

**RFP 2025-02  
REQUEST FOR PROPOSALS  
FOR THE  
RENOVATION OF ROCKLAND GREEN ADMINISTRATIVE HEADQUARTERS  
AND  
CONSTRUCTION OF AN IMMERSIVE THEATRE EXPERIENCE  
AT  
172 MAIN STREET IN NANUET, NY 10954**

**To:** All Potential Proposers  
**From:** Rockland Green  
**Subject:** Addendum Number 1  
**Project:** Rockland Green Renovation & New Immersive Theatre Experience at 172 Main Street, Nanuet, NY 10954  
**RFP No.:** RFP 2025-02  
**Date:** March 19, 2025

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This Addendum Number 1 is issued to modify the Request for Proposals No. 2025-02 (the “RFP”) for the above referenced project. All potential Proposers are hereby notified of the following change:

**1. Waiver of Mandatory Site Visit and Meeting Requirement**

Pursuant to the terms outlined in Sections III(c) and VI(a)(26) of the RFP, Rockland Green reserves the right to waive the mandatory Site visit and meeting requirement in its sole discretion. After careful consideration, Rockland Green has decided to exercise this discretion and hereby waives the mandatory site visit and meeting requirement for this RFP.

**2. Impact on Proposal Submission**

Potential Proposers are no longer required to have had a qualified representative attend the Site visit and meeting that was held on March 3, 2025, in order to submit a Proposal.

As set forth in Section III(d) of the RFP, potential Proposers may schedule a visit to the Site, by contacting Rockland Green through Ryan Montal, Confidential Assistant to the Executive Director at [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com).

Potential Proposers are reminded that they must familiarize themselves with all field conditions at the Site. As noted in the RFP, the failure of the Proposers to familiarize themselves with all conditions existing at the Site will not relieve them of their obligation to furnish all materials, labor and overtime necessary to carry out the provisions of the Contract Documents and

to complete the contemplated Work if they are selected. Proposers are solely responsible for conducting their own independent research and due diligence for their preparation of the Proposals and subsequent delivery of services under the Contract. Proposers should satisfy themselves by personal investigation and any other means they deem necessary, as to the conditions affecting the proposed services and the cost thereof.

### **3. Site Access**

All Proposers who visit the Site shall comply with the revised Site Visit Protocol that is attached hereto as Attachment 1. Attachment 1 hereto is a modified version of Appendix J to the RFP, which is the Site Visit Protocol. As required by the RFP, Proposers must submit this revised Appendix J with their Proposals.

### **4. Bids**

SEALED BIDS will be received until 2:00 PM. in the office of the Executive Director, on the 25<sup>th</sup> of April 2025, at the Rockland Green Administrative Headquarters, 172 Main Street Nanuet, NY 10954, at which time and place they will be publicly opened and read. Faxed bids will NOT be accepted. One (1) original proposal with five (5) paper copies and one (1) electronic copy on an external drive must be in sealed envelope(s) with the proposer's name title of the RFP. Sealed envelope(s) must be approximately labeled with the following label:  
"RFP-2025-02 Enclosed"

### **5. Contractor Questions**

Following issuance of this RFP, the Proposers may submit written questions to Rockland Green to assist the Proposers in the preparation of their Proposals. Rockland Green may, but shall not be obligated to, respond to such questions. All responses to any questions and requests for additional information which Rockland Green determines to be deserving of response will be issued to all potential Proposers of record in the form of addenda to this RFP which will be issued via email. The last day for submission of written questions have been extended from March 21 to March 28. Any questions submitted after the deadline for questions may be answered by Rockland Green at its discretion.

No oral interpretation, instruction, or information concerning this RFP given by any agent, employee, advisor, or consultant of Rockland Green shall be binding on Rockland Green. Proposers relying on such oral information risk having their response to this RFP deemed unresponsive by Rockland Green. Rockland Green will not be responsible for any explanation or interpretation of this RFP, unless such explanation or interpretation of this RFP is given in accordance with this written procedure.

Should a Proposer find discrepancies in, or omissions from, this RFP, the Proposer shall immediately notify Rockland Green, in writing, and a written addendum, if necessary, will be delivered to each Proposer.

All inquiries, correspondence, questions or clarifications shall be directed to:

Ryan Montal, Confidential Assistant to Executive Director  
Rockland Green  
172 Main Street  
Nanuet, NY 10954  
Email: [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com)

With a copy to:

John Cirilli, AIA, LEED  
Partner  
Michael Shilale Architects, LLP.  
Email: [jcirilli@shilale.com](mailto:jcirilli@shilale.com)

Except as set forth in this section with regard to procedures for inquiries, correspondence, questions or clarifications, in order to ensure fairness during the procurement process as of the date this RFP is released to the public and throughout the procurement process and negotiations of a Contract, Proposers or their employees, representatives or agents shall not contact any Rockland Green Board member, any Rockland Green employee (other than Ryan Montal or a designated Rockland Green employee or such other individual as instructed by Rockland Green), or any of Rockland Green's technical or legal consultants.

If a Proposer or its employee, representative or agent contacts a Rockland Green Board member, any Rockland Green employee (other than Ryan Montal or a designated Rockland Green employee or such other individual as instructed by Rockland Green), or any of Rockland Green's technical or legal consultants in relation to this RFP, such Proposer risks either being disqualified from submitting a Proposal in response to this RFP or having its Proposal rejected by Rockland Green.

## **6. Tax**

Rockland Green is exempt from sales tax.

## **7. Sign-In Sheet**

As per Attachment 2 see Sign-In Sheet for Pre-bid Walkthrough meeting dated March 3, 2025.

## **8. Allowance No. 5 Inspections and Testing**

Allowance No. 5 is a \$30,000 allowance for inspections and testing. The following documents have been revised and attached as part of Addendum 1.

As per Attachment 3 see revised Appendix D-Proposal Form 16.  
As per Attachment 4 see revised 012100 Allowance.  
As per Attachment 5 see revised A-001 Legends, Abbreviations & Notes.

## **9. Revised Specifications**

The following specification have been revised.

As per attachment 6 see revised 011000 Summary. Revisions include updated project description.

As per attachment 7 see revised 054000 Cold-Formed Metal Framing. Revisions include

## **10. New Specifications**

As per Attachment 8 see revised 000030 Table of Contents. Revisions include new added specifications sections to the project manual.

As per Attachment 9 see added specification section 061600 – Sheathing

As per Attachment 10 see added specification section 061643 – Gypsum Sheathing

As per Attachment 11 see added specification section 099113 – Exterior Painting

As per Attachment 12 see added specification section 099600 – Textured Acrylic Finishes

## **11. Site Plan**

As per Attachment 13 Site plan has been included as part of the Project Documents.

## **12. PLA Agreement**

As per Attachment 14 revised PLA agreement has been included for your reference

As per Attachment 15 see added License Agreement Map for your reference.

## **13. Solar Array Drawings**

The attached drawings are included as per alternate No. 4.

As per Attachment 16 Solar Rooftop System has been included as part of the Project Documents.

As per Attachment 17 Racking Construction Set has been included as part of the Project Documents.

#### **14. EIFS**

As per Attachment 18 see added specification section 072413 – Polymer Based Exterior Insulation and Finish System (EIFS)

As per attachment 19 see revised drawing A-310. Detail 3/A-310 has been revised to show an EIFS finish instead of stucco.



Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

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**ATTACHMENT 1  
TO  
ADDENDUM 1 TO RFP 2025-02**

**REVISED APPENDIX J  
SITE VISIT PROTOCOL**

## APPENDIX J

### SITE VISIT PROTOCOL

**I.** Rockland Green is soliciting Proposals for Renovation of Rockland Green Administrative Headquarters And Construction of an Immersive Theatre Experience located at 172 Main Street, Nanuet, NY (the “RFP”). Pursuant to Addendum Number 1 to the RFP, Rockland Green decided to exercise its discretion and waive the mandatory Site visit and meeting requirement in the RFP. However, pursuant to the terms of the RFP, Rockland Green will accommodate Proposer’s requests for access to the Site.

During every visit to the Site, all Proposers, including any representative, agent, consultant, Subcontractor, Affiliate or interested party, is required to comply with this Site Visit Protocol during access to and inspection of the Site. Failure to do so may result in the rejection of a Proposal.

**II.** Protocol:

- Potential Proposers may schedule a visit to the Site by contacting Ryan Montal, Confidential Secretary to the Executive Director at [rmontal@rocklandgreen.com](mailto:rmontal@rocklandgreen.com).
- Any individuals representing the Proposer at a Site visit must be employees or principals of the Proposer. A Proposer may not use a surrogate as its representative at a Site visit.
- All representatives from a Proposer must attend the same Site visit.
- Rockland Green will designate specific individuals to conduct a tour of the Site and answer questions.
- The Proposer, including any member of the team, representative, agent, consultant, Subcontractor, Affiliate or interested party, shall not engage in any communication concerning this RFP with a member of Rockland Green, except the individuals specifically identified by Rockland Green as allowed to guide Site visits and answer questions from the Proposer.
- Any request for information and clarifications regarding the RFP shall be submitted in writing. No oral information given by a Rockland Green team member during a Site visit shall be binding. Rockland Green is not responsible for any oral explanation given during a Site visit.
- The Proposer’s team members must be dressed appropriately for Site visits, including correct footwear and hard hats. Any additional safety equipment required would be supplied by Rockland Green.



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- Proposers must comply with any Rockland Green, Rockland County Board of Health or other applicable policies or orders with regard to any public health protocols that may be required during Site visits.

### **III. Acknowledgement**

The Proposer acknowledges that this Site Visit Protocol is part of the procurement process. The Proposer understands that failure to comply with the requirements may result in the rejection of its Proposal.

\_\_\_\_\_  
Name of Proposer

\_\_\_\_\_  
Authorized Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature



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Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 2  
TO  
ADDENDUM 1 TO RFP 2025-02**

**SIGN-IN SHEET**

**Rockland County Solid Waste Management Authority d/b/a Rockland Green  
RFP 2025-02 - Renovation of Rockland Green Administrative**

Pre-Bid

**March 3, 2025 @ 10AM**

Contact Name & Title	Company	Phone Number & E-mail
Ryan M	Rockland green	
Slobodan Tortoski	APS Contracting Inc	973 754 1980 slobodant@apscontracting.us
Unimark IIc Lenny Wisniewski	Unimark IIc	845-741-8163 Lenny@unimarkIIc.com
JOHN CIPRI	MSA	845-708-9200 JCIPRI@SHUALF.COM
M. Andrew Lazaro	MSA	845-708-9200 x305 ALazaro@shualf.com
Devin Kim GPI	GPI	845.547.2350 dkim@gpinc.com



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**ATTACHMENT 3  
TO  
ADDENDUM 1 TO RFP 2025-02**

**REVISED APPENDIX D  
PROPOSAL FORM 16**

Rockland Green Request for Proposals Renovation of Rockland Green Administrative Headquarters and Construction of an Immersive Theatre Experience located 172 Main Street in Nanuet, NY  
RFP 2025-02

**PROPOSAL FORM 16**  
**CONTRACT PRICE PROPOSAL FORM**

Proposers must provide a proposed cost for each line under each subgroup. As well as the total proposed Contract Price on this forms.

<u>Subgroup</u>	<u>Proposed Cost</u>
<u>Division 01 – General Requirements</u>	
<u>Alternate No. 1</u>	
<u>Alternate No. 2</u>	
<u>Alternate No. 3</u>	
<u>Alternate No. 4</u>	
<u>Unit Price No. 1</u>	
<u>Unit Price No. 2</u>	
<u>Unit Price No. 3</u>	
<u>Allowance No. 1</u>	
<u>Allowance No. 2</u>	
<u>Allowance No. 3</u>	
<u>Allowance No. 4</u>	<u>\$515,000</u>
<u>Allowance No. 5</u>	<u>\$30,000</u>
<u>Division 02 – Existing Conditions</u>	
<u>Division 03 – Concrete</u>	
<u>Division 04 - Masonry</u>	
<u>Division 05 – Metals</u>	
<u>Division 06 – Wood, Plastics and Composites</u>	
<u>Division 07 – Thermal and Moisture Protection</u>	
<u>Division 08 – Openings</u>	
<u>Division 09 – Finishes</u>	
<u>Division 10 – Specialties</u>	
<u>Division 11 – Equipment</u>	
<u>Division 14 – Conveying Equipment</u>	
<u>Division 21 – Fire Suppression</u>	
<u>Division 22 – Plumbing</u>	
<u>Division 23 – HVAC</u>	
<u>Division 26 – Electrical</u>	
<u>Division 27 – Communications</u>	
<u>Division 31 – Earthwork</u>	
<u>Division 32 – Exterior Improvements</u>	
<u>Division 33 – Utilities</u>	
<u>Division 48 – Electrical Power Generation</u>	
<u>Site Mobilization</u>	
<u>Insurance</u>	
<u>Overhead and Profit</u>	



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Rockland County Solid Waste Management Authority

**ATTACHMENT 4  
TO  
ADDENDUM 1 TO RFP 2025-02**

**ALLOWANCES**

## SECTION 012100 - ALLOWANCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Lump-sum allowances.
  - 2. Unit-cost allowances.
  - 3. Quantity allowances.
  - 4. Testing and inspecting allowances.
- C. Related Requirements:
  - 1. Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.
  - 2. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
  - 3. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

#### 1.3 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

#### 1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

- C. Purchase products and systems selected by Architect from the designated supplier.

#### 1.5 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

#### 1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight , and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
  - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

#### 1.8 UNIT-COST ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

#### 1.9 QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include [**taxes,** ]freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
  1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

#### 1.10 TESTING AND INSPECTING ALLOWANCES

- A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.
- B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C. Costs of testing and inspection services not specifically required by the Contract Documents are Contractor responsibilities and are not included in the allowance.
- D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

#### 1.11 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
  1. Include installation costs in purchase amount only where indicated as part of the allowance.
  2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.

3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
  4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
  2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

## PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

### 3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

### 3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Quantity Allowance: Deck Replacement: Include 200 SF of roof deck replacement.
- B. Allowance No. 2: Quantity Allowance: Masonry Repointing: Include 20 LF of repointing as specified in section 04120.64 "Brick Masonry Repointing"
- C. Allowance No. 3: Quantity Allowance: Masonry Repair: Include 200 SF of repair as specified in section 04120.63 "Brick Masonry Repair"
- D. Allowance No.4: Lump-sum Allowance: Contactor shall include the sum of \$515,000 to provide and install new kitchenette cabinets and countertop.
- E. Allowance No.5: Lump-sum Allowance: Contactor shall include the sum of \$30,000 for Testing and Inspection.

F.

END OF SECTION 012100



Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 5  
TO  
ADDENDUM 1 TO RFP 2025-02**

**A-001  
LEGEND, ABBREVIATIONS & NOTES**





Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 6  
TO  
ADDENDUM 1 TO RFP 2025-02**

**SUMMARY**

## SECTION 011000 - SUMMARY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Multiple Work Packages.
4. Work under Owner's separate contracts.
5. Contractor's use of site and premises.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and Drawing conventions.
9. Miscellaneous provisions.

- B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
2. Section 017300 "Execution" for coordination of Owner-installed products.

#### 1.3 DEFINITIONS

- A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

#### 1.4 PROJECT INFORMATION

- A. Project Identification: 40034 .

1. Project Location: 172 Main Street, Nanuet, New York, 10954, United States.

- B. Owner: Rockland Green, 172 Main Street, Nanuet, NY 10954.

1. Owner's Representative: Gerard M. Damiani, Executive Director.

- C. Architect: Michael Shilale Architects, LLP, 140 Park Avenue, New City, New York, 10956.

1. Architect's Representative: Michael Shilale Architects, LLP.

D. Architect's Consultants: Architect has retained the following design professionals, who have prepared designated portions of the Contract Documents:

1. MEP & Structural : GPI Engineering .

E. Contractor: to be selected has been engaged as Contractor for this Project.

#### 1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:

1. The Work includes, but is not limited to, A new immersive theater and exhibit space, a conference room, an ADA-accessible restroom, upgraded finishes, enhanced lighting, an improved HVAC system, a solar array, an emergency generator, updated exterior finishes, and various site improvements, all as indicated in the Drawings and Specifications.

B. Type of Contract:

1. Each phase may be constructed under a single prime contract.

#### 1.6 WORK UNDER OWNER'S SEPARATE CONTRACTS

A. Work with Separate Contractors: Cooperate fully with Owner's separate contractors, so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under Owner's separate contracts.

B. Concurrent Work: Owner will award separate contract(s) for the following construction operations at Project site. Those operations will be conducted simultaneously with Work under this Contract.

#### 1.7 CONTRACTOR'S USE OF SITE AND PREMISES

A. Unrestricted Use of Site: Each Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. Limits on Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits on Use of Site: Confine construction operations to work area defined on drawings

2. Driveways, Walkways and Entrances: Keep driveways parking garage, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and

emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
  - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.
- D. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

## 1.8 COORDINATION WITH OCCUPANTS

- A. The building will not be occupied during construction. The Contractor shall coordinate all work to take place in an unoccupied facility and shall ensure that no construction activities interfere with building operations, as the facility will remain vacated until the completion of the project.
- B. The Contractor shall secure the site and restrict access to authorized personnel only. Proper signage and barriers shall be installed to indicate the construction zone and prevent unauthorized entry.
- C. The Contractor shall schedule and coordinate any site visits, inspections, or Owner access with the Owner's Representative in advance to ensure safety and compliance with project requirements.
- D. Any deviation from the unoccupied status of the building shall require prior written approval from the Owner
- E. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
  2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
  3. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
  4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

## 1.9 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work to between 7 a.m. to 4 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.
1. Weekend Hours: with approval by the owner .
  2. Early Morning Hours: with approval by the owner .
  3. Work in Existing Building: not permitted while school is in session .
  4. Hours for Utility Shutdowns: to be coordinated with the owner 48 hours in advance .
  5. Hours for Core Drilling or loud activities : to be coordinated with owner 48 hours in advance .
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:
1. Notify Architect Owner not less than two days in advance of proposed utility interruptions.
  2. Obtain Architect's written permission before proceeding with utility interruptions.
- D. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
1. Notify Architect not less than two days in advance of proposed disruptive operations.
  2. Obtain Architect's written permission before proceeding with disruptive operations.
- E. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.
- F. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
1. Maintain list of approved screened personnel with Owner's representative.

## 1.10 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
  3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.
  4. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 00 Contracting Requirements: General provisions of the Contract, including General and Supplementary Conditions, apply to all Sections of the Specifications.
- C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.
  3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000



Howard T. Phillips, Jr.  
Chairman

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**ATTACHMENT 7  
TO  
ADDENDUM 1 TO RFP 2025-02**

**COLD-FORMED METAL FRAMING**

## SECTION 054000 - COLD-FORMED METAL FRAMING

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Exterior non-load-bearing wall framing.
2. Interior non-load-bearing wall framing.
3. Soffit framing.

##### B. Related Requirements:

1. Section 092216 "Non-Structural Metal Framing" for standard, interior non-load-bearing, metal-stud framing, with height limitations and ceiling-suspension assemblies.

#### 1.2 ACTION SUBMITTALS

##### A. Product Data: For the following:

1. Cold-formed steel framing materials.
2. Exterior non-load-bearing wall framing.
3. Interior non-load-bearing wall framing.
4. Vertical deflection clips.
5. Single deflection track.
6. Double deflection track.
7. Drift clips.
8. Soffit framing.
9. Post-installed anchors.
10. Power-actuated anchors.

##### B. Shop Drawings:

1. Include layout, spacings, sizes, thicknesses, and types of cold-formed steel framing; fabrication; and fastening and anchorage details, including mechanical fasteners.
2. Indicate reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details, and attachment to adjoining work.
3. Signed and Sealed Shop drawings are required.

##### C. Delegated Design Submittal:

1. For cold-formed steel framing.

#### 1.3 INFORMATIONAL SUBMITTALS

##### A. Product Certificates: For each type of code-compliance certification for studs and tracks.

- B. Product Test Reports: For each listed product, for tests performed by a qualified testing agency.
1. Steel sheet.
  2. Expansion anchors.
  3. Power-actuated anchors.
  4. Mechanical fasteners.
  5. Vertical deflection clips.
  6. Horizontal drift deflection clips
  7. Miscellaneous structural clips and accessories.

#### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.
- B. Product Tests: Mill certificates or data from a qualified independent testing agency , or in-house testing with calibrated test equipment, indicating steel sheet complies with requirements, including base-metal thickness, yield strength, tensile strength, total elongation, chemical requirements, and metallic-coating thickness.
- C. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Steel Framing Industry Association the Steel Stud Manufacturers Association .
- D. Comply with AISI S230 "Standard for Cold-Formed Steel Framing - Prescriptive Method for One and Two Family Dwellings."

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect and store cold-formed steel framing from corrosion, moisture staining, deformation, and other damage during delivery, storage, and handling as required in AISI S202.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Clark Dietrich.
  2. Marino\WARE.
  3. Steel Network, Inc. (The).

#### 2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide cold-formed steel framing capable of withstanding design loads within limits and under conditions indicated.

1. Design Loads: As indicated on Drawings .
  2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
    - a. Exterior Non-Load-Bearing Framing: Horizontal deflection of 1/360 of the wall height.
    - b. Interior Non-Load-Bearing Framing: Horizontal deflection of 1/360 of the wall height under a horizontal load of 5 lbf/sq. ft..
    - c. Ceiling Joist Framing: Vertical deflection of 1/240 of the span for live loads and 1/240 for total loads of the span.
  3. Design framing systems to provide for movement of framing members located outside the insulated building envelope without damage or overstressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change of 120 deg F.
  4. Design framing system to maintain clearances at openings, to allow for construction tolerances, and to accommodate live load deflection of primary building structure as follows:
    - a. Upward and downward movement of 1 inch .
  5. Design exterior non-load-bearing wall framing to accommodate horizontal deflection without regard for contribution of sheathing materials.
- B. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing complies with AISI S100 and ASTM C955 .
- C. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency acceptable to authorities having jurisdiction.

## 2.3 COLD-FORMED STEEL FRAMING MATERIALS

- A. Framing Members, General: Comply with ASTM C955 for conditions indicated.
- B. Steel Sheet: ASTM A1003/A1003M, Structural Grade, Type H, metallic coated, of grade and coating designation as follows:
1. Grade: ST50H .
  2. Coating: G90 or equivalent .
- C. Steel Sheet for Vertical Deflection Clips: ASTM A653/A653M, structural steel, zinc coated, of grade and coating as follows:
1. Grade: 50 , Class 1 As required by structural performance .
  2. Coating: G90 .

## 2.4 EXTERIOR NON-LOAD-BEARING WALL FRAMING

- A. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, and as follows:

1. Minimum Base-Metal Thickness: 0.0677 inch .
  2. Flange Width: 1-5/8 inches .
- B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and as follows:
1. Minimum Base-Metal Thickness: 0.0677 inch .
  2. Flange Width: 1-1/4 inches .
- C. Double Deflection Tracks: Manufacturer's double, deep-leg, U-shaped steel tracks, consisting of nested inner and outer tracks; unpunched, with unstiffened flanges.
1. Outer Track: Of web depth to allow free vertical movement of inner track, with flanges designed to support horizontal loads and transfer them to the primary structure, and as follows:
    - a. Minimum Base-Metal Thickness: 0.0677 inch .
    - b. Flange Width: 1 inch plus twice the design gap for other applications .
  2. Inner Track: Of web depth indicated, and as follows:
    - a. Minimum Base-Metal Thickness: 0.0677 inch .
- D. Drift Clips: Manufacturer's standard bypass or head clips, capable of isolating wall stud from upward and downward vertical displacement and lateral drift of primary structure through positive mechanical attachment to stud web and structure.

## 2.5 INTERIOR NON-LOAD-BEARING WALL FRAMING

- A. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, and as follows:
1. Minimum Base-Metal Thickness: 0.0677 inch .
  2. Flange Width: 1-5/8 inches .
- B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and as follows:
1. Minimum Base-Metal Thickness: 0.0677 inch .
  2. Flange Width: 1-1/4 inches .
- C. Double Deflection Tracks: Manufacturer's double, deep-leg, U-shaped steel tracks, consisting of nested inner and outer tracks; unpunched, with unstiffened flanges.
1. Outer Track: Of web depth to allow free vertical movement of inner track, with flanges designed to support horizontal loads and transfer them to the primary structure, and as follows:
    - a. Minimum Base-Metal Thickness: 0.0677 inch .
    - b. Flange Width: 1 inch plus twice the design gap for other applications .
  2. Inner Track: Of web depth indicated, and as follows:
    - a. Minimum Base-Metal Thickness: 0.0677 inch .

- D. Drift Clips: Manufacturer's standard bypass or head clips, capable of isolating wall stud from upward and downward vertical displacement and lateral drift of primary structure through positive mechanical attachment to stud web and structure.

## 2.6 SOFFIT FRAMING

- A. Exterior Soffit Frame: Manufacturer's standard C-shaped steel sections, of web depths indicated, with stiffened flanges, and as follows:
  - 1. Minimum Base-Metal Thickness: 0.0677 inch .
  - 2. Flange Width: 1-5/8 inches , minimum.

## 2.7 FRAMING ACCESSORIES

- A. Fabricate steel-framing accessories from ASTM A1003/A1003M, Structural Grade, Type H, metallic coated steel sheet, of same grade and coating designation used for framing members.
- B. Provide accessories of manufacturer's standard thickness and configuration, unless otherwise indicated, as follows:
  - 1. Bracing, bridging, and solid blocking.
  - 2. Web stiffeners.
  - 3. Anchor clips.
  - 4. End clips.
  - 5. Joist hangers and end closures.
  - 6. Backer plates.

## 2.8 ANCHORS, CLIPS, AND FASTENERS

- A. Steel Shapes and Clips: ASTM A36/A36M, zinc coated by hot-dip process according to ASTM A123/A123M.
- B. Post-Installed Anchors: Fastener systems with bolts of same basic metal as fastened metal, if visible, unless otherwise indicated; with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 ICC-ES AC193 ICC-ES AC58 or ICC-ES AC308 as appropriate for the substrate.
  - 1. Uses: Securing cold-formed steel framing to structure.
  - 2. Type: Torque-controlled adhesive anchor or adhesive anchor.
  - 3. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B633 or ASTM F1941, Class Fe/Zn 5, unless otherwise indicated.
- C. Power-Actuated Anchors: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

- D. Mechanical Fasteners: ASTM C1513, corrosion-resistant-coated, self-drilling, self-tapping, steel drill screws.
  - 1. Head Type: Low-profile head beneath sheathing; manufacturer's standard elsewhere.
- E. Welding Electrodes: Comply with AWS standards.

## 2.9 MISCELLANEOUS MATERIALS

- A. Shims: Load-bearing, high-density, multimonomer, nonleaching plastic; or cold-formed steel of same grade and metallic coating as framing members supported by shims.

## 2.10 FABRICATION

- A. Fabricate cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section.
  - 1. Fabricate framing assemblies using jigs or templates.
  - 2. Cut framing members by sawing or shearing; do not torch cut.
  - 3. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, pneumatic pin fastening, or riveting as standard with fabricator. Wire tying of framing members is not permitted.
    - a. Comply with AWS D1.3/D1.3M requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
    - b. Locate mechanical fasteners and install according to Shop Drawings, with screws penetrating joined members by no fewer than three exposed screw threads.
  - 4. Fasten other materials to cold-formed steel framing by welding, bolting, pneumatic pin fastening, or screw fastening, according to Shop Drawings.
- B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies by means that prevent damage or permanent distortion.
- C. Tolerances: Fabricate assemblies level, plumb, and true to line to a maximum allowable variation of 1/8 inch in 10 feet and as follows:
  - 1. Spacing: Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error are not to exceed minimum fastening requirements of sheathing or other finishing materials.
  - 2. Squareness: Fabricate each cold-formed steel framing assembly to a maximum out-of-square tolerance of 1/8 inch.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, conditions, and abutting structural framing for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Before sprayed fire-resistive materials are applied, attach continuous angles, supplementary framing, or tracks to structural members indicated to receive sprayed fire-resistive materials.
- B. After applying sprayed fire-resistive materials, remove only as much of these materials as needed to complete installation of cold-formed framing without reducing thickness of fire-resistive materials below that required to obtain fire-resistance ratings indicated. Protect remaining fire-resistive materials from damage.
- C. Install load-bearing shims or grout between the underside of load-bearing wall bottom track and the top of foundation wall or slab at locations with a gap larger than 1/4 inch to ensure a uniform bearing surface on supporting concrete or masonry construction.
- D. Install sill sealer gasket at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.
- E. Install sill sealer gasket/termite barrier in accordance with manufacturer's written instructions at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.

### 3.3 INSTALLATION, GENERAL

- A. Cold-formed steel framing may be shop or field fabricated for installation, or it may be field assembled.
- B. Install cold-formed steel framing according to AISI S200, AISI S202, and manufacturer's written instructions unless more stringent requirements are indicated.
- C. Install shop- or field-fabricated, cold-formed framing and securely anchor to supporting structure.
  - 1. Screw, bolt, or weld wall panels at horizontal and vertical junctures to produce flush, even, true-to-line joints with maximum variation in plane and true position between fabricated panels not exceeding 1/16 inch.
- D. Install cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened.

1. Cut framing members by sawing or shearing; do not torch cut.
2. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, or riveting. Wire tying of framing members is not permitted.
  - a. Comply with AWS D1.3/D1.3M requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
  - b. Locate mechanical fasteners, install according to Shop Drawings, and comply with requirements for spacing, edge distances, and screw penetration.
- E. Install framing members in one-piece lengths unless splice connections are indicated for track or tension members.
- F. Install temporary bracing and supports to secure framing and support loads equal to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.
- G. Do not bridge building expansion joints with cold-formed steel framing. Independently frame both sides of joints.
- H. Install insulation, specified in Section 072100 "Thermal Insulation," in framing-assembly members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- I. Fasten hole-reinforcing plate over web penetrations that exceed size of manufacturer's approved or standard punched openings.

