



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Robert K. Sutton
Chairman

Date: May 29, 2024

MEMORANDUM

TO: Rabbiah Sabbakhan, DPS Director Department of
Permitting Services

FROM: Chris Berger
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #1071072 - Solar Panels

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **approved** by the HPC staff.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Barrett Colombo
Address: 7107 Carroll Ave., Takoma Park

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Chris Berger at 301-495-4571 or chris.berger@montgomeryplanning.org to schedule a follow-up site visit.





HISTORIC PRESERVATION COMMISSION

HAWP #: _____ at: _____

submitted on: _____

has been reviewed and determined that the proposal fits into the following category/categories:

Repair or replacement of a masonry foundation with new masonry materials that closely match the original in appearance;

Installation of vents or venting pipes in locations not visible from the public right-of-way;

New gutters and downspouts;

Removal of vinyl, aluminum, asbestos, or other artificial siding when the original siding is to be repaired and/or replaced in kind;

Removal of accessory buildings that are not original to the site or non-historic construction;

Repair or replacement of missing or deteriorated architectural details such as trim or other millwork, stairs or stoops, porch decking or ceilings, columns, railings, balusters, brackets shutters, etc., with new materials that match the old in design, texture, visual characteristics, and, where possible materials, so long as the applicant is able to provide one extant example, photographic evidence, or physical evidence that serves as the basis for the work proposed;

Construction of wooden decks that are at the rear of a structure and are not visible from a public right-of-way;

Roof replacement with -compatible roofing materials, or with architectural shingles replacing 3-Tab asphalt shingles;

Installation of storm windows or doors that are compatible with the historic resource or district;

Repair, replacement or installation of foundation-level doors, windows, window wells, and areaways, or foundation vents, venting pipes, or exterior grills that do not alter the character-defining features and/or the historic character of the resource;

Construction of fences that are compatible with the historic site or district in material, height, location, and design;

Fence is lower than 48" in front of rear wall plane;

Construction of walkways, parking pads, patios, driveways, or other paved areas that are not visible from a public right-of-way and measure no more than 150 square feet in size;

Replacement of existing walkways, parking pads, patios, driveways, or other paved areas with materials that are compatible with the visual character of the historic site and district and that are no greater than the dimensions of the existing hardscape;

Construction of small accessory buildings no larger than 250 square feet in size that are not visible from the public right-of-way;

Installations of skylights on the rear of a structure that will not be visible from the public right-of-way, and would not remove or alter character-defining roof materials;

Installation of solar panels and arrays in locations that are not readily visible from the public right-of-way or that are designed so as to have a minimal impact on the historic resource or the historic district (e.g., systems that are ground-mounted in areas other than the front or side yard of a corner lot, located on accessory or outbuildings, on non-historic additions, or on rear facing roof planes);

Installation of car charging stations in any location on a property or in the right-of-way;

Installation of satellite dishes;

Removal of trees greater than 6" in diameter (d.b.h.) that are dead, dying, or present an immediate hazard.

Removal of trees greater than 6" in diameter (d.b.h.) in the rear of the property that will not impact the overall tree canopy of the surrounding district or historic site;

Replacement tree required as a condition; and,

Other minor alterations that may be required by the Department of Permitting Services post-Commission approval that would have no material effect on the historic character of the property.

Staff finds the proposal complies with Chapter 24A, the Secretary of the Interior's Standards for Rehabilitation, and any additional requisite guidance. Under the authority of COMCOR No. 24A.04.01, this HAWP is approved by Christopher G. Bergen on _____. The approval memo and stamped drawings follow.



APPLICATION FOR HISTORIC AREA WORK PERMIT
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP#
DATE ASSIGNED

APPLICANT:

Name:
Address:
Daytime Phone:
E-mail:
City:
Zip:
Tax Account No.:

AGENT/CONTACT (if applicable):

Name:
Address:
City:
Zip:
Contractor Registration No.:

REVIEWED

By Chris Berger at 11:31 am, May 29, 2024

of Historic Property



Historic District? Yes/District Name
No/Individual Site Name
and Trust/Environmental Easement on the Property? If YES, include a
ntation from the Easement Holder supporting this application.
Examiner Approvals /Reviews Required as part of this Application?
Plat, etc.?) If YES, include information on these reviews as

Street:

Town/City: Nearest Cross Street:

Lot: Block: Subdivision: Parcel:

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items
for proposed work are submitted with this application. Incomplete Applications will not
be accepted for review. Check all that apply:

- New Construction
Addition
Demolition
Grading/Excavation
Deck/Porch
Fence
Hardscape/Landscape
Roof
Shed/Garage/Accessory Structure
Solar
Tree removal/planting
Window/Door
Other:

I hereby certify that I have the authority to make the foregoing application, that the application is correct
and accurate and that the construction will comply with plans reviewed and approved by all necessary
agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Signature of owner or authorized agent

Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address

Owner's Agent's mailing address

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By Chris Berger at 11:31 am, May 29, 2024

Adjacent

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Montgomery County

Historic Preservation Commission



Pamela A. Potter

ers mailing addresses

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

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By Chris Berger at 11:31 am, May 29, 2024

