2023 Transportation Planning Grant Application

Bid No. BD-23-1068-1068C-1068L-81256

All completed applications must be sent by January 31st to be considered for funding for the 2023 Grant Round. Please submit this completed form as well as any relevant attachments to MGCCMF@Massgaming.gov.

For more detailed instructions as well as the 2023 Application Guidelines please visit https://massgaming.com/about/community-mitigation-fund/

I. Project Summary
Legal Name of Applicant: Town of West Springfield
Project Name (Please limit to 5 words): Elm Street Phase Two Improvements
Amount Requested: $250,000.00
Brief Project Description (approx. 50 words): Complete Streets Engineering redesign of the Elm Street Corridor. Establishment of permanent bike lanes and a shared use path for the remainder of the corridor from previous projects. Consolidation of bus stops with installed bus shelters. Road geometry improvements to improve pedestrian crossing conditions and speed reduction.

II. Applicant Contact Information
Please provide below the manager for this grant and any other individuals you would like to be copied on all correspondence.
Grant Manager: Sharon Wilcox
Email Address: SWilcox@TOWS.org
Telephone Number: 413-263-3025
Address: 26 Central Street, West Springfield MA 01089
Contact II: Connor Knightly
Role: Town Engineer
Email Address: Cknightly@TOWS.og
Telephone Number:413-263-3249
Address: 26 Central Street, Suite 17, West Springfield MA 01089
Contact III: William Reichelt
Role: Mayor
Email Address: WReichelt@TOWS.org
Telephone Number:413-263-3041
Address: 26 Central Street, West Springfield MA 01089

III. Detailed Project Description & Mitigation

1) Please describe in detail the impact that is attributed to the operation of a gaming facility. Please provide documentation or evidence that gives support for the determination that the operation of the gaming facility caused or is causing the impact (i.e. surveys, data, reports)

In the Trip Distribution Map from the Draft EIR During the MGM project development, all major routes to the proposed casino location were considered with one major exception: Route 5 which runs from Holyoke to Agawam Massachusetts. The portion of this highway as is runs through West Springfield is named Riverdale Street; for its entire length in West Springfield Route 5 is a divided, multilane highway which is primarily composed of commercial establishments, shopping centers, and hotel/motel buildings.

The aforementioned report details the percentage of casino generated traffic along direct access roads, but not how secondary collector streets are used to access those primary roads.

As Elm Street connects Route 5 to Route 20, it serves as an alternate route to the North End Bridge, which carries approximately 5 % of the Casinos traffic to Springfield. Although Elm Street is a collector that directs traffic into one of the two sole West Springfield crossings into Springfield, it was not considered in the EIR.

2) *(If applicable)* Please explain how this impact was not anticipated in the Applicant's Host or Surrounding Community Agreement.

Route 5 is the West Springfield Arterial equivalent to Route 91 in Springfield in terms of North/South principle route traffic. It can be used to access MGM Springfield via The North End, Memorial, and South End Bridges. In 2022, The MassDOT implemented a road diet on Route 5 south of East Elm Street in the southbound direction to mitigate speeding issues faced by the residential streets off that corridor.

The road diet has successfully mitigated speeding through the Route 5 corridor from East Elm Street to the North End Bridge, which is commonly used to access the Park Ave / Park Street Town Commons; an area that is now seeing final completion of a previous MGC Grant / Complete Streets Project. The removal of a travel lane, and reduction of space in the remaining lane on Route 5 has forced operators in that corridor to oblige a 40 Mile Per Hour speed limit

However, this has led to an increase in traffic on the nearest alternate road of Elm Street, and by extension Route 20 / Park Ave / Park Street and intersecting with Westfield Street. The Elm Street and Westfield Street intersection is in its final stages of design and will be bid out for construction in late February / Early March of 2023 with a construction start date of June 2023; another Complete Streets Project funded partially by a MGC Infrastructure Construction Grant for similar mitigation purposes.

Were it not for the increase of traffic due to the impacts of the Casino, the Route 5 corridor may have been able to handle the current volume of traffic without overflowing onto Elm Street, however the Town has received local complaints from residents living on Elm Street and those intersecting it of increased traffic and increased speeding. Taking into consideration that modern GPS services frequently provide live suggested alternate routes in times of congestion, traffic traveling south on Route 5 are provided with the opportunity of using Elm St instead.

3) Please describe what the Applicant is proposing and how the mitigation request will address the impact indicated.

