

301 - CLEARING AND GRUBBING

301.1

Description

Clearing and Grubbing shall consist of cutting and disposing of trees, brush, windfalls, logs, and other vegetation located within the clearing limits, and the removing and disposing of roots, stumps, stubs, grubs, logs, and other timber from within the grubbing limits as hereinafter defined or which interfere with excavation, embankment, marsh or waste disposal, or designated clear vision areas.

Unless otherwise specified, the limits of clearing and grubbing shall be as shown on the plans.

Clearing and grubbing shall be completed prior to commencing other construction activities.

301.2

Construction Requirements

Unless specifically designated otherwise on the plans, or by the Engineer, all trees, brush, shrubs, or other vegetation occurring within the limits defined above shall be cut off and disposed of as hereinafter provided. All stumps, roots, logs or timber and all brush, matted roots and debris shall be removed to a depth not less than one (1) foot below the subgrade.

Trees and shrubs located beyond the clearing limits shall not be removed unless their removal is specifically indicated by the contract. Within areas to be cleared, and where grubbing is not required, all shrubs and brush shall be cut within three (3) inches of the ground surface and all trees shall be clean cut as nearly flush with the ground surface as is reasonably possible with tools ordinarily used for such operations.

Where feasible trees shall be felled toward the center of the area to be cleared. Where trees cannot be felled without danger to traffic or injury to other trees, structures or property, they shall be cut in sections from the top down.

When so designated on the plans or directed by the Engineer, trees or shrubs located within clearing areas which are desirable for shade or road beautification shall be preserved.

When limbs or branches of trees to be left in place overhang roadways and do not leave a clearance of at least fourteen (14) feet above the finished grade, such trees shall be carefully and symmetrically trimmed on their lower limbs or branches so as to provide a clearance of not less than fourteen (14) feet above finished grade. Such trimming shall be performed in accordance with directions of the Village Engineer.

301.3

Disposal Of Waste Material

All cleared and grubbed materials shall become the property of the Contractor and shall be properly disposed of off-site. See Section 210 of these Standard Specifications regarding proper disposal of waste materials.

301.4

Damage to Trees and Shrubs

Should the Contractor cause damage to existing trees and shrubs which are not specified to be removed, the Contractor shall contact an independent landscape professional approved by the Engineer to determine the best action to be taken to preserve the trees. The Contractor shall take what action is prescribed to ensure the survival of the tree. Any remedial work to damaged trees and shrubs shall be performed by the Contractor at no cost to the Village.

Should the damage be such as to destroy or decrease the value of the tree or shrub,

the Contractor may be liable for all cost of removing and replacing the tree or shrub in addition to a forfeiture for the decreased value as determined by the Engineer.

Should the Contractor determine that a tree or shrub, which is not shown to be removed, encroaches in his work area requiring that it be trimmed or relocated, the Contractor shall contact the Engineer to determine how best to save the tree or shrub. The Contractor shall work with the Engineer to minimize the impact on the tree or shrub.

301.5 Measurement
Measurement for clearing and grubbing will be made as described in the contract documents.

301.6 Payment
Payment for the items described above will be paid as described above which shall be full compensation for all handling, hauling, piling, burying, shipping, wound treatment, rehandling and disposal of wastes and debris and for all labor, tools, equipment and incidentals necessary to complete the work as described above.

302 – GRADING

- 302.1 Description
The work under this section shall consist of grading the site to match the lines and grades as described in the Contract Documents.
- 302.2 Materials
- 302.2.1 Source
The source of materials for use on projects shall be subject to the review and approval of the Engineer.
- 302.2.2 Material Specifications
Except as hereinafter otherwise noted, Part II (Earthwork) of the WDOT Specifications Latest Edition is, by reference made a part of these Standard Specifications.
- 302.2.3 Geotextile Fabric
When specified in the Contract Documents, Geotextile Fabric shall meet the requirements specified in Section 645(GEOTEXTILE FABRICS) of the WDOT Standard Specifications for Type SAS fabric. Approved materials consist of Phillips SUPAC 5NP or Exxon GTF 200S.
- 302.2.4 Breaker Run
Breaker Run used on Village projects shall be subject to the review and approval by the Engineer prior to placing.
- 302.2.5 Surplus Materials
The Village shall have first rights to surplus excavated material. All surplus excavated material not claimed by the Village shall become property of the Contractor and shall be legally and properly disposed of by the Contractor in accordance with Section 210 of these Standard Specifications.
- 302.2.6 Structural Fill
All fill placed within road rights of way within the Village of Slinger shall be considered structural fill and shall meet the requirement set forth in Section 212 of WDOT Specifications. The structural fill material shall be placed in accordance with Section 207.3.6.3 of the WDOT Specifications
- 302.3 Construction Requirements.
- 302.3.1 Topsoil Stripping
All vegetation and organic topsoil shall be stripped from all cut and fill areas. The Contractor shall phase his construction operations to minimize the amount of unprotected soil on the project site at any given time.

