

STIPULATED SUM BREAKDOWN

Stipulated Sum Breakdown

Water's Edge Condominium
Phase I Roof Replacement Project
Project # J22-1104

Description of Work	Budget Quantity	Schedule of Values
Phase I Base Bid		
Building #1 (3300-3310 Lakeside View Dr)	-	\$47,103.00
Building #4 (3330-3344 Lakeside View Dr)	-	\$61,943.00
Building #3 (3312-3328 Lakeside View Dr & pool house)	-	\$72,538.00
Building #19 (3375-3381 Lakeside View Dr)	-	\$27,663.00
Building #2 (3301-3315 Lakeside View Dr)	-	\$61,779.00
Building #15 (3425-3431 Lakeside View Dr)	-	\$27,544.00
Building #16 (3417-3423 Lakeside View Dr)	-	\$26,589.00
Base Bid Sub-Total		\$325,159.00
Project Allowances		
Remove and replace FRT plywood sheathing	7,000 S.F.	\$30,170.00
Gypsum sheathing removal and replacement	1,000 S.F.	\$3,000.00
Chimney framing repairs	-	\$25,000.00
Wood trim removal and replacement	-	\$5,000.00
Phase I Contract Sum		\$388,329.00

ORDER OF PRECEDENCE

Contract Documents Order of Precedence

In case of conflicts between provisions in the Contract Documents, the following order of precedence shall be followed when resolving a conflict or ambiguity within said Contract Documents.

- a. Pre-bid meeting minutes
- b. Specifications
- c. Drawings
- d. Additional General Conditions; and
- e. AIA Contract provisions

ADDITIONAL GENERAL CONDITIONS

Additional General Conditions

These Additional General Conditions are a part of the Contract Documents and shall take precedence over the AIA A104 Agreement provisions.

1. Review of Site: Contractor is responsible for having visited the project and having determined the general and specific working conditions and limitations, verification of quantities, ingress and egress capabilities, etc. prior to submitting a bid. Failure to do so will not relieve the Contractor from responsibility for successfully performing and completing the work, without additional expenses to the Owner. The Contractor warrants that to the best of his knowledge, he has found no errors or omissions, other than those (if any), which he has called to the Engineer's attention.
2. Permits: Contractor shall obtain and pay for all construction permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the Work.
3. Unit Price Work: The quantities for Unit Price work in the base bid are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract Sum. Payment to Contractor for Unit Price work will be based on actual quantities completed.
4. Industry Standards: All materials and methods of installation will be in accordance with applicable industry standards and recommended practices. Manufacturers' specifications shall be followed unless the Engineer's specifications are more stringent.
5. References: Unless noted otherwise, standards and/or procedures referenced in the Contract Documents shall be the latest available edition.
6. Working Hours: Constructed related work at the property shall be performed during regular working hours Monday through Friday from 8:00 am through 6:00 pm. Work shall be strictly prohibited on Sundays and major Holidays. Contractor shall provide a written notice requesting permission to work outside regular working hours (including Saturdays) to Owner and Engineer at least three working days in advance of the anticipated work.
7. Project Schedule: The Contractor shall provide a written schedule at the pre-construction meeting or within fourteen (14) days of receiving the Notice to Proceed. The schedule shall include a list of key project milestones and a detailed breakdown of the work items.
8. Delay Days: Any days lost to verifiable inclement weather or inability to work (due to conditions beyond the Contractor's control) will result in an equal extension to the Contract Time, without any additional monetary compensation or adjustment to the Contract Sum. Contractor shall maintain a log of delay days throughout the project and shall be provided at the progress meetings.
9. Project Notices: Owner will be responsible for distributing notices to residents/occupants regarding the upcoming work including anticipate start and completion dates. Contractor to update their project schedules accordingly, so project notices can be created/updated.

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10. Electronic Transmittals: Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure project website.
11. Occupied Building: The Owner will occupy the existing building and areas surrounding the project site during the entire period of construction. The Contractor shall perform the work in a manner that will not interfere with the Owner's daily operations. In addition, the Contractor will be required to maintain uninterrupted building ingress/egress for the residents/visitors throughout the project.
12. Pre-Construction Survey: Prior to project commencement, the Contractor will be required to complete a pre-construction survey of the work areas to document any pre-existing damages using a camera and/or video recorder. Any damages that are not documented shall be the Contractor's responsibly to correct if not clearly determined to be pre-existing conditions.
13. Project Supervision: The Contractor is solely responsible for project oversight. The Contractor shall provide qualified, full-time, on-site supervision throughout the project who are properly trained and have experience in similar projects. Contractor's appointed supervisor(s) shall be accessible to the Owner and/or Engineer.
14. Contractor's Employees: All job-site personnel shall be at least 18 years of age as well as US Citizens, or aliens properly documented and permitted to work in accordance with all applicable federal, state and local laws.
15. Employee Conduct: All employees of the Contractor shall maintain proper conduct in regard to personal actions and contact with residents, tenants, visitors, etc. This shall include no drug and/or alcohol use and no profane language. Any employee of the Contractor engaging in improper conduct will be required to be permanently removed from the project.
16. Contractor Identification: All job-site personnel shall maintain appropriate appearance including all required personal safety devices as required by OSHA. This shall include Contractor uniforms or Contractor issued badges that demonstrates that they are employees of the Contractor while working at the project.
17. Job/Site Safety: The Contractor is solely responsible for job and site safety. The Contractor shall assure that all workers on the site are qualified and competent (as defined by OSHA) to perform the duties of the job as assigned. The Contractor shall enforce job site safety and shall require anyone in non-conformance to immediately vacate the job site. The Owner and Engineer will not be held responsible for any safety violations or for failure of the Contractor to perform the work in a safe manner.
18. Job Site Clean-up: The Contractor is required to perform daily clean-up of the work area(s), staging area, and building premise of all construction related materials, equipment, and debris. Keep public areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris.

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19. Equipment: The Contractor is required to furnish all necessary equipment (in good working order) to perform the specified work.
20. Loading of Materials: Do not load any materials and/or equipment onto the building structure that could potentially cause damage or collapse. If a determination of a structure's ability to sustain construction loads is required, it is the responsibility of, and at the expense of, the Contractor to retain a structural engineer (registered in the project jurisdiction) to determine the adequacy of the structure to sustain the loads in question.
21. Storage of Materials: The Owner may provide an area on the property to store materials; however, the security of the storage area is the responsibility of the Contractor. Storage and set-up will be allowed only at the locations indicated on the plans and shall be enclosed with self-supporting chain-link fencing with privacy fabric.
22. Inspections: The Owner and the Engineer shall have the right to examine the supplies, materials, and equipment used by the Contractor and to observe the operations of the Contractor. Inspections, acceptances, and payments by the Owner, the materials manufacturer, or the Owner's Engineer shall not excuse the Contractor in any way for defects discovered in his work. Defects or unapproved materials found shall be corrected or replaced to the Owner's satisfaction, as directed by the Engineer, without any additional cost. Payment will not be made to the Contractor for any work performed or unapproved materials that is not in full compliance with the specifications.
23. Limitations of Engineer's Responsibilities: Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
24. Building Damages: The Contractor is responsible for maintaining the building in a safe and weather-tight condition as well as for the protection of existing building surfaces (both interior and exterior), utilities, exterior structures, pavement, sidewalks, landscaping, hardscaping, irrigation systems, etc. This includes protection against water penetration and dust intrusion related to the project. Any damages to existing areas caused directly or indirectly by the work will be the Contractor's responsibility to correct. Repairs not satisfactorily completed will be done by the Owner and deducted from the Contract Sum.
25. Restroom Facilities: Contractor shall provide a portable restroom for their workers, which is to be located within their fenced-in staging area.
26. Electric Availability: The Owner will not be providing electric for this project; therefore, the Contractor will be required to supply generators for their work.
27. Water Availability: The Owner will be providing water as needed for this project. The Contractor will be required to supply garden hoses from the identified water source(s).

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28. Temporary Safeguards: The Contractor shall provide all necessary construction related safeguards including, but not limited to, barricading, sediment & erosion controls, fencing, etc. to protect residents, visitors, pedestrians, and workers as well as provide uninterrupted operations of the property.
29. Parking Space Closures: The Contractor can take up to twelve (10) parking spaces for their staging area. The Contractor can also restrict up to ten (10) parking spaces (total) at a given time in front of their work areas; however, the parking spaces will need to be reopened after the posted working hours. Each work area shall be substantially completed prior to mobilizing to the new work area.
30. Project Submittals: Prior to the project commencement, the Contractor shall submit the following items electronically to the Engineer for review.
- a. Proposed materials (technical data sheets and corresponding MSDS)
 - b. Detailed construction schedule
 - c. Building permit(s)
 - d. Certificate of Insurance
 - e. Emergency contact sheet
 - f. Payment and Performance Bonds (if included in the Contract)
31. Project Warranties: The following is a list of the required warranties for this project. The Contractor shall include a draft version of the warranties in the project submittals for the Engineer's and Owner's review.
- a. Contractor's five (5) year labor and workmanship warranty
 - b. GAF Golden Pledge Limited Warranty
 - c. Manufacturer's five (5) year material warranty for WRB
 - d. Manufacturer fifty (50) year prorated material warranty for new siding
32. Final Payment: Prior to the Owner releasing final payment, the Contractor shall submit the following items to the Owner:
- a. Final lien release;
 - b. Specified warranties;
 - c. Initialed (completed) punch list;
 - d. Applicable operation and maintenance manuals; and
 - e. Closeout documentation of building permits (if obtained).

End of Section

CONTRACTOR'S INSURANCE REQUIREMENTS

Contractor's Insurance Requirements

The Contractor shall procure and maintain, at its own expense and for the duration of the Contract including specified warranty periods, insurance coverages with limits of liability not less than those stated below or as required by law, whichever is more stringent.

Commercial General Liability	Each Occurrence	\$1,000,000.00
	Damaged to Rented Premises (per occurrence)	\$100,000.00
	Medical Expenses (any one person)	\$10,000.00
	Personal & Adv Injury	\$1,000,000.00
	General Aggregate	\$2,000,000.00
	Products – COMP/OP AGG	\$2,000,000.00
Automobile Liability Insurance (Owned, Non-Owned, & Hired)	Combined Single Limit (Ea accident)	\$1,000,000.00
Umbrella Liability Insurance	Each Occurrence	\$5,000,000.00
	Aggregate	\$10,000,000.00
Workers Compensation & Employer's Liability		Statutory Limits

ADDITIONAL INSURANCE REQUIREMENTS

1. All insurers must be licensed or approved to do business within the jurisdiction of the Project.
2. Contractor's insurance policy shall include a waiver by the insurer of all rights of subrogation against the Owner, its directors, officers, members, employees and agents.
3. The Owner, Management Company, and Reliable Engineering shall be named as additional insureds on the CGL and Automobile policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor in connection with the project.
4. Contractor's insurance carrier to provide a minimum of thirty (30) days advance written notice to the Owner for cancellation, non-renewal, or material changes to policies required under the Contract.
5. For any claims related to this Contract, the Contractor's insurance coverage shall be primary coverage. Any insurance maintained by the Owner shall be excess of the Contractor's insurance and shall not contribute with the primary coverage.

End of Section

PRE-BID MEETING MINUTES

Pre-Bid Meeting Minutes

Property: Water's Edge Condominium
3300-3431 Lakeside View Drive
Falls Church, VA 22041

Date: January 18, 2023

Time: 10:00 am

Project: Roof Replacement
J22-1104

Issued: January 18, 2023

A pre-bid meeting was held to provide an overview of the project and scope of work as well to provide the opportunity for the bidders to ask questions regarding the Contract Documents, project requirements, bidding process, and schedule. An electronic copy of the Request for Proposal (RFP) and project drawings were provided prior to the meeting for the bidders' review.

BID PROCESS DATES

- The bid due date was extended to Thursday February 9, 2023 at 1:00 pm (electronic submission is preferred).
- All project related questions are to be submitted in writing by close of business on Monday February 6, 2023 to rradcliff@reliableengineering.com. A written response will be submitted within two (2) business days to all bidders.
- The Water's Edge Condominium ("Association") anticipates awarding the project in February/March 2023.
- Phase I of the project is intended to commence in Spring 2023 (preferably early May) pending contract ratification, availability of materials, and permit acquisition.

BID SUBMISSION REQUIREMENTS

- A fully completed & signed bid form (including base bid costs, unit prices, project allowances, alternates, proposed schedule, etc.)
- Bidders are to provide any proposed changes to the modified AIA Contract along with their bid submission.
- Bidders are to provide applicable project references along with their bid submission.

PROJECT OVERVIEW

- The scope of work (including the bid form and project drawings) was reviewed in detail. The following items were emphasized:
 - The property consists of twenty (20) buildings and a pool house structure. The project is intended to be performed in three (3) phases over a three-year period. At the Association's discretion, the project may be extended to four (4) years. The phasing plan for the roof replacements is shown on Drawing S101.
 - The low-sloped roofs (front entrances) are not currently included in the scope of work.
 - The work entails removal and replacement of the roof coverings (shingles, flashing, underlayment, etc.). Refer to the project drawings for more detailed information.
 - For the base bid scope of work, the existing skylights are to be removed (salvaged) and re-installed to incorporate the new roof flashing. In the bid form, the bidders are to provide unit pricing for furnishing new skylights. The Association will present this option to the Unit Owners for their review and consideration. Prior to commencement of Phase I, the Association will identify if any of the Unit Owners would like to replace the skylights as part of the project.
 - Any needed replacement of the FRT plywood sheathing or gypsum wall sheathing will be taken from the project allowances.
 - All siding above the roof line (i.e. raised walls) are to be removed and replaced in order to make any needed repairs to the gypsum wall sheathing and install the new self-adhering weather resistive barrier and metal step flashing.
 - For the chimneys, the base bid scope of work is to include removal and replacement of the vinyl siding and trim (above the roof line), removal and replacement of the chimney caps, and installation of a new self-adhering weather resistive barrier. The cost for needed chimney framing repairs shall be taken from the project allowances.
 - The new chimney caps are to be made from 24-gauge stainless steel (not 26-gauge as shown in the project drawings).
 - The bidders were encouraged to further review the bid notes on page 2 of the bid form as they provide more detail of the work to be included in the bid line items.
 - For the gutter replacement scope of work, the bidders are to include installation of new PVC fascia board as well as modifications to the existing vinyl soffit (i.e. installation of a new J-channel) at the fascia transition.
 - The Engineer to revise the bid form to include the following allowances to the base bid.
 - Project allowance of \$5,000 for removal and replacement of deteriorated wood trim identified by the Engineer (within the work areas).

ITEMS DISCUSSED

- The Additional General Conditions were briefly reviewed during the meeting. The bidders were encouraged to further review prior to submitting their bid.
- The project allowances listed in the bid form are considered in addition to the base bid pricing.
- Bidders may coordinate a site visit by contacting the Property Manager, Kelly Lang.
- The awarded Contractor will be required to obtain all needed permit(s) for this project. The cost is to be included in the base bid price.
- The bidders are to include two (2) extra dumpsters in their bid to deal with residents disposing of trash in the dumpsters.
- In the project drawings, the roof quantities are included for each building and the data was taken from the Eagleview reports. All bidders are encouraged to field verify the actual roof measurements prior to submitting their bid.

PROJECT LOGISTICS

- The staging area shall be secured with chain-link fencing wrapped with privacy fabric. The Contractor can use up to twelve (12) parking spaces for their staging area. In addition, the non-restricted parking spaces in front the of the buildings with active roof replacement will be vacated during working hours.
- Contractor will need to utilize generator(s) to perform their work.
- The Contractor is solely responsible for job site safety/security and shall provide security measures (i.e. perimeter fencing, signage, etc.) around the work zones.

CONTRACT TERMS

- The modified A104 Contract (included in the RFP) will be used for this project. Any proposed revisions by the bidders shall be identified in their bid submission for the Owner's review.
- It is the intent of the Association to execute a Contract for Phase I of the project with the awarded bidder. The pricing for subsequent phases will be negotiated with the Contractor, and a separate AIA Agreement will be ratified (if both parties agree on the price increases, if any).
- The liquidated damages provision is specified as \$500.00 per day.
- Payment requisitions shall be submitted monthly and shall be for completed (in-place) work less ten percent (10%) retainage.
- The project warranties were reviewed and are listed in the Additional General Conditions.

BIDDER QUESTIONS

1. Question: Are the 1st and 2nd floor roofs included in the scope?

Response: Yes. The lower gable roofs, shed roofs, portico roofs, etc. are included in the scope of work. The siding will need to be removed and reinstalled (as needed) at these locations to install the new metal apron flashing.

2. Question: Is the scalloped siding to be reinstalled along the small gable roofs?

Response: No. The Contractor will need to remove the lower course(s) of the scalloped siding to install the new metal step flashing. In lieu of reinstallation, the Contractor to include pricing in their base bid to install a new 5/4" x 4" PVC trim along the siding-to-roof transition.

3. Question: Is there an allowance of wood trim replacement in the bid form?

Response: No. The Engineer will issue a revised bid form which will include a project allowance for wood trim replacement (within the work areas).

4. Question: How should the new downspouts be terminated?

Response: The Contractor to match existing conditions (i.e. deposited on a splash block, connected to underground piping, etc.). The Contractor will not be held responsible for defects with the existing underground piping (i.e. blockage, breaks, etc.).

5. Question: Should "false" downspouts be included in the base bid?

Response: No. Any false downspouts (used as conduits for telecommunication lines) are not included in the downspout replacement scope of work.

6. Question: Should the base bid include the new metal gutter splash shields?

Response: Yes. The Contractor should include pricing for replacing the existing splash shields (where exist) at the valley-to-eave intersections.

If any information in these meeting minutes contains any errors or omissions, please contact our office so that corrections or clarifications can be made. Unless notified otherwise, the minutes will be considered accurate and will become an integral part of the Contract Documents.

Very Respectfully,



Robert A. Radcliff, P.E.
President

Attachments: Revised Bid Form

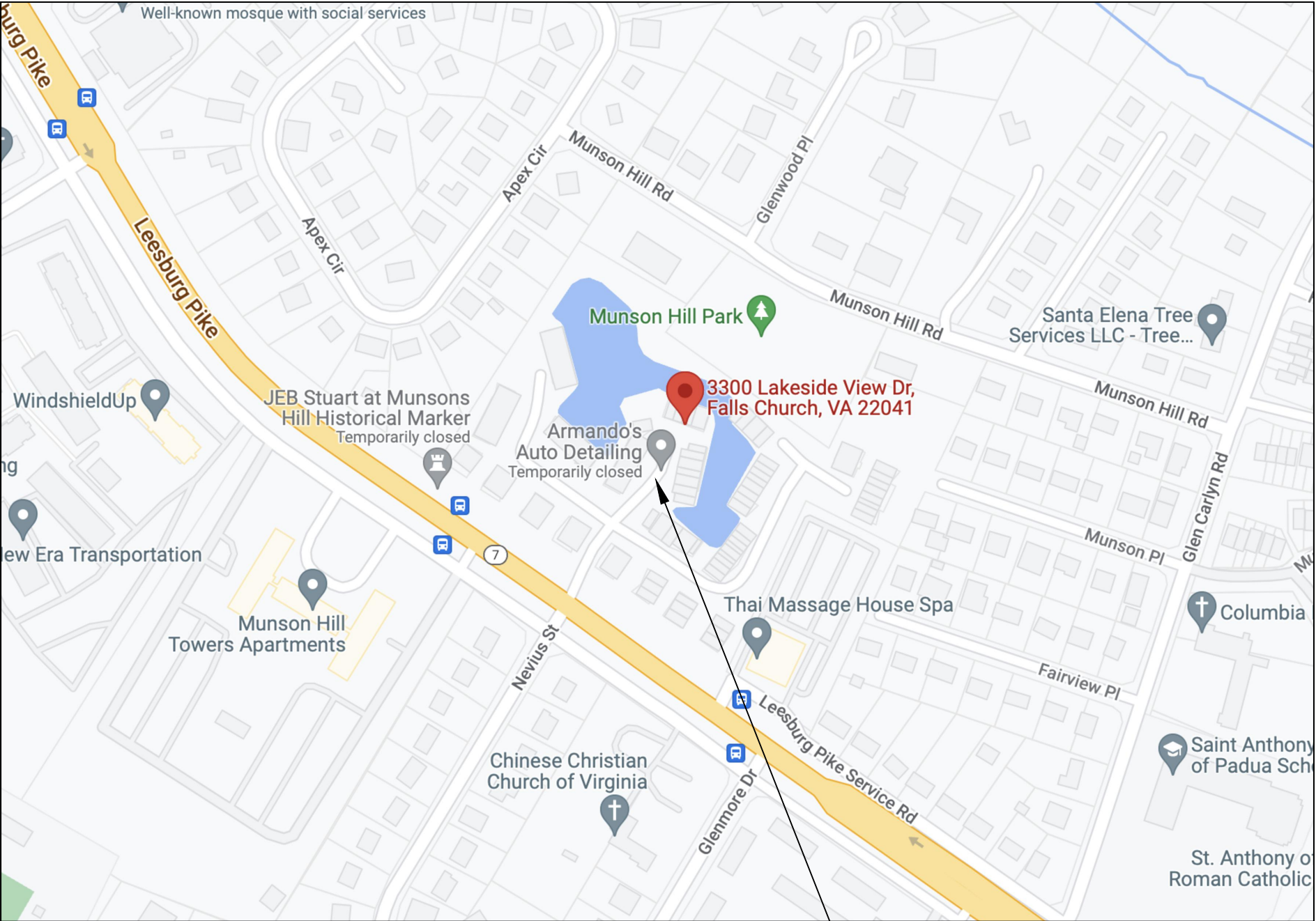
PROJECT DRAWINGS

WATER'S EDGE CONDOMINIUM

ROOF REPLACEMENT PROJECT

3300 - 3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

SITE MAP:



PROJECT LOCATION

PROPERTY INFORMATION:

PROPERTY ADDRESS:	3300-3431 LAKESIDE VIEW DRIVE FALLS CHURCH VA, 22041
COUNTY:	FAIRFAX COUNTY
DISTRICT:	MASON
MAP #:	0612 / 4000100006
ZONING:	R-12
YEAR BUILT:	1984
ROOF AREA:	VARIES (REFER TO PLANS)

OWNER INFORMATION:

WATER'S EDGE CONDOMINIUM UNIT OWNERS ASSOCIATION
C/O KPA MANAGEMENT, INC.
6402 ARLINGTON BOULEVARD
SUITE 700
FALLS CHURCH, VA 22042

ENGINEER INFORMATION:

RELIABLE ENGINEERING, LLC
238 N WASHINGTON STREET
HAVRE DE GRACE, MD 21078
PHONE: 410-240-7863

CODE ANALYSIS:

	EXISTING	PROPOSED
BUILDING CODE	IBC 2018, IEBC 2018	
DESIGN LOADS:		
ROOF LIVE LOAD	100 YEARS	
SNOW LOAD	30 MIN.	
WIND LOAD	-35 PSF	
OCCUPANCY GROUP	R-2	UNCHANGED
CONSTRUCTION TYPE	IIA	UNCHANGED
SEPARATED MIXED USE	NO	UNCHANGED
BUILDING HEIGHT	20 FEET	UNCHANGED
NUMBER OF STORIES	TWO	UNCHANGED
BUILDING AREA	VARIES	UNCHANGED
FIRE ALARM	NO	UNCHANGED

PROJECT NARRATIVE:

Project Description:

The Water’s Edge Condominium (“Owner”) is comprised of twenty (20) two-story residential buildings and a pool house structure situated around a lake. The property was constructed in 1984 and contains approximately 119 condominium units.

The roof coverings consist of asphalt impregnated shingles (varying pitches) that divert the surface water runoff to a series of gutters and downspout assemblies. There are also smaller roof areas over the ground level utility closets and building bump outs. Over the main building entrances, there are low-sloped roof areas that house the HVAC outdoor units (not included in current scope of roof replacement work).

The existing roofs coverings are in poor condition throughout the property. At this time, the Owner desires to replace the asphalt shingles in a phased manner over a three year period.

Scope of Work:

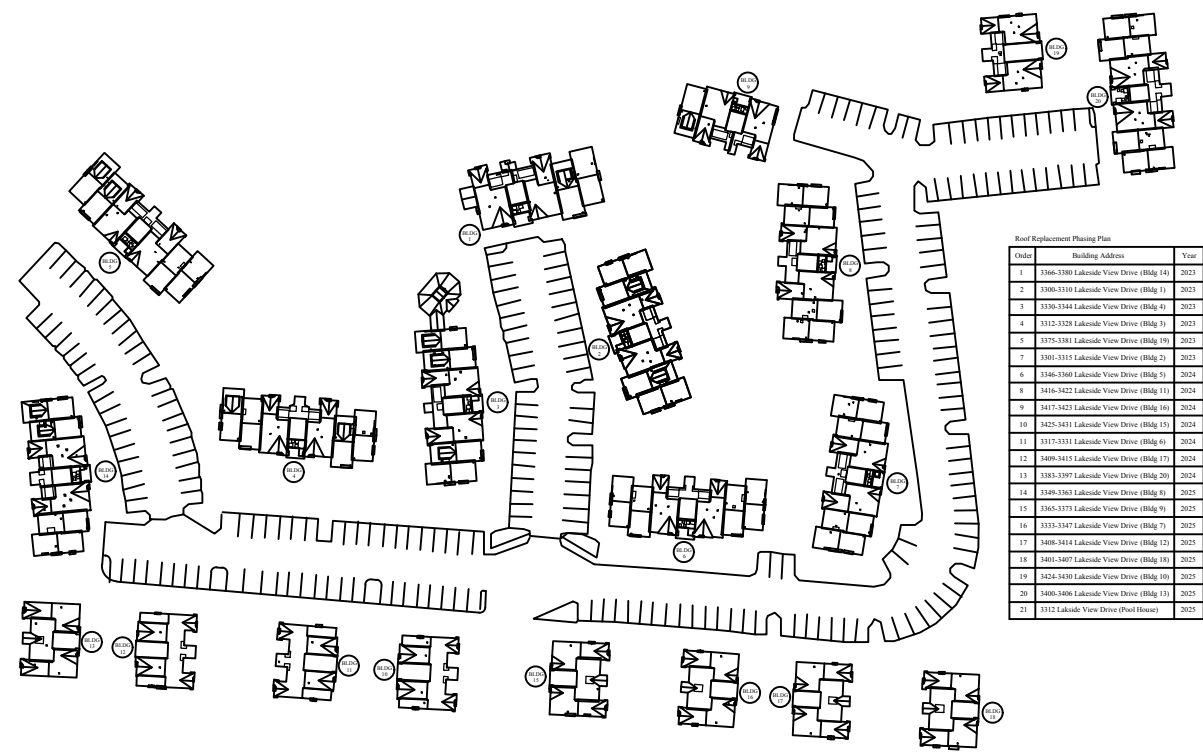
The project will entail removal and replacement of the roof coverings (including all flashings, underlayment, etc.), removal and reinstallation of the existing skylights, replacement of deteriorated roof sheathing (where encountered), removal and replacement of the downspouts and gutter assemblies, as well as removal and replacement of the siding at/above the roof line (including installation of new weather resistive barrier). Refer to the project specifications and drawings for a more detailed summary.

