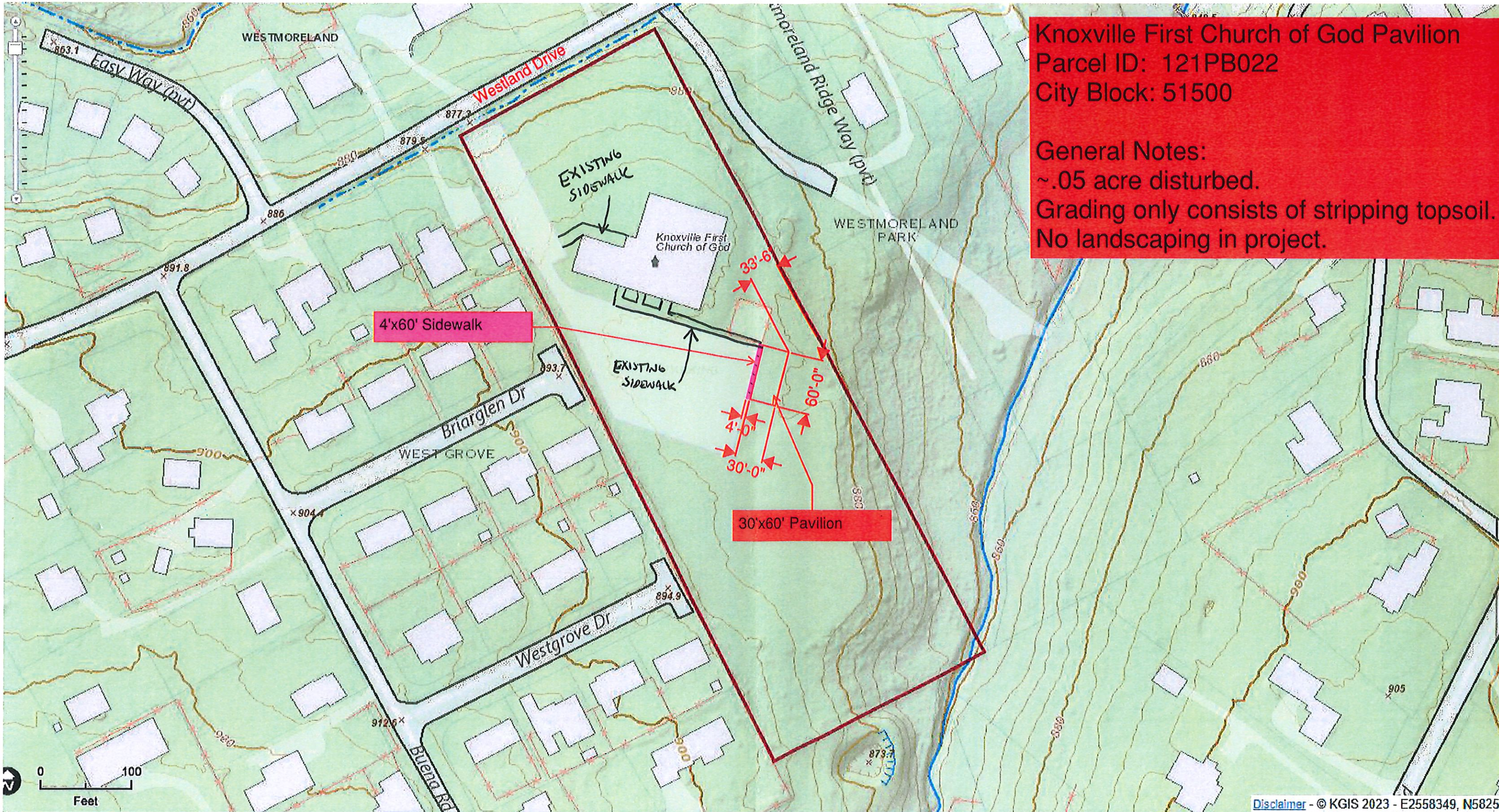


Knoxville First Church of God Pavilion  
Parcel ID: 121PB022  
City Block: 51500

General Notes:  
~.05 acre disturbed.  
Grading only consists of stripping topsoil.  
No landscaping in project.





**GENERAL NOTES:**

- A. GOVERNING CODES**
- INTERNATIONAL BUILDING CODE (IBC 2018)
  - ASCE 7-16
  - NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS)
  - POST FRAME DESIGN MANUAL 2ND EDITION
- B. CONTRACTOR RESPONSIBILITY**
- ALL STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO DIMENSIONS NOTED WITHIN THESE CONSTRUCTIONS DOCUMENTS.
  - SCALING OF DIMENSIONS SHALL NOT BE PERMITTED.
  - THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS (INCLUDING ROUGH OPENINGS) AND ALL CONDITIONS ON THE SUBJECT SITE.
  - MORRISON ENGINEERING, LLC NOR ITS REPRESENTATIVES SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, ACTS OR OMISSIONS OF THE CONTRACTOR OR THEIR SUBCONTRACTORS OR FAILURE TO PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS.
  - ANY DISCREPANCY OR OMISSION DISCOVERED IN THESE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD, MORRISON ENGINEERING, LLC, BY WRITTEN NOTICE BEFORE THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
  - MORRISON ENGINEERING, LLC SHALL REQUIRE A MINIMUM OF TWO (2) WEEKS TO CORRECT ANY OMISSIONS OR ERRORS DISCOVERED WITHIN THESE CONSTRUCTION DOCUMENTS.
  - IF THE MINIMUM TIME REQUIRED TO CORRECT ANY OMISSION OR ERROR IN THESE CONSTRUCTION DOCUMENTS IS NOT GRANTED TO MORRISON ENGINEERING, LLC, THE GENERAL CONTRACTOR SHALL ASSUME ALL COST AND LIABILITY TO CORRECT THE IDENTIFIED ERROR OR OMISSION.
  - ALL STRUCTURES SHALL BE ADEQUATELY BRACED WITH THE NECESSARY TEMPORARY BRACING ELEMENTS FOR ALL LATERAL AND CONSTRUCTION LOADING UNTIL ALL PERMANENT LATERAL FORCE RESISTING SYSTEM ELEMENTS HAVE BEEN FULLY INSTALLED.
  - THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL NECESSARY TEMPORARY BRACING ELEMENTS.
  - THE GENERAL CONTRACTOR AND/OR OWNER SHALL MAINTAIN AN UP-TO-DATE SET OF CONSTRUCTION DRAWINGS ON THE JOB SITE AT ALL TIMES. THE GENERAL CONTRACTOR AND/OR OWNER SHALL OBTAIN ALL PROPER BUILDING PERMITS AND ENSURE ALL REQUIRED

**INSPECTIONS ARE MADE.**

- ANY ROOF AND/OR WALL PENETRATION SHALL BE MADE WEATHERPROOF WITH THE NECESSARY FLASHING AND/OR CAULKING AS REQUIRED.
  - IT SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR OWNER TO PROPERLY RECEIVE AND STORE ALL BUILDING MATERIALS WITHOUT DAMAGE.
  - THE GENERAL CONTRACTOR SHALL ERECT ALL POST-FRAME STRUCTURES IN ACCORDANCE WITH THE FOLLOWING DOCUMENTS:
    - BCSI-B10 (WOOD TRUSS COUNCIL OF AMERICA & TRUSS PLATE INSTITUTE)
    - ACCEPTED PRACTICE FOR POST-FRAME BUILDING CONSTRUCTION: FRAMING TOLERANCES (NATIONAL FRAME BUILDERS ASSOCIATION)
- C. STRUCTURAL LOAD CRITERIA**
- RISK CATEGORY: II (ASCE 7-16 TABLE 1.5-1)
  - DEAD LOAD
    - THE DESIGN DEAD LOAD OF THE STRUCTURE SHALL INCLUDE THE SELF-WEIGHT OF ALL PERMANENT BUILDING ELEMENTS AS DETERMINED BY THE ENGINEER OF RECORD.
  - ROOF LIVE LOAD: 20 PSF (ASCE 7-16 TABLE 4.3-1)
  - SNOW LOAD (ASCE 7-16 CHAPTER 7)
    - GROUND SNOW LOAD (PG): 10 PSF
    - MINIMUM SNOW LOAD (PM): 10 PSF
    - SNOW IMPORTANCE FACTOR (IS): 1.0
    - EXPOSURE FACTOR (CE): 0.9
    - THERMAL FACTOR (CT): 1.2
    - FLAT ROOF SNOW LOAD (PF): 6 PSF
  - WIND LOAD (ASCE 7-16 CHAPTER 26)
    - BASIC WIND SPEED (V): 105 MPH
    - WIND DIRECTIONALITY FACTOR (K<sub>D</sub>): 0.85
    - TOPOGRAPHIC FACTOR (K<sub>ZT</sub>): 1.0
    - GROUND ELEVATION FACTOR (K<sub>E</sub>): 1.0
    - EXPOSURE CATEGORY: C
    - ENCLOSURE CLASSIFICATION: OPEN
    - GUST-EFFECT FACTOR (G): 0.85
- D. WOOD STRUCTURE REQUIREMENTS**
- UNLESS SPECIFICALLY NOTED ON THE DRAWINGS, NO ONE SHALL CUT, NOTCH OR DRILL ANY TRUSS, HEADER, BEAM, POST, GIRT, PURLIN, OR FLANGE OF I-JOIST.

