RPEx Consulting, LLC

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11 July 2024

Planning Board
Town of Lisbon, Maine

Re: Duplexes at 223 Lisbon St. Project – Access Management

RPEx Consulting has reviewed Section 46-134 "Access Management" of Lisbon, ME Code of Ordinances in regard to the proposed project at 223 Lisbon Street. It is our opinion that we have designed the site entrance to meet the standard to the greatest extent feasible. We are requesting waivers for deviations from the ordinance to permit the optimized design.

Existing Site Entrance

The existing site is served by a typical residential driveway to from Rt. 196 in a 35 MPH zone. This entrance is undersized for two-way traffic and must be replaced. Current entrance separation distances are approximately 38 feet to the driveway immediately to the north and 154 feet to the driveway immediately to the south. Currently, the stopping sight distance from this entrance is approximately 290 feet, which is less than the 380 feet required by the Access Management Ordinance in a 35 MPH zone.

Proposed Site Entrance

The proposed single site entrance's design is consistent with MDOT 801(08) for Curbed Commercial Entrances onto Curbed Highways with Sidewalks. The width of the entrance excluding radii is 22 feet which aligns with the Access Management Ordinance. The proposed entrance exceeds the required corner clearance of 75 feet. The parking lot design includes "No Parking" areas which allow for service of the on-site dumpster by a commercial garbage truck. The stopping sight distance to northbound traffic extends into the intersection with Village Street and exceeds the 380 feet required by the Ordinance.

The proposed entrance separation distances are 81 feet from the neighboring entrance to the north and 106 feet from the neighboring entrance to the south. The proposed entrance does not align with either of the two entrances on the opposite side of the street serving the former Chinese restaurant. The offset from edge to edge of these two entrances will be approximately 17 feet. The proposed entrance will have a stopping sight distance of approximately 335 feet to southbound traffic, which does not meet the Access Management Ordinance in a 35 MPH zone, but represents a 45 foot improvement over the existing site entrance.

Alternatives Analysis

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The entrance's location was chosen to improve upon the existing sight distance to southbound traffic, accommodate the maximum number of new dwellings and required parking, and maximize the distance to the intersection with Village Street. These objectives led to a design which increases stopping sight distance to southbound traffic by 45 feet. While this does not meet the Access Management Ordinance, it exceeds the 250 feet stopping site distance recommended by AASHTO. The proposed entrance increases separation distance to the driveway immediately north of it from 38' from 81'. However, alignment with an existing entrance on the opposite side of the street was not possible.

Alternatives include, A) constructing the entrance in a similar location to the existing entrance, B) aligning the new entrance with the existing entrance on the opposite site of the street south of the former Chinese restaurant building, or (C) placing the new entrance nearer to the driveway immediately south of the proposed entrance.

Alternative A does not improve on site distance to southbound traffic, aligns only with a secondary access on the opposite side of the street, and does not improve on the separation distance to the driveway immediately north of it.

Alternative B moves the site entrance closer to the intersection with Village Street than necessary and decreases separation distance to the southerly driveway to 67 feet (less than allowed).

Alternative C would not allow alignment or proper separation between accesses on the opposite side of the street, moves the entrance closer to the intersection with Village Street and further decreases the separation distance to the southerly driveway.

Waiver Requests

Based on our analysis of alternatives, we believe the proposed design is in the best interest of public safety. Therefore, we are requesting waivers on the following:

1. Allow a stopping site distance less than the required 380 feet to southbound traffic.
2. Allow an entrance separation distance to the northerly driveway, less than the required 85 feet.
3. Allow the entrance to be placed without aligning with the existing entrance on the opposite side of the street.



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Principal
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