



Part 1 General

1.1 SECTION INCLUDES

- .1 Substrate preparation
- .2 Sheathing over deck surface.
- .3 Vapour retarder.
- .4 Insulation.
- .5 Membrane roofing.
- .6 Membrane Accessories
- .7 Membrane Flashings
- .8 Roofing Accessories.

1.2 RELATED SECTIONS

- .1 Section [05 31 23 - Steel Roof Decking]: Roof deck substrate.
- .2 Section 06 10 13 - Wood Blocking and Curbing: Wood nailers [and cant strips].
- .3 Section 07 26 00 - Vapour Retarders.
- .4 Section 07 27 00 - Air Barriers.
- .5 Section 07 50 05 - Preparation for Re-roofing.
- .6 Section 07 62 00 - Sheet Metal Flashing and Trim: Counter flashing and [_____].
- .7 Section 07 63 00 - Sheet Metal Roof Specialties: Counter flashing and [_____].
- .8 Section 07 72 33 - Roof Hatches: Counter flashing and [_____].
- .9 Section 08 62 00 - Unit Skylights: Skylight frame [and integral curb]: Counter flashing and [_____].
- .10 Section 08 45 23 - Translucent Panel Wall and Roof Assemblies: Counter flashing and [_____].
- .11 [Division 22 – Plumbing] [Section 22 42 01 - Plumbing Specialties]: Roof [drains] [hoppers] [sumps].
- .12 [Division 23 – Heating, Ventilating, and Air-Conditioning (HVAC)] [Section [_____]]: Prefabricated curb for mechanical equipment.
- .13 [Division 26 – Electrical] [Section [_____]]: Lightning protection.

1.3 REFERENCES

- .1 [ASTM C578-13 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.]

- .2 [ASTM C726-12 - Standard Specification for Mineral Fiber Roof Insulation Board.]
- .3 [ASTM C728-13 - Standard Specification for Perlite Thermal Insulation Board.]
- .4 [ASTM C1177/C1177M-13 - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.]
- .5 [ASTM C1396/C1396M-13 - Standard Specification for Gypsum Board.]
- .6 [ASTM D4637/D4637M-13 - Standard Specification for EPDM Sheet Used In Single Ply Roof Membrane.]
- .7 [ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials]
- .8 [ASTM D882-12 – Standard Test Methods for Tensile Properties of Thin Plastic Sheeting]
- .9 [CAN/CGSB 51.33 – Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction]
- .10 [CAN/CGSB 51.34 – Vapour Barrier, Polyethylene Sheet for Use in Building Construction]
- .11 [CSA-A231.1-06/A231.2-06 (R2010) - Precast Concrete Paving Slabs/Precast Concrete Pavers.]
- .12 [CSA-O121-08 (R2013) - Douglas Fir Plywood.]
- .13 [CSA-O151-09 - Canadian Softwood Plywood.]
- .14 [CAN/ULC-S107-10 - Methods of Fire Tests of Roof Coverings.]
- .15 [CAN/ULC-S701-11 - Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.]
- .16 [CAN/ULC-S702-09 - Standard for Mineral Fibre Thermal Insulation for Buildings (Includes Amendment 1, 2012).]
- .17 [CAN/ULC-S704-11 - Standard for Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.]
- .18 [CRCA (Canadian Roofing Contractors' Association) - CRCA Roofing Specifications Manual.]
- .19 [FM (Factory Mutual) - Roof Assembly Classifications.]
- .20 Province of [_____] Roofing Contractors Association - Roofing Specifications Manual.
- .21 [ULC-BM-14 - Building Materials Directory (2014 Edition).]

1.4 SYSTEM DESCRIPTION

- .1 Assembly of components include Asphalt Adhered Hi-Flex Fleece-backed EPDM Roofing System with [vapour barrier][vapour retarder], [fully adhered][mechanically attached] insulation, and asphalt adhered membrane, as well as all related roofing accessories in strict accordance with specifications and details approved by the roof system manufacturer.

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Section []: Project management and coordination procedures.
- .2 Coordination:
 - .1 Coordinate with other work having a direct bearing on work of this section.
 - .2 Coordinate the work with the installation of associated metal flashings, as the work of this section proceeds.
- .3 Pre-installation Meetings:
 - .1 Convene [one (1) week] [[_____] weeks] before starting work of this section.
 - .2 Review preparation and installation procedures and coordinating and scheduling required with related work.

1.6 SUBMITTALS

- .1 Section []: Submission procedure
- .2 Product Data: Provide characteristics on membrane materials, flashing materials, insulation, vapour retarders, [protective coating].
- .3 Samples: Submit [two (2)], [<[_____] mm><<[_____] inch>>] in size illustrating [insulation] [coloured coating].
- .4 Shop Drawings:
 - .1 Tapered insulation, roof cricket infill, setting plan layout, and details.
 - .2 Membrane layout on detailed roof plan, complete with full assembly section, vertical parapet details, joint or termination detail conditions, and conditions of interface with other materials.
- .5 Manufactures field reports: Indicate procedures followed; ambient temperatures, humidity, wind velocity during application, [_____].
- .6 Sustainable Design:
 - .1 Section[]: LEED documentation procedures.
 - .2 Provide required LEED documentation for Product [recycled content] [regional materials] [low-emitting materials].
 - .3 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

1.7 QUALITY ASSURANCE

- .1 Roofing Contractor shall be an approved applicator of the roofing system supplier. The Prequalified contractors are: [_____].
- .2 Workmen shall be trained and experienced in the installation of this type of roofing system and shall be under full time competent supervision.
- .3 Comply with all industry recommended safety practices during construction.

- .4 Perform Work to [CRCA Roofing Specifications Manual] [manufacturer's written instructions] [[_____] Manual]. Maintain [one (1) copy] [[_____] copies] of document on site.