From 2019 to the end of 2022, West Springfield has utilized Complete Streets, Chapter 90, Municipal, and MGC monies to make improvements on the direct impact area of the MGM Casino. Pedestrian improvements were made on Van Deene Avenue, Park Ave, Park Street, Union Street, Main Street, and Elm Street; this was accomplished by constructing new sidewalks, improving traffic control signals, installing a multi-use path, erecting a new bike share station, and installing multiple Rectangular Rapid Flashing Beacons for pedestrian signals throughout the project area.

The Town is looking to continue the scope of these improvements along Elm Street, thereby addressing all available streets that are directly impacted by the Casino north of the North End Bridge. The proposed limit of work will be from the State Highway Layout at the intersection of Elm Street and Riverdale St (Route 5) to the Project Limits of the MGC funded Elm Street Roundabout.

This project is not intended to reduce the amount of traffic on Elm Street: this project aims to calm the flow of traffic at its intersections throughout the corridor while simultaneously improving the conditions for Pedestrians, Cyclists, and Public Transportation Patrons. With traffic conditions anticipated to improve from Westfield Street to the North End Bridge along Route 20, the Town would like to take preemptive action to ensure future traffic does treat the corridor as a high speed cut through to avoid Route 5 traffic.

The Project Area is approximately 1.21 miles in length with two primary sections; a partially terraced stretch of road (Elm South) from Garden Street northerly to the intersection of Witch Path and Kings Highway and a two lane stretch of road (Elm North) northerly from that intersection to the State Highway Layout at Route 5. Both sections of the project have unnecessarily wide road widths which contribute to excessive speeding, leading to pedestrian concerns at the intersection of Elm Street and Monastery Ave, East Elm Street, Kings Highway, and Garden Street; the lattermost being a location where a crossing guard was fatally struck in 2015. Elm Street South is primarily zoned as residential with single or duplex housing. Elm Street North is zoned as mixed commercial with multiple apartment complexes.

The following road modifications are what the Town hopes the study and design project will support:

The first goal will be speed management. The ample street space on Elm South will be repaved and restriped to delineate a single travel lane in either direction. This will eliminate drivers from attempting to pass each other at higher speed in an attempt to beat traffic lights on either end of the corridor. The paving width in total will remain the same as buffered bike lanes will be established with a textured pavement surfaces (rumble strips) separating cyclists from vehicular traffic. This method of road diet has been successful in a separate road diet completed by the MassDOT on Route 20 between Westfield and West Springfield.

On Elm North, the lane geometry changes will continue along the corridor from Kings Highway to Monastery Ave, a portion of road where Elm Street experiences multiple vertical and horizontal curves which have drawn public complaint concerning vehicle and pedestrian safety.

At the intersections of East Elm Street and Monastery Avenue, crosswalks will be redesigned and striped to allow shorter crossing distances and provide increased visibility. From Monastery Avenue to Route 5, the Towns vision is to eliminate the Shoulder on the eastern side of the corridor and shift the curbline out to accommodate a raised, separated shared use path for cyclist and pedestrian use, thus connecting previously established bike routes to the West Springfield River Walk Path which is across from Elm St starting at public boat launch located off of Route 5.

Intersection redesign would be planned at East Elm Street and Monastery Avenue separately. At this time there is no intent on installing or maintaining new Traffic Control Signals; rather, geometric changes made to square up the intersections to improve visibility for turning drivers and establish full stop control to prevent “rolling stop” / yield control typically seen with some angled right turns. Timing will be modified at the Kings Highway intersection as necessary.

The Town will also direct the design of speed humps and illuminated / signed crosswalks with flashing beacons wherever deemed feasible.

Throughout the corridor bus stops will be addressed and improved as detailed in the following section.

4) Please provide details around any consultation with MassDOT, your RTA or MBTA, and or the regional planning agency serving your community as applicable.

At this time, study and coordination with regional agencies for this corridor is in its infancy. The Road diet on Route 5 South of East Elm Street is a relatively new improvement and the Roundabout at the intersection of Elm Street and Westfield Street is to begin construction in June of 2023. The Park Ave / Park Street Complete Streets Project will achieve final completion status on February First, 2023.

The impacts of those previous projects will be one of the focuses of the West Springfield Department of Public Works in the years to come; the Town will be looking to attempt

documenting these impacts in house, but will supplement with its on-call consultants and the Pioneer Valley Planning Commission in continued efforts to mitigate the findings of ongoing CMP reports.