### 3.4 INSTALLATION OF EXTERIOR NONLOADBEARING WALL FRAMING

- A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
- B. Fasten both flanges of studs to top and bottom track unless otherwise indicated. Space studs as follows:
  1. Stud Spacing: 16 inches .
- C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar requirements.
- D. Isolate non-load-bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
  1. Install single deep-leg deflection tracks and anchor to building structure.
  2. Install double deep-leg deflection tracks and anchor outer track to building structure.
  3. Connect vertical deflection clips to infill studs and anchor to building structure.
  4. Connect drift clips to cold-formed steel framing and anchor to building structure.
- E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but not more than 48 inches apart. Fasten at each stud intersection.

1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs.
  2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
  3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
- F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
1. Install solid blocking at 96-inch centers indicated on Shop Drawings.
- G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners, to provide a complete and stable wall-framing system.

### 3.5 INSTALLATION OF INTERIOR NONLOADBEARING WALL FRAMING

- A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure.
- B. Fasten both flanges of studs to top and bottom track unless otherwise indicated. Space studs as follows:
1. Stud Spacing: 16 inches .
- C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar requirements.
- D. Isolate non-load-bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
1. Install single deep-leg deflection tracks and anchor to building structure.
  2. Install double deep-leg deflection tracks and anchor outer track to building structure.
  3. Connect vertical deflection clips to studs and anchor to building structure.
  4. Connect drift clips to cold-formed steel metal framing and anchor to building structure.
- E. Install horizontal bridging in wall studs, spaced vertically in rows indicated on Shop Drawings but not more than 48 inches apart. Fasten at each stud intersection.
1. Channel Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs.
  2. Strap Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
  3. Bar Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.

- F. Top Bridging for Single Deflection Track: Install row of horizontal bridging within 12 inches of single deflection track. Install a combination of bridging and stud or stud-track solid blocking of width and thickness matching studs, secured to stud webs or flanges.
  - 1. Install solid blocking at 96-inch centers indicated on Shop Drawings.
- G. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, and fasteners, to provide a complete and stable wall-framing system.

### 3.6 INSTALLATION OF JOIST FRAMING

- A. Install perimeter joist track sized to match joists. Align and securely anchor or fasten track to supporting structure at corners, ends, and spacings indicated on Shop Drawings.
- B. Install joists bearing on supporting frame, level, straight, and plumb; adjust to final position, brace, and reinforce. Fasten joists to both flanges of joist track.
  - 1. Install joists over supporting frame with a minimum end bearing of 1-1/2 inches.
  - 2. Reinforce ends and bearing points of joists with web stiffeners, end clips, joist hangers, steel clip angles, or steel-stud sections.
- C. Space joists not more than 2 inches from abutting walls, and as follows:
  - 1. Joist Spacing: 16 inches .
- D. Frame openings with built-up joist headers, consisting of joist and joist track or another combination of connected joists if indicated.
- E. Install bridging at intervals indicated on Shop Drawings. Fasten bridging at each joist intersection as follows:
  - 1. Combination Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and joist-track solid blocking of width and thickness indicated. Fasten flat straps to bottom flange of joists and secure solid blocking to joist webs.
- F. Secure joists to load-bearing interior walls to prevent lateral movement of bottom flange.
- G. Install miscellaneous joist framing and connections, including web stiffeners, closure pieces, clip angles, continuous angles, hold-down angles, anchors, and fasteners, to provide a complete and stable joist-framing assembly.

### 3.7 INSTALLATION TOLERANCES

- A. Install cold-formed steel framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet and as follows:

1. Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error are not to exceed minimum fastening requirements of sheathing or other finishing materials.

### 3.8 REPAIR

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed steel framing with galvanized repair paint according to ASTM A780/A780M and manufacturer's written instructions.

### 3.9 FIELD QUALITY CONTROL

- A. Testing: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Field and shop welds will be subject to testing and inspecting.
- C. Testing agency will report test results promptly and in writing to Contractor and Architect.
- D. Cold-formed steel framing will be considered defective if it does not pass tests and inspections.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

### 3.10 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that cold-formed steel framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION 054000



Howard T. Phillips, Jr.  
Chairman

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Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 8  
TO  
ADDENDUM 1 TO RFP 2025-02**

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260539	UNDERFLOOR RACEWAYS FOR ELECTRICAL SYSTEMS
260543	UNDERGROUND DUCTS AND RACEWAYS FOR ELECTRICAL SYSTEMS
260544	SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING
260548	VIBRATION AND SEISMIC CONTROL FOR ELECTRICAL SYSTEMS
260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS
260923	LIGHTING CONTROL DEVICESs
260936	MODULAR DIMMING CONTROLS
262413	SWITCHBOARDS
262416	PANELBOARDS
262719	MULTI-OUTLET ASSEMBLIES
262726	WIRING DEVICES
262816	ENCLOSED SWITCHES AND CIRCUIT BREAKERS
263213	GAS ENGINE DRIVEN GENERATOR SETS
263600	TRANSFER SWITCHES
264113	LIGHTING PROTECTION FOR STRUCTURES
264313	SURGE PROTECTION FOR LOW VOLTAGE ELECTRCAL POWER CIRCUITS
265119	LED INTERIOR LIGHTING
265213	EMERGENCY AND EXIST LIGHTING

**DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

SECTION	TITLE
283102	PROTECTED PREMISES FIRE ALARM EMERGENCY COMMUNICATIONS SYSTEM



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**ATTACHMENT 9  
TO  
ADDENDUM 1 TO RFP 2025-02**

**SHEATHING**

## SECTION 061600 - SHEATHING

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Section Includes:

1. Wall sheathing.
2. Roof sheathing.

## B. Related Requirements:

1. Section 061000 "Rough Carpentry" for plywood backing panels.

## 1.2 ACTION SUBMITTALS

## A. Product Data:

1. Wall sheathing.
2. Roof sheathing.

## 1.3 INFORMATIONAL SUBMITTALS

## 1.4 QUALITY ASSURANCE

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

## PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

- A. Air-Barrier and Water-Resistant Glass-Mat Gypsum Sheathing Performance: Air-barrier and water-resistant glass-mat gypsum sheathing assembly, and seals with adjacent construction, are to be capable of performing as a continuous air barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. Air-barrier assemblies are to be capable of accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, penetrations, tie-ins to installed waterproofing, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits.

## 2.2 WOOD PANEL PRODUCTS

- A. Emissions: Products are to meet the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- B. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- C. Factory mark panels to indicate compliance with applicable standard.

## 2.3 WALL SHEATHING

- A. Plywood Sheathing, Walls: , Exterior, Structural I sheathing.
  - 1. Span Rating: Not less than 20/0 .
  - 2. Nominal Thickness: Not less than 1/2 inch.
- B. Air-Barrier and Water-Resistant Glass-Mat Gypsum Sheathing: ASTM C1177/C1177M, Type X, coated fiberglass mat gypsum sheathing with integral weather-resistant barrier and air barrier complying with ASTM E2178.
  - 1. Thickness: 5/8 inch thick.
  - 2. Size: 48 by 96 inches for vertical installation.
  - 3. Edges: Square.
  - 4. Flashing and Transitions Strips: As acceptable to sheathing manufacturer.
  - 5. Air Permeance: Maximum 0.004 cfm/sq. ft. of surface area at 1.57-lbf/sq. ft. pressure difference when tested in accordance with ASTM E2178.
  - 6. Vapor Permeance: Minimum 20 perms when tested in accordance with ASTM E96/E96M, Desiccant Method, Procedure A.
  - 7. Sheathing Assembly Air Leakage: Maximum 0.04 cfm/sq. ft. of surface area at 1.57 lbf/sq. ft. when tested in accordance with ASTM E2357.
  - 8. Fire Propagation Characteristics: Complies with NFPA 285 testing as part of an approved assembly.
  - 9. UV Resistance: Can be exposed to sunlight for 30 days in accordance with manufacturer's written instructions.
  - 10. Provide primers, transition strips, termination strips, joint reinforcing fabric and strips, joint sealants, counterflashing strips, flashing sheets and metal termination bars, termination mastic, substrate patching materials, adhesives, tapes, foam sealants, lap sealants, and other accessory materials that are recommended in writing by sheathing manufacturer to produce a complete air-barrier assembly and that are compatible with primary air-barrier material and adjacent construction to which they may seal.
- C. Fiberboard Sheathing: ASTM C208, Type IV, Grade 2 (Structural) cellulosic fiberboard sheathing with square edges, 25/32 inch thick.

## 2.4 ROOF SHEATHING

- A. Plywood Sheathing, Roofs: , Exterior, Structural I sheathing.
  - 1. Span Rating: Not less than 24/0 .
  - 2. Nominal Thickness: Not less than 15/32 inch .

## 2.5 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
  - 1. For roof wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M .
  - 2. For roof wall sheathing, provide fasteners with organic-polymer or other corrosion-protective coating having a salt-spray resistance of more than 800 hours in accordance with ASTM B117.

- B. Nails, Brads, and Staples: ASTM F1667.
- C. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.

## 2.6 MISCELLANEOUS MATERIALS

- A. Adhesives for Field Gluing Panels to Wood Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
  - 1. Table 2304.10.1, "Fastening Schedule," in the ICC's International Building Code.
  - 2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in the ICC's International Residential Code for One- and Two-Family Dwellings.
  - 3. ICC-ES evaluation report for fastener.
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate wall roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

### 3.2 INSTALLATION OF WOOD STRUCTURAL PANEL

- A. General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- B. Fastening Methods: Fasten panels as indicated below:
  - 1. Wall and Roof Sheathing:
    - a. Nail to wood framing.
    - b. Screw to cold-formed metal framing.
    - c. Space panels 1/8 inch apart at edges and ends.

### 3.3 INSTALLATION OF GYPSUM SHEATHING

- A. Comply with GA-253 and with manufacturer's written instructions.
1. Fasten gypsum sheathing to wood framing with screws.
  2. Fasten gypsum sheathing to cold-formed metal framing with screws.
  3. Install panels with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
  4. Install panels with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.
- C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent panels without forcing. Abut ends over centers of studs, and stagger end joints of adjacent panels not less than one stud spacing. Attach at perimeter and within field of panel to each stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of panels.
- D. Vertical Installation: Install vertical edges centered over studs. Abut ends and edges with those of adjacent panels. Attach at perimeter and within field of panel to each stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of panels.
  2. For sheathing under stucco cladding, panels may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.
- E. Seal sheathing joints in accordance with sheathing manufacturer's written instructions.
1. Apply elastomeric sealant to joints and fasteners and trowel flat. Apply sufficient amount of sealant to completely cover joints and fasteners after troweling. Seal other penetrations and openings.
  2. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing joints and apply and trowel sealant to embed entire face of tape in sealant. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered. Seal other penetrations and openings.
- F. Air-Barrier and Water-Resistant Glass-Mat Gypsum Sheathing:
1. Install accessory materials in accordance with sheathing manufacturer's written instructions and details to form a seal with adjacent construction, to seal fasteners, and ensure continuity of air and water barrier.
    - a. Coordinate the installation of sheathing with installation of roofing membrane and base flashing to ensure continuity of air barrier with roofing membrane.
    - b. Install transition strip on roofing membrane or base flashing, so that a minimum of 3 inches of coverage is achieved over each substrate.
  2. Connect and seal sheathing material continuously to air barriers specified under other Sections as well as to roofing-membrane air barrier, concrete below-grade structures, floor-to-floor construction, exterior glazing and window systems, glazed curtain-wall systems, storefront systems, exterior louvers, exterior door framing, and other construction used in exterior wall openings, using accessory materials.
  3. Apply joint sealants forming part of air-barrier assembly within manufacturer's recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
  4. Wall Openings: Prime concealed, perimeter frame surfaces of windows, curtain walls, storefronts, and doors. Apply transition strip, so that a minimum of 3 inches of coverage is achieved over each substrate. Maintain 3 inches of full contact over firm bearing to perimeter frames, with not less than 1 inch of full contact.
    - a. Transition Strip: Roll firmly to enhance adhesion.
    - b. Preformed Silicone Extrusion: Set in full bed of silicone sealant applied to walls, frame, and air-barrier material.
  5. Fill gaps in perimeter frame surfaces of windows, curtain walls, storefronts, doors, and miscellaneous penetrations of sheathing material with foam sealant.
  6. Seal strips and transition strips around masonry reinforcing or ties and penetrations with termination mastic.
  7. Seal top of through-wall flashings to sheathing with an additional 6-inch-wide, transition strip.
  8. Seal exposed edges of strips at seams, cuts, penetrations, and terminations not concealed by metal counterflashings or ending in reglets with termination mastic.

9. Repair punctures, voids, and deficient lapped seams in strips and transition strips extending 6 inches beyond repaired areas in strip direction.

END OF SECTION 061600



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**ATTACHMENT 10  
TO  
ADDENDUM 1 TO RFP 2025-02**

**GYPSUM SHEATHING**

## SECTION 061643

## GYPSUM SHEATHING

## 1.01 SUMMARY

- A. Section Includes: Fiberglass-mat faced, moisture and mold resistant gypsum sheathing.
- B. Related Sections:
  - 1. Section 05 41 00 Structural Metal Stud Framing.
  - 2. Section 06 10 00 Rough Carpentry.
  - 3. Section 09 21 16 Gypsum Board Assemblies.
- C. Allowances:
- D. Unit Prices:
- E. Alternates:

## 1.02 REFERENCES

- A. ASTM International (ASTM):
  - 1. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel Products.
  - 2. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 3. ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
  - 4. ASTM C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
  - 5. ASTM C1280 Standard Specification for Application of Gypsum Sheathing.
  - 6. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
  - 7. ASTM D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.
  - 8. ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
  - 9. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
  - 10. ASTM C1396 Standard Specification for Gypsum Board
  - 11. ASTM E 136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
  - 12. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- B. Gypsum Association (GA): GA-253 Application of Gypsum Sheathing.

## 1.03 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions for each product specified.

## 1.04 WARRANTY

- A. Provide products that offer twelve months of coverage against in-place exposure damage (delamination, deterioration and decay) commencing with the date of installation of the product in such structure.
- B. Manufacturer's Warranty:
  - 1. Five years against manufacturing defects from the date of purchase of the product for installation
  - 2. 12 years against manufacturing defects when used as a substrate in architecturally specified EIFS.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Georgia-Pacific Gypsum LLC:
  - 1. Fiberglass-Mat Faced Gypsum Sheathing: DensGlass Sheathing.
  - 2. Fiberglass-Mat Faced Gypsum Sheathing, Type X for Fire Rated Designs: DensGlass Fireguard Sheathing.

2.02 MATERIALS

- A. Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177:
  - 1. Thickness: 1/2 inch.
  - 2. Width: 4 feet.
  - 3. Length: [8 feet] [9 feet] [10 feet].
  - 4. Weight: 1.9 lb/sq. ft.
  - 5. Edges: Square.
  - 6. Surfacing: Fiberglass mat on face, back, and long edges.
  - 7. Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 540 pounds per square foot, dry.
  - 8. Flexural Strength, Parallel (ASTM C473): 80 lbf, parallel.
  - 9. Humidified Deflection (ASTM C1177): Not more than 2/8 inch.
  - 10. Permeance (ASTM E96): Not less than 23 perms.
  - 11. R-Value (ASTM C518): 0.56.
  - 12. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
  - 13. Microbial Resistance (ASTM D6329, UL Environmental GREENGUARD 3-week protocol): Will not support microbial growth.
  - 14. Acceptable Products:
    - a. 1/2 inch DensGlass Sheathing, Georgia-Pacific Gypsum LLC. b.
- B. Fire-Rated Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177, Type X:
  - 1. Thickness: 5/8 inch.
  - 2. Width: 4 feet.
  - 3. Length: [8 feet] [9 feet] [10 feet].
  - 4. Weight: 2.5 lb/sq. ft.
  - 5. Edges: Square.
  - 6. Surfacing: Fiberglass mat on face, back, and long edges.
  - 7. Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 654 pounds per square foot, dry.
  - 8. Flexural Strength, Parallel (ASTM C1177): 100 lbf, parallel.
  - 9. Humidified Deflection (ASTM C1177): Not more than 1/8 inch.
  - 10. Permeance (ASTM E96): Not less than 17 perms.
  - 11. R-Value (ASTM C518): 0.67.
  - 12. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
  - 13. Microbial Resistance (ASTM D6329, UL Environmental GREENGUARD 3-week protocol): Will not support microbial growth.
  - 14. Acceptable Products:

- a. 5/8 inch DensGlass Fireguard Sheathing, Georgia-Pacific Gypsum LLC. b.

2.03 ACCESSORIES

- A. Screws: ASTM C1002, corrosion resistant treated.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
  - 1. Inspection: Verify that project conditions and substrates are acceptable, to the installer, to begin installation of work of this section.

3.02 INSTALLATION

- A. General: In accordance with GA-253, ASTM C1280 and the manufacturer's recommendations.
  - 1. Manufacturer's Recommendations:
    - a. Current "Product Catalog", Georgia-Pacific Gypsum. b.

3.03 PROTECTION

- A. Protect gypsum board installations from damage and deterioration until date of Substantial Completion.

END OF SECTION 061643

GYPSUM SHEATHING

061643 - 3



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**ATTACHMENT 11  
TO  
ADDENDUM 1 TO RFP 2025-02**

**EXTERIOR PAINTING**

## SECTION 099113 - EXTERIOR PAINTING

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following exterior substrates:
  - 1. Steel and iron.

## 1.3 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- D. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- E. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- F. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

## 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
  - 1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
  - 2. Indicate VOC content.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
  - 1. Submit Samples on rigid backing, 8 inches square.
  - 2. Apply coats on Samples in steps to show each coat required for system.
  - 3. Label each coat of each Sample.
  - 4. Label each Sample for location and application area.
- D. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

## 1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

## 1.6 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Architect will select one surface to represent surfaces and conditions for application of each paint system.
    - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft..
    - b. Other Items: Architect will designate items or areas required.
  2. Final approval of color selections will be based on mockups.
    - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
  3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
1. Maintain containers in clean condition, free of foreign materials and residue.
  2. Remove rags and waste from storage areas daily.

## 1.8 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

## PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide product listed in the Exterior Painting Schedule for the paint category indicated.

## 2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:

1. Materials for use within each paint system shall be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
  2. For each coat in a paint system, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. Colors: As selected by Architect from manufacturer's full range.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  1. Concrete: 12 percent.
  2. Masonry (Clay and CMUs): 12 percent.
  3. Wood: 15 percent.
  4. Portland Cement Plaster: 12 percent.
  5. Gypsum Board: 12 percent.
- C. Portland Cement Plaster Substrates: Verify that plaster is fully cured.
- D. Exterior Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- E. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
  1. Application of coating indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
  1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer[.] but not less than the following:
  1. SSPC-SP 2.
  2. SSPC-SP 3.
  3. SSPC-SP 7/NACE No. 4.
  4. SSPC-SP 11.

- E. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
  - 1. Use applicators and techniques suited for paint and substrate indicated.
  - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
  - 3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
  - 4. Paint entire exposed surface of window frames and sashes.
  - 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
  - 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
  - 1. Paint the following work where exposed to view:
    - a. Equipment, including panelboards and switch gear.
    - b. Uninsulated metal piping.
    - c. Uninsulated plastic piping.
    - d. Pipe hangers and supports.
    - e. Metal conduit.
    - f. .

### 3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
  - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
  - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

### 3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.6 EXTERIOR PAINTING SCHEDULE

#### A. Steel and Iron Substrates:

1. Water-Based Light Industrial Coating System MPI EXT 5.1C:
  - a. Intermediate Coat: Light industrial coating, exterior, water based, matching topcoat.
  - b. Topcoat: Light industrial coating, exterior, water based (MPI Gloss Level 3), MPI #161.
  - c. Topcoat: Light industrial coating, exterior, water based, semi-gloss (MPI Gloss Level 5), MPI #163.
  - d. Topcoat: Light industrial coating, exterior, water based, gloss (MPI Gloss Level 6), MPI #164.
2. Water-Based Light Industrial Coating over Epoxy System:
  - a. Prime Coat: Primer, epoxy, anti-corrosive MPI #101.
  - b. Intermediate Coat: Epoxy, high build, low gloss MPI #108.
  - c. Topcoat: Light industrial coating, exterior, water based (MPI Gloss Level 3), MPI #161.
  - d. Topcoat: Light industrial coating, exterior, water based, semi-gloss (MPI Gloss Level 5), MPI #163.
  - e. Topcoat: Light industrial coating, exterior, water based, gloss (MPI Gloss Level 6), MPI #164.
3. Alkyd System MPI EXT 5.1D:
  - a. Prime Coat: Primer, alkyd, anticorrosive, for metal, MPI #79.
  - b. Intermediate Coat: Exterior, alkyd enamel, matching topcoat.
  - c. Topcoat: Alkyd, exterior, flat (MPI Gloss Level 1), MPI #8.
  - d. Topcoat: Alkyd, exterior, semi-gloss (MPI Gloss Level 5), MPI #94.
  - e. Topcoat: Alkyd, exterior, gloss (MPI Gloss Level 6), MPI #9.
4. Quick-Dry Enamel System:
  - a. Prime Coat: Primer, alkyd, quick dry, for metal, MPI #76.
  - b. Intermediate Coat: Alkyd, quick dry, matching topcoat.
  - c. Topcoat: Alkyd, quick dry, semi-gloss (MPI Gloss Level 5), MPI #81.
  - d. Topcoat: Alkyd, quick dry, gloss (MPI Gloss Level 7), MPI #96.
5. Aluminum Paint System:
  - a. Prime Coat: Primer, alkyd, anti-corrosive, for metal, MPI #79.
  - b. Prime Coat: Shop primer specified in Section where substrate is specified.
  - c. Intermediate Coat: Aluminum paint, matching topcoat.
  - d. Topcoat: Aluminum paint, MPI #1.

END OF SECTION 099113



Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 12  
TO  
ADDENDUM 1 TO RFP 2025-02**

**TEXTURED ACRYLIC FINISHES**

SECTION 099600  
TEXTURED ACRYLIC FINISHES

## PART I GENERAL

## 1.01 SUMMARY

A. Textured Acrylic Finishes on new cast-in-place concrete retaining wall.

## B. Related Sections

1. Masonry Repointing – Section 04 0120.63.

## 1.02 REFERENCES

## A. Section Includes:

1. ASTM B 117 (Federal Test Standard 141A Method 6061) Standard Practice for Operating Salt Spray (Fog) Apparatus.
2. ASTM C 67 Test Method for Sampling and Testing Brick and Structural Tile.
3. ASTM C 150 Standard Specification for Portland Cement.
4. ASTM C 297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions.
5. ASTM C 578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
6. ASTM D 968 (Federal Test Standard 141A Method 6191) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive.
7. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
8. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
9. ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.
10. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
11. ASTM E 96 Standard Test Method for Water Vapor Transmission of Materials.
12. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
13. ASTM E 2098 (Formerly EIMA Method 105.01) Test Method for Determining Tensile Breaking Strength of Glass Fiber Reinforcing Mesh for Use in Class PB Exterior Insulation and Finish Systems (EIFS) after Exposure to Sodium Hydroxide Solution.
14. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
15. ASTM E 2430 Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
16. ASTM E 2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
17. ASTM E 2486 (formerly EIMA Std. 101.86) Standard Test Method for Impact Resistance of Class PB and PI Exterior Insulation and Finish Systems (EIFS)
18. ASTM G 154 Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.
19. ASTM G 155 (Federal Test Standard 141A Method 6151) Standard Practice for Operating-Xenon Arc Light Apparatus, for Exposure of Nonmetallic Materials.
20. ICC ES AC219 Exterior Insulation and Finish Systems.

### 1.03 DEFINITIONS

- A. Contractor: The contractor that applies materials to the substrate.
- B. Dryvit: Dryvit Systems, Inc., the manufacturer of the coating materials, a Rhode Island corporation.
- C. Lamina: The layer consisting of the reinforced base coat and finish materials.
- D. Finish: An acrylic based finish, available in a variety of textures and colors, which is applied to the prepared wall surface.
- E. Reinforced Base Coat: The layer consisting of fiberglass reinforcing mesh fully embedded in the base coat material applied to the outside surface of the substrate.
- F. Reinforcing Mesh: Glass fiber mesh used to reinforce the base coat.
- G. Substrate: The material to which Dryvit TAFS are applied.

### 1.04 DESCRIPTION

- A. Dryvit TAFS are exterior architectural coatings and are available in two configurations:
  - 1. Dryvit TAFS Option 2 consists of a Dryvit base coat, Dryvit reinforcing mesh, Dryvit acrylic primer (when specified) and Dryvit acrylic finish applied to various substrates.
- B. Design Requirements
  - 1. Acceptable surfaces for Dryvit Textured Acrylic Finishes include:
    - a. Poured-in-place and precast concrete.
    - b. Unglazed brick and masonry units.
    - c. Cement plaster.
    - d. Insulated Concrete Forms (ICF'S) (TAFS Option 2 only) – Refer to Dryvit ICF specification [DS194](#).
    - e. EPS surfaced panels (TAFS Option 2 only) meeting ASTM C 578 Type I Properties.
    - f. Exterior cement and calcium silicate boards (without joints). NOTE: When bridging sheathing joints, refer to Dryvit Specification [DS191](#).
  - 2. Deflection of substrate systems shall not exceed 1/240 times the span.
  - 3. Substrate systems shall be designed to meet all local building code requirements and shall be approved for use on this project.
  - 4. Vapor Retarders – The use and location of vapor retarders within a wall assembly is the responsibility of the project designer and shall comply with local building code requirements. The type and location shall be noted on the project drawings and specifications. Vapor retarders may be inappropriate in certain areas and can result in condensation within the wall assembly. Refer to Dryvit Publication [DS159](#), for additional information.
  - 5. Projecting surfaces shall have a minimum slope of 6:12 and maximum length of 12 in (305 mm).
  - 6. The substrate shall be clean, smooth, planar and free of surface imperfections that would interfere with application of a surface coating.
  - 7. Dryvit texture acrylic finishes (TAFS) are limited to above grade uses.
  - 8. Dark Colors – For application over EPS, the use of dark colors must be considered in relation to wall surface temperature as a function of local climatic conditions. Use of dark colors in high temperature climates can affect the performance of the EPS substrate.
  - 9. Sealants
    - a. Shall be manufactured and supplied by others.
    - b. Shall be compatible with Dryvit TAFS materials. Refer to current Dryvit publication [DS153](#), for listing of sealants tested by sealant manufacturers for compatibility.
    - c. The sealant backer rod shall be closed cell.

C. Performance Requirements: As a minimum, the Dryvit materials shall be tested as follows:

1. Durability:

TEST	TEST METHOD	CRITERIA	RESULTS
Abrasion Resistance	ASTM D 968	No deleterious effects after 528 quarts (500 liters)	No deleterious effects after 1056 quarts (1000 liters)
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects after 2000 hours	No deleterious effects after 5000 hours
	ASTM G 154 Cycle 1 (QUV)		No deleterious effects after 5000 hours
Freeze-Thaw	ASTM E 2485 (formerly EIMA 101.01)	No deleterious effects after 60 cycles	Passed - No deleterious effects after 90 cycles
	ASTM C 67 modified	No deleterious effects after 60 cycles	Passed - No deleterious effects after 60 cycles
	ICC ES Procedure	No deleterious effects after 10 cycles	Passed - No deleterious effects after 10 cycles
Mildew Resistance	ASTM D 3273	No growth during 28 day exposure period	No growth during 60 day exposure period
Moisture Resistance	ASTM D 2247	No deleterious effects after 14 days exposure	No deleterious effects after 42 days exposure
Taber Abrasion	ASTM D 4060	N/A	Passed 1000 cycles
Salt Spray Resistance	ASTM B 117	No deleterious effects after 300 hours exposure	No deleterious effects after 1000 hours exposure
Water Penetration***	ASTM E 331 ICC ES (AC219)	No water penetration beyond the inner-most plane of the wall after 2 hours at 6.24 psf (300 Pa)	Passed
Alkali Resistance of Reinforcing Mesh	ASTM E 2098 (formerly EIMA 105.01)	> 120 pli (21dN/cm) retained tensile strength after exposure	Passed
Water Vapor Transmission	ASTM E 96	Vapor permeable	EPS 5 perm-inch Base Coat* 40 perms Finish** 40 perms
Tensile Bond	ASTM C 297/E 2134	Minimum 15 psi (104 kPa) – substrate or insulation failure	Minimum 19.1 psi (132 kPa)
* Based on Dryvit Genesis®			
** Based on Dryvit Quarzputz®			
*** TAFS Option 2			

2. Impact Resistance: In accordance with ASTM E 2486 (formerly EIMA Standard 101.86):

Reinforcing Mesh <sup>1</sup> /Weight oz/yd <sup>2</sup> (g/m <sup>2</sup> )	Minimum Tensile Strengths	EIMA Impact Classification	EIMA Impact Range in-lbs (Joules)		Impact Test Results in-lbs (Joules)	
Standard - 4.3 (146)	150 lbs/in (27 g/cm)	Standard	25-49	(3-6)	36	(4)
Standard Plus™ - 6 (203)	200 lbs/in (36 g/cm)	Medium	50-89	(6-10)	56	(6)
Intermediate™ - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer® 15 <sup>2</sup> - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 <sup>2</sup> - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh® Short Rolls – 4.3 (146)	150 lbs/in (27 g/cm)	n/a	n/a	n/a	n/a	n/a
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/a	n/a	n/a	n/a
1. It shall be colored blue and bear the Dryvit logo for product identification						
2. Shall be used in conjunction with Standard Mesh						
Values based on testing over EPS substrate						

3. Fire performance

TEST	TEST METHOD	CRITERIA	RESULTS
Flame Spread	ASTM E 84	All components shall have a Flame Spread Index ≤ 25 Smoke Developed Index ≤ 450	Passed

### 1.05 SUBMITTALS

- A. Product Data: The contractor shall submit to the owner/architect manufacturer's product data sheets describing products, which will be used on the project.
- B. Samples: The contractor shall submit to the owner/architect two samples of each finish, texture, and color to be used on the project. The same tools and techniques proposed for the actual installation shall be used to prepare the samples. Samples shall be of sufficient size to accurately represent each color and texture to be utilized on the project.
- C. Test Reports: When requested, the contractor shall submit to the owner/architect copies of selected test reports verifying the performance of the system materials.

