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August 8, 2019

Georgia Lindahl Lopez and Morgen Fleisig Village of Hastings Board of Trustees 7 Maple Avenue Hastings-on-Hudson, NY 10706 trusteelopez@hastingsgov.org

RE: Additional Traffic Engineering Services (Option 2) DRAFT Hastings-on-Hudson, NY SSC Project No. 17-01-2680

Dear Georgia and Morgen,

It has been a pleasure working with the Village of Hastings-on-Hudson to complete services for the "On-Call Traffic Engineering Services TOC #1" scope dated October 25, 2017, the "Request for Additional Work Completed" scope dated February 7, 2019, and the "Origin and Destination Study" scope dated May 16, 2019. It is understood that the Village wishes to explore additional traffic calming, and traffic reduction measures to improve safety and attempt to reduce the number of drivers who pass through Hastings-on-Hudson to and from Yonkers via Tompkins Avenue, James Street, Farragut Parkway, and other local roads. At your request, Sam Schwartz Engineering, DPC (Sam Schwartz) has prepared the following scope of work to provide data analysis/implementation support for the long term turning movement restriction plan, provide Streetlight data analysis for before and during the plan, coordinate with Waze and Google Maps to update their maps, develop traffic calming measures to supplement the recommendations on Ravensdale Road from the October 2017 scope, develop a conceptual plan for traffic calming on High Street and James Street, and present findings at meetings. Additional funds in the amount of \$86,000 are requested for the work to be completed. Details of each task are explained below.

### Task 1: Long Term Implementation of Turning Movement Restriction Plan (\$10,000)

Sam Schwartz will work with the Village to implement the morning turning movement restriction study for four months (one month of baseline – no restrictions and three months of restrictions). This includes implementing the following restrictions from 7 AM to 9 AM:

- 1. No left turns from High Street to:
  - a. James Street
  - b. Hudson Street
  - c. Warren Street
- 2. No U-turns (except emergency vehicles) on Broadway between Windsor Road and Devon Way (Subject to NYSDOT approval)
- 3. No left turns from Windsor Road to Derry Lane and Stratford Lane

It is assumed that the U-turn restriction plan will consist of signs and flexible delineators at the entrance. These should be installed each morning before 7 AM and removed each morning after 9 AM. This is intended to dissuade non-emergency vehicles from using the U-Turn, but still allows emergency vehicle access. Subject to NYSDOT approval, additional flexible delineators may be installed at the gore area on

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Broadway at Devon Way to further discourage U-turns at this location. We will coordinate the procurement of signs and bollards for the U-Turn restriction, however these expenses will be billed separately and are not included in this scope. Up to two field visits over four months is assumed to perform field observations, verify signage placements, and verify traffic recorder placements.

Sam Schwartz will also implement a data collection program to monitor volumes at selected Village intersections during implementation of the plan. Our team will utilize the Village's traffic counters to collect the traffic volumes. As shown in **Figure 1** and below, the following locations are anticipated:

- 1. High Street westbound between Rose Street and James Street
- 2. High Street westbound just east of Broadway
- 3. High Street eastbound just west of Warren Street (Brandt Street)
- 4. James Street southbound just north of Tompkins Avenue

These volumes will primarily be used to compare with the Streetlight data. It is assumed no comparison deliverables will be completed as part of this task.

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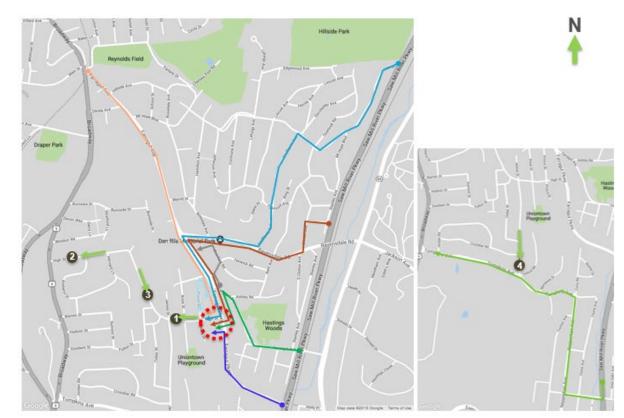


Figure 1: Traffic Volume Count Locations

# Key:

- Inbound Vehicle Routes
- Traffic Counters Required •



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#### Task 2: Streetlight Data Analysis (1-year subscription - \$15,678 + SS labor - \$28,322 = \$44,000)

Sam Schwartz will work with the Streetlight data to develop up to 25 origin and destination routes from the Saw Mill River Parkway to Broadway. Sam Schwartz will perform existing conditions baseline analyses with the data upon purchase of the one-year subscription to gain a better understanding of travel patterns along each of these routes. Sam Schwartz then will perform data analysis each month (four months total) of the turning movement restriction trial run. This includes the first month, which will be baseline-no restrictions, and for the remaining three months when the restrictions are implemented. It takes three months for real time data to be analyzed by Streetlight and added to their platform. Therefore, the monthly analyses performed for the trial runs will be completed three months after completion of each month. For instance, September 2019's analysis will be completed in January 2020, October's will be completed in February 2020, etc. The following information can be included for each of the analyses in tables and figures:

- Data for the 25 origin and destination routes:
  - o Driver demographics (i.e. Hastings or out of town resident)
  - Travel times
  - Speeds
- Volume/turning movement count estimates at specific intersections (note: if included, this may reduce the number of zones available for origin and destination analyses

This information may be used to adjust the long-term implementation of the turning movement restriction plan.

