

GENERAL

- 1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
3. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:

2016 CALIFORNIA BUILDING CODE (CBC) AMENDMENTS AND LATEST REVISIONS REFERRED TO HERE AS "THE CODE", AND ANY APPLICABLE AMENDMENTS AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.

- 5. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
- SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED.
- SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
- SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN.
- FLOOR AND ROOF FINISHES.
- DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
6. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
- PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
- ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
- CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
- SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.

7. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

8. OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN 8. CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS. FOR ANY FURTHER RESTRICTIONS ON OPENINGS IN STRUCTURAL ELEMENTS, SEE APPLICABLE SECTIONS BELOW.

9. PIPES LARGER THAN 1-1/2" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED. NO CONDUITS SHALL BE PLACED IN CONCRETE FILL OVER METAL DECKING.

10. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.

11. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BORED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

12. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

13. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE ARCHITECT SHALL SUBMIT WRITTEN CERTIFICATION TO THE BUILDING OFFICIAL STATING THAT SITE VISITS HAVE BEEN MADE AND WHETHER OR NOT ANY OBSERVED DEFICIENCIES HAVE BEEN CORRECTED TO CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS OR REVISED DETAILS APPROVED BY THE BUILDING OFFICIAL.

14. DESIGN LOADS:

Table with 2 columns: LOAD TYPE, VALUE. LIVE LOADS: ROOF = 20 PSF, FLOOR = 40 PSF.

Table with 2 columns: LOAD TYPE, VALUE. DEAD LOADS: ROOF = 15 PSF, FLOOR = 15 PSF.

15. WIND ANALYSIS PER CHAPTER 16 OF THE CODE:

lw= 1.0 (STANDARD STRUCTURE)
ULTIMATE BASIC WIND SPEED= 110 mph
EXPOSURE= C

16. SEISMIC ANALYSIS PER CHAPTER 16 OF THE CODE UTILIZING THE EQUIVALENT LATERAL FORCE PROCEDURE:

DESIGN BASE SHEAR= 0.170 W (A.S.D.)
SEISMIC DESIGN CATEGORY: D
SITE CLASS: D
FA= 1.0
S1= 0.607
SEISMIC-FORCE-RESISTING SYSTEM: PLYWOOD SHEARWALLS
I= 1

FOUNDATION

- 1. FOUNDATION DESIGN BASED ON CODE MINIMUM VALUES.
2. FOOTINGS ARE DESIGNED BASED ON THE FOLLOWING INFORMATION:
- ALLOWABLE BEARING PRESSURE = 1500 PSF
- VALUES MAY BE INCREASED BY 1/3 FOR WIND OR SEISMIC LOAD CASES
- FOOTINGS SHALL BEAR ON FIRM NATURAL SOILS. MINIMUM DEPTH OF FOOTINGS BELOW LOWEST ADJACENT FINAL GRADE SHALL BE 18". MINIMUM WIDTH OF FOOTING SHALL BE 12".
3. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE, IF REQUIRED. ROOF & AREA DRAINAGE SHALL BE DIRECTED AWAY FROM FOUNDATIONS.
4. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
5. EXCAVATION FOR FOOTINGS SHALL BE APPROVED BY THE INSPECTOR PRIOR TO PLACING THE CONCRETE AND REINFORCING. CONTRACTOR TO NOTIFY THE INSPECTOR WHEN INSPECTION OF EXCAVATION IS READY. INSPECTOR TO SUBMIT LETTER OF COMPLIANCE.
6. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE OR GROUT HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTORS SHALL BRACE OR PROTECT ALL BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.
7. FOUNDATIONS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE INSPECTOR, FOUNDATION ELEVATIONS WILL BE ALTERED BY CHANGE ORDER.
8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS. FLOODING WILL NOT BE PERMITTED. ALL FILLS USED TO SUPPORT FOUNDATIONS SHALL BE INSPECTED PER CHAPTER 18 OF THE CODE.
9. ALL ABANDONED FOOTINGS, UTILITIES, ETC. SHALL BE REMOVED UNLESS NOTED OTHERWISE. NEW FOOTINGS MUST EXTEND INTO UNDISTURBED SOILS.
10. SLABS ON GRADE SHALL BE SUPPORTED ON NATURAL GRADE OR COMPACTED FILL.

