

KERN HEALTH SYSTEMS

PLANS FOR CONSTRUCTION OF:

151.2kW STC DC CARPORT MOUNTED PV INSTALLATION

LOCATION:

2900 BUCK OWENS BLVD
BAKERSFIELD, CALIF, 93308
AHJ: CITY OF BAKERSFIELD

DESIGN PROFESSIONAL IN CHARGE: A-C ELECTRIC COMPANY

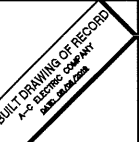
PROJECT MANAGER: MYLES MARQUEZ
315 30TH ST., BAKERSFIELD, CA. 93301
(661) 805-5252

STRUCTURAL ENGINEER
CONTACT: TROY E. TURLEY PE SE
1215 W SALADO PKWY, SUITE 200
TEMPE, AZ, 85281
(480) 774-1776

ARCHITECTURAL DESIGN
SKARPHOL ASSOCIATES
1801 OAK STREET, SUITE 111
BAKERSFIELD, CALIF. 93301
(661) 334-2741



A-C Electric Company
BAKERSFIELD DIVISION
BOX 81376
315 30TH STREET (93301)
BAKERSFIELD, CA 93360-1376
PHONE: (805) 883-5388
FAX: (805) 410-0460



This sheet is prepared by A-C Electric Company for its sole use as a design-build electrical contract in the jurisdiction. Issuing and handling phases of the subject project. This plan is only a schematic representation of the electrical work and its use by others is prohibited. No liability is assumed for any unauthorized use.

KERN HEALTH SYSTEMS
151.2kW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
2900 BUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

PROJECT COVER SHEET:
CONTRACTORS INFORMATION
VICINITY MAP & PROJECT SHEET INDEX

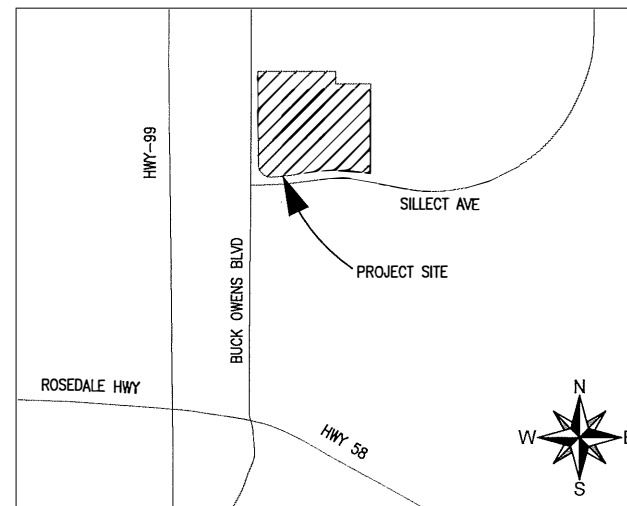
SCOPE OF WORK

- INSTALLATION OF A 151.2kW STC DV PV SOLAR POWER SYSTEM UPON 2 NEW CONSTRUCTION CARPORT STRUCTURES. INSTALLATION OF 420 HIS-360RI SOLAR MODULES, 2 CPS SCA36KTL-DO/US-480 AND 1 CPS SCA60-DO/US-480 INVERTERS.

PROPERTY PARCEL INFORMATION

- JOB ADDRESS:
2900 BUCK OWENS BLVD.
BAKERSFIELD, CA. 93308
- PARCEL LEGAL DESCRIPTION INFORMATION:**
PARCEL 1 OF PARCEL MERGER NO. 17-0063 PER DOCUMENT NO. 217070432 RECORDED 06/20/2017 IN THE OFFICE OF THE KERN COUNTY RECORDER.
 - BASIC ZONING INFORMATION:**
ZONING: M-1
OCCUPANCY: S-2
 - SCOPE OF WORK CONSTRUCTION TYPE:**
CLASS: V-B
TYPE: II-B (UNPROTECTED NON-COMBUSTIBLE)
 - ADA PARKING REQUIRED:**
STALLS COVERED BY NEW CANOPIES: 60 STALLS
NEW ADA STALLS REQUIRED: 3 STALLS
NEW ADA STALLS PROVIDED: 3 STALLS

VICINITY MAP-NTS



SHEET INDEX

SHEET #	DESCRIPTION	REV #
8.5" X 11"	XXX CALCULATIONS PACKAGE	0
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S2	PLAN AND SECTIONS	
S3	DETAILS	
ARCHITECTURAL PLANS		
AS-101	OVERALL SITE PLAN	
A-1.0	OVERALL SITE PLAN	0
A-2.0	ENLARGED SITE PLAN	0
ELECTRICAL PLANS		
W-001	ELECTRICAL COVER SHEET: SITE INFORMATION, SYMBOLS LIST, GENERAL NOTES, VICINITY MAP.	0
W-100	OVERALL SITE PLAN	0
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W-600	SINGLE LINE DIAGRAM AND WIRE & CONDUIT SCHEDULE	0
W-610	GROUNDING SINGLE LINE DIAGRAM & STRUCTURAL GROUNDING	0
W-620	COMMUNICATION & POWER BLOCK DIAGRAMS	0
W-700	PV LABELS	0
W-800	SPECIFICATION SHEETS: MODULES AND INVERTERS	0
W-810	SPECIFICATION SHEETS: MONITORING	0
W-899	BLANK SHEET FOR PERMIT STAMPS	0



CALL UNDERGROUND SERVICE ALERT (U.S.A.)
TOLL FREE (800) 642-2444
48 HOURS
BEFORE EXCAVATING

WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES ARE BELIEVED TO BE REASONABLY CORRECT, BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSIDERED AS A REPRESENTATION THAT SUCH STRUCTURES WILL, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL THE STRUCTURES WHICH MAY BE ENCOUNTERED.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

CAD FILENAME
BM1098-G001-W001.dwg
DATE
November 29, 2018
PROJECT NO.
BM1098
SCALE
NA
DWG. NO.
G-001

ABBREVIATIONS

Table of abbreviations and their corresponding full names, including terms like ANCHOR BOLT, AMERICAN CONCRETE INSTITUTE, etc.

GENERAL STRUCTURAL NOTES

Building code: 2016 EDITION OF THE CALIFORNIA BUILDING CODE. Loads: GRAVITY: ROOF LIVE LOAD = 20 PSF (REMOVABLE). Lateral: WIND: ASD 7-10: BASIC DESIGN WIND SPEED (3-SECOND GUST), V = 100 MPH (ASCE 7-10). Foundations: DRILLED PIER FOOTING DESIGNS ARE BASED ON DRILLED PIER, CLASS 4 SILEX ALLOWABLE LATERAL PRESSURE = 150 PSF/FT FOR ALL PIER FOOTINGS.

STRUCTURAL STEEL:

GENERAL: ALL CONSTRUCTION PER LATEST ASCE STEEL CONSTRUCTION MANUAL. ALL WIDE FLANGE STEEL SHALL BE ASTM A992 (Fy = 50 KSI). ALL PIPE STEEL SHALL BE ASTM A500 (Fy = 42 KSI) OR ASTM A513 (TYPE E OR S, GRADE B, Fy = 35 KSI).

COLD FORMED STRUCTURAL STEEL FRAMING:

GENERAL: ALL COLD FORMED STRUCTURAL STEEL FRAMING AND COMPONENTS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE FABRICATED AND EMBOSSED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF AISI'S SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS.

FOUNDATIONS:

Table with 4 columns: SCREW NUMBER, DIMINATION, B, I, O, and 14. Rows include nominal diameters 0.164, 0.190, 0.218, 0.250.

GENERAL NOTES:

THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. EXCEPT WHERE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION.

SPECIAL INSPECTION - STRUCTURAL ONLY:

GENERAL: (IF REQUIRED BY THE JURISDICTION HAVING AUTHORITY): SPECIAL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STATE REGISTERED STRUCTURAL ENGINEER WHO IS FAMILIAR WITH THE STRUCTURAL DESIGN OF THIS PROJECT.

CONCRETE CONSTRUCTION: 1. CONCRETE (EXCEPTION BASED ON Fc = 2500 PSI): A. NO INSPECTION IS REQUIRED FOR THE PLACEMENT OF FOUNDATION CONCRETE.

WELDING:

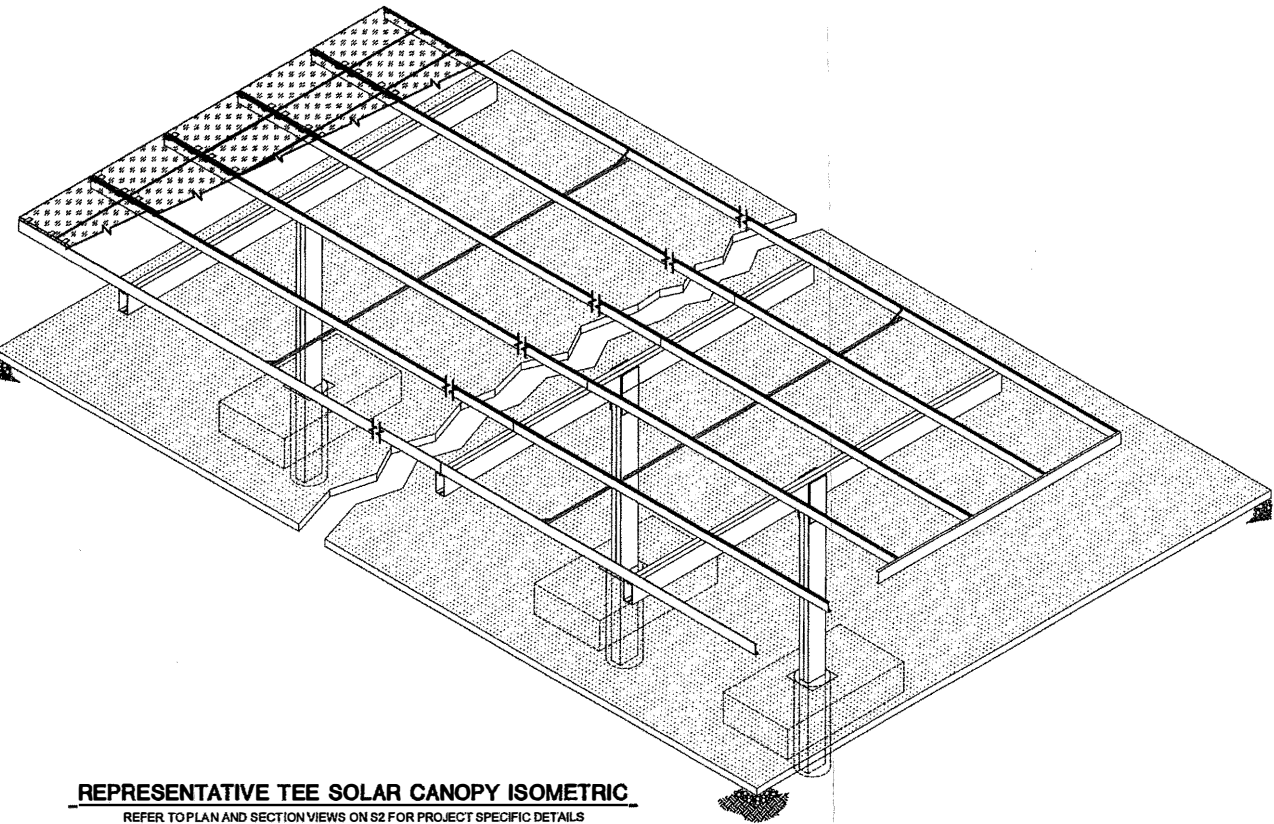
UNLESS NOTED OTHERWISE, ALL WELDS PER LATEST EDITION OF THE AWS STANDARDS. ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS OR NOTES.

STEEL CONSTRUCTION:

1. WELDING: A. PERIODIC VISUAL INSPECTION OF ALL FIELD WELDS. B. CONTINUOUS INSPECTION OF ALL MULTIPASS FILLET WELDS OR SINGLE PASS FILLET WELDS LARGER THAN 5/16".

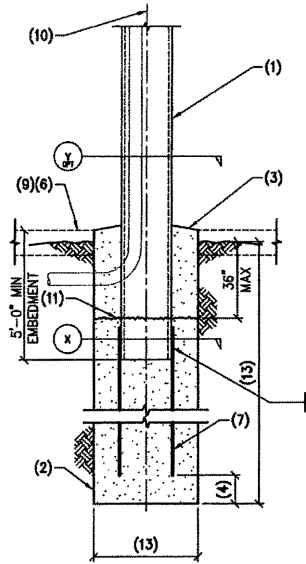
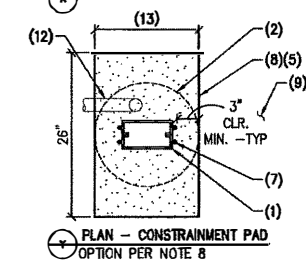
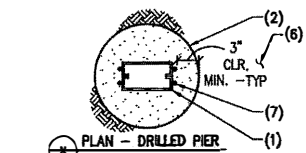
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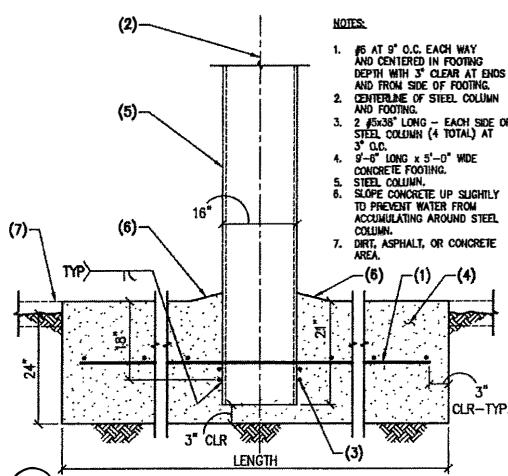


REPRESENTATIVE TEE SOLAR CANOPY ISOMETRIC REFER TO PLAN AND SECTION VIEWS ON S2 FOR PROJECT SPECIFIC DETAILS

Professional seal and contact information for CARUSO TURLEY SCOTT INC. CONSULTING STRUCTURAL ENGINEERS. 1215 W. Rio Salado Parkway Suite 200, Tempe, Arizona 85281. 1963 - 2016, 53 YEARS OF EXCELLENCE.



