Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA 02110

Appendix D

2018 COMMUNITY MITIGATION FUND

2018 Transportation Planning Grant Application

BD-18-1068-1068C-1068L-22137

Please complete the entire application.

☐ **Check if a joint application**

	Town of West Springfield
1.	**NAME OF MUNICIPALITY(IES)/GOVERNMENT ENTITY(IES)/DISTRICT(s)**
	Mayor's Office
2.	**DEPARTMENT RECEIVING FUNDS**
	Sharon Wilcox, Chief Financial Officer
3.	**LEAD APPLICANT - NAME AND TITLE OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS (CONTRACT MANAGER)**
	26 Central Street, West Springfield, MA 01089
4.	**ADDRESS OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS (CONTRACT MANAGER)**
	(413)263-3025 swilcox@townofwestspringfield.org
5.	**PHONE # AND EMAIL ADDRESS OF INDIVIDUAL RESPONSIBLE FOR HANDLING OF FUNDS (CONTRACT MANAGER)**
	Not Applicable
6.	**NAME AND CONTACT INFORMATION OF JOINT APPLICANTS - MUNICIPALITIES /GOVERNMENT ENTITIES/DISTRICTS**
	William Reichelt, Mayor
7.	**NAME AND TITLE OF INDIVIDUAL(S) AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY(IES)/GOVERNMENTAL ENTITY(IES)**
	26 Central Street, West Springfield, MA 01089
8.	**ADDRESS OF INDIVIDUAL(S) AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY(IES)/GOVERNMENTAL ENTITY(IES)**
	(413)263-3041 wreichelt@townofwestspringfield.org
9.	**PHONE #, EMAIL, AND ADDRESS OF INDIVIDUAL(S) AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY(IES)/GOVERNMENTAL ENTITY(IES)**
	MGM Springfield
10.	**NAME OF GAMING LICENSEE**

1. IMPACT DESCRIPTION

Please describe in detail the transportation related impact that is attributed to the construction or operation of a gaming facility. Please provide support for the determination that the construction or operation of the gaming facility caused, is causing or may cause the impact.

The transportation impacts attributable to the construction and operation of the gaming facility include increased vehicular, bicycle and pedestrian traffic on the Route 20 Corridor. This can be attributed to future patrons and employees of the casino as well as current construction employees and vehicles visiting the site. This additional traffic directly impacts the safety and transportation operations of the Route 20 Corridor.

The Project area of this grant proposal includes portions of both Park Street (Route 20) and Park Avenue (Route 20) between the intersections of Elm Street (Route 20) and Union Street, easterly to the North End Bridge Rotary at Route 5. A project location map is attached in Appendix A.

This is part of a primary travel route to and from the casino as noted in our past traffic studies for the casino development. A copy of the trip distribution network from the Draft Environmental Impact (DEIR) report is included in Appendix B. This clearly illustrates the Route 20 corridor as a major travel route. This additional traffic directly impacts operations and safety for the various transportation modes and users of all ages and abilities.

This is a significant component of the Town's Route 20 Complete Streets project, part of which is currently under design. The current project is funded through a combination of 2017 Community Mitigation Grant and municipal funds. This application is for the planning and engineering design of the remaining portion of the project. This will tie together improvements to the Route 20 corridor under Town jurisdiction leading to the North End Rotary at Route 5 where there is a river crossing to the City of Springfield with direct connection to the Springfield Riverwalk and Bikeway leading to the Casino.

2. PROPOSED USE OF TRANSPORTATION PLANNING FUND

a) Please identify the amount of funding requested.
b) Please identify below the manner in which the funds are proposed to be used.
c) Please provide documentation (e.g. - invoices, proposals, estimates, etc.) adequate for the Commission to ensure that the funds will be used for the cost of planning to mitigate the transportation impact from the construction or operation of a proposed gaming establishment.
d) Please describe how the planning request will address the specific transportation impact indicated and is for a demonstrated public purpose and not for the benefit or maintenance of a private party. Please attach additional sheets/supplemental materials if necessary.
e) For joint grant requests, please state the amount requested for the joint request. Please also state the amount of any Regional Planning Incentive Award requested and provide separate detail on the use of these additional funds.

a) The Town is requesting a transportation planning grant of $200,000 from the Community Mitigation Fund to assist with addressing impacts to the study area. These funds, in their entirety, will be used to contract with an engineering firm to develop improvements the Town will advance to construction. The Town has solicited three fee proposals from three engineering firms (copies of each are attached in Appendix G). These proposals range from $224,785 - $250,000. The Town is committed to funding the additional $24,785 to $50,000 in excess of the grant, depending upon the consultant selected.

b) The funds will be used to contract with a professional engineering consultant to collect data, analyze and design improvements to mitigate transportation impacts associated with additional casino traffic. The improvements will be consistent with the Town's Complete Street Ordinance and improve traffic flow and safety for all users of the roadways. Final detailed scopes, budgets and timetables will be requested from the firms over the next few months. From these a final consultant will be selected prior to the award of the grant. The final product of the plan will be advertised by the Town for construction.

c) Attached in Appendix G are the three fee proposals recently solicited by the Town. As previously mentioned, more detailed scopes and time tables will be solicited from the firms during the application review process. Also attached is a copy of the Town's solicitation depicting that the work contracted will be specifically for mitigating traffic impacts. The Town is committed to advancing products of the grant to construction.

d) The project will be for the design of transportation improvements within the municipal roadway right-of-way and is not related to benefit or maintenance of any private property. Any work that could impact private property would only be for transitioning the project to meet existing conditions if needed. The majority of the abutting right-of-way is municipally owned. The Town Common, which is situated between the two roadways is municipal property. In addition to this, the Cowing School and the Town's Senior Center are within the project area. The remaining land uses are a mix of businesses and condominiums. There are currently no planned improvements to any of these properties that the Town is aware of.

3. CONNECTION TO GAMING FACILITY

Please provide specificity/evidence that the requested funds will be used to address, issues or impacts directly related to the gaming facility.

As previously mentioned, these portions of Park Street and Park Avenue are primary travel routes to/from the casino. Being State Numbered Route 20, the Park Avenue and Park Street corridor are attractive regional cut through routes for traffic to points east along Route 20 to Route 5 and Interstate-91. This is especially evident with Global Positioning Systems (GPS) now guiding unfamiliar drivers through the area along the major routes. Therefore, it is expected that this area will continue to experience transportation impacts beyond what has been originally forecasted.

The original traffic study for the casino primarily focused on processing volumes of passenger vehicles through the study area but didn't necessarily focus in detail on unanticipated impacts to other modes of travel such as walking, bicycling and transit. The Springfield Riverwalk is located less than half a mile from the easterly terminus of the project. The Riverwalk provides an ideal transportation route for walking and bicycling to the area adjacent to the casino. Appendix H has maps from Google Earth depicting this as well as a map depicting the proximity of the project site to North Riverfront Park in Springfield which has direct access to the Riverwalk.

In addition to walking and bicycling, there are two Pioneer Valley Transit Authority (PVTA) routes (P10 and P20) that traverse the project area. The P10 provides a stop on Boland Way in Springfield which is in close proximity to the Casino and in very short walking distance. The P20 provides a connection to the new Union Station Transportation Center in Springfield where a connection could be made to the downtown circular trolley funded by MGM. In addition to this, the PVTA buses are equipped with bicycle racks on the front of the vehicles. There are buses that traverse the project area that have the ability to carry bicycles to two existing stops on the Springfield side of the North End Bridge near Riverfront Park. These stops are approximately 250 feet from an access point to the Springfield Riverwalk (see Appendix I). Therefore, people using bicycles will also have the ability to utilize transit vehicles in the project area to gain access to the Springfield Riverwalk servicing downtown Springfield where the casino is situated.

Therefore, this project will address the additional traffic volumes, operational and multi-modal impacts to the study area resulting from additional casino traffic. The Town wants to continue to be pro-active and maintain traffic flow through this area while preserving public safety and

4. IMPACT CONTROLS/ADMINISTRATION OF IMPACT FUNDS

Please provide detail regarding the controls that will be used to ensure that funds will only be used to plan to address the specific impact. If non-governmental entities will receive any funds, please describe what reporting will be required and how the applicant will remedy any misuse of funds.

All funds received from this grant will be used exclusively on the contract between the Town and the selected consulting engineering firm for one of the 3 proposals included in Appendix G. This is also noted in the Town's solicitation to this document. When awarded the grant, a copy of the final executed contract between the Town and the firm can be provided to the Gaming Commission as well as a copy of the purchase order documenting the use of the grant and Town funds used on the project. The funds will be retained in a grant account, pursuant to G.L. c.44, section 53A, and could only be expended for the purposes stated herein and in the grant.

5. CONSULTATION WITH REGIONAL PLANNING AGENCY (RPA)/NEARBY COMMUNITIES

Please provide details about the Applicant's consultation with the Regional Planning Agency serving the community and nearby communities to determine the potential for cooperative regional efforts regarding planning activities.

As previously noted in the application, the Town has worked with the Pioneer Valley Regional Planning Commission since the late 1990's on improvements to the project area. The following three plans/studies have been completed that encompass the project area:

• Route 20 Corridor Study, Pioneer Valley Planning Commission, June 1999

• Merrick-Memorial Redevelopment Plan, prepared by Vanasse Hangen Brustlin for the Pioneer Valley Planning Commission in conjunction with the Town of West Springfield, December 2004

• Merrick and Memorial Neighborhood Study Phase II, Pioneer Valley Planning Commission 2014

• Pioneer Valley Regional Transportation Plan Update 2016.

As you can see, there has been considerable planning efforts directly with the Pioneer Valley Planning Commission for almost 20 years. These efforts led to the following projects:

6. MATCHING FUNDS FROM GOVERNMENTAL OR OTHER ENTITY

Please demonstrate that the governmental or other entity will provide significant funding to match or partially match the assistance required from the Community Mitigation Fund. Please provide detail on what your community will contribute to the planning projects such as in-kind services or planning funds.

The Town of West Springfield is committed to contributing up to an additional $50,000.00 in funding to cover the total cost of the proposals. This translates to up to a 25% matching contribution to the $200,000 request. The Town currently has these funds available and will reserve them for this project. The following is a summary of the fees received and the extent of the Town's contribution.

Engineering Consultant	Total Fee	Grant	Amount Town Contribution
HOWARD STEIN HUDSON	$234,900	$200,000	$34,900
GREENMAN-PEDERSON, INC. (GPI)	$224,785	$200,000	$24,785
TIGHE & BOND	Up to $250,000	$200,000	$50,000

Please note that the Town supplemented the $150,000 community mitigation award last year with $50,000 in municipal funds to fund the design being conducted by Howard Stein Hudson.

7. RELEVANT EXCERPTS FROM HOST OR SURROUNDING COMMUNITY AGREEMENTS AND MASSACHUSETTS ENVIRONMENTAL POLICY ACT (MEPA") DECISION

a) **Please describe and include excerpts regarding the transportation impact and potential mitigation from any relevant sections of any Host or Surrounding Community Agreement.**
b) **Please provide a demonstration that such mitigation measure is not already required to be completed by the licensee pursuant to any regulatory requirements or pursuant to any agreements between such licensee and applicant.**
c) **Please also briefly summarize and/or provide page references to the most relevant language included in the most relevant MEPA certificate(s) or comment(s) submitted by the community to MEPA.**
d) **Please explain how this transportation impact was either anticipated or not anticipated in that Agreement or such MEPA decision.**
e) **If transportation planning funds are sought for mitigation not required under MEPA, please provide justification why funding should be utilized to plan for such mitigation. For example, a community could provide information on the significance of potential impacts if trip generation totals exceed projected estimates.**

a) The surrounding community agreement did not include the Park Avenue and Park Street corridors. Only the Memorial Avenue corridor was part of the agreement. See Appendix J. The MEPA Certificate dated December 31, 2014, for the final Environmental Impact Report did not include transportation improvements to this project area that is part of a primary travel route to/from the casino.

b) There are no transportation mitigation measures to the Park Street and Park Avenue corridors that are required to be completed by the licensee. The Off-Site infrastructure improvements are primarily within the City of Springfield with the exception of work on the Memorial Bridge which is not part of this project area.

c) Attached in Appendix J are excerpts from the MEPA Certificate outlining mitigation. There are no direct mitigation measures identified for these corridors. As previously mentioned this project is part of the Town's Complete Streets project for the corridor. The westerly phase design was funded by the mitigation in 2017. This project is the easterly phase and complete the connection to Route 5 and the North End Bridge to Springfield.

The MEPA Certificate dated December 31, 2014, for the final Environmental Impact Report did not include this project area. The project is part of a major travel corridor and is part of a primary travel route to/from the casino.

d) The original traffic study for the casino primarily focused on processing volumes of passenger vehicles through the study area but didn't focus in detail on unanticipated impacts to other modes of travel such as walking, bicycling and transit. Therefore, we feel there will be additional traffic volumes, operational and multi-modal impacts to the study area resulting from additional casino traffic were not completely addressed in this area.

No Community is eligible for more than one Transportation Regional Planning Incentive Award.

CERTIFICATION BY MUNICIPALITY/GOVERNMENTAL ENTITY

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.

William C. Reichelt, Mayor (signature page uploaded)	02/01/2018
Signature(s) of Responsible Municipal Official(s)/Governmental Entity(ies)	**Date**

CERTIFICATION BY MUNICIPALITY/GOVERNMENTAL ENTITY

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(s) of Responsible Municipal Official(s)/Governmental Entity(ies)

Date 2/1/18

APPENDIX A

PROJECT LOCATION MAP

Town of West Springfield

Legend

Streets Centerline
- Paved
- Unpaved

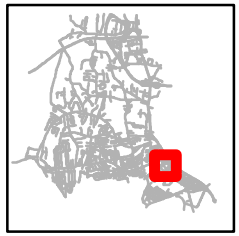
Major Roads
- Local Roads
- State Highway
- Interstate Highway

Easements

Right of Way
- Public
- Private
- Railroad
- Paper Street
- Old Lot Lines
- Swmming Pools

Buildings
- Deck or Porch
- Garage (Detached)
- Residential
- Commercial
- Industrial
- Demolished
- Proposed

Parcels
- New Lot Line
- Line Removed
- Pave Edges
- Pavement
- Wetland
- Streams



Planimetric & Topographic Features were derived from aerial photography taken on March 30th, 1998 and April 3, 2010. These features meet ASPRS Standards for 1" = 40' Class 1 map accurracy. All maps are projected to the Stateplane grid coordinate system, Zone 4151, Datum NAD83 & Units feet.

This data should not be used for legal description or conveyance purposes.

N

0 200 400 800 Feet

1 inch = 398.653815 feet

Town of West Springfield, MA, GIS

Created By: jczach *Date: 1/30/2018*

APPENDIX B

TR IP DISTRIBUTION MAP FROM DRAFT EIR

Draft Environmental Impact Report

EEA# 15033

MGM Springfield

Submitted to:
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Prepared by:
Epsilon Associates, Inc.
3 Clock Tower Place, Suite 250
Maynard, MA 01754

Submitted by:
Blue Tarp reDevelopment LLC ("MGM Springfield")
1414 Main Street, Suite 1140
Springfield, MA 01144

In association with:
Davenport Companies
Traffic Engineering Consultants, Inc.
Sanborn, Head & Associates, Inc.
Allen & Major Associates, Inc.
Brown Rudnick, LLP

December 16, 2013

Epsilon ASSOCIATES INC.

journey-to-work model is provided in Appendix B-11, and the resulting trip distribution percentages are shown in Figures B-12-13 for residents working within Springfield and in Figures B-12-14 and B-12-15 for residents working outside of Springfield.

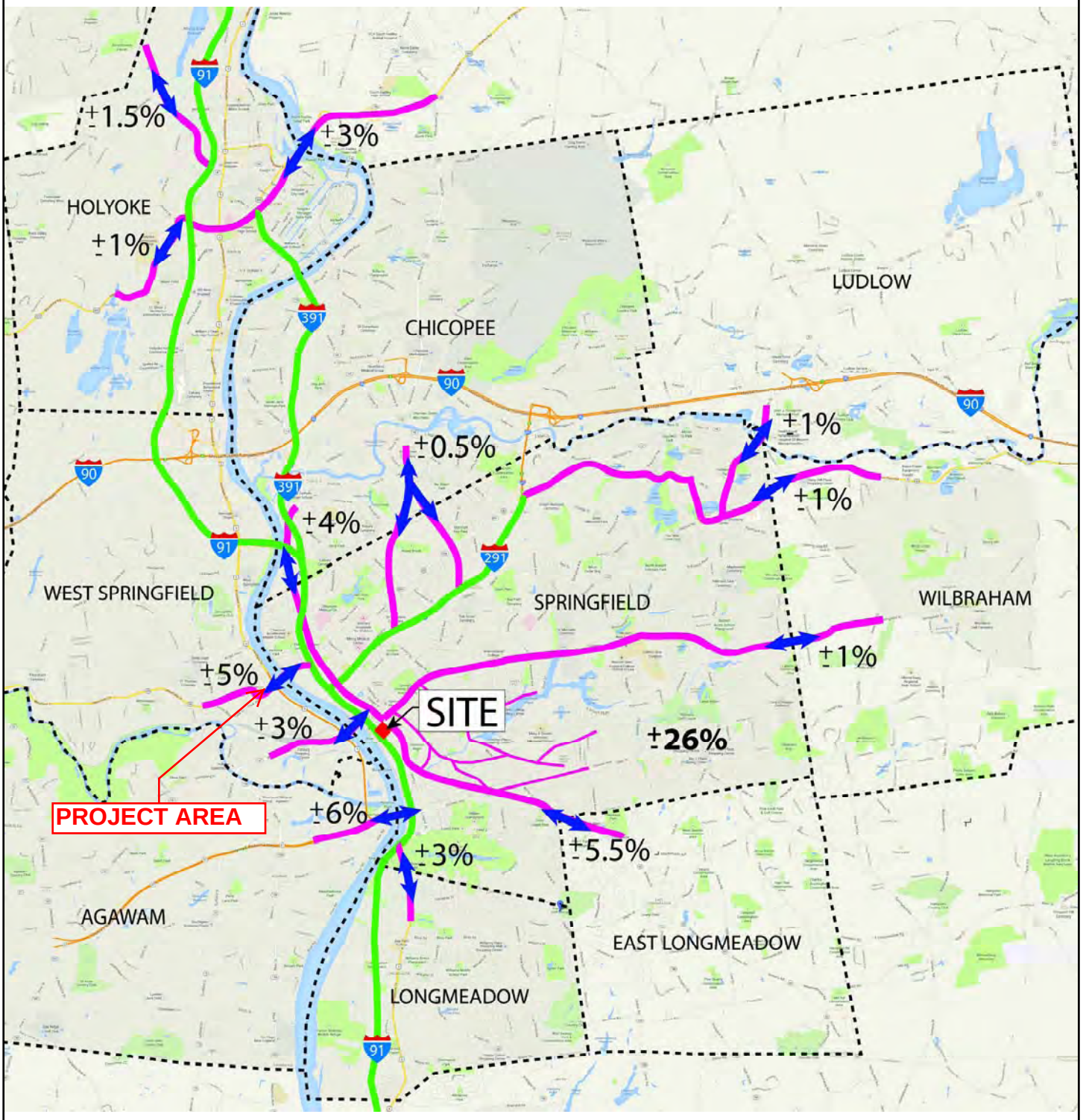
Trip Distribution Summary

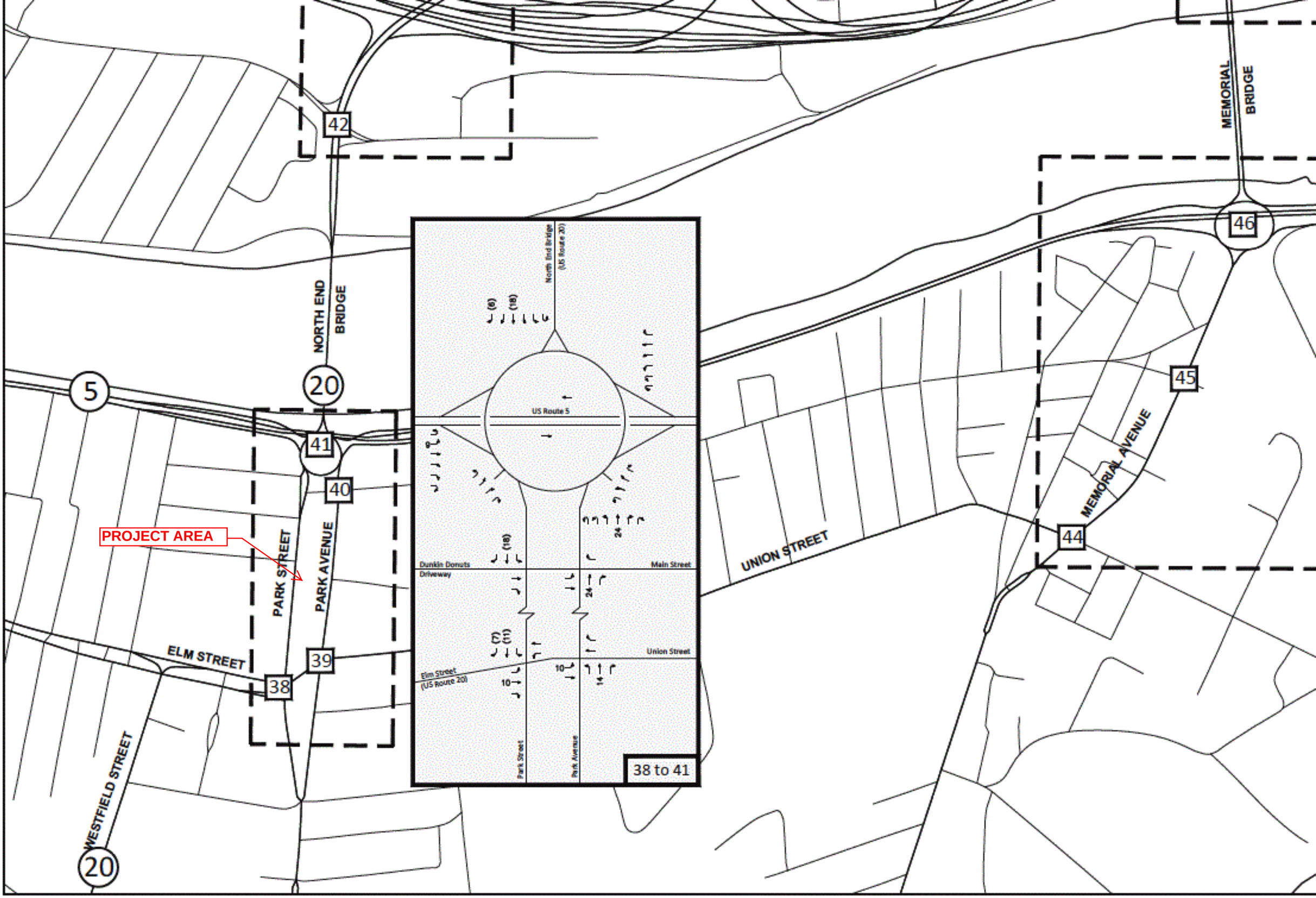
The resulting trip distribution by land use for the proposed development is summarized in Table 6.2-9. The site-generated traffic volume networks for each land use are presented in Appendix B-12. The regional scale distribution of trips is shown in Figures 6.2-8 and 6.2-9 for the local roadways and freeway corridors, respectively. The regional scale site-generated trip increases is shown in Figures 6.2-10 and 6.2-11 for local roadways and freeway corridors, respectively. The resulting site-generated traffic-volume networks for Friday evening and Saturday midday peak hours are shown in Figures 6.2-12 through 6.2-15.