Description of Work Proposed: Please

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Historic Preservation Commission

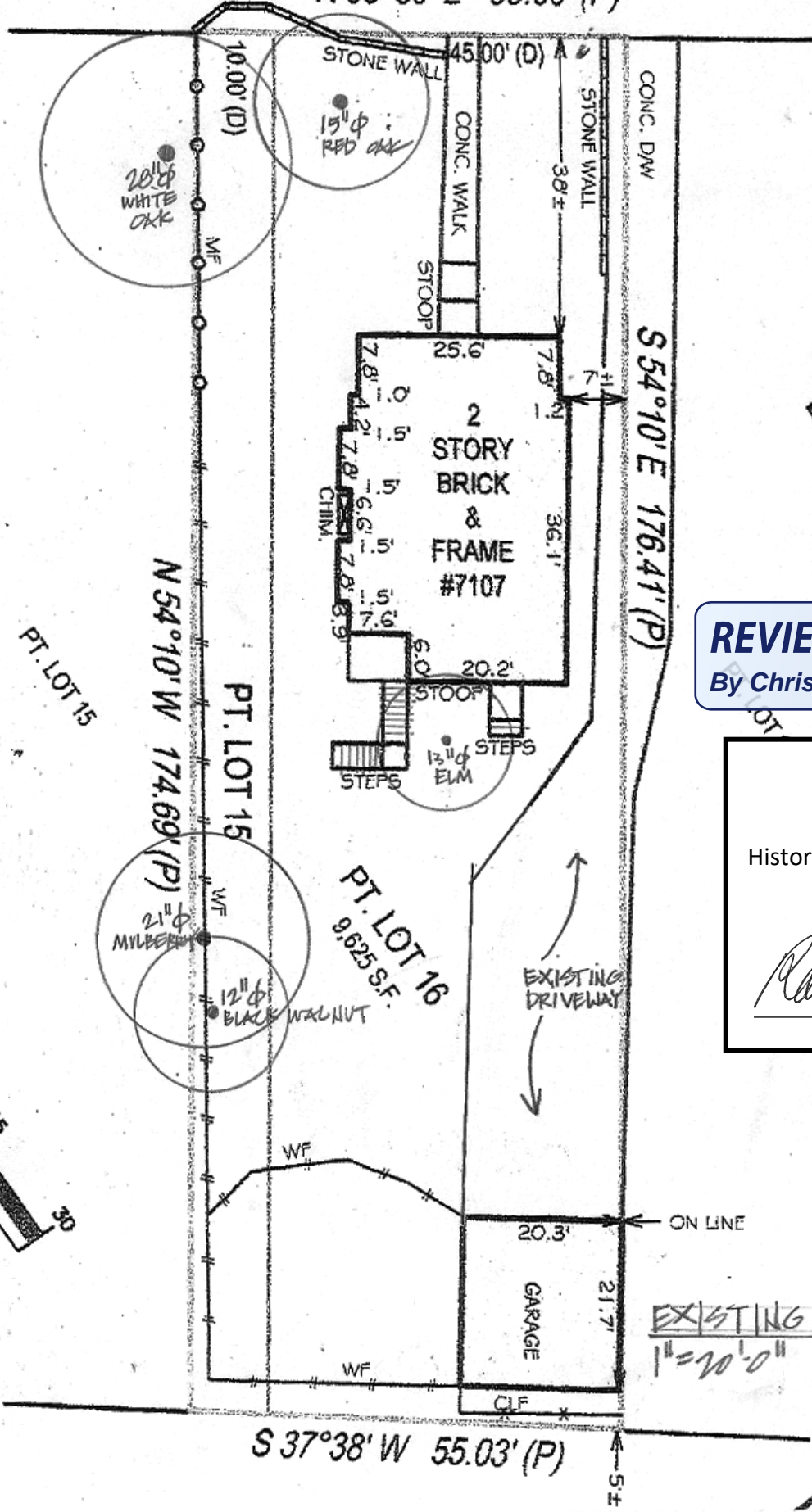


Robert A. Patton

CARROLL AVENUE

N 35°50' E 55.00' (P)

AKOMA PARK, MARYLAND 20912-4600
1994 LLC



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By Chris Berger at 11:31 am, May 29, 2024

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 Montgomery County
 Historic Preservation Commission

Robert H. [Signature]



EXISTING SITE PLAN
1"=20'-0"

S 37°38' W 55.03' (P)

EXISTING
REAR

3'-4"±

3'-4"±
1'-3"±

SOLAR PANEL
ARRAY

ROOF SLOPE
JOINT

EXISTING
ROOF/CEILING

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Ronald A. ...

2
A-4

6'-10"

8'-3"

4
A-7

OPEN
TO
MURDER

6'-11"

8'-11"

ALIGN

OPEN TO
DINING RM.

KITCHEN

REF.

8'-3"

STOR.

