GENERAL STRUCTURAL NOTES AND SPECIFICATIONS

DESIGN CRITERIA:

DESIGN CODES:

- 2015 RESIDENTIAL CODE STATE OF MAIN [1]
- 2015 BUILDING CODE STATE OF MAIN [2]
- ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES [3]

GENERAL:

1. THE STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THE ENTIRE SET OF CONTRACT DOCUMENTS (INCLUDING THE PROJECT SPECIFICATIONS) INTO THEIR WORK.
2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.
4. VERIFY ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.
5. DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION METHODS FOR THIS STRUCTURE. CONNECTIONS, DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ARCHITECT OR ENGINEER FOR CLARIFICATION IN A TIMELY MANNER PRIOR TO CONSTRUCTION.

SUBMITTALS:

1. SHOP DRAWINGS SHALL BE GENERATED AND ORIGINATE FROM THE CONTRACTOR.
2. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO THE FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL ITEMS THAT ARE DESIGNED BY OTHERS INCLUDING BUT NOT LIMITED TO: CONCRETE MIX DESIGNS, CONCRETE REINFOREMENT, CONCRETE ANCHORAGES, EMBEDDED STEEL ITEMS, CONCRETE CONTROL JOINTS, STRUCTURAL STEEL MEMBERS, GLUED LAMINATED MEMBERS, PREMANUFACTURED WOOD JOISTS, AND PREMANUFACTURED WOOD TRUSSES.
3. DEFERRED SUBMITTALS: PREMANUFACTURED WOOD JOISTS AND PREMANUFACTURED WOOD TRUSSES.
4. DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED UPON THE REQUIREMENTS OF THE 2013 ORSC AND AS NOTED UNDER "DESIGN REQUIREMENTS."
5. THE CONTRACTOR SHALL COORDINATE THE VERTICAL AND SEISMIC RESTRAINTS OF MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO THE STRUCTURE SHALL CONFORM TO ASCE 7-10 CHAPTER 13 AND BE DESIGNED BY AN PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
6. FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO, THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.
7. THE DELEGATED DESIGNER SHALL, IN CONJUNCTION WITH THE GENERAL CONTRACTOR, COORDINATE THE VERTICAL AND SEISMIC RESTRAINTS AND LOADING OF EQUIPMENT WITH THE STRUCTURE. CONNECTIONS TO THE STRUCTURE SHALL CONFORM TO 2017 ORSC, IBC AND ASCE 7 AND BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

CONCRETE:

ALL CONCRETE WORK SHALL CONFORM TO ACI318-11, ACI301-10, CHAPTER 4 OF THE 2017 ORSC, AND CHAPTER 19 OF THE INTERNATIONAL BUILDING CODE.

MIX DESIGN:

FOUNDATION CAST-IN-PLACE CONCRETE	4000 PSI, 28 DAYS, 1" MAX. AGGREGATES'
SLABS-ON-GRADE CONCRETE	3000 PSI, 28 DAYS, 1" MAX. AGGREGATES'
R.C. BLOCK WALL CORES AND JOINTS	3000 PSI GROUT

1. THE USE OF FLY ASH, OTHER POZZOLANS, SILICA FUME, OR SLAG SHALL CONFORM TO ACI 301 SECTION 4.2.2A
2. HORIZONTAL EXTERIOR SURFACES IN CONTACT WITH THE SOIL REQUIRE ENTRAINED AIR, USE "MODERATE EXPOSURE." AIR ENTRAINING AGENT SHALL CONFORM TO ASTM C260.
3. CONSTRUCTION AND REMOVAL OF FORMWORK SHALL CONFORM TO ACI 301 SECTION 2.
4. POSITION AND SECURE IN PLACE EXPANSION JOINT MATERIAL, ANCHORS, AND OTHER STRUCTURAL AND NON-STRUCTURAL EMBEDDED ITEMS BEFORE PLACING CONCRETE. CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DOCUMENTS AND COORDINATE FOR OTHER EMBEDDED ITEMS. SLEEVES, OPENING, CONDUITS, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE-THIRD THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON-CENTER. ALL BOLTS AND/OR ANCHOR RODS EMBEDDED INTO CONCRETE SHALL CONFORM TO ASTM SPECIFICATION F1554 GRADE 36 AND SHALL NOT BE HAND SET OR WET SET.
5. USE 7000 PSI NON-SHRINK GROUT FOR COLUMN BASE PLATES.
6. CONTRACTOR SHALL COORDINATE JOINTING AND INTERIOR MATERIAL FINISHES TO PROVIDE ADEQUATE TOLERANCE FOR EXPECTED STRUCTURAL FRAME SHRINKAGE AS CONCRETE SLABS WILL CONTINUE TO SHRINK AFTER INITIAL PLACEMENT OF CONCRETE.
7. NO WATER MAY BE ADDED TO CONCRETE IN THE FIELD UNLESS IT CONFORMS TO THE APPROVED MIX DESIGN AND IS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER.
8. CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION WHEREVER PRACTICAL. CONSTRUCTION JOINTS IN BEAMS, JOISTS, AND SLABS SHALL BE LOCATED AT MID-SPAN WITH REINFORCING CONTINUING THROUGH AS IF THE JOINT DID NOT OCCUR. VERTICAL CONSTRUCTION JOINTS IN WALLS SHALL BE LOCATED MIDWAY BETWEEN COLUMNS OR PILASTERS.
9. WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE.
10. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE.
11. PREPARATION, CONSTRUCTION AND PROTECTION OF CONCRETE DURING COLD WEATHER OR HOT WEATHER SHALL CONFORM TO ACI 318 5.12,5.13 AND ACI 306R AND 305R.

REINFORCING STEEL:

REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE TO ACI 301-10, ACI 318-11, ACI SP-66, CRSI MSP-1, ANSI/AWS D14.2017 ORSC, AND IBC CHAPTER 19.

MATERIALS:

REINFORCING BARS	ASTM A615, GRADE 60, DEFORMED BARS
TIE WIRE	16.5 GAUGE MIN. BLACK ANNEALED

1. FABRICATION SHALL CONFORM TO ACI 301 SECTION 3.2.2 AND ACI SP-66.
2. PLACEMENT SHALL CONFORM TO ACI 301 SECTION 3.3.2, TOLERANCES SHALL CONFORM TO IBC SECTION 1907.5.
3. SPLICES SHALL CONFORM TO ACI 301 SECTION 3.3.2.7.
4. FIELD BENDING SHALL CONFORM TO ACI 301 SECTION 3.3.2.8. BARS MUST BE PREHEATED, EXCEPT BARS SIZES #3, #4 AND #5 MAY BE FIELD BENT COLD (MIN. 32°F).
5. CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING WALLS.
6. PROVIDE HOOKED FOOTING DOWELS OF THE SAME SIZE AND SPACING AS THE VERTICAL WALL REINFORCEMENT. LAP SPLICE DOWELS TO THE VERTICAL WALL REINFORCEMENT AND TERMINATE WITH STANDARD 90° HOOK INTO THE FOOTING WITH A MINIMUM 6" EMBEDMENT BELOW THE TOP OF FOOTING.
7. PROVIDE "CORNER" BAR AT CORNERS AND INTERSECTIONS FOR WALLS AND FOUNDATIONS EQUAL IN SIZE, NUMBER AND SPACING TO HORIZONTAL REINFORCING. SIZE CORNER BAR TO PROVIDE A FULL LAP WITH HORIZONTAL REINFORCEMENT ON EACH LEG.
8. PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. EMBEDDED ITEMS SHALL NOT BE LOADED, NOR SHALL WELDS BE APPLIED. FOR A MINIMUM OF 7-DAYS AFTER CASTING OF CONCRETE.

WOOD FRAMING:

WOOD FRAMING SHALL CONFORM TO 2017 ORSC, IBC CHAPTER 23,2012 NDS, AND 2008 SDPWS.

SAWN LUMBER:

USE	SIZE	SPECIES	GRADE
BEARING WALL FRAMING	2x6,4x6	DOUG-FIR LARCH	No. 2
LIGHT WALL FRAMING	2x4,4x4	DOUG-FIR LARCH	No. 2
JOIST FRAMING	2x6-2x12	DOUG-FIR LARCH	No. 2
BEAMS & STRINGERS	4x8-6x12	DOUG-FIR LARCH	No. 2
POSTS & TIMBERS	6x6 - 8x8	DOUG-FIR LARCH	No. 2

1. ALL SAWN LUMBER AND PREMANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY.
2. SAWN LUMBER SHALL CONFORM TO THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR THE WESTERN WOODS PRODUCTS ASSOCIATION (WWPA) GRADING RULES.
3. ALL DIMENSIONAL LUMBER AND TIMBERS SHALL BE KILN DRIED AND CERTIFIED IN WRITING BY THE SUPPLIER TO BE LESS THAN 19% MOISTURE CONTENT.
4. ALL LUMBER IN CONTACT WITH CONCRETE (OR CMU) SHALL BE PRESERVATIVE TREATED (PT) IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS BUREAU (AWPB) UNLESS AN APPROVED MOISTURE BARRIER IS PROVIDED. ALL PT LUMBER SHALL BEAR THE AWPB QUALITY MARK.
5. CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO R502.8 AND R602.6 OF THE 2017 ORSC.
6. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITION WALLS.
7. PROVIDE SOLID LINES OF BLOCKING, SAME DEPTH OF FRAMING MEMBER, AT PERPENDICULAR PARTITION WALLS AND ALL OTHER BEARING POINTS.
8. JOIST BRIDGING SHALL BE REQUIRED WHERE JOISTS HAVE A DEPTH-TO THICKNESS RATIO GREATER THAN 5-TO-1 AND WHERE ONE EDGE IS UNSUPPORTED. JOIST BRIDGING SHALL BE SPACED AT 8-0" ON CENTER MAXIMUM.

WOOD STRUCTURAL PANEL SHEATHING:

WOOD STRUCTURAL ROOF AND FLOOR PANELS SHALL CONFORM TO THE REQUIREMENTS OF THE "U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD," THE "U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL USE PANELS," OR THE "APA PRP-108 PERFORMANCE STANDARDS." WOOD STRUCTURAL WALL PANELS SHALL CONFORM TO THE REQUIREMENTS OF THE "U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL USE PANELS," OR THE "APA PRP-108 PERFORMANCE STANDARDS." UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING AS FOLLOWS:

WOOD STRUCTURAL PANEL SHEATHING:

ROOF SHEATHING	5/8" - INDEX 40/20
FLOOR SHEATHING	3/4" - INDEX 48/24
WALL SHEATHING	1/2" - INDEX 32/16

1. ALL FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND END JOINTS SHALL BE STAGGERED.
2. ROOF SHEATHING SHALL BE BLOCKED, OR HAVE EDGES SUPPORTED BY PLYCLIPS.
3. FLOOR SHEATHING PANELS SHALL BE TONGUE AND GROOVE AND FIELD GLUED TO THE FRAMING USING ADHESIVES MEETING THE APA SPECIFICATION AFG-01 OR ASTM D3498.
4. SHEAR WALL SHEATHING SHALL BE PLYWOOD OR OSB PANELS CONFORMING TO THE REQUIREMENTS FOR ITS TYPE SPECIFIED IN DOC PS1 OR PS2. SHEAR WALL SHEATHING SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY AND BE BLOCKED AT ALL PANEL EDGES. SHEET SIZES SHALL BE 4'X8' UNLESS AT BOUNDARIES OR FRAMING CHANGES. REFERENCE PLANS FOR ADDITIONAL REQUIREMENTS.

NAILS AND FASTENERS:

ALL WOOD FASTENERS SHALL CONFORM TO R602.3 OF THE 2017 ORSC AND IBC SECTION 2304.9. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL NAILS SHALL BE COMMON NAIL SIZES AS FOLLOWS:

FRAMING NAILS:

SIZE	LENGTH	DIAMETER	PENETRATION
6d	2"	0.113"	1-1/4"
8d	2-1/2"	0.131"	1-3/8"
10d	3"	0.148"	1-1/2"
12d	3-1/4"	0.148"	1-1/2"
16d	3-1/2"	0.162"	1-5/8"

SHEATHING NAILS:

USE	TYPE	PANEL EDGES	INTERMEDIATE
ROOF	RING SHANK	0.131" @6" O.C.	0.131" @12" O.C.
FLOOR	RING SHANK	0.148" @6" O.C.	0.148" @12" O.C.
WALL	RING SHANK	0.131" @6" O.C.0.	131" @12" O.C.

1. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. ALL BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS. ALL A307 BOLTS SHALL HAVE CUT THREADS. PRE-DRILL HOLES FOR LAG BOLTS. SOAP THREADS OF LAGS IMMEDIATELY PRIOR TO INSTALLATION.
2. JOIST HANGERS, HOLDOWNS, AND OTHER FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG TIE (OR AN APPROVED EQUAL) AND BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. HARDWARE FASTENERS SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE MANUFACTURER'S REQUIREMENTS. ANY PRODUCT SUBSTITUTIONS TO SIMPSON SHALL MEET OR EXCEED SIMPSON'S PUBLISHED DESIGN CAPACITIES AND MUST HAVE A CURRENT ICC EVALUATION REPORT FOR THE APPLICABLE CODES.
3. HANGERS NOT SHOWN SHALL BE SIMPSON U-TYPE OR B-TYPE OF THE SIZE RECOMMENDED FOR THE SPECIFIC FRAMING MEMBER SHOWN ON PLAN.
4. FASTENERS IN CONTACT WITH PRESERVATIVE TREATED OR FIRE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 55 MIN.
5. SILL PLATES AT WALLS SHALL BE BOLTED TO CONCRETE WITH 5/8" 0 x 7" EMBED ANCHOR BOLTS AT 4'-0" O.C. MAXIMUM AND WITHIN 1'-0" OF SILL PLATE ENDS, CORNERS OR SPLICES, UNLESS DETAILED OTHERWISE. WASHERS TO BE MINIMUM 1/4"x3"x3", IN ACCORDANCE WITH R602.11 OF THE 2017 ORSC AND IBC 2305.3.11. ALL SILL PLATES AND LEDGERS SHALL BE ANCHORED WITH A MINIMUM OF THREE FASTENERS PER PIECE. ANCHOR BOLTS SHALL BE GALVANIZED ASTM F1554 GRADE 36 STEEL. ANCHOR BOLTS SHALL BE LOCATED IN THE FORMS AND TIED SUFFICIENTLY TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. DO NOT HAND SET OR WET SET.

ENGINEERED WOOD MEMBERS:

GLUED LAMINATED MEMBERS:

GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH THE "AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER" (ANSI/AITC A190.1), OR OTHER CODE-APPROVED DESIGN, MANUFACTURING AND QUALITY ASSURANCE PROCEDURES. GLUED LAMINATED TIMBER BEAMS SHALL BE WESTERN SPECIES WITH THE FOLLOWING STRENGTH PROPERTIES, UNLESS OTHERWISE NOTED ON PLANS:

USE	COMBINATION SYMBOL	MODULUS OF ELASTICITY	FLEXURAL STRESS	HORIZ.SHEAR STRESS
SIMPLE SPAN	24F-V4 (DF/DF)	1,800,000 PSI	2,400 PSI	265 PSI
CANTILEVERED	24F-V4 (DF/DF)	1,800,000 PSI	2,400 PSI	265 PSI

1. ADHESIVE SHALL BE WET-USE EXTERIOR WATERPROOF GLUE.
2. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE.
3. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER THE SHOP OR FIELD.
4. NOTCHING AND/OR BORING OF GLUED LAMINATED MEMBERS (EITHER IN THE SHOP, OR FIELD) IS STRICTLY PROHIBITED UNLESS AS SPECIFICALLY DETAILED IN THE STRUCTURAL DRAWINGS OR APPROVED BY THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD.
5. GLULAM MEMBERS SHALL BE OF THE FOLLOWING APPEARANCE GRADE(S), UNLESS OTHERWISE NOTED ON PLANS: ARCHITECTURAL. IT IS THE CONTRACTORS RESPONSIBILITY TO INSURE THAT GLULAM MEMBERS ARE PROTECTED FROM DAMAGE THROUGH CONSTRUCTION.

ENGINEERED WOOD MEMBERS (CONT.):

ENGINEERED COMPOSITE MEMBERS:

ENGINEERED COMPOSITE WOOD PRODUCTS SUCH AS LAMINATED VENEER LUMBER (MICROLAM), PARALLEL STRAND LUMBER (PARALAM), AND LAMINATED STRAND LUMBER (TIMBERSTRAND) SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS, MANUFACTURED BY TRUS-JOIST OR AN APPROVED EQUAL, AND SHALL HAVE THE FOLLOWING MINIMUM DESIGN PROPERTIES:

COMPOSITE LUMBER TYPE	MODULUS OF ELASTICITY	FLEXURAL STRESS
LSL	1,500,000 PSI	2,350
LVL	1,900,000 PSI	2,600
PSL	2,000,000 PSI	2,900

1. FLEXURAL STRESSES NOTED ABOVE ARE FOR 12" DEEP MEMBERS. DEEPER MEMBERS SHALL BE DESIGNED FOR REDUCED STRESSES IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

PREMANUFACTURED WOOD JOISTS:

DESIGN OF THE PREMANUFACTURED JOIST SYSTEM SHALL BE THE CONTRACTORS RESPONSIBILITY. PREMANUFACTURED WOOD JOISTS SHALL BE OF THE SIZE AND TYPE AS SHOWN ON THE STRUCTURAL DRAWINGS. JOISTS SHALL BE MANUFACTURED BY TRUS- JOIST, OR AN APPROVED EQUAL, AND SHALL CONFORM TO "THE "PERFORMANCE STANDARD FOR APA EWS I-JOISTS" (APA EWS STANDARD PRI-400). THE PREMANUFACTURED WOOD JOIST SYSTEM SHALL BE DESIGNED TO RESIST THE FOLLOWING MINIMUM LOADS:

LOAD TYPE	UNIFORMLY DISTRIBUTED LOAD
FLOOR LIVE LOAD	AS NOTED IN "DESIGN REQUIREMENTS"
FLOOR DEAD LOAD	32 PSF

1. ALTERNATE JOIST PRODUCTS WILL BE CONSIDERED PROVIDED THEY ARE ICC APPROVED. ARE COMPATIBLE WITH THE LOAD CAPACITY, ARE OF THE SAME DEPTH AND ON-CENTER SPACING AS JOIST NOTED ON PLANS, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT, AND HAVE LVL FLANGES.
2. IF ANOTHER I-JOIST PRODUCT IS TO BE SUBSTITUTED, THE SUBSTITUTED PRODUCT MUST BE EQUAL OR GREATER IN MOMENT, SHEAR, REACTION, EI, AND PERFORMANCE AS THE PRODUCT SPECIFIED FOR THIS PROJECT. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE COST OF ANY RE-ENGINEERING AND MODIFICATIONS TO THE STRUCTURAL PLANS OR DETAILS DUE TO THE SUBSTITUTION OF THEIR PRODUCT.
3. ALTERNATIVE PRODUCTS AND DESIGNS MUST BE APPROVED BY THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION. CALCULATIONS OF THE PROPOSED ALTERNATE PRODUCTS MUST BE SEALED BY THE PRODUCT ENGINEER AND SUBMITTED FOR REVIEW BY THE ARCHITECT AND ENGINEER OF RECORD.
4. JOIST SUPPLIER SHALL PROVIDE JOISTS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES NECESSARY FOR THE PROPER ERECTION AND PERFORMANCE OF THEIR PRODUCT. THESE SHALL BE CLEARLY CALLED OUT AND DETAILED ON THE SHOP DRAWINGS.
5. LAMINATE MULTIPLE JOISTS WERE INDICATED ON DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. CAMBER ALL JOISTS AS PER MANUFACTURER'S RECOMMENDATIONS.
7. DO NOT NOTCH OR DRILL PRODUCTS, EXCEPT AS ALLOWED BY THE MANUFACTURER'S SPECIFICATIONS. ANY PROPOSED NOTCHING OR DRILLING OF PRODUCTS REQUIRES PRIOR APPROVAL BY THE MANUFACTURER.
8. THE CONTRACTOR SHALL COORDINATE WITH THE JOIST MANUFACTURER TO PROVIDE ADDITIONAL JOISTS AND/OR ADJUST JOIST LAYOUT TO AVOID CONFLICTS WITH COLUMNS. COLUMN CONNECTIONS, CONNECTION HARDWARE, ETC.
9. CONTRACTOR TO VERIFY ALL WEIGHTS AND LOCATIONS OF CONCENTRATED LOADS DUE TO ROOF TOP MECHANICAL UNITS, MECHANICAL PIPING, ELECTRICAL UNITS, FOLDING PARTITIONS AND OTHER CONCENTRATED LOADS PRIOR TO JOIST FABRICATION.
10. THE JOIST MANUFACTURER SHALL SUBMIT DESIGNS, SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR REVIEW.
11. DESIGNS, SHOP DRAWINGS AND CALCULATIONS SHALL INCLUDE DEFLECTION DESIGN CRITERIA; LIVE. SNOW, DEAD, WIND, SEISMIC AND MECHANICAL DESIGN LOADS; ERECTION AND PLACEMENT CRITERIA; DETAILS OF ALL BRIDGING, BRACING, STIFFENERS, BLOCKING AND CONNECTIONS; LOCATION AND FRAMING FOR ALL EQUIPMENT LOADS OVER 500 LBS; AND LOCATION AND FRAMING FOR ALL SUSPENDED WALLS AND EQUIPMENT.

PREMANUFACTURED WOOD TRUSSES:

DESIGN OF THE PREMANUFACTURED WOOD ROOF TRUSS SYSTEM SHALL BE THE CONTRACTORS RESPONSIBILITY. DESIGN SHALL CONFORM TO THE PROFILES SHOWN ON THE DRAWINGS AND THE REQUIREMENTS OF IBC SECTION 2303.4 AND THE "DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES", TPI-24 AS PUBLISHED BY THE TRUSS PLATE INSTITUTE. METAL PLATE CONNECTED TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING MINIMUM LOADS AND ANY SNOW DRIFTING/SLIDING SNOW INDICATED ON DRAWINGS:

LOAD TYPE	UNIFORMLY DISTRIBUTED LOAD
ROOF SNOW LOAD	50 PSF
TOP CHORD DEAD LOAD	10 PSF
BOTTOM CHORD DEAD LOAD	10 PSF
LIMITED STORAGE ATTIC LIVE LOAD	AS NOTED IN "DESIGN REQUIREMENTS"

1. IN ADDITION TO THE LOADS NOTED ABOVE. ALL TRUSSES SHALL BE DESIGNED TO SUPPORT A CONCENTRATED LOAD OF 100# AT ANY LOCATION ALONG THE TOP OR BOTTOM CHORDS.
2. THE MANUFACTURER SHALL PROVIDE SHOP DRAWINGS SHOWING LAYOUT AND ANY DETAILING NECESSARY FOR DETERMINING FIT AND PLACEMENT IN THE STRUCTURE.
3. CONTRACTOR TO VERIFY ALL WEIGHTS AND LOCATIONS OF CONCENTRATED LOADS DUE TO ROOF TOP MECHANICAL UNITS, MECHANICAL PIPING, ELECTRICAL UNITS, FOLDING PARTITIONS AND OTHER CONCENTRATED LOADS PRIOR TO TRUSS FABRICATION.
4. TRUSS MANUFACTURER SHALL DESIGN ALL DRAG TRUSSES AND DRAG STRUTS FOR SHEAR LOADS AS INDICATED ON THE PLANS AND NOTES; DRAG TRUSSES TO COLLECT LOAD ALONG THE TOP CHORD AND TRANSFER TO THE BOTTOM CHORD THROUGH WEB MEMBERS; AND ALL TOP AND BOTTOM CHORDS TO HAVE CAPACITY OF TRANSFERRING SHEAR LOADS THROUGH SPLICES.
5. THE TRUSS MANUFACTURER SHALL SUBMIT DESIGNS, SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR REVIEW AND APPROVAL.
6. DEFLECTION OF MEMBERS DUE TO DESIGN LOADS SHALL NOT EXCEED THE "DESIGN REQUIREMENTS" FOR DEFLECTION (UNLESS NOTED OTHERWISE).
7. DESIGN, SHOP DRAWINGS AND CALCULATIONS SHALL INCLUDE DEFLECTION DESIGN CRITERIA; LIVE. SNOW, DEAD, WIND, SEISMIC AND MECHANICAL DESIGN LOADS; ERECTION AND PLACEMENT CRITERIA; DETAILS OF ALL BRIDGING, BRACING, STIFFENERS, BLOCKING AND CONNECTIONS; LOCATION AND FRAMING FOR ALL EQUIPMENT LOADS OVER 500 LBS; AND LOCATION AND FRAMING FOR ALL SUSPENDED WALLS AND EQUIPMENT.
8. LOWER CHORDS SHALL BE CAMBERED TO PROVIDE FOR DEAD LOAD DEFLECTION AT GYPSUM BOARD CEILINGS.
9. DO NOT NOTCH OR DRILL TRUSS MEMBERS WITH OUT APPROVAL OF THE TRUSS MANUFACTURER AND THEIR ENGINEER.
10. TRUSS SUPPLIER SHALL PROVIDE BRIDGING, HANGERS, BLOCKING, CUSTOM FABRICATED HANGERS AND OTHER ACCESSORIES NECESSARY FOR THE PROPER ERECTION AND PERFORMANCE OF THEIR PRODUCT. THESE SHALL BE CLEARLY CALLED OUT AND DETAILED ON THE SHOP DRAWINGS.
11. PROVIDE SIMPSON H2.5A CLIPS AT EACH END OF ALL TRUSSES UNO. TRUSS MANUFACTURER TO HIGHLIGHT ALL TRUSS UPLIFT REACTIONS EXCEEDING THE RATED SPF/HF CAPACITY OF THE SIMPSON CLIP ON THE SHOP DRAWINGS FOR REVIEW.
12. PROVIDE SIMPSON LGT GIRDER TIEDOWN AT EACH END OF ALL GIRDER TRUSSES UNO. TRUSS MANUFACTURER TO HIGHLIGHT ALL GIRDER TRUSS UPLIFT REACTIONS EXCEEDING THE RATED SPF/HF CAPACITY OF THE APPROPRIATE SIMPSON TIEDOWN ON THE SHOP DRAWINGS FOR REVIEW.

