GOLDEN CRATE LLC

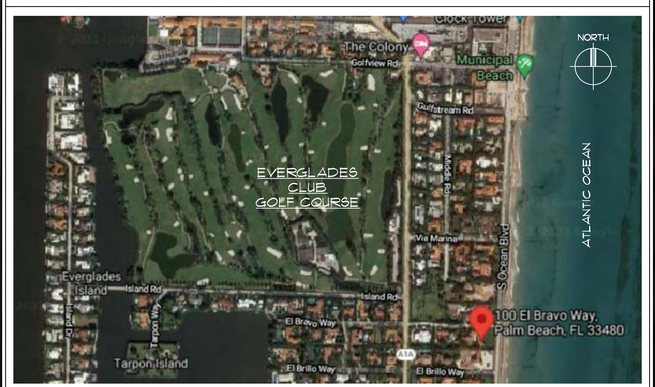
100 EL BRAVO WAY
PALM BEACH, FLORIDA 33480

"DROP OFF"

Date of Hearing: August 16, '23

ARCHITECT	CIVIL ENGINEER	MECHANICAL ENGINEER	STRUCTURAL ENGINEER
THOMAS M. KIRCHHOFF, AIA, P.A. 1907 COMMERCE LANE, SUITE 106 JUPITER, FLORIDA 33458 (561) 575-9994 FAX (561) 575-9845 WWW.KIRCHHOFFARCHITECTS.COM	DOUG WINTER, P.E. 4047 OKEECHOBEE BLVD., SUITE 222 WEST PALM BEACH, FLORIDA 33409 (561) 471-9863 FAX (561) 471-5075	CARDINAL ENGINEERING 825 PARKWAY STREET, SUITE 12 JUPITER, FL 33477 (561) 746-6343 CELL: (561) 818-7539	CARMO ENGINEERING 228 EAST OCEAN AVENUE LANTANA, FLORIDA 33462 (561) 586-1111 FAX (561) 586-5003

VICINITY LOCATION MAP - AERIAL



VICINITY MAP SHOWING ADJACENT PROPERTY BUILDINGS

LEGAL DESCRIPTION

SEE SURVEY

NOTES

1. THERE ARE NO HISTORIC TREES ON SITE.

2. THIS DRAWING WAS PREPARED BASED ON A SURVEY OF THE PROPERTY PREPARED BY RL. VAUGHT & ASSOCIATES, INC., DATED 08-31-2020.

FLOOD ZONE

SUBJECT PROPERTY LIES IN FLOOD ZONE "X" (MINIMAL FLOOD HAZARD) PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD ZONE MAP #12099C0583F, DATED OCTOBER 5, 2017. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE.

LEGEND

EXISTING ELEVATION IN NAVD

PROPOSED SPOT ELEVATION IN NAVD

PROPOSED ELEVATION DATUM IN NAVD

Sheet Index

LANDMARKED STATUS

YES

LEVEL OF ALTERATION

LEVEL 3 (PER FBC EXISTING BUILDING SECTION 504, RENOVATION IS GREATER THAN 50% OF THE AGGREGATE BUILDING AREA)

OCCUPANCY TYPE

R-3

TYPE OF CONSTRUCTION

TYPE V, B (UNPROTECTED) SPRINKLERED

KIRCHHOFF & ASSOCIATES
ARCHITECTS

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561 . 575 . 9994
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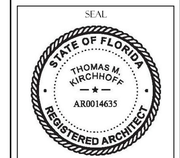
ADDITIONS AND RENOVATIONS FOR:

GOLDEN CRATE LLC
100 EL BRAVO WAY
PALM BEACH, FLORIDA

SEAL



THOMAS M. KIRCHHOFF FL REG. NO. AR0014635

REVISIONS

SUBMITTAL DATE:
July 11, '23

DATE OF HEARING:
AUGUST 16, 2023

DATE PLOTTED:
6/8/2023 9:35:48 AM

DRAWN BY: | CHECKED BY:

DRAWING NUMBER:

A0.0

SCALE:
AS NOTED

COA-23-026

PROJECT: 100 El Bravo Way

Date: Augus 16, ‘23

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100 El Bravo Way from S. Ocean Blvd.
Image by Wittmann Building Corporation, taken 6.6.23

100 El Bravo Way from S. Ocean Blvd. with 101 El Bravo to the right.
Image by Wittmann Building Corporation, taken 6.6.23

100 El Bravo Way from El Bravo Way
Image by Wittmann Building Corporation, taken 6.6.23

100 El Bravo Way from El Bravo Way
Image by Wittmann Building Corporation, taken 6.6.23

KIRCHHOFF & ASSOCIATES
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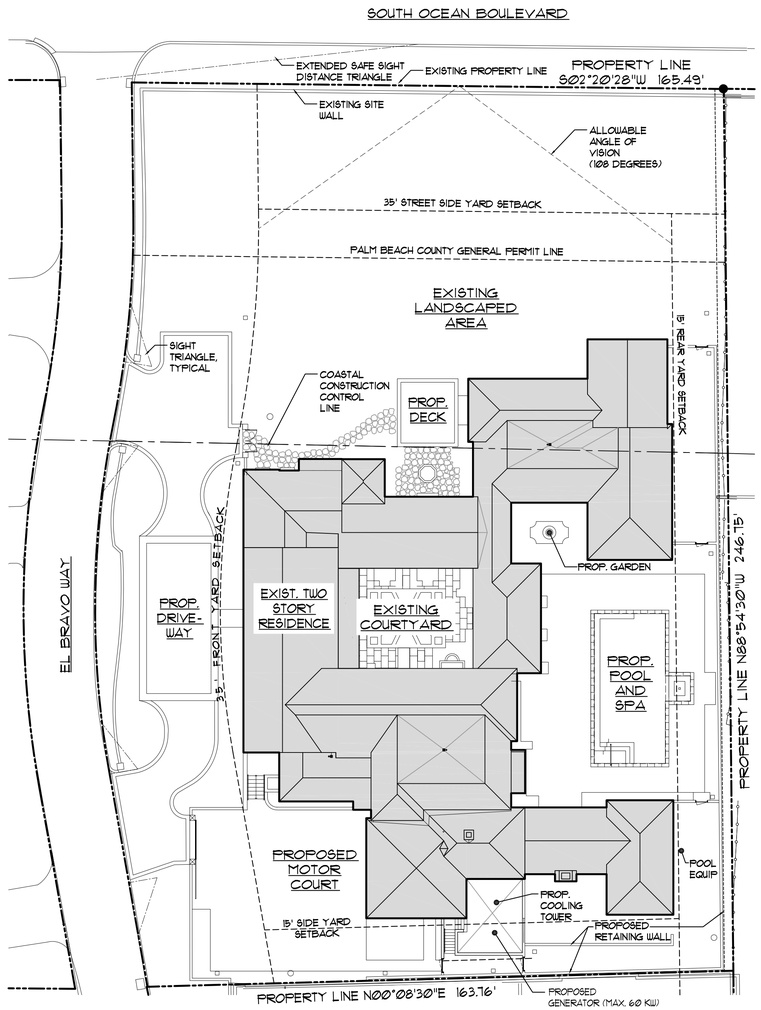
101 El Vedado Road taken from S. Ocean Blvd.
Image by K&AA, taken 10.13.20

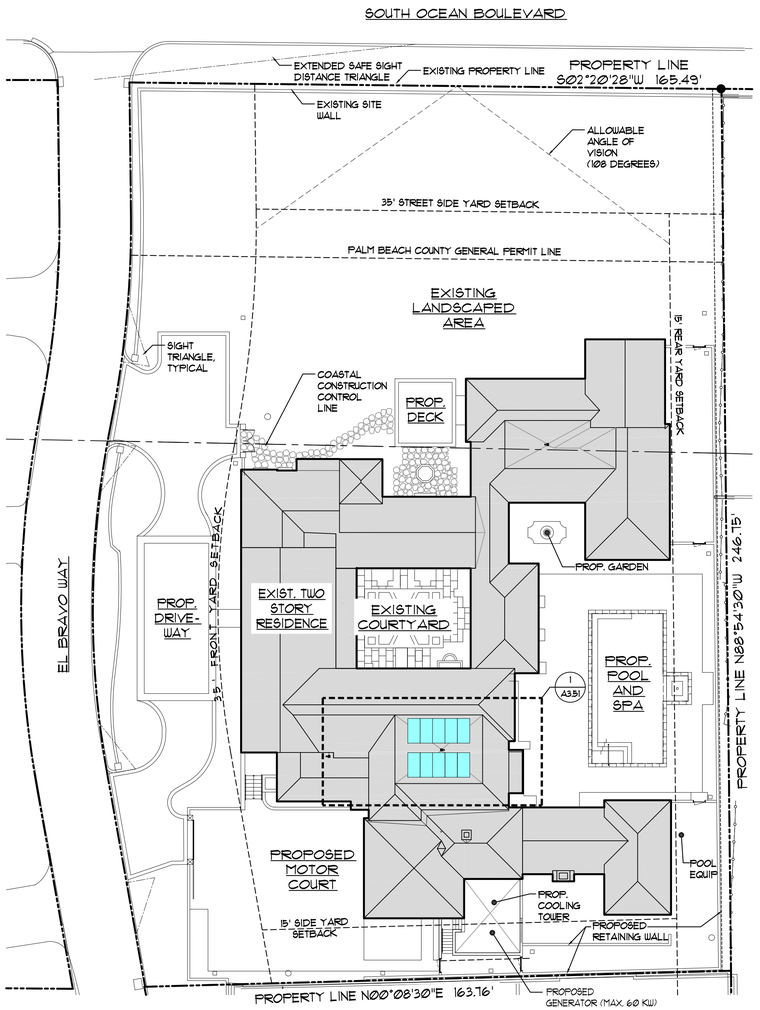
640 S. Ocean Blvd.
Image by K&AA, taken 10.13.20

