_GENERAL STRUCTURAL NOTES.

A. GENERAL

- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKMEN WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- 2. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, LAGGING, SHORING, BRACING, FORM-WORK, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS NOTED HEREIN IS NOT EXCEEDED.
- 3. DESIGN OF ITEMS NOT PART OF THE PRIMARY STRUCTURAL SYSTEM (SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS) AND PREFABRICATED STRUCTURAL ITEMS (SUCH AS FLOOR, ROOF TRUSSES) SHALL BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS. REFER TO SUBMITTALS SECTION FOR ITEMS THAT MUST BE SUBMITTED FOR REVIEW AND FOR SUBMITTAL REQUIREMENTS.
- 4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH ARCH'L. DRAWINGS AND RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCH'L., MECH., PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
- 5. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.
- 6. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.
- STANDARDS AND CODE REFERENCES NOTED IN THESE CONSTRUCTION DOCUMENTS REFER TO THE EDITIONS ADOPTED BY THE BUILDING CODE SPECIFIED IN THE BASIS FOR DESIGN. REFERENCES NOT SPECIFICALLY ADOPTED BY SAID BUILDING CODE REFER TO THE LATEST EDITION.
- 8. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, JURISDICTION, OR THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION.

<u>B. Basis for Design</u>

2 (1.	BUILDING CODE:	COUNTY OF LOS ANGELES BUILDING	# CODE 2017
	ROOF LOADS:	DEAD LOAD: 18 PSF	LIVE LOAD (REDUCIBLE): 20 PSF

MEZZANINE LOADS: DEAD LOAD: LIVE (LIGHT STORAGE) LOADS

4.	WIND LOADS:	110 MPH ULTIMATE WIND SPEED EXPOSURE C INTERNAL PRESSURE COEFFICIENT (GCPI) = 0.18	COMPONENT AND CLADDING WIND PRESSURE PER ASCET-10
5.	SEISMIC LOADS:	SITE CLASS D SEISMIC DESIGN CATEGORY E R = 4.0	SYSTEM: SPECIAL REINFORCED CONCRETE SHEAR WALLS

SEISMIC IMPORTANCE FACTOR = 1.0

ANALYSIS: EQUIVALENT

LATERAL FORCE PROCEDURE

BASE SHEAR, V = CsW = 0.361 W

9 = 0.769SDS = 1.4435D1 = 0.7696. SNOW LOADS:

RISK CATEGORY II

55 = 2.164

C. FOUNDATION

CATEGORY:

T. RISK

- FOUNDATIONS DESIGNED PER RECOMMENDATIONS BY ASSOCIATED SOILS ENGINEERING, INC., REPORT NO. 6752,17, DATED SEPT. 14, 2017, SITE PREPARATION, GRADING, TESTS. INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER RECOMMENDED BY THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS.
- ALLOWABLE DEAD PLUS LIVE LOAD SOIL PRESSURE = 2200 PSF.
- 3. TRENCHES AND EXCAYATIONS UNDER OR ADJACENT TO FOUNDATIONS SHALL BE PROPERLY BACKFILLED AND COMPACTED.
- 4. REFER TO GEOTECHNICAL REPORT FOR ON-SITE SOIL CORROSION POTENTIAL ON METAL CONSTRUCTION MATERIALS. CONSULT A QUALIFIED CORROSION ENGINEER FOR RECOMMENDATIONS FOR MITIGATING CORROSIVE EFFECTS, IF NECESSARY.
- 5. WATER PROOFING AS MAY BE REQUIRED AT SOIL FACE OF WALLS BELOW GRADE SHALL BE BY OTHERS.

D. CONCRETE

- 1. ALL CONCRETE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318 AND ACI 301, EXCEPT AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
- 2. MIN. 28 DAY COMPRESSIVE STRENGTH, F'C, AND LARGEST NOMINAL AGGREGATE SIZE SHALL BE AS NOTED BELOW. MAX. WATER/CEMENT RATIO FOR CONCRETE IN CONTACT WITH SOIL SHALL BE 0.45.

LOCATION IN STRUCTURE:	STRENGTH (PSI):	LARGEST AG	GREGATE SIZE:
FOOTING/MATS/GRADE BEAMS	45 <i>00</i>	3/4" MIN.	1 1/2" MAX.
SLABS ON GRADE	45 <i>00</i>	1 1/2" MIN.	1 3/4" MAX.
WALLS	45 <i>00</i>	3/4" MIN.	1" MAX.

- 3. MIN. 28 DAY COMPRESSIVE STRENGTH, f'c, SHALL BE 4500 PSI AND MAX. WATER/CEMENT RATIO SHALL BE 0.45 FOR ALL CONCRETE. (FOUNDATION DESIGN BASED ON 2500 PSI.)
- 4. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY, STAMPED BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER, AND APPROVED BY THE ENGINEER OF RECORD. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE THEIR USE WITHIN THE STRUCTURE. MIX DESIGNS SHALL BE PROPORTIONED TO MINIMIZE SHRINKAGE AND HAVE PROVEN SHRINKAGE CHARACTERISTICS OF 0.05% OR LESS BASED ON TESTING PER ASTM C151.
- 5. IF USED, EARLY STRENGTH CONCRETE SHALL BE PROPORTIONED TO DEVELOP THE 28 DAY COMPRESSIVE STRENGTH AT THE AGE REQUIRED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT TEST DATA FOR REVIEW BY THE STRUCTURAL ENGINEER TO SUBSTANTIATE THE CONCRETE STRENGTH AT THE REQUIRED AGE.
- 6. ALL CONCRETE SHALL BE NORMAL WEIGHT OF 145 POUNDS PER CUBIC FOOT USING HARD ROCK AGGREGATES CONFORMING TO ASTM C33 UN.O. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, CONCRETE SHALL BE 110 POUNDS PER CUBIC FOOT USING AGGREGATES CONFORMING TO ASTM C330.
- 7. MAX, SLUMP SHALL BE 5 INCHES (EXCEPTION: WHERE ADMIXTURES/PLASTICIZERS HAVE BEEN INCLUDED IN MIX DESIGN TO IMPROVE WORKABILITY, SLUMP LIMIT SHALL BE BASED ON ADMIXTURE MFR.'S RECOMMENDATIONS). MIX WATER SHALL BE CLEAN AND

D. CONCRETE (CONT'D)

- 8. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH EARTH, TYPE II CEMENT MAY BE USED ELSEWHERE. CEMENT SHALL BE TYPE Y WITH POZZOLAN WHERE CONCRETE IS IN CONTACT WITH SOIL CONTAINING VERY SEVERE SULFATE EXPOSURE.
- 9. FLY ASH MAY BE USED IN CONCRETE, SUBJECT TO APPROVAL BY THE ARCHITECT, PROVIDED THE FOLLOWING CONDITIONS ARE MET:
- 9.1. FLY ASH SHALL COMPLY WITH ASTM C618.
- 9.2. CEMENT CONTENT SHALL BE REDUCED A MINIMUM OF 15 PERCENT UP TO A MAXIMUM OF 25 PERCENT WHEN COMPARED TO AN EQUIVALENT CONCRETE MIX DESIGN WITHOUT FLY ASH. FLY ASH CONTENT SHALL NOT COMPRISE MORE THAN 35 PERCENT OF THE TOTAL CEMENTITIOUS CONTENT. THE WATER-CEMENT RATIO SHALL BE CALCULATED BASED ON THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX.
- 9.3. CLASS F FLY ASH SHALL BE USED IN SULFATE RESISTANT CONCRETE WITH 1'C EQUAL TO OR GREATER THAN 4000 PSI. CLASS C FLY ASH MAY BE USED ELSEWHERE.
- 10. WATER SOLUBLE CHLORIDE ION CONCENTRATIONS IN CONCRETE SHALL BE LIMITED PER ACI 318, SECTION 19.3.2.1, EXPOSURE CLASS "C1".
- 11. TIME BETWEEN CONCRETE BATCHING AND PLACEMENT SHALL BE IN ACCORDANCE WITH
- 12. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER ACI 318. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. SLABS ON GRADE NEED BE VIBRATED ONLY AROUND AND UNDER FLOOR DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES. UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET.
- 13. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO COLD OR HOT WEATHER IN ACCORDANCE WITH ACI 305 AND 306. CONTRACTOR SHALL TAKE SPECIAL CURING PRECAUTIONS TO MINIMIZE SHRINKAGE CRACKING OF CONCRETE SLABS.
- 14. ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCEMENT, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS.
- 15. MECH., ELECT., AND PLUMBING PENETRATIONS / EMBEDDED CONDUITS SHALL COMPLY WITH THE FOLLOWING:
- 15.1. ELECTRICAL CONDUITS MAY BE EMBEDDED IN STRUCTURAL CONCRETE ONLY AS NOTED IN TYPICAL DETAILS FOR WALLS AND CAST-IN-PLACE ELEVATED SLABS (EMBEDDED CONDUITS IN CONCRETE OVER STEEL DECK ARE NOT PERMITTED) OR WHERE SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER PIPING SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE UN.O. EMBEDDED ITEMS SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.
- 152. REFER TO TYPICAL DETAILS FOR ACCEPTABLE CONDUIT, PIPING, AND DUCT PENETRATIONS THRU SLABS AND WALLS. DO NOT CUT ANY REINF, THAT MAY INTERFERE WITH PERMITTED PENETRATIONS, OPENINGS SHALL NOT BE CORED WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER THRU THE ARCHITECT. PENETRATIONS THRU BEAMS AND COLUMNS ARE PERMITTED ONLY WHERE SPECIFICALLY DETAILED.
- 15.3. CONTRACTOR SHALL SUBMIT SHOP DRAWING SHOWING SIZES AND DIMENSIONED LOCATIONS OF ALL PENETRATIONS AND EMBEDDED CONDUITS IN WALLS AND ELEVATED SLABS. SHOP DRAWING MUST BE APPROVED BY ENGINEER PRIOR TO CONCRETE PLACEMENT. PENETRATIONS AND EMBEDDED CONDUITS NOT SHOWN ON APPROVED SHOP DRAWING WILL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER
- 16. CONSTRUCTION JOINT SURFACES SHALL BE CLEANED AND LAITANCE REMOVED. HORIZONTAL JOINT SURFACES SHALL BE ROUGHENED TO 1/4" AMPLITUDE. THOROUGHLY WET ALL JOINT SURFACES AND REMOVE STANDING WATER IMMEDIATELY PRIOR TO NEW CONCRETE PLACEMENT.
- 17. CONCRETE SHALL BE CURED IN ACCORDANCE WITH ACI 318, SECTION 26.5.3.2, UNLESS ALTERNATE METHODS HAVE BEEN APPROVED BY THE ARCHITECT AND ENGINEER. WHERE CURING COMPOUNDS HAVE BEEN APPROVED FOR SLAB CURING, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPATIBILITY OF COMPOUNDS WITH ANTICIPATED FLOOR FINISH (e.g., RESILIENT TILE) PRIOR TO CURING COMPOUND
- 18. GROUT BENEATH COLUMN BASES OR BEARING PLATES SHALL BE 5000 PSI (MIN.) NON-SHRINK FLOWABLE GROUT OR DRYPACK. INSTALL GROUT BENEATH BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT BENEATH BASE PLATES AFTER COLUMN HAS BEEN PLUMBED. FRAMING (NOT INCLUDING CONCRETE OVER STEEL DECK OR CONCRETE TOPPING AS OCCURS) MAY BE INSTALLED ONE LEVEL ABOVE BASE PLATE PRIOR TO PLACING GROUT BENEATH BASE PLATES. GROUT SHALL BE PLACED BENEATH BASE PLATES PRIOR TO INSTALLATION OF ANY FRAMING TWO OR MORE LEVELS ABOVE BASE PLATE. GROUT DEPTH SHALL BE 1 1/2" TYPICAL, OR SHALL BE SUFFICIENT TO ALLOW GROUT OR DRYPACK TO BE PLACED BENEATH PLATE WITHOUT YOIDS.
- 19. GROUT BENEATH TILT-UP, SITE CAST, OR PRECAST WALL PANELS SHALL BE NON-SHRINK FLOWABLE GROUT OR DRYPACK WITH COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN WALL PANELS. PLACE GROUT BENEATH WALLS AS SOON AS POSSIBLE AFTER WALLS ARE PLUMBED AND RESTRAINED AND BEFORE FULL DEAD LOAD FROM STRUCTURE IS IN PLACE. AT CONTRACTOR'S OPTION, PEA GRAVEL MIX (3/8" MAX. AGGREGATE) WITH MIN. COMPRESSIVE STRENGTH TO MATCH OR EXCEED GROUT MAY BE VIBRATED UNDER PANELS TO OBTAIN FULL BEARING CONTACT BETWEEN PANEL AND FOOTING, PROVIDED GAP BENEATH PANELS EXCEEDS 3/4" AT ALL LOCATIONS.

E. REINFORCING STEEL

- REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318 AND CRSI'S MANUAL OF STANDARD PRACTICE.
- 2. ALL SHEARWALL/TILT-UP JAMB REINFORCING, BEAM AND COLUMN LONGITUDINAL REINFORCING, AND REINFORCING TO BE WELDED SHALL CONFORM TO ASTM AT06 (EXCEPTION: ASTM A615 STEEL IS PERMITTED IN THESE MEMBERS, EXCLUDING REINFORCING TO BE WELDED, IF MILL TESTS SHOW THAT ACTUAL YIELD STRENGTH DOES NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI AND RATIO OF ACTUAL ULTIMATE TENSILE STRENGTH TO ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25). ALL OTHER REINFORCING STEEL SHALL CONFORM TO ASTM AG15. REINFORCING SHALL BE GRADE 60 (fy = 60 KSI) DEFORMED BARS UN.O. REINFORCING IN SLABS ON GRADE MAY BE GRADE 40 (fy = 40 KSI) DEFORMED BARS FOR BARS *4 AND SMALLER UN.O. ON PLANS OR DETAILS.
- 5. RECTANGULAR PLATE DOWELS AND SMOOTH ROUND DOWELS USED AT CONTROL AND CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL CONFORM TO ASTM A36. REFER TO TYPICAL CONTROL JOINTS IN SLAB ON GRADE DETAIL FOR SIZE, PLACEMENT, SPACING, ETC. RECTANGULAR PLATE DOWELS SHALL BE BY PNA CONSTRUCTION TECHNOLOGIES (800-542-0214) OR OTHER MFR. APPROVED BY ENGINEER. INSTALL ALL PLATE DOWEL BASKET ASSEMBLIES PER MFR.'S RECOMMENDATIONS.
- 6. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. CLEAR COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS NOTED BELOW, UN.O. ON PLANS OR DETAILS. CLEAR COVER FOR PRESTRESSED CONCRETE AND FOR PRECAST CONCRETE MANUFACTURED UNDER PLANT CONTROL CONDITIONS SHALL BE PER ACI 318, SECTIONS 20.6.1.3.2 AND 20.6.1.3.3, RESPECTIVELY.

3/4"

1 1/2"

1 1/2"

EXPOSURE CONDITION:	COVER
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"

EXPOSED TO EARTH OR WEATHER (INCLUDING SLABS ON GRADE) NO. 5 AND SMALLER 1 1/2" NO. 6 AND LARGER

NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND STRUCTURAL SLABS, WALLS, JOISTS NO. 11 AND SMALLER NO. 14 AND LARGER BEAMS, COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS)

E. REINFORCING STEEL (CONT'D)

- 7. LAP SPLICES OF REINFORCING STEEL SHALL CONFORM TO TYPICAL REBAR LAP SCHEDULE UN.O. NO TACK WELDING OF REINFORCING BARS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLY. AT WALLS AND FOOTINGS, PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZ. BARS AT ALL CORNERS AND INTERSECTIONS UN.O. VERT. WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC., UN.O. ON PLANS OR DETAILS.
- 8. MECHANICAL SPLICE COUPLERS SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE SPLICED BAR'S YIELD STRENGTH.
- 9. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE UN-BENT AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED.
- 10. WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS. SEE WELDING SECTION OF G.S.N. FOR ADDITIONAL REQUIREMENTS.
- 11. REINFORCING BAR SPACINGS SHOWN ON PLANS ARE MAX. ON CENTER DIMENSIONS. DOWEL ALL YERT, REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. MIN. CLEAR SPACING BETWEEN PARALLEL REINFORCEMENT SHALL BE THE LARGER OF 1-1/2 TIMES NOMINAL BAR DIA. OR 1-1/3 TIMES MAX. AGGREGATE SIZE OR 1-1/2". CLEAR SPACING LIMITATION APPLIES ALSO TO CLEAR DISTANCE BETWEEN A CONTACT LAP SPLICE AND ADJACENT SPLICES OR BARS.
- 12. SHEAR REINFORCEMENT AT SLAB TO COLUMN CONNECTIONS, AS SHOWN ON THE PLANS AND DETAILS, SHALL BE STUDRAILS AS MANUFACTURED BY DECON PER ICC ESR-2494.

F. STRUCTURAL STEEL

STRUCTURAL STEEL MEMBERS SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UN.O:

SHAPE:	STANDARD:	Fy:
ROLLED WIDE FLANGE SECTIONS OTHER STANDARD STEEL SHAPES AND ROLLED SECTIONS	АЭТМ АЭЭ2 АЭТМ АЗ6	50 KSI 36 KSI
BARS AND PLATES	ASTM A36 OR	36 KSI
	ASTM A572, GRADE 50 (WHERE NOTED)	50 KSI
PIPES	ASTM A53, GRADE B	35 KSI
HSS (RECT.)	ASTM A500, GRADE B OR ASTM A1085	46 KSI (
HSS (ROUND)	ASTM A500, GRADE B OR ASTM A1085	42 KSI (1

- 2. ASTM A6 HOT-ROLLED SHAPES WITH FLANGE THICKNESS EXCEEDING 2" SHALL BE SUPPLIED WITH CHARPY V-NOTCH TESTING IN ACCORDANCE WITH ASTM A6, SUPPLEMENTARY REQUIREMENT 630. IMPACT TESTS SHALL MEET A MINIMUM AVERAGE TOUGHNESS OF 20 FT-LB AT +70 °F. SPLICES, WELD ACCESS HOLES, COMPATIBLE WELDING PROCEDURES, WELDING PREHEAT REQUIREMENTS, AND THERMAL CUT SURFACE PREPARATION AND INSPECTION SHALL BE MADE IN ACCORDANCE WITH SECTIONS J15, J16, J26, AND M2.2 OF AISC 360. WELD TABS AND BACKING AT SPLICES SHALL BE REMOVED AND THE SURFACES GROUND SMOOTH.
- 3. ALL STRUCTURAL AND MISC. STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC 303 AND SHALL BE COMPLETED BY AN "APPROVED STEEL FABRICATOR." SHOP DRAWINGS AND ERECTION DRAWINGS SHALL INCLUDE ALL ITEMS AS REQUIRED BY AISC 360, SECTION MI.
- 4. SHEAR CONNECTORS (SUCH AS HEADED STEEL STUDS, STEEL BARS, OR STEEL LUGS), REINFORCING BARS, DEFORMED ANCHORS, OR THREADED STUDS SHALL NOT BE ATTACHED TO THE TOP FLANGES OF BEAMS, JOISTS, OR BEAM ATTACHMENTS SO THAT THEY PROJECT VERTICALLY FROM OR HORIZONTALLY ACROSS THE TOP FLANGE OF THE MEMBER UNTIL AFTER THE METAL DECKING, OR OTHER WALKING/WORKING SURFACE, HAS BEEN INSTALLED.
- 5. SEE CONCRETE SECTION OF G.S.N. FOR GROUTING REQUIREMENTS BENEATH COLUMN BASES AND BEARING PLATES.
- 6. MEMBERS AND CONNECTIONS INCLUDED IN THE SEISMIC LOAD RESISTING SYSTEM (SLRS) ARE IDENTIFIED ON THESE DRAWINGS BY THE SYMBOL BLRS . SUCH MEMBERS AND CONNECTIONS SHALL BE SUBJECT TO REQUIREMENTS NOTED BELOW AND TO SPECIAL REQUIREMENTS NOTED IN STRUCTURAL STEEL WELDING AND BOLTING SECTIONS
- 6.1. ALL STRUCTURAL STEEL USED IN THE SLRS SHALL MEET THE REQUIREMENTS OF AISC 341, SECTION A3.1.
- 62. IN ADDITION TO THE REQUIREMENTS OF AISC 360, SECTION A3.1c, HOT-ROLLED SHAPES WITH FLANGES 1 1/2" THICK AND THICKER SHALL HAVE A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB AT +70° F, TESTED IN THE ALTERNATE CORE LOCATION AS DESCRIBED IN ASTM A6 SUPPLEMENTARY REQUIREMENT \$30. PLATES 2" THICK AND THICKER THAT ARE USED IN THE APPLICATIONS LISTED BELOW SHALL ALSO MEET THIS CVN TOUGHNESS REQUIREMENT, AS MEASURED AT ANY LOCATION PERMITTED BY ASTM A673, FREQUENCY P.
- MEMBERS BUILT-UP FROM PLATE
 - 2. CONNECTION PLATES 3. STEEL CORE OF BUCKLING-RESTRAINED BRACES

SHOP DRAWINGS AND ERECTION DRAWINGS SHALL INCLUDE THE FOLLOWING, AS APPLICABLE, IN ADDITION TO THE ITEMS REQUIRED BY AISC 360, SECTION MI:

- DESIGNATION OF MEMBERS AND CONNECTIONS INCLUDED IN THE SLRS
- CONNECTION MATERIAL SPECIFICATIONS AND SIZES
- 3. LOCATIONS OF "DEMAND CRITICAL" WELDS 4. LOCATIONS AND DIMENSIONS OF PROTECTED ZONES, AS DEFINED IN SLRS DETAILS
- 5. GUSSET PLATES DRAWN TO SCALE 6. LOCATIONS OF PRETENSIONED BOLTS

ON STRUCTURAL DRAWINGS

- 1. CONNECTION DETAILS BETWEEN CONCRETE FLOOR DIAPHRAGMS AND THE STRUCTURAL STEEL ELEMENTS OF THE SLRS
- 8. CONFIGURATION OF CONNECTIONS 9. LOCATIONS OF CLASS A, OR HIGHER, FAYING SURFACES
- 10. LOCATIONS OF CONNECTION PLATES REQUIRING CHARPY V-NOTCH (CVN) TOUGHNESS IN ACCORDANCE WITH AISC 341, SECTION A3.3 6.4. II. LOWEST ANTICIPATED SERVICE TEMPERATURE OF THE STEEL STRUCTURE
- 12. SPLICE LOCATIONS WHERE TAPERED TRANSITIONS ARE REQUIRED 13. SHOP/ERECTION DRAWING REQUIREMENTS NOTED IN STRUCTURAL WELDING SECTION
- 6.4.1. OF G.S.N. PROTECTED ZONES SHALL CONFORM TO THE FOLLOWING (REFER ALSO TO REQUIREMENT
- NOTED IN STRUCTURAL STEEL WELDING SECTION): 6.42. DISCONTINUITIES CREATED WITHIN THE PROTECTED ZONE BY FABRICATION OR ERECTION
- OPERATIONS, SUCH AS HOLES, TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING AND UNSPECIFIED THERMAL CUTTING SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER
- HEADED STEEL STUDS AND DECKING ATTACHMENTS THAT PENETRATE THE BEAM FLANGE SHALL NOT BE PLACED ON BEAM FLANGES WITHIN THE PROTECTED ZONE, ARC SPOT WELDS AS REQUIRED TO SECURE STEEL DECK SHALL BE PERMITTED.
- 6.4.3. WELDED, BOLTED, SCREWED, OR SHOT-IN ATTACHMENTS FOR PERIMETER EDGE ANGLES, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE PROTECTED ZONE. THE CONTRACTOR OR FABRICATOR SHALL CLEARLY MARK THE PROTECTED ZONE TO ENGURE OBSERVANCE OF THIS REQUIREMENT BY OTHER TRADES.
- 65. CORNERS OF CONTINUITY PLATES AND STIFFENERS PLACED IN THE WEBS OF ROLLED SHAPES SHALL BE DETAILED IN ACCORDANCE WITH AWS DIS CLAUSE 4.1.
- 66. REDUCED BEAM SECTIONS (RBS) SHALL BE FABRICATED IN ACCORDANCE WITH THE FOLLOWING:

E. REINFORCING STEEL (CONT'D)

- 66.1. THE RBS SHALL BE MADE USING THERMAL CUTTING TO PRODUCE A SMOOTH CURVE. THE MAXIMUM SURFACE ROUGHNESS OF THE CUT SURFACE SHALL BE 500 MICRO-INCHES IN ACCORDANCE WITH ANSI 1846.1, AS MEASURED USING AWS C4.1-77 SAMPLE 4 OR SIMILAR VISUAL COMPARATOR ALL TRANSITIONS BETWEEN THE RBS AND UNMODIFIED BEAM FLANGE SHALL BE ROUNDED IN THE DIRECTION OF THE FLANGE LENGTH TO MINIMIZE NOTCH EFFECTS DUE TO ABRUPT TRANSITIONS. CORNERS BETWEEN THE REDUCED SECTION SURFACE AND THE TOP AND BOTTOM OF THE FLANGES SHALL BE GROUND TO REMOVE SHARP EDGES, BUT A MINIMUM CHAMFER OR RADIUS IS NOT REQUIRED.
- 6.6.2. THERMAL CUTTING TOLERANCES SHALL BE +/- 1/4" FROM THE THEORETICAL CUT LINE. THE BEAM EFFECTIVE FLANGE WIDTH AT ANY SECTION SHALL HAVE A TOLERANCE OF +/-
- 663.GOUGES AND NOTCHES THAT OCCUR IN THE THERMALLY CUT RBS SURFACE MAY BE REPAIRED BY GRINDING IF NOT MORE THAN 1/4" DEEP. GOUGED OR NOTCHED AREAS SHALL BE FAIRED BY GRINDING SO THAT A SMOOTH TRANSITION EXISTS, AND THE TOTAL LENGTH OF THE AREA GROUND FOR THE TRANSITION SHALL BE NO LESS THAN 5xTHE DEPTH OF THE REMOVED GOUGE ON EACH SIDE OF THE GOUGE. IF A SHARP NOTCH EXISTS, THE AREA SHALL BE INSPECTED BY MAGNETIC PARTICLE TESTING (MT) AFTER GRINDING TO ENSURE THAT THE ENTIRE DEPTH OF THE NOTCH HAS BEEN REMOVED. GRINDING THAT INCREASES THE DEPTH OF THE RBS CUT MORE THAN 1/4" BEYOND THE SPECIFIED DEPTH OF CUT IS NOT PERMITTED.
- 66.4.GOUGES AND NOTCHES THAT EXCEED 1/4" IN DEPTH, BUT NOT EXCEEDING 1/2" IN DEPTH, AND THOSE NOTCHES AND GOUGES WHERE REPAIR BY GRINDING WOULD INCREASE THE EFFECTIVE DEPTH OF THE RBS CUT BEYOND TOLERANCE, MAY BE REPAIRED BY WELDING. THE NOTCH OR GOUGE SHALL BE REMOVED AND GROUND TO PROVIDE A SMOOTH RADIUS OF NOT LESS THAN 1/4" IN PREPARATION FOR WELDING. THE REPAIR AREA SHALL BE PREHEATED TO A TEMPERATURE OF +150° F OR THE VALUE SPECIFIED IN AWS D1.1, WHICHEVER IS GREATER, MEASURED AT THE LOCATION OF THE WELD REPAIR.
- 665.NOTCHES AND GOUGES EXCEEDING 1/2" IN DEPTH SHALL BE REPAIRED ONLY WITH A METHOD APPROVED BY THE ENGINEER OF RECORD.

G. STRUCTURAL STEEL WELDING

- ALL WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AISC 360, SECTION J2 AND FOLLOW THE PREQUALIFIED JOINT DETAILS INCLUDED THEREIN. WELDING OF JOINTS THAT INCLUDE REINFORCING STEEL SHALL CONFORM TO AWS D1.4.
- 2. WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAYING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. ALL COMPLETE-JOINT-PENETRATION (CJP) WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
- 3. ALL WELDING SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.1, TABLE 3.1, WITH A MIN. TENSILE STRENGTH OF 70 KSI UN.O. WELDS BETWEEN REINFORCING BARS SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.4, TABLE 5.1, WITH A MIN. TENSILE STRENGTH OF 90 KSI UN.O. (MIN. TENSILE STRENGTHS FOR FILLER METALS USED IN WELDS BETWEEN REINFORCING BARS AND STRUCTURAL STEEL MAY BE 10 KSI).
- 4. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. THE WPS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW PRIOR TO FABRICATION AND ERECTION. COPIES OF THE WPS SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND THE SPECIAL INSPECTOR.
- 5. WELD LENGTHS CALLED OUT ON PLANS OR DETAILS ARE MINIMUM NET EFFECTIVE LENGTHS UN.O.
- 6. ALL MISC. FILLET WELDS NOT NOTED, INCLUDING THOSE FOR STIFFENERS, MISC. PLATES, ETC., SHALL BE PER AISC 360, TABLE J2.4.
- 7. WELDS SHALL BE SEQUENCED TO MINIMIZE RESIDUAL STRESS DUE TO WELD SHRINKAGE.

8. MEMBERS AND CONNECTIONS INCLUDED IN THE SEISMIC LOAD RESISTING SYSTEM

- (SLRS) SHALL BE SUBJECT TO AWS DIS AND THE REQUIREMENTS NOTED BELOW. 8.I. CONTRACTOR DOCUMENTS (SUBMITTAL DOCUMENTS ONLY) NOTED IN AISC 341, SECTION J2.1 AND J2.3 SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR
- TO FABRICATION OR ERECTION, AS APPLICABLE. 82. ALL WELDS SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS WITH A CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB AT 0 °F AS DETERMINED BY THE APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER
- 83. WELDS DESIGNATED AS "DEMAND CRITICAL" SHALL COMPLY WITH THE FOLLOWING:
- 8.3.1. WELDS SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CVN TOUGHNESS OF 40 FT-LB AT +70° F, AS DETERMINED BY THE APPROPRIATE AWS AS CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION, WHEN THE STEEL FRAME IS NORMALLY ENCLOSED AND MAINTAINED AT A LOWEST ANTICIPATED SERVICE TEMPERATURE OF +50° F OR HIGHER. FOR STRUCTURES WITH SERVICE TEMPERATURES LOWER THAN +50° F, THE TEST TEMPERATURE SHALL BE 20° F ABOVE THE LOWEST ANTICIPATED SERVICE TEMPERATURE INDICATED ON THE DRAWINGS, OR AT A LOWER TEMPERATURE.
- 832. SMAW ELECTRODES CLASSIFIED IN AWS 5.1 AS E7018 OR E7018-X, SMAW ELECTRODES CLASSIFIED IN AWS 5.5 AS ETO18-C3L OR E8018-C3, AND ER70 AND ER80 GMAW SOLID ELECTRODES ARE EXEMPTED FROM PRODUCTION LOT TESTING WHEN THE CVN TOUGHNESS OF THE ELECTRODE EQUALS OR EXCEEDS 20 FT-LB AT A TEMPERATURE NOT EXCEEDING 0° F AS DETERMINED BY AWS AS CLASSIFICATION TEST METHODS AND THE LOWEST ANTICIPATED SERVICE TEMPERATURE IS GREATER THAN OR EQUAL TO +50° F. THE MANUFACTURER'S CERTIFICATE OF CONFORMANCE SHALL BE CONSIDERED SUFFICIENT EVIDENCE OF MEETING THIS REQUIREMENT.
- 8.4. SHOP DRAWINGS AND ERECTION DRAWINGS SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING INFORMATION:
- ACCESS HOLE DIMENSIONS, SURFACE PROFILE AND FINISH REQUIREMENTS 2. LOCATIONS WHERE BACKING BARS ARE TO BE REMOVED

3. LOCATIONS WHERE WELD TABS ARE TO BE REMOVED

- 4. NON-DESTRUCTIVE TESTING (NDT) TO BE PERFORMED BY THE FABRICATOR, IF ANY 5. LOCATIONS WHERE SUPPLEMENTAL FILLETS ARE REQUIRED WHEN BACKING IS
- PERMITTED TO REMAIN 6. THOSE JOINTS OR GROUPS OF JOINTS IN WHICH A SPECIFIC ASSEMBLY ORDER, WELDING SEQUENCE, WELDING TECHNIQUE OR OTHER SPECIAL PRECAUTIONS ARE
- 1. LOCATIONS WHERE FILLET WELDS ARE REQUIRED TO REINFORCE GROOVE WELDS OR TO IMPROVE CONNECTION GEOMETRY 85. AT PROTECTED ZONES, AS DEFINED IN THE SLRS DETAILS, TACK WELDS ATTACHING

BACKING AND WELD TABS FOR CJP WELDS SHALL BE PLACED WHERE THEY WILL BE

METAL NEED NOT BE REMOVED CLOSER THAN 1/4" FROM THE CONTINUITY PLATE EDGE.

- INCORPORATED INTO A FINAL WELD. 86. WELD TABS SHALL BE IN ACCORDANCE WITH AWS DIS CLAUSE 6.10, EXCEPT AT THE OUTBOARD ENDS OF CONTINUITY-PLATE-TO-COLUMN WELDS, WELD TABS AND WELD
- 8.7. AWS D1.8 CLAUSES RELATING TO FABRICATION SHALL APPLY EQUALLY TO SHOP FABRICATION WELDING AND TO FIELD ERECTION WELDING.

