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STRUCTURAL GENERAL NOTES

GENERAL NOTES

- EACH CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE BEFORE EXECUTING ANY WORK. HE SHALL NOTIFY THE OWNER, ARCHITECT AND STRUCTURAL ENGINEER OF ANY AND ALL DISCREPANCIES BEFORE PROCEEDING. FOR CLARIFICATION OF DIMENSIONS, DO NOT SCALE FROM DRAWINGS. NUMERICAL DIMENSIONS SHALL TAKE PRIORITY OVER SCALING THE DRAWINGS.
- 2. THE LATEST EDITION OF THE GENERAL CONDITIONS AS ACCEPTED BY THE A.I.A. SHALL BE CONSIDERED AS PART OF THESE SPECIFICATIONS.
- ALL WORK SHALL COMPLY WITH THE 2011 LABC REQUIREMENTS, AND BE APPLICABLE WITH LOCAL COUNTY ORDINANCES.
- THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS WITH THE STRUCTURAL ENGINEER BEFORE BEGINNING CONSTRUCTION.
- EACH CONTRACTOR SHALL OBTAIN & PAY FOR ALL PERMITS REQUIRED BY LOCAL AUTHORITIES BEFORE PROCEEDING WITH HIS RESPECTIVE INSTALLATION. HE SHALL ALSO ARRANGE & PAY FOR ALL INSPECTIONS AND EXAMINATIONS REQUIRED BY THOSE AUTHORITIES.
- 6. ALL EXISTING EQUIPMENT REMOVED BY DEMOLITION OR REHABILITATION SHALL BE DISPOSED OF AS DIRECTED BY THE OWNER
- REPAIR AND REPLACE ALL PROPERTY DAMAGE BY WORK UNDER THIS PROJECT TO THE SATISFACTION OF THE OWNER AND THE ARCHITECT. ALL PIPING, CONDUIT, ETC. WHICH IS ENCOUNTERED SHALL BE CALLED TO THE ATTENTION OF THE OWNER AND THE ARCHITECT AND SHALL BE ADEQUATELY SUPPORTED UNTIL PERMANENT SUPPORT IS PROVIDED OR REMOVAL IS AUTHORIZED.
- 8. WHEREVER IN THESE DRAWINGS ANY MATERIAL OR PROCESS IS INDICATED, IT IS FOR THE PURPOSE OF FACILITATING THE DESCRIPTION OF THE MATERIAL OR PROCESS DESIRED. THE CONTRACTOR MAY OFFER ANY MATERIAL OR PROCESS DEEMED EQUIVALENT BY THE OWNER, ARCHITECT AND STRUCTURAL ENGINEER TO THAT MATERIAL OR PROCESS INDICATED OR SPECIFIED.
- EACH CONTRACTOR SHALL GUARANTEE, BE RESPONSIBLE FOR, & MAKE GOOD ANY AND ALL DEFECTS DUE TO FAULTS OF HIS TRADE FOR LABOR LEAKS, OR MATERIALS FOR A PERIOD OF ONE YEAR MINIMUM FOLLOWING THE ACCEPTANCE OF THE WORK BY THE OWNER AND ARCHITECT.
- 10. THE CONTRACTOR SHALL SUPERVISE & DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES & PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE SAFETY & PERFORMANCE OF THE WORK. SAFETY COMPLIANCE SHALL BE IN ACCORDANCE WITH OSHA U.S. DEPT. OF LABOR, STATE AND LOCAL REQUIREMENTS.
- 11. THE CONTRACTOR SHALL FURNISH AND BE RESPONSIBLE FOR ADEQUATE SHORING, BRACING, AND PROTECTIVE MEASURES TO SAFELY EXECUTE THE
- 12. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
 - (1) ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS
 - (2) ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL
 - (3) PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD OF FREQUENCY OF REPORTING AND THE DISTRIBUTION
 - OF THE REPORTS (4) IDENTIFICATION AND QUALIFICATION OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION
- 13. BY BEGINNING CONSTRUCTION ON THIS BUILDING, THE CONTRACTOR AGREES HE HAS THOROUGHLY REVIEWED THESE PLANS AND BELIEVES HE CAN BUILD THIS STRUCTURE AS THE PLANS ARE DRAWN AND DETAILED

