

HISTORICAL DEVELOPMENT BOARD

Wednesday, January 17, 2024, 4:00 pm

Regular Meeting

Helen Kleberg Groves Community Room, 1st Floor of City Hall
400 W King, Kingsville, Texas

BOARD MEMBERS

Maggie Salinas, Chairman

Daniel J. Burt

Jeri L.S Morey

Lucia Perez

David Thibodeaux

CITY STAFF

Kobby Agyekum

Senior Planner/
Historic Preservation Officer

Herlinda Solis

Administrative Assistant

The following rules of conduct pertaining to public comments have been adopted by this Board:

1. Give your name and complete address.
2. No one may speak more than twice on the same item.
3. No one may speak more than five minutes at a time without permission from the Chairman.
4. No one may speak a second time on a question until every person who wants to speak has done so
5. All submissions of evidence, i.e. photos, drawings, will be retained by the Historical Development Board and will become a part of the permanent file.

When speaking at the podium, if necessary, adjust the microphone and clearly speak into the microphone.

- **CALL TO ORDER**
- **ROLL CALL**
- **APPROVAL OF MINUTES FROM PREVIOUS MEETING(s)- December 13, 2023**
- **PUBLIC COMMENTS FOR ALL AGENDA & NON-AGENDA ITEMS (SEE MEETING RULES)**
- **POSTPONEMENTS/ADJUSTMENTS TO THE AGENDA**
- **AGENDA ITEMS**

Item #1 Discuss and Consider Action on a request:

Discuss and Consider Action to install 22 roof mounted Solar Panels at property on residential building on 5TH, BLOCK 8, LOT 1-3 also known as 603 East Kenedy Avenue, Kingsville, TX 78363

Item #2 Discuss and Consider Action on a request:

Discuss and Consider Action to install 15 roof mounted Solar Panels at property on residential building on ORIG TOWN, BLOCK 70, LOT 12, 13 also known as 425 East Kenedy Avenue, Kingsville, TX 78363

Item #3 Discuss and Consider Action on a request:

Discuss and Consider Action to install 32 roof mounted Solar Panels at property on residential building on HENRIETTA HGTS, BLOCK 2, LOT 25-27 also known as 620 West Richard Avenue, Kingsville, TX 78363

Item #4 Discuss and Consider Action on a request:

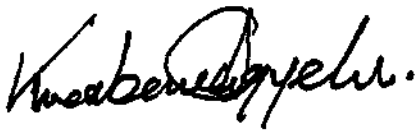
Discuss and Consider Action to replace 4 windows and siding on a property, on ORIG TOWN, BLOCK 5, LOT 5 also known as 209 East Santa Gertrudis Avenue, Kingsville Texas 78363

- **STAFF REPORT:** - None
- **MISCELLANEOUS** – *Any topic may be discussed but no action taken at this time.*
- **ADJOURNMENT**

PUBLIC NOTICE

It is the intention of the City of Kingsville to comply in all aspects with the Americans with Disabilities Act (ADA). If you plan on attending a meeting to participate or observe and need special assistance beyond what is routinely provided, the city will attempt to accommodate you in every reasonable manner. Please contact the City Secretary at 361-595-8002 at least two business days prior to the meeting to inform the City of your specific needs and to determine if accommodation is feasible.

I certify that this agenda was posted at least seventy-two (72) hours before the commencement of the Historical Development Board Meeting scheduled for Wednesday, January 17, 2024.



Kobby Agyekum
Senior Planner /Historic Preservation Officer

Posted
@ 11:00 AM
On 1-12-24
By H Solis

**HISTORICAL DEVELOPMENT BOARD
SPECIAL MEETING MINUTES
WEDNESDAY, December 13, 2023, at 4:00 PM
CITY OF KINGSVILLE
HELEN KLEBERG GROVES COMMUNITY ROOM
400 W KING AVE**

Historical Board Members Present

Maggie Salinas, Chairman
Jeri L S Morey
David Thibodeaux
Lucia Perez
Daniel J. Burt

Staff Present

Kwabena Agyekum, SNR Planner/Historic
Preservation Officer (HPO)

Estella Alegria Administrative Assistant

Citizens Present

None

1. **The meeting was called to order:**
@ 4:05 PM
2. **Discuss and take action on the meeting minutes of last meeting.** Minutes approved by Jerri Morey; the motion was seconded by Lucia Perez.
3. **Public Comments on or off the agenda** – None
4. **Postponements** – None
5. **Old Business** – None
6. **New Business** – None

Item #1

Discuss and Consider Action to add on a 16 'x 20' room to an existing building on a property at 6TH, BLOCK 9, LOT 14, also known as 627 East Henrietta Avenue, Kingsville, TX 78363.

Kobby Agyekum addressed the Board and stated that this was a one-story residential building supported by square wooden post, vertical plywood sidings and rear additions located in the historical district. City staff has revied the application and found it in conformity with the Standards of the Secretary of Interior number 9 and is recommending approval. The owner is Ofelia Villarreal, and she has hired Rodriguez Construction to make the addition to her home. David Thibodeaux made the motion to approve the item and Jeri Morey seconded the motion. All in favor, motion carried.

7. **Staff Reports** Kobby told the Board that Luis Fuentes would like to replace the windows at 307 E Kleberg Ave to mimic the windows across the street.
8. **Miscellaneous** – None
9. **Adjournment** - Meeting adjourned at 4:12 PM

CITY of KINGSVILLE DOWNTOWN



HISTORIC DEVELOPMENT BOARD

DATE: December 19th, 2023
TO: Historic Development Board
FROM: Kobby Agyekum (Senior Planner/Historical Preservation Officer)
SUBJECT: Discuss and Consider Action to install 22 roof mounted Solar Panels at property on residential building on 5TH, BLOCK 8, LOT 1-3 also known as 603 East Kenedy Avenue, Kingsville, TX 78363
APPLICANT: Jeremy Turner, Mr.
CONTRACTOR: Jeremy Turner, Mr.

REQUEST

Discuss and Consider Action to install 22 roof mounted Solar Panels at property on residential building on 5TH, BLOCK 8, LOT 1-3 also known as 603 East Kenedy Avenue, Kingsville, TX 78363

EXHIBITS

Application, 2022 Appraisal Roll, Kleberg County Appraisal District Information details. Data from Texas Historical Commission (Historic Resources Survey Form), Engineer's letter, Authorization letter, Drawings, and illustrations.

BACKGROUND & PERTINENT DATA

This is a Two-story T-plan hip-roofed residential building with shed-roofed partial-width offset porch supported by square wood posts, sash windows, horizontal siding, and front addition, located within the Historic District. This property is associated with events that have made significant contribution to the broad pattern to our history and considered as part to the historic district with low priority for preservation.

STAFF REVIEW & RECOMMENDATION

Staff has reviewed the application and found same to be in conformity with the Secretary of the Interior's Standard for Rehabilitation. Consequently, it is the recommendation of Staff to approve the installation of 22 mounted solar panels on residential building at 603 East Kenedy Avenue as there would be no adverse impact to the historic, cultural, or architectural nature of the district.

BOARD REVIEW

Scope of Historical Development Board

In general, Historical Development Board considers the following factors when making a recommendation concerning the issuing of a permit for the construction, reconstruction, alteration, restoration, relocation, demolition or razing of all or part of any building, structure or appurtenance within a historic district:

- 1) The effect of the proposed change upon the general historic, cultural and architectural nature of the district.

- 2) The appropriateness of exterior architectural features which can be seen from a public street, alley, road, highway or walkway.
- 3) The general design, arrangement, texture, material and color of the building, structure or appurtenances and the relation of such factors to similar features of buildings, structures or appurtenances in the district. The criterion shall not be the aesthetic appeal to the Board of the structure or the proposed remodeling, but rather its' conformity to the general character of the particular historic area involved.
- 4) Signs which are out of keeping with the character of the historic district in question shall not be permitted.
- 5) The value of the historic district as an area of unique interest and character shall not be impaired.

Standards of the Secretary of the Interior

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

SIGNATURES



Kobby Agyekum
Senior Planner/HPO

Historical Development Board Review Application

Applicant: JEREMY TURNER

Address: 18719 Big Elm Drive Cypress TX 77433

Contact: Cell: 254-203-5606 Home: _____

Email: permitting@hellonivo.com

Property Owner: JUAN ELIZONDO

Address: 603 E Kenedy Ave Kingsville, TX 78363

Contact: Cell: (361) 228-1167 Home: _____

Property Location and Description: 603 E Kenedy Ave Kingsville, TX 78363

Description of Work: Installation of 22 solar panels on the roof and re roofing

Contractor: JEREMY TURNER

Contact: Cell: 254-203-5606 Home: _____

Email: permitting@hellonivo.com

Documents Required:

1. Sketch, Drawing, Plans, Site Plans, Mock-ups
2. Photographs (Historic, Current, Surrounding Structures)
3. Materials List or Samples
4. Proof of Ownership
5. Letter of Representation and Work Approval from Property Owner (If Applicable)

I certify that this information and the additional information submitted to the Planning Department is correct and that the work will be completed as described, as approved by the Historical Development Board and in accordance with applicable codes.

(Applicant) Print Name: JEREMY TURNER

Signature: JEREMY TURNER Date: 12/15/2023

Kleberg CAD

Property Search > 14768 ELIZONDO JUAN A for Year 2023

Tax Year: 2023 - Values not available

Property

Account

Property ID: 14768 Legal Description: 5TH, BLOCK 8, LOT 1-3
 Geographic ID: 100700801000192 Zoning:
 Type: Real Agent Code:
 Property Use Code:
 Property Use Description:

Location

Address: 603 E KENEDY Mapsco:
 Neighborhood: Map ID: C1
 Neighborhood CD:

Owner

Name: ELIZONDO JUAN A Owner ID: 67765
 Mailing Address: 603 E KENEDY % Ownership: 100.0000000000%
 KINGSVILLE, TX 78363
 Exemptions:

Values

(+) Improvement Homesite Value:	+	N/A	
(+) Improvement Non-Homesite Value:	+	N/A	
(+) Land Homesite Value:	+	N/A	
(+) Land Non-Homesite Value:	+	N/A	Ag / Timber Use Value
(+) Agricultural Market Valuation:	+	N/A	N/A
(+) Timber Market Valuation:	+	N/A	N/A

(=) Market Value:	=	N/A	
(-) Ag or Timber Use Value Reduction:	-	N/A	

(=) Appraised Value:	=	N/A	
(-) HS Cap:	-	N/A	

(=) Assessed Value:	=	N/A	

Taxing Jurisdiction

Owner: ELIZONDO JUAN A
 % Ownership: 100.0000000000%
 Total Value: N/A

Entity	Description	Tax Rate	Appraised Value	Taxable Value	Estimated Tax
CAD	KLEBERG COUNTY APPRAISAL DISTRICT	N/A	N/A	N/A	N/A
CKI	CITY OF KINGSVILLE	N/A	N/A	N/A	N/A
GKL	KLEBERG COUNTY	N/A	N/A	N/A	N/A
SKI	KINGSVILLE I.S.D.	N/A	N/A	N/A	N/A

WST	SOUTH TEXAS WATER AUTHORITY	N/A	N/A	N/A	N/A
Total Tax Rate:		N/A			
				Taxes w/Current Exemptions:	N/A
				Taxes w/o Exemptions:	N/A

Improvement / Building

Improvement #1: RESIDENTIAL **State Code:** A1 **Living Area:** 2088.0 sqft **Value:** N/A

Type	Description	Class CD	Exterior Wall	Year Built	SQFT
MA	MAIN AREA	FF5	EWB	1945	1044.0
SAFF	STORAGE ATTACHED FRAME FINISHED	*		1945	80.0
MA2F	MA 2ND STORY FRAME	*		1945	1044.0
OPFA	OPEN PORCH FRAME AVERAGE	*		1945	126.0
SAFF	STORAGE ATTACHED FRAME FINISHED	*		2007	112.0

Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	A1	A1	0.2410	10500.00	75.00	140.00	N/A	N/A

Roll Value History

Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap	Assessed
2024	N/A	N/A	N/A	N/A	N/A	N/A
2023	N/A	N/A	N/A	N/A	N/A	N/A
2022	\$80,250	\$6,750	0	87,000	\$0	\$87,000
2021	\$70,820	\$6,750	0	77,570	\$0	\$77,570
2020	\$65,950	\$6,750	0	72,700	\$0	\$72,700
2019	\$74,770	\$6,750	0	81,520	\$0	\$81,520
2018	\$74,990	\$6,750	0	81,740	\$5,576	\$76,164
2017	\$62,490	\$6,750	0	69,240	\$0	\$69,240
2016	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2015	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2014	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2013	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2012	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2011	\$67,410	\$6,750	0	74,160	\$0	\$74,160
2010	\$67,410	\$6,750	0	74,160	\$0	\$74,160

Deed History - (Last 3 Deed Transactions)

#	Deed Date	Type	Description	Grantor	Grantee	Volume	Page	Deed Number
1	10/15/2020	GFT	GIFT DEED	ELIZONDO JUAN	ELIZONDO JUAN A			323476
2	9/17/2020	AFF	AFFIDAVIT OF HEIRSHIP	ELIZONDO JUAN	ELIZONDO JUAN			323182
3	6/12/2019	DEATH	DEATH - ADD EST TO OWNERSHIP	ELIZONDO JUAN A	ELIZONDO JUAN			

Tax Due

Property Tax Information as of 12/19/2023

TEXAS HISTORICAL COMMISSION

866

Project #: 00009
County: Kleburg

Historic Resources Survey Form

Local Id: 0001-14768
City: Kingsville

Address No: 603 **Street Name:** East Kenedy Avenue

SECTION 1

Basic Inventory Information

Current Name:
 Historic Name:

Owner Information Name: Elizondo Juan A. Status:
 Address: 603 East Kenedy Ave City: Kingsville State: TX Zip: 78363

Geographic Location Latitude: 27.514478 Longitude: -97.861591

Legal Description (Lot\Block): 5TH, BLOCK 8, LOT 1-3

Addition/Subdivision: Year:

Property Type Building
Current Designations: NR District Is property contributing?
 NHL NR RTHL OTHM HTC SAL Local Other

Architect: **Builder**
Construction Date: c. 1910 **Source** Sanborn maps

Function

Current: DOMESTIC-Single Dwelling

Historic: DOMESTIC-Single Dwelling

Recorded By: Stefan & Daniella

Date Recorded: 5/9/2013



Project #: 00009
County: Kleburg
Address No: 603

Historic Resources Survey Form
Street Name: East Kenedy Avenue

Local Id: 0001-14768
City: Kingsville

SECTION 2

Architectural Description

Two-story T-plan hip-roofed residential building with shed-roofed partial-width offset porch supported by square wood posts, sash windows, horizontal siding, and front addition.

- Additions, modifications **Explain:** heavily modified, additions, replacement materials
- Relocated **Explain:**

Stylistic Influence

No Style

Structural Details

Roof Form

Hipped

Roof Materials

Composition Shingles

Wall Materials

Wood siding

Windows

Sash

Doors (Primary Entrance)

Composition Shingles

Plan

T-Plan

Chimneys

Porches/Canopies

FORM Shed Roof
SUPPORT Wood posts (plain)
MATERIAL Wood

ANCILLARY BUILDINGS:

Garage: Barn: Shed: Other:

Landscape Features

Project #: 00009

Historic Resources Survey Form

Local Id: 0001-14768

County: Kleburg

City: Kingsville

Address No: 603

Street Name: East Kenedy Avenue

SECTION 3 Historical Information

Associated Historical Context

Planning/Development

Applicable National Register (NR) Criteria:

- A Associated with events that have made a significant contribution to the broad pattern of our history
- B Associated with the lives of persons significant in our past
- C Embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components lack individual distinctions
- D Has yielded, or is likely to yield, information important in prehistory of history

Areas of Significance:

Community Development

Periods of Significance:

Levels of Significance:

- National State Local

Integrity:

- Location Design Materials Workmanship Setting Feeling Association

Integrity Notes:

lacks integrity

Individually Eligible? No

Within Potential NR District?: Yes

Is Property Contributing?:

Priority:

Low

Explain:

Other Information

Is prior documentation available for this resource? No

Type HABS Survey Other

Documentation Details:



Application for Certificate of Compliance Form WPI-1

App ID:2355911

Physical Address of Structure to be Inspected

603 E KENEDY

Tract/Addition:
Lot:
Block:

City: Kingsville

ZIP: 78363

County: Kleberg

City Limits: Inside City Limits

Structure is located in:

Is the structure located in a Coastal Barrier Resource Zone (CBRA): No

Owner

Name: JUAN ELIZONDO
Mailing Address: 603 E KENEDY

Phone: City: Kingsville

Fax: ZIP: 78363

Contractor

Name: NIVO LLC
Mailing Address: 1334 Brittmoore Rd. STE 2310

Phone: City: Houston

Fax: ZIP: 77043

Engineer

Name: Joshua A Senecal
Mailing Address: 15317 Gypsy St
Email: senecalja1@gmail.com

Phone: (252) 764-7382
City: Corpus Christi
Texas Registration No.: 130638

Fax: ZIP: 784186480

Commencement of Construction Date

12-06-2023

Date of Application

12-13-2023

Type of Building

House

Inspections

1. - Mechanical, Solar Panel(s)

Number of Panels: 22 Panels, Location or Identifier: 9 Panels on the North Pitch, 4 Panels on the South Pitch, 9 Panels on the West Pitch,

2. - Roof, Entire Re-Roof

3.

Comments

Submitter

Name: Joshua Senecal

Phone: (252) 764-7382

Date: 12-13-2023

Submitter Type: Engineer

For Texas Department of Insurance Inspections: mail or email to your local field office

For inspections by engineers: mail or email to Austin office: windstorm@tdi.texas.gov

Texas Department of Insurance

Windstorm Inspections Program

P.O. Box 12030

Austin, TX 78711-2030



December 7, 2023

Roof Mounted Photovoltaic Array System Design Certification

603 E KENEDY AVE, KINGSVILLE, TX 78363

I have reviewed the following information regarding solar panel installation on the roof of the above referenced home:

1. Site Visit/Verification Form prepared by a Nivo representative identifying specific site information including size and spacing of rafters for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information was prepared by Nivo and will be utilized for approval and construction of the proposed system.
3. Photographs of the interior and exterior of the roof system identifying existing structural members and their conditions.

Based on the above information I have evaluated the structural capacity of the existing roof system to support the additional loads imposed by the solar panels and have the following comments related to the provided design.

