

GRAVES ENGINEERING, INC.

100 Grove Street ■ Worcester, MA 01605 ■ 508-856-0321 ■ Fax: 508-856-0357 ■ www.gravesengineering.com

August 29, 2006

Grafton Planning Board
Town of Grafton
30 Providence Road
Grafton, MA 01519

EXAMPLE 4A

**Subject: Walnut Woods
Construction Completeness Review**

Dear Board Members:

As requested by the Applicant and the Planning Board, Graves Engineering, Inc. (GEI) performed various site visits at the Walnut Woods subdivision to evaluate construction completeness relative to the submittal of acceptance and as-built plans. This letter addresses construction-related issues. A separate letter concerning acceptance plan, as-built plan and legal description review is being issued under separate cover. Several of the following issues were previously identified in a letter from GEI to the Grafton Town Planner dated June 16, 2005.

This letter is a follow-up to our previous review letter dated January 24, 2006. For clarity, comments from our previous letter are *italicized*, and our comments to the Applicant's responses are depicted in **bold**. Previous comment numbering has been maintained.

In summary, except for #15 and #19 our comments were addressed.

The following construction items were identified:

- 1. In general, debris/sediment is to be removed from the catch basins and drop inlet sumps. For example, substantial sediment (3'+) was observed in CB 3, CB 4, CB 5, CB 6, CB 7, CB 8, CB 13, CB 15, CB 20, CB 21, CB 22 and CB 24. Please note that GEI did not check all sumps.*
Acknowledged. Catch basin sumps have been cleaned.
- 2. There is sediment and a grade stake in DMH1. In general debris and/or sediment are to be removed from all drain manholes.*
Acknowledged. DMH1 was cleaned.
- 3. In general, the catch basin curb inlets are to be cleared of debris. Also, the granite curb inlets are to be adjusted as necessary to allow unimpeded flow into the catch basins at #29 Valley View Drive and near the #19 and #21 Valley View Drive property line.*
Acknowledged. The curb inlets were cleared of debris.
- 4. The catch basin grate at CB 4 has to be replaced. The casting is severely chipped.*
Acknowledged. The catch basin grate was replaced.
- 5. An invert was not constructed in drain manholes DMH 8 and DMH 15.*
Acknowledged. Inverts were constructed.
- 6. The lowest 2 steps in DMH 2 are not aligned correctly.*
Acknowledged. New steps were installed.
- 7. The steps in DMH 6 are not accessible from the surface. The stairs are not located under the manhole opening.*
Acknowledged. New steps were installed.

8. *The upper step(s) are needed in DMH 12.*
Acknowledged. Steps were installed.
9. *The ground around DMH 7 was not brought flush with the manhole rim. The frame and a portion of the top section of the structure are visible.*
Acknowledged. Loam and seed were placed around the manhole rim.
10. *The penetration for the PVC subdrain into CB 23 did not appear to be sealed with brick and mortar.*
Acknowledged. The penetration was sealed.
11. *There are several street trees that need to be replanted/replaced, as noted below.*
Acknowledged. The following trees were replaced.
 - *A street tree on the western edge of the property for #14 Valley View Drive (Lot 8) is fully uprooted.*
 - *A street tree in front of #19 Valley View Drive (Lot 20R) is tipped.*
 - *A street tree in front of #24 Valley View Drive (Lot 3) needs to be replaced.*
12. *Several right-of-way monuments could not be located by GEI, as noted below. The bounds must be marked such that GEI may confirm their installation.*
Acknowledged. Installation of the following monuments was confirmed.
 - *The bound demarcating the northern entrance radius along Adams Road at the southern entrance to Valley View Drive (approximately station 0+21.5 53' right).*
 - *Point of Curvature (PC) at station 10+27.51 right.*
 - *PC at station 15+32.97 right.*
 - *Point of tangency (PT) at station 20+52.36 left.*
 - *The two bounds demarcating the entrance radii along Adams Road at the northern entrance to Valley View Drive (approximately station 30+16 52' left and 57' right).*
13. *There were several drainage easement monuments that were not located by GEI, as noted below. The bounds must be marked such that GEI may confirm their installation.*
Acknowledged. Installation of the following monuments was confirmed.
 - *The easement on Lot 14, Lot 15, Lot 16, Lot 17 and Lot 18R.*
 - *The monuments at the lot lines of Lots 8/9, 9/10, 18R/19R and 19R/20R.*
 - *The easement on Lot 23.*
 - *The easement on Lot 3.*
14. *The low area along Adams Road was recently re-planted. GEI is aware of an abutter's concern relative to standing water in this area. The establishment of vegetation and status of standing water will be further evaluated in the spring.*
Acknowledged. Vegetation has been fairly well established. Standing water appears to be most prevalent at the southern discharge point into the basin. It appears that the

continuous flow of water from the road subdrains into the low area results in localized standing water.

15. *Has a Certificate of Compliance for road and road-related infrastructure construction been issued by the Conservation Commission? If so, a copy should be forwarded to the Planning Office.*

It is our understanding the Applicant has applied to the Conservation Commission for a certificate of compliance. Once issued, a copy of the certificate should be forwarded to the Planning Board.

Additional Comments, August 29, 2006

A site visit on June 28, 2006 was attended by representatives of Toll Brothers, Gray Excavating, Grafton DPW and GEI. The following work was requested of Toll Brothers and subsequently completed.

16. **The flared end section outlet uphill of #25 Valley View Drive was cleaned of sediment and debris.**
17. **The swale in front of #1 Valley View Drive was re-graded and re-stabilized.**
18. **The swale in front of #20 Valley View Drive was re-graded and re-stabilized.**
19. **The swale in front of #22 Valley View Drive was re-graded and re-stabilized.**
20. **The damaged street light in front of #7 Valley View Drive was replaced. However, it should be confirmed at night that this and all other project street lights are functioning.**

We trust you will find this information useful and informative. Please contact this office with questions.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Project Manager

cc: Roger Hammond, Grafton DPW
Grafton Engineering Department
Bryan Weiner, P.E., Toll Bros. Inc. ✓