R S C O T T H O L L A N D • A R C H I T E C T

TRANSMITTAL

DATE: 19 JANUARY 2021

TO: Architectural Review Board (ARB), City of Pensacola

PROJECT NAME: PI2

PROJECT NO: 2002

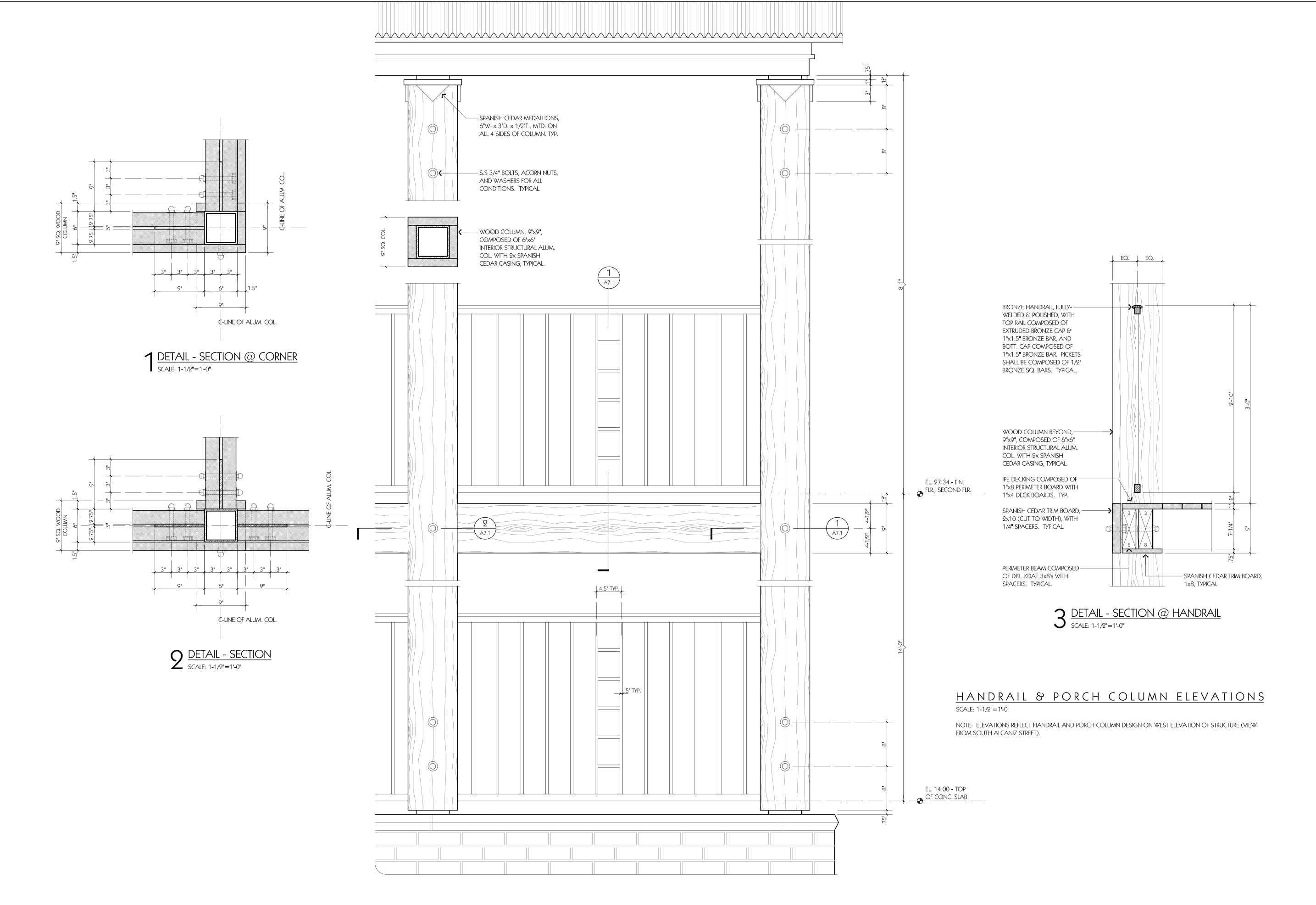
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COPIES DATE DESCRIPTION

1 01-19-2021 Responses To Comments

REMARKS: For your review & approval.

