



City of Bettendorf  
Final  
City Wide Trail/Corridor Study

*Prepared by*  
Shive-Hattery, Inc.

April 5, 2013

## **EXECUTIVE SUMMARY**

### **PROJECT BACKGROUND**

Bicycle facilities in Bettendorf have traditionally been for recreational purposes. Although some effort has been put toward the connectivity of the trail system, commuter cyclists were not top of mind. As residents have become more aware of various environmental impacts from other transportation modes, there has been an increase in commuter cyclists in the community. This, as well as growing public interests, has led the city council to commission a bicycle facility study throughout the Bettendorf community.

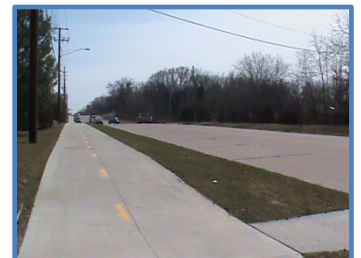
This bicycle facility study will look at arterial and collector corridors and analyze them for their ability to safely transport vehicles, pedestrians and cyclists with minimal conflict. Each corridor will also be analyzed for its connectivity to points of interest and neighborhoods throughout the city. A list of the corridors analyzed in this study can be found in the Appendix.

### **PROCESS**

The Bettendorf roadway transportation system was selectively broken into 30 corridors that collectively represent the arterial and collector roadways throughout the City. Each corridor was broken into segments based on connectivity and intersecting corridors. Each segment was reviewed and inventoried for physical barriers, potential obstacles, traffic volumes, functional classification, future land use, location and types of pavement, and connectivity. An inventory data sheet with a recommendation and cost opinion for each segment can be found in the appendix. A more general overview by corridor can be found in behind the Table 1 tab.

Recommendations were based on standards for typical sections of bicycle accommodations to the roadway system. There are four general recommendations for bicycle facilities. They are as follows:

1. **Share the Road** - A roadway that is open to both bicycle and motor vehicle travel. 'Designated' Share the Road is provided by signage and/or painted "sharrows" in the travel way.
2. **Bike Lanes** - A portion of the roadway that has been designated for preferential or exclusive use by bicyclists. Bike lanes utilize lane lines and other pavement markings and signage to designate the lane. It is intended for one-way travel, usually in the same direction as the adjacent traffic lane, unless designed as a contra-flow lane.
3. **Separated Trail** - A bikeway physically separated from motor vehicle traffic by an open space or barrier within the public right-of-way. Separated trails may also be used by pedestrians, roller skaters, wheelchair users, joggers, and other non-motorized users. Most separated trails are designed for two-way travel.
4. **Combining Bike Lanes with a Separated Trail** - While the bike lanes cater to the avid commuter, the separated trail provides alternative means for recreational cyclist and pedestrians, roller skaters, wheelchair users, joggers, and other non-motorized users to enjoy the outdoors.



Sidewalk recommendations for new construction were also made as part of this report. Recommendations include a typical minimum 6-foot wide sidewalk on both sides of the road for designated "Share the Road" conditions and a minimum 5-foot wide sidewalk for all other conditions. Thus, for a separated trail, a minimum 5-foot wide sidewalk is recommended to be placed on the opposite side of the roadway from the trail side.

Upon compilation of the data and the recommendations for bicycle facility accommodations, the data was submitted to City staff for review and comment.

A steering committee was then created to evaluate the review comments. The committee was comprised of city staff representing each of the following departments: engineering, planning, parks and recreation, economic development and the Shive-Hattery team. The review comments were considered and incorporated into each segment's recommendation upon an analysis of the system as a whole.

The analysis included evaluation of the bicycle facility that would suit the different types of riders, their abilities, and their desires to utilize those facilities. The recommendations took these types of riders into consideration upon evaluation of each corridor. This study analyzed each segment with rider types II and III in mind. The types of riders are as follows:

- Type I – Strong and Fearless – These riders will ride regardless of the facilities; trip distances are not an issue.
- Type II – Enthused and Confident - These riders are comfortable in traffic with the appropriate facilities designated and prefer shorter trip distances.
- Type III – Interested, but Concerned – These riders are not comfortable in or near traffic and will only ride in low-volume, low speed conditions.
- Type IV – No Way, No How – These riders are not interested in integration into traffic and rarely even use separated trails, except occasionally.

Aside from the riders abilities and their desire to utilize a bicycle facility within a given segment or corridor, the constraints within each segment were also pertinent to the analysis and therefore evaluated as part of the process. Limited right-of-way widths, traffic volumes, safety issues, pavement conditions and widths, power pole locations, and other obstacles are a few of the constraints that were evaluated when making the recommendations.

Public involvement is crucial to the validity of a bicycle facility study. Once all recommendations were approved through the city's steering committee, a public meeting was held to introduce the findings and to get public feedback. All comments received during the public meeting were reviewed with the steering committee and compared to the data obtained at the beginning of the study. Public comments tended to be mostly reaffirming and constructive to this process. Copies of the comments submitted by the public can be found behind the Public Involvement tab.

Another public comment meeting was held with bicycle enthusiasts and club members. They convened together with Shive-Hattery to discuss the study further and specifically discuss intersection standards. It was concluded that the AASHTO guidelines were recommended for traversing intersections, especially since every intersection is unique and would at a minimum require a standard method for safely moving cyclists through and around intersections containing vehicular traffic.

## RECOMMENDATIONS

- An overall City-wide map is attached (Attachment A), showing each roadway segment with the corresponding bicycle facility recommendation. There are 110 segments designated in this study and this map summarizes those recommendations.
- Table 1 is a corridor recommendation table showing the 30 corridors and their corresponding bicycle facility designations. These are the recommendations found for this study, broken out more generally by corridor.
- It is recommended that the facilities used at each intersection should follow the AASHTO “Guide for the Development of Bicycle Facilities” Latest Edition.
- For all future developments, it is recommended that a minimum 6-foot wide sidewalk be constructed on both sides of the road for designated “Share the Road” conditions and a minimum 5-foot wide sidewalk for all other conditions.

## MAPPING

Other maps of bicycle facility locations have been included in this executive summary and are as follows and can be found behind the Mapping tab.

- Attachment A: Overall Recommended Citywide Map
- Attachment B: Bi-State, Quad City Area Long Range Transportation Plan  
Multi-purpose Trails Network
- Attachment C: American Discovery Trail Map and Mississippi River Trail Map

## PUBLIC INVOLVEMENT

The sign-in sheet and comments have been included in this executive summary and can be found behind the Public Involvement tab.

