

ATTACHMENT D

Project Plans

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City of Goleta
Current Planning Division



KARL STORZ IMAGING INC

SOLAR PHOTOVOLTAIC SYSTEM

CONTRACTOR
CA - B C10 #990001

REC SOLAR
3450 BROAD ST, SUITE 105
SAN LUIS OBISPO, CA 93401
PH (805) 477-3970
FX (805) 548-8661
(844) REC SOLAR

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ENGINEER

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DATE: 05/04/2021

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OWNER

KARL STORZ IMAGING GOLETA
1 S. LOS CARNEROS RD
GOLETA, CA 93117

PROJECT LOCATION

KARL STORZ IMAGING GOLETA
1 S. LOS CARNEROS RD
GOLETA, CA 93117

APN: 073-33-074

REV	DATE	DESCRIPTION
D	05/04/2021	AHJ COMMENTS-REV 1
C	04/08/2021	AHJ COMMENTS
B	03/09/2021	LANDSCAPE UPDATE
A	03/02/2021	PLANNING REVIEW
DATE	03/02/2021	
PROJECT NUMBER	57355000	
PROJECT MANAGER	EMILIO ARRIETA	
PROJECT ENGINEER	ZORAN IVANCEVIC	

PLANNING PERMIT SUBMITTAL

SHEET TITLE

COVER SHEET

SHEET NUMBER

G101

PROJECT SCOPE

THE PROJECT CONSISTS OF THE INSTALLATION OF A SOLAR PHOTOVOLTAIC (PV) SYSTEM ON THE ROOF ON AN EXISTING BUILDING, TWO CARPORT IN PARKING LOT AND BATTERY STORAGE ELECTRICAL SYSTEM MOUNTED ON A CONCRETE PAD INCLUDING ALL ASSOCIATED ELECTRICAL EQUIPMENT AND ELECTRICAL WIRING TO CONNECT TO ELECTRICAL UTILITY SERVICE AND LANDSCAPING CHANGES TO SUPPORT THE PROJECT. NEW EXTERIOR ELECTRICAL WIRING BETWEEN THE ARRAYS AND THE BESS WOULD BE UNDERGROUND. ONLY CHANGE TO THE CITY APPROVED LANDSCAPING PLANS IS RELOCATION OF THE 11 PROJECT AFFECTED TREES.

PROPERTY & BUILDING INFORMATION

PARCEL APN: APN: 073-33-074

PARCEL AREA: 8.33 ACRES

ZONING CLASS: BP

BUILDING DOES NOT REQUIRE ANY ALTERATIONS TO

ACCOMMODATE THE NEW ADDED PV SYSTEM.

PLANNING CASE NO.: 20-0002-DP

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED IF NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES:

CAL OSHA

ANSI/EIA-222- LIFE SAFETY CODE NFPA-311

2019 CALIFORNIA BUILDING CODE (CBC)

2019 CALIFORNIA ELECTRICAL CODE (CEC) & SUPPLEMENTAL CODES

2019 CALIFORNIA ELECTRIC SAFETY CODE (CESC)

UTILITY INFORMATION

ELECTRICAL UTILITY: SCE

METER NUMBER: #V349R-000023

PV POINT OF CONNECTION INFORMATION

VOLTAGE: 480/277V

CURRENT: 2000A

CONFIGURATION: 4-WIRE, WYE

SHORT CIRCUIT: 65KAIC

MSB LOCATION: EXISTING SWITCHGEAR ON

EXTERIOR CONCRETE PAD.

BATTERY ENERGY STORAGE SYSTEM INFORMATION

BESS MAKE : SUNGROW ST556KWH-250UD

BESS SYSTEM SIZE : 250kW / 556kWh

BESS AREA : 232.46 SQ FT

PV SYSTEM INFORMATION ROOF

SYSTEM SPECIFICATIONS:

MODULES: (684) TRINA SOLAR TSM-400DE15H(II)

INVERTER: CHINT POWER SYSTEMS AMERICA

(4) CPS SCA60KTL-DO/US-480 [480V]

TILT / SPACING: 10° / 4'-2"

AZIMUTH: 180.5°

ARRAY LOCATION(S): ROOF

DC VOLTAGE: 1000 VDC

AC VOLTAGE: 480VAC

ROOF PV AREA: 19,672 SQ FT

SYSTEM SIZE:

DC SYSTEM SIZE: (684) X (400W) = 273.60KW

AC SYSTEM SIZE: (60) X (4) = 240.00KW

CEC AC SYSTEM SIZE: (684) X (375W) X (98.5%) = 252.65KW

DC:AC RATIO: (1.14)

PV SYSTEM INFORMATION CARPORT

SYSTEM SPECIFICATIONS:

MODULES: (480) TRINA SOLAR TSM-400DE15H(II)

INVERTER: CHINT POWER SYSTEMS AMERICA

(2) CPS SCA50KTL-DO/US-480 [480V]

(1) CPS SCA60KTL-DO/US-480 [480V]

TILT / SPACING: 5° / NA

AZIMUTH: 270.4°

ARRAY LOCATION(S): CANOPY

DC VOLTAGE: 1000 VDC

AC VOLTAGE: 480VAC

CARPORT PV AREA: 10,775 SQ FT

SYSTEM SIZE:

DC SYSTEM SIZE: (480) X (400W) = 192.00kW

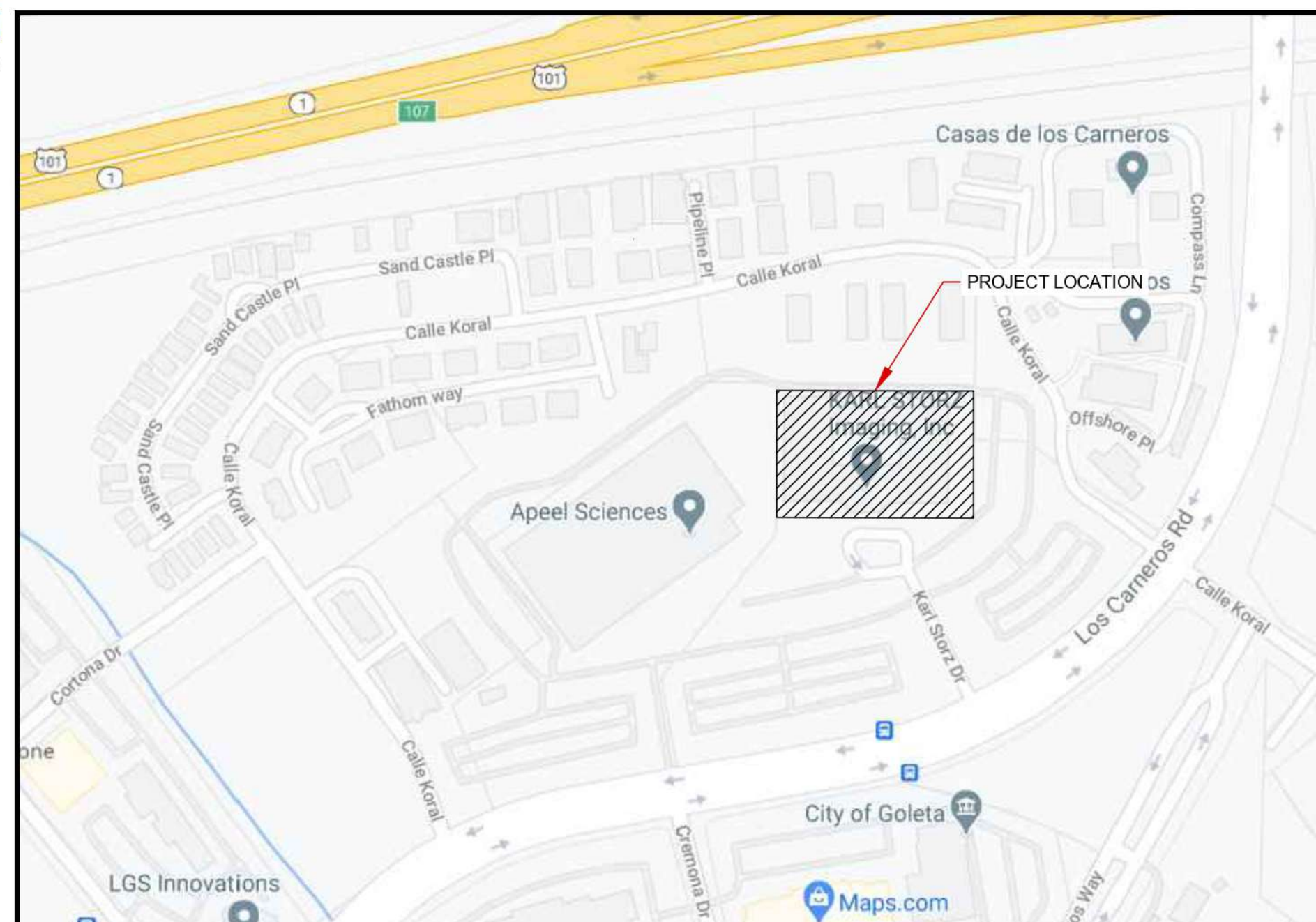
AC SYSTEM SIZE: (50) X (2) + (60) X (1) = 160.00kW

CEC AC SYSTEM SIZE: (480) X (375W) X (98.5%) = 177.30kW

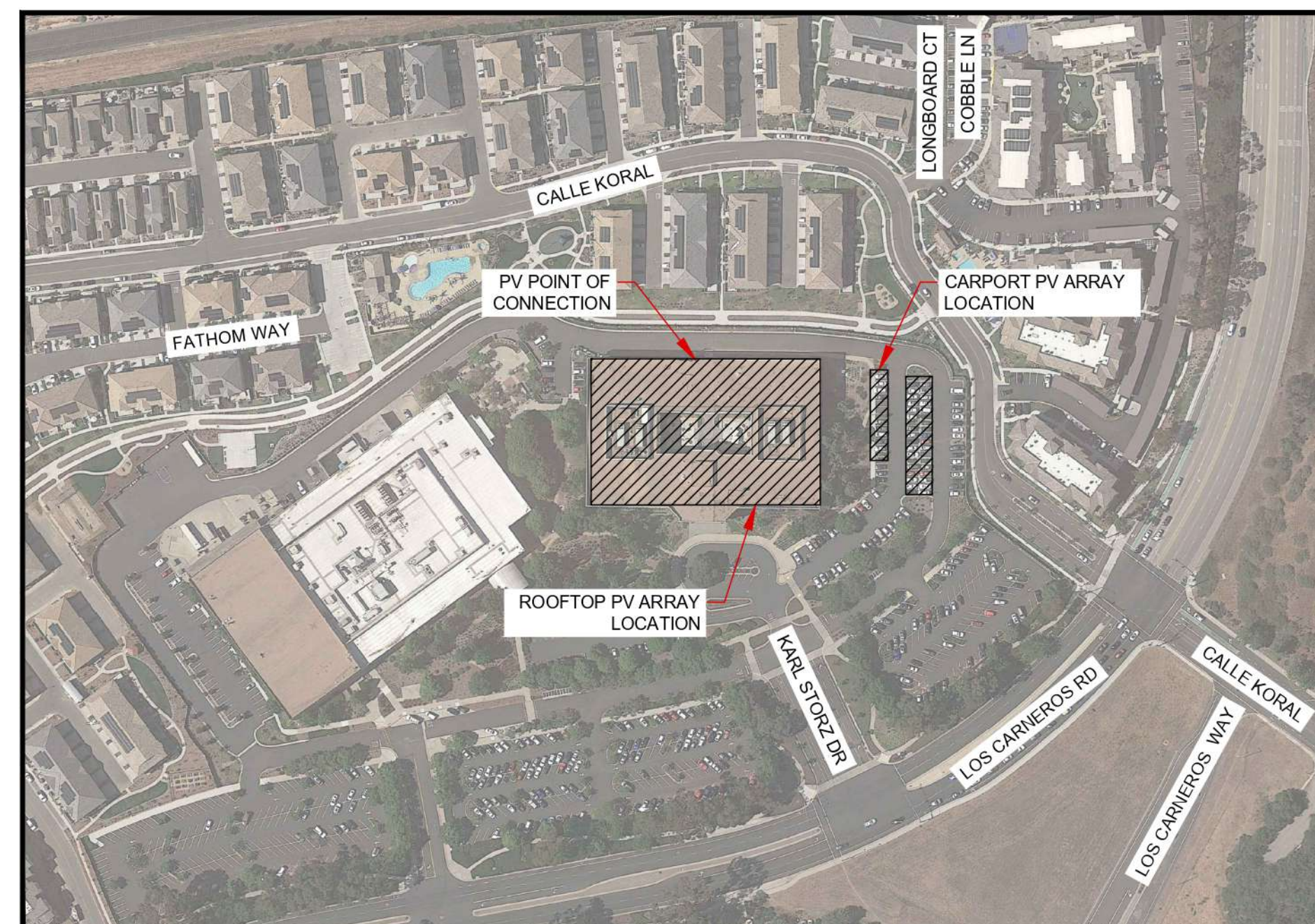
DC:AC RATIO: (1.20)