Project Objectives:

The work will be performed on an existing (occupied) property. The following is an overview of the project objectives.

- Perform the work in accordance with the Contract Documents, including the specifications, and drawings, in a professional manner with the best possible workmanship.
- Coordinate the work closely with the Property Manager and Engineer to ensure minimal disruption to the residents, visitors, etc. during the course of the project.
- Perform the work in a manner that will provide a watertight roof system with a twenty-year labor & material warranty.
- Complete necessary framing repairs to stabilize the loose chimneys.

KEY PLAN:



RELIABLE
ENGINEERING

238 N WASHINGTON STREET
HAVRE DE GRACE, MD 20178
website: www.reliableengineering.com

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REV	DATE	
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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

COVER PAGE

APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

PROJECT NUMBER: J22-1104	DATE: DECEMBER 16, 2022
SCALE: NONE	DRAWING NUMBER
SHEET: 1 OF 11	G001

PART 1 - GENERAL

1.01 SCOPE OF WORK:

- A. Install temporary measures (i.e. fall protection/barricading) around perimeter of work areas, as required in order to safely perform the intended work, prevent damage to existing surfaces and maintain facility access and operation.
- C. Install temporary provisions to maintain a watertight condition throughout the course of the project.
- D. Remove and reinstall existing skylights.
- E. Remove and dispose of existing shingles, flashing, underlayment, metal, etc. down to the roof deck.
- F. Remove and dispose of existing vinyl siding and trim along the raised walls at/above the roof line to fully expose the underlying wall sheathing and/or CMU back-up wall.
- G. Remove and dispose of the existing vinyl siding, trim, and chimney caps along three (3) sides of chimney. Work to include removal and replacement of existing gypsum wall sheathing on one (1) side (roof side) of chimney.
- H. Remove and replace deteriorated FRT plywood roof sheathing as identified by the Engineer. Cost to be taken from project allowance.
- I. Remove and replace deteriorated gypsum sheathing as identified by the Engineer. Cost to be taken from project allowance.
- J. Furnish and install new wood-framed crickets behind chimneys where currently do not exist.
- K. Perform needed chimney framing repairs/re-securement as identified by the Engineer. Costs to be taken from project allowance.
- L. Remove and replace ALL fascia board with new Azek trim.
- M. Remove and replace deteriorated wood rake boards identified by the Engineer.
- N. Furnish and install new shingles including specified ice & water shield, underlayment, flashing, ridge vents, metal work, etc.in accordance with the project specifications and manufacturer's installation instructions.
- O. Remove and replace passive roof vents.
- P. Place new pipe flashing, counter-flashing, and/or other metal flashing or other work, as required by industry standards to provide a watertight system.
- Q. Furnish and install new self-adhering air barrier in accordance with the project specifications and manufacturer's written installation instructions. Work to include application of a primer.
- R. Furnish and install new vinyl siding and accessories where removed along the raised walls and chimneys.
- S. Remove and replace ALL rake metal flashing.
- T. Furnish and install new 26 gauge stainless steel chimney caps (soldered seams).
- U. Furnish and install gutters and downspouts.
- V. Power wash, restore surfaces, components, and any elements damaged by the Contractor's work and remove all debris from site.

1.02 QUALITY CONTROL:

- A. All work shall be performed in accordance with these industry standard references.
 - 1. ARMA Asphalt Roofing Manufacturer Association, Residential Asphalt Roofing Manual.
 - 2. NRCA - National Roofing Contractors Association, Roofing and Waterproofing Manual (2007)
 - 3. SMACNA - Sheet Metal and Air Conditioning Contractors National Association, Sheet Metal Manual, Sixth Edition (2003)
 - 4. FM - Factory Mutual Loss Prevention Data (2006)
- B. The work shall be performed only by a qualified contracting firm which has not less than five (5) years of similar experience and is approved (licensed, where applicable) by the appropriate materials manufacturer.
- C. The manufacturers shall certify that all materials proposed to be used are acceptable and compatible for the intended end use.
- D. All equipment and materials shall be handled and operated in a safe and proper manner and shall comply with all applicable regulations pertaining to their use, operation, handling, storage, and transportation.
- E. The Contractor shall develop, implement, and maintain a system adequate to achieve the specified quality of all work performed and material incorporated.
- F. The Contractor, Owner, and Engineer shall attend progress meetings (where appropriate) to discuss project schedules, issues, contractual items, etc. The frequency of the meetings will be determined during the course of the project.
- G. The Contractor shall provide weekly written updates of progress made, project issues, personnel on-site, etc. to the Owner and Engineer.
- H. The work will be periodically observed by the Engineer. The Contractor shall coordinate site visits with Engineer at least 48 hours in advance.
- I. The Contractor will immediately make corrections and/or replacements of all deficient work noted by the Engineer. Any conditions that in the Engineer's opinion may adversely affect life expectancy or performance of the work shall be repaired or replaced by the Contractor at the direction of the Engineer and at no extra cost to the Owner.
- J. Field Mock-ups: The Contractor shall prepare mock-ups of the various installations to demonstrate aesthetic effects, and set quality standards for materials and installation procedures. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.03 PRODUCT DELIVERY, STORAGE AND HANDLING:

- A. Schedule delivery to minimize long-term storage at project site and to prevent overcrowding of construction space(s).
- B. Do not store materials on the roof in concentrations large enough to impose excessive stress on deck or structural members.
- C. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- D. Any damaged or wet materials must be removed from the site and replaced at no cost to the Owner.

1.04 JOB CONDITIONS:

- A. The work may not commence until submittals are approved and pre-construction meeting is completed.
- B. The Contractor must examine all work to be performed and notify the Engineer, in writing, of any differing or unsatisfactory conditions. The work may not proceed until conditions are satisfactory to all parties. The start of work will be considered the Contractor's acceptance of all conditions.
- C. The work may proceed only when weather conditions are within the recommended limitations in accordance with the project specifications and the manufacturers' recommendations. Do not apply any materials to a damp or frozen surface or substrate.
- D. Do not expose deck or new materials in quantities greater than can be waterproofed and properly completed during the same day.
- E. Do not apply roofing materials during precipitation or in the event there is a probability of precipitation during application. Take adequate precaution to ensure that stored materials, incomplete roofing, and building interiors are protected from possible moisture damage or contamination.
- F. Installation may be continued in cold, dry weather providing that all provisions of this specification can be complied with.
- G. Take necessary precautions to protect building surfaces from damage during the Contractor's work. This includes, but is not limited to, water, dust and debris infiltration through roof deck, walls and vents. Restoration of damage due to water intrusion, dust, wind, etc. caused by the Contractor's work will be the Contractor's responsibility.
- H. Grounds are to be cleaned of all debris daily and placed directly into a dumpster or truck at a mutually agreed location and not stockpiled on the groun

PART 2 - PRODUCTS

2.01 ROOF COMPONENTS:

- A. Roof Decking: 1/2-inch thick Fire-retardant-treated (FRT) plywood conforming to ASTM D-3201 and meeting ASTM E-84 for flame spread.
- B. Wood Framing: Southern Pine Number 2 grade pressure treated lumber (size to match existing).
- C. Deck Clips: Pre-formed metal (galvanized) rated panel clips sized to meet project needs. Clips shall be installed where plywood sheathing is replaced.
- D. Products manufactured by the following manufactures are acceptable for this project.
 - 1. GAF Corporation of Parsippany, New Jersey
 - 2. Other manufacturers may be submitted, but final approval or disapproval will be the sole and exclusive responsibility of the Engineer.
- E. Shingles: Timberline HDZ shingles; Color to be selected by the Owner.
- F. Roof Components:
 - 1. Ice & Water Leak Barrier: Weatherwatch Leak Barrier.
 - 2. Synthetic Roofing Felt: FeltBuster synthetic underlayment.
 - 3. Starter Shingles: Pro-Start eave/rake starter strips.
 - 4. Ridge and Hip Cap Shingles: Timbertex ridge shingles.
 - 5. Ridge Vents: Cobra Rigid Vent 3.
- J. Plastic Cement: To comply with the requirements of ASTM D4586 Type II (Asbestos Free).
- K. Vent Pipe Flashing: Ultimate Pipe Flashing manufactured by Lifetime Tools, Inc.
- L. Passive Vents: Slant black 750-ES passive vent by Lomanco Vents, Inc. or an approved equivalent. Color to be selected by Owner.
- N. Metal Chimney Caps: 26 gauge stainless steel conforming to Federal Specification QQ-S-766c annealed or fully annealed, or ASTM A 167, Type 302/304 with Mill Rolled 2D finish.
- O. Color-Coated Aluminum: Conforming to Federal Specification QQ-A-250d, Alloy 3003-H14 or ASTM B 209.
 - 1. Finish shall be seventy percent (minimum) Kynar 500.
 - 2. As supplied by Petersen Aluminum Corporation of Illinois.
 - 3. Unless noted otherwise, color to be selected by Owner.
 - 4. Metal Flashing Thickness:
 - a. Drip Edge: 0.032" thick with a 4-inch horizontal flange and a 3-inch vertical face.
 - b. Rake Edge: 0.032" thick.
 - c. Step Flashing: 0.032" thick.
- P. Sealants for any Required Work: Dymeric by Tremco; color to be selected by Owner.
- Q. Water cut-off mastic: Non-hardening butyl based sealant.
- R. Roofing Nails: Hot-dipped galvanized or stainless 12 gauge, 3/8-inch (minimum), sharp pointed, conventional, and of sufficient length to penetrate through plywood sheathing or into deck lumber at least 3/4 inch. Shingle fasteners shall conform to ASTM F1667.
- S. Plywood Nails: Minimum 8d hot-dipped galvanized common nails to meet building code requirements.
- T. Miscellaneous Fasteners: Provide appropriate fasteners to meet specific project needs for such items as masonry anchors for metal work, etc. Manufacturer's information must be submitted for approval prior to installation.
- U. Gutters: Color-coated aluminum; Style K, 6-inch, 0.75 depth/width ratio.
- V. Concealed Gutter Hangers: 6-inch Hangfast Hidden Hanger with Screw. Manufactured by Raytec, LLC.
- W. Downspouts: Color-coated aluminum, prefabricated, 3 inch by 4 inch rectangular corrugated with associated accessories (elbows) and hidden straps.
- X. Soffit Vents: Value Triple 4" soffit by Certainteed
- Y. Skylights: Structural Lean-To, Low-E (Tempered/Laminated glass) IGU.
 - 1. Skylights manufactured by Starlight Skylights.
 - 2. Size/pitch to match existing skylights.
 - 3. Skylights to be deck mounted
 - 4. Glazing to be completed in the field.

2.02 SIDING COMPONENTS:

- A. Wood Framing: Southern Pine Number 2 grade lumber to match existing material in size.
- B. Wall Sheathing: 5/8-inch thick Densglass Fireguard Sheathing by Georgia-Pacific Gypsum, LLC.
- C. Sheathing Fasteners: Minimum 8d hot-dipped galvanized common nails to meet building code requirements.
- D. Wood Furring Strips: 1/2-inch thick by 3-inch wide strips installed vertically at CMU fire walls.
- E. Weather Resistive Barrier: Blueskin VP160 by Henry Company.
 - 1. Primer: Aquatac by Henry Company. A polymer emulsion based adhesive type, quick setting, low VOC content.
 - 2. Termination Sealant: Polybitume 570-05 polymer modified sealing compound by Henry Company.
 - 3. Insider Corner Sealant: HE925 BES sealant by Henry Company.
- F. Vinyl Siding: Mainstreet siding by Certainteed.
 - 1. Profile: Double 4" wood grain clapboard.
 - 2. Color to match existing.
- G. Exterior Trim: PVC trim manufactured by Azek Building Products.
 - 1. Texture: Traditional.
 - 2. PVC Adhesive: Azek Adhesive.
 - 3. Fascia Board: 5/4-inch thick sheets (cut to match fascia width).
 - 4. Fasteners: #8 PVC trim board screws (color white) manufatured by Simpson Strong-Tie Company.

PART 3 - EXECUTION

3.01 INSPECTION AND PREPARATION:

- A. Protect building surfaces, landscaping, interior living spaces, etc. against damage from roof replacement work. Repair or replace items damaged as a result of this work at no additional cost to the Owner.
- B. Maintain safe ingress/egress to/from the buildings at all times and keep all drive lanes clear and accessible.
- C. Prior to starting roof replacement work use roofing cement to repair blisters, tears or other openings in the roof covering that could cause water penetration into the roof system or the buildin
- D. Follow all manufacturer's published guidelines for material handling, installation and cleaning operations.
- E. Report to the Owner and Engineer any surfaces, which are not prepared properly to receive roofing. The starting of work by the Contractor shall be considered prima facie evidence that surfaces covered are satisfactory. Beginning of installation means acceptance of substrate.
- F. Operations shall terminate immediately in the event of uncovering any structural damage. The Contractor shall notify the Engineer immediately if structure appears to be damaged or deteriorated. Operations shall not resume until directed to do so.
- G. Water Cut-Off: At end of day's work, or when precipitation is imminent, construct a water cut-off at all open edges. Cut-offs can be built using asphalt or plastic cement and roofing felts, constructed to withstand protracted periods of service. Cut-offs must be completely removed prior to the resumption of roofing.
- H. Remove all existing roofing coverings, flashings, metal work, underlayment, etc. and dispose of from the site.

3.02 ROOF PLYWOOD INSTALLATION:

- A. Set all wood components to required elevations, levels and lines, with members plumb, true to line, cut and fitted.
- B. Install new plywood decking lengthwise across the roof trusses. Use full sheets where possible and in no instance shall a piece be less than ½-sheet be installed (plywood shall span across a min. of 3 trusses).
- C. Install plywood sheathing in accordance with industry standards, the American Plywood Association and applicable building codes.
- D. Install new FRT plywood decking a minimum of 4-0" offset along both sides of unit fire separation walls.
- E. Attach plywood to existing roof truses using galvanized 8d common nails spaced 6-inches on-center along the edge of the panels and 12-inches on-center at intermediate supports. Use deck clips for all plywood work in between roof trusses as well as around roof penetrations (i.e. exhaust vents) to provide a rigid surface.
- F. Provide a 1/8-inch gap between panels to allow for normal thermal expansion of the material. Install wood blocking as necessary where end joints of plywood do not occur over wood framing.
- G. Stagger plywood end joints a minimum of 4 feet.
- H. Crickets: Build with suitable materials and install crickets at all chimneys. Flash the cricket with 26-gauge stainless steel in accordance with SMACNA Figure 4-18B and Detail 2. All joints shall be soldered.

3.03 STEEP-SLOPE FELT UNDERLAYMENT & FLASHINGS:

- A. Apply self-adhered membrane flashings at eaves and extend to a point 24 inches (minimum) inside the interior wall line of the building.
 - 1. Install in accordance with ARMA eave flashing for ice dam protection Figure 7-3.
 - 2. Extend flashing at least 4-inches up walls and at least 24-inches out onto the roof deck.
- B. Center and install 36-inch wide strip of the self-adhered membrane in all valleys. Trim horizontal courses of felt underlayment to overlap the valley 6-inches.
- C. Apply self-adhered membrane flashings at all rising walls and completely over all crickets.
 - 1. Extend flashings a minimum of 4-inches up walls and 12-inches out on to the roof deck.
 - 2. Extend flashings a minimum of 18-inches beyond all crickets.
- D. Install and fasten metal drip edge along bottom edge (eaves) before eave flashing is installed and to side edges (rakes) after felt is installed. Secure drip edges on the horizontal flange with roofing nails in a eight to ten inch staggered pattern.
 - 1. Install in accordance with ARMA underlayment Figure 7-1 and SMACNA Figures 4-23C and 4-23D.
 - 2. Lap the end joints 4-inches (minimum) so that no joints are against the flow of water.
- E. Install the first course of felt so that it extends a minimum of 4-inches over the upper section of eave flashing and in accordance with ARMA Figure 7-2.
- F. Lap felt a minimum of 6-inches from both sides over ridges.
- G. Where the roof meets a vertical surface, extend the underlayment four inches up the vertical surface in accordance with ARMA Figure 10-2.
- H. Secure underlayment to deck with as few fasteners as necessary to hold in place until shingles are applied.
- I. Pipe Flashings: Set base of pipe flahing in a thin layer of roof cement and secure (concealed method) using fasteners with neoprene washers.

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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

SPECIFICATIONS

APPROVED BY: ROBERT A. RADCLIFF, P.E. DRAWN BY: RAR	
PROJECT NUMBER: J22-1104	DATE: DECEMBER 16, 2022
SCALE: NONE	DRAWING NUMBER
SHEET: 2 OF 11	G002

3.04 STEEP-SLOPE SHINGLE APPLICATION:

- A. After the underlayment is placed, install the shingles in accordance with ARMA's Residential Asphalt Roofing Manual and NRCA's Steep Roofing Manual. The Contractor must properly "batch" mix differences in the shingles to obtain an aesthetically pleasing appearance. Shingles shall be installed in accordance with ARMA 6" method in accordance with ARMA Figure 8-3. The "racking" method will not be permitted.

1. Prior to installing the shingles, all courses shall be clearly marked by placing a horizontal chalk line parallel to the eaves and a vertical chalk line (every 36 inches) parallel to the rake edge.

2. Starter Course: Install specified starter strip.

3. First Course: Start with full shingle flush with starter course at lower left hand corner of the roof.

4. Second Course: Cut 6 inches from left end of the shingle and apply the 30-inch long section over the head lap of the first course shingle, exposing 5-inches (tabs) of the first course.

5. Third Course: Cut 12-inches from the left end of the shingle and apply this 24-inch long section over the head lap of the second course shingle exposing the second course 5-inches.

6. Succeeding Courses: Courses four through six are begun with a partial shingle 6-inches shorter progressively. Adjacent shingles in each course are full length shingles.

7. Courses seven through twelve repeat the process beginning with a full 36-inch shingle and starting each succeeding course with a partial shingle 6 inches shorter each time. Succeeding courses also repeat this procedure beginning again with a full shingle.

8. Ridges: Projecting parts of shingles should be trimmed flush and capped with a double course of individual shingles cut from the strip shingles used on the roof and exposed 5-inches to the weather. Nail 6-5/8 inches up from bottom edge and 1 inch in from the sides with galvanized roofing nails long enough to penetrate deck ¼-inches.

B. Saw cut a uniform one (1) inch wide opening (each side) continuously along the roof peak (ridge) to within two feet of roof sides to accommodate the placement of new ridge vent and roof-to-wall flashing. Provide specified opening in wood decking only where ridge vent flashing is to be installed. Fill any existing openings that extend beyond the ridge vent flashing.

C. Exhaust Vents (Heat): Replace base of existing vents with new metal bases constructed of 26-gauge stainless steel to match existing metal bases. All joints shall be soldered.

D. Exhaust Vents (Passive): Replace existing passive gravity vents with new pre-fabricated (aluminum) 0.032-inch thick roof mounted units to match the existing vents. Submit color chart for selection by Owner.

E. Water Diverter: 0.032-inch thick color-coated aluminum with a 4-inch horizontal flange and a 2-inch vertical face with a hemmed edge. Extend horizontal flange under shingle and fasten at 6-inches on center. Diverter shall slope a minimum of ¼-inch per foot towards both sides. Seal overlying shingles down with dabs of roof cement.
- 3.05 STEEP-SLOPE STEP FLASHINGS:
- A. Step flashings shall be installed at all sidewall junctions for each shingle course.

B. Cut metal flashing pieces 7-inches by 10-inches and bend in half to lap onto the deck 5-inches and extend above the roof line 5-inches in accordance with ARMA Figure 10-1 and 10-2.

C. Nail each flashing piece to the roof at the top edge with two roofing nails. Apply shingles on top of metal in a thin, uniform layer of plastic roof cement. At crickets and skylights, apply step flashing in a full bed of plastic roof cement under vertical and horizontal legs.

D. To allow for possible roof movement, do not nail flashing to wall. Install a metal cap (counter-flashing) or the wall siding material down over the step flashing.

E. All step flashing curbs, penetration flashings, etc. installed with the roof system shall be installed during the shingle application. No phased application will be allowed.

F. When installing the first piece of step flashing (where an eave intersects a vertical surface), install a "kick-out" to insure water is diverted to the outside of the wall covering.
- 3.06 GUTTER & DOWNSPOUT INSTALLATION:
- A. Provide for proper gutter expansion as required by SMACNA Figure 1_5 (all assemblies).

B. Install all gutter assemblies to provide positive drainage into new downspout locations, SMACNA, Figure 1_18C.

C. Concealed, heavy duty aluminum hangers shall be installed at every rafter and shall penetrate into the rafter one (1) inch minimum.

D. Outlet tubes shall be installed to meet SMACNA Figure 1_33. Supports shall conform to SMACNA Figure 1_13A and outlet tubes shall be installed to meet SMACNA Figure 1_33.

E. Downspouts shall be installed in accordance with SMACNA Figures 1-31 and 1_33. Provide new concrete splash blocks or terminate into existing underground drainage assemblies.

F. Downspout Hangers shall be constructed of downspout metal (gauge and color) and shall be formed and installed using SMACNA Figure 1_35G, with one support per section (joint) or every 10 feet whichever is less. Hangers shall cover joints.
- 3.07 WALL SHEATHING INSTALLATION:
- A. Install new sheathing lengthwise across wood studs. Use full sheets where possible and in no instance shall a piece be less than ½-sheet be installed (sheathing shall span across a min. of 3 studs).

B. Install sheathing in accordance with industry standards and the manufacturer's requirements.

C. Attach sheathing to existing wall studs using galvanized 8d common nails spaced 8-inches on-center along the edge of the panels and 8-inches on-center at intermediate supports.

D. Provide an approximate 1/8-inch gap between panels to allow for normal thermal expansion of the material. Install wood blocking as necessary where end joints of sheathing do not occur over wood framing to provide adequate support.

E. Provide uniform completed surface with projections less than 1/8-inch to receive new WRB.

F. Seal seams of sheathing with new 4-inch wide self-adhering flashings.
- 3.08 SELF-ADHERING WEATHER-RESISTIVE BARRIER:
- A. Examine substrates to receive work and surrounding adjacent surfaces for conditions affecting installation.

1. Sheathing panels must be securely fastened and installed flush to ensure a continuous substrate in accordance with manufacturer published literature.

2. Fastener penetrations must be set flush with sheathing and fastened into solid backing.

B. All surfaces must be sound, dry, clean and free of oil, grease, dirt or other contaminants.

C. Protect adjacent surfaces not receiving weather resistive barrier to prevent spillage and overspray.

D. Apply primer for vapour permeable air barrier membrane (at rate recommended by manufacturer) to all areas receiving new self-adhering membranes. Apply primer by roller or spray and allow minimum thirty (30) minute open time. Surfaces not covered by self-adhering membranes during the same working day must be re-applied.

E. General Installation of self-adhering weather resistive barrier:

1. Provide a min. 3-inch overlap for all side laps and 4-inch overlap for all end laps.

2. After alignment is achieved, remove protective film on backside of WRB and firmly press the WRB into the substrate using a rubber roller to ensure seal.

3. Repair or replace WRB that have fishmouths, wrinkles, etc.

F. Windows and Rough Openings: Place specified SBS modified self-adhered window sill pan flashing membrane across window sills. Pre-treat inside corners with a bead of termination sealant. Install window sill pan membrane and end dam terminations, seal cuts and terminations with termination sealant per window manufacturer's instructions and ASTM E2112.

1. Wrap head and jamb of rough openings with vapour permeable air barrier membrane.

2. Extend vapour permeable air barrier membrane into rough window openings to fully cover sides of window jamb framing.

G. Inside and Outside Corners:

1. Seal inside and outside corners of sheathing boards with a strip of self-adhering, sheet applied vapour permeable air barrier membrane extending a minimum of 4-inches on either side of the corner detail.

2. For inside corners, pre-treat the corner with a continuous ½-inch bead of termination sealant.

H. Field Installation: Align and position vapour permeable air barrier membrane, to prepared and primed substrate in an overlapping shingle fashion, staggering all vertical joints, and in accordance with manufacturer's recommendations.

1. Promptly roll all laps and vapour permeable air barrier membrane to affect the seal.

2. Seal around any openings and exposed leading edges of vapour permeable air barrier membrane with liquid air seal mastic at the end of each work day. Trowel apply a feathered edge to seal termination and shed water.

3.09 SIDING INSTALLATION:

A. Furnish and install new vinyl siding in accordance with the project specifications and manufacturer's written installation guidelines.

