

PROPOSED CARPORT & PV SOLAR ARRAY

OF
1560 COUNTY CLUB DRIVE

FOR

LOS ALTOS GOLF & COUNTRY

LOS ALTOS, CA



ARTIST RENDERED PV SOLAR



OVERALL SITE BOUNDARY

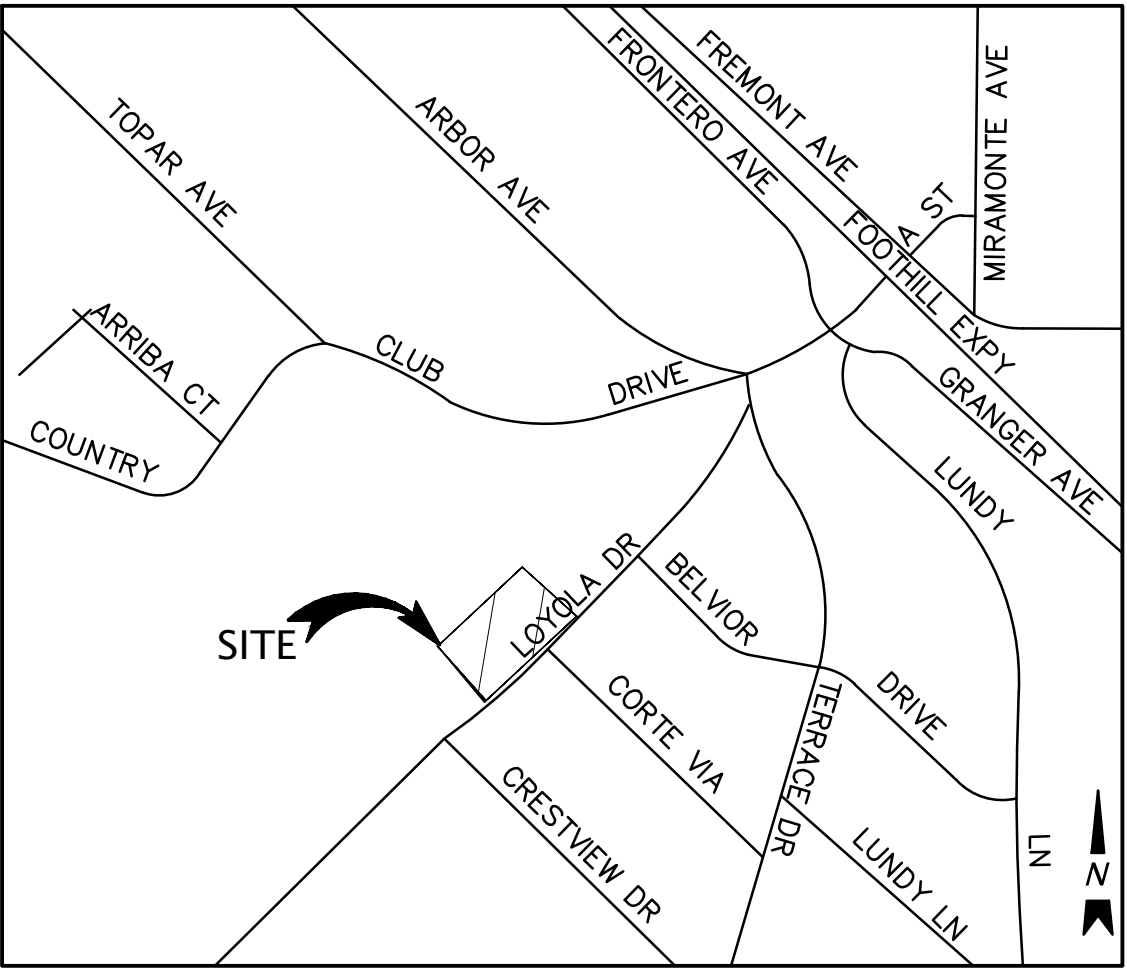
Project Description. A new carport structure for a new photovoltaic solar array installed over the existing parking lot accessed from Loyola Drive. Four (4) arrays of approximately 35' to 43' x ~107' (total ~17,500 square feet). No new habitable building area is proposed.

New Building Area: 0 sqft
New area of shade/array size: +/- 17,500 sqft

Total Site area: +/-75.144 acres
Area of Work (Existing Parking lot): 39,654 sqft
Impervious Area of existing parking lot: 39,012 sqft
Pervious Area of existing parking lot: 642 sqft
New Impervious area: 144 sqft
Total Landscaped Area affected: 310 sqft
WELO: less than 500 sqft, so WELO does not apply

	Earthwork Quantities				
	Cut (CY)	Fill (CY)	Net (CY)	Max Cut Ht.	Max Fill Ht.
Building Pads (new addition)	0	0	0	0	0
Driveway (any improvements to existing driveway)	0	0	0	0	0
Foundations	44.4	0	44.4	15' max	15' max
Trenches	74.9	74.9	0	30" max	30" max
Site Grading	0	0	0	0	0
Retaining Wall	0	0	0	0	0
Total	0	0	0	0	0

Total cut & fill is less than 200 CY.



VICINITY MAP

NOT TO SCALE



SHEET INDEX

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E-3.0.1	BLOCK DIAGRAM & EQUIPMENT SPECS

NO.	REVISIONS	BY

KIER+WRIGHT

3350 Scott Boulevard, Building 22
 Santa Clara, California 95054
 Phone: (408) 727-6665
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COVER SHEET

PROPOSED CARPORT & PV SOLAR
 OF
 1560 COUNTY CLUB DRIVE
 FOR
 LOS ALTOS GOLF & COUNTRY
 LOS ALTOS, CALIFORNIA

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:

ORIGINAL ISSUE
 DATE: XX.XX.XXXX

CURRENT SET ISSUE
 DATE: XX.XX.XXXX

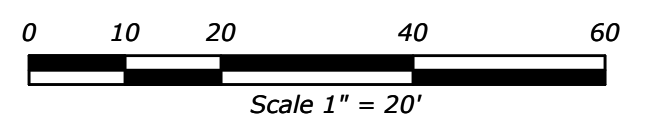
PERMIT SET / CONSTRUCTION ISSUE
 DATE: XX.XX.XXXX

DRAWING NUMBER:
C1.0
 OF 8 SHEETS



Know what's below.
 Call before you dig.

