1.0 GENERAL

1.1 General & Related Work

.1 Read this Section in conjunction with all drawings and all other sections so as to comply with the requirements of Division 1 and the General Conditions of the Contract.

.2 Requirements specified elsewhere:

Division 13, Section 13080 Asbestos Abatement – General Provisions

.3 The intent of this Section is to provide safe work practices and procedures to govern the handling of **minor** amounts of asbestos-containing material (ACM) or surfaces which may have been or become contaminated by asbestos either during or prior to work by this Contract.

1.2 Outline of Work

.1 Supply all labour, material, plant and equipment necessary to safely execute and complete all work of this Section while in conjunction with work specified, required or implied under Section 13080, Asbestos Abatement - General Provisions.

.2 Isolate the Asbestos Work Area from adjoining spaces through the installation of specified hoardings, seals and enclosures at the perimeter of each phase or work area.

.3 Facilitate localized access within contaminated spaces (ceilings, crawlspaces, etc.) through the installation of temporary barriers and partitions as specified herein.

.4 Remove and dispose of minor amounts (< 4 sq. ft.) of asbestos-containing plaster present at locations required to facilitate work of this Contract performed as indicated on Drawing No. A5.1 R-0 dated June 22, 2009.

.5 Remove and dispose of asbestos-containing plaster soffits on the underside of the exterior canopies at locations identified on drawings.

.6 Remove and dispose of asbestos-containing plaster to facilitate the creation of east and west insulation access openings at locations identified on drawings.

.7 With the exception of Type 2 Abatement of plaster soffits on the underside of the exterior canopies, limit size and number of openings within each Type 2 Enclosure to sections that can be performed in one 8 hr shift.

1.3 Inspection

.1 The following Milestone Inspections are to take place during work of this Section:

.1 Milestone Inspection A - Site Dismantlement
Inspection and air sampling within the Asbestos Work Area following completion of work but prior to site dismantlement.

1.4 Worker Protection

.1 Respiratory Protection

.1 During wet removal, clean-up or repair of ACMs performed within a sealed Type 2 enclosure supply and use full face-piece powered air purifying positive pressure dust respirators with HEPA filters.

.2 During site dismantlement and clean-up of the Asbestos Work Area, supply and use negative pressure non-powered half-face respirators with HEPA filters.

.2 Asbestos Abatement Work Area Entry Procedures

.1 Access asbestos work area by utilizing additional scissor lift type mechanical lift to transport workers.

.2 Raise lift to same level as enclosure lift and secure mechanical lifts together to facilitate access.

.3 Before entering Asbestos Work Area, don respirator with new or tested filters, coveralls and head covers. Protective clothing shall cover hair and any reusable clothing.

.4 Notwithstanding the above, and wherever an attached airlock has been provided, ensure workers reseal curtained doorway leading from out of the airlock upon entry to the Asbestos Work Area.

.3 Asbestos Abatement Work Area Exiting Procedures

.1 Before leaving Asbestos Work Area, remove contamination from protective clothing and equipment using HEPA vacuum or damp cloth.

.2 Immediately after exiting the Asbestos Work Area complete the following:

.1 Notwithstanding the above, and wherever an attached airlock has been provided, ensure workers reseal curtained doorway upon exiting the Asbestos Work Area.

.2 Remove contaminated clothing and place it into a sealed asbestos waste container for disposal.

.3 Clean contaminated footwear, hard hats, etc., or place into a sealed polyethylene bag for reuse.

.4 Wash hands in wash bucket provided for this purpose.

.3 Following the above, remove respirator then proceed directly to wash area and complete the following:

.1 Notwithstanding the above, and wherever an attached airlock has been provided, ensure workers exit the airlock and reseal curtain doorway before removing their respirator.

.2 Wash exposed skin and respirator with soap and water.

.3 Seal inlet side of respirator filters with tape then remove filters for testing or dispose of as asbestos contaminated waste.

.4 Access asbestos work area by utilizing additional scissor lift type mechanical lift to transport workers.

.5 Unhook mechanical lifts from each other and lower transport lift to ground level.

2.0 PRODUCTS AND FACILITIES

2.1 Materials and Equipment

.1 Sprayer: Garden reservoir type, low velocity, capable of producing mist or fine spray.

2.2 Hoarding Walls

.1 Walls separating an Asbestos Work Area from an Occupied Area or another work area shall be constructed as follows:

.1 Construct 2" x 4" (50 mm x 100 mm) wood or metal stud framework with continuous sill and top plate of sufficient strength to support polyethylene.

.2 Cover inside of framework with one (1) layer polyethylene. Install additional layer of rip-proof polyethylene on exterior side of framework in non-construction areas.

.3 Free standing enclosures must have a completely sealed polyethylene top.

.4 Affix free standing enclosure to a scissor lift type mechanical lift.

