The H.L. Turner Group Inc.

27 Locke Road Concord, NH 03301 t: 603.228.1122 hlturner.com

ADDENDUM NO. 1
CCSNH-NH RVCC Re-Roofing Project
Project Number RVC20-03
1 College Place
Claremont, New Hampshire

DATED: February 6, 2023

This Addendum No. 1 is issued to all Bidders and is to be inserted into, and shall become part of the Contract Documents, including all Drawings and Specifications, for the CCSNH-NH RVCC Re-Roofing Project, Project Number RVC20-03, 1 College Place, Claremont, New Hampshire, 03743, as if included in full therein.

This Addendum serves to modify and clarify the Bid Documents, dated February 2, 2021, as follows:

BIDDER'S QUESTIONS & ANSWERS

- 1. RPF states that prior to abatement, a work plan must be prepared by a certified abatement designer. Has this been done? If so, can you please provide a copy? If not, is this cost to be included as part of our bid?
 - Answer: Contractor is to include this cost in the Base Bid.
- 2. RPF states that prior to renovation/construction, the plans should be reviewed by a licensed industrial hygienist. Has this been done?
 - Answer: This is a recommendation to the Owner for the review of the work plan.
- 3. Table 1 lists the ACM, black roof patch, to be throughout the roof. Has any attempt been made to quantify this?
 - Answer: No; Bidders are to qualify the basis of the Base Bid by quantifying the amount of linear feet of ACM, black roof patch, included in the Base Bid amount.

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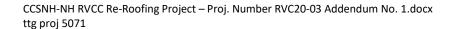
- 4. Between the black roof patch, the 1,000 sf of flashing that has been identified, and hidden ACM that RPF could not identify, but might be present, should we have a licensed abatement contractor perform all the roof demo?
 Answer: Yes; All Work shall be done in accordance with local, state and federal requirements.
- 5. Roof Details A-1 mention full replacement of existing roof and installation of 2-ply BUR system but specifications mention partial replacement/recover and EPDM.

 Answer: There are no roof details shown on Sheet A-1; there is no mention of a built-up roofing system on the drawings.
- 6. Have pull tests been performed on any of the existing roof decks?

 Answer: No
- 7. Specification mentions partial removal of existing roof and coverboard but leaving existing polyiso insulation in place and adhering to, how can this occur without damaging the facer that is needed to adhere the new system to the old polyiso insulation?

Answer: All existing polyisocyanurate roof insulation is to be removed to expose existing roof deck; refer to attached Revision Sketch A8.1, attached.

- 8. Spec mentioned 60 mil EPDM and a 30 year warranty but 90 mil EPDM is the min. requirement for 30 year warranty.
 - Answer: The base bid is to be a 60 mil. EPDM roofing membrane with a 20 year warranty; an Alternate is to be a 90 mil. EPDM roofing membrane with a 30-year warranty; refer to Revised Specification Section 003000 Bid Proposal Form and Revised Specification Section 075323 Ethylene-Propylene-Diene-Monomer (EPDM) Roofing, attached.
- 9. If a recover is the bidder to carry an allowance for a SF of existing insulation replacement? Has a moisture survey been conducted?
 Answer: All existing polyisocyanurate roof insulation is to be removed to expose existing roof deck; a moisture survey has not been conducted.
- Does this require a bid bond?Answer: No.





- 11. Have test cuts been taken? If so, what the existing roof assembly?
 Answer: No; refer to Project Manual Technical Specifications, Supplemental Documents, Hazardous Materials Survey Report, RPF File No. 209984 (RPF Environmental) Hazardous Materials Abatement & Related Work.
- 12. When is the time frame for project start date and finish?

 Answer: Project start upon execution of a signed contract between the Owner and the Contractor; Project Substantial Completion date for work: August 24, 2023; refer to New Specification Section "M Section 00010 Invitation To Bid CCSNH", attached.

SPECIFICATIONS

CHANGE SPECIFICATION SECTION 001100 – INVITATION TO BID

DELETE ENTIRE SECTION IN ITS' ENTIRETY.

ADD NEW SPECIFICATION SECTION "M SECTION 00010 - INVITATION TO BID -

CCSNH", attached.

CHANGE SPECIFICATION SECTION 075323 — ETHYLENE-PROPYLENE-DIENE-MONOMER

(EPDM) ROOFING

DELETE ENTIRE SECTION IN ITS' ENTIRETY.

