
Part 1 -General

1.01 Description

- .1 This Section specifies requirements for environmental controls including control of noise, dust, mud, surface water and erosion as well as various pollution control methods and handling of designated substances.

1.02 Related Specification

- .1 Construction Specification Section 01301 - General Instructions
- .2 Construction Specification Section 01890 - Preservation, Protection and Reconstruction
- .3 Construction Specification Section 02240 - Dewatering
- .4 OPSS.MUNI 180 - General Specification for the Management of Excess Material
- .5 OPSS.MUNI 506 - Construction Specification for Dust Suppressants
- .6 OPSS.MUNI 805 - Construction Specification for Temporary Erosion and Sediment Control Measures

1.03 Regulations

- .1 Ontario Regulation 406/19 made under the Environmental Protection Act – On-site and Excess Soil Management

1.04 Control Measures

- .1 Noise Controls
 - .1 Use vehicles and equipment with effective muffling devices.
 - .2 Provide and use devices that will minimize noise level in construction area.

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- .3 Establish and maintain site procedures such that noise levels from construction areas are minimized.
 - .4 Control noise level in accordance with Local Municipalities, By-laws and Ministry of the Environment, Conservation and Parks (MECP) Standards.
 - .2 Dust Controls
 - .1 Prevent dust nuisance resulting from construction operations at all locations on site and adjacent neighbourhoods.
 - .2 Use water or calcium chloride to control dust.
 - .3 Minimize use of calcium chloride particularly in close proximity to watercourses or agricultural lands.
 - .4 Transport dusty materials in covered haulage vehicles.
 - .5 Scrape and flush work area and adjacent roads daily or as directed by the Contract Administrator.
 - .3 Surface Water Control
 - .1 Control all surface water and groundwater including rainfall, ice and snow run-off, seepage from cofferdams and diversion channels. Ensure that erosion is controlled and that flooding of excavations or damage to structures does not occur.
 - .2 Intercept and divert surface drainage away from excavations and any groundwater monitoring devices where used. Intercept surface drainage as far back from excavations as practical by means of ditches, berms or other interception methods as may be required for effective control.
 - .3 Direct pumped water or run-off to settling ponds or sediment basins prior to discharge to adjacent storm sewers or watercourses.

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- .4 Provide settling ponds and sediment basins in accordance with local Conservation Authority guidelines.
 - .1 Provide straw bales, filter berms or sand bags as required to retard and filter run-off prior to discharge to storm sewers or watercourses or as directed by the Contract Administrator.
 - .2 Clean out settling ponds from time to time or as directed by the Contract Administrator so that sediment discharge is prevented.
 - .5 Intercept and divert concentrated run-off from unstable areas under sheet flow conditions, as directed by the Contract Administrator.
 - .6 Not direct any flow of water across or over pavements, except through approved pipes or properly constructed troughs. Keep gutters and drainage ditches open at all times to provide adequate surface drainage. Construct and/or realign ditches as required to perform the Work.
 - .7 Maintain all existing storm sewers clean and free of deleterious materials and blockages.
 - .8 Provide splash pads of suitable size and design to prevent erosion where water is discharged to watercourse.
 - .9 Dispose of water so as not to be injurious to public health or safety, to property or to any part of work completed or under construction.
 - .4 Erosion Control:
 - .1 Removal of vegetation to be kept to a minimum.
 - .2 Excavate and stabilize temporary channel beds prior to any diversion of flow.
 - .3 Compact, stabilize and rip-rap banks that have been disturbed or damaged during construction.

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- .4 Install, maintain and remove all erosion control measures as shown on Contract Drawings and/or as specified in the Special Provisions.
 - .5 At a minimum, erosion controls shall be inspected and maintained weekly and immediately before and after rain events.
 - .6 Prior to any grading or filling, roadside ditches are to be protected with rock check dams or staked straw bales, as required to trap sediment and prevent its entry into watercourses. Sediment barriers shall also be provided upstream of all ditch inlet catch-basins to prevent entry of sediment into the storm sewer system. Maintain barriers and remove sediment in accordance with OPSS 805 until ground coverage is established.
 - .7 All filled/graded areas where applicable, are to be consolidated and re-vegetated as soon as these activities are complete, to prevent erosion.

1.05 Sensitive Areas

- .1 Contract Administrator shall identify any unique natural areas, habitats of rare or endangered species or other sanctuary areas that require care.
- .2 Inform Contract Administrator in writing of schedule for each river crossing, channelizing or other work in designated sensitive areas.
- .3 Avoid encroachment on unique natural areas.
- .4 Do not disturb habitats of rare or endangered species.
- .5 Protect wetland sites used as feeding or breeding areas by migratory fowls or as habitats for other animals.
- .6 Schedule construction in sensitive areas so that there shall be minimal interference with water uses including fish migration or spawning, or disruption of incubation period of eggs.

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- .7 Keep removal of vegetation to a minimum.
 - .8 Contain and deposit on land all aquatic plants uprooted or cut prior to or during construction.

