ABBREVIATIONS

A	
ABV.	ABOVE
ADD'L.	ADDITIONAL
ALT.	ALTERNATE
A.C.I.	AMERICAN CONCRETE INSTITUTE
A.I.S.C.	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
A.I.T.C.	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
A.S.T.M.	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ANCH.	ANCHOR
A.B.	ANCHOR BOLT
APPROX.	APPROXIMATELY
ARCH	ARCHITECT
A.W.S.	AMERICAN WELDING SOCIETY
@	AT
&	AND
B	
BM.	BEAM
BRG.	BEARING
BT.	BENT
BLK.	BLOCK
BLKG.	BLOCKING
BOTT.	BOTTOM
B.N.	BOUNDARY NAILS
BLDG.	BUILDING
B.S.	BOTH SIDES
BTWN	BETWEEN
C	
C.B.C.	CALIFORNIA BUILDING CODE
CLG.	CEILING
C.J.	CEILING JOIST OR CONSTRUCTION JOINT
CL.	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CTSK.	COUNTERSINK
C.P.	COMPLETE PENETRATION
D	
d/	PENNY
D.L.	DEAD LOAD
DET.	DETAIL
DIAG.	DIAGONAL
DIA.	DIAMETER
DIM.	DIMENSION
DO	DITTO
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DWL.	DOWEL
DN.	DOWN
DWG.	DRAWING
DSA.	DIVISION OF THE STATE ARCHITECT
E	
EA.	EACH
E.F.	EACH FACE
E.S.	EACH SIDE
E.W.	EACH WAY
E.N.	EDGE NAILING
EXT.	EXTERIOR
EXIST.	EXISTING
F	
F.P.	FULL PENETRATION
F.S.	FAR SIDE
F.G.	FINISH GRADE
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
FIN.	FINISH
F.H.W.S.	FLAT HEAD WOOD SCREW
FLR.	FLOOR
FTG.	FOOTING
FDN.	FOUNDATION
FRMG.	FRAMING
G	
GALV.	GALVANIZED
GA.	GAUGE
GLU-LAM	GLUED LAMINATED
GLB	GLUED LAMINATED BEAM
GRD	GRADE
H	
HGR.	HANGER
HT.	HEIGHT
HDR.	HEADER
I	
INV.	INVERTED
I.B.C.	INTERNATIONAL BUILDING CODE
I.C.C.	INTERNATIONAL CODE COUNSIL
J	
JST.	JOIST
L	
LAM.	LAMINATED
LT. WT.	LIGHT WEIGHT
L.L.	LIVE LOAD
L.L.H.	LONG LEG HORIZONTAL
L.L.V.	LONG LEG VERTICAL
LG.	LONG OR LENGTH
L.H.	LOW HYDROGEN
LNDG.	LANDING
M	
MFR.	MANUFACTURER
MAS.	MASONRY
M.B.	MACHINE BOLT
N	
N.S.	NEAR SIDE
N.D.S.	NATIONAL DESIGN SPECIFICATION
NAT.	NATURAL
N.I.C.	NOT IN CONTRACT
NLR.	NAILER
NLS	NAILS
N.T.S.	NOT TO SCALE
NO.	NUMBER
O	
OPNG.	OPENING
OPP.	OPPOSITE
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND
P	
PLYWD	PLYWOOD
P.C.F.	POUNDS PER CUBIC FOOT
PL.	PLATE
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
R	
REINF.	REINFORCING
REQ'D.	REQUIRED
RF	ROOF
R.D.	ROOF DRAIN
RO.	ROUGH
R.O.	ROUGH OPENING
S	
SEC.	SECTION
SEL.	SELECT
SEP.	SEPERATION
SCHED.	SCHEDULE
SHTG.	SHEATHING
SHPD.	SHAPED
SHT.	SHEET
S.M.	SHEET METAL
SIM.	SIMILAR
SPCG.	SPACING
SPECS.	SPECIFICATIONS
S.O.G.	SLAB ON GRADE
SQ.	SQUARE
STAGG.	STAGGERED
STD.	STANDARD
STL.	STEEL
S.J.	STEEL JOIST
STIFF.	STIFFENER
STIRR.	STIRRUP
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
S.B.	STUD BOLT
T	
TEMP.	TEMPERATURE
THK.	THICK
THRU	THROUGH
T & G	TONGUE & GROOVE
T & B	TOP AND BOTTOM
T.L.	TOTAL LOAD
TYP.	TYPICAL
T.S.	TUBE STEEL
T.N.	TOE NAIL
T.S.G.	TAPERED STEEL GIRDER
U-V	
U.B.C.	UNIFORM BUILDING CODE
U.N.O.	UNLESS OTHERWISE NOTED
UNP.	UNPUNCHED
VERT.	VERTICAL
W-X-Y-Z	
WPF	WATERPROOF
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
W/	WITH
WD.	WOOD
W.P.	WORKING POINT
W.S.B.	WELDED STUD BOLT
W.S.D.	WORKING STRESS DESIGN
WP	WOOD POST

