



20

COMMUNITY MITIGATION FUND

APPENDIX H

Transportation Construction Project(s) ("TCP") BD-20-1068-1068C-1068L-46130

Please complete the entire Application.

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|-----|---|
| | Town of West Springfield |
| 1. | NAME OF MUNICIPALITY/GOVERNMENT ENTITY/DISTRICT
Park Street / Park Avenue Complete Streets |
| 2. | PROJECT NAME (LIMIT 10 WORDS)
Complete Streets Transportation Improvements to the Park Avenue (Rte 20) and Park Street (Rte 20) corridors from the Elm Street (Rte 20)/Union Street intersection to the North End Rotary. |
| 3. | BRIEF PROJECT DESCRIPTION (LIMIT 50 WORDS)
William C. Reichelt, Mayor |
| 4. | NAME AND TITLE OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
26 Central Street, West Springfield, MA 01089 |
| 5. | ADDRESS OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
(413)263-3041 wreichelt@tows.org |
| 6. | PHONE # AND EMAIL ADDRESS OF INDIVIDUAL AUTHORIZED TO COMMIT FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
Sharon Wilcox, Chief Financial Officer |
| 7. | NAME AND TITLE OF CONTRACT MANAGER RESPONSIBLE FOR HANDLING OF FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
26 Central Street, West Springfield, MA 01089 |
| 8. | ADDRESS OF CONTRACT MANAGER RESPONSIBLE FOR HANDLING OF FUNDS ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
(413)263-3025 swilcox@tows.org |
| 9. | PHONE # AND EMAIL ADDRESS OF CONTRACT MANAGER ON BEHALF OF MUNICIPALITY/GOVERNMENTAL ENTITY
MGM Springfield |
| 10. | NAME OF GAMING LICENSEE |

1. IMPACT DESCRIPTION

Please describe in detail the impact or potential impact that is attributed to the operation of a gaming facility that may be remediated by the proposed Transportation Construction Project (TCP). Please provide support for the determination that the operation of the gaming facility caused, is causing or otherwise may cause the impact.

In 2018 the Massachusetts Gaming Commission awarded a transportation planning grant to the Town of West Springfield ("Town"), agreeing with the Town's analysis that the Park Avenue and Park Street (Route 20) corridors were impacted by the new MGM casino and that Complete Streets improvements were needed to mitigate these traffic impacts. Since that award, the Town has hired Greenman Pederson Inc. (GPI) to design complete streets improvements to address the additional traffic as well as encourage mode shift to other forms of transportation other than passenger vehicles such as public transit, walking and bicycling. Undated and enhanced multi-modal (bicycle and pedestrian) connections to the North End Rotary and bridge were determined needed to connect to the infrastructure on the Springfield side of the bridge leading to the MGM casino.

The Final Environmental Impact Report Certificate required MGM to implement a series of bicycle and pedestrian infrastructure improvements surrounding the site and connecting to the Connecticut Riverwalk and bikeway. See [Appendix A](#) for the excerpts from the certificate.

The certificate also states that the project site is easily accessible by existing PVTa bus routes. The Pioneer Valley Transit Authority (PVTa) Bus Routes P20 (with stops at Union Station for connecting to "The Loop") and R10 (with stops at Union Station for connecting to "The Loop" and stops near the casino) travel the project area between West Springfield and Springfield. See [Appendix B](#) for route maps.

This area is two miles or less from MGM Springfield, and closer to the casino than many areas in the City of Springfield. Therefore, this project area is situated to take advantage of alternative modes of transportation (other than passenger vehicles) such as public transit, bicycling and walking. It will build off and compliment the Transportation Demand Management (TDM) infrastructure to reduce single occupant vehicle (SOV) trips, other vehicle trips and promote multi-modal transportation. There will be better transitions for bicyclists and pedestrians to and from the North End Rotary leading to the bicycle and pedestrian infrastructure on the Springfield side of the bridge.

In addition to this, the Town of West Springfield is joining Valley Bike Share this calendar year. There will be two electric assisted bicycles and stations installed in Town in 2020. One is sited in front of the Town's Library on Park Street at the southerly limit of this project. The City of Springfield has numerous Valley Bike Stations in the City, one being at the MGM Casino and Union Station. This coupled with building upon the Town's Tier 3 Complete Streets improvements in the project area will significantly encourage multi-modal transportation and provide for safer bicycling and pedestrian opportunities to travel to the casino and/or transit system that connects to the casino.

It is the Town's intent to complete this project before construction will occur on the Memorial Avenue (Route 147) corridor (anticipated to be advertised for construction in Federal Fiscal Year 2022), since these roadways will be used as alternate routes to and from the MGM casino and the City of Springfield

during reconstruction of the roadway. The Memorial Avenue project is expected to last at least three construction seasons. Therefore, these transportation alternatives and safety improvements are needed now and in the future to help reduce the number of vehicles on the roadway and provide a safer travel route to/from the casino.

Included in **Appendix C** is the Transportation Evaluation Criteria form used by the Pioneer Valley Metropolitan Planning Organization completed for this project.

2. PROPOSED USE OF TRANSPORTATION CONSTRUCTION PROJECT(S) FUNDS (Please attach additional sheets/supplemental materials if necessary.)

a) Please describe how you propose to use the Transportation Construction Project(s) for transportation projects related to the gaming facility.

The total estimated construction cost of the project is \$3,161,000. The Town of West Springfield is requesting the maximum amount of this grant (\$1,000,000) to be directly applied to construction of the project. All of the funds requested will be applied directly to its construction. The additional \$2,161,000 in excess of the grant amount will be funded from alternate sources such as municipal funds, Chapter 90 (for eligible elements such as roadway milling /resurfacing and signal upgrades) and/or other possible funding opportunities that may arise. A preliminary Construction cost estimate depicting the items to be funded is included in **Appendix D**.

b) Please describe how the mitigation request will address the impact indicated.

The project will address transportation impacts by improving safety and operations of the corridor, promoting mode-shift and multi-modal use to reduce the number of vehicular trips on the roadway. The Complete Streets elements such as a shared use path along the corridors will encourage bicyclists and pedestrians of all ages and abilities to safely travel these roadways. This will provide for enhanced connection opportunities to the infrastructure on the Springfield side of the North End Bridge leading to the MGM casino. In addition to this, improved and safer access to the Pioneer Valley Transit Authority bus stops will promote more usage of this mode of travel to and from the casino. The signalized intersection improvements will enhance travel operations within the corridor and provide safe passage for all users. The intersections of Main Street and Park Avenue and Park Street will receive improved crossing accommodations for bicyclists and pedestrians to and from the North End rotary and Main Street as well as access to PVTA transit stops.

This will help mitigate traffic impacts by promoting transportation choices other than a passenger vehicles which will help achieve the mode-share targets established in the FEIR to reduce vehicular trips to/from the casino by use of other modes of transportation (public transit, bicycling and walking). 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 public transportation connection outside of Springfield.

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.

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.

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. The casino is in close proximity 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. 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.

This project will provide the Complete Streets treatments to the area that provide transportation users of various ages and abilities better opportunities for accessing and using modes of travel other than a passenger vehicle. All the requested funds will be applied to the construction of these improvements.

4. BUDGET & TIMELINE

a) Please identify the amount of funding requested. Please provide a detailed scope and budget for the use of funds.

The Town of West Springfield is requesting \$1,000,000.00 in funding for construction of this \$3,161,000 project. The Town of West Springfield will supplement construction costs in excess of the grant award. A preliminary cost estimate is included in Appendix D. The Town also understands it is not relying on funding for future year awards to supplement funding granted under this application. The Town is committed to supplement the additional \$2,161,000 needed from other sources.

The scope of the project includes the following:

- New signal equipment, signal optimization at the intersections of Main Street with Park Street as well as the intersections of Elm Street with Park Street, Park Avenue and Union Street.
- 10 foot wide Multi-Use path along the Town Common for allowing bicyclists and pedestrians safe travel along Park Avenue and Park Street with a high level of comfort.
- Relocated bus stop on Park Avenue for the Pioneer Valley Transit Authority for safety. Bus stop consolidation on Park Street.
- Roadway milling, resurfacing and line markings on Park Avenue, Park Street and Mains Street (connector between roadways)

Appendix E includes the preliminary plan and report. Section 4.0 of the report further elaborates on the scope of proposed improvements in greater detail.

b) 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 the Transportation Construction Project.

The preliminary project concept plan and report (with construction estimate) is included in Appendix E. The report discusses the history of project development, proposed improvements and an itemized project construction estimate.

c) Please provide the estimate and percentage of the costs projected to be funded from other federal, state, local, private contributions or unspent CMF Reserves. (Applicants may include contributions from gaming licensees and private contributions.) Please provide a detailed itemized estimate for each type of funding.

The percentage of costs projected to be funded from other sources is 68% (\$2,161,000). The following is an itemization these funding sources:

Source	Amount	Notes
Municipal Street Maintenance (FY 2021)	\$725,000	(based on projected Capital Budget)
Municipal Street Maintenance (FY 2022)	\$1,000,000	(based on projected Capital Budget)
Chapter 90 FY 2021	\$950,992	(based on estimated distribution) (Letter attached in Appendix F)
TOTAL	\$2,675,992	

Please note the Town currently has just over \$1,000,000 in available Chapter 90 funding available for eligible projects. Therefore, the above table demonstrates that there will be funding available this year and next year to cover the additional costs. The Town will allocate from these funding sources appropriately once it is under contract with a contractor and the exact amounts are known.

d) Please indicate, through a commitment letter or otherwise, how such other funding will be available for the project. In the absence of a final commitment to such funding, please provide detail on any process needed to secure any non-CMF funding.

A Funding Commitment Letter from Mayor Reichelt is included in **Appendix G**. This outlines the Town's commitment to fund additional costs beyond what is requested in this grant.

e) Please include a detailed timetable for the TCP, including but not limited to, the timetable for planning, for securing additional funds and the timetable to implement the TCP. Construction of the TCP must commence by June 30, 2021.

Planning/Engineering and Construction Timetable

Project Phase	Task(s)	Timetable
Preliminary Design Phase	Remaining preliminary design project meetings	February 2020-March 2020
Notice to Proceed with 75% Design	Development of 75% design documents	April 2020
75% Design	Design development and submittal to Town	May 2020 – June/July 2020
Municipal Review and comment of 75% Design	Internal municipal meetings and design document review	July 2020-August 2020
Development of Final Plans, Specification and Estimate	Responding to municipal comments and development of bidding documents.	September 2020 – October/November 2020
Municipal Procurement Process	Final reviews, Project advertisement, project vendor award and pre-construction meeting	November 2020 – March 2021
Physical Construction of the Project	Construction of the project	March/April 2021 – June 2022

Securing Additional Funding Timetable

Funding Source	Amount	Funding Availability
Fiscal Year 2021 Street Maintenance (Municipal)	\$725,000	July 1, 2020
Fiscal Year 2022 Street Maintenance (Municipal)	\$1,000,000	July 1, 2021
Fiscal Year 2021 Chapter 90	\$950,992	July 1, 2020

The Town currently has approximately \$1,000,000 in available Chapter 90 funds. It is estimated that an additional \$950,992 in funds will be available July 1, 2020. A copy of the MassDOT letter is in **Appendix F**. A project request will be sent to the MassDOT District 2 Office for any needed Chapter 90 funding once a low bid has been accepted for a construction contractor.

5. MEASUREMENT OF IMPACT

Please describe how you propose to measure the impact of your TCP including indicators proposed to measure results.

Impact results can be measured by comparing the following items over a five year horizon. This time frame was selected to be consistent with accident history analyzed in the Transportation Improvement Project Functional Design reports and will give adequate time for demonstrating change.

Accident History –Accidents for a five year period before construction begins and after construction is completed. To demonstrate safety impacts.

Transit Usage– Patron boardings/alightings at transit stops for a five year period before construction begins and after construction is completed. To demonstrate transit usage.

Traffic Counts – Measure traffic volumes (including bicycle and pedestrians) collected when design began to counts five years after completion of the project.

Valley Bike Share -Tracking of Valley Bike share usage before and a five year period after construction is completed. These bicycles have tracking systems built in them.

6. INTERNAL CONTROLS/ADMINISTRATION OF FUNDS

Please provide detail regarding the internal controls that will be used to ensure that funds will only be used to address the 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 to fund the contract between the Town and the selected responsible low bidder for the project. The procurement of a construction vendor will follow all Commonwealth of Massachusetts requirements for a Chapter 30 Section 39M bid. When the Town has secured a vendor for construction, 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 identified for the project. The funds will be retained in a grant account, pursuant to G.L. c.44, section 53A, and can only be expended for the purposes stated herein and in the grant.

7. CONSULTATION WITH MASSDOT/ REGIONAL TRANSIT AGENCY (RTA) / REGIONAL PLANNING AGENCY (RPA) AND NEARBY COMMUNITIES

Please provide details about the Applicant's consultation with MassDOT, the Regional Transit Agency/MBTA and the Regional Planning Agency serving the community, and nearby communities to determine the potential for cooperative regional efforts regarding transportation construction activities.

Appendix H includes correspondence with the Pioneer Valley Regional Transit Authority (PVTA) regarding the project as well as the Massachusetts Department of Transportation (MassDOT). Also included is a letter from the Pioneer Valley Planning Commission from 2018 when the Town applied for Transportation Planning and Engineering funds.

In addition to this, page 26 of the Conceptual Design Report has information related to Public Outreach meetings conducted in April and June of 2019 for the project as well as a meeting with the Historic Commission in January 2020. **Appendix I** includes copies of the April and June meeting notices. These meetings assisted in the project development fostering support for the project.

8. RELEVANT EXCERPTS FROM HOST OR SURROUNDING COMMUNITY AGREEMENTS

Please describe and include excerpts from any relevant sections of any Host or Surrounding Community Agreement. Please explain how this impact was either anticipated or not anticipated in that Agreement.

The surrounding community agreement did not include the Park Avenue and Park Street corridors. Only the Memorial Avenue corridor was included in 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, which is part of a primary travel route to/from the casino.

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 public transit. Therefore, additional traffic volumes, operational and multi-modal impacts to the study area resulting from additional casino traffic were not completely addressed in this area.

As part of the MEPA finding, Transportation Demand Management strategies were implemented at and in the vicinity of the casino that will support public transit, bicycle and pedestrian modes of transportation. This project will provide a means to support these modes of transportation traveling to the casino so that TDM infrastructure at and immediately surrounding the casino is utilized to the maximum extent practicable.

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 of Responsible Municipal
Official/Governmental Entity



Date

APPENDIX A

MEPA EXCERPTS



Deval L. Patrick
GOVERNOR

Maeve Vallely Bartlett
SECRETARY

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

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

- 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 paratransit 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 PVRTA'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 PVRTA'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 PVRTA 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-free 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 for 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 Patron	Casino/Hotel Employee	Residential	Armory Retail	Armory Office
SOV ^a	85.5%	67.0%	95.0%	95.0%	79.5%
Carpool/Rideshare	N/A ^a	13.0%	3.0%	3.0%	15.5%
Public Transit	2.0%	16.0%	4.0%	4.0%	4.0%
Pedestrian/Bicycle	0.5%	4.0%	1.0%	1.0%	2.0%
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.

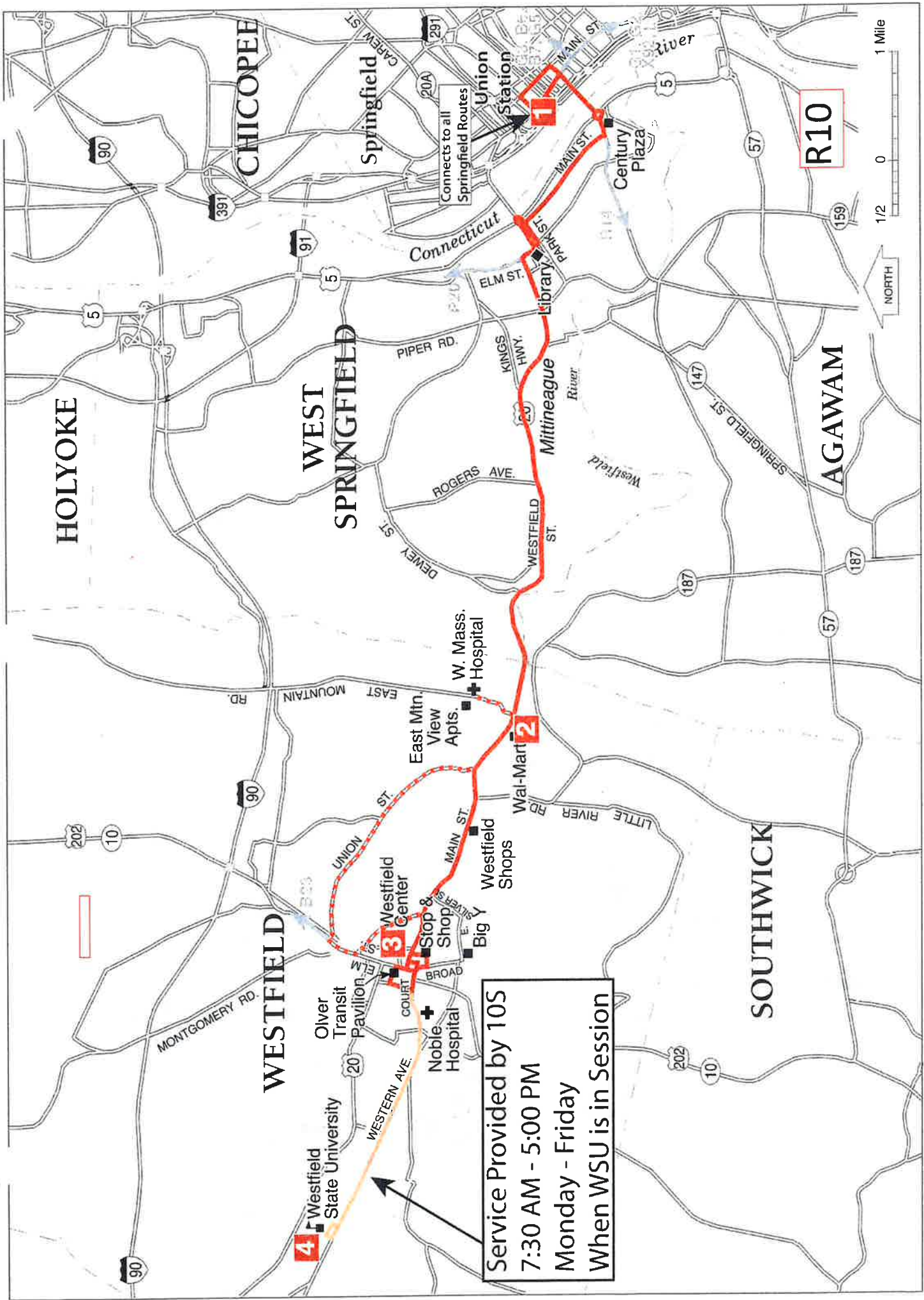
A Transportation Coordinator will be responsible for developing additional TDM measures should the monitoring program identify any unanticipated or unmitigated project-specific impacts. Should the monitoring program identify such impacts, additional improvements will be identified and implemented to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

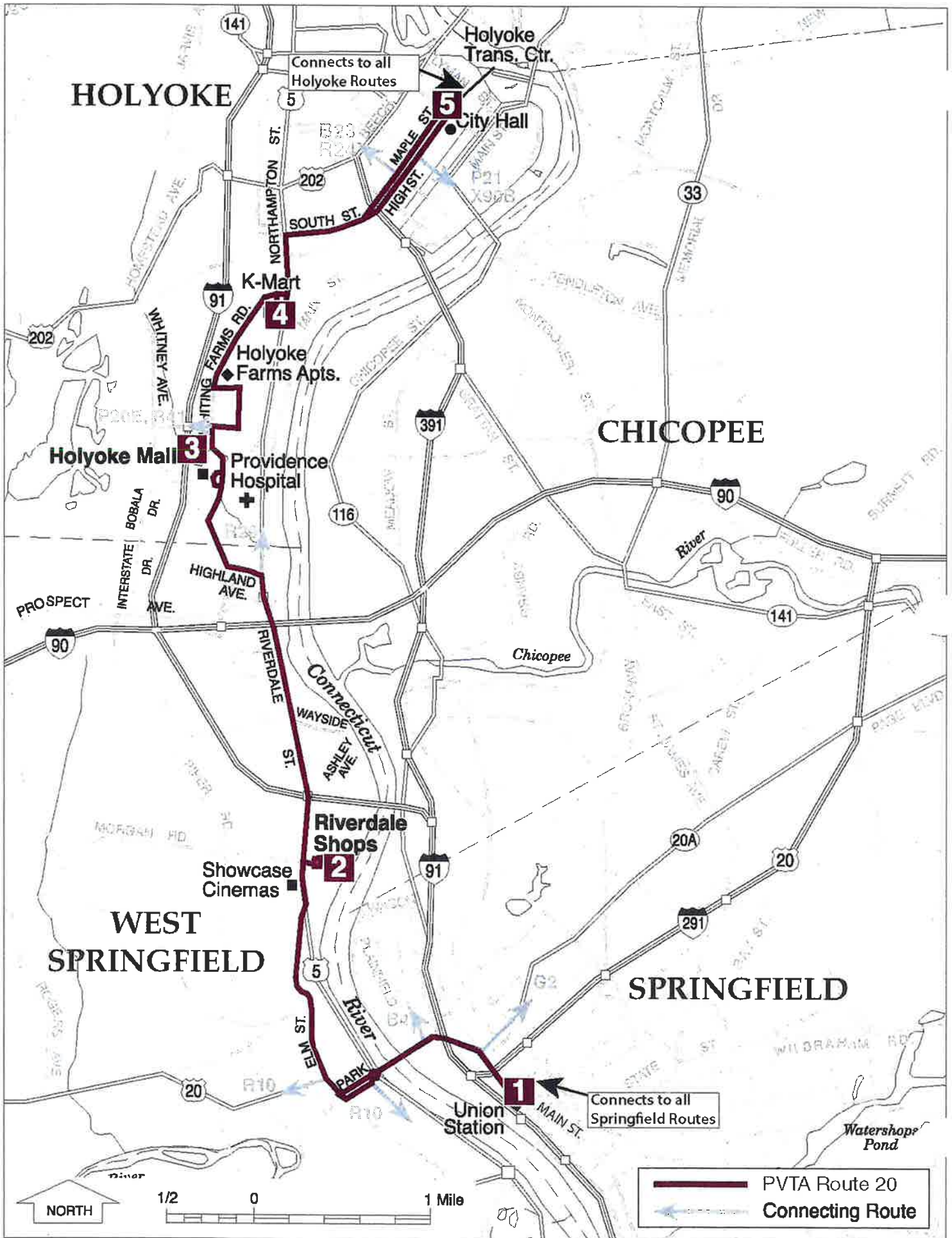
Monitoring

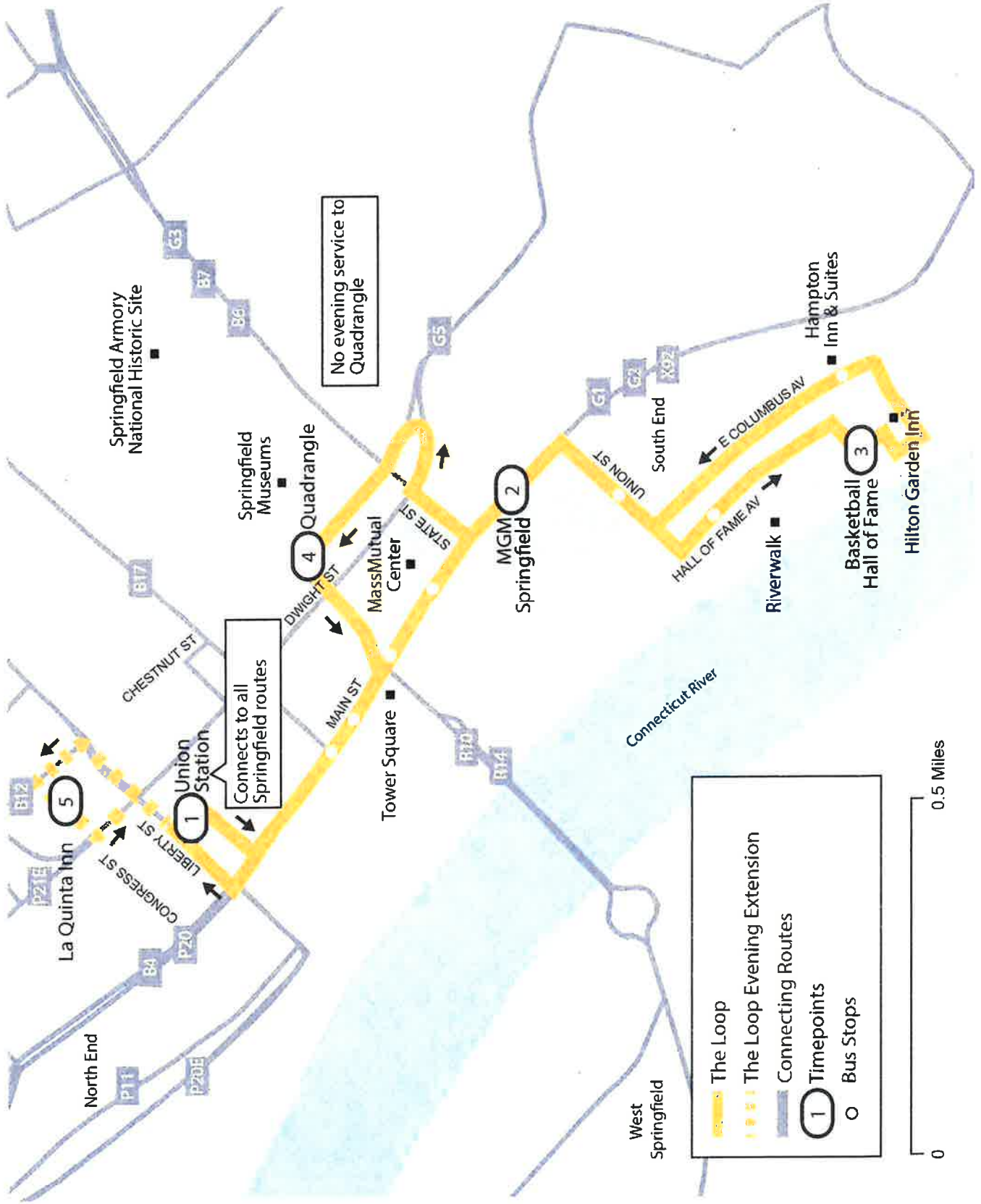
The project general contractor will prepare a Transportation Monitoring Program (TMP) for review and approval by the City and MassDOT. The TMP is intended to monitor traffic operations, parking occupancy, public transportation utilization, and pedestrian/bicycle use throughout the construction period 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

APPENDIX B

PVTA ROUTE MAPS







Legend:

- The Loop
- The Loop Evening Extension
- Connecting Routes
- Timepoints
- Bus Stops

No evening service to Quadrangle

Connects to all Springfield routes

APPENDIX C

**PIONEER VALLEY METROPOLITAN PLANNING
REGION PROJECT TRANSPORTATION EVALUATION
CRITERIA**

Evaluation Criteria
Pioneer Valley Planning Commission

Community: West Springfield **Project Type:** Roadway Improvement **SID #:** _____

Year Project was initiated: _____ **MassDOT Design Status:** 0%

Cost Estimate: \$ 3,161,000.00 **Year of Cost Estimate:** _____

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

ADT: 26793 **Year of ADT:** 2012 **# Lanes:** 6 **Length (miles):** 0.22

Cost/ADT: 117.9785765 **Cost/Lane Mile:** 2394697 **Cost/ADT/Lane Mile:** 89.38

MassDOT Town Project Name: Park Street/Park Avenue Complet Streets

Complet Streets Improvements to Park Avenue and Park Street from Main Street to Elm and Union Streets. Length is approximatly .22 miles.

The scope of the project includes the following:

New signal equipment, signal optimization at the intersections of Main Street with Park Street as well as the intersections of Elm Street with Park Street, Park Avenue and Union Street.

10 foot wide Multi-Use path along the Town Common for allowing bicyclists and pedestrians safe travel along Park Avenue and Park Street with a high level of comfort.

Relocated bus stop on Park Avenue for the Pioneer Valley Transit Authority for safety. Bus stop consolidation on Park Street.

Roadway milling, resurfacing and line markings on Park Avenue, Park Street and Mains Street (connector between roadways)

Section	Name	Score
1	SYSTEM PRESERVATION, MODERNIZATION AND EFFICIENCY	13
2	LIVABILITY	9
3	MOBILITY	8.5
4	SMART GROWTH AND ECONOMIC DEVELOPMENT	7
5	SAFETY AND SECURITY	7
6	ENVIRONMENT AND CLIMATE CHANGE	5.5
7	QUALITY OF LIFE	4.5
8	ENVIRONMENTAL JUSTICE	2.5
Grand Total		57
Cost/Point		\$ 55,456.14

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1	SYSTEM PRESERVATION, MODERNIZATION AND EFFICIENCY				SID #	0
Maximum Points for this Subsection-->:					19	13
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Improves substandard pavement	OCI rating less than 48.5 (arterial) or 47.5 (Collector): Poor, and pavement improvements are included in the project – 8 points OCI rating between 48.5 and 69.5 (arterial) or 47.5 and 68.5 (collector): Fair, and pavement improvements are included in the project – 4 points OCI rating greater than 69.5 (arterial) or 68.5 (collector): Good or better – 1 point OCI rating greater than 85 or the project is an intersection improvement or off-road bicycle facility – 0 points	Select one only	Based on Pavement Condition Ratings as defined in current RTP. Attach Photos. In 2009, road was rated 71 and 85, 11 years post rating, estimated OCI range 50 - 69.5; see rating sheet.	8	4
b	Improves intersection operations (signal equipment upgrades, adaptive signal controls and coordination with adjacent signals, roundabout, geometric improvements, adds turn lanes, improves alignment, improves sight distance.)	Meets or addresses criteria to a high degree - improves multiple locations– 6 points Meets or addresses criteria to a medium degree - improves at least one locations with multiple upgrades – 4 points Meets or addresses criteria to a low degree - improves one location – 2 points Does not meet or address criteria – 0 points	Select one only	New Signal Equipment at the intersection of Main Street and Park Ave intersections	6	6
c	In a Congestion Management Process Identified Area	CMP data indicates project improves a corridor of Severe congestion– 5 points CMP data indicates project improves a corridor of Serious congestion – 3 points CMP data indicates project improves a corridor of Moderate congestion – 1 points CMP data indicates project improves a corridor of Minimal congestion or corridor is not currently monitored – 0 points	Select one only	Based on most recent regional CMP data 2009 RT20 from East Mountain rd to to N. End Bridge rated as 44 as a serious congestion corridor See Map and List	5	3

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2	LIVABILITY				SID #	0
	Maximum Points for this Subsection-->:				12	9
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Design is consistent with complete streets policies. Complete Streets are designed and operated to enable safe access for all motorists, pedestrians, cyclists, and transit users. Applicant must provide supporting documentation that project is consistent with a locally adopted complete streets policy or is a direct	Project is a "complete street" consistent with a locally adopted complete streets policy – 1 point	Select all criteria that apply to project.	Provide plans illustrating facilities provided. MassDOT Project Development and Design Guide FHWA Livability in Transportation Guidebook shared use path proposed	3	3
		Project provides bicycle facilities or accommodations – 1 point				
		Project provides pedestrian facilities – 1 point				
		Does not provide any complete streets components – 0 points				
b	Provides multi-modal access to a downtown, village center or employment center.	Provides continuous bicycle access (i.e. bike lanes or bike path) to a downtown or center – 1 point	Select all criteria that apply to project.	Project proponent must provide plans illustrating facilities provided and information on the downtown or village district. (project take place on town common)	2	2
		Provides pedestrian access to a downtown or center – 1 point				
		Does not provide multimodal access – 0 points				
c	Reduces auto dependency	Project completes a known gap in the bicycle or pedestrian network – 0.5 point	Select all criteria that apply to project.	Project proponent must provide plans illustrating facilities provided. Shared use path proposed	2	1
		Project provides for a new bicycle facility – 0.5 point				
		Project provides for a new pedestrian facility – 0.5 point				
		Project implements a transportation demand management (TDM) strategy – 0.5 point				
		Does not provide any of the above measures – 0 points				
d	Project serves a targeted development site (Priority Development Area identified in Valley Vision, rail station area, Chapter 40R or 43D or 43E District)	Project mostly serves a targeted development site – 1 points	Select all criteria that apply to project.	Project proponent must provide map of project location, and identify project location in relation to identified targeted development site. Information on special districts should also be provided.	2	1
		Project partly serves a targeted development site – 0.5 point				
		Project supports local zoning or other regulations that are supportive of smart growth – 0.5 point				
		Project provides for bicycle or pedestrian access to or within a targeted development site – 0.5 point				
e	Completes off-road bike and pedestrian network (copy of the most recent regional bicycle/trail map is attached.)	Project provides an important link or component of the region's off-road bicycle and pedestrian network – 3 points	Select one only: <u>Bike sharing location planned for West Springfield Library</u>	Based on Regional Bicycle/Trail Map (provided) or the Regional Bike Linkages Map (proposed pending adoption, see attached map)	3	2
		Project includes an off-road bike and pedestrian component as part of a road project or a community adopted bicycle sharing program – 2 points				
		Project provides a connection to a regional bikeway/walkway – 1 point				

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3	MOBILITY		SID #		0	
Maximum Points for this Subsection-->:					17	8.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Improves Efficiency, Reliability and Attractiveness of Public Transit	Project increases fixed route bus transit service efficiency and attractiveness through design or ITS technology – 1 point	Select all criteria that apply to project.	Identify affected bus service, design features, and/or ITS components See attached bus routes map	4	1
		Project provides new or improved linkages to adjacent existing or planned public transit stations/stops – 0.5 point				
		Project prioritizes signals for transit vehicles – 1 points				
		Project provides for a dedicated busway – 1 points				
		Project provides for bus bump out – 0.5 point				
b	Improves existing peak hour level of service (LOS)	Source data indicates project improves a location that operates at LOS F in an urban area or LOS E in a rural area – 6 points	Select one only	Attach Functional Design Report or recent planning study. PAGE 24 of STUDY	6	5
		Source data indicates project improves a location that operates at LOS E in an urban area or LOS D in a rural area – 5 points				
		Source data indicates project improves a location that operates at LOS D in an urban area or LOS C in a rural area – 3 points				
c	Reduces traffic congestion without adding unnecessary turn lanes.	Reduces congestion to a high degree – project significantly improves traffic flow for a location in the Regional Bottlenecks Report or Regional Congestion Management Process – 7 points	Select one only	Attach Functional Design Report or recent planning study.	7	2.5
		Reduces congestion to a medium degree – project improves vehicle storage, installs exclusive turn lanes as warranted, improves access management at more than two locations– 5 points				
		Reduces congestion to a low degree – provides modest improvements such as signal retiming, lane striping, upgraded detection, turn restrictions, or access management upgrades at a single location – 2.5 points				
		Does not reduce congestion – 0 points				

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4 SMART GROWTH AND ECONOMIC DEVELOPMENT					SID # 0	
Maximum Points for this Subsection--->:					10	7
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Encourages Development around Existing or Enhanced Infrastructure.	<p>Public water and sanitary sewer lines serve the project area - 2 points</p> <p>For rural areas, project is within a 1/4 mile radius of a village center - 2 points</p> <p>The community will invest in the expansion of existing public water and sanitary sewer lines or install new infrastructure to compliment the project. - 2 points</p> <p>Or</p> <p>Public water and sanitary sewer lines are within close proximity (within 150 feet) of the project ROW - 1 point</p> <p>For rural areas, project is within a 1/2 mile radius of a village center - 1 point</p> <p>Public water and sanitary sewer lines do not serve the project area - 0 points</p>	Select only one	Provide a site map illustrating the project and any related public water or sewer lines or village center. (public water line runs through center of town common)	2	2
b	Prioritizes Transportation Investments that Support Land Use and Economic Development Goals	<p>Project is identified in the most recently adopted Comprehensive Economic Development Strategy (CEDS) for the region - 0.5 points</p> <p>Project serves an area that is targeted as a Priority Development Area (PDA) in Valley Vision Map - 0.5 points</p> <p>Project serves an area that is targeted as a Priority Protection Area (PPA) in Valley Vision Map - (-1 points)</p>	Select if applicable	Valley Bike Share is being implemented in the project area.	1	0.5
c	Provides service to a Transit Oriented District (TOD), Traditional Neighborhood District (TND), and Cluster or Open Space Development District	Project serves an area that is identified in an existing or planned transit oriented development, traditional neighborhood development, cluster or open space development district in an adopted plan	Select if applicable	Submit plan excerpts referencing the appropriate district.	0.5	0
d	Support Mixed-Use Downtowns and Village Centers	Project serves an existing or planned mixed use downtown or village center	Select if applicable	Identify the downtown (project takes place on Town Common)	0.5	0.5
e	Improves intermodal accommodations/connections to transit (project enhances access, amenities, or service to an existing transit intermodal center or pulse point.)	<p>Meets or addresses criteria to a high degree - project enhances service for three or more transit routes - 4 points</p> <p>Meets or addresses criteria to a medium degree - project results in multiple upgrades for one or two transit routes - 2 points</p> <p>Meets or addresses criteria to a low degree - project enhances service for a single transit route - 1 points</p> <p>Does not meet or address criteria - 0 points</p>	Select one only	Include most recent PVTA route ridership data. (see attached map)	4	2
f	Reduces Congestion on Freight Routes	<p>Project will reduce congestion on roadways with more than 5% trucks per day - 1 point</p> <p>Project implements a strategy identified in the State or Regional Freight Plan - 1 point</p>	Select all criteria that apply to project.	Attach Truck Count	2	2

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5	SAFETY AND SECURITY				SID #	0
	Maximum Points for this Subsection--->:				16	7
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Reduces Number and Severity of Collisions	Project includes ITS elements that will reduce crashes or adds/improves guardrails.	Select if applicable	Identify specific ITS components	1	0
		A roadway safety audit has been completed for the project.		Submit RSA report	2	0
		Project addresses a safety problem as identified in the PVPC "Top 100" High Crash Intersections Report, Top 25 High Crash Roadway Segments or is identified as a High Bicycle or Pedestrian Crash Cluster by MassDOT - 4 points	Select one (if applicable)	Submit report excerpts. Documented crashes per Million Entering Vehicles/Million Vehicle Miles: RANK 35 2007-2009 PVPC report	4	0
		The location has a history of lane departure crashes and the project will remove hazardous objects such as utility poles and trees from the roadside – 4 points				
		The location has a history of lane departure crashes and the project will install rumble strips, improve visibility through enhanced edge lines, or enhance pavement to improve skid resistance – 2 points				
		The location has a crash rate greater than the state or district average. – 2 points				
b	Promotes Safe and Accessible Pedestrian and Bicycle Environment	Project includes bike safety improvements – 2 points	Select if applicable	Identify the safety improvements (off road shared use path proposed)	5	5
		Project includes pedestrian safety improvements – 2 points				
		Project provides bike amenities, such as bike racks or lockers, off-road bike lanes, connections to bike paths, or bike-sharing infrastructure – 1 point				
c	Improves Emergency Response	Project is identified as an existing or planned priority emergency response route by one or more Local Public Agencies and is projected to decrease response times for EMS, fire, and police agencies – 2 points	Select all criteria that apply to project.	Attach EMS plan excerpts or other documents (senior center and Town Hall about project emergency centers that about the project area)	4	2
		Project improves an evacuation route to, or in proximity to, an emergency support location – 2 points				