## APPENDIX

Contained within this report is an appendix. The appendix is a 350+ page document that has all the segments that were analyzed, tabbed by corridor. At the beginning of each corridor and its segments, a summary statement can be found that identifies general findings for that particular corridor. Then, each Segment has 3 pages associated with it.

- Page 1 has existing conditions, photos that represent that segment and the recommendation.
- Page 2 shows the segment location map and the recommended typical section graphic.
- Page 3 is the Inventory Data sheet that has existing data, evaluation, recommendations, and an engineer’s opinion of probable cost.

## CLOSING

The City of Bettendorf prides itself in being a premier city, and in doing so, supported the need for this study. Its recommendations can be used as a road map to the future. Recognizing the need for this study signifies the City’s desire to lead the Quad City area in planning for alternative modes of transportation.

**TABLE 1**

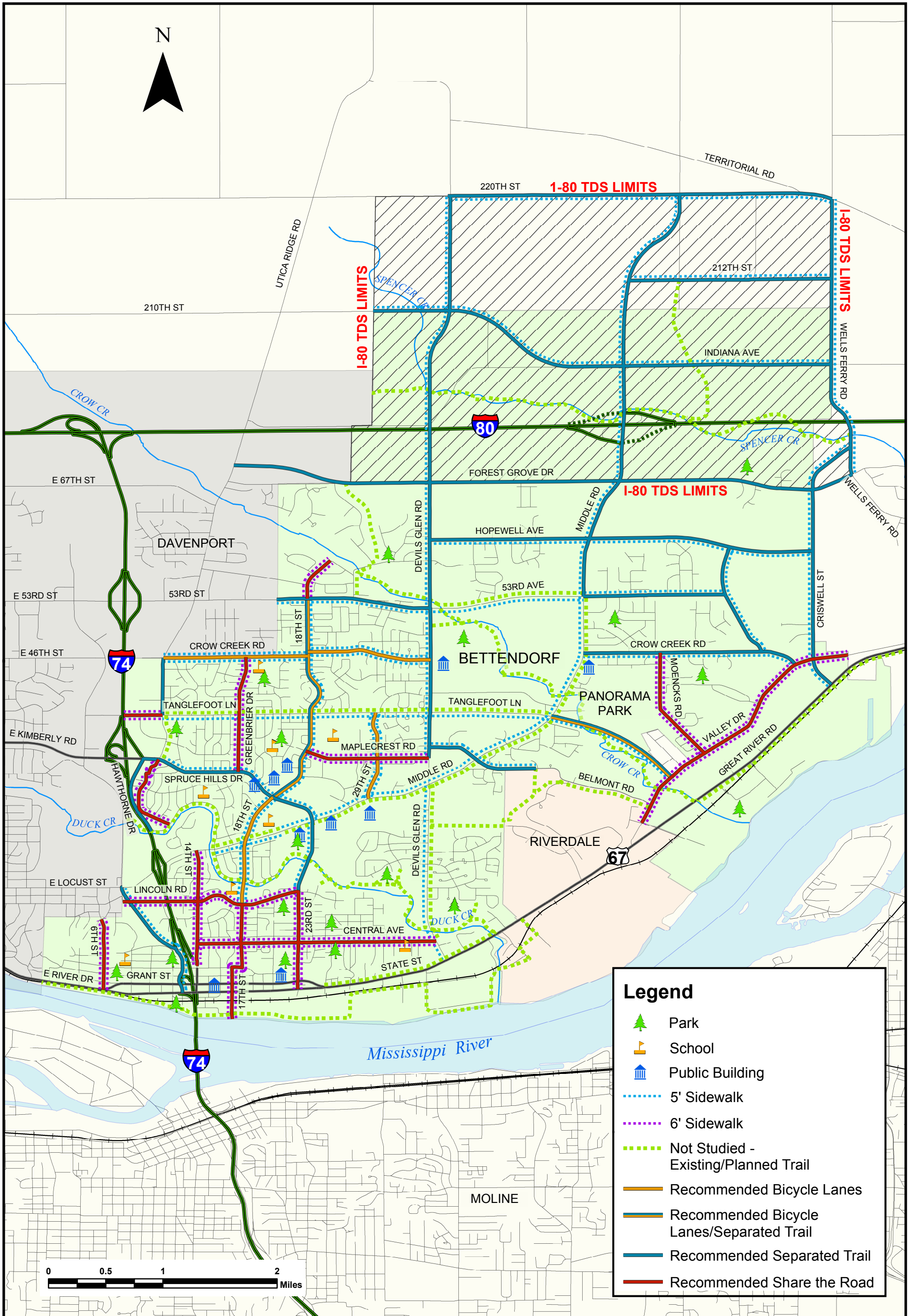
<b>CORRIDOR</b>	<b>RECOMMENDED IMPROVEMENTS</b>	<b>ESTIMATED COST</b>
<b>6th Street</b>	Share the Road	\$ 3,315.00
<b>14th Street</b>		
Segment A	Not recommended for bicycle facility	
Segment B-C	Share the Road	\$ 5,315.00
<b>18th Street</b>	Share the Road	\$ 20,750.00
<b>23rd Street</b>	Share the Road	\$ 7,875.00
<b>29th Street</b>	Bike Lanes	\$ 10,000.00
<b>53rd Avenue</b>	Separated trail	\$ 1,252,990.00
<b>220th Street</b>	Unimproved - Not recommended for bicycle facility Improved - separated trail	\$ 1,989,085.00
<b>Belmont Road</b>	Separated trail	\$ 768,915.00
<b>Central Avenue</b>	Share the Road	\$ 11,855.00
<b>Criswell Street</b>	Separated trail	\$ 1,528,350.00
<b>Crow Creek Road</b>		
Segment A, B	Bike Lanes	\$ 24,815.00
Segment C	Share the Road	\$ 4,250.00
Segment D	Separated Trail	\$ 7,000.00
<b>Devils Glen Road</b>		
Segment A	Not recommended for bicycle facility	
Segment B	Separated Trail under construction at this time	
Segment C-H	Separated Trail	\$ 2,485,085.00
<b>Forest Grove Drive</b>	Separated Trail	\$ 2,662,385.00
<b>Greenbrier Drive</b>	Share the Road	\$ 5,625.00
<b>Hawthorne Hills</b>	Share the Road	\$ 3,750.00
<b>Hopewell Avenue</b>		
Segment A	No improvements necessary	
Segment B & C	Separated Trail	\$ 1,000,750.00
<b>Indiana Avenue</b>	Separated Trail	\$ 1,911,825.00
<b>Kimberly Road</b>	Separated Trail	\$ 694,690.00
<b>Lincoln Road</b>	Share the Road	\$ 7,125.00
<b>Maplecrest Road</b>	Share the Road	\$ 4,250.00
<b>Middle Road</b>	Separated Trail	\$ 6,243,970.00
<b>Moencks Road</b>	Share the Road	\$ 5,125.00
<b>Spruce Hills Drive</b>		
Segment A	Not recommended for bicycle facility	
Segment B - D	Separated Trail	\$ 978,395.00
<b>State Street</b>		
<b>Tanglefoot Lane</b>		
Segment A	Share the Road	\$ 1,250.00
Segment B - D	Separated Trail / Bike Lanes	\$ 743,350.00
<b>Unnamed East - West</b>	Separated Trail	\$ 663,035.00
<b>Unnamed North - South</b>	Separated Trail	\$ 662,820.00
<b>Utica Ridge Road</b>	Separated Trail	\$ 346,500.00
<b>Valley Drive</b>	Share the Road	\$ 8,500.00
<b>Wells Ferry Road</b>	Separated Trail	\$ 1,681,615.00

