## SPECIAL PROVISION

## REGARDING

## RIGHTS-OF-WAY MOWING

Description. This work shall consist of mowing of the rights-of-way for vegetation control in accordance with the Plans, Specifications and as directed by the Engineer. A mowing cycle shall be one complete mowing of the areas along state highways and interstates designated within this contract and shall be completed within twenty (20) working days that are suitable for mowing.

## Definitions.

Continuous Mowing Operation. A Continuous Mowing Operation is an operation conducted for a minimum of five (5) hours per day over a twenty (20) working day cycle which consists of one or more mechanical mowers working independently or in coordination to cut vegetation on state rights-of-way deemed Mowable Acres by the Engineer.

Working Day. A calendar day, exclusive of State recognized holidays, which weather or other conditions not under the control of the Contractor, will permit a continuous mowing operation with the normal working force engaged in performing the controlling item or items of work which are normal to progress at the time, as determined by the Engineer.

Mowable Acres. All areas within rights-of-way where mechanical mowers and finish mowers can cut vegetation and safely traverse slopes without significant damage to existing ground.

Mowing. The work associated with cutting or trimming vegetation primarily consisting of, but not limited to, grasses and invasive weeds to provide a consistent and aesthetically pleasing standing vegetation height of four (4) inches.

Swath Mowing. The work associated with cutting one fifteen (15) foot wide swath of vegetation parallel to the edge of pavement on each shoulder and one fifteen (15) foot wide swath of vegetation parallel to the edge of pavement in each direction within the median. For medians less than sixty (60) feet, the entire median will be mowed (see sheet 7 for Typical Mowing Diagram).

Mechanical Mower. A commercial quality piece of equipment which is capable of mowing vegetation in excess of two (2) acres per hour at least five (5) hours per day.

Finish Mower. A commercial quality piece of equipment specifically designed to address mowing of vegetation around roadside obstacles or areas not accessible to conventional mowers in an attempt to prevent damage and provide a consistent vegetation height by means other than a mechanical mower. The cost associated with this work shall be included in the unit price bidfor mowing 806-01,swath mowing 806-02.13 or sidewalk finish mowing 806-02.14. Finish mowers do not meet the requirements for mechanical mowers as described in this special provision and cannot be utilized for continuous mowing operations on state highways or interstates.

Hand Trimming. The work associated with cutting or trimming vegetation in proximity to roadside obstacles or in areas not accessible to mechanical mowers in an attempt to prevent damage and provide a consistent vegetation height by means other than a mechanical mower.

Roadside Obstacles. Items located within the right of way, both natural and man-made which may include but are not limited to trees, signposts, delineator posts, light posts, steel beam guardrail, and associated posts, cable barrier rail, barrier walls, retaining walls, utility poles, catch basins, fallen rock, bridge end abutments, mailboxes, established/planted trees and shrubs, landscaped beds, and wildflower areas.

General. All mowing operations shall be performed to the satisfaction of the Engineer. Standing vegetation shall be cut to a height of four (4) inches while maintaining a consistent vegetation profile within all mowing limits adjacent to the roadway. The Contractor shall mow only those areas that are designated as mowable acres, including, if present, a minimum of five (5) feet up the back slope from the bottom of the ditch, and five (5) feet behind all guardrails as shown in The Typical Mowing Diagram on sheet 7. The actual dimensions and mowing limits shall be discussed at the pre-construction conference. Vegetation including small trees, shrubs, and bushes with a stem diameter of up to two (2) inches which are inside of and encroaching upon the established mowing limits shall be cut by the Contractor using a mower or hand trimming methods as directed by the Engineer. Areas that were recently cleared or chipped will be included in mowable acres. Extreme care shall be taken not to damage the trees, plants, and shrubs, which are designated by the Engineer to remain. Hand trimming may be required as directed by the Engineer for areas of vegetation inside the designated mowable acres which are not accessible to mechanical mowers. As work progresses, mowing and trimming shall be conducted in such a manner to provide a consistent standing vegetation height in all mowing limits adjacent to the roadway (see sheet 7 for Typical Mowing Diagram). The Contractor shall mow as close as practicable to all roadside obstacles. Hand trimming is required atop earth berms, within all rip rap areas, and around all roadside obstacles.

