



**Peer Review Comment Form**

PROJECT NAME HEALY CORNER DEFINITIVE SUBDIVISION PEER REVIEW

DATE 11/1/2019

UPDATED: 11/1/2019

PROJECT NO. 19060.01

**Recommended Condition of Approval**

**Comment Deferred to the Planning Board**

NO.	SHEET NO.	SECTION	GREEN'S COMMENT	Applicant's RESPONSE	CONFIRMED BY	DATE
APPLICATION						
DEFINITIVE PLAN						
6	C4.1, C4.2	§249-32.A.1.a.ii	The Applicant shall revise the Existing Condition Plans to show the entire site to be subdivided. The southwest and northwest portions of the site are not included.	Waiver Requested.		
6a			Waiver request noted. See below.			
16	C7.2/C7.2	§249-32.D.2	The Applicant shall include existing center line profile for Tahattawan Rd.	Added to plan.		
16a			The existing ground shown on the updated profile does not appear to reflect the crowned condition observed in the field and indicated by the contours. The Applicant should confirm that the existing ground is shown correctly and revise the profile accordingly.			
17	C5.1/C5.2	§249-32.D.8	The Applicant should revise the plans to show all proposed features including but not limited to lighting, curbs, gutters, electrical transformers, and fire alarm boxes. The Applicant should also confirm the locations of all electrical infrastructure (conduit and transformers) have been reviewed and approved by LEED, all necessary easement have been obtained and the location of transformers have been coordinated with other design features, such as sidewalk. The plans specifically appear to be missing proposed curbing and electrical transformers.	Added to plans, with exception of electrical transformers which will be laid out in accordance with the contractor and Littleton Electric Department.		
17a			It is recommend that the Applicant coordinate with the LEED prior to plan endorsement to avoid potential conflicts with other design features, such as sidewalk. The Applicant should review if there is enough space to install a transformer between the sidewalk and the layout line. If there is not enough space than the Applicant could consider revising the Proposed Sewer Easement to include the electrical infrastructure.			
18	N/A	§249-32.F.6	The Applicant shall submit Construction Management Plans per subdivision regulation requirements. The plans should include traffic management plans, proposed truck routes, proposed hours of operation, and meet the requirements and MUTCD standards outlined in §249-59.G	This project site is subject to NPDES. A SWPPP will be submitted prior to construction.		
18a			A Traffic Management Plan and a Truck Route have been provided. The truck route uses Taylor Street, Foster Street, Harwood Ave., Tahattawan Road and Newtown Road. The plan also indicates that signage will be provided at the construction entrance per MUTCD. We recommend that the applicant provide hours of operation for construction equipment.			
19	N/A	§249-32.F.7	The Applicant shall submit a detailed cost estimate for all construction within the proposed roadway layout and any public utility easements. It should be certified by the projects Registered Professional Engineer. The cost estimate should be based on MassDOT's Standard Item List.	Under separate cover.		
19a			The estimate indicates that some quantities include Dennis Circle only while other items do not specify. We recommend that Applicant clarify if Alfred Trail is included in any of the quantities and defer to the Board for the need to include Alfred Trail in the estimate, which will be used to determine the bond for lot release. The Applicant uses the wrong item for the dense graded crushed stone subbase. The applicant should revise Item 156 Crushed Stone to Item 402, Dense Graded Crushed Stone For Subbase. Concrete sidewalk appear low. When using \$60/CY for MassDOT's Standard Item 701, Cement Concrete Sidewalk the total cost is equal to approximately \$23,320. This is double the cost of the current item. The Applicant had a quantity of 196 tons for the HMA Roadway Binder Course and we estimated approximately 250 tons. The Applicant should confirm their quantity. The Applicant had a quantity of 118 tons for the HMA Roadway Top Course and we estimated approximately 150 tons. The Applicant should confirm their quantity.			
26	C5.1	§249-43.D.12	The nearest line of any driveway shall not be closer than fifty (50) feet from the intersection of any two (2) streets. The Applicant should revise the driveways for lot 14.	Paper street, but actually a driveway, does not have to meet the 50 feet from the intersection of two streets because it is realistically a driveway.		
26a			The driveways for Lot 4 and Lot 14 appear to be designed approximately 40' from the side street. While 40-feet does not meet the Subdivision Standards we find the distance appropriate, as the Applicant has made efforts to obtain the largest distance practical while meeting other subdivision requirements. We defer to the Board to make the final decision.			
40	C5.1	N/A	The local post master has indicated that the post office will not deliver mail to individual mailboxes on new subdivisions and is requiring common mailboxes be installed on all new subdivisions. The Applicant should coordinate with the postmaster on the most appropriate location for the common mailbox and show this location on the plans.	Added.		
41a			The Applicant has added the requested mailbox next the parking area near Alfred Trail. Snow removal for the common mailbox shall be the responsibility of the homeowners association.			
47	C9.1-C9.4	N/A	The Applicant shall provide a construction detail for the trails and paths proposed.	Proposed trails shall be coordinated with the Littleton Trails Committee.		