### 1.06 QUALITY ASSURANCE

#### A. Qualifications

- 1. Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributor.
  - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
- 2. Contractor: Shall be knowledgeable in the installation of the Dryvit materials and shall be experienced and competent in the application of Dryvit Textured Acrylic Finishes.

### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. All Dryvit materials shall be delivered to the job site in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.
  - 1. Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be as follows:
    - a. DPR, PMR™, HDP™, Weatherlastic® and E™ Finishes, Color Prime™, Primus®, Genesis® and NCB™: 40 °F (4 °C).
    - b. For other products, refer to specific product data sheets.
  - 2. Maximum storage temperature shall not exceed 100 °F (38 °C). NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C). Finishes exposed to temperatures over 110 °F (43 °C) for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.
- C. Protect all products from inclement weather and direct sunlight.

### 1.08 PROJECT CONDITIONS

#### A. Environmental Requirements

- 1. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
  - 2. At the time of Dryvit product application, the air and wall surface temperatures shall be from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum for the following products:
    - a. DPR, PMR, HDP, Weatherlastic and E Finishes™, Color Prime, Primus, Genesis and NCB.
    - b. For other products, refer to specific product data sheets.
  - 3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours (48 hours for Weatherlastic Finishes, Ameristone, and TerraNeo) thereafter, or until the products are completely dry. Refer to published product data sheets for more specific information.
- B. Existing Conditions: The contractor shall have access to electric power, clean water, and a clean work area at the location where the Dryvit materials are to be applied.

### 1.09 SEQUENCING AND SCHEDULING

- A. Installation of the Dryvit Textured Acrylic Finishes shall be coordinated with other construction trades.
- B. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffold lines, texture variations, etc.

### 1.10 LIMITED MATERIALS WARRANTY

- A. Dryvit Systems, Inc. shall provide a written limited materials warranty against defective materials, upon written request. Dryvit shall make no other warranties, expressed or implied. Dryvit is not liable for incidental or consequential damages. Dryvit does not warrant workmanship.
- B. The applicator shall warrant workmanship separately. Dryvit shall not be responsible for workmanship associated with the installation of the Dryvit Textured Acrylic Finishes.

### 1.11 DESIGN RESPONSIBILITY

- A. It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details,

shop drawings, and the like. Dryvit has prepared guidelines in the form of specifications and product data sheets to facilitate the design process only. Dryvit is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Dryvit or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to Dryvit's published comments.

#### 1.12 MAINTENANCE

- A. Maintenance and repair shall follow the procedures noted in Dryvit Outsulation System Application Instructions [DS204](#).
- B. All Dryvit products are designed to minimize maintenance. However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication [DS152](#), on Cleaning and Recoating.
- C. Sealants, flashings and other building envelope components shall be inspected on a regular basis and repairs made as necessary.

### PART II PRODUCT

#### 2.01 MANUFACTURER

- A. All Dryvit Textured Acrylic Finishes shall be obtained from Dryvit or its authorized distributors. Substitutions or additions of materials other than specified will void the warranty.

#### 2.02 MATERIALS

- A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
- B. Water: Shall be clean and free of foreign matter.

#### 2.03 COMPONENTS

- A. Base Coat (when specified) (required with TAFS Option 2 over EPS insulation): Shall be compatible with the substrate and reinforcing mesh(es).
  - 1. Cementitious: A liquid polymer based material, which is field-mixed in a 1:1 ratio by weight with Portland cement.
    - a. Shall be Primus or Genesis.
  - 2. Ready mixed: A dry blend cementitious, co-polymer based product, field mixed with water.
    - a. Shall be Primus<sup>®</sup> DM, Genesis<sup>®</sup> DM, Genesis<sup>®</sup> DMS, Rapidry DM 35-50 or Rapidry 50-75.
  - 3. Noncementitious: A factory-mixed, fully formulated, water-based product.
    - a. Shall be NCB.
  - 4. ShieldIt<sup>™</sup>: A 2-pass base coat used over existing EIFS or a Dryvit reinforced base coat to improve impact resistance against woodpeckers when specified.
- B. Reinforcing Mesh(es) (when specified) (required with TAFS Option 2 over EPS insulation): Shall be a balanced open weave, glass fiber fabric treated for compatibility with other TAFS materials. NOTE: Reinforcing meshes are classified by impact resistance and specified by weight and tensile strength as listed in Section 1.04.C.2.
  - 1. Shall be Standard, Standard Plus, Intermediate, Panzer 15, Panzer 20, Detail and Corner Mesh.
  - 2. Shall be colored blue for product identification bearing the Dryvit logo.
- C. Primers
  - 1. Color Prime: Pigmented, acrylic based primer used to improve adhesion and uniformity of finish color.
  - 2. Primer with Sand<sup>™</sup>: Pigmented acrylic based primer with sand improves adhesion and uniformity of finish color as well as application of trowel-applied finishes.
  - 3. Color Prime-W<sup>™</sup>: A water based acrylic, semi transparent primer for use over cement plaster and other cementitious substrates. NOTE: Because it is semi transparent, tinted colors are affected by the color of the substrate.
- D. Finish: Shall be the type, color and texture as selected by the architect/owner and shall be one or more of the following:
  - 1. Standard DPR (Dirt Pickup Resistance): Water-based, acrylic coating with integral color and texture and formulated with DPR chemistry:
    - a
    - b. Sandblast<sup>®</sup>DPR: Medium texture
    - c. Freestyle<sup>®</sup> DPR: Fine texture
  - 3. E: Water-based, lightweight acrylic coating with integral color and texture and formulated with DPR chemistry:
    - a. Quarzputz<sup>®</sup> E
    - b. Sandpebble<sup>®</sup> E
    - c. Sandpebble<sup>®</sup> Fine E
  - 6. Medallion Series PMR (Proven Mildew Resistance): Water-based acrylic coating with integral color and texture and formulated with PMR chemistry:
    - c. Freestyle<sup>®</sup> PMR
  - 7. Coatings and Sealers:
    - b. Demandit<sup>®</sup> Sanded

## PART III EXECUTION

### 3.01 EXAMINATION

- A. Prior to application of Dryvit TAFS, the contractor shall ensure that the substrate is of a type listed in Section 1.04.B.1.
- B. Prior to the installation of Dryvit TAFS, the architect or general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the application of Dryvit TAFS.
- C. The contractor shall notify the general contractor and/or architect and/or owner of all discrepancies. Work shall not proceed until discrepancies have been corrected.

### 3.02 SURFACE PREPARATION

- A. The substrates shall be prepared so as to be free of foreign materials such as oil, dust, dirt, form-release agents, efflorescence, paint, wax, water repellents, moisture, frost and any other materials that inhibit adhesion.
- B. Concrete and masonry
  - 1. Shall be dry and cured a minimum of 28 days.
- G. Painted Surfaces
  - 1. Shall be cleaned to remove all loose paint, dirt, dust, chalk, and any other materials that may inhibit adhesion.
  - 2. Glossy surfaces shall be sanded to remove gloss and cleaned.
  - 3. Test patches, located in inconspicuous areas should be prepared to verify adhesion. A minimum of one test every 500 ft<sup>2</sup> (46 m<sup>2</sup>) of wall area is recommended.

### 3.03 INSTALLATION

- A. The Dryvit materials shall be mixed and applied in accordance with current Dryvit printed product data sheets.
- B. Masonry Surfaces
  - 1. Apply a continuous layer of Genesis or Genesis DM mixture over the entire wall surface to fill voids and provide a smooth level base for primer and finish application. Application thickness shall not exceed 1/8 in (3 mm) in a single pass.
  - 2. When specified, a layer of reinforcing mesh is embedded into the wet base coat mixture and troweled smooth.
  - 3. Allow the base coat mixture to cure a minimum of 24 hours until completely dry. Cool, humid conditions may require longer cure times.
  - 4. Using a brush, roller, or airless spray equipment, apply a coat of Color Prime or Primer with Sand over the dry base coat surface, and allow to dry.
  - 5. Apply the specified finish in accordance with Dryvit's printed installation instructions.
- G. Painted Surfaces
  - 1. Apply the finish in accordance with Dryvit's printed installation instructions for the specified finish.  
NOTE: It is not recommended to skim painted surfaces with a cementitious base coat material.
- H. When specified, the base coat shall be applied such that the overall minimum thickness shall be sufficient to fully embed the mesh. The recommended method is to apply the base coat in two (2) passes.
- I. Sealant shall not be applied directly to textured finishes or base coat surfaces. Base coat surfaces which will be in direct contact with sealant shall be coated with Demandit Smooth or Color Prime.

### 3.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper application of Dryvit TAFS.
- B. Dryvit assumes no responsibility for on-site inspections or application of its products.
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Dryvit's recommendations.

### 3.05 CLEANING

- A. All excess Dryvit materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where Dryvit TAFS have been installed, shall be left free of debris and foreign substances resulting from the contractor's work.

### 3.06 PROTECTION

- A. Dryvit TAFS shall be protected from weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.



Howard T. Phillips, Jr.  
Chairman

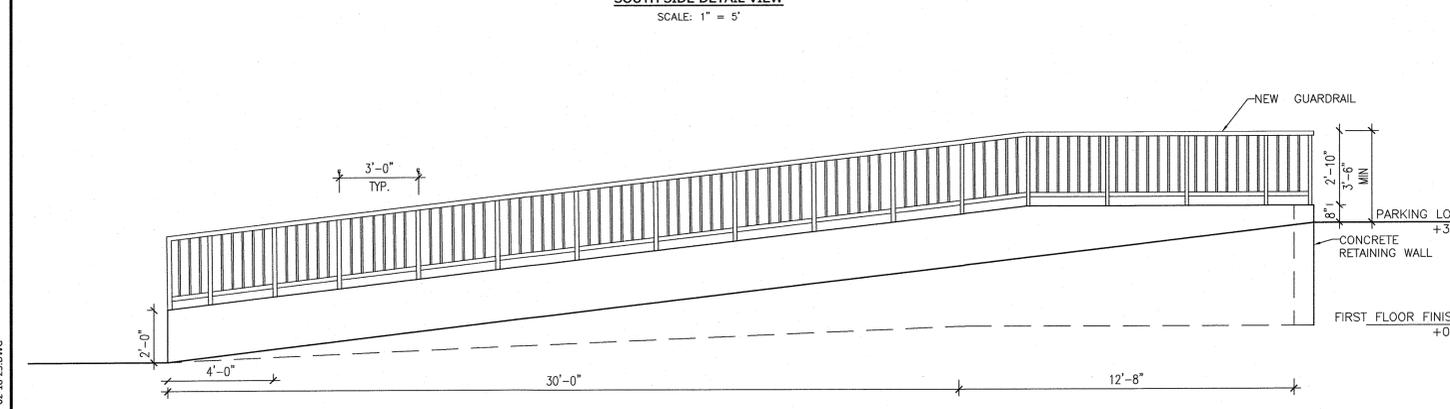
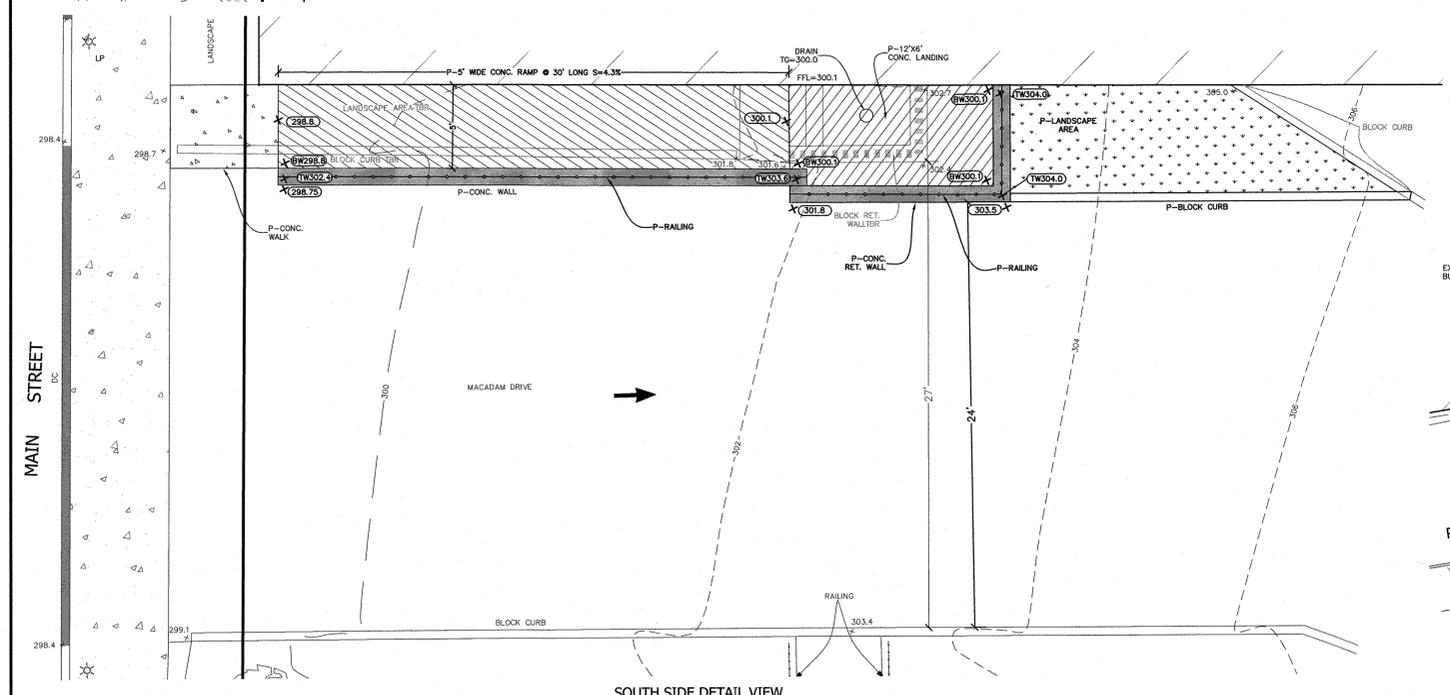
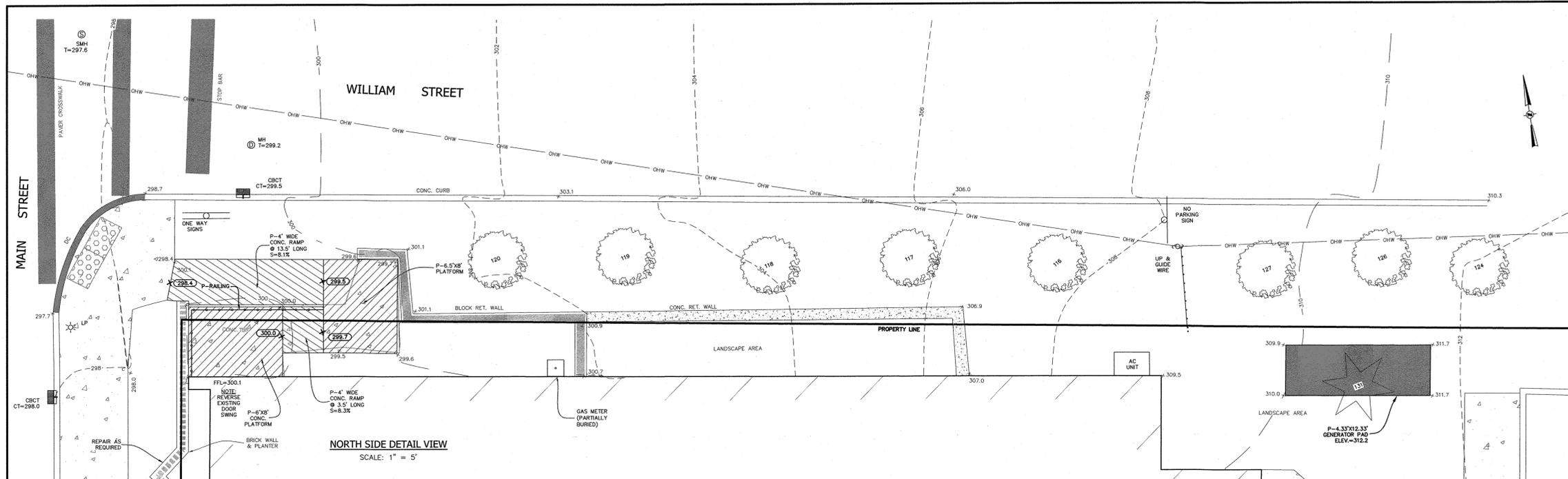
Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

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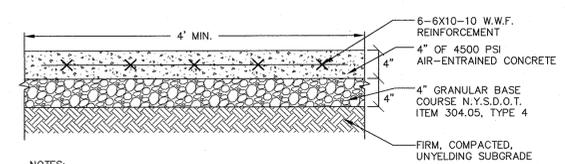
**ATTACHMENT 13  
TO  
ADDENDUM 1 TO RFP 2025-02**

**SITE PLAN**

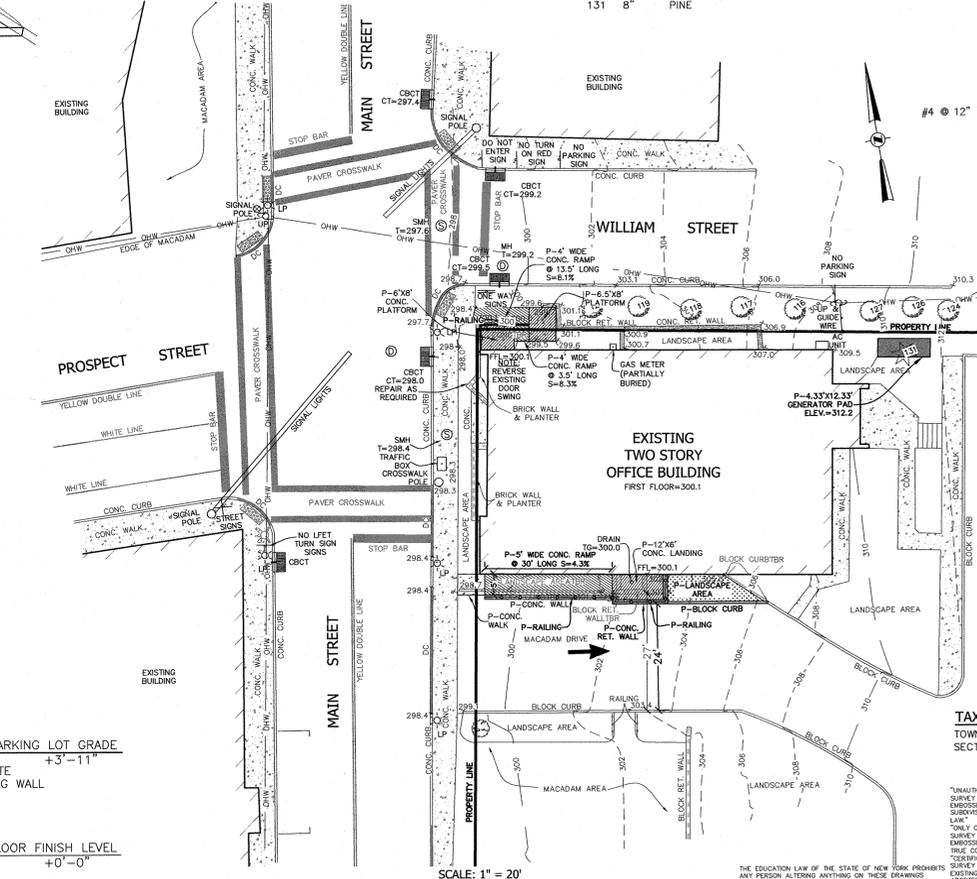
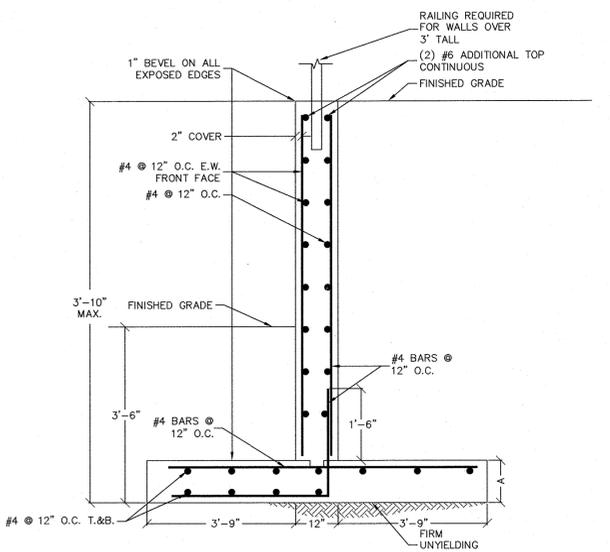


**TREE LIST**

NO.	SIZE	DESCRIPTION
116	3"	MAPLE
117	8"	MAPLE
118	3"	MAPLE
119	8"	MAPLE
120	5"	MAPLE
124	30"	OAK
126	2"	MAPLE
127	8"	MAPLE
131	8"	PINE



- NOTES:**
- BROOM FINISH EACH SQUARE AT 90° TO PRECEDING SQUARE.
  - PLACE JOINTS EQUAL TO WALK WIDTH OR AS SHOWN ON PLAN.
  - INSTALL 1/2" PRE-MOLDED EXPANSION JOINT FILLER AT 24" O.C. MAX. AND AGAINST CONCRETE CURBS, BUILDINGS AND OTHER STRUCTURE.



**TAX MAP REFERENCE:**  
TOWN OF CLARKSTOWN TAX MAP SECTION 64.09, BLOCK 1, LOT 64

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S ENCLOSED SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."  
"ONLY COPIES FROM THE ORIGINAL RECORD OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S ENCLOSED SEAL SHALL BE CONSIDERED TO BE 'TRUE TRUE COPIES.'"  
"THE EDUCATION LAW OF THE STATE OF NEW YORK PROVIDES THAT ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATIONS. (NY'S EDUCATION LAW SECTION 7209-2)"

2	2-14-25	PROPOSED GENERATOR LOCATION
1	7-10-24	REVISE SOUTH RAMP LENGTH
REVISION	DATE	DESCRIPTION

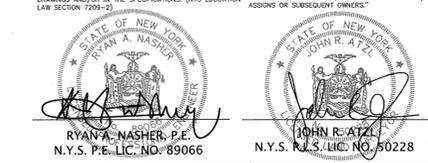
**ATZL, NASHER & ZIGLER P.C.**  
ENGINEERS-SURVEYORS-PLANNERS  
232 North Main Street  
New City, New York 10956  
Tel: (845) 634-4894  
Fax: (845) 634-5543  
E-mail: info@anzny.com  
Web: www.ANZNY.com

**PROJECT:**  
ROCKLAND GREEN

**TOWN OF CLARKSTOWN**  
ROCKLAND COUNTY, NEW YORK

**TITLE:**  
SITE PLAN

DRAWN BY: IS	CHECKED BY: JRA
DATE: MARCH 03, 2023	SCALE: AS SHOWN
PROJECT NO: 1428	DRAWING NO: 1



P:\DRAWINGS\1428\1428 SITE MAP 02-18-25.DWG



Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 14  
TO  
ADDENDUM 1 TO RFP 2025-02**

**PLA AGREEMENT**

## License Agreement

### Schedule "A"

All that certain plot, piece or parcel of land situate, lying and being in the Town of Clarkstown, County of Rockland and State of New York. Being more fully bounded and described as follows:

BEGINNING at a point located at the point of intersection formed by the easterly right-of-way line of Main Street with the southerly right-of-way line of William Street; running thence.

- 1) S21-23-49W, 46.00 feet along the easterly right-of-way line of Main Street; running thence thru the right-of-way of Main Street the following three (3) courses and distances:
- 2) N68-36-11W, 3.00 feet;
- 3) N21-23-49E, 48.00 feet;
- 4) N48-12-30E, 5.60 feet; running thence thru the right-of-way of William Street the following four (4) courses and distances:
- 5) S68-22-40E, 20.50 feet;
- 6) S21-37-40W, 5.00 feet;
- 7) S68-22-40E, 47.00 feet;
- 8) S21-37-20W, 2.00 feet; thence
- 9) N68-22-40W, 67.00 feet along the southerly right-of-way line of William Street to the point or place of BEGINNING.

Consisting of 386 square feet of land.



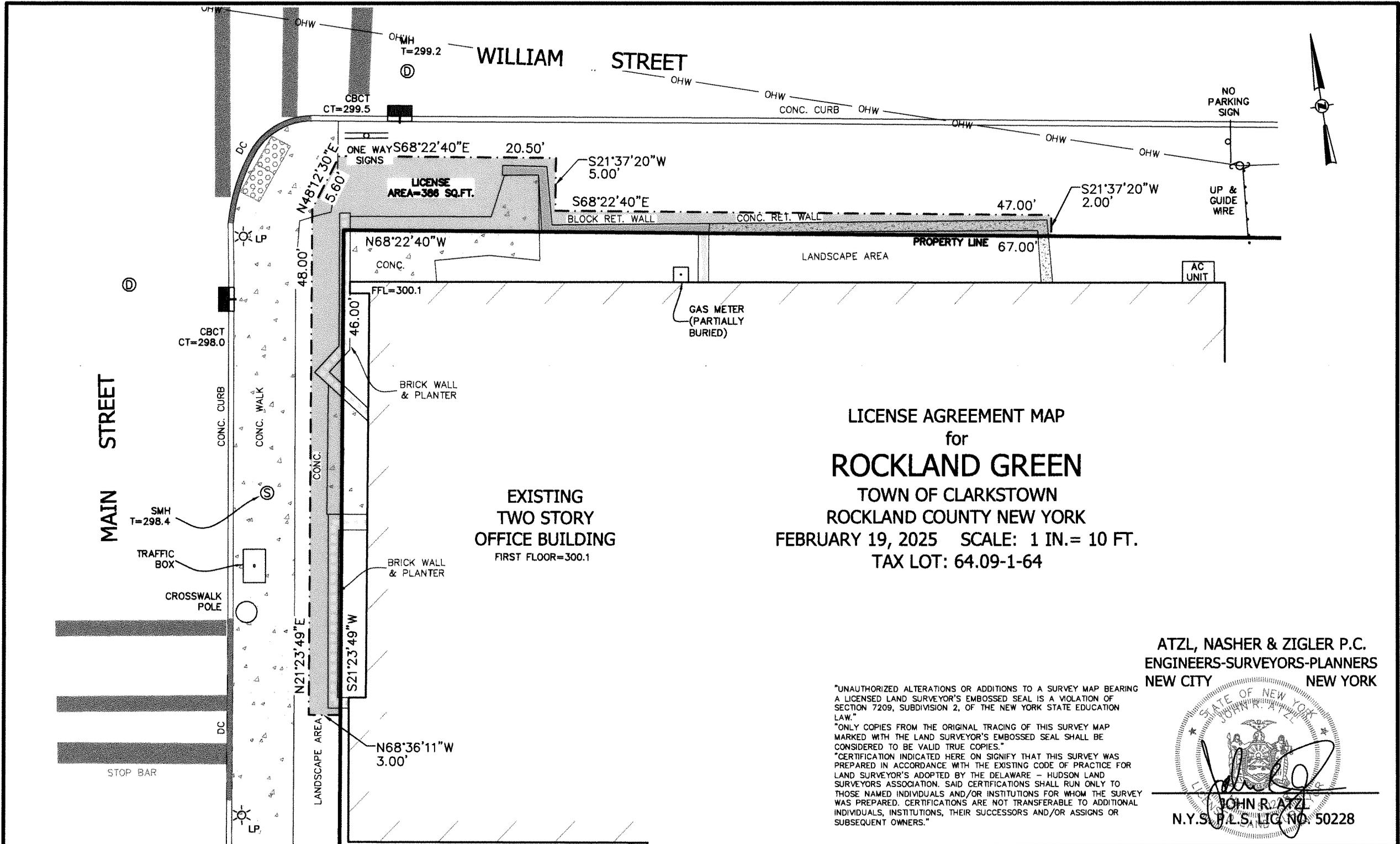
Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 15  
TO  
ADDENDUM 1 TO RFP 2025-02**

**LICENSE AGREEMENT MAP**



LICENSE AGREEMENT MAP  
 for  
**ROCKLAND GREEN**  
 TOWN OF CLARKSTOWN  
 ROCKLAND COUNTY NEW YORK  
 FEBRUARY 19, 2025 SCALE: 1 IN.= 10 FT.  
 TAX LOT: 64.09-1-64

EXISTING  
 TWO STORY  
 OFFICE BUILDING  
 FIRST FLOOR=300.1

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."  
 "ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."  
 "CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

ATZL, NASHER & ZIGLER P.C.  
 ENGINEERS-SURVEYORS-PLANNERS  
 NEW CITY NEW YORK





Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 16  
TO  
ADDENDUM 1 TO RFP 2025-02**

**SOLAR ROOFTOP SYSTEM**

# SOLAR ROOFTOP SYSTEM AT ROCKLAND GREEN

172 MAIN ST, NANUET NY 10954



**LOCATION MAP**  
SCALE: 1" = 50'-0"



**BIRDS-EYE VIEW FROM SOUTH**  
SCALE: 1" = 50'-0"



**SYSTEM PLAN**  
SCALE: 1" = 50'-0"

**SYSTEM SUMMARY:**

DC SYSTEM SIZE: 28.08 kWDC  
 AC SYSTEM SIZE: 30.00 kWAC

MODULE MANUFACTURER: LONGI  
 (QTY) MODULE TYPE: (52) LONGI LR5-72HBD-540M 540W

MODULE TILT: 10°  
 MODULE AZIMUTH: 178°

INVERTER MANUFACTURER: SOLAR EDGE  
 (QTY) INVERTER TYPE: (1) SE50KUS (DERATED TO 30kWAC)

MLPE MANUFACTURER: SOLAR EDGE  
 (QTY) MLPE TYPE: (52) C651U

DEVELOPER:  
  
 140 PARK AVENUE  
 NEW CITY, NY 10956

ENGINEERED BY:  
  
 111 RIVER STREET, SUITE 1110  
 HOBOKEN, NEW JERSEY 07030

**DRAWING INDEX**

GENERAL									
G001	TITLE SHEET	●							
G200	ARRAY PLAN	●							
G300	FIRE ACCESS PLAN	●							
ELECTRICAL									
E001	ELECTRICAL NOTES & SYMBOLS LIST	●							
E100	AC ELECTRICAL PLAN	●							
E200	DC ELECTRICAL PLAN	●							
E300	ONE LINE DIAGRAM	●							
E310	SCHEDULES & CALCULATIONS	●							
E410	GROUNDING DETAILS	●							
E420	ELECTRICAL DETAILS	●							
E500	LABELS & SIGNAGE	●							
E600	EQUIPMENT DATA SHEETS	●							

**LEGEND:**

UPDATED DRAWING ISSUED	●
UNCHANGED, PREVIOUSLY ISSUED DRAWING STILL CURRENT	○
DRAWING REMOVED FROM SET	×

**NOTES SPECIFIC TO NEW YORK**

ADOPTED NEC VERSION: 2017  
 ADOPTED IBC VERSION: 2018 (WITH AMENDMENTS)  
 ADOPTED IFC VERSION: 2018 (WITH AMENDMENTS)

BY LAW, ANYONE PLANNING TO EXCAVATE OR DEMOLISH IS REQUIRED TO CALL 811 AT LEAST TWO FULL BUSINESS DAYS BEFORE WORK BEGINS

**SCOPE OF WORK SUMMARY**

- ROOFTOP PV ARRAY:**
- INSTALL SOLAR MODULES AND ROOFTOP RACKING SYSTEM ON TOP OF EXISTING BUILDING.
  - INSTALL INVERTERS AND ELECTRICAL DISTRIBUTION EQUIPMENT.
  - INTERCONNECT AT EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT.