Table 6.2-9 Trip Distribution Summary

Routes (FROM PROJECT AREA)	Percentage from Route / Community				
	Casino / Hotel Patron	Casino / Hotel Employee & Armory Square Office	Armory Retail	Apartment	Total
Route 5 - Longmeadow	1.0%	3.9%	5.0%	0.6%	**2.8%**
Route 83 - East Longmeadow	3.9%	5.7%	7.2%	5.6%	**5.4%**
South End Bridge - Agawam	5.0%	5.0%	8.0%	3.2%	**6.1%**
Memorial Bridge - West Springfield	2.5%	4.0%	4.0%	3.7%	**3.3%**
North End Bridge - West Springfield	3.5%	5.0%	6.0%	6.3%	**4.7%**
Main Street - Chicopee	3.7%	5.5%	3.8%	5.5%	**4.0%**
Liberty St / St. James Ave - Chicopee	0.4%	0.8%	0.7%	0.7%	**0.6%**
Boston Road (Route 20) - Wilbraham	0.8%	4.0%	0.7%	1.5%	**1.1%**
Wilbraham St - Wilbraham	0.9%	0.9%	1.5%	0.2%	**1.1%**
Route 21 - Ludlow	0.6%	2.0%	1.2%	0.9%	**1.0%**
Route 141 - Holyoke	*1.5%*	*1.9%*	*1.3%*	*0.5%*	***1.4%***
Route 202 West - Holyoke	*1.6%*	*0.8%*	*0.3%*	*1.0%*	***1.0%***
Route 202/16 - Holyoke	*3.5%*	*3.6%*	*1.6%*	*3.6%*	***2.8%***
I-91 North*	22.0%	12.0%	6.0%	6.1%	**14.3%**
I-91 South	30.0%	2.0%	13.0%	0.0%	**19.6%**
I-291 Northeast	15.3%	7.3%	5.3%	1.1%	**10.1%**
City of Springfield	10.5%	41.9%	37.7%	64.7%	**26.0%**
Total*	100.0%	100.0%	100.0%	100.0%	**100.0%**

*Note that all routes through Holyoke will also use I-91 North. Therefore, the percentages shown for I-91 North also include traffic from Holyoke.


±1.5%
±3%
HOLYOKE
±1%
LUDLOW
CHICOPEE
±0.5%
±1%
±1%
±4%
WEST SPRINGFIELD
SPRINGFIELD
WILBRAHAM
±1%
±5%
SITE
±3%
±26%
PROJECT AREA
±6%
±3%
±5.5%
AGAWAM
EAST LONGMEADOW
LONGMEADOW
North
Not to Scale



MGM Springfield Springfield, Massachusetts

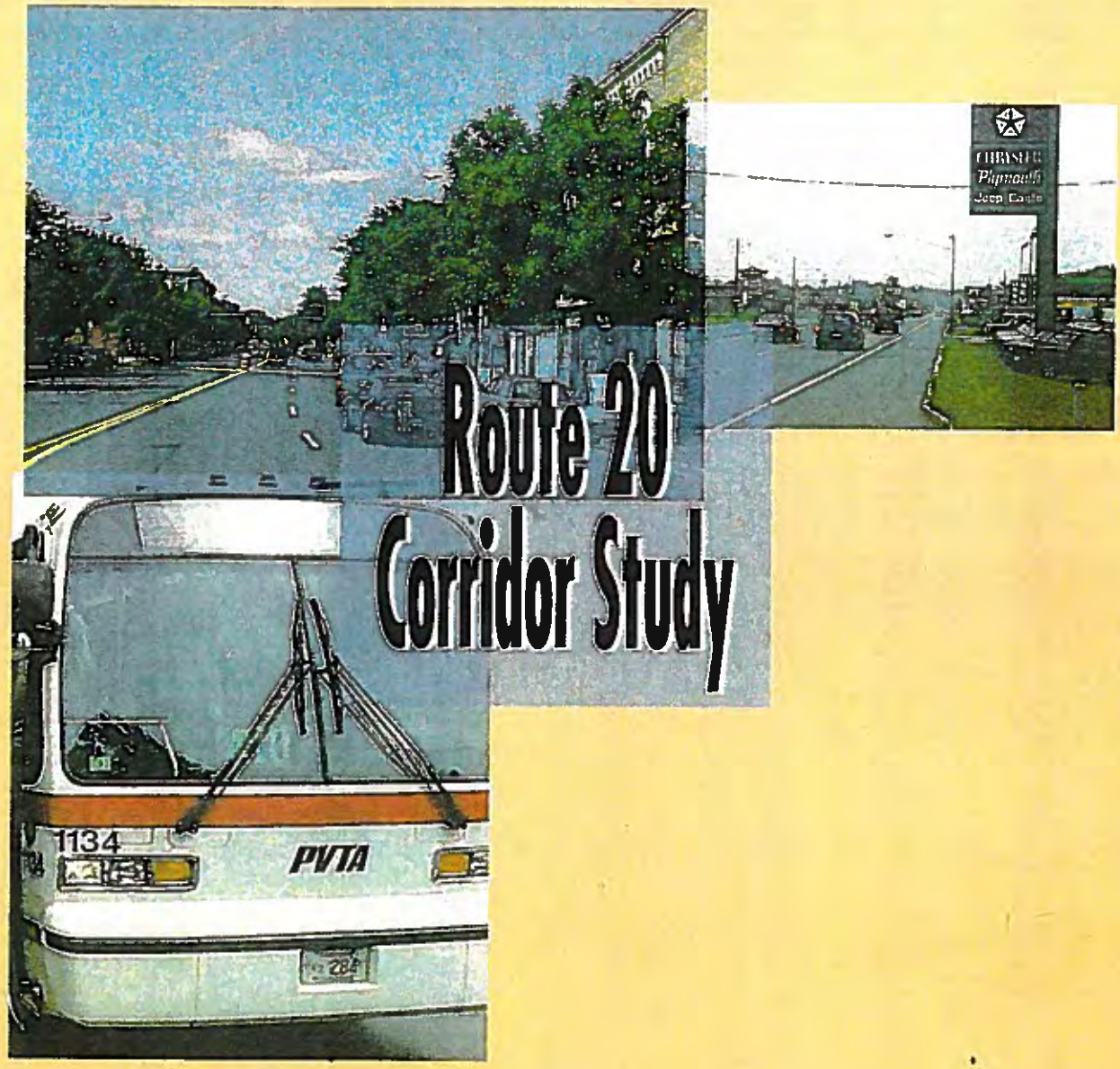
XX = Intersection ID

XX = Entering Trips

(XX) = Exiting Trips

APPENDIX C

ROUTE 20 CORRIDOR STUDY
PIONEER VALLEY PLANNING COMMISSION



Route 20 Corridor Study

June 1999

Pioneer Valley Planning Commission
26 Central Street
West Springfield, MA 01089

INTRODUCTION

The goal of the Route 20 Corridor Study is to provide a detailed analysis of the existing and anticipated traffic demands and assess the impacts of current and planned land use for a critical section of Route 20 in the communities of Westfield and West Springfield. Development along Route 20 has had a direct impact on the traffic congestion and safety problems now occurring on the roadway. A combination of a high volume of commuter traffic as well as a number of land uses with high trip generating characteristics have contributed to strains on the existing infrastructure facilities. The focal points of this study include: traffic operations, safety issues, transit service efficiency, land use concerns, growth management strategies, and pedestrian and bicycle concerns throughout the corridor. This study is designed to identify current and future deficiencies and to present a wide range of multi-modal conceptual solutions that could be implemented by the City of Westfield, the Town of West Springfield, the Massachusetts Highway Department (MassHighway), and the Pioneer Valley Transit Authority (PVTA).

The Route 20 corridor was identified as a congested area by the Pioneer Valley Planning Commission's (PVPC) congestion management system. The Route 20 Corridor Study is the interdisciplinary approach agreed upon by the City of Westfield, the Town of West Springfield, and PVPC to identify and analyze alternatives geared towards reducing the current and anticipated future congestion in this area.

A. Study Area

The proposed Route 20 study area to be addressed by this Corridor Planning Study begins at the intersection of the North End Bridge (Route 20) with the Route 5/Route 20 rotary in West Springfield and continues west to the intersection of Main Street (Route 20) with Elm Street (Route 10/202) in Westfield. In addition, a small portion of Elm Street from Main Street to Meadow Street has been included in the study to account for the proposed new bridge over the Westfield River, which is included in PVPC's current Transportation Improvement Program and Regional Transportation Plan. The total study area covers a distance of approximately 8.5 miles. An outline of the study area coverage is presented in Figure 1.

1. Segmentation

The Route 20 corridor was divided into 7 segments to provide a suitable means of localizing and managing the data collection information and the condition summaries of the study area. Segments were selected based on their physical layout, current land uses and zoning, and existing roadway characteristics. The seven segments are identified and summarized in Table1.

CHAPTER 2

Existing Transportation Conditions

This section of the report provides a technical evaluation of the transportation components throughout the Route 20 Corridor Study Area. It includes a presentation of the data collected, analysis of traffic operations, and a series of short term recommendations to the overall performance and safety of the corridor.

A. Inventory

1. Route 20 Corridor

In the study area, Route 20 runs along a generally east-west alignment and provides two travel lanes in each direction. Route 20 serves a variety of land uses and provides a direct connection to downtown Springfield, Interstate 91, and Interstate 291 via the North End Bridge. Route 20 merges with Routes 10 and 202 along Elm Street in the center of Westfield for a short distance before continuing to the west towards the Town of Russell. The roadway is functionally classified as an urban extension of a rural minor arterial from the North End Bridge in West Springfield to Elm Street in Westfield. As such, its intent is to carry trips of a moderate length at a good level of mobility. Minor arterial roadways are intended to distribute traffic to both lower level collector and local roads as well as to land uses along the roadway. Route 10/202 is functionally classified as an urban extension of a rural principal arterial in downtown Westfield.

Route 20 is jointly maintained by MassHighway and both communities in the study area. MassHighway is responsible for the Route 5/Route 20 rotary in West Springfield and for a 5.5 mile long portion of the roadway from Kings Highway in West Springfield to Noble Street in Westfield. The remaining portions of the roadway are maintained by the appropriate communities.

As mentioned previously, the study area was divided into segments to facilitate the management and presentation of data. The following presents a more detailed description of the physical roadway characteristics of each segment.

a) *Segment 1 - North End Bridge to the intersection of Elm Street with Westfield Road.* This segment is characterized by the rotary connecting Route 5 and Route 20. Route 5 traffic enters and exits the rotary in the north and south directions from a pair of ramps similar to those on an Interstate highway. Route 20 traffic enters to the east from the North End Bridge and to the west from Park Avenue. Two existing land uses, the Cumberland Farms Gas Station and the Ground Round, have driveway access to the two-lane rotary.

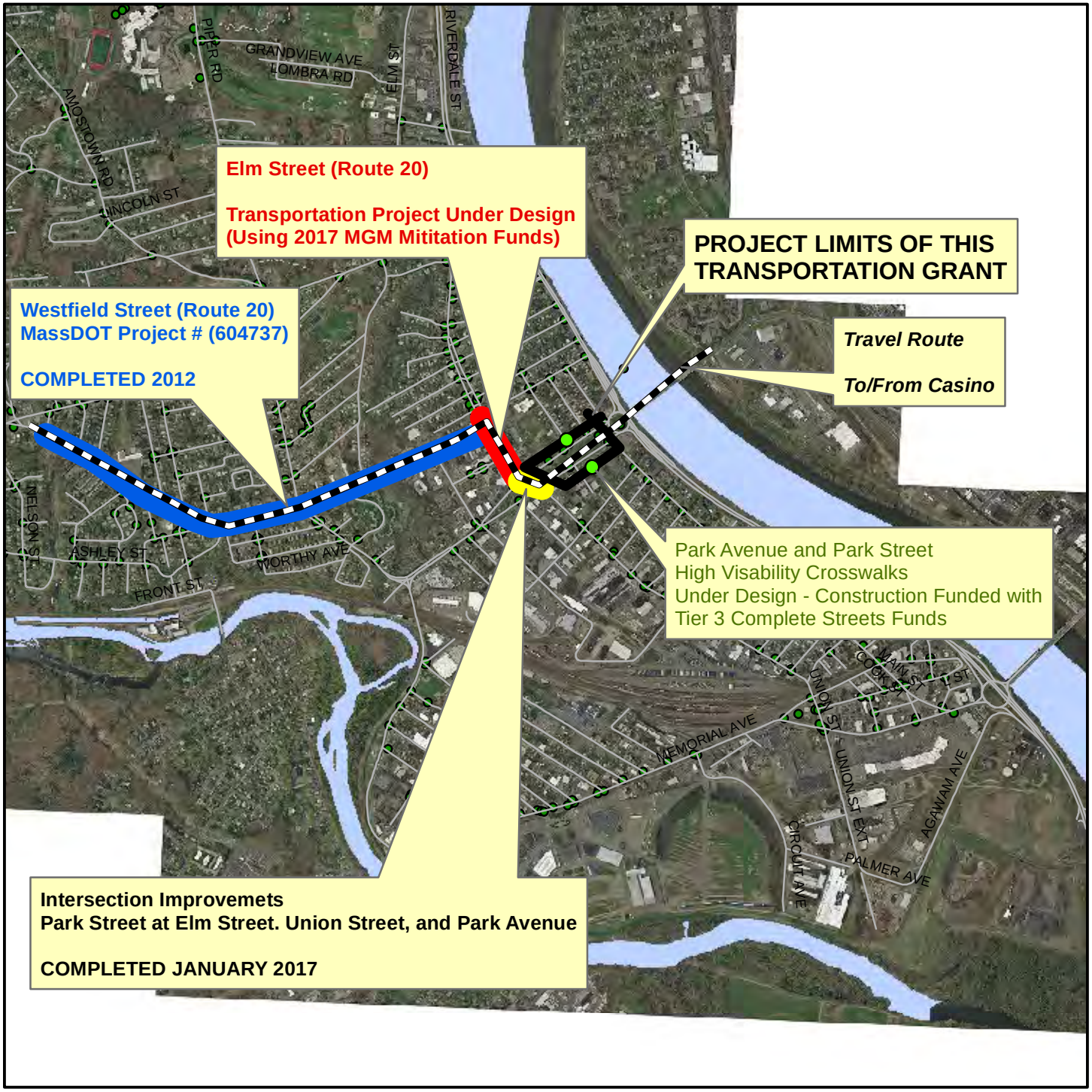
West of the rotary, Route 20 changes to a boulevard-type layout with a large greenway separating both directions of travel. Park Street provides access for westbound traffic and Park Avenue provides access for eastbound traffic. Park Street intersects with Main Street immediately west of the rotary in a confusing alignment opposed by the Dunkin' Donuts site drive. A painted island directs exiting traffic from the Dunkin' Donuts to turn right out of this driveway, however; many vehicles have been observed to make the through movement from the driveway to Main Street and vice versa. This results in delays on Route 20 often causing brief queues to extend back into the rotary. In the opposite direction Park Avenue meets Main Street at a signalized intersection. This intersection creates artificial gaps for the rotary and reduces delays on the North End Bridge approach.

Park Street continues to its intersection with Elm Street and Union Street. This signalized intersection operates very poorly with many vehicles observed to queue past the greenway on the southbound approach of Union Street blocking through traffic on Park Street. The westbound approach of Park Street provides two through lanes and one exclusive right turn lane. The existing lanes are improperly aligned with the two exit lanes of this approach; causing confusion in this area. Many vehicles have also been

APPENDIX D

MAP OF PROJECTS COMPLETED AND UNDER DESIGN

West Springfield Projects Completed and Under Design



Legend

Streets Centerline
- Paved
- Unpaved

Major Roads
- Local Roads
- State Highway
- Interstate Highway

Easements

Right of Way
- Public
- Private
- Railroad
- Paper Street

Old Lot Lines

Swmming Pools

Buildings
- Deck or Porch
- Garage (Detached)
- Residential
- Commercial
- Industrial
- Demolished
- Proposed

Parcels
- New Lot Line
- Line Removed
- Pave Edges

Pavement

Wetland

Streams

Planimetric & Topographic Features were derived from aerial photography taken on March 30th, 1998 and April 3, 2010. These features meet ASPRS Standards for 1" = 40' Class 1 map accurracy. All maps are projected to the Stateplane grid coordinate system, Zone 4151, Datum NAD83 & Units feet.

This data should not be used for legal description or conveyance purposes.

N

0 1,000 2,000 4,000 Feet

1 inch = 1,972.222222 feet

Town of West Springfield, MA, GIS

Created By: jczach *Date: 1/30/2018*

APPENDIX E

WEST SPRINGFIELD COMPLETE STREETS PLAN EXCERPTS

AND

COMPLETE STREETS ORDINANCE

HOWARD STEIN HUDSON

Engineers + Planners

Complete Streets Prioritization Plan

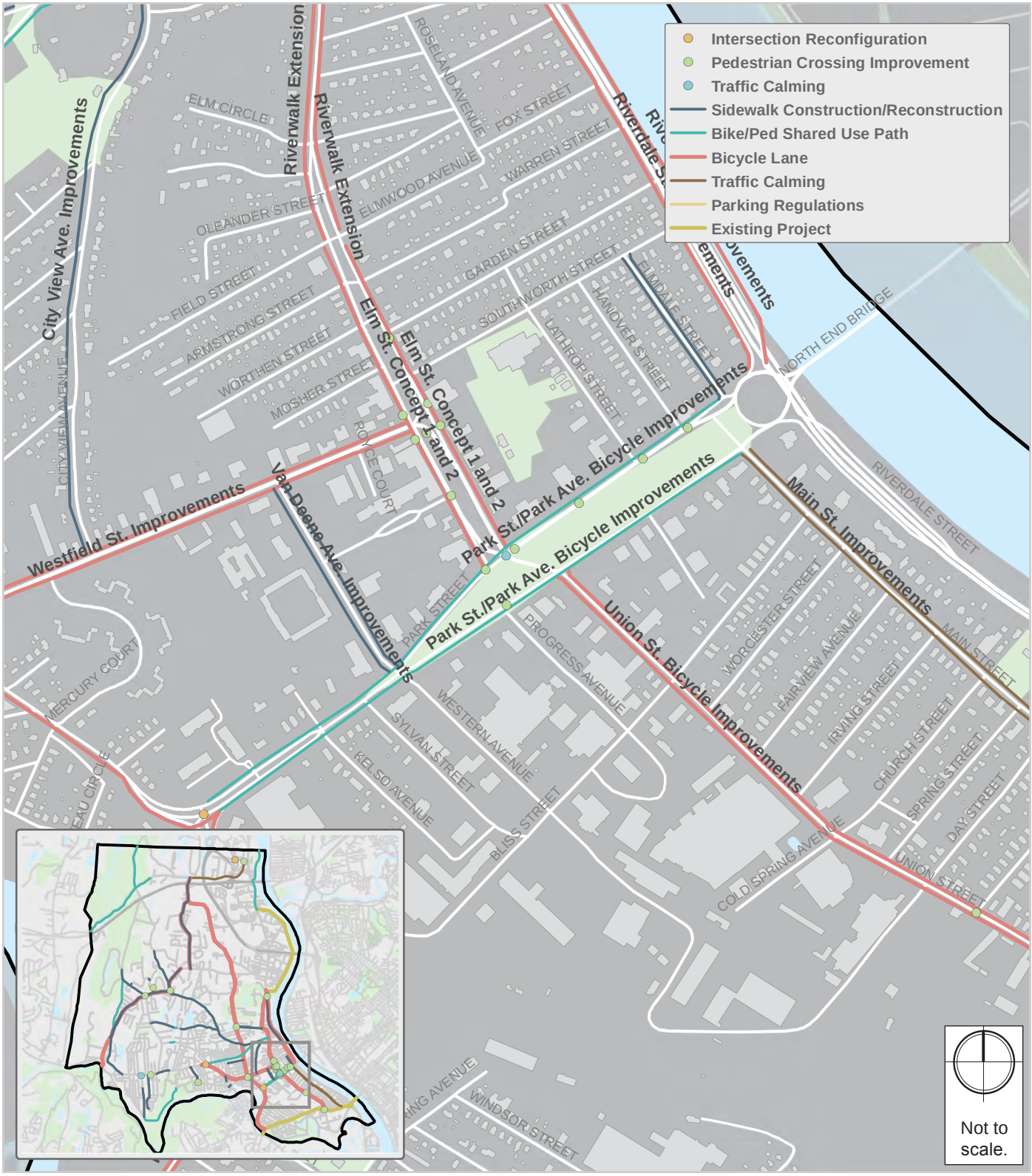
WEST SPRINGFIELD, MASSACHUSETTS

Prepared for
Town of West Springfield, Massachusetts

Prepared by
Howard Stein Hudson

April 2017

Park Street/Park Avenue



TOWN OF WEST SPRINGFIELD

AN ORDINANCE ADOPTING A COMPLETE STREETS POLICY

Move that the West Springfield Town Council waive the formal reading and hereby resolve, ordain, amend and enact the following ordinance entitled: ***Complete Streets***

Whereas, "Complete Streets" are defined as streets that provide safe and accessible options for all travel modes - walking, biking, transit, freight, commercial, emergency and passenger vehicles – for people of all ages and abilities;

Whereas, the Town has signed on to a Community Compact with the Governor's Office to adopt a Complete Streets policy and become a Complete Streets community to further pursue the design and construction of Complete Streets throughout our borders;

Whereas, Complete Streets principals shall guide future roadway and transportation plans for both new and reconstruction projects in the Town of West Springfield, and any exception to this shall be appropriately justified;

Whereas, the Complete Streets Program begins with the adoption of a binding policy outlining how a community will pursue inclusive initiatives that recognize the various modes of transportation that their constituents utilize;

Whereas, acceptance of this Complete Streets policy allows for the Town to pursue additional funding opportunities to advance and implement Complete Streets initiatives.

