

May 5, 2017

David Kaplan  
Watershed Manager  
City of Cambridge Water Department  
250 Fresh Pond Pkwy  
Cambridge, MA 02138

RE: A&M Project #2275-01  
Stony Brook Weston 40B Development  
104 Boston Post Road  
Weston, MA 02493  
**A&M Response to Kleinfelder Peer  
Review Letter dated  
May 1, 2017**

Dear Mr. Kaplan:

On behalf of the applicant, 104 Stony Brook, LLC, Allen & Major Associates, Inc. (A&M), respectfully submits this peer review response letter regarding the comments generated by the City of Cambridge Water Departments peer review engineer, Kleinfelder, for the proposed 40B Residential Development known as Stony Brook Weston, and located at 104 Boston Post Road, Weston, Massachusetts.

The following comments below were noted by Mr. Charles Tripp, P.E., of Kleinfelder on May 1, 2017, and pertain to general comments and comments related to the stormwater management; each comment is followed by A&M's response in **bold**.

**COMMENTS:**

1. The HydroCAD Post-Development Analysis for the 78" CMP Infiltration System assumes a 3.3 inch/hour exfiltration rate. The proposed footprint of the Infiltration System as shown on the Site Development Plans places it in soils known to be the Hollis Rock Outcrop Charlton Complex. This soil type classifies as a HSG A soil, but NRCS indicates that it is a sandy loam. Based on Rawl's Rates for HGS A soils, and soils known to be sandy loams, the infiltration rate that could be achieved would be somewhere between 1.02 and 2.41 inches/hour. It is suggested that test-pits be performed in the area of the proposed 78" CMP infiltration system to verify assumed infiltration rates, and to document the separation between the bottom of the infiltration system and the estimated seasonal high groundwater table.

**A&M Response: Stormwater infiltration has been removed from the drainage design based on inability to perform soil testing in the location of the infiltration system. The proposed change in topography makes it impracticable to determine soil absorption rates in the future location of this BMP.**

2. The proposed 78" CMP Detention and Infiltration Systems are to have corrugated metal pipe (CMP), as the pipe material. Although the CMP proposed is to be aluminized, it should be

confirmed whether that CMP would suffer deterioration from residual salt and de-icing chemical concentrations in the runoff that will be contained within these systems.

**A&M Response: All exterior driveway aisles including the permeable paver areas and the reinforced grass turf pavers are to be treated for snow and ice using subsurface heating systems. No de-icing chemicals are proposed to be applied to these driveway areas. If de-icing chemicals are to be used in minimal quantities to treat areas adjacent to doorways and/or walkways, the solid salt particles will be treated by the StormCeptor water quality units. If any de-icing chemicals do come in contact with the corrugated metal detention pipe, they will be in minimal quantities and are not expected to adversely affect the pipe. Organic de-icing agents may also be used to reduce the corrosiveness of these agents.**

3. The Infiltration System General Cross Section Detail should be revised to include a layer of geotextile fabric between the crushed stone and fill material to discourage migration of fines, but to also encourage the development of an organic filter cake to further reduce total phosphorus concentrations prior to discharge.

**A&M Response: Stormwater infiltration has been removed from the drainage design based on inability to perform soil testing in the location of the infiltration system. The proposed change in topography makes it impracticable to determine soil absorption rates in the future location of this BMP.**

4. The cut-sheet for the stormwater detention/infiltration system included within the Drainage Report indicates a Cultec HDPE based system, when the design proposes CMP. This should be clarified/updated.

**A&M Response: The Cultec HDPE cut-sheet has been removed from the revised Drainage Report.**

5. A calculation should be provided to properly size the rip-rap velocity dissipater proposed at the outlet of the drainage system, and calculated dimensions should be included in the detail on Sheet D-3 of the Site Development plans.

**A&M Response: This calculation has been included in the revised drainage report.**

6. The Outlet Control Structure Detail on sheet D-4 should be revised to be in conformance with the plans and calculations. The weir opening shown at elevation 95.5 is in conflict with the plans and calculations.

**A&M Response: The plans, reports, and HydroCAD modeling has been updated accordingly.**

7. The eight-inch diameter HDPE outlet pipes to and from the Outlet Control Structure to the Flared End discharge do not appear to have sufficient capacity to convey flows from the detention/infiltration systems during the 25-year or 100-year event. These pipes were also not included in the Pipe Sizing Table portion of the Drainage Report. These pipe sizes should be verified, and the Pipe Sizing Table should be updated.

**A&M Response: Pipe sizing table has been updated to address the drainage system redesign and is included in the modified drainage report.**

If you have any questions or comments, please do not hesitate to contact me at (781)-935-6889. We look forward to further discussing the project with the City of Cambridge Water Department.

Very truly yours,

**ALLEN & MAJOR ASSOCIATES, INC.**



Timothy J. Williams P.E.  
Principal

Cc via email: David Calhoun, Chris Berardi of 104 Stony Brook LLC

Enclosures: Drainage Report dated April 18, 2017 revised through May 5, 2017