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STREET MAP - PROJECT LOCATION



SATELLITE MAP - PROJECT LOCATION

SHEET INDEX

GENERAL

- G101 COVER SHEET
- G301 MASTER SITE PLAN
- G302 ENLARGED SITE PLAN
- G303 PROPOSED CHANGES TO CITY ENTITLED LANDSCAPE PLANS
- G304 LANDSCAPE PLAN STATISTICS
- G305 PROPERTY LAYOUT

PHOTOVOLTAIC

- PV205 CANOPY LIGHTING PLAN
- PV206 CANOPY LIGHTING CALCULATION
- PV401A BUILDING ELEVATIONS
- PV401B BUILDING ELEVATIONS
- PV402 CARPORT ELEVATION
- PV601 EQUIPMENT SPECIFICATIONS

OWNER
STORZ
KARL STORZ — ENDOSKOPE
KARL STORZ IMAGING GOLETA
1 S. LOS CARNEROS RD
GOLETA, CA 93117
PH: 805.698.0619
CONTACT: ANDY WALLIS

CONTRACTOR
DUKE ENERGY RENEWABLES
REC SOLAR
REC SOLAR
3450 BROAD ST, SUITE #105
SAN LUIS OBISPO, CA 93401
PH: 844.732.7652
PROJECT MANAGER: EMILIO ARRIETA
PROJECT ENGINEER: ZORAN IVANCEVIC

ELECTRICAL ENGINEER (EOR)
PUREPOWER ENGINEERING
PURE POWER ENGINEERING, INC.
PHONE: 551-220-5476
FAX: (201) 595-0991
CONTACT: ALLISON BROWN (ELECTRICAL ENGINEER I)
111 RIVER STREET, SUITE 1110, HOBOKEN, NJ 07030
EMAIL: ABROWN@PUREPOWER.COM

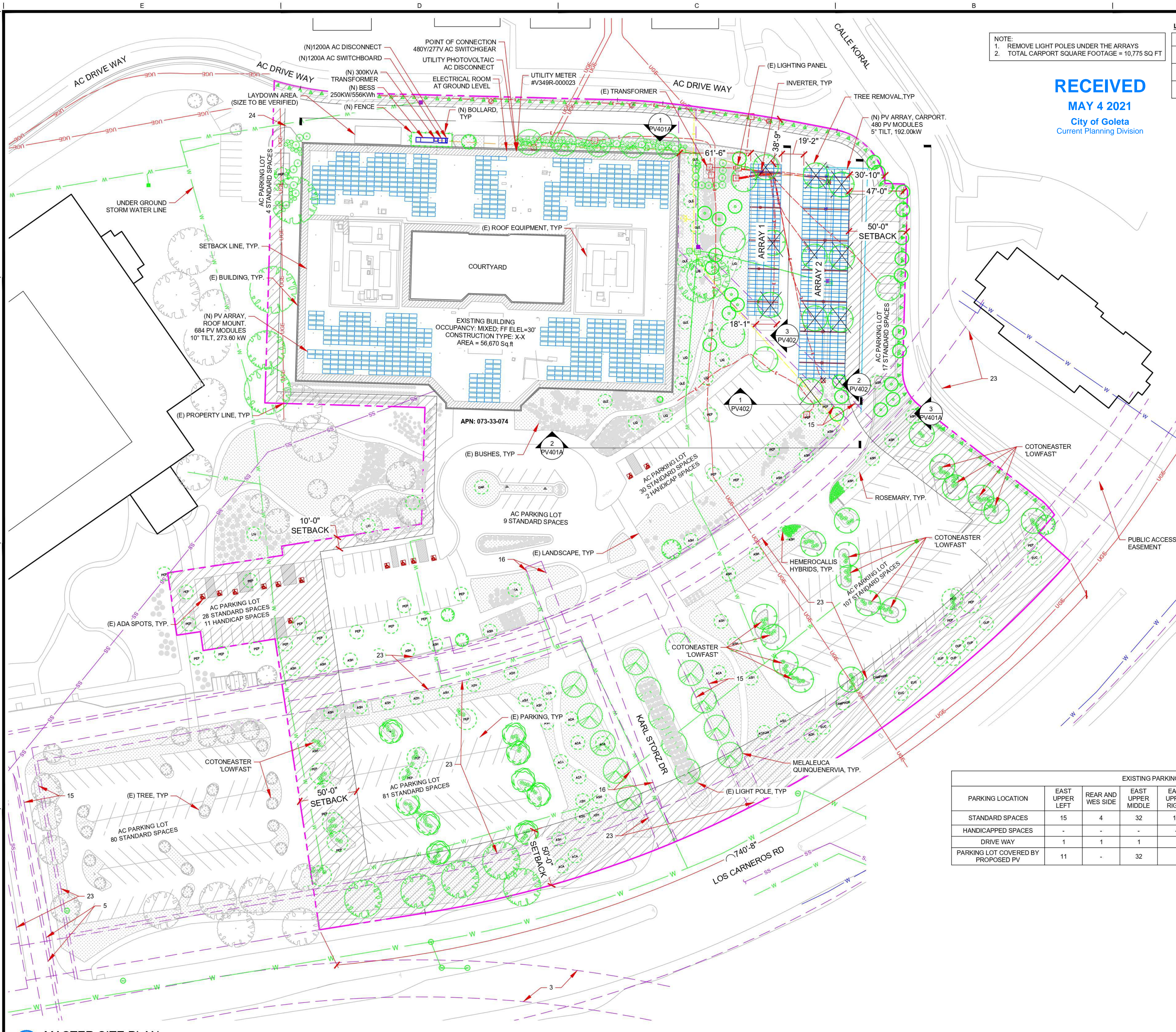
CANOPY STRUCTURAL ENGINEER (SEOR)
park 'n SHADE
PARK 'N SHADE INC.
8359 W TANGERINE RD, MARANA, AZ 85658
PH: (520) 730-9948
CONTACT: TRAVIS BAILEY
EMAIL: TRAVIS@PARKNSHADE.COM

UNDERGROUND UTILITIES

COLOR	CODE
WHITE	PROPOSED EXCAVATION
PINK	TEMP SURVEY MARKINGS
RED	ELECTRIC
YELLOW	GAS-OIL-STEAM
ORANGE	COMMUNICATION CATV
BLUE	WATER
PURPLE	RECLAIMED WATER
GREEN	SEWER



EXISTING UNDERGROUND FACILITIES ARE SHOWN ON THESE PLANS FROM RECORD INFORMATION AND ARE FOR INFORMATION ONLY. OTHER UNDERGROUND FACILITIES NOT SHOWN ON THE PLANS MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY A ONE-CALL SERVICE CENTER, TOLL FREE AT 811, NO LESS THAN TWO DAYS PRIOR TO ANY EXCAVATION.



NOTE:
 1. REMOVE LIGHT POLES UNDER THE ARRAYS
 2. TOTAL CARPORT SQUARE FOOTAGE = 10,775 SQ FT

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LEGEND:

SYMBOL	DESCRIPTION
	(E) QUERCUS AGRIFOLIA TREE REMOVAL - TOTAL : 10
	(E) CERCIS OCCIDENTALIS TREE REMOVAL - TOTAL : 1
	(E) LIGHT POLE REMOVAL - TOTAL : 2

TITLE EXCEPTIONS:

3. GRANTED TO: SANTA BARBARA RESEARCH PARK, INC
PURPOSE: PUBLIC ROAD AND UTILITIES
12. GRANTED TO: COUNTY OF SANTA BARBARA
PURPOSE: PUBLIC ROAD
15. GRANTED TO: SOUTHERN CALIFORNIA GAS COMPANY
PURPOSE: GAS PIPES, MAINS AND METER
16. GRANTED TO: GOLETA WATER DISTRICT
PURPOSE: WATER MAINS
23. PURPOSE: PRIVATE ROAD
PURPOSE: PRIVATE PARKING LOT
5. GRANTED TO: SANTA BARBARA COUNTY FLOOD AND WATER CONSERVATION DISTRICT
PURPOSE: FLOOD CONTROL
23. GRANT OF TEMPORARY EASEMENTS

APPROXIMATE PARKING LOT AREA = 76,992 SQ FT

	AREA (SQFT)	% OF EXISTING PARKING LOT
ARRAY 1	3500	4.55%
ARRAY 2	7275	9.45%
TOTAL PV	10775	14%
PV AND BESS EQUIPMENT	125	0.16%
TOTAL PROJECT	10900	14.16%

PARCEL AREA = 362,952.92 SQ FT	
EXISTING BUILDING SIZE = 68,922.58 SQ FT	
PARKING LOT COVERAGE AREA = 79,660.52 SQ FT	
PROPOSED PV AND BESS COVERAGE = 11,181.07 SQ FT	
% OF PARCEL AREA COVERED BY EXISTING BUILDING	18.98%
% OF PARCEL AREA COVERED BY PROPOSED PV, BESS AND BLDG	22.04%
% OF PARCEL AREA COVERED BY PROPOSED PV CANOPIES AND BATTERY	3.08%
PARCEL AREA = 362,952.92 SQ FT	
LANDSCAPED AREA = 127,076.36 SQ FT	
% OF PARCEL AREA LANDSCAPED	35.01%

LEGENDS FOR (E) UNDERGROUND LINE

	W	FIRE WATER LINE
	E	ELECTRICAL LINE
	G	GAS LINE
	S	STORM LINE

EXISTING PARKING SUMMARY

PARKING LOCATION	EAST UPPER LEFT	REAR AND WES SIDE	EAST UPPER MIDDLE	EAST UPPER RIGHT	EAST LOWER LEFT	EAST LOWER RIGHT	MIDDLE	WEST UPPER SIDE	WEST LOWER RIGHT	TOTAL
STANDARD SPACES	15	4	32	17	30	107	9	28	83	325
HANDICAPPED SPACES	-	-	-	-	2	-	-	11	-	13
DRIVE WAY	1	1	1	-	1	3	3	1	3	14
PARKING LOT COVERED BY PROPOSED PV	11	-	32	-	-	-	-	-	-	43