The Town has maintained open contact with the Pioneer Valley Transit Authority through previous Complete Streets Projects and will continue to do so in this and future projects. In previous projects, abutting bus routes were taken into consideration in efforts to optimize bus stops as well as geometric design for bus navigation. External grant activity between the PVTA and the Town include the installation of ADA compliant bus shelters and bus stop consolidation; contact has been made with the PVTA on January 23, 2023 shortly after this projects conception to begin the dialogue as to which bus stop locations might benefit from new shelter installations and which locations with lower ridership could be consolidated. Ridership for this corridor has not yet been provided.

At this time neither the Pioneer Valley Planning Commission nor the MassDOT have been involved with this project. However, if required by the MGC, the Town will have its consultant modify the scope of its proposal to include coordination with both of those agencies
This resulting plans from this project will be developed into a bid package. Municipal, Complete Streets, and CH 90 funds will finance the project if possible.

IV. Scope, Budget, and Timeline

Applicant: Town of West Springfield	**Vendor Code:** *VC6000192038*
Total Grant Amount Requested: *$250,000.00*	**Estimated Total Project Cost:** *$250,000.00*

Scope of Work

Please include below a breakdown of the proposed work. The project scope should be sufficiently detailed to allow the review team to understand the steps required for project completion.

A. Notice to proceed to be issued to the Consultant as soon as funds are confirmed available. The Selected Consultant VHB. Inc. is an "On-Call" Consultant with the Town of West Springfield and can begin necessary survey and data collection upon the issuance of a Purchase Order.

B .Project is estimated is estimated to require 8 months from start to completion.
C. If required by the MCG, regular update reports can be provided by either the Town or the Consultant upon request.

Please see Attachment E for full details

Proposed MGC Grant Budget Please use the following table to outline the budget of your project. Include any requests for proposals, quotes, or estimates that would quantify the costs associated with the mitigation as an attachment. In determining the funding request, please round up to the nearest hundred dollars.			
Timeline	**Description of Purchase/Work**	**QTY**	**Budget**
Upon confirmation	Study / planning / Engineering Design of the Elm Street Corridor. The Cost of the proposal is broken down in Attachment E	1	$250,000.00
	TOTAL:		
Funding Source	**Description of Purchase/Work**	**QTY**	
In Kind Services			
Federal			
State			
Local Match	The Town has begun to commit annual funding to Complete Streets location projects. This funding can be used for construction or planning services. If the MGC grants a partial commitment of funding to this project, the Town will be able to re-appropriate some of its current funding to match the remaining funds necessary for this project.		

V. Regional Incentive Award	
Are you applying for a Regional Incentive Award?	
___ Yes	**_X_ No**

Partner Community Contact-
Name:N/A
Role: N/A
Email Address: N/A
Telephone Number: N/A
Address: N/A

VI. Waiver

If you are applying for a waiver, please submit the Waiver Form with your application. The form can be found at www.massgaming.com/about/community-mitigation-fund/forms/

Are you applying for a waiver?	
___ Yes	**X___No**

VII. ___Please provide a brief description of each attachment.

Attachment A: Mapping of the project limits. abridged due to document length
environmental justice neighborhoods, and oth

Attachment B: Traffic data relative to Elm Street and the Casino abridged due to document length

Attachment C: omitted due to document length

Attachment D: PVPC TEC Evaluation form abridged to cover sheet

Attachment E: Proposal from VHB to perform a study and develop initial preliminary design plans for this project.

VIII. Applicant Certification

On behalf of the aforementioned municipality/governmental entity I hereby certify that the funds that are requested in this application will be used solely for the purposes articulated in this Application.

Signature of Responsible Municipal Official/Governmental Entity

Date: 1/31/2023

William Reichelt

(print name)

Mayor

Title:


ATTACHMENT A : PROJECT AREA MAP
TOWN OF WEST SPRINGFIELD
2023 MGC TRANSPORTATION
PLANNING GRANT
PROPOSED PROJECT AREA
N
PAVEMENT EDGES
PARCEL OWNERSHIP
WETLAND
PROPOSED PROJECT LIMITS
0 100 200 400 600 800
Feet
1 INCH EQUALS 200 FEET
CHICOPEE
SPRINGFIELD
Riverdale Street
Elm Street
City View Avenue

Town of West Springfield
Department of Public Works
26 Central Street, Suite 17
West Springfield, MA 01089
(413)263-3242

