#### GENERAL REQUIREMENTS

- CODE COMPLIANCE: A. DESIGN - TO THE BEST OF THE ENGINEER'S KNOWLEDGE, PLANS AND SPECIFICATIONS COMPLY WITH FLORIDA BUILDING CODE — BUILDING 2023, 8TH EDITION AND APPLICABLE MINIMUM BUILDING CODES AS BUILDING CODE AND CHAPTER 633, FLORIDA STATUTES.
- DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH FLORIDA B. CONSTRUCTION - ALL CONSTRUCTION SHALL COMPLY WITH FLORIDA BUILDING CODE - BUILDING 2023, 8TH EDITION AND ANY APPLICABLE LOCAL ORDINANCES AND REGULATIONS.
- 2. <u>STRUCTURE:</u> SIGNING AND SEALING DRAWINGS BY WSE CERTIFIES ONLY THE STRUCTURAL SYSTEMS FOR THIS STRUCTURE AND IS NOT A CERTIFICATION OF ANY CIVIL/SITE WORK, ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING OR OTHER SYSTEMS.
- CONTRACT DOCUMENTS: A. STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE PROPERTY OF WSE AND SHALL NOT BE REPRODUCED, REUSED OR ALTERED UNLESS SPECIFICALLY ALLOWED BY WSE. B. STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN

CONJUNCTION WITH DRAWINGS AND SPECIFICATIONS BY OTHER

- CONSTRUCTION RESPONSIBILITIES;
   A. WSE HAS NO CONSTRUCTION PHASE SUPERVISORY RESPONSIBILITIES CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION, PROCEDURES, TECHNIQUES, SEQUENCES, INCLUDING TEMPORARY SHORING AND/OR BRACING. CONTRACTOR IS SOLELY
- RESPONSIBLE FOR JOB SITE SAFETY AND COMPLIANCE WITH APPLICABLE OSHA REGULATIONS. B. CONSTRUCTION PHASE OBSERVATION VISITS BY WSE DO NOT INCLUDE INSPECTIONS OF MATERIALS, SAFETY PROCEDURES, OR CONSTRUCTION PROCEDURES. THESE OBSERVATION VISITS SHALL NOT BE CONSIDERED A REPLACEMENT FOR SPECIFIED MATERIAL INSPECTION AND TESTING.

5. <u>TESTING AND INPECTION:</u> REFER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ITEMS REQUIRING TESTING AND INSPECTION. CONTRACTOR SHALL COMPLY WITH AND ACCOMMODATE LOCAL TESTING AND INSPECTION

## EXTERIOR DOORS, WINDOWS, SKYLIGHTS, GLAZING

- CODE COMPLIANCE: COMPLY WITH FLORIDA BUILDING CODE, CHAPTER
- 2. <u>DESIGN RESPONSIBILITY:</u> WSE IS NOT RESPONSIBLE FOR DESIGN, CONSTRUCTION OR PERFORMANCE OF WINDOW, DOOR OR SKYLIGHT UNITS. THIS SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER.
- 3. <u>DESIGN WIND PRESSURE:</u> THE BUILDING IS DESIGNED AS A FULLY ENCLOSED STRUCTURE, THEREFORE, WINDOWS, DOORS AND SKYLIGHTS SHALL BE DESIGNED TO RESIST COMPONENT AND CLADDING WIND PRESSURES SHOWN IN STRUCTURAL LOADS.
- 4. <u>CERTIFICATION:</u> CONTRACTOR SHALL OBTAIN CERTIFICATION FROM WINDOW, DOOR OR SKYLIGHT MANUFACTURER INDICATING THAT EACH UNIT IS CAPABLE OF RESISTING SPECIFIED DESIGN WIND PRESSURES.
- FASTENING: CONTRACTOR SHALL OBTAIN FASTENING INFORMATION OR DIAGRAMS FROM MANUFACTURER INDICATING FASTENER TYPE, SIZE AND SPACING FOR EACH TYPE OF WINDOW, DOOR AND SKYLIGHT UNIT.
- 6. <u>IMPACT PROTECTION OF GLAZING:</u>
  \_X\_ THIS BUILDING IS NOT LOCATED IN A WIND-BORNE DEBRIS REGION. \_\_\_\_ THIS BUILDING IS LOCATED IN A WIND-BORNE DEBRIS REGION.