CONTRACTOR
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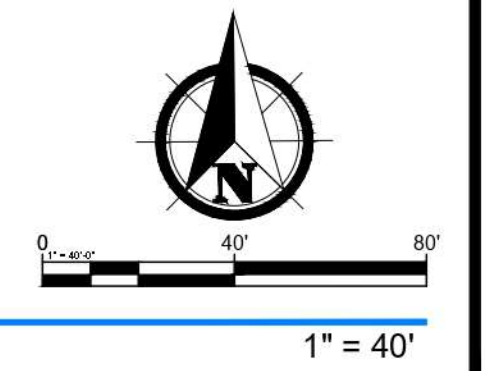
SHEET TITLE

MASTER SITE PLAN

SHEET NUMBER

G301

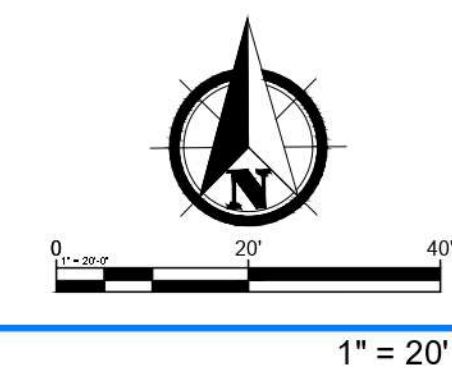
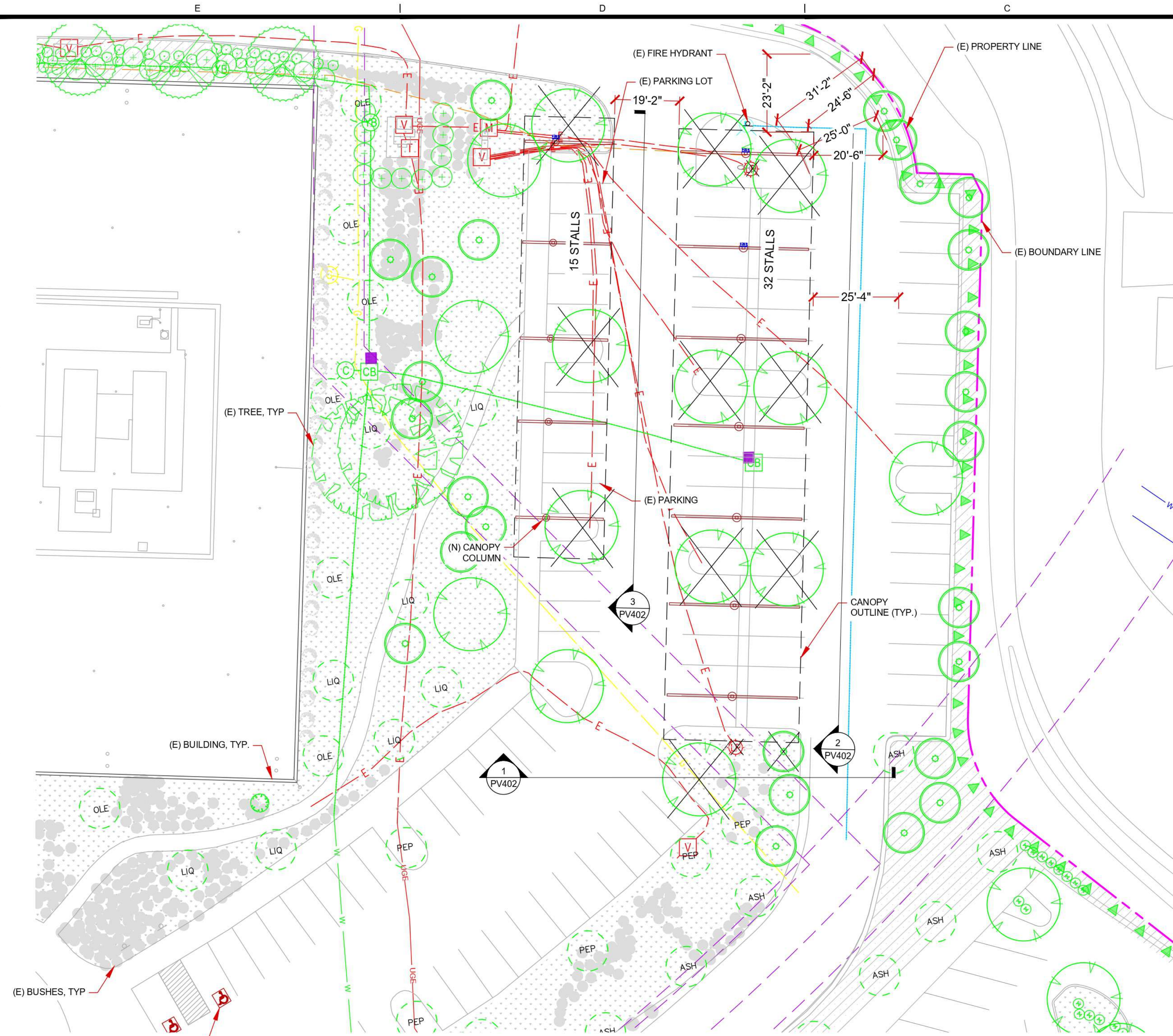
1 MASTER SITE PLAN



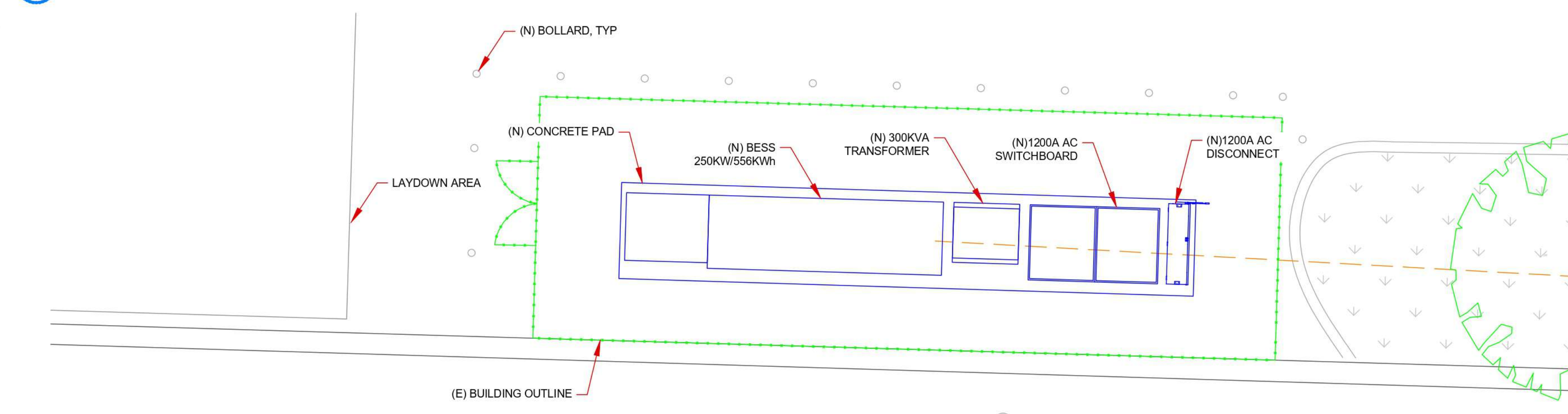
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LEGENDS FOR (E) UNDERGROUND LINE	
	FIRE WATER LINE
	ELECTRICAL LINE
	GAS LINE
	STORM LINE

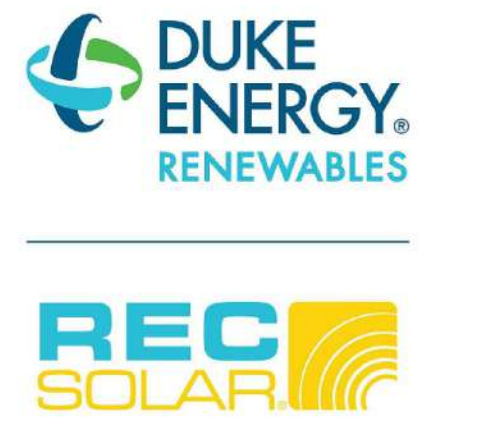
NOTE:
 NO PORTION OF FIRE DEPARTMENT ACCESS WAYS
 SHALL HAVE LESS THAN 13'-6" OF VERTICAL CLEARANCE.



1 ENLARGED SITE PLAN - PV CANOPIES



2 ENLARGED SITE PLAN - BESS, ACD, XFMR AND SWBD



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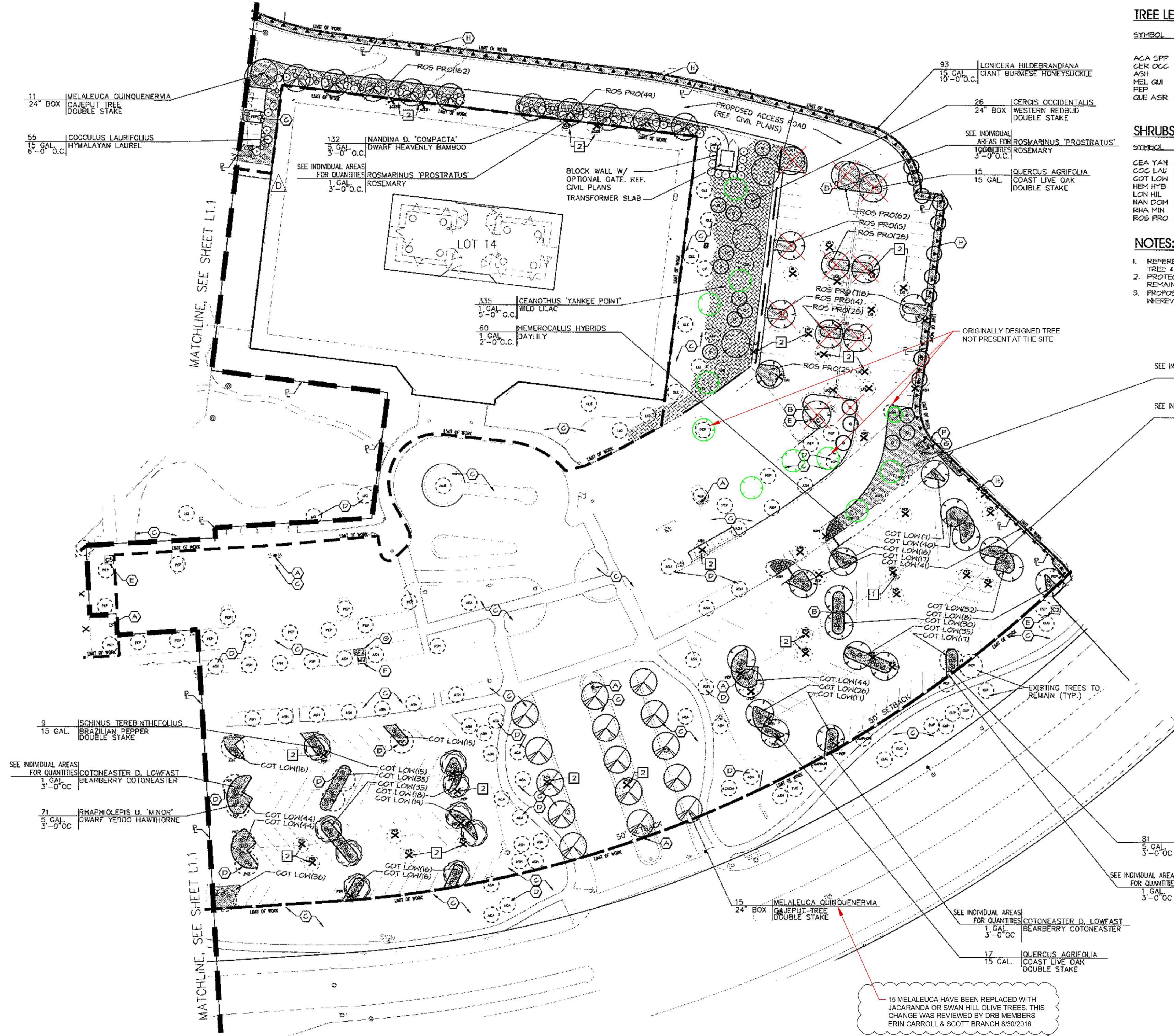
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DATE: 03/02/2021
 PROJECT NUMBER: 57355000
 PROJECT MANAGER: EMILIO ARRIETA
 PROJECT ENGINEER: ZORAN IVANCEVIC