No.	Date	Revisions
2	03/06/25	90% DESIGN
1	02/24/25	30% DESIGN



Drawn by: BC  
 Checked by: BX  
 Project No.: 10284  
 Scale: AS NOTED  
 Date: 03/06/2025

Richard A. Ims  
 NY License No. 091197  
 Mechanical & Electrical Engineer:  
 Structural Engineer:

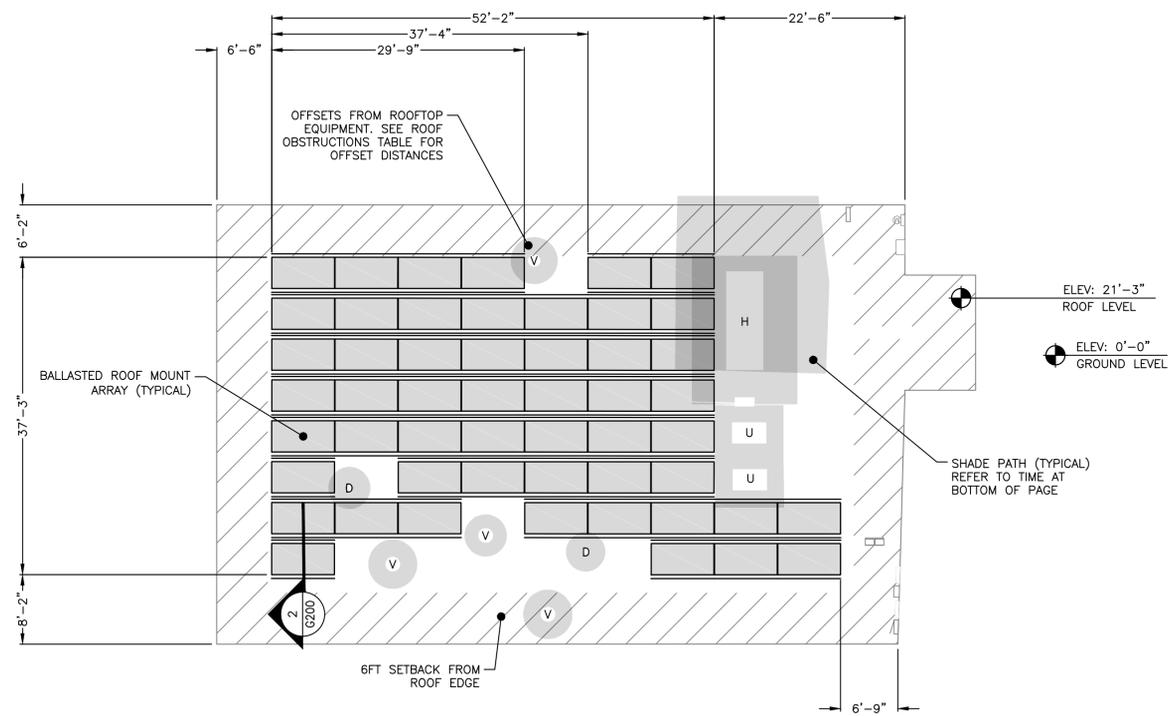
**ROCKLAND GREEN  
 RENEWABLE ENERGY SOLAR  
 PV**  
 172 MAIN ST  
 NANUET, NY 10954  
 TOWN OF CLARKSTOWN  
 COUNTY OF ROCKLAND



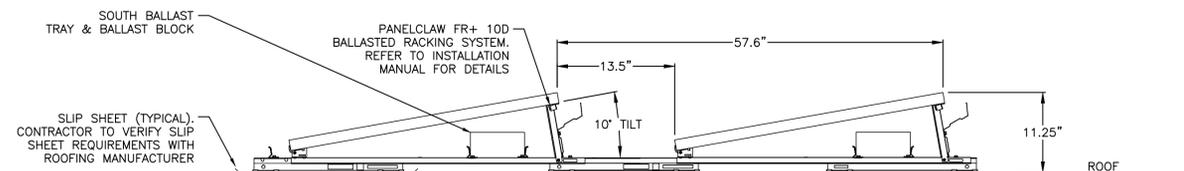
**TITLE SHEET**  
 Drawing No.: G001

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ROOFTOP OBSTRUCTIONS		
OBSTRUCTION TYPE	IDENTIFIER	OFFSET [IN]
DRAINS	D	24"
VENT PIPES	V	24"
HVAC	H	48"
UNCLASSIFIED	U	24"



1 ARRAY PLAN  
SCALE: 1" = 10'



2 RACKING DETAIL  
SCALE: NONE

SHEET NOTES:  
1. ELEVATIONS ARE APPROXIMATE AND SHOWN TO LOCAL GRADE. ADJUSTED VALUES MAY BE APPROPRIATE FOR STRUCTURAL ANALYSIS.

SHADING ZONES:  
WINTER: 10:00-2:00  
SPRING: 9:00-3:00  
SUMMER: 8:00-4:00

IMPORTANT:  
DO NOT STEP OR KNEEL  
ON PV MODULES

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Date	03/06/2025

Mechanical & Electrical Engineer:	RICHARD A. WMS NY LICENSE No. 091197
Structural Engineer:	

ROCKLAND GREEN  
RENEWABLE ENERGY SOLAR  
PV

TOWN OF CLAREMONT  
COUNTY OF ROCKLAND

172 MAIN ST  
CLAREMONT, NY 10944

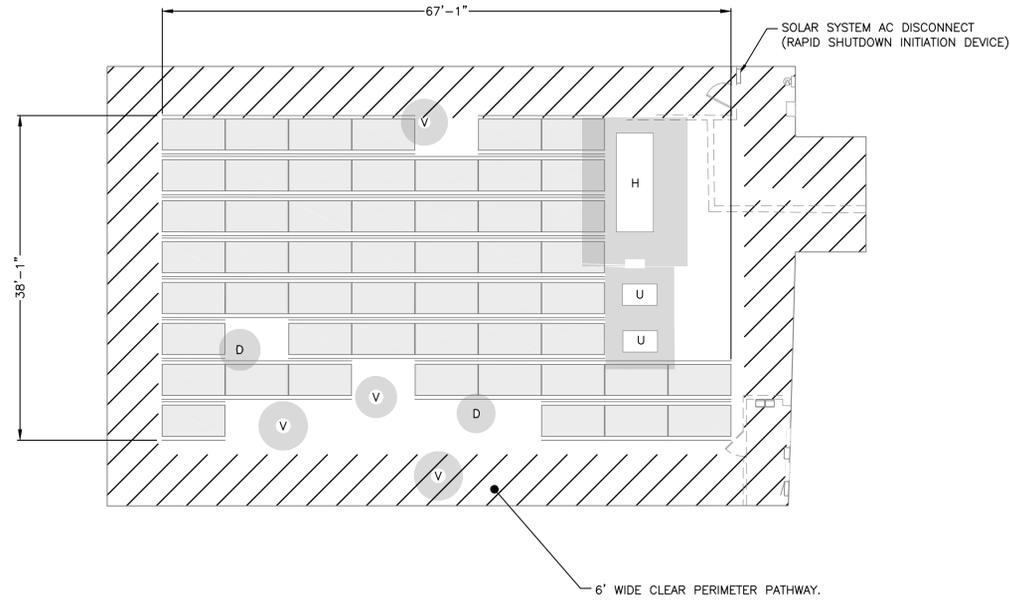
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ARRAY PLAN

Drawing No. G200

FLAT ROOF FIRE CODE REFERENCES	
REQUIREMENT	IFC 2018
4' CLEAR PERIMETER (≤250')	1204.3.1 EXCPT
6' CLEAR PERIMETER (>250')	1204.3.1
ROOF ACCESS HATCH:	1204.3.2(3)
4' AROUND ALL SIDES & 4' PATH TO ROOF EDGE	
ARRAYS 150' MAX (BETWEEN PATHS)	1204.3.3(1)
8' PATHS	1204.3.3(2)(2.1)
4' PATH WITH 4X8 CUTOUTS EVERY 20' ON ALT. SIDES	1204.3.3(2)(2.3)
SMOKE VENTS – NON-GRAVITY (MECHANICAL):	1204.3.3(1)
4' STRAIGHT PATH TO & 4' AROUND	
SMOKE VENTS – GRAVITY (DROPOUT) & SKYLIGHTS: 4' STRAIGHT PATH TO ONE SIDE	1204.3.3(2)(2.2)
ROOF STANDPIPES:	1204.3.2(2)
4' STRAIGHT LINE PATH TO ONE SIDE	
"CENTERLINE" ACCESS	REMOVED



**NFPA 1 REQUIRED LABELS:**

- MAIN SERVICE DISCONNECT** – THE LABEL "WARNING: PHOTOVOLTAIC POWER SOURCE" SHALL BE PERMANENTLY AFFIXED TO THE MAIN SERVICE DISCONNECT. LABEL SHALL BE RED WITH WHITE CAPITAL LETTERS AT LEAST 3/4" HIGH IN NONSERIF FONT. MATERIAL SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. (NFPA 1: 11.12.2.1.1)
- INVERTER DISCONNECTS** – THE LABEL "PHOTOVOLTAIC DISCONNECT" SHALL BE AFFIXED TO EACH CIRCUIT BREAKER PANEL SERVING THE INVERTERS. LABEL SHALL BE CONTRASTING COLOR WITH CAPITAL LETTERS AT LEAST 3/8" HIGH IN NONSERIF FONT. THE LABEL SHALL BE CONSTRUCTED OF DURABLE ADHESIVE MATERIAL OR OTHER APPROVED MATERIAL. (NFPA 1: 11.12.2.1.2)
- SOLAR RACEWAYS** – THE LABEL "PHOTOVOLTAIC POWER SOURCE" SHALL BE RED WITH WHITE CAPITAL LETTERS AT LEAST 3/8" HIGH IN NONSERIF FONT. LABELS SHALL BE PERMANENTLY AFFIXED ON ALL EXPOSED RACEWAYS, CABLE TRAYS, PULL BOXES, AND JUNCTION BOXES. LABELS SHALL BE SPACED NO GREATER THAN 10 FEET APART. MATERIAL SHALL BE REFLECTIVE, WEATHER RESISTANT, AND SUITABLE FOR THE ENVIRONMENT. (NFPA 1: 11.12.2.1.3)
- SEE DRAWING E500 FOR ADDITIONAL LABELS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

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Richard A. Ims  
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Mechanical & Electrical Engineer  
Structural Engineer

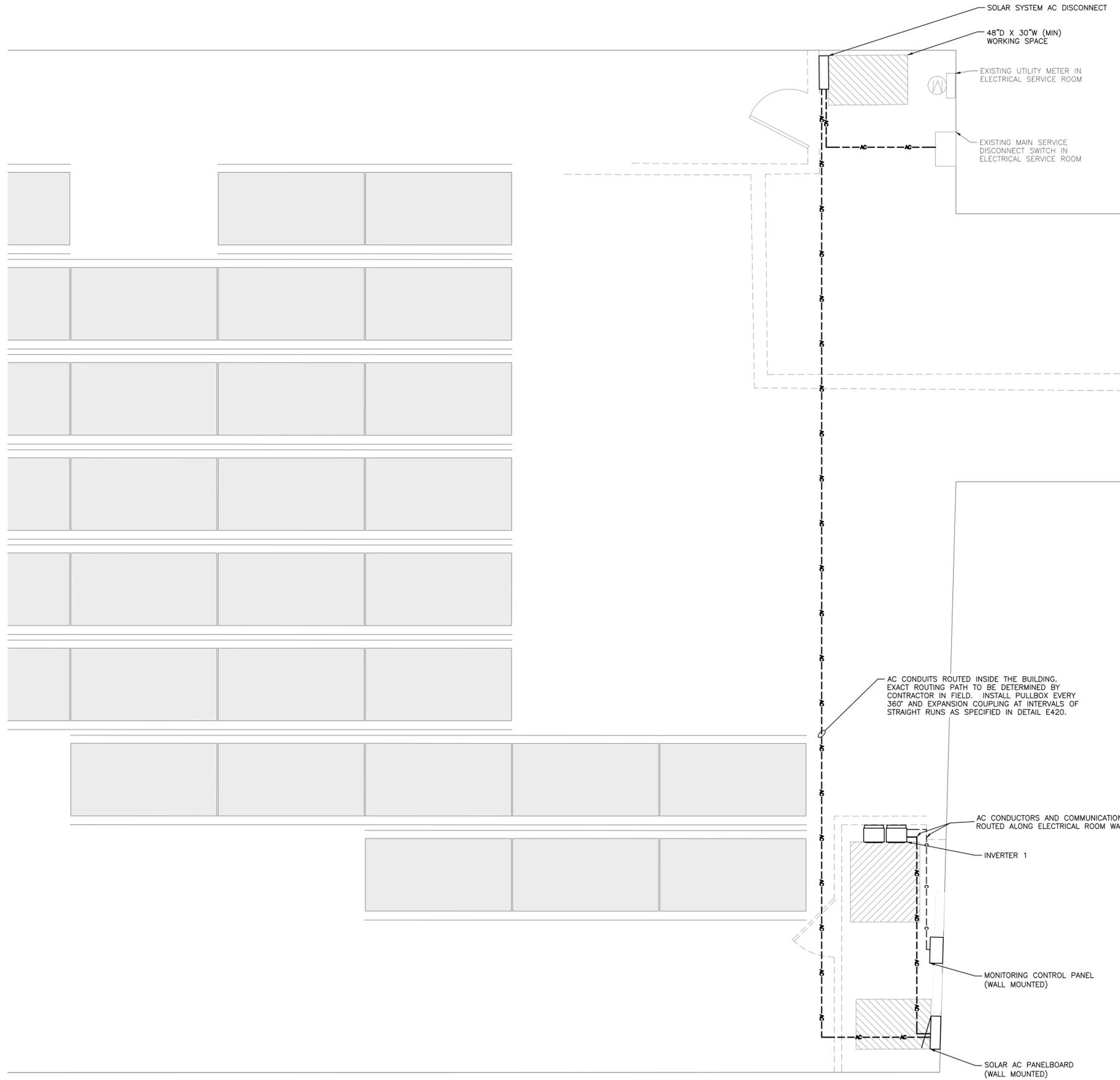
**ROCKLAND GREEN RENEWABLE ENERGY SOLAR PV**  
172 MAIN ST SUITE 10804  
ROCKLAND, NY 10864

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Drawing Title: **FIRE ACCESS PLAN**  
Drawing No.: **G300**







1 AC ELECTRICAL PLAN  
SCALE: 3/8" = 1'-0"



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Drawing Title

AC ELECTRICAL PLAN

Drawing No. E-100

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MECHANICAL & ELECTRICAL ENGINEER:  
RICHARD A. IVINS  
NY LICENSE No. 091197

STRUCTURAL ENGINEER:  
AS NOTED  
Date 03/06/2025

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Project No. 10284  
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Date 03/06/2025



ROCKLAND GREEN  
RENEWABLE ENERGY SOLAR  
PV

172 MAIN ST  
HAUNTS, NY 10864  
FORM OF CHARLESTOWN  
COUNTY OF ROCKLAND



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CONDUIT FILL TABLE (PVWIRE, 2000VDC MAX)		
MAXIMUM NUMBER OF CU #10 PV WIRES. (WITH ALLOWANCE FOR AN ADDITIONAL GROUND WIRE)		
CONDUIT TRADE SIZE	CONDUIT LENGTH 24" OR LESS (60% FILL)	CONDUIT LENGTH OVER 24" (40% FILL - W/ CONDITIONS OF USE)
3/4"	4	2
1"	6	4
1.25"	11	8
1.5"	16	9
2"	27	9
2.5"	47	9
3"	71	9
3.5"	93	9
4"	119	9

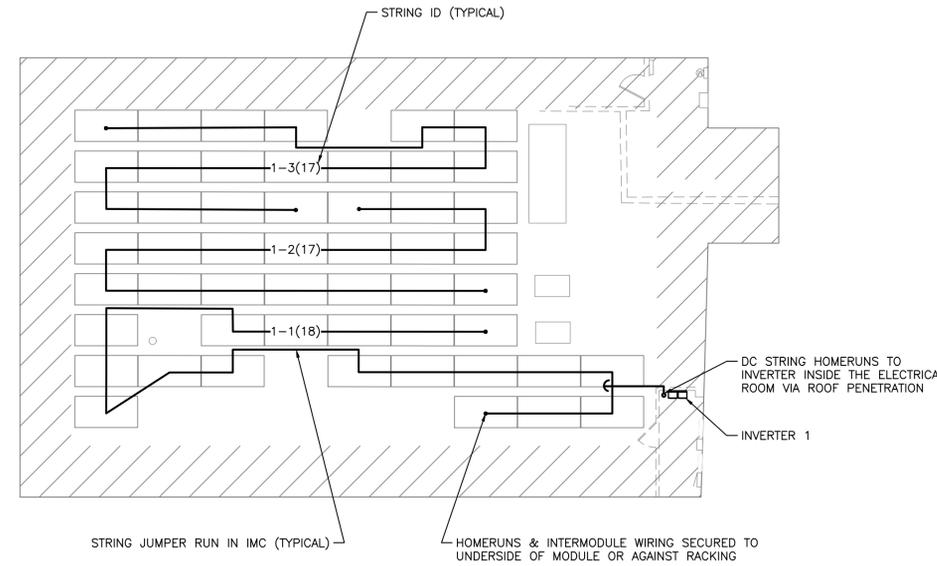
TABLE ASSUMING: EMT CONDUIT AND CU #10 PV WIRE WITH 0.28in O.D., 1 TEMP. DERATE  
DC OPTIMIZER OUTPUT CIRCUIT WITH 24A OUTPUT, 1 IN PARALLEL, AND NO FUSES

STRING WIRING NOTE:  
STRING WIRES TO BE GROUPED BY CIRCUIT INTO SAME CONDUIT OR CABLE TRAY PER NEC 300.3(B)

NEC 690.12 RAPID SHUTDOWN NOTE:  
THIS SYSTEM INCLUDES MODULE-LEVEL POWER ELECTRONICS WHICH SHUTDOWN DC VOLTAGE AT THE MODULE LEVEL WHEN AC POWER GOES OUT. TIMING AND VOLTAGE LEVELS ARE IN COMPLIANCE WITH NEC 690.12 RAPID SHUTDOWN.

SOLAREEDGE OPTIMIZER NOTES:  
1. JUMPERS BETWEEN SUBARRAYS MUST BE BETWEEN OPTIMIZERS. CONNECTIONS FROM MODULE TO OPTIMIZER MUST BE WITHIN THE SAME SUBARRAY.

STRING SUMMARY			
STRING NAME	MODULES PER STRING	OPTIMIZERS PER STRING	INVERTER MPPT UNIT #
1-1	18	18	1
1-2	17	17	2
1-3	17	17	3



**IMPORTANT**  
CONTRACTOR MUST REDLINE DRAWINGS TO REFLECT EXACT AS-BUILT STRINGING AND RETURN TO PURE POWER.

**1 DC ELECTRICAL PLAN**  
SCALE: 1" = 10'



**STRING LABEL KEY**  
 2-3(38) → MODULES/STRING  
 → STRING #  
 → INVERTER #

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 NY License No. 091197  
 Mechanical & Electrical Engineer  
 Structural Engineer

**ROCKLAND GREEN RENEWABLE ENERGY SOLAR PV**  
 172 MAIN ST SUITE 10804  
 HAUNTSVILLE, NC 28848  
 FORM OF CONTRACT OF ROCKLAND



**DC ELECTRICAL PLAN**  
 Drawing No. E200

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SYSTEM SUMMARY	
DC SYSTEM SIZE	28.08 KW
AC SYSTEM SIZE	30.00 KW
(QTY) MODULE	(52) LONGI LR5-72HBD-540M 540W
(QTY) INVERTER 1	(1) SOLAREEDGE SE50KUS (DERATED TO 30KW BY MANUFACTURER)
TILT / AZIMUTH	10° / 178°
UTILITY	ORANGE & ROCKLAND

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Mechanical & Electrical Engineer:	Richard A. Iwas NY License No. 091197
Structural Engineer:	

**ROCKLAND GREEN  
RENEWABLE ENERGY SOLAR  
PV**

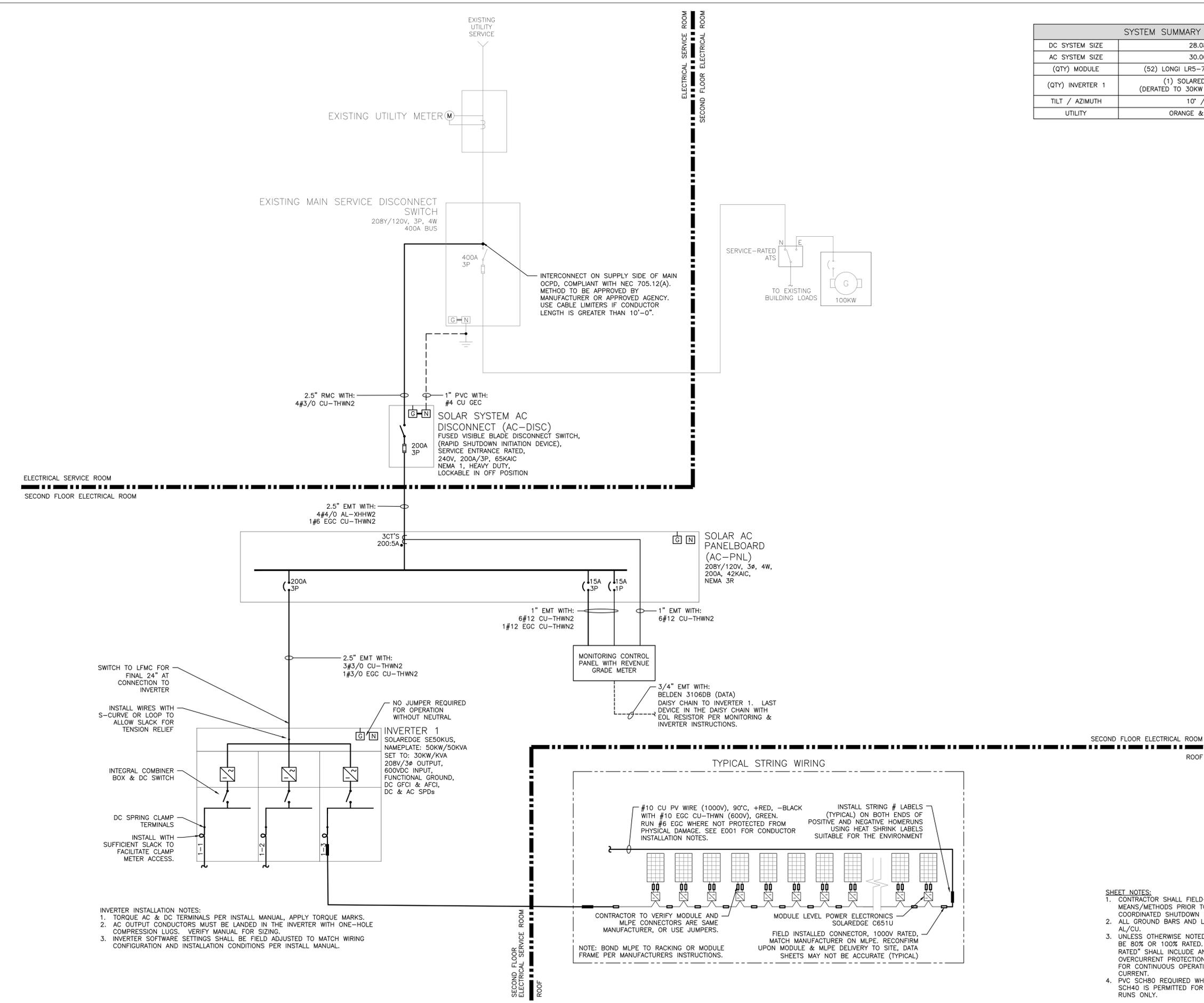
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COUNTY, NY

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Drawing Title  
**ONE LINE  
DIAGRAM**

Drawing No.  
**E-300**



- SHEET NOTES:**
- CONTRACTOR SHALL FIELD-VERIFY INTERCONNECTION MEANS/METHODS PRIOR TO INSTALLATION. COORDINATED SHUTDOWN MAY BE REQUIRED.
  - ALL GROUND BARS AND LUGS SHALL BE DUAL RATED AL/CU.
  - UNLESS OTHERWISE NOTED EQUIPMENT IS PERMITTED TO BE 80% OR 100% RATED. EQUIPMENT SHOWN AS "100% RATED" SHALL INCLUDE AN ASSEMBLY, INCLUDING OVERCURRENT PROTECTION DEVICES, WHICH IS LISTED FOR CONTINUOUS OPERATION AT 100% OF ITS RATED CURRENT.
  - PVC SCH80 REQUIRED WHERE PVC IS SPECIFIED. PVC SCH40 IS PERMITTED FOR UNDERGROUND STRAIGHT RUNS ONLY.

1 ONE LINE DIAGRAM  
SCALE: NONE

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AC CIRCUIT CALCULATIONS																			
EQUIPMENT SUPPLIED	FED FROM	VOLTAGE	FULL LOAD AMPS 'FLA'	FLA x 1.25	OCPD SIZE [A]	CONDUIT TYPE	CONDUIT SIZE	GROUND SIZE	CONDUCTORS PER PHASE	PHASE CONDUCTOR SIZE	NEUTRAL CONDUCTOR SIZE	75' AMPACITY	90' AMPACITY	90' AMPACITY WITH C.O.U.	C.O.U. DERATE AMBIENT TEMP	C.O.U. DERATE CONDUIT FILL	FEEDER LENGTH (FEET)	SEGMENT VOLTAGE DROP AT FLA	TOTAL VOLTAGE DROP AT FLA
SOLAR SYSTEM AC DISCONNECT SWITCH	POINT OF INTERCONNECTION	208	139.5	174	200	RMC	2.5"	CU #4 GEC	1	CU #3/0	CU #3/0	200	225	225	1.00	1.00	10	0.09%	0.09%
SOLAR AC PANELBOARD	SOLAR SYSTEM AC DISCONNECT SWITCH	208	139.5	174	200	EMT	2.5"	CU #6	1	AL #4/0	AL #4/0	180	205	205	1.00	1.00	60	0.70%	0.79%
INVERTER 1	SOLAR AC PANELBOARD	208	139.5	174	200	EMT	2.5"	CU #3/0	1	CU #3/0	NONE	200	225	225	1.00	1.00	20	0.18%	0.97%

DC STRING WIRING CALCULATION – CONDUIT	
OPTIMIZER OUTPUT [A]	24.00
MAX CONTINUOUS FAULT CURRENT FROM PARALLEL SOURCES [AMPS]	24.00
1.25x MAX CONTINUOUS FAULT CURRENT [AMPS]	30.00
MAX # OF WIRES PER CONDUIT	9
DERATE FOR # OF CONDUCTORS IN A CONDUIT	0.7
MAX AMBIENT TEMPERATURE	29
TEMPERATURE DERATE	1.00
WIRE GAUGE	CU #10
75 DEG AMPACITY WITHOUT COU ADJUSTMENT [AMPS]	35
IS 75 DEG AMPACITY WITHOUT COU ADJUSTMENT >= 1.25x MAX CIRCUIT CURRENT?	YES. COMPLIES WITH 690.8(B)(1)
90DEG AMPACITY WITH COU ADJUSTMENT [AMPS]	28
IS 90DEG AMPACITY WITH COU ADJUSTMENT >= 1.0x MAX CIRCUIT CURRENT?	YES. COMPLIES WITH 690.8(B)(2)
DC OPTIMIZER OUTPUT CIRCUIT FUSE RATING [AMPS]	None
AVAILABLE FAULT CURRENT FROM ALL PARALLEL SOURCES [AMPS]	24
IS 90DEG AMPACITY WITH COU ADJUSTMENT >= AVAILABLE FAULT CURRENT?	YES. COMPLIES WITH 690.9(A) EXCEPTION

MODULE SPECIFICATIONS	
MAKE/MODEL	LONGI LR5-72HBD
POWER [W]	540
ISC [A]	13.99
IMP [A]	13.12
VOC [V]	49.80
VMP [V]	41.95
$\beta$ VOC [%/degC]	-0.265%
SITE CLIMATE CRITERIA	
ASHRAE HIGH [°C]	28.8
ASHRAE LOW [°C]	-15.8
ELEVATION (m)	112
STRING SPECIFICATIONS AT STC	
MODULES/STRING	1
POWER [W]	540
STRING ISC [A]	13.99
STRING IMP [A]	13.12
STRING VMP [V]	41.95
STRING MAX VOLTAGE CALCULATION	
VOC TEMP ADJUSTMENT @ -15.8 °C	1.11
VOC @ -15.8 °C [V]	55.18
MAX STRING VOC [V]	55.2
STRING CALCULATIONS REFER TO THE PV SIDE OF DC OPTIMIZERS, NOT TO THE OPTIMIZER OUTPUT CIRCUIT	

INVERTERS 1-1	
STRING WIRE GAUGE	10AWG-CU
DC IMPEDANCE [OHM/KFT]	1.2900
OPERATING VOLTAGE [VDC]	370
OPERATING CURRENT [AMP]	24.0

INVERTERS 1-1			
STRING NUMBER	TOTAL STRING DISTANCE [FT]	VERTICAL OFFSET DISTANCE [FT]	STRING VOLTAGE DROP
1-1	55	21	0.92%
1-2	65	21	1.09%
1-3	75	21	1.26%
AVERAGE VOLTAGE DROP			1.09%

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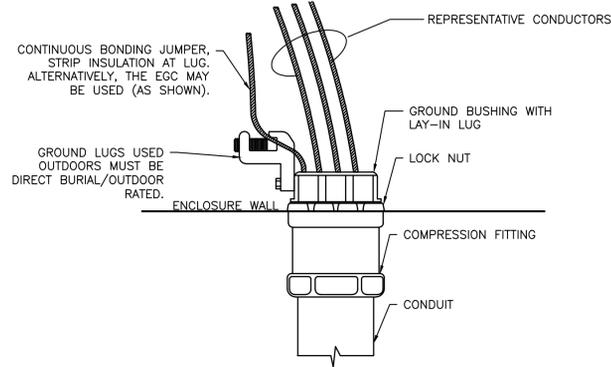
Richard A. Inms  
NY License No. 091197  
Mechanical & Electrical Engineer  
Structural Engineer

ROCKLAND GREEN  
RENEWABLE ENERGY SOLAR  
PV  
172 MAIN ST  
HAUNTSVILLE, VA 20884  
FORN OF CHARLESTOWN  
COUNTY OF ROCKLAND

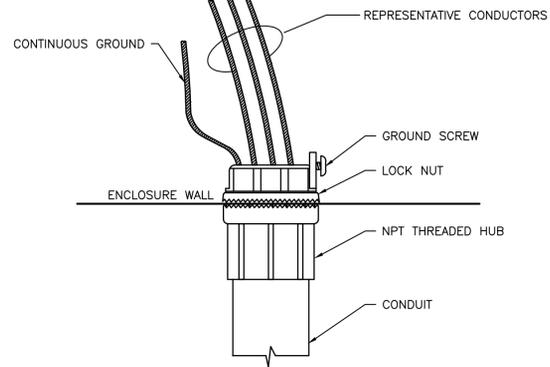


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Drawing Title: SCHEDULES & CALCULATIONS  
Drawing No.: E310

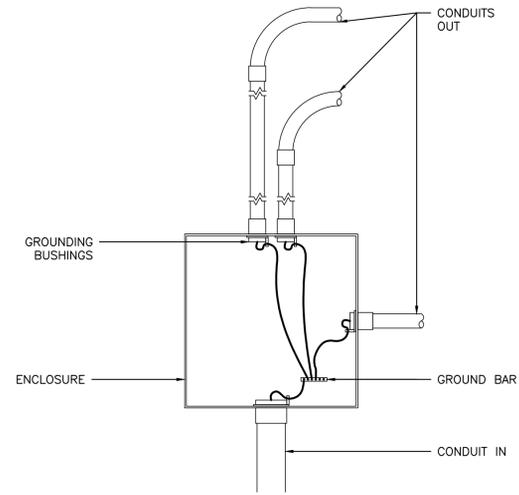
SHEET NOTES:  
1. DISTANCES ARE ONE-WAY ESTIMATES GENERATED FOR ENGINEER'S CALCULATIONS. CONTRACTOR IS RESPONSIBLE FOR OWN MEASUREMENTS AND TAKEOFFS.