LAUNDRY

1
A-7 BUILDING SECTION
1/2" = 1'-0"

Owners:

Aimee Witteman

Barrett Colombo

7107 Carroll Ave.

Takoma Park, MD 20912

Adjoining Property Owners

HAWP

William Sims

7109 Carroll Ave.

Takoma Park, MD 20912

Jaime & Brittany Marschalk

7105 Carroll Ave.

Takoma Park, MD 20912

Brandi Roland

Craig Sharman

7114 Carroll Ave.

Takoma Park, MD 20912

Adriana & Pascal Echeverri

101 Park Ave.

Takoma Park, MD 20912

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Montgomery County

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Robert H. Patton

ROOF PROPERTIES	Roof Label	A																		
	Material	3-Tab Shingle																		
	Pitch (deg)	36																		
	Azimuth (deg)	123																		
	Span (ft)	8.25																		
	Mean Height (ft)	25																		
	Primary Support	2x6 Rafter																		
	Support Spacing (in)	24																		
	Standoff	Quickbolt																		
	Racking	UniracSM																		

PROJECT DETAILS:

EQUIPMENT
 (23) REC405AA PURE
 (23) IQ8PLUS-72-2-US

SYSTEM SIZE:
 DC RATING: 9.315 kW
 AC RATING: 6.67 kW

AHJ:
 MONTGOMERY COUNTY
 (MD)

WORKSITE ADDRESS:

BARRETT COLOMBO
 7107 CARROLL AVENUE
 TAKOMA PARK MD US 20912

CONTRACTOR INFO:


FUSION SOLAR SERVICES
 3600 COMMERCE DR
 SUITE 601
 BALTIMORE, MD 21227
 (443) 955-0779

LICENSE NUMBER:

MHIC-30991

REV	DATE
PRELIM	02-16

PRELIMINARY REPORT

P001

LEGEND

- EXTERIOR CONDUIT
- ATTIC CONDUIT
- BASEMENT CONDUIT
- - - TRENCH

ARRAY LAYOUT

AS-SOLD SYSTEM SIZE: (23) MODULES
 CURRENT SYSTEM SIZE: (23) MODULES

COMMENTS:

MANAGED TO FIT ALL 23 MODULES ON THE MAIN ROOF. WE WOULDN'T BE ABLE TO UTILIZE THE SMALLER ROOF, ANYWAY, AS IT COULD ONLY BARELY FIT TWO MODULES.

STRUCTURAL

ROOF PLAN AREA: 1689.1 SQ.FT.
 SOLAR ARRAY AREA: 459 SQ.FT.
 ROOF COVERAGE: 28%

COMMENTS:

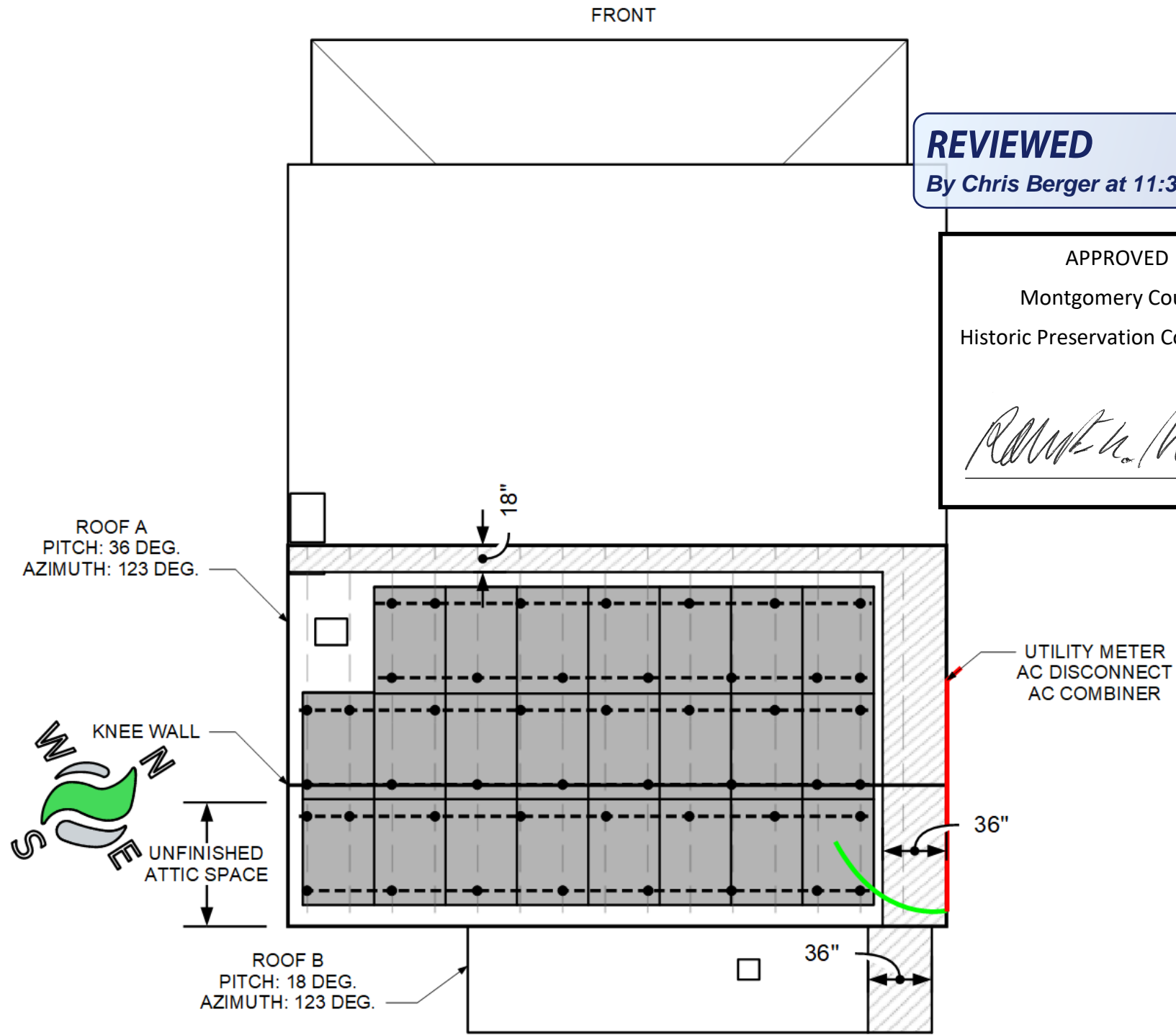
STRUCTURAL REVIEW PASSED; HOWEVER, IT SHOULD BE NOTED THAT ADDING SOLAR TO THE ROOF MAY MAKE THE EXISTING DRYWALL/FINISH CRACKS WORSE.