All vegetation and organic topsoil stripped from the project site shall become property of the Contractor and shall be legally and properly disposed of off site.

Topsoil Stripping shall not begin until erosion and sediment control devices have been furnished and installed in accordance with Section 800 of these Standard Specifications.
- 302.3.2 Subgrade Preparation
Preparation of the subgrade shall be in accordance with Section 211 of the WDOT Standard Specifications.

When the ground has been excavated to rough subgrade, the street right of way shall be proof rolled using a fully loaded quad axle dump truck approved by the Engineer. The proof roll shall take place in the presence of the Engineer.

302.3.2.1 Overexcavation

Upon proofrolling, any areas deemed unsatisfactory by the Engineer shall be undercut and backfilled with structural fill materials.

302.3.2.2 Utility Trenches

Soft areas within ten (10) feet centered on proposed utilities shown on the plans that require removal and replacement shall be removed and replaced at no cost to the Village.

302.3.3 Excess Material

If excess material is removed from the site and the material removed is suitable, as determined solely by the Engineer, the material may be used as structural fill material in accordance with these Standard Specifications.

If the material removed is not suitable, as solely determined by the Engineer, the material shall become property of the Contractor and shall be legally and properly disposed of off site.

302.3.4 Dust Control

Dust control shall be as described under Section 800 of these Standard Specifications.

302.3.5 Fill Placement

302.3.5.1 Compaction

All fill shall be compacted by means of mechanical compaction, suitable for the material and moisture conditions. The basis for defining required compaction shall be determined by laboratory tests to establish optimum compaction and moisture for the material being utilized on the project. These tests shall be based on the Standard Proctor Method ASTM D698-91 T-99.

302.3.5.2 Moisture Content

The moisture content of the fill material shall be within three (3) percent of the optimum moisture determined by the standard proctor test unless a different tolerance is specified in a soils investigation report recognized by the Village Engineer. Should the material be deficient, or excessive, in moisture content the Contractor shall adjust the moisture content as required. If, due to weather conditions, the Contractor chooses to place the material with greater than optimum moisture, the fill area shall be retested by excavating test holes after it has had time to dry, and the material shall be subject to removal and replacement should it not meet compaction and moisture requirements. The Engineer shall have the right to direct the Contractor to use suitable material if conditions are such that, in the opinion of the Engineer, the material on site will not reach optimum moisture or is unsuitable for the use. No compensation will be given the Contractor for re-excavation or removal and replacement of unsuitable material.

The Contractor shall have water available to increase moisture content during dry weather should it be required to meet the optimum levels as determined by the Proctor Test.

