

SECTION 02 41 10

SITE PREPARATION

PART 1 GENERAL

1.00 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.01 WORK INCLUDED

- A. Provide all equipment and do all work necessary to prepare the site, complete, as indicated on the Drawings and as specified.
- B. Staging Area: Contractor shall utilize the the area indicated on the Drawings as a staging area unless otherwise directed by the Architect.

1.02 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
 - 1. Section 31 25 00, EROSION AND SEDIMENT CONTROL; Erosion control.
 - 2. Section 31 23 00, SITE EXCAVATING, BACKFILLING AND COMPACTING; Excavation and backfill.

1.03 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. American National Standards Institute (ANSI):

Z133.1	Safety Requirements for Pruning, Trimming, Repairing, Maintaining and Removing Trees, and for Cutting Brush
Z133A	Best Management Practices Tree and Shrub Fertilization
 - 2. Commonwealth of Pennsylvania Department of Transportation (PennDOT):

Specifications	Standard Specifications
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 - 3. International Society of Arboriculture (ISA):

Guide	Guide for Establishing Values of Trees and Other Plants
Guide	Tree Pruning Guidelines

4. Tree Care Industry Association, 3537 Stratford Rd., Wantagh, NY 11793 (TCIA):

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| Ref. 1 | Pruning Standards for Shade Trees |
| Ref. 2 | Standard for Fertilizing Shade and Ornamental Trees |

1.04 SUBMITTALS

- A. The following shall be submitted:
 - 1. Certificates of severance of utility services.
 - 2. Permit for transport and legal disposal of debris.
 - 3. Location plan of staging areas and schedule for moving staging equipment into those areas shall be submitted for Architect's approval prior to mobilization and related site preparation operations.
 - 4. A list of all [College] operations and programs to be accommodated during construction period.
- B. Submit schedule of existing trees to be pruned and fertilized including extent of pruning and type of fertilizer application.
- C. Predemolition photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by site preparation operations. Submit before the Work begins.

1.05 PROTECTION

- A. Do not interfere with use of adjacent buildings. Maintain free and safe passage to and from.
- B. Cease operations and and notify Architect immediately if safety of adjacent structures appears to be endangered. Take precautions to properly support structures. Do not resume operations until safety is restored.
- C. Prevent movement, settlement or collapse of adjacent services, sidewalks, driveways and trees. Assume liability for such movement, settlement, or collapse. Promptly repair damage at no cost to the Owner.
- D. Provide, erect, and maintain street boardings, sidewalk shed, barricades, lighting, and guardrails as required to protect general public, workers, and adjoining property.

1.06 EXISTING SERVICES

- A. Arrange and pay for disconnecting, removing, capping, and plugging utility services as indicated on the Drawings. Disconnect and stub off. Notify the affected utility company in advance and obtain approval before starting this work.
- B. Place markers to indicate location of disconnected services. Identify service lines and capping locations of Project Record Documents.

1.07 MAINTAINING TRAFFIC

- A. Do not close or obstruct roadways without permits.

- B. Conduct operations with minimum interference to public or private roadways.

PART 2 PRODUCTS

2.01 HERBICIDE

- A. Herbicide shall be QuickPro, Roundup Pro or Manage, manufactured by Monsanto Company, 800 North Lindbergh Boulevard, St. Louis, MO – 63167; Tel. (314) 694-1000, or approved equal.

2.02 FERTILIZER

- A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing agency.

PART 3 EXECUTION

3.01 CLEARING AND GRUBBING

- A. Trees, shrubs, and other vegetation not indicated on the Drawings or designated in the field by the Architect to remain and required for execution of the Work shall be cleared and grubbed.
 - 1. CLEARING: All objectionable growth shall be stripped. Debris resulting from stripping and clearing operations shall be promptly removed from University property so as to prevent this material from accumulating on the site.
 - 2. GRUBBING: Removal of trees and shrubs shall include the removal of stumps and roots to the extent that no root greater than 3 inches in diameter remains within 5 feet of an underground structure or utility line or under footings or paved areas. Grubbing in open areas shall include removal of stumps and 3 inch roots to 2 feet below finish grade elevations.
- B. Stumps shall be removed to their full depth. Roots 3 in. and larger shall be removed to a depth of 2 ft. below finished grade. Stumps shall be legally disposed of off-site.
- C. Do not apply herbicide to remaining stumps or plant life to inhibit growth.
- D. Limbs 3 in. diameter and larger shall be cut into 4 ft. lengths and delivered and stacked at as directed by the Owner.

