1.1 SECTION INCLUDES

- .1 Batt insulation.
- .2 Film vapour barrier.
- .3 Sheet air barrier

1.2 RELATED SECTIONS

- .1 Section 04811 Single Wythe Masonry.
- .2 Section 06114 Rough Carpentry.
- .3 Section 07525 Modified Bitumen Roofing: Rigid insulation at roof system.
- .4 Section 07840 Firestopping.
- .5 Section 07900 Joint Sealers.

1.3 REFERENCES

.1 ASTM E96 - Test Methods for Water Vapour Transmission of Materials.

1.4 ENVIRONMENTAL REQUIREMENTS

.1 Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

PART 2 PRODUCTS

2.1 INSULATION MATERIALS

- .1 Batt Insulation: ASTM C665; preformed glass fiber batt, roll, blanket; friction fit.
 - .1 Acceptable manufacturers: Fibreglass Pink as manufactured by Owens Corning.; Certainteed; Johns Manville.
- .2 Batt Insulation (acoustic): ASTM C665; preformed glass fiber batt, roll, blanket; friction fit.
 - .1 Acceptable manufacturers: Owens Corning; Johns Manville .

2.2 VAPOUR BARRIER

.1 Film Type: CAN2-51.33M, Translucent polyethylene film, 1.5 mm thickfor walls and ceiling, Extra heavy duty for under slab of mechanical room and under sand in crawlspace.

2.3 ACCESSORIES

.1 Tape: permanent acrylic adhesing back, polypropylene, 3M Contractors Sheathing Tape.

3.1 EXAMINATION

.1 Verify surfaces within walls being insulated have been inspected and approved.

3.2 VAPOUR BARRIER- FILM

- .1 Install preformed polyethylene vapour barrier box behind all electrical boxes in exterior wall . Staple and seal flanges to film vapour barrier.
- .2 Prior to installation of sheet polyethylene film, provide a continuous bead of sealant around perimeter of poly film at electrical outlets and at poly wrap at doors and windows.
- .3 Install polyethylene film using the largest sheets possible to minimize seams. Overlap seams minimum 300 mm and provide continuous bead of sealant between layers of film. Staple poly film seams through sealant at 600 mm o.c. Seal any perforations with polyethylene tape.
- .4 Seal vapour barrier to existing adjacent vapour barriers.
- .5 Provide continuous bead of sealant along top and bottom of walls and press poly film into sealant. Staple film edges at minimum 600 mm o.c.
- .6 Tape poly film around all protrusions from wall.

3.3 BATT INSULATION

- .1 Install batt insulation locations as noted on drawings without gaps or voids.
- .2 Fit insulation tight in spaces and behind exterior side of mechanical and electrical services leaving no gaps or voids.

3.4 ACOUSTIC INSULATION

- .1 Install acoustic insulation to walls indicated on drawings.
- .2 Fit insulation tight in spaces and tight to one side of mechanical and electrical services leaving no gaps or voids.

1.1 SECTION INCLUDES

- .1 Sheathing over deck surface, vapour barrier.
- .2 Modified bitumen membrane roofing with protective covering, gypsum board sheathing, vapour barrier, insulation and base flashings.

1.2 RELATED SECTIONS

- .1 Section 06114 Rough Carpentry.
- .2 Section 07212 Insulation and Air/Vapour Barriers
- .3 Section 07620 Sheet Metal Flashing.
- .4 Section 09260 Gypsum Board Assemblies
- .5 Division 15 Mechanical roof openings.
- .6 Division 16 Openings in roof system for electrical equipment.

1.3 REFERENCES

- .1 CAN/CGSB-51.26-M86 Urethane and Isocyanurate Boards, faced.
- .2 ASTM C 79-94 Specification for Gypsum Sheathing Board.
- .3 ASTM C1002 Steel Drill Screws for the Application of Gypsum Board.
- .4 CRCA (Canadian Roofing Contractors Association) "Roofing Specification"

1.4 SYSTEM DESCRIPTION

.1 Modified Bitumen Conventional Roofing System: Two ply membrane system with vapour barrier, two layers of gypsum sheathing, and insulation.

