

**Part 1            General**

**1.1                RELATED REQUIREMENTS**

- .1            Section 01 52 00 - Construction Facilities.

**1.2                ADMINISTRATIVE REQUIREMENTS**

- .1            Scheduling:
  - .1            Schedule sod laying to coincide with preparation of soil surface.
  - .2            Schedule sod installation when frost is not present in ground.
  - .3            Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, installation instructions and warranty requirements.

**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 sod, geotextile and fertilizer and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2            Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3            Samples.
  - .1            Submit:
    - .1            Sod for each type specified.
      - .1            Install approved samples in 1 square metre mock-ups and maintain in accordance with maintenance requirements during establishment period.
      - .2            Bio-degradable geotextile fabric.
    - .2            Obtain approval of samples by Departmental Representative
  - .4            Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements of seed mix, seed purity, and sod quality.
  - .5            Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties of seed mix, seed purity, and sod quality.

**1.4                QUALITY ASSURANCE**

- .1            Qualifications:
  - .1            Landscape Contractor: to be a Member in Good Standing of the Association des services en horticulture ornementale du Québec (ASHOQ).

## **1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in accordance with supplier's recommendations.
  - .2 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

## **Part 2 Products**

### **2.1 MATERIALS**

- .1 Number One Turf Grass Nursery Sod: sod that has been especially sown and cultivated in nursery fields as turf grass crop.
  - .1 Turf Grass Nursery Sod types:
    - .1 Number One Kentucky Bluegrass Sod - Fescue Sod: Nursery Sod grown solely from seed mixture of cultivars of Kentucky Bluegrass and Chewing Fescue or Creeping Red Fescue, containing not less than 40% Kentucky Bluegrass cultivars and 30% Chewing Fescue or Creeping Red Fescue cultivars.
    - .2 Turf Grass Nursery Sod quality:
      - .1 Not more than 1 broadleaf weed and up to 1% native grasses per 40 square metres.
      - .2 Density of sod sufficient so that no soil is visible from height of 1500 mm when mown to height of 50 mm.
      - .3 Mowing height limit: 35 to 65 mm.
      - .4 Soil portion of sod: 6 to 15 mm in thickness.
  - .2 Sod establishment support:
    - .1 Geotextile fabric: biodegradable.
    - .2 Wooden pegs: 17 x 8 x 200 mm.
  - .3 Water:
    - .1 Supplied by Departmental Representative at designated source.
  - .4 Fertilizer:
    - .1 To Canada "Fertilizers Act" and Fertilizers Regulations.
    - .2 Complete, synthetic, slow release with 65 % of nitrogen content in water-insoluble form.

## **2.2 SOURCE QUALITY CONTROL**

- .1 Obtain written approval from Departmental Representative of sod at source.
- .2 When proposed source of sod is approved, use no other source without written authorization from Departmental Representative.

## **Part 3 Execution**

### **3.1 INSTALLERS**

- .1 Use installers who are Member in Good Standing of the Association des services en horticulture ornementale du Québec (ASHOQ).

### **3.2 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for sod installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Departmental Representative.
  - .2 Inform 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 Departmental Representative.

### **3.3 PREPARATION**

- .1 At the end of Work, return grounds used for construction facilities and site storage in proper conditions.
- .1 Verify that grades are correct and adequately prepared. If discrepancies occur, notify Departmental Representative and commence work when instructed by Departmental Representative.
- .2 Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water.
- .3 Fine grade surface free of humps and hollows to smooth, even grade, , to tolerance of plus or minus 8 mm, for Turf Grass Nursery Sod, surface to drain naturally.
- .4 Remove and dispose of weeds; debris; stones 50 mm in diameter and larger; soil contaminated by oil, gasoline and other deleterious materials; off site in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

### **3.4 SOD PLACEMENT**

- .1 Ensure sod placement is done under supervision of certified Landscape Planting Supervisor.
- .2 Lay sod within 24 hours of being lifted if air temperature exceeds 20 degrees C.

