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December 14, 2015

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**Subject: Grafton Super Park, 4 & 6 Upton Street
Notice of Intent and Stormwater Management Review**

Dear Maria:

We received the following documents on December 11, 2015:

- Correspondence from Land Planning, Inc. to Grafton Conservation Commission dated December 9, 2015 re: Revised Superpark Site Plans, Revised 12-1-15.
- Plans entitled Grafton Superpark, Located on Upton Street, Grafton, MA dated September 16, 2015 and revised December 1, 2015, prepared by Land Planning, Inc. for the Town of Grafton. (5 sheets)
- Bound document entitled Stormwater Report, Grafton Super Park, 4 & 6 Upton Street, Grafton, Massachusetts revised December 1, 2015, prepared by Land Planning, Inc. for Town of Grafton.

Graves Engineering, Inc. (GEI) has been requested to review and comment on the plans' conformance with applicable Conservation Commission "Regulations Governing Stormwater Management" dated May 2013, "1988 Rules and Regulations for the Administration of the Town of Grafton Local Wetlands By-Law" amended July 2005; Massachusetts Department of Environmental Protection (MADEP) Stormwater Management Policy and standard engineering practices.

This letter is a follow-up to our previous review letter dated November 9, 2015. 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.

Our comments follow:

Grafton's Regulations Governing Stormwater Management

1. *The hydrology computations submitted were not based upon "Cornell Data" precipitation amounts. The website <http://precip.eas.cornell.edu> can be used to obtain rainfall data for the Grafton area. The rainfall data must be for a 24-hour storm event. (§6.B.3.b)*
The hydrology computations were revised. Although the 100-year storm event was modeled with 8.0 inches of rainfall instead of 8.8 inches per the "Cornell Data," the revised rainfall amount is greater than previously modeled using the TP-40 rainfall data. Whereas no stormwater basins are proposed, any further revision to the rainfall amount would be a "for the record" revision in that the rainfall amount would

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not affect a basin design. We defer to the Conservation Commission if the computations should be further revised to utilize 8.8 inches of rainfall for the 100-year storm event.

2. *A stabilized construction entrance was not proposed. A stone tracking pad should be provided where the proposed driveway meets the existing gravel parking lot. (§7.B.2.I)*
Acknowledged. Sheet 3 was revised to show the location of a stabilized construction entrance and to include a construction detail.

Regulations for the Administration of the Wetlands By-Law

3. *We have no issues relative to compliance with these regulations.*
No further comment.

Hydrology & MADEP Stormwater Management

4. *GEI reviewed the hydrology computations and found them to be in order except as noted in Comment 1.*
The revised hydrology computations are not unreasonable. Please also refer to Comment 1.
5. *GEI has no issues relative to compliance with the MADEP Stormwater Standards.*
No further comment.

General Engineering

6. *Slopes of 3H:1V are proposed along the west side of the driveway and along the east side of the sidewalk. Although not the subject of this stormwater review, we recommend that a shoulder (could be a narrow shoulder of one foot in width) should be provided at these locations to reduce the potential for the edges of the bituminous surfaces to break.*
Acknowledged. The plans were revised to include shoulders along the driveway. We don't have an issue with the proposed reduction of the paved driveway width from 24 feet to 22 feet.
7. *The plans should show the limits of the porous pavement's stone reservoir layer near Upton Street. The stone reservoir layer should not have a direct hydraulic connection to the Upton Street sidewalk or roadway base materials.*
Acknowledged. The plans were revised to show the limits of the stone reservoir near Upton Street and an overflow drain was added near Upton Street. During construction, the underground electric, telephone and cable conduits may have to be routed around the drain line.
8. *If the site is not fully stabilized when the porous pavement is constructed, then measures will be required to prevent soil from being tracked or deposited onto the pavement and "blinding" to voids in the pavement surface.*
Acknowledged. Notes relative to driveway and parking area construction were added to Sheet 2. Note 7 addresses cleaning of the porous pavement.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,
Graves Engineering, Inc.



Jeffrey M. Walsh, P.E.
Vice President

cc: Norman G. Hill, PE, PLS; Land Planning, Inc.