A1 DRILLED PIER FOOTING
18-1499 NO SCALE

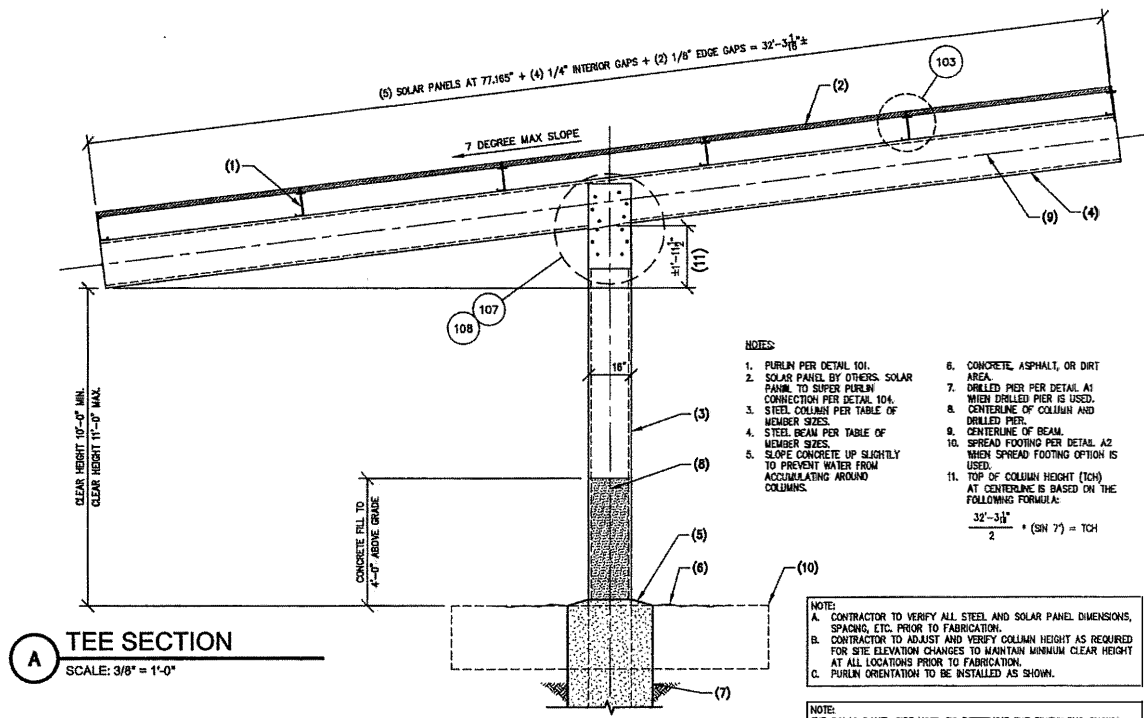


A2 OPTIONAL SPREAD FOOTING
18-1499 NO SCALE

- NOTES:**
- STEEL COLUMN.
 - CAST-IN-PLACE CONCRETE DRILLED PIER.
 - SLOPE CONCRETE UP SLIGHTLY TO PREVENT WATER FROM ACCUMULATING AROUND STEEL COLUMN.
 - 3" MIN. 1/2" MAX.
 - SANITARY ASPHALT AS SHOWN.
 - DIRT, ASPHALT OR CONCRETE AREA.
 - 2 #7 BARS EACH SIDE OF STEEL COLUMN (4 TOTAL) OR EMBED STEEL COLUMN INTO CONCRETE DRILLED PIER TO WITHIN 3" MIN, 1/2" MAX OF THE BOTTOM OF THE CONCRETE DRILLED PIER AND OMIT REBAR.
 - AT CONTRACTOR'S OPTION: 4" THICK CONCRETE CONSTRAINT PAD FLUSH WITH ADJACENT ASPHALT IF CONSTRAINT PAD IS CONSTRUCTED, USE THE DRILLED PIER DEPTH FOR THE CONCRETE AREA IN THE SCHEDULE AT NOTE 13 BELOW.
 - 2" MINIMUM THICKNESS ASPHALT PAVING TO BE VERIFIED ON SITE WHEN CONSTRAINT PAD IS USED.
 - CENTERLINE OF STEEL COLUMN AND FOOTING.
 - CONTRACTOR'S OPTION: COLD JOINT AT 36" MAX BELOW FINISHED GRADE. CLEAN THE TOP OF FIRST FOUR OF LOOSE DEBRIS OR DIRT. ROUGHEN THE SURFACE 1/4" MIN AND PRE-WET PRIOR TO SECOND POUR.
 - 4" DIA. MAX CONDUIT.
- | DRILLED PIER DEPTH | 24" DIAMETER |
|--------------------|--------------|
| AT DIRT AREA | 5'-11" |
| AT ASPHALT AREA | 6'-0" |
| AT CONCRETE AREA | 6'-1" |

NOTE:
TO USE THE ASPHALT OR CONCRETE AREA FOR THE DRILLED PIER THERE MUST BE A MINIMUM OF 4'-0" OF ASPHALT OR CONCRETE OUTSIDE OF THE DRILLED PIER OR CONSTRAINT PAD.

- NOTES:**
- IS AT 9" O.C. EACH WAY AND CENTERED IN FOOTING DEPTH WITH 3" CLEAR AT ENDS AND FROM SIDE OF FOOTING.
 - 2 #5@8" LONG - EACH SIDE OF STEEL COLUMN (4 TOTAL) AT 3" O.C.
 - 2" x 5'-0" LONG x 5'-0" WIDE CONCRETE FOOTING.
 - STEEL COLUMN.
 - SLOPE CONCRETE UP SLIGHTLY TO PREVENT WATER FROM ACCUMULATING AROUND STEEL COLUMN.
 - DIRT, ASPHALT, OR CONCRETE AREA.



A TEE SECTION
SCALE: 3/8" = 1'-0"

- NOTES:**
- PURLIN PER DETAIL 101.
 - SOLAR PANEL BY OTHERS. SOLAR PANEL TO SUPER PURLIN CONNECTION PER DETAIL 104.
 - STEEL COLUMN PER TABLE OF MEMBER SIZES.
 - STEEL BEAM PER TABLE OF MEMBER SIZES.
 - SLOPE CONCRETE UP SLIGHTLY TO PREVENT WATER FROM ACCUMULATING AROUND COLUMNS.
 - CONCRETE, ASPHALT, OR DIRT AREA.
 - DRILLED PIER PER DETAIL A1 WHEN DRILLED PIER IS USED.
 - CENTERLINE OF COLUMN AND DRILLED PIER.
 - CENTERLINE OF BEAM.
 - SPREAD FOOTING PER DETAIL A2 WHEN SPREAD FOOTING OPTION IS USED.
 - TOP OF COLUMN HEIGHT (TCH) AT CENTERLINE IS BASED ON THE FOLLOWING FORMULA:
$$\frac{32'-3 1/2"}{2} * (\sin 7^\circ) = TCH$$

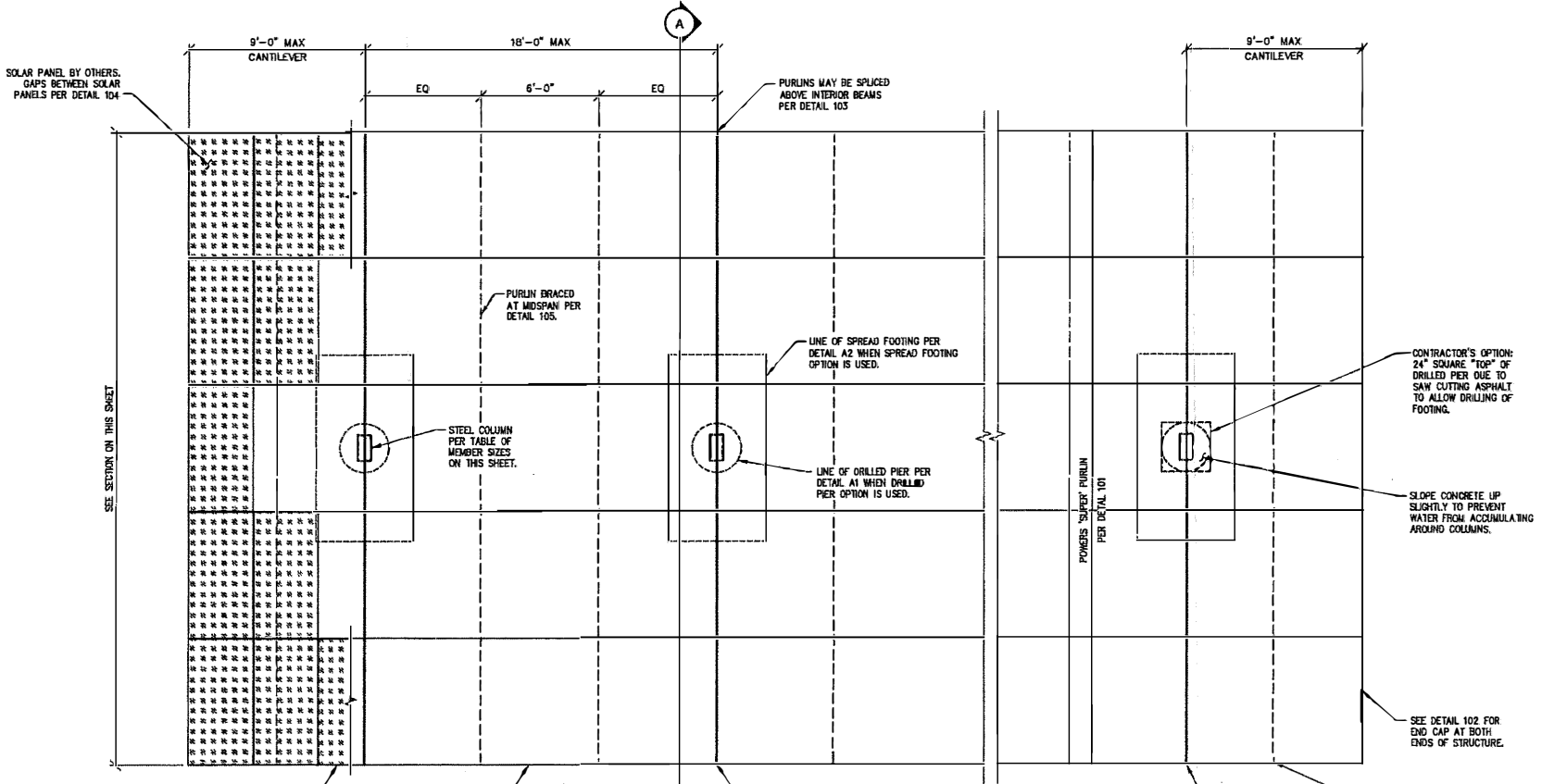
NOTE:
CONTRACTOR TO VERIFY ALL STEEL AND SOLAR PANEL DIMENSIONS, SPACINGS, ETC. PRIOR TO FABRICATION.
CONTRACTOR TO ADJUST AND VERIFY COLUMN HEIGHT AS REQUIRED FOR SITE ELEVATION CHANGES TO MAINTAIN MINIMUM CLEAR HEIGHT AT ALL LOCATIONS PRIOR TO FABRICATION.
PURLIN ORIENTATION TO BE INSTALLED AS SHOWN.

NOTE:
THE SOLAR PANEL SIZE USED TO DETERMINE THE DIMENSIONS SHOWN ON THIS DRAWING IS 4'-5 3/16" (77.17") x 3'-3 7/16" (39.37"). THE BEAM LENGTHS NEED TO BE REVISED IF SOLAR PANELS OF DIFFERENT SIZES ARE USED. IF THE BEAMS GET LONGER, THE STRUCTURAL ENGINEER MUST CHECK THE BEAM, COLUMN AND FOOTING SIZES. IF THE BEAMS GET SHORTER, NO RECALCULATION IS REQUIRED.

TABLE OF MEMBER SIZES (NO SCALE)

MEMBER SIZE	TABLE OF MEMBER SIZES (NO SCALE)
BEAM SIZE	
COLUMN SIZE	

NOTE: NO WELD IS REQUIRED AT END OF COLUMN WHERE THE COLUMN CONNECTS WITH THE BEAM AND NO WELD IS REQUIRED AT THE END OF THE BEAM WHERE THE PURLIN CLIP OCCURS.



TEE PLAN VIEW
SCALE: 1/4" = 1'-0"

THESE DRAWINGS/CALCULATIONS ARE CONSIDERED PRELIMINARY - NOT FOR CONSTRUCTION OR RECORDING UNLESS THE STRUCTURAL ENGINEER OF RECORD'S SEAL IS AFFIXED WITH WRITTEN SIGNATURE.



CARUSO TURLEY SCOTT INC.
consulting structural engineers
1215 W. Rio Salado Pkwy
Suite 200
Tempe, Arizona 85281
(480) 774-1700
(480) 774-1701 FAX
www.ctsaz.com

1963 - 2016
53 YEARS OF EXCELLENCE
CARUSO - TURLEY - SCOTT



PLAN AND SECTION
KERN HEALTH SYSTEM - SOLAR CANOPY
2900 BUCK OWENS BLVD.
BAKERSFIELD, CA 93308

A-C Electric Company
1315 W. 4TH ST. - BAKERSFIELD, CA 93310

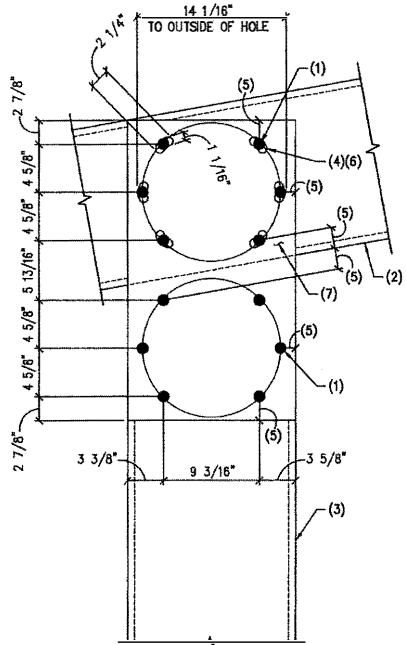


REVISIONS:

JOB NUMBER:	18-1499
DRAWN:	JSB
ENGINEER:	MAP
CHECKED:	TET
SCALE:	AS NOTED
DATE:	10-16-2018
SHEET:	S2

NOTES:

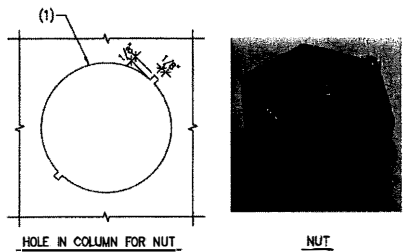
- (6) 1" A325 SLIP CRITICAL BOLTS AT EACH FACE OF BEAM/COLUMN (24 BOLTS TOTAL).
- BEAM.
- COLUMN.
- F436 WASHERS TO BE AS SHOWN IN DETAIL 107 FOR STEEL PLATE WASHER REWARDED AT SLOTTED HOLES.
- 1 1/2" MIN. FROM BOLT CENTERLINE AND EDGE OF STEEL.



108 CIRCULAR BOLT PATTERN 18-1499 NO SCALE

NOTES:

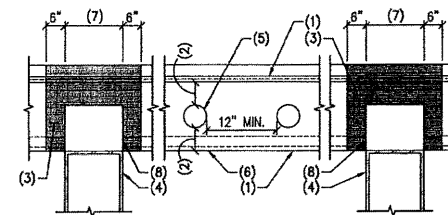
- HOLE FOR BOLT WITH NOTCH TO CATCH NUT TO KEEP NUT FROM SPINNING DURING TIGHTENING.



109 NOTCH AT HOLE FOR NUTS 18-1499 NO SCALE

NOTES:

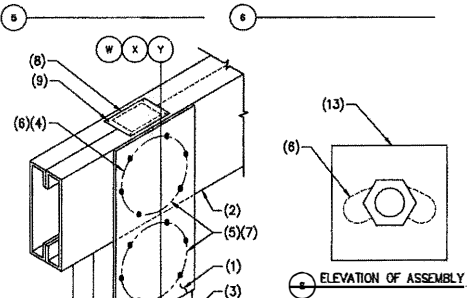
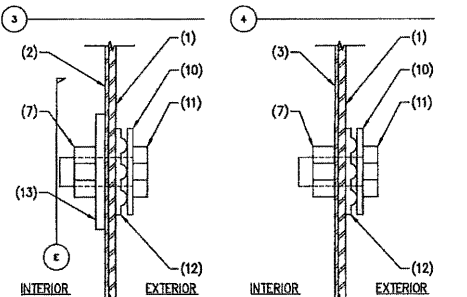
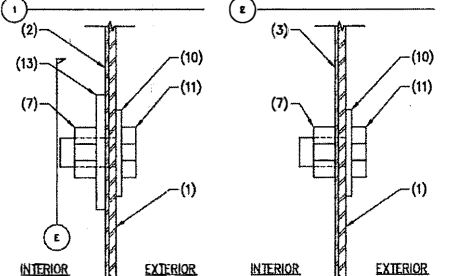
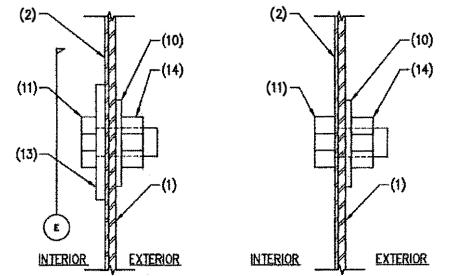
- HOLES MAY NOT BE CUT IN FLANGE.
- 2 1/2" MIN. CLEARANCE.
- HOLES MAY NOT BE CUT ANYWHERE IN PURLIN WEB INSIDE OF SHADDED REGION.
- STEEL BEAM.
- 2 1/2" MAX. DIA. HOLE (MAY BE CUT IN SHOP OR FIELD).
- PURLIN.
- BEAM WIDTH.
- PURLIN TO BEAM CONNECTION PER DETAIL 108.



