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Engineering Department

INTERDEPARTMENTAL COMMUNICATION

To: Board of Appeals

Date: February 20, 2015

From: Engineering Department

Subject: Next Generation Children Center - 348-352 Main Street – BOA #12-01 – Conceptual Plan – Remanded Hearing

We have reviewed the above-mentioned conceptual site plan for 348-352 Main St, dated December 2, 2011 with a revision date of January 13, 2015. Our comments from previous memos (memo #1 dated April 22, 2009 for a site plan dated March 15, 2009 and memo #2 dated January 6, 2012 for a site plan dated December 2, 2011) generally still apply. We have the following comments:

1. The plans are conceptual in nature. We will require more detailed plans for our review.
2. Any proposed work within the limit of the State Layout will require a permit from the State.
3. The new access for the daycare is located on the Town-controlled portion of Route 27. Any work such as, but not limited to, the relocated driveway, underground utilities, etc... within the Town-controlled section of Main Street will require the Town's Permit to Construct Within A Public Way.

Traffic / Pedestrian issues

4. The Town has recently adopted a Complete Streets Policy that should be reflected on these plans.
5. We recommend a sidewalk along their frontage up to the Route 2 bridge. There is an existing sidewalk on the Route 2 bridge that ends at the crosswalk. An easement may be necessary to locate a new sidewalk. If possible the sidewalk should have a 3-foot vegetated strip between the roadway and sidewalk and vertical granite curbing. There should be a walkway connection from the site to Main Street.
6. We had a comment from our 2009 memo about the project left turns on Main Street entering the site: *The Engineering Department reviewed the traffic study by MDM dated 7/18/08 that was submitted to the Town on 1/15/09. We were concerned with the impact of the predicted 50 to 76 vehicles turning left off of Main Street into the site during the peak*

PM hour. The recent traffic study for Hayward Road at Main Street determined the number of left turns at the Hayward Road intersection to be in the same ballpark as the proposed Children's Center (96 vs. 76). We know the turning movements at the Hayward Road intersection cause queues to extend beyond the new Public Safety Building. Attached is a memo we sent to the Planning Department that raised these concerns relating to the traffic study. In response to the concerns raised by staff, the applicant proposed some road widening measures to incorporate left turn only lanes for the Children's Center and the Route 2 westbound on-ramps. We had asked VHB to conduct a review of the suggested improvements to ensure consistency with the 2001 Main Street Corridor Study. Attached is a copy of the memorandum from VHB dated March 17, 2009 indicating that the left turn lanes are consistent with the 2001 Corridor Study. As part of this project, the applicant will also be relocating the crosswalk from its present location at the end of the Route 2 westbound ramp to the new access driveway at Isaac Davis Way. If this project is approved, we recommend that the Board make it a condition prior to the applicant obtaining a Certificate of Occupancy that the roadway modifications and sidewalk relocation as shown on the plan be completed.

The applicant has shown the proposed roadway modifications and has kept the crosswalk in its existing location. We recommend relocating the crosswalk as per prior plans. The crosswalk can be located adjacent to the utility pole to provide lighting for safety.

The addition of a left turn lane at the main entrance, as well as the other additional entrances, should be evaluated by a traffic engineer for the affect the queuing would have on Main Street.

7. We had a comment from our 2009 memo about the access to the site from Main Street: *We would defer comment to the Fire Chief to ensure emergency personnel can safely access and maneuver within the site. There had been some discussion about a secondary gated emergency access that would intersect Main Street about opposite the Route 2 westbound ramps. However, the state controls this portion of Main Street and the applicant would need to seek final approval from MassHighway. We sent a conceptual layout to the MHD District 3 Traffic Engineer for their preliminary comments. MHD responded that allowing the emergency gated access opposite the Route 2 ramps would require a break in the existing "no access" area and is probably not-likely to be approved.*

The applicant is proposing a full access entrance opposite of the Route 2 westbound ramps within the "Access" portion of Main St. This would still most likely require approval from the state.

8. There are now three access driveways for this project while one was proposed on prior plans. We recommend limiting the number of curb cuts. The parking area opposite of the Route 2 ramps is separate from the rest of the site parking. It's unclear what the importance of these spaces are and why they can't be incorporated into the rest of the parking area.
9. We would like the plans to show the old driveway for 348 Main Street along with notes clearly stating that the sidewalk & curbing will be reconstructed to close-off the existing driveway opening.

10. We would like the applicant to label the sight distance for the new driveway location to ensure the visibility is adequate for the actual 85% speed of the traffic on Main Street.
11. There is an existing chain across Isaac Davis Way that prevents traffic through the private way. The applicant has noted on the plan that this gate is to remain.
12. There has been prior discussion about landscaping on the property. I would defer comments to our Tree Warden.
13. The applicant should have a policy in place for pickup/dropoff at the main entrance to avoid having cars queued on to Main Street.

Drainage

14. We have not seen calculations to support the proposed on-site drainage system. As a result, we cannot review the adequacy of their drainage design. It is our assumption that when the applicant submits their wetland application to the Conservation Commission that they will be required to comply with the Massachusetts Stormwater Policy. At which time, the applicant's engineer will have to show how they comply with the State's policy on items such as, controlling the peak rate of runoff, groundwater recharge, water quality, etc...If the engineer is required to submit a copy of their detailed drainage calculations, we can conduct a more comprehensive review of their drainage design.
15. There is a drain pipe from the existing catch basin on Main Street that heads toward the driveway for house #348. Any construction on this property should be conducted in a manner that does not damage and/or obstruct any existing Town drainage systems.
16. Based on prior plan submittals, we noted that a short section of the new access will drain toward Main Street. We also noted a longer section of Isaac Davis Way also drains towards Main Street at this location. We want to make sure that drainage is designed to prevent as much runoff as possible from discharging onto Main Street. Prior plan submittals had shown the new driveway to be crowned along with a proposed trench drain. We would prefer to see standard catch basins at the gutter line to maximize the inlet capacity at the gutter lines.

Parking

17. Prior plan submittals had indicated the proposed grading for the site. The site plan submitted for the Board of Appeals did not include this information. The Town had some concerns related to the proposed retaining wall and/or slope between the parking area and Main Street.
18. There are an additional 14 spaces on this plan from prior plans. We will defer to the Planning Department regarding the minimum number of parking spaces required.