Word processing versions of this specification are available. Contact your Lexcan representative for further information.

This specification is presented as a guide only. The specifying authority remains responsible to verify all requirements and installation methods, including the suitability of a product or system for a particular application. Lexcan does not make any recommendation or offer any warranty, expressed or implied, other than those agreed upon in advance, made in writing and relating to a specific project.

Spec Note: This retrofit roof system requires that the existing metal roof is properly secured to the structural purlins and is free from excessive corrosion. Lexcan will not be held responsible for a failure or seperation of the underlying substrate to which this roof system is fixed. If there is doubt over the structural integrity of the metal roof or its securement, consult an engineer for approval.

Spec Note: This specification is acceptable only for metal roofed buildings that DO NOT fall within one of the following situations:

- The building is higher than 21 m (70') in height.
- The building has large openings (combined area equal to 10% of the total wall area or greater) or overhang roofs.
- The building is located within 500 m of the seacoast, bay or a large lake.
- The building is located on top of a hill (Add height of the hill to the height of the building to see if it is higher than 21 m (70').
- Pressurized buildings
- The building is located in mountainous terrain.
- The building is located on or adjacent to an airport.
- Any wind zone of 160 km/hour (100 m.p.h.) according to Factory Mutual guidelines.

If the building meets one or more of the above criteria, consult Lexcan for an alternative specification.

Spec Note: Specifier shall indicate choice from alternatives by crossing out inapplicable alternative in square brackets (ex: [Steel; Concrete]).

1.0 GENERAL

1.1 Section Includes:

.1 Substrate preparation.
.2 Roofing accessory installation.
.3 Vapour retarder installation.
.4 Insulation installation.
.5 Membrane installation.
.6 Membrane flashing.

1.2 Related Work Under Other Sections

1.3 Description

.1 Furnish and install a Design A, adhesive adhered EPDM roofing system and related roofing accessories in strict accordance with specifications and details approved by the roof system supplier.

1.4 Quality Assurance

.1 Roofing contractor shall be an approved applicator of the roofing system supplier.

.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 Prior to work beginning, contractor shall arrange at his expense for a series of pull-out tests of the specified insulation fasteners from the subject metal roof deck. The test shall be conducted a minimum of four (4) different times in randomly selected yet representative locations around the roof. Results are to be submitted to the [roof system supplier; specifier] for final approval before work commences.

1.5 Submittals

.1 Shop Drawings are to be prepared detailing roof shape and dimensions and showing location of all curbs, roof

mounted equipment and protrusions. A typical roof edge detail showing roofing system construction shall also be submitted. Samples of materials to be used are to be supplied upon request.

.2 Submit shop drawings and any proposed non-standard details to the roofing system supplier and the specifier a minimum of two weeks prior to job start for approval.

.3 Roof fastener pull-out test results described in section 1.4.4.

1.6 Delivery, Storage & Handling

.1 Deliver all roofing materials in original, unopened containers, complete with labels indicating brand name, contents, usage instructions and safety precautions.

.2 Insulation and vapour retarder is to be kept dry and stored above the ground with a protective cover. Isocyanurate insulation is to be protected from direct exposure to sunlight or temperatures in excess of 45°C.

.3 Protect membranes from cuts, abrasion or other abuse that might adversely affect performance in service.

.4 WHMIS safety bulletins on all hazardous products are to be readily available to the work crew at all times.

.5 Adhesives, sealants and flashing accessories are to be stored in a clean, dry area at a temperature between 5°C and 27°C. If exposed to a lower temperature, restore to an acceptable level before using.

.6 Do not work during periods of rain, fog, sleet, snow or cold temperatures (below -5°C).

1.7 Warranty

.1 Contractor shall advise the roofing system supplier in writing a minimum of two weeks prior to job start that a warranty has been requested for this project and the probable start date of roofing work.

.2 Roofing System supplier shall provide a written [material, watertight] warranty on supplier's standard form for a period of [5,10] years from the date of roofing system completion.

.3 Roofing Contractor shall provide a written warranty against leaks or workmanship defects for a period of two years from the date of roofing system completion.

2.0 PRODUCTS

2.1 Insulation & Insulation Securement

NOTE: The following construction panels are accepted for use as coverboards over top of a base layer of insulation used to fill the space between the metal roof ribs.