The following O-D pairs are anticipated; however, these are subject to change upon utilization of Streetlight's platform:

<u>Starting zones for routes via High Street/James Street/Tompkins Avenue to Broadway south of Tompkins Avenue:</u>

- 1. Cliff Street at Saw Mill River Parkway
- 2. Clarence Avenue at Saw Mill River Parkway
- 3. Farragut Avenue at Saw Mill River Parkway
- Farragut Parkway at Saw Mill River Parkway
- 5. Ravensdale Road at Saw Mill River Parkway
- 6. Tompkins Avenue at Saw Mill River Parkway (NB)
- 7. Farragut Avenue at Mount Hope Boulevard

Starting zones for routes via Broadway U-Turn to Broadway south of Tompkins Avenue

- 8. High Street at Farragut Parkway
- 9. High Street at Broadway

Starting zones for routes via Windsor Road and Stratford Lane to Broadway south of Tompkins Avenue

10. High Street at Farragut Parkway

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Starting zones for routes via Windsor Road and Derry Lane to Broadway south of Tompkins Avenue

11. High Street at Farragut Parkway

Starting zones for routes via Burnside Drive/Stratford Lane to Broadway south of Tompkins Avenue

12. High Street at Farragut Parkway

Starting zones for routes via Olinda Avenue to Broadway south of Tompkins Avenue:

- 13. Farragut Avenue at Saw Mill River Parkway
- 14. Farragut Parkway at Saw Mill River Parkway
- 15. Ravensdale Road at Saw Mill River Parkway
- 16. Tompkins Avenue at Saw Mill River Parkway (NB)
- 17. Farragut Avenue at Mount Hope Boulevard

Starting zones for routes via Executive Boulevard to Broadway south of Tompkins Avenue:

18. Saw Mill River Parkway north of Cliff Street

### **Additional Routes:**

- 19. Ravensdale Road at Kent Avenue to Farragut Parkway via Farragut Avenue
- 20. Ravensdale Road at Kent Avenue to Farragut Parkway via Fenwick Road
- 21. Ravensdale Road at Kent Avenue to Farragut Parkway via Branford Road/The Fenway (from the north)
- 22. Ravensdale Road at Kent Avenue to Farragut Parkway via Branford Road/The Fenway (from the south)
- 23. High Street at Farragut Parkway to Tomkins Avenue at Broadway
- 24. Broadway at High Street to Hastings Landing via Broadway U-turn
- 25. Broadway at High Street to Pinecrest Drive via Broadway U-turn

#### Task 3: Google Maps and Waze Coordination for Trial Run (\$2,000)

Sam Schwartz will work with Waze to implement the turning movement restrictions during the trial run. Our team will also work with Google Maps to implement the restrictions; however, based on our experience, it is unlikely that the temporary restriction will be implemented. The coordination of permanent restrictions is not included as part of this scope.

#### Task 4: Traffic Calming Alternatives on Ravensdale Road (\$10,000)

Sam Schwartz will continue the traffic calming study completed on Ravensdale Road from the scope dated October 25, 2017. In this study, Sam Schwartz recommended improvements such as revised striping, sidewalk bulb-outs, and proposed crosswalks at Ravensdale Road and Farragut Avenue, Ravensdale Road and Branford Road, and Ravensdale Road and Kent Avenue. Sam Schwartz will develop traffic calming measures on Ravensdale Road between these intersections – spanning from Farragut Avenue to the bridge, and at the intersection of Clinton Avenue and Ravensdale Road.

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Recommendations may consist of rumble strips, bike lanes, lane width reductions, and improved sidewalks. Up to six figures will be developed in CAD or Adobe Illustrator to illustrate the improvements. One (1) round of reviews are assumed for each figure.

### Task 5 – Traffic Calming on James Street and High Street (\$10,000)

Sam Schwartz would develop one conceptual location plan for placement of rumble strips on James Street and High Street. Up to one (1) round of reviews is assumed. The plan would be completed in AutoCAD or Adobe Illustrator.

## Task 6: Team Meetings and Public Meetings (\$10,000)

Sam Schwartz has budgeted for two public meetings, and four call-in meetings with the Village. Our team of engineers and planners will develop two PowerPoint presentations for the public meetings to summarize and illustrate the results of Tasks 1 to 5.

#### **Fee Estimate**

Sam Schwartz is requesting a not to exceed \$86,000 for completion of the tasks detailed above. We will bill for the actual work performed with a detailed invoice showing hourly billing and direct expenses. If you approve this fee for additional work completed, please return a signed copy of this agreement. If you have any questions, please do not hesitate to email or call. We look forward to continuing working with you on this exciting project.

Sincerely,

### DRAFT

Lou Luglio, P.E. Vice President (201) 805-8819 Ilugio@samschwartz.com

Enclosure: 2019-2020 Standard Billing Rates
Standard Terms and Conditions