BUSINESS

62

STATE STREET / IRVINE AVENUE BUSINESS CORRIDOR STUDY

FINAL REPORT

DECEMBER 2012

PREPARED FOR:

MERCER COUNTY REGIONAL PLANNING COMMISSION

CITIES OF SHARON AND HERMITAGE
MERCER COUNTY, PENNSYLVANIA

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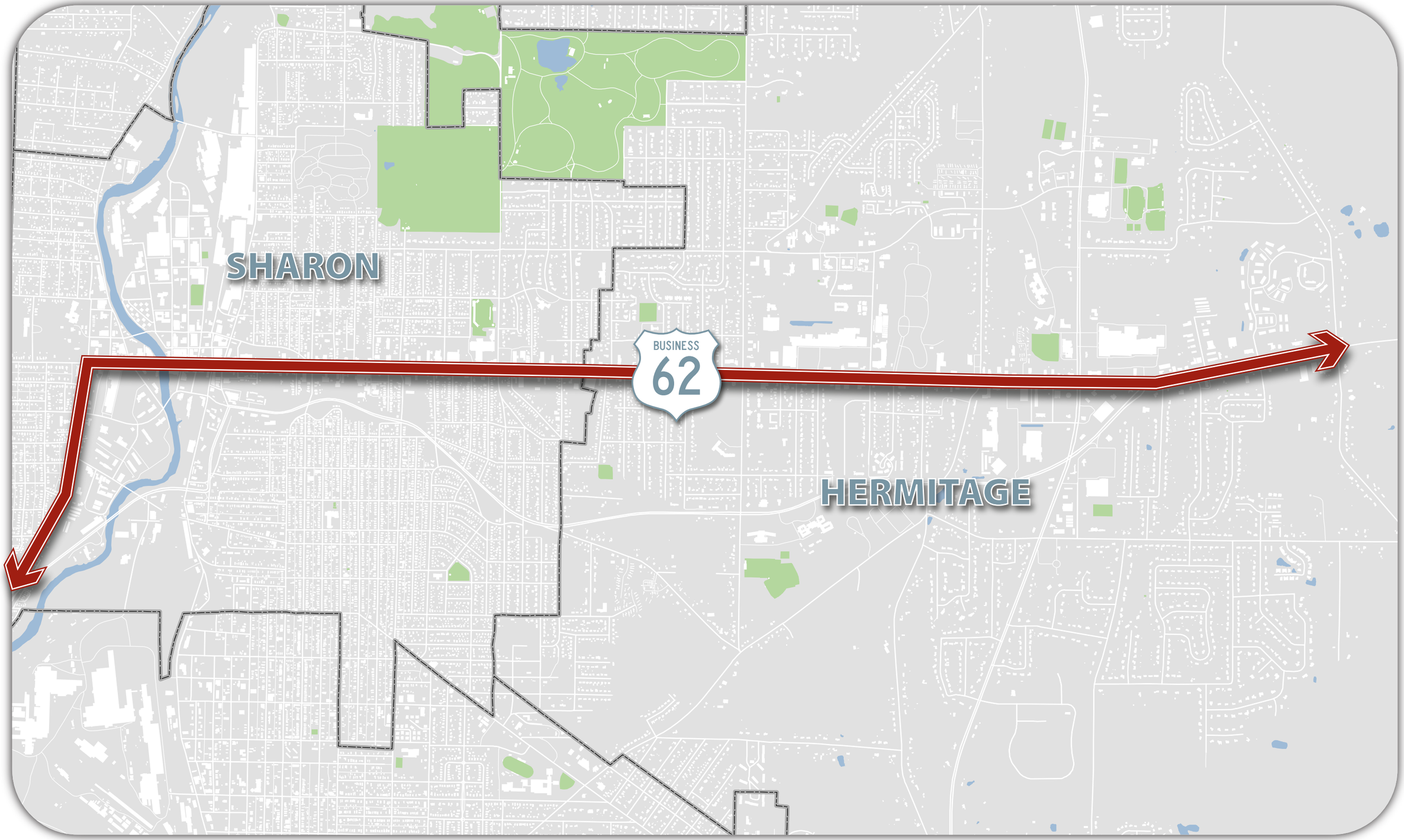
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BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON - MERCER COUNTY PENNSYLVANIA - CITY OF HERMITAGE

ACKNOWLEDGEMENTS

THE PLANNING TEAM WOULD LIKE TO THANK THE FOLLOWING PARTICIPANTS FOR THEIR DEDICATION OF TIME AND ENERGY TO THE PLANNING AND IMPLEMENTATION OF THIS PROJECT

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Table of Contents

List of Tables

List of Figures

List of Figures Continued on Opposite Page →

List of Charts

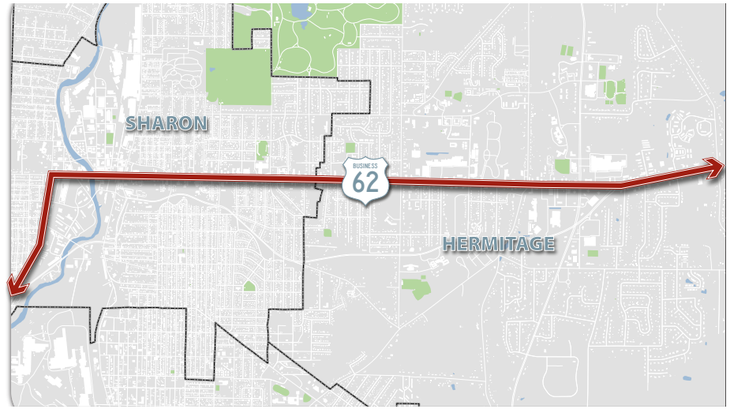
EXECUTIVE SUMMARY

Study Purpose / Objective

The purpose of the State Street/Irvine Avenue Corridor Study is to develop feasible transportation planning and design concepts. The objective is to improve vehicular congestion problems in both Sharon and Hermitage, enhance safety and accessibility for pedestrians and bicyclists, and enhance the aesthetic pleasantness of the corridor. Ideally, these improvements will result in economic and social benefits to the region. This study will aid officials in both Cities in guiding future land use development in such a way as to achieve a balance among modes of transportation and to obtain funding for transportation improvement projects.

Study Area

The area included in this Corridor Study encompasses Business Route 62 beginning at the Pennsylvania line to the west and passes through downtown Sharon and Hermitage east to Keel Ridge Road. Business Route 62 is the original alignment of the US Route 62 corridor before a new alignment for US Route 62 was constructed to the south in 1958. Business Route 62 provides connections to several Pennsylvania highways including PA 18, PA 60, PA 418, and PA 518.



Community Engagement Process

Meaningful community participation is critical in developing a reality based plan with support from elected officials, local residents, business owners, and property owners. A Public Involvement Plan (PIP) was developed to foster public participation, including open discussion, communication programs, information services and public meetings.

The study team held a public discovery workshop on Tuesday, November 15th, 2011 at the Penn State Shenango Auditorium. Approximately 20 knowledgeable and engaged citizens attended the workshop. The purpose of the workshop was to solicit input on the overall effectiveness, safety and comfort of the transportation system within the study corridor and the overall appearance of the study corridor. Members of the community have shared valuable opinions and insights regarding:

- Pedestrian and bicycle circulation and connectivity;
- Parking availability and proximity;
- Traffic congestion and safety throughout the corridor;
- Issues surrounding pedestrian crossings in the vicinity of the Case Avenue Elementary and Sharon Middle and High Schools as well as Sharon Regional Health System; and
- Overall appearance of the corridor

The recommendations that follow were developed through discussions with local community leaders, local agencies and a carefully crafted Public Invovlement Plan. On June 11, 2012, the recommendations put forth based upon input from key stakeholders and public input were presented at an open house. Attendees were welcomed to review the recommendations and provide comments that ultimately helped refine the final plan.

Community Objectives

The information gathered at the various meetings, interviews and workshop has proven to be instrumental in identifying issues, opportunities, and the potential for improvements all along the corridor. This study employs several guiding principles tailored to the unique challenges faced by the Business Route 62 corridor. The following project goals support the guiding principles and vision for the corridor:

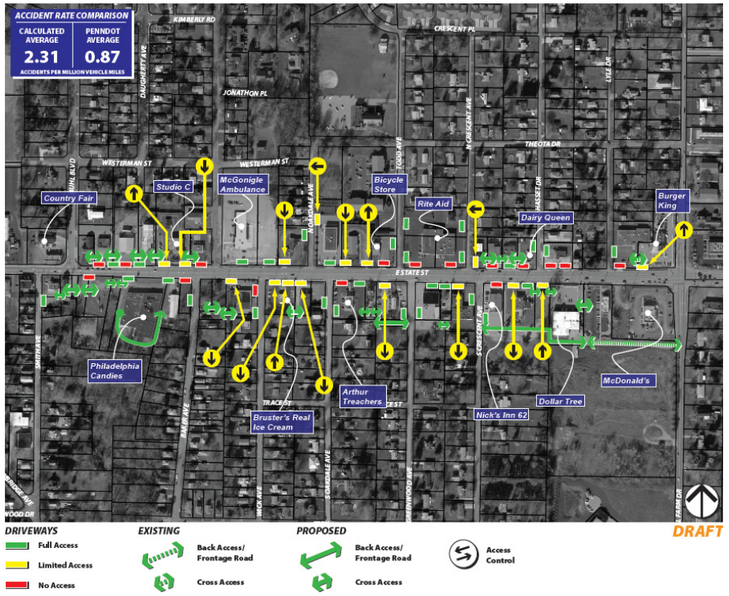
- Developing a transportation system, land use pattern, and design elements that enhances our "sense of place" and instill community pride
- Ensuring the safety of pedestrian, bicycle, and motor vehicle traffic while improving accessibility within and across the corridor
- Providing an environment that entices residents to walk and bike to services; and promoting an active lifestyle
- Managing congestion and preserving market area in order to improve our economic vitality
- Celebrating the gateways into our communities and improving wayfinding

Recommendations

Access Management Plan

The intent of the Access Management Plan is to provide PennDOT, and the local Officials and Planning Boards, a framework for assisting with decision-making regarding access, circulation, and safety for future development along the corridor.

Specific objectives include:
- Minimize number of access locations
- Increase access spacing
- Reduce through traffic conflicts
- Provide greater accessibility and connections for all users
- Manage traffic signal and intersection control
- Provide language in local codes that supports implementation of access management techniques and strategies along the corridor



Traffic Signal Timining / Signal Coordination Plans

The traffic signals along State Street between Keel Ridge Road and Irvine Avenue are currently coordinated in several smaller groupings. The timings, phasing, and offsets in many cases have not been updated in many years. Congestion, and subsequently safety, can be improved by conducting a thorough review of the phasing, timings, and offsets throughout the corridor.

Synchro and SimTraffic computer models were utilized to evaluate and recommend appropriate signal timing plans for the corridor. Signal timing optimization was performed for the AM and PM peak time periods at the signalized intersections within the study area. The study area was broken into five separate signal coordination zones for the purpose of evaluation. These zones are based on the current signal timing coordination zones as well as the spacing of intersections and cycle lengths.

The intersections from Buhl Boulevard to Oakland Avenue make up Signal Coordination Zone 3. A new timing plan is recommended for Zone 3 which yields the following improvements in the measures of effectiveness (MOE's) for this zone:

	MOE	Signal Coordination Zone 3 Totals			
		Before	After	Net Reduction	Percent Improvement
AM PEAK HOUR	Stops (no. of veh)	2,251	2,035	216	9.6%
	Total Delay (hr)	17	16	1	5.9%
	Fuel Consumption (gal)	66	63	3	4.5%

	MOE	Signal Coordination Zone 3 Totals			
		Before	After	Net Reduction	Percent Improvement
PM PEAK HOUR	Stops (no. of veh)	2,965	2,695	270	9.1%
	Total Delay (hr)	18	18	0	0.0%
	Fuel Consumption (gal)	93	91	2	2.2%

Details of the new coordinated timing plan for Signal Coordination Zone 3 are included in the Appendix.

Formal Gateway Enhancement Plans / Schematics

Shenango Valley Freeway
Based upon public input received and evaluation of the options, Alternative I: the roundabout, is the preferred Alternative. Maximum safety, operational, and aesthetic benefits are realized with this alternative.

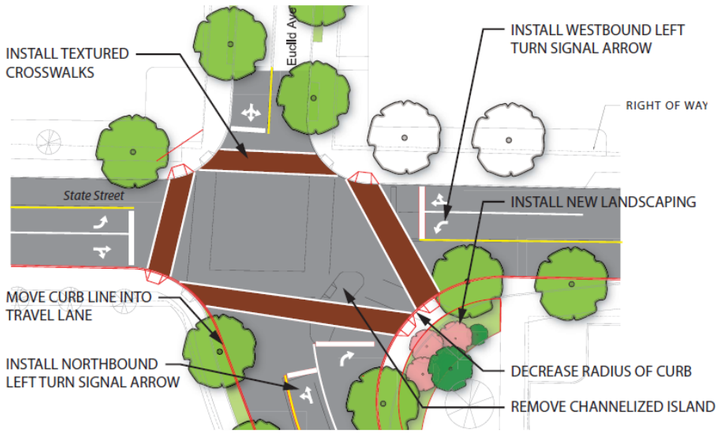
Irvine Avenue Gateway
The intersection of Irvine Avenue and Shenango Valley Freeway can operate more efficiently with one southbound travel lane and a northbound exclusive left turn lane and separate through lane. This allows the intersection to become narrower providing space for a landscaped median treatment and landscaped buffer space between the sidewalk and the edge of pavement.

Modifications at the Addison Avenue intersection similarly result in a narrower geometry on Irvine Avenue providing space for a landscaped median and landscaping along the side of the road. In addition, an enhanced crosswalk is recommended on the northbound approach to the intersection. At the northeast corner, Emanuel Place can be closed off from Addison Avenue creating a location for landscaping a gateway treatment such as a sign.

Advanced Concept Level Intersection Geometric Improvement Plans

Stambaugh / Euclid Avenues

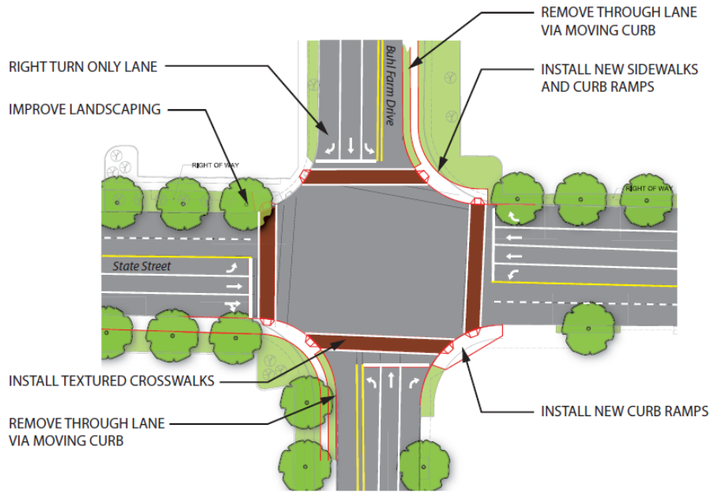
- The refuge island on the southeastern portion of the intersection should be removed. Currently, it is designed as an auto-centric island, rather than a pedestrian-centric refuge.
- Concurrently, the southeastern curb radius should be reduced to provide a shorter crossing distance for pedestrians between the southwestern and northeaster corners of the intersection.
- Additional green space can be installed on the southeastern corner, along with new sidewalks. The buffer space along the southbound side of the roadway should be increased through curb relocation.
- All around the intersection, street trees should be planted to provide shade for pedestrians and function as a traffic calming alternative.
- Stamped textured material consisting of a brick pattern is recommended for new and replaced crosswalks at this intersection. This will provide a higher level of safety and visual awareness for pedestrians and drivers travelling through the intersection.
- Additionally, a westbound and northbound left turn signal arrow should be installed to improve the intersection's operations and safety.



The removal of the refuge island should be a long term strategy. More immediate attention should be focused towards short term enhancements (i.e., textured crosswalks, landscaping).

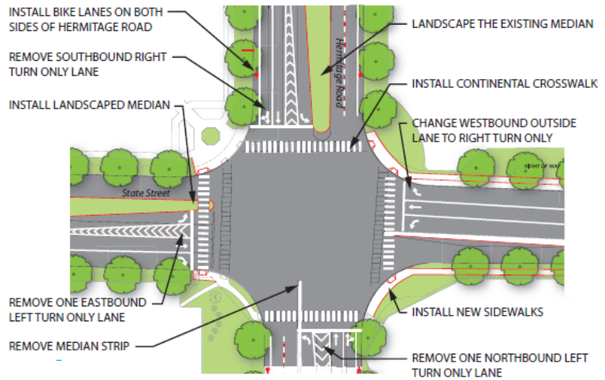
Buhl Farm Drive

- Currently, there are two receiving lanes on the northbound and southbound approaches of Buhl Farm Drive. Removing the outside receiving lane on both approaches and moving the curbs towards the centerline would allow for additional green space and the installation of sidewalks.This will also decrease the crossing distance for pedestrians crossing Buhl Farm Drive.
- The outside shared through and right turn lane on the northbound and southbound approaches of Buhl Farm Drive should be restriped as right turn only lanes to facilitate the removal of the lanes previously described.
- The eastbound and westbound approaches of East State Street will remain unchanged.
- Improvements to the pedestrian environment include upgrading the existing curb ramps to meet ADA compliancy, while introducing sidewalks and ADA compliant pedestrian crossings elsewhere throughout the intersection.
- Roadside trees should be planted to help calm traffic and improve the look and feel of the intersection.

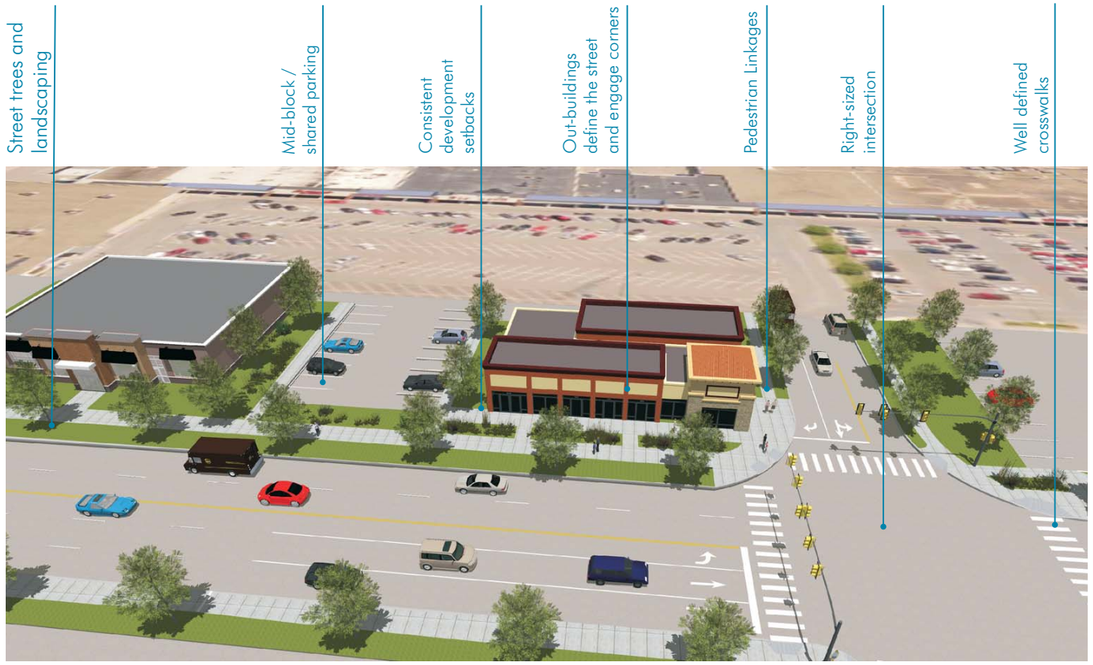


Hermitage Road

- The stark concrete median in the southbound approach can be transformed into a landscaped median.
- The southbound right turn only lane should be restriped to a shared through and right turn lane. This lane is not needed from a capacity standpoint and is a safety concern for crossing pedestrians.
- All northbound and southbound travel lanes can then be restriped to incorporate a five (5) foot wide bike lane.
- The narrow median strip on the northbound approach should be removed. This strip is a maintenance issue and serves no real purpose in this case.
- In addition, one of the northbound left turn lanes should be removed. Operational analyses indicate that this lane is not needed to provide capacity and the intersection will operate at appropriate levels of service and with greater safety.
- Sidewalks should be installed as the right of way dictates.
- The eastbound approach could see the transformation of the current median into a landscaped median with a pedestrian refuge. One left turn only lane should be removed. Again, dual left turn lanes are not necessary to accommodate the current or future traffic volume at this intersection. Dual left turns make for more complex signal timings and introduce additional delay at the intersection that is unnecessary in this case.
- On the westbound approach, the outside travel lane should be restriped to a right turn only lane. The median should taper so as to gently allow eastbound traffic to safely merge into the eastbound receiving lane.
- Overall, the intersection should use a high visibility crosswalk design, similar to the current design, and maintain ADA compliancy on all pedestrian approaches and crossings.



EXECUTIVE SUMMARY



Unified Transportation-Land Use Concept

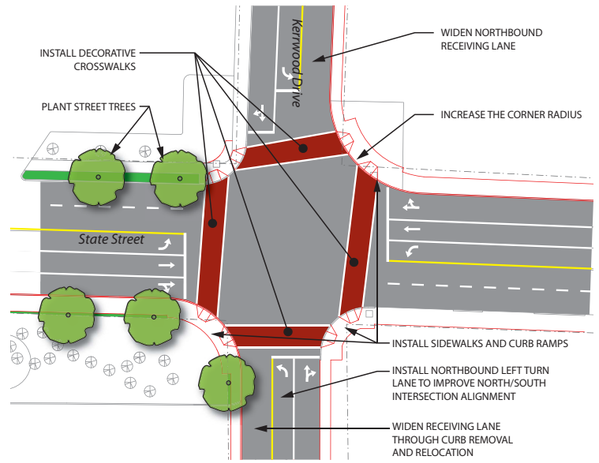
Ellis Avenue

- The southbound approach, shopping plaza driveway, to the intersection can be narrowed dramatically to improve both operating conditions for vehicles as well as aesthetics and pedestrian conditions. Reducing the width from an estimated 85' to 36' will shorten crossing distances for pedestrians and could reduce confusion for drivers.
- Sidewalks should be added to all approaches, as well as ADA compliant curb ramps and high visibility crosswalks. Additionally, sidewalks should be installed to provide a linkage between Kerrwood Drive and Ellis Avenue. The installation of sidewalks along this stretch of roadway would improve the safety of pedestrians.
- The reduced pavement width of the southbound approach will provide space for increased green space and the addition of street trees.
- Additionally, Ellis Avenue can be reduced in size to a pavement width of 24' from 35'. This will shorten crossing distances and align the intersection to the southbound shopping plaza approach.
- Decorative crosswalks should be considered.
- Mast arm traffic signal controls should be installed at all four corners of the intersection to replace the existing span wire design.
- The installation of roadside trees will also act as a traffic calming measure and can create a more comfortable pedestrian environment.
- Ultimately, the recommendations turn a "No Pedestrian" zone into an intersection that all users are able to interact with safely.

ELLIS AVENUE SIMULATION

Kerrwood Drive

- An alternative to the current design is to install sidewalks and pedestrian countdown signals on all approaches.
- Install a left turn lane for the northbound approach.
- The southbound receiving lane should be widened through removing and relocating the existing curb.
- Increasing the curb radius on the northeastern corner of the intersection will allow for vehicles with a longer wheel base to safely maneuver through the intersection, particularly for those vehicles turning right onto Kerrwood Drive from State Street.
- The northwest corner will have room for a planted buffer zone between the roadway and sidewalk for new street trees. Additionally, roadside trees along the southwestern corner should also be considered.
- New mast arm traffic signal controls should be installed at this intersection to replace the existing span wire design.
- Decorative crosswalks should be considered as a higher visibility option for pedestrian crossings on all approaches.
- All pedestrian crossings should be installed to ADA compliancy.

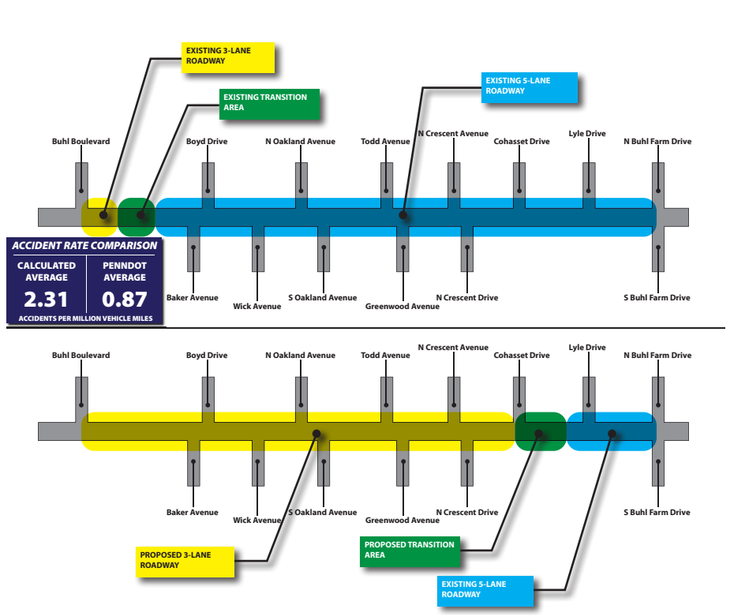


EXECUTIVE SUMMARY

Transition Area (Buhl Farm Drive to Buhl Boulevard)

The recommended improvements will move the transition are between the three and five lane sections to a better designed location just west of Buhl Farm Drive. The transition will occur over a greater distance creating a safer merge for motorists in the westbound direction transitioning from two through lanes to one through lane.

Reducing the number of travel lanes will result in slower speeds, safer ingress and egress for businesses and side streets, less exposure to vehicular traffic for pedestrians wishing to cross State Street, and the ability to provide a paved shoulder area that could be used by bicyclists. The increased width of the center turn lane would provide more space for vehicles both entering into the stream of through traffic on State Street without risk of the vehicle overhanging into travel lanes, as well as exiting the traffic stream while waiting to turn left from State Street. Additionally, the shoulder space would provide a portion of the roadway to bicyclists separate from vehicular traffic.



Downtown Sharon Plan

The Conceptual Plan on the following page highlights key recommendations that are geographically important. Some are long-term improvements or projects and others could happen relatively quickly if leadership and funding becomes available. In some cases, a more detailed discussion of the topics are located later in the report.

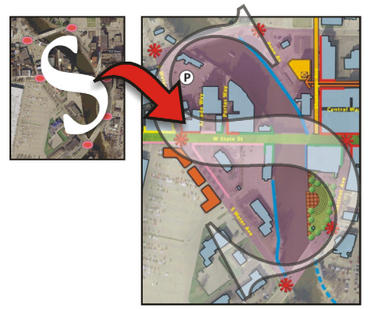
1. **Potential Mixed-use Development** (Near Term) - The proposed multi-story and mixed -use building (under consideration) near the corner of Penn Avenue and Shenango Avenue would bring activity to the street, the waterfront and help to better define the street edge on both Shenango Avenue and Penn Avenue. The City should continue to help shepherd the project.
2. **Potential Mixed-use Development** (Long Term) - The City should encourage infill and multi-story mixed-use development throughout its downtown. Areas for consideration are along S. Water Street and at the corner of State Street and Irvine Avenue. Development in these areas would improve the quality of the street. Shared parking would likely be required in both locations.
3. **Streetscape Improvements** - The State Street streetscape project is anticipated to begin in the Fall of 2012. This project is critically important for the downtown. For additional information see the streetscape section below.
4. **Festival / Event Area** - The downtown area between Silver Street and Connelly Boulevard and S. Water Avenue and Chestnut Avenue sets up nicely for a festival area along the waterfront. Streets could be temporarily closed in this area with limited impact on circulation and mobility.
5. **Future Mixed-use Area** - This area along the east side of South Irvine Avenue between State Street and W. Connelly Boulevard already includes a mix of uses. However, it is not zoned as such. Consideration should be given to rezoning the area to allow and encourage mixed-use, which is consistent with the City's Comprehensive Plan.
6. **Critical Pedestrian Intersections** - These six areas identified on the Conceptual Plan with an asterisk are important crossings. They should be made more visible with a special treatment, such as decorative asphalt or pavers.
7. **Make Pitt Street Two-way** - After careful evaluation by traffic engineers, it has been determined that the existing one-way configuration is unnecessary. Making the street two-way will improve circulation and make the area less confusing.
8. **Major Pedestrian Route to Penn State** - Shenango Avenue is the primary link between State Street and the campus. The City and Penn State should continue to highlight this street with improvements including wayfinding signage.
9. **Pedestrian Connector from Parking Garage** - Vine Street is the most direct route from the public parking garage, located on Pitt Street, to State Street. Wayfinding, streetscape enhancements, and facade improvements should be targeted for this street.
10. **Facade / Streetwall Improvements Priority** - Buildings' facades are typically the primary interfacing element between the public and private realms. When they are out of character or in poor condition it negatively impacts the experience along the street. In a retail or commercial environment, like a downtown, these types of facades reflect poorly on local business and the City as a whole. There are numerous buildings and areas that either need facade improvements or lack the building streetwall to positively define the public realm. Therefore, the City should consider the priorities identified on the conceptual plan when targeting areas for improvements.

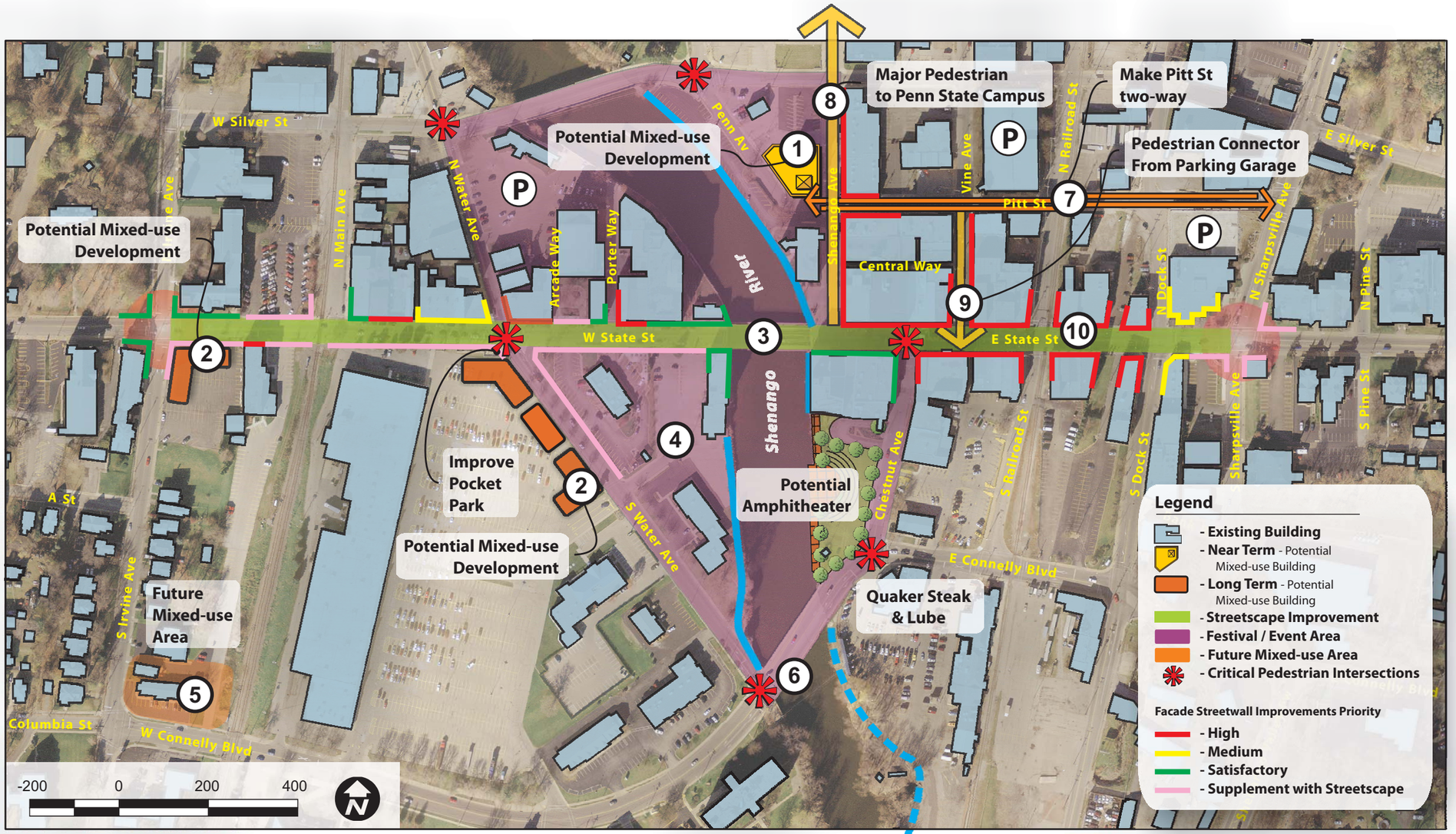
High - these buildings have the highest need for improvements either due to condition or their location.

Medium - buildings that might not be in ideal condition but should be targeted after the high level buildings.

Satisfactory - based on the high number of High and Medium priority buildings these are in satisfactory condition but should be evaluated periodically.

Supplement with Streetscape - these are areas with no or little streetwall. Buildings are missing or parking lots front the street. Street trees and other landscaping should be used to mitigate impacts until infill development occurs.





June 4, 2012

US 62 Business Corridor Study

Downtown Sharon Conceptual Plan

SRF Associates | ingalls planning & design | Steinmetz Planning Group

Downtown Sharon Plan *(continued)*

This collection of recommendations for Downtown Sharon was developed by the Steering Committee to help improve and revitalize the downtown area. The recommendations reflect the issues, opportunities and assets identified through discussions with attendees at the community workshops and at meetings with local stakeholders. A list of recommendations are as follows:

- Develop an organization to develop and lead the revitalization program.
- Develop a facade improvement program for downtown.
- Encourage mixed-use development in the downtown.
- Leverage public sector dollars for private investment.
- Position the waterfront as a recreational and economic development attraction.
- Bring festivals and events downtown.
- Improve the streetscape to create attractive, pedestrian friendly, and walkable streets.
- Incorporate Crime Prevention Through Environmental Design (CPTED) principles in the development review process.

Streetscape Design

Streetscape amenities should be orchestrated to create a unique character and consistency for the Business Route 62 corridor. Amenities should to be coordinated so that there is a seamless blend of materials, colors, shapes, forms and textures from one amenity to the other. Many manufacturers of streetscape components, such as lighting and street furniture, offer series that match in color in style. This provides a cohesive look.

Sharon and Hermitage should capitalize on every opportunity to improve the streetscape along the Business Route 62 corridor. This is a must in order to improve walkability. When possible, Hermitage should work with PennDOT to add street trees on every street improvement project. It should continue to partner with developers to add sidewalks and complete the sidewalk network. When there is not room for trees within the right-of-way, the City should work with developers to include trees and landscaping on the private side of sidewalks. Benches, trash receptacles and bike racks should also be included at key locations.

Wayfinding

A wayfinding system in Sharon should include a hierarchy of signs and design features for pedestrians and motorists with consideration given to the quadrant and landmark levels. Sign types to consider include:

- banners
- directional signs
- destination arrival signs
- general information signs kiosks
- landmark signs
- pavement treatments
- inlaid medallions

Design Guidelines & Standards

The following design and zoning recommendations are based upon the recommendations contained in the local planning documents, results of the Community Preference Survey, input from the Steering Committee, and feedback provided at the two public meetings held as part of this project. In order to ensure that new and in-fill development serves to achieve the community goals, it is recommended that the Cities consider incorporating some or all of the following recommendations into their existing regulatory framework:

This study contains two levels of zoning and design recommendations. The first are a complete set of zoning and design requirements that address the components necessary to improve the operation and appearance of the Business Route 62 corridor. These recommendations are provided later in the report and it intended to serve as a template for both cities to consider adding to their existing zoning codes. Briefly, the recommendations include:

- Mixing of Land Uses
- Building & Site Design
- Vehicular & Pedestrian Circulation
- Off-street Parking Areas
- Bicycle Parking
- Multi-building Development

The second level of zoning recommendations were developed specifically for Sharon and Hermitage. These include:

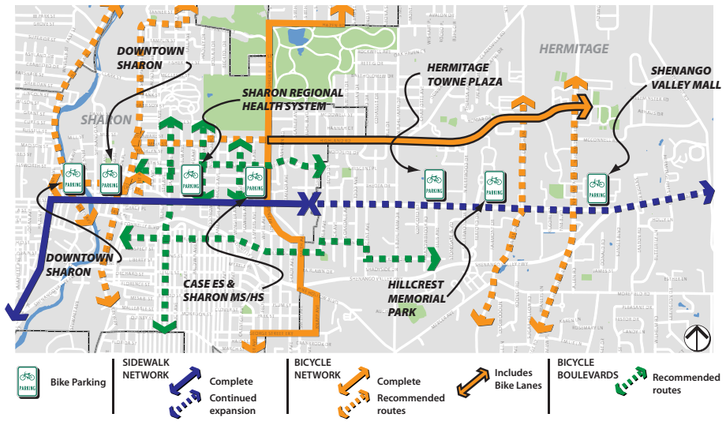
- Landscape Standards
- Detailed zoning assessment by character area
- The provisions of three adoption ready zoning districts
- Detailed streetscape design guidelines

EXECUTIVE SUMMARY

Pedestrian / Bicycle Safety - Linkage Action Plans

An important aspect of a high quality pedestrian and bicycling environment is the presence of sidewalks and bicycle facilities. Bicycle facilities may include bike lanes, shared roadways with bicycle signage, or a multi-use trail that is separated from the roadway network. Sidewalks are critical in allowing adults, children, and physically challenged individuals to travel along the transportation network. Bicyclists tend to prefer routes that have signage notifying drivers of their presence or separated lanes giving them their own space on the roadway.

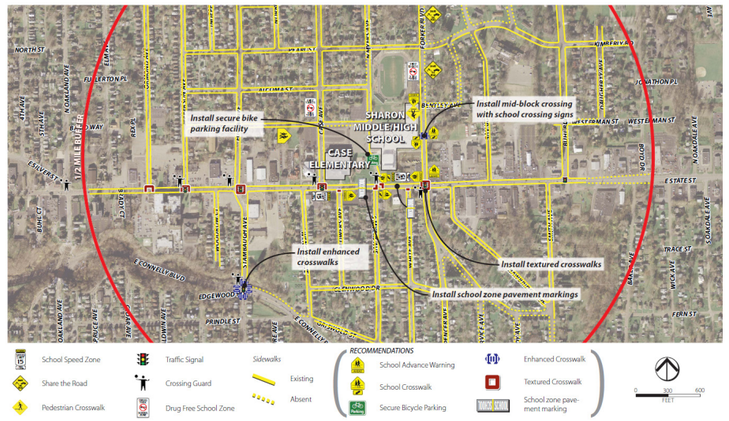
Bicycle parking facilities should be installed at locations where land uses dictate higher trip generation levels of bicyclists. In addition, sidewalks should be installed along State Street throughout the City of Hermitage in areas that provide connection to activity generating land uses.



Safe Routes to School

Safe Routes to School (SRTS) is a national program that helps create safe, convenient and fun opportunities for children to walk and bike to and from their schools. SRTS programs require collabortive partnerships amongst local stakeholders with interests to improve safety, promote healthy lifestyles, and improve environmental quality around schools. To accomplish this, a comprehensive program must be established to create an environment that enhances, supports and sustains walking and cycling as viable options for travel. With this in mind, SRTS emphasizes a holistic approach to create change that encompasses the five (5) E approach; Engineering, Enforcement, Encouragement, Education and Evaluation.

It is recommended that the City of Sharon pursue implementing Safe Routes to School plans for the schools of Case Elementary / Sharon Middle School and West Hill Elementary School. Such benefits could be: an increase in physical activity amongst students; improved test scores; a safer walking and bicycling environment; and a decrease in obesity rates.



Hospital Zone Improvements

Both short and longer term pedestrian safety, traffic calming, operational and streetscape improvements are recommended for State Street, adjacent to the Sharon Regional Health System.

- The short term improvement strategy includes the following:
- Install high visibility decorative wheelchair-friendly cross¬walks and flush contrasting asphalt medians
- Install landscape elements including plantings and low scrubbed landscaped areas
- Install street furniture including benches and bicycle racks
- Reconfigure the south leg of the Jefferson Avenue/State Street intersection to align with the north side of the intersection, for improved safety and efficiency for all modes using the intersection
- Coordinate all Jefferson Avenue/State Street intersection improvements with future hospital expansion/redevelopment plans, and/or pedestrian safety and circulation plans on hospital owned property, on both sides of State Street

The second, long term improvement phase includes the following:

- Convert approximately 350 feet of Ormond Street to one-way northbound traffic flow, from State Street north to its intersection with a potential new privately constructed east-west roadway
- Coordinate traffic control with a potential new privately constructed east-west road connection, situated approximately 350 feet north of State Street, between Jefferson Avenue and Elm Avenue
- Support potential infill development including office and mixed-use buildings
- Initiate development of a public “pocket” park at the corner of Ormond Avenue/State Street intersection

The recommendations seek to enhance the overall public realm adjacent to the hospital, particularly the pedestrian environment, through improved safety and streetscape enhancements. Conflicts between hospital destined pedestrians and State Street motorists are reduced with conversion of a small segment of Ormond Avenue to one-way northbound only travel. A new road, privately constructed on hospital owned parcels north of State Street is recommended between Elm Avenue and Jefferson Avenue. This roadway provides an alternate access and circulation route for hospital employees and visitors using the adjacent parking lots. With this connector road in place, traffic, especially parking lot traffic is diverted away from the main hospital entrance, beyond the

high pedestrian activity area in front of the hospital, thus significantly improving pedestrian safety.

Under both the near and longer term plans, pedestrians are encouraged to use enhanced crosswalks at intersections. Any physical features proposed that direct pedestrians to and from the hospital would be done in collaboration with hospital approval.

Cost Estimates

The costs associated with many of the immediate to near term recommended improvements are relatively low and inexpensive. A number can be implemented with little or no cost, (e.g. signal timing modifications, enhanced crosswalk striping, signage, landscaping, furnishings), while other recommendations require a more significant infrastructure investment. The cost for these as well as for the more substantial improvements such as the recommended State Street/Shenango Valley Freeway roundabout were estimated based upon recent bid prices for comparable elements.

It should be noted that there is significant variability in the degree to which improvements can be implemented and the costs associated with the improvements. For example, the gateway treatments can include special features, decorative pavement treatments and significant landscaping, or other less expensive treatments with only plantings and less expensive pavement treatments. Other improvements in the transportation system, such as the new roadway connection between Elm Avenue and Jefferson Avenue, may likely evolve over an extended time through a combination of private/public partnerships.

RECOMMENDATIONS		PLANNING LEVEL COST ESTIMATE
	Signal Coordination / Upgrades	no cost
	Develop an organization to develop and lead the Revitalization Program for Downtown Sharon	$ 10,000
	Develop a Façade Improvement Program for Downtown Sharon	$ 50,000
	Develop a Wayfinding Sign program/system for Downtown Sharon	$ 25,000
	Hospital Zone Mill, Overlay and Re-striping	$ 68,000
	Hospital Zone Signage, Crosswalks, and Median	$ 153,600
	School Zone Crosswalks	$ 67,000
	School Zone Signage	$ 1,400
	SRTS Case/Sharon Signage and Crosswalks	$ 1,700
	SRTS West Hill Signage and Crosswalks	$ 5,300
	Improved Safety Transition / Road Diet	$ 200,000
*Intersections**	Buhl Farm Drive	
	Phase 1 (Textured Crosswalks)	$ 70,100
	Phase 2 (Geometric Design)	$ 717,000
	Stambaugh and Euclid Avenues	
	Phase 1 (Textured Crosswalks, Landscaping)	$ 48,300
	Phase 2 (Geometric Design) [1]	$ 469,000
	Kerrwood Drive[2]	$ 857,000
	Kerrwood Dr to Ellis Ave Sidewalk Connection	$ 53,000
	Ellis Avenue[2]	$ 978,000
	Hermitage Road[1]	$ 961,000
Gateways	Irvine Avenue Gateway	$ 934,000
	Shenango Valley Roundabout	$ 1,573,000

* cost includes landscaping, milling and repaving the entire intersection

1. Includes signal modifications
2. Includes signal replacement

Notes:

1. Schematic cost estimates have been prepared using a 40% contingency.
2. Costs include design, survey and construction inspection.
3. Costs are provided in 2012 dollars.
4. Costs do not include right-of-way.

Implementation

Recommendations for implementation of the proposed improvements are outlined on the following pages. They are subdivided into three categories: Immediate to Near Term (0-5 years), Medium Term (5-10 years), and Long Term (10-20 years). Many of the Immediate to Near Term recommendations can be implemented as part of ongoing maintenance. Meanwhile, other items in this phase of implementation are either relatively low cost modifications or funding for these improvements may be more readily available. Medium Term recommendations require more planning and funding to implement and can likely be accomplished in the 5 to 10 year timeframe. The Long Term recommendations are generally more expensive and are likely to require significant planning to implement. It is noted that the longer timeframes may more closely align with typical PennDOT timeframes used for programming funding. Specific long term improvements may be made sooner if funding becomes available.

Strategic Funding

Two alternatives for funding sources can be the use of Transportation Impact Fees and a Tax Increment Financing (TIF) Guarantee Program. The Impact Fees can be used to improve roadway capacity issues created by the increased traffic generated by a new development. Projects may include traffic signal upgrades and roadway improvements (i.e., auxiliary turn lanes, new roadways).

The TIF program allows for incremental increases in property tax within a defined project area to be used for public infrastructure improvements to encourage redevelopment and minimize investor risk. A guarantee of up to $5 million can be used to fund a project for such an investment.

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INTRODUCTION

"If you plan cities for cars and traffic, you get cars and traffic.
If you plan for people and places, you get people and places."
– PPS.org

INTRODUCTION

Why Do We Need A Study?

The purpose of the State Street/Irvine Avenue Corridor Study is to develop feasible transportation planning and design concepts. The objective is to improve vehicular congestion problems in both Sharon and Hermitage, enhance safety and accessibility for pedestrians and bicyclists, and enhance the aesthetic pleasantness of the corridor. Ideally, these improvements will result in economic and social benefits to the region. This study will aid officials in both Cities in guiding future land use development in such a way as to achieve a balance among modes of transportation and to obtain funding for transportation improvement projects.

The report that follows is the second in a series of reports that will result in an overall study document. This report summarizes the Key Findings discovery process and results. This task included an inventory and analysis of existing conditions, culminating in a Needs and Opportunities assessment of the study teams' results.

At the beginning of the study, a Steering Committee was formed to establish corridor-wide priorities and to guide the study in the best interest of both Cities. Members of the committee include representatives from the Shenango Valley Initiative, Sharon Economic Development Commission, Sharon Career Link, Hermitage planning staff, Sharon City Manager, Hermitage public officials, the Sharon City School District Superintendent, and Sharon Regional Health Systems. Other members include representatives from the Pennsylvania Department of Transportation (PennDOT) and the Mercer County Regional Planning Commission (MCRPC). MCRPC is the regional planning council which assists their member municipalities in undertaking and implementing a variety of community and economic development plans/projects each year. MCRPC also serves as the staff of the Metropolitan Planning Organization (MPO) for transportation. As the MPO overseeing the region including the Cities of Sharon and Hermitage, MCRPC is overseeing and administering this Study. They are responsible for the disbursement of federal aid monies for transportation-related projects, programs, and initiatives.

Steering Committee Meeting

Community Background & Study Area Description

The Cities of Sharon and Hermitage are located in southwestern Mercer County. The two municipalities are close, yet so different.

The City of Hermitage was settled in 1796 and was declared the Township of Hickory. A home rule charter was declared on January 1, 1976 which then changed the name to Hermitage. Hermitage consists of many retail businesses signaling its role as a major retail and service center in the region.

The City of Sharon was settled in 1795, according to legend, by a bible reading settler thought to have named the municipality after the Plain of Sharon in Israel. It then became incorporated into a city on December 17, 1918. Sharon was the center of the coal mining industry which transitioned to steelmaking and other heavy industry during the Industrial Revolution. The City of Sharon has a small city feel with a main street that serves as its downtown business community as well as a primary travel route.
Business Route 62, also known as Irvine Avenue and State Street within the Cities of Sharon and Hermitage, is similar to other major roadways throughout Pennsylvania in that it serves the dual purpose as a primary travel route as well as the heart of both an active Central Business District and built up commercial corridor.

The area included in this Corridor Study encompasses Business Route 62 beginning at the Pennsylvania line to the west and passes through downtown Sharon and Hermitage east to Keel Ridge Road. Business Route 62 is the original alignment of the US Route 62 corridor before a new alignment for US Route 62 was constructed to the south in 1958. Business Route 62 provides connections to several Pennsylvania highways including PA 18, PA 60, PA 418, and PA 518. Business Route 62 is functionally classified as a principal arterial highway but also serves to provide access to businesses in downtown Sharon, Sharon Regional Health Systems, three Sharon City Schools and other commercial development between downtown Sharon and Keel Ridge Road. As a result of the dual role, conflicts have arisen between typical "Main Street" type activities (i.e. pedestrian activity, accessing local business, and accessing Sharon Regional Health Systems) and motorists traveling through the corridor to reach destinations beyond. It is also important to note that the location of the Sharon Middle and High Schools and Case Avenue Elementary School along the corridor have resulted in high volumes of young pedestrians and bicyclists traveling the corridor on a regular basis.

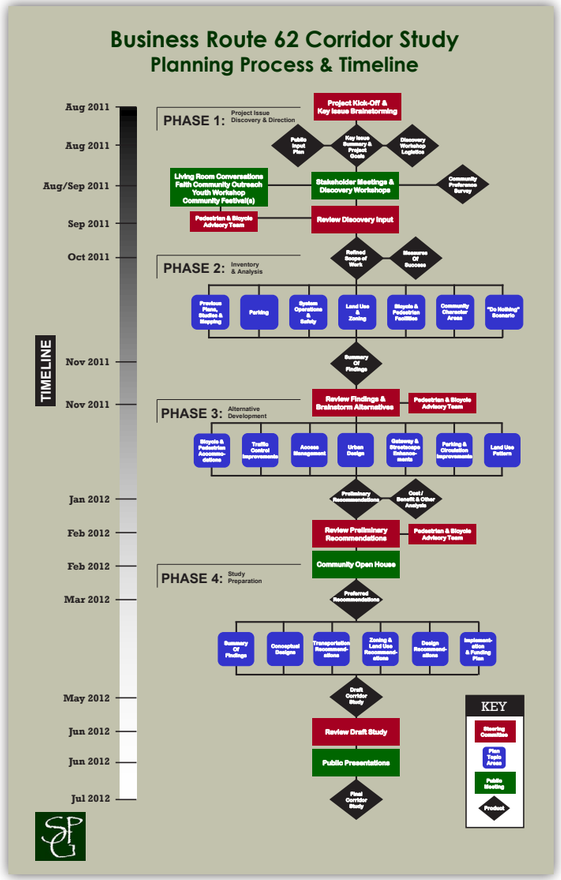


Chart 1: Business Route 62 Corridor Study Planning Process and Timeline

"In successful corridors, the transportation system unites adjacent communities. It fits into the context of each community and is accessible to drivers and non-drivers alike."
– Great Communities, Great Corridors, 2008

Where Do We Stand... Where Are We Going?

A positioning statement provides direction or focus to a municipality. It is a no nonsense statement of how your community is perceived in the minds of your residents, businesses, and visitors. The following position statements are based upon the input received during the first phase of public outreach for the State/Irvine Corridor Study.

City of Sharon

The City of Sharon is located in southwest Mercer County adjacent to the Ohio State Line. It serves as a gateway for travelers entering the State of Pennsylvania from the west. According to the most recent US Census, it has lost an average of 10% of its population every decade since 1970. As its population has declined, Sharon's central role in the lives of residents of Sharon and adjacent communities has also declined. Shopping, social services, health care, and entertainment options continue to move out of Sharon and are locating in nearby communities; primarily in Hermitage. The loss of residential and commercial investment has significantly reduced municipal revenues and Sharon's ability to maintain its aging infrastructure. These factors and trends have resulted in a strong feeling of apathy and a lack of community pride among many City residents.

Although the community's negative mindset is understandable, Sharon has a number of assets on which to build. It has relatively convenient access to the state highway system and active freight rail service. Physical features such as its traditional downtown character, the Shenango River, and walkable neighborhoods provide the building blocks necessary to create a City that is attractive and feels comfortable. In addition, Sharon still boasts a number of regional destinations including the Penn State Campus and the hospital. These assets will be critical in any future community revitalization efforts by the City and its partners.

City of Hermitage

The City of Hermitage is located in southwest Mercer County. According to the most recent US Census, its population has remained relatively stable since 1970. However, it has experienced a significant amount of commercial development and has attracted major retailers, such as Wal-Mart, Home Depot, and Lowes. In addition, national pharmacy, restaurant, movie theater and hotel chains have also opened establishments in Hermitage. Over the past two decades local health care and social service providers have also located in Hermitage. As a result of these trends, Hermitage has emerged as the center of activity in the daily lives of local and regional residents.

Despite the positive trends that Hermitage has experienced over the past twenty years, there is room for improvement. The suburban or "strip" style commercial investment has resulted in a development pattern that relies solely on accessing goods and services by the automobile. As a result, traffic volumes and congestion on local and State roads in the City continues to increase. These factors have contributed to increased driver frustration and accidents. The lack of adequate pedestrian and bicycle facilities along major thoroughfares mean residents and patrons have no other choice but to drive.

It is anticipated that investment will continue to occur in Hermitage and that each new development or re-development is an opportunity to improve access and circulation throughout the community.

What We've Discovered?

The broad outreach and discovery efforts accomplished early in the Business Route 62 Corridor Study planning process, serve to better articulate, reinforce and refine the direction and goals needed to achieve the desired vision for the corridor.

The following project goals support the position statements and **vision**:

- Developing a transportation system, land use pattern, and design elements that enhances our **"sense of place"** and instills community pride.
- Ensuring the **safety** of pedestrian, bicycle, and motor vehicle traffic while improving **accessibility** within and across the corridor.
- Providing an environment that **entices** residents to walk and bike to services; and promoting an **active lifestyle**.
- Managing congestion and preserving market area in order to improve our **economic vitality**.
- Celebrating the **gateways** into our communities and improving **wayfinding**.

Vision – Where We Want to Be?

Based upon the information gathered through this planning process, the collective vision for Business Route 62 Corridor is to have an **inviting corridor** that meets the needs of residents, businesses, and the traveling public. To accomplish this, the two cities and their partners will develop plans and strategies that **enhance the safety, mobility, and appearance** of the Business Route 62 Corridor, in a **collaborative** manner that promotes **economic vitality** and **community pride**.

Goals – How Do We Get There?

These elements form the basis of a transportation strategy that will guide decision-making over the next decade. In order to achieve this strategy, the two cit-

INTRODUCTION

ies recognize that they will have to work closely with each other, MCRPC, PennDOT, local residents and the business community.

Getting Involved

As part of the planning process, public participation was a vital component to create a reality based plan. Participation from elected officials, local residents, businesses owners, and property owners was the key to creating a Public Input Plan. This plan, and detailed results of the various surveys and public meetings are discussed in further detail under the Needs and Opportunities Assessment Section.

How Do We Measure Success?

Measures of success are used for evaluating how changes to the corridor impact the two communities positively or negatively. Transportation improvements often involve trade-offs: pedestrian improvements may come at the expense of bicycle lanes; bicycle lanes may require narrowing travel lanes; and pedestrian crossing improvements may result in greater delay to motorists. Residents must decide which improvements meet their goals and objectives. To aid in this decision, the following measures of success were identified with the aid of steering committee input:

- Gaining support and buy-in from stakeholders and community – resident satisfaction increases
- Adoption of the Final Plan – Officials from both communities are willing to implement and administer the plan.
- Early Implementation of Simple, Low Cost Study Recommendations – plan recommendations are achieved quickly and cost effectively
- The number of trips by walking, cycling and transit increases

Steering Committee Meeting

Steering Committee Meeting

Steering Committee Meeting

Clergy Meeting

II

INVENTORY & ANALYSIS

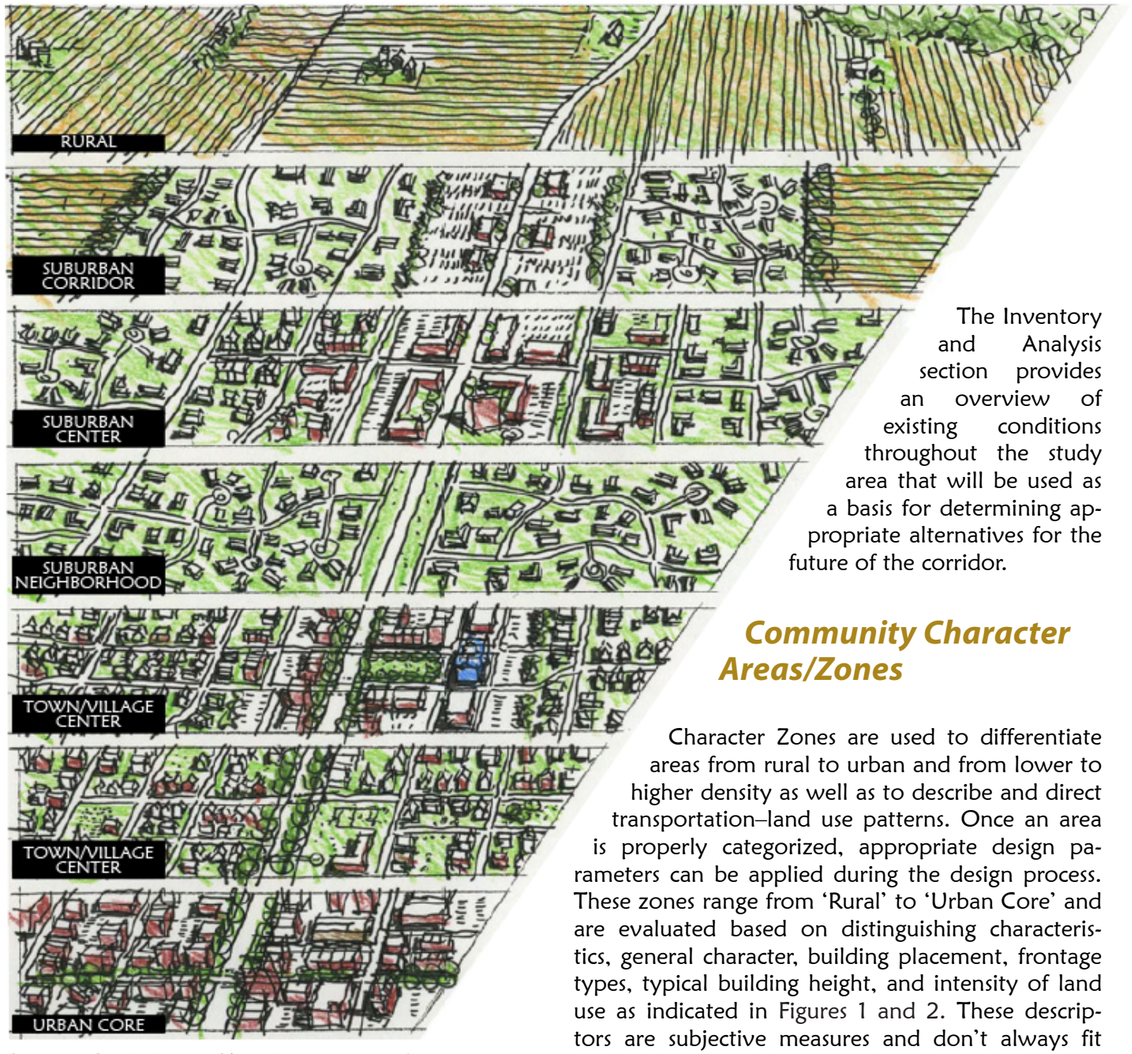


Figure 1: Context Zone Transition. Reprinted from the Smart Transportation Guidebook, PennDOT, NJDOT, 2008

The Inventory and Analysis section provides an overview of existing conditions throughout the study area that will be used as a basis for determining appropriate alternatives for the future of the corridor.

Community Character Areas/Zones

Character Zones are used to differentiate areas from rural to urban and from lower to higher density as well as to describe and direct transportation–land use patterns. Once an area is properly categorized, appropriate design parameters can be applied during the design process. These zones range from 'Rural' to 'Urban Core' and are evaluated based on distinguishing characteristics, general character, building placement, frontage types, typical building height, and intensity of land use as indicated in Figures 1 and 2. These descriptors are subjective measures and don't always fit into distinct categories. The Smart Transportation Guidebook (PennDOT, New Jersey Department of Transportation (NJDOT), March 2008) was used as a foundation for assessing the corridor.

Table 1 describes characteristics for specific Context Zones, all of which contain characteristics that describe the Business Route 62 corridor.

Identifying existing and desirable context zones is useful to planners and policy-makers for creating a framework for future growth. Planning for new developments and re-developments should reflect the desired context zone. Once the context is identified, context-sensitive treatments can be applied to enhance and improve the public realm.

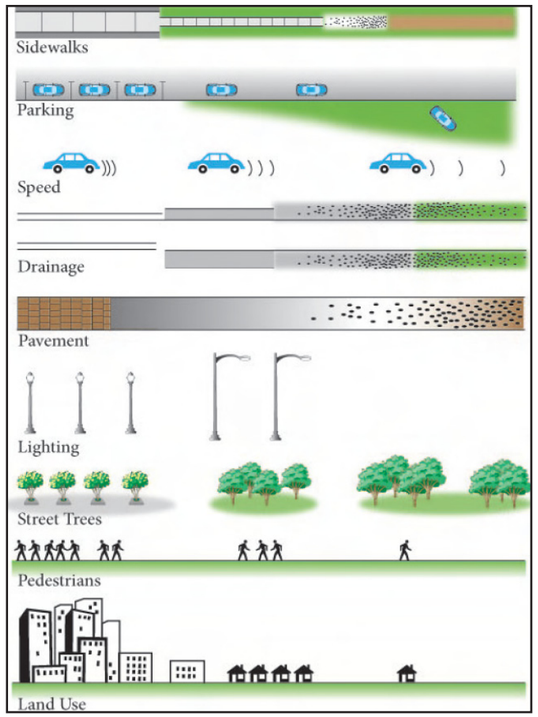


Figure 2: Urban to Rural. Reprinted from the Smart Transportation Guidebook, PennDOT, NJDOT, 2008

Given the diversity of transportation and land use characteristics throughout the corridor, the study area was broken into six Character Zones. Other factors that were taken into account when delineating the Character Zones included municipal boundaries and urban design considerations.

Planners and engineers have developed the concept of "context zones" that characterize place by corresponding transportation, land use, and urban design features. This strikes the balance between facilitating movement and preservation of "place."

Context Zone	Distinguishing Characteristics	Building Placement	Lot Frontage	Typical Building Height
Suburban Corridor	Primarily big box stores, commercial strip centers, restaurants, auto dealerships, office parks, and gas stations	Usually set back from roadway behind surface parking; 20-80 ft min/max setback	100-500 ft	Retail -1 story; office 3-5 stories
Suburban Center	Mixed-use, cohesive collection of land uses that may include residential, office, retail, and restaurant; typically designed to be serviced by car; less accomodating to pedestrians	20-80 ft min/max setback	100-300 ft	2 to 5 stories
Town/Village Neighborhood	Predominantly residential neighborhoods, sometimes mixed with retail, restaurants, restaurants, and offices; in urban places, residential buildings tend to be close to street; small retail establishments sometimes occupy principal corners; block sizes are regular and often small; majority have sidewalks; substantial pedestrian activity	Rowhouses fronting the sidewalk and houses setback 30 ft behind a front lawn are common; 10-20 ft min/max setback	18-50 ft	2 to 5 stories
Town/Village Center	Mixed-use, high density area with buildings adjacent to the sidewalk; commercial operations on ground floors and residential or offices above; parallel parking usually occupies both sides of the street; location of civic and cultural uses; highest pedestrian activity	Built to sidewalk; 0-20 ft min/max setback	25-200 ft	1 to 3 stories

Table 1: Context Zone Descriptions that Apply to the State Street/Irvine Avenue Corridor Study (PennDOT, NJDOT, March 2008)

Rachelle House

"Context Sensitive Solutions (CSS) is a philosophy wherein safe transportation solutions are designed in harmony with the community. CSS strives to balance the environmental, scenic, aesthetic, cultural and natural resources, as well as community and transportation needs."

- New York State Department of Transportation

Clepper Manor

Zone 1 - Irvine Gateway [Ohio State Line to State Street]

The character of this zone can be described as mostly residential in nature. There are two lanes of traffic that run north and south. The Shenango Valley Freeway connects with the southern end of the zone. There are commercial enterprises at the southern part and sparingly northbound. Sidewalks are present, measuring at three and a half feet (3.5) to four and a half feet (4.5). Much of the housing stock is older, with access roads set back off Irvine Avenue on side streets. This zone can qualify under the transect model as Town/Village Neighborhood.

Zone 2 - Sharon CBD [Irvine Avenue to Sharpsville Avenue]

Sharon's downtown has a mix of commercial, industrial, and institutional uses. Travel lanes are typically 12 feet wide with 8 foot parking spaces on both sides of the road. Sidewalks can be found throughout the zone, measuring an average of eight and a half (8.5) feet in width. Additionally, an average four (4) foot buffer is located between Water Street and Sharpsville Avenue. Painted crosswalks can be found at intersections and a mid-block locations west of the Shenango River. This zone best signifies Town/Village Center.

Zone 3 - Sharon Transitional [Sharpsville Avenue to City Line]

This two lane roadway contains cultural, residential, commercial, and institutional land uses. Measuring at 14 feet wide in each direction, there are no available parking spaces, however, there is a continuation of the sidewalk network. The Sharon Regional Health System can be found on southerly side at the State Street and Jefferson Avenue intersection. Two of the more iconic establishments in the corridor are also located here – Buhl Mansion and Daffin's Candies. Mid-block crosswalks are located in front of the hospital with "Yield to Pedestrians in Crosswalks" signs located in each crossing. Discussions with local residents have revealed that pedestrians will cross at any point along the road in front of the hospital. Additionally, the construction of the new Case Avenue Elementary School has relocated the districts' elementary children into the St. Joseph's Church, adjacent to the hospital. Zone 4 also contains Sharon Middle/High School. Zone 3 is best described as Suburban Center.

Zone 4 - Hermitage Transitional [City Line to Buhl Farm Drive]

The most obvious change in this zone from the first three zones in the transition to a four (4) lane roadway. The lanes measure 11 feet in width. Another change is the absence of a complete sidewalk network. Sidewalks that are identified are typically five (5) feet in width. The majority of land uses within the zone are commercially based. Businesses that have been recently built are required to install sidewalks. There are indications that pedestrians are present based on worn walking paths on the side of the road through strips of grass along property lines. Additionally, the number of driveways dedicated to each business has increased. Businesses may have two or more driveways servicing the establishment. Zone 4 is best labeled as Suburban Center.

Zone 5 - Hermitage Commercial [Buhl Farm Drive to Shenango Valley Freeway]

Commercial uses are the dominant presence in this zone. There are four lanes of traffic with inconsistent sidewalks. Lanes measure 11 feet in width with five (5) foot sidewalks. Those sidewalks that are present are buffered. The Shenango Valley Mall is located on the eastern edge of the zone, while the Hermitage Towne Plaza is located on the western portion. This zone has the highest annual average daily traffic (AADT) of the corridor. Larger "big box" stores are located here as well, including Kmart and Lowe's, as well as the area's tallest buildings, First National Bank. This area is generally labeled as Suburban Corridor.

