

HANCOCK ASSOCIATES

19774

July 21, 2016

Jonathan F.X. O'Brien, Esquire
Chairman
Sudbury Zoning Board of Appeals
Flynn Building
278 Old Sudbury Road
Sudbury, MA 01776

Re: Village at Sudbury Station
 Second Peer Review Letter – Stormwater Management Plan

Dear Chairman O'Brien and Members of the Board of Appeals:

Please refer to the Peer Review Letter submitted by Hancock Associates ("HA") to the Zoning Board of Appeals on June 29, 2016. In response to that comment letter, the applicant's engineer, Sullivan, Connors and Associates ("SCA"), submitted a revised submittal package to the Board, with copy to HA received July 15, 2016, that contained the following information: SCA submittal cover/response letter dated July 14, 2016; plans titled "Preliminary Site Plan for the Village at Sudbury Station (9 Sheets)" dated January 25, 2016, last revised July 14, 2016, and prepared by SCA; July 14, 2016 revisions to the report titled "Hydrologic & Hydraulic Analysis for the Village at Sudbury Station" dated June 10, 2016, last revised July 14, 2016 and prepared by SCA that include revised Section 2.10, new Section 2.11 (drain pipe sizing calculations), and revised Stormwater Operations and Management Plan; plan titled "Inlet Drainage Areas for The Village at Sudbury Station" dated July 14, 2016 and prepared by SCA. HA have reviewed the material received on July 15, 2016, and HA comments on that submittal follow.

-1. General – Completeness of Plans – Proposed Grading

Comment 1.1 (No response necessary): In response to prior HA comments, SCA have added two foot contours and additional spot elevations; as a result, HA was able to make a proper evaluation of the grading impacts. In addition, it should be noted that two grading-related elements of design changed: first, this enhanced grading resulted in the addition of several new retaining walls and extensions of several other walls shown on

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the prior plan; second, that several building entrances were deleted leaving each building with only one pedestrian entrance and one garage entrance – this is not a storm water management aspect, and HA offers no opinion on building and life safety code issues.

-2. General – Completeness of Plans – Proposed Drain Piping

Comment 2.1 (No response necessary): In response to prior HA comments, SCA have added: drain pipe sizes/slopes/inverts to the road profiles on the drawings; catch basin inlet flows and grate elevations/capacities in the hydraulics report; drain pipe inverts, slopes, expected flows, and capacities in the hydraulics report; and additional details for drain structures on the detail drawings including a new drawing #9. As a result, HA was able to make a proper evaluation of the pipe capacities, catch basin capacities, maintenance provisions, and potential for unintended overflows. It should be noted that while some of the off-road minor piping sizes/inverts are not shown in plan/profile views, they are provided in the calculations; that is sufficient for this level of plan review in HA's opinion.

-3. Preliminary Site Plan, Sheet 1 of 9, Overall Site Plan / Key Sheet

Comment 3.1: Add new sheet 9 to the "Sheet Index" for the record.

-4. Preliminary Site Plan, Sheet 2 of 9, Site Plan

Comment 4.1: The addition of grading detail shows: a self-contained "bowl" is being created in front of the clubhouse Building #6 at the two CBs in front of it that could result in flooding (if CBs blocked up) of Building #6 and the "GF 205.5" unit of Building #10; and, a potential overflow exists at the accessible curb ramp for the Building #6 accessible parking where runoff is directed toward it. Building #6 should be raised 6 inches and the gutter used to channel runoff to the CBs and away from the potential overflow location.

Comment 4.2: A path is shown from Drive #1 to the rear of the Clubhouse which traverses a steep embankment; this grading should be corrected or steps inserted or some other clarification provided.

Comment 4.3: Driveway #2 will need correction from Station 0+00 to 3+60.33 for these reasons. First, the gutter slope at the northerly corner of the Drive #1/#2 intersection is about 9% where the accessible crosswalk meets the ADA sidewalk curb ramp which greatly exceeds the ADA maximum allowable 2%. Second, the cross-slope of the accessible crosswalk at the Building #5 garage entrance greatly exceeds the 2% maximum ADA allowable. Third, the lower half of the Drive #2 is 6.5% and exceeds the ADA maximum of 5%. Fourth, the accessible crosswalk at the end of Drive #2, while 2% along its cross-slope, is in excess of 2% on its southerly side.

Comment 4.4: The CB on Access Drive #3 catches nothing because of the transition from crowned Peter's Way Extension to the Drive #3 superelevation. The CB position and/or calculations should be corrected to address this.

-5. Preliminary Site Plan, Sheet 3 of 9, Site Plan

Comment 5.1: The existing culvert at Peter's Way Extension and Concord Road is proposed to be connected to the new street drain; however, the remaining section of culvert is not described. Add note saying it is to be removed.

-6. Preliminary Site Plan, Sheet 4 of 9, Plan/Profile

Comment 6.1: Correct pipe between DMH 5+26 and 5+71. Profile shows it as 18 inch although it scales 12 inch. Calculations call it 12 inch.

-7. Preliminary Site Plan, Sheet 5 of 9, Plan/Profile

Comment 7.1: Add label to Access Drive -3 Profile for pipe between WQ-A and DMH 2+22.

-8. Preliminary Site Plan, Sheet 6 of 9, Plan/Profile

Comment 8.1: Resolve conflict between description of DCBs at Station 6+75 shown on Peter's Way Extension profile (both are DCBs) and the Sheet 3 plan view (only the left is DCB).

-9. Preliminary Site Plan, Sheet 7 of 9, Drainage Details

No Comments.

-10. Preliminary Site Plan, Sheet 8 of 9, Snow Storage Plan

No Comments.

-11. Preliminary Site Plan, Sheet 9 of 9, Drainage Details

No Comments.

-12. Hydrologic and Hydraulic Analysis

Comment 12.1: Regarding the newly submitted "Drain Pipe Sizing Calculations: On Page 1, the line "DMH 3+59 to DMH 3+76 needs correction; there is no inflow there. Comment 12.2: Regarding the newly submitted "Drain Pipe Sizing Calculations: On Page 2, the line "DMH E to DMH 8+83 needs clarification. The calculation shows this is 18 inch pipe. Sheet 4 shows connection to DMH 8+83 is 15 inch not 18 inch per calculation.

Summary

Please be advised that the comments above can be considered minor and resolvable. HA recommends that these comments be addressed on the final plans including those involving ADA accessible grading issues.

HA has determined that the stormwater management system is technically feasible to construct in a manner that would meet the MassDEP requirements and serve to protect the residents on site and abutting properties.

If you have any questions or comments, please contact me at 508-460-1111 or email me at rchrusciel@hancockassociates.com.

Sincerely,

HANCOCK ASSOCIATES



Robert A. Chrusciel, P.E.
Senior Project Manager

RAC/rac