PART 1    GENERAL

1.01 SUMMARY
A. This Section includes the following:
   1. HydraPressed Concrete or Porcelain Slabs
   2. HydraPressed Slab BlackJack Pedestals
   3. [Cleaning and Sealing]

B. Related Sections include the following:
   1. Section [ ] – Membrane roofing.
   2. Section [ ] – Roof drains.
   3. Section [ ] – Roof accessories.
   4. Section [ ] – Roof and Deck Insulation.
   5. Section [ ] – Sheet Metal Flashing and Trim.
   6. Section [ ] – (edit to project requirements)

Note: Pavements should be designed in consultation with a qualified civil engineer, in accordance with established pavement design procedures using the most current references.

1.02 REFERENCES
A. Canadian Standards Association (CSA). CSA A231.1-14

1.03 GENERAL CONDITIONS
A. As specified in Section ____________.

1.04 SUBMITTALS
A. Shop drawings: Indicate perimeter conditions, relationship to adjoining materials and assemblies, expansion and control joints, paving slab [layout,] [patterns,] [color, arrangement,] installation [and setting] details.
B. Four (4) pedestal samples.
C. HydraPressed Slabs:
   1. [Four] representative full-size samples of each slab type, thickness, color, finish. Select samples to indicate the extremes of color and texture expected in the finished installation.
   2. Accepted samples become the standard of acceptance for the work in this Section.
   4. Manufacturer’s catalog literature and Safety Data Sheets for the safe handling of the specified materials and products.

1.05 QUALITY ASSURANCE

A. Installation Contractor Qualifications:
   1. Utilize an installer having successfully completed a minimum of 3 HydraPressed Slab installations similar in design, material, scope and extent indicated on this project.
   2. It is recommended to use an installer holding a current certificate from the Interlocking Concrete Pavement Institute “Concrete Paver Installer Certification Program”.

B. Regulatory Requirements and Approvals: [Specify applicable licensing, bonding or other requirements of regulatory agencies.]

C. Provide HydraPressed Slabs that are free of cracks, seams, and defects impairing appearance, structural integrity or function.

Note: A site visit and approval by the owner’s representative during the first day of installation may substitute for a mock-up.

D. Mock-Ups:
   1. Install a 2 m x 2 m (6 ft x 6 ft) area.
   2. Use this area to determine pedestal height and shimming requirements, joint sizes, lines, laying pattern(s), color(s), and texture of the job.
   3. This area will be used as the standard by which the work will be judged.
   4. Subject to acceptance by owner, mock-up may be retained as part of finished work.
   5. If mock-up is not retained, remove and properly dispose of mock-up.

1.06 DELIVERY, STORAGE, AND HANDLING

A. General: Comply with Division 1 Product Requirement Section.

B. Comply with manufacturer’s ordering instructions and lead-time requirements to avoid construction delays.

C. Delivery: Deliver materials to project site in manufacturer’s original, unopened, undamaged packaging with identification labels intact. Confirm that the correct product has been delivered to the job site before commencing off loading.
   1. Coordinate delivery and installation schedule to minimize the interference with normal use of buildings adjacent to installation area.
   2. Deliver HydraPressed Slabs to the site in steel banded, plastic banded, or plastic wrapped packaging capable of transfer by forklift or clamp lift.
   3. Unload slabs at job site in such a manner that no damage occurs to the product.
D. Storage and Protection:
   1. Store materials protected such that they are kept free from mud, dirt, and other foreign materials.
   2. [Store cleaners and sealers per manufacturer’s instructions.]

1.07 PROJECT/SITE CONDITIONS

A. Environmental Limitations: Install HydraPressed Slabs in accordance with manufacturer’s instructions.

1.08 MAINTENANCE

A. Extra Materials: Provide [Specify area] [Specify percentage.] additional material for use by owner for maintenance and repair including pedestals.

B. Slabs shall be the same production run as installed materials.

PART 2 PRODUCTS

2.01 HYDRAPRESSED SLAB AND PEDESTAL MATERIALS

A. Supplied by: Abbotford Concrete Products
   Toll Free: 1-800-663-4091 Fax: (604)852-4819

B. HydraPressed Slab name, Color(s), Dimensions, and thickness:
   [                                   ]   [                  ]  [       in./mm x        in./mm x     in./mm thick.]
   [                                   ]   [                  ]  [       in./mm x        in./mm x     in./mm thick.]
   [                                   ]   [                  ]  [       in./mm x        in./mm x     in./mm thick.]
   [                                   ]   [                  ]  [       in./mm x        in./mm x     in./mm thick.]