Guardrail and cable barrier rail located on interstates will be sprayed by TDOT personnel except for those located in the following counties: Davidson, Hamilton, Knox, and Shelby. Spraying by TDOT does not relieve the Contractor from hand trimming if needed. The Contractor shall not apply herbicides on state rights-of-way.
The Department reserves the right to perform spot mowing with its own forces on all State right-of-way as necessary. Minor quantity adjustments may be made due to the Tennessee Department of Transportation's Wildflower Program, Adopt a Plot Program, designated research areas, environmental no-mow areas, and Adopt A Highway Program.

Time and Frequency Mowing. A notice to begin work will be issued to the Contractor at least five (5) working days prior to the date the mowing cycle is to begin. Work shall begin on the date specified in the notice. Mowing operations shall proceed in the same route sequence as performed during litter operations. The contractor shall submit a planned mowing sequence, hand trimming sequence and schedule to the Engineer for approval before each mowing cycle begins. Any deviations from the approved mowing sequence or schedule may be allowed at the discretion of the Engineer. A failure to begin mowing operations on the date specified in the notice will result in the assessment of liquidated damages (see SP108B). The mowing cycle shall be twenty (20) working days suitable for mowing unless otherwise documented in the Special Notes.

The number of mowing cycles will be indicated in the Special Notes, but may be increased or decreased by one mowing cycle to coincide with extreme weather conditions. Also, the Engineer may require a partial mowing cycle at certain locations.

Mowing shall be performed during daylight hours Monday through Friday. Work may be allowed on Saturday at the discretion of the Engineer. If the approved mowing schedule is not maintained, the Engineer may require work to be performed on Saturday and/or Sunday. If work is performed on Saturday and/or Sunday, the Contractor will be charged a Working Day.

Mowing Operations. Work shall begin for each mowing cycle on the date specified in the notice to begin work. Once a mowing cycle begins, the Contractor shall maintain a Continuous Mowing Operation until the mowing is complete. A mowing cycle will be considered complete when all mowing and hand trimming is completed to the satisfaction of the Engineer. Hand trimming shall be performed in the same sequence as mowing operations.

Hand trimming is to be completed within the twenty (20) working day cycle. Failure to complete hand trimming within five (5) working days of the termination of mechanical mowing represents a failure to maintain a continuous mowing operation.

When mowing within twelve (12) feet of the edge of pavement or shoulder, mechanical mowers shall not discharge vegetation and debris toward the roadway. When mowing is required in proximity to the roadway, any vegetation or debris deposited on the roadway as a result of the mowing operation will be removed immediately from edge of pavement to edge of pavement, or between_curb and gutter, whichever applies, Any cost associated with the removal of vegetation clippings, foreign objects, or gravel that is deposited on the roadway, the shoulder, or in a curb and gutter section as a result of the mowing operation shall be included in the unit price bid for mowing (item no. 806-01) swath mowing (item no. 806-02.13) or sidewalk finish mowing (item no. 806-02.14).

Swath mowing shall follow as closely as practical to the boundary between the shoulder of the roadway and the point at which vegetation begins. In cases where a continuous swath cannot be maintained on ramps, at bridges, and when encountering assets of the state, the swath shall deviate away from the edge of pavement then terminate, or the swath shall deviate away from, then back to the edge of pavement in as tight a space as practical. Any vegetation that cannot be cut by the mower between the edge of pavement and the edge of the swath shall be cut using hand trimming, and the cost shall be included in the unit price bid for swath mowing (item no. 806-02.13). All interchanges and ramps will be mowed completely during a Swath mowing operation.