By: R. Scott Holland



R SCOTT HOLLAND

ARCHITECT

312 SOUTH ALCANIZ STREET
PENSACOLA, FLORIDA / 32502

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SOUTH ALCANIZ STREET SACOLA, FL 32502

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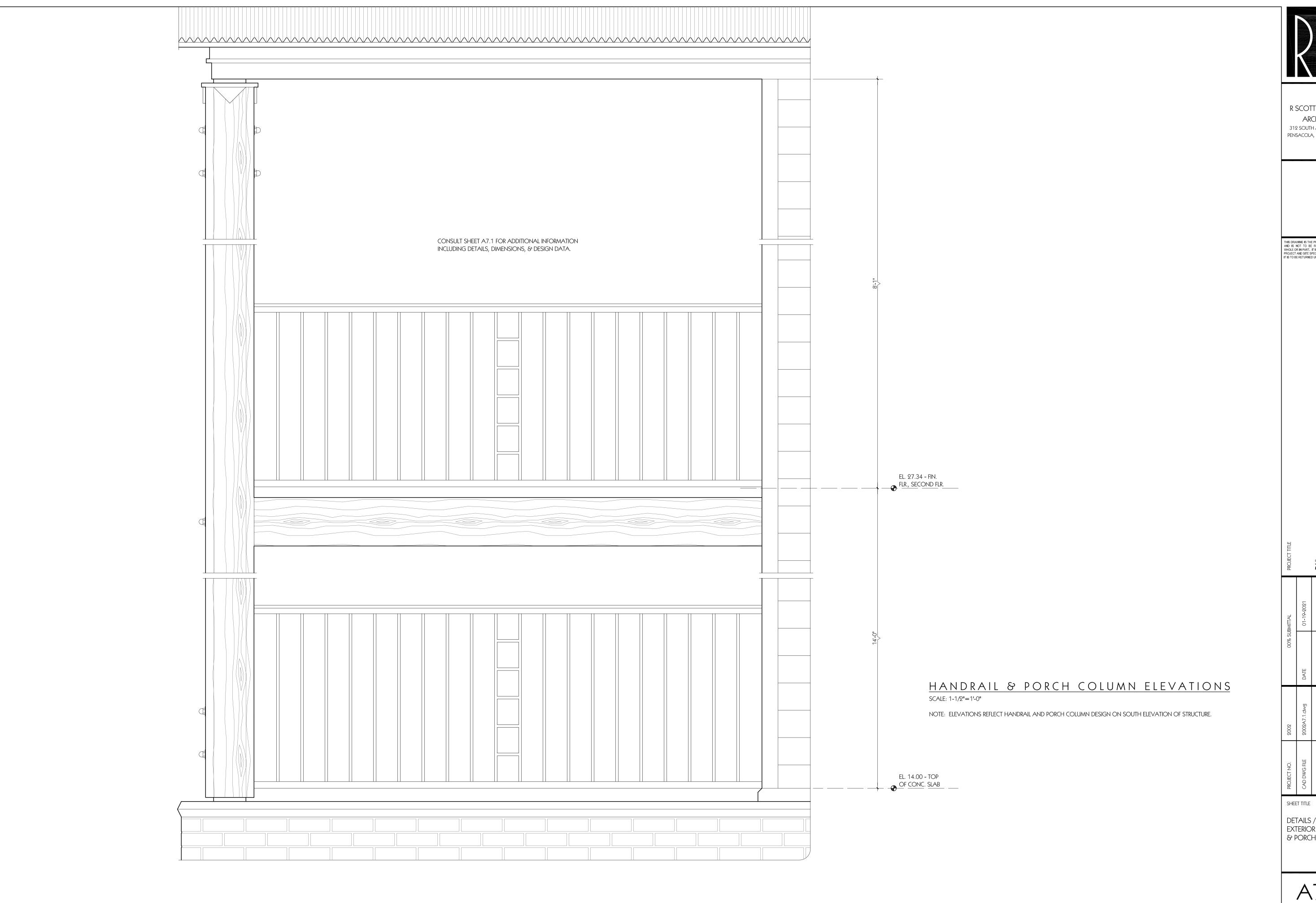
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SHEET TITLE

DETAILS /
EXTERIOR HANDRAILS
& PORCH COLUMNS

A7.1



R SCOTT HOLLAND ARCHITECT 312 SOUTH ALCANIZ STREET PENSACOLA, FLORIDA / 32502

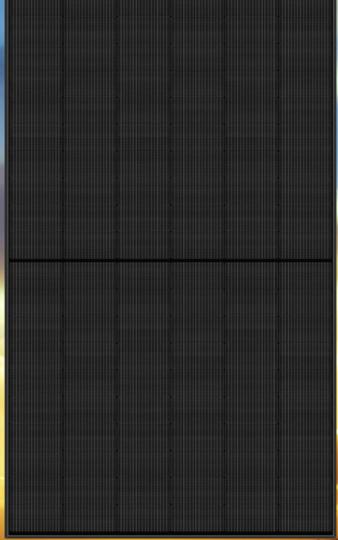
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DETAILS /
EXTERIOR HANDRAILS
& PORCH COLUMNS