2.3 Airlock

.1 Where required to provide an attached airlock to permit movement of workers or materials between Occupied Areas and the Asbestos Work Area, construct each airlock as follows:

.1 Construct 2" x 4" (50 mm x 100 mm) wood or metal studs framework with continuous sill and top plate of sufficient strength to support polyethylene (minimum size 4' x 4').

.2 Cover inside of framework with one (1) layer of polyethylene. Install additional layer of rip-proof polyethylene on exterior side of framework in non-construction areas.

.3 Free standing airlocks shall have a completely sealed polyethylene top.

.4 Install curtained doorways at opposing ends to permit ingress or egress of workers and materials.

.5 Construct curtained doorways as follows:

.1 Place two (2) overlapping sheets of polyethylene (use rip-proof polyethylene in non-construction areas) over an existing or temporarily framed doorway.

.2 Secure the vertical edge of one (1) sheet along one (1) jamb of the doorway and the vertical edge of the second sheet along the opposite jamb. Then secure both sheets to the head jamb of the framed opening.

.3 All edges of polyethylene shall be reinforced with duct tape and the bottom edge shall be weighted to ensure automatic closing. Provide directional arrows indicating opening.

3.0 EXECUTION

3.1 Site Preparation

.1 Submit pre-removal damage survey to Contract Administrator.

.2 Perform all work during scheduled times approved by the Contract Administrator, after shutting down HVAC systems affecting the Asbestos Work Area.

.3 Moving of equipment, tools, supplies, and stored materials which can be performed without disturbing ACM will be performed by others.

.4 Protect electrical and mechanical systems within work area which may be affected by work of this Section.

.5 Where removal of minor amounts of ACMs is to be performed, erect hoarding walls at locations required to isolate the Asbestos Work Area from Occupied Areas.

.6 Isolate or otherwise disable HVAC system, vents and diffusers located within the Asbestos Work Area. System shall remain disabled until completion of work and clean-up of Asbestos Work Area.

.7 Install temporary lighting at a level so as to provide for safe and efficient use of work area - minimum 550 LUX.

.8 Seal opening within the asbestos work enclosure to the wall using tape.

.9 Cover floor within the enclosure with a polyethylene drop sheet.

.10 At locations where a sealed Type 2 enclosure has been provided, establish negative pressure within the Asbestos Work Area as follows:

.1 Provide a minimum of two (2) HEPA vacuums or required number of negative pressure units within each work area.

.2 Operate vacuums continuously from this point until completion of site dismantlement.

.3 Provide additional vacuums as necessary to maintain specified pressure drop and to ensure at all times air movement at perimeter of enclosure flows inward into the Asbestos Work Area.

.4 Distribute negative air source evenly throughout the site.

.5 Provide weighted flaps as necessary to provide make-up air.

.11 Provide required tools, equipment, vacuums, materials and waste receptacles within the Asbestos Work Area.

.12 Post signs at perimeter of Asbestos Work Area.

.13 Do not commence contaminated work until authorized by the Contract Administrator.

3.2 Maintenance of Asbestos Work Area

.1 Maintain Asbestos Work Area in a clean and tidy condition.

.2 Ensure barriers and enclosures are effectively maintained. Repair damaged barriers and remedy defects immediately upon discovery.

3.3 Cutting or Drilling of Asbestos-containing Plaster

.1 Wet, where possible, all materials to be disturbed.

.2 Use hand-powered tools for all cutting, drilling, or shaping, or use power tools with HEPA filtered dust collection device as necessary for work. Cease using power tools if any visible dust escapes from HEPA filtered dust collection device.

.3 Immediately place waste in Asbestos Waste Container.

.4 Clean Asbestos Work Area frequently and again at completion of work with HEPA vacuum or with wet methods.

.5 Wet clean entire enclosure, including equipment, floor, ceiling and wall surfaces, mechanical equipment and similar items not covered with polyethylene sheeting.

.6 Apply a heavy coat of encapsulant to all exposed edges from which ACM has been removed.

.7 Schedule and obtain written approval of Milestone Inspection A (Site Dismantlement) before proceeding.

3.4 Site Dismantlement and Clean-up

.1 Teardown of Sealed Type 2 Enclosures

.1 Do not commence site dismantlement until authorized by the Contract Administrator.

.2 Carefully roll polyethylene drop sheet towards the centre of the enclosure. As polyethylene is rolled away, immediately remove visible debris with a HEPA vacuum.

.3 Place polyethylene, tape, cleaning material, clothing and other contaminated waste in containers and dispose of as asbestos waste.

.2 Clean-up

.1 Equipment used in contaminated Asbestos Work Area shall be washed to remove any visible signs of asbestos contamination.

.2 Dismantle and remove from the area, temporary framework used to support polyethylene.

.3 Immediately upon shutting down of HEPA vacuums, seal vacuum hoses with polyethylene tape.

.4 Seal vacuum hoses and fittings, flexible ductwork and all tools used in contaminated work site in 6 mil polyethylene bags prior to removal from work area.

.5 Wash with clean water all surfaces in the work area.

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End of Section

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