

Division 2
Site Work

SECTION 02281

TERMITE CONTROL

PART 1 - GENERAL

1.1 SCOPE

- A. Provide soil treatment for termite control, as herein specified.

1.2 QUALITY ASSURANCE

- A. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work, including preparation of substrate and application.
- B. Engage a professional pest control operator, licensed in accordance with regulations of governing authorities for application of soil treatment solution.

1.3 JOB CONDITIONS

- A. Restrictions: Do not apply soil treatment solution until excavating, filling and grading operations are completed, except as otherwise required in construction operations.
- B. To insure penetration, do not apply soil treatment to frozen or excessively wet soils or during inclement weather. Comply with handling and application instructions of the soil toxicant manufacturer.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data and application instructions, and EPA approved data.

1.5 SPECIFIED PRODUCT WARRANTY

- A. Furnish warranty certifying that applied soil poisoning treatment will prevent infestation of subterranean termites and that if subterranean termite activity is discovered during warranty period, Contractor will re-treat soil and repair or replace damage caused by termite infestation.
 - 1. Provide warranty for a period of Five (5) years from date of treatment, signed by Applicator and Contractor.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Soil Treatment Solution:

1. Use EPA registered an emulsible concentrate insecticide for dilution with water, specially formulated to prevent infestation by termites. Fuel oil will not be permitted as a diluent.
2. Use only soil treatment solutions which are not injurious to planting.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Surface Preparation: Remove foreign matter which could decrease effectiveness of treatment on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and foundations. Toxicants may be applied before placement fill under slabs, if recommended by toxicant manufacturer.
- B. Application Rates: Apply soil treatment as follows:
1. Under slab-on-grade structures, treat soil before concrete slabs are placed using either power sprayer or tank-type garden sprayer.
 - a. Apply 4 gallons of chemical solution per 10 lin. Ft. to soil critical areas under slab, including entire inside perimeter inside of foundation walls, along both sides of interior partition walls, and around plumbing pipes and electric conduit penetrating slab, and around interior column footers.
 - b. Apply one gallon of chemical solution per 10 sq. ft. as an overall treatment under slab and attached slab areas where fill is soil or unwashed gravel. Apply 1 ½ gallons of chemical solution to areas where fill is washed gravel or other coarse absorbent material.
 - c. Apply four (4) gallons of chemical solution per 10 lin. Ft. of trench, for each foot of depth from grade to footing, along outside edge of building. Dig a trench 6" to 8" wide along outside of foundation to a depth of not less than 12". Punch hole to top of footing at not more than 12" o.c. and apply chemical solution. Mix chemical solution with the soil as it is being replaced in trench.
 - d. At hollow masonry foundations or grade beams, treat voids at rate of 2 gal. Per 10 lin. Ft. of penetration.
 - e. At expansion joints, control joints, and areas where slabs will be penetrated, at rate of 4 gals. Per 10 lin. Ft. of penetration.
 2. Allow not less than twelve (12) hours for drying after application, before beginning concrete placement or other construction activities.
- C. Post signs in area of application warning workers that soil poisoning has been applied. Remove signs when areas are covered by other construction.
- D. Reapply soil treatment solution to areas distributed by subsequent excavation or other construction activities following application.

END OF SECTION 02281

SECTION 02510

UNIT PAVERS

PART 1 - SUMMARY

This section includes the following:

1.1 SECTION INCLUDES

- A. UngROUTED mortarless concrete pavers.
- B. Edge restraints for unit pavers.

1.2 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections:
 - 1. Product data for the following products:
 - a. "Plazastone" Concrete Pavers - blended color pattern.
 - b. Approved Equivalent
 - 2. Samples for initial selection process in form of actual units or sections of units showing full range of colors, textures, and pattern specified, showing full range of variations expected in these characteristics.
 - 3. Samples for verification purposes in full size units of each type of unit paver indicated, in sets for each color, texture, and pattern specified, showing full range of variations expected in these characteristics.
 - 4. Qualification data for firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include list of completed projects with project names, addresses, names of Architects and Owners, plus other information specified.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has successfully completed unit paver installations similar in material, design, and extent to that indicated for Project.
- B. Single Source Responsibility: Obtain each color, type and variety of unit pavers, joint materials, and setting materials from a single source with resources to provide products and materials of consistent quality in appearance and physical properties without delaying progress of the Work.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Protect unit pavers and aggregate during storage and construction against wetting by rain, snow or ground water and against soilage or contamination from earth and other materials.