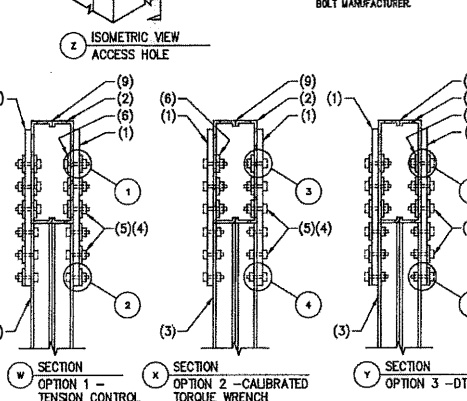
110 ALLOWABLE HOLES IN PURLIN 18-1499 NO SCALE

NOTES:

- 2x4 1/8" x 2" x 8" 90 MI STEEL PLATE CENTERED. INSTALL PLATE ON BOTH SIDES OF CONNECTION. ALSO SEE DETAIL 108.
- STEEL BEAM.
- STEEL COLUMN.
- BOLT PATTERN PER DETAIL 108.
- (6) 1" A325 BOLTS EACH SIDE IN STANDARD SIZED HOLES.
- LINE OF SLOTTED HOLE BEHIND THE PLATE WASHER. SEE DETAIL 108 FOR SLOTTED HOLE IN BEAM.
- NUT ONLY TO NOTCH NUT AND COLUMN HOLE TO PROVIDE WRENCH FREE BOLT INSTALLATION PER DETAIL 108.
- ACCESS HOLE COVER 16 GAGE Fy= 55 ksi 6"x6" WITH 4 #12 SCREWS AS SHOWN.
- 4 1/2"x6" ACCESS HOLE CENTERED IN TOP OF BEAM ON COLUMN AT CONTRACTOR'S OPTION.
- STEEL COLUMN.
- BOLT PATTERN PER DETAIL 108.
- (6) 1" A325 BOLTS EACH SIDE IN STANDARD SIZED HOLES.
- LINE OF SLOTTED HOLE BEHIND THE PLATE WASHER. SEE DETAIL 108 FOR SLOTTED HOLE IN BEAM.
- NUT ONLY TO NOTCH NUT AND COLUMN HOLE TO PROVIDE WRENCH FREE BOLT INSTALLATION PER DETAIL 108.
- ASTM F436 WASHER.
- 1" DIA. A325 BOLT.
- DIT WASHER.
- 3 1/2"x3 1/2" x 1/4" THICK GRADE 50 (Fy = 50 ksi) STEEL PLATE WASHER WITH STANDARD HOLE IN CENTER. LOCATE WASHER TO COVER SLOTTED HOLE IN BEAM. DOES NOT OCCUR IN COLUMN.
- NUT FOR TENSION CONTROL BOLT ASSEMBLY.



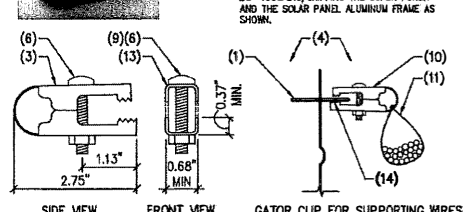
107 STEEL BEAM TO COLUMN CONNECTION 18-1499 NO SCALE



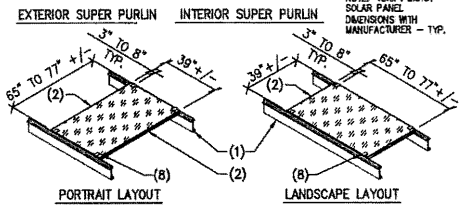
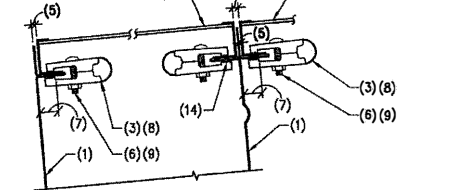
107 STEEL BEAM TO COLUMN CONNECTION 18-1499 NO SCALE

NOTES:

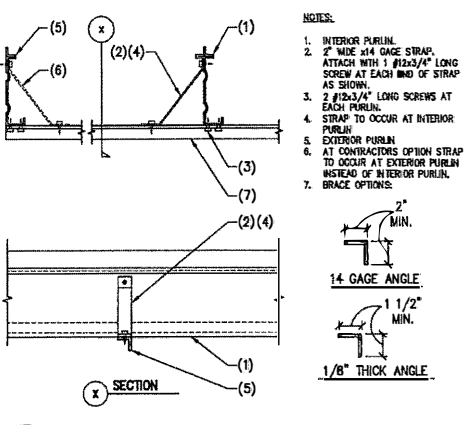
- SUPER PURLIN.
- SOLAR PANEL IN ALUMINUM FRAME.
- 0.056" GATOR CLIP WITH 990 GALVANIZED PER ASTM F2329.
- ALUMINUM FRAME TO BEAR A MIN. OF 1/2" ON THE SUPER PURLIN.
- SOLAR PANELS NOT SHOWN FOR CLARITY.
- 1/8" MAX. GAP BETWEEN OUTER FACE OF ALUMINUM FRAME AND OUTER FACE OF SUPER PURLIN.
- SAE GRADE 5 OR ASTM A307, 1/4" DIA. BOLT GALVANIZED PER ASTM F2329.
- ALUMINUM FRAME TO BEAR A MIN. OF 1/2" ON THE SUPER PURLIN.
- PROVIDE MINIMUM 4 CLIPS PER SOLAR PANEL.
- TIGHTEN NUT TO FULL CONTACT; THEN ONE FULL TURN OF THE NUT.
- ADDITIONAL GATOR CLIP ON ONE END OF SOLAR PANEL TO PROVIDE SUPPORT FOR WIRES AS SHOWN.
- ZIP TIE (OR SIMILAR) FOR WIRE MANAGEMENT.
- 1/4" MAX. GAP BETWEEN FACE OF ALUMINUM FRAME AND FACE OF ALUMINUM FRAME.
- 90 DEGREE BEND 42 DEGREE.
- ALL THE "TEETH" OF THE GATOR CLIP MUST BE TOUCHING/GRIPPING THE SUPER PURLIN AND THE SOLAR PANEL ALUMINUM FRAME AS SHOWN.



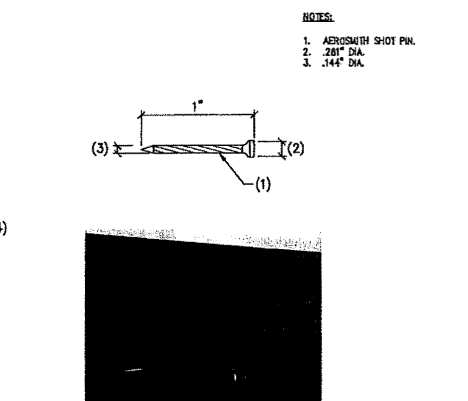
GATOR CLIP



104 SOLAR PANEL ATTACHMENT TO POWERS STEEL SUPER PURLINS USING THE POWERS STEEL GATOR CLIP 18-1499 NO SCALE



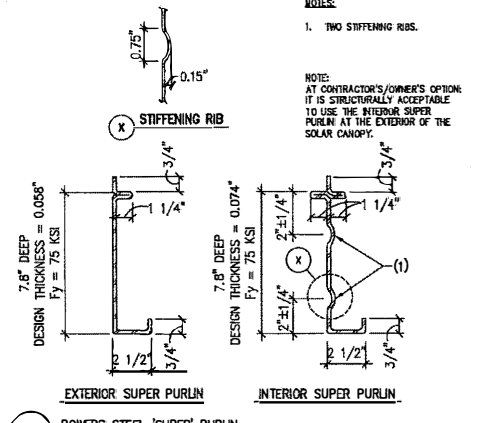
105 BRACING AT PURLINS 18-1499 NO SCALE



106 AEROSMITH SHOT PIN 18-1499 NO SCALE

NOTES:

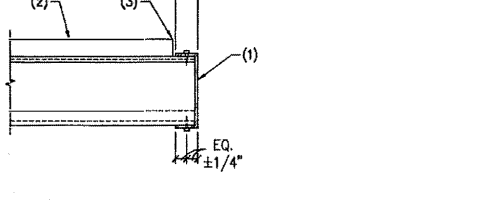
- TWO STIFFENING RIBS.



101 POWERS STEEL 'SUPER' PURLIN 18-1499 NO SCALE

NOTES:

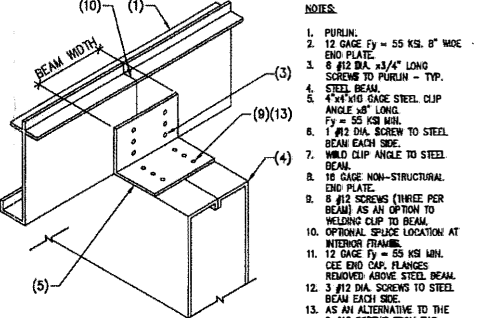
- CONTINUOUS END CAP TRIM - 16 GAGE MTL ATTACH TO PURLIN WITH #12x3/4" SCREWS AT TOP AND BOTTOM FLANGE.
- COPE TOP FLANGE OF PURLIN AS REQUIRED.



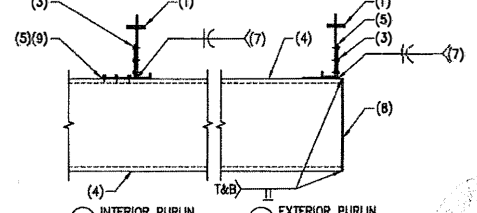
102 END CAP AT PURLIN 18-1499 NO SCALE

NOTES:

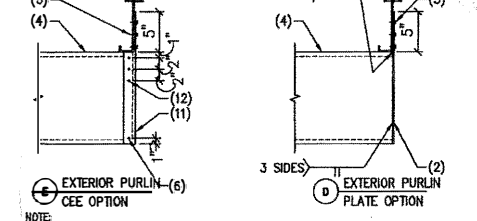
- PURLIN.
- 12 GAGE Fy = 55 KSI 8" WIDE END PLATE.
- 6 #12 DIA. 3/4" LONG SCREWS TO PURLIN - TYP.
- STEEL BEAM.
- 4"x10 GAGE STEEL CLIP ANGLE 18" LONG. Fy = 55 KSI MTL.
- 1" DIA. SCREW TO STEEL BEAM EACH SIDE.
- WELD CLIP ANGLE TO STEEL BEAM.
- 16 GAGE NON-STRUCTURAL END PLATE.
- 8 #12 SCREWS (THREE PER BEAM) AS AN OPTION TO WELDING CLIP TO BEAM.
- OPTIONAL: SPICE LOCATION AT INTERIOR FRAMES.
- 12 GAGE Fy = 55 KSI MIN. CEE END CAP FLANGES REMOVED ABOVE STEEL BEAM.
- 3 #12 DIA. SCREWS TO STEEL BEAM EACH SIDE.
- AS AN ALTERNATIVE TO THE 8 #12 SCREWS FROM THE PURLIN CLIP TO THE BEAM - USE 8 SHOT PINS 0.144" DIA. x 1" LONG AS MANUFACTURED BY AEROSMITH PER DETAIL 106.



103 PURLIN CLIP 18-1499 NO SCALE



103 PURLIN CLIP 18-1499 NO SCALE



103 PURLIN CLIP 18-1499 NO SCALE

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Tempe, Arizona 85281
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(480) 774-1701 FAX
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STRUCTURAL
STATE OF CALIFORNIA

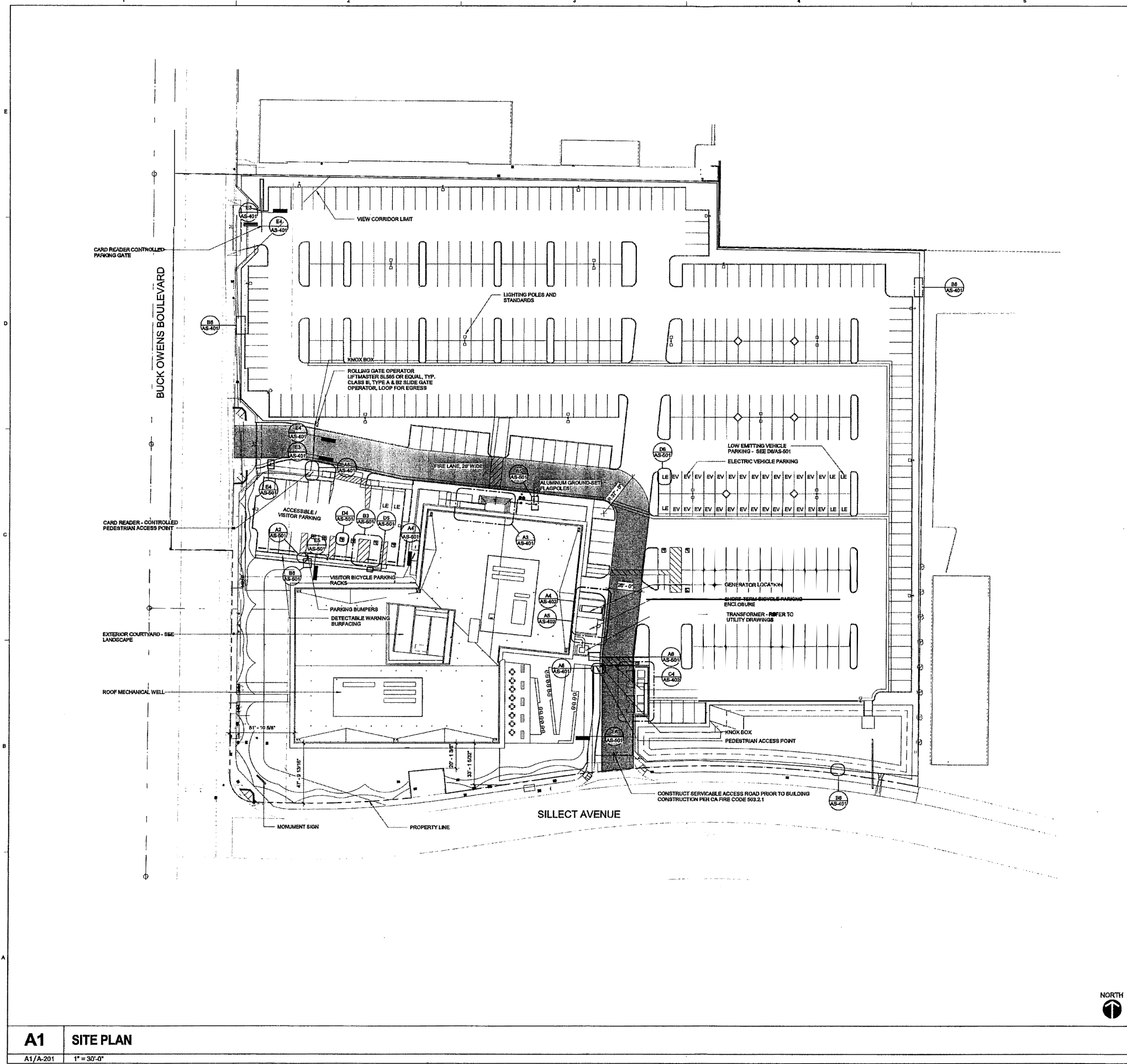
KERN HEALTH SYSTEM - SOLAR CANOPY
2900 BUCK OWENS BLVD.
BAKERSFIELD, CA 93308

A-C Electric Company
BASED IN BAKERSFIELD - SPECIALISTS

REVISIONS:

JOB NUMBER:	18-1499
DRAWN:	JSB
ENGINEER:	MAP
CHECKED:	SCALE:
TET	AS NOTED
DATE:	10-16-2018
SHEET:	S3

11/15/18 11:22:28 AM
 DIMENSIONS AND ARRANGEMENTS INDICATED ON THESE DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND ARE TO BE USED IN CONNECTION WITH THIS SPECIFIC PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED CONSENT OF THE ARCHITECT. THERE SHALL BE NO CHANGES OR DEVIATION FROM THE DRAWINGS OR ACCOMPANYING SPECIFICATION WITHOUT THE EXPRESSED CONSENT OF THE ARCHITECT.



