PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aggregate base indicated on the Landscape Drawings.
 - 2. Geotextile Fabric for use with Aggregate Base.
- B. Related work specified elsewhere:
 - 1. Section 32 94 53 Modular Suspended Pavement System

1.2 REFERENCES

- A. SS "Standard Specifications", State of California, Department of Transportation (CalTrans), Latest Edition: Section 26 Aggregate Bases.
- B. ASTM American Society for Testing Materials: D 1557 Test Method for Laboratory
- C. Compaction Characteristics of Soil Using Modified Effort.

1.3 DEFINITIONS

A. Subgrade: The soil surface on which aggregate base is placed.

1.4 ACTION SUBMITTALS

A. Product Data: Geotextile Fabric.

1.5 INFORMATIONAL SUBMITTALS

- A. Test Results: Compaction Tests.
- B. Manufacturer's Instructions: Geotextile manufacturer's installation guidelines for geosynthetics used in subgrade stabilization.

1.6 QUALITY ASSURANCE

- A. Single Source: Furnish approved aggregate material from single source throughout Work.
- B. Regulatory Requirements: Meet requirements of applicable laws, codes, and regulations required by authorities having jurisdiction over Work.
- C. Certification: Arrange with the Owner's Representative to have Owner's Geotechnical Engineer certify that source of materials for this Work meets these Specifications and provide tests required to prove that Work-in-progress meets requirements of these Specifications.

1.7 DELIVERY, STORAGE AND HANDLING

A. On Site Storage: Store aggregate-base material on-site covered or in a location where material will not be contaminated.

1.8 WARRANTY

- A. General Description: Refer to Division 1.
- B. Additional Items Covered: Warranty shall also cover repair of damage to other materials and workmanship resulting from defects in materials and workmanship.
- C. Exceptions: Contractor shall not be held responsible for failures due to ordinary wear, abuse or neglect by Others, vandalism, or other causes beyond the Contractor's control.

1.9 SITE CONDITIONS

- A. Unfavorable Weather: When weather is such that satisfactory results cannot be secured, suspend operations until the weather is considered favorable.
- B. Wet Subgrades: Do not place material on wet or muddy subgrade.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Aggregate Base: SS Section 26-1.02A, Class 2, meeting requirements of 3/4-inch maximum size.
- B. Water: Fresh, clean, potable.
- C. Geotextile Fabric:
 - 1. Mirafi HP570,or equal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of General Conditions: Examine site and verify that conditions are suitable to receive Work and that no defects or errors are present which would cause defective installation of products or cause latent defects in workmanship and function.
- B. Subgrade Soil: Review to verify that it has been inspected, graded to the correct grades, and compacted as required for correct installation of aggregate base.
- C. Notification of Unsuitable Conditions: Before proceeding with Work, notify the Owner's
- D. Representative in writing of unsuitable conditions and conflicts.

3.2 PREPARATION

- A. Protection of Existing Conditions:
 - 1. Use every possible precaution to prevent damage to existing conditions to remain such as structures, utilities, plant materials and walks on or adjacent to the site of the Work.
 - 2. Provide barricades, fences or other barriers to protect existing conditions to remain from damage during construction.
 - 3. Use every possible precaution to prevent excessive compaction of planting area soil within or adjacent to the areas of Work.
 - 4. Do not store materials or equipment, permit burning, or operate or park equipment under the branches of existing plants to remain.
 - 5. Submit written notification of damaged plants and structures to the Owner's Representative.
- B. Subgrade Soil Surface Preparation: Remove debris and other extraneous materials from soil surface.

3.3 SURVEY REQUIREMENTS

- A. Lines and Levels: Establish lines and levels, locate and lay out by instrumentation and similar appropriate means for aggregate paving finish grades.
- B. Staking: Provide a sufficient quantity of grade stakes as required to provide aggregate base material with smooth finish surfaces at correct elevations.

3.4 GEOTEXTILE FABRIC

A. Installation: Where indicated on the Drawings, install in accordance with manufacturer's current printed instruction guidelines.

3.5 AGGREGATE BASE

- A. Pre-wetting Aggregate Base: Meet requirements of SS Section 26.
- B. Hauling:
 - 1. Use of dragline equipment to transport aggregate from stockpiles to elevators or other loading devices will not be permitted.
 - 2. Distribute hauling over the area to be paved in such a manner as to be most effective in the compacting of the surfacing.
 - 3. Hauling over any of the surfacing in process of construction will not be permitted when the effect will be detrimental.
 - 4. Uniformly load hauling vehicles when it is practicable.
- C. Placement of Aggregate Base:
 - 1. Spread base over substrate in an even distribution of material without perceptible segregation.
 - 2. Method of spreading and field operation shall be in accordance with SS Section 26.
 - 3. Construct base course in lifts not exceeding 6 inches in depth such that when compacted to the specified density, the finished surface will conform to grades and dimensions shown, with proper allowance for subsequent courses where specified.
 - 4. Construct the base course in an orderly manner so that reasonable size areas will be ready for testing and a reasonable length of time will be allowed for the Owner's Geotechnical Engineer to perform tests and obtain the test results during normal working hours.
 - 5. Equipment such as scrapers, and other equipment essentially used for earth excavation, will not be permitted.
 - 6. Compaction equipment shall be adequate in design and number to obtain the specified density for each layer while still moist.
 - 7. Apply water as needed to obtain the specific densities.
 - 8. Place each layer of base course and compact to the specified density before a succeeding layer is placed.
- D. Compaction of Aggregate Base:
 - 1. Compact each lift of base as soon after spreading operations as practicable and continue until a density of 95 percent of the maximum density has been achieved as determined in accordance with ASTM D 1557.
- E. Correction of Surface Defects: Should irregularities develop in any surface during or after placement, they shall be remedied by loosening the surface and correcting the defects, after which the entire area, including surrounding surfaces, shall be re-compacted until thoroughly compacted. Finished surfaces shall be true to grade and crown before proceeding with surfacing.
- F. Final Clean-up:
 - 1. After work is completed, the entire area shall be neatly finished and trimmed to lines, grades and cross sections shown.
 - 2. Unused construction material shall be removed, and stockpile areas shall be cleaned of aggregate and left in an acceptable condition.

3.6 TOLERANCES

- A. Subgrade Soil Surface for Aggregate Base: Plus or minus 0.05-foot of elevations as indicated on the Drawings.
- B. Aggregate Base Course Variation from Thickness: Plus or minus 0.05-foot.
- C. Aggregate Base Course Finished Surface Smoothness: Plus or minus 1/4-inch.

3.7 FIELD QUALITY CONTROL

A. Aggregate Base Compaction Tests: Perform one field compaction test in accordance with ASTM D 1557 for every 2,000 square feet of aggregate base installed at locations determined by the Owner's Geotechnical Engineer in the field.

END OF SECTION