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6 ENVIRONMENT AND CLIMATE CHANGE					SID #	0
Maximum Points for this Subsection-->:					12	5.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Preserves Floodplains and Wetlands (310 CMR)	Project is not located in a floodplain.	Select all criteria that apply to project.	Submit floodplain map. (see attached map)	0.5	0.5
		Project is not located in an existing wetland			0.5	0.5
b	Promotes Green Infrastructure and Low Impact Development to Reduce Stormwater Impacts	Project involves use of green infrastructure or low impact development (LID) best management practices (BMPs) to reduce stormwater impacts. Eligible BMPs include: rain gardens, green streets, tree box filters, bioretention areas, sheet flow runoff, permeable pavement, vegetated swales, engineered soils for expanded root growth, and measures to improve infiltration	Select if applicable	Identify best management practices (new multi-use path will sheet drain into grass area of common)	2	2
c	Reduces Impervious Surfaces	Project reduces impervious surface area, or reduces stormwater runoff discharge rate and volume, from pre-existing conditions.	Select if applicable	Identify design features	0.5	0
d	Protects or Enhances Environmental Assets	Project will improve high priority regional environmental assets or enhance protection of Priority Protection Areas (PPAs) identified in Valley Vision.	Select if applicable	Identify affected assets from map	0.5	0
e	Supports Brownfields Redevelopment	Project serves a brownfield redevelopment site. Or Project helps to implement an adopted brownfield redevelopment plan	Select one only, if applicable	Supply map	0.5	0
f	Improves Air Quality Major improvements include projects that demonstrate significant reduction in single occupant vehicles. Minor improvements include reductions in vehicle idling.	Project includes major elements improving air quality – 1 point Project includes minor elements improving air quality – 0.5 point Project has no significant air quality impact – 0 points Project has negative air quality impacts – (-1) points	Select if applicable	Show CMAQ Analysis (PVPC). The level of improvement based on CMAQ analysis shall be considered in determining major and minor improvements.	1	0.5
g	Reduces CO2 Emissions	Project significantly reduces CO2 emissions – 1 point Project modestly reduces CO2 emissions – 0.5 point Project has no significant CO2 emissions impact – 0 points	Select one only.	Provide information documenting CO2 reduction strategy, for example, purchase of fuel efficient or electric vehicles or LED traffic lights or solar panels or wind generators. Provide Greenhouse Gas Analysis (PVPC) led lights at Main Street intersection	1	0.5

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6	ENVIRONMENT AND CLIMATE CHANGE				SID #	0
	Maximum Points for this Subsection-->:				12	5.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
		Project increases CO2 emissions impacts – (-1) points				
h	Promotes Mode Shift	Project will provide significant reduction in single occupancy vehicle trips through a shift to another transportation mode (i.e. bicycling)	Select if applicable	Identify how project will accomplish mode shift. (creation of shared use path and connection propose bike share locations)	1	1
i	Improves Fish and Wildlife Passage	Project includes stream crossing or culvert improvements designed to improve fish and wildlife passage, in accordance with Massachusetts River and Stream Crossing standards <u>MA Stream Crossings Handbook</u>	Select if applicable	Identify design features in accordance with Massachusetts River and Stream Crossing Standards.	1	0
j	Supports Green Communities	Project is located in an approved Green Community, in accordance with the MA Green Communities Act	Select if applicable	See MA Green Communities map Link to MA Green Communities Map	0.5	0.5
k	Improves Storm Resilience	Project addresses a flooding problem or increases resilience of the transportation system to floods – 1 point Project improves storm flows by enlarging culverts or stream crossings, where there is demonstrated likelihood of extreme weather damage, while improving fish and wildlife passage – 2 points Or The Project incorporates stormwater BMPs or implements improvements that meet National Pollutant Discharge Elimination System (NPDES) requirements – 2 points	Select all criteria that apply to project.	Document BMPs	3	0

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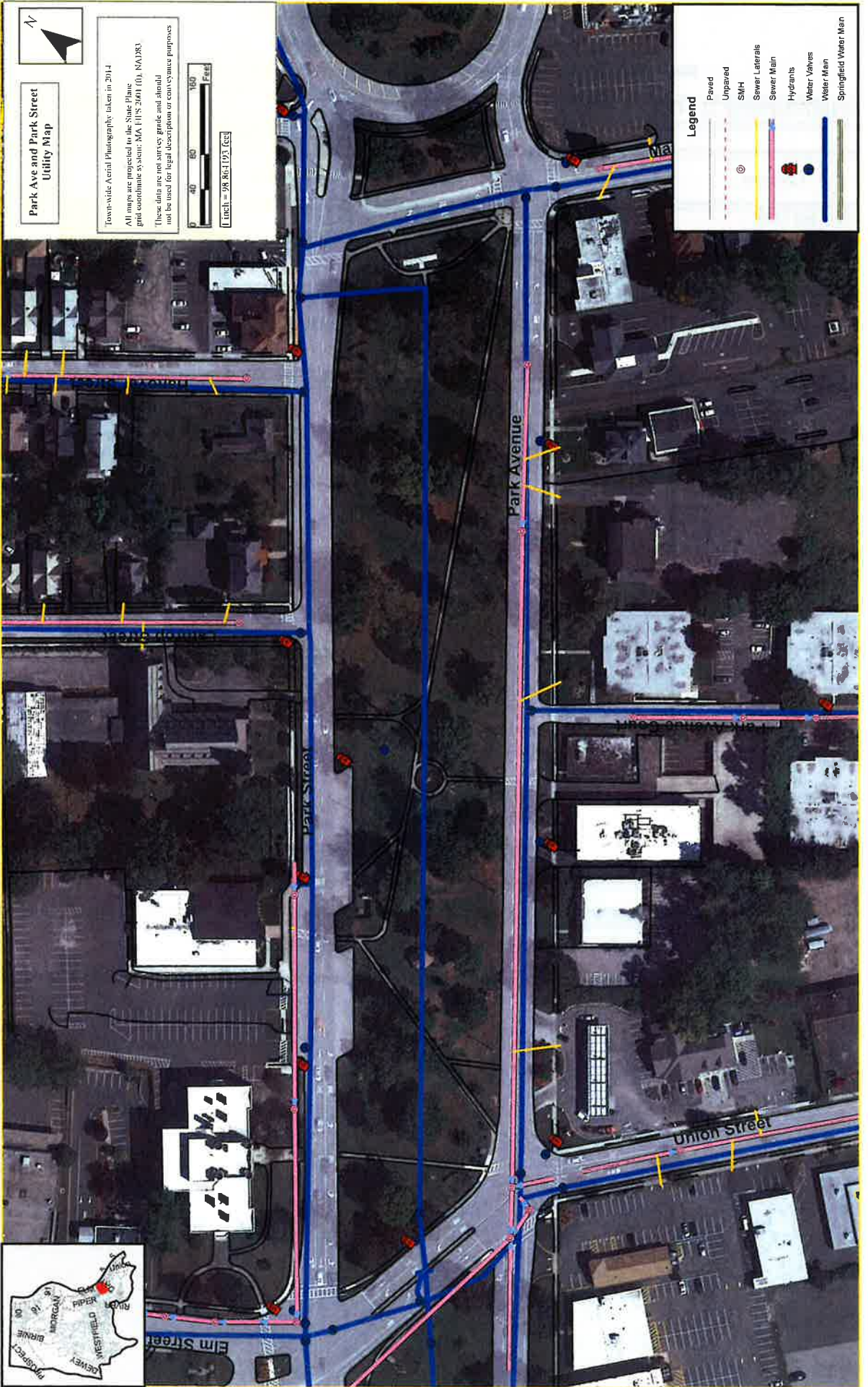
7 QUALITY OF LIFE					SID # 0	
Maximum Points for this Subsection--->:					11	4.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Enhances or and Preserves Greenways and Blueways	Project is adjacent to, AND incorporates enhanced public access or trails or protection related to a designated National Scenic River (Westfield River), National Blueway (Connecticut River), the Baystate Greenway, a National Scenic Trail, a National Recreation Trail, or regional greenway as identified in the Pioneer Valley Greenways Plan	Select if applicable	Identify the designated greenway or blueway, and the public access or land to be protected	1	0
b	Improves Access to Parks and Open Space	Project improves the public's direct access to identified municipal or state parks and/or open space	Select if applicable	Identify the park, and/or open space (Town Common)	1	1
c	Improves Access to Jobs	Project will serve an existing or planned area identified as a major employment center in the Comprehensive Economic Development Strategy (CEDS) for the region. 2013 CEDS	Select if applicable	Identify the major employment center (MGM) bikeshare	2	2
d	Preserves Historical and Cultural Resources	Project itself involves preservation of property designated as a National Historic site or in National Historic District, or is a Historical or Cultural resource as defined by state, local, or federal inventories.	Select if applicable	Identify property and source of listing.	0.5	0
e	Preserve Prime Agricultural Land	Project will not decrease the amount of adjacent farmland in active agricultural production Project makes financial contribution to farmland preservation fund to mitigate impacts to active farmland	Select if applicable	Utilize aerial photos to identify lands in active agricultural production	0.5	0
f	Provide Safe and Reliable Access to Education	Project includes design elements to improve safety and/or access (regardless of mode) to an existing or planned educational facility (sidewalks, traffic calming measures, crosswalk signals) Project helps to implement an accepted Safe Route to School or the recommendations of a Safe Route to School study <u>Safe Routes to Schools</u>	Select if applicable	Identify the educational facility and the design elements	0.5	0.5
g	Support Designated Scenic Byways	Project implements a recommendation of a Corridor Management Plan for a designated National or State Scenic Byway <u>Link to MA Scenic Byways Map</u>	Select if applicable	Identify the recommendation and Corridor Management Plan	0.5	0
h	Implements ITS strategies other than traffic signal operations	Project includes ITS equipment (e.g. variable message signs) – 2 points No proposed ITS equipment – 0 points	Select one only	Improves traffic flow as identified by an identified ITS strategy for the municipality or state	2	0
i	Improve Network Wayfinding/Retro-reflectivity	Project includes improved wayfinding signage – 1 point Project upgrades existing signs to meet current retro-reflectivity standards – 1 point	Select only one		1	1

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7	QUALITY OF LIFE				SID #	0
	Maximum Points for this Subsection-->:				11	4.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
j	Health Impact Assessment	A health impact assessment was completed for the project per MassDOT guidelines - 1 point	Select one if applicable	Attach completed analysis	1	0
k	Length of Time Project has been in queue for TIP funding	< 3 years - 0 points	Select Only One	Length of time calculated from date of the first TEC review for the project	1	0
		3 - 5 years - 0.5 points				
		> 5 years - 1 point				

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8	ENVIRONMENTAL JUSTICE				SID #	0
Maximum Points for this Subsection--->:					3	2.5
	Criterion	Factor	Instructions	Details	Max Score	Actual Score
a	Reduce and Limit Disproportionate Impacts on EJ Communities	Project is located within one or more identified Environmental Justice (EJ) Areas, has no adverse impacts projected, and will reduce travel time to work	Select if applicable	Identify project on EJ map	0.5	0.5
b	Reduce and Limit Disproportionate Impacts on Title VI Communities	Project is located within one or more identified Title VI Areas, has no adverse impacts projected, and will reduce travel time to work	Select if applicable	Identify project onTitle VI map	0.5	0
c	Improve Transit or pedestrian connections for EJ Populations	Project is located within half-mile buffer of, or affects, an environmental justice area and will provide new transit or pedestrian access – 1 points	Select one only.	Identify project on EJ map (See attached Map)	1	1
		Project is located within half-mile buffer of, or affects, an environmental justice area and will provide improved transit or pedestrian access – 0.5 points				
		Project provides no improvement in transit or pedestrian access or is not in an environmental justice area – 0 points				
d	Improve Transit or pedestrian connections for Title VI Populations	Project is located within half-mile buffer of, or affects, a Titble VI area and will provide new transit or pedestrian access – 1 points	Select one only.	Identify project on Title VI map	1	1
		Project is located within half-mile buffer of, or affects, a Title VI area and will provide improved transit or pedestrian access – 0.5 points				
		Project provides no improvement in transit or pedestrian access or is not in a Title VI area – 0 points				
e	Reduce Burdens on EJ Areas	Project creates a burden or negative impact in identified EJ Area	Select if applicable	Identify project on EJ map	-5	0
f	Reduce Burdens on Title VIAreas	Project creates a burden or negative impact in identified Title VI Area	Select if applicable	Identify project onTitle map	-5	0



**Park Ave and Park Street
Utility Map**

Townwide Aerial Photography taken in 2014

All maps are projected to the State Plane
grid coordinate system, NAD 1983 (11), NAD83.

These data are not survey grade and should
not be used for legal description or easement purposes

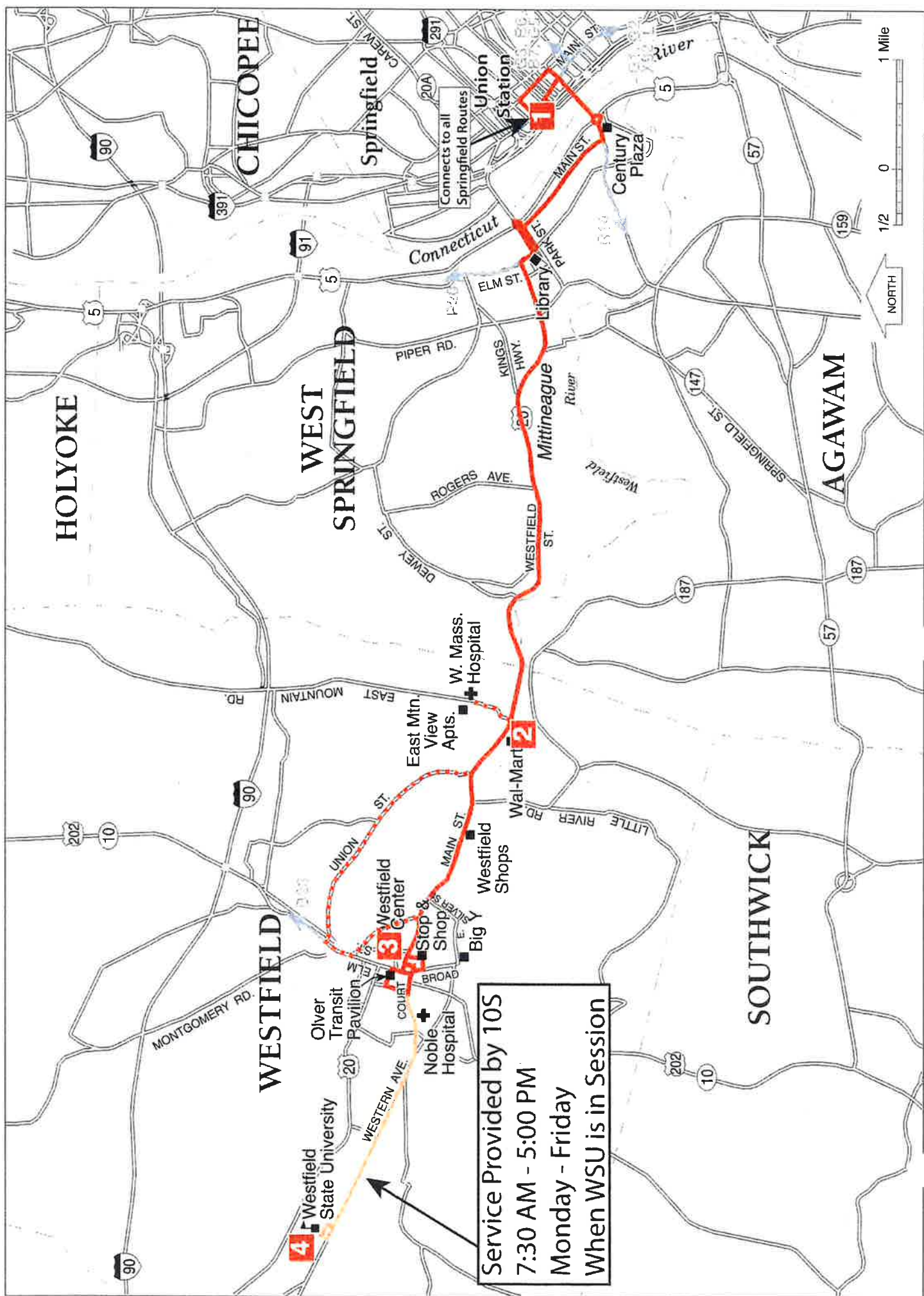
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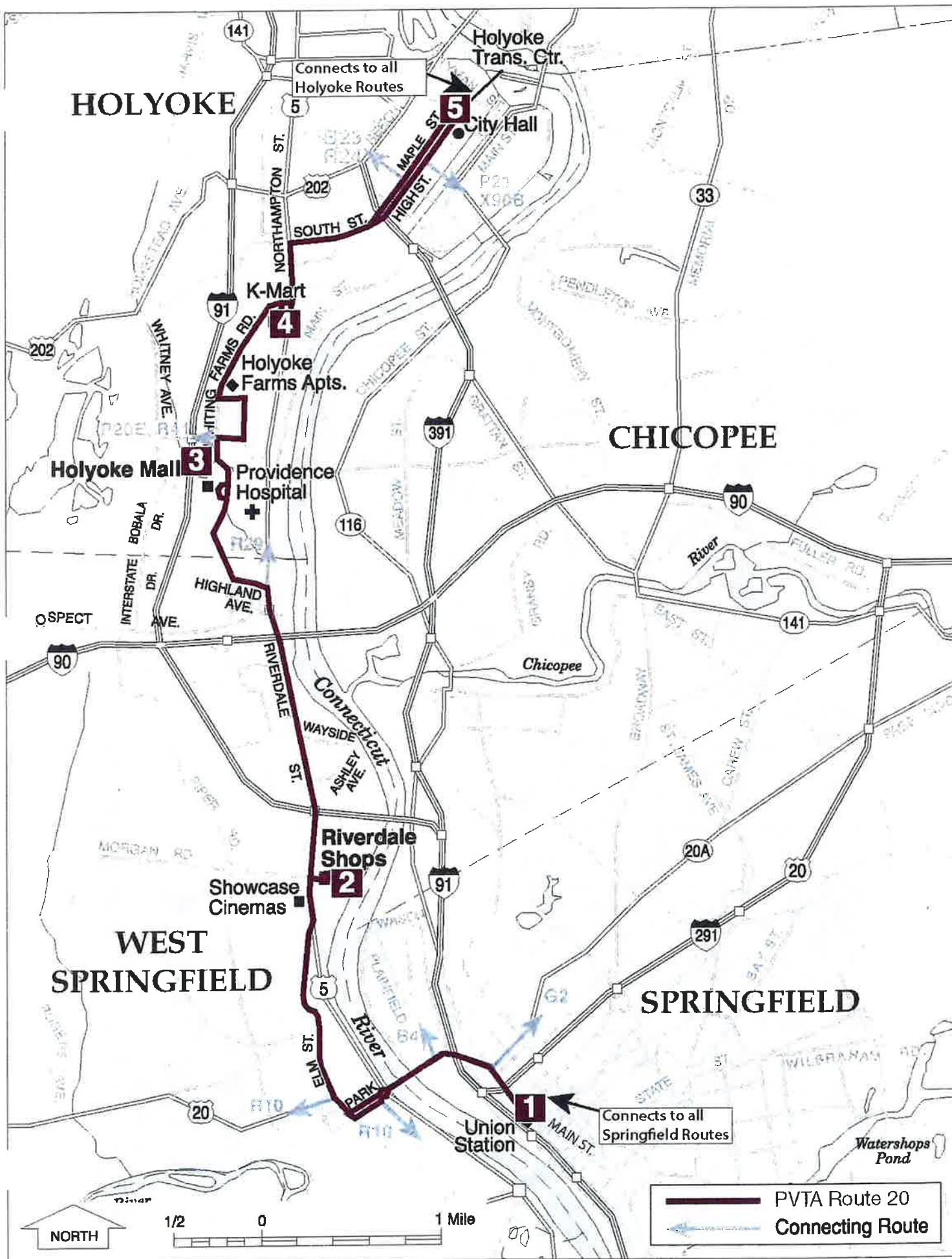
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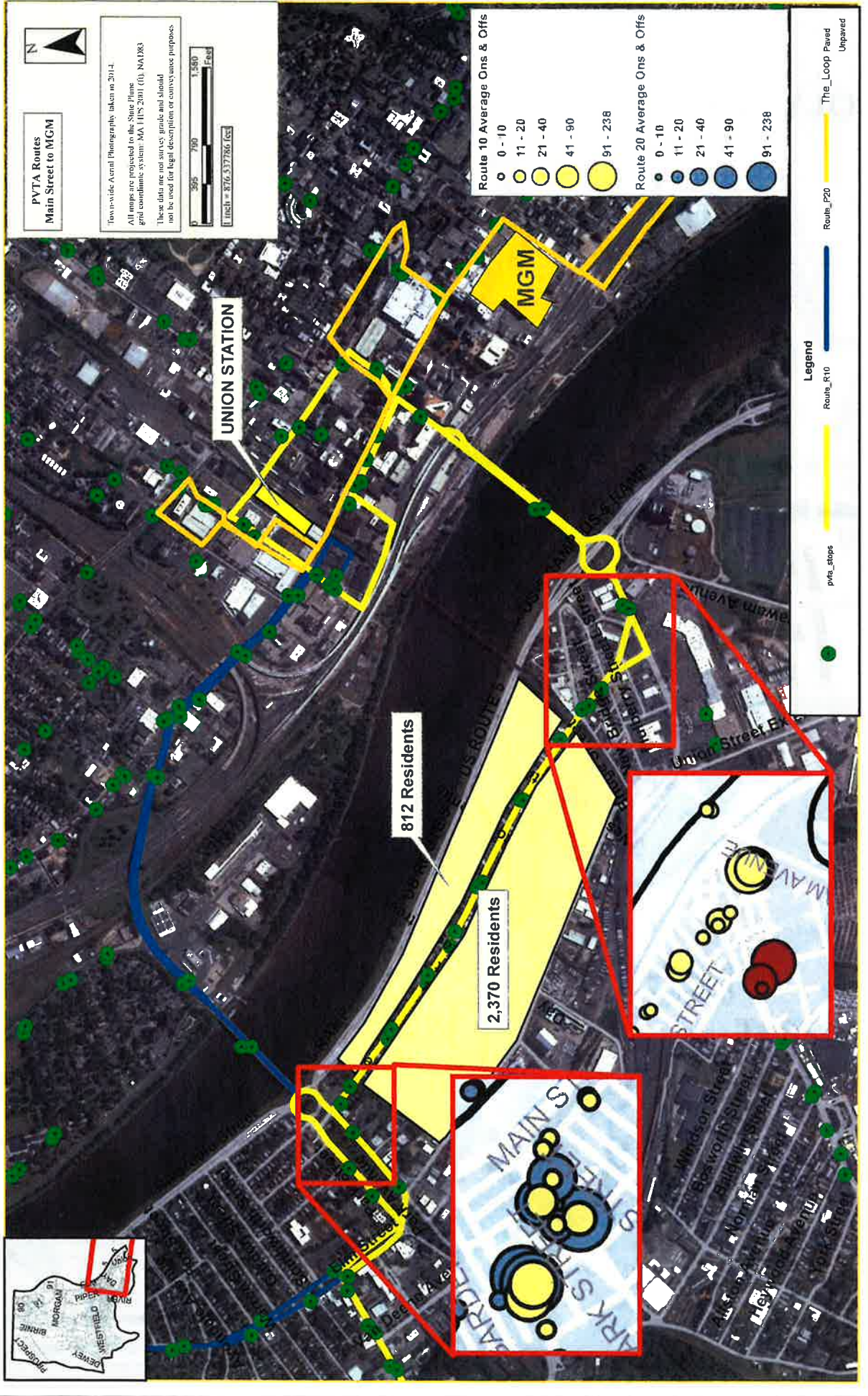
Table 2-3 - Vehicle Classification Data

Street	Cross Street	Direction	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	> 3 Axle	%Heavy
Union St	north of Bliss St	NB	1.49%	64.11%	20.87%	1.64%	6.30%	1.83%	3.77%	13.53%
		SB	1.71%	79.63%	11.10%	0.68%	2.78%	1.31%	2.78%	7.55%
Union St	south of Bridge St	SB	2.82%	84.26%	10.17%	0.20%	1.03%	0.95%	0.57%	2.76%
		NB	4.49%	84.69%	8.55%	0.08%	0.94%	0.82%	0.44%	2.27%
Union St Extension	south of Memorial Ave	SB	1.34%	74.12%	13.44%	0.52%	4.38%	1.13%	5.07%	11.10%
		NB	1.34%	79.42%	11.71%	0.51%	3.04%	0.67%	3.31%	7.53%
Main St	south of Bridge St	SB	2.38%	87.24%	8.64%	0.21%	0.90%	0.53%	0.11%	1.74%
		NB	0.79%	86.24%	10.16%	0.18%	2.20%	0.26%	0.18%	2.81%
Main St	south of Park Ave	SB	2.34%	83.37%	10.48%	0.57%	2.39%	0.46%	0.39%	3.81%
		NB	1.60%	83.00%	11.41%	0.46%	2.42%	0.68%	0.44%	4.00%
River St	south of Roanoke Ave	NB	1.42%	83.17%	12.17%	0.70%	1.85%	0.38%	0.32%	3.25%
		SB	3.13%	82.38%	11.02%	0.44%	1.59%	1.03%	0.41%	3.47%
Western Ave	south of Park Ave	NB	2.48%	71.05%	14.98%	0.51%	3.49%	1.71%	5.78%	11.49%
		SB	1.38%	75.17%	5.19%	0.09%	3.55%	1.82%	12.80%	18.25%
Progress Ave	south of Park Ave	NB	0.86%	80.17%	11.21%	1.72%	3.88%	1.29%	0.86%	7.76%
		SB	1.16%	83.82%	10.40%	0.58%	2.89%	0.58%	0.58%	4.62%
Sylvan St	south of Park St	SB	0.51%	71.83%	20.81%	1.02%	1.27%	1.27%	3.30%	6.85%
		NB	2.92%	75.44%	15.79%	0.00%	2.05%	1.75%	2.05%	5.85%
Agawam Ave	south of Route 5	NB	0.78%	68.38%	17.76%	1.25%	4.98%	0.93%	5.92%	13.08%
		SB	2.91%	84.88%	9.30%	0.00%	0.58%	0.58%	1.74%	2.91%
Memorial Ave	east of Dyke Ave	WB	2.28%	83.32%	10.02%	0.34%	1.25%	1.36%	1.43%	4.38%
		EB	2.65%	84.49%	8.95%	0.37%	1.65%	0.64%	1.25%	3.90%
Memorial Ave	east of Main St	EB	3.31%	85.31%	6.08%	0.21%	0.95%	2.32%	1.81%	5.30%
		WB	3.35%	80.53%	10.43%	0.53%	1.94%	1.11%	2.12%	5.69%
Day St	west of Union St	WB	4.75%	25.14%	17.60%	1.68%	3.07%	10.06%	37.71%	52.51%
		EB	3.37%	27.64%	24.52%	1.20%	3.61%	15.63%	24.04%	44.47%
South Blvd	west of Webster Ave	WB	2.65%	72.15%	17.81%	0.65%	4.03%	1.67%	1.03%	7.38%
		EB	2.26%	69.82%	19.67%	0.69%	5.31%	1.10%	1.15%	8.25%
Park St	west of Kelso Ave	EB	1.40%	85.23%	8.66%	0.32%	0.87%	1.51%	2.01%	4.71%
		WB	1.46%	83.26%	9.63%	0.39%	1.90%	1.48%	1.89%	5.65%
Park Ave	west of Park Ave Connector	EB	1.32%	82.71%	7.59%	0.85%	1.70%	2.05%	3.76%	8.37%
		N/A	-	-	-	-	-	-	-	-
Bliss St	west of Progress Ave	EB	1.20%	69.08%	16.57%	0.70%	6.22%	1.20%	5.02%	13.15%
		WB	0.32%	76.83%	17.10%	0.55%	3.70%	0.39%	1.10%	5.75%

Legend: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound





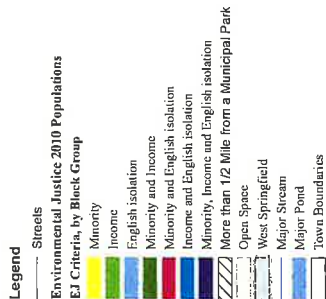


36



WEST SPRINGFIELD OPEN SPACE AND RECREATION PLAN

Park Equity - Environmental Justice Populations



Map Sources: This map is produced by the GIS Coordinator for the City of San Diego. The base map is derived from Aerial Photography taken in March, 2006. The map was updated with digital photography taken in March, 2008. The map features meet ASPRS Standards and April 3, 2010. Map accuracy: All maps are projected to the Stateplane grid coordinate system, Zone 12S, Datum NAD83 & Units Feet.

Other map sources include: MapGIS and ESRI ArcGIS Online Services

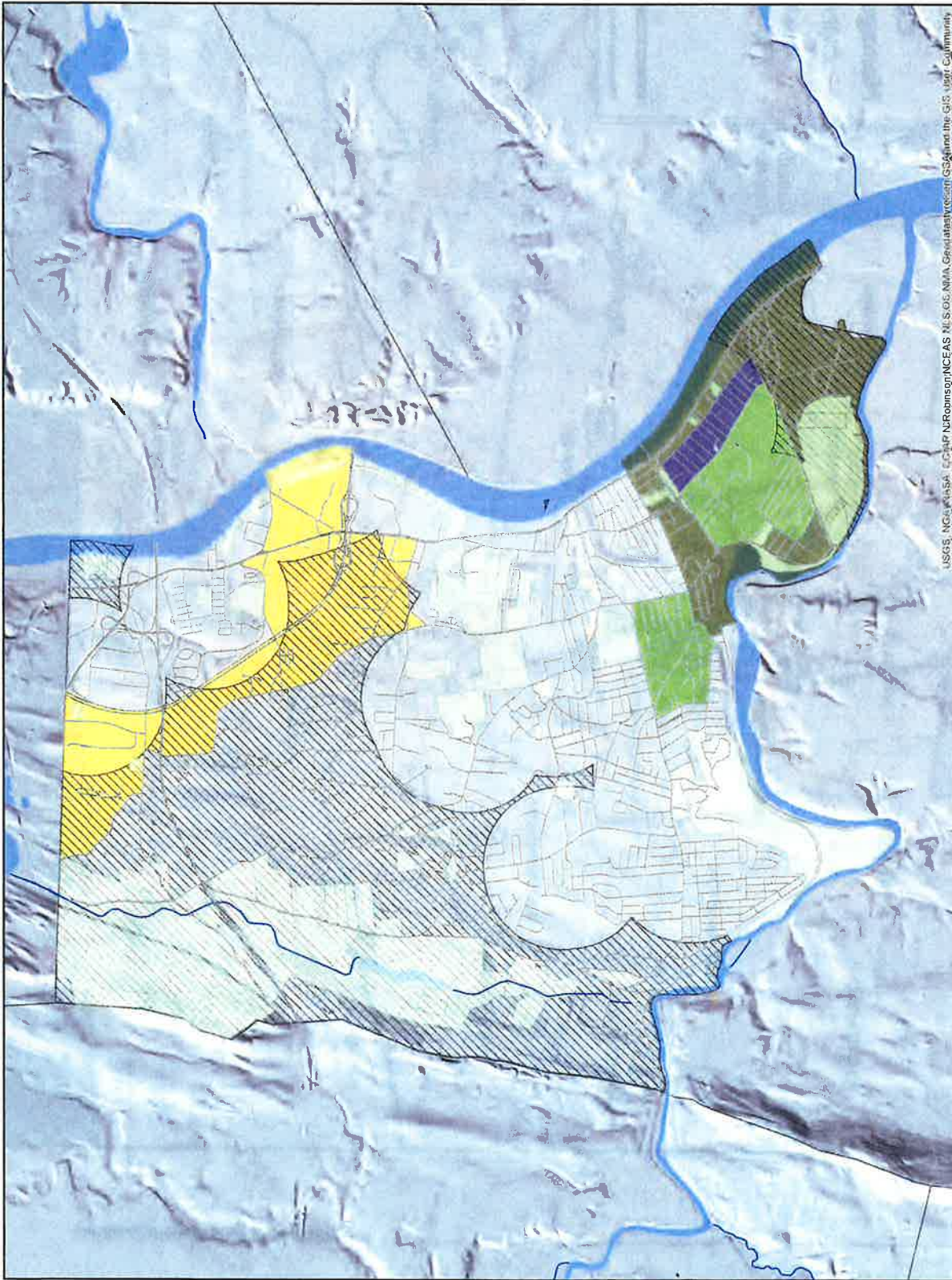
This data should not be used for legal description or conveyance purposes



Town of West Springfield, MA, GIS

Created By: Stephanie Strailiff

Date: 4/28/2015



ISGS, NGA, NASA, CMAP, N'Robinson, NCEAS, NLS, OS, NMA, Genstat, Jvarkit, GSS, and the GIS user community.



