CODE:

2013 EDITION OF THE CALIFORNIA BUILDING CODE (CBC)

DESIGN LOADS:

DESIGN LUAL	<u> </u>	
1. ROOF:		
	LIVE LOAD	0 PSF
	DEAD LOAD	8 PSF
2. WIND LOA		
	OCCUPANCE CATEGORY	l
	OCCUPANCE CATEGORYBASIC WIND SPEED, V :	100 MPH
	EXPOSURE CATEGORY:	С
	IMPORTANCE FACTOR, Iw:	1.0
	MEAN ROOF HEIGHT:	15 FT
	G:	0.85
	Kd:	0.85
	Kzt:	1.0
	Kz:	0.85
	Kz:ENCLOSURE CLASSIFICATION:	OPEN BUILDING
3. SEISMIC L	OADS:	
	OCCUPANCE CATEGORYIMPORTANCE FACTOR, le :	<u> </u>
	IMPORTANCE FACTOR, le :	1.0
	SEISMIC SITE CLASS:	D
	Ss:	0.792
	S1:	0.331
	SDS:	0.625
	SD1: SEISMIC DESIGN CATEGORY: PAGE SEISMIC FORCE PERIOTING S	0.384
	SEISMIC DESIGN CATEGORY:	D
	BASIC SEISMIC FORCE RESISTING S	YSTEM:
	STEEL ORDINARY CANTILEVER COL	
	R:	1.25
	Ω:	1.25
	Cd:	1.25
	Cs:BASE SHEAR, V:	0.500
	BASE SHEAR, V:	U.5UUVV
GENERAL:		

- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES
- THE CONTRACTOR IS RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK THAT CONFORMS TO THE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SAFETY AND HEALTH STANDARDS FOR THE CONSTRUCTION INDUSTRY.
- WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM
- OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOOSES AN OPTION AND HE SHALL COORDINATE ALL DETAILS. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO
- SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. TYPICAL DETAILS ARE NOT CUT ON DRAWINGS, BUT APPLY UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND FINISHED GRADE PRIOR TO START OF CONSTRUCTION, ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO ASSIST CONTRACTOR IN VERIFICATION. DO NOT
- SCALE DIMENSIONS FROM DRAWINGS. ITEMS SHOWN BY OTHER DISCIPLINES WITH REFERENCE TO STRUCTURAL DRAWINGS BUT NOT SHOWN ON THESE STRUCTURAL DRAWINGS SHALL BE CONSIDERED DESIGN BUILD ITEMS. CONTRACTOR SHALL SUBMIT DESIGN BY OTHERS FOR REVIEW

FOUNDATIONS:

- GEOTECHNICAL CONSULTANT: NA SPREAD FOOTINGS SHALL BEAR ON COMPACTED NATIVE SOILS. BASED ON CBC TABLE 1806.2 "PRESUMPTIVE LOAD-BEARING VALUES" AND CLASS 5 MATERIALS, A DESIGN SOIL BEARING VALUE OF 1.500 PSF AND LATERAL BEARING VALUE OF 100 PSF/FT HAS BEEN ASSUMED. IF ACTUAL SOIL CONDITIONS DIFFER NOTIFY THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH WORK. BOTTOM OF FOOTINGS SHALL BEAR AT A DEPTH NOT LESS THAN 1.5 FT BELOW LOWEST ADJACENT GRADE WITHIN 5 FEET OF STRUCTURE OR FOUNDATION
- DRILLED POLE FOUNDATIONS SHALL BEAR ON MACHINE CLEANED, INSPECTED SOIL STRATA. BASED ON CBC TABLE 1806.2 "PRESUMPTIVE LOAD-BEARING VALUES" AND CLASS 5 MATERIALS, A DESIGN SOIL BEARING VALUE OF 1.500 PSF AND LATERAL BEARING VALUE OF 100 PSE/FT HAS BEEN ASSUMED. FOR TOP OF POLE FOUNDATION ELEVATIONS. SEE FOUNDATION PLANS AND SECTIONS IF WATER IS ENCOUNTERED DURING DRILLING. STOP AND CONSULT STRUCTURAL ENGINEER OR GEOTECHNICAL ENGINEER FOR RESOLUTION.

CONCRETE:

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
- ADDITION OF WATER TO THE BATCH FOR MATERIAL WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED, UNLESS THE SUPPLIER HAS SPECIFICALLY WITHHELD WATER FROM THE BATCH AT THE PLANT. IN SUCH CASE THE MIX DESIGN AND TRUCK TICKET MUST CLEARLY STATE THE MAXIMUM AMOUNT OF WATER THAT CAN BE ADDED TO THE BATCH ON SITE. IN NO CASE SHALL THE DESIGN WATER TO CEMENTITIOUS MATERIAL RATIO BE EXCEEDED.
- MECHANICALLY VIBRATE ONLY THE TOP 5 FEET OF DRILLED PIER CONCRETE. REVIBRATE TOP OF DRILLED PIER 15 MINUTES AFTER PLACING CONCRETE. TEST DATA FOR CONCRETE SUBMITTALS SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT OF CONCRETE. REFERENCE ACI 318

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.

CHAPTER 5, TABLE R5.3 FOR SPECIFIC REQUIREMENTS. DRILLED PIER CONCRETE SHALL BE CHANNELED TO FREE FALL DOWN THE SHAFT WITHOUT STRIKING THE REINFORCING OR THE SIDES OF THE SHAFT. MAXIMUM HEIGHT OF FREE-FALL IS 15'-0". CONCRETE PROPERTIES:

CONCRETE USE

UNLESS NOTED OTHERWISE

MINIMUM 28 DAY COMPRESSIVE STRENGTH

ALL CONCRETE SHALL BE__

COLD-FORMED STEEL FRAMING: ALL COLD-FORMED STEEL FRAMING SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL

3,000 PSI

INSTITUTE AND THE STEEL STUD MANUFACTURERS ASSOCIATION. STEEL FOR ALL MEMBERS AND FOR ALL STRAPS SHALL HAVE A MINIMUM YIELD STRENGTH OF 55,000 PSI. STEEL SHALL BE GALVANIZED AT LOCATIONS EXPOSED TO WEATHER

STRUCTURAL MEMBERS BY THE AMERICAN IRON AND STEEL

AND WHENEVER NOTED ON THE DRAWINGS ALL MEMBERS SHALL BE SECURELY SEATED FOR FULL BEARING UNI ESS NOTED OTHERWISE ALL WELDING SHALL BE PERFORMED BY WELDERS EXPERIENCED IN

ALL COLD-FORMED FRAMING SIZES, GAGE AND SPACING ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL CONSTRUCT AND ASSURE THE PROPER PERFORMANCE OF THE COMPLETE WALL OR SOFFIT ASSEMBLAGE.