- **Polyisocyanurate insulation, between 33 mm (1.3") and 51 mm (2.0") thick, as per 2.1.3 below.**
- **Dens-Deck Prime, minimum 13 mm (1/2") thick, manufactured by Georgia-Pacific and supplied by the roof system supplier.**
- **Plywood, minimum 13 mm (1/2") thick.**

Minimum 19 mm (3/4") thick x 122 cm (4') x 244 cm (8') plywood may be used as the membrane substrate without underlayment support provided,

a) the plywood can be mechanically fastened into the upper ribs of the metal roof,

b) the maximum spacing of the ribs is 305 mm (12") and

c) the plywood can be butted together with edges accurately centred over upper ribs.

If this alternative is to be used, Lexcan recommends that the air space between the metal roof and the plywood be screened to prevent insect infiltration at both the eave and the roof peak.

.1 INSULATION FASTENERS: 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 12 mm (1/2") 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.
ACCEPTABLE PRODUCT FOR WOOD OR METAL DECKS: Lexgrip™ Insulation Fasteners or Lexgrip™ Pre-Assembled Insulation Fasteners treated with Cx-5 coating, complete with metal stress plate.

.2 EXPANDED POLYSTYRENE INSULATION: ASTM C-578-92 Type [I;II] expanded polystyrene insulation panels, pre-cut to fit tightly between metal roof ribs or standing seams with minimum thickness equal to the height of the rib / standing seams.
ACCEPTABLE PRODUCT: Expanded polystyrene insulation supplied by roof system supplier.

.3a POLYISOCYANURATE ROOF INSULATION: ___ mm (__") thick black glass/felt faced polyisocyanurate foam insulation meeting the requirements of CAN/ULC-S704 and having a minimum compressive strength of [140 kPa (20 psi); 175 kPa (25 psi)]. Thickness shall be between between 33 mm (1.3") and 51 mm (2.0").
ACCEPTED PRODUCT: [Isolex™; Isolex - 25] Isocyanurate Insulation.

or -

.3b COVER BOARD: __ mm (__") thick primed glass mat covered water resistant gypsum core board.
ACCEPTABLE PRODUCT: __ thick Dens-Deck Prime, supplied by the Roofing System Supplier.

or -

.3c COVERBOARD: __ mm (__") thick x 122 cm (4') x 244 cm (8') construction grade plywood, dry and warp free.

2.2 Roofing Membrane System

.1 MEMBRANE: Lexcan [1.5 mm thick Standard; 1.1 mm Reinforced; 1.5 mm Reinforced] Black EPDM (ethylene propylene diene monomer) membrane meeting the physical characteristics shown in table [1;2].

TABLE 1: Lexcan Standard EPDM Membrane

PROPERTY	A.S.T.M. TEST METHOD	SPECIIFICATION VALUES BLACK	WHITE*
THICKNESS TOLERANCE	D-412	± 10%	± 10%
ELONGATION, Ultimate	D-412	350%	350%
TENSILE STRENGTH	D-412	9 MPa (1305 psi)	9 MPa (1305 psi)
TEAR RESISTANCE, min.	D-642, Die C	30.8 kN/m (175 lbf/in.)	26.3 KN/m (150 lbf/in.)
FACTORY SEAM STRENGTH	D-816 (modified)	Stronger than membrane	
OZONE RESISTANCE [7 days at 100pphm, 40°C, 50% ext.]	D-1149	No Cracks @ 7x magnification	No Cracks @ 7x magnification
BRITTLENESS	D-2137	Does not break @ -60°C	Does not break @ - 60°C
WATER ABSORPTION, max.	D-471	4%	4%
WATER VAPOUR PERMEABILITY	E-96, proc. B	2.0 perm•mils	2.0 perm•mils
OUTDOOR EXPOSURE (UV) [Xenon Arc @ 80°C]	G-26	No cracks or crazing after 4,000 hrs	No cracks or crazing after 2,000 hrs
After Heat Aging for 28 days @ 116°C			
ELONGATION, Ultimate, min.	D-412	225%	200%
TENSILE STRENGTH, min.	D-412	8.3 MPa (1200 lbs/in.)	8.3 MPa (1200 lbs/in.)
TEAR RESISTANCE, min.	D-642, Die C	28.3 kN/m (150 lbf/in.)	21.9 kN/m (125 lbf/in.)
LINEAR DIMENSIONAL CHANGE, max.	D-1204	± 2%	± 2%