1.8 DESIGN [REGULATORY] REQUIREMENTS

- .1 Conform to applicable code for roof assembly fire hazard requirements.
- .1 [CAN/ULC-S107]: Class [A] Fire Hazard Classification.
- .2 The specified roofing assembly must have been successfully tested by a qualified testing agency to resist the design uplift pressures calculated according to
 - .1 *ANSI/SPRI WD-1 "Wind Design Standard Practice for Roofing Assemblies" American Society of Civil Engineers (ASCE 7) International Building Code (IBC). Or*
 - .2 *[FM]: Roof Assembly Classification, Class [1] Construction, wind uplift requirement of [1-60] [1-90], in accordance with FM 1-28 "Design Wind Loads" and complies with FMG Property Loss Prevention Data Sheet 1-29 for enhancements at the perimeter and corners.*
 - .3 *CSA A123.21 and Provincial Building Code wind uplift requirements; obtain applicable wind isotachs and Building Code hourly wind velocity pressure for 1 in 50 year return value, necessary for the selection of the proper roof system design specific to this project.*

1.9 DELIVERY, STORAGE, AND PROTECTION

- .1 Deliver all roofing materials in original, unopened containers, complete with labels indicating brand name, contents, usage instructions and safety precautions. Membrane rolls are to be left in their unopened packaging until prior to install.
- .2 Protect membranes from cuts, abrasion or other abuse that might adversely affect performance in service.
- .3 Adhesives, sealants and flashing accessories are to be stored in a clean, dry area at a temperature between 5°C and 27°C. When the temperature is expected to fall below 5°C, outside heated storage boxes should be provided on the roof for temporary storage of adhesives and sealants.
- .4 Protect insulation, vapour retarder and other materials subject to water damage while stored on the job-site by covering them with a weatherproof tarpaulin and keeping them a minimum 15 cm (6") off of the deck or ground.

1.10 SITE CONDITIONS

- .1 Ambient Conditions:
 - .1 Do not apply roofing membrane during inclement weather or when ambient temperature falls below **-5** degrees C or above **30** degrees C.
 - .2 Install each roof layer on a dry substrate, free of snow and ice. Use only dry materials and apply only during weather that will not introduce moisture into the system.

- .3 Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- .2 Schedule and execute work to prevent leaks and excessive traffic on completed roof sections. Care should be exercised to provide protection for the interior of the building and to ensure water does not flow beneath any completed section of the membrane system.

1.11 WARRANTY

- .1 Contractor's Warranty: Provide two (2) year warranty on roofing, dated from time of Substantial Performance. The contractor will repair, at their expense, any leaks in the roofing membrane and membrane flashing including any related Sheetmetal work.
- .2 Manufacturer's Warranty: Roof System Manufacturer shall provide a written [Lexguard Classic, Essential, and Ultimate] warranty on supplier's standard form for a period of [5, 10, 20, 25, 30] years from the date of roofing system completion.
- .3 Projects with extended wind speed warranty coverage greater than 90 km/h and projects requiring a 20 year or greater Lexguard Ultimate warranty will require a design review by Lexcan's design department.
- .4 All membrane and accessory components must be Lexsucu Corporation products or approved equal.

Part 2 Products

2.1 VAPOUR RETARDER SUPPORT PANELS

- .1 GLASS FACED GYPSUM BOARD: Panels composed of gypsum core, reinforced, faced with glass mat conforming to ASTM C1177, Standard Specification for Glass Mat (*Gypsum Substrate for Use as Sheathing.*)
 - .1 Thickness: [6.4 mm (¼ in)], [12.7 mm (½ in)], [15.9 mm (⅝ in)]
 - .2 Specified product: [coated], [non-coated] Georgia-Pacific Gypsum LLC; DensDeck or comparable product as supplied by Lexsucu Corporation.
- .2 LIGHTWEIGHT CEMENTITIOUS PANELS: Low density, fibre reinforced, water resistant cement support panels.
 - .1 Thickness: 11.1 mm (7/16 in)
 - .2 Specified product: Dexcell Cement Roof Board or comparable product as supplied by Lexsucu Corporation.

2.2 VAPOUR RETARDER

- .1 PRIMER ADHESIVE: Synthetic elastomeric based liquid adhesive used to bond self-adhesive membrane to [steel, concrete, wood] wood deck.
 - .1 Specified product: Lexcor Multigrip Fire Retardant Primer by Lexsucu Corporation.

- .2 POLYETHYLENE SHEET VAPOUR RETARDER: to CAN/CGSB -51.34-M86, sheet with moisture vapour transmission rate less than 2.4 ng/Pa•s• m² (0.04 perms) when tested in accordance with ASTM E-96, procedure B Construction.
 - .1 Thickness: [0.15 mm (6 mil)], [0.25 mm (10 mil)]
 - .2 Specified product: Lexcor PE-[6,10] Vapour Retarder sealed with Lexcor Lexshield Tape by Lexsucu Corporation. Use Lexshield peel & stick Air and Vapour Barrier Membrane for protrusions and openings to secure vapour barrier continuity.
- .3 POLYETHYLENE SELF ADHERED AIR/VAPOUR RETARDER: shall be a 'peel and stick' membrane consisting of cross laminated, high density polyethylene film laminated to a high tack, all temperature adhesive, backed with a [silicone release liner], [plastic release liner]. Vapour Barrier shall demonstrate a typical moisture vapour transmission rate of [11.5 ng/Pa•s• m² (0.2 perms) when tested in accordance with ASTM E-96, procedure A, a typical tensile strength in excess of 48 kPa in accordance with ASTM D-882 and a minimum 180° peel strength of 400 g/cm after 6 weeks adhered to stainless steel at 22°C.
 - .1 Thickness: 0.2 mm (8 mil)
 - .2 Specified product: Lexcor LexShield™ Air/Vapour Barrier Membrane by Lexsucu Corporation.
- .4 TEXTURED POLYETHYLENE SELF ADHERED VAPOUR RETARDER: Reinforced membrane with weaved polypropylene laminated to a non-weaved polyester top layer: moisture vapour transmission rate less than 2.4 ng/Pa•s• m² (0.04 perms) when tested in accordance with ASTM E-96, procedure B Construction.
 - .1 Thickness: 0.15 mm (6 mil)
 - .2 Specified product: Lexcor Permaste Stick Peel n' Stick Type 1 Vapour Barrier by Lexsucu Corporation.
- .5 ASPHALT LAMINATED REINFORCED KRAFT PAPER VAPOUR RETARDER: Fibreglass edge reinforced kraft Fibreglass edge reinforced Kraft vapour retarder conforming CAN/CGSB-51.33M89, Type II, *Vapour Barrier Sheet Excluding Polyethylene* to for Use in Building Construction.
 - .1 Specified product: Lexcor Permaste Vapour Barrier by Lexsucu Corporation.
- .6 TWO PLYS OF NO. 15 ASPHALT PERFORATED FELT: Two plies of asphalt saturated organic roofing felt, perforated, conforming to CSA123.3-05, Type I, Asphalt Saturated Organic Roofing Felt, laminated and adhered to the substrate with hot asphalt.
 - .1 Specified product: Lexcor No. 15 Perforated Roofing Felt by Lexsucu Corporation.
- .7 MODIFIED BITUMEN MEMBRANE BASE SHEET: SBS roofing membrane, mopping grade, with [composite heavy-duty] [non-woven polyester reinforcement] [and glass mat], conforming to CGSB 37-GP-56M, *Membrane, Modified, Bituminous, Prefabricated and Reinforced for Roofing*.
 - .1 Thickness: [2 mm (80-mil)] minimum

