



ROOFINGPROJECTS-COM

ROOF REPLACEMENT SPECIFICATION

Shaws #2532 - 199 Main Street, Lancaster NH

Roof Sections: A, B (C & D – Shingle roof sections)

SECTION 075419 - POLYVINYL-CHLORIDE (PVC) RE-ROOFING

PART 1 - GENERAL

1.1 SUMMARY SCOPE OF WORK

- 1. Refer to separate specification for sloped shingle roof system replacement (Sections C & D).**
- Existing roof assembly remains in place and is prepared as required by roofing manufacturer to receive a mechanically attached 60 mil Sikaplan Polyvinyl Chloride (PVC)(Felt-Backed) roofing membrane.
- Contractor is required to contact Jason Maxwell @ 801.910.9905 maxwell.jason@us.sika.com for material quotes. No other contact at Sika Sarnafil can be used to obtain material quotes.
- The existing roof system is as follows: EPDM Single Ply Membrane followed by 5 inches Isocyanurate Insulation followed by a Steel Deck.
- Tear off designated wet/damaged insulation roof areas identified during the course of the work. Non-Destructive moisture testing to be provided by others – (not in contractor's scope or bid price) Fill in removed insulation areas to match the height of the existing adjacent roof area. A unit price line item on the bid form will address wet or damaged insulation removal and infill. Wet area removals will be treated as a change order based on the cost per square foot unit price provided on the bid form by the contractor. All removal areas are to be documented by the contractor through markup drawing and photos confirming the conditions. Property management and Roofingprojects.com to be notified and made aware of the conditions as they are encountered.
- Sweep the roof surface of all debris and dirt. Prepare existing roof surface: cut, set down and/or remove any blisters or ridges, walkway pads, etc. that would prevent a level and uniform application of the new roof system. Cut existing membrane every 10 feet on center.
- In all areas, Install 60 mil thick Polyvinyl Chloride roof membrane (Sikaplan Plus Fastened 60)(Felt Backed) (mechanically attached) directly over the existing membrane surface without separator board. The building is not FM insured, however, as a design standard, attach membrane to meet FM-1-90 guidelines (FM 100 mph wind zone) Confirm sheet width, maximum fastener spacing in the membrane seam areas, half sheets and increased fastener rates in the perimeter and corner zones with manufacturer prior to submitting bid. Note that the membrane sheets must be installed perpendicular to the steel deck flutes and that “picture framing” half sheets in the perimeter and corner zones is not an acceptable method to achieve the increased fastener rates required in these zones

- on mechanically attached installation. Install new roof system to meet the following wind uplift requirements:
- a. Zone 1' = 1-60
 - b. Zone 1 = 1-90
 - c. Zone 2 = 1-120
 - d. Zone 3 = 1-165
8. Prior to the start of work, contractor to provide submittal to Roofingprojects for approval including the following (Refer to Section 1.4B of this specification for additional information):
 - a. Steel deck orientation.
 - b. Membrane sheet roof plan layout including sheet sizes and orientation, half sheet locations, etc.
 - c. Wind zone plan dimensions.
 - d. Insulation or recovery board layout (if applicable)
 - e. Fastener spacing and layout for each wind zone.
 - f. Product data for all system components
 9. Install Sarnafil G459 Grease resistant membrane around all sides of grease machines and kitchen exhaust fan units with the tan side up, fully welded at all sides as a sacrificial layer over base membrane (3'-0" wide in all directions).
 10. Remove all existing flashings and adhere 60 mil thick Polyvinyl Chloride (PVC) Flashing membrane.
 11. Install specified sheet metal flashings and accessories – include all clips, sealants, fasteners, and connections to make watertight.
 12. Coordinate all necessary disconnects and reconnection of roof top equipment required to install new roof system with Owner provided electrician and HVAC contractor.
 13. The perimeter edge conditions are to be addressed as noted on the roof plan drawing and as detailed on the detail drawings. Curbs and any parapet walls are to be completely flashed with new 60 mil PVC membrane.
 14. Install tapered insulation crickets to the up-slope side of all Roof Top Units as specified and as may be noted on the roof plan drawing.
 15. Remove all existing drain strainers and clamping collars and replace with new cast iron. Roof drain body and piping to remain. A line item on the bid form will address drain bowl replacement and drain insert installation if required.
 16. Replace existing drip edge, gutters and downspouts associated with the roof replacement referenced above. Contractor to include any blocking required to bring the drip-edge substrate up to match the height of the new roof system, including tapered edge strip to promote drainage into the gutter and to prevent ponding water along roof edge. Size and profile of the gutter and downspout system including downspout location and discharge points to match existing conditions – or as noted on the roof plan drawing.
 17. Remove abandoned items as indicated on the roof plan drawing. Close opening in deck, infill opening w/ isocyanurate insulation to match existing roof thickness and roof over area. All obsolete satellite dishes are to be removed during the course of work (include in the bid price). Coordinate with on site contact to confirm that the dish is obsolete prior to removal.
 18. Remove and replace the existing roof hatch (size to match existing) Type S Roof Hatch by The BILCO Company, P.O. Box 1203, New Haven, CT 06505, 1-800-366-6530, Web: www.BILCO.com. Where alarm system is existing, include re-connection of alarm system components on new hatch.

19. Install new hatch rail Safety Rails by SafePro at the roof hatch included in the base bid price. (Refer to section 2.7 of this specification)
20. Install NextGen Lift and Lock Roof access hatch system inside ground level roof access hatch release for all roof access ladders that exceed 20 feet in height. (Refer to section 2.9 of this specification)
21. Install manufacturers walk pads at roof access points and at all sides of access hatches, serviceable RTU units and all sides of air cooled condensers. Install 4' wide area of 1/4" dens deck under membrane at all walkpad areas. A lineal foot price is available on the bid form for additional walk pads to be determined later.
22. All pipe supports to be replaced. (Refer to section 2.8 of this specification)
23. Wood equipment support sleepers or dunnage: Replace with same size pressure treated lumber and fully wrap with membrane flashing adhered in place.
24. Install perimeter safety demarcation on roof surface at perimeter. Install 15 feet horizontally from roof perimeter and at upper level on roof sections with more than 6 feet vertical distance between roof levels. (Refer to section 2.2 F of this specification)
25. **Contractor to include in their lump sum pricing a Contingency Allowance of \$5,000.** All contingency allowance expenditures must be authorized in writing by Owner's representative and Roofingprojects.com prior to being performed. Payment will not be made on any unauthorized contingency expenditures. Any allowance value not approved during the course of the project will be credited back to the Owner.
26. All required municipal permits, project fees and taxes are to be included in the contractors base bid price.
27. All contractor payment applications are required to be submitted to the owner for payment processing. The awarded contractor will be given specific instructions regarding payment applications.
28. Unless otherwise specified, the roof and flashing membrane color is to be Energy Smart White.
29. A Twenty (20) year Manufacturer's Systems Warranty shall be provided to the Owner upon completion. No Hail coverage is required.
30. A Two (2) year Installer's workmanship and material warranty shall be provided to the Owner upon completion. Note: A leak response provision is included as part of the installer's obligation.

1.2 SUMMARY

A. Section Includes:

- A. Recovery of existing roofing
 - a. Existing wood roof substrates (decks) require a fastener pull test to verify attachment requirements.
 - b. Recovery applications require compliance with a moisture survey as listed in these documents.
- B. Roofing assembly shall be Mechanically fastened or Induction welded polyvinyl chloride (PVC) roofing system.
- C. Accessory roofing materials.
- D. Roof insulation (if specified).
- E. Insulation accessories and cover board (if specified).
- F. Roofing Solar rack mounts and accessories (if specified)

- G. Walkways.
- H. Roofing manufacturers 20-year system warranty including:
 - a. Miles per hour (MPH) wind speed coverage compliant with local code and design requirements (as noted in project scope of work).
 - b. Hail coverage (as noted in project scope of work).