Whereas, it is in the best interests of the community to implement this Ordinance to enhance safe transportation options and improve the quality of life for the residents, businesses and visitors of West Springfield:

Now Therefore, the West Springfield Town Council hereby resolves, ordains, amends and enacts the following additions to the Ordinances of the Town of West Springfield:

COMPLETE STREETS

1. Vision

Complete Streets are designed and operated to provide safety and accessibility for all the users of our roadways, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, freight, commercial, and emergency vehicles and for people of all ages and of all abilities. Furthermore, Complete Streets principles contribute toward

the safety, health, economic viability, and quality of life in a community by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian, bicycle and vehicular environments throughout communities. They also assist in improving air quality and reducing energy consumption for a more sustainable environment.

2. Purpose

The purpose of West Springfield's Complete Streets ordinance, therefore, is to accommodate all road users by creating a transportation network that meets the needs of individuals utilizing a variety of transportation modes. The Town of West Springfield will ensure any plans, designs, operations and maintenance of streets that accommodate and are safe for all users of all ages and abilities as a matter of routine to the best extent practicable.

3. Goals

This ordinance directs decision-makers to consistently plan, design, construct and maintain streets for the accommodation of all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and freight and commercial vehicles in a context sensitive manner. This ordinance shall apply to all municipal roadway repairs, upgrades or expansion projects within the public right-of-way and private developments requiring approval from the Town. Procedures will be developed to ensure Complete Streets elements are incorporated into these activities.

4. Core Commitment

a. The Town of West Springfield recognizes that users of various modes of transportation, including, but not limited to, pedestrians, bicyclists, runners, hikers, transit and school bus drivers/riders, motorists, commercial vehicles, delivery and service personnel, freight haulers, and emergency responders, are legitimate users of streets and deserve safe facilities. "All Users" includes users of all ages and abilities.

b. The Town of West Springfield recognizes that all projects, new, maintenance, or reconstruction, are potential opportunities to apply Complete Streets design principles.

c. The Town will, to the maximum extent practical, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities for people of all ages and abilities.

d. Complete Streets design recommendations shall be incorporated into all publicly and privately funded projects, as appropriate. All transportation infrastructure and street design projects requiring funding or approval by the

Town of West Springfield, as well as projects funded by the state and federal government, such as the Chapter 90 funds, Town improvement grants, Transportation Improvement Program (TIP), the MassWorks Infrastructure Program, Community Development Block Grants (CDBG), Capital Funding and other state and federal funds for street and infrastructure design shall adhere to (comply with) the Town of West Springfield Complete Streets Ordinance. Private developments and related street design components or corresponding street-related components shall adhere to (comply with) the Complete Streets principles. New subdivisions, shall be required to comply with this ordinance. In addition, to the extent practical, state-owned roadways will comply with the Complete Streets resolution, including the design, construction, and maintenance of such roadways within Town boundaries.

e. The Mayor shall designate a staff person from one of the Town's municipal Departments that will be responsible for oversight of the ordinance.

5. Exceptions

Exceptions to the ordinance are only allowed upon approval by the Mayor based upon recommendation from his/her designee overseeing the ordinance, with documentation and data that indicate:

a. Facilities where specific users are prohibited by law, such as interstate freeways or pedestrian malls. An effort will be made, in these cases for accommodations elsewhere.

b. Where cost or impacts of accommodation is excessively disproportionate to the need or probable use or probable future use.

c. The existing right-of-way or adjacent land is constrained in a manner that inhibits addition of transit, bicycle, or pedestrian improvements. In this case, the Town shall consider alternatives such as lane reduction, lane narrowing, on-street parking relocation, shoulders, signage, traffic calming, or enforcement.

d. Where such facilities would constitute a threat to public safety or health.

e. Where construction and future maintenance will create significant adverse environmental impacts to streams, flood plains, wetlands, historical resources.

6. Best Practices

a. The Town of West Springfield Complete Streets ordinance will focus on developing and maintaining a connected, integrated network that serves all road users. Complete Streets will be integrated into policies, planning, and design of all types of public and private projects, including new construction, reconstruction, rehabilitation, repair, and maintenance of transportation

facilities on streets and redevelopment projects.

b. Implementation of the Town of West Springfield Complete Streets Ordinance will be carried out cooperatively within all departments in the Town of West Springfield with multi-jurisdictional cooperation, to the greatest extent possible, among private developers, and state, regional, and federal agencies.

c. Complete Streets principles include the development and implementation of projects in a context sensitive manner in which project implementation is sensitive to the community's physical, economic, and social setting. The overall goal of this approach is to preserve and enhance scenic, aesthetic, historical, and environmental resources while improving or maintaining safety, mobility, and infrastructure conditions. The context-sensitive approach to process, decisions making and design includes a range of goals by considering stakeholder and community values on a level plane with the project need. It includes goals related to livability with greater participation of those affected in order to gain project consensus.

d. The Town of West Springfield recognizes that "Complete Streets" may be achieved through single elements incorporated into a particular project or incrementally through a series of smaller improvements or maintenance activities over time.

7. Design Criteria

In the fulfillment of the goals of this Complete Streets Ordinance, the Town will follow the latest design manuals, standards and guidelines. This includes documents that are listed below but should not be precluded from considering innovative and non-traditional design options where a comparable level of safety for users in present or provided:

- The Massachusetts of Department of Transportation *Project Design and Development Guidebook*
- Massachusetts Department of Transportation Engineering Directives
- Massachusetts Department of Transportation Separated Bike Lane Planning & Design Guide
- The latest edition of American Association of State Highway Transportation Officials (AASHTO) *A Policy on Geometric Design of Highway and Streets*
- ITE Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
- National Association of City Transportation Officials Urban Bikeway Design Guide

- The United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Design Controls (2009).
- The Architectural Access Board (AAB) 521CMR Rules and Regulations
- Documents and plans created for the Town of West Springfield, such as bicycle and pedestrian network plans.

8. Performance Standards

Complete Streets implementation and effectiveness should be constantly evaluated for success and opportunities for improvement. The Town will develop performance measures to gauge implementation and effectiveness of the policies. These performance measures may include but are limited to:

- Total miles of marked bike lanes
- Total miles of roadway with shoulder 4 feet wide or greater
- Linear feet of sidewalk including new and reconstructed
- Closure of network gaps and removal of impediments in the transportation infrastructure
- Number of new curb ramps constructed and existing ramps reconstructed
- Number of existing curb ramps in need of reconstruction
- Crosswalk and intersection improvements
- Crash and Personal Injury Data
- Citations for Traffic Violations
- Number of new street trees planted
- Transit Ridership
- Public Participation
- Annual estimate of yearly Town investments in Complete Streets design and construction activities

9. Implementation

a. The Town shall make Complete Streets practices a routine part of everyday operations, shall approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.

b. The Town shall review and either revise or develop proposed revisions to all appropriate planning documents (master plans, open space and recreation plan, etc.), zoning and subdivision codes, laws, procedures, rules, regulations, guidelines, programs, and templates to integrate Complete Streets principles in all Street Projects. A committee of relevant stakeholders designated by the Mayor will be created as an advisory body to assist in overseeing the implementation of this initiative.

c. The Town shall maintain a comprehensive inventory of pedestrian and bicycle facility infrastructure that will be used in identifying and prioritizing projects to eliminate gaps in the sidewalk and bikeway network.

d. The Town shall promote inter-department project coordination among city departments with an interest in the public right-of-way in order to better use of fiscal resources.

e. The Town shall seek methods to educate all transportation users to better understand and utilize complete streets. This shall include but not be limited to Town website updates, social media posts, community access cable channel, public outreach meetings and informational pamphlets for the general public and students.

f. The Town will reevaluate Capital Improvement Projects prioritization to encourage implementation of Complete Streets implementation.

g. The Town will train pertinent Town staff and decision-makers on the content of Complete Streets principles and best practices for implementing the ordinance through dissemination of current information/concepts, attendance at workshops, project meetings and other appropriate means.

h. The Town will utilize inter-department coordination to promote the most responsible and efficient use of resources for activities within the public way.

i. The Town will seek out appropriate sources of funding and grants for implementation of Complete Streets policies.

j. The Town will investigate new and continue with existing programs such as Mass in Motion and Safe Routes to Schools which compliment Complete Streets initiatives.

k. Complete Streets infrastructure shall be maintained by the jurisdiction that owns the right-of-way it resides on unless binding agreements are made with other maintaining enteritis.

l. The Town will seek input from residents, developers and businesses as well as work with neighboring municipalities and the Department of Transportation to coordinate and optimize connectivity of improvements on both local and regional level.

[Signatures on the Following Page]

Per order of the West Springfield Town Council, approved on the 21st day of March 2016 by a vote of 8 in favor and 0 opposed.

George D. Condon, Council President — Date: 3/23/2014

Approved as to Form:

Kate R. O'Brien, Town Attorney — Date: 3/24/2016

Pursuant to Section 3-7 of the West Springfield Home Rule Charter, I hereby approve the Town Council's acceptance of the above.

William C. Reichelt, Mayor — Date: 3/24/16

Pursuant to Section 3-7 of the West Springfield Home Rule Charter, I hereby disapprove the Town Council's acceptance of the above.

William C. Reichelt, Mayor — Date

APPENDIX F

PHILIP J. COBURN ELEMENTARY WALK AUDIT

walkBoston

Mass in Motion
Better health. It's your move.

Philip G. Coburn Elementary Walk Audit
West Springfield, MA

April 25, 2016

Centers for Disease Control and Prevention Division of Community Health/Community Transformation Grant

Mass in Motion, an initiative of the MA Department of Public Health

MAKING MASSACHUSETTS MORE WALKABLE

Old City Hall | 45 School Street | Boston, MA 02108 | T: 617.367.9255 | F: 617.367.9285 | info@walkboston.org | www.walkboston.org

Purpose

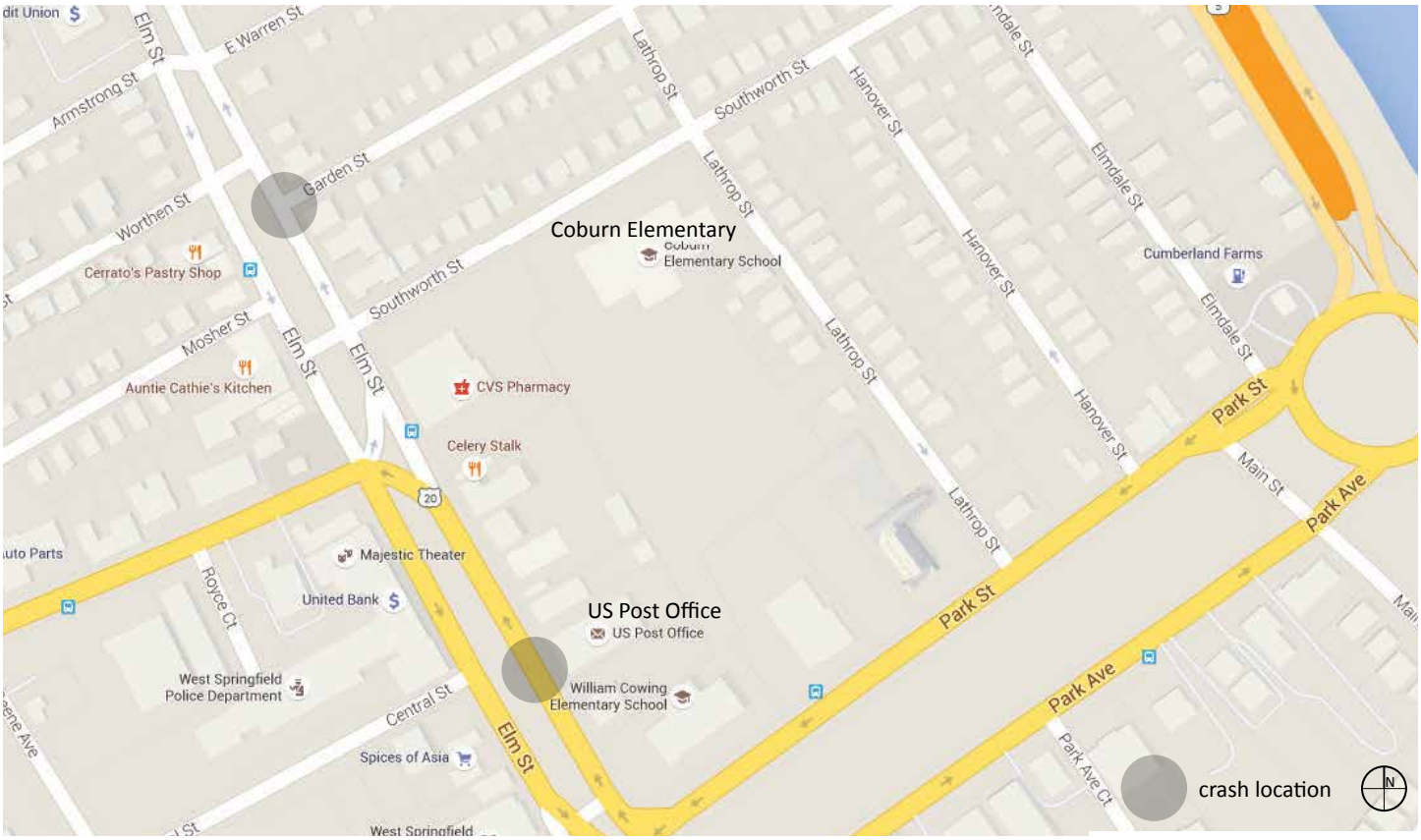
The safety of the walking environment is critical to both protect those children currently walking to school, and to promote the idea of walking to school to those students who live within walking distance. In December 2014, two crashes involving pedestrians crossing on Elm Street occurred on the same day. One crash killed a crossing guard at the Garden Street/Elm Street intersection just after she had safely stopped traffic for several students. The second crash occurred at the mid-block crossing in front of the US Post Office. These crossings are used regularly by Coburn School students and staff.

The West Springfield Mass in Motion Wellness Leadership Team (WLT) highlighted safe routes to school at the Coburn School as a priority in the community's Year 1 Mass in Motion (MiM) work plan. The MiM Coordinator reached out to the Coburn School in 2015 and conducted a work session with students mapping their routes to school and identifying any barriers to walking and bicycling. At the end of the school year, both the Principal and Vice Principal either retired or was reassigned.

In 2016, the MiM Coordinator reached out to the new Principal, Shelly St. George, who scheduled the walk audit.

Participants

Catherine Ratte	West Springfield Mass in Motion Coordinator
Stacey Beuttell	WalkBoston
Jeanne Galloway	City of West Springfield Health Department
Johanna Stacy	Pioneer Valley Planning Commission
Shelly St. George	Philip G. Coburn Elementary School Principal
Jim Czach	City of West Springfield Engineering Department



Walk assessment study area around the Coburn Elementary School

View of the Elm Street crosswalk looking west toward Westfield Street

Recommendations:

- Institute "no right turn on red" for drivers turning right from Westfield Street onto Elm Street. Limiting these turns would allow walkers to feel more comfortable walking across Westfield when traffic is stopped at a red signal.

- Upgrade traffic signal equipment to include pedestrian countdown signals. (*Acknowledge that underground drainage pipes may make installation difficult).

2. Mid-block road crossings on Park Street and Park Avenue provide little protection for walkers.

Park Street is a 3-lane, one way street with traffic moving west from the North End Bridge and Route 5. Its one-way pair, Park Avenue carries traffic in three lanes moving east to the North End Bridge. A wide, linear park fills the space between the two streets. Festivals are held in the warmer months within the park.

View of the mid-block crossing on Park Avenue leading to another mid-block crossing in front of the church on Park Street.

There are three un-signalized crossings on Park Street: (1) at the senior center and (2) in front of the First Congregational Church, and (3) on the north side of the Main Street/Park Street intersection. PVTA has bus stops at the first two crosswalk locations. The crossings have crosswalk signs and arrows pointing to the crosswalk on both sides of the road. The crosswalks are painted with a zebra pattern. There is one mid-block crossing on Park Avenue with no crosswalk signs.

Recommendations:

- Install crosswalk signs and advance crosswalk signs on Park Street and Park Avenue to warn drivers of the presence of pedestrians in the crosswalks.

- Study the feasibility and safety of consolidating the un-signalized crosswalks on Park Street. Consider the path network in the park as it sets up desire lines for people to cross the street.

- Monitor traffic speeds on Park Street and Park Avenue to ensure drivers are not driving at excessive speeds. Traffic speed is the number one threat to pedestrians.

3. Crossings distances at the Elm Street/Park Street intersection and the Elm Street/Park Avenue/Union Street are long.

The Elm Street/Park Street intersection is identified as a 2011-2013 HSIP crash cluster (31 crashes; no fatals; 8 injuries), which means that this intersection is in the top 5% of crash clusters in the region between the years of 2011-2013 (as reported to the Pioneer Valley Planning Commission). Crossing Elm Street is a three-stage crosswalk where people walking must cross 5 lanes of oncoming traffic. Crossing Park Street involves one long crosswalk across three lanes of traffic. These long crossing distances can discourage people from walking to the park and the Merrick-Memorial Neighborhood.
The pedestrian signal equipment at the Elm Street/ Park Avenue/Union Street intersection is a smaller version of a standard vehicular traffic signal. It is mounted at a pedestrian scale, but is confusing to drivers and pedestrians alike.

Recommendations

- Consider narrowing or eliminating travel lanes to tighten curb radii, construct curb bump-outs and slow traffic at both intersections

- Upgrade traffic signals at both intersections to include countdown pedestrian signals across both sides of the intersection.

Elm Street/Park Street intersection is a HSIP crash cluster zone

Park Avenue and Union Street intersection with long crossing distances and confusing pedestrian signal equipment

4. The Main Street/Park Avenue intersection presents long crossing distances and confusing traffic signal equipment.

Similar to the Elm Street/Park Avenue intersection, the lane widths and crossing distances at this intersection are long. There is a crossing guard at this location during school arrival and dismissal. There are marked crosswalks, but no pedestrian signals. Furthermore, there is a second crosswalk at the rotary entrance with a Rectangular Rapid Flash Beacon (RRFB) less than 100 feet from the traffic signal. The proximity of the RRFB to the traffic signal is potentially dangerous for pedestrians. Those walking would push the RRFB button and begin crossing, while drivers who just began to accelerate would have to hit their brakes. Drivers may not anticipate or see pedestrians at this location. If the RRFB is tied into phasing of traffic light, it would extend the wait time for pedestrians and the RRFB would not function as designed.

The mismatch of traffic signal equipment could be due to different jurisdictions. MassDOT designed and implemented the rotary improvements, while the traffic signal equipment is owned and operated by the City of West Springfield.

Recommendations:

- Install pedestrian countdown signals at the intersection

- Study the possibility of re-routing pedestrian traffic away from the rotary. Changes could include removal of RRFB, crosswalk and sidewalk network leading to the rotary. Any improvements done at this intersection should be coordinated with modifications to the Main Street/Park Street intersection as well (e.g., removal of RRFB, crosswalk, and sidewalk network).

Rectangular Rapid Flash Beacons installed at the rotary are within 100' of the traffic signal and may pose a danger to pedestrians.