ATTACHMENT B
TRAFFIC INFORMATION

Site Code: 1193 ELM ST

Combined Lanes 4/30/2022 to 5/3/2022

Peak Analysis

Classes Excluded From Peaks: None

Date	AM Peak	Hour Volume	Highest Interval Time	Highest Interval Volume	Peak Hour Factor	Pm Peak	Hour Volume	Highest Interval Time	Highest Interval Volume	Peak Hour Factor
4/29/2022						15:23	835	15:23	225	0.93
4/30/2022	10:57	713	11:21	199	0.90	13:14	672	13:18	197	0.85
5/1/2022	10:49	544	11:01	145	0.94	12:33	656	12:48	184	0.89
5/2/2022	10:52	648	11:32	187	0.87	16:30	823	17:10	226	0.91

Pace Speed - MPH

Classes Excluded From Pace: None

Speed	Number	Percent
32 - 41	19,356	68.30164%

Percentile Speeds

Percentile	5th	10th	15th	20th	25th	30th	35th	40th	45th	50th	55th	60th	65th	70th	75th	80th	85th	90th	95th	100th
Speed - MPH	27.1	29.6	31	32.1	32.9	33.6	34.3	34.9	35.5	36.1	36.7	37.3	38	38.7	39.4	40.3	41.4	42.9	45.4	99.5

Vehicles Traveling Greater Than 30.0 MPH

Total Volume	23,779
Total Greater Than 30.0	21,190
Percent Greater Than 30.0	89.1%

Mean, Median, and Mode Averages

Mean:	36.3
Median (50th %):	36.2
Mode:	35.4

Classification Statistics

Unclassed	Motorcycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
131	120	18508	3530	296	1053	34	2	53	51	0	0	1	0
0.6%	0.5%	77.8%	14.8%	1.2%	4.4%	0.1%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%

Town of West Springfield
Department of Public Works
26 Central Street, Suite 17
West Springfield, MA 01089
(413)263-3242

SPEED DATA ANALYSIS

Location

Elm Street Traffic Count

Analysis Time Period

Start	End
4/29/2022	5/9/2022
2:36 PM	11:31 AM

Vehicles Analyzed

28,339

Total Enforceable Violations

10,084

% Enforceable Violations

36%

Enforcement Rating

HIGH

Speed Limit

30

Average Speed

36

Fastest Speed

100

85th Percentile Speed

42

ATTACHMENT D
TEC EVALUATION COVER

Evaluation Criteria
neer Valley Planning Commission

Community: West Springfield **Project Type:** Intersection Improvement **SID #:** NA

Year initiated: 2023 **Est. Ad Date:** 2025 **MassDOT Design Status:** 0%

Cost Estimate: $ 3,000,000.00 **Year of Cost Estimate:**

Is the project located primarily in an urban area? Yes **Roadway Functional Class:** Arterial

ADT: 9936 **Year of ADT:** 2022 **# Lanes:** 2 **Length (miles):** 1.21

Cost/ADT: 301.9323671 **Cost/Lane Mile:** 1242520 **Cost/ADT/Lane Mile:** 125.05

MEPA: **MEPA Status:**

MassDOT Project Name: Insert Name of Project here

This form has been completed in anticipation of a potential design. Actual TEC evaluation will be determined as part of final design when a probable cost of construction can be provided and full points can be calculated.

Section	Name	Score
1	SYSTEM PRESERVATION, MODERNIZATION AND EFFICIENCY	12.5
2	LIVABILITY	8
3	MOBILITY	2.5
4	SMART GROWTH AND ECONOMIC DEVELOPMENT	3.5
5	SAFETY AND SECURITY	3
6	ENVIRONMENT AND CLIMATE CHANGE	1.5
7	QUALITY OF LIFE	3.5
8	ENVIRONMENTAL JUSTICE	3
	Grand Total	37.5
	Cost/Point	$ 80,000.00

ATTACHMENT E
PROJECT STUDY AND DESIGN PROPOSAL

www.vhb.com

January 26, 2023

Ref: 81402.23

Mr. Connor Knightly
Town Engineer
Department of Public Works
Town of West Springfield
26 Central Street, Suite 17
West Springfield, MA 01089

Re: Transportation Engineering for the Elm Street Corridor Road Diet/Complete Streets Project from Garden Street to the State Highway Layout (SHLO) at Riverdale Street (Route 5)

