SECTION 072600 - UNDER-SLAB VAPOR BARRIER/RETARDER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Polyolefin film vapor barrier.

B. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 3 Section "Cast-in Place Concrete".
2. Division 7 Section "Architectural Joint Systems" for expansion-joint systems.
3. Division 7 Section "Building Insulation" for perimeter insulation.
4. Division 7 Section "Joint Sealants" for joint-sealant materials and installation.

1.3 PERFORMANCE REQUIREMENTS

A. Provide vapor barrier that prevents the passage of water.

1.4 SUBMITTALS

A. Product Data: Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties of vapor barrier.

B. Shop Drawings: Show locations and extent of vapor barrier. Include details for substrate joints and cracks, sheet flashings, penetrations, inside and outside corners, tie-ins with adjoining vapor barriers, and other termination conditions.

C. Samples: For the following products:

1. 12-by-12-inch (300-by-300-mm) square of vapor barrier.

D. Installer Certificates: Signed by manufacturers certifying that installers comply with requirements.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who is authorized and approved by vapor barrier manufacturer to install manufacturer's products.

B. Source Limitations: Obtain vapor barrier system materials through one source from a single manufacturer.

C. Mockups: Apply vapor barrier to 100 sq. ft. (9.3 sq. m) of floor area to demonstrate surface preparation, crack and joint treatment, corner treatment, and execution quality.

1. If Architect determines mockups do not comply with requirements, reapply vapor barrier until mockups are approved.
2. Approved mockups may become part of the completed Work if undisturbed at time of Contract Completion.

D. Preinstallation Conference: Review requirements for vapor barrier, including surface preparation specified under other Sections, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details and sheet flashings, installation procedures, testing and inspection procedures, and protection and repairs.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture.

B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by manufacturer.

C. Store rolls according to manufacturer's written instructions.

D. Protect stored materials from direct sunlight.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Apply waterproofing within range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate.

1. Do not apply waterproofing in snow, rain, fog, or mist.

B. Maintain adequate ventilation during preparation and application of waterproofing materials.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide one of the following products:

1. Reef Industries – Griffolyn 15 Mil Green.
2. W.R. Meadows - Vapor-Mat 15.
3. Raven Industries – Vapor Block 15.
4. Stego Wrap – 15 Mil Class A.

2.2 MATERIALS

A. Extremely low permeance vapor barriers for critically sensitive, low permeance floor coverings. Includes floor coverings of rubber, vinyl, urethane, epoxy and methyl methacrylate, as well as linoleum and wood. Proper material must be installed in areas where there is terrazzo flooring.

1. Vapor Barrier must have the following qualities:

a. Minimum WVTR as tested by ASTM E96 of 0.008
b. Water Vapor Barrier: ASTM E-1745, Meets or exceeds Class A

2.3 ACCESSORIES

A. Seam Tape

1. High Density Polyethylene Tape with pressure sensitive adhesive. Minimum width 4 inches.

B. Pipe Boots

1. Construct pipe boots from vapor barrier material and pressure sensitive tape per manufacturer’s instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.

1. Do not proceed with installation until after the minimum concrete curing period recommended by waterproofing manufacturer.
2. Verify that substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
3. Notify Architect in writing of anticipated problems using waterproofing over substrate.
4. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SURFACE PREPARATION

A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for waterproofing application.

B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.

C. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.

D. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids.

E. Prepare, fill, prime, and treat joints and cracks in substrates. Remove dust and dirt from joints and cracks according to ASTM D 4258.

F. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions.

3.3 PROTECTION AND CLEANING

A. Do not permit foot or vehicular traffic on unprotected membrane.

B. Protect waterproofing from damage and wear during remainder of construction period.

C. Protect installed board insulation from damage due to ultraviolet light, harmful weather exposures, physical abuse, and other causes. Provide temporary coverings where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

D. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 072600