CONCRETE NOTES

- 1. ALL CONCRETE SHALL HAVE 3000 psi MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE SHALL BE MECHANICALLY VIBRATED DURING PLACEMENT. DEPUTY INSPECTION REQUIRED FOR CONCRETE PLACEMENT.
- 2. THE MINIMUM CEMENT CONTENT SHALL BE 6 SACKS MINIMUM PER CUBIC YARD.
- 3. THE MAXIMUM CONCRETE SLUMP SHALL BE 4 INCHES, PLUS OR MINUS 1 INCH.
- 4. CEMENT FOR CONCRETE SHALL BE STANDARD BRAND TYPE II, LOW ALKALI, PER ASTM C-150.
- 5. AGGREGATE SHALL CONFORM TO ASTM C-33, 1 INCH MAXIMUM SIZE, SIZE NUMBER 67 AGGREGATE. A MINIMUM 3" & HOSE FOR PLACING CONCRETE IS REQUIRED. PEA GRAVEL MIXES ARE NOT ALLOWED.
- 6. WATER REDUCING AGENTS SHALL BE USED TO REDUCE WATER / CEMENT RATIO. WATER/ CEMENT RATIO TO BE LESS THAN 0.60.
- 1. THE MIX DESIGN, INCLUDING PROPORTIONS OF MATERIALS FOR A 1-YARD BATCH, SHALL BE SUBMITTED TO YLACHOS ENGINEERING FOR APPROYAL, CONCRETE SHALL NOT BE ORDERED UNTIL MIX DESIGN IS APPROVED BY YLACHOS ENGINEERING,

CONCRETE NOTES CONTINUED

- 8. THE METHOD OF CONCRETE CURING TO BE USED SHALL BE SUBMITTED TO YLACHOS ENGINEERING FOR APPROYAL. NO CONCRETE SHALL BE POURED UNTIL THE CURING METHOD IS APPROVED BY VLACHOS ENGINEERING.
- 9. ALL HOLD-DOWN ANCHORS AND ANCHOR BOLTS AT SHEAR WALLS SHALL BE HELD FIRMLY IN PLACE BY A TEMPLATE PRIOR TO POURING CONCRETE, EXACT HOLD-DOWN LOCATION MUST BE COORDINATED BETWEEN CONCRETE CONTRACTOR AND FRAMING CONTRACTOR.
- 10. SOIL COMPACTION REPORT SHALL BE PROVIDED TO THE BUILDING INSPECTOR AT THE JOB SITE PRIOR TO PLACEMENT OF CONCRETE FOR THE FOUNDATION.
- 11. THE SOILS ENGINEER SHALL INSPECT THE FOUNDATION PRIOR TO PLACEMENT OF CONCRETE FOR THE FOUNDATION.
- THE CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY ALL CONDITIONS SHOWN ON PLANS AT THE SITE PRIOR TO COMMENCING WORK,
- 13. THE REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, DEFORMED BARS CONFORMING TO A.S.T.M. A-615 GRADE 60. GRADE 40 MAY BE USED FOR #3 & #4 BARS. THE PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CHAPTER 19 OF THE 2008 LABC. TACI 318
- 14. 34" DEEP CRACK CONTROL JOINTS TO BE TOOLED 1/4 THE SLAB THICKNESS 10' TO 15' O.C. WITHIN 24 HOURS OF POUR.
- 15. CONTRACTOR TO PROVIDE & INSTALL APPROXIMATELY 500 OF EXTRA REBAR IN THE FORM OF #4 OR #5 BARS AVAILABLE AT JOB SITE FOR VARYING FIELD CONDITIONS.

FRAMING NOTES

- 1. ALL FRAMING AND CARPENTRY SHALL BE DONE IN ACCORDANCE WITH THOSE APPLICABLE SECTIONS OF CHAPTER 23 OF THE LATEST ADOPTED EDITION OF THE LABO AND DETAILS INDICATED ON THE DRAWINGS.
- 2. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR LARCH GRADE IN ACCORD-ANCE WITH THE LATEST EDITION OF "GRADING AND DRESSING RULES #16 OF THE WEST COAST LUMBER INSPECTION BUREAU" OF THE FOLLOWING

