

STRUCTURAL NOTES

GENERAL NOTES

- THE FOLLOWING NOTES, TYPICAL DETAILS AND SCHEDULES SHALL APPLY TO ALL PHASES OF THIS PROJECT UNLESS OTHERWISE SHOWN OR NOTED.
- SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2013 EDITION OF THE CALIFORNIA BUILDING CODE (CBC) AND SUCH OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK. THE CONTRACTOR SHALL HAVE A COPY OF THE CBC ON THE JOB SITE.
- THE "CONTRACT OR CONSTRUCTION DOCUMENTS" SHALL CONSIST OF THESE NOTES, DETAILS, SCHEDULES, PLANS, AND DRAWINGS, AS WELL AS ATTACHED SPECIFICATIONS.
- ALL SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO MATERIALS AND PRODUCTS, SHALL BE THOSE PUT FORTH IN THE "CONTRACT OR CONSTRUCTION DOCUMENTS"; NO SUBSTITUTIONS SHALL BE PERMITTED TO BE USED OR ASSIGNED TO BE USED IN THE BIDDING OR CONSTRUCTION PROCESS WITHOUT WRITTEN APPROVAL BY THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL EXAMINE THE "CONTRACT OR CONSTRUCTION DOCUMENTS" AND SHALL NOTIFY THE ARCHITECT OR ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
- ALL INFORMATION ON EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED ON BEST PRESENT KNOWLEDGE AVAILABLE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ARCHITECT OR ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL SITE CONDITIONS AND INFORMATION SHOWN ON OR IN THE "CONTRACT OR CONSTRUCTION DOCUMENTS" BEFORE PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER OF ANY CONDITION WHICH IN HIS OPINION MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS OF THE STRUCTURE.
- ALL WORK SHALL CONFORM TO THE BEST PRACTICE PREVAILING IN THE VARIOUS TRADES COMPRISING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES.
- THESE "CONTRACT OR CONSTRUCTION DOCUMENTS" REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
- INSPECTION AND APPROVAL FOR FABRICATOR'S SHOPS USED FOR FABRICATION OF STRUCTURAL LOAD BEARING MEMBERS, COMPONENTS, MATERIALS OR ASSEMBLIES SHALL CONFORM TO CBC SECTION 1704A.2.
 - LABELING (AS REQUIRED OR SPECIFIED) SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 1703A.5.
 - EVALUATION AND FOLLOW-UP INSPECTION SERVICES (AS REQUIRED OR SPECIFIED), SHALL CONFORM TO CBC SECTION 1703A.6.
- THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE DRAWINGS AND GENERAL NOTES.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE PROPER ALIGNMENT OF THE STRUCTURE AFTER THE INSTALLATION OF ALL STRUCTURAL AND FINISH MATERIALS. THIS SHALL INCLUDE ANY NECESSARY PRELOADING OF THE STRUCTURE TO DETERMINE FINAL POSITION OF THE COMPLETED WORK.
- OBSERVATION VISITS TO THE PROJECT SITE BY FIELD REPRESENTATIVES OF ARCHITECT AND/OR ENGINEER (SUPPORT SERVICES) SHALL NOT INCLUDE INSPECTIONS OF SAFETY OR PROTECTIVE MEASURES, NOR CONSTRUCTION PROCEDURES, TECHNIQUES OR METHODS. ANY SUPPORT SERVICES PERFORMED BY ARCHITECT OR ENGINEER DURING ANY PHASE OF CONSTRUCTION, SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES (AS REQUIRED BY ANY REGULATING GOVERNMENTAL AGENCY, e.g. LOCAL BUILDING DEPARTMENT) PROVIDED BY OTHERS. THESE SUPPORT SERVICES, WHETHER OF MATERIAL OR WORK, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
- PROVIDE OPENINGS AND SUPPORTS AS REQUIRED PER TYPICAL DETAILS AND NOTES FOR MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, VENTS, DUCTS, PIPING, ETC. ALL MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT SHALL BE PROPERLY "SHAY BRACED" AGAINST LATERAL FORCES.
- THESE NOTES, DETAILS, DRAWINGS AND SPECIFICATIONS (CONTRACT OR CONSTRUCTION DOCUMENTS) DO NOT CARRY NECESSARY PROVISIONS FOR CONSTRUCTION SAFETY. THESE DOCUMENTS AND ALL PHASES OF CONSTRUCTION HEREBY CONTEMPLATED ARE TO BE GOVERNED, AT ALL TIMES, BY APPLICABLE PROVISIONS OF THE CURRENT CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT.
- WHERE ANY CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
- REFER TO ARCHITECTURAL DRAWINGS TO COORDINATE WITH STRUCTURAL DRAWINGS. ANY DISCREPANCY BETWEEN THESE DRAWINGS SHALL BE REFERRED TO THE ARCHITECT OR ENGINEER FOR CLARIFICATION BEFORE START OF CONSTRUCTION.
- WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
- DRAWINGS (NOTES, SCHEDULES, DETAILS AND PLANS) SHALL HAVE PRECEDENCE OVER STRUCTURAL CALCULATIONS.
- IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES OR SPECIFICATIONS, THEN THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR.
- ASTM DESIGNATION AND ALL STANDARDS REFER TO THE LATEST AMENDMENTS.
- THESE STRUCTURAL "CONTRACT OR CONSTRUCTION DOCUMENTS" SHALL NOT BE MODIFIED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- ONLY "APPROVED" STRUCTURAL WORKING DRAWINGS AND "CONTRACT OR CONSTRUCTION DOCUMENTS" ARE PERMITTED TO BE USED FOR CONSTRUCTION ON THIS PROJECT. ALL OTHER DRAWINGS OR DOCUMENTS ARE OBSOLETE AND ARE NOT PERMITTED ON THE JOB SITE, NOR SHALL THEY BE USED FOR ANY CONSTRUCTION PURPOSES. CONTRACTORS USING UNAPPROVED DRAWINGS OR DOCUMENTS ARE SOLELY RESPONSIBLE FOR ALL WORK NOT PERFORMED IN ACCORDANCE WITH THE "APPROVED" DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS FOR ALL FIRE PROTECTION REQUIREMENTS.