## MAPPING

- Attachment A – Overall Citywide Map
- Attachment B – Bi-State, Quad City Area Long Range Transportation Plan  
Multi-Purpose Trails Network
- Attachment C – American Discovery Trail Map & Mississippi River Trail Map



# Bettendorf Trails Network



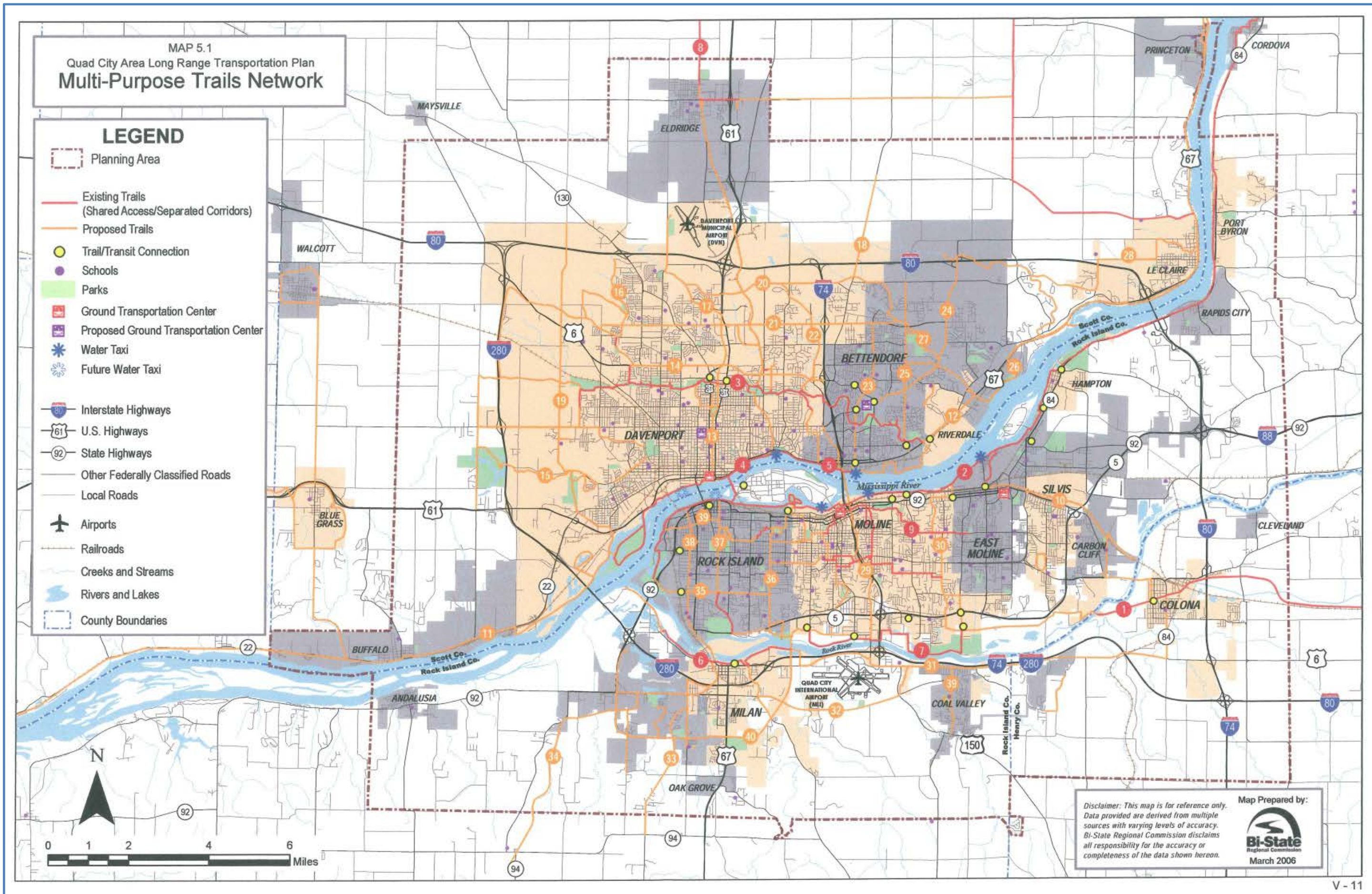
Map prepared by:

**SHIVEHATTERY**  
ARCHITECTURE+ENGINEERING  
www.shive-hattery.com

ATTACHMENT 1

**Bettendorf, Iowa  
Trails System**

ATTACHMENT B



## ATTACHMENT C

### American Discovery Trail



### Mississippi River Trail



## **PUBLIC INVOLVEMENT**

- Sign in sheet
- Comments



## ATTENDANCE SHEET

**PROJECT NAME:** City Wide Trail / Corridor Study

**MEETING TYPE:** Public Meeting

**MEETING DATE:** January 28, 2013

**LOCATION:** Quad Cities Waterfront  
Convention Center

**MEETING TIME:** 4PM to 7PM

**PROJECT NO:** 3121260

**NAME/COMPANY**

1. Frank Baden
2. Wally Mook
3. Leslie Arquilla
4. Richard Pokora
5. Joe Taylor
6. Pat Sundholm
7. Steve Van Dyke
8. Kentley Loewenstein
9. Richard Arnold
10. Larry Decker
11. Sue Seaberg
12. Robert Wild
13. George Seaberg
14. Tiffany Tjepkes
15. Richard Sipple
16. Bob Gallagher
17. Chad Miller
18. Douglas McDonalds
19. Don Buss
20. Norm Voelliger
21. Dale Hupp
22. Brian Schmidt
23. K. Schmid
24. Donnie Miller
25. Gloria Gierice
26. Robert Lee
27. Steve Martens
28. Clayton Lloyd
29. Phil Schubbe
30. Laird Brown
31. Marvin Kane
32. Scott Naumann