A. Basis of Design:

- a. The design conforms with the loading criteria and calculation methods as stated in ASCE7-16
- b. This design conforms to the Chapter 3 "Wind Design" requirements of International Residential Code 2018
 - i. TDI COMPLIANT DESIGN
- c. K2 Systems – Report #2020-02753HG.02 "Engineering Certification for the K2 Systems Crossrail – Dual Rail 44-X System for Gable and Hip Roofs" (dtd March 1, 2023) provides rail spans based on ASCE7-16 methods.
- d. Miami Dade NOA 22-0719.06 - K2 System approved system assemblies. Includes K2 Splice Foot X and Cross Rail series approved assembly.
- e. Regions where V_{ULT} is greater than 130MPH, Wind Engineering is required, per IRC 2018 Figure R301.2(5)B

B. Load Criteria

- a. Ultimate Wind Speed, V_{ULT} = 136 MPH per Applied Technology Council (ATC) "Hazards by Location"
 - i. <https://hazards.atcouncil.org/#/>
- b. Crossrail 44-X Rail Span based on Ultimate Design Wind Speed, V_{ULT} = 150 MPH
- c. Exposure Category C, Risk Factor II
- d. ASCE 7-16 Rafter/Truss Design Live Load = 20 psf
 - i. Per ASCE 7-16 areas where solar panels are installed Live Load = 0 psf
- e. ASCE 7-16 Rafter/Truss Design Dead Load = 10 psf
 - i. Solar Panels, associated racking and accessory equipment Dead Load = 2.6 psf
 - ii. Actual Dead Load of IRC compliant roof system with shingles = 5.3 psf
 - iii. Total actual Dead Load = 7.9 psf; therefore, the increased Dead Load remains less than the Design Dead Load of 10 psf.

f. Snow Load = 0 psf

g. Based on the above loading criteria, the proposed equipment layout, industry standards and provisions of the International Residential Code 2018, the existing structural frame will support the load of the new solar system.



Joshua Senecal, P.E.

TX PE#130638

Firm #21791

12/7/2023

252-764-7382

LRSCivilEngineer@gmail.com



- c. Roof Attachment
- a. All Roof Areas: K2 Systems 44-X Rail
 - i. Space the K2 Systems Splice Foot XL at 48" on-center in Roof Zones 1, 2e & 2r
 - ii. Space the K2 Systems Splice Foot XL at 32" on-center in Roof Zones 3
 - b. Roof Zones are defined as follows:
 - i. Roof Zone 1: locations not within 3' from any edge or corner.
 - ii. Roof Zone 2r: locations within 3' of a ridge.
 - iii. Roof Zone 2e: locations within 3' of the lower edge.
 - iv. Roof Zone 2n: locations within 3' of the side gable edge.
 - v. Roof Zone 3e: locations within 3' of the lower edge corner.
 - vi. Roof Zone 3r: locations within 3' of a ridge corner.
 - c. "Exposed" and "Non-Exposed" Rails
 - i. The "Exposed" and "Non-Exposed" span values provided on the "Exposure Detail" refer to the allowable K2 Splice Foot spacing based on location of the associated rail with relation to the position of the panel within an array.
 - ii. A panel is considered "Exposed" if one of the following conditions are met:
 - 1. Any panel located within an array that **does not** have an adjacent panel within 48".
 - 2. Any panel that is located greater than 48" and/or a distance greater than half the mean roof height from a ridge or edge.
 - 3. Any panel that is located greater than 1.5 times the panel length (portrait) or 1.5 times the panel width (landscape) from a hip ridge or gable rake.
 - iii. If a panel is considered "Exposed"
 - 1. The "Exposed" span value applies to both rails of the panel.
 - iv. If a panel is considered "Non-Exposed"
 - 1. The "Non-Exposed" span values apply both rails of the panel.
 - v. Exposed panels will be highlighted in red on the "Exposure Detail"
 - d. Structural installation must be completed per Miami-Dade NOA 22-0719.06 and K2 Systems installation manuals. Miami-Dade NOA 22-0719.06 takes precedence.
 - e. Attach the K2 Systems Splice Foot with the two provided stainless steel M5X60mm wood screws with sealing washer.
 - f. Install K2 Butyl gasket between the roof covering system and the K2 Splice Foot.
 - g. **Rafter mounting procedure is the only authorized installation method.**
 - h. Stagger anchor points to minimize the occurrence of two adjacent rails being attached to the same structural member.
 - i. Use only factory provided hardware as directed by the manufacturer's installation manual.
 - j. Maximum cantilever is defined as 1/3 the maximum span length of the 44-X rail in the applicable Roof Zone found on the calculation sheet.



Joshua Senecal, P.E.

Firm #21791

252-764-7382

TX PE#130638

12/7/2023

LRSCivilEngineer@gmail.com



Solar Array Calculation Sheet #231215

Property Address: 603 EAST KENEDY AVENUE, KINGSVILLE, TX 78363
 Ultimate Wind Speed: 136 MPH ATC Hazrds by Location: <https://hazards.atccouncil.org/#/>
 Roof Pitch (Degrees): 23
 Roof Type: HIP
 Exposure Code: C
 Risk Factor: II
 ASCE7-16 Citation: ASCE7-16 Citation
 Topographical Factor (K_z): 1.00
 Exposure Coefficient (K_e): 0.85
 Directional Factor (K_d): 0.85
 Ground Elevation Factor (K_g): 1.00
 Exposure Factor (γ_e) "Exposed": 1.50
 Pressure Equalization Factor (γ_s): 0.71 (PORTRAIT)
 Pressure Equalization Factor (γ_s): 0.80 (LANDSCAPE)
 Mean Roof Height (ft): 14.50
 Velocity Pressure (q_w) psf: 26.34
 Length of Panel (in): 74.00
 Width of Panel (in): 41.10
 Weight of Panel (lbs): 48.50
 Solar Panel Area (sqft): 21.12
 Array Dead Load (psf): 2.60
 Roof Connection Effective Area (sqft): 12.33 at 48" spacing in PORTRAIT
 Roof Connection Effective Area (sqft): 6.85 at 48" spacing in LANDSCAPE

1:12	4.8 deg
2:12	9.5 deg
3:12	14 deg
4:12	18.4 deg
5:12	22.6 deg
6:12	26.6 deg
7:12	30.3 deg
8:12	33.7 deg
9:12	36.9 deg
10:12	39.8 deg
11:12	42.5 deg
12:12	45 deg

Portrait Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT X
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	18.4	-36.9	14.73	-24.49	90.84	-150.99	121.12	-201.32	181.68	-301.98	64"	48"
Exposed	18.4	-55.3	14.73	-37.56	90.84	-231.60	121.12	-308.80	181.68	-463.20	52"	48"
Zone 2e	18.4	-52.7	14.73	-35.69	90.84	-220.09	121.12	-293.45	181.68	-440.17	64"	48"
Exposed	18.4	-79.0	14.73	-54.36	90.84	-335.24	121.12	-446.99	181.68	-670.49	52"	48"
Zone 2r	18.4	-52.7	14.73	-35.69	90.84	-220.09	121.12	-293.45	181.68	-440.17	49"	48"
Exposed	18.4	-79.0	14.73	-54.36	90.84	-335.24	121.12	-446.99	181.68	-670.49	40"	32"
Zone 3	18.4	-52.7	14.73	-35.69	90.84	-220.09	121.12	-293.45	181.68	-440.17	47"	32"
Exposed	18.4	-79.0	14.73	-54.36	90.84	-335.24	121.12	-446.99	181.68	-670.49	38"	32"

Landscape Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT X
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	18.4	-36.9	16.62	-27.63	56.94	-94.64	75.91	-126.18	113.87	-189.27	64"	48"
Exposed	18.4	-55.3	16.62	-42.38	56.94	-145.16	75.91	-193.55	113.87	-290.32	52"	48"
Zone 2e	18.4	-52.7	16.62	-40.27	56.94	-137.94	75.91	-183.92	113.87	-275.88	64"	48"
Exposed	18.4	-79.0	16.62	-61.35	56.94	-210.12	75.91	-280.16	113.87	-420.24	52"	48"
Zone 2r	18.4	-52.7	16.62	-40.27	56.94	-137.94	75.91	-183.92	113.87	-275.88	49"	48"
Exposed	18.4	-79.0	16.62	-61.35	56.94	-210.12	75.91	-280.16	113.87	-420.24	40"	32"
Zone 3	18.4	-52.7	16.62	-40.27	56.94	-137.94	75.91	-183.92	113.87	-275.88	47"	32"
Exposed	18.4	-79.0	16.62	-61.35	56.94	-210.12	75.91	-280.16	113.87	-420.24	38"	32"



CALCULATIONS PREPARED BY:
 JOSHUA SENECHAL, P.E.
 TX P.E. #130638

⚠ This is a beta release of the new ATC Hazards by Location website. Please [contact us](#) with feedback.

🔗 The ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

ATC Hazards by Location

Search Information

Address: 603 E Kenedy Ave, Kingsville, TX 78363, USA
 Coordinates: 27.5144413, -97.8615956
 Elevation: 60 ft
 Timestamp: 2023-12-06T20:27:29.579Z
 Hazard Type: Wind



ASCE 7-16

MRI 10-Year 75 mph
 MRI 25-Year 88 mph
 MRI 50-Year 102 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II 136 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III 145 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

Risk Category IV 149 mph

You are in a wind-borne debris region.

ASCE 7-10

MRI 10-Year 76 mph
 MRI 25-Year 91 mph
 MRI 50-Year 102 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II 136 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III-IV 145 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

ASCE 7-05

ASCE 7-05 Wind Speed 113 mph

You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

While the information presented on this website is believed to be correct, ATC and its sponsors and contributors assume no responsibility or liability for its accuracy. The material presented in the report should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. ATC does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the report provided by this website. Users of the information from this website assume all liability arising from such use. Use of the output of this website does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the report.

SCOPE OF WORK
 TO INSTALL A ROOF MOUNTED SOLAR PHOTOVOLTAIC SYSTEM AT THE OWNER RESIDENCE LOCATED AT 603 E KENNEDY AVE, KINGSVILLE, TX 78643, USA. THE SYSTEM SHALL BE CONNECTED TO THE UTILITY GRID THROUGH THE EXISTING ELECTRICAL SERVICE EQUIPMENT. THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES.

EQUIPMENT SUMMARY

- 22 Q CELLS Q.PEAK DUO BLK ML-G10.A+ 405 MODULES
- 22 ENPHASE IQPLUS-72-2-US (240V) MICROINVERTERS

GENERAL NOTES

- THESE CONSTRUCTION DOCUMENTS HAVE BEEN BASED ON FIELD INSPECTIONS AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS
- CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, OBTAIN ALL PERMITS, LICENSES AND PAY ALL REQUIRED FEES AND COMPLETE INSTALLATION.
- CONTRACTOR HAS THE FULL RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY WORK STARTED BEFORE CONSULTATION AND ACCEPTANCE BY THE ENGINEER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO CORRECTION BY THEM WITHOUT ADDITIONAL COMPENSATION.
- DAMAGE CAUSED TO THE EXISTING STRUCTURE, PIPES, DUCTS, WINDOWS, WALL, FLOORS, ETC. SHALL BE REPAIRED TO THE ORIGINAL CONDITION OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE PROPER INSTALLATION AND COMPLETION OF THE WORK WITH APPROVED MATERIALS.
- CONTRACTOR SHALL OBTAIN BUILDING PERMIT. NO WORK TO START UNLESS BUILDING PERMIT IS PROPERLY DISPLAYED.
- ALL WORKMANSHIP AND MATERIALS SHALL BE OF FIRST QUALITY AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ALL PERTINENT AGENCIES.
- IT IS ESSENTIAL THAT ALL WORK PROCEED WITH THE MAXIMUM COOPERATION OF ALL PARTIES AND WITH MINIMUM INTERFERENCE TO THE OCCUPANTS WITHIN THE BUILDING. THE OWNER'S DIRECTIONS IN THIS REGARD SHALL BE FULLY COMPLIED WITH.
- THE CONTRACTOR SHALL PERFORM THE WORK IN STRICT CONFORMANCE WITH THE LOCAL LAWS, REGULATIONS AND THE NATIONAL ELECTRIC CODE.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
- CONTRACTORS SHALL OBTAIN FIRE CERTIF. UPON COMPLETION OF WORK.

ELECTRICAL NOTES

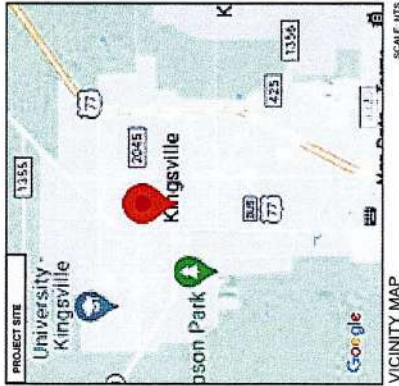
- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
- WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL. PER THE GROUNDING CLIP MANUFACTURERS INSTRUCTION.
- MODULE SUPPORT RAIL SHALL BE BONDED TO THE MODULE

GOVERNING CODES
 2018 INTERNATIONAL BUILDING CODE
 2018 INTERNATIONAL RESIDENTIAL CODE
 2018 INTERNATIONAL FIRE CODE
 2017 NATIONAL ELECTRICAL CODE

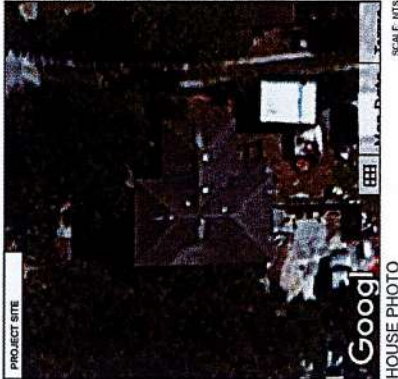
AHJ NAME : KINGSVILLE CITY

WIRING AND CONDUIT NOTES

- ALL CONDUIT SIZES AND TYPES SHALL BE LISTED FOR ITS PURPOSE AND APPROVAL FOR THE SITE APPLICATIONS
- ALL PV CABLES AND HOMERUN WIRES BE #10AWG *-USE-2, PV WIRE, OR PROPRIETARY SOLAR CABLING SPECIFIED BY MFR. OR EQUIVALENT, ROUTED TO SOURCE CIRCUIT COMBINER BOXES AS REQUIRED
- ALL PV DC CONDUCTORS IN CONDUIT EXPOSED TO SUNLIGHT SHALL BE DERATED ACCORDING TO AS PER LATEST NEC CODE.
- EXPOSED ROOF PV DC CONDUCTORS SHALL BE USE-2, 90°C RATED, WET AND UV RESISTANT AND UV RATED FOR 600V. UV RATED SPIRAL WRAP SHALL BE USED TO PROTECT WIRE FROM SHARP EDGES
- PHASE AND NEUTRAL CONDUCTORS SHALL BE DUAL RATED TH-HN/THWN-2 INSULATED, 90°C RATED, WET AND UV RESISTANT, RATED FOR 1000V AS PER APPLICABLE NEC
- 4-WIRE DELTA CONNECTED SYSTEMS HAVE THE PHASE WITH THE HIGHER VOLTAGE TO GROUND MARKED OR IDENTIFIED BY OTHER EFFECTIVE MEANS
- ALL SOURCE CIRCUITS SHALL HAVE INDIVIDUAL SOURCE CIRCUIT PROTECTION
- VOLTAGE DROP LIMITED TO 2%
- AC CONDUCTORS >4AWG COLOR CODED OR MARKED: PHASE A OR L1- BLACK, PHASE B OR L2- RED, PHASE C OR L3- BLUE, NEUTRAL- WHITE/GRAY



VICINITY MAP SCALE: MTS



HOUSE PHOTO SCALE: MTS

SYSTEM RATING	
8.910 KWDC	
6.800 KWAC	

SHEET INDEX	
	COVER PAGE
PV1	SITE PLAN
PV2	ROOF PLAN
PV3	STRING LAYOUT & BOM
PV4	ATTACHMENT DETAILS
PV5-PV6	ELECTRICAL LINE & CALC.S.
PV7	SPECIFICATIONS & NOTES
PV8	SIGNAGE
PV9-PV10	EQUIPMENT SPECIFICATIONS
PV11-PV15	

LRSEngineering
 TX Firm 21791
 12/7/2023

C.S.R. ELECTRIC, INC.
 Commercial & Residential Electrical Services

NIVO LLC
 1334 BRITTMORE RD,
 SUITE 2104, KINGSTON, TX
 77044 USA
 PH# : (832) 621-8006

SYSTEM INFO	
122 Q CELLS Q.PEAK DUO BLK ML-G10.A+ 405	
22 ENPHASE IQPLUS-72-2-US (240V)	
DC SYSTEM SIZE 8.910 KWDC	
AC SYSTEM SIZE 6.800 KWAC	
ESI ID: 10002789452000410	
METER: 143230614	

NABCEP
 BOARD CERTIFIED
 PV Installer Specialist

REVISIONS	DATE	REV
DESCRIPTION	12/06/2023	A
REVISION		

JUAN ELIZONDO
 RESIDENCE
 603 E KENNEDY AVE, KINGSVILLE, TX
 78363, USA
 EMAIL ID: LEAHZ790@YAHOO.COM
 PHONE NO. (361) 228-1167

DATE: 12/06/2023
 SHEET NAME
COVER PAGE

SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
PV-1



REVISIONS	DATE	REV	A
DESCRIPTION	12/06/2023		A
REVISION			



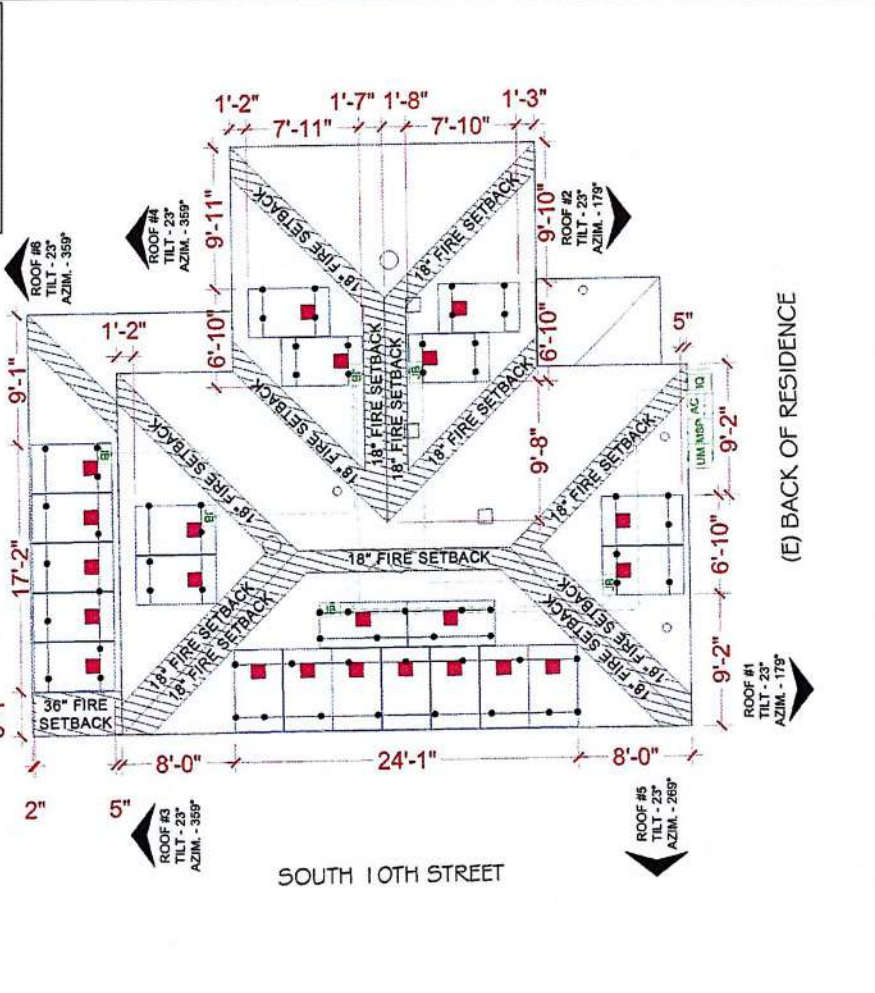
JUAN ELIZONDO
RESIDENCE
603 E KENEDY AVE, KINGSVILLE, TX
78363, USA
EMAIL ID: LEAHZ790@YAHOO.COM
PHONE NO. (361) 228-1167