2:201010145-SDWGENTLEMENTSPANNING SET A10145-013 - C1.0 COVER & NOTES.dwg | D:\0 COVER SHEET | Plot: Thursday, July 26, 2024 11:58 AM | USER: TILLYER



NOTES

- THIS PLOT WAS PREPARED FROM INFORMATION FURNISHED IN A PRELIMINARY TITLE REPORT, PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, DATED NOVEMBER 9, 2010, NUMBER NCS-46577-SC. NO LIABILITY IS ASSUMED FOR MATTERS OF RECORD NOT STATED IN SAID PRELIMINARY TITLE REPORT THAT MAY AFFECT THE TITLE LINES, OR EXCEPTIONS, OR EASEMENTS OF THE PROPERTY.
- ALL DISTANCES AND ELEVATIONS SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.
- THIS IS NOT A UTILITY SURVEY. PHYSICAL ITEMS SHOWN ON THIS SURVEY ARE LIMITED TO THOSE ITEMS VISIBLE AS OF THE DATE OF THIS SURVEY. SUBSURFACE STRUCTURES, IF ANY, ARE NOT SHOWN. SAID SUBSURFACE OBJECTS MAY INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE FOOTINGS, SLABS, SHORING, STRUCTURAL PILES, UTILITY VAULTS, PIPING, UNDERGROUND TANKS, AND ANY OTHER SUBSURFACE STRUCTURES NOT REVEALED BY A SURFACE INSPECTION.
- THE SUBJECT PROPERTY IS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR SANTA CLARA COUNTY, CALIFORNIA, MAP NUMBER 06085C0202H FOR COMMUNITY NUMBER 060337 0202 H (SANTA CLARA COUNTY UNINCORPORATED AREAS), WITH AN EFFECTIVE DATE OF MAY 18, 2009, AS BEING LOCATED IN FLOOD ZONE "D". ACCORDING TO FEMA THE DEFINITION OF ZONE "D" IS:

AREAS IN WHICH FLOOD HAZARDS ARE UNDETERMINED, BUT POSSIBLE.

FEMA BASE FLOOD ELEVATIONS ARE BASED ON NAVD88 DATUM.

INFORMATION WAS OBTAINED FROM THE FEMA WEBSITE (WWW.FEMA.GOV) ON MAY 14, 2019.
- BENCHMARK:
DI RIM AT WEST SIDE OF LOYOLA DRIVE AT INTERSECTION OF ESBERG ROAD.
ELEV: 278.83 (DATUM IS ASSUMED)
- BASIS OF BEARINGS:
THE BEARING OF SOUTH 43°46'26" WEST TAKEN ON THE CENTER LINE OF LOYOLA DRIVE AS SHOWN ON THAT CERTAIN RECORD OF SURVEY, FILED FOR RECORD ON AUGUST 5, 2003, IN BOOK 763 OF MAPS AT PAGES 1-6, OFFICIAL RECORDS OF SANTA CLARA COUNTY WAS TAKEN AS THE BASIS FOR ALL BEARINGS SHOWN HEREON.
- CORNER RECORD NOTE:
THE DEVELOPER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND FILING OF PRE-CONSTRUCTION AND POST-CONSTRUCTION CORNER RECORDS FOR ANY MONUMENTS OR PROPERTY CORNERS SHOWN HEREON THAT MAY BE DESTROYED DURING IMPROVEMENTS TO THE SUBJECT PROPERTY AS DEFINED IN SECTION 8771(B) OF THE PROFESSIONAL LAND SURVEYORS ACT.

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	IB	IRRIGATION BOX
AD	AREA DRAIN	IE	INVERT ELEVATION
BS	BOTTOM OF STEP	IRR	IRRIGATION
BR	BOTTOM OF RAMP	L/S	LANDSCAPE
BTM	BOTTOM	O.R.	OFFICIAL RECORDS
C	CONCRETE	P	PAVEMENT
CLF	CHAIN LINK FENCE	PED	PEDESTAL
CONC	CONCRETE	PL	PLASTIC
DI	DROP INLET	(PP)	PER PLAN
EB	ELECTRIC BOX	RE	RIM ELEVATION
EP	EDGE OF PAVEMENT	SMMH	SANITARY SEWER MANHOLE
EW	EDGE OF WALK	TC	TOP OF CURB
FC	FACE OF CURB	TCD	THRU CURB DRAIN
FF	FINISH FLOOR	TP	TOP OF PIPE
FL	FLOW LINE	TS	TOP OF STEP
FNC	FENCE	TW	TOP OF WALL
GRN	GROUND	TYP	TYPICAL
		WM	WROUGHT IRON
		WM	WATER METER

LEGEND

	ASPHALT BERM
	BUILDING LINE
	BUILDING LINE UNDERGROUND
	CENTERLINE
	CONCRETE/BLOCK/RETAINING WALL
	CONCRETE CURB
	CONTOUR LINE
	EASEMENT LINE
	EDGE OF PAVEMENT
	ELECTRIC LINE
	FENCE LINE
	FIRE SERVICE & VALVE
	GAS LINE-VALVE & METER
	GRADE BREAK
	HANDRAIL
	LOT LINE
	MONUMENT/MONUMENT LINE
	OVERHEAD POWER LINE
	PROPERTY LINE
	SANITARY SEWER-MANHOLE & CLEANOUT
	SIDEWALK
	SPOT ELEVATION
	STORM DRAIN-MANHOLE & CATCH BASIN
	WATER LINE & VALVE
	BACKFLOW PREVENTION DEVICE
	ELECTROLIER
	ELECTROLIER
	GULLY ANCHOR
	GAS METER
	HANDICAP SYMBOL
	POST INDICATOR VALVE
	POWER POLE/JOINT POLE
	TRAFFIC SIGN
	TREE
	UTILITY BOX