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at project site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - A. For insulation and roof system component fasteners, include copy of manufacturers product data sheets.
- B. Shop Drawings: Include roof plans, sections, details, and attachments to other work, including the following:
 - A. Layout and thickness of insulation.
 - B. Base flashings and membrane terminations.
 - C. Flashing details at penetration.
 - D. Tapered insulation thickness and slopes.
 - E. Roof plan showing orientation of steel roof deck and orientation of roof membrane, fastening spacings, and patterns for mechanically fastened roofing system.
 - F. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
 - G. Tie-in with air barrier (if any).
 - H. Roof mounted solar locations and accessories requirements (if any)
- C. Samples: For the following products:
 - A. Roof membrane and flashing, of color required.
 - B. Walkway pads or rolls, of color required.
- D. Wind Uplift Resistance Submittal: For roofing system, indicating compliance with local code wind uplift performance requirements.
 - A. Roof mounted solar uplift documentation to be provided by integrator.
- E. Copy of roof documentation including:
 - A. Manufacturer's technically accepted project *Notice of Award* (ANOA).
 - B. Material 'Confirmation Order' not limited to but including:
 - a. Applicators order date and Manufacturers shipping confirmation including anticipated delivery date.
 - b. Roofing accessories (pipe supports, prefabricated and sheet metal flashing, traffic materials, etc.) cut sheet, order date and shipping confirmation including anticipated delivery date. Note: this information may be used in Albertson Stores project audits.

- c. Please note: Order confirmations will be copied to the Albertson Stores specifier when requested.
- d. LTL shipments from various vendors, which can include sheet metal flashing, special fasteners, sealants and adhesives, should be delivered to the roofing companies address. All orders shipped to the Albertson Store property being roofed must be sent as 'appointment-required deliveries' and will not be off-loaded by Albertson Stores personnel.

1.5 INFORMATIONAL SUBMITTALS

A. Manufacturer Certificates:

- A. Performance Requirement Certificate: Signed by roof membrane manufacturer, certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
- B. Special Warranty Certificate: Signed by roof membrane manufacturer, certifying that all materials supplied under this Section are acceptable for special warranty. (Note: This includes items including sheet metal and liquid applied flashing. And specified warranty enhancements such as higher wind speeds or hail event coverage.)

B. Product Test Reports: For roof membrane and insulation, tests performed by independent qualified testing agency indicating compliance with specified requirements.

C. Research reports.

D. Field Test Reports:

- A. Prior to an overlaid re-roofing installation, the following documents are required to verify acceptable conditions:
- B. Multiple roof cores identifying existing roof composition above roof substrate.
- C. Moisture detection investigation as identified in these bid documents.
- D. Wood deck fastener pull-out testing and manufacturer's requirements for fastener patterns.

E. Sample warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Certified statement from existing roof membrane manufacturer stating that existing roof warranty has not been affected by Work performed under this Section.

1.7 QUALITY ASSURANCE

A. Qualifications:

- 1). **Manufacturer:** Sika Roofing is Albertson Stores Roofing provider. Please refer to the following Albertson Stores National Account Representatives for roofing information:
- a. General Albertson Stores information including regional Sika Elite Contractor contact list:
 1. Steve Moosman @ 801.201.6269 moosman.steve@us.sika.com
 2. Jason Maxwell @ 801.910.9905 maxwell.jason@us.sika.com
 - b. Albertson Stores National Account pricing (Quotes):
 1. Jason Maxwell @ 801.910.9905 maxwell.jason@us.sika.com
 - c. Albertson Stores National Account customer service representatives (For all Albertson Stores roofing orders):
 1. Jessi Garner 239.506.7672, garner.jessi@us.sika.com
 2. Michael Leatherbury 801.259.0121, leatherbury.mike@us.sika.com
 - d. Sika Roofing National Technical Managers: Albertson Stores encourage a roofing system review with a Sika Roofing Technical Manager prior to issuing bid documents and scheduling pre-bid meetings to verify selected roofing compliance and/or limitations. The following National Technical Managers should be contacted regarding clarification and consultation for projects within their regions. Additionally, these managers can provide Sika Field Technicians with contact information responsible for visiting specific store roofing projects.

West North: David Drebing – 801.502.4316 drebing.dave@us.sika.com **California North, Hawaii, Nevada (except Las Vegas) Oregon, Washington, Alaska.**

West South: Raul Vasquez – 562.504.8416 vasquez.raul@us.sika.com **California South, Las Vegas, Arizona.**

Mountain: David Drebing – 801.502.4316 drebing.dave@us.sika.com **Utah, Idaho, Montana, Wyoming, Colorado, New Mexico.**

Midwest: Phil DeRuiter – 641.750.7006 deruiter.phil@us.sika.com **North & South Dakota, Nebraska, Kansas, Minnesota, Indianan, Missouri, Iowa, Wisconsin, Illinois, Michigan, Kentucky, Ohio.**

Southwest: Kaleb Kirk – 979.943.4665 kirk.kaleb@us.sika.com **Texas, Oklahoma, Louisiana, Arkansas.**

Northeast: Bryan Chelkonas – 774.287.3706 chelkonas.bryan@us.sika.com **Connecticut, Maine, Massachusetts, New Hampshire, new England, Rhode Island, Vermont, New York.**

Mid-Atlantic: Sezair DeStani – 301.410.6055 destani.sezair@us.sika.com **District of Columbia, Delaware, Maryland, new Jersey, New York, Pennsylvania, Virginia, West Virginia.**

Southeast: Ricardo Hartley – 678-672-7993 hartley.ricardo@us.sika.com **Alabama, Florida, Georgia, Mississippi, North & South Carolina, Tennessee.**

- 2). **Applicator:** Albertson Stores roofing projects shall be installed by the contractor selected and contracted by the Owner or Owner’s representative. Any plans to complete work with subcontractors must be acknowledged when bids are submitted to respective roofing consultants. Acknowledgement must include the name of the company that would be used if awarded. Albertson Stores roofing installation will not be subcontracted to different roofing applicator(s), companies or individuals not employed by the awarded roofer unless approved in advance by the Owner, the Owner’s representative and Sika Roofing. Approval shall be in writing. Failure to gain prior permission to utilize subcontractors will allow the Owner to exercise Owner’s right to ‘Terminate for Cause’ as outlined in section 9.2 in Albertson



Companies standard contract at Owner's sole discretion. Workers shall be experienced in welding PVC roofing. If needed, Sika Roofing can train employees in expected membrane workmanship and required quality levels.

- A. To comply with Albertson Store expected response time to reported leaks (on site, same day or within 24 hours depending on the severity of the leak), potential warranty repairs during roofer's workmanship and materials warranty period can be subcontracted by the prime roofing company. All repair materials and service work shall be compliant with the roofing manufacturers' performance and warranty requirements. Service invoices not associated with manufacturers' warranty will be paid for by the prime roofing company and reimbursed by Albertsons via Corrigo. Additionally, the prime roofing company is responsible under the terms and agreement of the manufacturer.
- B. Roof service work required can be performed by a Sika Roofing trained roofer provided the repairs comply with the Owner and roofing manufacturers requirements and satisfy the following:
 - 1. All roofing and flashing service and repair work performed during the roof installers' warranty period. Warranty periods are defined by Albertson Stores and Sika Corporations applicator agreement, shall be the responsibility of the following:
 - a. Payment and accountability of roofing service and repair work performed during the roofing installer's agreement is the responsibility of the roof installer.
 - b. Payment and accountability of the roofing service and repair work performed after the roofing installer's agreement is the responsibility of Sika Roofing.