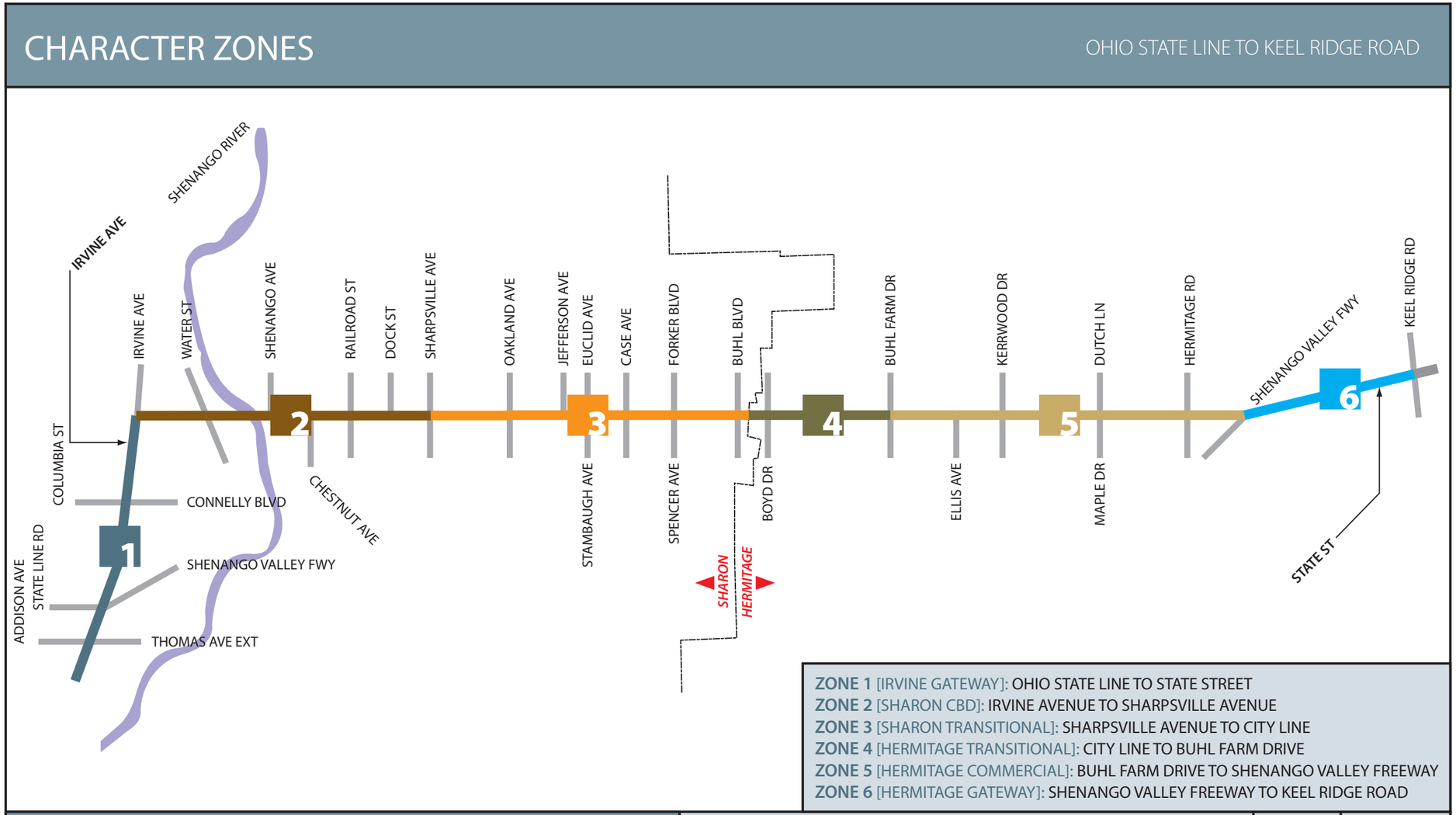
Zone 6 - Hermitage Gateway [Shenango Valley Freeway to Keel Ridge Road]

The final Character Zone in the corridor transitions into a two lane roadway with a center turn lane. Travel lanes measure 11 feet wide with a two foot shoulder. Disconnected sidewalks are present, as newer businesses like Dunkin Donuts have built them, while older companies have not. There is a mix of commercial and residential land uses throughout this section. First National Bank has an office located on the eastern edge of the zone. The area has been noted as a potential gateway based on its location. Additionally, Keel Ridge Road provides a clear indication of the transition into rural residential, as one travels eastward on State Street. Based on Table 1, this zone falls under the category of Suburban Corridor.

Theses zones are depicted in Figure 3 on the following page.

CHARACTER ZONES

OHIO STATE LINE TO KEEL RIDGE ROAD



ZONE 1 [IRVINE GATEWAY]: OHIO STATE LINE TO STATE STREET
ZONE 2 [SHARON CBD]: IRVINE AVENUE TO SHARPSVILLE AVENUE
ZONE 3 [SHARON TRANSITIONAL]: SHARPSVILLE AVENUE TO CITY LINE
ZONE 4 [HERMITAGE TRANSITIONAL]: CITY LINE TO BUHL FARM DRIVE
ZONE 5 [HERMITAGE COMMERCIAL]: BUHL FARM DRIVE TO SHENANGO VALLEY FREEWAY
ZONE 6 [HERMITAGE GATEWAY]: SHENANGO VALLEY FREEWAY TO KEEL RIDGE ROAD

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

Zone 1 · Zone 2 · Zone 3 · Zone 4 · Zone 5 · Zone 6 · Side streets

NORTH

NOTE:
NOT TO SCALE

SRF ASSOCIATES www.srfa.net Transportation Engineering & Planning Consultants
Steinmetz Planning Group
ingalls planning & design

Hillcrest Memorial Park

Figure 3: Character Zones

Photo simulation from Porter Way, looking south towards its intersection with West State St. Source: Sharon Comprehensive Downtown Revitalization Project

Hermitage Blvd rendering looking south towards the intersection of State St.
Source: Hermitage Town Center Plan

Photo-sim and Rendering

Recent Plans & Studies

Both cities have devoted a significant amount of time and energy in planning for the future of their communities as a whole and the State/Irvine Corridor. A bulk of the recommendations that are most relevant to this study are contained in the Joint Comprehensive Plan and the Sharon Vision Plan, These efforts are summarized below.

Joint Comprehensive Plan, 2007

This plan was developed for the Cities of Farrell, Hermitage, Sharon, and the Borough of Wheatland. Since its completion, the Plan has been formally adopted by Farrell, Wheatland, and Sharon. The Joint Comprehensive Plan is nearly 300 pages in length and contains a regional vision statement and goals that address 13 topic areas. In addition, the Joint Comprehensive Plan incorporates recommendations from other planning efforts such as the Mercer County Comprehensive Plan, the Sharon Comprehensive Downtown Revitalization Project, the Penn State Shenango Campus Master Plan, and the Hermitage Town Center Plan. The recommendations that are most relevant to this study are as follows:

Community Image & Quality of Development - "Quality development is important to the image of the Region, and ensuing economic development. There are several approaches to encouraging quality development in the Region."

- Enhance street corridors, parking areas, and commercial facades in downtown Sharon. (See photo-sim, upper figure).
- Introduce a mix of land uses, public spaces, more comfortable pedestrian accommodations, coordinated signage and more attractive commercial development in Hermitage. (See rendering, lower figure).
- Develop the necessary zoning language and review procedures to successfully regulate architecture.
- Utilize liner buildings to fill existing gaps in the streetscape and screen parking lots in downtown Sharon. (See photo-sim, upper figure).
- Support the projects identified in the Master Plan for the Penn State Shenango Campus.
- Foster a mixing of land uses within appropriate areas, including downtown Sharon and the Town Center of Hermitage.
- Create a Corridor Overlay Zoning District for East State Street.

Livable Communities - "Elements of livable communities which should be addressed in new development and redevelopment include:"

- Methods of controlling the safety and esthetic impacts of automobiles.
- Provision for interconnected, multi-purpose streets.
- Provision for community gathering places and settings for public, market, or institutional uses, such as greens and squares.
- Provision for mixed uses and range of housing opportunities in terms of type, cost, and type of household targeted. Appropriate uses might include convenience and neighborhood service businesses and civic and community functions.
- Physical and visual access to and incorporation of natural resources.
- Provision of useful open space which is safe, comfortable, and linked to other uses.
- Architectural elements and appearance which complement the existing built environment.
- Preservation of important character-defining historic, architectural, and landscape features. New development should fit into its environment rather than destroy and/or redefine it.

Smart Growth

The Comprehensive Plan also endorses the principles of Smart Growth that have been established by the USEPA. In short, Smart Growth is described as "development that serves the economy, community, and the environment." The Plan supports the following Smart Growth Principles:

1. Plan for mixed land uses.
2. Take advantage of compact building design.
3. Create a range of housing opportunities and choices.
4. Create walkable neighborhoods.
5. Foster distinctive, attractive communities with a strong sense of place.
6. Preserve open space, farmland, natural beauty, and critical environmental areas.
7. Strengthen and direct development towards existing communities.
8. Provide a variety of transportation choices.
9. Make development decisions predictable, fair and cost effective.
10. Encourage community and stakeholder collaboration in development decisions.

Anchors, Linkages, & Corridors Within the Region - "Corridors in the Region, such as East State Street and the Shenango River play several major roles. They provide a means of access to the Region and access to other areas outside the Region, they link portions of the Region together, they link the Anchors of Sharon and Hermitage, and they contribute to the image of the Region." In order to capitalize on these assets the Plan recommends that the communities work together to:

- Enhance the role of downtown Sharon as one of the primary anchors in the region. The vision for downtown includes; an attractive and vibrant district that is hospitable and known as, "the place to be."
- Establish the Town Center Area of Hermitage as a memorable destination that is unique and recognizable due to its blend of commercial uses and public spaces. These assets should be safely accessible by car or on foot.
- Prepare a concept plan for East State Street that identifies appropriate land uses, operational and safety improvements, and design strategies to improve the look, feel, and function of the corridor.
- Capitalize on the presence of the Shenango River in downtown Sharon. (See sketch rendering to the right).
- Develop the Sharpsville/Wheatland North-South Biking Corridor.
- Highlight the various gateways along Irvine Avenue and State Street using signage and various design elements.

Community Facilities & Services Plan - The Joint Comprehensive Plan identifies a number of public projects, programs, and facilities including:

- Cooperative planning for enhancements to the State Street Corridor and development of consistent overlay zoning.
- Enhance pedestrian and bicycle facilities and interconnections within the Region.
- Develop and support development of on-road and off-road trails that link residential neighborhoods with park facilities.
- Build a footbridge across the Shenango River connecting Penn State Shenango to downtown Sharon.
- Enhance Stambaugh Avenue/State Street Intersection.
- Establish and/or implement, as applicable, design guidelines for the cities and borough consistent with the existing character of their streetscapes.
- Promote high quality, coordinated development, landscaping, and signage at gateways to and along the major roadway corridors to established town centers to provide a sense of place, create a favorable impression, and foster pride in the community.

Transportation & Circulation Plan - "There is a direct connection between land use planning and transportation, one cannot plan for one and ignore the other. The transportation system needs to provide each community with adequate access to the system; support economic development and revitalization efforts; serve but not adversely affect residential areas; and provide access to destinations within the Region." In order to achieve this the Plan recommends the following policies:

- Coordinate land use and zoning with roadway network capacities.
- Use access management techniques along the major road corridors in the Region.
- Continue to upgrade intersections within the Route 62 corridor, address congestion, and revitalize and enhance the corridor with improvements such as sidewalks, screening, landscaping, and design standards.
- Continue to improve and increase the connectivity of the Region's bicycle and pedestrian network.

Riverfront & Pedestrian Bridge Improvements at Silver Street

Riverfront Sketch

Economic Development Plan - "The first step to improve the climate for economic development and develop a community wide vision is to identify the crucial or 'target areas' that present the most future economic development potential in the Region. The Region's most intense future commercial development should occur: along Business Route 62, PA Route 18, PA Route 60 Corridor, Ohio Street, Sharpsville Avenue Corridor, Route 718 Corridor in Wheatland, and the Shenango River." To be successful, the Plan articulates the following approach as part of the Region's Economic Development Plan:

- "Business Route 62 Corridor – Sharon and Hermitage The commercial areas in the cities of Sharon and Hermitage are found along State

Street from downtown Sharon to North Keel Ridge Road in Hermitage. The development potential for these areas includes larger scale retail (primarily in Hermitage), offices, ancillary commercial uses, residence serving uses, and cultural and tourist attractions. In downtown Sharon and the town center of Hermitage, the uses should adhere to design standards that encourage visual consistency along the corridor by regulating access management, signage, landscaping, setbacks, and streetscape improvements. The westernmost portion of the corridor will over time experience revitalization of an older industrial area."

Other Plan Sections - The Joint Comprehensive Plan is an extremely thorough document that is difficult to summarize in a few pages. The remaining plan sections that are not summarized here include:

- Historic Preservation and Natural Resource Plan.
- Implementation/Priority Actions.
- Existing and Future Land Use. These two topics are discussed in greater detail in subsequent sections of this Inventory and Analysis document.

The best way to get a complete understanding of the Joint Comprehensive Plan is to read the entire document, understand what it means to you and then look for opportunities to get involved in implementing the plan.

Joint Comprehensive Plan: Appendix I

The first appendix of the Joint Plan is entitled, "Potential Elements of Corridor Improvement Programs." This Appendix provides a detailed outline of the tasks necessary to transform the major travel routes within the Region using a multi-disciplinary approach. The steps listed in Appendix I are serving as the foundation for the State Street/ Irvine Avenue Corridor Study. The key components of a Corridor Improvement Program listed in the Comprehensive Plan are as follows:

- Coordination of traffic signals.
- Employ land use tools such as Traditional Neighborhood Development (TND) to help preserve transportation capacity. TND's, with a mix of residential, commercial, and professional uses within walking distance of each other, could reduce the need for automobile trips.
- Site design guidelines and standards are important in corridor management programs, and include:
  - Lots that do not require direct access to the arterial.
  - Siting commercial buildings nearer to roads and providing for parking to the rear of lots with access to secondary roads and/or interconnected parking areas.
  - Installing mid-block crossings for pedestrians and bicyclists.
  - Requiring connections between parking lots and building entrances.
  - Minimizing the number of conflict points.
  - Providing incentives for smaller and fewer signs.
  - Encouraging attractive, interesting building design.
- Access management plans - Access management plans address provision of access to adjacent land while simultaneously preserving the flow of traffic on the road system in terms of safety, capacity, and speed. Typical access management strategies include:
  - Reducing/limiting the number of curb cuts.
  - Requiring shared access points and connectivity between parcels.
  - Reducing the number of parking spaces by permitting shared parking arrangements among individual businesses.
- Construction of bicycle, pedestrian, and transit accommodations.

In order to be successful, proper planning must provide the foundation for the regulatory changes and capital improvements necessary to transform an auto-oriented highway to a mixed-used, multi-modal corridor that is a source of pride for residents and business owners.

Sharon Vision Plan, 2011

The Sharon Vision Plan was initiated and led by a local group of volunteers. The result is a plan that was developed with the input and work of over 400 concerned residents and stakeholders through survey, focus groups, and work groups conducted in 2010 to propose a new direction that will define the future of Sharon and its role in the greater Shenango Valley. As part of the planning process, a brainstorming exercise was conducted to identify the City's strengths, weaknesses, opportunities, and threats. The results are summarized below:

Strengths
- Local community based nonprofits, colleges, and hospitals.
- Affordable housing.
- Walkable downtown and neighborhoods.
- Shenango River runs through center of downtown.
- Architecture historic mills, homes and churches.

Weaknesses
- Lack of civic engagement and institutions with disorganized and thinly spread resources.
- Inadequate governing capacity due to limited financial resources.
- Diminished employment and residential tax base coupled with shrinking federal and state subsidies for redevelopment has caused the City to struggle to provide basic resources.
- Chronic negative collective mindset beginning in the 1980's.

Opportunities
- Increase use/revival of industrial fields.
- Utilize "assets" for marketing and branding purposes.
- Develop Riverfront Historic Downtown Center.
- Recreational Development.
- Expand upon businesses with current reputation for drawing tourism.
- Affordable Access to Housing and Commercial Properties.

Threats
- Neighborhoods Declining, Rising Crime activity.
- Apathy / Prevailing Negative Attitudes.
- Lack of Leadership / Shared Vision.
- Complacency.
- Declining or decaying infrastructure.

The vision plan acknowledges the traditional and non-traditional obstacles that Sharon currently faces. Traditional obstacles include, lack of funding, aging infrastructure, and high unemployment. Non-traditional obstacles include: 1) Lack of civic engagement and institutions; 2) Inadequate governing capacity; and 3) Chronically negative collective mindset. The plan's primary focus is to develop an involved community first, and then utilize that community to solve issues.

The Vision Plan contains 10 guiding principles. Principle #8 is directly related to this corridor study. It states the need for, "Streamlined, efficient, and attractive gateways and corridors into the City facilitating Sharon's new image as a 'destination'." In order to achieve this principle, Sharon should:

1. Enhance resources to promote consistent and effective code enforcement.
   - Investigate ways to support the effort of the code officer (volunteers, interns, clerical support, support systems).
   - Adopt a "top ten" code violations list that would assist residents to fix violations. Communicate and assist.
2. Prioritize infrastructure projects that relate to gateway and corridor improvements.
   - Promote improved aesthetics and community pride through establishment of "Adopt a Site/Block Program".
   - Install effective/attractive signage on gateways and corridors.
   - Focus code enforcement on the key-ways to the City.

Existing Land Use

The existing land use pattern within the Study Area is shown in Figure 4 and is summarized below:

Commercial - Commercial activity is sporadic along Irvine Avenue. Beginning at the Irvine Avenue/State Street intersection, commercial activity starts to dominate the corridor. In general, small to mid-sized commercial uses begin in downtown Sharon and continue east to N. Buhl Farm Drive. East of N. Buhl Farm Drive large scale plazas, malls, and office buildings have been developed in the vicinity of North Hermitage Road. East of the Shenango Valley Mall, the commercial uses drop in scale and can be described as mid-sized.

Public & Institutional - There are a number of public and institutional uses within the Study Area. These include but are not limited to the Sharon Regional Health System, the Case Avenue Elementary School, the Sharon Middle and High School Campus, the Juniper Village Inn Assisted Living Facility, and the Hillcrest Memorial Park.

Industrial - According to the existing land use map, there is very little to no industrial activity that actually fronts the State/Irvine Corridor. However, there continues to be a significant amount of industrial activity to the north and south of downtown Sharon. This location provides industrial operations with access to the existing rail line that runs north and south through the City of Sharon. There are no industrial operations within the vicinity of East State Street in the Hermitage.

Single Family Residential - Although the land uses along South Irvine Avenue are varied, it can be said that the single family homes remain the dominate land use pattern. However, east of the Irvine Avenue/State Street intersection to Keel Ridge Road, there are less than 10 properties classified as single family residential. East of downtown Sharon, there are a number of well-established single family neighborhoods to the north and south, behind the non-residential uses that front East State Street. These neighborhoods continue into Hermitage.

Duplex - A review of the existing land use map indicates that there are a number of duplexes located along and near South Irvine Avenue and east of downtown Sharon along East State Street. There are very few (less than six) located in the Study Area within Hermitage.

Multi-Family - There are a number of multi-family residential developments within and near the Study Area. These include but are not limited to; the Willow Village Apartments, G. J. Vermeire Manor, Riverview Manor, and Hermitage Hills Apartments.

Mixed-Use - There are approximately a dozen properties classified as mixed-use that are along East State Street. There are no mixed use properties along Irvine Avenue.

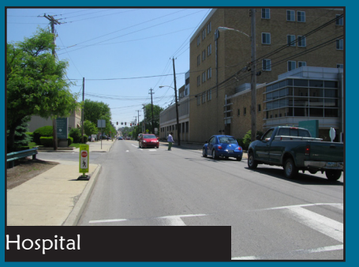
Vacant - The Irvine Avenue/State Street Corridor is nearly fully developed. According to the existing land use map, there are approximately two-dozen properties classified as vacant.

Photos of existing land uses within the Study Area


Homes along Irvine


Downtown Sharon


Sharon High School


Hospital


Commercial opportunities on State


Town Center

Mall


East of Mall

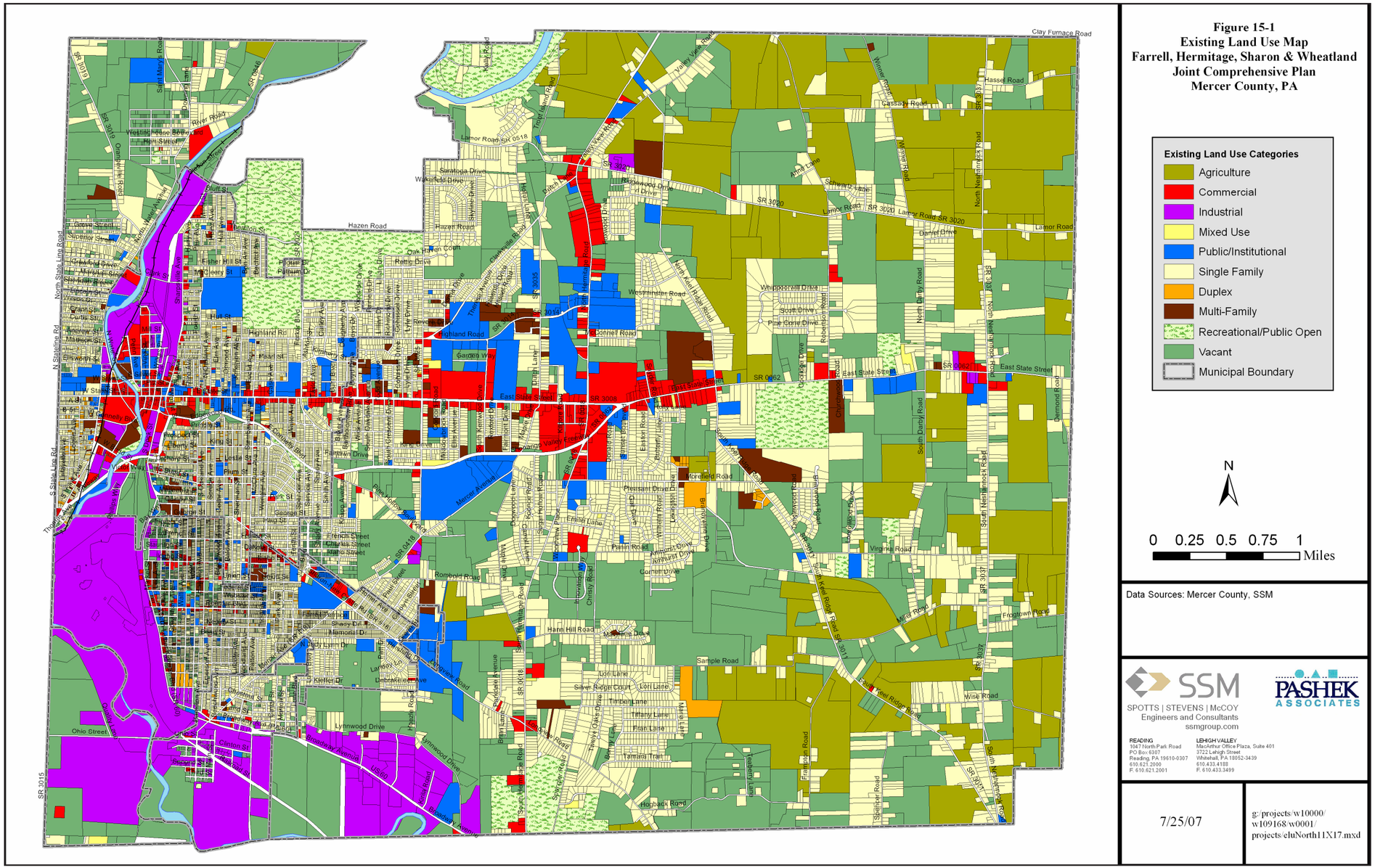


Figure 4: Existing Land Use Map (Reprinted from the 2007 Joint Comprehensive Plan)

Existing Zoning

City of Sharon

Sharon has eleven zoning classifications. The majority of the properties that will be considered for the purposes of this study are included in the districts that are summarized in this section. The location and extent of these districts can be seen in the City Zoning Map (Figure 5). This section is intended to provide a summary of the existing zoning regulations for Sharon rather than an exhaustive explanation of applicable regulations.

Two definitions that should be noted to better understand the zoning districts are as follows:

1. Conditional Use - "A use permitted in a particular zoning district pursuant to the provisions of this Ordinance and in accordance with the Pennsylvania Municipalities Planning Code."

2. Special Exception - "A use permitted with special permission granted by the Zoning Hearing Board, to occupy and use land and/or a building for specific purposes in accordance with the criteria set forth in this Ordinance when such use is not permitted by right."

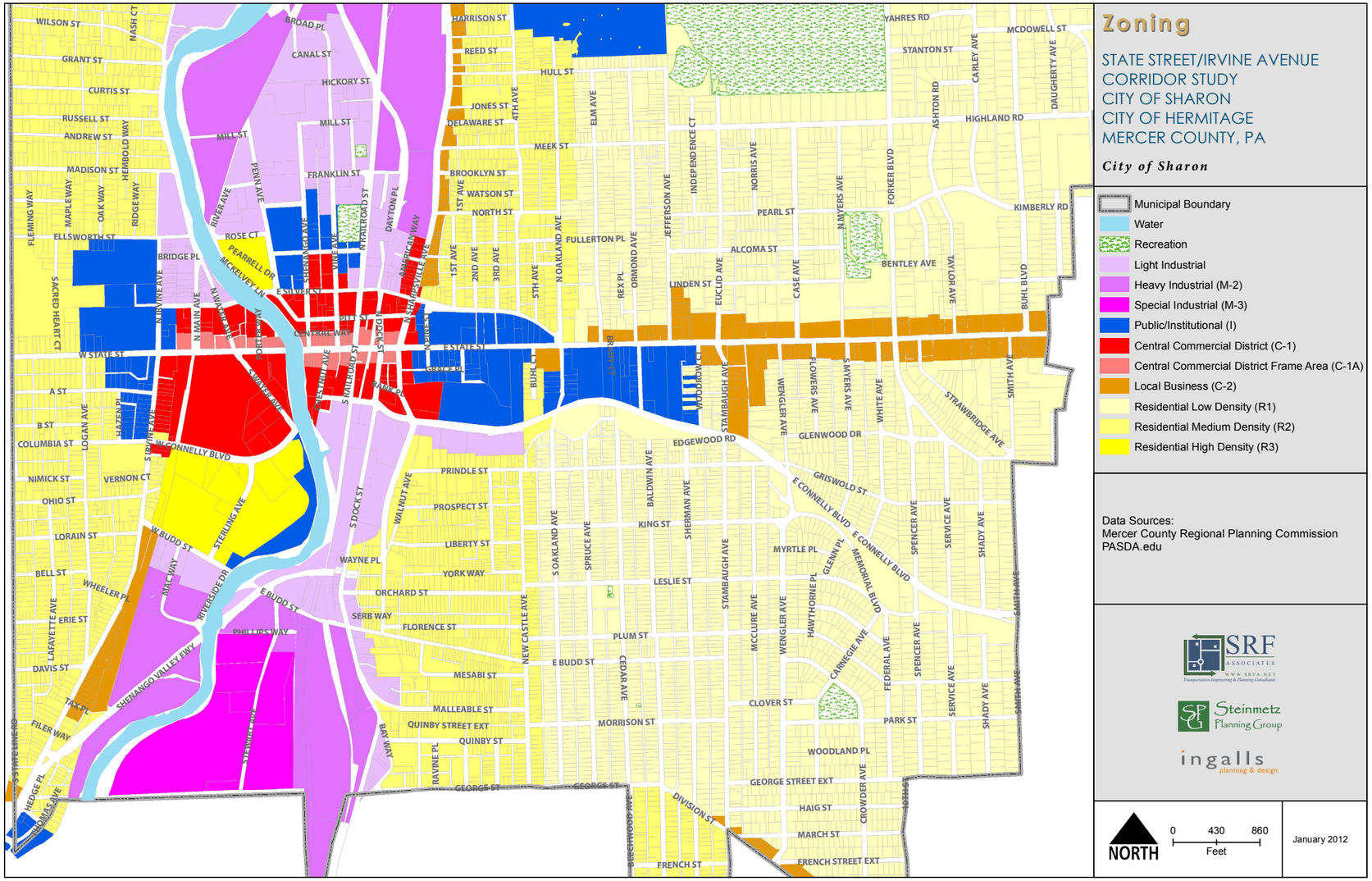


Figure 5: Existing Zoning (Sharon)

City of Sharon
Residential Low Density (R-1) District

Purpose Statement - Districts designated for residential use are for dwellings and uses normally associated with residential neighborhoods. This zone is for single family dwellings and related uses.

Permitted Uses - Single-Family Dwellings
No-Impact Home-Based Businesses
Accessory Uses / Structures
Rooming / Boarding Houses
Public Recreation
Essential Services
Public Utility Substations

Special Exceptions - Home Occupations
Churches
Schools
Cemeteries
Family Day Care Home

Conditional Uses - None

Dimensional Requirements -

Minimum Lot Area	7,500 sf
Minimum Lot Width	60 ft
Minimum Front Yard	20 ft
Total Side Yards	20 ft
Minimum Side Yard	5 ft
Minimum Rear Yard	30 ft
Maximum Lot Coverage	30%
Maximum Height Structure	40 f

City of Sharon
Residential Medium Density (R-2) District

Purpose Statement - Districts designated for residential use are for dwellings and uses normally associated with residential neighborhoods. This district is established to provide an area of single-family, two-family, and some multifamily dwellings in a varied residential setting.

Permitted Uses - Single-Family Dwellings
Two-Family Dwellings
No-Impact Home Based Businesses
Boarding / Rooming Houses
Accessory Uses / Structures
Public Recreation
Multi-Family Dwellings
Schools
Churches
Public Utility Substations
Essential Services

Special Exceptions - Home Occupations
Personal Care Boarding Homes
Conversion Apartments
Adult Day Care
Group Day Care Homes
Family Day Care Homes
Kennels & Veterinary Offices

Conditional Uses - Planned Residential Development

Dimensional Requirements -	Single/Duplex/Multi-Family
Minimum Lot Area	7,500 / 10,000 / 10,000 sf
Minimum Lot Width	60 / 80 / 80 ft
Minimum Front Yard	20 / 20 / 20 ft
Total Side Yards	20 / 30/ 30 ft
Minimum Side Yard	5 / 5 / 10 ft
Minimum Rear Yard	30 / 30 / 30 ft
Maximum Lot Coverage	30 / 30 / 35%
Maximum Height Structure	40 / 40 / 40 ft

City of Sharon
Institutional (I) District

Purpose Statement - The purpose of this district is to permit a compatible mix of multi-family, residential, institutional, and limited commercial uses in specified areas within the City.

Permitted Uses - Hospitals
Professional Offices
Medical & Dental Clinics
College and University
Libraries
Museums
Bed & Breakfast
Churches
Schools
Funeral Homes
Multi-Family Dwellings
Single-Family Dwellings
Two-Family Dwellings
Kennels & Veterinary Clinics
Boarding and Rooming Houses
Day Care Facilities
Adult Day Care Services
Personal Care Boarding Homes
Nursing Homes
Group Homes
Accessory Uses / Structures
Public Utility Substations
Essential Services

Special Exceptions - None

Conditional Uses - Planned Residential Development
Traditional Neighborhood Development

Dimensional Requirements -

Minimum Lot Area	7,500 sf
Minimum Lot Width	60 ft
Minimum Front Yard	15 ft
Total Side Yards	20 ft
Minimum Side Yard	10 ft
Minimum Rear Yard	30 ft
Maximum Lot Coverage	35%
Maximum Height Structure	40 ft

City of Sharon
Central Commercial (C-1) District

Purpose Statement - This district is specifically designed to best use the existing downtown Sharon business district. It allows for a wide range of commercial, service, office, retail, and related uses to serve the entire community. Most off-street parking and loading/unloading requirements are eliminated for this zone. This Central Commercial District is divided into two categories, Zone C-1 being the immediate Downtown area and Zone C-1A includes the Downtown's frame areas.

Permitted Uses -
- Retail Businesses
- Personal Services
- Offices
- Eating & Drinking Establishments
- Hotels & Motels
- Indoor Commercial Recreation
- Medical Clinics
- Dental Clinics
- Professional Offices
- Social & Fraternal Clubs
- Retail Manufacturing
- Personal & Business Services
- Residences as a Secondary Use
- Parking Lots / Structures
- Public Utility Substations
- Accessory Uses / Structures
- Essential Services

Special Exceptions - None

Conditional Uses - Traditional Neighborhood Development

Dimensional Requirements -

Minimum Lot Area	None
Minimum Lot Width	None
Minimum Front Yard	None
Total Side Yards	None
Minimum Side Yard	None
Minimum Rear Yard	10 ft
Maximum Lot Coverage	95%
Maximum Height Structure	100 ft

City of Sharon
Central Commercial Frame Area (C-1A) District

Purpose Statement - This district is specifically designed to best use the existing downtown Sharon business district. It allows for a wide range of commercial, service, office, retail, and related uses to serve the entire community. Most off-street parking and loading/unloading requirements are eliminated for this zone. This Central Commercial District is divided into two categories, Zone C-1 being the immediate Downtown area and Zone C-1A includes the Downtown's frame areas.

Permitted Uses -
- Retail Businesses
- Personal Services
- Offices
- Eating & Drinking Establishments
- Hotels & Motels
- Indoor Commercial Recreation
- Medical Clinics
- Dental Clinics
- Professional Offices
- Social & Fraternal Clubs
- Retail Manufacturing
- Personal & Business Services
- Light Manufacturing
- Public Utility Substations
- Residences as a Secondary Use
- Accessory Uses / Structures
- Essential Services

Special Exceptions - None

Conditional Uses - Traditional Neighborhood Development

Dimensional Requirements -

Minimum Lot Area	None
Minimum Lot Width	None
Minimum Front Yard	None
Total Side Yards	None
Minimum Side Yard	None
Minimum Rear Yard	10 ft
Maximum Lot Coverage	95%
Maximum Height Structure	100 ft

City of Sharon
Local Business (C-2) District

Purpose Statement - This district is designed to accommodate a wide range of commercial, service, and related uses.

Permitted Uses -
- Automotive Dealers
- Convenience Stores
- Child Day Care Centers
- Social & Fraternal Clubs
- Eating & Drinking Establishments
- Medical Clinics
- Dental Clinics
- Parking Lots / Structures
- Personal Services
- Retail Business
- Retail Manufacturing
- Automotive Services
- Professional Offices
- Residences as a Secondary Use
- Kennels & Veterinary Offices
- Accessory Uses / Structures
- Public Utility Substations

Special Exceptions -
- Car Washes
- Shopping Centers / Large Scale Retail

Conditional Uses - Traditional Neighborhood Development

Dimensional Requirements -

Minimum Lot Area	7,500 sf
Minimum Lot Width	60 ft
Minimum Front Yard	15 ft
Total Side Yards	20 ft
Minimum Side Yard	10 ft
Minimum Rear Yard	30 ft
Maximum Lot Coverage	35%
Maximum Height Structure	40 ft

City of Hermitage

Hermitage has twenty three zoning classifications. The majority of the properties that will be considered for the purposes of this study are included in the districts that are summarized in this section. The location and extent of these districts can be seen in the City Zoning Map (Figure 6). This section is intended to provide a summary of the existing zoning regulations for Hermitage rather than an exhaustive explanation of applicable regulations.

Two definitions that should be noted to better understand the zoning districts are as follows:

1. Conditional Use - "Such uses may be granted or denied by the Board of Commissioners in accordance with the express standards and criteria of this Ordinance and after the review and recommendations of the Planning Commission."

2. Special Exception - "Special exceptions may be granted or denied by the Zoning Hearing Board in accordance with the express standards and criteria of this Ordinance."

"In granting a conditional use or special exception, the approving body may attach such reasonable conditions and safeguards as it may deem necessary to implement the purposes of this Ordinance."

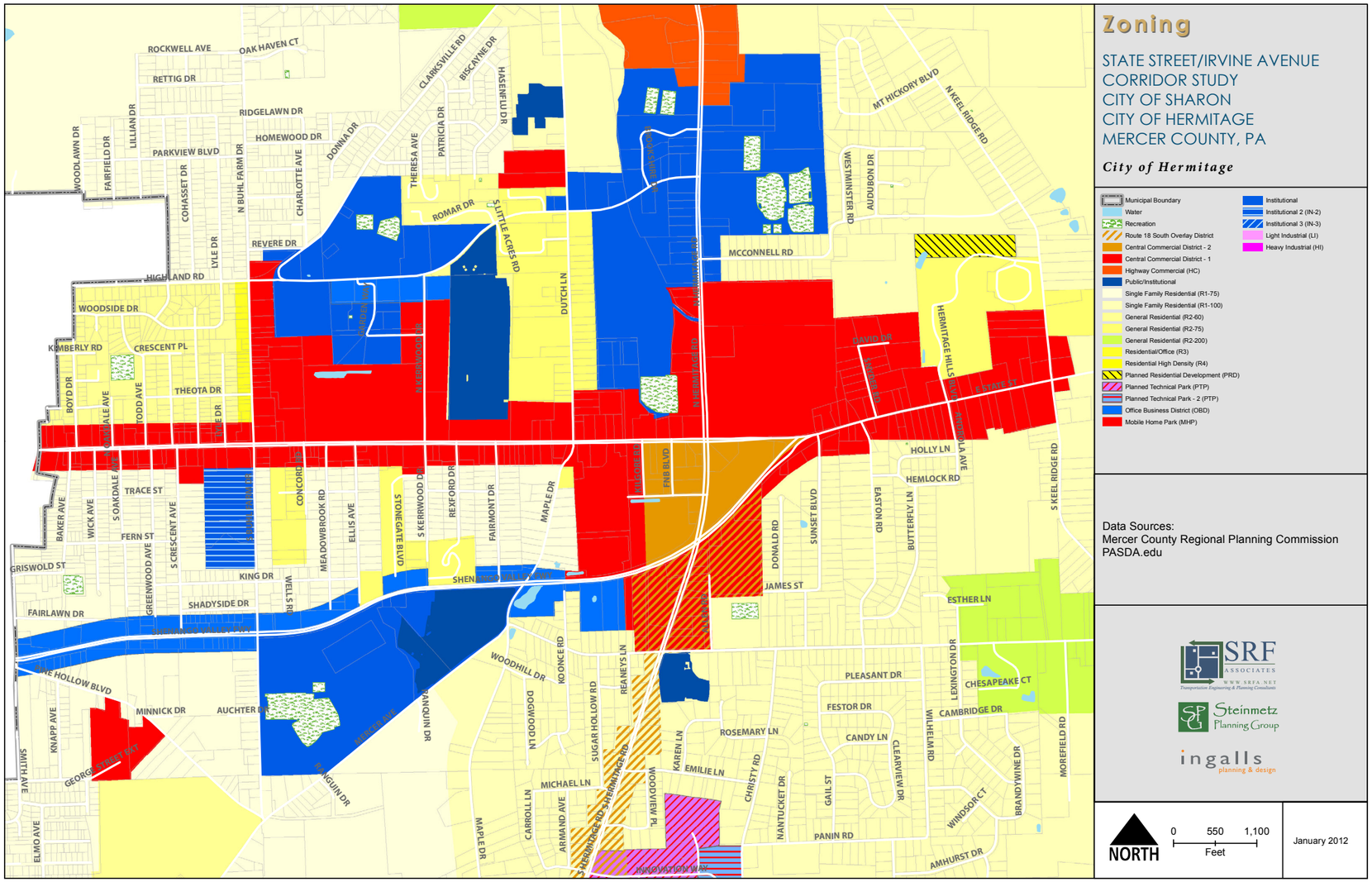


Figure 6: Existing Zoning (Hermitage)

City of Hermitage
Central Commercial (CC-1) District

Purpose Statement - The Commercial Districts are designed to provide for needed commercial and related activities within the City. CC-1 Central Commercial is designed to accommodate a wide range of commercial and related uses.

Permitted Uses -
Retail Businesses
Personal & Professional Services
Laundromats
Frozen Food Lockers with Retail
Offices & Professional Offices
Financial Institutions & Governmental Buildings
Parking Garages
Theaters, Bowling Alleys & Skating Rinks
Restaurants & Drive-In Restaurants
Commercial Amusement
Funeral Homes
Computer Assembly & Software Development
Motels
Day Care Centers
Multi-Family Dwellings
Communications Antennas
Accessory Uses & Buildings
Essential Services

Special Exceptions -
Public Utility Substations
Veterinary Clinics
Service Stations
Used Car Sales
New Car Sales & Service
Builders' Supplies
Auto-Truck Repair
Boat & Trailer Sales/Storage & Repairs

Conditional Uses - Adult Businesses

Dimensional Requirements -

Minimum Lot Area	30,000 sf
Minimum Lot Width (Corner lot/Interior Lot)	150/100 ft
Minimum Front Yard	10 ft
Minimum Side Yard	20 ft
Minimum Rear Yard	50 ft
Maximum Lot Coverage	40%
Maximum Height Structure	60 ft

City of Hermitage
Central Commercial (CC-2) District

Purpose Statement - The Commercial Districts are designed to provide for needed commercial and related activities within the City. The uses in this district are the same as CC-l, however, more intense development is permitted.

Permitted Uses -
Retail Businesses
Personal & Professional Services
Laundromats
Frozen Food Lockers with Retail
Offices & Professional Offices
Financial Institutions & Governmental Buildings
Parking Garages
Theaters, Bowling Alleys & Skating Rinks
Restaurants & Drive-In Restaurants
Commercial Amusement
Funeral Homes
Computer Assembly & Software Development
Motels
Day Care Centers
Multi-Family Dwellings
Communications Antennas
Accessory Uses & Buildings
Essential Services

Special Exceptions -
Public Utility Substations
Veterinary Clinics
Service Stations
Used Car Sales
New Car Sales & Service
Builders' Supplies
Auto-Truck Repair
Boat & Trailer Sales/Storage & Repairs

Conditional Uses - Adult Businesses

Dimensional Requirements -

Minimum Lot Area	30,000 sf
Minimum Lot Width (Corner lot/Interior Lot)	150/100 ft
Minimum Front Yard	10 ft
Minimum Side Yard	20 ft
Minimum Rear Yard	50 ft
Maximum Lot Coverage	40%
Maximum Height Structure	90 ft

Zoning Requirements that Enhance Character, Aesthetics & Connectivity

The Zoning Ordinances for the cities of Sharon and Hermitage each contain provisions that are intended to, "create a pleasant, attractive, healthy and convenient environment for living, working, shopping, and relaxing." In order to accomplish this, each code has incorporated the following requirements:

City of Sharon

- Sharon has provisions for large shopping centers that require sidewalks throughout the site, building entrances that face the street, and limits the amount of parking that can be placed between the building and the street and the number of access drives into the site.
- Any parking area for more than five spaces must have a planting strip between the front lot line and the parking lot at least five feet wide.
- For properties within 100 ft of the river or located within the Central Commercial Frame Area District, there are provisions that address the design of buildings and facades.
- The Traditional Neighborhood Development District (TND) is a tool that can be used in non-residential districts of the City upon approval of a Conditional Use Permit. The intent of TND is to provide flexibility in the use and layout of a parcel or site while fostering traditional design elements such as new streets and alleys, sidewalks, building placement and design that adds to the public realm and street trees.

City of Hermitage

- No front yard parking is permitted for certain uses such as professional offices and clinics.
- Any parking area for more than five spaces must have a planting strip between the front lot line and the parking lot at least five feet wide.
- For parking lots over 120 spaces the developer must clearly mark pedestrian ways from the parking lot to the building and identify any special features such as bikeways.
- Extensive landscaping requirements must be satisfied for any non-residential development outside of a single family (R-1) zoning district. These include landscaping requirements for the building, access drives, street frontage and the parking lot.
- The Route 18 South Overlay District is intended to provide a wide variety of land use options while requiring new development to foster pedestrian activity, share access points, and coordinate signage, building setbacks and site design elements.

Off-Street Parking Requirements

Off-street parking requirements are generally contained in Section 408.2(b) of the Hermitage Zoning Code and Section 407.2(c) of the Sharon Zoning Code. Table 2 summarizes and compares the parking requirements of both cities. A review of the information contained in Table 2 indicates that Sharon and Hermitage have different parking requirements for a number of similar land uses. Those differences have been highlighted in the table using red text.

There are a number of additional parking provisions that should be noted here due to their impact on development and land uses along the Irvine Avenue/ State Street Corridor. These include:

- The elimination of all off-street loading and parking requirements within the C-1 Downtown Commercial District, "because of its developed nature and the location of service alleys, on-street and public parking."
- Current or future uses in the C-1 and C-1A Downtown Commercial Districts in Sharon shall not be required to provide loading spaces.
- An Alternative Parking Plan provision in Sharon allows a property owner to take into account bike parking, proximity to mass transit, on-street spaces or shared parking agreements to satisfy parking requirements.
- Maximum off-street parking allowances in Sharon limit the amount of parking that can be developed on a particular site.
- Hermitage requires the interconnection of off-street parking areas to reduce traffic congestion and the number of curb cuts along public streets.
- Both cities have addressed the parking needs of mixed uses on a single parcel by requiring the off-street parking needs for each individual use must be met.

	City of Hermitage REQUIRED SPACES		City of Sharon REQUIRED SPACES	
RESIDENTIAL USES	**#**	**UNIT**	**#**	**UNIT**
Single Family Dwelling	2	per dwelling	2	per dwelling
MF Dwelling Units w/ 2+ Bedrooms	2	per dwelling	1.5	per dwelling
MF Dwelling Units w/ 1.5 Bedrooms or less	1.5	per dwelling	1.5	per dwelling
PUBLIC / INSTITUTIONAL USES	**#**	**UNIT**	**#**	**UNIT**
Hospitals	1	per bed*	1	per bed*
Nursing Homes	1	per 3 beds	1	per 3 beds
Churches	1	per 4 seats	1	per 4 seats
Schools	1	per teacher & staff +	1	per teacher & staff on maximum shift
	1	per 4 classrooms +	1	per 4 classrooms +
	1	per 4 high school students	1	per 4 high school students
Community Buildings, Social Halls, Dance Halls, Clubs & Lodges	1	per 60 sf of public floor area	1	per 50 sf of public floor area
COMMERCIAL USES	**#**	**UNIT**	**#**	**UNIT**
Auto Sales	5	KSF	1	per 200 sf of indoor display
			1	per 5KSF of outdoor display
Auto Service Facilities	5	KSF	2	per service bay*
Banks & Offices	4	KSF	3.33	KSF
Bowling Alleys	5	per alley	4	per alley
Dental Offices	5	per physician	5	per physician
Fast Food/Drive-In Restaurants	1	per 2 patron seats	1	per 50 sf of gross floor area*
Food Supermarkets	5	KSF	4	KSF
Funeral Homes & Mortuaries	25	For 1st parlor	25	For 1st parlor
	10	For each additional parlor	10	For each additional parlor
Furniture Stores	2.5	KSF	2.5	KSF
Hotels & Motels	1	per guest room*	1	per guest room*
Medical Offices & Clinics	8	per physician	8	per physician
Retail Stores	5	KSF	4	KSF
Restaurants, Taverns & Nightclubs	1	per 2.5 patron seats	1	per 2.5 patron seats
Roller Rinks	5	KSF	5	KSF
Sports Arenas, Stadiums, Theaters, Auditoriums, & Assembly Halls	1	per 3 seats	1	per 3 seats
Trailer & Monument Sales	1	2,500 sf of lot area	1	2,500 sf of lot area
INDUSTRIAL USES	**#**	**UNIT**	**#**	**UNIT**
Industrial & Manufacturing Establishments, Warehouses, & Wholesaling	1	per employee on the largest shift + 1 space per each 10 KSF for visitors, up to 10 spaces	1	per employee on largest shift
Truck Terminals	1	per employee on the largest shift + 1 space per each 10 KSF for visitors, up to 10 spaces	1	per vehicle maintained on premises*

NOTES

*** = Plus one space per employee and staff on major shift.**

KSF = 1,000 sq ft of gross floor area.

Table 2: Off-street Parking Requirements

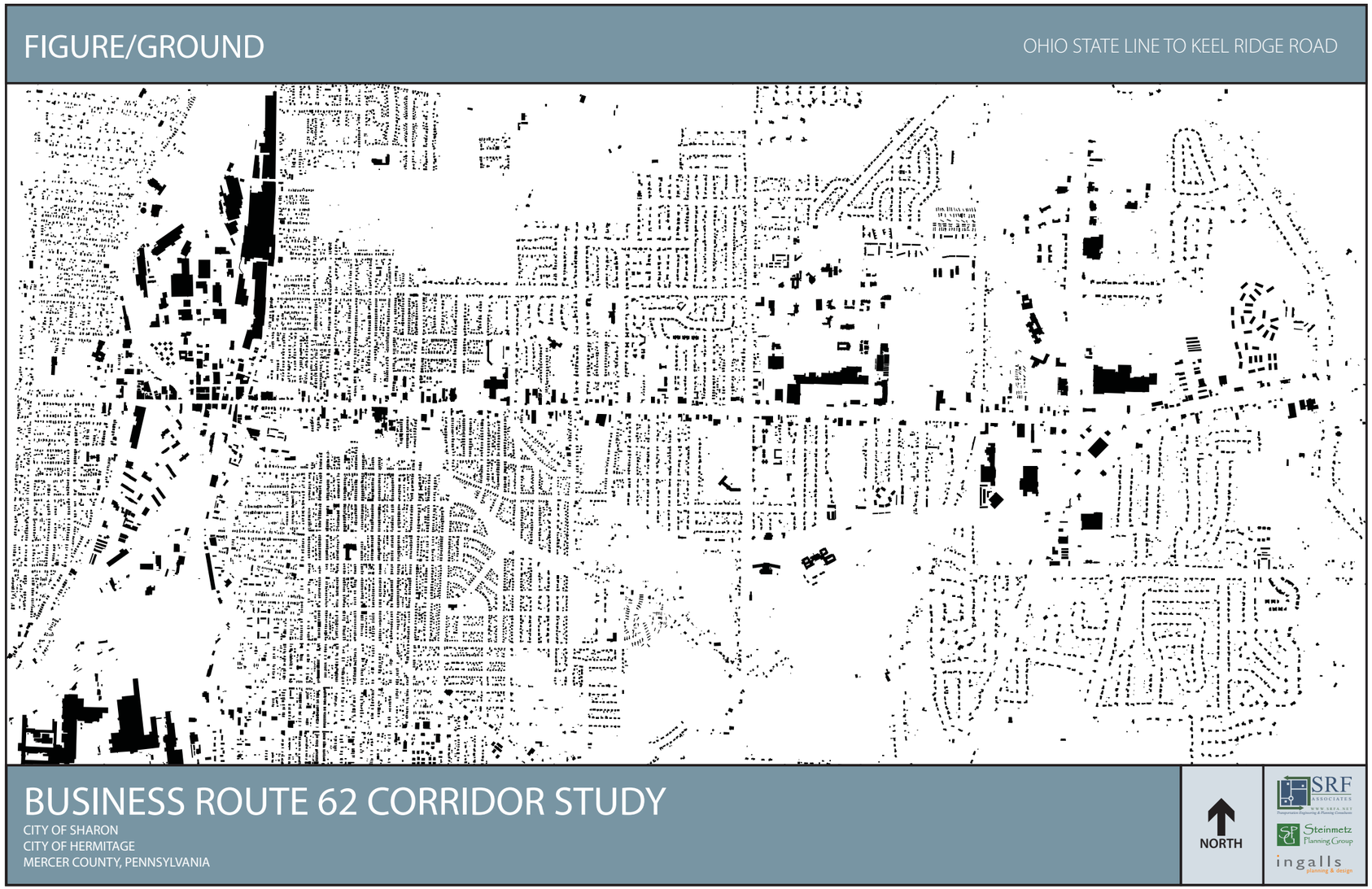


Figure 7: Figure/Ground Diagram

In addition to the land use patterns and zoning regulations, a figure/ground map assists in showing the spatial relationships between buildings and space along the corridor. Through this mapping technique, one can start to piece together a pattern of development, determine density and scale of the community fabric, and consider locations for future development.

An examination of Figure 7 reveals several interesting assumptions. The City of Sharon is built with a grid-like street pattern in mind, with a denser development structure. Along the corridor, buildings are larger in scale, as compared to those found in the residential neighborhoods. One can also begin to see a consistent setback of buildings in downtown Sharon, gradually increasing in setback distances as an individual travels eastward along the corridor. Buhl Farm Drive seems to be a demarcation line between two development patterns. To the west is generally denser residential development, with businesses and mixed-use facilities located with minimal setback from State Street. The area to the east shows that residential development is generally less dense and designed to residential subdivision standards. Commercial properties are also setback far from State Street, indicating large parking lots in front of the businesses. The largest buildings represent Hermitage Towne Plaza and the Shenango Valley Mall.

Existing Transportation Inventory - Transportation Characteristics

Transportation Facilities

US State Business Route 62 is a principal arterial highway that runs in an east/west orientation through the Cities of Hermitage and Sharon. Figure 8 illustrates the multitude of roadway classifications within the Cities of Sharon and Hermitage. The road is classified as a minor arterial through the Sharon CBD. The route is also known as both Irvine Avenue and State Street. State Street is separated into East and West orientations as delineated by the Shenango River. Irvine Avenue runs in a north/south orientation from the Ohio State line to West State Street. Between Irvine Avenue on the western side of the corridor and the Sharon/Hermitage city line, the roadway is two (2) lanes undivided with auxiliary turn lanes at most signalized intersections. Through the City of Hermitage, the roadway typically consists of four (4) travel lanes with a center turn lane. From the Shenango Valley Freeway to Keel Ridge Road, on the eastern side of the corridor, the roadway is two (2) lanes with a center turn lane. Figures 9 through 14 illustrate representative cross-sections for each Character Zone.

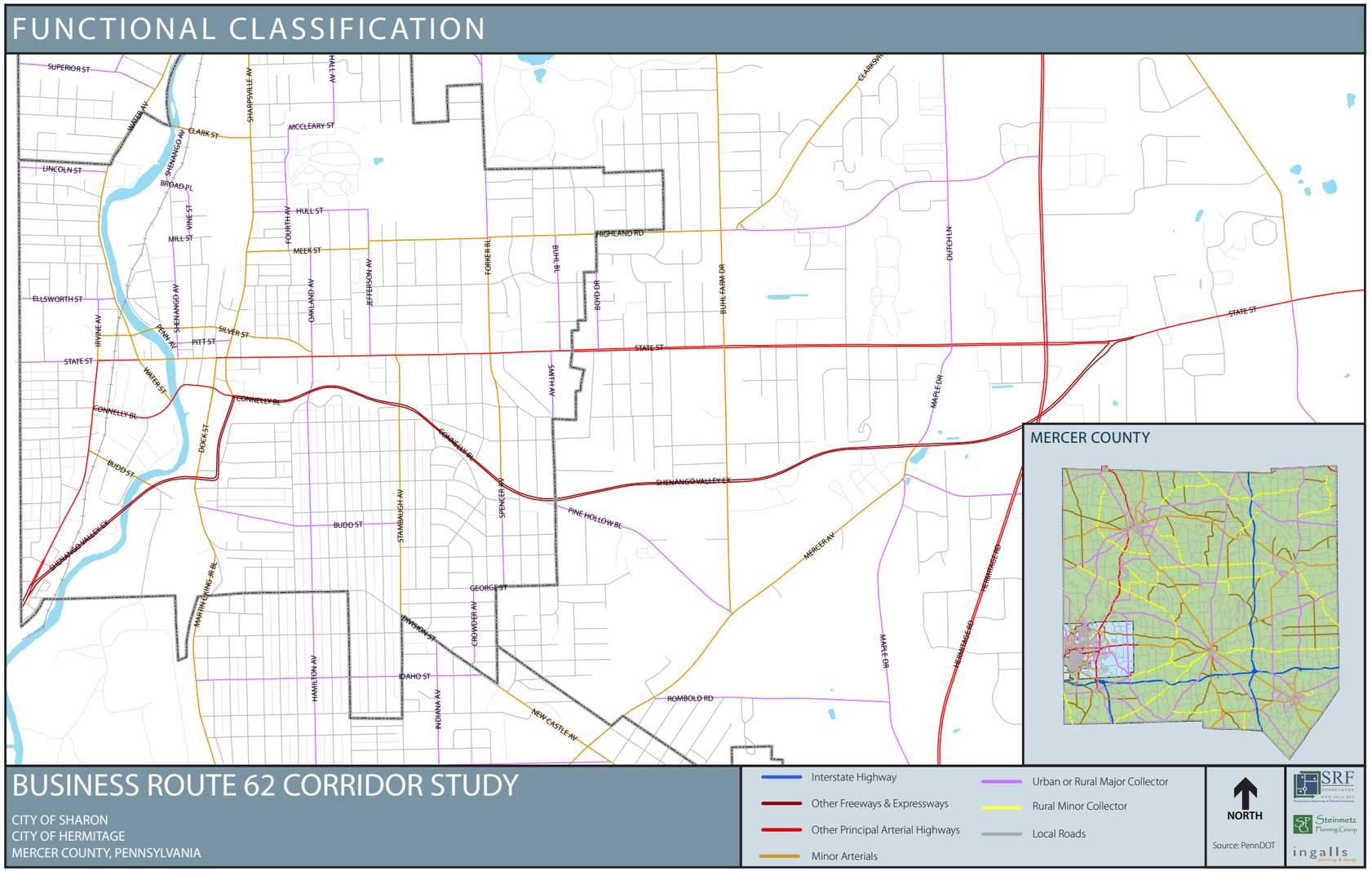


Figure 8: Functional Road Classification

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 1 [IRVINE GATEWAY]
OHIO STATE LINE TO STATE STREET

ZONE CHARACTERISTICS

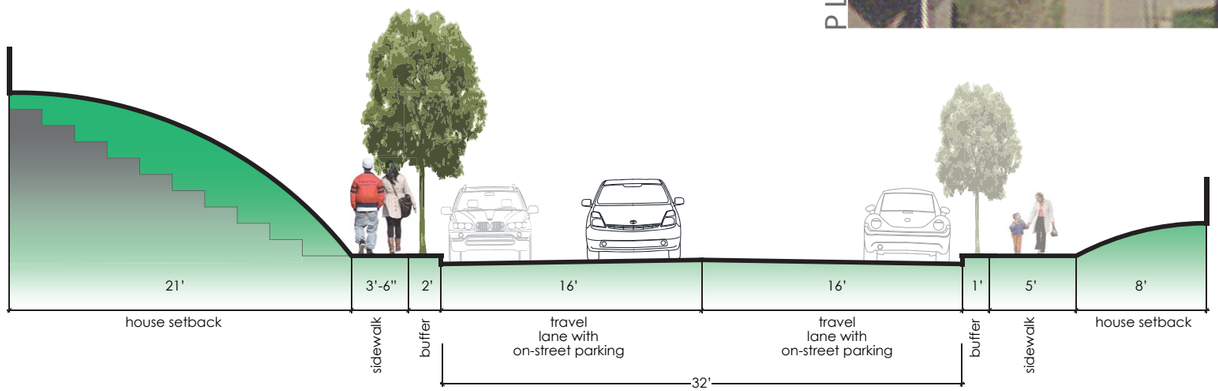
ASSETS

> residential neighborhood
> sidewalk network
> freeway access
> close to schools & churches

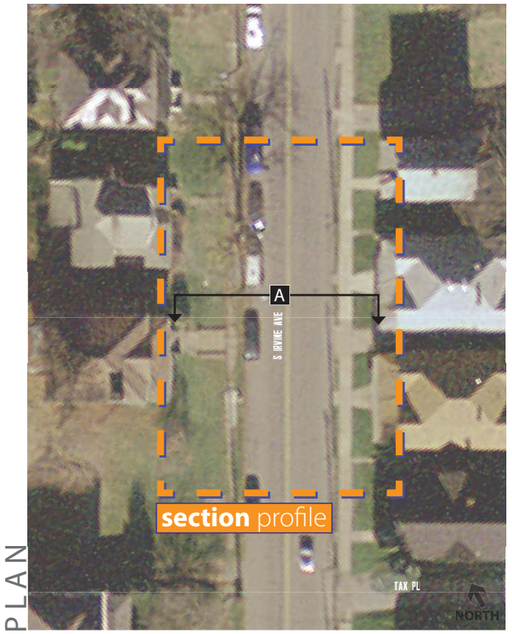
CHALLENGES

> quality of sidewalks
> perceived safety risks
> crosswalks across Irvine Ave
> close to railroad

SECTION [A]



PLAN




IRVINE AVENUE AND CONNELLY BOULEVARD


IRVINE AVENUE FACING NORTH


IRVINE AVENUE AND CONNELLY BOULEVARD

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 9: Cross-section (Zone 1)

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 2 [SHARON CBD]
IRVINE AVENUE TO SHARPSVILLE AVENUE

ZONE CHARACTERISTICS

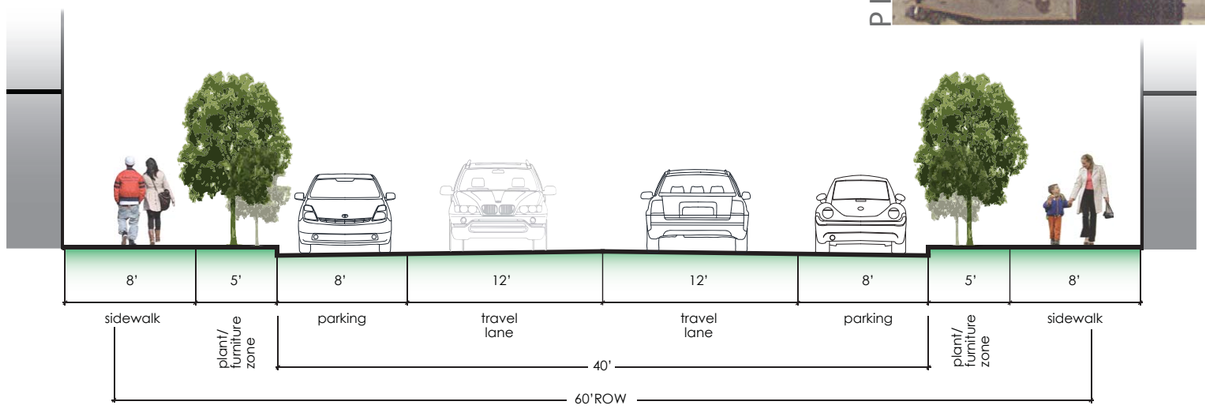
ASSETS

> pedestrian friendly
> shops and businesses
> traffic calming
> sense of place

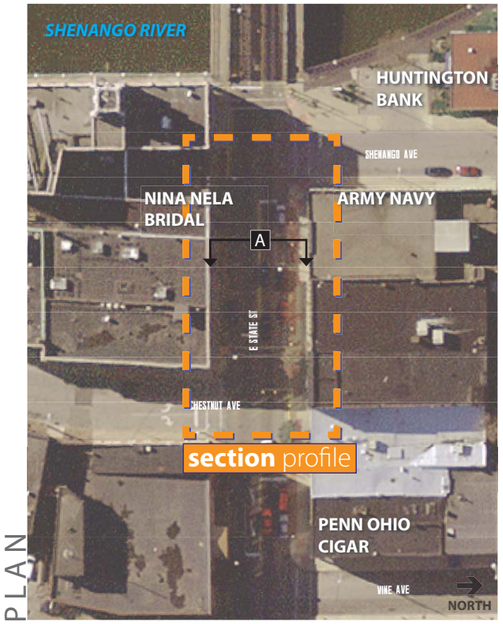
CHALLENGES

> frequent parking in prohibited spaces
> low utilization of parking garage
> economic development
> connectivity and circulation

SECTION [A]



PLAN




STATE STREET FACING EAST


STATE STREET AND SHENANGO AVENUE


STATE STREET FACING WATER AVENUE

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 10: Cross-section (Zone 2)

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 3 [SHARON TRANSITIONAL]
SHARPSVILLE AVENUE TO CITY LINE

ZONE CHARACTERISTICS

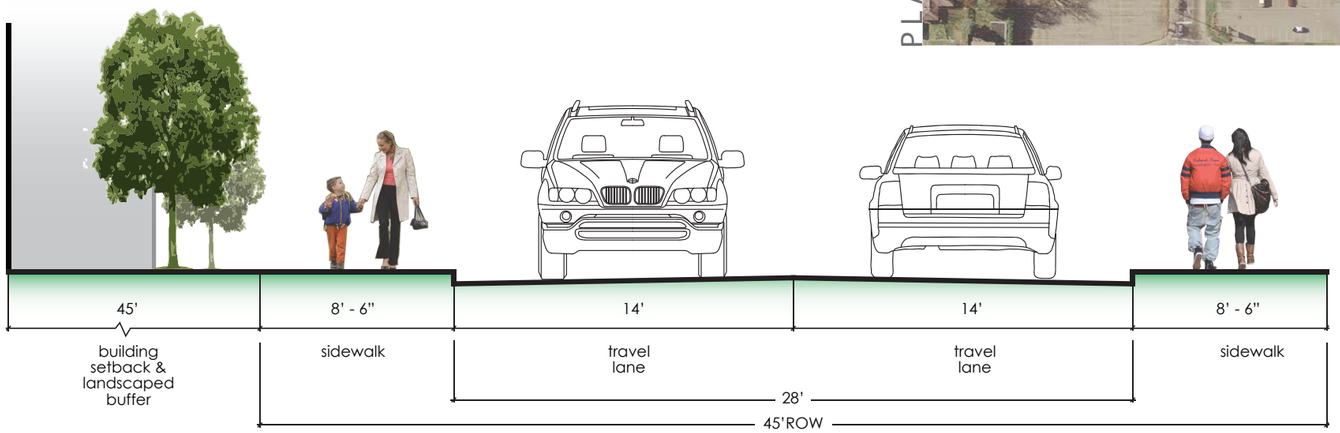
ASSETS

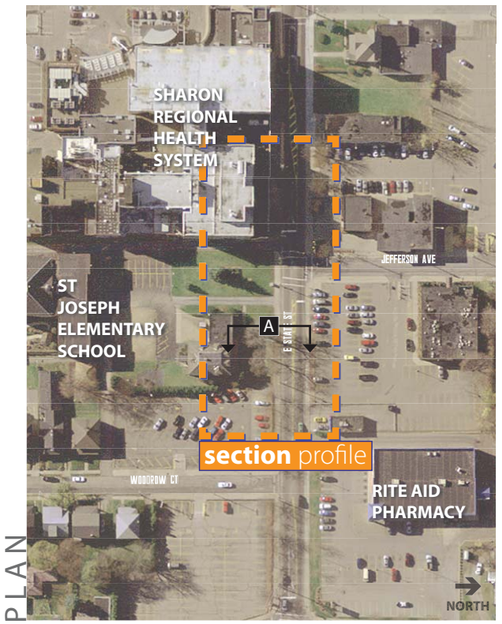
> Sharon MS/HS and Case Elementary
> Sharon Regional Health System
> sidewalk network
> cultural attractions

CHALLENGES

> meeting the needs of pedestrian safety
> ensure traffic calming in pedestrian zones
> provide Safe Routes to School
> deep setbacks

SECTION [A]






SHARON REGIONAL HEALTH SYSTEM


STATE STREET AND BUHL COURT FACING WEST


STATE STREET AND CASE AVENUE

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

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Figure 11: Cross-section (Zone 3)

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 4 [HERMITAGE TRANSITIONAL] CITY LINE TO BUHL FARM DRIVE

ZONE CHARACTERISTICS

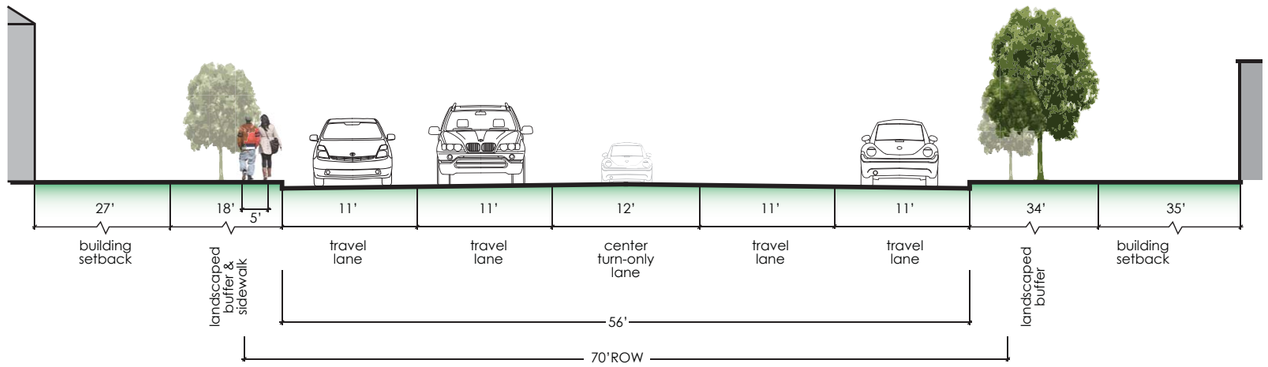
ASSETS

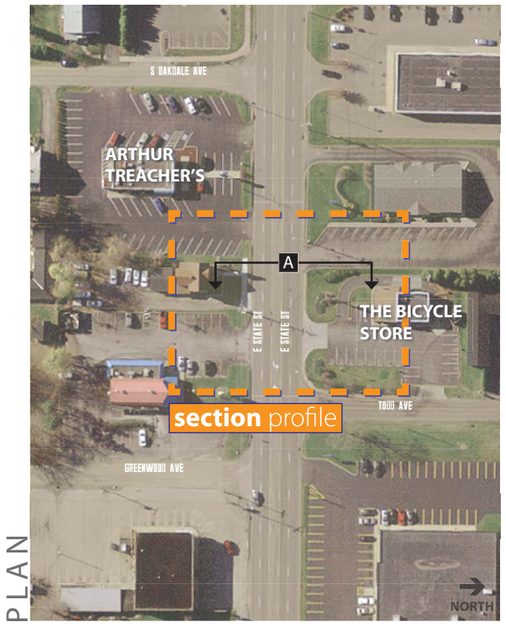
> close to residential neighborhoods
> close to schools
> relative consistent setbacks
> signs of a sidewalk network