Dear Mr. Knightly,

The Town of West Springfield is embarking on another important initiative to improve a section of Elm Street from Garden Street to the Riverdale Street (Route 5) State Highway Layout (SHLO) with a project that will focus on Complete Street and Road Diet elements. This project is aimed at improving bicycle and pedestrian connectivity while calming traffic where vehicles are traveling on pavement surfaces with very wide travel lanes and minimally defined shoulders. This project is approximately 6,400-linear feet (~1.2 miles) and is an important continuation of the Elm Street Downtown Roundabout Project, which is proposed to begin construction this year (2023). More specifically, the proposed improvements will provide a signalized intersection redesign, and the continuation of the bicycle and pedestrian accommodations throughout the Elm Street downtown area. Elm Street is a significant collector roadway linking Route 20 to Riverdale Street (Route 5). At the signalized intersection of Riverdale Street and Elm street, there is a controlled pedestrian crossing that connects to the Connecticut Riverwalk and Bikeway Trailhead.

The goal of this project is to design corridor improvements that will incorporate a road diet approach on the sections of the roadway, redesign of the Elm Street at Kings Highway/ Witch Path intersection, continuation of the Shared Use Path (SUP) from the Elm Street Roundabout Project, Complete Street improvements and traffic calming elements such as speed humps. Road diet elements will be evaluated from Garden Street to Kings Highway and Monastery Avenue to the area of the SHLO at the Riverdale Street (Route 5) intersection. Complete Streets project elements will be evaluated including an elevated SUP, separated bicycle facility and other measures that are consistent with the Town's Complete Street's Policy and other design standards and infrastructure. Speed humps and other traffic calming improvements will be evaluated to work in conjunction with the road diet to reduce vehicle speeds and

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improve safety. Roadway rehabilitation options will be reviewed to provide a cost-effective versus life-span pavement treatment. On-street parking needs will be observed.

As you know VHB is working on the Elm Street Roundabout project and VHB designed the Westfield Street (Route 20) corridor from Elm Street to the Chestnut Street including signal and pedestrian crossing upgrades. VHB has a long standing relationship with the Town and has knowledge of the area and the needs of stakeholders.

Our Springfield office will be responsible for managing and delivering to you a timely and cost-effective product customized to your needs. With the resources of 450 professional, technical, and support personnel from our Springfield, Worcester, Watertown, and Boston offices, we offer the professional services of a large multifaceted firm combined with the knowledge and personality of a local office.

Extensive, Local Project Experience

VHB has been partnering with the Town of West Springfield for almost 20-years. Our project work includes the Elm Street Roundabout, Harwich Street Sidewalk Improvements, East-West Bicycle Feasibility Study, Route 20 (Westfield Street), Amostown Road Sidewalk Improvement Project, Roundabout Feasibility Studies, Peer Review Services, Pavement Management, and other projects that navigated MassDOT design processes. Through these projects, we have developed a working knowledge of the Town, its residents, and staff—experience that will benefit the Town on the Elm Street Road Diet/Complete Streets project. VHB currently has an active on-call engineering contract with the Town and several on-call contracts with MassDOT.

A Strong Project Management Team

We have put in place a strong project management structure to assure the coordination of team members, assignment of staff, and prompt response to the Town. As Director of Municipal Services and Principal at VHB, it is my responsibility to make available appropriate resources to the team to enable them to complete the project within the budget and on schedule. I was involved with many of the studies and designs noted above. To respond to the goals and objectives of the Town, VHB has assigned **Van Kacoyannakis, PE, IMSA II**, as Project Manager. Van is an experienced manager who has worked with the Town and many other Western Massachusetts municipalities on a variety of projects. He brings to this team an understanding of technical issues necessary to meet the Town's objectives within the project schedule and budget. **Christine Champeau, PE** will act as the lead Highway Designer. Christine is VHB's Assistant Chief Engineer and will be tasked with completing the highway design with the VHB project team. The three of us bring almost 75-years of combined and extensive experience in a variety of designs including MassDOT design that include highway, traffic and complete streets engineering that implement healthy transportation solutions. We will be the three assigned to the project for the duration and will see it through to the end. Supporting them will be a team of experienced professionals working out of the VHB's Springfield and Worcester offices. Resumes and a team organization chart can be provided for the remainder of the team upon request.

Why Choose VHB?