3). Services:

- a. Pull-out and uplift testing:

A fastener/adhesive test is requested by the Owner for roofs with wood decks and adhered surfaces. Perform a minimum of 4 pull test for the first 50,000 square feet and 2 each additional test for each additional 50,000 square feet or portion thereof of each project. Test locations shall be selected in the corner and perimeter areas if conditions cannot be replicated in the field of the roof. Pull test shall not be performed in close proximity to other pull test and provide a representation of the entire roof area and existing conditions. If fastener uplift testing is not performed in advance by the Owner's representative, it is recommended that the fastener manufacturer be invited to perform fastener pull out testing either prior to the Prebid meeting or during the Prebid site visit. Sika Roofings primary fastener manufacturer is OMG (Olympic Manufacturing Group). OMG performs free fastener uplift testing but requires someone to patch the fastener holes from testing. There is an uplift test document that needs to be completed by the owner's representative for each project and submitted to an OMG field representative for scheduling. The following OMG Regional Manager can provide the forms and field technicians with contact information for each testing location.

OMG Territory Fastener Managers:

West: Jeff Gillingham – 916.820.8282 wgillingham@omginc.com **Alaska, Western Canada, Washington, Oregon, Idaho, Montana, Wyoming, California, Nevada, Utah Colorado, Arizona, New Mexico**



Midwest: Drew Nehrenz – 260.444.1228 anehrenz@omginc.com **Minnesota, Nebraska, Indianan, North & South Dakota, Illinois, Missouri, Michigan, Wisconsin.**

Gulf: Matt Duncan – 512.797.5548 mduncan@omginc.com **Florida, Puerto Rico, Texas, Oklahoma, Mew Mexico, Louisiana, Mississippi, Arkansas.**

Mid-Atlantic: Russell Quick – 256.343.5242 rquick@omginc.com **North and South Carolina, Virginia, Maryland, Tennessee, Kentucky, Alabama, Georgia.**

Northeast: Jon Surratt – 916-303-3645 jsurratt@omg.com: **Massachusetts, Maine, Rhode Island, Connecticut, Vermont, New York, New Jersey, Pennsylvania, Delaware, Long Island, West Virginia, Ohio.**

B. Roofing System Verification:

A. Before an existing roof can be overlaid the following procedures must be accomplished to verify conditions:

- a. Roof core samples to ensure there is only one existing roof in place and there is no moisture in the roof core sample.
- b. Wood deck fastener ‘pull out’ values to determine fastener density required to attach the new roofing system.
- c. Adhesive tests to determine adhesive type and density when used in securement of the new roof assembly or flashing.
- d. Perform and document one of the following detection methods to verify underlying roofing conditions satisfy a new roof overlay:
 - 1). Infrared (IR) thermography scan. The IR scan shall be performed by a trained thermographer certified to perform and document these services. Roof cores are required to verify recorded anomalies and underlying roof conditions. Photographs verifying the test results are required.
 - 2). Non-destructive (Tramex) moisture detection, with condition verified by roof cores at each ‘wet’ detection. Photographs verifying the test results are required.
 - 3). Multiple roof cores that certify a dry underlayment. A minimum of 5 cores per 50,000 square feet and two additional cores for additional footage. Cores should be taken in areas of previous leaks and as directed by Owner and owner’s representative. Photographs verifying the test results are required.
- e. If 20% of the existing roof detected wet underlayment, the existing roof should be completely removed and replaced.

C. Roof Mounted HVAC:

A. HVAC and mechanical work including removal and disposal, shall be provided by the Albertson Stores Mechanical Contractor. Unit to be removed shall be identified with a red painted X on the unit. Albertson Stores HVAC contractor should be invited to the re-roofing pre-installation meeting if required by the Owner and Owner’s representative. Any necessary plumbing and/or electrical work shall be provided by Albertson Stores unless the selected roofing contractor can perform the necessary task. Albertson Stores Certified Plumbing and Electrical contractor’s contact information will be provided by Albertson Stores.

D. Roof mounted Solar:

- A. Selected Albertson Stores are candidates for roof mounted solar panels installations. These properties require approved solar mounts to be installed in accordance with Albertson Stores and Sika Roofing requirements, which at a minimum include the following:
1. Roof area where solar arrays will be installed are identified by the selected solar integrator. Note: Integrator is responsible for obtaining any license, permit or engineering required to allow roof top solar installation. Design and engineering include compliance with engineering and load calculations.
 2. When specified, the roof installer is responsible for installing roof manufacturers supplied solar mount anchors welded to or anchored through the roof membrane and assembly. The roof integrator is responsible for providing the roof installer with a list of the component locations and quantities for the solar installation. If directed by the Owner or Owner's representative, the roof installer shall supply the integrator (as part of their roofing bid) with the following solar components:
 - a). Solar anchors (OMG Power Grip or U-Anchor) models in type and quantities as specified by integrator.
 - b). Fasteners (to attach solar anchors) in quantities as specified by integrator. The roofing applicator is responsible for providing the fastener length used in the roofing system to accommodate securement of the solar anchors.
 - c). 24 inch wide .060 mil flashing membrane to be used as a separator sheet (Buffer) in lengths, widths and quantities as specified by integrator
 3. If a solar platform is recommended over the existing roofing and installed under the solar array, acceptance from the roofing manufacturer and local city and county building officials is required.
 4. A roof observation by the roofing manufactures full time technical field representative before solar installation verifying the roofing installation appears to be watertight without any defects that should cause leaks before the solar installation. A return observation by the roofing manufacturers full time technical field representative to observe the roof area surrounding the solar array for any anomalies or defects resulting from the solar installation is required.
- E. Sky light replacement or skylight repair:
- A. Sunoptics is Albertson Stores preferred skylight vendor. The sales are direct to roofing contractors and include a limited warranty. If Sunoptic's does not have the size of skylight to fit the project, contact Jason Maxwell to get a Velux skylight cost that will fit and be part of the 20-year roofing system warranty.
 - B. Sunoptic's Skylight Replacement & Safety cage: Contact Zach Grable of Western Regional Sales.
Office -800.289.4700 x 502
Mobile – 224.330.9610
Zach.grable@sunoptics.com
 - C. Skylight lens repair: Sikalastic Clear Glaze Polyurethane or Velux skylights: Contact Jason Maxwell of Sika National Accounts
(801) 910.9905
maxwell.jason@us.sika.com
- F. Additional Roof Conditions:
- A. Existing curb and wall base flashing membrane must be removed and substrates prepared to receive selected flashing options.

- B. Properties where deep snow or the potential of roof top snow removal exists, all penetrations shall be replaced with reinforced flashing membrane whether a liquid applied (LAM) flashing or a reinforced prefabricated membrane sheet flashing. Unreinforced flashing membranes are not acceptable.
- C. Sloped Traffic surfaces shall require one of the following traffic surfaces:
 - a. Crossgrip Xtra secured with a stainless-steel bar, roof anchors and décor side bumpers strips. (Details shall be provided by roofing manufacturer if requested).
 - b. Liquid applied textured traffic surface:
 - 1). Option one: Granulated surfaced Sikalastic Roofpro in color required by Owner and Owner's representative.
 - 2). Option two: Granulated surfaced 850 Seamless Walkway Surface (SWS) in Burnt Yellow color by Western Colloid
- D. A chemically resistant roof membrane is required around roof vents and non-compatible materials that contact or vent exhaust oils and animal fats that exhaust or drain onto the finished roof membrane.
- E. All serviceable roof equipment and roof access locations require a protective traffic surface. Walkway protection shall be installed around all sides (4 ea.) of roof equipment and at exits and entrances to roof and roof equipment.