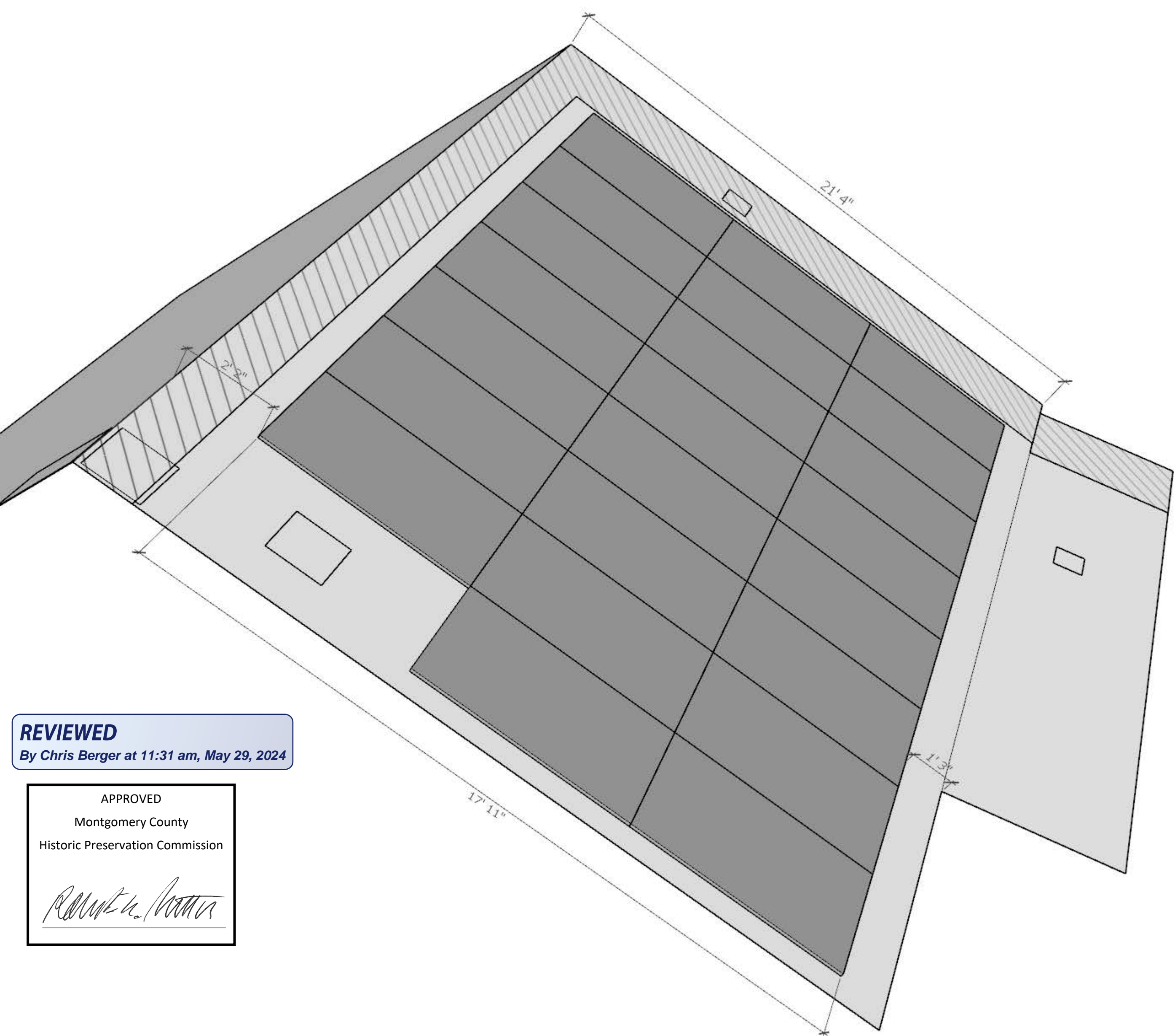
ELECTRICAL

SERVICE SIZE: 200 AMP
 TAP LOCATION: SQUARE D HOM MAIN SERVICE PANEL
 TAP TYPE: LINE SIDE TAP
 PV BREAKER: 35 AMP

COMMENTS:

MSP IS FULL AND THEREFORE WE CAN ONLY LINE SIDE TAP.