SPECIAL NOTE:

1. WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED, OR AS DIRECTED. WHERE ON ANY DRAWING A PORTION OF THE WORK IS DRAWN OUT AND REMAINDER IS INDICATED IN OUTLINE, THE DRAWN OUT PARTS SHALL APPLY ALSO TO ALL OTHER LIKE PORTIONS OF THE WORK.
2. UNLESS A CONDITION IS SPECIFICALLY DETAILED, NOTES AND DETAILS ON SHEETS S0.1 THROUGH S0.4 AND DETAILS LABELED "TYPICAL" ON OTHER SHEETS ARE TO BE USED FOR THE INDICATED WORK WHERE THEY APPLY WHETHER OR NOT THEY ARE REFERENCED.

SPECIAL INSPECTION

1. SPECIAL INSPECTION BY A DSA APPROVED BUILDING INSPECTOR, IN THE APPLICABLE AREA APPROVED BY THE ARCHITECT AND DIVISION OF THE STATE ARCHITECT, SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK. SEE PROJECT SPECIFICATION FOR SPECIFIC REQUIREMENTS.

   COMPACTED FILL:
   BY THE SOILS ENGINEER

   WELDING:
   STRUCTURAL STEEL AND REINFORCING.
   ALL WELDS TO BE CONTINUOUSLY INSPECTED BY A D.S.A. APPROVED AWS QCI CERTIFIED WELDING INSPECTOR - NO EXCEPTION

   EXPANSION TYPE ANCHOR BOLTS

GENERAL

1. THE PROJECT SPECIFICATIONS FORM A PART OF THESE NOTES.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
3. PLANS AND DETAILS SHALL NOT BE SCALED.
4. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NOTES AND DETAILS ON DRAWINGS AND THESE GENERAL NOTES AND TYPICAL DETAILS ARE IN CONFLICT WITH THE PROJECT SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.
5. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES: THE 2007 CALIFORNIA BUILDING CODE, TITLE 24, PART 2 (INCLUDING ANY SUPPLEMENT); THE 2006 INTERNATIONAL BUILDING CODE 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 AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
6. MANUFACTURED PRODUCTS SHALL BE APPROVED BY THE CHECKING AGENCY PRIOR TO THEIR USE. ALL REQUIREMENTS OF THOSE APPROVALS SHALL BE FOLLOWED.
7. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   A. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
   B. SIZE AND LOCATION OF FLOOR AND ROOF OPENINGS.
   C. DIMENSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
8. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
   A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
   B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   C. SIZE AND LOCATION OF PREMANUFACTURED MACHINE OR EQUIPMENT BASES, DUCTS, PIPES AND CONDUITS.
   D. ANCHORAGE AND BRACING FOR ELECTRICAL, MECHANICAL OR PLUMBING EQUIPMENT, INCLUDING DUCTS, PIPES AND CONDUITS.
   E. ANCHOR BOLTS FOR MOTOR MOUNTS.
9. THE CONTRACT DOCUMENTS 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.
10. OPENINGS, POCKETS, CONDUITS, CHASES, TRENCHES, ETC. SHALL NOT BE PLACED IN STRUCTURAL MEMBERS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
11. FRAMING CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE FRAMED SIMILAR TO THE DETAILS SHOWN FOR THE RESPECTIVE MATERIALS.
12. SPECIFICATIONS, CODES AND STANDARDS NOTED IN THE CONTRACT DOCUMENTS SHALL BE OF THE LATEST EDITION UNLESS NOTED OTHERWISE (U.N.O.).
13. THE CONTRACTOR SHALL INVESTIGATE SITE FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
14. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON THE FRAMED FLOORS OR ROOFS. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH OR WHERE OVERLOAD IS ANTICIPATED.
15. THE LATERAL SYSTEM OF THE STRUCTURE IS DESIGNED WITH THE LATERAL RESTRAINT AT THE GROUND FLOOR. STRUCTURAL FRAMES ARE NOT LATERALLY SELF SUPPORTING UNTIL THE ENTIRE DESIGN LATERAL FLOOR AND STRUCTURAL WALLS BELOW ARE COMPLETELY INSTALLED.
16. DESIGN LIVE LOADS:

AREA	DESIGN LIVE LOADS	REMARKS
ROOF	20 PSF	REDUCIBLE

17. EARTHQUAKE DESIGN FORCES:
    V = CsW SEISMIC BASE SHEAR
    W = EFFECTIVE SEISMIC WEIGHT
    ρ = SEISMIC REDUNDANCY FACTOR
    I = SEISMIC IMPORTANCE FACTOR
    R = RESPONSE MODIFICATION FACTOR
    Cs = SDs/(R/I) SEISMIC RESPONSE COEFFICENT
    Es = ρCsW SEISMIC HORIZONTAL FORCE
    SITE COORDINATES: 34.09813 N
    118.09936 W
    DESIGN SPECTRAL RESPONSE ACCELLERATIONS:
    S_{Ds} = 1.263
    S_{D1} = 0.710
    SITE CLASS D
    SEISMIC OCCUPANCY CATAGORY III
    OSCBF = ORDINARY STEEL CONCENTRIC BRACED FRAME
    IPCSW = INTERMEDIATE PRECAST CONCRETE SHEAR WALLS

SEISMIC DESIGN PARAMETERS							
DIRECTION	SEISMIC FORCE RESISTING SYSTEM	R	I	ρ	Cs	Es	ANALYSIS PROCEDURE
NORTH-SOUTH	OSCBF	3.25	1.25	1.3	0.4858	0.6315	EQUIVALENT STATIC FORCE
EAST-WEST	IPCSW	4.0	1.25	1.3	0.3947	0.5131	EQUIVALENT STATIC FORCE

18. WIND FORCES: EXPOSURE C WITH BASIC WIND SPEED OF 85 MPH.
    P_{NET} = qsKzCnet [Ikzt] Kz = 0.90
    qs = 18.5 PSF h = HEIGHT
    C_{NET} = 1.0 Kz = TOPOGRAPHY FACTOR
    I = 1.15
    Kzt = 1.0

