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December 21, 2023

Mr. Peter Matchak
Town Planner/Director
Town of Ashland
101 Main Street
Ashland, MA 01721

Re: EAI Project #: 21-58508
9-49 Homer Avenue
Tax Map 14 Lots 352,353 & 354

Dear Peter:

Engineering Alliance, Inc. is in receipt of the peer review letter updated through November 21, 2023 and prepared by GCG Associates. Included for your review please find the following:

- One (1) copy of site plans entitled "Proposed Site Plan 9-49 Homer Avenue (Tax map 14 Lots 352-354) Ashland, Massachusetts" dated June 17, 2002 and revised through December 21, 2023
- One (1) copy of the Drainage Calculations and Storm Water Management Report dated April 22, 2021 and revised through December 21, 2023.

Below are our responses to the comments (comment in italics and response in bold).

c.) The proposed walkway outside units 1 & 2 should have a minimum width of 4 feet, (ADA/AAB Section 22.2). Unit #2 exterior walkway width remains 3 feet wide, 4 feet minimum width required, per ADA/AAB requirements. The walkway outside of the southwest building corner still measured 3.5' wide and should be revised.
Response: The walkway outside of the southwest building corner has been enlarged to 4.0' wide.

3. The proposed close of existing curb cut in front of lots 353 and 354 would create a depression on Homer Avenue and potential icy hazardous conditions during the winter months, the existing spot grades shown a 5+/- inches dip at the existing northeast curb opening gutter and should be addressed. The proposed spot grade will not resolve the ponding issues, there is an existing hump (elevation 185.10) approximately 20 feet east of the proposed spot grade 184.72. GCG recommends locating the existing catch basin at the southwest intersection corner and determine the existing rim grade and remove the hump between the catch basin rim and the existing high point 185.94 near the catch basin in front of the existing commercial building. The grading plan called for adjusting existing catch basin (at the Homer Avenue and Alden Street southwestern intersection corner) rim to 184.50, which is 0.25 feet lower than the existing rim grade. Where is adjacent to the proposed Homer Avenue sawcut line. Regarding is required. The saw-cut line has been relocated approximately 4+/- feet eastward. The abrupt 0.25 drop of the existing catch basin rim grade will create a 4' long 6+/-% ramp on Homer Avenue, where the existing roadway is at 1.5+/- longitudinal slope. GCG recommends relocating the saw-cut line to the eastside of the Alden Street intersection.
Response: The saw cut line has been relocated to the east side of the Alden Street intersection as requested.

The proposed driveway curb opening at Alden Street is located at the south side of the high point at elevation 184.73+/-, hence, the driveway runoff would drain southward to the existing

catch basin located in front of #15 Alden Street driveway and altered the drainage pattern. The applicant should analysis the impacts of the altered drainage path. *A new catch basin has been proposed to connect to an infiltration trench, infiltration system should meet the 10 feet property setback requirement. (MSH Vol.2, Ch. 1, Pg. 32 Table 2.3). The proposed infiltration trench consists of perforated pipe and is classified as a Class V injection well. The trench should meet the 20 feet building foundation setback per MassDEP Standard Design Guidelines for Shallow UIC Class V Injection Wells.*

Response: The pipe has been changed to a solid pipe and the Tr-20 calculations have been updated accordingly.

The 6" stone layer underneath the infiltration chambers has been eliminated. The crushed stone layer does provide structural support for the chambers in addition to storm water storage. Manufacturer recommendations should be provided. *Provide manufacturer support of the chambers without crushed stone support.*

Response: We had several meetings with the engineer's from cultec. They recommended changing to a Cultec 280HD chamber and slightly enlarging the field. This allows for 6-inches of stone under the system for structural support while maintaining the 2-ft of groundwater separation. The drawings and TR-20 calculations have been updated to reflect this change.

Add Precast Concrete Drain Manhole structure (for the overflow drainpipe connection within the street right-of-way), bottom should be equipped with cement concrete or brick table/invert like the one shown on MassDOT Construction Standard details drawing number E202.4.0. Concrete structure should be equipped with standard H-20 rated top cone or flat slab. Specify drainage manhole frame and grate similar to the SMH detail. Update Lebaron Foundry to EJ model number. Details remain referenced to Lebaron Foundry models. *Called out to meet Town of Ashland Standards. Resolved.*

Response: No response required.

6. Drainage Outlet Control Structure detail should be provided, a standard drainage structure with a specified baffle wall to create a control should be sufficient. The outlet control structure concrete top slab, frame and cover, brick mortar bed should be shown on the detail, weir invert to bottom of slap clearance should be specified to provide sufficient opening to handle the design storm events. *The proposed top of weir elevation at 184.00, with outlet structure rim grate at 186.00. The typical drain manhole top slab thickness shown an 8" thick concrete top, a standard Ashland frame and cover should be 8" height. And the frame and cover should be set in mortar bed and brick course to provide adjustment. The bottom of the concrete slab would be below the 100-year peak elevation. (Peak elevation is expected to be higher, see stormwater report comments below).*

Response: The peak elevation in the 100-year storm is 184.49. The outlet structure has been pushed up the driveway toward Homer Avene as a result the rim has increased to 186.24. If you assume 16" of structure, then the bottom of concrete would be 184.91 which is still above the peak elevation.

We are hopeful that the enclosed modifications address the comments of the November 21, 2023 comment letter and we look forward to the opportunity to formally present these changes at the next continued public hearing.

Very Truly Yours,

ENGINEERING ALLIANCE, INC.

Richard A. Salvo, P.E.
Principal

Copy to: Charlie Zammuto – Applicant
Attorney Terry Morris
EAI File #: 21-58508