DATE: 12/06/2023
SHEET NAME
ROOF PLAN

SHEET SIZE
ANSI B
11" X 17"
SHEET NUMBER
PV-3



K2 SYSTEMS SPLICE FOOT-XL SPACED
@ 48" IN ZONES 1, 2e & 2r
@ 24" IN ZONE 3



METER NO#: 145230614
ESU ID#: 10032786463608610
VISIBLE LOCKABLE LABELLED DISCONNECT LOCATED ON ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF UTILITY METER

DESIGN SPECIFICATION	
RISK CATEGORY:	II
CONSTRUCTION:	SFD
ZONING:	RESIDENTIAL
SNOW LOAD (ASCE7-16):	0 PSF
EXPOSURE CATEGORY:	C
WIND SPEED (ASCE7-16):	136 MPH

MODULE TYPE, DIMENSIONS & WEIGHT	
NUMBER OF MODULES:	22 MODULES
MODULE TYPE:	Q CELLS Q PEAK DUO BLK ML-G10.A+ 405
MODULE WEIGHT:	48.5 LBS
MODULE DIMENSIONS:	74" X 41.1" = 21.12 SF
UNIT WEIGHT OF AREA:	2.3 PSF

ROOF DESCRIPTION	
ROOF	SOLAR
RAFTER ACCESS	RAFTER SIZE
#1	23" 100% 2" x 6"
#2	23" 99% 2" x 6"
#3	23" 95% 2" x 6"
#4	23" 95% 2" x 6"
#5	23" 98% 2" x 6"
#6	23" 54% 2" x 6"

ARRAY AREA & ROOF AREA CALC'S	
ROOF	ARRAY AREA (Sq. Ft.)
#1	42.25
#2	42.25
#4	42.25
#5	190.09
#6	105.61

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL	ENPHASE IQ8PLUS-72-2-US (240V)
MAX DC SHORT CIRCUIT CURRENT	15 A
CONTINUOUS OUTPUT CURRENT	1.21 A

C-S-R ELECTRIC, INC.
11111 Highway 111, Houston, TX 77036
Tel: 281-444-8888

Christopher Ruff
Master Electrician
TDLM 44468 TRELJ 3004

LEGEND

- (N) JUNCTION BOX
- (U) UTILITY METER
- (E) MAIN SERVICE PANEL
- (V) ENPHASE IQ COMBINER
- (D) VISIBLE LOCKABLE LABELLED DISCONNECT
- (F) VERT. ATTIC FAN (ROOF OBSTRUCTION)
- (A) AIR CONDITIONING
- (M) ENPHASE IQ8PLUS-72-2-US (240V)
- (I) MICROINVERTER

Q CELLS Q PEAK DUO BLK ML-G10.A+ 405 MODULES

K2 CROSSRAIL 41-X TRENCH

SCALE: 1/8" = 1'-0"



NABCEP BOARD CERTIFIED
PV Installer Specialist

NABCEP BADGE
PWS - 012223-013591

PROJECT NAME & ADDRESS
JUAN ELIZONDO
RESIDENCE
603 E KENEY AVE, KINGSVILLE, TX
78363, USA
EMAIL ID: LEAHZ790@YAHOO.COM
PHONE NO. (361) 228-1167

DATE: 12/09/2023
SHEET NAME: SITE PLAN
SHEET SIZE: ANSIB 11" X 17"
SHEET NUMBER: PV-2

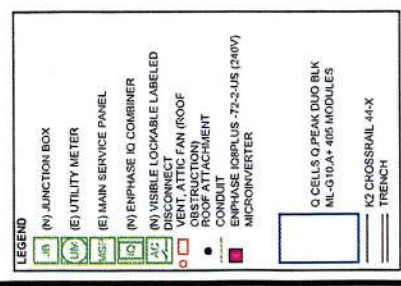
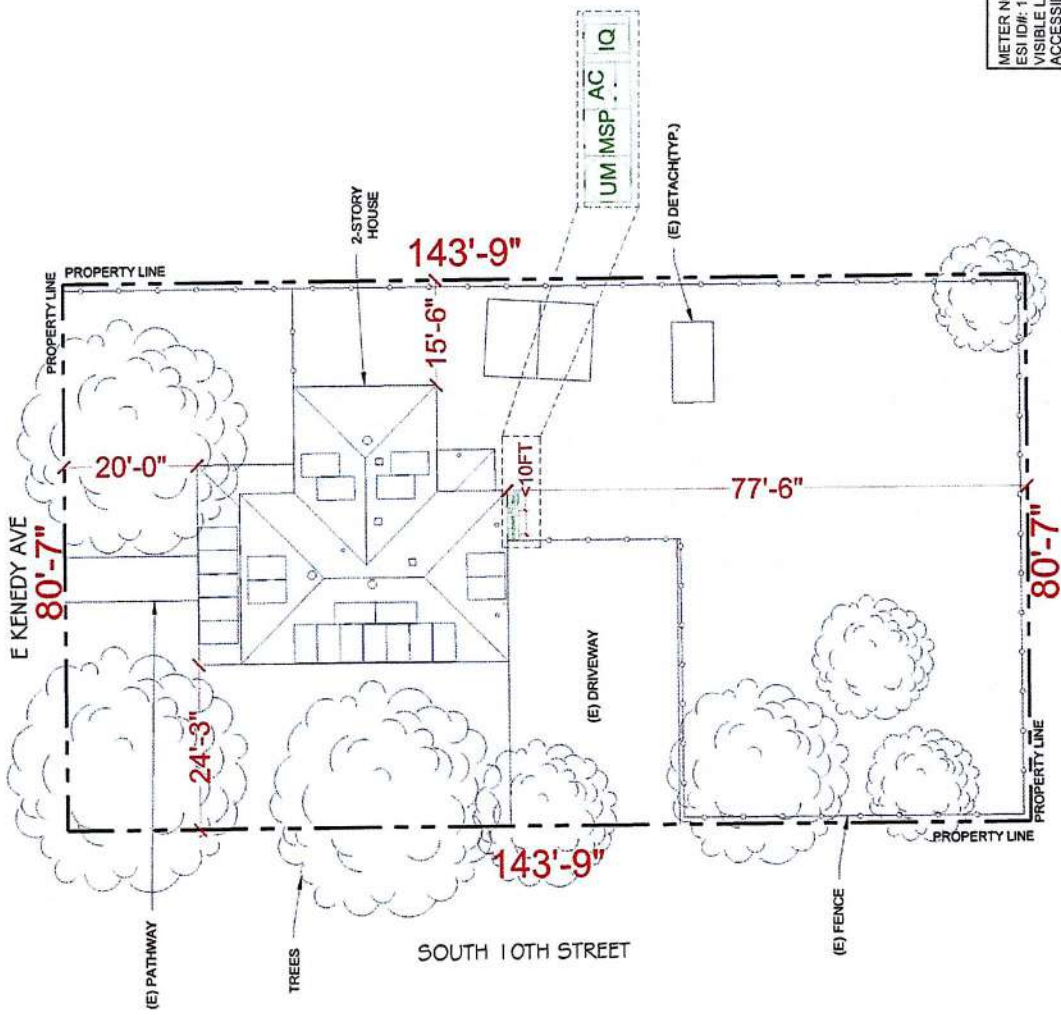


LRS Engineering
TX Firm 21791
12/7/2023

METER NO#: 145230614
ESI ID#: 10032789463909610
VISIBLE LOCKABLE LABELED DISCONNECT LOCATED ON
ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF
UTILITY METER

SITE NOTES

- A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
- THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE AND THIS SYSTEM IS AN UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.
- THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
- PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER SECTION (NEC 110.26)



Christopher Ruffin
Master Electrician
TOLSON 44468 TRELJ 34004
C-S-R
ELECTRIC, INC.
MEMBER OF THE C-S-R GROUP

SCALE: 1/16" = 1'-0"





CITY of KINGSVILLE DOWNTOWN



HISTORIC DEVELOPMENT BOARD

DATE: December 19th, 2023
TO: Historic Development Board
FROM: Kobby Agyekum (Senior Planner/Historical Preservation Officer)
SUBJECT: Discuss and Consider Action to install 15 roof mounted Solar Panels at property on residential building on ORIG TOWN, BLOCK 70, LOT 12, 13 also known as 425 East Kenedy Avenue, Kingsville, TX 78363
APPLICANT: Jeremy Turner, Mr.
CONTRACTOR: Jeremy Turner, Mr.

REQUEST

Discuss and Consider Action to install 15 roof mounted Solar Panels at property on residential building on ORIG TOWN, BLOCK 70, LOT 12, 13 also known as 425 East Kenedy Avenue, Kingsville, TX 78363

EXHIBITS

Application, 2022 Appraisal Roll, Kleberg County Appraisal District Information details. Data from Texas Historical Commission (Historic Resources Survey Form), Engineer's letter, Authorization letter, Drawings, and illustrations.

BACKGROUND & PERTINENT DATA

This is a One-and-a-half-story L-plan steep-pitched cross-gabled Tudor Revival residential building with front-gabled enclosed entry with arched doorway, nine-over-one sash windows, and horizontal siding, located within the Historic District. This property is associated with events that have made significant contribution to the broad pattern to our history and considered as part to the historic district with low priority for preservation.

STAFF REVIEW & RECOMMENDATION

Staff has reviewed the application and found same to be in conformity with the Secretary of the Interior's Standard for Rehabilitation. Consequently, it is the recommendation of Staff to approve the installation of 15 mounted solar panels on residential building at 425 East Kenedy Avenue as there would be no adverse impact to the historic, cultural, or architectural nature of the district.

BOARD REVIEW

Scope of Historical Development Board

In general, Historical Development Board considers the following factors when making a recommendation concerning the issuing of a permit for the construction, reconstruction, alteration, restoration, relocation, demolition or razing of all or part of any building, structure or appurtenance within a historic district:

- 1) The effect of the proposed change upon the general historic, cultural and architectural nature of the district.

- 2) The appropriateness of exterior architectural features which can be seen from a public street, alley, road, highway or walkway.
- 3) The general design, arrangement, texture, material and color of the building, structure or appurtenances and the relation of such factors to similar features of buildings, structures or appurtenances in the district. The criterion shall not be the aesthetic appeal to the Board of the structure or the proposed remodeling, but rather its' conformity to the general character of the particular historic area involved.
- 4) Signs which are out of keeping with the character of the historic district in question shall not be permitted.
- 5) The value of the historic district as an area of unique interest and character shall not be impaired.

Standards of the Secretary of the Interior

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

SIGNATURES



Kobby Agyekum
Senior Planner/HPO

Historical Development Board Review Application

Applicant: JEREMY TURNER

Address: 18719 Big Elm Drive Cypress TX 77433

Contact: Cell: 254-203-5606 Home: _____

Email: permitting@hellonivo.com

Property Owner: SUSANNA SHAW

Address: 425 E Kenedy Ave Kingsville, TX 78363

Contact: Cell: (830) 331-0216 Home: _____

Property Location and Description: 425 E Kenedy Ave Kingsville, TX 78363

Description of Work: Installation of 15 solar panels on the roof.

Contractor: JEREMY TURNER

Contact: Cell: 254-203-5606 Home: _____

Email: permitting@hellonivo.com

- Documents Required:**
1. Sketch, Drawing, Plans, Site Plans, Mock-ups
 2. Photographs (Historic, Current, Surrounding Structures)
 3. Materials List or Samples
 4. Proof of Ownership
 5. Letter of Representation and Work Approval from Property Owner (If Applicable)

I certify that this information and the additional information submitted to the Planning Department is correct and that the work will be completed as described, as approved by the Historical Development Board and in accordance with applicable codes.

(Applicant) Print Name: JEREMY TURNER

Signature: JEREMY TURNER Date: 12/15/2023

Kleberg CAD

Property Search > 15287 SHAW SUSANNA for Year 2023

Tax Year: 2023 - Values not available

Property

Account

Property ID: 15287 Legal Description: ORIG TOWN, BLOCK 70, LOT 12, 13
 Geographic ID: 100107013000192 Zoning:
 Type: Real Agent Code:
 Property Use Code:
 Property Use Description:

Location

Address: 425 E KENEDY Mapsco:
 Neighborhood: Map ID: C1
 Neighborhood CD:

Owner

Name: SHAW SUSANNA Owner ID: 68808
 Mailing Address: 425 E KENEDY AVE % Ownership: 100.0000000000%
 KINGSVILLE, TX 78363
 Exemptions:

Values

(+) Improvement Homesite Value:	+	N/A	
(+) Improvement Non-Homesite Value:	+	N/A	
(+) Land Homesite Value:	+	N/A	
(+) Land Non-Homesite Value:	+	N/A	Ag / Timber Use Value
(+) Agricultural Market Valuation:	+	N/A	N/A
(+) Timber Market Valuation:	+	N/A	N/A

(=) Market Value:	=	N/A	
(-) Ag or Timber Use Value Reduction:	-	N/A	

(=) Appraised Value:	=	N/A	
(-) HS Cap:	-	N/A	

(=) Assessed Value:	=	N/A	

Taxing Jurisdiction

Owner: SHAW SUSANNA
 % Ownership: 100.0000000000%
 Total Value: N/A

Entity	Description	Tax Rate	Appraised Value	Taxable Value	Estimated Tax
CAD	KLEBERG COUNTY APPRAISAL DISTRICT	N/A	N/A	N/A	N/A
CKI	CITY OF KINGSVILLE	N/A	N/A	N/A	N/A
GKL	KLEBERG COUNTY	N/A	N/A	N/A	N/A
SKI	KINGSVILLE I.S.D.	N/A	N/A	N/A	N/A
WST	SOUTH TEXAS WATER AUTHORITY	N/A	N/A	N/A	N/A
Total Tax Rate:		N/A			

Taxes w/Current Exemptions:	N/A
Taxes w/o Exemptions:	N/A

Improvement / Building

Improvement #1: RESIDENTIAL State Code: A1 Living Area: 1250.0 sqft Value: N/A

Type	Description	Class CD	Exterior Wall	Year Built	SQFT
MA	MAIN AREA	FF4	EW3	2020	1250.0
OPFA	OPEN PORCH FRAME AVERAGE	*		2020	34.0
PCFA	PATIO COVERED FRAME AVERAGE	*		2020	76.0

Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	A1	A1	0.1607	7000.00	50.00	140.00	N/A	N/A

Roll Value History


Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap	Assessed
2024	N/A	N/A	N/A	N/A	N/A	N/A
2023	N/A	N/A	N/A	N/A	N/A	N/A
2022	\$90,890	\$4,500	0	95,390	\$0	\$95,390
2021	\$45,910	\$4,500	0	50,410	\$0	\$50,410
2020	\$0	\$4,500	0	4,500	\$0	\$4,500
2019	\$0	\$4,500	0	4,500	\$0	\$4,500
2018	\$14,370	\$4,500	0	18,870	\$0	\$18,870
2017	\$14,370	\$4,500	0	18,870	\$0	\$18,870
2016	\$14,370	\$4,500	0	18,870	\$0	\$18,870
2015	\$21,840	\$4,500	0	26,340	\$0	\$26,340
2014	\$21,840	\$4,500	0	26,340	\$0	\$26,340
2013	\$21,840	\$4,500	0	26,340	\$0	\$26,340
2012	\$38,230	\$4,500	0	42,730	\$0	\$42,730
2011	\$38,230	\$4,500	0	42,730	\$0	\$42,730
2010	\$38,230	\$4,500	0	42,730	\$0	\$42,730

Deed History - (Last 3 Deed Transactions)

#	Deed Date	Type	Description	Grantor	Grantee	Volume	Page	Deed Number
1	7/14/2021	GWDW/VL	GENERAL WARRANTY DEED W/VENDORS LEIN	SANCHEZ RENE	SHAW SUSANNA			326805
2	10/5/2020	GWD	GENERAL WARRANTY DEED	RIVAS DEBRA	SANCHEZ RENE			323379
3	7/6/2020	WD	WARRANTY DEED	NGO EREKA	RIVAS DEBRA			322378

Tax Due

Property Tax Information as of 12/19/2023

Amount Due if Paid on: 

Year	Taxing Jurisdiction	Taxable Value	Base Tax	Base Taxes Paid	Base Tax Due	Discount / Penalty & Interest	Attorney Fees	Amount Due
------	---------------------	---------------	----------	-----------------	--------------	-------------------------------	---------------	------------

NOTE: Penalty & Interest accrues every month on the unpaid tax and is added to the balance. Attorney fees may also increase your tax liability if not paid by July 1. If you plan to submit payment on a future date, make sure you enter the date and RECALCULATE to obtain the correct total amount due.

Questions Please Call (361) 595-5775

Project #: 00009
County: Kleburg

Historic Resources Survey Form

Local Id: 0001-15287
City: Kingsville

Address No: 425 **Street Name:** East Kenedy Avenue

SECTION 1

Basic Inventory Information

Current Name:
Historic Name:

Owner Information **Name:** Watson Zak Dylan **Status:**
Address: 301 East Kleberg Ave **City:** Kingsville **State:** TX **Zip:** 78363

Geographic Location **Latitude:** 27.514439 **Longitude:** -97.863615

Legal Description (Lot\Block): ORIG TOWN, BLOCK 70, LOT 12, 13

Addition/Subdivision: **Year:**

Property Type Building
Current Designations: NR District Is property contributing?
 NHL NR RTHL OTHM HTC SAL Local Other

Architect: **Builder:**
Construction Date: c. 1930 **Source:** Sanborn maps

Function

Current: DOMESTIC-Single Dwelling

Historic: DOMESTIC-Single Dwelling

Recorded By: Stefan & Daniela

Date Recorded: 5/7/2013



Project #: 00009
County: Kleburg
Address No: 425

Historic Resources Survey Form

Local Id: 0001-15287
City: Kingsville

Street Name: East Kenedy Avenue

SECTION 2

Architectural Description

One-and-a-half-story L-plan steep-pitched cross-gabled Tudor Revival residential building with front-gabled enclosed entry with arched doorway, nine-over-one sash windows, and horizontal siding. Front chimney has been removed.

- Additions, modifications **Explain:** chimney removed
- Relocated **Explain:**

Stylistic Influence

Tudor Revival

Structural Details

Roof Form

Cross-Gabled

Roof Materials

Wood Shingles

Wall Materials

WOOD-Siding

Windows

Wood sash

Doors (Primary Entrance)

Wood Shingles

Plan

L-Plan

Chimneys

Porches/Canopies

FORM Gable Roof

SUPPORT

MATERIAL

ANCILLARY BUILDINGS:

Garage:

Barn:

Shed:

Other:

Landscape Features

Project #: 00009

Historic Resources Survey Form

Local Id: 0001-15287

County: Kleburg

City: Kingsville

Address No: 425

Street Name: East Kenedy Avenue

SECTION 3 Historical Information

Associated Historical Context

Architecture, Planning/Development

Applicable National Register (NR) Criteria:

- A Associated with events that have made a significant contribution to the broad pattern of our history
- B Associated with the lives of persons significant in our past
- C Embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components lack individual distinctions
- D Has yielded, or is likely to yield, information important in prehistory of history

Areas of Significance:

Architecture, Community Development

Periods of Significance:

1913-1946

Levels of Significance: National State Local

Integrity: Location Design Materials Workmanship Setting Feeling Association

Integrity Notes:

chimney removed, replacement siding?