Park Ave and Park Street Utility Map



Town-wide Aerial Photography taken in 2014.
All maps are projected to the State Plane
grid coordinate system: MA 1115 3611 (03) NAD83.
These data are not survey; grade and should
not be used for legal description or conveyance purposes



Legend

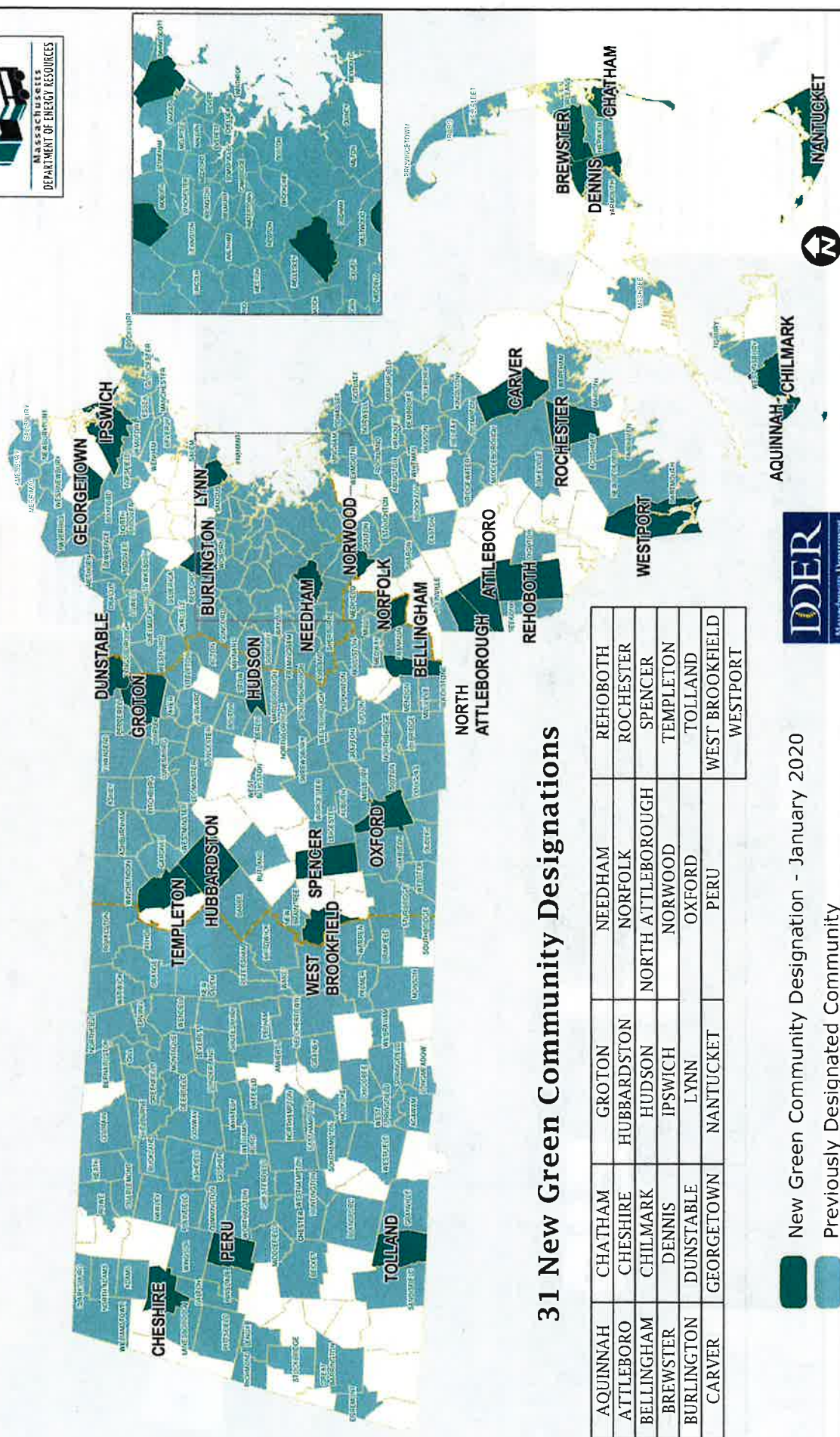
FEMA National Flood Hazard Layer

Flood Zone Designations

- A: 1% Annual Chance of Flooding, no BFE
- AE: 1% Annual Chance of Flooding, with BFE
- AE: Regulatory Floodway
- AH: 1% Annual Chance of 1-3ft Flooding, with BFE
- AO: 1% Annual Chance of 1-3ft Sheet Flow Flooding, with Depth
- VE: High Risk Coastal Area
- D: Possible But Undetermined Hazard
- X: 0.2% Annual Chance of Flooding
- X: 1% Drainage Area < 1 Sq. Mi.
- X: Reduced Flood Risk due to Levee
- Area Not Included
- Area with no DFIRM - Paper FIRMs in Effect

- Paved
- Unpaved
- SMH
- Sewer Laterals
- Sewer Main
- Hydrants
- Water Valves
- Water Main
- Springfield Water Main

GREEN COMMUNITY DESIGNATIONS REACH TWO HUNDRED SEVENTY-ONE



31 New Green Community Designations

AQUINNAH	CHATHAM	GROTON	NEEDHAM	REHOBOTH
ATTLEBORO	CHESHIRE	HUBBARDSTON	NORFOLK	ROCHESTER
BELLINGHAM	CHILMARK	HUDSON	NORTH ATTLEBOROUGH	SPENCER
BREWSTER	DENNIS	IPSWICH	NORWOOD	TEMPLETON
BURLINGTON	DUNSTABLE	LYNN	OXFORD	TOLLAND
CARVER	GEORGETOWN	NANTUCKET	PERU	WEST BROOKFIELD
				WESTPORT

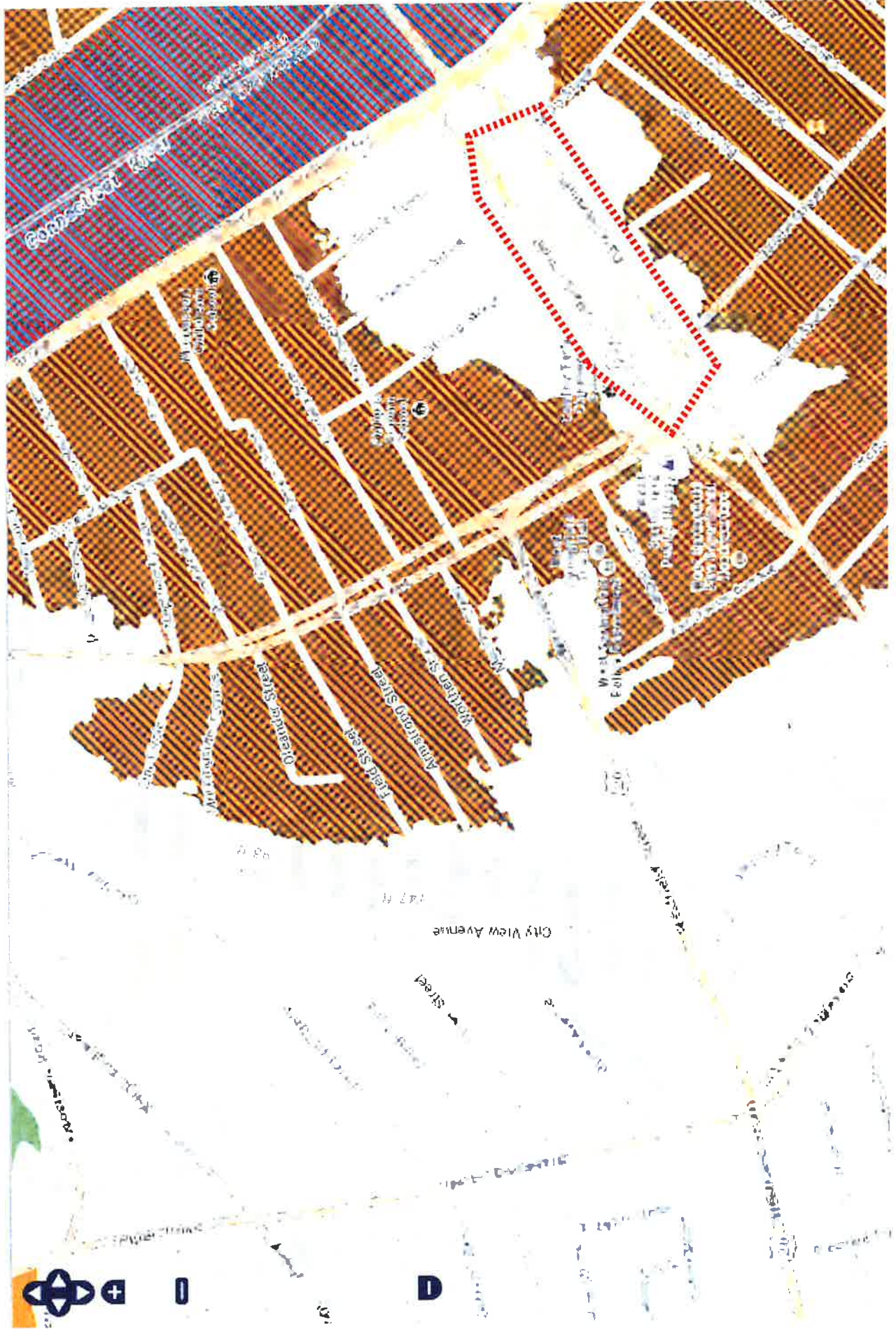
- New Green Community Designation - January 2020
- Previously Designated Community



20 Miles

J.Pfister, 1-21-20

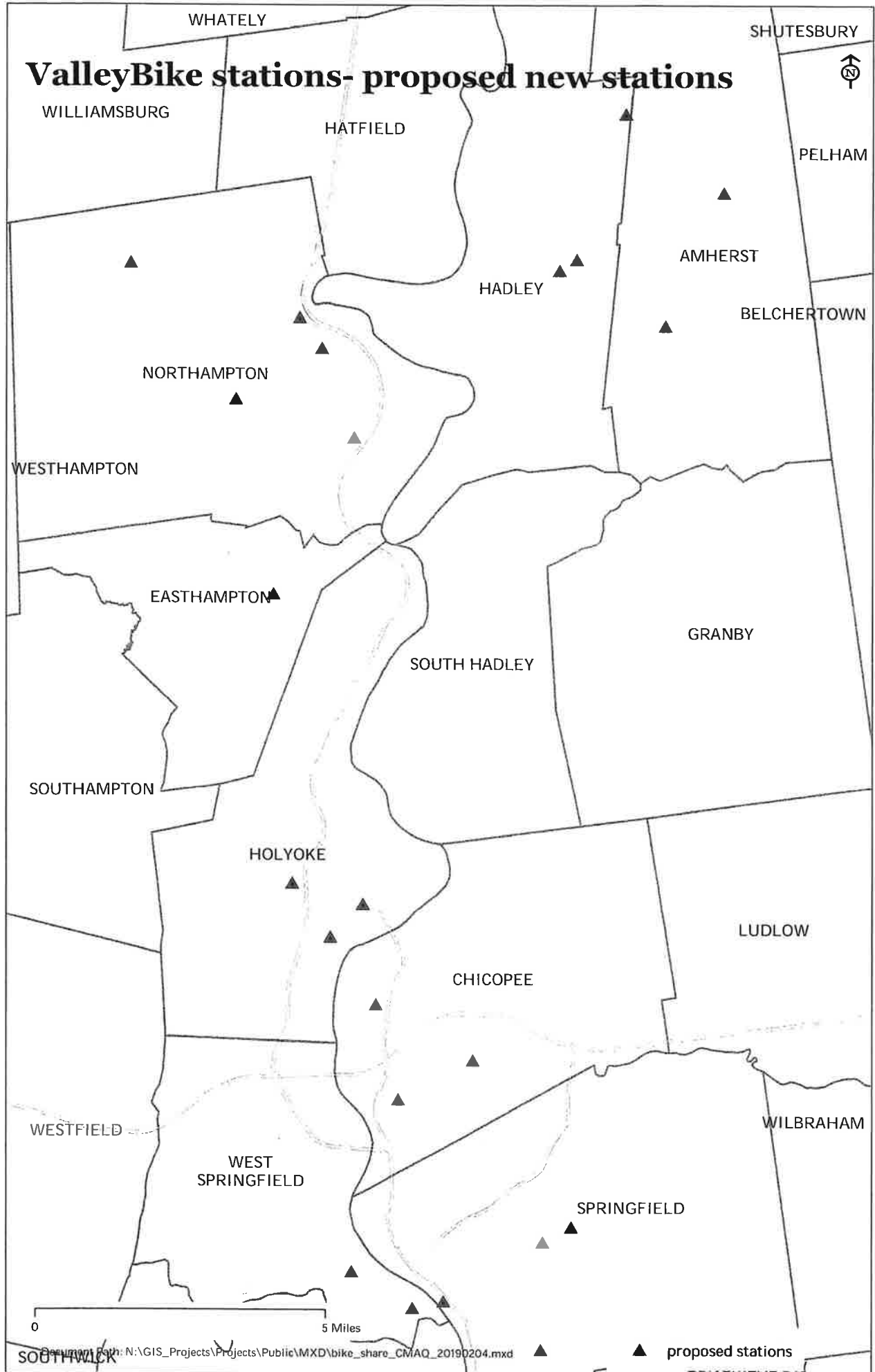
Zoom to a town



Route	From	To	Length	Width	Overall Condition Index
325 NEPTUNE AVENUE	ELM STREET	ROSELAND AVENUE	764 ft	29 ft	59
325 NEW BRIDGE STREET	MEMORIAL AVENUE	UNION STREET	501 ft	28 ft	90
325 NEW BRIDGE STREET	UNION STREET	MAIN STREET	1189 ft	28 ft	69
325 NEW BRIDGE STREET	MAIN STREET	BRIDGE STREET	994 ft	28 ft	36
325 NORMAN STREET	RIVER STREET	COLD SPRING AVENUE	834 ft	33 ft	90
325 NORMAN STREET	COLD SPRING AVENUE	MEMORIAL AVENUE	1893 ft	24 ft	51
325 NORRIS STREET	MORGAN ROAD	DEAD END	532 ft	30 ft	32
325 NORTHWOOD AVENUE	WESTFIELD STREET	DEAD END	1097 ft	27 ft	60
325 OAK STREET	CHESTNUT STREET	ANGELINE STREET	685 ft	18 ft	100
325 OAKLAND STREET	BOULEVARD STREET	DEAD END	1034 ft	27 ft	45
325 OHIO AVENUE	WESTFIELD STREET	DEAD END	4631 ft	27 ft	42
325 OLD BARN ROAD	HAVENHURST ROAD	ROGERS AVENUE	1318 ft	30 ft	71
325 OLD ORCHARD ROAD	PROSPECT AVENUE	DEAD END	875 ft	25 ft	71
325 OLD WESTFIELD ROAD	DEWEY STREET	WESTFIELD STREET	1879 ft	22 ft	34
325 OLEANDER STREET	ELM STREET	PRIMROSE STREET	590 ft	26 ft	64
325 ORANGE STREET	CONNECTICUT AVENUE	MASSASOIT AVENUE	410 ft	20 ft	84
325 ORCHARDVIEW STREET	CENTRAL MIAMI STREET	DEAD END	1459 ft	21 ft	34
325 OVERLOOK DRIVE	PROSPECT AVENUE	BONNIE BRAE DRIVE	1931 ft	24 ft	82
325 OXFORD PLACE	LANCASTER AVENUE	VERNON PLACE	487 ft	19 ft	85
325 PALMER AVENUE	UNION STREET	AGAWAM AVENUE	779 ft	30 ft	48
325 PALMER AVENUE	CIRCUIT AVENUE	DEAD END	916 ft	26 ft	31
325 PARK AVENUE	PARK STREET	UNION STREET	945 ft	38 ft	87

Route	From	To	Length	Width	Overall Condition Index
325 PARK AVENUE	UNION STREET	NORTH END BRIDGE ROTARY	1352 ft	38 ft	85
325 PARK DRIVE	TERRY ROAD	MITTINEAGUE PARK ROAD	479 ft	23 ft	84
325 PARK STREET	NORTH END BRIDGE ROTARY	ELM STREET	1834 ft	37 ft	71
325 PARK STREET	ELM STREET	WESTERN AVENUE	899 ft	37 ft	48
325 PARK STREET	WESTERN AVENUE	RIVER STREET	1926 ft	37 ft	80
325 PARK STREET	COUNTRY VIEW STREET	DEER RUN ROAD	1370 ft	30 ft	56
325 PARTRIDGE LANE	DEWEY STREET	SQUASSICK ROAD	802 ft	28 ft	45
325 PAUCATUCK ROAD	AMOSTOWN ROAD	DEAD END	690 ft	22 ft	58
325 PAULSON DRIVE	AMOSTOWN ROAD	DEAD END	1837 ft	30 ft	69
325 PEACHSTONE GLEN	MORGAN ROAD	HOUSE 45	776 ft	27 ft	100
325 PEASE AVENUE	HOUSE 45	AMOSTOWN ROAD	1068 ft	27 ft	100
325 PEASE AVENUE	BROOKSIDE DRIVE	STONE PATH LANE	707 ft	27 ft	62
325 PEBBLE PATH LANE	AUTUMN ROAD	DEAD END	317 ft	25 ft	51
325 PENROSE STREET	PEASE AVENUE	CUL_DE_SAC	1503 ft	24 ft	84
325 PHEASANTS CROSSING	BLISS STREET	DEAD END	260 ft	16 ft	71
325 PHELON AVENUE	RIVERDALE STREET	DEAD END	959 ft	23 ft	35
325 PIERCE STREET	WESTFIELD STREET	CUL_DE_SAC	607 ft	26 ft	70
325 PILGRIM ROAD	WESTFIELD STREET	MAPLE STREET	693 ft	27 ft	88
325 PINE STREET	MAPLE STREET	KINGS HIGHWAY	938 ft	27 ft	84
325 PINE STREET	PIPER ROAD	MORGAN ROAD	827 ft	25 ft	85
325 PIPER CROSS ROAD	KINGS HIGHWAY	AMOSTOWN ROAD	836 ft	39 ft	90
325 PIPER ROAD	AMOSTOWN ROAD	MONESTARY AVENUE	1739 ft	39 ft	71

ValleyBike stations- proposed new stations



APPENDIX D

CONCEPTUAL COST ESTIMATE

Location West Springfield
 Title Park Street & Park Avenue
 Calculated By DIP
 Job Number MAX-2018014
 Checked By EMR

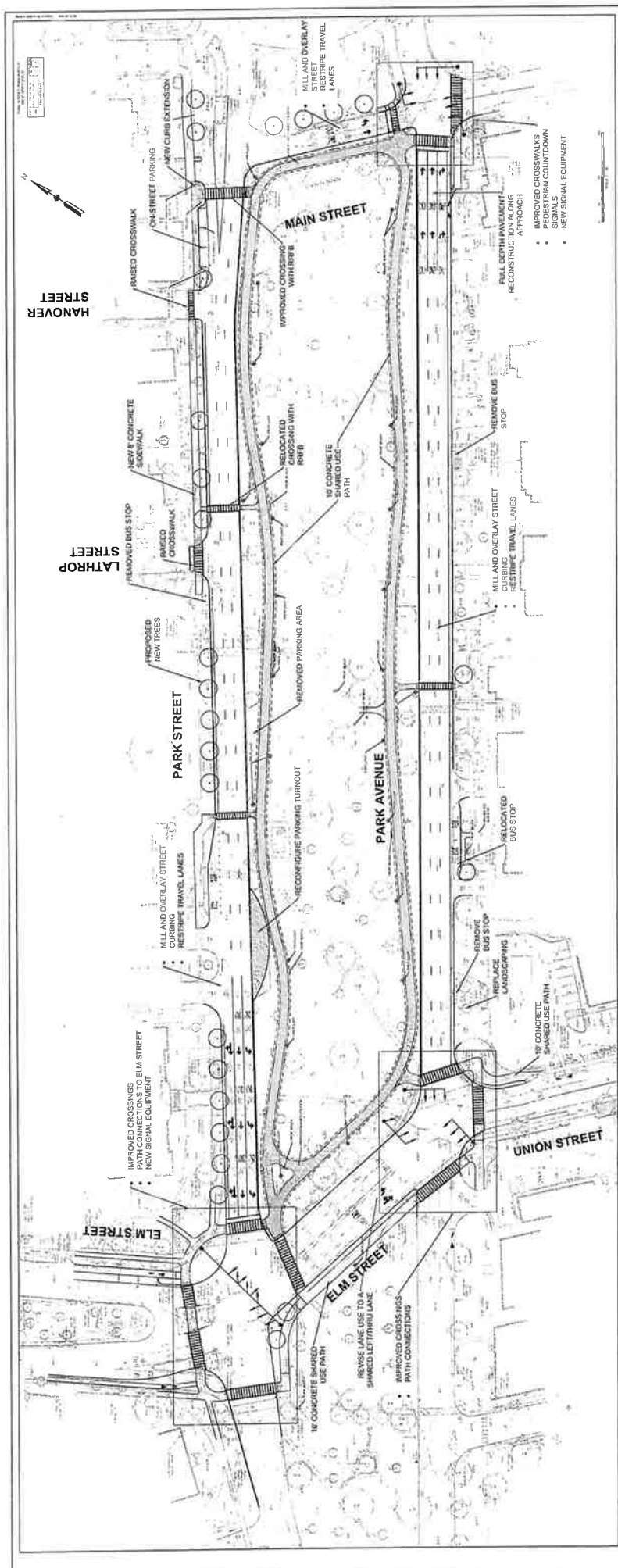
Item Number	Quantity	Unit	Description	Unit Price	Total
102.2	1	LS	TREE TRIMMING	\$3,600.00	\$ 3,600.00
120.1	1,000	CY	UNCLASSIFIED EXCAVATION	\$32.00	\$ 32,000.00
150.	50	CY	ORDINARY BORROW	\$30.00	\$ 1,500.00
151.	1,700	CY	GRAVEL BORROW	\$35.00	\$ 59,500.00
170.	6,100	SY	FINE GRADING AND COMPACTING - SUBGRADE AREA	\$3.30	\$ 20,130.00
201.	10	EA	CATCH BASIN	\$3,250.00	\$ 32,500.00
202.	5	EA	MANHOLE	\$4,000.00	\$ 20,000.00
204.	1	EA	GUTTER INLET	\$1,650.00	\$ 1,650.00
220.	20	EA	DRAINAGE STRUCTURE ADJUSTED	\$350.00	\$ 7,000.00
220.3	1	EA	DRAINAGE STRUCTURE CHANGE IN TYPE	\$850.00	\$ 850.00
222.3	2	EA	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD	\$750.00	\$ 1,500.00
241.12	200	FT	12 INCH REINFORCED CONCRETE PIPE	\$70.00	\$ 14,000.00
415.2	14,000	SY	PAVEMENT FINE MILLING	\$4.00	\$ 56,000.00
450.23	1,700	TON	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)	\$80.00	\$ 136,000.00
450.31	250	TON	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)	\$105.00	\$ 26,250.00
450.42	250	TON	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)	\$105.00	\$ 26,250.00
451.	200	TON	HMA FOR PATCHING	\$200.00	\$ 40,000.00
452.	1,500	GAL	ASPHALT EMULSION FOR TACK COAT	\$8.00	\$ 12,000.00
453.	15,000	FT	HMA JOINT SEALANT	\$1.00	\$ 15,000.00
472.	100	TON	ASPHALT MIXTURES FOR TEMPORARY WORK	\$200.00	\$ 20,000.00
506.	4,000	FT	GRANITE CURB TYPE VB - STRAIGHT	\$40.00	\$ 160,000.00
506.1	1,000	FT	GRANITE CURB TYPE VB - CURVED	\$45.00	\$ 45,000.00
514.	20	EA	GRANITE CURB INLET - STRAIGHT	\$400.00	\$ 8,000.00
515.	5	EA	GRANITE CURB INLET - CURVED	\$500.00	\$ 2,500.00
580.	1,300	FT	CURB REMOVED AND RESET	\$25.00	\$ 32,500.00
581.	1	EA	CURB INLET REMOVED AND RESET	\$250.00	\$ 250.00
594.	1,300	FT	CURB REMOVED AND DISCARDED	\$6.00	\$ 7,800.00
595.	9	EA	CURB INLET REMOVED AND DISCARDED	\$75.00	\$ 675.00
596.	2	EA	CURB CORNER REMOVED AND DISCARDED	\$50.00	\$ 100.00
701.	3,900	SY	CEMENT CONCRETE SIDEWALK	\$60.00	\$ 234,000.00
701.2	250	SY	CEMENT CONCRETE WHEELCHAIR RAMP	\$100.00	\$ 25,000.00
703.	100	TON	HOT MIX ASPHALT DRIVEWAY	\$170.00	\$ 17,000.00
707.1	10	EA	PARK BENCH	\$2,500.00	\$ 25,000.00
748.	1	LS	MOBILIZATION	\$59,114.00	\$ 59,114.00
751.	350	CY	LOAM BORROW	\$54.00	\$ 18,900.00
765.	2,300	SY	SEEDING	\$2.00	\$ 4,600.00
799.	25	EA	TREE PLANTING	\$1,500.00	\$ 37,500.00
804.3	500	FT	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL)	\$25.00	\$ 12,500.00
811.23	2	EA	ELECTRIC HANDHOLE - SD2.023	\$1,500.00	\$ 3,000.00
811.31	20	EA	PULL BOX 12 X 12 INCHES - SD2.031	\$775.00	\$ 15,500.00
816.01	1	LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1	\$349,625.00	\$ 349,625.00
816.02	1	LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 2	\$203,375.00	\$ 203,375.00
820.1	1	LS	HIGHWAY LIGHTING - ROADWAY	\$5,000.00	\$ 5,000.00
823.11	23	EA	HIGHWAY LIGHTING LUMINAIRE 250 WATT	\$2,500.00	\$ 57,500.00
824.221	1	LS	RECTANGULAR RAPID-FLASH BEACONS SYSTEM (LOCATION NO. 1)	\$50,000.00	\$ 50,000.00
824.222	1	LS	RECTANGULAR RAPID-FLASH BEACONS SYSTEM (LOCATION NO. 2)	\$50,000.00	\$ 50,000.00
831.	100	SF	ROADSIDE GUIDE SIGN (D6/D8) - ALUMINUM PANEL (TYPE A)	\$26.00	\$ 2,600.00
832.	500	SF	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)	\$14.00	\$ 7,000.00
841.1	2	EA	SUPPORTS FOR GUIDE SIGN (D6 W/ D8-5 INCH TUBULAR POST) STEEL	\$1,900.00	\$ 3,800.00
847.1	40	EA	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL	\$112.50	\$ 4,500.00
848.1	2	EA	SIGN SUP (N/GUIDE)+RTE MKR W/2 BRKWAY POST ASSEMBLIES-STEEL	\$280.00	\$ 560.00
850.	1	LS	TEMPORARY TRAFFIC CONTROL MEASURES	\$20,000.00	\$ 20,000.00
864.04	2,000	SF	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)	\$6.50	\$ 13,000.00
866.106	10,000	FT	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$1.00	\$ 10,000.00
866.112	1,500	FT	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$2.50	\$ 3,750.00
867.106	7,500	FT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$1.25	\$ 9,375.00
867.112	500	FT	12 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$3.00	\$ 1,500.00
874.	10	EA	STREET NAME SIGN	\$125.00	\$ 1,250.00

Location West Springfield **Job Number** MAX-2018014
Title Park Street & Park Avenue
Calculated By DIP **Checked By** EMR

Item Number	Quantity	Unit	Description	Unit Price	Total
874.2	10	EA	TRAFFIC SIGN REMOVED AND RESET	\$110.00	\$ 1,100.00
874.41	25	EA	TRAFFIC SIGN REMOVED AND DISCARDED	\$20.00	\$ 500.00
874.7	10	EA	MISCELLANEOUS SIGNS REMOVED AND STACKED	\$45.00	\$ 450.00
Subtotal					\$2,029,554
Design Contingency (25%)					\$507,400
Traffic Police/Roadway Flaggers (4.70%)					\$95,400
Construction Contingency (10%)					\$203,000
Construction Engineering (10%)					\$203,000
Utility Relocation (6%)					\$121,800
Total Cost					\$3,161,000

APPENDIX E

CONCEPTUAL DESIGN REPORT AND PLAN



Scale: 1" = 40'



Scale: 1" = 40'

- IMPROVED CROSSWALKS
- FULL DEPTH PAVEMENT RECONSTRUCTION ALONG APPROACH
- REMOVING BUS STOP
- NEW SIGNAL EQUIPMENT

- IMPROVED CROSSINGS PATH CONNECTIONS TO ELM STREET
- NEW SIGNAL EQUIPMENT

- IMPROVED CROSSINGS PATH CONNECTIONS

CONCEPTUAL DESIGN REPORT

Park Street / Park Avenue Complete Streets Improvements

West Springfield, Massachusetts

Prepared for:



Town of West Springfield
Department of Public Works
West Springfield, Massachusetts
January 23, 2020

GPI Greenman-Pedersen, Inc.

181 Ballardvale Street, Suite 202, Wilmington MA 01887 Tel: (978) 570-2999 Fax: (978) 658-3044

An Equal Opportunity Employer

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APPENDIX

1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

Greenman-Pedersen, Inc. (GPI) has prepared this conceptual design report to accompany the conceptual design plans and provide a description of the technical analysis, project development process and proposed changes to the design of Park Street and Park Avenue between Main Street and Elm/Union Streets in the Town of West Springfield. The project includes street design changes that provide improved safety and connectivity for all modes of travel including pedestrians, bicyclists, transit patrons and motorists. This project is consistent with and implements recommendations contained in the *West Springfield Complete Streets Prioritization Plan* (2017) and is the first step in completing a vision of connecting the center of West Springfield to its neighborhoods, the Connecticut River Bikeway, and the center of Springfield.

The project provides improved sidewalks and pedestrian crossings; features that enhance walking including lighting, benches and street trees; a new shared use path separated from vehicle traffic for bicyclists of all ages and abilities; consolidated and improved bus stops to improve the efficiency of transit operations as well as signalization and roadway surface improvements to address traffic flow and safety concerns.

This conceptual design report presents a description of the existing conditions in the project area, the traffic and safety analyses supporting the design of geometric, traffic control and safety improvements proposed for the project area, a description of proposed improvements and a preliminary opinion of probable project construction cost.

1.2 PROJECT AREA

The project area includes approximately 1,300 linear feet along Park Street and Park Avenue (US Route 20) and 300 feet along Main and Elm (US Route 20) Streets which form the eastern and western project limits, respectively. These four streets bound the historic West Springfield Town Common, a large public green space at the center of the community. Park Street and Park Avenue, which function as a one-way couplet through the project area, form a prominent transportation corridor connecting the center of West Springfield to Westfield to the west and Route 5 and the North End Bridge to the east. Within the project area traffic flow on Park Street is westbound and Park Avenue flows eastbound. Park Street and Park Avenue comprise a segment of US Route 20, an east-west highway which runs from Kenmore Square in Boston to Newport, Oregon. Within Massachusetts US Route 20 parallels the Massachusetts Turnpike (I-90) which has largely replaced US Route 20 for east-west through travel in the Commonwealth, however Route 20 remains a prominent east-west artery connecting towns through southern Massachusetts. The project area is shown in **Figure 1**.

1.3 PROJECT PURPOSE AND BACKGROUND

This project has been funded through a transportation planning grant from the Massachusetts Gaming Commission and Town of West Springfield municipal funds. The Community Mitigation

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Fund was established by the Gaming Commission to provide funding to help offset the costs of gaming facilities on host and impacted surrounding communities.



FIGURE 1: PROJECT AREA

The project area is located approximately two miles from the MGM Springfield Casino. Traffic studies prepared as part of the casino's permitting process identified the US Route 20 corridor in West Springfield as a primary travel route to and from the casino for employees and patrons.

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Consistent with town and state transportation policies, transportation improvements proposed within the project area incorporate a Complete Streets design which provides safe and accessible facilities for pedestrians, bicyclists, transit patrons and motorists.

1.4 RELEVANT POLICIES, PLANS AND STUDIES

The following policies, plans, traffic studies and project designs are relevant to the design of the project area:

West Springfield Complete Street Ordinance (2016)

West Springfield has adopted a Complete Streets Ordinance which directs the Town 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...”

West Springfield Complete Streets Prioritization Plan, Town of West Springfield (April 2017)

The Town has adopted a Complete Streets Prioritization Plan, consistent with Massachusetts Department of Transportation (MassDOT) guidelines, that identifies and prioritizes improvements needed to accommodate multi-modal transportation in West Springfield. Complete Streets improvements identified in the plan include: pedestrian crossing improvements; sidewalks; intersection design; bicycle facilities, shared use paths, bus stop improvements and wayfinding signage. Due to its central location, connections to the central business district and numerous destinations including schools, a senior center, library, park, and retail shops, complete streets improvements for the Park Street / Park Avenue were highly ranked in the plan. Enhanced pedestrian crossings and a bicycle/pedestrian shared use path along Park Street and Park Avenue were identified in the plan. **See Figure 2.** Using Tier 3 Complete Streets funding, the Town is currently installing pedestrian crossing improvements of Park Street and Park Avenue (as discussed below).

Philip G. Coburn Elementary Walk Audit, Walk Boston (April 2016)

A walking safety audit was prepared for the Coburn Elementary School by Walk Boston following two pedestrian fatalities that occurred on Elm Street north of Park Street in December 2014. The walk audit made several recommendations intended to improve the safety of walking in the area.

Recommendations include:

- **Mid-Block Crossings of Park Street / Park Avenue.** Improving the safety of mid-block crossings of Park Street and Park Avenue (*Note: the Town is installing improvements to mid-block crossings discussed below and additional improvements are included as a part of this project.*)
- **Elm Street / Park Street Intersection.** Evaluate crossing distances of Elm Street / Park Street and Elm / Park Union which are very long for pedestrians and install pedestrian countdown signals at pedestrian crossings. (*New pedestrian signals have been installed*

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at Elm / Park Streets and Park Avenue / Union Streets and crossing distances have been reduced where possible as a part of this project).

- **Park Avenue / Main Street Intersection.** Similar recommendations include adding pedestrian countdown signals, narrowing travel lanes and directing pedestrian traffic away from the rotary (addressed as a part of this project). The walk audit recommended removing the sidewalks and RRFBs at the Rotary, which would require coordination with MassDOT.

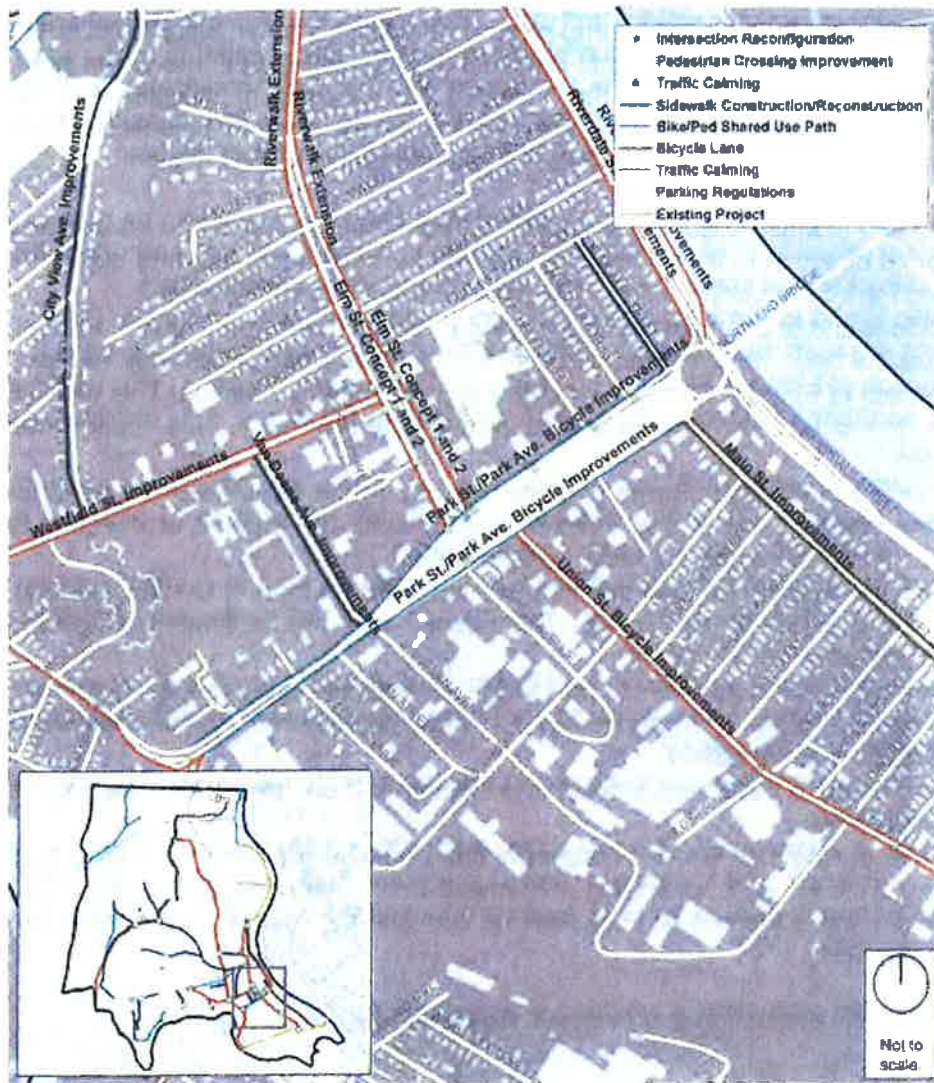


FIGURE 2: COMPLETE STREETS PRIORITY PLAN EXCERPT (2017)

Route 20 / Park Avenue Area Traffic Evaluation, Purcell Associates (2002)

Due to concerns about traffic patterns associated with commercial development on Park Street west of the Rotary, the town commissioned a traffic evaluation to consider conceptual improvements to address observed issues. A portion of the area covered by the evaluation is within this project area and a portion (i.e., the rotary area) is under the jurisdiction of MassDOT. The traffic evaluation revolved around a Dunkin' Donuts restaurant (which is now vacant) and a retail cluster including a liquor store, market/deli and pizza shop (which is within this project area). The evaluation considered several scenarios that modified the circulation patterns in the area. The Town staff recommended an Alternative that included the following modifications to the circulation patterns. These recommendations are listed here since the circulation considerations around Park Street and the pizza/market/liquor store are relevant to this project design:

- Revise the direction of Main Street Between Park Street and Park Avenue to be one-way in the southbound direction to limit potentially hazardous movements into and out of the Main Street and Park Street intersection. *This change has been implemented.*
- Extend the traffic island to eliminate traffic crossing to Main Street from Dunkin' Donuts. *This change has not been implemented and the Dunkin' Donuts site is currently vacant.*
- Revise the direction of Elmdale Street to be one-way in a northern direction. This will limit the hazardous northbound movements and cut-throughs at the rotary. *This change was not implemented.*
- Revise the direction of Hanover Street to allow two-way traffic eliminating the need for traffic to exit the site from the wrong direction and mitigate the change of direction to Elmdale Street. *This change has not been implemented.*
- Provide designated on-street parking that can be monitored (in front of Dunkin' Donuts). Enforce No Parking zones in the vicinity. *This change was not implemented and the Dunkin' Donuts site is currently vacant.*
- Reconfigure the traffic island adjacent to the Dunkin' Donuts site to provide a wider, more easily negotiated travel lane. *This change has not been implemented. This change would require coordination with MassDOT.*
- Provide improvements to pavement striping and signing to more clearly delineate travel lanes and traffic control.
- Suggest to owner of Common Ground restaurant that traffic be allowed to Exit Only from site onto rotary. This will limit hazardous maneuvers from rotary into parking lot. (This site is now Pintu's and is located on Park Avenue opposite the rotary). *This change has not been implemented.*

The Purcell Associates traffic evaluation is provided in **Appendix A**.

1.5 RELATED STREET IMPROVEMENT PROJECTS

The following street improvement projects are underway and will tie into this project:

Park Street and Park Avenue Pedestrian Crossing Improvements (2019-2020)

As part of the MassDOT's Tier 3 funding program for complete streets improvements, enhanced pedestrian mid-block crossings of Park Street at the Senior Center and Park Avenue at 117 Park Avenue are currently under construction. Accessible pedestrian crossings with push-button actuated Rectangular Rapid Flashing Beacons (RRFBs) are being installed. The crossing locations have been shifted slightly to avoid driveways and cross at the narrowest possible locations (decreasing the exposure time pedestrians are in the roadway). Due to heavy volumes of traffic and three travel lanes on both roadways, the beacons are being mounted overhead on a mast arm to enhance visibility.

Park Street / Elm Street / Union Street Pedestrian Signals (2018)

New pedestrian signals and signal phasing has been implemented at Elm / Park Streets and Elm / Park Avenue / Union Streets.

Elm Street Complete Streets Improvements (In Design)

A complete street design of Elm Street (which abuts this project area) between Park Street and Mosher Street is currently in design. The concept for Elm Street includes parking protected bike lanes in both directions along the street. The Elm Street and Park Street / Park Avenue projects will connect at the intersection of Park / Elm Streets.

2.0 EXISTING CONDITIONS

A comprehensive field inventory of existing traffic conditions at the study area roadways and intersections was conducted by GPI in 2019 to obtain information related to roadway and intersection geometrics, intersection operating characteristics, and lane usage. The project extends along Park Street and Park Avenue west of the North End Bridge and rotary. The study area includes the following intersections, which are graphically depicted in **Figure 1**.

- Park Street / Main Street
- Park Street / Elm Street
- Park Avenue / Elm Street / Union Street
- Park Avenue / Main Street

2.2 LAND USE CONTEXT

Land use in the vicinity of the project area includes a mixture of public facilities, commercial and residential uses as shown in **Figure 3**. Significant destinations for pedestrians include:

- **The Cowing Elementary School** is located at the northeast corner of Park and Elm Streets.
- **The West Springfield Senior Center** is located at 128 Park Street adjacent to the Cowing School.
- **The Coburn Elementary School** is located at 115 Southworth Street behind the Senior Center.
- **The West Springfield Town Library** is located at 200 Park Street, opposite the Cowing School.
- **The West Springfield central business district** is located along Elm Street, generally extending northward from Park Street.
 - **West Springfield Town Common** located at the heart of the project area between Park Street and Park Avenue.



2.3 HISTORIC AND URBAN DESIGN SETTING

The West Springfield Town Common is a part of West Springfield's Broadway Historic District and is listed on the National Register of Historic Places.

The Common is also a noteworthy feature of the project area from an urban design perspective. The Common, together with the rotary and the landscape buffers along Park Street and Park

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Avenue provide a gracious and formal gateway image for West Springfield. This ensemble of open space provides an attractive 'front door' and important landscape resource for the community.



FIGURE 3: EXISTING LAND USE

2.4 ROADWAY CHARACTERISTICS

Park Street and Park Avenue (US Route 20) are both classified as rural minor arterials within the study area. Both streets are National Highway System (NHS) roadways under the Town of West Springfield's jurisdiction. Park Street is a one-way street that runs in the westerly direction and provides a connection between the North End Bridge and West Springfield's Elm Street central business district. Park Avenue completes this one-way pair running in the eastbound direction. Immediately east of the project area Park Street and Park Avenue fall under the jurisdiction of MassDOT.

The speed limit on Park Street / Park Avenue is 30 miles per hour (MPH). Curb to curb dimensions vary, but Park Street is typically 37-feet wide and Park Avenue is typically 39-feet-wide. Both streets consist of three 11.5-to 12.5-foot travel lanes with striped edge lines on both sides of the roadway. Park Street is a one-way in the westbound direction and Park Avenue is one-way in the eastbound direction. This one-way pair is separated by the historic West Springfield Town Common which is approximately 200-feet in width and ranges from 1,000 feet to 1,200-feet in length. There are concrete sidewalks provided on Park Street and Park Avenue, separated by a generous grassed buffer with mature street trees at some locations. The sidewalks are typically five-feet in width but are wider on Park Street south of Lathrop Street, where they are 8 to 10-feet in width. The sidewalk in front of the retail cluster at Park and Main Street (pizza / market / liquor store) was recently improved and widened to approximately 15-feet in width, which has encouraged adjoining businesses to set up tables and flower pots for sidewalk dining during the summer months. Along Park Street the landscape buffer is approximately six-feet in width; along Park Avenue the buffer ranges from 20-feet at Elm/Union Street to approximately four-feet approaching Main Street. Granite curbing is provided along both sides of Park Street and Park Avenue, however, there is little to no reveal on the curbing.