TABLE 2: Lexcan Reinforced EPDM Membrane

PROPERTY	A.S.T.M. TEST METHOD	SPECIIFICATION VALUES BLACK	WHITE*
THICKNESS TOLERANCE	D-751	± 10%	± 10%
ELONGATION, Ultimate	D-412	250%	250%
BREAKING STRENGTH	D-751 Grab Mtd	400 N (90 lbf)	400 N (90 lbf)
TEAR RESISTANCE, min.	D-751, B Tongue Tear	45 N (10 lbf)	45 N (10 lbf)

FACTORY SEAM STRENGTH	D-816 (modified)	Stronger than membrane	
OZONE RESISTANCE [7 days at 100pphm, 40°C, 50% ext.]	D-1149	No Cracks @ 7x magnification	No Cracks @ 7x magnification
BRITTLENESS	D-2137	Does not break @ -45°C	Does not break @ - 45°C
WATER ABSORPTION, max.	D-471	4%	4%
OUTDOOR EXPOSURE (UV) [Xenon Arc @ 80°C]	G-26	No cracks or crazing after 4,000 hrs	No cracks or crazing after 2,000 hrs
After Heat Aging for 28 days @ 116°C			
ELONGATION, Ultimate, min.	D-412	200%	200%
BREAKING STRENGTH, min.	D-751	355 N (80 lbf)	355 N (80 lbf)
LINEAR DIMENSIONAL CHANGE, max.	D-1204	± 2%	± 2%

.2 FLASHING: Lexflash Flashing; a 1.9 mm (75 mil) thick laminate of uncured EPDM and Lexcan's proprietary butyl adhesive compound. Flashing is cut to suit application as per Lexcan details.

.3 MISC. MEMBRANE CLEANING: Lexcan SC-1 Seam Cleaner.

.4 SEAM ADHESIVE: Lexcan PA-100 Primer Adhesive.

.5 SEAM TAPE: LexSeam T-325 Seam Tape; a 75 mm wide seam tape composed of Lexcan's proprietary butyl adhesive compound.

.6 LAP SEALANT: Lexcan Lap Sealant.

.7 BONDING ADHESIVE: Lexcan BA-90 Adhesive.

.8 POURABLE SEALER: Lexcan Pourable Sealer.

.9 WATER CUT-OFF MASTIC: Lexcan Water Cut-off Mastic.

.10 TERMINATION SEALER TAPE: Lexcan Termination Sealer Tape.

.11 TERMINATION BAR: Lexbar Termination Bar.

.12 TRAFFIC PADS: Lexpad 300 Traffic Pads.

2.3 Wood Nailers, Counter-Flashing, Fascia, etc.

.1 Wood nailers shall be new, #2 wood or better wood, factory treated for rot resistance. Creosote or asphalt treated wood is not acceptable. Nailers are required at all roof edges or gravel stops and shall be installed so that the top is flush with the top of the membrane underlayment, ± 5 mm (1/4").

.2a COUNTER-FLASHING: Galvanized steel sheet metal, minimum 0.61 mm (24 ga.) thick, prefinished with modified silicone, Baycoat 5000 series. Colour as selected and approved by the specifier [to match colour of existing metal flashing].

or

.2b COUNTER-FLASHING: to ASTM A606-75 high strength low alloy rolled architectural grade sheet steel, minimum 0.61 mm (24 ga.) thick, pre-painted to the colour approved by the specifier [to match colour of existing metal flashing].

2.4 Flashing Accessories

.1 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].
ACCEPTED PRODUCT: Flash-Tite Conduit (Split) Flashing, model no. CSF-SR__.

.2 HVAC & ELECTRICAL FLASHINGS : To be fabricated from seamless spun aluminum, complete with primer coated flanges. Use appropriate flashing for each application.
ACCEPTED PRODUCTS:
Flash-Tite Electrical Wire Outlet Post [30 cm; 46 cm] high base, complete with rigid PVC cap fitting. Model no. WPF-A___.
Flash-Tite Electrical Wire Socket or Switch Posts [30 cm; 46 cm] high base, complete with rigid PVC cap fitting. Model no. [EOP-A__; ESP-A___].
Flash-Tite B-Vent Flashing, diameter to match chimney diameter, complete with adjustable galvanized steel rain collar.

