

PROJECT NOTES ARE APPLICABLE TO ALL AREAS UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS.

PROJECT NOTES:

- A. PROVIDE AND MAINTAIN ADEQUATE ERECTION SHORING AND BRACING AS REQUIRED FOR STABILITY AND PROTECTION OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE STRUCTURES AND FOUNDATIONS ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND, THEREFORE, REQUIRE ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION. SITE OBSERVATIONS BY THE ENGINEER DO NOT INCLUDE INSPECTION OF SHORING, BRACING, OR OTHER ELEMENTS PERTAINING TO THE MEANS OR METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL REQUIRED CRIBBING, SHEATHING AND SHORING.
- B. PROMPTLY REPORT ANY DISCREPANCY FOUND AMONG THE DRAWINGS, SPECIFICATIONS, THESE STRUCTURAL NOTES, AND THE SITE CONDITIONS TO THE ENGINEER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCY IS AT THE CONTRACTOR'S OWN RISK. VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.
- C. DO NOT SCALE WORKING DIMENSIONS FROM THE PLANS, SECTIONS, OR DETAILS.
- D. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND ANCHOR ROD LOCATIONS PRIOR TO COMMENCING WORK.
- E. CONSTRUCTION OR DETAILS FOR ELEMENTS OR PORTIONS OF THE WORK NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO CONSTRUCTION OR DETAILS SHOWN. STANDARD DETAILS AND SCHEDULES APPLY TO THE WORK IN GENERAL AND MAY NOT BE SPECIFICALLY REFERENCED ON THE PLANS. DETERMINE WHERE EACH STANDARD DETAIL OR SCHEDULE APPLIES PRIOR TO PROCEEDING WITH THE WORK. PROMPTLY NOTIFY THE ENGINEER IF CONDITIONS ARE FOUND WHICH ARE NOT SPECIFICALLY DETAILED AND FOR WHICH NO STANDARD DETAIL OR SCHEDULE APPLIES.
- G. NOTES AND DETAILS SPECIFICALLY INDICATED ON THE PLANS TAKE PRECEDENCE OVER THESE NOTES.
- J. WHERE THE NOTES AND THE PLANS CONFLICT, USE THE MORE RESTRICTIVE CRITERIA, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- K. CHECK AND COORDINATE WITH ELECTRICAL AND MECHANICAL CONTRACTORS FOR BLOCK OUTS, CONDUITS, PIPE SLEEVES, EMBEDDED ITEMS, ETC. TO BE EMBEDDED IN CONCRETE, AS WELL AS OPENINGS IN THE STRUCTURE FOR MECHANICAL AND ELECTRICAL INSTALLATIONS.
- L. MODIFICATIONS OR SUBSTITUTIONS IN THE DESIGN, MATERIAL, EQUIPMENT OR PRODUCTS SPECIFIED MAY BE CONSIDERED PROVIDED A WRITTEN REQUEST, SUBJECT TO REVIEW, IS SUBMITTED TO THE ENGINEER PRIOR TO ITS USE OR INCLUSION IN ANY SHOP DRAWING.

DESIGN CRITERIA: [IBC CH 16]

- A. ALL DESIGN MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 1. 2016 CALIFORNIA BUILDING CODE, BASED ON THE 2015 INTERNATIONAL BUILDING CODE, AS ADOPTED BY THE GOVERNING CODE AGENCY OR BUILDING OFFICIAL.
 2. OTHER CODES AS SPECIFIED HEREIN AND IN THE CONTRACT DOCUMENTS.
- ALL CODES AND STANDARDS SHALL BE THE CURRENTLY ADOPTED EDITION.
- B. DESIGN LOADS:

1. BUILDING LOADS:	UNIFORM	CONCENTRATED
- EQUIPMENT LOADS	(SELF WEIGHT AND OPERATING LOADS)	
- 2. SEISMIC DESIGN CRITERIA:
 - SITE CLASS: D
 - SEISMIC DESIGN CATEGORY: D
 - $S_{MS} = 1.061$
 - $S_{M1} = .584$
 - $I = 1.0$
 - $R = 2.0$
- 3. WIND DESIGN CRITERIA:
 - BASIC WIND SPEED: 110 MPH, 3 SEC GUST
 - EXPOSURE: B
 - $I = 1.0$
 - OCCUPANCY CATEGORY: II

