

31 05 16 AGGREGATE PRODUCTION

Part 1 General

1.1 DESCRIPTION

- .1 Extraction and crushing of AT Designation 1 Class 16mm Asphalt Aggregate as required for Asphalt Concrete Paving in accordance with the Contract Documents.
- .2 Extraction and crushing of AT Designation 2 Class 20 Base Course Aggregate as required for base course aggregate in accordance with the Contract Documents or as directed by the Departmental Representative.

1.2 REFERENCES

- .1 BC MoTI - Standard Specifications for Highway Construction (latest edition).
- .2 AT - Standard Specifications for Highway Construction (latest edition).

1.3 MEASUREMENT AND PAYMENT PROCEDURES

- .1 Measure for payment for production AT Designation 1 Class 16mm Asphalt Aggregate shall be incidental to **“Unit Price Item 2 – Asphalt Concrete Pavement (EPS)”** in accordance with the approved asphalt mix design proportions and the price(s) bid shall be full compensation for the cost of furnishing all labour, materials, equipment, tools and incidentals necessary to complete the work as specified in the Contract Documents and accepted by the Departmental Representative.
- .2 Measure for payment for production of AT Designation 2 Class 20 Base Course Aggregate shall be incidental to **“Lump Sum Price Item 4 – Optional Item: Precast Concrete Box Culvert and Detour”** and the price(s) bid shall be full compensation for the cost of furnishing all labour, materials, equipment, tools and incidentals necessary to complete the work as specified in the Contract Documents and accepted by the Departmental Representative.
- .3 Items considered incidental to the Work include, but are not limited to:
 - .1 Extraction
 - .2 Separation and relocation of unusable material from usable material prior to crushing.
 - .3 Crushing.
 - .4 Loading, hauling and stockpiling of aggregates.
 - .5 Testing.
 - .6 Maintaining and plowing access roads and areas in the Work areas.
 - .7 Clean-up of work area and pit; and all labour.
 - .8 Environmental mitigations required in accordance with Section 01 35 43 – Environmental Procedures.
- .4 Crushing, hauling and stockpiling of aggregates will be measured as the volume of the stockpiles, as determined by the Departmental Representative, taking survey measurements before and after stockpiling. The surface to surface prismatic method will be used in calculating surveyed stockpiled quantities.

- .5 Additional aggregate material produced, (waste or otherwise) shall not be measured for payment.
- .6 Traffic Control when required for this Work shall be incidental to **“Lump Sum Price Item 2 - Traffic Accommodation”** and no separate payment will be made to the Contractor.
- .7 Mobilization and demobilization required for this Work shall be incidental to **“Lump Sum Price Item 1 Mobilization / Demobilization”** and no additional payment will be made.

1.4 SUBMITTALS

- .1 In accordance with Section 01 33 00 Submittal Procedures.

1.5 QUALITY CONTROL

- .1 In accordance with Section 01 45 00 – Quality Control.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 In accordance with Section 01 35 43 – Environmental Procedures.
- .2 Waste material is to be disposed of outside of the National Parks at a disposal location accepted by the Departmental Representative and will not be measured for payment.

Part 2 Products

2.1 MATERIALS

- .1 Asphalt Aggregate:
 - .1 The Contractor is to produce asphalt aggregates consistent with the proportions of the final approved Job Mix Formula utilized for **“Unit Price Item 2 - Asphalt Concrete Pavement – EPS”**.
- .2 Material is available for extraction and aggregate crushing at David Thompson Pit for Contractor use on this Project only. Approximate quantities are shown on the David Thompson Pit plan. The Contractor is responsible for verifying these quantities prior to construction. The Contractor is responsible for all testing and handling of the Owner-supplied material related to aggregate production.

Part 3 Execution

3.1 CRUSHING PLANT

- .1 The crushing plant to be used for this project, regardless of location, shall have a minimum combined Horse Power of 200 HP. All aggregate which will pass through 375 mm x 450 mm slotted screen openings shall be used for the production of crushed aggregate using a jaw crusher. Rocks which will not pass through these openings shall be stockpiled at locations in the pit as directed by the Departmental Representative. No portion of the products of crushers or screening plants that can be used shall be wasted but shall be stockpiled or used as directed by the Departmental Representative.

3.2 PRODUCTION

- .1 All aggregate materials for asphalt concrete pavement to be produced in accordance with AT Standard Specifications for Highway Construction, Specification 3.50 Asphalt Concrete Pavement - EPS (latest edition).
- .2 All aggregate materials for base course aggregate to be produced in accordance with AT - Standard Specifications for Highway Construction Section 3, Specification 3.2 – Aggregate Production and Stockpiling (latest edition).
- .3 Aggregates are permitted to be produced at David Thompson Pit in BNP in locations as described in the Contract documents or as directed by the Departmental Representative.
- .4 The Contractor shall be responsible for managing their working space within the pit(s) and coordination with Parks Canada contractors, personnel or others, to maintain access in accordance with Section 01 14 00 - Work Restrictions.

3.3 STOCKPILING

- .1 Aggregates are to be stockpiled at David Thompson Pit in BNP in locations as described in the Contract documents or as directed by the Departmental Representative.
- .2 All aggregate materials to be stockpiled in accordance with AT - Standard Specifications for Highway Construction Section 3, Specification 3.2 – Aggregate Production and Stockpiling (latest edition).
- .3 No stockpiling by conveyor shall be permitted.
- .4 Stockpile sites shall be prepared by clearing of all vegetation, trees, brush, rocks or other debris and constructing a uniform gravel surface prepared before the stockpile material is deposited on the stockpile site.
- .5 Stockpiles shall be constructed on the designated site and when completed shall be neat and regular in shape, occupying as small an area as is practicable. Spilling of material over the edges of the piles will not be permitted.
- .6 The Contractor shall ensure that stockpiles shall be built up in layers not to exceed 1m in thickness.
- .7 No stockpile shall have side slopes steeper than 1.5H:1V. Side slopes and Pit faces shall meet WCB requirements for the province in which the stockpiles are located.
- .8 Contractor is advised that it is their responsibility to allow for compaction shrinkage, of crushed materials, when placed in stockpiles and no allowance by Departmental Representative is calculated in survey quantity stockpile calculations for this shrinkage.

END OF SECTION