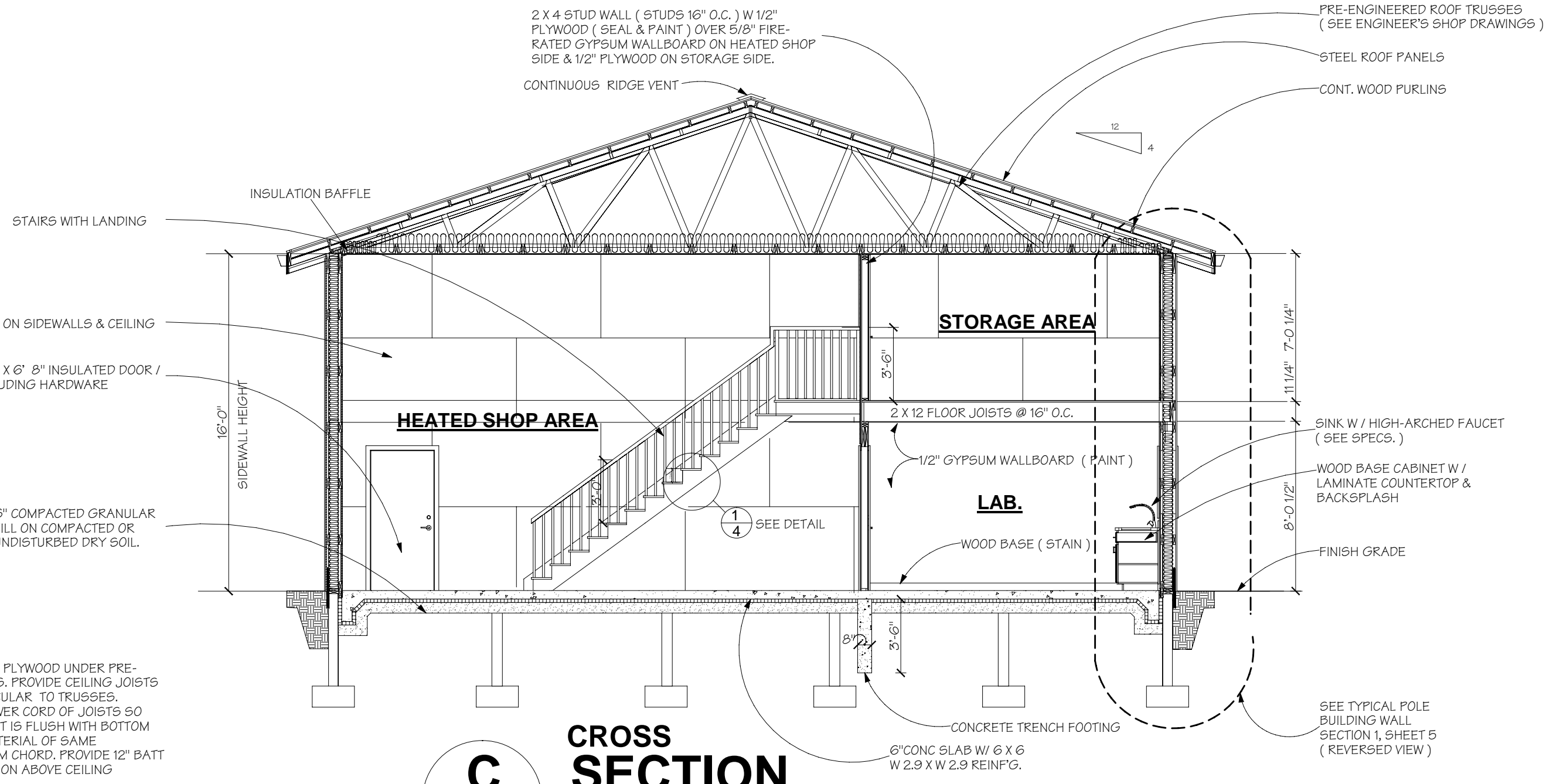
F
4 RESTROOM INTERIOR ELEVATION
SCALE: 1/2" = 1'-0"



G
4 LAB INTERIOR ELEVATION
SCALE: 3/16" = 1'-0"



1
4 STAIRS DETAIL
SCALE: 1" = 1'-0"