ADD NEW 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING,

attached.

DRAWINGS

CHANGE ROOF DETAIL 1, SHEET A2.1
DELETE DETAIL IN ITS' ENTIRETY.

ADD REVISED TYPICAL ROOF REPLACEMENT SYSTEM, DETAIL 1, SHEET A8.1,

attached.

END OF ADDENDUM NO. 1

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BID FORM

The Community College System of New Hampshire CCSNH-RVCC Re-Roofing Project 1 College Place Claremont, New Hampshire

Project Number CON 20-04

	Date:
то:	Matthew Moore, Director of Capital Planning and Development NHTI Campus 30 College Drive Concord, NH 03301
SUBJECT:	Project Number CON 20-04 CCSNH-RVCC Re-Roofing Project 1 College Place Claremont, NH 03743
Proposal subr	nitted by (Bidder Name and Address Below):
accordance w	ned proposes to furnish all labor, materials, tools and equipment in complete ith the provisions of the Contract Documents dated February 2, 2021 including all information provided and distributed by The H.L. Turner Group Inc.
The Bidder ac	knowledges receipt of and includes the requirements of the following Addenda:
<u>Number</u>	<u>Date</u>
In submitting t	his Bid, the undersigned agrees:

The Bidder shall not have defaulted on, or failed to execute, enter into, or perform a

contract for services with the Owner during the past five (5) years.

1.

The Bid shall remain in full force and will not be withdrawn for a period of thirty (30) calendar days after the actual date of Bid opening thereof.

- 2. To enter into and execute a contract, if awarded on the basis of this Bid.
- 3. To successfully accomplish the work in accordance with the Contract Documents.
- 4. Work to be substantially completed by August 24, 2023.
- 5. To provide the Insurances required, as defined in the Summary or Work.
- 8. To **not unbalance** the Bid prices as the Owner reserves the right to delete items in the Bid at any time.
- 9. The Bid prices submitted on this project shall include all materials, labor, taxes, fees, permits, disposal, and all freight charges, for a total cost to the Owner.
- 10. Bidder is to include with his Bid a short summary of their approach to the work, as well as any variations from the specification in a letter attached to the Bid.
- 11. The Owner reserves the right to accept any and all Bids and to waive any informalities.

Partial Roofing Replacement Project for the CCSNH RVCC Re-Roofing Project

<u>ltem</u>	<u>Description</u>		Bid Price
1.	General Conditions	(L.S.) \$	
2.	Mobilization	(L.S.) \$	
3.	Demolition and Disposal Including All ACM Abatem andlinear feet of black roof patch removal		
4.	New Roofing Including All New Insulation, Metal Edging, Flashings, Cover Board, Trim, Roof Drains, etc.		
5.	Demobilization and Clean-Up	(L.S.) \$	
	TOTAL BASE BID	(L.S.) \$	

The undersigned agrees to complete the work for the Total Lump Sum Price of: (Base Bid includes all work shown in the project documents.)
In figures: \$
In words:
Show above amount in both words and numerals. In the event of error, amount in words shall govern.
>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
<u>UNIT PRICES</u>
Any change in the scope of the contract after contract award for the following specific items may be adjusted on the basis of direct invoice cost, plus overhead and profit
Unit Prices (if needed):
a. It is anticipated that the existing perimeter built-up wood roof edge which the new roofing surfaces is to be applied is in good condition and suitable for application of the new roofing materials. In the event that specific portions or sections of the built-up wood roof edge is deteriorated and must be replaced, the Contractor shall provide a price per linear foot for replacement of the wood roof edge with material to match the existing. The roof edge used for replacement of the existing roof edge shall be of the same thickness and material specifications as the existing.
In figures: \$
In words: per shee
 The Contractor shall provide a price per linear foot for removal of additional ACM, black roof patch, throughout the roof area, over and above the quantity carried in the Base Bio
In figures: \$
In words: per shee