Individually Eligible? No

Within Potential NR District?: Yes

Is Property Contributing?:

Priority: Medium

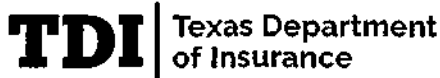
Explain:

Other Information

Is prior documentation available for this resource? No

Type HABS Survey Other

Documentation Details:



Application for Certificate of Compliance Form WPI-1

App ID:2355711

Physical Address of Structure to be Inspected 425 EAST KENEDY AVENUE

Tract/Addition: Lot: Block:

City: Kingsville

ZIP: 78363

County: Kleberg

City Limits: Inside City Limits

Structure is located in:

Is the structure located in a Coastal Barrier Resource Zone (CBRA): No

Owner

Name: SUSANNA SHAW Mailing Address: 425 EAST KENEDY AVENUE

Phone: City: Kingsville

Fax: ZIP: 78363

Contractor

Name: NIVO LLC Mailing Address: 1334 Brittmoores Rd. STE 2310

Phone: City: Houston

Fax: ZIP: 77043

Engineer

Name: Joshua A Senecal Mailing Address: 15317 Gypsy St Email: senecalja1@gmail.com

Phone: (252) 764-7382 City: Corpus Christi Texas Registration No.: 130638

Fax: ZIP: 784186480

Commencement of Construction Date

12-08-2023

Date of Application

12-12-2023

Type of Building

House

Inspections

1. Mechanical, Solar Panel(s) -

Number of Panels: 15 Panels, Location or Identifier: 12 Panels on the East Pitch, 3 Panels on the West Pitch,

- 2. 3.

Comments

Submitter

Name: Joshua Senecal

Phone: (252) 764-7382

Date: 12-12-2023

Submitter Type: Engineer

For Texas Department of Insurance Inspections: mail or email to your local field office

For inspections by engineers: mail or email to Austin office: windstorm@tdi.texas.gov

Texas Department of Insurance

Windstorm Inspections Program

P.O. Box 12030

Austin, TX 78711-2030

Texas Department of Insurance | www.tdi.texas.gov



December 14, 2023

Roof Mounted Photovoltaic Array System Design Certification

425 E KENEDY AVE, KINGSVILLE, TX 78363

I have reviewed the following information regarding solar panel installation on the roof of the above referenced home:

1. Site Visit/Verification Form prepared by a Nivo representative identifying specific site information including size and spacing of rafters for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information was prepared by Nivo and will be utilized for approval and construction of the proposed system.
3. Photographs of the interior and exterior of the roof system identifying existing structural members and their conditions.

Based on the above information I have evaluated the structural capacity of the existing roof system to support the additional loads imposed by the solar panels and have the following comments related to the provided design.

A. Basis of Design:

- a. The design conforms with the loading criteria and calculation methods as stated in ASCE7-16
- b. This design conforms to the Chapter 3 "Wind Design" requirements of International Residential Code 2018
 - i. TDI COMPLIANT DESIGN
- c. K2 Systems – Report #2020-02753HG.02 "Engineering Certification for the K2 Systems Crossrail – Dual Rail 44-X System for Gable and Hip Roofs" (dtd March 1, 2023) provides rail spans based on ASCE7-16 methods.
- d. Miami Dade NOA 22-0719.06 - K2 System approved system assemblies. Includes K2 Splice Foot X and Cross Rail series approved assembly.
- e. Regions where V_{ULT} is greater than 130MPH, Wind Engineering is required, per IRC 2018 Figure R301.2(5)B

B. Load Criteria

- a. Ultimate Wind Speed, V_{ULT} = 136 MPH per Applied Technology Council (ATC) "Hazards by Location"
 - i. <https://hazards.atcouncil.org/#/>
- b. Crossrail 44-X Rail Span based on Ultimate Design Wind Speed, V_{ULT} = 150 MPH
- c. Exposure Category C, Risk Factor II
- d. ASCE 7-16 Rafter/Truss Design Live Load = 20 psf
 - i. Per ASCE 7-16 areas where solar panels are installed Live Load = 0 psf
- e. ASCE 7-16 Rafter/Truss Design Dead Load = 10 psf
 - i. Solar Panels, associated racking and accessory equipment Dead Load = 2.6 psf
 - ii. Actual Dead Load of IRC compliant roof system with shingles = 5.3 psf
 - iii. Total actual Dead Load = 7.9 psf; therefore, the increased Dead Load remains less than the Design Dead Load of 10 psf.

f. Snow Load = 0 psf

g. Based on the above loading criteria, the proposed equipment layout, industry standards and provisions of the International Residential Code 2018, the existing structural frame will support the load of the new solar system.



Joshua Senecal, P.E.

Firm #21791

252-764-7382

TX PE#130638

12/14/2023

LRSCivilEngineer@gmail.com



C. Roof Attachment

- a. All Roof Areas: K2 Systems 44-X Rail
 - i. Space the K2 Systems Splice Foot XL at 48" on-center in Roof Zones 1, 2e, 2r & 3.
- b. Roof Zones are defined as follows:
 - i. Roof Zone 1: locations not within 3' from any edge or corner.
 - ii. Roof Zone 2r: locations within 3' of a ridge.
 - iii. Roof Zone 2e: locations within 3' of the lower edge.
 - iv. Roof Zone 2n: locations within 3' of the side gable edge.
 - v. Roof Zone 3e: locations within 3' of the lower edge corner.
 - vi. Roof Zone 3r: locations within 3' of a ridge corner.
- c. "Exposed" and "Non-Exposed" Rails
 - i. The "Exposed" and "Non-Exposed" span values provided on the "Exposure Detail" refer to the allowable K2 Splice Foot spacing based on location of the associated rail with relation to the position of the panel within an array.
 - ii. A panel is considered "Exposed" if one of the following conditions are met:
 1. Any panel located within an array that **does not** have an adjacent panel within 48".
 2. Any panel that is located greater than 48" and/or a distance greater than half the mean roof height from a ridge or edge.
 3. Any panel that is located greater than 1.5 times the panel length (portrait) or 1.5 times the panel width (landscape) from a hip ridge or gable rake.
 - iii. If a panel is considered "Exposed"
 1. The "Exposed" span value applies to both rails of the panel.
 - iv. If a panel is considered "Non-Exposed"
 1. The "Non-Exposed" span values apply both rails of the panel.
 - v. Exposed panels will be highlighted in red on the "Exposure Detail"
- d. Structural installation must be completed per Miami-Dade NOA 22-0719.06 and K2 Systems installation manuals. Miami-Dade NOA 22-0719.06 takes precedence.
- e. Attach the K2 Systems Splice Foot with the two provided stainless steel M5X60mm wood screws with sealing washer.
- f. Install K2 Butyl gasket between the roof covering system and the K2 Splice Foot.
- g. **Rafter mounting procedure is the only authorized installation method.**
- h. Stagger anchor points to minimize the occurrence of two adjacent rails being attached to the same structural member.
- i. Use only factory provided hardware as directed by the manufacturer's installation manual.
- j. Maximum cantilever is defined as 1/3 the maximum span length of the 44-X rail in the applicable Roof Zone found on the calculation sheet.



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TX PE#130638

12/14/2023

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Solar Array Calculation Sheet #231126

Property Address	425 KENEDY AVENUE, KINGSVILLE, TX 78363	ATC Hazrds by Location	https://hazards.atccouncil.org/#/
Ultimate Wind Speed	136 MPH		
Roof Pitch (Degrees)	27		
Roof Type	HIP		
Exposure Code	C		
Risk Factor	II		
	ASCE7-16 Citation	Roof Pitch	Figure 30.3-2H 27 to 45
Topographical Factor (K_{zt})	Sect 26.8.2 1.00	Portrait	Landscape
Exposure Coefficient (K_z)	Tab 26.10-1 0.85	Positive G_C	0.60 0.75
Directional Factor (K_d)	Tab 26.6-1 0.85	Zone 1 G_C	-1.45 -1.50
Ground Elevation Factor (K_e)	Table 26.9-1 1.00	Zone 2e G_C	-1.80 -2.30
Exposure Factor (γ_x) "Exposed"	1.50	Zone 2r G_C	-2.40 -2.70
Pressure Equalization Factor (γ_a)	Figure 29.4-8 0.71 (PORTRAIT)	Zone 3 G_C	-2.50 -3.50
Pressure Equalization Factor (γ_b)	Figure 29.4-8 0.80 (LANDSCAPE)		
Mean Roof Height (ft)	14.50		
Velocity Pressure (q_u) psf	26.34		
Length of Panel (in)	74.00		
Width of Panel (in)	41.10		
Weight of Panel (lbs)	49.60		
Solar Panel Area (sqft)	21.12		
Array Dead Load (psf)	2.60		
Roof Connection Effective Area (sqft)	12.33 at 48" spacing in PORTRAIT		
Roof Connection Effective Area (sqft)	6.85 at 48" spacing in LANDSCAPE		

1:12	4.8 deg
2:12	9.5 deg
3:12	14 deg
4:12	18.4 deg
5:12	22.6 deg
6:12	28.6 deg
7:12	30.3 deg
8:12	33.7 deg
9:12	36.9 deg
10:12	39.8 deg
11:12	42.5 deg
12:12	45 deg

Portrait Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT X
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	19.8	-38.2	15.66	-25.42	96.60	-156.75	128.80	-209.00	193.20	-313.50	58"	48"
Exposed	19.8	-57.3	15.66	-38.96	96.60	-240.24	128.80	-320.32	193.20	-480.48	47"	32"
Zone 2e	19.8	-47.4	15.66	-31.95	96.60	-197.05	128.80	-262.74	193.20	-394.11	58"	48"
Exposed	19.8	-71.1	15.66	-48.76	96.60	-300.70	128.80	-400.93	193.20	-601.39	47"	32"
Zone 2r	19.8	-63.2	15.66	-43.16	96.60	-266.15	128.80	-354.87	193.20	-532.30	58"	48"
Exposed	19.8	-94.8	15.66	-65.57	96.60	-404.34	128.80	-539.12	193.20	-808.68	47"	32"
Zone 3	19.8	-65.9	15.66	-45.03	96.60	-277.67	128.80	-370.22	193.20	-555.33	49"	48"
Exposed	19.8	-98.8	15.66	-68.37	96.60	-421.61	128.80	-562.15	193.20	-849.72	40"	32"

Landscape Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT X
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	19.8	-38.2	17.68	-28.68	60.54	-98.24	80.73	-130.99	121.09	-196.49	58"	48"
Exposed	19.8	-57.3	17.68	-43.96	60.54	-150.57	80.73	-200.76	121.09	-301.15	47"	32"
Zone 2e	19.8	-47.4	17.68	-36.06	60.54	-123.51	80.73	-164.68	121.09	-247.01	58"	48"
Exposed	19.8	-71.1	17.68	-55.03	60.54	-188.47	80.73	-251.29	121.09	-376.93	47"	32"
Zone 2r	19.8	-63.2	17.68	-48.70	60.54	-166.81	80.73	-222.42	121.09	-333.62	58"	48"
Exposed	19.8	-94.8	17.68	-73.99	60.54	-253.42	80.73	-337.90	121.09	-506.85	47"	32"
Zone 3	19.8	-65.9	17.68	-50.81	60.54	-174.03	80.73	-232.04	121.09	-348.06	49"	48"
Exposed	19.8	-98.8	17.68	-77.15	60.54	-264.25	80.73	-352.33	121.09	-528.50	40"	32"



CALCULATIONS PREPARED BY:
JOSHUA SENECAI, P.E.
TX P.E. #130638

▲ This is a beta release of the new ATC Hazards by Location website. Please [contact us](#) with feedback.

📌 The ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

ATC Hazards by Location

Search Information

Address: 425 E Kenedy Ave, Kingsville, TX 78363, USA
 Coordinates: 27.514441, -97.8636148
 Elevation: 61 ft
 Timestamp: 2023-12-11T16:06:55.379Z
 Hazard Type: Wind



ASCE 7-16

MRI 10-Year 75 mph
 MRI 25-Year 88 mph
 MRI 50-Year 102 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II ▲ 136 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III ▲ 145 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

Risk Category IV ▲ 149 mph
 You are in a wind-borne debris region.

ASCE 7-10

MRI 10-Year 76 mph
 MRI 25-Year 91 mph
 MRI 50-Year 102 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II ▲ 136 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III-IV ▲ 145 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

ASCE 7-05

ASCE 7-05 Wind Speed ▲ 113 mph

You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

While the information presented on this website is believed to be correct, ATC and its sponsors and contributors assume no responsibility or liability for its accuracy. The material presented in the report should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. ATC does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the report provided by this website. Users of the information from this website assume all liability arising from such use. Use of the output of this website does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the report.

SCOPE OF WORK

TO INSTALL A ROOF MOUNTED SOLAR PHOTOVOLTAIC SYSTEM AT THE OWNER RESIDENCE LOCATED AT 425 E KENEDY AVE, KINGSVILLE, TX 78363, USA. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID THROUGH THE EXISTING ELECTRICAL SERVICE EQUIPMENT. THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES.

EQUIPMENT SUMMARY

15 Q CELLS Q.PEAK DUO BLK ML-G10+ 405 MODULES
15 ENPHASE IQ8PLUS-72-2-US (240V) MICROINVERTERS

GENERAL NOTES

- THESE CONSTRUCTION DOCUMENTS HAVE BEEN BASED ON FIELD INSPECTIONS AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS
- CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, OBTAIN ALL PERMITS, LICENSES AND PAY ALL REQUIRED FEES AND COMPLETE INSTALLATION.
- CONTRACTOR HAS THE FULL RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. WORK SHALL BE STOPPED BEFORE CONSULTATION AND ACCEPTANCE BY THE ENGINEER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO CORRECTION BY THEM WITHOUT ADDITIONAL COMPENSATION.
- DAMAGE CAUSED TO THE EXISTING STRUCTURE, PIPES, DUCTS, WINDOWS, WALL, FLOORS, ETC. SHALL BE REPAIRED TO THE ORIGINAL CONDITION OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE PROPER INSTALLATION AND COMPLETION OF THE WORK WITH APPROVED MATERIALS.
- CONTRACTOR SHALL OBTAIN BUILDING PERMIT. NO WORK TO START UNLESS BUILDING PERMIT IS PROPERLY DISPLAYED.
- ALL WORKMANSHIP AND MATERIALS SHALL BE OF FIRST QUALITY AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ALL PERTINENT AGENCIES.
- IT IS ESSENTIAL THAT ALL WORK PROCEED WITH THE MAXIMUM COOPERATION OF ALL PARTIES AND WITH MINIMUM INTERFERENCE TO THE OCCUPANTS WITHIN THE BUILDING. THE OWNER'S DIRECTIONS IN THIS REGARD SHALL BE FULLY COMPLIED WITH.
- THE CONTRACTOR SHALL PERFORM THE WORK IN STRICT CONFORMANCE WITH THE LOCAL LAWS, REGULATIONS AND THE NATIONAL ELECTRIC CODE.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
- CONTRACTORS SHALL OBTAIN FIRE CERTIF. UPON COMPLETION OF WORK.

ELECTRICAL NOTES

- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
- ALL CONDUCTORS SHALL BE COPPER, RATED FOR 90 V AND 90 DEGREE C WET ENVIRONMENT.
- WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURERS INSTRUCTION.
- MODULE SUPPORT RAIL SHALL BE BONDED TO THE MODULE

TDI COMPLIANT DESIGN

IRC 2018 CHAPTER 3 WIND REQUIREMENTS ONLY
ASCET-16, EXPOSURE CATEGORY C, RISK FACTOR II
ULTIMATE DESIGN WIND SPEED = 136 MPH

GOVERNING CODES
2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL FIRE CODE
2017 NATIONAL ELECTRICAL CODE

AHJ NAME : KINGSVILLE CITY

WIRING AND CONDUIT NOTES

- ALL CONDUIT SIZES AND TYPES SHALL BE LISTED FOR ITS PURPOSE AND APPROVAL FOR THE SITE APPLICATIONS
- ALL PV CABLES AND HOMERUN WIRES BE #10AWG -USE-2, PV WIRE, OR PROPRIETARY SOLAR CABLING SPECIFIED BY MFR, OR EQUIVALENT, ROUTED TO SOURCE CIRCUIT COMBINER BOXES AS REQUIRED
- ALL PV DC CONDUCTORS IN CONDUIT EXPOSED TO SUNLIGHT SHALL BE DERATED ACCORDING TO AS PER LATEST NEC CODE.
- EXPOSED ROOF PV DC CONDUCTORS SHALL BE USE-2, 90°C RATED, WET AND UV RESISTANT, AND UL LISTED RATED FOR 600V, UV RATED SPIRAL WRAP SHALL BE USED TO PROTECT WIRE FROM SHARP EDGES
- PHASE AND NEUTRAL CONDUCTORS SHALL BE DUAL RATED THHN/THWN-2 INSULATED, 90°C RATED, WET AND UV RESISTANT, RATED FOR 1000V AS PER APPLICABLE NEC
- 4 WIRE DELTA CONNECTED SYSTEMS HAVE THE PHASE WITH THE HIGHER VOLTAGE TO GROUND MARKED OR IDENTIFIED BY OTHER EFFECTIVE MEANS
- ALL SOURCE CIRCUITS SHALL HAVE INDIVIDUAL SOURCE CIRCUIT PROTECTION
- VOLTAGE DROP LIMITED TO 2%
- AC CONDUCTORS >4AWG COLOR CODED OR MARKED: PHASE A OR L1- BLACK, PHASE B OR L2- RED, PHASE C OR L3- BLUE, NEUTRAL- WHITE/GRAY

Christopher Rife
Master Electrician
TDL# 44468 TDL# 4104

**C-S-R
ELECTRIC**

LRSE Engineering
TX Firm 21791
12/14/2023

SYSTEM RATING

6.075 KWDC
4.500 KWAC

SHEET INDEX

NO.	COVER PAGE
PV1	SITE PLAN
PV2	ROOF PLAN
PV3	STRING LAYOUT & BOM
PV4	ATTACHMENT DETAILS
PV5-PV6	ELECTRICAL LINE & CALC.
PV7	SPECIFICATIONS & NOTES
PV8	SIGNAGE
PV9-PV10	EQUIPMENT SPECIFICATIONS
PV11-PV15	



NIVO LLC
1324 BRITTMORE RD
KINGSVILLE, TX
78363, USA
PH#: (832) 621-0806

SYSTEM INFO

(15) Q CELLS
0.PEAK DUO BLK ML-G10+ 405
100% EFFICIENCY
DC SYSTEM SIZE: 6.075 KWDC
AC SYSTEM SIZE: 4.500 KWAC
FBI ID: 100327894527940
METER: 200-JAN-249