PLANNING PERMIT SUBMITTAL
 SHEET TITLE: ENLARGED SITE PLAN
 SHEET NUMBER: **G302**



TREE LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY TO BE REMOVED	QUANTITY TO BE PLANTED	SIZE
ACA SPP	ACACIA SPP.	ACACIA TREE	2	0	
GER OCC	CERCIS OCCIDENTALIS	WESTERN REDBUD	0	26	24"
ASH	FRAXINUS UHDEI	ASH TREE	5	0	
MEL QUI	MELALEUCA QUINQUENERVIA	CAJUPUT TREE	0	26	24"
PEP	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPPER	24	4	15 G.
QUE ASR	QUERCUS AGRIFOLIA	COAST LIVE OAK	0	32	15 G.
			TOTAL:	36	43

SHRUBS, VINES, AND GROUNDCOVERS

SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER	QUANTITY
CEA YAN	CEANOTHUS 'YANKEE POINTE'	WILD LILAC	1 GAL 5'-0" OC	335
COC LAU	COCCULUS LAURIFOLIUS	HYMALAYAN LAUREL	15 GAL 10'-0" OC	55
COT LOW	COTONEASTER 'LOWFAST'	COTONEASTER	1 GAL 3'-0" OC	639
HEM HYB	HEMEROCALLIS HYBRIDS	DAY LILY	1 GAL 2'-0" OC	60
LON HIL	LONGICERA HILDEBRANDIANA	DWARF HONEYSUCKLE	15 GAL 10'-0" OC	43
NAN DCM	NANDINA D. 'COMPACTA'	DWARF HEAVENLY BAMBOO	3 GAL 3'-0" OC	132
RHA MIN	RHAPHIOLEPIS U. 'MINOR'	DWARF HAWTHORNE	5 GAL 3'-0" OC	152
ROS PRO	ROSMARINUS 'PROSTRATUS'	DWARF ROSEMARY	1 GAL 3'-0" OC	1042

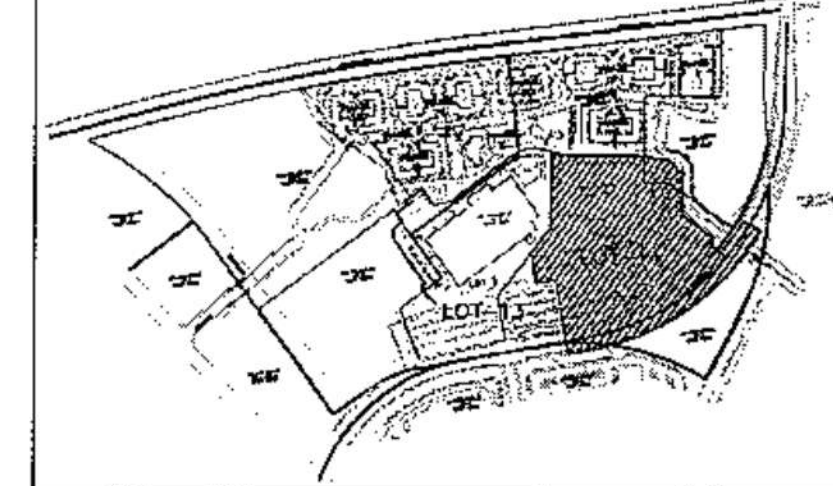
NOTES:

- REFERENCE CIVIL ENGINEER'S PLANS FOR SITE DEMOLITION WORK. COORDINATE TREE & SHRUB REMOVAL SHOWN ON THIS PAGE WITH SITE DEMOLITION.
- PROTECT AND IRRIGATE EXISTING TREES, SHRUBS, AND GROUNDCOVER SHOWN TO REMAIN DURING CONSTRUCTION. REFERENCE SPECIFICATIONS.
- PROPOSED LANDSCAPING TO MATCH EXISTING (TYP.) BOX AND REPLANT IMPACTED TREES WHEREVER POSSIBLE.

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DEMOLITION KEY:

- 1 (E) LIGHT POLE TO BE REMOVED OR RELOCATED. REFERENCE CIVIL DRAWINGS.
 - 2 REMOVE (E) TREE COMPLETE. STUMP GRIND.
- LAYOUT KEY:**
- (E) LIGHT TO REMAIN (TYP.)
 - (N) LIGHT POLE AND FIXTURE LOCATION. REFERENCE CIVIL DRAWINGS.
 - (C) (E) SHRUBS/ GROUNDCOVER TO REMAIN. PROTECT AND WATER DURING CONSTRUCTION.
 - (D) (E) TREE TO REMAIN. PROTECT AND WATER DURING CONSTRUCTION.
 - (E) IRRIGATION CONTROLLER. CONNECT (N) IRRIGATION VALVES TO EXISTING UNUSED STATIONS. REF. IRRIGATION SCHEDULE FOR AVAILABLE STATIONS.
 - (F) (E) IRRIGATION WATER METER. REFERENCE IRR. SCHEDULE FOR SIZE AND AVAILABLE PRESSURE.
 - (G) (E) IRRIGATION BACKFLOW. REF. IRRIGATION SCHEDULE FOR SIZE.
 - (N) PERIMETER WALL W/ GREEN SCREEN LOCATED ON ADJACENT PROPERTY AND VISIBLE FROM BUSINESS PARK. REFERENCE VILLAGE LOS CARNEROS RESIDENTIAL PLAN SET AND CIVIL DRAWINGS FOR PERIMETER WALL & GREEN SCREEN



LEGEND:

SYMBOL	DESCRIPTION
(X)	EXISTING TREES TO BE REMOVE/RELOCATED
(O)	NEW TREE LOCATIONS

NOTE: PER DESIGN REVIEW BOARD APPROVAL OF APRIL 27, 2021, THE LOCATION OF THE 11 REPLACEMENT TREES SHALL BE DETERMINED IN THE FIELD.



1" = 40'

PROPOSED CHANGES TO CITY ENTITLED LANDSCAPE PLANS



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SHEET TITLE
PROPOSED CHANGES TO CITY ENTITLED LANDSCAPE PLANS

SHEET NUMBER
G303

EXISTING PARKING SPACE AND TREE SUMMARY	
	TOTAL
STANDARD SPACES	325
ADA PARKING SPACES	13
TOTAL PARKING SPACES	338
PARKING SPACES COVERED BY PROPOSED PV	43
CURRENT SITE TOTAL NUMBER OF TREES	164
CURRENT PARKING LOT TREE COUNTS *	97
CITY ORDINANCE REQUIRED NUMBER OF PARKING LOT AND DRIVEWAY TREES **	85
EXISTING TREES TO BE REMOVED	11
MISSING TREES PROPOSED TO NOT BE REPLACED	3
NEW TREES TO BE PLANTED	11
PROPOSED TOTAL NUMBER OF PARKING LOT AND DRIVEWAY TREES	94

PARCEL AREA = 362,952.92 SQ FT	
EXISTING BUILDING SIZE = 68,922.58 SQ FT	
PARKING LOT COVERAGE AREA = 79,660.52 SQ FT	
PROPOSED PV AND BESS COVERAGE = 11,181.07 SQ FT	
% OF PARCEL AREA COVERED BY EXISTING BUILDING	18.98%
% OF PARCEL AREA COVERED BY PROPOSED PV, BESS AND BLDG	22.04%
% OF PARCEL AREA COVERED BY PROPOSED PV CANOPIES AND BATTERY	3.08%

PARCEL AREA = 362,952.92 SQ FT	
LANDSCAPED AREA = 127,076.36 SQ FT	
% OF LOT AREA LANDSCAPED	35.01%

NOTE:
11 TREES CONFLICT WITH PV CANOPIES WILL BE REPLACED ON SITE. SEE G303 FOR LOCATIONS.

TOTAL AREA OF LANDSCAPING TO BE REHABILITATED = 1760.06 SQ. FT.

NOTES:
THE SITE AS PROPOSED HAS 9 MORE TREES IN PARKING LOT THEN REQUIRED BY 17.38.110. IN ADDITION, AS PROPOSED, THERE ARE 67 OTHER TREES ON THE PROPERTY OUTSIDE THE PARKING 7' SETBACK AREA.

* PARKING LOT TREES* ARE THOSE THAT ARE [WITHIN 7 FEET OF A PARKING SPACE OR DRIVEWAY AREA].

** NUMBER OF PARKING STALLS DIVIDED BY FOUR.

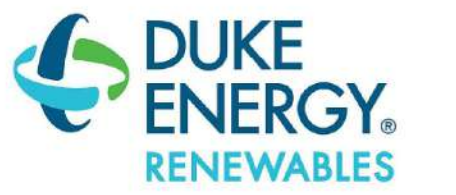
LEGEND:	
QUERCUS 'AGRIFOLIA' TREE	
FRAXINUS UHDEI TREE	
SCHINUS TEREBINTHEFOLIUS TREE	
ACACIA SPP. TREE	
MELALEUCA QUINQUENERVIA TREE	
OAK TREE	
CERCIS OCCIDENTALIS TREE	

TREES TO BE REMOVED / REPLACED :		
	HEIGHT	QUANTITY
QUERCUS 'AGRIFOLIA' TREE (2-5" DBH APX.)	9 FT. TO 15 FT. APX.	10
CERCIS OCCIDENTALIS TREE (2" DBH APX.)	10 FT. APX.	1
SCHINUS TEREBINTHEFOLIUS *	-	1
FRAXINUS UHDEI *	-	2

* NOTE : AS SHOWN ON G303, THESE TREES ARE NOT PRESENTLY FOUND ON SITE AND WILL NOT BE REPLACED.