B. Set panels to required levels and lines, with members set flush to new wood furring strips/gypsum sheathing, true to line. Clearly cut and properly fitted.

C. Maintain 1-inch gap between shingles and bottom J-channel.

D. Drive nails straight, leaving 1/16 inch space between nail head and flange of panel.

E. Fasteners shall be secured into the wood studs, not just the gypsum sheathing.

F. Start in the center of the panel and work towards the ends.

G. Do not force the panels up or down when fastening. Panel locks should be fully engaged; however, the pagnels should not be under vertical tension or compression.

H. Make sure the vinyl panels can move freely in a side-to-side direction once fastened.

I. Check every fifth or sixth course for horizontal alignment.

J. Panels shall overlap by one half the length of the notch at the end of teh panel, or approximately one inch.

K. Stagger lap joints in horizontal siding in uniform pattern as successive courses of siding are installed. Prevent no two consecutive courses are aligned vertically.

L. G. Install J-channel and flashing to accommodate successive courses of vertical siding. Install wood shims at building corners to bring cut edges of vertical siding out to correct plane.

M. If fasteners are overdriven into face of panel, back out anchor to provide 1/64-inch clearance, install two additional fasteners 2 inches from overdriven fastener.

3.10 PVC TRIM INSTALLATION:

A. Refer to Section 2.02.G and project drawings for trim type and installation locations.

B. Install new PVC trim to comply with manufacturer's written instructions and the project drawings.

C. Install trim with full length pieces (i.e. no joints) where possible. Install level and plumb.

D. Fasten PVC trim to structural building framing using the specifeid trim screws. Refer to the project drawings for screw spacing.

1. Apply specified PVC adhesive to all but joints.

2. Position screws no closer than 2-1/2 inches from edge of fascia board and provide a minimum embedment of 1-1/2 inches into the wood substrate.

3.11 SEALANT WORK:

A. Prior to placing sealant, properly prepare joints and surfaces, as required by the sealant manufacturer.

1. Totally clean, grind, cut, brush, etc. all surfaces down to solid material and remove all dust, old sealants, foreign materials, etc. that could possibly interfere with the bonding of the sealant to the building substrate material.

2. Where required by the sealant manufacturer, carefully prime surfaces that are to be bonded to the sealant.

3. As required, place backer rod or bond breaker tape to control sealant depth and to prevent three_point bonding of the sealant in joints.

B. Apply sealant in accordance with the sealant manufacturer's requirements and recommended practices, including application temperatures.

1. Properly fill horizontal joints, openings, etc. to prevent water from being retained on the finished sealant.

2. Carefully tool the exposed sealant surface to help assure proper bond and to provide a smooth, attractive appearance.

C. Where used to seal around penetrations, place pourable sealant to completely fill the flashing and trowel off the top surface so that no water can be retained on top of the sealant.

3.12 CLEAN-UP AND DEMOBILIZATION:

A. Clean all surfaces and any other elements soiled by the Contractor's work and remove all markings from finished surfaces.

B. At completion, before Owner's acceptance, remove all debris and excess materials from the site.

C. Repair/replace and restore all construction found to be damaged upon completion; before or after demobilization. This excludes items documented by the Contractor prior to the start of work assuming such detailed documentation was provided to the Owner and Engineer.

3.13 FIELD QUALITY CONTROL:

A. Testing Agency: The Owner will engage a qualified, independent, inspection agency to perform roof inspections and tests, and to prepare reports.

B. Interim and Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation periodically at each building and upon completion at each building, and submit reports to the Engineer. Notify Engineer and Owner's Representative 48 hours in advance of date and time of inspections.

C. Repair or remove and replace components of roofing system where test results or inspections indicate that they do not comply with the specified requirements.

D. Additional testing and inspections, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

END OF SECTION

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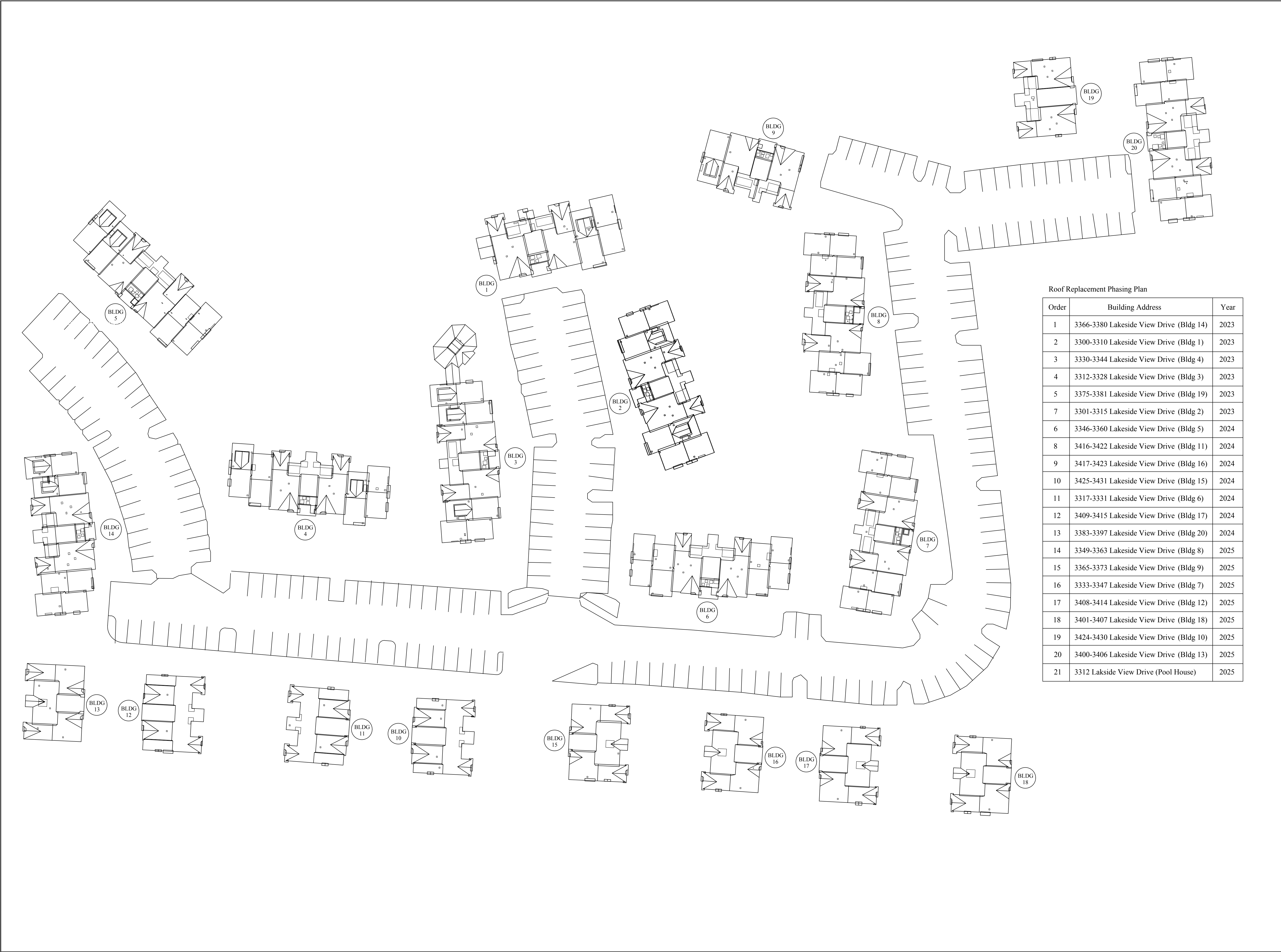
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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

SPECIFICATIONS

APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

PROJECT NUMBER: J22-1104	DATE: DECEMBER 16, 2022
SCALE: NONE	DRAWING NUMBER
SHEET: 3 OF 11	G003



Roof Replacement Phasing Plan

Order	Building Address	Year
1	3366-3380 Lakeside View Drive (Bldg 14)	2023
2	3300-3310 Lakeside View Drive (Bldg 1)	2023
3	3330-3344 Lakeside View Drive (Bldg 4)	2023
4	3312-3328 Lakeside View Drive (Bldg 3)	2023
5	3375-3381 Lakeside View Drive (Bldg 19)	2023
7	3301-3315 Lakeside View Drive (Bldg 2)	2023
6	3346-3360 Lakeside View Drive (Bldg 5)	2024
8	3416-3422 Lakeside View Drive (Bldg 11)	2024
9	3417-3423 Lakeside View Drive (Bldg 16)	2024
10	3425-3431 Lakeside View Drive (Bldg 15)	2024
11	3317-3331 Lakeside View Drive (Bldg 6)	2024
12	3409-3415 Lakeside View Drive (Bldg 17)	2024
13	3383-3397 Lakeside View Drive (Bldg 20)	2024
14	3349-3363 Lakeside View Drive (Bldg 8)	2025
15	3365-3373 Lakeside View Drive (Bldg 9)	2025
16	3333-3347 Lakeside View Drive (Bldg 7)	2025
17	3408-3414 Lakeside View Drive (Bldg 12)	2025
18	3401-3407 Lakeside View Drive (Bldg 18)	2025
19	3424-3430 Lakeside View Drive (Bldg 10)	2025
20	3400-3406 Lakeside View Drive (Bldg 13)	2025
21	3312 Lakside View Drive (Pool House)	2025

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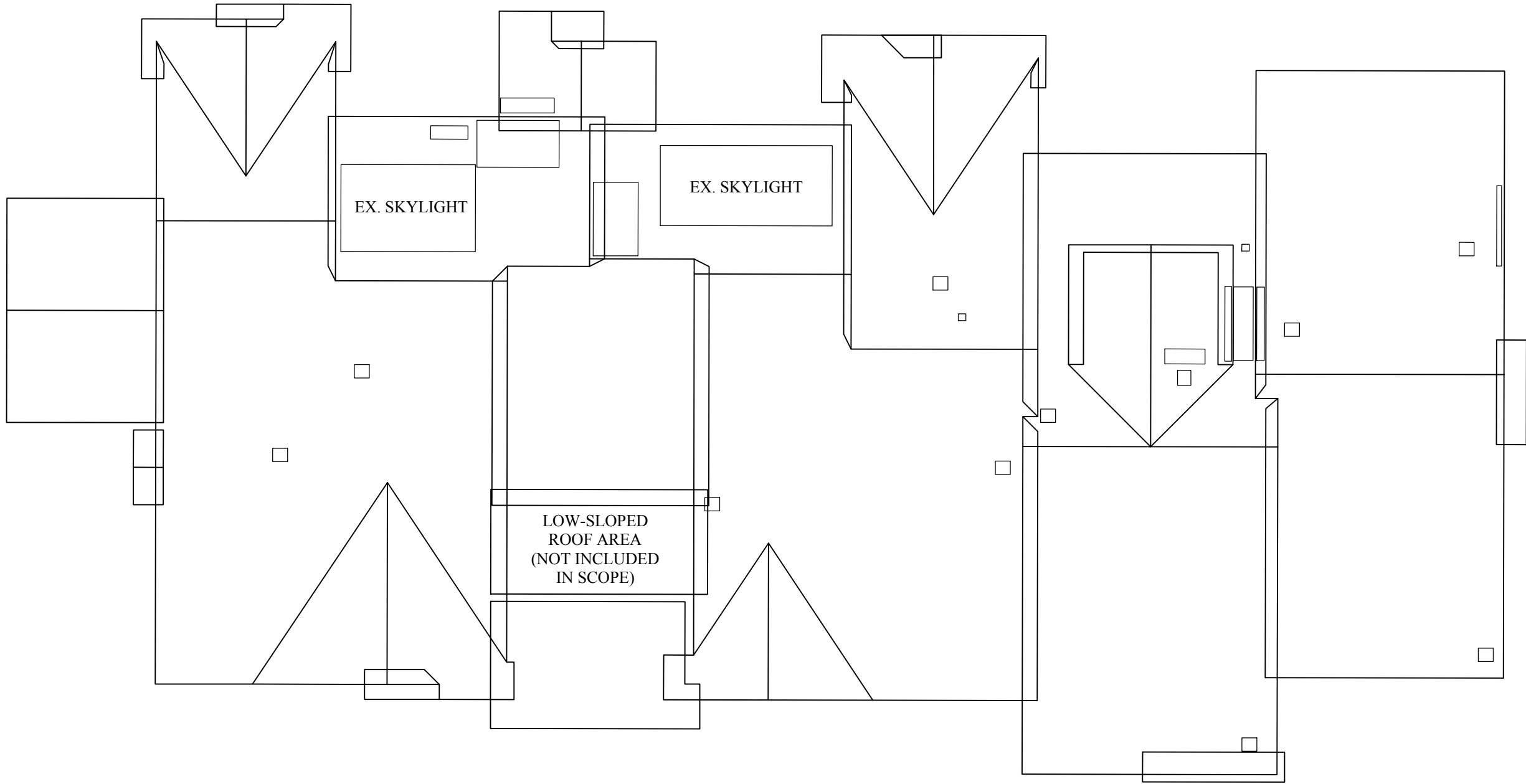
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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

CONCEPTUAL SITE PLAN

APPROVED BY: ROBERT A. RADCLIFF, P.E. DRAWN BY: RAR	
PROJECT NUMBER: J22-1104	DATE: DECEMBER 16, 2022
SCALE: NONE	DRAWING NUMBER
SHEET: 4 OF 10	S101

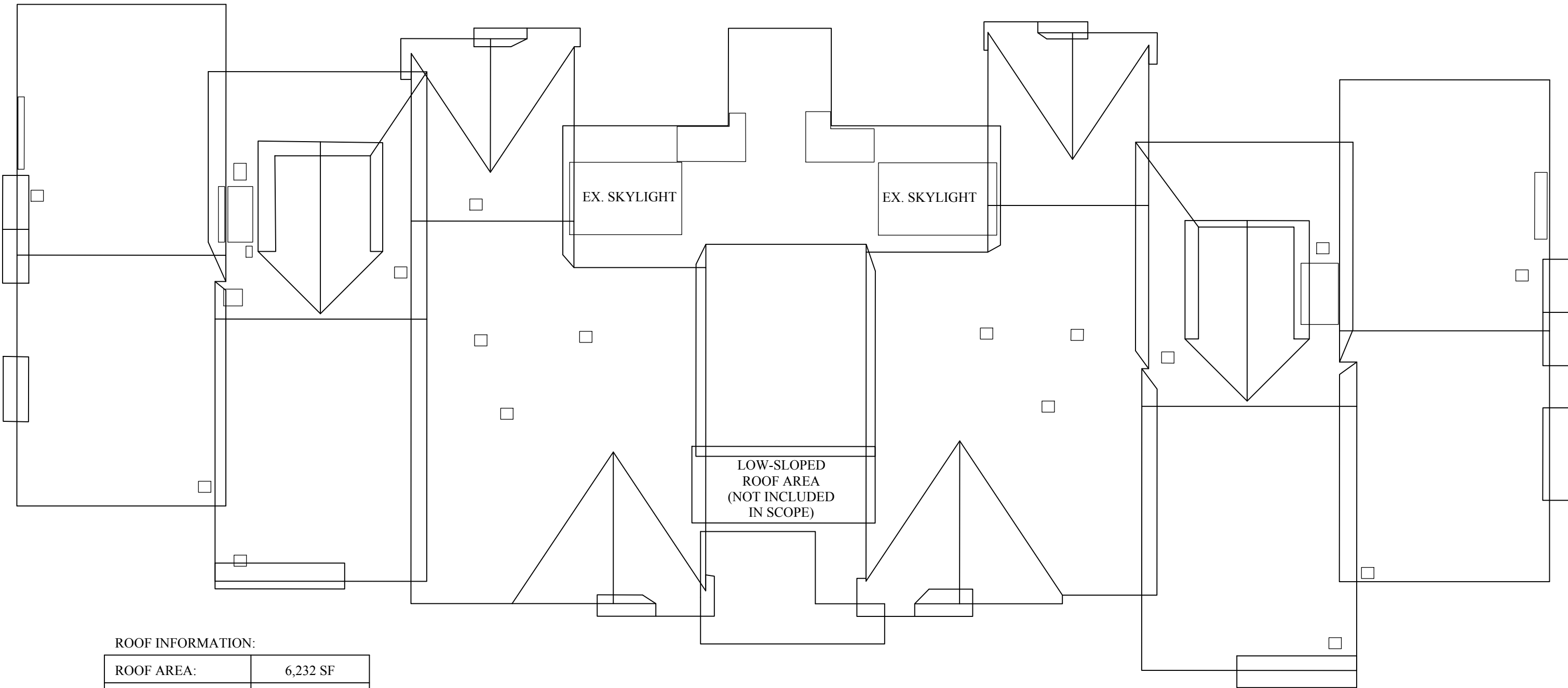


ROOF INFORMATION:

ROOF AREA:	4,683 SF
RIDGES:	176 LF
RAKES:	476 LF
VALLEYS:	125 LF
EAVES:	250 LF
# OF CHIMNEYS:	4
# OF SKYLIGHTS:	2

1
S201

BUILDING #1 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"

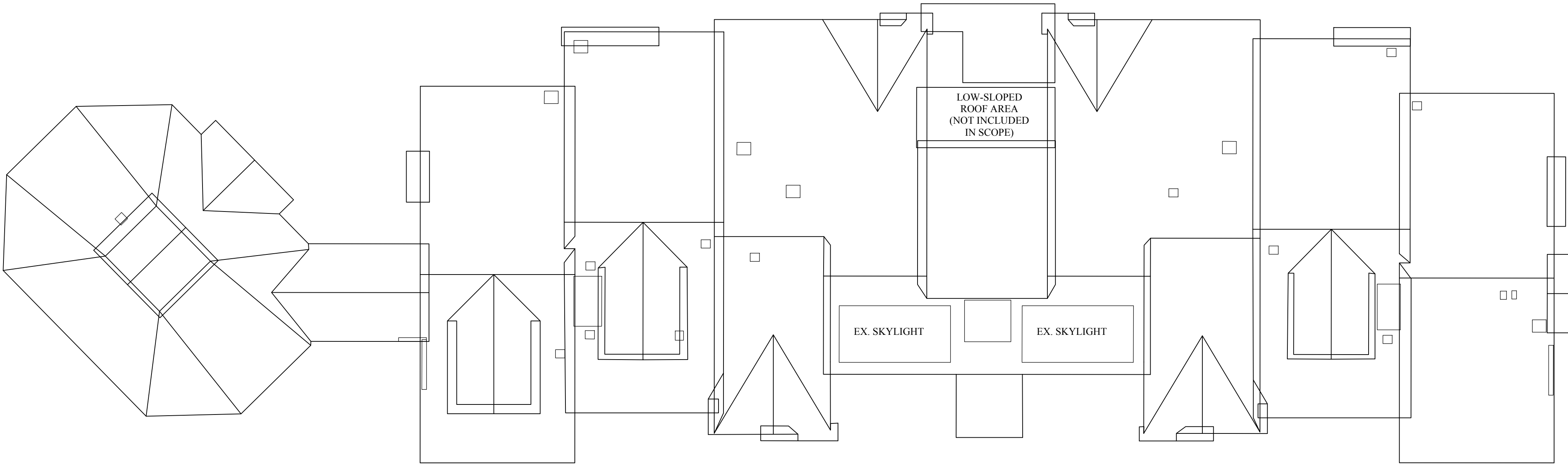


ROOF INFORMATION:

ROOF AREA:	6,232 SF
RIDGES:	210 LF
RAKES:	597 LF
VALLEYS:	145 LF
EAVES:	333 LF
# OF CHIMNEYS:	6
# OF SKYLIGHTS:	2

2
S201

BUILDING #2 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:

ROOF AREA:	6,047 SF
RIDGES:	251 LF
RAKES:	615 LF
VALLEYS:	186 LF
EAVES:	475 LF
# OF CHIMNEYS:	5
# OF SKYLIGHTS:	2

3
S201

BUILDING #3 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"

GENERAL NOTES:

- The roof layout and quantities were taken from Eagleview Reports obtained for this project. Contractor to field verify dimensions/quantities prior to submitting their bid.
- The low-sloped roof areas are not included in the scope of work.
- The shingle replacement includes both the main roofs as well as the secondary (1st floor roofs).
- The existing skylights are to be removed and reinstalled.

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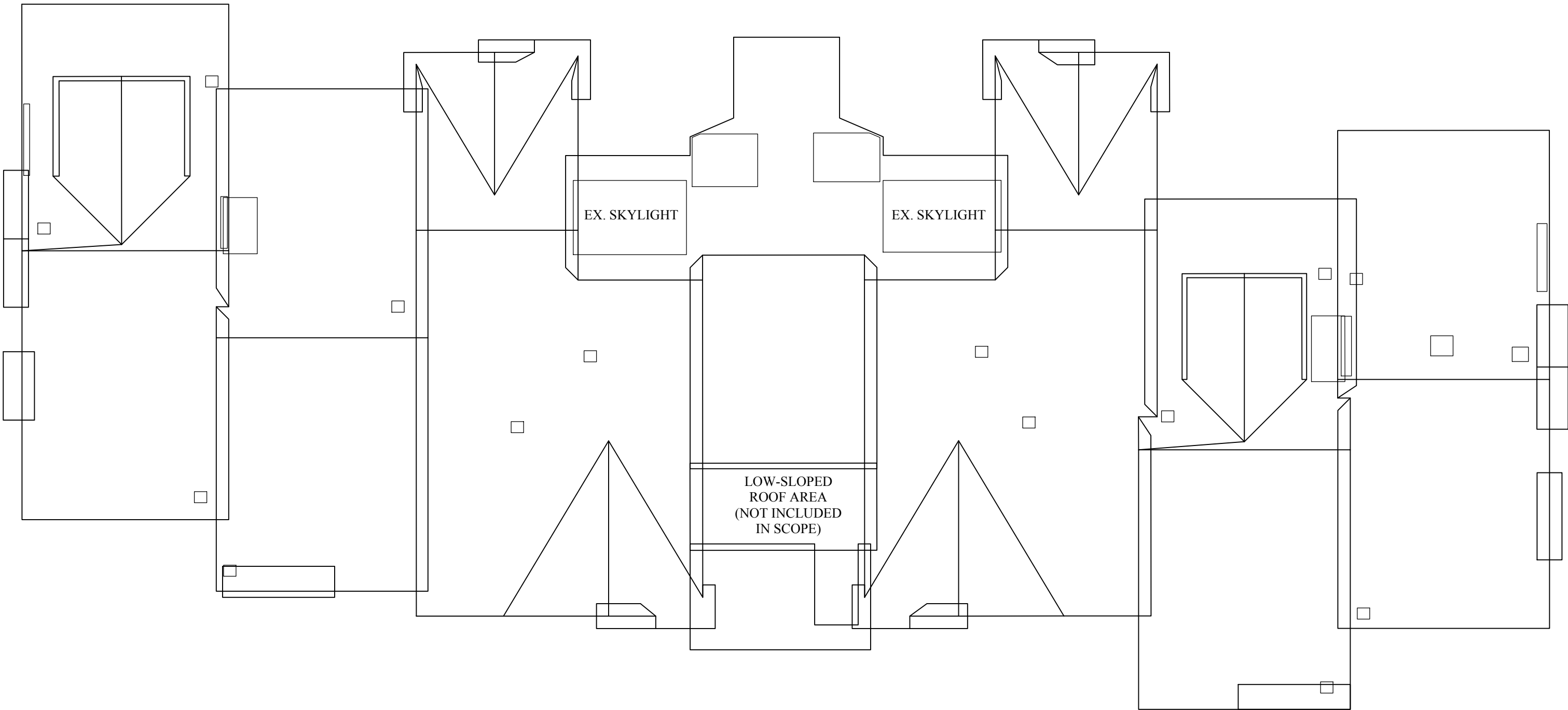
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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

ROOF PLANS

APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

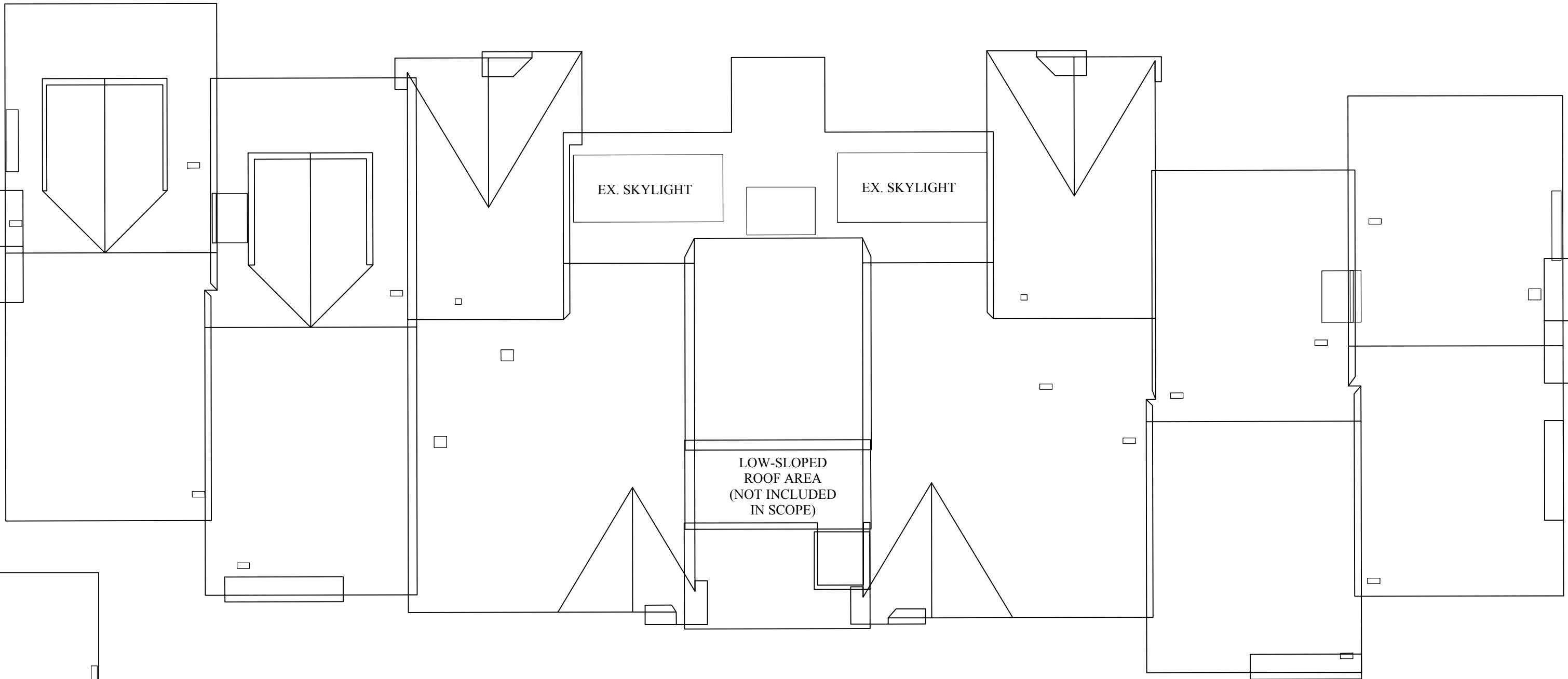
PROJECT NUMBER: J22-1104	DATE: DECEMBER 16, 2022
SCALE: $\frac{1}{8}$ " = 1'-0"	DRAWING NUMBER
SHEET: 5 OF 10	S201



