

## **104-40 ROADSIDE MOWING.**

**(REV 9-24-14) (1-16)**

The following new Section is added after Section 104:

### **SECTION 104-40 ROADSIDE MOWING**

#### **104-40.1 Description.**

Mow grass or vegetation in roadside areas with conventional mowing equipment. Use specialized equipment or hand labor when required to perform specified work in certain areas or during certain times. Vegetation consists of planted and/or natural grasses, weeds, and other vegetation within the area to be mowed. Comply with the current edition of the Department's "A Guide to Roadside Vegetation Management".

#### **104-40.2 Types of Mowing Areas.**

**104-40.2.1 General:** The Engineer will determine the areas to be cut and type of mowing to be accomplished in each.

All hand labor required to perform the specified work around appurtenances will be incidental to the type of mowing being performed. Appurtenances include, but are not limited to, sign post and bases, delineator post, fences, guardrail, barrier walls, end walls, pipes, drainage structures, poles, guys, mail boxes, landscaped areas, and trees.

**104-40.2.2 Large Machine Mowing:** Large machine mowing encompasses the routinely mowed areas of shoulders, front and back slopes that are 3 horizontal to 1 vertical or less, roadside ditch bottoms, large median islands and similar areas conducive to the use of large machine mowing equipment.

**104-40.2.3 Slope Mowing:** Slope mowing is generally limited to slopes greater or steeper than 3 horizontal to 1 vertical and are relatively inaccessible to the use of conventional style equipment, e.g., steep slopes, wet roadside ditch bottoms, canal banks, intersections, overpasses, etc. These type areas will require the use of specialized equipment designed for slope mowing.

**104-40.2.4 Intermediate Machine Mowing:** Intermediate machine mowing consists of mowing areas not accessible by large machine mowing equipment but not conducive to the use of small machine mowing equipment. These areas consist of shoulders, roadside ditch bottoms, raised median islands, various width utility strips, and similar areas.

**104-40.2.5 Small Machine Mowing:** Small machine mowing consists of mowing areas not accessible by large and intermediate machine mowing equipment. These areas consist of narrow shoulders, landscaped shoulders, narrow roadside ditch bottoms, raised landscaped median islands, narrow width utility strips, and similar areas.

#### **104-40.3 Frequency of Mowing.**

The area and limits of mowing have been previously established and are distinguishable in the field. Where landscaping has been established or natural landscaping has been preserved, mow conforming to the established mowing contours. Mow up to the limits maintained by the Department and around existing appurtenances located within the roadway right-of-way as directed by the Engineer.

The Engineer will determine the type of mowing, the estimated number of acres to be accomplished within a specified number of calendar days (cycle), when to begin each mowing cycle, and the total number of cycles. Complete each mowing cycle within        calendar

days of beginning the cycle, weather permitting. The approximate number of cycles for each type of mowing will be as follows:

Large Machine Mowing	_____ cycles ( _____ <u>minimum</u> cycles)
Slope Mowing	_____ cycles ( _____ <u>minimum</u> cycles)
Intermediate Machine Mowing	_____ cycles ( _____ <u>minimum</u> cycles)
Small Machine Mowing	_____ cycles ( _____ <u>minimum</u> cycles)
Mow Wildflower plots approximately	_____ times per year.

Wildflower plots or naturally occurring wildflowers are to be avoided when in bloom and when re-seeding. A deduction will not be made from the pay quantities for any wildflower area not mowed, unless it exceeds one acre.

Quantities will be agreed upon prior to beginning work in any area in question.

#### **104-40.4 Equipment.**

Equip all mowing equipment with a slow moving vehicle sign located on the rear of the tractor, amber flashing light or white strobe light mounted on the tractor, 18 inch X 18 inch fluorescent orange warning flags mounted on each side of the rear of the mower, protective devices on the mower to prevent objects from being thrown into traffic, and safety devices installed by the manufacturer. Properly install and maintain safety devices at all times when the equipment is in use.

If the Engineer determines that any equipment is deficient in safety devices, remove the equipment from service immediately. Keep the equipment out of service until the deficiency is corrected to the satisfaction of the Engineer. Inspection of the equipment by the Engineer will not relieve the Contractor of responsibility or liability for injury to persons or damage to property caused by the operation of the equipment, nor will it relieve the Contractor of the responsibility to meet the established time for the completion of the mowing cycle.

