

SECTION 02320

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes backfill for structures, removals, pavement, over-excavation and landscaping. Work shall include supplying, stockpiling, placing and compacting backfill material. All work shall conform to MDOT Standards and Specifications as modified by the Holland BPW. All non-itemized work shall be considered incidental.

1.2 SUBMITTALS

- A. Provide samples, gradation reports and field density reports for all backfill material.

PART 2 - PRODUCTS

2.1 BACKFILL MATERIALS

- A. As indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that drainage and waterproofing work has been approved.
- B. Verify underground tanks are anchored to avoid flotation.
- C. Verify structural ability of facilities to support loads imposed by the fill.

3.2 PREPARATION

- A. Cut out soft, porous, wet, frozen or spongy areas of subgrade. Backfill and compact to material and density requirements of subsequent bedding or backfill material.
- B. Review **SECTION 02315**, General Construction and Excavation.

3.3 BACKFILL

- A. Backfill areas to contours and elevations with unfrozen materials.
- B. Systematically backfill to allow maximum time for natural settlement.
- C. Backfill per Section 205 of the 2003 MDOT Standard Specifications for Construction.
- D. Employ a placement method that does not disturb or damage other work.
- E. Backfill against supported site structures and utilities.
- F. Backfill simultaneously on each side of site structures and utilities until supported.
- G. Make gradual grade changes. Blend slope into level areas.

- H. Remove surplus backfill materials from site.
- I. Over-excavated areas shall be backfilled and compacted to material and density requirements of subsequent bedding or backfill material. Backfill for over-excavation shall be considered incidental. **Backfilling over-excavation with existing material will not be permitted.**

3.4 TOLERANCE

- A. Under paved areas, top surface of backfill shall be plus or minus ½”.
- B. Under unpaved areas, top surface of backfill shall be plus or minus 1”.

3.5 FIELD QUALITY CONTROL

- A. Maintain optimum moisture content to attain required compaction density.
- B. Compaction testing will be performed in accordance with Controlled Density Method as specified in section 205 of the 2003 MDOT Standard Specifications for Construction and the MDOT Density Control Handbook. Compact to not less than 95% of the maximum unit weight.
- C. Perform 1 test for every 200' of 5' depth of utility trench. Frequency of test may be increased or decreased depending on contractor's methods at owner's option.
- D. If work does not meet specified requirements, remove, replace and retest.
- E. Under paved areas, proof roll compacted backfill.

3.6 PROTECTION OF FINISHED WORK

- A. As needed, reshape and re-compact areas of backfill subject to vehicular traffic.

END OF SECTION