NO.	REVISIONS	BY

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TOPOGRAPHIC SURVEY

PROPOSED CARPORT & PV SOLAR OF 1560 COUNTY CLUB DRIVE FOR LOS ALTOS GOLF & COUNTRY LOS ALTOS, CALIFORNIA

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:

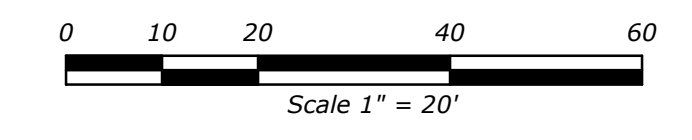
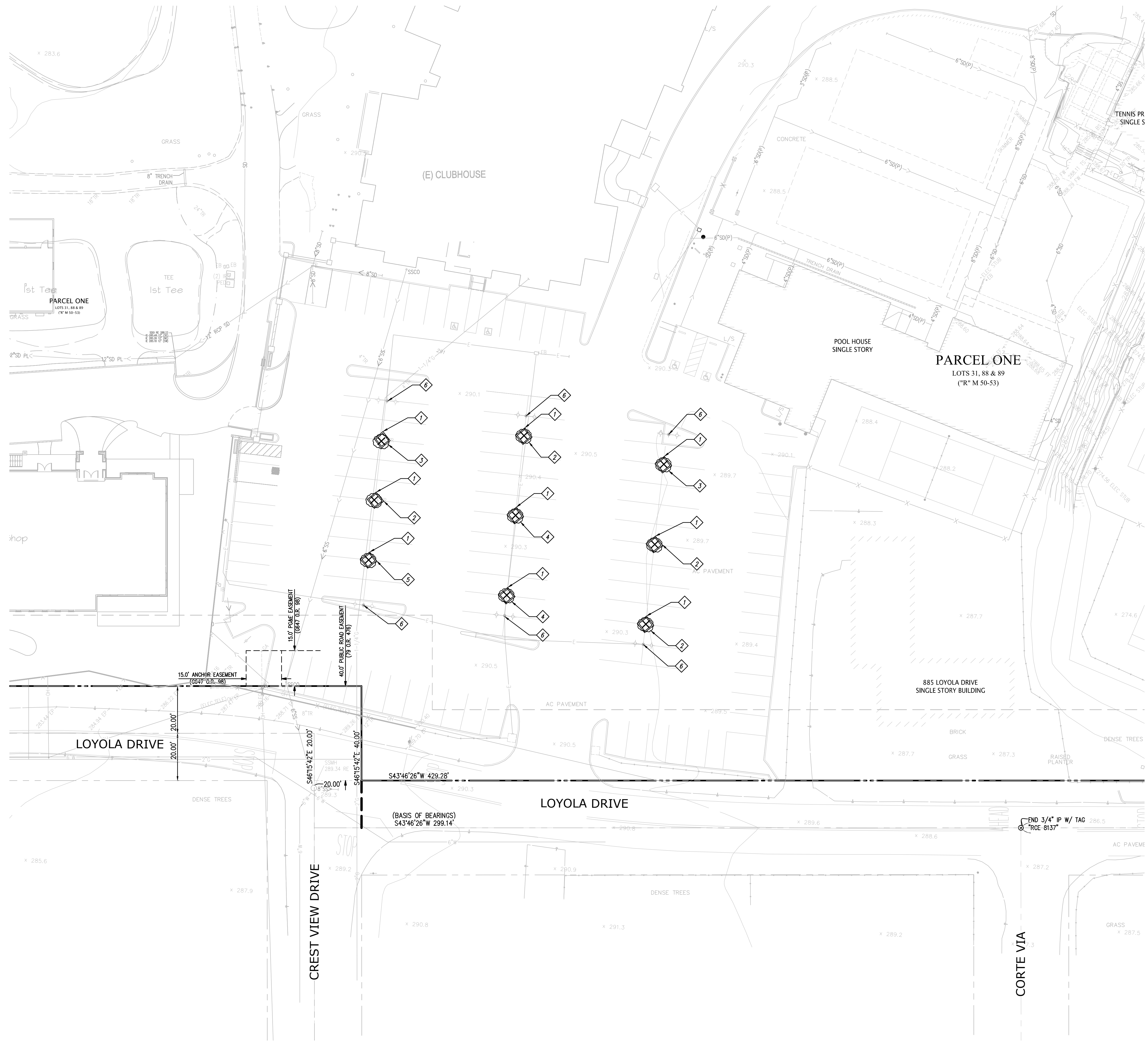
ORIGINAL ISSUE
DATE: XX.XX.XXXX

CURRENT SET ISSUE
DATE: XX.XX.XXXX

PERMIT SET / CONSTRUCTION ISSUE
DATE: XX.XX.XXXX

DRAWING NUMBER:
C2.1

OF 8 SHEETS



DEMOLITION KEYNOTES

- 1 REMOVE EXISTING CONCRETE CURB
- 2 REMOVE EXISTING UNPROTECTED 7" SYCAMORE TREE
- 3 REMOVE EXISTING UNPROTECTED 8" SYCAMORE TREE
- 4 REMOVE EXISTING UNPROTECTED 9" SYCAMORE TREE
- 5 REMOVE EXISTING UNPROTECTED 11" SYCAMORE TREE
- 6 REMOVE LIGHT POLE (TYP OF 6)
- 7 EXISTING TREE TO BE REMOVED

