HOWLAND TOWNSHIP

EAST MARKET STREET CORRIDOR PLAN

MARCH 2025

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Executive Summary

The East Market Street Corridor Plan was a recommendation of the 2023 Comprehensive Plan Update developed to investigate alternatives to improve traffic congestion and safety, encourage multi-modal connectivity, and create opportunities for a future town center along East Market Street. The corridor was divided into two sections, western (Township's western limit to SR 46) and eastern (SR 46 to Howland-Wilson Road), and the existing transportation conditions were analyzed. Crash data from 2019 through 2023 was analyzed and revealed that most crashes were low-speed, property damage crashes (77%). Most crashes in the study area were rear end or sideswipe crashes which supported the idea that many crashes along East Market Street occur as vehicles weave in and out of lanes trying to avoid left turning vehicles or vehicles turning right into driveways. The data supported investigating a lane reduced from four-lanes to three-lanes from Rosegarden to SR 46 to alleviate these crashes.

Extensive traffic analysis was conducted on both the existing four-lane and proposed three-lane sections. Traffic counts were conducted, future traffic volumes were projected, and intersections were analyzed to ensure traffic flow along the corridor was not meaningfully degraded by the three-lane section. Due to the relatively low traffic volumes along East Market Street (17,000 ADT projected in 2042) a three-lane section was shown to accommodate existing and future traffic volumes with very minimal or no degradation to traffic levels of service.

To reduce drop-off and pick-up queueing backups onto East Market Street from Howland High School, a circulation road concept was developed. The circulation road would run within Howland School District property and link Shaffer and Willow Drives providing improved circulation within the neighborhood street grid. In addition, the existing drop-off/pick-up area is proposed to be moved to the northern side of the High School to provide more space for vehicles to queue on Shaffer Drive and not back up onto East Market Street. This improvement is critical to improving traffic flow on East Market Street.

To improve multi-modal connectivity a variety of bicycle and pedestrian improvements were considered including bike lanes, a multi-use trail, and buffered sidewalks. Ultimately a multi-use trail was proposed along the north side of East Market Street linking Howland High School to the Howland Public Library and a buffered sidewalk on the south side. These improvements will provide a safer and more encouraging environment for residents to walk and bike along the corridor.

Project phasing, preliminary cost estimates, and potential funding sources were detailed to assist the Township with implementing these improvements.

CHAPTER 1

BACKGROUND

East Market Street

Background & Plan Goals

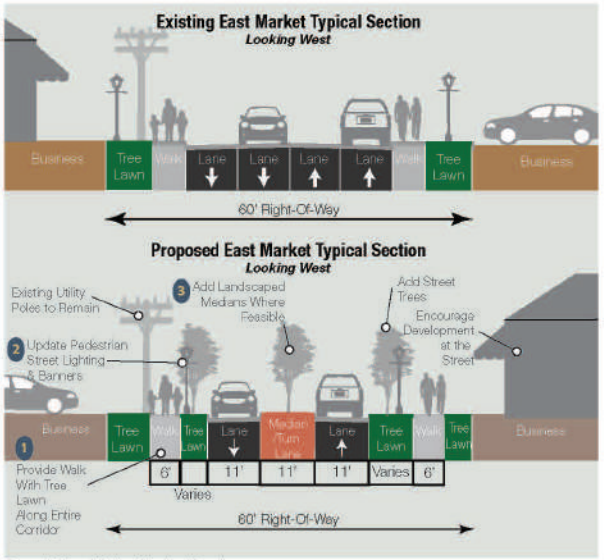
East Market Street is the main east-west corridor serving Howland Township and links the Township to the City of Warren. The corridor acts as the Township's central spine and is lined with office and retail uses and is home to a multitude of local assets including Howland High School and the Howland Public Library. The impetus for the East Market Street Corridor Plan was developed with the Township's 2023 Comprehensive Plan Update. The Plan recommended a corridor plan be developed that, "should propose recommendations that transform the corridor both visually and functionally, fostering a unique sense of place, encouraging walkability, and developing corridor standards."

The Township used the comprehensive plan recommendation to gather stakeholder support and funding for the corridor plan. In 2024, Eastgate Council of Governments awarded the Township a Planning Grant to fund a portion of this plan. Eastgate, along with the Trumbull County Engineer's Office, ODOT District 4, and the Howland Local School District were key stakeholders in this process.

Transportation

Develop a corridor plan for East Market Street from Rosegarden Drive to Howland-Wilson Road that focuses on enhancing multi-modal connectivity, traffic flow, and placemaking elements.

East Market is the central east-west corridor within the Township linking the City of Warren and State Route 82 to the Township. The corridor is the center of activity within the Township and includes many local restaurants, small businesses, and municipal institutions. The existing corridor consists of two distinct sections, a four-lane, curbed section from Rosegarden Drive to Niles-Cortland Road, and a two-lane, uncurbed section from Niles-Cortland to Howland-Wilson Road. The corridor has sidewalks along its entire length and minimal streetscaping elements including decorative lighting. The corridor experiences a moderate amount of vehicular traffic throughout the day and is impacted by both Howland Middle and High School vehicular and pedestrian traffic.



Sample East Market Typical Section

The corridor study should propose recommendations that transform the corridor both visually and functionally, fostering a unique sense of place, encouraging walkability, and developing corridor standards. A proposed typical section and various improvement ideas are shown above and on the following page.

At a minimum the study should

- Investigate various lane configurations to optimize vehicular traffic flow while also incorporating multi-modal transportation elements;
- Recommend improvements that enhance mobility for all users including improved pedestrian, bicycle, and transit facilities;
- Analyze existing and future traffic volumes and crash data to improve safety along the corridor
- Consider access management standards;
- Develop streetscaping and signage improvements to create a town center identity;
- Incorporate stormwater best management practices along the corridor.

2023 Comprehensive Plan: East Market Street Corridor

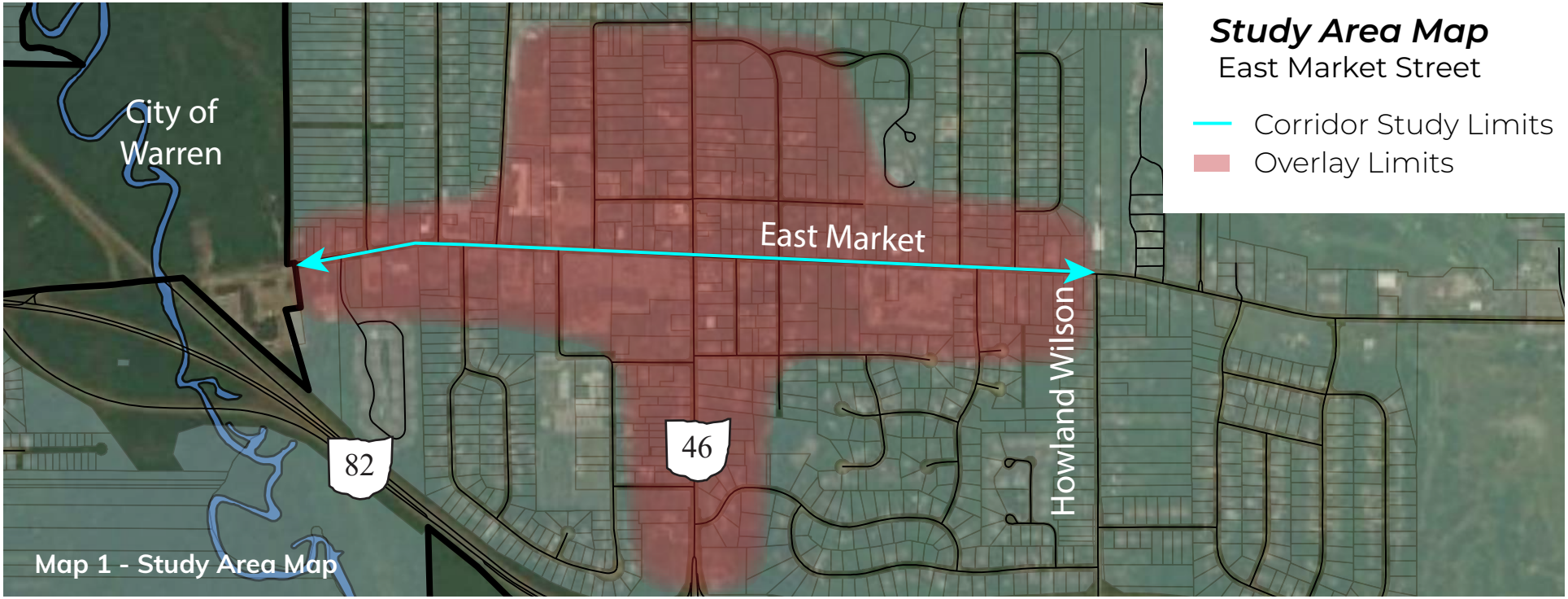
Plan Goals

The following plan goals were established by Howland Township as part of the plan's scope.

1. Investigate various lane configurations to optimize vehicular traffic flow while also incorporating multi-modal transportation elements;
2. Recommend improvements that enhance mobility for all users including improved pedestrian and bicycle facilities;
3. Analyze existing and future traffic volumes and crash data to improve safety along the corridor
4. Develop design standards for developments along the corridor that create a small-town, sense of place;
5. Develop streetscaping and signage improvements to create a town center identity; and
6. Encourage economic development and investment.

Study Area

As illustrated below, the East Market Street Corridor Plan begins at the Township's western border with the City of Warren and runs eastward to Howland-Wilson Road. The limits of the Town Center Overlay District are illustrated in red below and encompass East Market Street, portions of SR 46 and neighborhoods directly adjacent to the East Market/SR 46 intersection.



Map 1 - Study Area Map

East Market Street
Plans & Projects

Active Transportation Plan

The Township completed a township-wide active transportation plan in December 2024. The plan made recommendations to promote and support active transportation through a combination of infrastructure projects, policies / zoning, and programs. Community survey data from this plan was used to help inform multimodal recommendations along East Market Street. East Market Street was highlighted as a “walk and bike route” and included recommendations for “medium priority crosswalk improvements” at Clifton, High School Drive, and SR 46 intersections.

SR 46 and SR 82 Diverging Diamond Interchange

As this corridor plan is being developed, a Diverging Diamond Interchange (DDI) at the SR 82 and SR 46 interchange is being constructed by ODOT. Construction is anticipated to be completed in 2026. Improvements from this project will include the SR46 and East Market Street intersection. It is anticipated that traffic patterns along East Market Street could change due to the DDI.

ODOT - TRU-46-7.28 Safety Study

This safety study was conducted by ODOT and ultimately recommended that the DDI at SR 82 and SR 46 be constructed. The study also recommended that East Market Street be converted from a four-lane to a three-lane section from SR 46 to the Township’s western border. The study cited a reduction in crashes and the optimization of traffic flow through the DDI as support for the changes to the existing lane configuration (positive Economic Crash Analysis Tool results).

East Market Street
Engagement Summary

Public Meeting
A public meeting was held in January 2025 to review alternatives and plan recommendations for East Market Street. The meeting began with a presentation reviewing existing conditions and feedback received to date then shared recommendations for the corridor. After a general question and answer session, participants were asked to provide feedback on the proposed recommendations by placing stickers on maps illustrating the improvements. There were 17 attendees.

Recommendations Survey
To gather additional feedback from residents on the recommendations, an online survey was created to replicate the public meeting materials. The survey was open for a month from mid-January to mid-February 2025. The survey received 44 responses. While feedback on the conversion from four lanes to three lanes was generally positive, there was some fears that the conversion would add to congestion. Respondents did support improved multi-modal facilities but requested that the trail connect to assets. Feedback from the recommendations survey can be found in Appendix D.

Steering Committee
The consultant team met with the steering committee four times throughout the planning process. The steering committee included representatives from Howland Township planning, police, and fire, the Trumbull County Engineer, Eastgate Council of Governments, ODOT District 4, and the Howland School District. The committee helped to guide and refine plan recommendations and to integrate this plan into other planning efforts in the area.

CHAPTER 2

EXISTING CONDITIONS ANALYSIS

Existing Conditions

Western Section

Physical Conditions

The western section of East Market Street runs from the Township's western border to SR 46. This section is approximately 0.6 miles long and lined with commercial retail and large institutional uses. The corridor consists of a four lane, curbed roadway section with 10-foot-wide lanes. Average annual daily traffic volumes are around 12,000 vehicles per day. Sidewalks run adjacent to the curb on both the north and south sides of the roadway. Existing walks are only six feet wide which discourages pedestrians from walking along the corridor as they are very close to vehicular traffic. The corridor does have some minimal streetscaping elements including decorative lighting, benches, and trash cans. Large overhead utilities run primarily within the southern right-of-way. Generally, this section has a 60-foot-wide existing right-of-way (wider at the far western end). There is a high concentration of driveway access within this section. Many commercial properties have multiple ingress/egresses off of East Market or have extremely wide driveways.

Map 2 - East Market Street - Western Section

Existing Conditions

Eastern Section

Physical Conditions

The eastern section of East Market Street runs from SR 46 to Howland-Wilson Road. This section is approximately 0.63 miles long and contains a mix of smaller commercial retail and single-family residential uses. The corridor consists of a two-lane uncurbed roadway section with generally 11-foot-wide lanes and four foot wide shoulders. Average annual daily traffic volumes are around 6,200 vehicles per day. This section has an open drainage system (i.e. ditches) and buffered sidewalk facilities on both sides. The open drainage system provides a treelawn and buffer for pedestrians making these facilities safer and more inviting to use. The section also has minimal streetscaping elements including decorative lighting, benches, and trash cans. Large utilities generally run within the southern right-of-way. This section has a 60-foot-wide right-of-way. Driveway access in this segment is generally well managed.

Map 3 - East Market Street - Eastern Section

Level of Traffic Stress (LTS)

Bicycle and Pedestrian Levels of Traffic Stress were analyzed as part of the Township's 2025 Active Transportation Plan. The results of that analysis are shared below.

In active transportation planning, a Level of Traffic Stress (LTS) analysis uses broadly available road characteristics to classify the experience of pedestrians and bicyclists. An LTS analysis typically groups roads into one of four categories detailed on the following page.