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By Chris Berger at 11:31 am, May 29, 2024

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Montgomery County
Historic Preservation Commission
Robert H. [Signature]

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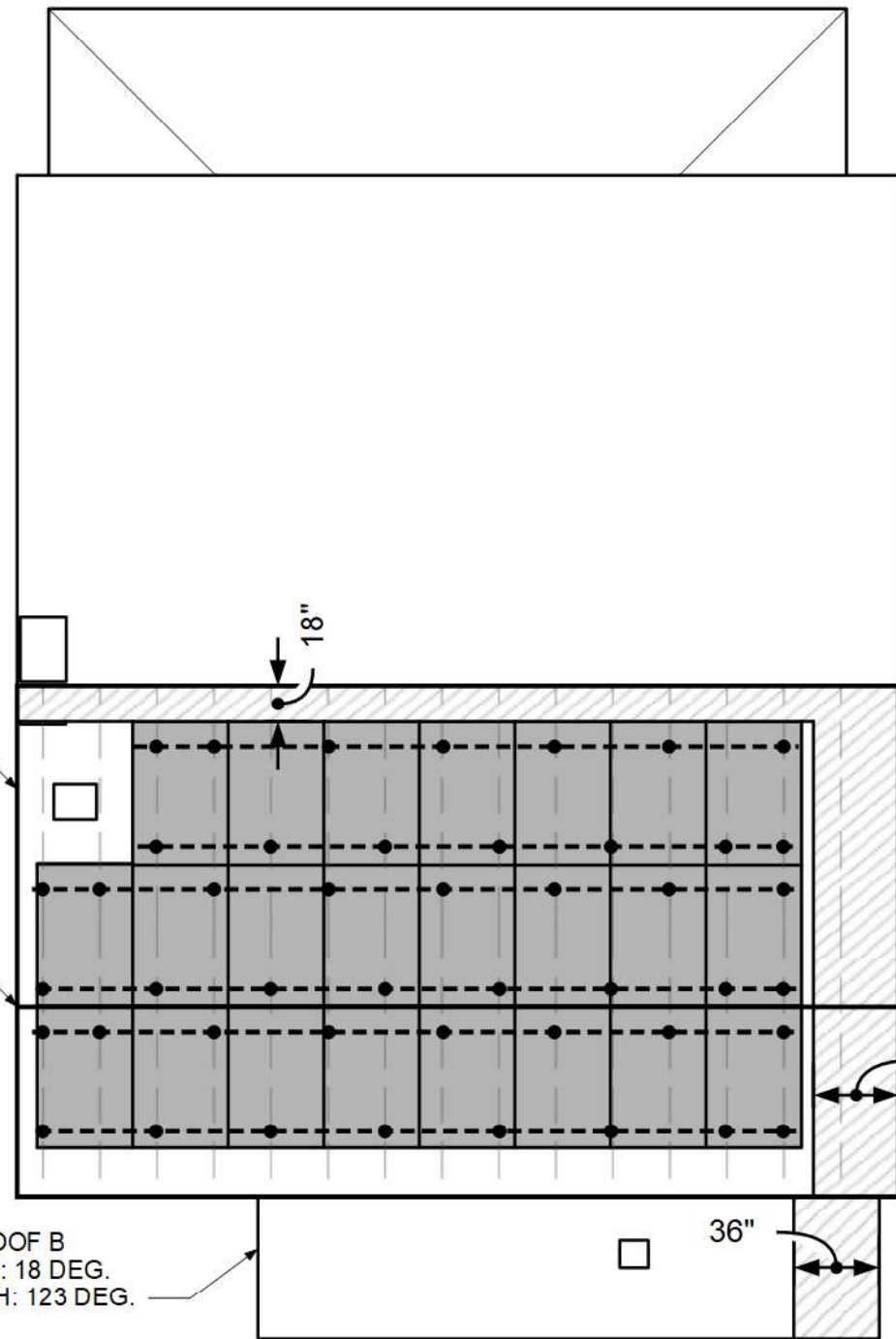


FRONT

ROOF A
PITCH: 36 DEG.
AZIMUTH: 123 DEG.








ROOF B
PITCH: 18 DEG.
AZIMUTH: 123 DEG.