STANDARD ABBREVIATIONS

ACI

A.C.S.

AISC

ANSI

B.F.

B.F.F.

BOT.

BRG.

CLR

CONT.

CRSI

DIAG.

DWG.

ELECT.

E.O.R.

EQ.

E.W.

FLR.

FTG.

GA.

GLB

G.S.N.

HORIZ.

G.T.

HSS

BC

FT.

EF.

ARCH'L.

ANCHOR BOLT AMERICAN CONCRETE INSTITUTE ALL COMMON SURFACES AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL INSTITUTE ALTERNATE AMERICAN NATIONAL STANDARDS INSTITUTE ANCHOR ROD ARCHITECTURAL AMERICAN SOCIETY FOR TESTING	0, 0, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	INSIDE DIAMETER INFORMATION JOINT KIP (1,000 LBS) KNOCKOUT KIPS PER SQUARE INCH LONG LEG HORIZONTAL LONG LEG VERTICAL LAMINATED STRAND LUMBER LAMINATED VENEER LUMBER MANUFACTURER MAXIMUM MECHANICAL
BOTTOM	O.C. O.D.	OUTSIDE DIAMETER
BOUNDARY FASTENERS BELOW FINISH FLOOR BOTTOM BEARING CONTROL JOINT COMPLETE JOINT PENETRATION CENTER LINE CLEAR DIMENSION TO FACE OF REBAR COLUMN CONTINUOUS CONCRETE REINFORCING STEEL INSTITUTE DIAMETER DIAGONAL DRAWING EACH FACE ELEVATION ELECTRICAL ENGINEER OF RECORD EQUAL EACH WAY FINISH FLOOR FLOOR FOOT FOOTING GAUGE GLULAM BEAM		NOT TO SCALE ON CENTER OUTSIDE DIAMETER OPPOSITE PLATE POUNDS PER LINEAR FOOT PLYWOOD POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PARALLEL STRAND LUMBER RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS REQUIRED SIMILAR SEISMIC LOAD RESISTING SYST SPECIFICATION STANDARD SHEAR WALL TOP AND BOTTOM TONGUE AND GROOVE THROUGH TOP OF DECK TOP OF FOOTING TOP OF STEEL TOP OF WALL TYPICAL
GENERAL STRUCTURAL NOTES GIRDER TRUSS HORIZONTAL HOLLOW STRUCTURAL SECTION INTERNATIONAL BUILDING CODE INTERNATIONAL CODE COUNCIL	UN.O. VERT. w/ w/o WT.	UNLESS NOTED OTHERWISE VERTICAL WITH WITHOUT WEIGHT

SHEET INDEX

• INDICATES PREVIOUSLY / CURRENTLY ISSUED SHEETS

/2\ PLANCHECK RESUBMITTAL - 7/24/18 $\mid \setminus$ CITY OF SANTA FE SPRINGS FIRE ACCESS - 5/25/18 PLANCHECK SUBMITTAL SHEET TITLE • • • S0.1 General Strucutral Notes • • • S0.2 General Strucutral Notes (Cont'd.) • | • | SO 3 General Strucutral Notes (Cont'd.) • | • | S0.4 Typipcal Details • • • S0.5 Typical Details

• | • | S0.6 Typical Details • | • | • | S0.7 Sheet Notes and Schedules • • • S1.1 Foundation Plan • | • | • | S2.1 Mezzanine and Roof Nailing Plan Roof Framing Plan • | • | • | \$2.2 • | • | • | S3.1 Panel Elevations • | • | • | S3.2 Panel Elevations • | • | • | S3.3 Panel Elevations • | • | S4.1 Foudnation Details • • • S4.2 Foundation Details

• | • | • | S5.2 Framing Details

● ● S5.3 Framing Details

Framing Details

• | • | • | S5.1

S

(1)

O

×

S

0

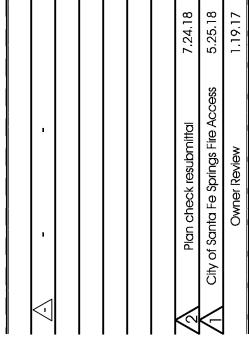
S

 \mathbf{Q}

0

φ D

 ∞ ∞



GENERAL

STRUCUTRAL

DRAWING NO.

216,007 Sorensen Flex Warehous

.GENERAL STRUCTURAL NOTES_

H. STRUCTURAL STEEL BOLTS, ANCHORS, HEADED STUDS

1. STRUCTURAL STEEL BOLTS, ANCHORS, ETC., SHALL CONFORM TO THE FOLLOWING

STANDARDS AND MATERIAL PRO	PERTIES UN.O:	
COMPONENT:	STANDARD:	Fy:
BOLTS	ASTM A325 OR ASTM A490 WHERE NOTED	
NUTS WASHERS	ASTM A563 ASTM F436	
ANCHOR RODS	ASTM F1554, GRADE 36 OR GRADE 55 WHERE NOTED	36 KS 55 KS
	OR GRADE 105 WHERE NOTED (GRADE 55 AND 105 RODS SHALL COMPLY WITH WELDABILITY SUPPLEMENT SI)	105 K
WASHERS (AT ANCHOR RODS)	ASTM A36 OR ASTM F844 (USS STANDARD)	36 KS

(F844 WASHERS PERMITTED ONLY

FOR 3/4" DIA. RODS AT 1 1/16" MAX.

WHERE NO WELD REQ'D BETWEEN

WASHER AND BASE PLATE)

DIA. PUNCHED HOLES IN BASE PLATE

- ALL BOLTS SHALL BE INSTALLED AS SNUG-TIGHTENED JOINTS WITH THREADS EXCLUDED FROM SHEAR PLANE (TYPE "X" CONNECTION) UN.O. HIGH-STRENGTH BOLT ASSEMBLIES SHALL BE IN ACCORDANCE WITH THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" AND SHALL BE SNUG TIGHTENED USING ANY AISC APPROVED METHOD UNO. ALL BOLTS IN SLOTTED OR OVERSIZED HOLES AND ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED WITH HARDENED
- 3. BOLTED CONNECTIONS INCLUDED IN THE SEISMIC LOAD RESISTING SYSTEM (SLRS) SHALL MEET THE REQUIREMENTS FOR CLASS "A", SLIP-CRITICAL FAYING SURFACES IN ACCORDANCE WITH AISC 360, SECTION J3.8 (EXCEPTION: FAYING SURFACES OF WELDED JOINTS WHOSE PARTS ARE JOINED INITIALLY BY ERECTION BOLTS NEED ONLY BE PREPARED SUCH THAT THEY ARE FREE FROM DIRT, BURRS, AND OTHER DEFECTS THAT WOULD PREVENT SOLID FIT-UP OF THE PARTS TO BE JOINED). BOLTS SHALL BE INSTALLED IN STANDARD HOLES UN.O. AND PRETENSIONED PER ANY AISC APPROVED
- 4. THE STEEL DETAILER SHALL COORDINATE ALL FIELD-INSTALLED ERECTION BOLTS AT STEEL JOIST BEARING LOCATIONS WITH THE STEEL JOIST SUPPLIER
- 5. ALL ANCHOR RODS AT STEEL COLUMN BASE PLATES SHALL BE RODS WITH THREADS BOTH ENDS WITH HEAVY HEX NUT FULLY THREADED ONTO EMBEDDED END. TACK WELD NUT TO ROD OR SPOIL THREADS TO PREVENT NUT FROM BACKING OFF. ANCHOR RODS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.
- 6. ALL CONNECTIONS INVOLVING WOOD MEMBERS, INCLUDING THOSE WITH THREADED ROD, THREADED STUDS, FOUNDATION ANCHOR BOLTS, THRU-BOLTS, ETC., SHALL USE ASTM A301 MATERIAL UN.O. ALL BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC., SHALL BE INSTALLED WITH STEEL WASHERS AT FACE OF WOOD.
- HEADED STEEL STUDS AND AUTOMATIC WELDED DOWELS SHOWN ON PLANS OR DETAILS SHALL BE BY NELSON STUD WELDING, INC., PER ICC ESR-2856 AND ICC ESR-2907, RESPECTIVELY. STUDS SHALL HAVE FLUXED ENDS AND BE AUTOMATICALLY END-WELDED WITH SUITABLE EQUIPMENT (NO FILLET WELDING OF STUDS PERMITTED UN.O.) AT SPACINGS INDICATED ON THE PLANS OR DETAILS. WELDING OF STUDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 AND AWS C5.4. HEADED STUDS AND AUTOMATIC WELDED DOWELS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY ARE OF EQUIVALENT CAPACITY FOR THE INTENDED APPLICATION AND HAVE CURRENT ICC APPROVAL.
- 8. WHERE A SPECIFIC EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS, ONLY THE SPECIFIED PRODUCT SHALL BE USED AND NO SUBSTITUTIONS ARE ALLOWED. WHERE AN EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS BUT A SPECIFIC PRODUCT IS NOT STATED, ANY OF THE RESPECTIVE PRODUCTS LISTED BELOW ARE ACCEPTABLE. THE USE OF PRODUCTS NOT INCLUDED BELOW IS NOT ALLOWED. ALL PRODUCTS SHALL BE INSTALLED WITH SPECIAL INSPECTION.
- 8.1. EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT TZ (ICC ESR-1917), SIMPSON STRONG-BOLT 2 (ICC ESR-303T), OR DEWALT POWER-STUD+ SD2 (ICC ESR-2502) UN.O. EXPANSION ANCHORS IN MASONRY SHALL BE SIMPSON STRONG-BOLT 2 (IAPMO ER-0240), HILTI KWIK BOLT 3 (ICC ESR-1385) OR DEWALT POWER-STUD+ SDI (ICC ESR-2966). EXPANSION ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.
- 82. SCREW ANCHORS SHALL BE DEWALT SCREW-BOLT+ PER ICC ESR-4042 FOR MASONRY AND ICC EGR-3889 FOR CONCRETE, SIMPSON TITEN HD PER ICC EGR-1056 FOR MAGONRY AND ICC ESR-2713 FOR CONCRETE, HILTI KWIK HUS-EZ PER ICC ESR-3056 FOR MASONRY AND ICC ESR-3027 FOR CONCRETE. SCREW ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.
- 83. EPOXY ANCHORS IN CONCRETE (ALL-THREAD, REBAR, ETC.) SHALL USE HILTI HIT-RE 500 V3 (ICC ESR-3814), SIMPSON SET-XP (ICC ESR-2508), OR DEWALT PURE 110+ (ICC EGR-3298) UN.O. ALL EPOXY ANCHORS IN MASONRY (ALL-THREAD, REBAR, ETC.) SHALL USE SIMPSON SET-XP (IAPMO ER-0265), HILTI HIT-HY 200 (ICC ESR-3963) OR DEWALT AC100+ GOLD (ICC ESR-3200) UN.O. EPOXY ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

I. STEEL JOISTS AND JOIST GIRDERS

- ALL JOISTS SHALL BE DESIGNED, FABRICATED, WELDED AND ERECTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS" OF THE STEEL JOIST INSTITUTE
- 2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ALONG WITH DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER FOR ALL JOISTS AND JOIST GIRDERS INCLUDING DETAILS OF ANY OPTIONAL FIELD SPLICES. CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. ALL JOISTS AND JOIST GIRDERS SHALL BE CAMBERED FOR THE DESIGN DEAD LOAD. MFR. SHALL DESIGN ALL JOISTS AND JOIST GIRDERS FOR LIVE LOAD DEFLECTION NOT TO EXCEED SPAN/360. MFR. SHALL ADD ADDITIONAL WEB MEMBERS AS REQUIRED AND ADJUST CHORD AND WEB SIZES ACCORDINGLY, BUT SHALL NOT ALTER DEPTH OF JOISTS WITHOUT APPROVAL OF THE ARCHITECT. DESIGN CALCULATIONS SHALL INCLUDE SUPERIMPOSED LOADS FROM MECH, ELECT., PLUMBING, AND OTHER ROOF-SUPPORTED EQUIPMENT. YERIFY SIZE, WEIGHT AND LOCATION OF EQUIPMENT WITH ARCH'L., MECH., ELECT., AND PLUMBING DRAWINGS.
- ALL STEEL JOISTS, GIRDERS OR BEAMS SHALL BEAR AT A PANEL POINT. JOISTS OR BEAMS SHALL BE EQUALLY SPACED BETWEEN COLUMN LINES UN.O. ON PLANS. MFR. SHALL DESIGN JOIST SHOES WHERE BEARING LENGTH IS LESS THAN 4" AT LH SERIES JOIST AND LESS THAN 2 1/2" AT K SERIES JOIST.
- 4. MFR SHALL PROVIDE BRIDGING AS REQ'D, PER SJI SPEC'S, WHERE BOTTOM CHORD WELD IS INDICATED ON DRAWINGS, DO NOT WELD BOTTOM CHORD TO JOIST SUPPORT UNTIL FULL DEAD LOAD IS IN PLACE. WHERE CROSS BRIDGING INTERFERES WITH MECHANICAL INSTALLATIONS, REMOVE THE INTERFERING CROSS BRIDGING ELEMENTS AFTER TOTAL DEAD LOAD IS APPLIED AND REPLACE WITH EQUIVALENT HORIZ. ANGLES (L2x2x3/16 MIN.) AT TOP AND BOTTOM CHORDS.
- 5. MFR. SHALL DESIGN JOIST AND JOIST GIRDERS IN ACCORDANCE WITH THE U.L. DESIGN REQUIREMENTS IF SPECIFIED IN ARCH'L. DRAWINGS.
- 6. ALL STEEL JOISTS 40'-0" OR MORE IN LENGTH NOT ASSEMBLED INTO PANELS AND ALL STEEL JOISTS BEARING AT COLUMN LOCATIONS SHALL BE DETAILED ON ERECTION SHOP DRAWINGS TO INCLUDE PROVISIONS FOR FIELD-INSTALLED ERECTION BOLTS AT BEARING CONNECTIONS IN ACCORDANCE WITH THE LATEST OSHA REQUIREMENTS.

J. WOOD

- 1. ALL SAWN FRAMING LUMBER SHALL BE DOUGLAS FIR GRADE No. 2 OR BETTER, SHALL COMPLY W/ THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU, AND SHALL BE STAMPED W/ THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY, U.N.O.
- 2. LUMBER RESTING ON CONCRETE OR MASONRY SHALL COMPLY WITH CBC 2304.12. FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL COMPLY WITH EITHER CBC 2304.10.5 OR ICC REPORT APPLICABLE TO THE WOOD PRESERVATIVE TREATMENT
- 4. LAMINATED STRAND LUMBER (LSL) SHALL BE WEYERHAUSER TIMBERSTRAND LSL (ICC ESR-1387). MINIMUM GRADE SHALL BE AS FOLLOWS:

MEMBER WIDTH:	MEMBER DEPTH:	MINIMUM GRADE:	
1 1/2"	ALL	16E	
2 1/2"	ALL	1.6E	
1 3/4"	ALL	1.55E	
3 1/2"	9 1/4" OR MORE	1,55E	

8 5/8" OR LESS

- 5. LAMINATED VENEER LUMBER (LYL) 6HALL BE WEYERHAUSER MICROLLAM LYL (ICC ESR-1387), LOUISIANA PACIFIC GANG-LAM (ICC ESR-2403), OR BOISE CASCADE YERSA-LAM (ICC ESR-1040). GRADE SHALL BE 1.9E OR HIGHER. EXCEPTION: LYL RIM BOARD SHALL BE GRADE 13E OR HIGHER. CONNECTION OF MULTIPLE PLY BEAMS SHALL BE PER MFR'S. SPECIFICATIONS.
- 6. PARALLEL STRAND LUMBER (PSL) SHALL BE WEYERHAUSER PARALLAM PSL (ICC ESR-1387) GRADE DF 2.0E OR HIGHER
- 8. DO NOT NOTCH OR DRILL JOISTS OR BEAMS UN.O. WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER WALLS THAT RUN PARALLEL TO THE JOISTS. PROVIDE 2" (NOMINAL) SOLID BLOCKING BETWEEN JOISTS AT SUPPORTS.
- 9. ALL BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/16 INCH LARGER THAN THE DIA, OF THE BOLT, BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. SPOIL THREADS TO PREVENT LOOSENING, LAG BOLTS SHALL BE INSTALLED IN PRE-DRILLED HOLES BY TURNING WITH A WRENCH,
- 10. PREFABRICATED WOOD I-JOISTS SHALL BE RED BUILT I-65 SERIES (ICC ESR-2994). REFER TO FRAMING PLAN NOTES FOR SPECIFIC DEPTHS. SPACING, AND SERIES. I-JOISTS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE APPROPRIATE ICC REPORT. I-JOIST HANGERS SHALL BE SIMPSON ITS OR MIT SERIES OR EQUAL, UN.O. ON PLAN. ALL I-JOIST AND HANGER SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER.
- 11. ALL WOOD CONSTRUCTION CONNECTORS SHOWN ON PLANS OR DETAILS SHALL BE SIMPSON STRONG-TIE OR EQUAL U.N.O. HARDWARE BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY ARE OF EQUIVALENT CAPACITY FOR THE INTENDED APPLICATION AND HAVE CURRENT ICC APPROVAL. SUCH SUBSTITUTIONS MUST BE APPROVED BY THE EOR. HARDWARE SHALL BE INSTALLED WITH ALL REQ'D. FASTENERS PER MFR'S. SPEC'S. STRAPS OF HEAVIER GAGE THAN SPECIFIED ON PLANS MAY BE USED W/ MIN. FASTENER REQUIREMENTS PER PLAN (e.g. CS16 W/ (26) 8d IN LIEU OF CS18 w/ (26) 8d).
- 12. SEE FOUNDATION PLAN FOR BOTTOM PLATE ANCHORAGE REQUIREMENTS.
- 13. ALL NAILS EXCEPT 16d NAILS SHALL BE COMMON NAILS UN.O. 16d NAILS MAY BE 16d SINKER, 16d BOX, 10d-131 OR 12d COMMON UN.O. (EXCEPTION: WOOD CONSTRUCTION CONNECTORS SHALL BE PER MFR'S. SPECIFICATIONS.) NAILS SHALL BE DRIVEN SO THAT HEADS ARE FLUSH WITH WOOD SURFACE. OVER- OR UNDER-DRIVEN SHEATHING NAILS AT SHEAR WALL, ROOF, AND FLOOR SHEATHING PANELS, WHERE THICKNESS IS MINIMAL, CAN RESULT IN REDUCED CAPACITY. IF NO MORE THAN 20% OF THE FASTENERS AROUND THE PERIMETER OF PANELS ARE OVERDRIVEN BY UP TO 1/8", THE PANEL IS ACCEPTABLE. IF MORE THAN 20% OF THE FASTENERS AROUND THE PERIMETER OF PANELS ARE OVERDRIVEN, OR IF ANY ARE OVERDRIVEN BY MORE THAN 1/8", ADDITIONAL FASTENERS SHALL BE DRIVEN. FOR EVERY TWO FASTENERS OVERDRIVEN, ONE ADDITIONAL FASTENER SHALL BE DRIVEN. ALL OTHER CONDITIONS WHERE 1-1/2" OR GREATER MEMBERS ARE FASTENED TOGETHER (GENERAL FRAMING), OVERDRIVEN FASTENERS DO NOT AFFECT THE CAPACITY OF THE CONNECTION.

NAIL SIZE:	SHANK DIA:		NAIL SIZE:	SHANK DIA .:	LENGTH:
16d COMMON	.162"	3 1/2"	12d COMMON	.148"	3 1/4"
16d SINKER	.148"	3 1/4"	10d COMMON	.148"	3"
16d B0X	.135"	3 1/2"	8d COMMON	.131"	2 1/2"
104-131	131"	રુા			

14. ALL PLYWOOD SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, SHALL BE C-D OR C-C SHEATHING CONFORMING TO CBC 2303.15 AND SHALL CONFORM TO THE FOLLOWING NOMINAL THICKNESS, SPAN RATING AND NAILING PATTERN U.N.O.:

THICKNESS:	SPAN RATING	EDGE NAILING:	FIELD NAILING:
3/8"	24/0	8d AT 6" o.c.	8d AT 12" o.c.
7/16"	24/16	8d AT 6" o.c.	8d AT 12" o.c.
15/32"	32/16	8d AT 6" o.c.	8d AT 12" o.c.
19/32"	40/20	10d AT 6" o.c.	10d AT 12" o.c.
3/4"	48/24	10d AT 6" o.c.	10d AT 12" o.c.
1"	60/48	10d AT 6" o.c.	10d AT 12" o.c.
1 1/8"	60/48	10d AT 6" o.c.	10d AT 12" o.c.

- 15. A.P.A. PERFORMANCE RATED SHEATHING (OSB) MAY BE USED AS AN ALTERNATE TO PLYWOOD. RATED SHEATHING SHALL COMPLY WITH PRP-108 OR USDOC-PS2, EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MFR'S RECOMMENDATIONS.
- 16. FOR PLYWOOD OR A.P.A. RATED SHEATHING: FULL WIDTH PANELS SHALL BE USED WHEREYER POSSIBLE. AT ROOF SHEATHING, PANELS 16" TO 24" WIDE SHALL HAVE EDGES SUPPORTED BY 2x BLOCKING OR (2) PSCL CLIPS BETWEEN EACH SUPPORTING MEMBER AND PANELS 12" TO 16" WIDE SHALL HAVE EDGES SUPPORTED BY 2x BLOCKING. PROVIDE EDGE NAILING AT ALL BLOCKED PANEL EDGES.
- 17. SHEAR PANEL BLOCKING NOTED ON PLANS OR DETAILS SHALL BE CONSTRUCTED OF 2X SOLID FRAMING W/ 3/8" MIN. PLYWOOD W/ 8d AT 6" O.C. UN.O. AND SHALL BE NAILED TO ADJACENT TRUSSES W/ MIN. (2) 16d TOP AND BOTTOM. ALL SHEAR PANEL BLOCKS MAY HAVE (1) 4" MAX. DIA. HOLE IN THE CENTER OF THE PANEL. (1) SHEAR PANEL BLOCK ABOVE EACH SWI-SWI3 MAY HAVE A 17" MAX. DIA, HOLE IF THE SHEAR PANEL BLOCKS ABOVE THE SHEAR WALL HAVE BOUNDARY FASTENERS AT 3" O.C. SHEAR PANEL BLOCKS ABOVE A SWI4 OR GREATER MAY NOT BE PENETRATED W/ A HOLE LARGER THAN 4" IN DIA. SHEAR PANEL BLOCKS NOT ABOVE A SHEAR WALL MAY HAVE (1) 17" MAX. DIA. HOLE IF THE BLOCKS EXTEND 8'-0" OR MORE, UN.O.

J. WOOD (CONT'D)

THICKNESS OF 0.073".

- 18. PANELIZED ROOF SYSTEMS SHALL COMPLY WITH THE FOLLOWING:
- 18.1. ALL PLYWOOD SHEATHING AT PANELIZED ROOF SYSTEMS, SHALL BE STRUCTURAL 1
- GRADE, 5 PLY, 5 LAYER WITH THICKNESS AS SPECIFIED ON PLAN. 18.2. PNEUMATIC OR POUDER DRIVEN FASTENERS (SHOT PINS) SHALL HAVE A MINIMUM SHANK DIAMETER OF 0.143", A MINIMUM HEAD DIAMETER OF 0.315", AND A MINIMUM HEAD
- FASTENERS SHALL BE MANUFACTURED BY PNEUTEK PER ICC ESR-2902. INSTALL PER MFR. RECOMMENDATIONS.
- SUBSTITUTIONS MAY ONLY BE USED WITH WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT.
- 183. POINT LOADS FROM DUCTS, PIPING, ELECT. CONDUIT, SOFFITS, SUSPENDED CEILING, ETC. NOT EXCEEDING 200 LBS. MAY BE SUSPENDED FROM 2x6 SUBPURLINS AT PANELIZED ROOFS.
- 18.4. 0.135" SCREW SHANK NAILS MANUFACTURED BY HY-TEK NAILS PER ICC ESR-2648 MAY BE SUBSTITUTED FOR 10d COMMON NAILS AT PANELIZED ROOF SYSTEMS. ALL SCREW SHANK NAILS SHALL BE INSTALLED WITH 1 5/8" MIN. EMBEDMENT INTO FRAMING
- 19. WHERE BRIDGING INTERFERES WITH MECH. OR OTHER INSTALLATIONS, REMOVE BRIDGING AFTER DECK IS IN PLACE AND REPLACE WITH ADDITIONAL MFR. SUPPLIED HORIZ. STRUT BRACING AT TOP AND BOTTOM CHORDS.
- 20. BEAMS OR TWO PLY (OR LARGER) GIRDER TRUSSES BEARING ON TOP PLATES SHALL BE ATTACHED TO TOP PLATES WITH A34 ONE SIDE AND (2) 16d TOENAILS OTHER SIDE, U.N.O. ON PLAN.
- 21. THE FOLLOWING IS A LIST OF ICC-ES OR IAPMO ES REPORTS NOT SPECIFIED ELSEU

•	ELSEWHERE:	10 A LIOT OF 186-13 ON IAI THE LO NET ONTO NOT STEELINED
	REPORT:	HARDWARE:
	IAPMO-0112 ESR-2236 ESR-2330 ESR-2105 ESR-2549 ESR-2613 ESR-1622 ESR-2604 ESR-2553 ESR-2615	LTP4, A35, A34, 44, H2A, H2.5T, L, RBC SDS SCREWS DHU, PHD, HDQ8, HHDQ ST, HST, MST, LSTA, MSTA, MSTC, MSTI, CS, CMST, CMSTC16 LU, U, HU, HUC, LUS, MUS, HUS, HHUS, SUR/L, HGUS H, LTS, MTS, HTS, SPH AB, ABA, ABE, ABU CC, ECC, CCQ, ECCQ, AC, EAC, LPC, PC, EPC JB, LB, W, WNP, WNPU, HW, HWJ, HUTF GLTV, HGLTV, HHB, GB, HGB, HHBD, W, WP, WPU, WNP, WNPU, HW, HWJ

GLT, HGLT, GLS, HGLS, GLST, HGLST, EG, MEG, LEG, MSC

LSU, LSSU, LSSUI, THS, THAC. THAI. VPA ESR-2551 IUS, OUT, U, HU, HUS, HUS, HHUS, SUR/L, HSUR/L ESR-2552 ESR-2555

K. EXTERIOR ANCHOR BOLT SUBSTITUTIONS

55, HSS, RPS

ESR-2608

- EXTERIOR ANCHOR BOLTS ARE DEFINED AS ANCHOR BOLTS LOCATED LESS THAN 6" FROM SLAB EDGES, STEPS, TURN DOWNS, OPENINGS, OR SIMILAR DISCONTINUITIES AND DO NOT INCLUDE ANCHORS FOR HOLDOWNS. EXTERIOR ANCHOR BOLT SUBSTITUTIONS ARE PERMITTED AS LISTED IN THIS SECTION.
- BOLT-TYPE SUBSTITUTIONS IN SHEAR WALLS SHALL BE INSTALLED W/ PLATE WASHERS PER SHEAR WALL SCHEDULE.
- 3. 1/2" DIA. THREADED CONCRETE ANCHORS AT THE SAME SPACING MAY BE USED IN LIEU OF WET-SET ANCHOR BOLTS AT EXTERIOR NON- SHEAR WALLS, 1/2" DIA, THREADED CONCRETE ANCHORS AT 2:1 (THREADED ANCHORS: WET SET ANCHORS) RATIO MAY BE USED IN LIEU OF WET-SET ANCHORS AT EXTERIOR SHEAR WALLS. ALL THREADED CONCRETE ANCHORS SHALL BE EMBEDDED 4", SHALL BE SPACED NOT CLOSER THAN 5 1/2" o.c. AND SHALL BE SIMPSON TITEN HD (ICC ESR-2713). AT 3x OR LARGER BOTTOM PLATES, SCREW ANCHORS AND PLATE WASHERS MAY BE COUNTERSUNK UP TO 1/2" INTO BOTTOM PLATE TO ACHIEVE REQ'D EMBEDMENT.

L. INTERIOR ANCHOR BOLT SUBSTITUTIONS

- 1. INTERIOR ANCHOR BOLTS ARE DEFINED AS ANCHOR BOLTS LOCATED A MIN. OF 6" FROM SLAB EDGES, STEPS, TURN DOWNS, OPENINGS, OR SIMILAR DISCONTINUITIES, AND DO NOT INCLUDE ANCHORS FOR HOLDOWNS. INTERIOR ANCHOR BOLT SUBSTITUTIONS ARE PERMITTED AS LISTED IN THIS SECTION.
- 2. BOLT-TYPE SUBSTITUTIONS IN SHEAR WALLS SHALL BE INSTALLED W/ PLATE WASHERS PER SHEAR WALL SCHEDULE.
- 3. 1/2" AND 3/4" DIA, THREADED CONCRETE ANCHORS AT THE SAME SPACING MAY BE USED IN LIEU OF WET-SET ANCHOR BOLTS AT INTERIOR WALLS, INCLUDING SHEAR WALLS. MINIMUM EMBEDMENT SHALL BE 4" FOR 1/2" DIA. ANCHORS AND 6 1/4" FOR 3/4" DIA. ANCHORS. THREADED CONCRETE ANCHORS SHALL BE SIMPSON TITEN HD (ICC ESR-2713) WITH SPACING NOT CLOSER THAN 3" O.C.
- 4. INTERIOR NON-LOAD BEARING PARTITION WALLS MAY BE ANCHORED TO THE SLAB WITH MIN. 0.145 INCH DIAMETER SHOT PINS (AS NOTED BELOW) AT 24" o.c. MAX. SHOT PINS SHALL BE EITHER SIMPSON PDPWL-300MG OR PDPWL6-300MG (ESR-2138) OR HILTI X-CP 12 OR X-CR-L 12 (ESR-2319). INSTALL ALL FASTENERS PER ICC REPORT AND MFR.'S RECOMMENDATIONS. EMBED 1 1/4" MIN. IF WOOD SPLITTING OCCURS, AN ALTERNATE ANCHORAGE PER G.S.N. SHALL BE USED.

M. HOLDOWN ANCHORAGE

- 1. VERIFY LOCATION OF HOLDOWNS WITH ROUGH FRAMING TO ENSURE PROPER AND ACCURATE INSTALLATION.
- 2. EMBEDDED BOLT REQUIREMENTS FOR HOLDOWN ANCHORAGE SHALL BE AS FOLLOWS:

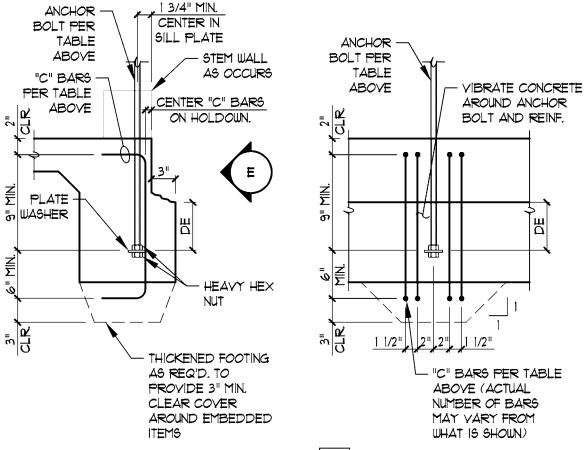
ALL THREAD ANCHOR BOLT OPTION:

SIMPSON	BOLT	PLATE	DE	DI	NUMBER OF
HOLDOWN:	DIA.:	WASHER:	(MIN.): (2)	(MIN.): (3)	"C" BARS:
HDU2	5/8"	1 1/2"x1 1/2"x3/8"	6"	11"	(2) #4
HDU4	5/8"	1 1/2"x1 1/2"x3/8"	6"	11"	(2) #4
HDU5	5/8"	1 1/2"x1 1/2"x3/8"	6"	11"	(2) *4
HDUS	7/8"	1 3/4"x1 3/4"x3/8"	6 11	11"	(2) *4
HDQ8	7/8"	1 3/4"x1 3/4"x3/8"	٦"	11"	(4) #4
HDU11	1 ¹¹	2"x2"x3/8"	٦"	11"	(4) *4
HDU14	1 ¹¹	2"x2"x3/8"	٦"	11"	(4) #4
HHDQ11	1"	2"x2"x3/8"	٦"	11"	(4) #4
HHDQ14	1 ¹¹	2"x2"x3/8"	7 "	11"	(4) #4
HD19	1 1/4"	2 1/4"x2 1/4"x1/2"	3"	13"	(6) *4

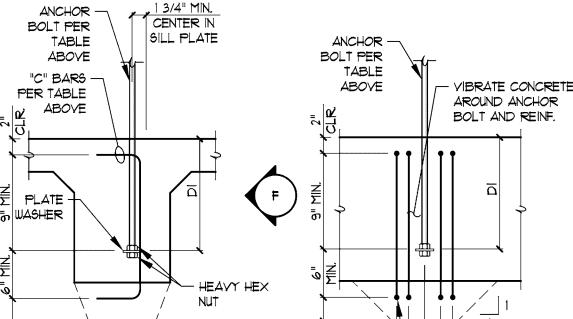
(1) AT CORNER CONDITIONS, HALF OF THE "C" BARS SHALL BE PLACED ON EACH SLAB EDGE

2 EMBEDMENT DEPTH AT EXTERIOR OF SLAB.

(3) EMBEDMENT DEPTH AT INTERIOR OF SLAB. BOLTS MORE THAN 1'-0" FROM ANY SLAB EDGE OR STEP SHALL BE CONSIDERED INTERIOR. AT STEPS, EMBEDMENT SHALL BE MEASURED FROM LOWER SLAB.



