From: <u>Stephen Sacco</u>
To: <u>Valerie Oorthuys</u>

Cc: Malcolm Ragan; Tom Bigelow; 22094 Stow Route 117 Hudson Road Intersection Improvements

Subject: RE: Great Road/Hudson Road - Selectboard Meeting Responses

Date: Monday, January 23, 2023 3:57:33 PM

Attachments: <u>image001.pnq</u>

Valerie,

Just to clarify our response to the first comment below, the intersection will operate at a LOS C for the full 20 years.

Thanks, Steve



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From: Stephen Sacco

Sent: Monday, January 23, 2023 3:24 PM **To:** Valerie Oorthuys <planning@stow-ma.gov>

Cc: Malcolm Ragan <planning2@stow-ma.gov>; Tom Bigelow <tbigelow@greenintl.com>; 22094

Stow Route 117 Hudson Road Intersection Improvements

<22094StowRoute117HudsonRoadIntersectionImprovements@greenintl.com>

Subject: Great Road/Hudson Road - Selectboard Meeting Responses

Hi Valerie,

Below are our responses to the questions posed by the Selectboard and Planning Board members.

Comment: How much growth can the intersection handle before it becomes LOS D? **Green's Response:** Our analysis shows that the intersection will continue to operate at a LOS C. MassDOT typically designs and analyzes traffic signals 20 years into the future.

Comment: Can a No Right on Red sign be implemented on Hudson Road for right turns onto Great Road?

Green's Response: Based on the MUTCD, there are six criteria that warrant a no right turn on red sign, they are listed below. This project will include an exclusive pedestrian signal phase, therefore, we will include a no right turn on red restriction on Hudson Road in our design.

- Inadequate sight distance to vehicles approaching from the left
- Geometrics of the intersection that might result in potential conflicts
- An exclusive pedestrian signal phase

An unacceptable number of pedestrian conflicts with right turn on red movements

- More than three right turn on red accidents within a 12 month period
- The skew angle of the intersection creates difficulty for drivers to see approaching traffic from the left

Comment: Can a left turn restriction be added to the Gas Station access on Great Road? **Green's Response:** A left turn restriction can be implemented at this location, but this should be coordinated with the property owner.

Comment: Have the Stow Acres, Athens Lane, and Masters Academy developments been included in the traffic analysis?

Green's Response: Yes, the traffic volumes associated with these developments have been used in our future traffic volume projections for the analysis.

Comment: Will stopped traffic along Great Road eastbound impede the sight distance of vehicles turning out of Orchard Lane?

Green's Response: Per the AASHTO Green Book, for a vehicle turning left from a stop onto a roadway with a 40 mph design speed, 445 ft of unobstructed sight is required. The proposed design exceeds this requirement at Orchard Lane assuming the 95th percentile queue length of 216 feet has backed up along the Great Road eastbound travel lane.

Let us know if you have any questions.

Thanks, Steve



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