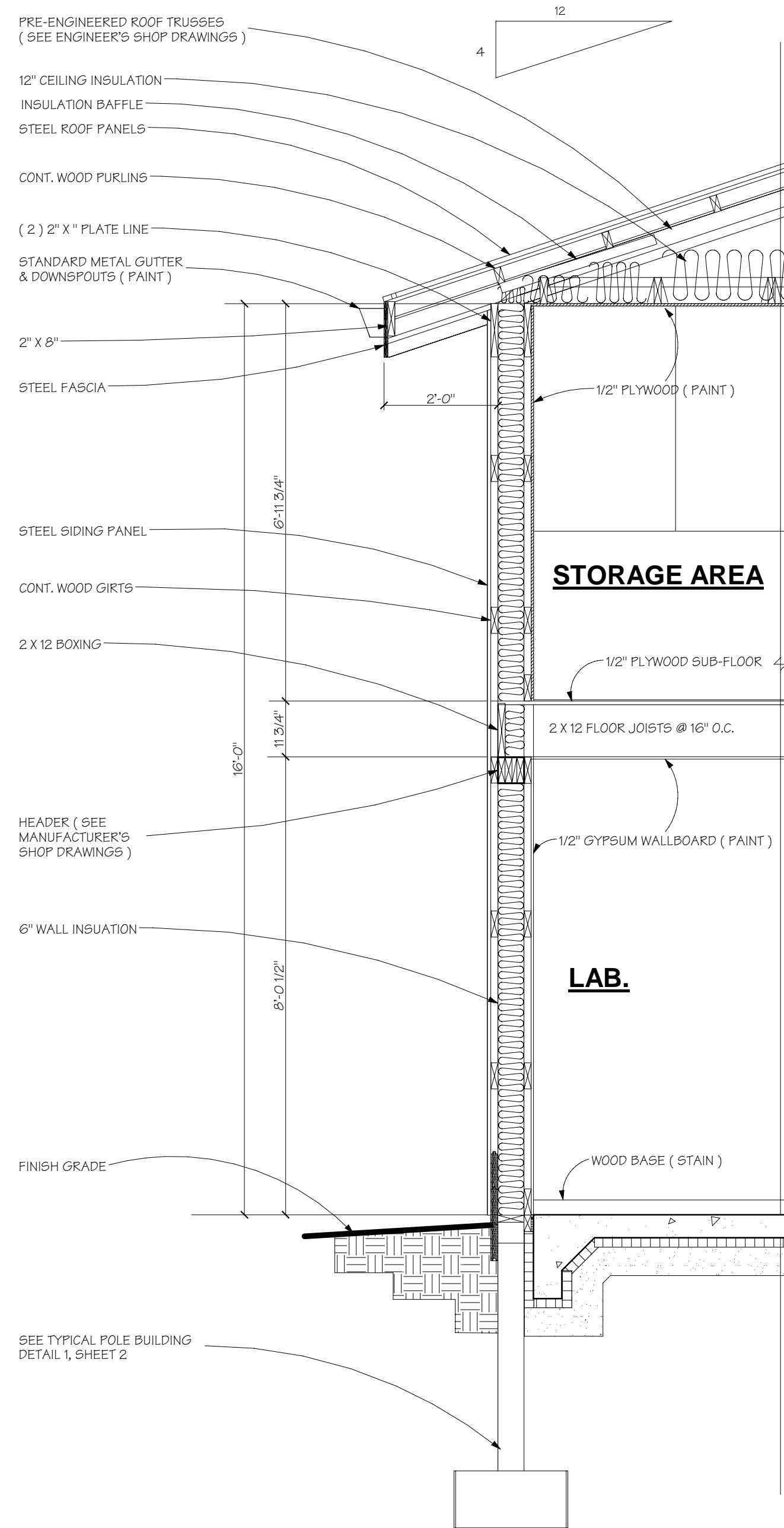
C
4 CROSS SECTION
SCALE: 3/16" = 1'-0"

DESIGNED BY	R. NEWELL	DATE	06/20/07
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MISSOURI RIVER FISHERIES
SHOP BUILDING
MONONA COUNTY, IOWA
INTERIOR ELEVATIONS & SECTIONS
PROJECT NO. 09-04-67-02