- ANY MEMBER REPAIRS OR REPLACEMENT SHALL BE AS SPECIFIED IN WRITING BY A LICENSED PROFESSIONAL ENGINEER AND THE EXPENSE OF THE REPAIR SHALL BE THE RESPONSIBILITY OF THE PARTY WHICH CREATED THE DAMAGE.
- DIMENSIONED LUMBER MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND ALL RELATED DOCUMENTS.
- ALL MEMBERS SHALL BE THE SIZE, GRADE AND SPECIES AS INDICATED WITHIN THESE DRAWINGS.
- SAWN LUMBER USED FOR LOAD-SUPPORTING PURPOSES, INCLUDING END-JOINTED OR EDGE-GLUED LUMBER, MACHINE STRESS-RATED OR MACHINE-EVALUATED LUMBER, SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC P9 20 OR EQUIVALENT.
- PRESSURE PRESERVATIVE TREATED LUMBER SHALL BE TREATED WITH WATERBORNE PRESERVATIVE AND BEAR THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY. POSTS AND SKIRTS SHALL BE PROTECTED WITH PRESSURE PRESERVATIVE CHEMICAL TREATMENTS TO RETENTION LEVELS FOR USE CATEGORY UC4B OR BETTER PER AWPA-U1.

**E. STRUCTURAL CONCRETE REQUIREMENTS**

- MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE EQUAL OR EXCEED THE FOLLOWING CRITERIA:
  - PADS AND UNREINFORCED FOOTINGS: 4000 PSI
  - REINFORCED PADS AND FOOTINGS: 4000 PSI
  - SLABS ON GRADE: 3500 PSI
- UNLESS PLASTICIZERS ARE USED, WORKABLE SLUMP SHALL BE NO LESS THAN 4".
- NO EXCESS WATER SHALL BE ADDED ON-SITE.
- ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE MINIMUM 5% AND MAXIMUM 7% ENTRAINED AIR.
- ALL REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 AND SHALL BE DEFORMED BARS WITH AN ULTIMATE YIELD STRESS OF 60,000 PSI.
- ALL LAP SPLICES SHALL BE CONFORM TO THE REQUIREMENTS OF ACI 318-14 CLASS 'B'.
- EXCEPT FOR BUILDINGS WHERE MIGRATION OF MOISTURE THROUGH THE SLAB WILL NOT BE DETRIMENTAL OR FOR SITES THAT ARE ESPECIALLY DRY, A 6 MIL POLYETHYLENE VAPOR RETARDER WITH JOINTS LAPPED 6" MINIMUM SHALL BE PLACED BETWEEN THE BASE COURSE OR SUB GRADE AND THE CONCRETE. FOR SITES THAT ARE ESPECIALLY WET, PERIMETER DRAINS SHALL BE INSTALLED AS REQUIRED IN ADDITION TO THE VAPOR RETARDER.
- FORMS SHALL BE CLEANED AND LUBRICATED PRIOR TO INSTALLATION OF CONCRETE. ALL MEMBERS USED TO FORM THE PERIMETER OF CONCRETE SHALL BE BRACED BY THE CONTRACTOR TO REMAIN IN PLACE DURING CONCRETE INSTALLATION. ALL UNTREATED FORM BOARDS SHALL BE REMOVED ONCE CONCRETE HAS CURED.
- CONCRETE SHALL BE CONSOLIDATED BY ACCEPTED VIBRATORY CONSOLIDATION METHODS. CONTRACTOR SHALL ENSURE THAT FRESH CONCRETE OCCUPIES ALL SPACES BETWEEN ANY REINFORCEMENT, IF ANY.
- NO CONCRETE IS PERMITTED TO BE INSTALLED WHEN OUTSIDE AIR TEMPERATURE IS BELOW 40° F.
- FOR BUILDINGS WITHOUT A FLOOR SLAB, IT IS RECOMMENDED THAT A VAPOR RETARDER BE INSTALLED IN ACCORDANCE WITH NOTE 7.

**NOTES:**

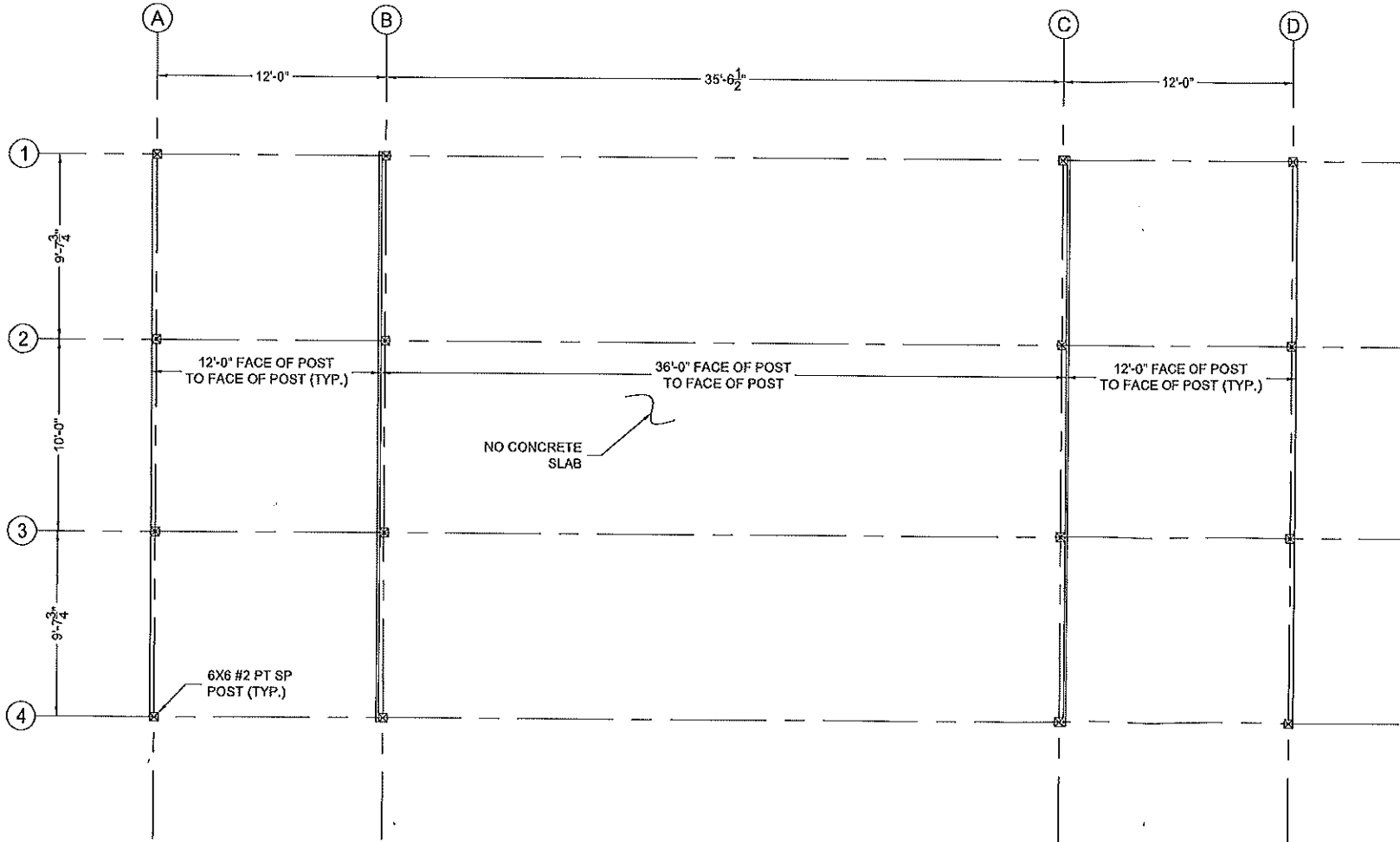
- DIMENSIONS ARE TO CENTERLINE OF POSTS (TYP. U.N.O.).
- SEE STRUCTURAL ELEVATIONS ON SHEET S FOR FRAMING REQUIREMENTS.
- SEE DETAILS ON SHEET FOR FOUNDATION REQUIREMENTS.
- CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM LOCAL BUILDING INSPECTOR PRIOR TO COVERING ANY POST FOUNDATION HOLES.
- CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM LOCAL BUILDING INSPECTORS PRIOR TO POURING ANY CONCRETE.
- ALL HAIR PIN REINFORCEMENT SHALL BE INSTALLED PRIOR TO INSTALLATION OF CONCRETE SLAB.
- CONTRACTOR SHALL SAWCUT CONTRACTION JOINTS (1) DAY AFTER SLAB HAS BEEN POURED. CONTRACTION JOINTS SHALL BE CUT TO A MIN. DEPTH OF 1" & SHALL BE SPACED @ 10'0" MAX. E.W. (TYP.)
- THE STRUCTURAL DETAILED WITHIN THIS PLAN SET IS ASSIGNED TO OCCUPANCY CATEGORY 'U' IN ACCORDANCE WITH IBC 2018 SECTION 312.