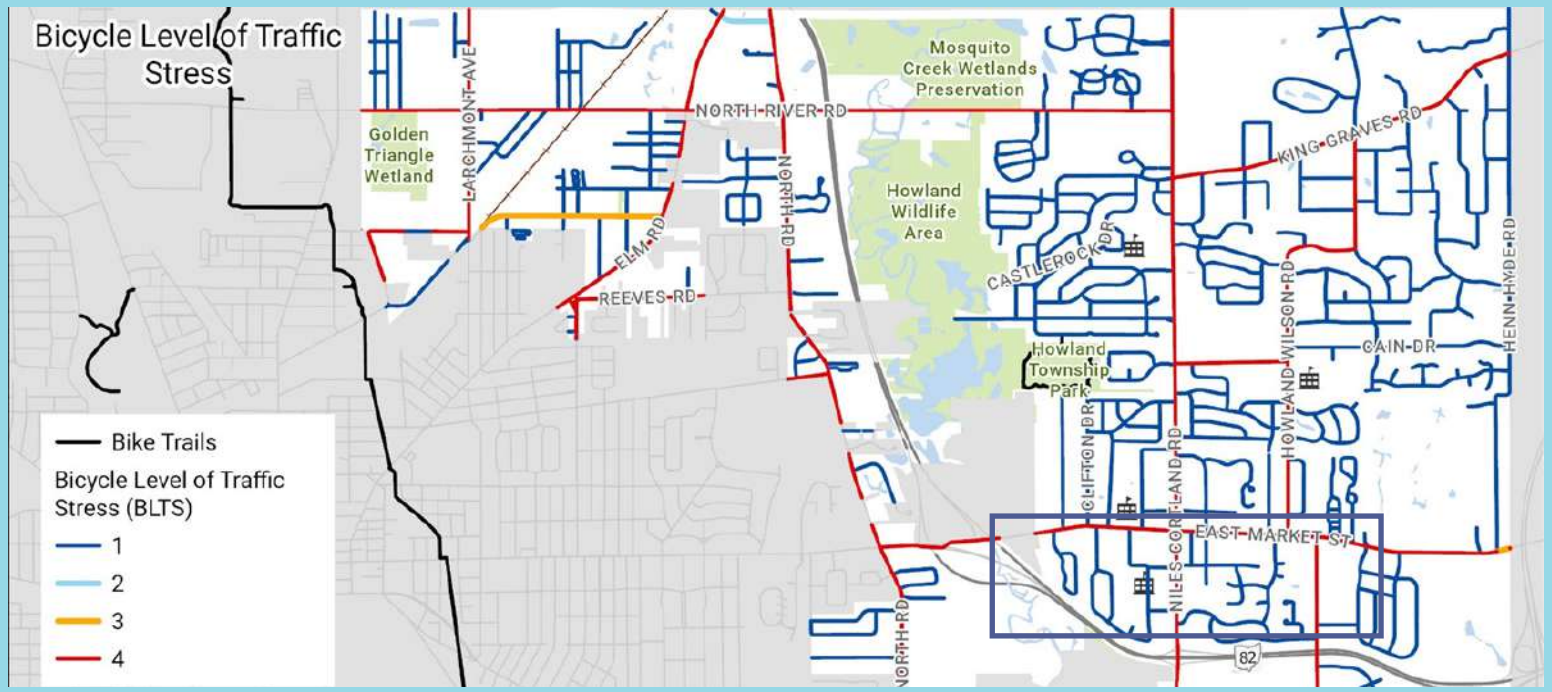
Bicycle Level of Traffic Stress

ODOT developed an LTS tool for the U.S. and State Bike Route System, which was adopted for this analysis. To avoid confusion between bicyclist and pedestrian LTS, this analysis method will be referred to as BLTS. This information comes from researchers who worked with bicyclists of average experience and ability levels, and who found that the perception of traffic is the largest indicator of a stressful experience. The inputs for the ODOT BLTS analysis capture traffic conditions that can influence stress for a typical bicyclist as shown below:

- Number of lanes
- Direction of travel (one- or two-way)
- Posted speed limit
- Annual average daily traffic (AADT)
- Bicycle facility type (shared-use path, separated bicycle lane, buffered bicycle lane, bicycle lane, paved shoulder, or shared lane)
- Bicycle lane width

The ODOT Transportation Information Mapping System (TIMS) roadway inventory provided the inputs for the BLTS analysis, combined with bicycle facility data from Howland Township. In general, most local roads or neighborhood streets have lower stress due to the low number of lanes, lower posted speed, and lower traffic volumes.

BLTS along East Market Street is rated as a 4 as it is a high-stress facility.



Map 4 - Howland Township Bicycle LTS

Levels of Traffic Stress (LTS)

LTS 1

A low-stress facility suitable for all ages and abilities. These facilities have strong separation from all except low speed, low volume traffic.

LTS 2

These facilities are separated from moderate-speed and multilane roads and tend to be comfortable for most adults. Streets tend to be lower-speed and have lower volumes of traffic.

LTS 3

These are moderate stress facilities that tend to be comfortable for confident on-road bicyclists. Streets in this category tend to be moderate speed or multilane traffic, or proximity to higher speed traffic.

LTS 4

A high-stress facility that is uncomfortable for most adults. Involves interaction with higher speed traffic or close proximity to high-speed traffic.

Pedestrian Level of Traffic Stress

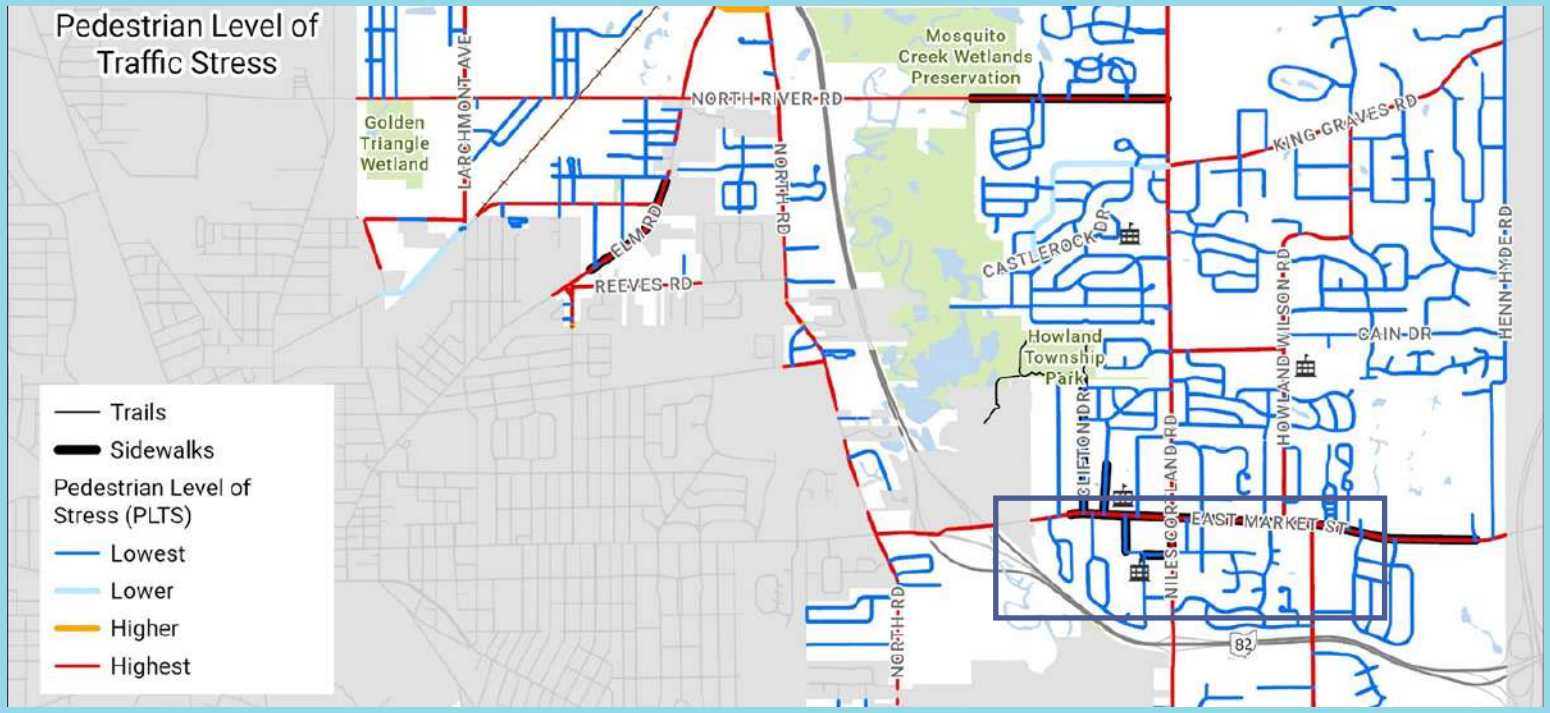
Pedestrian LTS (PLTS) analyses can assess stress levels for walking alongside a road (segment) and crossing a road (intersection). PLTS on road segments was calculated using the methodology developed by Washington State Department of Transportation. Segment PLTS inputs:

- Sidewalk condition and width
- Buffer type and width
- Number of lanes and posted speed
- Annual average daily traffic (AADT)

PLTS at intersection crossings was calculated using the methodology developed by Oregon Department of Transportation. Crossing PLTS inputs:

- Pedestrian signal presence
- Functional class
- Number of lanes and posted speed
- Annual average daily traffic (AADT)
- Median refuge & lighting presence

PLTS levels along East Market Street are rated at the highest level even though sidewalks are present. Sidewalks are adjacent to the travelway and have substandard width which contributes to the high levels of stress. As illustrated in Map 5, East Market also has several intersections with PLTS at a 4. These intersections have substandard or no pedestrian facilities at each intersection



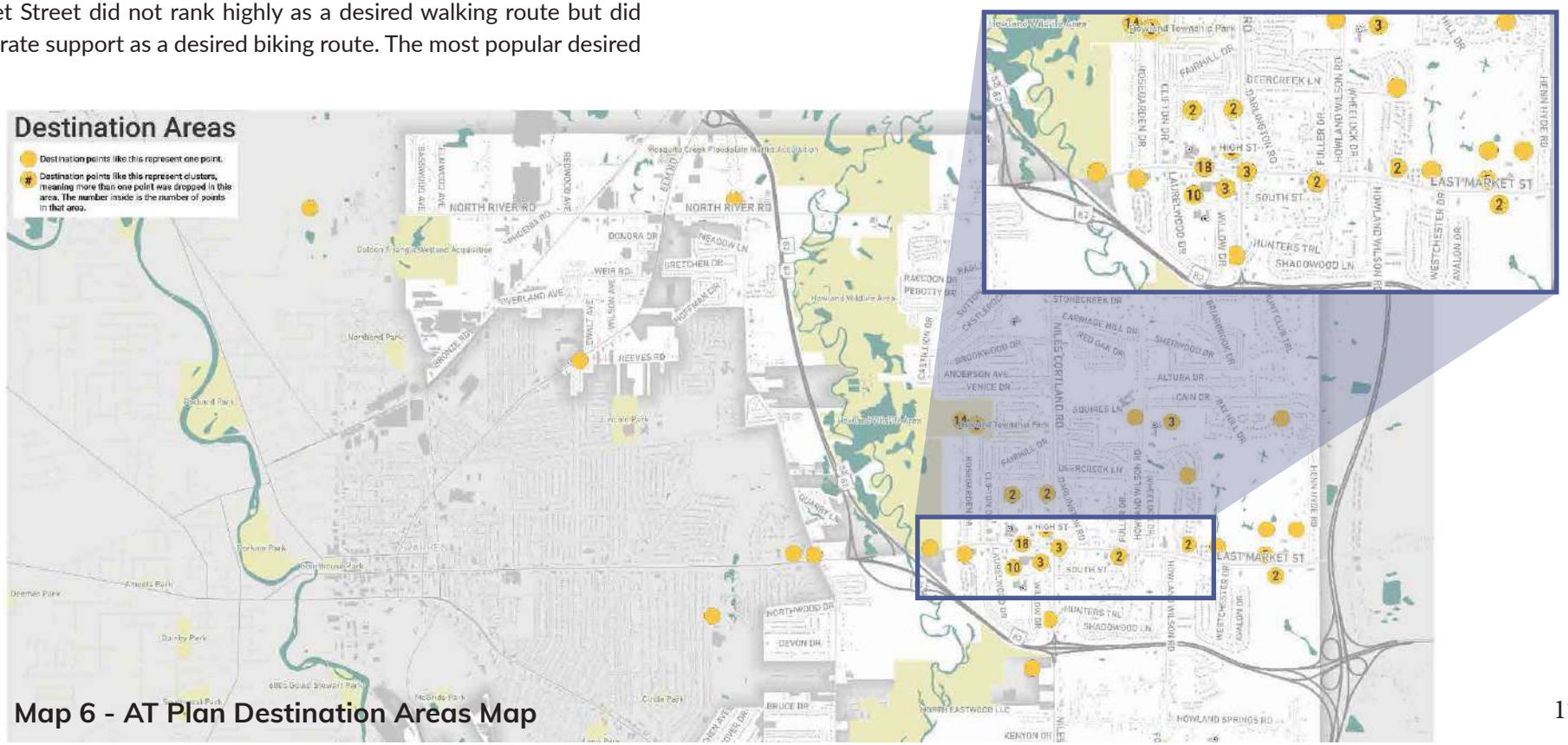
Map 5 - Howland Township Pedestrian LTS

Active Transportation Plan

Community Survey

Since the Township's Active Transportation Plan and the East Market Street Plan were being completed concurrently, results from the Active Transportation Plan Community Survey were used to assess demand for walking and cycling along East Market Street. The AT Plan's Community Survey ran from June through August 2024 and had 304 total responses. The survey asked respondents questions regarding desired walking and biking routes, destinations, and problem areas within the Township. Respondents could share their opinions via an online mapping tool.

East Market Street did not rank highly as a desired walking route but did have moderate support as a desired biking route. The most popular desired walking and biking destinations in the Township occurred along East Market Street in between Howland High School and the Giant Eagle Supermarket with a total of 31 points. The intersection of East Market Street and Niles Cortland Road/Route 46 was another area with numerous points. This illustrates that there is an interest by residents to get to these locations but the existing facilities are not safe and/or inviting enough for residents to utilize them.



Map 6 - AT Plan Destination Areas Map

Existing Conditions

Crash Analysis

Crash data was collected via ODOT TIMS and analyzed along the corridor for the past five years (2019 – 2023). The total annual number of crashes remained fairly consistent with an average of 48 crashes per year as illustrated below. The vast majority of crashes, 77%, were property damage crashes, with only one serious injury and zero fatal injury crashes over the five year period. No crashes involved a bicycle or pedestrian. As illustrated in Figure 2 on the next page, Rear End crashes were the most prominent crash type, followed by Sideswipe/Passing and Angle crashes. When precrash actions were analyzed, roughly three-quarters of all crashes involved a vehicle moving Straight Ahead or Making a Left Turn. The crash severity, prominent crash types, and precrash actions all speak to low-speed accidents that are made when navigating the existing four lane section. Turning left in a four lane section creates unexpected backups for through traffic, generally resulting in that traffic veering into the other lane quickly or unexpectedly stopping. These left turns along with the extensive driveway access along the corridor directly contribute to crashes along the corridor. Though crashes have generally not been severe in nature, two locations rank moderately high on ODOT's Statewide Highway Safety Improvement List. The East Market and SR 46 intersection ranks 226 on ODOT's Urban Intersection List and East Market Street from Rosegarden to SR 46 ranks 383 on the Urban Segment Listing. Crash Severity Maps illustrating the location and severity of each crash along the corridor over the last five years are detailed on Page 20.

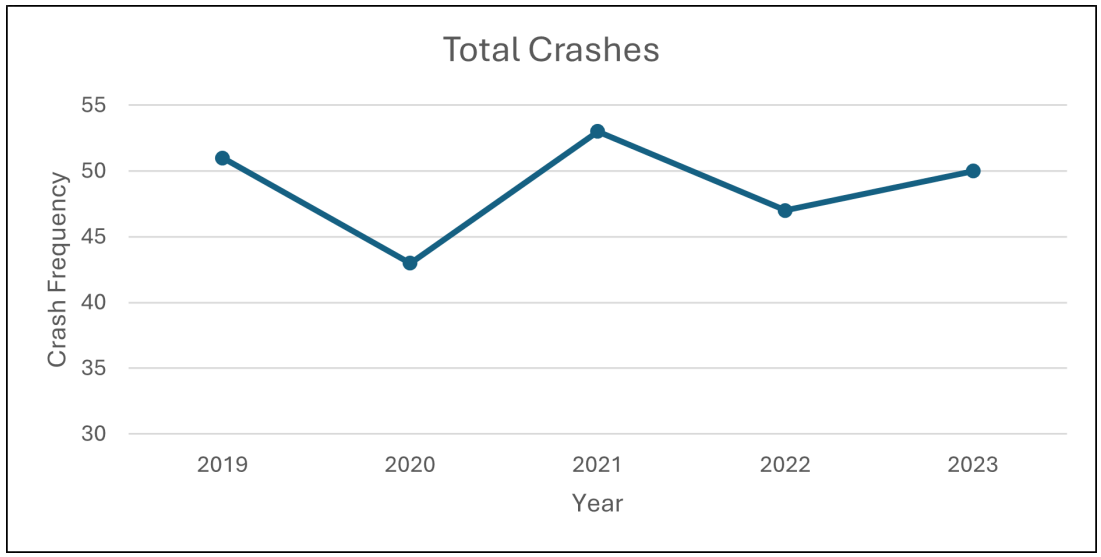


Figure 1 - Total Crashes by Year

Young Driver Crashes

Due to the proximity of Howland High School, young drivers (ages 15 – 25) account for 39% of all crashes along the corridor over the five-year period. Improving access management around the high school and limiting school queue lengths would help to reduce these crashes.