# STRUCTURAL LOADS

1. <u>CODE COMPLIANCE:</u> STRUCTURAL SYSTEMS FOR THIS PROJECT HAVE BEEN DESIGNED TO SUPPORT VERTICAL AND LATERAL LOADS AS SPECIFIED IN FLORIDA BUILDING CODE - BUILDING 2023, 8TH EDITION, CHAPTER 16 AND ASCE 7-22 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES."

# 2. DEAD LOADS

DEAD LOADS			
ITEM	TOP CHORD (PSF)	BOTTOM CHORD (PSF)	TOTAL (PSF)
WOOD ROOF TRUSS: WOOD FLOOR TRUSS:	15 15	5 5	20 20

- FLOOR LIVE LOADS (FBC 1607.1) LIVE LOAD REDUCTION MAY BE CONSIDERED
- 40 PSF <u>ROOF LIVE LOADS</u> (FBC 1607.12) A. ROOF SLOPE: FLAT TO LESS THAN 4:12
- B. ROOF SLOPE: 4:12 TO LESS THAN 12:12 C. ROOF SLOPE: GREATER THAN 12:12
- <u>WIND LOADS</u> (FBC 1609) WIND LOADS HAVE BEEN DETERMINED BASED ON ASCE 7—22, A. ULTIMATE DESIGN WIND SPEED: 130 MPH
- B. NOMINAL WIND SPEED: 101 MPH BUILDING RISK CATEGORY:
- . WIND EXPOSURE CATEGORY:
- +0.18/-0.18 . INTERNAL PRESSURE COEFFICIENTS: . ENCLOSURE CLASSIFICATION: FULLY ENCLOSED
- G. WALL COMPONENT & CLADDING DESIGN WIND PRESSURES:

WIND SPEED	COMPONENT AREA (SF)	INWARD PRESSURE (PSF)	OUTWARD PRESSURE (PSF)
130 MPH	10 20 50 100 200 >500	+18.2 +17.5 +16.2 +15.4 +14.8 +13.6	-24.4 -22.9 -20.5 -19.0 -17.5 -15.1

## 02300 EARTHWORK

1. <u>GEOTECHNICAL REPORT:</u> SOIL BORINGS AND A GEOTECHNICAL REPORT HAVE NOT BEEN PREPARED FOR THIS SITE. IT IS RECOMMENDED THAT THE OWNER OR CONTRACTOR EMPLOY THE SERVICES OF A GEOTECHNICAL ENGINEER TO PERFORM SOIL BORINGS AND PROVIDE RECOMMENDATIONS FOR PREPARATION OF THE SOILS SPECIFIC TO THIS BUILDING SITE, AND CONFIRM THE SOIL TYPE ASSUMED IN THIS SPECIFICATION. WSE HAS NO KNOWLEDGE OF THE ON-SITE SOILS AND THEREFORE ACCEPTS NO RESPONSIBILITY FOR THEIR BEARING CAPACITY OR PERFORMANCE.