TREES TO BE PLANTED :		
	QUANTITY	CONTAINER SIZE
QUERCUS 'AGRIFOLIA' TREE	10	15 GALLON
CERCIS OCCIDENTALIS TREE	1	15 GALLON

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APN: 073-33-074

REV	DATE	DESCRIPTION
D	05/04/2021	AHJ COMMENTS-REV 1
C	04/08/2021	AHJ COMMENTS
B	03/08/2021	LANDSCAPE UPDATE
A	03/02/2021	PLANNING REVIEW

DATE	03/02/2021
PROJECT NUMBER	57355000
PROJECT MANAGER	EMILIO ARRIETA
PROJECT ENGINEER	ZORAN IVANCEVIC

PLANNING PERMIT SUBMITTAL

SHEET TITLE

LANDSCAPE PLAN STATISTICS

SHEET NUMBER

G304

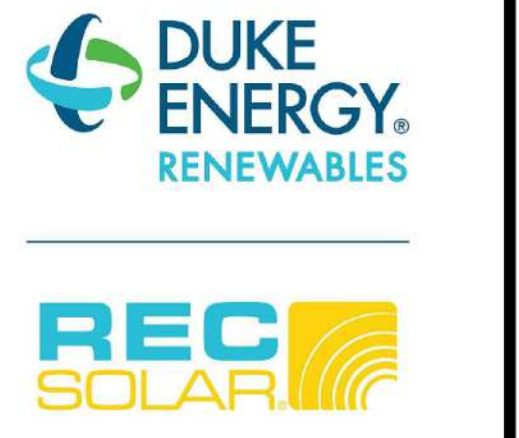
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LEGENDS FOR (E) UNDERGROUND LINE

	FIRE WATER LINE
	ELECTRICAL LINE
	GAS LINE
	STORM LINE

GROUND DISTURBANCE TABLE

CANOPY FOOTINGS AND BORING PITS AREA	62 SQ. FT
PV EQUIPMENT AREA	495.79 SQ. FT
TOTAL GROUND DISTURBANCE AREA	557.79 SQ. FT.
LAYDOWN AREA ON TOP OF PAVEMENT	600 SQ. FT
FLOOD HAZARD AREA	NIL



CONTRACTOR
 CA - B C10 #990001
REC SOLAR
 3450 BROAD ST, SUITE 105
 SAN LUIS OBISPO, CA 93401
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 FX (805) 548-8661
 (844) REC SOLAR

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OWNER
KARL STORZ IMAGING GOLETA
 1 S. LOS CARNEROS RD
 GOLETA, CA 93117

PROJECT LOCATION
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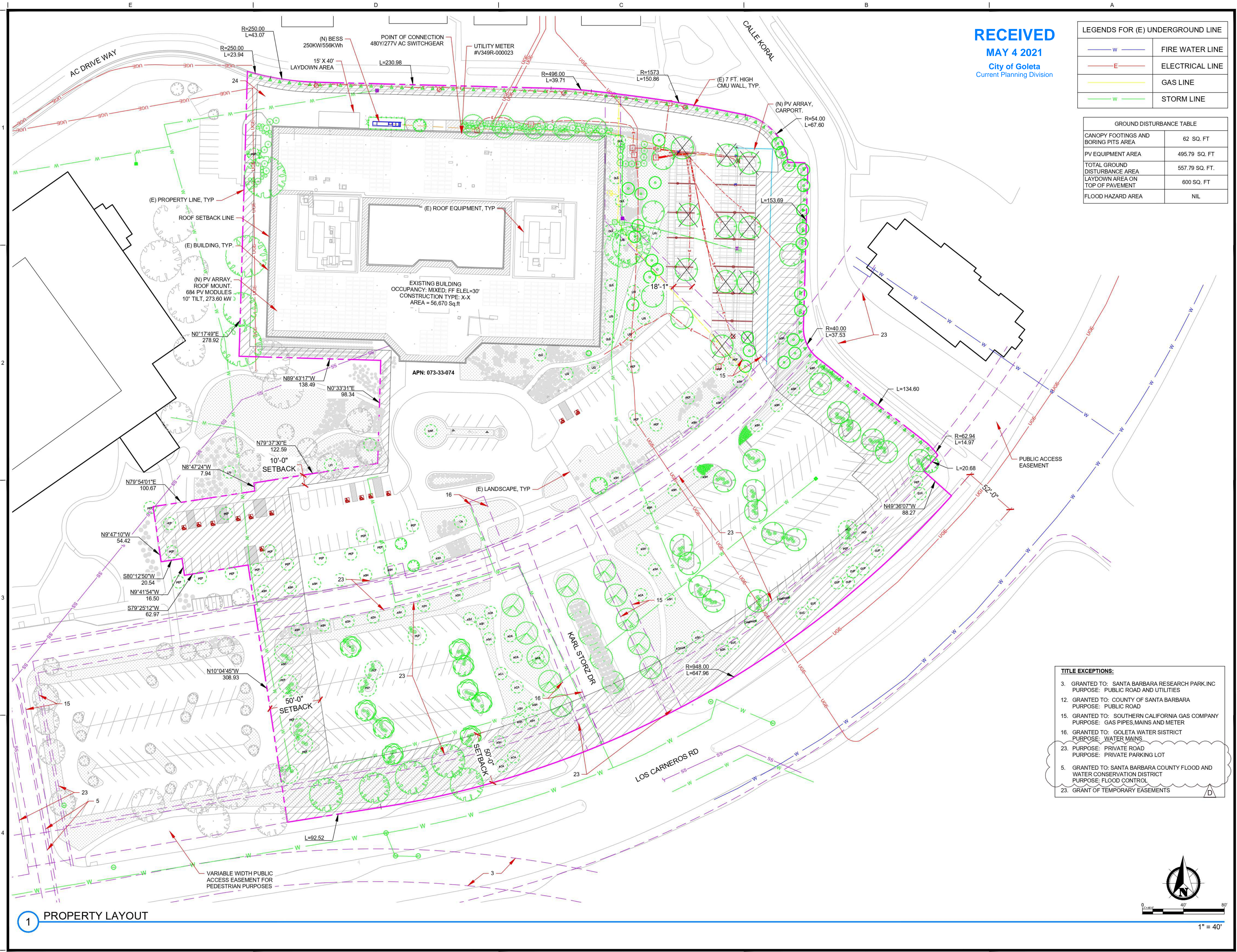
TITLE EXCEPTIONS:

3. GRANTED TO: SANTA BARBARA RESEARCH PARK, INC
 PURPOSE: PUBLIC ROAD AND UTILITIES
12. GRANTED TO: COUNTY OF SANTA BARBARA
 PURPOSE: PUBLIC ROAD
15. GRANTED TO: SOUTHERN CALIFORNIA GAS COMPANY
 PURPOSE: GAS PIPES, MAINS AND METER
16. GRANTED TO: GOLETA WATER DISTRICT
 PURPOSE: WATER MAINS
23. PURPOSE: PRIVATE ROAD
 PURPOSE: PRIVATE PARKING LOT
5. GRANTED TO: SANTA BARBARA COUNTY FLOOD AND WATER CONSERVATION DISTRICT
 PURPOSE: FLOOD CONTROL
23. GRANT OF TEMPORARY EASEMENTS

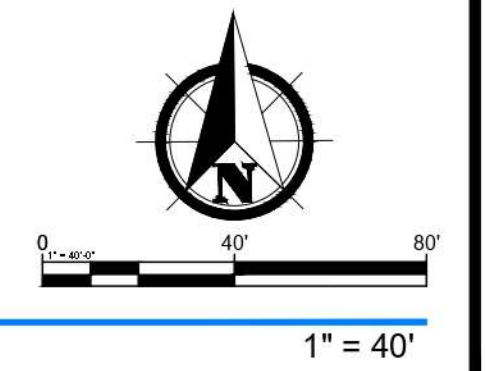
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SHEET TITLE
 PROPERTY LAYOUT

SHEET NUMBER
G305



1 PROPERTY LAYOUT



LUMINAIRE SCHEDULE											
SYMBOL	QUANTITY	MANUFACTURER / MODEL	ARRANGMENT	LLF	DESCRIPTION	VOLTAGE	COLOR TEMP.	MOUNTING HEIGHT	ARR.WATTS	ARR.LUMENS	BUG RATING
○	14	RAB LED / IVGT5-30L730ZU	SINGLE	0.610	RAB LED - CANOPY	277V	3000K	12'-0", 11'-3" 14'-1"	28	3,724	LM-80
□	2	GARDCO PURE FORM / P2I-MRI-AI-2-5W-130 LA-NW-UNV-BRP	SINGLE	-	-	277V	-	-	210	-	-

TOTAL # OF LIGHTS REMOVED	TOTAL # OF LIGHT POLES REMOVED	TOTAL WATTAGE OF LIGHTS REMOVED	TOTAL # OF LIGHTS ADDED	TOTAL WATTAGE OF LIGHTS ADDED
3	2	390	14	392.00

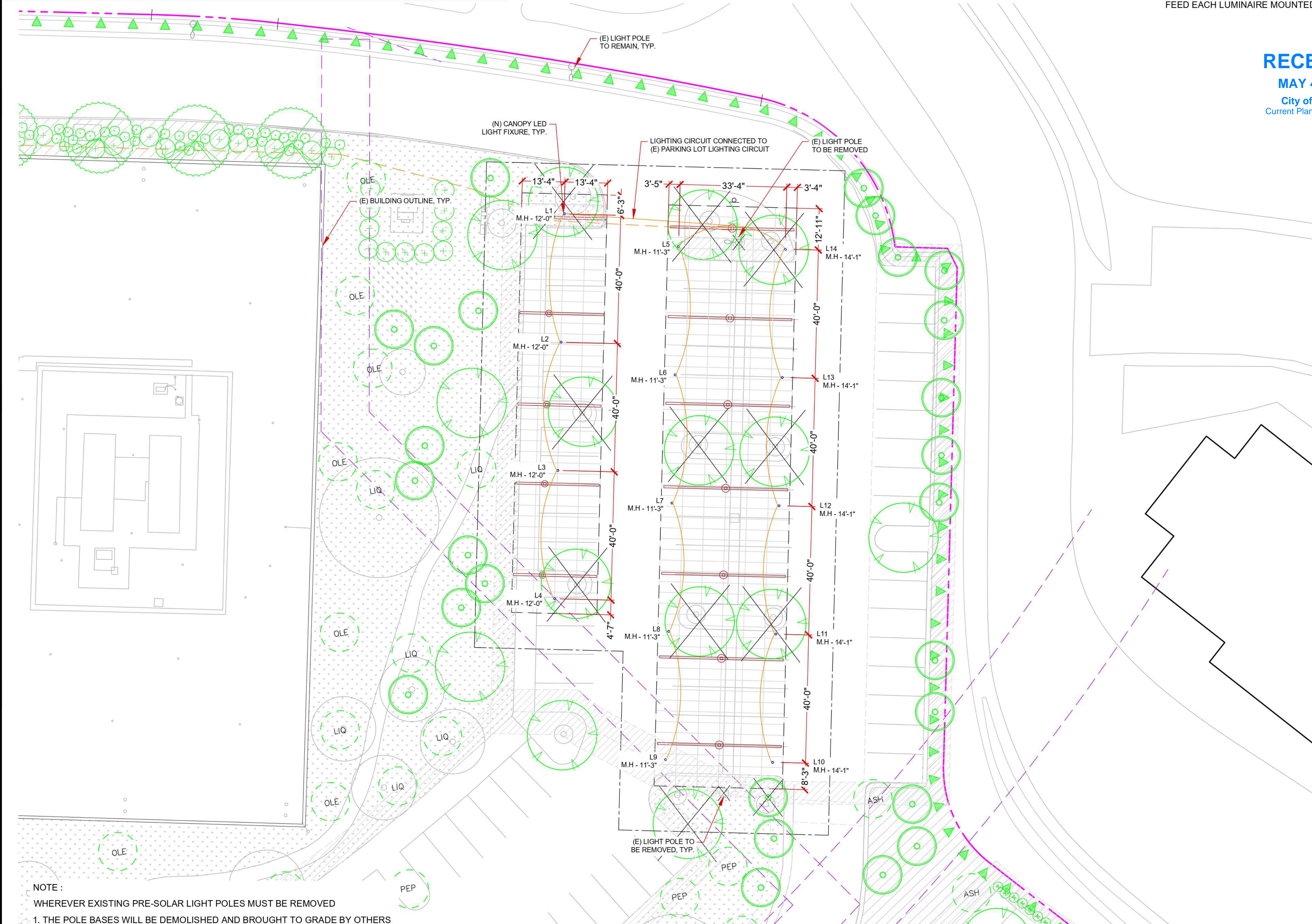
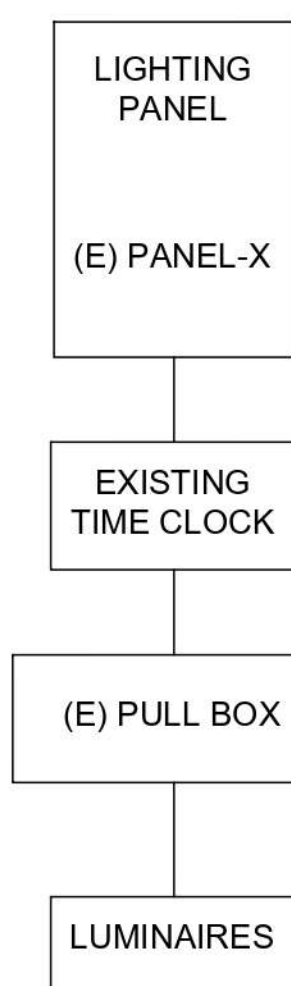
PHOTOMETRIC CALCULATION SUMMARY (BELOW CANOPY AREA)				
LABEL	AVG	MAX	MIN	MAX/MIN
CANOPY LIGHTING	1.2	1.8	0.4	4.5 : 1