C. Meet the following required technical specifications:
   1. Compressive Strength: Average compressive strength shall not be less than 8000 PSI (55 MPA) with no individual unit less than 7300 PSI (50 MPA) when tested not less than 28 days from the date of production in accordance with CSA A231.2 – 14.
   2. Flexural Strength: Average flexural (transverse) strength shall be at least 655 PSI (4.5 MPA) with no individual unit below 582 PSI (4.0 MPA) when tested in accordance with CSA A231.1 – 14.
   3. Water Absorption: Average water absorption shall not be greater than five percent (5%) with no individual unit greater than seven percent (7%), when tested in accordance with CSA A231.1 – 14.
   4. Scaling Resistance: Specimen shall not have an average loss of mass greater than 300 g/m2 of the total inundated surface area of the individual paving slab after 28 cycles of freezing and thawing, or 800 g/m2 after 49 cycles. Specimens with an architectural finish shall not have an average loss of mass greater than 500 g/m2 of the total inundated surface area of the individual paving slab after 28 cycles of freezing and thawing, or 1200 g/m2 after 49 cycles, when tested in accordance with CSA A231.1 – 14.
5. Dimensions: Dimensions of paving slabs and concave or convex warpage shall not differ from those agreed upon by the manufacturer by more than the following amounts:
   a) Length and width: -1.0 mm to +2.0 mm
   b) Height: ±3.0 mm
   c) Concave or convex warpage in one dimension by the following amounts:
      i. Up to 450 mm, 2.0 mm; or
      ii. Over 450 mm, 3.0 mm

   Dimensions are based on manufacturer’s standard drawing for particular shape identified.

6. Center Point Load Test of Pedestal-supported Slabs: 1,600 lbs.

D. BlackJack Pedestals: Model Type

   [BJ OneStep Pedestal (24 – 45 mm) .95” to 1.77”]
   [BJ OneStep Extender (20 mm) 3/4”]
   [BJ OneStep Extender (40 mm) 1.5”]
   [BJ-3 Adj. Pedestal (74 – 117 mm) 2.9” to 4.6”]
   [BJ-4 Adj. Pedestal (117 – 201 mm) 4.6” to 7.9”]
   [BJ-5 Adj. Pedestal (197 – 281 mm) 7.75” to 11”]
   [BJ-6 Adj. Pedestal (277 – 446 mm) 10.9” to 17.5”]
   [BJ-7 Adj. Pedestal (357 – 526 mm) 14” to 20.7”]
   [BJ-Top Slope Corrector – 0 to 5%]
   [BJ Shim – nominal (2 mm)]

PART 3  EXECUTION

3.01 ACCEPTABLE INSTALLERS

A. [Specify acceptable paving subcontractors.]

3.02 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.
B. Verify that the roof membrane installation is completed.
C. Verify that all defects in the roof membrane have been repaired to the satisfaction of the roof membrane manufacturer prior to installation of HydraPressed Slabs.
D. Verify that all surfaces, membrane(s), protection board, insulation, drains, are free from dirt, oil, grease or any deleterious substances and debris which may prevent installation, drainage, and stability of the HydraPressed Slab installation.
E. Do not begin installation work until such conditions have been corrected [to the Architect’s or Owner’s Representative satisfaction] and are ready to receive Pedestals and HydraPressed Slabs.
3.03 SURFACE PREPARATION

A. Clean, prepare, and treat substrates according to membrane manufacturer’s written instructions. Provide clean, dust-free substrate.

3.04 INSTALLATION

**Note:** Protection board is strongly recommended in the majority of installations using pedestal systems to decrease point load pressure on the membrane. Check with the membrane manufacturer for compatibility between the membrane and pedestals. Revise specification to include protection board as required. If pedestals are to be placed directly on to rigid insulation, the rigid insulation must be a minimum of 60 psi.

A. Install HydraPressed Slabs accurately aligning and maintaining uniform spacing, with straight joints from end to end. Seat the edges of the HydraPressed Slab tightly against the spacing rib of the pedestal in accordance with manufacturer’s recommendations and architectural layout.

B. Shim as necessary to provide support for all four corners of each HydraPressed Slab.

C. Install HydraPressed Slabs to vary not more than 2 mm in elevation between adjacent HydraPressed Slabs or more than 2 mm variation from surface plane elevation of any individual HydraPressed Slab.

D. Field cutting: Use masonry saws to cut HydraPressed Slabs. Produce lines cut straight and true, with edges eased slightly to prevent chipping. Do not cut on top of other HydraPressed Slabs as you will generate a slurry mix. This slurry mix, if allowed to dry, will leave a permanent residue on the slabs.

E. Cut units should be no smaller than half of a whole slab. If this is not possible than additional pedestals must be used to provide equally engineered support as to not compromise the slab’s original engineering specification or safety of the installation.

F. Never install cracked or broken HydraPressed Slabs.

3.05 PROTECTION AND CLEANING

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

B. Protect roofing membrane from damage and wear during the remainder of the construction period.

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

D. In order to protect their aesthetic appearance, HydraPressed Slab Roof Pavers should be installed as the final stage of the construction project. If this is not possible, then it is imperative that a protective covering be placed over them until all other sub-trades have completed their work. After work in this section is complete, the General Contractor shall be responsible for protecting work from damage due to subsequent construction activity on the site.

**END OF SECTION**

**WARNING:** The contents of this Specification are intended only as a guideline for pedestal installation of HydraPressed Slabs, Professional assistance should be sought with respect to the design, specifications, and construction of each project.