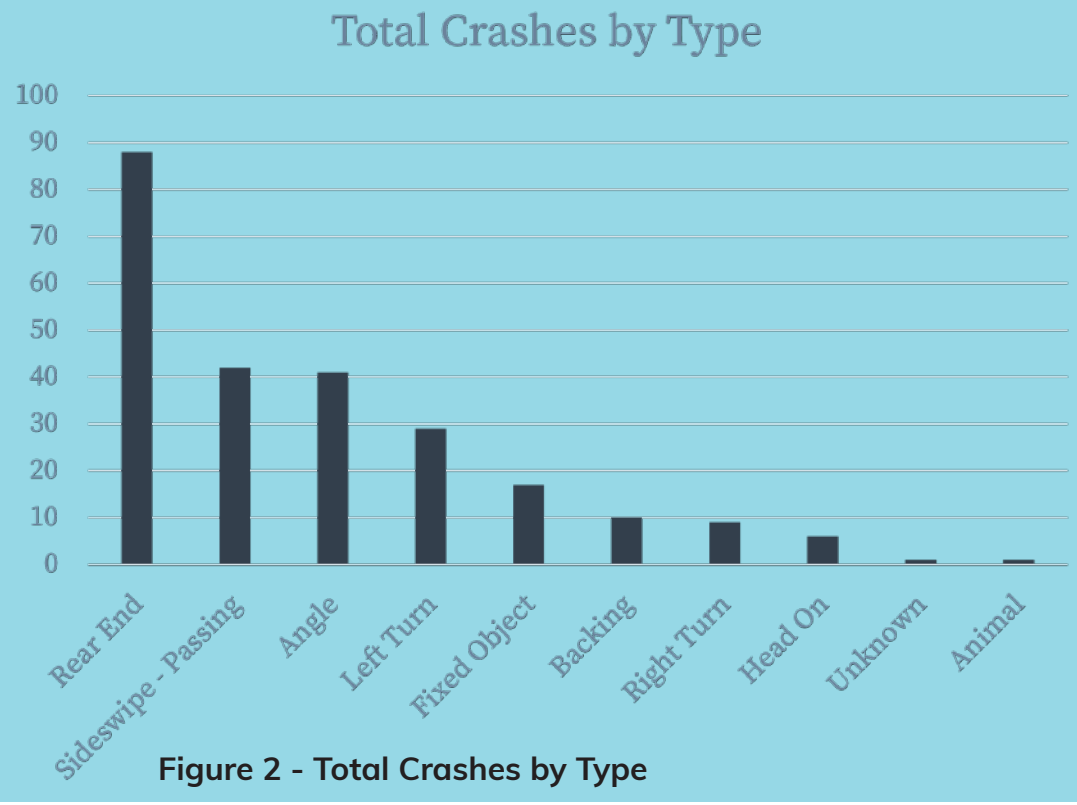


Figure 2 - Total Crashes by Type

77%
Property Damage Crashes

0
Bicycle or Pedestrian Crashes

Two ODOT Highway Safety Improvement Program Locations

#226 - East Market and SR 46 (Urban Intersection List)
#383 - Rosegarden to SR 46 along East Market (Urban Segment List)

0 Fatal Crash
1 Serious Injury Crash

Luckily, the East Market Street corridor has had no fatalities and only one serious injury crash within the last five years (2019 - 2023).

Map 7 - East Market Street Crashes 2019 - 2023

CHAPTER 3

ALTERNATIVES & RECOMMENDATIONS

East Market Street
Corridor Alternatives

To best meet the goals of the plan, multiple proposed typical section alternatives were considered to improve the East Market Street corridor. The corridor was split into two segments, west and east, due to the vast difference in the existing conditions along East Market Street west and east of SR 46. Three proposed typical sections were considered west of SR 46. These sections included a five-lane roadway section with a multi-use trail, a three-lane roadway section with bike lanes, and a three-lane roadway section with a multi-use trail. Two proposed typical sections were considered east of SR 46. Due to the existing two-lane section's ability to easily accommodate existing and proposed future traffic volumes, no roadway improvements were proposed. The proposed typical sections in this segment investigated bicycle improvements, on-street bike lanes versus a multi-use trail.

West Segment

Five-Lane Section

Initially, a five-lane roadway typical section was considered. This alternative was quickly dismissed as a viable alternative for a multitude of reasons. First, the physical impacts along the corridor would be extensive. The existing roadway footprint would need to be widened requiring private right-of-way from all property owners along the corridor, relocation of large overhead utilities, and impacts to private parking lots. Secondly, and most importantly, existing and proposed future traffic volumes are low (17,000 AADT in 2042) and can easily be accommodated by a three-lane section (three-lane section at acceptable levels of service AADT = 20,000). For these reasons, a proposed five-lane section was quickly dismissed.

Three-Lane Section - Traffic Analysis

Traffic analysis was conducted to evaluate the existing conditions and a potential three-lane (i.e. road diet) which will provide one travel lane in each direction along with a center two-way left-turn lane (TWLTL). The purpose of this analysis is to determine if the road diet could be implemented from a capacity perspective and provide adequate operations and Levels-of-Service in the future.

It should be noted that an improvement is currently being planned by ODOT at the SR 46 / East Market Street intersection as part of the larger SR 82/SR 46 DDI project which will change the lane utilization on SR 46. The updated lane configuration will operate with separate left, thru, and right lanes for both northbound and southbound approaches.

The existing intersections that are analyzed as a part of this study are as follows

East Market Street/ Shaffer Drive NE:
This intersection is currently unsignalized with Shaffer Drive NE operating under stop control. The intersection consists of three approaches with the following configurations: EB East Market Street - two lanes (left-thru, thru), WB East Market Street - two lanes (thru, thru-right), and SB Shaffer Drive NE - one lane (left-right).

East Market Street/ Brewster Drive NE/ Howland Schools:
This intersection is currently signalized using a mast arm configuration with signal supports located on the southwest and northeast corners of the intersection. The intersection consists of four approaches with the following lane configurations: EB East Market Street - two lanes (left-thru, thru-right), WB East Market Street - two lanes (left-thru, thru-right), NB Brewster Drive NE - one lane~(left-thru-right), and SB Howland Schools Drive- two lanes (left-thru, right).

East Market Street/ Giant Eagle Drive/ Willow Drive NE:
This intersection is currently signalized using a mast arm configuration with one signal support located on the northeast corner of the intersection. The intersection consists of four approaches with the following lane configurations: EB East Market Street - two lanes (left-thru, thru-right), WB East Market Street - two lanes (left-thru, thru-right), NB Giant Eagle Drive - two lanes (left-thru, right), and SB Willow Drive NE - one lane (left-thru-right).

Traffic Volumes

GPD Group performed peak hour turning movement traffic counts at the three study intersections on Wednesday, Thursday, and Tuesday September 18, 19 and 24th , 2024 from 7:00 AM to 8:00 AM and 2:00 PM to 3:00 PM. The data from the turning movement traffic counts are contained in Appendix A.

It should be noted that the traffic volumes on the East Market Street Corridor are currently affected by the ongoing SR 82 / SR 46 Diverging Diamond Interchange project. When the counts were performed, the SR 82 EB entrance ramp located on East Market Street had been closed to traffic for nearly a year causing traffic heading eastbound on SR 82 from the east side of City of Warren to travel east on East Market Street and use either SR 46 or Howland-Wilson Road SE to access SR 82.

GPD reviewed the certified traffic plates provided by ODOT for the SR 82 / SR 46 project, which shows that the 2042 Average Daily Traffic (ADT) for the East Market Corridor is expected to be approximately 17,000 vehicles per day (vpd). Additionally, the 2024 count performed by GPD shows a 35% increase in traffic during the PM peak hour compared to the Horizon Year 2042 PM peak hour, which verifies that volumes in the area are affected by the ongoing construction.

Design hour volumes (DHVs) were developed for the study area using the peak hour to design hour factors that are published by the ODOT Office of Statewide Planning and Research. The factors utilized to develop the DHVs are dependent upon the roadway's functional classification as well as the day of the week and month the count was performed. These design hour factors were then applied to the raw turning movement counts to convert the existing volumes to design hour volumes. For this study, a design hour factor of 1.09 was applied to all intersection volumes counted on Thursday in September, while a design hour factor of 1.13 was applied to all intersection volumes counted on Tuesday and Wednesday in September.

Safety Improvements

As noted in Chapter 2 – Existing Conditions, Rear End crashes were the most prominent crash type, followed by Sideswipe/Passing and Angle crashes. The majority of crashes occurred while turning left or moving straight. Providing a left-turn lane by implementing a road diet should reduce crash frequency for several reasons. Left-turn traffic will be removed from the stream of through traffic, which allows them to safely wait for an adequate gap before turning. This reduces both left-turn and rear-end crashes. Further, sideswipe crashes will be reduced (or eliminated) since motorists will no longer attempt quick lane changes to avoid waiting behind turning vehicles.

Roadway Cross Section

According to the Federal Highway Administration's (FHWA) Road Diet Information Guide, roadways with ADT of 20,000 vpd or less may be good candidates for a three-lane Road Diet and should be evaluated for feasibility. According to Certified Traffic Volumes provided by ODOT for the ongoing DDI project, the expected ADT for the study area is approximately 17,000 vpd for the Horizon Year 2042. Additionally, converting the East Market Street Corridor to a five-lane corridor would be an overdesign, which could lead to

higher vehicular speed and create longer crossings for pedestrians who are primarily schoolchildren. Furthermore, a three-lane road would tie in better with the roadway segments at each end of the study area and will not require major pavement widening or acquisition of right of way.

Intersection Capacity Analysis

Intersection capacity analyses were performed to determine the current operating and expected conditions at each study intersection. The quality of the operating conditions experienced by an intersection is measured in terms of Level of Service (LOS). Levels-of-Service can range from LOS A to LOS F.

Level-of-Service A, B, C, D and E are considered acceptable in an area within Metropolitan Planning Organization (MPO) for movements and approaches while the overall intersection must operate at LOS D or better. Level-of-Service F is considered unacceptable with significant levels of delay experienced by vehicles. Howland Township is located within the Eastgate Regional Council of Governments MPO. The thresholds related to average control delay for both signalized and unsignalized intersections are as follows:

The quantity of vehicles that a turning movement or approach has sufficient capacity for is measured with the volume-to-capacity ratio (v/c). A v/c less than 1.0 is considered acceptable with a v/c less than 0.93 preferred. An intersection is considered over capacity when signal timings or other intersection control cannot be adjusted to allow all turning movements to have a v/c less than 1.0.

The storage length represents the area at an approach where queued vehicles can be stored and not cause obstructions to adjacent turning movements or upstream intersections. The queue-storage ratio (QSR) is a measure of the expected queue length to the available storage length. A QSR equal to or less than 1.0 is considered acceptable, while a QSR greater than 1.0 indicates a strong possibility of vehicles obstructing an adjacent turning movement or upstream intersection.

The analysis was performed utilizing the computer program HCS 2024 which is developed by McTrans Corporation and based on the Highway Capacity Manual, 7th Edition. Based on criteria established by ODOT, Highway

Level-of-Service	*Delay Threshold – Signalized (Sec)*	*Delay Threshold – Unsignalized (Sec)*
A	< 10	< 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

Table 1 - Level of Service

Table 1: HCS Intersection Capacity Analysis Summary

2024 'No-Build' vs 'Build' – Signalized Intersections

Movement	'No-Build'					'Build'				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
AM Peak										
East Market Street / Brewster Drive NE / Howland Schools Drive										
Eastbound Left	A	4.6	0.24	0.05	50	A	5.3	0.00	0.00	1
Eastbound Thru										
Eastbound Thru-Right	A	4.7	0.25	0.05	45	A	5.1	0.43	0.11	115
Eastbound Approach	*A*	*4.7*	-	-	-	*A*	*5.1*	-	-	-
Westbound Left	A	0.3	0.18	0.02	5	A	7.3	0.03	0.02	5
Westbound Thru										
Westbound Thru-Right	A	0.4	0.19	0.02	5	A	5.3	0.33	0.48	102
Westbound Approach	*A*	*0.3*	-	-	-	*A*	*5.3*	-	-	-
Northbound Left-Thru-Right	C	26.2	0.43	0.08	78	C	34.4	0.52	0.10	103
Northbound Approach	*C*	*26.2*	-	-	-	*C*	*34.4*	-	-	-
Southbound Left-Thru	C	24.8	0.19	0.17	28	C	32.2	0.23	0.23	38
Southbound Right	C	25.1	0.20	0.09	16	C	32.7	0.24	0.12	20
Southbound Approach	*C*	*24.9*	-	-	-	*C*	*32.4*	-	-	-
Intersection Total	***A***	***5.9***	-	-	-	***A***	***9.0***	-	-	-

Table 2 - HCS Intersection Capacity Analysis

Capacity Software (HCS) is used to determine the required number of lanes and the lane assignments at intersections (i.e. the needed intersection capacity). The existing peak hour factors and heavy vehicle percentages were utilized during the AM and PM peak hours for the capacity analysis. Signal plans were provided by Trumbull County Engineer's Office.

Existing Year 2024 Capacity Analyses:

Capacity analyses were performed for the study area intersections under 2024 'No-Build' and 'Build' traffic conditions. The 'No-Build' analysis used existing lane usage, while the 'Build' assumed implementation of the road diet.

Table 2 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced under the Existing Year 2024 'No-Build' and 'Build' traffic conditions for the signalized intersections within the study area. See Appendix B for the HCS Intersection Capacity Analysis printouts.

It should be noted that during a field visit, it was noticed that minor approaches at both signalized intersections are currently operating under max recall, which is used to guarantee a phase receives its maximum green time, even if there's no actual vehicle demand or if other phases have higher priority. This operation provides more green time than needed to the side streets. Note that this study assumes that under the 'Build' scenario both signalized intersections are actuated and coordinated in order to provide the optimum operations in the area.

As can be seen in Table 2, the proposed Road Diet along East Market Street is anticipated to yield acceptable overall Levels-of-Service at the study intersections for the Existing Year 2024 traffic conditions. Both of the signalized study intersections are anticipated to operate with acceptable overall Levels-of-Service under the 'Build' conditions after the road diet is performed, with a slight increase in overall delay. As previously mentioned, the eastbound traffic volumes in the study area are higher than normal due to the closure of the SR 82 EB ramp on East Market Street related to the DDI project currently in construction. The unsatisfactory QSR for the eastbound thru movement at the intersection of East Market Street / Willow Drive NE is mainly due to the close approximate of the signalized intersections to each other. Adjustments of the coordinated timing plans following implementation could reduce the anticipated queue.

Table 1: HCS Intersection Capacity Analysis Summary

2024 'No-Build' vs 'Build' – Signalized Intersections (Cont.)

