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Martha's Vineyard Commission

DRI # 710 EduComp Building

MVC Staff Report – April 14th, 2022

TRAFFIC IMPACT STUDY & ACCESS PLAN REVIEW:

MVC staff has reviewed the Traffic Impact & Access Plan submitted by Fraser Polyengineering Services.

Existing and Proposed Trip Generation: The total daily generated trips that were expected from the “existing” (previous) land use on the proposed property generated roughly 107 total daily trips.

Using the same conservative methods to determine the existing trip generation, the proposed land use of 14 residential units, and (3) Office Space Units totaling 3,000 square feet would generate roughly 105 total daily trips.

Sight Distances/Safety: Though adequate, staff agrees with the sight line concerns raised by the applicant. Most importantly, the safety issues the applicant raises for vehicles entering the travel stream from the site are of major concern. The applicant properly addresses these concerns in their recommendations.

Crash History: The potential for pedestrian/vehicular conflict at the State Road/4 State Road intersection is high due to the geometric orientation of the intersection. The intersection falls under the Statewide Average as well as the District Average for unsignalized intersections, which is based off per million entering vehicles.

Access: Existing access to the 4 State Road parcel is via a one-way, 10-foot wide, driveway at State Road.

The proposed access will retain the existing 10-foot width. The applicant has stated they will maintain the clearing of vegetation which limits sight lines at both site accesses. The applicant will provide adequate signage as to access, circulation, etc.

Level of Service: To further explain the level of service in terms of delay in seconds, the existing level of service of C translates to roughly (>15-25) seconds of delay. Roadways with LOS C experience restricted flow that remains stable but with significant interactions with others in the traffic stream.

The projected Level of Service D translates to roughly (>25-35) seconds of delay. Roadways with LOS D experience high-density flow in which speed and freedom to maneuver are severely restricted.

Recommendations: This proposed multi-use project that promotes and connects all modes of transportation would be an enhancement to the area. The traffic operations, and parking issues associated with the proposed development at the 4 State Road site are not of a magnitude that will

cause unmanageable conditions. The safety concerns regarding intersection geometrics should be considered and addressed as provided by the applicant in the traffic impact study and access plan. The site traffic analysis did not show any increases in vehicular trips produced by the site, in-fact there is a slight decrease (using the ITE trips generation version 10 data) for the proposed development (105 weekday trips) than the previous land use trips (107 weekday trips).

Additional facilities for safe crossings, markings, and a pedestrian friendly environment should be considered. More specifically, there are some geometric challenges that exist for the area and are listed below:

- (1) The crosswalk at the intersection of Main Street and Beach Street (where State Road becomes Beach Street) terminates into an egress driveway making an unsafe situation for pedestrians.
- (2) The crosswalk at the intersection of State Road at Main Street is located in such a manner that vehicles making a left turn into the site driveway will have to cross the pedestrian path while having to pay attention to opposing traffic streams.
- (3) The crosswalks at all approaches are not American with Disability Act (ADA) compliant.
- (4) During the traffic study pavement markings were either faded or gone completely. Pavement marking visibility maybe an issue both during the daytime, and at nighttime hours.
- (5) The site distance (site-lines) for vehicles making a right turn out of the site driveway is limited. Vehicles making a right and left turn out of the site may inch forward into the intersection to increase their line of site.
- (6) Even though contribution of site traffic volume is less than previous land use, safety related geometric improvements at the site intersection and possible reconfiguration of the intersection is recommended.

Proposed mitigative measures include the following:

- (1) The site will have a separate entrance and egress. Access to the project will be provided via an existing driveway located at the southeast corner of the site. Egress will be provided via a proposed driveway realignment located along the northeast corner of the site. Since State Road is under the jurisdiction of MassDOT, the driveway reconfiguration will require the issuance of a State Highway Access Permit.
- (2) The access an egress driveway will be designed to ensure that there is sufficient turning radii for commercial and non-commercial vehicles accessing the site
- (3) The proposed width of the driveway will be a minimum of 20-feet for one-way travel
- (4) Both driveways will have "Do Not Enter," and "One Way" signage at the approaches.
- (5) As a long-term solution and in coordination with MassDOT consider a small modern traffic circle to improve overall traffic flow, and access to the site.
- (6) Install ADA compliant wheelchair ramps at all approaches along the site.
- (7) Install Retroreflective thermoplastic crosswalks at all approaches or consider increasing the pavement marking painting schedule. Consider installing "Ladders" to the crosswalk to increase visibility at night.
- (8) Install a striped edge line along the curb of the 4 State Road site to better align the eastbound traffic stream.

Transportation demand management or the application of strategies and policies to reduce travel demand⁴ should strongly be utilized as part of the project development. The site location has the unique opportunity to mitigate a lot of potential vehicle trips provided by the site. The project site has ample transit access, and it is recommended that residents be provided incentives to use alternatives to automobile travel. The Route #1, #2, #3, and the Route #13 buses travel along State Road and Beach Street with stations that are within walking distance of the site. It is recommended that the owner should provide information to the potential tenants that would make them aware of alternative transit options, and they may provide to the employees of the commercial portion of the development incentives such as transit passes to reduce the amount of vehicle trips. The following are list of specific actions that could mitigate and reduce automobile dependence and increase transit patronage:

- (1) Transit maps and schedules should be provided to the tenants.
- (2) Bicycling and Walking: - Provision for bicycles facilities such as bicycle racks, covered parking (already provided in the plan)
- (3) Car/Ridesharing: Encourage tenants, and employees of the commercial portion of the building to carshare/ridesharing to and from work by connecting them with websites that promote carpooling.
- (4) Teleworking: With the ongoing COVID pandemic, teleworking has become an increasingly viable option for employees and employers. It is recommended that information be provided on the benefits of Teleworking working or teleconferencing from home. This may also include a provision within the building for an internet enabled shared office space for residents.