

GUIDE SPECIFICATION

Supplier:

Graff's Turf

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SECTION 329200

TURF GRASS SOD

This guide specification has been prepared by Graff's Turf, in printed and electronic media, as an aid to specifiers in preparing written construction documents for turf grass sodding.

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [_____] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement.

This guide specification is written around the Construction Specifications Institute (CSI), Section Format standards references to section names and numbers are based on MasterFormat 2014.

Graff's Turf reserves the right to modify these guide specifications at any time.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Sodding.
- B. Related Requirements:
 - 1. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.
 - 2. Section 329113 "Soil Preparation"

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

- D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" and drawing designations for planting soils.
 - E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- 1.4 PREINSTALLATION MEETINGS
- A. Preinstallation Conference: Conduct conference at Project site.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Qualification Data: For landscape and/or sod Installer.
 - B. Certification of each seed mixture for turfgrass sod. Include identification of source and name and telephone number of supplier.
 - C. Product Certificates: For fertilizers, from manufacturer.
 - D. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.
- 1.6 CLOSEOUT SUBMITTALS
- A. Maintenance Data: Recommended procedures to be established by supplier for maintenance of turf during a calendar year. Submit before expiration of required maintenance periods.
- 1.7 QUALITY ASSURANCE
- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.
 1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
 2. Experience: Five years' experience in turf installation.
 3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 4. Pesticide Applicator (if applicable): State licensed, commercial.
 - B. Sod Supplier Qualifications: A qualified turfgrass supplier whose work and product has resulted in successful turf establishment.
 1. Professional Membership: Sod supplier shall be a member in good standing with Turf Producers International and Sports Turf Managers Association.
- 1.8 DELIVERY, STORAGE, AND HANDLING
- A. Turfgrass sod must be harvested and transported when its moisture content is at 20 to 30 percent, measured at depth of harvest.
 - B. Turfgrass sod shall be harvested, delivered and installed/transplanted within a period of 24 hours, unless a suitable preservation method is approved prior to delivery, including, but not limited to refrigeration at 40 degrees Fahrenheit. Turfgrass sod not transplanted within this period, or preserved by approved methods, shall be inspected and approved by Owner's representative prior to its installation..
 - C. Bulk Materials:
 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 3. Accompany each delivery of bulk materials with appropriate certificates.
- 1.9 FIELD CONDITIONS
- A. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 TURFGRASS SOD

- A. Acceptable Supplier: Graff's Turf, 9809 N. Frontage Road I-76, Fort Morgan, CO 80701.

Make selection in B below based on selected quality criteria.

- B. Turfgrass Sod: **[Certified] [Approved] [Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects] [Commercial Grade]**. Turfgrass sod shall be machine cut at a uniform soil thickness of 0.5 inch (13 mm), plus or minus 0.2 inch (5 mm), at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted..
- C. Turfgrass sod shall be machine cut at a uniform soil thickness of 0.5 inch (13 mm), plus or minus 0.2 inch (5 mm), at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.
- D. Before harvesting, the turfgrass shall be mowed uniformly heights as follows:
 - 1. 0.625 to 2 inches (16 to 51 mm) on cool season grasses (i.e., bluegrass, rye and fescue).
 - 2. 0.5 to 1.50 inches (13 to 40 mm) on warm season grasses (i.e., zoysiagrass, bermudagrass, St. Augustinegrass, etc.)
 - 3. 0.125 to 0.25 inch (3 to 6 mm) for Bentgrass.

Retain paragraph C below for warm-season grass or paragraph D below for cool-season grass. Turfgrass sod grown from a warm-season, single-species grass predominates in the South. Turfgrass sod grown from cool-season grass-seed mixes or blends predominates in the North. Refer to Appendix produced by Graff's Turf for relative comparison of the various sods available, their appropriateness for specific applications, and cost.

