

TIMBER

- UNLESS OTHERWISE NOTED, ALL STRUCTURAL FRAMING LUMBER SHALL BE CLEARLY MARKED NO. 2 PINE BY THE SPIB WITH A MINIMUM FB = 1 200 PSI.
- ALL WOOD STUDS SHALL BE FULL HEIGHT WITHOUT INTERMEDIATE PLATE LINE UNLESS DETAILED OTHERWISE.
- SOLID 2X BLOCKING SHALL BE PROVIDED AT END AND POINT OF SUPPORT OF ALL WOOD JOISTS AND SHALL BE PLACED BETWEEN SUPPORTS IN ROWS NOT EXCEEDING 8'-0" VERTICALLY FOR PLATE HEIGHTS EXCEEDING 8'-0". END NAIL WITH 2-1 60 NAILS OR SIDE TOE NAIL WITH 1-1 60 NAILS.
- DECKING: ALL PLYWOOD DECKING SHALL BE APA RATED SHEATHING. EXPOSURE 1, 5/8" T&G FOR FLOORS WITH 4/4" SPAN RATING, 3/4" WITH CUTS FOR ROOFS WITH 4/4" SPAN RATING. USE 10D COMMON NAILS AT 6" O.C. AT ALL SUPPORTED EDGES, 10D AT 12" O.C. AT INTERMEDIATE EDGES (1 1/2" MIN. PENETRATION). ALL JOISTS IN PLYWOOD DECKING SHALL BE STAGGERED.
- ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS SHALL BE SOLID CLAD WITH 1/2" X 2" PLYWOOD APA RATED SHEATHING. EXPOSURE 1, FROM THE TOP PLATE TO THE BOTTOM PLATE. ATTACH TO FRAME USING 10D NAILS SPACED AT 6" O.C. ALONG EDGES AND AT INTERMEDIATE STUDS (1 1/2" MIN. PENETRATION). STAPLES SHALL NOT BE PERMITTED.
- ALL FRAMING MEMBERS FRAMING INTO THE SIDE OF A HEADER SHALL BE ATTACHED USING METAL JOIST HANGERS.
- IF NAILING IS NOT NOTED OR SHOWN OTHERWISE ON PLANS OR DETAILS, NAILING SCHEDULE SHALL BE AS FOLLOWS:

CONNECTION

- | | |
|--|-----------------------------------|
| 1. JOIST TO SILL OR GIRDER - TOENAIL..... | (3) - 8D |
| 2. BRIDGING TO JOIST - TOENAIL EACH END..... | (2) - 8D |
| 3. SOLE PLATE TO JOIST OR BLOCKING - TYP. FACE NAIL..... | 1 60 AT 16" O.C. |
| 4. TOP PLATE TO STUD - END/NAIL..... | (2) - 1 60 |
| 5. STUD TO SOLE PLATE - TOENAIL..... | (4) - 8D |
| 6. DOUBLE STUDS - FACE NAIL..... | OR END NAIL..... (2) - 1 60 |
| 7. DOUBLE TOP PLATES - TYPICAL FACE NAIL..... | OR LAP SPLICE (3) - 1 60 |
| 8. BLOCKING BETWEEN JOISTS - TOENAIL..... | (3) - 8D |
| 9. RAFTERS TO GIRDER OR OVERHANG > 2'-0"..... | (3) - 8D |
| 10. RAFTERS TO TOP PLATE W/ OVERHANG > 2'-0"..... | PROVIDE SIMPSON H3 HURRICANE TIES |
| 11. RM JOIST TO TOP PLATE - TOENAIL..... | 8D AT 16" O.C. |
| 12. TOP PLATES (LAPS AND INTERSECTIONS) - FACE NAIL..... | (2) - 1 60 |
| 13. CONTINUOUS HEADER (TWO PIECES)..... | 1 60 AT 16" O.C. |
| 14. CEILING JOISTS TO STUD - TOENAIL..... | STAGGERED ALONG BAY (3) - 8D |
| 15. CONTINUOUS HEADER TO STUD - TOENAIL..... | (4) - 8D |
| 16. CEILING JOISTS (LAPS OVER PARTITIONS) - FACE NAIL..... | (3) - 1 60 |
| 17. CEILING JOISTS TO PARALLEL RAFTERS - FACE NAIL..... | (3) - 1 60 |
| 18. RAFTER TO PLATE - TOENAIL..... | (3) - 8D |
| 19. RAFTER TO GIRDER - TOENAIL..... | (3) - 8D |
| 20. BUILT-UP CORNER STUDS..... | FACE NAIL 1 60 AT 24" O.C. |
| 21. BUILT-UP GIRDER AND BEAMS - FACE NAIL AT TOP & BOTTOM..... | 20D AT 32" O.C. |
| 22. 2" PLANKS - AT EACH BEARING..... | (2) - 20D |
| 23. COLLAR TIE TO RAFTER - FACE NAIL..... | (3) - 1 60 |
| 24. JOIST RAFTER TO MP - TOENAIL..... | FACE NAIL..... (3) - 1 60 |
| 25. ROOF RAFTER TO 2X RIDGE BEAM - TOENAIL..... | FACE NAIL..... (2) - 1 60 |
| 26. JOIST TO BAND JOIST - FACE NAIL..... | FACE NAIL..... (3) - 1 60 |
| 27. LEDGER STRIP - FACE NAIL..... | (3) - 1 60 |
| 28. PLYWOOD FLOOR, WALL AND ROOF SHEATHING (TO FRAMING): | |
| 1/2" AND LESS..... | 8D |
| 3/4", 5/8" AND 3/4"..... | 10D |
| 1 1/2" AND 1 3/4"..... | 1 60 |