The Contractor shall mow in the direction of traffic when less than thirty (30) feet from the paved surface.

Equipment. Prior to beginning work, the Contractor shall provide the Engineer with a schedule of equipment which will be used to accomplish work under the terms of the contract. The Contractor shall certify to the Engineer that the equipment to be used on this project is suitable for mowing along public highways. All equipment used for mowing operations shall be utilized as described by the manufacturer's recommendations and maintained in safe operating conditions. Mowing on slopes that exceed the equipment manufacturers specifications shall not be allowed. Any equipment that the Engineer determines to be unsuitable for use or hazardous to highway users shall not be used. The Contractor shall provide sufficient equipment and accessory items necessary for efficient operation and the completion of the mowing cycle in the designated time. Any special equipment requirements will be noted in the Special Notes. Zero-turn mowers are considered finish mowers and can be utilized for mowing around roadside obstacles but do not meet the requirements for continuous mowing operations under the terms of this special provision. The cost associated with this work shall be included in the unit price bid for mowing (item no. 806-01, swath mowing (item no. 806-02.13), or sidewalk finish mowing (item no. 80602.14)

All rotary mowers must be equipped with safety chains to prevent damage to property caused by flying debris propelled out from under the mower. No disc type mowers will be allowed. Chains shall be a minimum of $5 / 16$ inch in size, and links spaced side by side around the mower's front, sides, and rear. Chains shall be spaced at no less than twelve (12) strands of chain per foot and shall be laced horizontally one row from the bottom with $1 / 4$ " steel cable secured by cable clamps on each end. When sitting on level ground, at a level deck height of seven (7) inches, the chains shall be long enough to drag the ground. Flaps or semi-rigid guards will not be allowed as a substitute for chains. Maximum cutting widths for rigid frame rotary mowers shall be 120 inches ( 10 ft .). Maximum cutting widths for all other mower types shall not exceed 180 inches ( 15 ft .) without the approval of the Engineer.

Safety Requirements. Mechanical mowers and finish mowers shall be equipped so as to conform to prevailing Occupational Safety Health Act (OSHA) Standards, including flashing amber lights and slow-moving equipment emblems.

The Contractor shall comply with OSHA standards, including the use of Class 3 reflective shirts or vests at all times.

Notification to the Engineer shall be made immediately of any personal injury, accidents involving contractor's equipment, or accidents involving the motoring public.

While equipment is not in use, it shall be parked or stored off the pavement or shoulder of the highway in an inconspicuous place more than thirty (30) feet from edge of pavement or as directed by the Engineer. Under no circumstances shall mechanical mowers or finish mowers be parked or stored in medians. When batwing mowers are being moved from one site to another under their own power with the mowers raised, the mower shall be disengaged.

Handheld, pushed, or riding trimmers using string or blades are not considered mechanical mowers and cannot be considered as part of a continuous mowing operation under the terms of this special provision.

The Contractor shall be required to have a mechanical leaf blower on site to address any vegetation or debris deposited on state routes. The cost associated with this work shall be included in the unit price bid for mowing 806-01 or swath mowing 806-02.13.

The Contractor shall be required to have the company name and phone number on all tractors and work zone support vehicles on the left and right sides in a location that is visible to the public. The lettering for the company name and phone number shall consist of a reflectorized material with a minimum height of three inches ( $3^{\prime \prime}$ ) or five inches ( 5 ") in height if non- reflectorized.

Equipment Cleaning. The Contractor will be required to clean any piece of equipment moved into Tennessee if the equipment is moving from an area infested with invasive species of concern listed below:

- Cogon Grass

Prior to moving equipment into Tennessee, the Contractor shall notify the Engineer of the location of the equipment's most recent operation. The Contractor shall not move a $n$ y equipment that last operated in an area infested with an invasive species of concern into Tennessee without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds. If the Contractor cannot verify the location of its most recent operation, then the Contractor shall assume that the location is infested with invasive species of concern.