101 El Brillo Way taken from S. Ocean Blvd.
Image by Wittmann Building Corporation, taken 6.6.23

89 Middle Road taken from S. Ocean Blvd.
Image by Wittmann Building Corporation, taken 6.6.23



1 **site plan - existing**
1" = 20'-0"



2 **site plan - proposed**
1" = 20'-0"

SOLAR PANELS

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100 EL BRAVO WAY
PALM BEACH, FLORIDA

SEAL

STATE OF FLORIDA
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REGISTERED ARCHITECT

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A1.0

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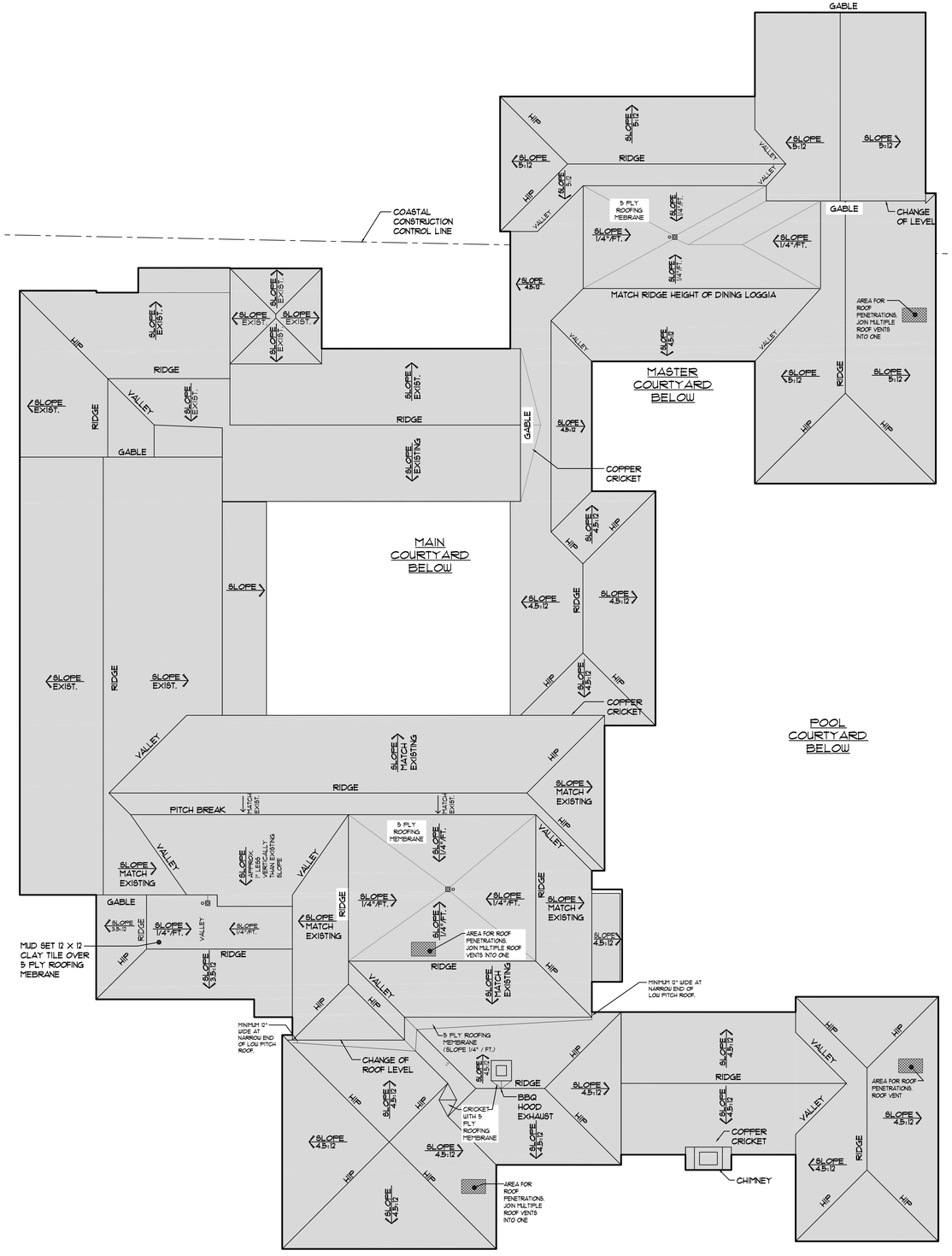
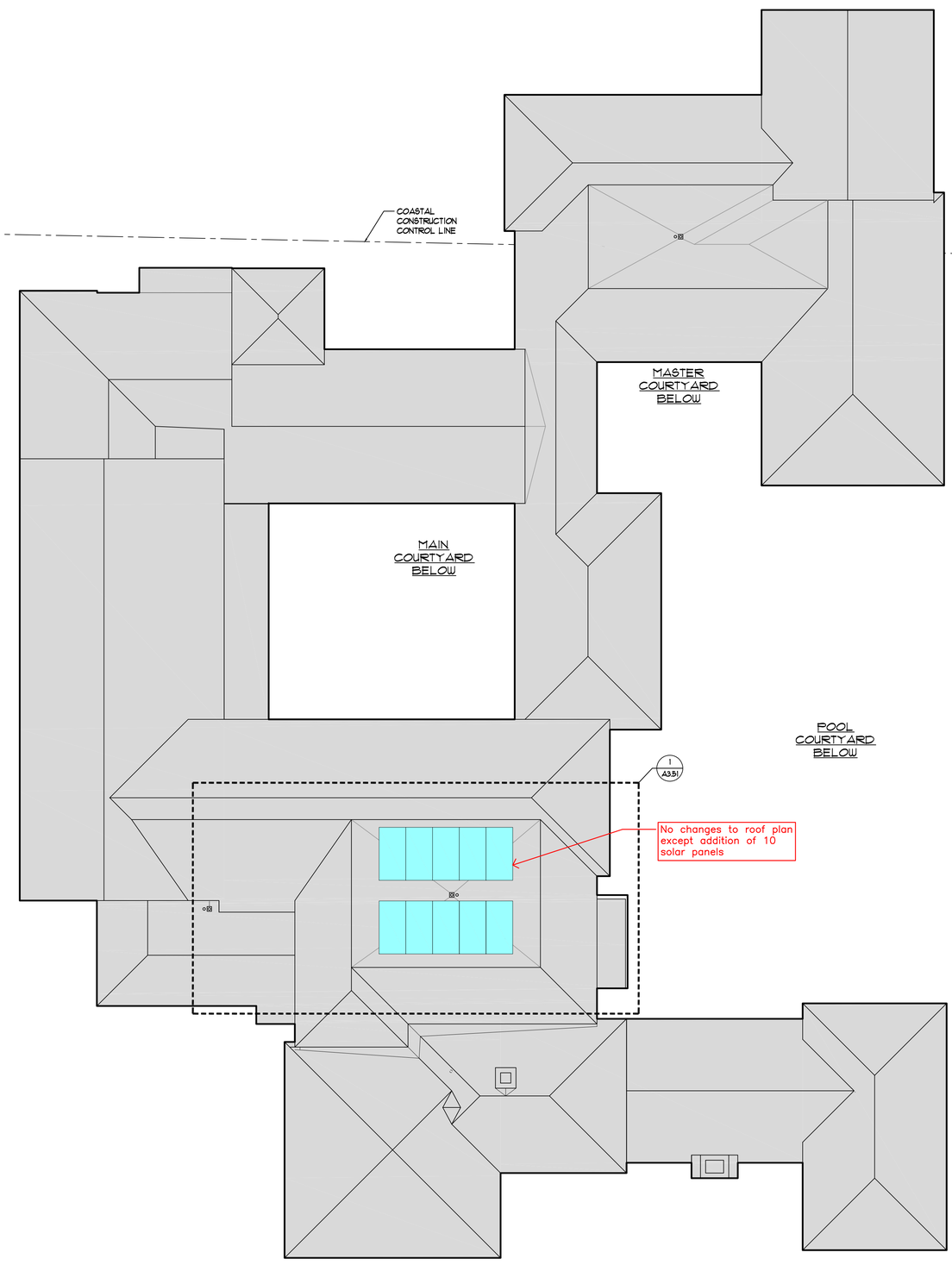


1 **roof plan - existing**
1/8" = 1'-0"



2 **roof plan - proposed**
1/8" = 1'-0" **NO CHANGE EXCEPT ADDITION OF SOLAR PANELS**

SOLAR PANEL

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PALM BEACH, FLORIDA

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THOMAS M KIRCHHOFF FL REG NO AR0014635

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A2.4

SCALE:
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3 EXISTING NORTH ELEVATION

1/8" = 1'-0" FACING EL BRAVO WAY

FLOOD ZONE: SUBJECT PROPERTY LIES IN FLOOD ZONE "X" (MINIMAL FLOOD HAZARD) PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD ZONE MAP #12099C0583F, DATED OCTOBER 5, 2017.