1.8 WARRANTY

- A. Albertson Stores Roofing Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - A. Warranty Period: 20 years from date of Substantial Completion.
 - B. Additional manufacturer's warranty coverage can include 'if properly specified':
 - a. Hail events (Refer to project scope of work for hail rating - if applicable, if not listed in project scope then none required).
 - C. Manufacturers warranted windspeed coverage shall never be less than 60 miles per hour (MPH). Warrantable wind speeds shall satisfy local code requirements and specified wind speed requirements in this document.
- B. Albertson Stores Applicators Warranty: Roofing Applicator agrees to repair or replace components of roofing systems that fail in materials or workmanship within the specified warranty period:
 - A. Albertson Stores Warranty Period: Two (2) years from date of substantial completion.
 - B. Roofing Manufacturer's Applicators Warranty Period shall remain as agreed.
 - C. Applicator agrees to subscribe and participate in Albertson Stores repair and maintenance program. 'Corrigo' for the first two (2) years following date of substantial roof completion.
- C. Albertson Stores require the roof installer to provide a sign identifying the date of installation, expiration date of the roofing warranty, and other information as identified by the Owner's



representative. This sign shall be fastened to the wall adjacent to the roof access ladder inside the store. Sign composition and identifications identified at the end of this document.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Accelerated Weathering: Roof membrane to withstand 2000 hours of exposure when tested according to ASTM G152, ASTM G154, or ASTM G155.
- B. Impact Resistance: Roof membrane to resist impact damage when tested according to ASTM D3746, ASTM D4272/D4272M, or the "Resistance to Foot Traffic Test" in FM Approvals 4470.
- C. Material Compatibility: Roofing materials to be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roof membrane manufacturer based on testing and field experience.
- D. Wind Uplift Resistance: Roofing system to resist wind uplift pressures when tested according to FM Approvals 4474, UL 580, or UL 1897: Refer to project scope of work for required wind uplift resistance rating required.
- E. SPRI's Directory of Roof Assemblies Listing: Roof membrane, base flashings, and component materials comply with requirements in FM Approvals 4450 or FM Approvals 4470 as part of a roofing system and are listed in SPRI's Directory of Roof Assemblies for roof assembly identical for that specified for this Project.
- F. Exterior Fire-Test Exposure: ASTM E108 or UL 790, Class A for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings from an applicable testing agency.
- G. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings from an applicable testing agency.

2.2 POLYVINYL CHLORIDE (PVC) ROOFING (Refer to project scope of work for membrane type)

- A. PVC Sheet Type III: ASTM D4434/D4434M, fabric reinforced, **bare - backed** (Mechanically Fastened 'or adhered to achieve hail classification').
 - A. Sikaplan Plus or Sarnafil S327
 - B. Thickness: 60 mils (1.5 mm).
 - C. Exposed Face Color:
 - a. Color to be White unless otherwise noted in project scope of work.
 - b. Standard colors: White & Reflective Gray
 - c. Custom colors (unless otherwise approved, minimum order is 100 squares): Tan & Lead Gray.

- B. PVC Sheet Type III, **Fabric Backed**: ASTM D4434/D4434M, polyester fabric reinforced, and fabric backed (Mechanically Fastened for roof over existing smooth surface roofing applications).
- A. Sikaplan Plus or Sarnafil S327
 - B. Membrane Thickness: 60 mils (1.5 mm).
 - C. Exposed Face Color:
 - a. Color to be White unless otherwise noted in project scope of work.
 - b. Standard colors: White & Reflective Gray
 - c. Custom colors (unless otherwise approved, minimum order is 100 squares): Tan and Lead Gray.
- C. PVC Sheet Type II: ASTM D4434/D4434M, glass-fiber reinforced, **felt backed or adhesive backed** (adhered for flashing or to achieve hail classification).
- A. Sikaplan Plus or Sarnafil G410
 - B. Thickness: 60 mils (1.5 mm).
 - C. Exposed Face Color:
 - a. Color to be White unless otherwise noted in project scope of work.
 - b. Standard Color: White.
 - c. Custom colors: (unless otherwise approved, minimum order is 100 squares): Tan, Lead gray, Reflective gray.
- D. PVC Sheet Type II, **bare backed**: ASTM D4434/D4434M, glass-fiber reinforced.
- A. Sarnafil G410
 - B. Thickness: 60 mils (1.5 mm).
 - C. Exposed Face Color:
 - a. Color to be White unless otherwise noted in project scope of work.
 - b. Standard color: White.
 - c. Custom color: unless otherwise approved, minimum order is 100 squares): Tan, Lead Gray, Reflective Gray.
- E. PVC Sheet Type II, ASTM D4434/D4434M, glass-fiber reinforced, **Grease and Asphalt resistant** membrane. Note: when installing around roof venting animal fats and other oils or solvents, this membrane should be installed inverted, so contamination is limited to the resistant side of membrane. When applied over non-compatible surfaces such as asphalt, this membrane's chemical resistant underlying surface should be in direct contact to the non-compatible area.
- A. Sarnafil G459
 - B. Thickness: 60 mil (1.5 mm).
 - C. Top of sheet – White, Underside of sheet – Tan.
- F. PVC Sheet Type II, ASTM D4434/D4434M, reinforced glass-fiber, Yellow Safety Demarcation stripe.
- A. Sarnafil G410
 - B. Thickness; 60 mil (1.5 mm)
 - C. Width: Four (4) inches
 - D. Length: One Hundred (100) feet

- G. General: Accessory materials recommended by roofing system manufacturers for intended use and compatible with other roofing components.
- A. Adhesives and Sealants: Comply with VOC limits of authorities having jurisdiction.
 - B. Sikaflex Polyurethane Sealants:
 - 1). Sikaflex 1a in color compatible with application. (Can be painted)
 - 2). Sikaflex 11fc (Fast Cure) in color compatible with application. (Can be painted)
 - c. Sikaflex Hybrid Adhesive and sealants:
 - 1). Sikaflex HY100 or 150 in color compatible with application. (Can be painted)
- H. Roof Flashing:
- A. Manufacturer's standard sheet flashing of same material, type, thickness Unless otherwise specified, sheet flashing shall be the same color as the PVC field membrane.
 - B. Chemically resistant sheet flashing being adhered or in direct contact with a contaminated surface shall be Sarnafil G459 membrane.
 - C. Liquid applied flashing shall be applied in conditions when a sheet membrane doesn't conform to the various surface configurations such as angle iron, I-beam penetrations, flashing heights less than eight inches, stone or block substrates etc. Liquid applied flashing can be one of following:
 - a). Sikalastic RoofPRO (**Polyurethane**) with required sealants, reinforcements, primers and liquid applied membrane (polyurethane) as required by local Sika Technical manager.
 - b). Sika Liquid Applied Flashing with required sealants, reinforcements, primers and liquid applied membrane (**PMMA**) as required by local Sika Technical manager.
- I. Prefabricated Pipe Flashings: As recommended by roof membrane manufacturer. Note: Owner requires reinforced pipe flashings for roofs that experience snow depths and roofs that require snow removal.
- J. Adhesive: Manufacturer's standard membrane adhesive including:
- A. Solvent based adhesive:
 - a. 2170 or 2175 complying with local VOC requirements.
 - b. 2170 VC complying with local VOC requirements.
 - c. Stabond complying with local VOC requirements. (This adhesive is primarily used in California and other regions with stringent VOC requirements)
 - B. Latex based adhesive:
 - a. 2121
 - C. Sheet adhesive: Sika DS100 complying with local VOC requirements and wind speed requirements.
 - D. Kynar Metal Adhesive shall be 3341 by Sika Roofing.
- K. Fabric-Backed Membrane Adhesive:
- A. **Latex Adhesive:** Roofing system manufacturer's standard water-based, cold-applied adhesive formulated for compatibility and use with fabric-backed membrane roofing: Sarnacol 2121.
 - B. **Low Rise Polyurethane Adhesive:** Roof system manufacturer's standard spray or ribbon applied, low-rise, two-component urethane adhesive formulated for compatibility and use with fabric-backed membrane roofing and adhered underlayment's.