ROOF INFORMATION:

ROOF AREA:	6,202 SF
RIDGES:	214 LF
RAKES:	616 LF
VALLEYS:	158 LF
EAVES:	329 LF
# OF CHIMNEYS:	6
# OF SKYLIGHTS:	2

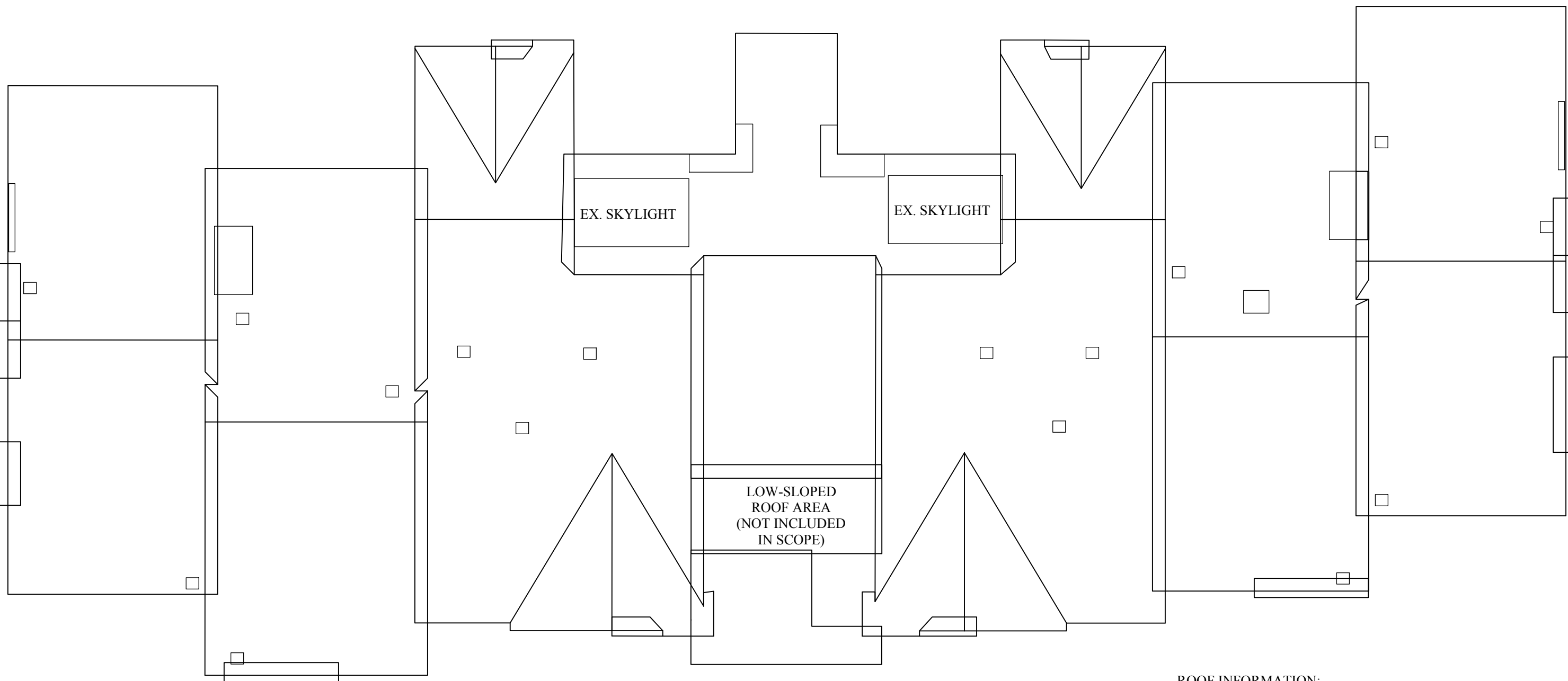
1
S202 BUILDING #4 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$



2
S202 BUILDING #5 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$

ROOF INFORMATION:

ROOF AREA:	6,121 SF
RIDGES:	207 LF
RAKES:	588 LF
VALLEYS:	140 LF
EAVES:	325 LF
# OF CHIMNEYS:	5
# OF SKYLIGHTS:	2



ROOF INFORMATION:

ROOF AREA:	5,993 SF
RIDGES:	182 LF
RAKES:	568 LF
VALLEYS:	121 LF
EAVES:	292 LF
# OF CHIMNEYS:	6
# OF SKYLIGHTS:	2

3
S202 BUILDING #6 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$

GENERAL NOTES:

- The roof layout and quantities were taken from Eagleview Reports obtained for this project. Contractor to field verify dimensions/quantities prior to submitting their bid.
- The low-sloped roof areas are not included in the scope of work.
- The shingle replacement includes both the main roofs as well as the secondary (1st floor roofs).
- The existing skylights are to be removed and reinstalled.

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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

ROOF PLANS

APPROVED BY: ROBERT A. RADCLIFF, P.E.

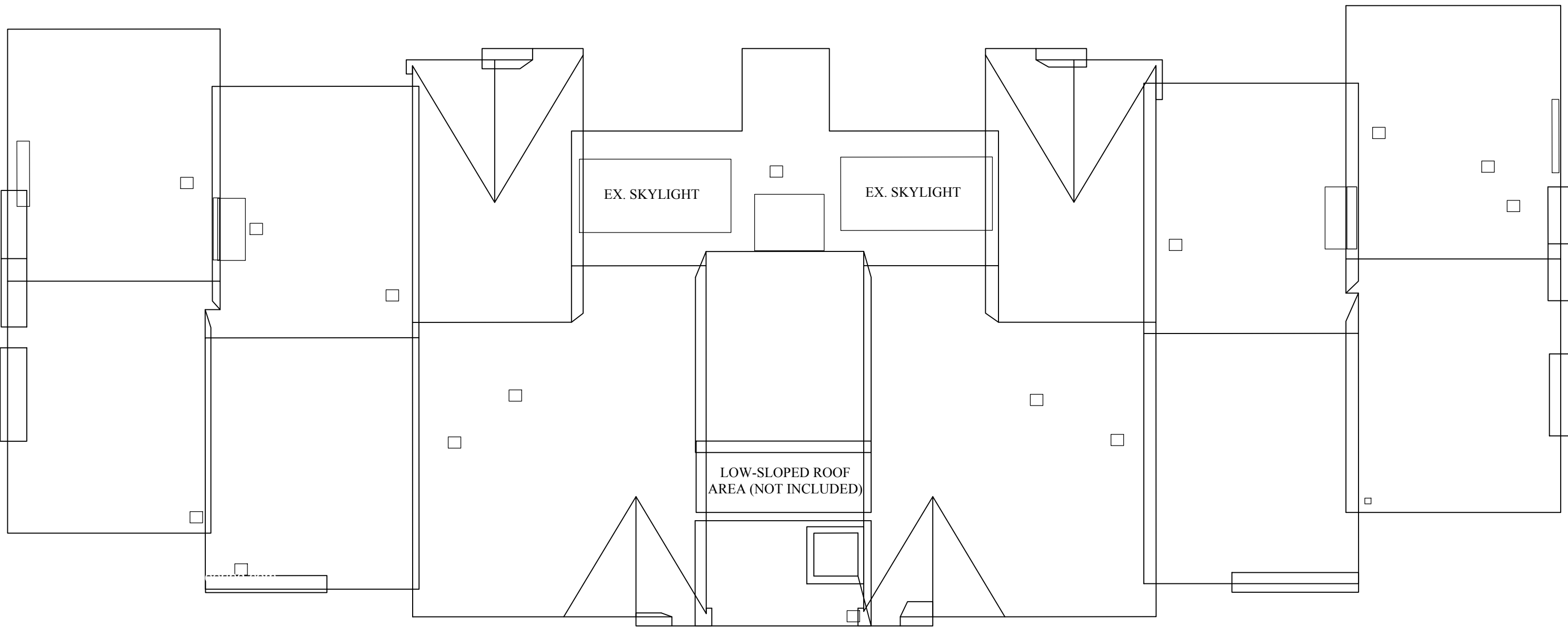
DRAWN BY: RAR

PROJECT NUMBER: J22-1104

DATE: DECEMBER 16, 2022

SCALE: $\frac{1}{8}"=1'-0"$
SHEET: 6 OF 10

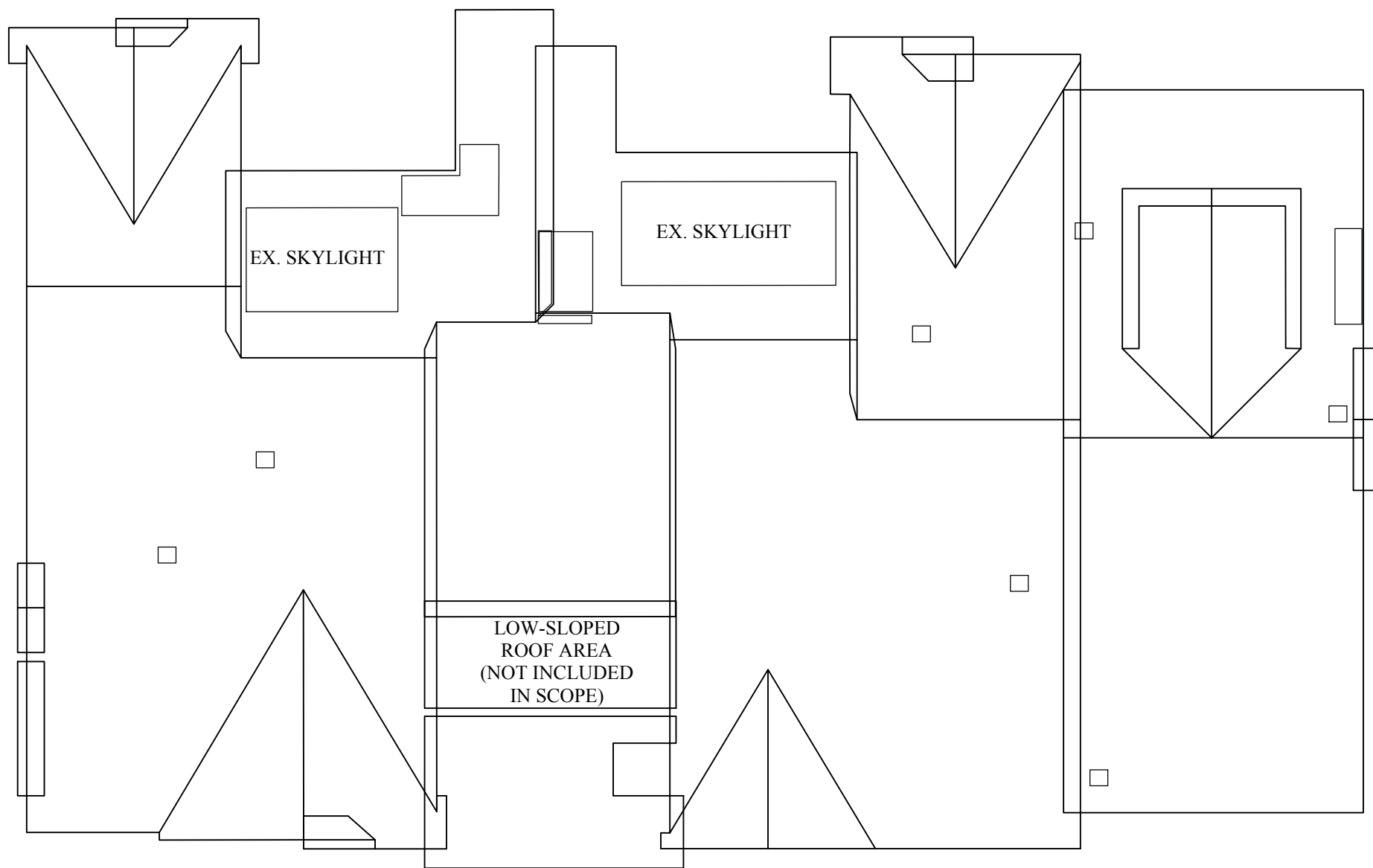
DRAWING NUMBER
S202



ROOF INFORMATION:

ROOF AREA:	5,956 SF
RIDGES:	176 LF
RAKES:	554 LF
VALLEYS:	107 LF
EAVES:	281 LF
# OF CHIMNEYS:	4
# OF SKYLIGHTS:	2

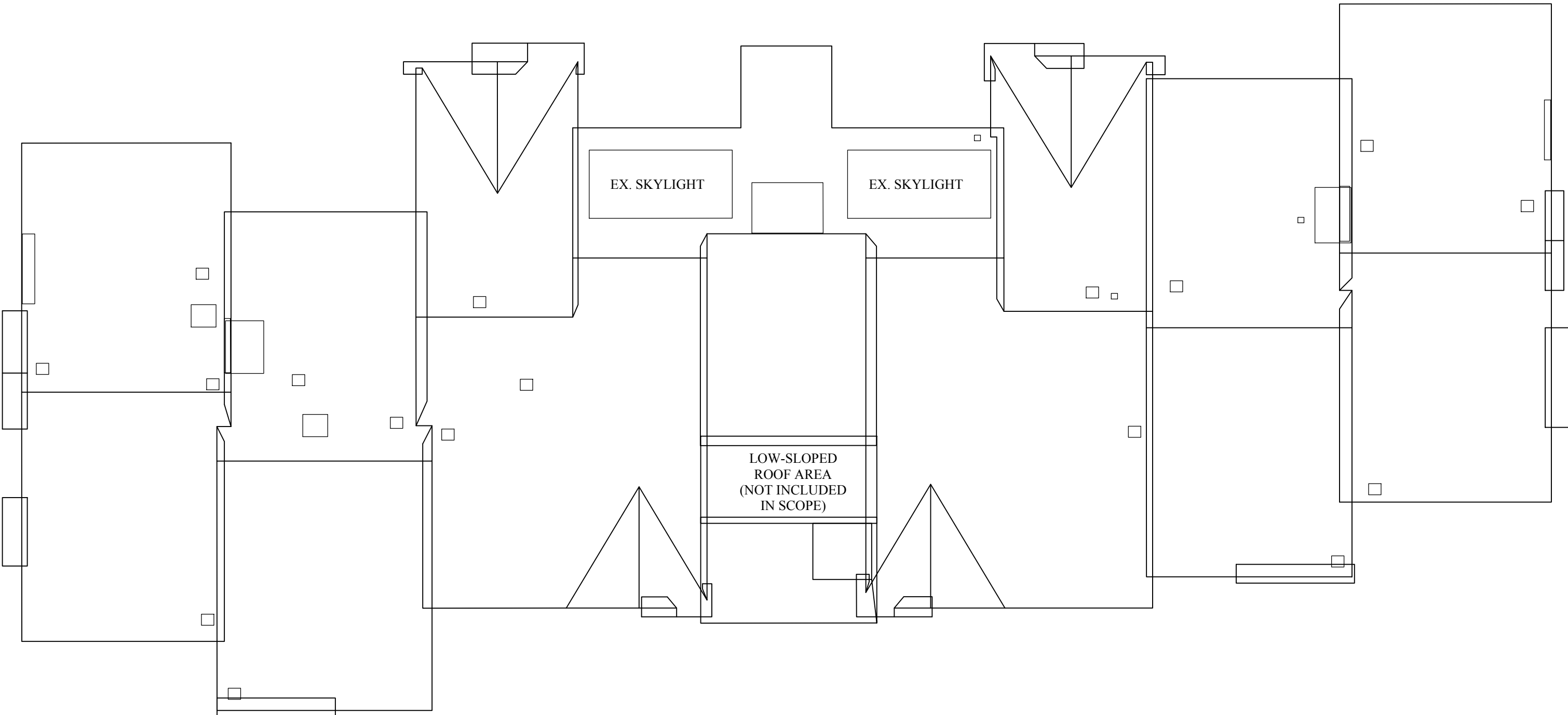
1
S203 BUILDING #7 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:

ROOF AREA:	3,699 SF
RIDGES:	142 LF
RAKES:	418 LF
VALLEYS:	125 LF
EAVES:	175 LF
# OF CHIMNEYS:	3
# OF SKYLIGHTS:	2

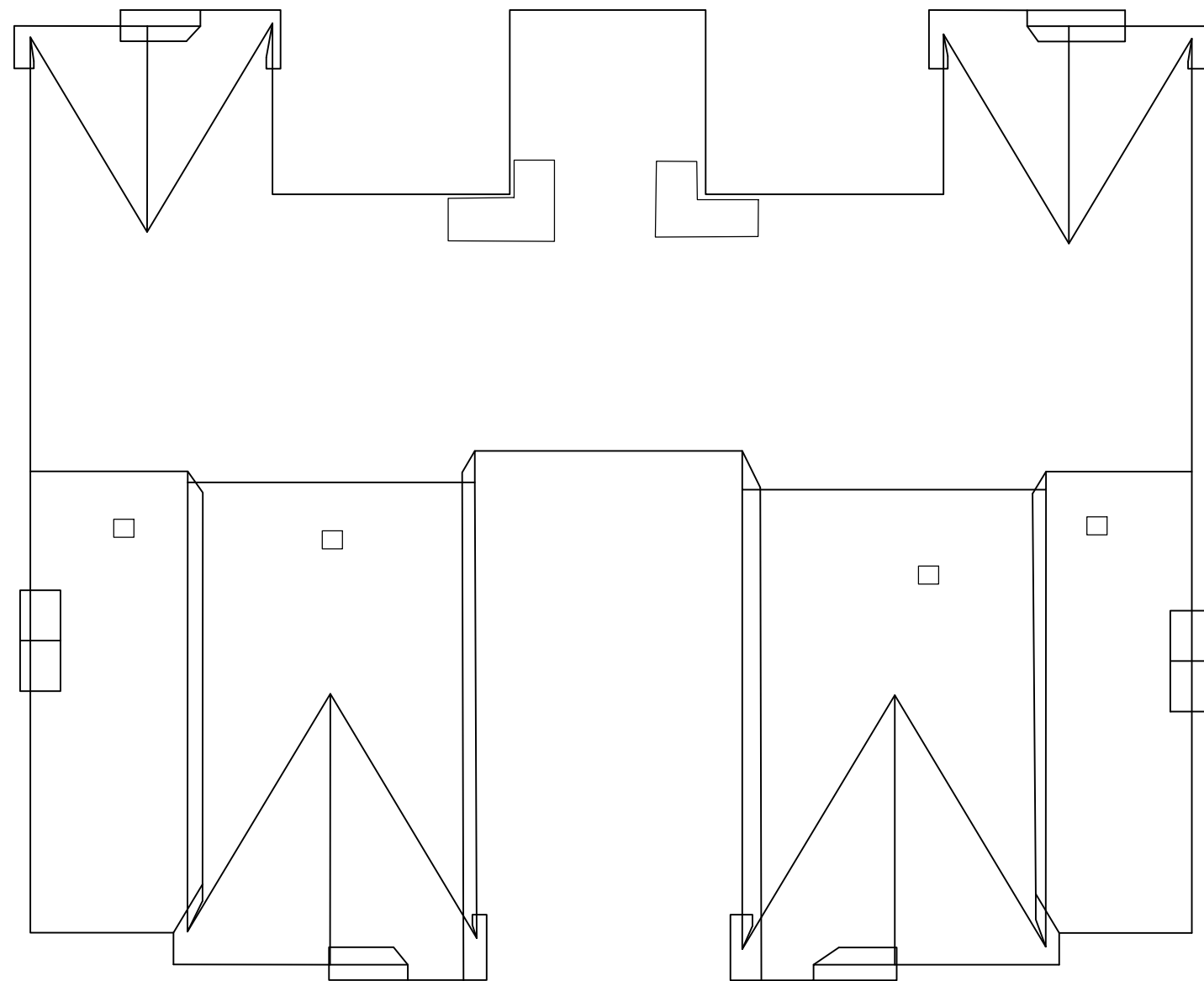
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S203 BUILDING #9 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:

ROOF AREA:	5,917 SF
RIDGES:	175 LF
RAKES:	567 LF
VALLEYS:	104 LF
EAVES:	306 LF
# OF CHIMNEYS:	5
# OF SKYLIGHTS:	2

2
S203 BUILDING #8 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:

ROOF AREA:	2,999 SF
RIDGES:	113 LF
RAKES:	362 LF
VALLEYS:	119 LF
EAVES:	96 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

4
S203 BUILDING #10 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"

GENERAL NOTES:

- The roof layout and quantities were taken from Eagleview Reports obtained for this project. Contractor to field verify dimensions/quantities prior to submitting their bid.
- The low-sloped roof areas are not included in the scope of work.
- The shingle replacement includes both the main roofs as well as the secondary (1st floor roofs).
- The existing skylights are to be removed and reinstalled.

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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

ROOF PLANS

APPROVED BY: ROBERT A. RADCLIFF, P.E.