**SPECIFICATIONS AND NOTES:**

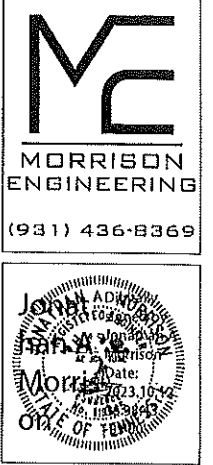
**FOUNDATION AND STRUCTURAL EARTHWORK**

- FOUNDATIONS ARE DESIGNED FOR A MAX. NET SOIL BEARING PRESSURE OF 2500 PSF. ENSURE FOUNDATIONS AND SLABS BEAR ON SELECT FILL COMPACTED IN EIGHT INCH LAYERS MAX. TO NOT LESS THAN 98% OF MAX. DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST ASTM D698 OR ON UNDISTURBED SOIL OF EQUIVALENT DENSITY TO THE FILL NOTED ABOVE, IF NOT, COMPACT THE SOIL TO THESE REQUIREMENTS OR REPLACE WITH SUITABLE FILL AND COMPACT.
- NOTIFY THE ENGINEER IMMEDIATELY IF UNUSUAL SOIL CONDITIONS ARE FOUND.
- DO NOT ALLOW STORED EXCAVATION MATERIALS TO DISRUPT PROPER DRAINAGE OF AREA.
- MAINTAIN STABILITY OF EXCAVATIONS UNTIL PROPERLY BACKFILLED. KEEP EXCAVATIONS FREE OF ANY LOOSE MATERIAL. DEWATER EXCAVATIONS AND REMOVE AND WET MATERIAL PRIOR TO THE PLACEMENT OF CONCRETE.
- USE EXCAVATED MATERIAL AS BACKFILL IF ACCEPTABLE TO OWNERS TESTING AGENCY. IF EXCAVATED BACKFILL MATERIAL IS NOT AVAILABLE, USE SELECT FILL MATERIAL ACCEPTABLE TO THE OWNER'S TESTING AGENCY.
- ENSURE GRADE IS SUCH THAT THICKNESS OF FOUNDATION, SLAB ON GRADE, ETC., IS ACHIEVED AS SHOWN ON DRAWINGS.

FINAL GRADE AROUND EXTERIOR OF STRUCTURE MUST MEET IBC 2018 REQUIREMENTS AND MUST BE A MINIMUM 1:20 SLOPE AWAY FROM ENTIRE PERIMETER OF STRUCTURE FOR A MINIMUM DISTANCE OF 10' AWAY FROM THE STRUCTURE IN ALL DIRECTIONS. NO STANDING WATER SHALL BE ALLOWED TO REMAIN WITHIN 10' OF EXTERIOR OF STRUCTURE.