Parking spaces are not striped on Park Street / Park Avenue, however, cars park on Park Street in front of the pizza shop / market / liquor store at the corner of Park and Main Street. On Park Avenue signs are posted indicating no parking between the hours of 7 AM to 3 PM Monday through Friday which suggests that parking may occur at other times on Park Avenue, although parking was not observed at that location during site visits.

MAJOR INTERSECTIONS

Park Street / Elm Street

Park Street intersects Elm Street from the east at a skew to form a four-legged three-way signalized intersection. The Park Street westbound approach includes an exclusive left turn lane, a through lane and a shared through/right turn lane. All turn lanes are striped. The Elm Street southbound leg includes very wide undefined pavement along the departure (approximately 40-feet in width) in the northbound direction while two through lanes and an exclusive right-turn 'slip lane' are provided along the southbound approach. Directional flow on Elm Street north of Park Street is separated by a generous landscaped median approximately 50-feet in width. In addition, the right -turn slip lane is separated from the through lanes by a landscaped island. The Elm Street northbound approach includes a through-lane and an exclusive left turn lane and two southbound receiving lanes that are designated as a through and exclusive left-turn lanes due to the short length of the block between Park Street and Park Avenue. Directional flow on Elm Street

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between Park Street and Park Avenue is separated by a concrete rumble strip/median with plastic bollards.

Signal indications are provided on posts and mast arms over Park Street. Signal indications are generally older and lack backplates and retroreflective borders for visibility. Signals are equipped with receivers for emergency vehicle pre-emption.

Striped crosswalks are provided across the east, north and west legs of the intersection. At these locations, curb ramps with detectable warning panels are provided as well as new ADA compliant push button activated pedestrian countdown signals.

Elm Street / Park Avenue / Union Street

Elm Street and Union Street intersect Park Avenue from the north and south at a skew to form a four-legged three-way signalized intersection. The Park Avenue eastbound approach includes three lanes: a shared left/through lane, a through lane and a shared through/right-turn lane. There are three receiving lanes on the east side of the intersection. The southbound approach (Elm Street) includes a through lane and an exclusive left turn lane. The northbound approach includes a through lane and an exclusive right-turn lane. All turn lanes are striped. Directional flow on Union Street is separated by double yellow line.

Signal indications are provided on posts and mast arms over Park Avenue. Signal indications are generally older and lack backplates and retroreflective borders for visibility. Signals are equipped with receivers for emergency vehicle pre-emption.

Striped crosswalks are provided across the east, south and west legs of the intersection. At these locations, curb ramps are provided, but detectable warning panels are only located at the south east corner (adjacent to the Cumberland Farms). New ADA and MUTCD compliant push button activated pedestrian countdown signals are provided at each crossing.

Park Avenue / Main Street

Main Street intersects Park Avenue from the north and south to form a four-legged three-way signalized intersection. The Park Avenue eastbound approach includes two through lanes and an exclusive right turn lane. All turn lanes are striped. The pavement at this approach is significantly rutted affecting the pedestrian crossing in addition to the travel lanes. The Main Street southbound approach is one-way and includes a through lane and an exclusive left turn lane. In the northbound direction, Main Street includes an exclusive right turn lane. Directional flow on the two-way leg of Main Street is separated by a double-yellow line.

Signal indications are provided on posts and a span wire over Park Avenue. The signal equipment at this intersection is very old and in poor condition.

Striped crosswalks are provided across the north, west and south legs of the intersection. At these locations there are curb ramps, however detectable warning panels are provided only at the southwest corner. There are no pedestrian signals at this intersection.

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Park Street / Main Street

Park Street intersects Main Street from the east to form an unsignalized T- intersection. Both Park Street and Main Street are one-way streets at this location. The Park Street westbound approach is transitioning from the rotary and includes three through lanes separated by a median and striped gore between the right and center lane. The right lane is intended to separate through traffic from the traffic destined for the commercial uses along Park Street. A driveway serving the liquor store at this location is located on axis with Main Street. The driveway accommodates two-way traffic into and out of the parking area.

There is a striped crosswalk across the west leg of the intersection. The crosswalk leads directly from Main Street to the retail cluster at this location. There is no high visibility warning signage or other safety measures for pedestrians crossing at this location. There is a crosswalk with an RRFB crossing through the raised median approximately 100 feet east of this crosswalk.

Speed Data

Speed data was collected as part of the automatic traffic recorder (ATR) volume counts in February 2019 and are summarized in **Table 1** below. The data indicates that traffic travels close to the speed limit on Park Street and Park Avenue.

Table 1
Park Street/Park Avenue 85th Percentile Speeds, February 2019

Location	85 th Percentile Speed (mph) ^a
Park Street	31
Park Avenue	33

^a Speed in miles per hour (mph) based on ATR data collected on 02/05/2019.

2.3 PEDESTRIAN AND BICYCLE ACCOMMODATIONS

Park Street

Sidewalks. Sidewalks are provided along the north side of Park Street. Sidewalks are constructed of concrete and are typically 5-feet in width but widen to 10-feet in the vicinity of the Senior Center. Sidewalks between Elm Street and Lathrop Street are relatively new and in good condition, however, between Lathrop Street and Hanover Street sidewalks are in very poor condition. The sidewalks were recently improved between Hanover and Main Street in front of the pizza shop / market / liquor store and are in good condition.

Crossings. There are mid-block crossings of Park Street that flow from the paths through the Town Common. The crossing at the Senior Center is currently being improved by the Town. The

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crosswalk will be shifted slightly to a more desirable location and improved with curb ramps, detectable warning panels and a push-button activated RRFB. Due to the width and high traffic volumes on Park Street, the RRFB will be mounted overhead on a mast arm over Park Street.

The crossing at the church has high visibility pedestrian warning signage.

The crossing at Main Street between the common and the retail shops is not ADA nor MUTCD compliant.

There are also marked crossings of Hanover and Lathrop Streets. These crossings have curb ramps but not all approaches have detectable warning panels.

Park Avenue

Sidewalks. Sidewalks are provided along the south side of Park Avenue. Sidewalks are concrete, are typically 5-feet in width and are offset from the roadway. Sidewalks along Park Street are in good condition.

Crossings. There is one mid-block crossing of Park Avenue that is currently being improved by the Town with a new crosswalk location, sidewalk connection, ADA compliant ramps and an RRFB. Like Park Street, an RRFB will be mounted overhead on a mast arm due to the traffic conditions on Park Avenue.

There are two striped crossings of Park Avenue at Elm / Union Streets. The crossings are served by recently installed pedestrians countdown signals and include curb ramps with detectable warning panels.

There is a striped crosswalk of Park Avenue at Main Street. This crossing lacks pedestrian signals and ADA compliant ramps.

Elm Street

Sidewalks. There are concrete sidewalks provided on both sides of Elm Street between Park Street and Park Avenue. The sidewalks are in good condition and have curb ramps with associated detectable warning panels.

Main Street

Sidewalks. Concrete sidewalks are provided on both sides of Main Street. The sidewalks are 5-feet wide and are in fair condition.

Crossings. There are marked crossings of Main Street at Park Avenue. The crossings do not meet current ADA and MUTCD standards. This intersection lacks pedestrian signals.

There are currently no bicycle accommodations provided in the project area.

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FIGURE 4: BICYCLE AND PEDESTRIAN CROSSINGS

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2.4 PUBLIC TRANSIT

Park Street and Park Avenue are within the service area of the Pioneer Valley Transit Authority of Western Massachusetts (PVTA). Two fixed route transit services operate along Park Street and Park Avenue: the R-10 and the P-20.

R-10 Route. The R-10 provides service between Union Station in Springfield and Westfield State College, connecting the downtowns of Springfield, West Springfield and Westfield. The route runs weekdays from 5:00 AM to 11:00 PM and from 7:00 AM to 10:00 PM Saturdays and 9:00 AM to 8:00 PM Sundays.

P-20 Route. The P-20 provides service between the Holyoke Transportation Center and Springfield Union Station via the Holyoke Mall, connecting the downtowns of Holyoke, West Springfield and Springfield. The P-20 provides service seven days week. The route runs from 5:30 AM to 11:30 PM weekdays; from 6:00 AM to 11:30 PM Saturdays; and from 9:00 AM to 7:30 PM on Sundays. Service frequencies are 20-minutes Monday through Saturday and 30-minutes on Sundays.

Currently there are four bus stops in the Project Area. There are two stops on Park Street, at Lathrop Street and the Senior Center, and two stops on Park Avenue, at the corner of Union / Park Avenue and at the American Legion building near Park Avenue and Main Street. Ridership by stop and bus stop characteristics are summarized in **Table 2**.

Table 2
Ridership and Bus Stop Configuration

Stop Location	Average Daily Ridership ¹	Direction	Stop Configuration	Accessible? (Yes/No)	Facilities
Park Street / Lathrop Street	36	Westbound	In-lane	No	ID Sign
Senior Center	20	Westbound	Pull-out	Yes	ID Sign
Park Avenue / Union Street	25	Eastbound	In-lane	No	ID Sign
Park Avenue / Legion	34	Eastbound	In-lane	Yes	Shelter/ID Sign

¹ Includes combined boardings and alightings for the R-10 and the P-20 in calendar year 2018.
Source: PVTA

2.5 CRASH ANALYSIS

Crash data and analysis for the intersections of Park Avenue at Union Street/Elm Street, Park Avenue at Main Street, Park Street at Main Street and Park Street at Elm Street was undertaken as part of the Park Street/Avenue Corridor Reconstruction Project. This data has been researched for the latest available five-year period (2014-2018) on file with the West Springfield Police Department. In addition to examining the number of crashes, GPI also calculated the crash rate for each location and compared it to the statewide and district-wide averages to assess the significance of the crash occurrences. While the number of incidents is important, the crash rate is more significant as it accounts for different volumes along a roadway or through an intersection. An intersection crash rate is a measure of the frequency of accidents compared to the volume of traffic through an intersection and is presented in crashes per million entering vehicles (c/mev). The crash rates were calculated based on weekday PM peak hour volumes and an estimated K value of 8%.

For signalized intersections, the statewide average is 0.78 c/mev and the District 2 average is 0.89. For unsignalized intersections, the statewide average is 0.57 c/mev and the District 2 average is 0.62 c/mev. A comparison of the calculated crash rate to these averages can be used to establish the significance of incident occurrence and whether potential safety problems exist. Table 3 summarizes the results of the crash analysis for project area intersections. The MassDOT Crash Rate Worksheets and summary of the reported collisions are provided in **Appendix B**.

Intersection Crashes

The signalized intersection of Park Avenue at Union Street/Elm Street experienced an average of 27 crashes per year corresponding with a crash rate of 0.57 c/mev, a rate below both the state (0.78 c/mev) and District 2 (0.89 c/mev) averages. Of the 27 crashes that occurred over the five-year period, seven crashes resulted in an injury and there were no fatalities. Angle crashes were the dominant type of crash (18 of 27 or 67%); All 17 angle crashes were caused by southbound left-turning vehicles conflicting with northbound through movement during a permissive left turn phase. Rear end crashes accounted for five (5) of 27 or 19% of all crashes. These five (5) rear-end crashes from the southbound direction were also partially caused by vehicles attempting a left turn yielding to northbound through vehicles on the permissive left turn phase. These rear end crashes were partially caused by drivers about to go but stopping suddenly because of a closing gap from northbound through vehicles. The angle and rear-end crashes may be partially caused by the orientation of the southbound approach not lining up with the northbound approach. Drivers may take a left turn when there isn't a suitable gap because of limited sight lines. One crash was caused by a southbound left turning vehicle turning right into Cumberland Farms and colliding with a scooter that was headed straight after turning northbound right. Two crashes were rear-ends caused from driver inattention from the southbound and eastbound approaches and one additional crash was an angle of a left turning vehicle attempting to turn into Cumberland farms being struck by a northbound through vehicle.

The signalized intersection Park Avenue at Main Street experienced just under 3 collisions per year and a crash rate of 0.31 c/mev, a rate well below both the state (0.78 c/mev) and district (0.89 c/mev) averages. Five of the 14 total crashes resulted in an injury and there were no fatalities. Most crashes at this location (12 of 14 or 86%) were rear-end collisions. The remaining two crashes were minor side swipe crashes with drivers wanting to (1) enter or (2) exit the

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exclusive right turn lane at the last minute. All 14 crashes were vehicles on the Park Avenue eastbound approach. Upstream of Park Avenue is the North End Bridge rotary which frequently queues back through the Park Avenue at Main Street intersection. This queuing and congestion from the rotary and the signal itself can be the cause of these rear end crashes. In addition to the two side swipe events, vehicles swerving quickly into or out of the right turn only lane may cause a rear end crash when they or the driver behind them are unable to stop for the congested flow in their destination lane.

The signalized intersection of Park Street at Elm Street experienced just 1.4 crashes per year over the five-year study period. The crash rate for this intersection (0.13 c/mev) is much lower than the statewide (0.78 c/mev) and district (0.89 c/mev) averages. One of the seven crashes was an injury crash and there were no fatalities. Four of these crashes, 57%, were from rear-ends, three of which were vehicles traveling westbound on Park Street and one which was traveling northbound on Elm Street. This rear end was from the front vehicle waiting to turn left. Two of the crashes were from southbound vehicles colliding with westbound vehicles and one was a sideswipe with a tractor trailer.

The unsignalized intersection of Park Street at Main Street experienced an average of 1.2 crashes per year over the five-year study period. The crash rate for this intersection (0.15) is significantly lower than the statewide (0.57 c/mev) and District 2 (0.62 c/mev) average for unsignalized intersections. Two of the six crashes were injury crashes and both involved motorcycles. There were no fatalities. Three of the six crashes, 50%, were from vehicles in the right lane attempting to turn left onto Main Street but failing to see a vehicle in the left lane. One of these crashes involved a motorcycle in the left lane. Two of the six crashes, 33%, were rear ends from vehicles traveling westbound yielding to pedestrians at the RRFB crosswalk. The final crash was a conflict with a westbound vehicle and a vehicle exiting the Rotary Liquors driveway.

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Table 3
Intersection Crash Data Summary

Location	Number of Crashes		Severity ^a			Crash Type ^b							Percent During	
	Total	Average per Year	Crash Rate ^c	PD	PI	F	SS	AN	RE	HO	FO	SV	Ped / Bike	Commuter Peak ^d / Wet/Icy Conditions
Park Avenue at Union Street / Elm Street	27	5.4	0.57	20	7	0	1	19	7	0	-	0	1	48% 22%
Park Avenue at Main Street	14	2.8	0.31	9	5	0	2	0	12	0	-	0	0	14% 14%
Park Street at Elm Street	7	1.4	0.13	6	1	0	1	2	4	0	0	0	1	14% 43%
Park Street at Main Street	6	1.2	0.15	4	2	0	3	1	2	-	-	-	-	50% 33%

Sources: MassDOT, West Springfield Police Department. Crash data from 2014-2018.

^a PD = property damage only; PI = personal injury; F = fatality.

^b SS = sideswipe; AN = angle; RE = rear end; HO = head on; FO = fixed object; SV= single vehicle.

^c Measured in collisions per million entering vehicles.

^d Percent of vehicle incidents that occurred between 6-9 AM and 4-7 PM.

3.0 TRAFFIC ANALYSIS

3.1 EXISTING TRAFFIC VOLUMES

Existing traffic conditions along Park Street, Park Avenue and at specific project area intersections were developed by obtaining 48-hour Automatic Traffic Recorder (ATR) counts and conducting manual-turning movement counts (TMCs) in February 2019. The TMCs were collected in 15-minute intervals during the weekday from 7:00 AM to 9:00 AM and 2:00 PM to 6:00 PM and on a Saturday from 11:00 AM to 2:00 PM at four project area intersections:

- Park Street / Main Street (unsignalized)
- Park Street / Elm Street (signalized)
- Elm Street / Union Street / Park Avenue (signalized)
- Park Avenue / Main Street (signalized)

The raw count data information is included in the **Appendix C**.

Data collected from the ATRs involved volume, speed and vehicle classifications. These volumes are summarized in Table 4.

Table 4
Park Street /Park Avenue Traffic Volume Summary - 2019

Location/Time Period	Average Daily Volume (vpd) ^a	Peak Hour Volume (vph) ^b	K Factor (%) ^c
Park Street WB (between Hanover and Lathrop St):	13,818		
Weekday AM Peak Hour	--	927	6.7
Weekday PM Peak Hour	--	1134	8.2
Park Avenue EB (east of Park Ave. Court):	13,822		
Weekday AM Peak Hour	--	1015	7.3
Weekday PM Peak Hour	--	1067	7.7
Elm Street SB (south of Central Street):	7,097		
Weekday AM Peak Hour	--	527	7.4
Weekday PM Peak Hour	--	557	7.8
Elm Street NB (south of Ludington Court):	7,721		
Weekday AM Peak Hour	--	606	7.8
Weekday PM Peak Hour	--	736	9.5

^a 2019 Average traffic volumes in vehicles per day.

^b In vehicles per hour.

^c Percentage of daily traffic occurring during the peak hour.

3.2 CAPACITY AND QUEUE LENGTH ANALYSIS

To assess the traffic operations, GPI conducted capacity and queue analyses under 2019 Base Year, 2029 Future Year with Existing Conditions, and 2029 Future Year with Proposed Improvements.

Capacity and Queue Length Methodology

The signalized intersection capacity analyses were conducted using methodology from the *Highway Capacity Manual (HCM) 2000*¹ due to the restrictions posed on signalized intersection analysis using Synchro 10.0 by the more recently published *HCM 2010*². This includes the inability of HCM 2010 to analyze non-NEMA signal phasing and exclusive pedestrian phases. MassDOT has recognized the significant errors and deficiencies in the *HCM 2010* methodology and traffic impact software, such as Synchro 10.0, when attempting to analyze signalized intersections with advanced signal phasing schemes including exclusive pedestrian phases. GPI has utilized *HCM 2000* methodology as it represents the most recent state and federally accepted methodology for analyzing capacity and delay with exclusive pedestrian phases.

To remain consistent throughout the project area and to provide more conservative results for a coordinated corridor, GPI conducted all signalized and unsignalized intersection queue analyses using *Sim Traffic 10.0* methodology which takes distance between intersections and speed of travel into account for the coordinated system of signalized intersections. In addition, the use of *Sim Traffic* allows for analysis of individual 15-minute intervals within the peak hour to be analyzed. When the peak hour factor (PHF) and anti-PHF are utilized, the methodology assumes that the worst 15-minutes for all approaches applies at all locations at the same time. This results in the most conservative (worse-case) scenario.

Capacity analyses were performed for the proposed project at the three signalized project area intersections. The 2029 future year conditions include an analysis of the future traffic volumes with the existing timings and with the proposed improvements. The 2029 future year conditions with proposed improvements have been analyzed both with and without the pedestrian phase to show the range of future year operations at each intersection.

The proposed phasing and rationale for the study area intersections are listed below and are consistent with the *Signal Timing Manual*, 2008 as prepared for the Federal Highway Administration.

- #1. Park Avenue / Union Street / Elm Street (clustered with #2)
 - Union Street and Elm Street to run split phasing due to high demand, sight distance and crash history.
 - Signals to run clustered due to proximity and high potential for blocking due to limited queuing areas.

¹ *Highway Capacity Manual 2000*, Transportation Research Board; Washington, D.C.; 2000.

² *Highway Capacity Manual 2010*, Transportation Research Board; Washington, D.C.; 2010.

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- #2. Park Street / Elm Street (clustered with #1)
 - Elm Street to run split phasing due to minimal queuing area for left turns and to match with intersection #1.
- #3. Park Avenue / Main Street
 - No significant changes to timing plan.

Capacity analyses provide an indication of how well the intersection accommodates the traffic demand placed upon it. A primary result of capacity analysis is the assignment of levels of service to traffic facilities under various traffic flow conditions. The concept of level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the optimal operating conditions and LOS F the least desirable operating conditions. Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year. A description of the operating condition under each level of service is provided below:

- *LOS A* describes conditions with little to no delay to motorists.
- *LOS B* represents a desirable level with relatively low delay to motorists.
- *LOS C* describes conditions with average delays to motorists.
- *LOS D* describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.
- *LOS E* represents operating conditions with high delay values. This level is considered by many agencies to be the limit of acceptable delay.
- *LOS F* is considered to be unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.

LOS D or better is generally considered an acceptable operating condition. Thresholds for vehicular LOS criteria for signalized intersections are shown in **Table 5**.

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Table 5
Level of Service Criteria for Intersections

Level of Service	Unsignalized Intersection Control Delay Ranges (Seconds)	Signalized Intersection Control Delay Ranges (Seconds)
A	≤10	≤10
B	>10 and ≤15	>10 and ≤20
C	>15 and ≤25	>20 and ≤35
D	>25 and ≤35	>35 and ≤55
E	>35 and ≤50	>55 and ≤80
F	>50	>80

Source: *Highway Capacity Manual 2010*, Transportation Research Board; Washington, D.C.; 2010.

Control delay is the primary performance measure for signalized intersections. Control delay is the portion of total delay credited to traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign or signal, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. For signalized intersections, the analysis considers the operation of each lane group entering the intersection and the overall condition at the intersection. Control delay coupled with the respective volume-to-capacity ratio characterized the LOS of that lane group entering the intersection. Volume to capacity ratio quantifies the degree to which a phase's capacity is utilized by the lane group.

For unsignalized intersections, the 95th percentile queue is a function of the capacity of the movement and the movement's degree of saturation. The 50th percentile queue lengths are not calculated for unsignalized intersections or roundabouts.

Capacity and Queue Length Analysis Results

The level-of-service analyses for the study intersection were completed for the 2019 Base Year, 2029 Future Year with Existing Geometry, and 2029 Future Year with Proposed Improvements. The capacity analyses for signalized intersections are summarized as follows in **Table 6**. All analysis worksheets can be provided upon request.

This project proposes two alternatives which impact the two clustered intersections of Park at Elm Street and Park Avenue at Elm Street/Union Street:

Alternative 1: Includes a change in the lane use for the southbound approach of Elm Street to Park Avenue. The lane use would consist of an exclusive left turn lane as well as a shared left/thru lane. This does not require any roadway widening.

Alternative 2: Includes a change in the lane use for the southbound approach of Elm Street to Park Avenue. The lane use would consist of adding a 2nd exclusive left turn lane in addition to the existing left turn lane and through lane. This would require roadway widening.

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Park Street at Elm Street

The intersection at Park Street and Elm Street will run clustered with the adjacent intersection at Park Avenue, Union Street and Elm Street. The intersection will run concurrent pedestrian phasing. If no changes are made to this intersection, it will operate at an overall LOS F in future year 2029 with the westbound approach operating over capacity. However, with either proposed alternative, it will operate at an overall LOS E in the controlling PM peak hour and LOS C at all other times of the day. While the intersection as a whole runs LOS E or better, the westbound left will operate at a LOS F during just the PM peak period for both Alternatives although the queuing along this approach is greatly improved. The LOS F on Park Street is a result of balancing the required amount of green time needed without severely reducing the level of operations of the other approaches, specifically the southbound approach.

The two intersections are run clustered due to their close proximity to ensure they are properly 'synched' to minimize queuing between the two intersections. This will allow vehicles traveling southbound through on Elm Street or traveling on Park Street turning westbound left onto Elm Street to continue through both intersections on their respective green phase.

Park Avenue at Elm Street/Union Street

The intersection at Park Avenue at Elm Street/Union Street will be clustered with the adjacent intersection at Park Street and Elm Street. This intersection was recently retimed to eliminate the permissive southbound left turn phase as a result of the high crash history between southbound left vehicles and northbound through vehicles. If no additional changes are made to this intersection during the future 2029 conditions, it will operate over capacity and at an overall LOS E during the PM peak period and a LOS D or better during all other time periods.

This intersection has two proposed alternatives which involve the congested southbound approach. Currently, the southbound approach is striped as an exclusive left and a through lane. To better accommodate the heavy southbound left turn volume, alternative 1 proposes restriping the through lane to a shared left/through lane, effectively creating two lanes from which vehicles may turn left. While this intersection is not expected to operate with an overall LOS F during the No Build Condition, the volume to capacity ratio for the PM peak period is slightly greater than 1. During the same PM peak period, the implementation of Alternative 1 would reduce the overall v/c ratio below capacity to 0.95.

Alternative 2 involves widening the Elm Street southbound approach to three lanes with two exclusive left turn lanes and a 3rd through lane. This alternative would improve overall operations to a LOS D or better during all peak hours analyzed.

Based on these results, it is recommended that Alternative 1 be implemented at the clustered intersections to reduce queuing and enhance overall operations without the need for widening.

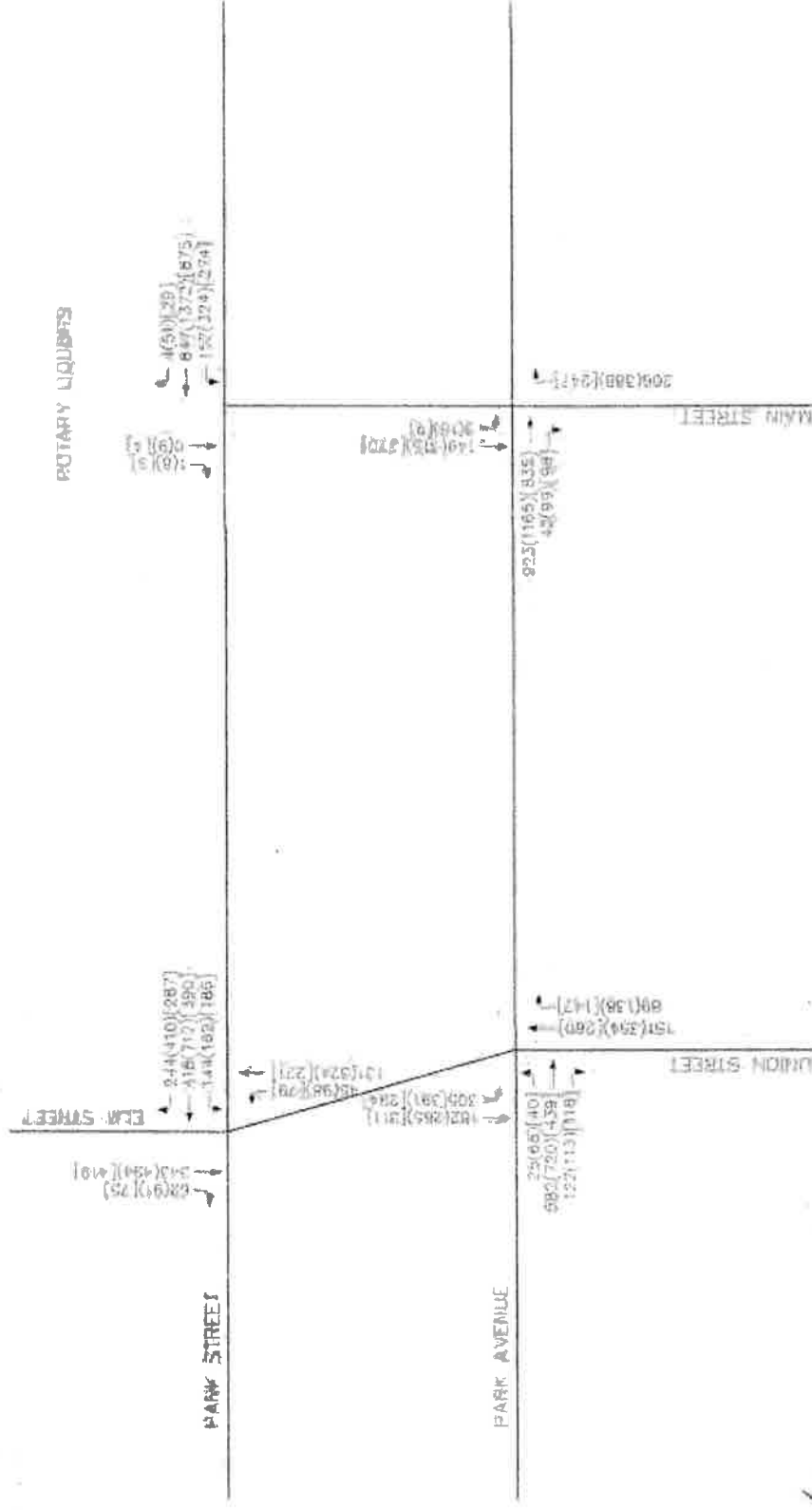
Park Avenue at Main Street

This intersection is expected to operate with an acceptable LOS during the 2029 No Build condition with an overall LOS C during the peak PM and LOS B at all other times of the day. As such, the project only proposes some timing/phasing changes to optimize operations at this location.

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FIGURE 5: EXISTING PEAK HOUR VOLUMES - 2019



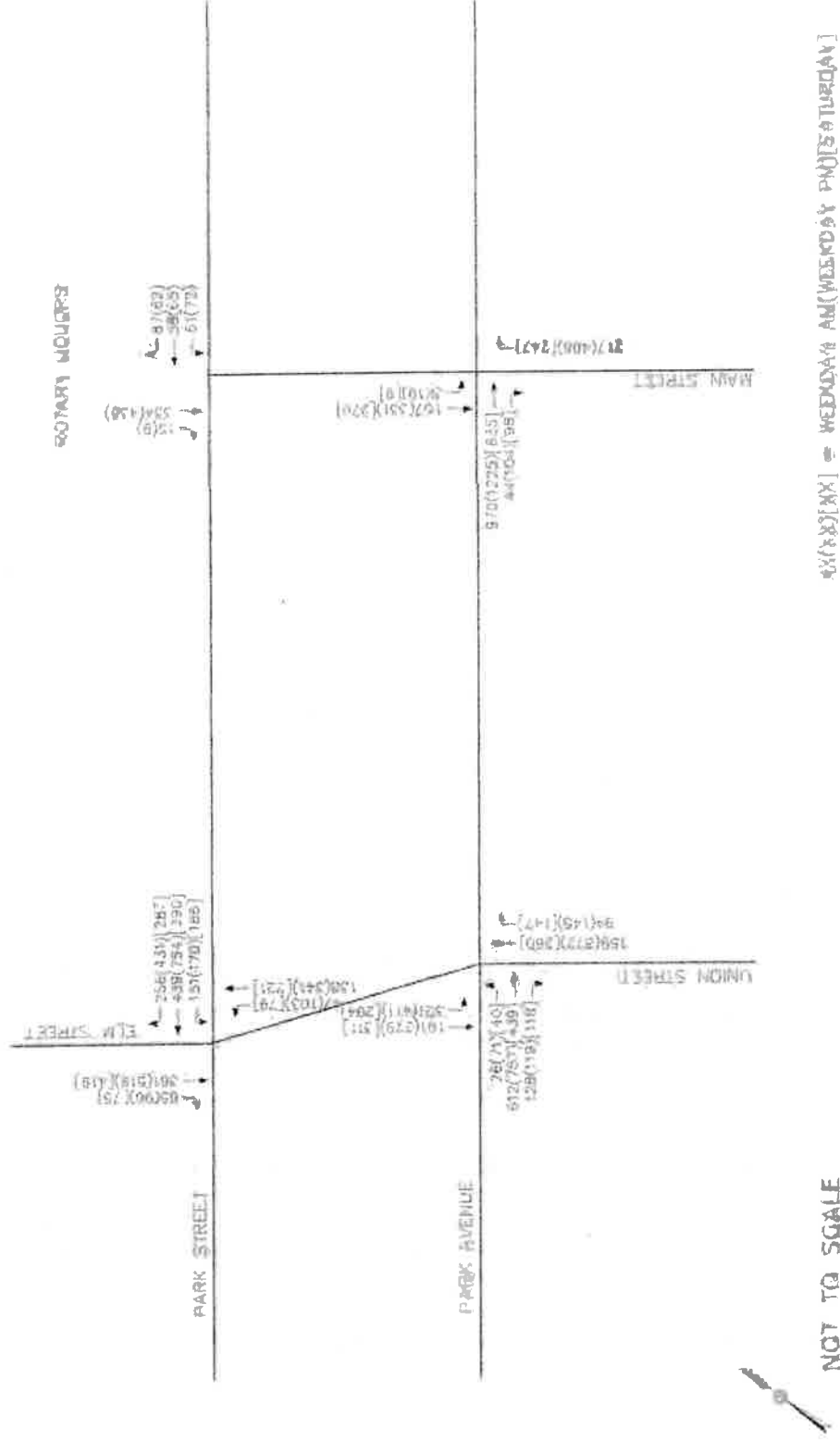
NOT TO SCALE

X' (XX) [XX] = WEEKDAY AM (WEEKDAY PM) (SATURDAY)

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FIGURE 6: PROJECTED PEAK HOUR VOLUMES - 2029



4.0 PROPOSED IMPROVEMENTS

4.1 DEVELOPMENT OF COMPLETE STREET DESIGN CONCEPTS

The proposed improvements represented in the accompanying conceptual design plan were developed through an interactive process with Town of West Springfield and the public starting with the objectives stated in the Town's Complete Street Prioritization Plan to provide a design that accommodates all modes of transportation and is comfortable for all ages and abilities. The design also takes into consideration the gracious character and gateway location of Park Street and Park Avenue. Input on the project area and possible design options was taken at public workshops hosted by the Town on the following dates:

- April 8, 2019, West Springfield Senior Center, Project Kick Off and Identification of Project Area Issues and Concerns
- June 5, 2019, West Springfield Senior Center, Input on Conceptual Design Options
- January 9, 2020, West Springfield Historic Commission, Input on Conceptual Plan

In addition to the public workshops, the project was profiled on the 22 NEWS InFocus public affairs television program in July 2019.

Public input on the project was obtained through comments at public meetings and through a survey that was distributed at the workshop and available online and promoted through the Town's Facebook page. Results from the public meetings, including meeting notes and survey responses are included in **Appendix D**.

Overall, the project improvements incorporate the following objectives which respond to community desires and established town plans and policies:

Pedestrian Safety / Traffic Calming. The project improves the environment for walking through reconstructed sidewalks (where needed), ADA compliant crossings, crossings enhanced with pedestrian safety measures including pedestrian countdown signals (where they do not exist) and RRFBs at mid-block crossings as appropriate. Traffic calming measures including narrowed travel lanes, street trees and raised crossings at side streets. Lighting and benches are added where necessary to ensure walking is safe, comfortable and attractive.

All Ages and Abilities Bicycle Facilities. A shared use path is recommended through the Town Common to provide an off-street biking route that is comfortable for all ages and abilities. This is particularly important due to the volume of traffic and the amount of truck traffic on Park Street and Park Avenue. This facility is consistent with guidance contained with MassDOT's *Municipal Resource Guide for Bikeability* (2019) (see **Figure 7**).

Improved Transit Stops. Based on input from PVTA, the transit stops will be consolidated and the Park Avenue stop will be relocated and improved with a turn-out and shelter.

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FIGURE 7: TRAFFIC VOLUME AND SPEED CONSIDERATIONS FOR BIKE FACILITY SELECTION (SOURCE: MASSDOT MUNICIPAL RESOURCE GUIDE FOR BIKEABILITY)



Roadway Improvements. Consistent vehicle lane widths of 11-feet are proposed along Park Street and Park Avenue. The plan provides new signal equipment, signal optimization, resurfacing of roadways and restriping of travel lanes.

Activation of the Town Common. By providing a shared use path through the Common the plan responds to comments that the Town Common is not well used and isn't living up to its greatest potential as a vital public space in the heart of West Springfield. Existing issues include difficulty crossing the street to reach the Common, the amount of heavy traffic on Park Street and Park Avenue, the lack of interest or activity in the Common on a day to day basis, circulation routes through the park don't invite greater usage and there is a lack of benches to accommodate lingering and passive enjoyment of the park.

Alternatives Considered

A range of alternatives were considered for the project, as follows:

- Shared use path adjacent to Park Street and Park Avenue with a landscape buffer. This alternative included replacing existing sidewalks with a 10-foot shared use path.

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- One-way protected bike lane and 5-foot sidewalk. Similar to the shared use path alternative, this alternative would have entailed replacing the existing sidewalks with a 5-foot HMA protected bike lane and a 5-foot concrete sidewalk.
- Shared use perimeter path around the Common. This alternative included a 10-foot shared use path around the Common.

The one-way bike lanes and shared use sidepaths were a concern for several reasons: concerns that bikes would be better served by a two-way facility; concerns regarding utility conflicts and the removal of mature trees in the buffer area, concerns about ‘tight’ areas and bike/pedestrian conflicts around the senior center and Main Street retail zone.

Routing the path through the Common provided an attractive option that avoids tree and utility conflicts as well as driveways and street crossings while providing an attractive walking and bicycling experience in a park setting. Crossings assisted by signals and RRFBs provide connections between the Common path and the destinations on the opposite side of the street.

4.2 DESCRIPTION OF PROPOSED IMPROVEMENTS

The following describes the proposed improvements in the project area.

Park Street Improvements

Key design considerations along Park Street include access to the school, senior center and downtown, improved pedestrian crossings and traffic calming. The design for Park Street and Park Avenue reinforces the gracious tree-canopied character of this important gateway to West Springfield.

- Construct new eight-foot concrete sidewalk between Lathrop and Hanover Streets.
- Remove PVTA bus stop at Park and Lathrop Street.
- Mill and overlay street pavement.
- Reset / replace granite curbing.
- Restripe travel lanes.
- Provide raised pedestrian crossings of Hanover and Lathrop Street.
- Provide a park light fixture east of the mid-block crossing at the Senior Center.
- Street tree planting.

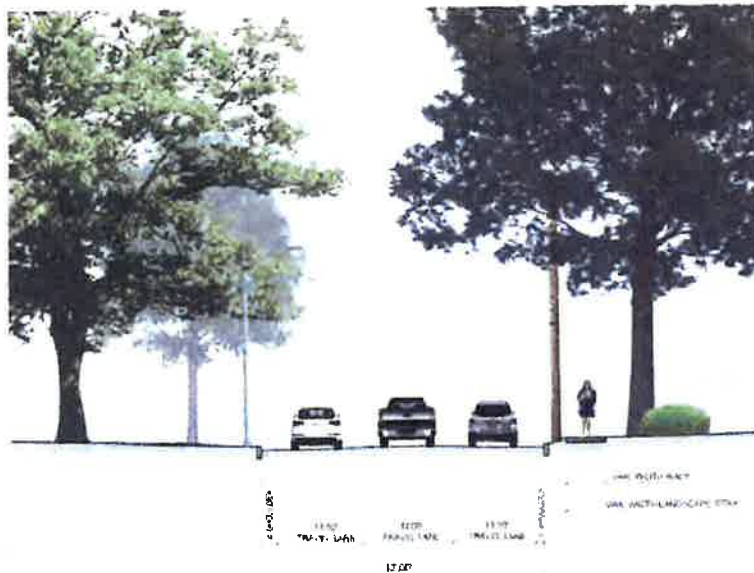
West Springfield Town Common

Key design considerations for the Town Common include providing a shared use path for pedestrians and bicycles avoiding impacts on mature trees and providing connections to mid-block and intersection crossings. In addition, the easterly HMA parking lot cut into the Common is proposed to be replaced with greenspace and the westerly parking area is proposed to be replaced with a semi-circular parking drive which provides a safer configuration for merging in and out of traffic.