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.

.3a 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].
ACCEPTED PRODUCT: Flash-Tite™ NC Aluminum SuperDrains [with: Integral Deck Clamp; Flow Control Insert; Mechanical Joint Connector]. Drain sizes to match drain pipe diameters.

or

.3b 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].
ACCEPTED PRODUCT: Flash-Tite™ RR Aluminum SuperDrains [with: Integral Deck Clamp; Flow Control Insert; Flash-Tite Pipe Seal; U-Flow Pipe Seal]. Drain sizes to match drain pipe diameters.

2.5 Other Roofing Products

Note: The following product specifications are provided in case they are needed. Delete if not applicable.

.1 ROOF EDGE SYSTEM: 16 ga. galvanized steel formed into a roof edge to match the drawings, with pre-punched screw holes on 30 cm (12") centres both on the vertical and horizontal flanges. Supplied complete with spring clip for securing the membrane flashing and a drip edge to secure the metal counter-flashing.
ACCEPTABLE PRODUCT: Flash-Tite Type ___ Roof Edge System.

.2 CURBS: 16 ga. galvanized steel supplied with 25 mm (1") thick polyisocyanurate or fibreboard insulation as described above. Curb shall be [305 mm (12"); 457 mm (18"); 610 mm (24"); __] high with inside dimensions of [762 mm x 914 mm (2'6" x 3'); 762 mm x 1372 mm (2'6" x 4.5'); 762 mm x 2438 mm (2'6" x 8'); __ x __]. 75 mm (3") wide flange shall come complete with pre-drilled securement holes.
ACCEPTABLE PRODUCT: Lexcor Custom Insulated Curbs.

.3 ROOF HATCH: Inside dimensions of hatch shall be [762 mm x 914 mm (2' 6" x 3'0"); 762 mm x 1372 mm (2' 6" x 4' 6"); 762 mm x 2438 mm (2' 6" x 8' 0"); ___ x ___] to match opening in roof deck. Curb and doors shall be [14 ga. primer coated galvanized steel; 11 ga. mill finished aluminum] and shall be neatly welded and ground at corners. Door(s) shall have 25 mm glass fibre insulation and a door liner of [18 ga. primer coated galvanized steel; 22 ga. mill finished aluminum]. Curb shall be [305 mm (12"); 457 mm (18"); 610 mm (24")] high with 25 mm (1") rigid fibre insulation secured to the curb exterior and 89 mm (3.5") wide pre-punched flanges. Hatch shall be completely assembled wtih heavy duty pintle hinges, torsion bar operated doors, neoprene draft seal, latching mechanism, padlock hasp and an automatic hold-open handle with rubber grip. All hardware shall be [cadmium plated; stainless steel]. [Safety Bar Option: 35 mm diameter Safety Bar coated with 20 mil PVC, colour coated roof safety green. Safety bar shall be mounted on the [right; left] corner of hatch curb without impeding door operation]. [Skylight Option: Hatch door shall be glazed with [single; double] acrylic domes manufactured to support up to 195 kg / m^2 live load. [Single; inside] dome shall be [clear; bronze; white]. [Outer dome shall be white]].
Secure hatch to deck with: _____ fasteners.
ACCEPTED PRODUCT: Lexcor Roof Hatch Model No._____
Note: For double door or heat, smoke & explosion vent specifications, refer to Lexcor Roof Hatch & Vent data bulletin # 8.05.

.4 SKYLIGHT(S): [Single; Double] dome pre-assembled acrylic skylights with [Standard; No-Frost] frame extruded from 6063-T5 aluminum alloy. Skylight(s) shall have outside dimensions of ___ x ___ to fit a [41 mm (1-5/8");

100 mm (4")] wide curb. [Single dome; outer dome] shall be [clear; white translucent] [and inner dome shall be [clear; white translucent]. [Optional Curb: Skylights shall be supplied with a 230 mm (9") high extruded aluminum curb 23 mm (.093") thick, complete with a 76 mm (3") wide flange and insulated with 51 mm (2") wide fibre insulation covered by 61 mm (.015") internal aluminum liner].
Secure skylight to [curb; deck] with: _____ fasteners.
ACCEPTED PRODUCT: Lexcor [Skylight; Insulated Curb Skylight] Model No._____
Note: For custom and round skylight specifications, refer to Lexcor product data bulletin #11.05.

