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July 1, 2021

Daniel J. Sarnoff  
Assistant Village Manager  
Village of Mamaroneck  
123 Mamaroneck Avenue  
Mamaroneck, NY 10543

Re: Cost Estimate for 4 Safety Projects

Dear Mr. Sarnoff:

Per your email request on June 18, 2021, below are cost estimates with assumptions and exclusions for 4 walking safety projects identified in walking safety assessments conducted by the Traffic Committee and Vision Zero Committee in 2019 and 2020. We will conduct this work per the terms and conditions in our agreement dated August 21, 2018. The task numbers below are a continuation of previously approved task numbers.

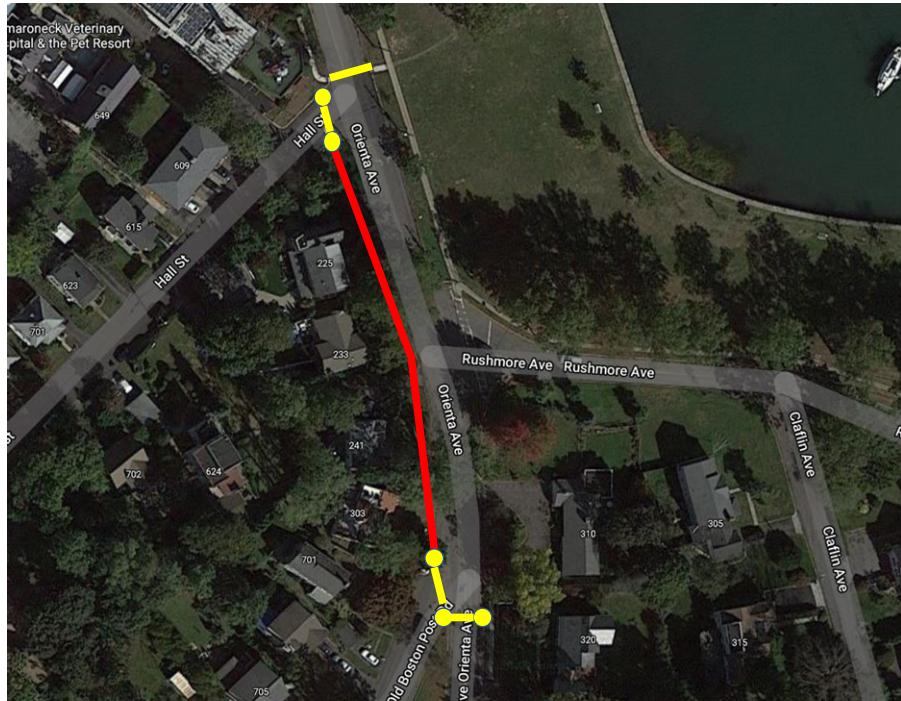
***TASK 5—ORIENTA AVENUE SIDEWALKS***

According to the walking safety assessment conducted November 15, 2019, between Boston Post Road and Old Post Road there are discontinuous sidewalks and a lack of safe crossing opportunities on Orienta Avenue, which is a deterrent for traveling on foot or bicycle between the residential neighborhood and destinations along Boston Post Road and Harbor Island Park. Based on the extents of the sidewalk, corner curb ramp, and crosswalks illustrated in the graphic below, an estimate of AKRF's costs to develop order-of-magnitude cost estimates and planning concept drawings not for construction purposes has been included.

Judging from the location of sidewalks and curb ramps on the east side of Orienta Avenue, it is assumed that sidewalks and corner curb ramps on the west side would have adequate width within the public ROW by using the public easement space alongside the street and/or be facilitated by narrowing the street by modifying the curb line, and private ROW acquisition would not be necessary. Based on a preliminary review of Westchester County Geographic Information System (GIS) aerial mapping and parcel data, accommodation of a sidewalk within the existing rights-of-way will require modification of the existing curb line (i.e. curb-to-property line width will not accommodate a sidewalk in some places). As such, we envision the level of detail and specificity required to generate an order-of-magnitude cost for this work will be greater than for the Mamaroneck Avenue School CDBG grants, and require development of a planning concept drawing. The planning concept drawing would show the proposed improvements, in CADD, with aerial mapping underlay. In addition to the concept planning drawing depicting the improvements, an order-of-magnitude cost estimate and memorandum with assumptions will be provided similar to ones provided for the Mamaroneck Avenue School CDBG grants.