3 PROPOSED NORTH ELEVATION

1/8" = 1'-0" FACING EL BRAVO WAY

SOLAR PANEL

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A3.1

SCALE:
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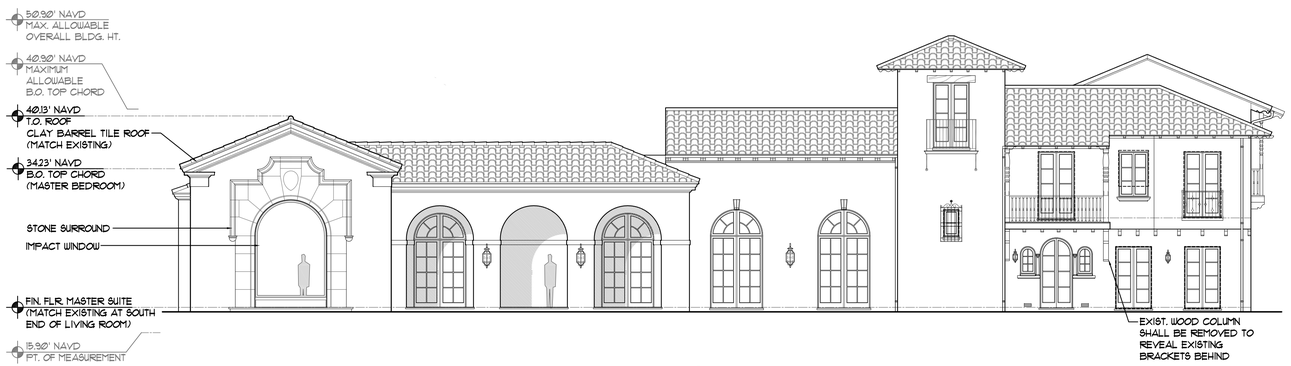
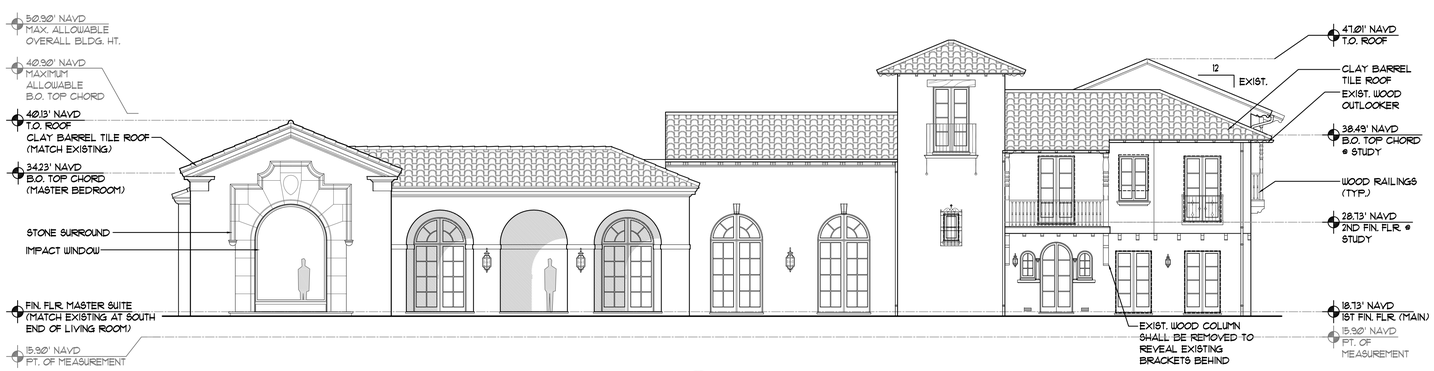


3 EXISTING EAST ELEVATION

1/8" = 1'-0" FACING SOUTH OCEAN BOULEVARD



3 PROPOSED EAST ELEVATION

1/8" = 1'-0" FACING SOUTH OCEAN BOULEVARD

FLOOD ZONE: SUBJECT PROPERTY LIES IN FLOOD ZONE "X" (MINIMAL FLOOD HAZARD) PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD ZONE MAP #12099C0583F, DATED OCTOBER 5, 2017.

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100 EL BRAVO WAY
PALM BEACH, FLORIDA

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REGISTERED ARCHITECT

THOMAS M. KIRCHHOFF FL REG. NO. AR0014635

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BR	TMK

DRAWING NUMBER:

A3.2

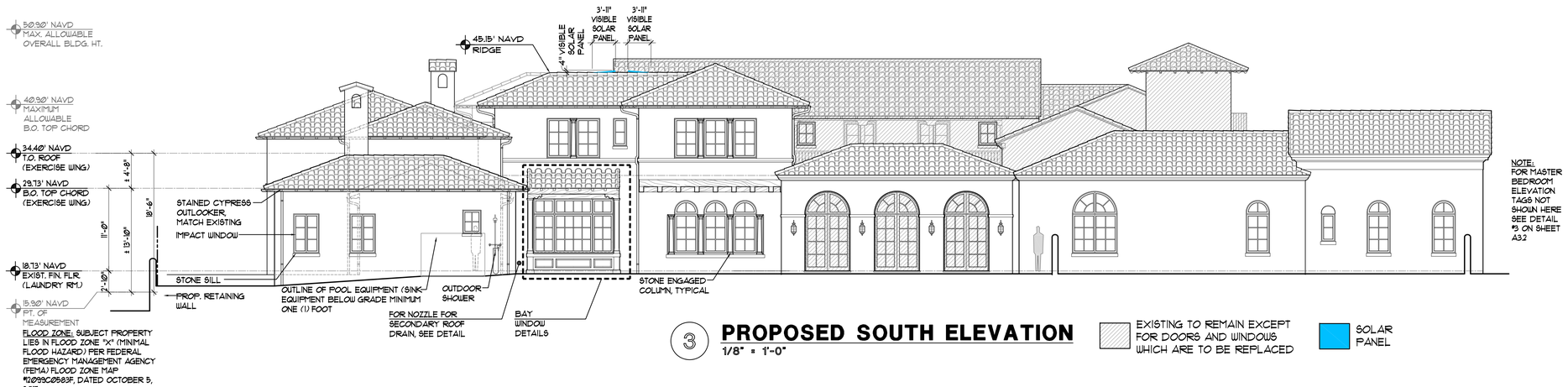
SCALE:
AS NOTED

COA-23-026

3 EXISTING SOUTH ELEVATION

1/8" = 1'-0"

EXISTING TO REMAIN EXCEPT FOR DOORS AND WINDOWS WHICH ARE TO BE REPLACED



FLOOD ZONE: SUBJECT PROPERTY LIES IN FLOOD ZONE "X" (MINIMAL FLOOD HAZARD) PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD ZONE MAP #12099C0583F, DATED OCTOBER 5, 2017.

NOTE:
FOR MASTER BEDROOM ELEVATION TAGS NOT SHOWN HERE SEE DETAIL #3 ON SHEET A3.2

3 PROPOSED SOUTH ELEVATION

1/8" = 1'-0"

EXISTING TO REMAIN EXCEPT FOR DOORS AND WINDOWS WHICH ARE TO BE REPLACED

SOLAR PANEL

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PALM BEACH, FLORIDA

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REVISIONS

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DRAWING NUMBER:

A3.3

SCALE:
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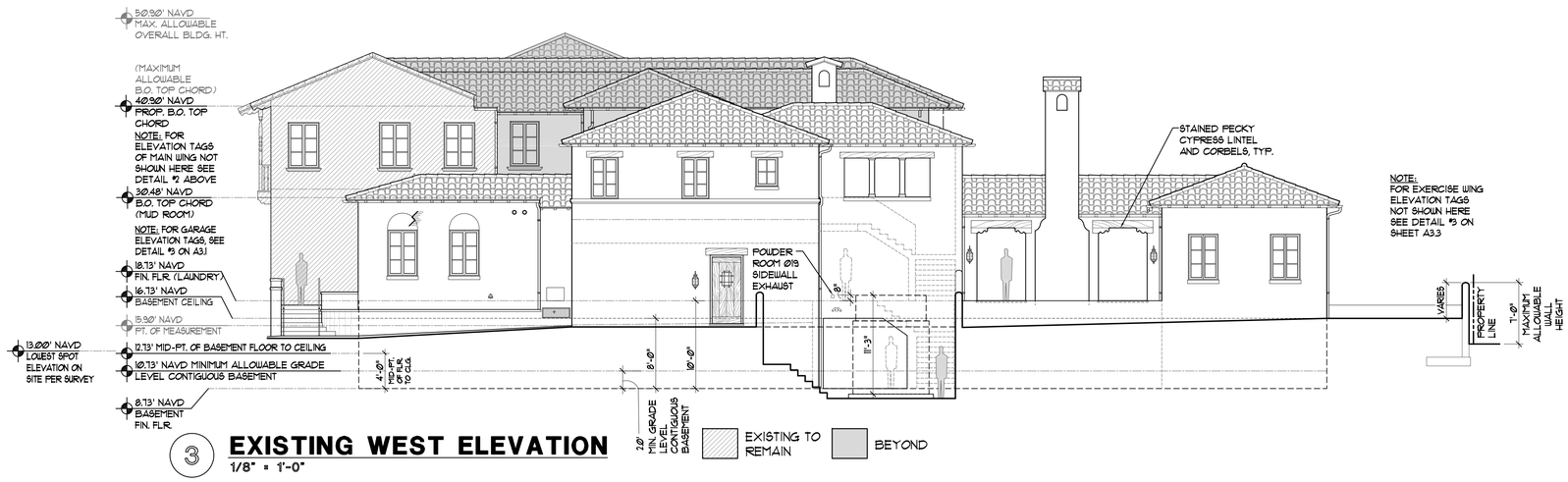
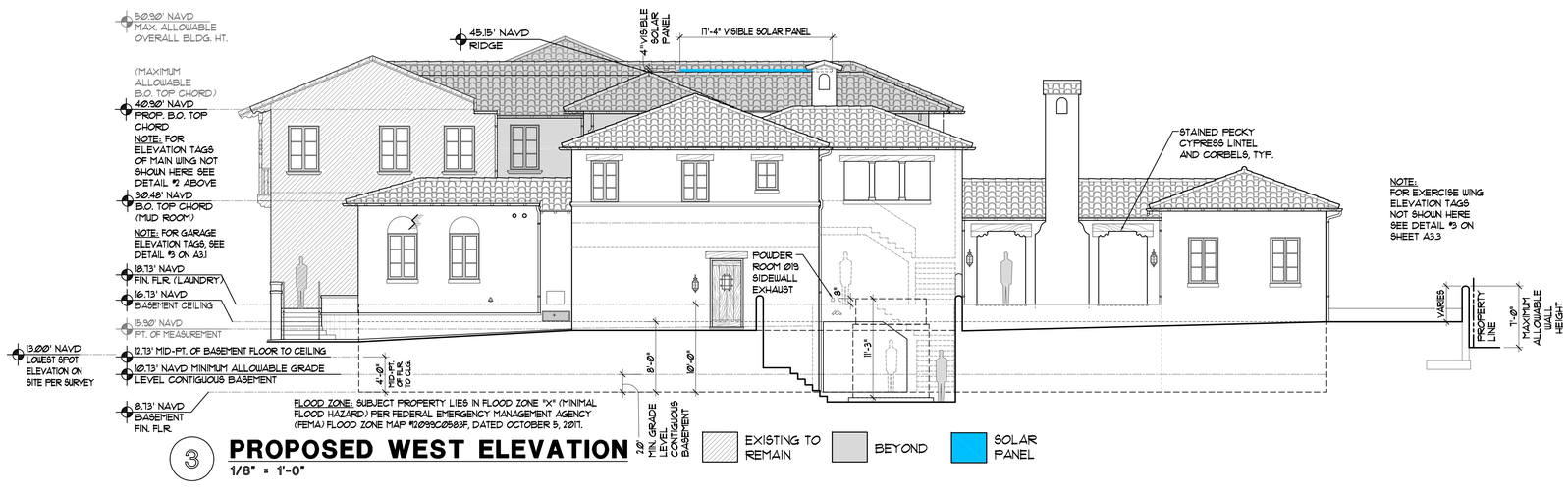


3 **EXISTING WEST ELEVATION**
1/8" = 1'-0"



3 **PROPOSED WEST ELEVATION**
1/8" = 1'-0"

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PALM BEACH, FLORIDA

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REGISTERED ARCHITECT

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REVISIONS

DATE OF HEARING:
AUGUST 16, 2023

DATE PLOTTED:
6/8/2023 8:45:55 AM

DRAWN BY: BR
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DRAWING NUMBER:
A3.4

SCALE:
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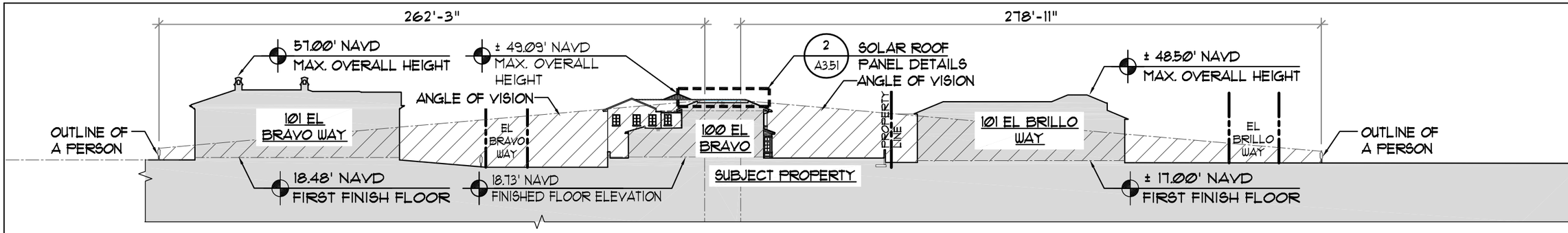
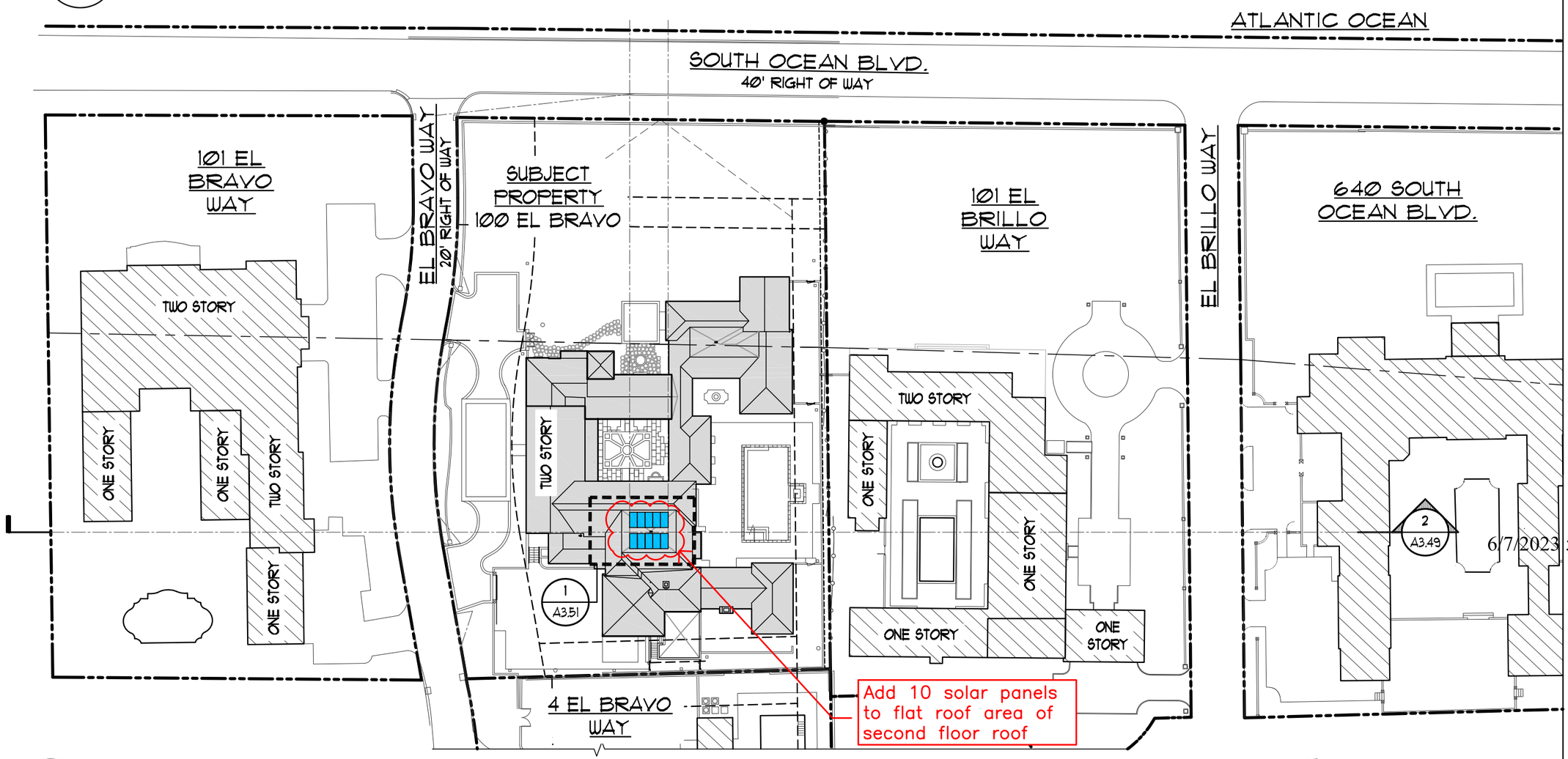


2 section looking east

1"=50'-0"

AREA WHERE SOLAR PANELS ARE NOT VISIBLE

FLOOD ZONE: SUBJECT PROPERTY LIES IN FLOOD ZONE "X" (MINIMAL FLOOD HAZARD) PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD ZONE MAP #12099C0583F, DATED OCTOBER 5, 2017.