**NAME/COMPANY**

33. Bill Connors
34. Linda Hupp
35. Dean Yathers
36. Decker Ploehn
37. Steve Huber
38. Frank Becker
39. Jerry Springer
40. Danielle Spaete
41. Mike Spaete
42. Jackie Rouse
43. Dean Mayne
44. Amy Brooks
45. Dixon Novy
46. Tom Erps
47. Jim Slavens
48. Ellen Jones
49. Mary Anne Engel
50. Kathy Storm
51. Jim Hogan
52. Greg Adamson
53. Cathy Cooper
54. Brenda Klauer
55. Doug Klauer
56. Norma Williams
57. Julie Hale
58. Debe LaMar
59. John Harrington
60. Bob Anderson
61. Greg Gackle
62. Judy Gackle
63. Lisa Turner



Below are the public comments that were received at the meeting held at the Quad Cities Waterfront Convention Center on January 28, 2013:

- John Harrington** I appreciate the "Share the Road" signs. Unfortunately I still continue to have "near misses" on Devils Glen. What can be done to make the signs effective?
- Amy Brooks** Connect the trail through Kenningston.
- Frank Becker** Fix a connection between Duck Creek Bike Trail and River Front Trail.
- Richard Pukora** (comment 1) Connect Utica Ridge path to Duck Creek bike path by bike path. No share the road. Doesn't work. (comment 2) The bike path, coming down Utica Ridge Road to Spruce Hills, must be linked to the Duck Creek bike path by a bike path. Bikes in the street will not work due to narrow streets and cars parking in the street. The State will cooperate.
- Robert Wild** Overall very impressed with S-H presentation. I walk daily, and ride during warm weather, so am looking for looping trails and connections to Davenport/Riverdale trails. Would like to see the Spruce Hills/I 74 underpass trail given priority to add a northern connection to Davenport.
- George Seaberg** Riverdale would like trail on north side of 67.
- Joe Taylor** Connections of local trails to other trail systems are vital. Plan should consider trail wayfinding signs and systems. Plan should note riverfront trails are part of Mississippi River Trail, Inc from MN to LA
- Jackie Rouse** I've been enjoying the new path by the river and it's great to see your continued plans.
- Don Buss** (comment 1) Very happy to see 10' trail coming to Devils Glen between 53<sup>rd</sup> and Middle Road. This would seem to have potential for a lot of use. Don't really see value of bike lanes on a wide, moderate traffic street. Bike lanes and a 10' sidewalk on same street (i.e. Tanglefoot) seems like overkill. Not enough congestion to warrant both. Really prefer the 10' trail. 18<sup>th</sup> Street between Middle Road and Tanglefoot really could use a wide sidewalk (trail) rather than bike lanes. The 10' trails/sidewalks were a pleasant surprise when we moved here from East Moline. (comment 2) Off road trail on Middle Road from 53<sup>rd</sup> to Hopewell (or father) would seem to be highly desirable. Ties into existing 10' trails to Middle Road very dangerous to bicycle in this area.
- Julie Hale** Like all the improvements! Thanks for keeping them plowed.
- Greg Gackle** (comment 1) The Middle Road and I-74 bike crossings need to be addressed...the traffic lights don't even work. (comment 2) Need to address missing trail connection between riverfront trail and Duck Creek trail.
- Dean Mayne** Very impressive and well thought-out. Right on target with City Council's goal for a walkable bikeable city.
- Mary Ann Engle** I would like to see a path along west Pigeon Creek from Crow Creek Road to Valley Drive.
- Phil Schubbe** Please include some toilets (waterless or otherwise) in the rural trail areas. Ward 2 – Please consider some access rom Halcyon – Hollowview into Scott Community College (thru Deer Brook)



**Laird Brown** Great Plan. Suggest maps on your website to show the completed trails, bike lanes and those in the planning with estimated completion dates. Suggest link with visitor and convention bureau for those maps.

**Steve Huber** Connect Kensington to River & Duck Creek Trails

Jim Hogan Are there any plans to extend the shared-use pathway along Kimberly Road terminating at Middle Road north to Duck Creek Parkway? With the city border with Davenport along that stretch and an already existing sidewalk on the east side, a discussion with Davenport officials seems to be needed to complete this section to form a I-74 corridor pathway.

**Dean "Bareback" Mathias** Spoke with Mayor Gallagher and Decker about I-74 corridor connection to Duck Creek, up to 53. Do the project in phases – needed section first. Fenced off area – cloverleaf adaptations – Ped and cycling. I will donate \$10,000 for engineering study. Residents could take new bike accommodation bridge (I-74) to Western University and Q.C. Airport. Need lighted connection/signage for walkers, convention goes to bike front trail and to convention center from Isle of Capri. Still need lighting going west from Leach Park. Trail along I-80 crushed gravel north of Forest Grove Park to LeClaire. Keep up the great work. Scott Community College connection with Duck Creek.

**Pat Sundholm** I would like to see a study done as to how many Bett people use the existing bike paths to see if it is worth the money to add more. Also, on the Tanglefoot there are bike paths in the street and a few feet away a sidewalk bike path. Pretty dumb and expensive.

**Chad Miller** Thank you for giving me your email address so I could type more thoughtful comments. First off I object to the title of the project being called city Wide Trail study, when in fact there are many Recreation Trails that were planned without study back in the 1980s and that are currently assumed to be done deals. Specifically the trail from Crow Creek park to the new Middle Road Bridge. This was planned without study at that time and is in my opinion an error that continues to be carried forward. In the past 30 years trails have been added on 53<sup>rd</sup> & TangleFoot that were not a consideration at that time. I do understand the difference between separated trails near thoroughfares and separated Trails through natural areas. I know they have a different intent. It is my opinion as a tree hugger that disrupting these natural areas with 10' wide concrete paths and humans is not in the best interest of nature. The title of your study is very misleading to the uninformed as you did not study every proposed trail in the city, you were only looking at trails along corridors. You should not have included contested trails in nature areas that you did not study at this time.