REVISIONS

NO.	DESCRIPTION	DATE	REV



NABCEP BADGE
PV ID: 012223-013581
PROJECT NAME & ADDRESS

SUSANNA SHAW
RESIDENCE
425 E KENEDY AVE, KINGSVILLE, TX
78363, USA
EMAIL ID: SUSANNA@FAHOO.COM
PHONE NO. (830) 331-0216

DATE: 12/14/2023

SHEET NAME
COVER PAGE

SHEET SIZE
**ANSI B
11" X 17"**

SHEET NUMBER
PV-1



NIVO LLC
1334 BRITTMORE RD,
SUITE 2310, HOUSTON, TX
PH#: (832) 621-0806

SYSTEM INFO
(15) Q CELLS
Q.PEAK DUO BLK ML-G10+ 405
(15) EMPHASE
IQBP-US -72-2-US (240V)
DC SYSTEM SIZE 8.073 KWDC
AC SYSTEM SIZE 4.500 KWAC
FBI ID: 1003278945247940
METER: 200 506 569

REVISIONS	DATE	REV
DESCRIPTION		



NABCEP BADGE
PVIS - 012223-013581
PROJECT NAME & ADDRESS

SUSANNA SHAW
RESIDENCE
425 E KENEY AVE, KINGSVILLE, TX
78363, USA
EMAIL ID: SUSANNA.REP@YAHOO.COM
PHONE NO. (830) 331-0216

DATE: 12/8/2023

SHEET NAME
SITE PLAN

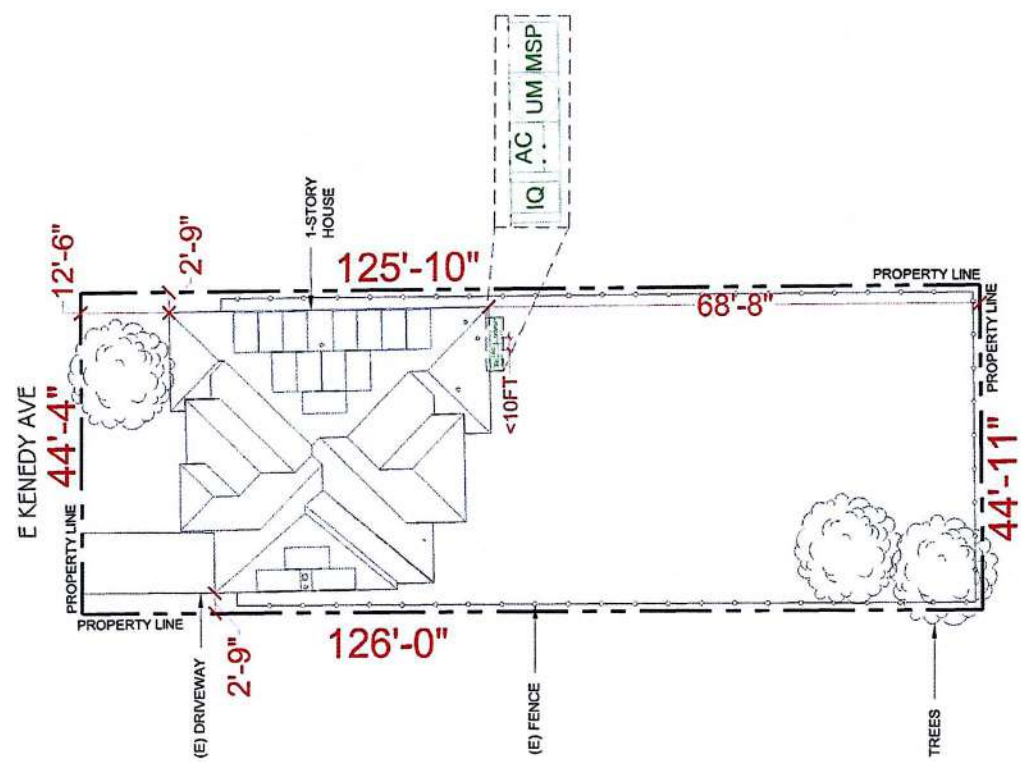
SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
PV-2



LRS Engineering
TX Firm: 21791
12/14/2023

- SITE NOTES**
- A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
 - THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE AND THIS SYSTEM IS AN UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.
 - THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
 - PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER SECTION (NEC 110.26)



LEGEND

JB	(N) JUNCTION BOX
M	(E) UTILITY METER
MS	(E) MAIN SERVICE PANEL
D	(N) ENPHASE IQ COMBINER
F	(N) VISIBLE LOCKABLE LABELED DISCONNECT FAN (ROOF OBSTRUCTION)
R	ROOF ATTACHMENT
C	CONDUIT
MI	ENPHASE IQPLUS -72-2-US (240V) MICROINVERTER
Q	Q CELLS Q.PEAK DUO BLK ML-G10+ 405 MODULES
T	K2 CROSSRAIL 44-X TRENCH

[Signature]
Christopher Ruff
Master Electrician
TDL38 44468 TBCJ3 3400
C-S-R
ELECTRIC, INC.
Professional • Licensed • Insured

METER NO#: 200 506 569
ESI ID#: 1003278945247940
VISIBLE LOCKABLE LABELED DISCONNECT LOCATED ON ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF UTILITY METER



SCALE: 1/16" = 1'-0"



NIVO LLC
1324 BRIT MOORE RD
SUITE 200
77043, USA
PH: (832) 821-0806

SYSTEM INFO	
(15) Q CELLS	
Q.PEAK DUO BLACK 510+ 405	
KOBUS (72x118 240V)	
DC SYSTEM SIZE: 6.075 MWDC	
AC SYSTEM SIZE: 4.500 MWAC	
FBI ID: 10032789452477940	
METER: 200 506 569	

REVISIONS	DATE	REV



NABCEP BADGE
PVIS - 012223-013581
PROJECT NAME & ADDRESS

SUSANNA SHAW
RESIDENCE
425 E KENDRY AVE, KINGSVILLE, TX
78363, USA
EMAIL ID: SUSANNA@YAHOO.COM
PHONE NO. (830) 331-0216

DATE: 12/8/2023

SHEET NAME
ROOF PLAN

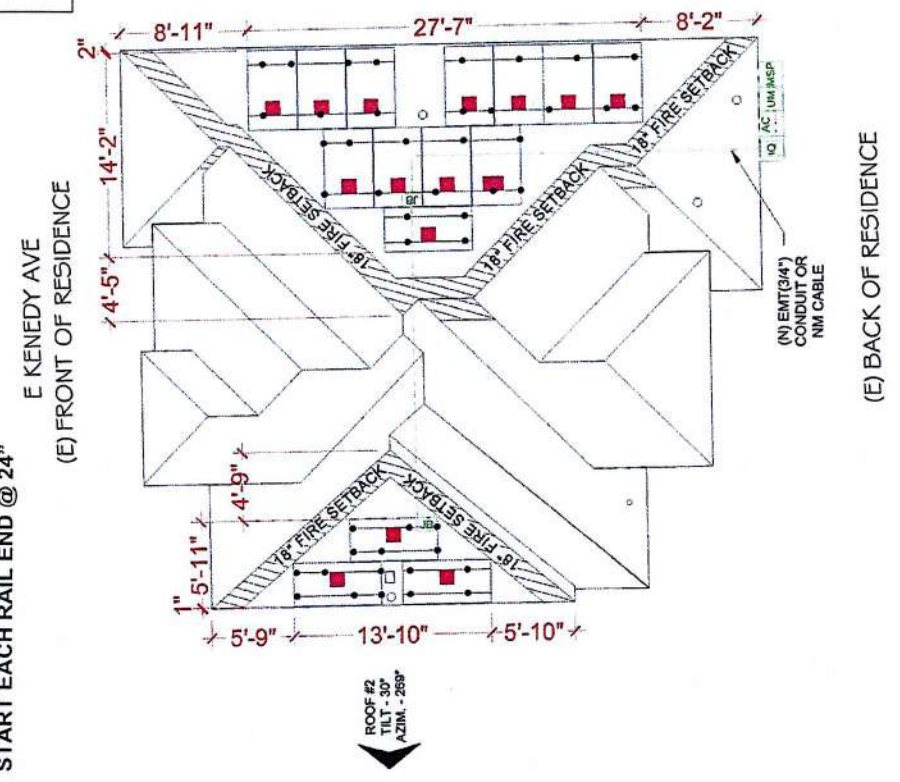
SHEET SIZE
ANSI B
11" X 17"

SHEET NUMBER
PV-3



LRS Engineering
TX Firm 21791
12/14/2023

**K2 SYSTEMS SPLICE FOOT-XL
SPACED
@ 48" O.C. IN ZONES 1, 2 & 3
START EACH RAIL END @ 24"**



METER NO#: 200 506 569
ESI ID#: 10032789452477940
VISIBLE LOCKABLE LABELED DISCONNECT LOCATED ON
ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF
UTILITY METER

(E) BACK OF RESIDENCE

SCALE: 1/8" = 1'-0"



DESIGN SPECIFICATION	
RISK CATEGORY:	II
CONSTRUCTION:	SFD
ZONING:	RESIDENTIAL
SNOW LOAD (ASCE7-16):	0 PSF
EXPOSURE CATEGORY:	C
WIND SPEED (ASCE7-16):	136 MPH

MODULE TYPE, DIMENSIONS & WEIGHT		
NUMBER OF MODULES:	15 MODULES	
MODULE TYPE:	Q CELLS Q.PEAK DUO BLK ML-G10+ 405	
MODULE WEIGHT:	48.5 LBS	
MODULE DIMENSIONS:	74" X 41.1" = 21.12 SF	
UNIT WEIGHT OF AREA:	2.3 PSF	

ROOF DESCRIPTION			
ROOF	SOLAR RAFTER TILT ACCESS	RAFTER SPACING	ROOF MATERIAL
#1	27° 94%	24" o.c.	COMP SHINGLE
#2	30° 95%	24" o.c.	COMP SHINGLE

ARRAY AREA & ROOF AREA CALC'S	
ROOF #1	253.45
ROOF #2	63.37
(TOTAL ARRAY AREA/TOTAL ROOF AREA) X 100% = (316.82/1719) X 100% = 18.44%	

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL	ENPHASE (8PLUS-72-2-US (240V)
MAX DC SHORT CIRCUIT CURRENT	15 A
CONTINUOUS OUTPUT CURRENT	1.21 A

Christopher Kufis
Master Electrician
TOL# 44468 TICLA 1404
C.S.R. ELECTRIC
MEMBER OF THE C.S.R. GROUP

LEGEND

- (J) JUNCTION BOX
- (M) MAIN SERVICE PANEL
- (U) UTILITY METER
- (N) ENPHASE IQ COMBINER
- (V) VISIBLE LOCKABLE LABELED DISCONNECT
- (F) VENT, ATTIC FAN (ROOF OBSTRUCTION)
- (A) ROOF ATTACHMENT
- (E) ENPHASE IQ PLUS-72-2-US (240V) MICROINVERTER
- (Q) CELLS Q.PEAK DUO BLK ML-G10+ 405 MODULES
- (K) CROSSRAIL 4+X TRENCH



CITY of KINGSVILLE DOWNTOWN



HISTORIC DEVELOPMENT BOARD

DATE: December 19th, 2023
TO: Historic Development Board
FROM: Kobby Agyekum (Senior Planner/Historical Preservation Officer)
SUBJECT: Discuss and Consider Action to install 32 roof mounted Solar Panels at property on residential building on HENRIETTA HGTS, BLOCK 2, LOT 25-27 also known as 620 West Richard Avenue, Kingsville, TX 78363
APPLICANT: Jeremy Turner, Mr.
CONTRACTOR: Nivo Solar LLC

REQUEST

Discuss and Consider Action to install 32 roof mounted Solar Panels at property on residential building on HENRIETTA HGTS, BLOCK 2, LOT 25-27 also known as 620 West Richard Avenue, Kingsville, TX 78363

EXHIBITS

Application, 2022 Appraisal Roll, Kleberg County Appraisal District Information details, Data from Texas Historical Commission (Historic Resources Survey Form), Engineer's letter, Authorization letter, Drawings, and illustrations.

BACKGROUND & PERTINENT DATA

This is a One-story front-gabled irregular-plan residential building with front-gabled partial-width offset porch supported by square wood posts, horizontal siding, wood-framed sash windows, exposed rafter tails, rear additions and detached two-car garage at rear of property, located within the Historic District. This property is associated with events that have made significant contribution to the broad pattern to our history and considered as part to the historic district with low priority for preservation.

STAFF REVIEW & RECOMMENDATION

Staff has reviewed the application and found same to be in conformity with the Secretary of the Interior's Standard for Rehabilitation. Consequently, it is the recommendation of Staff to approve the installation of 32 mounted solar panels on residential building at 620 West Richard Avenue as there would be no adverse impact to the historic, cultural, or architectural nature of the district.

BOARD REVIEW

Scope of Historical Development Board

In general, Historical Development Board considers the following factors when making a recommendation concerning the issuing of a permit for the construction, reconstruction, alteration, restoration, relocation, demolition or razing of all or part of any building, structure or appurtenance within a historic district:

- 1) The effect of the proposed change upon the general historic, cultural and architectural nature of the district.

- 2) The appropriateness of exterior architectural features which can be seen from a public street, alley, road, highway or walkway.
- 3) The general design, arrangement, texture, material and color of the building, structure or appurtenances and the relation of such factors to similar features of buildings, structures or appurtenances in the district. The criterion shall not be the aesthetic appeal to the Board of the structure or the proposed remodeling, but rather its' conformity to the general character of the particular historic area involved.
- 4) Signs which are out of keeping with the character of the historic district in question shall not be permitted.
- 5) The value of the historic district as an area of unique interest and character shall not be impaired.

Standards of the Secretary of the Interior

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

SIGNATURES



Kobby Agyekum
Senior Planner/HPO

Historical Development Board Review Application

Applicant: JEREMY TURNER
Address: 18719 Big Elm Drive Cypress TX 77433
Contact: Cell: 254-203-5606 **Home:** _____
Email: permitting@hellonivo.com

Property Owner: RONALD O'NEIL
Address: 620 W Richard Ave Kingsville, TX 78363
Contact: Cell: (361) 288-6533 **Home:** _____
Property Location and Description: 620 W Richard Ave Kingsville, TX 78363

Description of Work: Installation of 32 solar panels on the roof.

Contractor: NIVO SOLAR LLC/JEREMY TURNER
Contact: Cell: 254-203-5606 **Home:** _____
Email: permitting@hellonivo.com

- Documents Required:**

 1. Sketch, Drawing, Plans, Site Plans, Mock-ups
 2. Photographs (Historic, Current, Surrounding Structures)
 3. Materials List or Samples
 4. Proof of Ownership
 5. Letter of Representation and Work Approval from Property Owner (If Applicable)

I certify that this information and the additional information submitted to the Planning Department is correct and that the work will be completed as described, as approved by the Historical Development Board and in accordance with applicable codes.

(Applicant) Print Name: JEREMY TURNER
Signature: JEREMY TURNER Date: 12/12/2023

Project #: 00009
County: Kleburg
Address No: 620

Historic Resources Survey Form

Local Id: 0001-13411
City: Kingsville

Street Name: West Richard Avenue

SECTION 1

Basic Inventory Information

Current Name:
Historic Name:

Owner Information Name: Clark Bryan Status:
 Address: 620 West Richard Ave City: Kingsville State: TX Zip: 78363

Geographic Location Latitude: 27.52179 Longitude: -97.875789

Legal Description (Lot\Block): HENRIETTA HGTS, BLOCK 2, LOT 25-27

Addition/Subdivision: HENRIETTA HEIGHTS **Year:**

Property Type Building
Current Designations: NR District Is property contributing?
 NHL NR RTHL OTHM HTC SAL Local Other

Architect: **Builder:**
Construction Date: 1950 **Source:** Tax Appraiser

Function

Current: DOMESTIC-Single Dwelling

Historic: DOMESTIC-Single Dwelling

Recorded By: Stefan & Daniella

Date Recorded: 10/7/2012



Project #: 00009
County: Kleburg
Address No: 620

Historic Resources Survey Form

Local Id: 0001-13411
City: Kingsville

Street Name: West Richard Avenue

SECTION 2

Architectural Description

One-story front-gabled irregular-plan residential building with front-gabled partial-width offset porch supported by square wood posts, horizontal siding, wood-framed sash windows, exposed rafter tails, rear additions, and detached two-car garage at rear of property.

- Additions, modifications **Explain:** rear additions
- Relocated **Explain:**

Stylistic Influence

No Style

Structural Details

Roof Form

Front-Gabled

Roof Materials

Composition Shingles

Wall Materials

WOOD-Siding

Windows

Wood sash

Doors (Primary Entrance)

Composition Shingles

Plan

Irregular

Chimneys

Porches/Canopies

FORM Gable Roof
SUPPORT Wood posts (plain)
MATERIAL

ANCILLARY BUILDINGS:

Garage: 1 Barn: Shed: Other:

Landscape Features

Project #: 00009

Historic Resources Survey Form

Local Id: 0001-13411

County: Kleburg

City: Kingsville

Address No: 620

Street Name: West Richard Avenue

SECTION 3 Historical Information

Associated Historical Context

Planning/Development

Applicable National Register (NR) Criteria:

- A Associated with events that have made a significant contribution to the broad pattern of our history
- B Associated with the lives of persons significant in our past
- C Embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components lack individual distinctions
- D Has yielded, or is likely to yield, information important in prehistory of history

Areas of Significance:

Community Development

Periods of Significance:

1946-1985

Levels of Significance: National State Local

Integrity: Location Design Materials Workmanship Setting Feeling Association

Integrity Notes:

Individually Eligible? No

Within Potential NR District?: Yes

Is Property Contributing?:

Priority: Medium

Explain:

Other Information

Is prior documentation available for this resource? No

Type HABS Survey Other

Documentation Details:

Kleberg CAD

Property Search > 13411 O'NEIL RONNIE J for Year 2023

Tax Year: 2023 - Values not available

Property

Account

Property ID: 13411 Legal Description: HENRIETTA HGTS, BLOCK 2, LOT 25-27
 Geographic ID: 135000225000192 Zoning:
 Type: Real Agent Code:
 Property Use Code:
 Property Use Description:

Location

Address: 620 W RICHARD TX Mapsco:
 Neighborhood: Map ID: A2
 Neighborhood CD:

Owner

Name: O'NEIL RONNIE J Owner ID: 68848
 Mailing Address: 620 W RICHARD % Ownership: 100.0000000000%
 KINGSVILLE, TX 78363
 Exemptions:

Values

(+) Improvement Homesite Value:	+	N/A	
(+) Improvement Non-Homesite Value:	+	N/A	
(+) Land Homesite Value:	+	N/A	
(+) Land Non-Homesite Value:	+	N/A	Ag / Timber Use Value
(+) Agricultural Market Valuation:	+	N/A	N/A
(+) Timber Market Valuation:	+	N/A	N/A

(=) Market Value:	=	N/A	
(-) Ag or Timber Use Value Reduction:	-	N/A	

(=) Appraised Value:	=	N/A	
(-) HS Cap:	-	N/A	

(=) Assessed Value:	=	N/A	

Taxing Jurisdiction

Owner: O'NEIL RONNIE J
 % Ownership: 100.0000000000%
 Total Value: N/A

Entity	Description	Tax Rate	Appraised Value	Taxable Value	Estimated Tax
CAD	KLEBERG COUNTY APPRAISAL DISTRICT	N/A	N/A	N/A	N/A
CKI	CITY OF KINGSVILLE	N/A	N/A	N/A	N/A
GKL	KLEBERG COUNTY	N/A	N/A	N/A	N/A

SKI	KINGSVILLE I.S.D.	N/A	N/A	N/A	N/A
WST	SOUTH TEXAS WATER AUTHORITY	N/A	N/A	N/A	N/A
Total Tax Rate:		N/A			
				Taxes w/Current Exemptions:	N/A
				Taxes w/o Exemptions:	N/A

Improvement / Building

Improvement #1: RESIDENTIAL **State Code:** A1 **Living Area:** 1884.0 sqft **Value:** N/A

Type	Description	Class CD	Exterior Wall	Year Built	SQFT
MA	MAIN AREA	FF4	EW1	1950	1884.0
OPFA	OPEN PORCH FRAME AVERAGE	*		1950	76.0
CNC	CONCRETE SLAB RESIDENTIAL	*		1950	216.0
DGFU	DETACHED GARAGE FRAME UNFINISHED	*		1950	480.0

Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	A1	A1	0.2410	10500.00	75.00	140.00	N/A	N/A

Roll Value History

Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap	Assessed
2024	N/A	N/A	N/A	N/A	N/A	N/A
2023	N/A	N/A	N/A	N/A	N/A	N/A
2022	\$76,480	\$7,500	0	83,980	\$0	\$83,980
2021	\$76,480	\$7,500	0	83,980	\$0	\$83,980
2020	\$72,990	\$7,500	0	80,490	\$0	\$80,490
2019	\$63,690	\$7,500	0	71,190	\$0	\$71,190
2018	\$78,270	\$7,500	0	85,770	\$0	\$85,770
2017	\$67,880	\$7,500	0	75,380	\$0	\$75,380
2016	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2015	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2014	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2013	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2012	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2011	\$72,720	\$7,500	0	80,220	\$0	\$80,220
2010	\$72,720	\$7,500	0	80,220	\$0	\$80,220

Questions Please Call (361) 595-5775

This year is not certified and ALL values will be represented with "N/A".

