

Lawn care/mowing guidelines for UW-Madison campus Indian burial sites

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Purpose:

This document provides guidance on best practices for maintain the turf grass cover on burial mound sites on the UW-Madison main campus.

UW-Madison's main campus includes four Indian burial mound groups:

1. Picnic Point Mound Group/DA-121 (Picnic Point/Lakeshore Nature Preserve)Eagle Heights Group/DA-130 (Eagle Heights Woods /Lakeshore Nature Preserve)
2. Willow Drive Mounds/DA-119 (north of the Natatorium /Lakeshore Nature Preserve)
3. Observatory Hill/Agricultural Hall Mound Group/DA-571 (west of the Washburn Observatory)

This guideline address the current turf grass vegetation cover located at Observatory Drive, and Willow Drive mound groups. The vegetation cover at Picnic Point and Eagle Heights mound groups are currently composed of native grasses and forbs and are NOT covered by this guideline.

Current UW Policy and Guidelines

1. UW-Madison Indian Burial Sites Management Policy, (approved May 2011, Campus Planning Committee)
2. UW-Madison Archaeological Sites: Land Management Guidelines (approved November 2013, Lakeshore Nature Preserve Committee, and Arboretum Committee)

The burial sites policy (2011) provides broad goals for managing mound sites. The land management guideline (2013) provides general direction for implementing the policy.

This document provides site specific direction for turf grass care at the Observatory Drive, and Willow Drive mound groups. If at some future date, the ground cover at these two sites is converted to a different vegetation cover (i.e., native grasses and forbs) then the guidelines in this document will no longer apply.

The burial sites policy (2011) identified six goals, including this goal relevant to vegetation on mounds:

“Manage vegetation to preserve visibility of mounds. The university will control vegetation to permit visibility of mound contours.”

The land management guideline (2013) provided direction on mowing vegetation on mounds:

Maintenance of Turf/Herbaceous plants

“Mowing. Mound sites covered by turf or low-growing vegetation are generally maintained through periodic mowing or cutting. Mowing cycles will be dictated by seasonal growth and site conditions, and may be as infrequent as two times per growing season. Mowing should be timed to allow for desirable plants to flower and set seed, whenever possible.

Mowing must be conducted in a manner that avoids compaction and damage to mound features. It is recommended that only experienced operators perform mowing on and around mounds to avoid damage that could occur from mower decks and blades cutting into the mounds. The mower deck should be set to a minimum of four-inch height (higher is desirable), and mowing should only be conducted as needed to maintain visibility of mound contours. Manually cutting vegetation with weed-wackers, brush cutters, or other tools may be appropriate alternatives to mowing on mounds.

In the fall, removal of leaves and thatch is a desirable strategy for maintaining health of grasses and other herbaceous ground cover plants. Mowing, burning, blowing or raking are all good practices-alone or in combination.

Management activity within a burial site must be avoided during periods when the ground is saturated (e.g., spring thaw or following precipitation), or any other time that renders the site prone to erosion, compaction or disturbance from management activity.”

Currently the physical plant grounds department provides the staff and equipment to perform turf grass mowing at mound sites. This guideline anticipates that the grounds department will continue to provide this service.

1. Mowing frequency:

The frequency of lawn mowing is dependent on soil conditions and vegetation height. Rapid turf grass growth may require one or more spring mowings—especially if grass height exceeds 12”. When grass height on mounds exceeds 12”, mowing becomes difficult and the grass cuttings must be removed. Careful monitoring of turf grass growth rates is useful in determining the most appropriate timing for mowing on mound features.

Specifically, this means that regularly timed mowing schedules/rotations are not appropriate for this turf on burial mounds. Mow as frequently as needed to keep grass length approximately between 4 and 12 inches. When mid-summer droughty conditions create slow growing/dormant conditions, mowing is not necessary. Limiting the frequency of driving on mound sites is important to minimizing soil compression and turf damage.

It is desirable that turf grasses are allowed to grow taller on the mound feature than adjacent areas. This difference in turf length makes it easier to view the mound shape.