SECTION AT EDGE OF SLAB



THICKENED FOOTING AS REQ'D. TO PROVIDE 3" MIN. CLEAR COVER AROUND EMBEDDED

SECTION AT INTERIOR OF SLAB

MAY VARY FROM WHAT IS SHOWN) | F | ELEVATION

- "C" BARS PER TABLE

ABOYE (ACTUAL

NUMBER OF BARS

E | ELEVATION

M. HOLDOWN ANCHORAGE (CONT'D)

3. AS AN <u>ALTERNATE</u> TO THE ANCHORAGE REQUIREMENTS ABOVE, SSTB AND SB BOLTS CAN BE USED PER THE REQUIREMENTS BELOW:

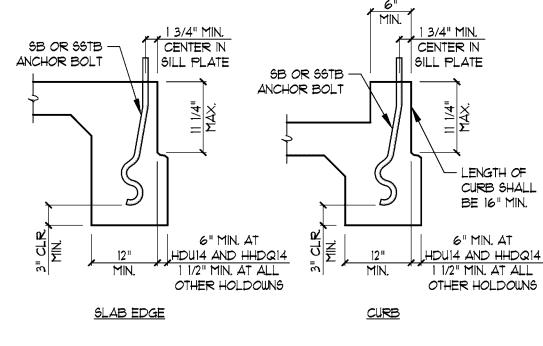
<u>SIMPSON ANCHOR BOLT OPTIONS (ESR-2611):</u>

	SSTB ANCH (SSTBL AT 3x AN		SB ANCHOR BOLT			
SIMPSON HOLDOWN:	AT SLAB EDGE:	AT CURB:	AT SLAB EDGE:	AT CURB:		
HDU2	SSTB16	55TB24	SB5/8x24	SB5/8x24		
HDU4	SSTB20		SB5/8x24	SB5/8x24		
HDU5	SSTB24		SB5/8x24	SB5/8x24		
HDUS	55TB28	55TB28	5B7/8x24			
HDQ8	55TB28		5B7/8x24			
HDU11			5B1x30	5B1x30		
HDU14			5B1x30 (2)	5B1x30 (2)		
HHDQ11			5B1x30	5B1x30		
HHDQ14			5B1x30 (2)	5B1x30 (2)		

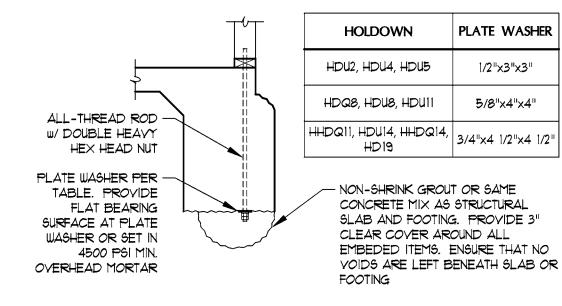
TABLE KEYNOTES (ONLY APPLY WHERE SPECIFICALLY NOTED IN TABLE ABOVE)

ANY POUR JOINTS SHALL OCCUR AT LEAST 3" BELOW BOTTOM OF BOLT. IF POUR JOINT OCCURS ABOVE THIS POINT, ADD "C" BARS PER ALL THREAD ANCHOR BOLT OPTION TABLE ABOVE.

2 18" MIN. WIDE FOOTING. SEE DETAILS BELOW.



4. HOLDOWN ANCHORS MAY BE RETROFIT AS FOLLOWS.



S

(1)

S

S

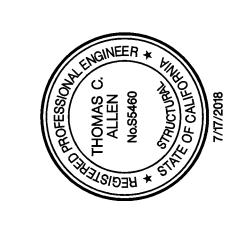
Pla

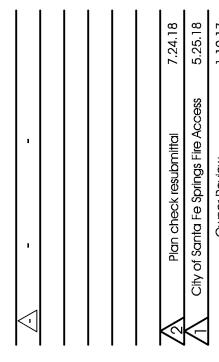
 \mathbf{Q}

0

9 D

 ∞ ∞





GENERAL STRUCUTRAL NOTES (CONT'D.)

DRAWING NO.

WRIGHT



County of Los Angeles

DEPARTMENT OF PUBLIC WORKS BUILDING & SAFETY DIVISION Los Angeles Regional Uniform Code Program

STRUCTURAL OBSERVATION PROGRAM

AND DESIGNATION OF THE STRUCTURAL OBSERVER

PERMIT APPL. NO .: BLIS03080021

Project Address: 용역부터 SORENSEN AVE, , S	ANTA FE SPRINGS
Description of Work: (N) CONCRETE TILT-UP BUILDING	
Owner:	Architect: APTUS
Engineer of Record: WRIGHT ENGINEERS	- (A)

STRUCTI Firm or Individual to be respo		ONLY CHECKED ITEMS ARE REQUI	RED)
Name: WRIGHT ENDINEER			on: \$5460
FOUNDATION	WALL	FRAME	DIAPHRAGM
爲Footing, Stem Walls, Piers	X Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	□ Masonry	☐ Steel Braced Frame	☐ Steel Deck
□ Caisson, Piles, Grade Beams	□ Wood	☐ Concrete Moment Frame	₩ Wood
☐ Retaining Foundation Hillside Special Anchors	☐ Others:	☐ Masonry Wall Frame	□ Others:
□ Others:		☐ Others:	

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired by me to be the Structural Observer.

Signature			

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

Signature	License No.	Date
Version 1.0 (2008 LACBC)		Jan

GENERAL STRUCTURAL NOTES.

N. SPECIAL INSPECTION

- 1. IN ADDITION TO STANDARD INSPECTIONS BY THE BUILDING OFFICIAL REQUIRED PER IBC SECTION 110, THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION FOR THE TYPES OF WORK LISTED IN THIS SECTION.
- 2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AT LEAST 24 HOURS NOTICE PRIOR TO PERFORMING ANY WORK REQUIRING SPECIAL INSPECTION.
- 4. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPEC'S. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPEC'S AND THE APPLICABLE CODE PROVISIONS.
- 5. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.
- 6. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:
- 6.1. EPOXY ANCHORS IN CONCRETE INSPECTION OF EPOXY ANCHORS IN CONCRETE SHALL BE PERIODIC, UNO. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). AT THE TIME OF INSTALLATION, THE CONCRETE SHALL HAVE ACHIEVED A MINIMUM AGE OF 28 DAYS, BE DRY, AND BE BETWEEN 50 DEGREES F AND 104 DEGREES F. THE HOLES SHALL BE DRILLED WITH A HAMMER DRILL TO THE DIMENSIONS LISTED IN THE MPII AND SHALL BE CLEANED USING THE BLOW-BRUSH-BLOW TECHNIQUE REQUIRED IN THE MPII. WHERE ANCHORS ARE INSTALLED INTO LIGHTWEIGHT CONCRETE, IT IS ASSUMED THAT THE CONCRETE IS CLASSIFIED AS ALL-LIGHTWEIGHT CONCRETE AS DEFINED IN ACI 318. ANY ADHESIVE ANCHORS INSTALLED HORIZONTALLY (EXCEPT FOR ANCHORS IN A SLAB-ON-GRADE) OR UPWARDLY INCLINED SHALL BE INSTALLED BY PERSONNEL WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT AND SHALL BE INSTALLED WITH CONTINUOUS SPECIAL INSPECTION.
- 63. SCREW ANCHORS AND EXPANSION ANCHORS IN CONCRETE OR MASONRY SCREW ANCHORS IN CONCRETE OR MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. ANCHORS IN CONCRETE MAY BE PERIODIC. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL SCREW/EXPANSION ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
- 6.4. CONCRETE CONSTRUCTION PER CBC SECTION 1705.3 AND TABLE 1705.3. EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQ'D. FOR:
- . ISOLATED SPREAD OR CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS (3) STORIES OR LESS IN HEIGHT WHOSE STRUCTURAL DESIGN IS BASED ON A 28 DAY DESIGN COMPRESSIVE STRENGTH, I'C, OF NO GREATER THAN 2500 PSI.
- 2. POST-TENSIONED SLABS ON GRADE WHERE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.

	CONCRETE CONSTRUCTION SPECIAL INSPEC		
	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
l.	INSPECTION OF REINFORCING STEEL, INCLUDING	_	×
	PRESTRESSING TENDONS, AND PLACEMENT.		
<u>2. </u>	REINFORCING BAR WELDING:	-	-
	A. VERIFY WELDABILITY OF REINFORCING BARS OTHER	_	×
	THAN ASTM A706	_	
	B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X
	C. INSPECT ALL OTHER WELDS	×	-
3 <i>.</i>	INSPECT ANCHORS CAST IN CONCRETE	-	X
4.	INSPECT ANCHORS POST-INSTALLED IN HARDENED	_	_
	CONCRETE MEMBERS.	_	_
	A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY		
	OR UPWARDLY INCLINED ORIENTATIONS TO RESIST	×	-
	SUSTAINED TENSION LOADS.		
	B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS		×
	NOT DEFINED IN 4.A	-	_ ^
5.	VERIFYING USE OF REQUIRED DESIGN MIX.	-	X
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENTS		
	FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT		
	TESTS, AND DETERMINE THE TEMPERATURE OF THE	×	-
	CONCRETE.		
٦.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT		
	FOR PROPER APPLICATION TECHNIQUES.	×	-
8.	VERIFY MAINTENANCE OF SPECIFIED CURING		~
	TEMPERATURE AND TECHNIQUES.	-	×
9,	INSPECTION OF PRESTRESSED CONCRETE:	_	-
	A. APPLICATION OF PRESTRESSING FORCES.	X	_
	B. GROUTING OF BONDED PRESTRESSING TENDONS IN		
	THE SEISMIC-FORCE-RESISTING SYSTEM.	×	-
10.	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X
11.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO		
	STRESSING OF TENDONS IN POSTTENSIONED CONCRETE		
	AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM	-	×
	BEAMS AND STRUCTURAL SLABS.		
12.			
	DIMENSION OF THE CONCRETE MEMBER BEING FORMED.	-	X

6.5. WOOD CONSTRUCTION PER CBC 1705.5.

- 66. INSTALLATION OF 66TB AND 6B ANCHOR BOLTS AS REQ'D. PER ICC REPORT.
- 1. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 1704.
- 8. THE FOLLOWING COMPONENTS (AND THOSE SPECIFICALLY IDENTIFIED ON THE PLANS AND DETAILS AS SUCH) ARE PART OF THE SEISMIC LOAD RESISTING SYSTEM (SLRS) AND ARE SUBJECT TO ADDITIONAL SPECIAL INSPECTION AND TESTING REQUIREMENTS:
- 8.1. FLOOR AND ROOF DIAPHRAGM SHEATHING, FASTENERS, STRAPS, AND ALL ASSOCIATED CLIPS AND HARDWARE.
- 82. WOOD SHEARWALLS, INCLUDING STUDS AND POSTS, SHEATHING, NAILING, STRAPS, ANCHOR BOLTS, HOLDOWN ANCHORS, FOOTINGS AND ALL ASSOCIATED CLIPS AND HARDWARE.
- 8.4. LEDGERS AND ATTACHMENT TO WALL FRAMING.
- 8.5. BEAMS, JOISTS, OR OTHER FRAMING MEMBERS DESIGNATED ON DRAWINGS AS DRAG MEMBERS AND THEIR CONNECTIONS TO ADJACENT FRAMING.
- 86. CONCRETE AND/OR MASONRY WALLS, INCLUDING REINF. STEEL, TIE PLATES, EMBEDDED HARDWARE FOR ATTACHMENT OF FLOOR AND ROOF FRAMING, FOOTINGS, AND ATTACHMENT TO SLAB ON GRADE AS OCCURS.
- 8.7. ADDITIONAL SPECIAL INSPECTION AND TESTING REQUIREMENTS FOR SLRS COMPONENTS ARE AS OUTLINED BELOW AND AS REQ'D. BY THE APPLICABLE REFERENCED STANDARDS.
- 8.8. STRUCTURAL STEEL PER CBC SECTIONS 1705.12.1.
- 8.9. STRUCTURAL WOOD PER CBC SECTION 1705.122.
- 9. EACH CONTRACTOR RESPONSIBLE FOR CONSTRUCTION OF THE SEISMIC LOAD RESISTING SYSTEM OR COMPONENTS THEREOF SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT IN ACCORDANCE WITH IBC SECTION 1704.4.

N. SPECIAL INSPECTION (CONT'D)

10. STRUCTURAL OBSERVATIONS PER CBC SECTION 17045.1 ARE REQUIRED FOR THE SEISMIC LOAD RESISTING SYSTEM. STRUCTURAL OBSERVATION REPORTS SHALL BE SUBMITTED TO THE ARCHITECT, ENGINEER, AND BUILDING OFFICIAL ON NOT LESS THAN A MONTHLY BASIS. STRUCTURAL OBSERVATIONS DO NOT INCLUDE OR TAKE THE PLACE OF SPECIAL INSPECTION.

O. SUBMITTALS

CONTRACT DOCUMENTS.

- 1. SHOP DRAWINGS OR REPORTS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION (AS APPLICABLE) UN.O.
- CONTRACTOR SUBMITTAL DOCUMENTS (WELDING) PER AISC 341, PART I, APPENDIX Q GLULAM BEAMS
- HIGH STRENGTH GROUT/DRYPACK LAYOUT DWGS. FOR PENETRATIONS, EMBEDDED CONDUITS AT WALLS/ELEVATED SLABS REINFORCING STEEL STRUCTURAL STEEL

CONTRACTOR'S REVIEW SHALL CHECK FOR COMPLETENESS/COMPLIANCE WITH

- TILT-UP PANELS 2. CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMITTING.
- 3. SHOP DRAWINGS ARE REVIEWED BY ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS OR SPECIFICATIONS. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS AND/OR SPECIFICATIONS WILL NOT BE ACCEPTED VIA SHOP DRAWING REVIEW. ALL SUCH MODIFICATIONS SHALL BE SUBMITTED SEPARATELY FOR ENGINEER'S REVIEW.
- 4. PREFABRICATED COMPONENTS, SPECIALTY ITEMS, OR DESIGN-BUILD ELEMENTS NOTED ON THE STRUCTURAL DRAWINGS, BUT WHICH REQUIRE THE MFR. OR SUPPLIER TO PROVIDE THE DESIGN, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AS A DEFERRED SUBMITTAL. DEFERRED SUBMITTALS REQ'D. BY THE STRUCTURAL ENGINEER OF RECORD SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

CONCRETE MIX DESIGNS ENGINEERED WOOD JOISTS AND BEAMS EXTERIOR CURTAINWALLS, CLADDING, AND VENEER EXTERIOR SIGNAGE

SKYLIGHTS STAIRS, HANDRAILS, GUARDRAILS, AND THEIR COMPONENTS

- STEEL JOISTS AND JOIST GIRDERS SUPPORT/ANCHORAGE OF MECH., ELECT., AND PLUMBING EQUIPMENT AND COMPONENTS
- 5. DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS AND DRAWINGS PREPARED AND STAMPED BY AN APPROPRIATELY LICENSED ENGINEER (SPECIALTY ENGINEER) SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF MEMBERS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM.
- 6. THE PURPOSE OF THE STRUCTURAL ENGINEER'S REVIEW OF DEFERRED SUBMITTALS SHALL BE LIMITED TO DETERMINING THAT THE DRAWINGS AND CALCULATIONS HAVE BEEN PROPERLY SEALED, THAT THE LOAD CRITERIA IS IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE REFERENCED BUILDING CODE, THAT CONNECTIONS TO THE PRIMARY STRUCTURE ARE COMPATIBLE WITH THE PRIMARY DESIGN, AND THAT THE PRIMARY STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.
- T. THE STRUCTURAL ENGINEER WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.
- 8. FOR ALL SUBMITTALS, ANY CORRECTIONS NOTED WILL BE MARKED ON ONE (1) COPY SET ONLY AND RETURNED. ADDITIONAL COPIES OF ANY SUBMITTAL WILL BE RETURNED UNMARKED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPRODUCING ENGINEER'S CORRECTIONS ON ADDITIONAL COPIES REQ'D. ONE COPY SET MAY BE RETAINED FOR THE ENGINEER'S RECORDS. ALLOW FIVE (5) TO TEN (10) WORKING DAYS FOR THE ENGINEER'S REVIEW.
- 9. REFER TO APPLICABLE G.S.N. SECTIONS FOR FURTHER REQUIREMENTS SPECIFIC TO INDIVIDUAL SUBMITTALS.

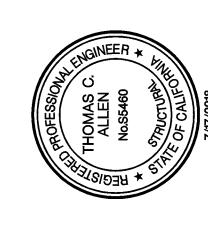
9 O Pla × S 0 $\overline{\mathbb{Q}}$

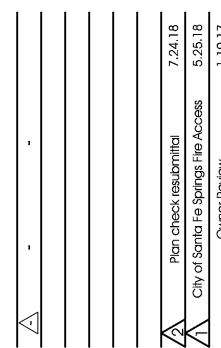
S

φ D ထေတ်

 Φ

S



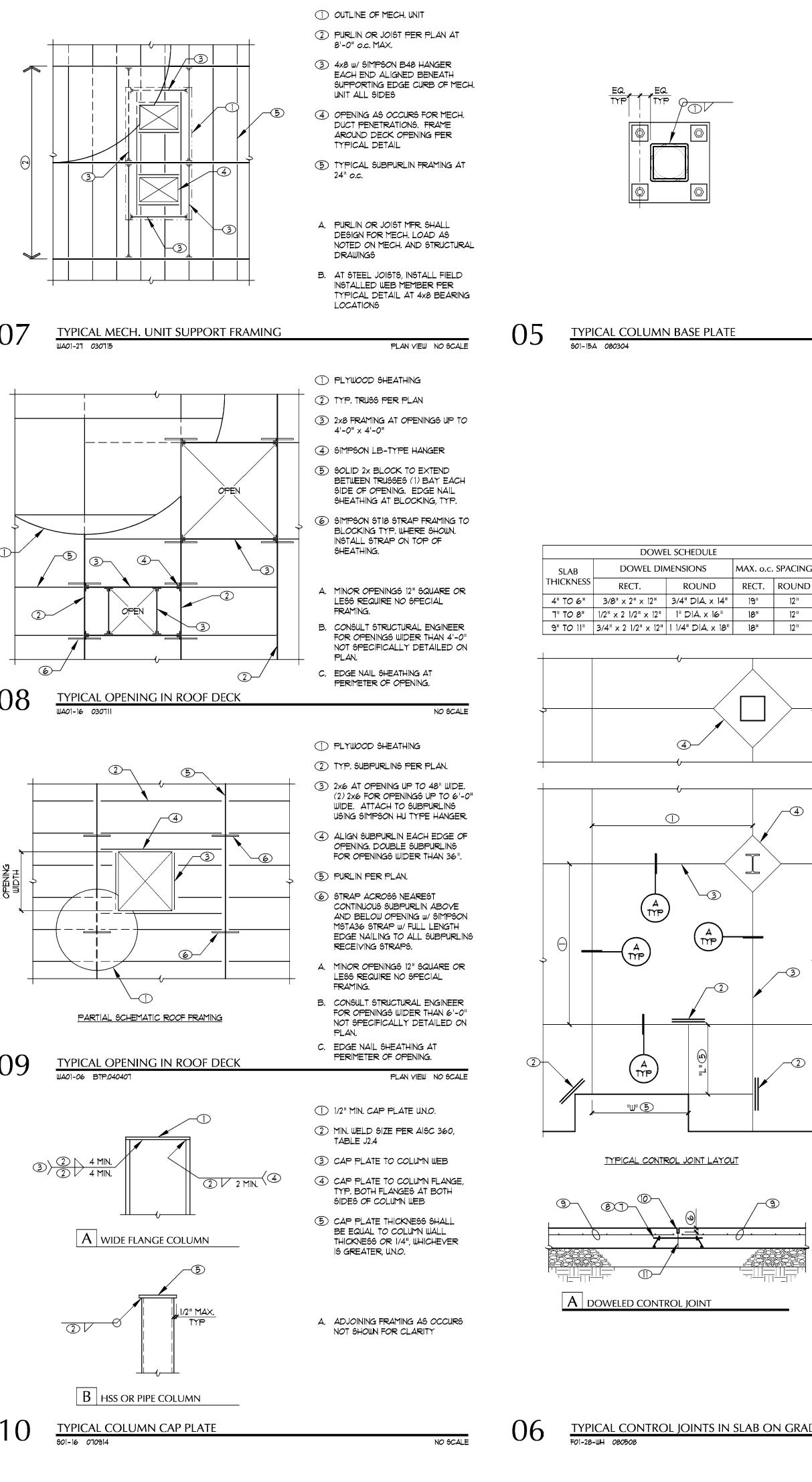


GENERAL STRUCUTRAL NOTES (CONT'D.)

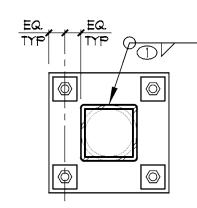
DRAWING NO.

216.007 Sorensen Flex Warehouse

WRIGHT



1/4" OR MIN. WELD SIZE PER AISC 360, TABLE J2.4, WHICHEVER IS GREATER



DOWEL SCHEDULE

ROUND

DOWEL DIMENSIONS

TYPICAL CONTROL JOINT LAYOUT

TYPICAL CONTROL JOINTS IN SLAB ON GRADE

A DOWELED CONTROL JOINT

A. SEE STEEL COLUMN SCHEDULE FOR BASE PLATE DIMENSIONS AND SIZE/QUANTITY OF ANCHOR RODS U.N.O. ON PLAN

NOMINAL BEAM | NUMBER | BOLT | SHEAR PLATE | WELD |

DEPTH "D" OF BOLTS | DIA. | THICKNESS | SIZE

3/4"

3/4"

3/4"

3/4"

3/4"

Ţn

l.,

1"

1"

1" 9/16"

3/16"

3/16"

1/4"

1/4"

1/4"

5/16"

5/16"

3/8"

3/8"

3/8"

3/8"

(6) HORIZ. SHORT-SLOTTED HOLES PER AISC 360 AT 3" o.c. MIN. IN EITHER

BEAM OR SHEAR PLATE UN.O. ON

DETAILS. STANDARD ROUND

HOLES IN MATING PIECE

5 AISC MIN. EDGE DISTANCE

1/4"

3/8"

3/8"

3/8"

3/8"

1/2"

1/2"

9/16"

9/16"

9/16"

(4) 2 x BOLT DIA.

TYPICAL SHEAR PLATE CONNECTION SCHEDULE

UP TO 7" 2 **◎ ◎** 3/4" 1/4"

3

4

6

5

6

8

9

10

8" TO 10"

12" TO 14"

24"

27"

30"

33"

40"

SHEAR PLATE THICKNESS AND

BOLTS PER SCHEDULE

2 WELD SIZE PER SCHEDULE

OF SHEAR PLATE

2

STIRRUP AND TIE HOOK

(4) "d" (2 1/2" MIN.)

3 DO NOT RETURN FILLET WELDS

ACROSS TOP AND BOTTOM EDGES

SCH02-01 080226

B. SEE TABLE 14-2 OF AISC STEEL CONSTRUCTION MANUAL FOR MAX. ANCHOR ROD HOLE DIA. IN BASE PLATE AND MIN. WASHER SIZE/THICKNESS, HOLE DIA. IN WASHERS SHALL BE 1/16" GREATER THAN ANCHOR ROD DIA.

TYPICAL COLUMN BASE PLATE NO SCALE

MAX. o.c. SPACING

RECT. ROUND

JOINTS TO BE EQUALLY SPACED BETWEEN COLUMN LINES EACH DIRECTION NOT TO EXCEED MAX. SPACING PER SCHEDULE JOINT SPACING SCHEDULE SLAB THICKNESS | MAX. SPACING 121 121

2) PLACE (2) *4 x 48" BARS AT MID-HEIGHT OF SLAB ADJACENT TO ALL DISCONTINUOUS JOINT LOCATIONS. CENTER ON JOINT

ALIGN CONTROL JOINT IN EACH DIRECTION w/ COLUMN, TYP. AT INTERIOR COLUMNS. AT EDGE COLUMNS, ALIGN CONTROL JOINT IN DIRECTION PERPENDICULAR TO SLAB EDGE

4 COLUMN ISOLATION JOINT PER TYPICAL DETAIL 18/50.6

(5) WHERE CONTROL JOINT SECTIONS ARE RECTANGULAR, WIDTH "W" SHALL NOT EXCEED 1.5 TIMES LENGTH "L"

6 DEPTH EQUAL TO 1/4 SLAB THICKNESS

(1) RECTANGULAR PLATE DOWEL (PREFERRED) OR SMOOTH ROUND DOWEL (PERMITTED ALTERNATE) PER G.S.N. W/ SIZE AND SPACING PER SCHEDULE. CENTER ACROSS JOINT AT MID-HEIGHT OF SLAB. FOR PLATE DOWELS, INSTALL DOWELS AND CLIPS PER MFR.'S RECOMMENDATIONS. FOR ROUND DOWELS, APPLY THIN BOND BREAKER COATING FULL LENGTH OF DOWEL

8 DOWELS SHALL BE PERPENDICULAR TO CONTROL JOINT AND PLACED 6" CLR. MIN. (PLATE DOWELS) OR 12" CLR MIN. (ROUND DOWELS) FROM JOINT INTERSECTIONS. DOWEL BASKETS SHALL BE USED TO MAINTAIN ALIGNMENT OF DOWELS WHILE CONCRETE IS POURED (USE DOWEL ALIGNERS AT CONSTRUCTION JOINTS)

3 STOP SLAB REINF. (AS OCCURS) EACH SIDE OF JOINT. SUPPORT OF TYP. SLAB REINF. SHALL BE INDEPENDENT FROM DOWELS

(10) SAW-CUT JOINT, SAW CUT SHALL BE MADE W/ AN EARLY ENTRY SAW SOON ENOUGH TO PREVENT SHRINKAGE CRACKING, BUT NOT SO SOON AS TO CAUSE SPALLING (I) CONSTRUCTION JOINT NEED ONLY

OCCUR AT EXPOSED EDGES OF DISCONTINUOUS SLAB PLACEMENT UN.O. APPLY BOND BREAKER TO JOINT PRIOR TO SECOND POUR (DO <u>NOT</u> ROUGHEN JOINT). IF CONSTRUCTION JOINT IS TO BE FILLED, TOOL TOP EDGE TO 1/8" MAX. RADIUS AND SAW CUT JOINT TO A DEPTH OF I"

TOOLED JOINT OF EQUIVALENT DEPTH MAY BE USED IN LIEU OF SAW-CUT JOINT

B. AS AN ALTERNATE TO RECTANGULAR PLATE DOWELS SPECIFIED ABOVE, USE PNA'S PD3 TAPERED PLATE DOWELS OF EQUIVALENT SIZE SPACED AT 24" O.C. MAX. INSTALL BASKET ASSEMBLIES PER MFR'S RECOMMENDATIONS

NO SCALE

SPECIFICALLY NOTED ON PLANS OR DETAILS Standard rebar bend details NO SCALE

ALL OTHER REINFORCING

OFFSET BAR

TYP. TILT-UP PANELS THICKNESS = 8 1/4" w/ #5 VERT, AT 5" o.c. AND #5 HORIZ. AT 15" O.C. CENTERED IN PANEL THICKNESS TYP. U.N.O. ON PLAN OR WALL ELEVATIONS

2) REINFORCING ABOVE OR BELOW PANEL OPENINGS: *5 VERT. AT 12" o.c. UN.O. #5 HORIZ. AT 15" o.c. UN.O. EXTEND BARS LAP LENGTH

PAST EDGE OF OPENING, TYP. (3) (2) #5 TYP. PERIMETER REINFORCING

(4) (2) *5 VERT. FULL HEIGHT TYP. AT SIDES OF OPENING EXCEPT WHERE SPECIAL JAMB REINFORCING

(5) (2) #5 HORIZ. TYP. AT TOP AND BOTTOM OF OPENING. EXCEPT WHERE SPECIAL LINTEL REINFORCING NOTED. EXTEND 24" MIN. PAST EDGE. HOOK ENDS AT PANEL EDGE. REFER TO DETAIL

S

<u>\(\times\)</u>

S

Pla

 Φ

940 (anta

ထဲလ

(6) (2) *4 × 48" DIAG. CORNER BAR TYP. ALL OPENINGS. HOOK ENDS AT PANEL EDGE

(7) SPECIAL JAMB REINFORCING PROFILE PER TILT-UP JAMB SCHEDULE ON PANEL ELEVATION SHEETS

(8) EXTENT OF SPECIAL JAMB REINFORCING

ROOF LINE

FINISH FLOOR

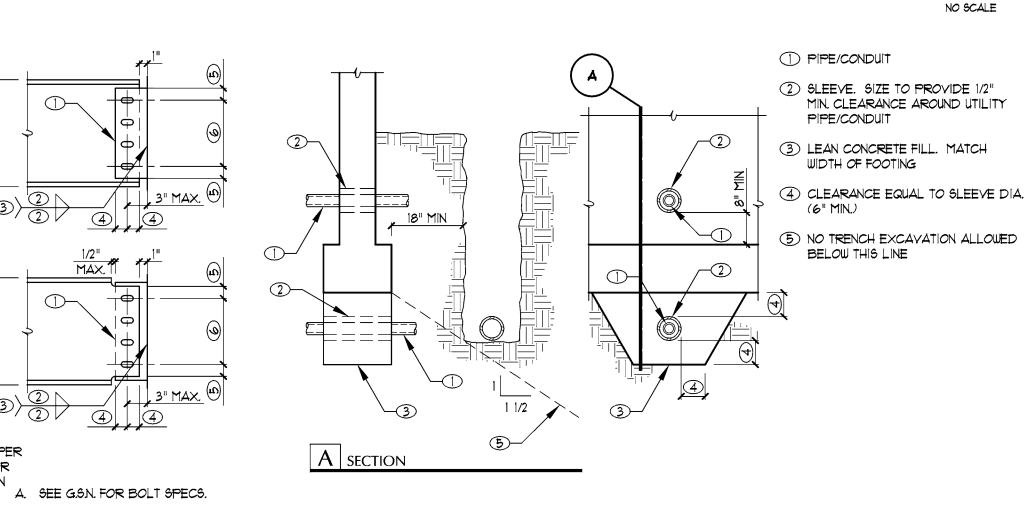
3 SPECIAL JAMB REINFORCING PER PANEL ELEVATION KEYNOTES

(6) SEE PLAN FOR T.O.F. ELEVATION

TYPICAL PANEL ELEVATION SHOWS ONLY TYPICAL REINFORCING, SEE PANEL ELEVATIONS FOR SPECIAL REINFORCING, EMBEDS, ETC.

INFO. SHOWN ON PANEL ELEVATIONS TAKE PRECEDENCE OVER TYP. PANEL ELEVATION WHERE DISCREPANCY EXISTS.

WHERE KNOCKOUT OCCURS PER PANEL ELEVATION, PROVIDE TYPICAL REINFORCING PER NOTE (AND PERIMETER REINFORCING SIMILAR TO THAT SPECIFIED AT EDGE OF OPENING





NO SCALE

(1) MINIMUM FINISHED BEND DIA. FOR

(2) (6) "d" FOR *5 AND SMALLER (12)

3 MINIMUM FINISHED BEND DIA, FOR

*8 BAR, (8) "d" FOR *9 THRU *11, (12)

ALL REINFORCING EXCEPT STIRRUPS AND TIES (6) "d" UP TO

B. ALL REINFORCEMENT SHALL BE

BENT COLD UNLESS NOTED

C. REINFORCING PARTIALLY

OTHERWISE ON PLANS OR DETAILS

EMBEDDED IN CONCRETE SHALL

NOT BE FIELD BENT UNLESS

"d" FOR *6 THRU *8

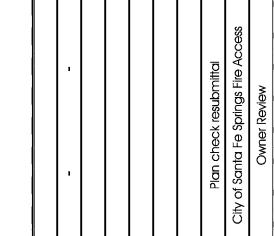
"d" FOR *14 AND *18.

A. "d" = BAR DIA.

(4) "d" FOR *5 BAR AND SMALLER,

(6) "d" FOR *6 THRU *8. TYPICAL

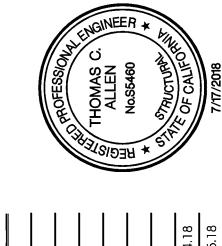
STIRRUPS AND TIES ONLY



TYPIPCAL DETAILS

DRAWING NO.