- 2. <u>BEARING SOIL:</u> SOILS ARE ASSUMED TO BE SANDY SOILS WITH NO ORGANICS, PEAT, CLAY, EXPANSIVE CLAYS, OR BOULDERS. SEASONAL HIGH WATER TABLE IS ASSUMED TO BE AT LEAST TWO FEET BELOW BOTTOM OF FOOTING ELEVATION. ALLOWABLE DESIGN BEARING CAPACITY IS ASSUMED TO
- SITE PREPARATION: STRIP AND GRUB ALL TREES, ROOTS, GRASSES, TOPSOIL, MUCK, ORGANICS, DEBRIS, PAVEMENTS AND OTHER DELETERIOUS MATERIALS TO 5 FEET BEYOND BUILDING LIMITS.
- 4. <u>PROOF ROLLING:</u> FOLLOWING SITE PREPARATION, PRIOR TO FILL PLACEMENT, PROOF—ROLL BUILDING FOOTPRINT TO DENSIFY BEARING SOILS AND IDENTIFY AREAS OF LOOSE AND/OR SOFT SOILS. IF LOOSE OR SOFT SOILS ARE ENCOUNTERED, OVERCUT UNSUITABLE MATERIAL AND REPLACE WITH COMPACTED STRUCTURAL FILL. USE FULLY LOADED RUBBER TIRED
- EXCAVATION: EXCAVATIONS ARE TO BE PERFORMED IN COMPLIANCE WITH CURRENT OSHA REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR EXCAVATION SAFETY. COMPACT ALL EXCAVATION BOTTOMS UNTIL FIRM AND UNYIELDING TO 95% OF MAXIMUM DRY DENSITY PER MODIFIED PROCTOR TEST (ASTM D 1557) TO A DEPTH OF 12 INCHES.
- FOOTING BEARING: FOOTINGS ARE TO BEAR ON SUITABLE EXISTING SOILS OR PREPARED STRUCTURAL FILL. FOOTINGS SHALL BEAR A MINIMUM OF 12 INCHES BELOW ADJACENT GRADE.
- <u>GROUND/SURFACE WATER CONTROL:</u> EXCAVATION AND BACKFILL RATIONS ARE TO BE MAINTAINED IN A DRY CONDITION. SLOPE OR CROWN EXPOSED BUILDING SUBGRADES TO PROMOTE RUN-OFF AND PREVENT PONDING. SURFACE AND INFILTRATING WATER ARE TO BE REMOVED BY GRADING AND PUMPING FROM SUMPS AS REQUIRED. GROUNDWATER ELEVATION IS TO BE MAINTAINED AT LEAST 2 FEET BELOW GRADE DURING COMPACTION OPERATIONS.
- 8. <u>BACKFILL & COMPACTION:</u> USE ONLY STRUCTURAL FILL FOR GENERAL FILL WITHIN BUILDING FOOTPRINT AND FOR ALL SLAB SUBGRADES. USE ONLY WELL GRADED SAND WITH MAXIMUM 10 PERCENT PASSING #200 SIEVE. DO NOT USE ON-SITE SOILS FOR BACKFILL UNLESS THEY ARE TËSTED AND MEET GRADATION DESCRIBED ABOVE. PLACE BACKFILL IN MAXIMUM 12 INCH LOOSE LIFTS. USE 4 INCH LOOSE LIFTS WHEN FILL IS COMPACTED WITH WALK-BEHIND PLATE TAMPER. COMPACT TO 95% OF MAXIMUM DRY DENSITY PER MODIFIED PROCTOR TEST (ASTM D 1557) FOR EACH LIFT.
- SLAB SUBGRADE TOLERANCE: TOP SURFACE OF SLAB SUBGRADE IS TO BE GRADED TO A TOLERANCE OF +0" TO -1/2".
- <u>PEST CONTROL:</u> TREAT ALL SLAB SUBGRADES FOR TERMITES PRIOR TO SLAB INSTALLATION. OBTAIN CERTIFICATE OF TREATMENT FOR BUILDING
- 11. <u>EXTERIOR GRADING:</u> EXTERIOR GRADE IS TO BE KEPT MINIMUM 6 INCHES BELOW WOOD SIDING AND/OR FOAM INSULATION. SLOPE EXTERIOR GRADE AWAY FROM BUILDING TO PROMOTE DRAINAGE.