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47a			We recommend that this coordination occur either prior to plan endorsement or the Board makes the coordination a condition of the subdivision approval.			
49	C5.1	N/A	The entrance to Dennis Circle does not intersect with Tahattawan Road/Harwood Road at a desirable location. A vehicle crossing Harwood Ave. from Dennis Circle to Tahattawan Rd. travels directly towards the opposing stop bar. We recommend that the Applicant provide an evaluation of the Dennis Circle, Harwood Ave. and Tahattawan Rd. intersection. Potential improvements may include relocating the subdivision entrance, realigning Dennis Circle to better align with Tahattawan, revising the intersection geometry, or adding pavement markings and signage.	We defer this decision and input to the traffic engineer.		
49a			We will review the response of the Applicants traffic engineer when it is submitted. We do recommend enhancements be considered at this intersection or realignment of Dennis Circle be evaluated due to safety concerns related to the current proposed design.			
50	C5.1	N/A	The Applicant should relocate the existing driveway entrance at #195 Tahattawan Road (Lot 3) to Dennis Circle. The existing driveway entrance should be removed. The relocation will satisfy the required 50-foot distance from intersections.	Leaving as proposed. Planning Boards discretion to revise.		
50a			The Applicant's response is noted and we respectfully defer to the board for a final determination. We recommend that this driveway be relocated and removed from the intersection.			
51	C6.1, C6.2	N/A	The Applicant should confirm that length of need is met for all guardrail on the project and clearly define the guardrail limits on the plans.	Guardrails over the wetland crossing are along the entire length of the retaining wall. Additional guardrails are provided for precautionary measure but not required.		
51a			To provide full protection from the hazard (steep slope) additional guardrail should be provided on the approach end of the guardrail. The Applicant should provide this additional guardrail length per Chapter 5 of the MassDOT PDDG. The Applicant should also clearly define the guardrail limits on the plans. Station labels are typically used to define the start and end of guardrail sections. Based on contouring, the length of need is not met.			
52	C5.1, C5.2	N/A	The plans currently show short sections of proposed trail and no existing trails. For clarity the Applicant should revise the plans to show all proposed trail and existing trails throughout the site. Connections between existing trail and proposed trail should be shown.	Applicant is to work with and coordinate with Littleton Trails Committee.		
52a			We recommend that this coordination occur either prior to plan endorsement or the Board makes the coordination a condition of the subdivision approval.			
<b>ZONING BYLAWS</b>						
55	N/A	§173-98.A	The Applicant shall submit a development statement describing the development program, and including the number of units, types of units, floor area, number of bedrooms, ground coverage, and areas of residential development and common open space as percentages of the total open space area.	See Architectural Plans.		
55a			Architectural Plans have been submitted and indicate the type of unit, floor area, number of bedrooms and ground coverage. We recommend the additional information not provided be submitted to the Board.			
57	N/A	§173-98	The Applicant shall submit a marketing program, construction schedule, management program, development team qualifications and a financial program.	Waiver Requested.		
57a			Waiver request noted. See below.			
58	N/A	§173-100.A	The Applicant shall protect the visual character of the environment and existing neighborhood. The current plans are largely the same as the preliminary plans however an extra lot has been added along Tahattawan Road which may disrupt the visual character of the road. We respectfully defer to the board for a determination of this item.	Noted.		
59	N/A	§173-203 - §173-212	Compliance with Article XXIX Inclusionary Housing is required and the Applicant shall request Inclusionary Housing Form 1F.	Under separate cover.		
<b>TRAFFIC STUDY</b>						
65	TIA Memo Page 15 - Conclusions and Recommendations	N/A	The TIA states that the Applicant will commit to removing the additional trees on-site and within the public right-of-way within the intersection sight distance (ISD) sight triangles, egressing the cul-de-sac, to meet AASHTO minimum recommendations. The Applicant should show the ISD sight triangles drawn for vehicles egressing the proposed cul-de-sac onto Harwood Avenue and identify the additional trees to be removed and areas of vegetation trimming in order to provide the minimum ISD values shown in Table 2. It should be confirmed that no trees or vegetation trimming is needed outside of the public right-of-way or site layout. Tahattawan Road and Harwood Way are scenic roads; therefore, a scenic road permit will be required for any tree cutting within the right-of-way.	Noted.		