...
d Ave
et View
more dates



Google





Application for Certificate of Compliance Form WPI-1

App ID:2353631

Physical Address of Structure to be Inspected 620 WEST RICHARD

Tract/Addition: Lot: Block:

City: Kingsville

ZIP: 78363

County: Kleberg

City Limits: Inside City Limits

Structure is located in:

Is the structure located in a Coastal Barrier Resource Zone (CBRA): No

Owner

Name: Ronald O'Neil Mailing Address: 620 WEST RICHARD

Phone: City: Kingsville

Fax: ZIP: 78363

Contractor

Name: Nivo Mailing Address: 1334 Brittmoore Dr STE 2310

Phone: City: Houston

Fax: ZIP: 77043

Engineer

Name: Joshua A Senecal Mailing Address: 15317 Gypsy St Email: senecalja1@gmail.com

Phone: (252) 764-7382 City: Corpus Christi Texas Registration No.: 130638

Fax: ZIP: 784186480

Commencement of Construction Date

11-20-2023

Date of Application

11-20-2023

Type of Building

House

Inspections

1. Mechanical, Solar Panel(s) -

Number of Panels: 32 Panels, Location or Identifier: 11 panels on the eastern pitch and 21 panels on the western pitch, .

2.

3.

Comments

Submitter

Name: Joshua Senecal

Phone: (252) 764-7382

Date: 11-20-2023

Submitter Type: Engineer

For Texas Department of Insurance Inspections: mail or email to your local field office

For inspections by engineers: mail or email to Austin office: windstorm@tdi.texas.gov

Texas Department of Insurance

Windstorm Inspections Program

P.O. Box 12030

Austin, TX 78711-2030

Texas Department of Insurance | www.tdi.texas.gov

1/2



November 22, 2023

Roof Mounted Photovoltaic Array System Design Certification

620 WEST RICHARD AVENUE, KINGSVILLE, TX 78363

I have reviewed the following information regarding solar panel installation on the roof of the above referenced home:

1. Site Visit/Verification Form prepared by a Nivo representative identifying specific site information including size and spacing of rafters for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information was prepared by Nivo and will be utilized for approval and construction of the proposed system.
3. Photographs of the interior and exterior of the roof system identifying existing structural members and their conditions.

Based on the above information I have evaluated the structural capacity of the existing roof system to support the additional loads imposed by the solar panels and have the following comments related to the provided design.

A. Basis of Design:

- a. The design conforms with the loading criteria and calculation methods as stated in ASCE7-16
- b. This design conforms to the Chapter 3 "Wind Design" requirements of International Residential Code 2018
 - i. TDI COMPLIANT DESIGN
- c. K2 Systems – Report #2020-02753HG.02 "Engineering Certification for the K2 Systems Crossrail – Dual Rail 44-X System for Gable and Hip Roofs" (dtd March 1, 2023) provides rail spans based on ASCE7-16 methods.
- d. Miami Dade NOA 22-0719.06 - K2 System approved system assemblies. Includes K2 Splice Foot X and Cross Rail series approved assembly.
- e. Regions where V_{ULT} is greater than 130MPH, Wind Engineering is required, per IRC 2018 Figure R301.2(5)B

B. Load Criteria

- a. Ultimate Wind Speed, V_{ULT} = 135 MPH per Applied Technology Council (ATC) "Hazards by Location"
 - i. <https://hazards.atcouncil.org/#/>
- b. Crossrail 44-X Rail Span based on Ultimate Design Wind Speed, V_{ULT} = 140 MPH
- c. Exposure Category C, Risk Factor II
- d. ASCE 7-16 Rafter/Truss Design Live Load = 20 psf
 - i. Per ASCE 7-16 areas where solar panels are installed Live Load = 0 psf
- e. ASCE 7-16 Rafter/Truss Design Dead Load = 10 psf
 - i. Solar Panels, associated racking and accessory equipment Dead Load = 2.6 psf
 - ii. Actual Dead Load of IRC compliant roof system with shingles = 5.3 psf
 - iii. Total actual Dead Load = 7.9 psf; therefore, the increased Dead Load remains less than the Design Dead Load of 10 psf.
- f. Snow Load = 0 psf
- g. Based on the above loading criteria, the proposed equipment layout, industry standards and provisions of the International Residential Code 2018, the existing structural frame will support the load of the new solar system.



Joshua Senecal, P.E.

TX PE#130638

Firm #21791

11/22/2023

252-764-7382

LRSCivilEngineer@gmail.com



C. Roof Attachment

- a. All Roof Areas: K2 Systems 44-X Rail
 - i. Space the K2 Systems Splice Foot XL at 48" on-center in Roof Zones 1, 2e, 2n & 2r.
 - ii. Space the K2 Systems Splice Foot XL at 24" on-center in Roof Zones 3e & 3r.
- b. Roof Zones are defined as follows:
 - i. Roof Zone 1: locations not within 3' from any edge or corner.
 - ii. Roof Zone 2r: locations within 3' of a ridge.
 - iii. Roof Zone 2e: locations within 3' of the lower edge.
 - iv. Roof Zone 2n: locations within 3' of the side gable edge.
 - v. Roof Zone 3e: locations within 3' of the lower edge corner.
 - vi. Roof Zone 3r: locations within 3' of a ridge corner.
- c. "Exposed" and "Non-Exposed" Rails
 - i. The "Exposed" and "Non-Exposed" span values provided on the "Exposure Detail" refer to the allowable K2 Splice Foot spacing based on location of the associated rail with relation to the position of the panel within an array.
 - ii. A panel is considered "Exposed" if one of the following conditions are met:
 1. Any panel located within an array that **does not** have an adjacent panel within 48".
 2. Any panel that is located greater than 48" and/or a distance greater than half the mean roof height from a ridge or edge.
 3. Any panel that is located greater than 1.5 times the panel length (portrait) or 1.5 times the panel width (landscape) from a hip ridge or gable rake.
 - iii. If a panel is considered "Exposed"
 1. The "Exposed" span value applies to both rails of the panel.
 - iv. If a panel is considered "Non-Exposed"
 1. The "Non-Exposed" span values apply both rails of the panel.
 - v. Exposed panels will be highlighted in red on the "Exposure Detail"
- d. Structural installation must be completed per Miami-Dade NOA 22-0719.06 and K2 Systems installation manuals. Miami-Dade NOA 22-0719.06 takes precedence.
- e. Attach the K2 Systems Splice Foot with the two provided stainless steel M5X60mm wood screws with sealing washer.
- f. Install K2 Butyl gasket between the roof covering system and the K2 Splice Foot.
- g. **Rafter mounting procedure is the only authorized installation method.**
- h. Stagger anchor points to minimize the occurrence of two adjacent rails being attached to the same structural member.
- i. Use only factory provided hardware as directed by the manufacturer's installation manual.
- j. Maximum cantilever is defined as 1/3 the maximum span length of the 44-X rail in the applicable Roof Zone found on the calculation sheet.



Joshua Senecal, P.E.

TX PE#130638

Firm #21791

11/22/2023

252-764-7382

LRSCivilEngineer@gmail.com



Solar Array Calculation Sheet #231161

Property Address: 620 WEST RICHARD AVENUE, KINGSVILLE, TX 78363
 Ultimate Wind Speed: 135 MPH ATC Hazrds by Location <https://hazards.atccouncil.org/#/>
 Roof Pitch (Degrees): 27
 Roof Type: GABLE
 Exposure Code: C
 Risk Factor: II
 ASCE7-16 Citation: Sect 26.8.2, Tab 26.10-1, Tab 26.6-1, Table 26.9-1, Figure 29.4-8, Figure 29.4-8
 Figure 30.3-2C: 20 to 27
 Topographical Factor (K_{ta}): 1.00
 Exposure Coefficient (K_e): 0.85
 Directional Factor (K_d): 0.85
 Ground Elevation Factor (K_g): 1.00
 Exposure Factor (γ_e) "Exposed": 1.50
 Pressure Equalization Factor (γ_p): 0.71 (PORTRAIT)
 Pressure Equalization Factor (γ_p): 0.80 (LANDSCAPE)
 Mean Roof Height (ft): 15.00
 Velocity Pressure (q_h) psf: 25.96
 Length of Panel (in): 74.00
 Width of Panel (in): 41.10
 Weight of Panel (lbs): 48.50
 Solar Panel Area (sqft): 21.12
 Array Dead Load (psf): 2.60
 Roof Connection Effective Area (sqft): 12.33 at 48" spacing in PORTRAIT
 Roof Connection Effective Area (sqft): 6.85 at 48" spacing in LANDSCAPE

1:12	4.8 deg
2:12	9.5 deg
3:12	14 deg
4:12	18.4 deg
5:12	22.6 deg
6:12	26.6 deg
7:12	30.3 deg
8:12	33.7 deg
9:12	36.9 deg
10:12	39.8 deg
11:12	42.5 deg
12:12	45 deg

Portrait Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT XL
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	16.0	-38.9	13.00	-25.94	80.18	-159.98	106.90	-213.30	160.35	-319.95	64"	48"
Exposed	16.0	-58.4	13.00	-39.74	80.18	-245.08	106.90	-326.77	160.35	-490.16	54"	48"
Zone 2e	16.0	-38.9	13.00	-25.94	80.18	-159.98	106.90	-213.30	160.35	-319.95	64"	48"
Exposed	16.0	-58.4	13.00	-39.74	80.18	-245.08	106.90	-326.77	160.35	-490.16	54"	48"
Zone 2n	16.0	-64.9	13.00	-44.34	80.18	-273.45	106.90	-364.60	160.35	-546.89	49"	48"
Exposed	16.0	-97.3	13.00	-67.34	80.18	-415.29	106.90	-553.71	160.35	-830.57	40"	32"
Zone 2r	16.0	-64.9	13.00	-44.34	80.18	-273.45	106.90	-364.60	160.35	-546.89	49"	48"
Exposed	16.0	-97.3	13.00	-67.34	80.18	-415.29	106.90	-553.71	160.35	-830.57	40"	32"
Zone 3e	16.0	-64.9	13.00	-44.34	80.18	-273.45	106.90	-364.60	160.35	-546.89	49"	48"
Exposed	16.0	-97.3	13.00	-67.34	80.18	-415.29	106.90	-553.71	160.35	-830.57	40"	32"
Zone 3r	16.0	-70.1	13.00	-48.02	80.18	-296.14	106.90	-394.85	160.35	-592.28	47"	32"
Exposed	16.0	-105.1	13.00	-72.86	80.18	-449.33	106.90	-599.10	160.35	-898.65	38"	32"

Landscape Orientation	Applied Wind Pressure (psf)		Total Pressure (psf)		Connection Point Load (lbs)		Connection Point Load (lbs)		Connection Point Load (lbs)		Max Rail Span	Anchor Spacing
	Analytical Method ASCE7-16 Chapter 26		ASCE7-16		24" On Center Connections		32" On Center Connections		48" On Center Connections		K2 CR 44-X	K2 SPLICE FOOT XL
	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(+)	(-)	(in)	(in)
Zone 1	16.0	-38.9	14.67	-29.28	50.25	-100.27	67.00	-133.69	100.50	-200.53	64"	48"
Exposed	16.0	-58.4	14.67	-44.85	50.25	-153.61	67.00	-204.81	100.50	-307.21	54"	48"
Zone 2e	16.0	-38.9	14.67	-29.28	50.25	-100.27	67.00	-133.69	100.50	-200.53	64"	48"
Exposed	16.0	-58.4	14.67	-44.85	50.25	-153.61	67.00	-204.81	100.50	-307.21	54"	48"
Zone 2n	16.0	-64.9	14.67	-50.04	50.25	-171.39	67.00	-228.52	100.50	-342.77	49"	48"
Exposed	16.0	-97.3	14.67	-76.00	50.25	-260.29	67.00	-347.05	100.50	-520.57	40"	32"
Zone 2r	16.0	-64.9	14.67	-50.04	50.25	-171.39	67.00	-228.52	100.50	-342.77	49"	48"
Exposed	16.0	-97.3	14.67	-76.00	50.25	-260.29	67.00	-347.05	100.50	-520.57	40"	32"
Zone 3e	16.0	-64.9	14.67	-50.04	50.25	-171.39	67.00	-228.52	100.50	-342.77	49"	48"
Exposed	16.0	-97.3	14.67	-76.00	50.25	-260.29	67.00	-347.05	100.50	-520.57	40"	32"
Zone 3r	16.0	-70.1	14.67	-54.19	50.25	-185.61	67.00	-247.48	100.50	-371.22	47"	32"
Exposed	16.0	-105.1	14.67	-82.23	50.25	-281.62	67.00	-375.49	100.50	-563.24	38"	32"



CALCULATIONS PREPARED BY:
 JOSHUA SENECHAL, P.E.
 TX PE #130638

⚠ This is a beta release of the new ATC Hazards by Location website. Please [contact us](#) with feedback.

🔗 The ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

ATC Hazards by Location

Search Information

Address: 620 W Richard Ave, Kingsville, TX 78363, USA
Coordinates: 27.521885, -97.87579530000001
Elevation: 68 ft
Timestamp: 2023-11-20T21:58:28.632Z
Hazard Type: Wind



ASCE 7-16

MRI 10-Year 75 mph
 MRI 25-Year 88 mph
 MRI 50-Year 101 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II 135 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III 144 mph
 If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

Risk Category IV 149 mph
 You are in a wind-borne debris region.

ASCE 7-10

MRI 10-Year 76 mph
 MRI 25-Year 91 mph
 MRI 50-Year 102 mph
 MRI 100-Year 112 mph
 Risk Category I 127 mph

Risk Category II 135 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

Risk Category III-IV 144 mph
 If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

ASCE 7-05

ASCE 7-05 Wind Speed 113 mph
 You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

While the information presented on this website is believed to be correct, ATC and its sponsors and contributors assume no responsibility or liability for its accuracy. The material presented in the report should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. ATC does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the report provided by this website. Users of the information from this website assume all liability arising from such use. Use of the output of this website does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the report.

SCOPE OF WORK
 TO INSTALL A ROOF MOUNTED SOLAR PHOTOVOLTAIC SYSTEM AT THE OWNER RESIDENCE LOCATED AT 620 W RICHARD AVE, KINGSVILLE, TX 78363, USA. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID THROUGH THE EXISTING ELECTRICAL SERVICE EQUIPMENT. THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES.

EQUIPMENT SUMMARY

32 Q CELLS Q.PEAK DUO BLK ML-G10+ 405 MODULES
32 ENPHASE IQ8PLUS-72-2-US (240V) MICROINVERTERS

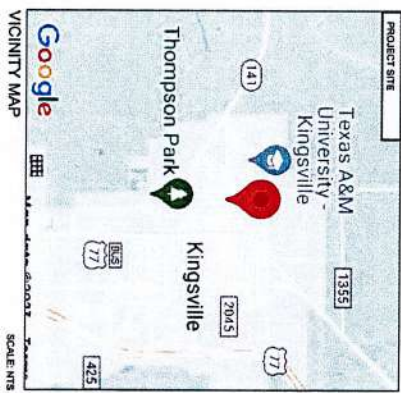
- GENERAL NOTES**
- THESE CONSTRUCTION DOCUMENTS HAVE BEEN BASED ON FIELD INSPECTIONS AND OTHER INFORMATION AVAILABLE AT THE TIME THE ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS.
 - CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, OBTAIN ALL PERMITS, LICENSES AND PAY ALL REQUIRED FEES AND COMPLETE INSTALLATION.
 - CONTRACTOR HAS THE FULL RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER AND EXISTING CONDITIONS SHALL BE CORRECTED BEFORE COMMENCEMENT OF WORK. ACCEPTANCE OF THE WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO CORRECTION BY THEM WITHOUT ADDITIONAL COMPENSATION.
 - DAMAGE CAUSED TO THE EXISTING STRUCTURE, PIPES, DUCTS, WINDOWS, WALL, FLOORS, ETC. SHALL BE REPAIRED TO THE ORIGINAL CONDITION OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
 - THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE PROPER INSTALLATION AND COMPLETION OF THE WORK WITH APPROVED MATERIALS.
 - CONTRACTOR SHALL OBTAIN BUILDING PERMIT. NO WORK TO START UNLESS BUILDING PERMIT IS PROPERLY DISPLAYED.
 - ALL WORKMANSHIP AND MATERIALS SHALL BE OF FIRST QUALITY AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ALL PERTINENT AGENCIES.
 - IT IS ESSENTIAL THAT ALL WORK PROCEED WITH THE MAXIMUM COOPERATION OF ALL PARTIES AND WITH MINIMAL INTERFERENCE TO THE OCCUPANTS WITHIN THE BUILDING. THE OWNERS DIRECTIONS IN THIS REGARD SHALL BE FULLY COMPLIED WITH.
 - THE CONTRACTOR SHALL PERFORM THE WORK IN STRICT CONFORMANCE WITH THE LOCAL LAWS, REGULATIONS AND THE NATIONAL ELECTRICAL CODE.
 - THE CONTRACTOR SHALL OBTAIN ALL PERMITS, APPROVALS, AFFIDAVITS, CERTIFICATIONS, ETC. AND PAY ALL FEES AS REQUIRED BY THE LOCAL AUTHORITIES.
 - CONTRACTORS SHALL OBTAIN FIRE CERTIF. UPON COMPLETION OF WORK.

