CORE LANDSCAPE PRODUCTS

GREEN LANDSCAPING ALTERNATIVES FOR A SUSTAINABLE FUTURE

CORE GRAVEL

Product Specification (CSI Format)
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This specification utilizes the Construction Specification Institute (CSI) format, including Master Format (2004 Edition), Section Format and Page Format contained in the CSI Manual of Practice

SECTION
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CORE GRAVEL – INJECTION MOLDED POLYPROPYLENE, CLOSED CELL HONEYCOMB GRAVEL STABILIZING SYSTEM FOR POROUS GRAVEL SURFACES

This system is comprised of two basic components: CORE gravel – UV resistant, recycled PP plastic stabilizing grids with underside geotextile (filter) membrane and infill material.

PART 1 GENERAL

1.03 SUMMARY

A. The CORE gravel porous, gravel stabilizing system is a rigid, permeable surface suitable for pedestrian pathways, walkways, patios, courtyards, as well as heavy duty vehicular driveways and parking.

1.02 REFERENCES

A. ASTM D 1621 04a – 100% recycled PP (poly propylene) – black [optional: virgin plastic in white or grey PP]

1.03 SYSTEM DESCRIPTION

A. The CORE gravel porous, gravel stabilizing systems is a rigid, permeable surface utilized for load support filled with aggregates, filled and and topped with a layer of clear, crushed stone.

B. Complete system includes CORE gravel honeycomb grid with underside geotextile (filter) membrane, aggregate for infilling the cells, a layer of crushed stone for the top layer, and optional edge restraints.

1.04 SUBMITTALS

A. CORE gravel detail sheet/plan profile
B. CORE gravel Design and Install Guide

1.05 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Quality management systems certified to ISO 9001:2000
B. Installation: Choose an installer with a satisfactory record of performance on landscaping and/or paving projects of comparable size, complexity, and quality

1.06 DELIVERY, STORAGE AND HANDLING

A. Delivery: Delivery materials in manufacturer's original packaging, with identification labels clearly intact.
B. Storage: Store all CORE gravel grids indoor until ready for use.
C. Handling: Use case when unwrapping, handling, installing and infilling CORE gravel grid sections. Be certain to overfill cells prior to any load bearing or vehicular traffic.

PART 2 PRODUCTS

2.01 MANUFACTURER - LOAD SUPPORT HONEYCOMB GRID WITH CONFINEMENT SYSTEM

A. CORE Landscape Products
2750 Cumberland Road,
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A. Base Materials

CORE gravel - Honeycomb Gravel Stabilizer Panels:

Panels shall be ± 45" x ± 30" x 1 3/8" (1.15 m x .78 m x 35mm) (MEDIUM) (JUMBO panels also available = 3X medium panel size) heavy duty black injection-molded polypropylene panel having a factory applied geotextile fabric fused to the bottom such as
50-35 HD and shall be capable of supporting wheelchairs and occasional light truck traffic. Compressive strength is tested under ASTM D 1621-04a and shall be 1016 kg/0.0175 m^2. Loading capacity shall be > 250 tons/m^2, > 330 psi, when filled with gravel over the specified base.

2.02 CORE GRAVEL HONEYCOMB CELL INFILL MATERIALS

Specifier Notes:

A. For a permeable system, fill cells with clean, angular or round stones, gravel or decorative stones.

B. Infill gravel sizes shall range between 1/8" to 1/2" and shall be either clear or pre-washed of all fines before delivering to the site. No gravel less than 1/8" nor more than 1/2" shall be allowed.

C. Install infill gravel by back-dumping into the cells from buckets mounted on rubber-tired tractors. Avoid sharp turns of the tractor, driving only on gravel-filled cells. Spread gravel laterally from the pile using power brooms, blades, flat bottomed shovels and/or wide asphalt rakes to fill the cells. Compact finished course with a vibrating plate compactor.

2.03 SURFACE CRUSHED STONE

A. Surface treatment includes one or a combination of the following:

1. Clean/clear, crushed stones (can be decorative, angular or rounded), size 5 mm to 12 mm (1/8" to ½"). Choose harder stones for increased durability in residential driveway applications. For more permeability, use larger stones.

B. Install crushed stones in thickness as shown and as detailed (Profile sheet), typically 1 cm over grid top. Compact with a plate compactor or hand tamper.

PART 3 EXECUTION

3.01 EXAMINATION

A. Evaluate site conditions. Notify the Engineer and refrain from excavation until site conditions have been corrected.

B. Evaluate that the layout of the project is as indicated on the drawings. Notify the Engineer and do not proceed until the layout of the project matches the drawings.

3.02 INSTALLATION OF CORE GRAVEL STABILIZING SYSTEM

A. Subgrade Preparation:

1. Excavate and shape foundation soils to grades, elevations, and dimensions as indicated on the drawings. Be sure water will flow away from any structures. Install moisture barrier if projects meets a foundation with a basement.

2. Confirm foundation soil meets specified compaction through proof rolling or other conventional method and is examined by the Engineer. If unacceptable foundation soils are encountered, excavate affected areas and replace these areas with suitable quality material as directed by the Engineer. For subgrade soil compaction a vibratory plate, compactor, or roller is recommended.

B. Base Preparation:

1. For subgrade or base preparation, level and clear the area of large objects such as rocks, or pieces of wood. Excavate area allowing for unit thickness and top layer. Leave 45 mm (1.8 inches) for COREgravel® 50-35 (35 mm) and top layer (10 mm) to meet final grade.

2. Examine Horticultural subsoil at the XXXX to verify suitable compaction, elevation, drainage, and/or improper gradients before commencing work. Discrepancies from detailed or specified conditions shall be reported to the Landscape Architect and the Owner's Representative so as to not delay work.

3. Installation constitutes acceptance by the Contractor of existing conditions and assuming responsibility for satisfactory performance of the system.

4. Place the panels. Position the panels on the prepared subgrade with geotextile face down. Cut to shape with aviation shears or skill saw with fine-toothed blade. Use protective gloves to avoid abrasions. Top of hexagon cell panels should be 1 cm (10 mm) below adjacent hard surfaced pavements or final grade.

5. All hard surfaces abutting areas to receive Gravel Surfacing shall be in place prior to commencing work. Finished gravel work shall be no more than 1/2" below adjacent hard surfaces. Adjust Crushed Aggregate levels accordingly so that this will be possible.

6. Place first row of panels against a stationary edge if possible. The panels have interlocking connectors. No anchors are needed for gravel stabilizer panels since the geotextile backing prevents any push up.

7. Fill cells with chosen infill. Maximum particle size of granular infill material must not exceed 12 mm (0.5 inches). Minimum particle size should be 3.18 mm (0.125 inches) to allow porosity. Cell walls must be sufficiently covered with infill to prevent any equipment or load bearing vehicular traffic from damaging the grid.

8. Contour compacted surface to specified elevation and grade as indicated on the drawings.

9. Install edge restraint if desired. Standard metal, plastic, concrete edge restraints or concrete curbing may be used.

Post-Placement

A. Reserve XX square feet or pounds of top layer crushed stones for correcting top dressing layer. Store on site in a weather-proof area so that the material will be available for use as necessary.

B. Snow plowing – Use shovels or blades with plastic blades.

C. Use of salt for de-icing is allowed.