CHALLENGES

> sidewalks remain disconnected
> numerous access points
> worn walking paths along road
> inconsistent land uses

SECTION [A]





PLAN


STATE STREET FACING BUHL BOULEVARD


WALKING PATH


STATE STREET FACING BUHL FARM DRIVE FROM WEST

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES www.srfa.net
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Figure 12: Cross-section (Zone 4)

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 5 [HERMITAGE COMMERCIAL]
BUHL FARM DRIVE TO SHENANGO VALLEY FREEWAY

ZONE CHARACTERISTICS

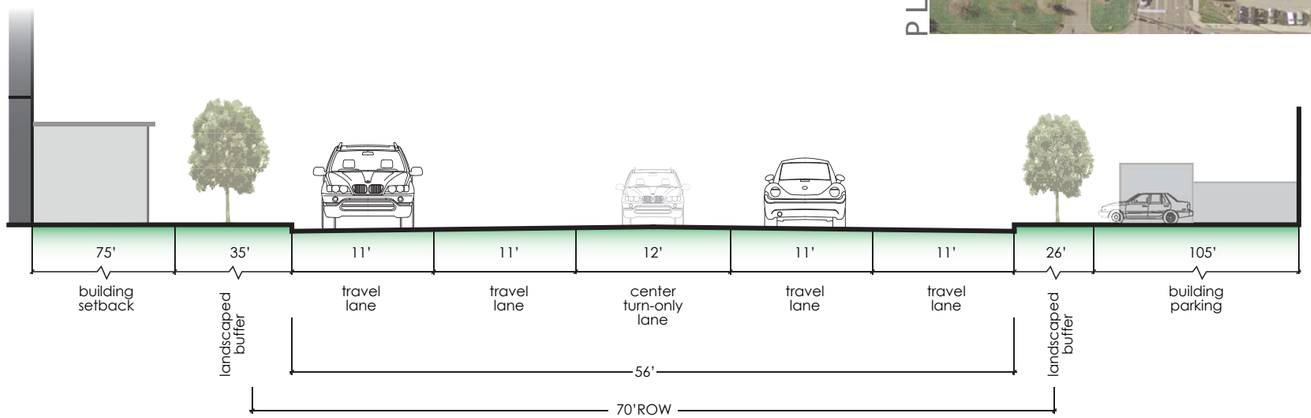
ASSETS

> commercial "center"
> Hillcrest Memorial Park
> 35 mph zone
> opportunities for infill development

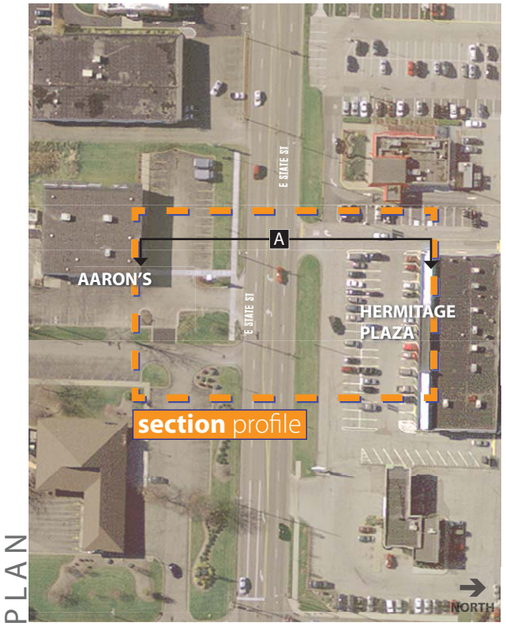
CHALLENGES

> disconnected sidewalks
> lacks pedestrian facilities
> deep setbacks of plazas
> lacks bicycle facilities

SECTION [A]



PLAN



STATE STREET AND DUTCH LANE

STATE STREET AND KILGORE ROAD

STATE STREET FACING EAST

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES
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Figure 13: Cross-section (Zone 5)

REPRESENTATIVE SECTION & PLAN VIEW

ZONE 6 [HERMITAGE GATEWAY]
SHENANGO VALLEY FREEWAY TO KEEL RIDGE ROAD

ZONE CHARACTERISTICS

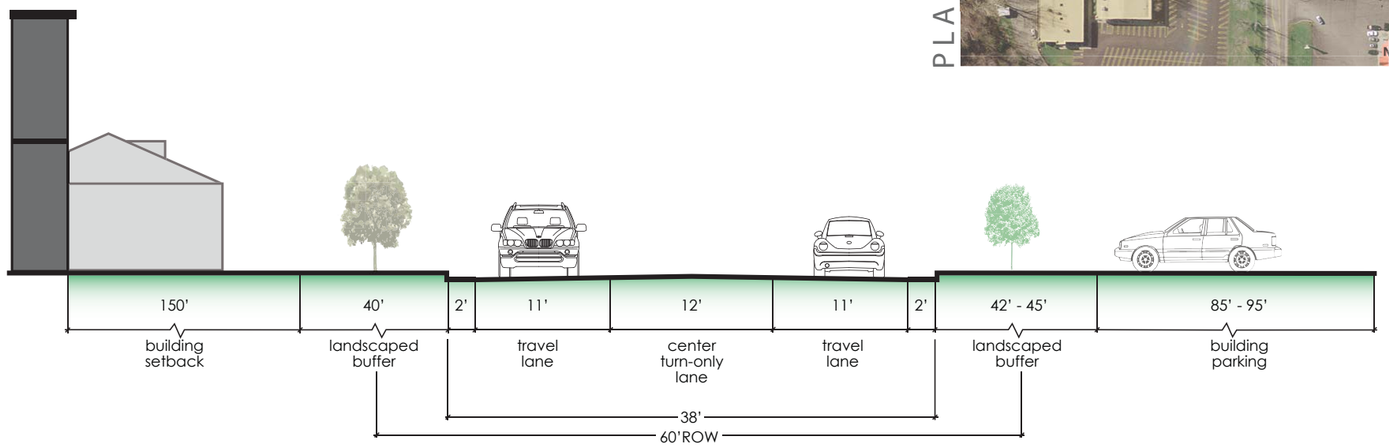
ASSETS

> plentiful greenspace
> wide landscaped buffer
> gateway "feel"
> opportunities for infill development

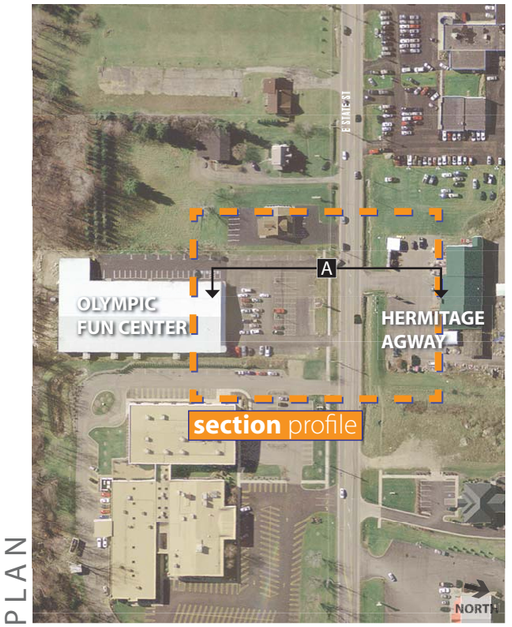
CHALLENGES

> disconnected sidewalks
> predominantly auto-oriented
> inconsistent architectural form
> close to residential clusters

SECTION [A]



PLAN




STATE STREET AND KEEL RIDGE ROAD


STATE STREET FACING WEST


KEEL RIDGE ROAD AND STATE STREET

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 14: Cross-section (Zone 6)

II INVENTORY & ANALYSIS

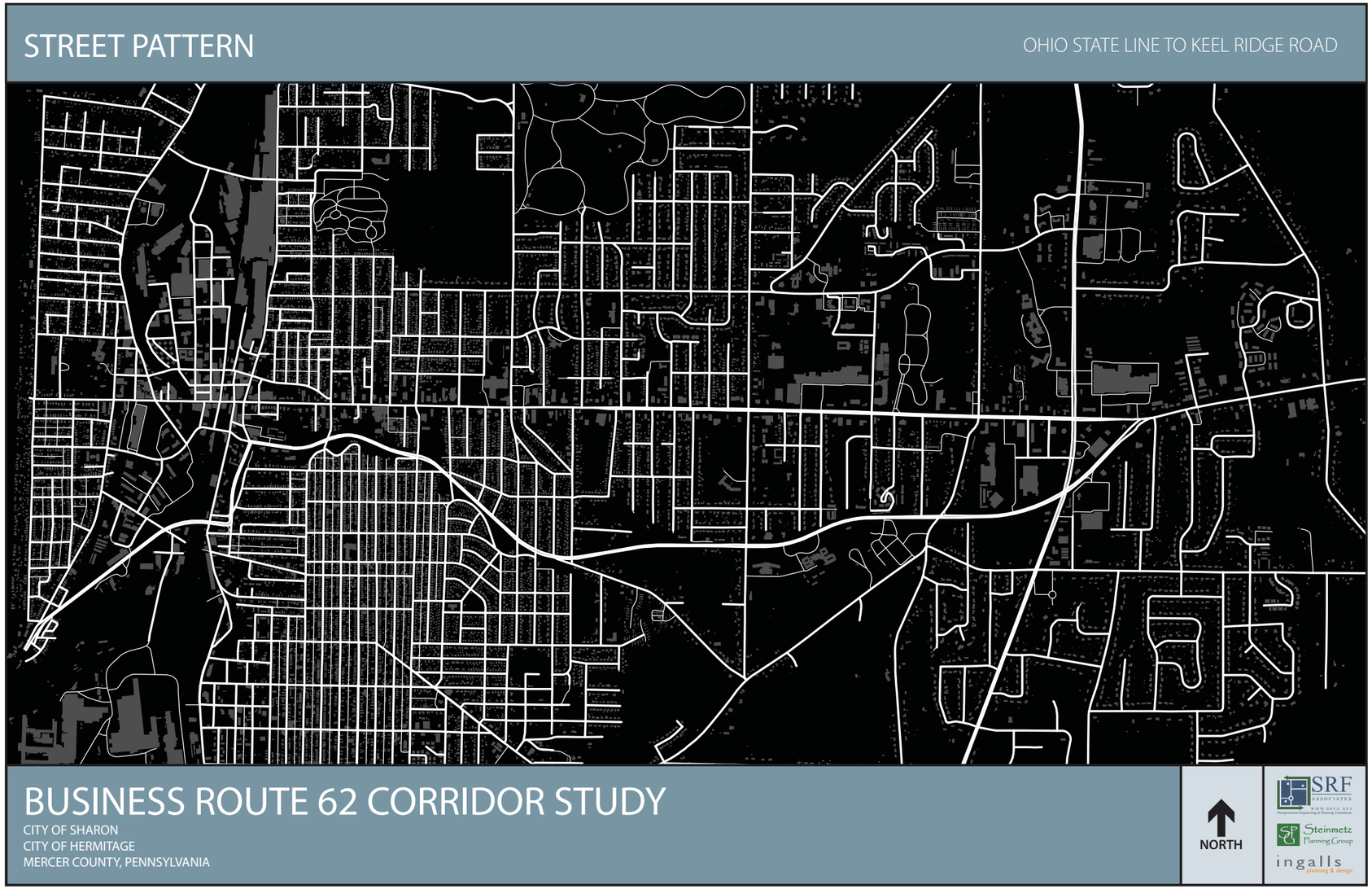


Figure 15: Street Pattern Diagram

In relation to the figure/ground map presented earlier, Figure 15 reveals the street network between the two communities. The grid-like pattern is more defined throughout the City of Sharon using this mapping technique. This map also points out the significance the Shenango Valley Freeway plays in bypassing the businesses on State Street, while providing a faster route of travel between the Ohio State Line and Hermitage Road. The density of streets in Sharon south of the Freeway reveals the use of alleyways to connect residential garages to local roads. Based on the street patterns for the two communities and field investigations to inventory the sidewalk network, one can begin to understand the dominance of the automobile in the City of Hermitage versus a more walkable community fabric in the City of Sharon.

Another key area to focus on when observing the street patterns seen in Figure 15, are the linkages between the neighborhoods north and south of State Street. Major roadways, such as Oakland Ave, Euclid/Stambaugh Ave, Forker Blvd/Spencer Ave, and Buhl Farm Dr, are important corridors for connecting communities across State Street. This street pattern map can show how neighborhoods and communities have been separated over time as development has occurred. However, it also reveals opportunity areas for stronger and more balanced linkages. As communities exhibit signs of increased street connectivity within and between neighborhoods, they can become more user-friendly for cyclists, pedestrians, and motorists alike.

Pedestrian

An important aspect of a high quality pedestrian environment is the presence of a sidewalk network. Sidewalks allow all users (e.g. adults, children, physically challenged) to move along the transportation network. Areas that do not have a complete or connected sidewalk network pose challenges for pedestrians and raise the perceived and/or real safety risks that are associated with an incomplete pedestrian facility.

A sidewalk inventory was undertaken along the corridor. Through the use of geographic information system (GIS) mapping and field investigations, a mapped inventory of the sidewalk network was completed. Figures 16 through 21 represent the six (6) zones and each community throughout the corridor, while Figures 22 and 23 illustrate a contextual inventory for both Cities. Zones 1-3 have a more connected and complete sidewalk network than can be found in Zones 4-6.

Figure 16: Sidewalks (Zone 1)

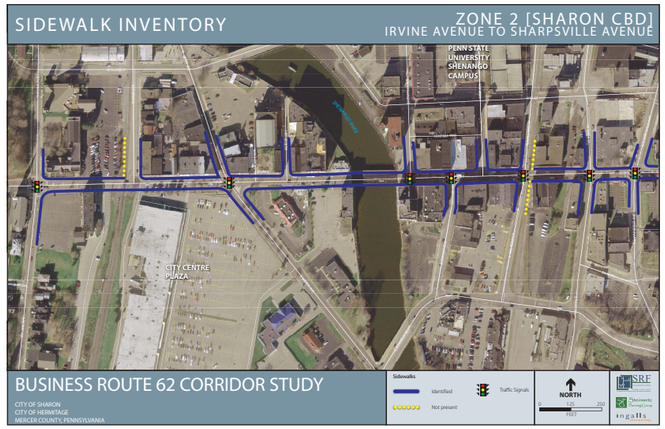


Figure 17: Sidewalks (Zone 2)

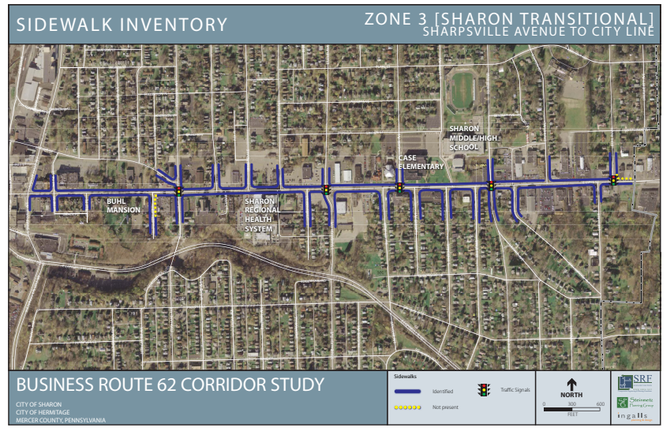


Figure 18: Sidewalks (Zone 3)

"Everywhere is walking distance if you have the time."
-Steven Wright

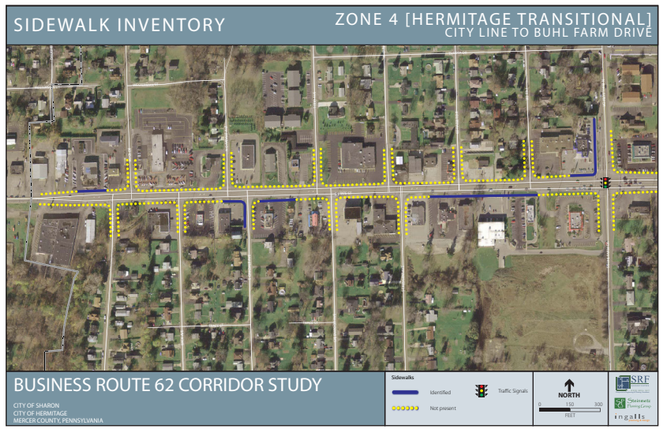


Figure 19: Sidewalks (Zone 4)

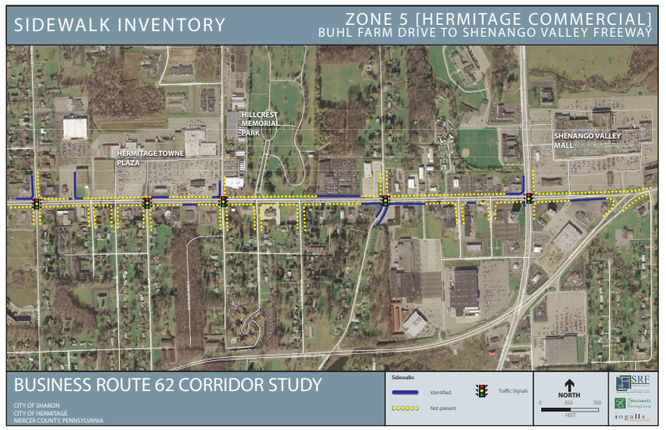


Figure 20: Sidewalks (Zone 5)

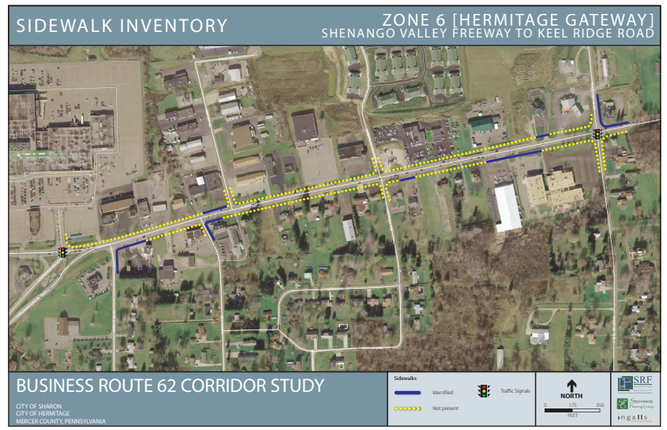
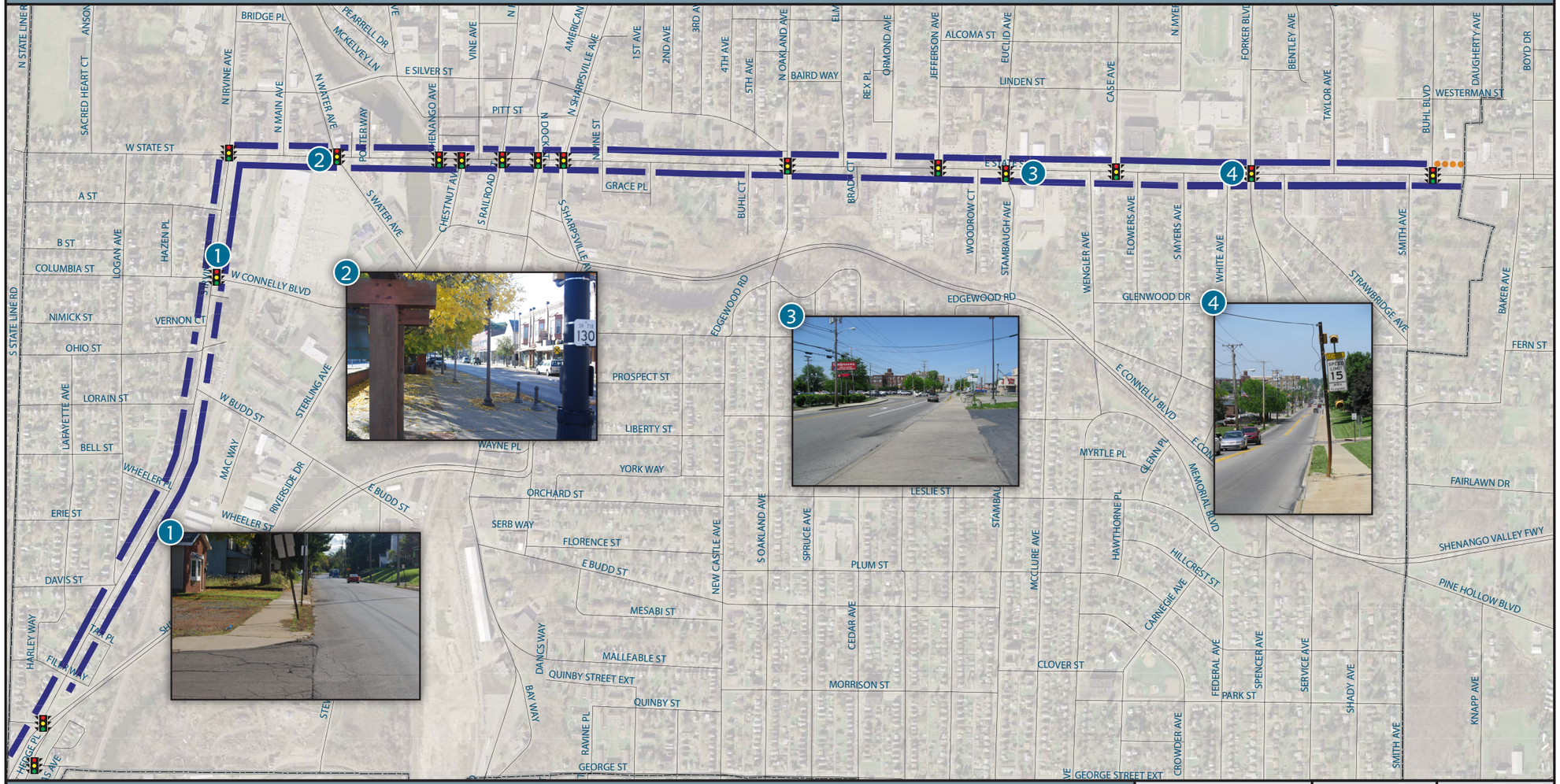


Figure 21: Sidewalks (Zone 6)

SIDEWALK NETWORK

CITY OF SHARON



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

Identified
Not present
Signalized Intersection

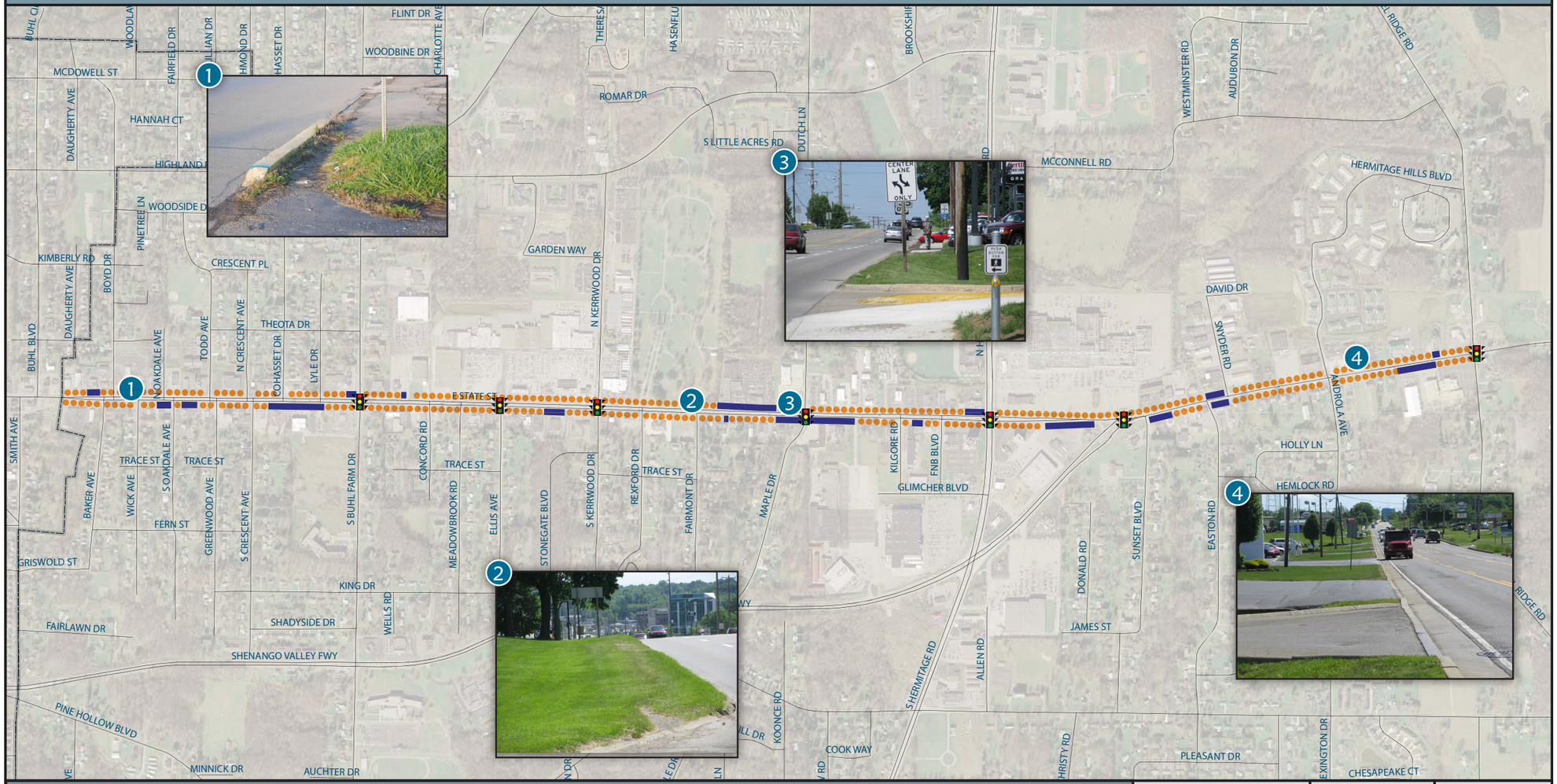
NORTH
0 400 800
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 22: Sidewalks (Sharon)

SIDEWALK NETWORK

CITY OF HERMITAGE



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

Identified
Not present
Signalized Intersection

NORTH
0 500 1000
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 23: Sidewalks (Hermitage)

"Nothing compares to the simple pleasure of a bike ride"
-John F. Kennedy, 35th President of the United States

"Think of bicycles as rideable art that can just about save the world."
-Grant Peterson

Bicycle Routes

The supply of multi-use trails or bicycle lanes/routes in a community is vital to providing separated modes of travel. Sharon and Hermitage have two bikeway routes that are connected from the south, beginning in Wheatland, as shown in Figure 24. There are no designated bike lanes along the corridor, however, "Share the Road" signs are posted along Forker Boulevard.

Share the Road sign on Forker Blvd

Bike lanes on Highland Rd

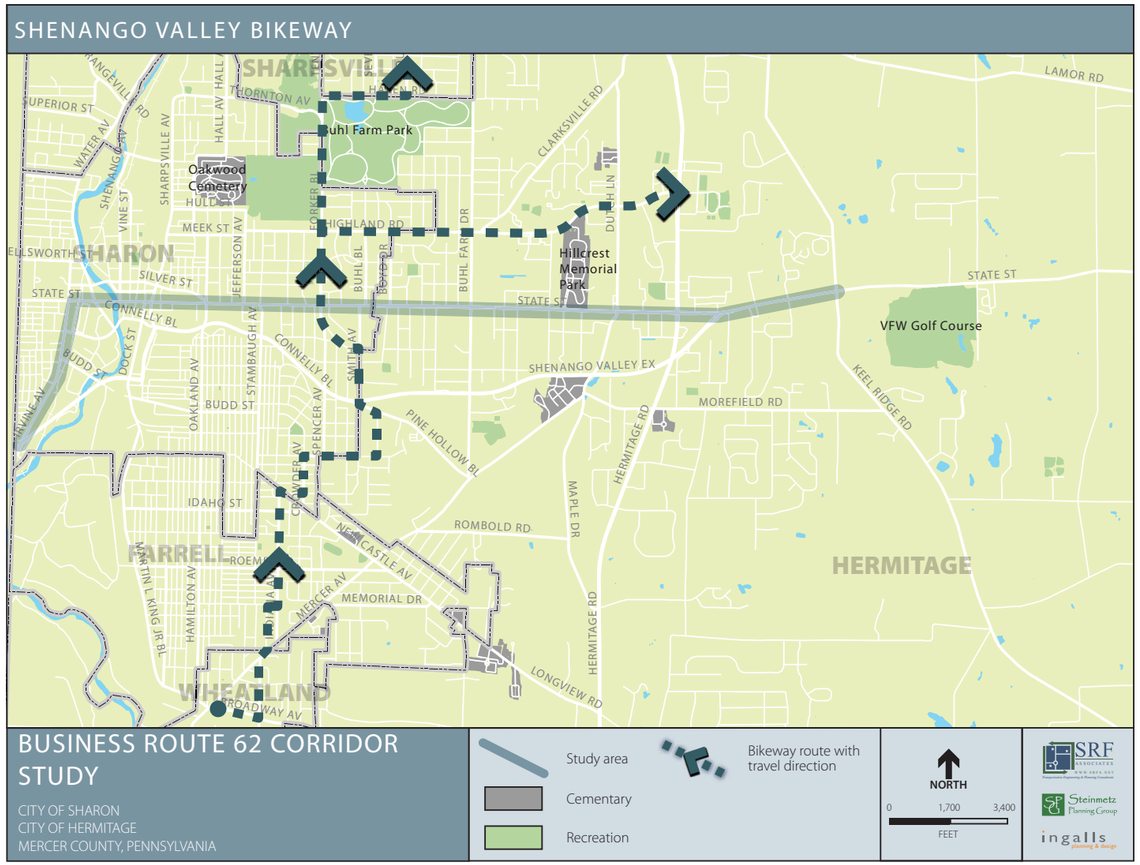


Figure 24: Bike Routes

Transit Routes

There are three transit routes (Northern, Central, and Southern) directed by the Shenango Valley Shuttle Service. The routes, as shown in Figures 25 through 27 begin at the Shenango Valley Mall or in downtown Sharon. Routes are available for use during weekday hours and on Saturdays. There is a noticeable lack of transit facilities as bus shelters are rarely found.

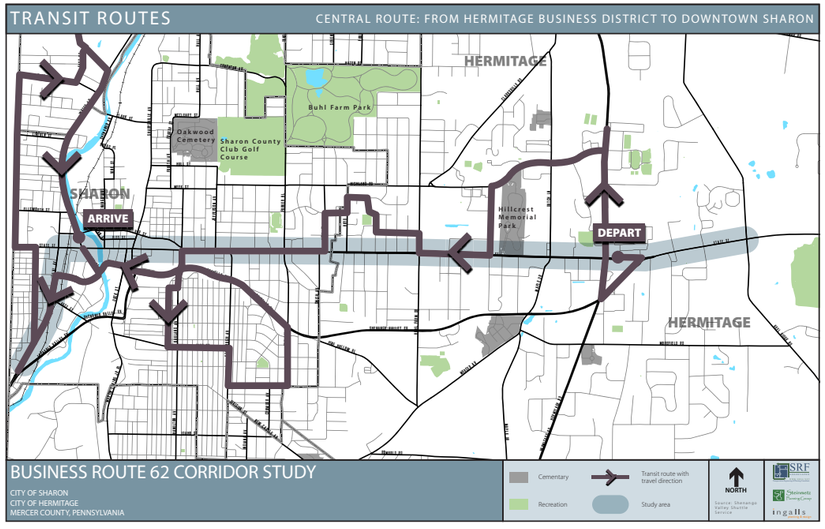


Figure 26: Transit (Central Route)

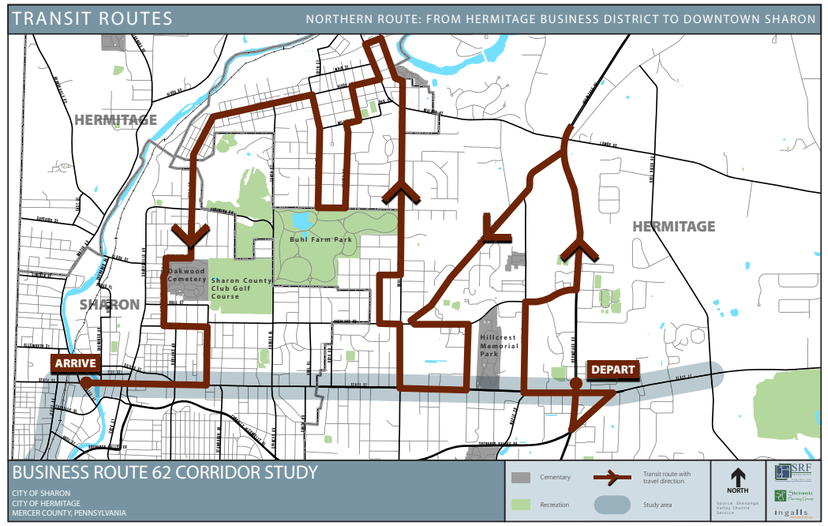


Figure 25: Transit (Northern Route)

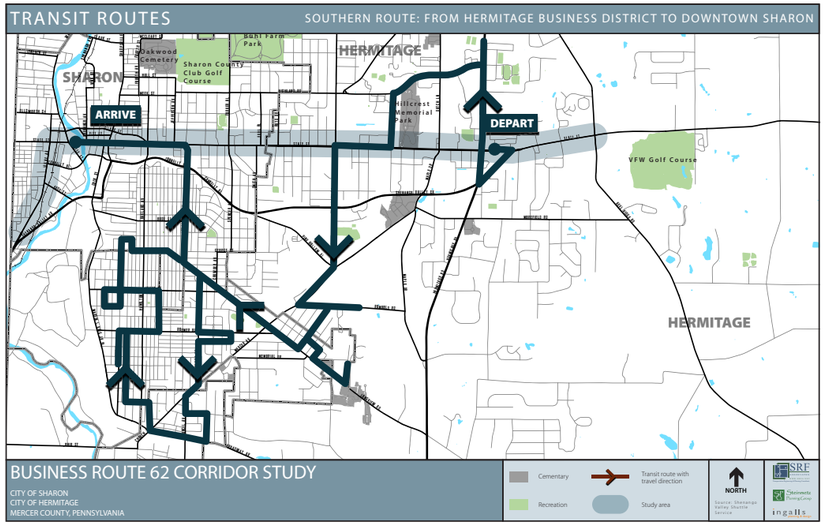


Figure 27: Transit (Southern Route)

Safe Routes to School

In response to Federal funding measures aimed at increasing safety and promoting walkable environments for children travelling to school, three schools were identified within the City of Sharon as candidates for the Safe Routes to School (SRTS) Program. Safe Routes to School is a Federally aided program, under the US Department of Transportation's Federal Highway Administration. The three schools chosen for a low-cost, immediate-impact SRTS study were (these schools are all located directly on, or adjacent, to the Business Route 62 corridor):

- West Hill Elementary;
- Case Elementary; and
- Sharon Middle/High School

See Figures 28 and 29 for a detailed inventory of the schools' existing conditions, making note of traffic control devices, speed limits, sidewalk infrastructure, and crossing guard locations. During the discovery phase of the study, field investigations found that many parents would park their cars in private lots near Sharon Middle/High School and St. Joseph's School in order to drop off or pick up their children. Traffic congestion in the area of the hospital has been noted as a deterrent factor for many commuters travelling through the area in the peak morning time periods. The neighborhood directly adjacent to West Hill Elementary school does contain a network of sidewalks, however, their quality has declined, mostly due to lack of maintenance. Figures 28 and 29 assist to support this claim.

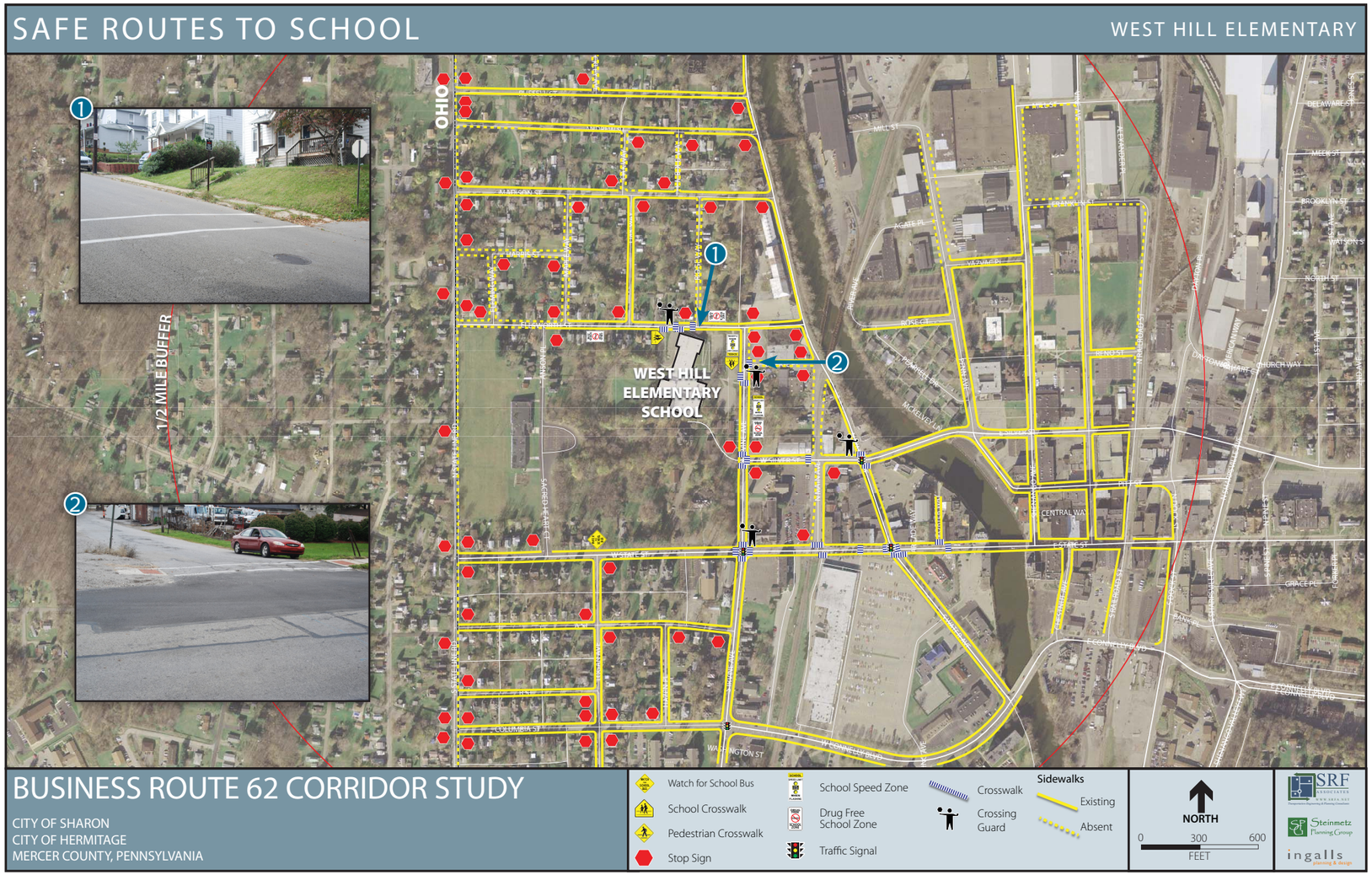


Figure 28: SRTS (West Hill with accompanying sidewalk photos)

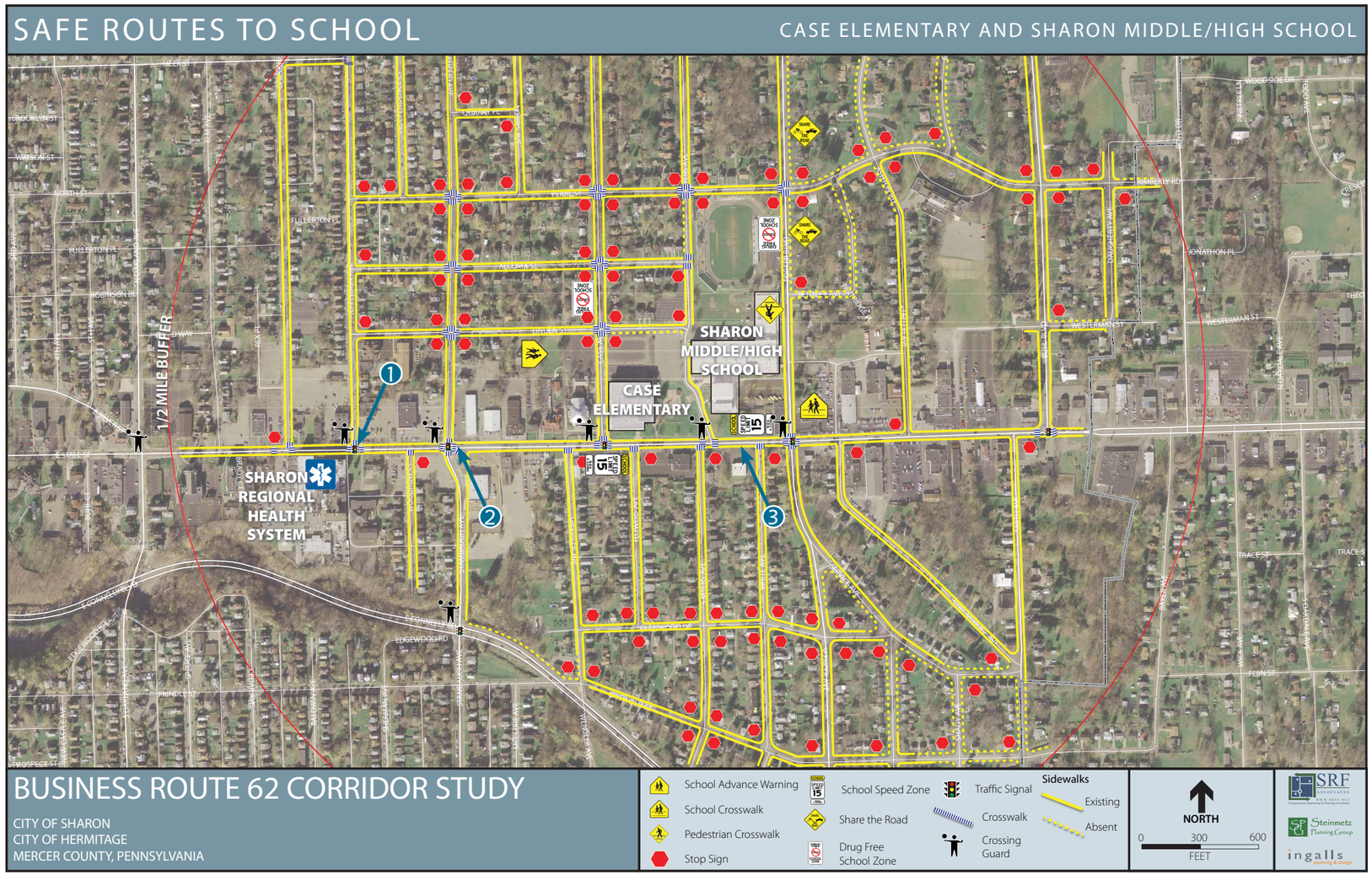


Figure 29: SRTS (Case/Sharon with accompanying photos)

1

Jefferson Ave /State St

2

Euclid Ave /State St

3

Sharon MS-HS/State St

II INVENTORY & ANALYSIS

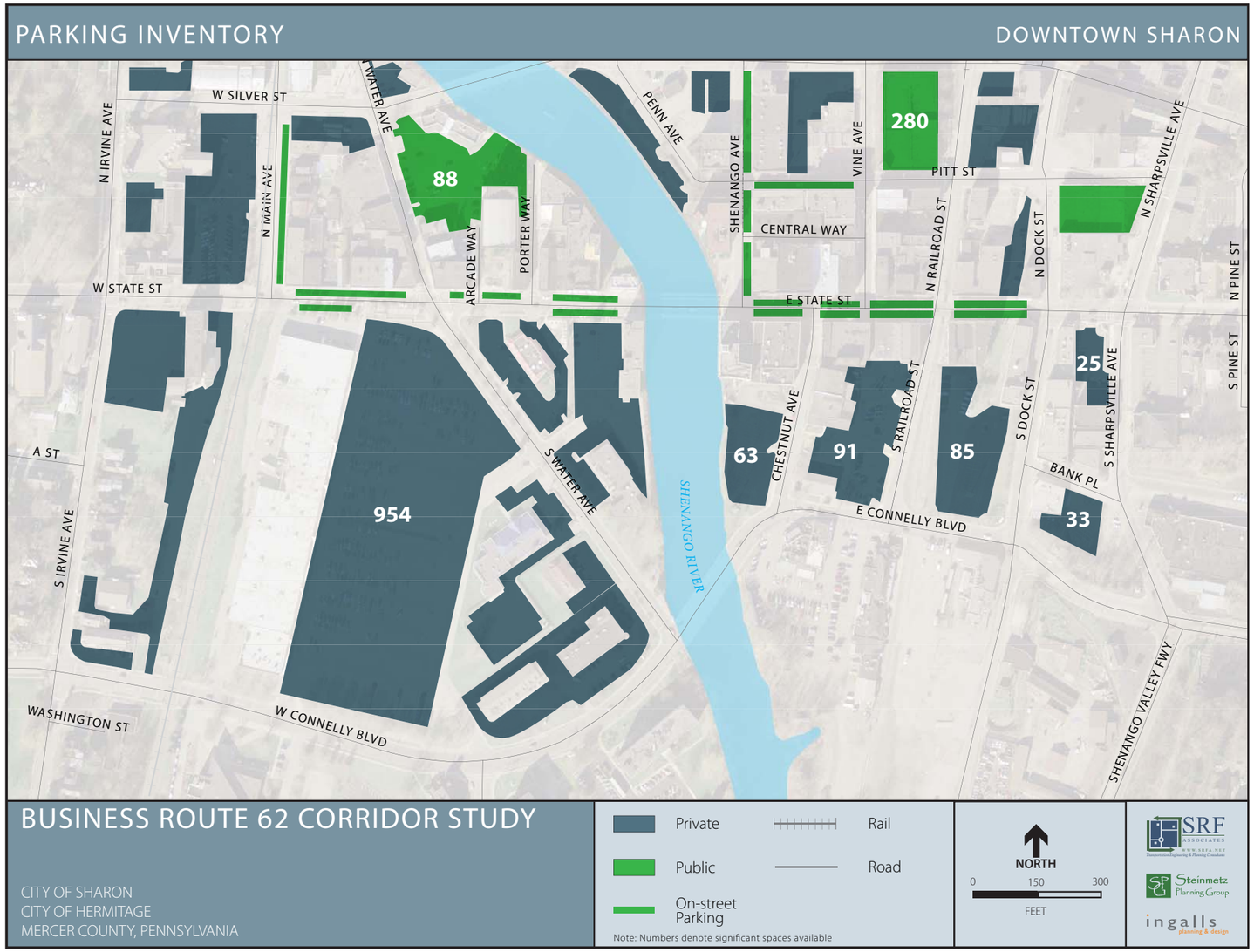


Figure 30: Downtown Sharon Parking Inventory

Parking

Conveniently located, adequate, and safe parking is a key component to the success of any commercial district. Using a combination of field investigations and aerial GIS imagery, the supply of on-street and off-street public parking was compiled. Parking along State Street is delineated by pavement markings. Parking spaces are eight (8) feet wide.

Parking is allowed on all streets except where prohibited, by signs and the rail lines. No on-street parking is metered. Off-street parking is available in a public parking structure located between Vine Avenue and Railroad Street.

- 60 minute parking on State Street, Vine Avenue, Pitt Street, Shenango Avenue
- Approx. 59 spaces on State Street
- Approx. 19 spaces on Vine Avenue
- Approx. 18 spaces on Shenango Avenue
- Approx. 9 spaces on Pitt Street
- Approx. 88 spaces at the Mercer County Visitor's Center

There are approximately 280 spaces in the parking garage and the garage is free for public use. In addition to the parking garage, there is a parking deck located adjacent to the Community Library of the Shenango Valley. Figure 30 illustrates the locations of available parking.

Motor Vehicle, Pedestrian, and Bicycle Volumes

Daily traffic volumes throughout the study area were obtained from the Pennsylvania Department of Transportation (PENNDOT) and are depicted in Figure 31. Weekday AM (7:00-9:00AM) and PM (4:00-6:00PM) vehicular turning movement count volumes and pedestrian crossing volumes were collected by SRF & Associates (SRF) at 21 intersections within the study area on September 28 – 29, October 4 – 5, and November 2, 2011. The existing peak hour volumes are provided in the Appendix and illustrated in Figures 32 and 33.

Pedestrian activity is greatest in the areas of downtown Sharon, in front of Sharon Regional Health System, and surrounding the Sharon Middle/High School and Case Avenue Elementary School.

"Transportation — the process of going to a place — can be wonderful if we rethink the idea of transportation itself. We must remember that transportation is the journey; enhancing the community is the goal."
– PPS.org

TOTAL TRAFFIC DATA

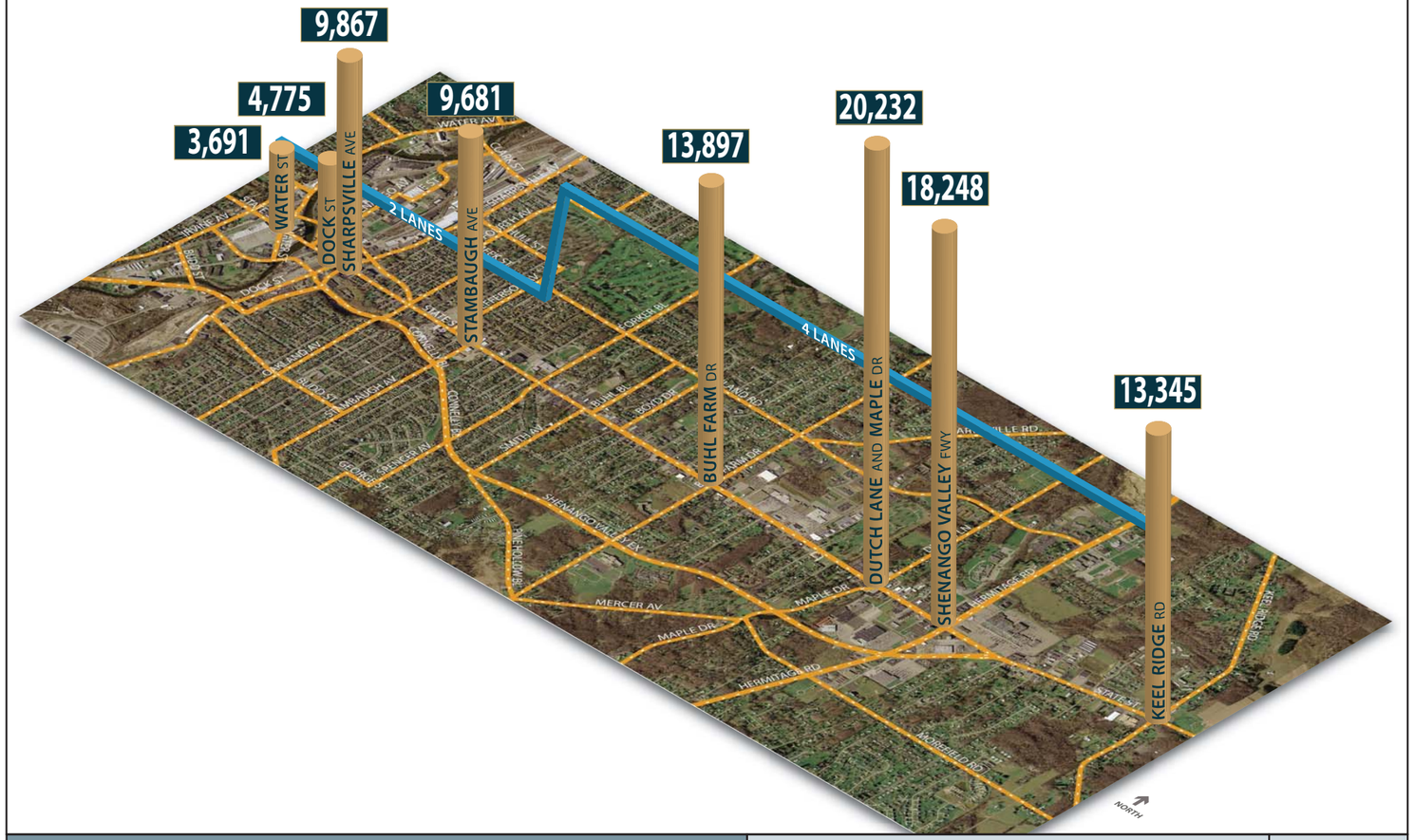


Figure 31: ADT Volumes

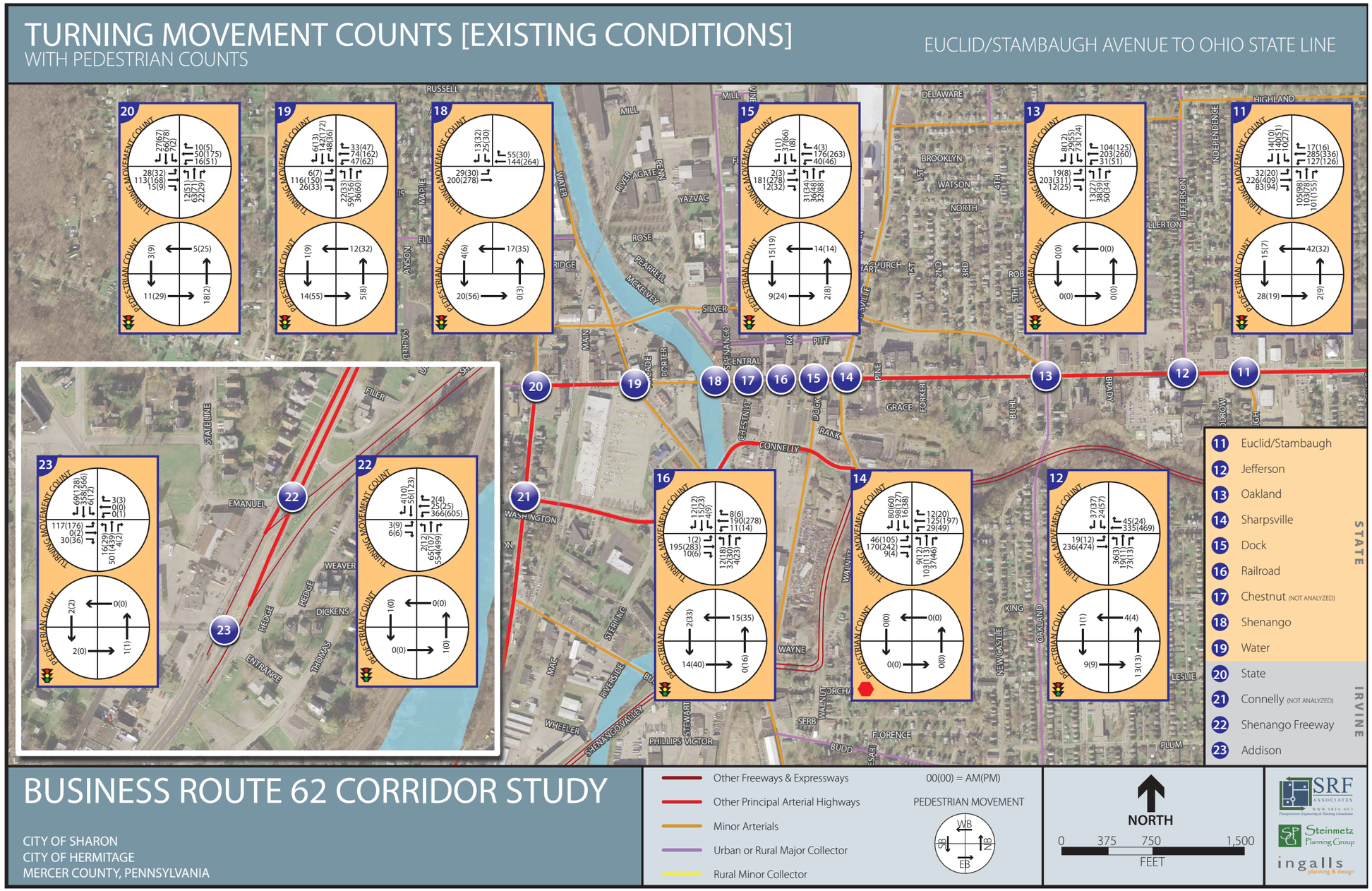


Figure 32: Turning Movement Counts (Euclid/Stambaugh Ave to Ohio State Line)

TURNING MOVEMENT COUNTS [EXISTING CONDITIONS]
WITH PEDESTRIAN COUNTS

KEEL RIDGE ROAD TO CASE AVENUE

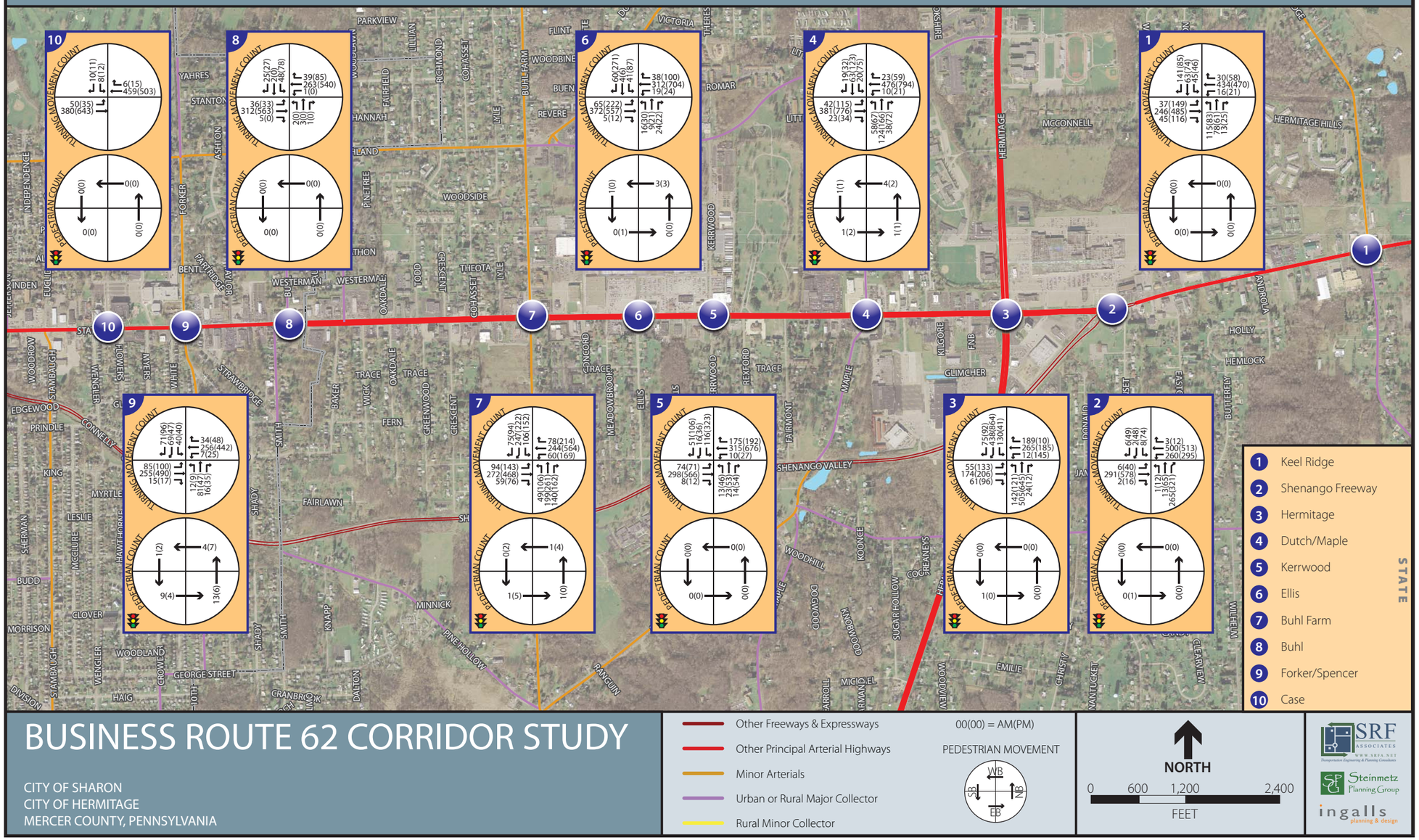


Figure 33: Turning Movement Counts (Keel Ridge Rd to Euclid Ave

Analyses of Existing Conditions

Vehicular Capacity Analysis

Data was collected to assess the quality of traffic flow for the existing AM and PM peak hour conditions.

Capacity analysis is one technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Both roadway section and intersection capacity analyses have been performed and described in this section of the report.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing operating conditions with the least time delay. LOS "F" is the least desirable operating condition where longer delays are experienced by motorists. The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual (HCM 2000). Traffic analysis software, SYNCHRO (Build 773, Rev 8), which is based on procedures and methodologies contained in the HCM 2000, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM 2000 as an indicator of how well intersections operate. Existing operating conditions are documented in the field and modeled using traffic analysis software. The traffic analysis models were developed based on the traffic volumes recorded in the field. Signal timings used in the models are based upon the signal timing plans provided by PennDOT for each intersection.

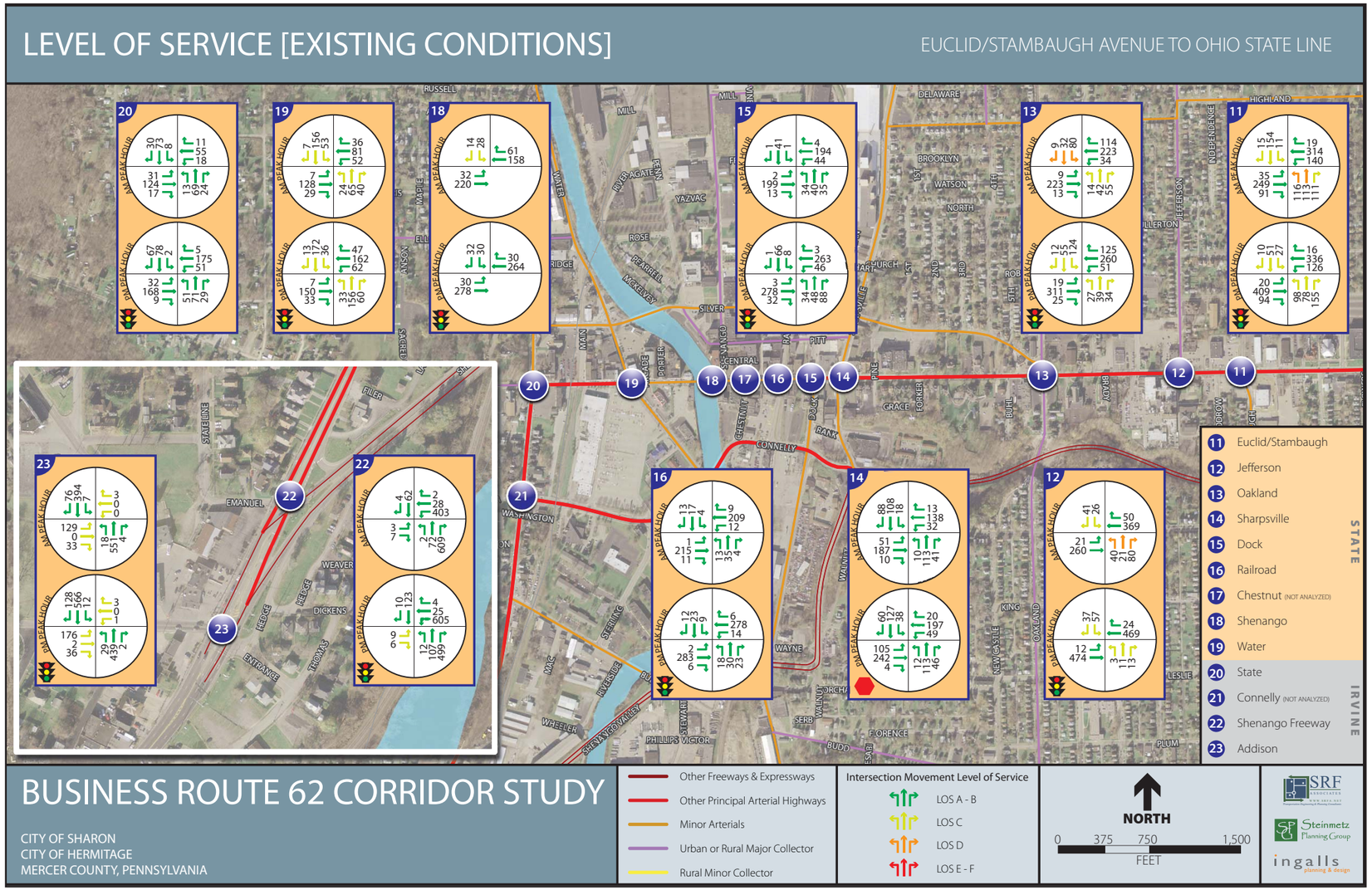


Figure 34: Level of Service (Euclid/Stambaugh Ave to Ohio State Line)

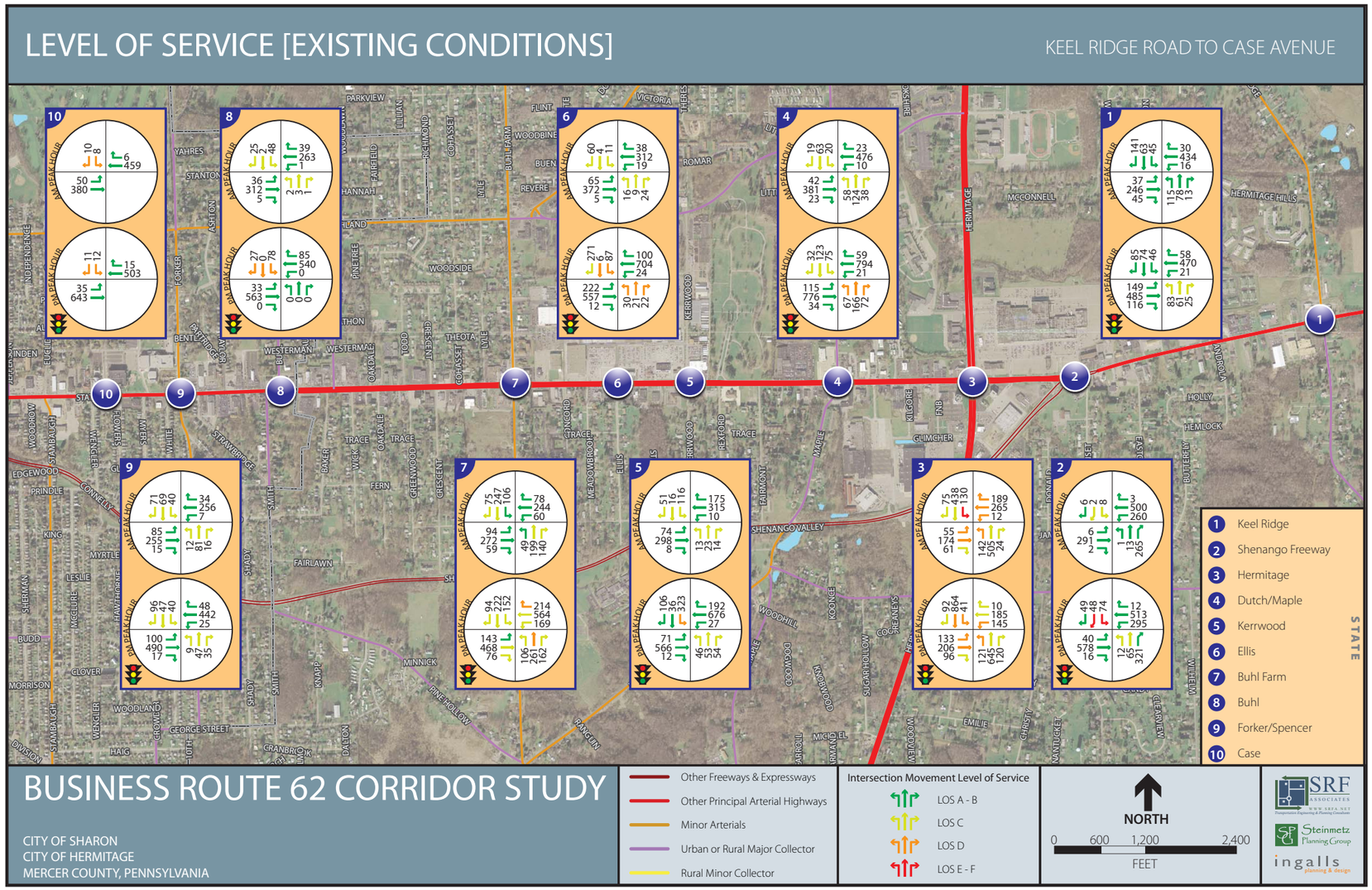


Figure 35: Level of Service (Keel Ridge Rd to Euclid/Stambaugh Ave)

The majority of the intersections in the corridor operate at acceptable overall levels of service ("C") under the existing conditions with the exception of N Hermitage Road during the PM peak hour which operates at overall LOS "D". Most of the movements on State Street and Irvine Avenue in Sharon and Hermitage operate at LOS "C" or better under the existing conditions with the exception of the movements color coded in orange or red as shown in Figures 34 and 35. Based on the capacity analysis, the only movements that currently operate at LOS "E" is the southbound left turn movement at the State Street/Hermitage Road intersection during the AM peak hour. A detailed table containing LOS results at all of the study intersections is included in the Appendix.