- L. Metal Termination Bars: Manufacturer's standard predrilled stainless steel or aluminum bars, approximately 1 by 1/8 inches (25 by 3 mm) thick; with anchors.
- M. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roofing components to substrate, and acceptable to roofing system manufacturers.
- N. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.3 ROOF INSULATION

- A. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
 - A. Refer to project scope of work for specified insulation and/or cover board materials.
 - B. If the installation is an adhered membrane and will 'not' have a coverboard, the following insulation size is required: 48 by 48 inches (1219 by 1219 mm)
 - C. If the roof membrane is adhered to a cover board or mechanically fastened or induction welded with or without a cover board, the following insulation size can be used: 48 by 96 inches (1219 by 2438 mm).
- B. Tapered Insulation: Provide factory-tapered insulation boards. (Refer to project scope of work for any tapered insulation requirements)
 - A. Material: Match roof insulation
 - B. Minimum Thickness: 1/4 inch (6.35 mm).
 - C. Slope:
 - a. Roof Field: 1/4 inch per foot (1:48) unless otherwise indicated on Drawings.
 - b. Saddles and Crickets: 1/2 inch per foot (1:24) unless otherwise indicated on Drawings.

2.4 INSULATION ACCESSORIES AND COVER BOARD

- A. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Approvals 4470, designed for fastening roof insulation and cover boards to substrates, and acceptable to roofing system manufacturers.
- B. Induction-Welding Plates: Minimum 3-inch (76-mm) diameter with recessed center, 0.034-inch (0.86-mm) thick, aluminum-zinc-alloy-coated steel plates, factory-coated with adhesive formulated for PVC roof membrane, with corresponding corrosion-resistant fasteners. Add thermal insulated spacers below plates if required by the type of insulation selected for use
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation or cover boards to substrate or to another insulation layer as follows:
 - A. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
 - B. Full-spread, spray-applied, low-rise, two-component urethane adhesive.

- D. Glass-Mat Gypsum Cover Board: ASTM C1177/C1177M, water-resistant gypsum board. In applications where the existing roofing is removed and a new roof assembly is installed; Albertson Stores requires the addition of a gypsum-based cover board to be installed under the finished roof membrane. Depending on the store location and climate history, the specifier will determine the cover board type and thickness.
 - A. Thickness: 1/2 inch (13 mm).
 - B. Surface Finish: Adhered - Factory primed. Mechanically Fastened/Induction weld - Unprimed.

- E. Reinforced Gypsum Cover Boards with enhanced features. Includes moisture-resistant core and coated glass mat facers. Depending on selected cover board, enhancements can include lighter weight for handling, less fasteners to satisfy higher wind speeds, Greater puncture resistance for adhered membrane installations. Storm X cover board is required to obtain a Factory Mutual Very Severe Hail (VSH) classification:
 - A. Dens Deck Pro-fast board – 3/8 inch (9.525 mm) thickness.
 - B. Dens Deck Storm X board - 5/8 inch (16 mm) thickness.

- F. Polyisocyanurate Insulation Cover Board: ASTM C1289 Type II, Class 4, Grade 1, 1/2 inch (13 mm) thick, having a minimum compressive strength of 80 psi (551 kPa). High density cover board shall not be used in roof mounted solar installations or to satisfy fire classifications over combustible substrates. Note: Composite produced High Density cover boards that satisfy Very Sevier Hail (VSH) requirements can be used when specified.

- G. Protection Mat: Woven or nonwoven polypropylene, polyolefin, or polyester fabric, water permeable and resistant to UV degradation, type and weight as recommended by roofing system manufacturer for application.

2.5 SHEET METAL FLASHING

- A. 'All' sheet metal flashing and sheet metal accessories are to be included in the manufacturer's roofing warranty and must be purchased from Sika Roofing to be included. There is an audit of each order to verify compliance with this requirement. Each store's sheet metal flashing color shall be approved by Albertson's management prior to pre-bid.

- B. Membrane coated Fascia, Drip Edge and Scuppers: Membrane coated sheet metal shall be 24 ga. galvanized steel with a PVC membrane finish. Membrane color and accessories also including fasteners, foil release tape, sealants and matching membrane cover strips shall be purchased from the Membrane manufacturer and included in the roofing warranty. Fabricated flashing shall be by the installer and must satisfy ES-1 requirements.

- C. Shop fabricated, Kynar finished sheet metal flashings: Shall be ES-1 certified and included in the roofing manufacturer's warranty. Collector Box, downspouts and gutters shall be GT-1 fabricated and installed:
 - A. Fascia and Coping:
 - a. 24-gauge galvanized clip with Kynar finished cover, inside and outside angles, end caps, etc. Sealants and bond release agents shall be supplied by roofing manufacturers and approved by manufacturers technical department. Colors shall

be selected by Owner. Kynar metal shall be provided and warranted by Roofing Manufacturer.

- B. Collector Box/Gutter:
 - a. 24-gauge galvanized clip with prefabricated Kynar finished cover, inside and outside angles, and end caps. Fabrication and installation shall comply with GT-1 requirements. Colors shall be selected by Owner. Kynar metal provided and warranted by Roofing Manufacturer.
- C. Prefabricated sheet metal flashing shall be ordered at the same time as the roofing materials are ordered so as to not cause a delay in the roofing and flashing installation.
Note:
 - a. Following the award of contract, the roofer shall submit the prefabricated cut sheet to Sika Roofing. Within two days of submission from the applicator, Sika Roofing will return a certification of materials and material cost for applicator's signature. In addition to the applicator's signed certificate, a purchase order shall be submitted to get this order into the system. Sika will provide confirmation of order and provide the applicator with the prefabrication manufacturer's confirmation of delivery. Standard products could have a shipping time of up to 3 weeks. Custom size and color orders could take longer but will be addressed in the returned cut sheet.

2.6 Sky Lights:

- A. Sunoptics is Albertson Stores preferred skylight vendor. The sales are direct to the contractor and include a limited warranty. If Sunoptic's does not have the size of skylight to fit the project, contact Jason Maxwell to get a Velux skylight quote that will fit and be part of the 20-year roofing system warranty.
- B. Sunoptic's Skylight Replacement & Safety cage: Contact Zach Grable of Western Regional Sales.
Office -800.289.4700 x 502
Mobile – 224.330.9610
Zach.grable@sunoptics.com
- C. Skylight lens repair: Sikalastic Clear Glaze Polyurethane or Velux skylights: Contact Jason Maxwell of Sika National Accounts
(801) 910.9905
maxwell.jason@us.sika.com

2.7 Roof Hatch Safety Rails and Exterior Ladders:

- A. Safety rails: Roof Hatch Safety Rails by SafePro. Complies or exceeds OSHA standard CFR 29 1910.28 and CFR 29 1910.29.
 - a. 42" high railing when mounted per instruction and standard cap flashing. 1 ½: OD .075 wall cold rolled electric welded (CREW) steel. Powder coated safety yellow or Therma-Galv, other colors available. Mounting and assembly components included. As Manufactured by Rooftop Anchor, Inc. Heber City,

Utah USA. Contact for pricing is Brian Shores bashores@fallprotect.com
440.249.0751.