1 vicinity map showing solar panels at 100 El Bravo Way

1"=50'-0"

SOLAR PANEL

PROJECT #:	A3.49
SHEET SIZE: 11 X 17	SCALE: AS NOTED
COPYRIGHT © 2016	DATE: AUG. 16, '23

REHABILITATION FOR:

GOLDEN CRATE LLC

100 EL BRAVO WAY
PALM BEACH, FLORIDA 33480

THOMAS M. KIRCHHOFF
FL. REG. NO. AR0014635

STATE OF FLORIDA
THOMAS M. KIRCHHOFF
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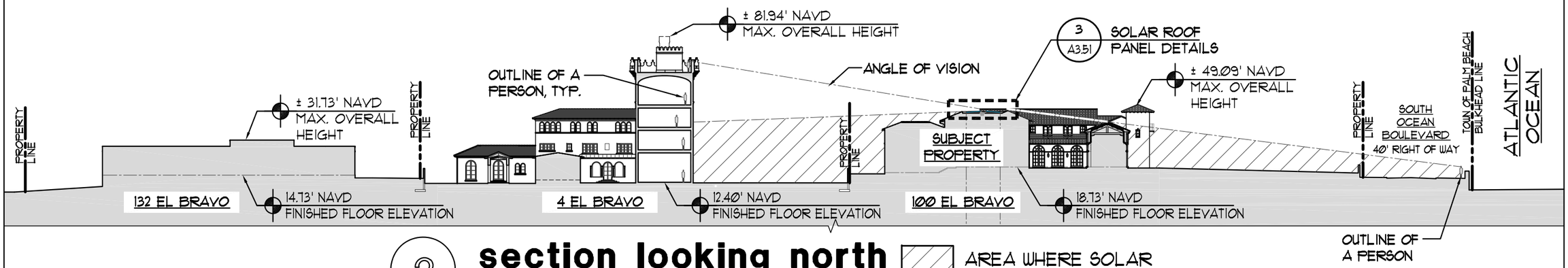
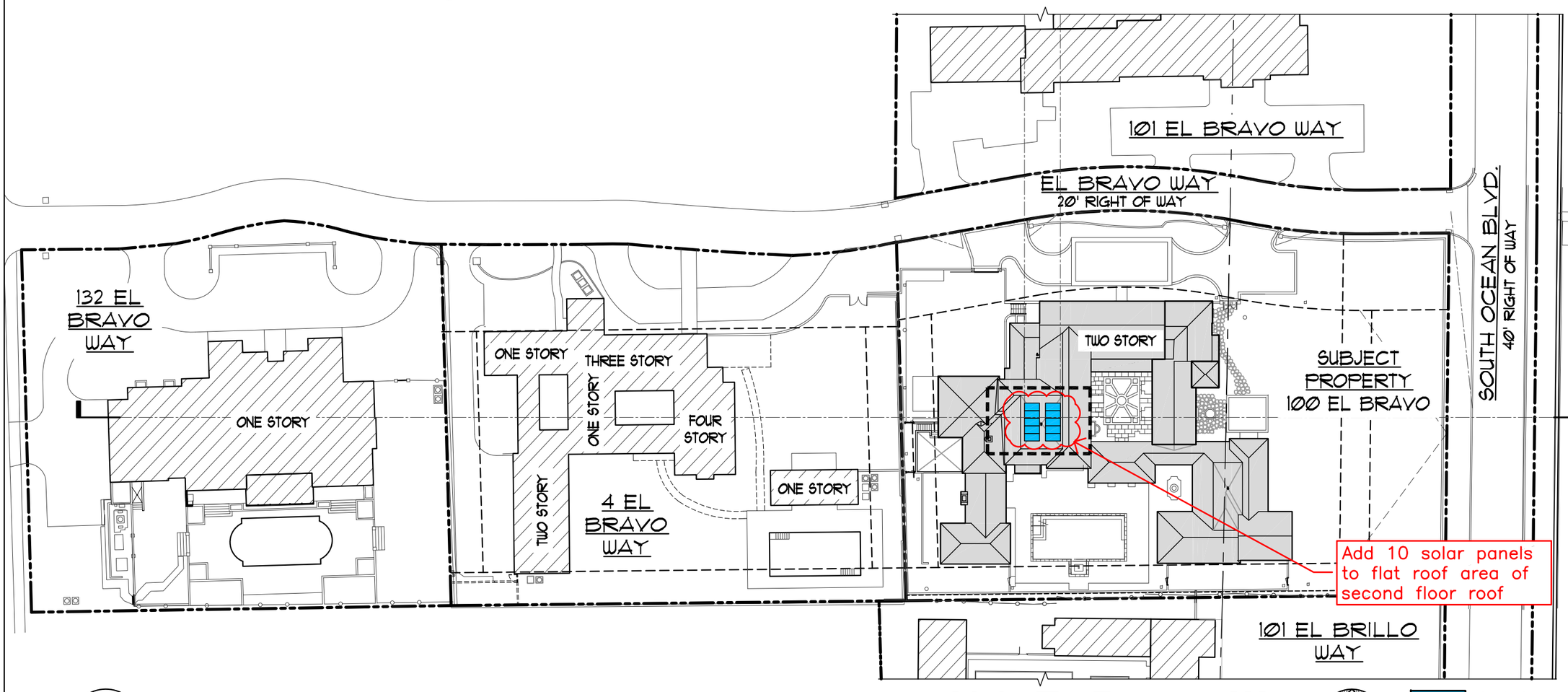


2 section looking north

1"=50'-0"

AREA WHERE SOLAR PANELS ARE NOT VISIBLE



1 vicinity map showing solar panels at 100 El Bravo Way

1"=50'-0"

SOLAR PANEL

6/8/2023 8:50:22 AM

PROJECT #:	
SHEET SIZE: 11 X 17	COPYRIGHT © 2016
SCALE: AS NOTED	DATE: AUG. 16, '23

A3.50

REHABILITATION FOR:

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PALM BEACH, FLORIDA 33480

THOMAS M. KIRCHHOFF
FL. REG. NO. AR0014635
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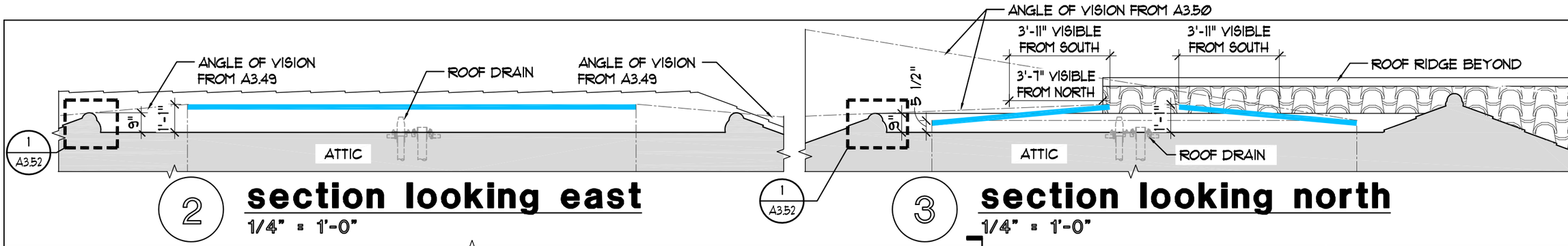
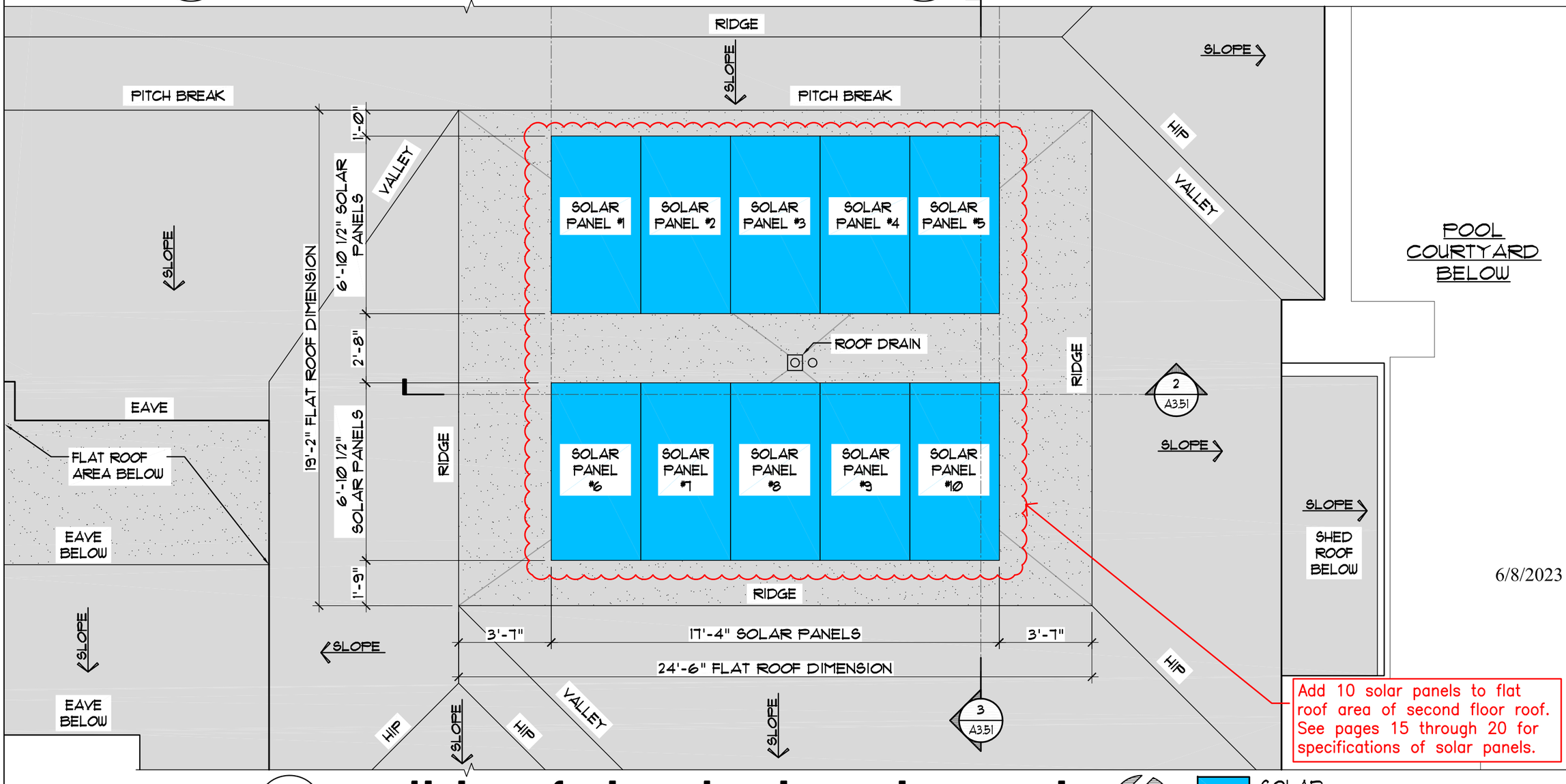


2 section looking east
1/4" = 1'-0"

3 section looking north
1/4" = 1'-0"



1 partial roof plan showing solar panels
1/4" = 1'-0"

SOLAR PANEL

PROJECT #:	SHEET SIZE: 11 X 17	COPYRIGHT © 2016	SCALE: AS NOTED
			DATE: FEB. 21, '23

A3.51

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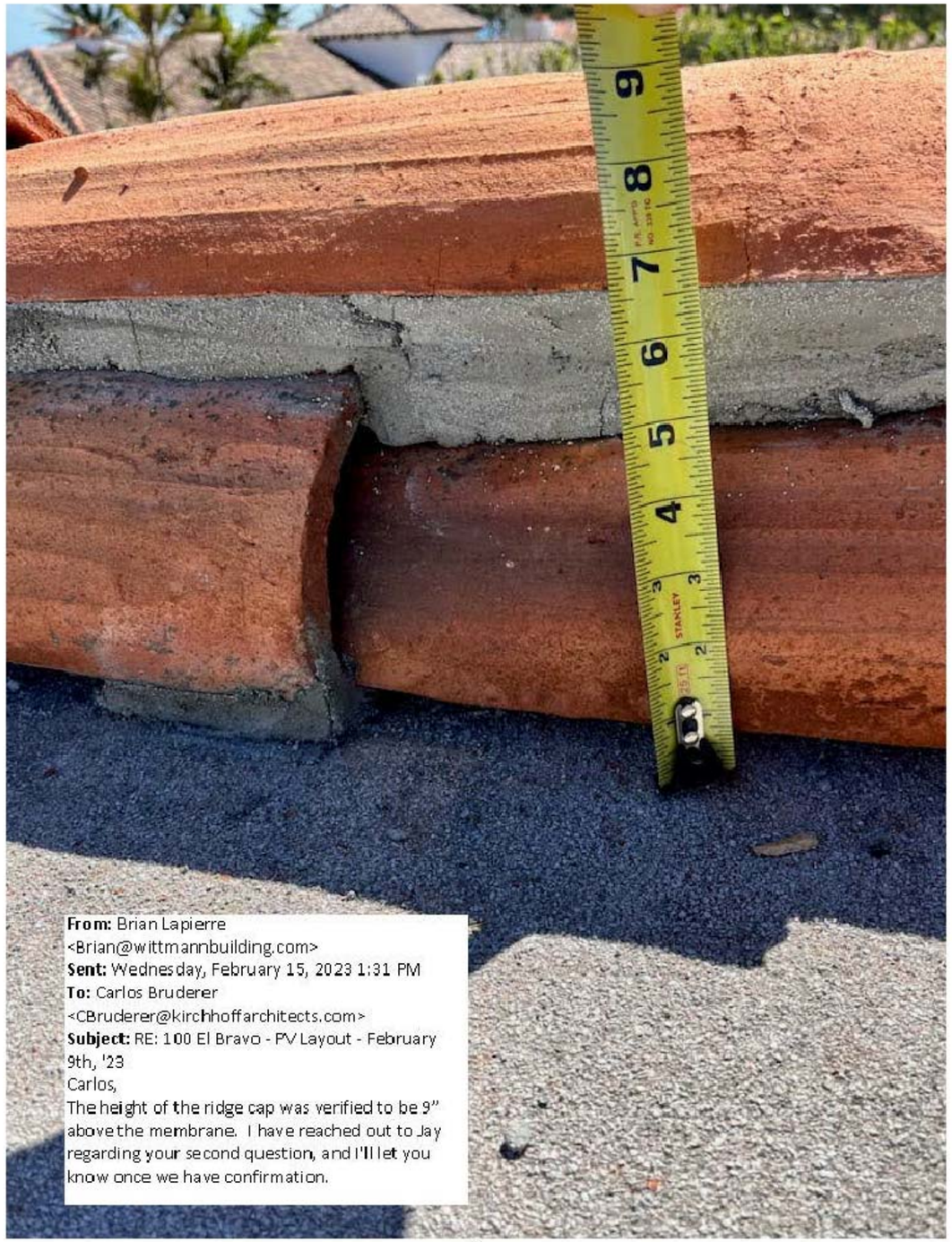
6/8/2023 9:07:[illegible] AM



2

1 **height of ridge curb at flat roof**

1/4" = 1'-0"

REHABILITATION FOR:

GOLDEN CRATE LLC

100 EL BRAVO WAY
PALM BEACH, FLORIDA 33480

PROJECT # :	**A3.52**
SHEET SIZE : 11 X 17	SCALE : AS NOTED
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100 El Bravo Way from El Bravo Way looking southeast

DNA™ 144

Solar for Innovators

Residential I Commercial

Designed & Engineered in Silicon Valley

440W I 435W I 430W

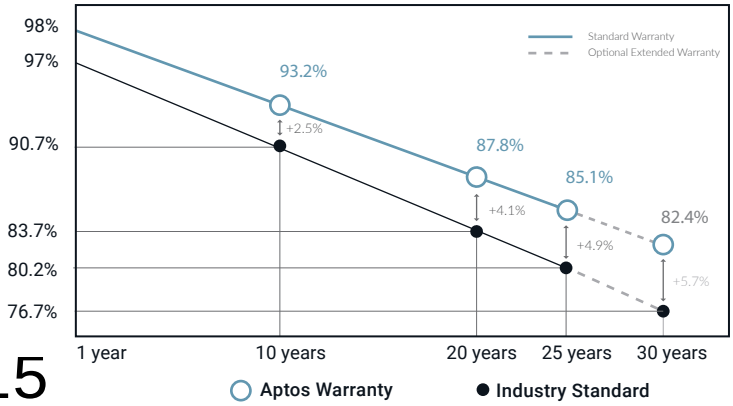
Our DNA™ Split Cell Series impressively combines advanced solar technologies to maximize performance. Our patented Dual Nano Absorber (DNA™) Technology allows the panel to operate at high-efficencies in extreme temperatures. Contact our sales team today to learn more about our line of high-efficienty solar panels.