GENERAL SHEET NOTES

1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS
2. REFER TO CIVIL DRAWINGS FOR SITE IMPROVEMENTS
3. REFER TO LANDSCAPE DRAWINGS FOR PLANTING AND IRRIGATION
4. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING AND POWER DISTRIBUTION

REFERENCE KEYNOTES

NUMBER	KEYNOTE TEXT
101428.A1	MONUMENT SIGN
107018.A1	ALUMINUM GROUND-SET FLAGPOLES
262613	LIGHTING POLES AND STANDARDS
321713	PARKING BUMPERS

SHEET KEYNOTES

NUMBER	SHEET NOTE TEXT
07	GENERATOR LOCATION
09	SHORT TERM BICYCLE PARKING ENCLOSURE
12	PROPOSED PARKING GATE
14	VISITOR BICYCLE PARKING RACKS
16	FIRE LANE, 28' WIDE
16	EXTERIOR COURTYARD - SEE LANDSCAPE
17	ROOF MECHANICAL WELL
19	TRANSFORMER - REFER TO UTILITY DRAWINGS
45	LOW EMITTING VEHICLE PARKING - SEE D6/AS-501
47	ELECTRIC VEHICLE PARKING
50	CARD READER CONTROLLED PARKING GATE

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 San Diego, CA 92110
 (619) 298-6660
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KERN HEALTH SYSTEMS

KERN HEALTH SYSTEMS

2900 BUCK OWENS BLVD.
 BAKERSFIELD CA 93308

PROJECT NO. 16154

DATE ISSUED	REASON
10/16/17	BID SET
02/02/18	FOR CONSTRUCTION

FEBRUARY 2, 2018

Street Title
SITE PLAN

Sheet No.
AS-101

A1 SITE PLAN

A1/A-201 1" = 30'-0"





SKARPHOL ASSOCIATES

PAUL SKARPHOL, ARCHITECT
1801 OAK STREET SUITE 111
BAKERSFIELD, CA 93301
(661) 334-2741
(661) 334-2743 (FAX)
skarpholassociates.com

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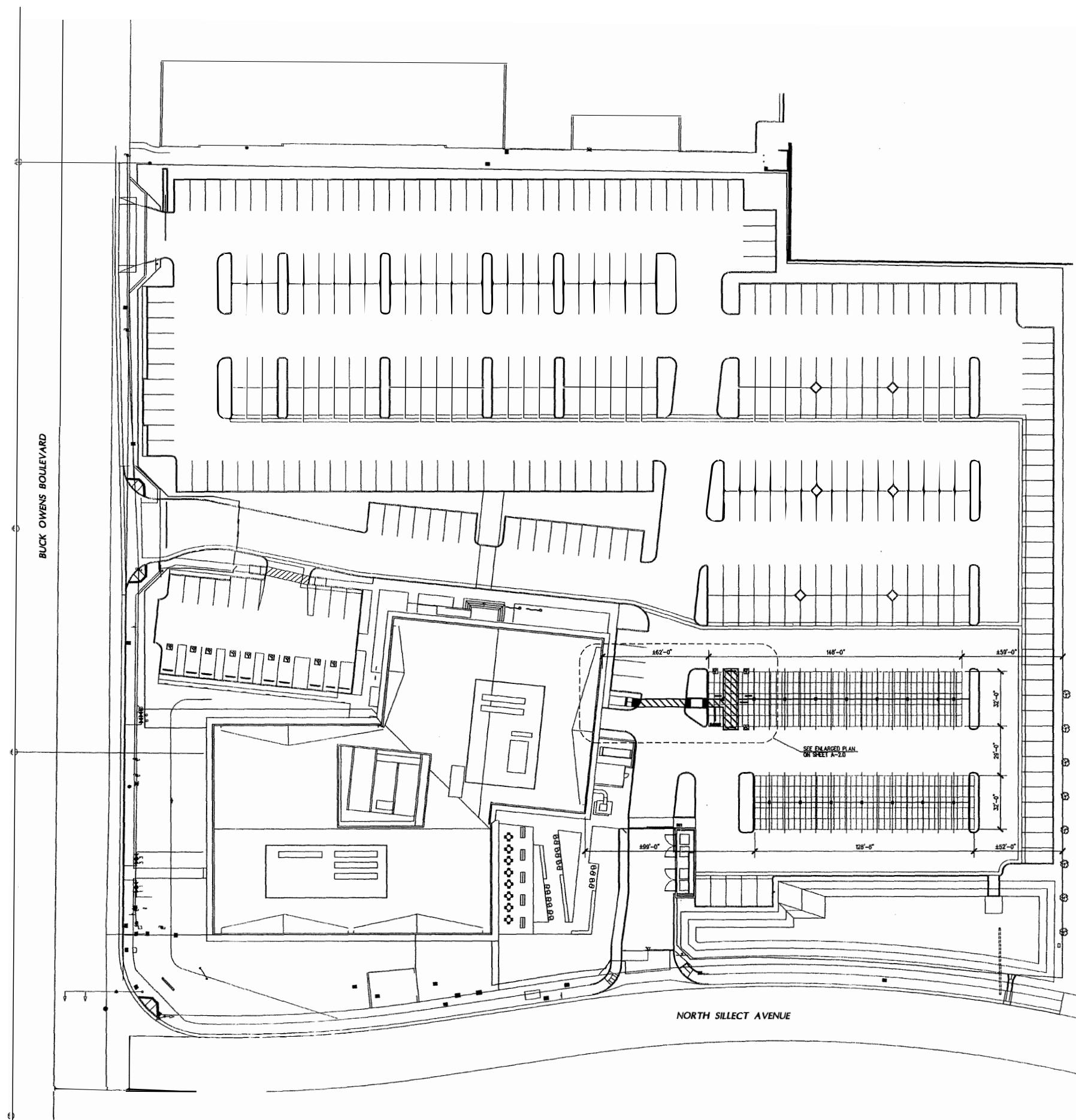


PROJECT ANALYSIS

SCOPE OF WORK:

THIS PROJECT INVOLVES INSTALLATION OF (2) PHOTOVOLTAIC SOLAR SHADE STRUCTURES FOR SOLAR CANOPY PARKING AT KERN HEALTH SYSTEMS IN BAKERSFIELD, CALIFORNIA.

ZONING:	M-1
OCCUPANCY:	S-2
CONSTRUCTION TYPE:	V-B
SPRINKLERS:	NO
ALLOWABLE AREA:	13,500 S.F. (PER UNIT)
AREA PER UNIT:	4,745 S.F. (UNIT 1) 4,111 S.F. (UNIT 2)
GROSS AREA:	8,856 S.F.
MAXIMUM HEIGHT:	40'-0"
CANOPY HEIGHT:	9'-0" (MIN.) & 15'-6" (MAX.)
ADA PARKING REQUIRED:	60 STALLS
STALLS COVERED BY NEW CANOPIES:	3 STALLS
NEW ADA STALLS REQUIRED:	3 STALLS
NEW ADA STALLS PROVIDED:	3 STALLS



BUCK OWENS BOULEVARD

NORTH SILLECT AVENUE

OVERALL SITE PLAN

30'

A SOLAR INSTALLATION FOR:
KERN HEALTH SYSTEMS

2900 BUCK OWENS BLVD.
BAKERSFIELD, CALIFORNIA

DATE	ISSUED FOR
8-9-18	PLANNING DEPARTMENT SUBMITAL

REVISION	DESCRIPTION

JOB NO.	2000	A-1.0
DP	1/2	
PA	1/2	



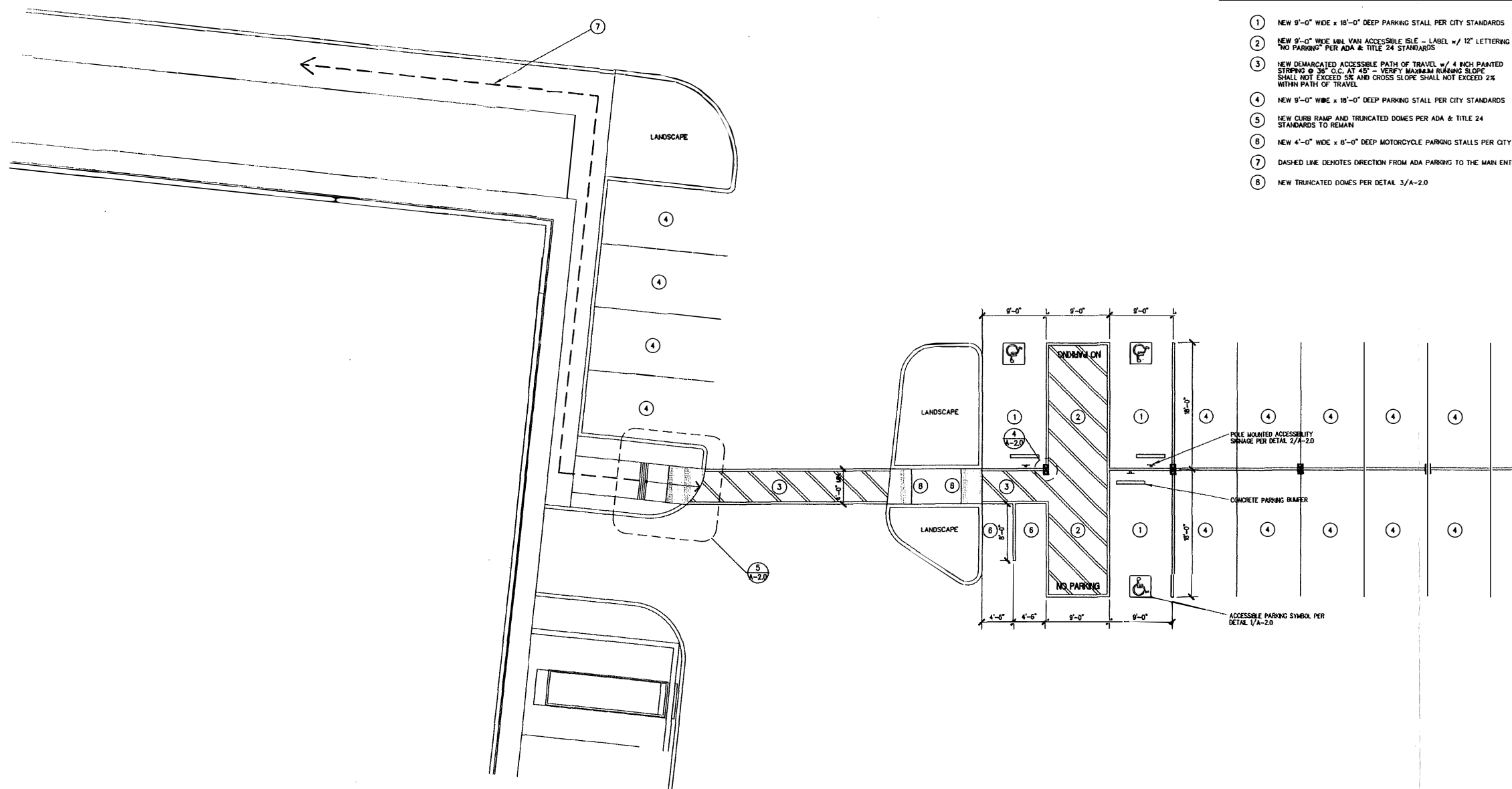
SKARPHOL ASSOCIATES
 PAUL SKARPHOL, ARCHITECT
 1801 OAK STREET SUITE 111
 BAKERSFIELD, CA 93301
 (661) 334-2741
 (661) 334-2743 (FAX)
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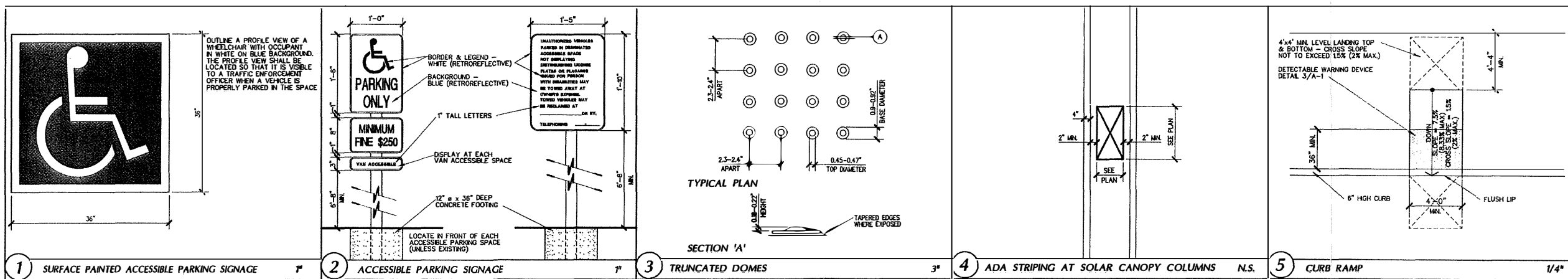
KEYNOTES

- ① NEW 9'-0" WIDE x 18'-0" DEEP PARKING STALL PER CITY STANDARDS
- ② NEW 9'-0" WIDE MIN. VAN ACCESSIBLE ISLE - LABEL w/ 12" LETTERING "NO PARKING" PER ADA & TITLE 24 STANDARDS
- ③ NEW DEMARCATED ACCESSIBLE PATH OF TRAVEL w/ 4 INCH PAINTED STRIPING @ 36" O.C. AT 45° - VERIFY MAXIMUM RAMPING SLOPE SHALL NOT EXCEED 5% AND CROSS SLOPE SHALL NOT EXCEED 2% WITHIN PATH OF TRAVEL
- ④ NEW 9'-0" WIDE x 18'-0" DEEP PARKING STALL PER CITY STANDARDS
- ⑤ NEW CURB RAMP AND TRUNCATED DOMES PER ADA & TITLE 24 STANDARDS TO REMAIN
- ⑥ NEW 4'-0" WIDE x 8'-0" DEEP MOTORCYCLE PARKING STALLS PER CITY STANDARDS
- ⑦ DASHED LINE DENOTES DIRECTION FROM ADA PARKING TO THE MAIN ENTRANCE OF THE BUILDING
- ⑧ NEW TRUNCATED DOMES PER DETAIL 3/A-2.0



ENLARGED SITE PLAN

1/8"



A SOLAR INSTALLATION FOR:
KERN HEALTH SYSTEMS

2900 BUCK OWENS BLVD.
 BAKERSFIELD, CALIFORNIA

DATE	ISSUED FOR
5-8-18	BAKING DEPARTMENT SUBMITAL

REVISION	DESCRIPTION

JOB 5688	A-2.0
DP 1/2	
PA 1/2	

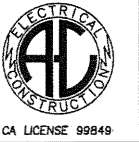
KERN HEALTH SYSTEMS

PLANS FOR CONSTRUCTION OF:

151.2kW STC DC CARPORT MOUNTED PV INSTALLATION

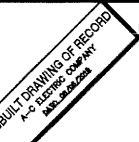
LOCATION:
2900 BUCK OWENS BLVD
BAKERSFIELD, CALIF, 93308
AHJ: CITY OF BAKERSFIELD

DESIGN PROFESSIONAL IN CHARGE: A-C ELECTRIC COMPANY
PROJECT MANAGER: MYLES MARQUEZ
315 30TH ST., BAKERSFIELD, CA. 93301
(661) 805-5252



A-C Electric Company

BAKERSFIELD DIVISION
BOX 81376
315 30TH STREET (93301)
BAKERSFIELD, CA 93380-1376
PHONE: (661) 633-5368
FAX: (661) 410-0483



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KERN HEALTH SYSTEMS
151.2kW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
2900 BUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

ELECTRICAL COVER SHEET:
SITE INFORMATION, SYMBOLS LIST,
GENERAL NOTES & VICINITY MAP

SYMBOLS LIST

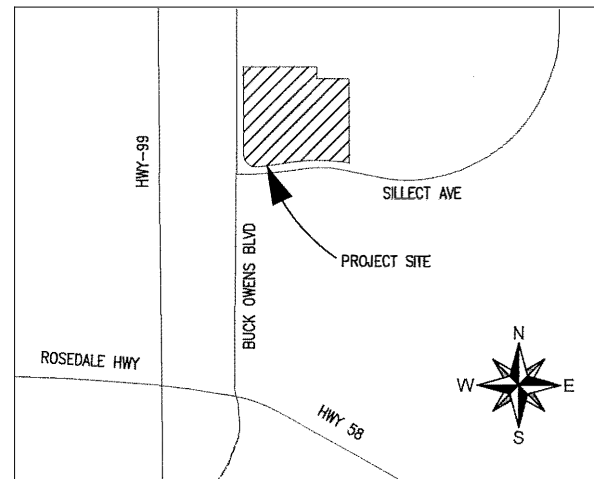
	EQUIPMENT WITH "E" ADJACENT IS EXISTING TO REMAIN.
	EQUIPMENT WITH "R" ADJACENT IS EXISTING TO BE COMPLETELY DISCONNECTED AND REMOVED.
	EQUIPMENT WITH "RR" ADJACENT IS EXISTING TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION AND RECONNECTED AS REQUIRED.
	RELOCATED EQUIPMENT SHOWN IN NEW LOCATION.
	EXISTING CONDUIT RUN TO REMAIN. EXISTING CONDUCTORS TO REMAIN UNLESS NOTED OTHERWISE ON DRAWINGS.
	EXISTING CONDUIT RUN TO BE ABANDONED. REMOVE CONDUCTORS AND CAP ENDS OF CONDUIT.
	EXISTING CONDUIT RUN TO BE REMOVED. REFER TO PLANS FOR WIRING REQUIREMENTS.
	EXISTING CONDUIT AND WIRE RUN TO BE COMPLETELY DISCONNECTED AND REMOVED BACK TO LAST REMAINING OUTLET OR DEVICE.
	"X" INDICATES APPROXIMATE POINT OF INTERCEPTION OF EXISTING CONDUIT RUN. CONDUIT TO BE REMOVED AT "R" SIDE OF "X". REMOVE ALL CONDUCTORS PRIOR TO CUTTING CONDUIT. EXACT LOCATION OF ALL CONDUITS SHALL BE FIELD VERIFIED. EXTEND CONDUIT AS INDICATED ON PLANS.
	CONDUIT RUN, CONCEALED IN CEILING, WALLS OR UNDER FLOORS.
	CONDUIT RUN EXPOSED.
	CONDUIT RUN UNDERGROUND.
	EXISTING CHAIN LINK FENCE
	AMMETER SWITCH, FOUR POSITION "PHASE A", "PHASE B", "PHASE C", AND OFF.
	"AMPERES INTERRUPTING CAPACITY"
	"KILOWATT"
	"VOLTS"
	"AMPS"
	WEATHERPROOF, NEMA 3R
	ABOVE FINISHED FLOOR
	"ON CENTER"
	UNLESS NOTED OTHERWISE
	"CONDUIT ONLY". PROVIDE PULL ROPE FOR ALL EMPTY CONDUIT.