2.8 EQUIPMENT / PIPE SUPPORTS

- A. Gas and Mechanical supports, solar mounts, conduits and equipment support: All supports that rest on the new roof surface are required to have a membrane buffer or a traffic pad between the support and the new membrane surface. The new buffer membrane/pad is to be either hot air welded to the roof membrane centered below the support where the loading will occur or the support is membrane wrapped and attached to the equipment. Supports shall be:
- A. Miro Industries – Heber City, Utah 84032. Product as selected from one of Miro Industries supports and as specified by Owner or Owner’s representative.
 - B. 4” x 4” redwood blocking in lengths and spaced as required, fully wrapped with Sikaplan membrane with all overlaps welded. Incapsulate redwood blocking from exposure to weather. A 24-gauge galvanized sheet metal strap shall be fastened to the support blocking and over the piping/conduit to allow support to remain stationary under the load.

2.9 ROOF HATCH LIFT AND LOCK SYSTEM

- A. Inside ground level roof access hatch release for ceilings that exceed 20 feet in height. Hand operated winch at base of interior ladder, releases roof access hatch before climbing ladder. OSHA compliant.
- 1. NextGen Lift and Lock Roof access hatch system. Account Executive: Jim Wagner – (904) 881.6277 jwagner@safetyRailsource.com

2.10 WALKWAYS

- A. Flexible Welded Walkways: Factory-formed, nonporous, heavy-duty, surface-textured walkway **rolls**, approximately 3/16 inch (5 mm) thick and acceptable to roofing system manufacturer.
- A. Size: Approximately 36 by 60 inches (914 by 1524 mm). Sarnatred by Sika.
 - B. Color: Contrasting with roof membrane.
- B. Flexible mechanically attached & loosely laid walkways:
- A. Crossgrip Xtra 24 or 36 inch wide textured walkway.
 - B. Color: White or light gray. OSHA yellow is available for a higher cost.
 - C. For a sloped installation, mechanically fastened roof anchors with a air welded membrane covering (flashing) are required at the top of the walkway. (OMG Secure Grip Universal 7). A 22-gauge securement strap is fastened to the roof anchors and straddles the top of the Crossgrip Xtra matting.
 - D. 12” lengths of Décor ribs are welded parallel both sides of the Crossgrip Xtra matting at five feet on center spacing. The décor ribs act as bumpers to limit side to side movement of the matting.
- C. Liquid applied membrane with a sanded traffic surface:

- A. Field applied liquid applied coating with a textured surface creating a limited textured surface.
 - a. Option One:
 - 1). PVC membrane primer: Sikalastic EP Primer/Sealer.
 - 2). Sikalastic Roofpro Polyurethane coating
 - 3). Kiln-dried sand:As approved by Sikalastic and Sika Roofing Technical.
 - b. Option Two:
 - 1). Western Colloid’s acrylic based Seamless Walkway System (SWS)
 - 2). Premixed granules suspended in the acrylic coating
 - 3). Polyester reinforcement for traffic applications

2.11 PROTECTIVE BALLAST

- a. Concrete pavers to act as a buffer under gutter downspouts and where directed by Owner’s representative.
- b. To contribute to high wind as ballast as specified.
- c. To protect from hail and impact conditions.

2.12 SOLAR MOUNTS:

Roof top solar mounts shall be specified by Albertson Stores Solar Integrator and approved by Sika Roofing. The selected roofing applicator shall be responsible for installing solar mounts as directed by the integrator. Previous Manufacturer approved solar mounts include the following:

- A. OMG POWER GRIP Structural secured solar mount: Power Grip Plus ‘PVC’ by OMG Roofing Products. 800.633.3800
- B. ANCHOR TIGHT Structural secured solar mount: U-2400 PVC by Anchor Products. 888.575.2131
- C. CENTROPLAN SSM2 Membrane secured solar mount: SSM2 by Sika Roofing / Centroplan Sika Roofing Customer Service.
- D. Optional solar mounts are required to be approved by Albertson Stores and Sika Roofing prior to use.
- E. If specified, solar mount accessories shall be provided by the roofing applicator and include:
 - 1. Fasteners to mechanically attached solar mounts. Sarna-fasteners if specified.
 - 2. Buffer membrane: .060 PVC reinforced flashing membrane as a buffer material if specified.

2.13 WARRANTY / INSTALLATION SIGN

- A. A 24-inch-wide x 18-inch-tall sign addressing the roofing installation and warranty information is required to be provided and installed by the roofer (installer). Refer to the sample sign at the end of this bid document. Please contact Jason Maxwell or Michael Leatherbury with order questions.

- A. Sign shall be printed on Dibond. Dibond is rigid, lightweight aluminum composite material consisting of two thin aluminum sheets bonded to a polyethylene core.
- B. Sign shall be weather resistant.
- C. Sign can be purchased from:
 - Adam Russell
 - Print Fusion
 - 530.736.9617
 - sales@printfusion.store

PART 3 - EXECUTION

3.1 GENERAL

- A. All work shall be in accordance with federal, State and Local Health and Safety and Energy codes and regulations.
- B. Current OSHA design and application guidelines shall be complied with.

3.2 EXAMINATION

- A. Examine substrates, areas, and conditions with Installer present, for compliance with requirements and other conditions affecting performance of the Work.

3.3 PREPARATION

- A. Replace loose, deteriorated, and damaged materials prior to installation of the new roofing system.
- B. Projects with wood decking and existing roof insulation require a prior investigation to identify hidden conditions or trapped moisture within the existing roofing. Materials with moisture damage shall be removed and replaced with rigid insulation to match the level of the surrounding roofing. Fastener uplift testing is required to confirm wood deck condition and to establish attachment requirements.
- C. Perform fastener-pullout tests according to roof system manufacturer's written instructions.
 - A. Submit test results within 24 hours of performing tests.
 - a. Include manufacturer's requirements for any revision to previously submitted fastener patterns required to achieve specified wind uplift requirements.
- D. Perform Moisture detection test as specified in these bid documents and submit it to Owner's Representatives.

- E. Perform roof core test to identify the number of roofs that exist and the condition of these roofs. If more than one roof is in place, all the roofing and flashing shall be removed and disposed of to satisfy Owner and local building code requirements before the reroofing process takes place.
- F. If the existing roofing system must be removed, dispose of all roofing membrane, flashing and related accessories in accordance with Health and Safety regulations of the authority having jurisdiction. Note: Roofs that are removed and replaced with a new roof assembly require the addition of a gypsum-based cover board as part of the replacement under the new roof membrane.
- G. Remove and dispose of the existing base and wall flashing to provide an acceptable substrate to adhere to. Owner's representative and roofing manufacturer shall approve existing surfaces in advance of installation. Membrane flashing options include adhered reinforced sheet membrane (self-adhered and/or adhesively attached) or compatible liquid applied flashing membrane including Polyurethane or PMMA or Liquid Applied flashing.

