

1.0 GENERAL

1.1 Related Work

- 1.1.1 Section 02212 – Planting Soil and Finish Grading
- 1.1.2 Section 02930 – Seeding
- 1.1.3 Section 02931 – Naturalized Seeding
- 1.1.4 Section 02938 – Sodding
- 1.1.5 Section 02950 – Trees, Shrubs, and Ground Covers
- 1.1.6 Any other related sections, details, and drawings that form part of the contracted scope of work.

1.2 Scope

- 1.2.1 The current section describes landscape maintenance requirements that the Contractor shall be responsible for throughout the Maintenance Period, pertaining to seeding, sodding, planting, etc. as listed in this specification.
- 1.2.2 This section is supplementary to maintenance related items included in other specifications and does not replace or supersede any requirements listed elsewhere in the contract.

1.3 References

- 1.3.1 The Weed Control Act, SS 2010, cW-11.1

1.4 Maintenance Period

- 1.4.1 Unless otherwise specified in writing, the Contractor shall be responsible for regular maintenance of all landscaped areas from the date of Substantial Performance to Final Acceptance, unless otherwise stated in the tender documents.

1.5 Submittals

- 1.5.1 At the time of Construction Completion, the Contractor shall submit to the Contract Administrator:
 - .1 Contact name of Contractor's Maintenance Supervisor.
 - .2 Copy of current Province of Saskatchewan pesticide applicators license for applicable personnel, if applicable.
 - .3 Landscape Maintenance Schedule.

1.6 Project Maintenance Log

1.6.1 The Contractor shall maintain a Project Maintenance Log for the duration of the contracted maintenance period detailing in a chronological order the work performed.

1.6.2 Information documented shall include at minimum:

- .1 date and duration of specific maintenance task(s),
- .2 condition of site prior to and following maintenance task(s),
- .3 recommended follow up task(s) (if required),
- .4 irrigation/water supplied (source, method, area, and volume),
- .5 any other information relevant to ongoing maintenance of landscape elements.

1.6.3 The Maintenance Log shall be submitted to the City of Regina, Open Space Service Branch, and the Contract Administrator monthly for review.

1.7 Warranties

1.7.1 The provisions of this section are in addition to and in no way detract from or limit general warranty provisions of the Contract.

2.0 **PRODUCTS**

2.1 Materials

2.1.1 Products or materials as specified in relevant sections. Substitutions are subject to approval.

2.1.2 Weed and pest control products.

- .1 List of chemical treatments proposed for use on the project site shall be submitted to the City of Regina Open Space Services prior to construction start-up for approval.
- .2 All pesticide and herbicide use on City of Regina property shall follow restrictions and requirements described in Section 02282 CHEMICAL VEGETATION CONTROL.
- .3 Pesticide and herbicides must be listed on the current City of Regina Pesticide Use Permit.

2.2 Equipment and Tools

2.2.1 Maintenance equipment and tools shall be clean and free of debris, suitable for the work performed and in good working order.

2.2.2 Equipment and tools may include but are not limited to:

- .1 Portable irrigation systems, tank trucks, hoses, etc.,
- .2 Mowers and other landscape maintenance equipment,
- .3 Weed and pest control equipment,
- .4 Pruning tools, fertilizer application equipment, etc.

3.0 EXECUTION

3.1 Standard Maintenance and Reporting

- 3.1.1 Provide labour, materials and equipment necessary to maintain existing and new landscape works within the project site and to promote establishment of newly planted and seeded plant materials.
- 3.1.2 Maintenance shall include the maintenance of grades and layouts as designed and in accordance with respective sections, details, and drawings.
- 3.1.3 Hard surfaced areas shall be swept a minimum of once per week throughout the Maintenance Period and be kept free of contaminants, garbage, debris, weeds and vegetation.
- 3.1.4 Maintain Project Maintenance Log as per 1.5.3. Review for accuracy, legibility, and completeness before submitting for review on a monthly basis.

3.2 Turf areas (seeded or sodded)

- 3.2.1 Establish and maintain turf in accordance with Sections 02930 Seeding and 02938 Sodding. The proper germination and growth of turf areas shall be the responsibility of the Contractor. Turf shall be kept free of bare patches.
- 3.2.2 Mowing:
 - .1 All established turf areas shall be mowed regularly to 75mm height.
 - .2 Do not remove more than 1/3 of average total leaf tissue on any single mowing.
 - .3 Refrain from mowing if turf or soil is too wet.
 - .4 Grass clippings can be mulched and discharged on site provided they disperse evenly and without concentrated buildup or clumping.
 - .5 Trim interfaces with hard surfaces, pathways, and fence lines with suitable string trimmers. Do not trim too low or scrape the soil surface.

3.2.3 Watering:

- .1 All sodded and seeded turf areas shall be thoroughly watered weekly or when required to keep areas in a continually moist condition to a depth of 100mm.

3.2.4 Fertilization

- .1 Provide fertilization if required to sustain required levels of plant growth.
- .2 Use approved products and methods based on relevant soil tests.

3.2.5 Seeding Assessment and Reseeding:

- .1 Evaluate seeded turf areas every 30 days during the Maintenance Period to assess seedling germination and grass coverage.
- .2 Reseed as needed to achieve full coverage as described in relevant specification sections.
- .3 Areas requiring reseeding:
 - a) Areas of bare or dead grass greater than 0.6 x 0.6 metre square.
 - b) Areas with general density of specified grasses less than 130 plants/m².
 - c) Areas where weed growth has resulted in unsatisfactory establishment of seeded grass. Eliminate or control weed growth before reseeding.
 - d) Soil preparation and seeding to meet requirements in Section 02930 Seeding. Operations that deviate from the materials, methods, and requirements of Section 02930 must be approved by the Contract Administrator.