DRAWN BY: RAR

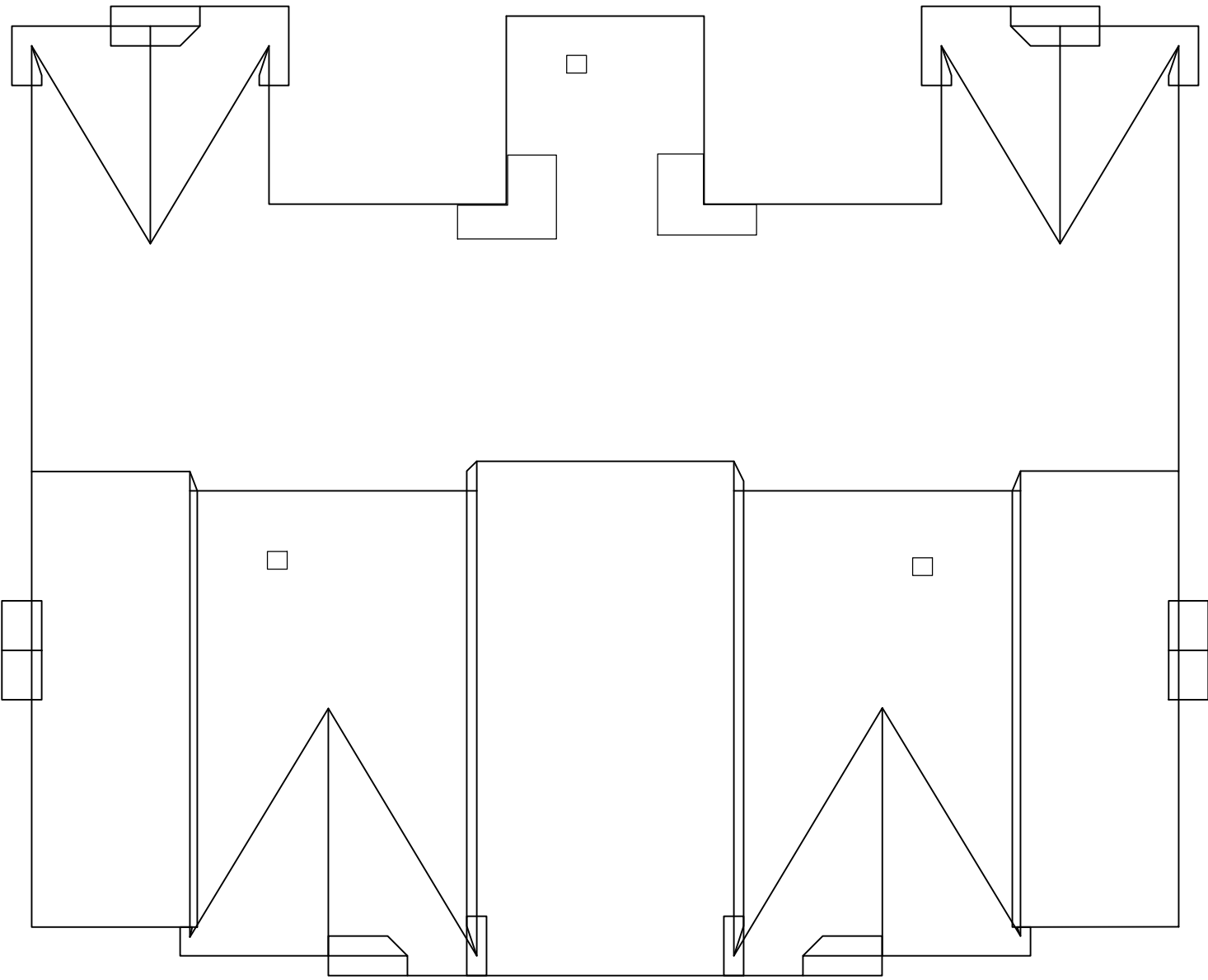
PROJECT NUMBER: J22-1104

DATE: DECEMBER 16, 2022

SCALE: $\frac{1}{8}$ " = 1'-0"

DRAWING NUMBER
S203

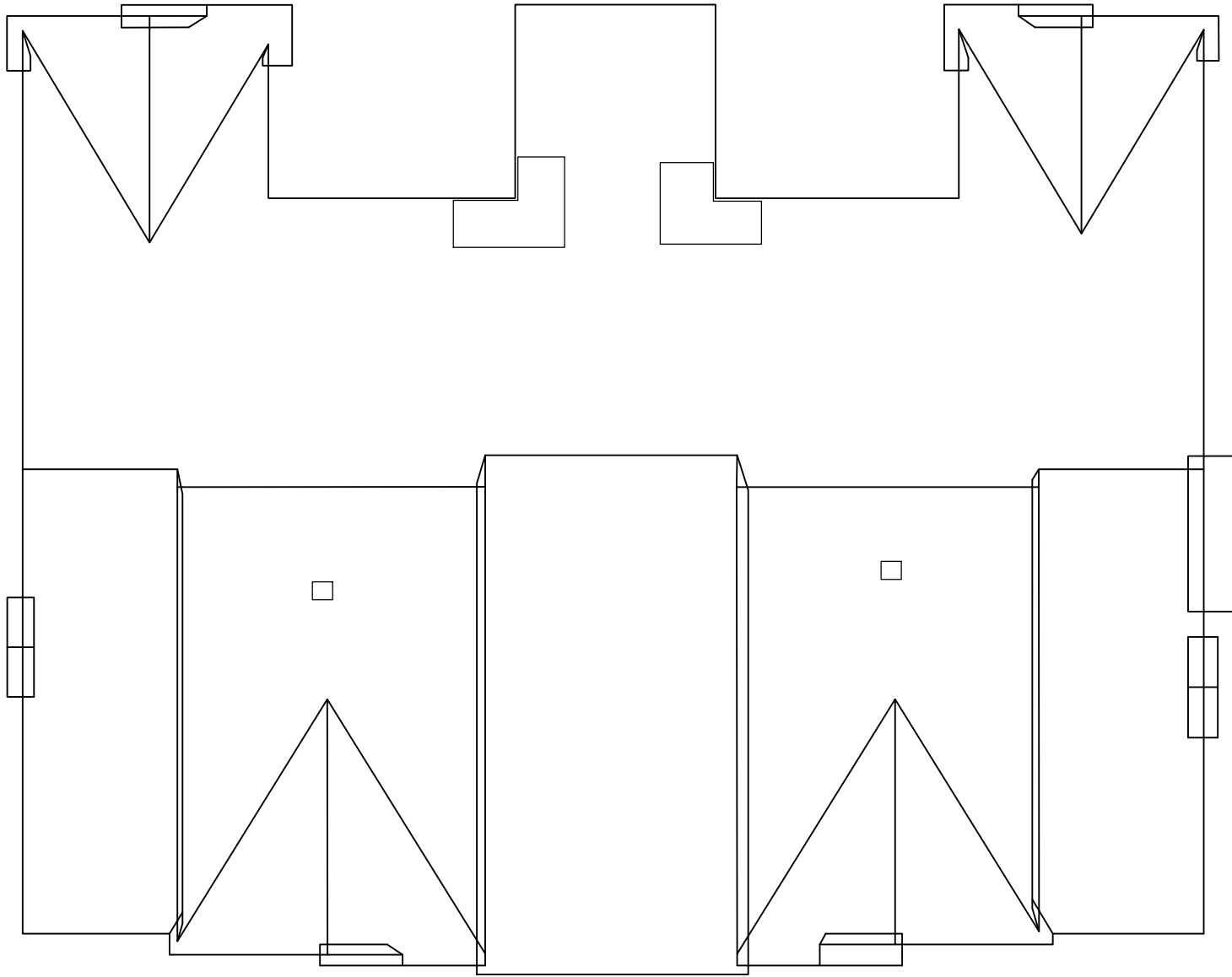
SHEET: 7 OF 10



ROOF INFORMATION:

ROOF AREA:	3,021 SF
RIDGES:	113 LF
RAKES:	370 LF
VALLEYS:	113 LF
EAVES:	104 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

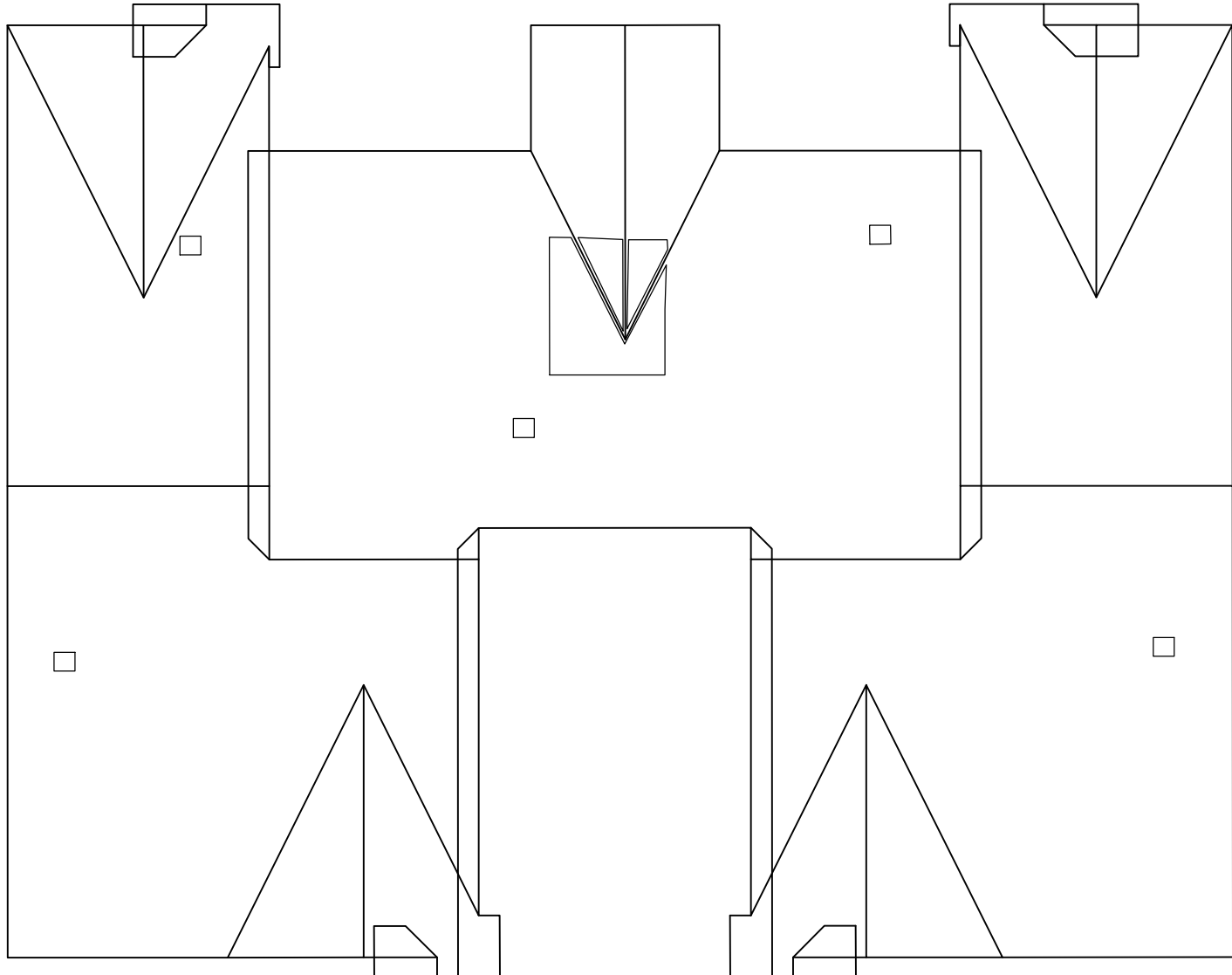
1
S204 BUILDING #11 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$



ROOF INFORMATION:

ROOF AREA:	2,967 SF
RIDGES:	111 LF
RAKES:	366 LF
VALLEYS:	117 LF
EAVES:	95 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

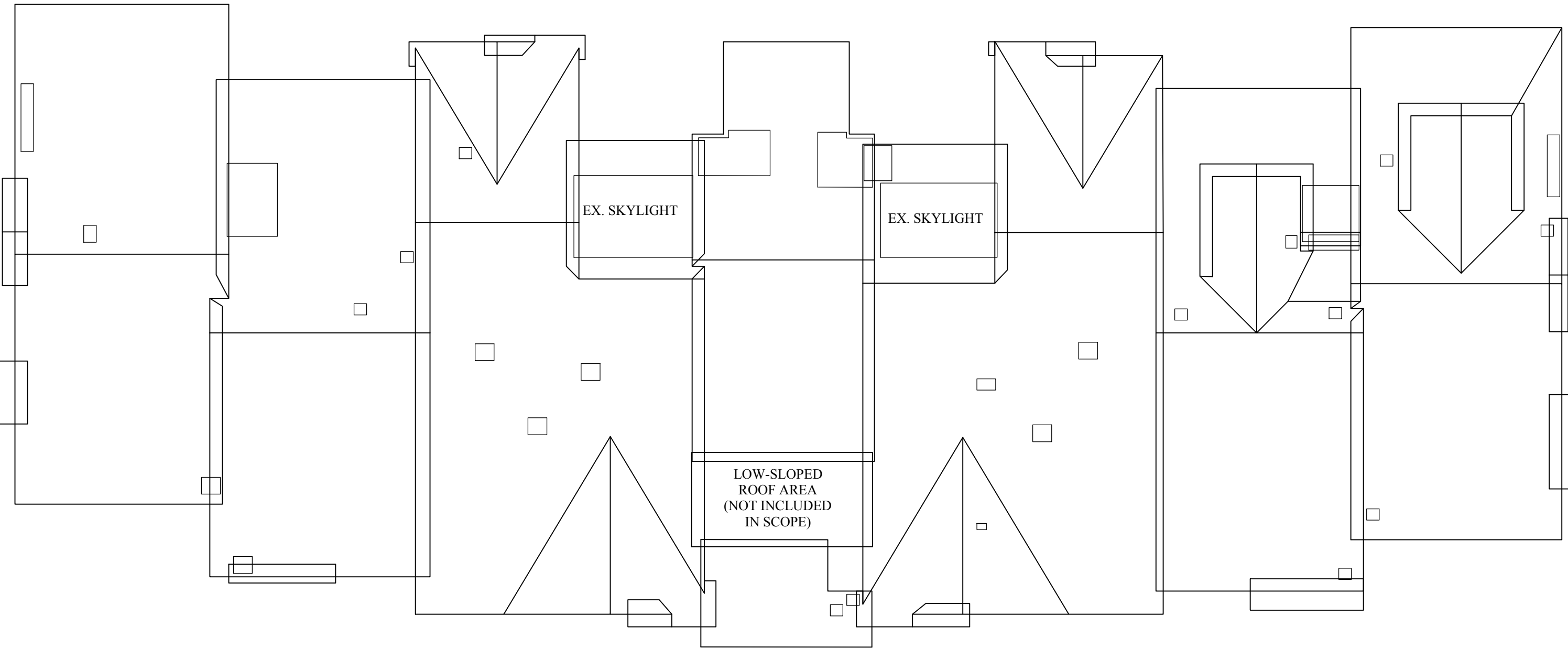
2
S204 BUILDING #12 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$



ROOF INFORMATION:

ROOF AREA:	3,052 SF
RIDGES:	130 LF
RAKES:	308 LF
VALLEYS:	144 LF
EAVES:	96 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

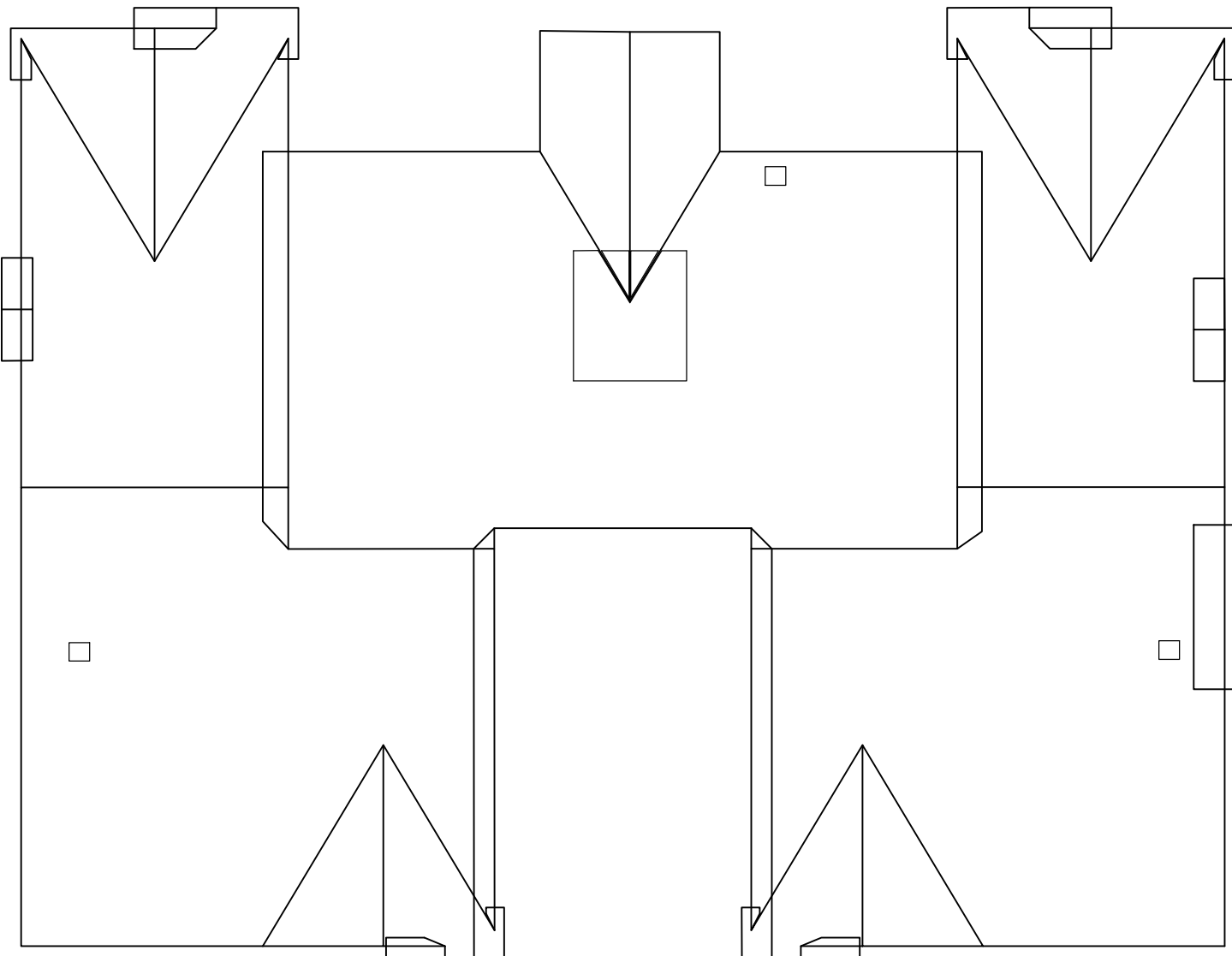
3
S204 BUILDING #13 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$



ROOF INFORMATION:

ROOF AREA:	6,126 SF
RIDGES:	214 LF
RAKES:	609 LF
VALLEYS:	158 LF
EAVES:	317 LF
# OF CHIMNEYS:	6
# OF SKYLIGHTS:	2

4
S204 BUILDING #14 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$



ROOF INFORMATION:

ROOF AREA:	3,039 SF
RIDGES:	122 LF
RAKES:	318 LF
VALLEYS:	121 LF
EAVES:	114 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

5
S204 BUILDING #15 ROOF PLAN
SCALE: $\frac{1}{8}"=1'-0"$

GENERAL NOTES:

- The roof layout and quantities were taken from Eagleview Reports obtained for this project. Contractor to field verify dimensions/quantities prior to submitting their bid.
- The low-sloped roof areas are not included in the scope of work.
- The shingle replacement includes both the main roofs as well as the secondary (1st floor roofs).
- The existing skylights are to be removed and reinstalled.

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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

ROOF PLANS

APPROVED BY: ROBERT A. RADCLIFF, P.E.

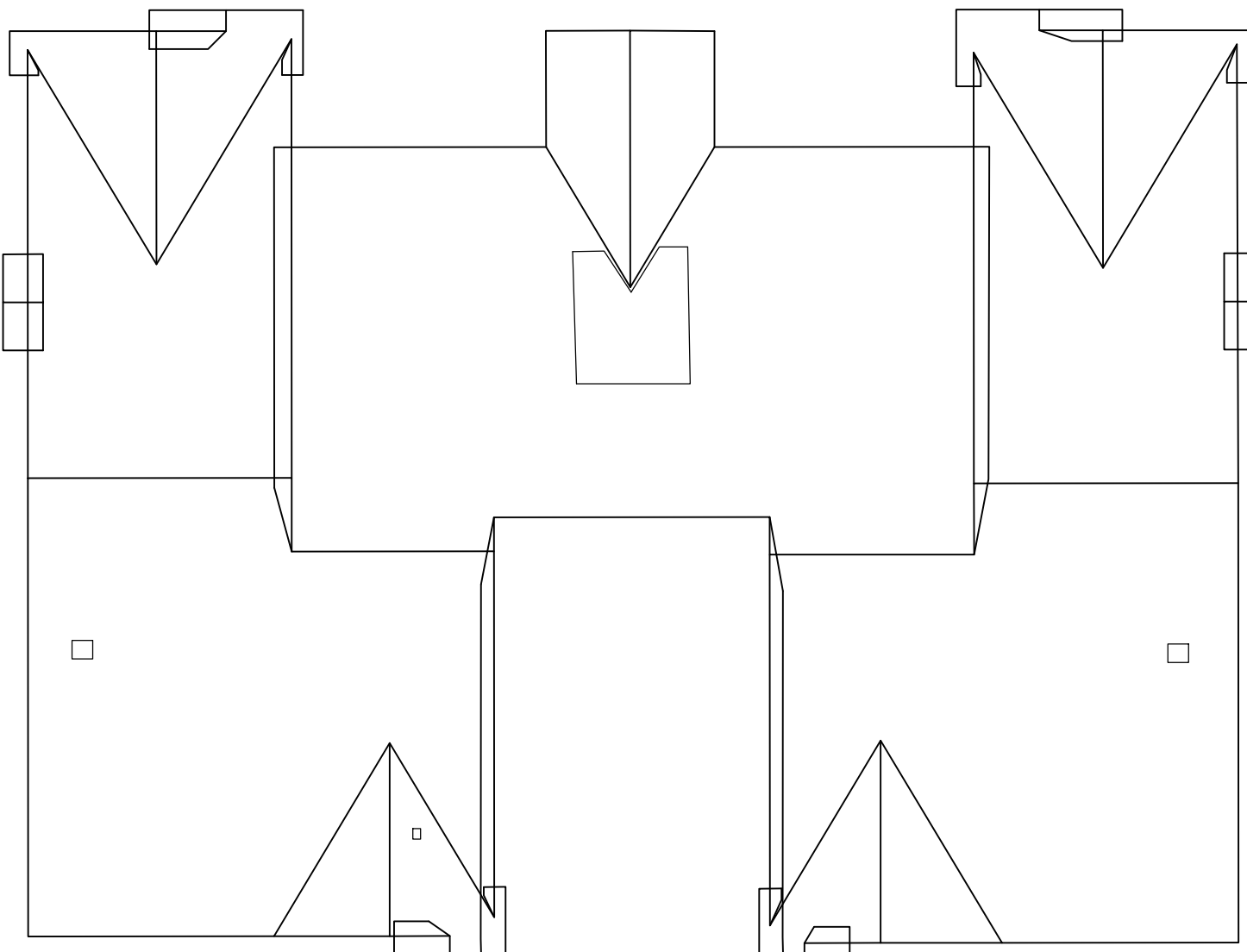
DRAWN BY: RAR

PROJECT NUMBER: J22-1104

DATE: DECEMBER 16, 2022

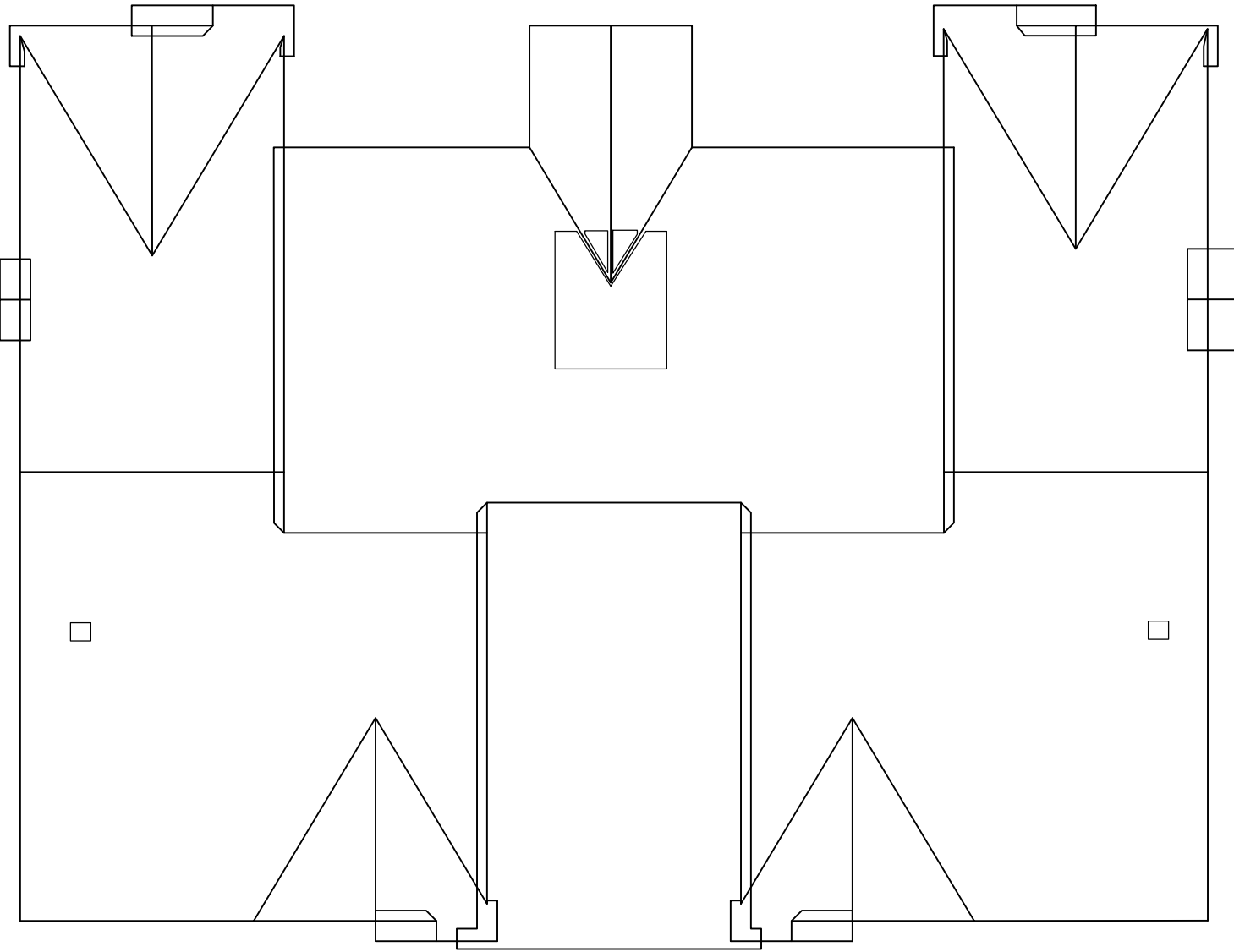
SCALE: $\frac{1}{8}"=1'-0"$
SHEET: 8 OF 10