.2 Specified product: []

2.3 INSULATION

- .1 EXPANDED POLYSTYRENE INSULATION (EPS): An unfaced styrene polymer material produced by a mold/expansion process that results in coarse closed cells containing air. Insulation shall conform to CAN/ULC-S701, Type [1,2,3].
- .1 Thickness: [Base Layer size], [Top Layer size] [] (*can be specified as thick as 24", typical sheet size is 48"x48" or 48"x96". Shiplap can be added 1/2" or 5/8".*) [mechanically attached, (4,6,8,10,12,16,20 fasteners/ board)], [fully adhered]
- .2 Specified product: Izolon expanded polystyrene insulation board by Fransyl Ltd.
- .2 EXPANDED POLYSTYRENE PREFABRICATED INSULATION BOARD: High density panels composed of high-density closed-cell polyisocyanurate foam core with coated fibreglass facers. Panels shall conform to CAN/ULC S-704, factory laminated to an unfaced styrene polymer material produced by a mold/expansion process that results in coarse closed cells containing air. Insulation shall conform to CAN/ULC-S701, Type [1,2,3].
- .1 Thickness: [Base Layer Board Size]: 1220mm x 2440mm (4'- 0" x 8'- 0") [mechanically attached, (4,6,8,10,12,16,20 fasteners/ board)], [fully adhered]. Thickness, [50mm - 610mm] [2" – 24"] inches, [shiplapped edges all 4 sides]
- .2 Specified product: Izolon R+ (2 in 1) prefabricated insulation panel by Fransyl Ltd.
- .3 POLYISOCYANURATE INSULATION: A rigid foam insulation produced from a chemical reaction between polyol and polymeric isocyanate that results in closed cells containing captive blowing agents. The foam core is integrally laminated to [organic felt paper, or inorganic fibreglass-reinforced facers]. Insulation shall conform to CAN/ULC S-704, *Standard for Thermal Insulation, Polyurethane and Polyisocyanurate Boards, Faced.*
- .1 Thickness: [Base Layer Board Size]: [(1220mm x 2440mm), (1220mm x 1220mm) (4'- 0" x 8'- 0"), (4'- 0" x 4'- 0")] [mechanically attached, (4,6,8,10,12,16,20 fasteners/ board)], [fully adhered]. Thickness, [25mm - 115mm] [1" – 4 1/2"] inches.
- .2 Specified product: [Lexcor Isolex™, Lexcor Isolex™ II] manufactured by Lexsuco Corporation.
- .4 TAPERED [CRICKET] INSULATION: Insulation panels are to measure 1220 mm (4') square and are to slope at the rate of 2%, with a minimum thickness of [50mm, 101.6 mm (4", 2") inches at the drains. Shiplapped edge 2"x 2", panels are to be positioned and installed in accordance with the shop drawings.
- .1 Specified product: [Bizolon R+ (2 in 1) prefabricated insulation panel by Fransyl Ltd.], [Lexcor Isolex™, Lexcor Isolex™ II] manufactured by Lexsuco Corporation.

2.4 COVERBOARDS / CANT STRIP

- .1 HIGH DENSITY POLYISOCYANURATE PANEL: High density panels composed of high density closed cell polyisocyanurate foam core with coated fibreglass facers. Panel shall be compliant with ASTM C 1289, Type II, Class 4, Grade 1, 2 and 3. Panels shall conform to CAN/ULC S-704, Standard for Thermal Insulation, Polyurethane, and Polyisocyanurate Boards, Faced.
 - .1 Thickness: 6.4 mm (1/4 in)
 - .2 Specified product: Lexcor Lexboard by Lexsuco Corporation.
- .2 FIBREBOARD RECOVER BOARD: Asphalt coated [High density] fibreboard meeting CAN/CSA A-247-M86 and demonstrating a maximum water absorption of [3%; 7%] by volume when tested in accordance with ASTM C208.
 - .1 Thickness: [12 mm (1/2 in)] [25.4 mm (1in)]
 - .2 Specified product: Lexcor Fibrelex by Lexsuco Corporation.
- .3 PERIMETER CANT: Wax impregnated Natural Cant Strip.
 - .1 Specified product: [] supplied by the roofing system supplier.

2.5 MEMBRANE MATERIALS

- .1 Membrane: Fleece-backed Ethylene propylene diene monomer (EPDM) roofing membrane.
 - 1. Thickness: [2.3 mm (90 mil)] [2.7 mm (105 mil)]
 - 2. Colour: black
 - 3. Width: [1.37 m (4.5 feet)] [3.5 m (10 feet)]
 - 4. Length: [30.5 m (100 feet)]
 - 5. Specified product: Lexcan Hi-Flex Fleece-Backed EPDM Membrane by Lexsuco Corporation.

2.6 ASPHALT ADHERING MATERIALS

- .1 ASPHALT: Type III Roofing Asphalt meeting CSA A 123.4.
 - .1 Specified Product: []

2.7 INSULATION FASTENERS

- .1 Description: Insulation securement screws are to be Factory Mutual listed and approved #12 diameter with round or flat head, corrosion treated to withstand 30 cycles of the Kesternich test with only a minimum amount of red rust showing. Fasteners must penetrate a minimum 19 mm (3/4") into steel decks or 25 mm (1") into wood decks. Holes for concrete anchors must be pre-drilled not less than 21 mm (1/2") deeper than the penetration depth of the fastener, with a drill bit recommended by the fastener manufacturer. Stress plates are to be 76 mm (3") diameter galvalume metal to fit screw.
- .2 Specified Product: Lexcor Lexgrip™ Insulation Fasteners or [Lexcor Lexgrip™ Pre-Assembled Insulation Fasteners] treated with Cx-5 coating, complete with metal stress plate.

2.8 WOOD NAILERS

- .1 Description: Blocking and rough framing. No.1 Spruce conforming to National Grades Authority, Standard Grading Rules for Canadian Wood to CSA 0141-05. Wood for roofing to be pressure treated to CSA 080-97, Series (R2002). Plywood Sheathing to be exterior grade conforming to CSA 0121-M1978 or CSA 0151-M1978, select grade, good one side, thickness as indicated.

