SECTION 07110

LIQUID APPLIED and SHEET MEMBRANE WATERPROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Provide membrane waterproofing where shown on the drawings, as specified herein, and as needed for a complete and proper installation.
B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
   2. Section _________: Roofing inspection services.

1.2 SUBMITTALS

A. Comply with pertinent provisions of Section ________.
B. Product data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
   1. Materials list of items proposed to be provided under this Section:__________.
   2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements:
   3. Manufacturer’s recommended installation procedures which, when approved by the Architect and Stanford University, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.3 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. Use a subcontractor currently approved in writing by the manufacturer of the approved waterproofing.
C. Cooperate as required in performance of the specified testing and inspecting.

1.3 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section _________.

PART 2 - PRODUCTS
2.1 MEMBRANE WATERPROOFING

Where indicated on the Drawings, and where otherwise required for proper waterproofing, provide:

Roofing related waterproofing condition beneath parapet flashing, mechanical platform capping and other specialty waterproofing conditions. Product(s): "Bituthene 3000" manufactured by W. R. Grace Co., or provide an equal system approved in advance by the Architect and Stanford University. For protection of the installed membrane waterproofing, use a "Bituthene Protection System" or equal consisting of Bituthene protection board PB-3000 adhered with Bituthene protection board adhesive PBA-3000 applied at a rate of 250 to 350 sq ft per gal. Below grade waterproofing applied to concrete or cmu walls (horizontal and vertical) Product(s): Sonneborne: HLM 5000, Pacific Polymer: Elastodeck BT (Type 1 for horizontal surfaces and Type 2 for vertical surfaces) or equal. Application requirements: two coat liquid applied system with a minimum thickness of 60 Mils for smooth surfaces. Rough surfaces such as concrete block, brick, gunite and rough concrete require a thickness of 90 Mils. Utilize an approved protection board prior to backfill to protect the membrane from being damaged by workers and equipment. Utilize Miradrain or equal drainage fabric system based upon the type of soil and depth of backfill.

2.2 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect and Stanford University.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected. Address the criteria for prepping and sealing surface cracks, pipe penetrations, expansion joints and other critical transitions and/or elements located in the field.

B. Ensure the moist content of substrate to receive waterproofing material is acceptable per the manufacturer requirements, prior to installation.

3.2 INSTALLATION
A. Prior to start of installation, meet with the roofing inspector, Stanford project manager, manufacturer’s representative described in the Specifications and reach agreement on procedures to be followed.

B. Except as may be modified with the advance approval of the Architect and Stanford University, install the work of this section in strict accordance with the manufacturer’s recommendations.

C. When possible perform flood testing of horizontal membrane systems (waterproofing of structural slabs beneath topping slabs) prior to placement of new protection board, drainage fabric and new topping slab material.

END OF SECTION