

## History

This is a follow up to the discussion during the November 10, 2008 Public Works & Engineering Committee regarding McNaughton's Circle Drive reconstruction impact on the adjacent O'Connell residence. It should be noted that numerous visits were made to the site and numerous discussions were held with Mr. O'Connell regarding his concerns prior to the November Committee.

First of all, it should be emphasized that the project is within the Village's right-of-way and the goal was to avoid changing grades or drainage on the adjacent O'Connell property. The road was built at the approved grade according to McNaughton's engineer but they apparently underestimated some of the grade change between the new road and existing parkway/drainage swale area. The resulting grade is indeed steeper than planned however it is only steeper along approximately a third of the street length and is not so excessive as to present a long term erosion issue after vegetation takes hold.

Height and length measurements were taken at 20 ft. intervals along the slope to determine the difference between the design slope on the approved plans and the current slope that is built. Measurements starting at zero where the street widening begins on Circle Drive to the south and where it ends approx. 120 feet north at 135<sup>th</sup> Street. See the attached exhibit for reference.

0	1 inch higher	negligible
20	4 inches higher	greater than 3:1
40	5-1/2 inches higher	greater than 3:1
60	OK	meets 3:1
80	3 inches higher	greater than 3:1
100	3 inches higher	greater than 3:1
120	1 inch higher	negligible

The number of "inches higher" is the amount the slope is steeper than a 3:1 slope. Even the largest amount is only 5-1/2 inches which is not a drastic amount- less than 1/2 of a foot. Yet a small change can easily steepen the slope due to the small area to work with in this location

Reasons that the existing slope was originally intended to be the best solution include the following:

- 1) In order to create a gentler slope, significant filling would extend onto the O'Connell property outside of the right-of-way;
- 2) This would move the drainage swale out of the right-of-way onto the O'Connell property which could lead to maintenance issues as well as water complaints, and an easement would be required to properly allow this encroachment on private property;
- 3) Awkward grading would be required to fill and drain the swale around two large maple trees;
- 4) The slopes are already seeded and similar slopes in other areas of the Village have not had erosion problems when seeded.

- 5) The slope has been slightly adjusted to lessen the steepness once already, but is still considered too steep by the homeowner.

Other options that were considered included:

- 1) Adding a storm sewer pipe in place of the swale but this would reduce the amount of storm water carried and would likely conflict with existing storm sewers;
- 2) Regrading the road would be very expensive and disruptive, as well as make the approach to 135<sup>th</sup> Street steeper and cause stormwater runoff problems with the Park Corners office parking lot elevation (potentially impacting the O'Connell property).

Conclusion:

Part of the existing slope may be somewhat difficult to mow on a riding lawnmower as Mr. O'Connell has pointed out. McNaughton did offer to mow the section of the right-of-way bordering the O'Connell property but there was no agreement on that offer. A reasonable alternative is to have McNaughton plant the slope with an appropriate groundcover that will not require mowing. This reduces Mr. O'Connell's mowing and actually provides a more sustainable landscape reducing pollution and fuel usage.