2.9 ACCESSORIES

- .1 FLASHING: Lexcan Hi-Flex EPDM Lexflash II by Lexsuco Corporation.
- .2 PERIMETER FASTENING: Lexcan Hi-Flex EPDM Stripbond II by Lexsuco Corporation.
- .3 SEAM TAPE: Lexcan Hi-Flex EPDM T-325 Seam Tape by Lexsuco Corporation.
- .4 PRIMER ADHESIVE: Lexcan Hi-Flex EPDM PA-100 Primer Adhesive by Lexsuco Corporation.
- .5 SPLICE ADHESIVE: Lexcan Hi-Flex EPDM SA-747 Splice Adhesive by Lexsuco Corporation.
- .6 ASPHALT PRIMER: Lexcor Lexprime by Lexsuco Corporation.
- .7 ASPHALT: Type III Roofing Asphalt meeting CSA A 123.4.
- .8 BONDING ADHESIVE: Lexcan Hi-Flex EPDM BA-90 Bonding Adhesive by Lexsuco Corporation
- .9 OVERLAY TAPE: Lexcan Hi-Flex EPDM T-610 Overlay Tape by Lexsuco Corporation.
- .10 PRE-CUT CORNERS: Lexcan Hi-Flex EPDM Lexflash II Corners
- .11 MEMBRANE CLEANER: Lexcan Weathered Membrane Cleaner by Lexsuco Corporation.
- .12 LAP SEALANT: Lexcan Hi-Flex EPDM Lap Sealant by Lexsuco Corporation.
- .13 WATER CUT-OFF MASTIC: Lexcan Water Cut-off Mastic by Lexsuco Corporation.
- .14 POURABLE SEALER: Lexcan Pourable Sealer by Lexsuco Corporation.
- .15 PIPE FLASHINGS: Lexcan Hi-Flex EPDM Pipe Boot or Split Pipe Boot by Lexsuco Corporation.
- .16 TRAFFIC PADS: Lexcan Lexpad 300 Walkway Pad by Lexsuco Corporation.
- .17 TERMINATION SEALER TAPE: Lexcan Water Cut-off Tape by Lexsuco Corporation.
- .18 TERMINATION BAR: Lexcan Termination Bar by Lexsuco Corporation.

2.10 ROOF SYSTEM FLASHING ACCESSORIES

- .1 VENT STACK FLASHING: Vent caps shall be sealed to the pipe with Lexcor Flash-Tite™ Drain and Vent Seals. Vent pipes shall be flashed to the roof membrane with two part, telescoping vent stack covers featuring an 18" high base flange and a 127mm (5") Cap. Vent Stack flashing shall be fabricated from

seamless spun aluminum. Caps and base flanges are to match the size of vent pipe. Install in strict accordance with manufacturer's directions and flash into the roof membrane in accordance with the roofing membrane manufacturer's directions and good roofing practice. Vent Stack Flashing as supplied by Lexsuco Corporation, Lexcor Flash-Tite™ Standard Vent Stack Covers (Seamless spun mill finish VB-418-Cap model SCA-4).

- .2 VENT STACK FLASHING (B VENT): B-Vent Flashings shall be fabricated from a single piece of spun aluminum metal this is free from joints. Flashing stack is to be fourteen inches (12,14,18") high complete with Rain Collar. Base flanges are to match the size of vent pipe. Install in strict accordance with manufacturer's directions and flash into the roof membrane in accordance with the roofing membrane manufacturer's directions and good roofing practice. B-Vent Stack Flashing as supplied by Lexsuco Corporation, Lexcor Flash-Tite™ B-Vent Flashings.
- .3 ROOF DRAINS: New Construction drain hoppers shall be 2 mm thick seamless spun aluminum and feature a 430 mm (17") diameter flashing flange, 250 mm (10") downspout, membrane stop and clamping ring studs. [Drains shall also include an integral deck clamp assembly composed of a 65 mm thick cast aluminum hopper reinforcement ring welded to the hopper and adjustable aluminum deck clamp mounted on 4 stainless steel rods]. Drains shall come complete with separable cast aluminum membrane clamping ring, 178 mm (7") high cast aluminum strainer [and spun aluminum Flow Control Insert].
 - .1 Specified Product: Lexcor Flash-Tite™ NC Aluminum Super Drains [with: Flash-Tite™ Integral Deck Clamp; Flash-Tite™ Flow Control Insert; Mechanical Joint Connector] by Lexsuco Corporation. Drain sizes to match drain pipe diameters.
- .4 ROOF DRAINS: Retrofit drain hoppers shall be 2 mm thick seamless spun aluminum and feature a 430 mm (17") diameter flashing flange, 305 mm (12") downspout, membrane stop and clamping ring studs. Drains shall come complete with separable cast aluminum membrane clamping ring, 178 mm (7") high cast aluminum strainer, stainless steel hardware [and spun aluminum Flow Control Insert].
 - .1 Specified Product: Lexcor Flash-Tite™ RR Aluminum Super Drains [with: Flash-Tite™ Integral Deck Clamp; Flash-Tite™ Flow Control Insert; Flash-Tite™ Drain and Vent Seal; U-Flow Pipe Seal] by Lexsuco Corporation. Drain sizes to match drain pipe diameters.
- .5 SUPPORTS: for Gas pipes; Structural Support Base shall consist of a Pressure moulded using a one or two part mix, utilising milled, sieved and graded Styrene Butadiene Rubber (SBR-Recycled Rubber). Accessory must be complete with 40mm x 20mm Aluminium Channel supplied recessed and bonded into the top face of the foot and BBJ insulclamps to support piping. Specified Product: Fix-it Foot Low 250 (250mm x 130mm x 50mm) supplied by Lexsuco Corporation.
- .6 CONDUIT/PIPE SPLIT FLASHING: Two part stainless steel base and floating rain collar, complete with selvedge style seam, pre-applied seam sealant, stainless steel screws and nuts and EPDM rubber pipe seal strip. [Base flashing is to be insulated on the jobsite with moisture resistant rubber foam].

