

GEOGRIDS

Installation Recommendations

PREPARATION

1. The engineer shall verify the subgrade is ready for geogrid deployment, and that elevations are as indicated on the Contract Drawings.
2. The surface shall be fairly smooth and free of stumps, sharp objects and debris that may damage the geogrid.

INSTALLATION

3. Unroll geogrids on the subgrade and apply tension by hand to eliminate wrinkles.
4. Geogrid panel overlap requirements, either side by side, or end to end, shall depend on the strength of the subgrade. For very soft subgrade (with CBR <1), 3 feet overlap is recommended; for soft subgrade (with CBR = 1-2), 2 feet, and for firm subgrade (CBR > 2), 1 foot.
5. Adjacent geogrid rolls should be overlapped in the direction of anticipated fill spreading.
6. Plastic ties shall be used at 10 foot intervals to secure the overlaps.

BASE MATERIAL PLACEMENT OVER GEOGRID

7. During the installation of geogrid over firm ground (CBR > 2), the fill material must be back dumped or end dumped or belly dumped. When applying the fill material over firm ground, rubber tire trucks can drive directly on the geogrid at very slow speeds (less than 5 mph) and dump the fill material as they go. Operators must not turn or make any sudden stops when driving across the geogrid. Tracked equipment cannot be driven directly across the geogrid. A minimum of four (4) inches of fill material shall be placed between equipment tracks and geogrids.
8. In applying fill material across soft ground (CBR between 1-2) and very soft ground (CBR <1), no equipment can drive directly across geogrid. The specified fill material shall be placed and spread utilizing vehicles with a ground pressure of less than 4 pounds per square inch. The placement of the specified fill material should take place from the edge of the geogrid. The placement of fill onto the geogrid prior to spreading should be from trucks riding on the total finished thickness of the specified fill layer. The equipment utilized for spreading the geogrid should take care to lift the blade as the equipment moves forward in order to roll the fill onto the grid. A minimum of 4 inches of fill is required between the geogrid and the operating equipment tracks utilized for spreading. Tight turns, sudden stops, or spinning of tracks is prohibited.
9. Any ruts developed during spreading or compacting must be filled with additional fill material to reach the design thickness.
10. Base course material shall be placed in lift thickness and compacted in accordance with the design requirements.

REPAIR

11. Geogrid sections damaged during installation must be cut and removed. Replacement sections shall be overlapped by three (3) feet on all sides and secured with plastic ties.

PROTECTION

12. The geogrid shall be protected from long-term exposure to direct sunlight during transport and storage.
13. After placement, the geogrid shall not be left uncovered for more than three (3) weeks.