GRADES: RAFTERS AND JOISTS - #2 AND BETTER BEAMS UNLESS NOTED STUDS (2x4 IN BEARING WALLS) - STAND AND BETTER OTHERWISE NOTE: DOUBLE ALL 2x4 STUDS IN BEARING WALLS THAT ARE TO BE NOTCHED OR BORED WITH CONDUITS. STUDS (2x6 IN BEARING WALLS) - #2 AND BETTER ALL OTHER STUDS & PLATES - STUD GRADE NOTIFY ENGINEER IF OTHER SPECIES OF WOOD ARE DELIVERED TO THE SITE

- 3. WOOD BEARING DIRECTLY ON CONCRETE SHALL BE PRESSURE TREATED D.F.
- 4. STRUCTURAL MEMBERS WILL NOT BE CUT FOR PIPE, CONDUIT, ETC.
- 5. 2x SOLID BLOCK SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL
- 6. ALL BOLTS TO HAVE FLAT WASHERS UNDER HEAD AND NUT AND AT ALL HOLD-DOWN BOLTS AND ANCHOR BOLTS. ALL BOLT HOLES SHALL BE 1/32" (MIN.), 1/16" (MAX.) OVERSIZED AT THE CONNECTION OF HOLD-DOWN TO POSTS. (INSPECTOR TO VERIFY)
- 7. ALL PLYWOOD EXPOSED TO WEATHER SHALL BE EXTERIOR GRADE, PRODUCT STANDARD PSI-95, DOUGLAS FIR LARCH, CDX.
- 8. FRAMING SURROUNDING ALL METAL FIREPLACE VENTS SHALL BE CONTIN-UOUS 2×6 STUDS @ 16" O.C. SHEATHED WITH 1/2" STRUCT 1 PLYWOOD AND WITH DRAFT STOPS @ 10'-0" o.c. MAX. (FOR PLYWOOD NAILING, SEE ROOF NAILING SCHEDULE.)
- 9. GLU-LAMINATED MEMBERS SHOULD BE FABRICATED IN ACCORDANCE WITH BUILDING DEPARTMENT STANDARDS AND A.I.T.C. 117-79. A CERTIFICATE OF INSPECTION TO BE SUBMITTED TO THE BUILDING DEPARTMENT PRIOR TO ERECTION. SIMPLE SPAN GLU-LAMS ARE TO BE COMBINATION 24F-V4 CANTILEVER GLU-LAMS TO BE COMBINATION 24F-V8.
- 10. COMPOSITE FRAMING MEMBERS SHALL BE BY TRUSS JOIST MAC MILLAN. (OR WILLAMETTE INDUSTRIES.) FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR STORAGE AND INSTALLATION. TJI JOIST - ESR-1153 (SJ JOIST - NER 475) PARALLAM - ESR-1387 (PREMIER PLUS GLULAM - NER 486) 11/4" TIMBERSTRAND - ESR-1387 (STRUCLAM - NER472) IT MAY BE ACCEPTABLE TO USE DIFFERENT MANUFACTURER PRODUCTS OF EQUAL OR GREATER STRENGTH WITH WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- HOLD DOWN CONNECTION BOLTS/NUTS SHALL BE TORQUE 1/2 TURN BEYOND FINGER TIGHT OR AS REQUIRED BY MANUFACTURER, INSPECTOR SHALL VERIFY BY RANDOM INSPECTION PRIOR TO COVERING WALLS.
- 12. ALL SHEAR PANELS TO EXTEND FROM FLOOR TO FLOOR & FLOOR TO ROOF DIAPHRAGMS. (U.N.O.)
- 13. WEIGHT OF ROOFING MATERIAL SHALL NOT EXCEED 12 PSF.
- 14. THE NUMBER & SIZE OF WOOD FASTENERS SHALL NOT BE LESS THAN THAT SET FORTH IN TABLE 2304.9.1
- 15. FLOOR JOISTS, CEILING JOISTS, AND RAFTERS 12" OR MORE IN DEPTH SHALL BE SUPPORTED LATERALLY BY BRIDGING AT INTERVALS NOT EXCEEDING 8 FEET, UNLESS BOTH EDGES ARE HELD IN LINE. (2308.8.5 \$ 2308.10.6 CBC)