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<b>STORMWATER REPORT</b>						
70a			We accept the position of CB2 at the low point. There seems no reason for a low point at CB1 and no reasoning was provided in the response. Therefore, with regard to CB1 we stand by our original comment, recommending that it be moved to the upstream end of the curb return for a best practice stormwater drainage design.			
71	Plan: C6.1	\$249-32.D.5	We recommend that only loaded runoff sees the forebay. The pipe inlet to the forebay has an invert elevation of 289.33' and from there gravity will direct the water into the forebay. However, with the main basin bottom elevation at 290.00' and the forebay spillway at elevation 289.00', the forebay spillway will act like a weir in the wrong direction, i.e. runoff from the slopes north of the basin may end up in the forebay unnecessarily. Can the forebay be isolated from the rest of the infiltration basin?	Noted and discussed. The Fore bay could not be moved up and out of the Infiltration Basin to to site constraints and the elevation of the storm drain outlet pipe. The fore bay will not receive any un-intended sediment as designed.		
71a			We suggest that two sections are provided to demonstrate the intended shape and levels of spillways - one section through the basin length and forebay and one through the basin width and emergency spillway.			
76	Pg 177 & Plan: Post-Dev Watershed Areas (sheet 1 of 2)	N/A	The proposed subsurface infiltration chambers ST1 and ST2 are located in soil area 305B (Fine sandy loam, HSG C). For modeling an infiltration rate of 1.02inch/hr has been used for both chambers, which is inconsistent with the Rawls Rate of 0.27inch/hr for this case. The Applicant should clarify if this number came instead from one of the soil test results.	See test pit 718-20.		
76a			From test pit 718-20, the SHG was estimated to be at 303.5'. The proposed inverts of ST1 and ST2 are too close to the SHG, at 304.6' and 304.5' respectively. The Massachusetts Stormwater Handbook requires "at least a two-foot separation between the bottom of the infiltration structure and the seasonal high groundwater table."			
79	Pg.238 & Plan: Post-Dev Watershed Areas (sheet 1 of 2)	N/A	The proposed infiltration basin (INF) is located in soil area 305C (fine sandy loam, HSG C). For modeling an infiltration rate of 1.02inch/hr has been used, which is inconsistent with the Rawls Rate of 0.27inch/hr for this case. The Applicant should clarify if this number came instead from one of the soil test results.	see test pit 718-26.		
79a			From test pit 718-26, the SHG was estimated to be at 290'. The proposed invert of the infiltration basin is too close to the SHG, at 290' and the forebay is below the SHG, at 288'. The Massachusetts Stormwater Handbook requires "at least a two-foot separation between the bottom of the infiltration structure and the seasonal high groundwater table."			
87	O&M Manual	N/A	We recommend that the O&M Manual should include a section about the wetland culvert, to include clearing debris and blockages and routine checks such as signs of erosion around the headwalls and concrete cracking.	Noted. Information will be passed on to owners of lots 15 & 16.		
87a			The 'O&M-Lots 15 & 16' does not include information on Best Management Practice for the culvert maintenance. If this report is to be passed on to the lot owners, then we suggest that the culvert information is added to the report.			
90	C6.1	N/A	According to Stormtech, the chambers can only be cleaned when an Isolator Row is in use and an Isolator Row is not proposed as part of this project. The Applicant should consider adding an Isolator Row. We understand that the chambers are only connected to the roof drains, which may be considered "clean water", but leaves and sticks often clog gutters and overtime the infiltration system may become clogged. We recommend one of the chambers be treated as the "Isolator Row" and that it be the one that the roof leader ties into.	Revised. Added downspout overflow to call. Chambers will be ripped up if the fail, so no isolator row is needed.		
90a			The manufacturer recommends the use of an Isolator Row, so we stand by our previous comment. We defer to the Planning Board to determine whether it should be incorporated.			
92	C6.1	N/A	In accordance with O&M recommendations from the chamber manufacturer, a cleanout or manhole should be located at the end of the chambers to facilitate cleaning of the chambers.	No Cleaning. If fails, rip up and replace.		
92a			The manufacturer recommends the use of a cleanout or manhole to facilitate cleaning, so we stand by our previous comment. We defer to the Planning Board to determine whether it should be incorporated.			
<b>ADDITIONAL COMMENTS</b>						
94	C7.1, C7.2	\$249.39	The Applicant should provide wheelchair ramps on the sidewalk meeting ADA and AAB standards. A wheelchair ramp should be provided at the entrance of the subdivision on Dennis Circle near Sta. 0+00. We also recommend adding wheelchair ramps on both sides of Dennis Circle near Sta. 5+25. The sidewalk would need to be extended on the right side of the road to Sta. 5+25.			
95	C6.1, C6.2	\$249.73	The plans show a mixture of vertical and sloped granite curbing. Per discussions with the DPW Director, the Applicant should revise the plans to only include vertical granite curb throughout the project. It is noted that the Subdivision Requirements specify sloped granite curb around cul-de-sacs. We defer to the Board and DPW Director for a final determination of the curb treatment at the cul-de-sac.			
96	C9.1	\$249.32.F(1)	The Applicant should revise the typical section for Dennis Circle to include sidewalk on the left side of the roadway. The typical section should also be updated to show vertical granite curbing.			
97	C9.1	\$249.32.F(1)	We recommend that the Applicant include dimensions on the left side of the road from the back of sidewalk to the ROW and on the right side of the road from the back of curb to the ROW.			
98	C5.1	NA	A PC label appears to be covering the drainage pipe and structure for CB4. The Applicant should revise the plan so the pipe and structure are visible.			
99	C5.1	NA	The applicant should confirm the constructability of DMH3. The proposed 48" DMH does not appear large enough for the number and angle of the proposed pipes.			
100	C9.1	\$249-32.A(1)(a)vii	The Applicant should include a construction detail for vertical granite curb.			