2017 ORSC PRESCRIPTIVE STRUCTURAL DESIGN ELEMENTS:

CONCRETE FOOTINGS:
(PER TABLE R403.1 MINIMUM WIDTH OF CONCRETE FOOTINGS)

CONCRETE STEM WALLS:
(PER R403.1.3)

1. A MINIMUM OF (1) #4 VERTICAL BAR @ 48" O.C. W/ STANDARD HOOK EXTENDING A MINIMUM OF 14" INTO THE STEM WALL. STANDARD HOOK SHALL COMPLY W/ R608.5.4.5 AND R403.1.3.5.3 (SUPPORT AND COVER).
2. A MINIMUM OF (1) #4 HORIZONTAL BAR SHALL BE INSTALLED WITHIN 12" OF THE TOP OF THE STEM WALL (CENTERED ON WALL).
3. A MINIMUM OF (1) #4 HORIZONTAL BAR SHALL BE LOCATED 3" TO 4" FROM THE BOTTOM OF THE FOOTING (CENTERED ON WALL).

STRUCTURAL DRAWING INDEX

PROJECT: 212 Middle Road
Warren,
ME 04864

TITLE: GENERAL STRUCTURAL NOTES AND SPECIFICATIONS

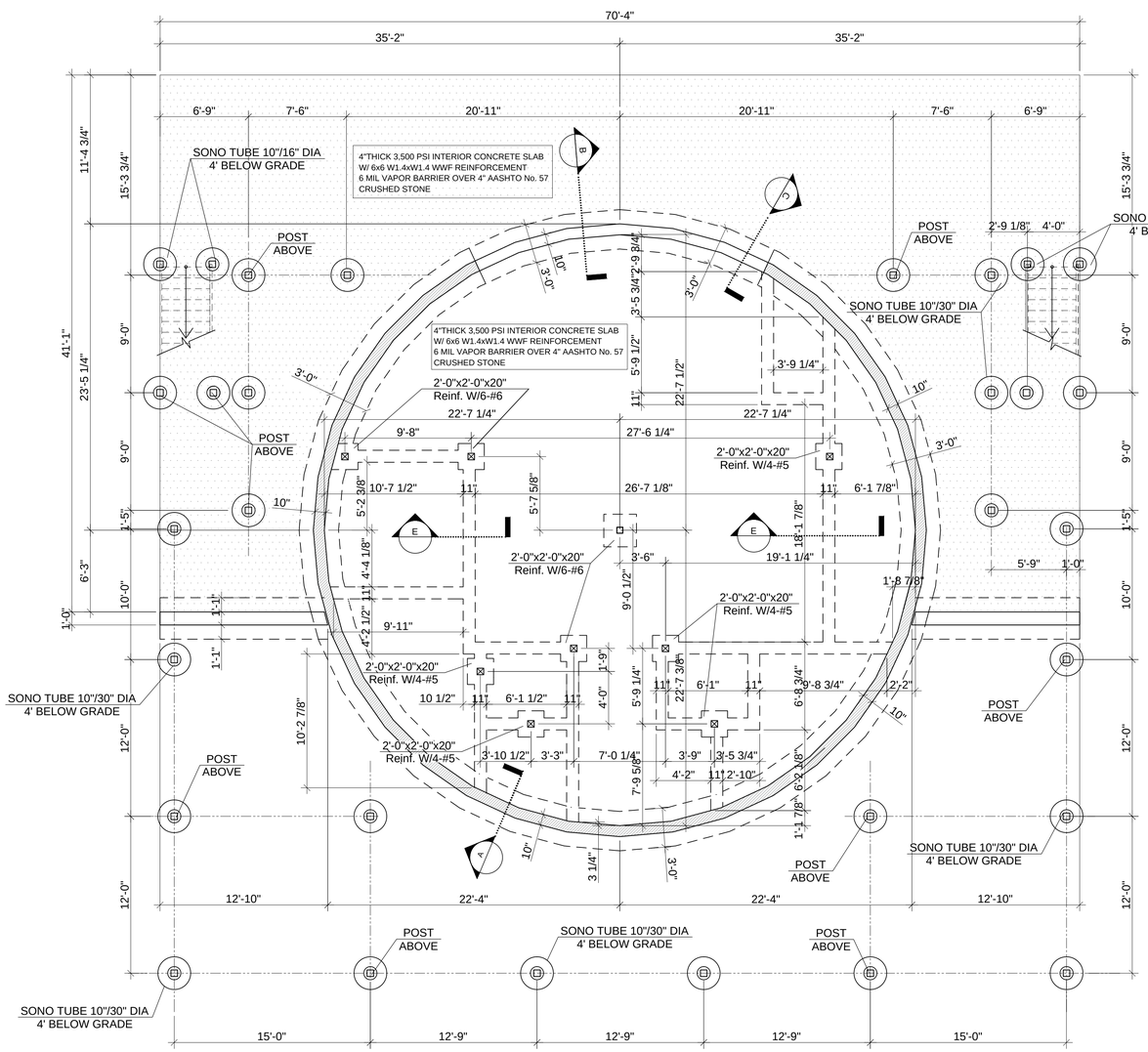
PROJECT: 1653-SD

DATE: MARCH 2022

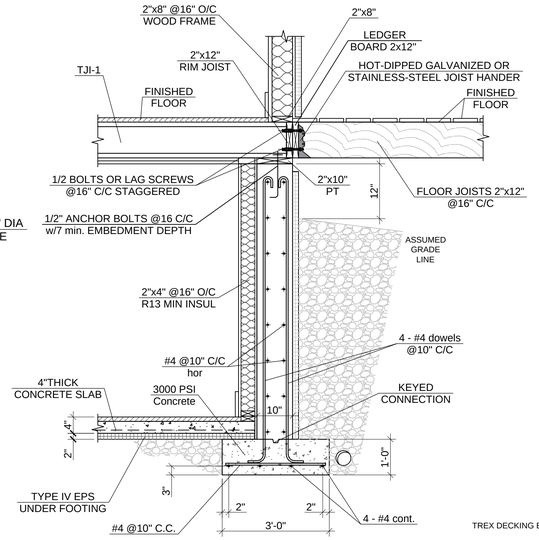
REVISIONS:

ENGINEER:

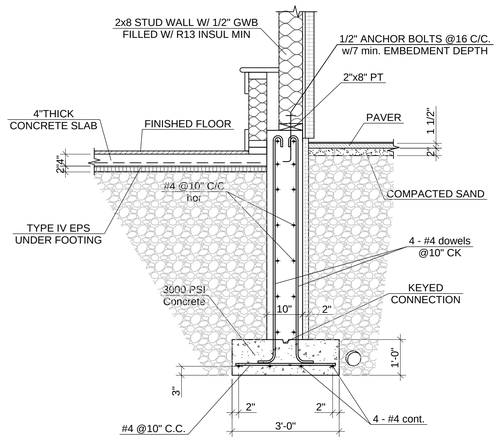
SHEET NO. S01



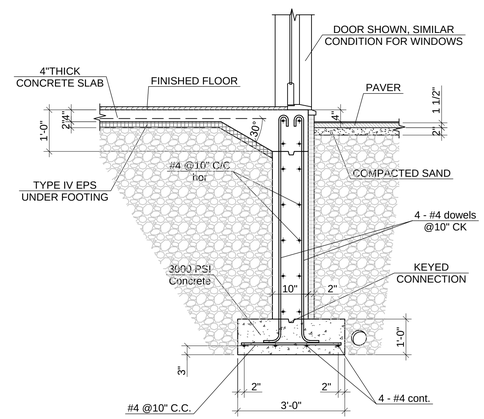
1 / S2 FOUNDATION PLAN
SCALE 1:150



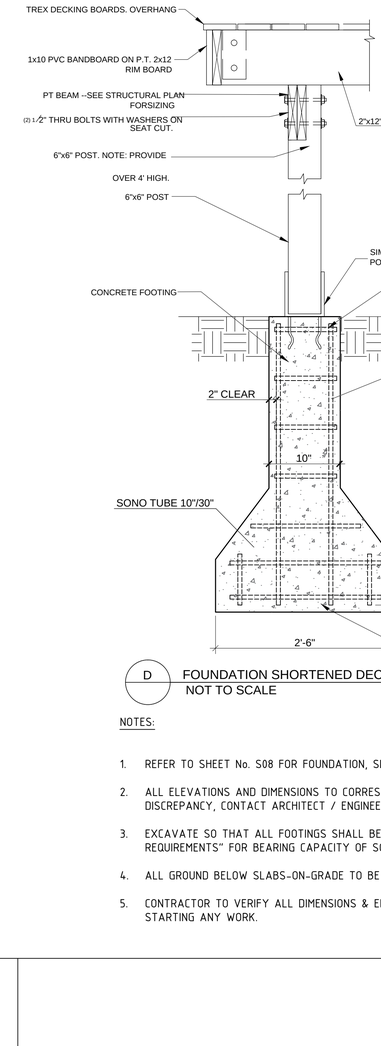
A FOUNDATION WALL TO 1ST FLOOR
NOT TO SCALE



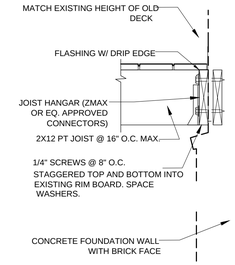
C FOUNDATION FROST WALL AT WOOD WALL
NOT TO SCALE