Movement	'No-Build'					'Build'				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
East Market Street / Giant Eagle Drive / Willow Drive NE										
Eastbound Left	A	0.5	0.25	0.04	7	A	3.7	0.03	0.02	4
Eastbound Thru										
Eastbound Thru-Right	A	0.5	0.26	0.04	8	A	5.4	0.36	0.52	114
Eastbound Approach	*A*	*0.5*	-	-	-	*A*	*5.3*	-	-	-
Westbound Left	A	1.2	0.18	0.02	12	A	1.1	0.01	0.00	0
Westbound Thru										
Westbound Thru-Right	A	1.2	0.19	0.02	11	A	0.8	0.32	0.02	14
Westbound Approach	*A*	*1.2*	-	-	-	*A*	*0.8*	-	-	-
Northbound Left-Thru	C	24.0	0.08	0.05	12	C	31.7	0.09	0.07	16
Northbound Right	C	23.9	0.08	0.04	8	C	31.6	0.10	0.05	11
Northbound Approach	*C*	*23.9*	-	-	-	*C*	*31.6*	-	-	-
Southbound Left-Thru-Right	C	26.4	0.34	0.05	52	D	35.3	0.42	0.07	71
Southbound Approach	*C*	*26.4*	-	-	-	*D*	*35.3*	-	-	-
Intersection Total	***A***	***2.7***	**-**	**-**	**-**	***A***	***5.8***	**-**	**-**	**-**
PM Peak										
East Market Street / Brewster Drive NE / Howland Schools Drive										
Eastbound Left	A	6.0	0.40	0.10	103	A	7.1	0.00	0.00	1
Eastbound Thru										
Eastbound Thru-Right	A	6.2	0.42	0.09	94	A	9.5	0.70	0.32	321
Eastbound Approach	*A*	*6.1*	-	-	-	*A*	*9.5*	-	-	-
Westbound Left	A	0.6	0.29	0.04	9	B	16.6	0.09	0.09	20
Westbound Thru										
Westbound Thru-Right	A	0.7	0.31	0.05	10	A	6.4	0.41	0.86	180
Westbound Approach	*A*	*0.7*	-	-	-	*A*	*7.0*	-	-	-
Northbound Left-Thru-Right	C	27.0	0.54	0.10	102	D	40.9	0.63	0.16	162
Northbound Approach	*C*	*27.0*	-	-	-	*D*	*40.9*	-	-	-
Southbound Left-Thru	C	24.2	0.18	0.19	31	D	36.4	0.21	0.30	49
Southbound Right	C	23.3	0.05	0.03	5	C	34.9	0.05	0.05	8
Southbound Approach	*C*	*24.1*	-	-	-	*C*	*36.2*	-	-	-
Intersection Total	***A***	***6.3***	**-**	**-**	**-**	***B***	***12.1***	**-**	**-**	**-**

Table 3 summarizes the HCS Intersection Capacity Analysis and details the Levels-of-Service and delay experienced under the Existing Year 2024 'No-Build' and 'Build' traffic conditions for the unsignalized intersection within the study area. See Appendix B for the HCS Intersection Capacity Analysis printouts.

As can be seen in Table 3, all movements and approaches at the unsignalized intersection of East Market Street / Shaffer Street NE are expected to operate with acceptable LOS C or better under the Existing Year 2024 for both 'No-Build' and 'Build' traffic conditions.

Traffic Analysis Summary and Recommendations

It is anticipated that the three-lane Road Diet proposed in this study will create a slight increase in the overall delay at the study intersections. However, the study area intersections are still anticipated to operate with acceptable Levels-of-Service with the additional benefit of reducing the number of crashes occurring along the corridor and providing enhanced pedestrian and bicycle accommodations along East Market Street. Although the analysis was performed with current year traffic volumes, due to ongoing construction in the area, these are higher than Design Year volumes shown in ODOT's certified traffic for the SR 82 DDI project. Therefore, the three-lane section will be adequate to accommodate existing and future traffic volumes.

From the findings detailed, it was determined that the construction of a three-lane coordinated configuration along East Market Street would be feasible without disrupting the current flow of traffic traveling East Market Street. Note that a more detailed analysis would need to be conducted to produce an optimum coordination plan for the corridor.

Table 1: HCS Intersection Capacity Analysis Summary

2024 'No-Build' vs 'Build' – Signalized Intersections (Cont.)

Movement	'No-Build'					'Build'				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
East Market Street / Giant Eagle Drive / Willow Drive NE										
Eastbound Left	A	1.9	0.45	0.15	28	A	5.1	0.06	0.05	10
Eastbound Thru										
Eastbound Thru-Right	A	2.2	0.47	0.16	29	B	12.3	0.75	1.63	359
Eastbound Approach	*A*	*2.0*	-	-	-	*B*	*12.0*	-	-	-
Westbound Left	A	4.5	0.28	0.06	40	B	10.1	0.22	0.08	31
Westbound Thru										
Westbound Thru-Right	A	4.5	0.28	0.07	47	A	0.8	0.36	0.02	13
Westbound Approach	*A*	*4.5*	-	-	-	*A*	*1.9*	-	-	-
Northbound Left-Thru	C	23.6	0.35	0.37	79	C	35.0	0.48	0.55	116
Northbound Right	C	22.9	0.38	0.42	90	C	33.2	0.46	0.61	130
Northbound Approach	*C*	*23.3*	-	-	-	*C*	*34.0*	-	-	-
Southbound Left-Thru-Right	C	27.6	0.63	0.18	180	D	51.0	0.76	0.30	300
Southbound Approach	*C*	*27.6*	-	-	-	*D*	*51.0*	-	-	-
Intersection Total	***A***	***8.0***	-	-	-	***B***	***15.8***	-	-	-

Table 2 - HCS Intersection Capacity Analysis (cont)

Table 2: HCS Intersection Capacity Analysis Summary

Design Year 2024 'No-Build' vs. 'Build' Conditions – Unsignalized

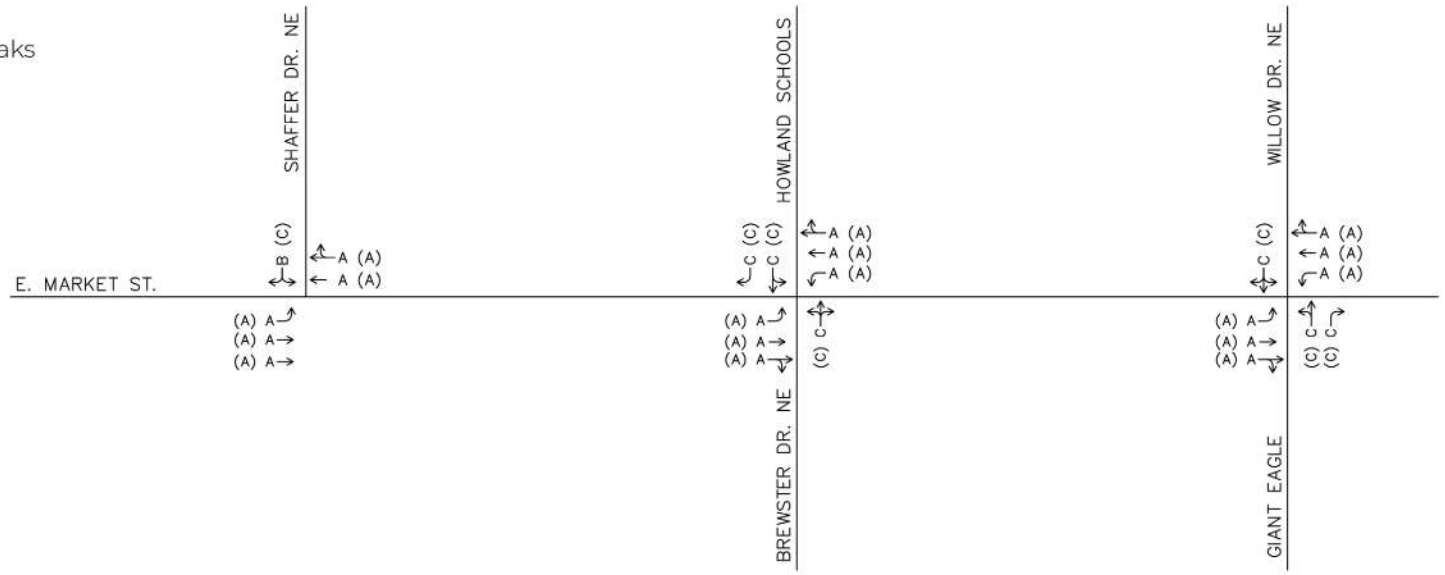
Movement	'No-Build' Condition				'Build' Condition			
	LOS	Delay (sec)	V/C Ratio	95th % Queue (ft/ln)	LOS	Delay (sec)	V/C Ratio	95th % Queue (ft/ln)
AM Peak Hour								
East Market Street / Shaffer Drive NE								
Eastbound Left	A	8.6	0.01	0	A	8.6	0.01	0
Eastbound Thru					-	-	-	-
Eastbound Thru	A	0.2	-	-	-	-	-	-
Eastbound Approach	*A*	*0.3*	-	-	*A*	*0.2*	-	-
Southbound Left-Right	B	14.0	0.14	13	B	14.3	0.15	13
Southbound Approach	*B*	*14.0*	-	-	*B*	*14.3*	-	-
PM Peak Hour								
East Market Street / Shaffer Drive NE								
Eastbound Left	A	9.2	0.05	5	A	9.2	0.05	5
Eastbound Thru					-	-	-	-
Eastbound Thru	A	0.5	-	-	-	-	-	-
Eastbound Approach	*A*	*1.0*	-	-	*A*	*0.5*	-	-
Southbound Left-Right	C	17.3	0.23	23	C	17.6	0.23	23
Southbound Approach	*C*	*17.3*	-	-	*C*	*17.6*	-	-

Table 3 - HCS Intersection Capacity Analysis Summary

Existing 4-Lane Section

Level of Service (LOS) AM and PM Peaks

Legend:
(PM Peak LOS) AM Peak LOS



Proposed 3-Lane Section

Level of Service (LOS) AM and PM Peaks

Legend:
(PM Peak LOS) AM Peak LOS

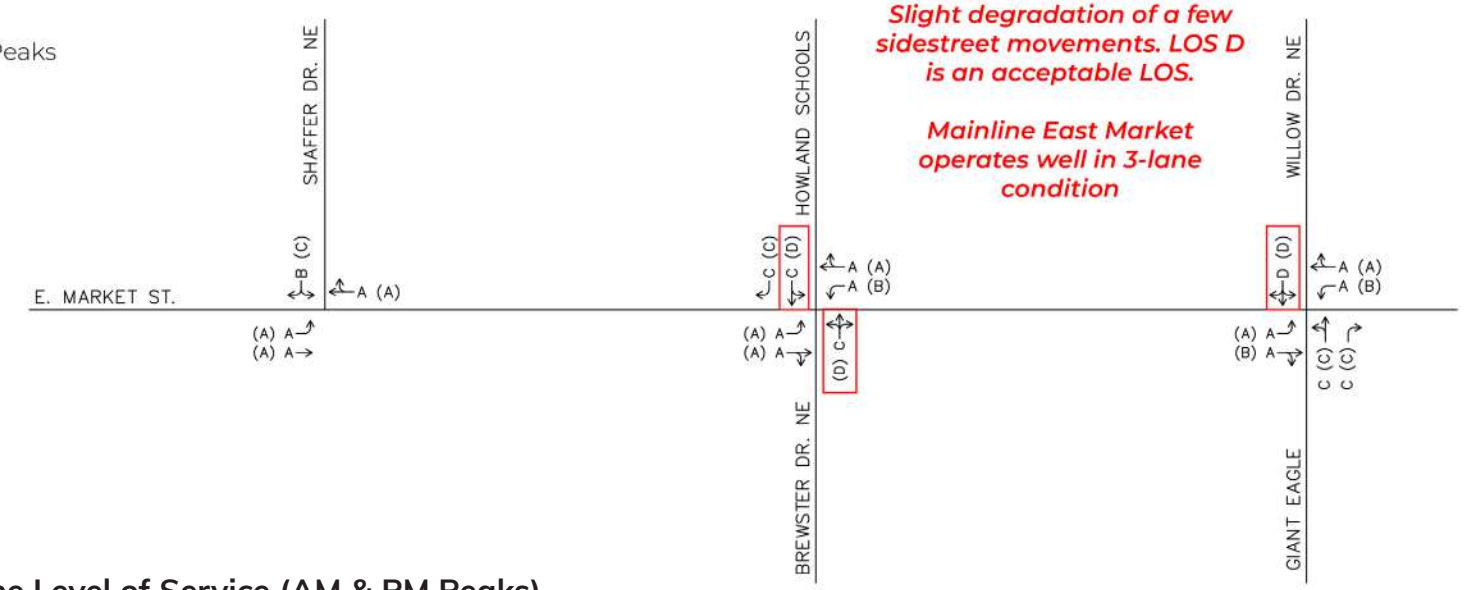


Figure 3 - 4-Lane vs. 3-Lane Level of Service (AM & PM Peaks)

Three-Lane Section w/Bike Lanes

To create a more inviting bicycle and pedestrian experience and to develop a more connected town center area, various bicycle and pedestrian facilities were considered. All alternatives proposed buffered sidewalks (i.e. treelawn between the roadway and sidewalk) as the existing adjacent walkways are perceived to be unsafe and are not used. The first alternative considered was a three-lane section with on-street bike lanes and buffered sidewalks. The proposed typical section is illustrated in Figure 4.

Though the proposed curb-to-curb roadway footprint is the same as the existing (40 feet wide), due to the desire for buffered pedestrian facilities and the desire to limit utility and private right-of-way impacts, the roadway section will need to be shifted south approximately five feet. This allows for the northern sidewalk to be placed inside the existing large utilities that run along the northern edge of the right-of-way. Five-foot-wide bike lanes are proposed on either edge of the roadway footprint. The treelawn proposed along the south side of the roadway not only provides a buffer for pedestrians but also provides a location for the existing large utilities along the southern side of the roadway, without the need for widespread relocation. Currently, these large utilities lie south of the existing adjacent sidewalk. This alternative does require approximately six feet of private right-of-way along the southern side of the corridor. The south side was chosen as there are fewer impacts on private businesses as compared to

the north side of the corridor.

While this alternative does improve bicycle and pedestrian access and safety, it induces many negative impacts along the corridor. The need for private right-of-way along the entire corridor significantly extends the project schedule and will increase project costs. This alternative also impacts private businesses along the corridor. Unbuffered bike lanes along East Market Street are not ideal for most bike riders, particularly children riding to and from school. Adding on-street buffering to the bike lanes will widen the roadway footprint and will require the relocation of some of the large utilities running along the southern side of the corridor. This would

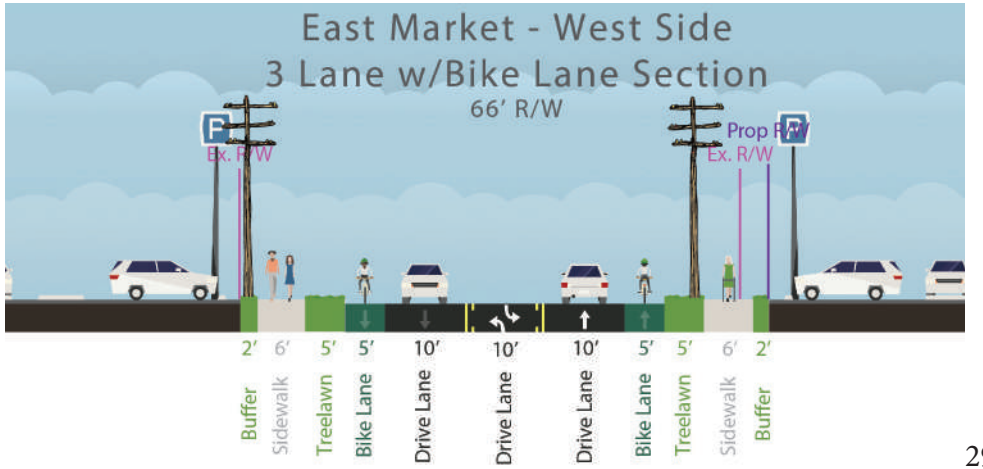
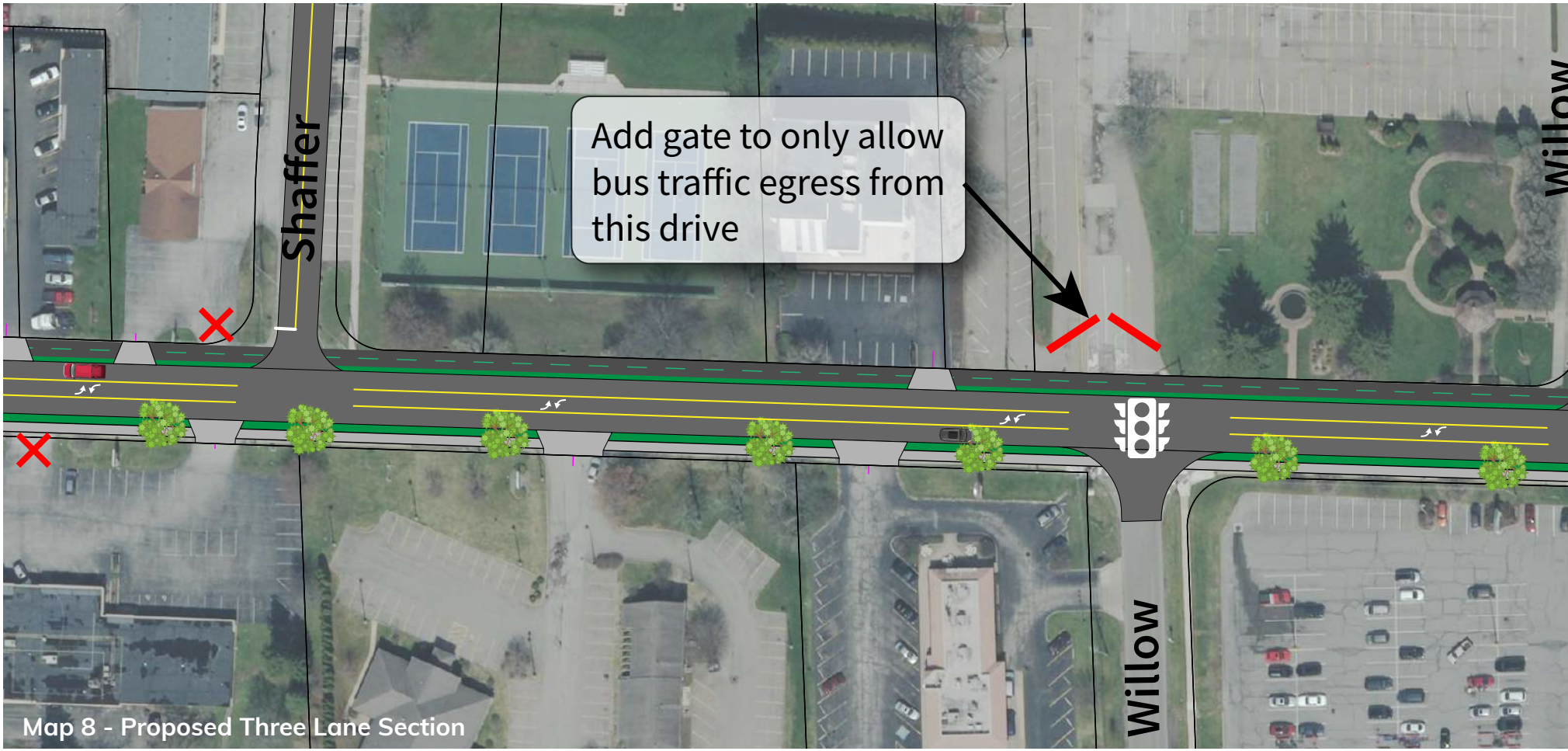