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FIGURE 8: EXISTING AND PROPOSED STREET SECTIONS: PARK STREET



Park Street - Existing



Park Street - Proposed

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- Remove HMA parking areas and replace with grass. Replace the west parking area (accessible via mountable curbing) with an HMA semi-circular parking drive bounded with granite curbing.
- Construct a new ten-foot concrete shared use path around the perimeter of the Common.
- Provide concrete sidewalk connections to mid-block and intersection crossings.
- Provide lighting along the path, as needed, consistent with the design of light fixtures established in the Common.
- Provide benches along the path.

Park Street at Main Street

This location includes a thriving neighborhood retail cluster that is a pedestrian generator. Providing a safe crossing at this location, both for foot and bicycle traffic traveling to the shops and to accommodate the transition to the Common shared use path is needed. On-street parking to support the retail businesses is also provided. These improvements will provide a traffic calming effect at this gateway location.

At the present time there is a crossing with an RRFB approximately 100 feet east of Main Street within MassDOT's layout. The Town should discuss the possibility of removing or relocating that crossing and directing pedestrians to the Main Street crossing. Pedestrian counts collected as a part of this project indicate that crossing of Main Street is used as it is a clear and direct desire line from the neighborhood south of Park Street / Park Avenue to the retail area and other attractions on Park Street. The pedestrian activity at the RRFB should be evaluated. In addition, one of the recommendations contained in the walk audit prepared for the Coburn School called for directing pedestrian traffic away from the rotary and removing the RRFBs.

In addition, the Town should evaluate allowing two-way traffic on all or a portion of Hanover Street (as recommended in the Purcell Associates traffic evaluation) as this may assist traffic flow related to the liquor store parking lot driveway on Park Street. In addition, two-way traffic generally has a traffic calming effect, which would be desirable in a residential neighborhood.

- Replace the existing crosswalk of Park Street with a new concrete curb extension, ADA and MUTCD compliant pedestrian crossing with striping, curb ramps, detectable warning panels, and a push-button actuated RRFB assembly. Provide a mast arm mounted beacon.
- Restripe the travel lanes to provide designated on-street parking in front of the pizza shop, market/deli and liquor store.
- Provide bicycle wayfinding signage.

Park Street at Lathrop Street Mid-Block Crossing

The existing mid-block crossing is proposed to be shifted to align with Lathrop Street to accommodate foot and bicycle traffic to the Coburn School. This requires a path change in the Common as well as a new crossing and RRFB. At the present time Lathrop Street is a one-way street in the southbound direction with the crossing aligned to the east side of the street although the school is on the west side of the street. Traffic flow is being studied as a part of the school

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expansion. If traffic flow is changed to two-way on Lathrop Street, the crosswalk should be aligned to the west side of Lathrop Street.

- Relocate the existing mid-block crossing to align with Lathrop Street. Provide an ADA and MUTCD compliant pedestrian crossing with striping, curb ramps, detectable warning panels, and a push-button actuated RRFB assembly. Provide a mast arm mounted beacon. Provide a park light fixture east of the crossing.

Park Street at Elm Street

Key design considerations at this intersection include bicycle and pedestrian path connections from the Common to the Elm Street business district in consideration of the complete street improvements that are currently in design. Improved signal equipment is necessary, and the current equipment limits the ability to optimize signal phasing for vehicles and pedestrians. This project will need to transition to the bicycle and pedestrian improvements currently in design on Elm Street.

- Reconfigure the existing crossings of Park Street and Elm Street to accommodate bicycle and pedestrian crossings to and from the Common shared use path. Provide ADA and MUTCD compliant pedestrian crossings with striping, curb ramps, and detectable warning panels.
- Provide a new crossing of Elm Street connecting the east and west halves of the Common.
- Provide new post and mast arm mounted signal equipment and controller. Remove and reset pedestrian signals as needed to accommodate sidewalk and path improvements.
- Provide a 10-foot concrete shared use path parallel to Elm Street through the western half of the Common between Park Street and Park Avenue.

Elm Street Improvements

Elm Street between Park Street and Park Avenue is a short segment that experiences peak hour congestion. Based on the traffic operations analysis the lane use in the southbound direction is recommended to be changed to a left and a shared left/through. A shared use path is proposed on both sides of Elm Street to accommodate bicycle and pedestrian traffic.

- Restripe southbound travel lanes at approach to Park Avenue as previously described as Alternative 1 in the Capacity Analysis section of this report.

Park Avenue Improvements

Key design considerations along Park Avenue include access to Park Avenue businesses, reconfiguration of PVTA bus stops and traffic calming.

- Remove PVTA bus stops and Union Street and Main Street and construct a new bus stop with a turnout and concrete pad at 123 Park Avenue. Remove and replace the shelter from the Main Street stop.
- Provide a park lighting fixture west of the mid-block crossing.
- Mill and overlay street with HMA.

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- Provide full-depth reconstruction at the northbound approach to Main Street to address pavement rutting.
- Reset / replace granite curbing.
- Restripe travel lanes.
- Street tree planting.

Park Avenue at Elm / Union Streets

Key design considerations at this intersection include a heavy right turn particularly for trucks turning from Union to Park Avenue. Providing protected crossings, and a slight adjustment to the curb radius on the south east corner to accommodate turning trucks is recommended. With the exclusive northbound right turn lane and the high levels of truck traffic, moving bicyclists onto a shared use path at the northbound approach is recommended. This would involve minor right of way impacts. The curb radius on the northeast side of the intersection (adjacent to the Common) can be reduced. The landscaping in the buffer at the Cumberland Farms station was noted as obscuring sight distances in the driveways. The landscaping should be modified to be consistent with the remainder of Park Street and Park Avenue to include a grass strip with a canopy tree.

- Reconfigure the existing crossings of Park Avenue and Union Street to accommodate bicycle and pedestrian crossings to and from the proposed Common shared use path. Provide ADA and MUTCD compliant pedestrian crossings with striping, curb ramps, and detectable warning panels.
- Provide a larger curb radius on the south east corner (adjacent to the Cumberland Farms) to accommodate truck turning and widen the sidewalk to 10 feet to accommodate bicycles from Union Street.
- Reduce the curb radius on the north east corner (adjacent to the Common).
- Remove existing overgrown shrubs and mulch in the buffer area and landscape with grass and a canopy tree.
- Provide new post and mast arm mounted signal equipment and controller. Remove and reset pedestrian signals as needed to accommodate sidewalk and path improvements.
- Revise the Elm Street southbound lane use as previously described as Alternative 1 in the Capacity Analysis section of this report.

Park Avenue at Main Street

Key design considerations at this intersection include providing path connections between Main Street and the Common and replacing signal equipment, including pedestrian countdown signals.

- Reconfigure the existing crossings of Park Avenue and Main Street to accommodate bicycle and pedestrian crossings to and from the Common shared use path. Provide ADA and MUTCD compliant pedestrian crossings with striping, curb ramps, and detectable warning panels.
- Provide new post and mast arm mounted signal equipment.
- Optimize traffic signal phasing/timing.
- Provide pedestrian countdown signals for the three marked crossings.

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FIGURE 9: EXISTING AND PROPOSED STREET SECTION: PARK AVENUE



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Main Street

- Mill and overlay street with HMA.
- Restripe travel lanes.

4.3 CONSTRUCTION COST ESTIMATE

A preliminary construction cost estimate was developed for the Conceptual Design Plan utilizing the latest available unit prices. The total project construction cost (including traffic control and an allowance for utility relocation) is estimated at approximately \$3.1 million. The preliminary construction cost estimate is included in **Appendix E**.

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APPENDICES

- A. ROUTE 20 / PARK AVENUE AREA TRAFFIC EVALUATION
 - B. CRASH WORKSHEETS AND DIAGRAMMS
 - C. TRAFFIC COUNT DATA (ATR & TMC WORKSHEETS)
 - D. PUBLIC INPUT SUMMARIES
 - E. CONSTRUCTION COST ESTIMATE
-

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APPENDIX A: ROUTE 20 / PARK AVENUE TRAFFIC EVALUATION

Rec'd
11/7/02
[Signature]

**ROUTE 20 / PARK AVENUE AREA
TRAFFIC EVALUATION**

**PREPARED FOR THE
TOWN OF WEST SPRINGFIELD**



November 19, 2001

REVISED 12/07/2001

PREPARED BY

PURCELL
ASSOCIATES

CONSULTING ENGINEERS

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III. Potential Solutions	2
IV. Conclusions / Recommendations	5

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Appendix	Title
A.	Photographs of Existing Conditions
B.	Improvement Alternates

I. Introduction

Purcell Associates has been contracted by the Town of West Springfield to evaluate the existing traffic conditions in the area of the Route 20 / Park Avenue rotary. The Town has indicated that commercial development in the area may exacerbate traffic control problems inherent to the multi-leg rotary configuration.

This evaluation was comprised of several steps. Purcell Associates observed and photographed existing traffic conditions during the a.m. peak period on November 8, 2001. The existing conditions have been reviewed and several alternate methods of addressing the traffic issues have been outlined in this study. Following a review of the alternates with Town of West Springfield staff, a recommended method of addressing the traffic deficiencies is proposed.

The improvements noted within the study are based on observed conditions and the assumption that only limited reconfiguration and improvements to existing roadways are feasible. Prior to implementing the recommended improvements a detailed traffic study of the affected area should be undertaken.

counts
turns
7

II. Existing Conditions

An observation of existing conditions was performed on November 8, 2001. Photographs of those conditions were taken (refer to Appendix I). The weather was sunny and cold. The pavement was dry. The field observation focused on the traffic conditions evident in the vicinity of a Dunkin' Donuts restaurant, an adjacent liquor store, and the site of a proposed Cumberland Farms gas station/convenience store.

The following is an assessment of the existing conditions and evident deficiencies within the Town rights-of-way:

- Traffic entering and exiting the west driveway at Dunkin' Donuts restaurant crosses westbound Park Street to/from Main Street. This hazardous movement is compounded by the proximity of the rotary and traffic entering westbound Park Street from the rotary.
- Vehicles park in the "NO PARKING ZONE" on Park Street, in front of the Dunkin' Donuts. Vehicles (trucks) were also observed double-parked in the "NO PARKING ZONE". As a result, sight distances are reduced for traffic entering, or crossing, Park Street from the west driveway at Dunkin' Donuts. Also, vehicles southbound on Elmdale Street wishing to turn onto Park Street westbound must a) drive the "WRONG WAY" into the rotary, 2) cut through the gas station into the rotary, or 3) cut-through Dunkin' Donuts onto Park Street.
- Vehicles park and exit the liquor store, adjacent to Dunkin' Donuts, in the wrong direction, often preventing vehicles entering the liquor store from making this movement. These vehicles often attempt to cross Park Street to Main Street, creating a hazardous condition for Park Street traffic.

- Vehicles backing from the Dunkin' Donuts parking lot into Elmdale Street.
- Painted pavement markings and lane striping has deteriorated. Traffic signing is confusing and lacking in some areas.

Although not a specific task associated with this study, Purcell Associates also noted the following traffic-related deficiencies on the Dunkin' Donuts site, liquor store site and contained on plans for a future Cumberland Farms gas station/convenience store:

- There is lack of adequate parking on the Dunkin' Donuts site. This causes the illegal on-street parking, parking on adjacent properties and other traffic deficiencies noted above.
- ✗ - There are insufficient aisle widths on the Dunkin' Donuts site. Vehicles must back into Town roadway traffic and perform difficult maneuvers on the site to enter/exit parking spaces.
- Liquor store traffic crosses through the site in the wrong direction, creating the hazardous conditions referenced above. This is due, in part, to the "ONE WAY" nature of Hanover Street and the inability to directly enter Park Street from Hanover Street.
- ✗ - Traffic entering/exiting Cumberland Farms from the rotary is a hazardous movement.
- Traffic exiting Cumberland Farms from the proposed western driveway may conflict with traffic backing from Dunkin' Donuts into Elmdale Street.
- Driveway locations on the Cumberland Farms site encourage cut-through from Elmdale Street.

III. Potential Solutions

There are several potential solutions for the traffic-related deficiencies that exist within the study area. Purcell Associates has combined several individual components into a series of viable solutions noted as Alternate #1, #1a, etc. The alternates are appended to this study. Descriptions of the alternates and the solutions depicted therein are as follows:

ALTERNATE #1

- Revise the direction of Main Street, between Park Street and Park Avenue, to be "ONE WAY" in a northern direction. This will eliminate traffic crossing from the Dunkin' Donuts and the liquor store sites to Park Avenue.
- Provide designated on-street parking that can be monitored. Enforce "NO PARKING" zones in the vicinity.

- Reconfigure traffic island adjacent to the Dunkin' Donuts site to provide a wider, more easily negotiated, travel lane.
- Revise the direction of Hanover Street to allow two-way traffic for the first 125'±. This will allow egress from the liquor store site to Park Street via Hanover Street, eliminating the need for traffic to exit the site from the wrong direction.
- Improvements to striping and signing to more clearly delineate travel lanes and traffic control.

ALTERNATE #1a

This Alternate adds the following elements to Alternate #1:

- Extend the traffic island adjacent to Dunkin' Donuts to eliminate traffic crossing from Main Street to Dunkin Donuts.
- Extend Hanover Street south, across the park, to Park Avenue. This will provide a more accessible route for traffic from the Elmdale Street area to Park Avenue and the Rotary.

ALTERNATE #2

- Extend island to eliminate cross over traffic to/from liquor store and Dunkin' Donuts to Main Street.
- Suggest to liquor store building owner that the traffic pattern around the building be reversed. This will enable vehicles to enter site from Hanover Street and exit on Park Street.
- Provide designated on-street parking that can be monitored. Enforce "NO PARKING" zones in the vicinity.
- Reconfigure traffic island adjacent to the Dunkin' Donuts site to provide a wider, more easily negotiated, travel lane.
- Improvements to pavement striping and signing to more clearly delineate travel lanes and traffic control.
- Suggest to Ground Round restaurant owner that traffic be allowed to "EXIT ONLY" from site onto rotary. This will limit hazardous maneuvers from rotary into parking lot.

ALTERNATE #3

- Revise the direction of Main Street, between Park Street and Park Avenue, to be

"ONE WAY" in a southern direction. This will limit the potentially hazardous movements into and out of Main Street at the Park Street intersection.

- Extend the traffic island adjacent to Dunkin' Donuts to eliminate traffic crossing to Main Street from Dunkin Donuts.
- Provide designated on-street parking that can be monitored. Enforce "NO PARKING" zones in the vicinity.
- Reconfigure traffic island adjacent to the Dunkin' Donuts site to provide a wider, more easily negotiated, travel lane.
- Revise the direction of Hanover Street to allow two-way traffic for the first 125'±. This will allow egress from the liquor store site to Park Street via Hanover Street, eliminating the need for traffic to exit the site from the wrong direction.
- Improvements to pavement striping and signing to more clearly delineate travel lanes and traffic control.
- Suggest to Ground Round restaurant owner that traffic be allowed to "EXIT ONLY" from site onto rotary. This will limit hazardous maneuvers from rotary into parking lot.

ALTERNATE #3a

This Alternate adds to or modifies Alternate #3 to include the following elements:

- Revise the direction of Elmdale Street to be "ONE WAY" in a northern direction. This will limit the hazardous northbound movements and cut-throughs at the rotary.
- Reverse the direction of Hanover Street to be "ONE WAY" in a southern direction, providing an outlet to Park Street for motorists previously using Elmdale Street.

ALTERNATE #4 (Recommended Improvements)

- Revise the direction of Main Street, between Park Street and Park Avenue, to be "ONE WAY" in a southern direction. This will limit the potentially hazardous movements into and out of Main Street at the Park Street intersection.
- Extend the traffic island adjacent to Dunkin' Donuts to eliminate traffic crossing to Main Street from Dunkin Donuts and the area of the liquor store.
- Revise the direction of Elmdale Street to be "ONE WAY" in a northern direction. This will limit the hazardous northbound movements and cut-throughs at the rotary.
- Revise the direction of Hanover Street to allow two-way traffic eliminating the need

for traffic to exit the site from the wrong direction and mitigate the change of direction to Elmdale Street.

- Provide designated on-street parking in front of Dunkin Donuts that can be monitored. Enforce "NO PARKING" zones in the vicinity.
- Reconfigure traffic island adjacent to the Dunkin' Donuts site to provide a wider, more easily negotiated, travel lane.
- Improvements to pavement striping and signing to more clearly delineate travel lanes and traffic control.
- Suggest to Ground Round restaurant owner that traffic be allowed to "EXIT ONLY" from site onto rotary. This will limit hazardous maneuvers from rotary into parking lot.

V. Conclusions/Recommendations

The hazardous conditions inherent with traffic rotaries of this type have been compounded by the commercial development immediately adjacent to the traffic rotary. Each of the individual recommended actions described herein will alleviate a portion of the potentially unsafe conditions that exist within the study area and increase motorist safety. The logical combination of the individual recommended actions into an improvement project will compound their effectiveness.

The Town staff has recommended that **Alternate #4** be implemented as a method of mitigating the impact of commercial development and perplexing traffic patterns on motorist safety. Alternate #4 uses a combination of several traffic management elements to address the safety issues.

Prior implementing a final plan for traffic improvements within the project area it is recommended that a detailed traffic study must be performed to further validate the viability of the proposed improvements.

APPENDIX A



Roadway and traffic condition in front of Dunkin' Donuts.



Dunkin' Donuts parking on Elmdale Road.



Vehicle crossing Park Street to Main Street. Note restricted sight distance.



"Wrong way" parking/driving in liquor store lot.

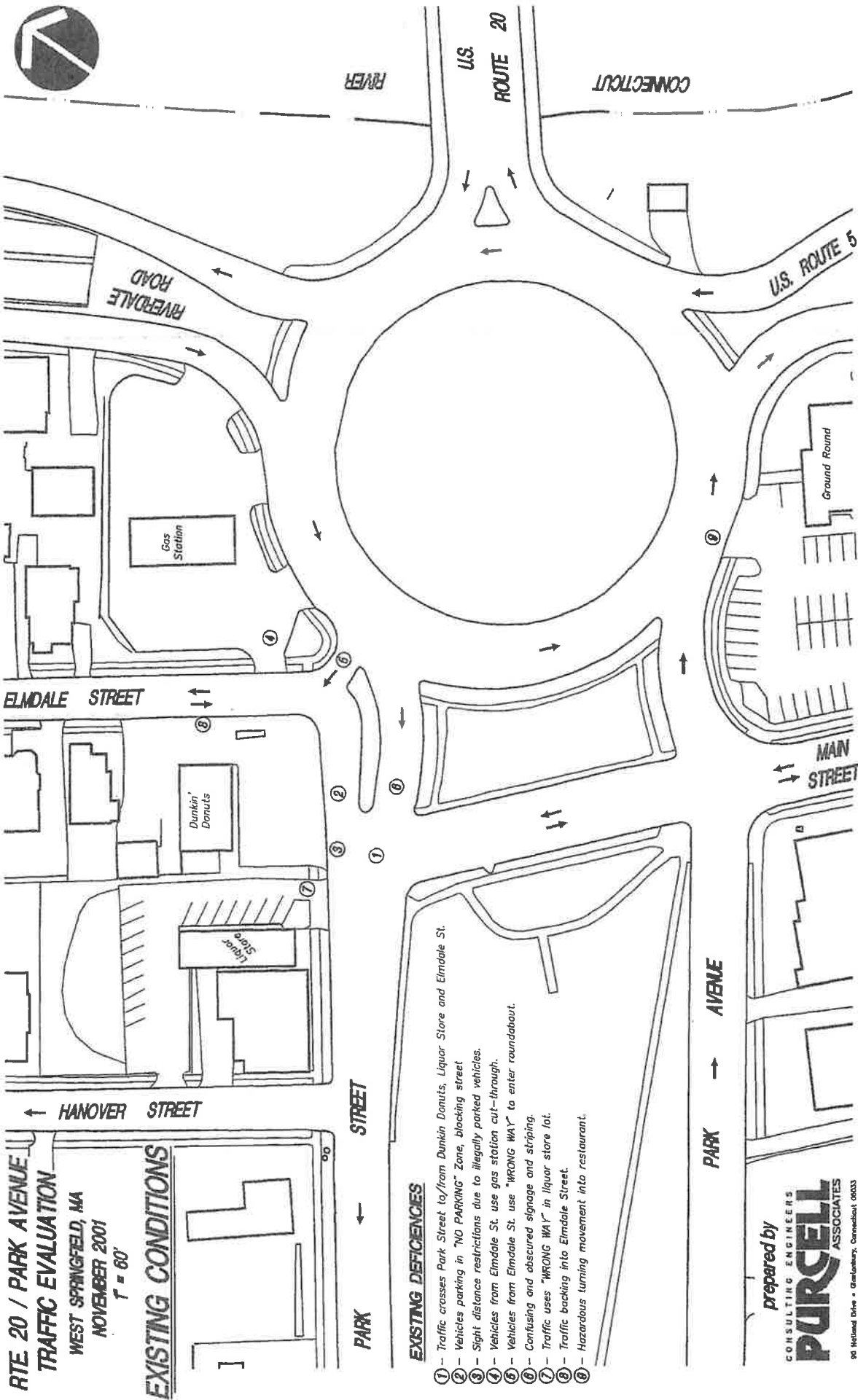


"ONE WAY" northbound on Hanover Street.



Double-parked trucks in "No Parking Zone" in front of Dunkin' Donuts

APPENDIX B



RTE 20 / PARK AVENUE
TRAFFIC EVALUATION
WEST SPRINGFIELD, MA
NOVEMBER 2001
1" = 60'

EXISTING CONDITIONS

EXISTING DEFICIENCIES

- ① - Traffic crosses Park Street to/from Dunkin Donuts, Liquor Store and Elm Dale St.
- ② - Vehicles parking in "NO PARKING" Zone, blocking street
- ③ - Sight distance restrictions due to illegally parked vehicles.
- ④ - Vehicles from Elm Dale St. use gas station cut-through.
- ⑤ - Vehicles from Elm Dale St. use "WRONG WAY" to enter roundabout.
- ⑥ - Confusing and obscured signage and striping.
- ⑦ - Traffic uses "WRONG WAY" in liquor store lot.
- ⑧ - Traffic backing into Elm Dale Street.
- ⑨ - Hazardous turning movement into restaurant.

prepared by
PURCELL
CONSULTING ENGINEERS
ASSOCIATES
90 Notland Drive • Westfield, Connecticut 06093
(401) 633-6341

RTE 20 / PARK AVENUE

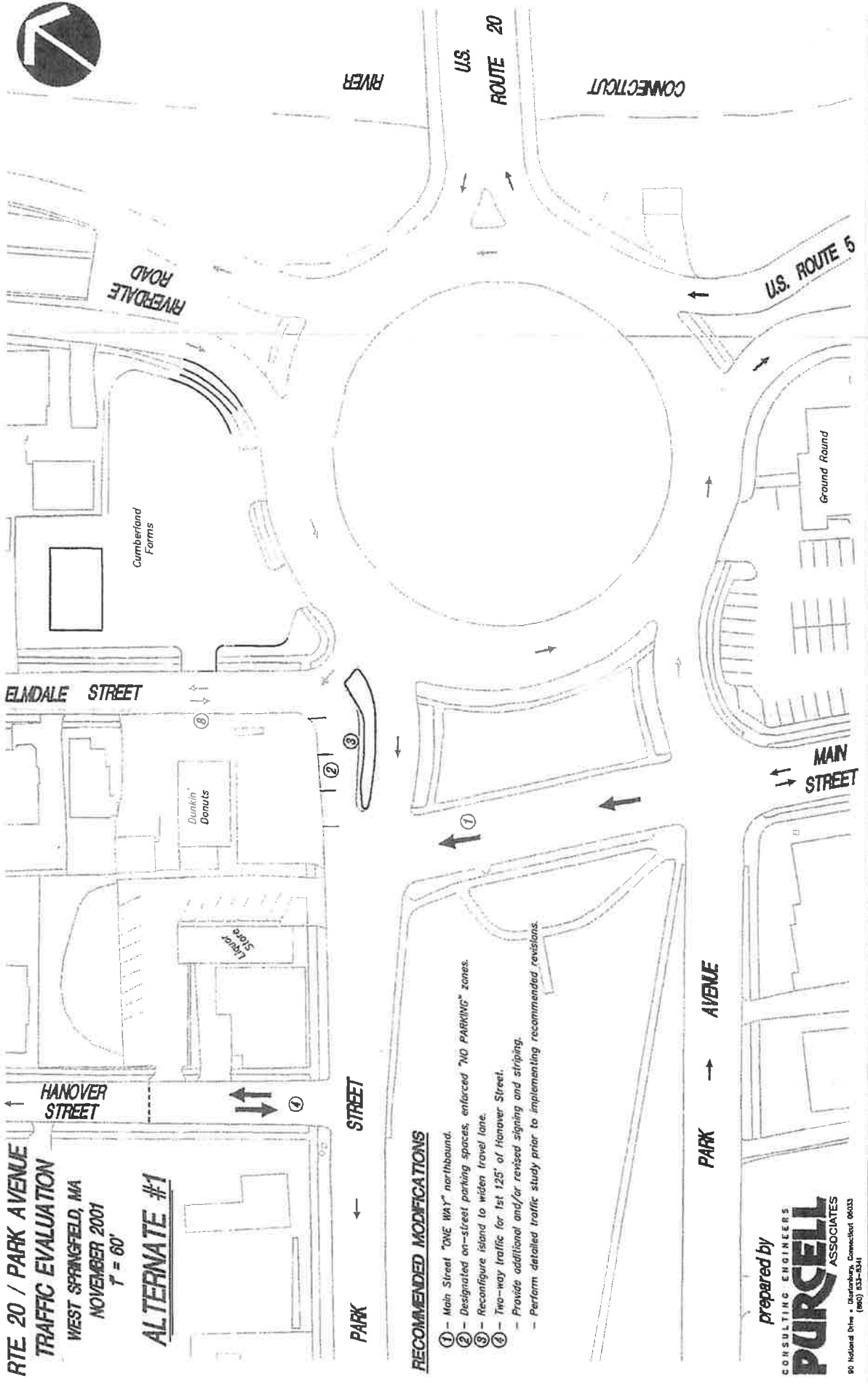
TRAFFIC EVALUATION

WEST SPRINGFIELD, MA

NOVEMBER 2001

T = 60'

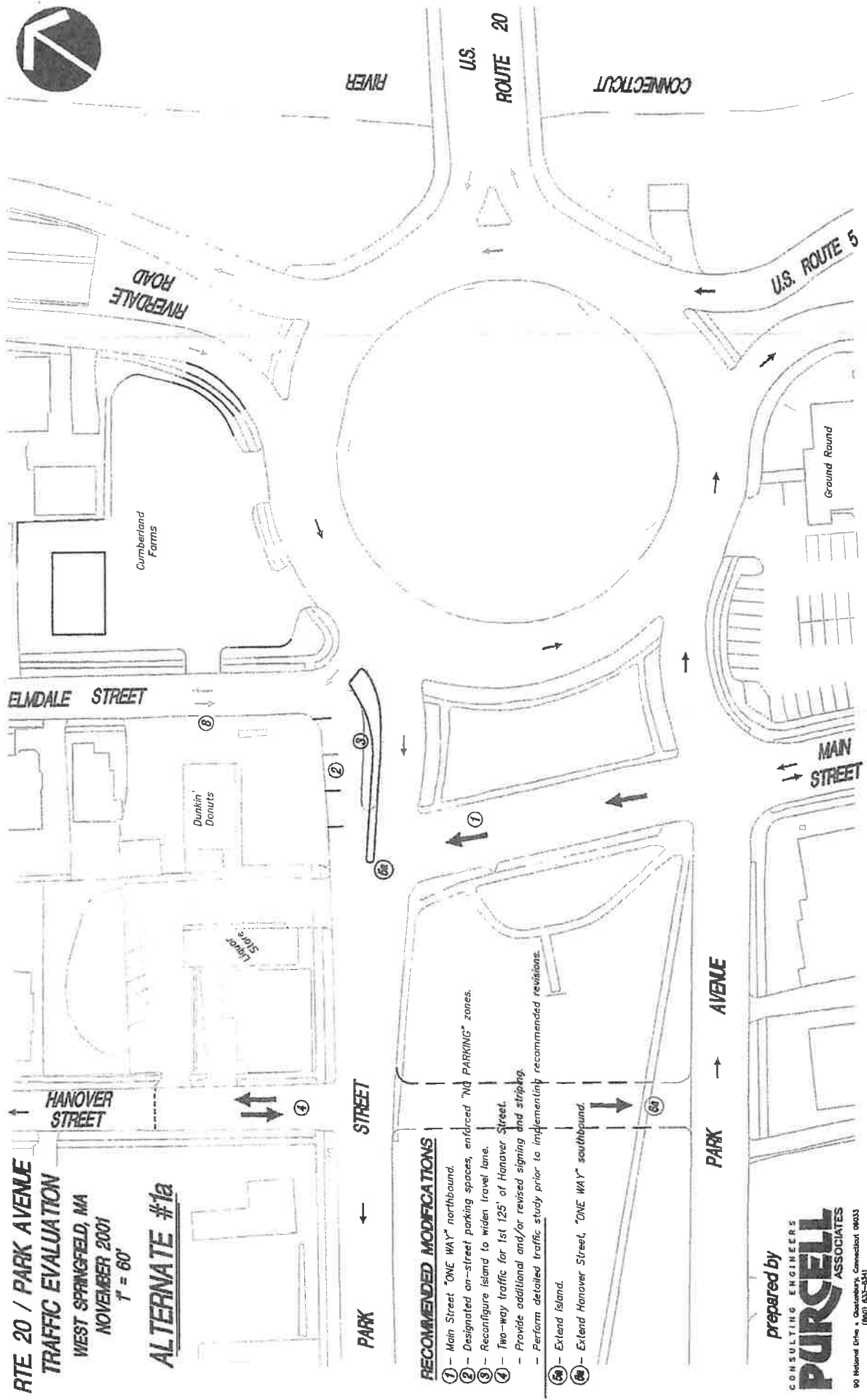
ALTERNATE #1



RECOMMENDED MODIFICATIONS

- ① - Main Street "ONE WAY" northbound.
- ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
- ③ - Reconfigure island to widen travel lane.
- ④ - Two-way traffic for 1st 125' of Hanover Street.
- Provide additional and/or revised signing and striping.
- Perform detailed traffic study prior to implementing recommended revisions.

prepared by
PURCELL
CONSULTING ENGINEERS
ASSOCIATES
90 Highland Drive • Danbury, Connecticut 06833
(860) 533-9341

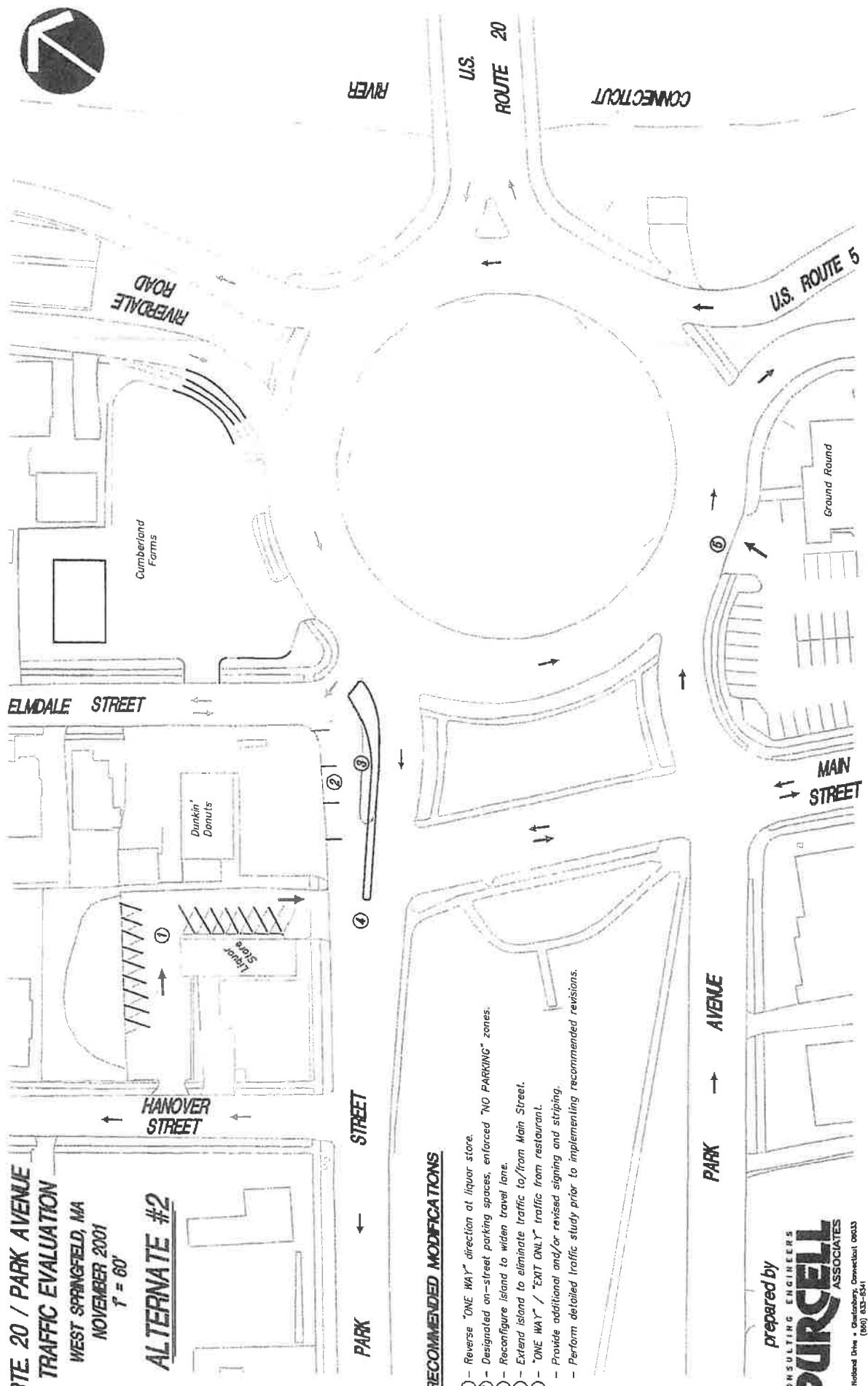


RTE 20 / PARK AVENUE
TRAFFIC EVALUATION
WEST SPRINGFIELD, MA
NOVEMBER 2001
1" = 60'
ALTERNATE #1a

RECOMMENDED MODIFICATIONS

- ① - Main Street "ONE WAY" northbound.
- ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
- ③ - Reconfigure island to widen travel lane.
- ④ - Two-way traffic for 1st 125' of Hanover Street.
- Provide additional and/or revised signing and striping.
- Perform detailed traffic study prior to implementing recommended revisions.
- ⑤a - Extend island.
- ⑤b - Extend Hanover Street, "ONE WAY" southbound.

prepared by
CONSULTING ENGINEERS
PURCELL
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90 Holland Drive • Glastonbury, Connecticut 06033
(860) 637-6341



RTE 20 / PARK AVENUE
TRAFFIC EVALUATION
WEST SPRINGFIELD, MA
NOVEMBER 2001
1" = 60'

ALTERNATE #2

RECOMMENDED MODIFICATIONS

- ① - Reverse "ONE WAY" direction at liquor store.
- ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
- ③ - Reconfigure island to widen travel lane.
- ④ - Extend island to eliminate traffic to/from Main Street.
- ⑤ - "ONE WAY" / "EXIT ONLY" traffic from restaurant.
- ⑥ - Provide additional and/or revised signing and striping.
- Perform detailed traffic study prior to implementing recommended revisions.

prepared by
PURCELL
CONSULTING ENGINEERS
ASSOCIATES
90 Nolland Drive • West Springfield, Massachusetts 01093
(408) 533-5341

RTE 20 / PARK AVENUE

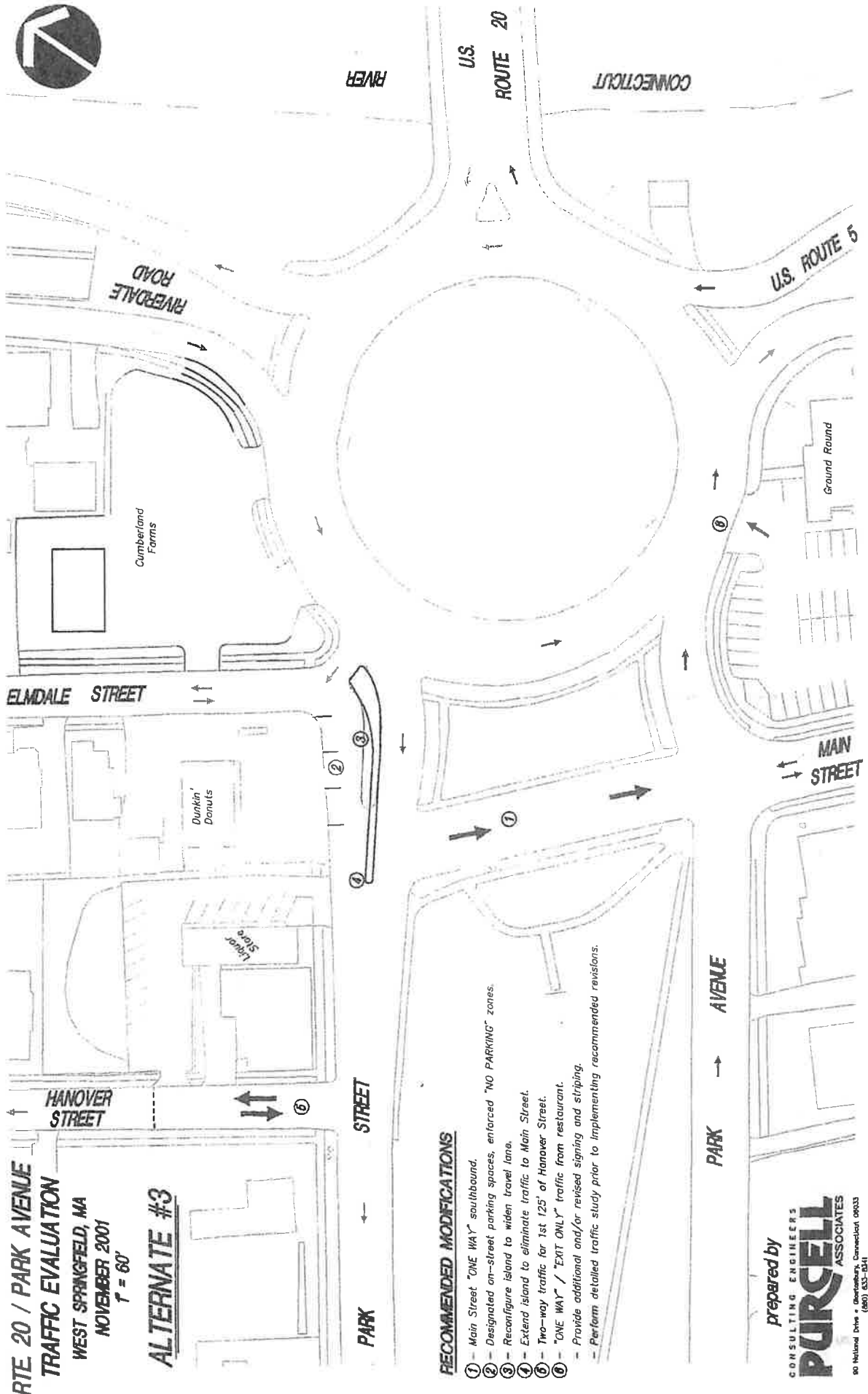
TRAFFIC EVALUATION

WEST SPRINGFIELD, MA

NOVEMBER 2001

T = 60'