SOLAR'S MOST TRUSTED







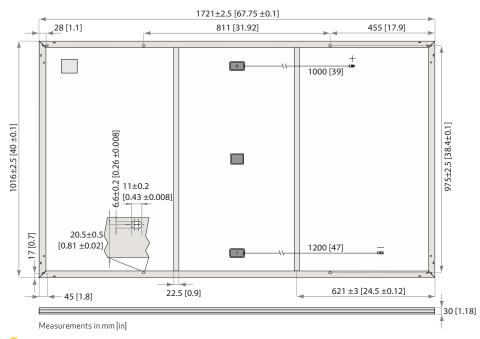
375 WP POWER







EC ALPHA BLACK SERIES



GENERAL DATA

Cell type:	120 half-cut cells with REC heterojunction cell technology 6 strings of 20 cells in series	Connectors:	Stäubli MC4PV-KBT4/KST4 (4mm²) in accordance with IEC 62852 IP68 only when connected
Glass:	3.2 mm solar glass with anti-reflection surface treatment	Cable:	4 mm² solar cable, 1.0 m + 1.2 m in accordance with EN 50618
Backsheet:	Highly resistant polymeric construction (black)	Dimensions:	1721 x 1016 x 30 mm (1.75 m²)
Frame:	Anodized aluminum (black)	Weight:	19.5 kg
Junction box:	3-part, 3 bypass diodes, IP67 rated in accordance with IEC 62790	Origin:	Made in Singapore

ELECTRICAL DATA Product Code*: RECxxxAA Black

Power Output - P _{MAX} (Wp)	355	360	365	370	375
Watt Class Sorting - (W)	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Nominal Power Voltage - V _{MPP} (V)	36.4	36.7	37.1	37.4	37.8
Nominal Power Current - I _{MPP} (A)	9.77	9.82	9.85	9.9	9.94
Open Circuit Voltage - V _{oc} (V)	43.6	43.9	44.0	44.1	44.2
Short Circuit Current - I _{SC} (A)	10.47	10.49	10.52	10.55	10.58
Power Density (W/m²)	202.85	205.71	208.57	211.42	214.28
Panel Efficiency (%)	20.3	20.6	20.9	21.2	21.4
Power Output - P _{MAX} (Wp)	271	274	278	282	286
Nominal Power Voltage - V _{MPP} (V)	34.3	34.6	35.0	35.2	35.6
Nominal Power Current - I _{MPP} (A)	7.89	7.93	7.96	8.00	8.03
Open Circuit Voltage - V _{oc} (V)	41.1	41.4	41.5	41.6	41.6
Short Circuit Current - I _{SC} (A)	8.46	8.47	8.50	8.52	8.55

Values at standard test conditions (STC: air mass AM1.5, irradiance 1000 W/m^2 , temperature 25°C), based on a production spread with a tolerance of P_{MW} , V_{Cr} & I_{cr} ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m², temperature 20°C, windspeed 1 m/s). *Where xxx indicates the nominal power class (P_{MAX}) at STC above.

CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, UL 1703, UL 61730			
IEC 62804	PID		
IEC 61701	Salt Mist		
IEC 62716	Ammonia Resistance		
ISO 11925-2	Ignitability (Class E)		
IEC 62782	Dynamic Mechanical Load		
IEC 61215-2:2016	Hailstone (35mm)		
AS4040.2 NCC 2016	Cyclic Wind Load		
100110010001100000100			

ISO 14001:2004, ISO 9001:2015, OHSAS 18001:2007, IEC 62941









WARRANTY*

	Standard	REC ProTrust	
Installed by an REC Certified Solar Professional	No	Yes	Yes
System Size	All	≤25 kW	25-500 kW
Product Warranty (yrs)	20	25	25
Power Warranty (yrs)	25	25	25
Labor Warranty (yrs)	0	25	10
Power in Year 1	98%	98%	98%
Annual Degradation	0.25%	0.25%	0.25%
Power in Year 25	92%	92%	92%

See warranty documents for details. Conditions apply.