FOUNDATION NOTES

- BASIS: SEE STRUCTURAL DESIGN VALUES CHART
- UNEXPECTED SOIL CONDITIONS. ALLOWABLE VALUES AND FOUNDATION DESIGN ARE BASED UPON THE MINIMUM VALUES PROVIDED IN TABLE 1806A.2 OF THE 2013 CALIFORNIA BUILDING CODE.
- EXCAVATE TO REQUIRED DEPTHS AND DIMENSIONS (AS INDICATED IN DRAWINGS), CUT SQUARE AND SMOOTH WITH FIRM LEVEL BOTTOMS. CARE SHALL BE TAKEN NOT TO OVER-EXCAVATE FOUNDATION AT LOWER ELEVATION AND PREVENT DISTURBING OF SOILS AROUND HIGHER ELEVATION.
- FOOTINGS SHALL BE POURED IN NEAT EXCAVATIONS, WITHOUT SIDE FORMS WHENEVER POSSIBLE.
- CARRY ALL FOUNDATIONS TO REQUIRED DEPTHS INTO COMPACTED FILL OR NATURAL SOIL (AS PER STRUCTURAL PLANS AND DETAILS).
- FOUNDATIONS SHALL NOT BE POURED UNTIL ALL REQUIRED REINFORCING STEEL, SLEEVES, INSERTS, CONDUITS, PIPES, ETC., AND FORMWORK IS PROPERLY PLACED AND INSPECTED BY THE PROJECT INSPECTOR.
- THE SIDES AND BOTTOMS OF EXCAVATIONS WHICH ARE TO HAVE CONCRETE CONTACT MUST BE MOISTENED SEVERAL TIMES JUST PRIOR TO POURING UPON THEM.
- DE-WATER FOOTINGS, AS REQUIRED, TO MAINTAIN DRY WORKING CONDITIONS.
- ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY PROJECT INSPECTOR PRIOR TO FORMING AND PLACEMENT OF REINFORCING OR CONCRETE.