APPENDIX G

ENGINEERING PROPOSALS

Proposal

Planning and Transportation Engineering for Sections of Park Street and Park Avenue

Submitted to: Town of West Springfield

Submitted by: Greenman-Pedersen, Inc. (GPI)

January 29, 2018

January 29, 2018

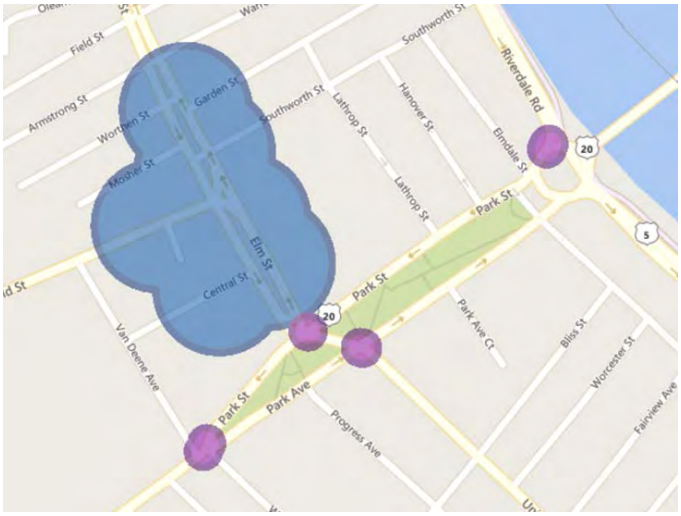
Mr. James J. Czach, PE
Town Engineer
Department of Public Works
Town of West Springfield
26 Central Street, Suite 17
West Springfield, MA 01089

SUBJECT: Planning and Transportation Engineering for the Park Street and Park Avenue Corridor

Dear Mr. Czach:

Greenman-Pedersen, Inc. (GPI) is pleased about the opportunity to continue working with the Town of West Springfield to provide ***Planning and Transportation Engineering for the Park Street and Park Avenue Corridor.*** GPI has previously worked with the town on designing improvements at the intersection of Elm Street at Park Street/Park Ave and Union Street and is eager to continue working with the Town on this critical corridor.

> ***"My experience with GPI has been excellent and I have enjoyed working with them. They have been responsive to the Town's needs and I would recommend them without reservation for traffic engineering, design, and construction inspection for other municipalities***
>
> **John "Jay" Grande-**
> **Former Framingham Planning Board Director**



Project Understanding

Based on a review of MassDOT Top Crash Locations, the study area includes 4 high crash clusters.

GPI assisted the Town of West Springfield in completing an individual assessment of all crossing guard locations throughout the town and developed a report and supporting engineering documents to implement the corrective actions as well as other improvements.

GPI also completed the design and implementation of the recent traffic signal and pedestrian upgrades for the intersection of Park Street at Elm Street and Park Avenue at Union Street.

Given the proximity of Town Hall, renovated library, post office, council on aging and many small businesses, this area has significant pedestrian activity.

While the corridor is an arterial road carrying commuter traffic, the fact that there is a wide grass median and an active commercial area should be promoted and featured as part of any further upgrades or enhancements in this area.

Based on traffic volumes of close to 30,000 vehicles a day associated with the MGM Springfield, it is estimated that an increase of close to 1,500 vehicles per day could be passing through this corridor. With the area already experiencing a high number of pedestrian/vehicle conflicts; the increased traffic

SECTION 3:

SCOPE OF WORK

The following Scope of Work is anticipated to provide planning and engineering services to reconstruct the Park Street/Park Avenue Corridor from the Elm Street/Union Street intersection to the North End Bridge Rotary.

Task 1: Site Visit/Inventory

Representatives from GPI will meet with local officials to review the existing conditions along the corridor and critical intersections; including, at a minimum:

- Elm Street
- Union Street
- Main Street (Route 5)
- Additional intersections should also be reviewed, including:
  - Elmdale Street
  - Hanover Street
  - Lathrop Street
  - Progress Avenue
  - Western Avenue
- Traffic controller data previously inventoried by GPI as part of our Elm Street/Union Street upgrade will be collected and reviewed. In addition, an inventory of the traffic signal equipment, operations and capabilities will be completed at the Main Street and Western Avenue traffic signals will be documented and reviewed.
- Inventory of wheelchair ramps and sidewalks along the corridor to assess ADA Compliance
- Inventory/Assessment of landscaping and tree condition
- Assessment of drainage and existing utilities
- Photo inventory of corridor
- Identification of bus/transit stops and facilities
- Geometric conditions and lane use

Data Collection

In addition to a physical inventory and assessment of the study area, it will be necessary to obtain updated traffic counts.

The following data is anticipated:

- While the town may have traffic counts from previous studies, to provide an accurate assessment of existing conditions, GPI recommends a complete data collection program including Peak Hour and multiple day traffic counts in the study area. This is initially anticipated to include:
- Peak Hour Turning Movement Counts (TMC) at the following intersections:
    - Elm Street
    - Union Steet
    - Main Street (Route 5)
    - Additional intersections should also be reviewed, including:
        - Elmdale Street
        - Hanover Street
        - Lathrop Street
        - Progress Avenue
        - Western Avenue
- TMC data will be collected for three (3) peak hours
    - Weekday 7-9 AM
    - Weekday 2-6 PM (School Activity in the area)
    - Saturday 11 AM-2 PM
- 48 – 72 Hour Automatic Traffic Recorder Counts
    - Park Street west of Route 5
    - Park Avenue west of Route 5
    - Elm Street between Park Street and Elm Street
- Crash Data
    - Most recent 5-year period from West Springfield Police for:
        - Elm Street at Westfield Street
        - Elm Street between Westfield Street and Park Street
        - Park Street at Elm Street
        - Park Ave at Union Street

Task 2: Field Survey and Base Plan Development

GPI maintains an in-house field survey division capable of providing all forms of survey from Aerial, mobile and terrestrial LiDAR to traditional topographic (RTK) survey. GPI will research available base plans and coordinate with the Town and local utility companies to research all underground and overhead infrastructure and right of way information. It is anticipated that survey for this project will be collected through a combination of terrestrial LiDAR Scanning and topographic (RTK) survey.

Based on the field survey and subsequent research GPI will prepare AutoCAD base plans suitable for the design and construction improvements.

Task 3: Engineering Analysis/Functional Design Report

GPI will evaluate past studies and analysis prepared by the town's consultants the Pioneer Valley Planning Commission (PVPC) and will also develop independent recommendations for both corridor and intersection improvements along Park Street and Park Avenue. Our goal will be to work with the Town to provide the most comprehensive complete street concepts based on available funding levels. Considerations would include: enhanced bicycle accommodations including potential cycle tracks, improved pedestrian access through ADA compliant sidewalks, crosswalks and accommodations at traffic signals, streetscape furnishings and landscape architecture to enhance the overall walkability and usability of the vast open greenspace, exploring new technologies to enhance corridor communications and provide for future smart city applications including advanced smart traffic signals, smart street lighting, smart parking, wi-fi access and connected infrastructure. These advances enhance the sustainability of both infrastructure and the overall place.

GPI has explored some of these options with the town as part of the upgrades to the Park Street/Elm Street signalized intersection; however, funding options at the time were limited and additional enhancements were not feasible.

In addition to approaching the project with a Complete Streets and Sustainability mindset, traditional traffic analysis and operations through the corridor will be developed. We would anticipate a design year scenario of between 10 and 20 years, depending on the desires of the town

A review of daily traffic trends and patterns as well as a review of the crash history will also be completed. The traffic operations and proposed improvements will be documented in a Functional Design Report.

Task 4: Conceptual Design

The engineering analysis will be used to assist GPI's planners, urban designers and traffic engineers to develop up to three (3) conceptual designs for the Park Street and Park Avenue corridor and adjacent intersections. These plans are anticipated to address vehicle traffic operations, on-street parking, pedestrian and bike activity and landscaping and pedestrian scale street furnishings and architecture.

As part of this process GPI, in cooperation with Town staff, would undertake a significant Public Outreach effort to share design alternatives and build overall project consensus. A series of collaborative public informational meetings would be recommended as outlined under Task 7, to ensure overall public support and endorsement by town officials.

Task 5: Construction Documents

Upon development of an endorsed project concept, the project will advance to the development of construction documents. It is anticipated that all work will be completed within the existing Right-of-Way (ROW). If ROW is required, it is assumed that the town will acquire the necessary ROW or obtain Right-of-Entry from individual owners. GPI maintains in-house Right of Way specialists and would be available to prepare and submit right-of-way plans if needed and requested by the town. However, an amendment to the Scope of Work would be required.

GPI will prepare Preliminary Construction Plans, Construction Specifications and a Construction Estimate for the proposed work for the Town's review. The preliminary design is anticipated to include:

- Typical Sections
- Construction Details
- Profiles
- Cross Sections
- Construction Plans
- Grading Plans
- Drainage and Utility Plans
- Curb Tie Plans
- Pavement Marking and Signing Plans
- Traffic Signal Layout and Operation Plans
- Landscape Plans
- Special Provisions
- Construction Items and Quantities
- Construction Estimate

Upon review of the Preliminary Design by the town, GPI will prepare the final Construction Documents including the Construction Plans, Specifications and Final Construction Estimate. The final documents will include any necessary revisions to address the comments or concerns of the town.

As part of the Final Design, GPI will obtain Mast Arm Borings for any proposed traffic signal mast arms. This will include:

- Establish locations for mast arm borings and develop location plan for the explorations.
- Provide general specifications for types of borings to be performed.
- Analyze results of exploration program.
- Include soil boring results in the Special Provisions for the project.
- Observe borings.

Task 6 – Construction Services

GPI will be available to assist the town throughout the construction phase of the project. Services may include:

- Attendance at Pre-Construction Meeting
- Response to RFI's during bidding or construction
- Fine Tuning of Traffic Signal Operations
- Final Inspection Services

Full-time Construction Supervision or Resident Engineering services are not anticipated but may be provided if requested by the town. An addendum to the scope of work would be required.

Upon completion of the construction work, GPI will perform a final inspection in the presence of town officials and the Town's Traffic Signal Contractor to ensure the signals are operating in accordance with the design plans and specifications.

GPI will also be available to assist the signal contractor with the fine tuning and adjustment of the traffic signals at this time to ensure compliance with the design.

Task 7 - Meetings

Public outreach and meetings at the start of the project will be a critical factor in achieving a successful project. As such GPI anticipates a number of public meetings, including:

- Project Kick-Off Meeting
- Design Charrette/Informational Meeting – 1 (Initial)
- Design Charrette/Informational Meeting - 2 (Follow Up)
- Design Charrette/Informational Meeting – 3 (Final- if needed)
- Preliminary Design Review with town
- Public Progress Meeting/Selectmen
- Final Design Review with town

Section 4

-Fee

SECTION 4:

FEE

The following fee has been estimated to provide the anticipated planning and engineering services:

TASK	HOURS	FEE
1. Site Visit/Inventory	32	$5,760
2. Field Survey/Base Plan Development	200	$20,500
3. Engineering Analysis/Functional Design Report	104	$13,940
4. Conceptual Design	236	$37,900
5. Construction Documents (Preliminary & Final)	660	$87,400
6. Construction Services (Not Full-Time)	120	$21,400
7. Meetings (8)	160	$27,800
Labor Sub-Total	***1,512***	***$214,700***
Expenses (Travel, Printing, Data Collection)		$10,085
TOTAL		***$224,785***

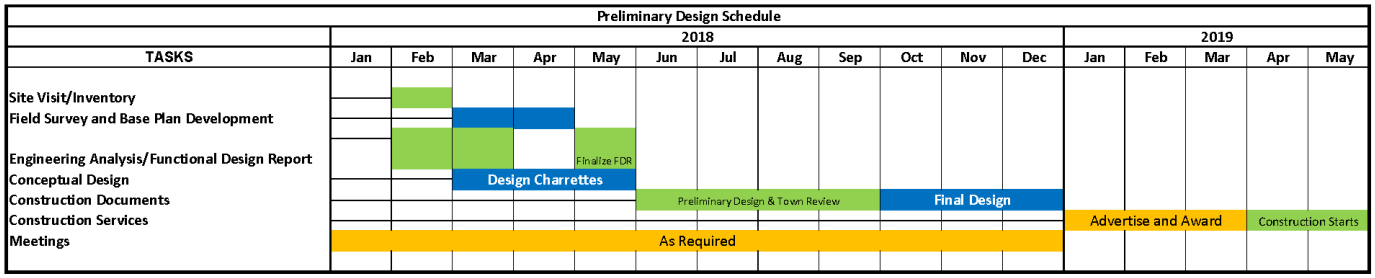
Section 5

-Schedule

SECTION 5:

SCHEDULE

The following schedule has been established:



HOWARD STEIN HUDSON

Engineers + Planners

Planning and Transportation Engineering: Sections of Park Street and Park Avenue

Scope of Work and Fee

Prepared for

Town of West Springfield, Massachusetts

Prepared by

Howard Stein Hudson

January 29, 2018

HOWARD STEIN HUDSON

January 29, 2018

James J. Czach, P.E., Town Engineer
Department of Public Works
Town of West Springfield
26 Central Street, Suite 17
West Springfield, MA 01089

Re: Transportation Planning and Engineering Services for Park Street and Park Avenue

Dear Mr. Czach:

In response to your Request for Scope of Work and Fee, Howard Stein Hudson (HSH) is pleased to provide this letter proposal for planning and transportation engineering consulting services related to the sections of Park Street and Park Avenue from the intersection of Park Street/Park Avenue/Union Street and Elm Street to the North End Bridge Rotary. We understand that the Town will submit the successful proposal along with its application for a Transportation Planning Grant from the Massachusetts Gaming Commission (MGC), and we have structured our proposal to address those criteria.

Understanding of Grant Criteria

The MGC issues Transportation Planning Grants from the Community Mitigation Fund only to remedy impacts related to a nearby casino facility. Based on the criteria in the MGC's 2017 Mitigation Fund Guidelines, eligible Transportation Planning projects must have a defined project area and issues to be investigated as well as a clear plan for implementation of the results of the planning efforts. The MGC also wants to see a commitment to planning on a regional basis. The Pioneer Valley Planning Commission (PVPC) recently completed a study of this area for the Town of West Springfield, which should reinforce to the Commission that this area is important regionally. The Town has also been developing plans for this area to improve multi-modal transportation access. These roadways are adjacent to the northerly and southerly sides of the Town Common where events are held throughout the year and which is in one of the Town's Historic Districts. The immediate area is a network of many small businesses, schools, a newly renovated public library, council on aging, Town Hall, and a post office which experiences a significant amount of traffic from all modes of transportation. There are numerous pedestrian crossings, transit stops (some with bicycle parking accommodations), and on-street parking is allowed in certain areas. Improving access for

pedestrians and cyclists will provide West Springfield residents with better, safer alternatives to driving. The pedestrian and bicycle improvements are also a method to address traffic congestion and improve air quality. If people can walk and bike safety to these destinations, they may choose to avoid the traffic by doing so rather than getting into a car.

Project Understanding

HSH has worked with the Town of West Springfield on its Complete Streets Prioritization Plan, which has generated several projects in the area that are worthy of further study and design. One such project currently underway is along Park Street and Van Deene Avenue which involves pedestrian improvements. Some of these improvements are contained within the Park Avenue/Park Street project limits and focus around pedestrian crossings, signs, and markings. Once design begins for this new project, HSH will coordinate both projects to ensure both projects align seamlessly.

Additionally, HSH is working with the Town on the design of Elm Street from the Park Street/Park Avenue intersection to Westfield Street. The design of this project is being funded by a Gaming Commission grant as well as with Town funds. That project is currently in the early stages of design as we await survey to be completed. As the two projects abut each other at the Park Avenue/Park Street and Elm Street intersection, having the continuity and overlap of survey will help reduce survey costs and time to survey. Additionally, as this project proposes both short- and long-term improvements, HSH will coordinate both projects based on design status and the funding opportunities.

HSH will help the Town simultaneously advance its goals of addressing casino-related traffic impacts while also providing improved pedestrian and bicycle infrastructure throughout the study area.

HSH will utilize the following plans, reports, and ordinances for work either completed or currently being worked on to ensure that we provide a fully informed approach to a design:

- West Springfield Complete Streets Ordinance, March 2016;
- Pedestrian and signal improvements to the intersection of Elm Street, Park Street, Park Avenue and Union Street. Recently completed;
- Preliminary Plans for New Pedestrian Crossings on Park Avenue and Park Street under design and to be built in 2018; and

- Complete Streets Concepts for Park Avenue and Park Street Developed for the Town in 2014.

To that end, as part of the preliminary design HSH will develop three design concepts which will take into account the current proposed cross section along Elm Street as well as those proposed as part of the 2014 Complete Streets Concepts. Additionally, HSH will evaluate the pedestrian and signal improvements at the intersection of Elm Street, Park Street, Park Avenue, and Union Street to see how the developed concepts can be integrated into the operations at the intersection.

Once a preferred concept has been identified, HSH will develop through preliminary and final design documents for construction including related services such as traffic data collection, meetings, plans, and documents for advertising for construction.

Qualifications of Team

Firm History

Founded in 1987, Howard Stein Hudson (HSH) is a full service engineering and planning firm that provides traffic engineering, transportation planning, civil engineering, complete streets, construction services, and public involvement for municipalities and other public agencies, design and construction firms, developers, corporations, and environmental consultants. HSH takes a creative and collaborative approach with clients, relying on sound technical, planning, and engineering expertise, and combining it with knowledge of community/stakeholder issues and necessities. HSH staff understands the often contrasting and complex needs of all parties involved in a project, and offer creative problem-solving and innovative options to build consensus. We are more than engineering experts at HSH – we are the keystone of complex projects. With offices in Boston and Chelmsford, HSH's multi-disciplinary staff works seamlessly with project teams from conceptual design, environmental permitting, and through construction, providing keen insight into a project's transportation and site-civil issues, and creatively developing mitigation for project impacts. HSH is also adept at managing large, multi-disciplinary teams that require extensive coordination with government entities, abutters, neighborhoods, communities, and other stakeholders.

The second key aspect is our multi-disciplinary knowledge of the key issues on a project. What will be the hot buttons for the reviewing agency? How can we foresee those hurdles and work to ensure that our project has addressed them? Our staff is comprised of subject matter experts in the necessary disciplines, and we are proactive to ensure that your project is progressing.

Project Delivery

HSH takes pride in working with municipalities and helping them advance projects from concept through construction. The Elm Street Project, which has received funding for design from a Gaming Commission Grant and additional funds from the Town, is a great example of a similar project. The design will incorporate innovative, separated bike lanes along the corridor and bike crossings at the intersection of Elm and Westfield Streets focused around improvements for all modes of travel. Other similar projects are highlighted under Project experience.

HSH will work with the Town to deliver a project that fits within the Town's budgetary needs and constraints for construction. Our experience with planning, design, and construction gives us the experience above our competition to guarantee a project can be built as designed and be on time and on budget.

Complete Streets

We at HSH get Complete Streets. It begins with our company-wide commitment toward Complete Streets and Active Transportation, and continues with our subject matter experts that have been at the cutting edge of Complete Streets for many years. We pride ourselves on knowing how to design and build Complete Streets. Using a comprehensive approach, we evaluate the needs of all users by identifying the most vulnerable users and the greatest needs for the community at-large. This approach allows us to create a balanced design that serves the most vulnerable users, and helps fulfill the greatest needs of the community within the context and character of the roadway.

Complete Streets is about safety, mobility, connectivity, equity, economic opportunity, health, and the environment. HSH developed your Complete Streets Prioritization Plan. This allowed projects in West Springfield to be eligible for construction funding through Tier 3 of the Complete Streets Funding Program. The design of this project could take advantage of that funding as part of the available funding for construction.

HSH is committed to providing safe, comfortable, and accessible pedestrian and bicycle facilities on all roadway projects. HSH has complete fluency in the standards and guidelines that apply to pedestrian and bicycle facilities on projects. These standards include those found in the *2009 Manual on Uniform Traffic Control Devices (MUTCD),* the AASHTO Green Book, the fourth edition

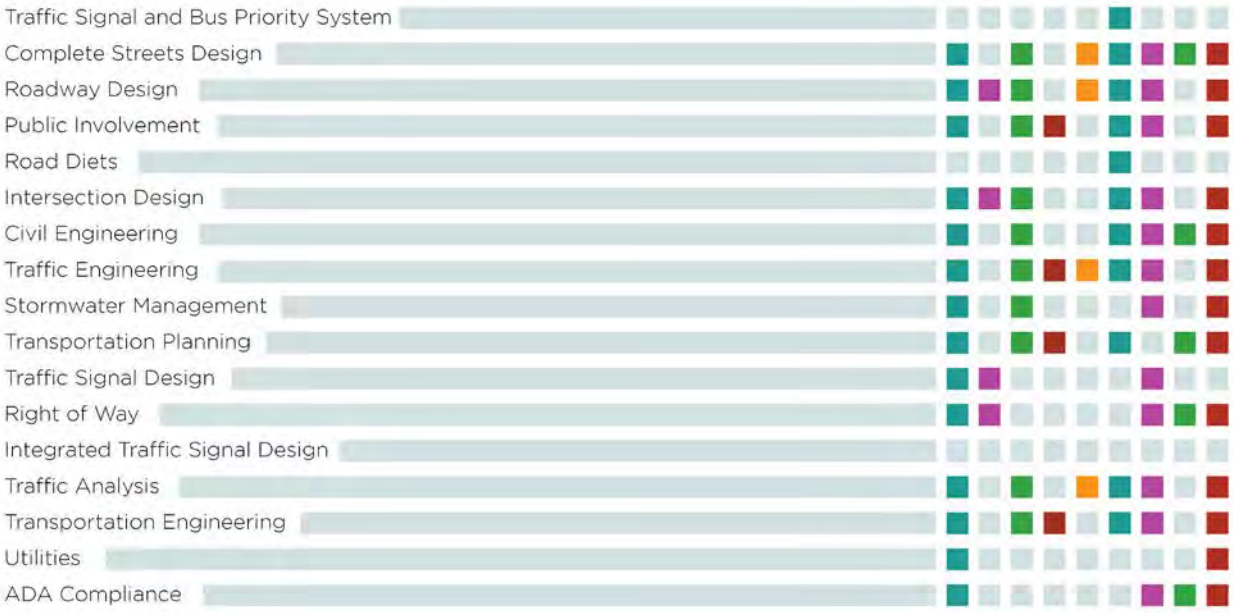
of AASHTO's *Guide for the Development of Bicycle Facilities,* and the newly-released MassDOT *Separated Bike Lane Planning and Design Guide.* While designing to current standards is our objective, we look beyond these standards to focus on the comfort/stress level of pedestrian and cyclists, as well as a way to further promote mode choices and eventually mode shifts.