1.06 Channel Diversions and Stream Crossings

- .1 Maintain adequate stream flow whenever temporary rivers, dams or stream diversions are required to avoid interference with downstream water uses.
- .2 Do not permit equipment to cross watercourses except at locations identified on the contract drawings. Reference contract documents for additional restrictions.
- .3 Do not restrict or impede movement of migrating fish.
- .4 Clean up stream channel upon completion of work. Clean up to include removal of any temporary structures, reshaping of stream to an approved configuration, restoration of stream bed, protection of stream banks and removal of all construction materials and debris.

1.07 Wayside Pits and Quarries

- .1 Obtain approval from the Ministry of Natural Resources and Forestry (MNR) where Contractor intends to use an existing or to open a new wayside pit, quarry or borrow pit on this work. All permits shall be obtained in accordance to MNR regulations and all fees shall be paid by the Contractor.
- .2 Release of any special holdback retained on Region of Durham road construction projects for this purpose is subject to receipt by the Region of Durham of confirmation by the Pits and Quarries Inspector of the MNR that any wayside pit or quarry for which a permit has been issued for the purpose of supplying material to the project has been satisfactorily rehabilitated.

1.08 Cleaning Equipment

- .1 Clean construction equipment prior to entering roadways.
- .2 Do not clean equipment in watercourses.
- .3 Do not clean equipment in locations where debris may gain access to sewers or watercourses.

1.09 Refuelling Areas

- .1 Review in detail proposed staging of construction to plan access routes and fuelling areas. Obtain approval from the Contract Administrator for proposed fueling locations.
- .2 Establish suitable fuelling and maintenance areas and obtain approval from Contract Administrator.
- .3 Store fuel in accordance with MECP and other applicable authorities.
- .4 Do not fuel equipment within 30 metres of any watercourse unless non-spill facilities are used.

1.10 Spills

- .1 Spills or discharge of pollutants or contaminants that are a result of the Contractor's operations which may cause or are likely to cause adverse effects shall immediately be reported to the local District Office of the MECP and the Contract Administrator. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act, R.S.O. 1990.
- .2 Submit procedures for interception, rapid clean-up and disposal of any spillage that may occur, to Contract Administrator for review fourteen (14) days prior to commencing work.

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- .3 Be prepared at all times to intercept, clean-up and dispose of any spillage that may occur whether on land or water.
 - .4 Keep all materials required for clean-up of spillages readily accessible on site.
 - .5 All spills or discharges of liquid, other than accumulated rainwater, from luminaires, internally illuminated signs, lamps, and liquid type transformers under the control of the Contractor, shall be assumed to contain PCB's and shall immediately be reported to the Contract Administrator.
 - .6 This reporting shall not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

1.11 Transport of Dangerous Goods

- .1 Comply with Federal Regulation "Transport of Dangerous Goods Act, 1992" administered in the Province by the Ministry of Transportation Ontario.

1.12 Disposal of Materials

- .1 Reference: OPSS.MUNI 180
- .2 Comply with Ontario Regulation 406/19 made under the Environmental Protection Act – On-site and Excess Soil Management
- .3 Dispose of all surplus, cleared, or removed materials and any other material not to be incorporated into the completed work, to an off site location arranged by the Contractor unless provided for elsewhere in the Contract. No separate payment shall be made for this work except as otherwise provided for in the Contract Documents.
- .4 Soil Re-use site(s) shall be arranged for by the Contractor. Obtain fill permit as required. All soil deposit site agreements shall be in writing and a copy of each agreement shall be provided to the Contract Administrator prior to use of the site.

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- .5 Complete and submit all current OPSF forms as applicable.
 - .6 Open burning shall not be permitted on Region of Durham contracts.
 - .7 The contract price for the item requiring such work shall be compensation in full for excavating, loading, hauling, placing and trimming and for all other work which may be required to dispose of the unsuitable or surplus material including providing a suitable site for material which is to be disposed of outside the right-of-way.
 - .8 Comply with the requirements of the MECP, MTO, Local Municipalities, Local Conservation Authority, Railway Companies, Contract Administrator and any other authority having jurisdiction and shall be responsible for any damage to the streets/roads used as a haul road.
 - .9 It is recommended that the Contractor have the proposed site pre-screened by the local Conservation Authority for the purpose of determining if the site is subject to Conservation Authority regulations on the placement of fill.

1.13 Removal and Disposal of Hazardous Materials

- .1 Hazardous materials shall be removed from the site and handled in accordance with the MECP Regulations current at time of construction.
- .2 Comply with the governing Ministry of Labour Regulations respecting protection of workers, removal, handling and disposition of the Designated Substances encountered.
- .3 Prior to commencement of work on or about any Designated Substance, provide written notification to the MECP for disposal of Designated Substances. Provide a copy of said notification to the Contract Administrator a minimum of two (2) weeks in advance of starting work on about any Designated Substance.

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- .4 In the event that the MECP has concerns with any proposed disposal location, further notification shall be provided to MECP until all concerns have been addressed.
 - .5 Submit a Waste Quantity Report (Form OPSF 1805) for all Solid Non-Hazardous Waste in accordance with requirements of OPSS.MUNI 180.
 - .6 Do not empty fuel, lubricants or pesticides into sewers or watercourses.

1.14 Basis of Payment

- .1 All work prescribed in this Section shall be included in the unit price bid in Form of Tender for construction of pipeline or structure unless specified otherwise.

END OF SECTION