ALL SCREWS REFERENCED IN THE DRAWINGS FOR LIGHT GAUGE CONNECTIONS SHALL BE DRIL-FLEX BY HILTI OR APPROVED EQUIVALENT (ICC ESR-3332)

STEEL STUD SIZES ARE AS INDICATED IN PLANS AND KEYNOTES. THICKNESSES REFERENCED IN THE DRAWINGS ARE AS FOLLOWS:

16 GAUGE MATERIAL - 0.059 INCHES 14 GAUGE MATERIAL - 0.075 INCHES 12 GAUGE MATERIAL - 0.105 INCHES 10 GAUGE MATERIAL - 0.134 INCHES

LIGHT GAGE STEEL FRAMING WORK

NOTE: THE UNCOATED MINIMUM STEEL THICKNESS OF THE COLD-FORMED STEEL PRODUCTS AS DELIVERED TO THE JOB SITE SHALL NOT AT ANY LOCATION BE LESS THAN 95 PERCENT OF THE DESIGN THICKNESS INDICATED ABOVE.

STRUCTURAL STEEL:

- LATEST AISC AND AWS CODES APPLY. THE WORD APPROVED INSECTION 4.4 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES IS REDEFINED AS REVIEWED. STEEL SHALL BE FINISHED AT LOCATIONS EXPOSED TO WEATHER
- WITH A CORROSION RESISTANT COATING APPLICABLE TO WEATHER AND EXPOSURE CONDITIONS OF PROJECT LOCATION WHEN STRUCTURAL STEEL IS FURNISHED TO A SPECIFIED MINIMUM YIELD POINT GREATER THAN 36 KSI, THE ASTM OR OTHER SPECIFICATION DESIGNATION SHALL BE INCLUDED NEAR THE ERECTION MARK ON EACH SHIPPING ASSEMBLY OR IMPORTANT
- CONSTRUCTION COMPONENT OVER ANY SHOP COAT OF PAINT PRIOR TO SHIPMENT FROM THE FABRICATORS PLANT. IF IT IS NECESSARY TO SPLICE ANY MEMBER, SPLICE LOCATIONS ARE SUBJECT TO REVIEW BY STRUCTURAL ENGINEER. SPLICES SHALL BE FULL PENETRATION WELDED AND TESTED PER THIS SECTION. INDICATE ALL SPLICE LOCATIONS, AND WELDING PROCEDURES ON SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION.
- ALL BEAMS SHALL BE ERECTED WITH THE NATURAL CAMBER ALL BOLTS SHALL BE INSTALLED WITH STEEL WASHERS. ALL WELDING BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN TYPE OF WELD SHOWN ON THE
- DRAWINGS OR NOTES, CERTIFICATES SHALL BE THOSE ISSUED BY AN INDEPENDENT TESTING AGENCY. ALL WELDING DONE BY E70 SERIES LOW HYDROGEN RODS. USE E90
- SERIES FOR ASTM A706 REINFORCING BARS. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS ON DRAWINGS ARE SHOWN AS SHOP WELDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. SHOP WELDS OR FIELD WELDS SHALL BE SHOWN ON SHOP DRAWINGS.
- SLAG SHALL BE REMOVED FROM ALL COMPLETED WELDS, AND THE WELD AND ADJACENT BASE METAL SHALL BE CLEANED BY BRUSHING OR OTHER SUITABLE MEANS. WELDED JOINTS SHALL NOT BE PAINTED UNTIL AFTER WELDING HAS BEEN COMPLETED AND THE WELD ACCEPTED. ALL COMPLETE PENETRATION WELDS SHALL BE
- ALL STRUCTURAL STEEL SHALL BE FABRICATED BY A FABRICATOR WITH ANY ONE OF THE FOLLOWING MINIMUM QUALIFICATIONS. QUALIFICATIONS SHALL BE IN EFFECT AT TIME OF BID.
- INTERNATIONAL ACCREDITATION SERVICE, INC. (IAS) APPROVED **FABRICATOR** AISC CERTIFIED FABRICATOR (STD).
- 12. STEEL PROPERTIES
- WIDE FLANGE COLUMNS, BEAMS AND TEES: ASTM A992 (Fy = 50 KSI) HIGH STRENGTH PLATES: ASTM A572 (Fy = 50 KSI) CHANNELS, PLATES AND ANGLES: ASTM A36 (Fy = 36 KSI)
- ANCHOR RODS: ASTM F1554 Gr. 55 (Fy = 55 KSI) STEEL BOLTS SHALL BE PRETENSIONED UNLESS OTHERWISE NOTED AS A SNUG-TIGHT CONNECTION ON THE DRAWINGS OR DETAILS. ONE OF THE FOLLOWING METHODS SHALL BE USED TO ASSURE ADEQUATE PRETENSIONING IS ACHIEVED:

BOLTS: ASTM A325 OR ASTM A F1852 TWIST-OFF TYPE

- TURN-OF-NUT METHOD **DIRECT TENSION INDICATOR WASHERS**
- CALIBRATED WRENCH TWIST-OFF TYPE BOLT

PHOTOVOLTAIC PANELS:

THE PANEL MANUFACTURER IS RESPONSIBLE FOR THE DESIGN OF THE PANELS AND THE DESIGN OF THE PANEL CONNECTIONS TO THE STRUCTURE INCLUDING ALL COMPONENTS REQUIRED TO MAKE THE CONNECTIONS. PHOTOVOLTAIC PANELS. COMPONENTS AND CONNECTIONS SHALL BE DESIGNED TO SUPPORT PANEL WEIGHT PLUS SNOW, WIND, OR SEISMIC LOADING, WHICHEVER COMBINATION PRODUCES THE MOST SEVERE CONDITION IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE. THIS IS A DEFERRED SUBMITTAL ITEM.