ALTERNATE #3

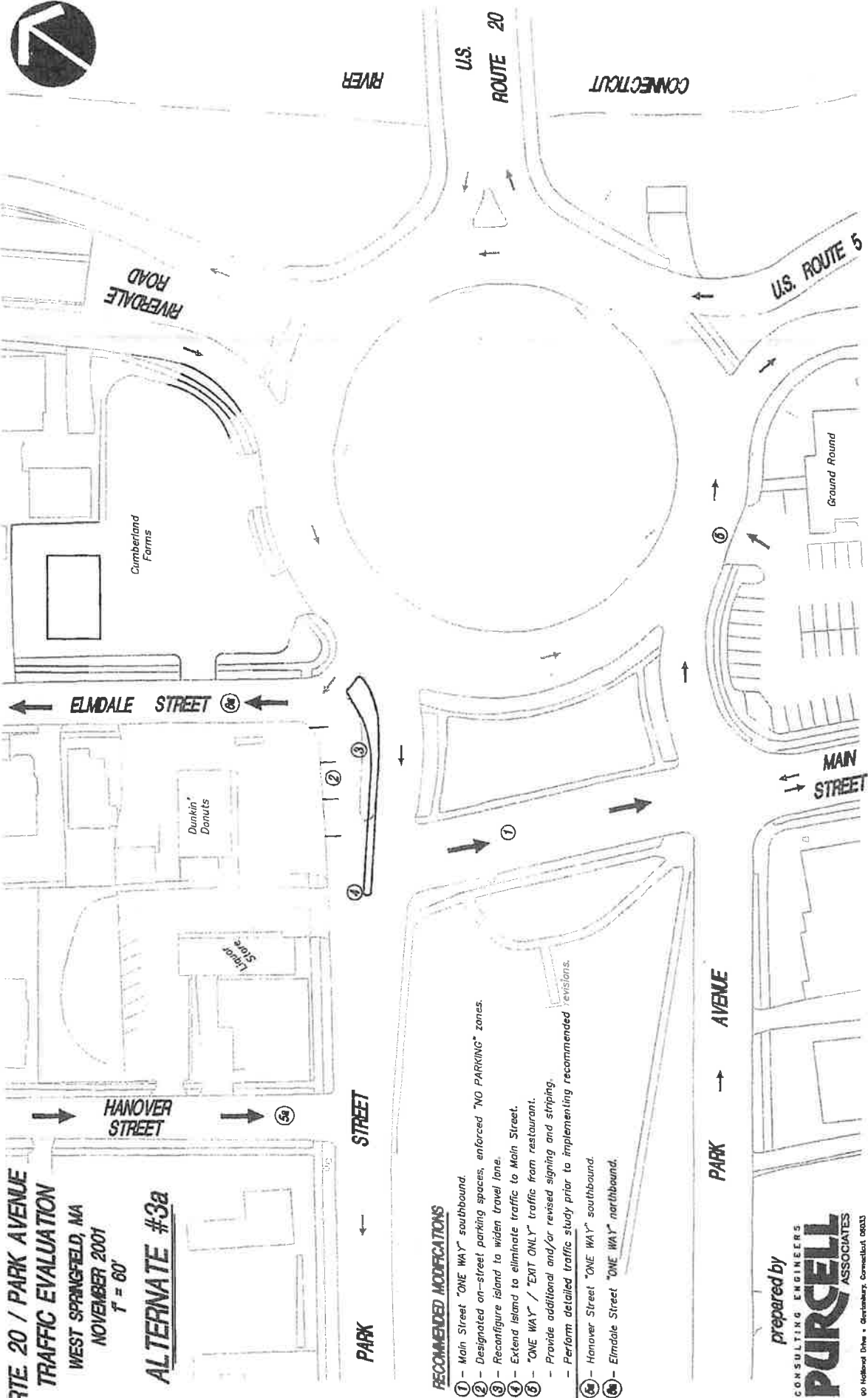


RECOMMENDED MODIFICATIONS

- ① - Main Street "ONE WAY" southbound.
- ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
- ③ - Reconfigure island to widen travel lane.
- ④ - Extend island to eliminate traffic to Main Street.
- ⑤ - Two-way traffic for 1st 125' of Hanover Street.
- ⑥ - "ONE WAY" / "EXIT ONLY" traffic from restaurant.
- Provide additional and/or revised signing and striping.
- Perform detailed traffic study prior to implementing recommended revisions.

prepared by
PURCELL
 CONSULTING ENGINEERS
 ASSOCIATES

90 Holland Drive • Westbury, Connecticut 06093
 (860) 633-3341



RTE 20 / PARK AVENUE
TRAFFIC EVALUATION
WEST SPRINGFIELD, MA
NOVEMBER 2001
1" = 60'
ALTERNATE #3a

RECOMMENDED MODIFICATIONS

- ① - Main Street "ONE WAY" southbound.
- ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
- ③ - Reconfigure island to widen travel lane.
- ④ - Extend island to eliminate traffic to Main Street.
- ⑤ - "ONE WAY" / "EXIT ONLY" traffic from restaurant.
 - Provide additional and/or revised signing and striping.
 - Perform detailed traffic study prior to implementing recommended revisions.
- ⑥ - Hanover Street "ONE WAY" southbound.
- ⑦ - Elm Dale Street "ONE WAY" northbound.

prepared by
CONSULTING ENGINEERS
PURCELL
ASSOCIATES
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(860) 337-4641

RTE. 20 / PARK AVENUE

TRAFFIC EVALUATION

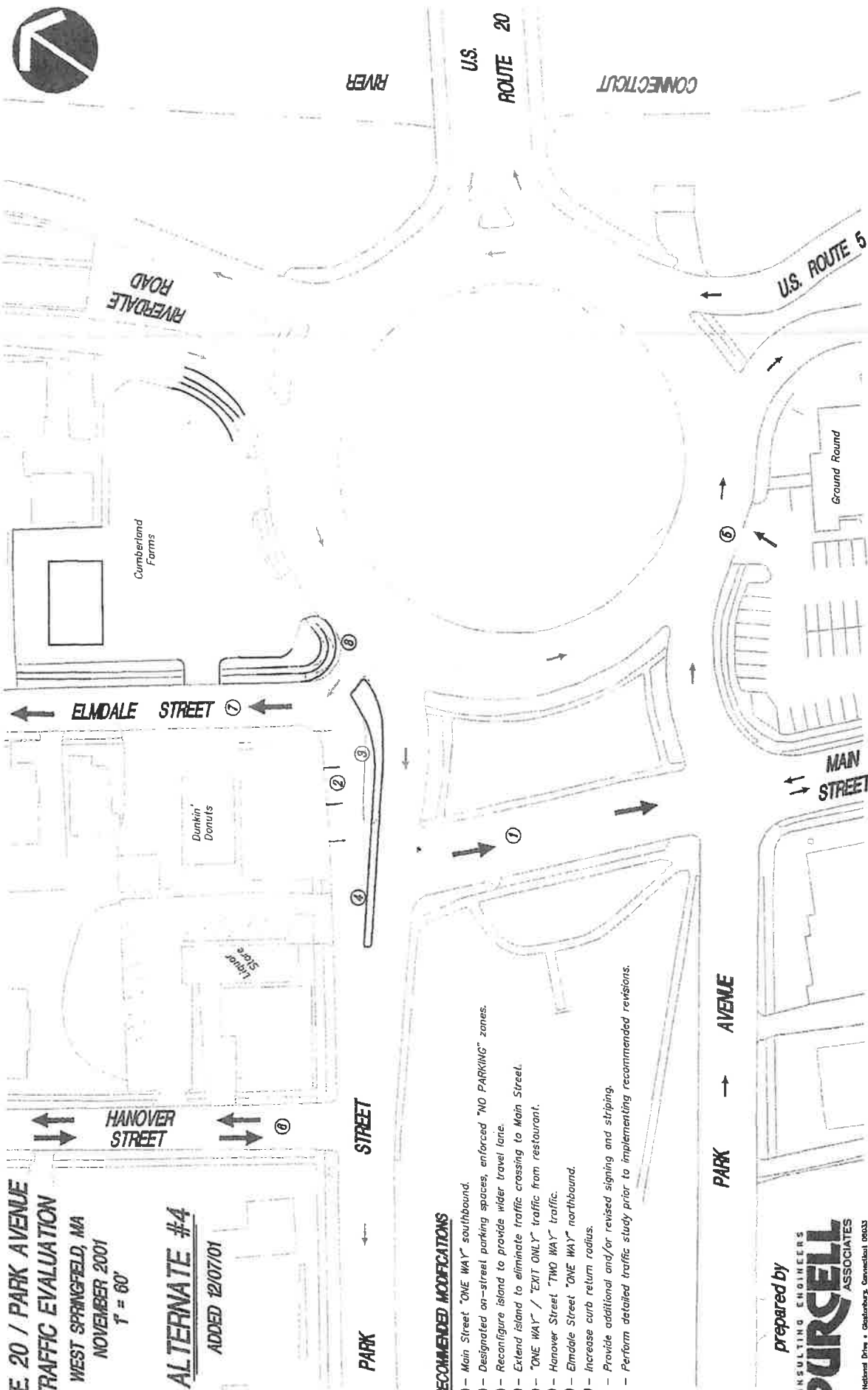
WEST SPRINGFIELD, MA

NOVEMBER 2001

1" = 60'

ALTERNATE #4

ADDED 12/07/01



RECOMMENDED MODIFICATIONS

- ① - Main Street "ONE WAY" southbound.
 - ② - Designated on-street parking spaces, enforced "NO PARKING" zones.
 - ③ - Reconfigure island to provide wider travel lane.
 - ④ - Extend island to eliminate traffic crossing to Main Street.
 - ⑤ - "ONE WAY" / "EXIT ONLY" traffic from restaurant.
 - ⑥ - Hanover Street "TWO WAY" traffic.
 - ⑦ - Elm Dale Street "ONE WAY" northbound.
 - ⑧ - Increase curb return radius.
- Provide additional and/or revised signing and striping.
 - Perform detailed traffic study prior to implementing recommended revisions.

prepared by
PURCELL
 ASSOCIATES
 90 Holland Drive • Danbury, Connecticut 06833
 (860) 633-8351

CONCEPTUAL DESIGN REPORT

Park Street / Park Avenue Complete Street Plan – West Springfield, MA

APPENDIX B: CRASH RATE WORKSHEETS AND DIAGRAMS

West Springfield, Massachusetts



Analysis Period : 2014 - 2018

Analysis Period: 2014 - 2018
Park St. & Park Avenue @ Elm St. / Union St. / Main St.
West Springfield, Massachusetts

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Springfield COUNT DATE : Jan-19

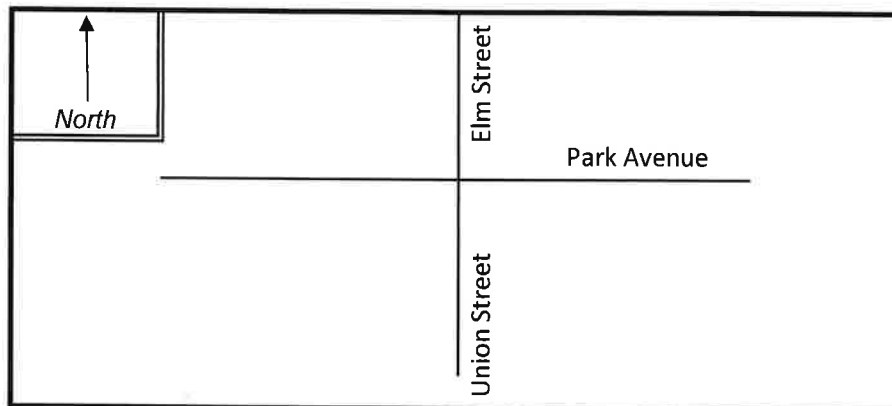
DISTRICT : 2 UNSIGNALIZED : ☐ SIGNALIZED : ☒

~ INTERSECTION DATA ~

MAJOR STREET : Park Avenue

MINOR STREET(S) : Union Street

INTERSECTION
 DIAGRAM
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	492	938	656	1		2,087

"K" FACTOR :

0.080

INTERSECTION ADT (V) = TOTAL DAILY
 APPROACH VOLUME :

26,088

TOTAL # OF CRASHES :

27

OF
 YEARS :

5

AVERAGE # OF
 CRASHES PER YEAR (A) :

5.40

CRASH RATE CALCULATION :

0.57

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : K factor estimated. Used 2019 existing volumes at 4:15PM Peak

Project Title & Date : MAX-2018014.00 - West Springfield Park Street - 1/17/2020

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Springfield COUNT DATE : Jan-19

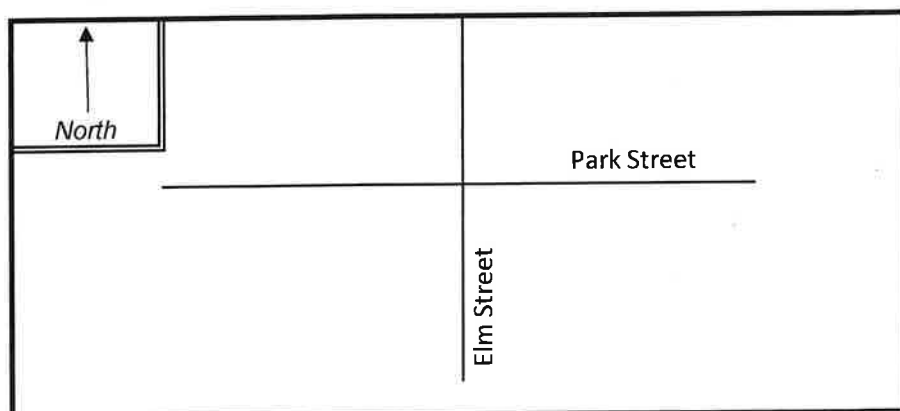
DISTRICT : 2 UNSIGNALIZED : ☐ SIGNALIZED : ☒

~ INTERSECTION DATA ~

MAJOR STREET : Park Street

MINOR STREET(S) : Elm Street

INTERSECTION
DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	422	0	622	1,289		2,333

"K" FACTOR :

0.080

INTERSECTION ADT (V) = TOTAL DAILY
APPROACH VOLUME :

29,163

TOTAL # OF CRASHES :

7

OF
YEARS :

5

AVERAGE # OF
CRASHES PER YEAR (A) :

1.40

CRASH RATE CALCULATION :

0.13

RATE =

$$\frac{(A * 1,000,000)}{(V * 365)}$$

Comments : K factor estimated. Used 2019 existing volumes at 4:15PM Peak

Project Title & Date : MAX-2018014.00 - West Springfield Park Street - 1/17/2020



INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Springfield COUNT DATE : Jan-19

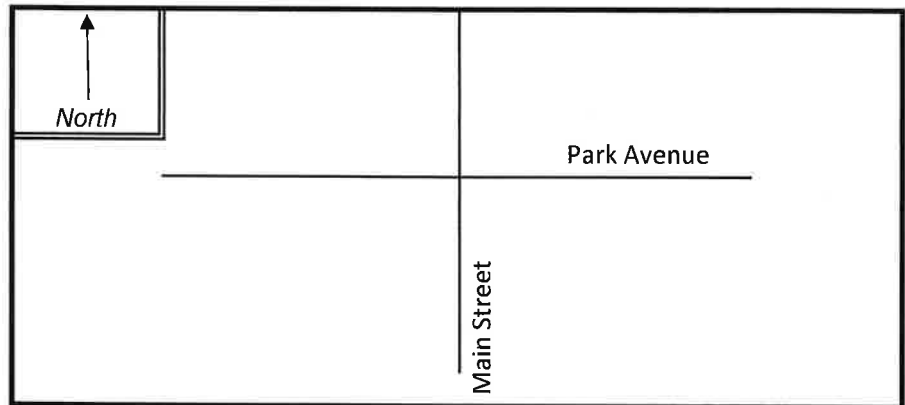
DISTRICT : 2 UNSIGNALIZED : ☐ SIGNALIZED : ☒

~ INTERSECTION DATA ~

MAJOR STREET : Park Avenue

MINOR STREET(S) : Main Street

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	388	1,264	333	0		1,985

" K " FACTOR : 0.080 INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME : 24,813

TOTAL # OF CRASHES : 14 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (A) : 2.80

CRASH RATE CALCULATION : 0.31

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : K factor estimated. Used 2019 existing volumes at 4:15PM Peak

Project Title & Date: MAX-2018014.00 - West Springfield Park Street - 1/17/2020

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : West Springfield COUNT DATE : Jan-19

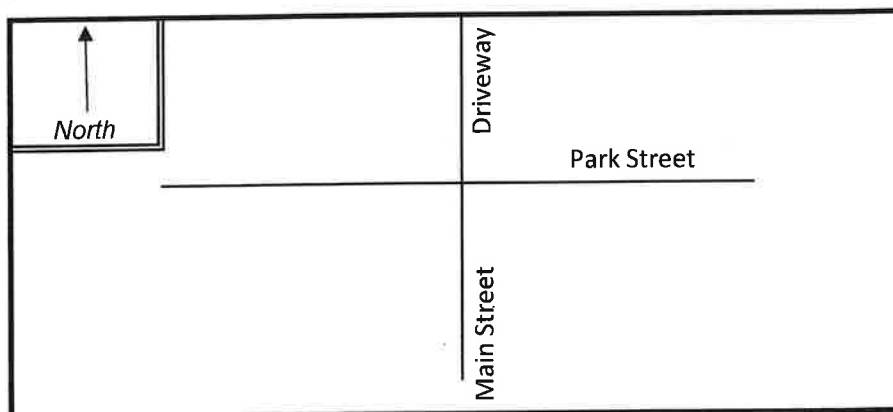
DISTRICT : 2 UNSIGNALIZED : ☒ X SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : Park Street

MINOR STREET(S) : Main Street

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	EB	SB	WB		
PEAK HOURLY VOLUMES (AM/PM) :	0	0	17	1,747		1,764

" K " FACTOR : 0.080 INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME : 22,050

TOTAL # OF CRASHES : 6 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (A) : 1.20

CRASH RATE CALCULATION :

0.15

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : K factor estimated. Used 2019 existing volumes at 4:15PM Peak

Project Title & Date : MAX-2018014.00 - West Springfield Park Street - 1/17/2020

CONCEPTUAL DESIGN REPORT

Park Street / Park Avenue Complete Street Plan – West Springfield, MA

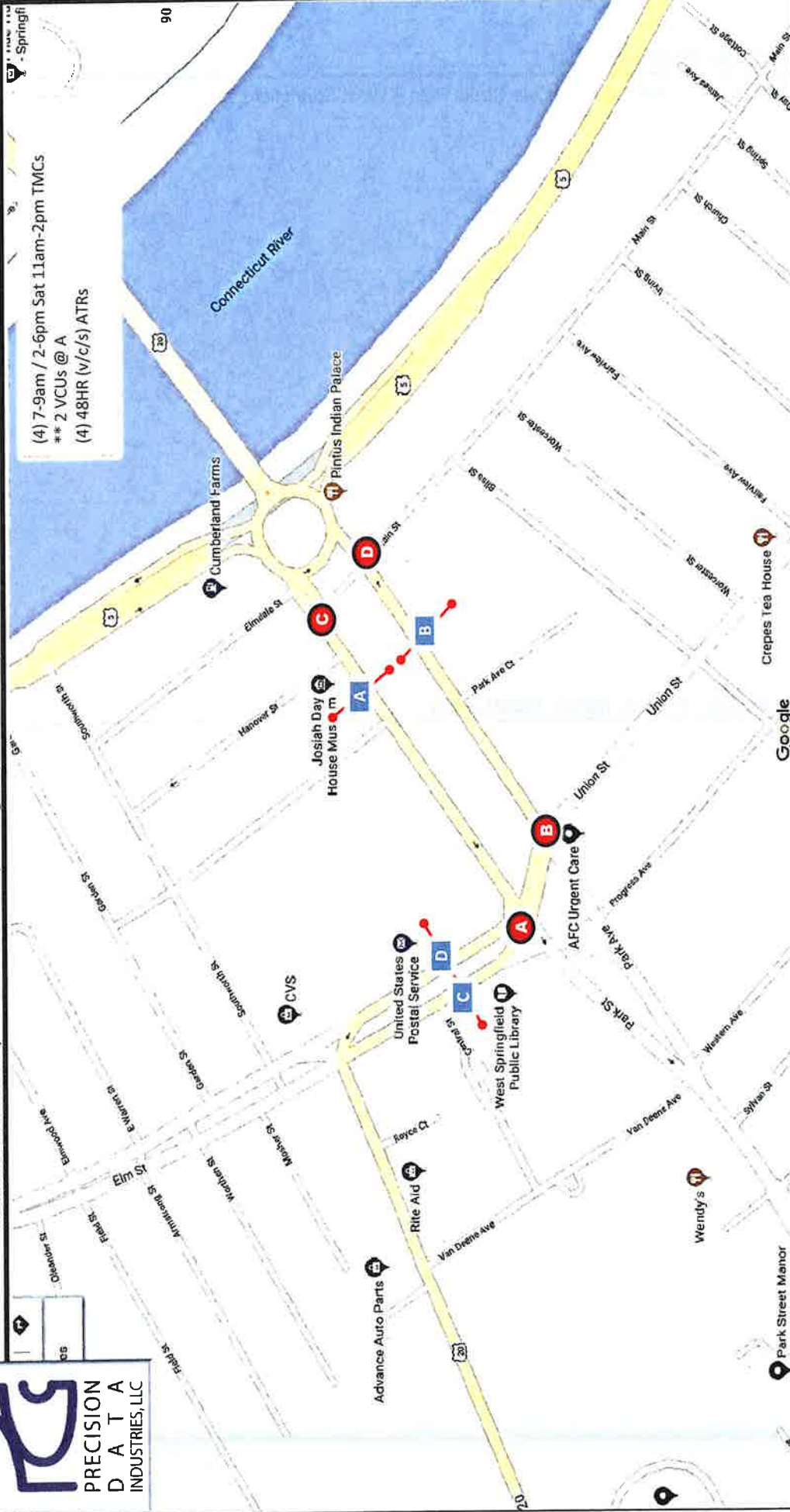
APPENDIX C: TRAFFIC COUNT DATA (ATR & TMC WORKSHEETS)

**TRAFFIC COUNT DATA SHEETS REMOVED TO REDUCE FILE
DOCUMENT SIZE. THESE SHEETS ARE AVAILABLE UPON
REQUEST.
JIM CZACH**



Location Map: 196717 West Springfield, MA

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com



Client: GPI	Engineer: S. Theriault	Site Code: MAX-2018014.00	Date:	PDI Job # 196717	City, State: West Springfield, MA
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CONCEPTUAL DESIGN REPORT

Park Street / Park Avenue Complete Street Plan – West Springfield, MA

APPENDIX D: PUBLIC INPUT SUMMARIES

Park Street and Park Avenue Complete Street Design



Project Kick-Off Open House

Wednesday, April 10
West Springfield Senior Center
4:30 to 6:30 - Drop In Hours

Presentation at 5:30

For questions or to arrange any meeting accommodations, please contact:

Tim Inácio
413-495-1851
tinacio@townofwestspringfield.org

The Town of West Springfield will be preparing plans to address and balance the needs of pedestrians, bicyclists, transit riders, motorists, freight, commercial and emergency vehicles along Park Street and Park Avenue (between the Rotary and Elm Street). Do you have a concern about this area? Do you have an idea to improve biking, walking, transit or traffic safety along this corridor? Do you just want to hear more about the project? Attend the Open House!

Short on time? Drop in for a few minutes. Participants of all ages, including children, are encouraged to attend.



I like this idea:

because:

SHARED USE PATH



- Confusing
- Should only be used inside park
- Bikes need to follow traffic direction

2 Votes

PROTECTED BIKE LANE - RAISED



- Separate bike paths across from Common
- Would be needed for safe biking
- Clear because of color change
 - Yes!
- Around the Park
- Nice Planters
- Arrows are key

8 Votes



Park Street/Park Avenue
Complete Street Project
Springfield, MA

Public Workshop
April 10, 2019

GPI

Park Street / Park Avenue Complete Street Design

GPI

I like this idea:

because:

PATHWAY THROUGH CENTER OF COMMISSION



8 Votes

- For pedestrians, not so much bicyclists
 - Agree
- Encourage use of main walk, make it a little wider
- With access for safer crosswalks
- Needs to be clearly marked from a distance
- Walkers and bikes?

ENHANCED PEDESTALIAN CROSSINGS



9 Votes

-
-
- Definite
- Best one automatically triggered
- Raised crosswalk to slow traffic
- Excellent for pedestrians, great idea
- Raised crosswalks – Yes!



Park Street/Park Avenue
Complete Street Project
2012-2013

Public Workshop
April 10, 2013

GPI

Park Street / Park Avenue Complete Street Design

GPI

I like this idea:

because:

7 Votes

PROTECTED BIKE LANE - IN STREET



- Somewhat like
- We tried using bikes downtown there was no room on street
- This seems like prudent option – bollards please
- The footrest thing is awesome
- Rain garden divider – even better
- Pretty planters – yes
- No yellow rail

8 Votes

BIKE THROUGH COMMON



- Great idea
- Maybe its own designated, separate lane
- Just leave room for summer concerts!
- On and off the Common could be a problem



Park Street/Park Avenue
Complete Street Project
www.boston.gov

Public Workshop
April 10, 2019

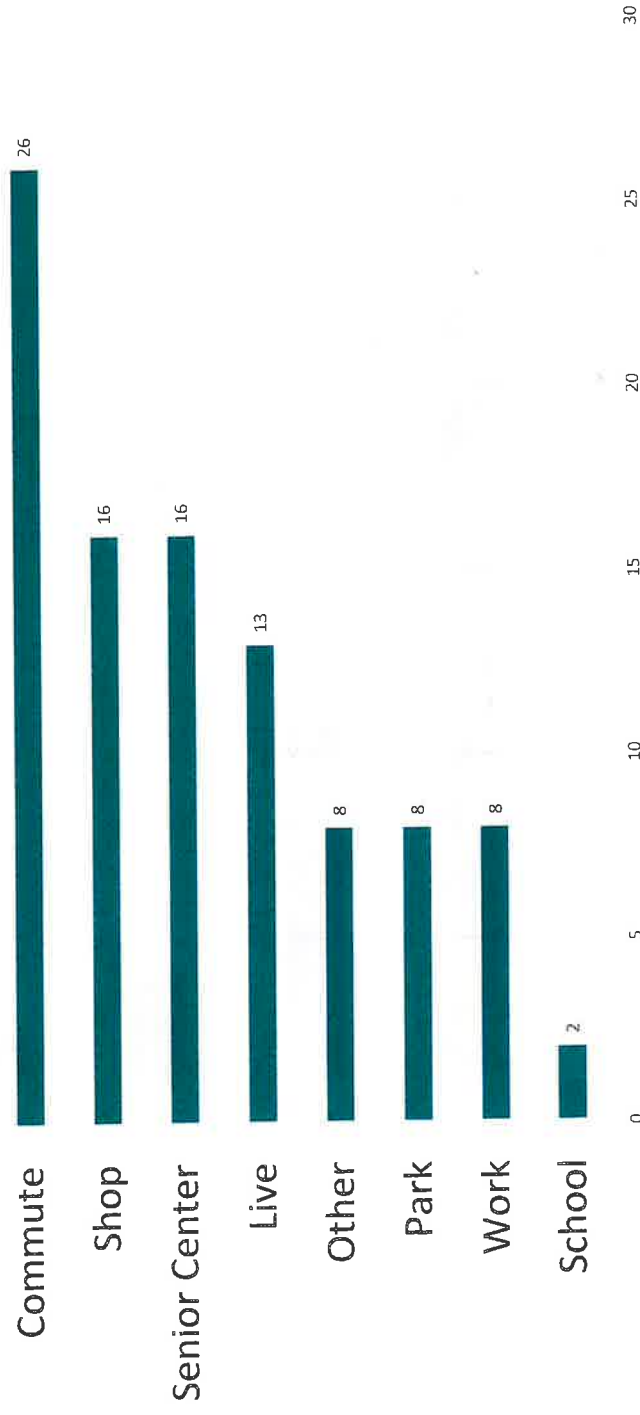
GPI

Park Street / Park Avenue Complete Street Design

GPI

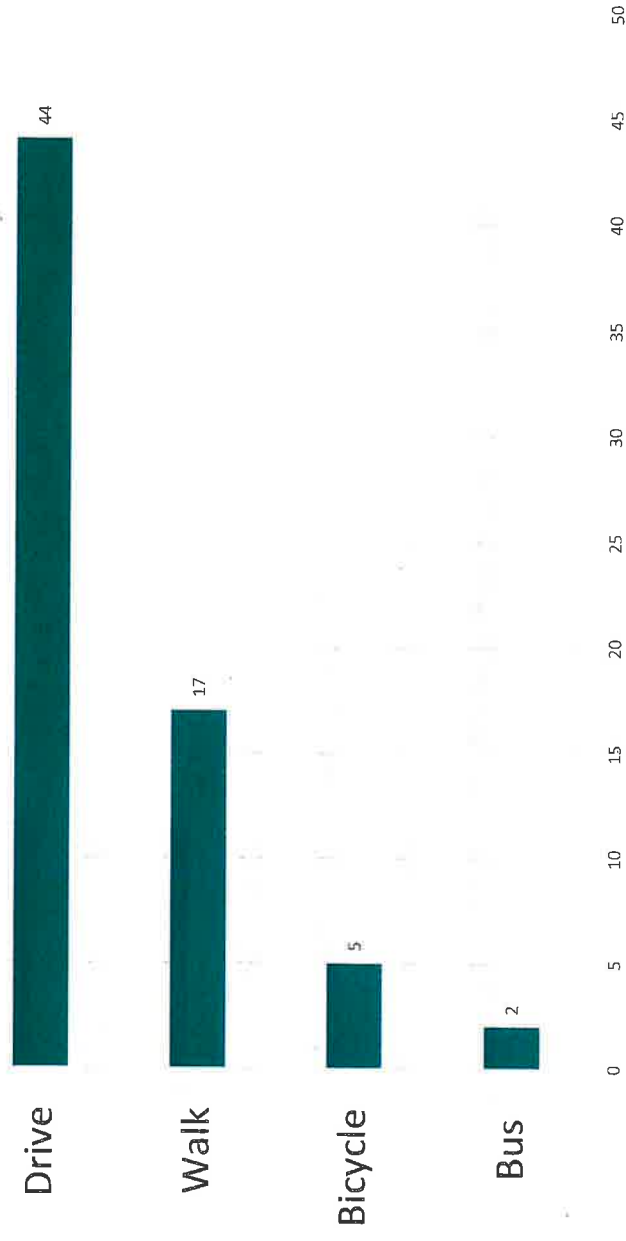
What You Said

My Interest in Park Street / Park Avenue



What You Said

How do you travel along Park Street/Park Avenue?

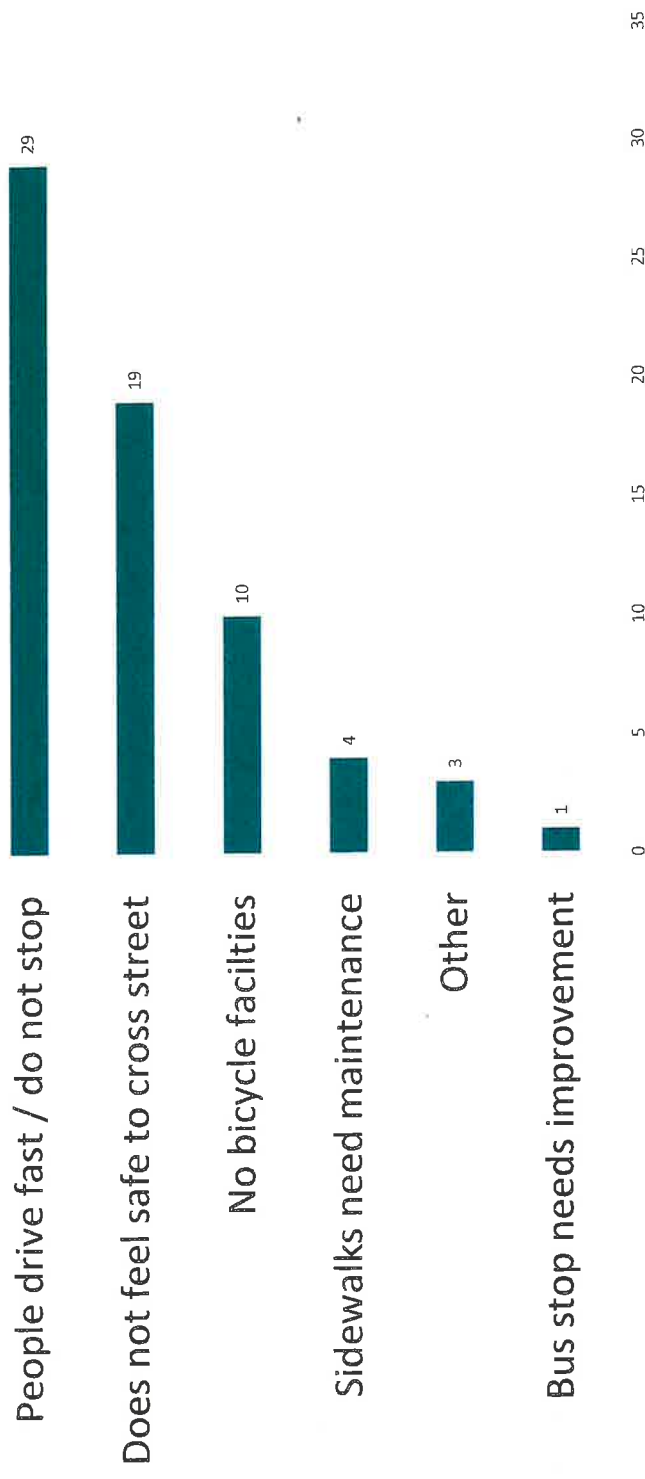


Park Street / Park Avenue Complete Street Design

GPI

What You Said

Concerns I Have



Park Street / Park Avenue Complete Street Design

GPI

What You Said

What Street Design Elements are Most Important to You?

Element	Rank
Pedestrian Safety	1
Traffic Calming	2
Accessibility	3
Bicycle Accommodations	4
Trees	5
Lighting	6



EMAIL

[illegible]

Park Street and Park Avenue Complete Street Design



Alternatives Open House

Wednesday, June 5
West Springfield Senior Center
5:30 to 7:30

For questions or to arrange any meeting accommodations, please contact:

Tim Inácio
413-495-1851
tinacio@townofwestspringfield.org

The Town of West Springfield is developing plans to address and balance the needs of pedestrians, bicyclists, transit riders, motorists, freight, commercial and emergency vehicles along Park Street and Park Avenue (between the Rotary and Elm Street). Based on input from a public workshop held in West Springfield in April, sketch concepts have been developed for public review. Please come to this open house to hear about the project and give us your input on the ideas developed to date.

Short on time? Drop in for a few minutes. Participants of all ages, including children, are encouraged to attend.

GPI



Park Street / Park Avenue Complete Street Design

West Springfield

June 5, 2019



GPI

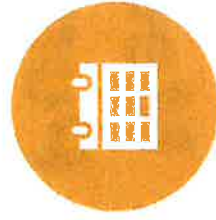
Alternatives Meeting–June 4, 2019

- | | |
|---------------------------|------------|
| •Project Overview | 5 Minutes |
| •Review of Input | 10 Minutes |
| •Overview of Alternatives | 20 Minutes |
| •Questions | 20 Minutes |
| •Open House | 60 Minutes |

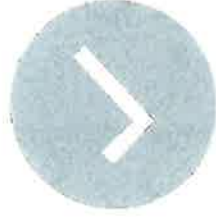
Meeting Purpose

- Receive Public Input on Conceptual Design Alternatives

Schedule Overview



APRIL 8, 2019
PROJECT KICK-OFF
WORKSHOP



JUNE 5, 2019
ALTERNATIVES
MEETING



JULY - AUGUST
REFINED DESIGN



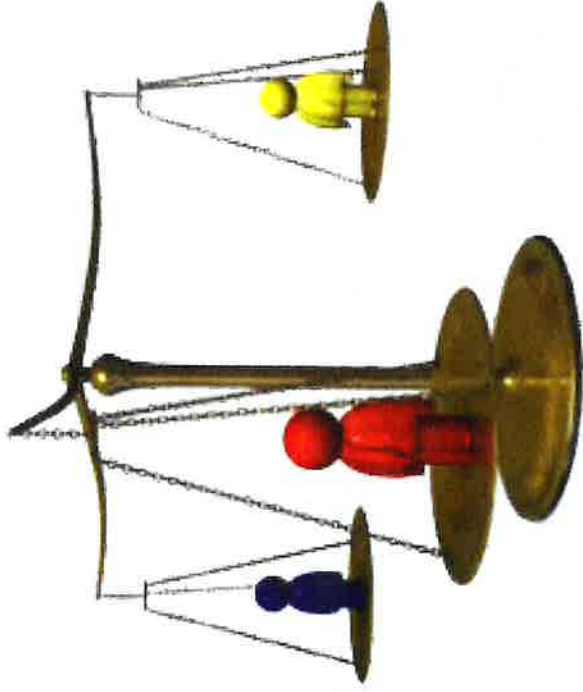
SEPTEMBER
COMMUNITY MEETING
ANTICIPATED



What is a Complete Street?

- A Complete Street is one that provides safe and accessible options for all travel modes - walking, biking, transit and vehicles – for people of all ages and abilities.