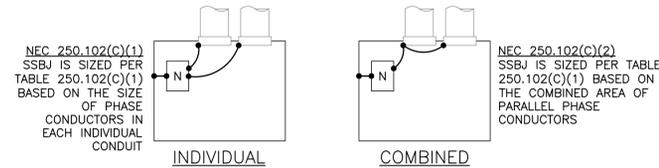
1 CONDUIT BUSHING GROUNDING  
SCALE: NONE



2 MYERS HUB GROUNDING  
SCALE: NONE



3 PULL BOX/TROUGH GROUNDING  
SCALE: NONE



NEC 250.102(C)(1) SSBJ IS SIZED PER TABLE 250.102(C)(1) BASED ON THE SIZE OF PHASE CONDUCTORS IN EACH INDIVIDUAL CONDUIT

NEC 250.102(C)(2) SSBJ IS SIZED PER TABLE 250.102(C)(1) BASED ON THE COMBINED AREA OF PARALLEL PHASE CONDUCTORS

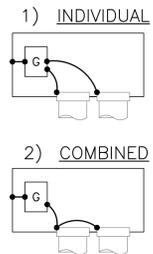
SIZE OF LARGEST UNGROUNDED CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL CONDUCTORS (AWG/KCMIL)		SIZE OF GROUNDED CONDUCTOR OR BONDING JUMPER (AWG/KCMIL)	
COPPER	ALUMINUM OR COPPER-CLAD ALUMINUM	COPPER	ALUMINUM OR COPPER-CLAD ALUMINUM
2 OR SMALLER	1/0 OR SMALLER	8	6
1 OR 1/0	2/0 OR 3/0	6	4
2 OR 2/0	4/0 OR 250	4	2
OVER 3/0 THROUGH 350	OVER 250 THROUGH 500	2	1/0
OVER 350 THROUGH 600	OVER 500 THROUGH 900	1/0	3/0
OVER 600 THROUGH 1100	OVER 900 THROUGH 1750	2/0	4/0
OVER 1100	OVER 1750	REFER TO NOTES IN NEC TABLE 250.102(C)(1)	

4 SUPPLY SIDE BONDING JUMPERS (SSBJ)  
SCALE: NONE

A) FOR CONCENTRIC KNOCKOUTS, USE BONDING JUMPERS AS FOLLOWS:

OVERCURRENT DEVICE CIRCUIT NOT EXCEEDING (AMPERES)	SIZE (AWG OR KCMIL)	
	COPPER	ALUMINUM
15	14	12
20	12	10
60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250
1600	4/0	350
2000	250	400
2500	350	600
3000	400	600
4000	500	750

FOR PARALLEL FEEDERS - NEC 250.102(D) EQUIPMENT BONDING JUMPER IS SIZED PER TABLE 250.122, REGARDLESS IF COMBINED OR INDIVIDUAL BONDING JUMPERS ARE USED

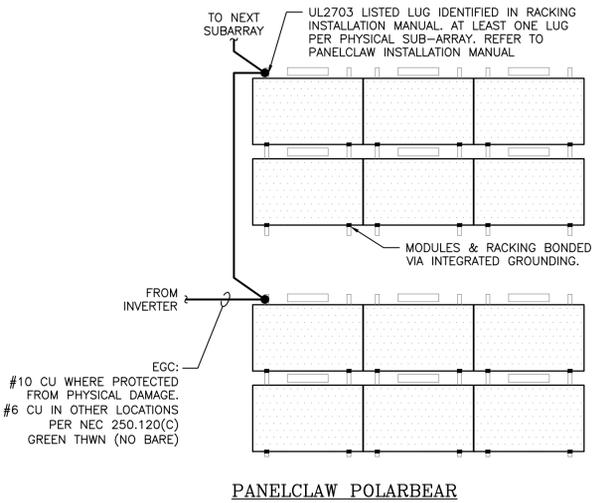


B) FOR NON-CONCENTRIC KNOCKOUTS, THE FOLLOWING METHODS SHALL BE PERMITTED (PER NEC 250.97)

- 1) THREADLESS COUPLINGS AND CONNECTORS FOR CABLES WITH METAL SHEATHS
- 2) TWO LOCKNUTS, ON RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT, ONE INSIDE AND ONE OUTSIDE OF BOXES AND CABINETS
- 3) FITTINGS WITH SHOULDERS THAT SEAT FIRMLY AGAINST THE BOX OR CABINET, SUCH AS ELECTRICAL METALLIC TUBING CONNECTORS, FLEXIBLE METAL CONDUIT CONNECTORS, AND CABLE CONNECTORS, WITH ONE LOCKNUT ON THE INSIDE OF BOXES AND CABINETS
- 4) LISTED FITTINGS (SUCH AS MYERS HUB)

5 LOAD SIDE EQUIPMENT BONDING JUMPER  
SCALE: NONE

NOTES:  
1. EACH SUBARRAY CONNECTED TO AN INVERTER SHALL HAVE AN EGC RUN TO THAT INVERTER  
2. PV MODULES AND RAILS GROUNDED PER NEC 690.43



6 ARRAY GROUNDING - ROOF  
SCALE: NONE

No.	Date	Revisions
2	03/06/25	90% DESIGN
1	02/24/25	30% DESIGN



Drawn by	BC
Checked by	BX
Project No.	10284
Scale	AS NOTED
Date	03/06/2025

Mechanical & Electrical Engineer:	Richard A. Innes NY License No. 091197
Structural Engineer:	

ROCKLAND GREEN  
RENEWABLE ENERGY SOLAR  
PV

172 MAIN ST  
HAUNTSVILLE, NY 10864

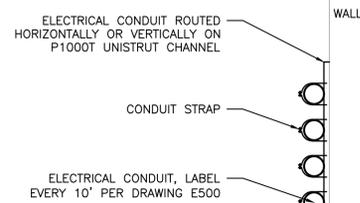
TOWN OF CLARKSTOWN  
COUNTY OF ROCKLAND

**MSA**  
MICHAEL SHILALE ARCHITECTS, LLP  
140 Park Avenue New York, NY 10066 Tel 845-708-9200  
www.shilale.com

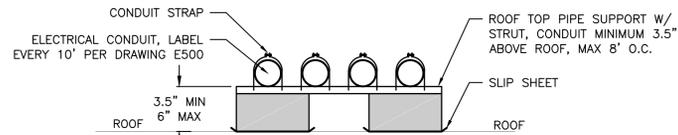
GROUNDING  
DETAILS

E410

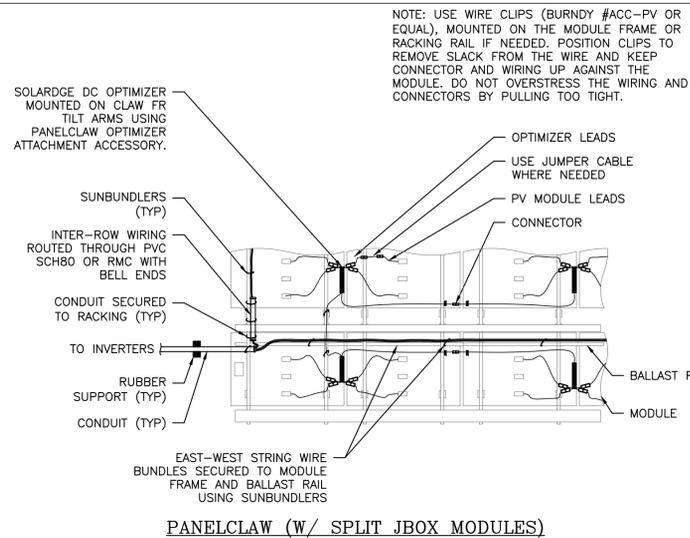
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**1 CONDUIT WALL ANCHORING**  
SCALE: NONE

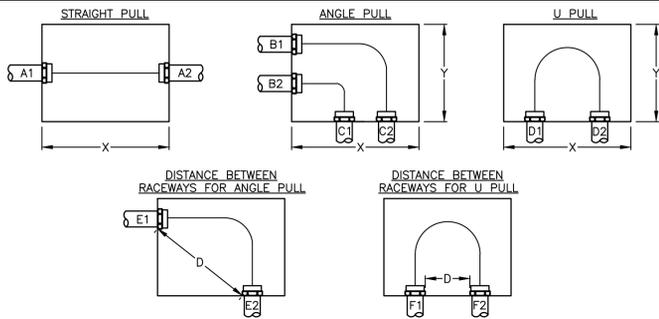


**2 ROOF CONDUIT SUPPORT**  
SCALE: NONE



**PANELCLAW (W/ SPLIT JBOX MODULES)**

**STRING WIRING**  
SCALE: NONE



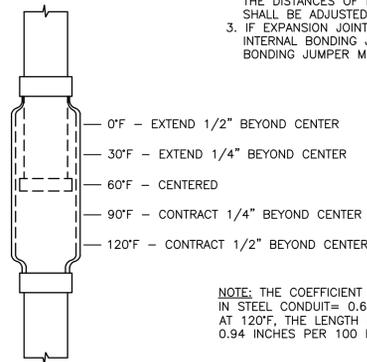
**NEC 314.28(A)(1)-(3) PULL BOX SIZING (UP TO 1000V)**

BOX TYPE	LENGTH (X)	HEIGHT (Y)	DISTANCE (D)
STRAIGHT PULL	8 X LARGEST OF A1 & A2	AS NEEDED	N/A
ANGLE PULL	6 X (LARGEST OF B1 & B2) + SUM OF OTHER CONDUIT ENTERING THE SAME WALL	6 X (LARGEST OF C1 & C2) + SUM OF OTHER CONDUIT ENTERING THE SAME WALL	6 X LARGEST OF E1 & E2
U PULL	AS NEEDED	6 X (LARGEST OF D1 & D2) + SUM OF OTHER CONDUIT ENTERING THE SAME WALL	6 X LARGEST OF F1 & F2

NOTES:  
1. REFER TO NEC 314.28 FOR ADDITIONAL REQUIREMENTS.  
2. ENSURE CONDUCTOR BEND RADIUS MINIMUMS ARE MET.  
REFER TO NEC 312.6 FOR ADDITIONAL REQUIREMENTS.

**4 PULL BOX & JUNCTION BOX SIZING**  
SCALE: NONE

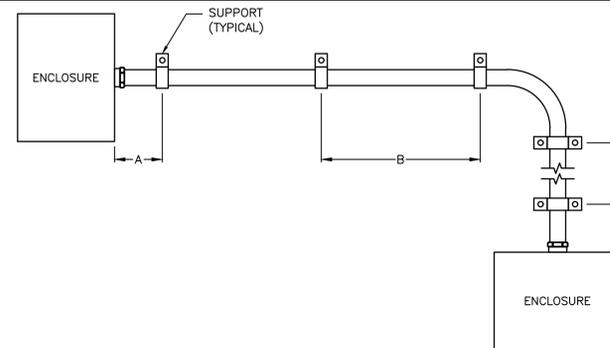
NOTES:  
1. INSTALL EXPANSION COUPLING EVERY 100' OF STRAIGHT CONDUIT RUN.  
2. IF EXPANSION COUPLINGS ARE INSTALLED AT LENGTHS GREATER OR LESS THAN 100', THE DISTANCES OF EXPANSION/CONTRACTION SHALL BE ADJUSTED PROPORTIONALLY.  
3. IF EXPANSION JOINT IS NOT PROVIDED WITH INTERNAL BONDING JUMPER, AN EXTERNAL BONDING JUMPER MUST BE INSTALLED.



**EMT/RMC/IMC**

NOTE: THE COEFFICIENT OF THERMAL EXPANSION IN STEEL CONDUIT= 0.65 X 10<sup>-6</sup>IN./IN./°F AT 120°F, THE LENGTH CHANGE IS 0.94 INCHES PER 100 FEET OF CONDUIT RUN.

**5 EXPANSION COUPLING**  
SCALE: NONE

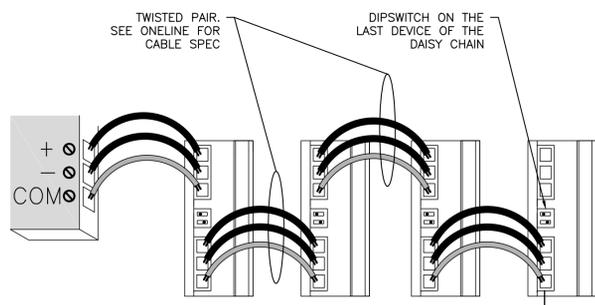


**MAXIMUM CONDUIT HARDWARE SPACING**

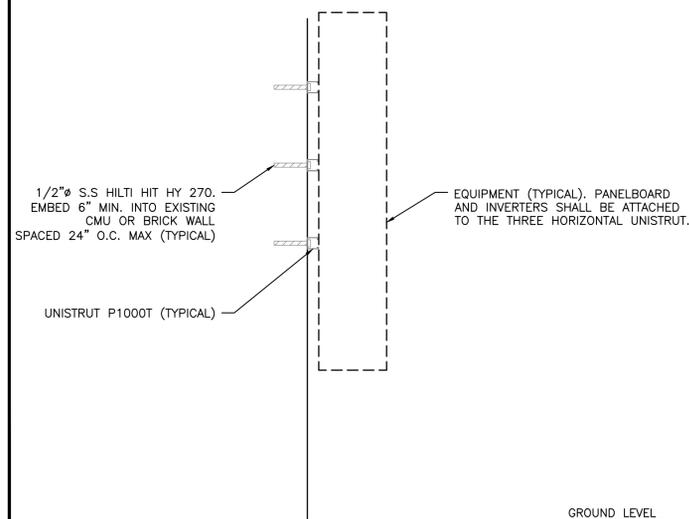
CONDUIT TYPE	ENCLOSURE TO SUPPORT (A)	SUPPORT TO SUPPORT (B)	NEC ARTICLE
ELECTRICAL METALLIC TUBING (EMT)	3'	10'	358
INTERMEDIATE METAL CONDUIT (IMC)	3'	10'	342
RIGID METAL CONDUIT (RMC)	3'	10'	344
LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC)	1'	4.5'	350
PVC (SCH40 & 80) [0.5" - 1"]	3'	3'	352
PVC (SCH40 & 80) [1.25" - 2"]	3'	5'	352
PVC (SCH40 & 80) [2.5" - 3"]	3'	6'	352
PVC (SCH40 & 80) [3.5" - 5"]	3'	7'	352
PVC (SCH40 & 80) [6"]	3'	8'	352

**6 CONDUIT SUPPORT SPACING**  
SCALE: NONE

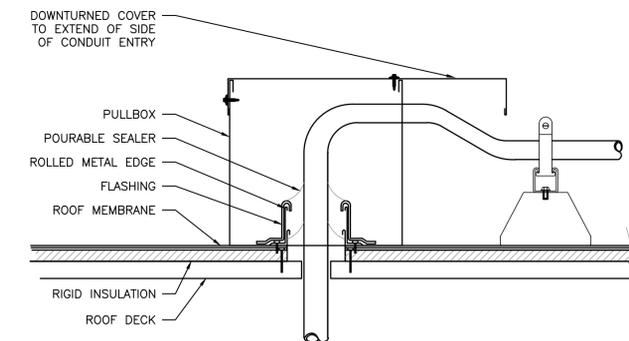
MONITORING NOTES:  
1. REFER TO MONITORING SYSTEM INSTALLATION MANUAL FOR DETAILS ON TERMINAL BLOCKS, CABLE TERMINATIONS, AND SYSTEM CONFIGURATION.  
2. WIRELESS TRANSCIVERS MUST HAVE LINE-OF-SIGHT BETWEEN EACH OTHER.  
3. PYRANOMETER MUST BE INSTALLED IN UNSHADED LOCATION.



**7 MODBUS COMMUNICATIONS**  
SCALE: NONE



**8 EQUIPMENT WALL MOUNTING**  
SCALE: NONE



**9 ROOF PENETRATION WITH PITCH POCKET**  
SCALE: NONE

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

Drawn by: BC  
Checked by: BX  
Project No.: 10284  
Scale: AS NOTED  
Date: 03/06/2025

Revisions:  
2 03/06/25 90% DESIGN  
1 02/24/25 30% DESIGN  
No. Date

MECHANICAL & ELECTRICAL ENGINEER: RICHARD A. IVINS, N.Y. LICENSE NO. 091197  
STRUCTURAL ENGINEER: FORN OF CALAVERAS COUNTY, CA, LICENSE NO. 10864

ROCKLAND GREEN RENEWABLE ENERGY SOLAR PV

MICHAEL SHILALE ARCHITECTS, L.L.P.  
140 Park Avenue New York, NY 10056 Tel 845-708-9200  
www.shilale.com

ELECTRICAL DETAILS  
Drawing No. E420

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**GENERAL NOTES FOR LABELS:**  
 1. LABEL SCALE 1:2 UNLESS NOTED  
 2. LETTERING ON SIGNS SHALL BE CAPITAL LETTERS  
 3. CLEARLY LABEL ALL CIRCUIT BREAKERS IN THE PANELBOARD(S). THE LABEL SHALL INDICATE THE NAME OF THE DEVICE IT SERVES.

**LABEL FORMAT NOTES:**  
 1. **FORMAT 1:** ENGRAVED MELAMINE, WHITE TEXT ON RED BACKGROUND. TEXT HEIGHT: TITLES 3/8", ALL OTHER TEXT 5/32".  
 2. **FORMAT 2:** ENGRAVED MELAMINE, BLACK TEXT ON WHITE BACKGROUND. TEXT HEIGHT: TITLES 3/8", ALL OTHER TEXT 5/32".  
 3. **FORMAT 3:** REFLECTIVE UV RATED LABEL. RED BACKGROUND WITH WHITE CAPITAL LETTERS AT LEAST 3/8" TALL. LABELS SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED.  
 4. **FORMAT 4:** ENGRAVED MELAMINE, WHITE TEXT ON RED BACKGROUND. TEXT HEIGHT: TITLES 5/32", ALL OTHER TEXT 3/32".  
 5. **FORMAT 5:** VINYL FILM, BLACK TEXT ON WHITE BACKGROUND. TEXT HEIGHT: 3/8"

PER 2020 NEC 690.31(B)(1), PV SYSTEM CIRCUIT CONDUCTORS SHALL BE IDENTIFIED AT ALL ACCESSIBLE POINTS OF TERMINATION, CONNECTION, AND SPLICES.

1. STRING HOMERUNS AT ARRAY
2. DC INPUT TERMINALS OF COMBINER BOX
3. DC OUTPUT TERMINALS OF COMBINER BOX
4. DC INPUT TERMINALS OF INVERTER
5. AC OUTPUT TERMINALS OF INVERTER
6. AC INPUT & OUTPUT TERMINALS OF EACH SUCCESSIVE DEVICE (WHERE APPLICABLE)

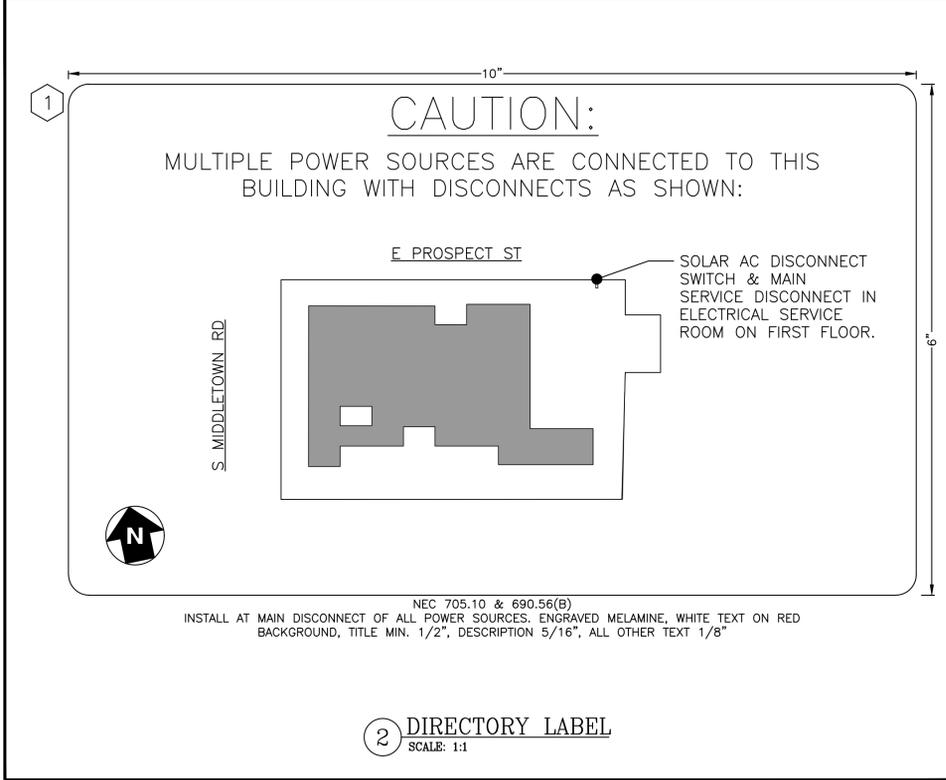
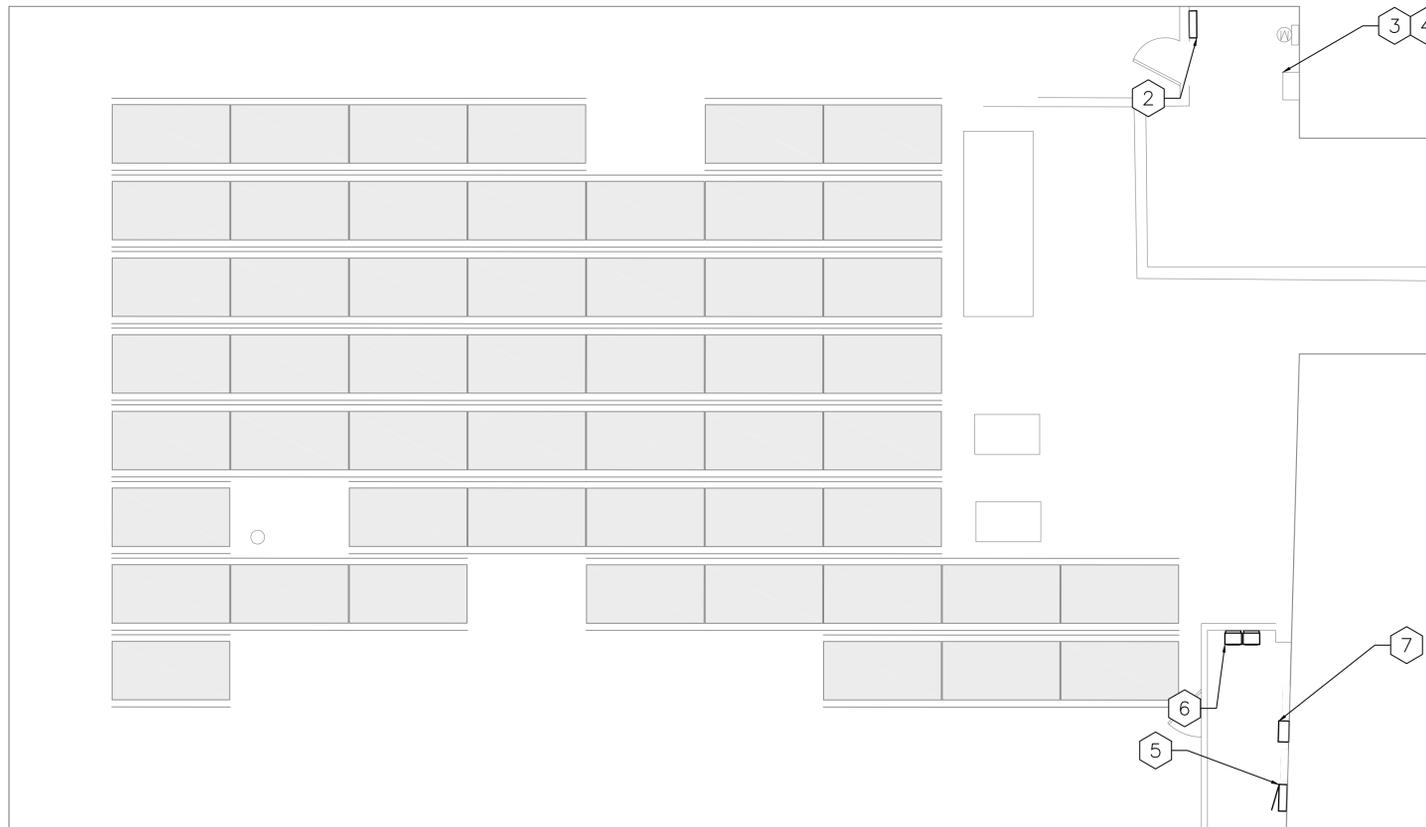
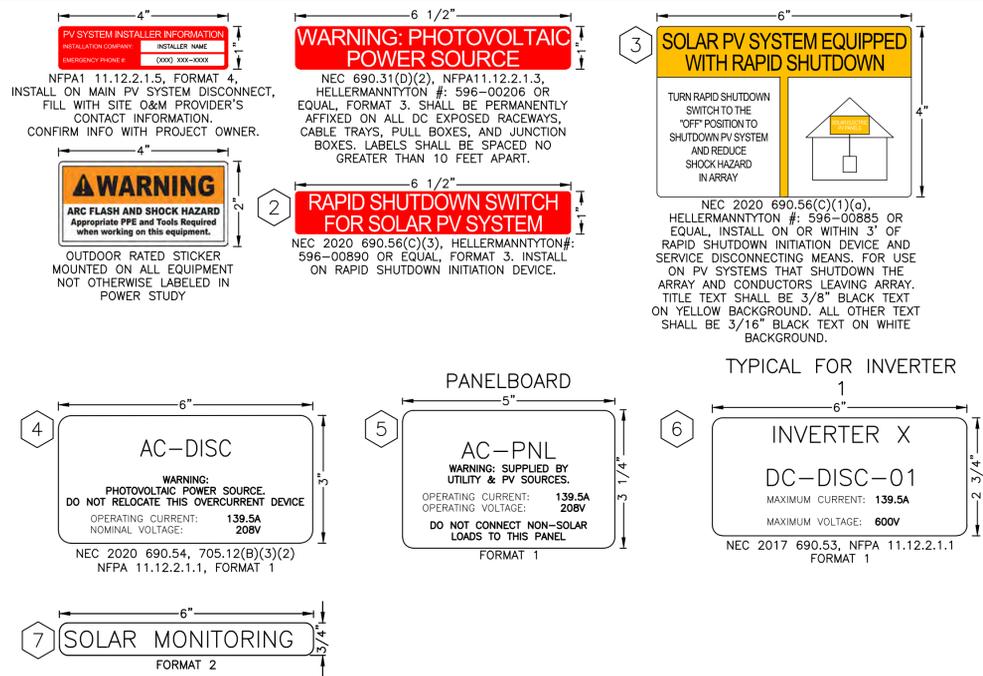
**CIRCUIT BREAKER AND SWITCH LABELS:**  
 UNLESS LABELLED OTHERWISE, ALL CIRCUIT BREAKERS AND SWITCHES SHALL BE LABELLED WITH THE NAME OF THE EQUIPMENT SUPPLIED.