.5 ATTIC EXHAUST VENTS: Two part seamless spun aluminum vent consisting of a bottom support flange and a top ventilator cap. Cap shall feature a downward sloping rain hood complete with breather holes and insect screen. Cap shall be attached to base with stainless steel screws. Total unit shall measure [230 mm (9") d. x 420 mm (16.5") high; 305 mm (12") d. x 585 mm (23") high].
ACCEPTED PRODUCT: Flash-Tite [230 mm (9"); 305 mm (12")] diameter Attic Gravity Vent.

.6 KITCHEN EXHAUST VENTS: See Section 2.1.3 "Attic Exhaust Vents".

.7 SUPPORTS for [Gas pipes; DUCTS, railings; walkways; stairs; ladders; lights; antenna; satellite dish; _____]
Structural Support Base shall consist of a pre-insulated, ____ high x ___ diameter x ___ thick steel post with welded mounting cap and ___ x ___ x ___ thick steel base. Support shall come complete with two- part, telescoping spun aluminum flashing for a [conventional; inverted] roof and appropriate modular mount(s) to support and secure the [gas pipe(s); ducts; railing; guy wires; fence enclosure; walkway; antenna; satellite dish; stairs; ladder; HVAC unit(s); _____]. Supports shall be positioned in accordance with the drawings.
Structural Supports shall be [bolted with _____ ; welded] directly to the [structural joists; structural roof deck]. Where the support must be positioned between joists, it shall be mounted to a ___ primer painted or galvanized structural steel C channel that has been [bolted with _____; welded] between two structural joists, as indicated in the drawings.
ACCEPTED PRODUCT: Flash-Tite™ Structural Equipment Support model no. SS-S_____, complete with mounts for the items specified in the above paragraph.

.8 HEAT, SMOKE or EXPLOSION VENTS: Refer to Lexcor product data bulletin # 8.05.

3.0 EXECUTION

3.1 General

.1 Only install as much vapour retarder and insulation as can be completely and properly covered by the waterproofing membrane by the end of each day.

.2 Comply with the system supplier's published installation instructions and details throughout the roofing membrane installation.

.3 Examine roof deck to verify proper placement of all roof openings, pipes, curbs, sleeves, ducts, vents and drains. Ensure all wood blocking is installed where required. Ensure roof deck is clean, dry and free from debris that might be detrimental to the performance of the vapour retarder, insulation or membrane. THE ROOFING CONTRACTOR IS RESPONSIBLE TO ENSURE THE SUSBRATE IS ACCEPTABLE TO RECEIVE THE ROOFING SYSTEM.

.4 Conduct work with a minimum of disruption to other trades, construction, the building or its occupants. Before commencing work, consult with [owner, specifier, consultant] over space requirements, possible disruptions and other construction requirements.

3.2 Wood Blocking

.1 Secure wood blocking to the structural deck with specified fasteners. Unless otherwise indicated, blocks and units shall be secured with the specification insulation fasteners, spaced on 30 cm (12") centres, with a minimum of two fasteners per board. Screws must penetrate metal deck a minimum of 13 mm (1/2") and wood a minimum of 25 mm (1").

.2 Ensure blocks are secure and able to withstand all expected loads. Wood nailers shall be fastened to resist a minimum force of 300 kg/m in any direction.

.3 Wood blocking to receive roofing membrane shall vary in height from the top of the insulation by no more than 3 mm (1/8"). Voids between blocks shall not exceed 3 mm (1/8").

3.3 Hatches, Skylights, Pre-fabricated Curbs and other Roof Top Equipment

.1 Assemble units as per the manufacturer's directions.

.2 Secure units to the structural deck with the specified fasteners as per the manufacturer's installation instructions.

3.4 Roof Edge System (where applicable)

.1 Position and secure metal roof edge system true and straight. Space metal lengths 5 - 7 mm (1/4") apart. Secure roof edge to wood blocks along both the vertical and horizontal flanges with specification insulation screws on 30 cm (12") centres.