VHB has the ability and experience required to effectively manage and design this project and we look forward to the technical challenges it will involve. VHB brings an extensive amount of experience having worked on similar projects with similar constraints and we also have team members who are bicycle instructors that are actively part of various national bicycle committees. We also know the Town, we understand the project and potential constraints, and we bring unmatched enthusiasm and commitment to improving this section of Elm Street. As previously noted, we also have an on-call engineering contract with the Town and can hit the ground running if selected to advance this project.

Scope Outline

The following provides a brief outline for our approach, scope, and fee. VHB would be pleased to provide a more detailed scope and fee for the Town's review, but we understand that this letter is being used to pursue funding through a grant application and it could take some time to confirm if funding is available. The following scope assumes a review through the Town only, meaning no MassDOT or other involvement.

Project Approach, Scope and Fee

VHB will work with the Town to investigate various roadway cross sections that accommodate all modes of transportation, reduce travel speed and improve safety. This includes reviewing the feasibility of road diets, speed humps, bicycle lanes, shared use paths, enhanced crosswalks, traffic calming techniques, handicap accessible sidewalks and pedestrian curb ramps, on-street parking, and streetscape/ hardscape enhancements. The intersection of Elm Street at Kings Highway and Witch Path will also be redesigned to meet the needs of the roadway users. In addition, take into consideration businesses needs and do our best to minimize impacts to adjacent properties (this minimizing right-of-way needs). We will also review overhead and underground utilities locations to lessen those impacts, while preparing a design that is cost effective and meeting the needs of key stakeholders.

Task 1: Survey and Base Plan Development – $45,000

VHB will conduct an on-ground field survey of the project limits and locate visible edges of pavement, curbing, fences, walls, signs, driveways, trees greater than 10", pavement markings, surface utilities, railroad, wetland flags and other visible site features within the project limits. Rim elevations of any drainage structures will be obtained. The survey data will be used to produce an existing conditions base map in AutoCAD Civil 3D at a scale of 1"=20' with 1' contours. The base map will conform to the latest version of MassDOT CAD Standards and will provide a Civil 3D surface. The survey limits will extend from Garden Street to where the State Highway Layout (SHLO) begins at the Riverdale Street (Route 5) intersection. The survey will be prepared to a MassDOT format.

Task 2: Wetland Delineations and Environmental Due Diligence – $10,000

Wetland Delineation: VHB will conduct wetland resource area delineation in accordance with the Massachusetts Wetlands Protection Act (WPA), the Federal Clean Water Act, the Corps of Engineers Wetlands Delineation Manual (1987 edition), and guidance in Clarification and Interpretation of the 1987 Manual, dated March 6, 1992. Piper Brook crosses Elm Street just south of Riverdale Street and west of East Elm Street. Wetland flags will be obtained by surveyors and incorporated into the base plan that will be developed as part of Task 1.

Environmental Due Diligence (Permitting Evaluation): VHB will conduct a preliminary environmental review in accordance with National Environmental Policy Act (NEPA) and Massachusetts Environmental Policy Act (MEPA), including but not limited to Federal and Massachusetts Clean Water Act, Endangered Species, Cultural and Historic considerations, and others as deemed necessary and based on the existing conditions mapping, field observations, and the proposed improvements. This assessment will be summarized in a brief memorandum and coordinated with the Town. Environmental Permitting is not included as part of this task and will need to be conducted at a later date under a separate agreement.

Task 3: Project Development and Data Collection – $35,000

Traffic Counts: VHB will coordinate the collection of traffic counts for the study area and provide an assessment of this data determining peak hours, factors for background growth, and seasonal adjustments. VHB will also prepare existing and future design volumes graphics. VHB will review MassDOT seasonal adjustments and growth rates prior to advancing the traffic analysis. We will also coordinate with the Town of West Springfield DPW and the Pioneer Valley Planning Commission (PVPC) to evaluate historic counts that maybe available. The following traffic counts will be collected and used to develop an existing conditions traffic network as well as a future conditions traffic network with and without improvements (10-year horizon).

- Automated Traffic Recorders (ATR) Counts (3 Locations) – 48 hour counts collecting speed, volume and vehicle classification
    1. Elm Street south of Kings Highway;
    2. Elm Street north of Kings Highway; and
    3. Kings Highway west of Elm Street
- Turning Movement Counts (TMCs) (1 Location) – 8 hour turning movement count
    1. Elm Street at Kings Highway

Operational Assessment: VHB will analyze the following operational conditions using the Syncrho Software Program: existing conditions (2023), future conditions without improvements (2033), and future conditions with improvements (2033). Signal timings will be obtained from the Town of through field observations for the intersection at Kings Highway. Level-of-service (LOS), volume-to-capacity (v/c) ratio, and vehicle delays/ queues (average and 95th percentile) will be summarized in a tabular format. In addition, a signal warrant assessment will be prepared for the one signalized intersection, which will be

used to confirm that a signal is still warranted. A roundabout is not anticipated to be an improvement strategy given that the intersection is at the top of vertical crest and therefore this design is not included.