SPECIAL STRUCTURAL INSPECTIONS:

PER CBC SECTION 1704 AND 1705 SPECIAL INSPECTIONS ARE IN ADDITION TO THE REQUIRED INSPECTION CONDUCTED BY THE BUILDING JURISDICTION PER IBC SECTION 110 THE TYPES OF WORK LISTED BELOW SHALL BE INSPECTED BY A SPECIAL

- ALL SPECIAL INSPECTORS SHALL BE UNDER THE SUPERVISION OF A REGISTERED CIVIL OR STRUCTURAL ENGINEER. THE QUALIFICATIONS OF ALL SPECIAL INSPECTORS SHALL BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER OF
- THE MINIMUM QUALIFICATIONS FOR THE SPECIAL INSPECTORS ARE AS
- CONCRETE INSPECTION I.C.C. CERTIFICATION IN REINFORCED CONCRETE OR E.I.T. CERTIFICATION.
- STRUCTURAL WELDING INSPECTION VISUAL TESTING - I.C.C. CERTIFICATION IN STRUCTURAL STEEL AND WELDING OR A.W.S. CERTIFIED WELD INSPECTOR (C.W.I.). NON-DESTRUCTIVE TESTING - A.W.S. C.W.I.
- HIGH STRENGTH BOLTING INSPECTION I.C.C. CERTIFICATION IN STRUCTURAL STEEL AND WELDING. SPECIAL CASES - EXPERIENCE ACCEPTABLE TO THE STRUCTURAL ENGINEER OF RECORD.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
- THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
- THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO BE KEPT AT THE SITE FOR USE BY THE BUILDING OFFICIAL, THE CONTRACTOR, THE STRUCTURAL ENGINEER OF RECORD, AND THE ARCHITECT OF RECORD. IF SPECIAL INSPECTION IS PROVIDED BY ANYONE OTHER THAN THE STRUCTURAL ENGINEER OF RECORD, INSPECTION REPORTS SHALL BE SUBMITTED TO THE OFFICE OF THE STRUCTURAL ENGINEER ON A WEEKLY BASIS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
- UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE. THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
- DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:
- NOTIFY THE RESPONSIBLE INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED. ALL WORK REQUIRING SPECIAL STRUCTURAL INSPECTION SHALL

REMAIN ACCESSIBLE AND EXPOSED UNTIL IT IS OBSERVED BY THE

- SPECIAL STRUCTURAL INSPECTOR. SPECIAL INSPECTION
- INSPECTION OF FABRICATORS INSPECTION OF CONCRETE CONSTRUCTION INSPECTION OF STRUCTURAL STEEL INSPECTION OF STEEL OTHER THAN STRUCTURAL STEEL
- SEE TABLES ON GSN FOR ADDITIONAL INFORMATION.

1705.3 SPECIAL INSPECTION OF CONCRETE CONSTRUCTION

SPECIAL INSPECTION AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY TABLE 1705.3.

EXCEPTIONS: SPECIAL INSPECTIONS SHALL NOT BE REQUIRED FOR: ISOLATED SPREAD CONCRETE FOOTINGS OF BUILDING THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY

SUPPORTED ON EARTH OR ROCK.

CONTINOUS CONCETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY

SUPPORTED ON EARTH OR ROCK WHERE: THE FOOTINGS SUPPORT WALLS OF LIGHT-FRAME CONSTRUCTION; THE STRUCTURAL DESIGN OF THE FOOTING IS BASED ON A

SPECIFIED COMPRESSIVE STRENGTH, fc, NO GREATER THAN 2,500 PSI REGARDLESS OF THE COMPRESSIVE STRENGTH SPECIFIED. CONCRETE SLABS ON GRADE. STEEL REINFORCING STILL REQUIRES SPECIAL INSPECTION..

TABLE 1705.3: REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.		х	ACI 318: 3.5, 7.1-7.7	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, 2b			AWS D1.4 ACI 318: 3.5.2	
5. VERIFYING USE OF REQUIRED DESIGN MIX.		Х	ACI 318: Ch 4, 5.2-5.4	1904.2, 1910.2, 1910.3
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	Х		ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. INSPECTION FOR MAINENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	_	х	ACI 318: 5.11- 5.13	1910.9
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		Х	ACI 318: 6.1.1	_

1704.2.5 SPECIAL INSPECTION OF FABRICATORS:

SPECIAL INSPECTION OF FABRICATION OF STRUCTURAL STEEL BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP IS REQUIRED.

EXCEPTION: SPECIAL INSPECTIONS OF FABRICATORS WITH ONE OF THE FOLLOWING QUALIFICATIONS IS NOT REQUIRED: INTERNATIONAL ACCREDITATION SERVICE, INC. (IAS)APPROVED FABRICATOR.

AISC CERTIFIED FABRICATOR (STD). THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF

1705.2.2 SPECIAL INSPECTION OF STRUCTURAL STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL

SPECIAL INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH TABLE 1705.2.2

TABLE 1705.2.2 REQUIRED VERFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL VERIFICATION AND INSPECTION REFERENCE STANDARD MATERIAL VERIFICTION OF COLD-FORMED STEEL . IDENTIFICATION MARKINGS TO CONFORM APPLICABLE ASTM MATERIAL STANDARD

TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS o. MANUFACTURER'S CERTIFIED TEST

2. INSPECTION OF WELDING: . REINFORCING STEEL:

VERIFICATION OF WELDABILITY OF

4) OTHER REINFORCING STEEL.

REINFORCING STEEL OTHER THAN ASTM A706

AWS D1.4

ACI 318:

SECTION 3.5.2

DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE. CLEANLINESS (CONDITION OF STEEL SURFACES) TACKING (TACK WELD QUALITY AND LOCATION) BACKING TYPE AND FIT (IF APPLICABLE) CONFIGURATION AND FINISH OF ACCESS HOLES FIT-UP OF FILLET WELDS DIMENSIONS (ALIGNMENT, GAPS AT ROOT)

MATERIAL IDENTIFCATION (TYPE/GRADE)

WELDER IDENTIFICATION SYSTEM*

JOINT PREPARATION

*THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.

CLEANLINESS (CONDITION OF STEEL SURFACES)

TACKING (TACK WELD QUALITY AND LOCATION)

1705.2 SPECIAL INSPECTION OF STRUCTURAL STEEL CONSTRUCTION

THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.