1.5 QUALITY ASSURANCE

.1 Perform Work in accordance with CRCA Roofing and Waterproofing Manual.

1.6 QUALIFICATIONS

.1 Applicator: Company specializing in performing the Work of this section with three years documented experience and approved by system manufacturer.

1.7 REGULATORY REQUIREMENTS

.1 Conform to applicable code for roof assembly fire hazard requirements.

1.8 MANUFACTURERS REPRESENTATIVE

- .1 The roofing material manufacturer shall delegate a representative to visit the Work Site at commencement of Work and periodically during Work in progress
- .2 At all times the Contractor shall permit and facilitate access to the Work Site and roofs to manufacturers representative.

1.9 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store, protect, and handle products to Site.
- .2 Deliver products in manufacturer's original containers, dry, undamaged, seals and labels intact.
- .3 Store products in weather protected environment, clear of ground and moisture.
- .4 Stand roll materials on end.

1.10 ENVIRONMENTAL REQUIREMENTS

- .1 Do not apply roofing membrane to damp or frozen deck surface.
- .2 Do not apply roofing membrane during inclement weather.
- .3 Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed during same day.
- .4 Coordinate demolition with new roof membrane installation to ensure all areas are completely waterproof at the end of each day.

1.11 COORDINATION

.1 Coordinate the Work with installing associated metal flashings as the Work of this section proceeds.

1.12 WARRANTY

.1 Provide a 10 year manufacturer's warranty.

1.13 SEPARATE PRICES

- .1 Refer to Bidding Procedures article B9.
- .2 Provide a Separate Price No. 2 for the replacement of the existing roof with the Work of this Section.
- .3 The Separate Price shall include the removal of the existing roof, the installation of the modified bituminous roof, the extension of the parapet and all related Work to complete the roof installation.
- .4 The Separate Price shall include credits for cutting and patching the existing roof to accommodate mechanical and electrical equipment penetrating roof system.

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.5 Indicate Separate Price amount on Form B: Prices.

PART 2 PRODUCTS

2.1 MANUFACTURERS - MEMBRANE MATERIALS

- .1 Soprema Waterproofing Inc.
- .2 Other acceptable manufacturers offering equivalent products.
 - .1 Bakor.
 - .2 IKO

2.2 MEMBRANE MATERIAL

- .1 Membrane: Asphalt and polymer modifiers of styrene-butadiene-styrene (SBS) type, reinforced with non-woven polyester; granule surfaced:
 - .1 Base sheet: Thermofusable surface both sides; 180 g/sq.m. non woven polyester reinforcement; 3 mm thick.
 - .1 Soprema Sopralene Flam 180,
 - .2 IKO Torchflex TP-180 –FF-base
 - .2 Base Sheet Stripping: Thermofusable surface both sides; 180 g/sq.m. non woven polyester reinforcement; 3 mm thick.
 - .1 Soprema Sopralene Flam 180.
 - .2 IKO Torchflex TP-FF-base
 - .3 Membrane Cap Sheet: Thermofusable bottom surface; granule top surface of grey colour; 250 g/sq.m. non woven polyester reinforcement.
 - .1 Soprema Sopralene Flam 250 granules.
 - .2 IKO Torchflex TP-250-cap.
 - .4 Cap sheet stripping: Thermofusable bottom surface; granule top surface of grey colour; 250 g/sq.m. non woven polyester reinforcement.
 - .1 Sopralene Flam 250 granules.
 - .2 IKO Torchflex TP-250-cap.

2.3 SHEET MATERIALS

- .1 Gypsum Sheathing: 13 mm thick; uncoated face, fire rated type.
- .2 Vapour barrier: CGSB 37-GP-56M SBS modified bitumen reinforced with glass fires, thermofusable bottom side sanded upper side; Elastophene SP.
- .3 Protection board: Torchable membrane protection board.
 - .1 IKO Protection board.
- .4 Primer: as recommended by membrane manufacturer.