- FLOOR PLYWOOD: NAILS SPACED AT 6" O.C. AT EDGES AND AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- PANEL SIDING (TO FRAMING): 6D OR LESS.
- CORROSION-RESISTANT SIDING OR CASING NAILS

- BUILT-UP COLUMNS (UNLESS DETAILED OTHERWISE):
- COLUMN TYPE FASTENERS

- 2X4..... 1 ROW OF 10D NAILS EACH SIDE @ 8" O.C. STAGGERED
- 2X4..... 1 ROW OF 30D NAILS EACH SIDE @ 8" O.C. STAGGERED
- 2X4..... 1 ROW OF 3/4" DIA. THROUGH BOLTS @ 8" O.C. STAGGERED
- 2X6..... 2 ROWS OF 10D NAILS EACH SIDE @ 8" O.C.
- 2X6..... 2 ROWS OF 30D NAILS EACH SIDE @ 8" O.C.
- 2X6..... 2 ROWS OF 3/4" DIA. THROUGH BOLTS @ 8" O.C.
- WOOD NAILER ATTACHMENT TO STEEL MEMBERS 3/4" THICK OR LESS: ATTACH 2X NAILER WITH O 1 7/8" DIAMETER X 1 1/2" LONG HILTI X-L-H POWDER ACTUATED FASTENERS SPACED AT 8" O.C. STAGGERED OR WITH AN APPROVED ALTERNATIVE.
- SOLE PLATES SHALL BE ATTACHED TO CONCRETE FOUNDATIONS WITH 1/2" DIAMETER ANCHOR BOLTS PLACED AT WALL CORNERS AND AT 4'-0" O.C. OR WITH 1/2" DIAMETER X-L-H POWDER ACTUATED FASTENERS AT 16" O.C. OR WITH AN APPROVED ALTERNATIVE.
- COMMON WIRE NAILS OR SPIKES, OR GALVANIZED BOX NAILS SHALL BE USED FOR ALL FRAMING UNLESS NOTED OTHERWISE.
- FASTENERS, INCLUDING BOLTS, LAG SCREWS, AND DRIFT PINS WITH DIAMETERS 3/8" OR GREATER SHALL CONFORM TO SAE J 429 GRADE 1. BOLTS SHALL BE INSTALLED PER AISI/ASTM STANDARD B18 Z 1.
- INCLUDE AN ALLOWANCE FOR 200 BOARD FEET OF LUMBER TO BE USED AS DIRECTED IN THE FIELD FOR SPECIAL CONDITIONS NOT COVERED BY NOTE OR DRAWING (LABOR FOR ERECTING SAME TO BE INCLUDED). UPON COMPLETION OF THE PROJECT, OWNER SHALL BE REATED FOR ANY UNUSED PORTION OF ALLOWANCE MATERIALS.

