

PART 1 - GENERAL

- 1.1 Section Includes
- .1 Construction aids.
 - .2 Office and sheds.
 - .3 Parking.
 - .4 Project identification.
- 1.2 Precedence
- .1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.
- 1.3 Related Sections
- .1 Section 01 56 00 - Temporary Barriers and Enclosures.
- 1.4 References
- .1 Canadian General Standards Board (CGSB)
 - .1 CGSB 1-GP-189M-84, Primer, Alkyd, Wood, Exterior.
 - .2 CGSB 1.59-97, Alkyd Exterior Gloss Enamel.
 - .2 Canadian Standards Association (CSA International)
 - .1 CAN3-A23.1-/A23.2-94, Concrete Materials and Methods for Concrete Construction/Method of Test for Concrete.
 - .2 CSA-0121-M1978, Douglas Fir Plywood.
 - .3 CAN/CSA-Z321-96, Signs and Symbols for the Occupational Environment.
- 1.5 Installation and Removal
- .1 Provide construction facilities in order to execute work expeditiously.
 - .2 Remove from site all such work after use.
- 1.6 Scaffolding
- .1 Provide and maintain scaffolding, ladders and temporary stairs.
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- 1.7 Hoisting .1 Provide, operate and maintain hoists cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.
- .2 Hoists cranes shall be operated by qualified operator.
- 1.8 Site Storage/Loading .1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.
- 1.9 Construction Parking .1 Parking will be limited to Contractor vehicles and equipment required to carry out work only, provided it does not disrupt performance of Work.
- .2 Provide and maintain adequate access to project site.
- .3 Build and maintain temporary roads where indicated or directed by Departmental Representative and provide snow removal during period of Work.
- .4 If authorized to use existing roads for access to project site, maintain such roads for duration of Contract and make good damage resulting from Contractors' use of roads.
- 1.10 Departmental Representative's Site Offices .1 Contractor to provide Departmental Representative's office trailer/space. Minimum office trailer/space size is 40 m².
- .2 Contractor to arrange and pay for phone, fax machine, internet connection and photocopier in Departmental Representative's office for its exclusive use. Long distance calls placed on this phone and fax to be paid for by Departmental Representative. Replacement cartridges for printer and photocopier to be supplied by contractor.
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- .3 Contractor to equip office with washroom, kitchen and one separate office, two 1 m x 2 m tables, one 1 m x 2 m drafting table, 4 chairs, 6 m of shelving 300 mm wide, one 3 drawer filing cabinet, one plan rack and one coat rack and shelf.
- .4 Upon completion of the Contract; all equipment and furniture provided by the Contractor shall be returned to contractor.
- .5 Supply of the Departmental Representative's office, supplies and services will be incidental to the work. Payment to be included in the lump sum portion of the work.
- .6 Contractor to ensure site office is supplied and operational within 14 days after contract award.
- .7 Provide garbage and cleaning services bi-weekly.
- .8 Maintain inside air temperature at 20 degrees.

1.11 Testing Laboratory

- .1 Provide testing laboratory at aggregate production site and at asphalt concrete plant for exclusive use of Departmental Representative.
 - .1 Provide water, electrical power and propane to testing laboratory at aggregate production site, and at asphalt concrete plant.
 - .2 Notify Departmental Representative sufficiently in advance of operations to allow for assignment of Laboratory personnel and scheduling of tests.
 - .3 No separate payment to be made for Testing Laboratory. Cost shall be deemed incidental to Contract, and deemed to be included in the lump sum portion of the work.
 - .4 If testing laboratory at aggregate production site is required at the same time as testing laboratory at asphalt concrete production site, provide additional laboratory as required.
 - .5 Maintain inside air temperature at 20 degrees.
 - .6 Refer to the DTW Specifications Book, standard drawing 1203, for minimum size and equipment requirements.