Figure 4 - Three Lane Section with Bike Lanes



Map 8 - Proposed Three Lane Section

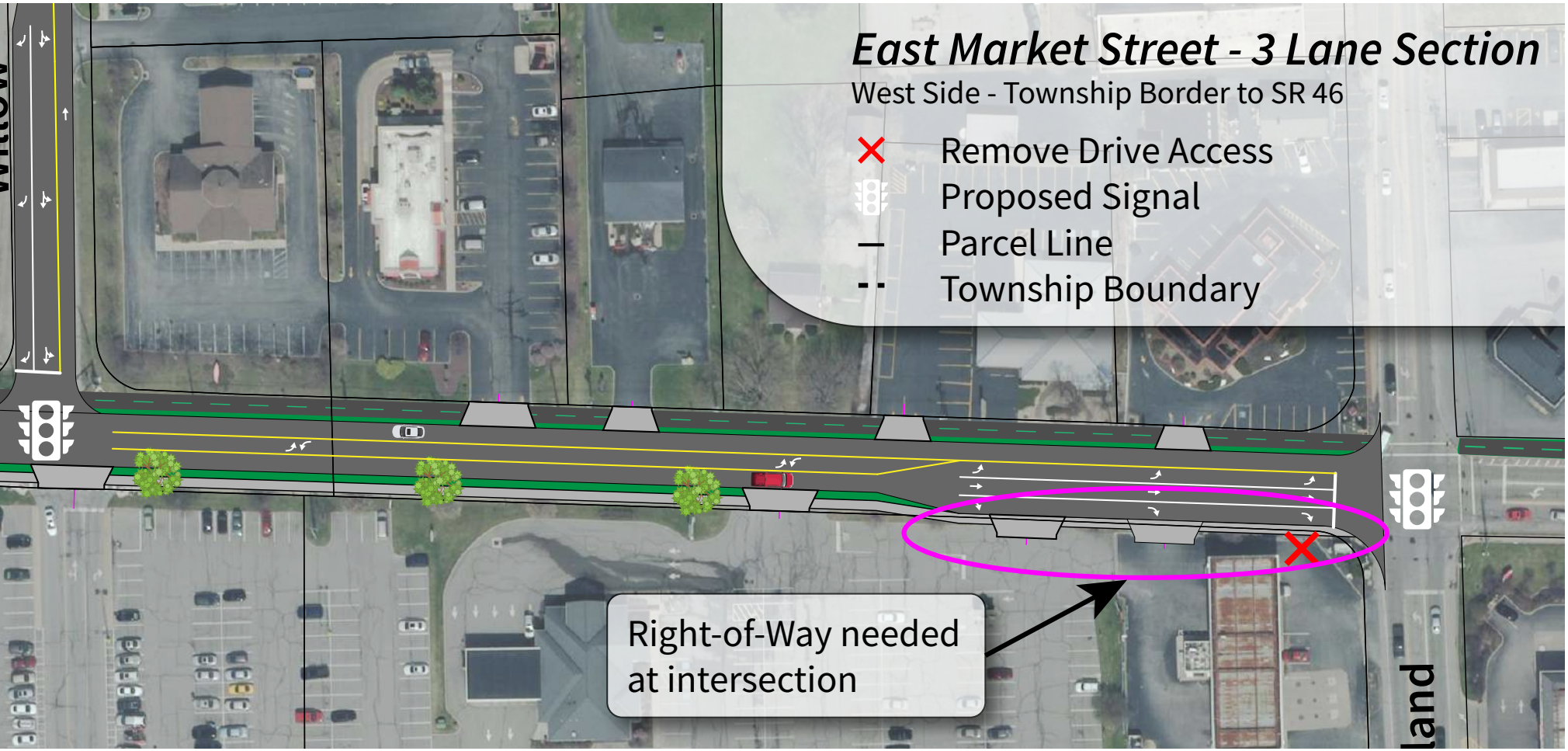
drive up project costs further, improving bike safety but at a high cost. For all of these reasons, this alternative was not recommended.

Three-Lane Section w/Multi-Use Trail

This section proposed a 10-foot-wide multi-use trail along the northern side of the corridor with a buffered sidewalk along the southern side of the corridor. The trail was placed on the northern side of the road to connect with various institutional assets including Howland High School and the Howland Library. In addition, this would allow for a trail connection along the Mosquito Creek, linking to Howland Township Park to East Market Street as proposed in the Township's 2023 Comprehensive Plan.

The proposed three-lane roadway section would maintain the southern curb line and construct the roadway section to the north. The removal of the fourth lane provides additional space in the northern treelawn for the 10-foot-wide trail and a three-foot raised (curbed) buffer. The buffer could house raised planters or other streetscaping elements.

Within the southern treelawn the existing adjacent sidewalk would be replaced with a buffered sidewalk. This would provide a safer pedestrian experience and could be constructed without the need for private right-of-way along the entire corridor. Due to the presence of large utility poles, the



proposed sidewalk would be built around these poles. This avoids the need for costly utility relocations and the need for private right-of-way.

Since the multi-use trail replaces the existing walk on the north side, and the roadway section is reduced by one-lane, this allows for buffered multi-modal improvements within the existing roadway right-of-way. These facilities are safer and will encourage a wider array of users, including students to use these facilities. This alternative also provides space for streetscaping enhancements that can aid in creating a town center. This alternative was recommended as the preferred alternative.

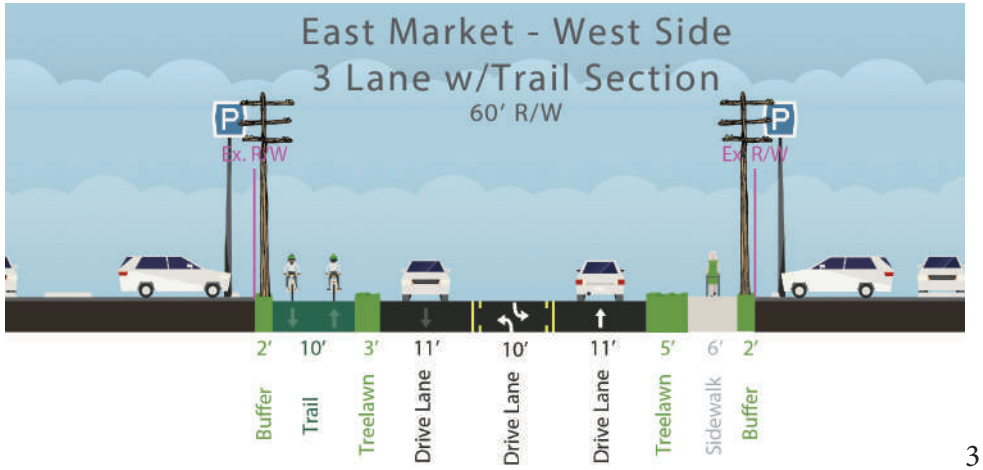
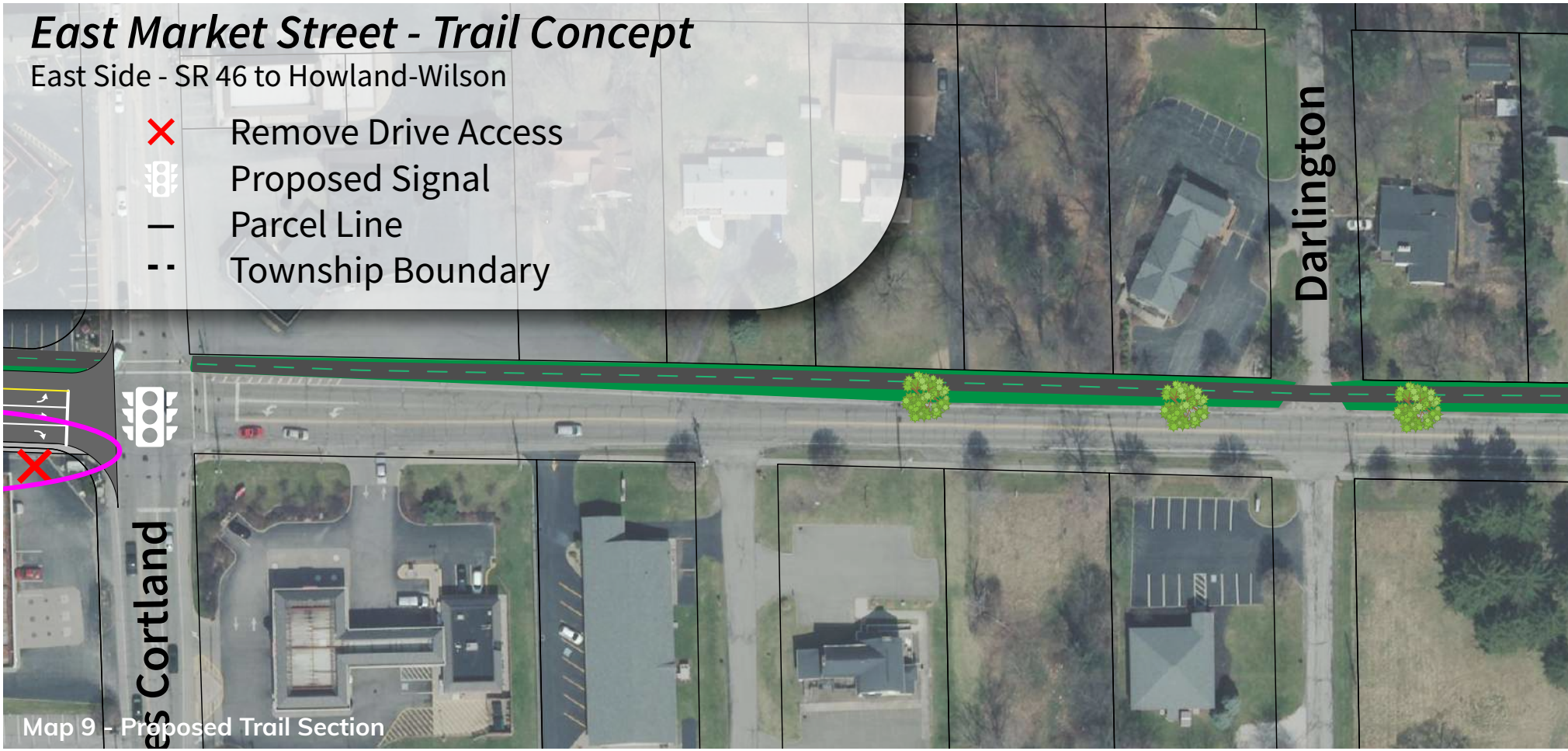


Figure 5 - Three Lane Section with Trail



Access Management

In concert with improvements to the roadway corridor, driveway access should also be revised. Within the western segment of the corridor, there are multiple businesses with either multiple driveway access points onto East Market Street or extremely wide driveways. Both occurrences contribute to crashes as there are more conflict points along the roadway. Limiting driveway access to one access point per business, sharing driveway access where possible, and/or moving driveway access to a sidestreet should all be considered as part of this plan. As illustrated in Maps 8 and 9, red "X"'s have been added to remove excess driveways along the corridor.

East Segment

Existing and future traffic volumes within the eastern segment of East Market Street can easily be accommodated by the existing two-lane roadway section. With this in mind, this segment only looked at multi-modal improvements to the corridor.

Similar to the western segment both bike lanes and a 10-foot-wide multi-use trail were considered. To maintain consistency with the western segment and to provide a safer cycling and pedestrian experience for all users, the trail alternative was selected. The trail is proposed to run within the northern treelawn, replacing the existing sidewalk. The trail will be

buffered by a treelawn. It is anticipated that the trail will impact the northern shoulder in some areas and will run adjacent to the traveled way around the most western Howland-Wilson intersection. Generally, the trail can be added with limited private right-of-way impacts. The trail is proposed to directly link to the Howland Public Library. The roadway and southern treelawn are proposed to remain as is.