The second major input I'd like to give is the higher priority of sidewalks over trails. Sidewalks from every neighborhood need to be in place to be able to get to the trails we already have. Putting in more trails that are not connected to the incomplete sidewalk system is counterproductive because then citizens have to walk or ride their bike on the road or in rutted paths or drive their cars to get to the trails. Until all neighborhoods have sidewalks we should not spend any more money on new trails.

I also believe recreation trails are a luxury item. After we have all required infrastructure up to current standards, then I would consider looking at adding more trails. Until then I believe streets, sewers, parks, etc currently in place should be upgraded as a first priority. It makes no sense to add new trails when there is not money in the budget to take of what we currently have in the city. We do a better job compared to other cities, but until we are at 99% of current infrastructure standards we should not look to expand the trail system as it is only one more thing for an overworked public works and parks dept staff to take of.

## APPENDIX

### CORRIDORS

- 6th Street
- 14th Street
- 18th Street
- 23rd Street
- 29th Street
- 53rd Avenue
- 220th Street
- Belmont Road
- Central Avenue
- Criswell Street
- Crow Creek Road
- Devils Glen Road
- Forest Grove Drive
- Greenbrier Drive
- Hawthorne Hills
- Hopewell Avenue
- Indiana Avenue
- Kimberly Road
- Lincoln Road
- Maplecrest Road
- Middle Road
- Moencks Road
- Spruce Hills Drive
- State Street
- Tanglefoot Lane
- Unnamed East - West
- Unnamed North - South
- Utica Ridge Road
- Valley Drive
- Wells Ferry Road



## 14<sup>th</sup> STREET

### SUMMARY

14<sup>th</sup> Street is a principal and minor arterial that extends from the Interstate 74 off-ramp south to Middle Road, which is approximately 1.23 miles. This corridor is divided into three (3) segments. Segment A is approximately 0.21 miles from Interstate 74 to Kimberly Road; segment B is approximately 0.58 miles from Kimberly Road to Lincoln Road; and segment C is approximately 0.44 miles from Lincoln Road to Middle Road.

**14<sup>TH</sup> STREET: SEGMENT A**

**Segment Length = 0.21 Miles**

**Existing Conditions**

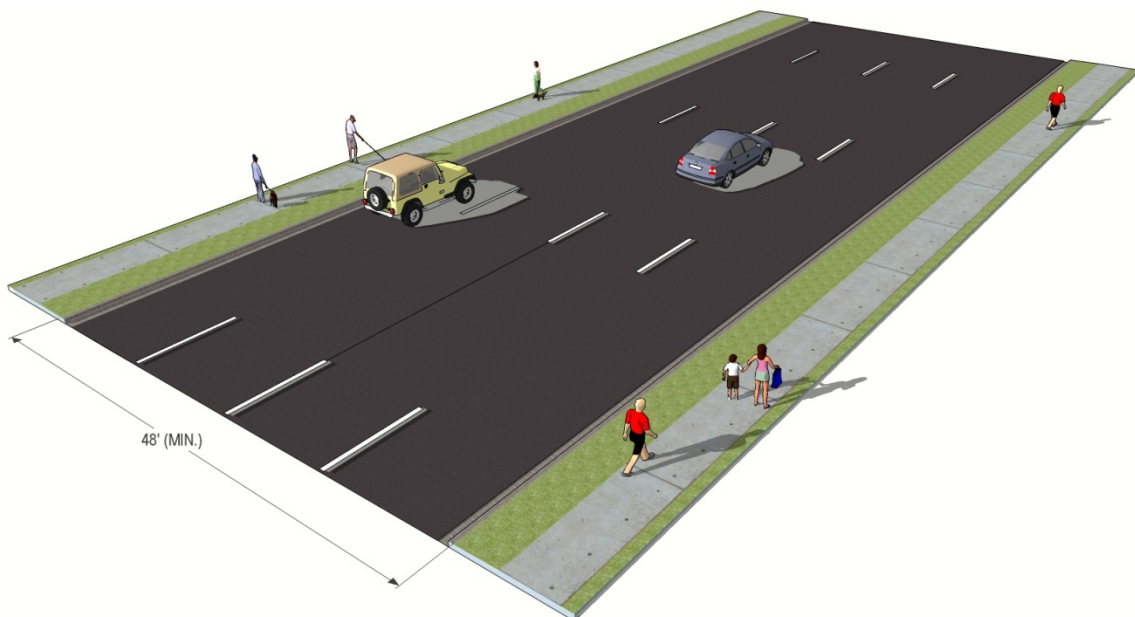
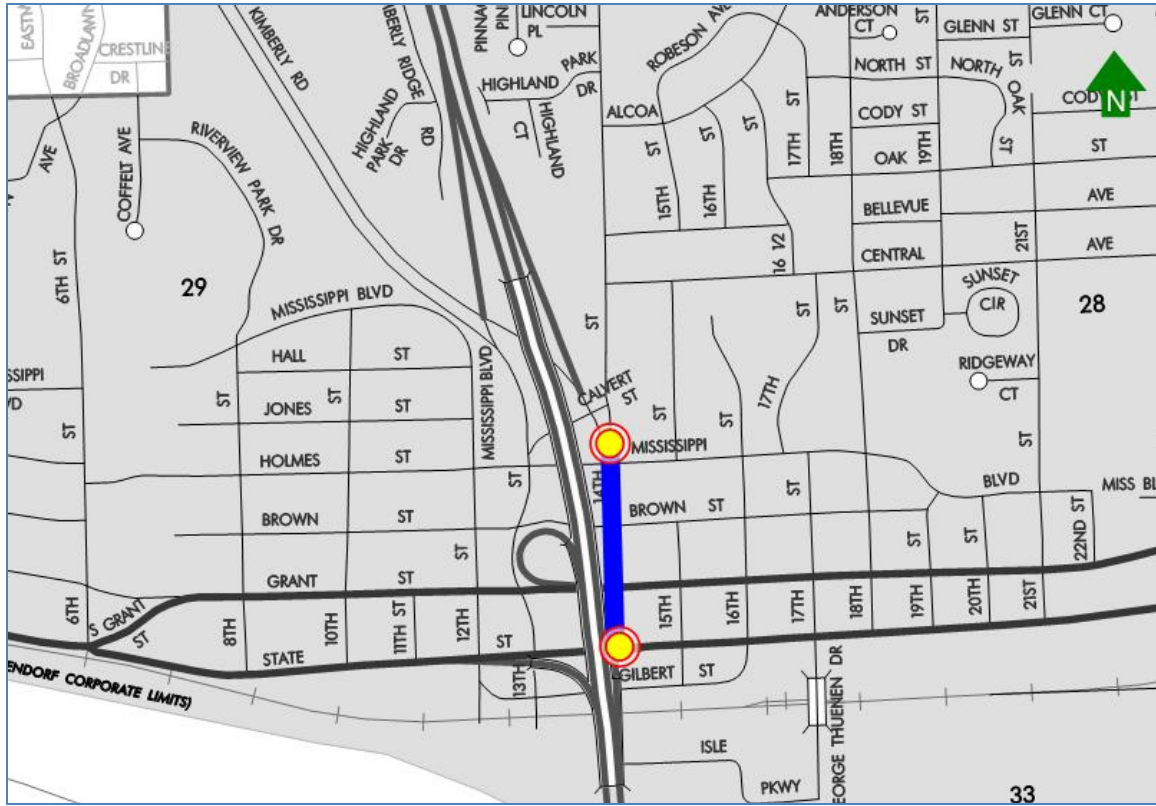
14<sup>th</sup> Street is a 4-lane, one way roadway in a portion of the segment, and a 2-lane, 30 foot wide roadway in the remainder. The existing right-of-way is approximately 60 feet, which includes sidewalk on both sides of the roadway. The posted speed limit is 25 mph and serves approximately 9000 vehicles per day.