FOR RISK CATEGORY I - UT NOT REQUIRED.

AISC CERTIFIED FABRICATOR (STD).

DELAYED PENDING THESE INSPECTIONS

ERECTOR WITH THE ONE OF THE FOLLOWING QUALIFICATIONS:

P - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER

MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES

WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE

FIT-UP OF GROOF WELDS (INCLUDING JOINT GEOMETRY)

CATEGORY):

FABRICATOR.

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH

NONDESTRUCTIVE TESTING OF WELDED JOINTS (SEE DESIGN LOADS FOR RISK

GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION

APPROVED FABRICATORS: QA INSPECTIONS, EXCEPT NDT AND UT, MAY BE

WAIVED WHEN THE WORK IS PERFORMED IN A FABRICATING SHOP OR BY AN

O - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE

AISC 360 TABLE N5.4-1: INSPECTION TASKS PRIOR TO WELDING

INTERNATIONAL ACCREDITATION SERVICE, INC. (IAS)APPROVED

FOR RISK CATEGORY III OR IV - UT SHALL BE PERFORMED ON ALL CJP

FOR RISK CATEGORY II - UT SHALL BE PERFORMED ON 10% OF WELDS IN

MATERIALS 5/16" OR THICKER. WHERE MATERIAL IS LESS THAN 5/16", NO

AISC 360 TABLE N5.4-2: INSPECTION TASKS DURING WELDING	
USE OF QUALIFIED WELDERS	C
CONTROL AND HANDLING OF WELDING CONSUMABLES PACKAGING EXPOSURE CONTROL	C
NO WELDING OVER CRACKED TACK WELDS	(
ENVIRONMENTAL CONDITIONS WIND SPEED WITHIN LIMITS PRECIPITATION AND TEMPERATURE	C
WPS FOLLOWED SETTINGS ON WELDING EQUIPMENT TRAVEL SPEED SELECTED WELDING MATERIALS SHIELDING GAS TYPE/FLOW RATE PREHEAT APPLIED INTERPASS TEMPERATURE MAINAINED (MIN/MAX) PROPER POSITION (F,V,H,OH)	C
WELDING TECHNIQUES INTERPASS AND FINAL CLEANING EACH PASS WITHIN PROFILE LIMITATIONS EACH PASS MEETS QUALITY REQUIREMENTS	C

EACH PASS MEETS QUALITY REQUIRE	
AISC 360 TABLE N5.4-3: INSPECTION TA	SKS AFTER WELDING
WELDS CLEANED	
SIZE, LENGTH AND LOCATION OF WELDS	I
WELDS MEET VISUAL ACCEPTANCE CRITERIA CRACK PROHIBITION WELD/BASE-METAL FUSION CRATER CROSS SECTION WELD PROFILES WELD SIZE UNDERCUT POROSITY	ļ
ARC STRIKES	I
K-AREA*	ı
BACKING REMOVED AND WELD TABS REMOVE	ED (IF REQUIRED)
REPAIR ACTIVITIES	ı
DOCUMENT ACCEPTANCE OR REJECTION OF MEMBER	WELDED JOINT OR
*WHEN WELDING OF DOUBLER PLATES, CONT	NUITY PLATES OR STIFFENER

HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA

FOR CRACKS WITHIN 3 INCHES OF THE WELD.

ABBRV TERM

EXPANSION EXTERIOR EW **EACH WAY** FINISH FLOOR ELEVATION FLR FI OOR FTG FOOTING GΑ GAUGE GALV GALVANIZED GENERAL CONTRACTOR GLB GSN HORIZ HORIZONTAL HSA HEADED STUD ANCHOR HSS HOLLOW STRUCTURAL IBC INSIDE DIAMETER INT INTERIOR KIP, K ONE THOUSAND POUNDS KLF KIP PER LINEAR FOOT STEEL ANGLE POUND LIVE LOAD LLBB LONG LEG BACK TO BACK LLH LONG LEG HORIZONTAL LLV LONG LEG VERTICAL LONG LONGITUDINAL LSL LAMINATED STRAND LUMBER LSH LONG SIDE HORIZONTAL LSV LONG SIDE VERTICAL MCJ MASONRY CONTROL JOINTS MECH MECHANICAL MFR MANUFACTURER



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	No.	Description	Date
The state of the s			

NSG2 - COLUSA

COLUSA, CA 95932

STRUCTURES 1, 2, 3 - FOUNDATIO	N
AND FRAMING PLAN	Project num
STRUCTURE 4 - FOUNDATION AND FRAMING PLAN	Date
	Drawn by
STRUCTURE 5 - FOUNDATION AND FRAMING PLAN	Checked by
STRUCTURE 6 - FOUNDATION AND	

Scale

06/27/2016 JE

1/4" = 1'-0"

ABBREVIATIONS

	. —
(#)	NUMERICAL QUANTITIES WHEN ENCLOSED IN PARENTHESIES
A\E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ARCH	ARCHITECT
ASTM	AMERICAN SOCIETY FOR
	TESTING AND MATERIALS
BOD	BOTTOM OF DECK
BOS	BOTTOM OF STEEL
BRG	BEARING
CD	CONTRACT DOCUMENTS
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
D	DEPTH
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION FROM OF SUAR
EOS EQ	EDGE OF SLAB EQUAL
EQUIP	EQUAL EQUIPMENT
LUUIF	LQUIF IVIEIN I

GLUED LAMINATED WOOD BEAM GENERAL STRUCTURAL NOTES SECTION MOMENT OF INERTIA INTERNATIONAL BUILDING CODE

NOT APPLICABLE NTS NOT TO SCALE OC ON CENTER

AISC 360 TABLE N6.1: INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT PLACEMENT AND INSTALLATION OF STEEL DECK PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS

TERMS AND

OUTSIDE DIAMETER

PERPENDICULAR

POST TENSIONED

QUALITY CONTROL

REINFORCING

ROUGH SAWN

ROOF TOP UNIT

SPECIFICATION

SQUARE FOOT

SIMILAR

STANDARD

REQUIRED

QUALITY ASSURANCE

ORIENTED STRAND BOARD

POUNDS PER LINEAR FOOT

POUNDS PER SQUARE INCH

PARALLEL STRAND LUMBER

REQUEST FOR INFORMATION

POUNDS PER SQUARE FOOT

OPPOSITE

PLATE

FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICTATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGE.