Prior to moving from an area identified as infested with invasive species of concern to, or through Tennessee, the Contractor shall clean such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and shall notify TDOT prior to moving any equipment subject to the cleaning requirements set forth above. The Contractor shall advise TDOT of its cleaning measures and make the equipment available for inspection. TDOT shall have two (2) days, excluding weekends and state holidays, to inspect and approve for use equipment after it has been made available. After satisfactory inspection, the Contractor may move the equipment as planned. Equipment shall be considered clean when a visual inspection does not disclose seeds, soil, vegetative matter, and other debris that could contain or hold seeds. The Contractor shall not be required to disassemble equipment.

Traffic Control. The Contractor shall maintain traffic and all traffic control devices for mobile mowing operations according to the requirements contained herein, the State of Tennessee's currently adopted edition of the Manual on Uniform Traffic Control Devices (MUTCD) defined under the Rules of Tennessee Department of Transportation Chapter 1680-3-1, and the Standard Specifications. Although Traffic Control may be included in the cost of other items, the Contractor will be responsible for submitting certifications per Materials \& Tests Division Standard Operating Procedures. Under no circumstances shall a mower cross the pavement edge line without complying with Mobile Operations requirements found in the MUTCD.

Warning Signs. The Contractor shall furnish portable signs in accordance with the "Manual on Uniform Traffic Control Devices" to notify the traveling public of the operations of mowing equipment. The Contractor shall place these signs on the highway during the operation of mowers and remove them immediately after the operation ceases. Signs at the beginning point shall be $48 "$ by 48 " in size; diamond-shaped with black letters on an orange background with a black border with eight- inch high letters. These signs shall be dual mounted, one on each shoulder, for both directions of travel.

Damage to Property. The Contractor shall carry on the operation in such a manner that does not damage the existing ground areas, trees, shrubs, guardrail, utilities, delineators, or other structures. The Contractor shall not mow during wet conditions where turf damage or ruts would occur. In the event damage occurs to the right-of-way because of mowing operations, the Contractor shall replace or repair same, at own expense, in like kind, and as directed by the Engineer. Notify the Engineer immediately when any property damage occurs. If damaged property resulting from the Contractor's operations has to be repaired or replaced by the Department, the cost of such work shall be deducted from monies due to the Contractor.

The Contractor shall take all necessary precautions to prevent damage to passing vehicles and to both public and private property. This shall include roadside obstacles, vehicles and any other property which may be damaged by the mowing operation. Payment for work may be withheld until the damaged property has been repaired or replaced.

The Contractor shall respond to all claims of damage from the public within seventy-two (72) hours after notification of damage. Failure to settle claims for damages in a timely manner may result in actions by the Department to preclude the Contractor from performing work on future projects.

Additional Work. The Contractor may be required to mow in areas not specifically detailed in the Special Notes under the direction of the Engineer. Additional work shall be limited to the counties and systems which are designated in the Special Notes. Payment for additional work will be made at the contract unit price for mowing (item no. 806-01), swath mowing (806-02.13), or sidewalk finish mowing (item no. 806-02.14).

Method of Measurement. Mowing shall be measured by the acre based on the quantities shown in the Special Notes for each mowable area. Each mowing cycle or partial cycle will be measured separately. A mowing cycle includes the mowing of all tabulated areas shown in the Special Notes one time.

Basis of Payment. The accepted quantities of mowing will be paid for at the contract unit price per acre. All costs for traffic control as defined above shall be included in the unit bid price for mowing Item No. 806-01, swath mowing Item No. 806-02.13, or sidewalk finish mowing (item no. 806-02.14).

# TYPICAL MOWING DIAGRAM (NOT TO SCALE) 



NOTES:

* Cut a minimum of 5 ft up the back slope from the bottom of the ditch, or as directed by the engineer.
** Cut a minimum of 5 ft behind all guardrail, or as directed by the engineer.