WOOD

- 1. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR LARCH, USUALLY GRADED OR MACHINE GRADED UNDER THE STANDARD GRADING RULES, NO. 17 OF THE WEST COAST LUMBER INSPECTION BUREAU. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19%. ALL FRAMING MEMBERS SHALL BE AS FOLLOWS:
THICKNESS AND SMALLER GRADE NO. 2
4 x OR LARGER BEAMS GRADE NO. 1 UNO
4 x 4 AND LARGER POSTS GRADE NO. 1 UNO
STUDS (2x4 AND 2x6) STUD GRADE
2. ALL STRUCTURAL PLYWOOD SHEATHING SHALL BE DOUGLAS FIR STANDARD GRADE STRUCTURAL I WITH EXTERIOR GLUE CONFORMING TO PS 1.95. ALL PANELS SHALL BEAR LEGIBLE DFPA STAMPS.
3. ALL SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING AND SHALL BE APPROVED BY THE BUILDING INSPECTOR BEFORE COVERING.
4. ALL NAILINGS SHALL CONFORM TO THE APPLICABLE BUILDING CODE AND REGULATIONS.
5. UNLESS OTHERWISE NOTED, ALL WOOD SILL PLATE UNDER BEARING, EXTERIOR OR SHEAR WALLS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE BOLTED TO CONCRETE OR MASONRY WITH 5/8" Ø ANCHOR BOLTS W/ 7" MIN EMBED AND 6"-0" OC BEGINNING AT 4" MIN AND 12" MAX FROM EACH END OF THE PLATES. THERE SHOULD BE A MINIMUM OF 2 BOLTS PER PIECE. "RAMSET" 7/32"Ø POWDER DRIVEN PINS AT 2'-0" OC MAY BE SUBSTITUTED FOR ANCHOR BOLTS AT INTERIOR NON-SHEAR WALLS ONLY.
6. FOUNDATIONS ANCHOR BOLTS IN WALLS SHALL HAVE A MINIMUM OF 3 INCH BY 3 INCH BY 0.229 INCH THICK PLATE WASHERS UNDER EACH NUT. NUTS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.
7. ALL NAILS FOR CONNECTING WOOD MEMBERS SHALL BE COMMON WIRE NAILS. USE HOT-DIPPED ZINC-COATED GALVANIZED OR STAINLESS STEEL FASTENERS FOR EXTERIOR APPLICATIONS AND WHEN PENETRATING PRESSURE TREATED LUMBER. MINIMUM NAILING REQUIREMENTS OUTLINED IN TABLE 2304.10.1 SHALL BE FOLLOWED UNLESS OTHERWISE NOTED.
8. RETIGHTEN BOLTS BEFORE CLOSING-IN.
9. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE ARCHITECT OR STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" PLYWOOD. IF NAILHEADS PENETRATE THE OUTER PLY MORE THEN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
10. ALL WOOD HARDWARE CONNECTORS SHALL BE SIMPSON STRONG-TIE OR APPROVED EQUAL. INSTALL ACCORDING TO MANUFACTURER RECOMMENDATIONS. PROVIDE Z-MAX FINISH FOR ALL CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED WOOD.
11. NOTCHES ON THE ENDS OF JOISTS SHALL NOT EXCEED ONE FOURTH THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF JOIST SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN.
12. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40 PERCENT OF THE WIDTH OF THE STUDS IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITIONS. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLED STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
13. WHERE TOP OR SOLE PLATE ARE CUT FOR PIPES, A METAL TIE MINIMUM 0.058 INCHES THICK AND 1 1/2 INCHES WIDE SHALL BE FASTENED ACROSS THE OPENING WITH (6) 16d NAILS MINIMUM EACH SIDE.
14. BLOCKING AND BRIDGING SHALL BE PROVIDED AS FOLLOWS:
- FULL DEPTH SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORT.
- FULL DEPTH SOLID BLOCKING BETWEEN JOISTS AND RAFTERS 2X10 AND DEEPPER AT INTERVALS NOT EXCEEDING 8 FEET.
- FULL DEPTH SOLID BLOCKING BETWEEN CEILING JOISTS AT INTERVALS NOT EXCEEDING 8 FEET.
- 2" FULL WIDTH FIRE BLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS INCLUDING FURRED AT FLOOR & CEILING LEVELS AND AT 10 FT. INTERVALS BOTH VERTICAL & HORIZONTAL.
15. WOOD EXPOSED TO THE WEATHER, FOUNDATION PLATES ON CONCRETE SLABS AND FOUNDATIONS WHICH ARE IN DIRECT CONTACT WITH EARTH SHALL BE TREATED WITH PRESERVATIVES IN ACCORDANCE WITH AWP-01. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANGING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPAM-4.
16. DOUBLE JOISTS SHALL BE PROVIDED UNDER PARTITIONS PARALLEL TO JOISTS AND FULL DEPTH BLOCKING SHALL BE PROVIDED UNDER PARTITIONS PERPENDICULAR TO JOISTS.