OD

OPP

OSB

PERP

PSF

PSL PT

QA QC

RFI

RTU

SIM

SPEC

SQ STD

SW T&B

T&G

W/O

WWF

WL

Sheet Number

S2.1

S2.2

S2.4

S3.1

STRUCT

RS

REINF

REQD

PSI

AISC 360 TABLE N5.6-3: INSPECTION TASKS AFTER BOLTING

DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS

AISC 360 TABLE N5.6-1: INSPECTION TASKS PRIOR TO BOLTING

MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER

FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS

TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR

PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE,

PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL

PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION

PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND

FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL

JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE

HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED

AISC 360 TABLE N5.6-2: INSPECTION TASKS DURING BOLTING

PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER

CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING

SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET

MATERIALS.

PLANE).

APPLICABLE REQUIREMENTS.

ASSEMBLIES AND METHODS USED.

OTHER FASTENER COMPONENTS

PRETENSIONING OPERATION.

FROM ROTATING

STRUCTURE SHEAR WALL TOP AND BOTTOM **TONGUE AND GROOVE** TOP OF BEAM TOP OF CONCRETE TOP OF DECK

TOB TOC TOD TOF TOP OF FOOTING TOJ TOP OF JOIST TOM TOP OF MASONRY TOP OF PARAPET TOP OF STEEL

TOP TOS TOW TYP TOP OF WALL TYPICAL UNO UNLESS NOTED OTHERWISE VERT VERTICAL W/C WATER TO CEMENT RATIO

WITHOUT

Sheet List

FRAMING PLAN

DETAILS

Sheet Name

GENERAL STRUCURAL NOTES

WINDLOAD

WORK POINT

WELDED WIRE FABRIC

1017 BRIDGE STREET

GENERAL STRUCURAL

- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DIMENSIONS, ELEVATIONS WHERE SHOWN ARE TO BE USED AS AN AID AND SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR PRIOR TO
- CONSTRUCTION. FOR ADDITITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL

KEYNOTES

- DRILLED CONCRETE POLE FOOTING. FOR DIAMETER AND EMBEDMENT OF FOOTING SEE FOUNDATION PLAN AND SECTION ON THIS SHEET. SEE DETAIL 2/S3.1 FOR REINFORCING AND STEEL COLUMN ANCHORAGE. C-10"X3 1/2"X12 GAUGE COLD FORMED STEEL PURLINS, TYPICAL. COORDINATE EXACT LOCATION WITH SOLAR PANEL MANUFACTURER SPECIFICATIONS. SEE DETAIL 9/S3.1 FOR MORE INFORMATION ON
- SAG ROD AT 9'-0" O.C. MAXIMUM, (1) MINIMUM AT SPANS LESS THAN 18'-0" AND (2) MINIMUM AT SPANS LESS THAN 27'-0". SPACE EQUALLY
- BETWEEN SÚPPORTS. REFERENCE DETAIL 10/S3.1. DO NOT SPLICE PURLINS AT SUPPORT AT CANTILEVER ENDS.
- 10 1/8"X2"X16 GAUGE END CAP EACH END PER DETAIL 11/S3.1. BEAM FLANGE BRACES AT 6'-6" O.C. MAXIMUM. REFERENCE DETAIL
- 6/S3.1 FOR MORE INFORMATION. PV MODULE AND ATTACHMENT BY OTHERS.

36' - 5 3/4"

6 S3.1

39 13/16" 39 13/16" 39 13/16" 39 13/16" 39 13/16" 39 13/16" 39 13/16"

18' - 2 7/8"

IF DRILLING POLE FOUNDATIONS IS NOT POSSIBLE, USE SPREAD FOOTING PER DETAIL 8/S3.1 ILO DRILLED FOUNDATION.



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No.	Description	Date
NO.	Description	Date
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FOUNDATION
- PLAN
0' - 0"

STRUCTURES 1, 2, 3 -FOUNDATION AND FRAMING PLAN

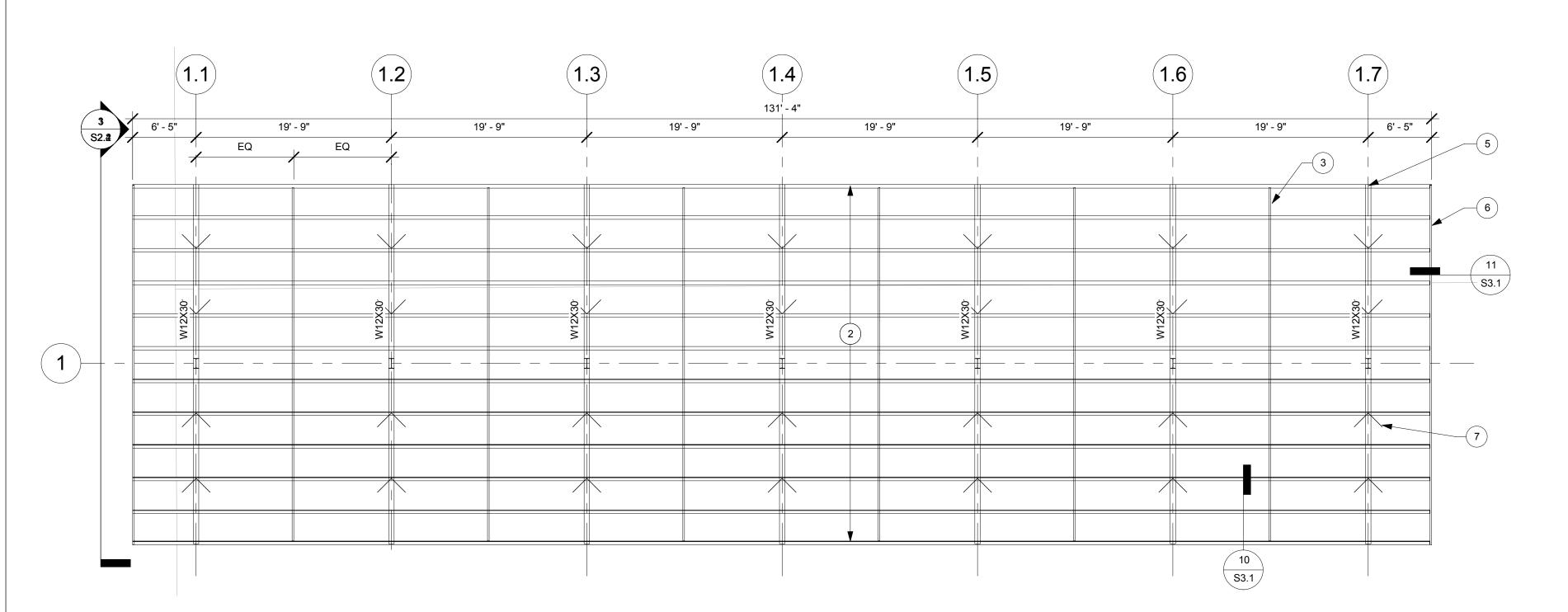
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	Project number	
	Date	06/27/201
	Drawn by	D
	Checked by	JE