WRIGHT





NO SCALE

TITLE

- 5 OPTIONAL OFFSET. SEE STANDARD REBAR BEND DETAILS FOR OFFSET REQUIREMENTS
- 6 FOR NON-CONTACT LAP SPLICES, 2 CASES I AND 2: BARS W/CLR MIN. CLR. DISTANCE BETWEEN SPLICED BARS SHALL BE PER G.S.N. MAX. CLR DISTANCE SHALL BE 1/5 THE TABULATED LAP LENGTH OR (6" - "db"), WHICHEVER IS LESS, WHERE "db" = BAR DIA.
- 1 VALUES SHOWN FOR #14 BARS AND LARGER ARE DEVELOPMENT LENGTHS. TENSION SPLICES FOR *14 BARS AND LARGER SHALL ONLY BE MADE W/ MECHANICAL SPLICE COUPLERS PER G.S.N.
- (3) LAP SPLICE LENGTH PER

VALUES SHOWN

1) TOP BARS ARE HORIZ. BARS

MEMBER BELOW SPLICE

COVER AND CLR. SPACING

PLACED SUCH THAT MORE THAN 12"

OF FRESH CONCRETE IS CAST IN

GREATER THAN OR EQUAL TO MIN.

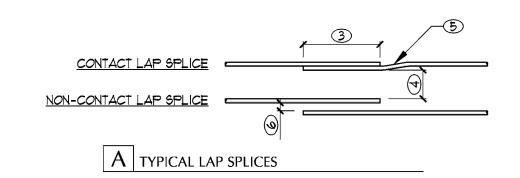
CASE 3: BARS W/ CLR. COVER

CRITERIA FOR CASE 1 OR 2

AND CLR. SPACING NOT MEETING

4 CLR DISTANCE BETWEEN ADJACENT BARS OR SPLICES TO BE USED IN DETERMINING APPLICABLE LAP LENGTH FROM SCHEDULE

										RE	BAR LAP	LENGTH	①						
BAR	CASE	MIN. CLR.	MIN. CLR.	f'c = 2	500 PSI	f'c = 3	000 PSI	f'c = 3	500 PSI	f'c = 4	000 PSI	f'c = 4	500 PSI	f'c = 5	000 PSI	f'c = 6	000 PSI	f'c = 7	000 PSI
SIZE	2	COVER	SPACING	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
	1	3/4	1 1/2	19	16	17	16	16	16	16	16	16	16	16	16	16	16	16	16
*3	2	3/8	3/4	31	24	28	22	26	20	25	19	23	18	22	١٦	20	16	19	16
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	1	2	25	19	23	18	21	16	20	16	19	16	18	16	16	16	16	16
*4	2	1/2	1	41	32	38	29	35	27	33	25	31	24	29	23	27	21	25	19
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	1 1/4	2 1/2	31	24	28	22	26	20	25	19	23	18	22	١٦	20	16	19	16
# 5	2	5/8	1 1/4	51	39	47	36	43	33	41	31	38	30	36	28	33	26	31	24
	3	-	-	דד	59	70	54	65	50	61	47	57	44	54	42	50	38	46	35
	1	1 1/2	3	37	29	34	26	31	24	29	23	28	21	26	20	24	19	22	17
*6	2	3/4	1 1/2	61	47	56	43	52	40	49	37	46	3 5	44	34	40	31	37	28
	3	-	-	92	11	84	65	35	60	73	56	69	53	65	50	59	46	55	42
	1	1 3/4	3 1/2	54	41	49	38	45	35	43	33	40	31	38	29	35	27	32	25
*1	2	7/8	1 3/4	89	69	81	63	75	58	71	54	67	51	63	49	58	45	54	41
	3	-	-	134	103	122	94	113	FS	106	81	100	77	95	73	86	67	80	62
	1	2	4	61	47	56	43	5 2	40	49	37	46	35	44	34	40	31	37	28
*8	2	1	2	102	78	93	72	86	66	81	62	76	59	72	56	66	51	61	47
	3	-	-	153	דוו	139	101	129	99	121	93	114	88	108	83	99	76	9	70
	1	2 1/2	4 3/4	69	53	63	49	59	45	55	42	5 2	40	49	38	45	3 5	42	32
*9	2	1 1/4	2 1/2	115	88	105	81	97	75	91	70	86	66	81	63	74	57	69	53
	3	-	-	172	132	157	121	146	112	136	105	128	99	122	94	111	86	103	PT er
	1	2 3/4	5 1/4	35	60	וד	55	66	51	62	47	58	45	55	43	50	39	47	36
* 10	2	1 1/2	2 3/4	129	100	118	91	109	84	102	79	96	74	92	וד	84	64	77	60
	3	-	-	194	149	דדו	136	164	126	153	118	144	111	137	106	125	96	116	89
	1	3	5 3/4	86	66	79	61	73	56	68	53	64	50	61	47	56	43	52	40
#11	2	1 1/2	3	143	110	131	101	121	93	114	87	107	82	102	78	93	71	86	66
	3	-	-	215	165	196	151	182	140	170	131	160	123	152	117	139	107	129	99
	1	3 1/2	٦	80	61	73	56	67	52	63	49	60	46	57	44	52	40	48	37
*14 T	2	1 3/4	3 1/2	133	102	121	93	112	86	105	81	99	76	94	72	86	66	ег	61
_	3	-	-	199	153	181	140	168	129	157	121	148	114	141	108	128	99	119	92
	1	4 3/4	9 1/4	106	82	97	75	90	69	84	65	er	61	75	58	69	53	64	49
*18	2	2 1/2	4 3/4	דדו	136	161	124	149	115	140	108	132	101	125	96	114	88	106	81
_	3	-	-	265	204	242	186	224	172	209	161	197	152	187	144	171	132	158	122

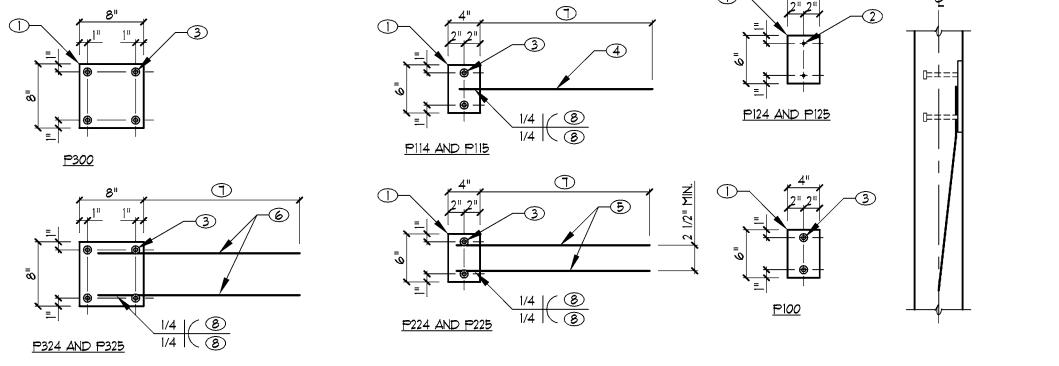


- A. ALL TABULATED VALUES ARE IN UNITS OF INCHES U.N.O.
- B. AT CONTRACTOR'S OPTION, MECHANICAL SPLICE COUPLERS PER G.S.N. MAY BE USED IN LIEU OF LAP SPLICES
- C. CONCRETE STRENGTHS AND MIN. CLR. COVER / CLR. SPACING DISTANCES SHOWN ARE FOR SCHEDULING PURPOSES ONLY. SEE G.S.N. FOR ACTUAL CONCRETE SPECIFICATIONS AND MIN. CLR. COVER / CLR. SPACING REQUIREMENTS
- D. WHERE BARS OF UNEQUAL SIZE LAP ONE ANOTHER, USE TABULATED LAP LENGTH FOR SMALLER BAR UN.O.
- E. SCHEDULED VALUES ARE BASED ON CLASS "B" TENSION LAP SPLICES UN.O., NORMAL WT. CONCRETE, AND UNCOATED GRADE 60 REINF. FOR OTHER CONDITIONS NOTED BELOW, MODIFY TABULATED VALUES AS INDICATED: E.I. FOR DEVELOPMENT LENGTH AND CLASS "A" LAP SPLICES, WHERE SPECIFICALLY NOTED ON PLANS OR

DETAILS, DIVIDE TABULATED VALUES BY 1. 3. CLASS "A" SPLICES SHALL BE LOCATED SUCH THAT NO MORE

- THAN 1/2 OF THE TOTAL REINF. IS LAPPED WITHIN THE REQUIRED LAP LENGTH E2. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATED VALUES BY 1.3
- E.3. FOR EPOXY COATED REBAR, MULTIPLY TABULATED VALUES BY 1.5
- E.4. FOR GRADE 15 REINF., MULTIPLY TABULATED VALUES BY 1. 25 E.5. FOR SHEAR WALL JAMB REINF., MULTIPLY TABULATED VALUES BY 1. 25
- F. COMPRESSION DEVELOPMENT LENGTHS AND LAP LENGTHS, WHERE SPECIFICALLY NOTED ON PLANS OR DETAILS,
- SHALL COMPLY WITH THE FOLLOWING: F.1. COMPRESSION DEVELOPMENT LENGTH SHALL BE $22 \times$ "db" FOR GRADE 60 REINF. AND $28 \times$ "db" FOR
- GRADE 15 REINF., BUT NOT LESS THAN 8" F2. COMPRESSION LAP SPLICES FOR *11 BARS AND SMALLER SHALL BE 30 x "db" FOR GRADE 60 REINF. AND 44 x "db" FOR GRADE 15 REINF., BUT NOT LESS THAN 12". SPLICE LENGTH FOR COMPRESSION LAP SPLICES BETWEEN BARS OF DIFFERENT SIZES SHALL BE THE LARGER OF THE SMALLER BAR'S COMPRESSION LAP LENGTH AND THE LARGER BAR'S COMPRESSION DEVELOPMENT LENGTH. #14 BARS AND LARGER MAY ONLY BE COMPRESSION LAP SPLICED TO *11 BARS AND SMALLER
- G. FOR BUNDLED BARS, REFER TO "TYPICAL LAP SPLICES AT BUNDLED BARS" DETAIL FOR ADD'L. REQUIREMENTS

TYPICAL REBAR LAP SCHEDULE (CONCRETE) NO SCALE SCH02-05A 080227



1 3/8" STEEL PLATE

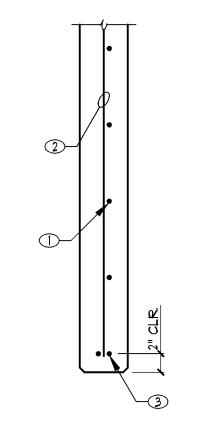
CENTERLINE (SEE DETAIL

- 2 AUTOMATIC WELDED REBAR DOWEL (2) *4 x 24" BARS AT P124 (2) *5 x 30" BARS AT P125
- \bigcirc 1/2" DIA. \times 4" NELSON STUD OR EQUAL, TYP.
- 4 *4 BAR AT P114 *5 BAR AT P115

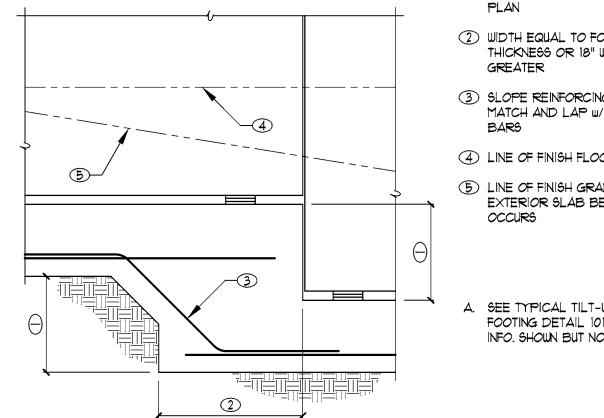
CENTER ON EMBED PLATE

- 5) (2) *4 BARS AT P224
- (2) *5 BARS AT P225
- 6 (2) *4 BARS AT P324 (2) *5 BARS AT P325
- 1 24" FOR *4 BAR 30" FOR *5 BAR
- 8 3" FOR *4 BAR 4" FOR *5 BAR
- A. EMBED PLATES SHOWN AS VIEWED FROM BACK SIDE.
- B. BEND REBAR TO TERMINATE AT PANEL BELOW)

TYPICAL EMBED PLATE SCHEDULE



- 1 TYPICAL REINFORCING PER TYPICAL TILT-UP PANEL ELEVATION
- 2 DEVELOPMENT LENGTH OR CONTINUOUS BAR
- 3 LINTEL REINFORCING PER PLAN OR DETAIL



TYPICAL TILT-UP PANEL AT STEPPED FOOTING



- 2 WIDTH EQUAL TO FOOTING THICKNESS OR 18" WHICHEVER IS
- 3 SLOPE REINFORCING AT STEP TO MATCH AND LAP W/ LONGITUDINAL

NO SCALE

S

 \supset

0

areh

<u>\(\Pi \) \(\Pi \) \(\Pi \)</u>

ense

0

S

Pla

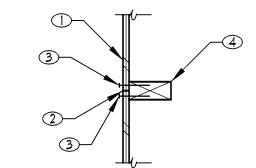
 Φ

8940 Santa

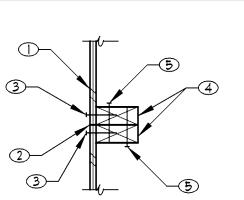
- 4 LINE OF FINISH FLOOR AS OCCURS 5 LINE OF FINISH GRADE OR
- EXTERIOR SLAB BEYOND AS
- A. SEE TYPICAL TILT-UP PANEL AT FOOTING DETAIL 101/64.1 FOR MORE INFO. SHOWN BUT NOT NOTED.

NO SCALE





A SINGLE PANEL EDGE FRAMING (ALL SHEAR WALLS)



B DOUBLE PANEL EDGE FRAMING (SHEAR WALLS SW1-SW16 ONLY)

WA01-38 140613

SHEAR WALL PANEL EDGE FRAMING

B. AT HOLE LARGER THAN 2" DIA. AT

2x4 WALL OR AT NOTCH PLACE

LOCATED IN THE STUD BAY

CONTAINING THE HOLE MOTCH

C. AT PENETRATIONS AND NOTCHES

w/ (22) 16d COMMON, HARDY

UPSIDE-DOWN.

<u>PLAN VIEW</u>

ELEVATION

TYPICAL HOLE IN DOUBLE TOP PLATE

SADDLE MAY BE INSTALLED

LARGER THAN NOTED ABOVE USE

HS-24 HARDY SADDLE (PFC-5342)

STUD DIRECTLY UNDER ANY TRUSS

- REQUIRED TO AVOID INTERFERENCE
- A. OPTION A MAY BE USED AT ALL SHEAR WALLS, OPTION B MAY BE USED AT SHEAR WALLS REFERENCED IN TABLE ABOVE AT

NO SCALE

3 EDGE NAILING PER PLAN 4 FRAMING AT ADJOINING PANEL

(1) SHEAR WALL SHEATHING PER PLAN

(2) BREAK IN SHEATHING AT ADJOINING

EDGES. MIN. SIZE PER PLAN (5) STITCH NAIL FROM BOTH SIDES PER TABLE BELOW. STAGGER AS

NO SCALE

	Г
MARK	STITCH NAILING
SW1-SW7	16d AT 16" o.c. MAX.
SW8-SW10	16d AT 10" o.c. MAX.
SW11	16d AT 6" o.c. MAX.
SW12-SW16	16d AT 4" o.c. MAX.

CONTRACTOR'S OPTION

 \bigcirc 2 9/16" MAX, DIAMETER HOLE AT

IN TOP PLATES

2x4 WALL. 4" MAX. DIAMETER

2 1 3/4" DEEP x 2 1/2" LONG NOTCH

3 RP522 (OR RP528) w/(16)16d, OR

 $C616 \times 32$ " w/ (26) 8d, EACH

PLATE, EXCEPT PER NOTE A

A. NO STRAP REQ'D. WHERE PLATES

ARE STITCH NAILED ON BOTH

INSTALLED BETWEEN HOLE AND

TYPICAL TOP PLATE SPLICE

DETAIL MAY COUNT IN TOTAL

PLATE | HOLE DIA. | NAILS

3/4" OR LESS

2 1/2" OR LESS

1 3/4" OR LESS | 10

NUMBER OF NAILS

BREAK IN EITHER TOP PLATE PER TABLE BELOW. NAILS PER

SIDES OF HOLE W/ NAILS

IN TOP PLATES ALLOWED

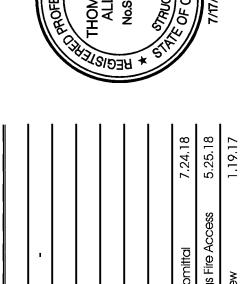
HOLE AT 2×6 WALL. CENTER HOLE

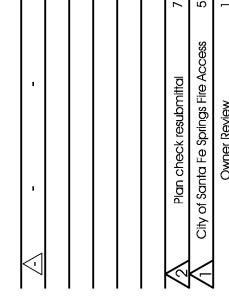
A STAGGERED PANEL EDGES

- - $|\mathsf{B}|$ boundaries and cont. Panel edges HIGH LOAD DIAPHRAGM NAILING - PLAN

- (1) SPACING PER NAILING SCHEDULE
- (2) PANEL JOINT 3 BOUNDARY OR CONT. PANEL EDGE
- (2) ROWS OF FASTENERS, STAGGER ROWS AS SHOWN
- (2) ROWS OF FASTENERS, STAGGER NAILS IN EACH ROW AS SHOWN
- 6 JOIST, LEDGER OR SUBPURLIN PER PLAN OR SCHEDULE
- 1 2 1/2" FOR 3x FRAMING. 3 1/2" FOR 4x FRAMING
- A. SPACE PANEL END AND EDGE JOINTS 1/8". REDUCE SPACING BETWEEN LINES OF NAILS AS NECESSARY TO MAINTAIN MINIMUM 3/8" FASTENER EDGE MARGINS.
- MINIMUM SPACING BETWEEN LINES OF NAILS SHALL BE 3/8".







TYPICAL DETAILS

TITLE

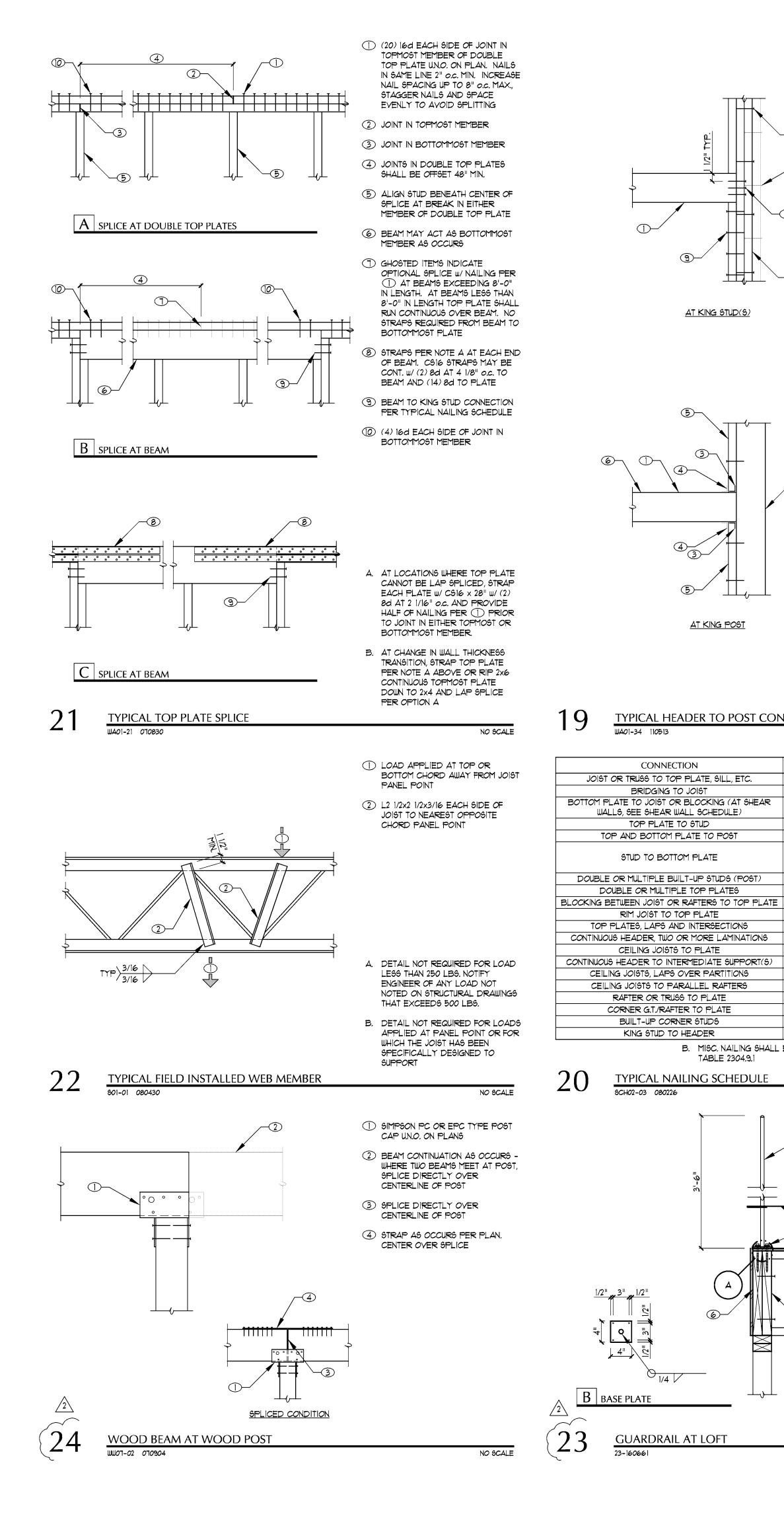
DRAWING NO.

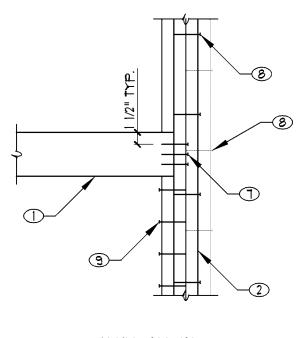
216.007 Sorensen Flex Warehouse

WRIGHT

3 3/4" OR LESS | 10

NO SCALE







AT KING POST

TYPICAL HEADER TO POST CONNECTION

CONNECTION

JOIST OR TRUSS TO TOP PLATE, SILL, ETC.

WALLS, SEE SHEAR WALL SCHEDULE)

TOP PLATE TO STUD

TOP AND BOTTOM PLATE TO POST

STUD TO BOTTOM PLATE

DOUBLE OR MULTIPLE TOP PLATES

RIM JOIST TO TOP PLATE TOP PLATES, LAPS AND INTERSECTIONS

CEILING JOISTS TO PLATE

CEILING JOISTS, LAPS OVER PARTITIONS

CEILING JOISTS TO PARALLEL RAFTERS

RAFTER OR TRUSS TO PLATE

CORNER G.T./RAFTER TO PLATE BUILT-UP CORNER STUDS

KING STUD TO HEADER

GUARDRAIL AT LOFT

TYPICAL NAILING SCHEDULE

TABLE 2304.9.1

	HEADER LENGTH	TOTAL No. A34	CRIPPLE KING P
	6'-0" OR LESS	1	(4) 16d T
	6'-1" TO 11'-0"	2	(7) 16d T
T	16' AND LONGER GARAGE DOOR HEADER	2	(T) 16d T

MINIMUM NAILING, U.N.O. ON PLANS OR DETAILS

(3) 16d OR (3) 3" x 0.131", TOENAIL

(2) 8d COMMON OR (2) 3" x 0.131", TOENAIL EACH END

16d AT 16" O.C. OR 3" x 0.131" AT 8" O.C., FACE NAIL

(2) 16d COMMON, (3) 3" x 0.131", END NAIL (2) 16d COMMON, (3) 3" x 0.131", END NAIL

TOENAILS: (4) 8d COMMON OR (4) 3" x 0.131", (4) 16d AT 3x AND LARGER

END NAILS: (2) 16d COMMON OR (3) 3" \times 0.131", (2) 20d AT 3 \times 16d AT 16" O.C. OR 3" x 0.131" AT 8" O.C., FACE NAIL

16d AT 16" o.c. OR 3" x 0.131" AT 12" o.c., FACE NAIL

(3) 16d OR (3) 3" x 0.131", TOENAIL 16d AT 6" o.c. OR 3" x 0.131" AT 6" o.c., TOENAIL

(2) 16d COMMON OR (3) 3" x 0.131", FACE NAIL 16d COMMON AT 16" O.C. ALONG EACH EDGE

(3) 16d OR (5) 3" x 0.131", TOENAIL

(4) 8d COMMON TOENAIL

(3) 16d COMMON OR (4) 3" x 0.131", FACE NAIL

(3) 16d COMMON OR (4) 3" x 0.131" FACE NAIL

(3) 16d OR (3) 3" x 0.131", TOENAIL

(4) 16d, TOENAIL

16d AT 16" o.c. OR 3" x 0.131" AT 16" o.c.

SEE DETAIL 19/506

TAIL PER ARCH'L

6 CONT. 1 3/4" LSL RIM

A TYPE A

3 NOT USED.

2 1/4"x4"x0'-4" STEEL BASE PLATE w/ (4) 1/2" DIA. LAG SCREWS.

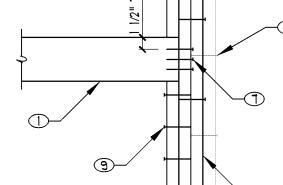
4 1 3/4LSL BLOCKING W/ (2) ROWS

SDS 1/4"x3 1/2" SCREWS AT 8" o.c.

5 I-JOIST OR I-JOIST BLOCKING PER

SPLICE CONNECTION

B. MISC. NAILING SHALL BE PER CBC A. SEE PLAN OR G.S.N. FOR TOP PLATE



(2) 16d AT 3" o.c. (8) 16d AT 16" o.c. UN.O. ON PLAN, EA.

(I) HEADER PER PLAN

SINGLE CLIP

2 KING POST / STUD(S) PER PLAN

3 A34 CLIP PER TABLE A. MAY BE

4 ALTERNATE CLIP LOCATION

5 WITH ALTERNATE LOCATION,

(6) CLIP NOT REQUIRED ON TOP OF

PLATE). IF SINGLE CLIP IS

FOR THIS SITUATION

INSTALLED TOP OR BOTTOM FOR

FASTEN TRIMMER / CRIPPLE PER

HEADER IF HEADER IS FASTENED

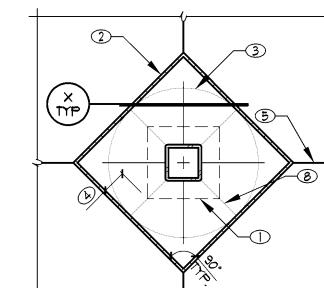
TO TOP PLATE (BUILT UP TOP

REQUIRED, IT MAY BE IGNORED

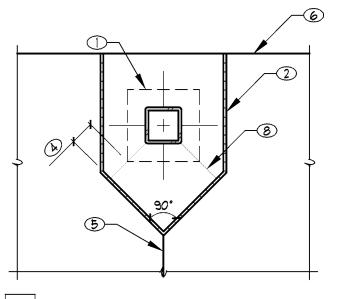
MEMBER AT MULTIPLE KING STUDS

3 FASTEN TRIMMER TO KING STUD(S) w/ 16d AT 8" o.c. AT MULTIPLE TRIMMERS, FASTEN TRIMMER TO TRIMMER W/ 16d AT 8" o.c.

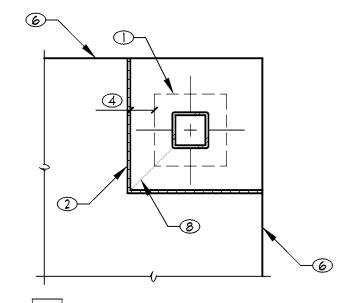
HEADER LENGTH	TOTAL No. A34	CRIPPLE TO KING POST	
6'-0" OR LESS	1	(4) 16d TOTAL	
6'-1" TO 11'-0"	2	(7) 16d TOTAL	
16' AND LONGER GARAGE DOOR HEADER	2	(7) 16d TOTAL	

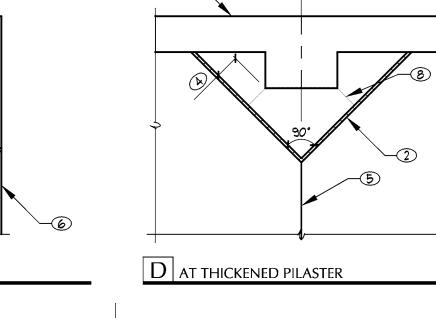


A AT INTERIOR COLUMN



B AT EDGE COLUMN





DEDGE OF STEEL BASE PLATE OR

② COLUMN ISOLATION JOINT W/

(3) ISOLATION JOINT MAY BE

AND CORNER COLUMNS

OCCURS, TYP.

ARCH'L.

4" MIN. CLR, TYP.

DETAIL, TYP.

6 SLAB EDGE

FACE OF CONCRETE COLUMN AS

PREFORMED JOINT FILLER. FILL

TOP OF JOINT W/ ELASTOMERIC JOINT SEALANT AS REQ'D. PER

CIRCULAR IN LIEU OF DIAMOND

SHOWN, TYP. AT INTERIOR, EDGE,

S

<u>\(\text{\tin}\text{\tetx{\text{\tetx{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\ti}\}\tittt{\text{\text{\texi}\text{\text{\texi}\text{\text{\tex{\ti}\}\tittt{\text{\texi}\text{\text{\text{\texi}\tittt{\text{\t</u>

S

S

Pla

elop

 Φ

8940 Santa

AND RECTANGULAR SHAPES

(5) CONSTRUCTION JOINT OR CONTROL

JOINT PER "TYPICAL CONTROL

JOINTS IN SLAB ON GRADE"

1 PLACE CLOSURE POUR AFTER

COMPLETION OF STRUCTURAL

SLABS AND DECKS, ETC.)

TYP. SLAB THICKNESS

(9) CONCRETE OR MASONRY WALL

A. SEE APPLICABLE FOUNDATION

CONNECTIONS

SECTION, ETC.

B. STEEL COLUMN SHOWN IS

DETAILS FOR COLUMN TO FOOTING

SCHEMATIC ONLY. SEE PLAN AND APPLICABLE COLUMN SCHEDULE

FOR ACTUAL COLUMN MATERIAL,

8 WHERE SLAB ON GRADE IS TO BE

EXPOSED, PROVIDE TOOLED OR

AT CORNERS OF COLUMN WHERE SHOWN. JOINT DEPTH SHALL BE 1/4

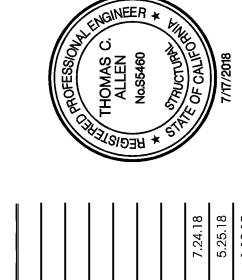
SAW-CUT JOINT IN CLOSURE POUR

FRAMING ABOVE (i.e., ELEVATED

FLOOR/ ROOF FRAMING, ELEVATED

X SECTION

TYPICAL COLUMN ISOLATION JOINTS - PLAN



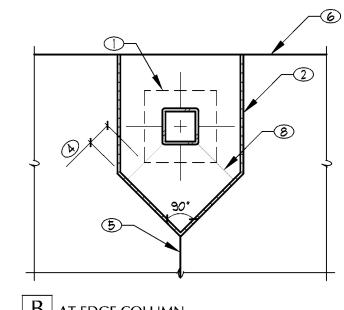
TYPICAL DETAILS

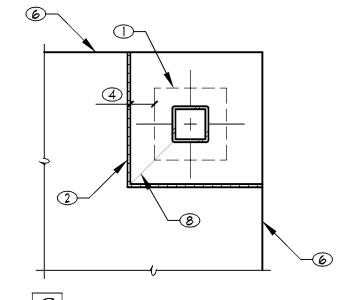
TITLE

WRIGHT

NO SCALE

DRAWING NO.





C AT CORNER COLUMN

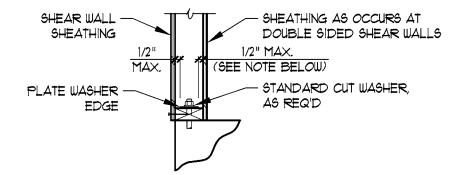
NO SCALE

NO SCALE

NO SCALE

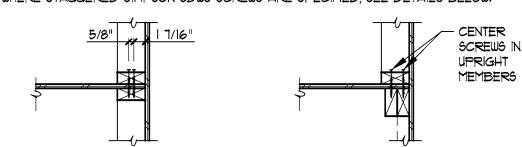
SHEAR WALL (SW) SCHEDULE

- A. ALL SHEAR WALL FRAMING SHALL BE 2x UN.O. FRAMING MAY BE WIDER THAN SPECIFIED, EXCEPT BOTTOM PLATES ON WOOD SHALL BE SIZED PER THIS SCHEDULE.
- B. PROVIDE (2) FULL HEIGHT END STUDS (MIN.) EACH END OF SHEAR WALL U.N.O. ON PLAN OR DETAILS. STITCH NAIL STUDS W/ (2) 16d AT 6" o.c. STAGGERED. AT MULTIPLE END STUDS, FASTEN W/ (2) 16d AT 4" o.c. STAGGERED, EACH MEMBER.
- C. SHEAR WALL PANELS SHALL NOT BE LESS THAN 4 FT. x 8 FT. EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING AND MAY BE INSTALLED EITHER HORIZ. OR VERT. UN.O. ON PLAN OR WHERE SPECIFICALLY REQ'D. BY THE MFR. ALL PANEL EDGES SHALL BE CENTERED ON AND FASTENED DIRECTLY TO STUDS AND SOLID BLOCKING UN.O. FASTENERS SHALL BE PLACED NOT LESS THAN 3/8" FROM PANEL EDGE AND SHALL BE FIRMLY DRIVEN INTO FRAMING MEMBERS. SUBSTITUTION OF ALT. NAILS OR STAPLES NOT PERMITTED W/O PRIOR WRITTEN APPROVAL OF EOR.
- D. SHEAR WALL AB. SIZE AND SPACING SHALL BE PER THIS SCHEDULE. SEE G.SN. FOR ALLOWABLE A.B. SUBSTITUTIONS. ALL SHEAR WALL ANCHOR BOLTS AND BOLT-TYPE SUBSTITUTIONS SHALL HAVE A MIN. 0229" x 3" x 3" PLATE WASHER (LARGER WASHER SIZE IS ACCEPTABLE). FOR PROPER WASHER PLACEMENT, SEE DETAIL BELOW. IF STANDARD CUT WASHER IS PLACED BETWEEN PLATE WASHER AND NUT, THE HOLE IN PLATE WASHER MAY BE DIAGONALLY SLOTTED UP TO 1-3/4" W/ WIDTH UP TO 3/16" LARGER THAN BOLT DIA.