2.4 BITUMINOUS MATERIALS

- .1 Rubberized sealant(pitch pockets):
 - .1 Polyroof; one part rubberized asphalt.
 - .2 Sopramastic 200; synthetic plasticized with bitumen and solvents.

2.5 INSULATION

- .1 Insulation: ASTM C1013, polyisocyanurate foam with specially formulated facers; Factory Mutual Class 1;
 - .1 Genflex Roofing Systems Model Genflex Iso.
 - .2 Celotex HyTherm AP
 - .3 Firestone ISO 95+
 - .4 IKO Ikotherm

2.6 FLASHINGS

.1 Flexible Flashings: Butyl; black colour.

2.7 ACCESSORIES

- .1 Sheathing Fasteners: ASTM C1002, steel drill type, for mechanical attachment of gypsum sheathing to metal deck.
- .2 Insulation Fasteners: Appropriate for purpose intended and approved by system manufacturer; length required for thickness of material with metal washers.
- .3 Sealants: As recommended by membrane manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Verify that surfaces and Site conditions are ready to receive Work.
- .2 Verify deck is supported and secured.
- .3 Verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains or valleys.
- .4 Verify deck surfaces are dry and free of snow or ice.
- .5 Verify roof openings, curbs, pipes, conduit, sleeves, ducts, and vents through roof are solidly set, and are in place.

3.2 VAPOUR BARRIER APPLICATION

.1 Lay gypsum board with long side at right angle to flutes; stagger end joints; provide support at ends.

- .2 Add a second layer of gypsum board over first layer stagger joints.
- .3 Mechanically fasten sheathing at full roof area of roof deck, using 8 fasteners with washers per board.
- .4 Cut sheathing cleanly and accurately at roof breaks and protrusions to provide smooth surface. Tape joints.
- .5 Vapour Barrier: Torch apply vapour barrier to gypsum board, lap sides 75 mm and ends 150 mm.
- .6 Extend vapour barrier under cant strips and blocking. Lap flexible flashings over vapour and air barrier of wall construction to provide continuity of vapour and air barrier envelope.

3.3 INSULATION APPLICATION

- .1 Ensure vapour barrier is clean and dry.
- .2 Insulation: Mechanically fasten insulation and torchable protection board to deck with type, quantity and location of fasteners to manufacturers recommendations. Butt insulation tight with adjacent boards at all edges. Apply insulation in two layers and stagger joints. Offset joints of protection board with joints of insulation.
- .3 Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- .4 Apply no more insulation than can be covered with membrane in same day.

3.4 MEMBRANE APPLICATION

- .1 Apply membrane and primer in accordance with manufacturer's instructions.
- .2 Torch apply base sheet.
- .3 Torch weld base sheet stripping, nail top edge.
- .4 Torch weld cap sheet to base sheet. Offset cap sheet300 mm with base sheet.
- .5 Torch weld cap sheet stripping to base stripping. Offset 100 mm with base sheet stripping.
- .6 Base sheet and cap sheet shall have 75 mm side laps and 6"end laps
- .7 Stripping shall have side laps of 75mm.
- .8 Extend membrane over vapour and air barrier of wall construction and seal.
- .9 Seal membrane around roof protrusions and penetrations.
- .10 Install waterproof cut-off to membrane at end of day's operation. Remove cut-off before resuming roofing.

3.5 FLASHINGS AND ACCESSORIES

- .1 Apply flexible sheet base flashings to seal membrane to vertical elements.
- .2 Coordinate installation of roof drains, curbs, and related flashings.
- .3 Seal flashings and flanges of items penetrating or protruding through the membrane.

3.6 CLEANING

- .1 In areas where finished surfaces are soiled by Work of this section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.
- .2 Repair or replace defaced or disfigured finishes caused by Work of this section.