**FLOOR PLAN**

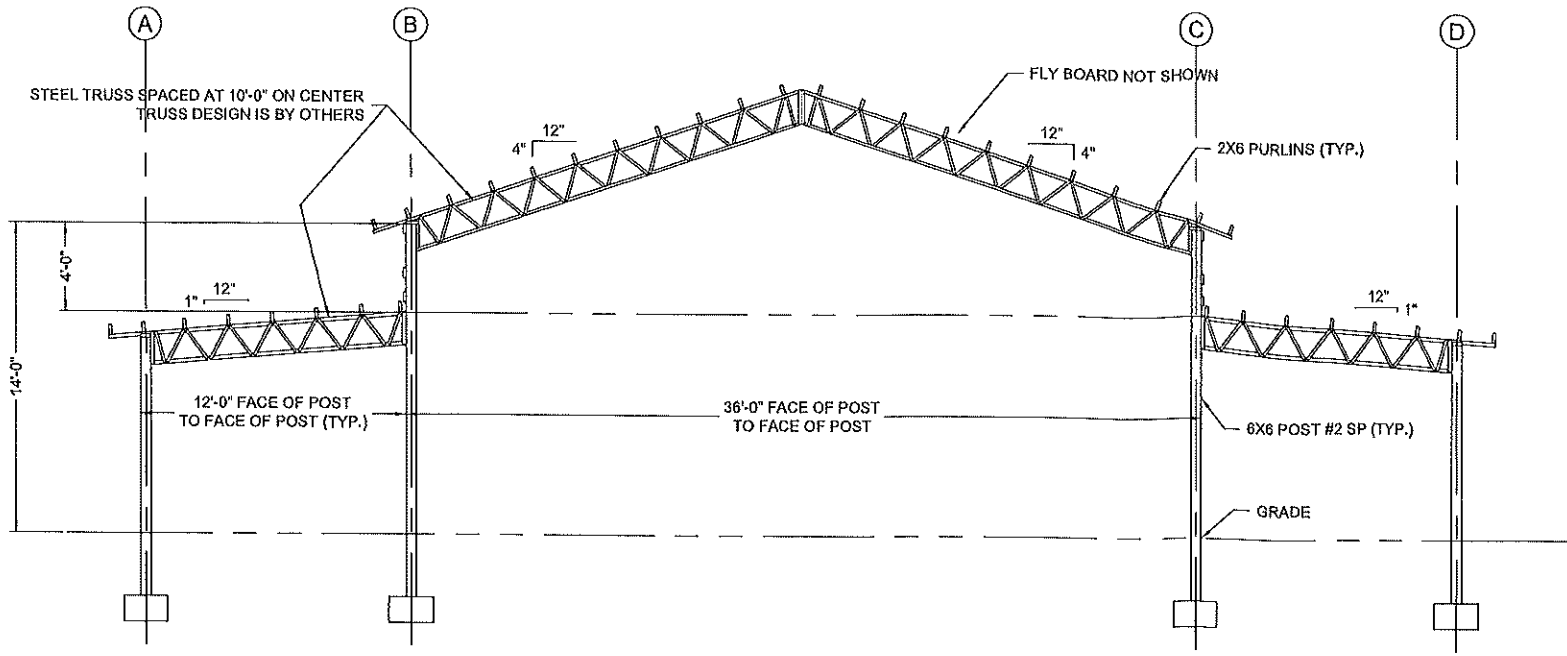


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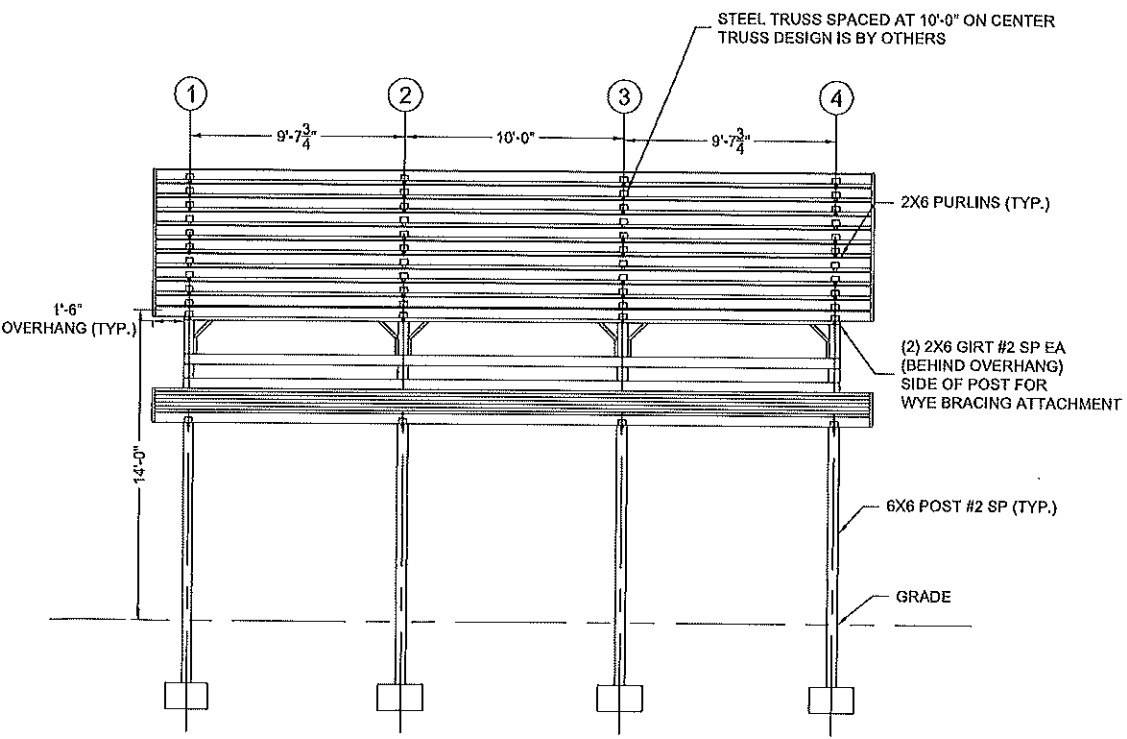
PROJECT IDENTIFICATION:  
SUMMERTOWN METALS

INVOICE #209928 - JASON SCOTT  
6708 WESTLAND DRIVE  
KNOXVILLE, TENNESSEE 37919

DRAWN BY:  
A.E.P.  
SCALE:  
1/4" = 1'-0"  
DATE:  
10-12-2023  
SHEET NO.



**GABLE WALL**



**SIDE WALL**

**FRAMING NOTES:**

- ALL NAILS SHALL BE 8d GALVANIZED RING SHANK NAILS W/ MIN. SHANK LENGTH OF 3" & MIN. SHANK Ø OF 0.120". (TYP. U.N.O.)
- PURLIN SPLICES SHALL ONLY BE PERMITTED @ TRUSS CHORD LOCATIONS
- TRUSS DESIGN SHALL BE THE SOLE RESPONSIBILITY OF THE MANUFACTURER & TRUSS DESIGNER. THE ENGINEER OF RECORD DESIGNATED ON THESE PLANS SHALL NOT BE HELD LIABLE FOR ANY DEFECTS, FAILURES, OR INCOMPATIBILITY OF ANY ROOF TRUSS. TRUSS DESIGN IS NOT PART OF THIS DRAWING PACKAGE.
- THE BUILDING DETAIL WITHIN THIS PLAN SET IS DESIGNED ASSUMING A 0 PSF SUPERIMPOSED DEAD LOAD ACROSS ALL TRUSS BTM. CHORDS. IF OWNER WISHES TO INSTALL A CEILING OR ANY SUSPENDED DEVICE OR APPURTENANCE FROM THE TRUSSES OTHER THAN THOSE SPECIFICALLY NOTED WITHIN THESE PLANS, THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO INSTALLATION IN ORDER TO VERIFY OVERALL EFFECT ON BUILDING DESIGN. NO CEILING, DEVICE, OR APPURTENANCE SHALL BE PERMITTED TO BE SUSPENDED FROM ANY TRUSS UNLESS SPECIFICALLY NOTED WITHIN THESE PLANS W/O PRIOR WRITTEN CONSENT FROM ENGINEER OF RECORD. IN ADDITION, VERIFICATION OF LOAD BEARING CAPACITY OF TRUSS SHOULD BE OBTAINED FROM TRUSS MANUFACTURER AND/OR TRUSS DESIGNER. THE ENGINEER OF RECORD DESIGNATED WITHIN THIS PLAN SET IS NOT RESPONSIBLE FOR TRUSS DESIGN AND CAN OFFER NO GUIDANCE ABOUT THE STRUCTURAL INTEGRITY OF ANY TRUSS.
- GIRTS SHALL BE CONNECTED TO POSTS USING MIN. (4) NAILS
- GIRT SPLICES SHALL CONFORM TO THE SAME REQUIREMENTS AS PURLIN SPLICES FOUND IN DETAILS.
- GIRT SPLICES SHALL ONLY BE PERMITTED @ POST LOCATIONS.
- REFER TO STRUCTURAL DETAILS & SECTIONS FOR FOUNDATION REQUIREMENTS.
- IF NAILING REQUIREMENTS ARE NOT SPECIFICALLY NOTED, NAILING PATTERN SHALL BE SAME AS FOR GIRTS. (TYP.)
- ELEVATION VIEWS NOT SPECIFICALLY SHOWN SHALL CONFORM TO THE REQUIREMENTS OF VIEWS SHOWN ON THIS SHEET.

**SHEETING NOTES:**

- ALL SURFACES SHALL BE CLAD W/ 29 GA. CORRUGATED METAL SIDING W/ MIN. THICKNESS OF 0.0172" & MAX. RIB SPACING OF 9". (TYP. U.N.O.)
- ALL METAL PANELS SHALL BE INSTALLED IN ACCORDANCE W/ DETAILS.
- REFER TO STRUCTURAL FRAMING ELEVATIONS FOR ALL FRAMING REQUIREMENTS.
- REFER TO STRUCTURAL DETAILS FOR FOUNDATION REQUIREMENTS.
- ALL FASCIA, SOFFITS & EXTERIOR TRIM SHALL BE INSTALLED ACCORDING TO CUSTOMER CONTRACT DOCUMENTS.
- WHEN USING METAL BUILDING APPURTENANCES TO ATTACH SOFFIT TO WALL, CONTRACTOR SHALL ENSURE THAT METAL WALL PANELS RECEIVE THE REQUIRED SCREW PATTERN AS DESIGNATED WITHIN THIS PLAN SET.

**NOTES:**

- WALL BRACING, INCLUDING TOP OF GABLE END WALLS, IS NOT INCLUDED IN THIS DESIGN
- WARNING: DO NOT STAND ON BRACING OR USE IT IN ANY WALL TO SUPPORT PEOPLE DURING CONSTRUCTION OR AT ANY OTHER TIME
- THIS PLAN CONTAINS ONLY PERMANENT BRACING. TEMPORARY AND ERECTION BRACING ARE THE RESPONSIBILITY OF OTHERS. FOR COMMENTARY RECOMMENDATIONS REGARDING HANDLING, INSTALLING & BRACING TRUSSES, REFER TO TPI & WTCA PUBLICATION "BUILDING COMPONENT SAFETY INFORMATION."
- SEE INDIVIDUAL TRUSS DRAWINGS FOR ADDITIONAL INFORMATION
- THIS DRAWING DOES NOT REPRESENT OR IMPLY A DIAPHRAGM DESIGN. DIAPHRAGM DESIGN, INCLUDING BLOCKING OVER BEARING, SHALL BE PERFORMED (WHEN REQUIRED) BY OTHERS. THE TRANSFER OF DIAPHRAGM FORCES TO THE RESISTING ELEMENTS SHALL BE DESIGNED BY OTHERS.
- FOR THIS BUILDING, THE ROOF SHEATHING ATTACHED AT A MINIMUM OF 12" O.C. EFFECTIVELY BRACES THE TRUSS TOP CHORD. SEE BUILDING PLANS FOR ATTACHMENT OF ROOF SHEATHING TO TRUSSES

REVISIONS:	DESCRIPTION
NO.	