- ELECTRICAL NOTES**
- ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL AND LABELED FOR ITS APPLICATION.
 - ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
 - WIRING, CONDUIT AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
 - WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
 - WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
 - ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
 - MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURERS INSTRUCTION.
 - MODULE SUPPORT RAIL SHALL BE BONDED TO THE MODULE

GOVERNING CODES
 2018 INTERNATIONAL RESIDENTIAL CODE
 2018 INTERNATIONAL FIRE CODE
 2017 NATIONAL ELECTRICAL CODE

AHJ NAME: KINGSVILLE CITY

- WIRING AND CONDUIT NOTES**
- ALL CONDUIT SIZES AND TYPES SHALL BE LISTED FOR ITS PURPOSE AND APPROVAL FOR THE SITE APPLICATIONS.
 - ALL PV CABLES AND HOMERUN WIRES BE #10AWG - USE 2, PV WIRE OR PROPRIETARY SOLAR CABLING SPECIFIED BY MFR. OR EQUIVALENT; ROUTED TO SOURCE CIRCUIT COMBINER BOXES AS REQUIRED.
 - ALL PV DC CONDUCTORS IN CONDUIT EXPOSED TO SUNLIGHT SHALL BE DERATED ACCORDING TO AS PER LATEST NEC CODE.
 - EXPOSED ROOF PV DC CONDUCTORS SHALL BE USE 2, 90C RATED, WET AND UV RESISTANT, AND UL LISTED RATED FOR 600V, UV RATED SPIRAL WRAP SHALL BE USED TO PROTECT WIRE FROM SHARP EDGES.
 - PHASE AND NEUTRAL CONDUCTORS SHALL BE DUAL RATED THHN/THWN-2 INSULATED, VET AND UV RESISTANT, RATED FOR 1000V AS PER APPLICABLE NEC.
 - 4 WIRE DELTA CONNECTED SYSTEMS HAVE THE PHASE WITH THE HIGHER VOLTAGE TO GROUND MARKED OR IDENTIFIED BY OTHER EFFECTIVE MEANS.
 - ALL SOURCE CIRCUITS SHALL HAVE INDIVIDUAL SOURCE CIRCUIT PROTECTION.
 - VOLTAGE DROP LIMITED TO 2%.
 - AC CONDUCTORS - WANG COLOR CODED OR MARKED: PHASE A OR L1- BLACK, PHASE B OR L2- RED, PHASE C OR L3- BLUE, NEUTRAL- WHITE/GRAY.



LRSC Engineering
 TX Firm 21791
 11/22/2023

SYSTEM RATING

12,960 KWDC
9,600 KWAC

SYSTEM	SHEET INDEX
PV1	COVER PAGE
PV2	SITE PLAN
PV3	ROOF PLAN
PV4	STRING LAYOUT & BGM
PV5-PV6	ATTACHMENT DETAILS
PV7	ELECTRICAL LINE & CALCS.
PV8	SPECIFICATIONS & NOTES
PV9-PV10	SIGNAGE
PV11-PV15	EQUIPMENT SPECIFICATIONS

NINO LLC
 1334 BRITTMORE RD
 SUITE 2310, HOUSTON, TX
 PH# : (832) 621-0806

SYSTEM INFO

Q CELLS
Q.PEAK DUO BLK ML-G10+ 405
ENPHASE
IQ8PLUS-72-2-US (240V)
DC SYSTEM SIZE: 12,960 KWDC
AC SYSTEM SIZE: 9,600 KWAC
ESI ID: 100278410310601
METER: 162 238 513



NABCEP BUDGE
 PVIS - 012223-013581

PROJECT NAME & ADDRESS

MR. RONNIE ONEIL
 RESIDENCE
 620 W RICHARD AVE, KINGSVILLE, TX
 78363, USA
 EMAIL ID: RONNIE.ONEIL12@GMAIL.COM
 PHONE NO. (361) 288-6533

DATE: 11/20/2023

SHEET NAME
 COVER PAGE

SHEET SIZE
 ANSIB
 11" X 17"

SHEET NUMBER
 PV-1

C-S-R ELECTRIC, LLC
 11000 W. Loop West, Suite 100
 Houston, TX 77040

TDI COMPLIANT DESIGN
 IRC 2018 CHAPTER 3 WIND REQUIREMENTS ONLY
 ASCE7-16 EXPOSURE CATEGORY C, RISK FACTOR II
 ULTIMATE DESIGN WIND SPEED = 135 MPH

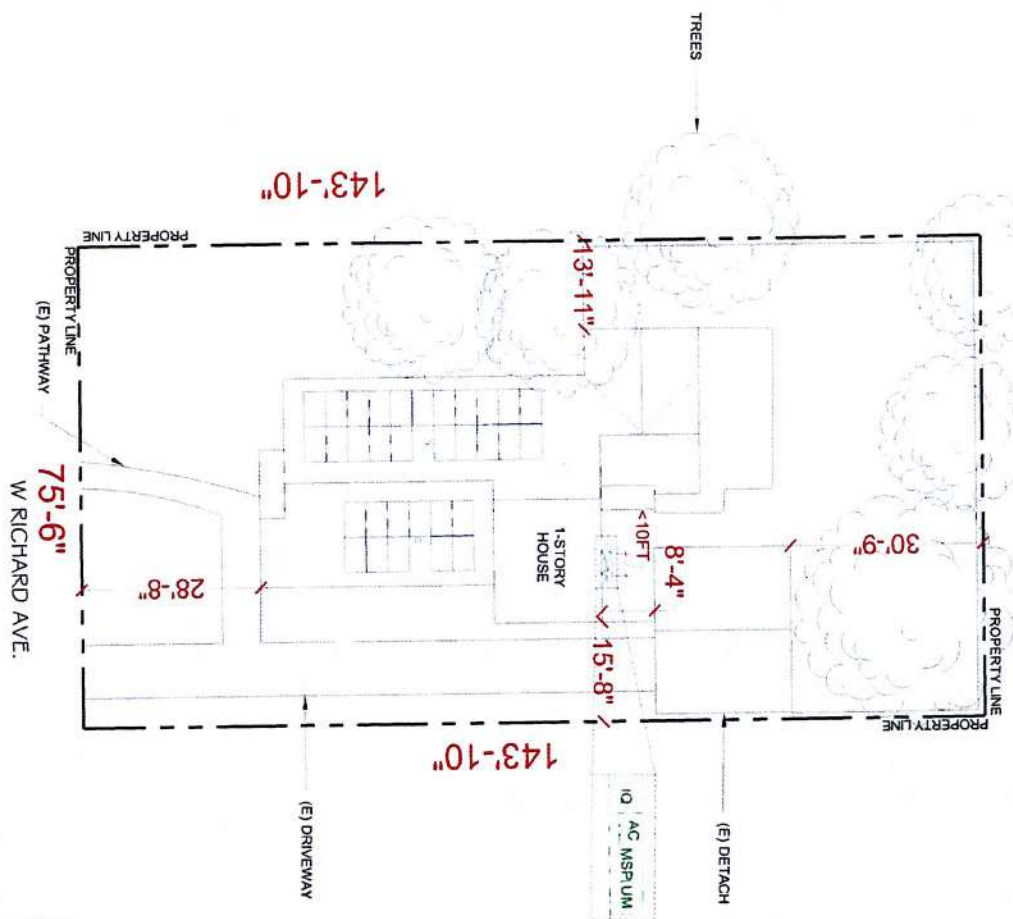
- SITE NOTES**
- A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
 - THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE AND THIS SYSTEM IS AN UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.
 - THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
 - PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PER SECTION (NEC 110.26)

LEGEND

- (J) JUNCTION BOX
- (U) UTILITY METER
- (M) MAIN SERVICE PANEL
- (N) EMPHASE TO COMBINER
- (V) VISIBLE LOCKABLE LABELED VENT, ATTIC FAN ROOF OBSTRUCTION
- (R) ROOF ATTACHMENT
- (C) CONDUIT
- (E) EMPHASE CAPSULES -72-24US (240V) MICROINVERTER
- (G) CELLS OPEN/SHUT/DUO BLK MLD10+40S MODULES
- (K) CROSSSMAL 44-X TRENCH

Christopher Keith
 Master Electrician
 TDLR #44448 TECU 11104
C.S.R.
 ELECTRICIAN

SCALE: 1/16" = 1'-0"



LRSE Engineering
 TX Firm 21791
 11/22/2023

METER NO#: 162 238 513
 ESI ID#: 100327894/10310601
 VISIBLE LOCKABLE LABELED DISCONNECT LOCATED ON ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF UTILITY METER

NABCEP BADGE P.V.S. - 012223-013531 PROJECT NAME & ADDRESS							
MR. RONNIE ONEIL RESIDENCE 620 W RICHARD AVE, KINGSVILLE, TX 78363, USA EMAIL ID: RONNIE.ONEIL12@GMAIL.COM PHONE NO. (361) 288-6533							
DATE: 11/20/2023							
SHEET NAME SITE PLAN							
SHEET SIZE ANSIB 11" X 17"							
SHEET NUMBER PV-2							
SYSTEM INFO (2) Q CELLS Q.PEAK DUO BLK MLD-10+40S (2) EMPHASE 108VLL3 -72-24US (240V) DC SYSTEM SIZE: 12,060 WDC AC SYSTEM SIZE: 9,600 kWAC ESI ID: 100327894/10310601 METER: 162 238 513							
REVISIONS <table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>DATE</th> <th>REV</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		DESCRIPTION	DATE	REV			
DESCRIPTION	DATE	REV					

NINO LLC
 1334 BRITMOORE RD
 SUITE 2310, HOUSTON, TX
 PH# : (832) 621-0806

DESIGN SPECIFICATION		MODULE TYPE, DIMENSIONS & WEIGHT	
RISK CATEGORY:	II	NUMBER OF MODULES:	32 MODULES
CONSTRUCTION:	SFD	MODULE TYPE:	Q CELLS Q PEAK DUO BLK
ZONING:	RESIDENTIAL	SNOW LOAD (ASCE7-16):	0 PSF
EXPOSURE CATEGORY:	C	MODULE WEIGHT:	48.5 LBS
WIND SPEED (ASCE7-16):	135 MPH	MODULE DIMENSIONS:	74" X 41" = 21.12 SF
		UNIT WEIGHT OF AREA:	2.3 PSF

ROOF DESCRIPTION			
ROOF #	RAFTER TILT	RAFTER SIZE	RAFTER SPACING
#1	27°	2" x 6"	24" o.c.
#2	27°	2" x 6"	24" o.c.

ARRAY AREA & ROOF AREA CALC'S	
ROOF #	# OF MODULES
#1	11
#2	21
(TOTAL ARRAY AREA/TOTAL ROOF AREA) X 100%	
= (675.87/2567) X 100% = 26.44%	

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL	ENPHASE IQBPPLUS-72-2-US (240V)
MAX DC SHORT CIRCUIT CURRENT	15 A
CONTINUOUS OUTPUT CURRENT	1.21 A

LEGEND

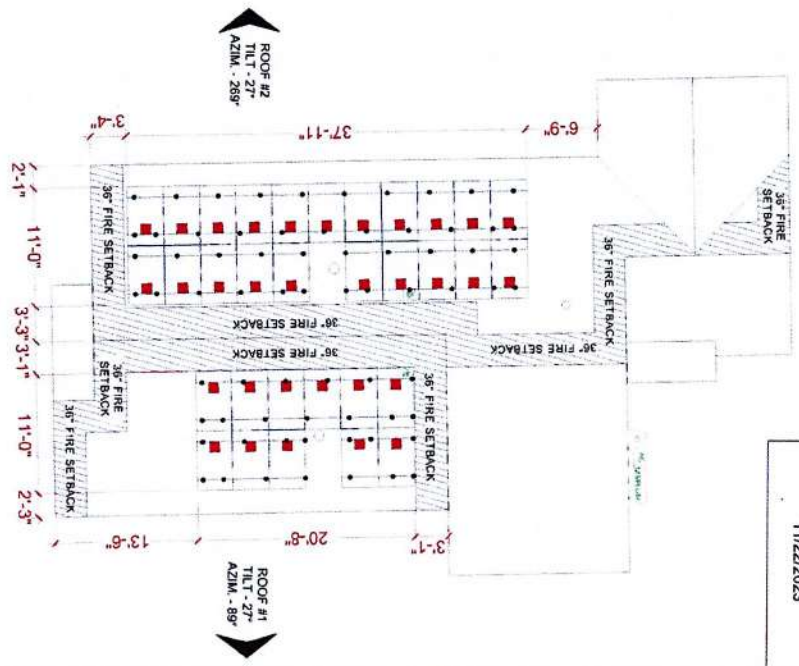
- (N) JUNCTION BOX
- (U) UTILITY METER
- (E) MAIN SERVICE PANEL
- (M) METER
- (N) ENPHASE IQ COMBINER
- (V) VISIBLE LOCKABLE LABELLED DISCONNECT
- (V) VENT, ATTIC FAN (ROOF RESTRICTION)
- (R) RESTRICTION
- (C) CONDUIT
- (M) MICROINVERTER
- (Q) CELLS Q PEAK DUO BLK
- (M) M.G-10+ 40S MODULES
- (T) TRENCH

Christopher Kiffin
 Master Electrician
 TID# 44444 TRCJ 1404
C.S.R. ELECTRIC
 11000 W. UNIVERSITY BLVD. SUITE 100
 DALLAS, TEXAS 75243

NOTE : ATTACHMENT SPACING @ 48" O.C.

(E) BACK OF RESIDENCE

(E) FRONT OF RESIDENCE
 W RICHARD AVE.



TX STATE ENGINEERING SEAL
 CRISTINA SERRA
 13038
 11/22/2023

LRS Engineering
 TX Firm 21791
 11/22/2023

METER NO# : 162 238 513
 ESI ID# : 10032789410310601
 VISIBLE LOCKABLE LABELLED DISCONNECT LOCATED ON ACCESSIBLE EXTERIOR WALL WITHIN 10 FEET OF UTILITY METER

SCALE: 3/32" = 1'-0"

NABCEP BOARD CERTIFIED PV Installer - Specialist	
PROJECT NAME & ADDRESS MR. RONNIE ONEIL RESIDENCE 620 W RICHARD AVE, KINGSVILLE, TX 78363, USA EMAIL ID: RONNIE.ONEIL12@GMAIL.COM PHONE NO. (361) 288-6533	
DATE:	11/20/2023
SHEET NAME	ROOF PLAN
SHEET SIZE	ANSI B 11" X 17"
SHEET NUMBER	PV-3

SYSTEM INFO	
Q CELLS	(22) Q CELLS
Q PEAK DUO BLK M.G-10+ 40S	
IQBPPLUS-72-2-US (240V)	
DC SYSTEM SIZE	12,560 WHDC
AC SYSTEM SIZE	9,600 WHAC
ESI ID:	10032789410310601
METER:	162 238 513

REVISIONS		
DESCRIPTION	DATE	REV



CITY of KINGSVILLE DOWNTOWN



HISTORIC DEVELOPMENT BOARD

DATE: January 5, 2024
TO: Historic Development Board
FROM: Kobby Agyekum (Senior Planner/HPO)
SUBJECT: Discuss and Consider Action to replace 4 windows and siding on a property, on ORIG TOWN, BLOCK 5, LOT 5 also known as 209 East Santa Gertrudis Avenue, Kingsville Texas 78363
APPLICANT: Ephraim Reliford, Mr.
CONTRACTOR: Ephraim Reliford, Mr.

REQUEST

Discuss and Consider Action to replace 4 windows and siding on a property, on ORIG TOWN, BLOCK 5, LOT 5 also known as 209 East Santa Gertrudis Avenue, Kingsville Texas 78363

EXHIBITS

Application, 2022 Appraisal Roll, Kleberg County Appraisal District Information details, Data from Texas Historical Commission (Historic Resources Survey Form), Engineer's letter, Authorization letter, Drawings, and illustrations.

BACKGROUND & PERTINENT DATA

This is a 1945, One-story residential building with front-gabled roof, wood-framed sash windows, asbestos siding. The original front porch was closed in and entry moved to the side; original porch has its own lower front-gabled roof, located within the Historic District. This property is considered contributing to the historic district with low priority for preservation but has a potential to improve the overall character of the area.

STAFF REVIEW & RECOMMENDATION

Staff has reviewed the application and found same to be in conformity with aesthetic and overall curb appeal that it is in conformity to the Standards of the Secretary of the Interior. Consequently, the staff recommend the approval of installation of 4 windows and siding and any other exterior renovations of the property at 209 East Santa Gertrudis Avenue as there would be no adverse impact to the historic, cultural, or architectural nature of the district.

BOARD REVIEW

Scope of Historical Development Board

In general, Historical Development Board considers the following factors when making a recommendation concerning the issuing of a permit for the construction, reconstruction, alteration, restoration, relocation, demolition or razing of all or part of any building, structure or appurtenance within a historic district:

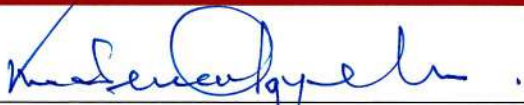
- 1) The effect of the proposed change upon the general historic, cultural and architectural nature of the district.

- 2) The appropriateness of exterior architectural features which can be seen from a public street, alley, road, highway or walkway.
- 3) The general design, arrangement, texture, material and color of the building, structure or appurtenances and the relation of such factors to similar features of buildings, structures or appurtenances in the district. The criterion shall not be the aesthetic appeal to the Board of the structure or the proposed remodeling, but rather its' conformity to the general character of the particular historic area involved.
- 4) Signs which are out of keeping with the character of the historic district in question shall not be permitted.
- 5) The value of the historic district as an area of unique interest and character shall not be impaired.

Standards of the Secretary of the Interior

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

SIGNATURES



Kobby Agyekum
Senior Planner/HPO

Historical Development Board Review Application

Applicant: Ephraim Beliford JR

Address: 209 E. Santa Gratitude

Contact: Cell: 361-522-0051 Home: _____

Email: ephraimr@Icloud.com

Property Owner: Ephraim Beliford JR

Address: P.O. Box 464, Kingsville TX. 78364

Contact: Cell: 361-522-0051 Home: _____

Property Location and Description: 209 E. Santa Gratitude
Kingsville TX. 78363

Description of Work: replace sliding and windows (4).

Contractor: Ephraim Beliford

Contact: Cell: 361-522-0051 Home: _____

Email: ephraimr@Icloud.com

Documents Required:

1. Sketch, Drawing, Plans, Site Plans, Mock-ups
2. Photographs (Historic, Current, Surrounding Structures)
3. Materials List or Samples
4. Proof of Ownership
5. Letter of Representation and Work Approval from Property Owner (If Applicable)

I certify that this information and the additional information submitted to the Planning Department is correct and that the work will be completed as described, as approved by the Historical Development Board and in accordance with applicable codes.