3.7 **PROTECTION**

- .1 Protect building surfaces against damage from roofing Work.
- .2 Where traffic must continue over finished roof membrane, protect surfaces.

1.1 SECTION INCLUDES

- .1 Parapet, cap, flashings.
- .2 Counter flashings at roof mounted equipment and vent stacks.

1.2 RELATED SECTIONS

- .1 Section 06114 Rough Carpentry:
- .2 Section 07900 Joint Sealers.
- .3 Division 15 Mechanical systems.
- .4 Division 16 Electrical Systems.

1.3 REFERENCES

- .1 ASTM A653/A653M Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2 ASTM B209 Aluminum and Alloy Sheet and Plate.
- .3 CRCA (Canadian Roofing Contractors Association) "Roofing Specification"
- .4 SMACNA Architectural Sheet Metal Manual.

1.4 SUBMITTALS

- .1 Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- .2 Include the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.
- .3 Submit two samples 200x200 mm in size illustrating metal finish colour.

1.5 QUALITY ASSURANCE

.1 Perform Work in accordance with SMACNA standard details and requirements.

1.6 QUALIFICATIONS

.1 Fabricator and Installer: Company specializing in sheet metal flashing Work with Five years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store, protect and handle products to Site.
- .2 Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

.3 Prevent contact with materials which may cause discolouration or staining.

1.8 EXISTING CONDITIONS / PROTECTION

- .1 Exercise care when working on or about roof surfaces to avoid damaging or puncturing membrane or flexible flashings.
- .2 Place plywood panels on roof surfaces to Work of this section and on access routes. Keep in place until completion of Work.

PART 2 PRODUCTS

2.1 SHEET MATERIALS

- .1 Galvanized Steel: ASTM A653/A653M, G90 zinc coating; 0.6 mm core steel.
- .2 Aluminum Sheet: ASTM B209, 1.2 mm thick; mill plain finish, shop pre-coated, colour as selected by Contract Administrator.

2.2 ACCESSORIES

- .1 Fasteners: Galvanized steel and Stainless steel for aluminum.
- .2 Protective Backing Paint: Bituminous.
- .3 Sealant: Polyurethane type, specified in Section 07900.

2.3 FABRICATION

- .1 Form sections true to shape, accurate in size, square, and free from distortion or defects.
- .2 Fabricate cleats of sheet metal, same material as sheet.
- .3 Form pieces in longest possible lengths.
- .4 Hem exposed edges on underside 13 mm; miter and seam corners.
- .5 Form material with flat lock seams.
- .6 Fabricate corners from one piece with minimum 450 mm long legs; seam for rigidity, seal with sealant.
- .7 Fabricate vertical faces with bottom edge formed outward 6 mm and hemmed to form drip.
- .8 Fabricate flashings to allow toe to extend 50 mm over roofing gravel. Return and brake edges.

2.4 FINISH

.1 Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 0.4 mm.

3.1 EXAMINATION

- .1 Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, reglets in place, and nailing strips located.
- .2 Verify roofing termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- .1 Install starter and edge strips, and cleats before starting installation.
- .2 Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.

3.3 INSTALLATION

- .1 Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
- .2 Apply plastic cement compound between metal flashings and felt flashings.
- .3 Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- .4 Counter-flash all mechanical and electrical items projecting through membrane roofing
- .5 Install prefinished flashing to all locations indicated on drawings. Install Galvanized flashing to all non exposed locations as indicated on drawings.
- .6 Seal metal joints watertight.

1.1 SECTION INCLUDES

.1 Fireproof firestopping materials and accessories.

1.2 RELATED SECTIONS

- .1 Section 04811 Single Wythe Masonry.
- .2 Section 07900 Joint sealers.
- .3 Section 09260 Gypsum Board Assemblies: Gypsum wallboard fireproofing.
- .4 Division 15 Mechanical Work requiring firestopping.
- .5 Division 16 Electrical Work requiring firestopping.