(E) CONCRETE

- 1. WHERE NEW CONSTRUCTION IS INTEGRATED WITH EXISTING CONCRETE CONSTRUCTION, CARE SHALL BE TAKEN SO AS NOT TO DAMAGE EXISTING REMAINING CONCRETE AND REINFORCING. WHERE NEW CONCRETE ABUTS EXISTING CONCRETE, CLEAN EXISTING CONCRETE SURFACE WITH HIGH PRESSURE WATER SPRAY. APPLY APPROVED BONDING AGENT TO SURFACE OF EXISTING CONCRETE.
2. HOLES FOR GROUTED ANCHORS SHALL BE DRILLED WITH ROTARY HAMMER OR OTHER SUITABLE METHODS TO ENSURE EXISTING REINFORCEMENT IS NOT DAMAGED. HOLE DIAMETER SHALL BE 1/8" GREATER THAN ANCHOR ROD DIAMETER OR REBAR, UNLESS OTHERWISE NOTED. GROUT SHALL BE NON-SHRINK AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI. LOCATE EXISTING REINFORCING BARS PRIOR TO DRILLING HOLES. DO NOT DAMAGE EXISTING REINFORCING. METHOD OF LOCATING EXISTING REINFORCING BARS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. ALL MIS-DRILLED OR UNACCEPTABLE HOLES SHALL BE GROUTED SOLID.

REINFORCING STEEL (FOR CONCRETE AND MASONRY)

- 1. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE CODE, ASTM A615, GRADE 60 UNO. DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A-305.
2. BARS SHALL BE CLEAN OF RUST, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE SUPPORTED ON APPROVED CHAIRS.
4. REINFORCING BAR SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS. STAGGER ALL SPLICES 5'-0" MINIMUM UNLESS NOTED OTHERWISE ON PLANS.
5. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
6. WHERE WELDING OF REINFORCING IS APPROVED BY THE STRUCTURAL ENGINEER, IT SHALL BE DONE BY AWS CERTIFIED WELDERS USING E90XX OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO "THE REQUIREMENTS OF STRUCTURAL WELDING CODE- REINFORCING STEEL", AWS-D1.4, LATEST REVISION. REINFORCING BARS TO BE WELDED SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-706.
7. BARS IN SLABS SHALL BE SECURELY SUPPORTED ON WELL-CURED CONCRETE. BLOCKS OR APPROVED METAL CHAIRS, PRIOR TO PLACING CONCRETE.
8. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
9. COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES. THESE DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE.
10. MILL TEST REPORTS FOR GRADE 60 BARS SHALL BE SUBMITTED PRIOR TO PLACEMENT OF CONCRETE.
11. CONTINUOUS INSPECTION OF CONCRETE SHALL INCLUDE INSPECTION DURING INSTALLATION OF REINFORCING STEEL. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS MAY BE CORRECTED PRIOR TO PLACEMENT OF OVERLYING GRIDS OR REINFORCING STEEL.
12. ALL GRADE 60 REINFORCING STEEL SHALL BE CLEARLY MARKED TO DIFFERENTIATE THEM FROM GRADE 40 REINFORCING STEEL IF CONCURRENTLY ON SITE.
13. TERMINATE REINFORCING STEEL IN STRANDARD HOOKS, UNLESS OTHERWISE NOTED.
14. CONCRETE CLEAR COVER TO FACE OF REINFORCING BARS:

(F) CAST-IN-PLACE CONCRETE (NON-PRESTRESSED).

Table with 2 columns: TYPE & LOCATION, MINIMUM COVER (IN). Rows include CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH (3), CONCRETE EXPOSED TO EARTH OR WEATHER (# 6 BARS AND LARGER # 5 BARS, AND SMALLER) (2, 1 1/2), CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS (# 8 BARS AND LARGER # 7 BARS, AND SMALLER) (1 1/2, 3/4), BEAMS, COLUMNS: PRIMARY REINFORCEMENT TIES, STIRRUPS, SPIRALS (1 1/2).

CONCRETE

- 1. ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE CODE AND WITH THE PROVISIONS OF ACI 318, LATEST EDITION.
2. CONCRETE MIXES SHALL BE DESIGNED BY AN APPROVED TESTING LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER. THE COMPRESSIVE STRENGTH OF 1905 THE CONCRETE SHALL BE PROPORTIONED BASED ON SECTION OF THE CODE.
3. SCHEDULE OF STRUCTURAL CONCRETE 28-DAY STRENGTH AND TYPES:

Table with 4 columns: TYPE, STRENGTH (PSI), DENSITY (PCF), SLUMP (IN). Rows include ALL CONCRETE FOOTINGS (2500, 150, 4), ALL CONCRETE WALLS, TIE BEAMS SLABS ON GRADE, PILES, PILE CAPS (2500, 150, 4), CONCRETE FILL ON METAL DECK (2500, 110, 4), CONCRETE SLABS AND STAIRS ON GRADE CURBS, AND OTHER NON-STRUCTURAL CONCRETE (2500, 150, 4).