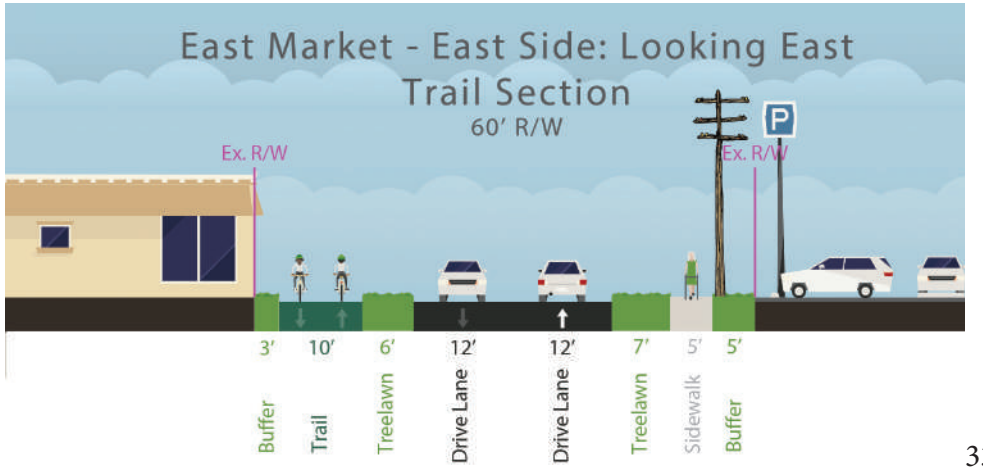


Figure 6 - Trail Section

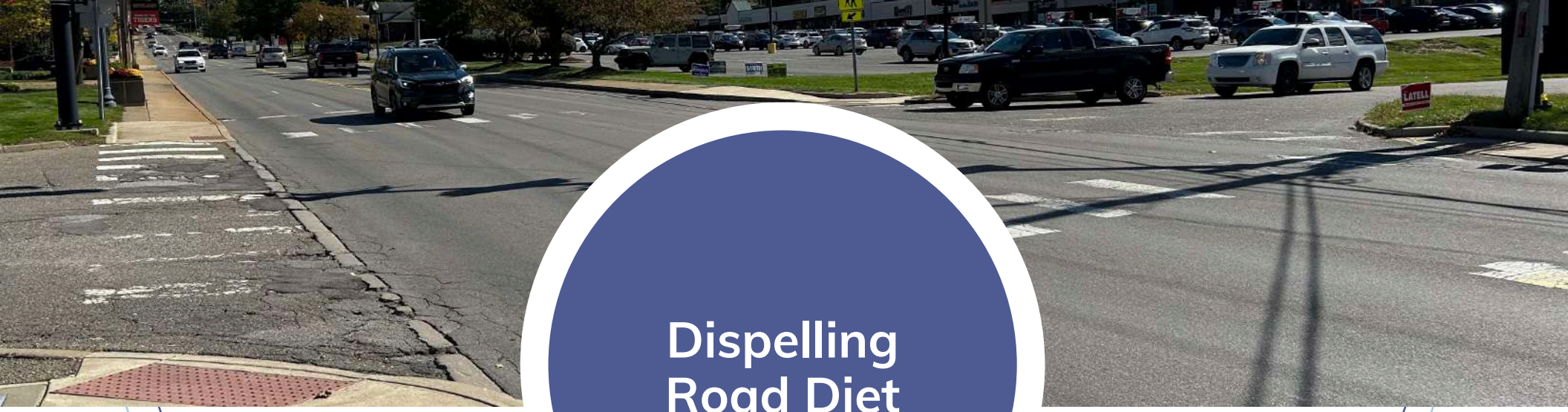
Map 9 - Proposed Trail Section

Case Study: Sandusky Bay Pathway

The Sandusky Bay Pathway is a planned 100-mile multi-use path connecting the communities around Sandusky Bay, from Vermilion and Huron to the east to Marblehead and Port Clinton to the west. A portion of the pathway was recently constructed through downtown Sandusky. As illustrated to the left, the pathway is buffered from the roadway by a raised treelawn. The treelawn protects pathway users and allows for streetscaping. This configuration is proposed along the western segment of East Market Street.

Case Study: Wooster - Burbank Trail

The Burbank Trail is an inner city trail within the City of Wooster. The trail links Freelander Park and the College of Wooster with Downtown Wooster. Large sections of the trail run along Burbank Road which is a major collector roadway within the city. As illustrated to the right the roadway is generally rural in character with a two-lane cross section, minimal shoulders, open ditches, and sidewalks. The trail replaced existing sidewalks along the eastern side of the roadway. This configuration is similar to the proposed trail improvements recommended for the eastern segment of East Market Street.



Dispelling Road Diet Myths

Traffic Will Back Up

False. Studies have consistently shown that, for roads with less than 20,000 vehicles per day, four to three-lane conversions will not worsen congestion. In fact, operations and safety improve on a three-lane road because left turns are shifted into the center turn lane, allowing traffic to flow more freely in the thru lanes.

Drivers Will be Diverted

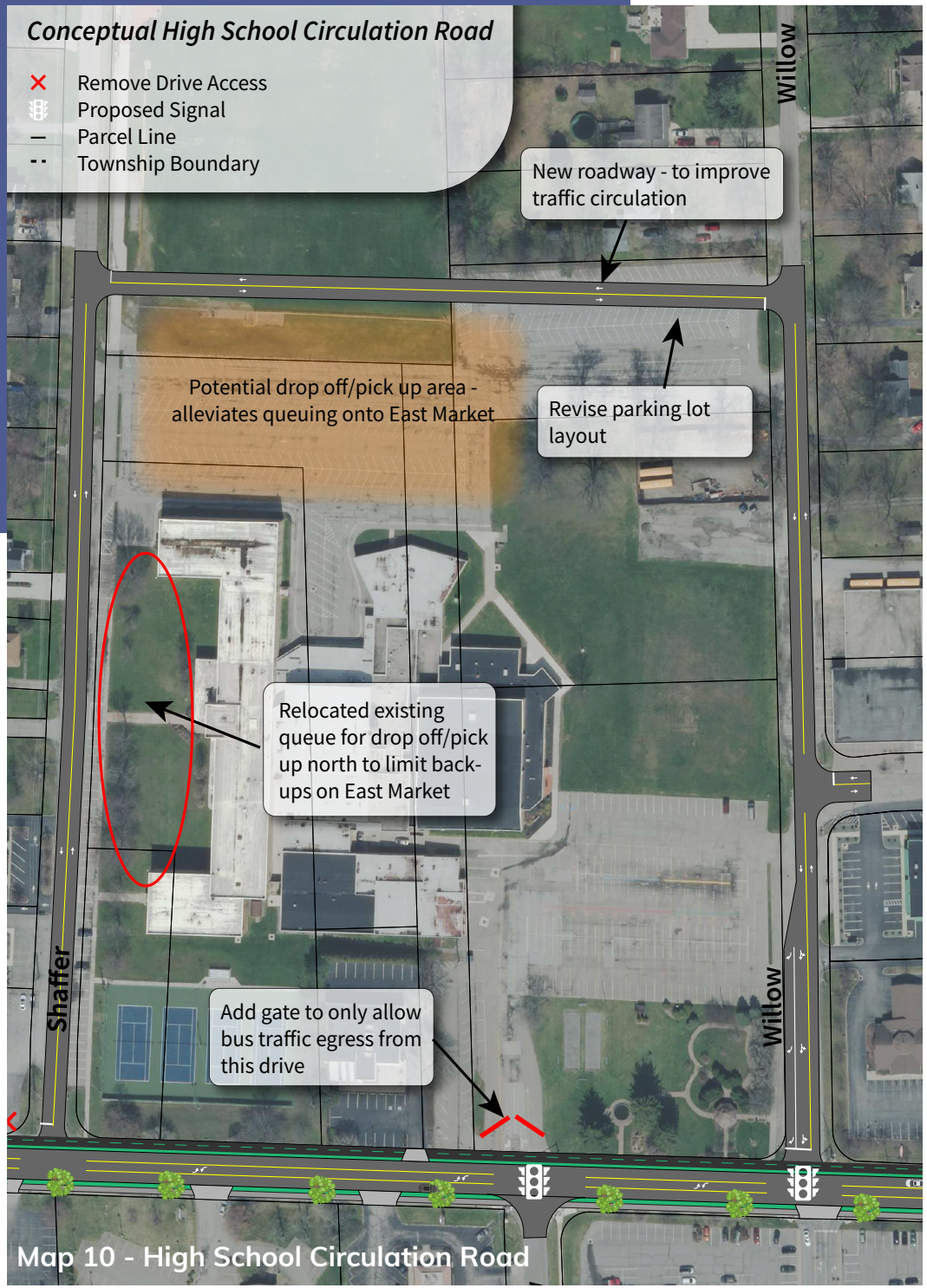
False. For the majority of four to three lane conversions, traffic volumes remain about the same through the corridor. In addition, three-lane roads are generally more efficient than four-lane roads because vehicles no longer need to stop in the through lane to make left turns.

Emergency Response Times Will Increase

False. A four to three-lane conversion does not increase emergency response times. Response times usually improve because emergency vehicles can utilize the center turn lane when responding to an incident. This avoids bottlenecks that can occur on four-lane roads when drivers in the middle lanes try to move over for the emergency vehicle, but cannot.

Economic Development will be Stifled

False. Converting to a three-lane road can positively impact property values and businesses. When converting a four-lane road to a three-lane road, additional features can be added in the unused space, such as treelawns, streetscaping, sidewalks and/or bicycle paths. These features can improve livability and transform the corridor into one people want to drive on versus drive through.



Map 10 - High School Circulation Road

High School Circulation Road

A major contributor to congestion along East Market Street is drop-off and pick-up times at Howland High School. Though only for a short period of time each school day, parent and bus queues back up onto East Market creating congestion and safety concerns. With the proposal to reduce the lanes on East Market Street from four to three lanes, queue backups will now completely restrict through movements. This issue needs to be addressed in tandem with East Market Street improvements to enhance traffic flow along the corridor.

One of the main problems with the existing drop off and pick up location for the high school is that it is too close to East Market Street. The existing drop off location is only 400 feet north of East Market along Shaffer Drive. This creates queueing backups onto East Market. The existing drop off and pick up location also directs traffic either southbound on Shaffer Drive back to East Market Street or north to Fairhill Drive, creating further congestion along Shaffer and East Market.

To alleviate these issues, a circulation roadway was proposed to relocate the high school drop off and pick up location as well as allow for more efficient access in and out of the school area. As illustrated in Map 10, the circulation roadway would link Shaffer and Willow Drives via property owned by the Howland School District. This roadway would allow for drop off and pick up to occur further north (over 900 feet from East Market), eliminating queueing backups onto East Market Street. The roadway also allows for improved vehicular circulation allowing multiple routes to get to SR 46 and to East Market Street via Willow Drive. Ideally, traffic would enter the school drop off via Shaffer Drive and leave via Willow Drive.

To improve drive access around the High School, adding a gated entrance to the school's driveway along East Market Street will help direct traffic to the desired drop off area. This gate will be opened to allow for school bus egress in the afternoon only and special events at the adjacent park. All of these improvements will aid in improving traffic flow along East Market Street.

CHAPTER 4

IMPLEMENTATION

East Market Street
Phasing & Costs

Phase 1 - Western Section
Preliminary Cost - $7.3M

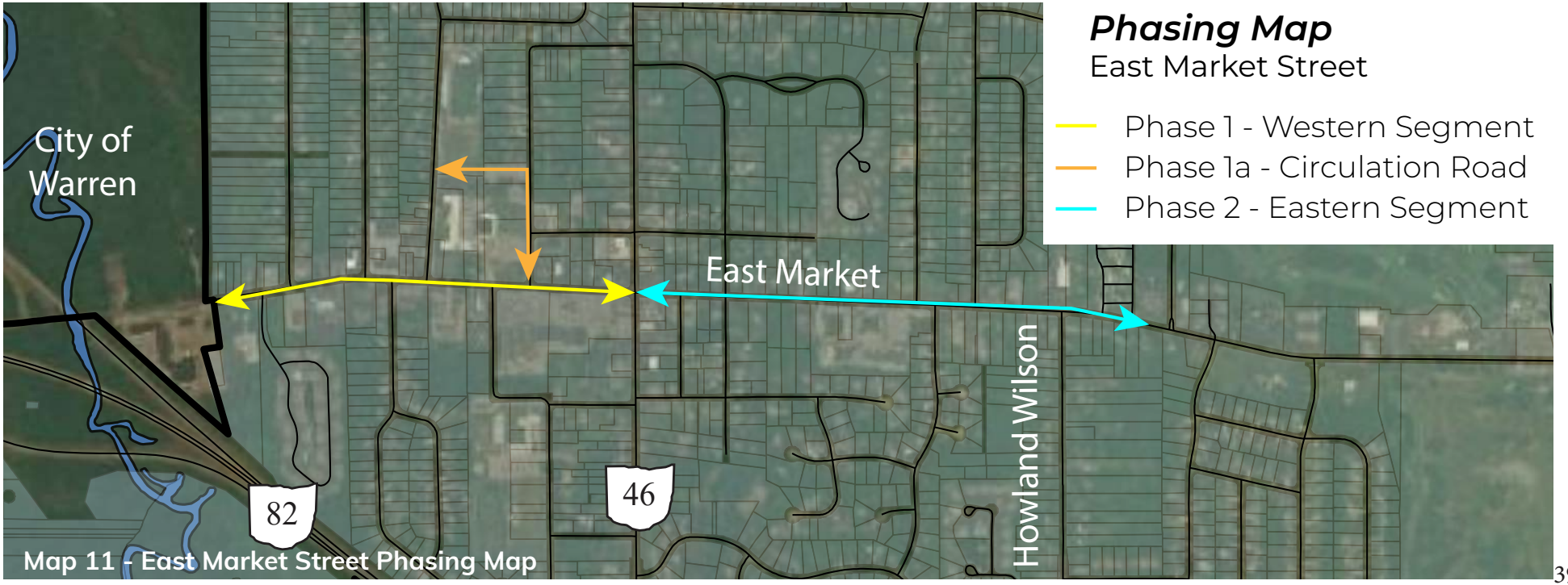
The western section contains the majority of improvements to East Market Street and should be pursued as the first phase of construction. This section will be the most complex and require some private right-of-way, multiple partnerships, and funding sources to implement. A detailed cost estimate is illustrated on Page 40. Due to the construction impacts of converting East Market Street to a three-lane section and being only 0.63 miles in total length, the section should be constructed in one phase and not be subdivided.

Phase 1a - Circulation Road
Preliminary Cost - $930K

Addressing drop-off and pick-up queueing onto East Market Street is critical to alleviate traffic congestion in the proposed three-lane section. With this in mind, the circulation road should be constructed either as a seperate project ahead of Phase 1 construction or as part of Phase 1 construction. Since this project is mostly within Howland School District-owned property, it will have to be a project led by the school district in concert with the Township. The Township should assist the school district with pursuing grant funding as applicable to aid in implementing this project.

Phase 2 - Eastern Section
Preliminary Cost - $2.7M

Trail improvements proposed within the eastern section of East Market Street will be much easier to fund and construct. Though these improvements are important to link Township assets and improve connectivity, they are a lower priority than improvements proposed in the western section of East Market Street. Construction of this section should be pursued after construction of the road diet is completed to the west.