## Orienta Avenue Sidewalk:

- Complete west sidewalk from Hall Street to Old Post Road, making connection from Old Post Road to Boston Post Road without crossing Orienta Avenue
- Construct ped ramps and/or crosswalks crossing Hall Street, Orienta Avenue and Old Post Road



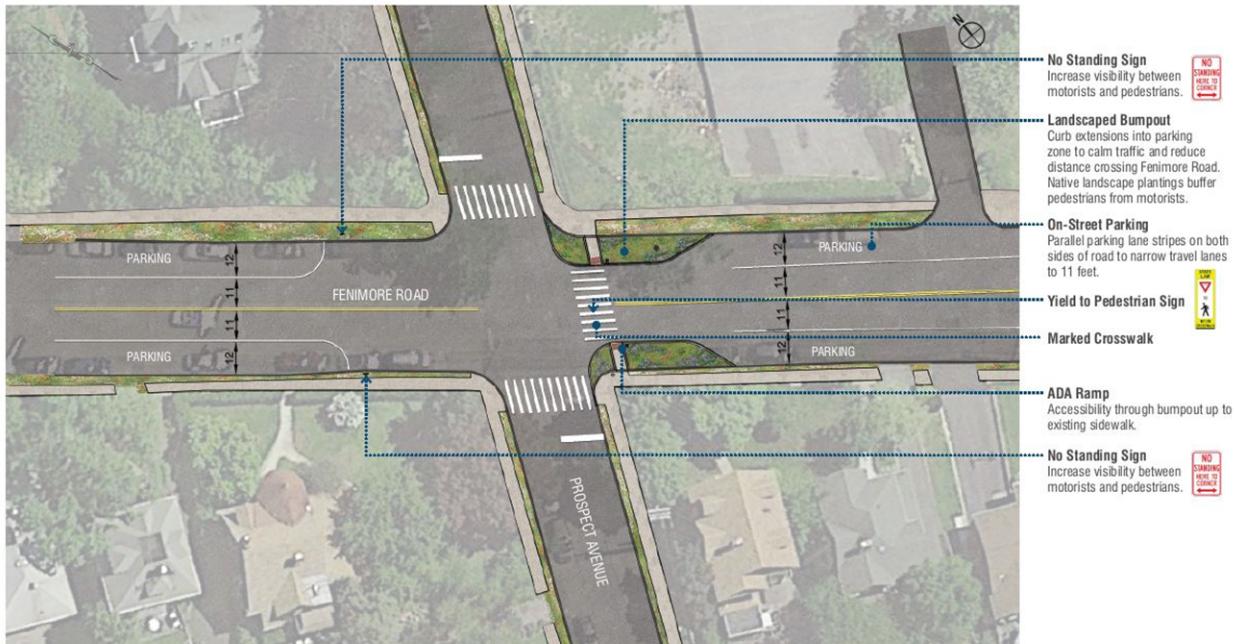
### *Assumptions/Exclusions:*

- Land survey and ROW mapping are excluded from this scope of work.
- Order-of-magnitude cost estimates will be based on unit prices presented in the NYSDOT Quick Estimator Reference. NYSDOT describes the Quick Estimator as “a tool that can be used to help establish appropriate funding levels for Federal-aid projects.”
- Planning concept drawings to develop order-of-magnitude cost estimate will be based on available aerial imagery.
- Project would involve removal of large trees that appear to straddle property line and may be partially located on private property. Designs that would preserve these trees is not included.

The cost estimate for the above scope of work is estimated to be **\$10,000**.