- 4. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II. W/C RATIO SHALL NOT EXCEED 0.45. WATER SHALL BE CLEAN AND NOT DETRIMENTAL TO CONCRETE.
5. AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C-330 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER. AGGREGATE FOR LIGHT WEIGHT (110PCF) CONCRETE SHALL BE EXPANDED SHALE CONFORMING TO ASTM C330 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
6. CONCRETE MIXING OPERATION, ETC. SHALL CONFORM TO ASTM C-94.
7. PLACEMENT OF CONCRETE SHALL CONFORM TO CODE SECTION 1905 AND PROJECT SPECIFICATIONS. CLEAN AND ROUGHEN TO 1/2" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH NEW CONCRETE IS TO BE PLACED. APPLY APPROVED BONDING AGENT PRIOR TO NEW CONCRETE POUR.
8. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
9. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS. SEE THESE DRAWINGS FOR ADDITIONAL RESTRICTIONS ON THE PLACEMENT OF OPENINGS IN SLABS AND WALLS.
10. PIPES LARGER THAN 1 1/2" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY STRUCTURAL ENGINEER. PIPES SHALL NOT DISPLACE OR INTERRUPT REINFORCING BARS. SPACE EMBEDDED PIPES AND SLEEVES AT A MINIMUM OF 3 DIAMETERS ON CENTER.
11. CONTINUOUSLY MOIST CURE CONCRETE SLABS-ON-GRADE FOR 7 DAYS MINIMUM. WATER FOG SPRAYS, PONDING, SATURATED ABSORPTIVE COVERS, MOISTURE RETAINING COVERS OR CURING COMPOUNDS MAY BE USED.
12. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS.
13. ALL CONCRETE SHALL BE CONSOLIDATED WITH MECHANICAL VIBRATORS.
14. DESIGN BASED ON fc=2,500psi, SPECIAL INSPECTION NOT REQUIRED.

PREFABRICATED WOOD MEMBERS

- 1. ALL PREFABRICATED WOOD MEMBERS INDICATED ON THE DRAWINGS SHALL BE AS MANUFACTURED BY ILEVEL TRUS JOIST, OR APPROVED EQUAL REFER TO ICC REPORT ESR-1387.
2. MEMBER PROPERTIES SHALL BE AS FOLLOWS:

Table with 3 columns: MEMBER MATERIAL, PROPERTY, MINIMUM SPECIFIED VALUE (PSI). Rows include PARALLAM (PSL) (ALLOWABLE FLEXURAL STRESS 2900, ALLOWABLE SHEAR STRESS 290, MODULUS OF ELASTICITY 2200000), MICROLLAM (LVL) (ALLOWABLE FLEXURAL STRESS 2600, ALLOWABLE SHEAR STRESS 285, MODULUS OF ELASTICITY 1900000), TIMBERSTRAND (LSL) (ALLOWABLE FLEXURAL STRESS 1700, ALLOWABLE SHEAR STRESS 400, MODULUS OF ELASTICITY 1300000).

- 3. PRIOR TO FABRICATION AND INSTALLATION, THE MANUFACTURER SHALL SUBMIT COPIES OF CURRENT ICC REPORTS FOR REVIEW.
4. THE MATERIALS AND FABRICATION PROCEDURES FOR ALL MEMBERS SHALL COMPLY WITH THE REQUIREMENT OF CURRENT ICC REPORTS.
5. THE SIZE AND LOCATION OF ALL HOLES SHALL BE AS PER MANUFACTURERS RECOMMENDATIONS OR ICC REPORTS.
6. TOP AND BOTTOM FLANGES ARE NOT TO BE CUT.
7. MEMBERS SHALL BE DELIVERED TO THE JOB SITE IN BUNDLES AND STORED IN AN UPRIGHT POSITION NOT IN CONTACT WITH THE GROUND.
8. ANY DAMAGE OR DISTORTION OF MEMBER SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE SUPPLIER. FIELD MODIFICATIONS SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL FROM THE SUPPLIER AND THE ENGINEER.
9. ALL MEMBERS SHALL BE ANCHORED AND BRACED AS REQUIRED. THE ERECTOR SHALL PROVIDE SUPPLEMENTAL LATERAL BRACING AS REQUIRED FOR THE TOP FLANGES UNTIL FLOOR OR ROOF DIAPHRAGMS ARE INSTALLED.
10. PRIOR TO FABRICATION, SHOP DRAWINGS INDICATING MEMBER DESIGNATIONS, LAYOUT AND DETAILS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL.

RESIDENCE REMODEL PROJECT'S ADDRESS

146551 Robert Ln, Orange, CA 92668

300 SPECTRUM CENTER DRIVE, SUITE 400 IRVINE, CA 92618 (949) 754-2826

SHEET TITLE

GENERAL NOTES

S.O. SHEET 5 OF 8