CONCRETE

- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH (F_c) OF 3,000 P.S.I. AT 28 DAYS. ALL CONCRETE SHALL BE REGULAR WEIGHT (UNLESS SPECIFICALLY NOTED OTHERWISE).
- ALL CONCRETE WORK SHALL COMPLY WITH CBC CHAPTER 19A AND ACI 318-II AND LATEST EDITION OF ACI MANUAL OF CONCRETE PRACTICE.
- SPECIAL INSPECTION (AS REQUIRED OR SPECIFIED) SHALL CONFORM TO CBC CHAPTER 17A.
- CEMENT SHALL BE PORTLAND CEMENT TYPE I/IV AND SHALL CONFORM TO ASTM C150.
- AGGREGATES SHALL CONFORM TO ASTM C33.
- WATER SHALL CONFORM TO ASTM C1602.
- WHERE NOT SPECIFICALLY DETAILED, THE MINIMUM CONCRETE COVER ON REINFORCING STEEL SHALL BE:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH OR WEATHER: 3"
 - CONCRETE PLACED AGAINST FORMS, BUT EXPOSED TO EARTH OR WEATHER: 2"
 - SLABS, WALLS & JOISTS, NOT EXPOSED TO EARTH OR WEATHER: ¾"
 - BEAMS, GIRDDERS & COLUMNS, NOT EXPOSED TO EARTH OR WEATHER: ½"
- REINFORCING BARS LARGER THAN #8 ARE NOT PERMITTED UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE.
- MINIMUM LAP FOR ALL REINFORCING BARS IN FOUNDATION, CONCRETE RETAINING WALLS, SITE WALLS, SEAT WALLS, ETC., AT SPLICES: (SPLICES TO BE STAGGERED, AND ALL CONCRETE TO BE NORMAL WEIGHT) REFER TO DETAIL 1152.11.
- LOCATION OF ALL CONSTRUCTION JOINTS, OTHER THAN SPECIFIED, SHALL BE APPROVED BY ARCHITECT/ENGINEER PRIOR TO POURING. CONSTRUCTION JOINTS SHALL BE THOROUGHLY AIR AND WATER CLEANED AND HEAVILY ROUGHENED SO AS TO EXPOSE COARSE AGGREGATES. ALL SURFACES TO RECEIVE CONCRETE SHALL BE MAINTAINED CONTINUOUSLY WET AT LEAST THREE HOURS IN ADVANCE OF POURING.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, INSERTS AND ANY OTHER HARDWARE TO BE SET IN CONCRETE SHALL BE WELL SECURED IN POSITION PRIOR TO POURING OF CONCRETE.
- ARCHITECT OR ENGINEER AND INSPECTOR SHALL BE NOTIFIED FOR REINFORCING INSPECTION 24 HOURS, MINIMUM, PRIOR TO PLACING ANY CONCRETE.
- CONTRACTOR SHALL OBTAIN APPROVAL FROM ARCHITECT/ENGINEER PRIOR TO PLACING SLEEVES, PIPES, DUCTS, CHASES, CORING AND OPENINGS ON OR THROUGH STRUCTURAL CONCRETE BEAMS, WALLS, FLOORS AND ROOF SLABS, UNLESS SPECIFICALLY DETAILED OR NOTED. ALL PIPES OR CONDUITS PASSING THROUGH CONCRETE MEMBERS SHALL BE SLEEVED WITH STANDARD STEEL PIPES. SEE DETAIL FOR SLEEVE AT FOUNDATION.
- FORMWORK DESIGN AND REMOVAL SHALL CONFORM TO CBC SECTION 1906A.

- SIDE FORMS OF FOOTINGS: MINIMUM 48 HOURS
EDGE FORMS OF SLAB ON GRADE: STRIP 1: MINIMUM 24 HOURS
WALL/RETAINING WALL FORMS: 12 HOURS & 10% OF DESIGN STRENGTH
COLUMN FORMS: 12 HOURS & 10% OF DESIGN STRENGTH

- CONCRETE SHALL NOT FREE FALL MORE THAN SIX FEET. USE TREMIE, PUMP OR OTHER APPROVED METHODS.
- CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF 5 DAYS AFTER PLACEMENT.
- CONTRACTOR MAY USE CONCRETE ADMIXTURES AS A CONSTRUCTION MEANS AND METHODS TO EXECUTE "CONTRACT OR CONSTRUCTION DOCUMENTS". USE OF ADMIXTURE IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- MIX DESIGNS SHALL BE PREPARED BY AN APPROVED TESTING LABORATORY, SIGNED BY A LICENSED ENGINEER AND SHALL BE SUBMITTED TO THE PROJECT STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
- ONLY ONE GRADE OF CONCRETE SHALL BE ALLOWED ON PROJECT SITE AT ANY ONE TIME.