NOTE: AT DOUBLE SIDED SHEAR WALLS W/ FRAMING LARGER THAN 2x6, IT IS ACCEPTABLE TO STAGGER BOLTS SUCH THAT ONE HALF OF THE WASHERS ARE WITHIN 1/2" OF ONE FACE AND THE OTHER HALF ARE WITHIN 1/2" OF THE OTHER FACE.

- E. SHEAR WALL LENGTHS NOTED ON PLAN ARE MINIMUM LENGTHS. WHERE "STK" SPECIFIED ON PLAN, MIN. SHEAR WALL LENGTH SHALL MATCH SHEAR WALL BELOW AND HOLDOWNS, WHERE SPECIFIED, SHALL BE FASTENED TO SHEAR WALL END STUDS/POSTS BELOW.
- F. BOTTOM PLATE NAILS SHALL BE 16d COMMON OR 16d BOX. STAGGER BOTTOM PLATE FASTENERS AT ELEVATED SHEAR WALLS.
- G. PROVIDE SOLID 2x BLOCKING AND EDGE NAILING AT EDGES OF EXHAUST VENT (8" \times 8" MAX.) IN SHEAR WALL.
- H. SEE DETAIL 15/50.5 FOR FRAMING REQUIREMENTS AT ADJOINING SHEAR WALL PANEL
- I. ALL PLYWOOD SHEAR WALL SHEATHING SHALL BE INSTALLED PRIOR TO FRAMING PERPENDICULAR WALLS AND POPOUTS.
- J. WHERE STAGGERED SIMPSON SDWS SCREWS ARE SPECIFIED, SEE DETAILS BELOW:



FLAT MEMBER BELOW PLYWOOD	UPRIGHT MEMBERS BELOW PLYWOOD

MARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOTTOM PLATE A.B. AT CONC. BOTTOM PLATE NAIL AT WOOD
SW20	DIFFERENT STUDS. 3x FRAMING AT ADJOINING PANEL EDGES	10d AT 2" O.C. STAGGER AT BOTTOM PLATE & ADJOINING PANEL EDGES	10d AT 12" o.c.	1/2" DIA. AB. AT 6" O.C. (2 MIN.) (BOTTOM PLATE MUST BE 3x) SDWS22500DB SCREWS AT 1 1/2" O.C. STAGGERED (BOTTOM PLATE MUST BE 3x)
SW21	15/32" STRUCT. I PLYWD. BOTH SIDES OF WALL. OFFSET VERTICAL PANEL JOINTS TO FALL ON DIFFERENT STUDS. 3x FRAMING AT ADJOINING PANEL EDGES	10d AT 2" O.C. STAGGER AT BOTTOM PLATE & ADJOINING PANEL EDGES	10d AT 12" o.c.	1/2" DIA. A.B. AT 6" o.c. (2 MIN.) (BOTTOM PLATE MUST BE 3x) SDWS22500DB SCREWS AT 1 1/2" o.c. STAGGERED (BOTTOM PLATE MUST BE 3x)

FRAMING PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
- B. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS IN FLOOR OR ROOF.
 ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.
- C. SKYLIGHT OPENING LOCATIONS SHOWN ON PLAN SHALL NOT BE CHANGED W/O THE WRITTEN APPROVAL OF THE ENGINEER THROUGH THE ARCHITECT.
- D. MISC. ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, MECH. EQUIPMENT ATTACHMENT TO PRIMARY STRUCTURAL FRAMING, ETC., SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DEFERRED SUBMITTALS PRIOR TO CONSTRUCTION. SEE G.S.N. FOR DEFERRED SUBMITTAL REQUIREMENTS.
- E. PANEL DESIGNATION SYMBOLS ARE AS FOLLOWS:

P22 PANEL NUMBER

95.1 PANEL ELEVATION REFERENCE SHEET

- F. SEE DETAIL 01/50.4 AND TILT-UP PANEL ELEVATIONS FOR PANEL REINF., THICKNESS, ETC.
- G. FRAMING AS SHOWN ON PLAN INDICATES PREFABRICATED STEEL JOISTS SPACED AT 8'-0" O.C. MAX. U.N.O. JOIST DESIGN SHALL CONFORM TO THE REQUIREMENTS SHOWN BELOW.

1. 00101	sizes si	HALL BE AS FOLLO	SUPERIMPOSED DESIGN LOADS (PLF) *		
M	1ARK	SPAN	DESIGNATION **	TOTAL LOAD	LIVE LOAD
;	RJI	48'-0" OR LESS	30K	275	131
1	RJ2	28'-0" OR LESS	22 K	300	156
ī	RJ3	40'-0" OF LESS	24K	285	141
i	RJ4	12'-0" OR LESS	10K	304	160

* TABULATED LOADS DO NOT INCLUDE PROVISION FOR LOADS FROM MECH. UNITS, SKYLIGHTS, SPRINKLERS, ETC.

**JOIST DESIGNATED MAY BE REPLACED WITH A DEEPER JOIST ONLY W/ WRITTEN APPROVAL FROM THE ARCHITECT.

2. JOIST MFR. SHALL DESIGN ALL JOISTS FOR AN ADDITIONAL 1000* (MIN.) VERT. POINT LOAD AT ANY PANEL POINT LOCATION (TOP AND BOTTOM) ALONG THE LENGTH OF THE JOIST, OR ACTUAL MECH. UNIT / SPRINKLER PIPING LOAD, WHICHEVER IS GREATER. MIN. SPRINKLER MAIN LOADS SHALL BE AS FOLLOWS UN.O. BY OTHERS. VERIFY WT. AND LOCATION OF SPRINKLER PIPING AND ROOF-MOUNTED MECH. UNITS W/ ARCH'L, MECH., PLUMBING, AND/OR FIRE PROTECTION PLANS.

4" MAIN: 17 PLF 6" MAIN: 32 PLF 8" MAIN: 51 PLF

- 3. JOIST MFR. SHALL DESIGN ALL JOISTS TO MEET OR EXCEED THE DEFLECTION CRITERIA SPECIFIED IN THE G.S.N.
- 4. JOIST MFR. SHALL DESIGN ALL JOISTS FOR 11.54 KIP AXIAL LOAD (WIND/SEISMIC FORCES AT WORKING STRESS LEVEL, TENSION OR COMPRESSION) AT TOP CHORD IN APPROPRIATE LOAD COMBINATIONS UN.O.
- 5. JOIST MFR. SHALL DESIGN ALL ROOF JOISTS FOR 7.0 PSF NET UPLIFT (WIND) AND SHALL PROVIDE ADDITIONAL BRIDGING AS REQ'D.
- 6. JOIST MFR. SHALL DESIGN AND SHOP INSTALL 3x WOOD NAILER AND ATTACHMENT TO TOP CHORD TO TRANSFER AXIAL LOAD SPECIFIED ABOVE.
- 1. AT PANELIZED ROOF SYSTEMS, JOIST BEARING DEPTH SHALL BE 3" UN.O.
- H. STEEL JOIST GIRDER DESIGN SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
- AT PANELIZED ROOF SYSTEMS, STEEL JOIST GIRDER DESIGNATIONS SHOWN INDICATE ONLY GIRDER DEPTH AND PANEL POINT D.L. + L.L. REACTION. GIRDER MFR. SHALL DETERMINE ACTUAL NUMBER OF GIRDER PANEL POINTS.
- 2. GIRDER MFR. SHALL DESIGN ALL GIRDERS FOR AN ADDITIONAL 2, 0 K VERT. POINT LOAD AT ANY PANEL POINT LOCATION ALONG THE LENGTH OF THE GIRDER, OR ACTUAL MECH. UNIT LOAD, WHICHEVER IS GREATER. VERIFY WT. AND LOCATION OF ROOF-MOUNTED MECH. UNITS W/ ARCH'L. OR MECH. PLANS.
- 3. GIRDER MFR. SHALL DESIGN ALL GIRDERS TO MEET OR EXCEED THE DEFLECTION CRITERIA SPECIFIED IN THE G.S.N.
- 4. "D =" DENOTES AXIAL FORCE DUE TO WIND OR SEISMIC FORCES (WORKING STRESS LEVEL, TENSION OR COMPRESSION) TO BE INCLUDED IN APPROPRIATE LOAD COMBINATIONS BY GIRDER MFR.
- 5. GIRDER MFR. SHALL DESIGN ALL GIRDERS FOR 7.0 PSF NET UPLIFT (WIND) AND SHALL PROVIDE ADDITIONAL BRACING AS REQ'D.
- 6. INSTALL WOOD NAILER PER DETAIL 219/95.2 AT ALL JOIST GIRDERS SUBJECT TO DRAG LOADS. FASTEN SHEATHING TO WOOD NAILERS W/ DOUBLE ROW OF BOUNDARY FASTENERS.
- I. PROVIDE FIELD-INSTALLED WEB MEMBERS AS REQ'D. AT POINT LOADS PER TYPICAL DETAIL 22/506
- J. "C =", DENOTES REQ'D. UPWARD CAMBER AT MIDSPAN OF BEAM OR GIRDER
- K. L1, L2, L3, \dots DENOTES LEDGER PER SCHEDULE ON THIS SHEET.
- L. $\bullet^{\times \times' \times \times''}$ DENOTES T.O.S. LEDGER ELEVATION.
- M. "D =" DENOTES AXIAL FORCE DUE TO WIND OR SEISMIC FORCES (WORKING STRESS LEVEL, TENSION OR COMPRESSION) TO BE INCLUDED IN APPROPRIATE LOAD COMBINATION BY TRUSS OR JOIST DESIGNER. FASTEN SHEATHING FULL LENGTH OF DRAG MEMBER W/ (1) ROW OF BOUNDARY FASTENERS AS NOTED BELOW. PROVIDE (2) ROWS OR REDUCE THE FASTENER SPACING BY HALF (e.g., 6" o.c. TO 3" o.c.) AT ALL INTERIOR DRAG MEMBERS UN.O. ON PLAN.
- N. SEE TYPICAL PANELIZED ROOF SHEATHING NAILING SCHEDULE ON SHEET \$2.1 FOR ROOF SHEATHING AND ATTACHMENT.
- 0. N1, N2, N3, \dots DENOTES ROOF NAILING PATTERN PER SCHEDULE ON SHEET S2.1.
- P. FASTENERS SHALL BE PLACED NOT LESS THAN 3/8" FROM PANEL EDGES AND SHALL BE FIRMLY DRIVEN INTO FRAMING MEMBERS. PANEL JOINT SHALL BE CENTERED ON FRAMING MEMBER. NO UNBLOCKED PANELS LESS THAN 24" WIDE SHALL BE USED. PROVIDE 1/8" GAP BETWEEN ROOF SHEATHING PANELS.

STEEL COLUMN (SC) SCHEDULE

- A. FOR BASE PLATE CONFIGURATION, A.R. PATTERN, AND COLUMN-TO-BASE PLATE CONNECTION, SEE TYPICAL COLUMN BASE PLATE DETAIL 05/60.4.
- B. STANDARD EFFECTIVE ANCHOR ROD EMBEDMENT = 1 1/2" UN.O. EFFECTIVE EMBEDMENT SPECIFIED DENOTES MIN. DISTANCE REQ'D. BETWEEN T.O. CONCRETE AND T.O. EMBEDDED NUT UN.O.
- C. ORIENT LONG DIMENSION OF BASE PLATE PARALLEL TO WEB OF WIDE FLANGE COLUMN UN.O.

MARK	SIZE	BASE PLATE	NOTES
5 C1	H658x8x3/8	TYPE A 1" × 14" × 1'-2" w/ (4) 3/4" DIA, A.R.	

LEDGER (L) SCHEDULE

- A. ALL LEDGERS SHALL HAVE MINIMUM OF (2) HEADED STUDS AT EACH END OF LEDGER AND AT LEDGER SPLICE LOCATIONS. SEE DETAIL 211/65.1
- B. SEE G.SN. FOR HEADED STUD AND POST-INSTALLED ANCHORS SPECIFICATIONS.
- C. POST-INSTALLED ANCHOR EMBEDMENT SHALL MATCH OR EXCEDD HEADED STUD LENGTH

MARK	LEDGER	CONNECTION	REMARKS
L1	C 15x33.9	(2) 3/4" DIA. × 6" HEADED STUDS OR AS SHOWN BELOW =	•
L2	L8x6x1/2 (LLV)	(2) 3/4" DIA. x 6" HEADED STUDS AT 15" o.c.	
L3	1 3/4x18 LVL	(2) 3/4" DIA. ANCHOR BOLTS AT 24" O.C. W/ 5" MIN. EMBEDMENT	
⊥ 4	3 1/2×18 LVL	(2) 3/4" DIA. ANCHOR BOLTS W/ 5" MIN. EMBEDMENT AT 16" o.c.	

FOUNDATION PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. AND/OR CIVIL PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
- B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L, MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.
- C. ALL FOOTINGS SHALL EXTEND 42 INCHES MIN. BELOW PAD GRADE. PAD GRADE IS

 DEFINED AS LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE
 LANDSCAPING) FOOTING EXCAYATIONS SHALL BE CLEAN AND FREE FROM LOOSE
 DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE
 PLACEMENT. CONTRACTOR SHALL COORDINATE FOOTING EMBEDMENT WITH CIVIL
 GRADING PLANS TO ENSURE THAT MINIMUM EMBEDMENT SPECIFIED ABOVE IS MAINTAINED.
- D. FINISH FLOOR REFERENCE ELEVATION = 100'-0" U.N.O.
- E. T.OF. ELEVATION AT STEEL OR CONCRETE COLUMNS = 1'-7 1/2" BELOW FF. UN.O.
- F. T.OF. ELEVATION AT TILT-UP PANELS = 1'-7 1/2" BELOW F.F. U.N.O. TOP OF FOOTING ELEVATION ALLOWS 1 1/2" CLEARANCE BELOW TILT-UP PANELS FOR SHIMS AND GROUT.
- G. F1, F2, F3, ... DENOTES FOOTING PER SCHEDULE THIS SHEET. TYPICAL FOOTING SHALL BE MARK "F1" UN.O. ON PLAN.
- H. S _____ S DENOTES FOOTING STEP PER TYPICAL DETAIL 12/50.5

I. PANEL DESIGNATION SYMBOLS ARE AS FOLLOWS.

P22 PANEL NUMBER

95.1 PANEL ELEVATION REFERENCE SHEET

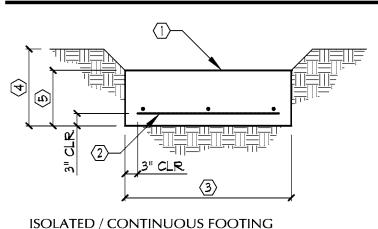
- J. SEE DETAIL 01/80.4 AND TILT-UP PANEL ELEVATIONS FOR PANEL REINF., THICKNESS, ETC.
- K. SC1, SC2, SC3, ... DENOTES STEEL COLUMN PER SCHEDULE ON THIS SHEET.
- L. PLACE SLAB(S) ON GRADE OVER SUBGRADE AND VAPOR BARRIER (AS REQ'D, 6mil MIN.
- AT OFFICE.) PER THE GEOTECHNICAL REPORT REFERENCED ON G.S.N.

 M. INTERIOR CONCRETE SLAB ON GRADE SHALL BE 6" THICK w/ *3 AT 18" o.c. EACH WAY.
- PLACE REINF. 2 1/4" CLR. FROM TOP OF SLAB.
- N. INSTALL SLAB CONTROL JOINTS PER DETAIL 06/50.4. MATCH CLOSURE POUR (WHERE PRESENT) CONTROL JOINTS WITH SLAB CONTROL JOINTS.
- O. ANCHOR BOTTOM PLATE AT CONCRETE W/5/8" MIN. DIA. "J" BOLT W/ ROUND CUT WASHER AND NUT W/7" MIN. EMBEDMENT. PROVIDE MIN. (2) A.B. PER BOTTOM PLATE PIECE.

 LOCATE A.B. WITHIN 12" OF EACH END OF EACH PIECE. A.B. SPACING SHALL NOT EXCEED 48" O.C. AT LOAD-BEARING WALLS AND 72" O.C. AT INTERIOR NONLOAD-BEARING WALLS. HOLDOWN ANCHORS DO NOT COUNT AS REPLACING ANCHOR BOLTS. SEE SHEAR WALLS SCHEDULE ON FRAMING PLAN FOR ADD'L. ANCHORAGE REQUIREMENTS AT SHEAR WALLS.
- P. SEE G.S.N. FOR ANCHOR BOLT SUBSTITUTIONS AND HOLDOWN ANCHORAGE.
- Q. SEE ARCH'L. AND/OR CIVIL DWGS. FOR EXTERIOR SLABS, WALLS, ETC.
- R. SEE DETAIL 02/S0.4 FOR PIPES/CONDUIT AT FTGS. PIPES/CONDUIT SHALL NOT PASS THRU NOR BE LOCATED BENEATH ISOLATED PAD FOOTINGS.
- S. /////////////////////// DENOTES WOOD BEARING WALL PER MEZZANNE FRAMING PLAN NOTES.
- T. AND SWI, SW2, SW3 ... DENOTES WOOD SHEAR WALL PER SCHEDULE ON THIS
- U. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- V. REFER TO DETAIL 107/64.1 FOR TYPICAL LIGHT POLE BASE DETAIL.
- W. REFER TO DETAIL 115/64.1 FOR (N) RAMP AT (E) BUILDING ENTRANCE \triangle (X. COMPACTION REPORT SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO

FOOTING (F) SCHEDULE

2 CALLING FOR FOUNDATION INSPECTIONS



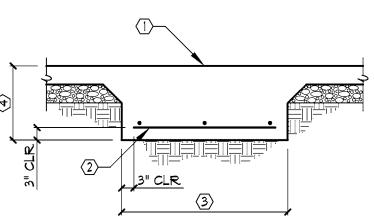
(1) SEE PLAN AND DETAILS
FOR EMBEDDED ITEMS
AND CONSTRUCTION
ABOVE FOOTING

② REBAR

(3) WIDTH / LENGTH

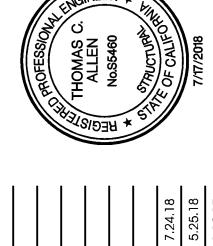
4) THICKNESS PER SCHEDULE OR EMBED DEPTH PER

(5) THICKNESS



THICKENED SLAB FOOTING

MARK	WIDTH	LENGTH	THICKNES S	footing rebar	NOTES
F1	4'-6"	CONT.	2'-0"	(6) *5 CONT. AT BOTTOM	•
F2	7'-0"	7'-0"	2'-0"	(10) #5 E. W., BOTTOM	
F3	4'-0"	4'-0"	2'-0"	(6) *5 E. W., BOTTOM	,
F4	2'-0"	CONT.	2'-0"	(3) #5 CONT. TOP AND BOTTOM	,
F5	12'-0"	CONT.	5 ¹−0"	(15) *6 CONT. TOP AND BOTTOM w/ *4 TIES AT 6" o.c.	,



S

 \supset

S

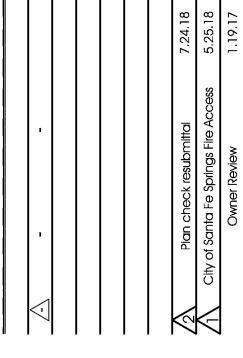
S

귭

Ф

9 D

ထေတ်



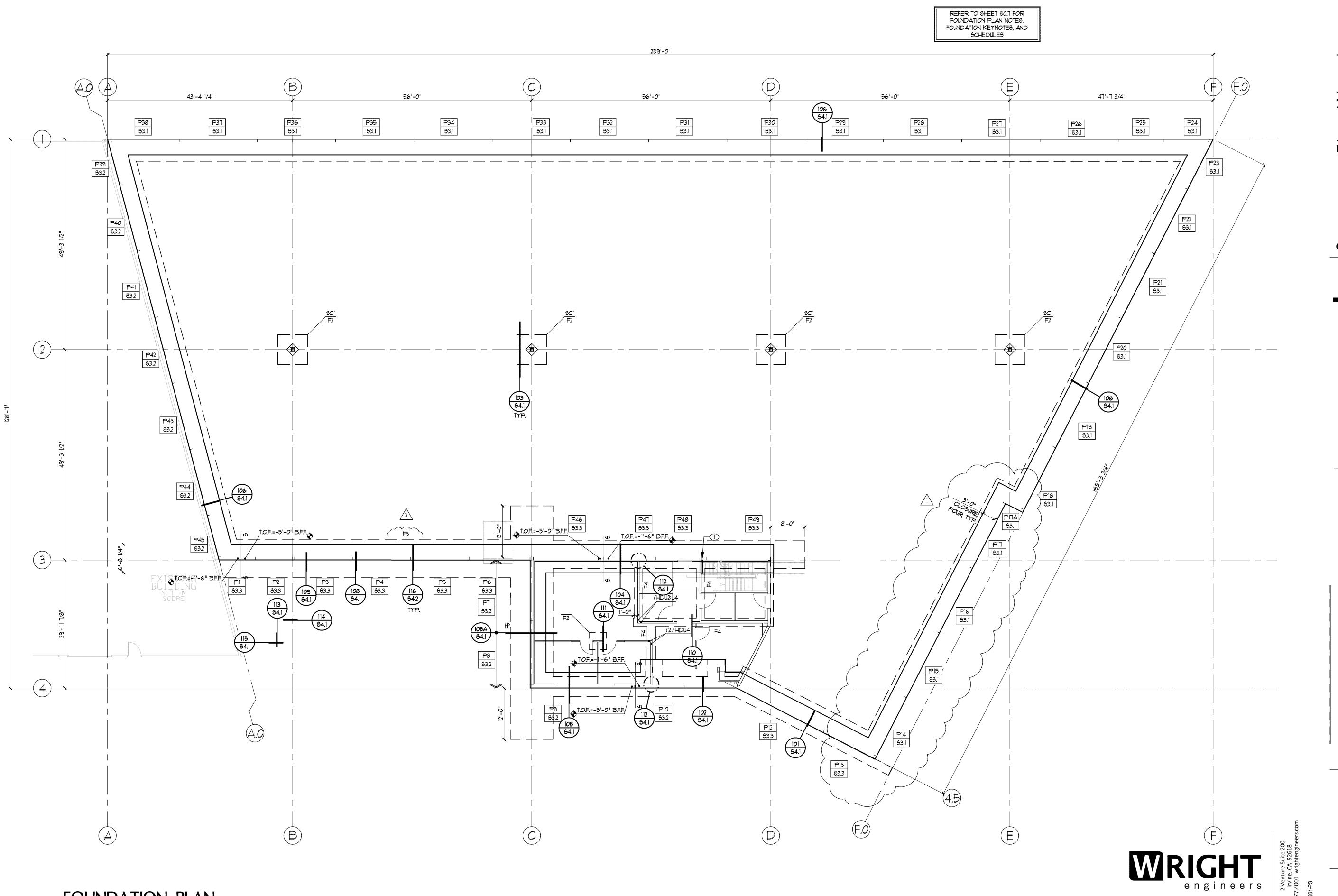
SHEET NOTES AND SCHEDULES

DRAWING NO.

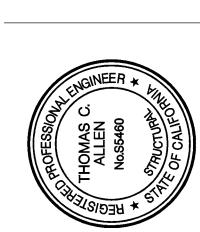
SO.7
216.007 Sorensen Flex Warehouse

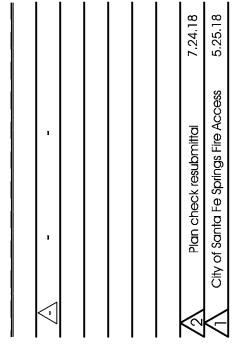
TITLE

WRIGHT engineers



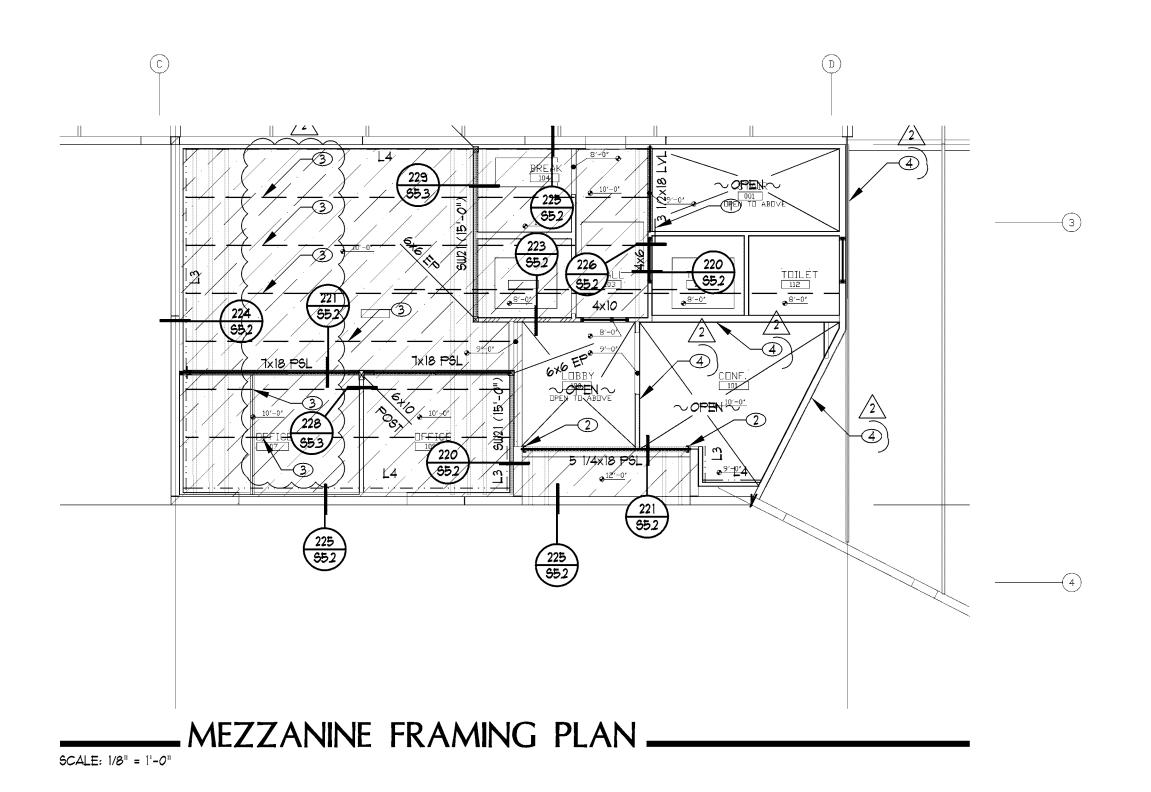
Development Sorensen



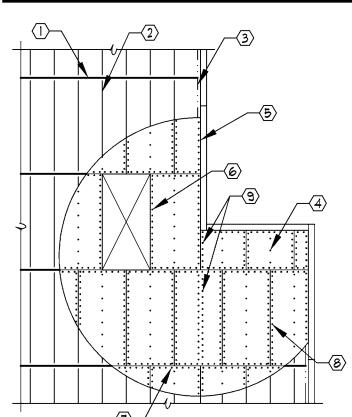


FOUNDATION PLAN

DRAWING NO.



PANELIZED ROOF SHEATHING/NAILING (N) SCHEDULE



- 1 PURLIN
- 2 SUBPURLIN
- 4 FIELD NAILING

(3) LEDGER

- (5) BOUNDARY NAILING
- (6) BOUNDARY NAILING AROUND OPENING
- (7) CONT. PANEL EDGE
- NAILING (8) STAGGERED PANEL EDGE
- DOUBLE ROW BOUNDARY NAILING ALONG ALL DRAG STRUTS OR BEAMS
- A. TYPICAL NAILING PATTERN SHALL BE TYPE "NI" UN.O.
- B. WHERE NAILING PATERN OVERLAP, MOST STRINGENT REQUIREMENT (HEAVIEST NAILING) APPLY.
- C. FIELD NAILING SHALL BE AT 12" O.C. TYP.
- D. NAIL AND SHOTPIN TYPE SHALL BE AS NOTED IN G.S.N. SUBSTITUTION OF ALTERNATE NAILS OR SHOTPINS NOT PERMITTED W/ PRIOR WRITTEN APPROVAL OF ENGINEER THORUGH THE ARCHITECT.