IOWA DEPARTMENT OF NATURAL RESOURCES
WALLACE STATE OFFICE BUILDING
DES MOINES, IOWA 50319-0034





TYPICAL SIDEWALL FRAMING DETAIL
SCALE: 1/2" = 1'-0"

PLUMBING NOTES

1. PROVIDE WATER AND SEWER SERVICES AS SHOWN ON SITE PLANS AND AS SPECIFIED IN APPROPRIATE SECTIONS OF THE PROJECT MANUAL FOR A COMPLETE AND PROPER INSTALLATION.
2. NO PLUMBING PLANS OF EITHER WASTE OR WATER INSIDE OF THE BUILDING ARE PROVIDED. ONLY LOCATIONS AND TYPES OF FIXTURES HAVE BEEN SHOWN AND/OR LOCATED THROUGHOUT THE DRAWINGS. USE BOTH THE ELECTRICAL PLAN, THE FLOOR PLAN AND THE PROJECT MANUAL TO LOCATE FIXTURES, DRAINS AND OTHER ANY OTHER PLUMBING SPECIALTIES. DO NOT SOLELY RELY ON THE MECHANICAL/ELECTRICAL DRAWING SHEET.
3. CONTRACTOR TO LAYOUT SYSTEMS IN ACCORDANCE WITH PROPER PRACTICES AND THE IOWA PLUMBING CODE. THE ACTUAL SIZE AND LOCATION IS TO BE DETERMINED BY THE CONTRACTOR SUBJECT TO APPROVAL OF THE DNR CONSTRUCTION INSPECTOR.

UNDERFLOOR HEATING NOTES:

1. PROVIDE DESIGN AND INSTALLATION OF AN UNDERFLOOR RADIANT SYSTEM AS SPECIFIED, BUT NOT SHOWN ON THE DRAWINGS, FOR THE HEATED SHOP AREA, LAB, MECHANICAL ROOM, AND RESTROOM. PROVIDE FOR A COMPLETE AND PROPER DESIGN AND INSTALLATION. THE SYSTEM IS EXPECTED TO BE SOURCED BY GEOTHERMAL (SEE NOTE BELOW) AND INDEPENDENT FROM THE AIR CONDITIONING.
2. PROVIDE DESIGN DRAWINGS OF COMPLETE SYSTEM TO THE ARCHITECT FOR REVIEW AND APPROVAL.

GEOTHERMAL NOTES:

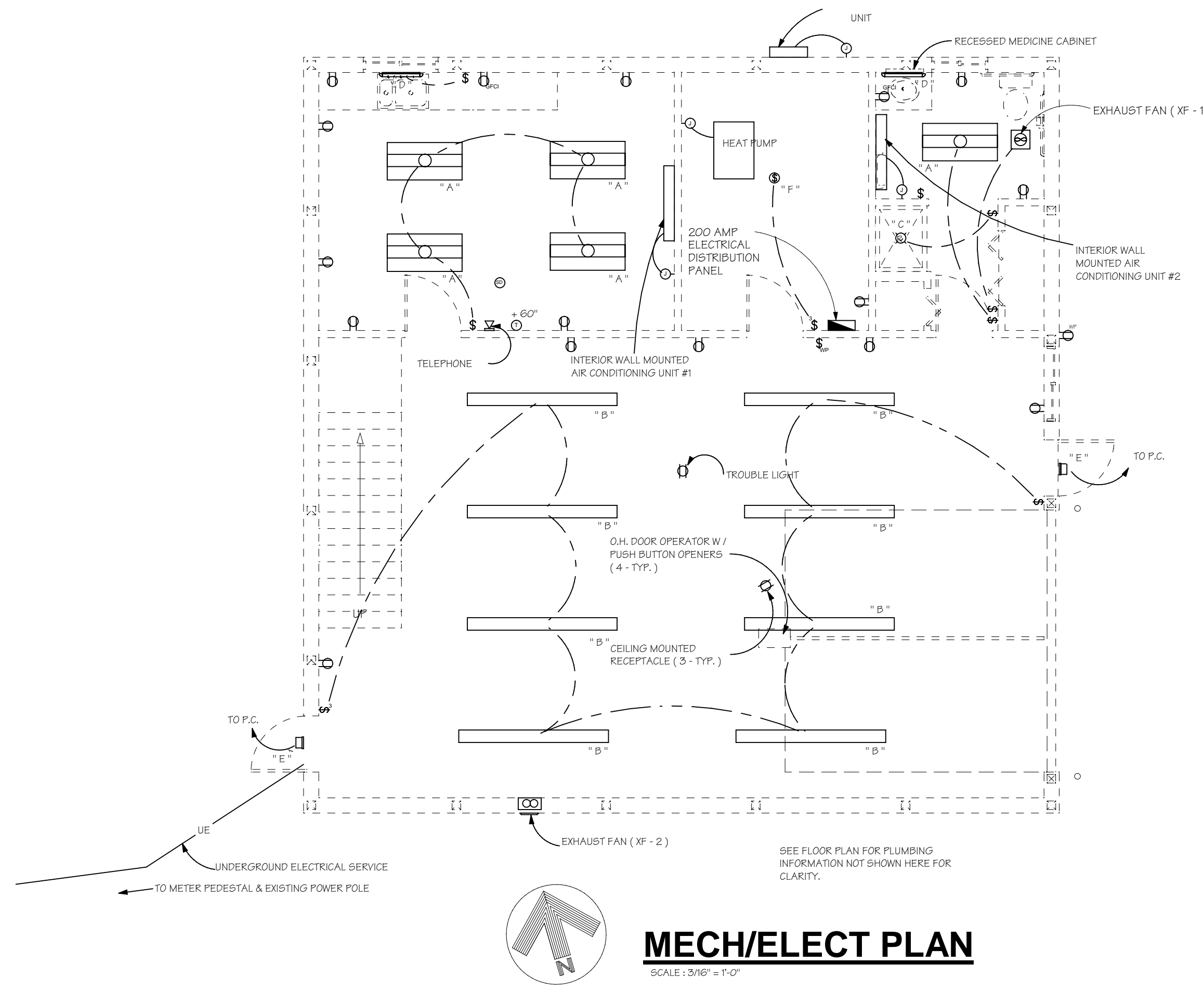
1. THE SUGGESTED LOCATION OF THE BORE FIELD HAS BEEN SHOWN ON THE SITE PLANS. IT IS INTENDED FOR THE CONTRACTOR TO CALCULATE THE ACTUAL SIZE, NUMBER OF WELLS, TYPE OF SYSTEM, FROM THE DESIGN INFORMATION OF THE UNDERFLOOR HEATING SYSTEM.
2. PROVIDE DESIGN DRAWINGS AND CALCULATIONS OF COMPLETE SYSTEM TO THE ARCHITECT FOR REVIEW AND APPROVAL.

AIR CONDITIONING NOTES:

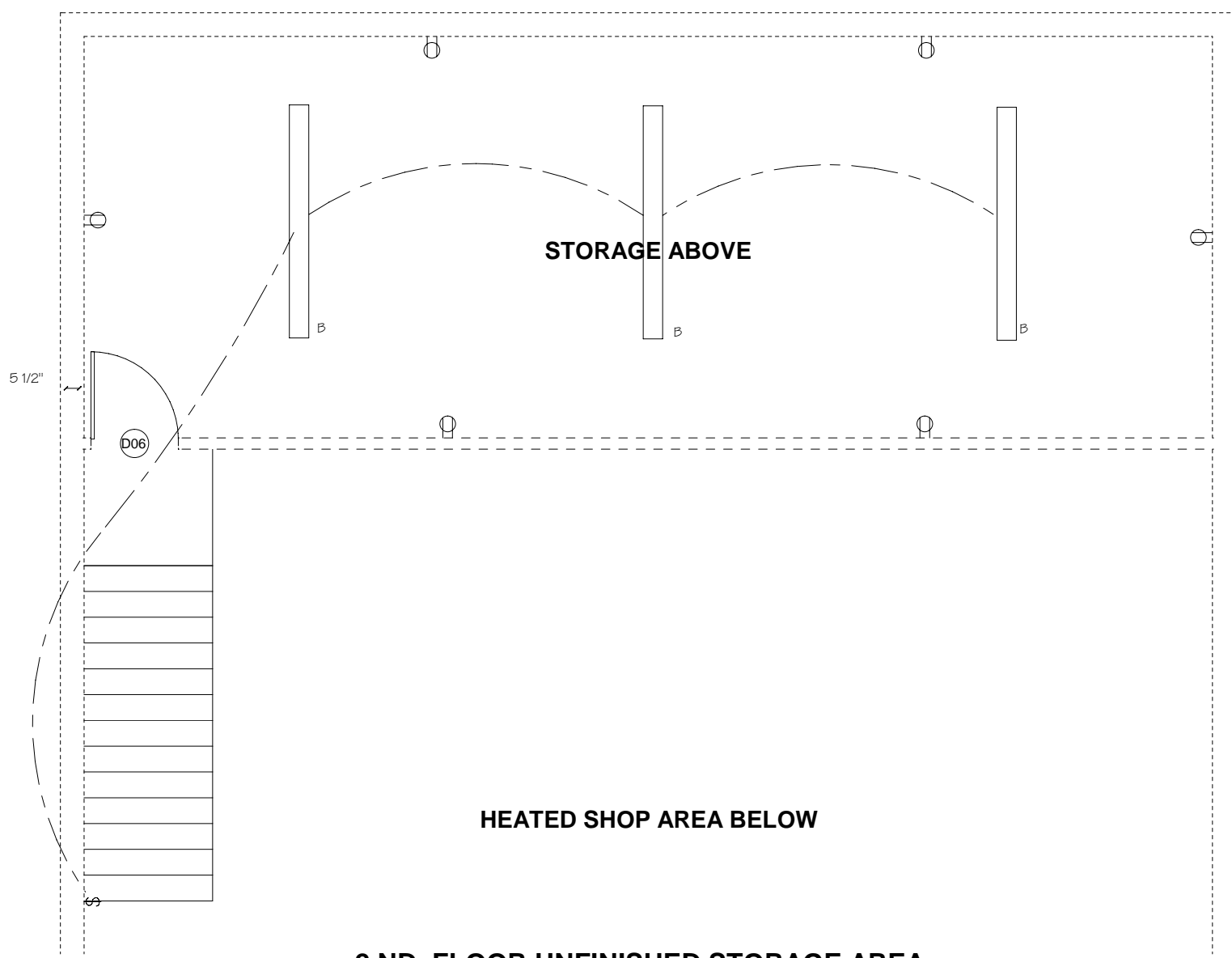
1. PROPERLY SIZE AND INSTALL A DUCTLESS AIR CONDITIONING SYSTEM, INDEPENDENT OF THE HEATING SYSTEM, AS SHOWN AND AS SPECIFIED.
2. PROVIDE SUBMITTALS OF SELECTED PRODUCTS FOR REVIEW AND APPROVAL.