INSPECTIONS: [IBC CH 17]

- A. ALL CONSTRUCTION SHALL BE INSPECTED IN CONFORMANCE WITH THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE.
- B. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS WHO SHALL PROVIDE INSPECTIONS DURING CONSTRUCTION IN ACCORDANCE WITH THE IBC, CHAPTER 17.
- C. THE CONTRACTOR SHALL COORDINATE THE TIMING OF CONSTRUCTION AND INSPECTION WITH THE PROJECT ENGINEER, THE INSPECTOR(S) AND/OR THE BUILDING OFFICIAL.
- D. ALL ITEMS NOTED AS REQUIRING SPECIAL INSPECTION PER THE IBC IN ACCORDANCE WITH SECTION 1705, SHALL BE PERFORMED BY A QUALIFIED PERSON WHO CAN DEMONSTRATE COMPETENCE FOR THE PARTICULAR TYPE OF CONSTRUCTION BEING INSPECTED. THE SPECIAL INSPECTIONS REQUIRED BY THE IBC, THE PLANS AND SPECIFICATIONS, THE ENGINEER OF RECORD, AND THE BUILDING OFFICIALS.
- E. INSPECTIONS AND TESTS SHALL BE COMPLETED BY CERTIFIED TECHNICIANS AS REQUIRED IN THE BUILDING CODES. SPECIAL INSPECTIONS ARE TO BE COMPLETED FOR THE ITEMS INDICATED IN THE TABLE BELOW.

ITEM	CONTINUOUS	PERIODIC	COMMENTS
CONCRETE:			
REINFORCING PLACEMENT		X	
ANCHOR RODS & INSERTS		X	
PREPARATION OF TEST SPECIMENS	X		$f'c = 4000$ PSI
CONCRETE PLACEMENT	X		
EPOXY ANCHOR PLACEMENT	X		
EXPANSION ANCHOR PLACEMENT	X		
STRUCTURAL STEEL:			
HIGH STRENGTH BOLTING		X	A325-N S.T.
WELDING OF ANCHORS AND STUDS		X	
WELDING-STAIRS/RAILING SYSTEMS		X	
METAL DECK WELDING		X	
EMBEDDED PLATES		X	
SHOP WELDING:			
SINGLE PASS FILLET WELDS < 5/16"		X	
FILLET WELDS > 5/16"	X		
PARTIAL/COMPLETE PENETRATION	X		
FIELD WELDING:			
SINGLE PASS FILLET WELDS < 5/16"		X	
FILLET WELDS > 5/16"	X		
PARTIAL/COMPLETE PENETRATION	X		

FOUNDATIONS: [IBC CH 18]

- A. FOUNDATIONS WERE DESIGNED FOR THE FOLLOWING VALUES:

ELEMENT	DESIGN VALUE
ALLOWABLE BEARING:	1500 PSF

- B. BEFORE COMMENCING ANY EARTHWORK, VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES OR STRUCTURES AND DO NOT PERFORM ANY WORK THAT WILL DAMAGE OR INTERFERE WITH UTILITIES OR STRUCTURES.
- C. FOOTING EXCAVATIONS SHALL BE NEAT AND TRUE, WITH ALL LOOSE MATERIAL AND STANDING WATER REMOVED BEFORE FOOTING CONCRETE IS PLACED.
- D. PROVIDE FOR PROPER DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER, SEEPAGE, ETC.
- E. EARTH FORMS MAY BE USED FOR FOOTINGS ONLY WHERE THE SOIL IS FIRM AND STABLE AND THE CONCRETE WILL NOT BE EXPOSED. CONCRETE SURFACES WITHIN 6" OF FINISHED GRADE ARE CONSIDERED EXPOSED SURFACES. WHERE EARTH FORMS ARE USED, THE EXCAVATION SHALL BE AT LEAST 2" WIDER THAN SPECIFIED.
- F. NATIVE UNDISTURBED SOIL AND/OR FILL SOIL TO BE COMPACTED TO A MINIMUM OF 95% OF ASTM D1557 (MODIFIED PROCTOR) MAXIMUM DRY DENSITY.