Balancing Opportunities and Interests



- Pedestrians
- Bikes
- Transit
- Cars
- Green Space



Park Street / Park Avenue Complete Street Design

GPI



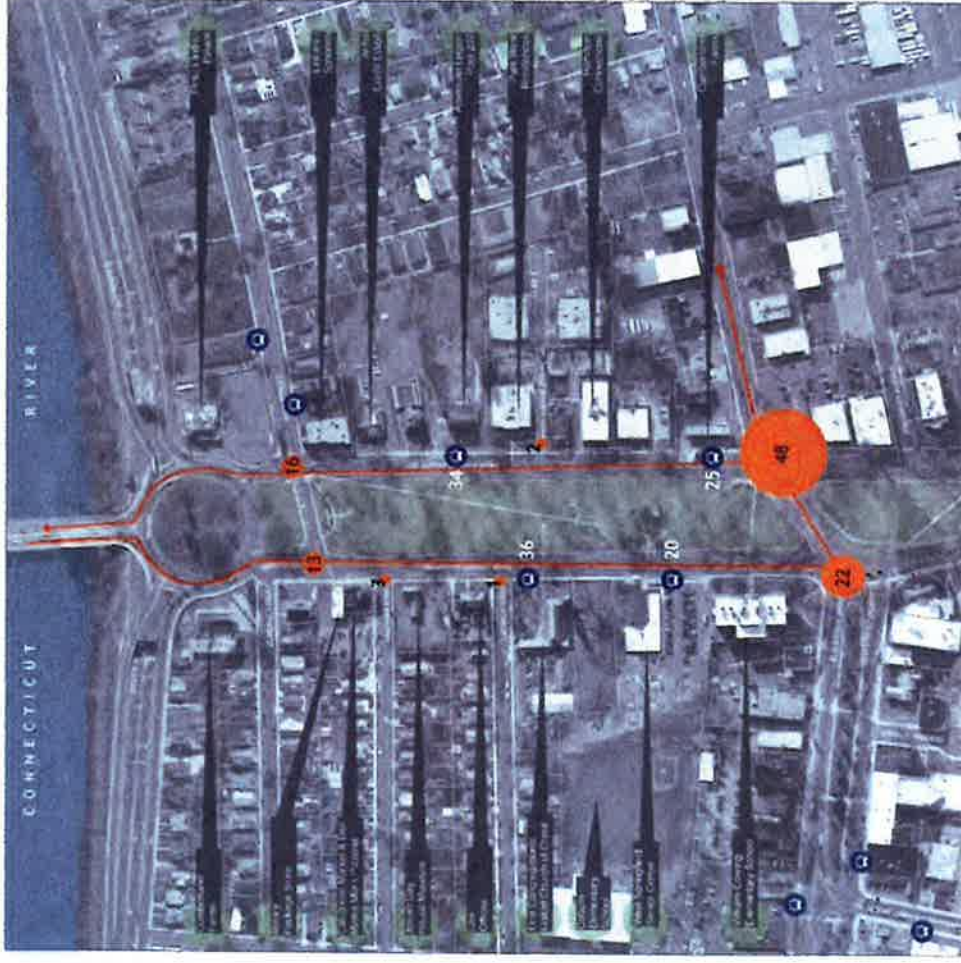
Park Street / Park Avenue Complete Street Design

GPI



Park Street / Park Avenue Complete Street Design

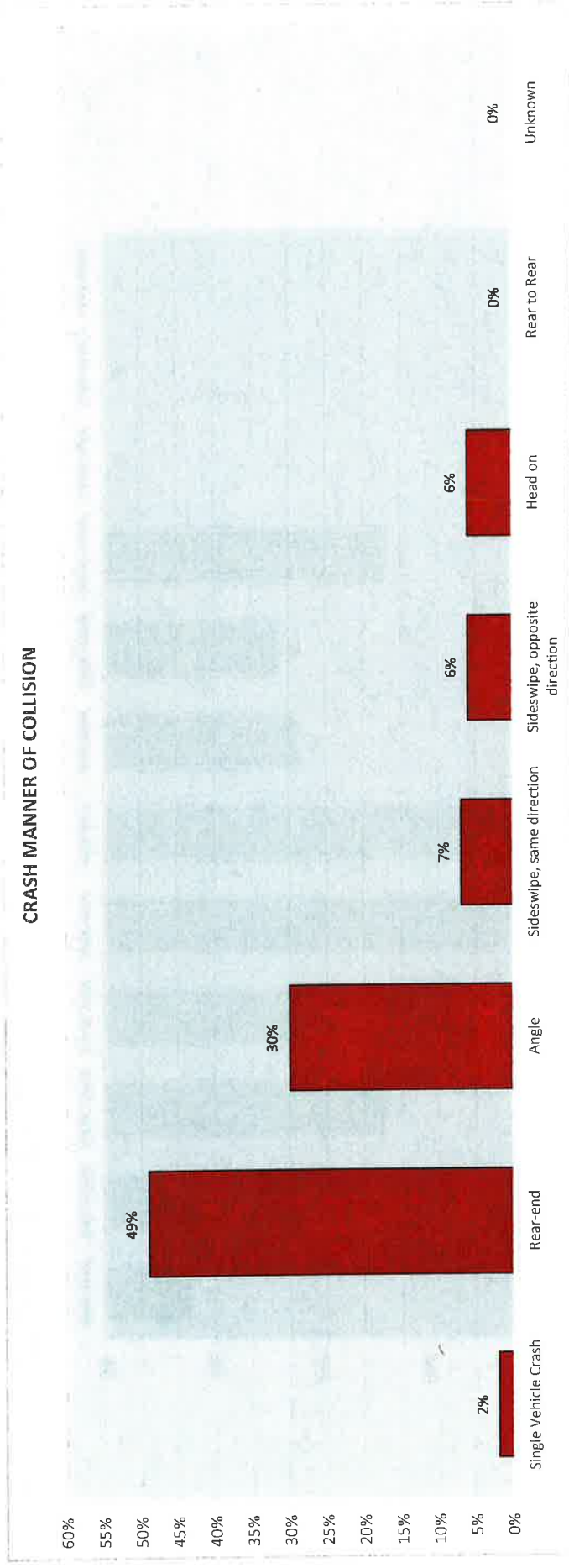
GPI



Park Street / Park Avenue Complete Street Design

GPI

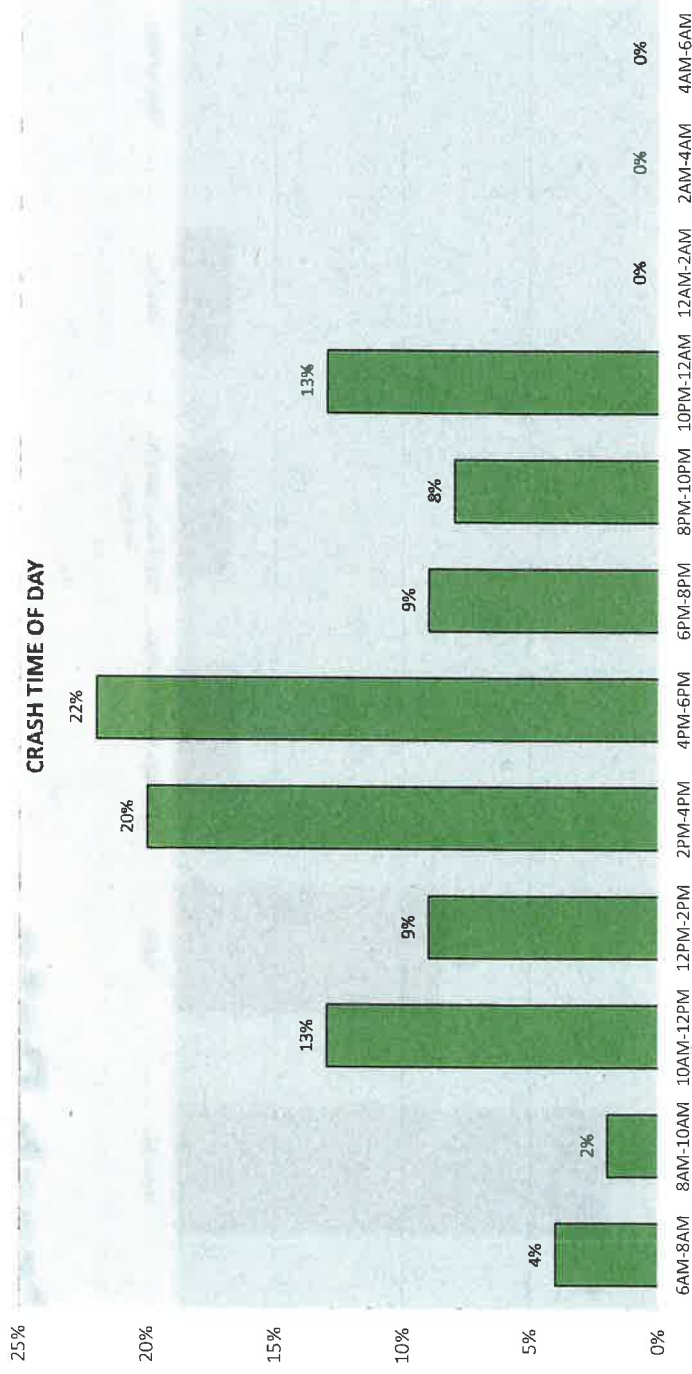
Park Street



Safety: Crash Data

Park Street / Park Avenue Complete Street Design

Park Street

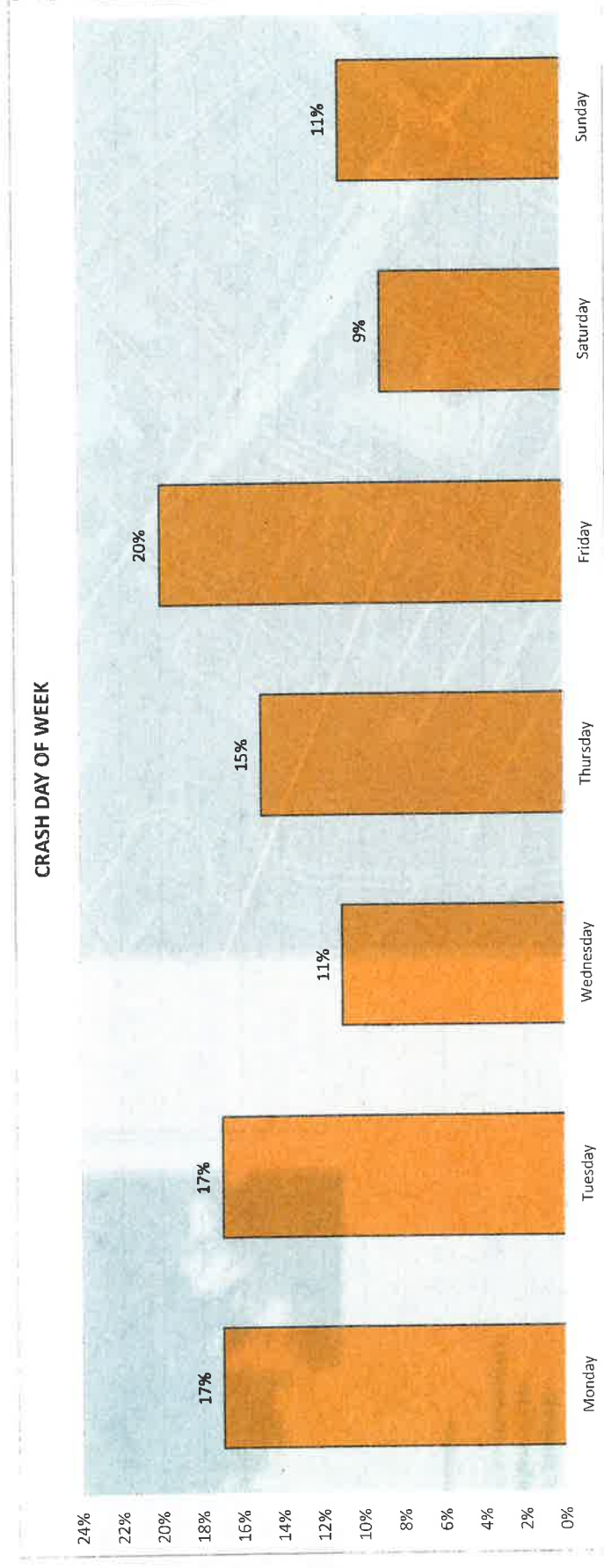


Safety: Crash Data

Park Street / Park Avenue Complete Street Design

GPI

Park Street



Safety: Crash Data

Park Street / Park Avenue Complete Street Design

Plans and Policies

Complete Streets Prioritization Plan WEST SPRINGFIELD, MASSACHUSETTS

Prepared for:
Town of West Springfield, Massachusetts
Prepared by:
GPI
April 2007

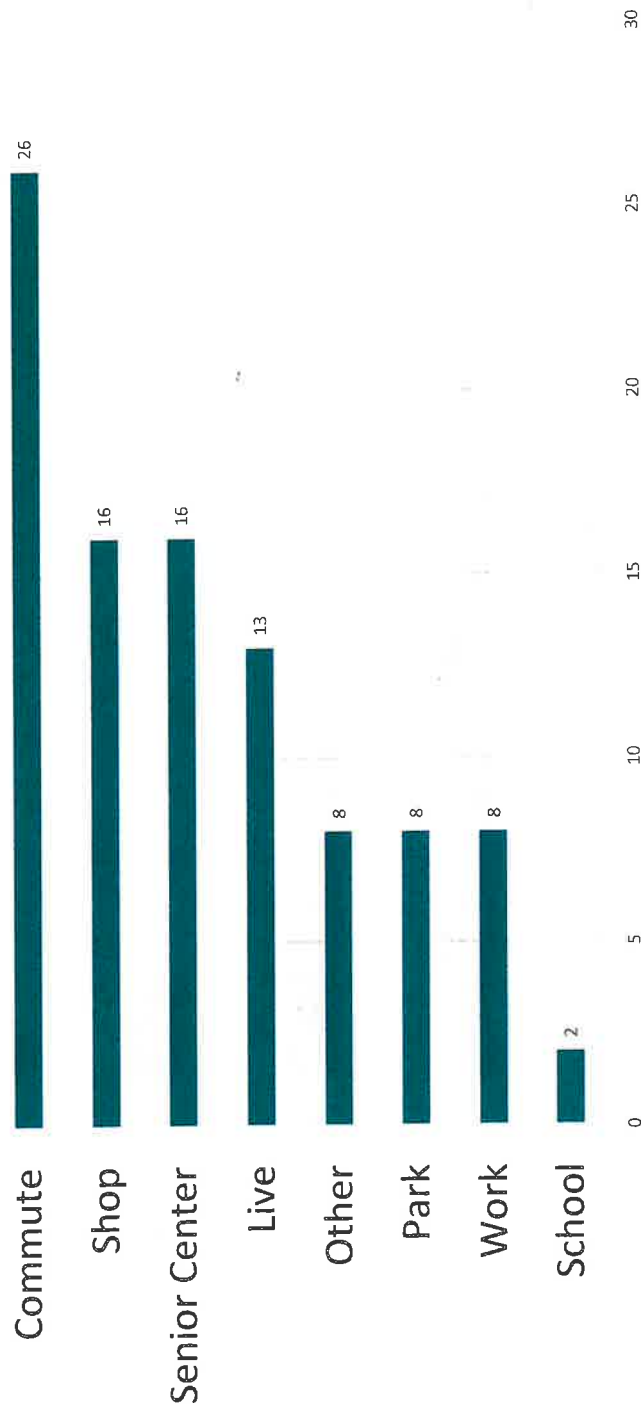


Park Street / Park Avenue Complete Street Design

GPI

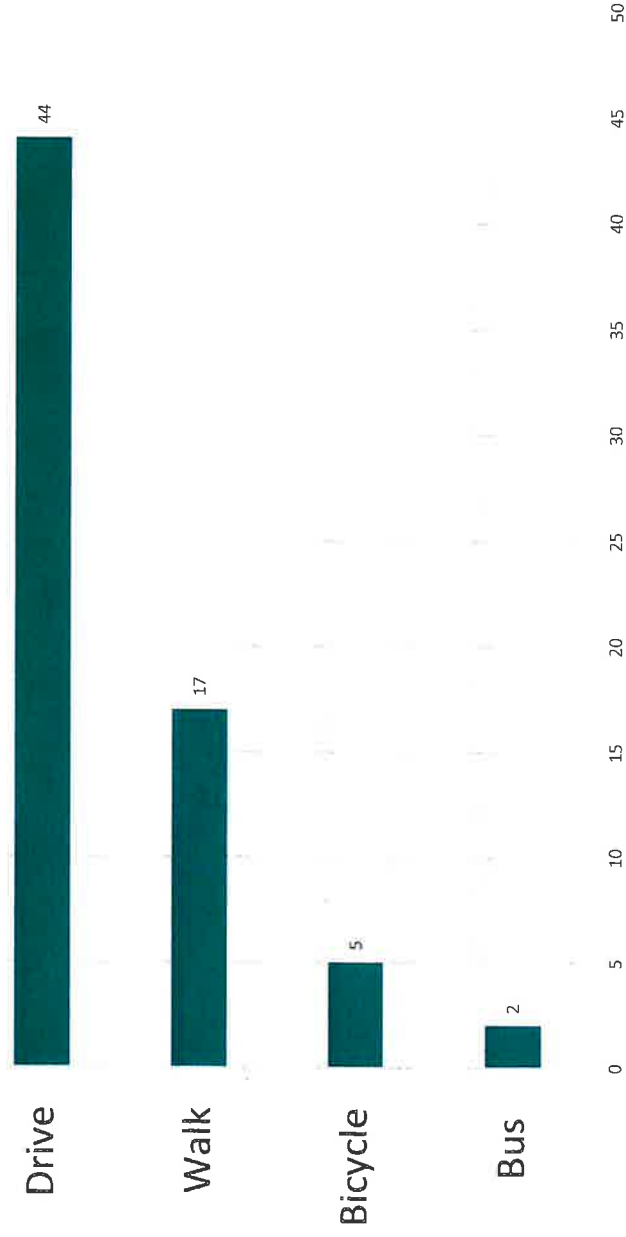
What You Said

My Interest in Park Street / Park Avenue



What You Said

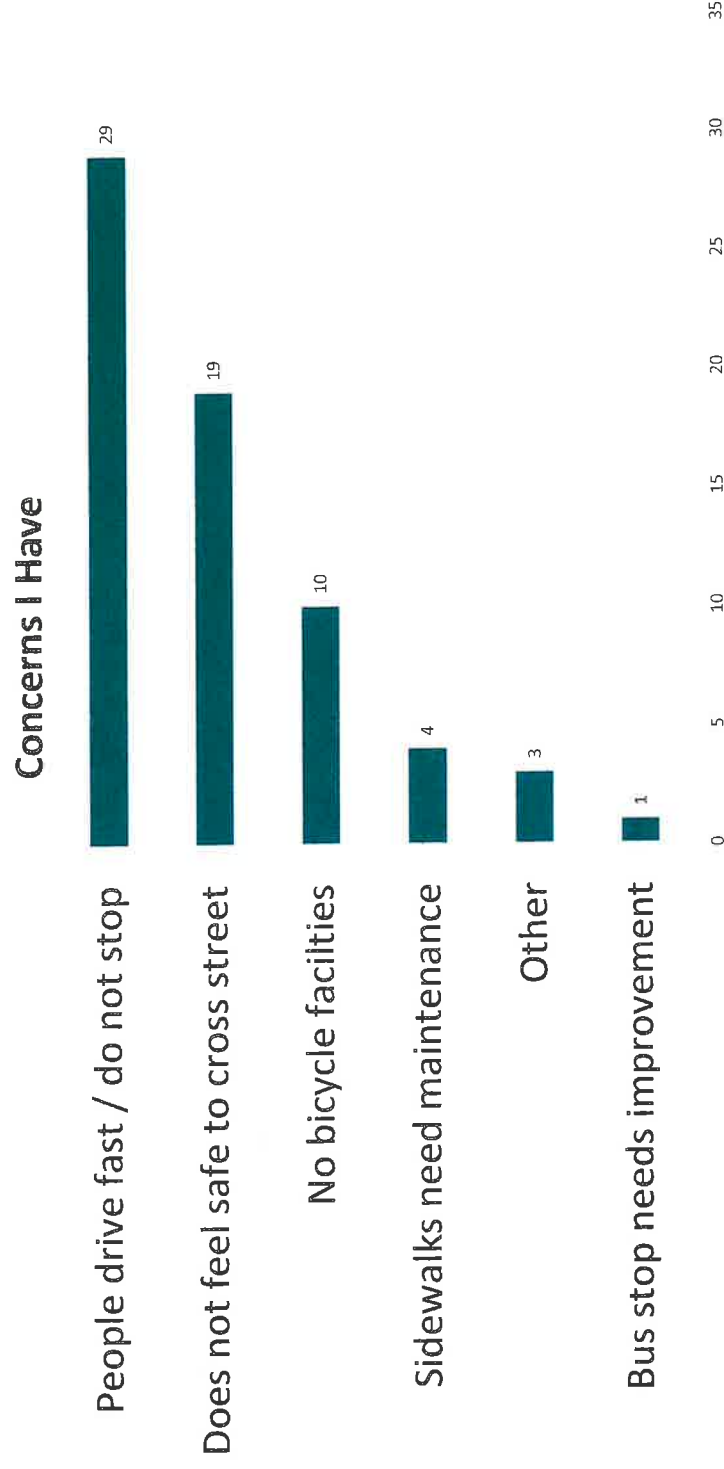
How do you travel along Park Street/Park Avenue?



Park Street / Park Avenue Complete Street Design

GPI

What You Said



Park Street / Park Avenue Complete Street Design

GPI

What You Said

What Street Design Elements are Most Important to You?

Element	Rank
Pedestrian Safety	1
Traffic Calming	2
Accessibility	3
Bicycle Accommodations	4
Trees	5
Lighting	6



Pedestrian Safety: Enhanced Crossings

Park Street / Park Avenue Complete Street Design

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Pedestrian Safety: Speed Zones

Park Street / Park Avenue Complete Street Design

GPI

INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST IN BICYCLING

No bike lanes on a busy street



Narrow bike lane or shoulders on a busy street



Buffered bike lane on a calm street



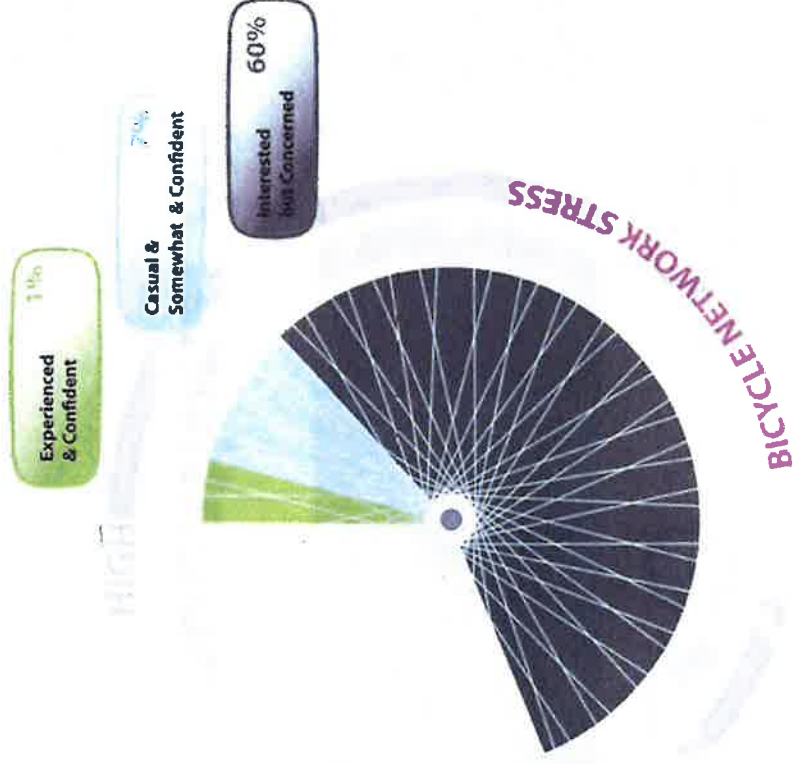
Separated bike lane, bicycle boulevard, or shared use path



Bicycle Accommodations: All Ages and Abilities

Park Street / Park Avenue Complete Street Design

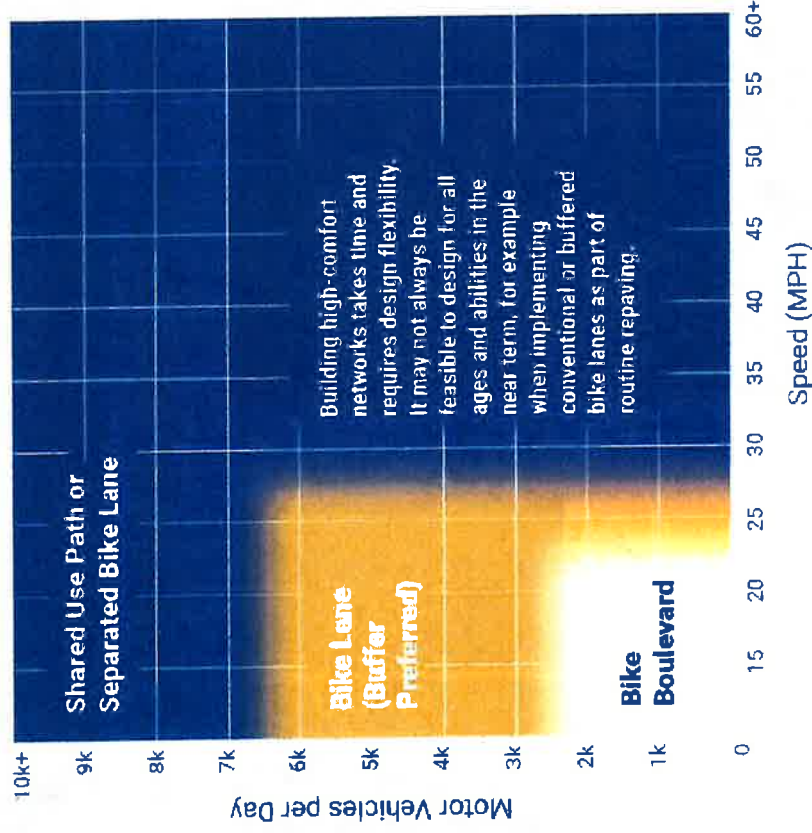
GPI



Bicycle Accommodations: All Ages and Abilities

Park Street / Park Avenue Complete Street Design

GPI



Recommended motor vehicle speed and volume thresholds for implementing high-comfort bike networks.

Notes:

This figure assumes that vehicle operating speeds are similar to posted speeds. If they differ, designers should use vehicle operating speed rather than posted speed.

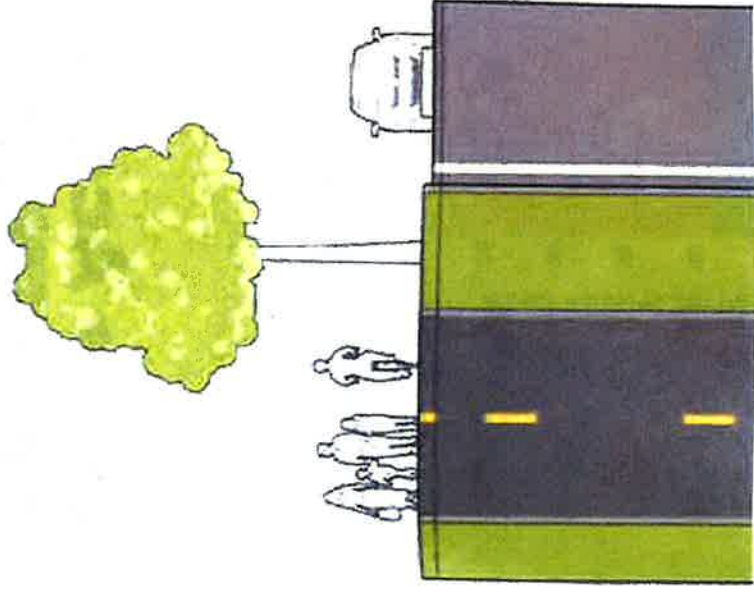
Advisory bike lanes may be an option for streets for low-speed streets with less than 3,000 vehicles per day.

Separated bike lanes or shared use paths are recommended on any street with two or more travel lanes per direction.

Bicycle Accommodations: All Ages and Abilities

Park Street / Park Avenue Complete Street Design

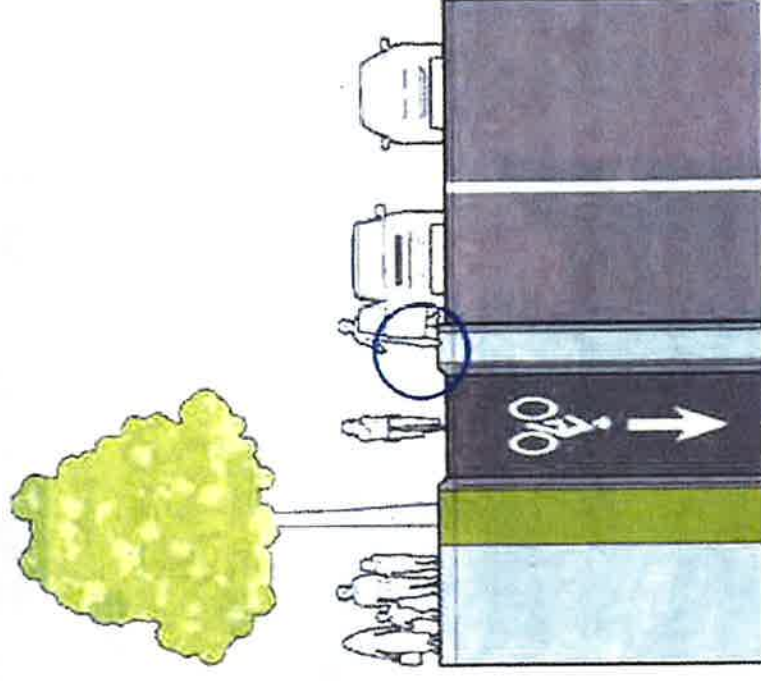
GPI



Bicycle & Pedestrian Accommodations: Sidepath

Park Street / Park Avenue Complete Street Design

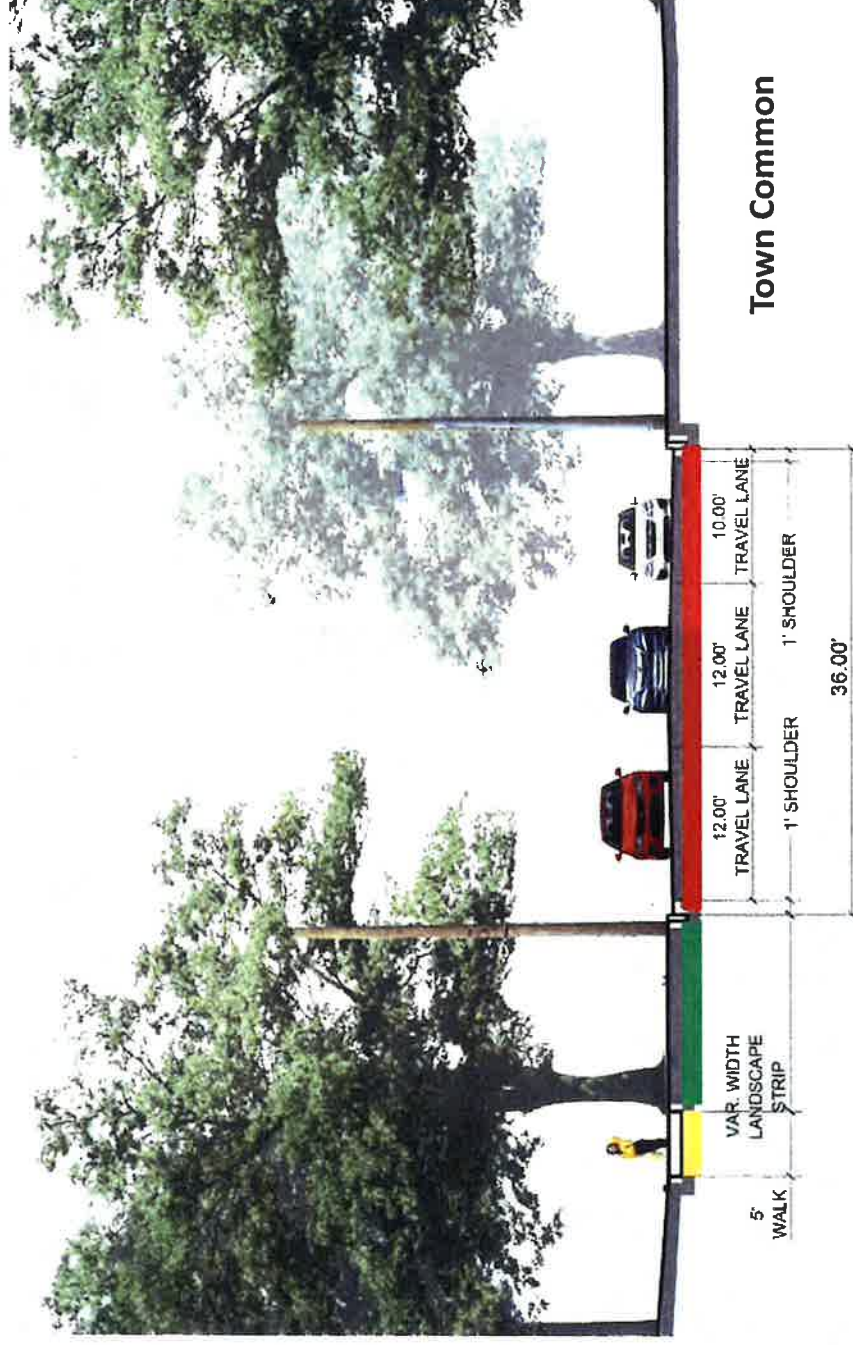
GPI



Bicycle Accommodations: Protected Bicycle Lanes

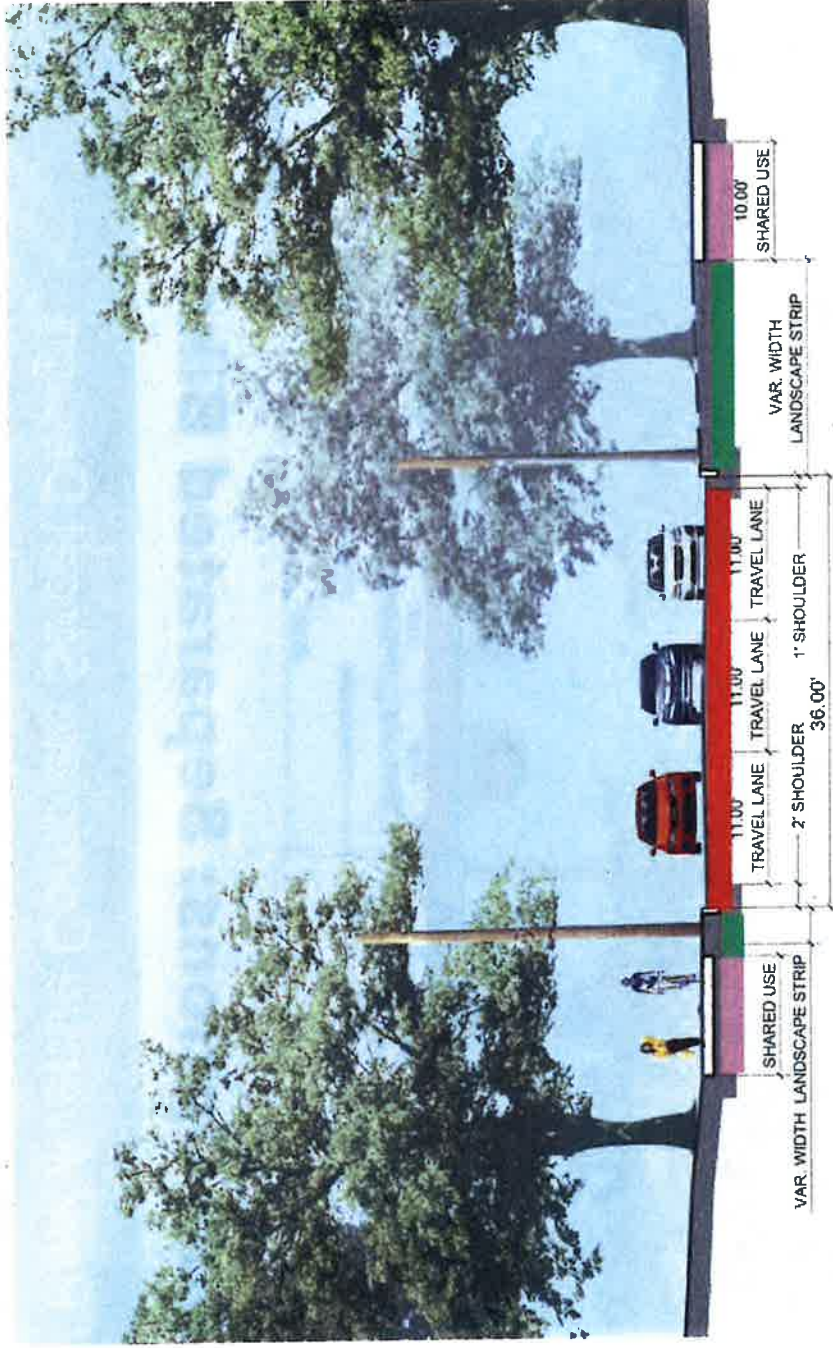
Park Street / Park Avenue Complete Street Design