	"CONDUIT" WITH CONDUCTORS AS REQUIRED BY DRAWINGS OR SPECIFICATIONS.
	PANEL DESIGNATION.
	CURRENT TRANSFORMERS, "C.T.s"
	UTILITY METER SOCKET, WITH C.T.s, CLIPS, ETC., PER SERVING UTILITY COMPANY.
	GROUND, "GRD."
	NON-FUSED DISCONNECT SWITCH, "AS" INDICATES SWITCH AMPERE RATING.
	FUSED DISCONNECT SWITCH, "AS" INDICATES SWITCH AMPERE RATING, "AFU" INDICATES FUSE AMPERE RATING.
	SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD.
	TRANSITION BOX FROM PV WIRE TO WIRE INSIDE BUILDING
	JUNCTION BOX IN ACCESSIBLE CEILING SPACE OR FLUSH IN WALL WITH BLANK COVER PLATE TO MATCH DEVICE PLATES.
	JUNCTION BOX FLUSH FLOOR MOUNTED.
	PULL BOX. "UG" INDICATES BOX MOUNTED UNDER GROUND
	WALL MOUNTED DUAL HEAD WP LIGHTING FIXTURE UNIT
	MOLDED CASE CIRCUIT BREAKER. "AF" INDICATES AMPERE FRAME, "AT" INDICATES AMPERE TRIP RATING AND NUMBER OF POLES AS INDICATED.
	VOLTAGE TRANSFORMER, FLOOR/WALL MOUNT, COPPER WOUND, DRY TYPE UNLESS SPECIFIED OTHERWISE.
	TYPICAL INVERTER
	TYPICAL MODULE

GENERAL NOTES

- CONSTRUCTION TO COMPLY WITH CFC 2013 SECTION 605 FOR ALL ELECTRICAL INSTALLATIONS.
- ALL ELECTRICAL WORK TO COMPLY WITH NEC 2014.
- THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS, BUS DUCT, WIREWAY, AND CABLE TRAY SHALL BE IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE, CHAPTER 16 AND "GUIDELINE FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS," PUBLISHED BY SMACNA AND FPIC, OR THE SUPERSTRUT-SEISMIC RESTRAINT SYSTEM, OR THE KIN-LINE SEISMIC RESTRAINT SYSTEM.
- ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW OR CERTIFIED REFURBISHED, AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING.
WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT RULE SHALL APPLY.
- EQUIPMENT SHALL BE INSTALLED PROVIDING ADEQUATE PHYSICAL WORKING SPACE AROUND THE EQUIPMENT AND SHALL COMPLY WITH NEC SECTION 110.
- 1000V PHOTOVOLTAIC WIRE SHALL BE USED FOR DC WIRING FROM ARRAY TO TRANSITION BOXES, ALL WIRE MUST BE LABELED: "PV WIRE"
- IN DC CIRCUITS, COPPER CONDUCTORS SHALL BE USED AND SHALL HAVE INSULATION RATING 1000V, 90C, UNLESS OTHERWISE NOTED.
- CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NEC. CONDUCTORS AMPACITY SHALL BE DE-RATED FOR TEMPERATURE INCREASE, CONDUIT FILL AND VOLTAGE DROP.
- ALL CONDUCTORS, EXCEPT USE-2, SHALL BE INSTALLED IN APPROVED CONDUITS OR RACEWAY. CONDUITS SHALL BE ADEQUATELY SUPPORTED AS PER NEC SECTION 300.
- MODULES SHALL BE GROUNDING USING INTEGRATED GROUNDING MID CLAMP AND STAINLESS STEEL HARDWARE (BOLT, WASHERS, AND NUT). WHEN INTEGRATED GROUNDING IS NOT AVAILABLE, AN APPROVED GROUNDING METHOD WILL BE USED.
- INVERTERS AND DISCONNECTS MUST BE INSTALLED PER SECTION 2.4.2.E OF THE PG&E GREEN BOOK AND NOT BE CLOSER THAN 36" TO EITHER SIDE OF GAS METER ASSEMBLY.
- EXPOSED NON-CURRENT CARRYING METAL PARTS SHALL BE GROUNDED AS PER NEC.
- SYSTEM INTER-CONNECTION SHALL COMPLY WITH NEC 705.12
- PER CEC 690.35(D) PHOTOVOLTAIC SOURCE CONDUCTORS SHALL CONSIST OF NONMETALLIC JACKETED MULTICONDUCTOR CABLES, CONDUCTORS INSTALLED IN RACEWAYS, OR CONDUCTORS LISTED AND IDENTIFIED AS PHOTOVOLTAIC (PV) WIRE INSTALLED AS EXPOSED, SINGLE CONDUCTORS.
- DRAWINGS ARE DIAGRAMMATICAL ONLY. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER SECTIONS. DO NOT SCALE. THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL OR MECHANICAL ITEMS OR FEATURES.

VICINITY MAP-NTS



CALL UNDERGROUND SERVICE ALERT (U.S.A.)
TOLL FREE (800) 642-2444
48 HOURS
BEFORE EXCAVATING

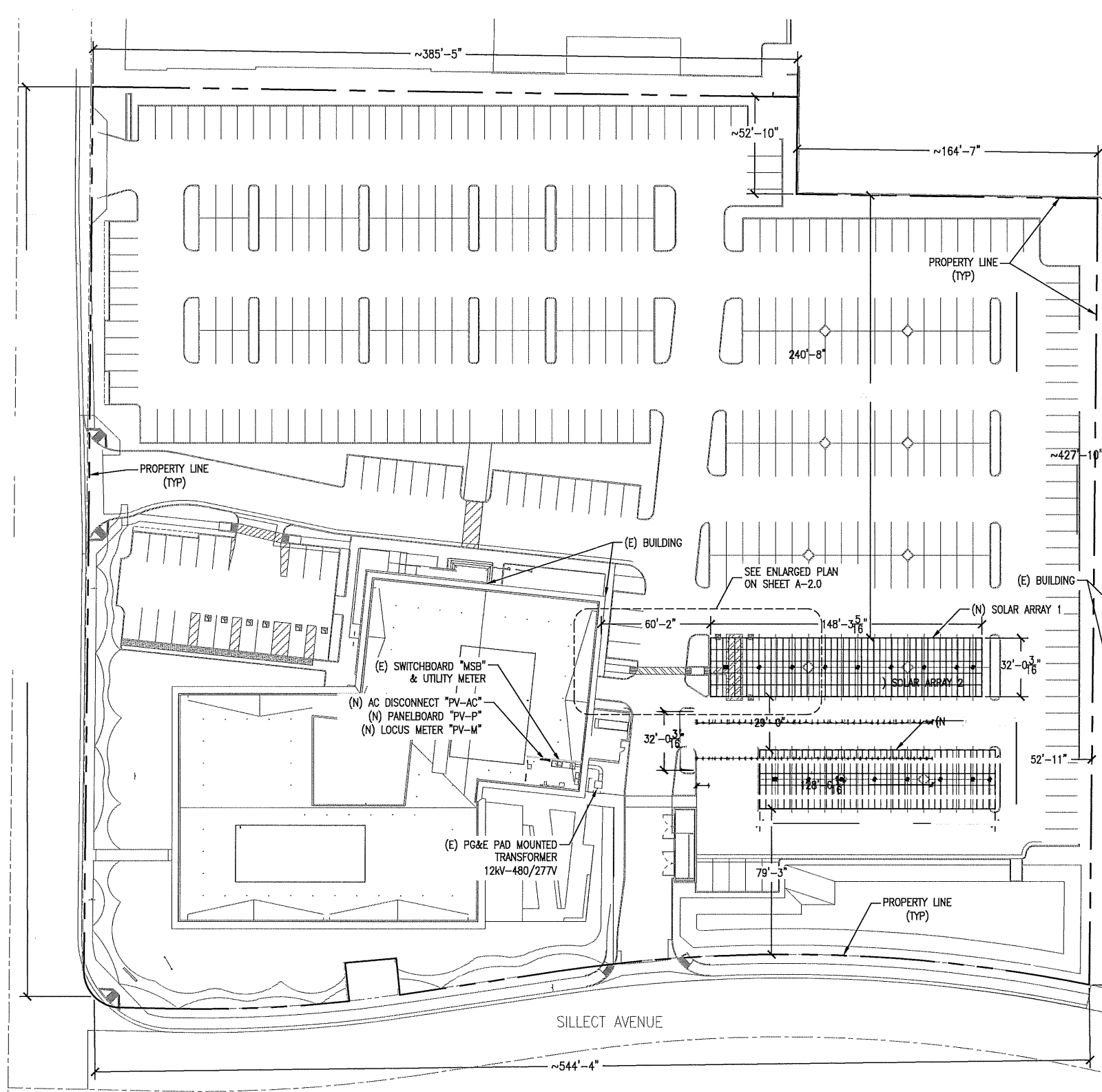
WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES ARE BELIEVED TO BE REASONABLY CORRECT, BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSIDERED AS A REPRESENTATION THAT SUCH STRUCTURES WILL, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL THE STRUCTURES WHICH MAY BE ENCOUNTERED.
CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

CAD FILENAME	BM1098-G001-W001.dwg
DATE	November 29, 2018
PROJECT NO.	BM1098
SCALE	NA
DWG. NO.	W-001

INTERCONNECTION	1
INTERCONNECTION VOLTAGE	36 - 480V/277V
MODULE TYPE	HIS-S350R1
MODULE QUANTITY	420
STC SYSTEM SIZE	151.2 kWDC
INVERTER TYPE	SCA60KITL-DO/US-480 SCA33KITL-DO/US-480
INVERTER QUANTITY	1
AC SYSTEM SIZE	122 kWAC
TILT	7
AZIMUTH	180
ASHRAE TEMP-HIGH	38°C
ASHRAE TEMP-LOW	-2°C

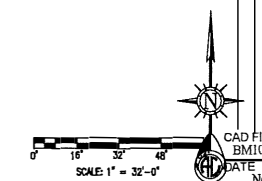
CA LICENSE 99846
A-C Electric Company
 BAKERSFIELD DIVISION
 BOX 81376
 315 30TH STREET (93301)
 BAKERSFIELD, CA 93380-1376
 PHONE: (805) 838-3868
 FAX: (805) 410-0460

- NOTE:
 1. EXACT POSITIONING OF ELECTRICAL EQUIPMENT TO BE DETERMINED UPON COMPLETION OF BUILDING CONSTRUCTION
 2. INSTALLATION, REGISTRATION AND COMMISSIONING OF UTILITY METER PENDING



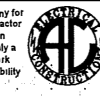
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KERN HEALTH SYSTEMS
 151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
 OVERALL PLAN
 CHECKER: [blank]
 DATE: [blank]
 DESIGNER: [blank]
 2900 BUCK OWENS BLVD
 BAKERSFIELD, CALIFORNIA
 93308



CAD FILENAME: BM1098-W100-W12.dwg
 DATE: November 2, 2018
 PROJECT NO.: BM1098
 SCALE: AS NOTED
 DWG. NO.: W-100

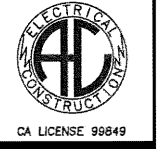
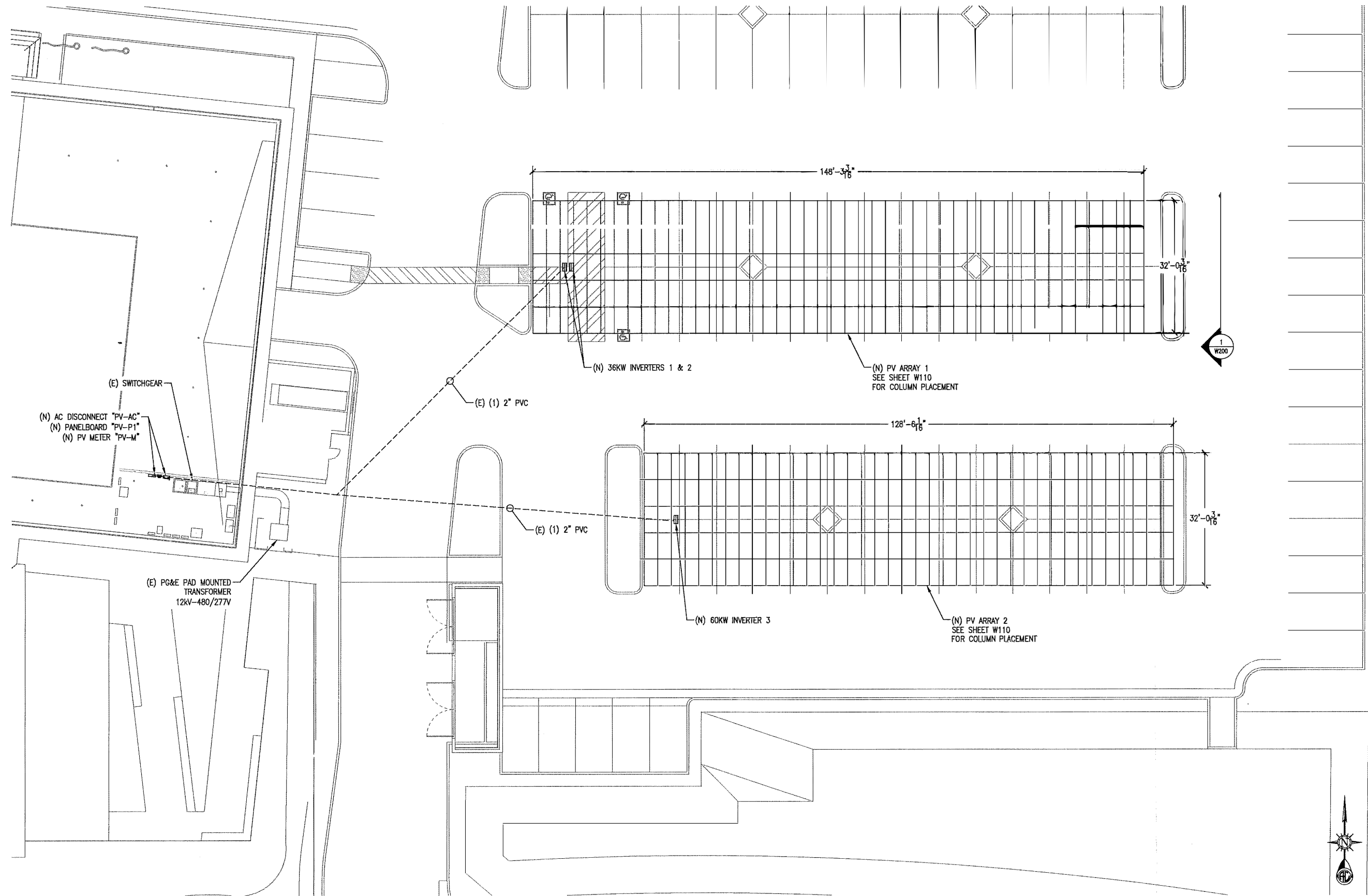
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A-C Electric Company

CA LICENSE 99846

OVERALL SITE PLAN



A-C Electric Company
DIVISION

BOX 81378
315 30TH STREET (83801)
BAKERSFIELD, CA 93380-1378
PHONE: (861) 633-5868
FAX: (861) 410-0460

AS-BUILT DRAWING OF RECORD
FOR PV SYSTEM
DATE: 11/29/18

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KERN HEALTH SYSTEMS
151.2kW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
1000 RUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