1.5 PROJECT CONDITIONS

- A. Cold Weather Protection: Do not use frozen materials or materials mixed with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

PART 2 - PRODUCTS

2.1 UNIT PAVERS

- A. Concrete Pavers: Solid concrete interlocking paving units of integral color, conforming to ASTM C 936 having a compression strength of 8,000 psi or greater and a moisture absorption of less than 5%. Units shall be "Plaza Stone" by Pavestone. Units shall be 2 - 3 1/8" x 5 1/2" x 8 1/4" rectangular stone and 2 3/8" x 5 1/2" x 5 1/2" square stone with 12.18% void area.
- B. Approved Equivalent.
- C. Edge Restraints:
 - 1. Brick Pavers: Where concrete unit pavers adjoin asphalt areas, provide concrete ribbon edging as shown on drawings.

2.2 UNGROUTED MORTARLESS SETTING MATERIALS FOR CONCRETE PAVERS

- A. Graded Aggregate for Subbase: Quality controlled, graded aggregate complying with ASTM D 2940 for subbase material.
- B. Graded Aggregate for Base: Quality controlled, graded washed gravel complying with ASTM D 2940 for base material.
- C. Sand for Leveling Course: Fine, sharp, nonplastic aggregate complying with ASTM C 33.
- D. Sand for Joints: ASTM C 144 except use aggregate graded with 100 percent passing the No. 8 sieve and 95 percent, the No. 16 sieve.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces indicated to receive paving, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of unit pavers. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Preparation: Proof roll prepackaged subgrade surface to check for unstable areas and areas requiring additional compaction. Do not proceed with Installation of unit pavers until deficient subgrades have been corrected and are ready to receive subbase for unit pavers.

3.2 INSTALLATION

- A. Do not use unit pavers with chips, cracks, voids, discolorations, and other defects that might be visible or cause staining in finished work.
- B. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
 - 1. For concrete pavers, a mortar-driven masonry saw or block splitter may be used.
- C. Joint Pattern: As indicated below:
 - 1. Lay unit pavers in Random Mosaic pattern. Unit pavers are to be layed with blended color pattern.
- D. Handtight Joints: Where unit pavers are indicated without spaced joints, set unit pavers with hand tight joints.
- E. Tolerances: Do not exceed 1/16 inch unit to unit offset from flush (lippage) and a tolerance of 1/8 inch in 2'-0" and 1/4 inch in 10'-0" from level or slope as indicated, for finished surface of paving.
- F. Provide edge restraints as indicated. Install edge restraints prior to placing unit pavers.

3.3 UNGROUTED MORTARLESS CONCRETE PAVER APPLICATIONS

- A. Compact soil subgrade uniformly so at least 95 percent of ASTM D 1557 laboratory density.
- B. Place graded aggregate for subbase and base over compacted subgrade. Provide compacted thickness of base and subbase indicated. Compact subbase and base to at least 100 percent of ASTM D 1557 maximum laboratory density.
- C. Place sand for leveling course and screed to a thickness of 1 inch to 1 1/4 inch, taking care that moisture content remains constant and the density is loose and constant until concrete pavers are set and compacted.

- D. Treat leveling base with soil sterilizer to prohibit growth of grass and weeds.
- E. Set concrete pavers with a minimum joint width of 1/16 inch and a maximum of 3/16 inch, being careful not to disturb leveling base. If pavers have spacer bars, then place pavers hand tight against spacer bars. Use string lines to keep straight lines. Select units from 4 or more cubes to blend color and texture variations. Fill gaps between units that exceed 3/16 inch with pieces cut to fit from full-size unit pavers.
 - 1. When installation is performed with mechanical equipment, use only unit pavers with spacer bars on sides of each unit.
- F. Vibrate concrete pavers into leveling course with a low amplitude plate vibrator capable of a 3,500 to 5,000 pound compaction force. Perform at least three (3) passes across paving with vibrator. Vibrate under the following conditions:
 - 1. After edge pavers are installed and there is a completed surface or before surface is exposed to rain.
 - 2. Before ending each day's work, fully compact installed concrete pavers within three (3) feet of the laying face. Cover the open layers with nonstaining plastic sheets overlapped four (4) feet on each side of laying face to protect it from rain.
- G. Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Brush and vibrate sand until joints are completely filled, then remove surplus sand.
- H. Do not allow traffic on installed concrete pavers until sand has been vibrated into joints.
- I. Repeat joint filling process thirty (30) days later.

3.4 REPAIR, POINTING, CLEANING AND PROTECTION

- A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units as indicated. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment to eliminate evidence of replacement.
- B. Provide final protection and maintain conditions in a manner acceptable to Installer, which ensures unit paver work being without damage or deterioration at time of Substantial Completion.

END OF SECTION 02514