INV-01

TYPICAL FOR INVERTER BRANCH CIRCUIT BREAKERS. FORMAT 5

AC-PNL

TYPICAL FOR FEEDER CIRCUIT BREAKERS. FORMAT 5



**1 LABELS & SIGNAGE**  
 SCALE: 3/16" = 1'-0"



IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

Drawn by	BC
Checked by	BX
Project No.	10284
Scale	AS NOTED
Date	03/06/2025

Richard A. IWS  
 NY License No. 091197  
 Mechanical & Electrical Engineer

Structural Engineer

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**LABELS & SIGNAGE**

Drawing No. **E500**

No.	Date	Revisions
2	03/06/25	90% DESIGN
1	02/24/25	30% DESIGN

## Commercial Power Optimizer

### USA Domestic Content Eligible\*

C651U

**25 YEAR WARRANTY**

**POWER OPTIMIZER**

Made in the USA

SolarEdge's USA-manufactured offering for C&I rooftops, for power optimization at the module level

- Eligible for Domestic Content\***
  - SolarEdge USA-manufactured power optimizers, when paired with certain SolarEdge USA-manufactured inverters, are intended to be eligible for the enhanced federal income tax credit for domestic content
- Enhanced Monitoring and Visibility**
  - Maximum system visibility up to the individual module level
  - Pigtailed fault detection and remote troubleshooting
- Higher Energy Yields**
  - Generates maximum power from each PV module
  - High efficiency (99.5%)
  - Supports high power and bifacial PV modules, including G12 modules
- Maximum Protection with Built-In Safety**
  - Designed to automatically reduce high DC voltage to touch-safe levels, upon grid/inverter shutdown, with SafeDC™
  - Includes SolarEdge Sense Connect, designed to prevent arcs by monitoring Power Optimizer connectors for overheating
  - Certified to Photovoltaic Rapid Shutdown, according to NEC 2014 – 2023

\* Manufactured by SolarEdge with the intent to be eligible for inclusion under the elective safe harbor in calculating the Domestic Content Percentage under the "Rooftop MPPT" category under 26 USC 200A-4(b). The PVSA, Electrical Plans, and Inverter are domestically manufactured to meet the requirements of eligibility to be considered for the ITC domestic content bonus under 26 USC 200A-4(b). You should consult with your own legal and/or tax advisors regarding the eligibility of your project for the ITC or PTC, including the 10% domestic content bonus, to determine how the applicable rules apply to your particular project. The forward-looking statements in this document are accurate as of the date hereon and are subject to change. For more information, please contact your local SolarEdge sales representative.

solaredge.com

## Hi-MO 5

### LR5-72HBD 530~550M

Based on M10 wafer, best choice for ultra-large power plants

- Advanced module technology delivers superior module efficiency
- M10 Gallium-doped Wafer + Smart Sintering + 9-busbar Half-cut Cell
- Globally validated bifacial energy yield
- High module quality ensures long-term reliability

12-year Warranty for Materials and Processing

30-year Warranty for Extra Linear Power Output

Complete System and Product Certifications

IEC 61215, IEC 61701, UL 4703

ISO 9001:2015 ISO 14001:2015 Environmental Management System ISO 45001:2018 Occupational Health and Safety

CECH4: Guidelines for module design qualification and test protocol

LONGi

## Three Phase Inverter with Synergy Technology

### USA Domestic Content Eligible\*

For North America

SE50KUS / SE80KUS / SE100KUS / SE110KUS / SE120KUS

**12-20 YEAR WARRANTY**

Made in the USA

SOLAREEDGE'S USA-MANUFACTURED OFFERING FOR C&I ROOFTOPS AND CARPORTS

- Eligible for domestic content\*: SolarEdge USA-manufactured inverters, when paired with certain SolarEdge USA-manufactured power optimizers, are intended to be eligible for the enhanced federal income tax credit for domestic content
- Pre-commissioning feature for automated validation of system components and wiring during the site installation process and prior to grid connection
- Easy two-person installation with lightweight, modular design (each inverter consists of two or three Synergy units and one Synergy Manager)
- Independent operation of each Synergy unit enables higher uptime and easy serviceability
- Built-in thermal sensors detect faulty wiring, ensuring enhanced protection and safety
- Built-in arc fault protection and rapid shutdown
- Built-in PID mitigation for maximized system performance
- Monitored\* and field-replaceable surge protection devices, to better withstand surges caused by lightning or other events
- Built-in module-level monitoring with Ethernet or cellular communication for full system visibility

\* Manufactured by SolarEdge with the intent to be eligible for inclusion under the Domestic Content Percentage under the "Rooftop MPPT" category under 26 USC 200A-4(b). The PVSA, Electrical Plans, and Inverter are domestically manufactured to meet the requirements of eligibility to be considered for the ITC domestic content bonus under 26 USC 200A-4(b). You should consult with your own legal and/or tax advisors regarding the eligibility of your project for the ITC or PTC, including the 10% domestic content bonus, to determine how the applicable rules apply to your particular project. The forward-looking statements in this document are accurate as of the date hereon and are subject to change. For more information, please contact your local SolarEdge sales representative.

solaredge.com

## panelclaw

AN ENSTALL COMPANY

### clawFRplus™

10 DEGREE

#### FLAT ROOF RACKING SPECIALISTS

PanelClaw is the only major racking provider in North America focused exclusively on flat roofs. This specialization provides a competitive advantage for our partners. No one delivers a more thoroughly tested and reliable platform; and no one delivers our level of service. Our mission is to accelerate the deployment of flat roof PV by continually lowering its life-cycle cost while maintaining the highest levels of reliability. The clawFRplus platform is the result of a 15+ year commitment to flat roof.

**ENGINEERED FOR SPEED**

- Single M6 bolt hardware kit
- No-tool module attachment
- 11" plus access ways between modules
- 90 degree single-module tilt-up
- Flexible order of operations installation process allows for optimized coordination of building trades on the roof
- Integrated roof protection pads
- One ground lug required per array

## Power Optimizer

### USA Domestic Content Eligible for North America

C651U

Power Optimizer Model	C651U
<b>INPUT</b>	
Rated Input DC Power*	600
Absolute Maximum Input Voltage (Voc)	600
MPPT Operating Range	15.5 - 80
Maximum Short-Circuit Current (Isc) of Connected PV Module†	20
Maximum Adjusted Short-Circuit Current (with Safety Factor)†	25
Maximum Efficiency	99.5
Weight/Efficiency	98.8
Overvoltage Category	II
<b>OUTPUT DURING OPERATION</b>	
Maximum Output Power	600
Maximum Output Current	2.4
Maximum Output Voltage	60
<b>SAFETY FEATURES</b>	
SafeDC™	Yes
Safety Output Voltage per Power Optimizer	0.5 ± 0.02%
Sense Connector	Yes
Photovoltaic Rapid Shutdown System	Yes, NEC 2014 - 2023
<b>STANDARD COMPLIANCE</b>	
EMC	IEC Part 15, IEC 61000-6-2, IEC 61000-6-3
Safety	IEC 60950-1 (class II safety), UL 1741, UL 1741, CSA C22.2 #107.1
Material	UL94 V-0, RoHS Compliant
RoHS	Yes
Fire Safety	VDE AIE 1700, IEC 60332-1-2
<b>INSTALLATION SPECIFICATIONS</b>	
Compatible SolarEdge Inverter*	Commercial Three Phase Inverters with one of the following part number structures:
Maximum Allowed System Voltage	US: 15kV (UL6089)
	SE: 18kV (UL6089)
	SE: 18kV (UL6089)
Dimensions (W x L x H)	158 x 155 x 52 / 1.03 x 6.0 x 2.05
Weight	1000 / 2.39
Input Connector	MC4
Output Connector	MC4
Output Wire Length	(1) 33' (10.1) / (1) 33.5' (10.32)
Operating Temperature Range**	-40 to +85 / -40 to +190
Protection Rating	IP66 / NEMA 4
Relative Humidity	0 - 100

(\*) Module with a base side maximum power of up to 170W at STC are allowed. Up to +190 power tolerance is allowed.

(\*\*) When using bifacial modules, consider only the base side at STC. (B) base side (opt) for other side.

(\*\*\*) Maximum ambient temperature: Maximum 100°C (212°F) for safety factor, and also in accordance with NEC and IEC.

(\*\*\*\*) For other connector types please contact SolarEdge.

(\*\*\*\*\*) The sense connector feature is only available for the Sense Connector. For details, see page 10.

(\*\*\*\*\*) For ambient temperatures above 45°C / 103°F, power derating is applied for details, see page 10.

RoHS

## Hi-MO 5

### LR5-72HBD 530~550M

21.5% EFFICIENCY

0~3% TOLERANCE

<2% POWER DEGRADATION

0.45% POWER DEGRADATION

HALF-CELL

Lower operating temperature

30 Year Power Warranty

Mechanical Parameters

Cell Orientation: 144 (6x24)

Junction Box: IP66, three diodes

Output Cable: 4mm<sup>2</sup>, 400, 200mm x 2, 180mm length (can be customized)

Glass: Dual (glass, 2.0x2.0mm heat strengthened glass)

Frame: Anodized aluminum alloy frame

Weight: 32.8kg

Dimension: 2266 x 1133 x 35mm

Packaging: 32pcs per pallet / 100pcs per 20' GP / 100pcs per 40' HC (subject to pallet)

Electrical Characteristics

Module Type	LR5-72HBD-530W	LR5-72HBD-535W	LR5-72HBD-540W	LR5-72HBD-545W	LR5-72HBD-550W
Typing Condition	STC	NOCT	STC	NOCT	STC
Maximum Power (Pmp)	530	535	540	545	550
Open Circuit Voltage (Voc)	49.30	49.36	49.39	49.40	49.45
Short-Circuit Current (Isc)	11.87	11.87	11.78	11.72	11.69
Voltage at Maximum Power (Vmp)	45.30	45.30	45.32	45.35	45.30
Current at Maximum Power (Imp)	13.82	13.82	13.89	13.89	13.84
Module Efficiency (%)	21.5	21.5	21.5	21.5	21.5

Electrical characteristics with different rear side power gain (reference to 530W front)

Power Gain	50W	60W	70W	80W	90W	100W
Power Output	587	600	613	626	639	652
Voc and Isc Tolerance	±3%	±3%	±3%	±3%	±3%	±3%
Maximum System Voltage	DC 1500V (IEC 61701)					
Maximum Series Fuse Rating	20A	20A	20A	20A	20A	20A
Normal Operating Cell Temperature	45±2°C	45±2°C	45±2°C	45±2°C	45±2°C	45±2°C
Protection Class	Class II					
Bifaciality	70±1%	70±1%	70±1%	70±1%	70±1%	70±1%
Fire Rating	UL94 V-0					

Operating Parameters

Operational Temperature: -40°C ~ +85°C

Power Output Tolerance: 0 ~ 3%

Voc and Isc Tolerance: ±3%

Maximum System Voltage: DC 1500V (IEC 61701)

Maximum Series Fuse Rating: 20A

Normal Operating Cell Temperature: 45±2°C

Protection Class: Class II

Bifaciality: 70±1%

Fire Rating: UL94 V-0

Mechanical Loading

Front Side Maximum Static Loading: 5400Pa

Rear Side Maximum Static Loading: 2400Pa

Wind and Ice Tolerance: 1800Pa

Maximum System Voltage: DC 1500V (IEC 61701)

Temperature Ratings (STC)

Temperature Coefficient of Voc: -0.35%/°C

Temperature Coefficient of Isc: +0.05%/°C

Temperature Coefficient of Pmp: -0.34%/°C

LONGi

## Three Phase Inverter with Synergy Technology

### USA Domestic Content Eligible for North America

SE50KUS / SE80KUS / SE100KUS / SE110KUS / SE120KUS

Model Number	IEC DLBC US50k/80k		SE TRI US50k/80k		UNITS
	SE50KUS	SE80KUS	SE100KUS	SE120KUS	
<b>OUTPUT</b>					
Load Rated AC Output Capacity	80,000	100,000	100,000	100,000	W
Rated AC Active Output Power	80,000	100,000	100,000	100,000	W
Maximum AC Apparent Output Power	80,000	100,000	100,000	100,000	VA
AC Output Line Connections	3	3	3	3	W
Supported Grids	24	141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234, 237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270, 273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303, 306, 309, 312, 315, 318, 321, 324, 327, 330, 333, 336, 339, 342, 345, 348, 351, 354, 357, 360, 363, 366, 369, 372, 375, 378, 381, 384, 387, 390, 393, 396, 399, 402, 405, 408, 411, 414, 417, 420, 423, 426, 429, 432, 435, 438, 441, 444, 447, 450, 453, 456, 459, 462, 465, 468, 471, 474, 477, 480, 483, 486, 489, 492, 495, 498, 501, 504, 507, 510, 513, 516, 519, 522, 525, 528, 531, 534, 537, 540, 543, 546, 549, 552, 555, 558, 561, 564, 567, 570, 573, 576, 579, 582, 585, 588, 591, 594, 597, 600, 603, 606, 609, 612, 615, 618, 621, 624, 627, 630, 633, 636, 639, 642, 645, 648, 651, 654, 657, 660, 663, 666, 669, 672, 675, 678, 681, 684, 687, 690, 693, 696, 699, 702, 705, 708, 711, 714, 717, 720, 723, 726, 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Howard T. Phillips, Jr.  
Chairman

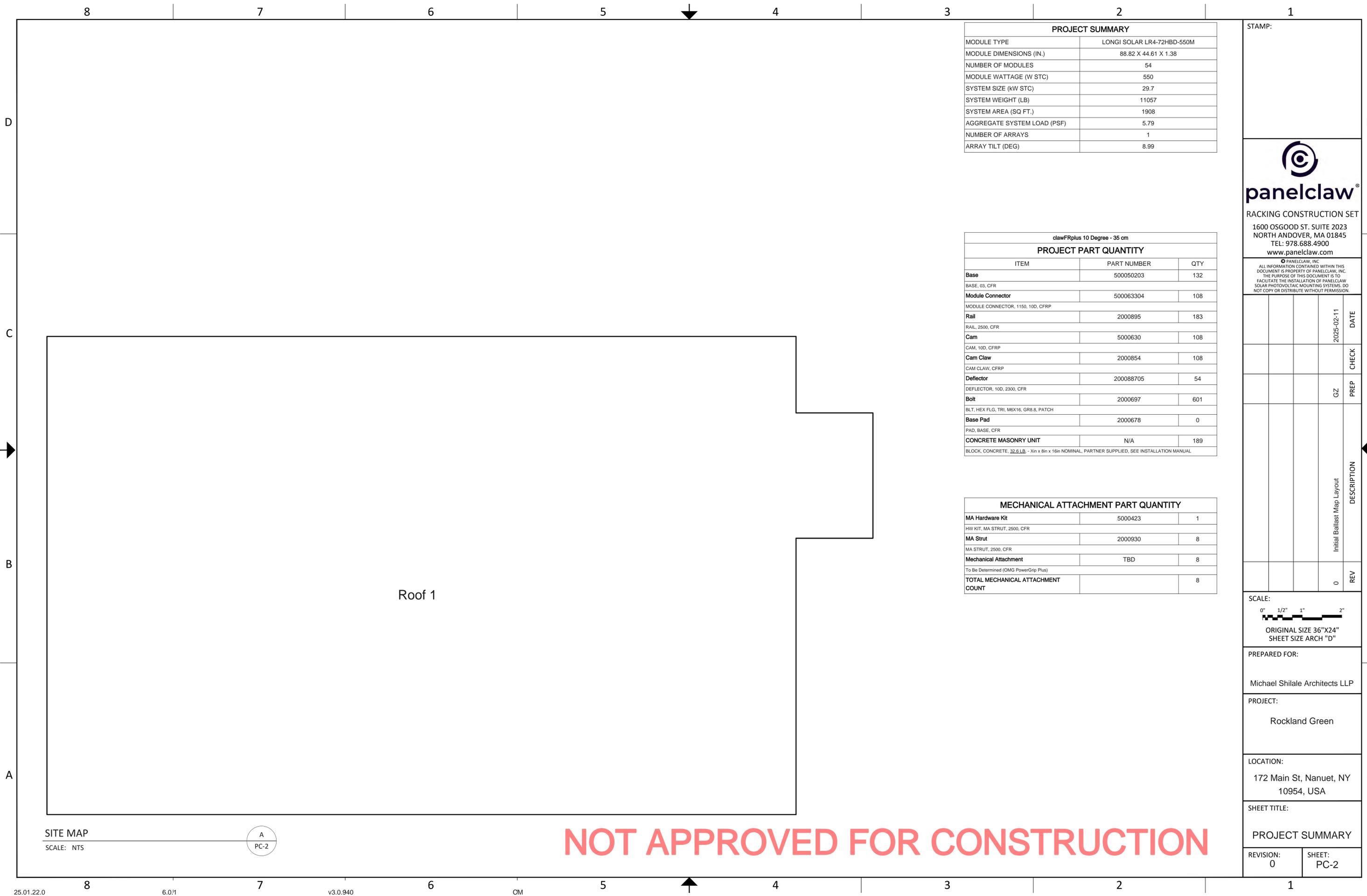
Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

**ATTACHMENT 17  
TO  
ADDENDUM 1 TO RFP 2025-02**

**RACKING CONSTRUCTION SET**





PROJECT SUMMARY	
MODULE TYPE	LONGI SOLAR LR4-72HBD-550M
MODULE DIMENSIONS (IN.)	88.82 X 44.61 X 1.38
NUMBER OF MODULES	54
MODULE WATTAGE (W STC)	550
SYSTEM SIZE (KW STC)	29.7
SYSTEM WEIGHT (LB)	11057
SYSTEM AREA (SQ.FT.)	1908
AGGREGATE SYSTEM LOAD (PSF)	5.79
NUMBER OF ARRAYS	1
ARRAY TILT (DEG)	8.99

clawFRplus 10 Degree - 35 cm		
PROJECT PART QUANTITY		
ITEM	PART NUMBER	QTY
<b>Base</b>	500050203	132
BASE, 03, CFR		
<b>Module Connector</b>	500063304	108
MODULE CONNECTOR, 1150, 10D, CFRP		
<b>Rail</b>	2000895	183
RAIL, 2500, CFR		
<b>Cam</b>	5000630	108
CAM, 10D, CFRP		
<b>Cam Claw</b>	2000854	108
CAM CLAW, CFRP		
<b>Deflector</b>	200088705	54
DEFLECTOR, 10D, 2300, CFR		
<b>Bolt</b>	2000697	601
BLT, HEX FLG, TRI, M6X16, GR8.8, PATCH		
<b>Base Pad</b>	2000678	0
PAD, BASE, CFR		
<b>CONCRETE MASONRY UNIT</b>	N/A	189
BLOCK, CONCRETE, 32.6 LB - Xin x 8in x 16in NOMINAL, PARTNER SUPPLIED, SEE INSTALLATION MANUAL		

MECHANICAL ATTACHMENT PART QUANTITY		
<b>MA Hardware Kit</b>	5000423	1
HW KIT, MA STRUT, 2500, CFR		
<b>MA Strut</b>	2000930	8
MA STRUT, 2500, CFR		
<b>Mechanical Attachment</b>	TBD	8
To Be Determined (OMG PowerGrip Plus)		
<b>TOTAL MECHANICAL ATTACHMENT COUNT</b>		8

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REV	DESCRIPTION	DATE	CHECK	PREP
0	Initial Ballast Map Layout	2025-02-11		GZ

SCALE:  
  
 ORIGINAL SIZE 36"X24"  
 SHEET SIZE ARCH "D"

PREPARED FOR:  
 Michael Shilale Architects LLP

PROJECT:  
 Rockland Green

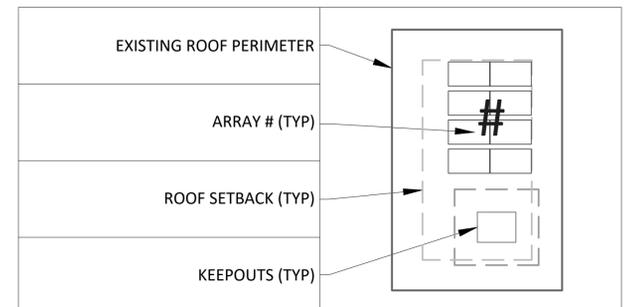
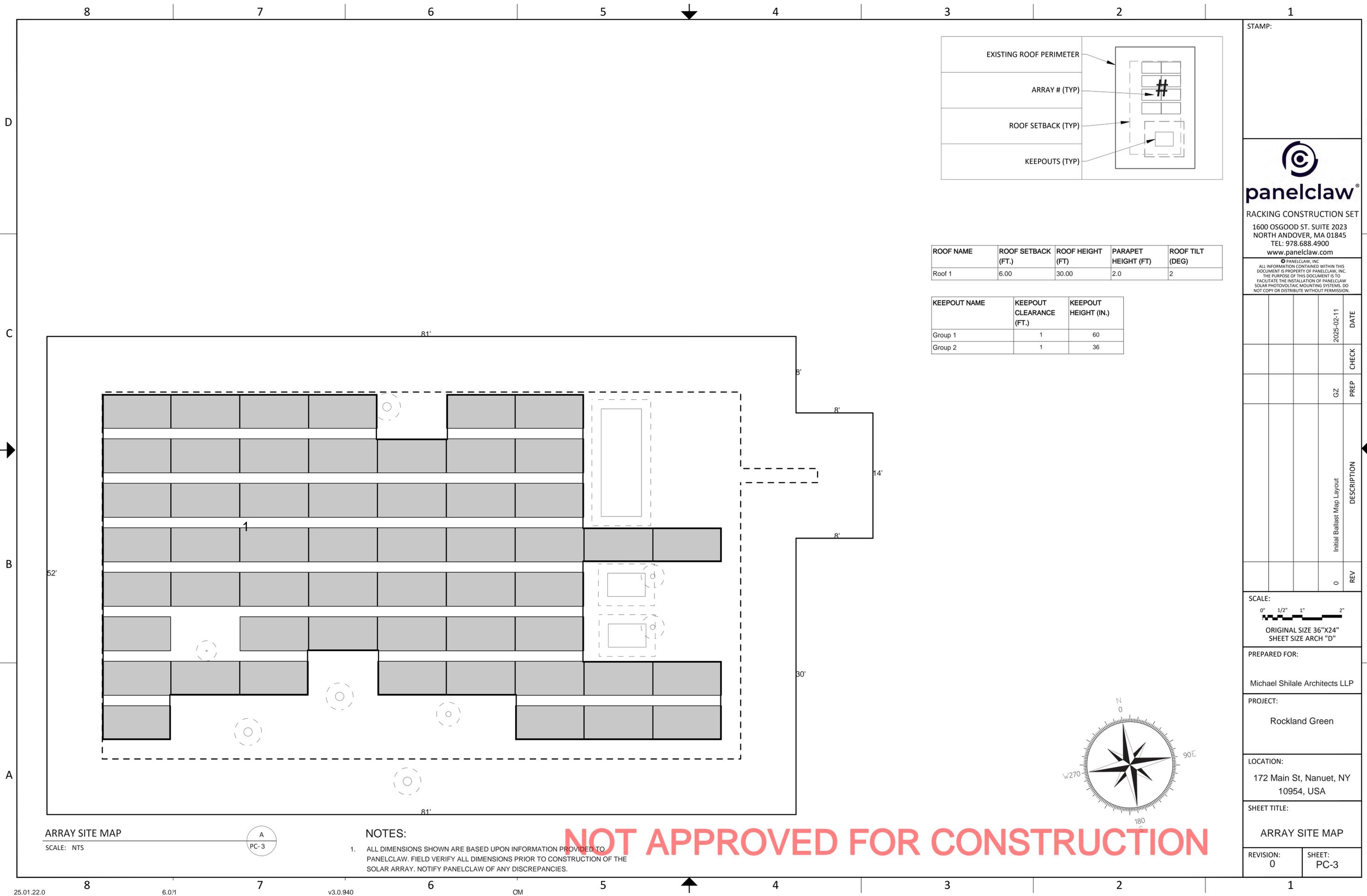
LOCATION:  
 172 Main St, Nanuet, NY  
 10954, USA

SHEET TITLE:  
 PROJECT SUMMARY

REVISION: 0 SHEET: PC-2

SITE MAP  
 SCALE: NTS

**NOT APPROVED FOR CONSTRUCTION**



ROOF NAME	ROOF SETBACK (FT.)	ROOF HEIGHT (FT)	PARAPET HEIGHT (FT)	ROOF TILT (DEG)
Roof 1	6.00	30.00	2.0	2

KEEPOUT NAME	KEEPOUT CLEARANCE (FT.)	KEEPOUT HEIGHT (IN.)
Group 1	1	60
Group 2	1	36

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REV	DESCRIPTION	DATE	CHECK
0	Initial Ballast Map Layout	2025-02-11	

SCALE:  
 0" 1/2" 1" 2"  
 ORIGINAL SIZE 36"X24"  
 SHEET SIZE ARCH "D"

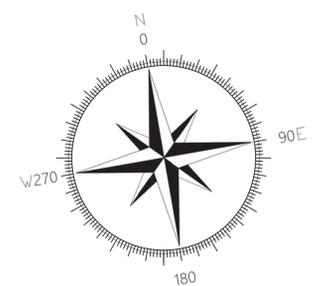
PREPARED FOR:  
 Michael Shilale Architects LLP

PROJECT:  
 Rockland Green

LOCATION:  
 172 Main St, Nanuet, NY  
 10954, USA

SHEET TITLE:  
 ARRAY SITE MAP

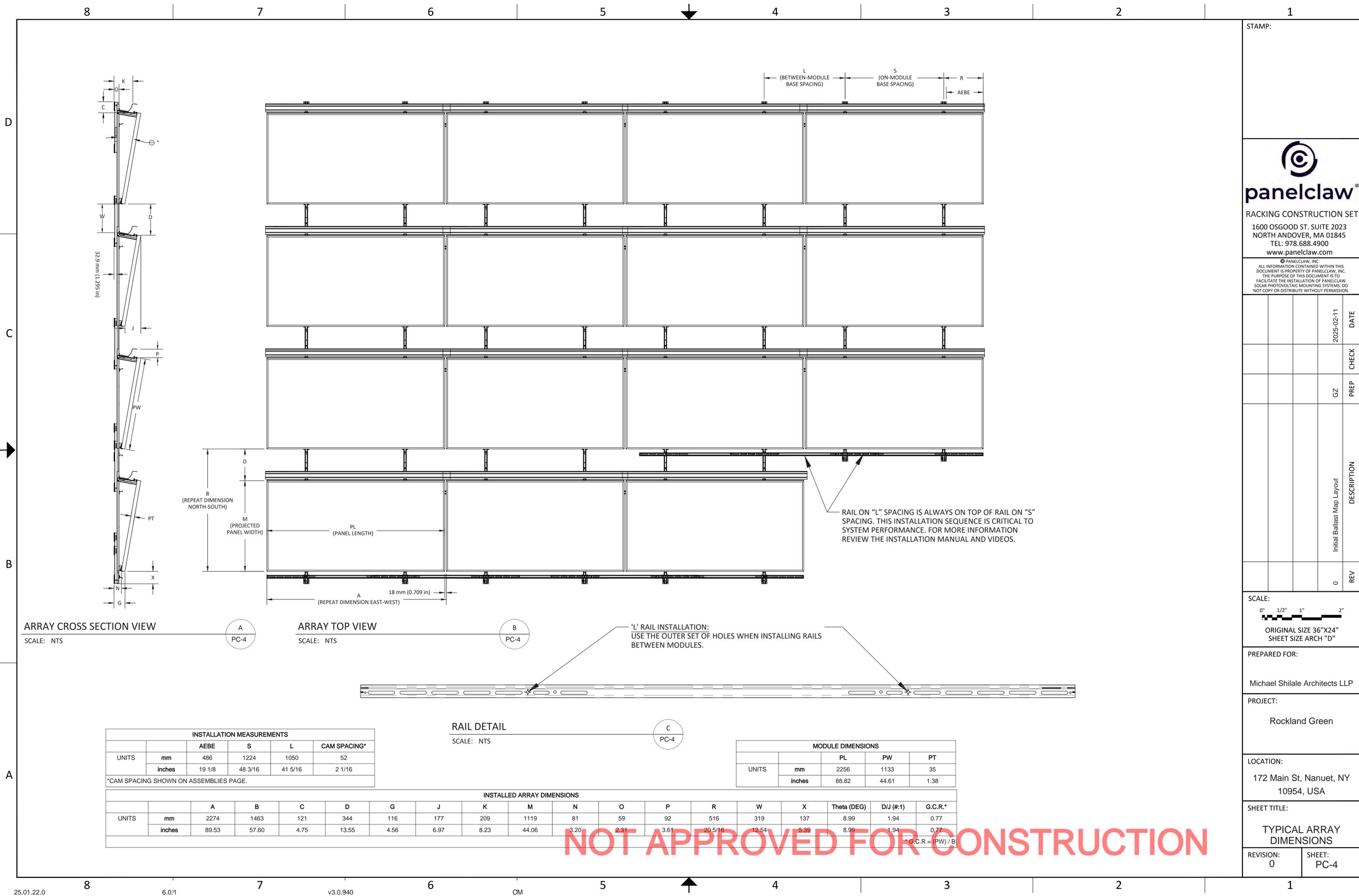
REVISION: 0 SHEET: PC-3



ARRAY SITE MAP  
 SCALE: NTS

NOTES:  
 1. ALL DIMENSIONS SHOWN ARE BASED UPON INFORMATION PROVIDED TO PANELCLAW. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION OF THE SOLAR ARRAY. NOTIFY PANELCLAW OF ANY DISCREPANCIES.

