Griffin
Engineering
Group, LLC

March 6, 2019

Beverly Planning Board
City Hall
191 Cabot Street
Beverly, MA 01915

**Subject: Adequacy of Way Analysis for Thaxton Heights Road Residential Subdivision off of Thaxton Road**

Dear Planning Board Members:

As required by the City of Beverly Rules and Regulations Governing the Subdivision of Land, a field investigation and analysis was conducted along Thaxton Road for the proposed three-lot residential subdivision. Sight distance and pavement width measurements were taken at the proposed subdivision roadway intersection with Thaxton Road.

The proposed project consists of reconstructing and extending an existing roadway stub off of Thaxton Road to create a 250-foot long dead-end private roadway. The proposed roadway will be constructed in conformance with OSRD regulations; waivers have been requested from certain design specifications outlined in the City of Beverly Rules and Regulations Governing the Subdivision of Land. The proposed roadway will intersect with Thaxton Road at a three-way intersection and will serve three new single-family residences.

This letter summarizes existing traffic conditions along Thaxton Road and addresses potential traffic impacts associated with the proposed private roadway.

**Existing Conditions**

Thaxton Road is a 1,250± foot long, two-lane local road that generally runs in an east-west orientation. On the easterly end there is a three-way intersection with Windham Lane and Old Planters Road. There is stop sign control on Windham Lane. To the west Thaxton Road intersects with Grover Street with a stop sign on Thaxton Road. Approximately 450 feet from Grover Street, Cumnock Street intersects with Thaxton Road. There is a stop sign on Cumnock Street. The existing roadway stub and subject intersection is located approximately 600 feet from Grover Road. Photographs are attached showing existing roadway conditions in the study area.

The Thaxton Road, Old Planters Road, Windham Lane and Cumnock Street neighborhood is developed with 59 single-family residential homes. Access to the neighborhood from Grover Street is via Thaxton Road and Old Planters Road. Observed traffic volumes in the neighborhood are generally very low and there is

Phone 978-927-5111 | Fax 978-927-5103 | www.griffineng.com
495 Cabot Street | 2nd Floor | Beverly, MA 01915

no posted speed limit (the City default speed limit is 25 mph).

Thaxton Road is a 50-foot wide public right-of-way. The pavement width measures 28-feet in the vicinity of the roadway intersection. Curbing along Thaxton Road varies between bituminous berm and vertical granite curb. Sloped granite edging exists at the existing roadway stub. A 4-foot wide bituminous concrete sidewalk exists along the southerly side of Thaxton Road. The existing pavement, sidewalk and curbing are all in fair condition.

The centerline grade of Thaxton Road varies and is approximately 6% in the vicinity of the roadway intersection. There is a roadway crest approximately 325-feet to the east of the roadway intersection.

At the proposed roadway intersection (Thaxton Heights Road with Thaxton Road), the Stopping Site Distance (SSD) along Thaxton Road for vehicles exiting the proposed roadway is approximately 250 feet to the east and 290 feet to the west. The SSD for vehicles entering the development from Thaxton Road is 205 feet. For the City's default roadway design speed of 25 mph, the minimum required SSD is 155 feet. Therefore, there is adequate SSD, for both entering and exiting vehicles at the proposed intersection.

**Project Traffic Impacts**

Trip generation estimates were made for made for the project using the Institute of Transportation Engineering (ITE) *Trip Generation, 9th Edition,* 2012 manual, Land Use Code (LUC) 210, Single-Family Detached Housing. The proposed development will result in the construction of three single-family residences. The increase in traffic volume is estimated to be 29 vehicle trips on an average weekday. The proposed development will generate approximately 2 vehicle trips during the morning peak hour and 3 vehicle trips during the evening peak hour. This is approximately 1 vehicle every 15 to 20 minutes during peak commuting hours. This increase in vehicle trips would not be noticeable and would not affect existing traffic operations or the nearby intersection level of service.

**Proposed Traffic Mitigation Measures**

Thaxton Road existing conditions do not fully conform to current City of Beverly design standards for local roads (e.g. width, curbing, sidewalks) but are better than most roadways in the City. The existing roadway appears to function well.

A stop sign is proposed for the new roadway intersection with Thaxton Road. Adequate sight lines exist. To improve visibility at the proposed intersection, existing vegetation within the Thaxton Road right-of-way will be pruned at the roadway intersection and along the inside curve of Thaxton Road as shown on the OSRD Site Plan.

**Conclusion**

The existing Thaxton Road roadway, although it does not fully conform to the City's current roadway construction design standards, adequately handles existing traffic volumes and will not be negatively affected by the construction of Thaxton Heights Road. Signage and tree pruning are proposed to improve conditions at the proposed roadway intersection with Thaxton Road. The proposed project is small and will have no significant impact on traffic operations in the area. The project was estimated to generate 2 additional vehicle trip in the morning and 3 additional vehicle trip in the evening commuter peak hour.

We trust the above is satisfactory. Please do not hesitate to contact the undersigned with any questions or comments.

Very truly yours,
**GRIFFIN ENGINEERING GROUP, LLC**

Robert H. Griffin, P.E.

Enc: Photographs (3)

Cc: Hickory Street Realty Trust

Existing Roadway Stub
off Thaxton Road

Photo Date: 2/26/19

# Thaxton Road

## (Looking East From Roadway Stub)

Photo Date: 2/26/19

# Thaxton Road

## (Looking West From Roadway Stub)

Photo Date: 2/26/19