Map 11 - East Market Street Phasing Map

Preliminary Opinon of Probable Cost 2/12/2025
East Market Street Road Diet (One curbed lane each direction with Two-Way Left Turn Lane) - From Rosegarden Drive to SR 46
Length = 0.51 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	ROADWAY				
201	CLEARING AND GRUBBING	1	LS	$25,000.00	$25,000
202	PAVEMENT REMOVED	4,300	SY	$15.00	$64,500
202	WALK REMOVED	32,400	SF	$7.00	$226,800
202	CURB REMOVED	5,600	FT	$12.00	$67,200
202	PIPE REMOVED, 24" AND UNDER	3,000	FT	$18.00	$54,000
202	PIPE REMOVED, OVER 24"	1,500	FT	$30.00	$45,000
202	CATCH BASIN REMOVED	17	EACH	$1,200.00	$20,400
203	EXCAVATION	1,500	CY	$30.00	$45,000
203	EXCAVATION (FOR PAVEMENT REPAIR)	50	CY	$45.00	$2,250
203	EMBANKMENT	100	CY	$40.00	$4,000
204	SUBGRADE COMPACTION	1,900	SY	$3.00	$5,700
608	4" CONCRETE WALK	12,000	SF	$7.00	$84,000
608	8" CONCRETE WALK	4,200	SF	$15.00	$63,000
608	CURB RAMP	550	SF	$25.00	$13,750
SPEC.	AMENITIES (TRASH CANS, BENCHES, BICYCLE RACKS)	1	LS	$50,000.00	$50,000
	ROADWAY SUBTOTAL:				**$770,600**
	EROSION CONTROL				
659	SEEDING AND MULCHING, AS PER PLAN	3,600	SY	$4.00	$14,400
832	STORM WATER POLLUTION PREVENTION PLAN	1	LS	$25,000.00	$25,000
832	STORM WATER POLLUTION PREVENTION INSPECTIONS	1	LS	$10,000.00	$10,000
832	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	1	LS	$10,000.00	$10,000
832	EROSION CONTROL	25,000	EACH	$1.00	$25,000
	EROSION CONTROL SUBTOTAL:				**$84,400**
	DRAINAGE				
605	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	5,700	FT	$17.00	$96,900
611	DRAINAGE, MISC.: STORM SEWER CONDUIT	1	LS	$810,000.00	$810,000
611	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	200	FT	$39.00	$7,800
611	CATCH BASIN, NO. 3	17	EACH	$6,000.00	$102,000
611	MANHOLE, NO. 3	10	EACH	$6,200.00	$62,000
611	MANHOLE RECONSTRUCTED TO GRADE	11	EACH	$2,300.00	$25,300
611	MISCELLANEOUS METAL	5,000	LB	$2.75	$13,750
895	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 1	1	EACH	$20,000.00	$20,000
	DRAINAGE SUBTOTAL:				**$1,137,750**
	PAVEMENT				
251	PARTIAL DEPTH PAVEMENT REPAIR (441)	500	SY	$50.00	$25,000
252	FULL DEPTH PAVEMENT SAWING	6,000	FT	$3.00	$18,000
253	PAVEMENT REPAIR	500	SY	$110.00	$55,000
254	PAVEMENT PLANING, ASPHALT CONCRETE	9,600	SY	$2.25	$21,600
301	ASPHALT CONCRETE BASE, PG64-22, (449) (T=6")	261	CY	$265.00	$69,077
304	AGGREGATE BASE (T=6")	36	CY	$65.00	$2,340
304	AGGREGATE BASE (FOR PAVEMENT REPAIR)	50	CY	$95.00	$4,750
407	NON-TRACKING TACK COAT	1,228	GAL	$3.25	$3,991
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)	388	CY	$260.00	$100,880
441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	543	CY	$260.00	$141,180
452	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	650	SY	$115.00	$74,750
609	CURB, TYPE 6	5,700	FT	$32.00	$182,400
	PAVEMENT SUBTOTAL:				**$698,968**
	MULTI-USE TRAIL				
202	CURB REMOVED	120	FT	$12.00	$1,440
203	EXCAVATION	1,008	CY	$30.00	$30,250
204	SUBGRADE COMPACTION	3,300	SY	$3.00	$9,900
304	AGGREGATE BASE (T=6")	550	CY	$65.00	$35,750
407	NON-TRACKING TACK COAT	363	GAL	$3.25	$1,180
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)	183	CY	$260.00	$47,667
441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	229	CY	$260.00	$59,583
608	CURB RAMP	880	SF	$25.00	$22,000
644	WORD ON PAVEMENT, 72"	20	EACH	$170.00	$3,400
	MULTI-USE TRAIL SUBTOTAL:				**$211,170**
	WATER WORK				
638	VALVE BOX ADJUSTED TO GRADE	15	EACH	$650.00	$9,750
638	FIRE HYDRANT REMOVED	5	EACH	$900.00	$4,500
638	6" FIRE HYDRANT	5	EACH	$8,000.00	$40,000
638	6" GATE VALVE AND VALVE BOX	5	EACH	$2,000.00	$10,000
	WATER WORK SUBTOTAL:				**$64,250**
	LIGHTING				
625	LIGHTING, MISC.: REMOVAL AND REPLACEMENT OF DECORATIVE LIGHTING (ASSUMED 250$/FT.)	1	LS	$675,000.00	$675,000
	LIGHTING SUBTOTAL:				**$675,000**

Preliminary Opinon of Probable Cost 2/12/2025
East Market Street Road Diet (One curbed lane each direction with Two-Way Left Turn Lane) - From Rosegarden Drive to SR 46
Length = 0.51 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	TRAFFIC CONTROL				
630	GROUND MOUNTED SUPPORT, NO. 3 POST	300	FT	$15.00	$4,500
630	STREET NAME SIGN SUPPORT, NO. 3 POST	72	FT	$16.00	$1,152
630	SIGN POST REFLECTOR	5	EACH	$50.00	$250
630	SIGN, FLAT SHEET	200	SF	$23.00	$4,600
630	SIGN, DOUBLE FACED, STREET NAME	5	EACH	$183.00	$915
630	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	30	EACH	$23.00	$690
630	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	25	EACH	$28.00	$700
631	SCHOOL SPEED LIMIT SIGN ASSEMBLY, SOLAR POWERED	2	EACH	$8,000.00	$16,000
644	CENTER LINE	1.07	MILE	$5,200.00	$5,564
644	CHANNELIZING LINE, 12"	425	FT	$2.00	$850
644	STOP LINE	235	FT	$6.00	$1,410
644	CROSSWALK LINE, 24"	500	FT	$5.00	$2,500
644	SCHOOL SYMBOL MARKING, 96"	2	EACH	$650.00	$1,300
644	LANE ARROW	20	EACH	$110.00	$2,200
	TRAFFIC CONTROL SUBTOTAL:				**$42,631**
	TRAFFIC SIGNALS				
632	DETECTOR LOOP, AS PER PLAN	12	EACH	$2,000.00	$24,000
632	SIGNALIZATION, MISC.: TRAFFIC SIGNAL REMOVAL AND REPLACEMENT	2	EACH	$250,000.00	$500,000
	TRAFFIC SIGNALS SUBTOTAL:				**$524,000**
	MAINTENANCE OF TRAFFIC				
614	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	80	HR	$95.00	$7,600
614	WORK ZONE CENTER LINE, CLASS I	1.07	MILE	$1,600.00	$1,712
614	WORK ZONE CHANNELIZING LINE, CLASS I	425	FT	$1.00	$425
614	WORK ZONE STOP LINE, CLASS I	235	FT	$5.00	$1,175
614	WORK ZONE SCHOOL SYMBOL MARKING, 96", CLASS I	2	EACH	$250.00	$500
616	WATER	25	MGAL	$22.00	$550
	MAINTENANCE OF TRAFFIC SUBTOTAL:				**$11,962**
	INCIDENTALS				
614	MAINTAINING TRAFFIC	1	LS	$75,000.00	$75,000
619	FIELD OFFICE, TYPE A	12	MNTH	$1,600.00	$19,200
623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS	$50,000.00	$50,000
624	MOBILIZATION	1	LS	$200,000.00	$200,000
SPEC.	PRIVATE UTILITY RELOCATIONS AND ADJUSTMENTS	1	LS	$100,000.00	$100,000
	INCIDENTALS SUBTOTAL:				**$444,200**
	CONSTRUCTION COST SUBTOTAL:				**$4,664,930**
	CONSTRUCTION CONTINGENCY (30%)				**$1,399,479**
	CONSTRUCTION COST TOTAL:				**$6,064,410**
	RIGHT OF WAY				
	PROPERTY (PARTIAL TAKES & TEMPORARIES) AND ACQUISITION SERVICES	1	LS	$0	$0
	RIGHT OF WAY SUBTOTAL:				**$0**
	DESIGN				
	PLAN PREPARATION (10% CONSTRUCTION COST)	1	LS	$606,441	$606,441
	DESIGN SUBTOTAL:				**$606,441**
	CONSTRUCTION ADMIN./INSPECTION				
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$606,441	$606,441
	CONSTRUCTION INSPECTION SUBTOTAL:				**$606,441**
	COMPLETE PROJECT PROBABLE COST				
	CONSTRUCTION	1	LS	$6,064,410	$6,064,410
	RIGHT-OF-WAY	1	LS	$0	$0
	PLAN PREPARATION (10% OF CONSTRUCTION COSTS)	1	LS	$606,441	$606,441
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$606,441	$606,441
	GRAND TOTAL:				**$7,277,291**

Table 4 - Preliminary Cost Estimate: Western Section

Preliminary Opinon of Probable Cost 2/28/2025
East Market Street Road Diet (One curbed lane each direction) - From SR 46 to Howland Wilson Road
Length = 0.63 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	ROADWAY				
201	CLEARING AND GRUBBING	1	LS	$25,000.00	$25,000
202	PAVEMENT REMOVED	1,500	SY	$15.00	$22,500
202	WALK REMOVED	16,500	SF	$7.00	$115,500
203	EMBANKMENT	50	CY	$40.00	$2,000
SPEC.	AMENITIES (TRASH CANS, BENCHES, BICYCLE RACKS)	1	LS	$25,000.00	$25,000
	ROADWAY SUBTOTAL:				**$190,000**
	EROSION CONTROL				
659	SEEDING AND MULCHING, AS PER PLAN	2,000	SY	$4.00	$8,000
832	STORM WATER POLLUTION PREVENTION PLAN	1	LS	$10,000.00	$10,000
832	STORM WATER POLLUTION PREVENTION INSPECTIONS	1	LS	$10,000.00	$10,000
832	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	1	LS	$10,000.00	$10,000
832	EROSION CONTROL	10,000	EACH	$1.00	$10,000
	EROSION CONTROL SUBTOTAL:				**$48,000**
	MULTI-USE TRAIL				
202	CURB REMOVED	105	FT	$12.00	$1,260
203	EXCAVATION	1,844	CY	$30.00	$55,307
204	SUBGRADE COMPACTION	5,500	SY	$3.00	$16,500
304	AGGREGATE BASE (T=6")	917	CY	$65.00	$59,583
407	NON-TRACKING TACK COAT	605	GAL	$3.25	$1,966
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)	191	CY	$260.00	$49,653
441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	435	CY	$260.00	$113,205
608	CURB RAMP	770	SF	$25.00	$19,250
644	WORD ON PAVEMENT, 72"	16	EACH	$170.00	$2,720
	MULTI-USE TRAIL SUBTOTAL:				**$319,444**
	WATER WORK				
638	VALVE BOX ADJUSTED TO GRADE	10	EACH	$650.00	$6,500
638	FIRE HYDRANT REMOVED	5	EACH	$900.00	$4,500
638	6" FIRE HYDRANT	5	EACH	$8,000.00	$40,000
638	6" GATE VALVE AND VALVE BOX	5	EACH	$2,000.00	$10,000
	WATER WORK SUBTOTAL:				**$61,000**
	LIGHTING				
625	LIGHTING, MISC.: REMOVAL AND REPLACEMENT OF DECORATIVE LIGHTING (ASSUMED 250$/FT.)	1	LS	$825,000.00	$825,000
	LIGHTING SUBTOTAL:				**$825,000**
	TRAFFIC CONTROL				
630	GROUND MOUNTED SUPPORT, NO. 3 POST	24	FT	$15.00	$360
630	STREET NAME SIGN SUPPORT, NO. 3 POST	36	FT	$16.00	$576
630	SIGN POST REFLECTOR	1	EACH	$50.00	$50
630	SIGN, FLAT SHEET	11	SF	$23.00	$253
630	SIGN, DOUBLE FACED, STREET NAME	3	EACH	$183.00	$549
630	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	4	EACH	$23.00	$92
630	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	4	EACH	$28.00	$112
644	CROSSWALK LINE, 24"	350	FT	$5.00	$1,750
	TRAFFIC CONTROL SUBTOTAL:				**$3,742**
	MAINTENANCE OF TRAFFIC				
614	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	80	HR	$95.00	$7,600
	MAINTENANCE OF TRAFFIC SUBTOTAL:				**$7,600**
	INCIDENTALS				
614	MAINTAINING TRAFFIC	1	LS	$35,000.00	$35,000
619	FIELD OFFICE, TYPE B	12	MNTH	$1,100.00	$13,200
623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS	$50,000.00	$50,000
624	MOBILIZATION	1	LS	$100,000.00	$100,000
SPEC.	PRIVATE UTILITY RELOCATIONS AND ADJUSTMENTS	1	LS	$50,000.00	$50,000
	INCIDENTALS SUBTOTAL:				**$248,200**
				CONSTRUCTION COST SUBTOTAL:	**$1,702,986**
				CONSTRUCTION CONTINGENCY (30%)	**$510,896**
				CONSTRUCTION COST TOTAL:	**$2,213,881**

Preliminary Opinon of Probable Cost 2/28/2025
East Market Street Road Diet (One curbed lane each direction) - From SR 46 to Howland Wilson Road
Length = 0.63 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	RIGHT OF WAY				
	PROPERTY (PARTIAL TAKES & TEMPORARIES) AND ACQUISITION SERVICES	1	LS	$0	$0
	RIGHT OF WAY SUBTOTAL:				**$0**
	DESIGN				
	PLAN PREPARATION (10% CONSTRUCTION COST)	1	LS	$221,388	$221,388
	DESIGN SUBTOTAL:				**$221,388**
	CONSTRUCTION ADMIN./INSPECTION				
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$221,388	$221,388
	CONSTRUCTION INSPECTION SUBTOTAL:				**$221,388**
	COMPLETE PROJECT PROBABLE COST				
	CONSTRUCTION	1	LS	$2,213,881	$2,213,881
	RIGHT-OF-WAY	1	LS	$0	$0
	PLAN PREPARATION (10% OF CONSTRUCTION COSTS)	1	LS	$221,388	$221,388
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$221,388	$221,388
				GRAND TOTAL:	**$2,656,658**

Table 5 - Preliminary Cost Estimate: Eastern Section

Preliminary Opinon of Probable Cost 2/28/2025
Howland High School Circulatory Roadway - From Shaffer Drive to Willow Drive
Length = 0.14 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	ROADWAY				
201	CLEARING AND GRUBBING	1	LS	$5,000.00	$5,000
202	PAVEMENT REMOVED	2,400	SY	$15.00	$36,000
202	WALK REMOVED	630	SF	$7.00	$4,410
203	EXCAVATION	117	CY	$30.00	$3,499
203	EMBANKMENT	50	CY	$40.00	$2,000
204	SUBGRADE COMPACTION	2,500	SY	$3.00	$7,500
608	4" CONCRETE WALK	5,800	SF	$7.00	$40,600
608	CURB RAMP	165	SF	$25.00	$4,125
	ROADWAY SUBTOTAL:				**$103,134**
	EROSION CONTROL				
659	SEEDING AND MULCHING, AS PER PLAN	1,500	SY	$4.00	$6,000
832	EROSION CONTROL	5,000	EACH	$1.00	$5,000
	EROSION CONTROL SUBTOTAL:				**$11,000**
	DRAINAGE				
605	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	1,510	FT	$17.00	$25,670
611	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	20	FT	$39.00	$780
611	12" CONDUIT, TYPE B	48	FT	$125.00	$6,000
611	12" CONDUIT, TYPE C	10	FT	$115.00	$1,150
611	18" CONDUIT, TYPE B	435	FT	$165.00	$71,775
611	18" CONDUIT, TYPE C	365	FT	$155.00	$56,575
611	CATCH BASIN, NO. 3	4	EACH	$6,000.00	$24,000
611	MANHOLE, NO. 3	3	EACH	$6,200.00	$18,600
	DRAINAGE SUBTOTAL:				**$204,550**
	PAVEMENT				
301	ASPHALT CONCRETE BASE, PG64-22, (449) (T=6")	420	CY	$265.00	$111,256
304	AGGREGATE BASE (T=6")	420	CY	$65.00	$27,289
407	NON-TRACKING TACK COAT	277	GAL	$3.25	$901
441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)	87	CY	$260.00	$22,741
441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449)	122	CY	$260.00	$31,837
609	CURB, TYPE 6	1,600	FT	$32.00	$51,200
	PAVEMENT SUBTOTAL:				**$245,224**
	TRAFFIC CONTROL				
630	GROUND MOUNTED SUPPORT, NO. 3 POST	24	FT	$15.00	$360
630	STREET NAME SIGN SUPPORT, NO. 3 POST	24	FT	$16.00	$384
630	SIGN POST REFLECTOR	2	EACH	$50.00	$100
630	SIGN, FLAT SHEET	13	SF	$23.00	$299
630	SIGN, DOUBLE FACED, STREET NAME	2	EACH	$183.00	$366
644	CENTER LINE	0.14	MILE	$5,200.00	$728
644	STOP LINE	24	FT	$6.00	$144
644	CROSSWALK LINE, 24"	220	FT	$5.00	$1,100
	TRAFFIC CONTROL SUBTOTAL:				**$3,481**
	INCIDENTALS				
614	MAINTAINING TRAFFIC	1	LS	$5,000.00	$5,000
623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS	$10,000.00	$10,000
624	MOBILIZATION	1	LS	$15,000.00	$15,000
	INCIDENTALS SUBTOTAL:				**$30,000**
	CONSTRUCTION COST SUBTOTAL:				**$597,388**
	CONSTRUCTION CONTINGENCY (30%)				**$179,217**
	CONSTRUCTION COST TOTAL:				**$776,605**

Preliminary Opinon of Probable Cost 2/28/2025
Howland High School Circulatory Roadway - From Shaffer Drive to Willow Drive
Length = 0.14 Miles

ITEM	DESCRIPTION	TOTAL QUANTITY	UNIT	ESTIMATED UNIT PRICE	ESTIMATED TOTAL COST
	RIGHT OF WAY				
	PROPERTY (PARTIAL TAKES & TEMPORARIES) AND ACQUISITION SERVICES	1	LS	$0	$0
	RIGHT OF WAY SUBTOTAL:				**$0**
	DESIGN				
	PLAN PREPARATION (10% CONSTRUCTION COST)	1	LS	$77,661	$77,661
	DESIGN SUBTOTAL:				**$77,661**
	CONSTRUCTION ADMIN./INSPECTION				
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$77,661	$77,661
	CONSTRUCTION INSPECTION SUBTOTAL:				**$77,661**
	COMPLETE PROJECT PROBABLE COST				
	CONSTRUCTION	1	LS	$776,605	$776,605
	RIGHT-OF-WAY	1	LS	$0	$0
	PLAN PREPARATION (10% OF CONSTRUCTION COSTS)	1	LS	$77,661	$77,661
	CONSTRUCTION ADMIN./INSPECTION (10% OF CONSTRUCTION COST)	1	LS	$77,661	$77,661
	GRAND TOTAL:				**$931,926**

Table 6 - Preliminary Cost Estimate: Circulation Roadway

Potential
Grant Funding

Each of the funding sources listed below could potentially be used to fund proposed improvements within this plan. Most likely a combination of federal formula funding, grants, economic development tools, and partnerships will be needed to implement this project.