UTILITY METER
AC DISCONNECT
AC COMBINER

LEGEND

	ROOF SUPPORT
	MOUNTING RAIL
	ROOF ATTACHMENT
	PV ARRAY
	SETBACK

FOR PERMITTING USE ONLY

WORKSITE ADDRESS:

BARRETT COLOMBO

7107 CARROLL AVENUE
TAKOMA PARK MD US 20912

CONTRACTOR INFO:



FUSION
SOLAR SERVICES

3600 COMMERCE DR
SUITE 601
BALTIMORE, MD 21227
(443) 955-0779

LICENSE NUMBER:

MHIC-30991

REV	DATE
IFC	03-08

ATTACHMENT
PLAN

A001

INSTALLATION NOTES

- 1) ALL SOLAR MODULES SUPPORTED BY ROOF ATTACHMENTS STAGGERED AT 48 IN O.C. (OR AS INDICATED)
- 2) SOLAR PHOTOVOLTAIC SYSTEM INSTALLED PARALLEL TO ROOF SURFACE
- 3) SOLAR PHOTOVOLTAIC SYSTEM INSTALLED AT A MAXIMUM HEIGHT OF 6 IN ABOVE ROOF SURFACE (OR AS INDICATED)

4) ANY ROOFING PENETRATIONS SHALL HAVE PROPER FLASHING SEALANT USED TO PROVIDE WATERTIGHT ASSEMBLY

TOTAL ROOF PLAN AREA =	1689.1	SQ.FT
TOTAL SOLAR ARRAY AREA =	458.083	SQ.FT.
ARRAY ROOF COVERAGE =	28	%



STAMPED AND SIGNED
FOR STRUCTURAL ONLY

FOR ENGINEERING USE ONLY



REVIEWED
By Chris Berger at 11:31 am, May 29, 2024

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Ronnie A. [Signature]



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By Chris Berger at 11:31 am, May 29, 2024

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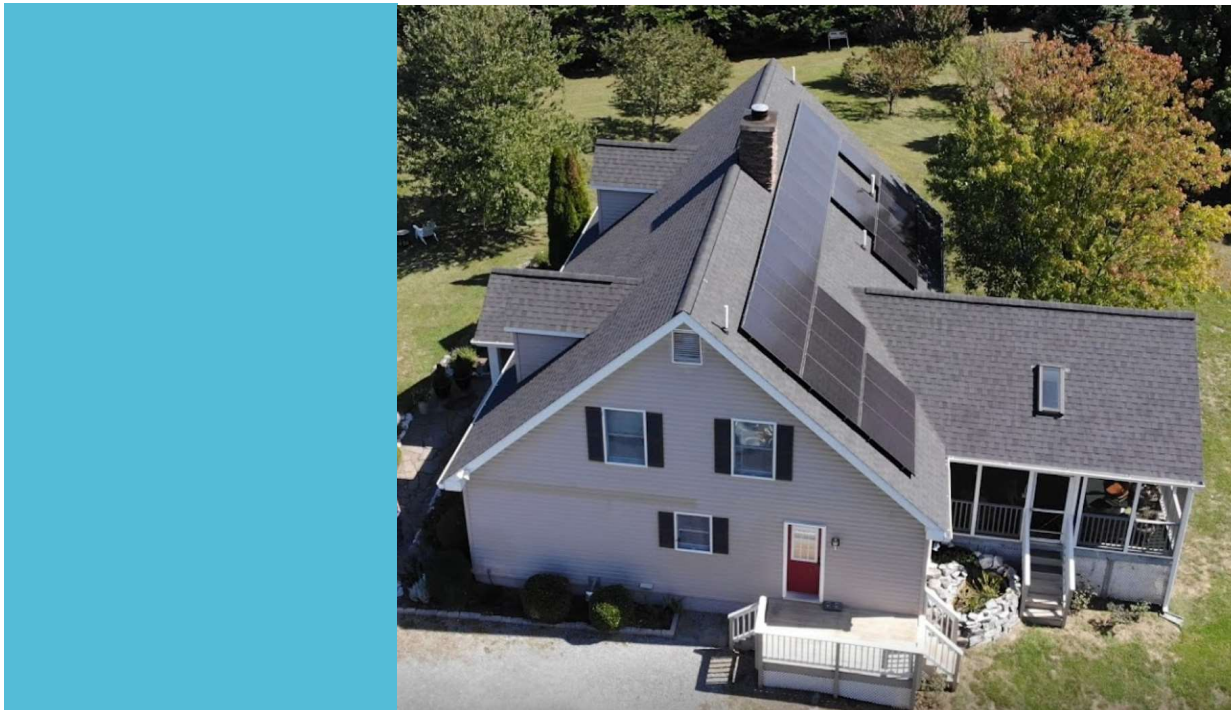
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17662
17660, 17862

QB2 WITH 3" MICROFLASHING®
FOR ASPHALT, EPDM, & TPO ROOFS
PATENT # 8448407



A DIVISION OF QUICKSCREWS INTERNATIONAL CORP

SPEC SHEET

Part #	Box Quantity
17660	4" QB2 (25)
17662	3" Microflashing® (25); 4" QB2 (25); L-Foot (25)



Warranty: All products are produced to standard and commercial tolerances. We warranty products to be free from defects in materials and manufacturing for 25 years. When we have determined that a product is defective, it will be replaced. At our discretion, a credit may be issued instead of replacement. Our liability is limited to the cost of the defective product only. No other warranty is implied.

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3948 Airway Drive, Rock Hill SC 29732
 Phone: (844) 671-6045 | Fax: (800) 689-7975 | www.quickbolt.com
 QuickBOLT is a division of Quickscrews International Corp.