NO.	DATE	BY	REVISION NOTES
1	11/29/18	JPT	ISSUED FOR PERMIT
2	11/29/18	JPT	AS-BUILT DRAWING OF RECORD

CAD FILENAME: BM1098-W100-W112.dwg
DATE: November 29, 2018
PROJECT NO.: BM1098
SCALE: AS NOTED
DWG. NO.: **W-101**

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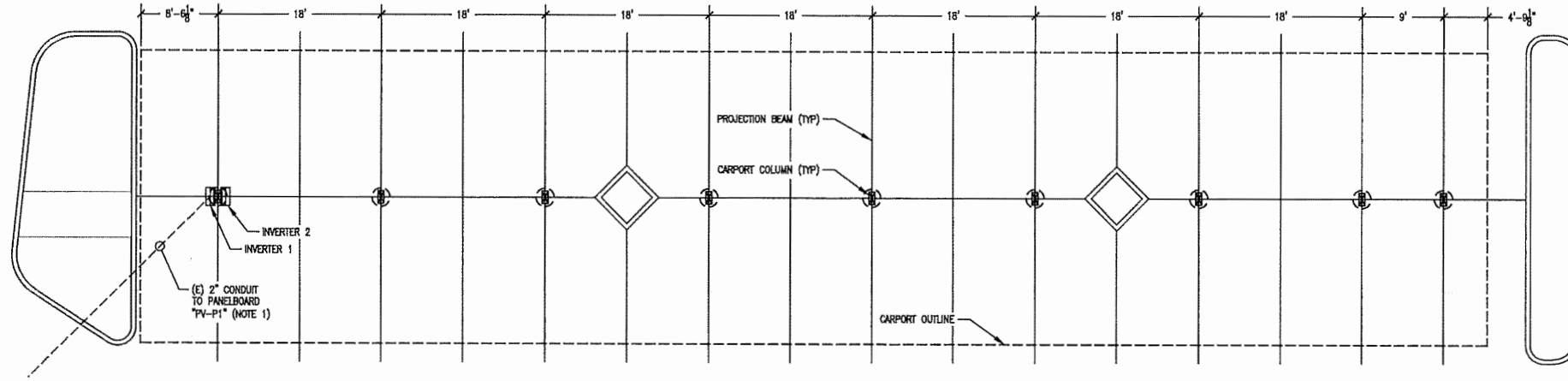


A-C Electric Company
JAY PERIN
CA LICENSE #9849

OVERALL SYSTEM PLAN: EQUIPMENT PLACEMENT & ELECTRICAL RUNS

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

NOTE:
1. SEE SHEET W600 FOR WIRE AND CONDUIT SCHEDULE



ENLARGED PV CARPORT 1 - COLUMN & EQUIPMENT LAYOUT

SCALE
1/8" = 1'-0"



BUILT TRAINING OF RECORD
A-C Electric Company
10/15/2018

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CA LICENSE 99849

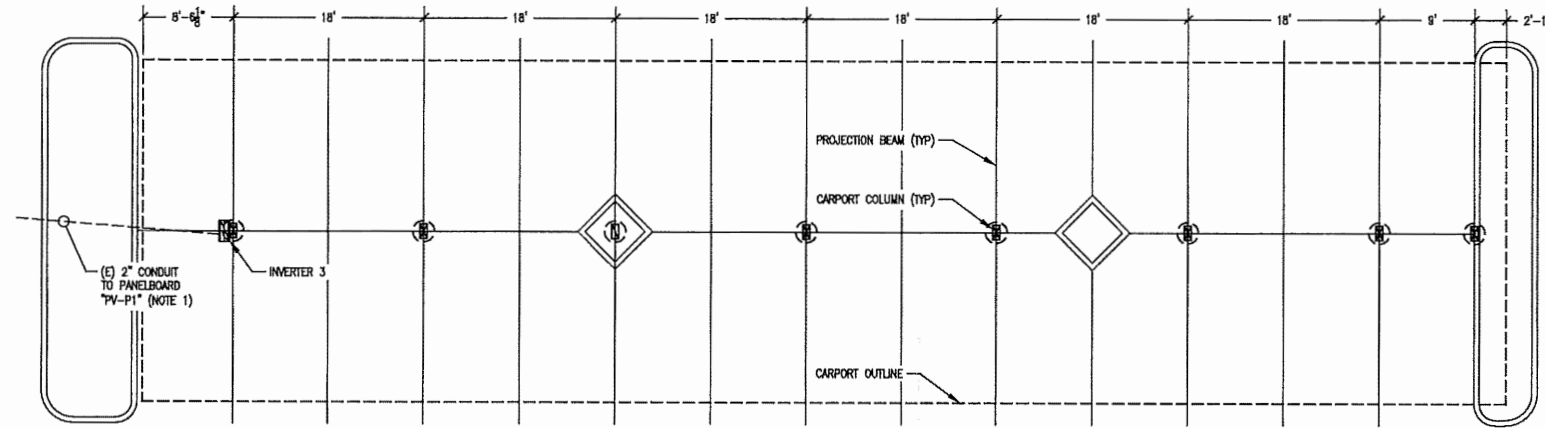
A-C Electric Company

BAKERSFIELD DIVISION

BOX 81376
315 30TH STREET (93301)
BAKERSFIELD, CA 93380-1876

PHONE: (661) 693-5388
FAX: (661) 410-0460

NOTE:
1. SEE SHEET W600 FOR WIRE AND CONDUIT SCHEDULE



ENLARGED PV CARPORT 2 - COLUMN & EQUIPMENT LAYOUT

SCALE
1/8" = 1'-0"



KERN HEALTH SYSTEMS
151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
ENLARGED PV ARRAY
COLUMN & EQUIPMENT LAYOUT
2000 BECK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

DATE

November 29, 2018

PROJECT NO.

BM1098

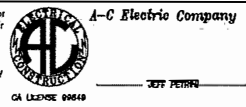
SCALE

AS NOTED

DWG. NO.

W-110

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CA LICENSE 99849

JEFF PERREN



CA LICENSE 99849

A-C Electric Company

BAKERSFIELD DIVISION
BOX 81378
315 SOUTH STREET (80301)
BAKERSFIELD, CA 93380-1378
PHONE: (805) 833-5999
FAX: (805) 410-0489

AS BUILT DRAWING OF RECORD
FOR
A-C ELECTRIC COMPANY
DATE
10/20/18

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KERN HEALTH SYSTEMS 151.2kW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

2000 BUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

CARPORT SIDE ELEVATION
MODULE MOUNTING DETAIL

NO.	DATE	BY	REVISION/NOTES
1	10/20/18	J.P.	ISSUED FOR PERMIT
2			
3			
4			
5			

CAD FILENAME
BM1098-W200.dwg

DATE
November 29, 2018

PROJECT NO.
BM1098

SCALE
AS NOTED

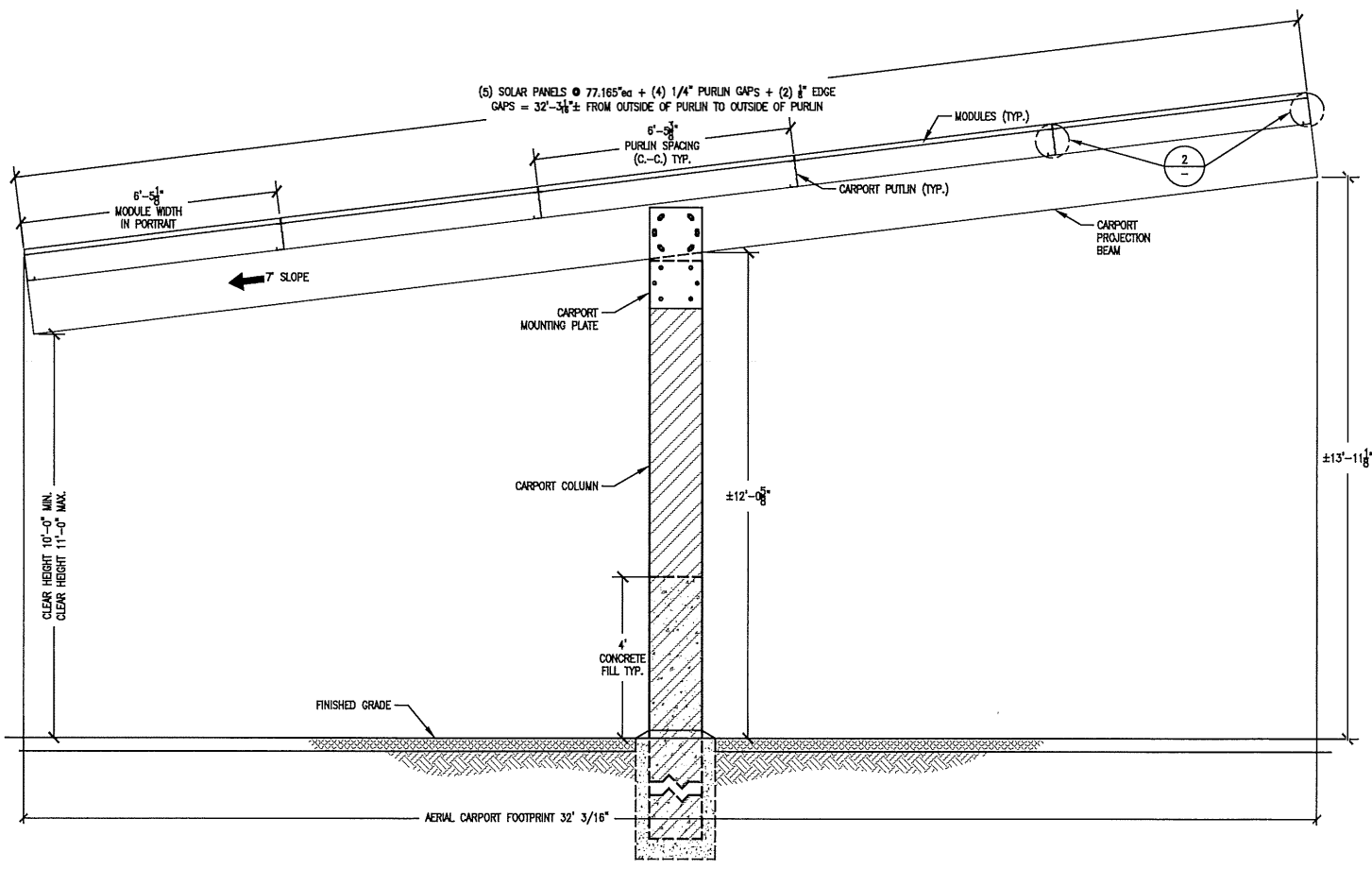
DWG. NO.
W-200

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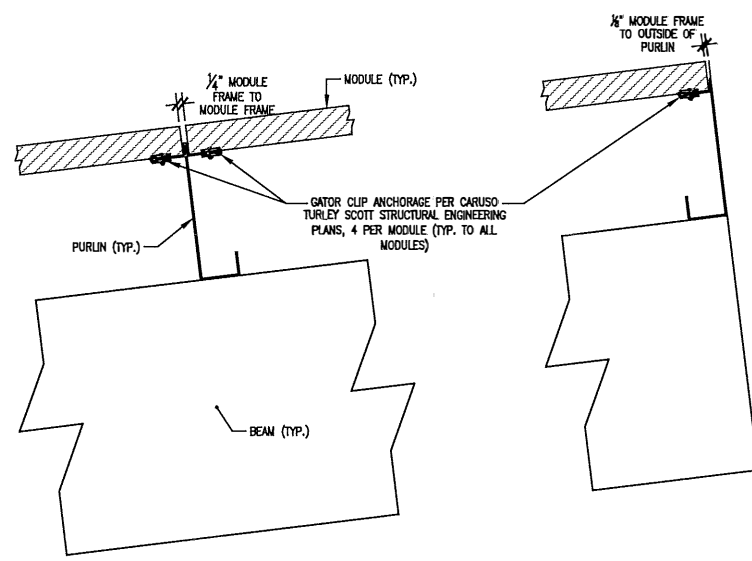
JOY PERNER
CA LICENSE 99849



CARPORT SIDE ELEVATION

SCALE
1/2" = 1'-0"

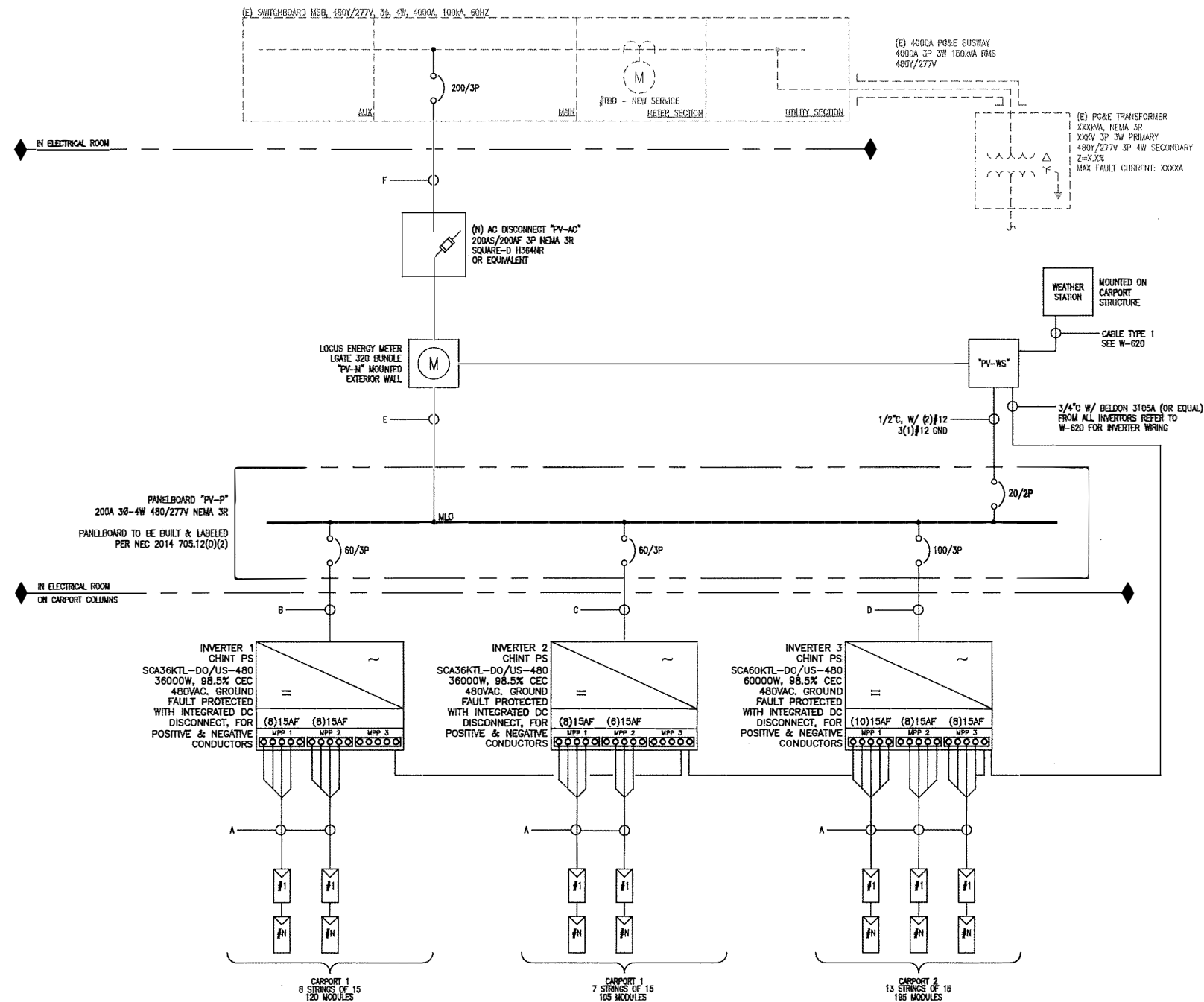
1



MODULE MOUNTING DETAIL

SCALE
1/2" = 1'-0"

2



SINGLE LINE DIAGRAM

INTERCONNECTION	1
INTERCONNECTION VOLTAGE	3Ø - 480Y/277V
MODULE TYPE	HIS-S360R1
MODULE QUANTITY	420
STC SYSTEM SIZE	151.2 kWDC
INVERTER TYPE	SCA36KTL-DO/US-480
INVERTER QUANTITY	3
AC SYSTEM SIZE	132 kWAC
TILT	7°
AZIMUTH	180°
ASHRAE TEMP-HIGH	39°C
ASHRAE TEMP-LOW	-2°C

- NOTES:
- GROUNDING ELECTRODE SYSTEM PER 680.47(C)(3) AND SHALL BE INSTALLED PER NEC 250.64.
 - WHERE SUBJECT TO PHYSICAL DAMAGE FROM MOVING MACHINERY ABOVE GROUND CONDUIT TO BE RMC OR EQUIVALENT TO PROTECT CONDUCTORS FROM DAMAGE. UNDERGROUND CONDUIT IS TO BE SCHEDULE 40 PVC.
 - FOR DC CONDUITS ENTERING INVERTERS, CONDUIT SIZE AND TYPE TO BE FIELD DETERMINED PER NEC CHAPTER 3.
 - INTERCONNECTION TO OCCUR ON THE LOAD SIDE OF MAIN BREAKER THROUGH A DEDICATED OVER CURRENT DEVICE PER NEC 705.12(D)(2)(3)(b).