CONCRETE (CONTINUED)

- UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE, CONSTRUCTION AND CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE SLABS, AND SHALL BE LOCATED SUCH THAT THE AREA WITHIN JOINTS DOES NOT EXCEED 225 SQ. FT. AND IS ROUGHLY 5' SQUARE.
 - FOR ALL STRUCTURAL SLABS (SUSPENDED OR ONGRADE) WHERE ARCHITECTURAL "EXPOSED" CONDITIONS ARE DESIRED, GENERAL CONTRACTOR SHALL PROVIDE CONTROL JOINT LAYOUT FOR REVIEW BY ARCHITECT OR ENGINEER.

- CONCRETE STRENGTH SHALL BE VERIFIED BY STANDARD CYLINDER TESTS (IN ACCORDANCE WITH CBC SECTION 1905A) MADE BY AN APPROVED TESTING LABORATORY.

- CONCRETE PLACED WHEN THE AIR TEMPERATURE HAS FALLEN TO, OR IS EXPECTED TO FALL BELOW 40° SHALL CONFORM TO ACI 318-II SECTION 5.12, AND ACI 306R-10.

- CONCRETE PLACED DURING HOT WEATHER SHALL CONFORM TO ACI 318-II SECTION 5.13, AND ACI 305R-10.

- CONDUITS AND SLEEVES PLACED WITHIN STRUCTURAL CONCRETE SHALL NOT BE TIED DIRECTLY TO STRUCTURAL REINFORCEMENT.
 - 1" CONCRETE COVER SHALL BE MAINTAINED AROUND ALL REINFORCEMENT.

REINFORCING STEEL

- ALL REINFORCING STEEL SHALL BE DEFORMED INTERMEDIATE GRADE BARS CONFORMING TO ASTM A615, GRADE 60 (F_y = 60 K.S.I.) UNLESS OTHERWISE NOTED.
 - GRADE 40 MAY BE USED FOR #3 BARS.
- REINFORCING STEEL SHALL NOT BE WELDED, UNLESS SPECIFICALLY NOTED OTHERWISE.
- WELDING OF REINFORCING STEEL (WHERE SPECIFICALLY NOTED OR DETAILED) SHALL CONFORM TO ACI 318-II, SECTION 35.2 AND AISC D1.4. WELDED REBAR SHALL BE LOW-ALLOY STEEL CONFORMING TO ASTM A106.
- TO HOLD REINFORCING BARS IN THEIR TRUE POSITION AND PREVENT DISPLACEMENT, STANDARD TIE AND ANCHORAGE DEVICES MUST BE PROVIDED. PLACING OF REINFORCEMENT SHALL CONFORM TO CBC SECTION 1701A.5.
- SHOP DRAWINGS FOR FABRICATION OF ANY REINFORCING STEEL SHALL BE APPROVED BY CONTRACTOR AND SUBMITTED TO ARCHITECT OR ENGINEER, FOR HIS REVIEW PRIOR TO FABRICATION.
- REFER TO TYPICAL DETAILS FOR MINIMUM SPLICE LENGTH AND MINIMUM RADIUS OF BEND, OF REINFORCING STEEL.
- STAGGER SPLICES IN REINFORCING STEEL, UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- FABRICATION, ERECTION AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO CONCRETE REINFORCING STEEL INSTITUTE OF STANDARD PRACTICE.
- ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A185. LAP ALL WIRE MESH TWO MODULES.
- REINFORCING STEEL SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND.