- .1 Specified Product: Lexcor Flash-Tite™ Conduit (Split) Flashing, model no. _____ by Lexsuco Corporation.
- .7 HVAC & ELECTRICAL FLASHINGS : To be fabricated from seamless spun aluminum, complete with primer coated flanges. Use appropriate flashing for each application.
 - .1 Specified Products: Lexcor Flash-Tite™ Electrical Wire Outlet Post [30 cm; 46 cm] high base, complete with rigid PVC cap fitting. Model no. _____ by Lexsuco Corporation.
 - .2 Specified Products: Lexcor Flash-Tite™ Electrical Wire Socket or Switch Posts [30 cm; 46 cm] high base, complete with rigid PVC cap fitting. Model no. _____ by Lexsuco Corporation.
 - .3 Specified Products: Lexcor Flash-Tite™ B-Vent Flashing, diameter to match chimney diameter, complete with adjustable galvanized steel rain collar by Lexsuco Corporation.
 - .4 Specified Products: Lexcor Flash-Tite™ pre-fabricated mastic sealer pockets ("pitch pockets"). [130 mm (5"); 230 mm (9")] high x appropriate diameter to exceed diameter or width of protrusion by 50 mm (2"). Pockets to be sealed with Lexcan Pourable Sealer, a two-part urethane, self-levelling sealant by Lexsuco Corporation.
- .8 ROOF HATCH UNIT[S]: Single leaf type, 762 mm x 914 mm [2'-6" x 3'-0"] inch size, listed by Lexcor: R-100 (Ladder Access) Roof Hatch.
 - .1 Specified Product: Lexcor R-100G/WGC/SB/R30 by Lexsuco Corporation.
 - .2 Steel Cover and Curb: 2.95 mm [11 gauge] thick primer coated galvanized steel and shall be neatly welded and ground at corners. Door shall have two layers of 66.1mm [2.6 inches] polyisocyanurate insulation; door liner shall be 18 gauge primer coated galvanized steel. Curb shall be [*<305mm; [12 inch]; 457mm [18 inch]; 610mm [24 inch] >>*] high with two layers of 66.1mm [2.6 inch] polyisocyanurate insulation secured to the curb exterior. Curb shall have 89 mm [3.5 inch, pre-punched flanges. Curb and cap assembly shall be complete with extended flanges ready to receive roof flashings.
 - .3 Roof Hatches Hardware:
 - .1 Wind Gust Control Unit: shall be mounted on the inside of the hatch opposite to the steel hold open arm. Piston forces shall pull the door closed; or [push door open.
 - .2 Roof hatch shall be completely assembled with heavy duty pintle, torsion bar operated doors, latching mechanism, *interior and/or [exterior]* padlock hasps and neoprene draft seal. Door shall be equipped with an steel hold open arm with foam rubber grip handle. All hardware shall be cadmium plated.
 - .3 Hatch shall be equipped with 35mm [1'-3/8"] diameter Safety Bar coated with mil PVC colour coated roof safety green. Safety Bar shall be mounted on the [*right; left*] corner of hatch curb with out impeding operation of the door.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verify existing conditions before starting work.
- .2 Verify that surfaces and site conditions are ready to receive work.
- .3 Verify deck is supported and secured.
- .4 Verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to [drains] [valleys] [eaves].
- .5 Verify adjacent precast concrete roof members do not vary more than [$<6\text{ mm}><<1/4\text{ inch}>>$] in height. Verify grout keys are filled flush.
- .6 Verify deck surfaces are dry and free of snow or ice. [Verify flutes of metal deck are clean and dry.]
- .7 Confirm dry deck by moisture meter with [12%] moisture maximum.
- .8 Verify roof openings, curbs, pipes, conduit, sleeves, ducts, and vents through roof are solidly set, and [wood cant strips] [wood nailing strips] [reglets] are in place.

3.2 PREPARATION - WOOD DECK

- .1 Verify flatness and tight joints of wood decking.
- .2 Seal joints of plywood with tape.
- .3 Fill knot holes with latex filler.

3.3 PREPARATION - CONCRETE DECK

- .1 Fill surface honeycomb and variations with latex filler.

3.4 PREPARATION - METAL DECK

- .1 Install preformed sound absorbing glass fibre insulation strips supplied by Section 05 31 13, in acoustic deck flutes; in accordance with manufacturer's instructions.
- .2 Install deck sheathing onto the steel deck [to FM requirements, bulletin 1-28 for installation of boards to roof perimeters and corners, to meet [1-90] [1-60]].
- .3 Lay with long side at right angle to flutes; stagger end joints; provide support at ends.
- .4 Install sheathing on metal deck [using continuous mopping of adhesive on each flute].
- .5 Mechanically fasten sheathing at [full roof area] [perimeter] of roof deck, [$<1500\text{ mm}><<60\text{ inches}>>$] using [six (6)] [eight (8)] fasteners with washers per board.
- .6 Cut sheathing cleanly and accurately at roof breaks and protrusions to provide smooth surface. Tape joints.

3.5 VAPOUR RETARDER SUPPORT PANELS INSTALLATION

- .1 Mechanically Fastened Support Panels

- .1 Mechanically fasten panels to steel deck using fasteners and plates recommended by the membrane manufacturer.
 - .2 On steel decks, ensure that the fasteners engage the top rib of the steel deck and penetrate through the deck a minimum of 19 mm (3/4 in).
 - .3 On steel decks, place the long edge of the board parallel to and located on top rib of the deck for continuous support.
 - .4 Follow the membrane manufacturer's recommendation for number and spacing of fasteners.
 - .5 Stagger end joints of adjacent boards and butt joints so that they are in moderate contact with each other.
 - .6 Where slopes change direction cut boards cleanly. Avoid breaking boards to conform to the deck.
 - .7 All concrete fasteners and anchors shall have a minimum penetration of 32 mm (1 1/4 in) and shall be approved for such use by the membrane manufacturer.
 - .8 All miscellaneous wood fasteners and anchors shall have a minimum penetration of 20 mm (13/16 in) and shall be approved for such use by the membrane manufacturer. Where the deck is less than 20 mm (13/16 in) the fastener should be long enough to penetrate the full thickness of the deck or through the deck.
- .2 Adhered Support Panels
- .1 Use only adhesive recommended by the support panel manufacturer to secure panel to the deck. Apply adhesive using tools and equipment as recommended by the membrane manufacturer.