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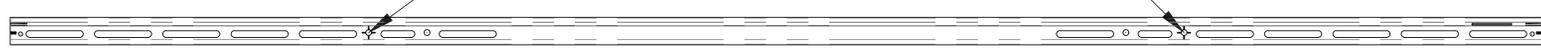
ARRAY CROSS SECTION VIEW  
SCALE: NTS

A  
PC-4

ARRAY TOP VIEW  
SCALE: NTS

B  
PC-4

'L' RAIL INSTALLATION:  
USE THE OUTER SET OF HOLES WHEN INSTALLING RAILS  
BETWEEN MODULES.



RAIL DETAIL  
SCALE: NTS

C  
PC-4

INSTALLATION MEASUREMENTS				
UNITS	AEBE	S	L	CAM SPACING*
mm	486	1224	1050	52
inches	19 1/8	48 3/16	41 5/16	2 1/16

\*CAM SPACING SHOWN ON ASSEMBLIES PAGE.

MODULE DIMENSIONS			
UNITS	PL	PW	PT
mm	2256	1133	35
inches	88.82	44.61	1.38

INSTALLED ARRAY DIMENSIONS																	
UNITS	A	B	C	D	G	J	K	M	N	O	P	R	W	X	Theta (DEG)	D/J (#:1)	G.C.R.*
mm	2274	1463	121	344	116	177	209	1119	81	59	92	516	319	137	8.99	1.94	0.77
inches	89.53	57.60	4.75	13.55	4.56	6.97	8.23	44.06	3.20	2.31	3.61	20.5/16	12.54	5.39	8.99	1.94	0.77

\*G.C.R. = (PW) / B

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0	Initial Ballast Map Layout	GZ		2025-02-11

SCALE:  
0" 1/2" 1" 2"  
ORIGINAL SIZE 36"X24"  
SHEET SIZE ARCH "D"

PREPARED FOR:  
Michael Shilale Architects LLP

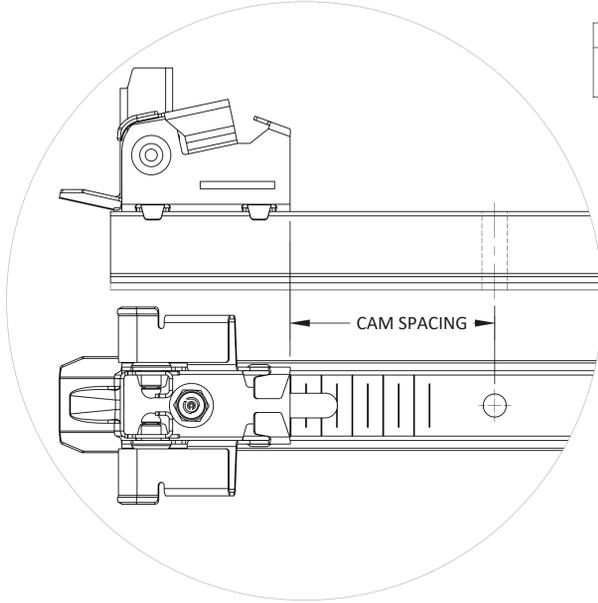
PROJECT:  
Rockland Green

LOCATION:  
172 Main St, Nanuet, NY  
10954, USA

SHEET TITLE:  
TYPICAL ARRAY DIMENSIONS

REVISION: 0 SHEET: PC-4

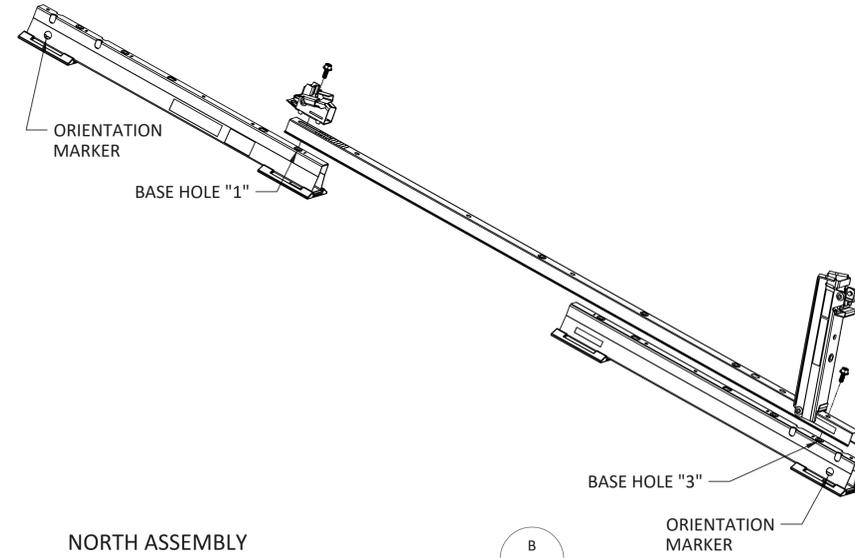
		CAM SPACING
UNITS	mm	52
	inches	2 1/16



CAM SPACING DETAIL

SCALE: NTS

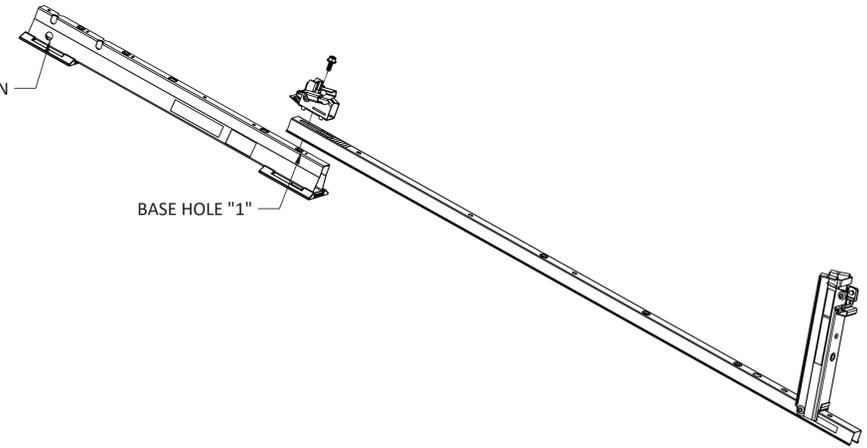
A  
PC-5



NORTH ASSEMBLY

SCALE: NTS

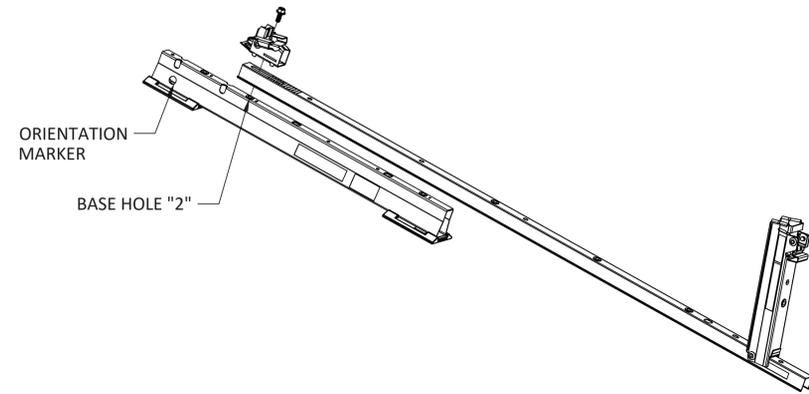
B  
PC-5



MIDDLE ASSEMBLY

SCALE: NTS

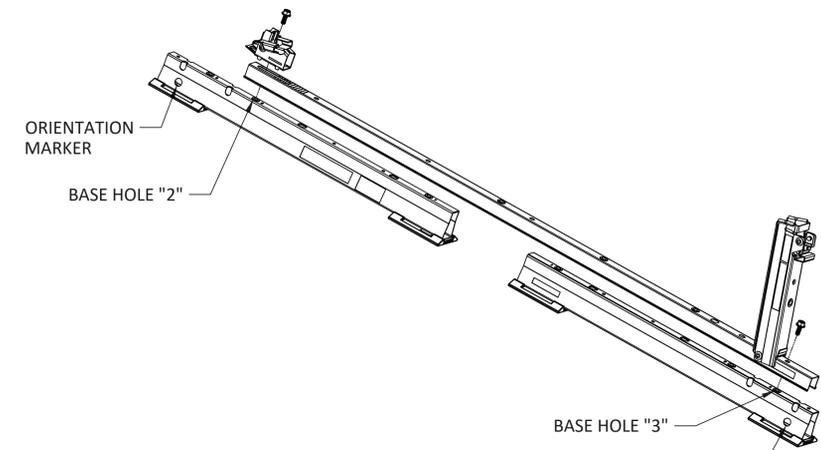
C  
PC-5



SOUTH ASSEMBLY

SCALE: NTS

D  
PC-5



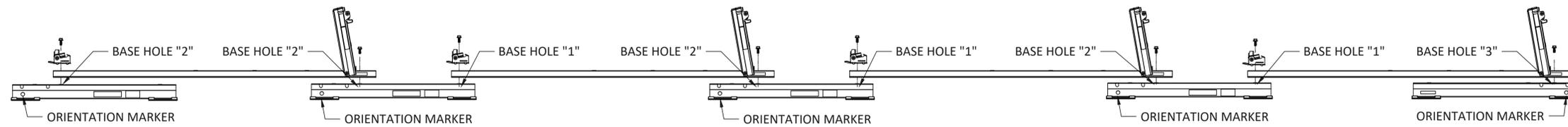
NORTH SOUTH ASSEMBLY

SCALE: NTS

E  
PC-5

STANDARD ASSEMBLY QUANTITY	
NORTH ASSEMBLY	18
SOUTH ASSEMBLY	18
MIDDLE ASSEMBLY	66
NORTH SOUTH ASSEMBLY	6

NOTE: ASSEMBLIES IN THIS TABLE USE THE STANDARD 2-PAD BASE



EXAMPLE ARRAY CONSTRUCTION

SCALE: NTS

F  
PC-5

STAMP:



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REV	DESCRIPTION	DATE	CHECK
0	Initial Ballast Map Layout	2025-02-11	

SCALE:  
0" 1/2" 1" 2"  
ORIGINAL SIZE 36"X24"  
SHEET SIZE ARCH "D"

PREPARED FOR:

Michael Shilale Architects LLP

PROJECT:

Rockland Green

LOCATION:

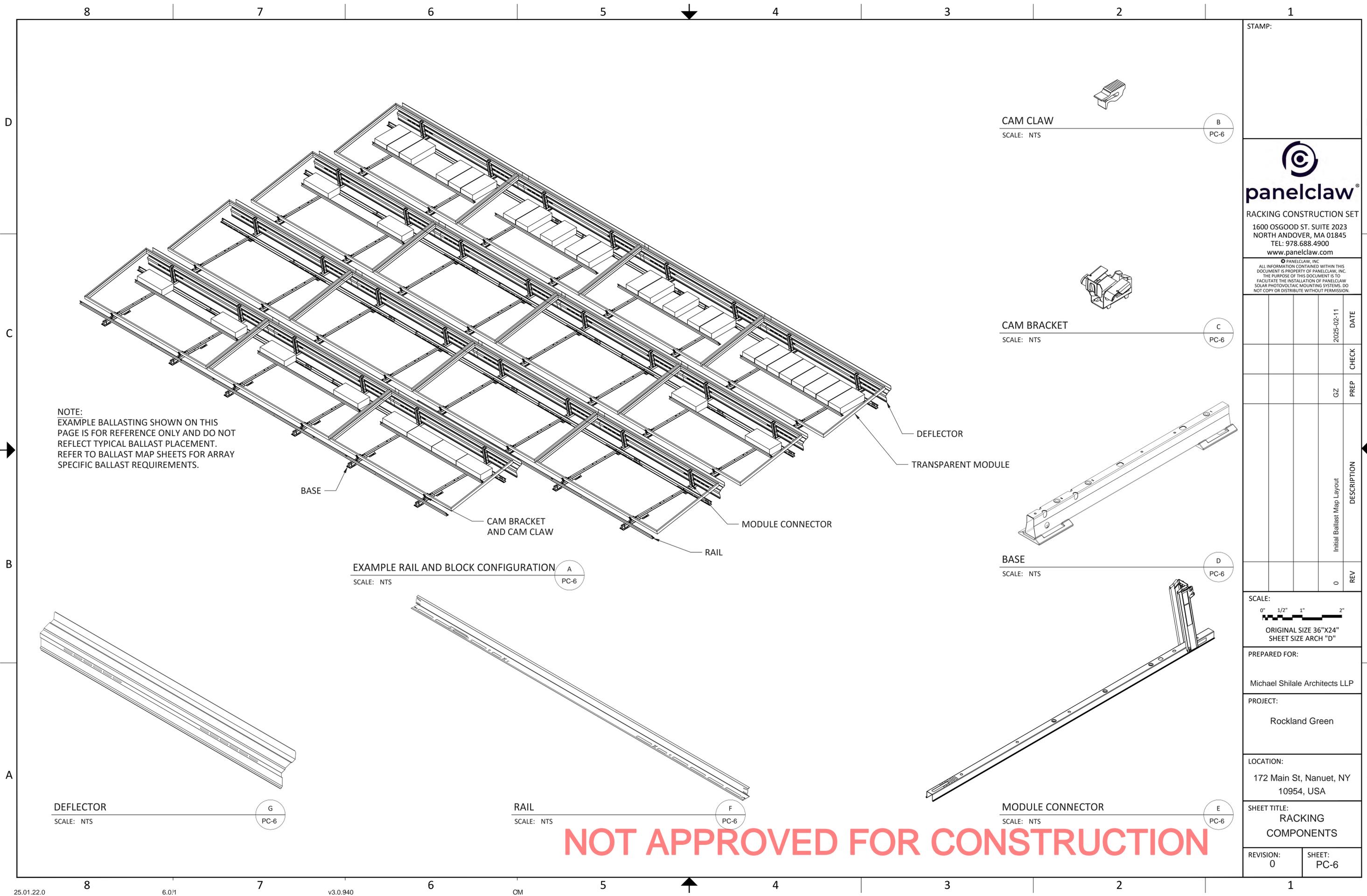
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SHEET TITLE:

ASSEMBLIES

REVISION: 0 SHEET: PC-5

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PREPARED FOR:  
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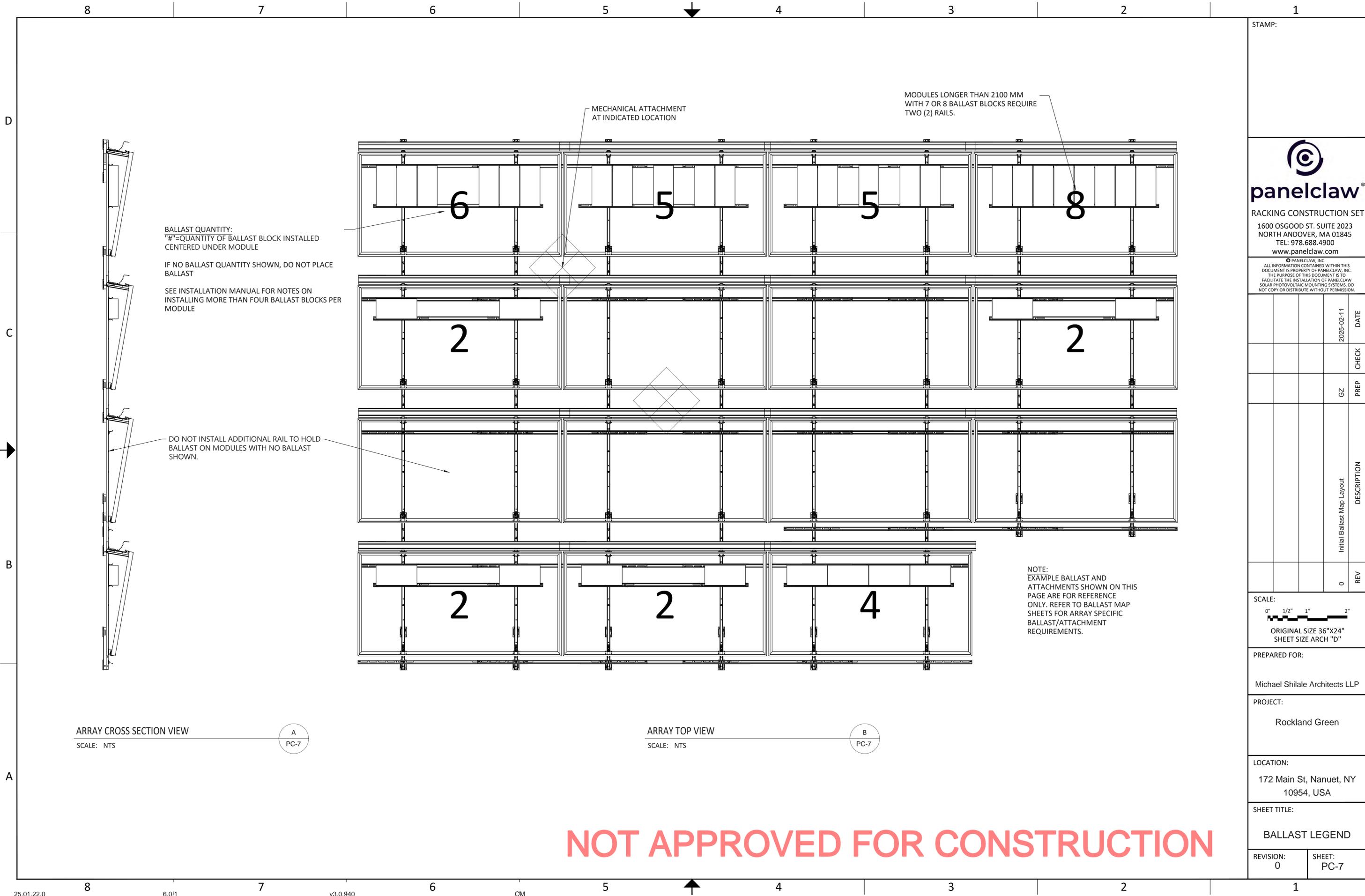
PROJECT:  
Rockland Green

LOCATION:  
172 Main St, Nanuet, NY  
10954, USA

SHEET TITLE:  
RACKING COMPONENTS

REVISION: 0 SHEET: PC-6

**NOT APPROVED FOR CONSTRUCTION**



BALLAST QUANTITY:  
 "#"=QUANTITY OF BALLAST BLOCK INSTALLED  
 CENTERED UNDER MODULE  
 IF NO BALLAST QUANTITY SHOWN, DO NOT PLACE  
 BALLAST  
 SEE INSTALLATION MANUAL FOR NOTES ON  
 INSTALLING MORE THAN FOUR BALLAST BLOCKS PER  
 MODULE

DO NOT INSTALL ADDITIONAL RAIL TO HOLD  
 BALLAST ON MODULES WITH NO BALLAST  
 SHOWN.

MECHANICAL ATTACHMENT  
 AT INDICATED LOCATION

MODULES LONGER THAN 2100 MM  
 WITH 7 OR 8 BALLAST BLOCKS REQUIRE  
 TWO (2) RAILS.

NOTE:  
 EXAMPLE BALLAST AND  
 ATTACHMENTS SHOWN ON THIS  
 PAGE ARE FOR REFERENCE  
 ONLY. REFER TO BALLAST MAP  
 SHEETS FOR ARRAY SPECIFIC  
 BALLAST/ATTACHMENT  
 REQUIREMENTS.

ARRAY CROSS SECTION VIEW  
 SCALE: NTS

ARRAY TOP VIEW  
 SCALE: NTS

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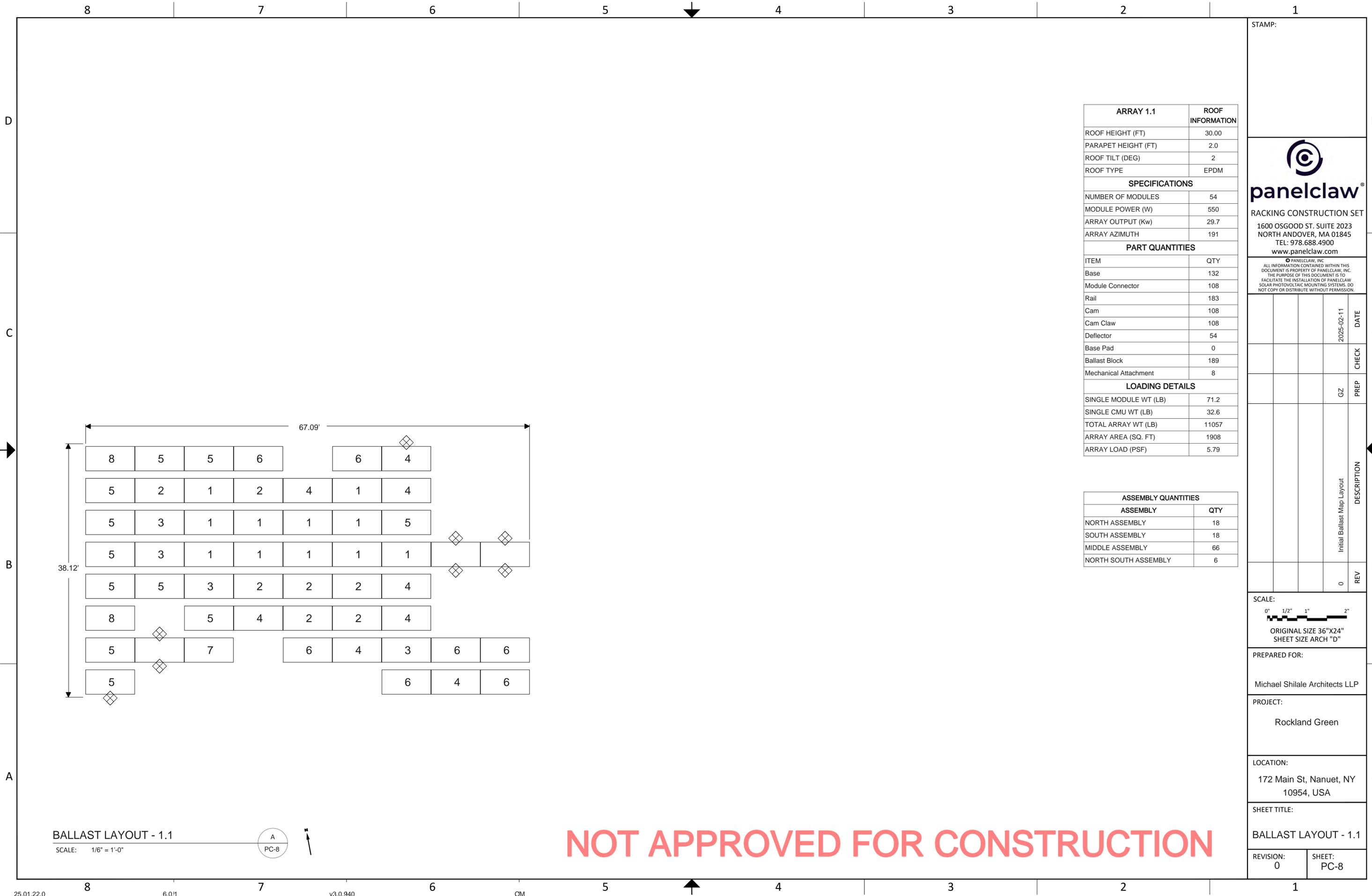
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PROJECT:  
 Rockland Green

LOCATION:  
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 10954, USA

SHEET TITLE:  
 BALLAST LEGEND

REVISION: 0 SHEET: PC-7



ARRAY 1.1		ROOF INFORMATION
ROOF HEIGHT (FT)		30.00
PARAPET HEIGHT (FT)		2.0
ROOF TILT (DEG)		2
ROOF TYPE		EPDM
SPECIFICATIONS		
NUMBER OF MODULES		54
MODULE POWER (W)		550
ARRAY OUTPUT (Kw)		29.7
ARRAY AZIMUTH		191
PART QUANTITIES		
ITEM		QTY
Base		132
Module Connector		108
Rail		183
Cam		108
Cam Claw		108
Deflector		54
Base Pad		0
Ballast Block		189
Mechanical Attachment		8
LOADING DETAILS		
SINGLE MODULE WT (LB)		71.2
SINGLE CMU WT (LB)		32.6
TOTAL ARRAY WT (LB)		11057
ARRAY AREA (SQ. FT)		1908
ARRAY LOAD (PSF)		5.79

ASSEMBLY QUANTITIES	
ASSEMBLY	QTY
NORTH ASSEMBLY	18
SOUTH ASSEMBLY	18
MIDDLE ASSEMBLY	66
NORTH SOUTH ASSEMBLY	6

STAMP:

**panelclaw**<sup>®</sup>  
 RACKING CONSTRUCTION SET  
 1600 OSGOOD ST. SUITE 2023  
 NORTH ANDOVER, MA 01845  
 TEL: 978.688.4900  
 www.panelclaw.com

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REV	DESCRIPTION	DATE	CHECK	PREP
0	Initial Ballast Map Layout	2025-02-11		GZ

SCALE:  
 0" 1/2" 1" 2"  
 ORIGINAL SIZE 36"X24"  
 SHEET SIZE ARCH "D"

PREPARED FOR:  
 Michael Shilale Architects LLP

PROJECT:  
 Rockland Green

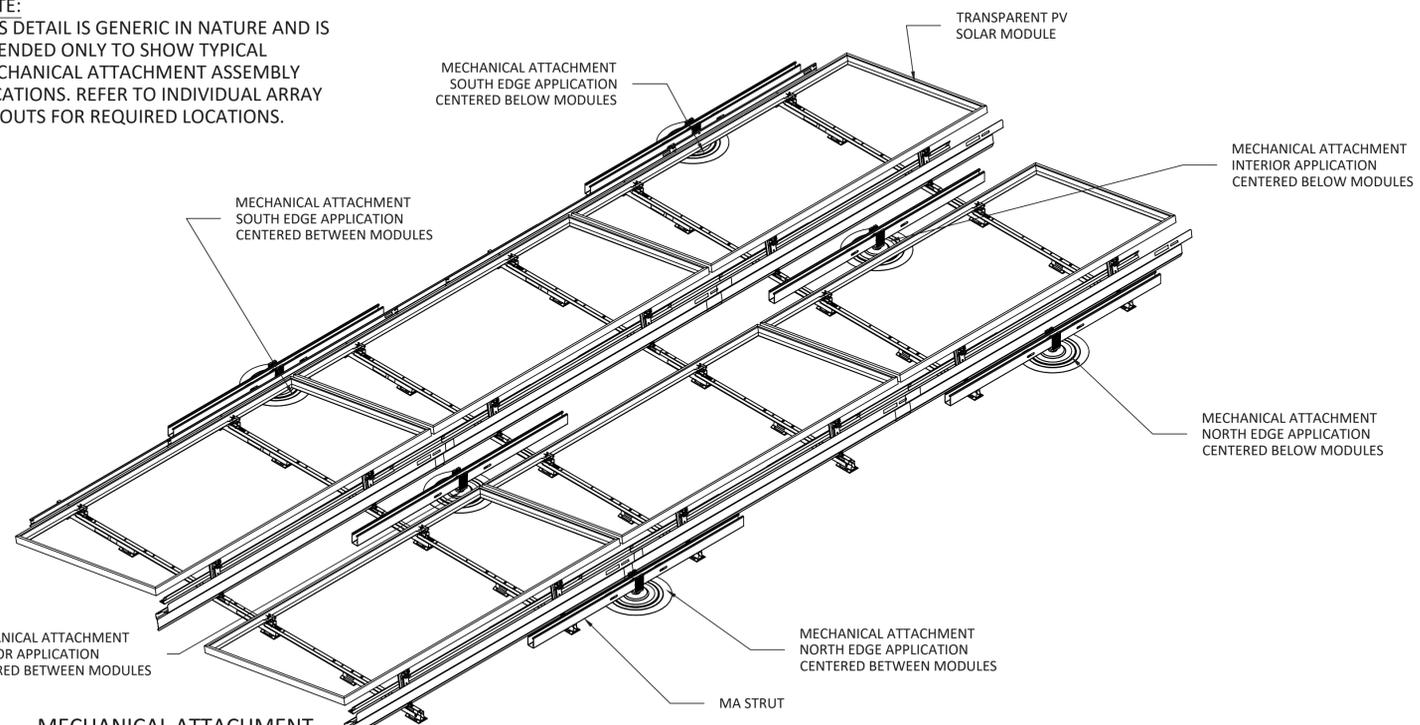
LOCATION:  
 172 Main St, Nanuet, NY  
 10954, USA

SHEET TITLE:  
 BALLAST LAYOUT - 1.1

REVISION: 0 SHEET: PC-8

**NOT APPROVED FOR CONSTRUCTION**

**NOTE:**  
THIS DETAIL IS GENERIC IN NATURE AND IS INTENDED ONLY TO SHOW TYPICAL MECHANICAL ATTACHMENT ASSEMBLY LOCATIONS. REFER TO INDIVIDUAL ARRAY LAYOUTS FOR REQUIRED LOCATIONS.

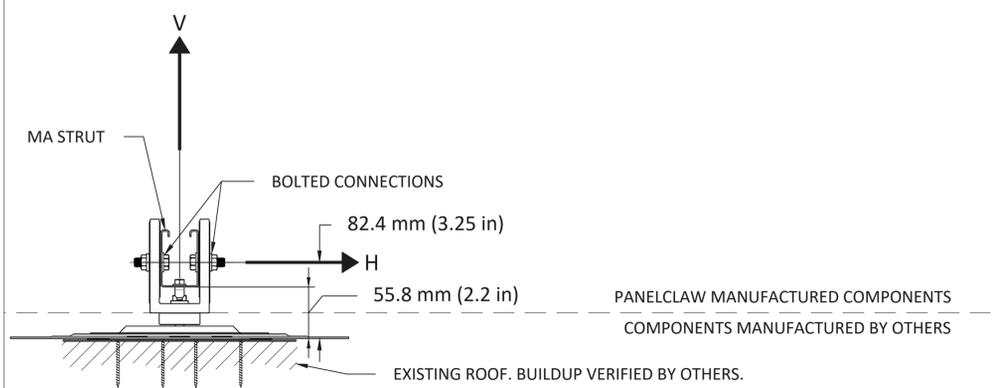


**MECHANICAL ATTACHMENT LOCATION DETAIL**

SCALE: N.T.S.

