NOTE TO CONSULTANTS: Edit with Track Changes turned on, any text in this section that appears in bold and italics then turn off the bold and italics for the final approved version. (Remove this Note).

PART 1 - GENERAL

1.01 Description: Furnish all material, labor, services and related items required to complete the installation of Plastic Reinforced Turf Paving Units as indicated on the Contract Drawings.

1.02 Related Sections:

Section 31 00 00 - Earthwork
Section 32 11 23 - Mineral Aggregates
Section 32 91 13 - Soil Preparation
Section 32 92 19.16- Hydroseeding
Section 32 92 19.19 - Handseeding
Section 32 92 23 - Sodding

1.03 References: This section references the latest revisions of the following documents. They are a part of this section as specified and modified. In case of conflict between the requirements of this section and those of the listed documents, the requirements of this section shall prevail. Other references are as follows

A. The City of Seattle Standard Plans and Specifications for Road, Bridge and Municipal Construction (most recent edition).

1.04 Submittals: The Contractor shall submit to the Engineer materials containing the following information:

A. Procedures to be used in the construction of the work of this Section with regard to the division of labor and the responsibilities of the Contractor and all sub-contractors involved.

B. Furnish samples of sub-base aggregate, geo-textile, structural soil mix, turf reinforcement units and infill soil mix to be used. A minimum 5lb. bag of each material, one sample turf reinforcement unit, and catalog sheets and test data, shall be submitted for approval by the Engineer.

1.05 Quality Assurance:

A. Installer Qualifications: An experienced installer who has successfully completed at least 3 unit paver installations similar in material, design, and intent to that indicated for the project described herein.

B. Qualification data for firms and persons specified in “Quality Assurance” paragraph to demonstrate their capabilities and experience. Include list of completed projects with project names, addresses, names and addresses of project Design Consultant and the Engineer.

C. Single Source Responsibility: Obtain one color, type, and variety of unit pavers from a single lot manufactured by a single source. Materials shall be available and be consistent in quality, appearance and physical properties without delaying progress of Work.

D. Prior to commencing the work of this Section, verify the accuracy of layout and grading. Verify that all sub-grade and base course aggregate conditions are as specified. Notify the Engineer of any discrepancies and coordinate the correction of those discrepancies with other trades as necessary.

1.06 Delivery, Storage and Handling: Protect unit pavers and aggregate during storage and construction against wetting by rain, snow, or ground water and against contamination from earth and other materials.

PART 2 - PRODUCTS

2.01 Sub-base Material (on undisturbed or compacted native base material): For use as sub-base coarse - Type 17 (pit run gravel) per Section 32 11 23 - Mineral Aggregates.

2.02 Geo-textile: Non-woven polypropylene fabric. Install the geo-textile per the manufacturer's recommendations.

2.03 Structural Soil Base: For use as structural soil base coarse - Type 2 (1-1/4" Minus crushed rock) per Section 32 11 23 - Mineral Aggregates, mixed at a 1:1 ratio with 60/40 Playfield Soil per Section 32 91 13 - Soil Preparation.

2.04 Turf Reinforcement Units:

A. 'TUFFTRACK', as manufactured by NDS, and distributed locally by Frank J. Martin Company at 1-800-654-1786 or www.fjmartin.com.

B. 'GRASSPAVE II', as manufactured by Invisible Structures, Inc., and distributed locally by Northwest Linings and Geo-textiles, 21000-77th Ave. South, Kent, WA, Ph. 253-872-0244.

C. 'NETPAVE', as manufactured by RESI (Rehbein Environmental Solutions, Inc.), Ph: 763.784.0614, or info@resisolutions.com.

D. Or, approved equal.

2.05 Infill Soil: Soil infill material shall be 60/40 Playfield Soil per Section 32 91 13 - Soil Preparation.

PART 3 - EXECUTION

3.01 Examination: The Contractor shall examine surfaces indicated to receive Reinforced Turf for compliance with requirements for tolerances and other conditions affecting performance of pre-cast units. Do not proceed with installation until unsatisfactory conditions have been corrected. Prior to commencing the work, verify the approved completion of construction of Structural Soil Base per Section 31 00 00 - Earthwork.

3.02 Sub-base, Geo-textile and Structural Soil Mix placement for all areas scheduled to receive Reinforced Turf Paving:

A. Sub-base Preparation: On a compacted rough native soil grade prepared to the design depth, establish a uniformly sloping sub-grade of a minimum 3" lift of Type 17 (pit run gravel), and shall be compacted to 95% maximum dry density.

B. Geo-textile shall be installed with the edges and joints overlapping by a minimum of 6" and extend the geo-textile at least 6" beyond the finished edge of the reinforcement units or roll.

C. Following approval of the prepared sub-grade and geo-textile placement, begin placement of the 1:1 blend of the Type 2 Mineral Aggregate & Playfield Soil Mix. Place mix loosely and uniformly over the area to be covered. Water-settle and/or roll as necessary to achieve the specified compaction level and desired grades. Prepare the grades for installation of the reinforced turf grid products by water settling, raking and rolling to a minimum 90% dry density. Mix shall be installed at a total compacted depth of 6" and shall be graded and/or prepared per Section 32 91 13 - Soil Preparation and ***Section 32 92 19.16- Hydroseeding or Section 32 92 19.19 - Handseeding or Section 32 92 23 - Sodding. (Edit: depending on which method is chosen and as shown on the plans).***

3.03 Reinforced Turf Paver Unit Installation:

A. Install the Reinforced Turf paving grid per manufacturer's specifications and recommendations. Fill all voids in the Grid with the 60/40 Playfield Soil Mix, making sure all voids are filled to a total depth of ½" above the grid surface and compacted flush with the top of the grid.

B. Install Reinforced Turf paving grid with rings facing up, using pegs and holes for proper spacing. Tops of rings shall be ½ inch below surface of adjacent paving or curb and flush with finish grade of adjacent turf or planting areas.

D. Install soil in rings carefully without running equipment over reinforced turf paving grid. Dump soil directly on to rings or place by hand. Spread soil into rings using flat shovels and push brooms. Water settle the entire grid area to compact the soil then, reapply soil as necessary for the soil to end up at ½" above the top of the rings.

E. Prepare for and install ***Hydroseeding, Handseeding or Sodding***, as specified herein.

F. If Sodding: Place sod over grass rings and ensuring that the sod contacts the soil inside the rings. Sod shall be placed with very tight joints so as to have no rings visible. Use roller for final compaction to establish an even grass surface.

G. Follow all requirements for watering, fertilizing and mowing of turf grass over the turf reinforcement materials, as specified herein.

3.04 Clean-up and Repair:

A. Repair and replace defective unit pavers which are loose, chipped, broken, stained with materials other than soil, or otherwise damaged, or as directed by Engineer. Provide new units to match adjoining units and install in the same manner as original units.

B. Protect and repair the work as necessary until grass planting is completed.

END OF SECTION