LE. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING

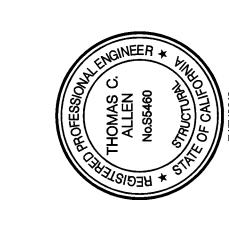
MARK	SHEATHING	BOUNDARIES AND CONT. PANEL EDGES	STAGGERED PANEL EDGES	NOTES
NI NI	15/32" STRUCT. 1 PLYWOOD	10d OR SHOTPINS PER G.S.N AT 6" o.c.	10d AT 6" o.c.	
N2	15/32" STRUCT. I PLYWOOD	10d OR SHOTPINS PER G.S.N AT 4" o.c.	10d AT 6" o.c.	
N3	15/32" STRUCT. 1 PLYWOOD	10d OR SHOTPINS PER G.S.N AT 2" o.c.	10d AT 3" o.c.	USE 3× MIN. FRAMING AND STAGGER NAILING AT ADJOINING PANEL EDGES WHERE NAILS ARE SPACED 2 1/2" o.c., OR LESS
N4	15/32" STRUCT. 1 PLYWOOD	(2) 10d OR SHOTPING PER GSN AT 2 1/2" o.c. STAGGERED	(2) 10d AT 3" o.c. STAGGERED	USE 4x MIN. FRAMING AT ADJOIING PANEL EDGES W/ (2) LINES OF FASTENERS PER DETAIL 13/SO.5

MEZZANINE FRAMING PLAN NOTES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.
- B. SEE TYPICAL DETAILS FOR FRAMING REQUIREMENTS AT OPENINGS IN FLOOR. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.
- C. MISC. ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, MECH. EQUIPMENT ATTACHMENT TO PRIMARY STRUCTURAL FRAMING, ETC., SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DEFERRED SUBMITTALS PRIOR TO CONSTRUCTION. SEE G.S.N. FOR DEFERRED SUBMITTAL REQUIREMENTS.
- D. INTERIOR LOAD BEARING WALL FRAMING SHALL BE 2x6 STUDS AT 16" O.C. UN.O.
- E. ZIZZZZ DENOTES LOAD BEARING WALLS THAT MAY NOT APPEAR OBVIOUS.
- F. KS DENOTES KING STUD. KP DENOTES KING POST. TS DENOTES TRIMMER STUD. TP DENOTES TRIMMER POST. ES DENOTES END STUD. EP DENOTES END POST. MINIMUM (1) KS AND (1) TS REQ'D. AT ALL OPENINGS. PROVIDE CONTINUOUS BEARING TO FOUNDATION FOR (2) TS OR GREATER. POSTS SUPPORTING FLUSH BEAM OR G.T. SHALL EXTEND TO UNDERSIDE OF BOTTOMMOST TOP PLATE OF WALL. DOUBLE TOP PLATE SHALL RUN CONTINUOUS OVER POST AT FLUSH BEAM OR G.T. UNLESS POST CAP IS SPECIFIED OR UN.O. ON PLAN.
- G. DOUBLE 2x TOP PLATE REQ'D. AT ALL BEARING WALLS. SPLICE PER DETAIL 21/50.6.
- H. SEE TYPICAL HOLE IN DOUBLE TOP PLATE DETAIL 16/505 FOR PENETRATIONS THROUGH TOP PLATES AT LOAD BEARING WALLS.
- I. SWI, SW2, SW3, ... DENOTES SHEAR WALL TYPE PER SCHEDULE ON SHEET SO.T. ALL SHEAR WALLS SHALL BE CONSIDERED LOAD BEARING UN.O.
- J. FLOOR SHEATHING (AND FLAT ROOF SHEATHING AS OCCURS) AND FASTENERS SHALL BE AS FOLLOWS UN.O. ON PLAN:
- 1. 3/4" T & G PLYWOOD PER G.S.N. 2. 10d AT 6" o.c. BOUNDARY FASTENERS (DIAPHRAGM BOUNDARIES, SHEAR PANEL
- BLOCKING, SOLID BLOCKING AND DRAG MEMBERS AS NOTED ON FRAMING DETAILS). 3. 10d AT 6" o.c. EDGE FASTENERS (AT SUPPORTED PANEL EDGES).
- 4. 10d AT 12" O.C. FIELD FASTENERS (ALONG INTERMEDIATE FRAMING MEMBERS). 5. ALT. FASTENERS: *8 x 2" MIN. ZINC COATED, FLAT/BUGLE HEAD SCREWS W/ SPACING NOTED ABOVE. SCREWS SHALL BE QUICK DRIVE WINTL WOOD SCREWS (ICC ER-5053),
- GRABBER PLYWOOD SCREWS, OR GRABBER COARSE THREAD SCREWS (ICC ER-5280). 6. ATCHED AREA INDICATES BLOCKED DIAPHRAGM w/ 10d AT 4" o.c. AT EDGES AND BOUNDARIES AND 12" o.c. FIELD U.N.O.
- K. L1, L2, L3, ... DENOTES WOOD LEDGER PER SCHEDULE ON SHEET SO.T.
- M. FASTENERS SHALL BE PLACED NOT LESS THAN 3/8" FROM PANEL EDGES AND SHALL BE FIRMLY DRIVEN INTO FRAMING MEMBERS. PANEL JOINT SHALL BE CENTERED ON FRAMING MEMBER. NO UNBLOCKED PANELS LESS THAN 24" WIDE SHALL BE USED. PROVIDE 1/8" GAP BETWEEN ROOF SHEATHING PANELS.
- N. TYPICAL MEZZANINE FLOOR JOISTS SHALL BE 18" DEEP RED 1-65 1-JOISTS AT 16" O.C. W/ SIMPSON "WPI" SERIES HANGERS

MEZZANINE KEYNOTES

- STRAP JOIST TO BEAM w/ SIMPSON CS16x26" w/ (22) 8d
- 2 SIMPSON M3HU5.50 BEAM HANGER
- \wedge (\odot FULL DEPTH BLOCKING PER DETAIL 224/65.2
- (4) REFER TO DETAIL 235/65.3 FOR TOP ATTACHMENT OF NON-LOAD BEARING PARTITIONS



S

<u>C</u>

×

S

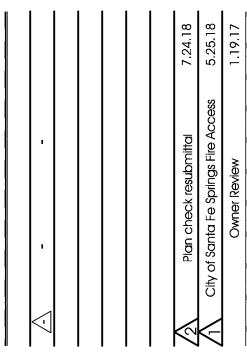
S

Pla

elopi

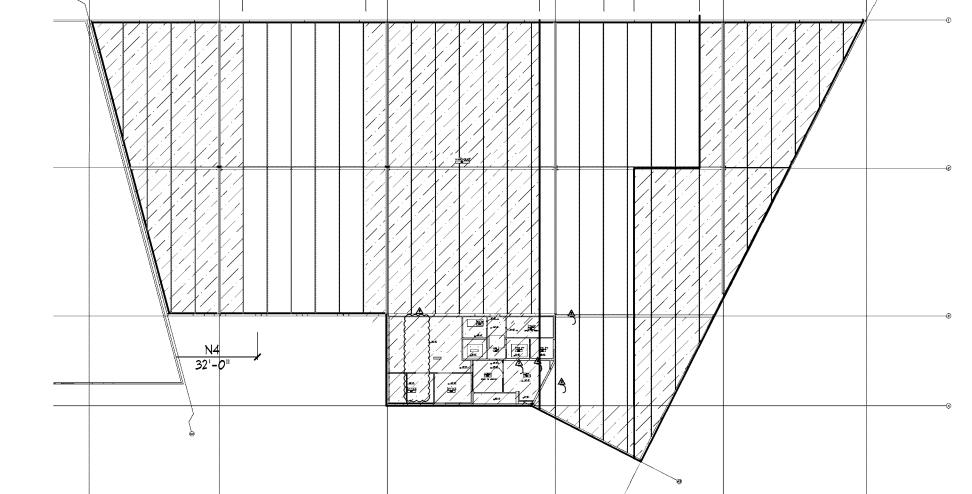
Φ

8940 Santa

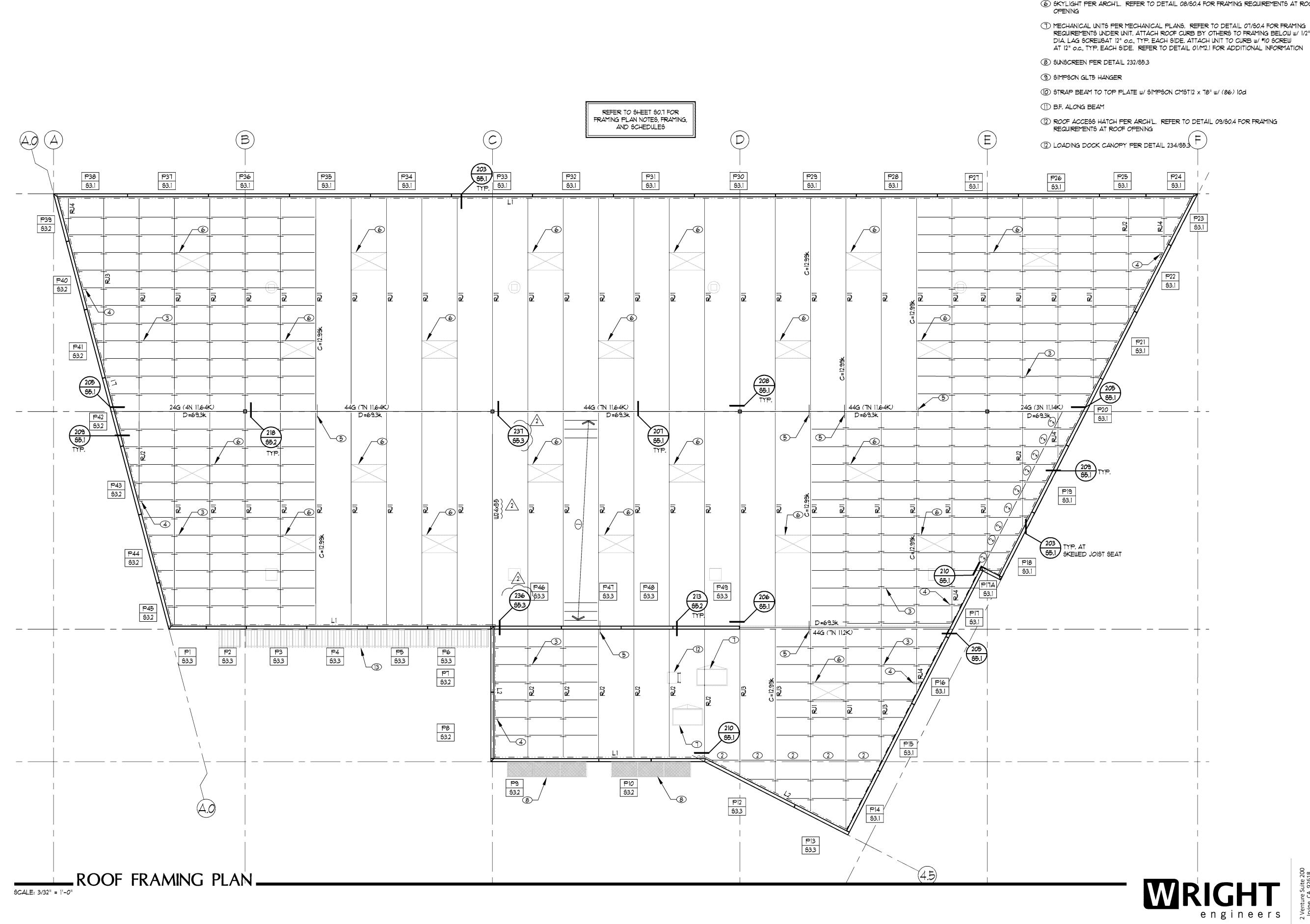


MEZZANINE AND **ROOF NAILING PLAN**

DRAWING NO.



WRIGHT engineers ROOF NAILING PLAN



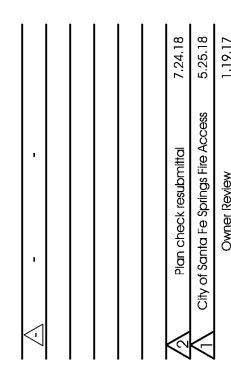
FRAMING KEYNOTES

- 1 2x6 SUB-PURLING AT 24" o.c. w/ F26P HANGERS, EACH END TYP.
- 2) HSS2 1/2x2 1/2x3/16 DRAG SUB-PURLINS
- 3 4x6 SUBPURLIN SUB-DIAPHRAM BLOCKING W/ SIMPSON F-SERIES HANGER ALIGNED W/ WALL ANCHORS AND EXTEND FROM WALL AS SHOWN ON PLANS. ALTERNATE 4x BLOCKING W/ TYPICAL SUBPURLING SO NET SPACING REMAINS 24" O.C. STRAP ALL PURLINS w/ (2) MSTC60 STRAP. EDGE NAIL SHEATHING TO 4x BLOCKING
- 4 WALL ANCHOR PLATE AT 4' o.c. TO 4x6 SUB-PURLIN PER DETAIL 209/S5.1, TYP.
- 5 PROVIDE 1/4"x4"x0'-4" TIE PLATE FROM JOIST TO JOIST AT DETAIL 207/65.1
- 6 SKYLIGHT PER ARCH'L. REFER TO DETAIL 08/50.4 FOR FRAMING REQUIREMENTS AT ROOF
- REQUIREMENTS UNDER UNIT. ATTACH ROOF CURB BY OTHERS TO FRAMING BELOW W/ 1/2" DIA. LAG SCREWSAT 12" o.c., TYP. EACH SIDE. ATTACH UNIT TO CURB w/ *10 SCREW AT 12" O.C., TYP. EACH SIDE. REFER TO DETAIL 01/M2.1 FOR ADDITIONAL INFORMATION

dre Pla orensen S

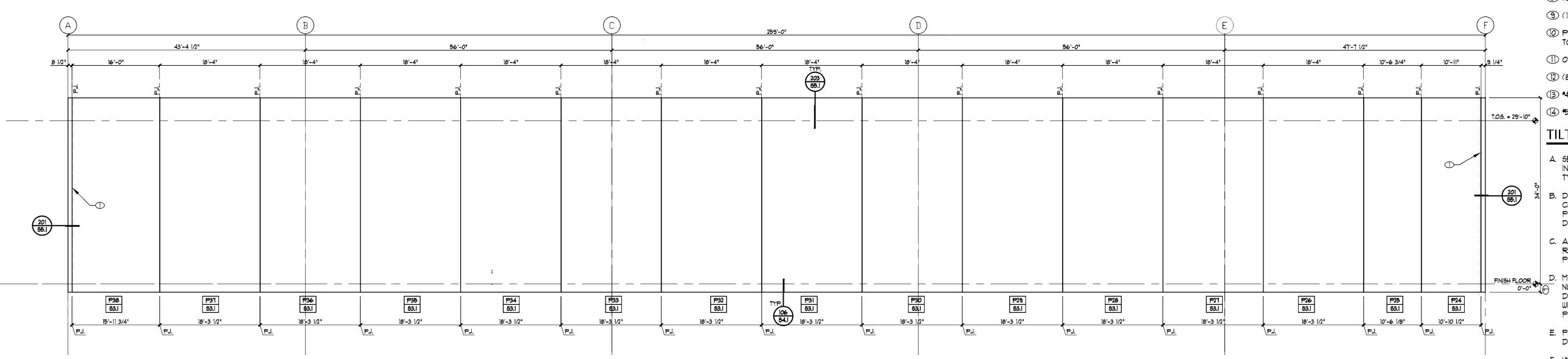
Se

8940 Sorensen Ave Santa Fe Springs, (



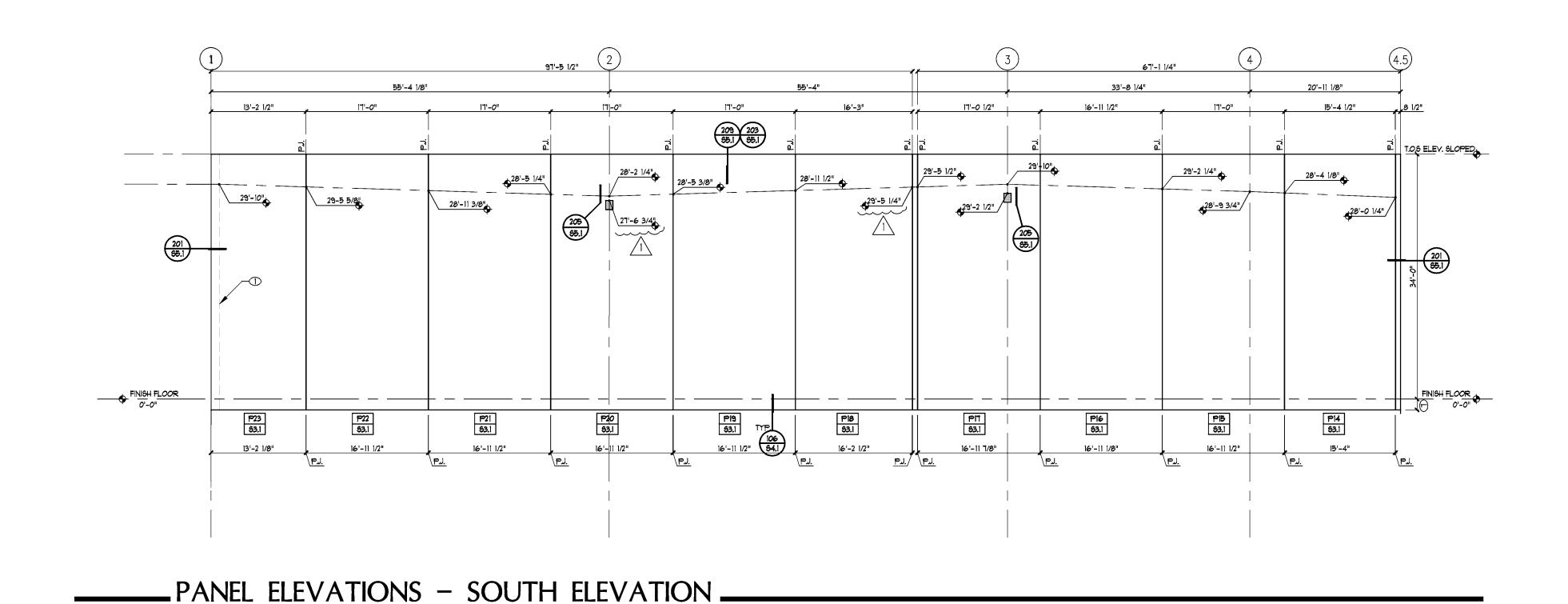
ROOF FRAMING PLAN

DRAWING NO.



PANEL ELEVATIONS - EAST ELEVATION

SCALE: 3/32" = 1'-0"



TILT-UP PANEL ELEVATION KEYNOTES

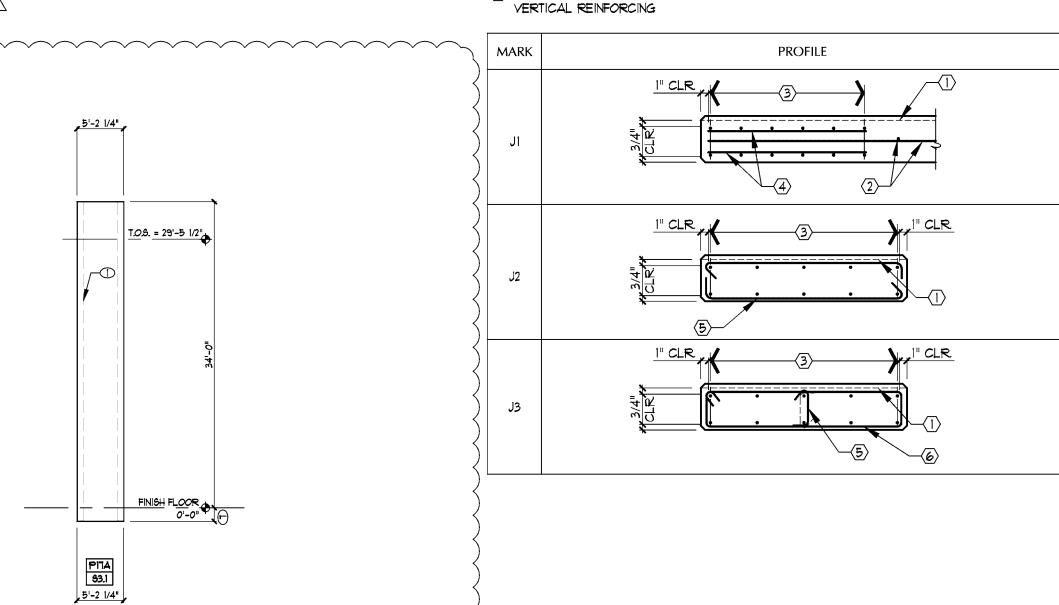
- 1 LINE OF ADJACENT PANEL
- (2) #5 EACH FACE, EQUALLY SPACED
- (3) *5 EACH FACE, EQUALLY SPACED
- (4) *5 EACH FACE, EQUALLY SPACED
- (6) *5 EACH FACE, EQUALLY SPACED
- 6 (8) *6 EACH FACE, EQUALLY SPACED
- TO VERIFY PANEL DIMENSIONS BELOW FINISH FLOOR WITH FOUNDATION PLAN. CONTRACTOR SHALL ALLOW 1 1/2" SPACE BETWEEN T.O.F. AND BOTTOM OF PANEL FOR LEVELING, SHIMS,
- (6) *6 EACH FACE, EQUALLY SPACED
- (12) *5 EACH FACE, EQUALLY SPACED
- (1) PROVIDE (2) % BOTTOM AT LINTEL W/ STD. HOOK INTO PANEL PER DETAIL 01/503. REFER TO DETAIL 13/60.4 FOR TYPICAL HOOK
- ① OVERFLOW DRAIN. VERIFY SIZE AND LOCATION WITH PLUMBING AND ARCH'L.
- (2) (8) *5 E.A. FACE, EQUALLY SPACED
- (3) *4 TIES AT 3" o.c.
- 14 *5 HORIZ. AT 8" O.C., CENTERED IN PANEL THICKNESS

TILT-UP PANEL ELEVATION NOTES

- A. SEE DETAIL 01/503 FOR TYPICAL PANEL THICKNESS AND REINFORCING: J1, J2, J3, . INDICATES SPECIAL JAMB REINFORCING PER SCHEDULE THIS SHEET IN ADDITION TO TYPICAL REINFORCING.
- B. DO NOT SCALE PANEL ELEVATIONS. ALL DIMENSIONS SHOWN ARE MEASURED FROM CENTERLINE OF PANEL JOINT OR EXTERIOR EDGE OF PANEL AS OCCURS. GAP BETWEEN PANELS AT PANEL JOINT (P.J.)= 1/2" UN.O. VERIFY ALL DIMENSIONS WITH PLANS AND ARCH'L. DRAWINGS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH ARCHITECT.
- C. ALL PANEL ELEVATIONS ARE SHOWN VIEWED FROM THE INTERIOR SIDE OF THE BUILDING. REFERENCE PANELS (i.e. SEE PANEL XX) MAY BE OPPOSITE HAND OR SIMILAR TO ACTUAL
- D. MISC. OPENINGS MAY NOT BE SHOWN ON TILT-UP PANEL ELEVATIONS. FOR EXACT SIZE, DRAWINGS. RESOLVE ANY DISCREPANCY WITH ARCHITECT. OPENINGS WHICH INTERFERE WITH ANY PANEL REINFORCING REQUIRE THE ENGINEER'S APPROVAL PRIOR TO POURING
 - E. PANEL ELEVATIONS MAY SHOW ONLY PARTIAL LISTINGS OF EMBEDMENTS. SEE PLAN AND DETAILS FOR EMBEDDED ITEMS.
 - F. UNLESS NOTED "EACH FACE" OR "E.F.", VERTICAL REINFORCING SHALL BE PLACED IN CENTER OF WALL. WHERE REINFORCING IS SPECIFIED AT EACH FACE OF WALL, VERT. BARS SHALL BE PLACED EXTERIOR TO HORIZ. BARS UN.O.
 - G. MAXIMUM REVEAL DEPTH 3/4" UN.O.
 - H. PROVIDE $3/4" \times 3/4"$ CHAMFERS AT ALL EXPOSED EDGES AND CORNERS, UN.O.
 - I. DENOTES TOP OF STEEL LEDGER ELEVATION. VERIFY ALL ELEVATIONS W/

TILT-UP JAMB (J) SCHEDULE

- 1 LINE OF REVEAL AS OCCURS
- (2) TYPICAL PANEL REINFORCING PER TYPICAL TILT-UP PANEL ELEVATION DETAIL OI UN.O.
- (3) SPECIAL VERTICAL REINFORCING PER PANEL ELEVATION
- (4) TYPICAL HORIZONTAL REINFORCING STAGGERED EACH FACE UN.O.
- (5) *3 TIES AT 3" O.C. W/ 135" HOOK ONE END AND 90" HOOK AT OPPOSITE END. ALTERNATE HOOKS. TIES SHALL EXTEND 40" PAST TOP AND BOTTOM OF OPENINGS
- (6) *4 CLOSED TIES AT 4" o.c. PROVIDE 12" BEYOND BOTTOM OF PIER AND TO THE TOP OF VERTICAL REINFORCING



PANEL ELEVATIONS -

FRONT ELEVATION

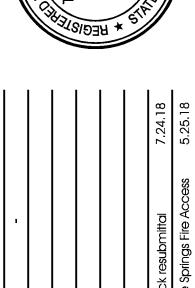
WRIGHT

PANEL ELEVATIONS

DRAWING NO.

8940 Santa

S



4 (4) *5 EACH FACE, EQUALLY SPACED

(6) *5 EACH FACE, EQUALLY SPACED

⑥ (8) ★6 EACH FACE, EQUALLY SPACED

① VERIFY PANEL DIMENSIONS BELOW FINISH FLOOR WITH FOUNDATION PLAN. CONTRACTOR SHALL ALLOW 1 1/2" SPACE BETWEEN T.O.F. AND BOTTOM OF PANEL FOR LEVELING, SHIMS,

(6) *6 EACH FACE, EQUALLY SPACED

(12) *5 EACH FACE, EQUALLY SPACED

(D) PROVIDE (2) % BOTTOM AT LINTEL W/ STD. HOOK INTO PANEL PER DETAIL 01/503. REFER TO DETAIL 13/60.4 FOR TYPICAL HOOK

(1) OVERFLOW DRAIN. VERIFY SIZE AND LOCATION WITH PLUMBING AND ARCH'L.

(2) (8) *5 EA. FACE, EQUALLY SPACED

(3) *4 TIES AT 3" o.c.

(4) #5 HORIZ. AT 8" O.C., CENTERED IN PANEL THICKNESS

TILT-UP PANEL ELEVATION NOTES

A. SEE DETAIL 01/503 FOR TYPICAL PANEL THICKNESS AND REINFORCING. J1, J2, J3, . INDICATES SPECIAL JAMB REINFORCING PER SCHEDULE THIS SHEET IN ADDITION TO TYPICAL REINFORCING.

B. DO NOT SCALE PANEL ELEVATIONS. ALL DIMENSIONS SHOWN ARE MEASURED FROM CENTERLINE OF PANEL JOINT OR EXTERIOR EDGE OF PANEL AS OCCURS. GAP BETWEEN PANELS AT PANEL JOINT (P.J.)= 1/2" UN.O. VERIFY ALL DIMENSIONS WITH PLANS AND ARCH'L. DRAWINGS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH ARCHITECT.

C. ALL PANEL ELEVATIONS ARE SHOWN VIEWED FROM THE INTERIOR SIDE OF THE BUILDING. REFERENCE PANELS (i.e. SEE PANEL XX) MAY BE OPPOSITE HAND OR SIMILAR TO ACTUAL

D. MISC. OPENINGS MAY NOT BE SHOWN ON TILT-UP PANEL ELEVATIONS. FOR EXACT SIZE, NUMBER, AND LOCATION OF OPENINGS, SEE ARCH'L., MECH., PLUMBING, AND ELECT. DRAWINGS. RESOLVE ANY DISCREPANCY WITH ARCHITECT. OPENINGS WHICH INTERFERE WITH ANY PANEL REINFORCING REQUIRE THE ENGINEER'S APPROVAL PRIOR TO POURING

E. PANEL ELEVATIONS MAY SHOW ONLY PARTIAL LISTINGS OF EMBEDMENTS. SEE PLAN AND DETAILS FOR EMBEDDED ITEMS.

F. UNLESS NOTED "EACH FACE" OR "E.F.", VERTICAL REINFORCING SHALL BE PLACED IN CENTER OF WALL. WHERE REINFORCING IS SPECIFIED AT EACH FACE OF WALL, VERT. BARS SHALL BE PLACED EXTERIOR TO HORIZ, BARS UN.O.

G. MAXIMUM REVEAL DEPTH 3/4" UN.O.

H. PROVIDE 3/4" x 3/4" CHAMFERS AT ALL EXPOSED EDGES AND CORNERS, U.N.O.

I. DENOTES TOP OF STEEL LEDGER ELEVATION. VERIFY ALL ELEVATIONS W/

TILT-UP JAMB (J) SCHEDULE

(1) LINE OF REVEAL AS OCCURS

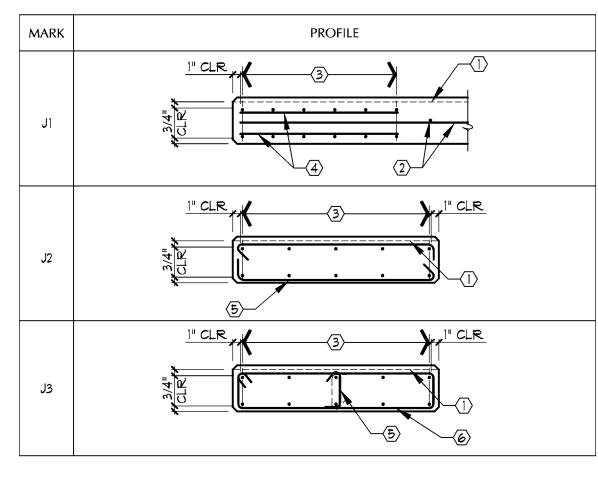
(2) TYPICAL PANEL REINFORCING PER TYPICAL TILT-UP PANEL ELEVATION DETAIL OI UN.O.

(3) SPECIAL VERTICAL REINFORCING PER PANEL ELEVATION

(4) TYPICAL HORIZONTAL REINFORCING STAGGERED EACH FACE UN.O.

(5) *3 TIES AT 3" O.C. W/ 135° HOOK ONE END AND 90° HOOK AT OPPOSITE END. ALTERNATE HOOKS. TIES SHALL EXTEND 40" PAST TOP AND BOTTOM OF OPENINGS

6 *4 CLOSED TIES AT 4" O.C. PROVIDE 12" BEYOND BOTTOM OF PIER AND TO THE TOP OF VERTICAL REINFORCING



OS ELEV.= 29'-10" T.O.S ELEV.= 0'-0"

.PANEL ELEVATIONS-NORTH ____

15'-0 1/4"

ELEVATION AT LOADING DOCK

203 95.1

WRIGHT engineers

US

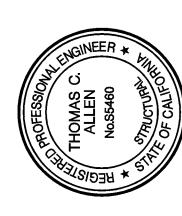
O

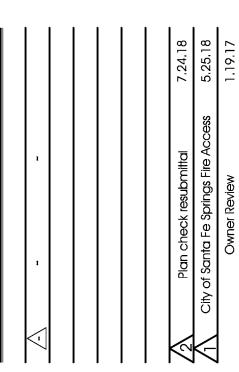
Φ

S

S

Pla 940 ganta 6 ထလ





PANEL ELEVATIONS

TITLE

DRAWING NO.

216.007 Sorensen Flex Warehouse

T.O.S = SLOPED 29'-3 1/2" 29'-10" 29'-1 3/8" 29'-3 5/8" 28'-11 3/4" 28'-11 5/8" FINISH FLOOR

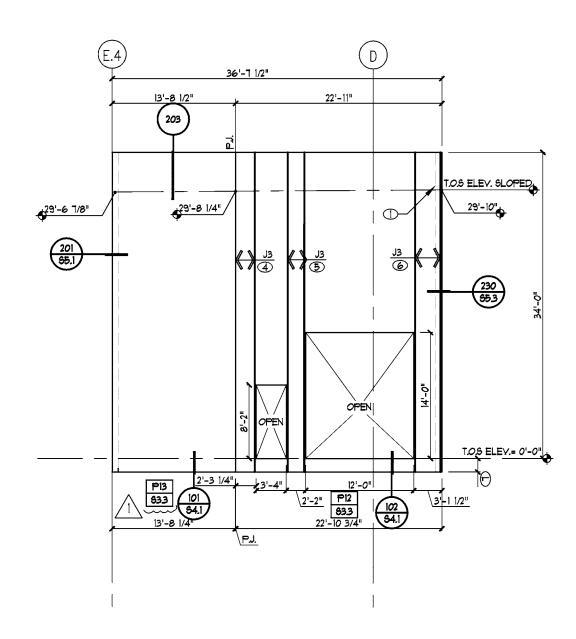
T.O.S ELEV.= 29'-10"

FINISH FLOOR

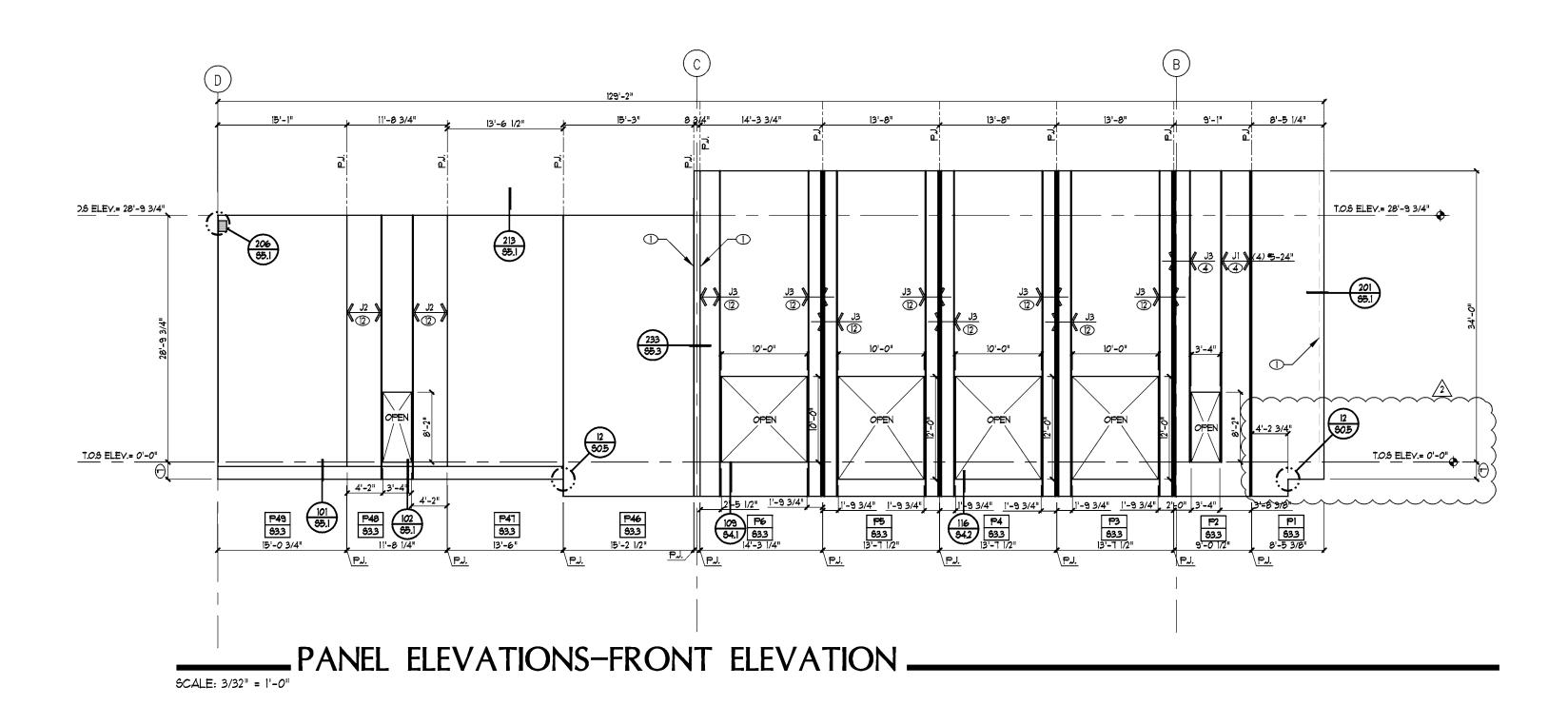
__PANEL ELEVATIONS-WEST ELEVATION _

24'-5 1/2"

PANEL ELEVATIONS-NORTH ELEVATION



PANEL ELEVATIONS-WEST ELEVATION -SCALE: 3/32" = 1'-0"