PROJECT IDENTIFICATION:  
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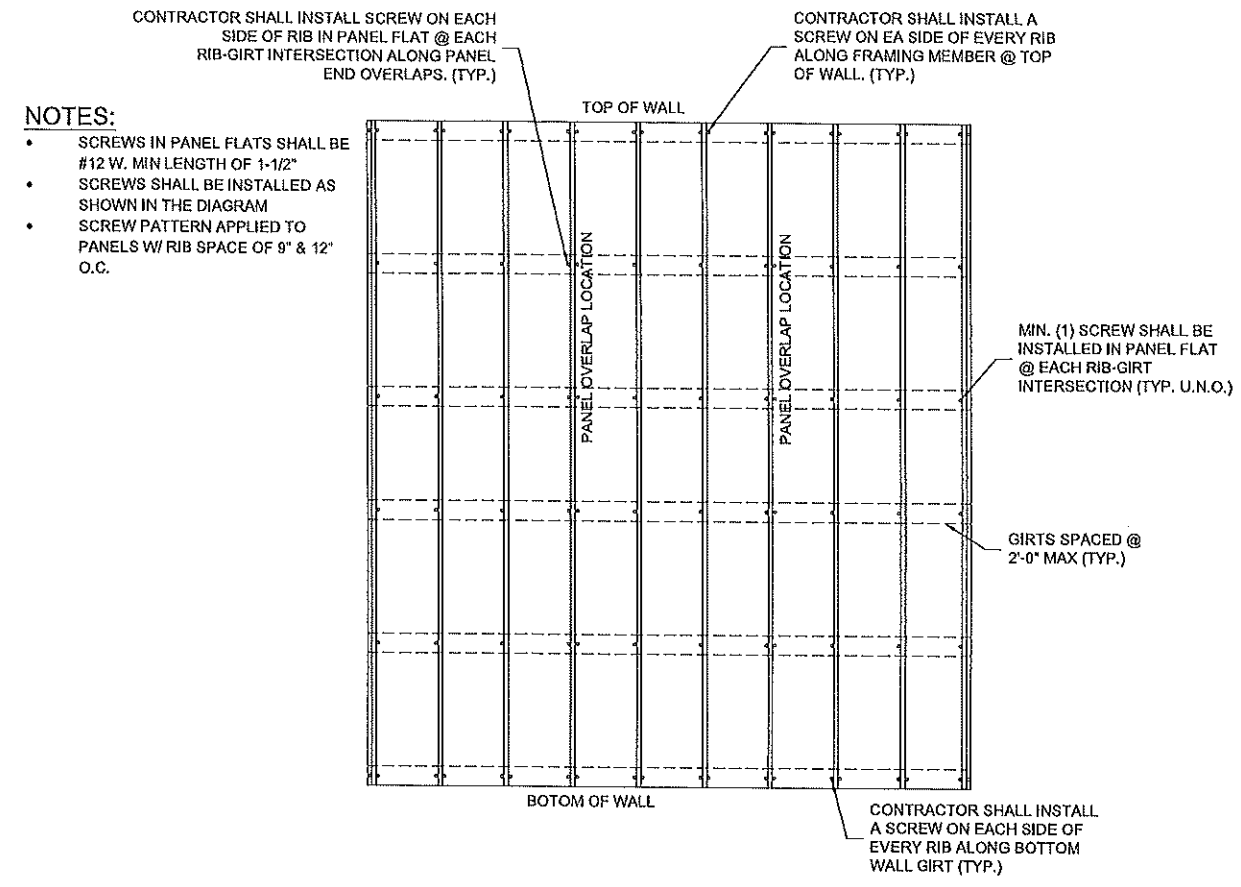
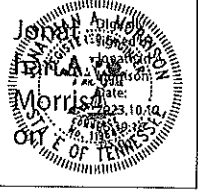
INVOICE #209928 - JASON SCOTT  
 6708 WESTLAND DRIVE  
 KNOXVILLE, TENNESSEE 37919

DRAWN BY:  
 A.E.P.

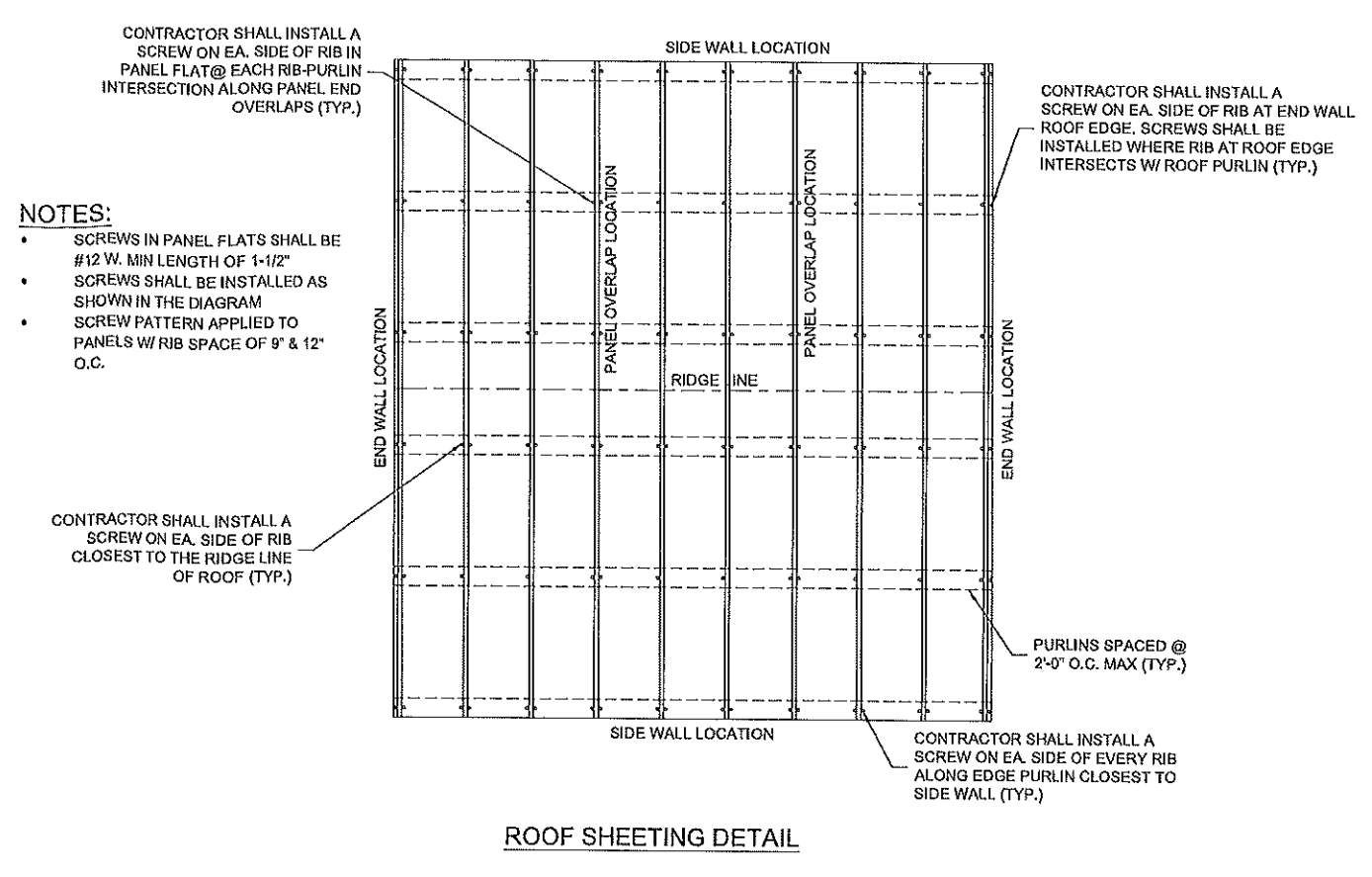
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 1/4" = 1'-0"

DATE:  
 10-12-2023

SHEET NO.