ELECTRICAL NOTES

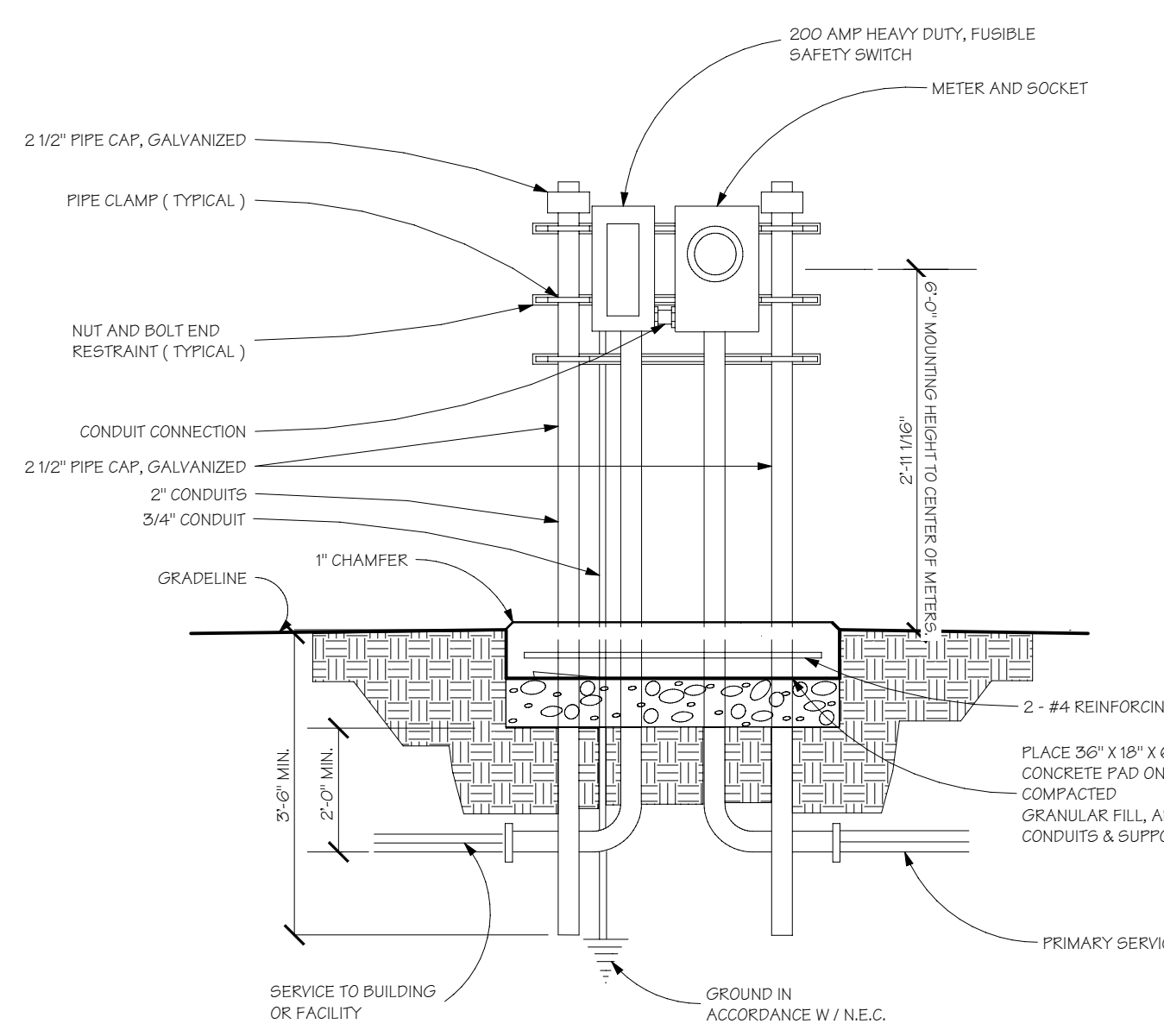
1. ELECTRICAL CONTRACTOR TO CALCULATE AND PROVIDE ELECTRICAL CALCULATION, PANEL SIZE, AND SCHEDULE TO DETERMINE SERVICE SIZE. COORDINATE WITH MECHANICAL CONTRACTOR(S) FOR ANY ADDITIONAL POWER REQUIREMENTS THAT WILL AFFECT THE SYSTEM.
2. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENT OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE - NEC.
3. PROVIDE GROUND FAULT INTERRUPTERS ON EACH INDIVIDUAL OUTLET AS SHOWN.
4. ELECTRIC METER & SOCKET LOCATION TO BE DETERMINED BY ELECTRICAL CONTRACTOR AND APPROVED BY DNR CONSTRUCTION INSPECTOR.
5. ALL INTERIOR WIRING SHALL BE COPPER TYPE THW IN RIGID STEEL CONDUIT.
6. VERIFY WITH THE DNR CONSTRUCTION INSPECTOR WHICH EXTERIOR FIXTURES WILL BE CONTROLLED BY PHOTOCELLS. IT IS EXPECTED THAT ONE CELL WILL CONTROL ALL FIXTURES REQUIRING SUCH CONTROL AND THAT THESE WILL BE ABLE TO BE OVERRIDDEN BY A SINGLE SWITCH.
7. PROVIDE ANY ADDITIONAL MATERIAL OR EQUIPMENT REQUIRED FOR THE DESIGN AND INSTALLATION OF HEATING AND COOLING AND NOT SHOWN HEREIN.