STRUCTURAL STEEL AND WELDING

- ALL STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO AISC 360-10 AND AISC 341-10.
 - FABRICATION OF ALL STRUCTURAL STEEL SHALL BE DONE IN THE SHOP OF AN APPROVED FABRICATOR. INSPECTION AND APPROVAL FOR FABRICATOR'S SHOPS USED FOR FABRICATION OF STRUCTURAL LOAD BEARING MEMBERS, COMPONENTS, MATERIALS OR ASSEMBLIES SHALL CONFORM TO CBC SECTION 1704A.2.
- ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - ANGLES, CHANNELS, PLATES, BARS, ROUNDS, AND OTHER MISCELLANEOUS SHAPES SHALL CONFORM TO ASTM A-36 AND SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 36 K.S.I.
 - WIDE-FLANGE SHAPES SHALL CONFORM TO ASTM A992 AND SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 50 K.S.I.
 - STEEL PIPE COLUMNS SHALL BE WELDED SEAMLESS PIPE CONFORMING TO ASTM, A-53, GRADE B, AND SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 35 K.S.I.
 - STRUCTURAL TUBE COLUMNS SHALL BE ASTM A500 GRADE B, AND SHALL HAVE A MINIMUM YIELD STRESS (F_y) OF 46 K.S.I.
- SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL STRUCTURAL STEEL AND WELDING, IN ACCORDANCE WITH CBC CHAPTER 17A.
- ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED AND WELDING IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS (AISC 360-10) AND CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGE (AISC 303-10).
- ALL WELDING SHALL BE DONE BY QUALIFIED AND CERTIFIED WELDERS.
- NO FIELD WELDING PERMITTED, UNLESS SPECIFICALLY NOTED OTHERWISE.
- SHOP DRAWINGS FOR THE FABRICATION OF ANY STRUCTURAL STEEL SHALL BE APPROVED BY CONTRACTOR AND SUBMITTED TO ARCHITECT OR ENGINEER FOR HIS REVIEW PRIOR TO FABRICATION.
- NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. BURNING OF HOLES IS NOT PERMITTED.
- ALL STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT AND FIELD TOUCHED-UP, AS NECESSARY, WITH APPROVED "ZINC RICH" OR OTHER HIGH QUALITY EXTERIOR PRIMER.
- ALL BOLTS SHALL CONFORM TO ASTM, A-307 (U.N.O.)
- ALL WELDING SHALL CONFORM TO AISC D11 AND D12 SPECIFICATIONS FOR WELDING. (E-TOXX ELECTRODES).
- ALL HEADED STUDS (FOR CONCRETE ANCHORAGE) SHALL BE MANUFACTURED BY NELSON OR APPROVED EQUAL.