3.5 Insulation Installation

.1 All insulation panels and cover boards are to be tightly butted together with a maximum 6 mm (1/4”) space between panels.

.2 Base layer insulation shall be expanded polystyrene pre-cut to fit tightly between the standing seams and of a thickness to match the height of the standing seams. Insulation may be loosely laid between the standing seams.

.3 For buildings with corrugated metal roofs, a compressible filler such as batt insulation must be installed beneath the perimeter wood nailers to minimize air infiltration beneath the roofing system.

.4 Top layer shall be an approved insulation or cover board as per Table 2 above, mechanically attached to the non-corroded metal roof with insulation fasteners approved by the membrane system supplier at the minimum rate of one fastener per two (2) square feet (5.4 fasteners / m^2). Wherever possible, fasteners shall be directed to penetrate an upper rib or flute of the metal roof.

Plywood coverboard without a supporting base of insulation shall be positioned and cut so that panel edges are centred over upper ribs.

All fasteners must be a minimum of 15 cm (6") from each edge of the board. Boards must conform to the deck surface. Irregular surfaces will require additional fasteners. Adjacent insulation panels shall have joints staggered from each other. If the insulation manufacturer's fastening requirements exceed those of Lexcan, they must be used in lieu of Lexcan's.

3.6 Positioning Membrane Sheets

.1 Thoroughly clean the substrate, removing all dirt, debris and dust. Ensure that the substrate is dry, structurally sound and suitable for bonding.

.2 Unroll membrane sheets and position according to the shop drawings overlapping sides and ends a minimum of 100 mm (4"). LET SHEETS RELAX FOR A MINIMUM OF 30 MINUTES PRIOR TO BONDING. When the roll is properly positioned, roll one-half of the sheet back over top of the other.

3.7 Bonding to Insulation or Substrate

.1 Using a paint roller, apply Bonding Adhesive evenly, without globs or puddles, to the underside of the membrane and the substrate (insulation) where the membrane is to be positioned. Avoid applying the bonding adhesive to seam area of membrane. Allow the adhesive to dry until it is tacky but does not string to a dry finger touch. If applying by hand, maximum net coverage rate of adhesive shall not exceed 6.0 m^2 (65 sq. ft.) / gallon. If applying by an automatic adhesive applicator, maximum net coverage shall not exceed 7.0 m^2 (75 sq. ft.) / gallon.

.2 Roll coated membrane into adhesive on substrate, avoiding wrinkles. Brush down bonded half of sheet with a push broom to achieve maximum contact.

.3 Fold back unbonded half of sheet and repeat the bonding procedure. Apply remaining membrane sheets in a similar manner.

3.8 Splicing Membrane Sheets

.1 Ensure the splice area of the EPDM membrane is clean and free from dirt, grease, asphalt or other contaminants (use detergent and water or SC-1 Seam Cleaner to clean if necessary).

.2 Ensure the Primer Adhesive is stirred well and stirred every fifteen minutes while in use. Apply the Primer Adhesve to seam areas of the membrane by scrubbing the membrane with a scrubbie pad. Replace with a fresh pad when the scrubbie becomes soiled. Allow the Primer Adhesive residue to thoroughly dry before applying the seam tape. Discard any remaining Primer Adhesive after use or if it gels.

.3 Fold back the upper sheet and apply Primer Adhesive to both sides of the seam area as per 3.8.2 above. Unroll and apply the Seam Tape to the underside of the upper membrane. Tape edge should extend between 2 to 7 mm (1/8" to 1/2") beyond the upper sheet edge along the entire seam length. Roll the tape heavily with a steel hand roller across the seam. Cut tape ends on a 45° angle and lap a minimum of 75 mm (3"). When the tape has been applied along the length of the seam, remove the paper backing and unfold the upper sheet overtop of the base membrane avoiding air bubbles or fishmouths.

.4 Roll completed seams heavily with a steel hand roller across the seam to ensure complete contact.

.5 Apply Flashing membrane to all seam tape splices, seam 'T' junctions and horizontal / vertical transitions with Primer Adhesive as per the roofing system supplier's flashing instructions and details. Roll flashing with a rubber hand roller to ensure complete contact without air bubbles or voids.

.6 Apply Lap Sealant to all flashing edges and feather with the tool provided.