BID ALTERNATE PRICES

	 Alternate Price No. 1 (Lump Sum): Provide all labor and materials, etc., for furnishing and installing 90 mil. EPDM roofi material with 30-year manufacturer's standard warranty in lieu of the 60 mil. 20-yea EPDM roofing material specified as part of the Base Bid. 			
	In figures: \$			
	In words:			
:e:]	The Following Items are Required as Part of the "Bid Form" Submission			
1.	Bidder accepts the CCSNH general terms and conditions as outlined in the forms contained in the Project Manual.			
	a. <u>Circle One (1) of these:</u> <u>Yes</u> <u>No</u>			
	If <u>No</u> is circled, mark-up of acceptable terms must be provided with Bid.			
2.	Provide written short summary of the approach to the work and schedule as part of the Form Submission and include the written short summary with the "Bid Form".			
3.	Complete the information below:			
	Bidder:			
	Business Address:			

Title:

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. Access to site.
- 4. Schedule for Bidding, Construction Work and Substantial Completion.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Project Number CCSNH-NHTI CON 20-04 RVCC-Re-Roofing Project.
 - 1. Project Location: RVCC Campus, 1 College Place, Claremont, New Hampshire 033743
- B. Owner: NHTI.
 - 1. Contract Representative: Matthew Moore, Director of Capital Planning and Development.
- C. Architect: The H.L. Turner Group Inc.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. Partial Roof Replacement on existing building.
- B. Type of Contract:

REVISED SUMMARY 011000-1

1. Project will be constructed under a single prime contract.

1.5 ACCESS TO SITE

- A. General: 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.
 - 1. A designated area shall be selected for Contractor's Storage of material to be delivered to the site prior to the start date of Work under this contract.
 - 2. Construction Personnel Conduct:
 - a. Shirts are required to be worn at all times on the work site.
 - b. Smoking is only allowed in designated smoking areas.
 - c. There shall be no radios or headsets allowed.
 - d. Parking for vehicles must be cleared through the Maintenance Department.
 - e. Use of cell phones and radios are prohibited while vehicles are in motion.
 - f. Posted speed limits are to be obeyed.
 - g. Infraction of these rules can result in the offender being asked to leave the campus.
- 1.6 SCHEDULE FOR BIDDING, CONSTRUCTION WORK AND SUBSTANTIAL COMPLETION.
 - A. Bids Due: 2:00 PM, Monday, February 13, 2023 at CCSNH System Office, 26 College Drive. Concord. NH 03301.
 - B. Contract Award Date: Contingent upon receipt of Contractor's security and insurance certificate.

C. Work Schedule:

- 1. Schedule all Work to be performed from execution of a signed contract between the Owner and the Contractor.
- 2. Any subsequent work performed after August 24, 2023, including completing punchlist items, will only be allowed to be performed after 5:00 PM on weekdays or weekends.
- 3. Substantial Completion of all work, including punchlist items, shall be no later than **August 24, 2023**.

REVISED SUMMARY 011000-2

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 010000

REVISED SUMMARY 011000-3

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM) ROOFING

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:

- 1. Adhered ethylene-propylene-diene-monomer (EPDM) roofing system.
- 2. Roof insulation.
- Cover board

B. Related Requirements:

- 1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
- 2. Section 077100 "Roof Specialties" for roof edge specialties, reglets and counterflashings, replacement roof drains, replacement roof curbs, roof hatch safety railing and gate, and roof edge guardrail.

1.3 DEFINITIONS

A. Roofing Terminology: Definitions in ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.
 - 1. Meet with Owner, Architect, testing and inspecting agency representative, Roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
 - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
 - 3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

- 4. Examine roof substrate conditions and finishes for compliance with requirements, including flatness and fastening.
- 5. Review structural loading limitations of roof surface during and after roofing.
- 6. Review base flashings, special roofing details, roof drainage, roof penetrations, and condition of other construction that affects roofing system.
- 7. Review governing regulations and requirements for insurance and certificates if applicable.
- 8. Review temporary protection requirements for roofing system during and after installation.
- 9. Review roof observation and repair procedures after roofing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:
 - 1. Layout and thickness of insulation.
 - 2. Base flashings and membrane terminations.
 - 3. Flashing details at penetrations.
 - 4. Tapered insulation thickness and slopes.
 - 5. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
 - 6. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
 - 1. Roof membrane and flashing, of color required.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.8 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty includes membrane roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, and other components of roofing system.