3.6 **INSTALLATION OF VAPOUR RETARDER**

- .1 Application of Vapour Retarder
 - .1 Where the self-adhesive vapour retarder is applied to a support panel, use only self-adhesive vapour retarder support panels approved by the vapour retarder manufacturer.
 - .2 Where the self-adhesive vapour retarder is to be adhered to glass faced gypsum board, use factory primed board and/or apply a light coat of primer in accordance with the instructions of the gypsum board panel and membrane manufacturers.
 - .3 Where the self-adhesive vapour retarder is to be adhered to a cementitious panel, apply a light coat of primer as recommended by the panel and membrane manufacturers.
 - .4 All surfaces to be primed must be free of dust, or any residue that may hinder adhesion of the vapour retarder.
 - .5 Cover primed surfaces with vapour retarder as soon as possible.
 - .6 When applied directly to steel deck align the roll parallel to the flutes of the deck. Ensure that the vapour retarder overlaps are positioned on the top ribs of the deck and supported along their entire length.
 - .7 Beginning at the bottom of the slope and without adhering the membrane, unroll onto the substrate for alignment. Do not immediately remove the release sheet.

- .8 Overlap each preceding sheet by 75 mm (3 in) at the side laps and 150 mm (6 in) at end laps. Stagger end laps by a minimum of 300 mm (12 in).
 - .9 Once aligned peel back one end of the release sheet and adhere the exposed membrane to the substrate. Peel back the remaining release sheet at a 45° angle to avoid wrinkles in the membrane.
 - .10 If the membrane is not properly aligned, do not adjust it. Instead, cut the roll and start again, making sure that it is properly aligned and that it overlaps the end of the misaligned piece by 150 mm (6 in).
 - .11 Roll the self-adhesive vapour retarder onto the substrate with a 34 kg (75 lb) roller. Finish by aligning the edge of the roller with the lower end of the side laps and rolling up the membrane. Do not cut the membrane to remove air bubbles trapped under the laps. Squeeze out air bubbles by pushing the roller to the edge of the lap.
- .2 Application of Polyethylene Vapour Retarder
- .1 Lay vapour retarder loose over support panel, or directly onto steel deck. Overlap all edges minimum of 100mm (4 in) and seal tape.
 - .2 Where the polyethylene vapour retarder is applied directly to steel deck, align the roll parallel to the flutes of the deck. Ensure that the membrane overlaps are positioned on the top ribs of the deck and supported along their entire length.
 - .3 When applied directly to steel deck, install a metal plate 150 mm x 1060mm (6 in x 42 in) perpendicular to the flutes of the deck to support the vapour retarder end lap.
 - .4 Ensure continuity by extending vapour retarder to perimeter and deck penetrations.
 - .5 Seal vapour retarder membrane at all perimeters, transitions and around each penetration to ensure continuity.
 - .6 Seal the vapour retarder to the vertical surfaces at all roof penetrations, curbs and parapets.
- .3 Application of Heat Welded Vapour Retarder
- .1 Primed surfaces must be dry when the vapour retarder is installed.
 - .2 Heat weld the thermofusible vapour retarder onto the substrate in conformance with the manufacturer's written recommendations.
 - .3 Unroll vapour retarder membrane dry onto substrate and align roll.
 - .4 Overlap side laps a minimum of 75 mm (3 in) and end laps 150 mm (6 in).
 - .5 End laps shall be staggered a minimum of 300 mm (12 in). Begin work at bottom of slopes.
 - .6 Torch membrane so a visible bead of bitumen appears as the membrane is unrolled, ensuring the vapour retarder's complete adherence.
 - .7 Seal vapour retarder membrane at all perimeters, transitions and around each penetration to ensure continuity.
- .4 Application of No. 15 Asphalt Felt Mopped Vapour Retarder
- .1 Starting at low point, at right angles to the slope, embed two plies of No. 15 perforated felt in hot asphalt.
 - .2 For 2-ply construction use side laps of 1/2 width of sheet plus 25 mm (1 in) and end laps of 150 mm (6 in).

- .3 Asphalt shall be Type II or III. Interply mopping shall be applied at a rate of 1 kg/m² (0.2 lb/ft²).
- .4 Seal vapour retarder membrane at all perimeters, transitions and around each penetration to ensure continuity.
- .5 Installation of Fibreglass Reinforced Asphalt Base Sheets
 - .1 Starting at low point, and right angles to the slope, embed sheet in hot asphalt applied at a rate of 1 to 1.5 kg/m² (0.2 to 0.3 lb/ft²).
 - .2 Asphalt shall be Type [II] [III]. Overlap side laps by a minimum 75 mm (3 in) and end laps by 150 mm (6 in).
 - .3 Laps shall be staggered a minimum of 300 mm (12 in).
 - .4 Coat the vapour retarder with hot asphalt applied at a rate of 1 kg/m² to 1.5 kg/m² (0.2 to 0.3 lb/ft²).
 - .5 If asphalt is to be used to adhere the insulation, embed the specified insulation into the hot asphalt top coat.
 - .6 Seal vapour retarder membrane at all perimeters, transitions and around each penetration to ensure continuity.
- .6 Application of Kraft Laminated Vapour Retarder
 - .1 Apply vapour retarder to substrate with specified adhesive in conformance with manufacturer's recommendations.
 - .2 Overlap side laps a minimum of 100 mm (4 in) and end laps a minimum of 150 mm (6 in).
 - .3 Seal side laps and end laps with recommended adhesive in conformance with manufacturer's recommendations.

3.7 INSTALLATION OF INSULATION

- .1 General
 - .1 On steel decks without vapour retarder support panels, install insulation so that long dimensions of the board are parallel with the flutes of the steel deck and fully supported on the top rib.
 - .2 Butt edges in moderate contact with each other.
 - .3 Stagger joints in insulation courses.
 - .4 Insulation shall be neatly cut to fit around penetrations and projections.
 - .5 Install tapered insulation around drains creating a drain sump.
 - .6 Use at least 2 layers of insulation when the total insulation thickness exceeds 64 mm (2 1/2 in). Offset joints of each succeeding layer at least 300 mm (12 in).
 - .7 Do not install more insulation board than can be covered with membrane by the end of the day or the onset of inclement weather.
- .2 Mechanically Fastening Insulation
 - .1 Where specified, mechanically fasten through the insulation, vapour retarder and into the deck using screws and plates approved by the insulation manufacturer.
 - .2 Ensure that all fasteners are of sufficient length to penetrate the deck by the minimum amount specified by the membrane manufacturer.