A-C Electric Company

BAKERSFIELD DIVISION
 BOX 81376
 315 SOUTH STREET (93301)
 BAKERSFIELD, CA 93380-1376
 PHONE: (805) 633-5358
 FAX: (805) 410-0460

ASBUILT DRAWING OF RECORD
 BY: A-C Electric Company
 DATE: 11/29/2018

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KERN HEALTH SYSTEMS
 151.2kW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM
 SINGLE LINE DIAGRAM
 WIRE & CONDUIT SCHEDULE
 2600 BUICK OWENS BLVD
 BAKERSFIELD, CALIFORNIA
 93308

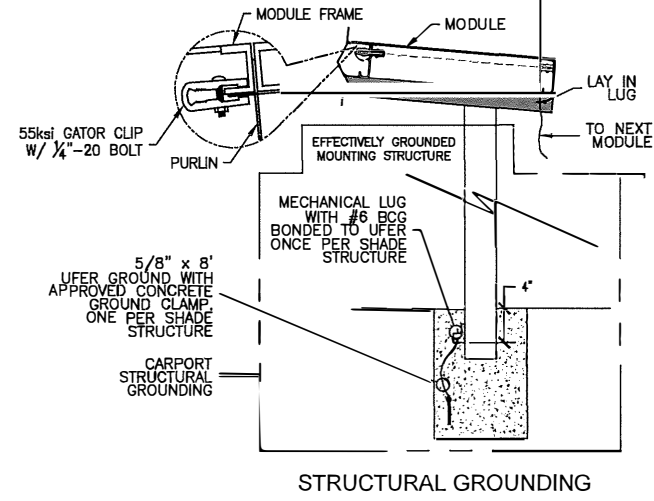
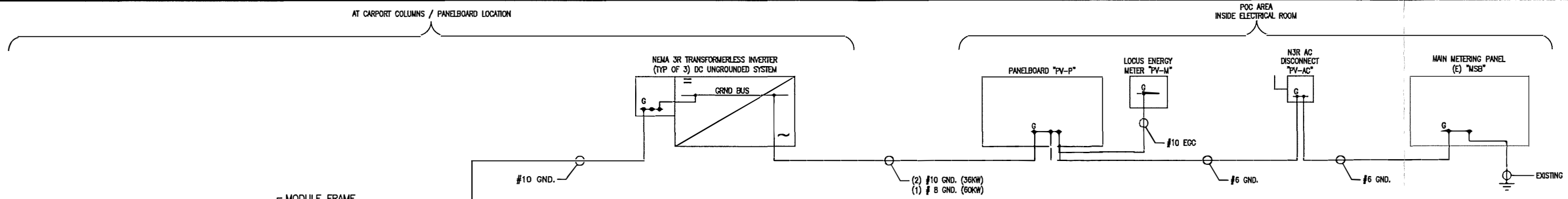
TAG	Name	#OF PV STRINGS	AMPS				VOLTS				PARALLEL CURRENT CARRYING CONDUCTORS				NEUTRAL CONDUCTORS				EQUIPMENT GROUND CONDUCTORS				RACEWAY				RUN LENGTH	Vd	Vd%
			Imp	Isc	Isc PER NEC MAX/PARALLEL	Isc PER NEC OVERCURRENT PROTECTION	MIN	MAX	AC/DC	RUNS	QT/WIRE SIZE	WIRE TYPE	INSUL TYPE	Ohms/kFT	QTY	WIRE SIZE	INSUL TYPE	QTY	WIRE SIZE	INSUL TYPE	QTY	SIZE	MATERIAL						
A	V MODULES PER STRING TO DC CONNECTION	15	9.20	9.80	15.29	15.29	15	619.77	686.04	DC	1	2	#10	CU	USE-2 PV	1.2900				1	#10	BCG	1	1-1/4"	FREE AIR	160 (MAX)	4.64	0.97	
B	36kW INVERTER 1 TO 200A PV-P		43.50		54.38	54.38	60		480.00	AC	1	3	#4	CU	THWN-2	0.3100	1	#10	THWN-2	1	#10	THWN-2	1	2"	PVC SCHE 40	160	4.58	0.95	
C	36kW INVERTER 2 TO 200A PV-P		43.50		54.38	54.38	60		480.00	AC	1	3	#4	CU	THWN-2	0.3100	1	#10	THWN-2	1	#10	THWN-2	1	2"	PVC SCHE 40	160	4.73	0.98	
D	60kW INVERTER 3 TO 200A PV-P		72.00		90.00	90.00	100		480.00	AC	1	3	#2	CU	THWN-2	0.1900	1	#6	THWN-2	1	#8	THWN-2	1	2"	PVC SCHE 40	160	4.74	0.99	
E	200A PV-P TO 200A PV-AC		159.00		198.75	198.75	200		480.00	AC	1	3	#4/0	CU	THWN-2	0.0620	1	#6	THWN-2	1	#6	THWN-2	1	2"	EMT	10	0.11	0.02	
F	200A PV-AC TO MSB		159.00		198.75	198.75	200		480.00	AC	1	3	#4/0	CU	THWN-2	0.0620	1	#6	THWN-2	1	#6	THWN-2	1	2"	EMT	10	0.21	0.04	

WIRE AND CONDUIT SCHEDULE


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A-C Electric Company
 JEFF PERIN
 CA LICENSE 98849

CAD FILENAME: BM1098-Wire-W-600.dwg
 DATE: November 29, 2018
 PROJECT NO: BM1098
 SCALE: NTS
 DWG. NO: W-600



GROUNDING SINGLE LINE & STRUCTURAL GROUNDING



CA LICENSE 99849

A-C Electric Company

BAKERSFIELD DIVISION

BOX 81376
315 SOUTH STREET (6301)
BAKERSFIELD, CA 93380-1376

PHONE: (661) 833-5828
FAX: (661) 410-0480

AS-BUILT DRAWING OF RECORD
A-C Electric Company
Date: 08/20/2018

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KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

GROUNDING SINGLE LINE DIAGRAM
STRUCTURAL GROUNDING

2900 BUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

REV. NO.	DATE	BY	FOR

CAD FILENAME: BM1098-W600-W620.dwg


DATE: November 29, 2018

PROJECT NO: BM1098

SCALE: NTS

DWG. NO: **W-610**

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A-C Electric Company

BAKERSFIELD DIVISION

BOX 81376

315 30TH STREET (93301)

BAKERSFIELD, CA 93380-1376

PHONE: (805) 833-5388

FAX: (805) 410-0480

AS-BUILT DRAWING OR RECORD
A-C Electric Company
93308

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COMMUNICATION BLOCK DIAGRAM

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

2900 BUICK OWENS BLVD

BAKERSFIELD, CALIFORNIA

93308

KERN HEALTH SYSTEMS

151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

COMMUNICATION BLOCK DIAGRAM

EQUIPMENT LIST

- ① LGATE 320
- ② HQ GATEWAY
- ③ SMA WEATHER STATION
- ④ SIERRA WIRELESS AIRLINK SE450
- ⑤ COMPONENT VOLTAGE TERMINALS
- ⑥ ETHERNET SWITCH
- ⑦ DC POWER SUPPLY

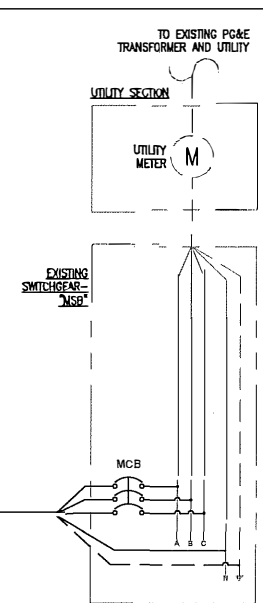
LGATE 320 NOTES

- ① LGATE 320 METER VOLTAGE INPUT 208-480 VAC AND IS RATED UP TO 320A CONTINUOUS PER PHASE.
- ② RS485 PIGTAIL MUST BE CUT AND STRIPPED TO EXPOSE DATA WIRES.
- ③ SPLICE WIRES IN JUNCTION BOX USING GEL FILLED CRIMPS.
- ④ JUNCTION BOX NOT SUPPLIED BY LOCUS ENERGY.
- ⑤ IF NOT USING CELLULAR CONNECTION, CONNECT LGATE 320 TO LAN USING ETHERNET.
- ⑥ DO NOT CUT ETHERNET PIGTAIL.
- ⑦ MOUNT IRRADIANCE SENSOR AT 90° AZIMUTH & 12.5° TILT.
- ⑧ ETHERNET PORT TO BE DESIGNATED BY CUSTOMER I.T. PROVIDER.

WIRE TYPE LIST

- ① SOLID GREEN
- ② STRIPED BLUE/WHITE
- ③ SOLID BLUE
- ④ SHIELD WIRE
- ⑤ SOLID BLACK
- ⑥ SOLID YELLOW
- ⑦ SOLID ORANGE
- ⑧ SOLID RED
- ⑨ SOLID BROWN
- ⑩ CAT 5 PATCH CABLE
- ⑪ RS-485 CABLE

LEGEND

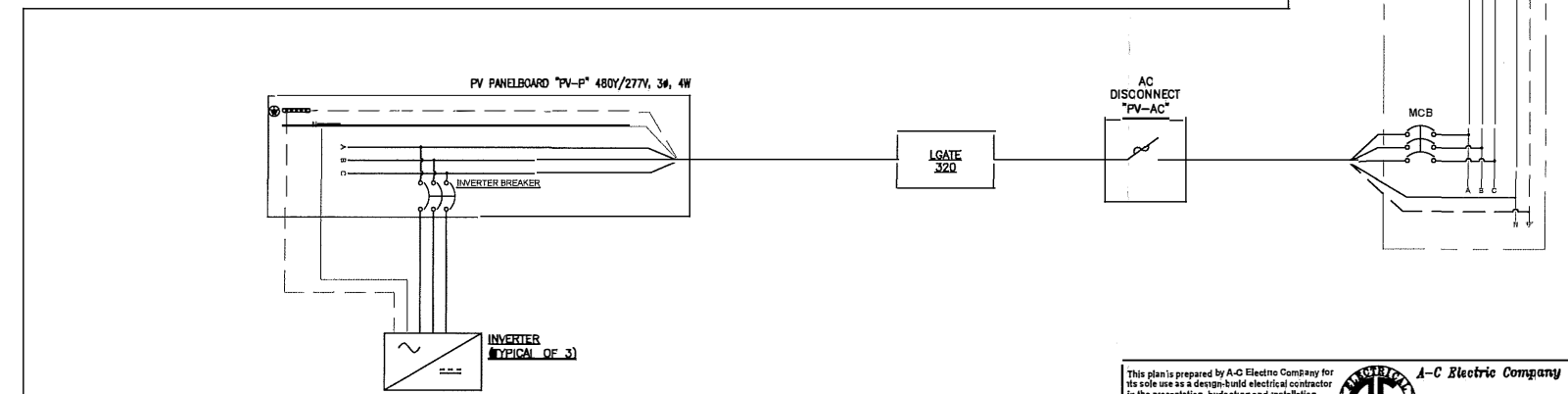
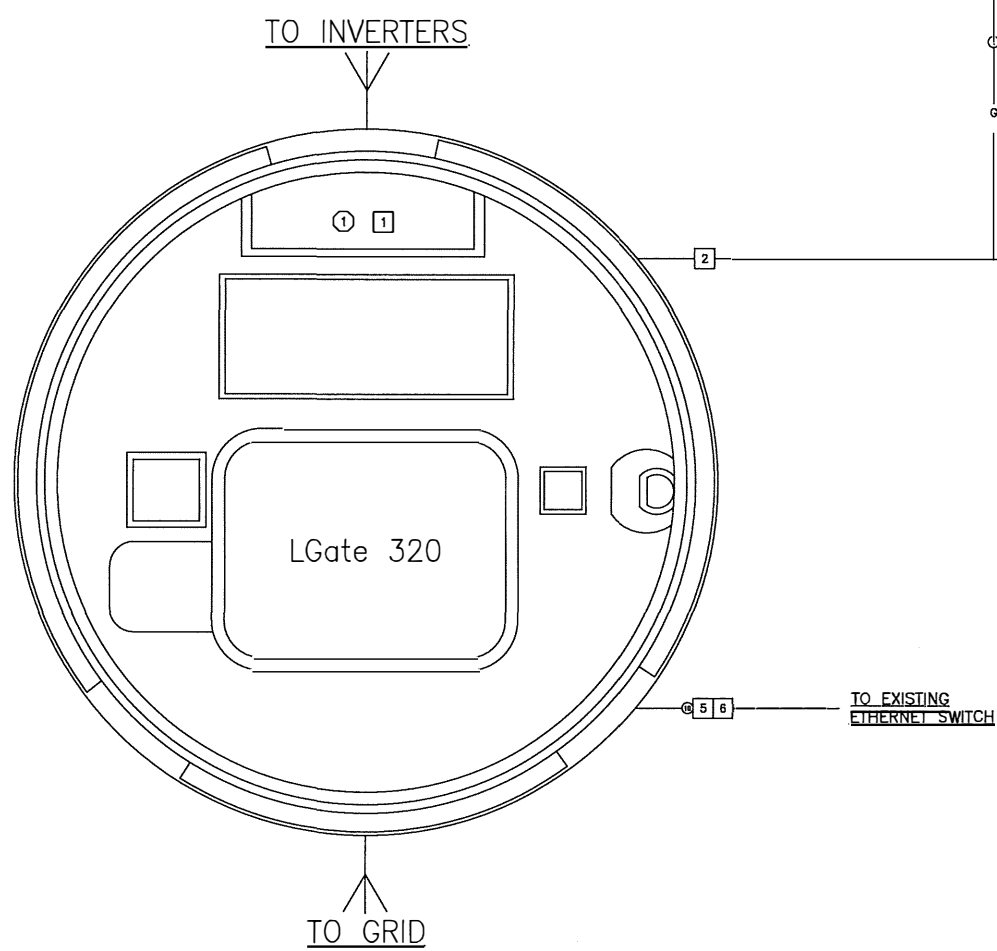
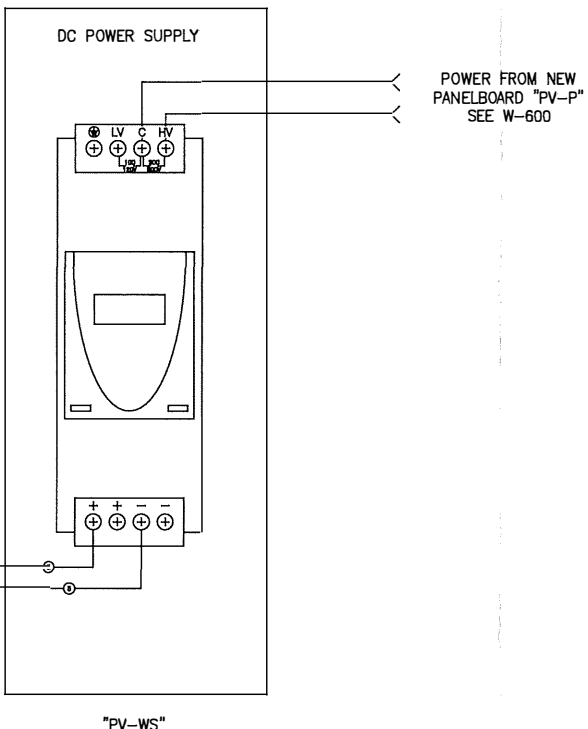
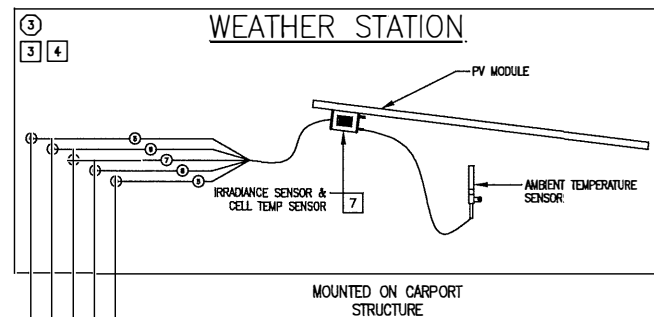