* VALUES ARE IN FOOT-CANDLES

CANOPY LIGHTING WIRE SCHEDULE				
CIRCUIT #	LAMPS PER CIRCUIT	CONDUIT	CONDUCTOR	GROUND
01	14	(1) 3/4" PVC	(2) 10 AWG THHN-2 Cu	(1) 10 AWG Cu

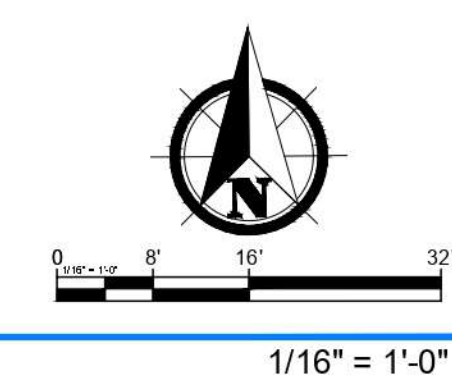
NOTE :
PROVIDE NEW 3/4" PVC SCHD 80 CONDUIT CONTAINING 2#10 CU-THWN2 & 1#10 EGC CU-THWN2 TO FEED EACH LUMINAIRE MOUNTED TO THE CANOPIES

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NOTE :
WHEREVER EXISTING PRE-SOLAR LIGHT POLES MUST BE REMOVED
1. THE POLE BASES WILL BE DEMOLISHED AND BROUGHT TO GRADE BY OTHERS
2. EXISTING WIRING WILL BE MAINTAINED IN APPROPRIATE ENCLOSURE

1 CANOPY LIGHTING PLAN



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PROJECT ENGINEER	ZORAN IVANCEVIC

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SHEET TITLE
CANOPY LIGHTING PLAN

SHEET NUMBER
PV205

LUMINAIRE SCHEDULE											
SYMBOL	QUANTITY	MANUFACTURER / MODEL	ARRANGMENT	LLF	DESCRIPTION	VOLTAGE	COLOR TEMP.	MOUNTING HEIGHT	ARR.WATTS	ARR.LUMENS	BUG RATING
○	14	RAB LED/ IVGT5-30L730ZU	SINGLE	0.610	RAB LED - CANOPY	277V	3000K	12'-0", 11'-3" 14'-1"	28	3,724	LM-80
□	2	GARDCO PURE FORM / P2I-MRI-AI-2-5W-130 LA-NW-UNV-BRP	SINGLE	-	-	277V	-	-	210	-	-

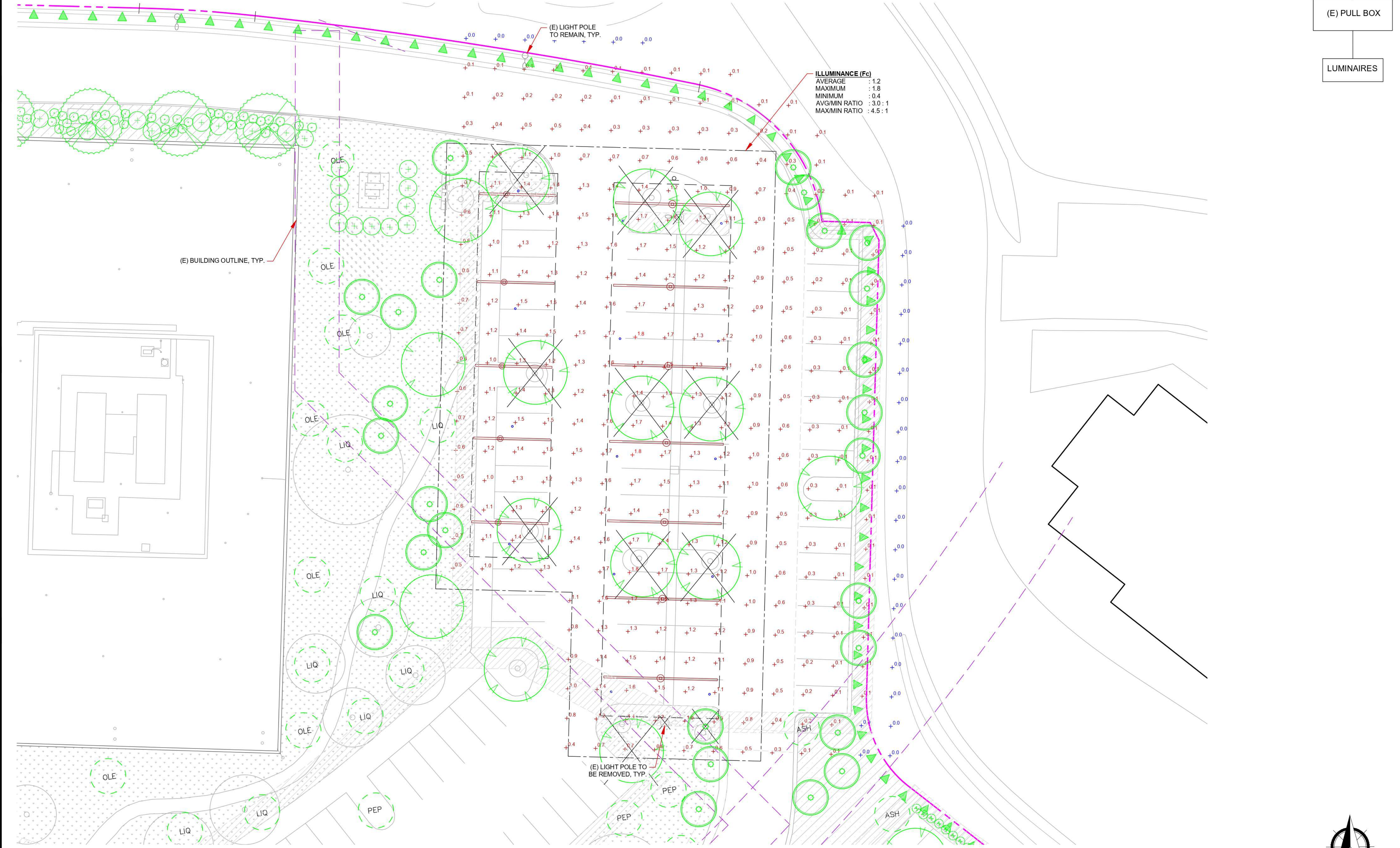
TOTAL # OF LIGHTS REMOVED	TOTAL # OF LIGHT POLES REMOVED	TOTAL WATTAGE OF LIGHTS REMOVED	TOTAL # OF LIGHTS ADDED	TOTAL WATTAGE OF LIGHTS ADDED
3	2	390	14	392.00

PHOTOMETRIC CALCULATION SUMMARY (BELOW CANOPY AREA)				
LABEL	AVG	MAX	MIN	MAX/MIN
CANOPY LIGHTING	1.2	1.8	0.4	4.5 : 1

* VALUES ARE IN FOOT-CANDLES

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- LIGHTING PANEL
- (E) PANEL-X
- EXISTING TIME CLOCK
- (E) PULL BOX
- LUMINAIRES



ILLUMINANCE (Fc)
 AVERAGE : 1.2
 MAXIMUM : 1.8
 MINIMUM : 0.4
 AVG:MIN RATIO : 3.0 : 1
 MAX:MIN RATIO : 4.5 : 1

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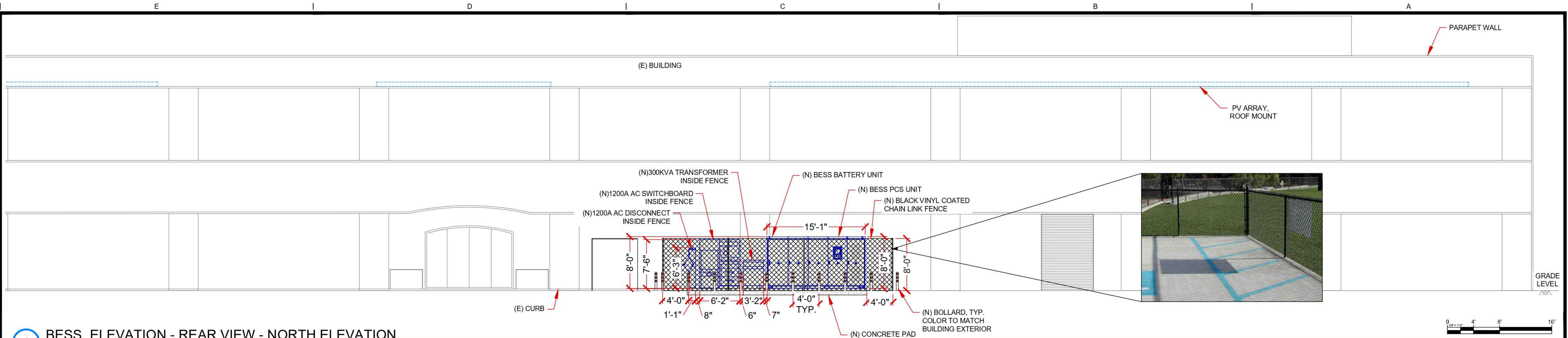
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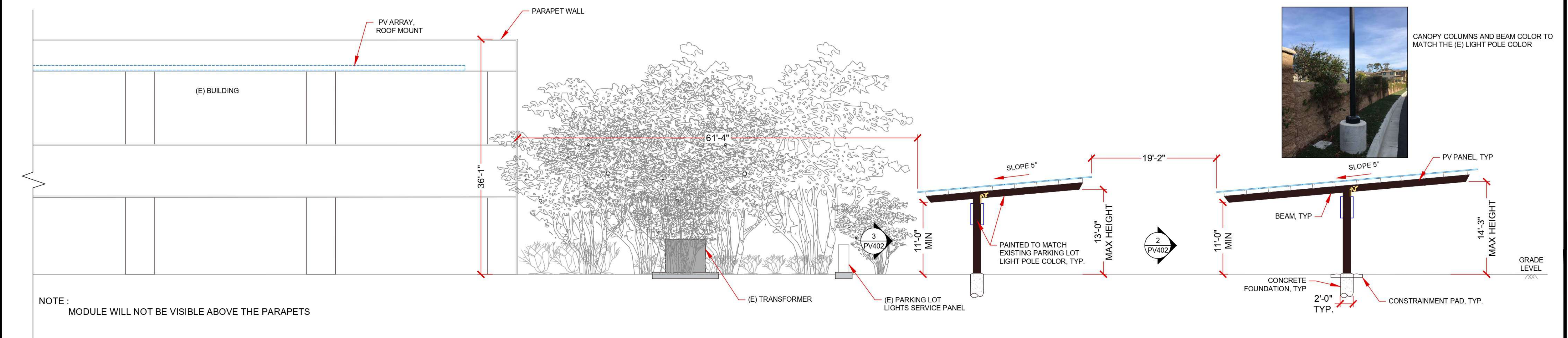
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SHEET TITLE: CANOPY LIGHTING CALCULATION

