

AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

25 DEPOT STREET, P.O. BOX 1768
DUXBURY, MASSACHUSETTS 02331-1768

TEL.: 781-934-0178 • FAX: 781-934-6499
WWW.AMORYENGINEERS.COM

April 3, 2020
Invoice No. 15355A

Duxbury Planning Board
Town Hall
878 Tremont Street
Duxbury, MA 02332

Professional services March 1 through March 31, 2020

421 Elm Street Cell Tower (#3980):

Principal	2.5 hrs.	@ \$143	\$ 357.50
-----------	----------	---------	-----------

TOTAL DUE: **\$ 357.50**

SUBDIVISION PLAN REVIEW - BREAKDOWN OF HOURS

Invoice No.:	15355A							
Date:	April 3, 2020							
Billing Period:	March 1 - March 31, 2020							
Project:	421 Elm Street Cell Tower - Site Plan							
Task:		19-Mar						
							TOTAL \$	
		HOURS SPENT						
Plan Review:	PB	0.5					\$ 71.50	
	RJ						\$ -	
	Co-op:						\$ -	
Calculation / Document	PB	1					\$ 143.00	
Review:	RJ						\$ -	
	Co-op:						\$ -	
Site Inspection	PB						\$ -	
	RJ						\$ -	
	Co-op:						\$ -	
Letter / Report	PB	1					\$ 143.00	
Preparation	RJ						\$ -	
	Co-op:						\$ -	
Staff Review:	PB						\$ -	
	RJ						\$ -	
	Co-op:						\$ -	
Meetings, Telephone, email, etc.	PB						\$ -	
	RJ						\$ -	
	Co-op:						\$ -	
Planning Board Hearings:	PB						\$ -	
	RJ						\$ -	
	Co-op:						\$ -	
TOTALS:		2.5	0	0	0	0	\$ 357.50	

AMORY ENGINEERS, P.C.

WATER WORKS • WATER RESOURCES • CIVIL WORKS

25 DEPOT STREET, P.O. BOX 1768
DUXBURY, MASSACHUSETTS 02331-1768

TEL.: 781-934-0178 • FAX: 781-934-6499
WWW.AMORYENGINEERS.COM

March 19, 2020

Duxbury Planning Board
Town Hall
878 Tremont Street
Duxbury, MA 02332

Subject: **Wireless Telecommunication Facilities at 421 Elm Street**

Dear Board Members:

This letter is in response to Ms. Hadley's request for review of Administrative Site Plan Review Application, with attachments, dated February 21, 2020, prepared by Parisi Law Associates, P.C. (Parisi) along with associated Site Plan, revised February 13, 2020, prepared by Advanced Engineering Group, P.C. for a wireless telecommunication facility at 421 Elm Street. We have also reviewed the application for Special Permit and Variances, with attachments, dated February 21, 2020, prepared by Parisi. The purpose of our review has been to evaluate conformance with Zoning By-Laws (ZBL) Section 610 – Wireless Telecommunications Services Facilities, Section 615 Administrative Site Plan Review and good engineering practice.

We reviewed a similar project at the site in 2011 for the Board. The current plan is essentially the same as the previous plan with two exceptions:

- The stockade fence proposed around the perimeter of the telecommunications compound is specified to be six feet where it was specified to be eight feet in the previous proposal.
- The height of the proposed monopole is specified to be 120 feet above ground level (AGL) where it was specified to be 100 feet AGL in the previous proposal.

Comments:

1. The Applicant is seeking a variance from ZBL §610.4.4 and §610.5.1 to allow for the height of the monopole to be greater than 100 feet AGL. As noted above, the proposed monopole would be 120 feet AGL. There is also a six foot high whip antenna proposed on top of the monopole, which will make the total AGL 126 feet. See Comment 2.
2. The Applicant is seeking a variance from ZBL §610.5.2 to allow for the proposed monopole to be closer to lot lines than the fall zone (height above AGL plus the height of attached whip antenna). The proposed monopole would be 17 feet from the Route 3 MA State Highway Layout and 26 feet from the parcel behind the subject site (Map 82/100, Lot 502 043). This variance was granted under the previous application. However, that monopole, with the whip antenna (ten foot whip) had a total height AGL of 110 feet. As noted under Comment 1, the total height above AGL for the proposed monopole would be 126 feet. We measure the distance from the proposed center of the monopole to the Route 3 southbound travel lane to be about 118 feet. There is potential for this monopole to fall into the Route 3 travel lane. At a minimum, we recommend that the monopole be moved so that it cannot fall into the travel lane of Route 3.

3. ZBL §610.6.3 reserves the Town's right to place communications antenna(s) within the top 20 percent of vertical tower height above ground level. The project narrative included in the Special Permit and Variances application includes the following in response to compliance with the ZBL:

"The Applicant agrees to reserve the Town's reasonable requirements for antenna space above top of the tower and reasonable requirements for space within the fenced in compound for the Town's ground based equipment to serve the needs of the Town's emergency service providers, subject to the execution by the Town of Applicant's form of municipal tower use agreement with terms and conditions satisfactory to Applicant in all respects."

Should the Planning and Zoning Boards approve the project we suggest a condition of approval that requires the Applicant to comply with ZBL §610.6.3 with respect to reserving the Town's right to co-locate on the proposed monopole.

4. As noted above, the proposed stockade fence surrounding the telecommunications compound is proposed to be six feet high. ZBL §610.6.4 requires a perimeter fence to be eight feet high. We believe a variance would be required to allow for the six foot high fence.
5. ZBL §610.6.5 requires a 4-ft. high dense evergreen hedge to be planted around the perimeter of the fence. No plantings are proposed, and in the project narrative, it is stated that *"the proposed Facility will be surrounded by a dense vegetative buffer as well as a stockade fence. Accordingly, no additional landscaping is required."* While we agree that a stockade fence will provide an adequate visual buffer, we believe that a variance will be required to not have the evergreen hedge.
6. The proposed surfaces are crushed stone in the compound and gravel for the access road. With these surface types, graded toward wooded areas with underlying Hydrologic Soil Group "A" soils, we do not believe that stormwater runoff will be an issue.

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.