Project Experience

The projects listed in the following table have been selected to best demonstrate our relevant capabilities to the Town of West Springfield. Full descriptions of each project are included in **Appendix B**.

PROJECTS

SERVICES



Scope of Services

Task 1: Data Collection

SURVEY

Brennan Consulting will complete all necessary roadway survey for this project. We propose to perform a comprehensive highway survey of the existing Right of Way within the limits of work. The highway survey will adhere to the following:

- Plans will be prepared using AutoCAD Civil 3D in the English system of measurements;
- Work will conform to MassDOT's Field Survey Guidelines and Baseplan Requirements for Survey and Design Consultants, Oct 2014 Edition;
- Base plan will be tied horizontally to the North American Datum 83 System and elevations referenced to 1988 NAVD;
- Right-of-way and property lines will be computed and added to the base plan;
- The base plan will include all property ownership names per the latest assessor' information;
- All bounds within the project locus will be located;
- A Digital Terrain model (DTM) of the existing surface will be prepared; and
- Plans will show all surface and subsurface utilities.

TRAFFIC COUNTS

HSH will collect vehicular turning movement counts, as well as bicycle and pedestrian counts at the following locations:

- Elm Street/Park Street (collected in January 2018, under Elm Street/Westfield Street project);
- Elm Street/Park Avenue/Union Street (collected in January 2018, under Elm Street/Westfield Street project);
- Park Street pedestrian crossings from the Town Common to:
  - The Willam Cowing Elementary School;
  - The Senior Center;
  - The "Make Way For Ducklings" Nursery School;
  - The Rotary Liquors;

  - The pedestrian crossing just south of Elmdale Street; and
  - The pedestrian crossings across Elmdale Street and Hanover Street;
- The Park Avenue pedestrian crossings from the Town Common to:
  - The 109 and 117 Park Avenue buildings; and
  - The Pintus Indian Palace;
- Park Street/Main Street; and
- Park Avenue/Main Street.

We will also collect Automatic Traffic Recorder (ATRs) counts along Park Street, Park Avenue, Elm Street, Union Street, Main Street, North End Bridge, and Route 5 on either side of the roundabout These ATRs will record daily volumes, speeds, and truck percentages for the day.

FIELD OBSERVATIONS

HSH will review the survey file and perform field observations prior to commencing the design.

ASSUMPTIONS

Brennan Consulting has estimated $6,000 for Traffic Police. Any amount above that will need to be negotiated with the Town.

Task 2: Conceptual Design

HSH will collect and review crash data as the two intersections within the project area – Park Street/Main Street and Park Avenue/Main Street – are listed as HSIP clusters for 2013-2015. The crash data and the field observations will provide information on existing conditions that led to these crashes and provide guidance with the design to reduce the chance of exacerbating the existing issues.

HSH will use the collected traffic counts to determine peak-hour factors, truck percentages, applicability of pedestrian phasings, and traffic variations throughout the day. Furthermore, with this information HSH will determine, tabulate, and discuss existing and future Level of Service (LOS), volume-to-capacity ratio, vehicle delays – in accordance with MassDOT's *A Guide on Traffic Analysis Tools* – and 95th percentile queue calculations.

HSH will develop up to three (3) conceptual design alternatives, which will take into consideration the safety issues – revealed from the crash data and field observations, as well as the operational analysis results. The conceptual design alternatives will be reviewed by the Town. Also included will be a preliminary estimate associated with each alternative. The Town will be responsible for selecting one design alternative which HSH will then carry into Preliminary and Final Design.

Task 3: Preliminary Design

Upon meeting with the Town, HSH will advance the preferred alternative through preliminary design. The preliminary design submittal will include the following:

- Cover Sheet, Legend, and Notes;
- Typical Sections;
- Constructions plans;
- Construction details;
- Traffic Signal Plans;
- Pavement marking and signage plans;
- Temporary traffic control details; and
- Preliminary Right of Way (ROW) plans.

Also included in the preliminary design submittal will be special provisions and a preliminary cost estimate. A reliable cost estimate will be completed in time for the Town to review and have HSH hold a public meeting unveiling the design to be advanced through construction. Any specifications from the Town will be included.

Task 4: Final Design

HSH will advance the preliminary design through final construction documents. The deliverable will include final construction plans, ROW plans, layout and instrument, specifications, and construction cost estimate ready to be advertised for construction. In addition to updating all plans included in Preliminary Design, the final design package will also include more detailed grading plans and any additional construction details that will be required.

It is assumed that the Town will facilitate the right-of-way process if any easements are required. This task also includes providing responses to any comments received on the preliminary design from the Town.

Task 5: Meetings and Public Outreach

We have assumed one (1) kickoff meeting with the Town, one (1) meeting for utility coordination with utility owners (including a site walk), and one (1) public information meeting. HSH anticipates the public meeting will be held after submitting the Preliminary Design.

We propose to participate in bi-weekly conference call project update meetings as needed. The cost of these meetings is carried within the scope for the preliminary and final design tasks.

HSH's participation in other additional meetings beyond those listed above will be billed at the rates shown in the attached rate schedule.

Task 6: Bidding Assistance

PRE-BID ACTIVITIES

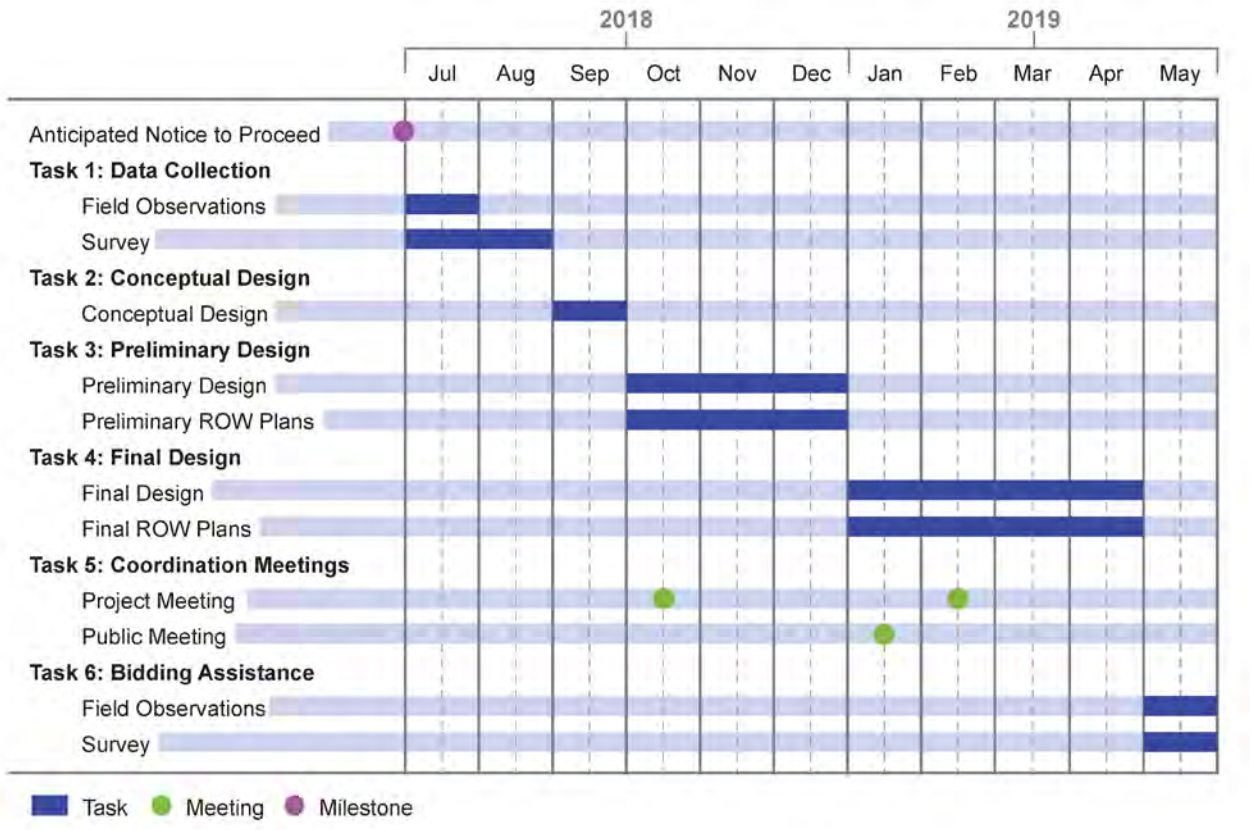
HSH has included limited scope and budget to respond to contractor questions during the project bid phase. This includes organizing the bidder questions by discipline, providing the response and issuing up to 2 addenda to facilitate the bids. This effort will result in a better understanding of the project for bidders and a more competitive and even bid process.

This task assumes that HSH will respond to questions and issue addenda for work that we design. Any questions about the construction contract, general conditions of the contract, payment, funding and other non-design related questions will be answered by the City.

This task does not include preparation of the construction contract, project advertisement, bid review or construction administration—this is assumed to be performed by the City or others.

Schedule

Our proposed schedule is shown in the following graphic.



Fees for Services

Fees will be billed on a Time and Materials basis and in accordance with the attached fee schedule. The fees for labor and direct costs are summarized by task in the table below. The fee estimate is **$234,900**.

Task	Budget
Task 1. Data Collection	$5,400
Task 2. Conceptual Design	$16,200
Task 3. Preliminary Design	$66,200
Task 4. Final Design	$61,300
Task 5. Coordination/Meetings	$8,300
Task 6. Bidding Assistance	$10,000
Direct Costs (survey, travel, printing, misc.)	$67,500
Total	**$234,900**

Materials or reimbursable (direct) expenses will be billed at cost plus ten percent. Materials or reimbursable expenses are actual expenditures made by HSH in the interest of the Project and include but are not limited to printing, photocopying, delivery charges, postage, research materials, local transportation, and any other expenses incurred in the interest of the Project. Reimbursable expenses do not include permit filing fees.

Meetings are budgeted as outlined above; additional meetings, if required, will be billed at the hourly rates shown in the attached rate schedule. Additional team and agency meetings generally cost between $400 and $600 per meeting, depending on the duration of each meeting and the staffing required. Additional community meetings range higher at up to $1,000 per meeting depending on the need to provide supporting materials/graphics and the overall length of the meeting and any possible team preparation. All additional meetings will be invoiced on a time and materials basis based solely on hours expended as well as any travel costs.

Approval

Should you have any questions or require any additional information, I can be reached by phone at (617) 348-3303 or via email at tstokes@hshassoc.com. Our Principal in Charge, Mark Gravallese, is available to you at any time should you have any questions or require additional information. He can be reached by phone at (617) 348-3353 and by e-mail at mgravallese@hshassoc.com. Our Project Manager, Bridget Myers, P.E., is available by phone at (617) 348-3325 and by email at bmyers@hshassoc.com to provide additional information.

We will commit our staff and resources in ensuring we meet your expectations. Thank you for contacting HSH; we would love to continue working with you to advance Complete Streets projects in the Town of West Springfield.

Sincerely,

Thomas A. Stokes, P.E.
Chief Executive Officer

Approved:

Town of West Springfield

By: _____

Date: _____

Hourly Billing Rates thru June 30, 2018, for Howard Stein Hudson

Project Role	Hourly Rate
Principal	**$200 - $300**
Senior Engineer/Planner	**$150 - $225**
Engineer/Planner	**$125 - $175**
Junior Engineer/Planner	**$100 - $150**
Graphics/Production	**$95 - $135**
Co-op/Administrative Assistant	**$70 - $125**

Rates subject to annual adjustment on July 1.

Tighe&Bond
Engineers | Environmental Specialists

32-1975-P033
January 29, 2018

Mr. James J. Czach, P.E., Town Engineer
Town of West Springfield
Department of Public Works
26 Central Street, Suite 17
West Springfield, MA 01089

Re: Response to RFP: Planning and Transportation Engineering for Sections of Park Street and Park Avenue

Dear Mr. Czach:

Tighe & Bond is pleased to provide the Town of West Springfield (Town) this proposal for Professional Engineering Services related to the planning and transportation engineering for the sections of Park Street and Park Avenue generally between Elm Street and the North End Bridge Rotary (Project) which represents approximately 3,100 linear feet of roadway corridor. It is our understanding that the Town plans to use this proposal, in whole or in part, in a Transportation Planning Grant application to the Massachusetts Gaming Commission's 2018 Community Mitigation Fund.

While we have developed this proposal to align with the general scope outline presented in the Town's RFP, we understand that there is a need to maintain some degree of flexibility in certain scope items to accommodate more refined Project needs that may be identified during later stages of the Town's application review process or to adapt to a specific grant amount that may or may not match the amount requested by the Town. Accordingly, we will be glad to review the scope items presented in this proposal with you in more detail and, when necessary, further refine it to suit the Town's needs.

We understand that after completion of the Massachusetts Gaming Commission's screening process and selection of the communities that will receive grants, the Town will seek a more detailed scope, budget, and timetable for implementation of the funded improvements.

PROJECT UNDERSTANDING

Park Avenue and Park Street abut the Town Common, which is one of the Town's Historic Districts and a popular cultural destination for events. Any roadway improvement project in the area will require a high degree of sensitivity not only to multimodal transportation needs, but also to the historic and cultural context of the area.

In addition to the current traffic volumes and multiple transportation oriented facilities that exist in the area, traffic projections for the MGM Casino project predict an increase in traffic through the corridor. The Town expects that adjacency to major roadways such as Route 5 and Interstate 91 (I-91), coupled with the casino project in Springfield, would cause Park Avenue and Park Street to experience higher than forecasted traffic volumes due to cut-through traffic.

Both Park Avenue and Park Street are under the jurisdiction of the Town. The North End Bridge Rotary is under the jurisdiction of the Massachusetts Department of Transportation (MassDOT). The rotary was improved as part of a MassDOT project in the recent past. A series of pedestrian crosswalk improvements across Park Avenue and Park Street are currently being designed under a separate Project by the Town and they will be constructed in 2018. Pedestrian and traffic signal improvements have been recently constructed by the Town at the intersection of Elm Street, Park Street, Park Avenue, and Union Street. The Elm Street corridor from Westfield Street to Park Street is currently under design. Design of the Project will need to be coordinated with other currently on-going and completed projects.

Based on the information in the RFP, if approved, the maximum amount of transportation funding that will be available for the study and design of improvements on the two roadways is $250,000, of which up to $200,000 would be provided by the Massachusetts Gaming Commission and the remaining $50,000 by the Town. Funding for the construction will be through local sources.

The funding shall only be applied to eligible aspects of the Grant (such as, data gathering, survey, analysis, planning, design, documentation in the form of reports plans, and public meetings/hearings). The improvements must be clearly related to addressing the transportation impacts related to the construction and operation of a gaming establishment.

The Town adopted a Complete Street Ordinance in March 2016, and developed a prioritization plan in April 2017. MassDOT approved funding for some of the projects in the Town's prioritization plan under their Complete Street project in August 2017. The current Project, if funded through the Massachusetts Gaming Commission and the Town, will continue the concept of implementing Complete Streets principles to further enhance the multimodal accommodations in the area, including numerous pedestrian crossings, bus stops, bicycle parking, on-street parking, and improved access to pedestrian oriented destinations such as the public library, post office, municipal office building, etc. as well as the Historic Town Common. At the same time, the improvements will also need to mitigate the transportation impacts of the casino project.

APPROACH

The key to a successful execution of this Project lies in using Tighe & Bond's strong technical and analytical skills in vetting improvement options with the Town and other stakeholders to select a "preferred alternative". We can then apply our design experience in municipal engineering, Complete Streets design skills, and deep understanding of roadway and traffic design criteria and standards to develop a set of construction documents that can be constructed in a timely fashion. Strong and proactive communications will be critical to successful outcomes throughout the life of this Project.

The approach we have outlined below helped us develop a range of costs for the design services so that flexibility is maintained to adjust the scope of services and level of effort at a later date, depending on the preferred improvement alternative and/or actual amount of funding granted. Additionally, under any of the discussed scenarios, the total fees for services can be structured to not exceed the maximum amount that may be available for the Project. We intend to provide the planning and design services based on the following approach.

- After selection, we will meet with Town officials to review the project goals; identify coordination issues with the Town and other stakeholders; review available resources like record plans for adjacent and on-going project and traffic analyses; discuss an analytical framework for quantifying future traffic growth (for example, whether the projections in the casino related studies need to be adjusted for analysis purposes);

gather utility information; and familiarize the team with resources that can be leveraged during the execution of the design services to streamline the overall process by not 'reinventing the wheel'.

- Using information and input gathered during the above task, and additional survey and data collected for the Project, we will develop up to three conceptual improvement alternatives. Scope of improvements could range from simple changes; such as alternate lane and parking configurations that can be accomplished with pavement markings and signage; to significant physical changes to the roadway; such as changes to the curb line and geometric changes such as neckdowns which will balance pedestrian needs and traffic operational needs for the area. Each alternative will take into consideration the functional classification of the roadways as well as the operational needs associated with the design philosophy desired by the Town. An example approach could involve a focus on enhanced pedestrian/bicycle mobility while promoting reduced cut-through by implementing appropriate traffic calming measures. The pros and cons of each alternative, along with an estimate of probable cost, will be summarized in a matrix format for discussion with the Town.
- If required by the Town, the alternatives can be presented to the stakeholders to solicit feedback and to help narrow down the alternative that can be advanced to detailed design. The findings of the above outlined transportation planning exercise will be documented in the form of a study for submittal to the Town.
- The preferred alternative that will be identified through the planning process will then be advanced to preliminary and final design to develop a set of documents that are ready for bidding.
- We will arrange regular meetings and/or conference calls with the Town on an agreed upon schedule to keep the Town informed of work progress and to obtain the Town's general concurrence in the prosecution of the work.

The proximity of our company's headquarters to the Town allows us to be responsive to meeting with the Town when necessary. Our experience working on projects such as this over the years will also help us anticipate potential issues ahead of time and implement necessary corrective measures to not impact the schedule for the overall delivery of services.

SCOPE OF SERVICES

The following tasks describe the services that will be performed in each phase of the Project starting with topographical and Right of Way survey. It is noted that if an alternative that does not require physical curb line changes on the roadways is selected through the stakeholder review process, aerial base plans compiled from record sources will be used for the design, which will reduce or eliminate the need to perform actual ground survey.

TASK 1.0: FIELD RECONAISSANCE / TOPOGRAPHICAL SURVEY (BY A SUB-CONSULTANT)

Our sub-consultant will conduct an on the ground field survey to obtain the existing conditions for the sections of the roadway outlined in the RFP. The survey will include the detail within the traveled way plus up to 25' outside back of sidewalk, where necessary. All field work will be conducted to produce plans at a scale of 1" = 20' with 1' contours. All data will be provided on the Massachusetts State Plane Coordinate System of NAD 1983 and vertically on NAVD 1988 unless directed otherwise prior to starting the field work. An existing conditions plan will be produced in AutoCAD Civil 3D on the MassDOT template. Also included in the task is utility research based on a review of

record plans and Right-of-Way research including roadway layout within the project limits, parcel ownership, deed restrictions, utility easements, restrictive covenants, addresses, etc. based on information at the Town, and / or the Registry of Deeds.

TASK 2.0: TRANSPORTATION PLANNING STUDY

As one of the lead tasks after the issuance of a Notice to Proceed, Tighe & Bond will research public sources such as the Town, the Regional Planning Agency, MassDOT, MEPA, and neighboring communities identified by the Town for available recent traffic and transportation data for the Project area.

Tighe & Bond will collate the available record information to identify data gaps. We will collect new data that is not available but is pertinent to the Project development. This could include data such as weekday and weekend automatic traffic recorder counts; weekday morning, evening, and Saturday midday peak period traffic counts; heavy vehicle usage; speed profile for the roadways; and data relative to bicycle and pedestrian activity along the corridor.

Tighe & Bond will also research information relative to future planned transportation as well as development projects (in addition to the casino project) that may contribute to changes in traffic flow and patterns along the corridor that will need to be taken into consideration for design purposes.

Using the compiled traffic and transportation data, Tighe & Bond will generate current and future conditions transportation capacity and multi-modal accommodation needs for the corridor. The data will be analyzed using approved traffic engineering methodologies to provide a framework for the evaluation of conceptual improvement alternatives.

After the survey base plan is complete, Tighe & Bond will use the analytical framework to screen and refine conceptual improvement alternatives for further consideration. For example, the evaluation would focus on items such as the following.

- Lane widths
- Bicycle accommodation options and their impacts (shared lanes vs. bike lanes vs. separated bicycle facilities, etc.)
- Need for connectivity to multi-modal facilities outside the project limits
- Sidewalk configuration
- Vehicle speeds
- Transit accommodations
- Need for traffic calming and identification of potential treatment options
- Typical roadway sections that accommodate the elements noted above

The findings of the review will be summarized in a report not only for inclusion in the design submittals but also for use during stakeholder meetings where the conceptual alternatives will be discussed.

TASK 3.0: CONCEPTUAL ALTERNATIVES

Informed by the findings of Task 2.0, and our experience working on other similar challenging projects, we will develop up to three conceptual plans and related typical cross-sections that depict potential alternative configurations for the future roadway geometry. Design considerations are anticipated to include travel lanes, usable shoulders, curb treatments, sidewalk configuration, potential/preliminary right-of-way impacts, bus stops; potential impacts to existing vegetation and street furniture; and opportunities to incorporate other Complete Streets and traffic calming elements that are contextual to the Project setting. Order of magnitude construction costs for each alternative will also be estimated at this stage of the design development.

The intent of this conceptual phase is to demonstrate to the stakeholders, visually, how the various design considerations could be incorporated into the roadway layout and the advantages and disadvantages of various alternatives being considered. The concept plans will be presented at a public meeting organized by the Town. The outcome of this process is the identification of a 'preferred solution'.