Formula Funding

There are a handful of formula funding programs that are offered through Eastgate Council of Governments (Transportation Alternatives Set-Aside (TASA), Congestion Mitigation and Air Quality (CMAQ), Carbon Reduction, Surface Transportation Block Grant (STBG)) that seek to allocate funding in future years within the region for bike and pedestrian improvements. Eastgate accepts project applications on a biannual (every two years) basis for these funding sources. Funding requests for these sources typically far exceed the amount of money available in future years. Even once a project is programmed to one of these sources, it will be multiple years until construction funding is available. These are still viable funding sources for the Township to pursue, and are likely to be used to fund these improvements. Further details about each program are detailed below and within the link. https://eastgatecog.org/programs/transportation/transportation-overview

Transportation Alternatives Set-Aside (TASA) - All TASA projects must relate to surface transportation and must address a transportation need, use, or benefit. Project categories include pedestrian and bicycle facilities including Safe Routes to School infrastructure projects. Preliminary engineering, right-of-way and construction are eligible project costs.

Congestion Mitigation and Air Quality (CMAQ) - The CMAQ program provides a flexible funding source for local governments to fund transportation projects and programs to help meet the requirements of the Clean Air Act (CAA). Eligible projects include projects that improve traffic flow and reduce congestion, transit projects, bike and pedestrian improvements, and traffic signal upgrades.

Carbon Reduction Program (CRP) - CRP funds may be used to establish new or expanded transportation projects that reduce carbon emissions. Projects eligible for CRP funds include roundabouts, operational projects that improve traffic flow, clean fuel bus purchases, and bicycle and pedestrian projects.

Surface Transportation Block Grant (STGB) - STBG funds are the most versatile and may be used for any project that is recommended in or consistent with the Eastgate Regional Transportation Plan. STBG funds can be used on any federal-aid roadway classified above a local road or a rural minor collector and bridge projects on any public road.

STBG projects can include highway projects and bridge improvements (construction, reconstruction, rehabilitation, resurfacing, restoration, and operational), transportation system management, public transit capital improvement projects, commuter rail, carpool projects, bus terminals and facilities, bikeways, pedestrian facilities and planning studies.

Multi-Modal Funding (Walks, Crossings, & Trails)

Ohio Department of Transportation (ODOT) Safe Routes to School Funding – This funding source through ODOT provides up to $400k in design and construction funding with a 20% local match. Improvements need to focus on pedestrian and bicycle safety to and from school buildings and must be within 2 miles of an active school. To be competitive for funding the Township must have an up-to-date Safe Routes to School Plan (completed within the last 5 years) and illustrate how the proposed improvements will improve bicycle and pedestrian safety. In addition, the proposed recommendations must be utilized by school aged children. https://www.transportation.ohio.gov/programs/safe-routes-srts/apply-srts-funding/02-apply-for-srts-funding

Potential
Grant Funding

ODOT Systematic and Abbreviated Pedestrian Safety Funding – These funding sources through ODOT provide up to $2M and $500k respectively to address known pedestrian safety issues with proven pedestrian safety improvements. Each source requires a 10% local match. There has to be a documented pedestrian safety issue in the area and high demand for pedestrian traffic. Abbreviated funds are meant for "quick fix" pedestrian improvements that require no private right-of-way and can be constructed within two years of award. https://www.transportation.ohio.gov/programs/highway+safety/highway-safety-improvement-program

Trail Funding

Ohio Department of Natural Resources (ODNR) Clean Ohio Trails Funding – This is an annual funding source offered by ODNR that requires a 25% local match. These funds are ideal for off-road trail projects that link a new trail network to community assets. These funds will not fund trail upgrades. http://realestate.ohiodnr.gov/outdoor-recreation-facility-grants

ODNR Recreational Trails Funding - This is an annual funding source offered by ODNR that requires a 20% local match. These funds are ideal for smaller (shorter) off-road trail projects that link to community assets. These funds can be used for trail upgrades but have a maximum funding award of $150k. https://ohiodnr.gov/buy-and-apply/apply-for-grants/grants/recreational-trails-program

Ohio Environmental Protection Agency (OEPA) Recycling & Litter Prevention Program – Scrap Tire Grant – This funding source through OEPA provides up to $300k in construction funding with an 100% local match. This source utilizes recycled scrap tires as the surface course for the trail. There are examples throughout Ohio where recycled scrap tires are used to construct trails. The goal of OEPA with this grant is to provide educational opportunities to users of the benefits and reuse of scrap tires. For a competitive application, OEPA is looking for highly visible trails to promote this program. https://epa.ohio.gov/divisions-and-offices/environmental-financial-assistance/recycling/grants/scrap-tire-grants

U.S. Department of Transportation (USDOT) Discretionary Grants

With the passage of the Bipartisan Infrastructure Law in November of 2021 there has been a vast expansion of funding for federal discretionary grants. These grants are highly competitive, take a significant investment to develop, and require a large project that would connect major regional assets for these funding sources to be considered.

Safe Streets and Roads for All (SS4A) Program - The primary goal of the SS4A grants is to improve roadway safety by supporting communities in developing comprehensive safety action plans based on a Safe System Approach, and implementing projects and strategies that significantly reduce or eliminate transportation-related fatalities and serious injuries involving pedestrians, bicyclists, public transportation, and micromobility users.

The SS4A program has two funding opportunities, an Action Plan Grant and an Implementation Grant. The Action Plan Grant is a planning grant designed to create a well-defined strategy to prevent roadway fatalities and serious

Potential
Grant Funding

injuries in a locality. The Implementation Grant funds recommendations defined in the Action Plan which improve roadway safety and reduce serious or fatal injuries for pedestrians, cyclists, public transportation, or micromobility users. https://www.transportation.gov/grants/SS4A

Better Utilizing Investments to Leverage Development (BUILD) - The U.S. Department of Transportation's (USDOT) Better Utilizing Investments to Leverage Development (BUILD) grant program provides grants for surface transportation infrastructure projects with significant local or regional impact. The eligibility requirements of BUILD allow project sponsors, including state and local governments, counties, Tribal governments, transit agencies, and port authorities, to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs. https://www.transportation.gov/BUILDgrants

2025 program revisions include:

- Changes the program name from RAISE to Better Utilizing Investments to Leverage Development (BUILD)
- Removes references to rescinded Executive Orders
- Aligns the NOFO with new Executive Orders
- Specifies $150 million is available for award
- Defines Historically Disadvantaged Communities using the same statutory definition for Areas of Persistent Poverty
- Clarifies all grant agreements or contracts must include terms that are in compliance with Section 3(C)(iv) of EO Ending Illegal Discrimination and Restoring Merit-Based Opportunity

Potential
Economic Development Tools

The Township should seek to partner with governmental entities including Eastgate, and the County Engineer, advocacy groups, and private businesses to share in the cost and maintenance of proposed infrastructure improvements. Investigating the benefits of a Tax Increment Financing (TIF) District along East Market Street should be explored to assist the Township with funding the local match for grant funding. A Special Improvement District (SID) and/or a Community Improvement Corporation (CIC) should also be explored along East Market Street to assist with infrastructure improvements and/or maintaining streetscaping and placemaking improvements. Each is described in detail on the following pages.

Tax Increment Financing (TIF) Districts

Within both of the hamlets, the township has a unique opportunity to leverage potential future development to improve hamlet infrastructure. The creation of a Tax Increment Financing (TIF) District could help fund sidewalk, streetscape, and/or traffic calming improvements as proposed. A successful TIF District ensures that the District encompasses properties where by future development, property values will increase. That increase in property value can be used to fund the aforementioned infrastructure improvements. Below is a short summary of key elements of a TIF District.

Tax Increment Financing

Tax Increment Financing ("TIF") is an economic development tool that enables local governments, including municipalities, townships and counties to finance public infrastructure improvements and, in select circumstances, privately owned economic development projects and residential projects.

Size and Boundary

An Incentive District may span multiple parcels and comprise an area no larger than 300 contiguous acres.

Characteristics of Economic Distress

O.R.C. 5709.40(A)(5) requires that Incentive District TIFs demonstrate one or more of the following seven characteristics of economic distress:
More than half of the residents' incomes in the district are less than 80% of the median income of the residents in the political subdivision where the TIF district is located ;
The average unemployment rate over the last year for the district is equal to 150% of the average rate of unemployment for Ohio over the same year;
More than a quarter of the population living in the district has an income below the federal poverty line;
The district is blighted;
The district is located in a substantially distressed area;
A certified engineer certifies that the public infrastructure in the district is inadequate to meet the potential development needs of the district; or
The district consists of entirely unimproved land.

How it Works?

TIF captures the increase in property value of real property. As shown below, an existing assessed value is established prior to the TIF's enactment. This sets the taxable value of the property for the life of the TIF. In addition, extensive economic analysis is completed to establish projected future property values based on proposed public improvements within the district. These projections are the basis for the economic development plan that must be completed to justify a TIF. As improvements are made to the public infrastructure in the district and/or development occurs, property values should increase. That projected increase in property value is used to fund the aforementioned public improvements throughout the district.

TIF is not a tax increase! The additional assessed values of the properties within the TIF district are paid by the property owner as payments in lieu of taxes (PILOTs).

Potential
Economic Development Tools

Taxes and TIFs

Local legislative authorities may exempt up to 75% of the value of improvements to real property from taxation for up to ten years without local school board approval.

In general, any government desiring to exempt more than 75% of the value of the improvements from real property taxation or seeking a TIF term greater than 10 years must receive prior approval from the local board of education and statutorily required additional government entities. With those approvals, a political jurisdiction may exempt up to 100% of the improvements for up to 30 years. The jurisdiction that authorizes the tax incentive must specify the rate (100% maximum) and the length (30-year maximum term) of the property tax exemption.

What Qualifies as a Public Improvement?

Any of the following improvements are eligible for TIF funding.
Traditional Public Infrastructure Projects: roads, bridges, sidewalk, trail, streetscaping, water & sewer improvements
Redevelopment Projects: land acquisition & environmental remediation
New Development: gas, electric & communication facilities

Above all, the improvement must generally benefit the TIF district.

While a TIF District can be a useful tool, the township will have to complete an economic development plan to ensure the anticipated revenue from the TIF District is meaningful. Successful TIF implementation relies heavily on timing and creating the district ahead of property value increases. Depending on the length and percentage of property value needed for the TIF District, the township will need to partner with the Howland Local School District.

Potential
Economic Development Tools

Special Improvement District (SID)

A SID is an economic development tool that allows private property owners in a self-defined area to establish a program for services or improvements aimed at the economic enhancement of the area. The area can be any size, as long as it is contiguous.

The SID enables a community, neighborhood, or business district to tax itself for specific improvements and services. Property owners can pay for the program with assessments on all properties in the given area.

SIDs are governed by private, nonprofit corporations created by private property owners. The board that runs the corporation is made up of the property owners as well.

Benefits - Since their inception, many studies have been conducted on SIDs, by both nonprofit and academic organizations. These studies show that SIDs increase tourism, increase the quality of life for residents, reduce crime, and raise property values within their designated areas.

SIDs create sustainable funding streams for the community and allow property owners to dictate how funding is spent on a yearly basis. SIDs improve cleanliness and safety and allow organizations to be nimble and put resources to work where they are needed most. With no additional financial burden to local governments, SIDs can capture the energy of motivated property owners wanting to improve their community and can provide at-large benefits to everyone involved in the community.

How to Create a SID - To create a SID, private property owners must make a petition to their Township Trustees who will in turn, create the SID.

To pass in Ohio, the petition must include signatures from owners that represent at least 60% of the front footage along all public streets of the given district, OR owners representing 75% of the land area. After meeting this criterion, the petition must be approved by the Township Trustees.

At that point, all eligible property owners will be assessed and provided improvement services. The only exemptions from SID assessments are government-owned properties and churches. These properties can. however, contribute voluntarily.

Services - The property owners that make up the board of trustees are in complete control of decisions made about the SID. They guide the implementation of a plan for public services and improvements that benefit the SID, which is typically submitted with the petition to create the SID. The plan may describe how the SID will hire employees and professional services, contract for insurance, and purchase or lease office space and office equipment.

The improvements and public services described in the plan may range from lighting, signage, and parking lots, to capital improvements, landscaping, and snow removal. Other potential services include communication with local police, graffiti removal, homeless outreach case workers, litter removal, safety vigilance, special duty police, sidewalk sweeping, and visitor ambassadors.

Community Improvement Corporations (CIC)

Community Improvement Corporations (CICs) are non-profit organizations designed to assist in the revitalization, economic development, and overall improvement of local communities. These corporations are typically formed to manage projects such as the redevelopment of blighted areas, supporting business development, improving infrastructure, or addressing

Potential
Economic Development Tools

housing needs. CICs can work alongside local governments, businesses, and residents to create tailored solutions for community issues, focusing on long-term sustainability. The state of Ohio provides legal frameworks under the Ohio Revised, which allows municipalities, counties, or townships to establish and manage CICs, facilitating public-private partnerships that drive growth and improvement within a region.

Establishing a Community Improvement Corporation involves several steps. First, a group of interested stakeholders, including local government officials, business leaders, and residents, must come together to form a planning committee. This group will typically draft articles of incorporation and bylaws, specifying the corporation's mission, goals, governance structure, and the type of community development work it will focus on. Following this, the CIC must be registered with the Ohio Secretary of State. Importantly, the CIC's board of directors must be composed of a mix of community representatives, ensuring that the organization remains accountable and responsive to local needs. Once established, CICs may receive funding from various sources, including grants, donations, and loans, and they can also leverage tax incentives and state programs aimed at supporting community development.

The benefits of Community Improvement Corporations are significant for both communities and local governments. CICs allow for the efficient pooling of resources to address issues that affect a community's growth and prosperity. By facilitating redevelopment and providing a framework for managing local development projects, CICs can attract private investment, improve property values, and create jobs. They also enable local leaders to take proactive steps in shaping the future of their communities, rather than relying solely on state or federal programs. For residents, CICs can offer improved public services and better quality of life through enhancements to infrastructure and public spaces. For example, in Howland Township a CIC could offer matching façade grants to businesses along East Market Street. It could also provide low interest or forgivable loans to promote start-up or expanding businesses within the township.

POWERS OF A CIC

Broad powers authorized under ORC Section 1724.02 empower a CIC to:

- Borrow money for any purpose of the CIC.
- Provide loans to individuals or businesses.
- Buy, lease, sell real or personal property.
- Acquire the good will, business rights, real or personal property, and assets of an individual or business.
- Charge fees to political subdivisions for services.
- Enter into contracts with federal, state and local governments.
- Apply for and administer grants.
- Do all acts necessary or convenient to carry out statutory powers.

STEPS TO CREATE CIC