

## 01 35 32 SPECIAL PROCEDURES FOR TRAFFIC DETOURS

### Part 1 General

#### 1.1 DESCRIPTION

- .1 Supply, installation, maintenance and removal of all equipment, labour, materials and incidentals required for Traffic Detours as described in the Contract Documents, for the duration of the Contract or as described in this Section.
- .2 **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour – b) Traffic Detour”** is an optional Lump Sum Price Item and will be included or excluded from the Contract at the discretion of PCA.
- .3 Detour required for this project is at Km 64.6.

#### 1.2 REFERENCES

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

#### 1.3 MEASUREMENT AND PAYMENT PROCEDURES

- .1 Payment for Traffic Detours will be made under **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour -b) Traffic Detour”**
- .2 All labour, equipment, materials, tools and incidentals required for the detour(s), including but not limited to: design, survey, layout, construction, staging, maintenance, traffic control, pavement markings, signing and removal of the detours shall be included under **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour -b) Traffic Detour”** and no additional payment will be made.
- .3 Removal of detours, including but not limited to topsoil placement, landscaping back to original state and hydroseeding is considered incidental to **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour – b) Traffic Detour”** and no additional payment will be made.
- .4 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.
- .5 50% of Lump Sum Contract Price for **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour - b) Traffic Detour”** to be paid when detour has been completed and commissioned for two-way traffic.
- .6 The remainder of the Lump Sum Price for **“Lump Sum Price Item 4 Optional Item: Precast Concrete Box Culvert and Detour – b) Traffic Detour”** to be paid when:
  - .1 The culvert work is complete, the detour is removed and disposed of off site, and the site is cleaned and returned to original condition to the satisfaction of the Departmental Representative including but not limited to topsoil grading and placement, landscaping, and hydraulic seeding.
- .7 Environmental mitigations required in accordance with Section 01 35 43 – Environmental Procedures shall be incidental to the Contract and no separate payment will be made.

#### 1.4 SCHEDULE

- .1 The Contractor is prohibited from conducting work that will, in the opinion of the Departmental Representative, interfere with smooth traffic flow in accordance with Section 01 14 00 - Work Restrictions.
- .2 The Contractor shall construct the temporary detour before the July Long Weekend (June 28 – July 1) and put in service on or after July 2, 2019.
- .3 The Contractor will be permitted to start excavation works for the Km 64.6 culvert replacement after a two-day detour commissioning period to ensure its functionality. Commissioning of the detour shall occur no later than June 27, 2019.
- .4 Removal of the detour, including but not limited to topsoil placement, and landscaping back to original state must be completed by the Contract completion date.

#### 1.5 TRAFFIC CONTROL REQUIREMENTS

- .1 The Contractor shall provide traffic control in accordance with Section 01 35 31 – Special Procedures for Traffic Control.

#### 1.6 DESIGN CRITERIA

- .1 Detour Road Design Speed to be 40 km/hr. Detour Road Posted Speed to be 30 km/hr. However, these criteria may be reduced by the Departmental Representative at their absolute discretion based on constructability and functionality.
- .2 Detour shall match the laning at the tie-in. Minimum travel lane width shall be 3.7 m lanes plus 1.3 m shoulders on both sides. Minimum total available paved surface width of Detour Roads to be 10.0 m at all locations. Detour is to be a minimum of two (2) lanes, one (1) lane in each direction.
- .3 Detour design must accommodate off tracking of oversized loads without impacting opposing lanes.
- .4 Detour Road pavement structure shall include:
  - .1 50mm Asphalt Concrete Pavement using AT Designation 1 Class 16mm Asphalt Mix Aggregate and 150-200A asphalt binder placed in single lift,
  - .2 150mm base course using AT Designation 2 Class 20 Base Course Aggregate
  - .3 275mm sub-base course AT Designation 6 Class 80 Pit-Run Gravel Fill
- .5 Design shall incorporate as much as possible the final roadway layout to avoid removing detour built. Sections of the detour road incorporated into the final roadway must be constructed to match the final road structure design.
- .6 Detour design shall be constructed within the permitted detour footprint as specified in the Contract Documents.
- .7 Detour design shall accommodate drainage and waterways in accordance with applicable environmental approvals and permits. Contractor shall submit drainage and water management plan(s) as part of their detour design for Departmental Representative review.

#### 1.7 DETOUR DESIGN REVIEW

- .1 Provide Departmental Representative with four (4) sets of complete working Drawings and one copy of detailed design calculations, for review in accordance with Section 01

33 00 – Submittal Procedures. Drawings to show both detour and final roadway design at each stage. Drawings and design calculations to bear signature and stamp of qualified professional engineer registered or licensed in the Province of the British Columbia or Alberta, depending on which province the Work is occurring.

- .2 Verify existing site conditions and ground elevations before preparing working Drawings.

## **1.8 QUALITY CONTROL**

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

## **1.9 SUBMITTALS**

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

## **1.10 WASTE MANAGEMENT AND DISPOSAL**

- .1 In accordance with Section 01 35 43 - Environmental Procedures.
- .2 The Contractor shall haul gravel fill and granular materials used for the temporary detour back to David Thompson Pit and separate accordingly, unless directed otherwise by the Departmental Representative, and no additional payment will be made. The Contractor shall remove and dispose of asphalt material used for the detour outside of National Parks.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 AT Designation 6 Class 80 Pit-Run Gravel Fill to be supplied by the owner.
- .2 AT Designation 2 Class 20 Base Course Aggregate to be supplied or produced by the Contractor.
- .3 **AT Designation 1 Class 16mm asphalt aggregate with 150-200A asphalt binder to be supplied or produced by the Contractor.**
- .4 Virgin pit material and pit-run aggregate material is available for extraction and aggregate production at David Thompson Pit which the Contractor may use for gravel fill, base course, and asphalt aggregate on this Project only. Approximate quantities are shown on the David Thompson Pit plan. The Contractor is responsible for verifying these quantities prior to use. The Contractor is also responsible for all handling, stockpiling and testing of the Owner-supplied material related to aggregate production.

## **Part 3 Execution**

### **3.1 CONSTRUCTION AND REMOVAL OF DETOURS**

- .1 Construction and removal to the full extent required to return to the original condition or the final design as is applicable.
- .2 Pavement markings for detours shall be in accordance with Section 32 17 23 – Pavement Markings.

### **3.2 MAINTENANCE OF DETOURS**

- .1 Maintenance as per Contractor's Drawings and in accordance with AT Standard Specifications for Highway Maintenance (latest edition).
- .2 Maintenance of detours shall be incidental to the Contract Works and no additional payment will be made.
- .3 During winter shutdown no detours shall remain in service and the Contractor is to reinstate the Highway and speed limits.

**END OF SECTION**