2. Soil conditions:

Mowing should not occur when soils may be compressed due to recent rain or meltwater conditions. In general, wait a full day after a rain event to mow mound sites.

3. Equipment operator:

Staff assigned to operate mowing equipment on mounds should be familiar with the special requirements of turf care on burial mound sites. This will ordinarily mean that the mowing assignment is delegated to a permanent employee or a well-supervised temporary employee. Knowledge of specific mound location and mound contours is critical to avoiding improper mowing (e.g., mowing the outline of a raised earthen feature that does not conform to an actual burial mound.)

4. Mowing equipment:

Due to the mower deck width, and the combined weight of the equipment and operator, rider *mowers* are not to be used on the raised contours of a burial mound.

However, rider mowers may be used to cut areas adjacent to the raised mound feature. Care should be taken to not cut so close to the base of a mound feature that the mowing deck gouges the raised portion of a mound.

Push mowers (typically with 21" mowing decks) may be most appropriate to cut mound features that have tight angles or steep slopes.

Self-propelled walk behind mowers (typically with 36" pivoting mowing decks) are appropriate for mound features—when the mowing deck does not cause damage to the mound.

String trimmers may be used if the operator maintains a consistent cutting height (greater than 4")

5. Mowing deck height on mound features

Push mowers shall be set at the highest possible setting (typically 4").

Self-propelled walk behind mowers deck height shall be adjusted to no less than 4" (higher heights may be appropriate.)

These cutting heights are essential to avoid having a mower deck gouge a mound feature. If the mower is not adjustable to this minimum height, then it should not be used on a mound feature.

6. Mowing deck height on areas adjacent to mounds

The mowing blade shall be set at no lower than 2" for cutting turf adjacent to mounds. Higher deck heights are preferable.

7. Fall leaf removal

Removal of leaf litter is important to maintain turf health. If leaves are allowed to persist on top of turf grasses, this may stress or kill the grass. If significant areas of turf grass die and expose the soil surface of the mound, this may lead to soil erosion. Leaf litter should be removed from turf areas every autumn.

Only walk behind leaf blowers or backpack blowers shall be used on raised mound features. In areas where an accumulation of acorns, woody debris or thatch have accumulated, it may be advantageous to use hand raking on mound features to provide good growing conditions for turf grasses.

8. Herbicide and fertilizer

In general, the use of regular broad spectrum herbicides to control weeds such as dandelions or crabgrasses is NOT appropriate for mound sites. There may be instances when highly invasive weeds or exotic woody plants growing on a mound site will make herbicide use desirable (e.g., crown vetch, or buckthorn). Herbicide use should be highly targeted and used only when alternative methods of control are inadequate. In general the use of fertilizers is not needed or desirable on mound sites. A mix of grasses and forbs is acceptable for turf covering a mound feature.

9. Mowing pattern

Above-ground features of a mound site are not always obvious to the untrained eye. Operators of mowing equipment should be familiar with the known outlines of mounds. In general, the turf covering a mound will be higher than adjacent lawn areas. In this way, a person viewing a mound can more easily discern the mound feature.

In some areas, raised ground features are NOT actual burial mound features (this is particularly true near the goose mound at Willow Drive.) Not only do we want to assist visitors with identifying burial mounds, we do not want to incorrectly imply that all areas of raised ground represent burial sites.

Each spring, a representative from CPLA will work with grounds staff on demarcating the mound features—either by mowing or flagging. In this way the cutting pattern for the remainder of the growing season will be established.

10. Re-seeding exposed soils

For those burial mound sites currently being maintained under a turf grass regime, it may be necessary to introduce new grass seed to fill in bare spots or re-establish grass following an herbicide treatment. The same seed mix that is being used for other low maintenance turf areas on campus may be used.

11. Soil disturbance

When disturbance to soils on a mound feature are observed (e.g., due to animal burrowing, or depressions caused by decaying tree stumps) contact CPLA for guidance. Do not add soil to a mound site without prior approval.