ABBREVIATIONS

A.B.	Anchor Bolt	ID	Inside Diameter
ABV.	Above	IN.	Inch, Inches
ADJ.	Adjacent	INT.	Interior
AHJ	Authority Having Jurisdiction	JST.	Joist
AISC	American Institute of Steel Construction	LL	Live Load
AITG	American Institute of Timber Construction	LW	Lightweight
AOR	Architect of Record	LSL	Laminated Strand Lumber
APA	American Plywood Association	LVL	Laminated Veneer Lumber
APPROX.	Approximate(ly)	MAX.	Maximum
ASCE	American Society of Civil Engineers	MB	Machine Bolt
ARCH.	Architect, Architecture	MBM	Metal Building Manufacturer
ASTM	American Society of Testing and Materials	MECH.	Mechanical
		MSE	Mechanically Stabilized Earth
ATR	All Thread Rod	MFR.	Manufactured, Manufacturer
AVS	American Welding Society	MIN.	Minimum
		MPH	Miles per Hour
		MTL.	Metal
BLDG.	Building	(N)	New
BLK.	Block	N.T.S.	Not to Scale
BLKD.	Blocked		
BLK/G	Blocking		
BM.	Beam	o.c.	On Center
B.O.	Bottom of _____	o/	Over
BOT.	Bottom	OD	Outside Diameter
BRS.	Bearing	OSB	Oriented Strand Board
b/t	Between	OSHPD	Office of State Health Planning and Development
		OWSJ	Open Web Steel Joist
CANT.	Can/blew	PEN.	Penetration
CBC	California Building Code	PL	Plate
CIP	Cast-in-place	PLYND.	Plywood
CJ	Control Joint	PJP	Partial Joint Penetration
CJP	Complete Joint Penetration	PSI	Pounds per Square Inch
C.	Centerline	PSF	Pounds per Square Foot
CLR.	Ceiling	PSL	Parallel Strand Lumber (Flatsawn)
CMU	Concrete Masonry Unit	PEMB	Pre-Engineered Metal Building
COL.	Column	PERF.	Perforated
CONC.	Concrete	PTDF	Pressure Treated Douglas Fir
CONN.	Connection	FW	Fuddle Weld
CONST.	Construction		
CONT.	Continue, Continuous	Q.D.	Quality Assurance
		Q.C.	Quality Control
ø	Diameter		
dbl.	Double	RBS	Reduced Beam Section
DCM	Demand Critical Weld	REWOOD	Re-wood
DET.	Detail	REBAR	Reinforcing Bar
DEMO	Demolition	REINF.	Reinforcement
DF	Douglas Fir	RET.	Retaining
DIAG.	Diagonal	REQ'D	Required
DL	Dead Load		
DSA	Division of State Architect	S.F.	Square Feet
DWGS.	Drawings	SHT.	Sheet
		SHT'G	Sheathing
EA.	Each	SIM.	Similar
ELEC.	Electric, Electrical	SLRS	Seismic Load Resisting System
ELEV.	Elevation		
EMBED.	Embedded, Embedment	SMS	Sheet Metal Screw
E.N.	Edge Nailing	SQ.	Square
EOR	Engineer of Record	S	Select Structural
EQ.	Equal	STAGGD	Staggered Standard
EQUIP.	Equipment	STD.	Standard
E.W.	Each Way	STL.	Steel
(E)	Existing	SW	Shearwall
EXT.	Exterior	SEOR	Structural Engineer of Record
		SIP	Structural Insulated Panel
GA.	Gauge	UNBLKD.	Unblocked
GA/V.	Galvanized	U.N.O.	Unless Noted Otherwise
GEOR.	Geotechnical Engineer of Record	URM	Unreinforced Masonry
		VERT.	Vertical
GLB	Glued-Laminated Beam	VIF	Verify in Field
GYP. BD.	Gypsum Board		
HDR.	Header	w/	With
HD.	Holdown	w/c	Water/Cement Ratio
HORIZ.	Horizontal	WD.	Wood
HSS	Hollow Steel Section	W.P.	Working Point
HT.	Height	W.S.M.F.	Welded Steel Moment Frame
		WS	Welded Steel Stud
IBC	International Building Code	WM	Welded Wire Mesh
ICC	International Code Council		
ICF	Insulated Concrete Form		

PRIME CONSULTANT

ARCHITECTURE PLANNING

IBI San Luis Obispo
4119 Broad Street, Suite 210
San Luis Obispo, CA 93401
805.546.0433 fax: 805.546.0504
ibigroup.com

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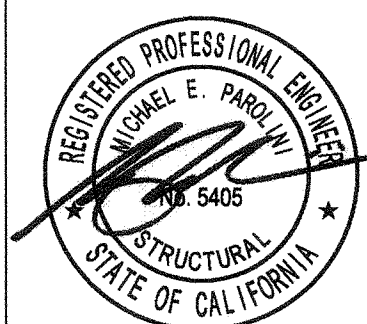
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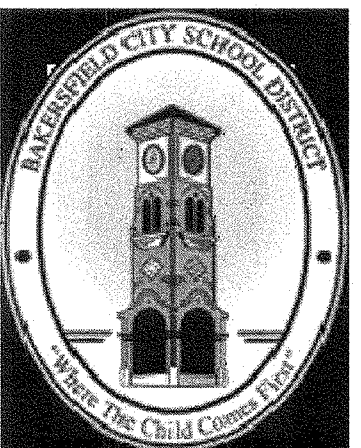
SMITH STRUCTURAL GROUP, LLP
811 E. Cochran Way, Suite 240 | 805-439-2330
San Luis Obispo, CA 93401 | smithstructural.com
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NEW MARQUEE AT FRANKLIN ELEMENTARY SCHOOL

2400 TRUXTON AVENUE BAKERSFIELD, CA 93306

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SHEET TITLE

STRUCTURAL NOTES

SHEET NUMBER

S1.11