NO.	REVISIONS	BY

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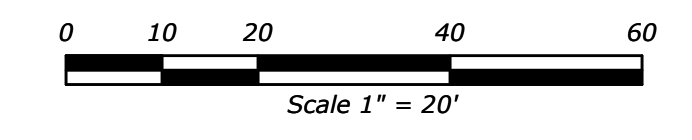
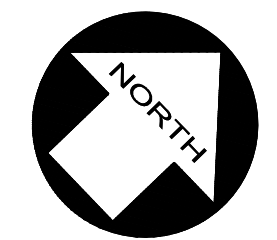
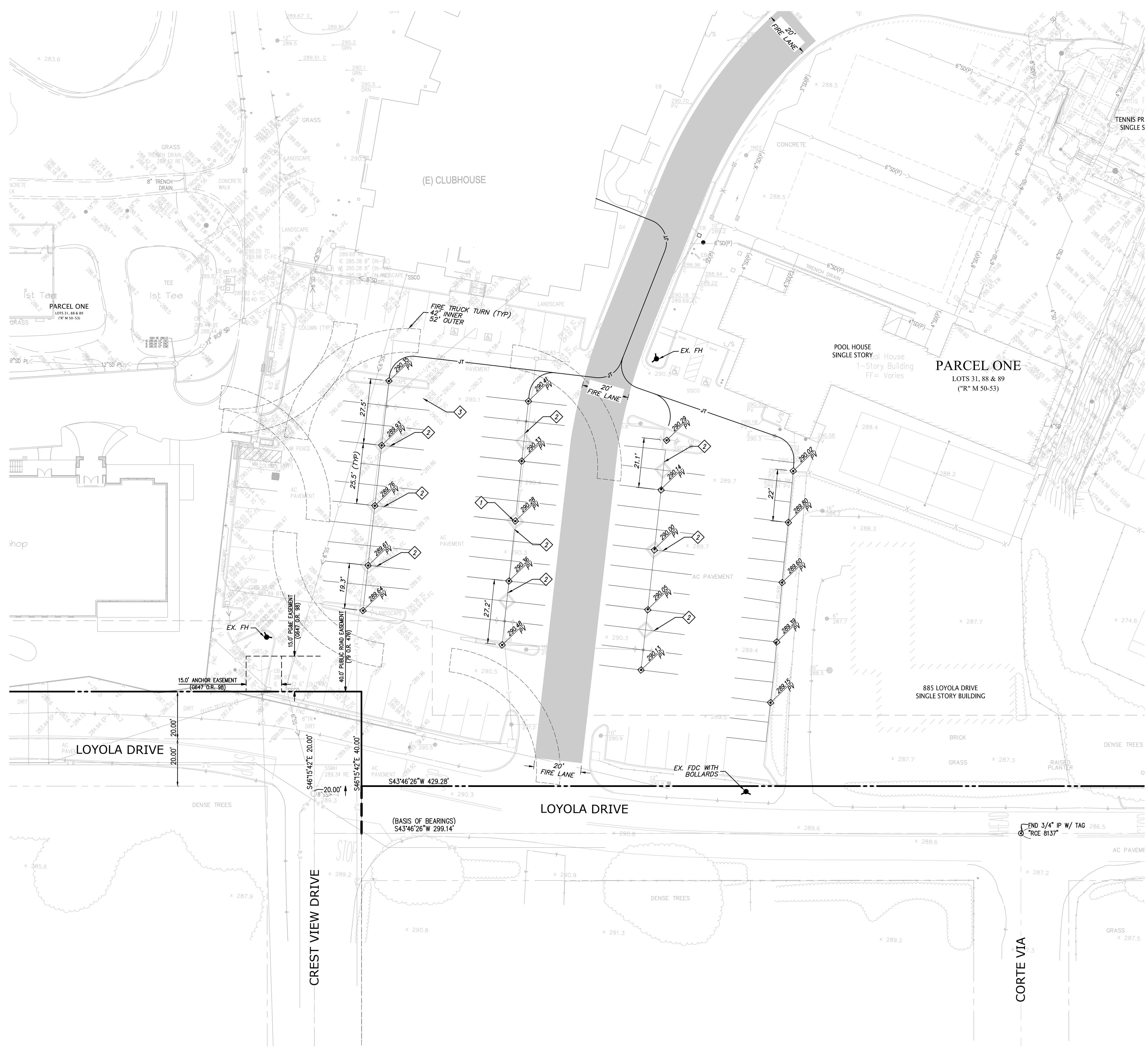
DEMOLITION PLAN

PROPOSED CARPORT & PV SOLAR
OF
1560 COUNTY CLUB DRIVE
FOR
LOS ALTOS GOLF & COUNTRY
LOS ALTOS, CALIFORNIA

ORIGINAL ISSUE DATE: XX.XX.XXXX
CURRENT SET ISSUE DATE: XX.XX.XXXX
PERMIT SET / CONSTRUCTION ISSUE DATE: XX.XX.XXXX

DRAWING NUMBER:
C2.2
OF 8 SHEETS

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:



KEYNOTES

- 1 NEW 24" SQ PEDESTAL OVER NEW 18" CONCRETE PIER WITH PATCH AND STRIPE AC (TYP)
- 2 PATCH AND STRIPE AC
- 3 17' x 8.5' MINIMUM PARKING STALL (TYP)
- 4 20' FIRE LANE

GRADING AND DRAINAGE LEGEND

PROPOSED	EXISTING	DESCRIPTION
		CONTOUR LINE
		PROPERTY LINE
		STORM DRAIN-MANHOLE & CATCH BASIN
		THRU CURB DRAIN
		SPOT ELEVATION
		SLOPE (PERCENTAGE)
		UTILITY BOX
		AREA DRAIN
		BACK OF WALK
		BUILDING
		CATCH BASIN
		CONCRETE
		DUCTILE IRON PIPE
		FACE OF CURB
		FINISHED FLOOR
		FLOW LINE
		GRADE BREAK
		HIGH POINT
		INVERT ELEVATION
		LOW POINT
		NON-EXPANSIVE FILL
		OVERFLOW
		PAVEMENT
		RIDGE
		RIM ELEVATION
		STORM DRAIN JUNCTION BOX
		STORM DRAIN MANHOLE
		TOP OF CURB