REINFORCED CONCRETE: [IBC CH 19]

- A. DESIGN MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE ADOPTED EDITION OF THE FOLLOWING STANDARDS:
 1. ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 2. ACI 315 - DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
 3. BATCH PLANT MUST BE CERTIFIED TO ASTM C94
- B. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, $f'c = 4000$ PSI. PROVIDE AIR ENTRAINMENT PER ACI 318, SECTION 4.2.1. ONLY CLASS F FLY ASH SHALL BE USED.
- C. ADMIXTURES FOR CONCRETE SHALL COMPLY WITH ACI 318, SECTION 3.6.
- D. EVALUATION AND ACCEPTANCE OF CONCRETE SHALL CONFORM WITH IBC 1905.6.
- E. PRIOR TO PLACING CONCRETE, APPROVAL SHALL BE OBTAINED FROM THE ENGINEER OR LOCAL BUILDING AGENCY FOR SLEEVES, OPENINGS, OR OTHER ATTACHMENTS NOT SHOWN ON THE DRAWINGS.
- F. USE THE FOLLOWING MINIMUM COVER ON REINFORCEMENT IN CAST-IN-PLACE CONCRETE, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
 1. 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.
 2. 2" FOR CONCRETE EXPOSED TO EARTH OR WEATHER, #6 BARS OR LARGER.
 3. 1 1/2" FOR CONCRETE EXPOSED TO EARTH OR WEATHER, #5 BARS AND SMALLER.
 4. 3/4" FOR CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND, #11 BAR AND SMALLER.
 5. 1 1/2" FOR CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND, #14 & #18 BARS.
 6. 1 1/2" FOR BEAMS, COLUMNS AND PILASTERS, COVER OVER TIES.
 7. 1 1/2" CLEAR TO TOP FOR REINFORCEMENT IN SLABS-ON-GRADE.
- G. PROVIDE MATCHING FOUNDATION DOWELS FOR ALL VERTICAL BARS, UNLESS DETAILED OTHERWISE. PROVIDE CORNER BARS MATCHING HORIZONTAL BARS AT ALL WALL INTERSECTIONS.
- H. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF CONCRETE.
- J. THOROUGHLY CLEAN EXISTING SURFACES OF LAITANCE AND FOREIGN MATERIAL. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED THOROUGHLY AND STANDING WATER REMOVED.
- K. THE CONTRACTOR SHALL LOCATE, SUBJECT TO THE APPROVAL OF THE ENGINEER, CONSTRUCTION JOINTS NOT SHOWN ON THE PLANS. LOCATE SUCH JOINTS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE.
- M. SURFACE FINISH TO BE:
 1. BROOM FINISH FOR EXTERIOR SLABS.
 2. HARD TROWEL FOR INTERIOR SLABS.
- N. ALL LAP SPLICES TO BE CLASS B. REFER TO THE FOLLOWING TABLE FOR MINIMUM BAR LAPS:

MINIMUM BAR LAPS FOR REINFORCING STEEL ALL REBAR TO BE GRADE 60 UNCOATED BARS CONCRETE STRENGTH: 3000 PSI OR MORE (STAGGER SPLICES)					
SIZE	LAP LENGTH	SIZE	LAP LENGTH	SIZE	LAP LENGTH
#3	27"	#6	54"	#9	86"
#4	36"	#7	63"	#10	105"
#5	45"	#8	72"	#11	125"

REINFORCEMENT: [IBC CH 19]

- A. REINFORCEMENT SHALL CONFORM TO ACI 318, SECTION 3.5 AND ASTM A185.
- B. USE REINFORCEMENT FOR CONCRETE AS FOLLOWS:
 1. STANDARD REINFORCEMENT, UNO ASTM A615, GRADE 60
- C. PROMPTLY NOTIFY THE ENGINEER IF CONDITIONS ARISE WHERE THERE ARE INSUFFICIENT MINIMUM CLEAR DISTANCES OR WHERE CONSTRUCTION PROBLEMS RELATED TO CONGESTION ARE ENCOUNTERED.