1.3 REFERENCES

- .1 ASTM E119 Method for Fire Tests of Building Construction and Materials.
- .2 ASTM E814 Test Method of Fire Tests of Through Penetration Firestops.
- .3 ULC-S115-1995, Fire Tests of Firestop Systems, Underwriter's Laboratories of Canada (ULC)
- .4 ULC Fire Hazard Classifications.
- .5 WH (Warnock Hersey) Certification Listings.
- .6 ULC-S115, Standard Method of Fire Tests of Firestop Systems.

1.4 SYSTEM DESCRIPTION

- .1 Firestopping Materials: ASTM E119 to achieve a fire rating as noted on Drawings.
- .2 Firestop all interruptions to fire rated assemblies, materials, and components.
- .3 Fire stopping and smoke seal systems: in accordance with CAN4-S115.

1.5 SUBMITTALS

- .1 Product Data: Provide data on product characteristics, performance and limitation criteria.
- .2 Manufacturer's Installation Instructions: Indicate preparation and installation instructions.
- .3 Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- .4 Provide cut sheets of each fire stop type with test No. and products installed.

1.6 QUALIFICATIONS

.1 Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.7 REGULATORY REQUIREMENTS

- .1 Conform to applicable code for fire resistance ratings and surface burning characteristics.
- .2 All fire stopping products to be ULC listed for each system and penetration type.
- .3 Provide certificate of compliance from authority having jurisdiction indicating approval of materials used.

1.8 ENVIRONMENTAL REQUIREMENTS

- .1 Apply materials within the temperature range as recommended by the manufacturer.
- .2 Maintain this temperature before, during, and for 3 days after installation of materials.

1.9 SEQUENCING

.1 Sequence Work to permit firestopping materials to be installed after adjacent and surround Work is complete.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Fire stopping and smoke seal systems: asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of CAN4-S115 and not to exceed opening sizes for which they are intended in accordance with CAN4-S115.
- .2 Acceptable Manufactures:
 - .1 Tremco Inc.
 - .2 Johns Manville.
 - .3 Hilti.
 - .4 A/D Fire Protection Systems Inc.
 - .5 ACCESSORIES
- .3 Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.
- .4 Dam Material: mineral fibreboard, permanent.
- .5 Installation Accessories: Clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.

3.1 EXAMINATION

.1 Verify openings are ready to receive the Work of this section.

3.2 PREPARATION

- .1 Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of firestopping material.
- .2 Remove incompatible materials which may affect bond.
- .3 Install backing and damming materials to arrest liquid material leakage.

3.3 APPLICATION

- .1 Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items, requiring firestopping.
- .2 Install firestop materials in accordance with published ULC systems.
- .3 Apply primer and materials in accordance with manufacturer's instructions.
- .4 Apply firestopping material in sufficient thickness to achieve rating to uniform density and texture.
- .5 Place foamed material in layers to ensure homogenous density, filling cavities and spaces. Place sealant to completely seal junctions with adjacent dissimilar materials.
- .6 Dam material to remain.

3.4 CLEANING

.1 Clean adjacent surfaces of firestopping materials.

3.5 PROTECTION OF FINISHED WORK

.1 Protect adjacent surfaces from damage by material installation.

1.1 SECTION INCLUDES

- .1 Preparing substrate surfaces.
- .2 Sealant and joint backing.

1.2 RELATED SECTIONS

- .1 Section 07212 Insulation, Air and Vapour Barriers: Sealants required in conjunction with air and vapour barriers.
- .2 Section 07840 Firestopping: Sealants required in conjunction with firestopping.
- .3 Section 07552-Modified Bitumen Roofing: Sealants required in conjunction with roofing.
- .4 Section 07620-Sheet Metal Flashing: Sealants required in conjunction with metal flashings. roofing. .
- .5 Section 08800 Glazing: Sealants required in conjunction with glazing methods.
- .6 Section 09260 Gypsum Board Assemblies: Sealants required in conjunction with acoustic treatment.