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- 1.12 Equipment,
Tool and Materials
Storage
- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
 - .2 Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with work activities.
- 1.13 Sanitary
Facilities
- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
 - .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.
- 1.14 Construction
Signage
- .1 No other signs or advertisements, other than warning signs, are permitted on site.
 - .2 Signs and notices for safety and instruction shall be in both official languages Graphic symbols shall conform to CAN3-Z321.
 - .3 Maintain approved signs and notices in good condition for duration of project, and dispose of off site on completion of project or earlier if directed by Departmental Representative.

PART 3 - EXECUTION

- 3.1 Preparation .1 Prior to commencing removal operation, inspect and verify with Department Representative areas, depths and lines of asphalt concrete pavement to be removed.
- 3.2 Equipment .1 The cold planning shall be accomplished using a cold-milling machine. The cold-milling machine shall be a self-driven rotating drum type, capable of removing asphalt 100 mm thick and at least 1200 mm wide in a single pass. Cutting depth shall be adjustable from 0 mm to 100 mm over the length of the drum. The machine shall have automatic grade control and be able to load milled material directly into trucks, or be able to windrow the material for subsequent pick-up by other equipment.
- 3.3 Removal .1 Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 meter long taper. The temporary taper must be removed prior to paving of the milled area.
- .2 Lanes shall be completed to the same location at the end of the day's cold milling operation where it is intended to have both lanes milled.
- .3 All residue left by the cold planning process shall be removed immediately from the road. Mechanical sweeping shall be performed at the end of each day's operations. Low points in the asphalt as a result of cold planning operations, where water ponding may occur, shall have the shoulder milled for draining rainfall. Any guide rail contaminated as a result of cold planning or sweeping operations shall be cleaned to the satisfaction of the Department Representative. Any milled material that is lost over the shoulder shall be immediately retrieved and disposed of in an approved manner.
- .4 The Contractor shall dispose of residue at an approved waste disposal area provided by the

Contractor at his own expense.

- .5 The contractor shall continuously maintain the work site free of pot holes and standing water and in a condition providing for a safe and efficient flow of traffic, from the time of removal, until such time as the new asphalt concrete is placed. Hot mix asphalt concrete shall be placed in the pot holes; cold mix or RAP are acceptable only as a temporary repair. Areas cold milled must be paved within 7 days of the cold milling operation. Signage indicating the driving condition of the milled surface shall be posted. (i.e. Construction Signs TC-47 and TC-49). Milled and aged asphalt concrete surfaces shall be treated with bituminous tack coat in accordance with Section 32 12 13.16 - Asphalt Track Coat prior to the placing of asphalt concrete.
- .6 Use equipment and methods of removal and hauling which do not tear, gouge, break or otherwise damage or disturb underlying pavement.
- .7 Prevent contamination of removed asphalt concrete pavement and granular base by topsoil, underlying gravel or other materials.
- .8 Provide for suppression of dust generated by removal process.
- .9 Compact underlying material.
- .10 In areas where localized pavement removal is carried out within the traffic lane ensure traffic is restricted from area until the surface is restored.

3.4 Spreading
Equipment

- .1 Graders shall be used which are capable of spreading the milled asphalt true to line, grade and crown (2%) as specified and as directed by the Departmental Representative.
- .2 The milled material shall be placed in uniform layers such that the thickness of the compacted layer does not exceed 150 mm.

3.5 Rollers

- .1 All rollers used for placement of the milled material shall be of the types specifically

designed for asphalt compaction and shall be in good condition and capable of reversing without backlash. They should be operated at all times by competent and experienced operators.

- .2 All rollers shall be weighted in the presence of the Departmental Representative and ballasted, if required, immediately before commencing work and whenever subsequently required by the Departmental Representative.
- .3 Sufficient passes should be made with rollers to stabilize and compact the milled asphalt to the satisfaction of the Departmental Representative. The milled material must be compacted immediately after placing.

3.6 Tolerance

- .1 Compacted surface shall be within plus or minus 5 mm of elevations established by the Departmental Representative, but not uniformly high or uniformly low.

3.7 Traffic Control

- .1 Maintain at least one lane of alternating two-way traffic at construction sites at all times as specified in Section 01 55 26 - Traffic Regulations.