### *TASK 6—PROSPECT AVENUE AND FENIMORE ROAD BID PACKAGE*

AKRF completed a traffic calming and safety study of Prospect Avenue and Fenimore Road in 2019 recommending curb extensions and a marked uncontrolled crosswalk with safety signage and changes in roadway striping. An illustration of the plan is shown below.



## TRAFFIC CALMING CONCEPT PLAN // VILLAGE OF MAMARONECK

SEPTEMBER 23, 2019

AKRF  
1 OF 2

A walking safety assessment was conducted along Prospect Avenue including the intersection of Fenimore Road on September 25, 2020, and on November 2, 2020, AKRF provided an order-of-magnitude cost estimate for constructing the 2019 concept plan. On June 18, 2021, it was requested that an estimated cost be provided for AKRF to prepare drawings and specifications for public bidding of the curb extension and crosswalk project.

### *Task 6.1 – Preliminary Design Documents*

Based on the recommendations of the traffic calming and safety study, and the developed concept plan, AKRF will prepare Preliminary Design (PD) documents, i.e. 50% Construction Documents, for the proposed improvements for review and comment by the Town. The SD plans will depict the limits and geometry of the proposed landscape bumpouts, associated sidewalk and pedestrian (ADA) curb ramp improvements, and roadway signage and striping (including crosswalks) improvements. The SD plans will also depict required drainage improvements, if necessary. AKRF will provide an updated cost estimate for the proposed improvements as part of this submission.

*The cost for this subtask is estimated to be \$6,000.*

### *Task 6.2 – Final Design Documents*

Following review and comment on the Preliminary Design drawings from the Village, AKRF will advance the design to Final Design Documents (Bid Documents) to include additional notes, call-outs, and details with a focus on constructability of the site features. It is anticipated plans will include:

- Roadway Geometry and Paving Plan – Geometry of landscaped bumpouts, pedestrian ramps, and repair of sidewalk/pavement areas as necessary. Depicts geometry and locations of proposed striping improvements and proposed signage.

- Grading and Drainage Plan – Proposed top/bottom of curb elevations at pedestrian ramps, landscaped bumpouts, and sidewalk/pavement repair areas. Drainage improvements, such as catch basins and storm drain pipe, as required.
- Construction Details Plan – Depicts construction details for proposed improvements as required.

The Contract Bid Documents will utilize NYSDOT standards and specifications and reference NYSDOT standard pay item numbers. AKRF will provide a final cost estimate for the proposed construction improvements based on NYSDOT pay item numbers and unit prices.

AKRF will also provide the bid quantities for each pay item and each prospective contractor will indicate their proposed unit price to inform the total bid cost. The pay item unit price bid approach allows for flexibility during construction. For example, should an additional flag of sidewalk replacement be required during construction, the contractor is already locked in to unit pricing for the associated excavation and sidewalk pavement from their bid.

*The cost for this subtask is estimated to be \$10,000.*

#### *Task 6.3: Bid Support*

AKRF will support the Village throughout the bid process. AKRF will attend the pre-bid meeting and respond to contractor requests for information (RFIs).

*The cost for this subtask is estimated to be \$2,500.*

#### *Task 6.4: Construction Administration*

AKRF will provide construction support services including review of construction submittals to ensure that they meet the intent of the construction documents. Services would include:

- Review submittals, samples, shop drawings, as-built drawings, schedules and other submissions for conformance to the construction documents.
- Respond to RFIs to clarify design intent
- Finalize site inspection comments and prepare a final punch list
- Assist in close-out documentation for site/civil related permits.

*The cost for this subtask is estimated to be \$4,000.*

#### *Assumptions/Exclusions:*

- We assume that a current boundary, topographic, & utility survey in digital AutoCAD format and elevations in NAVD88 datum will be provided to AKRF at the beginning of the project for our use;
- AKRF will prepare technical specifications related to the proposed improvements. It is assumed that preparation front end Procurement and Contracting Requirements would be prepared by the Village. AKRF assumes the sections prepared by the Village include:
  - Notice to Bidders
  - Information for Bidders (supported by AKRF)
  - Bid Forms (excluding Bid Sheet prepared by AKRF)
  - Indemnification Agreement, Agreement, Performance, and Labor & Material Payment Bond
  - Maintenance Bond