The traffic signals along State Street between Keel Ridge Road and Irvine Avenue are currently coordinated in several smaller groupings. This means that the signals are timed to change in a coordinated fashion allowing motorists to travel the corridor with minimal stops and delays. However, the timings, phasing, and offsets in many cases have not been updated in many years. Field observations indicate congestion and queuing in the westbound direction in the morning. This condition primarily occurs in the vicinity of Sharon Middle/High School and Sharon Regional Health System. During the evening peak hour, congestion occurs in the westbound direction primarily from Buhl Farm Drive to Hermitage Road.

Travel Time Measure of Congestion

Business Route 62 (East State Street) is a 25-35 mph community arterial that varies from 2-3 lanes with "town/village center" and "town/village neighborhood" contexts through the City of Sharon, to 4-5 lanes with a mostly "suburban corridor" context and heavy commercial activity through the City of Hermitage. Congestion is typically heaviest during the weekday PM peak period with an emphasis on an earlier "school dismissal" peak.

- The presence of 4 different types of congestion and 9 different flagged considerations highlight a busy mix of potential issues or concerns.
- The 19 signalized intersections in this area of the corridor, many with aging equipment, contribute to overall delay as evidenced by the high delay ratio or number of stops.
- Oakland Avenue to Forker Boulevard: Pedestrian, school-pedestrian, and crossing guard activities near Sharon Regional Health System, Case Avenue Elementary, and Sharon MS/HS increase delays and potential pedestrian/vehicle conflicts.

Possible isolated hot-spots:

- Signalized left-turn issues at Node 10 (Stambaugh Avenue)
- Signalized left-turn issues at Node 16 (Kerrwood Drive)
- 5-lane to 2-lane bottleneck at Node 13 (Buhl Boulevard)

Summary of Travel Time Run completed by Mercer County Regional Planning Commission during Fall/ Winter 2009:

» Heavy commercial area.
» Free-flow speeds probably no more than 5 mph above the posted speed limit.
» Multiple lane shifts through downtown Sharon to accommodate pocket turn lanes at each closely-spaced intersection, plus on-street

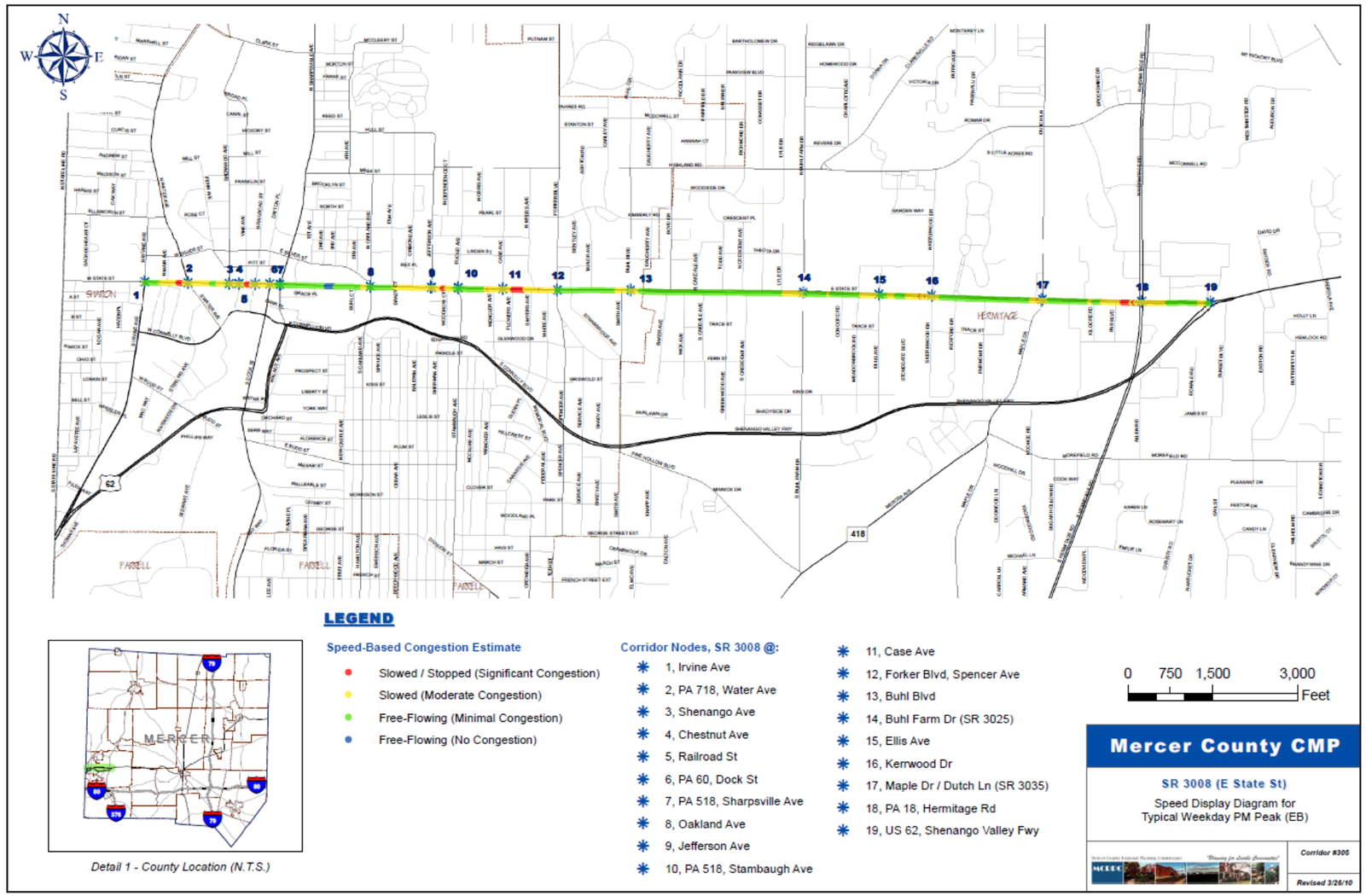


Figure 36: Travel Time EB (Source: Mercer County Regional Planning Commission CMP 2009)

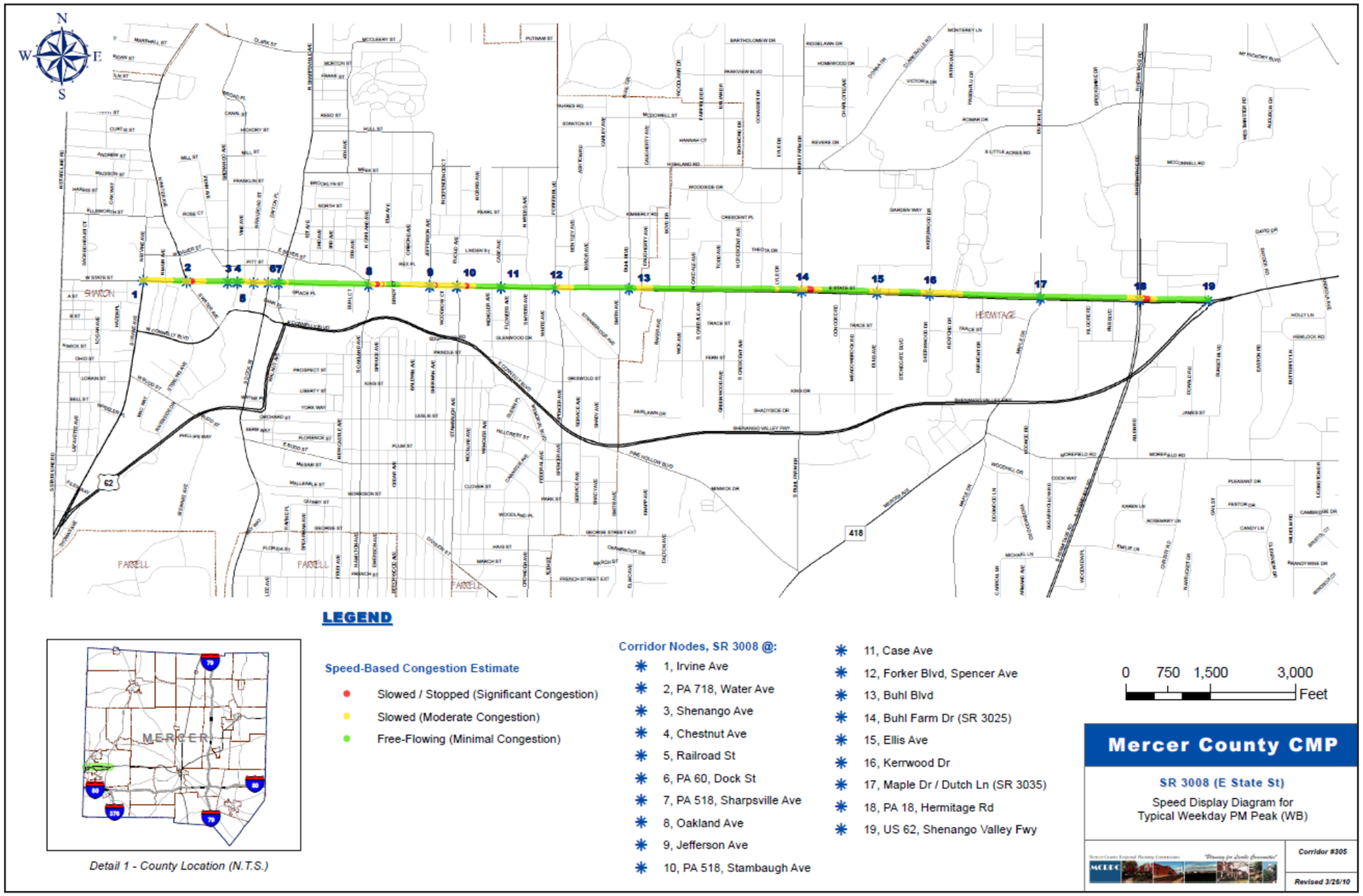


Figure 37: Travel Time WB (Source: Mercer County Regional Planning Commission CMP 2009)

parking.

- Some side street congestion observed at Node #14 (Buhl Farm Dr) and Node #16 (Kerrwood Dr).
- Older signal equipment near Sharon Regional Health System; signal displays difficult to see (dim/darkened lenses)
- Midblock pedestrian crossings near Sharon Regional Health System; parking lots across from hospital.
- Rough pavement conditions and multiple railroad crossings contribute to potential delays through downtown Sharon.
- Heavily-utilized on-street parking in vicinity of downtown Sharon.
- Signal progression / coordination through Sharon was either not apparent or inconsistent (i.e., sometimes coordinated; other times not).
- Some ADA / state-of-disrepair issues with many sidewalk segments throughout corridor.
- Mostly continuous sidewalk through Sharon; discontinuous sidewalk sections begin east of Buhl Blvd and throughout the 5-lane portions of the corridor.
- Multiple driveway cuts/unsignalized commercial access throughout the corridor.
- Potential delays behind SVSS transit vehicles observed stopping through downtown Sharon
- Heavy school-related congestion near Case Avenue Elementary and Sharon MS/HS between approximately 2:45-3:15 PM. Significant crossing guard presence and pedestrian-related stoppages, delays, etc. Some students were also observed crossing midblock between crossing-guard sites.
- Signalized left-turn issues (excessive delay, no protected phase, etc.) were cited for Nodes 10 (PA 518 /Stambaugh Ave) and 16 (Kerrwood Dr).
- Potential multi-cycle failures along State Street approaching / crossing PA 18 during later peak periods of 3:30 to 4:30 PM.

Crash Analysis

Accident reports were investigated to assess the safety history within the study area. The accidents included in the current review collectively covered a five-year time period from January 1, 2006 through December 31, 2010. During this period, 416 accidents were documented within the study area; comprised of 158 accidents at the 23 signalized study intersections and 185 segment related accidents. In addition to these accidents, there were 73 accidents that occurred at the 30 unsignalized intersections in the study corridor. One fatal accident occurred at the Synder Road intersection in 2006 involving left turn movements. Only nine (9) of the 416 accidents involved pedestrians. The majority of vehicular collisions with pedestrians occurred near the Jefferson Avenue area (4 pedestrian accidents near the schools & Sharon Regional Health Center) and near the Buhl Farm Drive intersection (5 pedestrian accidents). Figures 38 and 39 depicts the crash frequency, crash rate and PennDOT accident rate comparison.

The accident history was further investigated to identify high incident areas and possible trends/causes of the accidents. Table 7 in the appendix summarizes accidents along with the type and severity occurring at each intersection and segments along the study corridor.

Crash Frequency

The intersections of Shenango Valley Freeway (east), Dutch Lane, Kerrwood Drive, Buhl Farm Drive, Sharpsville Ave and Irvine Ave with State Street had the greatest number of accidents at the signalized intersection locations (at least 10 accidents in the five year study period). Most of the mid-block segments along the study corridor experienced a high number of accidents over the five year period including Buhl Blvd to Buhl Farm Dr., Buhl Farm Dr. to Ellis Ave, Kerrwood Dr. to Dutch Lane, Dutch Lane to Hermitage Road and Shenango Valley Fwy to Keel Ridge Road. The intersections of FNB Blvd and Kilgore Road with State Street had the greatest number of accidents at unsignalized intersection locations (at least 10 accidents in the five year study period).

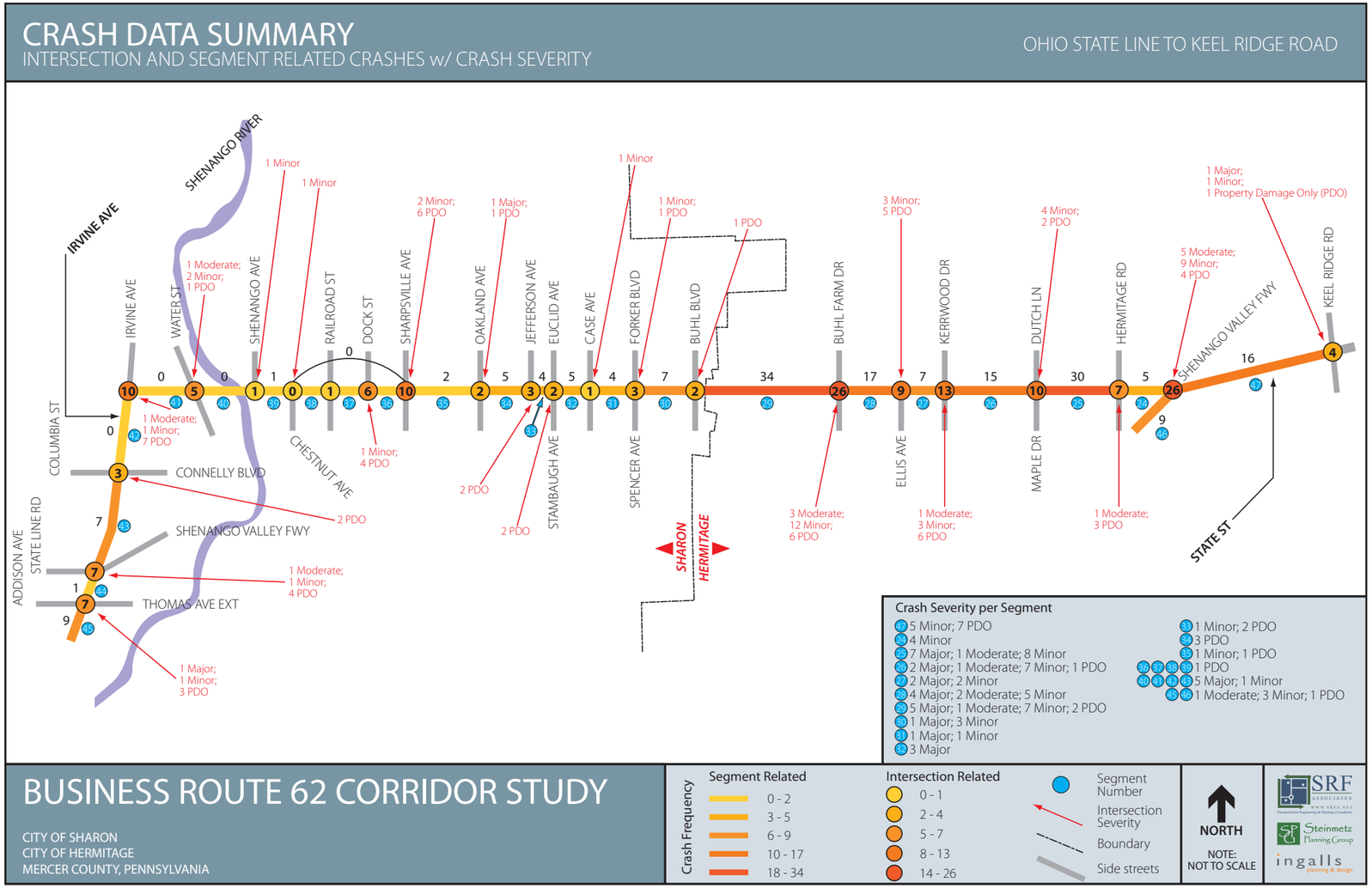


Figure 38: Crash Summary by Segment and Intersection

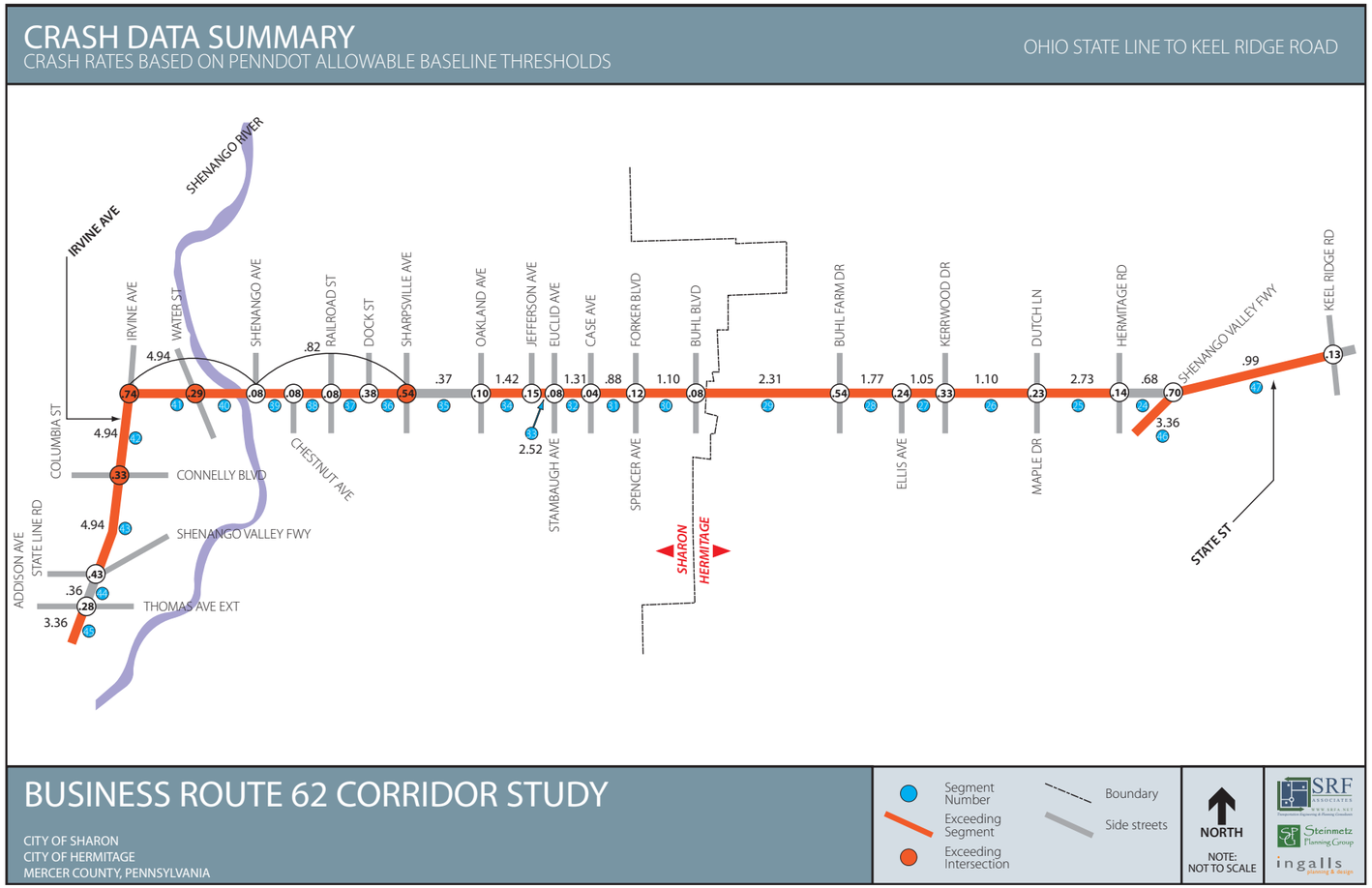


Figure 39: Crash Rate

Crash Rates

Based on the number of accidents at each intersection, accident rates were calculated and compared to the statewide average for similar facilities. The calculated rates and comparison to statewide averages are also summarized in Chart 2. Intersection rates are listed as accidents per million entering vehicles (ACC/MEV).

All of the intersections along the study corridor have accident rates that are below the state wide average accident rate with the exception of four intersections (Sharpsville Avenue - 10, Water Street - 5, Irvine Ave - 10 and Connelly Blvd - 3). The accident rate at these four intersections exceeds the statewide average rate for similar facilities primarily due to the low volume of traffic traveling through the intersections. Most of the accidents at these four intersections were right angle related accidents (Sharpsville Avenue - 7, Water Street - 3, Irvine Ave - 4 and Connelly Blvd - 1).

Almost all of the segments along the study corridor experienced accident rates that are greater than the state wide average accident rate. There were 185 segment related accidents in the entire study corridor over the five year period. The majority of the accidents include - 65 right angle related, 63 rear-end related and 33 fixed object accidents.

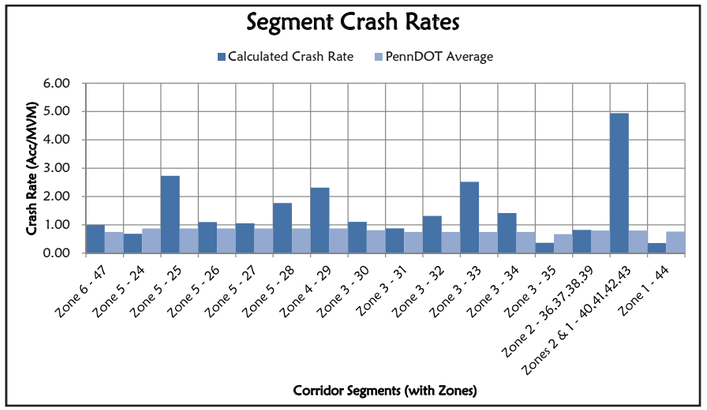
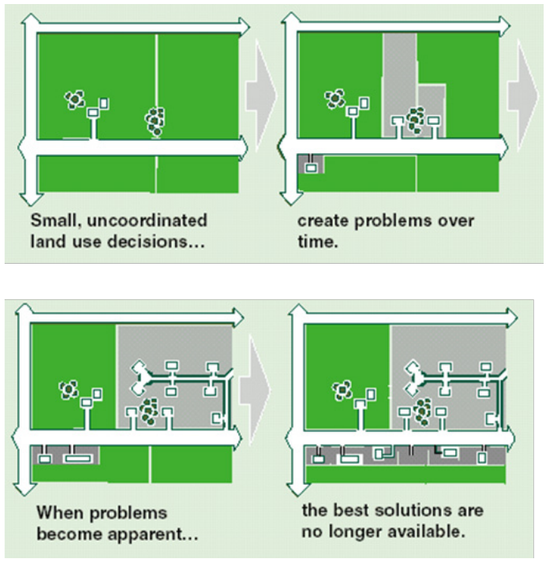


Chart 2: Crash Rate



Access Management Illustrations

"The application of access management techniques on a crash-prone corridor can achieve a 20 percent to 60 percent drop in crashes and injuries."
– Phil Demosthenes, Principal Planner, Consultant

Access Management Evaluation

Access Management is the planning, design, and implementation of land use and transportation strategies that maintain a safe flow of traffic while accommodating the access needs of adjacent development. Safe and efficient transportation infrastructure and traffic operations are fundamental to local and regional economic development. Maintaining a safe and efficient transportation system, however, requires a careful balancing between the need to accommodate through traffic and the need to provide high quality access to properties abutting the roadway.

Access management techniques coordinate the development of lands and their access points. This technique can reduce the need for future costly highway improvements required to address safety and capacity issues. Land developments (large or small) occurring over time, slowly increase their effect on the safety and capacity of the roadway. Developing, or re-developing, one parcel at a time may not have a significant effect. However, as the number of developments increase the cumulative effect is greater than anticipated for each separate development. Therefore, a comprehensive approach to land use and access management planning yield the highest return from state, local, and private investment in infrastructure and land development. A comprehensive land use and access management plan also provides the land developer and the community with a strategy for meeting their other, non-transportation objectives for the corridor.

An access management evaluation was mapped out for each Character Zone. The Federal Highway Administration (FHWA) lists the following as effective management techniques:

- Increasing spacing between signals; Driveway location, spacing, and design;
- Use of exclusive turning lanes;
- Median treatments – two-way left turn lanes (TWLTL) and raised medians;
- Service (backage) and frontage roads; and
- Land use policies limiting right-of-way (ROW) access to roadways

In order to properly assess the current situation of the corridor, data was collected for each zone: the length of the zone; access points per mile; signals per mile; number of lanes; and average annual daily traffic (AADT). During the initial stages of the public participation process, residents expressed their concerns for access management treatments specifically for Zones 5 and 6. Access density for each zone is depicted in Chart 3 and in Figures 40 though 45.

"Safe access is good for business!"
– USDOT Federal Highway Administration; Office of Real Estate Services; Office of Transportation Management

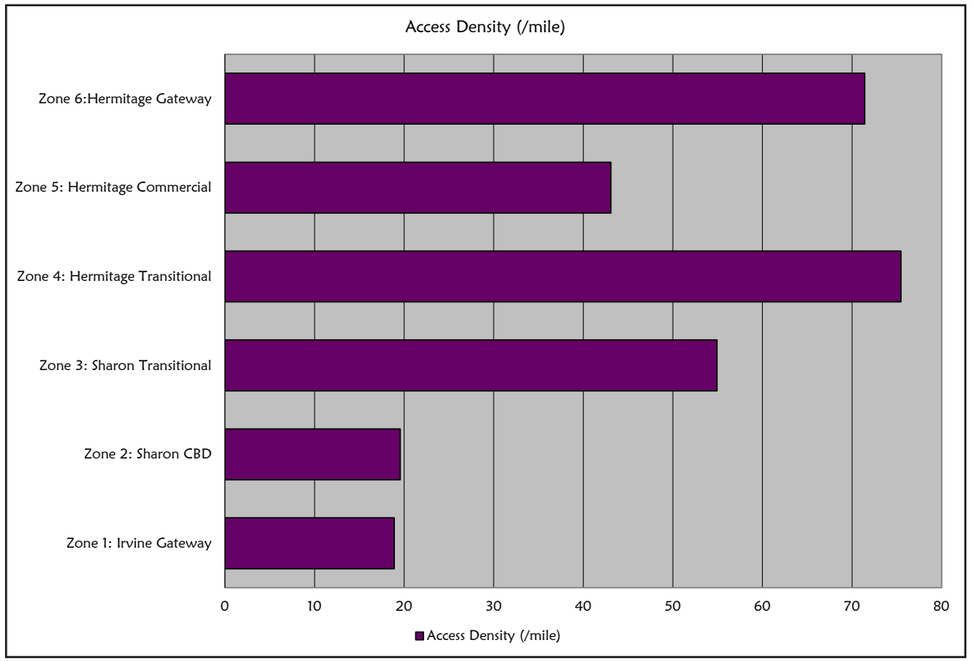


Chart 3: Access Density per Zone

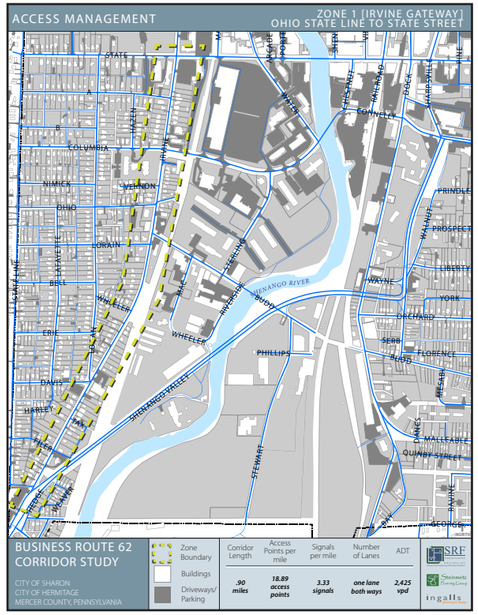


Figure 40: Access Management (Zone 1)

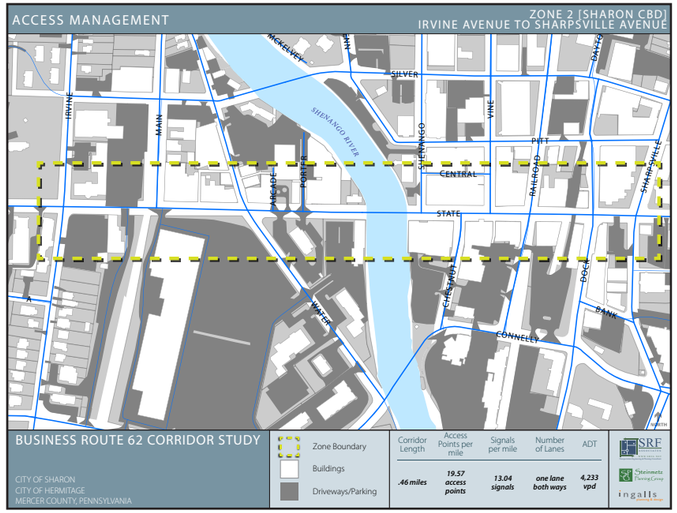


Figure 41: Access Management (Zone 2)

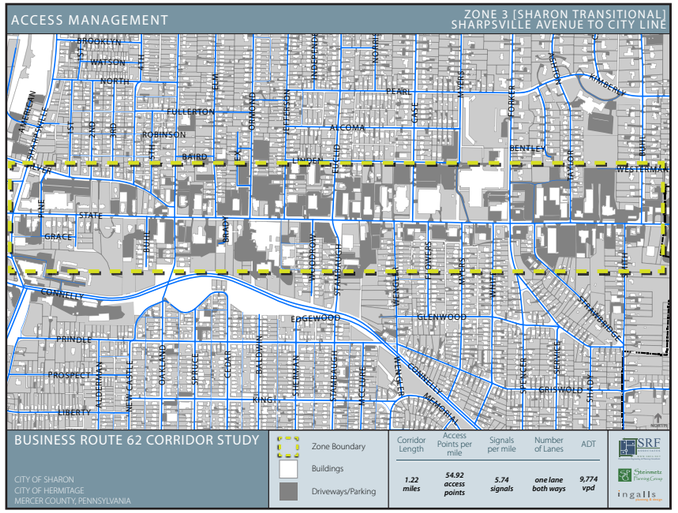


Figure 42: Access Management (Zone 3)

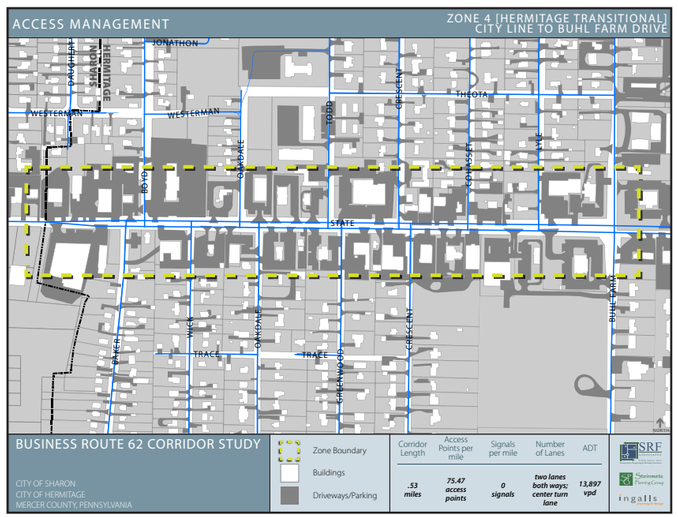


Figure 43: Access Management (Zone 4)

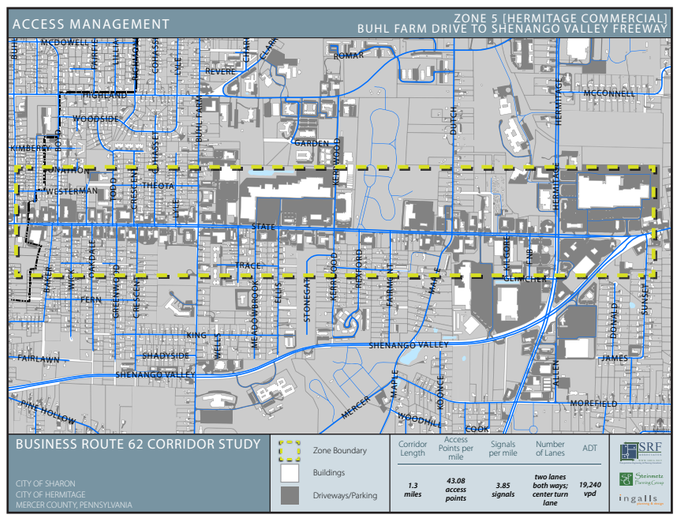


Figure 44: Access Management (Zone 5)

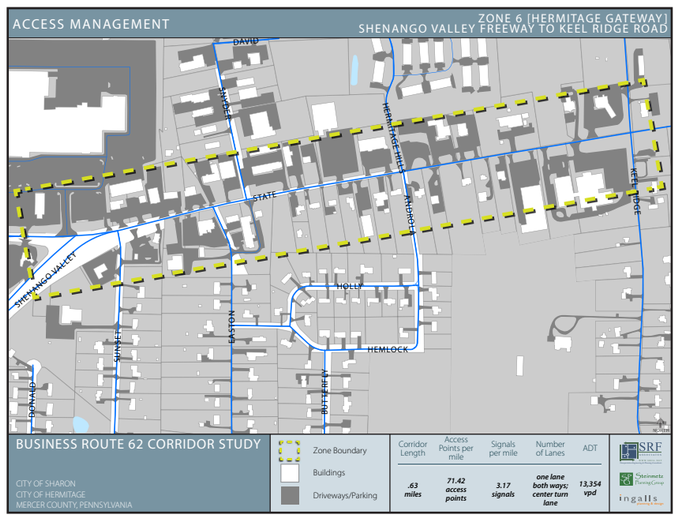


Figure 45: Access Management (Zone 6)

"It's no big mystery. The best streets are comfortable to walk along with leisure and safety. They are streets for both pedestrians and drivers. They have definition, a sense of enclosure with their buildings; distinct ends and beginnings, usually with trees. Trees, while not required, can do more than anything else and provide the biggest bang for the buck if you do them right. The key point again, is great streets are where pedestrians and drivers get along together."

– Allan Jacobs, PPS.org

Quality of Service

Automotive travel ways can be evaluated to determine their user friendliness as it relates to bicycle or pedestrian users as opposed to the traditional motor vehicle. As mentioned earlier, the most common measure of effectiveness used for vehicular traffic, level of service (LOS), is based on capacity of the highway by considering the users' comfort level with the highway as it relates to buffer areas, sidewalk widths, vehicular volumes and speeds, outside lane width, presence of on-street parking, pavement conditions, and bike lane markings.

A pedestrian Quality of Service (QOS) has been developed for the pedestrian realm on both sides of the roadway, along the State Street and Irvine Avenue corridors. Using the previously segmented Character Zones, each segment along the corridor has been assigned a LOS score based on calculations using the HCM level of service method. Based on the pedestrian and bicycle realm related variables, scores ranging from A-F were calculated. The scores can be useful in determining segments that contain the greatest needs for accommodation improvement. A score of A-B are generally described as above average and the most acceptable realms, while E-F are the least comfortable and unacceptable performance. It should be noted that some roadways should not be expected to receive A-B scores, based on their functionality and their location within the area's context.

Character Zone	Direction of Survey	Bicycle		Pedestrian	
		LOS	Compatibility Level	LOS	Compatibility Level
Zone 1	NB	C	Moderately High	B	Very High
	SB	C	Moderately High	B	Very High
Zone 2	EB	D	Moderately Low	A	Extremely High
	WB	D	Moderately Low	A	Extremely High
Zone 3	EB	D	Moderately Low	C	Moderately High
	WB	D	Moderately Low	C	Moderately High
Zone 4	EB	E	Very Low	E	Very Low
	WB	E	Very Low	E	Very Low
Zone 5	EB	E	Very Low	F	Extremely Low
	WB	E	Very Low	F	Extremely Low
Zone 6	EB	E	Very Low	E	Very Low
	WB	E	Very Low	E	Very Low

Table 3: Bike/Ped Levels of Service

The LOS analysis, summarized in Table 3 and Figure 46, indicates that Zones 1-3 are extremely high to moderately high for the pedestrian realm, while Zones 4-6 are very low to extremely low. In terms of bicycle ratings, Zones 1-3 are higher than Zones 4-6. This is partially due to lower ADT volumes and lower posted speed limits. Though the pedestrian LOS scores rate higher in Zones 1-3, the quality of the sidewalks are inconsistent, with Zone 1 containing the poorest quality. Zones 4-6 is an area of disconnected sidewalks, with most sidewalks located in front of newer businesses based on building code requirements.

Crosswalk Location	Score	
Xing State W. of Stambaugh/Euclid	2.14	B
Xing State E. of Forker/Spencer	2.01	B
Xing State W. of Jefferson	2.00	B
Xing State E. of Stambaugh/Euclid	1.97	B
Xing State E. of Jefferson	1.96	B
Xing State W. of Forker/Spence	1.96	B
Xing State E. of Case	1.94	B
Xing State W. of Case	1.92	B

* Sorted from worst to best performing crosswalk

Table 4: Crosswalk Levels of Service

Another analysis performed was a crosswalk level of service. This calculation determines the quality of the signalized intersection crosswalks. This evaluation takes into account speed limits, permitted left turns, right turns on red, number of lanes being crossed by the pedestrian, the total cycle length, and phase green time. Table 4 shows the results of the analysis. The crosswalks analyzed were within the hospital and school zones in the City of Sharon. Based on the results, although they all rated at LOS 'B', Stambaugh Ave and Euclid Ave tested the worst. However, based on field investigations and speaking with local crossing guards, that intersection is problematic and poses pedestrian safety issues during peak school hours. The same can be said for Jefferson Ave during the same time of day.

PEDESTRIAN AND BICYCLE LEVEL OF SERVICE

OHIO STATE LINE TO KEEL RIDGE ROAD

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

SRF ASSOCIATES WWW.SRFA.NET Transportation Engineering & Planning Consultants
Steinmetz Planning Group
ingalls planning & design

Figure 46: Bike/Ped Levels of Service

Future Land Use

The future land use pattern for Sharon and Hermitage is shown in Figure 47 and is summarized below. The Future Land Use Map and corresponding summaries are from the 2007 Joint Comprehensive Plan document.

Neighborhood Conservation - Located along and to the west of South Irvine Avenue.

- Description – Neighborhoods which are currently well maintained and thriving, but are located adjacent to un-aesthetic land uses and/or neighborhoods in decline.
- Planning Objective – Protect these older existing residential areas from land uses that may infringe on the character and quality of life of the neighborhood. These areas should be monitored for signs of blight, enhancements and buffering should be recommended where appropriate. Flexibility in densities should be provided to accommodate a wide range of housing opportunities that are consistent with the neighborhood's character.
- Recommended Land Uses – Single family detached dwellings; single family semidetached dwellings; townhouses; apartments; low-impact neighborhood commercial; park/open space uses.
- Recommended Development Densities / Strategies – Density range of 5-12 units per acre, dependent upon neighborhood conditions and zoning district.

Central Business District - Commonly known as downtown Sharon.

- Description – This category is similar to the "Town Center" area in that a variety of uses will be accommodated, but the area will have a more urban feel – density will be higher, buildings may be taller and off-street parking areas should be to the side or rear of the structures. The Central Business District includes many of the City's historic resources.
- Planning Objective – Area intended to allow continued growth of the existing downtown core, providing services including the niche specialty shops in contrast to commercial chain stores, and professional offices. Accessory uses to Penn State's Campus are appropriate as well. New construction should be consistent with the historic character of the area. River access and preservation should be incorporated into development regulations.
- Recommended Land Uses - Professional and government offices; conversion and loft apartments; parks and recreation; small-scale and specialty retail; day-to day commercial uses.
- Recommended Development Densities/Strategies – Maximum density of one unit per 2000 square feet, with some flexibility depending on use. Target area for economic activity and re-development of vacant buildings with the goal of re-establishing the central business district as a destination. Emphasis should be on protection of the historic character of the area.

Corridor Enhancement - Extends from Sharpsville Avenue to the eastern Sharon City line.

- Description - Corridors and/or gateways which are predominately developed but in need of beautification and upgrades.
- Planning Objective – Convert unaesthetic developed strip areas into attractive, functional mixed commercial, residential, and business corridors that are consistent in character with the surrounding neighborhoods. Emphasis on access management and sign regulations are critical.
- Recommended Land Uses - General commercial (excluding strip malls); office; residential; mixed uses; second floor residences; municipal use.
- Recommended Development Densities/Strategies – In general, higher density uses are most appropriate in these areas, however, rear-parking lots and landscaping may require larger lot sizes where applicable.

Commercial Corridor Enhancement - Extends east from the Sharon/Hermitage City line to North Buhl Farm Road.

- Description – East State Street Corridor which is developed, but in need of beautification and streetscape enhancements.
- Planning Objective – Convert unaesthetic developed strip area into attractive, functional commercial business corridor. Emphasis on access management and sign regulations is critical.
- Recommended Land Uses – General commercial (excluding strip malls); office; municipal uses.
- Recommended Development Densities/Strategies - In general, higher density uses are most appropriate in these areas, however, rear-parking lots and landscaping may require larger lot sizes where applicable.

Commercial - Extends east from North Buhl Farm Road to Dutch Lane and begins again at Snyder Road and extends to Keel Ridge Road.

- Description – Existing commercial areas in the State Street and Route 18 Corridors.
- Planning Objective – To allow a variety of appropriate commercial uses while providing an attractive setting for these uses.
- Recommended Land Uses – Retail, personal service, entertainment, offices
- Recommended Development Densities/Strategies - Development or redevelopment must comply with established design standards for site design, landscaping, access/management, signage, and building design.

Town Center - Extends east from the Dutch Lane to Snyder Road.

- Description - This area will be chiefly a commercial area, but professional offices, and limited mixed use residential will also be accommodated, and at a high density.
- Planning Objective – Provide areas to encourage a mixture of commercial and business uses, consistent with the City's Town Center Plan. The critical element here is the creation of a flexible, pedestrian-friendly environment where the commercial uses are compatible with existing uses. Commercial uses within this district will be at a smaller neighborhood scale and should include uses such as corner grocery stores, coffee shops, specialty shops, and post offices. Highway oriented uses are not recommended in this area.
- Recommended Land Uses – Small-scale retail and local commercial uses; professional offices; mixed use residential; parks and recreation.
- Recommended Development Densities/Strategies – Density requirements should be flexible in this area, depending on the use. Lot sizes of 5,000 square feet to an acre on average. Neo-traditional development may be appropriate within these areas to create a sense of 'place', while discouraging automobile-dependent uses and large parking lots. Access management strategies are extremely important in this area.

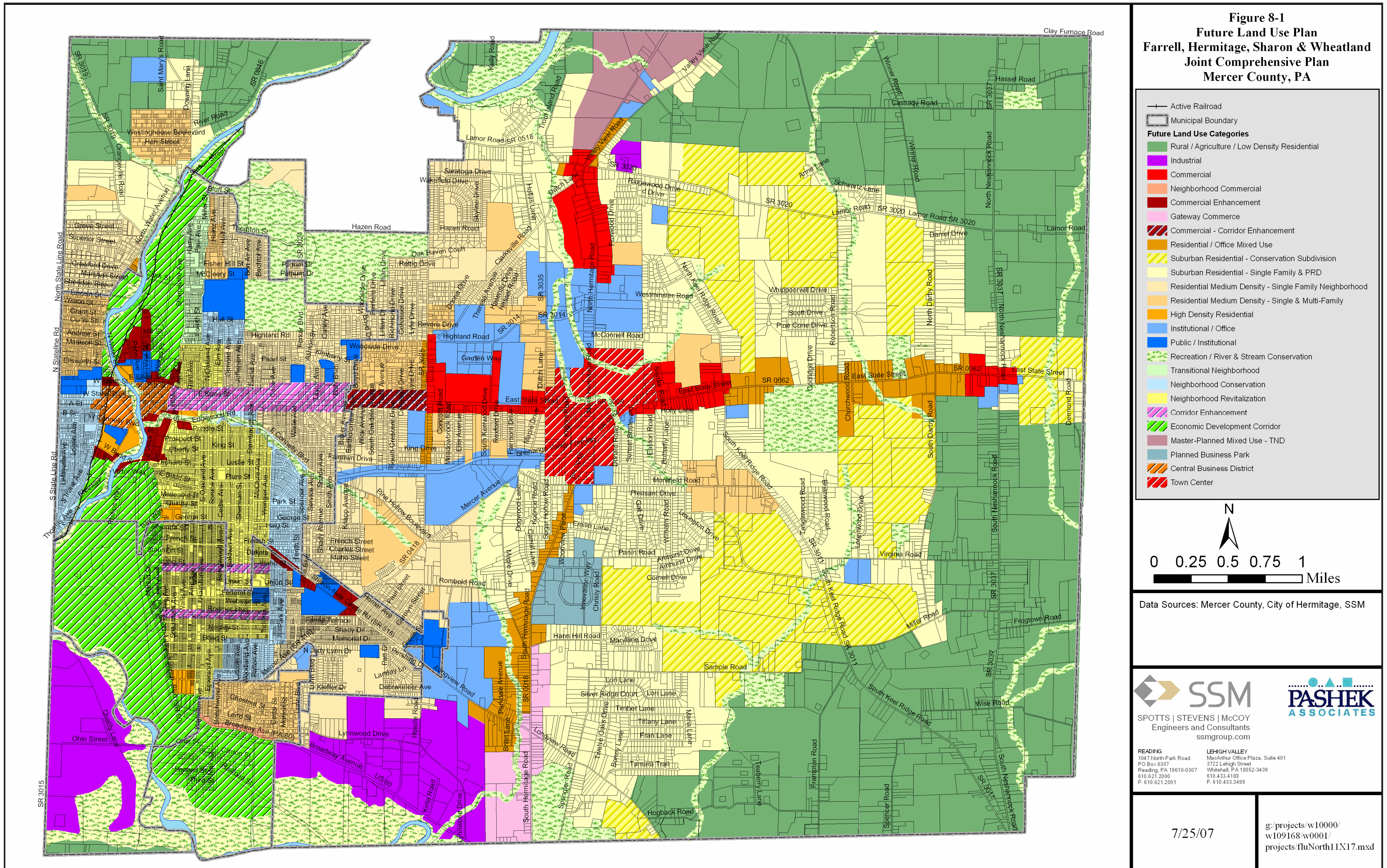


Figure 47: Future Land Use Map (Reprinted from the 2007 Joint Comprehensive Plan)

The Irvine Avenue/State Street corridor is almost completely built out. As a result, large scale projects such as the Sharon's Regional Health System Technology Center (shown above) are likely to be built elsewhere in Hermitage or Sharon, where larger tracts of land are available.

"'Placemaking' is both an overarching idea and a hands-on tool for improving a neighborhood, city or region. It has the potential to be one of the most transformative ideas of this century."

– Metropolitan Planning Council of Chicago

Future Build-Out Analysis

As part of this study, a planning level build-out analysis been conducted to determine the potential impacts that future growth and investment will have on the on the transportation system and on community character. This build-out analysis takes into account potential development within the study area; including infill, redevelopment, and new development that can reasonably be expected to occur within the next five to ten years. Once completed the future build out estimates served as the basis for the potential traffic demands along the Irvine Avenue/State Street corridor that are analyzed in the Future Traffic Analysis section of this study.

Hermitage Town Center Plan Market Assessment

A market assessment was completed as part of the process used to develop the Hermitage Town Center Plan. According to this market assessment, "Hermitage has a competitive demographic disadvantage when compared with other surrounding areas, in particular, high growth areas like Cranberry Township, Butten County or the East End of Pittsburgh. Particularly in terms of potential retail development, the lower disposable income levels suggest that a large scale retail development or redevelopment is unlikely.

Early on in the planning process, the steering committee identified examples such as Crocker Park near Cleveland, Ohio as a positive model of what the ultimate goal for the Hermitage Town Center should be. This "town center" development is a mixed-use community that includes extensive high-end retail, apartments and offices to support an intensively developed public realm of streetscapes, public parks and parking garages. However, this project was undertaken as a coherent project under the control of a single developer with site control of the entire land parcel. Hermitage's relatively small population, slowly declining population and moderate income levels make it unlikely that this type of a developer intervention will take place, at least at the present time.

This means that change will most likely happen incrementally and the town center planning process needs to be based on that reality. It is clear, however, from the current level of developer and landowner interest, there is a market for new retail establishments, the new Super Wal-Mart and Home Depot projects testify to that fact. We believe that there is also a potential long-term market for residential development based on an aging population seeking new housing products such as condominiums and apartments.

Assumptions

The future build out analysis is based upon following information and assumptions of the corridor:

- Based on the Town Center market assessment, demographic trends, and conversations with staff from both cities, a high growth scenario is unlikely. As a result, a maximum build-out approach relying solely on existing zoning was not used.
- The future land use map from the Joint Comprehensive Plan and existing zoning requirements constitute the current land use policy for the Cities.
- Consideration was given to the Hermitage Town Center Plan and a portion of the development depicted in the plan was included in the analysis. Emphasis was placed upon new "liner" or "out-parcel" development near the mall and the theater.
- A majority of the development along the corridor is likely to be commercial or retail with some new office uses.

Using these assumptions, a general estimate of an additional 45,000+ sq ft of development in Sharon and 240,000+ sf in Hermitage can be expected along the corridor over the next five to ten years.

Parcel By Parcel Assessment

The project team reviewed the existing development pattern, zoning classifications, and future land use pattern to identify potential locations for development or in-fill. This review was conducted for each parcel along the corridor. The final results of the future build out analysis is summarized below by Character Area:

Character Area	Future Build-Out Potential Type	Estimated Sq. Ft.
Zone #1	General Commerical	10,000
Zone #2	General Commerical	15,000
Zone #3	General Commerical	10,000
	Institutional	10,000
Zone #4	General Commerical	4,000
	Office	20,000
	Residential Apartments (10 units)	
Zone #5	General Commerical	181,500
	Office	10,000
Zone #6	General Commerical	33,000
Total		**293,500**

Future Traffic Analysis

Historical traffic volume growth in the study area and potential developments in the corridor, based upon the future build out analysis contained in the previous section, have been reviewed and evaluated to determine a growth rate to account for normal increases in area-wide traffic growth. A twenty (20) year traffic forecast was derived and used for future traffic analyses.

The future build-out potential results in additional traffic added to the corridor. Table 5 indicates the potential for additional traffic in the corridor specifically attributed to future build-out.

In addition to traffic that may be added to the corridor as a result of the future potential build-out, there is also growth in traffic anticipated from areas outside the corridor (i.e. through traffic). PennDOT provided growth rates applicable for this corridor which indicate a yearly growth rate of 0.28% based upon historical VMT (Vehicle Miles Traveled) data between 1994 and 2009, as well as Woods and Poole demographic and economic data. Using both the build-out related traffic and the PennDOT growth rate, the existing 2011 turning movement counts at each intersection were increased to reflect 2031 (20 years in the future) conditions during both the AM and PM peak hour periods.

The 2031 traffic volumes were then analyzed using Synchro to determine the future capacity conditions at each intersection. Figures 48 and 49 show the 2031 peak hour traffic volumes and capacity analysis results (LOS) at the study intersections. The following intersection movements experience a decrease in level of service as a result of the growth in traffic volumes:

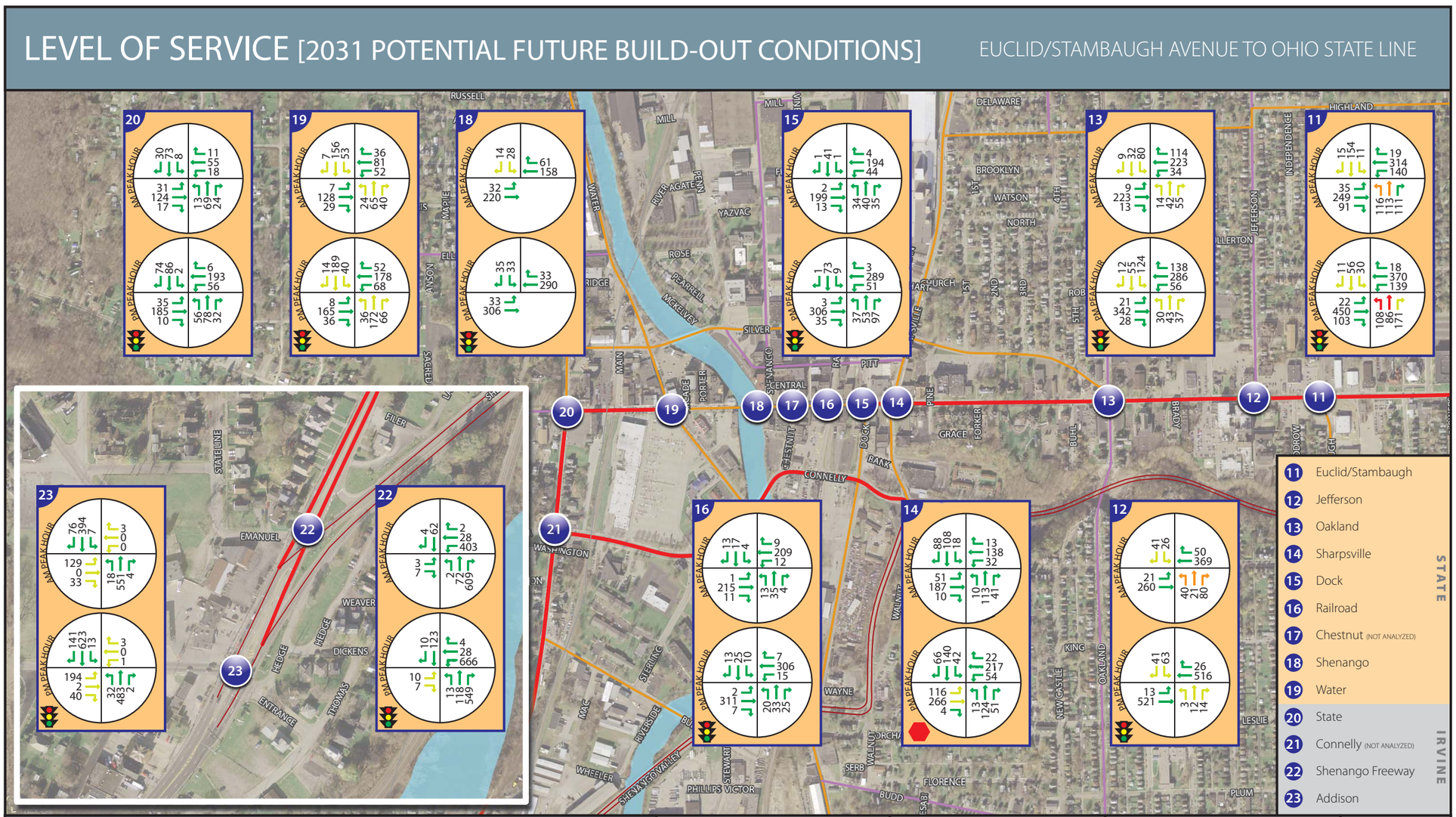
- State eastbound left turn at Keel Ridge – PM Existing LOS B ↓ to LOS C
- State eastbound through at Shenango Valley Freeway – PM Peak LOS B ↓ to LOS C
- Hermitage northbound through and right turn – PM Peak LOS C ↓ to LOS D
- Hermitage southbound through – PM Peak LOS D ↓ to LOS E
- Maple northbound approach all movements – PM Peak LOS D ↓ to LOS E
- Kerrwood southbound left turn – PM Peak LOS D ↓ to LOS E
- Buhl Farm northbound through – PM Peak LOS D ↓ to LOS E
- Buhl Farm southbound left – PM Peak LOS C ↓ to LOS D
- Stambaugh northbound left – PM Peak LOS D ↓ to LOS E
- State eastbound all movements at Sharpsville – PM Peak LOS B ↓ to LOS C

				AM Peak Hour		PM Peak Hour	
Zone	**Land Use**	**Size**		**Enter**	**Exit**	**Enter**	**Exit**
Zone 1	Shopping Center	10	Th.Sq.Ft. GLA	6	4	18	19
Zone 2	Shopping Center	15	Th.Sq.Ft. GLA	9	6	27	29
Zone 3	Shopping Center	10	Th.Sq.Ft. GLA	6	4	18	19
	Medical-Dental Office Building	10	Th.Sq.Ft. GFA	18	5	9	25
	Zone 3 Total			**24**	**9**	**27**	**44**
Zone 4	Shopping Center	4	Th.Sq.Ft. GLA	2	2	7	8
	Office	20	Th.Sq.Ft. GLA	27	4	5	25
	Residential Apartments	10	Units	2	7	15	8
	Zone 4 Total			**31**	**13**	**27**	**41**
Zone 5	Shopping Center	181.5	Th.Sq.Ft. GLA	111	71	332	345
	General Office Building	10	Th.Sq.Ft. GFA	14	2	3	12
	Zone 5 Total			**125**	**73**	**335**	**357**
Zone 6	Shopping Center	33	Th.Sq.Ft. GLA	20	13	60	63

Table 5: Trip Generation for Potential Development

LEVEL OF SERVICE [2031 POTENTIAL FUTURE BUILD-OUT CONDITIONS]

EUCLID/STAMBAUGH AVENUE TO OHIO STATE LINE



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

Other Freeways & Expressways
Other Principal Arterial Highways
Minor Arterials
Urban or Rural Major Collector
Rural Minor Collector

Intersection Movement Level of Service
LOS A - B
LOS C
LOS D
LOS E - F

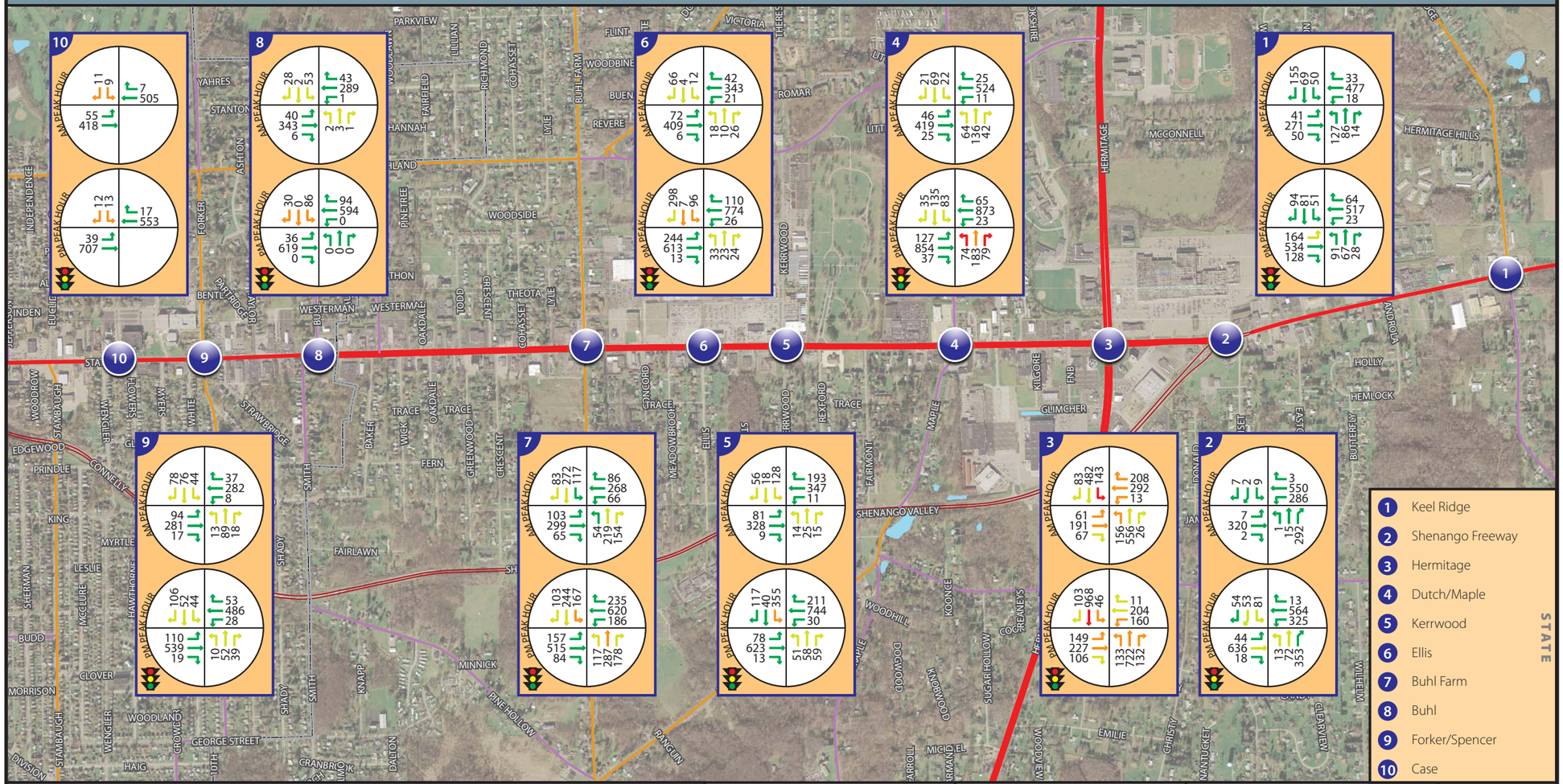
NORTH
0 375 750 1,500
FEET

SRF Associates
Steinmetz Planning Group
ingalls planning & design

Figure 48: Future Level of Service (Euclid/Stambaugh Ave to Ohio State Line)

LEVEL OF SERVICE [2031 POTENTIAL FUTURE BUILD-OUT CONDITIONS]

KEEL RIDGE ROAD TO CASE AVENUE



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

- Other Freeways & Expressways
- Other Principal Arterial Highways
- Minor Arterials
- Urban or Rural Major Collector
- Rural Minor Collector

Intersection Movement Level of Service

- LOS A - B
- LOS C
- LOS D
- LOS E - F

NORTH

0 600 1,200 2,400

FEET

SRF ASSOCIATES WWW.SRFA.NET Transportation Engineering & Planning Consultants
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Figure 49: Future Level of Service (Keel Ridge Rd to Euclid/Stambaugh Ave)

III

NEEDS & OPPORTUNITIES ASSESSMENT

Transportation Issues

Providing safe routes of travel for cars, bicycles, and pedestrians is a responsibility and priority for all communities. Examining the Cities of Sharon and Hermitage, found there to be several areas of deficiencies related to crash analysis and access density.

Intersections and Segments
The review of all signalized intersection throughout the corridor enabled the study team to determine those that should be given further study and review. Operational measures at those interactions that were found to have decreased levels of service should be studied in detail. In addition to the review of those intersections, signal coordination amongst the signalized intersections should be explored. The intersection of Sharpsville Avenue and State Street was mentioned as a point of concern through public input. Through an in-depth, model-based analysis, the results showed that the operation of the intersection is functioning above average.

Regarding the future traffic analysis performed for the corridor, several intersections experienced decreased levels of service. Those intersections could be warranted for additional study and review to determine mitigation and optimization procedures.

	Annual Average Daily Traffic (AADT)	Signals per Segment	Crashes per Segment	Segment Crashes/Zone (per Million Vehicle Miles)
Zone 1	2,425	3	8	**2.01**
Zone 2	4,233	6	8	**2.30**
Zone 3	9,774	7	27	**1.23**
Zone 4	13,897	0	34	**2.58**
Zone 5	19,240	5	74	**1.56**
Zone 6	13,354	2	16	**0.99**

Table 6: Crash Rate per Zone

Crashes
Table 6 computes the crash rate for each Character Zone. In comparison to PennDOT acceptable averages, character segment crashes are generally higher than average, especially when evaluated per intersection segments along the corridor. In relation to access management issues, Zone 4 was called upon during public meetings as an area in which the amount of driveways and offset intersection cause issues for drivers and pedestrians alike. The rate reported support this claim. As per the FHWA benefits of access management, the topic of signal spacing is important in reducing congestion, improving travel time, and most importantly for this part of the study, reduces the instances of crashes. The high number of signals in this short stretch of road can have an effect on the increased rates of crashes.

An Access Management Plan for Zones 4 through 6 will address driveway spacing, shared access, and signal spacing ultimately reducing crash rates in these areas.

A concentration of pedestrian crashes was identified near Sharon Regional Health Systems and the Sharon High & Middles Schools. This area would benefit from a detailed pedestrian plan and upgrades to sidewalks, crossings, and signs in the area.

Pedestrians
The role of the pedestrian on a corridor such as State Street and Irvine Avenue is vital. When examining the fabric of the communities in Sharon, most of the businesses and structures have minimal setbacks, encouraging pedestrians to walk by and stop in. However, the opposite is generally true in Hermitage. Many businesses are located farther back from State Street with large parking lots in front, encouraging a more automobile friendly environment.

An investigation of the sidewalk network in both Cities shows that Sharon has a connected network, occupying over 90% of the available space given to a sidewalk path. On the other hand, Hermitage has many disconnected sidewalks with the sense of "sidewalks to nowhere." Many of the sidewalks in the community are now built with new development because of newer building codes. This provides an opportunity for business to begin building sidewalks of their own to connect to the established paths. Encouraging and providing more options for pedestrians can bring a new crowd of customers to businesses that may not have been seen earlier.