2. Warranty Period:

- a. Base Bid: 20 years
- b. Alternate No. 1: 30 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as membrane roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period:
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain components including roof insulation, fasteners, etc., for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
 - 1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 - 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:
 - 1. Corner Uplift Pressure: 70 PSF
 - 2. Perimeter Uplift Pressure: 47 PSF
 - 3. Field-of-Roof Uplift Pressure: 30 PSF
- D. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.
 - 1. Fire/Windstorm Classification: Class 1-75
 - 2. Hail-Resistance Rating: MH.
- E. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

2.3 EPDM ROOFING

A. EPDM: ASTM D 4637, Type I, nonreinforced, uniform, flexible EPDM sheet.

1. Thickness:

- a. Base Bid: 60 mils (1.5 mm), nominal.
- b. Alternate No. 1: 90 mils (2.286 mm), nominal.
- 2. Exposed Face Color: Black on black.

2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: 60-mil-(1.5-mm-) thick EPDM, partially cured or cured, according to application.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Modified Asphaltic Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard modified asphalt, asbestos-free, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- E. Water-Based, Fabric-Backed Membrane Adhesive: Roofing system manufacturer's standard water-based, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- F. Low-Rise, Urethane, Fabric-Backed Membrane Adhesive: Roof system manufacturer's standard spray-applied, low-rise, two-component urethane adhesive formulated for compatibility and use with fabric-backed membrane roofing.
- G. Seaming Material: Single-component, butyl splicing adhesive and splice cleaner.
- H. Lap Sealant: Manufacturer's standard, single-component sealant, colored to match membrane roofing.
- I. Water Cutoff Mastic: Manufacturer's standard butyl mastic sealant.
- J. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch (25 by 3 mm) thick; with anchors.
- K. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening membrane to substrate, and acceptable to roofing system manufacturer.
- L. Miscellaneous Accessories: Provide preformed inside and outside corner sheet flashings, reinforced EPDM securement strips, T-joint covers, in-seam sealants, termination bars, cover strips, and other accessories.

2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by EPDM roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Global-approved roof insulation.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3, felt or glass-fiber mat facer on both major surfaces.
 - 1. Compressive Strength: 20 psi.
 - 2. Size: 48 by 96 inches.
 - 3. Thickness: As indicated on the Drawings.
- C. Provide preformed crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

2.6 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
 - 1. Modified asphaltic, asbestos-free, cold-applied adhesive.
 - 2. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
 - 3. Full-spread spray-applied, low-rise, two-component urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 1/2 inch (16 mm) thick, factory primed.

2.7 ASPHALT MATERIALS

- A. Roofing Asphalt: ASTM D 312, Type III or Type IV.
- B. Asphalt Primer: ASTM D 41/D 41M.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking and nailers are securely anchored to roof deck at terminations and that nailers match thicknesses of insulation.
 - 3. Verify that any damaged sections of rigid insulation, roof edge blocking or nailers have been repaired or replaced.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, listed roof assembly requirements, and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roofing and auxiliary materials to tie in to existing roofing system, where indicated, to maintain weather tightness of transition and to not void warranty for existing roofing system.

3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.

- C. At internal roof drains, slope insulation to create a square drain sump with each side equal to the diameter of the drain bowl plus 24 inches.
 - 1. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- D. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - 1. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- E. Adhered Insulation: Install each layer of insulation and adhere to substrate as follows:
 - 1. Set each layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- F. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches (150 mm) in each direction. Loosely butt cover boards together and adhere to roof insulation.
 - 1. Adhere cover boards according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 - 2. Adhere cover boards to resist uplift pressure at corners, perimeter, and field of roof.

3.5 INSTALLATION OF COVER BOARDS

- A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.
 - 1. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof surfaces.
 - 2. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board so that water flow is unrestricted.
 - 3. Cut and fit cover board tight to nailers and penetrations.
 - 4. Adhere cover board to substrate using adhesive according to SPRI's Directory of Roof Assemblies listed roof assembly requirements for specified Wind Uplift Load Capacity and FM Global Property Loss Prevention Data Sheet 1-29, as follows:

- a. Set cover board in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
- B. Install slip sheet over cover board and immediately beneath roof membrane.