- 302.3.6 Measurement
- 302.3.6.1 Grading Quantities
The Contractor shall verify the grading quantities by performing his own quantity measurement and shall base his bid solely on his own quantity measurement.
- Work added or deleted will result in an adjustment to the final quantities in a manner agreed upon by the Contractor and Engineer prior to commencing with the work. If an agreement cannot be reached between the Contractor and Engineer, the addition or subtraction adjustment will be figured on a percentage basis.
- 302.3.6.2 Geotextile Fabric
Measurement of Geotextile Fabric will be made per square yard installed.
- 302.3.6.3 Overexcavation
Measurement of overexcavated areas will be made per cubic yards replaced. The method of measurement will be made by cross sectioning or as otherwise agreed upon by the Contractor and Engineer prior to commencement of this work.
- 302.3.6.4 Breaker Run
Measurement of Breaker Run will be made per ton placed.
- 302.3.6.5 Earthwork
Measurement for earthwork will be made in accordance with the provisions set forth in the Contract Documents.
- 302.3.7 Payment
The price paid for the items described herein shall be full compensation for all the operations hereinbefore prescribed for watering and for furnishing all labor tools, equipment, and incidentals necessary to complete the work.
- 302.3.7.1 Geotextile Fabric
Payment for Geotextile Fabric will be paid for at the contract unit price per square yard. That price shall be payment in full for all work specified above.
- 302.3.7.2 Overexcavation
Payment for Overexcavation will be made per cubic yards replaced. That price shall be payment in full for all work specified above.
- 302.3.7.3 Breaker Run
Payment for Breaker Run will be made per ton placed. That price shall be payment in full for all work specified above.
- 302.3.7.4 Earthwork
Payment for earthwork and base course items will be made in accordance with the provisions set forth in the Contract Documents. The unit price bid for earthwork shall include all items listed above and all equipment, materials, labor, tools, supervision, supplies, and all other incidentals necessary to complete the work described in the Contract Documents.
- 302.3.7.5 Topsoil stripping
All costs associated with stripping topsoil from the project site shall be included in the price bid for Unclassified Excavation.
- 302.3.7.6 Subgrade Preparation
All costs associated with subgrade preparation shall be included in the price bid for Unclassified Excavation.
- 302.3.7.7 Excess Material

All costs associated with removing, hauling, stockpiling and/or disposing of excess material from the project site shall be included in the price bid for Unclassified Excavation.

302.3.7.8

Dust Control

All costs associated with dust control shall be as described under Section 800 of these Special Provisions.

303 – BASE COURSES

- 303.1 Description
Base courses shall consist of a dense graded compacted material composed of one or more courses or layers of coarse aggregate. Fine aggregates, binder or filler shall be added as needed to produce an intimate mixture of the required gradation and stability, constructed on the prepared foundation in accordance with Section 302 of these Standard Specifications and in conformance with the lines, grades, thickness and cross-sections shown on the project plans.
- 303.2 Materials
The source of supply and the quality of materials shall be subject to the review and approval of the Engineer prior to delivering the base course to the site. The Contractor shall submit to the Engineer for review and approval a statement specifying the source of the aggregates and a current analysis on the materials to be supplied.
- Acceptable materials shall be fractured limestone, crushed stone, crushed concrete, or crushed asphaltic concrete pavement and shall meet the gradation and specifications set forth for Gradation Number 2 Crushed Stone Base Course as described in Section 304 of the WDOT Standard Specifications.
- 303.3 Construction Requirements
The base courses shall be constructed as described in Section 304 of the WDOT Standard Specifications and as described herein. Each layer of base course shall be of uniform depth and shall be placed to the lines and grades shown on the plans. Each layer of base course shall be placed to a maximum loose depth of six (6) inches at one time. Each course shall be mechanically compacted utilizing appropriate compaction equipment specifically designated for constructing and compacting
- 303.3.1 Width of Crushed Stone Base Course
Crushed stone base course shall be placed to one (1) foot behind the back of curb on all Village roadways.
- 303.3.2 Sidewalks
All sidewalks shall have a minimum of four (4) inches of crushed stone base course meeting the specifications described herein.
- 303.4 Testing
The Contractor shall proof roll the base course, using a fully loaded quad axle dump truck approved by the Engineer, prior to paving operations taking place. The proof roll shall take place in the presence of the Engineer. As directed by the Engineer, the Contractor shall remove any soft areas and replace with materials approved for use in the road base.
- All costs associated with the proof rolling shall be included in the price bid for furnishing and installing the base course.
- All costs associated with removal of soft areas and replacement of the removed materials shall be included in the contract unit prices for such base and subbase repair work. If the Contractor does not proof roll the subbase prior to placing the base course, the removal and replacement of soft materials will be at the Contractor's expense.
- 303.5 Measurement
Measurement for furnishing and placing the base course to the depth specified in the

Contract Documents, with the exception of sidewalks, will be made as described in the contract documents.

303.6

Payment

Payment for furnishing and placing base courses, with the exception of sidewalks, will be made as described in the contract documents. The price bid for furnishing and placing the base course shall be fair compensation for furnishing, producing, crushing, screening, loading, hauling, placing, watering, drying and compacting, for maintaining, for preparing the foundation, for stockpiling, if necessary, and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

303.6.1

Sidewalks

The cost for furnishing and placing the base course for sidewalks shall be included in the contract unit price for constructing the sidewalk.

- END OF SECTION 300 -