GPI



Park Avenue: Existing Conditions

Park Street / Park Avenue Complete Street Design

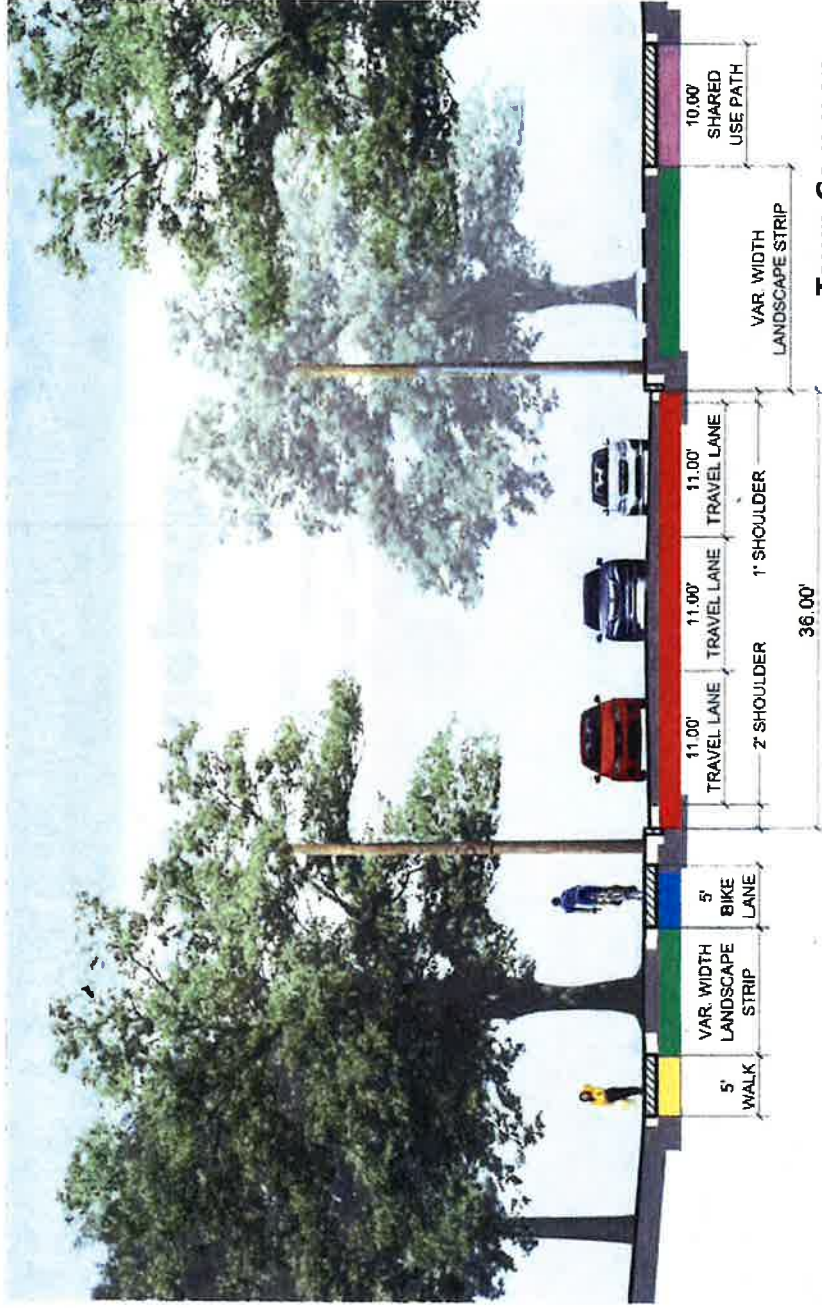


Town Common

Park Avenue Options: Sidepath

Park Street / Park Avenue Complete Street Design

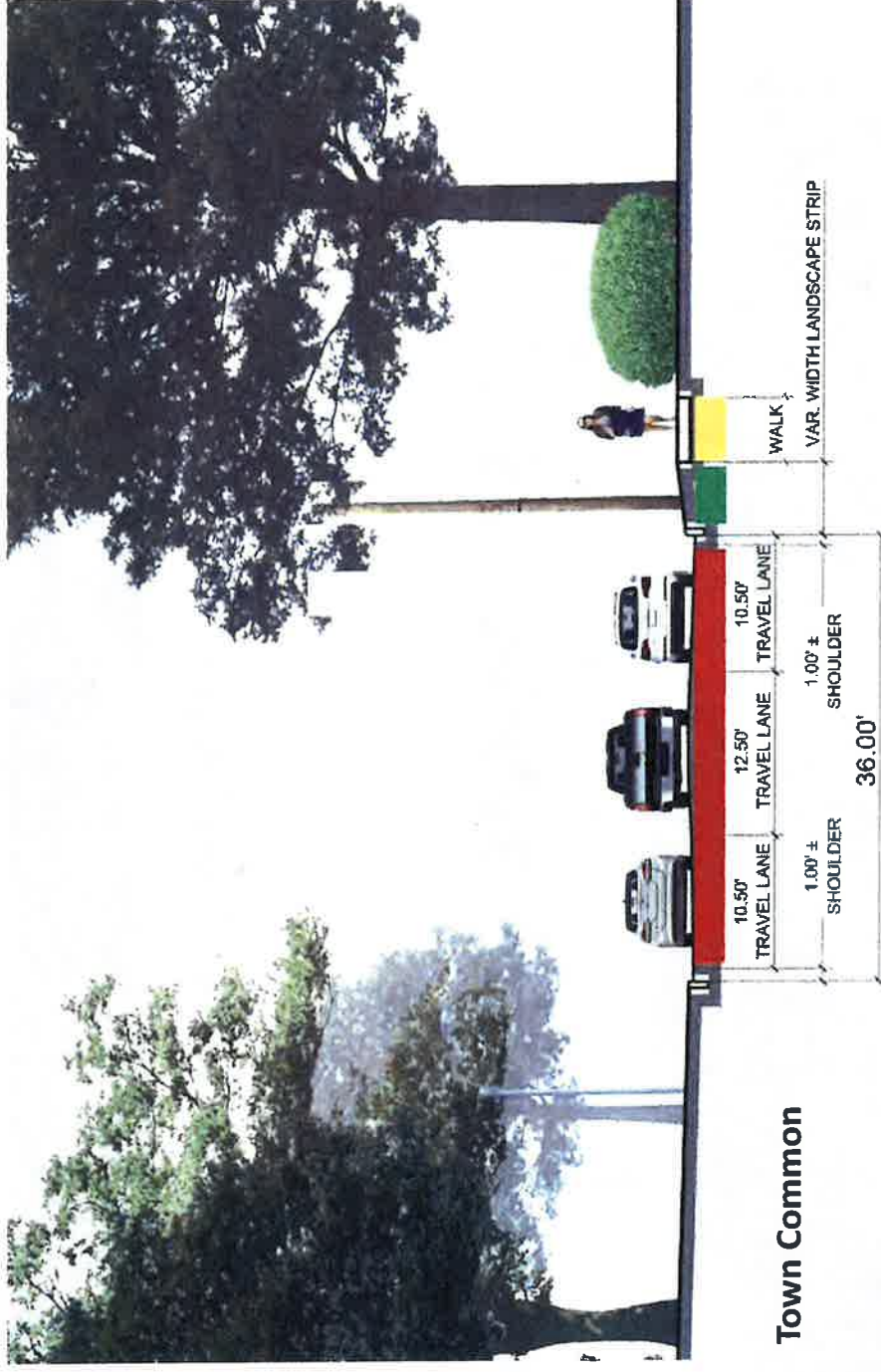
GPI



Park Avenue Options: Separated Bike Lane

Park Street / Park Avenue Complete Street Design

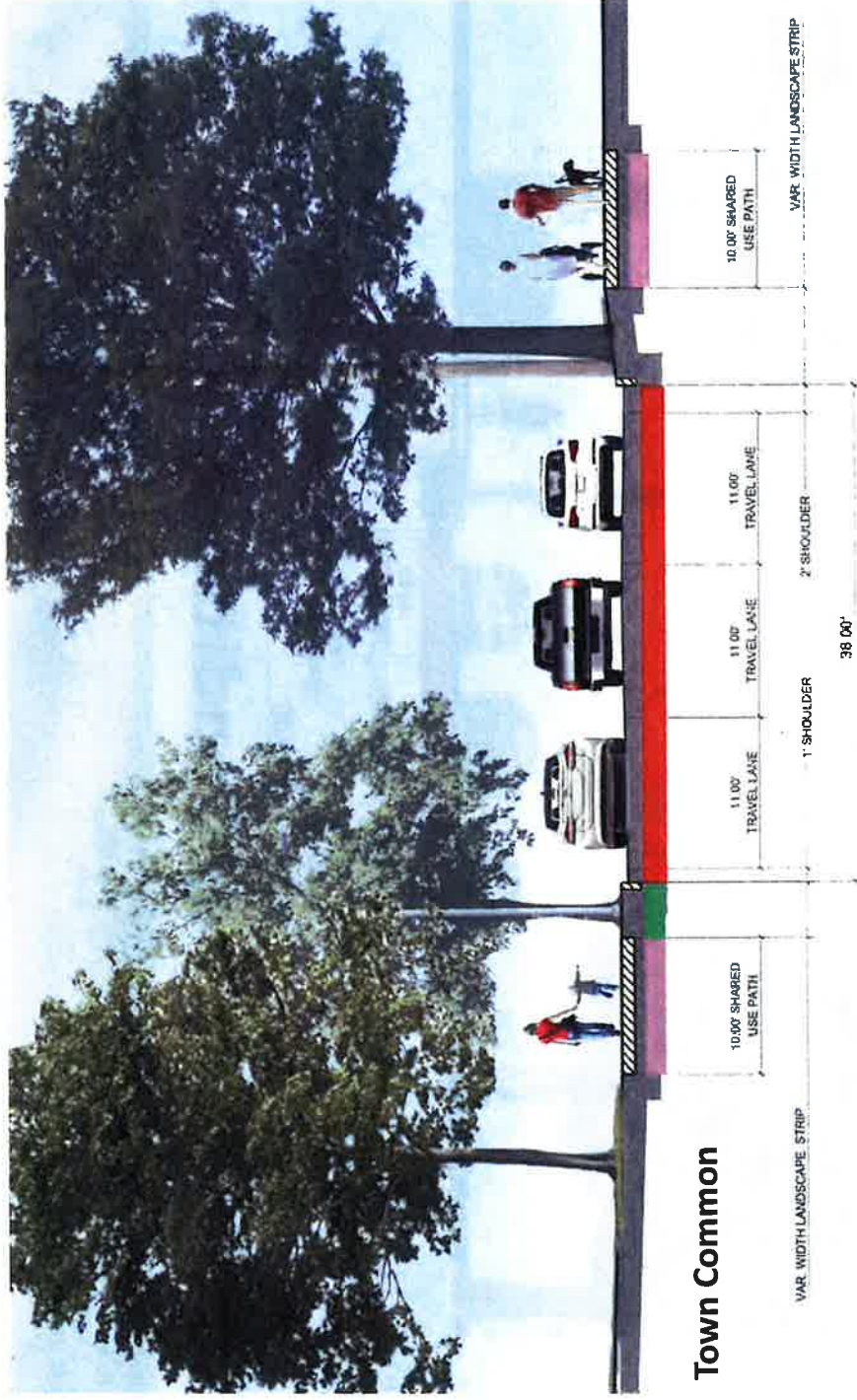
GPI



Park Street: Existing Conditions

Park Street / Park Avenue Complete Street Design

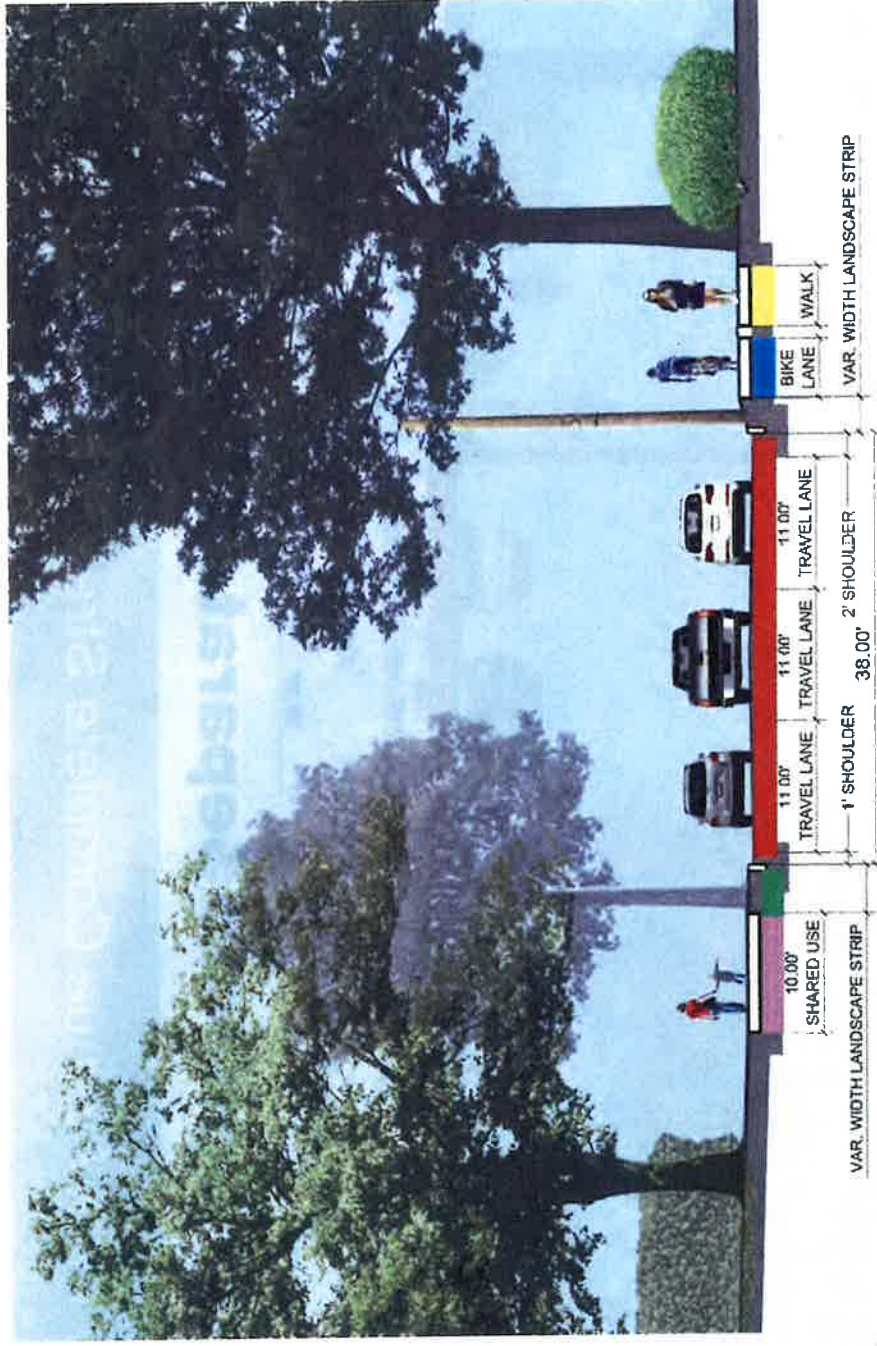
GPI



Park Street Options: Sidepath

Park Street / Park Avenue Complete Street Design

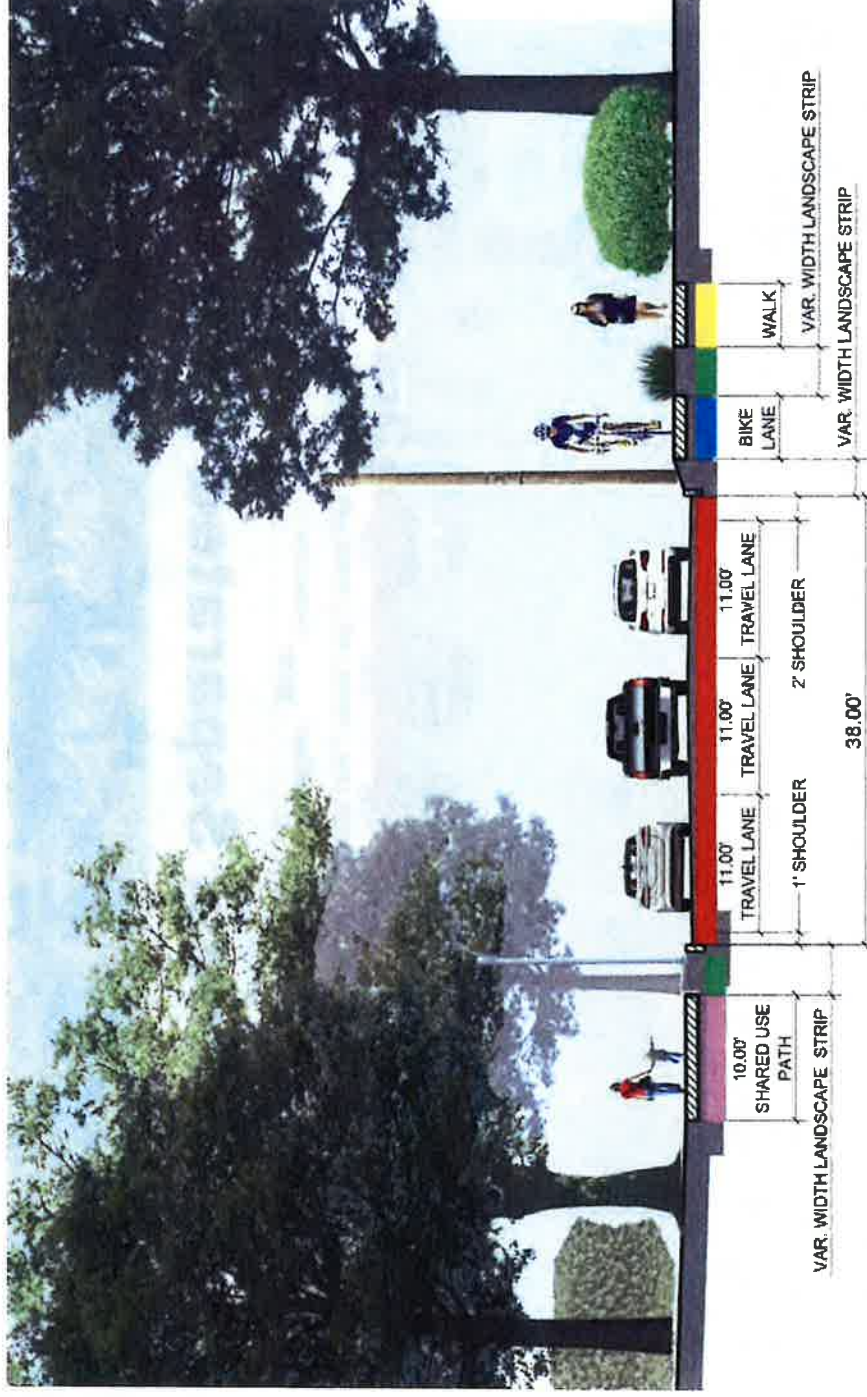
GPI



Park Avenue Options: Separated Bike Lane 1

Park Street / Park Avenue Complete Street Design

GPI



Park Street Options: Separated Bike Lane 2

Park Street / Park Avenue Complete Street Design

GPI

Remove asphalt parking areas

Add Perimeter Loop Path



GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services

West Springfield, MA



Recommendations for the Town Common

Park Street / Park Avenue Complete Street Design

GPI

Open House

- Review Conceptual Plans
- Vote for your Preferred Option
- Provide Comments
- Fill out Survey
- Thank You!

Scan QR code
below with your
smartphone for a
link to online
survey:



CONCEPTUAL DESIGN REPORT

Park Street / Park Avenue Complete Street Plan – West Springfield, MA

APPENDIX E: CONSTRUCTION COST ESTIMATE

Location West Springfield Job Number MAX-2018014
 Title Park Street & Park Avenue
 Calculated By DIP Checked By EMR

Item Number	Quantity	Unit	Description	Unit Price	Total
102.2	1	LS	TREE TRIMMING	\$3,600.00	\$ 3,600.00
120.1	1,000	CY	UNCLASSIFIED EXCAVATION	\$32.00	\$ 32,000.00
150.	50	CY	ORDINARY BORROW	\$30.00	\$ 1,500.00
151.	1,700	CY	GRAVEL BORROW	\$35.00	\$ 59,500.00
170.	6,100	SY	FINE GRADING AND COMPACTING - SUBGRADE AREA	\$3.30	\$ 20,130.00
201.	10	EA	CATCH BASIN	\$3,250.00	\$ 32,500.00
202.	5	EA	MANHOLE	\$4,000.00	\$ 20,000.00
204.	1	EA	GUTTER INLET	\$1,650.00	\$ 1,650.00
220.	20	EA	DRAINAGE STRUCTURE ADJUSTED	\$350.00	\$ 7,000.00
220.3	1	EA	DRAINAGE STRUCTURE CHANGE IN TYPE	\$850.00	\$ 850.00
222.3	2	EA	FRAME AND GRATE (OR COVER) MUNICIPAL STANDARD	\$750.00	\$ 1,500.00
241.12	200	FT	12 INCH REINFORCED CONCRETE PIPE	\$70.00	\$ 14,000.00
415.2	14,000	SY	PAVEMENT FINE MILLING	\$4.00	\$ 56,000.00
450.23	1,700	TON	SUPERPAVE SURFACE COURSE - 12.5 (SSC - 12.5)	\$80.00	\$ 136,000.00
450.31	250	TON	SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5)	\$105.00	\$ 26,250.00
450.42	250	TON	SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5)	\$105.00	\$ 26,250.00
451.	200	TON	HMA FOR PATCHING	\$200.00	\$ 40,000.00
452.	1,500	GAL	ASPHALT EMULSION FOR TACK COAT	\$8.00	\$ 12,000.00
453.	15,000	FT	HMA JOINT SEALANT	\$1.00	\$ 15,000.00
472.	100	TON	ASPHALT MIXTURES FOR TEMPORARY WORK	\$200.00	\$ 20,000.00
506.	4,000	FT	GRANITE CURB TYPE VB - STRAIGHT	\$40.00	\$ 160,000.00
506.1	1,000	FT	GRANITE CURB TYPE VB - CURVED	\$45.00	\$ 45,000.00
514.	20	EA	GRANITE CURB INLET - STRAIGHT	\$400.00	\$ 8,000.00
515.	5	EA	GRANITE CURB INLET - CURVED	\$500.00	\$ 2,500.00
580.	1,300	FT	CURB REMOVED AND RESET	\$25.00	\$ 32,500.00
581.	1	EA	CURB INLET REMOVED AND RESET	\$250.00	\$ 250.00
594.	1,300	FT	CURB REMOVED AND DISCARDED	\$6.00	\$ 7,800.00
595.	9	EA	CURB INLET REMOVED AND DISCARDED	\$75.00	\$ 675.00
596.	2	EA	CURB CORNER REMOVED AND DISCARDED	\$50.00	\$ 100.00
701.	3,900	SY	CEMENT CONCRETE SIDEWALK	\$60.00	\$ 234,000.00
701.2	250	SY	CEMENT CONCRETE WHEELCHAIR RAMP	\$100.00	\$ 25,000.00
703.	100	TON	HOT MIX ASPHALT DRIVEWAY	\$170.00	\$ 17,000.00
707.1	10	EA	PARK BENCH	\$2,500.00	\$ 25,000.00
748.	1	LS	MOBILIZATION	\$59,114.00	\$ 59,114.00
751.	350	CY	LOAM BORROW	\$54.00	\$ 18,900.00
765.	2,300	SY	SEEDING	\$2.00	\$ 4,600.00
799.	25	EA	TREE PLANTING	\$1,500.00	\$ 37,500.00
804.3	500	FT	3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC -(UL)	\$25.00	\$ 12,500.00
811.23	2	EA	ELECTRIC HANDHOLE - SD2.023	\$1,500.00	\$ 3,000.00
811.31	20	EA	PULL BOX 12 X 12 INCHES - SD2.031	\$775.00	\$ 15,500.00
816.01	1	LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 1	\$349,625.00	\$ 349,625.00
816.02	1	LS	TRAFFIC SIGNAL RECONSTRUCTION LOCATION NO. 2	\$203,375.00	\$ 203,375.00
820.1	1	LS	HIGHWAY LIGHTING - ROADWAY	\$5,000.00	\$ 5,000.00
823.11	23	EA	HIGHWAY LIGHTING LUMINAIRE 250 WATT	\$2,500.00	\$ 57,500.00
824.221	1	LS	RECTANGULAR RAPID-FLASH BEACONS SYSTEM (LOCATION NO. 1)	\$50,000.00	\$ 50,000.00
824.222	1	LS	RECTANGULAR RAPID-FLASH BEACONS SYSTEM (LOCATION NO. 2)	\$50,000.00	\$ 50,000.00
831.	100	SF	ROADSIDE GUIDE SIGN (D6/D8) - ALUMINUM PANEL (TYPE A)	\$26.00	\$ 2,600.00
832.	500	SF	WARNING-REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)	\$14.00	\$ 7,000.00
841.1	2	EA	SUPPORTS FOR GUIDE SIGN (D6 W/ D8-5 INCH TUBULAR POST) STEEL	\$1,900.00	\$ 3,800.00
847.1	40	EA	SIGN SUP (N/GUIDE)+RTE MKR W/1 BRKWAY POST ASSEMBLY - STEEL	\$112.50	\$ 4,500.00
848.1	2	EA	SIGN SUP (N/GUIDE)+RTE MKR W/2 BRKWAY POST ASSEMBLIES-STEEL	\$280.00	\$ 560.00
850.	1	LS	TEMPORARY TRAFFIC CONTROL MEASURES	\$20,000.00	\$ 20,000.00
864.04	2,000	SF	PAVEMENT ARROWS AND LEGENDS REFLECTORIZED WHITE (THERMOPLASTIC)	\$6.50	\$ 13,000.00
866.106	10,000	FT	6 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$1.00	\$ 10,000.00
866.112	1,500	FT	12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)	\$2.50	\$ 3,750.00
867.106	7,500	FT	6 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$1.25	\$ 9,375.00
867.112	500	FT	12 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	\$3.00	\$ 1,500.00
874.	10	EA	STREET NAME SIGN	\$125.00	\$ 1,250.00

Location		West Springfield		Job Number MAX-2018014	
Title		Park Street & Park Avenue			
Calculated By		DIP		Checked By EMR	
Item Number	Quantity	Unit	Description	Unit Price	Total
874.2	10	EA	TRAFFIC SIGN REMOVED AND RESET	\$110.00	\$ 1,100.00
874.41	25	EA	TRAFFIC SIGN REMOVED AND DISCARDED	\$20.00	\$ 500.00
874.7	10	EA	MISCELLANEOUS SIGNS REMOVED AND STACKED	\$45.00	\$ 450.00
Subtotal					\$2,029,554
Design Contingency (25%)					\$507,400
Traffic Police/Roadway Flaggers (4.70%)					\$95,400
Construction Contingency (10%)					\$203,000
Construction Engineering (10%)					\$203,000
Utility Relocation (6%)					\$121,800
Total Cost					\$3,161,000

APPENDIX F

FISCAL YEAR CHAPTER 90 LETTER



Charles D. Baker Governor
Karyn E. Polito Lieutenant Governor
Stephanie Pollack MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

January 2nd, 2020

William Reichelt
Mayor
26 Central Street
West Springfield, MA 01089

JAN 07

Dear Mayor Reichelt,

We are pleased to inform you that the Legislature recently approved the supplemental budget that I filed, including an additional \$20 million in Chapter 90 local transportation aid funding for Fiscal Year 2019. This represents a 10% increase over the usual funding amount.

This letter certifies that your community's Chapter 90 apportionment for Fiscal Year 2020 is **\$950,992**. This amount includes the monies previously approved in Chapter 16 of the Acts of 2019, and the new supplemental amount of **\$86,454** that I approved by signing this new legislation. The apportionment will be incorporated automatically into your existing 10-year Chapter 90 contract, which will be available on the MassDOT website: <https://www.mass.gov/chapter-90-program>

This funding represents our continued commitment to assisting cities and towns in addressing the maintenance, modernization, and resiliency of your local roads, which are a critical part of the Commonwealth's transportation network. The Chapter 90 program is an integral part of maintaining and enhancing your community's infrastructure and is an essential component of our state-local partnership. We look forward to working with you in the coming year to continue the success of this program.

As always, we encourage you to explore opportunities for additional infrastructure funding through MassDOT's Complete Streets and Municipal Small Bridge Programs (further information available at: <http://www.massdot.state.ma.us/>). For program specific questions please contact the following:

- **Chapter 90 Program** --State Aid Engineer Kathy Stevens at (413) 637-5765 or Kathy.Stevens@dot.state.ma.us
- **Complete Streets and Municipal Small Bridge Program** – Municipal Grants Program Administrator Eileen Gunn at (857) 368-8817 or Eileen.Gunn@dot.state.ma.us

Thank you for all that you do to make the Commonwealth of Massachusetts a great place to live, work, and raise a family.

Sincerely,

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

cc:

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel 857-368-4636, TTY 857-368-0655
www.mass.gov/massdot

APPENDIX G

MAYOR FUNDING COMMITMENT LETTER

Town of West Springfield

Municipal Office Building
26 Central Street, Suite 23
West Springfield, MA 01089



(413) 263-3041
mayor@tows.org
townofwestspringfield.org

William C. Reichelt
Mayor

30 January 2020

John S. Ziemba, Ombudsman
Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA 02110

Re: Town of West Springfield – 2020 Transportation Construction Project Grant Application

Dear Mr. Ziemba:

This letter will serve as the Town of West Springfield's commitment to funding costs beyond the \$1,000,000 amount requested in the 2020 Transportation Construction Project Grant application for the Park Street and Park Avenue Complete Streets project.

The estimated construction cost of the project is \$3,161,000. The Town's share of \$2,161,000 will be funded through annual municipal Street Maintenance funds for Fiscal Years 2021 and 2022, and supplemented by the Town's Chapter 90 funding. The Town will also utilize any other funding sources that may become available between now and award of a contract to a construction vendor.

The Town is committed to beginning construction in the spring of 2021 and funding construction costs beyond what is provided by the Gaming Commission. The community is looking forward to executing this project to enhance transportation options for users of all ages and abilities while mitigating casino traffic impacts and helping meet mode share target of the Final Environmental Impact Report Certificate.

Sincerely,

William C. Reichelt
Mayor

cc: Sharon Wilcox, Chief Financial Officer
Jonathan Silverstein, Esq.
James Czach, P.E., Town Engineer
File

APPENDIX H

**PVPC LETTER OF SUPPORT
PVTA PROJECT COMMUNICATION
MASSDOT PROJECT COMMUNICATION**



Timothy W. Brennan, Executive Director

May 21, 2018

Mayor William C. Reichelt
26 Central Street
West Springfield, MA 01089

RE: Letter of Support for the Transportation Planning Grant Application by the Town of West Springfield.

Dear Mayor Reichelt:

The Pioneer Planning Commission (PVPC) supports the 2018 Transportation Planning Grant Application by the Town of West Springfield to improve the Route 20 corridor from Main Street to Elm Street. Specifically, this project will allow the design of necessary transportation improvements along both Park Street and Park Avenue to address additional traffic impacts associated with the new MGM Casino development in Springfield, MA.

Park Street and Park Avenue operate as a major transportation corridor in the Town, carrying significant volumes of traffic while bordering the historic Town Common. The PVPC has worked closely in the past with the Town to study transportation concerns in this area as part of the Route 20 Corridor Study and more recently, the Merrick and Memorial Neighborhood Plan. Transportation improvements realized as a result of this project will improve the livability of the Town by enhancing public safety, increasing usable public space, making it easier for a variety of transportation modes to share the streets, and creating a more welcoming environment for local businesses.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gary M. Roux".

Gary M. Roux
Principal Planner

RE: West Springfield -- Park Street / Park Avenue

1 message

pburns@pvta.com <pburns@pvta.com>

Thu, Jan 16, 2020 at 6:27 PM

To: cradisch@gpinet.com

Cc: jczach@townofwestspringfield.org, Jesus@pvtransit.com

Hi Carolyn,

In response to your request PVTA is recommending the following changes to the stops that you mentioned on Park St. and Park Ave in West Springfield

1. Park St; Retain stop 1409 by the Senior Center and eliminate stop 1390. I believe there is currently a bench at stop 1390 and that could be added to the shelter at 1409.
2. Park Ave: we would recommend that both stops between Union and Main be consolidated and a new combined stop be placed at 123 Park Ave. The current locations of both existing stops present challenges to currently with stop 1428 at Union and Park being compromised by the relatively recent addition of the Cumberland Farms in that location and the stop at 83 Park creating challenges for buses returning from the stop to the proper lane in traffic. We are also requesting that the stop at 123 Park Ave include a cut out (bus pull in) as well as a pad, shelter and bench.

Thanks

Paul

Paul Burns-Johnson

Office 413-732-6248

Cell 413-234-0549

Director of Transit Operations

Pioneer Valley Transit Authority

From: Carolyn Radisch <cradisch@gpinet.com>

Sent: Tuesday, December 10, 2019 1:16 PM

To: Paul Burns <pburns@pvta.com>

Cc: James Czach <jczach@townofwestspringfield.org>

Subject: FW: West Springfield -- Park Street / Park Avenue

Hello Paul-

I wanted to reach out to you regarding transit improvements for stops on Park Street and Park Avenue in West Springfield. We are working with the Town on a Complete Streets design. I am forwarding an email I sent in June that summarizes the ridership information for the relevant stops. We are honing in on a final concept design. I have spoken with Jim Czach about potential bus stop improvements and we have a couple of questions for you:

- Stops 1390 and 1409 are only a block apart and seem like candidates for consolidation or possibly moving the stop at Park Street and Lathrop Street (1390) back closer to Main Street (if that stop pairs with stop 1396). Please let us know your thoughts on that idea.
- We have discussed a pad and a shelter for stop 1428 (Park Ave at Union St). According to my calculations, there are 12 average daily boards and alights at that stop. Is a turnout desired at the Park Avenue / Union Street location?

Please feel free to reach out with any questions.

Thanks!



Carolyn Radisch, AICP
d +1 (978) 570-2557
An Equal Opportunity Employer

From: Radisch, Carolyn
Sent: Tuesday, June 18, 2019 3:54 PM
To: pburns@pvta.com
Cc: Timothy Inacio <tinacio@townofwestspringfield.org>
Subject: West Springfield -- Park Street / Park Avenue

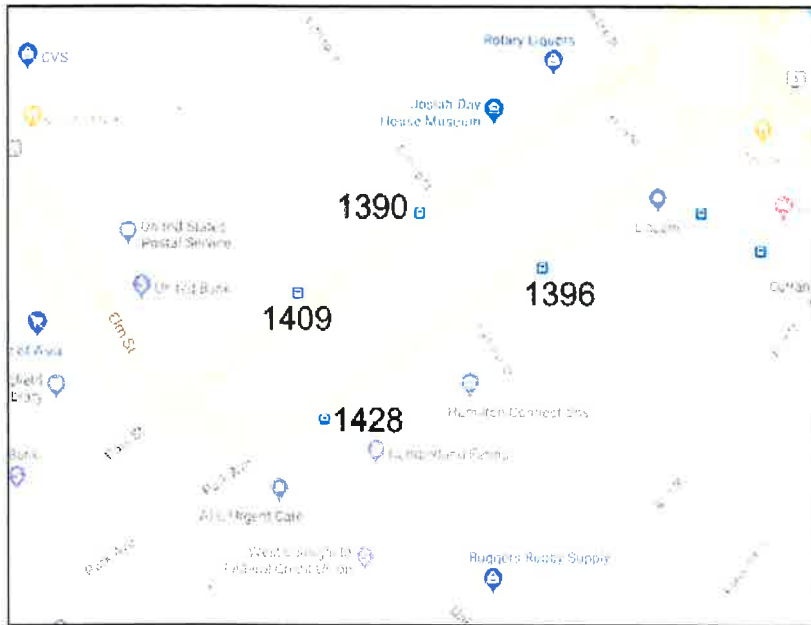
Hi Paul-

GPI is working with the Town of West Springfield on a complete streets design for Park Street and Park Avenue between Main and Elm Streets. We are improving pedestrian accommodations (mostly crossings) and adding protected bike lanes.

I was wondering if you had any input for us from a transit point of view? The ridership info Price sent to me is pasted below. Basically there are four bus stops which are pretty close to one another. There is a turnout at the senior center (1409) and a shelter at the American Legion (1396) stop.

Thanks.

Stop ID	R10 Boards	R10 Alights	R10 Totals	P20 Boards	P20 Alights	P20 Totals	Total Boards	Total Alights	Totals
1390	1220	1073	2293	4061	6787	10848	5281	7860	13141
1396	1742	586	2328	6251	3688	9939	7993	4274	12267
1409	650	1049	1699	2346	3239	5585	2996	4288	7284
1428	1211	1389	2600	3200	3098	6298	4411	4487	8898



Carolyn Radisch, AICP
Assistant Vice President / Senior Transportation Planner

181 Ballardvale Street, Suite 202, Wilmington, MA 01887
 d +1 (978) 570-2557
cradisch@gpinet.com | www.gpinet.com



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MassDOT Letter of Support

1 message

James Czach <jczach@townofwestspringfield.org>

Mon, Jan 6, 2020 at 11:56 AM

To: "Hanson, Laura (DOT)" <laura.hanson@state.ma.us>

Hi Laura,

Happy New Year !

The Town of West Springfield is currently working with GPI to design a Complete Streets Project for sections of Park Street and Park Avenue. We are using Mass Gaming Commission Community Mitigation and municipal funds for the design. We are beginning to prepare an application due Feb.1st for construction funding for the project. The project is still in preliminary design. We are anticipating a final public meeting later this month to show the public the final alternative that will advance in design. I attached the alternatives prepared so far. As part of the application, the Gaming Commission strongly suggests a letter of support from the MassDOT district Office (see attachment).

Would MassDOT be willing to provide the Town a letter of support for the project? I'd be happy to discuss the project with you as well as anyone else at the district.

Thanks for your time and help.

Jim

Jim Czach, P.E.

Town Engineer

Department of Public Works

Town of West Springfield

26 Central Street, Suite 17

West Springfield, MA 01089

413-263-3244 (Phone)

4 attachments



ExtractPage1 MASSDOT Letter requirement.pdf
95K



Park Street Park Ave layout_01 reduced (1).pdf
3403K



Park Street Park Ave layout_02 reduced (3).pdf
3404K



Alternatives (1).pdf
804K

West Springfield - 2020 Gaming Commission Grant (DRAFT)

1 message

James Czach <jczach@townofwestspringfield.org>

Sun, Jan 26, 2020 at 8:30 PM

To: "Hanson, Laura (DOT)" <laura.hanson@state.ma.us>

Hi Laura,

Attached is a first draft of the grant application. It has NOT been reviewed internally, I am just finishing it. Therefore, changes will be made in some fashion after the Mayor and other staff review. This is a first draft. I just received the plan and report the end of last week. I wanted to get you something as soon as possible as I'm beginning to work on another application due this week.

However, the Plan and Report included in the appendix should stay the same. I pulled all the traffic data sheets out to help reduce the file size. Please note page 29 of the report indicates the town should coordinate with MassDOT regarding RRFBs in close proximity. That's something we'll need to discuss as the design advances.

Please let me know that you received this and can open the attachment.

Thanks for all you help.

Jim

Jim Czach, P.E.

Town Engineer

Department of Public Works

Town of West Springfield

26 Central Street, Suite 17

West Springfield, MA 01089

413-263-3244 (Phone)



APPENDIX H Transportation Construction - Jim Czach Working Copy 1-26-2020.pdf

6940K

APPENDIX I

FLYERS FOR TWO PUBLIC OUTREACH MEETINGS

Park Street and Park Avenue Complete Street Design



Alternatives Open House

Wednesday, June 5
West Springfield Senior Center
5:30 to 7:30

For questions or to arrange any meeting accommodations, please contact:

Tim Inácio

413-495-1851

tinacio@townofwestspringfield.org

The Town of West Springfield is developing plans to address and balance the needs of pedestrians, bicyclists, transit riders, motorists, freight, commercial and emergency vehicles along Park Street and Park Avenue (between the Rotary and Elm Street). Based on input from a public workshop held in West Springfield in April, sketch concepts have been developed for public review. Please come to this open house to hear about the project and give us your input on the ideas developed to date.

Short on time? Drop in for a few minutes.

Participants of all ages, including children, are encouraged to attend.

