

**Part 1            General**

**1.1                RELATED REQUIREMENTS**

- .1        Section 31 23 33.01 – Excavating, Trenching and Backfilling.
- .2        Section 31 37 00 – Rip-Rap.

**1.2                REFERENCES**

- .1        ASTM International
  - .1        ASTM D 4595-latest edition, Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
  - .2        ASTM D 4355, Standard Test Method for deterioration of geotextile by exposure and light Moisture and Heat in a Xenon Arc Type Apparatus.
- .2        Canadian General Standards Board (CGSB)
  - .1        CAN/CGSB-148.1, Methods of Testing Geotextiles and Complete Geomembranes.
    - .1        No.1, Method of Testing Geosynthetic and Preparation of Test Specimens.
    - .2        No.2- latest edition, Methods of Testing Geosynthetics - Mass per Unit Area.
    - .3        No.3- latest edition, Methods of Testing Geosynthetics - Thickness of Geotextiles.
    - .4        No.4, Methods of Testing Geosynthetics – Geotextiles- Normal water Permeability under No compressive load.
    - .5        No.7.3- latest edition, Methods of Testing Geotextiles and Geomembranes - Grab Tensile Test for Geotextiles.
    - .6        No. 10- latest edition, Methods of Testing Geosynthetics - Geotextiles - Filtration Opening Size.
- .3        Ministry of Transportation of Quebec : standard 13101 « Geotextiles ».

**1.3                ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Product Data
  - .1        Submit manufacturer's instructions, printed product literature and data sheets for geotextiles and include product characteristics, performance criteria, physical size, finish and limitations.
- .3        Samples
  - .1        Submit following samples 4 weeks prior to beginning Work.
    - .1        Minimum length of 2 m of roll width of geotextile.
    - .2        Methods of joining.
- .4        Test and Evaluation Reports

- .1 Submit copies of mill test data and certificate at least 4 weeks prior to start of Work.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Handle and store Products in manner to prevent damage, adulteration, deterioration and soiling in accordance with manufacturer's instructions when applicable.
- .2 Storage and Handling Requirements
  - .1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect geotextiles from direct sunlight and UV rays.
  - .3 Replace defective or damaged materials with new.

### **Part 2 Products**

#### **2.1 MATERIALS**

- .1 Geotextile: non-woven synthetic fibre fabric, type #7643 Solmax-Textel or approved equivalent.

### **Part 3 Execution**

#### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for geotextile material installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of the Departmental representative.
  - .2 Inform the Departmental representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from the Departmental representative.

#### **3.2 INSTALLATION**

- .1 Place geotextile material smooth and free of tension stress, folds, wrinkles and creases.
- .2 Place geotextile material on sloping surfaces in one continuous length from toe of slope to upper extent of geotextile.
- .3 Overlap each successive strip of geotextile 600 mm over previously laid strip.
- .4 Join successive strips of geotextile by sewing.
- .5 Pin successive strips of geotextile as indicated.
- .6 Protect installed geotextile material from displacement, damage or deterioration before, during and after placement of material layers.
- .7 After installation, cover with overlying layer within 4 hours of placement.

- .8 Replace damaged or deteriorated geotextile to approval of the Departmental representative.
- .9 Place and compact soil layers in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.

### **3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

### **3.4 PROTECTION**

- .1 Vehicular traffic not permitted directly on geotextile.

**END OF SECTION**