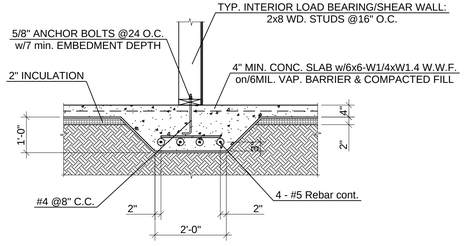


B FOUNDATION FROST WALL AT FENESTRATION
NOT TO SCALE

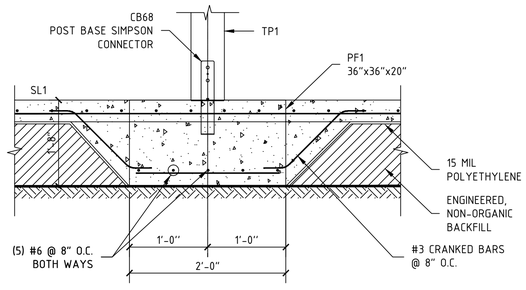


D FOUNDATION SHORTENED DECK PIER
NOT TO SCALE

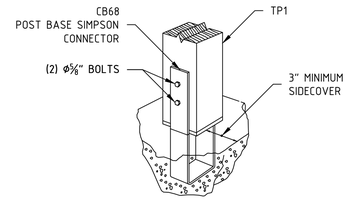




E Typ. Pier Footing
NOT TO SCALE



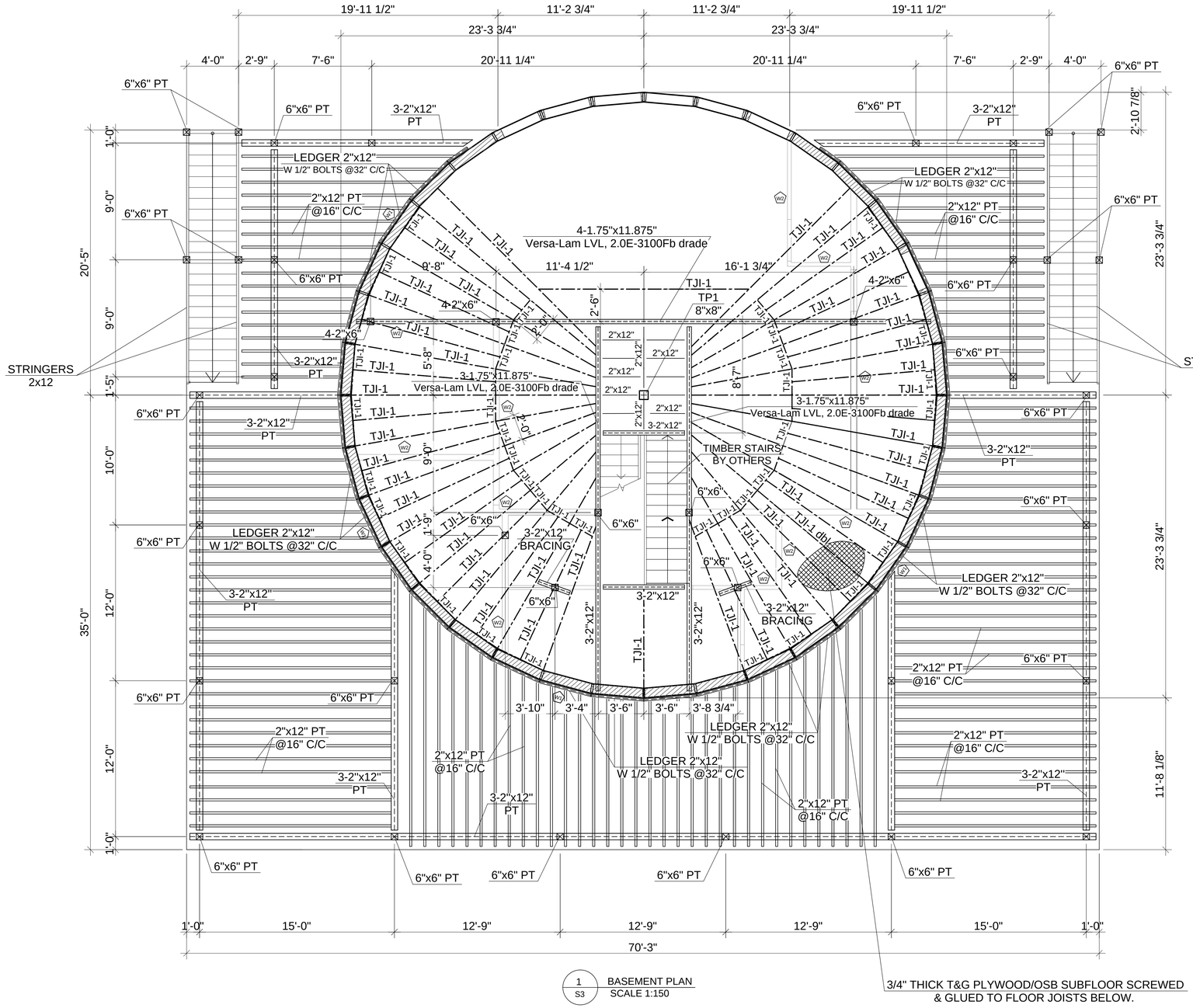
G / S02 PAD FOUNDATION DETAIL
SCALE: 1/2" = 1'-0"



NOTES:

1. REFER TO SHEET No. S08 FOR FOUNDATION, SLAB, WALL AND BEAM SCHEDULES.
2. ALL ELEVATIONS AND DIMENSIONS TO CORRESPOND WITH ARCHITECT'S DRAWINGS. IF ANY DISCREPANCY, CONTACT ARCHITECT / ENGINEER IMMEDIATELY.
3. EXCAVATE SO THAT ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL. SEE "DESIGN REQUIREMENTS" FOR BEARING CAPACITY OF SOIL.
4. ALL GROUND BELOW SLABS-ON-GRADE TO BE TERMITE TREATED PRIOR TO INSTALLATION OF SLAB.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL PLANS PRIOR TO STARTING ANY WORK.

PROJECT:	TITLE:	PROJECT: 1653-SD	REVISIONS:	ENGINEER:			SHEET NO.
212 Middle Road Warren, ME 04864	FOUNDATION PLAN	DATE: MARCH 2022					S02

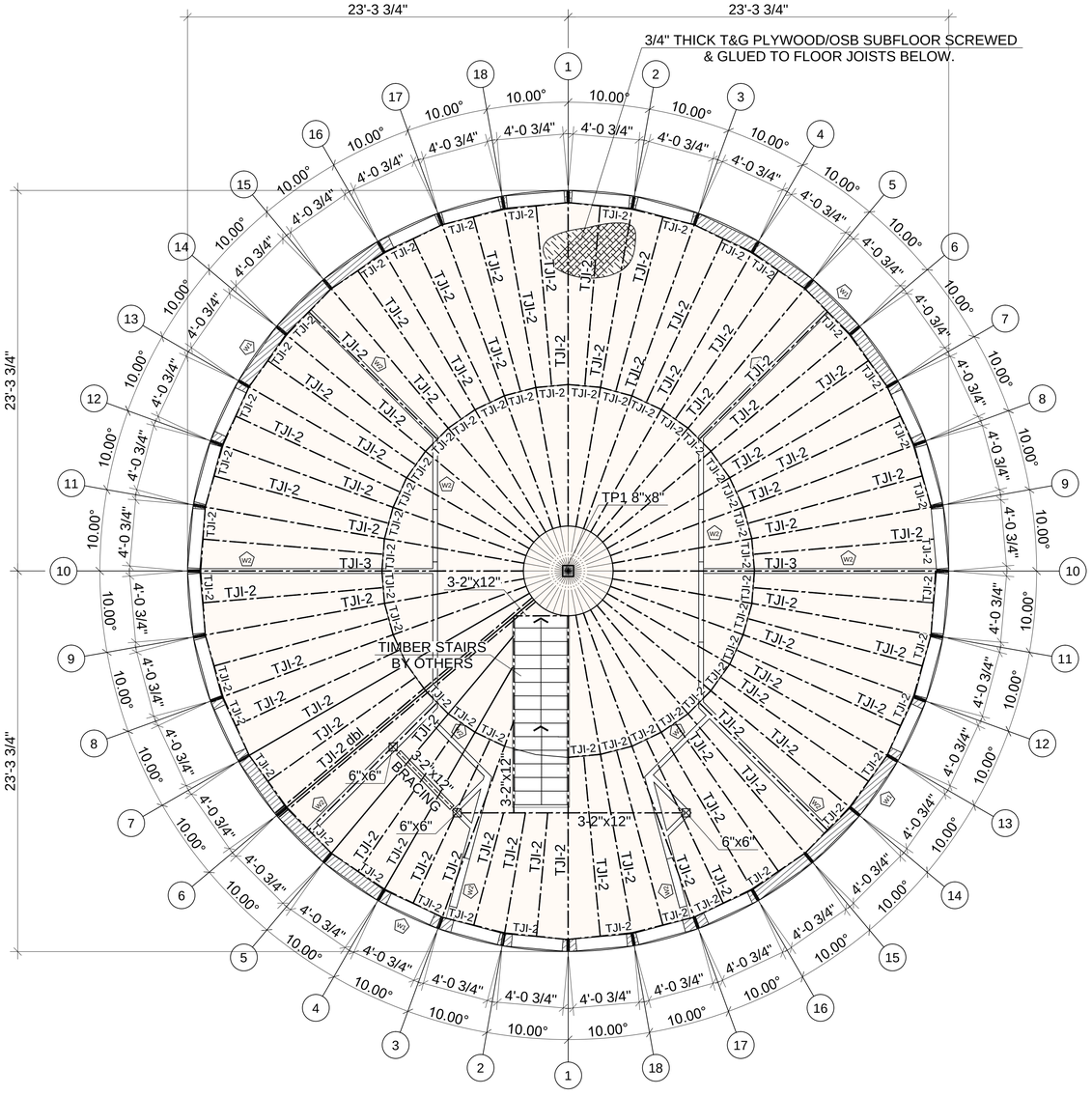


1 S3 BASEMENT PLAN
SCALE 1:150

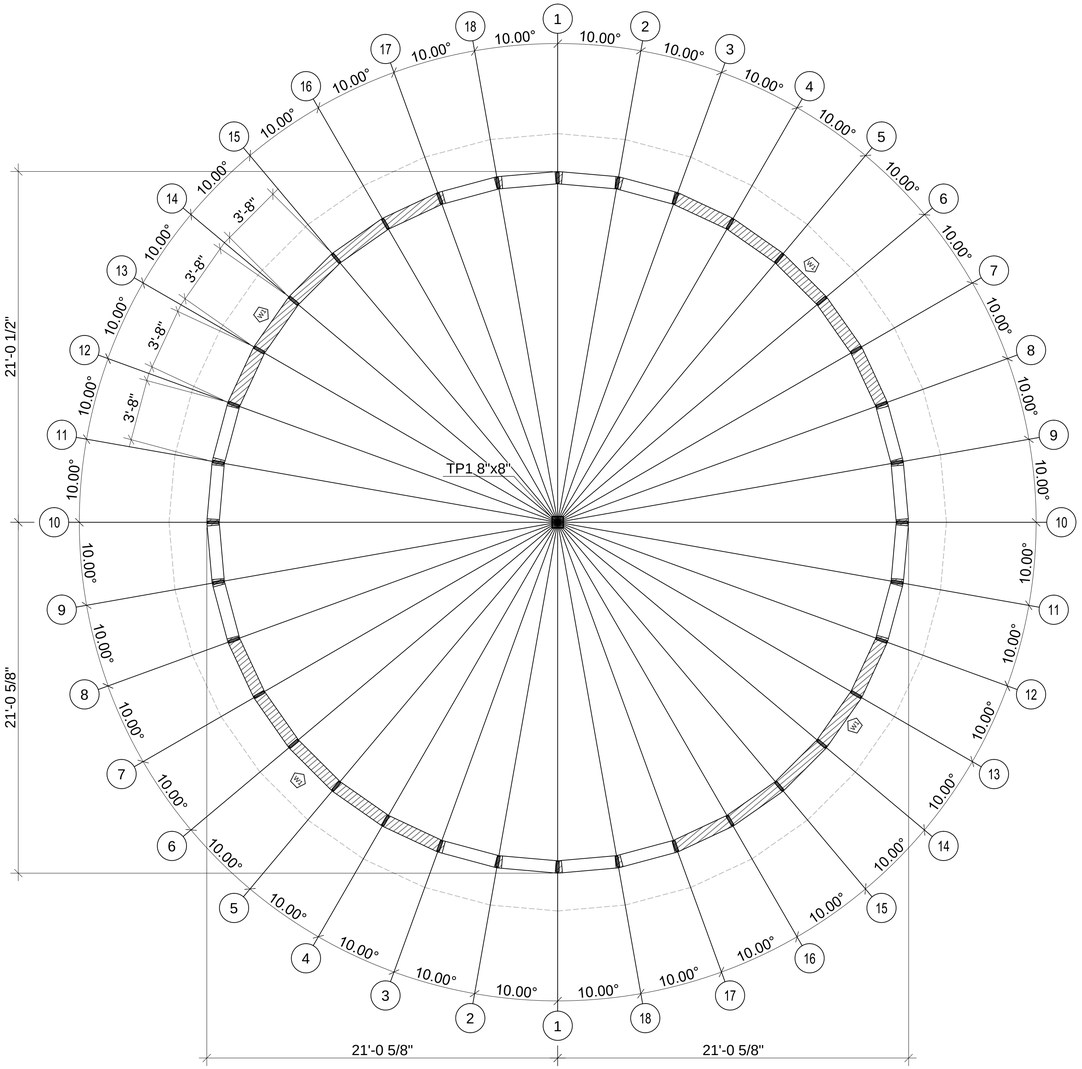
3/4" THICK T&G PLYWOOD/OSB SUBFLOOR SCREWED & GLUED TO FLOOR JOISTS BELOW.