**Recommended Improvements**

Due to traffic volumes and turning movements off of Interstate 74 bridge, this segment is not recommended for a bicycle facility.

**14<sup>TH</sup> STREET: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	14TH STREET	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.21	
7	Number of Traffic Lanes	3,4	
8	Total Pavement Width (Ft.)	30'-50'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'-8'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	OTHER PRINCIPAL ARTERIAL	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	35'/LT, 15'/RT	
23	Traffic Volume (ADT)	8000, 9300	
24	Land Use Types	C, I	
25	Physical Barriers	Left	Right
	Number of Drives	7	8
	Number of Rail Crossings	0	0
	Number of Intersections	4	4
	Number of Fire Hydrants	0	1
	Number of Power poles	0	8
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	INTERSTATE 74 / KIMBERLY ROAD	
Recommendations			
	Recommended Facility	NONE	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

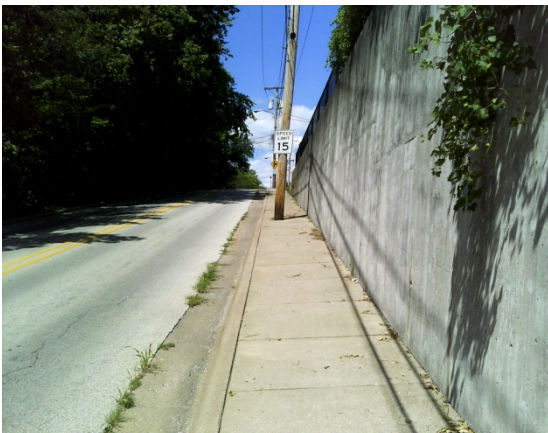
Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS			\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ -
Construction Contingency 15%					\$ -
Engineering Design 10%					\$ -
Total Segment Cost					\$ -

**14<sup>TH</sup> STREET: SEGMENT B**

**Segment Length = 0.58 Miles**

**Existing Conditions**

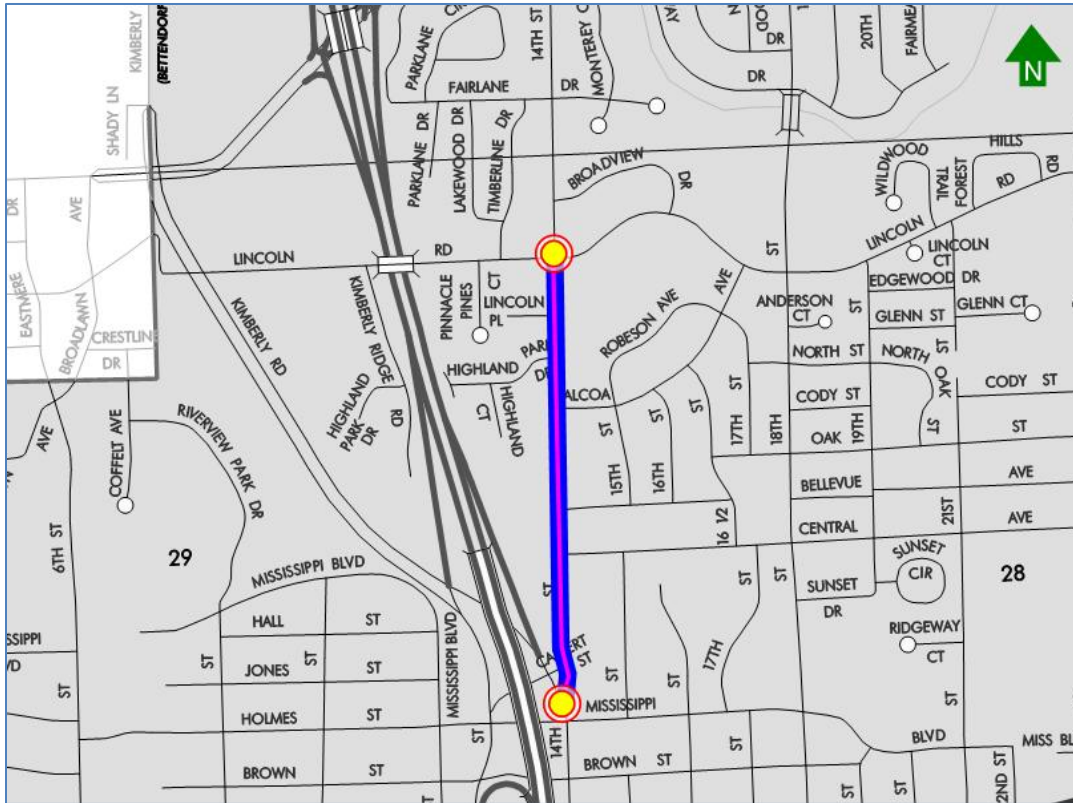
14<sup>th</sup> Street is a 28-foot wide, 2-lane roadway in this segment. The existing right-of-way is approximately 60 feet containing a sidewalk on the east side of the roadway. The posted speed limit is 30 mph and serves approximately 5100 vehicles per day.