h	Kz	P_{NET}
15' TO 20'	0.90	19.15 PSF

FOUNDATION

1. FOUNDATION DESIGN IS BASED ON A GEOTECHNICAL INVESTIGATION REPORT BY LEIGHTON CONSULTING, INC. PROJECT NO. 602488-001 DATED FEB. 23, 2009.
2. FOOTING DESIGN BASED ON ALLOWABLE SOIL BEARING PRESSURE AS FOLLOWS:
   TYPICAL BUILDING FOUNDATION:
   1'-6" MIN. BELOW LOWEST FINAL ADJACENT GRADE W/
   ALLOWABLE SOIL BEARING = 2000 PSF.
   SOIL TYPE: SILTY SAND AND STIFF CLAYEY SAND.
3. CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE.
4. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANKS.
5. EXCAVATIONS FOR FOOTINGS SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO PLACING THE CONCRETE AND REINFORCING. CONTRACTOR SHALL NOTIFY SOILS ENGINEER WHEN INSPECTION OF EXCAVATION IS READY. SOILS ENGINEER SHALL SUBMIT LETTER OF COMPLIANCE TO THE OWNER.
6. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. CONTRACTOR 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 DESIGN STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.
7. FOOTINGS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY SOILS ENGINEER, FOOTING ELEVATIONS WILL BE ALTERED BY CHANGE ORDER.
8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS, TO THE APPROVAL OF THE SOILS ENGINEER. FLOODING WILL NOT BE PERMITTED.
9. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION, SHALL BE REMOVED. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT ARE BELOW NEW FOOTINGS AND WITHIN A 45 DEGREE SLOPE FROM BOTTOM OF NEW FOOTING, SHALL BE REMOVED AND ALL BACKFILL COMPACTED TO 90% OF THE LABORATORY MAXIMUM DRY DENSITY PER ASTM D.1557.
10. NEW FOOTINGS MUST BEAR ON STABILIZED EXISTING SOILS OR RECOMPACTED SOILS PER SOILS REPORT RECOMMENDATIONS.
11. ALL EARTHWORK SHALL BE DONE IN ACCORDANCE WITH SOILS REPORT RECOMMENDATIONS.

CONCRETE

1. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19A.
2. CONCRETE MIXES CONFORMING TO A.S.T.M. C-94 SHALL BE DESIGNED BY A TESTING LABORATORY ACCEPTABLE TO DSA, AND REVIEWED BY THE STRUCTURAL ENGINEER. MIX DESIGNS MUST COMPLY WITH TITLE 24, PART 2, CHAPTER 19A, 1905A.2, MAXIMUM WATER-CEMENTITIOUS MATERIAL RATIO SHALL BE 0.45 FOR SLAB ON GRADE AND .5 FOR OTHERS.
3. SCHEDULE OF STRUCTURAL CONCRETE 28 DAY STRENGTHS AND TYPES:

LOCATION IN STRUCTURE	STRENGTH	TYPE	MAX. SLUMP
CONCRETE WALLS AND FOUND.	3000 PSI	150 PCF	4" TO 5"
SLAB ON GRADE	4000 PSI	150 PCF	3" TO 4"
NON-STRUCTURAL CONCRETE	3000 PSI	150 PCF	4" TO 5"

4. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR TYPE II, LOW ALKALI. CEMENT FOR CONCRETE IN CONTACT WITH THE ONSITE SOIL BE TYPE II/V, LOW ALKALI
5. AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF A.S.T.M. C-33 AND PROJECT SPECIFICATIONS. MAXIMUM AGGREGATE SIZE SHALL BE 1 1/2".
6. — NOT USED —
7. FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS.
8. PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. STANDARD 304, TITLE 24, PART 2, SECTION 1905A AND CONTRACT DOCUMENTS. SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
9. THE CONCRETE SLAB THICKNESS SHALL BE MAINTAINED UNLESS OTHERWISE SHOWN.
10. DRYPACK UNDER BASEPLATES, SILL PLATES AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL BE CONSIST OF 1 PART PORTLAND CEMENT AND 2 1/2 PARTS OF FINE AGGREGATE CONFORMING TO A.S.T.M. C-33 WITH ENOUGH WATER TO FORM A BALL WHEN SQUEEZED IN THE HAND. THE SPACE BETWEEN TWO SURFACES REQUIRING DRYPACK SHALL BE PACKED WITH THE DRYPACK MATERIAL BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED.
11. CONCRETE MIXING OPERATION, ETC., SHALL CONFORM TO ASTM C-94.
12. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT PLACED IN CAST-IN-PLACE CONCRETE:
    A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH....................3"
    B. CONCRETE EXPOSED TO PLACED EARTH OR WEATHER:
       #6 THROUGH #18 BARS....................2"
       #5 BAR, W31 OR D31 WIRE, AND SMALLER....................1 1/2"
    C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
       SLABS AND JOISTS:
       #11 BAR AND SMALLER....................1"
       BEAMS, COLUMNS AND WALLS
       PRIMARY REINFORCEMENT, TIES, AND STIRRUPS, AND SPIRALS:
       #3 THROUGH #11....................1 1/2"
13. CONCRETE SHALL NOT BE PLACED UNTIL THE FORMS AND REINFORCEMENT HAVE BEEN INSPECTED, ALL PREPARATIONS FOR THE PLACEMENT HAVE BEEN COMPLETED AND THE PREPARATIONS HAVE BEEN CHECKED BY THE PROJECT INSPECTOR. ALL SHALL BE SUBJECT TO THE OBSERVATION OF THE ARCHITECT OR THE STRUCTURAL ENGINEER.
14. 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 EXCEPT AS SHOWN. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
15. CONDUIT OR PIPE SHALL NOT BE PLACED IN CONCRETE OVER STEEL DECK.
16. CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED ONE THIRD OF FRAMED SLAB THICKNESS AND SHALL BE PLACED BETWEEN THE TOP AND THE BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATIONS OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS FOR SUCH ARE PROVIDED.
17. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
18. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4 INCH CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.
19. CURING COMPOUNDS USED ON CONCRETE TO RECEIVE AN ARCHITECTURAL FINISH SHALL BE APPROVED BY THE FINISH APPLICATOR BEFORE USE.
20. REFER TO ARCHITECTURAL DRAWINGS FOR MOULDS, GROOVES, ORNAMENTS, FINISHES, CLIPS, OR GROUNDS REQUIRED TO BE CAST IN CONCRETE.
21. ALL CONSTRUCTION JOINTS PER TYPICAL DETAILS SHALL BE LOCATED BY THE GENERAL CONTRACTOR WITH REVIEW AND APPROVAL OF THE ARCHITECT AND THE STRUCTURAL ENGINEER.
22. THE SURFACES OF ALL HORIZONTAL CONSTRUCTION JOINTS SHALL BE CLEANED AND ROUGHENED BY REMOVING THE ENTIRE SURFACE AND EXPOSING CLEAN AGGREGATE SOLIDLY EMBEDED IN MORTAR MATRIX. ROUGHNESS SHALL BE APPROXIMATELY 1/4" INCH AMPLITUDE.
23. FOR ASPHALT CONCRETE AND ITS SPECIFICATIONS, SEE ARCHITECTURAL DRAWINGS.

REINFORCING STEEL FOR CONCRETE AND MASONRY

1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH TITLE 24, PART 2, CHAPTER 19A, SECTION 1907A; "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION", LATEST APPROVED EDITION, BY THE C.R.S.I. AND THE W.C.R.S.I., AS MODIFIED BY THE PROJECT DRAWINGS AND SPECIFICATIONS.
2. REINFORCING BARS SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19A, SECTION 1903A AND REQUIREMENTS OF A.S.T.M. A-615 GRADE 60, EXCEPT EXCEPT #3 AND #4 BARS MAY BE GRADE 40 (EXCEPT WHERE NOTED OTHERWISE). ASTM A-706 GRADE 60 FOR BARS REQUIRING WELDS.
3. WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES IN CONFORMANCE WITH "STRUCTURAL WELDING CODE-REINFORCING STEEL", AMERICAN WELDING SOCIETY, AWS D1.4, AND TITLE 24, PART 2, 1903A.4 INSPECTION REQUIRED PER TITLE 24, SECTION 1704A.4.2.
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
5. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A-185.
6. MINIMUM LAP OF WELEDED WIRE FABRIC SHALL BE 6 INCHES, OR ONE FULL MESH PLUS TWO INCHES, WHICHEVER IS GREATER.
7. ALL VERTICAL REINFORCEMENT IN WALL SHALL BE ONE PIECE BETWEEN TWO LEVELS UNLESS NOTED OTHERWISE.
8. DOWELS BETWEEN FOOTINGS AND WALL OR COLUMNS SHALL BE THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE VERTICAL REINFORCEMENT, RESPECTIVELY, UNLESS NOTED OTHERWISE.
9. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN FINAL IN-PLACE INSPECTION IS MADE.
10. REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.