- Wage Rates and Labor Standards
- General Conditions
- Insurance
- Special Conditions
- Resident Engineering, Construction Management, and/or Construction Inspection services are not included in this proposal.
- Quality control testing services are not included in this proposal. The bid documents would require the contractor to provide any required quality control testing, such as concrete compressive strength and asphalt density, as part of their scope of work.
- AKRF assumes all proposed work will be within the existing right-of-way/easements. This proposal does not include work associated with land acquisition.
- Maintenance and Protection of Traffic (MPT) plans are excluded from this scope of work.
- Assumes drainage infrastructure improvements are limited to installation of 2 new catch basins, in the vicinity of the bump outs connecting to an existing storm sewer main in Fennimore Road.
- Preparation of additional design drawings, sketches, or bulletins during construction period necessitated by changes to the Project design resulting from field conditions, scope changes, or other unavoidable situations is not included as part of this proposal. Furthermore, additional services consisting of a redesign to the contract documents, inspection services, or project representation above and beyond the services called for under this proposal is considered an additional service and we will submit for your review, a detailed scope breakdown and associated fee prior to conducting the additional service.

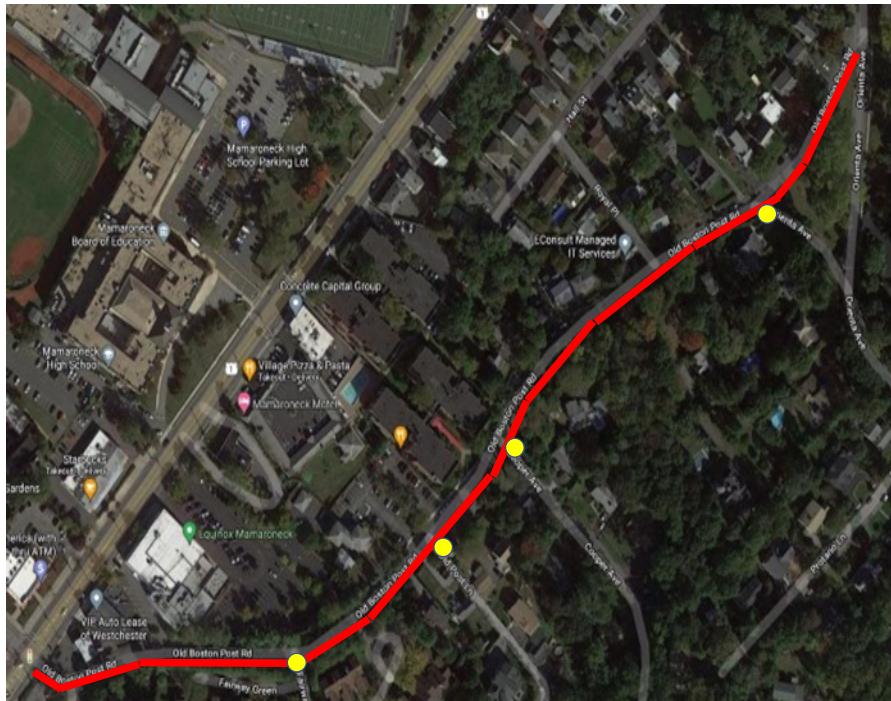
The cost estimate for the above scope of work is estimated to be **\$22,500**.