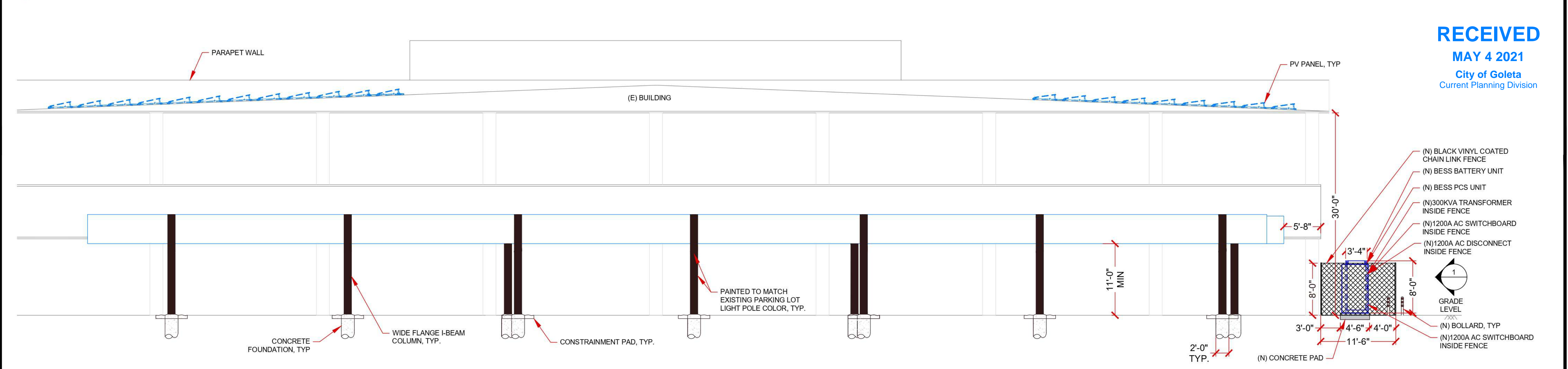
SHEET NUMBER: **PV206**



1 BESS ELEVATION - REAR VIEW - NORTH ELEVATION



2 BUILDING SOUTH ELEVATION VIEW - CARPORT SIDE ELEVATION VIEW - SOUTH ELEVATION



3 BUILDING EAST ELEVATION VIEW - CARPORT SIDE ELEVATION VIEW - EAST ELEVATION



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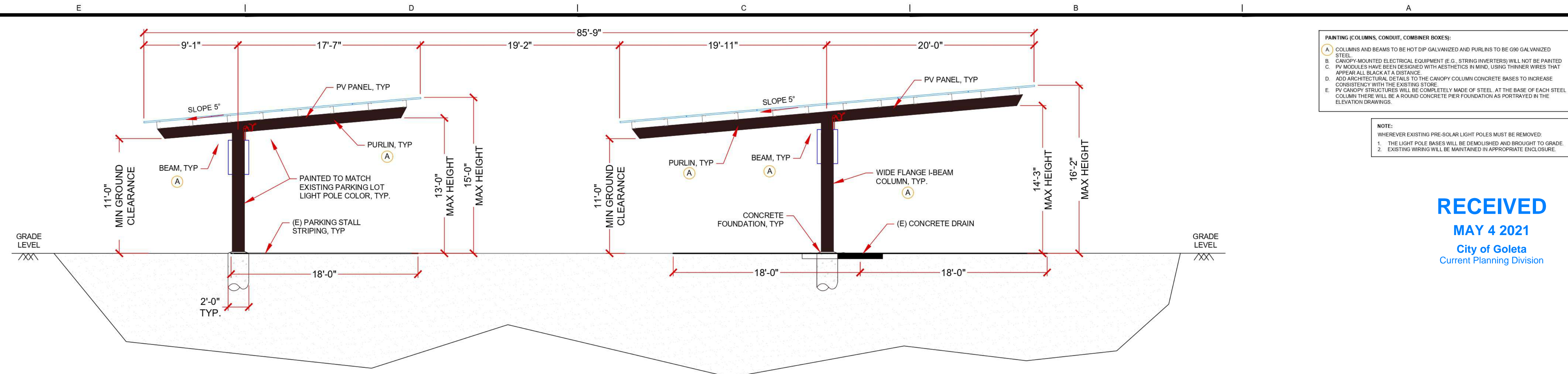
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BUILDING ELEVATIONS

SHEET NUMBER
PV401A



PAINTING (COLUMNS, CONDUIT, COMBINER BOXES):

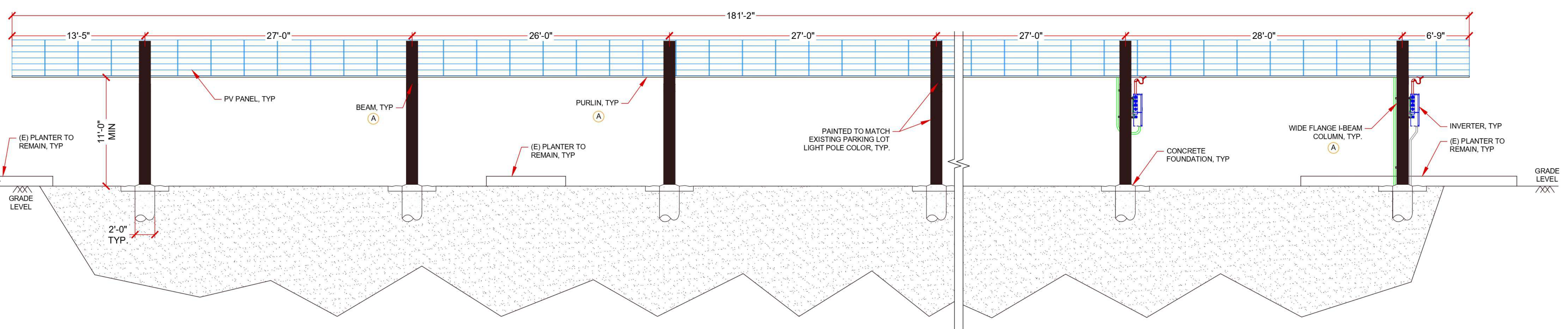
- A. COLUMNS AND BEAMS TO BE HOT DIP GALVANIZED AND PURLINS TO BE G90 GALVANIZED STEEL.
- B. CANOPY MOUNTED ELECTRICAL EQUIPMENT (E.G. STRING INVERTERS) WILL NOT BE PAINTED.
- C. PV MODULES HAVE BEEN DESIGNED WITH AESTHETICS IN MIND, USING THINNER WIRES THAT APPEAR ALL BLACK AT A DISTANCE.
- D. ADD ARCHITECTURAL DETAILS TO THE CANOPY COLUMN CONCRETE BASES TO INCREASE CONSISTENCY WITH THE EXISTING STORE.
- E. PV CANOPY STRUCTURES WILL BE COMPLETELY MADE OF STEEL. AT THE BASE OF EACH STEEL COLUMN THERE WILL BE A ROUND CONCRETE PIER FOUNDATION AS PORTRAYED IN THE ELEVATION DRAWINGS.

NOTE:

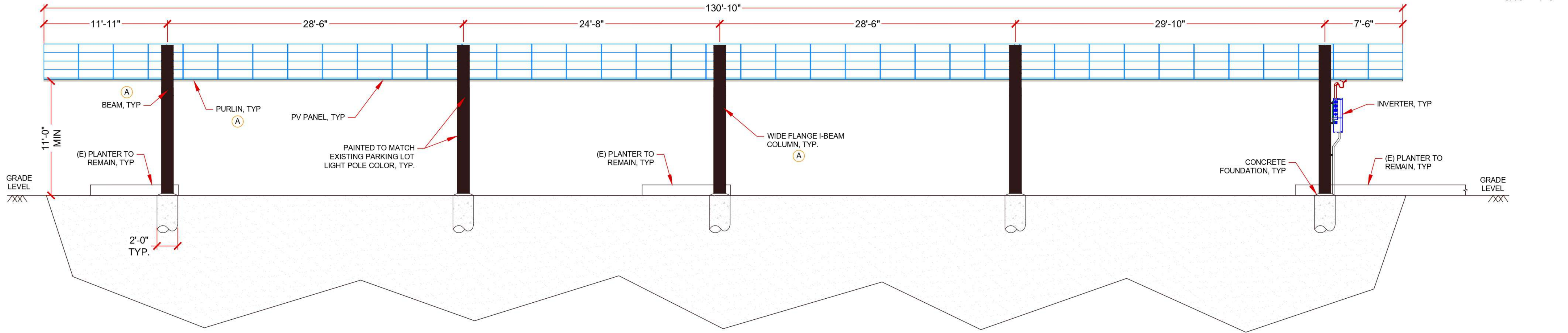
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1 CARPORT ELEVATION - SOUTH VIEW



2 ARRAY 2 CARPORT ELEVATION - WEST VIEW



3 ARRAY 1 CARPORT ELEVATION - EAST VIEW



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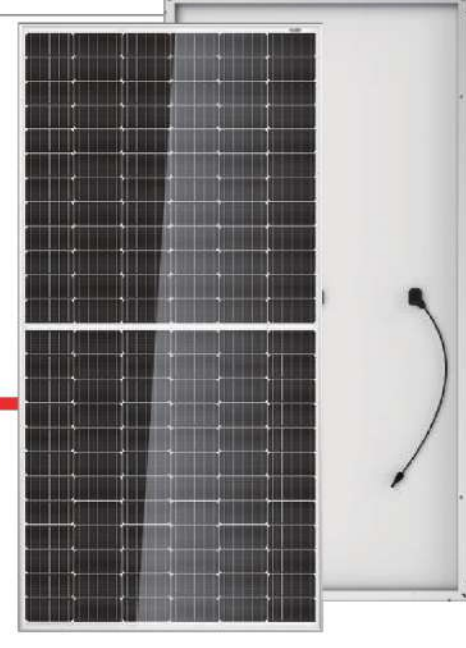
SHEET TITLE
 CARPORT ELEVATION

SHEET NUMBER
PV402

Mono Multi Solutions

THE TALLMAX^{plus}

FRAMED 144 HALF-CELL MODULE



144-Cell MONOCRYSTALLINE MODULE

385-400W POWER OUTPUT RANGE

19.7% MAXIMUM EFFICIENCY

0~+5W POSITIVE POWER TOLERANCE

PRODUCTS: TSM-DEISH(II) | COLOR OF FRAME: Silver | POWER RANGE: 385-400W

Increased value

- Reduce BOS cost with high power bin and 1500V system voltage
- Low thermal coefficients for greater energy production at higher temperature

Half-cell design brings higher efficiency

- New cell string layout and split J-box location to reduce the energy loss caused by inter-row shading
- Integrated LRF (Light Redirecting Film) to enhance power, specially for ground-mount applications
- Lower cell connection power losses due to half-cell layout (144 monocrystalline)