QB2
PN# 17660

Dual Drive Technology
1/2" Hex Outer Drive
6mm Inner Drive

MATERIAL: Stainless Steel 304			
SURFACE TREATMENT: PASSIVATION	NAME:	DATE:	STATUS: Approved
	DRAWN: MAR. 19'19	ITEM: 5/16 X 4" HEX FLANGE QUICK BOLT	
	APPROVED: MAR. 19'19	DRAWING NO: SL20190316-1	
TOLERANCE: AS PER DRAWING	VERSION: 01	FORMAT: A3	Scale: 5:1
	1 ISO	PAGES: 1/1	UNIT: METRIC

PN# 17661
L-Foot for QB2

RO. 25mm
2mm
85mm
R5mm
4mm
40mm
40mm
10.2mm
10mm
40mm
61mm
40mm
85mm
40mm
40mm
40mm

Ø12.3 ± 0.3mm

Part # 17669

5/16" x 3"
304 Stainless Steel
Compression Washer Black

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INSTALL INSTRUCTIONS



1



2



3



4



5



6



7

QB2 (17662)

RECOMMENDED MATERIALS

- Tools to locate and mark rafter
- Drill with a 15/64" drill bit
- MFG approved sealant (optional)
- 1/2" Nut Setter

INSTALLATION INSTRUCTIONS

1. Locate and mark the rafter
2. Predrill the hole
3. Optional: Fill the predrilled hole with MFG approved sealant
4. Optional: Place a ring of sealant around the bottom of the Microflashing® washer
5. Place the Microflashing®
6. Insert the Bolt into the L-Foot
7. Drive the Bolt until the Microflashing® is compressed

REVIEWED

By Chris Berger at 11:31 am, May 29, 2024

To compress Microflashing® properly with QB2 use a 150 minimum torque lbs/inch

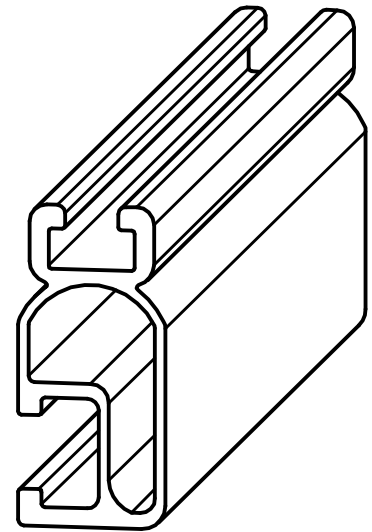
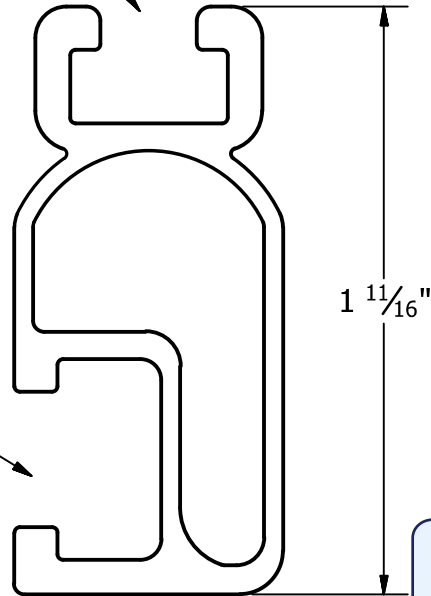


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1/4" BOLT LOCATION

3/8" BOLT LOCATION



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PART # TABLE

P/N	DESCRIPTION	LENGTH
315168M	SM LIGHT RAIL 168" MILL	168"
315168D	SM LIGHT RAIL 168" DRK	168"
315240M	SM LIGHT RAIL 240" MILL	240"
315240D	SM LIGHT RAIL 240" DRK	240"