PREFABRICATED WOOD TRUSSES

- TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE DESIGN SPECIFICATIONS FOR PLATE EVALUATION AND NATIONAL DESIGN SPECIFICATION FOR NAIL VALUES.
- PLATES SHALL BE DESIGNED FOR AXIAL LOAD ECCENTRICITY AND SECTION OF METAL.
- TRUSS MEMBERS SHALL BE CLAMPED INTO A MECHANICAL OR HYDRAULIC JIG WITH SUFFICIENT PRESSURE TO BRING MEMBERS INTO REASONABLE CONTACT AT ALL JOINTS DURING APPLICATION OF CONNECTION PLATES.
- ADEQUATE ANCHORAGE AND ERECTION BRACING SHALL BE PROVIDED.
- PLATES SHALL BE MANUFACTURED FROM 20 GAUGE ZINCOATED (HOT DIP PROCESS) SHEET CONFORMING TO CURRENT ASTM-A93.
- ALL TRUSS TRUSS MEMBERS SHALL BE GRADE #2 SOUTHERN YELLOW PINE WITH A MAXIMUM MOISTURE CONTENT OF 19%.
- ALL TRUSSES SHALL BE DESIGNED FOR LOADS AS NOTED ON STRUCTURAL PLANS AND SECTIONS.
- ALL OVERHANGS SHALL BE DESIGNED FOR 10 POUNDS PER SQUARE FOOT WIND LOAD UPWARDS.
- FOR SIZE AND LOCATION OF MECHANICAL OPENINGS SEE MECHANICAL DRAWINGS.
- TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.

LAMINATED VENEER LUMBER (LVL)

- ALL LAMINATED VENEER LUMBER (LVL) SHALL BE OF SPECIES SO. PINE, GRADE 1.9E & SHALL PROVIDE THE FOLLOWING ALLOWABLE DESIGN VALUES:
 - 2800 PSI IN BENDING
 - 285 PSI IN HORIZONTAL SHEAR
 - 1,900,000 PSI IN MODULUS OF ELASTICITY
- MULTIPLE PLIES SHALL BE ATTACHED TOGETHER WITH A MINIMUM OF:
 - 2 ROWS OF 12D COMMON NAILS @ 12" O.C., 2" FROM TOP AND BOTTOM,
 - 3 ROWS OF 12D COMMON NAILS @ 12" O.C. FOR BEAM DEPTHS 14" OR GREATER, 2" FROM TOP AND BOTTOM,
 - FOR MULTIPLE PLIES OF 4, 2 ROWS OF 1/2" Ø A307 BOLTS W/ WASHERS @ 12" O.C., 2" FROM TOP AND BOTTOM STAGGERED.
- LOAD MUST BE APPLIED EVENLY ACROSS ENTIRE BEAM WIDTH, U.N.O. IF UNABLE, FOLLOW MANUFACTURER SPECIFICATIONS FOR SIDE-LOADED BEAMS OR CONTACT ENGINEER.
- LVL BEAMS SHALL BE NOTCHED ONLY IN THE MIDDLE THIRD SPAN. THE MAXIMUM ALLOWABLE ROUND HOLE SIZE IS 2" FOR BEAMS 7 1/2" IN DEPTH OR MORE. RECTANGULAR HOLES ARE NOT ALLOWED. HOLES SHALL BE LOCATED IN THE MIDDLE THIRD OF THE DEPTH & SPACED A MINIMUM OF 2X DIAMETER OF THE LARGEST HOLE.

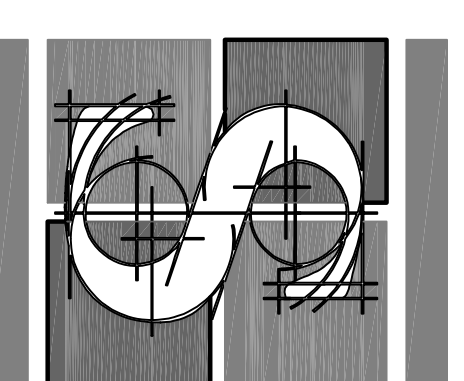
STRUCTURAL INSULATED PANEL SYSTEMS

- STRUCTURAL INSULATED ROOF AND WALL PANELS SHALL BE MANUFACTURED BY PREMIER BUILDING SYSTEMS OR BY AN APPROVED EQUAL.
- STRUCTURAL INSULATED PANELS SHALL BE DESIGNED FOR THE LOADS AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH THE CODE REQUIREMENTS AS STATED UNDER THE GENERAL PROVISIONS.
- ALL PANELS, PANEL HEADERS, CONNECTIONS, AND PRE-ENGINEERED ELEMENTS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE REVIEWED BY THE PANEL MANUFACTURER'S ENGINEER.
- ALL PANELS AND CONNECTIONS TO THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS. PANEL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PURPOSES ONLY.