- .3 On steel decks mechanically fasten through the insulation, vapour retarder support layer and into the steel deck using screws and plates approved by the insulation manufacturer. Ensure that all fasteners engage the top rib of the steel deck and penetrate through the deck a minimum of 19 mm (3/4 in).
 - .4 On wood decks, fastener length shall be sufficient to penetrate 20 mm (13/16 in) into the roof deck. Where the deck is less than 20 mm (13/16 in) the fastener should be long enough to penetrate the full thickness of the deck or through the deck.
 - .5 All concrete fasteners and anchors shall have a minimum penetration of 32 mm (1¼ in) and shall be approved for such use by the membrane manufacturer.
 - .6 Ensure that plates have sufficient clamping force so as not to compromise the vapour retarder. Do not overdrive the screws.
 - .7 Follow the membrane manufacturer's written instructions for the number, location of fasteners and fastening pattern. Improper fastening, fastener type, density and fastener pattern may compromise the wind uplift resistance of the roofing system and result in wind blow-off.
- .3 Adhesive Application
- .1 Apply adhesive to the surface of the vapour retarder using tools and equipment as recommended by the adhesive manufacturer. Apply at the rate recommended by the insulation manufacturer.
 - .2 Where possible, build 600 mm X 600 mm (24 in X 24 in) sumps around drains by tapering insulation or cover board.
 - .3 Install only as much insulation as can be covered in the same day.
 - .4 Leave no insulation exposed at the end of the day's work.
 - .5 Provide watertight temporary protection to all exposed edges. Remove temporary protection when work resumes.
- .4 Attaching Insulation with Hot Asphalt
- .1 Apply coat of hot asphalt to surface of vapour retarder and embed insulation. Asphalt shall be Type 3 and applied at the rate of 1.5 kg/m² (0.3 lb/ft²). Take necessary precautions to avoid damaging heat sensitive insulations.
 - .2 Insulation board size used with hot asphalt attachment shall not exceed 1.2 m x 1.2 m (4 ft x 4 ft).

3.8 INSTALLATION OF COVER BOARD

- .1 Attaching Cover Board with Hot Asphalt
 - .1 Except on heat-sensitive insulations, install coverboards with hot asphalt using same methods as described previously for insulation boards. On all insulation surfaces intended for board coverage, apply a uniform coat of hot asphalt following methods and at temperatures recommended by the insulation manufacturer. While asphalt is at recommended temperature, install boards, butting edges snugly. Asphalt shall be Type [II] [III].

- .2 For insulations that may be damaged by hot asphalt, obtain installation instructions from the insulation manufacturer.
 - .3 Where adhesives are used to adhere the coverboard to the insulation, use only adhesive approved by the membrane manufacturer. Apply adhesive using tools and equipment recommended by the adhesive manufacturer at the rate recommended by the membrane manufacturer.
 - .4 Stagger joints. Ensure that joints in overlay boards are not superimposed over joints of underlying insulation.
 - .5 Ensure all edges are level with the adjoining boards and butted in moderate contact with each other.
 - .6 Install only as much coverboard as can be covered in the same day. Leave no insulation exposed at the end of the day's work. Provide watertight temporary protection to all exposed edges. Remove temporary protection when work resumes.
- .2 Mechanically Fastening Cover Board
- .1 On steel decks, mechanically fasten cover board through the insulation, vapour retarder, support layer and into the steel deck using screws and plates approved by the insulation manufacturer. Ensure that all fasteners engage the top rib of the steel deck and penetrate through the deck a minimum of 19mm (3/4 in).
 - .2 On wood decks, fastener length shall be sufficient to penetrate 20 mm (13/16 in) into the roof deck. Where the deck is less than 20 mm (13/16 in) the fastener should be long enough to penetrate the full thickness of the deck or through the deck.
 - .3 All concrete fasteners and anchors shall have a minimum penetration of 32 mm (1 1/4 in) and shall be approved for such use by the membrane manufacturer.
 - .4 Ensure that plates have sufficient clamping force so as not to compromise the vapour retarder. Do not overdrive the screws.
 - .5 Follow the membrane manufacturers written instructions for the number and location of fasteners. Improper fastening, fastener type, density and fastener pattern may compromise the wind uplift resistance of the roofing system and result in wind blow-off.

3.9 INSTALLATION OF EPDM MEMBRANE

- .1 General
 - .1 Install membrane in strict conformance with the manufacturer's installation instructions.
- .2 Application of Membrane with Hot Asphalt
 - .1 Unroll membrane dry onto substrate with first side lap lined up with drain centre (parallel to roof edge).
 - .2 Overlap side laps by a minimum of 75 mm (3 in) and overlap end laps by 150 mm (6 in). Stagger end joints by at least 300 mm (12 in).
 - .3 Re-roll membrane and unroll again onto bed of [hot asphalt] [SEBS bitumen].

- .4 Apply hot asphalt in front of each roll.
- .5 The coverage rate of asphalt is 1 to 1.5 kg/m² (0.2 to 0.3 lb/ft²). Heavy spots of asphalt at mopping overlaps should be avoided. In these areas asphalt must be spread evenly to avoid a heavy coverage rate that can cause asphalt saturation of felt backing. Asphalt saturation of felt must be avoided.
- .6 If spreaders are used to apply asphalt, care must be taken to ensure proper coverage rate. Do not overlap asphalt layers at multiple pass lines since the heavy coverage rate occurring at these overlapping areas must be avoided.

3.10 SEAM OVERLAPS

- .1 General
 - .1 All seam overlaps shall be the width specified by the membrane
 - .2 All membrane surfaces to be seamed shall be clean and dry. As required clean mating surfaces with lap cleaner and/or primer.
 - .3 When adhering membrane, ensure that there are no fishmouths or wrinkles at the overlaps.
- .2 Joining Seams with Self-Adhering Lap Splice Tape
 - .1 Position membrane to allow for required splice overlap. Mark the bottom sheet approximately 6.4 to 12.7 mm (1/4 to 1/2 in) from the top sheet edge to provide a guide for the positioning of the splice tape.
 - .2 Roll back top sheet at lap to expose bottom sheet surface to be spliced.
 - .3 Apply lap splice primer to clean mating surfaces in a thin, even coat at the application rate recommended by the manufacturer.
 - .4 Allow primer to dry until tacky, but not stringy to the touch.
 - .5 Unroll approximately 1 m (3.3 ft) of splice tape and align with marked position guide.
 - .6 Press tape firmly onto bottom sheet and unroll for length of the splice. Tape end rolls must be overlapped a minimum of 25 mm (1 in).
 - .7 Roll tape using a hand roller in accordance with the manufacturer's instructions.
 - .8 Pull release film from tape and allow top sheet to fall freely onto exposed tape.
 - .9 Press the top sheet onto the tape with firm, even hand pressure.
 - .10 Immediately roll the splice using a hand roller in accordance with the manufacturer's instructions.
 - .11 Install manufacturer's prefabricated "T" joint covers, self-curing flashing membrane, or self-adhering flashing membrane over all field splice intersections in accordance with membrane manufacturer's instructions.
- .3 Edge Treatment
 - .1 Prior to applying lap/edge sealant clean the dry splice edge, clean the top and bottom membranes using membrane cleaner or primer as specified by the membrane manufacturer.