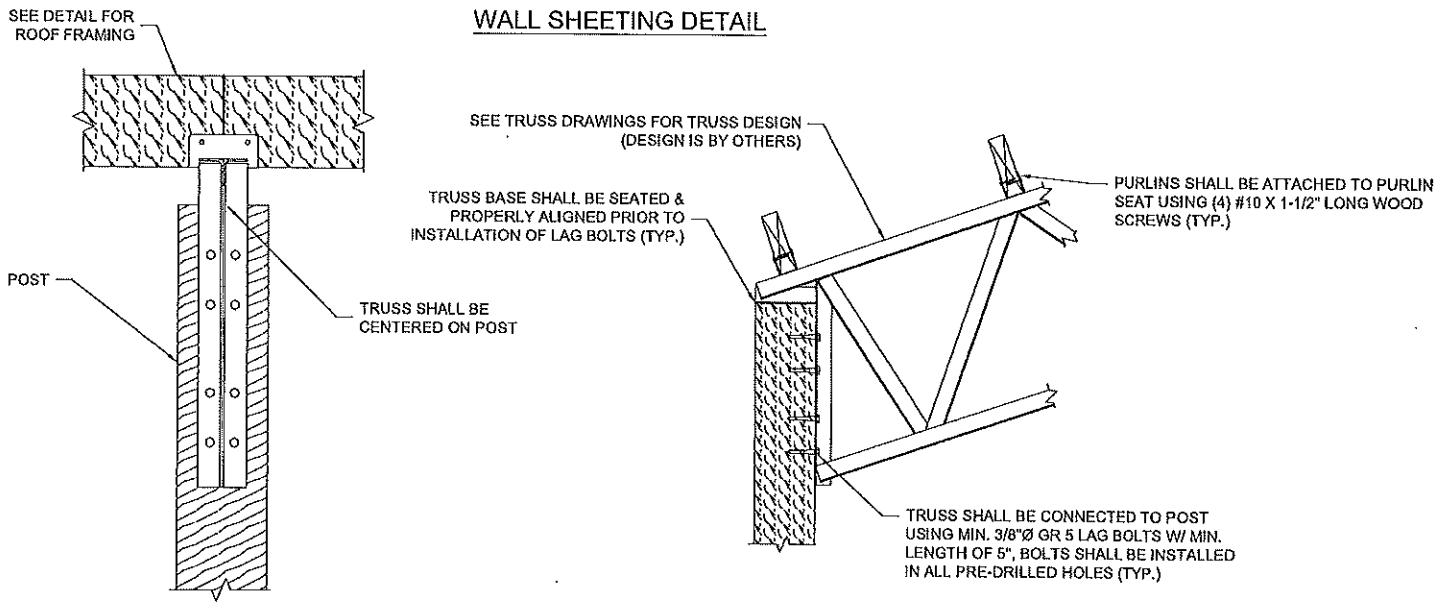


- NOTES:**
- SCREWS IN PANEL FLATS SHALL BE #12 W. MIN LENGTH OF 1-1/2"
  - SCREWS SHALL BE INSTALLED AS SHOWN IN THE DIAGRAM
  - SCREW PATTERN APPLIED TO PANELS W/ RIB SPACE OF 9" & 12" O.C.

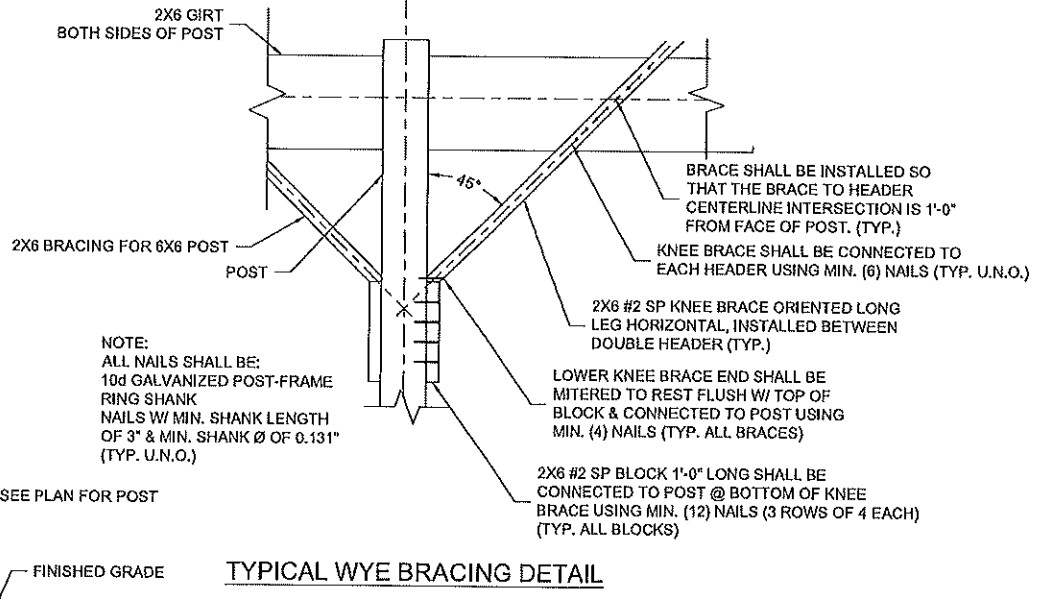


- NOTES:**
- SCREWS IN PANEL FLATS SHALL BE #12 W. MIN LENGTH OF 1-1/2"
  - SCREWS SHALL BE INSTALLED AS SHOWN IN THE DIAGRAM
  - SCREW PATTERN APPLIED TO PANELS W/ RIB SPACE OF 9" & 12" O.C.

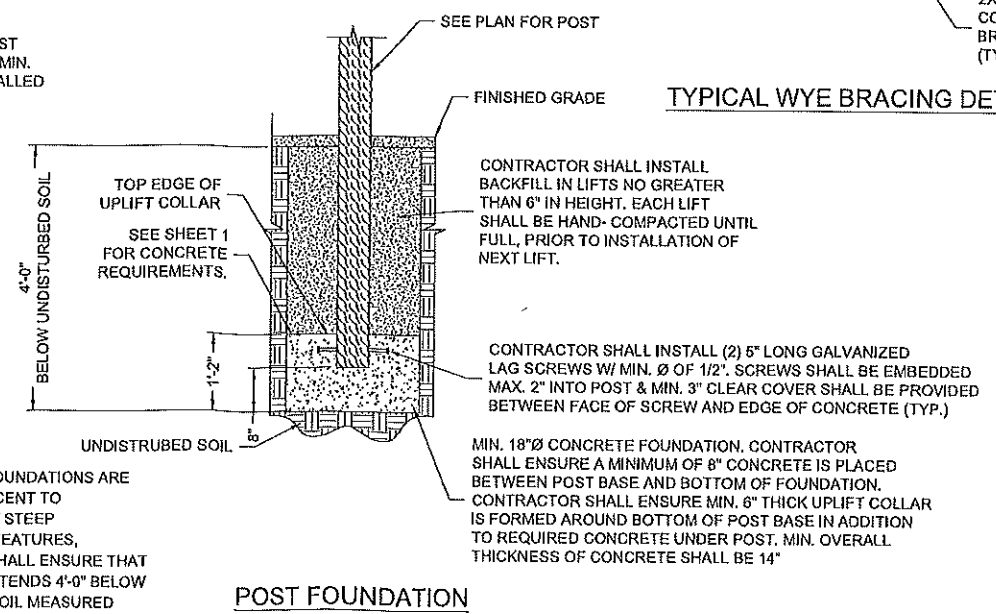
**WALL SHEETING DETAIL**



**STEEL TRUSS CONNECTION**



**TYPICAL WYE BRACING DETAIL**



**NOTES:**

- WHERE POST FOUNDATIONS ARE SITUATED ADJACENT TO EXCEPTIONALLY STEEP TOPOGRAPHIC FEATURES, CONTRACTOR SHALL ENSURE THAT FOUNDATION EXTENDS 4'-0" BELOW UNDISTURBED SOIL MEASURED FROM LOWEST GRADE LINE.

