PART 1 GENERAL

1.1 REFERENCES

.1 Underwriters Laboratories of Canada (ULC)

.1 CAN/ULC-S704-11, Standard for Thermal Insulation Polyurethane and Polyisocyanurate, Boards, Faced.

.2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)

.1 Material Safety Data Sheets (MSDS).

1.2 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 – Submittals

.2 Product Data:

.1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.

.2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's insulation products and adhesives.

.3 Manufacturer's Instructions:

.1 Submit manufacturer's installation instructions.

.2

1.1 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect specified materials from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

PART 2 PRODUCTS

2.1 INSULATION

.1 Extruded polystryrene (XPS): to CAN/ULC S701 Type 3, RSI 0.88 per 25 mm, total thickness as indicated on drawings.

.2 Concrete faced insulation wall panels:

.1 Extruded polystyrene insulation to CAN/ULC 5701, Type 4, RSI 0.87 mm/25 mm, 50 mm thickness

.2 Concrete: latex modified concrete mix, 8 mm thick, with control joint score at mid-length, tongue and grouve along longitudinal foam edges, but joints on lateral edges, textured broom grey colour finish.

.3 Size: 610 x 1220 x 76 mm (W x L x T)

2.2 ACCESSORIES

.1 Clips and Fasteners: Galvanized steel to ASTM A123/A123M, Z275 to G90, Manufacturer’s standard type to suit application, as supplied.

.2 Field Repair and Touch-up: As recommended by panel manufacturer.

.3 Perimeter Insulation Flashing 0.76 mm minimum: Coordinate supply of end closures and flashings for perimeter insulation system with Section 07 62 00.

2.3 ADHESIVE

.1 Adhesive suitable for building insulation boards to substrates as indicated. Ensure adhesives are compatible with air barrier membrane.

PART 3 EXECUTION

3.1 EXAMINATION

.1 .Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for board insulation application in accordance with manufacturer's written instructions.

.2 .visually inspect substrate in presence of Departmental Representative.

.3 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.4 Proceed with installation only after unacceptable conditions have been remedied.

3.2 INSTALLATION

.1 Install insulation after building substrate materials are dry.

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

.3 Fit insulation tight around electrical boxes, plumbing and heating pipes and ducts, around exterior doors and windows and other protrusions.

.4 Keep insulation minimum 75mm from heat emitting devices such as recessed light fixtures, and minimum 50mm from sidewalls of CAN4-S604 type A chimneys and CAN/CGA-B149.1 and CAN/CGA-B149.2 type B and L vents.

.5 Cut and trim insulation neatly to fit spaces. Butt joints tightly, offset vertical joints. Use only insulation boards free from chipped or broken edges. Use largest possible dimensions to reduce number of joints.

.6 Offset both vertical and horizontal joints in multiple layer applications.

.7 Do not enclose insulation until it has been inspected and approved by Departmental Representative.

3.3 RIGID INSULATION INSTALLATION

.1 Apply Type adhesive to insulation board in accordance with manufacturer's recommendations.

.2 Imbed insulation boards into vapour barrier type adhesive, applied as specified, prior to skinning of adhesive.

.3 Leave insulation board joints unbonded over line of expansion and control joints. Bond a continuous 150mm wide 0.15mm modified bituminous membrane over expansion and control joints using compatible adhesive and primer before application of insulation.

3.5 PERIMETER FOUNDATION INSULATION

.1 Exterior application:

.1 Install concrete faced insulation wall panels in accordance with the manufacturer’s written instruction.

.2 Ensure snug fit between panel tongue and grooves, and lateral butt joints.

.3 Fasten concrete insulated panels to structural supports; aligned level and plumb.

.4 Install panels with vertical joints and panel control joints in alignment.

.5 Use manufacturer’s fasteners. Maintain neat appearance.

.6 Cover exposed insulation at corners and top of perimeter insulation with prefinished flashing as specified in Section 07 62 00.

.7 Where concrete flatwork or asphalt is to be laid adjacent to wall panels, an isolation joint should be provided to protect the mortar surface from differential movement.

.8 Install an isolation joint between wall panels and concrete flatwork or asphalt to protect the wall panel surface from differential movement.

.2 Under slab application: extend boards in from perimeter foundation walls as indicated. Lay boards on level compacted fill.

3.6 SCHEDULE

.1 Use concrete faced insulated wall panels for perimeter insulation walls as indicated.

3.7 CLEANING

.1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

END OF SECTION