## 03300 STRUCTURAL CONCRETE

- GENERAL: ALL CONCRETE CONSTRUCTION SHALL COMPLY WITH FLORIDA BUILDING CODE, CHAPTER 19, AND THE CURRENTLY ADOPTED EDITION OF THE FOLLOWING ACI
- STANDARDS: ACI 211.1 "SELECTING MIX PROPORTIONS"
- ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE" ACI 304 "MEASURING, MIXING, TRANSPORTING, PLACING"
- ACI 305 "HOT WEATHER CONCRETING"
- ACI 306 "COLD WEATHER CONCRETING"
- ACI 315 "REINFORCING DETAILING AND PLACEMENT" ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
- 2. CONCRETE MIXES: ALL CONCRETE MIXES SHALL BE NORMAL WEIGHT (140-150 PCF) UNLESS OTHERWISE NOTED. PROVIDE MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR VARIOUS ELEMENTS IN THE STRUCTURE:

ELEMENT	MINIMUM CEMENTITIOUS CONTENT (LB/CU. YD)	MAX. W/C RATIO	28 DAY COMPRESSIVE STRENGTH (PSI)	MAXIMUM AGGREGATE SIZE (INCHES)
SLABS & FOOTINGS	520	0.50	3,000	1

- A. AIR ENTRAINMENT: ACI 301 TABLE 4.2.2.7(b) EXPOSURE CLASS FO DOES NOT REQUIRE AIR ENTRAINMENT.
- B. PORTLAND CEMENT: ASTM C 150. TYPE 1. C. FLY ASH: (OPTIONAL) ASTM C 618, CLASS C OR F. WHEN USED QUANTITY SHALL
- BE NOT LESS THAN 15% AND NOT MORE THAN 25%. D. AGGREGATES: ASTM C33.
- E. WATER: ASTM C94, CLEAN & POTABLE. F. ADMIXTURES: WATER REDUCING AND AIR ENTRAINING AGENTS SHALL BE USED. HIGH
- RANGE WATER REDUCING AGENTS (SUPERPLASTICIZERS) MAY BE USED AT CONTRACTOR OPTION. DO NOT USE ADMIXTURES CONTAINING CHLORIDES.
- 3. REINFORCING STEEL: ASTM A 615, GRADE 60, DEFORMED BARS.
  A. SEE LAP & BEND SCHEDULE FOR LAP & BEND LENGTHS. B. BAR COVER:

IN CONTACT WITH GROUND . . . . . 3'

- EXPOSED TO WEATHER . . . . . . . . 2 PROVIDE CORNER BARS OR 90 DEGREE BEND AT ALL CORNERS. D. SUPPORT ON CHAIRS OR BOLSTERS.
- 4. <u>WELDED WIRE REINFORCING</u> (W.W.R.) ASTM A 1064, 65,000 PSI YIELD STRENGTH. A. REFER TO DRAWINGS FOR W.W.R. SIZE AND DIAMETER. B. USE FLAT SHEETS ONLY.
- C. LAP W.W.R. MINIMUM 10 INCHES. D. SUPPORT W.W.R. ON CHAIRS SPACED 3'-0" O.C. EACH WAY.