TILT-UP PANEL ELEVATION KEYNOTES

- LINE OF ADJACENT PANEL
- (2) #5 EACH FACE, EQUALLY SPACED
- (3) *5 EACH FACE, EQUALLY SPACED
- 4 (4) *5 EACH FACE, EQUALLY SPACED
- (6) *5 EACH FACE, EQUALLY SPACED
- 6 (8) *6 EACH FACE, EQUALLY SPACED
- (T) VERIFY PANEL DIMENSIONS BELOW FINISH FLOOR WITH FOUNDATION PLAN. CONTRACTOR SHALL ALLOW 1 1/2" SPACE BETWEEN T.O.F. AND BOTTOM OF PANEL FOR LEVELING, SHIMS,
- (8) (6) *6 EACH FACE, EQUALLY SPACED
- (12) *5 EACH FACE, EQUALLY SPACED
- (1) PROVIDE (2) % BOTTOM AT LINTEL W/ STD. HOOK INTO PANEL PER DETAIL 01/503. REFER TO DETAIL 13/80.4 FOR TYPICAL HOOK
- (1) OVERFLOW DRAIN. VERIFY SIZE AND LOCATION WITH PLUMBING AND ARCH'L.
- (2) (8) *5 E.A. FACE, EQUALLY SPACED
- (3) *4 TIES AT 3" o.c.
- (4) #5 HORIZ. AT 8" O.C., CENTERED IN PANEL THICKNESS

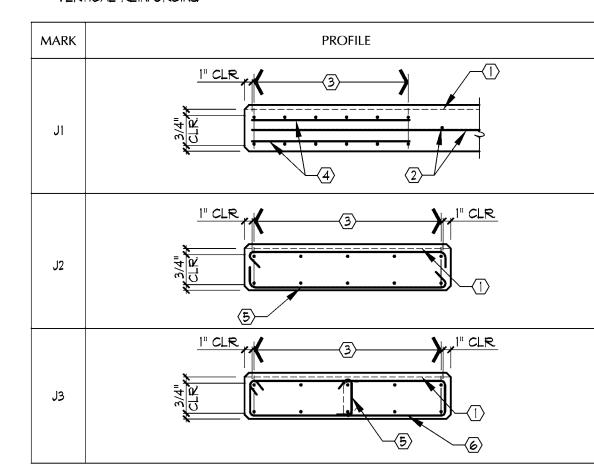
TILT-UP PANEL ELEVATION NOTES

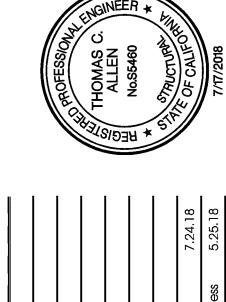
- A. SEE DETAIL 01/50.3 FOR TYPICAL PANEL THICKNESS AND REINFORCING. J1, J2, J3, . INDICATES SPECIAL JAMB REINFORCING PER SCHEDULE THIS SHEET IN ADDITION TO TYPICAL REINFORCING.
- B. DO NOT SCALE PANEL ELEVATIONS. ALL DIMENSIONS SHOWN ARE MEASURED FROM CENTERLINE OF PANEL JOINT OR EXTERIOR EDGE OF PANEL AS OCCURS. GAP BETWEEN PANELS AT PANEL JOINT (P.J.)= 1/2" U.N.O. YERIFY ALL DIMENSIONS WITH PLANS AND ARCH'L. DRAWINGS PRIOR TO CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH ARCHITECT.
- C. ALL PANEL ELEVATIONS ARE SHOWN VIEWED FROM THE INTERIOR SIDE OF THE BUILDING. REFERENCE PANELS (I.e. SEE PANEL XX) MAY BE OPPOSITE HAND OR SIMILAR TO ACTUAL
- D. MISC. OPENINGS MAY NOT BE SHOWN ON TILT-UP PANEL ELEVATIONS. FOR EXACT SIZE, NUMBER, AND LOCATION OF OPENINGS, SEE ARCH'L., MECH., PLUMBING, AND ELECT. DRAWINGS. RESOLVE ANY DISCREPANCY WITH ARCHITECT. OPENINGS WHICH INTERFERE WITH ANY PANEL REINFORCING REQUIRE THE ENGINEER'S APPROVAL PRIOR TO POURING
- E. PANEL ELEVATIONS MAY SHOW ONLY PARTIAL LISTINGS OF EMBEDMENTS. SEE PLAN AND DETAILS FOR EMBEDDED ITEMS.
- F. UNLESS NOTED "EACH FACE" OR "E.F.", VERTICAL REINFORCING SHALL BE PLACED IN CENTER OF WALL. WHERE REINFORCING IS SPECIFIED AT EACH FACE OF WALL, VERT. BARS SHALL BE PLACED EXTERIOR TO HORIZ BARS UN.O.
- G. MAXIMUM REVEAL DEPTH 3/4" UN.O.
- H. PROVIDE $3/4" \times 3/4"$ CHAMFERS AT ALL EXPOSED EDGES AND CORNERS, UN.O.
- I.

 | XX'-XX"| DENOTES TOP OF STEEL LEDGER ELEVATION. VERIFY ALL ELEVATIONS W/

TILT-UP JAMB (J) SCHEDULE

- (I) LINE OF REVEAL AS OCCURS
- (2) TYPICAL PANEL REINFORCING PER TYPICAL TILT-UP PANEL ELEVATION DETAIL OI UN.O.
- 3 SPECIAL VERTICAL REINFORCING PER PANEL ELEVATION
- (4) TYPICAL HORIZONTAL REINFORCING STAGGERED EACH FACE UN.O.
- (5) *3 TIES AT 3" O.C. W/ 135" HOOK ONE END AND 90" HOOK AT OPPOSITE END. ALTERNATE HOOKS. TIES SHALL EXTEND 40" PAST TOP AND BOTTOM OF OPENINGS
- (6) *4 CLOSED TIES AT 4" o.c. PROVIDE 12" BEYOND BOTTOM OF PIER AND TO THE TOP OF VERTICAL REINFORCING



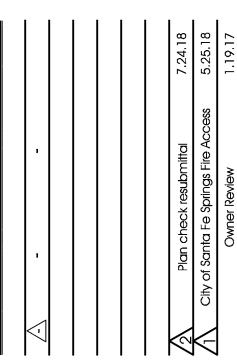


S

S

940 (anta

ထိလိ

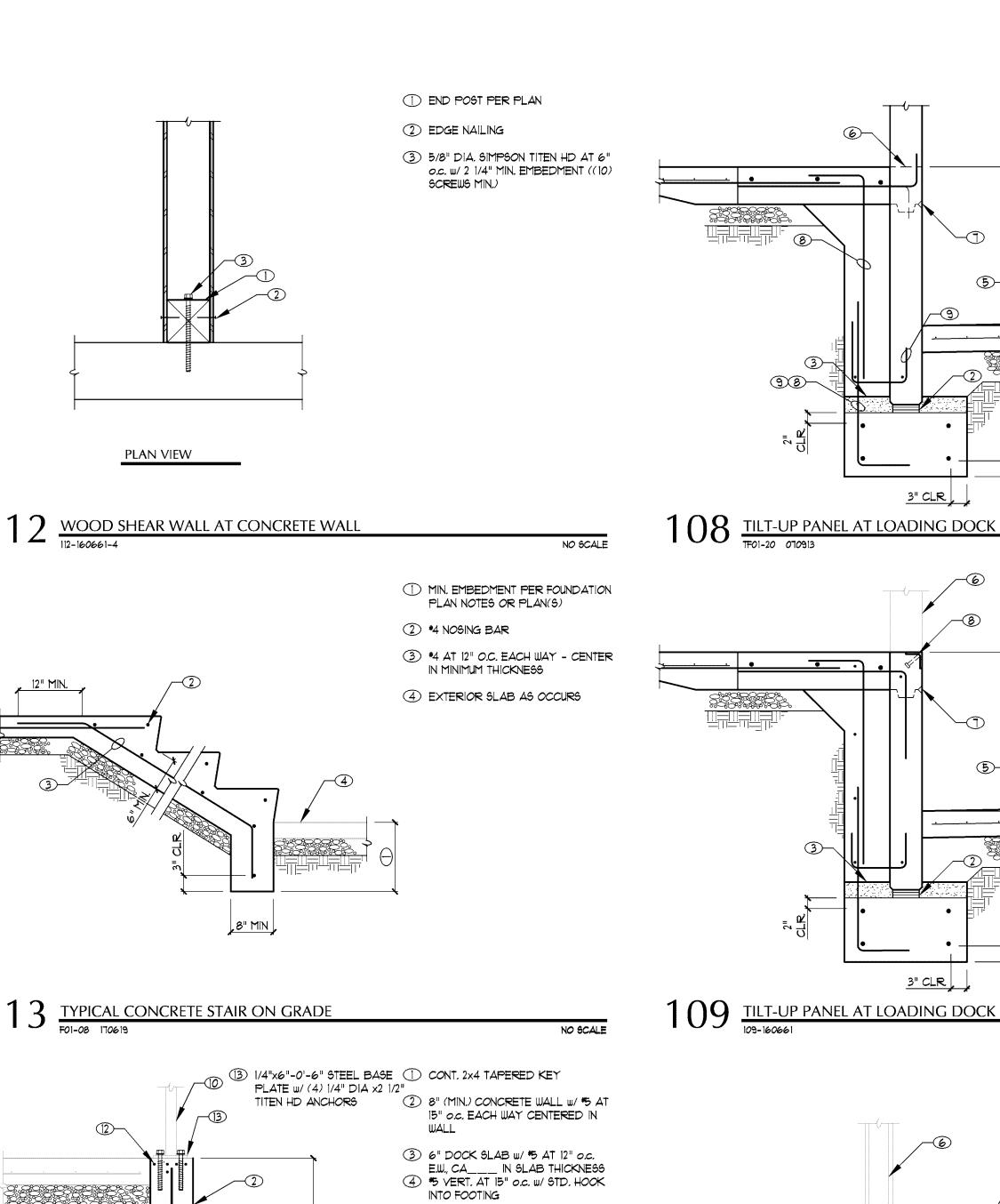


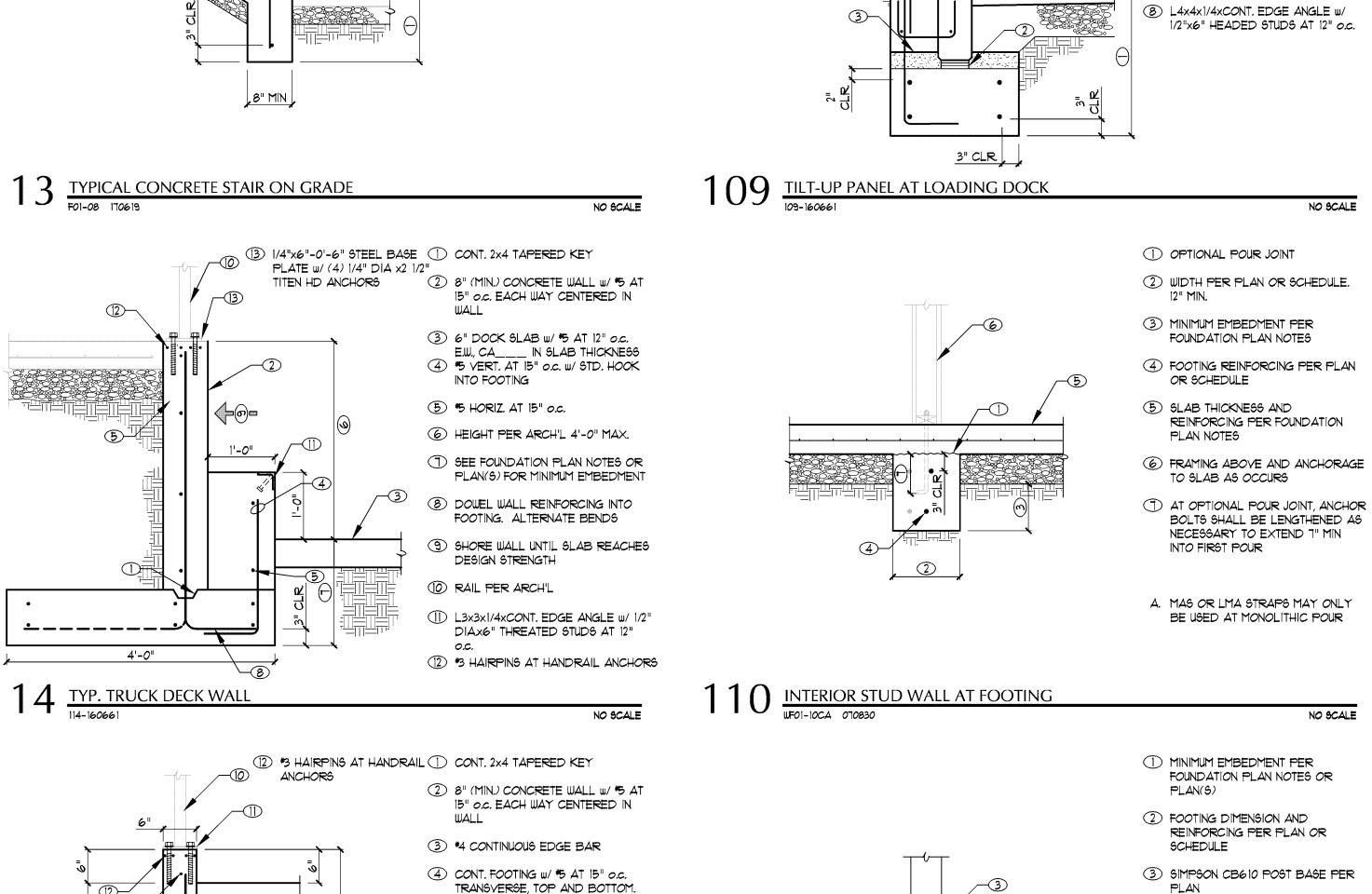
PANEL ELEVATIONS

DRAWING NO.

216.007 Sorensen Flex Warehouse

WRIGHT engineers





3" CLR

5 POUR JOINT, ROUGHEN SURFACE

6 HEIGHT PER ARCH'L 4'-0" MAX.

8 DOWEL WALL REINFORCING INTO

(9) #5 CONT. AT 15" O.C., TOP AND

BOTTOM

(1) RAIL PER ARCH'L

ANCHORS

FOOTING. ALTERNATE BENDS

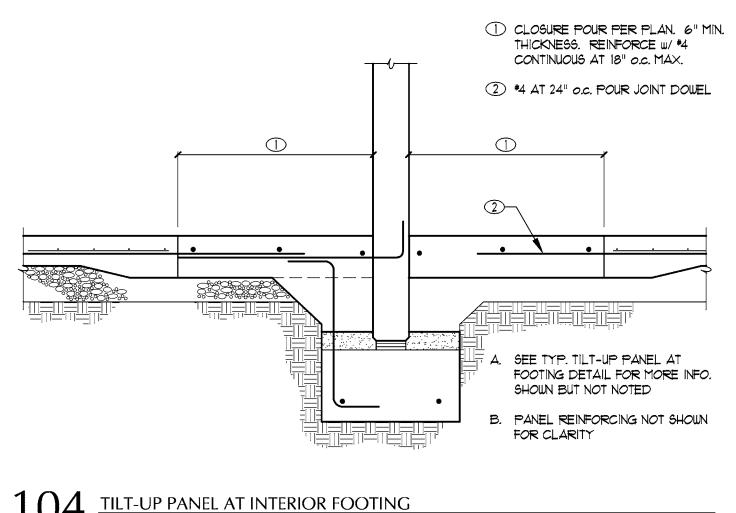
1/4"x6"-0'-6" STEEL BASE PLATE w/ (4) 1/4" DIA. \times 2 1/2" TITEN HD

4'-0 MAX. CONCRETE RETAINING WALL AT RAMP

(1) SEE FOUNDATION PLAN NOTES OR

PLAN(S) FOR MINIMUM EMBEDMENT

93



① SEE PLAN OR GSN FOR TOP OF

FOOTING ELEVATION OR MIN. EMBEDMENT

2 1 1/2" +/- PANEL SHIMS AS REQ'D.

3 GROUT PER GSN. YIBRATE UNDER WALL TO ENSURE FULL BEARING

5 LOADING DOCK SLAB PER PLAN

1 TOOLED OR FORMED REVEAL AT

(8) #5 DOWEL AT 24" o.c. w/ STD. 90°

COVER, TYP. AT DETAIL 108A,

PROVIDE #5 DOWELS AT 12" o.c.

TOWEL AT 24" o.c. LOCATE (8)
TOWEL AT 24" o.c. LOCATE (8)
TOWEL AT 6" o.c.

DOWEL AT 12" o.c. LOCATE (12) *5

AT EA. END OF PANEL AT 4" O.C. A. SEE DETAIL 101 OR 106 FOR MORE

NO SCALE

AT DETAIL 108A, PROVIDE #5

INFO. SHOWN BUT NOT NOTED

(1) SEE FOUNDATION PLAN NOTES OR

2) 1 1/2" +/- PANEL SHIMS AS REQ'D.

3 GROUT PER G6N. VIBRATE UNDER

5 LOADING DOCK SLAB PER PLAN

1 TOOLED OR FORMED REVEAL AT PANEL OPENINGS AS OCCURS

4 STEP PER CIVIL

OR DETAIL

6 LINE OF WALL BEYOND

WALL TO ENSURE FULL BEARING CONTACT

PLAN(S) FOR TOP OF FOOTING

ELEVATION OR MIN. EMBEDMENT

PANEL OPENINGS AS OCCURS

HOOK EA. END. PROVIDE 3" MIN.

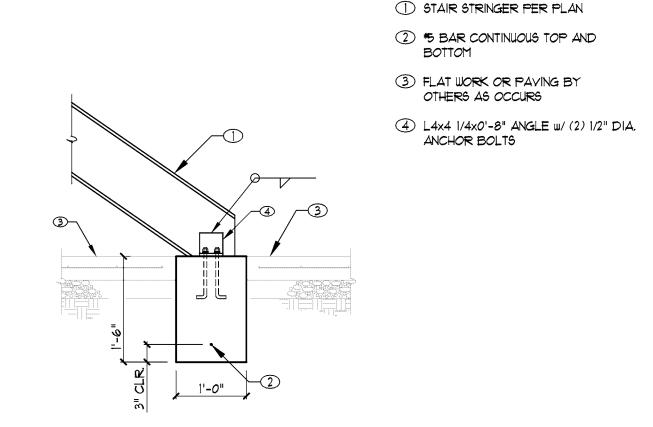
6 LINE OF PANEL OPENING AS

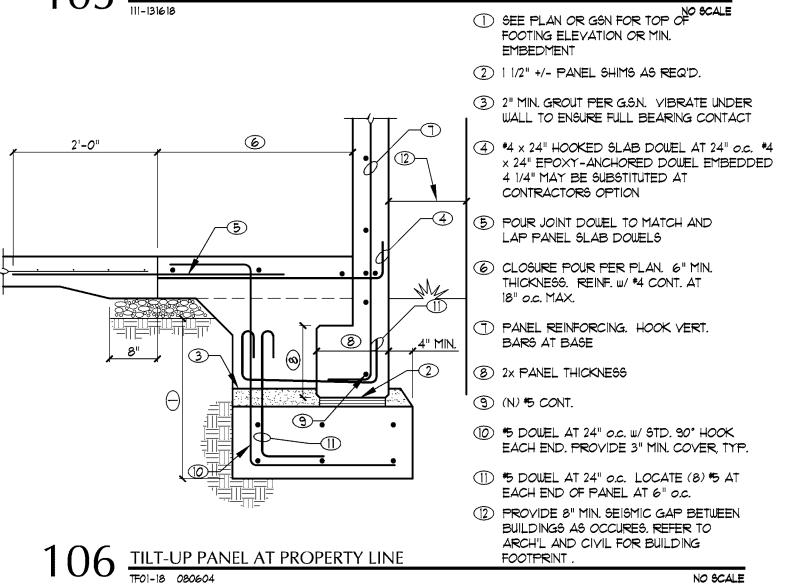
CONTACT

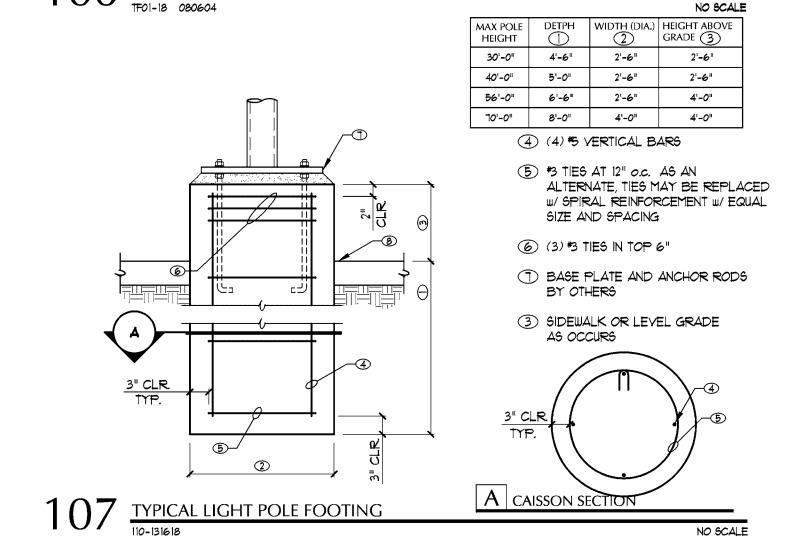
(4) STEP PER CIVIL

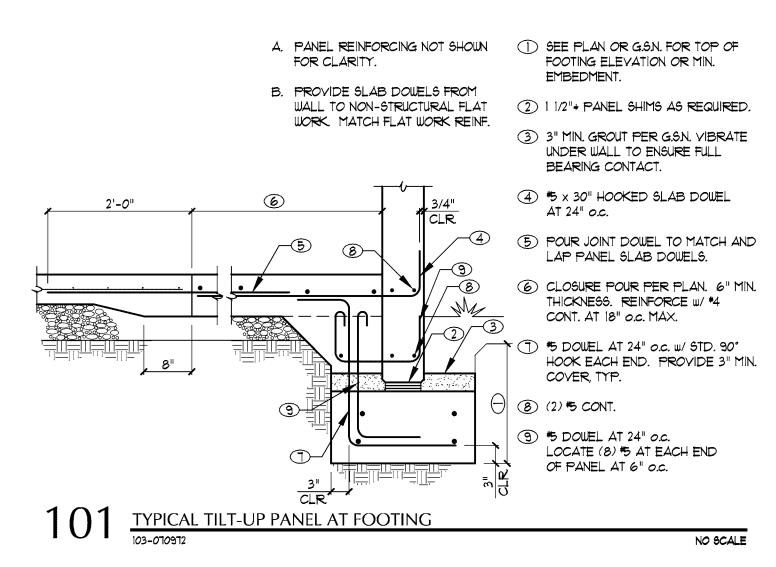
OCCURS

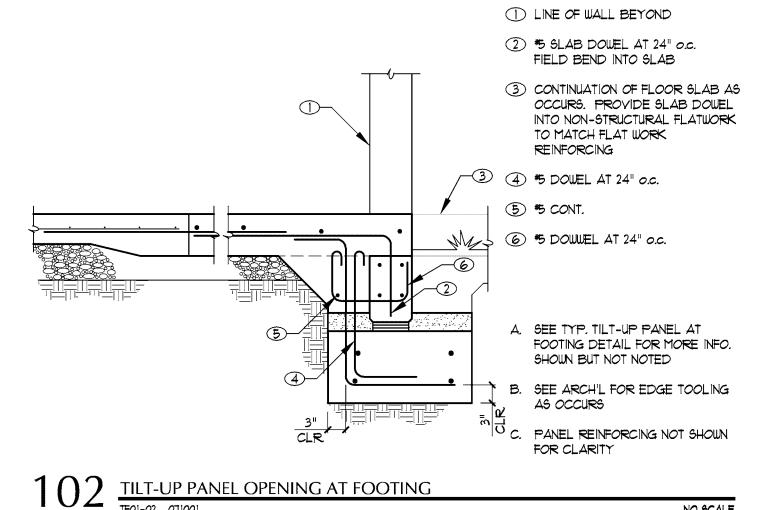


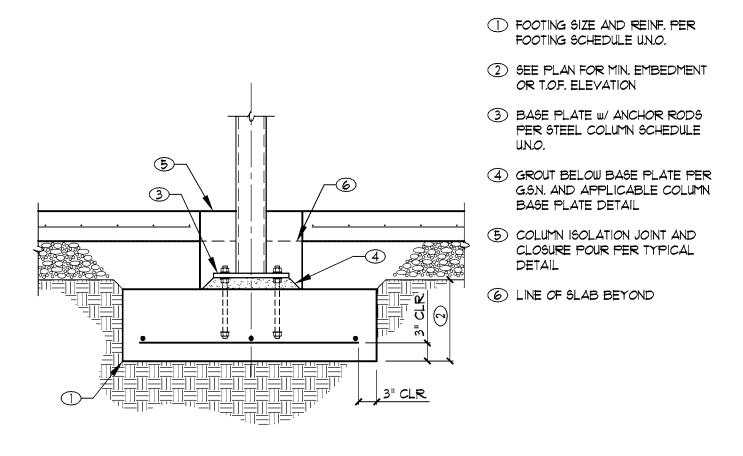


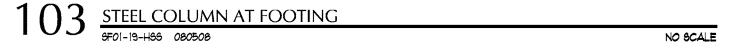


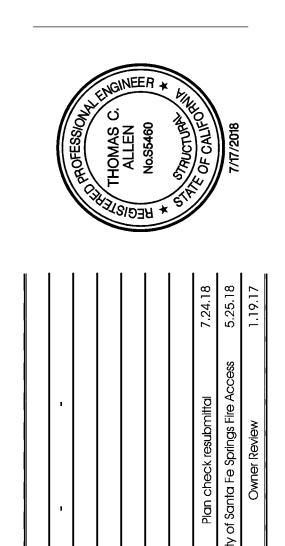












S

QLO

ens

S

NO SCALE

8940 Santa

FOUDNATION DETAILS

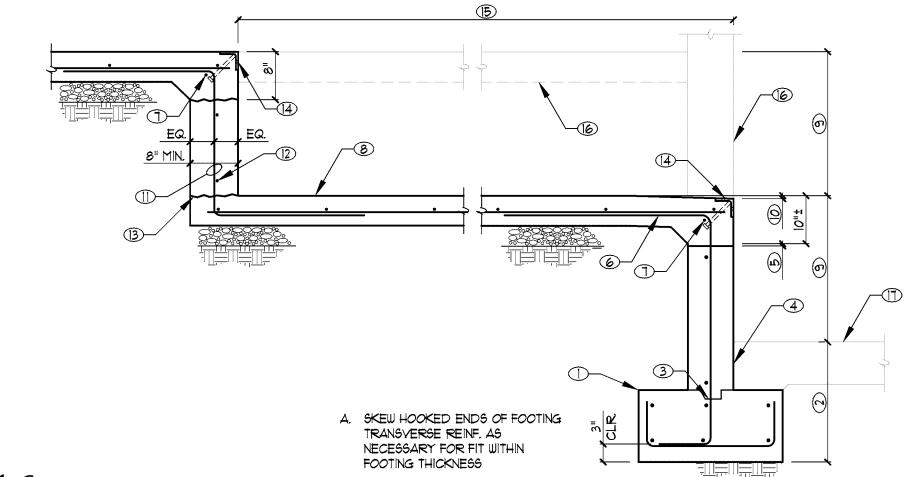
TITLE

DRAWING NO.

216.007 Sorensen Flex Warehouse

WRIGHT





(1) *4 "Z" BARS AT 18" O.C. MAX. LAP (1) FOOTING SIZE AND REINF. PER HORIZ. LEGS 24" MIN. w/ TYP. SLAB SCHEDULE REINF.

(12) *4 HORIZ. AT 12" o.c. MAX.

(B) OPTIONAL POUR JOINT, TYP. PREPARE JOINT SURFACES PER G.S.N.

(4) EDGE ANGLE AS REQ'D. PER DOCK LEVELER MFR. ATTACH TO CONCRETE W/ 1/2" DIA. x 6"
HEADED STUDS AT 12" O.C. MAX.
AND 3" MAX. FROM EACH END
UN.O. BY DOCK LEVELER MFR.

(B) LENGTH / WIDTH OF DOCK LEVELER DEPRESSION PER MFR. AND/OR ARCH'L.

6 SLAB / WALL BEYOND

(T) EXTERIOR SLAB ON GRADE BY OTHERS AS OCCURS

② SEE PLAN FOR MIN. EMBEDMENT OR T.O.F. ELEVATION

3 CONT. 2" x 4" (NOMINAL) TAPERED

4 8" CONCRETE WALL W/ #5 VERT. AT 16" O.C. IN LIEU OF TYP. WALL VERT. REINF. HOOK VERT. REINF. AT BOTTOM OF FOOTING

(5) DEPRESS GROUT 1/2" MIN. BELOW TOP OF MASONRY

FIELD BEND WALL VERT. REINF. AND LAP 24" MIN. WITH SLAB REINF.

*4 CONT.

SLAB THICKNESS AND REINF. TO MATCH TYP. SLAB ON GRADE PER PLAN NOTES

9 STEP PER ARCH'L. (2'-0" MAX.)

(1) SLOPE AS REQ'D. PER ARCH'L.

NO SCALE

Warehouse

Flex

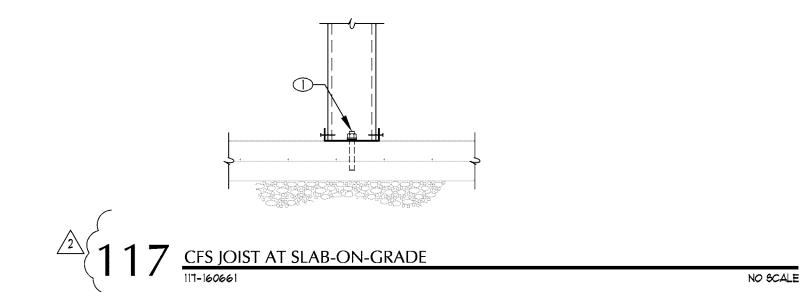
Sorensen

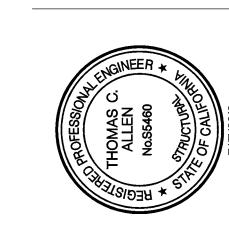
Plan

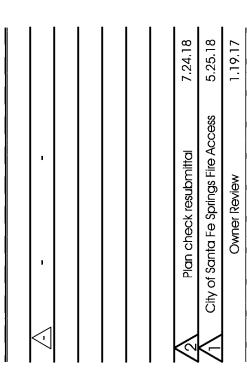
Development

8940 Sorensen Avenue Santa Fe Springs, California,

(1) 5/8" SIMPSON TITEN HD AT 24" O.C. HD w/ 3 1/2" MIN. EMBEDMENT INTO (E) SLAB



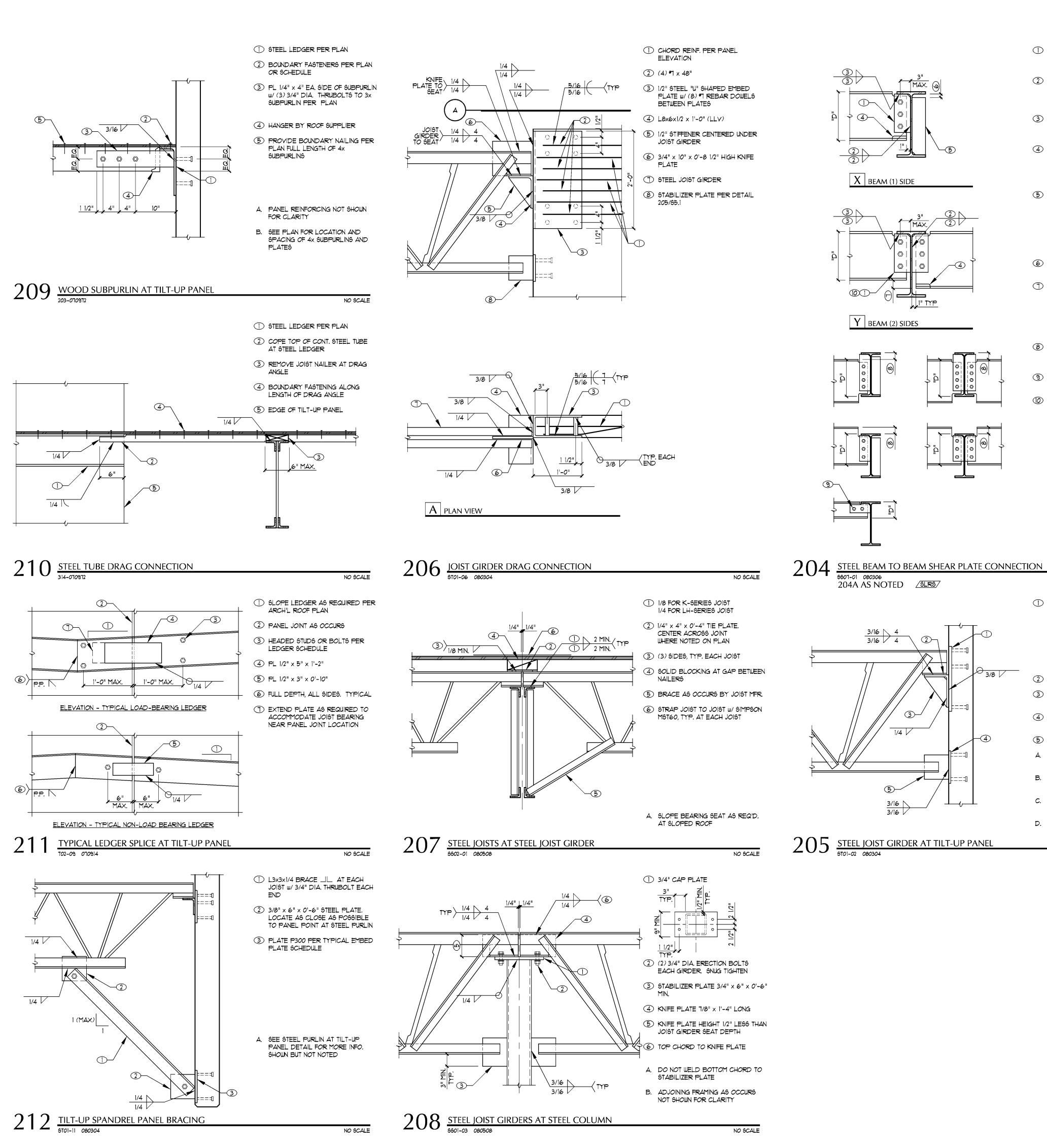


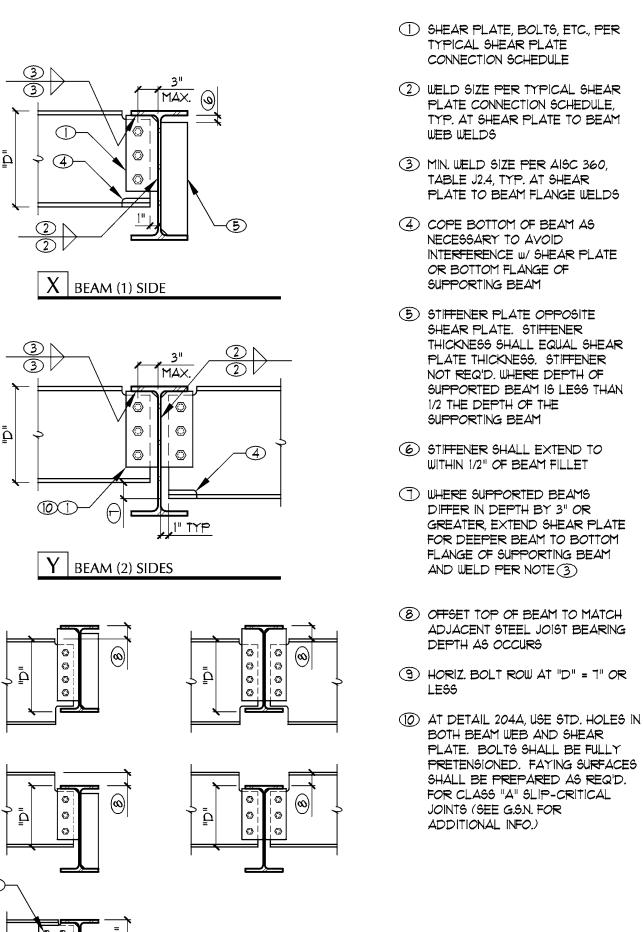


FOUNDATION DETAILS

WRIGHT engineers

DRAWING NO.