Scale

As indicated

(1.5) 19' - 9"

2 FOUNDATION PLAN - STRUCTURES 1,2,3 1/8" = 1'-0"



- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DIMENSIONS, ELEVATIONS WHERE SHOWN ARE TO BE USED AS AN AID AND SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR PRIOR TO
- CONSTRUCTION. FOR ADDITITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL NOTES.

KEYNOTES

- DRILLED CONCRETE POLE FOOTING. FOR DIAMETER AND EMBEDMENT OF FOOTING SEE FOUNDATION PLAN AND SECTION ON THIS SHEET. SEE
- DETAIL 2/S3.1 FOR REINFORCING AND STEEL COLUMN ANCHORAGE. C-10"X3 1/2"X12 GAUGE COLD FORMED STEEL PURLINS, TYPICAL. COORDINATE EXACT LOCATION WITH SOLAR PANEL MANUFACTURER SPECIFICATIONS. SEE DETAIL 9/S3.1 FOR MORE INFORMATION ON SECTION.
- SAG ROD AT 9'-0" O.C. MAXIMUM, (1) MINIMUM AT SPANS LESS THAN 18'-0" AND (2) MINIMUM AT SPANS LESS THAN 27'-0". SPACE EQUALLY
- BETWEEN SUPPORTS. REFERENCE DETAIL 10/S3.1. DO NOT SPLICE PURLINS AT SUPPORT AT CANTILEVER ENDS.
- 10 1/8"X2"X16 GAUGE END CAP EACH END PER DETAIL 11/S3.1. BEAM FLANGE BRACES AT 6'-6" O.C. MAXIMUM. REFERENCE DETAIL
- 6/S3.1 FOR MORE INFORMATION. PV MODULE AND ATTACHMENT BY OTHERS.

36' - 5 3/4"

43 1/4"

6 S3.1

18' - 2 7/8"

39 13/16"

FOUNDATION

39 13/16" 39 13/16" 39 13/16"

18' - 2 7/8"

39 13/16" 39 13/16" 39 13/16" 39 13/16"

IF DRILLING POLE FOUNDATIONS IS NOT POSSIBLE, USE SPREAD FOOTING PER DETAIL 8/S3.1 ILO DRILLED FOUNDATION.



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STRUCTURE 4 -FOUNDATION AND FRAMING PLAN

Project number 06/27/2016 Drawn by Checked by

As indicated

Scale

1 FOUNDATION PLAN - STRUCTURE 4 1/8" = 1'-0"

21' - 0"

131' - 4" 21' - 0" 21' - 0" 21' - 0" 21' - 0" 21' - 0" 21' - 0" S2.2 S3.1 10 S3.1

DOUBLE CANTILEVER SECTION STRUCTURE 4
1/4" = 1'-0"

2 FRAMING PLAN - STRUCTURE 4 1/8" = 1'-0"

- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DIMENSIONS, ELEVATIONS WHERE SHOWN ARE TO BE USED AS AN AID AND SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION.
- FOR ADDITITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL

KEYNOTES

- DRILLED CONCRETE POLE FOOTING. FOR DIAMETER AND EMBEDMENT OF FOOTING SEE FOUNDATION PLAN AND SECTION ON THIS SHEET. SEE DETAIL 2/S3.1 FOR REINFORCING AND STEEL COLUMN ANCHORAGE.
- 2 C-10"X3 1/2"X12 GAUGE COLD FORMED STEEL PURLINS, TYPICAL.
 COORDINATE EXACT LOCATION WITH SOLAR PANEL MANUFACTURER SPECIFICATIONS. SEE DETAIL 9/S3.1 FOR MORE INFORMATION ON
- SAG ROD AT 9'-0" O.C. MAXIMUM, (1) MINIMUM AT SPANS LESS THAN 18'-0" AND (2) MINIMUM AT SPANS LESS THAN 27'-0". SPACE EQUALLY BETWEEN SUPPORTS. REFERENCE DETAIL 10/S3.1.
- DO NOT SPLICE PURLINS AT SUPPORT AT CANTILEVER ENDS. 10 1/8"X2"X16 GAUGE END CAP EACH END PER DETAIL 11/S3.1.
- BEAM FLANGE BRACES AT 6'-6" O.C. MAXIMUM. REFERENCE DETAIL 6/S3.1 FOR MORE INFORMATION.
- PV MODULE AND ATTACHMENT BY OTHERS.
- IF DRILLING POLE FOUNDATIONS IS NOT POSSIBLE, USE SPREAD FOOTING PER DETAIL 8/S3.1 ILO DRILLED FOUNDATION.