DRAWING NUMBER
S204



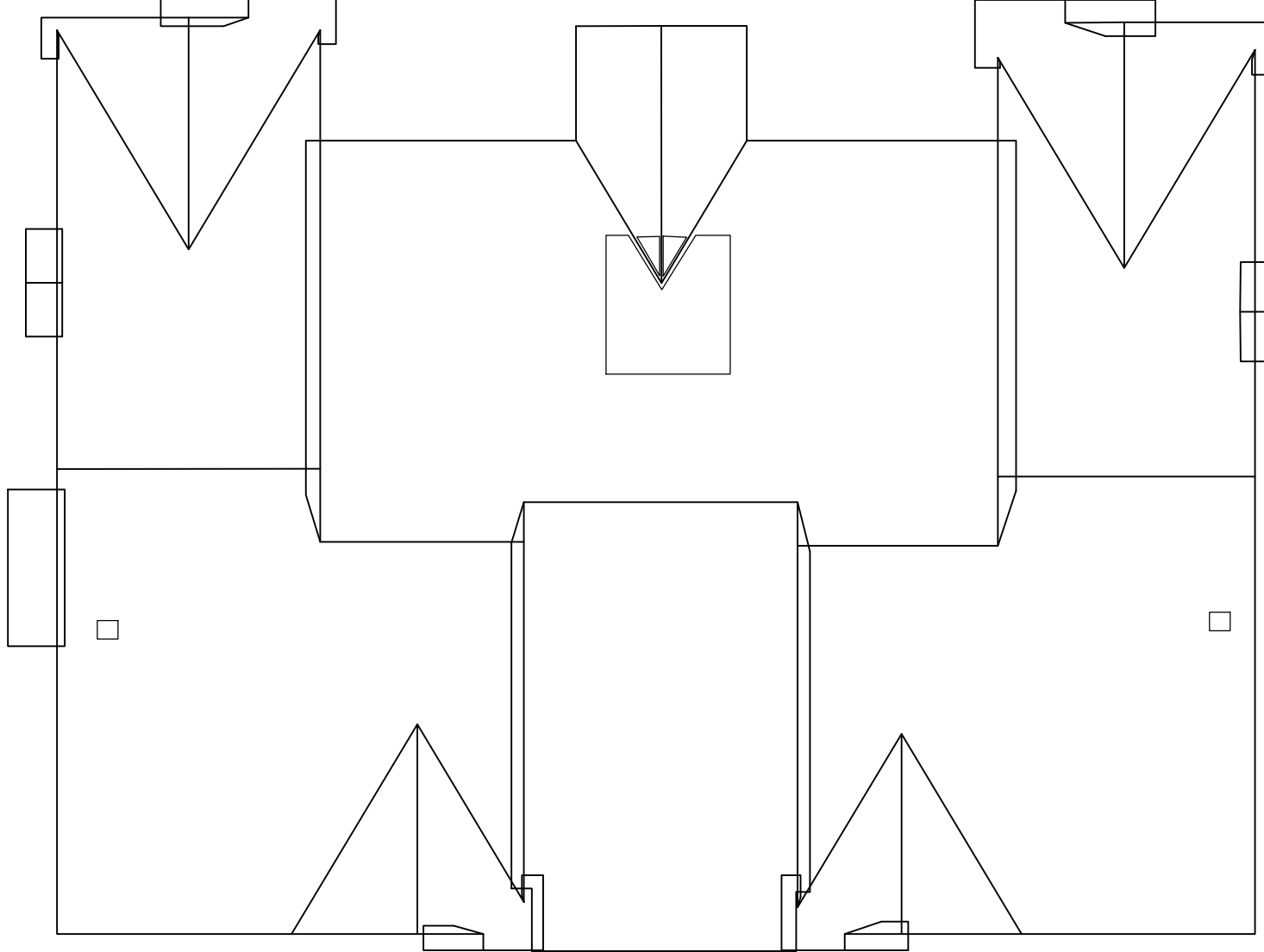
ROOF INFORMATION:	
ROOF AREA:	2,925 SF
RIDGES:	120 LF
RAKES:	311 LF
VALLEYS:	118 LF
EAVES:	107 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

1
S205 BUILDING #16 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



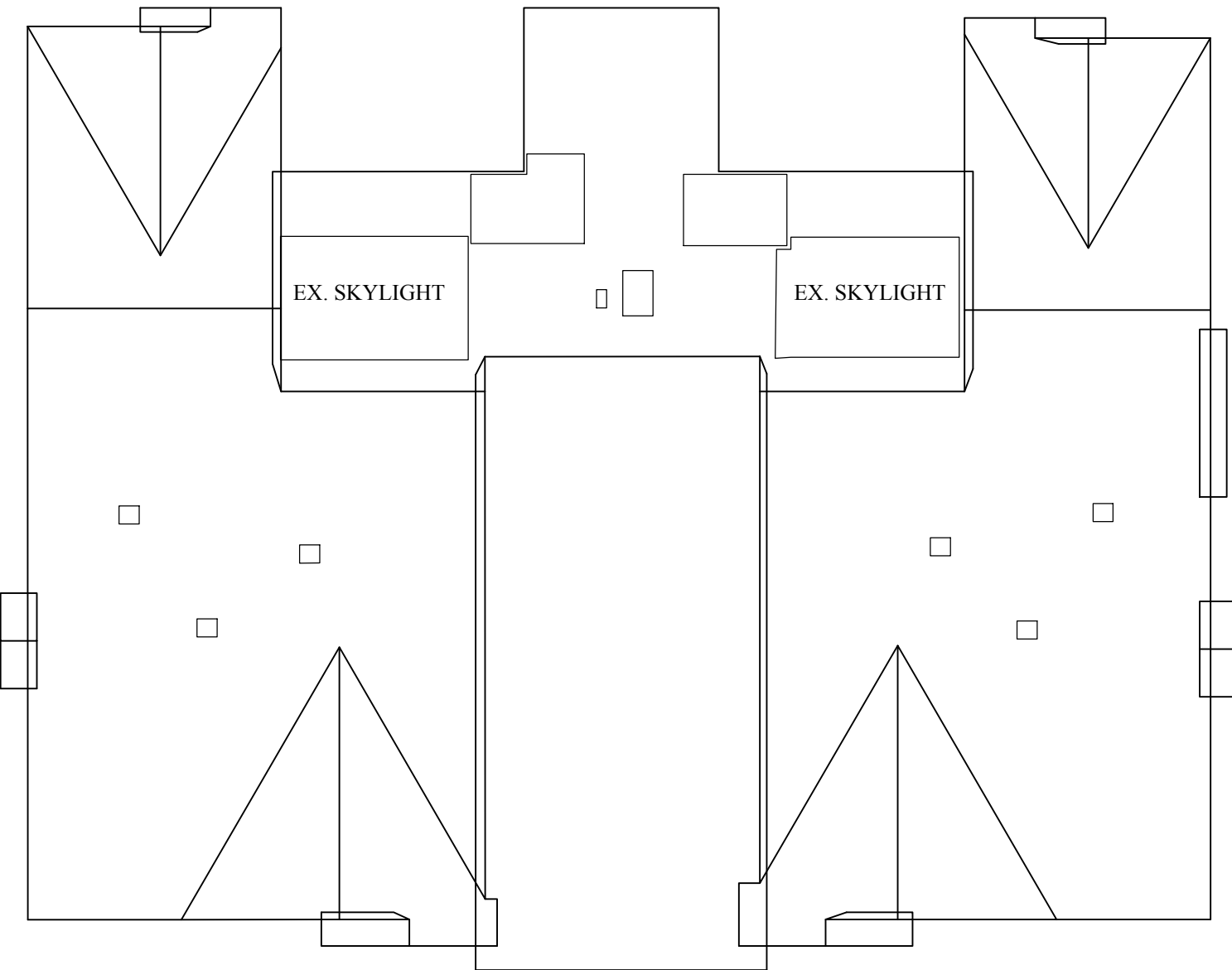
ROOF INFORMATION:	
ROOF AREA:	2,924 SF
RIDGES:	122 LF
RAKES:	311 LF
VALLEYS:	121 LF
EAVES:	103 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

2
S205 BUILDING #17 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



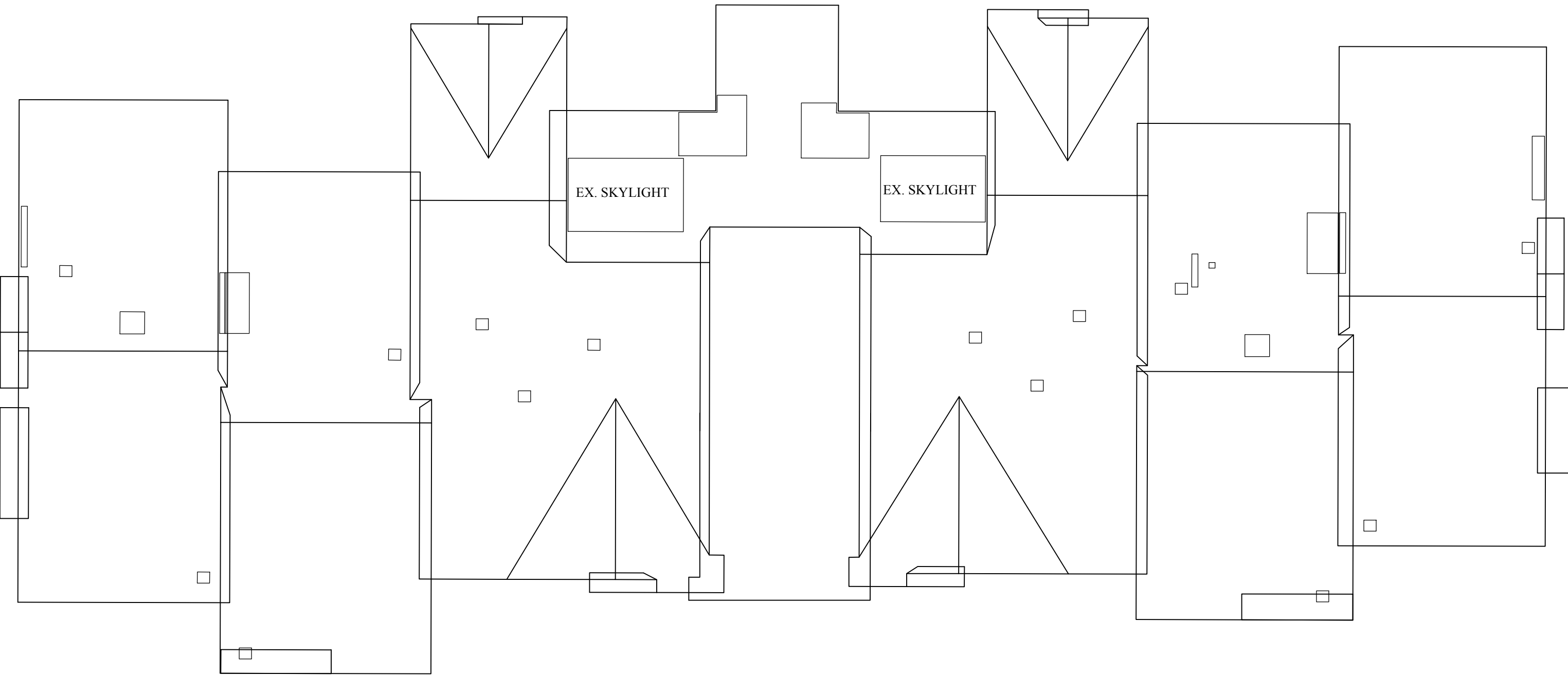
ROOF INFORMATION:	
ROOF AREA:	2,928 SF
RIDGES:	121 LF
RAKES:	318 LF
VALLEYS:	118 LF
EAVES:	110 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

3
S205 BUILDING #18 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:	
ROOF AREA:	2,956 SF
RIDGES:	117 LF
RAKES:	330 LF
VALLEYS:	120 LF
EAVES:	95 LF
# OF CHIMNEYS:	2
# OF SKYLIGHTS:	0

4
S205 BUILDING #19 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"



ROOF INFORMATION:	
ROOF AREA:	6,261 SF
RIDGES:	188 LF
RAKES:	580 LF
VALLEYS:	129 LF
EAVES:	271 LF
# OF CHIMNEYS:	6
# OF SKYLIGHTS:	0

5
S205 BUILDING #20 ROOF PLAN
SCALE: $\frac{1}{8}$ "=1'-0"

- GENERAL NOTES:
- The roof layout and quantities were taken from Eagleview Reports obtained for this project. Contractor to field verify dimensions/quantities prior to submitting their bid.
 - The low-sloped roof areas are not included in the scope of work.
 - The shingle replacement includes both the main roofs as well as the secondary (1st floor roofs).
 - The existing skylights are to be removed and reinstalled.

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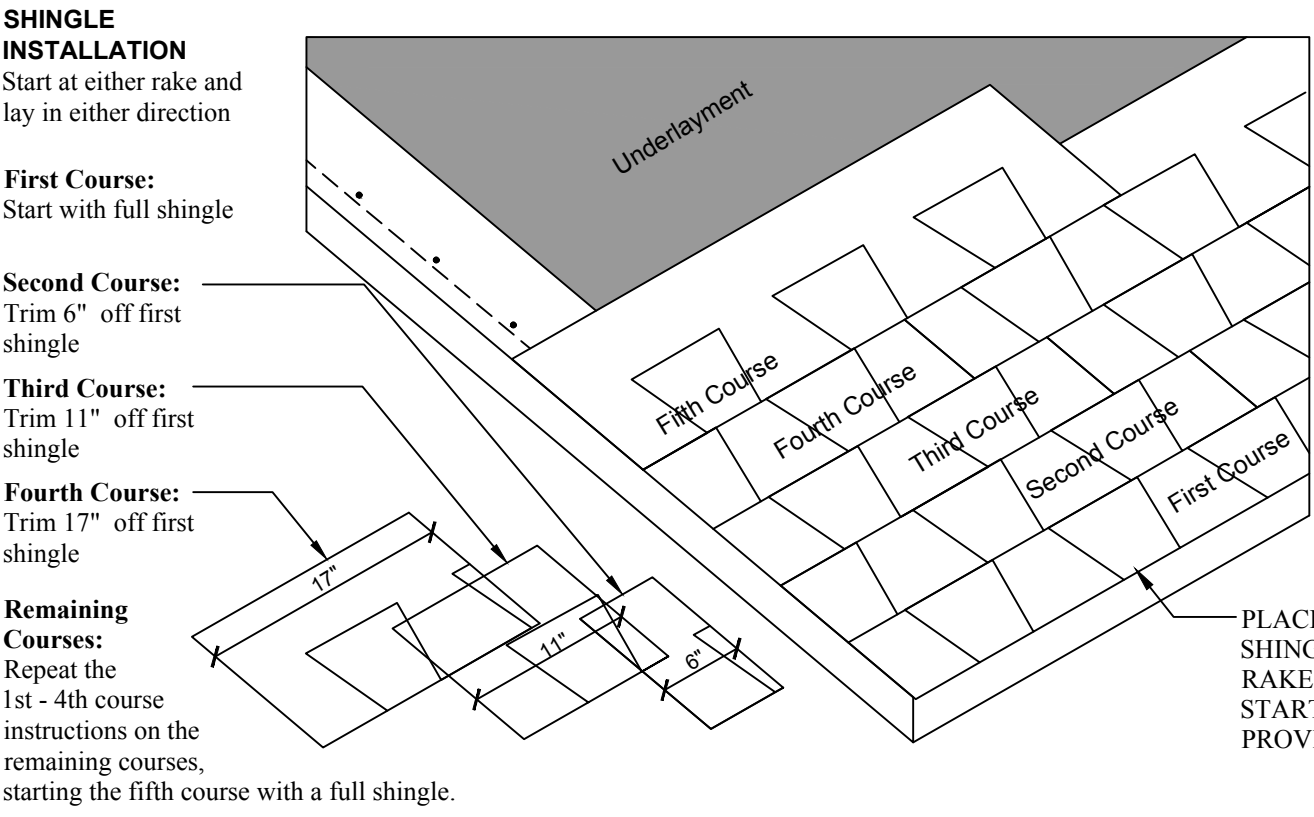
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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

ROOF PLANS

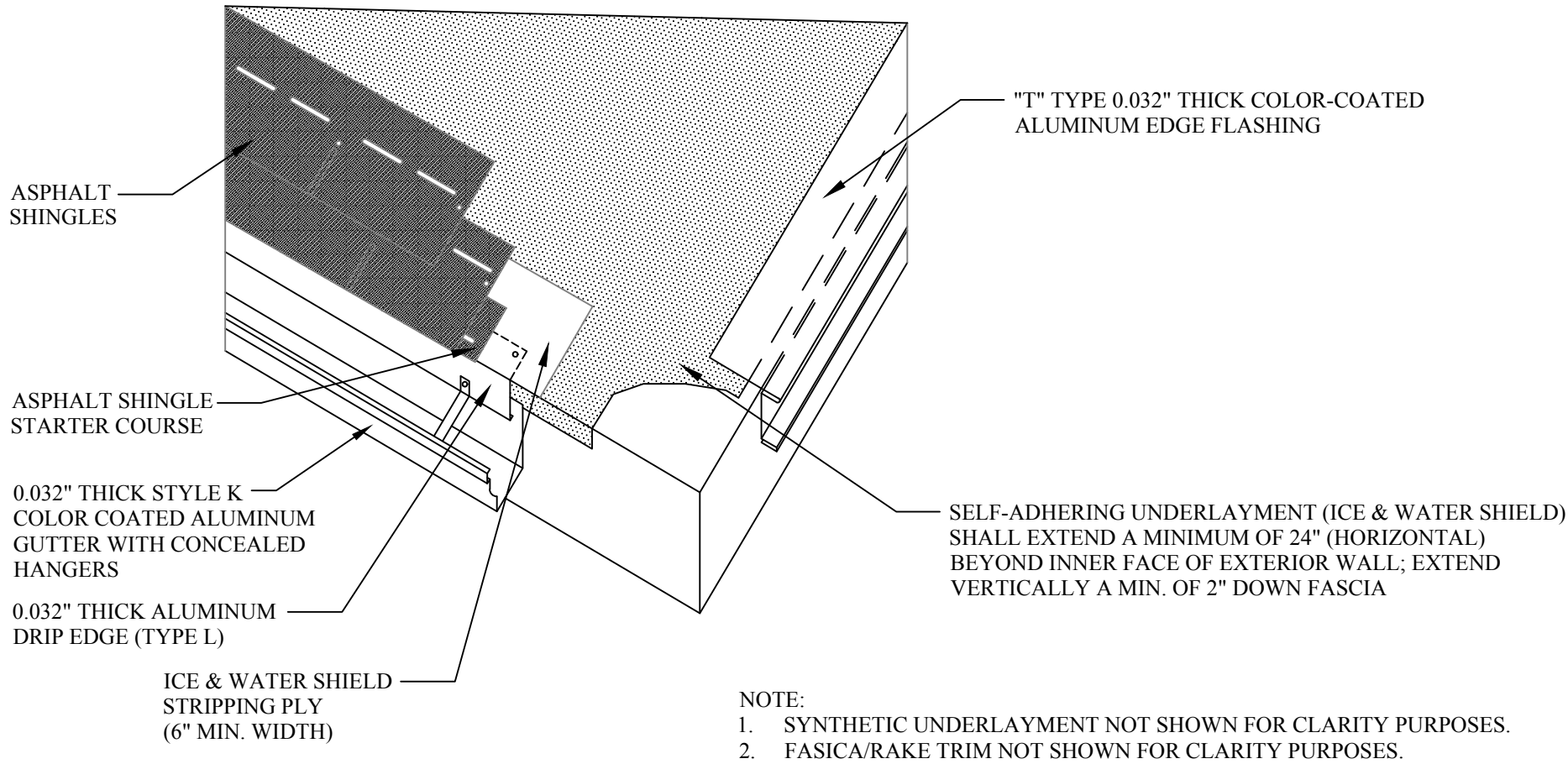
APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

PROJECT NUMBER: J22-1104 DATE: DECEMBER 16, 2022
SCALE: $\frac{1}{8}$ " = 1'-0" DRAWING NUMBER
SHEET: 9 OF 10 **S205**

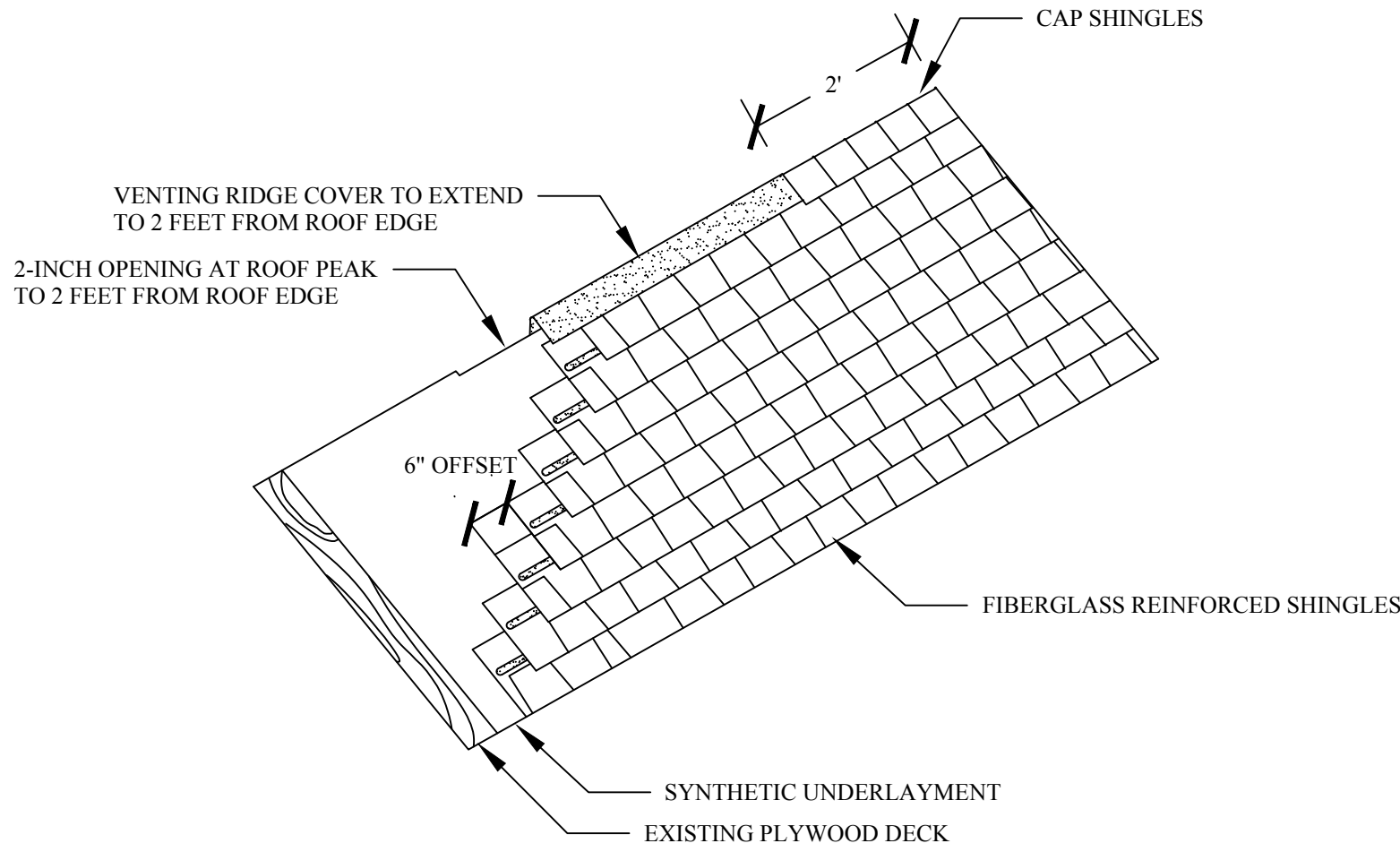


- NOTES:**
1. CONTINUE EACH COURSE WITH WHOLE SHINGLES. STRIKE A CHALK LINE ABOUT EVERY 6 COURSES TO CHECK PARALLEL ALIGNMENT WITH EAVES.

PLACE FIRST COURSE OF SHINGLES 3/4" OVER EAVE AND RAKE EDGES, COVERING STARTER COURSE OVERHANG, TO PROVIDE DRIP EDGE

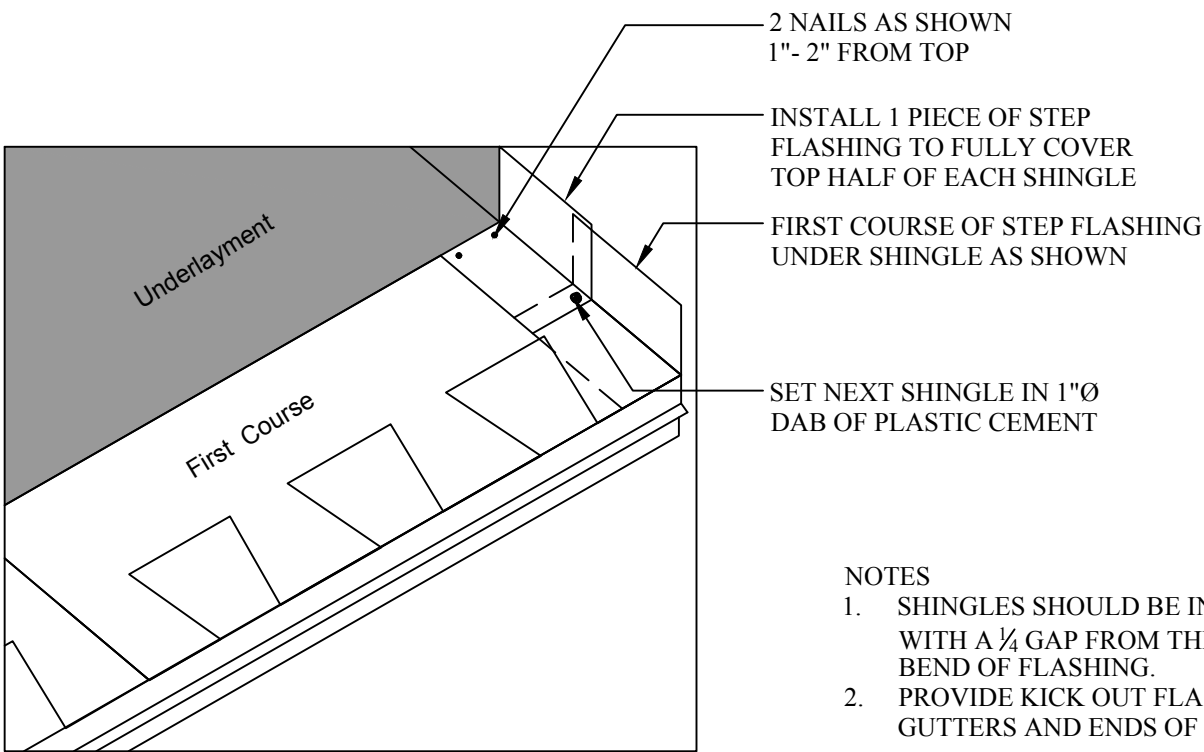
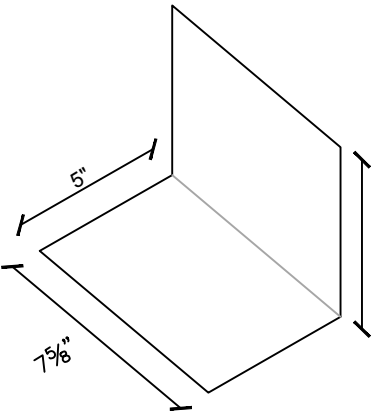


- NOTE:
1. SYNTHETIC UNDERLAYMENT NOT SHOWN FOR CLARITY PURPOSES.
 2. FASCIA/RAKE TRIM NOT SHOWN FOR CLARITY PURPOSES.