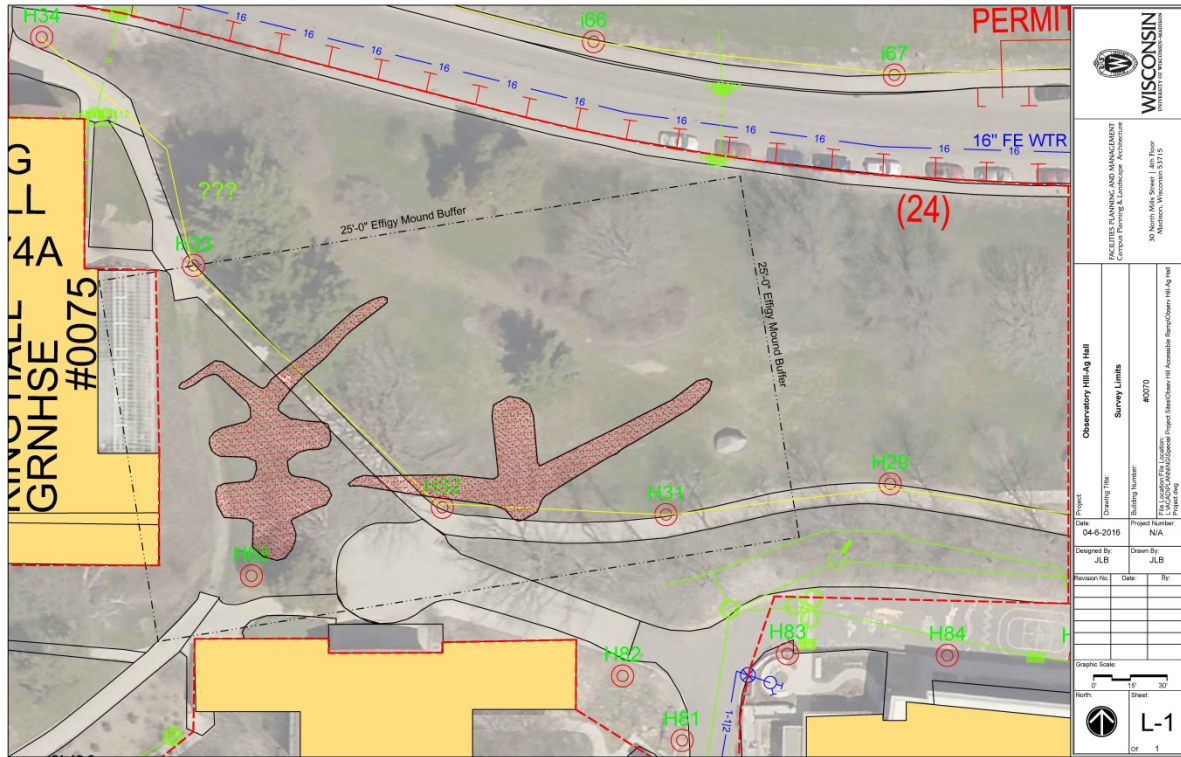
QUICK Reference Guide

Lawn care guidelines on Indian burial mound sites on the UW-Madison campus
(Review full guideline for more detailed information)

1. Equipment operator: must be familiar with the mound shapes. Review site maps prior to mowing.
2. Grass length on mound feature: minimum 4” and maximum 12”.
3. Grass length contrast: grass length should be longer on mound feature than adjacent area.
4. Mowing frequency: only as needed to stay within length range. Don't mow during dormant growth periods.
5. Soil conditions: mow only when soil is dry/firm.
6. Mowing equipment on mound feature: only walk-behind mower. No riding mower.
7. Re-seed: use low-maintenance seed mix on exposed soils.
8. Herbicide: use only as necessary to control aggressive/invasive weeds
9. Soil disturbance: report soil disturbance to CPLA. Do not add soil within a mound site.
10. Leaf removal: hand rake and blow leaves off mound features in timely manner each autumn (with spring follow-up as needed).

For additional guidance contact:
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Observatory Hill mound group (black dashed "box" shows catalogued burial site buffer area)



Lawn care on UWMadison Indian burial sites May 6 2016 as approved

Willow Drive mound group (red line shows boundary of National Register of Historic Places district boundary)