NO.	REVISIONS	BY

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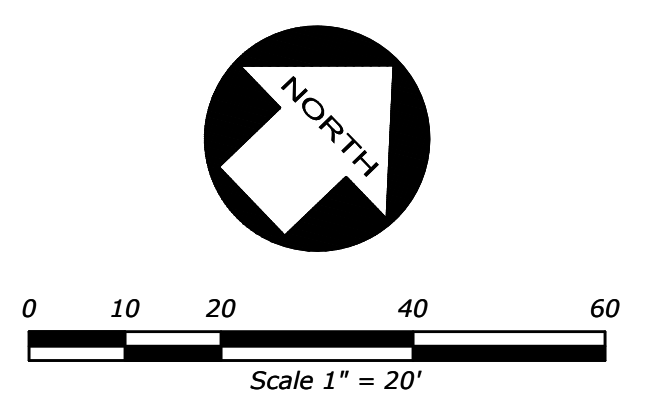
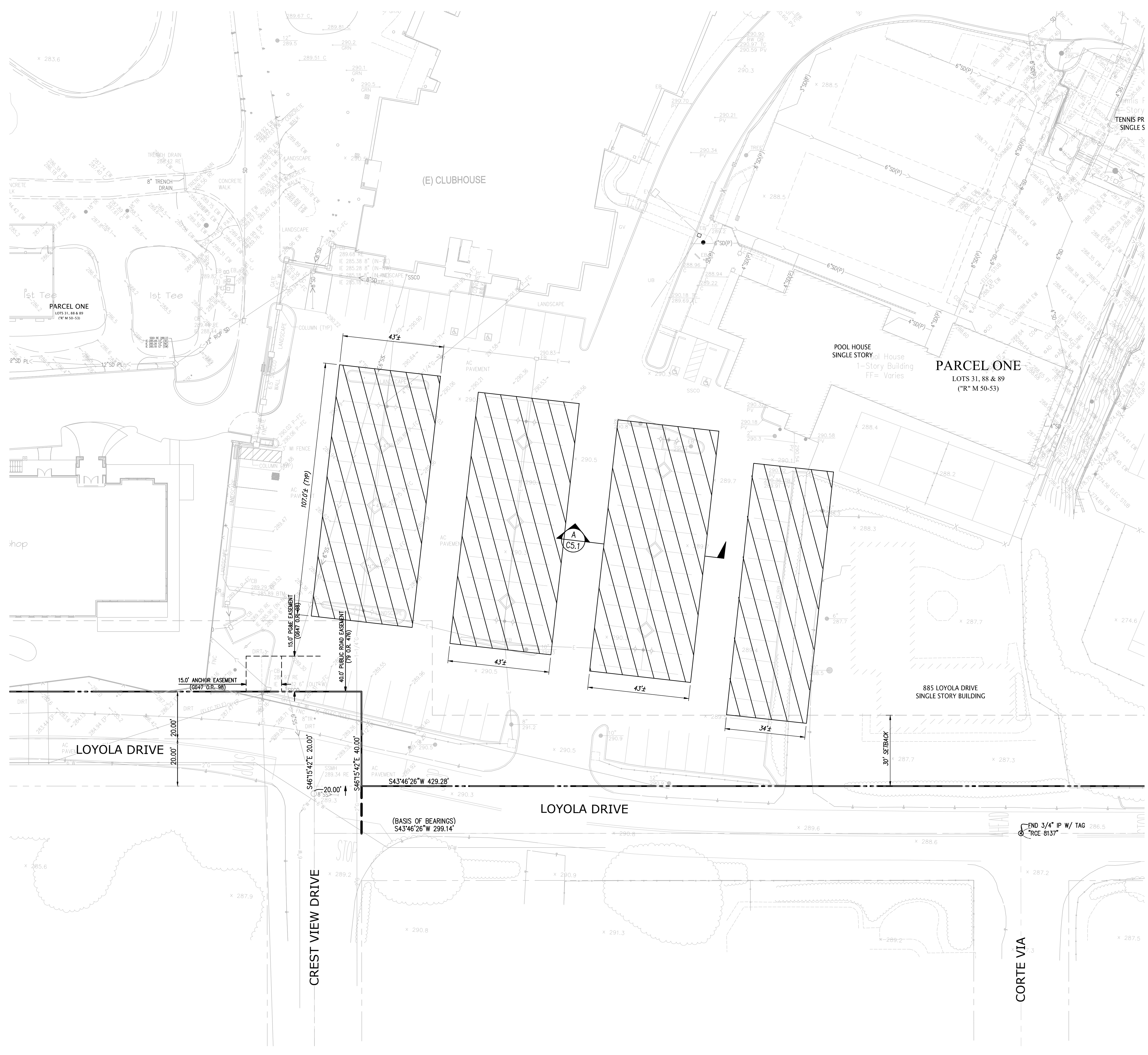


GRADING, DRAINAGE, UTILITY, & FIRE ACCESS PLAN

PROPOSED CARPORT & PV SOLAR OF 1560 COUNTY CLUB DRIVE FOR LOS ALTOS GOLF & COUNTRY LOS ALTOS, CALIFORNIA

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:

ORIGINAL ISSUE DATE: XX.XX.XXXX
CURRENT SET ISSUE DATE: XX.XX.XXXX
PERMIT SET / CONSTRUCTION ISSUE DATE: XX.XX.XXXX
DRAWING NUMBER: C3.1 OF 8 SHEETS