In addition to calculating pedestrian levels of service for each Character Zone, a Walk Score evaluation was performed for each zone. Walk Score is an online service provided by Google that enables users

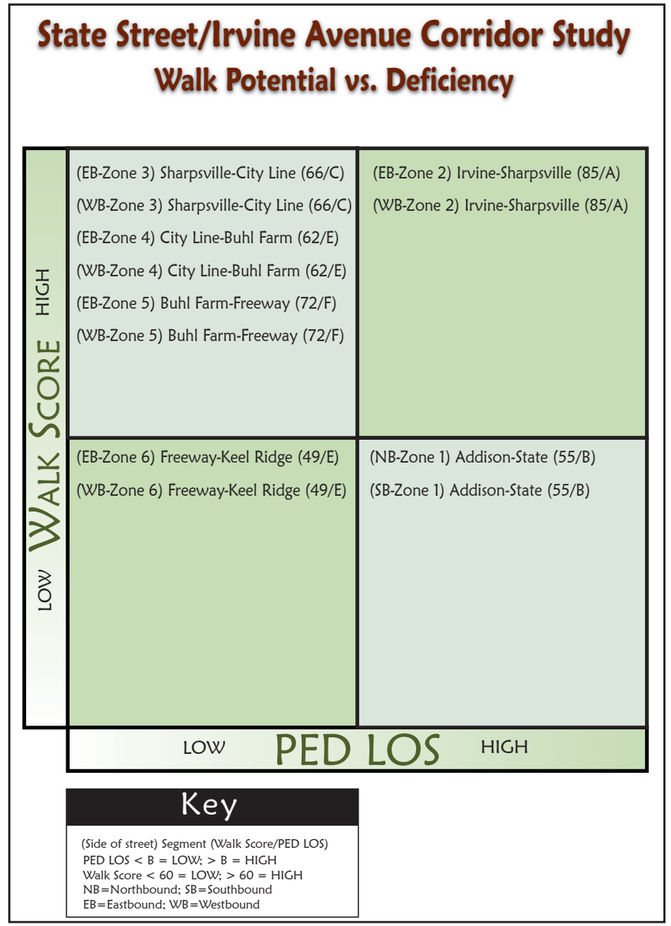


Chart 4: Walk Potential vs. Deficiency

to find walkable places to live. Walk Score calculates the walkability of an address by locating nearby stores, restaurants, schools, parks, etc. Walk Score measures how easy it is to live a car-lite lifestyle. The online software then calculates a score for a chosen address based on a zero to one-hundred scale. All zones analyzed returned scores from 49 to 85. Zones 3 through 5 resulted in higher scores and lower pedestrian levels of service indicating that this area has pedestrian generating services, but a low quality of service. As such, these zones should be designed to support, promote, and enhance pedestrian trips. The results are shown in Chart 4.

Bicycling
Bicycle safety is judged on the presence or absence of a dedicated bicycle facility, shared lane widths including the on-street parking lane, and the amount of space a cyclist needs to safely maneuver. Other considerations which affect bicycle safety are speed limits, ADT volumes, percentage of heavy traffic, and the number of driveways or obstructions in the public realm.

Bike parking in New York City
(Source: www.streetsblog.com)

The State Street and Irvine Avenue corridor lack any form of dedicated bicycle facilities. Zones 1 through 5 provide no shoulder, giving users no comfort zone or room to maneuver. In most cases, the lanes are too narrow for cyclists to share the road, while ADT volumes in Zones 4 through 6 are high enough that could give users a perceived lack of safety from the automobile. Cyclists, based on their experience levels, may feel more comfortable riding on the sidewalk or on the road.

Parking
The parking data discussed in the Inventory & Analysis section of this report indicates that there is an adequate supply of parking within the Sharon Central Business District (CBD) to accommodate all of the current uses. However, the distribution of parking throughout the area indicates that patrons choose to park as close to their destination as possible.

There is an opportunity to encourage motorists to choose more remote parking if either the walk to/from their destination is safe, pleasant and inviting. Although public parking signs are helpful in identifying public lots, they do not help visitors reach their destination. A more sophisticated system, a defined wayfinding system, that helps visitors identify where they can park for specific destinations and then assist them in getting there might be needed. The public parking signs could be at the foundation of such a system. Other opportunities for improvements may include:

- *Reframe the parking paradigm* - Most people want to park as close to their destination as possible. Rather than promoting parking based on location alone consideration should be given to promoting it based on walking distance and time. This will take a concerted effort by all stakeholders to deliver a consistent message regarding parking.

- *Strengthen connections to public parking areas* - The experience visitors have along connections between parking and destinations can impact their desire to walk. People are more likely to walk when connections are identifiable, safe, and inviting.

In relation to bicycling opportunities, bicycle parking can be an opportunity for businesses to take advantage of. An average parking space that holds one car can be transformed into a place for up to 12 or 14 bicycle parking bays. This addition by subtraction method could increase individuals travelling to key destinations by more than 10 fold.

Transit
The existence of the Shenango Valley Shuttle Service is important to those who choose to use alternate modes of travel. Building on the establishment of such a system is important to achieving a completely multi-modal corridor. Buses can be equipped with bicycle racks to allow for a wider range of users.

"A vigorous five-mile walk will do more good for an unhappy but otherwise healthy adult than all the medicine and psychology in the world."
-Paul Dudley White

Quality of Service/ Character Issues

Walkability

When evaluating street side pedestrian environments the overall quality of the pedestrian experience is equally if not more important than typical level-of-service (LOS). If pedestrian ways look uninviting or feel uncomfortable people are less likely to use them regardless of whether they meet typical operational standards. In many cases evaluating urban downtown pedestrian facilities, such as State Street in the City of Sharon, using traditional LOS methods has little value because changes to the quantitative variables such as vehicle speed, sidewalk width, and traffic volumes are limited by the physical characteristics of the existing built environment. However, qualitative characteristics such as street trees and furnishings are often improvements that can be added to existing infrastructure and have proven to have positive impacts on walkability.

In suburban commercial strips – like Route 62 in Hermitage – traditional LOS methods can consider and account for the lack of sidewalks whereas most qualitative methods do not. Improving capacity is often possible in newer suburban environments but is typically not required or desirable due to low pedestrian volumes. While an evaluation of the qualitative characteristics of a pedestrian's enjoyment of the walking experience is important to provide a complete picture of the pedestrian environment and to design an "inviting" sidewalk, it is a separate measure of effectiveness and must be developed and calibrated, if possible, separately from the sidewalk capacity or safety perception measures. Therefore, in addition to LOS, which uses quantitative roadway and traffic variables to describe pedestrians' perception of safety or comfort, the consultant team also evaluated the Business Route 62 Character Zones using qualitative characteristics.

It is well documented that urban design characteristics such as enclosure, transparency, articulated building facades, and street trees impact people's desire to walk and their enjoyment on the street. Most notably is Allan Jacob's 1995 book based on his research of streets and the role they play in urban life. Jacobs describes in great detail the characteristics that are needed to develop "great streets." His work has led others in countless studies involving qualitative factors and pedestrian comfort.

Qualitative analysis utilizes several factors that are not addressed in customary level-of-service analyses. By carefully evaluating each pedestrian way based on these types of factors, very specific recommendations for improving walkability can be made. For example, if it is documented that a street scored very low on shade trees, then it becomes apparent that the planting of trees is likely to be a promising course of action. Or, if an urban street with buildings close to the sidewalks scores low in regards to transparency then implementing or modifying design regulations with a first floor transparency requirement could help to improve walkability.

The Character Zones (1-3) that include sidewalks were evaluated using the six (6) qualitative factors described to the right. Although Zones 4 and 5 do have segments of sidewalk they were not included in the evaluation because they are newly established and simply lack too many of the qualitative factors to make the evaluation worthwhile.

- **Enclosure/Definition**—Is the degree to which the edges of the pedestrian realm are well defined. Excellent enclosure focuses pedestrians' eyes along the street and has positive impacts on safety by conveying a feeling of narrowness to motorists, which slows traffic.
- **Transparency**—Transparency is the ability to see through the interface between the public space and private space.
- **Articulated Buildings**— Facades of buildings should add interest to the pedestrian experience through the varied application of materials, design, and color.
- **Buffer from Street**—The presence of a "buffer zone" between pedestrians and moving vehicles enhances pedestrian safety and increases the level of comfort.
- **Shade Trees**—The presence of street trees improves the comfort level of pedestrians by providing protection from harsh weather and helps to define the pedestrian realm.
- **Street Furnishings**—The presence of benches (rest areas) and trash receptacles.

Evaluation

Each Character Zone was evaluated based on the factors using a scale of 1 to 5 with 1 equal to 'Very Poor', 2 equal to 'Poor', 3 equal to 'Average', 4 equal to 'Good', and 5 equal to 'Excellent'. The scores were tabulated and a mean score for each route was generated. The score for each zone along with opportunities for improvements are listed below.

Character Zone 1: Score 1.8

» Opportunities: Improve the definition of the sidewalks, plant urban tolerant shade trees, include street furnishings where appropriate.

Character Zone 2: Score 3.5

» Opportunities: Strategically replace street trees with urban tolerant and commercial district friendly trees and upgrade street furnishings.

Character Zone 3: Score 2.2

» Opportunities: Improve the definition of the sidewalks in certain locations, plant urban tolerant shade trees throughout, include street furnishings where appropriate.

Walkability (Zone 1)

Walkability (Zone 2)

Walkability (Zone 3)

Opportunities for Improvement

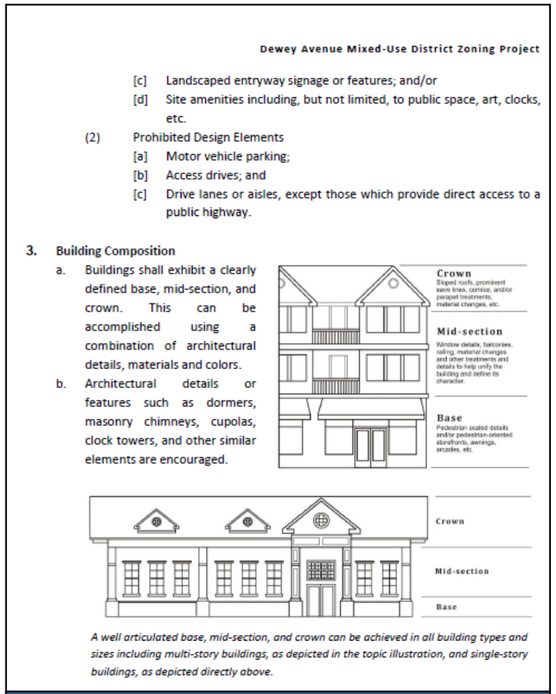
A topic that was discussed early in the discovery process and one that work has been started on is the idea of gateways. Gateways can act as a first impression for those passing through or visiting the area. They also help with traffic calming and improvements in traffic and pedestrian safety. Areas within the Study Area that have been identified as possible gateway locations are:

- Irvine Avenue and the Ohio State Line;
- Hermitage Road and State Street; and
- Keel Ridge Road and State Street

The Hermitage Rd and State St location is part of the Hermitage Town Center Plan.

Another area that is open for opportunity is street lighting. Residents have expressed their concern regarding the quality of street lighting in Downtown Sharon. The areas that exhibit high volumes of pedestrian activity should be looked at first for lighting improvements.

Wayfinding throughout the corridor has also been an issue discussed at length. Many street signs throughout the length of State St and Irvine Ave show signs of degradation. There are also issues of wayfinding in terms of access to parking and destinations. Those areas that have higher volumes of pedestrians and motorists can be critical locations for improved wayfinding signage that can increase overall safety for all users.



A well articulated base, mid-section, and crown can be achieved in all building types and sizes including multi-story buildings, as depicted in the topic illustration, and single-story buildings, as depicted directly above.

Code Illustrations & Graphics - More and more communities across the country are incorporating building and site design standards into their zoning documents. The most effective means to communicate these standards consists of using a combination of words and graphics as shown above. Neither Sharon or Hermitage currently utilizes drawings or illustrations within their zoning codes.

Zoning & Regulatory Needs & Opportunities

Both cities have strengths and weaknesses associated with their current regulatory framework. Based upon the review of the recent plans and studies and the existing zoning documents for both cities the following needs and opportunities are provided for further consideration:

- 2007 Comprehensive Plan - A Comprehensive Plan forms the legal foundation for a municipality's land use policy and zoning regulations. In other words, the preparation and adoption of a Comprehensive Plan provides the most effective basis for developing or modifying a municipality's zoning ordinance or code. Hermitage has not adopted the 2007 Joint Comprehensive Plan document. As a result, any references to the official comprehensive plan in the zoning ordinance refers to the plan adopted in 1993. The adoption of some or all of the 2007 Plan is an opportunity for the Hermitage to clarify and update its land use policy.

- Access Management - In order to increase driver safety, preserve the market area of existing businesses and to extend the operational life of the roadway, both cities should add access management provisions to their existing land development regulations. These requirements could take the form of an overlay district for East State Street or apply to all non-residential districts in Sharon and Hermitage. Typical access management provisions include driveway spacing standards, limits on the number of driveways permitted per parcel, and cross or shared access requirements.

- Building & Site Design Standards - The commercial zoning districts that encompass the Irvine Avenue/State Street corridor do not contain adequate building or site design standards necessary to achieve a high level of development. It is clear from the recent planning efforts and the public input received during this process that both communities would like future investment to positively contribute to the character of the corridor, enhance the public realm, and foster pedestrian activity. Incorporating appropriate design guidelines and standards into the existing zoning documents for Sharon and Hermitage are an effective approach achieving this goal.

- Landscaping Requirements - As previously stated, Hermitage has extensive landscaping requirements that articulate type and number of plantings, size of trees, and spacing requirements for non-residential uses. Sharon has similar requirements within the TND District. These types of standards could be extended to other districts within Sharon to ensure a more consistent level of landscaping throughout the City.

- Bicycle Parking - Adding a provision that requires bike parking to the off-street parking requirements of both cities.

It should be noted that the City of Hermitage zoning ordinance contains an 18 South Overlay District. This district contains many, but not all of the opportunities identified in this section. It may be appropriate to extend the code elements of this overlay district that are considered successful and beneficial to the East State Street corridor. These elements include:

- Restrictions on front yard parking.
- Access management requirements.
- Building and site design requirements such as maximum setback allotments and transparency requirements.

These needs and opportunities will form the basis of the regulatory recommendations of the final report.

Programmatic Opportunities

Providing a bicycle and pedestrian friendly environment, as important as it is, cannot solve all bicycle and pedestrian problems. Some safety problems might be more easily resolved through programs than through facilities. Public awareness and education programs are important components when encouraging more people to safely bike and walk.

This section contains examples of several initiatives and campaigns that could be included in bicycle and pedestrian education and encouragement programs. These were selected based on an assessment of the project area and discussion with local stakeholders. Do not necessarily consider these as recommendations but rather opportunities to explore further as this study progresses. Additional programs and initiatives may also be considered.

In order to move these types of programs ahead, it is critically important for a local organization or champion to lead the charge. This is typically a local bicycle and pedestrian advocacy organization. Most successful programs are a collaborative effort between a local advocacy organization, government agencies, and local businesses.

Education

Education can be a powerful tool for changing behavior and improving safety skills. Pedestrians, bicyclists, and motorists can benefit from educational tools and messages that teach them the rules, rights, and responsibilities of various modes of travel. In addition to programs merely promoting walking and biking, an effort needs to be made to cover such topics as pedestrian and motorist laws. For example, there are Route 62 corridor users that do not understand that motorists must yield to pedestrians crossing at intersections, regardless of whether there is a marked crosswalk in place or not. Others may be confused as to when crossing a street mid-block constitutes jaywalking. There are numerous education programs and initiatives to help create a safer and more enjoyable street for all users. Below are only a few to consider.

Share the Road Campaign
A Share the Road Campaign is intended to educate motorists, bicyclists and pedestrians about their legal rights and responsibilities on the road, and the need to increase courtesy and cooperation to improve safety. The program targets all residents and visitors to a community.

Share the Road Road Sign

Bicycle Light Campaign
A bicycle light give away is an excellent way to promote bicycle safety. Often, light giveaways occur at daylight savings time in the fall when darkness comes earlier. A program like this is typically a collaborative effort that involves sponsors and local police departments.

Walk Wise Drive Smart Program
According to the US Census Bureau, in 2010 24.8% of the population in Hermitage and 16% in Sharon were over the age of 65. As more Americans reach age 65 and older, safety concerns for senior pedestrians are growing. Walking is a key to maintaining physical and mental well being and it enables senior adults to stay connected to their community, but several fears and dangers keep elderly adults from walking. Walk Wise, Drive Smart is a program in Hendersonville, North Carolina that combines educational, encouragement, enforcement and environmental activities to create a safer and more inviting walking community for seniors.

Walk Wise/ Drive Smart

Wayfinding Signage Program
Wayfinding pertains to directional signs, distance markers, posted maps, information kiosks and other aides for getting people places. Pedestrians and bicyclists are more apt to walk and ride in places where they can easily find their destinations. A wayfinding sign system can help all road users including motorists find their way.

School-aged Children Pedestrian and Bicycle Safety Education
As recommended in the PA 18 Planning and Transportation Study, the Hermitage School District should consider investigating the possibility of introducing pedestrian safety curriculum to students as part of physical education and/or health and wellness classes. According to the Study, the Northwest Regional Highway Safety Network is a


School Children

comprehensive safety project funded by PennDOT's Bureau of Highway Safety and Traffic Engineering and administered through the Erie County Department of Health has a grant program that might be able to assist with a program.

The National Highway Traffic Safety Administration (NHTSA) has developed age-appropriate education programs to provide parents, caregivers, teachers, community leaders, and children with tools to learn the important basics about bicycle safety. Other opportunities for bicycle safety education include bicycle rodeos and helmet campaigns.

Encouragement

Sometimes providing improvements to the pedestrian and bicycle environment is just not enough to get people to walk and bike more. Improvements are most effective when combined with programs and initiatives that not only educate the public about walking and biking but also encourage people to actual walk and bike.

Health Benefits of Walking and Biking

There are numerous programs and campaigns emphasizing the health benefits associated with walking and biking. With childhood obesity at the forefront of many public heath discussions, programs are aimed at getting children moving. The Safe Routes to School National Partnership works with local communities to get more children to walk and bike to school safely. Prioritized walking route maps can be handed out to parents and school children to encourage safer and more enjoyable trips to and from school. Strengthening social relationships between one another can provide a base to promoting healthy living.

Save Money

While walking is free and bicycling can be very economical, car ownership is expensive and consumes a major portion of many residents' income. A program to promote the economic benefits of walking and biking should be considered.

Bike/Walk to Work Day

In New Hampshire a Bike/Walk to Work Day capped off a week-long, statewide Commute Green NH Challenge, which encouraged not only bicycling and walking, but riding transit and carpooling too. People that left their car at home received free breakfast and other rewards.

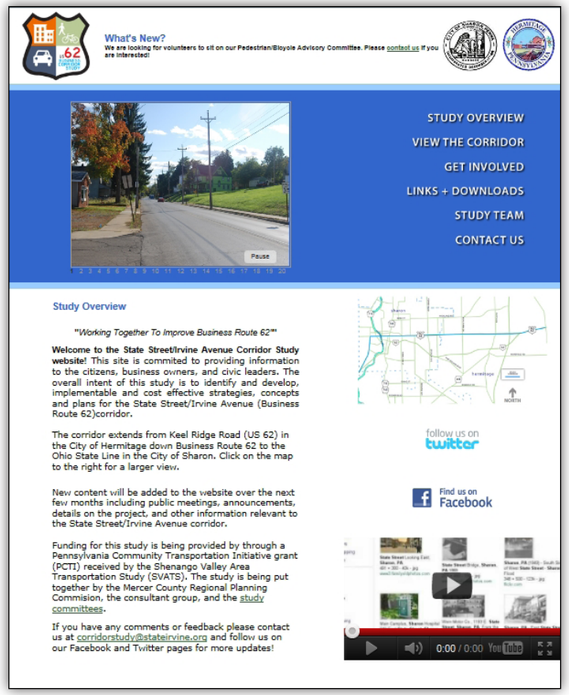
Public Service Announcements

Public service announcements (PSA) can provide accurate and current information to the public. PSAs are valuable as they are versatile and can reach a large audience on pedestrian and bicycle issues, education, and announcements. One challenge is that PSAs can be costly and may not reach the intended audience. A low-cost approach may not be as effective as utilizing a public relations firm and purchasing advertising time targeted to a specific audience.

Commute Green New Hampshire

"Public participation, supporting the population's commitment and guidance to urban planning actions, is of utmost importance in the development process and transformation of the cities for the future."

- World Academy of Science, 2009



Project Website

Public Outreach Results

Meaningful community participation is critical in developing a reality based plan with support from elected officials, local residents, business owners, and property owners. A Public Involvement Plan (PIP) was developed to foster public participation, including open discussion, communication programs, information services and public meetings. In order to gather meaningful public input, the Consulting Team will employ the following methods outlined in the PIP:

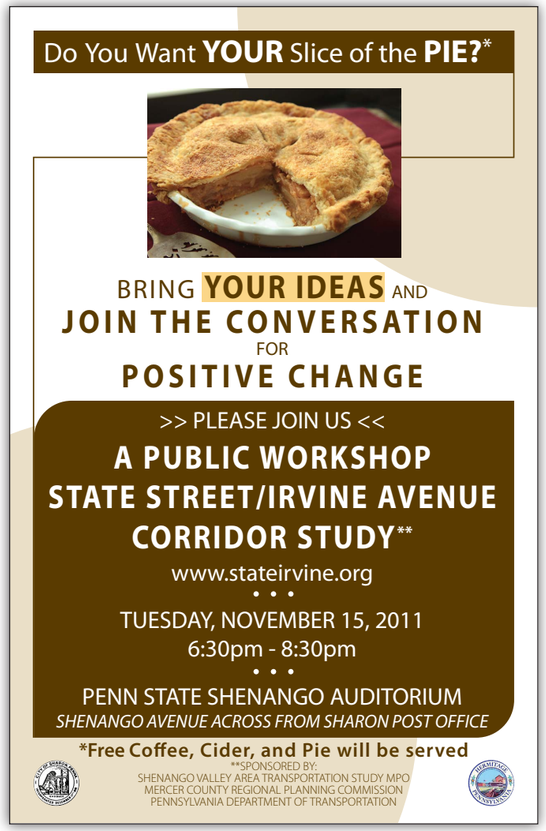
- Steering Committee Meetings
- Pedestrian & Bicycle Advisory Meetings/ Discussions
- Presentations for Elected Officials
- Meetings with Stakeholder Groups (e.g. Sharon School District Officials, churches, social organizations, emergency service providers)
- Youth Workshops
- Public Discovery Workshop (November)
- Community Open House
- Public Presentation of Final Plan

- Project Website
- QR Code
- Facebook Page
- Twitter
- Surveys
  - Community Preference Survey
  - Online Survey
- Media
  - News articles
  - Radio
  - TV
- Community Event
- Flyers, project poster, etc.

Results of the input received through the public involvement process are included in the appendices as well as summarized on the following pages.

Discovery Workshop

The study team held a public discovery workshop on Tuesday, November 15th, 2011 at the Penn State Shenango Auditorium. Approximately 20 knowledgeable and engaged citizens attended the workshop. The purpose of the workshop was to solicit input on the overall effectiveness, safety and comfort of the transportation system within the study corridor and the overall appearance of the study corridor. Members of the community have shared valuable opinions and insights regarding pedestrian and bicycle circulation and connectivity, parking availability and proximity, traffic congestion and safety throughout the corridor. Issues surrounding pedestrian crossings in the vicinity of the Case Avenue Elementary and Sharon Middle and High Schools as well as Sharon Regional Health System, and the overall appearance of the corridor were also discussed. The information gathered at the various meetings, interviews and workshop has proven to be instrumental in identifying issues, opportunities, and the potential for improvements all along the corridor.



Discovery Workshop Announcement Flyer

How Important Is Function vs. Form?

Land uses and the built environment often create a sense of place along highways, and the most important places are usually located near the center of a settlement or built up area. The importance of movement of motor vehicles can vary along the length of a highway and can change over time. Movement and place considerations are important in determining the appropriate design speeds, speed limits, and road geometry. Similarly, the form and character of the adjacent context must also be considered. As the importance of movement increases, the emphasis on place can take on less importance. Alternatively, as the importance of place and character increase, the emphasis on vehicular movement diminishes and becomes secondary to maintaining the qualities and features of a place. During the Discovery Workshop each resident was asked to mark on the Movement vs. Place graph their view of the corridor's role in the future, this exercise was completed for each of the six Character Zones. Chart 5, on the following page, illustrates results of this survey. The consensus indicates that overall, the corridor currently has more of an emphasis on vehicular movement than sense of place. Based on an analysis of data obtained at the workshop, there is a desire to place more emphasis on the corridor having a sense of place than serving as a conduit for vehicular movement.

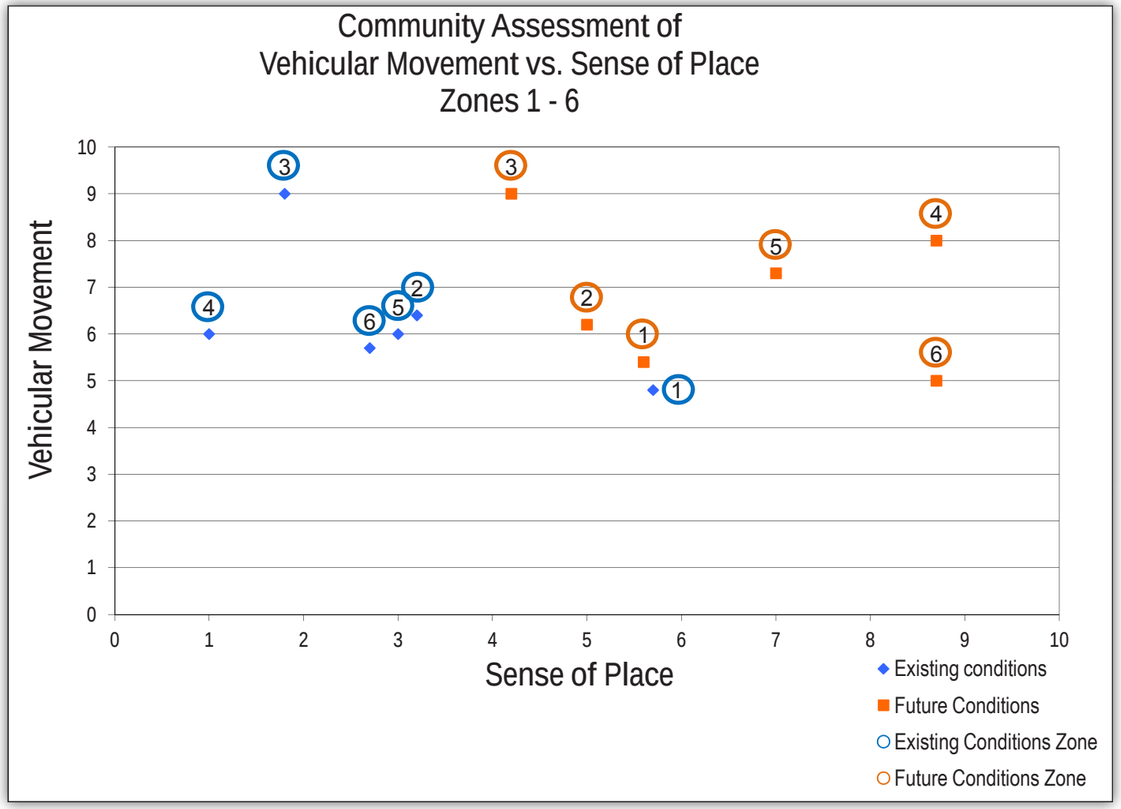


Chart 5: Movement vs. Sense of Place Survey Results

50% of respondents would bike along the corridor if there were accommodations for biking on the roadway.

63% of respondents would walk along the corridor between Buhl Blvd and Keel Ridge Rd if the sidewalks were well constructed, wide, and provided a safe route.

81% of respondents feel that it is important to have a signage system to improve vehicular and pedestrian wayfinding.

83% of respondents feel it is important to strengthen pedestrian and bicycle connections between the Corridor and the surrounding neighborhoods.

86% of respondents feel the overall appearance of the Corridor should be improved.

Online Survey

In order to verify the issues expressed by the Steering Committee and the attendees of the Public Workshop, an online survey was administered as part of this planning process. In November, 2011, surveys were mailed to property owners throughout the corridor and distributed through many other means including website links, churches, Sharon school district personnel, etc. Approximately 230 surveys were submitted either through the online service Survey Monkey or in hard copy format. Approximately 65% of the respondents are Sharon residents, 25% are residents of Hermitage and 10% live outside the study area. The survey results are summarized in Chart 6 (a detailed breakdown of the results is included in the appendix).

According to the survey results, more than 63% of the respondents travel the corridor almost daily, with another 25% traveling the corridor a few times per week.

Many of the survey questions (18 of 22) were phrased to convey a positive statement. As a result, the questions with the least favorable response rate (less than 15%) represent issues that should be considered a higher priority and addressed in the near term. Questions with a favorable response rate between 20% to 50% are a moderate priority and should be addressed in the mid-term. Finally, the questions with a favorable response rate above 50% are a lower priority and should be addressed in the long term. Chart 6, on the following page, summarizes the results which are sorted from higher to lower priority issues.

State Street/Irvine Avenue Corridor Study

The following survey is part of an ongoing study to improve vehicular, pedestrian, and bicycle traffic movement and safety as well as the aesthetics of the corridor within the Cities of Hermitage and Sharon. The primary study area includes the **US 62 Business Corridor** from Keel Ridge Road to the Ohio border. Thank you for taking the time to respond to this survey. Please be aware that the results of this survey will remain anonymous.

INSTRUCTIONS

Please respond to ALL questions. Mark only one box per question.

Shade boxes like this: ■ Not like this: ☒ ☑

1. How often do you typically drive on any segment of the US 62 Business Corridor between the Ohio State line and Keel Ridge Road?	Almost Daily	Few times per week	Few times per month	Less than once per month	Never
	☐	☐	☐	☐	☐

Please use the scale on the right for the following statements.	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
2. I feel that walking along the sidewalks					
a. on State Street between Irvine Avenue and Buhl Boulevard is a comfortable experience.	☐	☐	☐	☐	☐
b. on State Street between Buhl Boulevard and Keel Ridge Road is a comfortable experience.	☐	☐	☐	☐	☐
c. on Irvine Avenue is a comfortable experience.	☐	☐	☐	☐	☐
3. I generally feel safe from traffic while crossing					
a. Irvine Avenue on foot.	☐	☐	☐	☐	☐
b. State Street on foot.	☐	☐	☐	☐	☐
4. I feel the current pedestrian accommodations and traffic control create a safe environment for children to walk across E. State Street to school.	☐	☐	☐	☐	☐
5. It is important to strengthen pedestrian and bicycle connections between the State/Irvine Corridor and surrounding neighborhoods.	☐	☐	☐	☐	☐
6. I would walk along the corridor between Buhl Boulevard and Keel Ridge Road if the sidewalks were well constructed, wide, and provided a safe route.	☐	☐	☐	☐	☐
7. I feel that riding a bike along					
a. State Street between Irvine Avenue and Buhl Boulevard is safe from traffic and a comfortable experience.	☐	☐	☐	☐	☐
b. State Street between Buhl Boulevard and Keel Ridge Road is safe from traffic and a comfortable experience.	☐	☐	☐	☐	☐
c. Irvine Avenue is safe from traffic and a comfortable experience.	☐	☐	☐	☐	☐
8. I feel there is sufficient bicycle parking along the corridor.	☐	☐	☐	☐	☐
9. I would bike along the corridor if there were accommodations for biking on the roadway.	☐	☐	☐	☐	☐
10. I feel there is sufficient parking for existing businesses in downtown Sharon.	☐	☐	☐	☐	☐
11. If on-street parking is not available, I feel parking in a nearby parking lot is convenient.	☐	☐	☐	☐	☐
12. I feel traffic flows well along State Street					
a. between Irvine Avenue and Buhl Boulevard.	☐	☐	☐	☐	☐
b. from Buhl Boulevard to Buhl Farm Drive.	☐	☐	☐	☐	☐
c. from Buhl Farm Drive to Keel Ridge Road.	☐	☐	☐	☐	☐
13. I feel that there are too many traffic signals along the corridor.	☐	☐	☐	☐	☐
14. I feel there are too many driveways along State Street.	☐	☐	☐	☐	☐
15. I feel safe from accidents when driving the corridor.	☐	☐	☐	☐	☐
16. I feel transit service along the State/Irvine corridor is sufficient.	☐	☐	☐	☐	☐
17. I feel the overall appearance of the corridor should be improved.	☐	☐	☐	☐	☐
18. I feel it is important to have a signage system to improve vehicular and pedestrian wayfinding (i.e. to direct visitors to places of interest within the areas).	☐	☐	☐	☐	☐

Please complete reverse side

34399

Example of Resident Survey - Print Version

NEEDS & OPPORTUNITIES ASSESSMENT

Bicycle	7% of respondents feel riding a bike along Irvine Avenue is safe from traffic and a comfortable experience.
Bicycle	9% of respondents feel riding a bike along State Street between Irvine Avenue and Buhl Boulevard is safe from traffic and a comfortable experience.
Bicycle	9% of respondents feel riding a bike along State Street between Buhl Boulevard and Keel Ridge Road is safe from traffic and a comfortable experience.
Pedestrian	9% of respondents feel that walking along the sidewalks on Irvine Avenue is a comfortable experience.
Bicycle	9% of respondents feel there is sufficient bicycle parking along the corridor.
Pedestrian	12% of respondents feel that walking along the sidewalks on State Street between Buhl Boulevard and Keel Ridge Road is a comfortable experience.
Transit	20% of respondents feel transit service along the State/Irvine Corridor is sufficient. 24% of respondents felt transit was insufficient, while 57% had no opinion.
Pedestrian	32% of respondents feel safe from traffic while crossing Irvine Avenue on foot
Pedestrian	39% of respondents feel that walking along the sidewalks on State Street between Irvine Avenue and Buhl Boulevard is a comfortable experience.
Pedestrian	41% of respondents feel safe from traffic while crossing State Street on foot
Motor Vehicle	41% of respondents feel that traffic flows well along State Street between Irvine Avenue and Buhl Boulevard.
Motor Vehicle	45% of respondents feel safe from accidents when driving the corridor.
Motor Vehicle	47% of respondents feel that there are NOT too many traffic signals along the corridor.
Parking	48% of respondents feel there is sufficient parking for existing businesses in downtown Sharon, 44% disagree
Motor Vehicle	53% of respondents feel that there are NOT too many driveways along State Street.
Parking	57% of respondents feel that if on-street parking is not available, they feel parking in a nearby lot is convenient.
Motor Vehicle	63% of respondents feel that traffic flows well along State Street between Buhl Boulevard and Buhl Farm Drive.
Motor Vehicle	63% of respondents feel that traffic flows well along State Street between Buhl Farm Drive and Keel Ridge Road.

Higher Priority Concern

Medium Priority Concern

Lower Priority Concern

Motor Vehicle Traffic Flow
Bicycle Circulation & Safety
Transit
Pedestrian Circulation & Safety
Parking

Chart 6: Survey Results Sorted by Priority

Public Discovery Workshop Presentation

Community Preference Survey Results
Cities of Sharon & Hermitage

To Be Encouraged ⟷ To Be Avoided

Building Location

Franchise Architecture

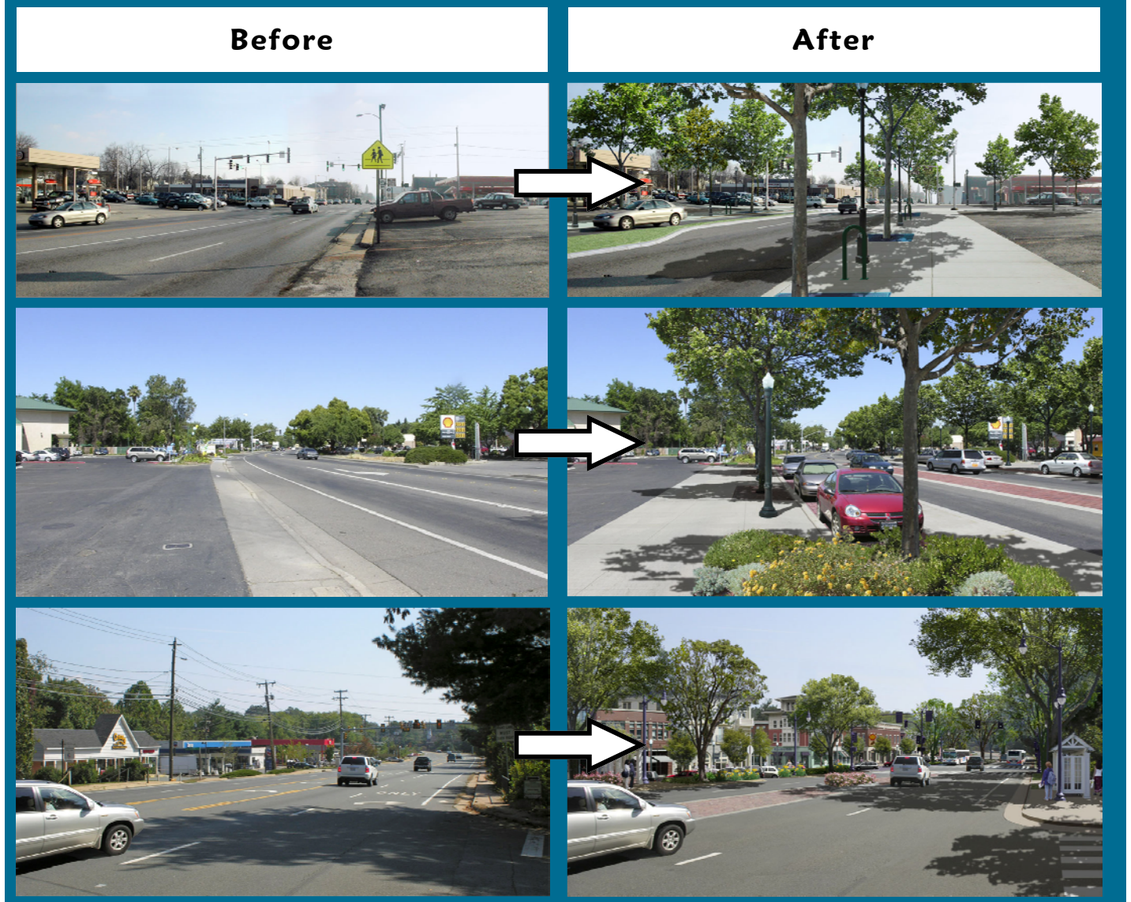
Facades

Landscaping & Screening

Streetscapes

Re-Envisioning Great Streets

The images below show examples of three distinct highway corridors from Arkansas, California and Virginia. Each of these communities took the initiative to re-envision how these corridors function, look, and feel. The results of this process are illustrated in the photo-simulations on the right side. As you can see, each community desires operational enhancements such as flush or raised medians, pedestrian improvements including sidewalks, street trees and decorative lighting. Collectively these features create a more safe and comfortable experience as you travel the corridor while enhancing the local "sense of place."



Images Courtesy of Urban Advantage

Community Preference Survey Results

On November 15, 2011 the project team administered a Community Preference Survey (CPS) at the Discovery Workshop. The results of the survey were summarized and provided to the Steering Committee and are contained in the Appendix. The purpose of the survey was to gauge local attitudes towards various types of design including architecture, landscaping, signage, and the overall appearance of the streetscape. This survey consisted of residents, property owners, business owners, and community leaders ranking images of various types of development on a scale from 0 (un-appealing) to 10 (very appealing). A visual summary of the results are shown on the previous page. Based upon the CPS results, the following design principles are preferred along the State/Irvine Corridor.

<u>High Scoring Images had the Following Characteristics:</u>

Building Scale & Location
- Buildings at or near the sidewalk;
- Buildings at least two stories in height;
- One story structures that have the scaling of a small two story structure; and
- Wider structures are broken up into smaller visual increments.

Facades
- Front facades with large amounts of transparency (e.g. windows & doors);
- Architectural details that add visual interest to the façade; and
- Primary building entrances that face the street and are clearly identified using visual clues and design details.

Parking
- Parking that is screened from view (preferably behind a building); and
- Parking lots broken up with a variety of landscaping treatments.

Streetscapes Elements
- Wide sidewalks;
- A flush or raised, center median with plantings; and
- Traditional streetscape elements such as textured pavement, benches, landscaping, and decorative lighting.

<u>Low Scoring Images had the Following Characteristics:</u>

Building Scale & Location
- Buildings set back far from the sidewalk;
- Visually short, one story buildings; and
- Large blank walls.

Facades
- Front facades with little or no transparency (e.g. windows & doors);
- A lack of architectural details; and
- Primary building entrances that are not clearly identified using visual clues and design details.

Parking
- Large expanses of parking in front of the building;
- Parking placed immediately adjacent to the sidewalk or roadway; and
- Parking that has not been screened from view or has no landscaping.

Streetscapes Elements
- Narrow sidewalks or a lack of sidewalks;
- Wide streets with no features or striping to break up the asphalt between the curbs;
- A lack of traditional streetscape elements such as textured pavement, benches, landscaping, and decorative lighting.

The results of the CPS will serve to inform the various design and regulatory recommendations necessary to achieve Sharon's and Hermitage's vision for the State/Irvine Corridor.

Zone 3: Jefferson Avenue. School crossing guards in front of Sharon Regional Health System

Key Issues and Opportunities Summary

Key issues and opportunities have been summarized based on the inventory and analysis, the results of the online survey, public input received at the discovery workshop, and feedback provided by the steering committee and other focus groups.

The collective engagement and analysis tasks to date, have identified and/or reaffirmed broader issues and key areas of need on a corridor wide basis. They are as follows:

- Creating a consistent design standard based on zonal contexts
- Create a "green" streetscape and corridor
- Signal coordination
- Need for making the corridor more usable for pedestrians and cyclists alike (i.e. Complete Streets policies, SRTS)
- Advance Access Management strategies for Zones 3 - 6 with coordination between Public and Private interests
- Opportunities to leverage and restore prominence to Zones 2 and 3
- Road diet between Hermitage Rd and Buhl Blvd
- High pedestrian crashes near hospital and schools
- Sidewalk improvements for areas that have them
- Americans with Disabilities Act (ADA) improvements throughout the corridor
- Transit stop improvements
- Opportunities to improve pedestrian crossing conditions at mid-block locations and signalized intersections, especially in the areas of the schools and hospital
- Need organizational capacity and structure to implement change
- Need public relations campaign to change the negative community paradigm and to celebrate and build from existing assets
- Need for articulated gateways and transition areas
- Capitalize on new investment to implement a horizontal and vertical mixing of land uses
- Develop landscaping standards for non-residential development in Sharon that complement Hermitage's existing requirements
- Create site and building design guidelines and standards to improve the overall appearance of land uses along the corridor
- Detailed intersection reviews at:
  - Shenango Valley Freeway/State St
  - Hermitage Rd/State St
  - Kerrwood Dr/State St
  - Ellis Ave/State St
  - Buhl Farm Dr/State St
  - Buhl Blvd/State St
  - Euclid Ave/Stambaugh Ave/State St

Key Issues are summarized by Character Zone and are depicted on Key Findings maps on the following pages and as follows:

Zone 1:

- Improve sidewalks (including accessibility)
- Improve streetscape
- Address sight line issue at curve
- Develop as a gateway to the region and State
- Identify a location for a gateway sign
- Land use regulations should enhance the gateway into Sharon and protect the existing residential character of the street
- Targeted economic development initiatives for vacant and underutilized property

Zone 2:

- Leverage downtown anchors (Reyers, The Winner, Daffin's)
- Improve sidewalks, street crossings, and traffic signals
- New street trees (strategic placing)
- Façade improvements
- Re-use existing buildings
- Enhance overall downtown circulation and wayfinding
- Better integration of Penn State campus with the State Street corridor
- Code requirements should foster a traditional development pattern and emphasize the architectural quality of the new and re-modeled buildings

Zone 3:

- Improve interface between public & private realms
- Improve streetscaping
- Improve pedestrian crossing issues near hospital and schools
- Protect historic character
- Zoning provisions should balance building design standards with the installation and placement of site amenities to upgrade the quality of the built environment

Zone 4:

- Investigate improved transition between 5 lane to 3 lane section with a road diet
- Address congestion near Buhl Farm Road
- Consider right turn lane at Buhl Blvd westbound
- Several mid-block pedestrian crossings needed
- Zoning provisions should balance building design standards with the installation and placement of site amenities to upgrade the quality of the built environment

Zone 5:

- Pedestrian safety issue crossing E. State St near Concord Rd
- Consider access control near Panera Bread (between Kerrwood Dr and Ellis Ave)
- Consider medians
- No ability to "park once and shop twice"
- Improve appearance and landscaping
- Zoning requirements should serve to advance key elements of the Town Center Plan, including developing a dense, mixed-use land use pattern

Zone 6:

- Mid-block pedestrian crossing needed west of Keel Ridge Rd
- No cohesion in terms of design/character
- Shared access is needed
- Median might help with land use intensities
- Expressway intersection is confusing
- Zoning provisions should balance building design standards with the installation and placement of site amenities to upgrade the quality of the built environment

Other Key Findings

The early discovery and engagement process revealed other issues and potential efforts of importance to the community and to the resulting success of the Route 62 Business Corridor Study. Specifically:

- Continued Public Outreach, Education and Engagement is essential for consensus on achieving community aspirations
- Key stakeholders that include elected officials and merchants along the corridor must be better informed and strategically engaged in the planning process
- New and continued partnerships with the Sharon School District, Sharon Regional Hospital, and the Hermitage and Sharon business communities must be strengthened and leveraged
- A wayfinding signage system for pedestrians and motorists is recognized as a key component for a user-friendly corridor
- Greater emphasis is needed for identifying funding sources and mechanisms for straightforward and streamlined implementation of recommendations
- Reducing the duplication of land uses found throughout the corridor

Additional Opportunities

In addition to the issues revealed through the discovery process and inventory and analysis phase, the study team found several community characteristics that can be viewed as opportunities for promoting and leveraging its assets.

The first of those is the Shenango River. This natural resource can be used as a source of attraction and public pleasure. Secondly, build upon the grid-like network in the City of Sharon. This type of street connectivity, coupled with a sidewalk network can provide the infrastructure for a highly walkable community. Finally, the location of these two cities is within close proximity to cities like Pittsburgh, Erie and Youngstown, Cleveland, and Akron Ohio. Each of these cities are within 70 miles of Sharon and Hermitage and can be used to leverage their location based on a regional scale.

"Communities and neighborhoods are affected. Idling trains, traffic backups, grade crossing accidents and other safety issues all affect the quality of life in our neighborhoods."

- Bill Lipinski

KEY FINDINGS

ZONE 1 [IRVINE GATEWAY]
OHIO STATE LINE TO STATE STREET

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

ISSUE
OPPORTUNITY
AREA OF CONCERN
SIDEWALKS
PARKING

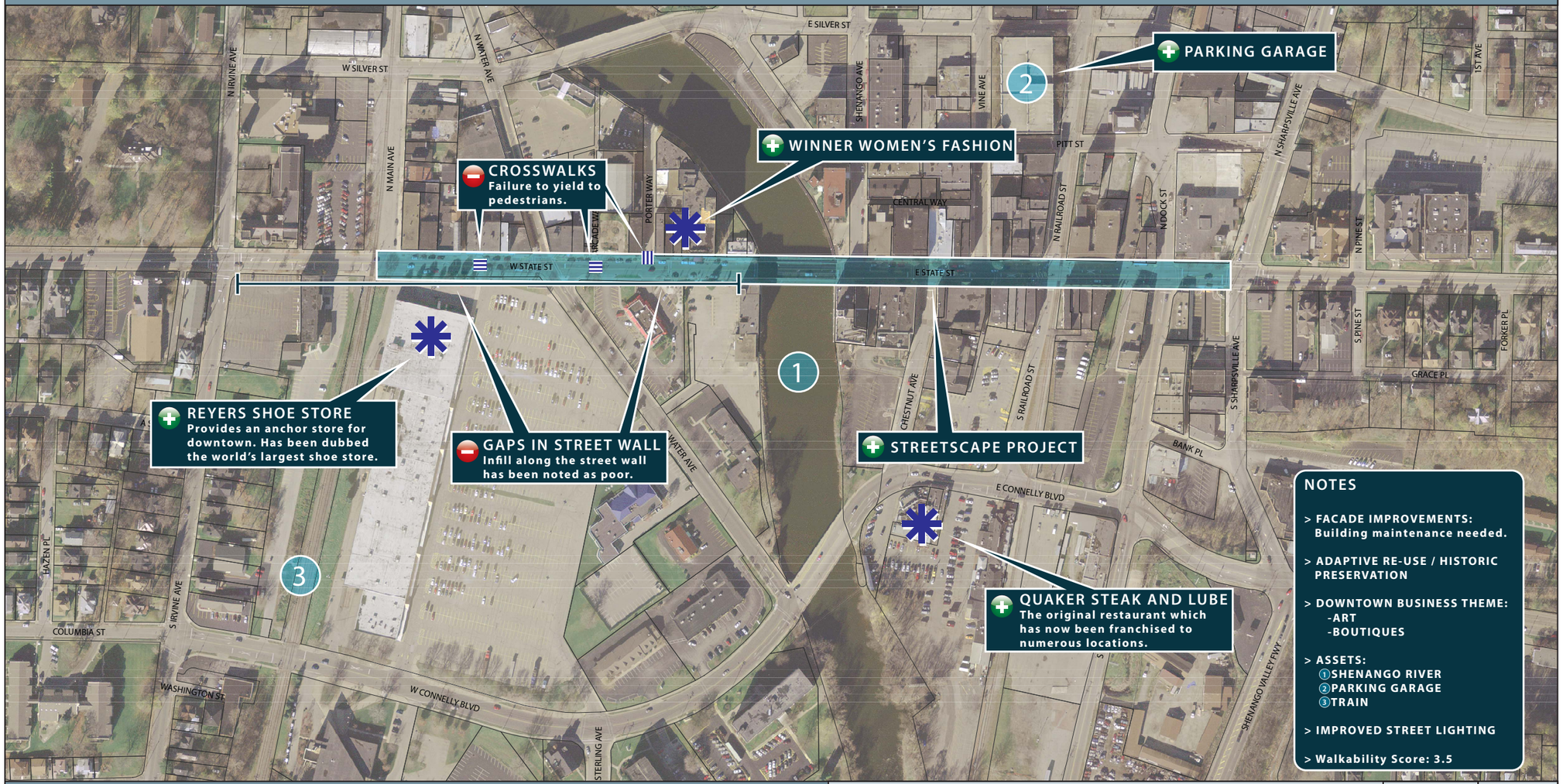
NORTH
0 175 350
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 50: Key Findings (Zone 1)

KEY FINDINGS

ZONE 2 [SHARON CBD]
IRVINE AVENUE TO SHARPSVILLE AVENUE



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

ISSUE
OPPORTUNITY
AREA OF CONCERN
ATTRACTIONS
STREET WALL
AREA OF IMPROVEMENT
CROSSWALKS

NORTH
0 100 200
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 51: Key Findings (Zone 2)

KEY FINDINGS

ZONE 3 [SHARON TRANSITIONAL]
SHARPSVILLE AVENUE TO CITY LINE

BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

ISSUE
OPPORTUNITY
AREA OF CONCERN
ATTRACTIONS
SITE ISSUE
VALUED CHARACTER
CROSSWALKS

NORTH
0 175 350
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 52: Key Findings (Zone 3)

KEY FINDINGS

ZONE 4 [HERMITAGE TRANSITIONAL]
CITY LINE TO BUHL FARM DRIVE

BUSINESS ROUTE 62 CORRIDOR STUDY
CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

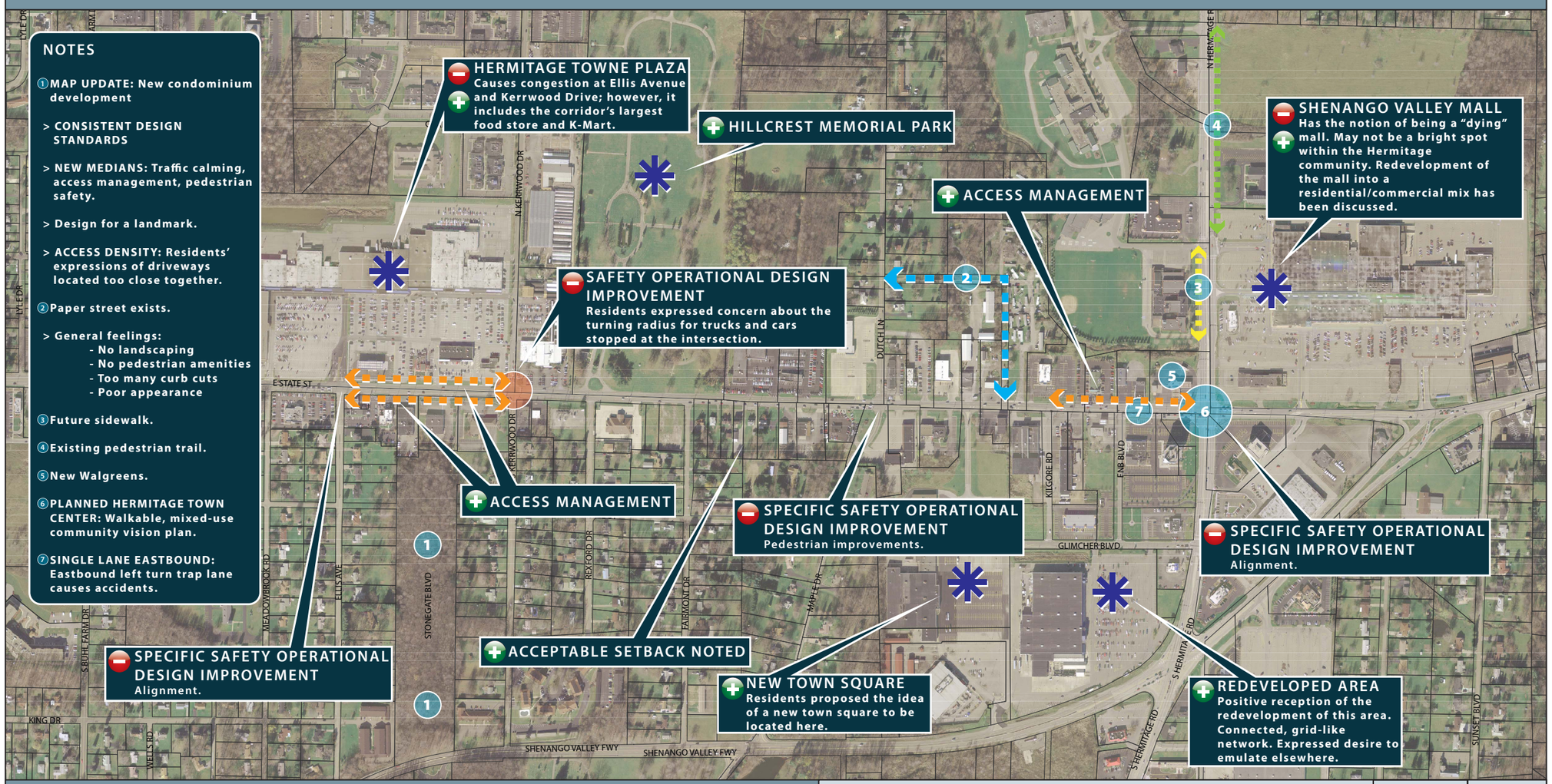
ISSUE
OPPORTUNITY
ATTRACTIONS
SITE ISSUE
CROSSWALKS
NORTH
0 85 170
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 53: Key Findings (Zone 4)

KEY FINDINGS

ZONE 5 [HERMITAGE COMMERCIAL]
BUHL FARM DRIVE TO SHENANGO VALLEY FREEWAY



BUSINESS ROUTE 62 CORRIDOR STUDY

CITY OF SHARON
CITY OF HERMITAGE
MERCER COUNTY, PENNSYLVANIA

ISSUE
OPPORTUNITY
ATTRACTIONS
SITE ISSUE
CROSSWALKS
ACCESS MANAGEMENT
PAPER STREET
SIDEWALK
PEDESTRIAN TRAIL

NORTH
0 225 450
FEET

SRF ASSOCIATES
Steinmetz Planning Group
ingalls planning & design

Figure 54: Key Findings (Zone 5)

KEY FINDINGS

ZONE 6 [HERMITAGE GATEWAY]
SHENANGO VALLEY FREEWAY TO KEEL RIDGE ROAD

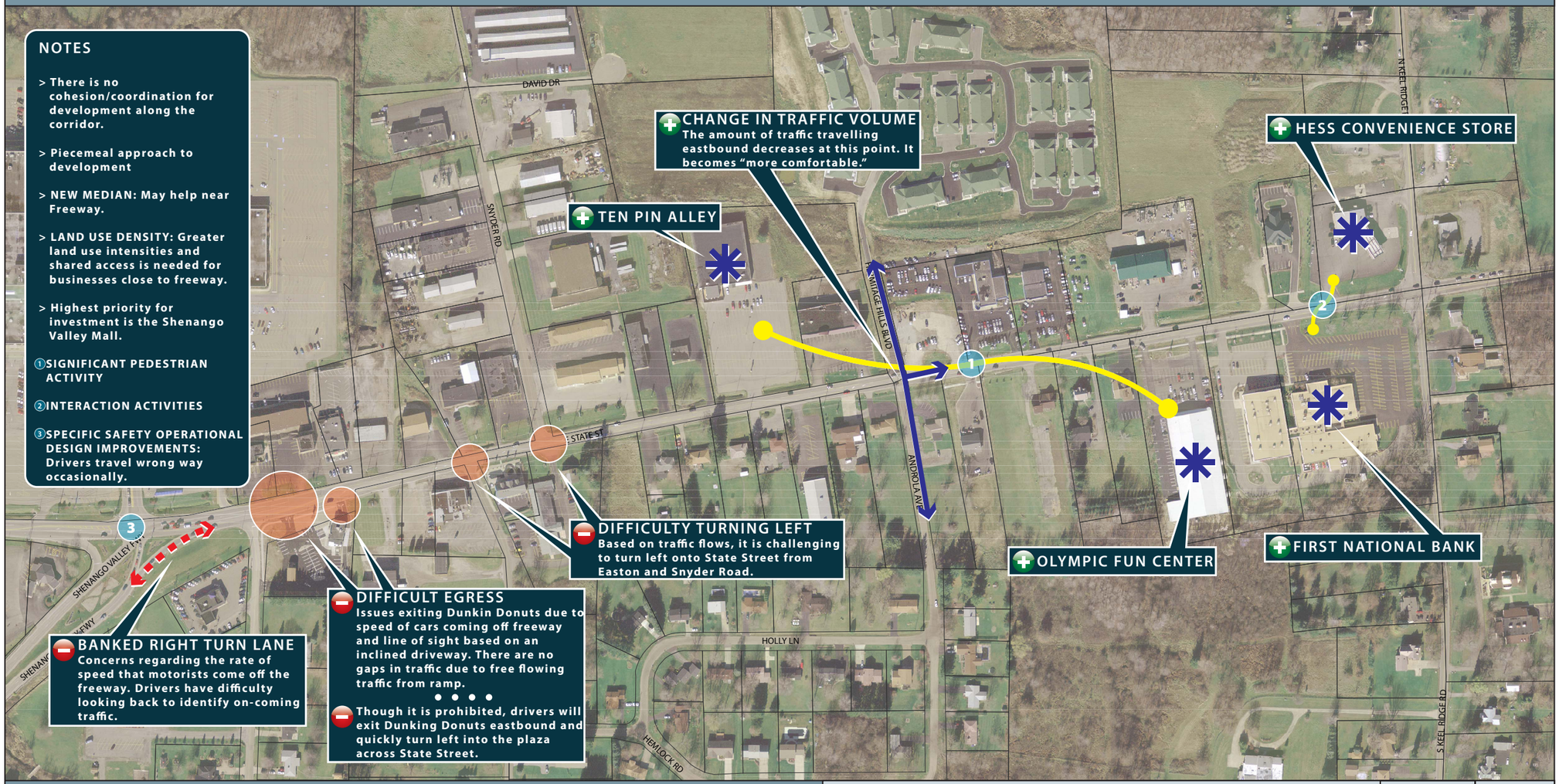


Figure 55: Key Findings (Zone 6)

IV

ALTERNATIVES & RECOMMENDATIONS

The recommendations that follow were developed through discussions with local community leaders, local agencies and a carefully crafted Public Invovlement Plan. On June 11, 2012, the recommendations put forth based upon input from key stakeholders and public input were presented at an open house. Attendees were welcomed to review the recommendations and provide comments that ultimately helped refine the final plan.

Access Management

Introduction - *Why Manage Access?*

The principal goal of the Business Route 62 Corridor access management effort is to develop a plan that the local jurisdictions and PennDOT can implement to make the business corridor a safer and more efficient transportation facility for all users in the future. This plan shall respect the character of the Cities while preserving the quality of life for residents, merchants, and visitors of the community.

According to studies conducted by the National Highway Institute, "An effective access management program can reduce crashes as much as 50 percent, increase roadway capacity by 23 to 45 percent, and reduce travel time and delay as much as 40 to 60 percent."

In order to achieve this goal, it is important to understand the connection between the transportation network and the adjacent land use that it serves. The national Access Management Manual refers to this relationship as the *Transportation – Land Use Cycle*, as shown at the bottom of the page.

Access management strategies delay or even halt this cycle by maintaining a balance between the Land Use Change stage and the Increased Traffic Conflict stage. As illustrated in the diagram, increased traffic generation is a direct result of Land Use change. Local municipalities have in place official planning documents such as Comprehensive Plans, Master Plans, Zoning Ordinances, and Subdivision Regulations that govern how and where land should (or should not) be developed. To effectively manage the transportation and land use cycle, both PennDOT and the local agencies must address both the transportation system and the adjacent land development.

The intent of the Access Management Plan is to provide PennDOT, and the local Officials and Planning Boards, a framework for assisting with decision-making regarding access, circulation, and safety for future development along the corridor.

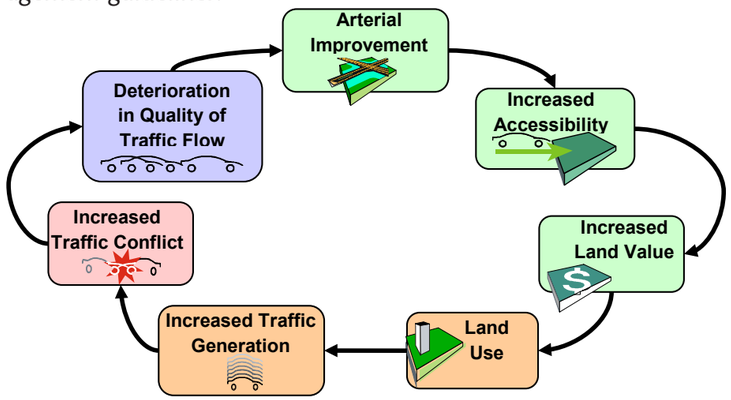
Specific objectives include:

- Minimize number of access locations
- Increase access spacing
- Reduce through traffic conflicts
- Provide greater accessibility and connections for all users
- Manage traffic signal and intersection control
- Provide language in local codes that supports implementation of access management techniques and strategies along the corridor

Corridor Access Management Concept Plans

Using these core planning strategies and objectives, detailed access management concept plans were developed, applying many of the techniques and tools contained in PennDOT's Access Management Model Ordinances for Pennsylvania Municipalities Handbook.

It should be noted that much of the Business Route 62 corridor is developed, and therefore in the future, as redevelopment occurs, requires mostly retrofit strategies that eliminate multiple driveways to the same property; combines adjacent driveways into one shared driveway; and relocates the driveways to a local street rather than State Street. For undeveloped properties, direct access to State Street should follow PennDOT's applicable access management guidelines.



Zone 1 – The Irvine Avenue Gateway Zone is predominantly residential and requires minimal access management techniques and considerations for improved safety and access, beyond the Irvine Avenue intersection gateway treatment developed and previously discussed.

Zone 2 – Sharon CBD consists of short blocks, existing traffic signals, on-street parking and few driveways; and thus requires ongoing management of signal operations, intersection control and pedestrian crossing enhancements, as identified and discussed in the Sharon Downtown Plan.

Detailed access management concept plans were developed for Zones 3, 4, 5 and 6 of Business Route 62 corridor. Figure 56 illustrates many of the retro-fit strategies and concepts applied to the City of Sharon Transition – Zone 3. Concept plans for the remaining zones are included in the Appendix of this report.

In order to advance and implement access management on a consistent, corridor-wide basis, local municipalities must develop supporting access management ordinances and regulations, tailored to fit each municipality, yet still provide the regional benefits, in terms of improved travel and safety for motorists along the entire Business Route 62 corridor.

The following sections outline the current regulatory language pertinent to access management considerations in each community, followed by recommendations for regulatory changes for implementation.

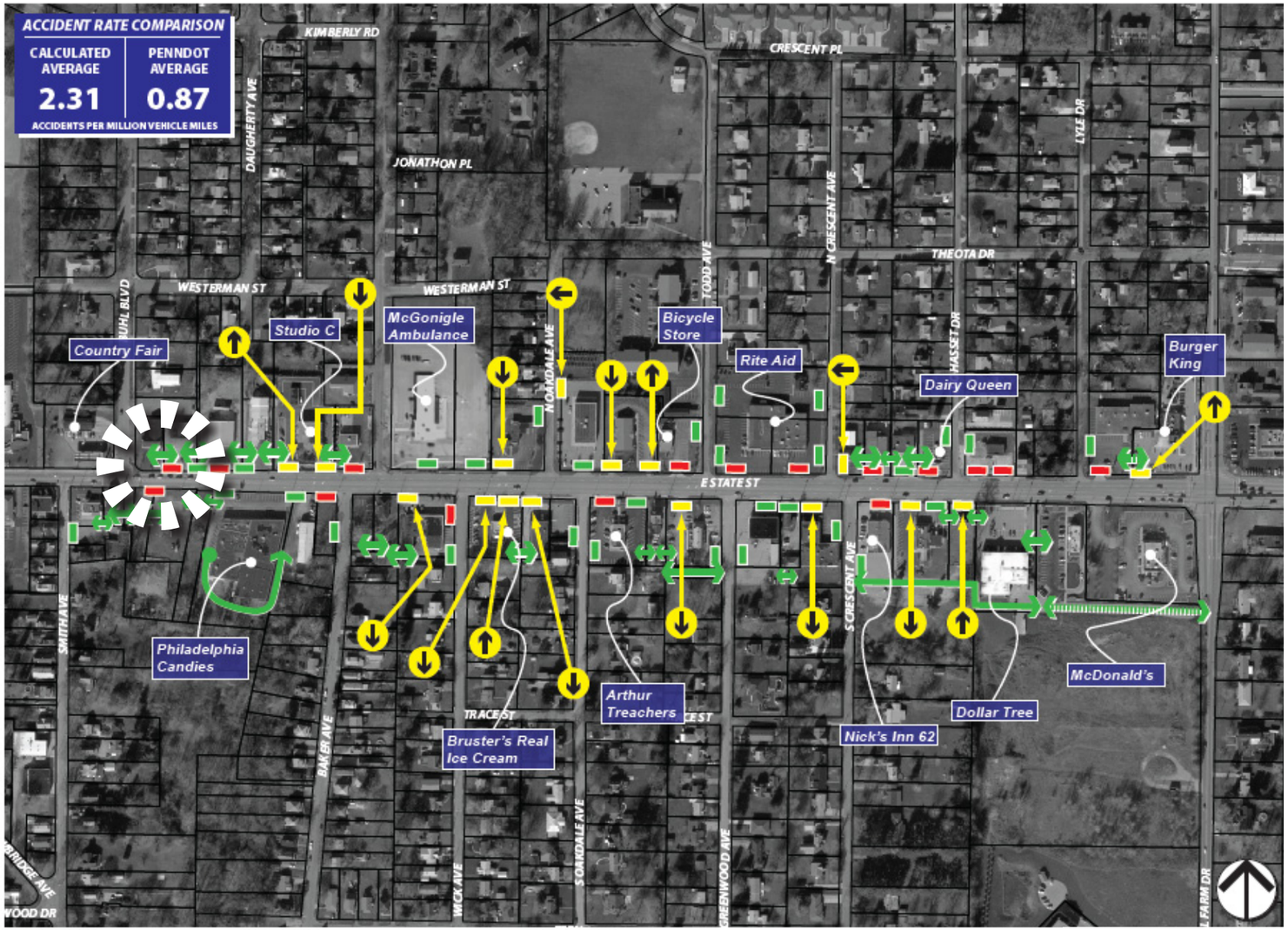
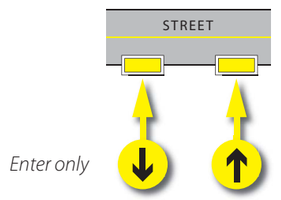


Figure 56: Access Management Plan (Zone 3)

Note: Arrows indicate the direction of travel for an entering or exiting vehicle. Limited access refers to driveways with movement restrictions (i.e., enter only, exit only, right in-right out, turn restrictions)

Example



Access Management Regulatory Recommendations

The following is a summary of the existing access management provisions contained in the City of Sharon's and Hermitage's zoning codes.