CONNECTIONS TO CONCRETE AND CONCRETE INSERTS: [IBC CH 19]

- A. ANCHOR RODS SHALL BE ASTM F1554, GR 36, UNLESS NOTED OTHERWISE.
- B. INSTALL EXPANSION AND EPOXY ANCHORS AS MANUFACTURED BY HILTI OR AN APPROVED EQUAL, ACCORDING TO THE MANUFACTURERS PRINTED INSTRUCTIONS AND APPLICABLE ICC-ES REPORT.
- C. TOP RODS SHALL BE THREADED THE SMALLER OF 5D OF P.
- E. ALL ANCHOR ROD AND END ANCHOR PLATES & WASHERS SHALL BE ASTM A36 OR BETTER.
- F. ALL NUTS ARE TO BE INSTALLED SNUG TIGHT.
- G. ALL ROD ASSEMBLIES SHALL BE FURNISHED COMPLETE WITH HEAVY HEX HEAD HOLD-DOWN NUT AND TOP WASHER, UNLESS NOTED OTHERWISE.
- H. CONCRETE COLD JOINTS (UNLESS NOTED OTHERWISE) SHALL NOT BE PERMITTED WITHIN THE ANCHOR ROD EMBEDMENT LENGTH. FULL EMBEDMENT SHALL BE IN MONOLITHIC POUR.

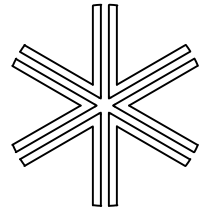
STRUCTURAL STEEL: [IBC CH 22]

- A. DESIGN, FABRICATION AND ERECTION OF STEEL SHALL BE IN ACCORDANCE WITH THE MANUAL OF STEEL CONSTRUCTION, AISC, EDITION REFERENCED IN THE ADOPTED BUILDING CODE.
- B. REFER TO THE FOLLOWING TABLE FOR MATERIAL SPECIFICATIONS:

MATERIAL SPECIFICATIONS	ASTM DESIGNATION	YIELD STRESS
ANGLES & CHANNELS	A36	Fy=36KSI
W-SHAPES	A992	Fy=50KSI
CONNECTION PLATES	A36	Fy=36KSI
COLD-FORMED LIGHT GAGE	A446	Fy=50KSI (GR D)
BOLTS, TYP	A325-N	Fy=92KSI
METAL DECK	A446	Fy=38KSI (GR A)
ANCHOR RODS	F1554	Fy=36KSI
HSS, SQUARE	A500, GR B	Fy=46KSI
HSS, ROUND	A500, GR B	Fy=42KSI