3.4 INSTALLATION OF ROOFING, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions, FM Approvals' RoofNav 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 end of workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.
- C. Install roof membrane and auxiliary materials to tie into existing roofing to maintain weather tightness of transition and to not void warranty for existing roofing systems.

3.5 INSTALLATION OF INSULATION (if required)

- A. Coordinate installing roofing system components, so insulation is not exposed to precipitation or left exposed at end of workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Installation Over Metal Decking:
 - A. Install base layer of insulation with joints staggered not less than 24 inches (610 mm) in adjacent rows, end joints staggered not less than 12 inches (305 mm) in adjacent rows and with long joints continuous at right angle to flutes of decking.
 - a. Locate end joints over crests of decking.
 - b. Trim insulation neatly to fit around penetrations and projections, and to fit tightly to intersecting sloping roof decks.
 - c. Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.

- d. 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 (610 mm).
- 1) Trim insulation so that water flow is unrestricted.
 - e. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - f. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and
 - g. Loosely lay base layer of insulation units over substrate.
 - h. Mechanically attach base layer of insulation using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to metal decks.
 - 1) Fasten insulation according to requirements in **FM Approvals' RoofNav for specified Windstorm Resistance Classification**.
 - 2) Fasten insulation to resist specified uplift pressure at corners, perimeter, and field of roof.
- B. Install upper layers of insulation and tapered insulation with joints of each layer offset not less than 12 inches (305 mm) from previous layer of insulation.
- a. Install with long joints continuous and with end joints staggered not less than 12 inches (305 mm) in adjacent rows.
 - b. Trim insulation neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - c. Make joints between adjacent insulation boards not more than 1/4 inch (6 mm) in width.
 - d. 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 (610 mm).
 - e. Trim insulation so that water flow is unrestricted.
 - f. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - g. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.
- C. If the roof membrane is to be adhered, follow these guidelines:
- a. Adhere each layer of insulation to substrate using adhesive according to [FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification] [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:
 - 1) Trim insulation so that water flow is unrestricted.
 - b. Fill gaps exceeding 1/4 inch (6 mm) with insulation.
 - c. Cut and fit insulation within 1/4 inch (6 mm) of nailers, projections, and penetrations.

3.6 INSTALLATION OF COVER BOARDS

Gypsum based cover boards are required in new roof assemblies or in assemblies when the existing roofing is removed. Thickness and type of cover boards shall be directed by the Owners representative. Enhancements that also may include gypsum cover boards include fire classifications and enhance hail and roof traffic applications.

- 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 (150 mm) in each direction.
 - A. Trim cover board neatly to fit around penetrations and projections, and to fit tight to intersecting sloping roof decks.
 - B. At internal roof drains, conform to slope of drain sump.
 - a. Trim cover board so that water flow is unrestricted.
 - C. Cut and fit cover board tight to nailers, projections, and penetrations.
 - D. Fasten Cover boards using one of the following methods:
 - a. Mechanically Fasten cover board to substrate using plates and fasteners according to FM Approvals' RoofNAV listed assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheets 1-29.
 - b. Adhere cover board to substrate using adhesive according to FM Approvals' RoofNav listed roof assembly requirements for specified Windstorm Resistance Classification and FM Global Property Loss Prevention Data Sheet 1-29.
- B. Place plates on insulation in required fastening patterns to achieve rating and secure in accordance with manufacturer's instructions.
 - A. Install plates and fasteners tight and flat to substrate with no dimpling, and with fastener extending 1 inch (25 mm) minimum into roof deck; do not overdrive fasteners.
- C. Accurately align roof membrane 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 roof membrane at rate required by manufacturer and allow to partially dry before installing roof membrane. Do not apply to splice area of roof membrane.
 - A. Verify the field strength of seams a minimum of twice daily, and repair seam sample areas.
 - B. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- E. Spread sealant bed over deck-drain flange at roof drains and securely seal roof membrane in place with clamping ring.

3.7 INSTALLATION OF MECHANICALLY FASTENED ROOF MEMBRANE

- A. Mechanically fasten roof membrane over area to receive roofing according to roofing system manufacturer's written instructions.
- B. Unroll roof membrane and allow membrane to relax before installing.
- C. For in-seam attachment, install roof membrane with long dimensions perpendicular to steel roof deck flutes.
- D. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- E. Accurately align roof membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- F. Mechanically fasten or adhere roof membrane securely at terminations, penetrations, and perimeter of roofing.
- G. Apply roof membrane with side laps shingled with slope of roof deck where possible.
- H. In-Seam Attachment: Secure one edge of PVC sheet using fastening plates or metal battens centered within seam and mechanically fasten PVC sheet to roof deck.
- I. Seams: Clean seam areas, overlap roof membrane, hot-air weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.
 - A. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of roof membrane and sheet flashings.
 - B. Verify the field strength of seams a minimum of twice daily, and repair seam sample areas.
 - C. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- J. Spread sealant bed over deck-drain flange at roof drains and securely seal roof membrane in place with clamping ring.

3.8 INSTALLATION OF INDUCTION-WELDED ROOF MEMBRANE

- A. Unroll roof membrane and allow membrane to relax before installing.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel [and Owner's testing and inspection agency].
- C. Accurately align roof membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer, with side laps shingled with slope of roof deck where possible.
- D. Seams: Clean seam areas, overlap roof membrane, and hot-air-weld side and end laps of roof membrane and sheet flashings to ensure a watertight seam installation.

- A. Test lap edges with probe to verify seam weld continuity.
 - B. Apply lap sealant to seal cut edges of roof membrane and sheet flashings.
 - C. Repair tears, voids, and lapped seams in roof membrane that do not comply with requirements.
- E. Spread sealant bed over deck-drain flange at roof drains and securely seal roof membrane in place with clamping ring.
- F. Induction-weld roof membrane to plates in accordance with roofing system manufacturer's written instructions, creating 100 percent bond between underside of membrane and top of plates; a partial bond is unacceptable.
- A. Test welds to verify adhesion of roof membrane to top of plates in accordance with membrane manufacturer's instructions.

3.9 INSTALLATION OF WALKWAYS

- A. Flexible Walkways: Install walkway products according to manufacturer's written instructions.
 - A. Install walkways at the following locations:
 - a. Complete perimeter of each rooftop unit.
 - b. Top and bottom of each roof access ladder.
 - c. Sloped areas where a traffic surface could provide added traction.
 - d. Locations indicated on Drawings.
 - e. As required by roof membrane manufacturer's warranty requirements.
 - B. Hot Air welded walkway pads:
 - a. Provide 6-inch (76-mm) clearance between adjoining pads. When possible do not install walkway products over membrane seams.
 - b. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.
 - C. Liquid Applied Aggregate walkways (example – A barrel or steep sloped roof where an aggressive traffic surface is needed to provide a safer traffic surface):
 - a. Traffic surface shall be determined and identified prior to project start and documented in shop drawing submittal.
 - b. A tape line shall occur at walkway boarder.
 - c. The roof surface shall be clean without debris or contaminants.

Option One:

- 1). Apply Sikalastic EP Primer to PVC membrane surface and allow full cure in accordance with manufacturer's technical data sheet. Do not allow primer to cure longer than seven (7) days before application of Sikalastic lo-Voc-resin.
- 2). Apply a base coat of Sikalastic 641 resin to the clean primed PVC membrane by brush or ½ inch roller nap to achieve a continuous and uniform 30 mil min wet film thickness, minimum coverage rate.
- 3). Remove tape while coating is still wet to achieve a clean termination.
- 4). Apply a new tape boarder.