Crash Analysis: VHB will collect, tabulate, and analyze crash data from the MassDOT database for the latest 5-years and document trends and causes.

Pavement Evaluation and Design: VHB will provide an assessment of general condition of project area. Test pits and pavement cores will be performed in the project area. VHB will coordinate with the DPW on the number and locations of the samplings. The pavement and soil samples will be tested in AASHTO Certified materials testing facility. Results of the evaluation will be used to support a pavement design for the roadway. If police details are need to collect pavement data, it is anticipated that this will be provided by the Town.

Design Memorandum: VHB will prepare a design memorandum that discusses items such as alternative analysis, traffic volumes, and transportation modes. This memorandum will build off any previous data collected and traffic assessments that may be available. Topics for discussion include operations assessment at the Kings Highway and Witch Path signal, road diet locations, traffic calming measures, corridor and intersection safety concerns, on-street parking impacts, and a description of the alternatives reviewed.

Task 4: Conceptual Design – $30,000

Conceptual Design Plans: VHB will use the base plan developed in Task 1 to prepare conceptual design plans that can be used for a public outreach and coordination with key stakeholders. VHB understands that this corridor has to meet the needs of a variety of modes of transportation while providing traffic calming and safety improvements. VHB will develop this plan in a manner that supports bicycles, pedestrians, vehicles and transit users. VHB will develop typical sections and identify different scenarios with the Town in selecting a viable or preferred plan.

Order of Magnitude Cost Estimate: VHB will prepare an order of magnitude construction cost estimate for the Town to budget the project. This estimate will not be prepared to a MassDOT 25% design format but will incorporate some lump sum items (signal improvements, etc.) and contingencies as deemed necessary for the level to which this design is at.

Task 5: Public Outreach and Town/ Key Stakeholder Coordination – $10,000

Part of this task is to conduct outreach for the project to obtain input and feedback from interested citizens, local and regional groups, and elected officials to maintain a strong support for the project moving forward. VHB will coordinate with the Town two meetings but will be available to coordinate further meetings as needed with the Town or individual business/ property owners. This task also include virtual meetings with DPW to review plans and discuss design progress. The presentation format to be used will be coordinated with the Town but is anticipated to include the plans prepared above along with a two-dimensional color rendering.

Public Outreach Meeting #1: The intent of this task is to conduct outreach for the project to obtain input and feedback from interested citizens, local and regional groups, and elected officials to maintain a strong support for the project moving forward. VHB will coordinate with the Town one public outreach meeting to present the project concepts and receive feedback. This task could also be used to coordinate a business owner outreach meeting.

Public Outreach Meeting #2: The intent of this task is to conduct a second outreach meeting for the project to present the project design that will be advanced to final design. The intent is to update the public on the design progress and how feedback from the conceptual plans was or wasn't included in the design. VHB will coordinate this meeting with the Town and present the project design and receive feedback.

Task 6: Final Engineering – $100,000

Upon the approval of the plan prepared as part of the Conceptual design task above, VHB will advance the plans to a final engineering level. We will work with the Town to address agreed upon comments as part of this task. During the preparation of this submission, VHB will advise the Town of any new constraints or design issues that need to be coordinated with DPW, property owners, or utility companies. This will be coordinated during this design phase and addressed prior to completing the final engineering phase. A cursory review of the existing drainage system will be included in this task from and it is assumed that the existing storm drain main system has adequate capacity and will be reused as part of this project; however, new catch basins are anticipated to be proposed to accommodate the proposed improvements. If major drainage studies or assessment are needed an amendment could be required.

The design memorandum previously prepared will be updated to reflect the final design, so that the Town has documentation of the improvements to be constructed. This design will use the Town Design Standards and the MassDOT Design Guidebook and other associated guidelines such as MUTCD or other. Coordination with the Town will occur on any conflicts of design requirements.