**POST FOUNDATION**

REVISIONS: DESCRIPTION

NO:	
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**SUMMERTOWN METALS**

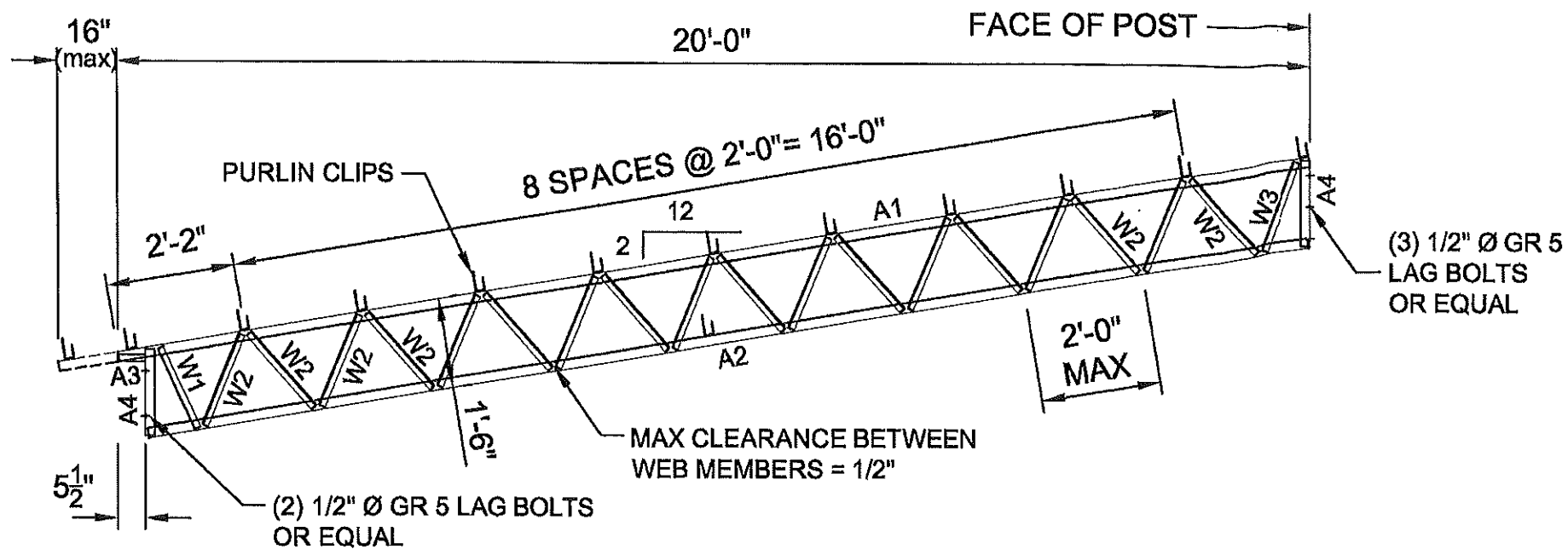
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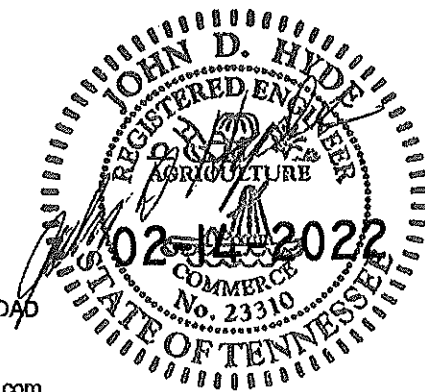
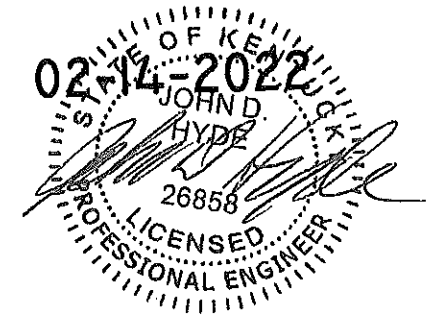
SCALE:  
NONE

DATE:  
10-12-2023

SHEET NO.



THIS DRAWING WAS PRODUCED BY JOHN D. HYDE AND MAY NOT BE MODIFIED IN ANY WAY NOR SHALL THIS DRAWING BE USED BY ANYONE OTHER THAN SUMMERTOWN METALS, LLC OR ITS ASSIGNS WITHOUT THE EXPRESS WRITTEN PERMISSION OF JOHN D. HYDE WHOSE PROFESSIONAL ENGINEER'S STAMP APPEARS ON THIS DRAWING.



**BILL OF MATERIALS**

MARK	DESCRIPTION	LENGTH	NUMBER REQUIRED	MATERIAL
A1	TOP CHORD	L 2x2x 1/8	20'-3"	A36
A2	BOTTOM CHORD	L 2x2x 1/8	19' 8-5/8"	A36
A3	BASE	L 2x2x 1/8	0'-5-1/2"	A36
A4	VERTICAL END	L 2x2x 1/8	1'-5"	A36
W1	WEB	L 1-1/4x1-1/4x1/8	1'-5 1/2"	A36
W2	WEB	L 1-1/4x1-1/4x1/8	1' 7 5/8"	A36
W3	WEB	L 1-1/4x1-1/4x1/8	1' 7"	A36

-- THIS DESIGN MAY ALSO BE USED FOR 10 FT, 12 FT, 14 FT, 16 FT OR 18 FT TRUSSES.  
 -- IF SHORTER TRUSSES ARE USED THE DEAD AND ROOF LIVE LOADS SHOWN ON THIS DRAWING CAN BE INCREASED; 10% FOR 18', 20% FOR 16', 30% FOR 14', 40% FOR 12', AND 50% FOR 10' LENGTHS.  
 -- THIS DESIGN MAY ALSO BE USED FOR OTHER ROOF PITCHS (MIN 3/4:12, MAX 5:12)

**DESIGN LOAD NOTES: 20 FT & SHORTER TRUSS SPAN**

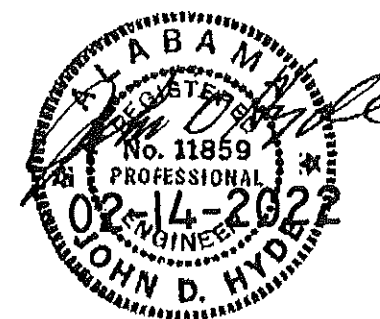
TRUSS SPACING = 12' ALLOWABLE DEAD LOAD = 6 PSF  
 TRUSS SPACING = 10' ALLOWABLE DEAD LOAD = 10 PSF  
 TRUSS SPACING = 8' ALLOWABLE DEAD LOAD = 12 PSF

**NOTES:**

- PURLINS TO BE MINIMUM 2x6 #2 SYP FOR UP TO 12' TRUSS SPACING.
- PURLINS TO BE SPACED AT A MAXIMUM OF 2'-0" O.C. UNLESS NOTED
- THIS DESIGN IS FOR TRUSS ONLY. THE SUPPORT POST IS ASSUMED TO BE 5-1/2" BUT THE SIDEWALL DESIGN IS NOT A PART OF THIS DESIGN.
- THIS TRUSS DESIGN MAY BE USED FOR SHORTER SPANS, ADJUST MEMBER LENGTHS ACCORDINGLY.
- CONTRACTOR RESPONSIBLE FOR TEMPORARY CONSTRUCTION & PERMANENT BRACING.
- FABRICATOR SHALL VERIFY DIMENSIONS BEFORE CUTTING AND/OR FABRICATING TRUSS.
- FABRICATION AND WELDING PER AISC AND AWS.
- STEEL TO BE MINIMUM ASTM A36 OR EQUIVALENT.
- THIS TRUSS DESIGN IS ACCEPTABLE FOR PARTIALLY ENCLOSED OR FULLY ENCLOSED BUILDING (FOR THE LOADS SHOWN) PER IBC BUILDING DEFINITIONS.
- FASTENERS INSTALLED WITH TREATED WOOD MUST BE MANUFACTURER RECOMMENDED FOR USE WITH THE ASSOCIATED WOOD TREATMENT.

