

PART 1 - GENERAL

1.1 Related Sections.1 Section 01 35 44 - Environmental Protection.

- 1.2 Environmental Requirements
- .1 Operation of construction equipment in water is prohibited.
  - .2 Use borrow material from watercourse beds when approved by Department Representative.
  - .3 Design and construct temporary crossings to minimize environmental impact to watercourse.
  - .4 Constructing temporary crossings of watercourses when spawning beds are indicated is prohibited.
  - .5 Dumping excavated fill, waste material, or debris in watercourse is prohibited.

PART 2 - PRODUCTS

2.1 Preparation .1 Obtain work permits from governing Federal, Provincial and / or Municipal Conservation authority.

PART 3 - EXECUTION

3.1 Existing Conditions

- .1 Maintain existing flow pattern in natural watercourse systems.
- .2 In natural systems maintain existing riffle / pool and step / pool patterns.

3.2 Site Clearing and Plant Protection

- .1 Conduct work to provide minimal disturbance to vegetated buffer zones. Protect trees and plants on site and adjacent properties where indicated.
- .2 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes.

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- 3.2 Site Clearing and Plant Protection (Cont'd)
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zone.
  - .4 Leave cuttings from trees and other vegetation on site as brush piles to allow for natural degradation. Secure large piles with degradable materials to prevent interference with watercourse.
  - .5 Remove only trees that may offer future blockage problems.
  - .6 Leave root mass and stumps in place.
  - .7 Maintain temporary erosion and pollution control features installed under this contract.
- 3.3 Drainage
- .1 Pumping water containing suspended materials into watercourse is prohibited.
  - .2 Establish rock chute spillways to accommodate safe surface water entry to watercourse.
- 3.4 Site Restoration
- .1 Establish vegetated buffer zones with topsoil and seeding to minimum 3 m along edge of watercourse banks as determined by Department Representative.
  - .2 Plant vegetation natural to area, suitable for application without requirement for fertilizers, pesticides and other chemicals.
  - .3 Control streambank erosion in lower section of watercourse with irregular shaped rip rap underlain with non-toxic filter cloth of size specified by Department Representative.
  - .4 Control streambank erosion in upper section of watercourse by planting suitable vegetation as directed by Department Representative. Planting to occur within 30 days after work on watercourse complete.