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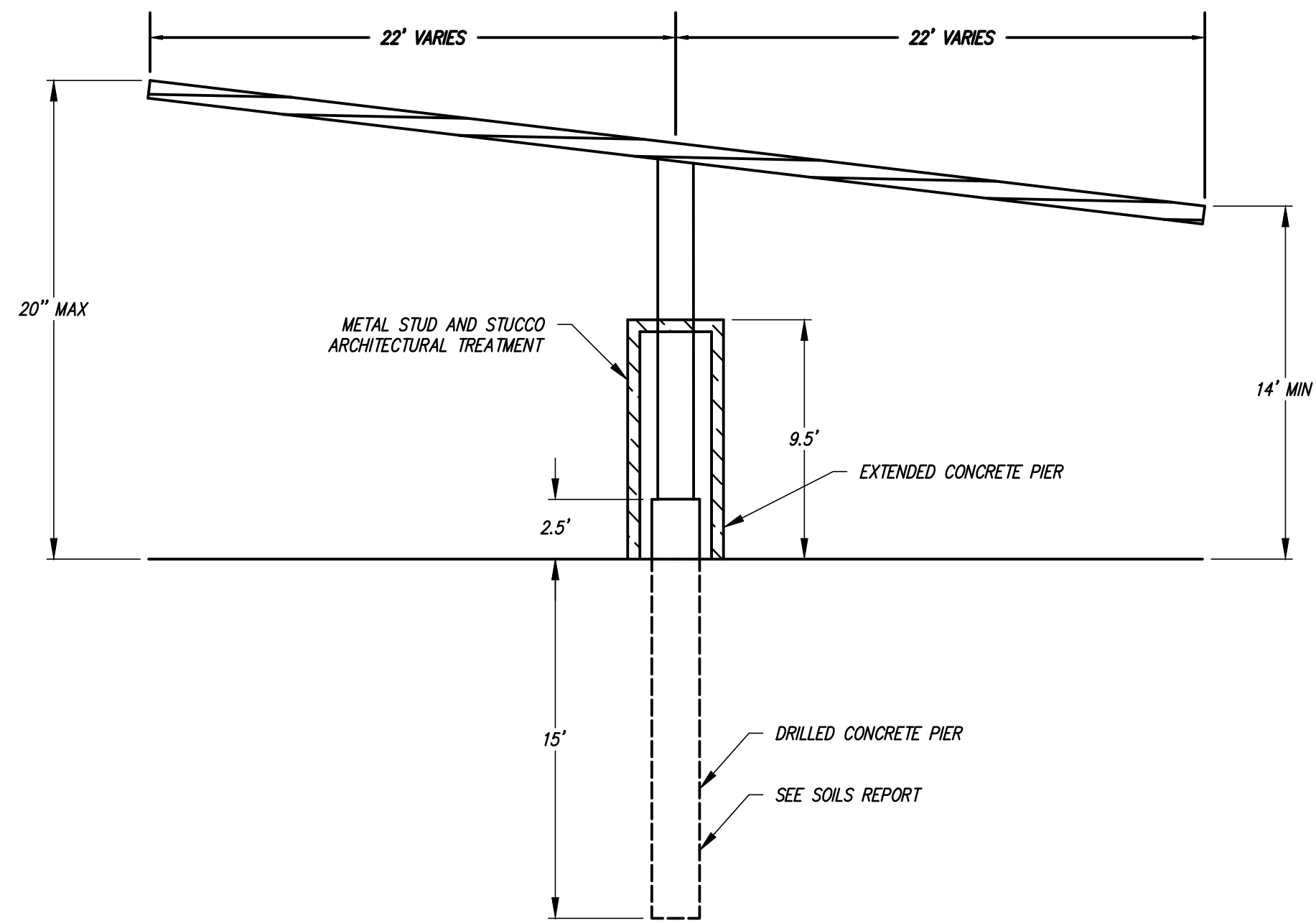
ELEVATED CARPORT PV ARRAY PLAN

PROPOSED CARPORT & PV SOLAR OF 1560 COUNTY CLUB DRIVE FOR LOS ALTOS GOLF & COUNTRY LOS ALTOS, CALIFORNIA

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:

ORIGINAL ISSUE DATE: XX.XX.XXXX
CURRENT SET ISSUE DATE: XX.XX.XXXX
PERMIT SET / CONSTRUCTION ISSUE DATE: XX.XX.XXXX
DRAWING NUMBER: C4.1
OF 8 SHEETS

2:2010101045 ELEVATED CARPORT PV ARRAY PLAN.dwg C:\ELEVATED CARPORT PV ARRAY PLAN.dwg Thursday, April 20, 2024 11:48 AM



SECTION A
NOT TO SCALE

NO.	REVISIONS	BY

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SECTION & DETAILS

PROPOSED CARPORT & PV SOLAR
OF
1560 COUNTY CLUB DRIVE
FOR
LOS ALTOS GOLF & COUNTRY
LOS ALTOS, CALIFORNIA

DRAWN BY: TK | CHECKED BY: NM | DEPARTMENT:

ORIGINAL ISSUE
DATE: XX.XX.XXXX


CURRENT SET ISSUE
DATE: XX.XX.XXXX

PERMIT SET / CONSTRUCTION ISSUE
DATE: XX.XX.XXXX

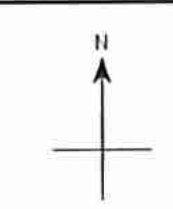
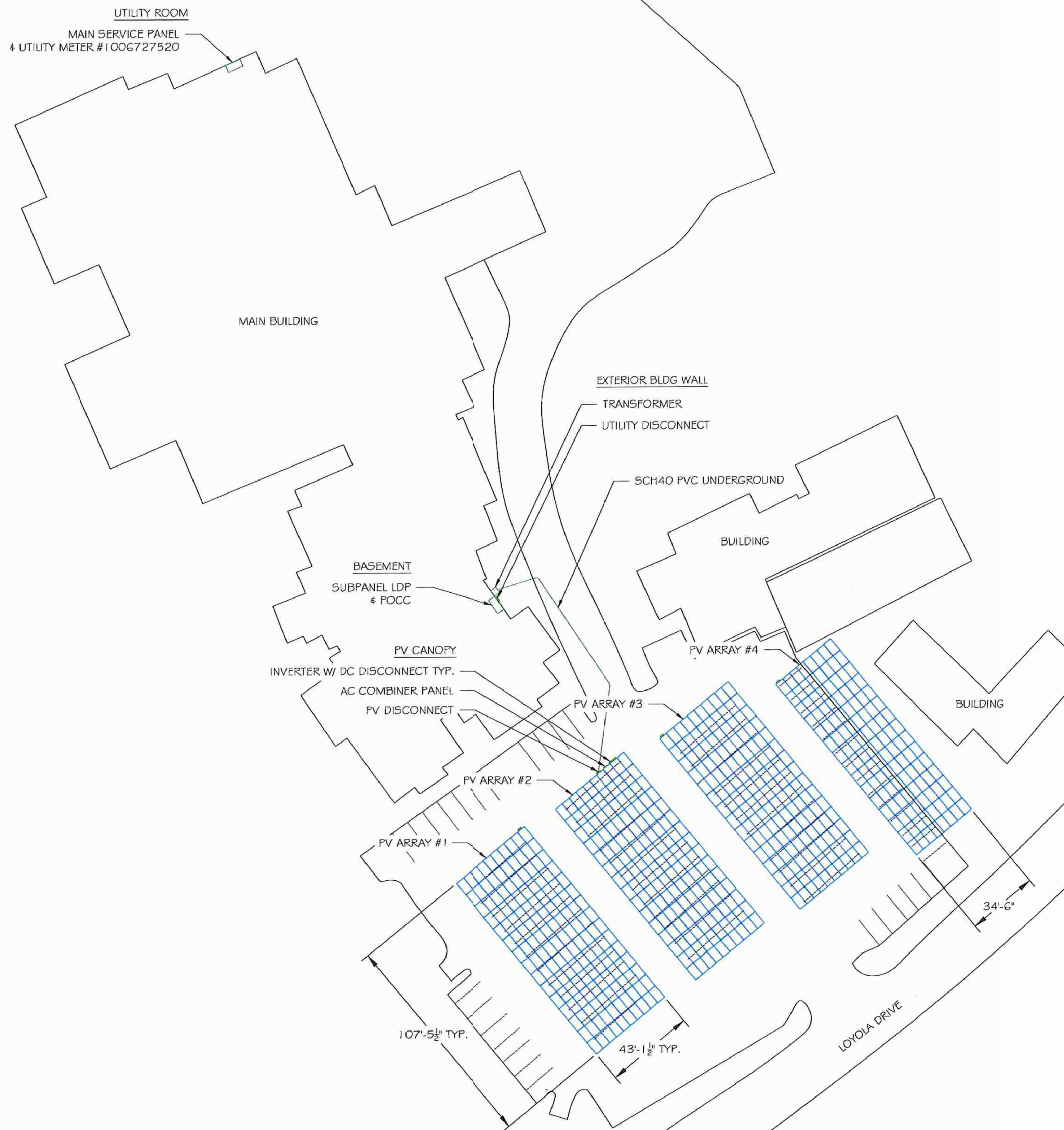
DRAWING NUMBER:
C5.1

OF 8 SHEETS

E:\2010\10145-BUILDINGELEMENTS\PLANNING\SET\AS\AS03 - CLO COVER & NOTES.dwg (S1_SECTION & DETAILS) Plot: Thursday, June 22, 2011 11:58:10 AM

SYMBOL LEGEND					
SYMBOL	NAME	DESCRIPTION			
	PV MODULE	TRINA SOLAR TSM-DEG20C.20			
PV SYSTEM SUMMARY TABLE					
Array ID	Inverter ID	Mod Qty	kW size	Tilt	Azimuth
1	Inv 1 # 4	150	90.00	10°	230°
2	Inv 2 # 4	150	90.00	10°	230°
3	Inv 3 # 4	150	90.00	10°	230°
4	Inv 5	120	72.00	10°	230°
Totals:		570	342		
SYSTEM SUMMARY: (570) TRINA SOLAR TSM-DEG20C.20 (4) SOLECTRIA FVI 50TL (480V) (1) SOLECTRIA FVI 25TL-480 (480V) 342 kWdc, 225 kW AC					

NOTE:
SITE DIMENSIONS DERIVED FROM GOOGLE AERIAL IMAGERY:
RESOLUTION OF 6", DIMENSIONS PRECISE UP TO 1 m (CE-90)



Contractor:
Y ENERGY CONSTRUCTION INC.
10675 EAST PLEASANT PASTURE DRIVE
TUCSON, AZ 85747

Project:
LOS ALTOS GOLF COURSE
1560 COUNTRY CLUB DR
LOS ALTOS, CA 94024

Project Details:
342.00 kWdc, 225.00 kW AC
AHJ: LOS ALTOS, CITY OF
APN: 33111125

Engineering Approval:

REVISIONS		
DESCRIPTION	DATE	REV
PRELIMINARY LAYOUT	3/1/2023	1

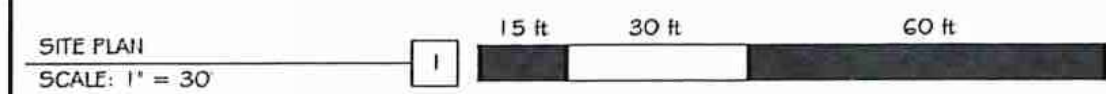
Sheet Title:
SITE PLAN

Sheet Number:
A1.0

Sheet Size:
ARCH D - 36" x 24"

Design & Drafting by:

Reviewed & Approved by:
RD

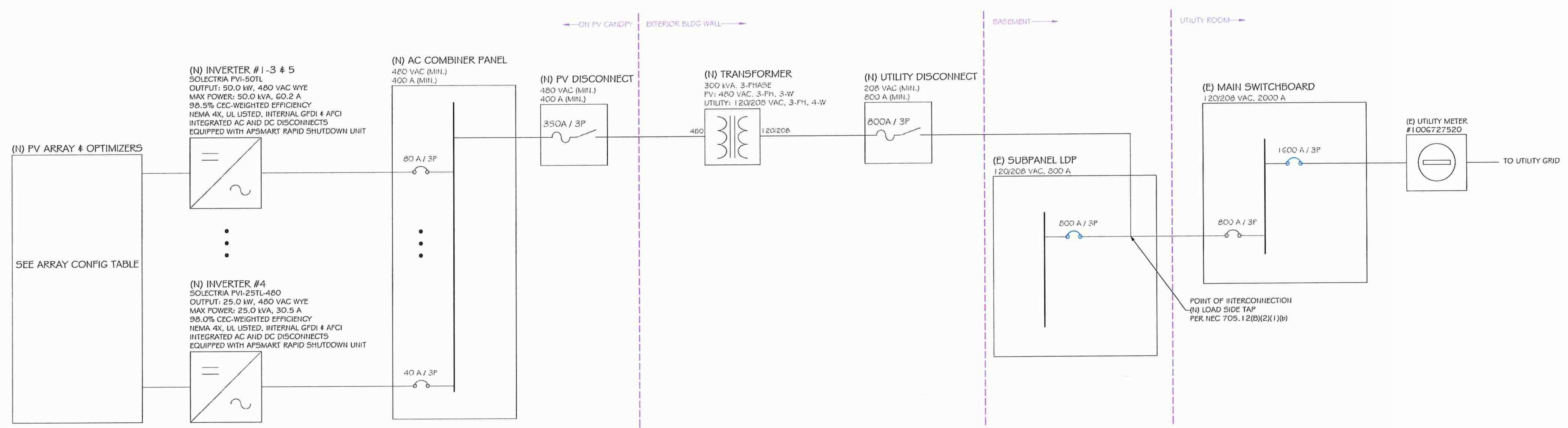


Contractor:
Y ENERGY CONSTRUCTION INC.
 10675 EAST PLEASANT PASTURE DRIVE
 TUCSON, AZ 85747

Project:
 LOS ALTOS GOLF COURSE
 1560 COUNTRY CLUB DR
 LOS ALTOS, CA 94024

Project Details:
 342.00 kWdc, 225.00 kW AC
 AHJ: LOS ALTOS, CITY OF
 APN: 3311125

Engineering Approval:



Array Configuration					
System: 342 kWdc, 225 kW AC					
Total PV Module Qty: 570					
Inverter I.D.#	Inv#1	Inv#2	Inv#3	Inv#4	Inv#5
Inverter AC Power (kW)	50.00	50.00	50.00	25.00	50.00
PV Power (kWdc)	79.20	79.20	79.20	32.40	72.00
Inverter DC:AC Ratio	1.58	1.58	1.58	1.30	1.44
Module Total Qty:	132	132	132	54	120
String Qty:	2	2	2	2	2
String Length:	22	22	22	18	20

PV Module Specifications	
Model Number:	TRINA SOLAR TSM-DEG20C.20
Weight (lbs):	76.9
Dimensions (in):	85.5 x 51.3 x 1.3
Power @ STC (W):	600
Voc (VDC):	41.7
Vmp (VDC):	34.6
Isc (A):	18.42
Imp (A):	17.34
Voc Temp Coeff (%/C):	-0.25
Max Voltage (VDC):	1,500
Module Quantity:	570

PV System Maximum Voltage Calculation per NEC 690.7(A)	
Local ASHRAE Min Temp:	0 °C
Data Source:	MOUNTAIN VIEW MOFFETT FLO NAS
Voc Temp Coefficient	0.25%/°C
ASHRAE +1 = Correction Factor	+1
Voc Correction Factor	1.063
Max # of Series	22
Temperature	41.7
Corrected Open Circuit Voltage	974.7 Volts DC

PV-side AC System Summary	
NOMINAL SYSTEM VOLTAGE:	480 Volts AC
MAX CURRENT PER 690.8(A):	271 Amps
MAX CURRENT PER 690.8(B):	339 Amps

Transformer Calculations	
PV Voltage:	480 VAC
Util. Voltage:	208 VAC
PV Current:	271.3 Amps
Util. Current:	626.1 Amps
Minimum Transformer kVA Rating:	300.0 kVA

Utility-side AC System Summary	
NOMINAL SYSTEM VOLTAGE:	208 Volts AC
MAX CURRENT PER 690.8(A):	626 Amps
MAX CURRENT PER 690.8(B):	783 Amps

CEC Rating Calculation	
Module PTC Rating (W)	566.4
No. of Modules	570
Average Inverter CEC Efficiency	98.4%
CEC System Size	317.68 kW AC

120% Rule Calculation per NEC 705.12(B)(2)(3)(b)	
Main Busbar Rating:	2000 Amps
Main Service Breaker Rating:	1600 Amps
PV Backfeeding Current:	783 Amps
BUSBAR x 120% - MAIN BREAKER = MAX ALLOWABLE PV CURRENT	2400 - 1600 = 800

Inverter #1 - 3 & 5 Specifications	
Model Number:	SOLECTRIA PVI 50TL [S11-JUN20]
Nominal Power (kW AC):	50.00
Max App. Pwr (kVA AC):	55.00
Nominal AC Voltage (V):	480 (3/N/PE)
Max Output Current (A):	60.2
CEC Weighted Efficiency:	98.5%
Maximum DC Voltage (V):	1000
DC Start Voltage (V):	330
Max. MPPT Voltage (V):	850
Min. MPPT Voltage (V):	480
MPPT Quantity:	3
Inverter Quantity:	4

Inverter #4 Specifications	
Model Number:	SOLECTRIA PVI 25TL-480 [S11-JUN20]
Nominal Power (kW AC):	25.00
Max App. Pwr (kW AC):	25.00
Nominal AC Voltage (V):	480 (3/N/PE)
Max Output Current (A):	30.5
CEC Weighted Efficiency:	98.0%
Maximum DC Voltage (V):	1000
DC Start Voltage (V):	330
Max. MPPT Voltage (V):	850
Min. MPPT Voltage (V):	560
MPPT Quantity:	2
Inverter Quantity:	1

MPPT 'A'	MPPT 'B'	MPPT 'C'
Max Open Circuit Voltage:	975	975
Min Open Circuit Voltage:	826	826
Max Operating Voltage:	754	754
Min Operating Voltage:	685	685
Max Short Circuit Current:	46.1	46.1
Operating Current:	34.7	34.7
String Qty:	2	2
String Length:	22	22

REVISIONS		
DESCRIPTION	DATE	REV
PRELIMINARY LAYOUT	3/1/2023	1

Sheet Title:
BLOCK DIAGRAM & EQUIPMENT SPECS

Sheet Number:
 E3.0.1

Sheet Size:
 ARCH D - 36" x 24"

Design & Drafting by:

Reviewed & Approved by:
 RD