- .3 Lay sod sections in rows, joints staggered. Butt sections closely without overlapping or leaving gaps between sections. Cut out irregular or thin sections with sharp implements.
- .4 Provide close contact between sod and soil by light rolling. Use of heavy roller to correct irregularities in grade is not permitted.

### **3.5 SOD PLACEMENT ON SLOPES AND PEGGING**

- .1 Install and secure geotextile fabric in areas indicated, in accordance with manufacturer's instructions.
- .2 Start laying sod at bottom of slopes.
- .3 Peg sod on slopes steeper than 3 horizontal to 1 vertical, within 1 m of catch basins and within 1 m of drainage channels and ditches to following pattern:
  - .1 100 mm below top edge at 200 mm on centre for first sod sections along contours of slopes.
  - .2 Not less than 3-6 pegs per square metre.
  - .3 Not less than 6-9 pegs per square metre in drainage structures. Adjust pattern as directed by Departmental Representative.
  - .4 Drive pegs to 20 mm above soil surface of sod sections.

### **3.6 FERTILIZING PROGRAM**

- .1 Fertilize during establishment and warranty periods.

### **3.7 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
  - .2 Keep pavement and area adjacent to site clean and free from mud, dirt, and debris at all times.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
  - .1 Clean and reinstate areas affected by Work.
- .3 Waste Management: separate waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
  - .1 Remove recycling and compost containers and bins from site and dispose of materials at appropriate facility.
  - .2 Divert unused fertilizer from landfill to official hazardous material collections site approved by Departmental Representative.

### **3.8 PROTECTION BARRIERS**

- .1 Protect newly sodded areas from deterioration with snow fence on rigid frame as directed by Departmental Representative.
- .2 Remove protection 2 weeks after installation as directed by [Departmental Representative.

### **3.9 MAINTENANCE DURING ESTABLISHMENT PERIOD**

- .1 Perform following operations from time of installation until acceptance.
  - .1 Water sodded areas in sufficient quantities and at frequency required to maintain optimum soil moisture condition to depth of 75 to 100 mm.
  - .2 Cut grass to 50 mm when or prior to it reaching height of 75 mm.
  - .3 Maintain sodded areas weed free 95%.
  - .4 Fertilize areas in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles and water in well.
  - .5 Temporary barriers or signage to be maintained where required to protect newly established sod.

### **3.10 ACCEPTANCE**

- .1 Turf Grass Nursery Sod areas will be accepted by Departmental Representative provided that:
  - .1 Sodded areas are properly established.
  - .2 Sod is free of bare and dead spots.
  - .3 No surface soil is visible from height of 1500 mm when grass has been cut to height of 50 mm.
  - .4 Sodded areas have been cut minimum 2 times prior to acceptance.
- .2 Areas sodded in fall will be accepted in following spring one month after start of growing season provided acceptance conditions are fulfilled.
- .3 When environmental conditions allow, all sodded areas showing shrinkage cracks shall be top-dressed and seeded with a seed mix matching the original.
- .4 Areas sodded in fall will be accepted in following spring one month after start of growing season provided acceptance conditions are fulfilled.

### **3.11 MAINTENANCE DURING WARRANTY PERIOD**

- .1 Perform following operations from time of acceptance until end of warranty period:
  - .1 Water sodded Turf Grass Nursery Sod areas at weekly intervals to obtain optimum soil moisture conditions to depth of 100 mm.
  - .2 Repair and resod dead or bare spots to satisfaction of Departmental Representative
  - .3 Cut grass and remove clippings that will smother grass to height as follows:
    - .1 Turf Grass Nursery Sod:
      - .1 50 mm during normal growing conditions.
    - .2 Fertilize areas in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles and water in well.
    - .3 Eliminate weeds by mechanical means to extent acceptable to Departmental Representative.

**END OF SECTION**