Highly reliable due to stringent quality control


- Over 3D in-house tests (UV, TC, HF etc)
- Increased module robustness to minimize micro-cracks
- PID resistant and free of snail trails
- Internal test requirement of Trina more stringent than certification authority

Certified to withstand the most challenging environmental conditions

- +2400 Pa negative load
- +5400 Pa positive load

Comprehensive Products And System Certificates

IEC61215/IEC61739/IEC61730/IEC61708/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO 45001: Greenhouse gas Emissions Verification
OHSAS 18001: Occupational Health and Safety Management System



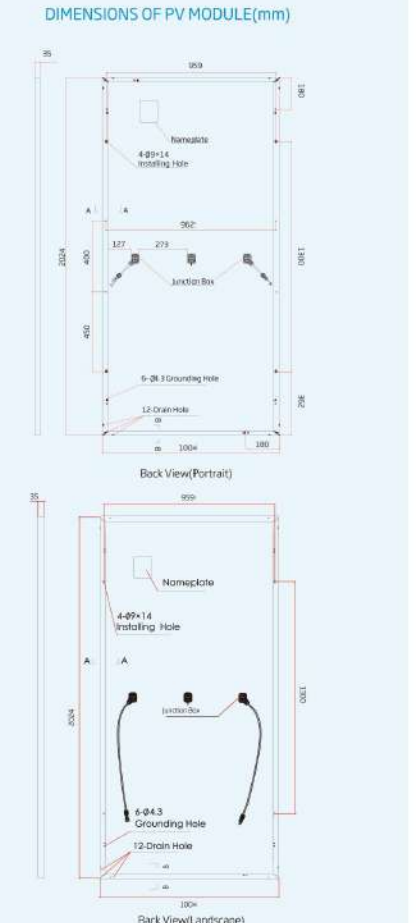
Trinasolar

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy. We believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. Trina is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

TALLMAX^{plus}

FRAMED 144 HALF-CELL MODULE

DIMENSIONS OF PV MODULE (mm)



ELECTRICAL DATA (STC)

	385	390	395	400
Peak Power Watts P _{max} (Wp) ¹	385	390	395	400
Power Output Tolerance -Pwr (W)	0 ~ +5			
Maximum Power Voltage V _{mp} (V)	40.1	40.5	40.8	41.1
Maximum Power Current I _{mp} (A)	9.61	9.64	9.69	9.74
Open Circuit Voltage V _{oc} (V)	48.5	49.7	50.1	50.4
Short Circuit Current I _{sc} (A)	10.03	10.06	10.13	10.18
Module Efficiency η (%)	18.9	19.2	19.4	19.7

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5
*Measurement tolerance: ±1%

ELECTRICAL DATA (NMOT)

	291	295	298	302
Maximum Power P _{max} (Wp)	291	295	298	302
Maximum Power Voltage V _{mp} (V)	37.9	38.4	38.7	38.9
Maximum Power Current I _{mp} (A)	7.66	7.68	7.71	7.76
Open Circuit Voltage V _{oc} (V)	45.6	46.8	47.2	47.4
Short Circuit Current I _{sc} (A)	8.09	8.13	8.17	8.21

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 3m/s

MECHANICAL DATA

Solar Cells	Monocrystalline 158.75 × 158.75 mm
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2024 × 1004 × 35 mm (79.69 × 39.53 × 1.38 inches)
Weight	22.8 kg (50.9 lbs)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Backsheet	White
Frame	35 mm (1.38 inches) Anodized Aluminum Alloy w/ 400 m Mounting Holes
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches) ² , Portrait: N 140 mm (P 285 mm) (5.51/11.22 inches) Landscape: N 1400 mm (P 1400 mm) (55.12/55.12 inches)
Connector	Trina TS4

TEMPERATURE RATINGS

	MAXIMUM RATINGS
NMOT (Nominal Module Operating Temperature)	41°C (105°F)
Temperature Coefficient of P _{max}	-0.37%/°C
Temperature Coefficient of V _{oc}	-0.29%/°C
Temperature Coefficient of I _{sc}	0.05%/°C
Operational Temperature	-40 ~ +85°C
Maximum System Voltage	1500V DC (IEC)
Maximum System Voltage	1500V DC (UL)
Max Series Fuse Rating	20A

(DC) NOT connected Fuse in Combiner Box with fuse or fuse string in parallel connection

WARRANTY

10 year Product Workmanship Warranty
25 year Linear Power Warranty
(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 30 pieces
Modules per 40' container: 660 pieces


Trinasolar

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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Stem, Inc. Datasheet, Sungrow ST556KWH-250UD 890-079, Rev 05.00

ST556KWH-250UD NEW SUNGROW | SAMSUNG SDI

Energy Storage System



HIGH INTEGRATION

- Highly integrated ESS with outdoors cabinet design provides high protection class
- Advanced integration technology ensures optimal system performance and lower cost

SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

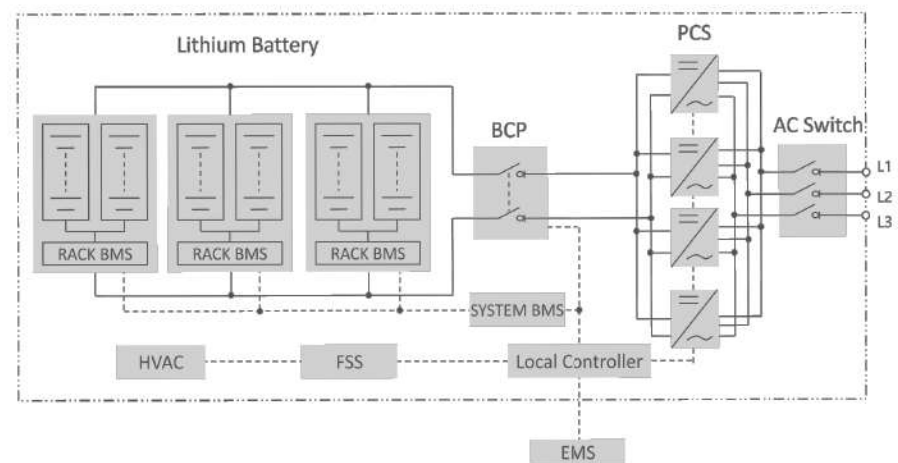
EFFICIENT AND FLEXIBLE

- Top-mounted HVAC and cell-level temperature control ensures longer battery life cycle
- Modular design supports parallel connection and easy system expansion

SMART AND FRIENDLY


- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables pre-alarm and faults location

CIRCUIT DIAGRAM



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IVGT5-30L750ZU RAB



Color: Bronze Weight: 14.0 lbs

Project: _____ Type: _____
Prepared By: _____ Date: _____

Driver Info

Type	Constant Current	Watts	28W
120V	0.21A	Color Temp	5000K (Cool)
208V	0.12A	Color Accuracy	76 CRI
240V	0.10A	L70 Lifespan	100,000 Hours
277V	0.09A	Lumens	3,724
Input Watts	28.5W	Efficacy	130.7 lm/W

LED Info

Technical Specifications

Compliance

UL Listed: Suitable for wet locations

Title 24 Compliant: An IVEPARK edge lit garage fixture with a WS2 control option can be used to comply with 2016 Title 24 Part 6 Section 130.2 (a,b,c)

IESNA LM-79 & IESNA LM-80 Testing: RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed: This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. DLC Product Code: PVLW4472

LED Characteristics

Long-life, high-efficiency, surface-mount LEDs

Color Stability: LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Maximum Ambient Temperature: Suitable for use in up to 40°C (104°F)

Mounting: Surface mount standard (accessories available for wall, pole and trunion mount)

Color Uniformity: RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017

Lifespan: Up to 100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IP Rating: Ingress Protection rating of IP66 for dust and water

Cold Weather Starting: The minimum starting temperature is -20°C (-4°F)

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City of Goleta
Current Planning Division

Need help? Tech help line: (888) 722-1000 Email: custserv@rablighting.com Website: www.rablighting.com
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Page 1 of 4

ST556KWH-250UD

System Type	ST556KWH-250UD
Battery Data	
Cell type	Samsung SDI Mega E3, 3.6V / 100 Ah
Configuration of system	2S256P
Battery capacity (BOL)	556 kWh
Battery voltage range	806 - 1046 V
BMS communication interfaces	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP
AC Data	
Nominal AC power	250 kVA
Max. AC power	264 kVA
Max. THD of current	< 3% (at nominal power)
DC component	< 0.5% (at nominal power)
Nominal grid voltage	480 V
Grid voltage range	432 - 528 V
Power factor	> 0.99 (at nominal power)
Adjustable power factor	1 leading ~ 1 lagging
Nominal grid frequency	60 Hz
Grid frequency range	55 - 65 Hz
Isolation method	Transformerless
Nominal output voltage of off-grid	480 V
Max. THD of off-grid output voltage	< 3% (linear load)
General Data	
Dimensions (W * H * D)	4,600 * 2,400 * 1,000 mm / 181.1" * 94.5" * 39.4"
Weight (with / without battery)	5,717 / 2,517 12,566 lbs / 5,511 lbs
Degree of protection	IP54 / NEMA 3R
Operating temperature range	-30 to 50 °C / -22 to 122 °F (-45 °C / 113 °F derating)
Relative humidity	0 ~ 95% (non-condensing)
Max. working altitude	3,000 m / 9,842 ft
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning
Cooling concept of PCS chamber	Temperature controlled forced air cooling
Fire suppression system of battery unit	FM200 extinguishment system
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP, IEC 104
Certificates	UL1964, UL9540A, UL1973, UL1741-SA, IEEE 1547

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IVGT5-30L750ZU RAB

Ordering Matrix

Family	Distribution	Lumen Output	CRI/Color Temp	Finish	Voltage/Driver	Sensor Options	Lightcloud	Emergency Option
IVG	T5	30L = 3,600 lumens (28W) 750 = 70CRI 50L = 5,500 lumens (45W) 750 = 70CRI 3000K	750 = 70CRI 5000K 740 = 70CRI 4000K 730 = 70CRI 3000K	Z = Bronze ¹ W = White	U = 120-277V 0-10V Dimming ² W = 4 = 480V 0-10V Dimming ²	Blank = No Options /WS = 8ft lens Wattstopper /LC = Light Cloud Controller /WS2 = 20ft lens Wattstopper	Blank = No Lightcloud ³ /LC = Light Cloud Controller ³	Blank = No Options /E2 = Emergency ³

¹ Available only for T5 and TSC distribution
² Applies to 120-277V
³ Consult Factory

Need help? Tech help line: (888) 722-1000 Email: custserv@rablighting.com Website: www.rablighting.com
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DUKE ENERGY RENEWABLES

REC SOLAR

CONTRACTOR
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ENGINEER

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RECEIVED
MAY 4 2021
City of Goleta
Current Planning Division

DATE: 05/04/2021

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

OWNER

KARL STORZ IMAGING GOLETA
1 S. LOS CARNEROS RD
GOLETA, CA 93117

PROJECT LOCATION

KARL STORZ IMAGING GOLETA
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GOLETA, CA 93117

APN: 073-33-074

REV	DATE	DESCRIPTION
D	05/04/2021	AHJ COMMENTS-REV 1
C	04/08/2021	AHJ COMMENTS
B	03/08/2021	LANDSCAPE UPDATE
A	03/02/2021	PLANNING REVIEW

DATE: 03/02/2021

PROJECT NUMBER: 57355000

PROJECT MANAGER: EMILIO ARRIETA

PROJECT ENGINEER: ZORAN IVANCEVIC

PLANNING PERMIT SUBMITTAL

SHEET TITLE: EQUIPMENT SPECIFICATIONS

SHEET NUMBER: PV601