3.9 Perimeter Terminations

.1 ROOF EDGE TERMINATION: Apply bonding adhesive to both the underside of the membrane and the substrate in accordance with the application instructions of the adhesive. Let adhesive dry until it is tacky but does not string to the touch, before pressing the membrane into the substrate. Extend membrane over roof edge 8 cm (3") and nail into edge blocking with 25 mm (1") diameter round top roofing nails, on 30 cm (12") centres. Apply roof edge system, gutter or gravel stop in accordance with the manufacturer's directions. Counterflash metal flange with Overlay Tape as per standard roofing system supplier details.

.2 PARAPET/WALL TERMINATIONS: Unless approved detail shows otherwise, membrane must either terminate in a reglet, be fastened according to paragraph 3.9.3 below, or be carried over top of wall or parapet and counterflashed with sheet metal or capped with stone.

.3 If terminating membrane partway up a wall or parapet, apply Termination Sealer Tape or 25 mm (1") wide bead of Water Cut-off Mastic to backside of membrane edge. Press membrane against wall and roll with a steel hand roller. Position Termination Bar over the upper edge of the membrane and fasten into the wall with approved termination bar anchors. Separation between termination bars should be 2 cm (3/4"). Apply Lap Sealant along upper edge of termination bar and overtop of all fastener heads.

3.10 Flashing & Accessory Installation

.1 Install pre-formed metal flashings, drain hoppers etc. according to the manufacturer's installation instructions.

.2 Flash all corners, posts, curbs and pre-formed flashings in strict accordance with current Lexcan flashing instructions and details. Use the Flashing membrane applied to cleaned EPDM membrane primed with Primer

Adhesive. Form the Flashing in place with a hot air gun, being sure to crease the flashing when fitting tightly into corners. Roll flashing heavily with a rubber hand roller. Ensure all flashing pieces are cut with rounded corners and edges are caulked with Lap Sealant. Drains are to be sealed with Water Cut-off Mastic as per the roofing system supplier's details.

3.11 Traffic Walkways (Required only where specified)

.1 Ensure membrane to receive traffic pads is clean and dry. Traffic pads are not to be placed directly over field seams and are to be separated from each other by a minimum of 25 mm (1").

.2 Apply traffic pads to the membrane with bonding adhesive in accordance with the adhesive application directions and the roofing system supplier's details. Caulk all pad edges with Lap Sealant.

3.12 Temporary Night Seal

.1 At the end of each day or at the threat or onset of inclement weather, the insulation shall be protected by extending the membrane beyond the insulation and sealing it to the deck with an approved temporary sealant. Ensure membrane edge is either mechanically fastened or sufficiently ballasted to protect against wind uplift.

.2 When resuming work, cut and dispose of portion of membrane contaminated with the night sealant.

3.13 Metal Counter-Flashing, Fascia & Cap Flashing

.1 Allow warranty inspector to inspect all membrane flashings and roofing before installation of metal counterflashing and fascia. Obtain prior specifier approval over location of joints, etc.

.2 Install all metal counter-flashing and fascia in strict accordance with CRCA 'FL' specifications and good roofing practice.

.3 Form sections square, true and accurate to size, free from distortion and other defects detrimental to appearance and performance. Mitre all corners. Irregular or badly fabricated work will not be accepted. Hem all edges 12 mm (1/2") and cut corners of straight edges on a 45° angle. Remove all burrs and metal scrap.

.4 Use concealed fastening and clamping (termination) bars to secure fascia and counter-flashing.

.5 Use standard 2.44 m (8') metal lengths. Space joints symmetrically and evenly in relation to the module, columns, pre-cast panels or other distinguishing features of the building. Use tight fitting S-lock joints. Fabricate joints to permit free movement of metal without leaking.

.6 Apply isolation membrane or coating to separate dissimilar metals or metal from concrete.

.7 Caulk end and movement joints and any exposed fastener heads with colour matching specification urethane sealant.

3.14 Clean-Up

.1 Remove all cut pieces, wrappings, waste and debris from the job site.

.2 Ensure that the membrane is cleaned of all spilled adhesives or residues and presents an aesthetically attractive appearance.

3.15 Warranty Inspection

.1 Upon completion of the roofing system, an authorized representative of the roofing system supplier will make an inspection of the installation for warranty acceptance.

END OF SECTION