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STRUCTURE 5 -FOUNDATION AND FRAMING PLAN

Project number	
Date	06/27/201
Drawn by	DO
Checked by	JE

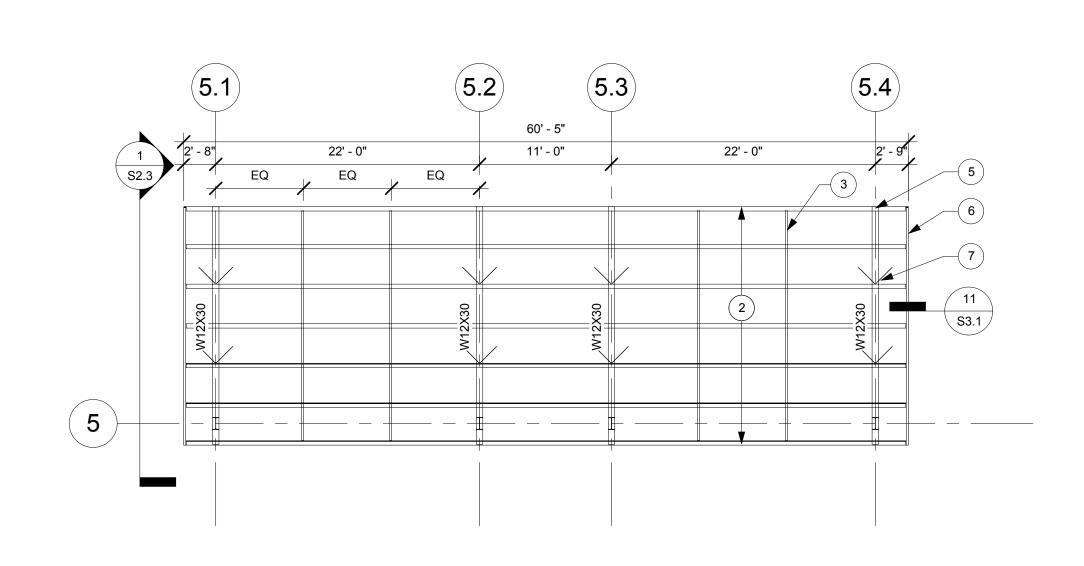
S2.3

As indicated

Scale



2 FOUNDATION PLAN - STRUCTURE 5 1/8" = 1'-0"



1 SEMI-CANTILEVER SECTION 1/4" = 1'-0"

- 1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DIMENSIONS, ELEVATIONS WHERE SHOWN ARE TO BE USED AS AN AID AND SHALL BE CONTRACTOR PRIOR TO
- CONSTRUCTION.
 FOR ADDITITIONAL INFORMATION, REFERENCE GENERAL STRUCTURAL

KEYNOTES

- DRILLED CONCRETE POLE FOOTING. FOR DIAMETER AND EMBEDMENT OF FOOTING SEE FOUNDATION PLAN AND SECTION ON THIS SHEET. SEE DETAIL 2/S3.1 FOR REINFORCING AND STEEL COLUMN ANCHORAGE.
- C-10"X3 1/2"X12 GAUGE COLD FORMED STEEL PURLINS, TYPICAL. COORDINATE EXACT LOCATION WITH SOLAR PANEL MANUFACTURER SPECIFICATIONS. SEE DETAIL 9/S3.1 FOR MORE INFORMATION ON
- SAG ROD AT 9'-0" O.C. MAXIMUM, (1) MINIMUM AT SPANS LESS THAN 18'-0" AND (2) MINIMUM AT SPANS LESS THAN 27'-0". SPACE EQUALLY BETWEEN SUPPORTS. REFERENCE DETAIL 10/S3.1.
- DO NOT SPLICE PURLINS AT SUPPORT AT CANTILEVER ENDS.
- 10 1/8"X2"X16 GAUGE END CAP EACH END PER DETAIL 11/S3.1. BEAM FLANGE BRACES AT 6'-6" O.C. MAXIMUM. REFERENCE DETAIL 6/S3.1 FOR MORE INFORMATION.
- 8 PV MODULE AND ATTACHMENT BY OTHERS.

36' - 5 3/4"

6 S3.1

43 1/4" 39 13/16" 39 13/16" 39 13/16" 39 13/16"

7

FOUNDATION

18' - 2 7/8"

39 13/16" 39 13/16" 39 13/16" 39 13/16"

IF DRILLING POLE FOUNDATIONS IS NOT POSSIBLE, USE SPREAD FOOTING PER DETAIL 8/S3.1 ILO DRILLED FOUNDATION.



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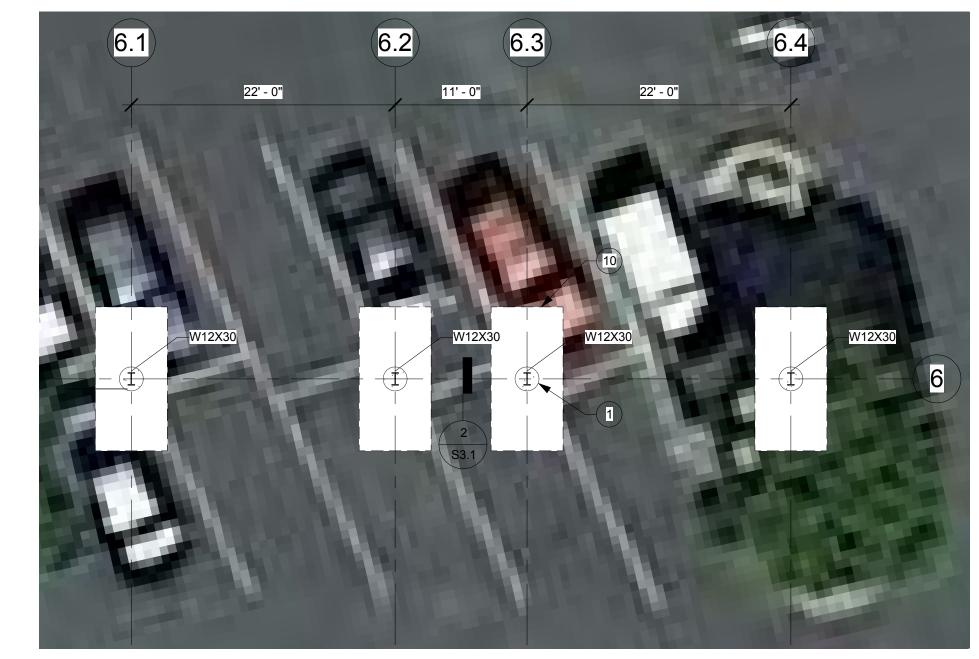
STRUCTURE 6 -FOUNDATION AND FRAMING PLAN