- .2 Feather the lap/edge sealant with the specially preformed tool or nozzle provided by the membrane manufacturer so the high point or crown of the lap/seam sealant is located over the edge of the splice.

3.11 ADDITIONAL MEMBRANE SECUREMENT

- .1 General
 - .1 All EPDM membrane must be secured wherever there is a roof transition and angle change (at the perimeter of each roof level, roof section, expansion joint, curbs, penetrations, interior wall etc).
 - .2 Additional membrane securement may be provided by a reinforced membrane strip, seam fastening plates or mechanical reinforcing (batten)

3.12 MEMBRANE FLASHINGS AND ACCESSORIES

- .1 Apply flexible flashings to seal membrane to vertical elements.
- .2 Secure to [reglets] [nailing strips at [<150 mm><<6 inches>>] on centre].
- .3 Install prefabricated roofing [control joints] [expansion joints] to isolate roof into areas [as indicated] [to manufacturer's written instructions].
- .4 Fabricate roofing [expansion joints] [control joints] to isolate roof into areas as indicated.
- .5 Coordinate installation of [roof drains] [roof sumps] and related flashings.
- .6 Seal flashings and flanges of items penetrating membrane.
- .7 Install walkway pads. [Space pad joints to permit drainage.]
- .8 General
 - .1 Flashing shall consist of cured EPDM, or where approved by the membrane manufacturer, self-adhering flashing membrane. Use the largest pieces of membrane practical.
 - .2 Flashing shall be adhered to compatible, dry, smooth, and solvent-resistant surfaces.
 - .3 All flashings shall extend a minimum of 200 mm (8 in) above the finished roof unless otherwise accepted in writing by the membrane manufacturer.
 - .4 All flashing membranes shall be consistently adhered to substrates.
 - .5 Flashings shall be terminated according to the membrane manufacturer's recommended details.
 - .6 Wherever feasible, use pre-fabricated seals to flash pipe penetrations, sealer pockets, inside and outside corners. Follow the membrane manufacturer's instructions when installing pre-fabricated accessories.
 - .7 All vertical flashing splices and membrane T-joints must be overlaid with uncured flashing strips. Follow the membrane manufacturer's instructions when installing overlay strips.
 - .8 For hot pipes exceeding 60 °C (180 °F) consult membrane manufacturer for special installation instructions.
- .9 Mechanical Roof Drains

- .1 Provide a smooth transition from the roof surface to the drain clamping ring. Prepare the substrate around each roof drain to avoid membrane bridging at the sump area and possible distortion at the drain clamping ring.
- .2 The mating surfaces between the clamping ring and drain base must be clean and have a smooth finish.
- .3 Field splices at roof drains must be located at least 150 mm (6 in) outside the drain sump.
- .4 Cut membrane so it extends approximately 12.7 mm (1/2 in) beyond the attachment points of the clamping ring. The hole in the membrane must not restrict water flow or be smaller than the drain pipe.
- .5 Apply water barrier sealant to the clamping ring flange in accordance with the membrane manufacturer's instructions.
- .6 All bolts and/or clamps must be in place to provide compression on the water barrier sealant.
- .7 Install roof membrane as prescribed and secure strainer basket and bolt assembly.

3.13 WALKWAY INSTALLATION

- .1 EPDM Walkway Pads/Rolls
 - .1 Intall walkways where indicated on the project drawings.
 - .2 Roofing membrane to receive walkway shall be clean and dry.
 - .3 Clean and prime membrane to receive walkway pads/rolls in accordance with the manufacturer's printed instructions.
 - .4 Where required, prime undersurface of walkway pad/rolls in accordance with the manufacturer's printed instructions.
 - .5 Allow gaps between pads/rolls as specified by the membrane manufacturer to provide drainage.
 - .6 Where walkway pads/rolls are to be installed over or near field-fabricated seams and seam edges, consult the membrane manufacturer for special installation instructions.
 - .7 Walks the pad/rolls into place to ensure proper adhesion.
- .2 Concrete and Robber Pavers
 - .1 Install protection membrane under concrete pavers as specified by the membrane manufacturer.
 - .2 Install rubber pavers as recommended by the membrane and rubber paver manufacturers.
 - .3 Pavers are not recommended for use as walkways where roof slopes exceed 16.7 % (2" in 12").

3.14 TEMPORARY CUT-OFF

- .1 General
 - .1 When flashings and terminations are not completed by the end of the working day, temporary water cut-off seals shall be installed to maintain a watertight condition as the work progresses.

- .2 All temporary waterstops shall be constructed to provide a watertight.
- .3 The stagger of the insulation joints shall be made even by installing partial panels of insulation.
- .4 The membrane shall be carried into the waterstop and the waterstop shall be sealed to the deck and/or substrate so that water cannot travel under the roofing.
- .5 The edge of the membrane shall be sealed in a continuous heavy application of sealant.
- .6 Membrane contaminated with sealant shall be cut out when work resumes.

3.15 PROTECTIVE COATING

- .1 Apply coating to membrane materials exposed to view in accordance with manufacturer's written instructions.
- .2 Apply coating to exposed to view membrane materials to the following requirements:
 - .1 Prime membrane.
 - .2 Apply [_____] coats at rate of [_____] to minimum dry film thickness of [<[_____] mm><<[_____] mils>>].
 - .3 Finish with coloured coating.

3.16 FIELD QUALITY CONTROL

- .1 Section 01 45 00: Field [inspection] [testing].
- .2 Require site attendance of roofing [and insulation] material manufacturers [daily] during installation of the Work.
- .3 Provide inspection services to [_____] warranty requirements.
- .4 Monitor and report installation procedures, unacceptable conditions and [_____].
- .5 Correct identified defects or irregularities.

3.17 CLEANING

- .1 Section 01 74 00: Cleaning installed work.
- .2 In areas where finished surfaces are soiled by Work of this section, consult manufacturer of surfaces for cleaning advice and conform to their [documented] instructions.
- .3 Repair or replace defaced or disfigured finishes caused by Work of this section.

3.18 PROTECTION OF FINISHED WORK

- .1 Section 01 78 40: Protecting installed work.
- .2 Protect building surfaces against damage from roofing work.
- .3 Where traffic must continue over finished roof membrane, protect surfaces.

END OF SECTION