3.2.6 Sodding Assessment and Resodding

- .1 Evaluate establishment of sodded areas as required throughout the Maintenance Period.
- .2 Areas requiring resodding:
 - a) Areas of dead, damaged, or slipping sod, or where wash outs have occurred resulting in loss of topsoil and/or changes in finished grades.

3.2.7 Weed Control

- .1 Perform weed control as needed to maintain turf condition in accordance with the performance criteria listed in Section 02930 Seeding and Section 02938 Sodding.
- .2 Pesticide use must comply with City of Regina Pesticide Use Permit and all relevant provincial and federal regulations.
- .3 Provincially regulated weeds shall be controlled in compliance with the Weed Control Act.

3.3 Naturalized Seeding

3.3.1 Landscape Maintenance in Naturalization Seeding areas may include but is not limited to weed control, re-seeding, watering, and general site maintenance as required to meet criteria specified in Section 020930 Naturalized Seeding.

3.3.2 Weed Control

- .1 Perform weed control when unseeded vegetation competes with the seeded vegetation.
- .2 Control annual weeds by mowing before they produce seed. Do not mow area shorter than 150mm. Avoid cutting seeded grasses during mowing for weed control. Never remove more than 1/3 of the total leaf tissue of seeded vegetation.
- .3 Control perennial weeds through judicious use of commercial herbicides listed on the City of Regina Pesticide Use Permit, or through manual removal (i.e., hand-pulling). Do not apply herbicide to newly seeded areas or if winds exceed 20km/hr or air temperature is below 10°C. Avoid use of Dicamba solutions near trees and shrubs.
- .4 Provincially regulated weeds shall be controlled in compliance with the Weed Control Act.

3.3.3 Seeding Assessment and Reseeding:

- .1 During the first month following seeding, inspect and evaluate the seeded area weekly to assess seeding success. Reseed as needed to achieve coverage as described in Section 02931 – Naturalized Seeding.
- .2 **NOTE:** the preferred window of time for Naturalized Seeding, including re-seeding, as needed, is prior to mid-June. Re-seeding work that occurs outside of this seasonal window is unreliable and often unsuccessful. Dormant seeding in the late fall typically provides more reliable plant establishment as compared to summer seeding.

- .3 Continue to evaluate seeded areas minimally every 30 days during the Maintenance Period to assess seedling germination and grass coverage. Reseed as needed to achieve coverage as described in Section 02931 – Naturalized Seeding.

3.3.4 Watering

- .1 Water in sufficient quantities and frequencies to maintain soil in seeded areas continuously moist to a depth of 100mm during germination and early growth. Avoid soil washout or ponding. Any damage caused by watering shall be corrected immediately.
- .2 Approximately 4-6 weeks after seeded grass emergence, reduce watering frequency. Monitor rainfall and water only if there has been a prolonged period (>15-20 days) without sufficient precipitation (>25mm).

3.3.5 Maintain seeded area free of pests and diseases utilizing acceptable integrated pest management practices.

3.3.6 If a cover crop was seeded, cut crop to a height of 150-200mm once the cover crop reaches 300mm.

3.3.7 General Site Maintenance

- .1 Naturalized Seeding areas may be more prone to collection of windblown debris and refuse. The Contractor shall perform a thorough sweep of the site on a monthly basis to remove debris and refuse from site.
- .2 Maintain any fencing or other materials used to protect the establishing grasses. Remove materials at the end of the Maintenance Period.

3.4 Trees, Shrubs, and Groundcovers

- 3.4.1 Remove suckering and unwanted vegetation in mulch areas. Do not damage plant material, including root structures.
- 3.4.2 Maintain specified depth of mulch. Add mulch if required maintaining a 100mm consolidated depth and 100mm buffer from trunk or base of plant.
- 3.4.3 Maintain trunk protection, staking materials and tree protection fencing as specified and shown in the drawings.
- 3.4.4 Pruning:

- .1 Elm trees cannot be pruned between April 1st and August 31st as per the annual pruning ban.
- .2 Perform pruning requirements for new trees and shrubs in accordance with ISA Best Management Practices or ANSI 300.
- .3 Extent of pruning:
 - a) Remove tree branches overhanging pathways and sidewalks to a min. 3.0m from the ground.
 - b) Remove tree branches overhanging play areas and roads to a min. 4.5m from the ground.
 - c) Remove tree branches within 2.0m of structures.
- .4 Pruning of existing plant material is not permitted unless specified or authorized by the City of Regina, Forestry staff. The Contractor shall notify City of Regina Forestry staff of any damaged or concerning existing trees within the project site.

3.4.5 Watering:

- .1 Water once a week, or as needed to maintain acceptable soil moisture, for the first year. Maintain optimum moisture growing conditions with a deep root feeder or low pressure nozzle and hose. Ensure adequate moisture in root zone at freeze-up.
- .2 Avoid soil washout or ponding. Any damage caused by watering shall be corrected immediately.
- .3 Record in writing a log of each series of watering for all planted material noting the location and date of watering to be submitted to the Contract Administrator monthly.

3.4.6 Fertilization:

- .1 Provide fertilization if required to sustain required levels of plant growth.
- .2 Use approved products and methods based on relevant soil tests.

3.4.7 Pest and Disease Control and Treatment:

- .1 Control of insects, fungi and other diseases as needed by means of spraying with an approved insecticide or fungicide.
- .2 Spray Operator must possess current Pesticide Applicator licence and products used must be listed on the current City of Regina Pesticide Use Permit.
- .3 Notify the Contract Administrator and Open Space Services a minimum of 48 hours prior to intended application date for review and approval of products and methods.

- .4 Install appropriate signage indicating pesticide use in all areas treated in accordance with requirements of the Pesticide Use Permit.

END OF SECTION