**Recommended Improvements**

We recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**14<sup>TH</sup> STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	14TH STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.58	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28'	
9	Surface Type	PCC & ASPHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	RT	
15	Sidewalk Width (Ft.)	0/LT, 4',5'/RT	
16	Posted Speed Limit (MPH)	15, 30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 10'/RT	
23	Traffic Volume (ADT)	5100	
24	Land Use Types	C, TR	
25	Physical Barriers	Left	Right
	Number of Drives	17	27
	Number of Rail Crossings	0	0
	Number of Intersections	5	5
	Number of Fire Hydrants	6	0
	Number of Power poles	5	27
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	LINCOLN ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,400
Construction Contingency 15%					\$ 360
Engineering Design 10%					\$ 240
Total Segment Cost					\$ 3,000

**14<sup>TH</sup> STREET: SEGMENT C**

**Segment Length = 0.44 Miles**

**Existing Conditions**

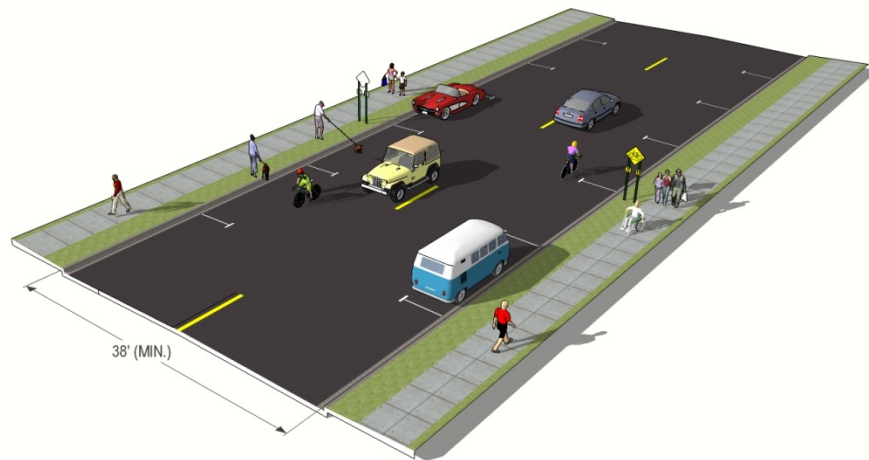
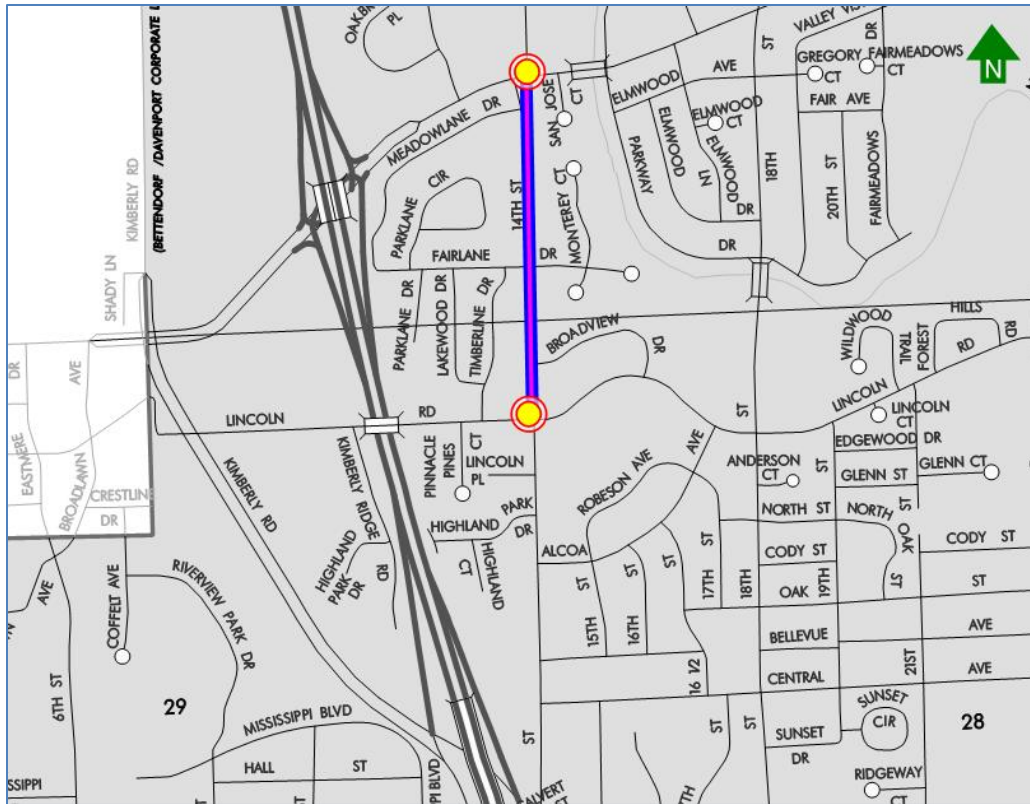
14<sup>th</sup> Street is a 36-foot wide pavement in this segment, with parking on both sides of the roadway. The existing right-of-way is approximately 60 feet containing a sidewalk along the east side of the road. The posted speed limit is 30 mph and the segment serves approximately 4000 vehicles per day.



**Recommended Improvements**

We recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**14<sup>TH</sup> STREET: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	14TH STREET	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.44	
7	Number of Traffic Lanes	2, 3	
8	Total Pavement Width (Ft.)	36'	
9	Surface Type	PCC, ASPHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5'	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4/LT PARTIAL, 0/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	30/LT, 25/RT	
23	Traffic Volume (ADT)	3030, 4110	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	25	23
	Number of Rail Crossings	0	0
	Number of Intersections	4	4
	Number of Fire Hydrants	4	0
	Number of Power poles	1	18
	Landscaping in or near ROW	NO	YES
Evaluation			
	Segment Benefits	NEIGHBORHOOD	
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,850.00	1	\$ 1,850
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,850
Construction Contingency 15%					\$ 280
Engineering Design 10%					\$ 185
Total Segment Cost					\$ 2,315

## **18<sup>th</sup> STREET**

### **SUMMARY**

18<sup>th</sup> Street is a minor arterial corridor that runs north – south connecting downtown to the 53<sup>rd</sup> Avenue corridor. This corridor is divided into nine (9) segments. Segment A is approximately 0.42 miles in length, running from State Street to Central Avenue; segment B is approximately 0.33 miles in length, from Central Avenue to Lincoln Road; segment C is approximately 0.57 miles in length, running from Lincoln Road to Middle Road. Segment D is approximately 0.43 miles beginning at Middle Road, ending at Spruce Hills Drive; segment E is approximately 0.48 miles in length, starting at Spruce Hills Drive, ending at Maplecrest Road. Segment F is 0.33 miles in length beginning at Maplecrest Road and ending at Tanglefoot Lane; segment G is approximately 0.57 miles running from Tanglefoot Lane to Crow Creek Road. Segment H is approximately 0.5 miles in length, beginning at Crow Creek Road and ending at 53<sup>rd</sup> Avenue; and segment I is approximately 0.3 miles in length, beginning at 53<sup>rd</sup> Avenue, ending at Broadlawn Avenue. This corridor connects many schools and is part of multiple mass transit routes.