CAD FILENAME	BM1098-W600-W620.dwg
DATE	November 29, 2018
PROJECT NO.	BM1098
SCALE	NTS
DWG. NO.	W-620

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CA LICENSE 99849



NETWORKING DIAGRAM

3

POWER BLOCK DIAGRAM

2

NOTES

IDENTIFICATION LABELS
BLACK W/ WHITE LETTERING
UV RESISTANT PLASTIC
PLAIN BACKING

IDENTIFICATION LABELS

4.0 TYP

**MAIN PV SYSTEM AC DISCONNECT
"PV-AC"**

2.0 TYP

B MAIN AC DISCONNECT
SCALE: 1"=0' = 1'-0" QTY: 1

**DATA COMMUNICATION HEAD-END
"PV-M"**

C DATACOM ENCLOSURE
SCALE: 1"=0' = 1'-0" QTY: 1

**SOLAR LOAD CENTER
"PV-P"**

D PANEL
SCALE: 1"=0' = 1'-0" QTY: 1

X-YY-ZZ
X - INVERTER #
Y - STRING NUMBER
Z - "+" OR "-"

E WIRE TAG - STRING
SCALE: NONE QTY: AS REQUIRED

X" TYP

WARNING
PHOTOVOLTAIC POWER SOURCE
THIS IS A REORIENTATION OF THE LABEL ONLY. ACTUAL LABEL MAY VARY.
ⓐ RACEWAYS
QTY: BOUGHT AND DETERMINED BY INSTALLER

F RACEWAYS

IDENTIFICATION LABELS

A LOCATED AT MAIN SWITCHGEAR "MSB"

B LOCATED AT AC DISCONNECT "PV-AC"

C LOCATED AT MONITORING ENCLOSURE "PV-M"

D LOCATED AT LOAD CENTER "PV-P"

E LOCATED AT ALL INVERTERS

F LOCATED AT ALL DC DISCONNECTS

G LOCATED AT INVERTER 1

H LOCATED AT INVERTER 2

I LOCATED AT INVERTER 3

Z LOCATED AT ALL RACEWAYS AND JUNCTION BOXES



RESUBMIT DRAWING OF RECORD
A-C Electric Company

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IDENTIFICATION LABELS

NOTES

WARNING LABELS
RED W/ WHITE LETTERING
UV RESISTANT PLASTIC
PLAIN BACKING

WARNING LABELS

4.0 TYP

CAUTION SOLAR CIRCUIT DUAL POWER SOURCES SECOND IS A PV SYSTEM

4.75 TYP

WARNING
ELECTRICAL SHOCK HAZARD
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

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CA C-10 LIC: 99849

A MSB
SCALE: 1"=0' = 1'-0" QTY: 1

4.0 TYP

WARNING
RAPID SHUT DOWN DEVICE
ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION.

**PV SYSTEM AC DISCONNECT
"PV-AC"**
DISCONNECT ENERGIZED FROM TWO SOURCES:
PV SYSTEM AND UTILITY GRID
MAX AC VOLTAGE: 480 VAC
MAX AMPERAGE: 159A

7.00 TYP

PHOTOVOLTAIC POWER SOURCE RATINGS
RATED MPP CURRENT: 9.80 ADC
RATED MPP VOLTAGE: 586.5 VDC
MAX SYSTEM VOLTAGE: 686.04 VDC
SHORT CIRCUIT CURRENT: 15.29 ADC

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B AC DISCONNECT
SCALE: 1"=0' = 1'-0" QTY: 1

4.0 TYP

CAUTION SOLAR CIRCUIT SOLAR ELECTRICAL SYSTEM CONNECTED

5.5 TYP

WARNING
ELECTRICAL SHOCK HAZARD
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

A-C Electric Company
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CA C-10 LIC: 99849

C PANEL
SCALE: 1"=0' = 1'-0" QTY: 1

4.0 TYP

WARNING
ELECTRICAL SHOCK HAZARD
TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

**SOLAR CIRCUIT SOLAR PANEL
"PV-P"**
SOLAR ELECTRICAL SYSTEM CONNECTED

6.00 TYP

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CA C-10 LIC: 99849

D PANEL
SCALE: 1"=0' = 1'-0" QTY: 1

4.0 TYP

WARNING
ELECTRICAL SHOCK HAZARD
DC DISCONNECT IS FED BY MULTIPLE POWER SOURCES
DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED.

6.0 TYP

SOLAR ELECTRICAL SYSTEM CONNECTED

PHOTOVOLTAIC POWER SOURCE RATINGS
RATED MPP CURRENT: 9.80 ADC
RATED MPP VOLTAGE: 586.5 VDC
MAX SYSTEM VOLTAGE: 686.04 VDC
SHORT CIRCUIT CURRENT: 15.29 ADC

A-C Electric Company
Founded in 1945
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CA C-10 LIC: 99849

E DC DISCONNECTS
SCALE: 1"=0' = 1'-0" QTY: 5

F G H I

KERN HEALTH SYSTEMS
151.2KW STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

2300 BUICK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

PV LABELS:
WARNING & NOTICE

4.0 TYP

WARNING
ARC FLASH AND SHOCK HAZARD
APPROPRIATE PPE REQUIRED

2.0 TYP

A ARC FLASH WARNING
SCALE: 1"=0' = 1'-0" QTY: 4

B C D

4.0 TYP

**PHOTOVOLTAIC ARRAY INVERTER
INV 1
WARNING**
ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

6.0 TYP

NOTICE
OPERATING CURRENT: 9.80 AMPS DC
OPERATING VOLTAGE: 586.5 VOLTS DC
MAXIMUM CURRENT: 15.29 ADC
MAXIMUM VOLTAGE: 686.04 VOLTS DC
NOMINAL CURRENT: 43.5 AMPS AC
NOMINAL VOLTAGE: 480 VOLTS AC

G INVERTER INFO
SCALE: 1"=0' = 1'-0" QTY: 1

4.0 TYP

**PHOTOVOLTAIC ARRAY INVERTER
INV 2
WARNING**
ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

6.0 TYP

NOTICE
OPERATING CURRENT: 9.80 AMPS DC
OPERATING VOLTAGE: 586.5 VOLTS DC
MAXIMUM CURRENT: 15.29 ADC
MAXIMUM VOLTAGE: 686.04 VOLTS DC
NOMINAL CURRENT: 43.5 AMPS AC
NOMINAL VOLTAGE: 480 VOLTS AC

H INVERTER INFO
SCALE: 1"=0' = 1'-0" QTY: 1

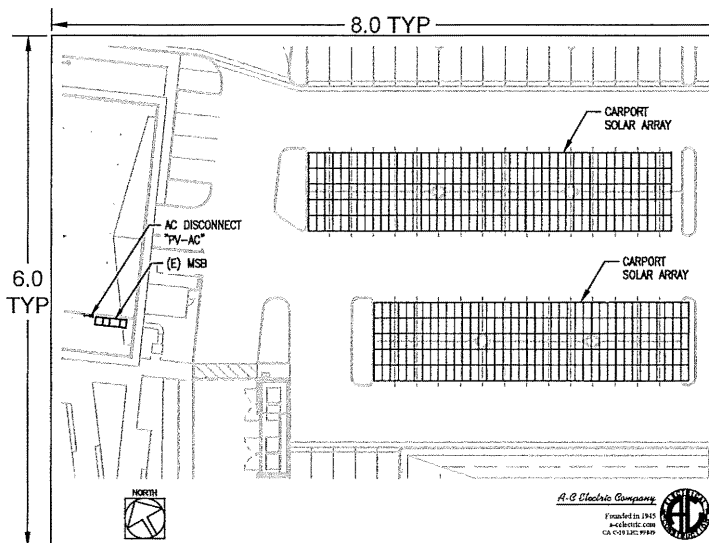
4.0 TYP

**PHOTOVOLTAIC ARRAY INVERTER
INV 3
WARNING**
ELECTRICAL SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

6.0 TYP

NOTICE
OPERATING CURRENT: 9.80 AMPS DC
OPERATING VOLTAGE: 586.5 VOLTS DC
MAXIMUM CURRENT: 15.29 ADC
MAXIMUM VOLTAGE: 686.04 VOLTS DC
NOMINAL CURRENT: 72.0 AMPS AC
NOMINAL VOLTAGE: 480 VOLTS AC

I INVERTER INFO
SCALE: 1"=0' = 1'-0" QTY: 1



A PHENOLIC-WALKING LABEL
SCALE: 1"=0' = 1'-0" QTY: 3

B D

LABEL NOTES:
SHALL BE COLORED AS INDICATED BELOW WITH LETTERING (MIN. 3/8" HIGH) WITH ALL CAPITAL LETTERS, ARIAL OR SIMILAR FONT, NON BOLD, REFLECTIVE WEATHER-UV RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (DURABLE ADHESIVE MATERIALS MUST MEET THIS REQUIREMENT), PLAIN BACKING W/ ADHESIVE STRIPS

IDENTIFICATION LABELS:
BLACK W/ WHITE LETTERING

INFORMATION LABELS:
YELLOW W/ BLACK LETTERING

WARNING & PHENOLIC LABELS:
RED W/ WHITE LETTERING

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A-C Electric Company

CAD FILENAME: BM1098-W700.dwg
DATE: November 29, 2018
PROJECT NO.: BM1098
SCALE: AS NOTED
DWG. NO.: W-700

NO.	DATE	BY	REVISION/DESCRIPTION

WARNING LABELS

HYUNDAI SOLAR MODULE

RI SERIES Mono-Crystalline Type HIS-S330RI HIS-S335RI HIS-S340RI HIS-S345RI HIS-S350RI HIS-S355RI HIS-S360RI

72 Cells For Commercial & Utility Applications More Power Generation In Low Light Hyundai Cell Made in Korea

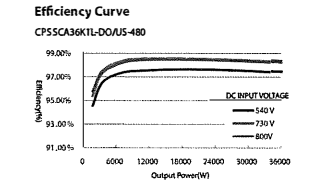
- PERL Technology Anti-LID / PID Mechanical Strength Reliability Corrosion Resistant UL / VDE Test Labs

Hyundai's Warranty Provisions: 10-Year Product Warranty, 25-Year Performance Warranty. About Hyundai Solar: Established in 1977, Hyundai Heavy Industries (HHI) is one of the most trusted names in the heavy industries sector.

Electrical Characteristics table with 12 columns (330-360W). Mechanical Characteristics table with 2 columns (Dimensions, Weight). Installation Safety Guide with 2 columns (Safety instructions). Module Diagram with 2 columns (Diagram, I-V Curves).

CPS 36kW, 1000Vdc String Inverters for North America

The medium power series of grid-tied, transformerless inverters help to accelerate the use of 1000Vdc and three phase string architecture for commercial and small ground mount utility applications.



- High Efficiency: Maximum efficiency of 98.5%, CEC efficiency of 98%. High Reliability: Standard warranty of 10 years, extension up to 20 years.

CHPT POWER SYSTEMS AMERICA 201607-0017-NA

CPS 50/60kW, 1000Vdc String Inverters for North America

The 50 & 60kW (55 & 66kVA) medium power CPS three phase string inverters are designed for ground mount, large rooftop and carport applications.

- Key Features: 55 & 66kVA rating allows max rated Active Power @0.91PF. Selectable Max AC Apparent Power of 50/55kVA and 60/66kVA.

Images of CPS 50/60kW inverters in Standard Wire-box and H4 Wire-box configurations. Technical Data table for CPS SCA50KTL-DO/US-480 and CPS SCA60KTL-DO/US-480.

Technical Data table for CPS SCA50KTL-DO/US-480 and CPS SCA60KTL-DO/US-480. Includes DC Input, Max. PV Power, Operating DC Input Voltage Range, MPP Tracking, AC Output, and Environmental specifications.

A-C Electric Company logo, CA LICENSE 99849, BAKERSFIELD DIVISION, 315 30TH STREET (80301) BAKERSFIELD, CA 93300-1378.

KERN HEALTH SYSTEMS 151.2kW STC-DC COMMERCIAL CARPORT MOUNTED PV SYSTEM. 2600 BUCK OWENS BLVD BAKERSFIELD, CALIFORNIA 93309

REVISION NOTES table with columns for No., Date, Description, and Checked By.

CAD FILENAME: BM1098-W800-W899.dwg. DATE: November 29, 2018. PROJECT NO.: BM1098. SCALE: NA. DWG. NO.: W-800.

A-C Electric Company logo and CA LICENSE 99849.

COMMERCIAL SOLAR MONITORING SOLUTION

LGate 320

The LGate 320 is a three-phase electronic watt-hour meter for the remote monitoring of solar photovoltaic systems. It features a smart communications module to transmit meter data over cellular or Ethernet networks automatically, allowing system owners and operators to easily manage distributed solar assets.

The LGate 320 combines a revenue-grade, solid-state power meter with an advanced communications gateway. These components work in conjunction to remotely monitor the performance of commercial solar energy installation regardless of panel or inverter type. The LGate 320 is a one-piece meter (completely under glass), which installs easily using a standard socket base. Performance data is uploaded in near-real time to the Locus Energy SolarNOC™ monitoring platform, which provides a suite of tools and analytics for asset managers.

DATA COLLECTION

AC side data is collected by the meter and passed to the communications module. Additional system performance data can be collected directly from meteorological sensors and supported inverters via RS-485 connections. All data is stored in non-volatile memory and then automatically uploaded to the SolarNOC™ platforms.

NETWORK CONNECTIVITY

The communications gateway inside the LGate 320 supports plug and play connectivity through a cellular network connection. Once the unit is installed and powered on, it will immediately begin transmitting data without any configuration. If cellular reception is weak or inconsistent, then communication via Ethernet cable may be used as an alternative option.

FEATURES:

- ANSI C12.20 power meter
- RS-485 inputs
- GSM cellular or Ethernet connectivity
- Over the air firmware updates
- Easy, low-cost installation
- Don't require entrance into the building
- Plug-and-play activation
- LCD display

Learn more about the LGate 320 at info.locusenergy.com/commercial-solar-monitoring-hardware

LGATE 320 | WWW.LOCUSENERGY.COM

DIAGRAM - TYPICAL CONFIGURATION

DIMENSIONS

SPECIFICATIONS

PROCESSOR	ARM9 embedded CPU	POWER	Accuracy: ANSI C120 (Class 0.2%)
OS	Custom version of Linux 2.6, OTA firmware updates	Voltage Inputs	120 - 480 VAC
MEMORY	128 MB DRAM	Max. Current Input	320 A
DISPLAY	LCD screen	Service Type	Three phase, Wye or 4-wire Delta
I/O	RS485 2 wire and 4 wire	Socket Type	3/4
Modbus		COMM. RANGE	ANSI C120 class 0.2%
ZigBee		FCC Part 22B	
		PFCM	
		AT&T Class Compliance	
COMMUNICATIONS	LAN: RJ45 10/100 Ethernet, RJ45 half duplex, auto polarity	ENVIRONMENTAL	Enclosure: NEMA 3R Type
Cellular	3G GSM	Weight	2 lbs 2 oz
Networking	DHCP or static	Dimensions	6.95" x 6.5" x 7.3"
		Environment	-20 to 60C, all-weather
		Warranty	5 year limited warranty

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A-C Electric Company

BAKERSFIELD DIVISION
 BOX 81376
 315 30TH STREET (80301)
 BAKERSFIELD, CA 93380-1376
 PHONE: (661) 833-5368
 FAX: (661) 410-0460

ABSOLUTE TRAINING OF RECORD
A-C Electric Company

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KERN HEALTH SYSTEMS
 151.24W 5TC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

NO.	DESCRIPTION	DATE	BY	CHKD BY
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CAD FILENAME: BMI098-W810-W899.dwg
 DATE: November 29, 2018
 PROJECT NO.: BMI098
 SCALE: NA
 DWG. NO.: W-810

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SEE PLAN CHECK STAMPS ON REVERSE SIDE



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**A-C
Electric
Company**

BAKERSFIELD
DIVISION

BOX 81376
315 30TH STREET (93301)
BAKERSFIELD, CA 93380-1376
PHONE: (661) 633-5368
FAX: (661) 410-0460

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KERN HEALTH SYSTEMS

151.24W STC DC COMMERCIAL CARPORT MOUNTED PV SYSTEM

2000 BUCK OWENS BLVD
BAKERSFIELD, CALIFORNIA
93308

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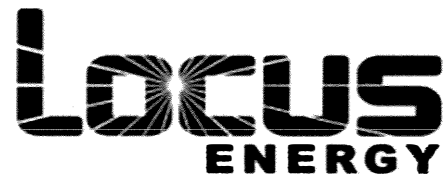
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CAD FILENAME
BM1098-W800-W899.dwg
DATE
November 29, 2018
PROJECT NO.
BM1098
SCALE
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DWG. NO.
W-899

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