Part 1 GENERAL

1.1 GENERAL REQUIREMENTS

1. Conform to General Requirements, Division 1.

1.2 RELATED WORK

1. Concrete - Section 03 30 00, 03 39 00, 03 11 00
2. Insulation for mechanical work – Sections 20 - 23
3. Masonry Procedures - Section 04 03 050 1
4. Rough Carpentry - Section 06 10 00
5. Spray Foam Insulation/Air Barrier - Section 07 21 29
6. Aluminium Windows & Entrances - Section 08 42 13

1.3 SCOPE OF WORK

1. Supply and install rigid insulation at top and side of roof parapets; foundation upturn, and high/low wall conditions; below grade insulation at perimeter walls; below exterior entrance concrete slabs; and elsewhere where indicated on drawings.

Part 2 PRODUCTS

2.1 INSULATION

1. Rigid insulation: Square edged 3" (75mm) - 22@ (65 mm) and; 12" (38mm), and 1" (25 mm) thickness as indicated on drawings STYROFOAM CAVITY MATE insulation by Dow or equal by Celfort. Completely fill cavities with insulation where indicated on the drawings, provide insulations thickness as required to fill cavities at these locations.

2. At Below Grade Slab Locations: To conform to CAN/CGSB-51.20-M87 Type 4, shiplapped for below grade. Note: Below grade extruded expanded polystyrene rigid insulation to be Dow blue "Styrofoam SM" or Celfortec "Celfort 300". Thickness 2" (50mm), 4" (100 mm) and "R" (RSI) values as shown on drawings.

3. Foam Insulation: Sprayed polyurethane foam to flame spread rating of less than 500, min. RSI 1.05 (R6/1") at density of 32.8 kg/cu.m (2lb/cu.ft). Spray foam at voids and broken areas in the rigid insulation. Spray foam is for repairs only.

2.2 ADHESIVE

1. Cavity wall insulation perimeter buttered edges: "Air-Bloc 21" by Henry/Bakor.

2. Adhesive for perimeter insulation below grade: to be CGSB 71-GP-24m equal to Henry/Bakor 230-3J.

Part 3 EXECUTION

3.1 WORKMANSHIP

1. Work shall include rigid insulation in roof parapets, roof curbs and below concrete entrance slabs.

2. Surfaces to receive rigid insulation shall be clean, free of grease and oil, and reasonably smooth with no mortar or concrete pin projections.

3. Install all materials in accordance with manufacturer's printed instructions unless otherwise specified herein.

4. Ensure a uniform, continuous thermal barrier effect. Where insulation is to be provided under other Sections, co-ordinate the work such that the thermal barrier continuity is achieved.

5. Install insulation after building substrata materials are dry.

6. Install insulation to maintain continuity of thermal protection to building elements and spaces.

7. Fit insulation closely around electrical boxes, plumbing and heating pipes and ducts, and other protrusions.

8. Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from damaged or broken edges. Use longest possible lengths to reduce number of joints. Keep insulation minimum 3" (75 mm) from heat emitting devices such as recessed light fixtures, and a minimum 2" (50 mm) from sidewalls of CAN4-S604 Type "A" chimneys and CAN1-B149.1 and CAN1-B149.2 Type "B" and "L" vents.

9. In multiple layer applications offset both vertical and horizontal joints.

10. Do not enclose insulation until it has been inspected.

11. Prime surfaces before using asphaltic type adhesives and install insulation using adhesive or fasteners in strict accordance with manufacture's instructions.

3.2 INSULATION AT ROOF PARAPETS AND CURBS

1. Cut and fit min 32 (90mm) 2" (50 mm) and or 12" (38mm) rigid insulation as per 3.1 of this Section at tops and sides of roof parapets and curbs as detailed on drawings.

2. Co-Ordinate Insulation with Section 06100, 07195 And 07500.

3.3 EXTERIOR BELOW GRADE INSULATION AT SLABS

1. Install 4" (100 mm) thick Type 4 expanded polystyrene insulation at below exterior slab locations at all entrances as indicated on drawings.

2. Install as per 3.1 of this Section.

3.4 EXTERIOR PERIMETER BELOW GRADE FOUNDATION WALL INSULATION

1. Install 2" (50mm) thick Type 4 expanded polystyrene shiplapped insulation at below grade perimeter foundation insulation; Provide min. 2'-0" (600mm) and longer where required to provide a min. 2'-0" (600mm) insulation below exterior finished grade.

2. Install as per 3.1 of this Section using below grade adhesive dobbed on as required to hold insulation in place prior to backfilling.

3. Repair all open joints and damaged edges with foam insulation to fill voids.

End of Section 07 21 13 13