SECTION 32 14 43
POROUS UNIT PAVING

PART 1 GENERAL

1.1 RELATED WORK

A. Section 31 10 00 – Site Preparation
B. Section 31 00 00 – Earthwork
C. Section 31 23 00 – Excavation and Fill
D. Section 32 12 00 – Flexible Paving
E. Section 32 16 00 – Concrete Paving, Curbs, Headers and Ramps

PART 2 PRODUCTS

2.1 Materials

A. Sand Bedding: Clean coarse sand conforming to Caltrans Standard Specifications Section 19
B. Aggregate: Class 2 permeable aggregate base conforming to Caltrans Standard Specifications Section 26-1.02B.
C. Fabric: Filter fabric shall be used as a barrier between different bedding materials and also act as a pavement stabilizer.

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

A. Sub grade Material: The top 6 inches shall be composed of granular or gravelly soil that is predominately sandy with no more than a moderate amount of silt or clay. Granular subbase may be placed over the sub grade.
B. Sub grade Permeability: Sub grade should have a reasonable level of permeability. One suggested test for sub grade permeability is double ring infiltrometer.
C. Sub grade Support: The sub grade shall be compacted by a mechanical vibratory compactor to a minimum of 92% of a maximum dry density as established by ASTM
D1557 or AASHTO T180. Sub grade stabilization shall not be permitted. If fill material (embankment) is required to bring the sub grade to final elevation, it shall be clean and free of deleterious materials. It shall be placed in 8 inch maximum layers, and compacted by a mechanical vibratory compactor to a minimum density of 92% of a dry density as established by ASTM D1557 or AASHTO T180.

D. Sub grade Moisture: The sub grade shall be in a moist condition (within +/- 3% of the optimum moisture content as determined by the modified compaction test ASTM D1557 or AASHTO T180).

E. Install filter fabric on top of compacted subgrade. Separate pieces of fabric shall overlap 12”. Fabric shall be turned up on all sides along edges.

F. Install subdrain where shown on plans.

3.2 SAND LEVELING BED

Place clean coarse sand to a uniform thickness of 1”-1½” on top of the fabric.

3.3 PLACEMENT

A. Pavers shall be clean and free of foreign materials prior to placement.

B. Place paving units hand tight and flush on undisturbed sand laying coarse.

C. Use a low-amplitude plate compactor capable of at least 5,000 lbf at a frequency of 75 to 100 Hhz to vibrate the paves into the sand. Remove any cracked or damaged pavers and replace with new units.

D. Simultaneously spread, sweep and compact dry 60 grid clean sand into joints continuously until full. Do not compact within 6 feet of unrestrained edges of paving units.

E. Surfaces shall be true to within 1/8 inch when tested in any direction with a 10 foot straight edge.

F. Transitions between changes in vertical gradient of walks and pavers shall be smooth and gradual with no abrupt or sharp edges.

END OF SECTION