**DESIGN CRITERIA - IBC 2018**

- DESIGN LOADS PER ASCE 7-16
- REQUIREMENT FOR STEEL - ASTM A36 OR AS NOTED.
- ROOF LIVE LOAD = 20 PSF  
DEAD LOAD = SEE DESIGN LOAD NOTES
- DESIGN WIND SPEED = 105 MPH
- WIND RISK CATEGORY II
- WIND EXPOSURE CATEGORY C
- BUILDING CATEGORY II
- GROUND SNOW LOAD = 15 PSF
- IMPORTANCE FACTOR 1.0
- ROOF UNHEATED - NOT SLIPPERY

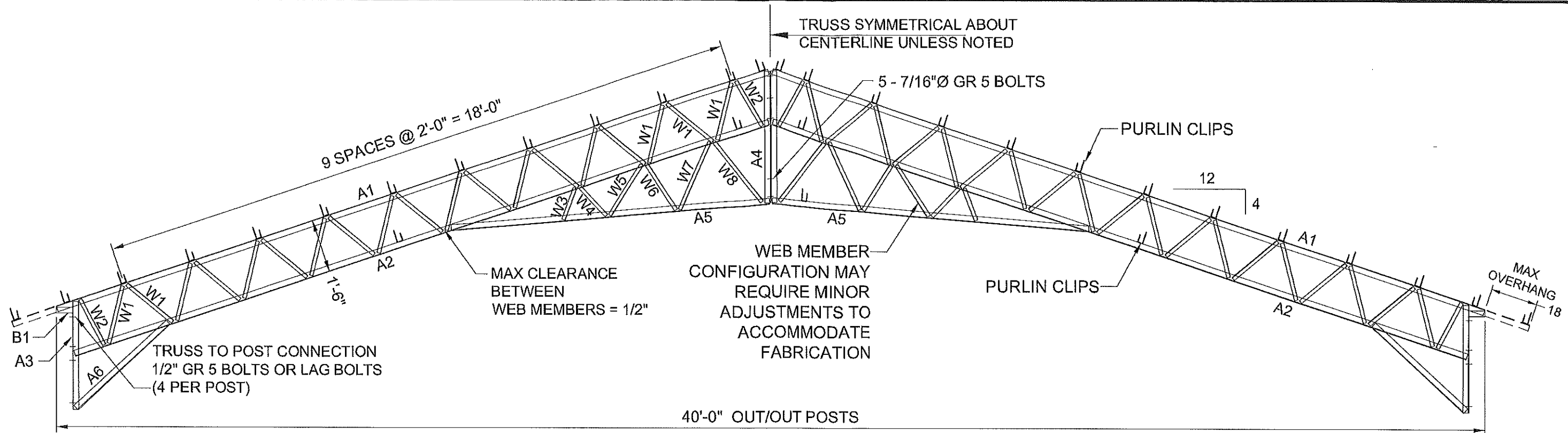


BY:  
 JOHN D. HYDE, PE  
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 177 ARLINGTON ROAD  
 ARAB, AL 35016  
 PH 256-572-0195  
 jdhyde@mindspring.com

**SUMMERTOWN METALS**

3864 Summertown Hwy, Summertown, TN 38483  
 PH: (931) 796-1521      www.summertownmetals.com

SCALE AS NOTED	DATE 02-14-2022	DRAWN BY J. HYDE	DRAWN NO. 22-0214-20
<b>20' &amp; SHORTER MONO TRUSS</b>			SHEET NO. 1 OF 1



**BILL OF MATERIALS**

MARK	DESCRIPTION	LENGTH	NUMBER REQUIRED	MATERIAL
A1	TOP CHORD	L 2 X 2 X 1/8	21'-0"	2 A36
A2	BOT CHORD	L 2 X 2 X 1/8	20'-5 3/4"	2 A36
A3	VERTICAL END	L 2 X 2 X 3/16	3'-0"	2 A36
A4	VERTICAL END	L 2 X 2 X 3/16	3'-8"	2 A36
A5	TIE	L 2 X 2 X 1/8	8'-11"	2 A36
A6	KNEE BRACE	L 2 X 2 X 1/8	3'-6"	2 A36
B1	BASE	L 1 1/2 X 1 1/2 X 3/16	5 1/2"	2 A36
W1	WEB	L 1 1/4 X 1 1/4 X 1/8	1'-7 1/2"	38 A36
W2	WEB	L 1 1/4 X 1 1/4 X 1/8	1'-5"	2 A36
W3	WEB	L 1 1/4 X 1 1/4 X 1/8	0' 11 1/4"	2 A36
W4	WEB	L 1 1/4 X 1 1/4 X 1/8	1' 1 5/8"	2 A36
W5	WEB	L 1 1/4 X 1 1/4 X 1/8	1'-8"	2 A36
W6	WEB	L 1 1/4 X 1 1/4 X 1/8	1'-6 1/2"	2 A36
W7	WEB	L 1 1/4 X 1 1/4 X 1/8	2'-0 1/2"	2 A36
W8	WEB	L 1 1/4 X 1 1/4 X 1/8	2'-1 1/2"	2 A36

NOTE: WEB MEMBER LENGTHS MAY BE ADJUSTED BY FABRICATOR.

**DESIGN LOAD NOTES:**

TRUSS SPACING = 12' ALLOWABLE DEAD LOAD = 4 PSF  
 TRUSS SPACING = 10' ALLOWABLE DEAD LOAD = 6 PSF  
 TRUSS SPACING = 8' ALLOWABLE DEAD LOAD = 8 PSF WITH 2x6 PURLINS  
 TRUSS SPACING = 8' ALLOWABLE DEAD LOAD = 6 PSF WITH 2x4 PURLINS

**DESIGN CRITERIA - APPLIED PER IBC 2018**

- DESIGN LOADS PER ASCE 7-16
- STEEL MATERIALS AND CONSTRUCTION PER AISC 360
- ROOF LIVE LOAD = 20 PSF
- DESIGN WIND SPEED = 105 MPH (IBC 2018 MAP)
- BUILDING RISK CATEGORY II
- WIND EXPOSURE CATEGORY B
- IMPORTANCE FACTOR = 1.0
- GROUND SNOW LOAD = 15 PSF

**40' ROOF TRUSS**

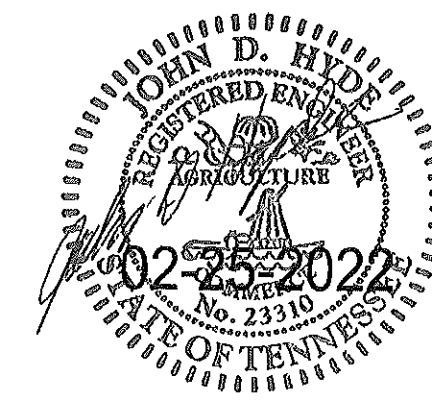
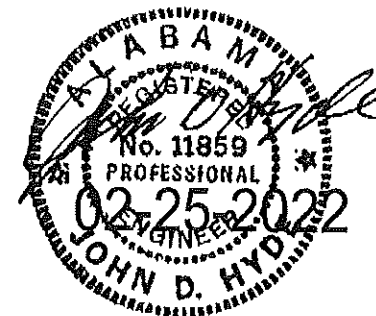
THIS TRUSS DESIGN MAY BE USED FOR SHORTER SPANS, MEMBER LENGTHS MUST BE ADJUSTED ACCORDINGLY.

**TRUSS TO POST REACTIONS:**

- LOADS ACTING ON SUPPORT POST OR WALL
- VERTICAL DOWNWARD = 4750 LBS
  - VERTICAL UPLIFT = 3050 LBS
  - HORIZONTAL LOAD = 1450 LBS
- LOADS ARE ASD WORKING LOADS FOR 12' TRUSS SPACING


**NOTES:**

- PURLINS TO BE MINIMUM 2x6 #2 SYP (OR STRONGER) AND SPACED AT A MAXIMUM 2'-0" O.C. (2x4 #2 SYP MAY BE USED FOR 8' TRUSS SPACING).
- THIS DESIGN IS FOR TRUSS ONLY. THE SUPPORT POST IS ASSUMED TO BE 5-1/2" BUT THE SIDEWALL DESIGN IS NOT A PART OF THIS DESIGN.
- THIS TRUSS DESIGN MAY BE USED FOR SHORTER SPANS, ADJUST MEMBER LENGTHS ACCORDINGLY.
- CONTRACTOR RESPONSIBLE FOR TEMPORARY CONSTRUCTION & PERMANENT BRACING.
- FABRICATOR SHALL VERIFY DIMENSIONS BEFORE CUTTING AND/OR FABRICATING TRUSS.
- FABRICATION AND WELDING PER AISC AND AWS.
- STEEL TO BE MINIMUM ASTM A36 OR EQUIVALENT.
- THIS TRUSS DESIGN IS ACCEPTABLE FOR OPEN, PARTIALLY ENCLOSED, OR FULLY ENCLOSED BUILDING (FOR THE LOADS SHOWN) PER IBC BUILDING DEFINITIONS.
- FASTENERS INSTALLED WITH TREATED WOOD MUST BE MANUFACTURER RECOMMENDED FOR USE WITH THE ASSOCIATED WOOD TREATMENT.



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SCALE AS NOTED	DATE 02-25-2022	DRAWN BY J. HYDE	DRAWN NO. 22-0225-40
40' TRUSS DETAIL			SHEET NO. 1 OF 1