STEEL NOTES

- THE LABOR, MATERIALS & EXECUTION REQUIRED FOR ALL STEEL WORK AS INDICATED ON DRAWINGS SHALL BE IN ACCORDANCE WITH THOSE APPLICABLE SECTIONS OF CHAPTER 22 OF THE 2008 LABO.
- STRUCTURAL STEEL & MISCELLANEOUS STEEL SHALL CONFORM TO A.S.T.M. A-36. PIPE COLUMNS SHALL CONFORM TO A.S.T.M. A-53 GRADE "B", BOLTS SHALL CONFORM TO A.S.T.M. SPECIFICATION A-301 FOR WOOD & A-325x FOR CONCRETE AND STEEL.
- 3. ALL WELDS SHALL BE DONE IN AN APPROYED SHOP IN ACCORDANCE WITH AWS DIJ-94. ALL FIELD WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER & BE CONTINUOUSLY INSPECTED BY AN APPROVED DEPUTY INSPECTOR.
- 4. WELDING SHALL BE DONE BY ELECTRIC SHIELDED ARC PROCESS USING E-70XX ELECTRODES.
- 5. STRUCTURAL STEEL NOT ENCASED IN CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE OR GALVANIZED.

ADDITIONAL NOTES

- HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS, AND HOLD-DOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS IN ACCORDANCE WITH TABLE 2305.5 OF THE LA BUILDING CODE. (2305.5)
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING, FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7.
- 3. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
- 4. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED. (11.1.2.2, '5 NDS)

SOILS ENGINEERING

- THE SOILS REPORT, NUMBER GH 14991-G PREPARED BY GROVE - HOLLINGSWORTH DATED Ø7-11-11 IS PART OF THESE PLANS AND ALL RECOMMENDATIONS THEREIN SHALL BE COMPLIED WITH.
- 2. SPREAD FOOTINGS ALLOWABLE BEARING = 2500 PSF CONTINUOUS FOOTINGS - ALLOWABLE = 2500 PSF
- 3. THE ABOVE VALUES MAY BE INCREASED BY 1/3 FOR WIND AND SEISMIC LOADS
- 4. EXPANSION INDEX = ASSUME HIGH
- 5. ALL GRADING, SLAB, FOOTING, AND PAD PREPARATION WORK SHALL COMPLY WITH THE RECOMMENDATIONS AS STATED IN THE REFERENCED REPORT ABOVE
- 6. PER LADBS, IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION AND REPORT MAY BE REQUIRED.
- PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGR SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT: (1) THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT
- (2) THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED
- (3) THE FOUNDATION EXCAYATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT

2011 LABC DESIGN LOADS

- (1603.1.1 CBC) FLOOR LIVE LOADS: UNIFORM FLOOR LOAD: 40 psf CONCENTRATED LOAD: 300 lb NO LIVE LOAD REDUCTIONS TAKEN
- (1607.1 CBC) CEILING LIVE LOADS: UNINHABITABLE ATTICS WITHOUT STORAGE: 10 psf UNINHABITABLE ATTICS WITH LIMITED STORAGE: 20 psf HABITABLE ATTICS: 30 psf
- 3. (603.1.2 CBC) ROOF LIVE LOAD:20 psf NO LIVE LOAD REDUCTIONS TAKEN
- 4. (1603.1.4 CBC) WIND DESIGN DATA: BASIC WIND SPEED (3-MILE GUST): 85 MPH WIND IMPORTANCE FACTOR 1: 1.0 WIND EXPOSURE: C INTERNAL PRESSURE COEFFICIENT: -0.18
- 5. (1603.1.5 CBC) EARTHQUAKE DESIGN DATA: SEISMIC IMPORTANCE FACTOR 1: 1.0 OCCUPANCY CATEGORY: II SPECTRAL RESPONSE ACCELERATIONS: Ss = 1.873 SI = 0.648 SITE CLASS: D SPECTRAL RESPONSE COEFFICIENTS: Sds = 1.249 Sd1 = 0.648
- SEISMIC DESIGN CATEGORY: D SEISMIC-FORCE RESISTING SYSTEM: PLYWOOD SHEAR WALL & # SIMPSON STRONG WALL DESIGN BASE SHEAR: V= Ø.178
- SEISMIC RESPONSE COEFFICIENT: Cs = Ø.192 RESPONSE MODIFICATIONS FACTOR: R= 6.5 REDUNDANCY FACTOR: p=1.3 (12.3.4.2 ASCE)(SEE CALCS) ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

REVISIONS

DRAWN BY 10-22-11