Project number	
Date	06/27/2016
Drawn by	DG
Checked by	JE

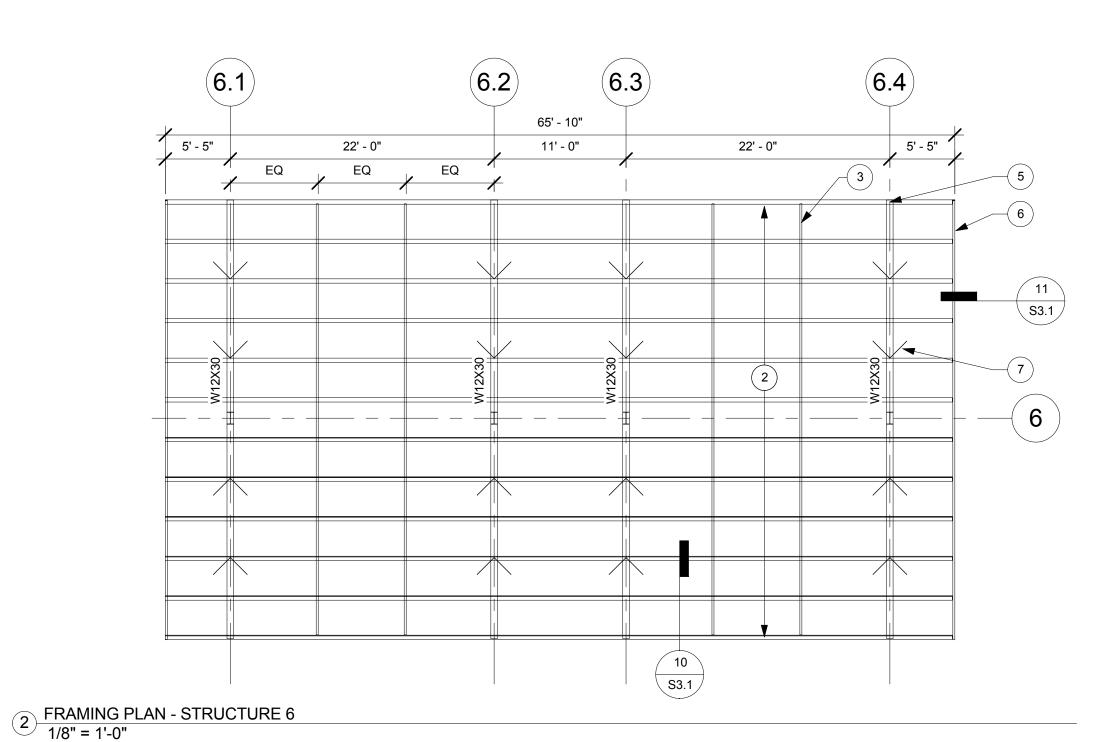
S2.4

Scale

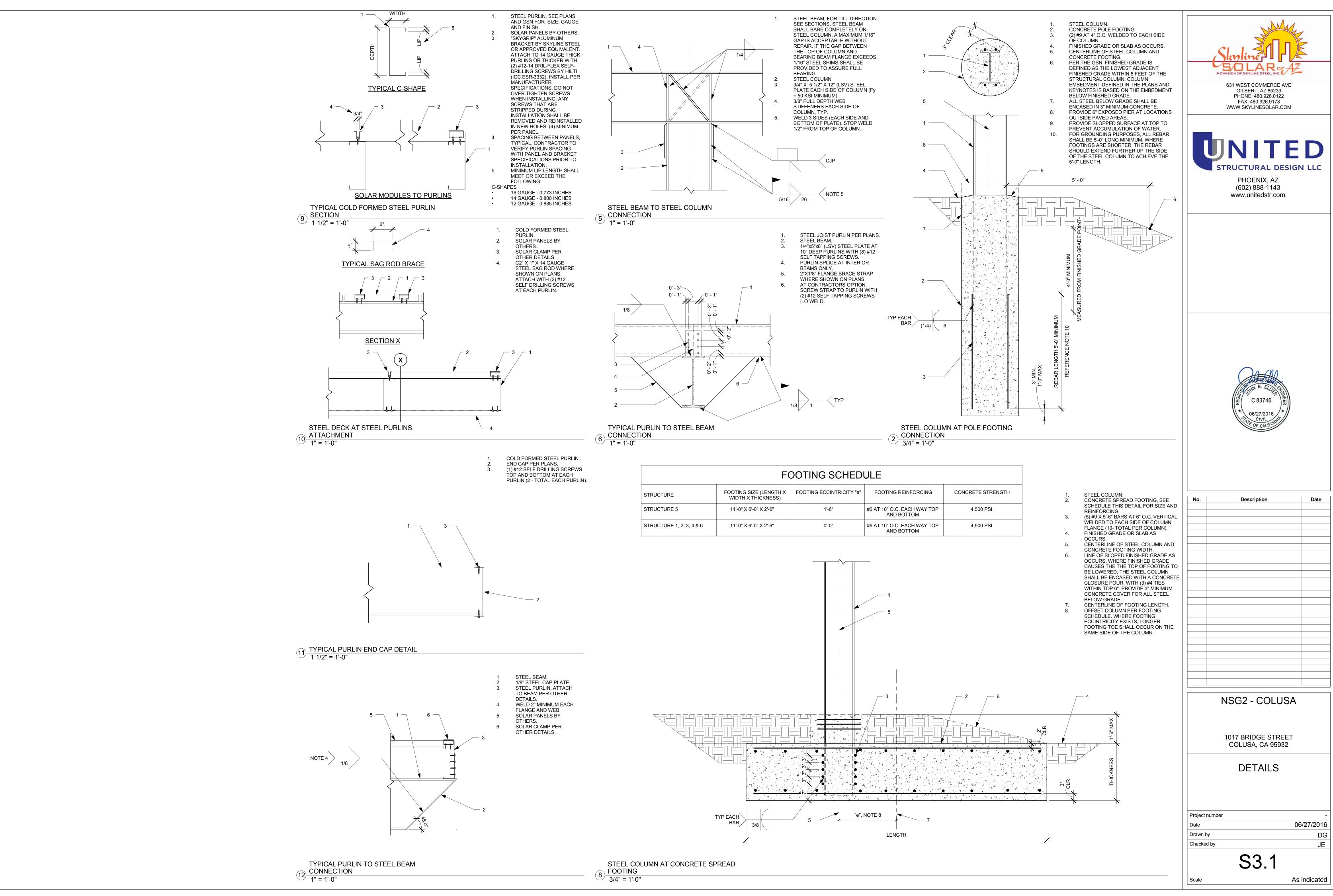
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1) FOUNDATION PLAN - STRUCTURE 6 1/8" = 1'-0"







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