1411 BROADWAY BLVD, NE
ALBUQUERQUE, NM 87102 USA
PHONE: 505.242.6411
WWW.UNIRAC.COM

PRODUCT LINE: SOLARMOUNT

DRAWING TYPE: PART DETAIL

DESCRIPTION: LIGHT RAIL

REVISION DATE: 9/11/2017

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE
NOMINAL

PRODUCT PROTECTED BY
ONE OR MORE US PATENTS
LEGAL NOTICE

SM-P02

SHEET

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SOLAR'S MOST TRUSTED



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Montgomery County

Historic Preservation Commission

inter solar award

2022 WINNER

REC ALPHA[®] PURE SERIES

PRODUCT SPECIFICATIONS

COMPACT PANEL SIZE

410 WP
222 $\frac{W}{M^2}$



ELIGIBLE

LEAD-FREE
ROHS COMPLIANT

EXPERIENCE



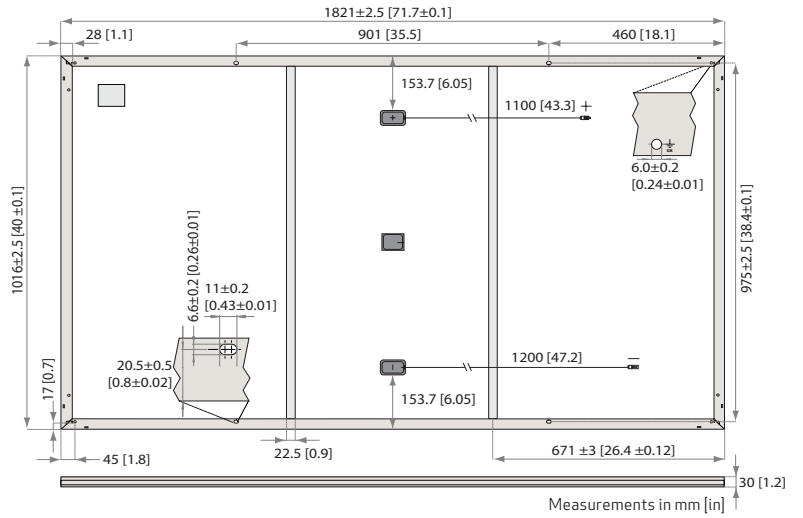
PERFORMANCE

REC ALPHA PURE SERIES

PRODUCT SPECIFICATIONS

GENERAL DATA

Cell type:	132 half-cut REC heterojunction cells with lead-free, gapless technology, 6 strings of 22 cells in series
Glass:	3.2 mm solar glass with anti-reflective surface treatment in accordance with EN 12150
Backsheet:	Highly resistant polymer (black)
Frame:	Anodized aluminum (black)
Junction box:	3-part, 3 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790
Connectors:	Stäubli MC4 PV-KBT4/KST4 (4 mm ²) in accordance with IEC 62852, IP68 only when connected
Cable:	4 mm ² solar cable, 1.1 m + 1.2 m in accordance with EN 50618
Dimensions:	1821 x 1016 x 30 mm (1.85 m ²)
Weight:	20.5 kg
Origin:	Made in Singapore



ELECTRICAL DATA

Product Code*: RECxxxAA Pure

	390	395	400	405	410
Power Output - P _{MAX} (Wp)	390	395	400	405	410
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - V _{MPP} (V)	40.6	41.0	41.4	41.8	42.2
Nominal Power Current - I _{MPP} (A)	9.61	9.64	9.67	9.69	9.72
Open Circuit Voltage - V _{OC} (V)	48.4	48.6	48.8	49.1	49.4
Short Circuit Current - I _{SC} (A)	10.38	10.39	10.40	10.41	10.42
Power Density (W/m ²)	211	214	216	219	222
Panel Efficiency (%)	21.1	21.4	21.6	21.9	22.2

	297	301	305	308	312
Power Output - P _{MAX} (Wp)	297	301	305	308	312
Nominal Power Voltage - V _{MPP} (V)	38.3	38.6	39.0	39.4	39.8
Nominal Power Current - I _{MPP} (A)	7.77	7.79	7.82	7.83	7.85
Open Circuit Voltage - V _{OC} (V)	45.6	45.8	46.0	46.3	46.6
Short Circuit Current - I _{SC} (A)	8.38	8.39	8.40	8.41	8.42

Values at standard test conditions (STC: air mass AM 1.5, irradiance 1000 W/m², temperature 25°C), based on a production spread with a tolerance of P_{MAX}, V_{OC} & I_{SC} ±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.

MAXIMUM RATINGS

Operational temperature:	-40 ... +85°C
Maximum system voltage:	1000 V
Maximum test load (front):	+ 7000 Pa (713 kg/m ²)*
Maximum test load (rear):	- 4000 Pa (407 kg/m ²)*
Max series fuse rating:	25 A
Max reverse current:	25 A

* See installation manual for mounting instructions. Design load = Test load / 1.5 (safety factor)

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%

The REC ProTrust Warranty is only available on panels purchased through an REC Certified Solar Professional installer. Warranty details: See www.recgroup.com for more details.

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By Chris Berger at 11:31 am, May 29, 2024

CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, 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)
IEC 62321	Lead-free acc. to RoHS EU 863/2015
ISO 14001, ISO 9001, IEC 45001, IEC 62941	



TEMPERATURE RATINGS*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P _{MAX} :	-0.24 %/°C
Temperature coefficient of V _{OC} :	-0.24 %/°C
Temperature coefficient of I _{SC} :	0.04 %/°C

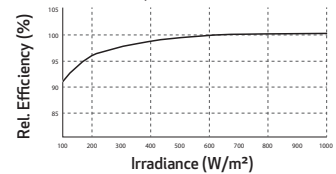
* The temperature coefficients stated are linear values

DELIVERY INFORMATION

Panels per pallet:	33
Panels per 40 ft GP/high cube container:	792 (24 pallets)
Panels per 13.6 m truck:	924 (28 pallets)
Panels per 53 ft truck:	891 (27 pallets)

LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:



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energy company dedicated to empowering consumers. REC is committed to high quality, innovation, and a low carbon footprint. Headquartered in Norway with operational offices in North America, Europe, and Asia-Pacific.

REC Solar PTE. LTD.
20 Tuas South Ave. 14
Singapore 637312
post@recgroup.com
www.recgroup.com

Declare.
Living Building
Challenge Compliant