City of Hermitage

In order to obtain a Conditional Use in the Institutional-3 Zoning District, "a traffic study shall be submitted illustrating a traffic plan for the proposed development which includes analysis of traffic flow on surrounding properties, and also properties across the street or highway from the proposed use. The traffic study and site plan shall integrate the traffic patterns of the proposed development into the overall area. The traffic analysis and design must include an access management component which minimizes the number of individual driveway access points on major highways, including sharing of driveway access with adjoining properties wherever possible."

The Route 18 South Overlay District contains the most extensive and specific access management requirements within Hermitage. These include:

- Minimum spacing between driveways on Route 18 shall be 150 feet, measured from centerline to centerline. Shared driveways between parcels shall be used where necessary to meet this requirement. Where two or more adjacent property owners agree to combine driveway access points, the City may grant 15% reduction in required parking spacing for each use.
- Wherever possible, driveways should have direct alignment with driveways or roads on the opposite side of the highway or street.
- Parking areas shall be connected to adjacent parcels through rear or side yard access drives.

The Route 18 South Overlay District begins to manage access in one geographic area of the community. At a minimum, it is recommended that Hermitage expand the extent of these provisions to include Business Route 62 as well as other highway oriented commercial corridors within the community.

City of Sharon

The City of Sharon defines shopping centers or large-scale retail facilities as, "structures erected for three or more principal permitted uses within a business district." Sharon has special requirements for shopping centers including:

- Access to a shopping center or large-scale retail facility shall be from an arterial or collector street.
- No more than one entrance and exit per 150 feet of frontage will be permitted.
- Shared access drives with neighboring properties are encouraged.

A review of auto oriented, commercial corridors throughout the country indicates that the largest contributors to the proliferation of curb cuts are single use developments. These include stand alone restaurants, drug stores, retail establishments, and office buildings. This also true of Business Route 62 within the study area. In other words, single use developments, each with one or more driveways are the dominant land use along the Business Route 62 corridor outside of the central business district. As a result, Sharon's emphasis on controlling access for shopping centers and large scale retail facilities only applies to a small number of parcels and fails to adequately address the full range of access management needs within the study area.

The following Access Management Overlay District was developed specifically for Sharon and Hermitage. It is provided as a template for both cities to consider adding to their existing zoning codes. The provisions of this overlay district can be integrated into the current regulatory framework in one of three ways:

- Option 1: Amend the existing non-residential zoning districts along Business Route 62 to include some or all of the provisions of the overlay district;
- Option 2: Create an overlay district for Business Route 62, similar to the Route 18 South Overlay District in Hermitage; or
- Option 3: Apply the overlay district to all non-residential or commercial zoning districts throughout the City.

Based on the input received throughout this study, option one is recommended at this time.

Intent & Purpose

The purpose of the Business Route 62 Access Management Overlay District (AMOD) is to manage access to property along Business Route 62 in a manner that preserves the safety, efficiency, development potential, and character of the highway corridor within the Cities of Sharon and Hermitage. Specific purposes are as follows:

1. To protect the safety of motorists traveling along Business Route 62 and its crossroad intersections and preserve the efficiency of traffic flow along the corridor;
2. To preserve and enhance development options along the corridor and promoting development of unified access and circulation systems that serve more than one property;
3. To assure that driveways and street connections along Business Route 62 are designed according to standards for safe entry and exit and are adequately spaced, and
4. To promote cooperative planning and coordination between area property owners and the many agencies that have an interest in the Business Route 62 corridor, including but not limited to the cities of Sharon and Hermitage, Mercer County, and the Pennsylvania Department of Transportation (PennDOT).

Applicability

The AMOD shall apply to a distance of 1,000 ft from the centerline on both sides of Business Route 62 beginning at the western boundary of the City of Sharon and terminating at its intersection with North Keel Ridge Road.

These regulations shall be in addition to all other existing regulations of the two cities and PennDOT. Persons with property divided by the highway overlay district or that do not have frontage but request an access connection in the affected area must comply with the district standards. This district does not change the zoned use of property. Permitted, conditional, or specially permitted uses in the overlay district shall be as provided for in the existing underlying zoning districts.

Connections permitted prior to the adoption of the AMOD shall be allowed to remain and will be considered legal and conforming until such time as there is a significant change in the use of the property (including the development of land, structures or facilities) that results in an increase in the trip generation of the property. If the principal activity on a parcel with access connections that do not meet the regulations herein is discontinued or out of service for a period of one year or more, then that parcel must comply with all applicable access requirements of this overlay district.

Submission Requirements

In order to ensure that a proper review for access considerations can be conducted by Sharon, Hermitage and PennDOT, the following information should be required by property owners as part of a site plan review application:

- Location of access point(s) on both sides of the road where applicable;
- Distances to neighboring constructed access points, median openings, traffic signals, intersections, and other transportation features on both sides of the roadway;
- Number and direction of lanes to be constructed on the driveway plus striping plans;
- All planned transportation features (such as auxiliary lanes, signals, etc.);
- Trip generation data or appropriate traffic studies;
- Parking and internal circulation plans; and
- Plat map showing property lines, right-of-way, and ownership of abutting properties.

This list is not intended to be exhaustive or to supplant the existing submission requirements of Sharon and Hermitage but rather augment them.

Access Provisions

Access to US Route 62 shall be provided by direct or indirect means, consistent with the following requirements:

Number of access points: Each tract of land recorded prior to effective date shall be permitted one point of direct or indirect access to the public roadway system, provided that such access conforms to the minimum driveway spacing and corner clearance requirements the AMOD. Where the roadway frontage of a tract of land is greater than 500', an additional access point may be permitted, if it is determined in consultation with PennDOT that such access will not be detrimental to highway safety, capacity, or function. Any such additional access shall comply with all applicable sections of this ordinance. Individual property access shall not be provided to Business Route 62 where alternative access is available. Where multiple parcels are developed as a single project, such as a shopping center or similar use, they shall be treated as a single parcel for the purposes of determining the permitted number of access points. For the purposes of the AMOD, the limits of Sharon's central business district (CBD) are defined as Business Route 62 situated between Irvine Avenue and Sharpsville Avenue. Within the CBD for Sharon, driveway access to the roadway may not always be possible, appropriate, or permissible. In this area, the community and PennDOT shall review requests for access based on the potential for shared access, the need for parking, desired corner clearance, and driveway spacing.

Commentary

Much of Business Route 62 is already developed, making it difficult to implement driveway spacing requirements, especially with small lot sizes and frontages. The PennDOT Access Management Model Ordinances recognizes this challenge and suggests spacing standards be developed based on the posted speeds.

Minimum driveway spacing is to be measured from the end of one driveway radius to the beginning of the next driveway radius. All direct access connections to Business Route 62 shall meet or exceed the minimum desirable spacing requirements* listed below:

- 150 feet for a posted speed limit of 35 mph or less

* There are no minimum driveway spacing requirements for the development of one single family dwelling within the AMOD. However, the access drive or local street that serves a development of more than five single family residences must meet these standards.

Where the existing configuration of properties and driveways in the vicinity of a parcel or site precludes spacing of an access point in accordance with those listed above the Planning Commission, in consultation with PennDOT, may waive the spacing requirement if all of the following conditions have been met:

- A joint use driveway will be established to serve two or more abutting building sites;
- The building site is designed to provide cross access and unified circulation with abutting sites with cross access easements, and
- The property owner signs an agreement to close any pre-existing curb-cuts that do not meet the requirements of the AMOD after the construction of both sides of the joint use driveway, and agrees to enter a joint maintenance agreement defining maintenance responsibilities of property owners that share the joint use driveway and cross access system.

In the event that the characteristics or layout of abutting properties would make development of a unified or shared access and circulation system impractical, the Planning Commission may modify or waive these requirements.

Joint & Cross Access: Adjacent commercial or office properties and compatible major traffic generators (i.e. shopping plazas, office parks, apartments, etc.) shall provide a cross access drive and pedestrian access way to allow circulation between sites. This requirement shall also apply to a new building site that abuts an existing developed property unless the locality finds that this would be clearly impractical. Property owners shall record a cross access easement and a joint maintenance agreement with the public records office.

Property owners that provide for joint and cross access may be granted a temporary driveway connection permit, where necessary, to provide reasonable access until such time as the joint use driveway and cross access drives are provided with adjacent properties. All necessary easements and agreements shall be recorded with the deed to the property, including:

- An easement allowing cross access to and from the adjacent properties;
- An agreement to close and eliminate any pre-existing driveways provided for access in the interim after construction of the joint-use driveway, and
- A joint maintenance agreement defining maintenance responsibilities of property owners that share the joint use driveway and cross access system.

Minimum corner clearance is to be measured along the road from the closest edge of the right-of-way of the intersecting road to the closest edge of the proposed driveway. Preferably, driveways for a corner property should be located on the roadway with the lower functional classification or as close to the property line farthest from the intersection as is possible. Desirable driveway connections to Business Route 62 for corner properties shall not be allowed within 150 feet of an intersection. For side street approaches to Business Route 62, the minimum corner clearance shall be 110 feet. At signalized intersections, corner clearances in excess of these minimum dimensions may be required, in consultation with PennDOT. These standards may not be possible or desirable within Sharon's CBD. Within the CBD, corner clearance may be reduced based upon a traffic study that shows peak hour queue lengths will not extend past the proposed driveway location.

Outparcels: An outparcel can be described as a parcel of land, generally located on the perimeter of a larger parcel of commercial land that is subordinate to the larger parcel for access, parking and drainage purposes. All access to outparcels shall be internalized utilizing the main access drive of the principal commercial center. Access to the outparcel shall be as direct as possible, avoiding excessive movement across the parking aisles and queuing across surrounding parking and driving aisles. In no instance shall the circulation and access of the principal commercial facility and its parking and service be impaired.

New residential subdivisions: Residential subdivision consisting of more than five units, shall include an internal street layout that shall connect to the streets of surrounding developments to accommodate travel demand between adjacent neighborhoods without creating the need to use Business Route 62.

Shared access and reverse frontage: Interparcel connections shall be provided to facilitate the local movement of traffic and minimize demand for local trips on the highway. Based on consultation with the PennDOT, interparcel access may take the form of direct driveway connections or reverse frontage roads.

Pedestrian access: On site pedestrian walkways shall be incorporated into each project and shall be coordinated with on-site landscaping so as to minimize conflicts with vehicular traffic. Pedestrian circulation systems shall be provided to connect multiple uses within individual projects, and shall be extended to adjacent parcels where inter-parcel vehicular access is required. Where pedestrian access crosses an access drive (such as crossing from a parking aisle to a building entrance), crosswalk improvements shall be required. In the event that a public sidewalk is adjacent to the property, the pedestrian circulation system should connect to the existing sidewalk system.

Driveway Location & Design

1. Driveway connections shall be located and designed to provide adequate sight distance. PennDOT standards for sight distance shall apply.
2. PennDOT, in coordination with the municipality, may require turn lanes where deemed necessary due to traffic volumes or where a safety or operational problem exists. The design of left-turn and right-turn lanes shall conform to PennDOT design standards.
3. Construction of driveways along turn lanes and tapers is prohibited unless no other access to the property is available.
4. Driveways with more than one entry and one exit lane shall incorporate channelization features to separate the entry and exit sides of the driveway. Double yellow lines may be considered instead of medians, where truck off-tracking is a problem.
5. Driveways shall be designed with adequate on-site storage for entering and exiting vehicles to reduce unsafe conflicts with through traffic or on-site traffic and to avoid congestion at the entrance. Guidelines for driveway throat length are provided below:

- For minimum use driveways, the throat length shall be a minimum of 25 feet;
- For low volume driveways, the throat length shall be a minimum of 50 feet or as determined by a queuing analysis;
- For medium volume driveways, the throat length shall be a minimum of 120 feet or as determined by a queuing analysis; and
- For high volume driveways, the throat length shall be a minimum of 150 feet or as determined by a queuing analysis

Roadways, Intersections & Gateways

Traffic Signal Timing & Coordination Plans

Signal coordination is the process used to synchronize the start of the "green light" along the major roadway (e.g., eastbound/westbound State Street), so that vehicles can travel through a group of signals with minimal or no stopping. There are three key timing parameters to make signal coordination work and are noticeable to the driver. These include the "cycle length", intersection "offset," or progression, and the individual traffic movement "green + yellow + red" phase (referred to as a movement "split"). The cycle length is the total time to complete one sequence of all movements around an intersection and is the most important parameter.

The individual movement (e.g., left turn arrow at State Street/Hermitage Road) split is the sum of the "green time + yellow interval + red clearance interval). The movement split represents a percentage of the total cycle length. The movement splits are timed to clear all waiting motorists on a typical day. However, the total amount of split is constrained by the cycle length and other conflicting movements; therefore need to be balanced by the proportion of traffic volume at the intersection.

The offset is the time between the start of the "green light" at one intersection and the start of "green light" at another intersection. The offset defines the movement of traffic along the arterial, also referred to as "progression." The offset is very important to observe and fine-tune in the field to real traffic speeds and conditions to help reduce stops and slowing.

Signal coordination requires synchronized time clocks, communication between intersections and the appropriate infrastructure/hardware to allow the timing plans to efficiently operate. The primary goal of signal timing is to respond to the demands of all types of motor vehicles, bicycles and pedestrians in an optimum or balanced manner. Although efficient signal coordination will achieve significant benefits, there are some impacts. Traffic flow and delays must be balanced throughout the system; therefore, trade-offs are always required. The biggest impact or trade-off with signal coordination projects is the lower volume cross-street movements could experience a slight increase in wait time.

Coordinated signal timing is one of the most cost-effective ways to improve traffic flow.

This is done by:

- Improving traffic flow through a group or series of traffic signals.
- Reducing the overall delay time at an intersection (Note: does not always equal to an individual motorist's wait time).
- Accommodating for changes in traffic characteristics due to growth or new developments.
- Reducing motorist frustration and wear and tear on vehicles by reducing stops and delay.
- Improving safety by reducing the potential for rear-end crashes.
- Reducing response time for bus service and emergency vehicles.
- Postponing the need for costly road construction by improving traffic flow on the existing facility.

The traffic signals along State Street between Keel Ridge Road and Irvine Avenue are currently coordinated in several smaller groupings. The timings, phasing, and offsets in many cases have not been updated in many years. Congestion, and subsequently safety, can be improved by conducting a thorough review of the phasing, timings, and offsets throughout the corridor.

Synchro and SimTraffic computer models were utilized to evaluate and recommend appropriate signal timing plans for the corridor. Signal timing optimization was performed for the AM and PM peak time periods at the signalized intersections within the study area. The study area was broken into five separate signal coordination zones for the purpose of evaluation. These zones are based on the current signal timing coordination zones as well as the spacing of intersections and cycle lengths.

Signal Coordination Zones 1 and 5 include the intersections on the fringes of the study area: Shenango Valley Freeway, Hermitage Road, Shenango Valley Freeway (west end) and Addison Avenue; Keel Ridge Road is not coordinated with any other signals. In Zones 1 and 5, the exisitng timing plans are the best choice for these intersections.The controller settings should be updated at each intersection to re-implement the coordinated timing plans.

Signal Coordination Zone 2 includes the intersections from Maple Drive/ Dutch Lane to Buhl Farm Drive. The evaluation of zone 2 again indicates that the previous coordination plan is the most appropriate for these intersections. The controller settings should be updated at each intersection to re-implement the coordinated timing plans.

The intersections from Buhl Boulevard to Oakland Avenue make up Signal Coordination Zone 3. A new timing plan is recommended for Zone 3 which yields the following improvements in the measures of effectiveness (MOE's) for this zone:

	MOE	Signal Coordination Zone 3 Totals			
		Before	After	Net Reduction	Percent Improvement
AM PEAK HOUR	Stops (no. of veh)	2,251	2,035	216	9.6%
	Total Delay (hr)	17	16	1	5.9%
	Fuel Consumption (gal)	66	63	3	4.5%

	MOE	Signal Coordination Zone 3 Totals			
		Before	After	Net Reduction	Percent Improvement
PM PEAK HOUR	Stops (no. of veh)	2,965	2,695	270	9.1%
	Total Delay (hr)	18	18	0	0.0%
	Fuel Consumption (gal)	93	91	2	2.2%

Table 7: Measures of Effectiveness

Details of the new coordinated timing plan for Signal Coordination Zone 3 are included in the Appendix.

Signal Coordination Zone 4 consists of the intersections from Sharpsville Avenue to Irvine Avenue. These intersections are closely spaced in downton Sharon. Evaluation of the current operating conditions indicates that these intersections are would operate efficiently under the current timing plan if the controller settings were up to date. The controller settings should be updated at each intersection to re-implement the coordinated timing plans.

Formal Gateway Enhancement Plans / Schematics

Gateways provide visual cues that you are entering a place of significance. Special attention must be paid to these areas because they provide first impressions and a sense of arrival. They are typically identified at points of transition that are defined by an edge; a physical barrier or boundary such as a river, highway, intersections, or major points of decision. Gateways can be as simple as landscaped sign installations that announce to motorists that they are entering a community or neighborhood or they can include a modern roundabout or an elaborate arch over the road.

Through the public process on this project, two locations were identified as key gateways for the Cities of Sharon and Hermitage: State Street at Shenango Valley Freeway and Irvine Avenue at Shenango Valley Freeway.

State Street & Shenango Valley Freeway

The existing State Street/Shenango Valley Freeway intersection is oversized and automobile oriented. It is designed for high speed travel with little or no pedestrian accommodations and minimal aesthetic value. This intersection can be transformed into a gateway that gives motorists and pedestrians alike a sense of arrival in Hermitage and the Shenango Valley. In the process, vehicular operations, pedestrian accommodations, and overall safety can also be improved. Two alternatives were explored to create a gateway treatment at this intersection.

Alternative I: Roundabout

Alternative I converts the existing intersection to a modern roundabout. "Modern" roundabouts are a relatively new concept in the United States, but have widespread use and acceptance in European countries. The word "modern" as a qualifier to roundabouts is critical; there are vast differences between today's "modern" roundabouts and "old style" rotaries and traffic circles, which were built in the US over the years. These rotaries/traffic circles fell out of favor as design considerations due to their inefficient and sometimes unsafe operation. Roundabouts have numerous benefits over traditional signalized intersections including:

1. OPERATIONS:
   - Accommodates higher traffic volumes than traffic signals
   - Reduces delays
   - Improves travel times along a corridor
   - Effectively handles heavy left-turning traffic
   - Accommodates u-turns for cars and large trucks
   - Better access to businesses because of easier u-turns

2. DESIGN:
   - Provides more landscaping opportunities
   - Typically provides overall cost savings
   - Allows for large vehicle passage via the "truck apron"
   - Slower speeds through intersections
   - Improved visibility and refuge for pedestrians crossing the roadway

3. MAINTENANCE:
   - No traffic signal maintenance costs, electrical costs, or repair needs
   - No traffic impacts due to power outages

4. ENVIRONMENT:
   - Fuel savings due to less delay and stopping
   - Reduces vehicle emissions due to reduced need for stopping
   - Reduces construction area on approaches that can save trees
   - Reduces storm water run-off due to reduced pavement area on approaches

5. SAFETY:
   - Reduces vehicle crashes, particularly injury crashes
     Lowers vehicle speeds
   - Fewer driver decisions; traffic only comes from one direction when entering
   - Fewer conflict points
   - Reduces conflict severity; no right-angle or head-on conflicts
   - Safer pedestrian crossings due to reduced distances, lower speeds, better visibility

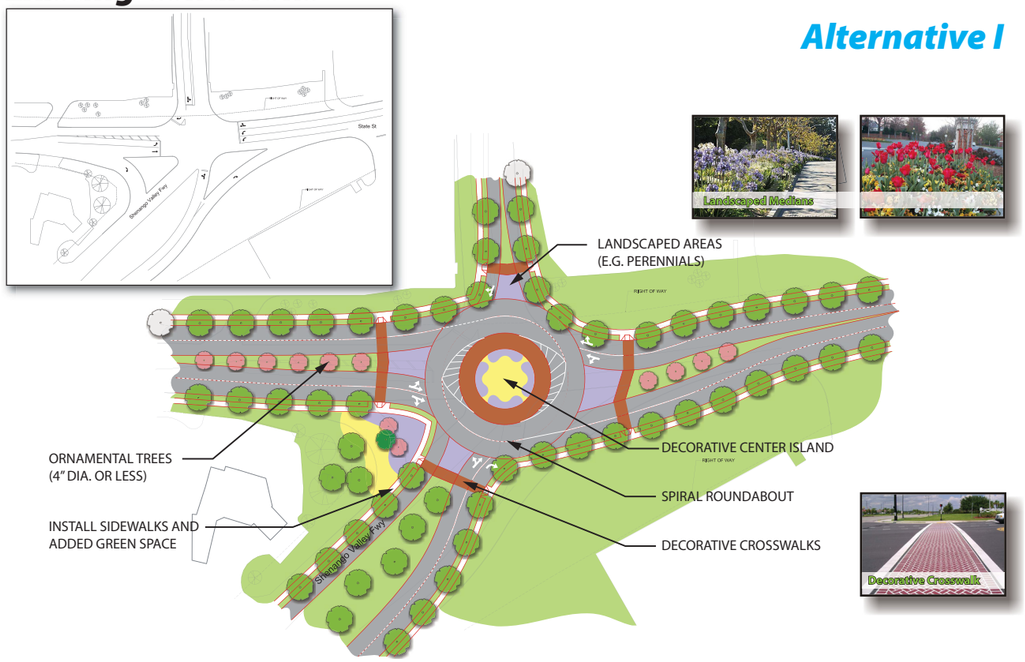


Figure 57: Shenango Valley Freeway Gateway

In addition to the all the benefits associated with roundabouts, a roundabout provides a unique opportunity for a dramatic gateway treatment. The roundabout can include enhancements such as landscaped areas, enhanced crosswalks, and a decorative center island where a gateway sign could be located.

Alternative II: Traditional Intersection

Alternative II re-designs the intersection into a more traditional signalized intersection. One of the westbound left turn lanes would removed, eliminating the existing dual left turn movement. This movement can be accommodated within a single left turn lane with appropriate re-timing of the signal. The existing right turn channelized islands on the eastbound and northbound approaches would also be removed. These right turn movements would become a part of the signalized intersection. These changes provide a more efficient intersection operation while slowing traffic through the intersection and providing a safer pedestrian environment.

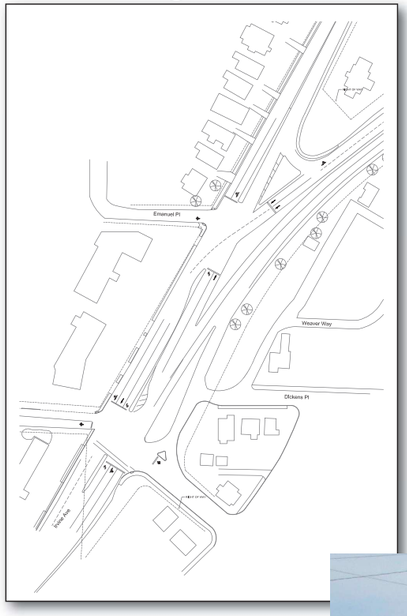
Removing the eastbound channelized right turn provides additional green space and a great location for a gateway sign or special feature on the southwest corner of the intersection. Additional landscaping and enhanced crosswalks provide a safer and more inviting pedestrian environment

Recommendation

Based upon public input received and evaluation of the options, Alternative I: the roundabout, is the preferred Alternative. Maximum safety, operational, and aesthetic benefits are realized with this alternative. See Figure 57 on the previous page for the detailed illustration of the recommendations.

Proposed Plan View

Existing Conditions



Irvine Avenue & Shenango Valley Freeway

The existing Irvine Avenue/Shenango Valley Freeway intersection is designed to favor vehicles traveling to and from Shenango Valley Freeway. It is oversized for its capacity needs, aesthetically unpleasing, and unfriendly to pedestrians. This is the first major intersection that a motorist arrives at when entering Pennsylvania from Ohio on Irvine Avenue.

Currently Irvine Avenue provides two southbound and two northbound travel lanes at Shenango Valley Freeway. The intersection can operate more efficiently with one southbound travel lane and a northbound exclusive left turn lane and separate through lane. This allows the intersection to become narrower providing space for a landscaped median treatment and landscaped buffer space between the sidewalk and the edge of pavement.

Modifications at the Addison Avenue intersection similarly result in a narrower geometry on Irvine Avenue providing space for a landscaped median and landscaping along the side of the road. In addition, an enhanced crosswalk is recommended on the northbound approach to the intersection. At the northeast corner, Emanuel Place can be closed off from Addison Avenue creating a location for landscaping a gateway treatment such as a sign.

Figure 58: Irvine Avenue Gateway

Advanced Concept Level Intersection Geometric Improvement Plans

Thoughtfully designed intersections are essential to moving people and vehicles safely and efficiently. In areas of high volumes of pedestrian and vehicle traffic, it becomes a challenge to design for all modes of travel. The following recommendations address existing deficiencies and/or improve upon operating conditions and aesthetics for all modes of travel.

Stambaugh / Euclid Avenues

The intersection of Stambaugh / Euclid Avenues and East State Street presents a unique challenge in that there are high volumes of school children, as well as high volumes of vehicular traffic. Nearby land uses are primarily commercial, along with St. Joseph's church and the Sharon Regional Health System.

Recommendation

- The refuge island on the southeastern portion of the intersection should be removed. Currently, it is designed as an auto-centric island, rather than a pedestrian-centric refuge.
- Concurently, the southeastern curb radius should be reduced to provide a shorter crossing distance for pedestrians between the southwestern and northeastern corners of the intersection.
- Additional green space can be installed on the southeastern corner, along with new sidewalks. The buffer space along the southbound side of the roadway should be increased through curb relocation.
- All around the intersection, street trees should be planted to provide shade for pedestrians and function as a traffic calming alternative.
- Stamped textured material consisting of a brick pattern is recommended for new and replaced crosswalks at this intersection. This will provide a higher level of safety and visual awareness for pedestrians and drivers travelling through the intersection.
- Additionally, a westbound and northbound left turn signal arrow should be installed to improve the intersection's operations and safety.
- The removal of the refuge island should be a long term strategy. More immediate attention should be focused towards short term enhancements (i.e., textured crosswalks, landscaping).

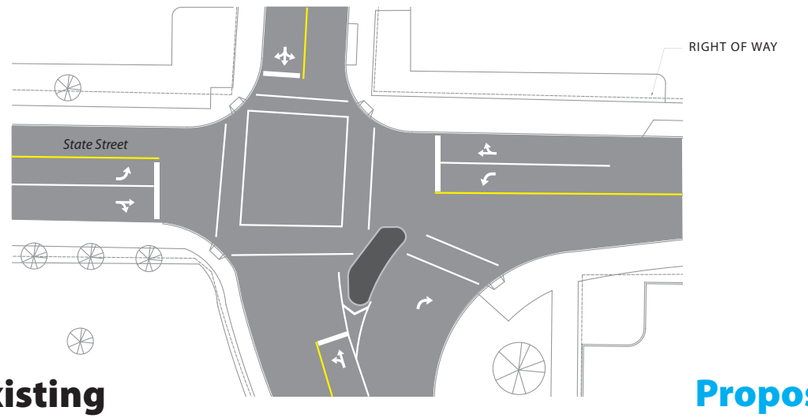


Figure 59: Stambaugh / Euclid Avenues Intersection Improvements

Existing view facing north

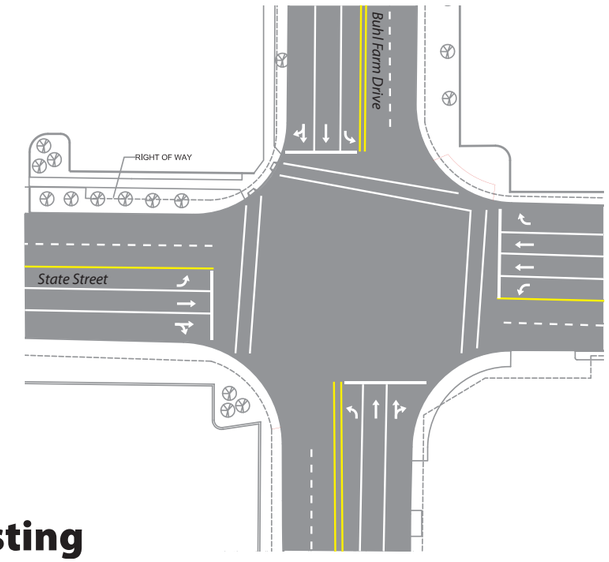
Existing view facing west

Buhl Farm Drive

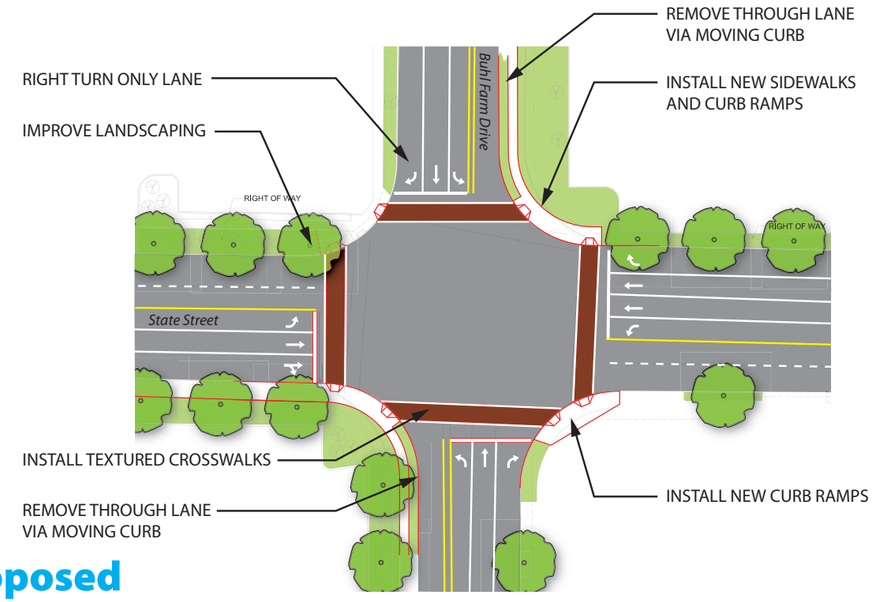
Buhl Farm Drive is a key intersection in which high volumes of vehicular traffic travels north/south and east/west. Long crossing distances create potential safety concerns for pedestrians. Curb ramps and sidewalks are only located on the northwestern corner. Additionally, pedestrian crosswalks are faded and provide little indication to drivers of the presence of pedestrians.

Recommendation

- Currently, there are two receiving lanes on the northbound and southbound approaches of Buhl Farm Drive. Removing the outside receiving lane on both approaches and moving the curbs towards the centerline would allow for additional green space and the installation of sidewalks.This will also decrease the crossing distance for pedestrians crossing Buhl Farm Drive.
- The outside shared through and right turn lane on the northbound and southbound approaches of Buhl Farm Drive should be restriped as right turn only lanes to facilitate the removal of the lanes previously described.
- The eastbound and westbound approaches of East State Street will remain unchanged.
- Improvements to the pedestrian environment include upgrading the existing curb ramps to meet ADA compliancy, while introducing sidewalks and ADA compliant pedestrian crossings elsewhere throughout the intersection.
- Roadside trees should be planted to help calm traffic and improve the look and feel of the intersection.



Existing



Proposed

Figure 60: Buhl Farm Drive Intersection Improvements

Existing view facing west

Existing view facing west

IV ALTERNATIVES & RECOMMENDATIONS

Kerrwood Drive

Kerrwood Drive is another auto-oriented intersection. Only the northwest corner has sidewalks. Pedestrians are permitted to cross, however, there are no pedestrian signals installed at any corner. The northeastern corner of the intersection has experienced damage from trucks with a long wheel base driving over the curb as the vehicle turns right onto Kerrwood Drive. Currently, the alignment of the northbound and southbound approaches contribute to safety concerns. Through public input and comments received from public officials, this has been noted as a priority intersection for improvements.

Recommendation

- An alternative to the current design is to install sidewalks and pedestrian countdown signals on all approaches.
- Install a left turn lane for the northbound approach. While the turn lane is not needed for capacity reasons, it reduces the offset between the northbound and southbound approaches and improves safety.
- The southbound receiving lane should be widened through removing and relocating the existing curb.
- Increasing the curb radius on the northeastern corner of the intersection will allow for vehicles with a longer wheel base to safely maneuver through the intersection while turning right onto Kerrwood Drive from State Street. The larger curb radius and the installation of curb ramps and sidewalks will also provide for a safer landing area for pedestrians waiting to cross the intersection.
- The northwest corner will have room for a planted buffer zone between the roadway and sidewalk for new street trees. Additionally, roadside trees along the southwestern corner should also be considered.
- New mast arm traffic signal controls should be installed at this intersection to replace the existing span wire design.
- Decorative crosswalks should be considered as a higher visibility option for pedestrian crossings on all approaches.
- All pedestrian crossings should be installed to ADA compliancy.

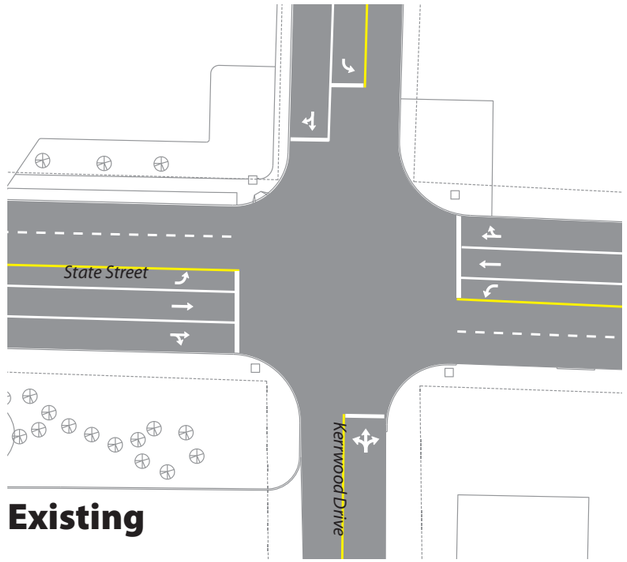


Figure 61: Kerrwood Drive Intersection Improvements

Existing view facing north

Existing view facing south

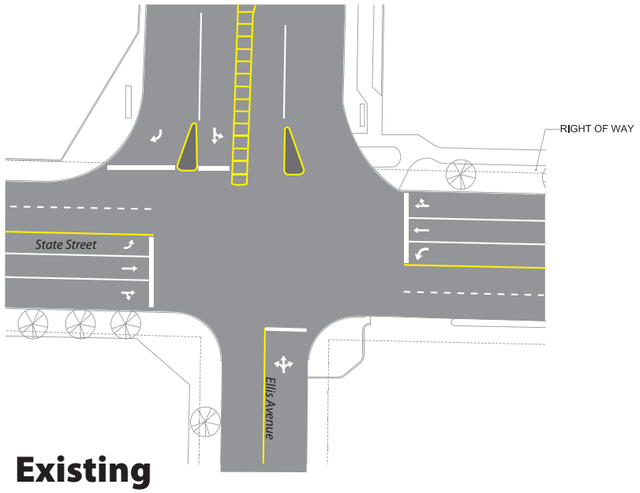


Figure 62: Ellis Avenue Intersection Improvements

Proposed street level simulation facing northwest

Ellis Avenue

The current configuration does not allow for pedestrians to travel at any point throughout the intersection. There are "No Pedestrian" signs on the northwestern and northeastern corners of the intersection. The entrance to the shopping center is confusing causing drivers to enter the wrong ingress points without clear signage. The northbound approach of Ellis Avenue is wide and creates an unfriendly pedestrian crossing environment.

Recommendation

- The southbound approach, shopping plaza driveway, to the intersection can be narrowed dramatically to improve both operating conditions for vehicles as well as aesthetics and pedestrian conditions. Reducing the width from an estimated 85' to 36' will shorten crossing distances for pedestrians and could reduce confusion for drivers.
- Sidewalks should be added to all approaches, as well as ADA compliant curb ramps and high visibility crosswalks. Additionally, sidewalks should be installed to provide a linkage between Kerrwood Drive and Ellis Avenue. The installation of sidewalks along this stretch of roadway would improve the safety of pedestrians.
- Decorative crosswalks should be considered as a higher visibility option for pedestrian crossings on all approaches.
- The reduced pavement width of the southbound approach will provide space for increased green space and the addition of street trees.
- Additionally, Ellis Avenue can be reduced in size to a pavement width of 24' from its current width of 35'. This will shorten crossing distances and align the intersection to the southbound shopping plaza approach.
- Mast arm traffic signal controls should be installed at all four corners of the intersection to replace the existing span wire design.
- The installation of roadside trees will also act as a traffic calming measure and can create a more comfortable pedestrian environment.
- Ultimately, the recommendations turn a "No Pedestrian" zone into an intersection that all users are able to interact with safely.

Unified Transportation-Land Use Concept

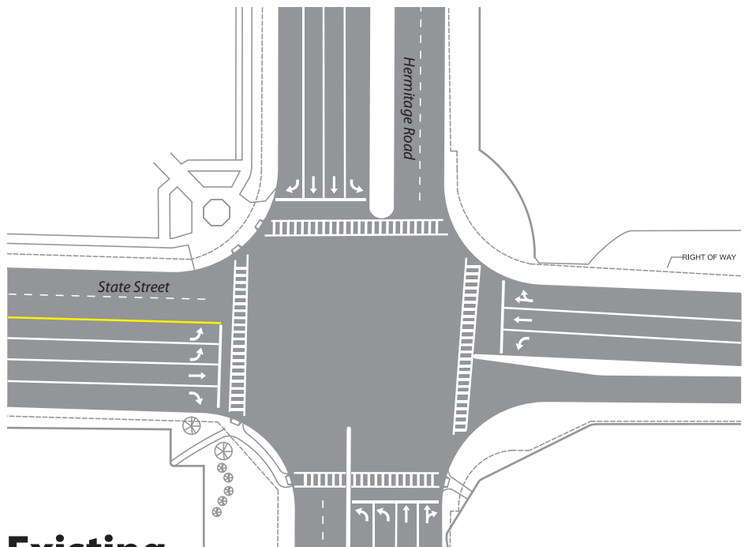
IV ALTERNATIVES & RECOMMENDATIONS

Hermitage Road

Another intersection that has been designed with the motorist in mind is Hermitage Road. Wide travel lanes and raised medians on the northbound, southbound, and westbound approaches increase the distance a pedestrian must travel to cross the road. Crosswalks and pedestrian signals are present, but not inviting.

Recommendation

- The stark concrete median in the southbound approach can be transformed into a landscaped median.
- The southbound right turn only lane should be restriped to a shared through and right turn lane. This lane is not needed from a capacity standpoint and is a safety concern for crossing pedestrians.
- All northbound and southbound travel lanes can then be restriped to incorporate a five (5) foot wide bike lane.
- The narrow median strip on the northbound approach should be removed. This strip is a maintenance issue and serves no real purpose in this case.
- In addition, one of the northbound left turn lanes should be removed. Operational analyses indicate that this lane is not needed to provide capacity and the intersection will operate at appropriate levels of service and with greater safety.
- Sidewalks should be installed as the right of way dictates.
- The eastbound approach could see the transformation of the current median into a landscaped median with a pedestrian refuge. One left turn only lane should be removed. Again, dual left turn lanes are not necessary to accommodate the current or future traffic volume at this intersection. Dual left turns make for more complex signal timings and introduce additional delay at the intersection that is unnecessary in this case.
- On the westbound approach, the outside travel lane should be restriped to a right turn only lane. The median should taper so as to gently allow eastbound traffic to safely merge into the eastbound receiving lane.
- Overall, the intersection should use a high visibility crosswalk design, similar to the current design, and maintain ADA compliancy on all pedestrian approaches and crossings.



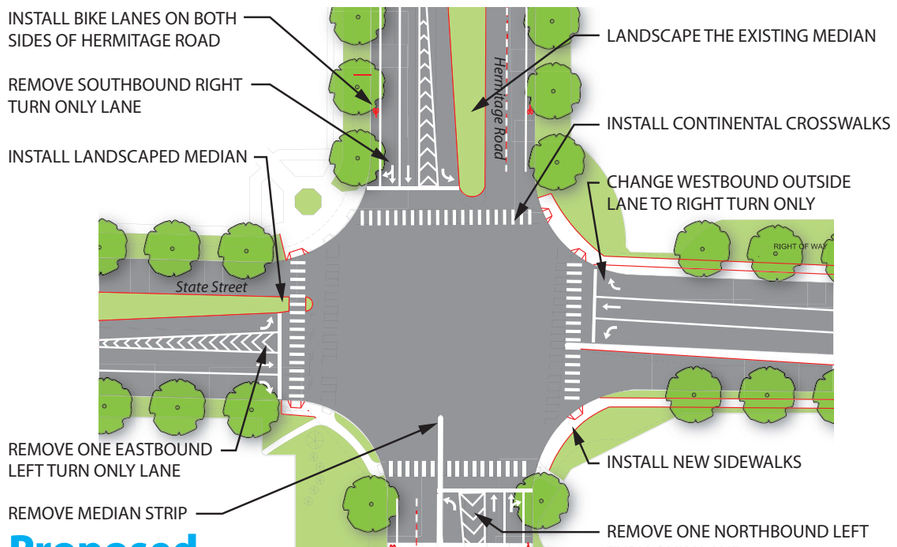


Figure 63: Hermitage Road Intersection Improvements

Existing view facing south

Existing view facing north

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Improved Safety Transition / Road Diet (Buhl Farm Drive to Buhl Boulevard)

Improving safety for vehicles, pedestrians, and bicyclists within the right-of-way (ROW) can be a challenge when it comes to ensuring vehicular capacity is not negatively impacted. The segment of roadway from Buhl Boulevard to Buhl Farm Drive consists of 4 travel lanes (2 lanes in each direction) plus a narrow center turn lane with a posted speed limit of 35 miles per hour (MPH). State Street through this area is a heavily traveled corridor with vehicular traffic volumes and speeds that are not conducive to bicycle or pedestrian traffic. In addition, there are a siginificant number of commerical driveways on both sides of State Street in this segment. The combination of these factors results in the highest accident rate in the corridor as indicated in Section III of this report.

Through comments and discussions with local officials and residents, there are concerns about the safety of motorists and pedestrians/bicyclists when it comes to travelling this stretch of roadway. An alternative to the existing 5-lane roadway is to reduce the number of travel lanes, effectively turning the current roadway into a 3-lane roadway with a center turn lane and shoulder space. This can be accomplished on existing highways where the traffic volumes can be accommodated using three lanes instead of five.

Currently, the five lane section of State Street ends somewhat abruptly just east of Buhl Boulevard. The recommended improvements will move the transition are between the three and five lane sections to a better designed location just west of Buhl Farm Drive. The transition will occur over a greater distance creating a safer merge for motorists in the westbound direction transitioning from two through lanes to one through lane.

Reducing the number of travel lanes will result in slower speeds, safer ingress and egress for businesses and side streets, less exposure to vehicular traffic for pedestrians wishing to cross State Street, and the ability to provide a paved shoulder area that could be used by bicyclists. The increased width of the center turn lane would provide more space for vehicles both entering into the stream of through traffic on State Street without risk of the vehicle overhanging into travel lanes, as well as exiting the traffic stream while waiting to turn left from State Street. Additionally, the shoulder space would provide a portion of the roadway to bicyclists separate from vehicular traffic.

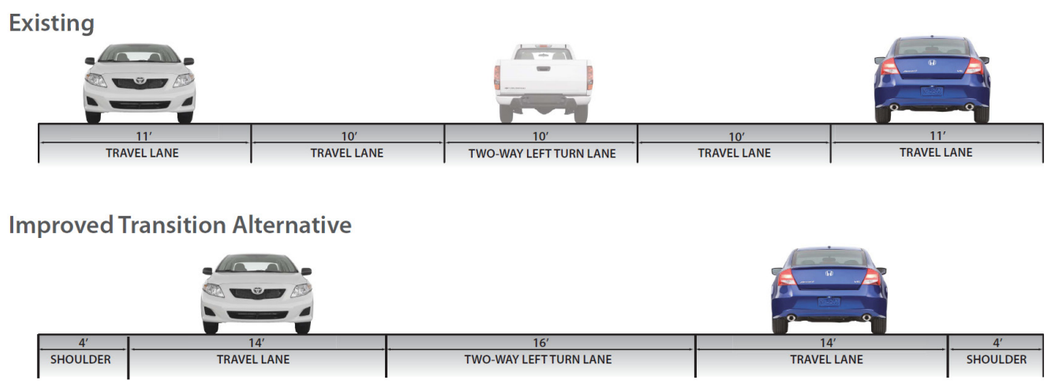
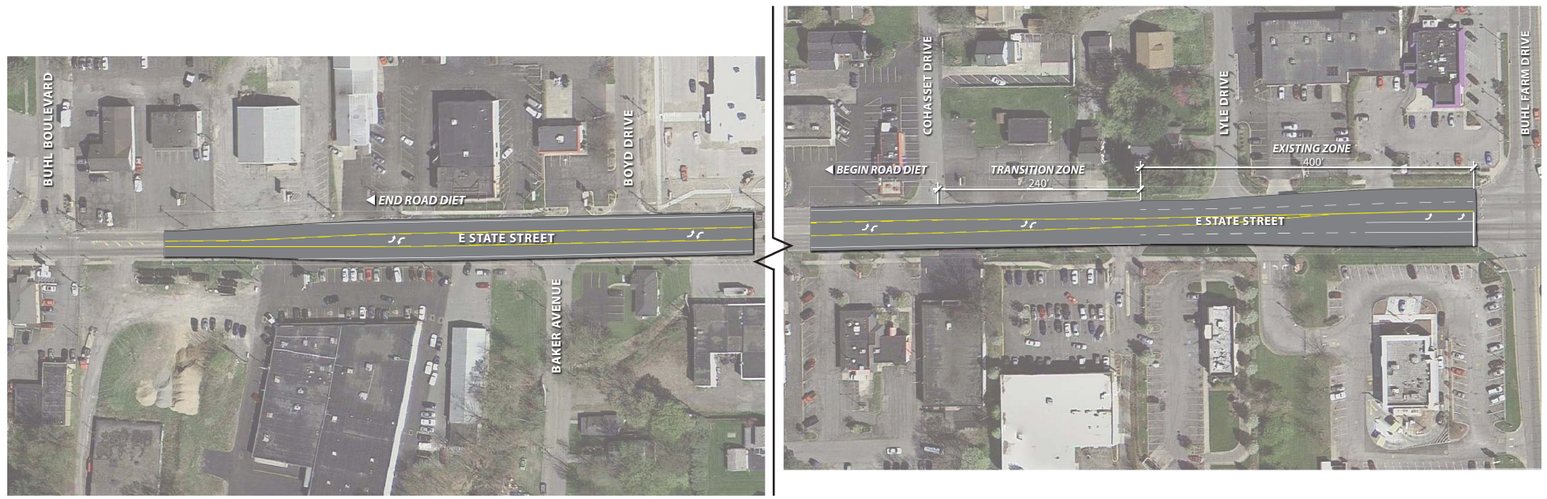
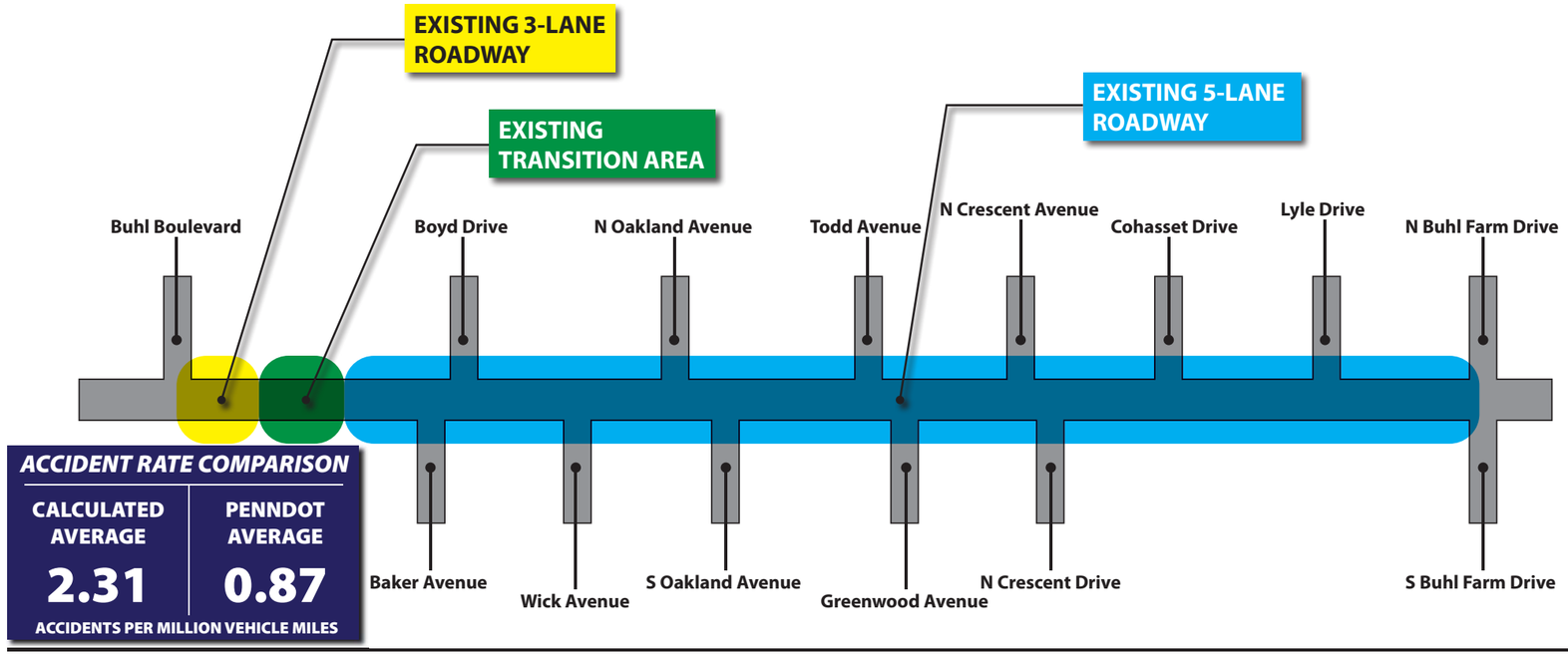


Figure 64: Improved Safety Transition / Road Diet Cross-Section



ALTERNATIVES & RECOMMENDATIONS IV



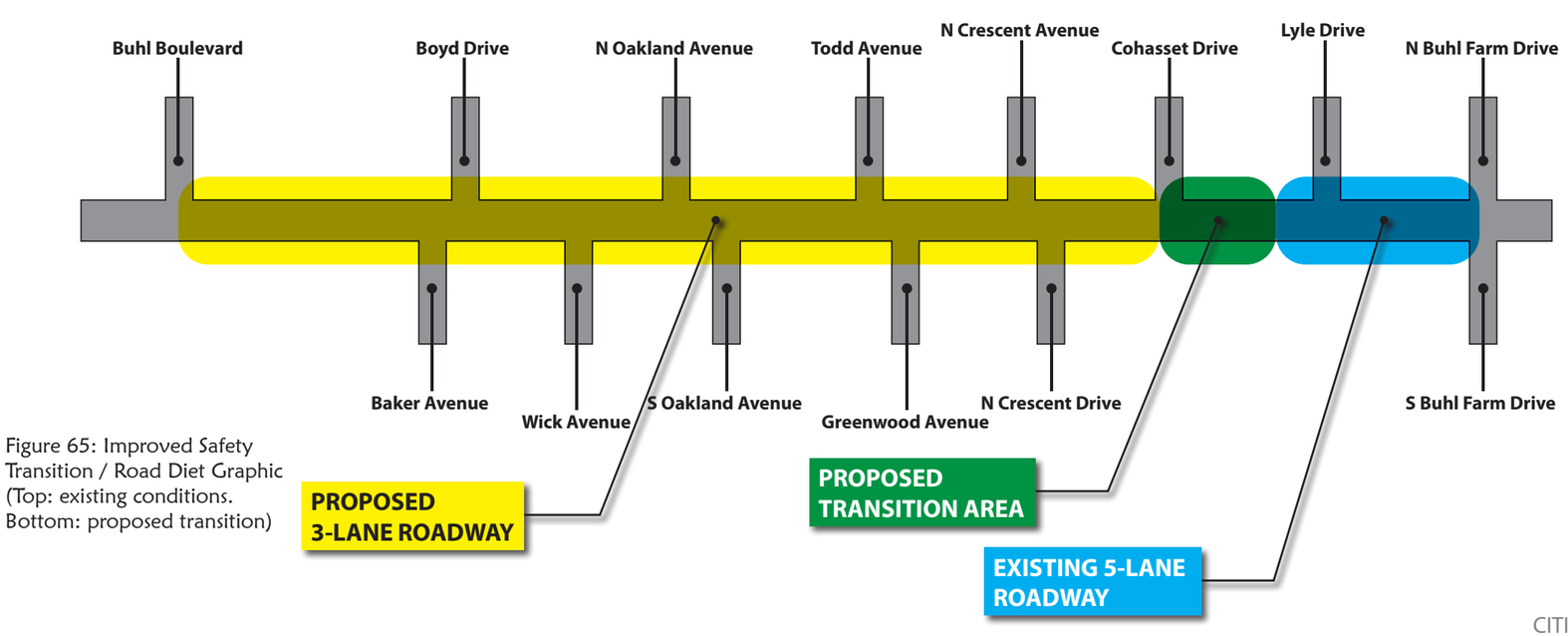


Figure 65: Improved Safety Transition / Road Diet Graphic (Top: existing conditions. Bottom: proposed transition)

Existing view facing west

Existing view facing east

Note: PennDOT categorizes accident rates as a calculation and comparison to statewide averages for similar highway facilities.

Economic Development

Downtown Sharon Plan Recommendations

This collection of recommendations for Downtown Sharon was developed by the Steering Committee to help improve and revitalize the downtown area. The recommendations reflect the issues, opportunities and assets identified through discussions with attendees at the community workshops and at meetings with local stakeholders. This section is not intended to be an exhaustive list but rather a base-set of recommendations to set the stage and begin to move the revitalization process forward. As things progress this action plan should be updated and expanded to reflect the changes in the community and the existing and future challenges it is facing.

The Conceptual Plan to the right highlights key recommendations that are geographically important. Some are long-term improvements or projects and others could happen relatively quickly if leadership and funding becomes available. In some cases, a more detailed discussion of the topics are located later in this section.

1. **Potential Mixed-use Development** (Near Term) - The proposed multi-story and mixed -use building (under consideration) near the corner of Penn Avenue and Shenango Avenue would bring activity to the street, the waterfront and help to better define the street edge on both Shenango Avenue and Penn Avenue. The City should continue to help shepherd the project.
2. **Potential Mixed-use Development** (Long Term) - The City should encourage infill and multi-story mixed-use development throughout its downtown. Areas for consideration are along S. Water Street and at the corner of State Street and Irvine Avenue. Development in these areas would improve the quality of the street. Shared parking would likely be required in both locations.
3. **Streetscape Improvements** - The State Street streetscape project is anticipated to begin in the Fall of 2012. This project is critically important for the downtown. For additional information see the streetscape section below.
4. **Festival / Event Area** - The downtown area between Silver Street and Connelly Boulevard and S. Water Avenue and Chestnut Avenue sets up nicely for a festival area along the waterfront. Streets could be temporarily closed in this area with limited impact on circulation and mobility.
5. **Future Mixed-use Area** - This area along the east side of South Irvine Avenue between State Street and W. Connelly Boulevard already includes a mix of uses. However, it is not zoned as such. Consideration should be given to rezoning the area to allow and encourage mixed-use, which is consistent with the City's Comprehensive Plan.
6. **Critical Pedestrian Intersections** - These six areas identified on the Conceptual Plan with an asterisk are important crossings. They should be made more visible with a special treatment, such as decorative asphalt or pavers.
7. **Make Pitt Street Two-way** - After careful evaluation by traffic engineers, it has been determined that the existing one-way configuration is unnecessary. Making the street two-way will improve circulation and make the area less confusing.
8. **Major Pedestrian Route to Penn State** - Shenango Avenue is the primary link between State Street and the campus. The City and Penn State should continue to highlight this street with improvements including wayfinding signage.
9. **Pedestrian Connector from Parking Garage** - Vine Street is the most direct route from the public parking garage, located on Pitt Street, to State Street. Wayfinding, streetscape enhancements, and facade improvements should be targeted for this street.
10. **Facade / Streetwall Improvements Priority** - Buildings' facades are typically the primary interfacing element between the public and private realms. When they are out of character or in poor condition it negatively impacts the experience along the street. In a retail or commercial environment, like a downtown, these types of facades reflect poorly on local business and the City as a whole. There are numerous buildings and areas that either need facade improvements or lack the building streetwall to positively define the public realm. Therefore, the City should consider the priorities identified on the conceptual plan when targeting areas for improvements.

    High - these buildings have the highest need for improvements either due to condition or their location.

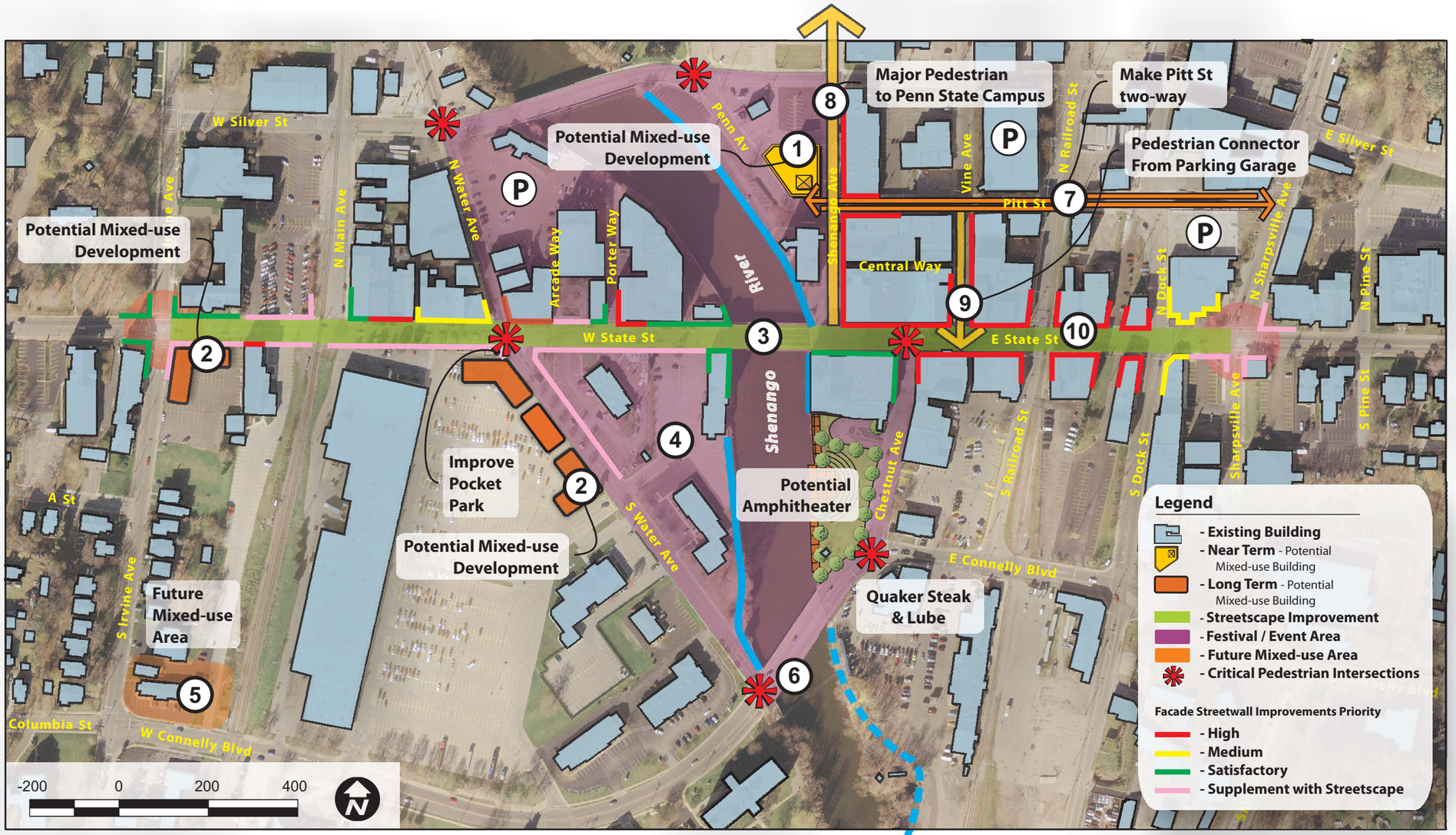
    Medium - buildings that might not be in ideal condition but should be targeted after the high level buildings.

    Satisfactory - based on the high number of High and Medium priority buildings these are in satisfactory condition but should be evaluated periodically.

    Supplement with Streetscape - these are areas with no or little streetwall. Buildings are missing or parking lots front the street. Street trees and other landscaping should be used to mitigate impacts until infill development occurs.

View facing south along the Shenango River

View facing east along State Street



June 4, 2012

US 62 Business Corridor Study

Downtown Sharon Conceptual Plan

SRF Associates | ingalls planning & design | Steinmetz Planning Group

Figure 66: Downtown Sharon Plan Recommendations

Develop an organization to develop and lead the revitalization program.

Most planning and economic development experts agree that having a dedicated organization is important for successful implementation of any revitalization planning initiative. Having a coordinating organization can provide a framework for the patchwork of local businesses and community-based organizations. However, Sharon does not currently have one clearly identified organization dedicated to downtown. The Sharon Economic & Community Development Commission is the likely candidate to lead this effort. However, the focus of this organization is not necessarily on the downtown but rather the City as a whole. A more strategic approach might be to develop an organization dedicated to the sole interests of the downtown area. This program "Steering Committee" or organization could be led or include the Economic & Community Development Commission but other local downtown stakeholders and partners should be included.

In addition to a Steering Committee, sub-committees could be formed to focus on specific areas of revitalization or to address specific issues. This strategy could be a modified version of the Main Street Four Point Approach, which was developed by the National Trust Main Street Center. The Four-Point Approach is a comprehensive revitalization strategy tailored to meet the needs of the local community. It encompasses work in four areas; Design, Economic Restructuring, Promotion, and Organization. A committee is dedicated to each of the four areas and is typically comprised of local volunteers. The chairperson of each committee is usually on the "umbrella" Steering Committee that guides the entire revitalization program. This ensures that each committee is aware of what each is doing and that everyone is working toward an overall program vision. A program manager is recommended. This position helps to manage the program and reports directly to the Steering Committee. The Program Manager position does not necessarily have to be paid but programs that have a paid Manager have proven to be more successful. Many programs start with a volunteer Manager then move to a paid position when funding becomes available.

The make-up of the organization is going to be critical to the long-term success of the revitalization program. It is important that it be comprised of local leaders and stakeholders. It could include downtown business owners, property owners, and residents as well as representation from the City of Sharon. The revitalization organization should periodically review the revitalization program in terms of its leadership, committee chairs, volunteers, funding, etc. This can be done by holding annual planning sessions. In addition, an annual work program will help to set goals and track accomplishments.

Develop a facade improvement program for downtown.

The City of Sharon is fortunate to have most of its downtown streetwall of buildings intact along State Street. With the exception of the south side between the Shenango River and Irvine Avenue, the buildings front the street and include a mix of entrances, storefronts, and other semi-public spaces. However, over the years many of the building facades have been poorly maintained and, in some instances, neglected. Several buildings have had improvements made that are inconsistent with the architectural character and/or include features such as awnings or windows that are dated and need to be removed completely or replaced. The City should develop a facade improvement program to help initiate investment and ensure that improvements are appropriate for a downtown "main street." Linking a financial incentive to urban design standards and guidelines will help local buy-in and support for quality design.

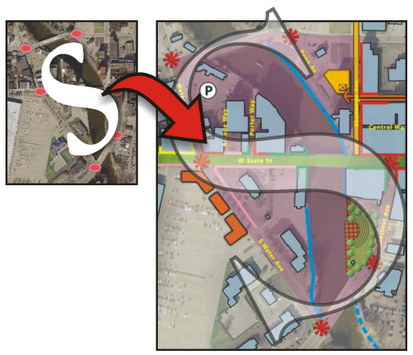
Streets to Target

Things to consider include:

- Target an area rather than "sprinkle" dollars
- Northeast quadrant is a good area to target because of the recent public investments that have already been made or are planned and not yet implemented. The improvements made to the Shenango Avenue streetscape, public parking lots and the parking garage provide a good foundation for revitalization. Localized icentives, such as a facade improvement program, could help initiate private sector investment in the area.
- Develop specific urban design standards/guidelines for awnings, signs, window openings, materials, or anything else the program will fund. The City must hold applicants to these standards as a condition of funding. A financial contribution or "match" by the applicant is also a good idea. It shows good faith and commitment.

Encourage mixed-use development in the downtown.

Mixed-use development should be encouraged, if not required, in the Downtown. We no longer live in a time where separation of all land uses are required or even desired. Urban centers, like Downtown Sharon, should be a mix of land uses including office, retail, commercial, and a variety of housing options. It is the mixing of uses that provides activity all throughout the week at all times of the year. Mixed-use development offers many advantages over single-use buildings or districts, especially in urban areas where densities are typically high and land is scarce and often expensive. A vertical mixing of uses results in multi-story structures that are made possible by the larger revenue streams associated with maximizing a particular site or parcel. By comparison, the horizontal mixing of land uses combines single-use buildings within a defined area. Both types of mixed-use developments could serve to achieve the goal of place making by bringing together complementary uses in close proximity to one another. A concerted effort to develop multi-story mixed-use buildings in the downtown business district should be initiated. One way to do this is to implement a mixed-use zoning district (see section on zoning).



Just a few benefits of mixed-use include:

- Consistent with character of urban areas
- Reduction in energy use (e.g. reduced vehicular trips)
- Reduction in infrastructure costs
- Supports multi-modal efforts, such as transit, biking, and walking
- Developers like it!

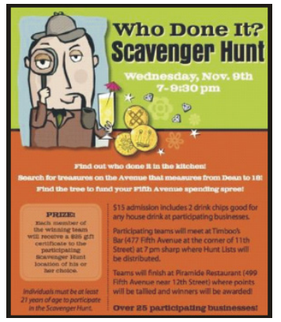
Leverage public sector dollars for private investment.

As with most municipalities, money to invest in local projects and improvements is scarce. State and Federal grant programs have been cut and/or eliminated so it is important that every dollar available for Downtown be scrutinized. The City of Sharon must be very selective in what it allocates dollars to and return on investment is critical. The City has, or is in the process of, investing significant dollars in the northeast quadrant. It should continue to focus investments in specific areas rather than spreading the dollars throughout the Downtown. This approach is more likely to leverage private sector investment in new development, building improvements, and new business.

Existing/planned public projects in northeast quadrant include:

- Streetscape improvements - Shenango, Pitt, & State
- Public garage
- Penn State Campus
- Potential mixed-use project on Shenango Avenue
- Riverfront walkway / access

Encourage activity on the street.



People that visit and patronize businesses in downtowns do so for the unique experience they offer. Suburban shopping malls and strip plazas do not often provide opportunities for outdoor seating, a walk along the River or social and cultural activities, such as concerts in a park or art walks. Cities across the Country are reinventing themselves as the activity center of their regions. The City of Sharon should do no different. It should build upon and celebrate its assets and recognize that its business district is different than that of Hermitage or other suburban districts. It should continue to have unique events and activities downtown and along the Shenango River to bring people out to the streets.

The City should encourage:

- Outdoor dining
- Sidewalk sales / events
- Scavenger hunts
- Pub crawls
- Etc.

Example waterfront activities

Position the waterfront as a recreational and economic development attraction.

At one time, many cities looked at their downtown waterfront as waste dumps and barriers. Today, they have become major attractions in Cities ranging from San Antonio to Columbus. They have become the center for outdoor recreation with trails and riverwalks and even canoeing and kayaking. They have also developed into economic development attractions for a variety of water-dependent and water-enhanced uses including housing, restaurants, and shopping districts. The Shenango River is one of the most significant and underutilized assets for Downtown Sharon. The City already recognizes the importance of the River which is evident by the riverfront walkways and the Riverfront Overlay District. However, it should take their efforts further by considering highest and best uses along the waterfront. Treating the riverfront much like a street front, it should consider design guidelines and standards as well as land uses that truly benefit from a waterfront location.

In addition the City should:

- Develop a contiguous walkway along the waterfront
- Develop an amphitheater / event space
- Encourage festivals / events
- Encourage or require water dependent & water enhanced land uses

Bring festivals and events downtown.