- Patented DNA™ technology boosts power performance & module efficiency
- Advanced split cell technology with 9 ultra-thin busbars allows for less resistance and more photon capture
- Ideal solution for applications affected by shading
- All-black design for pristine aesthetics
  No excessive silver bussing or ribbons
- Robust product design is reslient in extreme weather. Up to 5400 Pa snow load and 210 mph wind speeds

intertek CE

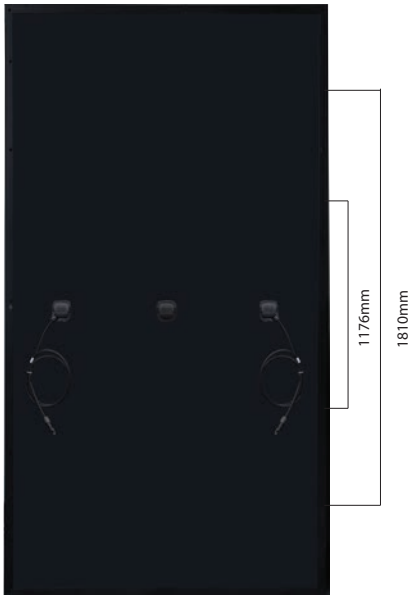
30 Year Warranty	3X IEC Standards	RETC Top Performer

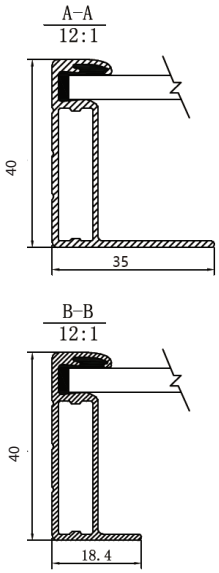
Linear Performance Warranty



aptos™ solar technology

3140 De La Cruz Blvd., Ste 200
Santa Clara, CA 95054
wwww.aptossolar.com
info@aptossolar.com





Electrical Specifiactions

	DNA-144-MF26-440W	DNA-144-MF26-435W	DNA-144-MF26-430W
STCrated Output P_{mpp} (W)	440W	435W	430W
Module Efficiency	20.21%	19.98%	19.76%
Open Circuit Voltage V_{VOC} (V)	49.9	49.7	49.5
Short Circiut Current I_{SC} (A)	11.33	11.26	11.19
Rated Voltage V_{mmp} (V)	41.0	40.8	40.6
Rated Voltage I_{mmp} (A)	10.74	10.67	10.60

Standard Test Conditions for front-face of panel: 1000 W/m², 25°C, measurement uncertainty ≤3%

Temperature Coefficients

Temperature Coefficients P_{mmp}	-0.36%
Temperature Coefficients I_{sc}	+0.05%/°C
Temperature Coefficients V_{OC}	-0.29%/°C
Normal Operating Cell Temperature (NOCT)	44°C

Test Operating Conditions

Maximum Series Fuse	20A
Maximum System Voltage	1,000 VDC (UL&IEC)
Maximum Load Capacity (Per UL 1703)	5400 PA Snow Load / 210mph Wind Rating
Fire Performance Class	Class C/Type 1

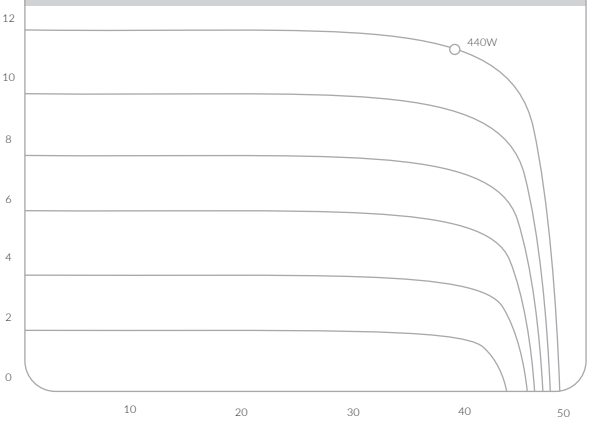
Packaging Configuration

Number of Modules per Pallet	27
Number of Pallets per 40ft. Container	22
Pallet Dimensions	2110 X 1120 X 2365
Pallet Weight (kg)	680
Container Weight (kg)	14960

Mechanical Properties

Cell Type	Monocrystalline
Glass	3.2mm, anti-reflection coating, high transmission, low iron, tempered glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Dimensions	2095 X 1039 X 40mm
Output Cable	4mm2 (EU)12AWG,39.37in.(1200mm)
Weight	53.13lbs.(24.1kg)
Cable Length	1200mm
Encapsulant	POE

I-V Curve



Certifications

intertek CE

UL61730-1, UL61730-2

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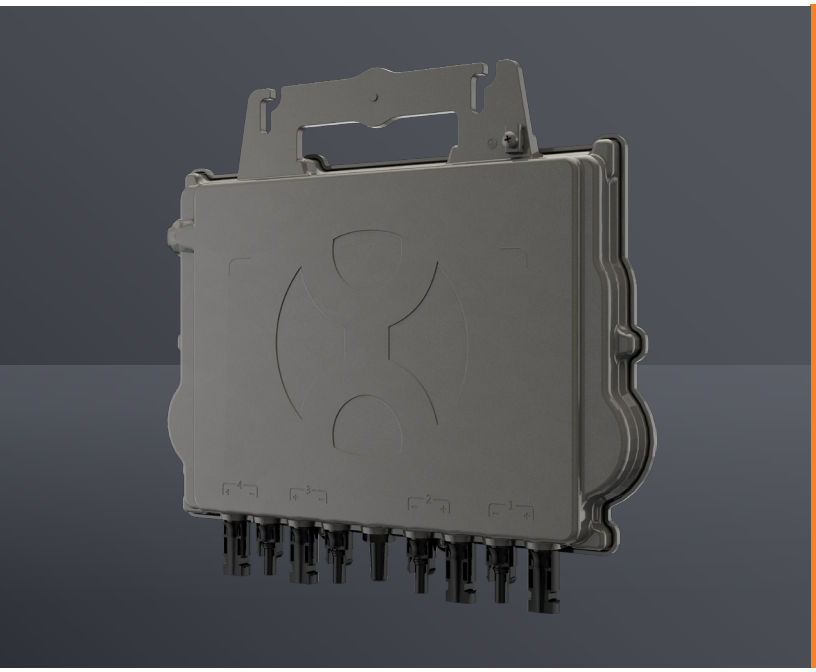
APsystems
ALTENERGY POWER

Leading the Industry in
Solar Microinverter Technology



QT2

The most powerful 3-phase Quad microinverter

- Designed for 3-phase grid connection (208V or 480V)
- Single unit connects to 4 modules, 2 MPPTs, module-level DC voltage
- Maximum continuous AC output power 1728VA @ 208V, 1800VA @ 480V
- Engineered to harness today's high-capacity PV modules (Maximum input current 20A)
- Integrated safety protection relay
- Adjustable power factor
- Balancing 3-phase output
- Compatible with both △ and Y 3-phase grid

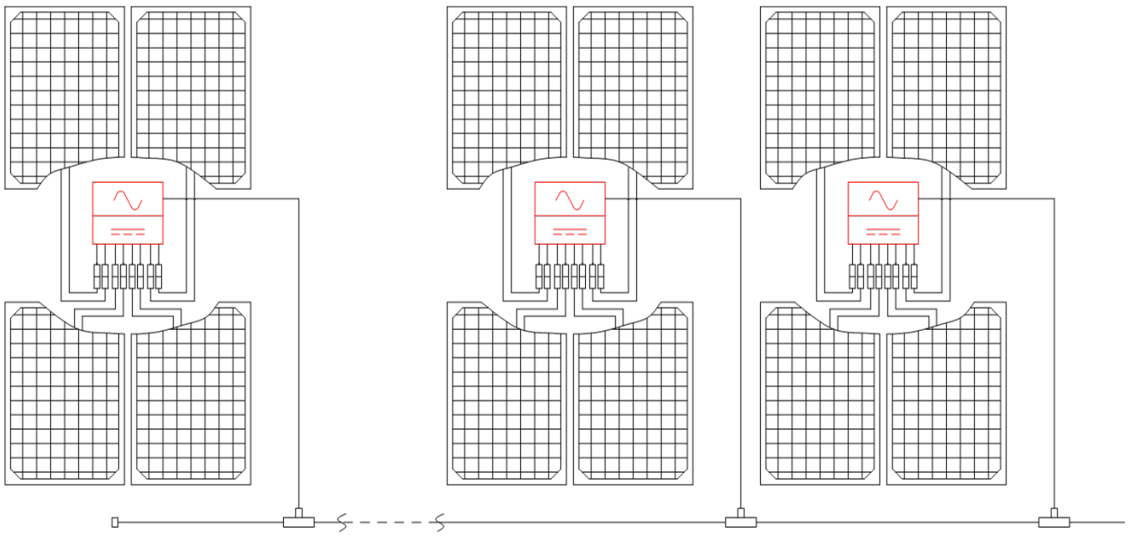
PRODUCT FEATURES

APsystems introduces its 2nd generation of native 3-phase quad microinverters, reaching unprecedented power outputs of 1728VA (for 208V) and 1800VA (for 480V) to harness the power of today's high-output PV modules. The QT2 microinverter gives commercial installers a powerful plug-and-play MLPE inverter that installs faster than competing solutions and is inherently compliant to rapid shutdown requirements.