3.02 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. Existing structures and utilities shall be suitably protected from damage, including but not limited to existing stone walls, concrete vault, manholes, and utility lines.

3.03 LOAM AND TOPSOIL

- A. Loam and topsoil shall be stripped to their full depth from areas to be excavated, filled, regraded, or resurfaced.

- B. Loam and topsoil shall be stockpiled on-site and protected. No loam and topsoil shall be removed from the site without the written permission of the Architect.
- C. Stockpiled loam and topsoil which conforms to the specifications may be used for fill and finish grading within landscaped areas.
- D. Stockpiled loam and topsoil which conforms to Swection 32 92 00, LAWNS AND GRASSES may be used for fill and finish grading within landscaped areas. Material which does not conform, and which is not suitable for use as a granular fill under the work of Section 31 23 00, SITE EXCAVATING, BACKFILLING, AND COMPACTING, shall be deemed unsuitable and shall be removed from the site and legally disposed.

3.04 PAVEMENT AND CURB REMOVAL

- A. Where indicated on Drawing, and as directed by the Architect existing asphalt pavement and curb shall be removed and legally disposed of off-site. Where pavement and curb to be removed abuts pavement and curb to remain, a neat, straight saw cut shall be made with a concrete power saw.

3.05 REMODEL EXISTING CATCH BASINS

- A. Remodel existing catch basins into manholes as indicated on the Drawings, and in accordance with PennDOT Specifications.
- B. Castings shall be carefully removed and stockpiled for reuse on this Project.
- C. Materials necessary to make adjustments shall conform to Section 33 40 00, STORM DRAINAGE SYSTEM.

3.06 ADJUST EXISTING MANHOLES AND CATCH BASINS

- A. Existing manholes and catch basins shall be adjusted to line and grade as indicated on the Drawings in accordance with PennDOT Specifications.
- B. Materials necessary to make adjustments shall conform to Section 33 40 00, STORM DRAINAGE SYSTEM.

3.07 ABANDONMENT OF EXISTING UTILITIES

- A. Existing drain inlet indicated on the Drawings shall be abandoned in accordance with PennDOT Specifications.

3.08 REMOVALS

- A. Materials indicated on the Drawings or designated by the Architect in the field to be removed shall be dismantled, removed, and legally disposed of off-site or stockpiled as indicated on the Drawings.
- B. Areas formerly occupied by structures shall be regraded to conform with surrounding topography following demolition.

3.09 SALVAGEABLE MATERIALS

- A. Materials indicated on the Drawings or designated by the Architect in the field to be salvaged shall be carefully removed, protected from damage, and put in temporary storage as follows:
 - 1. Salvaged material shall be stockpiled on-site in an area designated by the Owner.
 - 2. Salvaged material shall be delivered to and stored in an area designated by the Owner.
 - B. Salvage material shall include but not be limited to the following:
 - Castings
 - Gate valves
 - Granite curbing
 - Signs and posts
 - Wheelstops
 - Catch basin frame and grate
 - Flagpoles and floodlights
 - Light poles
 - Hydrant
- 3.10 DEMOLITION
- A. Existing structures indicated on the Drawings to be removed, shall be completely dismantled and removed from the site.
 - B. Areas formerly occupied by structures shall be regraded to conform with surrounding topography following demolition.
- 3.11 TREE PRUNING
- A. Tree pruning shall conform to ISA Tree Pruning Guidelines and the following:
 - 1. Pruning of existing trees shall be "Class II Medium Pruning" conforming to TCIA Ref. 1.
- 3.12 FERTILIZATION
- A. Follow guidelines established by ANSI Z133A, Best Management Practices Tree and Shrub Fertilization and the following:
 - 1. Fertilization of existing shade trees shall conform to TCIA Ref. 2.
- 3.13 DISPOSAL OF MATERIALS
- A. Material resulting from the site preparation work and not scheduled to be salvaged and which is unsuitable for reuse on the project, shall become the property of the Contractor and shall be legally disposed of off-site.
 - B. Debris, rubbish, and other material shall be disposed of promptly and shall not be left until final cleanup of site.
- 3.16 WASTE MANAGEMENT
- A. Separate and dispose of waste in accordance with the Project's Waste Management Plan

END OF SECTION