- C. BOLTED CONNECTIONS SHALL BE BOLTED WITH ASTM A325, UNLESS NOTED OTHERWISE. BOLT HOLES SHALL BE 1/16" LARGER IN DIAMETER THAN THE BOLT.
- D. HIGH STRENGTH BOLTING INSPECTION SHALL COMPLY WITH AISC 360
- E. HOLES FOR ANCHOR RODS SHALL BE 5/16" LARGER IN DIAMETER FOR ANCHOR RODS LESS THAN 1" DIAMETER AND 1/2" LARGER IN DIAMETER FOR ANCHOR RODS 1" DIAMETER AND LARGER.
- F. ENSURE ALL DESIGN, DETAILING, FABRICATION, AND ERECTION OF STEEL CONFORMS TO THE REQUIREMENTS OF THE FOLLOWING STANDARDS, UNLESS NOTED OTHERWISE:
 1. ANSI/AISC, 360 SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS.
 2. AISC, 303 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
 3. AISC, QUALITY CRITERIA AND INSPECTION STANDARDS.
 4. AISC, STRUCTURAL STEEL DETAILING.
 5. RSCS, STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
- G. SUBMIT SHOP DRAWINGS FOR FABRICATION AND ERECTION OF ALL STEEL MEMBERS IN ACCORDANCE WITH AISC STANDARDS NOTED ABOVE.
- H. USE 3/8" MINIMUM GUSSET PLATES.
- J. CUT NO OPENINGS IN STRUCTURAL MEMBERS UNLESS SHOWN ON THE DRAWINGS.
- K. DIMENSIONS OF OPENINGS AND EQUIPMENT SUPPORTS ARE SHOWN FOR BID PURPOSES ONLY. VERIFY DIMENSIONS WITH PURCHASED EQUIPMENT PRIOR TO FABRICATION.
- L. FOR NEW FABRICATION, SEE EVERGREEN ENGINEERING SPECIFICATION "STRUCTURAL PAINTING, SECTION 09910."
- M. FOR FIELD PAINTING RELOCATED EQUIPMENT, AND STRUCTURES, AND TOUCHUP, SEE EVERGREEN ENGINEERING SPECIFICATION "PAINTING: TOUCHUP, SECTION 09911."
- N. FINISH BEARING ENDS OF ALL COLUMNS TO A MILLED SURFACE AT RIGHT ANGLES TO VERTICAL AXIS.
- P. ENSURE STEEL ON JOB SITE IS STORED ABOVE GROUND WITH DUNNAGE BETWEEN EACH MEMBER. LOCATE TO MINIMIZE FORMATION OF WATER-HOLDING POCKETS.
- R. STEEL BAR GRATING SHALL BE GALVANIZED, SERRATED, 19W4, 1 1/4"x3/16", UNLESS NOTED OTHERWISE. FASTEN GRATING AND CHECKER PLATE A MINIMUM OF TWO PLACES AT EACH END SUPPORT AND ONE PLACE AT ALL INTERMEDIATE SUPPORTS FOR EVERY 2'-0" WIDTH OF PANEL. FOR REMOVABLE PANELS, ATTACH GRATING AND CHECKER PLATE TO ALL SUPPORTS WITH BOLTED SADDLE CLIPS AND COUNTERSUNK MACHINE BOLTS, RESPECTIVELY. FOR NON-REMOVABLE PANELS, ATTACH GRATING AND CHECKER PLATE WITH 3/16" BY 3/4" LONG WELDS AND 3/4" DIA PLUG WELDS TYPICAL, UNLESS NOTED OTHERWISE ON THE DESIGN DRAWINGS RESPECTIVELY.
- S. ENSURE RAILINGS, POSTS, AND CONNECTIONS ARE CAPABLE OF RESISTING A 200 LB CONCENTRATED LOAD APPLIED AT ANY POINT IN ANY DIRECTION WITHOUT EXCEEDING THE ALLOWABLE STRESSES. USE A MAXIMUM POST SPACING OF 6'-0".
- T. WELDERS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS D1.1 FOR THE WELDS AND POSITIONS WHICH THEY PERFORM AND SHALL PROVIDE CURRENT AWS CERTIFICATION OF THEIR QUALIFICATION. WELDS SHALL CONFORM TO THE LATEST EDITION OF AWS D1.1 USING WELDING FILLER METAL TO MATCH THE STRUCTURAL STEEL AND WELDING PROCESS PER AWS D1.1, TABLE 3.1 THE WELDING ELECTRODE MINIMUM TENSILE STRENGTH SHALL BE 70 KSI. WELDS NOT SPECIFIED SHALL BE CONTINUOUS 1/4" FILLET MINIMUM.
- U. WELDING PROCESS INSPECTION SHALL BE PER AWS D1.1.
- V. THE MINIMUM LEVEL OF NON DESTRUCTIVE INSPECTION AND TESTING OF WELDS IS AS FOLLOWS:
 1. VISUAL INSPECTION - 100% OF WELD LENGTH.
 2. VISUAL INSPECTION (WITH MAGNETIC PARTICLE AND/OR DYE PENETRANT AS SUPPLEMENTARY INSPECTION AS REQUIRED) OF SUSPECTED UNSATISFACTORY WELDS OR CRACKS.

SCALE 3/16"=1'-0"



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TITLE
CSL 110TR10HEI Filter Layout

CUSTOMER
Ganahl Lumber

LOCATION
Costa Mesa, Ca.

PAINT
UPDATED
DATE
5/11/2017
DRAWN BY
Rick P.

SHEET SIZE
C
PROJECT NO.
8555
DRAWING NO.
G1

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