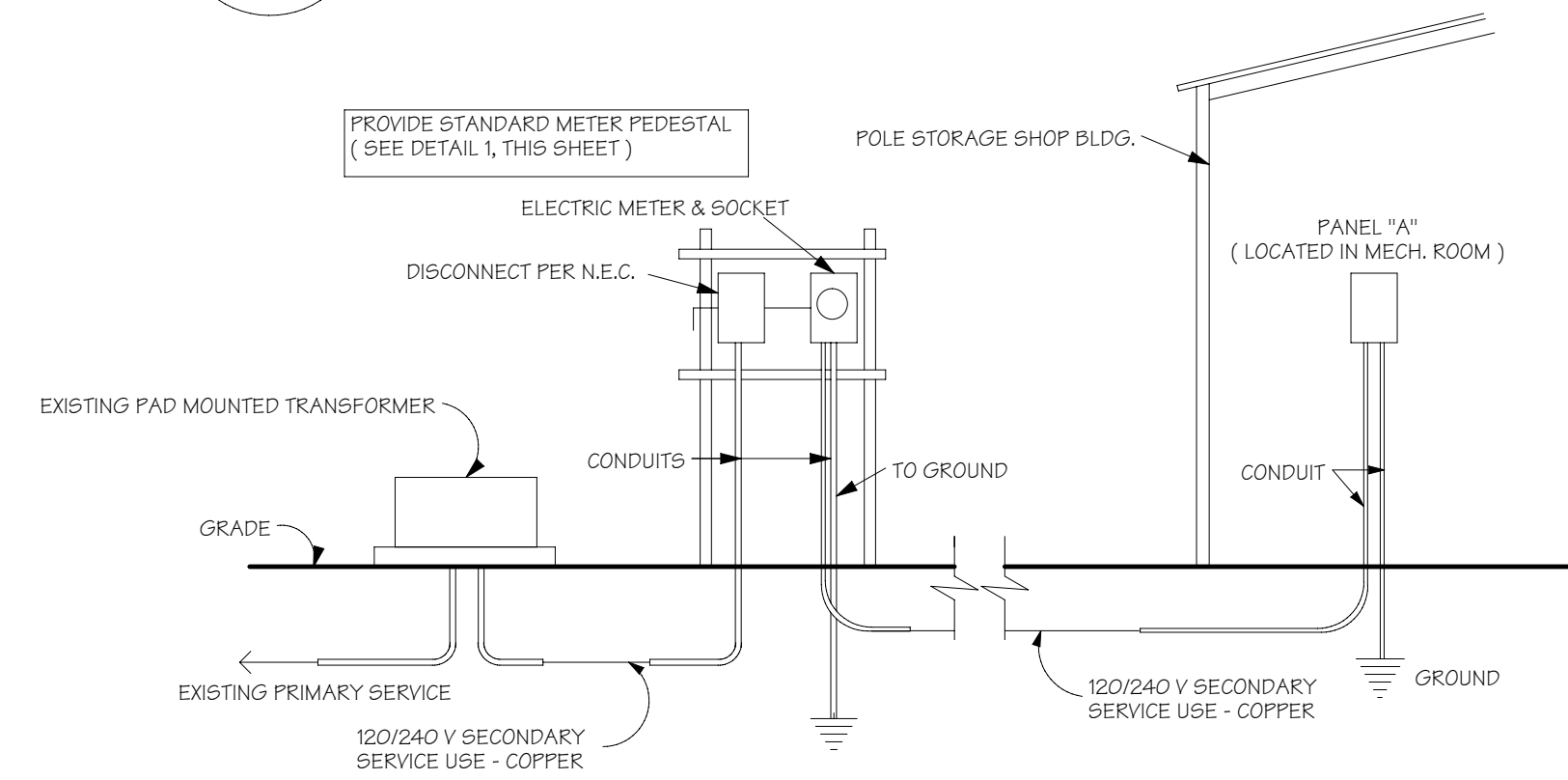
MECH/ELECT PLAN
SCALE: 3/8" = 1'-0"