3
S301 RIDGE VENT FLASHING DETAIL
N.T.S.

STEP FLASHING FOR METRIC SIZE SHINGLES 13-1/4" X 39-3/8" WITH 5-5/8" EXPOSURE

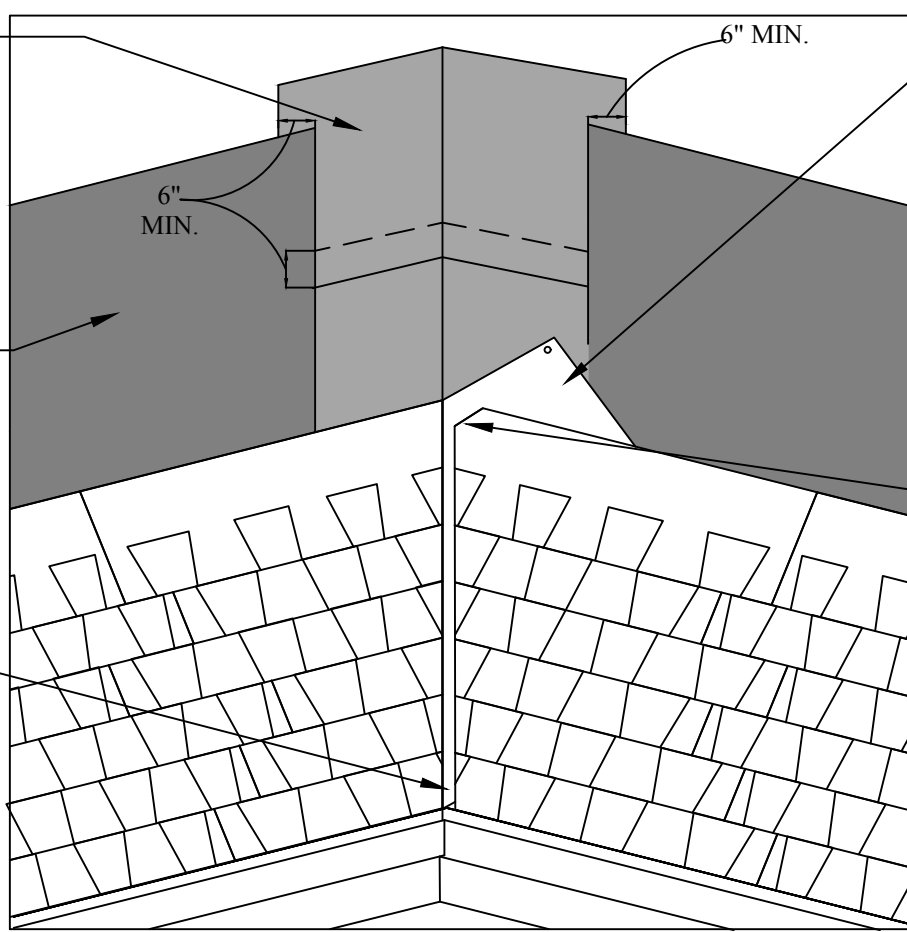


- NOTES
1. SHINGLES SHOULD BE INSTALLED WITH A 1/2 GAP FROM THE VERTICAL BEND OF FLASHING.
 2. PROVIDE KICK OUT FLASHING AT GUTTERS AND ENDS OF WALLS.

CENTER FULL WIDTH ROLL OF ICE & WATER SHIELD. DO NOT PLACE FASTENERS WITHIN 6" OF CENTER LINE. HORIZONTAL LAPS MUST BE AT LEAST 6".

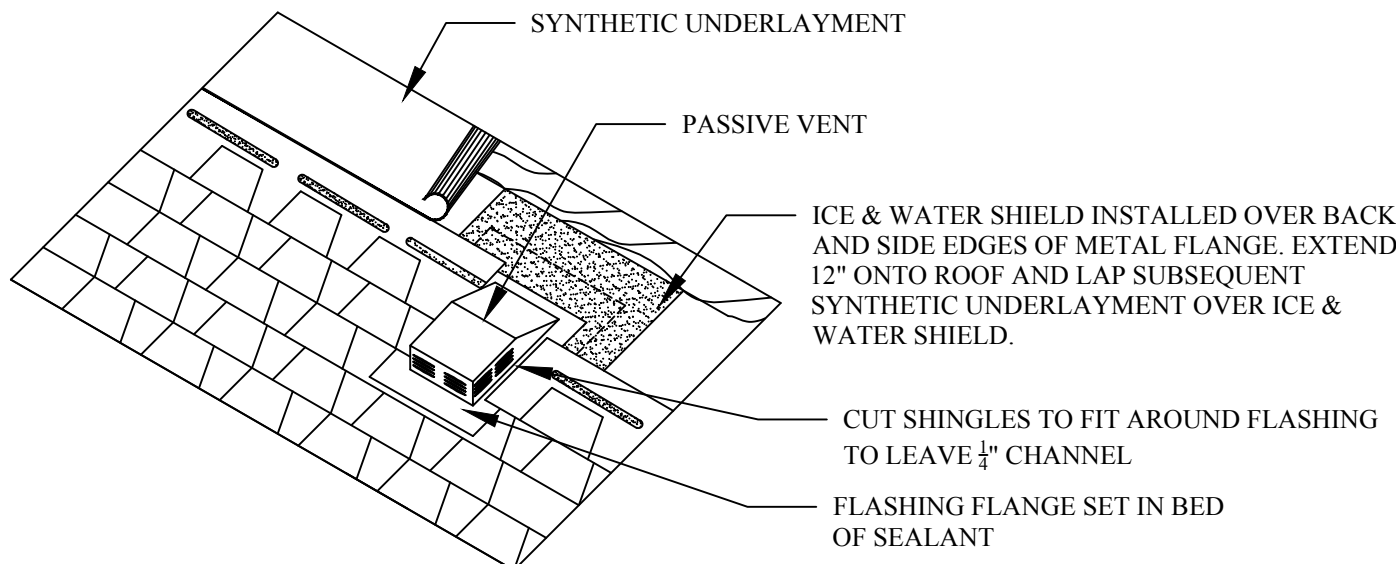
EXTEND SYNTHETIC UNDERLAYMENT AT LEAST 6" OVER ICE & WATER SHIELD; SEAL ALL EDGES AS REQUIRED

EXTEND STARTER STRIP ACROSS VALLEY AT LEAST 12" AND WEAVE WITH OPPOSITE SIDE STARTER STRIP SHINGLE.

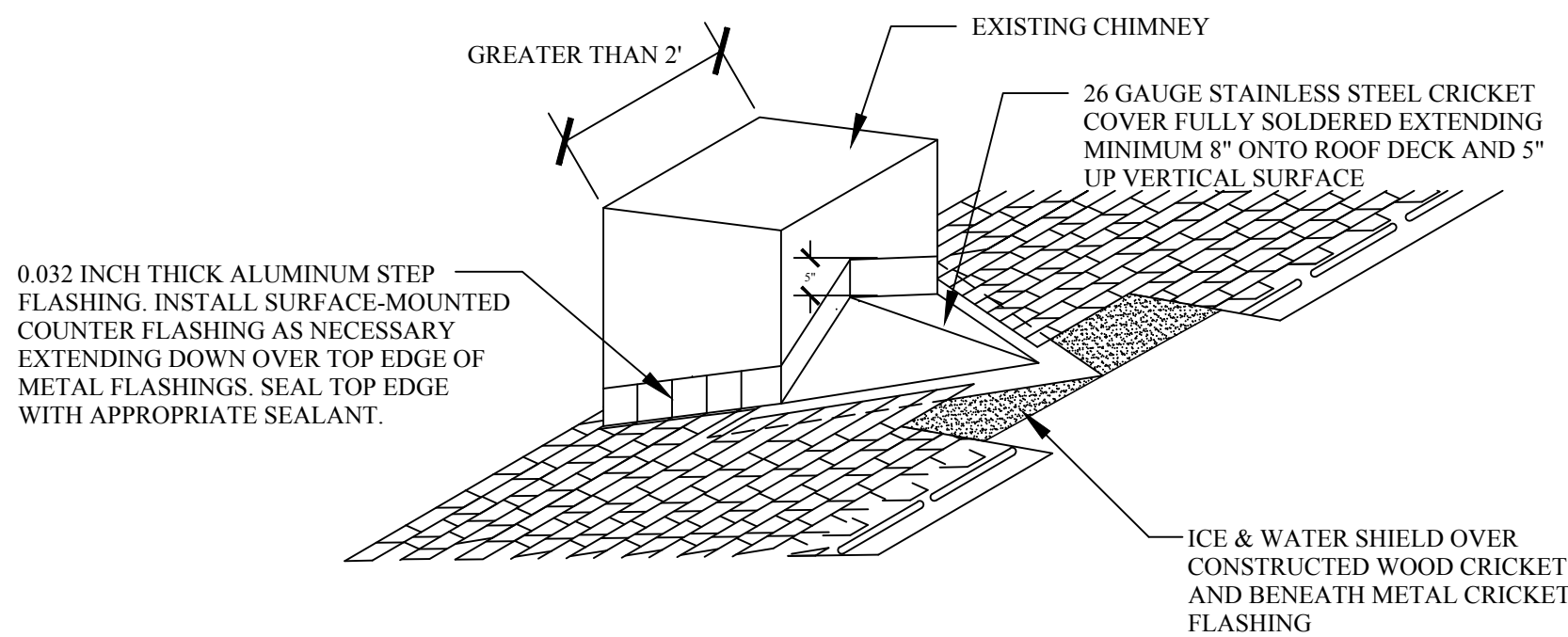


EXTEND END OF SHINGLE AT LEAST 12" BEYOND VALLEY CENTER LINE. NAIL, PUTTING EXTRA FASTENER IN TOP CORNER OF SHINGLE.

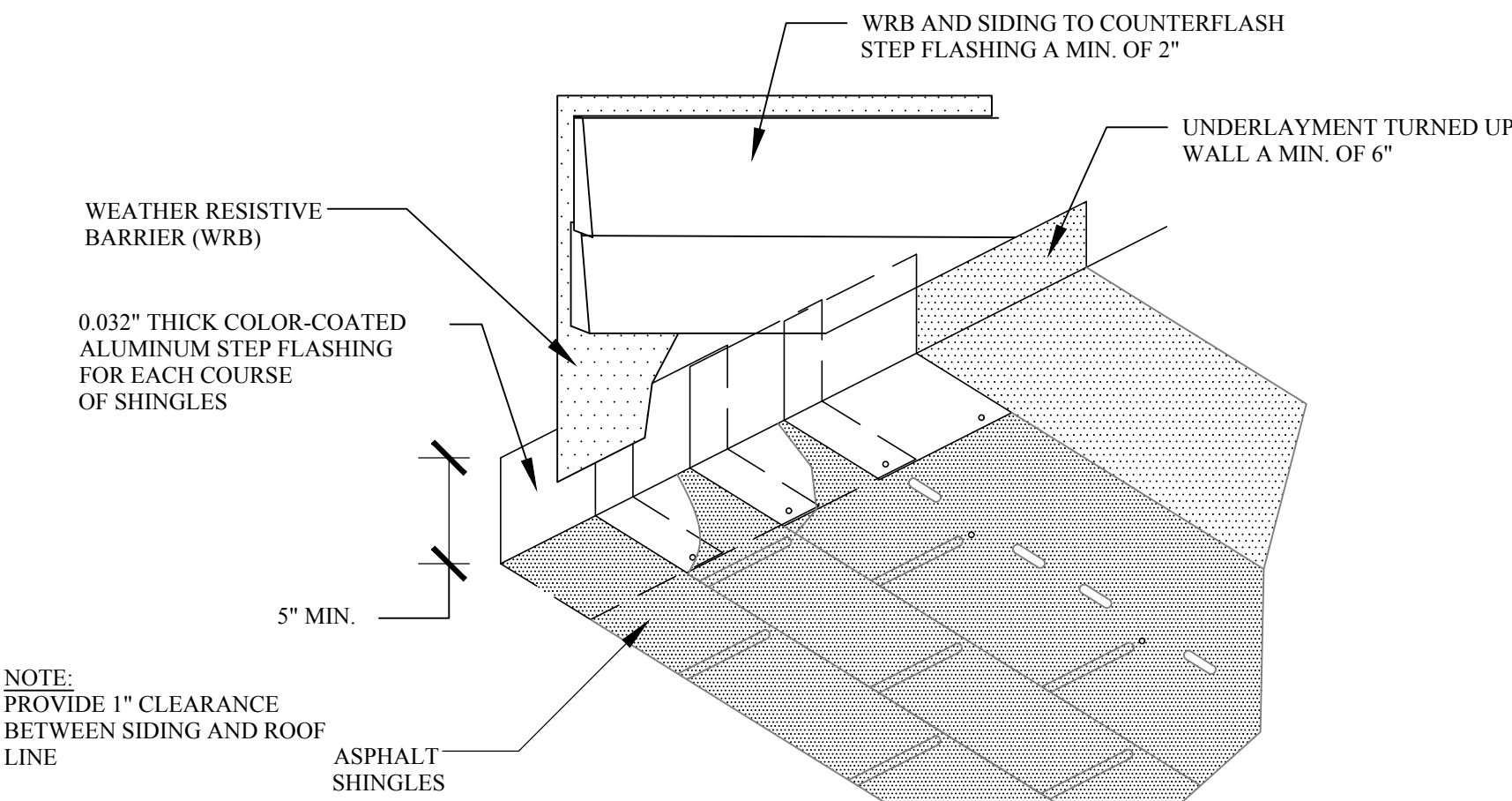
OVERLYING SHINGLES MUST BE CUT SO THEY ARE 2" AWAY FROM VALLEY CENTER LINE. CLIP SHINGLE CORNERS 45° TO KEEP WATER FLOW IN THE VALLEY CENTER. SEAL THE VALLEY SHINGLES TO EACH OTHER USING ASPHALT PLASTIC CEMEN.



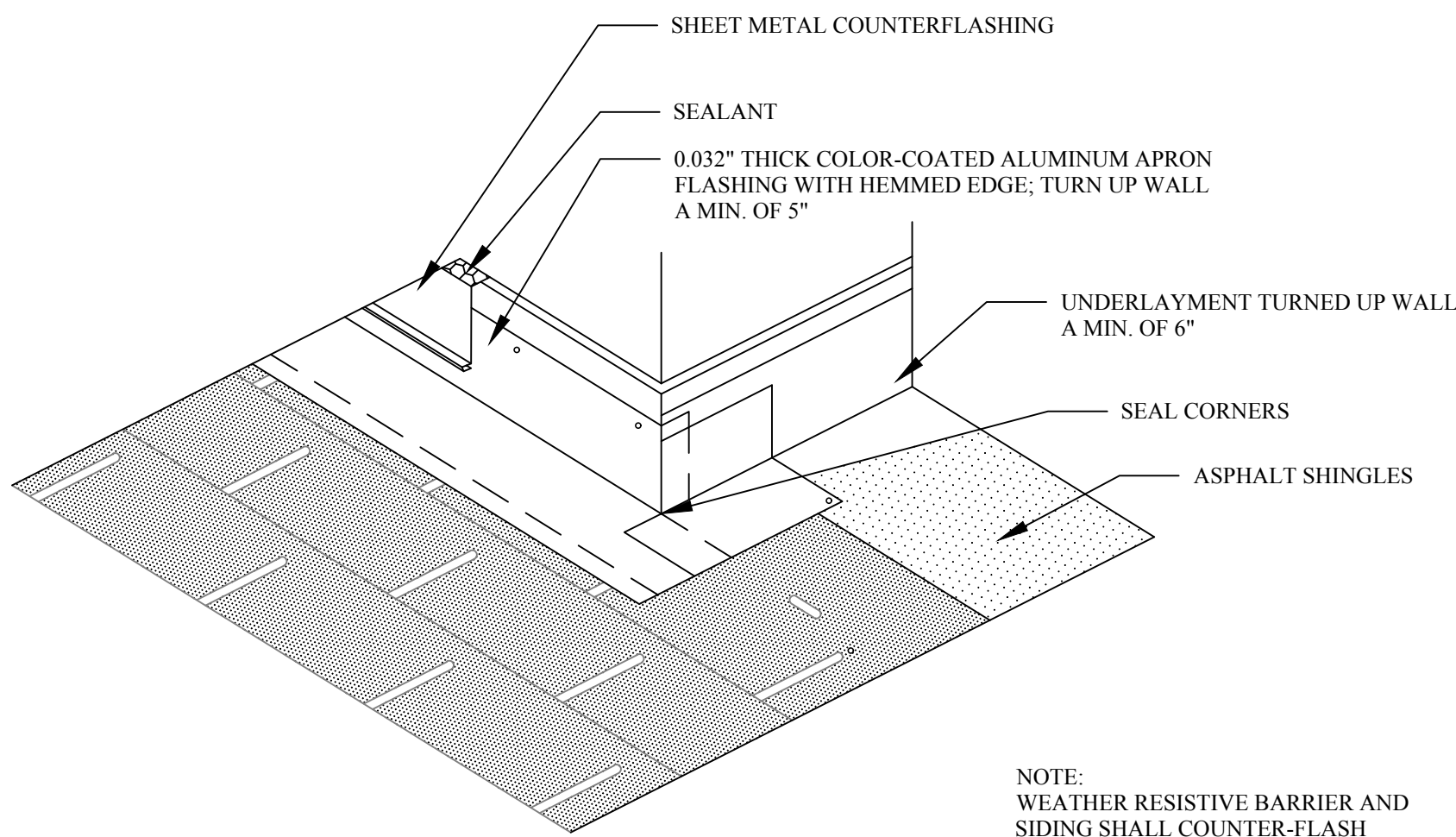
6
S301 PASSIVE VENT FLASHING DETAIL
N.T.S.



7
S301 CHIMNEY CRICKET DETAIL
N.T.S.

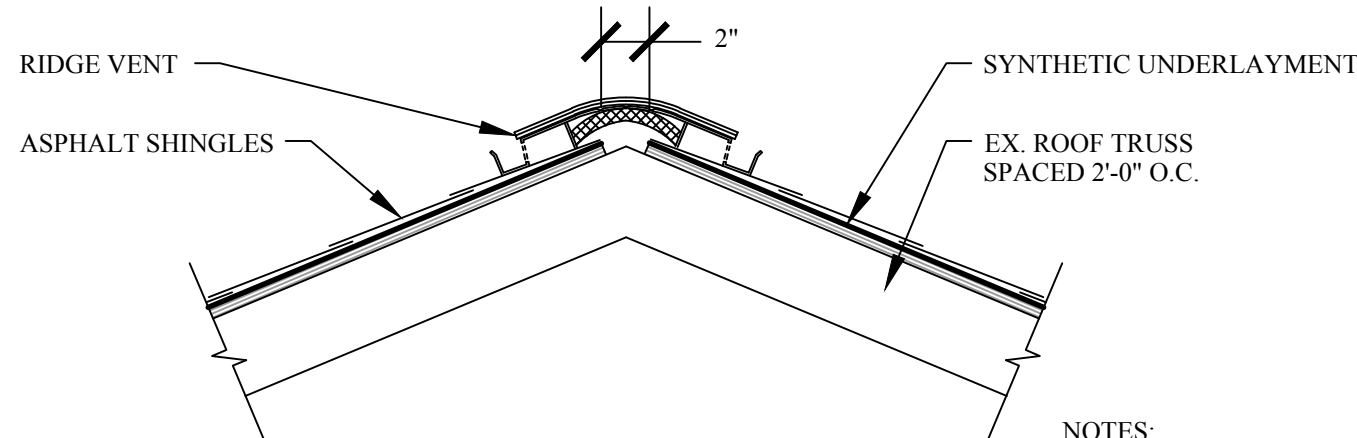


8
S301 SIDEWALL FLASHING DETAIL
N.T.S.



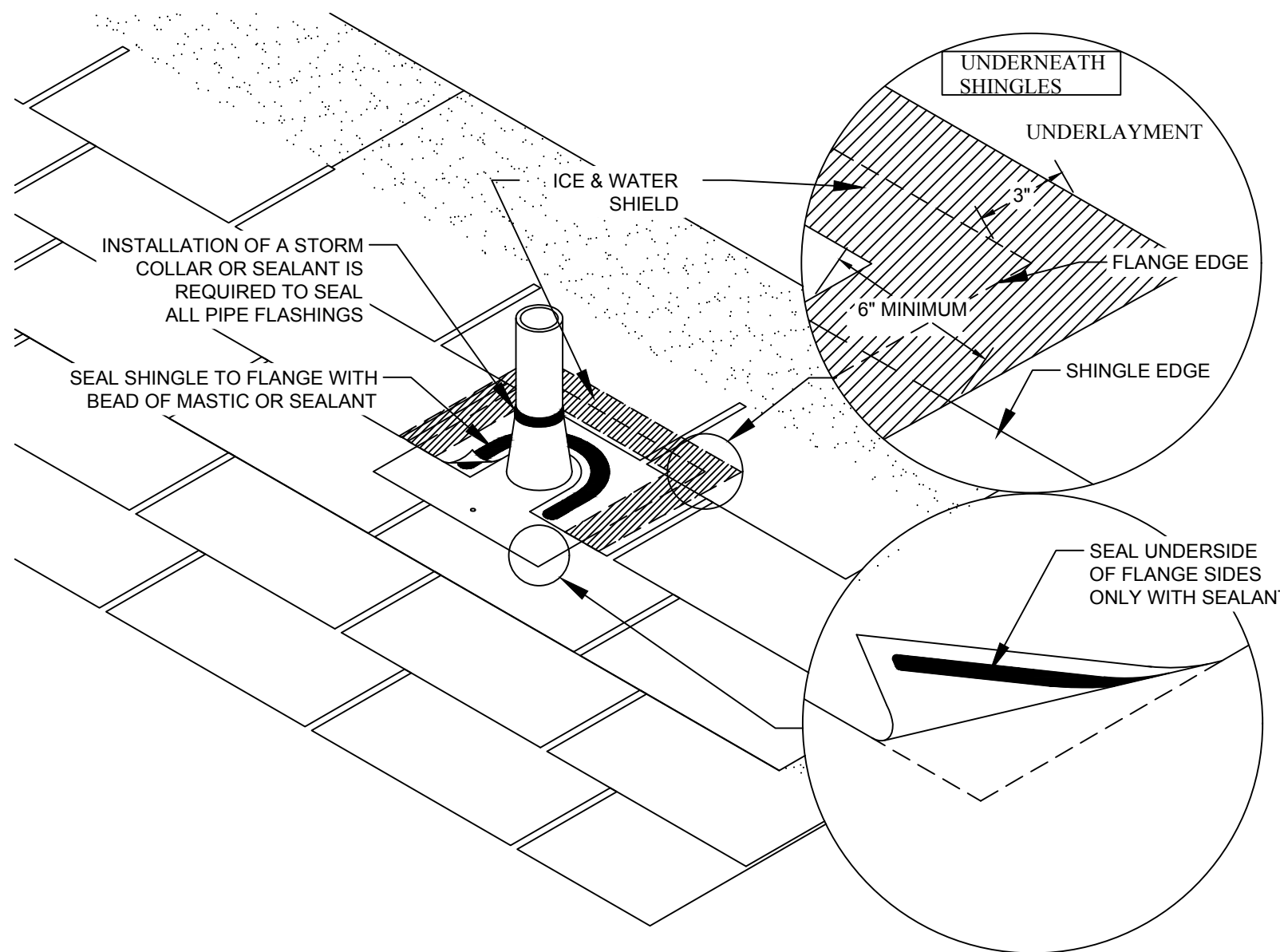
NOTE: WEATHER RESISTIVE BARRIER AND SIDING SHALL COUNTER-FLASH VERTICAL LEG OF APRON FLASHING (NOT SHOWN FOR CLARITY PURPOSES)

9
S301 APRON FLASHING DETAIL
N.T.S.



- NOTES:
1. INSTALL SHINGLED PREFABRICATED RIDGE VENT IN ACCORDANCE THE PROJECT SPECIFICATIONS & MANUFACTURER'S INSTALLATION GUIDELINES.
 2. PROVIDE INSECT SCREENS AT RIDGE VENT ENDS.
 3. OVERLAP SHINGLES OVER RIDGE AND INSTALL RIDGE SHINGLE WHERE RIDGE VENT TERMINATES.