VHB will provide the Town with one submission under this task: a set of final engineering plans, including specifications, construction cost estimate, geotechnical information for signal mast arms, and other relevant information for the project. An allowance for geotechnical evaluations for the signal mast arm foundations is included in the expenses task. VHB will obtain quotes from drillers prior to performing the work. VHB will retain a driller for this field work. Police details are not included in this fee and it is assumed the Town will provide and coordinate police services as necessary.

Task 7: Right-of-Way Needs Assessment: $10,000

The design will make efforts to minimize property impacts. Where temporary easements are needed, VHB will evaluate the proposed improvements and their impacts to adjacent property. VHB will perform a right-of-way needs assessment. Locations of anticipated temporary easements or rights-of-entries will be identified including estimated permanent easements or takings. The intent is to provide the Town with estimated right-of-way impacts to adjacent properties so a decision can be made for next steps with a

goal to address them for construction. This task and the general right-of-way needs will be coordinated closely with the Town during Tasks 4 and 6 above.

Task 8: Permitting, Final Right-of-Way, and Final Bid Documents – Not Included

VHB will evaluate the permitting, right-of-way and final bid document needs during the preparation of the tasks above. The goal is to advise the Town of future design tasks not scoped above. At this time, a Notice of Intent (NOI) could be required for work within a resource buffers, but this will be confirmed during the design process outlined above. In addition, the final right-of-way needs will need to be confirmed and coordinated with the Town. If additional plans are needed for coordination with abutters, or filing at the registry of deeds, this will be coordinated under a separate agreement. Finally, final comments and any outstanding design items not anticipated will be addressed during the development of final bid documents. A fee for Task 8 cannot be determined at this time, therefore, it is not included in this letter.

Services Not Included

The scope outline is inclusive only of those tasks herein specified. Should work be required in other areas, VHB will prepare a summary scope, at the Town's request, that contains the Scope of Services and Fee to complete the additional work items. The following services are not included in this Agreement:

- Development of bidding documents including revisions to the final design documents.
- Right-of-Way plans prepared by a PLS with final easements and takings as well as written descriptions, which are suitable for filing at the Registry of Deeds.
- Utility coordination, adjustments, designs or replacements including culverts.
- Major drainage studies or design of rain gardens or other best management practice elements.
- More than two public outreach meetings.
- Structural or geotechnical design of any kind, other than coordination and review of soil borings.
- Project coordination with agencies other than the Town and design within State Highway Layout
- Environmental permitting.
- Coordination with MassDOT.
- Final Bid Documents.
- Subsurface utility investigations or utility engineering survey (level B and A).
- Police Details.
- Construction phase services including the review of shop drawings.

Fee Summary and Schedule

Fee Summary: The following summarizes the fee for this effort, pulling the budgets allocated above into this table and then adding expenses and other services needed to complete the design including geotechnical services that were not included above.

Task	Description	Fee
Task 1:	Survey and Base Plan Development	$ 45,000
Task 2:	Wetland Delineations and Environmental Due Diligence	$ 10,000
Task 3:	Project Development and Data Collection	$ 35,000
Task 4:	Conceptual Design	$ 30,000
Task 5:	Public Outreach	$ 10,000
Task 6:	Final Design	$ 97,000
Task 7:	Right-of-Way Needs Assessment	$ 10,000
Task 8:	Permitting, Final Right-of-Way, and Final Bid Documents	Not Included
	VHB Expenses: (Printing, Materials, Mileage, and Postage)	$ 4,500
	Sub-Consultant (TBD): Geotechnical Borings – Allowance	$ 6,500
	Vendor (TBD): Traffic Counts – Allowance	$ 2,000
	TOTAL FEE	**$ 250,000**

Schedule: VHB will work with the Town to establish a schedule for the work to be performed. Depending on how quickly coordination can occur with the Town, VHB can complete this design is roughly 8 to 10 months. The schedule is based on weather conditions, the scheduling of meetings with the Town, or the public outreach meetings, and timely reviews from the Town.

We are ready to apply our local understanding, experience gained on similar projects across the Commonwealth, and deep commitment to delivering a successful project on time and on budget. As you review this letter, should you have any questions or require additional information, please contact me or Van Kacoyannakis at vkacoyannakis@vhb.com or 413.241.5877. Thank you for the opportunity to submit this scope outline for your review and we can provide a more detailed proposal upon request. We look forward to continuing to serve the Town and its residents.

Sincerely,

VHB

Matthew J. Chase, PE, PTOE
Principal and Director of Municipal Services.

Van Kacoyannakis, PE, IMSA II
Project Manager