1.3 REFERENCES

- .1 ASTM C790 Use of Latex Sealing Compounds.
- .2 ASTM C804 Use of Solvent-Release Type Sealants.
- .3 ASTM C834 Latex Sealing Compounds.
- .4 ASTM C919 Use of Sealants in Acoustical Applications.
- .5 ASTM C920 Elastomeric Joint Sealants.
- .6 ASTM D1056 Flexible Cellular Materials Sponge or Expanded Rubber.

1.4 SUBMITTALS

- .1 Include the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.
- .2 Samples: Submit two samples, 6 x 150 mm in size illustrating sealant colours for selection.

1.5 QUALITY ASSURANCE

- .1 Perform Work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- .2 Perform acoustical sealant application Work in accordance with ASTM C919.

1.6 QUALIFICATIONS

.1 Applicator: Company specializing in performing the Work of this section with minimum Three years documented experience and approved by manufacturer.

1.7 ENVIRONMENTAL REQUIREMENTS

.1 Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.8 WARRANTY

- .1 Provide five year warranty.
- .2 Warranty: Include coverage for installed sealants and accessories which fail to achieve air tight seal, water tight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.1 SEALANTS

- .1 Acrylic Sealant (Type A): ASTM C920, Tremco latex 100; paintable; single component, solvent curing, non-staining, non-bleeding, non-sagging; Tremco latex 100. Colour to be selected by Contract Administrator.
- .2 Acoustic Sealant (Type B): ASTM C920, Acoustic grade, single component, solvent release, non-skinning, non-sagging, synthetic rubber, Tremco Acoustic Sealant Grey colour.
- .3 Polyurethane Sealant (Type C): ASTM C920, single component, chemical curing, nonstaining, non-bleeding, Elongation Capability25 percent, non-sagging ; Tremco Dymonic; PRC RC-1; Sonneborn NP-1; Vulkem 931. Colour to be selected by Contract Administrator
- .4 Silicone Sealant (Type D): ASTM C920, Grade single component, fungus resistant, acidic curing, non-sagging, non-staining, non-bleeding; General Electric 'Sanitary 1700; Dow Corning 786. Colours as to be selected by Contract Administrator.

2.2 ACCESSORIES

- .1 Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- .2 Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- .3 Joint Backing: ASTM D1056; round, closed cell polyethylene foam rod; oversized 30 to 50 percent larger than joint width.
- .4 Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

3.1 EXAMINATION

- .1 Verify that substrate surfaces and joint openings are ready to receive Work.
- .2 Verify that joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- .1 Remove loose materials and foreign matter which might impair adhesion of sealant.
- .2 Clean and prime joints in accordance with manufacturer's instructions.
- .3 Perform preparation in accordance with manufacturer's instructions.
- .4 Protect elements surrounding the Work of this section from damage or disfiguration.

3.3 INSTALLATION

- .1 Install sealant in accordance with manufacturer's instructions.
- .2 Measure joint dimensions and size materials to achieve required 2:1 width/depth ratios.
- .3 Install bond breaker where joint backing is not used.
- .4 Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- .5 Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- .6 Tool joints concave.

3.4 CLEANING

.1 Clean adjacent soiled surfaces.

3.5 PROTECTION OF FINISHED WORK

- .1 Protect finished installation.
- .2 Protect sealants until cured.

3.6 SCHEDULE

- .1 Apply sealant type 'A' to junctures of millwork items and adjacent building components and perimeter of door frames as directed by Contract Administrator.
- .2 Apply sealant type 'B' in two continuous beads around perimeter of plates, at top, bottom and sides <u>of all partitions.</u>
- .3 Apply double bead sealant type 'B' around designated fire separations ie. before setting top and bottom plates, where studs set around other materials, etc

- .4 Apply sealant Type `C' to exterior condition joints between door frames, window frames, siding components, etc. and where indicated on drawings.
- .5 Apply sealant Type 'D' to perimeter joints of all sanitary components, vanities, counters, sinks, water closets, shower heads, etc. unless noted otherwise on drawings.