- 5). Apply an adhesive coat of Sikalastic 641 to previously applied base coat by ½ inch roller or by brush to achieve a continuous and uniform 15 mils wet film thickness. (26 sf/gal minimum coverage rate)
- 6). Walkway installation options as directed by owner's Representative:
 - a). Broadcast kiln dried sand to refusal into the wet Sikalastic 641 resin and allow to cure. Remove tape line to provide a clean line while coating is still wet and hasn't dried. Remove all loose sand/aggregate. Apply a new tape line and apply 15 mil wet film thickness of Sikalastic 641 resin to seal kiln-dried sand.
 - b). Broadcast kiln dried sand into the wet Sikalastic 641 resin and back roll to encapsulate the sand into the resin. Remove tape line to provide a clean line while coating is still wet and hasn't dried.

Option Two:

- 1.) Mix 850 SWS thoroughly before applying to prepared traffic surface.
 - 2.) Using a short nap or smooth roller, apply to the surface at the rate of 2-3 gallons per 100 square feet.
 - 3.) Apply polyester fabric into base applications to provide increased puncture resistance.
 - 4.) Remove tape border.
 - 5.) Allow base coat to cure.
 - 6.) Reapply boarder tape.
 - 7.) Apply finished topcoat.
- D. Crossgrip Xtra Walkway: Crossgrip Xtra walkway matting is a loosely laid traffic matting used on flat roof surfaces. Crossgrip Xtra has a taller profile and an aggressive texture that satisfies Albertson Stores safety protocol. Crossgrip Xtra should be considered in snow and other cold weather conditions. Crossgrip Xtra has been approved for some Albertsons Stores sloped roof installations provided the following guideline are followed:
- 1). Crossgrip Xtra needs to be unrolled and allowed to relax days before the actual installation occurs.
 - 2). Two roof anchors are installed where the Crossgrip Xtra matting will start at the top of the roof slope and to either side of the matting. A membrane flashing is hot air welded to seal the roof anchor.
 - 3). A stainless-steel bar straddles the top bars of the matting and bolts into the roof anchors pinching the Crossgrip Xtra matting and securing it into place.
 - 4). 12-inch-long Décor Ribs are welded parallel either side of the draping Cross grip Xtra matting at 5 feet on center spacing. These ribs are used as bumpers to limit possible matting side by side movement.

3.10 SAFETY RAIL

- A. Ensure the roof hatch / parapet curb is in satisfactory condition and will support the safety rail attachment.
- B. Follow SafePro Roof Hatch safety Rail Installation instructions included with each system.

3.11 LADDER & ROOF ACCESS ACCESSORIES

- A. Interior ladder replacement (if specified). Remove existing roof access ladder if deficient and replaced with a new OSHA compliant safety ladder. Solid attachment to the walls as required.
- B. If the ceiling height is over 20 feet from the interior floor, a OSHA compliant hand operated lift and lock roof hatch opener shall be installed.

3.12 PIPE / CONDUIT SUPPORTS

- A. No pipe or conduit running across the finished roof shall rest directly onto the surface of the roof membrane. Pipe supports whether cradled or suspended are required. A Sikaplan buffer membrane shall be hot air welded to the finished roof surface and centered under support base or blocking. Support spacing shall be as required by the Owner's representative.
- B. Pre-manufactured supports or field wrapped redwood blocking: Membrane wrapped and welded redwood block supports require a metal strap as a pipe attachment to the blocking.

3.13 FIELD QUALITY CONTROL

- A. Roofing projects to inspect substrate conditions, surface preparation, roof membrane application, flashings, protection, and drainage components, and to furnish reports to the owners representative.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion, in presence of Owner's representative, and to prepare inspection report.
- C. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.

3.14 STORE SIGN

- A. Located at the base of the roof access ladder inside of the store, the roofing installer shall provide and install a sign (Sample provided at the conclusion of this bid document). The sign shall be mechanically fastened to a wall around the roof access ladder as identified by the Store Manager. Albertson Stores required information shall include the following:
 - A. Applicator Information – Installer's workmanship & warranty information.
 - B. Applicator's warranty expiration date.
 - C. Manufacturer's Warranty information including:
 - Roofing System Identification
 - Manufacturer's Warranty Number
 - Warranty issued date
 - Warranty expiration date



3.15 PROTECTING AND CLEANING

- A. Protect the roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing system 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 roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. If a liquid applied membrane was used for this installation, clean spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075419

ROOFING INSTALLER'S WARRANTY

WHEREAS _____ of _____, herein called "Roofing Installer," has performed roofing and associated Work including roofing membrane, base flashing, flashing of penetrations and curbs, roof insulation, fasteners, and walkway products ("Work") on the following Project:

Owner: _____

Address: _____

Building Name/Type: _____

Address: _____

Intersection: _____

Grand Opening Date: _____

Five Year Warranty Expiration Date: _____

AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a Subcontractor) to warrant said Work weather-tight against leaks and faulty or defective materials and workmanship for designated Warranty Period,

NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period of 5 years after Grand Opening, Roofing Installer shall, at Installer's 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.



ADDITIONALLY Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period Roofing Installer shall, upon notification by written or verbal to Installer's person, staff, or owned recording device by Owner's Store Manager or Assistant Manager of a failure of weather-tightness of roofing system, shall within 24 hours respond with staff and materials as required to seal and correct such failures to roofing system. Failure to respond within identified time conditions will allow Owner to contract with another roof installer to make such repairs as necessary to protect Owner's interest and limit damages to building and contents. Roof Installer under this warranty shall compensate Owner for costs of the other roofing installer's Work and what additional damages result due to delay of required repairs. This warranty shall remain in full effect for time duration stated, including repairs made for Roofing Installers failure to respond within 24-hour period.

This Warranty is made subject to the following terms and conditions. Specifically excluded from this Warranty are damages to Work and other parts of building, and to building contents caused by:

- D. Lightning.
- E. Hail exceeding project specified requirements.
- F. Fire.
- G. Wind speed exceeding project specific membrane selection with documentation that roofing system wind speed was approved by Owner, Roofing Consultant and National Vendor.
- H. Failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition.
- I. Faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of Work.
- J. Activity on roofing by others, including Contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner (except as noted for failure to respond to loss of weather-tight conditions as noted above).

When Work has been damaged by foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until Roofing Installer has been paid for repairs. Payment will be based on standard time and material basis.

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.

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 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.

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 extent said change affects work covered by this Warranty.

This Warranty is recognized as being 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 per requirements of Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

Company: _____


Authorized Signature: _____

Name: _____

Title: _____


WARRANTY NOTIFICATION SIGN

*****Attention*****



BUILDING TRUST

This is a Sika Sarnafil PVC roofing system installed at this location. Only Sika approved applicators may conduct roofing related work at this site.



Albertsons

Store Location: _____ Store Number: _____

Roofing Applicator Contact Information	Sika Sarnafil Warranty Information
Company: _____ Address: _____ City: _____ State: _____ Phone: _____ Applicators Warranty Expiration: _____	Sika Membrane: _____ Mil. _____ Warranty System: _____ Warranty #: _____ Warranty Date Issued: _____ Warranty System Expiration Date: _____

ALL ROOFING REPAIRS - PLACE REQUESTS USING STANDARD OPERATING PROCEDURE AND THE WARRANTY VENDOR WILL BE DISPATCHED.

CONTACT THE SIKA WARRANTY DEPARTMENT FOR ALL ROOF INSPECTIONS AND QUESTIONS. USA.SIKA.COM

Please exercise caution while accessing the roofing system and follow all OSHA safety requirements while working.

Albertsons Companies Warranty Notification