2 L8x6x1/2 x 1'-0" (LLV)

UNDER JOIST GIRDER

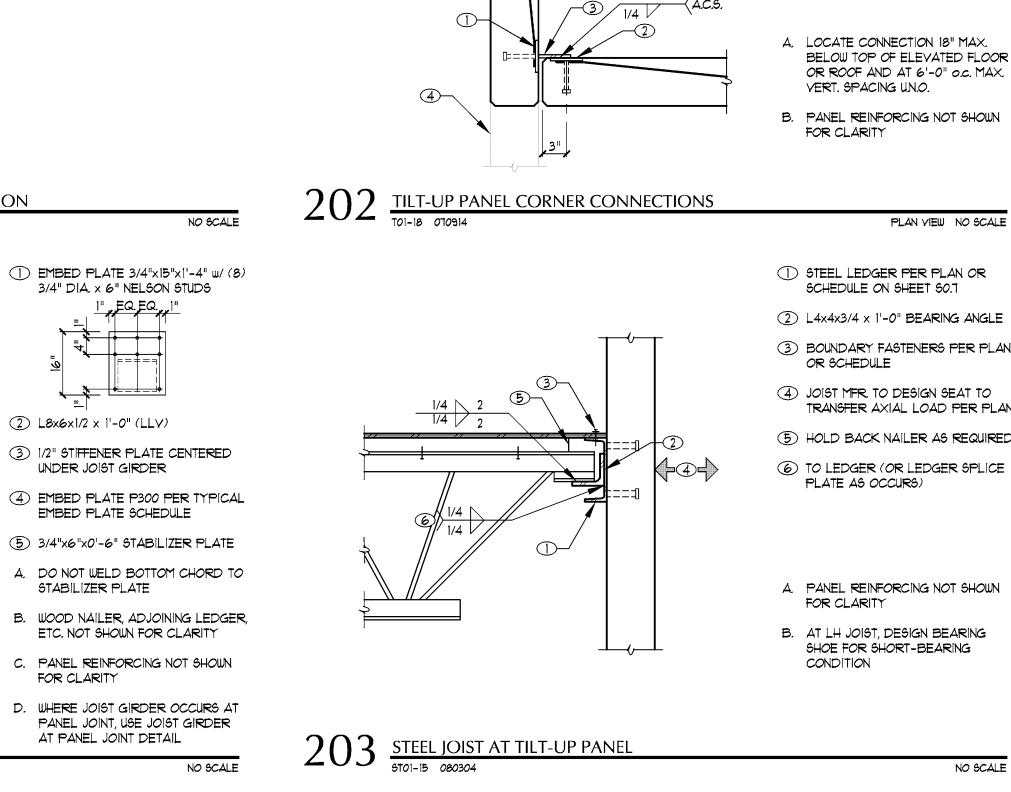
STABILIZER PLATE

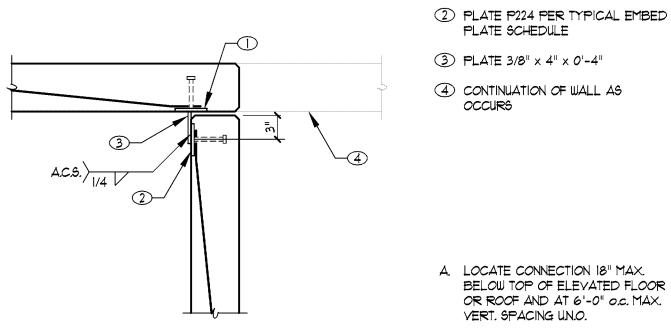
FOR CLARITY

AT PANEL JOINT DETAIL

EMBED PLATE SCHEDULE

204A AS NOTED /SLRS/





① PLATE P224 PER TYPICAL EMBED

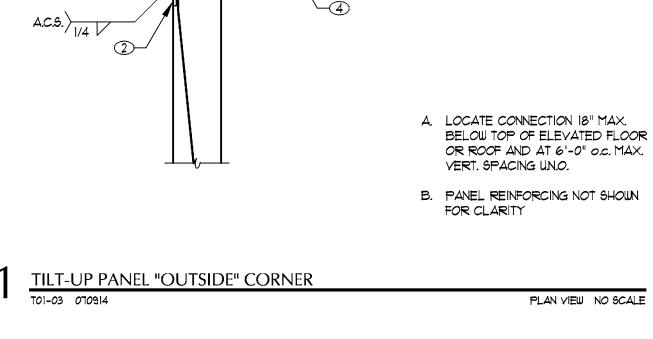
PLATE SCHEDULE, CENTER AT FACE OF INTERSECTION WALL

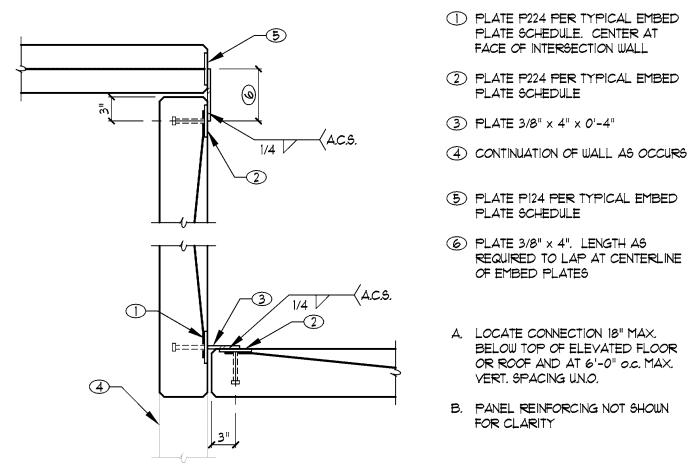
S

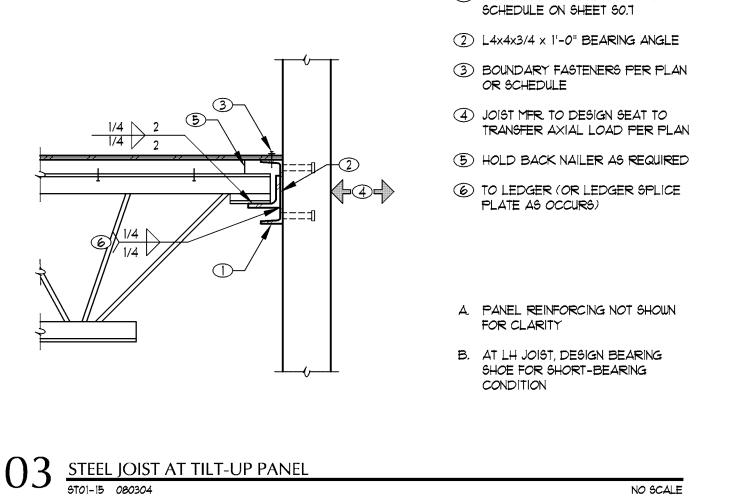
dre

S

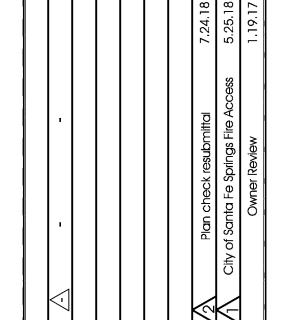
S







WRIGHT engineers

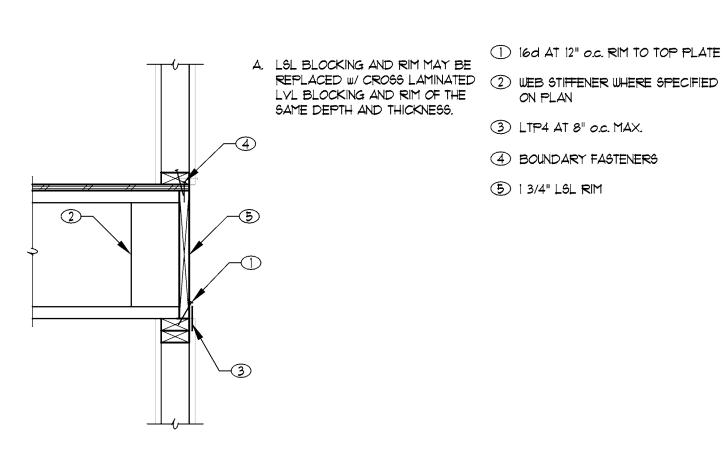


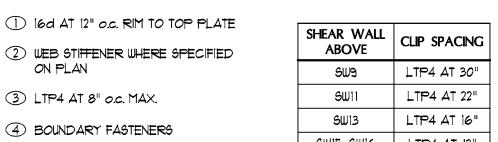
FRAMING DETAILS

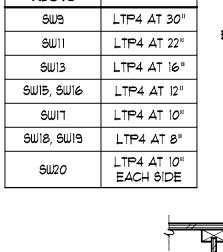
TITLE

DRAWING NO.

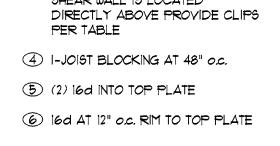
S5.1 216.007 Sorensen Flex Warehouse

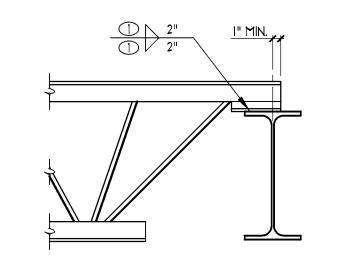






- 1 1/4" LSL (EXCEPT WHERE SHEAR A. LSL RIM MAY BE REPLACED W/ CROSS LAMINATED LYL RIM OF WALL LOCATED ABOVE) TO MATCH THE SAME DEPTH AND THICKNESS JOIST DEPTH. USE 1 1/2" MIN. LSL WHERE SHEAR WALLS SW9 THRU B. THE "ALTERNATE UPPER STORY SWI3 LOCATED DIRECTLY ABOVE RIM AND SHEAR WALL USE 3 1/2" MIN. LSL WHERE ATTACHMENT" DETAIL MAY BE SHEAR WALLS SWI5, SWI6, SWI7, USED IN LIEU OF THIS DETAIL AT SWI8, SWI9 AND SW20 LOCATED APPROPRIATE SHEAR WALL LOCATIONS.
 - DIRECTLY ABOVE. MINIMUM LENGTH OF 3 1/2" MIN. LSL TO MATCH SHEAR WALL LENGTH
 - 2 BOUNDARY FASTENERS 3 LTP4 AT 32" o.c. MAX. WHERE SHEAR WALL IS LOCATED PER TABLE 4 I-JOIST BLOCKING AT 48" O.C.

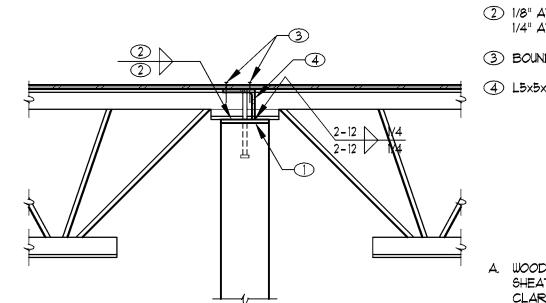




A. SLOPE BEARING SEAT AS REQ'D. AT SLOPED ROOF

1 3/16 FOR K-JOIST

1/4 FOR LH-JOIST



STEEL JOIST AT TILT-UP PANEL

3/8" x 8" x PANEL WIDTH EMBED PLATE w/ (2) 1/2" DIA. x 4" NELSON STUD OR EQUAL AT 6" o.c.

2 1/8" AT K JOIST

1/4" AT LH JOIST

3 BOUNDARY FASTENERS

4 L5x5x1/4 ANGLE BETWEEN JOISTS

S

areh

OD

ens

S

Pla

elopme

8940 Santa

WOOD NAILER AND PLYWOOD SHEATHING NOT SHOWN FOR CLARITY

B. PANEL REINFORCING NOT SHOWN FOR CLARITY

1 SHEAR PLATE, WELD, SIZE AND

SCHEDULE

SHEAR PLATE CONNECTION

2 3/4" EMBED PLATE. DEPTH EQUAL

3 9" FOR BEAMS UP TO 18" DEEP. 12"

FOR BEAMS OVER 18" DEEP

4 3/4" DIA. x 4" NELSON STUD. (8)

A. PANEL REINFORCING NOT SHOWN

FOR CLARITY

BEAMS OVER 18" DEEP

FOR BEAMS UP TO 18". (12) FOR

TO BEAM DEPTH (14" MIN.)

NUMBER OF BOLTS PER TYPICAL

223 RIM JOIST AT STUD WALL

1 LEDGER PER PLAN OR SCHEDULE

- 2 BOUNDARY NAILING
- 3 HANGER PER PLAN
- 4 WEB STIFFENER
- 5 SIMPSON PAISS PURLIN ANCHOR AT EA. JOIST
- 6 CONT. #5
- A. SEE PLAN OR SCHEDULE FOR LEDGER AND ANCHOR BOLT SIZE, EMBEDMENT, AND SPACING
- B. PANEL REINFORCING NOT SHOWN FOR CLARITY

RIM JOIST AT STUD WALL

- UEB STIFFENER 2 JOIST TO FIT SNUG AGAINST FACE OF BEAM
- 3 BOUNDARY FASTENERS. PROVIDE (2) ROWS OF BOUNDARY FASTENERS AT BEAM IN LINE W/ SHEAR WALL
- 4 HANGER PER GSN
- 5 STRAP JOIST TO JOIST W/ SIMPSON CS16x32" w/ (22) 8d, TYP. EA. JOIST

BOUNDARY FASTENERS. PROVIDE

FASTENERS AT INTERIOR WALL W/

(2) ROWS OF BOUNDARY

2 1 1/2" MIN. LYL BLOCKING

6 WEB STIFFENER

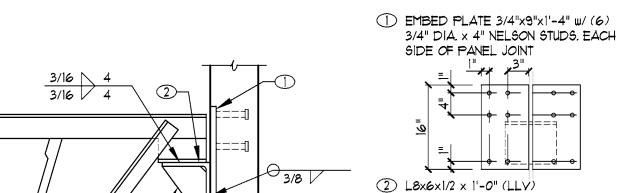
SHEAR WALL IN WALL LINE

3 LTP4 AT 12" O.C., UN.O. ON PLANS

(4) CONTINUATION OF JOIST (PER PLAN)

NO SCALE

STEEL JOIST AT STEEL BEAM 9503-03 080304



- 3 1/2" STIFFENER PLATE CENTERED UNDER JOIST GIRDER
- 4 EMBED PLATE P300 PER TYPICAL EMBED PLATE SCHEDULE, EACH SIDE OF PANEL JOINT
- 5 3/4" x 6" x 0'-6" STABILIZER PLATE 6 1/2" x 6" x 0'-6" TIE PLATE
- A. DO NOT WELD BOTTOM CHORD TO STABILIZER PLATE
- ETC. NOT SHOWN FOR CLARITY

1 JOIST GIRDER BEARING SEAT. SEE STEEL JOIST GIRDERS AT STEEL

2 ATTACH EACH JOIST TO GIRDER W/

3 3/8" x 6" x 0'-6" MIN. STABILIZER

4 1/4" MIN. x 3" MIN. x 0'-6" (LONG DIM. PARALLEL TO SUPPORTED

JOISTS) TIE PLATE, CENTER

A. DO NOT WELD BOTTOM CHORD TO

B. ADJOINING FRAMING AS OCCURS

C. SLOPE BEARING SEAT AS REQ'D.
 AT SLOPED ROOF

TIELD INSTALLED 4x NAILER ON

AS NOTED BELOW

EDGE. RIP TO CORRECT HEIGHT AS REQUIRED. ATTACH USING

EITHER BOLTS OR SIDE PLATES

(2) (4) 3/4" DIA, THRUBOLTS THRU SHOP-INSTALLED PIPE SLEEVE W/

OVERSIZE WASHER RECESS

EACH SIDE OF NAILER W/ (2) 3/4" DIA. THRUBOLTS, USE (2) PAIR OF

3 1/4" x 4" x 0'-9" STEEL PLATE

PLATES PER JOIST SPACE

3x NAILER, UN.O.

4 STEEL PURLIN W/ SHOP-INSTALLED

NOT SHOWN FOR CLARITY

COLUMN DETAIL FOR GIRDER TO

(2) 1/2" DIA. (AT K-SERIES JOISTS) OR (2) 3/4" DIA, (AT LH-SERIES

B. WOOD NAILER, ADJOINING LEDGER,

NO SCALE

C. PANEL REINFORCING NOT SHOWN STEEL JOIST GIRDER AT TILT-UP PANEL JOINT 9701-04 080304

COLUMN CONNECTIONS

JOISTS) BOLTS

PLATE, TYP.

ACROSS JOINT

(3) SIDES, TYP. EACH JOIST

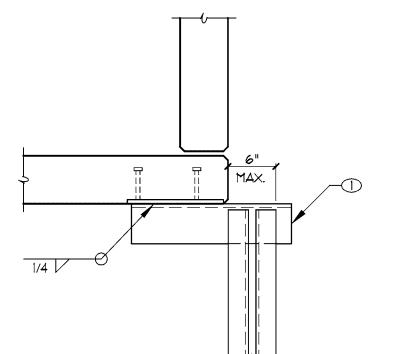
STABILIZER PLATE

STEEL BEAM AT TILT-UP PANEL 9T02-01 080228

BEARING ANGLE PER STEEL
PURLIN AT TILT-UP PANEL DETAIL

EXTEND AS REQUIRED

NO SCALE



- A. SEE STEEL PURLIN AT TILT-UP PANEL DETAIL FOR INFO. SHOWN BUT NOT NOTED
- B. WOOD NAILER, ADJOINING LEDGER ETC. NOT SHOWN FOR CLARITY
- C. PANEL REINFORCING NOT SHOWN FOR CLARITY

WRIGHT engineers

STEEL JOIST AT TILT-UP PANEL CORNER

PLAN YIEW NO SCALE

225 WOOD I-JOIST AT TILT-UP PANEL

226 DRAG STRAP AT END OF WALL

 \bigcirc

1 WOOD 1-JOIST BLOCKING. LENGTH PER PLAN

NO SCALE

- 2 STRAP PER PLAN OR NOTE "A" BELOW CONTINUE STRAP AND BLOCKING BEYOND END OF WALL AS SHOWN ON PLAN
- 3 END LENGTH AND FASTENERS PER STRAP MFR. TO DEVELOP FULL STRAP CAPACITY
- 4 EDGE NAILING ALONG BLOCKING
- A. WHERE NO STRAP NOTED ON PLAN, USE SIMPSON CS16 W/ (14) 8d TO TOP PLATE AND (4) 8d TO EACH BLOCK
- B. MINIMUM SHEAR CAPACITY OF BLOCKING TO BE 200 PLF

3 DEVELOPMENT LENGTH OR CONTINUOUS BAR

2 TYPICAL REINFORCING

ARCH'L.

RETURN WALL PER PLAN OR

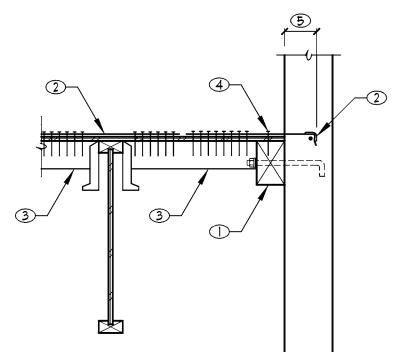
WOOD I—JOIST AT WOOD STUD WALL

-3

WOOD I-JOIST AT WOOD BEAM

WW05-03CA 070911

1 LEDGER PER PLAN



- 2 PAI35 PURLIN ANCHOR AND STRAP PER PLAN. HOOK ANCHOR STRAP AROUND AND TIE TO #4 x 24" ANCHOR BAR
- 3 4x4 BLOCKING AT 48" O.C. W/ CONT. SIMPSON CS16 w/ (2) 8d AT 4 1/8" o.c. EXTEND BLOCKING ENTIRE DEPTH OF MEZZANINE
- (4) SHEATHING AND BOUNDARY NAILING PER PLAN OR SCHEDULE. PROVIDE BOUNDARY NAILING FULL LENGTH OF 4x4 BLOCKING
- 5 ANCHOR EMBEDMENT EQUAL TO THE LESSER OF MIN. EMBEDMENT PER MFR. OR PANEL THICKNESS MINUS 1"
- FOR CLARITY B. STRAP MAY BE PLACED EITHER

A. PANEL REINFORCING NOT SHOWN

ABOVE OR BELOW PLYWOOD

STEEL JOISTS AT STEEL COLUMN

- A. SEE PLAN FOR REQUIRED EXTENTS OF JOIST GIRDER NAILER
- B. EITHER THRU BOLT OR SIDE PLATE CONNECTION PER NOTES (2) AND 3 MAY BE USED AT CONTRACTOR'S OPTION

NO SCALE

WOOD NAILER AT STEEL JOIST GIRDER

FRAMING DETAILS

TITLE

DRAWING NO.

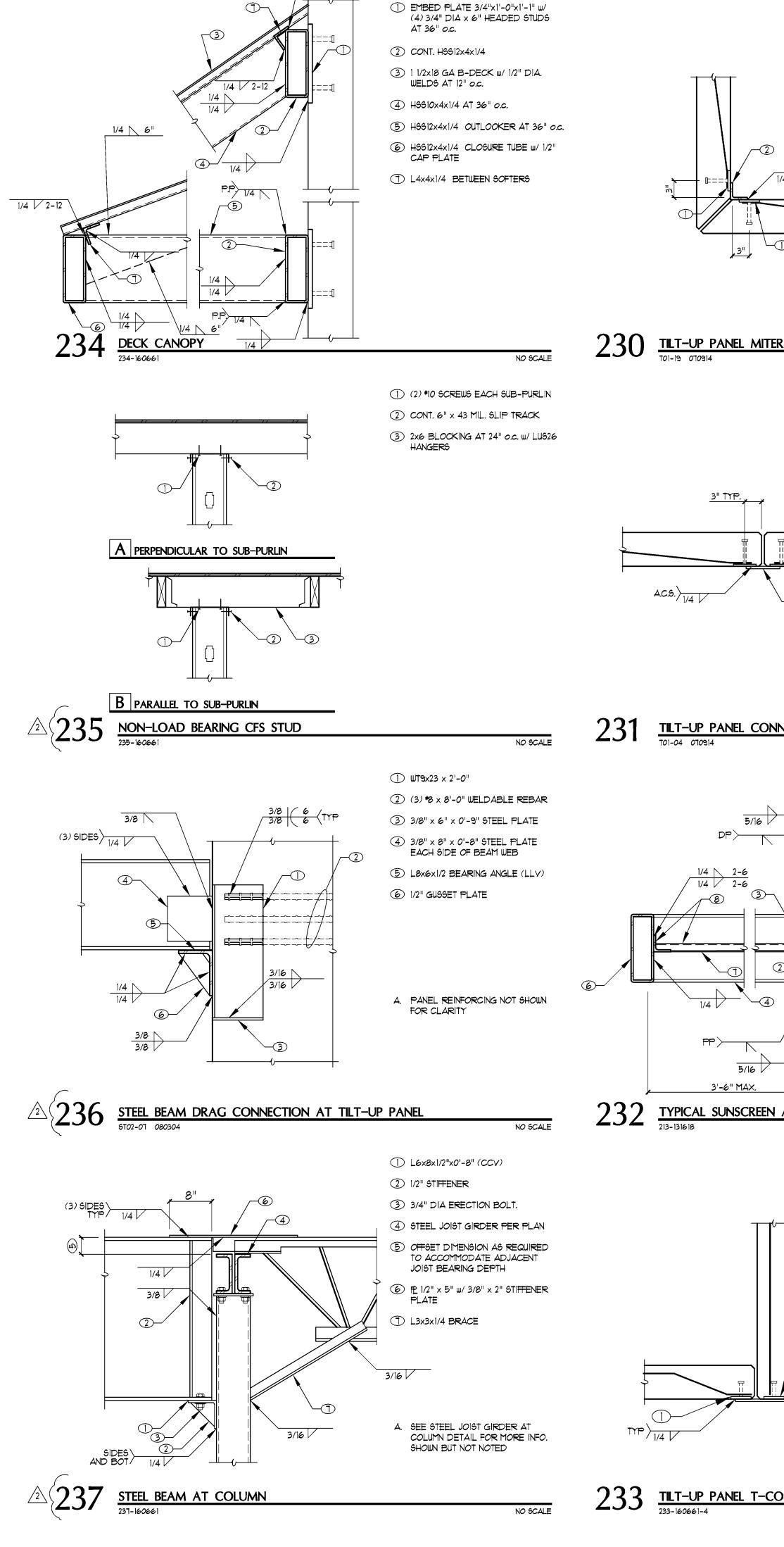
S5.2

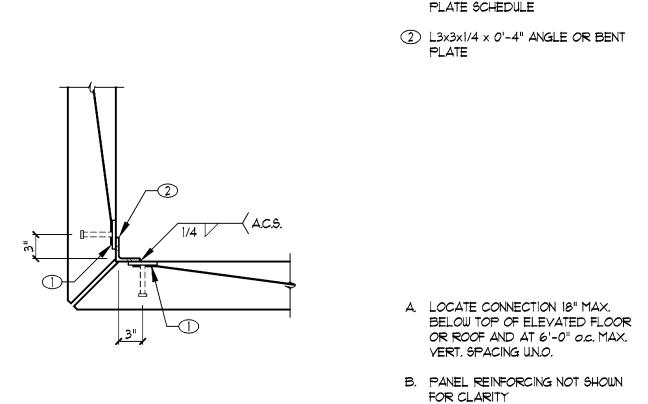
216.007 Sorensen Flex Warehouse

TILT-UP PANEL RETURN WALL REINFORCING

224 WOOD JOIST AT TILT-UP PANEL

WT01-02 0307111

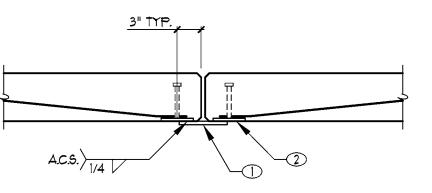




TILT-UP PANEL MITERED CORNER
T01-19 070914

PLAN VIEW NO SCALE

① PLATE 3/8" x 4" x 6"



A. LOCATE CONNECTION 18" MAX.
BELOW TOP OF ELEVATED FLOOR
OR ROOF AND AT 6'-0" O.C. MAX. VERT. SPACING UN.O.

NO SCALE

- B. PANEL REBAR NOT SHOWN FOR CLARITY
- C. THIS DETAIL SHALL NOT BE USED AT CHORD TIE CONNECTION UNLESS SPECIFICALLY NOTED ON

TILT-UP PANEL CONNECTION
T01-04 070914

(4) 3/4" DIA. x 6" HEADED STUDS 2 3/4" PLATE 3 HSS12x4x1/4 BETWEEN OUTLOOKERS

- 4 H5512x4x1/4 OUTLOOKERS (5) 3/4" REVEAL BETWEEN DOORS AS OCCURS PER ARCH'L 6 HSS12x4x1/4 CLOSURE BEAM
 - 1 1/2" x 20GA. METAL B-DECK (GALVANIZED)
 - 8 L3x3x1/4 ANGLE

FOR CLARITY.

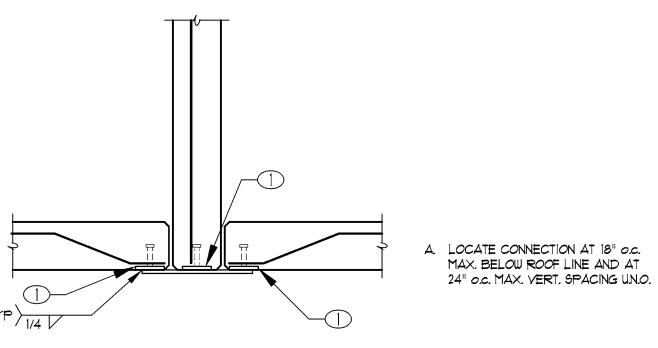
2 PL 3/8" x 4" x 1'-0"

TYPICAL SUNSCREEN AT TILT-UP PANEL

PLATE P224 PER TYPICAL EMBED
PLATE SCHEDULE

PLAN VIEW NO SCALE

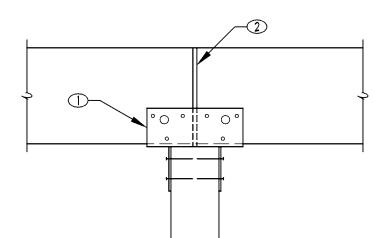
A. WALL REINFORCING NOT SHOWN



TILT-UP PANEL T-CONNECTION
233-160661-4

PLATE 224 PER TYPICAL EMBED
PLATE SCHEDULE

2 PLATE P224 PER TYPICAL EMBED PLATE SCHEDULE EACH SIDE OF JOINT



SIMPSON PC OR EPC TYPE POST CAP UN.O. ON PLANS

2) SPLICE DIRECTLY OVER CENTERLINE OF POST

WOOD BEAM AT WOOD POST

(2) ROWS OF BOUNDARY FASTENERS

2 (1) ROW OF BOUNDARY FASTENERS

③ (2) 16d

4 LTP4 CLIP AT 6" o.c.

(5) 16d AT 8" o.c., U.N.O. 6 I-JOIST BLOCKING EACH SIDE OF JOIST/LVL AT 48" o.c.

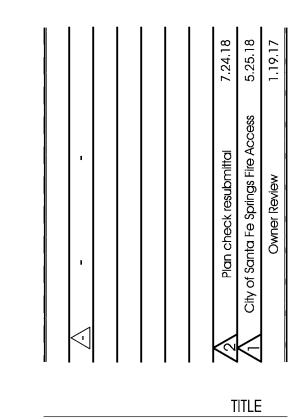
NO SCALE

Warehouse

Sorensen

Dev

DRAG JOIST AT SHEAR WALL



FRAMING DETAILS



DRAWING NO.

S5.3 216.007 Sorensen Flex Warehouse