(Applicant) Print Name: Ephraim Beliford JR

Signature: Eh Beliford 2 Date: 4 January 2024

Kleberg CAD

Property Search > 18949 RELIFORD EPHRAIN JR Tax Year: 2024 - Values not available for Year 2024

Property

Account

Property ID:	18949	Legal Description:	ORIG TOWN, BLOCK 5, LOT 5
Geographic ID:	100100505000192	Zoning:	
Type:	Real	Agent Code:	
Property Use Code:			
Property Use Description:			

Location

Address:	209 E SANTA GERTRUDIS	Mapsc0:	
Neighborhood:		Map ID:	C1
Neighborhood CD:			

Owner

Name:	RELIFORD EPHRAIN JR	Owner ID:	71552
Mailing Address:	PO BOX 464 KINGSVILLE, TX 78364-0464	% Ownership:	100.0000000000%
		Exemptions:	

Values

(+) Improvement Homesite Value:	+	N/A	
(+) Improvement Non-Homesite Value:	+	N/A	
(+) Land Homesite Value:	+	N/A	
(+) Land Non-Homesite Value:	+	N/A	Ag / Timber Use Value
(+) Agricultural Market Valuation:	+	N/A	N/A
(+) Timber Market Valuation:	+	N/A	N/A

(=) Market Value:	=	N/A	
(-) Ag or Timber Use Value Reduction:	-	N/A	

(=) Appraised Value:	=	N/A	
(-) HS Cap:	-	N/A	

(=) Assessed Value:	=	N/A	

Taxing Jurisdiction

Owner: RELIFORD EPHRAIN JR

% Ownership: 100.0000000000%

Total Value: N/A

Entity	Description	Tax Rate	Appraised Value	Taxable Value	Estimated Tax
GKL	KLEBERG COUNTY	N/A	N/A	N/A	N/A
SKI	KINGSVILLE I.S.D.	N/A	N/A	N/A	N/A
Total Tax Rate:		N/A			
Taxes w/Current Exemptions:					N/A
Taxes w/o Exemptions:					N/A

Improvement / Building

Improvement #1: RESIDENTIAL **State Code:** A1 **Living Area:** 840.0 sqft **Value:** N/A

Type	Description	Class CD	Exterior Wall	Year Built	SQFT
MA	MAIN AREA	FF3	EWT,EW5	1945	840.0
OPFA	OPEN PORCH FRAME AVERAGE *			1945	28.0
OPFA	OPEN PORCH FRAME AVERAGE *			1945	60.0
STPP	STORAGE (CONSIDERED PP)	FV		0	48.0

Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	A1	A1	0.0803	3500.00	25.00	140.00	N/A	N/A

Roll Value History

Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap	Assessed
2024	N/A	N/A	N/A	N/A	N/A	N/A
2023	N/A	N/A	N/A	N/A	N/A	N/A
2022	\$26,080	\$1,750	0	27,830	\$0	\$27,830
2021	\$11,910	\$1,750	0	13,660	\$0	\$13,660
2020	\$13,450	\$1,750	0	15,200	\$0	\$15,200
2019	\$13,450	\$1,750	0	15,200	\$0	\$15,200
2018	\$13,370	\$1,750	0	15,120	\$0	\$15,120
2017	\$13,370	\$1,750	0	15,120	\$0	\$15,120
2016	\$13,370	\$1,750	0	15,120	\$0	\$15,120
2015	\$15,270	\$1,750	0	17,020	\$0	\$17,020
2014	\$15,270	\$1,750	0	17,020	\$0	\$17,020
2013	\$15,270	\$1,750	0	17,020	\$0	\$17,020
2012	\$17,180	\$1,750	0	18,930	\$0	\$18,930
2011	\$17,180	\$1,750	0	18,930	\$0	\$18,930
2010	\$17,180	\$1,750	0	18,930	\$0	\$18,930

Project #: 00009
County: Kleburg
Address No: 209

Historic Resources Survey Form

Local Id: 0001-18949
City: Kingsville

Street Name: East Santa Gertrudis Avenue

SECTION 1

Basic Inventory Information

Current Name:
Historic Name:

Owner Information **Name:** Flores Hortencia M. **Status:**
Address: 626 North 6th St **City:** Kingsville **State:** TX **Zip:** 78363

Geographic Location **Latitude:** 27.522622 **Longitude:** -97.867274

Legal Description (Lot\Block): ORIG TOWN, BLOCK 5, LOT 6

Addition/Subdivision: **Year:**

Property Type Building
Current Designations: NR District Is property contributing?
 NHL NR RTHL OTHM HTC SAL Local Other

Architect: **Builder:**
Construction Date: 1945 **Source:** Tax Appraiser

Function

Current: DOMESTIC-Single Dwelling

Historic: DOMESTIC-Single Dwelling

Recorded By: Austin and Kelsey

Date Recorded: 11/26/2012



Project #: 00009
County: Kleburg
Address No: 209

Historic Resources Survey Form

Local Id: 0001-18949
City: Kingsville

Street Name: East Santa Gertrudis Avenue

SECTION 2

Architectural Description

One-story residential building with front-gabled roof, wood-framed sash windows, asbestos siding. Original front porch was closed in and entry moved to the side; original porch has its own lower front-gabled roof.

- Additions, modifications **Explain:** modified entry
- Relocated **Explain:**

Stylistic Influence

No Style

Structural Details

Roof Form

Front-Gabled

Roof Materials

Composition Shingles

Wall Materials

Asbestos

Windows

Wood sash

Doors (Primary Entrance)

Composition Shingles

Plan

Rectangular

Chimneys

Porches/Canopies

FORM
 SUPPORT
 MATERIAL

ANCILLARY BUILDINGS:

Garage: Barn: Shed: Other:

Landscape Features

Project #: 00009

Historic Resources Survey Form

Local Id: 0001-18949

County: Kleburg

City: Kingsville

Address No: 209

Street Name: East Santa Gertrudis Avenue

SECTION 3 Historical Information

Associated Historical Context

Planning/Development

Applicable National Register (NR) Criteria:

- A Associated with events that have made a significant contribution to the broad pattern of our history
- B Associated with the lives of persons significant in our past
- C Embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic value, or represents a significant and distinguishable entity whose components lack individual distinctions
- D Has yielded, or is likely to yield, information important in prehistory of history

Areas of Significance:

Community Development

Periods of Significance:

Levels of Significance: National State Local

Integrity: Location Design Materials Workmanship Setting Feeling Association

Integrity Notes:

Individually Eligible? No

Within Potential NR District?: Yes

Is Property Contributing?:

Priority: Low

Explain:

Other Information

Is prior documentation available for this resource? No

Type HABS Survey Other

Documentation Details:

KLBERG COUNTY APPRAISAL DISTRICT
 PROPERTY 18949 R
 Legal Description
 ORIG TOWN, BLOCK 5, LOT 5

OWNER ID
 60062
 OWNERSHIP
 100.00%

PROPERTY APPRAISAL INFORMATION 2022
 FLORES HORTENCIA M EST
 ETAL
 626 N 6TH ST
 KINGSVILLE, TX 78363-4504

Values
 IMPROVEMENTS 26,080
 LAND MARKET + 1,750
 MARKET VALUE = 27,830
 PRODUCTIVITY LOSS - 0
 APPRAISED VALUE = 27,830
 HS CAP LOSS - 0
 ASSESSED VALUE = 27,830

Entities
 CAD 100%
 CKI 100%
 GKL 100%
 SKI 100%
 WST 100%

ACRES:
 EFF. ACRES:
 APPR VAL METHOD: Cost

Ref ID: R18949
 Map ID C1

SITUS 209 E SANTA GERTRUDIS

UTILITIES
 TOPOGRAPHY
 ROAD ACCESS
 ZONING
 BUILDER
 NEXT REASON
 REMARKS

SKETCH for Improvement #1 (RESIDENTIAL)

GENERAL
 LAST APPR. IE/AM/TM
 LAST APPR. YR 2022
 ROAD ACCESS PAVED, CURB & GAST INSP. DATE 06/22/2022
 ZONING
 BUILDER
 NEXT REASON
 REMARKS

FOR 2022 NC - PROCESS PER SCHEDULES
 PER IE/AM/TM 6/22/22 MMG -- FOR 2022
 UPDATE ACCT - ADD PHY % PER CT 3/1/22
 3/3/22 JO -- FOR 2019 UPDATE APPRAISALS

BUILDING PERMITS
 PERMIT AREA ST PERMIT VAL

SALE DT PRICE GRANTOR DEED INFO
 07/10/2014 ***** FLORES HORTENCIA/DEATH / /
 05/01/1984 ***** UNKNOWN OT / 452 / 283

SUBD: S001 100.00% NBHD

IMPROVEMENT INFORMATION
 # TYPE DESCRIPTION MTRD CLASS/SUBCL AREA UNIT PRICE/UNITS BUILT EFF YR COND. VALUE DEPR PHYS ECON EUNCC COMP ADJ ADJ VALUE
 MA MAIN AREA R FF3/ 840.0 60.33 1 1945 1987 * 50,680 56% 90% 100% 100% 0.50 25,540
 OPA OPEN PORCH F 25.0 12.07 1 1945 1987 * 340 56% 90% 100% 100% 0.50 170
 OFA OPEN PORCH F 60.0 12.07 1 1945 1987 * 720 56% 90% 100% 100% 0.50 370
 STPP STORAGE (CON F 48.0 0.00 1 0 1966 100% 100% 100% 100% 1.00 0
 STCD: A1 978.0 51,740 28,080

IMPROVEMENT FEATURES
 Foundation 1 FD6
 Exterior Wall EWT,EW5
 Interior Finish 1 IN1
 Roof Style RT2,RM1
 Flooring 1 FL2
 Heating/Cooling 1 HA5
 Plumbing 1 1

LAND INFORMATION
 IRR Wells: 0 Capacity: 0
 IRR Acres: 0
 AG APPLY AG CLASS AG TABLE AG UNIT PRG AG VALUE
 1. A1 FF70D140 A1 N METH FF DIMENSIONS 25X140 UNIT PRICE 70.00 GROSS VALUE 1,750 1.00 ADJ VAL SRC 1.00 A MKT VAL 1,750 NO AG VALUE 0.00
 Comment: F: 25.0 R: 25.0 FF 1,750 0

100100505000192

100.00% NBHD

FF70D140 A1 N

METH FF

DIMENSIONS 25X140

UNIT PRICE 70.00

GROSS VALUE 1,750

ADJ VAL SRC 1.00 A

MKT VAL 1,750

100.00% NBHD

FF70D140 A1 N

METH FF

DIMENSIONS 25X140

UNIT PRICE 70.00

GROSS VALUE 1,750

ADJ VAL SRC 1.00 A

MKT VAL 1,750

MKT VAL 1,750

**Per ASCE 7-10 Method 1, Part 1 and FBC (2017) for Retrofitting in Accordance with Formal Interpretation #5
For Detached One- and Two family dwellings and Multiple Single-Family Dwellings (Townhouses) with Mean Roof Height ≤ 30 feet**
Wind 170 mph (3-second gust) / Exposure C** / Kd = 0.85 / Kzt = 1.0 / Pressures are in PSF / Not for use in Coastal (Exposure 'D' areas)
* Using Allowable Stress Design methodology (P = 0.6W) / ** Exposure shall be determined according to ASCE 7-10 Section 26.7.3 (Exposure Categories)

Effective Wind Area (ft ²)	Location: Gable or Hip Roof	Mean Roof Height of 15 feet					Mean Roof Height of 20 feet					Mean Roof Height of 25 feet					Mean Roof Height of 30 feet									
		Zone					Zone					Zone					Zone									
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3							
10	Gable/Hip	16.0	-37.8	16.0	-63.4	16.0	-95.4	16.3	-40.2	16.3	-67.4	16.3	-101.4	17.1	-42.1	17.1	-70.6	17.1	-106.3	17.8	-43.7	17.8	-73.4	17.8	-110.4	
20	Roof	16.0	-36.8	16.0	-56.7	16.0	-79.1	16.0	-39.1	16.0	-60.2	16.0	-84.0	16.0	-41.0	16.0	-63.1	16.0	-88.0	16.7	-42.6	16.7	-65.6	16.7	-91.5	
50	θ ≤ 7°	16.0	-35.6	16.0	-47.7	16.0	-57.4	16.0	-37.8	16.0	-50.7	16.0	-61.0	16.0	-39.6	16.0	-53.2	16.0	-63.9	16.0	-41.1	16.0	-55.2	16.0	-66.4	
100	(0 to 1.5:12)	16.0	-34.6	16.0	-41.0	16.0	-41.0	16.0	-36.8	16.0	-43.6	16.0	-43.6	16.0	-38.5	16.0	-45.7	16.0	-45.7	16.0	-40.0	16.0	-47.4	16.0	-47.4	
10	Gable/Hip	21.8	-34.6	21.8	-60.2	21.8	-89.0	23.1	-36.8	23.1	-64.0	23.1	-94.6	24.3	-38.5	24.3	-67.1	24.3	-99.2	25.2	-40.0	25.2	-69.7	25.2	-103.0	
20	Roof**	19.9	-33.6	19.9	-55.4	19.9	-83.3	21.1	-35.7	21.1	-58.9	21.1	-88.5	22.1	-37.4	22.1	-61.7	22.1	-92.7	23.0	-38.9	23.0	-64.1	23.0	-96.3	
50	7° < θ ≤ 27°	17.3	-32.4	17.3	-49.0	17.3	-75.6	18.4	-34.4	18.4	-52.1	18.4	-80.3	19.3	-36.0	19.3	-54.6	19.3	-84.2	20.0	-37.4	20.0	-56.7	20.0	-87.5	
100	(1.5 to 6:12)	16.0	-31.4	16.0	-44.2	16.0	-69.8	16.3	-33.3	16.3	-47.0	16.3	-74.2	17.1	-35.0	17.1	-49.2	17.1	-77.8	17.8	-36.3	17.8	-51.1	17.8	-80.8	
10	Gable Roof	34.6	-37.8	34.6	-44.2	34.6	-44.2	36.8	-40.2	36.8	-47.0	36.8	-47.0	38.5	-42.1	38.5	-49.2	38.5	-49.2	40.0	-43.7	40.0	-51.1	40.0	-51.1	
20	27° < θ ≤ 45°	33.6	-35.9	33.6	-42.3	33.6	-42.3	35.7	-38.1	35.7	-44.9	35.7	-44.9	37.4	-39.9	37.4	-47.1	37.4	-47.1	38.9	-41.5	38.9	-48.9	38.9	-48.9	
50	(6 to 12:12)	32.4	-33.3	32.4	-39.7	32.4	-39.7	34.4	-35.4	34.4	-42.2	34.4	-42.2	36.0	-37.1	36.0	-44.2	36.0	-44.2	37.4	-38.6	37.4	-46.0	37.4	-46.0	
100		31.4	-31.4	31.4	-37.8	31.4	-37.8	33.3	-33.3	33.3	-40.2	33.3	-40.2	35.0	-35.0	35.0	-42.1	35.0	-42.1	36.3	-36.3	36.3	-43.7	36.3	-43.7	
		*** For Hip Roofs with angle > 7 degrees (1.5:12) and ≤ 25 degrees (5:5:12), Zone 3 shall be treated as Zone 2 (Figure 30.4-2B, Note 7, p. 337)																								

Garage Door Wind Loads
Exposure C

for a Building with 30-foot Mean Roof Height

Tables 1609.7(1) & (2), and Section 1609.3.1

Effective Wind Area Width	Roof Area Height	Roof Angle	Wind Load	
			+	-
8	8	0 - 10 degrees	35.2	-39.8
10	10	0 - 10 degrees	34.1	-38.2
14	14	0 - 10 degrees	32.3	-36.1
9	7	> 10 degrees	38.4	-43.4
16	7	> 10 degrees	36.8	-41.0

Identify the zone per the figure or information by others. Any questionable zone is to be considered the more critical zone.

Design is based on the 3-second gust (wind velocity) for Risk Category II (general residential & commercial construction) per FBC 1620.2 Broward. These tables not for use with essential facilities or assembly occupancies.



SERIES 5700

VINYL SIDE-LOAD SINGLE HUNG WINDOW

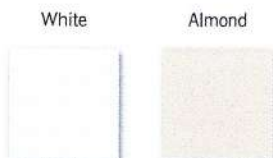
- + Removable bottom sash
- + Industry leading .01 cfm/ft. air infiltration performance
- + 1 1/4" Nail-fin setback for brick veneer construction and select stucco applications
- + Sweep lock helps provide a weather-tight seal and added security
- + Dual weather-stripping helps block air and water infiltration, keeping harsh elements outside and energy-saving comfort inside
- + Versatile half screen* installs easily from inside
- + Double insulated glass provides energy saving efficiency. A host of glass options are available, including Low-E coatings and Argon Gas fill for additional efficiency and Energy Star® compliance
- + Sloped sill reduces air infiltration and accommodates easy water run-off
- + Multi-chambered vinyl lineals improve thermal performance and enhance sound absorbency
- + Built-in accessory channels accommodate multiple installation options
- + Block and Tackle Balance System for ease of operation
- + Fusion-welded frame and sash minimizes water and air infiltration and enhances overall durability
- + Removable operable sash makes cleaning a breeze. Also includes full length interlock and bottom weather stripping
- + Limited lifetime warranty provides reassuring peace of mind
- + Pre-punched integral nail-fin targets proper nail location for quick, easy installation
- + Modular sized so that rough opening widths for multiple units are easy to calculate:
 - 5700 Single = 35.5"
 - 5700 Twin = 71.5"
 - 5700 Triple = 107.5"
- + DP Rating R50 (window size tested 36" x 96")
- + Jamb depth: 2.625"



CUSTOM Options

- + Low-E Glass
- + Low-E Glass + Argon Gas
- + Ultra Low-E Glass + Argon Gas
- + 5/8" or 3/4" flat, 5/8" or 1" contoured, 5/8" contoured valance grids available
- + Factory mulling of twins, triples and architectural shapes
- + Custom sizes available
- + Safety latch for sash restriction (field applied)
- + Paintable or stainable wood jamb extensions (4 9/16" and 6 9/16")

+ COLOR OPTIONS**



Scan to experience our website.



ENERGY STAR compliance available in all series. Verify product specifics before ordering.

Note: Manufacturer reserves the right to substitute components as necessary for continued product improvement.
 * Screens are not meant to restrain a child from falling through an open window.
 ** Printing process may affect color shown. Please refer to actual window sample when selecting colors.



5700 Single Hung Window

Features:

- 1 3/8" Nail-fin setback for brick veneer construction and select stucco applications
- Sweep lock helps provide a weather-tight seal and added security
- Versatile half screen installs easily from inside
- Double insulated glass provides energy saving efficiency
- Sloped sill reduces air infiltration & accommodates easy water run-off
- Built-in accessory channels accommodate multiple installation options
- Fusion-welded frame and sash minimizes water and air infiltration and enhances overall durability
- Limited lifetime warranty provides reassuring peace of mind
- Modular sized so that rough opening widths for multiple units are easy to calculate: 5700 Single = 35.5", 5700 Twin = 71.5", 5700 Triple = 107.5"
- Jamb depth: 2.625"

Custom Options:

- 5/8" or 3/4" flat, 5/8" or 1" contoured, 5/8" contoured valance grids available
- Glass options: Low-E Glass; Low-E Glass with Argon Gas; Ultra Low-E Argon
- Factory mulling of twins, triples and architectural shapes
- Custom sizes available
- Window Opening Control Device (for fall prevention)

Product Performance:

AAMA 101 Results:

Window Size	AAMA Rating (psf)	Air (cfm/ft ²)	Water (psf)
44" x 96"	LC35	0.01	7.52
36" x 96"	LC50	0.01	7.52
108" x 72"	R50	0.17	7.52
84" x 84"	R35	0.02	7.52
108" x 84"	R40	0.17	7.52

Product Dimensions:

Vinyl Wall Thickness:	0.062"
Glass Thickness:	0.750"
Jamb Depth:	2.625"
Nail Fin Setback:	1.375"

Rough Opening:

Window Width + 1/2"
Window Height + 1/2"

Size Restrictions:

	Min:	Max:
Width	16 7/8"	48"
Height	27"	96"

(Max. United Inches 126")