TASK 4.0: 50-PERCENT DESIGN SUBMISSION

After identifying a preferred solution and securing a notice to proceed from the Town, Tighe & Bond will prepare a set of preliminary roadway improvement plans that include the following.

- Prepare graphic geometrics of roadway and intersection alignments
- Design travel lane and parking configurations
- Define horizontal and vertical geometrics
- Design typical roadway cross sections with consideration to Complete Streets requirements for bicycle/pedestrian accommodations
- Identify stormwater treatment and utility coordination issues
- Bus stop locations for PVTA coordination
- Approximate locations of street furniture, trees, etc.
- Define projects limits, construction materials, and conceptual details
- Preliminary construction cost estimate

TASK 5.0: 100-PERCENT/PS&E DESIGN SUBMISSION

Following approval of the 50-percent design, Tighe & Bond, Inc. will advance the plans preparation to the final design and contract documents phase. The plans and documents prepared at this stage will be suitable for bidding by the Town. The final design will include the following services:

- Responses to comments on the 50-percent design submittal
- Final Horizontal Design Geometrics
- Final Vertical Design Geometrics
- Typical Cross Sections

- Roadway Cross Sections
- Construction Plans
- Grading & Curb-tie Plans
- Drainage and Utility Details
- Traffic Signs
- Pavement Markings and Plan Preparation
- Construction Traffic Management / Temporary Traffic Control Plans
- Streetscape and Landscape information
- Erosion Control
- Utility Coordination
- Quantity & Cost Estimate (Weighted Average Bid Application)
- Special Provisions

Task 6.0: MEETINGS AND COMMUNICATIONS

We will attend a stakeholder meeting scheduled by the Town. At the meeting, the Tighe & Bond Team will present the preliminary conceptual alternatives developed under Task 3. The Team will solicit feedback from the meeting attendees and work with the Town to narrow the options down to a "preferred solution".

In addition to the stakeholder meeting, the Team will attend meetings with the Town staff at appropriate intervals to review and discuss the project goals and design approach, the conceptual plans, preliminary design plans, and final design plans. For budgeting purposes, we anticipate five meetings with Town staff, one stakeholder meeting (as noted earlier), and if necessary, one public meeting after the completion of the design. Each meeting will be attended by up to two Tighe & Bond employees, as necessary.

EXCLUSIONS

The following tasks are excluded from our Scope of Services.

- Changes to the geometry or functionality of the North End Bridge Rotary
- Traffic signal design
- MassDOT permitting
- Preparation of layout alternation / Right of Way plans

Services for this Agreement are inclusive only of those tasks herein specified. Should any other work be required, including but not limited to the items listed above, Tighe & Bond will prepare an appropriate proposal or amendment, at the Client's request, that contains the scope of services, fee, and schedule required to complete the additional work items.

SCHEDULE

The schedule for this work will commence immediately following authorization to proceed. The duration of the Project is dependent on factors such as the time it takes the Town and other stakeholders to decide on a 'preferred solution'. The duration of the design services depends on the scope of the changes that is reflected in the preferred solution.

For preliminary planning purposes, we estimate that a design that involves limited physical changes (for example only pavement markings and signage related changes) could be completed in a three to six-month timeframe while a solution that involves a more extensive scale of changes to the roadway may require a six to nine-month planning and design process, all assuming a timely completion of the preferred solution selection process.

Tighe & Bond's role is limited to the scope of services defined herein and may be subject to the direction and input of the Town. The delivery of Tighe & Bond's services is dependent on the timely delivery of information or work products from others. A more refined schedule can be developed during later stages of grant funding application review.

FEE

Tighe & Bond will perform these services for a lump sum fee as outlined below. Since the specific design alternative that will be selected for implementation will be identified at the end of Task 3, Tighe & Bond has provided the fee estimate in the form of a range for individual tasks, with the range representing low to high levels of effort. Additionally, it is anticipated that the Town may be able to firm up the exact scope during later stages of the grant funding application review, which will also help refine the estimated design fee. The breakdown of fee by task should be treated as approximate. It is provided to depict the approximate distribution of the level of effort between different tasks based on currently available information.

Task 1 – Field Reconnaissance and Topographical/ROW Survey (by a sub-Consultant to Tighe & Bond)	$10,000 - $30,000
Task 2 - Transportation Planning Study	$20,000
Task 3 – Conceptual Alternatives	$8,000 - $25,000
Task 4 – 50-Percent Design Submission	$20,000 - $60,000
Task 5 – 100-Percent/PS&E Design Submission	$20,000 - $95,000
Task 6 – Meetings & Communications	$15,000 – $25,000
TOTAL (INCLUDING SUB-CONSULTANTS)	$93,000 - $250,000

If the scope of services outlined in this proposal is increased for any reason, the fee to complete the work shall be mutually revised by written amendment. Our attached Terms and Conditions is part of this letter agreement.

If you have any questions or need additional information, please feel free to contact me (VKalikiri@TigheBond.com, 508.304.6373) or Dave Loring (DLLoring@tighebond.com, 413.572.3296). Thank you for the opportunity to submit this proposal. We look forward to assisting you on this Project.

Very truly yours,

TIGHE & BOND, INC.

Vinod Kalikiri, P.E, PTOE
Senior Project Manager

APPROVED

David Loring, P.E., ENV SP, LEED AP
Vice President

Enclosures Terms and Conditions

ACCEPTANCE:
On behalf of **The Town of West Springfield**, the scope, fee, and terms of this proposal are hereby accepted.

_____ _____

Authorized Representative Date

M:\Projects\W. Springfield Park Ave Park St Proposal.Docx

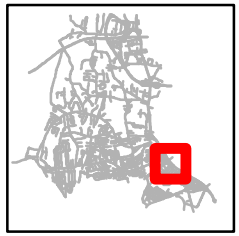
APPENDIX H

PROXIMITY TO SPRINGFIELD RIVERWALK AND BIKEWAY TO PROJECT AREA

Proximity to Springfield Riverwalk and Bikeway and Riverfront Park

Legend

Streets Centerline	Buildings
Paved	Deck or Porch
Unpaved	Garage (Detached)
Major Roads	Residential
Local Roads	Commercial
State Highway	Industrial
Interstate Highway	Demolished
Easements	Proposed
Right of Way	Parcels
Public	New Lot Line
Private	Line Removed
Railroad	Pave Edges
Paper Street	Pavement
Old Lot Lines	Wetland
Swmming Pools	Streams



Planimetric & Topographic Features were derived from aerial photography taken on March 30th, 1998 and April 3, 2010. These features meet ASPRS Standards for 1" = 40' Class 1 map accurracy. All maps are projected to the Stateplane grid coordinate system, Zone 4151, Datum NAD83 & Units feet.

This data should not be used for legal description or conveyance purposes.

N

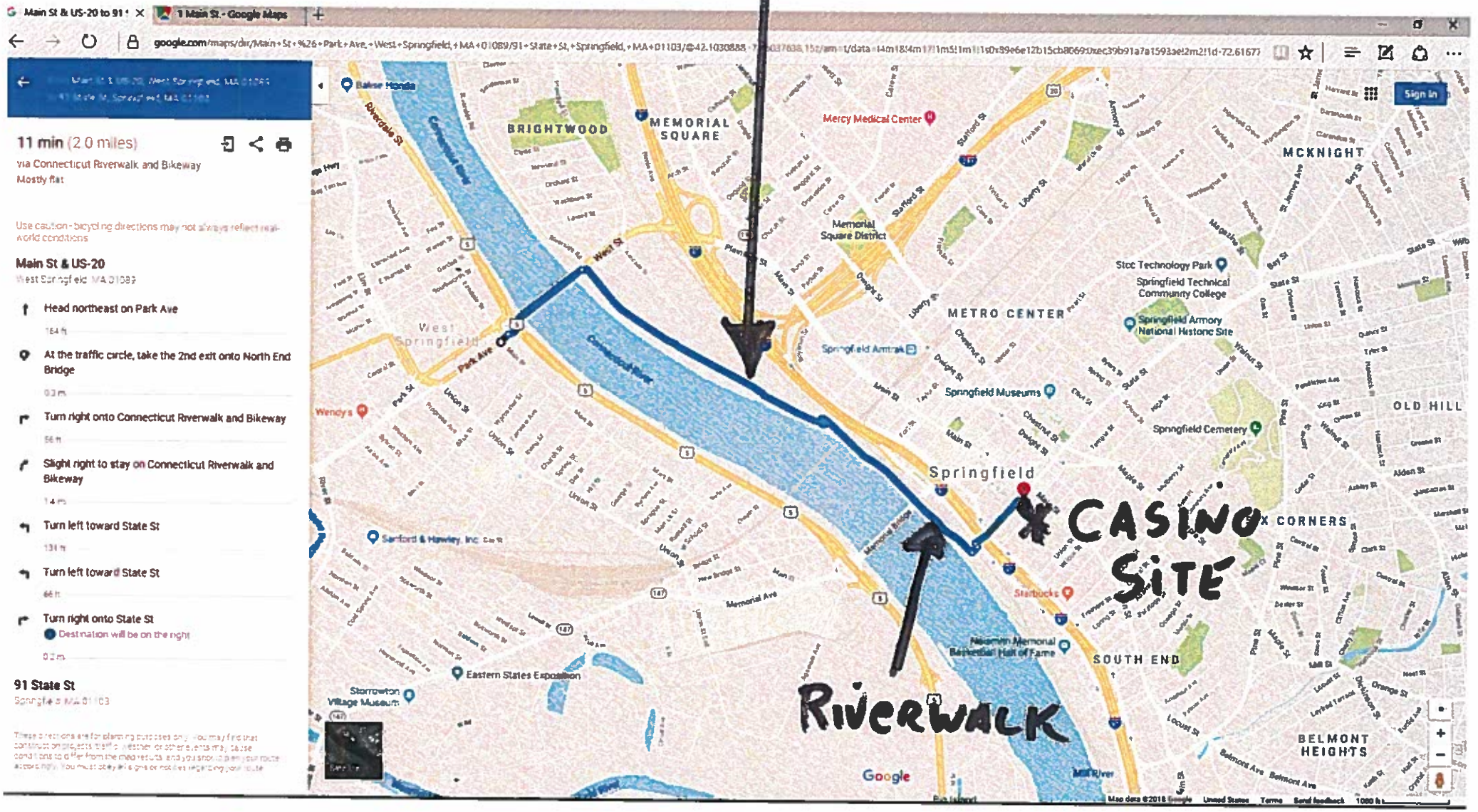
0 280 560 1,120 Feet

1 inch = 555.5 feet

Town of West Springfield, MA, GIS

Created By: jczach *Date: 1/31/2018*

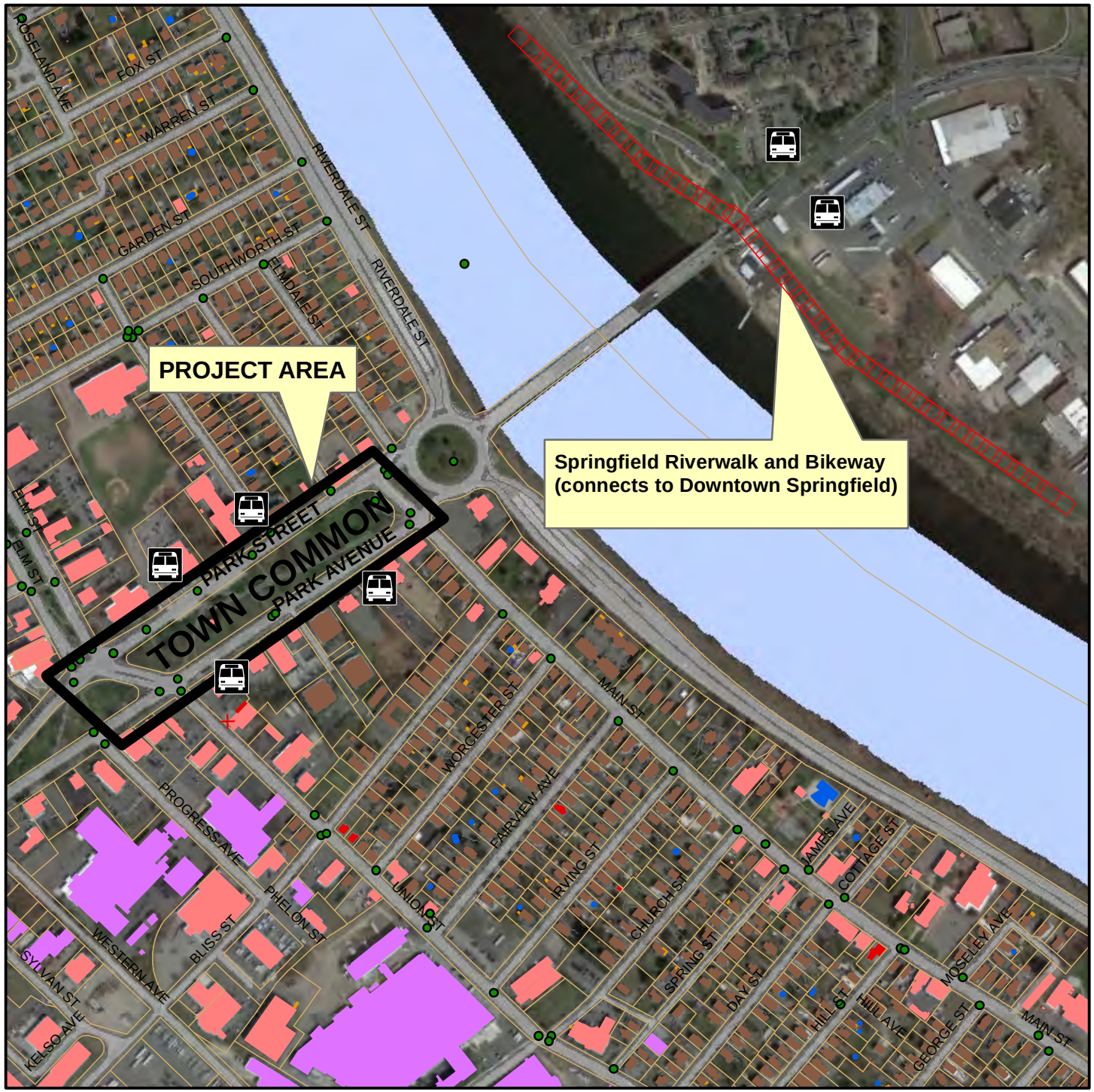
Bicycle and Pedestrian Route (via. SPFLD Riverwalk)



APPENDIX I

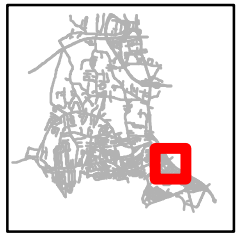
PROXIMITY OF BUS STOPS TO PROJECT AREA

PVTA STOPS NEAR BIKEWAY AND IN PROJECT AREA



Legend

Streets Centerline	Buildings
Paved	Deck or Porch
Unpaved	Garage (Detached)
Major Roads	Residential
Local Roads	Commercial
State Highway	Industrial
Interstate Highway	Demolished
Easements	Proposed
Right of Way	Parcels
Public	New Lot Line
Private	Line Removed
Railroad	Pave Edges
Paper Street	Pavement
Old Lot Lines	Wetland
Swmming Pools	Streams



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N

0 280 560 1,120 Feet

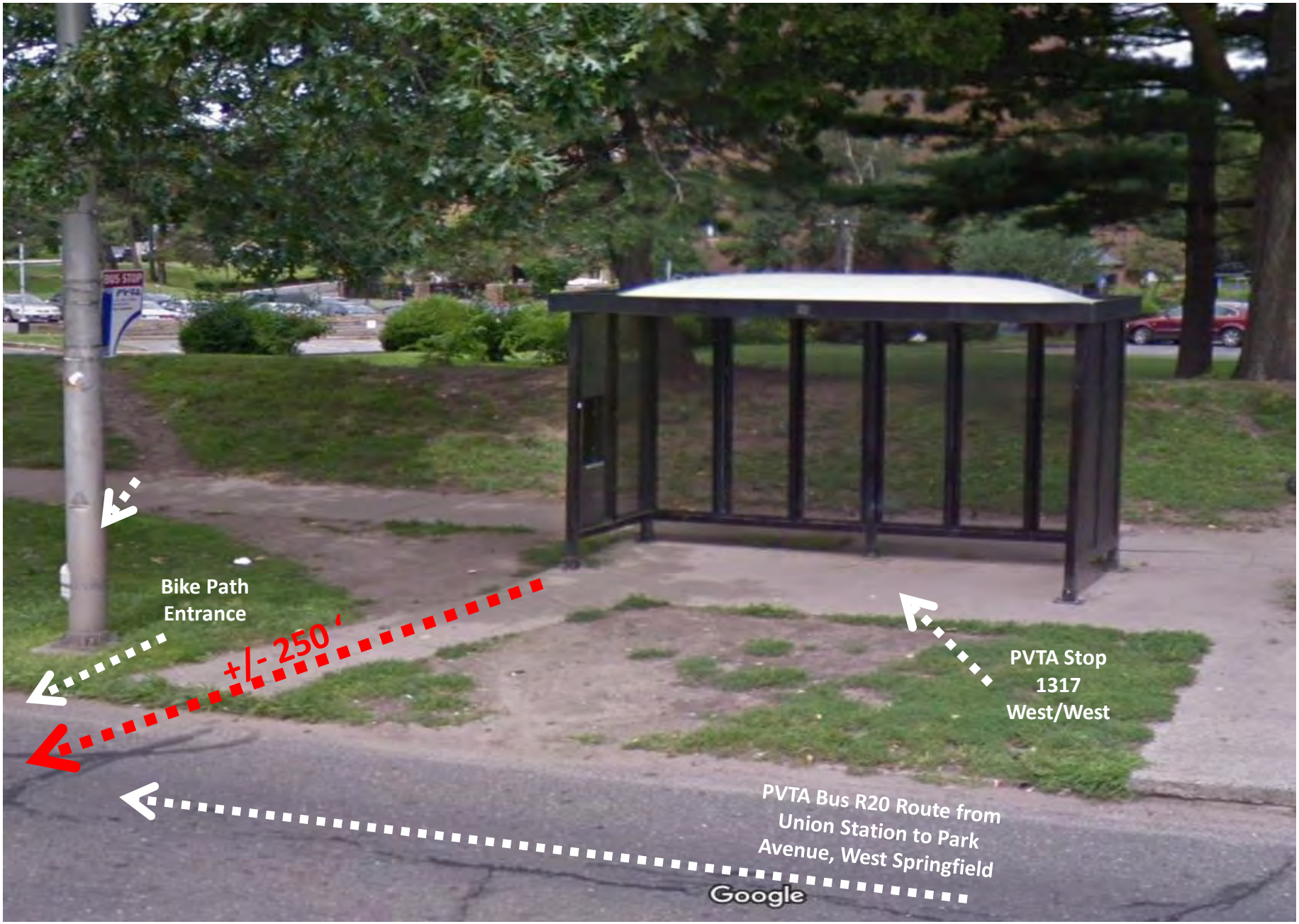
1 inch = 555.5 feet

Town of West Springfield, MA, GIS

Created By: jczach *Date: 1/31/2018*


PVTA Stop
1317
West/West
PVTA Stop
1322
West/West
Bike Path
Entrance
+/- 250'
+/- 250'


PVTA Stop
1322
West/West
+/- 250'
Bike Path
Entrance
PVTA Bus R20
Route to
Union Station
From Park
Avenue, West
Springfield


Bike Path
Entrance
+/- 250'
PVTA Stop
1317
West/West
PVTA Bus R20 Route from
Union Station to Park
Avenue, West Springfield
Google

APPENDIX J

MEPA SUPPORT INFORMATION

SURROUNDING COMMUNITY AGREEMENT

This surrounding community agreement (this "Agreement") is entered into this ___ day of_____, 2014 (the "Effective Date") by and between Blue Tarp reDevelopment, LLC ("MGM"), a Massachusetts limited liability company, with an office address of 1441 Main Street, Suite 1137, Springfield, MA, owner and developer of the MGM Springfield project in Springfield, Massachusetts and West Springfield, Massachusetts (the "Community", the "Town" or "West Springfield"), a municipality in the Commonwealth of Massachusetts (MGM and the Community hereinafter collectively the "Parties" or individually a "Party").

RECITALS

WHEREAS MGM is an affiliate of MGM Resorts International (NYSE: MGM) ("MGM Resorts").

WHEREAS, the MGM Springfield project is a destination casino resort planned for downtown Springfield, Massachusetts expected to cost approximately $800 million and include 1,000,000 square feet (the "Project"). When constructed, it is anticipated to be the largest private development in Western Massachusetts history. The Project is anticipated to have 250 hotel guest rooms, a 125,000 square foot casino, 54 market rate apartments, a 15-lane bowling alley, a 12-screen luxury movie theatre, an outdoor park and seasonal skating rink, and dozens of shops and restaurants, in addition to large open outdoor public spaces.

WHEREAS, the Project is anticipated to employ 2,000 construction workers and, upon completion, 3,000 permanent workers.

WHEREAS, MGM has submitted RFA-1 and RFA-2 applications under Chapter 23k (the "Gaming Act") to the Massachusetts Gaming Commission (the "Commission"), seeking approval to proceed with an application for issuance of the sole Western Massachusetts gaming license (the "Gaming License").

WHEREAS, the Gaming Act provides a mechanism by which communities, other than the host community, that are proximate to the Project and are expected to be significantly and adversely impacted by the Project, have an opportunity to mitigate such adverse impacts on their respective communities through designation as a "Surrounding Community".

WHEREAS, pursuant to 205 CMR 125.00 (the "Surrounding Community Regulation"), MGM has designated West Springfield as a Surrounding Community, thereby recognizing that the West Springfield will experience significant adverse impacts as a result of the Project...