B. ENSURE COMPATIBILITY WITH FLOORING ADHESIVES.

- 5. <u>CURING:</u> USE SPRAYED—ON MEMBRANE CURING COMPOUND ON SLABS, ASTM C 309, TYPE 1, SOLVENT FREE, OR PROVIDE CONTINUOUS WATER SPRINKLING FOR MINIMUM 7 A. CURING COMPOUND: ASTM C 309, TYPE 1, SOLVENT FREE.
- 6. <u>SLAB CONTRACTION JOINT FILLER:</u> "SIKADUR 51 SL" EPOXY RESIN JOINT FILLER BY SIKA CORP. OR EQUIVALENT. USE ON SLABS-ON-GRADE WHERE JOINTS ARE EXPOSED TO VIEW ONLY.
- 7. <u>SLAB JOINTS:</u> SAW-CUT SLABS ON GRADE AT LOCATIONS SHOWN ON PLANS, OTHERWISE SAW-CUT IN ROUGHLY 10 FOOT SQUARES. SAW-CUT WITHIN 4 TO 12 8. <u>SLAB CRACKING:</u> AS CONCRETE SLABS—ON—GRADE CURE AND DRY OUT THEY WILL SHRINK CAUSING CRACKS TO FORM ON THE SURFACE OF THE SLAB. W.W.R. IS
- INSTALLED TO HELP LIMIT THE WIDTH OF CRACKS THAT FORM. REPAIR CRACKS OVER 1/8" WIDE THAT DO FORM BY ROUTING AND PLACEMENT OF "SIKADUR 35, HI-MOD LV" EPOXY RESIN ADHESIVE BY SIKA CORP. OR EQUIVALENT.
- 9. <u>CONCRETE FORMWORK:</u> A. DESIGN, ERECT, SUPPORT, BRACE AND MAINTAIN ALL FORMWORK AS RECOMMENDED BY ACI 347 "RECOMMENDED STANDARD PRACTICE FOR CONCRETE FORMWORK. B. CONTRACTOR IS RESPONSIBLE FOR DESIGN, CONSTRUCTION AND SAFETY OF ALL FORMWORK. ALL FORMS, SHORES, AND BRACING SHALL BE ENGINEERED TO SUPPORT ALL LOADS IMPOSED INCLUDING WET CONCRETE, EQUIPMENT, LIVE LOADS, LATERAL LOADS DUE TO WIND AND CONCRETE IMBALANCE.

C. PROVIDE "SMOOTH FORM" FINISH FOR ALL CONCRETE EXPOSED TO PUBLIC VIEW.

- 10. <u>TOLERANCES:</u> TOLERANCES FOR CONCRETE CONSTRUCTION SHALL BE IN SLAB LEVELNESS AND FLATNESS SHALL BE ACCORDANCE WITH ACI 117. SLAB LEVELNESS SHALL BE "CONVENTIONAL STRAIGHTEDGE." CONTRACTOR SHALL MAKE EVERY EFFORT TO REDUCE SHRINKAGE AND CURLING OF SLABS BY SELECTING APPROPRIATE MIX DESIGN AND ADOPTING APPROPRIATE PLACEMENT, FINISHING AND CURING METHODS. CONTRACTOR SHALL CORRECT SLABS THAT DO NOT MEET REQUIRED TOLERANCES BY FLASH PATCHING OR GRINDING AS APPROPRIATE.
- 11. <u>HOT & COLD WEATHER PROTECTION</u>;
  A. INSTITUTE HOT WEATHER PROTECTION PROCEDURES WHEN TEMPERATURE EXCEEDS B. INSTITUTE COLD WEATHER PROTECTION PROCEDURES WHEN TEMPERATURES ARE
- 12. TESTING & INSPECTION: INSPECT/TEST THE FOLLOWING ITEMS: A. INSPECT ALL REINFORCING FOR GRADE, SIZE AND PLACEMENT PRIOR TO CONCRETE PLACEMENT.

BELOW 40° F.

# 06100 WOOD

- CODE COMPLIANCE: COMPLY WITH FLORIDA BUILDING CODE, CHAPTER
- WOOD FRAMING: PS20 GRADING, NOMINAL SIZES, MAXIMUM 19 PERCENT MOISTURE CONTENT. PROVIDE SPECIES & GRADES AS FOLLOWS,
- UNLESS NOTED OTHERWISE: A. STUDS: CONSTRUCTION GRADE SPRUCE-PINE-FIR (SPF), OR NO. 2 SOUTHERN PINE (SP) AS SPECIFIED IN FRAMING DETAILS. B. JOISTS, HEADERS, BEAMS, BRACING: NO. 2 SOUTHERN PINE (SP).
- D. POSTS: NO. 2 SOUTHERN PINE (SP). 3. <u>STRUCTURAL WOOD PANELS:</u> MARK ALL PANELS WITH APA CERTIFICATION. PROVIDE THE FOLLOWING PANEL TYPE, THICKNESS, AND