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101	C6.1	§249.32.F(1)	The Applicant should confirm that there is adequate snow storage provided along Dennis Circle. For example. There is a steep cut slope on Dennis Circle between 0+00 and 3+00.			
<b>REQUESTED WAIVERS</b>						
1	N/A	§249-32.A.1.a. ix	<b><i>Waive the requirement to depict roadway cross-sections.</i></b> We recommend that the Applicant provide cross sections at all critical locations including but not limited to guardrail, retaining walls, large grade changes and locations where the roadway typical changes.	Discuss with Planning Board.		
2	N/A	§249-32.D.2	<b><i>Waive the requirement to depict cross-sections at 50-ft or closer station intervals.</i></b> We recommend that the Applicant provide cross sections at all critical locations including but not limited to guardrail, retaining walls, large grade changes and locations where the roadway typical changes.	Discuss with Planning Board.		
3	C9.1	§249-32.F.1	<b><i>Provide a typical street cross section for each class of street within the subdivision, drawn not to scale.</i></b> We take no exception to this request as long as the required information is shown in the typical sections and respectfully defer to the board for a final determination on this request.	Noted.		
4	C5.1, C5.2	§249-43.E.3	<b><i>(11) Street trees are provided for the site, locating outside of the right of way at various intervals due to the location of proposed driveways and preservation of existing tree lines.</i></b> The requirement states that trees shall be planted on both sides of the street and shall be spaced at intervals of 40 feet on center. We take no exception to this request and respectfully defer to the board for a final determination on this requirement.	Noted.		
5	N/A	§249-43.E.9	<b><i>Street trees shall be 2.5" in caliper with a minimum height of 10 ft.</i></b> The requirement states that the minimum size of street trees shall be three inches in caliper, measured four feet from the ground level, and 10 feet in height, in place. We take no exception to this waiver, however if the trees do not survive then the Applicant should replace all trees meeting the requirements of 3" in caliper, and we respectfully defer to the Board for a final determination on this requirement.	Noted.		
6	C6.1	§249-51.H	<b><i>Pipe inlets discharging into the basin is lower than the 25-year storm event ponding elevation.</i></b> Green recognizes that this would require raising the pipe elevation 4 feet or making the basin deeper. The analysis of the closed drainage system demonstrates that the 25-year storm will not flood the catch basins in the road, therefore Green feels that the pipe elevation requirement should not be enforced, however we defer to the Board to make the final decision.	Noted.		
7	C6.1	§249-51.H	<b><i>Waive the requirement for a minimum setback from property lines to stormwater basins.</i></b> We take no exception to this request because while it is within 30 feet of the property lines for lots 4 and 14, those lots are across a roadway. However, it should be noted that a small portion of the infiltration basin is located within the ROW line for Alfred Trail and there does not appear to be a proposed drainage easement associated. The applicant should provide an easement.	Noted.		
8	N/A	§249-59.C	<b><i>Waive the requirement of the written certification of approval, to be provided prior to construction.</i></b> We recommend the Applicant provide written documentation that the water line and services and electrical system has been coordinated and approved by LELWD.	Noted.		
11	C4.1, C4.2	§249-32.A.1.a. ii	<b><i>Waive the requirement to depict entire site to be subdivided, portion of the site not shown is not being developed.</i></b> We respectfully defer to the Board for a final determination on this requirement.			
12	N/A	§173-98E	<b><i>Waive the requirement of a marketing program.</i></b> We respectfully defer to the Board for a final determination on this requirement.			