

SECTION 311111 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Protecting existing trees, shrubs, groundcovers, plants and grass to remain.
 - 2. Removing existing trees, shrubs, groundcovers, plants and grass that interfere with work to be done or are noted to be removed.
 - 3. Clearing and grubbing.
 - 4. Stripping and stockpiling topsoil.
 - 5. Removing above- and below-grade site improvements.
 - 6. Disconnecting, capping or sealing and removing site utilities.
 - 7. Temporary erosion and sedimentation control measures.
- B. Related Sections include the following:
 - 1. Specification Section "Earthwork" for soil materials, excavating, backfilling, site grading, furnishing and placing of topsoil on lawn and landscape areas.
 - 2. Specification Section "Finish Grading of Lawn and Landscape Areas" for finish grading including preparing and placing planting soil mixes and testing of topsoil material.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than one inch in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site and

disposed of in a legal and lawful manner. Stripped topsoil shall only be taken off site with the Owner's express written consent and only after all site needs are met.

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 QUALITY ASSURANCE

- A. Contractor shall verify that all site clearing occurs within the boundary/property lines, particularly in areas where clearing approaches adjacent common property lines or noted buffers. Limit clearing to areas noted on the plans and to areas required for the installation of utilities.
- B. Regulatory Requirements: Comply with governing EPD (Georgia Environmental Protection Division) notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction. Submit copy of notification to Architect.

1.7 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 - 3. Provide trained flagmen and install traffic control devices. Operate warning lights in accordance with authorities having jurisdiction and to warn motorists of construction activity.
- B. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing. Georgia "Call Before You Dig" Utilities Protection Center: 811.
- D. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place. Those measures that cannot be installed prior to site clearing must be installed concurrent with site clearing such that all cleared areas are fully contained at the end of each day's activities.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in Specification Section "Earthwork."
 - 1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Contractor shall be responsible for all construction layout work.
- B. Protect and maintain benchmarks and survey control points from disturbance during construction.
- C. Locate and clearly flag trees and vegetation to remain or to be relocated.
- D. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner
- E. Provide surface water control during construction operations to direct runoff water to sediment ponds and barriers and to prevent damage to adjacent properties.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction, sediment and erosion control Drawings, and in response to intermediate construction conditions.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established. Coordinate inspections with Owner's Testing Agency in accordance with NPDES Permit No. GAR 100001. Maintain erosion controls on a daily basis.
- C. Contractor shall remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.

2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
1. Cover exposed roots with burlap and water regularly.
 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 3. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Architect.
1. Employ an arborist, licensed in Georgia, to submit details of proposed repairs and to repair damage to trees and shrubs.
 2. Replace trees that cannot be repaired and restored to full-growth status, as determined by Architect.

3.4 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
1. Arrange with utility companies to shut off indicated utilities.
 2. Coordinate with proper utility provider for any utility line requiring removal or relocation.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Architect not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Architect's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.
- D. Disconnect, demolish, and remove piped utility systems, equipment, and components indicated to be removed.
1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 3. Equipment to Be Removed: Disconnect and cap services and remove equipment.

- E. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 - 3. Use only hand methods for grubbing within tree protection zone.
 - 4. Dispose of all vegetation removed in a legal and lawful manner.
 - 5. Grind all trees and limbs and spread wood chips around perimeter of site for additional erosion control measures. Place wood chips between double rows of silt fence.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.
 - 2. After fill placement, grade surface to meet adjacent contours and to provide surface drainage.

3.6 TOPSOIL STRIPPING

- A. Remove sod, grass, brush, roots, wood, glass, stones, broken concrete, brick, concrete block, etc. before stripping topsoil.
- B. Strip topsoil, root zones, and cultivated material to whatever depths are encountered, from building pad and pavement areas and from all other cut and fill areas.
 - 1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.
- C. Stockpile stripped topsoil, root zone and cultivated materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover or grass to prevent windblown dust.
 - 1. Do not stockpile topsoil within tree protection zones.
 - 2. Spread and dispose of excess topsoil as specified in Specification Section - Earthwork, and under items 'D' and 'E' below.
- D. Allow testing company to review topsoil and cultivated material stripping and stockpiling. Stockpile cleanest topsoil for respreading on lawn and slope areas.
- E. At completion of grading operations, minimum topsoil depth shall be 4 inches on all landscape areas including: ditches, grass swales, landscape areas and slopes. Contractor shall stockpile

sufficient topsoil to provide the specified minimum depth or provide topsoil from off-site sources if sufficient topsoil is not available from disturbed areas onsite.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Sawcut and remove all slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 - 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.
- C. Use of explosives will not be permitted.

3.8 DISPOSAL

- A. Disposal: Remove obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property. Burning or burial of debris on-site shall not be allowed.

END OF SECTION 311111