2 ND. FLOOR UNFINISHED STORAGE AREA PARTIAL ELECTRICAL PLAN
SCALE: 3/8" = 1'-0"



STANDARD METER PEDESTAL
SCALE: NO SCALE



RISER DIAGRAM
SCALE: NO SCALE

LIGHTING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER MODEL NO.	LAMPS	VOLTAGE	MOUNTING	NOTES
A	LITHONIA - 25PB - G - 32 - FW - A12 - 120 - LP	32WT8	120	IN GRID	
B	LITHONIA - L - 2 - 96 - 120 - ES	75W BULMLINE	120	SURFACE	
C	JUNO - IC22 / 250 WH	60W	120	RECESSED	MOUNT IN SHOWER STALL
D	AMERICAN FLUORESCENT 26" CLOUD VANITYEPN220E8	2-T8	120	WALL MNT.	MOUNT ABOVE MED. CABINET & LAB. SINK
E	KENALL - H69EL - C - D8 - 120	(1) T8 W	120	WALL MNT.	MNTG. HEIGHT +10'-0" A.F.F.
F	PORCELAIN RECEPTACLE - P & S - 288	12W FLUORESCENT	120	SURFACE	
G	LITHONIA - EJD - 2 - 96HD - 120 - CW20	96HD 110W T12	120	SUSPEND	-20 LOW TEMP. BALLAST

PROVIDE LAMPS - REPLACE INCANDESCENT BULB WITH EQUIVALENT ENERGY SAVING COMPACT FLUORESCENT LAMPS.

EXHAUST FAN SCHEDULE

MARK	PURPOSE & TYPE	CFM	SP. IN. WC	ELECTRICAL DATA H.P. VOLTS	RFM	REMARKS
XF-1	TOILET ROOM EXHAUST NUTONE-MODEL QT 160	170		120		
XF-2	GARAGE EXHAUST, SINGLE PHASE, 60 CYCLE	2534 1635	125	1/3 120	1725	TWO- SPEED MOTOR & SWITCH, & DISCHARGE SIDE FAN GUARDS, GRAVITY SHUTTER W/ MOTOR OPERATED KIT FOR POSITIVE BLADE CLOSURE.

ELECT. SYMBOLS

[Symbol]	WALL FIXTURE, LETTER INDICATES FIXTURE TYPE
[Symbol]	FLUORESCENT LIGHTING FIXTURE, LETTER INDICATES FIXTURE TYPE.
[Symbol]	FLUORESCENT LIGHTING FIXTURE, LETTER INDICATES FIXTURE TYPE.
[Symbol]	RECESSED LIGHT FIXTURE, LETTER INDICATES FIXTURE TYPE.
[Symbol]	CONDUIT RUN CONCEALED IN CEILING.
[Symbol]	DUPLEX RECEPTACLE, NEMA 5-20P, 12" MOUNTING HEIGHT OR AS NOTED.
[Symbol]	GROUND FAULT INTERRUPT DUPLEX OUTLET
[Symbol]	SWITCHES-SINGLE POLE-THREE WAY-FOUR WAY
[Symbol]	JUNCTION BOX
[Symbol]	THERMOSTAT, MOUNTING HEIGHT INDICATED.
[Symbol]	TELEPHONE OUTLET, WALL TYPE.
[Symbol]	PANELBOARD, LIGHTING & APPLIANCE BRANCH CIRCUIT.
[Symbol]	PULL CHAIN FIXTURE
[Symbol]	CEILING MOUNTED OUTLET
[Symbol]	COMPUTER NETWORK OUTLET
[Symbol]	WATERPROOF DUPLEX OUTLET
[Symbol]	TROUBLE LIGHT OUTLET
[Symbol]	EXHAUST FAN
[Symbol]	GARAGE EXHAUST FAN
[Symbol]	SMOKE DETECTOR
[Symbol]	GARAGE OPERATOR KEYPAD
[Symbol]	PHOTOCELL CONTROL
[Symbol]	220V OUTLET

DESIGN BY R. NEWELL	DATE 06/20/07
DESIGNED BY T. AMICE	DATE 06/20/07
CHECKED BY T. AMICE	DATE 07/01/08
ACT. CODE NO. FR 5692	PROJECT NO. 09-04-67-02

MISSOURI RIVER FISHERIES
SHOP BUILDING
MONONA COUNTY, IOWA
MECHANICAL/ELECTRICAL
PROJECT NO. 09-04-67-02

IOWA DEPARTMENT OF NATURAL RESOURCES
WALLACE STATE OFFICE BUILDING
DES MOINES, IOWA 50319-0034

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