WOOD

1. FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH OF THE FOLLOWING SIZES & GRADES UNLESS NOTED OTHERWISE:

2 x TO 4 x VERT. & HORIZ. FRMG.	No.1 AND BETTER.
6 x HORIZ. & VERT. & BLOCKING	No.1.
2 x TO 4 x BLOCKING	No.2. MIN.

   MAXIMUM ALLOWABLE MOISTURE CONTENT SHALL BE 19% UNLESS NOTED OTHERWISE.
2. ALL PLYWOOD SHALL BE STRUCTURAL I WITH EXTERIOR GLUE CONFORMING TO PRODUCT STANDARD PS1-95. USE PLYWOOD NAILS SAME GAUGE AS COMMON WIRE NAILS, WITH LENGTHS AT LEAST EQUAL TO PLYWOOD THICKNESS PLUS REQUIRED PENETRATION PER TITLE 24, SEC. 2318A.3.3.
3. ALL SILLS OR PLATES RESTING ON THE CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR. SEE NOTE 12.
4. ALL STUD PARTITIONS OR WALLS OVER 10 FEET HIGH SHALL HAVE 2 x BRIDGING, SAME WIDTH AS THE STUD, PREFERABLY AT MID-HEIGHT BUT NOT TO EXCEED INTERVALS OF 8 FEET.
5. ALL SILL PLATES BEARING ON CONCRETE SHALL HAVE FULL BEARING.
6. APPROVED CROSS-BRIDGING OR SOLID BLOCKING SHALL BE SPACED AS FOLLOWS:
   A. FOR ROOF JOISTS MORE THAN 8 INCHES IN DEPTH, AT 8 FEET MAXIMUM.
7. ALL FRAMING MEMBERS SHALL BE ERECTED WITH NATURAL OR BUILT-IN CAMBER UP UNLESS NOTED OTHERWISE.
8. BOLT HOLES SHALL BE A MINIMUM OF 1/32 IN. TO A MAXIMUM OF 1/16 IN. LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED. RE-TIGHTEN ALL NUTS PRIOR TO CLOSING IN.
9. PLATE WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST WOOD FOR SHEAR WALL SILL PLATES, NAILERS IN SHEAR WALLS, NAILERS/POSTS WITH HOLDOWNS AND LEDGERS ON MASONRY OR CONCRETE. FOR OTHERS, STANDARD CUT WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST WOOD. USE HEAVY PLATE OR MALLEABLE IRON WASHERS WHERE NOTED.
10. DO NOT BORE OR NOTCH JOISTS, RAFTERS OR BEAMS, EXCEPT WHERE SHOWN IN DETAILS. OBTAIN ENGINEER'S APPROVAL FOR ANY HOLES OR NOTCHES NOT DETAILED. HOLES THROUGH SILLS, PLATES, STUDS AND DOUBLE PLATES IN BEARING AND SHEAR WALLS SHALL NOT EXCEED 1/4 THE PLATE OR STUD WIDTH. USE BORED HOLES IN THE CENTER OF THE STUD OR PLATE.
11. CONNECTOR REFERENCES, UNLESS NOTED OTHERWISE, ARE FROM THE LATEST "SIMPSON STRONG TIE" CATALOG, INCLUDING ICC REPORTS, BUT NOT LIMITED TO ESR-2105, ESR-2236, ESR-2549, ESR-2606, ESR-2614, ESR-5672 AND NER-393. APPROVED EQUALS SHALL HAVE MATCHING ICC RATINGS AND SHALL ONLY BE USED WITH PRIOR APPROVAL OF THE ARCHITECT OR THE STRUCTURAL ENGINEER. WHERE MORE THAN ONE TYPE OF FASTENER, IN THE REFERENCE SERIES IS SCHEDULED FOR A JOIST OR RAFTER THE CONTRACTOR SHALL SUPPLY THE FASTENER WITH THE GREATEST CAPACITY.
    ALL NAIL HOLES, IN THE CONNECTOR, TO BE FILLED WITH SPECIFIED NAILS UNLESS NOTED OTHERWISE ELSEWHERE.
12. PRESSURE TREATED DOUGLAS FIR SHALL:
    A. BE D.F. NO.2 MINIMUM AND BEAR "ALSC-AWPA" QUALITY MARK. CUTS AND HOLES SHALL BE TREATED PER AWPA M-84. (STATEMENTS SUCH AS "OR TO REFUSAL" ARE NOT PERMITTED.)
    B. BEAR "ALSC-AWPA" GRADE STAMP.
    C. BEAR "AWPB" STAMP OR AN END TAG FOR A PIECE LONGER THAN 3 FEET. CERTIFICATES ARE NOT ACCEPTABLE.
13. NAILS AND FASTENERS IN PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED (OR TUMBLED GALVANIZED COATING OF NOT LESS THAN 1.5 OUNCES OF ZINC PER SQUARE FOOT), STAINLESS STEEL, SILICON BRONZE OR COPPER. THIS INCLUDES BUT IS NOT LIMITED TO NAILS IN EXTERIOR WALL PRESSURE TREATED SILL PLATES, STUDS AND PLYWOOD.
14. NAILING SCHEDULE:
    NAILED CONNECTIONS SHALL CONFORM TO THE MINIMUM NAILING SCHEDULE BELOW, UNLESS NOTED OTHERWISE. ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE DRIVING OF NAILS CAUSES SPLITTING, HOLES FOR THE NAILS SHALL BE PREDRILLED.
    A. JOISTS OR RAFTERS TO SIDES OF STUDS.
       a. 8 INCH JOISTS OR LESS FACE NAILS (END NAILS AT RIM JOIST)..........3-16d NAILS
       b. FOR EACH ADDITIONAL 4 INCHES IN DEPTH OF JOIST..........1-16d NAIL
    B. JOISTS OR RAFTERS AT ALL BEARING, TOE NAILS EACH SIDE..........2-10d NAILS
    C. RIM JOIST TO PLATE, TOE NAILS..........8d @ 6" O.C.
    D. BEAM OR GIRDER TO POST, TOE NAILS..........4-16d NAILS, 2 EACH SIDE.
    E. BLOCKING BETWEEN JOIST, RAFTERS OR STUDS:
       a. BTWN. JOISTS AND RAFTER TO JOISTS OR RAFTER. TOE NAILS EACH SIDE EA. END..........2-10d NAILS
       b. BETWEEN STUDS, TOE NAILS EACH END..........2-10d OR 2-16d NAILS
    F. CROSS-BRIDGING TO JOIST OR RAFTER, TOE NAILS EACH END..........2-8d NAILS
    G. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL..........16d @ 16" O.C.
       AT BRACED WALL PANELS..........3-16d @ 16" O.C.
    H. POST TO PLATE, TOE NAILS..........4-16d NAILS, 2 EACH SIDE.
    I. DOUBLE TOP PLATES (MINIMUM 4 FEET LAP AT SPLICES): (FOR INTERIOR WALLS) (1)
       a. LOWER PLATE TO TOP OF STUDS, END NAILS..........2-16d NAILS (1)
       b. UPPER PLATE TO LOWER PLATE, FACE NAILS..........16d @ 16" O.C.
       c. LAPS AT CORNERS AND INTERSECTIONS, FACE NAILS..........2-16d NAILS
       d. AT EACH SIDE OF THE 4 FOOT MINIMUM LAP SPLICE..........8-16d NAILS, PER 4 FOOT LAP.
    J. DOUBLE STUDS OR BUILT-UP CORNER STUD, FACE NAILS..........16d @ 24" O.C.
    K. STUDS TO BEARINGS (SILL PLATE AT INTERIOR WALLS) TOE NAILS EACH SIDE..........4-8d TOE NAILS OR 2-16d END NAILS (1)
    L. DOUBLE JOISTS, RAFTERS OR HEADERS..........16d @ 16" O.C. FACE NAILS.
    M. RIBBON TO STUDS -
       ONE INCH RIBBONS (1 x 4 MIN.)..........2-8d NAILS EACH STUD.
       TWO INCH RIBBONS (2 x 4 MIN.)..........2-16d NAILS EACH STUD.
    N. DIAGONAL LET-IN BRACE (1 x 6 MIN.) TO EACH STUD AND PLATE, FACE NAILS..........3-8d NAILS