1. DIRECTLY APPLIED CEILING PANELS 1/2" PLYW. ATTACHED TO EACH JOIST

PROJECT:	TITLE:	PROJECT: 1653-SD	REVISIONS:	ENGINEER:			SHEET NO.
212 Middle Road Warren, ME 04864	BASEMENT PLAN	DATE: MARCH 2022					S03



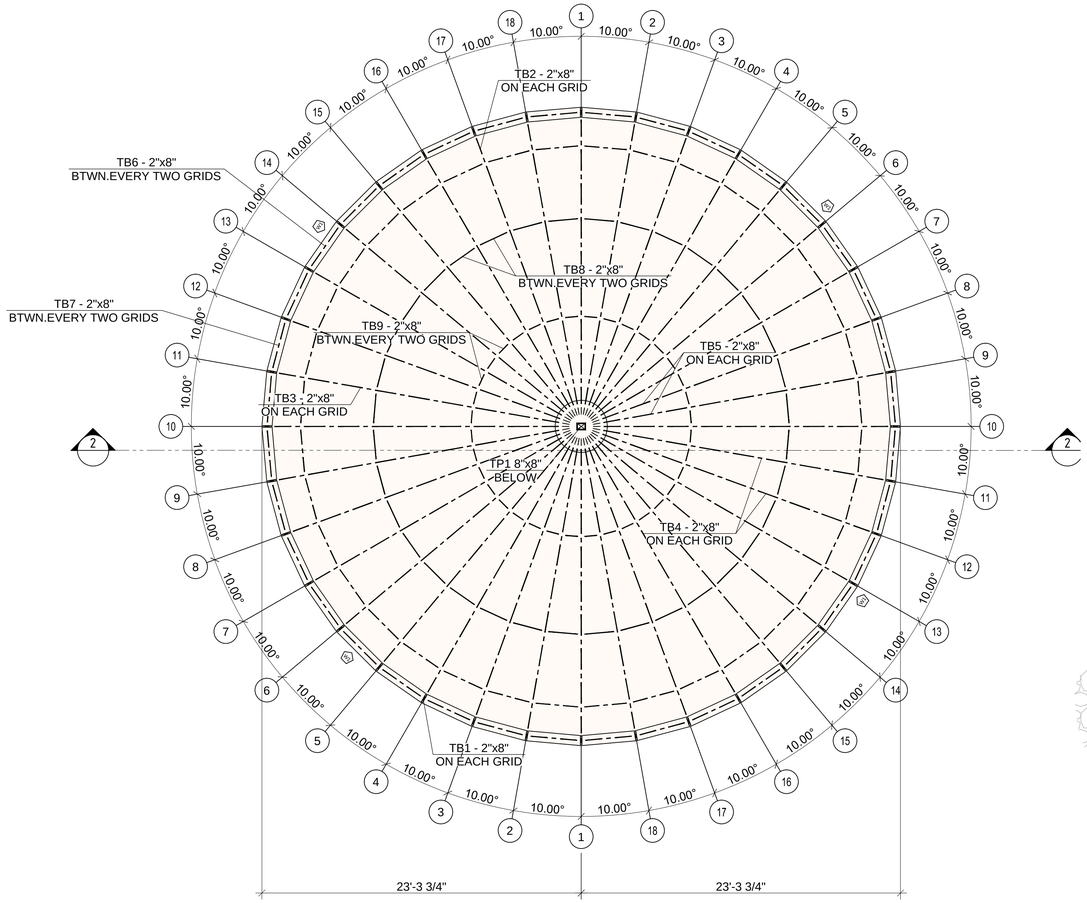
1 S4 FIRST FLOOR FRAMING PLAN
SCALE 1:150



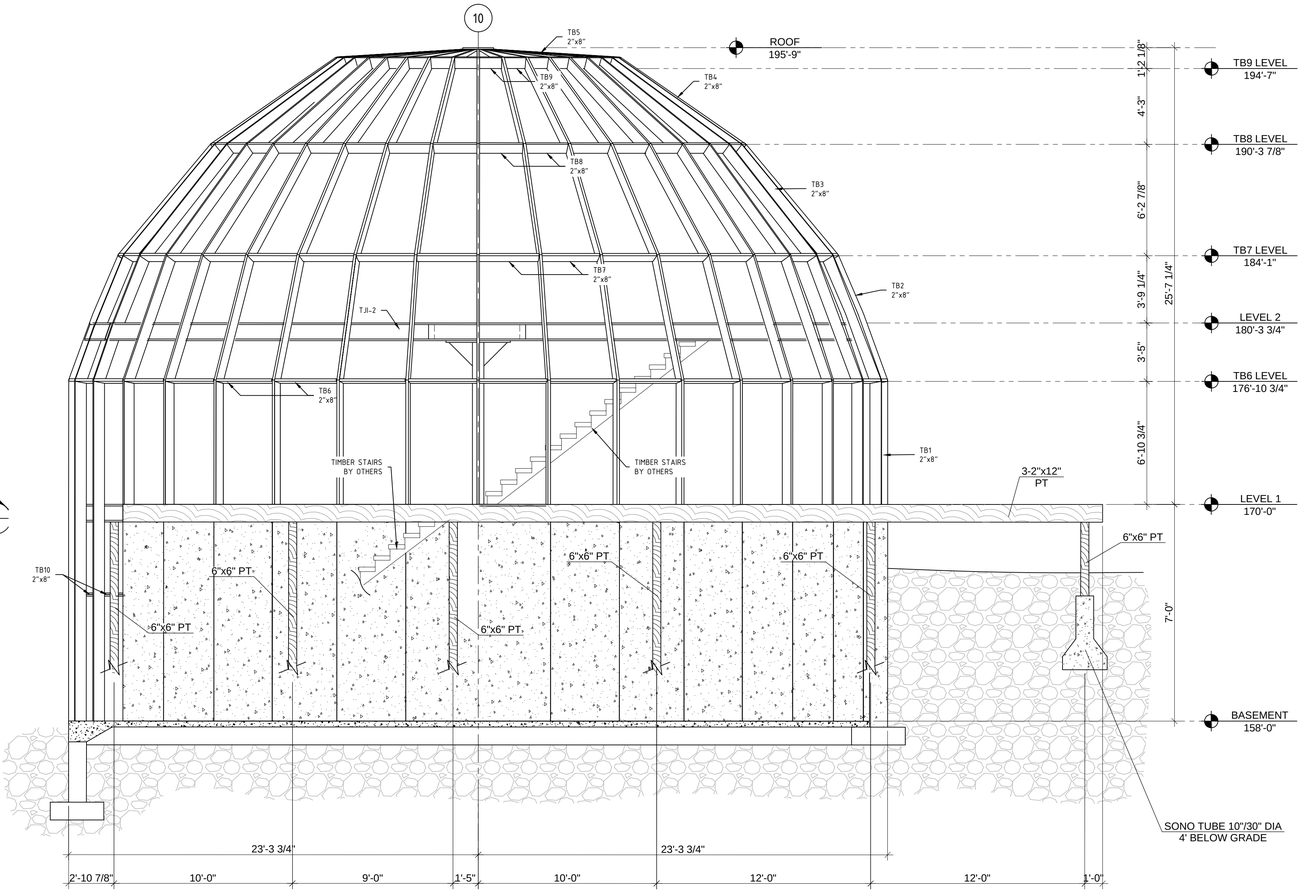
2 S4 SECOND FLOOR FRAMING PLAN
SCALE 1:150

1. DIRECTLY APPLIED CEILING PANELS 1/2" PLYW. ATTACHED TO EACH JOIST

PROJECT: 212 Middle Road, Warren, ME 04864	TITLE: FIRST FLOOR FRAMING PLAN SECOND FLOOR FRAMING PLAN	PROJECT: 1653-SD DATE: MARCH 2022	REVISIONS:	ENGINEER:			SHEET NO. S04



1 S5 ROOF FRAMING PLAN
SCALE 1:150

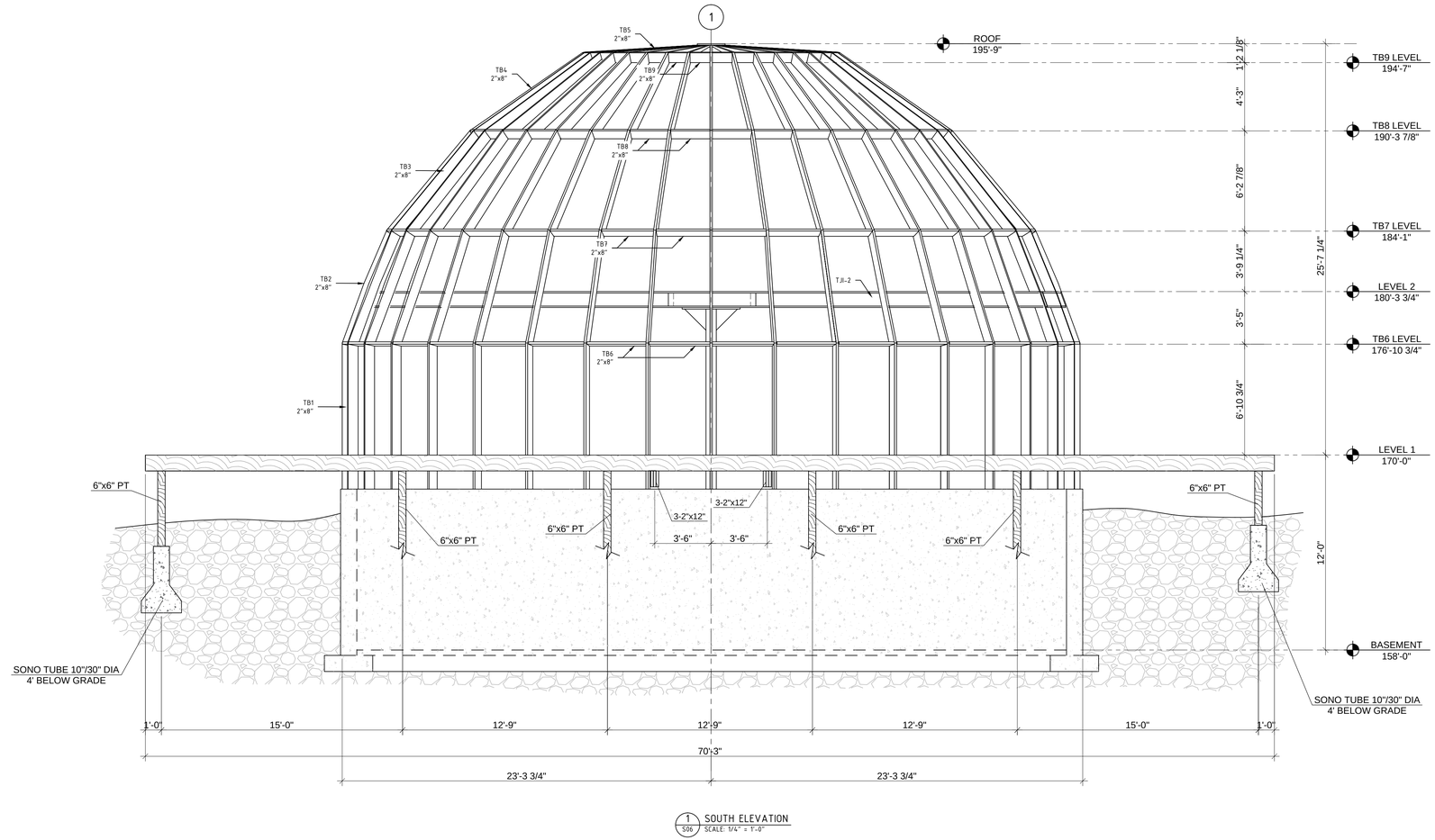


2 S05 WEST ELEVATION
SCALE: 1/4" = 1'-0"

PLAN NOTES:

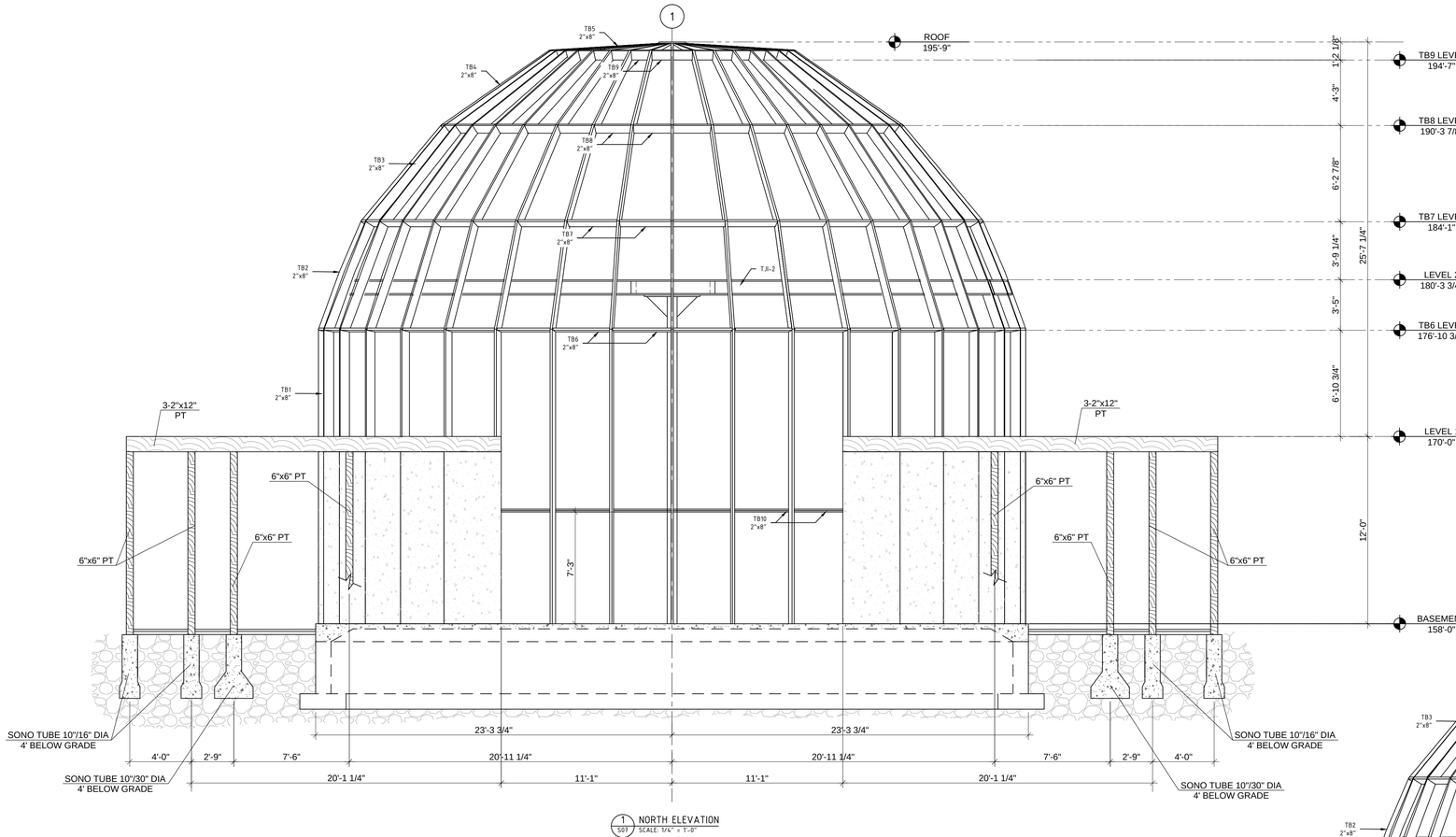
1. REFER TO SHEET No. S08 FOR FOUNDATION, SLAB, WALL AND BEAM SCHEDULES.
2. ALL ELEVATIONS AND DIMENSIONS TO CORRESPOND WITH ARCHITECT'S DRAWINGS. IF ANY DISCREPANCY, CONTACT ARCHITECT / ENGINEER IMMEDIATELY.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL PLANS PRIOR TO STARTING ANY WORK.
4. ALL SIMPSON HARDWARE IN CONTACT WITH PRESERVATIVE TREATED LUMBER, CONCRETE OR MASONRY SHALL HAVE "ZMAX" COATING PER MANUFACTURER, TYP.
5. FASTENERS IN PRESERVATIVE TREATED WOOD OR FIRE RETARDANT TREATED WOOD SHALL BE OF HOT ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL.
6. SILL PLATES AT WALLS SHALL BE BOLTED TO CONCRETE WITH 5/8" Φ x 7" EMBED GALVANIZED ANCHOR BOLTS AT 48' O.C. MAX. AND WITHIN 12" OF SILL PLATE ENDS, CORNERS OR SPLICES, UNLESS DETAILED OR NOTED ON PLANS OTHERWISE. PLATE WASHERS TO BE MINIMUM 1/4"x3"x3". ALL SILL PLATES AND LEDGERS SHALL BE ANCHORED WITH A MIN. OF (3) FASTENERS PER PIECE.
7. PROVIDE SOLID BLOCKING UNDER ALL PERPENDICULAR WALLS AND POINT LOADS FROM ABOVE.
8. ALL BOLT HOLES SHALL BE DRILLED A MAXIMUM OF 1/16" OVERSIZED. INSPECTOR TO VERIFY.
9. DIRECTLY APPLIED CEILING PANELS 1/2" PLYW. ATTACHED TO EACH JOIST

PROJECT:	TITLE:	PROJECT: 1653-SD	REVISIONS:	ENGINEER:			SHEET NO.
212 Middle Road Warren, ME 04864	ROOF FRAMING PLAN WEST ELEVATION	DATE: MARCH 2022					S05

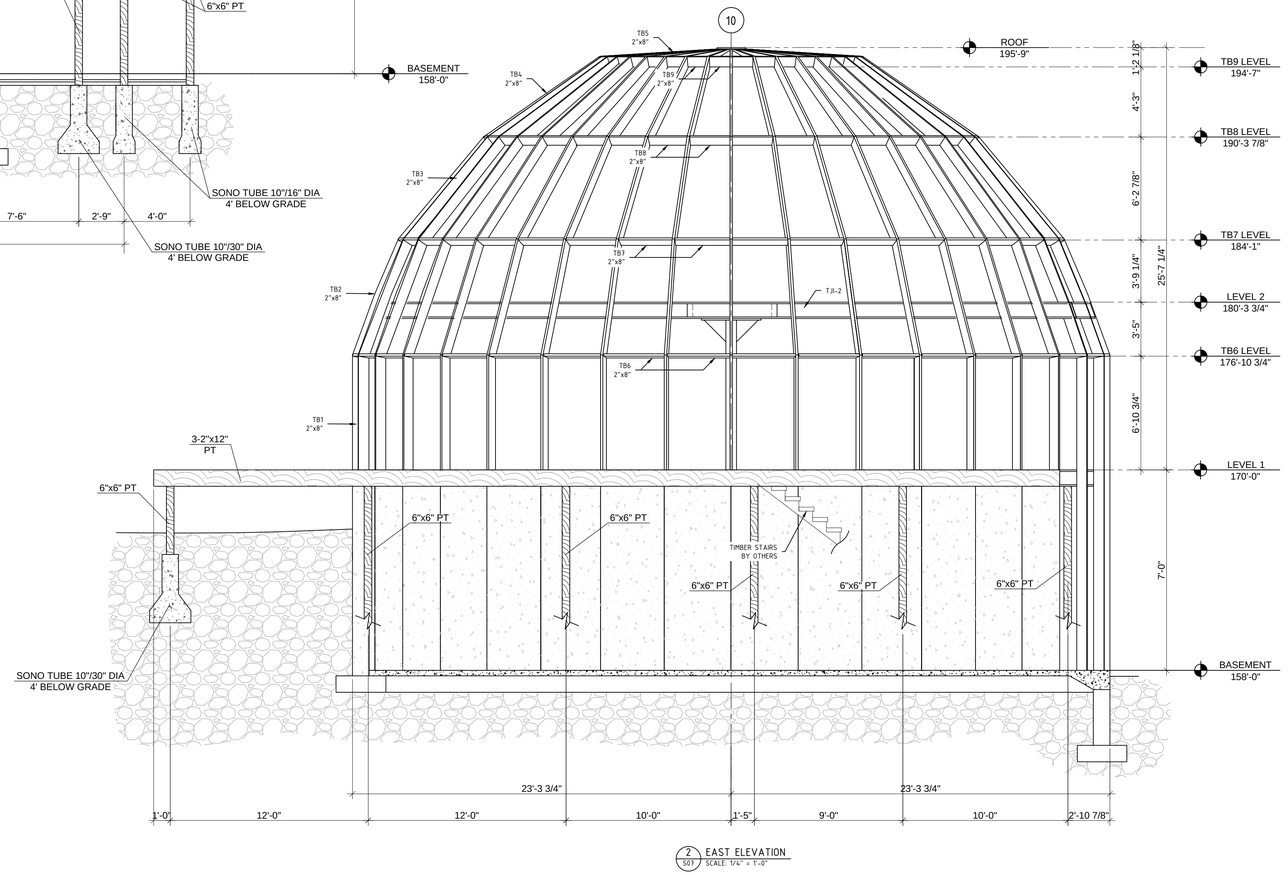


1/S06 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

PROJECT: *212 Middle Road* *Warren, ME 04864*	TITLE: SOUTH ELEVATION	PROJECT: 1653-SD	REVISIONS:	ENGINEER:			SHEET NO. S06
		DATE: MARCH 2022					

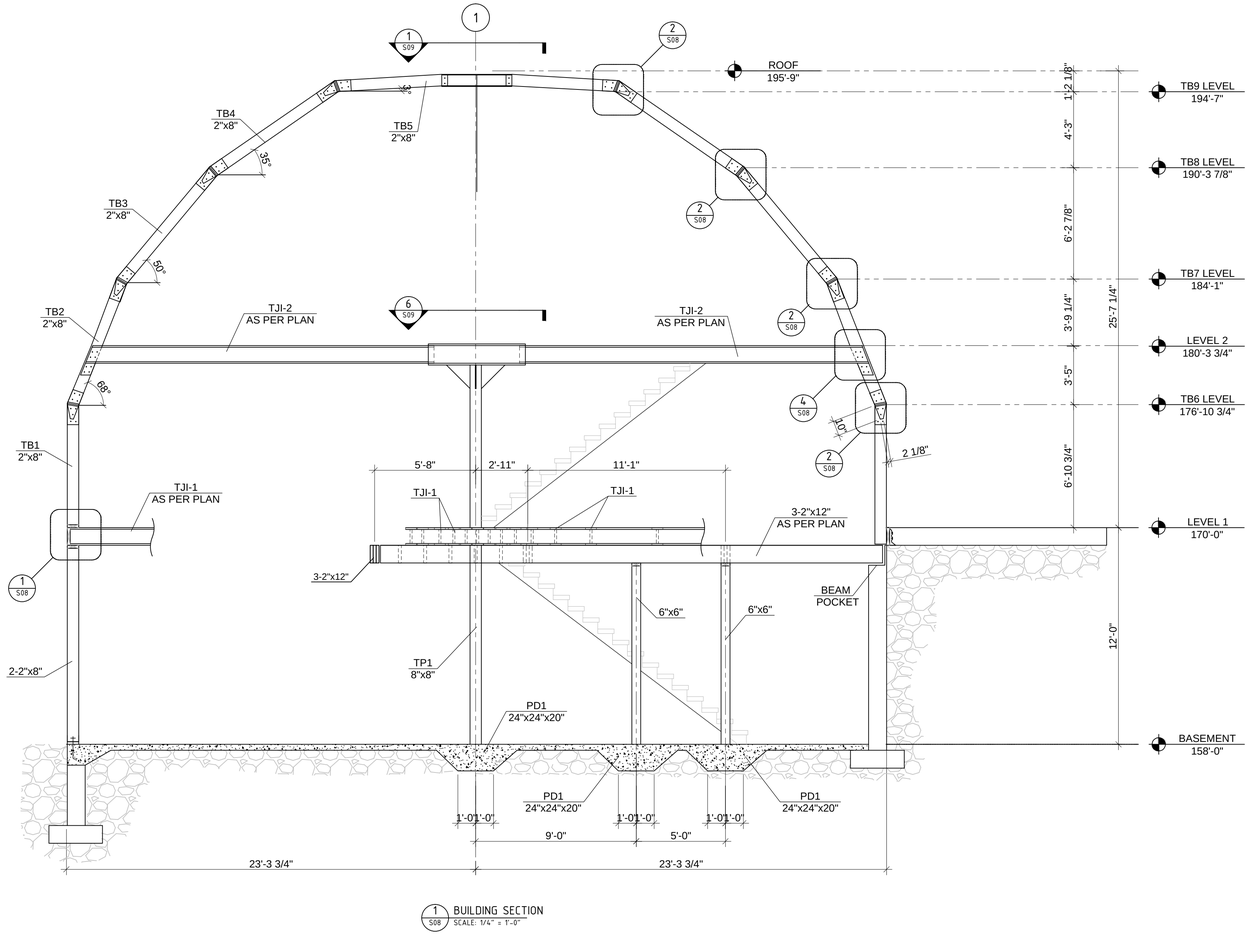


1 S07 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

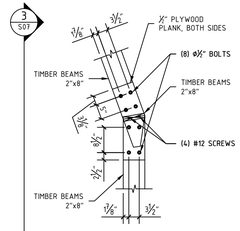


2 S07 EAST ELEVATION
SCALE: 1/4" = 1'-0"

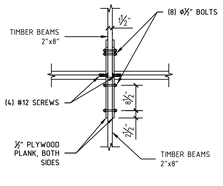
PROJECT: *212 Middle Road* *Warren, ME 04864*	TITLE: NORTH AND EAST ELEVATION	PROJECT: 1653-SD DATE: MARCH 2022	REVISIONS:	ENGINEER:			SHEET NO. S07