MAXIMUM RATINGS

Operational temperature:	-40+85°C
Maximum system voltage:	1000 V
Design load (+): snow Maximum test load (+):	4666 Pa (475 kg/m²)† 7000 Pa (713 kg/m²)*
Design load (-): wind Maximum test load (-):	2666 Pa (272 kg/m²)† 4000 Pa (407 kg/m²)*
Max series fuse rating:	25 A
Max reverse current:	25 A

*Calculated using a safety factor of 1.5 *See installation manual for mounting instructions

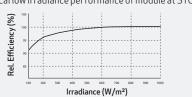
TEMPERATURE RATINGS*

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Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P_{MAX} :	-0.26 %/°C
Temperature coefficient of V_{oc} :	-0.24 %/°C
Temperature coefficient of I _{sc} :	0.04 %/°C

*The temperature coefficients stated are linear values

LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:





NMOT

REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power in order to facilitate global energy transitions. Committed to quality and innovation, REC offers photovoltaic modules with leading high quality, backed by an exceptional low warranty claims rate of less than 100ppm. Founded in Norway in 1996, REC employs 2,000 people and has an annual solar panel capacity of 1.8 GW. With over 10 GW installed worldwide, REC is empowering more than 16 million people with clean solar energy. REC Group is a Bluestar Elkem company with headquarters in Norway, operational headquarters in Singapore, and regional bases in North America, Europe, and Asia-Pacific.







Innovation for a Better Life





CHANGE YOUR ENERGY CHARGE YOUR LIFE



R SU



Compact Size & Easy Installation

The compact and lightweight nature of the RESU is world-class. It is designed to allow easy wall-mounted or floor-standing installation for both indoor and outdoor applications. The inverter connections have also been simplified, reducing installation time and costs.



Powerful Performance

The new RESU series features industry-leading continuous power (4.2kW for RESU6.5) and DC round-trip efficiency (95%). LG Chem's L&S (Lamination & Stacking) technology provides durability ensuring 80% of capacity retention after 10 years.



Proven Safety

LG Chem places the highest priority on safety and utilizes the same technology for its ESS products that has a proven safety record in its automotive battery. All products are fully certified in relevant global standards.





Change Your Energy, Charge Your Life

48V







Mod	lels	RESU3.3	RESU6.5	RESU10	
Total Energ	gy [kWh]	3.3	6.5	9.8	
Usable Ener	rgy [kWh]	2.9	5.9	8.8	
Capacit	y [Ah]	63	126	189	
Nominal Vo	oltage [V]	51.8	51.8	51.8	
Voltage Ra	ange [V]	42.0~58.8	42.0~58.8	42.0~58.8	
Max Pow	er [kW]	3.0	4.2	5.0	
Peak Power [kW	V] (for 3 sec.)	3.3	4.6	7.0	
Dimension [W	x H x D, in]	17.8 x 15.8 x 4.7	17.8 x 25.7 x 4.7	17.8 x 19.0 x 8.9	
Weigh	nt [lb]	68	115	165	
Enclosure Protection Rating		IP55			
Commun	nication		CAN 2.0 B		
Cell			UL1642		
Certificates	Product	UL1973 / TUV (IEC 62619) / CE / FCC / RCM			

Compatible Inverter Brands: SMA, SolaX, Sungrow, Schneider, Ingeteam, GoodWe, Redback, Victron Energy (As of 3Q. 2016, More brands to be added)



RESU Plus is an expansion kit specially designed for 48V models of new RESU series. With RESU Plus, all 48V models can be cross-connected with each other.

- Dimension: 6.1 x 8.5 x 4.8 (W x H x D, in)
- Number of Expandable Battery Units: Up to 2EA IP55

400V





Mo	dels	RESU7H	RESU10H		
Total Ener	gy [kWh]	7.0	9.	9.8	
Usable Ene	ergy [kWh]	6.6	9.	3	
Capaci	ty [Ah]	63	6	3	
Voltage R	Range [V]	350~450	350~450	385~550	
Max Power [kW]		3.5	5.0		
Peak Power [kW	/] (for 10 sec.)	5.0	7.	7.0	
Dimension [W	/ x H x D, in]	29.3 x 27.2 x 8.1	29.3 x 35	29.3 × 35.7 × 8.1	
Weigh	nt [lb]	168	214 220		
Enclosure Prot	ection Rating	IP55			
Communication		RS485	RS485	CAN 2.0 B	
Certificates	Cell	UL 1642			
Product		TUV (IEC 62619) / CE / RCM	UI 1973 / TUV (IFC 62	UL1973 / TUV (IEC 62619) / CE / FCC / RCM	