11
S301 RIDGE VENT FLASHING DETAIL
N.T.S.



10
S301 VENT PIPE FLASHING DETAIL
N.T.S.

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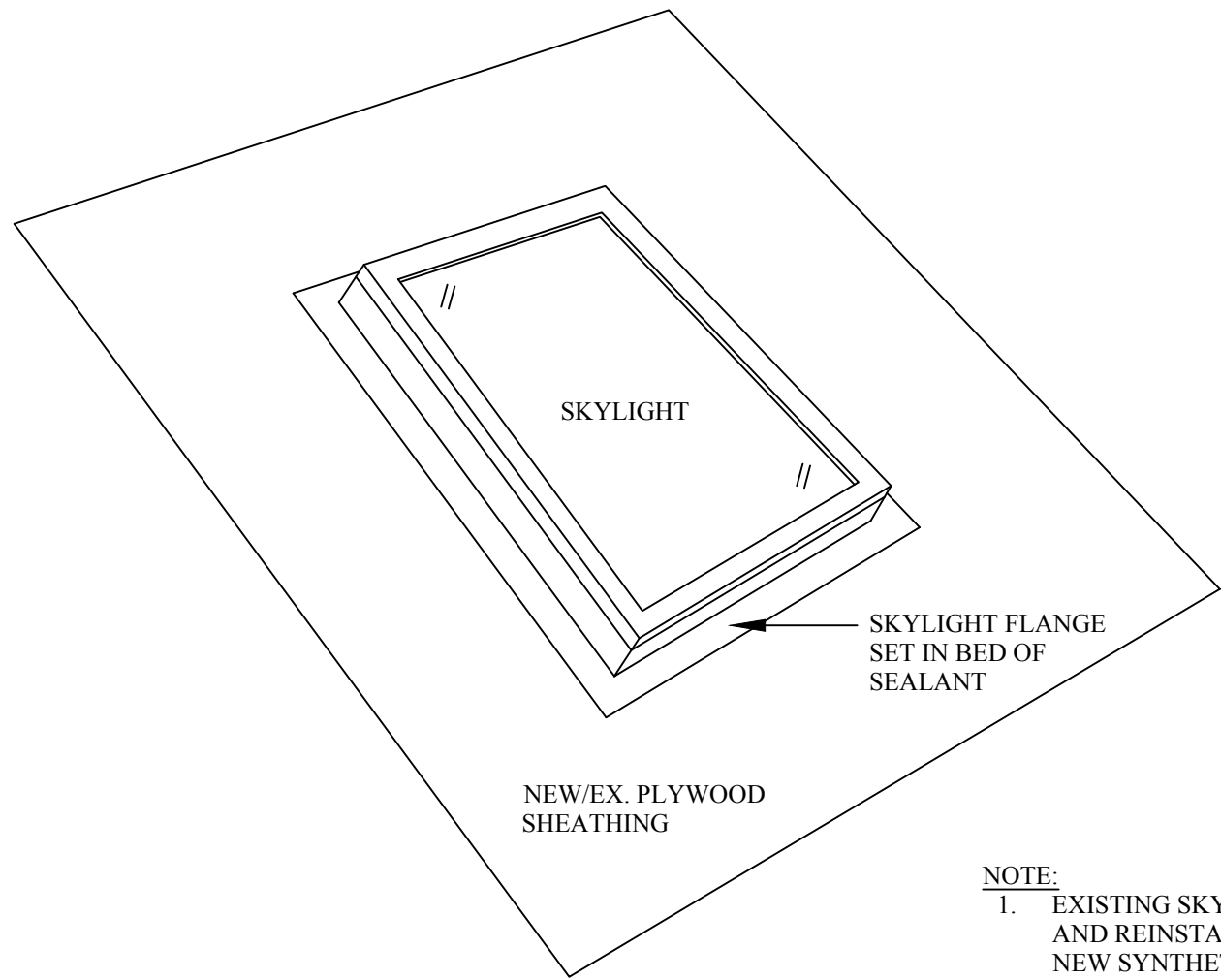
WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

TYPICAL ROOF DETAILS

APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

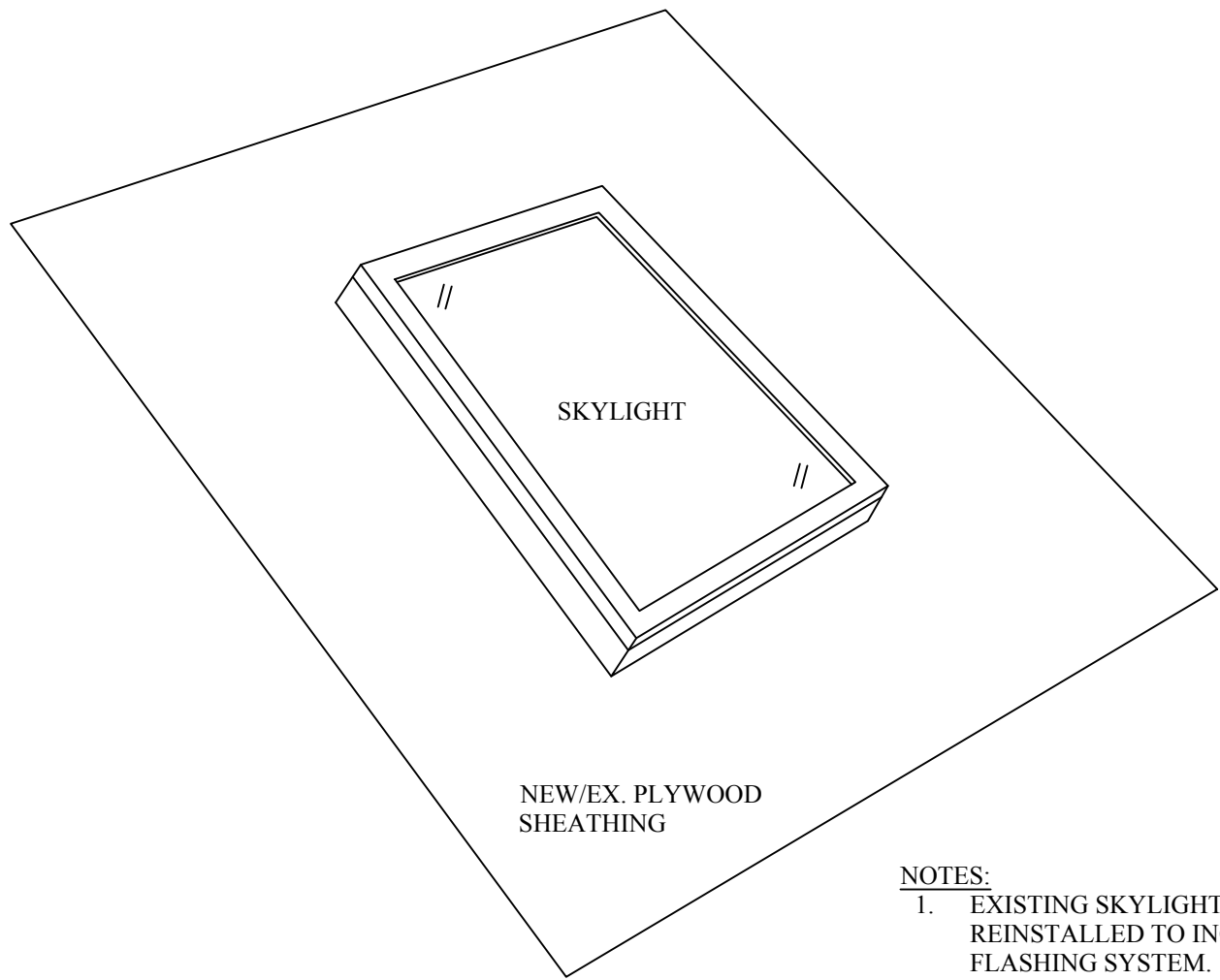
PROJECT NUMBER: J22-1104
SCALE: NONE
SHEET: 10 OF 11

DATE: DECEMBER 16, 2022
DRAWING NUMBER
S301



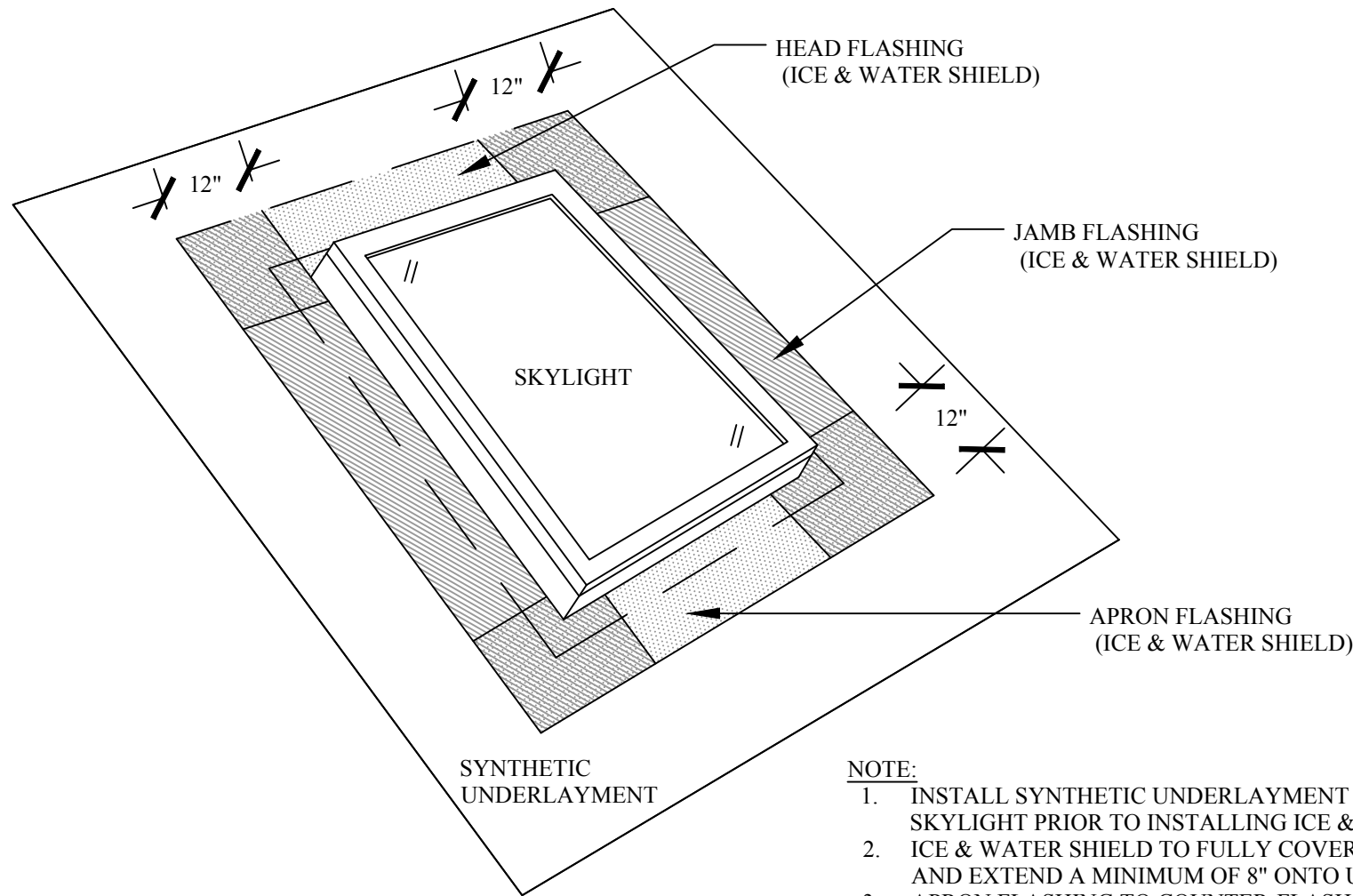
- NOTE:
1. EXISTING SKYLIGHT TO BE REMOVED AND REINSTALLED TO COUNTER-FLASH NEW SYNTHETIC UNDERLAYMENT.
 2. SECURE SKYLIGHT TO ROOF DECK/FRAMING PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

DECK MOUNTED SKYLIGHT



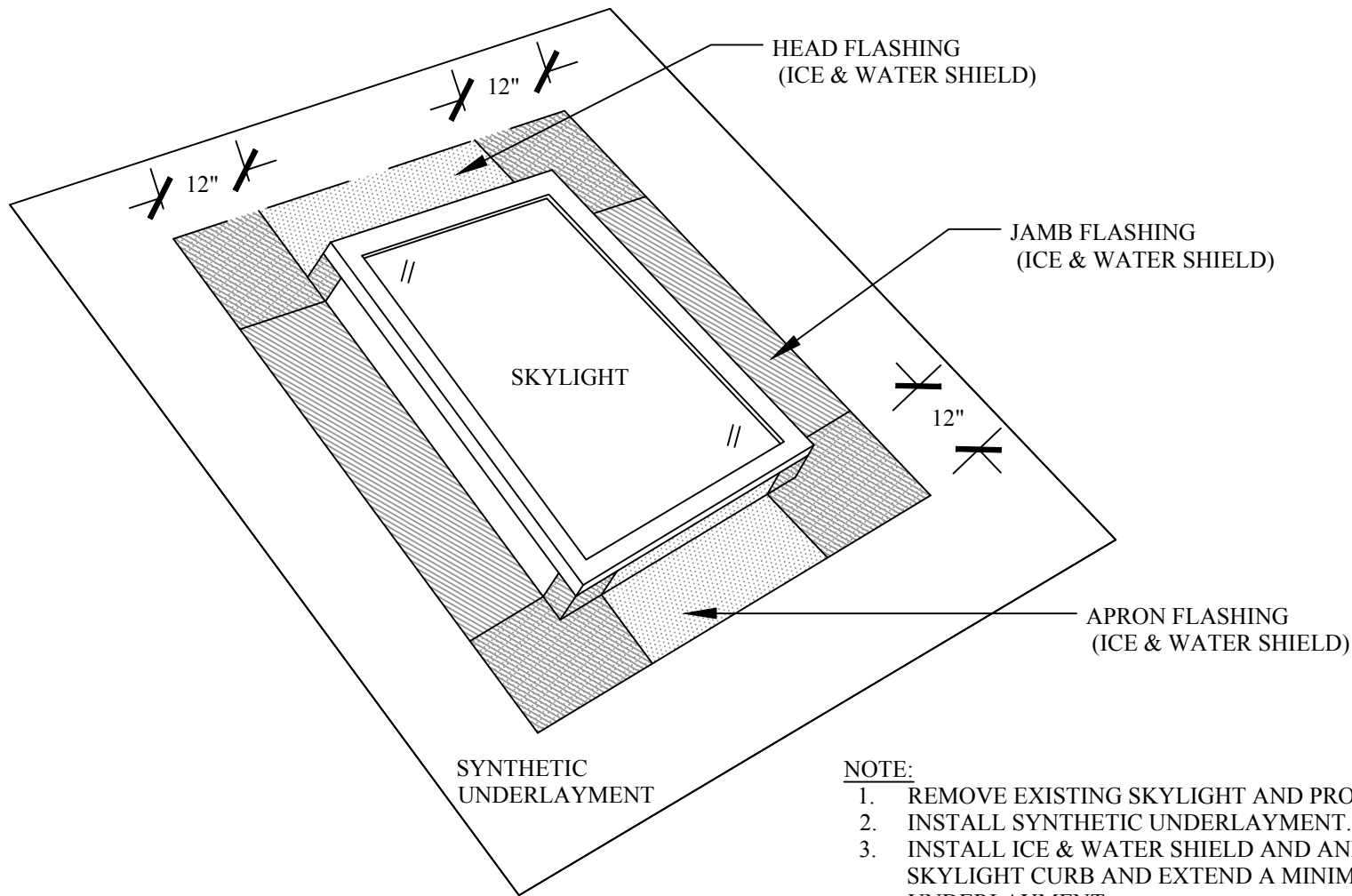
- NOTES:
1. EXISTING SKYLIGHT TO BE REMOVED AND REINSTALLED TO INCORPORATE NEW FLASHING SYSTEM.
 2. SECURE SKYLIGHT TO ROOF DECK/FRAMING PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

CURB MOUNTED SKYLIGHT



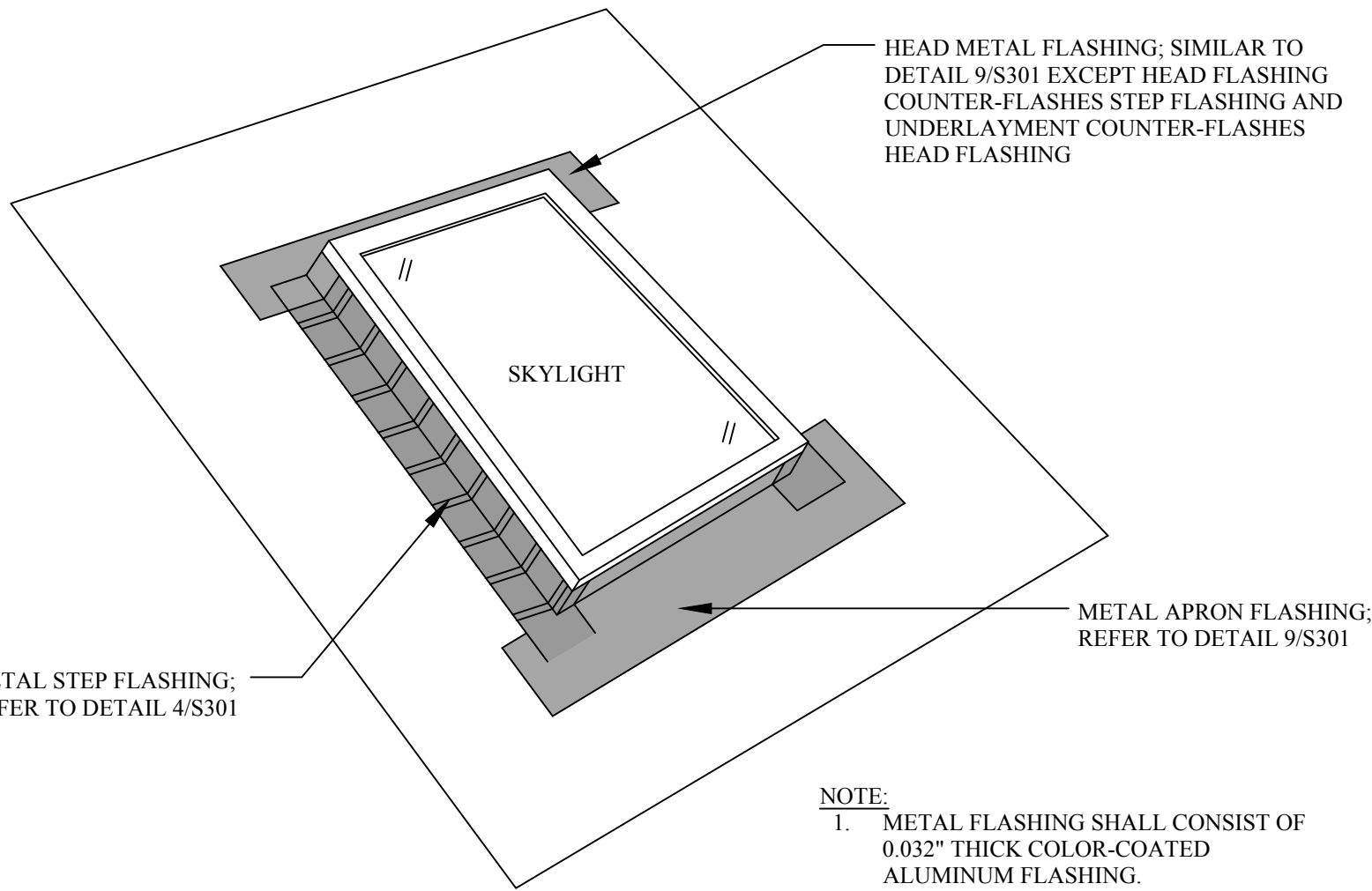
- NOTE:
1. INSTALL SYNTHETIC UNDERLAYMENT AND REINSTALL SKYLIGHT PRIOR TO INSTALLING ICE & WATER SHIELD.
 2. ICE & WATER SHIELD TO FULLY COVER SKYLIGHT FLANGE AND EXTEND A MINIMUM OF 8" ONTO UNDERLAYMENT.
 3. APRON FLASHING TO COUNTER-FLASH UNDERLAYMENT.
 4. JAMB FLASHING TO COUNTER-FLASH APRON FLASHING.
 5. HEAD FLASHING TO COUNTER-FLASH JAMB FLASHING.
 6. FIELD CUT UNDERLAYMENT, EXTEND HEAD FLASHING UNDERNEATH, AND OVERLAP UNDERLAYMENT OVER HEAD FLASHING.

ICE & WATER SHIELD FLASHING DETAIL



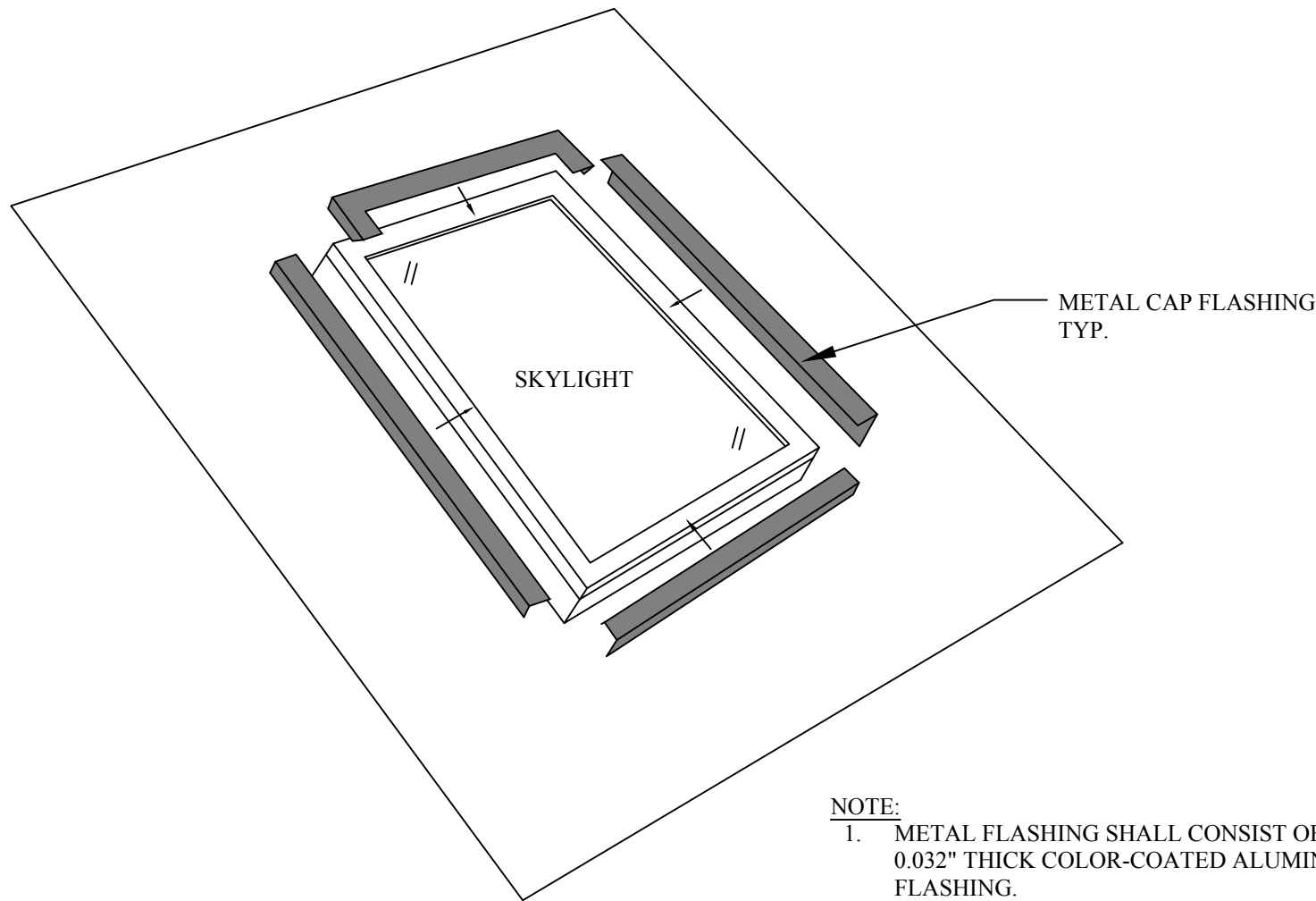
- NOTE:
1. REMOVE EXISTING SKYLIGHT AND PROPERLY STORE ON-SITE.
 2. INSTALL SYNTHETIC UNDERLAYMENT.
 3. INSTALL ICE & WATER SHIELD AND OVER EXISTING SKYLIGHT CURB AND EXTEND A MINIMUM OF 8" ONTO UNDERLAYMENT.
 4. APRON FLASHING TO COUNTER-FLASH UNDERLAYMENT.
 5. JAMB FLASHING TO COUNTER-FLASH APRON FLASHING.
 6. HEAD FLASHING TO COUNTER-FLASH JAMB FLASHING.
 7. FIELD CUT UNDERLAYMENT, EXTEND HEAD FLASHING UNDERNEATH, AND OVERLAP UNDERLAYMENT OVER HEAD FLASHING.

ICE & WATER SHIELD FLASHING DETAIL



- NOTE:
1. METAL FLASHING SHALL CONSIST OF 0.032" THICK COLOR-COATED ALUMINUM FLASHING.
 2. METAL APRON FLASHING SHALL COUNTER-FLASH SHINGLES.
 3. UNDERLAYMENT/SHINGLES SHALL COUNTER-FLASH METAL HEAD FLASHING.

3 SKYLIGHT METAL FLASHING DETAIL
S302 N.T.S.



- NOTE:
1. METAL FLASHING SHALL CONSIST OF 0.032" THICK COLOR-COATED ALUMINUM FLASHING.
 2. CAP FLASHING ALONG TOP OF THE SKYLIGHT CAN BE INTEGRATED WITH THE HEAD METAL FLASHING (ONE PIECE).

4 SKYLIGHT METAL CAP FLASHING DETAIL
S302 N.T.S.

RELIABLE ENGINEERING

238 N WASHINGTON STREET
HAVRE DE GRACE, MD 20178
website: www.reliableengineering.com

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WATER'S EDGE CONDO
ROOF REPLACEMENT PROJECT
3300-3431 LAKESIDE VIEW DRIVE
FALLS CHURCH, VA 22041

TYPICAL SKYLIGHT FLASHING DETAILS

APPROVED BY: ROBERT A. RADCLIFF, P.E.
DRAWN BY: RAR

PROJECT NUMBER: J22-1104
SCALE: NONE
SHEET: 11 OF 11

DATE: MARCH 20, 2023
DRAWING NUMBER
S302