AGREEMENT

NOW THEREFORE, for valuable consideration, the sufficiency and receipt of which are hereby acknowledged by the Parties, and in consideration of the mutual promises and covenants contained herein, the Parties agree as follows:

1. Upfront Payment of $665,000 for a Community Grant plus Reimbursement of Consulting and Legal Fees. Within thirty (30) days of the Commission's award of the Gaming License to MGM, MGM shall pay to the Community Six Hundred and Sixty-Five Thousand Dollars ($665,000.00), representing the design and permitting costs (but not the construction costs) for reconstruction of Memorial Avenue in West Springfield. In addition, within thirty (30) days of the effective date of this agreement, MGM shall reimburse the Town for the actual, reasonable expenses incurred by the Town for the payment of any consultants or legal advisors, whether internal or external (collectively, its "Advisors" or "the Community's Advisors") providing services related to or in any way arising from the Community's review of the Project ("Project Review"), including without limitation participation in the arbitration proceeding giving rise to this agreement. MGM's payment for Project Review fees shall be reduced by the amount of any previous grants to the Town for this purpose.

2. Guaranteed Minimum Annual Payments. The Parties agree that, commencing with the opening of the Project to the public (i.e., the date on which MGM begins to collect revenue under the terms of the Gaming License) (the "Grand Opening") and for each year following the Grand Opening through the expiration of MGM's initial gaming license and any extensions thereof (the "Term"), MGM shall pay to the Community: (i) Three Hundred and Seventy-Five Thousand Dollars annually ($375,000.00) (the "Annual Mitigation Payment"); and (ii) a total of Seven Hundred and Fifty Thousand Dollars ($750,000.00) in annual payments pursuant to the schedule further detailed below which are acknowledged to be reimbursement of expenses for participation in the Look Back Studies, as defined below (the "Annual Study Cost Reimbursement"). The Annual Study Cost Reimbursement shall be paid as follows: (i) Fifty Thousand Dollars ($50,000.00) in the first year following the Grand Opening; (ii) One Hundred Thousand Dollars ($100,000.00) in the second year following the Grand Opening; (iii) Fifty Thousand Dollars ($50,000.00) in each of the third through fifth years following the Grand Opening; (iv) One Hundred Thousand Dollars ($100,000.00) in the sixth year following the Grand Opening; and (v) Fifty Thousand Dollars ($50,000.00) in the seventh through thirteenth years following the Grand Opening. The Annual Mitigation Payment and Annual Study Cost Reimbursement (together, the "Annual Payments") shall be made within ninety (90) days of the Grand Opening, and on each twelve month anniversary, as long as such payments are due hereunder, and shall be adjusted annually by the CPI Adjustment Factor applied to host community impact fee payments, as defined in §1(gg) of and as set forth in Exhibit A to the Host Community Agreement between MGM and the City of Springfield.

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Deval L. Patrick
GOVERNOR

Maeve Vallely Bartlett
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
http://www.mass.gov/envir

December 31, 2014

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: MGM Springfield
PROJECT MUNICIPALITY	: Springfield
PROJECT WATERSHED	: Connecticut River
EEA NUMBER	: 15033
PROJECT PROPONENT	: Blue Tarp Redevelopment LLC
DATE NOTICED IN MONITOR	: November 24, 2014

As Secretary of Energy and Environmental Affairs, I hereby determine that the Final Environmental Impact Report (FEIR) submitted on this project **adequately and properly** complies with the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00).

Project Description

As described in the FEIR, the project consists of a 881,691 gross square foot (sf) mixed-use redevelopment consisting of a casino, a retail and entertainment center, a hotel, apartments, and a daycare center. It is proposed on a 14.5-acre site in downtown Springfield. On November 6, 2014 the Proponent was awarded a Category 1 gaming license pursuant to Chapter 194 of the Acts of 2011: An Act Establishing Expanded Gaming in the Commonwealth and M.G.L. Chapter 23K, Section 19, as amended by Section 16 of the Expanded Gaming Act (the Gaming Act), which authorizes the Massachusetts Gaming Commission (MGC) for Region B of the Commonwealth.[1] As required by the Gaming Act, a Host Community Agreement between the

[1] The Act identifies three regions of the state - Region A (Suffolk, Middlesex, Essex, Norfolk and Worcester counties), Region B (Hampshire, Hampden, Franklin and Berkshire counties) and Region C (Bristol, Plymouth, Nantucket, Dukes and Barnstable counties). This project is located in Region B.

Abutter Site Circulation

The FEIR summarized potential traffic circulation impacts associated with the construction and operation of the MGM Springfield project on three abutters: the Colvest Property, Red Rose Pizzeria, and the Bacon & Wilson Property. Specifically, the discontinuation of Howard Street and Bliss Street will alter existing access patterns to these sites. The FEIR described existing access/egress driveways for each site, proposed changes to access/egress (e.g., changes to allowed turning movements, etc.), and comparative travel distance changes due to modified access and egress points.

I received several comments from abutting property owners immediately adjacent to the project site. As a result of the discontinuation of Howard Street and Bliss Street, as well as the construction of new access and egress points for the project, existing operations (e.g., entry and exit points, delivery or trash pick up access, etc.) at these adjacent sites will be altered. I strongly encourage the Proponent to establish a dialogue with each abutter to clarify potential project-related impacts, proposed mitigation measures, and seek to remedy additional impacts to the extent the Proponent is legally obligated to do so. The Proponent should continue to evaluate design or operational measures to ameliorate project-related impacts to abutting properties, including but not limited to, design treatments to reduce the visual impact of the garage, confirmation of the constructability of the garage from entirely within the Proponent's property, mitigation measures to reduce noise, vibration or emissions associated with the proposed central plant, maintenance of safe pedestrian access, and enhanced communication protocols during the construction period. I note the specific concerns expressed by Colvest/East Columbus, LLC regarding potential conflicts with traffic exiting this property's driveway to the through lane onto Union Street due to the addition of the westbound right-turn only lane and the potential for cut-through traffic exiting the project garage onto Howard Street. The Proponent should specifically review these concerns with respective abutters and the City of Springfield prior to finalizing the project's mitigation plan to determine if there are additional opportunities to mitigate potential impacts.

Bicycle and Pedestrian Infrastructure

The FEIR included graphics and a supporting narrative that described existing bicycle and pedestrian infrastructure within the study area, noting width, condition, signage, ADA-compliance, push buttons, bicycle detection capabilities, etc. The Proponent will implement a series of bicycle and pedestrian infrastructure improvements to enhance existing and future operations and to improve the safety of study area roadways and intersections for pedestrians and bicyclists. The Proponent will install way-finding signage at key entry points within Downtown Springfield and along primary MGM Springfield access/egress corridors to facilitate pedestrian and bicycle use. The project will also enhance bicycle and pedestrian access to the Connecticut River Walk and Bikeway by providing improved railroad crossing signage and striping along the at-grade bikeway access point along West Columbus Avenue (opposite State Street) and adding way-finding signage and improved lighting under the I-91 viaduct at State Street and Union Street. Proposed improvements must be reviewed and approved by the City of Springfield. For

those improvements located on NHS-roadways additional review and approval by MassDOT will be required.

Proposed pedestrian improvements include:

- Installation of updated MUTCD-compliant pedestrian signal equipment (i.e, push buttons and signage, countdown signal housings, audible warning devices (where necessary);
- Modification or retrofitting of accessible wheelchair ramps to achieve compliance with ADA standards (i.e., installing tactile warning devices, providing sufficient ramp openings, and providing adequate ramp slope);
- Reconstruction of sidewalks (widening where possible) and providing additional amenities such as benches, pedestrian-level lighting, landscaping, and other streetscape improvements;
- Upgrades to mid-block crossing locations along the site frontage (i.e., new crosswalks, pedestrian flashing signals, refuge islands, etc.); and
- Modification of the existing pedestrian crossing across East Columbus Avenue north of the intersection with State Street to eliminate pedestrian/vehicle conflicts.

The Proponent should review the comments provided by the City of Springfield regarding proposed pedestrian signal equipment, pedestrian crossing phasing, and sight lines, and modify design plans as necessary to ensure proposed mitigation measures adequately enhance the pedestrian environment in the study area. I strongly encourage the Proponent to implement MassDOT's request to provide highway lighting at each crosswalk at the North End Rotary for consistency with the proposed mitigation at the Memorial Bridge Rotary as a pedestrian safety measure.

Proposed bicycle improvements include:

- Installation of bicycle pavement marking and signage (i.e., bicycle lanes, "sharrows" and "share the road" bicycle signage, bicycle boxes, etc.);
- Provision of secure, covered bicycle racks with storage for up to 28 bicycles within the Armory Square block and near major project entryways (State Street and Union Street);
- Provision of approximately 24 secure, weather-protected, long-term bicycle parking (for employees and residents) spaces at designated locations in the MGM Springfield parking garage;
- Installation of way-finding signage at key entry points within Downtown Springfield and along primary MGM Springfield access/egress corridors; and
- Implementation of a bicycle share program with a total of 16 bicycles for use by MGM employees, patrons and residents. This system will include a U-lock to allow users to secure the bicycle at a destination location without an electronic locking system.

The Proponent should review the comments provided by the City of Springfield regarding bicycle accommodations along the Main Street and Union Street corridors and modify plans as necessary subsequent to consultation with the City to maximize safe bicycle accessibility in the study area. It is unclear in the FEIR how the proposed number of bicycle parking spaces was determined. Given the bicycle mode share goals for the project (notably 4 percent of casino employee trips by bicycle), it appears that additional bicycle parking may be warranted. The Proponent should reevaluate the volume of proposed secure bicycle parking spaces in the final design.

The FEIR provided additional details and graphics depicting proposed pedestrian connections and circulation routes through the MGM Springfield site itself. The FEIR described interior pedestrian connections to the casino/hotel block and Armory Square from the MGM Springfield parking garage, access to the casino/hotel block from adjoining streets and Armory Square, and Armory Square to the casino/hotel block, parking garage, and the Union Street and Main Street sidewalk network and Pioneer Valley Transit Authority (PVTA) bus system. The project includes two main casino entries on Main Street, a hotel entry off State Street, and an entry from Armory Plaza. Office, retail, and restaurant facilities facing the surrounding streets will have entry points from both the casino and the street to allow access without entering the casino. A wide pedestrian walkway is proposed to fully encircle the casino floor to allow for internal connections between the casino, garage, retail, restaurants, Armory Square and adjacent streets without requiring access through the casino. Way-finding signage will be provided throughout the project site and within the parking garage, casino/hotel block and Armory Square to direct patrons to major on-site features (e.g., casino entrances, Armory Square, DaVinci Park, parking garage, bicycle parking, bus drop-off/pick-up, etc.), the surrounding street system (including PVTA bus stops and MGM trolley stops), and area attractions (e.g., Basketball Hall of Fame, Connecticut River Park and Bikeway, Union Station, etc.).

The FEIR also discussed exterior pedestrian connections from the MGM Springfield parking garage (which will offer free parking to surrounding area businesses) to the adjacent street system. The FEIR described walking routes to the State Street/Springfield District Courthouse area, Main Street and Red Rose Pizzeria, and Union Street. Each route presented included travel through the casino block to maximize length of time traveling through covered or weather-protected areas. Alternate routes are also provided along the sidewalk network along Main Street, State Street, Bliss Street, and Union Street.

Public Transportation

The project site is easily accessed by existing PVTA bus routes. The FEIR summarized the proposed service changes, to be undertaken by the PVTA as a result of its Comprehensive Service Analysis completed in June 2014, on bus routes most directly serving the project site and Downtown Springfield. Generally, these changes are either anticipated to have minimal impact on service to the project site, or increase trip frequency. For the two routes proposed for discontinuance (Routes 8 and 13), existing or future crosstown bus service is expected to service similar areas, but may require passenger transfers. As noted in the FEIR, the Proponent has no

expectation that the PVTA would initially provide service outside current operations for patrons or employees.

The project includes consolidating bus stops along Main Street between State Street and Union Street to provide a single bus stop on each side of Main Street. A bus stop will be provided on the southerly side of Main Street just west of Howard Street and on the northerly side of Main Street just east of Peabody Lane. The FEIR included conceptual plans depicting proposed bus stop locations and their relationship to overall improvements on Main Street, including bicycle and pedestrian amenities, on-street parking, and traffic signal improvements. I encourage the Proponent to expand the proposed bus stops from 80 to 150 feet in length to allow for future articulated bus access or to allow more than one bus to stop at a time along these busier routes without impeding traffic flow. Final design, location and approval of bus stop locations will be completed in coordination with the City of Springfield, the PVTA, and other approving entities as necessary. The Proponent has committed to the following:

- Fund the design and construction of bus stops on Main Street;
- Perform maintenance of the amenities installed at these stops, including regular cleaning and snow removal;
- Install a shelter for weather protection and seating at the bus stops;
- Install signage identifying routes and schedules of PVTA bus service;
- Install additional seating, trash barrels and other street furniture as agreed upon in the final design process; and
- Install signage within MGM Springfield to direct transit users to the proposed bus stops.

I encourage the Proponent to provide an enclosed waiting area within the project site to provide a centralized location for transportation information and access to public and private transportation services.

The Proponent will also initiate and fund the implementation of a Trolley Service/Downtown Circulator. The FEIR described the preliminary details of this service, to be funded by the Proponent and provided by PVTA under contract. The Proponent and the PVTA should continue to work cooperatively to finalize the terms of an agreement for this mitigation measure. Service will be offered free of charge to employees, patrons, and visitors of MGM and Downtown Springfield. The FEIR included a graphic of a conceptual preferred route and outlined the following proposed routing and hours of operation:

- MGM will provide funds to PVTA to operate two existing PVTA public trolley-style buses to provide public transportation;
- Trolleys will operate on up to 20 minute headways at peak times;
- MGM shall reimburse PVTA for costs associated with operating the trolleys on a negotiated basis, with costs generally determined based on PVTA hourly operating expenses based on agreed upon operating hours;
- The trolleys will be owned and operated by PVTA;

- MGM will pay for the cost of retrofitting/accessorizing the trolleys as may be required or desirable for use;
- The trolley will run for approximately six hours per day;
- Trolleys may be made available by request for service outside of regular schedule and off route at a predetermined negotiated rate;
- MGM will continue to negotiate with other Downtown destinations to participate in the initiation of service;
- Hours or days of operation may change even in the initial period by mutual agreement;
- PVTA will work with MGM to allow advertising on the trolleys for MGM Springfield and other area destinations; and
- The exact route and stops will be agreed upon and will be located within the Downtown corridor in the City of Springfield connecting Springfield Union Station, the City's Museums, MGM Springfield and the Basketball Hall of Fame.

The FEIR noted that as currently planned, the Trolley Service/Downtown Circulator agreement will take effect upon the start-up of the trolley operations and would remain in effect for one year. After the first year, the service would be reevaluated, taking into consideration ridership and service, with the terms of the agreement subject to review and potential renewal on a recurring basis.

The FEIR included a comprehensive assessment of potential project-induced demand on future PVTA paratransit and senior dial-a-ride services. These services are provided to older adults (60+) and persons with disabilities. The assessment included a description of existing services (ridership, cost, operational hours, etc.), outlined an estimated demand methodology, and a review of demand based on other paratransit systems serving casinos (MGM Grand Detroit, Rivers Casino Pittsburgh, and Harrah's Joliet). The FEIR included a demand estimate for both ADA paratransit customers and senior services customers. A low and high demand range for ADA paratranist and senior services for the project was estimated using data associated with the River Casino Pittsburgh (ridership) and the MGM Grand Detroit (senior services trip distribution). The projected low end of the range estimated 279 new PVTA ADA paratransit trips and 4,209 new PVTA senior services trips annually. The high end of the range estimated 615 new PVTA ADA paratransit trips and 5,043 new PVTA senior services trips annually. According to the FEIR, PVTA's current fixed operation cost scenario with comingled ADA paratransit trips and senior service trips, new ADA paratransit trips can only be served if an equal number of senior trips are denied.

To avoid the displacement of senior trips, and to continue to allow the PVTA to meet its regulatory obligation to provide ADA paratransit service, MGM will reimburse the PVTA for the cost of providing ADA paratransit trips to the project. Based on the analysis presented in the FEIR, this is estimated to cost between $7,965 and $17,558 per year. The FEIR also acknowledges the potential budgetary implications of increased demand for senior dial-a-ride services; a service that the PVTA is not obligated to provide. The FEIR identified potential alternatives that could be explored by the Proponent and the PVTA to develop service alternatives to address potential increases in demand. These include:

- Implement a limit on senior trips to MGM Springfield. This could be done in conjunction with a cashless fare policy for dial-a-ride services, with "tickets" for the MGM site made available in limited supply, and on-site monitoring;
- Divert senior casino trips away from dial-a-ride services and contract with PVTA's current service provider or other carrier to operate group field trips from various Councils on Aging (COAs) to the casino on specific days;
- Contract with an operator other than PVTA's current paratransit and dial-a-ride service provider at a lower per-trip rate for senior casino trips; and
- Work with a private inter-city bus carrier to offer casino/transportation packages with seniors.

The Proponent has committed to continue to work with the PVTA to finalize an agreement codifying the proposed transportation improvement mitigation measures proposed in the FEIR, providing additional detail based upon advancement of project design.

Parking

The FEIR included an analysis of existing and proposed public parking supply and demand for the project and the Downtown Springfield area. Currently, within the project site there are a total of 905 parking spaces: 186-for fee structured parking spaces in the 16 Bliss Street Garage, 673 for-fee surface lot parking spaces, and 46 on-street parking spaces (Bliss Street and Howard Street). These spaces will be displaced due to project construction. Additionally, approximately 64 on-street parking spaces along Main Street and State Street along the site frontage may be temporarily closed during the construction period.

The FEIR also evaluated parking availability in the I-91 North and South Garages, located north of the project site, which also serve as a public parking resource for courthouse-related parking and patron/employee parking for other land uses in the South End neighborhood. According to the FEIR, at full capacity the I-91 North Garage can accommodate 1,098 vehicles and the I-91 South Garage can accommodate 670 vehicles. As discussed later in this Certificate, MassDOT's I-91 viaduct replacement project, which will overlap with the MGM Springfield construction period, will include the temporary closure of 450 parking spaces (200 of which are already closed) on the upper decks of these garages throughout the duration of the I-91 viaduct project.

Existing parking demand counts were performed from 11:00 AM to 5:00 PM on a Friday to capture peak parking demand for the courthouse and surrounding businesses (utilization of these lots by these users would be low on Saturdays and Sundays when casino operations would be heavier). Peak parking demand for on-site parking facilities occurs between 11:00 AM and 11:30 AM at 72 percent total occupancy (700 occupied spaces). Peak parking demand for the I-91 South Garage was observed during the same peak period at 430 spaces. As noted above, 200 of the 670 spaces in the I-91 South Garage have already been closed, reducing supply to 470 spaces. The I-91 South Garage available parking supply meets the 11:00 AM to 11:30 AM peak

Springfield parking garage. The Proponent is continuing to work with owners of other public and private parking lots in the area to accommodate any overflow charter bus parking that may occur during events or peak periods. A total of 90 preferential parking spaces, located on the second level of the garage near employee entrances to the casino and Armory Square, will be designated for use by employees and residents participating in carpool or rideshare programs or who use hybrid vehicles. Finally, the Proponent has designated a total of 190 preferred spaces or electric vehicles (EV) spaces, along with approximately 50 charging stations, to be provided along the outside of levels 2, 3 and 4, of the MGM Springfield parking garage near entryways, elevators, and staircases. EV charging stations will also be provided in the valet parking area on the basement level. Signage will be provided directing drivers to EV parking and charging stations.

Transportation Demand Management

The FEIR summarized the components of the TDM program to reduce SOV trips and promote multi-modal transit options by employees and patrons. These measures are listed in the mitigation section of this Certificate.

The Proponent established the following mode share targets, by land use, assuming implementation of the TDM program.

Mode	Casino/Hotel Patrons	Casino/Hotel Employees	Residential	Armory Retail	Armory Office
SOV[a]	85.5%	67.0%	95.0%	95.0%	79.5%
Carpool/Rideshare[a]	N/A	13.0%	0.0%	N/A[a]	15.5%
Public Transit	2.0%	16.0%	4.0%	4.0%	4.0%
Pedestrian/Bicycle	0.5%	4.0%	1.0%	1.0%	1.0%
Taxi	2.0%	-	-	-	-
Charter Bus	10.0%	-	-	-	-

[a] For Casino/Hotel Patron and Armory Retail trips, all vehicle trips were assumed to be double-occupant vehicle trips.

A Transportation Coordinator will be responsible for developing additional TDM measures should the monitoring program identify any unanticipated or unmitigated project-specific impacts. Should the monitoring program identify such impacts, additional improvements will be identified and implemented to mitigate the project-specific impacts.

Monitoring

The project general contractor will prepare a Transportation Monitoring Program (TMP) for review and approval by the City and MassDOT. The TMP is intended to monitor traffic operations, parking occupancy, public transportation utilization, and pedestrian/bicycle use throughout the construction period and for a period of five years following completion of the project. The TMP's intent is to monitor project impacts to ensure consistency with the

accommodate employee shift changes. Depending upon parking location(s) identified for satellite employee parking, the employee parking shuttle may be combined with the parking shuttle for displaced surrounding land users.

Mitigation and Section 61 Findings

The FEIR included draft Section 61 Findings for use by State Agencies. These draft Section 61 Findings should be revised in response to this Certificate and provided to State Agencies to assist in the permitting process and issuance of final Section 61 Findings. The FEIR identified each mitigation measure, the responsible party, and the timing of implementation. The following mitigation measures have been proposed in accordance with the project:

Traffic and Transportation

The FEIR included a summary outlining proposed traffic and transportation mitigation measures. Final mitigation measures will be determined in accordance with MassDOT, the City of Springfield and other stakeholders (as necessary) based upon potential revisions in response to comments received in the FEIR and preparation of permitting documents. Mitigation measures listed below are drawn from Table A and other sections of the proposed Section 61 Findings and the FEIR.