A  
PC-9

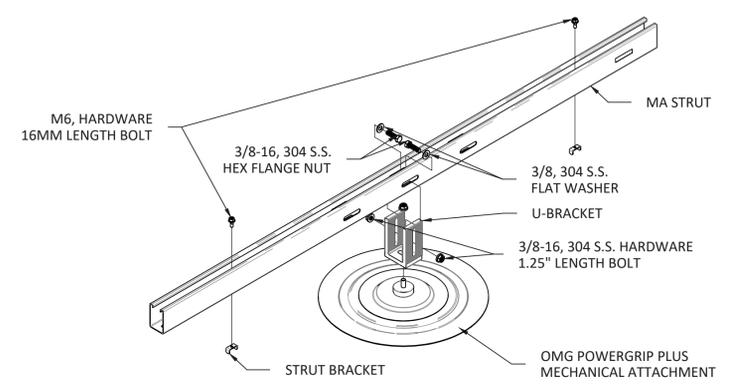
OMG POWERGRIP PLUS MECHANICAL ATTACHMENT: MANUFACTURED BY OTHERS



FASTENERS DESIGNED AND PROVIDED BY OTHERS. SIZE FASTENERS FOR REQUIRED WORKING LOADS PER SCHEDULE.

MECHANICAL ATTACHMENT		
WORST-CASE SERVICE LOAD (LB)		
HORIZONTAL (H)		VERTICAL (V)
WIND	SEISMIC	WIND
0	0	315
MAXIMUM ALLOWABLE LOAD (LB)		
HORIZONTAL (H)		VERTICAL (V)
650		525

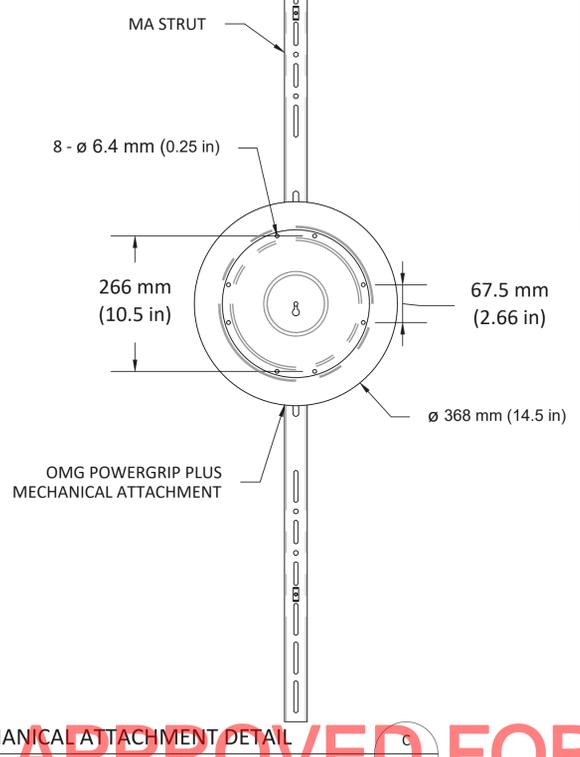
- HORIZONTAL LOAD H MAY ACT IN ANY DIRECTION
- WORKING LOADS = ALLOWABLE LOADS (i.e. NON-FACTORED)



**MECHANICAL ATTACHMENT DETAIL**

SCALE: N.T.S.

B  
PC-9



**MECHANICAL ATTACHMENT DETAIL**

SCALE: N.T.S.

C  
PC-9

**NOT APPROVED FOR CONSTRUCTION**

STAMP:

**panelclaw**  
RACKING CONSTRUCTION SET  
1600 OSGOOD ST. SUITE 2023  
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DATE	CHECK	PREP	DESCRIPTION
2025-02-11		GZ	Initial Ballast Map Layout
		0	REV

SCALE:  
0" 1/2" 1" 2"  
ORIGINAL SIZE 36"X24"  
SHEET SIZE ARCH "D"

PREPARED FOR:  
Michael Shilale Architects LLP

PROJECT:  
Rockland Green

LOCATION:  
172 Main St, Nanuet, NY  
10954, USA

SHEET TITLE:  
MECHANICAL ATTACHMENT DETAIL

REVISION: 0 SHEET: PC-9



Howard T. Phillips, Jr.  
Chairman

Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

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**ATTACHMENT 18  
TO  
ADDENDUM 1 TO RFP 2025-02**

**POLYMER BASED EXTERIOR INSULATION  
AND FINISH SYSTEM (EIFS)**

## SECTION 072413 - POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

## PART 1 - GENERAL

## 1.1 SUMMARY

## A. Section Includes: Polymer-based exterior insulation and finish system (EIFS).

1. EIFS-clad barrier-wall assemblies that are field applied over substrate.

## B. Related Requirements:

1. Section 072419 "Water-Drainage Exterior Insulation and Finish System (EIFS)" for EIFS-clad drainage-wall assemblies.
2. Section 072600 "Vapor Retarders" for wall sheet vapor retarders.
3. Section 072713 "Modified Bituminous Sheet Air Barriers" for self-adhering sheet air barriers composed of bituminous materials applied over sheathing behind mechanically fastened EIFS.
4. Section 072715 "Nonbituminous Self-Adhering Sheet Air Barriers" for self-adhering sheet air barriers composed of nonbituminous polymers applied over sheathing behind mechanically fastened EIFS.
5. Section 072726 "Fluid-Applied Membrane Air Barriers" for fluid-applied, synthetic polymer air barriers applied over sheathing behind EIFS-clad wall assemblies.

## C. Products furnished, but not installed, under this Section include connections and other attachment devices for prefabricated panels to be cast in concrete embedded in masonry assemblies, metal framed wall with glass faced gypsum wall board.

## A. Definitions in ASTM E2110 apply to Work of this Section.

## 1.2 DEFINITIONS

## B. EIFS: Exterior insulation and finish system(s).

## C. IBC: International Building Code.

## D. Polymer-Based Exterior Insulation and Finish System: Class PB EIFS, as defined in ASTM E2568.

## 1.3 PREINSTALLATION MEETINGS

## A. Preinstallation Conference: Conduct conference at Rockland Green Administrative Headquarters - 172 Main Street, Nanuet NY 10954

## 1.4 ACTION SUBMITTALS

## A. Product Data: For each EIFS component, trim, and accessory.

## B. Samples: For each exposed product and for each color and texture specified, 8 inches square in size.

## C. Samples for Initial Selection: For each type of finish-coat color and texture indicated.

1. Include similar Samples of exposed accessories involving color selection.

## 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For .
- B. Sample Warranty: For manufacturer's special warranty.

## 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For EIFS to include in maintenance manuals.

## 1.7 QUALITY ASSURANCE

- A. Fabricator/Erector Qualifications: Certified in writing by EIFS manufacturer as qualified to fabricate and erect manufacturer's prefabricated panel system using skilled and trained workers.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, to set quality standards for materials and execution, and to set quality standards for fabrication and installation.
  - 1. Build mockup of typical wall area as shown on Drawings.
  - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original, unopened packages with manufacturers' labels intact and clearly identifying products.
- B. Store materials inside and under cover; keep them dry and protected from weather, direct sunlight, surface contamination, aging, corrosion, damaging temperatures, construction traffic, and other causes.
  - 1. Stack insulation board flat and off the ground.
  - 2. Protect plastic insulation against ignition at all times. Do not deliver plastic insulating materials to Project site before installation time.
  - 3. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

## 1.9 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions and ambient outdoor air, humidity, and substrate temperatures permit EIFS to be applied, dried, and cured according to manufacturers' written instructions and warranty requirements.
  - 1. Proceed with installation of adhesives or coatings only when ambient temperatures have remained, or are forecast to remain, above 40 deg F for a minimum of 24 hours before, during, and after application. Do not apply EIFS adhesives or coatings during rainfall.

## 1.10 WARRANTY

- A. Manufacturer's Special Warranty: Manufacturer agrees to repair or replace components of EIFS that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Bond integrity and weathertightness.

- b. Deterioration of EIFS finishes and other EIFS materials beyond normal weathering.
2. Warranty coverage includes the following EIFS components:
  - a. EIFS finish, including base coats, finish coats, and reinforcing mesh.
  - b. Insulation installed as part of EIFS , including buildouts.
  - c. Insulation adhesive and mechanical fasteners.
  - d. EIFS accessories, including trim components and flashing.
3. Warranty Period: Ten (10) years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 POLYMER-BASED EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

- A. Source Limitations: Obtain EIFS from single source from single EIFS manufacturer and from sources approved by EIFS manufacturer as tested and compatible with EIFS components.

### 2.2 PERFORMANCE REQUIREMENTS

- A. EIFS Performance: Comply with ASTM E2568 and with the following:
  1. Weathertightness: Resistant to water penetration from exterior.
  2. System Fire Performance: Fire-resistance rating of wall assembly] [Full-scale multistory fire test.
  3. Structural Performance of Assembly and Components:
    - a. Wind Loads:
      - 1) Uniform pressure as indicated on Drawings.
  4. Impact Performance: ASTM E2568, Standard impact resistance unless otherwise indicated.
  5. Abrasion Resistance of Finish Coat: Sample consisting of 1-inch- thick EIFS mounted on 1/2-inch- thick gypsum board; cured for a minimum of 28 days and shows no cracking, checking, or loss of film integrity after exposure to 528 quarts of sand when tested in accordance with ASTM D968, Method A.
  6. Mildew Resistance of Finish Coat: Sample applied to 2-by-2-inch clean glass substrate; cured for 28 days and shows no growth when tested in accordance with ASTM D3273 and evaluated in accordance with ASTM D3274.
- B. Performance of Prefabricated Panels: EIFS to be designed as follows and withstand the structural performance indicated for Class PB EIFS and thermal movement limits indicated below without failure due to defective manufacture, fabrication, installation, or other defects in construction.
  1. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
    - a. Temperature Change: 100 deg F.

### 2.3 EIFS MATERIALS

- A. Reinforcing Mesh: Balanced, alkali-resistant, open-weave, glass-fiber mesh treated for compatibility with other EIFS materials, made from continuous multi-end strands with retained mesh tensile strength of not less than 120 lbf/in. in accordance with ASTM E2098/E2098M and the following:
  1. Reinforcing Mesh for EIFS, General: Not less than weight required to comply with impact-performance level specified in "Performance Requirements" Article.
  2. Strip-Reinforcing Mesh: Not less than 3.75 oz./sq. yd. As recommended by EIFS manufacturer.

3. Detail-Reinforcing Mesh: Not less than 4.0 oz./sq. yd. As recommended by EIFS manufacturer.
  4. Corner-Reinforcing Mesh: Not less than 7.2 oz./sq. yd. As recommended by EIFS manufacturer.
- B. Base Coat: EIFS manufacturer's standard mixture complying with one of the following:
1. Factory-mixed noncementitious formulation of polymer-emulsion adhesive and inert fillers that is ready to use without adding other materials.
- C. Water-Resistant Base Coat: EIFS manufacturer's standard waterproof formulation complying with one of the following:
1. Job-combined formulation of manufacturer's standard polymer-emulsion adhesive and manufacturer's standard dry mix containing portland cement.
- D. Primer: EIFS manufacturer's standard factory-mixed, elastomeric-polymer primer for preparing base-coat surface for application of finish coat.
- E. Finish Coat: EIFS manufacturer's standard acrylic-based coating complying with the following:
1. Factory-mixed formulation of polymer-emulsion binder, colorfast mineral pigments, sound stone particles, and fillers.
  2. Colors: As selected by Architect from manufacturer's full range.
  3. Textures: As selected by Architect from manufacturer's full range.
- F. Water: Potable.
- G. Trim Accessories: Type as designated or required to suit conditions indicated and to comply with EIFS manufacturer's written instructions; manufactured from UV-stabilized PVC; and complying with ASTM D1784 and ASTM C1063.
1. Drip Screed/Track: Prefabricated, one-piece type for attachment behind insulation, with face leg extended to form a drip, of depth required to suit thickness of coating and insulation, with face leg perforated for bonding to coating and back leg.
  2. Expansion Joint: Closed-cell polyethylene backer rod and elastomeric sealant, 3/4-inch minimum.
- 2.4 MIXING
- A. Comply with EIFS manufacturer's requirements for combining and mixing materials. Do not introduce admixtures, water, or other materials, except as recommended by EIFS manufacturer. Mix materials in clean containers. Use materials within time period specified by EIFS manufacturer or discard.

### PART 3 - EXECUTION

#### 2.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine roof edges, wall framing, flashings, openings, substrates, and junctures at other construction for suitable conditions where EIFS will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

1. Begin coating application only after surfaces are dry.
2. Application of coating indicates acceptance of surfaces and conditions.

## 2.2 PREPARATION

- A. Protect contiguous work from moisture deterioration and soiling caused by application of EIFS. Provide temporary covering and other protection needed to prevent spattering of exterior finish coats on other work.
- B. Protect EIFS, substrates, and wall construction behind them from inclement weather during installation. Prevent penetration of moisture behind EIFS and deterioration of substrates.
- C. Prepare and clean substrates to comply with EIFS manufacturer's written instructions to obtain optimum bond between substrate and adhesive for insulation.
  1. Concrete Substrates: Provide clean, dry, neutral-pH substrate for insulation installation. Verify suitability of substrate by performing bond and moisture tests recommended by EIFS manufacturer.

## 2.3 INSTALLATION OF EIFS, GENERAL

- A. Comply with ASTM C1397, ASTM E2511, and EIFS manufacturer's written instructions for installation of EIFS as applicable to each type of substrate.

## 2.4 APPLICATION OF SUBSTRATE PROTECTION

- A. Flexible-Membrane Flashing: Apply and lap to shed water; seal at openings, penetrations, and terminations. Prime substrates with flashing primer if required and install flashing.

## 2.5 INSTALLATION OF TRIM

- A. Trim: Apply trim accessories at perimeter of EIFS, at expansion joints, at windowsills, and elsewhere as indicated. Coordinate with installation of insulation.
  1. Drip Screenshot/Track: Use at bottom edges of EIFS unless otherwise indicated.
  2. Windowsill Flashing: Use at windows unless otherwise indicated.
  3. Expansion Joint: Use where indicated on Drawings.
  4. Casing Bead: Use at other locations.
  5. Parapet Cap Flashing: Use where indicated on Drawings.

## 2.6 INSTALLATION OF INSULATION

- A. Board Insulation: Adhesively and mechanically attach insulation to substrate in compliance with ASTM C1397 and the following:
  1. Sheathing: Apply adhesive to insulation by notched-trowel method in a manner that results in coating the entire surface of sheathing with adhesive once insulation is adhered to substrate. Apply adhesive to a thickness of not less than 1/4 inch for factory mixed and not less than 3/8 inch for field mixed, measured from surface of insulation before placement.
  2. Concrete or Masonry: Apply adhesive by ribbon-and-dab method.
  3. Press and slide insulation into place. Apply pressure over entire surface of insulation to accomplish uniform contact, high initial grab, and overall level surface.
  4. Allow adhered insulation to remain undisturbed for not less than 24 hours, before installing mechanical fasteners, beginning rasping and sanding insulation or before applying base coat and reinforcing mesh.

5. Mechanically attach insulation to substrate. Install top surface of fastener heads flush with plane of insulation. Install fasteners into or through substrates with the following minimum penetration:
    - a. Steel Framing: 5/16 inch.
    - b. Wood Framing: 1 inch.
    - c. Concrete and Masonry: 1 inch.
  6. Apply insulation over dry substrates in courses, with long edges of boards oriented horizontally.
  7. Begin first course of insulation from a level base line and work upward.
  8. Begin first course of insulation from screed/track and work upward. Work from perimeter casing beads toward interior of panels if possible.
  9. Stagger vertical joints of insulation boards in successive courses to produce running bond pattern. Locate joints, so no piece of insulation is less than 12 inches wide or 6 inches high. Offset joints not less than 6 inches from corners of window and door openings and not less than 4 inches from aesthetic reveals.
    - a. Adhesive Attachment: Offset joints of insulation not less than 6 inches from horizontal and 4 inches from vertical joints in sheathing.
    - b. Mechanical Attachment: Offset joints of insulation from horizontal joints in sheathing.
  10. Interlock ends at internal and external corners.
  11. Abut insulation tightly at joints within and between each course to produce flush, continuously even surfaces without gaps or raised edges between boards. If gaps greater than 1/16 inch occur, fill with insulation cut to fit gaps exactly; insert insulation without using adhesive or other material.
  12. Cut insulation to fit openings, corners, and projections precisely and to produce edges and shapes complying with details indicated.
  13. Rasp or sand flush entire surface of insulation to remove irregularities projecting more than 1/16 inch from surface of insulation and to remove yellowed areas due to sun exposure; do not create depressions deeper than 1/16 inch. Prevent airborne dispersal and immediately collect insulation raspings or sandings.
  14. Cut aesthetic reveals in outside face of insulation with high-speed router and bit configured to produce grooves, rabbets, and other features that comply with profiles and locations indicated. Do not reduce insulation thickness at aesthetic reveals to less than 3/4 inch.
  15. Install foam buildouts and attach to structural substrate by adhesive and mechanical fastening.
  16. Interrupt insulation for expansion joints where indicated.
  17. Form joints for sealant application by leaving gaps between adjoining insulation edges and between insulation edges and dissimilar adjoining surfaces. Make gaps wide enough to produce joint widths indicated after encapsulating joint substrates with base coat and reinforcing mesh.
  18. Form joints for sealant application with back-to-back casing beads for joints within EIFS and with perimeter casing beads at dissimilar adjoining surfaces. Make gaps between casing beads and between perimeter casing beads and adjoining surfaces of width indicated.
  19. Before installing insulation and before applying field-applied reinforcing mesh, fully wrap board edges. Cover edges of board and extend encapsulating mesh not less than 2-1/2 inches over front and back face unless otherwise indicated on Drawings.
  20. Treat exposed edges of insulation as follows:
    - a. Except for edges forming substrates of sealant joints, encapsulate with base coat, reinforcing mesh, and finish coat.
    - b. Encapsulate edges forming substrates of sealant joints within EIFS or between EIFS and other work with base coat and reinforcing mesh.
    - c. At edges trimmed by accessories, extend base coat, reinforcing mesh, and finish coat over face leg of accessories.
  21. Coordinate installation of flashing and insulation to produce wall assembly that does not allow water to penetrate behind flashing and EIFS lamina.
- B. Expansion Joints: Install at locations indicated, where required by EIFS manufacturer, and as follows:
1. At expansion joints in substrates behind EIFS.
  2. Where EIFS adjoin dissimilar substrates, materials, and construction, including other EIFS.
  3. At floor lines in multilevel wood-framed construction.
  4. Where wall height or building shape changes.
  5. Where EIFS manufacturer requires joints in long continuous elevations.
  6. Where panels abut one another.

## 3.7 APPLICATION OF BASE COAT

- A. Water-Resistant Base Coat: Apply full-thickness coverage to exposed insulation and to exposed surfaces of sloped shapes window sills parapets foam buildouts and to other surfaces indicated on Drawings.
- B. Base Coat: Apply full coverage to exposed insulation and foam buildouts with not less than 1/16-inch dry-coat thickness.
- C. Reinforcing Mesh: Embed reinforcing mesh in wet base coat to produce wrinkle-free installation with mesh continuous at corners, overlapped not less than 2-1/2 inches or otherwise treated at joints to comply with ASTM C1397. Do not lap reinforcing mesh within 8 inches of corners. Completely embed mesh, applying additional base-coat material if necessary, so reinforcing-mesh color and pattern are invisible.
- D. Double Base-Coat Application: Where indicated, apply second base coat in same manner and thickness as first application, except without reinforcing mesh. Do not apply until first base coat has cured.

## 3.8 APPLICATION OF FINISH COAT

- A. Primer: Apply over dry base coat.
- B. Finish Coat: Apply full-thickness coverage over dry primed base coat, maintaining a wet edge at all times for uniform appearance, to produce a uniform finish of color and texture matching approved sample and free of cold joints, shadow lines, and texture variations.
  - 1. Embed aggregate in finish coat to produce a uniform applied-aggregate finish of color and texture matching approved sample.

## 3.9 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform the following special inspections:
  - 1. As stipulated in Ch. 17 of the IBC.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- C. EIFS Tests and Inspections: In accordance with ASTM E2568.
- D. Prefabricated Panels: Test and inspect field welds.
- E. EIFS will be considered defective if it does not pass tests and inspections.
- F. Prepare test and inspection reports.

## 3.10 CLEANING AND PROTECTION

- A. Remove temporary covering and protection of other work. Promptly remove coating materials from window and door frames and other surfaces outside areas indicated to receive EIFS coatings.

END OF SECTION 072413



Howard T. Phillips, Jr.  
Chairman

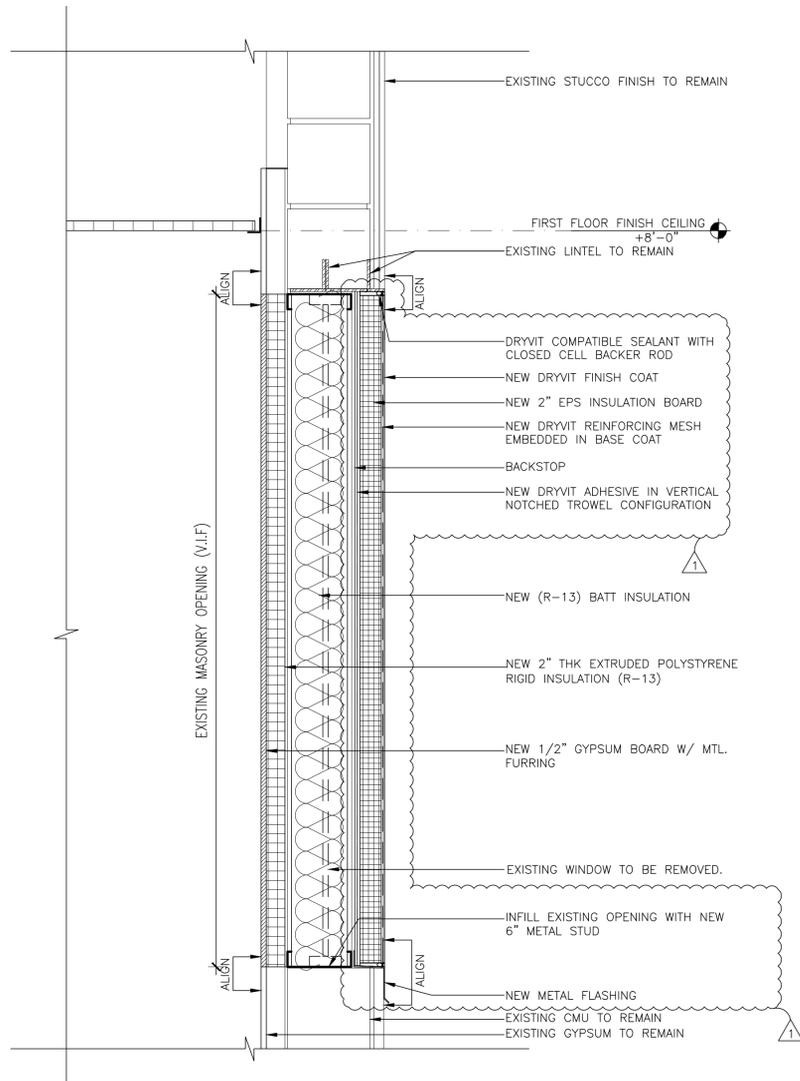
Gerard M. Damiani, Jr.  
Executive Director

Rockland County Solid Waste Management Authority

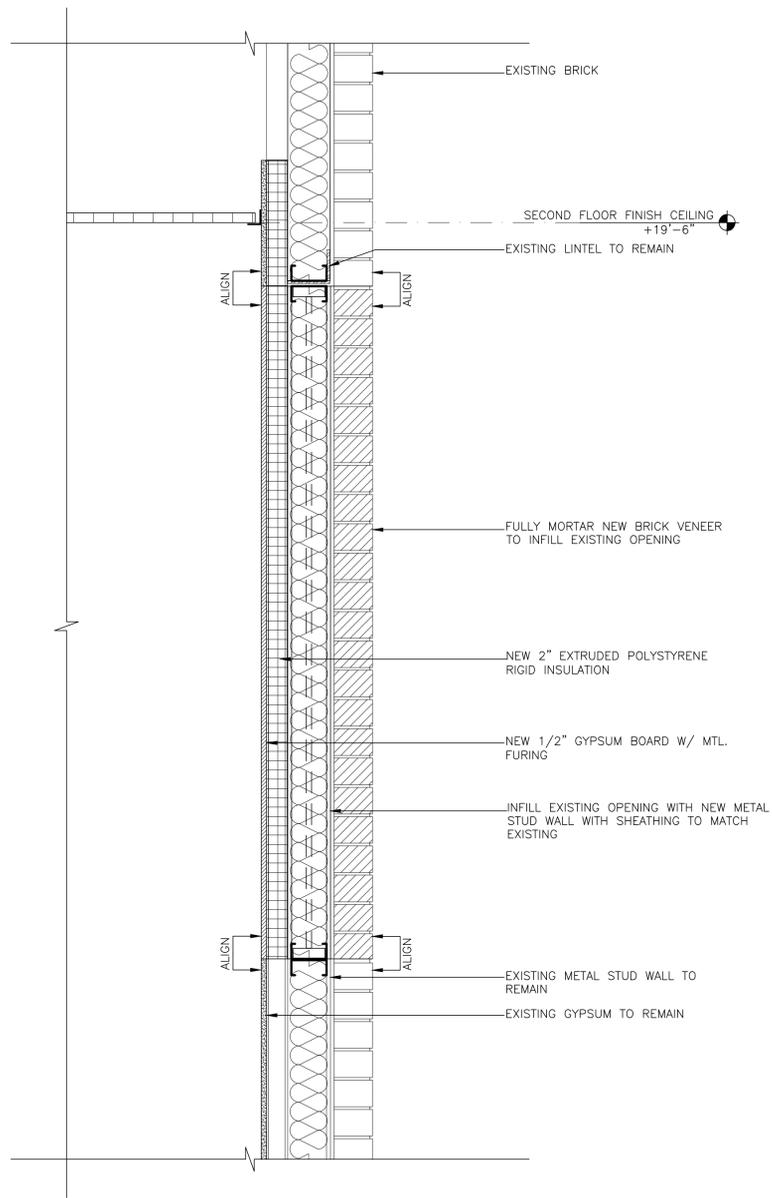
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**ATTACHMENT 19  
TO  
ADDENDUM 1 TO RFP 2025-02**

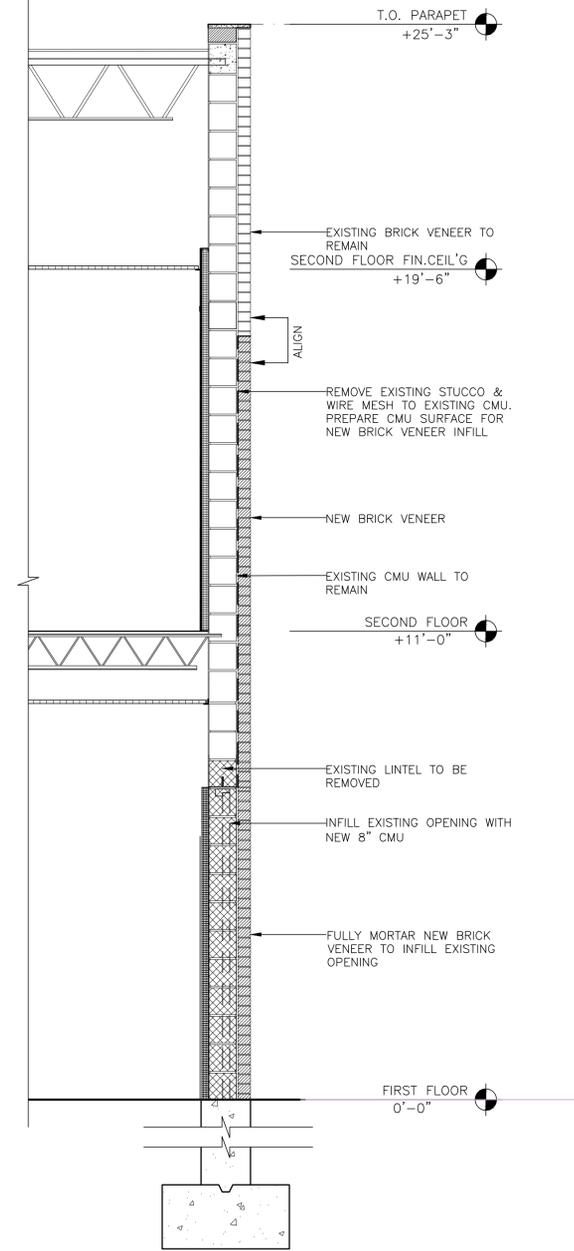
**A-310**



**3 SECTION AT WINDOW INFILL ON FIRST FLOOR**  
SCALE: 1 1/2"=1'-0"



**2 SECTION @ WINDOW INFILL ON SECOND FLOOR**  
SCALE: 1 1/2"=1'-0"



**1 WALL SECTION WITH INFILL**  
SCALE: 1/2"=1'-0"

0 1/2 1  
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, TO ALTER AN ITEM IN ANY WAY.

Drawn by	MAL/JJR
Checked by	MS/JC
Project No.	40034G
Scale	AS NOTED
Date	03-20-23

GREENMAN PEDERSEN INC 2 EXECUTIVE BOULEVARD SUITE 202 SPRINGFIELD, NY 10961	ATZL NASHER, & ZIGLER 294 North Main Street New York, NY 10005
Mechanical, Electrical & Structural Engineer	Civil Engineer

1	03-19-25	ADDENDUM NO. 1
0	02-18-23	RFP SET
No.	Date	Revisions

RENOVATION OF ROCKLAND  
GREEN ADMINISTRATIVE  
HEADQUARTERS AND  
CONSTRUCTION OF AN  
IMMERSIVE THEATRE  
EXPERIENCE

173 MAIN STREET  
MANVET, NY 10954

TOWN OF CLANSTON  
COUNTY OF ROCKLAND



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Drawing Title  
**EXTERIOR  
WALL  
SECTIONS**

Drawing No.  
**A-310**