COORDINATION

- ONLY CERTAIN OF THE REQUIRED SLEEVE OPENINGS IN STRUCTURAL FRAMING COMPONENT MEMBERS, AND ONLY CERTAIN OF THE REQUIRED FRAMED OPENINGS IN ANCHOR THROUGH STRUCTURAL, ESSENTIAL ARE INDICATED ON THE STRUCTURAL SERIES DRAWINGS. ALL OTHER SLEEVE AND FRAMED OPENINGS SHALL BE PROVIDED BY THE ARCHITECT AND/OR SLEEVES, THEREFORE, SHALL BE PROVIDED FOR PASSAGE. PROVISION ANCHOR INCORPORATION OF THE WORK OF THE CONTRACT, INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, AND PLUMBING WORK. THE PROVIDING FOR SLEEVES OR FRAMED OPENINGS SHALL INCLUDE THE VERIFICATION OF SIZES, ALIGNMENT, DIMENSION, POSITION, LOCATIONS, ELEVATIONS, AND GRADIES AS REQUIRED TO SERVE THE INTENDED PURPOSES OF THE SLEEVES OR FRAMED OPENINGS, BUT NOT LIMITED TO THE FOLLOWING:
 - REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING SERIES DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, DRAINS, AND LOCATION OF DEPRESSED AND ELEVATED FLOOR AREAS.
 - STRUCTURAL SERIES DRAWINGS SHALL BE COMPARED WITH DRAWINGS OF OTHER SERIES. DIFFERENCES SHALL BE REFERRED TO THE ARCHITECT FOR INSTRUCTION.
 - COMPATIBILITY OF ACCOMMODATION AND PROVISION FOR BUILDING EQUIPMENT SUPPORTED ON OR FROM STRUCTURAL COMPONENTS SHALL BE VERIFIED AS TO SIZE, LOCATION, AND POSITION. THE ACCOMMODATION HAS BEEN DESIGNED PRIOR TO SUBMISSION OF SHOP DRAWINGS AND SUBMITTAL DATA FOR EACH EQUIPMENT AND FOR STRUCTURAL COMPONENTS. DIFFERENCES SHALL BE REFERRED TO THE ARCHITECT FOR REVIEW AND APPROVAL AND NOTATION.
 - THE STRUCTURAL SYSTEM OF THE BUILDING IS DESIGNED TO PERFORM AS A COMPLETED UNIT. PRIOR TO COMPLETION OF THE STRUCTURE, STRUCTURAL COMPONENTS MAY BE UNSTABLE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, OR THE CLIENT IN THE ABSENCE OF A GENERAL CONTRACTOR, TO PROVIDE TEMPORARY SHORING AND/OR BRACING AS REQUIRED FOR THE STABILITY OF THE INCOMPLETE STRUCTURE AND FOR THE SAFETY OF ALL ON-SITE PERSONNEL.

NOT FOR CONSTRUCTION / NOT FOR CONSTRUCTION / NOT FOR CONSTRUCTION



STRUCTURES PE, LLP
 1018 W. 11TH
 AUSTIN, TX 78703
 PHONE 512 499 0919
 FAX 512 320 5521
 FIRM NO.: F-3523

SHOAL CREEK RESIDENCE
 5203 SHOAL CREEK
 AUSTIN, TEXAS

BID SET
 6.8.10

ISSUE	DESCRIPTION	DATE
A	BID SET	6.8.10

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW ONLY BY GERARDO GARCIA, P.E. THE ARCHITECT. THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

STRUCTURAL NOTES - CONT.

DESIGN BY: JH CONTRACT: MK
 CHECKED BY: JS JOB #: 10.022

SO.1
 OF 6 SHEETS