

1 Make the following section a part of the Standard Specifications:

2  
3 **"SECTION 316 – POLYPROPYLENE BIAXIAL GEOGRID**

4  
5 **316.01 Description.** This work includes furnishing and placing polypropylene  
6 biaxial geogrid on the subgrade below the Aggregate Base Course.

7  
8 **316.02 Material.** The grid material shall meet the following:

9  
10 The biaxial geogrid shall be a punched and drawn polypropylene geogrid with the  
11 following characteristics based on the minimum average roll values (MARV):

- 12
- 13 • Aperture Dimensions = 1 to 1.3 inches
  - 14
  - 15 • Minimum Rib Thickness = 0.05 inch
  - 16
  - 17 • Tensile Strength at 2% Strain (ASTM D6637-01) = 380 lb/ft in machine
  - 18 direction, 510 lb/ft in cross-machine direction
  - 19
  - 20 • Tensile Strength at 5% Strain (ASTM D6637-01) = 720 lb/ft in machine
  - 21 direction, 1,000 lb/ft in cross-machine direction
  - 22
  - 23 • Ultimate Tensile Strength (ASTM D6637-01) = 1,400 lb/ft in machine
  - 24 direction, 1,610 lb/ft in cross-machine direction
  - 25
  - 26 • Junction Efficiency (GRI-GG2-05) = 93%
  - 27
  - 28 • Flexural Stiffness (ASTM D5732-01) = 750,000 mg-cm
  - 29
  - 30 • Aperture Stability (U.S. Army Corps of Engineers Methodology for
  - 31 measurement of Torsional Rigidity) = 0.48 m-N/deg
  - 32
  - 33 • Resistance to Installation Damage in Gravel = 75%
  - 34
  - 35 • Resistance to Long Term Degradation (EPA 9090 immersion test) = 100%
  - 36
  - 37 • Resistance to UV Degradation (500 hours of UV in accordance with ASTM
  - 38 D4355-05) = 100%
  - 39

40 **316.03 Construction Requirements.**

41  
42 Place geogrid onto the geotextile fabric or compacted Imported Granular  
43 Backfill.

44  
45 The geogrid material shall have a minimum overlap of 12 inches for  
46 transverse joints. The means and methods to attain this minimum overlap  
47 is the responsibility of the Contractor. However, one method could involve

48 flapping the geogrids upwards and placing temporary fill that is easier to  
49 remove when excavating the adjacent area.

50  
51 Due to the grid being used only for the sidewalks, there should be no longitudinal  
52 joints.

53  
54 **316.04 Method of Measurement.** The Engineer will measure geogrid per  
55 square yard of geogrid finished surface, not including overlaps.

56  
57 **316.05 Basis of Payment.** The Engineer will pay for the accepted geogrid  
58 at the contract unit price per square yard. Payment will be full compensation for  
59 the work prescribed in this section and the contract documents

60  
61 The Engineer will pay for the following pay item when included in the  
62 proposal schedule:

63		
64	<b>Pay Item</b>	<b>Pay Unit</b>
65		
66	Polypropylene Biaxial Geogrid	Square Yard"

67  
68  
69  
70

**END OF SECTION 316**