3.6 ADHERED MEMBRANE ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to membrane roofing system manufacturer's written instructions. Unroll membrane roofing and allow to relax before installing.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. Fabric-Backed Membrane Adhesive: Apply to substrate at rate required by manufacturer, and install fabric-backed roofing.
- F. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeters.
- G. Apply roofing with side laps shingled with slope of roof insulation where possible.
- H. Adhesive Seam Installation: Clean both faces of splice areas, apply splicing cement, and firmly roll side and end laps of overlapping roofing according to manufacturer's written instructions to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of roofing terminations.
 - 1. Apply a continuous bead of in-seam sealant before closing splice if required by roofing system manufacturer.
- I. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.
- J. Spread sealant or mastic bed over deck-drain flange at roof drains, and securely seal membrane roofing in place with clamping ring.

3.7 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate and allow to partially dry. Do not apply to seam area of flashing.

- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean splice areas, apply splicing cement, and firmly roll side and end laps of overlapping sheets to ensure a watertight seam installation. Apply lap sealant and seal exposed edges of sheet flashing terminations.
- E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.

3.8 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.9 ROOFING INSTALLER'S WARRANTY

A.	WHE	EREAS of
	roofi	herein called the "Roofing Installer," has performed ng and associated work ("work") on the following project:
	10011	ing and accounted work (work) on the following project.
	1.	Owner: <insert name="" of="" owner="">.</insert>
	2.	Address: <insert address="">.</insert>
	3.	Building Name/Type: <insert information="">.</insert>
	4.	Address: <insert address="">.</insert>
	5.	Area of Work: <insert information="">.</insert>
	6.	Acceptance Date:
	7.	Warranty Period: <insert time="">.</insert>
	8.	Expiration Date:

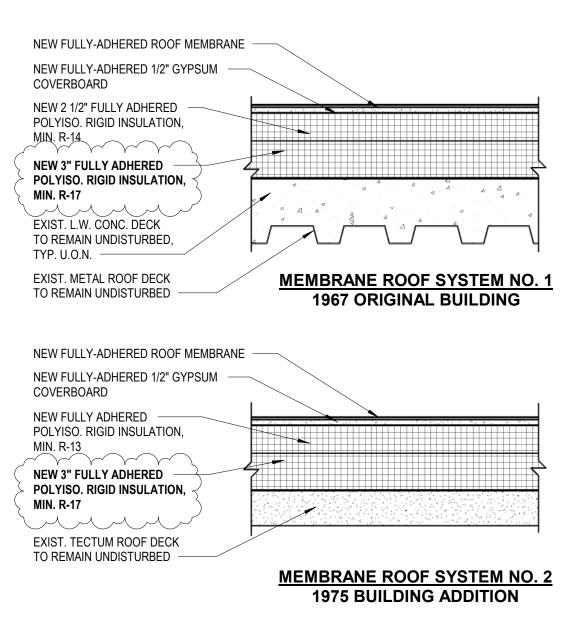
B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,

- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- D. This Warranty is made subject to the following terms and conditions:
 - 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding 110 mph (m/sec);
 - c. fire:
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
 - When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
 - 3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
 - 4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.

- 5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
- 6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
- 7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E.	IN W	/ITNESS THEREOF, this instrument has been duly executed this
	day c	رار بار
	1.	Authorized Signature:
	2.	Name:
	3.	Title:

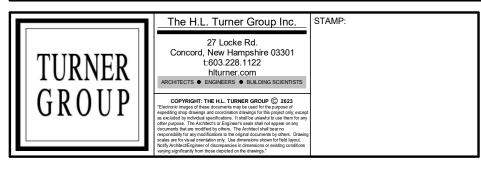
END OF SECTION 075323





REVISED TYPICAL ROOF REPLACEMENT SYSTEMS

√ Scale: 1 1/2" = 1'-0"



ISSUED FOR:	KEY PLAN: NTS	PROJ. NO.:	5071	SHEET TITLE:		
○ PROGRESS		SCALE:	1 1/2" = 1'-0"	REVISED TYPICAL ROOF REPLACEMENT SYSTEM		
SCHEMATIC DESIGN		DESN. BY:	BAH	DDO IFOT TITLE		
O DESIGN DEVELOPMENT		DRAWN BY:	BAH	RE-ROOFING PROJECT NO. RVC20-03		
BID / PRICING		CHKD BY:	WDH			
CONSTRUCTION		DATE:	02/06/2023	PROJECT ADDRESS:	CLIENT ADDRESS:	
NOT FOR CONSTRUCTION NOT USED		FILE:		1 COLLEGE PLACE CLAREMONT, NH 03743	1 COLLEGE PLACE CLAREMONT, NH 03743	

A8.1