Maintain the mowing equipment so as to produce a clean, sharp cut and uniform distribution of the cuttings at all times. The mowing equipment used will have the capability of cutting a height from 4 inches to 12 inches.

Furnish equipment of a type and quantity to perform the work satisfactorily within the time specified herein.

#### **104-40.5 Method of Operation.**

Begin any mowing cycle when authorized by the Engineer in writing.

Notify the Engineer when a cycle is started and when work is interrupted for any reason.

Prior to beginning work on the first cycle, provide a pattern or plan for mowing to the Engineer for approval. Subsequent cycles will follow the pattern adopted for the first cycle.

Mow shoulders and medians concurrently within the limits of the area mowed so that not more than one mile will be left partially mowed at the conclusion of the working day. Mow grass and vegetation on slopes or around appurtenances concurrent with the mowing operation.

Complete each mowing cycle in its entirety prior to beginning another cycle.

When work by other's, or weather conditions of a temporary nature, prevent the mowing of any areas, and such conditions are eliminated during the period designated for that mowing cycle, the Engineer may require mowing of these areas as part of the cycle without penalty for exceeding the time allowed or additional compensation.

Do not mow-grassed areas saturated with standing water to the point standard mowing equipment may not be used without excessive damage to the turf. At the Engineer's discretion, mow the areas during a subsequent cycle, or cut to the surface of the water using hand labor or other specialized equipment. Additional compensation may be requested for alternate methods used to mow wet areas (as specified in 104-40-9). Quantities will be agreed upon prior to beginning work in any area in question. No deduction will be made from the pay quantities for any one area authorized by the Engineer to remain un-mowed during a cycle unless it exceeds one acre in extent.

Prior to mowing, pickup, remove and dispose from the right-of-way, any large items such as wood, tires, cans, bags of trash, newspapers, magazines, large boxes, etc., that would be torn, ripped, or scattered by the mower and result in an objectionable appearance.

Exercise the necessary care to preclude any source of litter.

#### **104-40.6 Limitation of Operation.**

Maintenance of traffic will be in accordance with Section 102. When mowing within four feet of the travel-way (travel lane), operate the equipment in the same direction of the traffic, unless the adjacent lane is closed to traffic. All lane closures will have the prior approval of the Engineer. Mowers may operate in either direction when mowing four feet or more from the travel-way.

Perform all work during daylight hours.

The foregoing requirements are to be considered as minimum and compliance will in no way relieve the Contractor of final responsibility for providing adequate traffic control devices for the protection of the public and employees throughout the work areas.

#### **104-40.7 Quality.**

Completed areas will be reviewed for quality and acceptance by the Engineer. Re-mow areas determined to be unsatisfactory, by the Engineer, at no additional cost to the Department. Complete areas requiring re-mowing within the mowing cycle time specified in Subarticle 104-40-3.

Mow all grass and vegetation to a height of 6 inches plus or minus 1/2 inch. When determined by the Engineer, certain areas, due to location, may be cut to a height of 4 inches plus or minus 1/2 inch.

No streaking or scalping will be allowed in the areas mowed. Mowing areas of different widths will be connected with smooth flowing transitions. No accumulation or piling of cuttings will be allowed as a result of cleaning of the equipment.

Mow all grass and vegetation on slopes or around appurtenances to the same height and quality as the surrounding mowed area when using hand tools.

Negligence that results in damage to turf, curbs, sidewalks, pavement, signs or structures, mail boxes, appurtenances, etc. will be repaired or replaced to the satisfaction of the Engineer at no additional cost to the Department. Complete repairs prior to submission of the invoice for work accomplished during the cycle.

It is not required to remove grass or other vegetation cuttings from the right-of-way, or required to rake or pick up the cuttings in rural areas. In Urban Areas, with Small, Intermediate, or Large Machine Mowing the cuttings [redacted] need to be removed from sidewalks, curb & gutter, gutter, and inlets by the Contractor. The use of blowers (away from traffic) [redacted] be allowed to remove the cuttings.

**104-40.8 Method of Measurement.**

The quantities to be paid for will be the area, in acres, of mowing completed and accepted.

**104-40.9 Basis of Payment.**

Additional compensation for hand labor or the use of specialized equipment in cutting wet areas will be included under Item No. E104-4-2 Slope Mowing.

Prices and payment will be full compensation for furnishing all equipment, materials, labor, and incidentals necessary to complete all mowing operations specified. Compensation will be the unit price per acre for mowing times the actual acres completed and accepted.

Payment will be made under the items specified in the Bid Price Proposal.