#### *TASK 7—OLD POST ROAD SIDEWALKS*

According to the walking safety assessment conducted November 15, 2019, between Boston Post Road and Orienta Avenue there is only a striped shoulder on Old Post Road, a route used by neighborhood residents to reach the Mamaroneck High School and commercial, civic, and other land uses on Boston Post Road, and a sidewalk is needed. Based on the extents of the sidewalk, corner curb ramp, and crosswalks illustrated in the graphic below, an estimate of AKRF's costs to develop order-of-magnitude cost estimates and maps depicting the location of improvements has been included. The work envisioned is similar to the level of detail and specificity provided for the Mamaroneck Avenue School CDBG grants (i.e. preparation of illustrative graphic maps). From the width of the striped shoulder and combined with one-way traffic flow only necessitating one travel lane, it is assumed there is adequate width within the public ROW to install the sidewalks. In addition to a map(s) similar to ones provided for the Mamaroneck Avenue School CDBG grants graphically showing the location of improvements, an order-of-magnitude cost estimate and memorandum with assumptions will be provided. There are two options for accommodating the sidewalk in the area between the McDonald's exit and Boston Post Road: one involves removing one of the two travel lanes and building it in place of the former travel lane, and the other involves constructing the sidewalk within the landscaped area just off Old Post Road, which may be part of the McDonald's lot. To analyze the effects on traffic of removing a travel lane for the first option, traffic counts and a Synchro software analysis of the weekday AM, PM and Saturday peak hours would be necessary. Removing one of the two travel lanes is not anticipated to show a severe deterioration in traffic delay because the left lane only exists for approximately one to two car lengths and does not function as a full-length left turn lane.

# Old Post Road Sidewalk:

- Construct south sidewalk from Boston Post Road to Orienta Avenue, formalizing existing shoulder walking area. From McDonald's exit to Boston Post Road, assess two options: remove one of two traffic lanes (requires Synchro analysis) or investigate ROW to build on McDonald's landscaping area
  - Construct ped ramps and crosswalks
  - Construct driveway treatment or drop curb at McDonald's exit and all private driveways



#### *Assumptions/Exclusions:*

- Land survey and ROW mapping are excluded from this scope of work.
  - The proposed sidewalk will be located within the existing, striped, pedestrian walking path (shoulder) within the existing curb-to-curb limits of Old Post Road between Boston Post Road and Orienta Avenue.
  - Order-of-magnitude cost estimates will be based on unit prices presented in the NYSDOT Quick Estimator Reference. NYSDOT describes the Quick Estimator as “a tool that can be used to help establish appropriate funding levels for Federal-aid projects.”
  - Maps graphically showing the location of improvements to develop order-of-magnitude cost estimate will be based on available aerial imagery.

The cost estimate for the above scope of work is estimated to be **\$15,500 with the traffic study of Boston Post Road and Old Post Road, and \$8,000 without the traffic study.**

## **TASK 8—OLD WHITE PLAINS ROAD AND GRAND STREET TRAFFIC CALMING STUDY**

A walking safety assessment was conducted on March 6, 2020 along Old White Plains Road including the Grand Street intersection. The walking assessment identified that due to the skewed intersection angle and steep grade on Old White Plains Road, the intersection has been built extremely wide and is therefore difficult to cross for residents and feels unsafe. Similar to the Fenimore Road-Prospect Avenue traffic calming study, AKRF will investigate the need for alternative traffic control to the current all-way stop, additional marked crosswalks, and/or other traffic calming measures such as lane markings to delineate parking lanes from travel lanes. The width will be field-measured to investigate the feasibility of a neighborhood traffic circle, which would slow traffic and increase compliance with the signed all-way stop control. To conduct these assessments, traffic volumes for the weekday AM, PM, and Saturday peak hours will be counted, historic crash data will be obtained, and observations and spot counts of pedestrians and cyclists will be collected on a typical weekday and Saturday. AKRF will present a draft technical report including graphics illustrating the preferred improvements to the Village, similar to the Prospect Avenue

and Fenimore Road report. For budgeting purposes, it is assumed that AKRF will respond to two rounds of comments on the draft report before sending the final report to the Village.

*Assumptions/Exclusions:*

- Land survey and ROW mapping
- Cost estimates of improvements
- Meetings and formal presentation of report

The cost estimate for the above scope of work is estimated to be **\$10,000.**

We appreciate the opportunity to be of service to the Village of Mamaroneck and look forward to working with you on these projects.

Sincerely,  
AKRF, Inc.



Matthew T. Carmody, P.E., RSP1  
Vice President



Anthony P. Russo  
Vice President

cc: Justin Seeney, P.E., and John Montgomery, P.E., AKRF