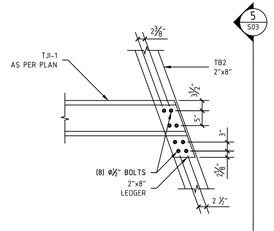
1 S08 BUILDING SECTION
SCALE: 1/4" = 1'-0"



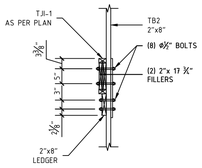
3 S07 — 2 S08 DETAIL (TYP.)
SCALE: 1/2" = 1'-0"



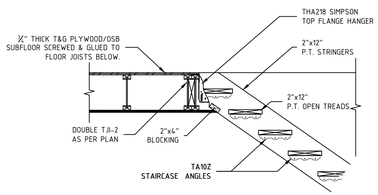
3 S08 SIDE VIEW
SCALE: 1/2" = 1'-0"



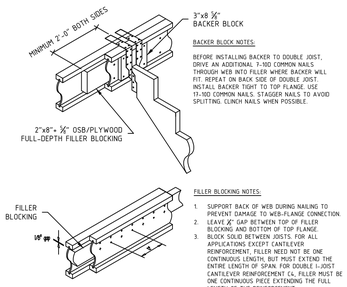
5 S03 — 4 S08 DETAIL (TYP.)
SCALE: 1/2" = 1'-0"



5 S08 SIDE VIEW
SCALE: 1/2" = 1'-0"



6 S08 SECTION
SCALE: 1/2" = 1'-0"



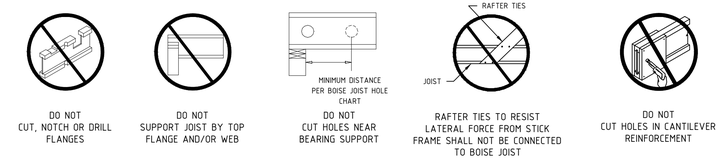
BACKER BLOCK NOTES:

BEFORE INSTALLING BACKER TO DOUBLE JOIST, DRIVE AN ADDITIONAL 7-10D COMMON NAILS THROUGH WEB INTO FILLER WHERE BACKER WILL FIT. REPEAT ON BACK SIDE OF DOUBLE JOIST. INSTALL BACKER TIGHT TO TOP FLANGE. USE 13-10D COMMON NAILS. STAGGER NAILS TO AVOID SPLITTING. CLINCH NAILS WHEN POSSIBLE.

FILLER BLOCKING NOTES:

1. SUPPORT BACK OF WEB DURING NAILING TO PREVENT DAMAGE TO WEB-FLANGE CONNECTION.
2. LEAVE 1/8" GAP BETWEEN TOP OF FILLER BLOCKING AND BOTTOM OF TOP FLANGE.
3. BLOCK SOLID BETWEEN JOISTS FOR ALL APPLICATIONS EXCEPT CANTILEVER REINFORCEMENT. FILLER NEED NOT BE ONE CONTINUOUS LENGTH, BUT MUST EXTEND THE ENTIRE LENGTH OF SPAN. FOR DOUBLE I-JOIST CANTILEVER REINFORCEMENT C4, FILLER MUST BE ONE CONTINUOUS PIECE EXTENDING THE FULL LENGTH OF THE REINFORCEMENT.
4. PLACE JOISTS TOGETHER AND NAIL FROM EACH SIDE WITH 2 ROWS OF 10d COMMON NAILS @ 12" O.C. STAGGER ROWS ON OPPOSITE SIDE 6".

7 S08 DOUBLE JOIST CONSTRUCTION WITH FILLER
SCALE: N/A



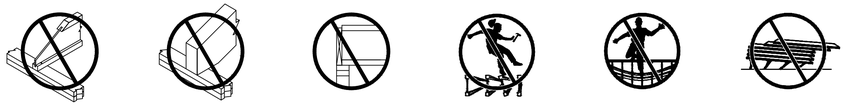
DO NOT CUT, NOTCH OR DRILL FLANGES

DO NOT SUPPORT JOIST BY TOP FLANGE AND/OR WEB

DO NOT CUT HOLES NEAR BEARING SUPPORT

RAFTER TIES TO RESIST LATERAL FORCE FROM STICK FRAME SHALL NOT BE CONNECTED TO BOISE JOIST

DO NOT CUT HOLES IN CANTILEVER REINFORCEMENT



DO NOT BEVEL CUT JOIST BEYOND INSIDE FACE OF WALL

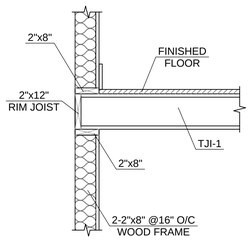
DO NOT OVERHANG SEAT CUTS ON BEAMS BEYOND THE INSIDE FACE OF SUPPORT MEMBER

DO NOT USE SAWN LUMBER FOR RIM BOARD OR BLOCKING, AS IT MAY SHRINK AFTER INSTALLATION. USE ONLY ENGINEERED LUMBER

DO NOT WALK ON JOISTS UNTIL BRACED. INJURY MAY RESULT

DO NOT WALK ON JOISTS THAT ARE LYING FLAT

DO NOT STACK BUILDING MATERIALS ON UNSHEATHED JOISTS. STACK ONLY OVER BEAMS OR WALLS



1 S08 WOOD WALL AND BEAM SUPPORS
NOT TO SCALE

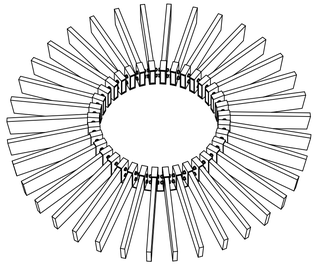
LACK OF PROPER BRACING DURING CONSTRUCTION CAN RESULT IN SERIOUS ACCIDENTS. OBSERVE THE FOLLOWING GUIDELINES:

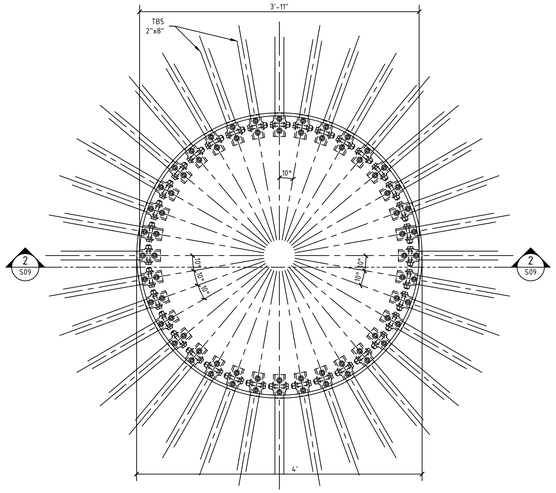
1. ALL BLOCKING, HANGERS, RIM BOARDS AND RIM JOISTS AT THE END SUPPORTS OF THE JOISTS MUST BE COMPLETELY INSTALLED AND PROPERLY NAILED.
2. LATERAL STRENGTH, LIKE BRACED END WALL OR AN EXISTING DECK, MUST BE ESTABLISHED AT THE ENDS OF THE BAY. THIS CAN ALSO BE ACCOMPLISHED BY A TEMPORARY OR PERMANENT DECK (SHEATHING) FASTENED TO THE FIRST 4 FEET OF JOISTS AT THE END OF THE BAY.
3. SAFETY BRACING OF 1x4 (MINIMUM) MUST BE NAILED TO A BRACED END WALL OR SHEATHED AREA (AS IN NOTE 2) AND TO EACH JOIST. WITHOUT THIS BRACING, BUCKLING SIDEWAYS OR ROLLOVER IS HIGHLY PROBABLE UNDER LIGHT CONSTRUCTION LOADS - SUCH AS A WORKER OR ONE LAYER OF UNNAILED SHEATHING.
4. SHEATHING MUST BE COMPLETELY ATTACHED TO EACH JOIST BEFORE ADDITIONAL LOADS CAN BE PLACED ON THE SYSTEM.
5. ENDS OF CANTILEVERS REQUIRE SAFETY BRACING ON BOTH THE TOP AND BOTTOM FLANGES.
6. THE FLANGES MUST REMAIN STRAIGHT WITHIN 1/2" FROM TRUE ALIGNMENT.

NOTES:

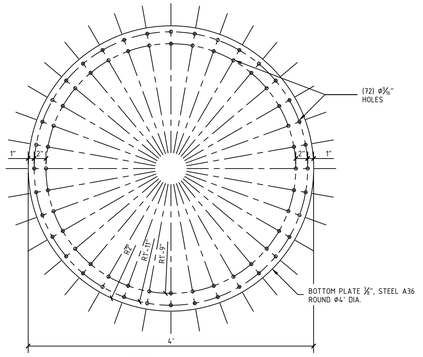
1. REFER TO SHEET No. S6 FOR FOUNDATION, SLAB, WALL AND BEAM SCHEDULES.
2. ALL ELEVATIONS AND DIMENSIONS TO CORRESPOND WITH ARCHITECT'S DRAWINGS. IF ANY DISCREPANCY, CONTACT ARCHITECT / ENGINEER IMMEDIATELY.
3. EXCAVATE SO THAT ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL. SEE "DESIGN REQUIREMENTS" FOR BEARING CAPACITY OF SOIL.
4. ALL GROUND BELOW SLABS-ON-GRADE TO BE TERMITE TREATED PRIOR TO INSTALLATION OF SLAB.
5. CONTRACTOR TO VERIFY ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL PLANS PRIOR TO STARTING ANY WORK.
6. ALL SIMPSON HARDWARE IN CONTACT WITH PRESERVATIVE TREATED LUMBER, CONCRETE OR MASONRY SHALL HAVE "ZMAX" COATING PER MANUFACTURER, TYP.
7. FASTENERS IN PRESERVATIVE TREATED WOOD OR FIRE RETARDANT TREATED WOOD SHALL BE OF HOT ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL.
8. ALL POSTS SHALL BE CONNECTED TO SILL PLATES WITH "A35" AT EA. SIDE TYP. UNLESS NOTED OTHERWISE.
9. SILL PLATES AT WALLS SHALL BE BOLTED TO CONCRETE WITH 5/8" Ø x 7" EMBED GALVANIZED ANCHOR BOLTS AT 48" O.C. MAX. AND WITHIN 12" OF SILL PLATE ENDS, CORNERS OR SPLICES, UNLESS DETAILED OR NOTED ON PLANS OTHERWISE. PLATE WASHERS TO BE MINIMUM 1/4"x3"x3". ALL SILL PLATES AND LEDGERS SHALL BE ANCHORED WITH A MIN. OF (3) FASTENERS PER PIECE.
10. ALL BOLT HOLES SHALL BE DRILLED A MAXIMUM OF 1/16" OVERSIZED. INSPECTOR TO VERIFY.

