SECTION 312323.14 – COMPACTED GRANULAR BACKFILL

PART 1 - GENERAL

1.1   SCOPE

A.   The Contractor shall furnish all the materials from the top of bedding to the pavement sub grade and shall properly place and compact gravel backfill, as approved, over conduits, pipelines and elsewhere, when ordered by the Engineer, when they are located under pavement or cross under roads, drives and elsewhere when backfill is required to be accomplished without future settlement, and only when and as called for by the Drawings or as may be ordered by the Engineer.

B.   Gravel, or other granular material that is excavated from the project area as part of the excavation shall not be used for the purposes of this specification.

PART 2 - PRODUCTS

2.1   MATERIALS

A.   Backfill material shall be crushed limestone granular material meeting the requirements of ODOT CMS Item 304.

PART 3 - EXECUTION

3.1   PLACING

A.   Granular backfill, when called for by the Drawings, or ordered by the Engineer, for trench backfill shall be properly graded and placed in layers not over six (6") inches in depth, with voids reduced to a minimum, and thoroughly compacted with power driven mechanical tampers, or as directed by the Engineer. The placing of this material shall be continued until the required depth is compacted, and the top of this backfill shall be finished to the lines and grades called for by the Drawings, or as ordered by the Engineer. Should settlement occur, the Contractor must add and compact additional fill, and he must maintain the backfill at the required sub grade until the project is satisfactorily completed.

3.2   COMPACTION

A.   Minimum compaction for compacted granular material shall be 98 percent of the maximum dry density of the backfill material.

B.   At the beginning of compaction operations, the Contractor shall construct a test section in accordance with ODOT CMS Supplement 1015. Utilizing the test section, the Contractor shall establish the minimum compactive effort required to achieve the required trench compaction.

C. Utilizing the minimum compactive effort established via the test section, installation of the compacted granular material may proceed without further compaction tests so long as the following conditions are maintained:
1. The established minimum compactive effort is utilized throughout the installation area.
2. Maximum lift thicknesses are maintained.
3. Material and or the supporting materials are not appreciably different from those utilized in performance of the test section.
4. Observation of the material within the trench does not reflect any areas where compaction visually appears inadequate.

D. In areas where, in the judgement of the Owner or his designated representative, the compaction of the material within the trench appears to be inadequate, the Owner or his designee may require a compaction test to be performed by the Contractor. Testing to demonstrate the compaction of the in place material shall be the responsibility of the Contractor.

E. It shall be the responsibility of the Contractor to perform compaction tests according to ODOT CMS Supplement 1015, or as required by the Owner or his designated representative. Tests shall be performed by competent personnel and with equipment made for the purposes intended and kept in good repair and working order. When, in the judgement of the Owner or his designated representative that the personnel performing the tests are not competent to do so or the equipment provided is not adequate, the Owner may order, at his sole discretion, that a certified soils testing laboratory perform tests and provide test reports to establish that the material and work conform with Project requirements.

F. When material and/or the supporting materials change appreciably, placing the performance of the initial test section in question, the Contractor shall construct a new test section in accordance with ODOT CMS Supplement 1015 to establish revised compactive effort requirements for the project.

END OF SECTION 312323.14