With balancing 3-phase output, 4 DC inputs and encrypted ZigBee wireless, installers and system owners alike benefit from new QT2 architecture platform. The innovative design facilitates thermal dissipation while maximizing power production. The components are encapsulated with silicone to reduce stress on the electronics, dissipate heat, enhance waterproof properties, and ensure maximum reliability of the system. 24/7 access to performance data through apps or APsystems EMA web-based portal facilitate remote diagnosis and troubleshooting.

The new QT2 is grid interactive through its Reactive Power Control (RPC) feature, designed to better manage photovoltaic power spikes in the grid. At 96.5% peak efficiency and improved reliability, the QT2 is a game changer for commercial solar.

WIRING SCHEMATIC



Model	QT2-208	QT2-480
Region	USA/Canada	

Input Data (DC)

Recommended PV Module Power (STC) Range	315Wp-670Wp+	
Peak Power Tracking Voltage	30V-45V	
Operating Voltage Range	26V-60V	
Maximum Input Voltage	60V	
Maximum Input Current	20A x 4	
Maximum input short circuit current	25A per input	

Output Data (AC)

Maximum Continuous Output Power	1728VA	1800VA
Nominal Output Voltage/Range(1)	208V/183V-229V	480V/422V-528V
Adjustable Output Voltage Range	166V-240V	385V-552V
Nominal Output Current	4.8Ax3	2.17Ax3
Maximum Output Fault Current (ac) And Duration	L-L:85.4Apk, 13.6ms of duration, 4.967Arms	L-L:35.1Apk, 13.9ms of duration, 2.199Arms
Nominal Output Frequency/Range(1)	60Hz/59.3Hz-60.5Hz	
Adjustable Output Frequency Range	55Hz-65Hz	
Power Factor(Default/Adjustable)	0.99/0.8 leading...0.8 lagging	
Maximum Units per 30A branch(2)	5	11
AC Bus Cable	10AWG	

Efficiency

Peak Efficiency	96.5%	
CEC Efficiency	96%	95.5%
Nominal MPPT Efficiency	99.5%	
Night Power Consumption	80mW	200mW

Mechanical Data

Operating Ambient Temperature Range(3)	-40 °F to +149 °F (-40 °C to +65 °C)
Storage Temperature Range	-40 °F to +185 °F (-40 °C to +85 °C)
Dimensions (W x H x D)	14” × 9.5” × 1.8” (359mm X 242mm X 46mm)
Weight	13 lbs (6kg)
DC Connector Type	Stäubli MC4 PV-ADBP4-S2&ADSP4-S2
Cooling	Natural Convection - No Fans
Enclosure Environmental Rating	Type 6

Features

Communication (Inverter To ECU)(4)	Encrypted ZigBee
Isolation Design	High Frequency Transformers, Galvanically Isolated
Energy Management	Energy Management Analysis (EMA) system
Warranty(5)	10 Years Standard ; 25 Years Optional

Compliances

Safety, EMC & Grid Compliances	UL1741; CSA C22.2 No. 107.1-16;CA Rule 21 (UL 1741 SA); FCC Part15; ICES-003; IEEE1547; NEC2014&NEC2017&NEC2020 Section 690.11 DC Arc-Fault circuit Protection; NEC2014&NEC2017&NEC2020 Section 690.12 Rapid Shutdown of PV systems on Buildings

(1) Nominal voltage/frequency range can be extended beyond nominal if required by the utility.
(2) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.
(3) The inverter may enter to power de-grade mode under poor ventilation and heat dissipation installation environment.
(4) Recommend no more than 80 inverters register to one ECU for stable communication.
(5) To be eligible for the warranty, APsystems microinverters need to be monitored via the EMA portal. Please refer to our warranty T&Cs available on usa.APsystems.com.

Specifications subject to change without notice please ensure you are using the most recent update found at usa.APsystems.com or canada.APsystems.com

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C US Meets the standard requirements for Distributed Energy Resources (UL 1741) and identified with the CSA Listed Mark

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ECU-C

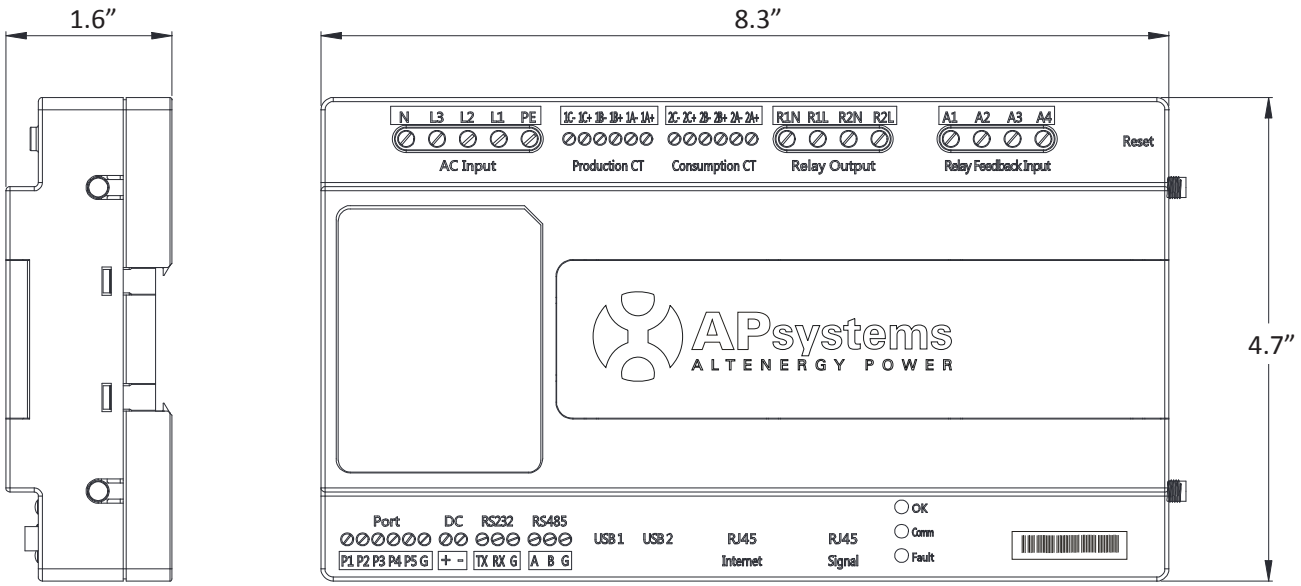
Energy communication unit with production and consumption monitoring

- High frequency metering
- AC power monitoring
- Relay control
- Built-in Wi-Fi
- Single phase or three phase
- Zigbee or PLC models available

The APsystems Gateway, our state-of-the-art Energy Communication Unit (ECU), is the information gateway for APsystems inverters. It collects and transfers module performance data giving you comprehensive monitoring and control over each individual module, optimizing the performance of your solar array.

The ECU-C, designed from the ground up for commercial applications, offers advanced functionality for more data-centric installations, with consumption and production monitoring, contact and relay ports, and high-frequency metering.

DIMENSIONS



APsystems ECU-C Datasheet

Communication Interface

Communication Method	Zigbee 2.4 GHz
Ethernet	10/100M Auto-sensing, Auto-negotiation
Integrated Wi-Fi	802.11g/n
Wireless Security	WEP, WPA2-PSK
USB Interface	Power only 5V-1A
RS232	Standard
RS485	Standard
RJ45	Standard

Power Requirements

AC Power Supply	110~277VAC, 50~60Hz Single Phase / Three Phase
DC Power Supply	12~16V
Power Consumption	3W

Mechanical Data

Dimensions (WxHxD)	8.3" x 4.7" x 1.6" (210mm x 120mm x 41mm)
Weight	1.1lbs (500g)
Operating Ambient Temperature Range	-40°F to 149°F (-40°C to +65°C)
Cooling	Natural convection, No Fans
Enclosure Environmental Rating	NEMA 1 (IP20)

Other Features

Grid Split Phase Type	Single Phase / Three Phase
Relay Driver	Control for external AC contact or relay
Digital Input	External control device connection
CT Sensor	High frequency production and consumption metering
Meter Accuracy	Integrated PV production metering (+/- 0.5% via CT) and optional consumption monitoring (+/- 2.5% via CT)

Compliance

Compliance	IEC/EN61010-1,EN61000-6-1,EN61000-6-2,EN61000-6-3,EN61000-6-4,2014/30/EU ,EN301489-1/-17,EN62479,EN 300328

Warranty

Warranty term	3 years

Specifications subject to change without notice – please ensure you are using the most recent version found at APsystems.com

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