- E. Turfgrass Species: **[Northbridge Bermudagrass] [Latitute Bermudagrass] [609 Buffalo Grass]**.
- F. Turfgrass Species: Sod of grass species as follows, with not less than 85 percent germination, not less than 95 percent pure seed, and not more than 0.5 percent weed seed:
 - 1. Full Sun: **[GTF Bluegrass] [GTF Short Cut Bluegrass] [HGT Bluegrass] [Hy-Performance Bluegrass] [Dominant 7 Bentgrass] [T-1 Bentgrass]**
 - 2. Sun and Partial Shade: **[GTF Bluegrass] [GTF Short Cut Bluegrass] [HGT Bluegrass] [Hy-Performance Bluegrass] [GTF Fescue] [RTF Fescue] [RPR Rye]**
 - 3. Shade: **[GTF Fescue] [RTF Fescue] [GTF Bluegrass] [GTF Short Cut Bluegrass] [HGT Bluegrass] [Hy-Performance Bluegrass]**

2.2 FERTILIZERS

- A. Fertilizer: Granular, pelleted, or liquid/flowable fertilizer:
 - 1. Composition: 20 percent nitrogen, 20 percent phosphorous, 10 percent potassium, and 3 percent iron, by weight.

2.3 PESTICIDES

- A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.
- B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer, following label instructions.
- C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 3. Uniformly moisten excessively dry soil that is not workable or which is dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

3.2 PREPARATION

- A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
 - 1. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.3 TURF AREA PREPARATION

- A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation."
- B. Placing Planting Soil: Place and mix planting soil in place over exposed subgrade.
 - 1. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 SODDING

- A. Lay sod within 24 hours of harvesting unless a suitable preservation method is accepted by Architect prior to delivery time. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to soil or sod during installation. After establishment, if necessary to smooth surface, tamp and roll lightly to remove surface undulations. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
 - 1. Lay sod across slopes exceeding 1:3.
 - 2. Anchor sod on slopes exceeding 1:6 with wood pegs spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first 20 days after planting, water 3 times daily with short, frequent waterings, as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below sod.

3.5 TURF RENOVATION

Retain this article if turf renovation is required or if Contractor is likely to damage existing turf. Retain one or both of first two paragraphs below to suit Project.

- A. Renovate existing turf where indicated.
- B. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
 - 1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
 - 2. Install new planting soil as required.
- C. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.
- D. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.
- E. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- F. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off.
- G. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches (150 mm).
- H. Apply initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches (100 mm) of existing soil. Install new planting soil to fill low spots and meet finish grades.
 - 1. Initial Fertilizer: Applied according to manufacturer's recommendations.
- I. Apply sod as required for new turf.
- J. Water newly planted areas and keep moist until new turf is established.

3.6 TURF MAINTENANCE

- A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and mulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
 2. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.
- B. Watering:
1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 2. Water turf with fine spray at a recommended ET rate.
- C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow bentgrass to a height of 0.125 to 0.25 inch (3 to 6 mm) or less.
 2. Mow bermudagrass to a height of 1.5 inches (38 mm).
 3. Mow perennial ryegrass and fescue to a height of 0.625 - 2.0 inches (16-50 mm).
 4. Mow Kentucky bluegrass and buffalograss to a height of 0.625 - 2 inches (16-50 mm).
- D. Turf Postfertilization: Apply slow-release fertilizer after initial mowing and when grass is dry.
1. Use fertilizer that provides actual nitrogen of at least 1 lb/1000 sq. ft. (0.45 kg/92.9 sq. m) to turf area.
- 3.7 SATISFACTORY TURF
- A. Turf installations shall meet the following criteria as determined by Architect:
1. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.
- 3.8 PESTICIDE APPLICATION
- A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations.
- 3.9 CLEANUP AND PROTECTION
- A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off.
- C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.
- D. Remove nondegradable erosion-control measures after grass establishment period.
- 3.10 MAINTENANCE SERVICE
- A. Turf Maintenance Service: Provide full maintenance by skilled employees. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:
1. Sodded Turf: 30 days from date of Substantial Completion.

END OF SECTION

Appendix:
Graff's Turf Grass Sod Characteristics