C. MISCELLANEOUS: SPRUCE-PINE-FIR (SPF).

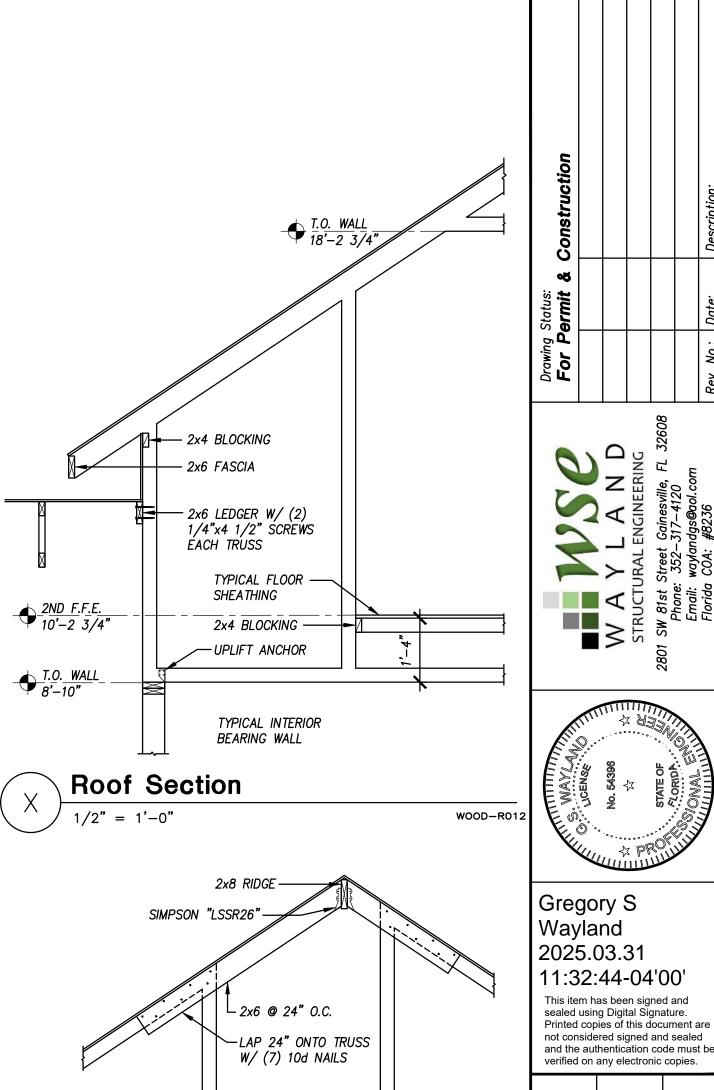
- NAILING, UNLESS OTHERWISE NOTED. A. ROOF SHEATHING: ORIENTED STRAND BOARD (OSB), SHEATHING
- GRADE, OR APA RATED CDX PLYWOOD SHEATHING. FASTEN PER TYPICAL ROOF SHEATHING DETAIL B. WALL SHEATHING: ORIENTED STRAND BOARD (OSB), SHEATHING
- GRADE, OR APA RATED CDX PLYWOOD SHEATHING. C. <u>FLOOR SHEATHING</u>: <sup>23</sup>/<sub>32</sub>" THICK, TONGUE & GROOVE, APA RATED "STURD—I—FLOOR" PLYWOOD, CDX. FASTEN WITH CONSTRUCTION ADHESIVE AND PER TYPICAL FLOOR SHEATHING DETAIL.
- 4. ENGINEERED WOOD PRODUCTS: A. LAMINATED VENEER LUMBER (LVL): "SOLID START LP", BY LP
- 5. <u>WOOD TRUSSES:</u> ROOF AND FLOOR TRUSS MANUFACTURER TO ENGINEER TRUSSES TO SUPPORT DEAD, LIVE, AND WIND LOADS PER FLORIDA BUILDING CODE AND ASCE 7. TRUSS ENGINEERING TO BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA.

CORP., Fb = 2,900 PSI, Fv = 285 PSI, E = 2,000,000 PSI.

