

Section 02319

BORROW

PART 1 GENERAL

1.01 SUMMARY

This Section includes soil materials for embankment.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. Payment for borrow is on cubic yard basis calculated by theoretical quantities using average end area method based on Plans.
2. Refer to Section 01270 - "Measurement and Payment" for unit price procedures.

B. Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for Work in this Section is included in total Stipulated Price.

1.03 REFERENCES

- A. ASTM D2216 - Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.
- B. ASTM D4318 - Standard Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.04 SUBMITTALS

- A. Conform to requirements of Section 01330 - "Submittal Procedures".
- B. Submit location and description of proposed borrow area for approval.
- C. Submit material samples for testing.

1.05 RELATED REQUIREMENTS

- A. Section 01270 – "Measurement and Payment"
- B. Section 01330 – "Submittal Procedures"
- C. Section 01454 – "Testing Laboratory Services"
- D. Section 01555 – "Traffic Control and Regulation"

E. Section 02330 – “Embankment”

1.06 – 1.13 NOT USED

PART 2 PRODUCTS

2.01 MANUFACTURER(S) (NOT USED)

2.02 MATERIALS AND/OR EQUIPMENT

A. Soil Material

1. Grade borrow material used for embankment free of lumps greater than 6 inches, rocks larger than 3 inches, organic material, chemical waste or other contamination, and debris. Take borrow material from sources approved by Project Manager.
2. Use material with plasticity index not less than 12, nor more than 20 when tested in accordance with ASTM D4318. Maximum liquid limit shall be 45, unless approved by Project Manager. Do not use blend of cohesive and granular soils to achieve required plasticity index.

2.03 – 2.04 NOT USED

PART 3 EXECUTION

3.01 GENERAL / MANUFACTURER(S) (NOT USED)

3.02 PREPARATION

- A. Notify Project Manager and testing laboratory 5 days in advance of opening borrow source to permit obtaining samples for qualification testing. When material does not meet specification requirements, locate another source of borrow.
- B. Clear approved source area of trees, stumps, brush, roots, vegetation, organic matter, and other unacceptable material before excavation.

3.03 ERECTION/INSTALLATION APPLICATION AND/OR CONSTRUCTION

A. Excavation

Provide adequate drainage of surface water so that surface water run off does not enter borrow pit excavation.

B. Hauling

Use covered trucks. Conform to requirements of Section 01555 - “Traffic Control and Regulation”.

C. Embankment

Conform to requirements of Section 02330 - "Embankment".

3.04 – 3.07 NOT USED

3.08 DEMONSTRATION / TESTING AND INSPECTION

Test and analyze soil materials in accordance with ASTM D4318 and ASTM D2216 under provisions of Section 01454 - "Testing Laboratory Services".

3.09 – 3.10 NOT USED

END OF SECTION