As discussed above, Downtown Sharon must position itself as the activity center for the region. It should continue to support existing festivals, such as the brown bag lunch concert series at Columbia Square and the Small Ships Revue. It should also look to bring addition events to the Downtown area. Water Fire, a new event on the Shenango River, is under consideration and seems like it could be a great event. Other events to consider include food festivals, art festivals, and music festivals. A "Best of PA" could be considered, which might include a celebration of the things that make Sharon and the State of Pennsylvania a great place to live and visit. Quaker Steak and Lube, Reyers, Winners and Daffin's could all be included. Reyers, Winners and Daffin's all claim to have the "World's Largest", which could be another central theme to be celebrated.

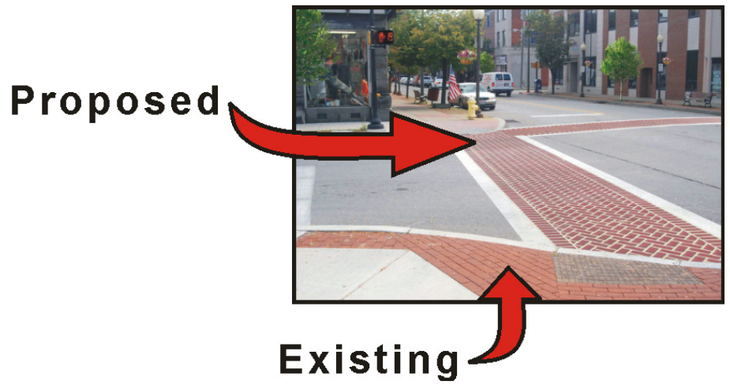
Improve the streetscape to create attractive, pedestrian friendly, and walkable streets.

A well designed streetscape can make a significant contribution in developing a strong sense-of-place and a vibrant public realm. Unlike what many people believe, creating a vibrant streetscape is less about creating a beautiful aesthetic street and more about evoking a warm and inviting feeling on the street. Getting the right components working together is critical. An inviting streetscape sends a message to residents and visitors that the street is the primary public space. Successful downtowns have walkable and inviting streets and, for the most part, Sharon has several of those. However, in some areas, street trees are sparse, crosswalks are not well defined and the street furniture is dated and in poor condition. The upcoming streetscape project will address these issues on State Street. The City must continue to find ways to maintain and improve the streetscape for all downtown streets. It is critical to the long term success of the business district. If the street looks dated and irrelevant then visitors and residents will treat it as such.

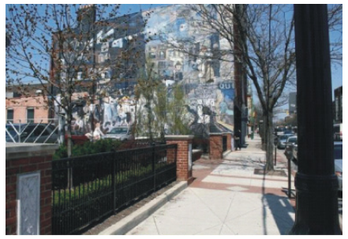
In addition to the corridor-wide streetscape standards included later in this section the City should:

- **Strategically place/replace street trees** - Trees provide enclosure, shade, and bring life to the street. They should be strategically placed as to limit obstruction of storefronts and signs. However, this does not mean eliminate street trees in retail and commercial areas, such as State Street.
- **Enhance crosswalks at key locations** - Crosswalks need to be identifiable to both pedestrians and motorists. Rather than using decorative materials at all crosswalks it is recommended that Sharon select key locations for special treatment. One example is to highlight the six crosswalks near the River, as indicated in the graphic to the right. This "S" formation highlights both the streets and the River, and could be symbolic of the "S" in Sharon. This "S" concept could be used in other features, such as the wayfinding system.

- **Replace / install street furnishings in key locations** - Furnishings such as benches, trash receptacles and bike racks are important features in creating a walkable and bikeable downtown. If Sharon wants to create friendly streets for people using all modes of transportation it must portray that message. Benches along a street like State Street send the message – "It's a place for people." Whether it be for seniors that need to rest or "people watching" benches should have a place. If people sleeping on them is a concern select a bench type with a center armrest. The armrest will prevent people from lying down. The furnishings along State Street and the rest of Downtown need to be updated. Steel furnishings will limit maintenance.



Use plantings and decorative fencing to screen parking lots - Parking lots that take-up a large percentage of the street block or ones located on corners interrupt the rhythm of the streetwall created by buildings and other vertical elements. Although this can be mitigated with appropriate street trees, the City of Sharon should consider prohibiting parking lots on corners and requiring plantings, knee walls or decorative fencing between the parking lot and street. This treatment should be designed with Crime Prevention Through Environmental Design (CPTED) principles in mind (see next for a discussion on CPTED).



Incorporate Crime Prevention Through Environmental Design (CPTED) principles in the development review process.

The relationship between the built environment and crime has been examined from a number of perspectives since the 1960s. Some say it started with Jane Jacob's book called The Death and Life of Great American Cities. In her book, Jacob introduces the concept of eyes on the street. She makes the case that a mix of uses in urban areas create activity on the street at all times of the day; therefore increasing the chances of crimes being observed. In 1972, Oscar Newman released a book called Defensible Space: Crime Prevention Through Urban Design which led to many of the strategies for Crime Prevention Through Environmental Design (CPTED).

Crime Prevention Through Environmental Design (CPTED) is the design and effective use of the built environment to help reduce crime, reduce the fear of crime, and improve the quality-of-life. Research shows that decisions to commit criminal acts are often decided by the cues from the built environment that lead to the perceived risk of being caught. Strategies of CPTED rely on design and/or the manipulation of the built environment in a way that will discourage people from committing crimes. There are a number of CPTED strategies but the most common built environment strategies are natural surveillance, natural access control and natural territorial reinforcement. Natural surveillance and access control strategies focus on limiting opportunities for committing crime. For example, streets should be designed to maximize pedestrian and bicycle traffic, which increases activity and social interaction on the street. Low landscaping with thorny plants, when placed under windows, can deter break-ins. Windows should be positioned as to overlook sidewalks and parking lots. Territorial reinforcement promotes social control of the environment through a variety of measures including the placement of seating in common areas and displaying security system signage at access points.

Crime Prevention Through Environmental Design strategies should be an integral part of Sharon's downtown revitalization. All design plans for development including streetscape improvements, commercial and residential development, parks, playgrounds, and parking lots should be reviewed from a CPTED perspective. The Sharon Police Department should consider having at least a few on staff trained in CPTED. Consideration should be given to including people familiar with CPTED strategies in the design review process, including Site Plan Review.

Just as research has shown that CPTED strategies can be effective in deterring crime, research has also shown that pedestrian friendly streets with landscaping can also deter crime and improve community spirit. How these strategies are interpreted and executed will be critical and the key to success will ultimately be balance. As stated in Safescape: Creating Safer, More Livable Communities Through Planning and Design by Al Zelinka and Dean Brennan, "whatever it is called, an integrative program which carefully evaluates the space under consideration and involves all stakeholders in a collaborative community building fashion is far superior and more successful than a rote application of standard, physical design features."

Streetscape Design

Introduction

Streetscape amenities should be orchestrated to create a unique character and consistency for the Business Route 62 corridor. Amenities should to be coordinated so that there is a seamless blend of materials, colors, shapes, forms and textures from one amenity to the other. Many manufacturers of streetscape components, such as lighting and street furniture, offer series that match in color in style. This provides a cohesive look.

Sharon and Hermitage should capitalize on every opportunity to improve the streetscape along the Business Route 62 corridor. This is a must in order to improve walkability. When possible, Hermitage should work with PennDOT to add street trees on every street improvement project. It should continue to partner with developers to add sidewalks and complete the sidewalk network. When there is not room for trees within the right-of-way, the City should work with developers to include trees and landscaping on the private side of sidewalks. Benches, trash receptacles and bike racks should also be included at key locations.

In the City of Sharon, Character Zones 1, 2 and 3 all had low walkability scores and improving the streetscape in these zones will go a long way in improving walkability. The City should continue to move forward with the Downtown Street Project. If benches are not included in that project they should be added later. Irvine Avenue is a gateway to the City, is adjacent to residential neighborhoods, and is a significant pedestrian linkage to downtown. New sidewalks and street trees should be a high priority in this zone.

The streetscape standards and guidelines are intended to offer direction to both Cities in improving the streetscape along the Business Route 62 corridor. These should be shared with local street planners and designers including hired consultants. If followed and expanded on as necessary and combined with the Design Guidelines and Standards the walkability and aesthetic quality of the corridor will improve.

Street Furniture

Strategically placed, benches, trash receptacles, bike racks, and planters will provide the needed amenities for both residents and visitors, and add color and life to the streetscape. Evidence shows that green and pedestrian friendly streets, which include furnishings, can entice residents to walk more, put 'eyes on street', and generate desirable foot traffic for local businesses.

Benches

Benches provide opportunities for residents and visitors to rest and to sit and talk with one another. Many people quickly dismiss including benches in the streetscape because they believe they lead to undesirable loitering. However, if they are placed in key locations and coordinated with pedestrian level lighting, they often prove to bring positive activity to the street. In addition, benches with center arm rests deter laying down, which is often a concern for municipalities and local merchants.

Standards & Guidelines:

- Benches should be fabricated of heavy gauge metal and painted with vandal-resistant powder coat paint. The metal material and finish should be corrosion resistant and able to take the heavy salt abuse during the winter. Benches should be securely mounted onto the concrete.
- Seating surfaces should be 16 to 18 inches high (maximum 24 inches) and should have a minimum depth of 16 inches for seats without backs, 14 inches for seats with backs (maximum 30 inches).
- Benches may vary in length from 4 to 8 feet, depending on design and intended users.

Design Considerations:

- Place benches in functional and accessible locations where users can reach them directly from public sidewalks or pathways in all weather conditions.
- Benches with backs and armrests are generally more comfortable for people with physical disabilities. Benches without backs allow people to face different directions.
- When possible, locate benches near lighting and platnings. Nearby trees provide shade during the day and some shelter from rain.
- Several benches should be placed on State Street in Downtown Sharon. They should be strategically located so that they are convenient for resting, people watching, and views to the waterfront.
- Benches should be considered for areas that include high pedestrian traffic and/or where people wait for long periods of time such as the Sharon Regional Hospital area.

Suggested Manufacturers:

DuMor, Landscape Forms, Maglin Furniture Systems Ltd.

Trash & Recycle Receptacles

Receptacles reduce litter and provide for convenient disposal of waste and recyclable products. A waste receptacle is a container for disposing of trash. A recycle receptacle is a container for collecting material that can be reused or reprocessed for another use, such as soda cans, plastic water bottles, etc.

> "Streets and their sidewalks, the main public places of a city, are its most vital organs ... If a city's streets look interesting, the city looks interesting; if they look dull, the city looks dull."
>
> Jane Jacobs

Design Standards & Guidelines:

- Receptacles should be fabricated of heavy gauge metal and painted with vandal-resistant powder coat paint. The metal material and finish should be corrosion resistant and able to take the heavy salt abuse during the winter. They should be securely mounted onto the concrete.
- Receptacles should have interior polyethylene liners to contain waste. Bins should allow users to drop material in it without requiring physical force (pulling, lifting or pushing).
- Detachable lid should be cabled securely to the unit.

Design Considerations:

- Bins should not clutter the sidewalk or block the pedestrian travelway.
- Material and finish should be consistent with other streetscape elements, such as benches and planters.
- When possible, waste receptacles should be located near lighting.
- Receptacles should be provided where there is a demonstrated need: at transit stops and in or retail business districts and other areas of pedestrian activity.
- Waste and recyclable containers may be located together or housed in one unit with compartments for both waste and recyclables.
- Capacity of bins should be a minimum of 30 gallons.

Suggested Manufacturers:

DuMor, Landscape Forms, Maglin Furniture Systems Ltd.

Bicycle Racks

Bicycle racks provide secure parking facilities for bicycles. The term "rack" should not be interpreted as the use of long, multiple installations that do not support the bicycle frame.

Standards & Guidelines:

- Anchor bicycle racks to a paved surface and use vandal-resistant bolts or other attachments that prevent removal using common tools.
- All bicycle racks shall use single inverted-u or post and loop designs, both of which provide primary support for the bike frame. Do not use racks that secure only the wheel.
- All rack placements should provide independent access to each bicycle. Single racks are both flexible and unobtrusive.
- The exterior surface of the rack shall be non-abrasive, non-marring, and durable to minimize refinishing or repair.

Design Considerations:

- Convenience and security are the two major concerns for locations. Lighting and adjacency to high traffic areas reduces vandalism and theft.
- Shelter from weather conditions is desirable.
- Well-placed racks encourage bicycle transportation and do not block pedestrian routes. Lack of adequate facilities forces cyclists to lock bikes to signs, railings, parking meters and trees. Racks should be placed at logical locations, such as on State Street in Downtown Sharon, near the hospital and schools, at parks and plazas, and at other major destinations and activity centers.
- Locate bicycle racks near major building or center entrances. Do not obstruct entrances or pedestrian paths.

Suggested Manufacturers:

DuMor, Landscape Forms, Cycloops

Bollards

Bollards are often used prevent vehicle encroachment into pedestrian areas or buildings and/or to channel pedestrian or vehicular movement.

Design Standards & Guidelines:

- Bollards should coordinate with the material and finish of other street furnishings.
- Placement of bollards shall be a minimum of 2 feet from the curb zone. Spacing of bollards should be 5 feet minimum (6 feet preferred) from each other.

Design Considerations:

- Bollards are useful for protecting pedestrians and buildings from motor vehicle encroachment. Other uses include providing security for sensitive buildings and sites and calling attention to traffic calming devices.
- Bollards should not create hazardous and unexpected obstacles to pedestrians, cyclists, and other non-motorized users.
- Lighted bollards provide useful light for pedestrians and motorists and emphasize travel pathways.

Suggested Manufacturers:

Reliance Foundry, Bollard Solutions, DuMor, Landscape Forms

Newspaper Dispensers

Newspaper dispensers are machines that display and dispense newspapers to the public, and often include vending equipment.

Design Standards & Guidelines:

- The design and color of newspaper dispensers should be appropriate to their context. Darker colors such as black or dark green are preferred for cabinets.
- Place newspaper dispensers outside of the pedestrian paths, with a minimum two-foot clearance from curbs.

- Place multiple dispensers into orderly arrangements or within common enclosures.
- Obtain required permission and licensing consent for new installations.

Design Considerations:

- If located correctly, newspaper dispensers can contribute to an active streetscape.
- Dispensers should be clustered and be coherent in appearance. Machines with conflicting appearance and placed randomly or in crowded locations contribute to visual clutter and may be difficult to use.
- Single dispensers with multiple cabinets are preferable to individual racks. A unified installation produces a cleaner and more cohesive streetscape.
- Newspaper dispensers may be incorporated into corrals or enclosed by short screen walls.

Public Art

Public art includes sculpture, mosaics, wall art, and other two- and three-dimensional installations designed for and placed in the public realm.

Standards & Guidelines:

- Placement should maintain good sight lines for pedestrians and motorists.
- Locations should not compromise the intended use of specific public spaces.
- A plinth, pedestal, or other means to designate art locations should be considered. This will help define the dimensional limitations of the display area.
- Identify maintenance needs, safety considerations, and replacement costs in the design process and before installations.
- Public art proposals should be reviewed and approved by a public art committee and City Council.

Design Considerations:

- Art may interpret the history, character, or people of an area.
- Art forms may include landscaping, fencing, brickwork, glasswork, gates, fences, lighting, painting (murals), sculpture, seating, lettering, signage, computer generated, water, use of color, artifacts, etc.
- Placement should be site-sensitive and encourage public view.
- Permanent public art should use durable materials that will maintain their appearance and integrity over time.
- Art selections should recognize diverse types of art and individual preferences, and create varied environment.
- Functional features in the street environment, such as sound abatement, retaining walls, and utility boxes can provide opportunities for public art.
- When possible, public art displayed along State Street should exhibit the talent and diversity of local artists.

Street Trees

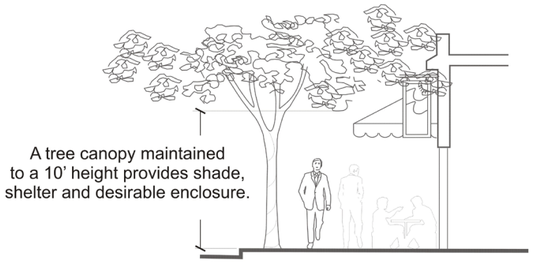
Street trees provide shade which is not only beneficial to people but it extends the life of pavement as well. Along with aesthetic benefits, trees can improve the function and feel on the street by creating enclosure which makes the street feel narrower, therefore slowing traffic and enhancing pedestrian friendliness. Street trees should be strategically placed as to limit the obstruction to storefronts and merchant signs.

Standards & Guidelines:

- Placement of trees and other landscape materials should not violate sight lines for drivers or pedestrians.
- Street trees should be planted at no more than 40' on center when possible and alternate with street lighting.
- During the design process, the lighting plan and tree selection/placement should be considered and coordinated.
- When possible, distance between sidewalk surface and tree canopy should be at least 8 feet and not more than 12 feet.

Design Considerations:

- In Downtown Sharon and other mixed-use areas, install bike racks in strategic locations to keep cyclists from chaining bicycles to trees.
- When possible, avoid using tree grates. Tree grates should only be used in very constrained right-of-ways. They are costly and limit the growth of the tree when not removed with maturation. Planting beds and ground covers are better treatments for the base of a tree.



Tree Canopy

- Consider tree and landscape maintenance as part of the design process.
- Consider trees with year round interest (e.g. spring flowers, fall color, texture, etc.)

- Rain gardens should be installed when possible to reduce excessive runoff and provide water to plantings. Alternatives to turf grass should be considered to manage stormwater runoff.
- Trees greater than 4 inches in diameter are not permitted by PennDOT in state highway medians. Tall grasses and shrubs are allowed. All plantings must conform to AASHTO standards.

Suggested Trees:

Small

- Acer campestre 'Queen Elizabeth' - Queen Elizabeth Hedge Maple
- Acer ginnala 'Flame' - Flame Amur Maple
- Acer griseum - Paperbark Maple
- Amelenchler larvis 'Cumulus' - Cumulus Serviceberry
- Amelanchlerx grandlflora 'Autumn Brilliance' - Autumn Brilliance Serviceberry
- Carpinus caroliniana - American Hornbeam
- Crataegus viridis var 'Winter King' - Winter King Hawthorn
- Koelreuteria paniculata 'September' - September Goldenraintree
- Malus ssp - Crabapple varieties
- Syringe reticulate 'Ivory Silk' - Ivory Silk Japanese Tree Lilac

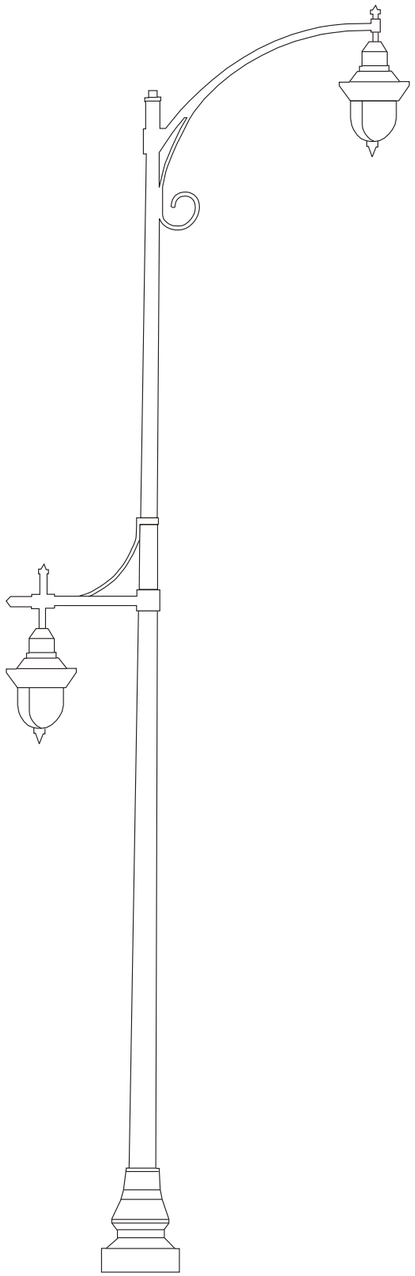
ALTERNATIVES & RECOMMENDATIONS IV

Medium Trees

- Acerx freemanii 'Armstrong' - Armstrong Maple
- Acerx freemanii 'Autumn Blaze' - Autumn Blaze Maple
- Acerx freemanii 'Jeffersred' - Jeffersred Maple
- Acer platanoides 'Cleveland' - Cleveland Maple
- Acer platanoides' Emerald Queen' - Emerald Queen Maple
- Carpinus betulus - European Hornbeam
- Celtis occidentalis 'Prairie Pride' - Prairie Pride Hackberry
- Cercidiphyllum japonica - Kalsuratree
- Corylus columa - Turkish Filbert
- Pyrus calleryana 'Arostocrat' - Aristocrat Gallery Pear

Large Trees

- Ginko biloha - Maidenhair Tree
- Quercus rubra - Red Oak
- Tilla americana - American Linden
- Tilla cordata 'Chancellor' Chancellor - Littleleaf Linden
- Tilla cordata 'Greenspire' Greensplre - Littleleaf Linden



Curbs

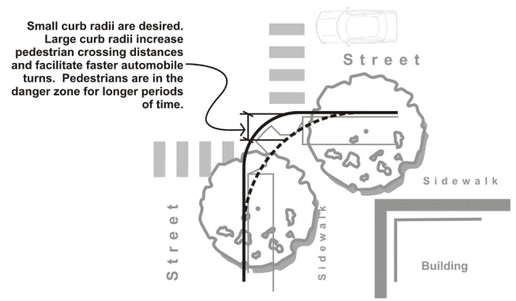
Curbs define the edge of the street and direct stormwater runoff.

Design Standards & Guidelines:

- Granite curbs should be installed within the downtown district.
- Sloped curbs are required at crossings by ADA regulations.
- Curb design must meet city and PennDOT standards.

Design Considerations:

- When determining curb radii consider vehicles as well as impacts on pedestrians crossing distances, seek balance.



Curb Radius

Lighting

Lighting extends the use of the street beyond the daylight hours and into the evening, providing for the continued use of public space. Lighting types include decorative, vehicular use, general site, pedestrian use or feature lighting.

Design Standards & Guidelines:

- Design must meet PennDOT standards.
- Clam shell base, non-structural, constructed of either cast iron or cast aluminum.
- Tapered poles are preferred.
- Light-emitting Diode (LED) is preferred, although High Pressure Sodium Light is acceptable.
- Fixtures should have shielding, limiting lighttrespass and directing light to surfaces needing illumination.
- Fixture should be dark sky friendly, with top side and house side shields.

Design Considerations:

- Sufficient strength to support signs, banners or flower baskets.
- Polycarbonate glass should not be used. The material becomes yellow, losing the desired aesthetic.
- Poles should be installed at least 2½ feet behind the curb. This provides clearance for vehicles and snow plows. Minimum clearance from the pole to any adjacent structure should be 3 feet.
- GFI outlets need to be specified for poles before installation. Outlets provide electricity for additional seasonal lighting or special events. Outlets should yield 120 volts.
- Lighting for both pedestrians and vehicles should be considered.

Lighting at Pitt Street and Shenango Avenue

Paving

Walk surfaces are an important consideration when developing streetscape standards. The materials need to be durable, safe to walk on, and contribute to the overall character of the area. The material should change based on the context of the area.

Standards & Guidelines:

- Finished surfaces of the sidewalks should be concrete, molded brick, stone, or concrete pavers. Paving patterns should emphasize the spatial elements of the walkway.
- Pavers could be incorporated into the sidewalk as bands and at the intersection as a pedestrian safe zone. Pavers could be concrete unit pavers placed over a concrete setting bed. Pavers should be mixed in a varied organization to create a pattern. The pattern of the paver field should tie into the theme of the area.
- The finish materials and pattern of the sidewalk should be maintained through driveways, alleyways, and curb ramps.
- Colored and exposed aggregate concrete is an affordable alternative to pavers. It provides texture and color to the streetscape.
- Stamped concrete and asphalt should be avoided. These materials rarely look authentic and the patterns and colors breakdown over time or in high traffic areas.

Streetside bench and molded brick pavers

Design Considerations:

- In higher pedestrian retails areas like Downtown Sharon decorative materials are more applicable than in lower density auto-oriented areas.
- Colored concrete should avoid unnatural colors, unless they are communicating a specific theme. Materials should generally not try to imitate other materials, but should be used and colored according to their own character.
- Contrasting color surfaces should be considered for functional contexts, such as:
  - to convey a warning or potentially dangerous area or
  - as part of traffic calming measures

Stormwater Applications

Both Hermitage and Sharon should consider ways to integrate best stormwater management practices (BMPs) into not only building and site development but also into streetscape design. Doing so can reduce the damaging effects of runoff on rivers and streams and often add character and bring aesthetic benefits to the street. Disconnecting or at least diverting some flow from storm sewers and directing runoff to natural systems such as landscaped areas, bio-swales and rain gardens reduces water velocity and cleans stormwater runoff. Natural stormwater systems also permit reduced pipe size for storm sewers.

- **Bio-swales** are depressed areas adjacent to impervious surfaces that are sloped on either side, contain vegetation or riprap that maximize the amount of time water spends over permeable surfaces before entering the storm sewer system. This allows water to naturally infiltrate the ground. Bio-swales also clean stormwater by removing pollutants.
- **Pervious paving** allows water to infiltrate the pavement surface, reducing rapid runoff into streams and storm sewer systems. Pervious paving surfaces include interlocking pavers, porous asphalt, porous concrete and grid pavers.
- **Rain gardens** are depressions that contain plants adapted to wet conditions, are designed to slow, capture and absorb rainwater.

Stormwater planters

Examples of naturalized stormwater planter systems

Wayfinding

Finding one's way in an unknown environment is a common task that people experience on a regular basis throughout their lives. Effective wayfinding systems result from a process based on graphic representation, environmental analysis, and identifying user need and behavior. Each community presents unique opportunities and requires a thorough analysis in the wayfinding development process. Although similar elements of wayfinding systems may prove effective, wayfinding is place-dependant. What works in city "X" may not be appropriate in city "Y." To merely duplicate and implement a system from another City could prove to be ineffective in downtown Sharon. The wayfinding system in Sharon must be based on downtown's unique attributes.

Wayfinding systems may include signs, maps, gateway features, streetscape elements, and informational kiosks. Each community presents unique opportunities and requirements which must be thoroughly analyzed as part of the planning process. The overall framework for the system in Sharon should be developed based on the unique qualities and attributes of the Downtown district. For example, the Shenango River and State Street essentially divide the downtown into quadrants or sub-districts. Therefore, quadrants might be one effective to way to organize the wayfinding system. A color could be assigned to each quadrant and all signs within that quadrant would utilize that color.

With the downtown identified as the larger district, consideration can go to smaller sub-districts such as adjacent neighborhoods, and the Penn State Campus. Major streets, such as State Street and Connelly Boulevard must be considered along with local landmarks, destinations, and special features such as the river trail, the public parking garage, and Quaker Steak and Lube.

A wayfinding system in Sharon should include a hierarchy of signs and design features for pedestrians and motorists with consideration given to the quadrant and landmark levels. Sign types to consider include:

- banners
- directional signs
- destination arrival signs
- general information signs kiosks
- landmark signs
- pavement treatments
- inlaid medallions

To the right is a concept level illustration of a few signs that could be developed for Sharon. Inspiration for the concept stems from the Shenago River, represented by the "S" in Sharon, and the existing gateway sign that already exists at the corner of Sharpsville Avenue and E. State Street. These signs are just examples and are intended to be used a starting point in developing a wayfinding system.

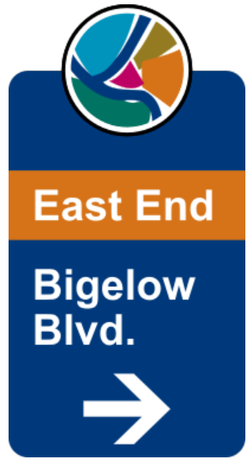
The first task of the wayfinding process must be the development of the wayfinding system goals. The city should coordinate a wayfinding committee and involve other local stakeholders to develop these important statements. In anticipation of more specific principles identified later through stakeholder involvement, these principles can guide the start of the wayfinding process.

A wayfinding system for downtown Sharon should:

- be simple
- be aesthetically pleasing
- be accessible for users regardless of physical ability
- direct users to small destinations, incorporating the unique identity of Sharon
- provide pedestrians, bicyclists, and transit users with immediate information and directions
- compete with street, regulatory and storefront signs for the attention of pedestrians, bicyclists and transit users

To get started

1. Develop a wayfinding committee to lead the process.
2. Consider working with a consultant specializing in wayfinding.
3. Research urban wayfinding systems.
4. Identify the districts and sub-districts. Be specific, and group areas with common features. For example, the Penn State Shenango campus may be the namesake of the northeast downtown quadrant.
5. Identify landmarks, destinations, etc.
6. Identify fundamental landmarks. Identify the readily-identifiable objects or spaces of Sharon to include. The list should be comprehensive to start and then be limited to the most unique and necessary destinations in Sharon.



Pittsburgh's Solution

Neighboring Pittsburgh implemented the Pittsburgh Wayfinder System to represent its transportation network. The system divides the city into districts, signifying them with unique colors. These colors exist across sign elements, uniting Pittsburgh's diverse urban features.

"An ordered environment . . . gives the individual a possibility of choice and a starting point for the acquisition of further information. A clear image of the surroundings is thus a useful basis for individual growth".

- Kevin A. Lynch
Urban Planner and Author

City of Sharon Conceptual Sign Illustrations

Wayfinding Resources

The City of Pittsburgh Department of City Planning developed a catalog of streetscape elements to consolidate streetscape specifications for its Downtown comprehensive plan. Some of these elements are fundamental to strong wayfinding systems. Sharon may consider Pittsburgh's pylon, kiosk, and directory design for its downtown. Each wayfinding element includes dimensions and placement information, key features, and material sources. This catalog can benefit the Sharon wayfinding process due to its specificity and immediacy.

Department of City Planning. (1998). Pittsburgh Streetscape Components Catalog. In City of Pittsburgh. Retrieved August 17, 2012, from www.city.pittsburgh.pa.us/dt/StScpCat.pdf

Presentation by wayfinding consusltant Bruce Herbes on pedestrian wayfinding. Herbes discusses the role of wayfinding to the user. His presentation includes many images of diverse urban wayfinding elements.

Herbes, B. Wayfinding for Pedestrians in Urban Areas: Making Places more walkable, legible and livable. Southwest Development Commission.

www.swdc.wa.gov.au/media/100057/pedwayfinding_bruce%20herbes.pdf

Consider using parts of the Pittsburgh Wayfinder system by reviewing Cridlebaugh's detailed overview of it. The system successfully organizes and represents the bewildering geography of Pittsburgh to residents and visitors alike. This document identifies each wayfinding feature and its utility.

Cridlebaugh, B. S. (2008). Pittsburgh Wayfinder System. In Bridges & Tunnels of Allegheny County. Retrieved August 16, 2012, from pghbridges.com/articles/pgh_wayfinder/index.htm

The Ohio River Trail Council is responsible for the wayfinding system in its Pittsburgh-area greenway. The Council has published detailed documents, presentations, and construction plans for wayfinding elements.

Ohio River Trail Council. Ohio River Trail Council Wayfinding and Interpretive Signage Project. In Ohio River Trail Council: Corapolis to the state line. Retrieved August 16, 2012, from

www.ohiorivertrail.org/index.php/wayfinding

Design Guidelines & Standards

The following design and zoning recommendations are based upon the recommendations contained in the local planning documents, results of the Community Preference Survey, input from the Steering Committee, and feedback provided at the two public meetings held as part of this project. In order to ensure that new and in-fill development serves to achieve the community goals, it is recommended that the Cities consider incorporating some or all of the following recommendations into their existing regulatory framework.

It should be noted that these code recommendations should be considered a starting point for a future re-zoning discussion. The exact language and level of flexibility that is appropriate for Sharon and Hermitage will need to be determined through a process that would involve elected officials, Planning Commission and Zoning Board members, and property owners within the various zoning districts. As a result, all of the following recommendations could be phrased using the word, "should" or "shall". Generally speaking, when a code requirement contains the word "should" it is considered a guideline to assist the Planning Commission during site plan review. Any code requirements that contain the word "shall" is considered a standard and would require a variance from the Zoning Board of Appeals if it is not met by the applicant.

This study contains two levels of zoning and design recommendations. The first are a complete set of zoning and design requirements that address the components necessary to improve the operation and appearance of the Business Route 62 corridor. These recommendations are provided on the following pages and it intended to serve as a template for both cities to consider adding to their existing zoning codes. These provisions of this can integrated into the current regulatory framework in one of three ways:

- Option 1: Amend the existing non-residential zoning districts along Business Route 62 to include some or all of the regulatory provisions;
- Option 2: Create an overlay district for Business Route 62, similar to the Route 18 South Overlay District in Hermitage; or
- Option 3: Apply the regulatory provisions to all non-residential or commercial zoning districts throughout the two Cities.

The second level of zoning recommendations were developed specifically for Sharon and Hermitage. These include:

- Landscape Standards
- Detailed zoning assessment by character area
- The provisions of three adoption ready zoning districts
- Detailed streetscape design guidelines

Fostering Better Design Through Development Review

In order to properly implement the design guidelines and standards provided in this section, the two Cities should consider modifying their development review processes. The most effective set of review procedures includes a minor site plan review, a major site plan review and a design review and training component. The following thresholds are intended to augment each City's existing site plan review requirements.

Minor Site Plan Review - Minor Site Plan Review is generally an internal process that is ultimately approved by the authorized representative of the Planning Commission such as the Chairperson or Director of Planning. Minor Site Plan Review should be required for development or redevelopment that consists of modifications to existing buildings and facilities, such as:

1. Exterior alterations to existing buildings that do not meet the specific design standards within the C-2 district in Sharon and the CC-1 and CC-2 Districts in Hermitage.
2. Placement of accessory structures, provided that said structures do not exceed 500 square feet of gross floor area.
3. Additions to existing buildings, provided that said additions do not exceed 500 square feet of gross floor area and provided that said additions are less than 25% of the area of said existing buildings.
4. New or enlarged parking areas which contain less than 10 new spaces.
5. Minor alterations of previously approved site plans.

Major Site Plan Review - Major Site Plan Review is a public process that is ultimately approved by the Planning Commission. Major Site Plan Review should be required for development or redevelopment that consists of modifications to existing buildings and facilities within downtown Sharon and for new construction along the US Route 62 corridor, including:

1. New construction that does not qualify for Minor Site Plan Review within the C-2 district in Sharon and the CC-1 and CC-2 Districts in Hermitage.
2. Exterior alterations to existing buildings or structures and all new construction in the C-1 and C-1A Districts in Sharon.
3. Major Site Plan Review should be required for all new buildings and uses as well as expansions of uses and buildings that are not explicitly exempt from Site Plan Review or do not qualify for Minor Site Plan Review.

Design Review - Each City should incorporate an opportunity for design professionals to provide input on development proposals at the request of the Planning Commission or Planning Director. This can take the form of an individual architect, landscape architect, urban planner or other design specialist designated by the City. This person is typically not involved in every project review but those proposals that contain a significant design component. Another option is to create a full design review board that is incorporated into the development review process to provide formal recommendations to the Planning Commission as part of Major Site Plan Review applications. Regardless of which approach appeals to Sharon and Hermitage, each City will need to make an ongoing commitment to provide design training to the members of the Planning Commission and Zoning Board of Appeals.

Mixing of Land Uses

What are we trying to accomplish?

"Since the first American cities were founded in the 17th century, mixed-use development has always been part of the American urban landscape. It was not until after World War II that a movement toward complete segregation of land uses dominated the new American urban landscape. This movement, which actually began in the 1920s reached its zenith in the 1950s and 1960s. During the 1980s, the New Urbanist architectural movement, along with urban revitalization, renewed interest in mixed-use development in certain areas of the country. As the principles spawned by this development trend has slowly gained acceptance, mixed-use development is being constructed in numerous cities throughout the country." (NAHB)

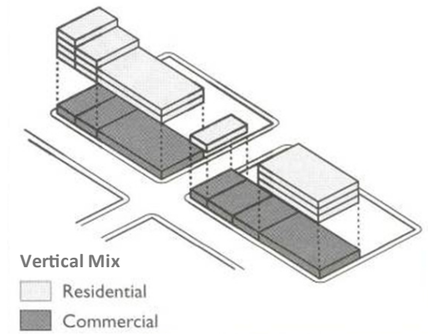
Benefits of mixing of land uses include:

- Creates a bicycle & pedestrian friendly area.
- Conserves the environment (e.g. reduced vehicular trips, improved air quality, less runoff, etc).
- Increases the viability of transit and reduces infrastructure costs.
- Enhances the economic viability of local restaurants, stores, etc.
- Provides a variety of housing choices.
- Appeals to certain developers.

These images illustrate two examples of new mixed use projects. The image on the left is of a new four story building that has been integrated into an existing neighborhood that has dozens of mixed used buildings dating back to the early 1900s. The image on the right, is of a newly built Rite Aid. The upper floor remains unfinished until such a time that residential or office uses are established on the site.

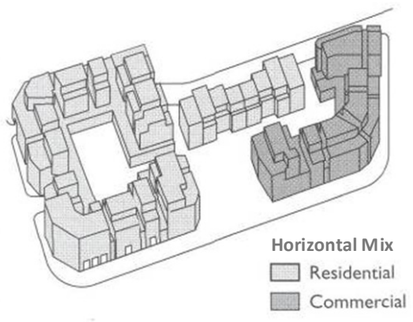
How do we accomplish it?

Mixed-use development can be defined as the use of a building, set of buildings, or a site for more than one purpose. Land uses which are commonly encouraged in a mixed use area include residential, retail, office, service, entertainment and governmental activities. There are two approaches to accommodating a mix of land uses. These include a vertical mixing of uses and a horizontal mixing of uses.



A vertical mixing of uses (shown in the graphic to the left) occurs within a single building. The most common type of vertical mix use consists of commercial uses on the ground floor with offices or apartments on the upper floors.

A horizontal mixing of uses (shown in the graphic to the right) occurs on a single site or sometimes a neighborhood.

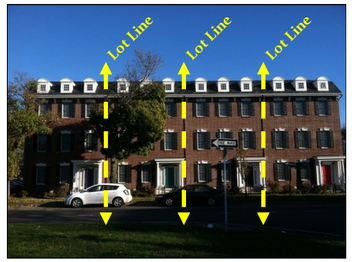


Codifying Mixing of Uses

Both Sharon and Hermitage permit a mixing of land uses along the Business Route 62 Corridor. However, Sharon should consider permitting a greater range of residential uses along the corridor.

The types of housing that people consider desirable has grown over the past two decades. Traditionally, multi-family housing implied either apartments or condominiums. Today, other models such as attached housing that is owner occupied or rented is growing in popularity. Both cities may want to consider specifically articulating the types of residential uses that they support along Business Route 62.

This photo is an example of traditional apartment building built in the late 1990s. Residential projects such as this could range from 12 to 20 units per building. On-site parking is provided by a surface lot that surrounds the ground floor of the building.



This photo is an example of contemporary attached housing. This residential project was completed in 2008 and consists of four owner-occupied units. Each unit is situated on an individual building lot and has its own attached, two-car garage.

It is recommended that Sharon permit multi-family housing units as a primary use in the study area. Multi-family housing projects should be classified as a Permitted or a Conditional Use in the C-1, C-1A and C-2 Zoning Districts.

Building & Site Design

What are we trying to accomplish?

The purpose of the guidelines and standards for building design is to create lively, pedestrian-friendly and attractive buildings, sites, open spaces and streetscapes where residents and visitors will enjoy walking, biking, driving and shopping. Future private development along the corridor should positively contribute to the public realm. This is accomplished by varying building massing to provide visual interest, promoting compatibility with surrounding developments, emphasizing street corners, highlighting points of entry, and placing focal points along the corridor.

Objectives - Buildings should:

- Actively engage the street and include architectural and site design features including but not limited to, public space, art, clocks, dormers, cupolas, etc.
- Be designed with a clearly articulated base, mid-section, and crown.
- Include a prominent street level entrance or connection to the entrance that is visible and accessible from the public sidewalk along State Street.
- Be designed with a high level of articulation and avoid long unbroken facades planes.
- Include first floor transparency that allows views into the interior of the building creating and indoor/outdoor relationship.

These images illustrate the types of building & site design practices that are desired along Business Route 62. The incorporation of some or all of the design requirements contained in this section will serve to improve the appearance of commercial development along the corridor.

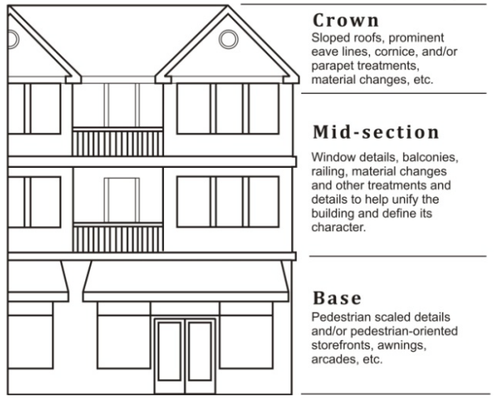
How do we accomplish it?

Building Placement and Orientation

1. To the maximum extent practicable, buildings shall be arranged to orient to the streets and to frame the corner at the intersection of two streets.
2. Street Frontage - a minimum of 50 percent of the street frontage shall be occupied by the site design elements described in item 3 below.
3. Site Design Elements
   - Building frontage;
   - Decorative architectural walls no higher than 3 ft in height;
   - Landscaped entryway signage or features; and/or
   - Site amenities including, but not limited, to public space, art, clocks, etc.

Building Composition

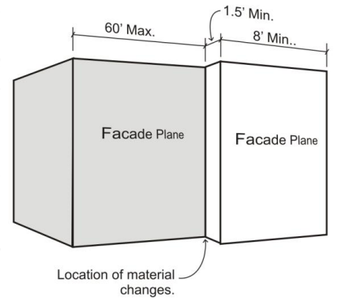
1. Buildings shall exhibit a clearly defined base, mid-section, and crown. This can be accomplished using a combination of architectural details, materials and colors.
2. Architectural details or features such as dormers, masonry chimneys, cupolas, clock towers, and other similar elements are encouraged.



A well articulated base, mid-section, and crown can be achieved in all building types and sizes including multi-story buildings, as depicted in the topic illustration, and single-story buildings, as depicted directly above.

Facade Composition

1. All buildings shall have a prominent street level entrance visible and accessible from the public sidewalk.
2. Buildings located on corner lots shall have an entrance located on the corner that faces the intersection of two public streets to the extent practicable.
3. Varied building designs that avoid long, flat facades are required.
   - The vertical plane of the building facade shall be broken up with a high level of articulation (e.g., projecting entry or window features, recessed elements, transparent storefronts, identifiable retail spaces, and awning/entrance canopies) especially at ground level.
   - No facade shall exceed 60 ft. in horizontal length without a change in facade plane. Changes in facade planes shall be no less than 1.5 ft. in depth and 8 ft. in length.
   - Any changes in exterior building material shall occur at interior corners.



4. All facades shall be designed to be consistent in regard to architectural style, materials, and details.

Transparency

1. A minimum of 60 percent of the street-facing, ground floor facades for nonresidential uses shall be comprised of clear windows that allow views into the interior of the building.

2. Ground floor facades for residential uses shall provide a minimum transparency of 20 percent.

3. Ground floor transparency shall be measured between 2 ft. and 10 ft. above the adjacent sidewalk.

4. Renovations of the first floor of existing buildings shall not decrease the area of transparency. Where feasible, renovations shall increase the area of transparency to that required for new construction unless the original historic character of the building requires less transparency area.

Materials

1. All primary buildings shall be constructed or clad with materials that are durable, economically-maintained, and of a quality that will retain their appearance over time, including, but not limited to, painted wood; natural or synthetic stone; brick; stucco; integrally-colored, textured, or glazed concrete masonry units; high-quality pre-stressed concrete systems; Exterior Insulation Finish Systems (EIFS); or glass.

2. Prohibited materials include:

   - Smooth-faced gray concrete block, smooth-faced painted or stained concrete block, smooth-faced concrete panels;
   - Unfinished wood; and
   - Corrugated metal siding.

Mechanical Equipment

1. To the extent practicable, air conditioning units, HVAC systems, exhaust pipes or stacks, elevator housing, and other similar mechanical equipment shall be thoroughly screened from view from the public right-of-way and from adjacent properties. Screening shall be architecturally compatible with the style, materials, colors, and details of the building.

Vehicular & Pedestrian Circulation

What are we trying to accomplish?

The purpose of the guidelines and standards for building design is to provide a safe, efficient, and convenient vehicular and pedestrian access and circulation patterns within and between developments. By creating a safe, continuous network of pedestrian walkways within and between developments, pedestrians will feel more inclined to safely walk (rather than drive) between land uses. By creating a network of rear access roads and shared driveways that provide cross access between developments, motorists can patronize multiple establishments without utilizing Business Route 62. This will reduce the number of turning movements along the corridor and increase the safety for all users. It should be noted that these requirements are meant to provide a minimum set of standards. The Access Management Overlay District contained in the appendix is a more detailed and methodical approach that will accomplish the same objectives.

Objectives - Access & Circulation should:

- Protect the safety of motorists, bicyclists, and pedestrians that travel along the corridor and patronize local businesses.
- Include pedestrian walkways designed to provide access and connections to and between adjacent sites and to the public sidewalks along State Street.
- Consider cross access and a unified circulation pattern with adjacent development sites.
- Include walkways and sidewalks with shade trees and pedestrian amenities, such as outdoor seating and trash receptacles.
- Minimize the impact of drive-up facilities on pedestrian activity.

These images illustrate examples of pedestrian connections from the public sidewalk system, through parking areas, and to the front entrance of various commercial developments.

Pedestrian Access & Circulation

1. An on-site system of pedestrian walkways shall be designed to provide direct access and connections to and between the following:

   - The primary entrance or entrances to each commercial building, including pad site buildings;
   - Any sidewalks or walkways on adjacent properties that extend to the boundaries shared with non-residential development;
   - The public sidewalk system along the perimeter streets adjacent to the commercial development;
   - Where practicable and appropriate, adjacent land uses and developments, including but not limited to adjacent residential developments, retail shopping centers, office buildings, or restaurants; and
   - Where practicable and appropriate, any adjacent public park, greenway, or other public or civic use including but not limited to schools, places of worship, public recreational facilities, or government offices.

2. Sidewalks and/or plazas shall be provided with weather protection (e.g., shade trees, awnings/canopies) and appropriate pedestrian amenities (e.g., street tree grates, outdoor seating, trash cans, sidewalk displays, public art, etc.).

Vehicular Access & Circulation

1. To the extent practicable, non-residential and mixed-use sites shall be designed to provide cross access and a unified circulation pattern with adjacent sites.

2. Techniques to achieve this include, but are not limited to, shared driveways, shared access roads and cross access easements.

3. To the extent practicable, common or shared service and delivery access shall be provided between adjacent parcels and/or buildings.

4. Access easements may be required so that pad sites or adjacent parcels have adequate access if ownership patterns change.

5. Drive-up facilities shall be located in either the side yard or rear yard.

Off-Street Parking Areas

What are we trying to accomplish?

While recognizing the important role of cars in everyday life and the need to provide adequate and convenient space for them, these guidelines and standards move away from the typical suburban pattern of predominant and highly-visible parking areas within commercial developments. Placing large amounts of parking between the front door of buildings and the adjacent street contributes to an undesirable experience for users, and creates a detached relationship between the primary building and the public street. These standards are also intended to reduce the scale of parking areas, siting some or all of the parking lot out of view from the public right-of-way, providing clear pedestrian circulation paths and amenity areas within parking areas, and using increased landscaping within parking lots to screen spaces and reduce the overall visual impact of large parking areas.

Objectives - Parking areas should:

- Front building façades that are at least partially transparent and inviting to visitors.
- Not dominate the street frontage.
- Be broken down into smaller blocks or units.
- Include pedestrian routes from the parking stalls to the main building entrance and the public sidewalk along State Street.
- Be accessible by adjacent development to encourage shared parking where appropriate.

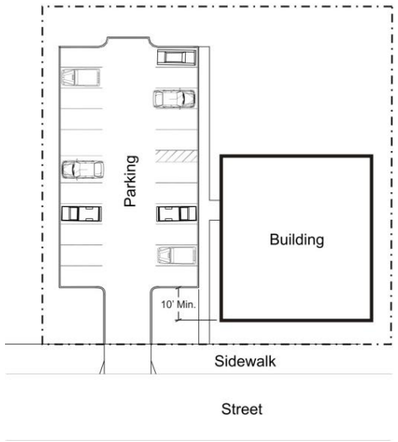



These images illustrate various parking layouts that serve the needs of motorists and pedestrians. All of these examples include designated pedestrian connections from the parking lot to the store. The landscaping serves to screen the parking and reduce the environmental impacts of the paved areas.

How do we accomplish it?

Location of Parking

1. Parking should be limited or prohibited in the front yard.
2. Off-street parking should be located in the rear yard, side yard or underground. Side yard parking shall be located a minimum of 10 ft. behind the front facade.



Parking located in the side yard shall be set back a minimum of 10 ft. behind the front façade.

3. The building façade facing the parking area shall be 60 percent transparent between the height of 3 ft. and 8 ft. above the parking area grade for no less than 30 percent of the horizontal length of the façade.
4. Parking, or access to parking, shall not exceed 40 percent of lot frontage.
5. All parking areas shall be set back from adjoining single family districts:
   - A minimum of 15 ft. and include a landscape screen; or
   - A minimum of 0 ft. and include a wall.

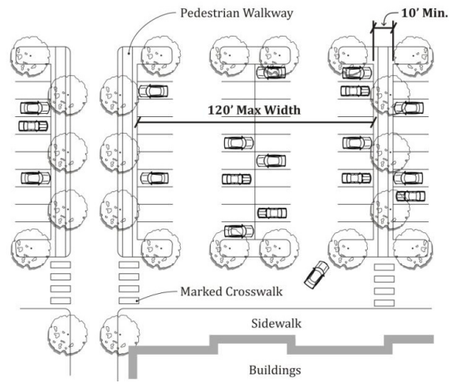
Number of Spaces

1. The parking requirement for retail businesses can be reduced to as low as 3 spaces per 1,000 sq. ft. of gross floor area.
2. All other uses shall be subject to the existing parking requirements.
3. The maximum number of off-street parking spaces for any building or use shall not exceed 150 percent of the minimum parking requirement.

Parking Blocks

In order to reduce the scale of parking areas, the total amount of parking provided shall be broken up into parking blocks containing not more than 40 spaces.

1. Each parking block shall be separated from other parking blocks by buildings, access drives with adjacent landscaped areas at least 10 ft. wide, a landscaped median or berm at least 10 ft. wide, or by a pedestrian walkway or sidewalk within a landscaped median at least 10 ft. wide.
2. Each parking block or pod shall have consistent design angles for all parking within the block.
3. Parking blocks should be oriented to buildings to allow pedestrian movement down and not across rows (typically with parking drive aisles perpendicular to customer entrances).



Parking blocks shall be compact, well landscaped with designated pedestrian facilities.

Pedestrian Walkways

All parking blocks which contain more than 25 stalls, including access lanes and driveways, must include clearly identified pedestrian routes from the parking stalls to the main building entrance, public sidewalk along the street and/ or central location. At a minimum, walkways shall be provided between every parking block and meet the following standards:

1. Shall be designed and built in accordance to the City's specifications for construction of utilities and roadways;

2. Shall be distinguishable from vehicular ways by pavement material, texture, or raised in elevation;

3. Shall have adequate lighting for security and safety. Lights shall be non-glare and mounted no more than 20 feet above the ground;

4. Shall comply with the American with Disabilities Act (ADA).

Shared Parking

Shared parking is encouraged along Business Route 62 to promote efficient use of land and resources by allowing users to share off-street parking facilities for uses located within close proximity to one another with different peak parking demands or different operating hours.

1. General: The Planning Commisssion may approve shared use of parking facilities located on the same property or on separate properties if, in the opinion of the Planning Commission:

   - A convenient pedestrian connection between the properties exists; and

   - The properties are within 1,000 ft. of each other on the same side of the street or within 500 ft. of each other on opposite sides of the street; and

   - The availability of parking for all affected properties is indicated by approved directional signs.

2. Number of Spaces Required.

   - Where the uses to be served by shared parking do not overlap their hours of operation, the property owner or owners shall provide parking stalls equal to the greater of the applicable individual parking requirements.

   - Where the uses to be served by shared parking have overlapping hours of operations, the property owner or owners shall provide parking stalls equal to the total of the individual parking requirements. If the following criteria are met, that total may be reduced by 10 percent:

     - The parking areas share a property line; and

     - A vehicular connection between the lots exists; and

     - A convenient, visible pedestrian connection between the lots exists; and

     - The availability of parking for all affected properties is indicated by approved directional signs.

Bicycle Parking

What are we trying to accomplish?

In order to encourage the use of bicycles as an alternative to motor vehicle transportation to access employment, commercial, and residential destinations along Business Route 62, convenient places to park and securely store bicycles is required.

Objectives - Bicycle parking should be:

- Considered as part of all new development.
- Located and clearly designated in a safe and convenient location.
- Adequately separated from motor vehicle parking.
- Visible from the building's main entrance.
- Designed so cyclists can securely lock their bicycles.
- Protected from the weather when practical.

These images show two examples of hardware that provides a place to secure bicycles.

Applicability

1. Bicycle parking requirements shall apply to new development, building expansions or occupancy changes requiring a zoning permit where motor vehicle parking is required.

Number of Spaces

1. Bicycle parking shall be provided at 10 percent of the motorized vehicle parking requirements but not less than 2 bicycle spaces and not more than 20 bicycle spaces for any use.

Location & Design Requirements

1. Bicycle parking shall be located and clearly designated in a safe and convenient location. Accessibility to bicycle parking shall be equivalent to the motor vehicle spaces provided.
2. Bicycle parking facilities shall be sufficiently separated from motor vehicle parking areas to protect parked bicycles from damage by motor vehicles.
3. Bicycle parking signs shall be visible from the main entrance of the structure or facility.
4. Bicycle parking facilities shall be of sufficient dimension to accommodate a full sized bicycle, including space for access and maneuvering.
5. Facilities shall be designed to accommodate U-shaped locking devices and shall support bicycles in a stable position without damage to wheels, frame or other components and shall be securely anchored and of sufficient strength to resist vandalism and theft.

Multi-building Development

What are we trying to accomplish?

The State Street Corridor contains a number of properties that are large enough to be occupied by more than one building now or in the future. As these properties develop or re-develop, opportunities might exist to create multi-building developments with larger buildings located in the rear or central portion of the site and liner buildings fronting street edges and primary site entrances. Centralized shared parking, shared access points, and public space, such as small plazas and sitting areas, should also be incorporated into these developments.

Objectives - Multi-building developments should:

- Include buildings that help to frame streets, driveways, access roads, parking areas, and/or pedestrian ways.
- Be accessible and oriented to accommodate all transportation users.
- Incorporate pedestrian connections to buildings within the site and to adjacent developments.
- Create spaces for community engagement such as public seating areas, and small plazas or squares.

This image illustrate how the proper placement of a pad site or out-parcel can serve to frame an intersection while reducing the visible presence of parking lots.

How do we accomplish it?

Overall Site Layout and Building Orientation

All primary and pad site buildings shall be arranged and grouped so that their primary orientation complements adjacent, existing development and either:

1. Frames the corner of an adjacent street intersection;
2. Frames and encloses a primary or "main street" pedestrian and/or vehicle access corridor within the development site; or
3. Frames and encloses on at least three sides parking areas, public spaces, or other site amenities.

Pad Sites & Buildings

1. The number, location, and design of independent pad sites shall reinforce, rather than obscure, the identity and function of the primary commercial development.
2. To the maximum extent practicable, pad sites shall be clustered together to define street edges and entry points or to enclose and create usable places between buildings. The even dispersal of pad sites in a widely-spaced pattern within the development, even if along the street edge(s), is discouraged.
3. Wherever practicable, spaces between adjoining pad site buildings should be improved to provide small pockets (preferably heavily-landscaped) of customer parking, pedestrian connections, small-scale project amenities, or focal points.
4. Examples include but are not limited to:
    - A landscaped pedestrian walkway linking customer entrances between two or more pad site buildings;
    - A public seating or outdoor eating area;
    - An area landscaped with a variety of plant materials emphasizing four-season colors, textures, and varieties; or
    - Sculptures or fountains.
5. The primary façade of a building located on a pad site, typically the façade containing the primary customer entrance, may be oriented in a variety of ways, including, but not limited to, toward the primary access street, toward an internal "main street," framing a primary entrance to the development or center, toward the side (especially when that side faces another pad site building), or toward the interior of the center.
6. Pad site buildings shall incorporate the same materials and colors as those on the primary commercial building(s) in the development or center. Significant departures from "off-the-shelf" standardized building design may be required to meet this standard.
7. Pad site entrances are appropriate locations to express individual building character or identity. Customer entrances shall be emphasized through incorporation of a building recess, projection, canopy, or similar design element.

Freestanding Kiosks & Automated Teller Machine (ATM) Structures

1. All kiosk-type buildings and structures shall be integrated with the overall commercial or center development, and shall be subject to the same guidelines as all other buildings within the development.
2. Freestanding kiosks and drive-up ATM structures shall not be located along the primary access street frontage.
3. Access to a freestanding kiosk or drive-up ATM structure shall not be from the adjacent public streets. Access shall be from drives and streets internal to the development.
4. Freestanding kiosks and drive-up ATM structures shall comply with the building design standards applicable to pad sites set forth in the previous section (Pad & Building Requirements).

Landscape Standards

1. Intent

Landscaping shall be designed as an integral part of every development project, and not merely located in leftover portions of the site. Landscaping is intended to visually tie the entire development together, help to define and announce entryways and circulation patterns (both vehicular and pedestrian), and, where appropriate, help buffer less intensive adjacent land uses. It shall help to minimize the expansive appearance of parking lots, provide shaded areas for pedestrians, and soften hard edges of buildings and parking lots. Color and texture should be incorporated into the overall landscape plan. Careful selection of flowering trees and shrubs can provide seasonal color all year. The use of evergreen and deciduous plant material, bark color, seeds, and fruit (berries) that persist can provide additional color and texture to the landscape.

2. Entryway and Setback Landscaping

a. Building setback areas along streets, access ways, or along private drives, shall be landscaped with a minimum of 1 shade tree per 40 ft. of linear frontage.
b. Building setback areas shall include compact massings of ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers.
c. Planting shall be massed and scaled as appropriate for the entryway size and space.
d. Plantings should decrease in size and increase in detail, color, and variety near entryways into developments.

3. Building Foundation Landscaping

a. Building foundations shall be planted with ornamental plant material, such as ornamental trees, flowering shrubs, perennials, and ground covers.
b. Plantings shall be massed and scaled as appropriate for the entryway size and space.
c. Plantings should decrease in size and increase in detail, color, and variety near entryways into buildings.

4. Interior Parking Lot Landscaping

a. The interior of all uncovered parking blocks containing 10 or more spaces shall be landscaped according to the provisions in this subsection.
b. The primary landscaping materials used in parking lots shall be trees, which provide shade or are capable of providing shade at maturity. Shrubbery, hedges and other planting materials may be used to complement the tree landscaping, but shall not be the sole means of landscaping. Effective use of earth berms and existing topography is also encouraged as a component of the landscaping plan.
c. One shade tree shall be planted for every 5 parking spaces.
d. Large and medium shade trees are recommended.
e. Due to heat and drought stress and vision clearances, ornamental and evergreen trees are not recommended.
f. Minimize conflicts between plantings and pedestrian circulation, emergency vehicle access, light poles, signs and site utilities.
g. Landscaped berms shall be at least 10 ft. wide, a maximum of 3 ft. high, and include a maximum slope of 3:1.

5. Lawn Area (turf)

a. Grass areas shall be planted in species well adapted to localized growing conditions in Mercer County. Grass areas may be sodded, plugged, sprigged, hydro-mulched, or seeded except that solid sod shall be used in swales or other areas subject to erosion. In areas where other than solid sod or grass seed is used, overseeding shall be sown for immediate effect and protection until coverage is otherwise achieved.
b. Procure from new of the year seed crops, free of foreign material or weed seeds.
c. Replacement or overseeding mixes shall match or compliment original installation.
d. Provide continuous uniform and consistent coverage.

6. Plant Diversity

a. If there are more than eight, but less than 24 required trees, no more than 40 percent of them can be of one species.
b. If there are more than 24 required trees, no more than 20 per cent of them can be of one species.
c. If there are more than 25 required shrubs, no more than 75 per cent of them can be of one species.

7. Fences and Walls

a. When a development includes a fence or wall, the following guidelines and standards shall apply:
    1. The maximum height of a fence or wall shall be 8 ft. in the rear yard, 3 ft. in the front yard, and 6 ft. in the side yard. A side yard fence or wall may be extended to 8 ft. with Planning Commission approval.
    2. Walls and fences shall be constructed of high quality materials, such as decorative blocks, brick, stone, treated wood, and wrought iron.
    a. Prohibited materials include:
        - Smooth-faced gray concrete block, smooth-faced painted or stained concrete block, smooth-faced concrete panels;
        - Unfinished wood;
        - Chain link; and
        - Corrugated metal siding.
3. Breaks in the length of a fence shall be made to provide pedestrian connections to the perimeter of a site or to adjacent development.
4. The maximum length of continuous, unbroken, and uninterrupted fence or wall plane shall be 50 ft. Breaks shall be provided through the use of columns, landscaping pockets, transparent sections, and/or a change to different materials.
5. Fences and walls shall be set back from the front and side lot line to allow a landscape setback area. Such setback areas shall be landscaped with a turf, shrubs, and/or trees, using a variety of species to provide seasonal color and plant variety.
6. Use of landscaping beyond the minimum required in these standards is strongly encouraged to soften the visual impact of fences and walls.

Zoning District Recommendations

The following land use and zoning recommendations are based upon the recommendations contained in the local Comprehensive Plans and other related regulatory documents, the results of the Community Preference Survey, input from the Steering Committee, and feedback provided at the three public meetings held as part of this project. In order to achieve the preferred development pattern it is recommended that both Sharon and Hermitage consider incorporating some or all of the following recommendations into their existing regulatory framework.

Character Zone #1: Irvine Gateway

The non-residential design standards beginning on page 114 should be applied to the commercial properties within Character Zone #1. Over time, as properties re-develop, the application of these design standards and guidelines will improve the overall appearance of the Irvine Avenue Gateway located at the western City limit.

A significant number of properties along the east side of Irvine Avenue are in the Local Business Zoning (C-2) District. The C-2 District allows the placement of automotive related uses in close proximity to the existing residential uses within this area. The proliferation of auto related uses (used car sales, auto repair operations, etc) will likely degrade the quality of the corridor and negatively impact the residential property in Character Zone #1. There are three zoning techniques that Sharon should consider to reduce the impact of these uses and preserve Irvine Avenue's role as a residential neighborhood.

- At a minimum, the C-2 District should be amended to require a Special Exception for all auto-related uses. This will enable the Planning Commission to ensure that the size, scale and appearance of the proposed use are compatible with the residential character of the area.
- Require a minimum distance between such uses to avoid a concentration in one area.
- Eliminate auto-related uses from the Irvine Avenue corridor. This can be accomplished by amending the C-2 District or creating a new commercial zoning classification that accommodates limited commercial activity to serve the surrounding neighborhoods.

Character Zone #2: Sharon CBD

It is recommended that the existing C-1 and C-1A Districts be consolidated into a single Central Business (CB) Zoning District.
The Central Business (CB) Zoning District is intended to create a safe and vibrant atmosphere in downtown Sharon where people live, learn, work and play. The limit of the CB District includes the area surrounding the Business Route 62/Sharpsville Avenue intersection and extends to the area surrounding the Business Route 62/Irvine Avenue intersection. The northern limit of the CB District is Silver Street and the southern limit is Connelly Boulevard. This also referred to Character Zone #2.

It is recommended that the following zoning and regulatory provisions are put in place for downtown Sharon that would serve to dramatically increase the number of residents living in this area. In addition, the CB District reinforces the role of the downtown as the activity center of the region and a meeting place for community residents and visitors alike. In order to accomplish this, goods and services should be accommodated that satisfy the needs of the City's residents, workers and visitors.

Purpose

The purpose of the Central Business (CB) District is to foster a concentration of small-scale, mixed use activity and to support the goals and objectives contained in the 2007 Joint Comprehensive Plan. The CB District is established to encourage residential opportunities while retaining and further developing a broad range of commercial, office, institutional, public, cultural and entertainment uses and activities. Investment in this District should reinforce the compact, pedestrian-oriented development pattern and preservation of the traditional historic character.

Permitted & Specially Permitted Uses

The following uses are to be permitted, or permitted with a special exception, within the CB District:

	Permitted	Special Exception
A. Commercial		
Professional, medical or dental office	X	
Dance, art, or music studio	X	
Bank or financial institution	X	
Retail or personal service store or shop	X	
Shopping center		X
Veterinary clinic	X	
Mortuary or funeral home		X
Laundromat or dry cleaning outlet	X	
Drinking establishment or tavern	X	
Fast-food restaurant	X	
Sit-down restaurant	X	
Take-out restaurant	X	
Dance hall, theater, private club	X	
Bowling alley	X	
Indoor recreation facility		X
Lodging	X	
Conference/meeting center		X
Motor vehicle parking lot		X
Outdoor sales or display		X
Drive through with permitted use		X
Mix of permitted uses	X	
B. Institutional		
Educational institution	X	
Nursery school	X	
Church or religious institution	X	
Hospital or health care facility		X
Public utility		X
Public or municipal use	X	
Telecommunications facilities		X
C. Residential		
Apartment over commercial	X	
Multi-family dwelling	X	

Dimensional Requirements

A. The existing dimensional requirements for the downtown area are appropriate and should not be modified. However, new construction shall have a maximum setback between zero (0) and five (5) feet from the public right-of-way. Relief from this provision may be provided for pedestrian amenities such as recessed entries or chamfered corners. This will ensure that buildings are located at or near the public sidewalk and engage the public realm.
B. New construction shall extend to both side property lines.
C. New construction shall be or appear to be two stories in height.
D. New construction or remodeling shall incorporate a roof form which reflects the adjacent late 19th or early 20th century buildings. Flat roof slopes shall slope to the back and will have a decorative cornice at the top of the building. Peaked or gable roofs shall have significant overhangs and decorative brackets are encouraged.
E. Entry points shall be located to afford direct access from the sidewalk. Corner buildings may have two separate entry points or a single entry point at the corner.
F. All of the facades of the building which face a public street shall be architecturally consistent (i.e. building materials, style, etc.) with each other.

Design Requirements

A. The pedestrian zone (2' to 8' above the sidewalk) shall have a minimum of 60% clear glass. Opaque or heavily tinted glass is not permitted.
B. The pedestrian zone should not be obscured to allow visual access to the interior of the building. Displays that allow visual access of a minimum of 3 ft. into the building (excluding window treatments such as curtains or blinds) shall be permitted.
C. A minimum of 25% percent of the façade for the upper floor shall incorporate transparent glass openings.
D. Existing windows shall not be covered or changed in size unless the proposed change is part of an effort to restore the original appearance of the building.
E. No external security devices (coiling shutters, accordion gates, etc.) shall be utilized. Alternative security systems such as lighting, alarms, and interior barriers are to be used when necessary.
F. A visual separation shall be provided between the first and second story of a building. This element may consist of decorative trim, awnings, or a change of material that creates added relief in order to add a shadow line that delineates the top of the first story.
G. If awnings are placed on a façade they shall be consistent with the shape of the window that they are located over. For example, an awning placed over an arched window shall be arched and an awning placed over a rectangular window shall be a flat topped awning.
H. Awnings shall be made of flexible woven, natural or synthetic materials.
I. Awnings shall have a triangular or curved profile.
J. Awnings may not be backlit.

In addition, site plan approval of a proposed re-development plan for the property must be obtained prior to the issuance of a demolition permit in the CB District.

The limited uses combined with these design requirements are an effective way to improve the urban character of downtown Sharon. However, there is a second approach to regulating land uses in downtown Sharon that should be considered. At present, most of the existing infrastructure in the downtown area is underutilized. This includes road capacity as well as building floor space. As a result, the City should make every attempt to bring activity back to this area. An alternative approach consists of allowing virtually all types of uses with some exceptions. These exceptions may include such uses as homeless shelters, adult uses, and junkyards. Due to the potential broad range of uses that this approach could foster, design of the buildings and sites become even more critical. As a result, this approach requires a very detailed list of design standards and graphics to ensure that all uses are held to the same level of design.