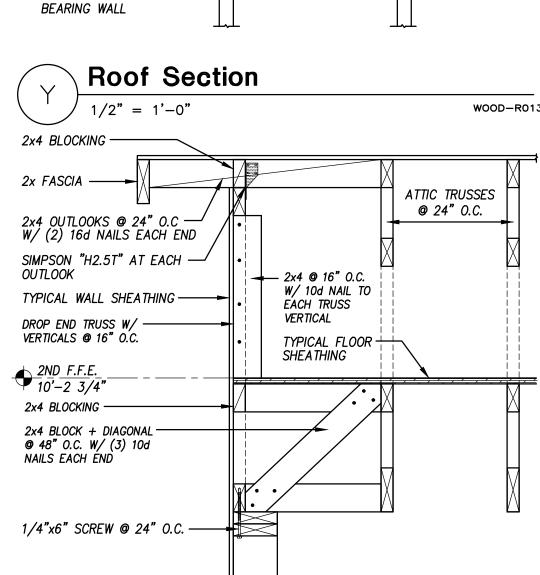
- A. COMPLY WITH ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED TRUSS CONSTRUCTION." B. COMPLY WITH BUILDING COMPONENT SAFETY INFORMATION, BCSI:
- GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING AND BRACING OF METAL PLATE CONNECTED TRUSSES. C. COMPLY WITH TPI DSB "RECOMMENDED DESIGN SPECIFICATION FOR
- TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES. D. COMPLY WITH BUILDING COMPONENT SAFETY INFORMATION, BCSI-B3: PERMANENT RESTRAINT/BRACING OF CHORDS AND WEB MEMBERS AND/OR BCSI-B7: TEMPORARY AND PERMANENT RESTRAINT/BRACING OF PARALLEL CHORD TRUSSES.
- WOOD FASTENERS, ANCHORS & CONNECTORS: A. UNLESS OTHERWISE NOTED, USE FASTENERS AS SPECIFIED IN FBC TABLE 2304.10.1 "FASTENING SCHEDULE."
- ANCHOR BOLTS: ASTM A 307 OR A 36, 36 KSI YIELD STRENGTH. BOLTS: ASTM A 307.
- NAILS: COMMON, MIL GALVANIZED, UNLESS NOTED OTHERWISE. SCREWS: SELF-DRILLING WOOD SCREWS. CONNECTORS, ANCHORS, STRAPS & TIES: SIMPSON STRONG-TIE OR EQUIVALENT. REFER TO ANCHOR SCHEDULE.
- G. CORROSION PROTECTION: PROVIDE HOT-DIP GALVANIZED ANCHOR BOLTS, BOLTS, NUTS, WASHERS, NAILS, SCREWS, ANCHORS, CONNECTORS AND OTHER HARDWARE WHEN EXPOSED TO EXTERIOR WEATHER OR IN CONTACT WITH PRESERVATIVE TREATED LUMBER. COMPLY WITH ASTM A 153 FOR HOT-DIP FASTENER PRODUCTS, OR ASTM A 653, "G-185" COATING FOR HOT-DIP CONNECTOR AND SHEET PRODUCTS. USE SIMPSON "ZMAX" COATING OR EQUIVALENT.

PROVIDE PRESERVATIVE TREATED WOOD FOR ALL LOCATIONS WHERE WOOD IS IN CONTACT WITH SOIL, CONCRETE OR MASONRY, OR IS PERMANENTLY EXPOSED TO EXTERIOR WEATHER. DO NOT USE PRESERVATIVES CONTAINING

8. <u>TESTING & INSPECTION:</u> INSPECT SHEATHING FOR TYPE, GRADE, THICKNESS AND FASTENING. INSPECT FRAMING FOR SIZE, SPECIES, GRADE, SPACING AND CONNECTORS.



— UPLIFT ANCHOR T.O. WALL
SEE PLAN



Typical Gable End with Attic

1" = 1'-0"

TYPICAL INTERIOR

9nce 138 Project Name: **Gainey Reside** 3181 SW CR 1 Drawn by: GS WAYLAND

MARCH 31, 2025 WSE Project No.: 24109

Drawing No.

WOOD-R0164

**S3**