STRUCTURAL STEEL AND MISCELLANEOUS METAL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH TITLE 24, PART 2, CHAPTER 22A; ANSI/AISC 360 AND ANSI/AISC 341, AND AS MODIFIED BY TITLE 24, PART 2, SECTION 2205A.
2. ALL STRUCTURAL STEEL SHALL CONFORM WITH THE FOLLOWING TABLE, U.N.O.

STEEL SECTIONS	DESIGNATION	ASTM STANDARDS	MIN. YIELD STRENGTH Fy
ROUND HOLLOW SECTIONS, PIPE	HSS	A53 TYPE E GRADE B	35 KSI
PLATES 1/4" AND THINNER	PL	A36	36 KSI
ANGLE AND CHANNEL	L AND C	A36	36 KSI
PLATES 5/16" AND THICKER	PL	A572	50 KSI
SQUARE AND RECTANGULAR	HSS	A500 GRD. B	46 KSI

FOOTNOTE:
(2) BOLTS SHALL CONFORM TO ASTM A307, GRADE A, U.N.O.
(4) ANCHOR BOLTS SHALL BE HEADED BOLTS CONFORMING TO ASTM F-1554, GRADE 36.

3. BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, UNLESS NOTED OTHERWISE. COLUMN BASE PLATE HOLES FOR ANCHOR BOLTS MAY BE 1/8 INCH OVERSIZED.
4. ALL WELDS SHALL BE PREQUALIFIED IN CONFORMITY WITH TITLE 24, PART 2, SECTION 2204A.1, AND THE LATEST EDITION OF THE STRUCTURAL WELDING CODE-STEEL (AWS D1.1) OF THE AMERICAN WELDING SOCIETY. WELDS SIZE SHALL BE AS SHOWN ON THE DRAWINGS UNLESS GREATER SIZE IS REQUIRED BY AWS D1.1. MINIMUM TENSILE STRENGTH OF WELD METAL SHALL BE 70 KSI TYPICAL, UNLESS NOTED OTHERWISE.
5. WELD LENGTHS CALLED FOR ON THE PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED.
6. ALL WELDING SHALL BE CONTINUOUSLY INSPECTED BY AN AWS CERTIFIED INSPECTOR APPROVED BY DSA IN CONFORMANCE WITH TITLE 24, PART 2, SECTION 1704A.3.1.
7. WELD SYMBOLS SHOWN ON THESE DRAWINGS DO NOT NECESSARILY DIFFERENTIATE BETWEEN SHOP WELDS AND FIELD WELDS. WHEN FIELD WELDS ARE NECESSARY DUE TO CONSTRUCTION PROCEDURE OR SEQUENCE, WELDS SHALL BE APPROVED AND BE INSPECTED PER CONTRACT SPECIFICATION AND T & I LIST. ALL WELDS SHOWN AS FIELD WELDS SHALL BE DONE IN FIELD AS INDICATED.
8. ALL STRUCTURAL STEEL SURFACES TO BE WELDED OR TO BE ENCASED IN CONCRETE, TO RECEIVE SPRAY-APPLIED FIREPROOFING AND SHALL BE LEFT UNPAINTED. SEE PROJECT SPECIFICATIONS FOR PAINT REQUIREMENTS.
9. ALL EXPOSED STRUCTURAL STEEL AND MISCELLANEOUS METAL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. THIS INCLUDES ALL CONNECTORS.
10. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR ARCHITECT'S REVIEW BEFORE FABRICATION.

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LICENSED ARCHITECT · KEVIN S. FLEMING · NO. C26666 · RENEWAL DATE · STATE OF CALIFORNIA

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GENERAL NOTES

Project Number	20318
Date	02.23.10
Drawn By	STF
Checked By	MGN

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Scale