1 General

1.1 REFERENCES

.1 Underwriter's Laboratories of Canada (ULC)
  .1 CAN/ULC-S115-Standard Method of Fire Tests of Firestop Systems.
  .2 NBC 3.1.9.1 Fire Stop Requirements
  .3 NBC 3.1.9.3 Fire Stop for Penetrations, Wires & Cables.

1.2 SHOP DRAWINGS

.1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
.2 Submit shop drawings indicating:
  .1 ULC listed firestop drawing for each anticipated distinct fire separation penetration and joint. Each ULC system firestop drawing must indicate the actual penetrating products used on site and the required fire stop materials and their proper installation.
  .2 Technical information for each material used in ULC system firestop drawing above.
  .3 Construction details should accurately reflect actual job conditions.

1.3 PRODUCT DATA

.1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.
.2 Submit manufacturer's product data for materials and prefabricated devices, providing descriptions are sufficient for identification at job site. Include manufacturer's printed instructions for installation.
.3 Material Safety Data Sheets:
  .1 Submit MSDS for inclusion in Operation and Maintenance Manual.

1.4 WASTE MANAGEMENT AND DISPOSAL

.1 Collect and separate for disposal waste material generated by this Section.
.2 Place in appropriate on-site bins in accordance with Waste Management Plan.
.3 A clean worksite is mandatory at all times. Failure to maintain the site in a clean, safe condition shall result in the Departmental Representative initiating a clean-up and related costs being deducted from progress claims.

2 Products

2.1 MATERIALS

.1 Use purpose designed products for application.
.2 Floor space to vertical chase fire resistance rating, 2hrs.
.3 Fire stopping and smoke seal systems: in accordance with CAN/ULC-S115.
  .1 Asbestos-free materials and systems capable of maintaining an effective barrier against flame, smoke and gases in compliance with requirements of CAN/ULC-S115 and not to exceed opening sizes for which they are intended and conforming to special requirements specified in 3.5.
  .2 All penetrations of fire separations must be fire stopped as per CAN/ULC-S115 standard with F rating and similar for Fire Resistant Rating for closures.
  .3 All penetrations of a firewall must be fire stopped per CAN/ULC-S115 standard with FT rating and similar for Fire Resistant Rating for the fire separation.
.4 Service penetration assemblies: certified by ULC in accordance with ULC-S115 and listed in ULC Guide No.40 U19.
.5 Service penetration firestop components: certified by ULC in accordance with ULC-S115 and listed in ULC Guide No.40 U19.13 and ULC Guide No.40 U19.15 under the Label

Service of ULC.

.6 Fire-resistance rating of installed fire stopping assembly in accordance with NBC.

.7 Fire stopping and smoke seals at openings intended for ease of re-entry such as cables: elastomeric seal.

.8 Fire stopping and smoke seals at openings around penetrations for pipes, ductwork and other mechanical items requiring sound and vibration control: elastomeric seal.

.9 Primers: to manufacturer's recommendation for specific material, substrate, and end use.

.10 Water (if applicable): potable, clean and free from injurious amounts of deleterious substances.

.11 Damming and backup materials, supports and anchoring devices: to manufacturer's recommendations, and in accordance with tested assembly being installed as acceptable to authorities having jurisdiction.

.12 Sealants for vertical joints: non-sagging.

.13 At rated partitions use 1 outlet box per stud space or where more than 1 outlet box / stud spacer is required use putty pads behind or at inside face of box.

.14 Where rated assemblies are penetrated for drains use rated fire stopping.

3 Execution

3.1 PREPARATION

.1 Examine sizes and conditions of voids to be filled to establish correct thicknesses and installation of materials. Ensure that substrates and surfaces are clean, dry and frost free.

.2 Prepare surfaces in contact with fire stopping materials and smoke seals to manufacturer's instructions.

.3 Maintain insulation around pipes and ducts penetrating fire separation without interruption to vapour barrier.

.4 Mask where necessary to avoid spillage and over coating onto adjoining surfaces; remove stains on adjacent surfaces.

3.2 INSTALLATION

.1 Install fire stopping and smoke seal material and components in strict accordance with ULC certification and manufacturer's written instructions.

.2 Seal holes or voids made by through penetrations, poke-through termination devices, and unpenetrated openings or joints to ensure continuity and integrity of fire separation are maintained.

.3 Provide temporary forming as required and remove forming only after materials have gained sufficient strength and after initial curing.

.4 Tool or trowel exposed surfaces to a neat finish.

.5 Remove excess compound promptly as work progresses and upon completion.

3.3 INSPECTION

.1 Notify Departmental Representative when ready for inspection and prior to concealing or enclosing firestopping materials and service penetration assemblies.

.2 Anticipate destructive testing of 2% of firestopping at this Section's cost. Failure of 10% of tests will require replacement of all firestopping and retesting.

3.4 SCHEDULE

.1 Firestop and smoke seal at all penetrations of or joints in fire resistive wall and ceiling assemblies, including but not limited to:

.1 Penetrations through fire-resistance rated gypsum board partitions and walls.

.2 Penetrations through fire-resistive ceilings and roofs.
.3 Outlet boxes in rated walls more than 1 box / stud space.
.4 Openings and sleeves installed for future use through fire separations.
.5 Around mechanical and electrical assemblies penetrating fire separations.
.6 Rigid ducts without fire damper: greater than 129 cm^2: fire stopping to consist of bead of fire sealant between retaining angle and fire separation and between retaining angle and duct, on each side of fire separation.

3.5 CLEAN UP

.1 Remove excess materials and debris and clean adjacent surfaces immediately after application.
.2 Remove temporary dams after initial set of fire stopping and smoke seal materials.

END OF SECTION