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Apr 14 2020

**PLANNING DEPARTMENT
HOLLIS, N.H.**

KVPartners LLC

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April 13, 2020

Mark J. Fougere, AICP
Hollis Town Planner
Fougere Planning and Development, Inc.
253 Jennison Road
Milford, NH 03055

Re: 82 Runnells Bridge Road (Map 5, Lots 28-1, 28-2 and 28-3) – Site Plan Review

Dear Mr. Fougere:

We reviewed a twenty-six sheet plan set dated March 2, 2020, a Drainage Report dated February 10, 2020 and a Traffic Report dated November 11, 2019 all prepared by TFMoran, Inc. in accordance with our agreement with the Town. Based on that review and a field check, we offer the following comments:

1. The Redi-Rock retaining wall proposed on the northwest corner of the site has a maximum height of 12.5 feet. The wall is located 7' from the abutting property line and the wall thickness is either 28" or 41" depending on wall height and construction. This leaves a small working space behind the wall (around 4') to construct it without encroaching on the abutting property. Furthermore, walls that exceed 7'-6" required reinforcement according to the detail provided on the plan. The wall needs to be moved to a location further from the property line or additional information regarding constructability is required for review by the Town.
2. There is a Redi-Rock wall proposed at the loading dock with a handrail on the top. Provide a detail for the handrail. Also, for all Redi-Rock walls, provide a design by a NH Licensed Professional Engineer during construction for Town approval.
3. The truck turning exhibit indicates several locations where truck movements require tracking off the edge of pavement. Understanding that it is desirable to minimize pavement width, truck movements still must be located on paved areas to minimize site damage and potentially create unstable areas.
4. It appears that the handicap parking spaces at the rear building may have a pavement slope that exceeds 2%. The Parking spaces must have a pavement slope no steeper than 2% per ADA requirements.
5. The Concrete Sidewalk Detail does not have a maximum cross slope indicated. A maximum cross slope of no more than 2% must be added to the detail.
6. The Accessible Ramp Detail indicates a typical cross slope of 2% and a maximum cross slope of 1.6%. A maximum cross slope of 1.6% should be noted on all sidewalks to allow some tolerance

in construction to ensure the 2% maximum cross slope is not exceeded (this is typical NHDOT procedure).

7. It is not clear where the Trench Patch Detail will be utilized. Please clarify.
8. The infiltration system appears to mitigate the increase in stormwater runoff peak discharge rates and volumes from the site development based on the calculations provided. All the stormwater flow rate and volume mitigation require infiltration to provide the reduction, meaning that all runoff from the site will be discharged back into the ground except for small overflows during severe storm events. Pre-treatment of stormwater is essential to protect the ground water in and near the site and to ensure long term efficiency of the infiltration system. The pre-treatment proposed is 3' sump catch basins with outlet baffles and a separator row in the Stormceptor system. Considering the use of the site a more aggressive pretreatment device that can store spilled hydrocarbons and be easily monitored and cleaned out should be required by the Planning Board. This system should allow hydrocarbon storage that is contained and separate from any groundwater infiltration system.
9. The infiltration system overflow at HW-1 is a concentrated stormwater discharge point. The existing flows were sheet flow which were spread out over a wide area and were not concentrated at a single point. This represents a change in flow patterns even though the overflow rates are relatively small. Considering that the overflow is concentrated at a single point right next to the property line, this may cause a nuisance to the abutter. Additional information is needed to ensure that any off-site flows concentrated at this point will not impact the abutting property.
10. There is a minimal increase in stormwater peak flow rates and volumes at Runnells Bridge Road (Analysis Point A) which is not permitted per Zoning Section XI.C.5 (Wetland Conservation and Overlay Zone considering this flow discharges into a wetland eventually). The increase is directed to the State drainage system and is only 0.10 cubic feet per second, which is a small amount of flow. The Planning Board should consider if a waiver to this requirement is required considering the very small increase in flow.
11. The bottom of the test pits is close to the bottom of the infiltration system (less than 1'). The surface elevation of the test pit appears to have been assumed to be about 1' below the surrounding contours. Considering that the infiltration system is a critical element of the stormwater mitigation, the seasonal high-water table must be verified to at least 1' below the proposed system by additional test pits or additional historical documentation.
12. The plan indicates MC-500 infiltration system units and the details indicate MC-3500 infiltration units. Note needs to be corrected.
13. The outlet control structure for the infiltration system has a weir to control outflow. The type of weir (materials) and proposed construction (sizes, width, connections) must be clarified.

14. Detailed off site improvement plans were not provided or reviewed. We assume the plans will be reviewed and approved by NHDOT as part of the Driveway Permit process.
15. A cursory review of the Traffic Study was completed since this project access is on a State Highway and approval of the access will be considered by NHDOT. The Traffic Report methodology, key assumptions and conclusions appear reasonable.
16. The gas pump spill containment systems, fuel tank containment and monitoring systems and fuel pump safety considerations were not reviewed as part of this review. A third-party review that specializes in these systems will be required unless the Planning Board chooses to defer the review to the appropriate State Agencies.

If you have any questions or need any additional information, please feel free to contact me at 603-413-6650 or on my cell phone at 603-731-1562 or by email at MVignale@kvpllc.com.

Sincerely,

KV Partners LLC



Michael S. Vignale, P.E.
Principal Engineer