Signal Timing Optimization (Prior to MGM Springfield Opening $20,000)

- Dwight Street/I-291 WB Ramps,
- East Columbus Avenue/West Columbus Avenue/Main Street/Longhill Street,
- Mill Street/Locust Street/Belmont Avenue/Fort Pleasant Avenue,
- Belmont Avenue/Sumner Avenue/Dickinson Street/Lenox Street

Union Street Corridor Improvements (West Columbus Avenue to Main Street) – (Prior to MGM Springfield Opening, $950,000)

- Widen sidewalks along site frontage,
- Complete pavement mill and overlay on Union Street between Main Street and West Columbus Avenue,
- Construct trolley stop adjacent to Armory Square,
- Widen and restripe roadway along site frontage,
- Upgrade accessible wheelchair ramps,
- Install vehicular / pedestrian / bicycle wayfinding signs,
- Install mid-block crosswalk, pedestrian flasher assembly, and raised median island east of MGM Bus Driveway,
- Install bicycle "sharrows" and share-the-road signage,
- Reconstruct Union Street under I-91 Overpass to 5-Lane cross-section,
- Modify vehicular and pedestrian signal phasing scheme at Union Street / East and West Columbus intersections,

- Upgrade vehicular and pedestrian traffic signal equipment and infrastructure at corridor intersections where necessary, and
- Optimize traffic signal timings, clearance intervals, signal coordination, and offset timings at corridor intersections.

State Street Corridor Improvements (West Columbus Avenue to St. James Avenue)
(Prior to MGM Springfield Opening, $1,110,000)

- Widen sidewalks along site frontage,
- Construct trolley stop adjacent to MGM Springfield,
- Restripe State Street along site frontage,
- Stripe intersection tracking markings across intersection of State Street/Main Street,
- Complete pavement mill and overlay State Street between Dwight Street and East Columbus Avenue,
- Upgrade accessible wheelchair ramps at:
    - State Street/Main Street
    - State Street/East Columbus Avenue
    - State Street/West Columbus Avenue
- Install vehicular/pedestrian/bicycle wayfinding signs,
- Install mid-block crosswalk, pedestrian flasher assembly, and raised median island west of MGM Drive,
- Install bicycle "sharrows" and share-the-road signage, Install bike boxes, shift stop lines, and recalculated clearance intervals at intersections along State Street,
- Modify pedestrian crossing across East Columbus Avenue north of State Street intersection,
- Construct pedestrian refuge island along St. James Avenue approach to State Street,
- Upgrade pedestrian traffic signal equipment only at:
    - State Street/Chestnut Street/Maple Street
    - State Street/Dwight Street/Maple Street
    - State Street/Main Street
- Upgrade vehicular and pedestrian traffic signal equipment and infrastructure at:
    - State Street/East Columbus Avenue
    - State Street/West Columbus Avenue
- Modify traffic signal phasing at intersection of State Street/Main Street, and
- Optimize traffic signal timings, clearance intervals, signal coordination, and offset timings at corridor intersections.

Main Street Corridor Improvements (Mill Street to Frank B. Murray Street) (Prior to MGM Springfield Opening, $440,000)

- Widen sidewalks along site frontage,
- Relocate PVTA bus stops along Main Street,

- Complete a pavement mill and overlay Main Street between State Street and Union Street,
- Restripe Main Street between State Street and Union Street,
- Stripe intersection tracking markings across intersection of Main Street/Boland Way/Harrison Avenue,
- Upgrade accessible wheelchair ramps at:
    - Main Street/Union Street
    - Main Street/State Street
- Install vehicular/pedestrian/ bicycle wayfinding signs,
- Install mid-block crosswalk north of Howard Street,
- Install bicycle "sharrows" and share-the-road signage between Mill Street and Union Street,
- Install bike lane northbound and bicycle "sharrows" southbound with share-the-road signage along Main Street between Union Street and Lyman Street,
- Install bike boxes, shift stop lines, and recalculated clearance intervals at intersections with Boland Way and State Street,
- Install new parking regulation signs along Main Street between State Street and Union Street,
- Upgrade pedestrian traffic signal equipment only at:
    - Main Street/Falcons Way/Court Street
    - Main Street/Boland Way/Harrison Avenue
    - Main Street/Worthington Street
- Optimize traffic signal timings, clearance intervals, signal coordination, and offset timings at corridor intersections.

Lyman Street Corridor (Main Street to Dwight Street) (Prior to MGM Springfield Opening $30,000)

- Restripe Lyman Street between Main Street and Dwight Street
- Install bicycle lanes and wayfinding signage

East and West Columbus Avenues at Boland Way Improvements (Prior to MGM Springfield Opening, $490,000)

- Install vehicular/pedestrian/bicycle wayfinding signs,
- Restripe Boland Way eastbound between East Columbus Avenue and West Columbus Avenue to include 5-foot bike lane,
- Stripe intersection tracking markings across intersection of West Columbus Avenue / Boland Way / Memorial Bridge,
- Install "sharrows" along Boland Way between East Columbus Avenue and Main Street and along Boland Way westbound between East Columbus Avenue and West Columbus Avenue,
- Upgrade accessible wheelchair ramps at:
    - East Columbus Avenue/Boland Way

  - West Columbus Avenue/Boland Way/Memorial Bridge
- Upgrade vehicular and pedestrian traffic signal equipment at:
  - East Columbus Avenue/Boland Way
  - West Columbus Avenue/Boland Way/Memorial Bridge
- Optimize traffic signal timings, clearance intervals, signal coordination, and offset timings at corridor intersections.

East and West Columbus Avenue Corridors Improvements (Boland Way to Union Street) (Prior to MGM Springfield Opening, $250,000)

- Install vehicular/pedestrian/bicycle wayfinding signs,
- Restripe West Columbus Avenue southbound approach and Memorial Bridge receiving lanes,
- Complete pavement mill and overlay East Columbus Avenue between Union Street and State Street, and
- Restripe West Columbus Avenue between Boland Way and Union Street.

Memorial Bridge (Prior to MGM Springfield Opening, $570,000)

- Restripe Memorial Bridge cross-section and install bike lanes,
- Remove scored concrete median,
- Reconstruct gaps along former scored concrete median with bituminous asphalt pavement, and
- Complete pavement mill and overlay Memorial Bridge.

Plainfield Street (Prior to MGM Springfield Opening, $280,000)

- Restriping the Plainfield Street westbound approach from the existing two through lanes to provide a single through lane and a channelized right-turn lane onto the I-91 NB On-Ramp,
- Restriping Plainfield Street westbound to provide one through travel lane between the I-91 NB On-Ramp and I-91 NB Off-Ramp,
- Restriping the terminus of the I-91 NB Off-Ramp to enter Plainfield Street, west of the intersection, into its own travel lane. This would create a de facto free, unopposed movement exiting the I-91 NB Off-Ramp,
- Construct new sidewalk along Plainfield Street north of US Route 20,
- Remove existing offset sidewalk between the newly constructed sidewalk connections,
- Install new crosswalk with flashing warning assembly and ADA-compliant accessible ramps immediately east of I-91 Ramps,
- Install "No Pedestrian Crossing" signage at locations along the northerly side of Plainfield Street at the I-91 Ramps and Birnie Avenue, and
- Construct accessible wheelchair ramps, install new pedestrian countdown indications and push buttons at Plainfield Street (US Route 20)/West Street (US Route 20)/Plainfield Street/ Avocado Street intersection.

Intelligent Transportation System Enhancements (Prior to MGM Springfield Opening, $500,000)
To improve operations and safety along I-91 and I-291, the Proponent has committed to work with MassDOT to deploy variable message signs along I-91 and I-291 to notify motorists of traffic conditions in the Downtown area. These would be used to inform the public of the following:

- Detour routes to follow when a traffic incident, construction, or traffic congestion warrants diversion of vehicles to an alternative route,
- Alternative routes to use during special events to avoid traffic congestion or locate appropriate and convenient parking, and
- Location of available parking in the Downtown area and routes for access.

- The Proponent will work with the PVTA to draft a document that captures all public transportation agreements and commitments on the project, including final details on various components of the proposed transportation mitigation program:

  - Commitment to fund ADA paratransit trips that serve the MGM Springfield site;
  - Provision of trolley/circulator service, at no fare, to be operated by PVTA. The final agreement will clarify the trolley route, stops, and hours of operation;
  - Improvements to bus stops on Main Street, including passenger amenities;
  - Ongoing commitment to maintain bus stops, including snow removal;
  - Working with PVTA and other stakeholders on ways to manage/provide/serve seniors using the current Dial-a-Ride or other alternate means for travel to MGM Springfield;
  - Targeting a transit mode share for employees;
  - Promotion of PVTA passes to MGM employees;
  - Provision of transit information for all users, including prominent placement of information about PVTA service;
  - Implementing onsite PVTA pass and fare sales;
  - Granting preferential shifts to employees who take public transportation, so they can utilize existing service;
  - Committing to regularly review service levels and demand for MGM Springfield with PVTA, and adjust service as necessary;
  - Providing a robust Transportation Demand Management (TDM) program for employees to discourage single occupancy vehicle (SOV) travel and encouraging alternate transportation, including PVTA service; and
  - Completing annual monitoring of transportation usage, with a goal of reaching target mode shares.

- Upon site occupancy, the Proponent will work with the PVTA to assess actual changes to transit demand and identify corresponding mitigation, as warranted.

- Fund and implement a TDM program consisting of the following elements:

- Transit Measures
  - Coordinate with PVTA to periodically review bus service directly serving the site and overall service;
  - Open trolley service for no fare on scheduled service days between the Project site, Union Station, and local attractions; such as: Basketball Hall of Fame and Quadrangle Museum Zone;
  - Promote the use of public transportation and coordinate with PVTA to provide information on the availability of service to employees and patrons;
  - Provide transit schedules and information about program services;
  - Provide improved bus stops with passenger amenities (weather protection, seating, real time information, customer information) near the site;
  - Provide ongoing maintenance of bus stop facilities and amenities installed as part of the Project;
  - Provide preferential shift selection to employees using transit services, and align shifts to the extent possible with PVTA transit service;
  - Provide on-site transit pass sales and offer pre-tax pass sales for employees that enroll in the program;
  - As part of employment application process, ask prospective employees about likely use of public transportation; and
  - Provide a forum for employees to give customer feedback on transit service for Transportation Coordinator to share with PVTA to target improvements in service. Feedback form can be incorporated in company commute website.

- Pedestrian and Bicycle Measures
  - Update and retrofit pedestrian signal equipment at study area intersections surrounding the site and along Main Street between Union Station and the site;
  - Provide striping improvements for bicycle lanes or sharrows along with corresponding bike signs;
  - Provide pedestrian and bicycle wayfinding signage throughout Downtown Springfield on roadways providing direct access to the site. This includes coordinating with retailers, employers, and property managers to distribute bicycle and pedestrian route maps to casino, hotel, and retail patrons, employees, and residents;
  - Provide ADA improvements at wheelchair ramps near the site;
  - Provide enhanced connectivity to the Connecticut River Walk and Bikeway;
  - Provide secure, weather protected, long-term bicycle parking (for employees and residents) at designated locations within the site;
  - Provide bicycle racks for short-term users at several locations on-site;
  - Provide bicycles and equipment for employees;
  - Implement bicycle share program;
  - Provide showers for employees who commute by walking or biking;
  - Include a repair station near the bike cages and/or advertised visits by a local mechanic;

- Provide on-site bicycle education classes such as basic maintenance and repairs, rules of the road and winter cycling;
- Canvas employees to identify potential "bicycle captains" and inexperienced cyclists that would be willing to participate in a Bike Buddy Program;
- Reconstruct sidewalks along streets surrounding the site that are affected by construction activities to improve access;
- Construct mid-block crossing with pedestrian warning device on State Street to service the pedestrian traffic between the Project parking structure and the adjacent courthouse;
- Construct mid-block crossing with raised median island on Union Street to service pedestrian traffic to land uses along southerly side of Union Street; and
- "CommuteFit" and "Workout to Work" incentive programs allow participants to log miles each month walked or bicycled to work. The Proponent will work with NuRide to implement these as part of work wellness program with incentivized participation.

- Parking Measures
  - Provide a reduced valet rate for vehicles with three or more patrons;
  - Provide preferential parking for rideshare, carpool, and hybrid vehicles. Employers, property managers, or the Transportation Coordinator would distribute parking passes or tags provided by MassRIDES to employees and residents participating in recognized rideshare or carpool programs at no cost to the employees or residents. These passes would allow employees and residents to park in reserved spaces dedicated for rideshare and carpool participants that will be strategically located in convenient locations within the parking structure;
  - Provide charging stations for electric vehicles, which will be located near the doorways on each floor of the parking structure;
  - Implement an intelligent parking system to direct drivers to open parking spaces or nearby facilities controlled by the Springfield Parking Authority;
  - Employee parking "buy out" program, which will provide a financial incentive for employees to use alternative modes of transportation; and
  - Promote TDM programs alongside sale and delivery of parking information for employees and visitors. This could include a website and traditional print media such as fliers in garages, posters in parking garage and stairwells.
- Other Measures
  - Appoint a Transportation Coordinator on-site to oversee, implement, monitor, and evaluate TDM measures, employed or funded by the Proponent. Responsibilities include:
    - Posting and distributing announcements;
    - Holding promotional events to encourage ridesharing, using public transit, bicycling, and walking;
    - Monitoring the program and assisting in the evaluation;
    - Providing transit schedules and information about program services;

- Coordinating on-site sales of transit passes;
- Managing transit subsidy or discount programs for employees;
- Coordinating rideshare and carpool programs and coordinating preferential parking for participants;
- Coordinating with PVTA and MassRIDES to implement TDM programs and improve transit mode share; and
- Collecting and reviewing transportation data and employee surveys and coordinating with transportation consultant for review of post-occupancy conditions and 'look back' intersection studies.

▪ Partner with MassRIDES to implement and monitor TDM measures;
▪ Offer preferential shifts to employees using transit to align with PVTA service;
▪ Register employees with NuRIDE to encourage ride-sharing and "green" trips;
▪ Provide Car Sharing (Zip Car or equivalent) for resident and employee use with convenient spaces located within the parking structure;
▪ Encourage vanpool and carpooling participation through marketing, events and vanpool formation meetings;
▪ Offer pre-tax payment option for employee vanpool fares;
▪ Offer employees a guaranteed ride home program through participation with NuRide;
▪ Provide and update a monthly Commuter Bulletin;
▪ Provide real-time traffic/weather information;
▪ Team up with local partners and provide lunchtime tours to help employees discover local amenities and attractions;
▪ Promote safe commuting by all modes through a multi-modal safety awareness campaign. Increase awareness of multi-modal user needs with printed, online or interactive information as developed;
▪ Implement electronic sign-up for TDM programs to support creation of a database of participants to track program effectiveness and costs;
▪ Facilitate events through coordination with MassRIDES and PVTA; and
▪ Establish a monitoring system to evaluate TDM goals.

- The TDM program will be modified, as necessary, contingent upon the outcome of the proposed transportation monitoring program, to ensure mode share estimates presented in the FEIR are met.

- Conduct RSAs as part of the 25 percent design process for intersection improvements at the following locations:[7]
  - Dwight Street/Interstate 291 southbound ramps;
  - Mill Street/Locust Street/Belmont Avenue/Fort Pleasant Avenue;

[7] As noted previously, MassDOT has recently issued updated crash data for 2012. The Proponent will review study area intersections to enable MassDOT to determine if additional intersectons will require RSAs prior to completion of 25 percent design plans.

- State Street between Main Street and Chestnut Street;
- State Street between Walnut Street and St. James Street;
- Union Street between West Columbus Avenue and Main Street;
- Main Street/West Columbus Avenue/East Columbus Avenue/Longhill Street; and
- Plainfield Street (US Route 20) between I-91 northbound Exit 9 ramps and the North End Bridge.

- Construct off-site roadway improvements consistent with "Complete Streets" principles to the extent reasonable and practicable. These improvements include:
  - Reconstruct existing curb cut ramps to bring them into compliance with ADA and AAB regulations;
  - Reconstruct pedestrian traffic signals to bring them into compliance with the most recent version of the Manual on Uniform Transportation Control Devices (MUTCD);
  - Bicycle and pedestrian accommodations where feasible such as, "bike boxes" at all signalized intersections to reduce bicycle/vehicle conflicts, new PVTA bus stops and reconfiguration of on-street parking to provide additional safety measurements for pedestrians and bicyclists.
- Complete a Traffic Monitoring Plan (TMP) with an evaluation of the following:
  - Traffic operations at key study area intersection and roadways surrounding the project.
    - Collect the following traffic impact-related data:
      - Manual Turning Movement Counts (TMCs) during the Friday evening (4:00 to 7:00 PM) and Saturday midday (11:00 AM to 2:00 PM) peak periods at the following intersections:
        - All MGM Springfield and Armory Square driveways;
        - State Street at Main Street;
        - State Street at East Columbus Avenue;
        - State Street at West Columbus Avenue;
        - Union Street at Main Street;
        - Union Street at East Columbus Avenue;
        - Union Street at West Columbus Avenue;
        - Interstate 291 southbound Exit 2B Off-Ramp at Dwight Street;
        - I-91 Exit 7 On-and Off-Ramp Intersections with East and West Columbus Avenues;
        - East Columbus Avenue/Boland Way;
        - West Columbus Avenue/Boland Way/Memorial Bridge;
        - Main Street/Harrison Street;
        - Sumner Avenue/Belmont Street/Dickinson Street; and
        - State Street/Federal Street/Walnut Street.
      - Automatic Traffic Recorder (ATC) data for a continuous week-long period at the following locations:
        - State Street east of East Columbus Avenue;
        - Union Street east of East Columbus Avenue;
        - Main Street north of Howard Street;

- East Columbus Avenue north of Howard Street;
- West Columbus Avenue between State Street and Union Street;
- Interstate 91 southbound Exit 6 Off-ramp;
- Interstate 91 northbound Exit 6 Off-ramp;
- Interstate 291 southbound Exit 2B Off-ramp;
- North End Bridge;
- South End Bridge; and
- Memorial Bridge

- Compare the site-generated vehicle trips collected in the TMCs at the site driveways with the site-generated vehicle trips estimate included in the DEIR;
- Compare the TMCs with those projected in the DEIR to determine whether the total vehicles entering each intersection exceeds the volumes projected and whether trip distribution patterns generally concur with those project in the DEIR;
- Perform a capacity and queuing analysis to evaluate the traffic operations at the study area intersections and compare to the projections in the DEIR;
- Assess whether additional improvements are necessary at any of the study area intersections and identify measures to improve operations and reduce traffic volumes.
  - The need for mitigation will be conditioned upon exceeding total projected traffic generation through an intersection by more than ten percent or of exceeding the projected overall intersection delay by more than 20 percent.
  - The need for additional TDM measures will be conditioned upon exceeding the total projected traffic generation volume by more than five percent.

- Adequacy of the constructed parking supply;
  - Collect parking utilization counts during the Friday and Saturday peak parking demand periods between 12:00 and 9:00 PM and a weekday morning (non-Friday) between 7:00 AM and 12 PM to assess adequacy of parking supply.
    - Separate parking counts will be conducted in the self-parking garage, hotel and casino valet parking areas and tour bus parking, and Armory Square parking areas.
    - Separate counts will be conducted of utilization of preferential carpool, alternative-fueled vehicle, and EV charging station spaces.
  - Assess whether the constructed parking supply is adequate based upon the observed parking demand.
  - Assess the need for additional TDM measures to improve use of preferential parking or EV charging stations, including increasing the number of these types of spaces to provide additional capacity.
- Effectiveness of TDM measures.
  - Prepare a report on the progress and effectiveness of each TDM measure including narrative and quantitative data;

  - Collect boarding and alighting counts at the PVTA bus stops located along Main Street, Dwight Street, and Chestnut Street in the immediate vicinity of the site;
  - Collect boarding and alighting counts at the proposed trolley stops;
  - Conduct an annual commuter survey for employees to determine mode split (transit, pedestrian, bicycle) and evaluate opportunities to expand or adjust TDM measures.
- Complete "look-back" studies in accordance with the SCA's. The final scope of the look-back approach, including the roadways for evaluation, will be developed in coordination with each respective community, PVPC, the Proponent, and each entity's consultants.
- Work with MassDOT during and post permitting to optimize traffic operations and manage access along some project corridors (notably Main Street and Union Street).

Air Quality

- Implement a TDM program to mitigate the projected emissions increase between the 2024 No Build and 2024 Build conditions (7 percent increase in volatile organic compounds (VOCs) and a 5 percent increase in nitrogen oxides (NO_x)).
- Install on-site stationary sources of potential air pollutants, including the proposed CHP system in accordance with MassDEP's Environmental Results Program (ERP) or air quality permitting regulations, as applicable.

Greenhouse Gas Emissions

- In accordance with the Gaming Act, the project will be required to meet or exceed the following sustainable design and/or energy efficiency requirements:
  - Compliance with the Stretch Code;
  - Certifiable at the Gold Level or higher under the GBC's LEED program;
  - Procure through the purchase of RECs or generate on-site at least ten percent of its annual electricity consumption from renewable sources; and
  - Develop an ongoing plan to monitor all major sources of energy consumption and undertake regular efforts to maintain and improve energy efficiency in building systems.
- Project buildings will incorporate the following elements, or measures achieving similar energy use reductions, into the final Project design:
  - High efficiency water cooled chillers
  - Water side economizers
  - Air side economizers
  - Variable air volume systems
  - Variable speed pumping
  - Variable speed cooling tower fans
  - Demand controlled kitchen exhaust (with tenant participation)
  - Increased air filtration