

This is a guidance document with sample specification language intended to be inserted into project specifications on this subject as appropriate to the agency's environmental goals. Certain provisions, where indicated, are required for U.S. federal agency projects. Sample specification language is numbered to clearly distinguish it from advisory or discussion material. Each sample is preceded by identification of the typical location in a specification section where it would appear using the SectionFormat™ of the Construction Specifications Institute; the six digit section number cited is per CSI Masterformat™ 2004 and the five digit section number cited parenthetically is per CSI Masterformat™ 1995.

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SECTION 31 10 00 (SECTION 02230) – SITE CLEARING

SPECIFIER NOTE:

resource management: Biodiversity can be damaged by extensive site clearing, especially on greenfield sites. Limit site clearing and sequence operations to protect existing biodiversity.

toxicity/IEQ: Where existing soils are contaminated, consider phytoremediation techniques in addition to chemical and mechanical treatments.

performance: This section typically specifies removal of vegetation from the site, including stripping of sod and soil, in preparation for construction and landscaping. Where vegetation must be removed, coordinate with Section 01 74 19 (01351) – Construction Waste Management to avoid loss of topsoil and contamination of waterways. Minimize site clearing activities and identify indigenous vegetation to be protected in situ or relocated. Plants that are native and indigenous to the site will not only help to preserve biodiversity, but typically will perform better than most imported plants.

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes:
 - 1. Site Clearing.
 - 2. Temporary erosion and sedimentation control measures.
- B. Related Sections:
 - 1. 01 74 19 (01351) – Construction Waste Management.
 - 2. 32 90 00 (02900) – Planting.

1.2 SUBMITTALS

- A. Photographs, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
 - 1. Submit on CD. Organize photographs by date and description. Format CD to ISO 9660.

SPECIFIER NOTE:

USGBC LEED includes a prerequisite that NPDES applies to all projects. Per EPA construction general permit, provisions of NPDES Phase I and Phase II would only apply to sites greater than 1 acre.

On November 23, 2009, the U.S. Environmental Protection Agency (EPA) issued effluent limitations guidelines and new source performance standards to control the discharge of pollutants from construction sites. The agency believes this rule, which takes effect in February

2010 and will be phased in over four years, will significantly improve the quality of water nationwide. It requires construction site owners and operators that disturb one or more acres to use best management practices to ensure that soil disturbed during construction activity does not pollute nearby water bodies. In addition, owners and operators of sites that impact 10 or more acres of land at one time will be required to monitor discharges and ensure they comply with specific limits on discharges to minimize the impact on nearby water bodies. This is the first time that EPA has imposed national monitoring requirements and enforceable numeric limitations on construction site stormwater discharges.

Refer to: <http://www.epa.gov/waterscience/guide/construction>

- B. Erosion Control Plan: Not less than 10 days before the Pre-construction meeting, prepare and submit an Erosion Control Plan.
1. Format: At a minimum, address the following elements:
 - a. Identification of Project.
 - b. Details of Plan, specific to the site, that comply with requirements of the EPA Effluent Guidelines, National Pollutant Discharge Elimination System (NPDES), State Pollutant Discharge Elimination System (SPDES), and requirements of authorities having jurisdiction. **[Comply with erosion and sedimentation requirements of EPA Effluent Guidelines and NPDES regardless of size of project site.]**
 - c. Monitoring procedures. **[Comply with erosion and sedimentation monitoring requirements of EPA Effluent Guidelines regardless of size of project site.]**
 2. Revise and resubmit Plan as required by Owner.
 - a. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations.

PART 2 – PRODUCTS

PART 3 - EXECUTION

3.X SITE ENVIRONMENTAL PROCEDURES

- A. Waste Management: As specified in Section 01 74 19 (01351) – Construction Waste Management and as follows:
1. Mulch: Identify organic debris that is free of disease, pest infestation, and chemical contamination and that is suitable for recycling on site. Chip suitable organic debris for use as mulch on site. Stockpile where indicated on Drawings or directed by **[Architect] [Owner]**. Coordinate with requirements of Section 32 90 00 (02900) – Planting.
 2. Topsoil: Where existing topsoil is scheduled to be removed; carefully strip and stockpile for reuse. Stockpile where indicated on Drawings or directed by **[Architect] [Owner]**. Coordinate with requirements of Section 32 90 00 (02900) – Planting.
 3. Compost: Identify organic debris suitable for composting on site. Coordinate with requirements of Sections 01 74 19 (01351) – Construction Waste Management and 32 90 00 (02900) - Planting.
- B. Solarizing Soil: As specified in Section 32 90 00 (02900) - Planting.
- C. Erosion Control: Implement an Erosion Control Plan in accordance with approved submittals. Coordinate with requirements of Section 01 57 19.13 (01354) – Environmental Management.
1. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

2. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal

END OF SECTION