Character Zone #3: Sharon Transitional

Business Route 62 is currently zoned Local Business (C-2) and Public/Institutional (I) in Character Zone #3. It is recommended that the existing C-2 District beginning at Elm Avenue be rezoned to the State Street Mixed Use (SMU) District. The SMU District will provide a transition between the auto-oriented commercial activity that has been developed along Business Route 62 in Hermitage with the more compact and traditional fabric of downtown Sharon. The SMU District generally includes the area surrounding the Business Route 62/Elm Avenue intersection and extends to the eastern City Line. This area is also referred to Character Zone #3. The specific provisions of the SMU are as follows:

Purpose

The State Street Mixed Used (SMU) District is intended to promote and facilitate the transformation of the State Street corridor, primarily between downtown Sharon and the eastern City Line, from an area currently characterized by small-scale buildings fronted by surface parking lots to a dense mixed-use urban center. The SMU District is established to continue the blend of retail, office, and civic uses that serve local residents and visitors of the Sharon Regional Hospital. The SMU shall be pedestrian-oriented and bicycle friendly with lively and vibrant street activity. Multimodal access will be encouraged. Shared parking and vehicular access will enhance the pedestrian experience and create the ability to "park once" and frequent multiple establishments.

Permitted and Specially Permitted Uses

The following uses are to be permitted or permitted with a special exception within the SMU District:

	Permitted	Special Exception
A. Commercial		
Retail businesses	X	
Shopping centers / large scale retail		X
Personal & professional services	X	
Laundromats	X	
Offices & professional offices	X	
Medical & dental clinics	X	
Financial institutions	X	
Eating & drinking establishments	X	
Social & fraternal clubs	X	
Funeral homes	X	
Motel or inn (less than 10 rooms)	X	
Day care centers	X	
Kennels & veterinary clinics		X
Service stations		X
New car sales		X
Used car sales*	-	-
Auto / truck repair*	-	-
B. Institutional		
Educational institution	X	
Nursery school	X	
Church or religious institution	X	
Public utility		X
Public or municipal use	X	
C. Residential		
Residences as a secondary use	X	
Multi-family dwelling	X	

** In conjunction with new car sales*

D. Traditional neighborhood development is a Conditional Use.

Dimensional Requirements

A. Minimum Lot Area 7,500 sf
B. Minimum Lot Width 60 ft
C. Minimum Front Yard. The minimum front setback of any building shall be 10 ft. The maximum front setback shall be 30 ft. when accommodating outdoor eating/sitting areas and/or site amenities. On corner lots, both yards abutting streets shall be considered front yards.
D. Total Side Yards 20 ft.
E. Minimum Side Yard. The minimum side setback shall be 10 ft. unless adjoining a residential district, in which case it shall be 15 ft.
F. Minimum Rear Yard 30 ft
G. Maximum Lot Coverage 35%
H. Maximum Height Structure 40 ft

Front yard parking is prohibited. The design standards and guidelines beginning on page 114 of the report shall apply to the SMU District.

Character Zone #4: Hermitage Transitional & Character Zone #5: Hermitage Commercial

Business Route 62 is currently zoned CC-1 in Character Zone #4 and CC-2 in Character Zone #5. A review of the permitted uses, conditional uses, special exceptions and dimensional requirements for each of these districts indicates that modifications to these items are not necessary. The most significant issues within these two Character Zones are the appearance of the commercial properties and the large number of curb cuts onto Business Route 62. The aesthetics of the built environment can be addressed using the design standards and guidelines beginning on page 106 in the report. The proliferation of curb cuts can be mitigated over time by implementing the Access Management Overlay District.

Character Zone #6: Hermitage Gateway

It is recommended that the existing CC-1 District east of Snyder Road be rezoned to the Gateway Transitional (GT) District. The Gateway Transitional (GT) District will provide a transition between the higher intensity commercial and residential activity that has been developed along Business Route 62 in Hermitage with the predominately rural character that exists east of North Keel Ridge Road. The GT District generally includes the area surrounding the Business Route 62/Snyder Road intersection and extends to the area surrounding the Business Route 62/North Keel Ridge Road intersection. This also referred to Character Zone #6.

It is recommended that zoning and regulatory provisions are put in place within this area that would serve to accommodate additional residential, commercial and entertainment type uses. In order to create a successful transition to the rural area to the east, the proposed land uses in this district should be less intense than the remainder of the study area. In addition, the larger parcels that exist in the district create the opportunity to provide larger setbacks and more green space while accommodating the necessary site infrastructure (e.g. parking, drainage, etc).

Purpose

The purpose of the Gateway Transitional (GT) District is to support the goals, objectives, and policies contained in the local planning documents. More specifically, the GT District is intended to create an orderly transition between higher density activity centers and rural or undeveloped portions of Hermitage. The GT District is intended to foster a wide variety of land uses including multi-residential, commercial, and entertainment activity that serves the daily needs of local residents and the traveling public. In order to accomplish this, the GT District regulates the location, design and use of structures and land to; 1) create a continuous linear greenspace and landscaped area along Business Route 62 and 2) to ensure the safe and efficient movement of vehicles along the corridor.

Permitted and Specially Permitted Uses

The following uses are to be permitted or permitted with a special exception within the SMU District:

	Permitted	Special Exception
A. Commercial		
Retail businesses	X	
Personal & professional services	X	
Laundromats	X	
Frozen food lockers with retail	X	
Offices & professional offices	X	
Financial institutions	X	
Theaters, bowling alleys & skating rinks	X	
Restaurants & drive-in restaurants	X	
Commercial amusement	X	
Funeral homes	X	
Computer assembly & software development	X	
Motels	X	
Day care centers	X	
Veterinary clinics		X
Service stations		X
New car sales		X
Used car sales*	-	-
Builder supplies		X
Auto truck repair*	-	-
B. Institutional		
Educational institution	X	
Nursery school	X	
Church or religious institution	X	
Public utility		X
Public or municipal use	X	
Telecommunications facilities	X	
C. Residential		
Single family dwelling	X	
Multi-family dwelling	X	

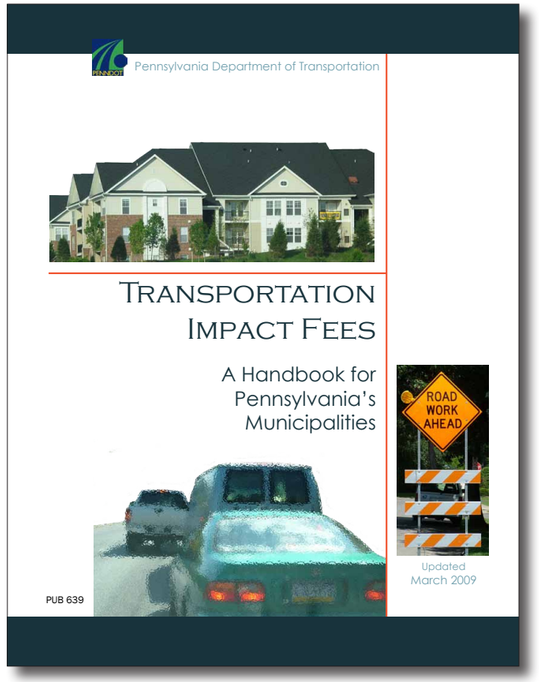
** In conjunction with new car sales*

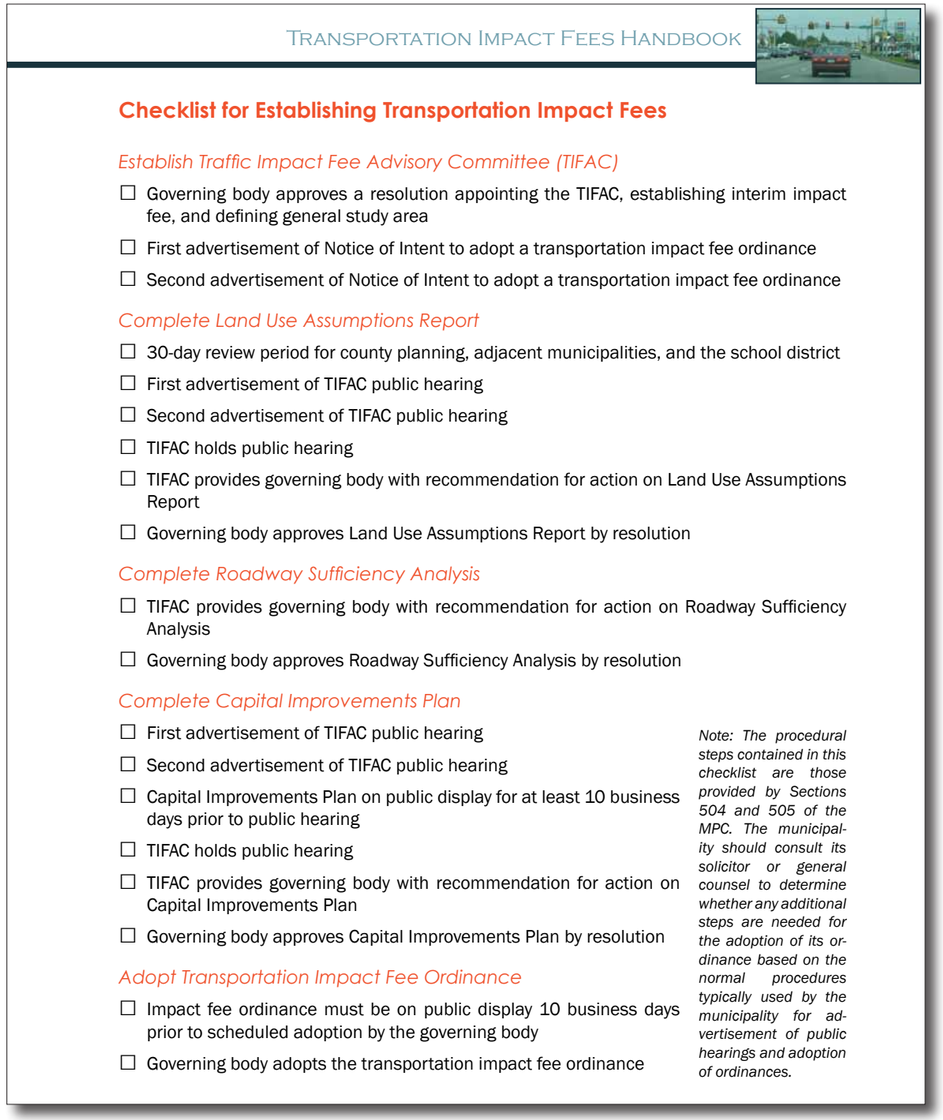
Dimensional Requirements

A. Minimum Lot Area	40,000 sf
B. Minimum Lot Width (Corner lot/Interior Lot)	150/150 ft
C. Minimum Front Yard	50 ft
D. Minimum Side Yard	20 ft
E. Minimum Rear Yard	50 ft
F. Maximum Lot Coverage	40%
G. Maximum Height Structure	40 ft

Building & Site Design Requirements

The design standards and guidelines beginning on page 114 of the report shall apply to the SMU District.





Page from PennDOT Transportation Impact Fee Handbook

Strategic Funding

Transportation Impact Fees

An option for funding would be through a mechanism called Transportation Impact Fees. This fee is developed to assist municipalities in covering the costs of improvements to local roadways impacted by new development. The municipality may use the fees incurred to upgrade existing network deficiencies and improve capacity for traffic generated by the new development. Fees are proportioned based on the level of development taking place.

In Pennsylvania, this impact fee is permitted by the Pennsylvania Municipalities Planning Code (MPC). A rigorous process must be followed enacting the impact fee ordinance. Contained within the Pennsylvania Transportation Impact Fee Handbook (PennDOT, 2009), is a checklist, followed by a detailed explanation of every requirement to be met to establish an impact fee. The document may be found at: ftp://ftp.dot.state.pa.us/public/Bureaus/Cpdm/ImpactFees.pdf. Additionally, an example report completed for the Lower Providence Township of Montgomery County, Pennsylvania (May, 2009) can be found at: www.lowerprovidence.org/documents/PZ-Act20905-2009-Adopted20090629.pdf.

Tax Increment Financing Guarantee Program

The Tax Increment Financing (TIF) Guarantee Program simply put is a financing mechanism that helps raise funds for a project "when there are no other public or private funds to finance it (Partners for Economic Solutions, 2011)". The idea is to use the tax revenues generated by the increased incremental assessed values, over a period of up to 20 years, of the TIF project to be used for public infrastructure improvements related to the project. In Pennsylvania, the program is “designed to promote and stimulate the general economic welfare of various regions and communities…and assist in the development, redevelopment and revitalization of brownfield and greenfield sites (TIF Program Guidelines, Department of Community and Economic Development, March 2007).”

There is no new "tax" associated with the development or redevelopment of a project. The project site or area around which the project will encourage redevelopment is defined as a TIF district. The district's tax rate is capped at its currently assessed value. As redevelopment occurs, the incremental increase in assessed property values do not require property owners to pay a higher tax rate, unless the revenues from the TIF do not meet the debt service attributable to the project.

As construction and ultimately full development or redevelopment of the project occurs, the incremental increases in assessed tax values and revenue generated from the project goes into a special fund used to repay the bond service. Additionally, the revenue generated from the incremental rate helps fund public improvements (i.e., roadway improvements, parking) and project related costs as a result of the increased property tax. Any revenue that is not needed goes to the presiding jurisdiction. At this point in the TIF project, redevelopment of additional properties has taken root encouraged by the initial investment.

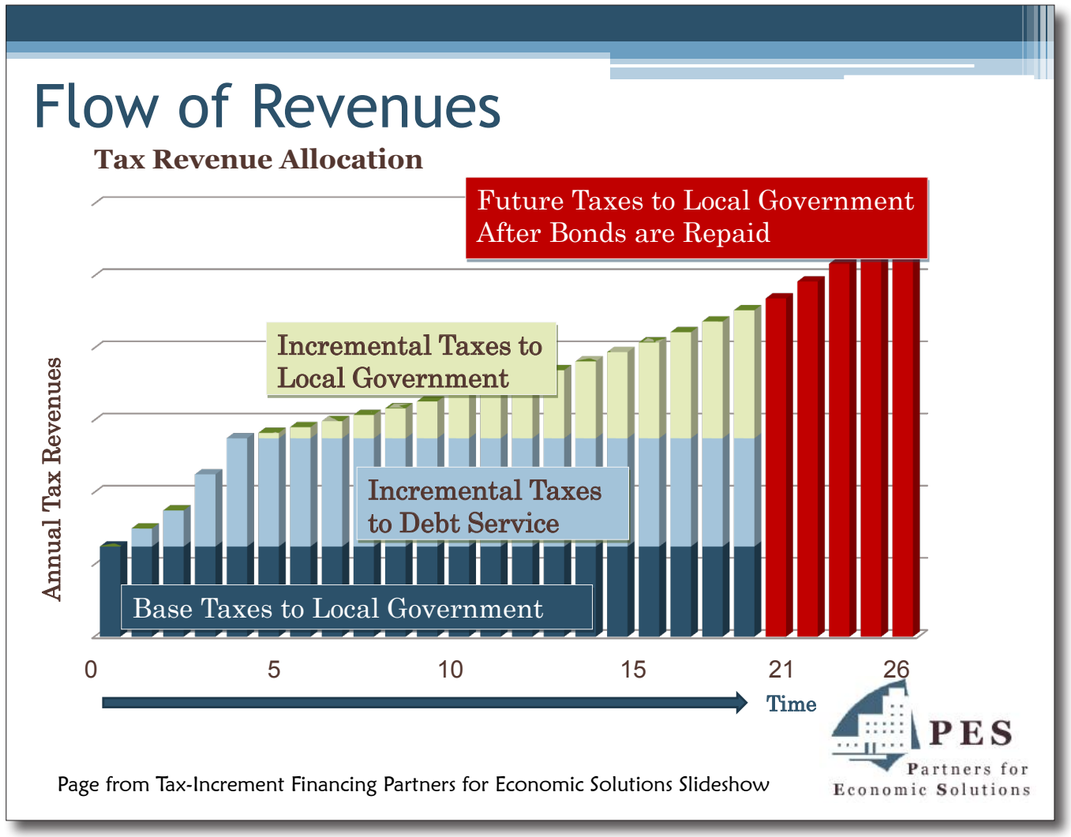
Once the debt service and the bonds have been repaid, the future taxes generated incremental increases in assessed value from the TIF are reallocated to the local government.

To summarize a typical TIF project, the following list depicts the process for which a TIF follows (PES, 2011):

1. Define TIF district – can be a smaller project site or larger redevelopment area
2. Establish base assessed value – tax rate is capped at currently assessed values
3. Specify funded improvements – identify projects to be funded using the TIF
4. Issue non-recourse bonds – made through the Commonwealth Financing Authority via a local issuer
5. Make public purpose improvements – projects can include streets, parking facilities, sidewalks and bridges to name a few
6. Development increases values – as redevelopment occurs, the assessed property values incremental increase over time
7. TIF revenues to special fund – dedicated fund account to be used for improvements
8. Bonds repaid and all taxes go to jurisdiction – TIF revenues are used as part of regular taxes.

In Pennsylvania, there is a maximum guarantee of funding per project of $5 million. This funding is distributed by the Commonwealth Financing Authority (CFA) and the Department of Community and Economic Development (DCED). Priority is given to projects which reside in areas strife with economic hardship or sites within an urban core that have the potential to be properly utilized. Communities with a core area also have the benefit of a higher priority. The use of a TIF is to reduce the risk associated with a project by improving market access and reducing the expenditure on capital costs.

The chart at the top right of this page illustrates the various stages of the TIF program through its implementation period. In the first year of the program, the current base tax rate for the defined TIF district is capped. From years one to five, the incremental taxes accrued from the development begin to increase. From years five to 20, the incremental increase in taxes go towards paying off the debt service from the bond issuance, as well as implementing public purpose improvements to encourage area wide redevelopment. As revenues from the TIF exceed the need to repay the debt service, the excess amount goes toward the paying the jurisdictional taxes.



Page from Tax-Increment Financing Partners for Economic Solutions Slideshow

Pedestrian & Bicycle Improvements

Pedestrian/Bicycle Safety - Linkage Action Plans

An important aspect of a high quality pedestrian and bicycling environment is the presence of sidewalks and bicycle facilities. Bicycle facilities may include bike lanes, shared roadways with bicycle signage, or a multi-use trail that is separated from the roadway network. Sidewalks are critical in allowing adults, children, and physically challenged individuals to travel along the transportation network. Bicyclists tend to prefer routes that have signage notifying drivers of their presence or separated lanes giving them their own space on the roadway.

Recommendation
Figure 67 illustrates the recommended routes for a more complete bicycle network. Bicycle parking facilities should be installed at locations where land uses dictate higher trip generation levels of bicyclists. In addition, sidewalks should be installed along State Street throughout the City of Hermitage in areas that provide connection to activity generating land uses.

Specific Strategies for Improvement:
Sidewalks should be at least five (5) feet in width to allow pedestrians ample room to walk side by side or against one another with a minimum of five (5) feet of buffer space.

Bicycle boulevards are a creative and attractive way to provide a comfortable environment to cyclists of all ages and abilities. These routes are located on low-volume, low-speed streets that have been enhanced for bicycle travel through traffic calming, signage, pavement markings, and intersection crossing treatments. They provide a recreational or functional travel route depending on the type of user.


Highland Road bike lanes

Bicycle signage is another strategy to implement along roadways which are seen as highly travelled routes for cyclists. Green bicycle route signs or "Share the Road" signs notify drivers of the presence of bicyclists.

Additionally, along routes that have travel lanes too narrow in width for bike lanes, shared lane pavement markings, or "sharrows," can be installed. These markings are placed within the travel way, off to the side where cyclists are more likely to ride, to help guide cyclists along the street and indicate to motorists the existence of riders. Sharrows can be implemented on streets with or without on-street parking.

Applications for pedestrian and bicycle facility design should adhere to those principles contained in PennDOT's Smart Transportation Guidebook.


Bicycle shared lane markings ("sharrows") in Buffalo, New York

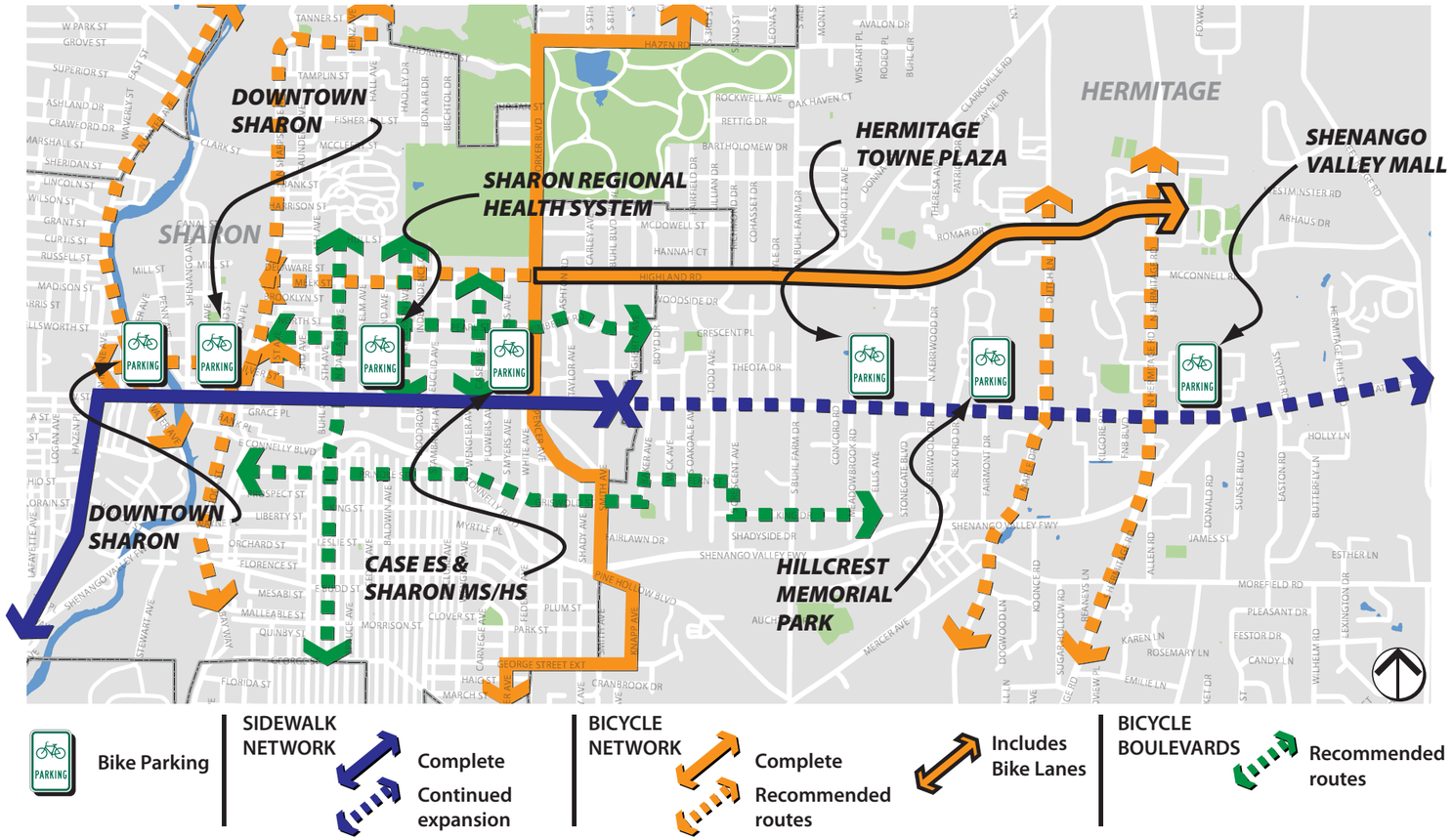


Figure 67: Pedestrian & Bicycle Linkage Plan

Safe Routes to School

Safe Routes to School (SRTS) is a national program that helps create safe, convenient and fun opportunities for children to walk and bike to and from their schools. SRTS programs require collabortive partnerships amongst local stakeholders with interests to improve safety, promote healthy lifestyles, and improve environmental quality around schools. To accomplish this, a comprehensive program must be established to create an environment that enhances, supports and sustains walking and cycling as viable options for travel. With this in mind, SRTS emphasizes a holistic approach to create change that encompasses the five (5) E approach; Engineering, Enforcement, Encouragement, Education and Evaluation.

Deb Hubsmith, founding director of the SRTS National Partnership, has testified to Congress, stating:

> "In only two years, we documented a 64 percent increase in the number of children walking, a 114 percent increase in the number of students biking, a 91 percent increase in the number of students carpooling, and a 39 percent decrease in the number of children arriving by private car carrying only one student.

Recent changes to the Federal transportation bill has altered the way the SRTS program functions. Previous legislation separated the SRTS program from other programs and allowed for dedicated funding towards SRTS activities. Today, however, Congress has signed a new bill, Moving Ahead for Progress in the 21st Century (MAP-21). This bill effectively reduces the total funding set aside for SRTS activities, and other biking and walking programs, while combining it with other federal programs that compete for funding under the umbrella of Transportation Alternatives.

An SRTS plan incorporates several components to make it a truly successful program. First, community input is critical. Schools are typically located in the heart of communities. Any support that is needed to implement a successful SRTS program should attempt to garner the support of nearby community members. An SRTS task force should be organized that consists of community leaders, school officials (i.e. principal, board members), local health officials, the local transportation department, bicycle/pedestrian advocacy groups, and local public officials. This list is a small sample of interest groups whom could participate in a SRTS task force. The SRTS project leader may wish to expand upon those who can participate in the program.

Second, upon formation of a task force and kick-off meeting, an assessment of the existing conditions around the school needs to take place. This assessment can be done through walkability and bikability audits, as well as site based school assessments. Information on performing an audit can be found at www.saferoutespa.org. There, schools, Kindergarten through 8th grade, can apply for a walkability audit. These audits are an important step as they identify issues and concerns related to children traveling to school and assist in development project specific recommendations. This study has reviewed the existing conditions around West Hill Elementary and Case Elementary/Sharon Middle School; however, a more detailed audit can be performed with staff from Pennsylvania's SRTS program.

Finally, upon identification of issues through field reconnaissance and public input, the team can create achievable goals. A sample goal could be, "to reduce traffic congestion by 15%...as measured by the number of car drop-offs/pick-ups." Once the project team has formulated a list of goals, specific action steps or recommendations may be developed. These recommendations will look to address the Five E's, as stated earlier.

Currently the West Hill Elementary, Case Elementary and Sharon Middle School do not provide busing. Students may have to walk from up to two miles away in some cases. Those students who choose not to walk are driven by their parents. Traffic volumes created from students being dropped off or picked up causes congestion on the roadways and increased vehicle emissions.

Crossing guards are located along State Street, as depicted in Figures 67 and 68. It is, therefore, important that safe routes are provided for students walking or biking to school. As obesity rates in the United States continue to rise, it is critical that children are provided the best opportunity to live physically active lifestyles.

The following recommendations speak to the several approaches to SRTS planning.

Recommendation - Engineering

Crosswalks

Upon examining the school zone crosswalks along State Street, it was found that most crosswalks were in poor condition (i.e. faded paint, pavement quality). Crosswalks play an important role in guiding pedestrians to proper crossing locations, as well as allowing drivers to clearly see the locations pedestrians are crossing. They are commonly found at intersections or in mid-block locations where a high volume of pedestrians may be crossing.

Additionally, the use of advance warning signage and school zone speed limits contribute to a safer crossing environment for school children. Currently, the area in front of Case Elementary (currently under construction) and Sharon Middle/High School from Forker Boulevard/Spencer Avenue to Case Avenue along State Street has a school zone speed limit of 15MPH. However, no other school related signage is found within this school zone. Along Forker Boulevard, a pedestrian crossing sign can be found on the southbound side, as well as a school zone crossing sign on the northbound side. However, the exact locations of the crossings are not indicated.

Install contrasting textured crosswalks at the intersections of Case Avenue, Flowers Avenue, South Myers Avenue/School Driveway, White Avenue, and Forker Boulevard/Spencer Avenue along State Street. See Figure 67 for a detailed illustration of the proposed locations.

Advance Warning Signage

In addition to upgrading the quality and texture of the sidewalks, advanced warning signage for school crossings should be placed along State Street in advance of student crossing locations. At locations of a marked crosswalk, the school zone crossing sign (MUTCD W11-2) should be enhanced with the downward facing diagonal arrow (MUTCD W16-7P) notifying drivers the exact location of the crosswalks. Figures 68 and 69 illustrates the locations of the proposed signage and enhanced crosswalks at West Hill Elementary, Case Elementary, and Sharon Middle/High School. In the case of Sharon Middle/High School, a mid-block crossing location should be installed along Forker Boulevard using a continental style crosswalk with the corresponding school crossing warning signage.

Case Elementary and Sharon Middle School

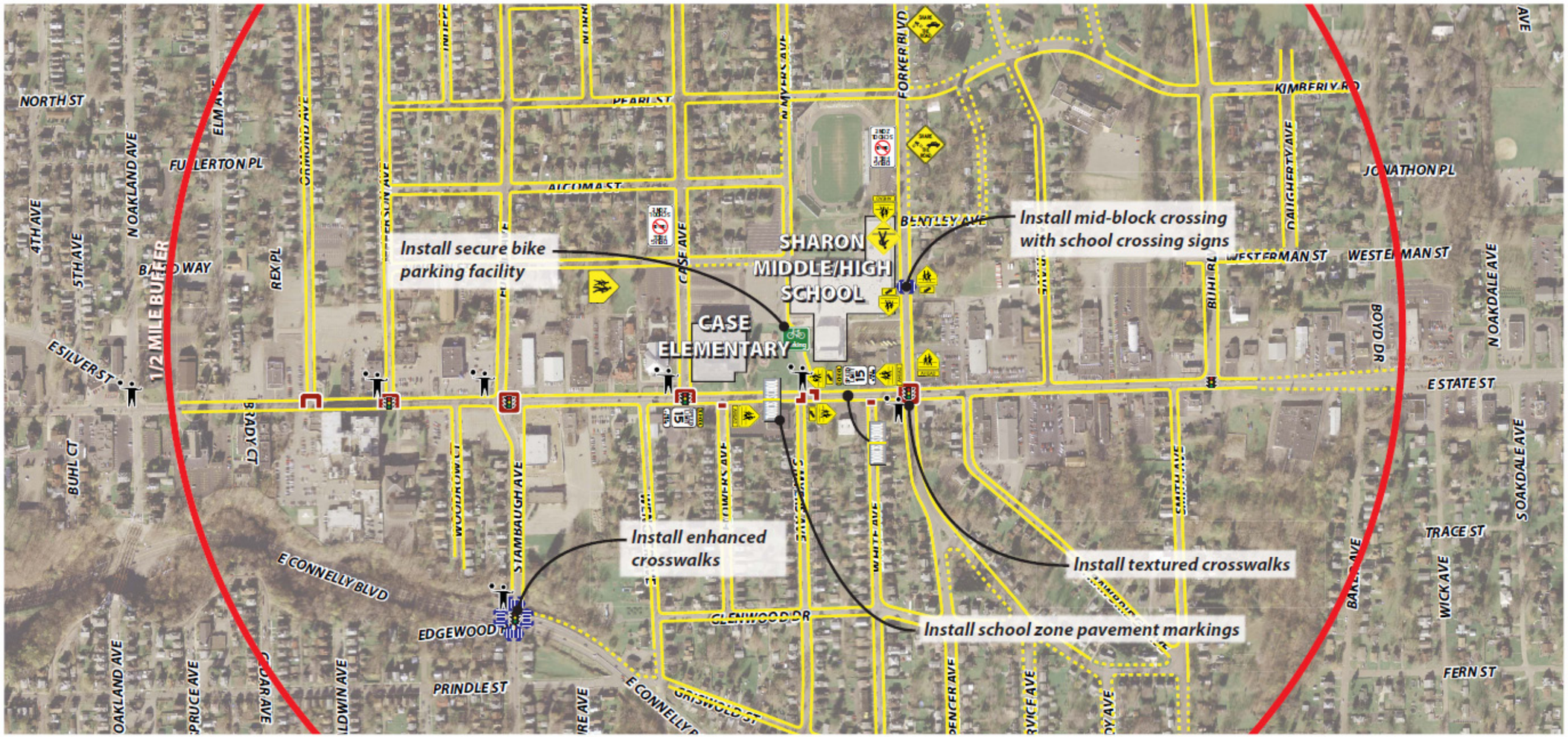


Figure 68: SRTS Case Elementary / Sharon Middle School

West Hill Elementary School

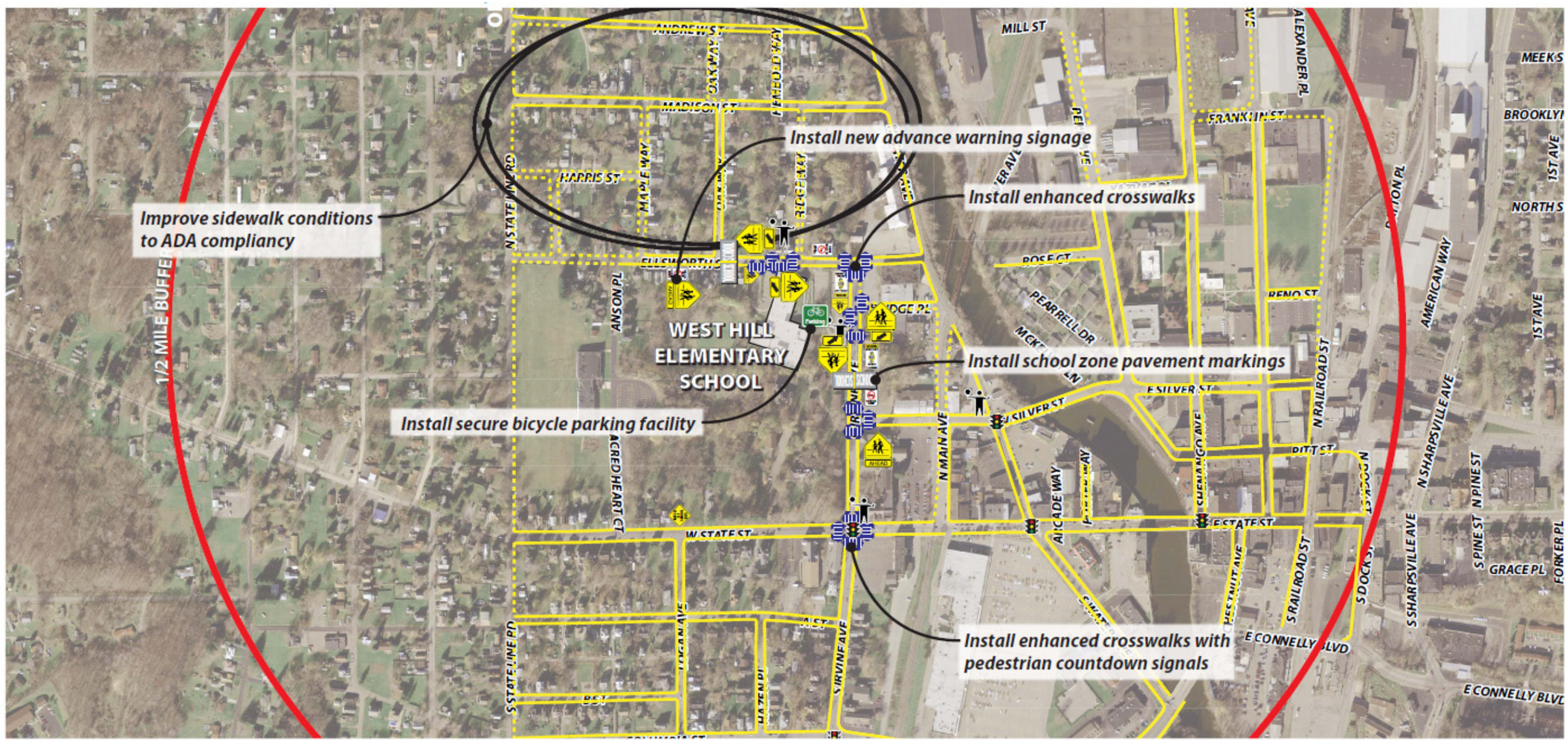


Figure 69: SRTS West Hill Elementary

Pavement Marking
School zone pavement markings provide another indication to drivers and improve safety within the school zone. It is recommended that pavement markings be installed within the school zone in accordance with MUTCD guidance at the locations shown in Figures 67 and 68.

Secure Bicycle Parking
Obesity levels among school children have nearly tripled over the past 30 years. It is important to provide an environment for children to engage in physical activity. Biking and walking are two modes of travel that are encouraged for a more active lifestyle. To encourage school children to bike to school, secure bike parking facilities should be installed at West Hill Elementary and Case Elementary and Sharon Middle/High School. Attributes of good bike parking include:

- Protection from vandalism/theft
- Protection from damage to the bicycle
- Protection from weather
- Convenient to destination

Countdown signals
Countdown Signals include a pedestrian signal with standard shapes and color and an added display showing the countdown of the remaining crossing time. The countdown timer starts either at the beginning of the pedestrian phase or at the onset of the pedestrian clearance interval. The timer continues counting down through the pedestrian clearance interval. At the end of the pedestrian clearance interval, the countdown device displays a zero and the DON'T WALK indication appears.

Enforcement

This approach incorporates law enforcement efforts to ensure drivers, bicyclists and pedestrians obey traffic laws and practice appropriate behaviors. Examples of enforcement strategies include:

- Speed trailers and neighborhood speed watch programs;
- Sidewalk and property maintenance laws;
- "Keep Kids Alive – Drive 25 Campaign" – A community based approach detailing how to reduce driving speeds;
- Pedestrian decoy operations – Undercover officers dress as typical pedestrians and cite those who are in violation;
- Safety patrols at student drop-off and pick-up locations; and
- Photo enforcement

More information can be found at guide.saferoutesinfo.org.

Education and Encouragement

Education and Encouragement recommendations are operational measures that the school should consider to enhance the effectiveness of the physical improvements recommended previously. These tools focus on teaching traffic, pedestrian and bicycle safety to parents and students, increasing public awareness of Safe Routes to School goals and benefits, and promoting changes in behavior to increase walking and bicycling. Educational activities teach children age-appropriate skills related to bicycling and walking, familiarizing students with the positive benefits of bicycling and walking, and foster greater attention by the community in general to the need to operate motor vehicles more safely, especially in school zones. Encouragement activities include a variety of special events and contests, outreach campaigns, presentations to school and community groups, and surveys of current practices and attitudes related to the school commute. A major objective of educational and encouragement tools is to increase the understanding by parents, school personnel, students, and the community of the health and safety concerns that can be addressed by successful Safe Routes to School programs.

Walk or Roll to School Day
This international annual event occurs on the first Wednesday of October. In the state of Pennsylvania, it is formally known as Walk or Roll to School Day. The program is designed to promote walking and bicycling on a designated day to bring attention to the importance of safe routes to school. Consequently, a common goal of the program is to encourage school children to walk or bike to school on a more regular basis. Communities throughout the nation have adapted their own versions of the program. Pennsylvania's Safe Routes to School website, www.saferoutespa.org provides ideas on getting schools involved in this annually held event.

Additional walk and bike to school days can be held yearly, monthly, or even weekly, depending on the level of support and participation from children, parents, and school and local officials. Some schools organize more frequent days – such as weekly Walking/Wheeling Wednesdays or Walk and Roll Fridays – to give people an opportunity to enjoy the event on a regular basis. Parents and other volunteers accompany the children, and often there are designated staging areas along the route to school where different groups can gather and walk or bike together. The events should be promoted through press releases, articles in school newsletters, and posters and flyers for children to take home.

Bicycle Rodeos
A bicycle rodeo provides children with a basic understanding of the rules of the road; educates those children and their parents about elementary bike safety; gives trained personnel a chance to look over the equipment the kids are riding; and involves parents, teachers, and/or local civic organizations in a worthwhile activity. A bicycle rodeo involves "stations" that teach skills, such as:

- Looking over a shoulder without weaving;

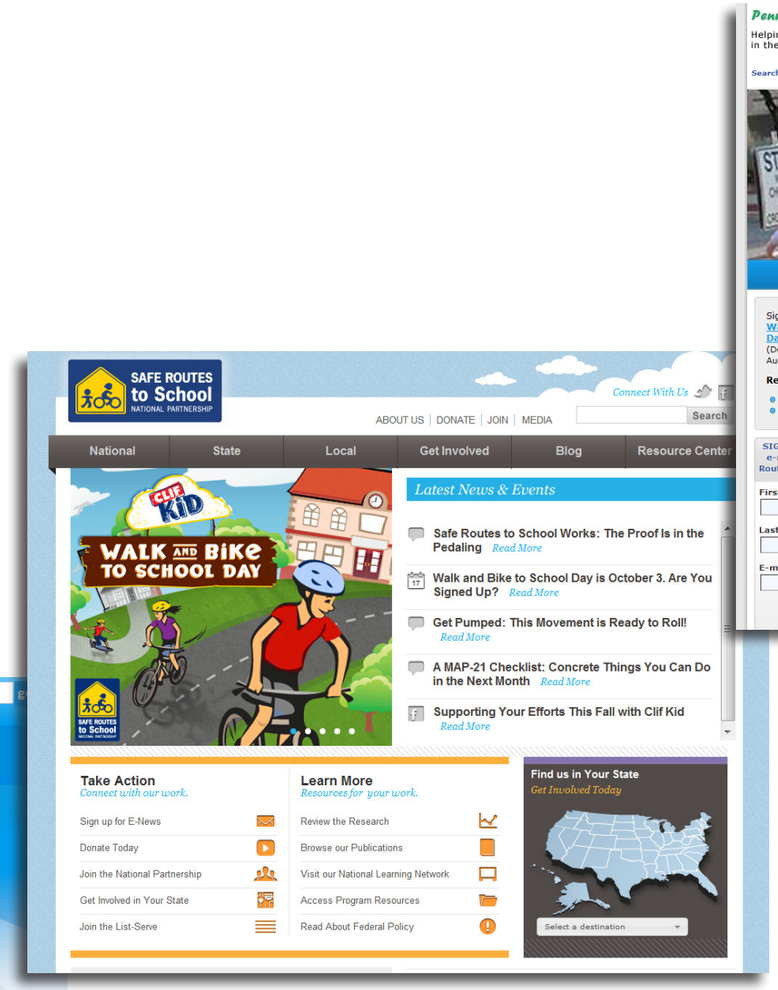
- Fast-braking without skidding; and
- Dealing with traffic at intersections

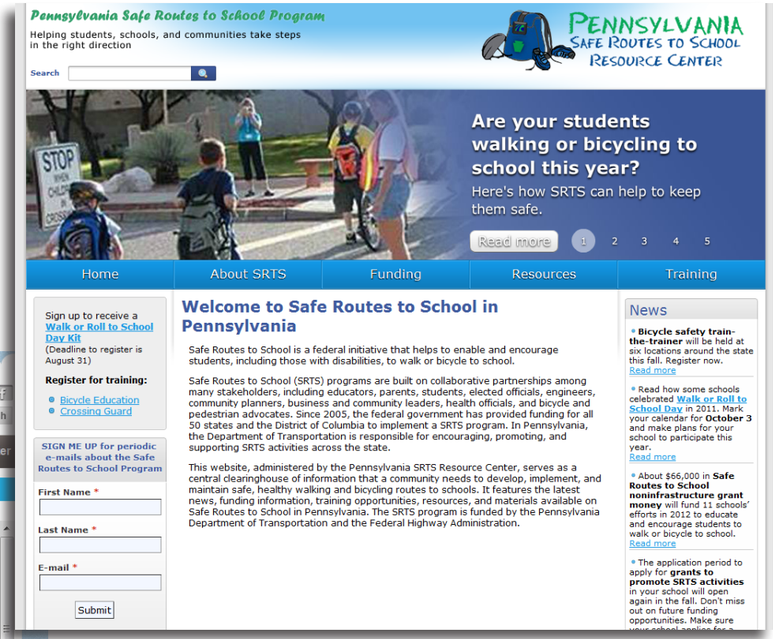
Walking School Bus
The walking school bus is a group of school children walking to school under adult supervision. Routes can be planned with specific meeting locations and timetable.

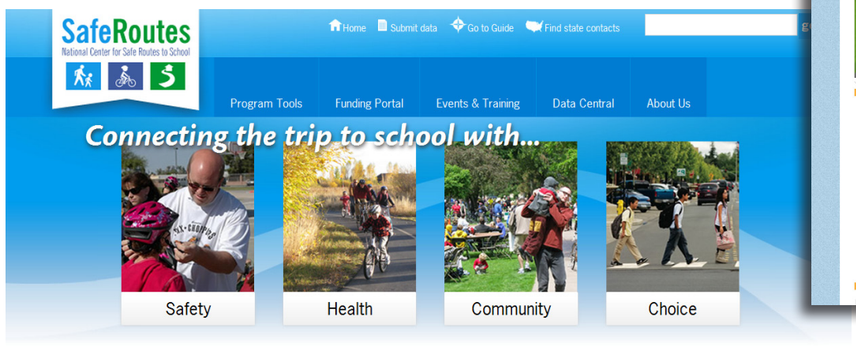
Evaluation

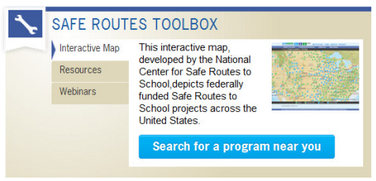
Evaulation of an SRTS program is important for monitoring the outcomes and results of the plan. Data is critical in assessing conditions prior to implementation of an SRTS plan and after the program has been initiated. The benefits can include making sure your school is attaining the goals set forth at the beginning of the program, determining if the program is still addressing the problems identified, and ensuring the school is able to receive long-term funding.

More information on SRTS program in the state of Pennsylvania can be found at www.saferoutespa.org. Pennsylvania has published an in-depth document filled with resources regarding program startup; actions to take; and funding for infrastructure and non-infrastructure projects called *Comprehensive Guide to Safe Routes to School in Pennsylvania. August 2011.*









Hospital Zone Improvements

The streetscape in front of Sharon Regional Health System experiences high volumes of vehicular and pedestrian traffic, with the latter comprised mostly of hospital staff and young school children attending St. Joseph's School. However, the school will likely be closing within the next year as construction of the new Case Elementary School is completed. St. Joseph's School will then be demolished to make room for the expansion of Sharon Regional Health System. Employees of the hospital frequently cross State Street accessing the nearby parking lots. Drainage and stormwater management issues have also been noted within this area.

Recommendation

Both short and longer term pedestrian safety, traffic calming, operational and streetscape improvements are recommended for State Street, adjacent to the Sharon Regional Health System.

The short term improvement strategy includes the following:

- Install high visibility decorative wheelchair-friendly crosswalks and flush contrasting asphalt medians
- Install landscape elements including plantings and low scrubbed landscaped areas
- Install street furniture including benches and bicycle racks
- Reconfigure the south leg of the Jefferson Avenue/State Street intersection to align with the north side of the intersection, for improved safety and efficiency for all modes using the intersection
- Coordinate all Jefferson Avenue/State Street intersection improvements with future hospital expansion/redevelopment plans, and/or pedestrian safety and circulation plans on hospital owned property, on both sides of State Street

The second, long term improvement phase includes the following:

- Convert approximately 350 feet of Ormond Street to one-way northbound traffic flow, from State Street north to its intersection with a potential new privately constructed east-west roadway
- Coordinate traffic control with a potential new privately constructed east-west road connection, situated approximately 350 feet north of State Street, between Jefferson Avenue and Elm Avenue
- Support potential infill development including office and mixed-use buildings
- Initiate development of a public "pocket" park at the corner of Ormond Avenue/State Street intersection

The recommendations (see Figure 70) seek to enhance the overall public realm adjacent to the hospital, particularly the pedestrian environment, through improved safety and streetscape enhancements. Conflicts between hospital destined pedestrians and State Street motorists are reduced with conversion of a small segment of Ormond Avenue to one-way northbound only travel. A new road, privately constructed on hospital owned parcels north of State Street is recommended between Elm Avenue and Jefferson Avenue. This roadway provides an alternate access and circulation route for hospital employees and visitors using the adjacent parking lots. With this connector road in place, traffic, especially parking lot traffic is diverted away from the main hospital entrance, beyond the high pedestrian activity area in front of the hospital, thus significantly improving pedestrian safety.

In addition to the proposed new road, a pedestrian connection is recommended to provide a link between the parking lots north of State Street and the realigned intersection of Jefferson Avenue.

Off-site improvements are encouraged to compliment the recommended design to facilitate safer and more efficient movement throughout the area for all modes of travel.

Under both the near and longer term plans, pedestrians are encouraged to use enhanced crosswalks at intersections. Any physical features proposed that direct pedestrians to and from the hospital would be done in collaboration with hospital approval.

PROPOSED RENDERING
VIEW FACING WEST

ALTERNATIVES & RECOMMENDATIONS IV

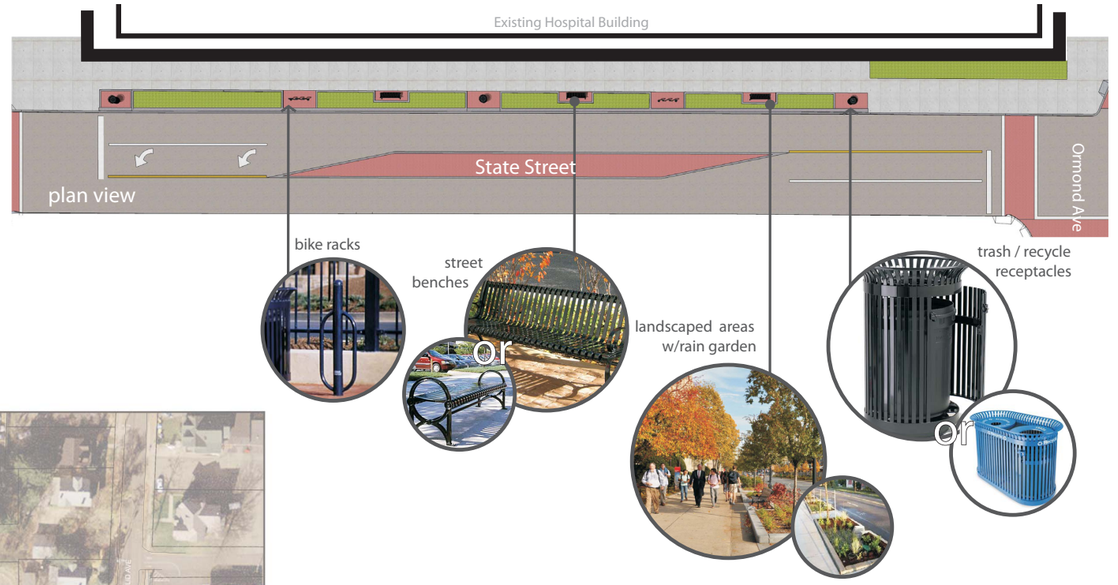


Figure 70: Hospital Zone Recommendations

Hospital Zone Improvements

Note: Coordinate new road realignment and pedestrian connections with future hospital development plans.

V

COST ESTIMATES, IMPLEMENTATION & FUNDING

V COST ESTIMATES, IMPLEMENTATION & FUNDING

RECOMMENDATIONS		PLANNING LEVEL COST ESTIMATE
	Signal Coordination / Upgrades	no cost
	Develop an organization to develop and lead the Revitalization Program for Downtown Sharon	$ 10,000
	Develop a Façade Improvement Program for Downtown Sharon	$ 50,000
	Develop a Wayfinding Sign program/system for Downtown Sharon	$ 25,000
	Hospital Zone Mill, Overlay and Re-striping	$ 68,000
	Hospital Zone Signage, Crosswalks, and Median	$ 153,600
	School Zone Crosswalks	$ 67,000
	School Zone Signage	$ 1,400
	SRTS Case/Sharon Signage and Crosswalks	$ 1,700
	SRTS West Hill Signage and Crosswalks	$ 5,300
	Improved Safety Transition / Road Diet	$ 200,000
*Intersections**	Buhl Farm Drive	
	Phase 1 (Textured Crosswalks)	$ 70,100
	Phase 2 (Geometric Design)	$ 717,000
	Stambaugh and Euclid Avenues	
	Phase 1 (Textured Crosswalks, Landscaping)	$ 48,300
	Phase 2 (Geometric Design) [1]	$ 469,000
	Kerrwood Drive[2]	$ 857,000
	Kerrwood Dr to Ellis Ave Sidewalk Connection	$ 53,000
	Ellis Avenue[2]	$ 978,000
	Hermitage Road[1]	$ 961,000
Gateways	Irvine Avenue Gateway	$ 934,000
	Shenango Valley Roundabout	$ 1,573,000

Table 8: Cost Estimates

Cost Estimates

The costs associated with many of the immediate to near term recommended improvements are relatively low and inexpensive. A number can be implemented with little or no cost, (e.g. signal timing modifications, enhanced crosswalk striping, signage, landscaping, furnishings), while other recommendations require a more significant infrastructure investment. The cost for these as well as for the more substantial improvements such as the recommended State Street/Shenango Valley Freeway roundabout were estimated based upon recent bid prices for comparable elements.

It should be noted that there is significant variability in the degree to which improvements can be implemented and the costs associated with the improvements. For example, the gateway treatments can include special features, decorative pavement treatments and significant landscaping, or other less expensive treatments with only plantings and less expensive pavement treatments. Other improvements in the transportation system, such as the new roadway connection between Elm Avenue and Jefferson Avenue, may likely evolve over an extended time through a combination of private/public partnerships.

* cost includes landscaping, milling and repaving the entire intersection

1. Includes signal modifications
2. Includes signal replacement

Notes:

1. Schematic cost estimates have been prepared using a 40% contingency.
2. Costs include design, survey and construction inspection.
3. Costs are provided in 2012 dollars.
4. Costs do not include right-of-way.

COST ESTIMATES, IMPEMENTATION & FUNDING V

Implementation

Recommendations for implementation of the proposed improvements are outlined on the following pages. They are subdivided into three categories: Immediate to Near Term (0-5 years), Medium Term (5-10 years), and Long Term (10-20 years). Many of the Immediate to Near Term recommendations can be implemented as part of ongoing maintenance. Meanwhile, other items in this phase of implementation are either relatively low cost modifications or funding for these improvements may be more readily available. Medium Term recommendations require more planning and funding to implement and can likely be accomplished in the 5 to 10 year timeframe. The Long Term recommendations are generally more expensive and are likely to require significant planning to implement. It is noted that the longer timeframes may more closely align with typical PennDOT timeframes used for programming funding. Specific long term improvements may be made sooner if funding becomes available.

Funding Sources

MAP-21	**Moving Ahead for Progesss in the 21st Century**
TIP	**Transportation Improvement Program**
CDBG	**Community Development Block Grant**
KC	**Keystone Communities Program**
ARC	**Appalachian Regional Commission**
MAP	**Municipal Assistance Program**

Misc

1. No Cost
2. Existing Procedures
3. City Budget
4. Private Sector Contributions
5. School District
6. Hospital
7. PennDOT

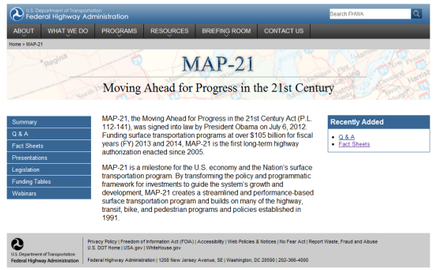
ITEM	RECOMMENDATIONS	FUNDING SOURCES						
		MAP-21	TIP	CDBG	KC	ARC	MAP	MISC
	IMMEDIATE TO NEAR TERM (0-5 YEARS)							
1	Adopt the Business Route 62 Corridor Study							1
2	Establish an organization to develop and lead the Revitalization Program for Downtown Sharon							1
3	Update the City of Hermitage's Comprehensive Plan							3
4	Incorporate the key recommendations from the Business Route 62 Corridor Study as part of the update of Hermitage's Comprehensive Plan							3
5	Create and adopt access management provisions or an overlay district for both Cities						●	●
6	On-going implementation of access management recommendations for new and redevelopment properties		●					2,4
7	Develop and adopt non-residential design guidelines and standards for both Cities						●	3
8	Codify the Gateway Transitional Zoning District in Hermitage							3
9	Codify the Central Business District and Mixed Use District in Sharon							3
10	Codify the Landscape Standards for both cities						●	3
11	Institute a design review function and training in the development review process for both Cities							2,3
12	Implement TIF or Transportation Impact Fee funding mechanisms for both Cities						●	2,3
13	Modify the development review procedures to include a minor and major site plan review process for both Cities							1
14	Replace / install street furnishings in key locations in Sharon	●	●	●	●	●		3,7
15	Implement a signal coordination plan between Buhl Boulevard and Oakland Avenue		●					3,7
16	Hospital Zone improvements	●	●	●	●	●		3,6,7
16.1	Mill, overlay and re-stripe State Street within the Hospital Zone	●	●	●	●	●		3,6,7
16.2	Install Hospital Zone textured crosswalks and flush contrasting median treatments	●						3,6,7
16.3	Install Hospital Zone pedestrian signage	●	●	●	●	●		3,6,7
17	Complete overall SRTS plan for West Hill Elementary							3,5
17.1	Install enhanced crosswalks and school zone signage	●	●	●				3,5
18	Complete overall SRTS plan for Case Elementary and Sharon Middle School							3,5
18.1	Install enhanced/textured crosswalks and school zone signage	●	●	●				3,5
19	Install bike parking facilities at key locations along State Street in both Cities	●	●	●	●	●		3,4,7
20	Develop bicycle connections to Buhl Farm Park and key destinations	●						3
21	Complete the Improved Safety/Road Diet Transition plan from Buhl Farm Drive to Buhl Boulevard	●	●					3,7
22	Install textured crosswalks at Buhl Farm Drive / State Street intersection	●	●					3,7
23	Complete intersection improvements at Stambaugh and Euclid Avenues	●	●	●				3,7
24	Install gateway treatments and intersection improvements at the Irvine Avenue Gateway	●	●	●	●	●		3,7
	MEDIUM TERM (5-10 YEARS)							
25	Update the Shenango Valley Multi-Municipal Comprehensive Plan						●	3
26	Develop a Façade Improvement Program for Downtown Sharon			●	●			3,4
27	Develop a Wayfinding Sign program/system for Downtown Sharon			●	●	●		3,7
28	Complete intersection improvements at Hermitage Road		●					3,7
29	Install bicycle lanes along Hermitage Road		●					3,7
30	Complete intersection improvements at the Shenango Valley Freeway Gateway Roundabout							3,7
31	Complete intersection improvements at Ellis Avenue		●					3,7
32	Complete intersection improvements at Kerrwood Drive		●					3,7
	LONG TERM (10-20 YEARS)							
33	Full reconstruction of Business Route 62		●	●		●		3,7
34	Construct new connector road at the Hospital Zone			●	●			3,6

Table 9: Recommendations, Implementation and Funding

Funding Opportunities

In order to successfully implement the recommendations of the Business Route 62 Corridor Study the Cities should pursue outside funding assistance from various Federal and State sources. If Sharon and Hermitage are successful in obtaining grant funds for the Irvine Avenue and State Street corridor, it can greatly reduce the number of local dollars necessary to construct the proposed improvements. A review of the available funding sources indicates that the most applicable to this project include the following:

Moving Ahead for Progress in the 21st Century (MAP-21) - On July 6, 2012, President Obama signed the Moving Ahead for Progress in the 21st Century Act. This act provides over $105 billion in funding for surface transportation programs for fiscal years 2013 and 2014. MAP-21 is the first long-term highway authorization enacted since 2005. The specific programs affecting local governments under the previous funding authorization bill (SAFETEA-LU) are now largely gone, including the Safe Routes to Schools Program, the Recreational Trails and Scenic Byways Programs, and the Transportation Enhancements Program. MAP-21 transforms those into eligible activities within the existing Highway Safety Improvement Program and a new Transportation Alternatives category. While MAP-21 requires states to spend at least 2 percent of their federal highway funds on Transportation Alternatives, the total is about $300 million less per year than the total for those programs under SAFETEA-LU.



According to the FHWA, the purpose of MAP 21 is to set the course for transportation investment in highways by:

Strengthens America's highways - MAP-21 expands the National Highway System (NHS) to incorporate principal arterials not previously included. Investment targets the enhanced NHS, with more than half of highway funding going to the new program devoted to preserving and improving the most important highways - the National Highway Performance Program.

Establishes a performance-based program - Under MAP-21, performance management will transform Federal highway programs and provide a means to more efficient investment of Federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the Federal highway programs, and improving transportation investment decision making through performance-based planning and programming.

Creates jobs and supports economic growth - MAP-21 authorizes $82 billion in Federal funding for FYs 2013 and 2014 for road, bridge, bicycling, and walking improvements. In addition, MAP-21 enhances innovative financing and encourages private sector investment through a substantial increase in funding for the TIFIA program. It also includes a number of provisions designed to improve freight movement in support of national goals.

Supports the Department of Transportation's (DOT) aggressive safety agenda - MAP-21 continues the successful Highway Safety Improvement Program, doubling funding for infrastructure safety, strengthening the linkage among modal safety programs, and creating a positive agenda to make significant progress in reducing highway fatalities. It also continues to build on other aggressive safety efforts, including the Department's fight against distracted driving and its push to improve transit and motor carrier safety.

Streamlines Federal highway transportation programs - The complex array of existing programs is simplified, substantially consolidating the program structure into a smaller number of broader core programs. Many smaller programs are eliminated, including most discretionary programs, with the eligibilities generally continuing under core programs.

Accelerates project delivery and promotes innovation - MAP-21 incorporates a host of changes aimed at ensuring the timely delivery of transportation projects. Changes will improve innovation and efficiency in the development of projects, through the planning and environmental review process, to project delivery.

The details of MAP-21 will be forthcoming over the next several weeks and months. The exact amount of funding that will be available to help implement the recommendations of the Business Route 62 Corridor Study is unknown at this time. However, the importance of MAP-21, its impact on the Transportation Improvement Program and its role as a potential funding source cannot be overstated. For more information on MAP-21 visit www.fhwa.dot.gov/map21/summaryinfo.cfm.

Transportation Improvement Program (TIP) - The TIP is a staged, multi-year program of projects that identifies the timing and funding of all highway, bridge, transit, intelligent transportation system, bicycle, and pedestrian transportation projects scheduled for implementation in the region during the next five years using federal transportation funds. Many of the surface transportation improvements identified in the Business Route 62 Corridor Study are eligible for specific federal funding programs through the TIP.

This region's TIP is developed cooperatively by the MCRPC and the Pennsylvania Department of Transportation District 1-0. Shenango Valley Area Transportatoin Study (SVATS) MPO/MCRPC and PennDOT conduct a complete update of the TIP every two years. Every project proposed in the TIP is also listed in the Statewide Transportation Improvement Program (STIP) for Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approval. The current TIP can be viewed at www.mcrpc.com/tip.htm.

Community Development Block Grant (CDBG) - The City of Sharon is a designated Entitlement Community under the CDBG Program. The United States Department of Housing and Urban Development, "awards grants to entitlement communities to carry out a wide range of community development activities directed toward revitalizing neighborhoods, economic development, and providing improved community facilities and services."

CDBG funds may be used for activities which include, but are not limited to:

- Acquisition of real property;
- Relocation and demolition;
- Rehabilitation of residential and non-residential structures;
- Construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes;
- Public services, within certain limits;
- Activities relating to energy conservation and renewable energy resources; and
- Provision of assistance to profit-motivated businesses to carry out economic development and job creation/retention activities.

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The City of Sharon received a total of $532,470 in CDBG funds in the previous fiscal year. As the City adjusts its funding priorities each year, it should consider including some of the eligible projects outlined in this study into its Consolidated Plan. This will enable Sharon to utilize CDBG funding to implement a number of the recommendations contain in the Business Route 62 corridor study.

For more information on this funding source, please review the program guidelines at:
http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs/entitlement.

Keystone Communities (KC) Program - According to the KC Program Guidelines, "The KC Program is designed to encourage the creation of partnerships between the governmental (public) and private (non-governmental) sectors in the communities that jointly support local initiatives such as the growth and stability of neighborhoods and communities; social and economic diversity; and a strong and secure quality of life. The Department of Community and Economic Development (DCED) strongly encourages community-based organizations, public agencies, business leaders, private developers, financial institutions, and private citizens to work in partnership with local government to develop a comprehensive approach to address community development and housing needs.

These partnerships can and will create more attractive places to live, and will encourage business and job expansion and retention in Pennsylvania. The KC Program incorporates three discontinued appropriations: Housing and Redevelopment Assistance, the Pennsylvania Accessible Housing Program and the New Communities Appropriation, which was comprised of three programs - Main Street, Elm Street and Enterprise Zone - under one appropriation, the Keystone Communities Appropriation." Eligible activities include:

- Keystone Main Streets: Funding and technical assistance for a community's downtown revitalization.
- Keystone Elm Streets: Funding and technical assistance for residential and mixed use areas in proximity to central business district.
- Keystone Enterprise Zones: Funding and technical assistance for disadvantaged industrial/manufacturing and business sites.
- Keystone Communities: Designation and potential access to funding and Neighborhood Assistance tax credits.
- Keystone Communities Development Projects: Grants and grants-to-loans for physical improvements for both designated and other communities.
- Accessible Housing: Housing improvements for persons with physical disabilities.

One of the most applicable programs under the KC Program are the Public Improvement Grants. These grants can provide up to $500,000 in funding and require a dollar for dollar match for a total project cost of up to $1,000,000. There are very few restrictions on the types of projects that are eligible for this program. The primary factors in determining eligibility are: 1) is it a good project with a compelling public benefit and 2) are there a number of partners that are supporting and participating in the success of the project.

For more information on this funding source, please review the program guidelines at:
www.newpa.com/sites/default/files/uploads/Community_Affairs_And_Development/Keystone_Communities/KeystoneCommunities_Guidelines-2011.pdf.

Appalachian Regional Commission (ARC) - On March 9, 1965, President Lyndon B. Johnson signed the Appalachian Regional Development Act into law. The goal of this act was to improve the quality of life for individuals and families located in the region known as Appalachia. The ARC is responsible for providing grant funding for infrastructure related projects. Grants generally range from $100,000 to $300,000 and cannot exceed fifty percent of the project costs. Development of new access roads is eligible for funding up to 80 percent of the project cost. In northwest Pennsylvania, this program is administered by the Northwest Commission (www.nwcommission.org).

Municipal Assistance Program (MAP) - According to the MAP Guidelines, "The Municipal Assistance Program (MAP) is created to help local governments efficiently and effectively plan and implement a variety of services, improvements, and soundly managed development. The program provides funding for three groups of activities – 1) shared service; 2) community planning; and 3) floodplain management." The completion of the Business Route 62 Corridor Study positions both Cities to apply for an implementation grant under the Community Planning program. There are a number of activities that could be funded through the MAP that would advance the recommendations of this study. These include the development of:

- A single zoning amendment to both zoning ordinances that includes design guidelines and standards and access management requirements for East State Street and
- A transportation impact fee ordinance for both Cities.

It should be noted that any effort to apply for funding under the MAP would be better positioned if Hermitage adopts some or all of the 2007 Joint Comprehensive Plan.

The MAP can provide up to 50% of eligible project costs. There is no pre-determined limit on the amount of funding that can be requested for a project. However, the maximum grant award for 2011 was $50,000. For more information on this funding source, please review the program guidelines at:
www.newpa.com/sites/default/files/MunicipalAssistanceProgram_Guidelines-2012.pdf.

A complete listing of funding sources can be found on the MCRPC's website, http://www.mcrpc.com/grants.htm.

Safe Routes to School - Based on the level of action taken to institute a successful SRTS program, the costs for solutions can vary for every project. They could be as little as purchasing reflective safety vests for adults participating in Walk to School events or as much as undertaking an infrastructure related traffic calming program.

Recent Congressional voting has passed a billed called "MAP-21" (Moving Ahead for Progress for the 21st Century) that combines SRTS with Recreational Trails and Transportation Enhancement funding. This has removed a dedicated source of Federal funding for SRTS. Projects must now compete with other programs under the Transportation Alternatives. States like Pennsylvania, however, are encouraged to utilize the remaining money earmarked for SRTS projects.

These events, however, will require school districts and municipalities to develop creative strategies aimed to fund identified recommendations. Several places that funding can be sought from are:

- Existing state SRTS programs;
- Surface Transportation Program (STP);
- Highway Safety Improvement Program (HSIP);
- Congestion Mitigation and Air Quality (CMAQ);
- Community Development Block Grants;
- Health and physical activity funds;
- Pennsylvania Infrastructure Bank (PIB) Loans;
- Public-Private partnerships;
- Municipal Liquid Fuels Program;
- Department of Community and Economic Development - Community and Municipal Facilities Assistance Program and the Community Revitalization Program;
- Automated Red Light Enforcement (ARLE) Funding;
- Transportation grants;
- United States Department of Agriculture (USDA) Community Facilities Loans & Grants;
- Economic Development Administration (EDA) Public Works & Economic Development;
- County and city funding; and
- Philanthropic organizations

For further information on Pennsylvania specific funding for SRTS programs, visit www.saferoutespa.org.

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