PROJECT:	TITLE:	PROJECT: 1653-SD	REVISIONS:	ENGINEER:			SHEET NO.
212 Middle Road Warren, ME 04864	BUILDING SECTION	DATE: MARCH 2022					S08

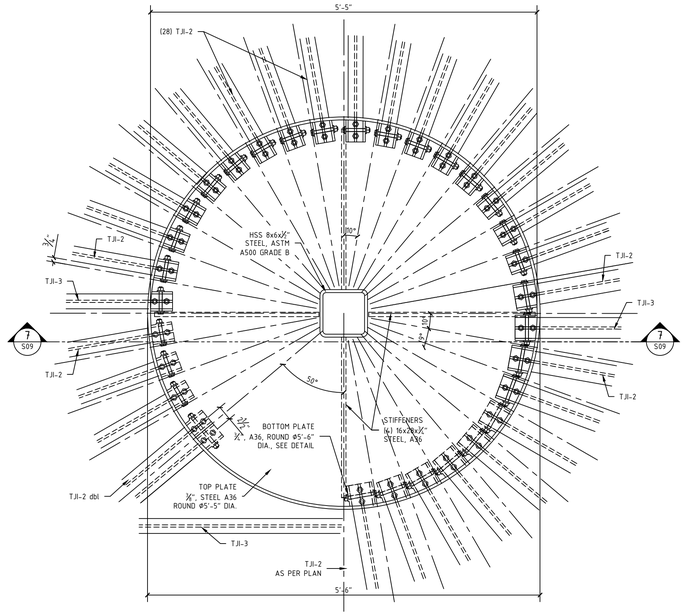




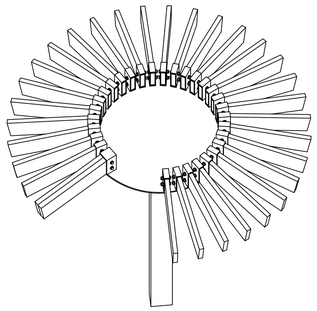
1 S09 DOME TOP CONNECTION
SCALE: 1" = 1'-0"

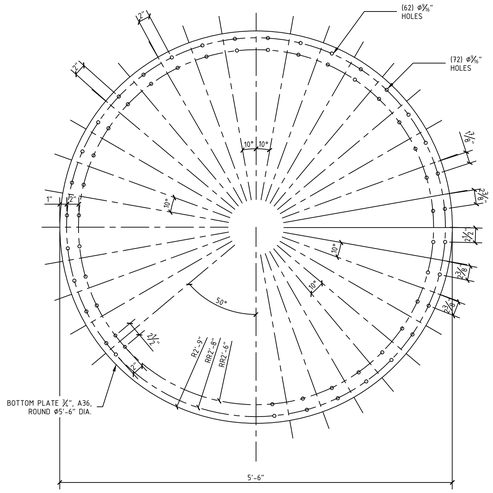


4 S09 3/8" BOTTOM PLATE
SCALE: 1" = 1'-0"

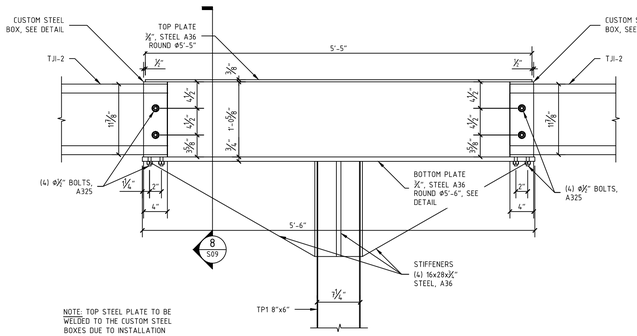


6 S09 FLOOR JOIST TO POST CONNECTION
SCALE: 1" = 1'-0"



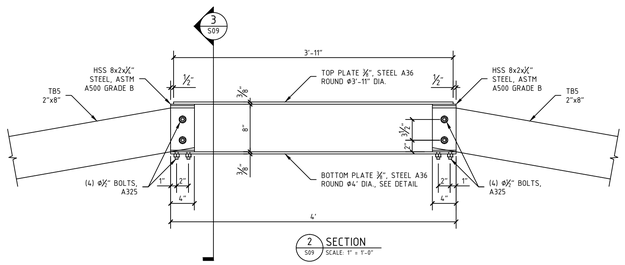


9 S09 3/4" BOTTOM PLATE
SCALE: 1" = 1'-0"



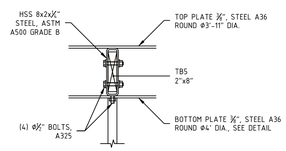
NOTE: TOP STEEL PLATE TO BE WELDED TO THE CUSTOM STEEL BOXES DUE TO INSTALLATION WORK. WELDING SIZE = 1/4".

7 S09 SECTION
SCALE: 1" = 1'-0"

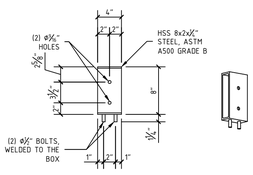


2 S09 SECTION
SCALE: 1" = 1'-0"

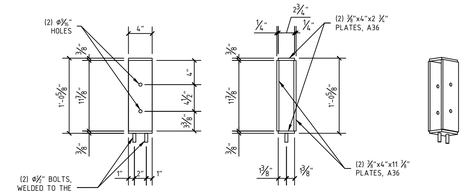
NOTE: TOP STEEL PLATE TO BE WELDED TO THE HSS 8x2x1/4" TUBES DUE TO INSTALLATION WORK. WELDING SIZE = 1/4".



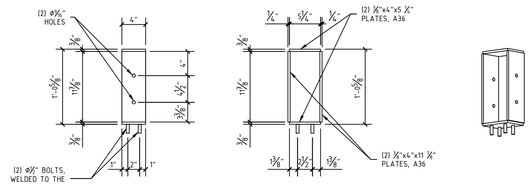
3 S09 SECTION
SCALE: 1" = 1'-0"



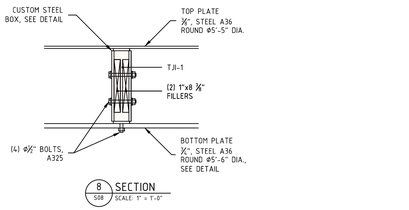
5 S09 BOX ASSEMBLY
SCALE: 1" = 1'-0"



10 S09 CUSTOM BOX ASSEMBLY DETAIL
SCALE: 1" = 1'-0"



11 S09 CUSTOM BOX ASSEMBLY DETAIL
SCALE: 1" = 1'-0"



8 S08 SECTION
SCALE: 1" = 1'-0"

PROJECT: 212 Middle Road, Warren, ME 04864	TITLE: DETAILS	PROJECT: 1653-SD DATE: MARCH 2022	REVISIONS:	ENGINEER:		SHEET NO. S09

FOUNDATION SCHEDULE

PF1	3'-0" x 3'-0" x 20" DEEP PAD FOOTING REINFORCED WITH (5) #6 BARS EACH WAY, 3" CONCRETE COVER, 4000 PSI NORMAL WEIGHT CONCRETE
GB1	10" WIDE x 20" DEEP GRADE BEAM REINFORCED WITH (2) #3 BOTTOM BARS, (2) #3 TOP BARS, #3 LACER BAR AT MID-DEPTH EACH FACE AND #3 STIRRUPS (2 LEGS) @ 8" O.C.

SLAB SCHEDULE

SL1	5" THICK SUSPENDED SLAB-ON-GRADE CONCRETE SLAB, MATERIAL: 3000 PSI NORMAL WEIGHT CONCRETE, REINFORCED 6x6-W2.9xW2.9 WWM - WELDED WIRE MESHES, TYP.
NOTE: ALL SLABS ON GRADE TO BE PLACED ON 15 MIL POLYETHYLENE VAPOR BARRIER	

WALL SCHEDULE

W1	2"x8" CS-WSP SHEAR WALL PANEL (CONTINUOUS SHEATHING), SHEATHING - 7/16" OSB OUTSIDE & 1" T&G LINING INSIDE, NAILING - 0.131"Ø x 2 1/2" NAILS @ 6" O.C. EDGES, 12" O.C. FIELD, 2"x8" BOTTOM PLATE W/ 5/8" Ø ANCHOR BOLT @ 4.8" O.C., 7" EMBED	
W2	2"x4" ARCHITECTURAL INTERIOR WALLS, SHEATHING - 1/2" T&G LINING BOTH SIDES	

SIMPSON STRONG-TIE CONNECTOR SCHEDULE

MARK	SPECIFICATION	CONNECTOR
TP1 POST BASE	8"x8" P.T. POST, POST BASE	CB68, REQUIRES (2) 5/8" BOLTS TO POST
TB1 TO BOTTOM PLATE	2"x8" P.T. TIMBER MEMBER TB1 TO 2"x8" BOTTOM PLATE CONNECTION	HSL047-SDS2.5, REQUIRES (10) 1/4" x 2 1/2" STRONG-DRIVE SDS SCREWS
STAIRCASE ANGLE	2"x12" TREAD TO 2"x12" STRINGER CONNECTIONS	TA10Z, REQUIRES (4) 1/4" x 2 1/2" STRONG-DRIVE SDS SCREWS
STRINGER TOP FLANGE HANGERS	2"x12" STAIR STRINGERS CONNECTED TO	THA218, REQUIRES (4) 0.148x3 TOP + (2) 0.148x3 FACE ON STRINGER, (4) 0.148x3 TOP FLANGE ON DOUBLE JOIST
TJI-3 to TJI-2	DOUBLE BOISE CASCADE 11-7/8" AJS®190 TO SINGLE BOISE CASCADE 11-7/8" " BCI®90-2.0 DF or SIMILAR	BA5.12/11.88, REQUIRES (16) 0.162 x 3 1/2 to TJI-2, (18) 0.148 x 1 1/2 to TJI-3
TJI-3 to TP2	DOUBLE BOISE CASCADE 11-7/8" AJS®190 OR SIMILAR TO 6"x8" P.T. POST	SKEWED HANGER LSUS.12, REQUIRES (24) 0.162 x 3 1/2 to TP2, (16) 0.148 x 1 1/2 to TJI-3
TJI-2 to TP1 & TJI-2	SINGLE BOISE CASCADE 11-7/8" " BCI®90-2.0 DF OR SIMILAR TO 6"x8" P.T. POST	U410, REQUIRES (14) 0.162 x 3 1/2 to TP2, (6) 0.148 x 3 to TJI-2
NOTE: ALL REQUIRED FASTENERS TO BE DOUBLE CHECKED WITH PRODUCER FASTENING REQUIREMENTS. MINOR DISCREPANCIES BETWEEN THE TABULAR VALUES GIVEN HERE AND THE MANUFACTURER'S SPECIFICATIONS ARE POSSIBLE. ALL CONNECTORS AND FASTENERS OUTSIDE THE BUILDING ENVELOPE OR IN CONTACT WITH CONCRETE TO BE H.D.G. or S.S.		

BEAM SCHEDULE

TB1 to TB5	2"x8" P.T. SOLID TIMBER BEAM, MATERIAL: SOUTHERN PINE, No.1, ANSI/AWC NDS-2015
TB6 to TB10	2"x8" P.T. SOLID TIMBER BEAM, MATERIAL: SOUTHERN PINE, No.1, ANSI/AWC NDS-2015
TP1	8"x8" P.T. SOLID TIMBER POST, MATERIAL: SOUTHERN PINE, No.1, ANSI/AWC NDS-2015
TJI-1	SINGLE BOISE CASCADE 14" BCI®90-2.0 DF or SIMILAR, MATERIAL: DOUGLAS FIR, ANSI/AWC NDS-2015
TJI-2	SINGLE BOISE CASCADE 11-7/8" BCI®90-2.0 DF or SIMILAR, MATERIAL: DOUGLAS FIR, ANSI/AWC NDS-2015
TJI-3	SINGLE BOISE CASCADE 11-7/8" BCI®90-2.0 DF or SIMILAR, MATERIAL: DOUGLAS FIR, ANSI/AWC NDS-2015

PROJECT: *212 Middle Road* Warren, ME 04864	TITLE: SCHEDULES	PROJECT: 1653-SD DATE: MARCH 2022	REVISIONS:	ENGINEER:			SHEET NO. S10