**18<sup>TH</sup> STREET: SEGMENT A**

**Segment Length = 0.42 Miles**

**Existing Conditions**

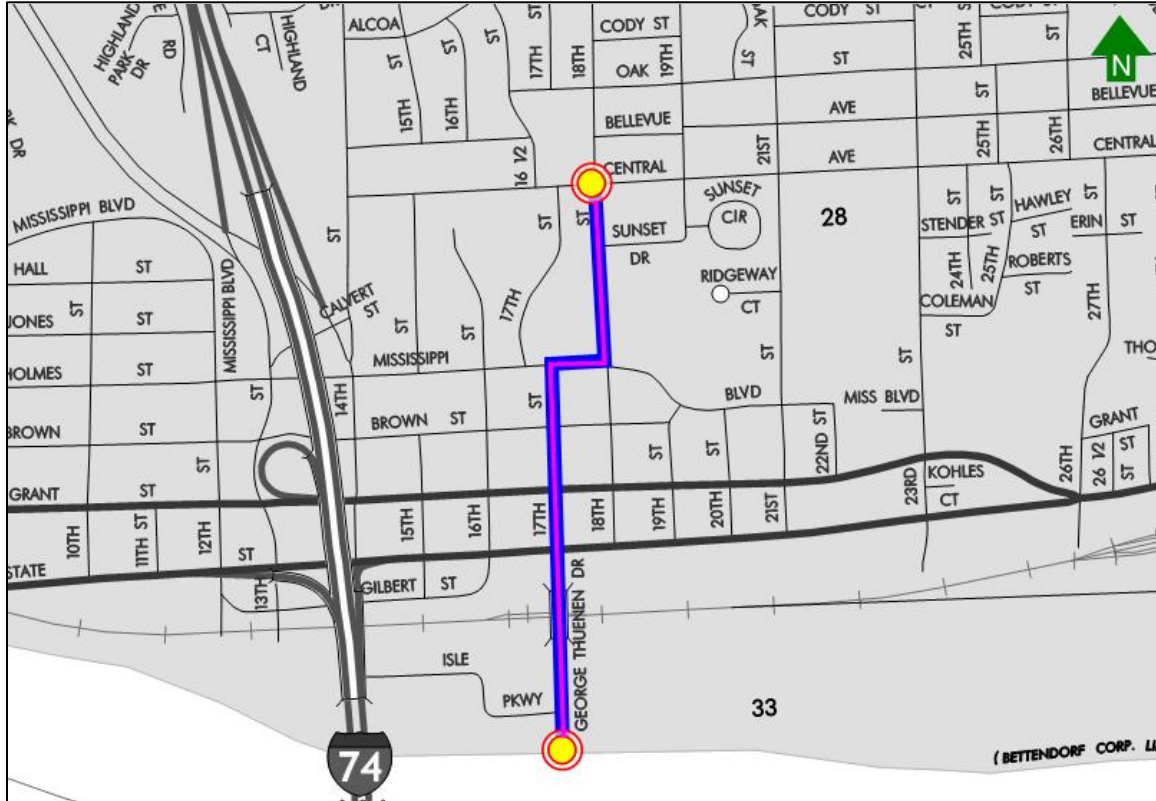
18<sup>th</sup> Street is a 38-foot wide 2-lane with center turn lane between State Street and Brown Street. Starting at Brown Street there is on-street parking on both sides of the street. It is classified as a minor arterial. The existing right-of-way is 60 foot from State Street to Mississippi Boulevard, where it widens from 80 foot to 170 foot then narrows back to 75 foot at Central Lane. There is existing sidewalk on the east. The posted speed limit is 30 mph and serves approximately 2800 vehicles per day. The land usage along this segment is commercial, with traditional and high density residential. There are many obstructions in the right-of-way and there are buildings very close to the existing road.



**Recommended Improvements**

The opportunity for incorporating bicycle facilities are very limited in this segment of 18<sup>th</sup> Street, due to parking and major obstructions in the narrow right-of-way. The recommendation for 18<sup>th</sup> Street segment A is to define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities. For ease of connecting to the Mississippi River Trail, heading west on Mississippi Boulevard, then south on 17<sup>th</sup> to connect to the bridge at George Thuenen Drive is recommended.

**18<sup>TH</sup> STREET: SEGMENT A**



INVENTORY DATA

Existing		
1	Roadway Name	18TH STREET
2	Segment	A
3	Existing Trail	NO
4	Existing Bike Lanes	NO
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.42
7	Number of Traffic Lanes	2,3
8	Total Pavement Width (Ft.)	32'-38'
9	Surface Type	PCC
10	Curb & Gutter	LT/RT
11	Width of Curb/Flag (Ft.)	N/A
12	Shoulder Width (Ft.)	N/A
13	Shoulder Surface Type (Ft.)	N/A
14	On-Street Parking	PARTIAL
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT
16	Posted Speed Limit (MPH)	30
17	Storm Sewer	NO
18	Ditch	NO
19	Bus Stop	NO
20	Roadway Classification	MINOR ARTERIAL
21	R.O.W. Width (Ft.)	60'
22	Proximity of Roadway to Buildings (Ft.)	15'/LT, 8'/RT
23	Traffic Volume (ADT)	1780, 2010, 2830, 2740
24	Land Use Types	C, I, HD, TR
25	Physical Barriers	Left Right
	Number of Drives	6 6
	Number of Rail Crossings	0 0
	Number of Intersections	5 6
	Number of Fire Hydrants	2 2
	Number of Power poles	3 22
	Landscaping in or near ROW	YES YES
Evaluation		
	Segment Benefits	PAVEMENT CONDITION
	Neighborhood Accessibility	GOOD
	Residential Density (Hi-Med-Lo)	MED
	Convenient Connections	CONVENTION CENTER; CENTRAL AVENUE TRAIL
Recommendations		
	Recommended Facility	SHARE THE ROAD
	Need Bicycle Surface Improvements	
	Need Pedestrian Surface Improvements	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,800
Construction Contingency 15%					\$ 270
Engineering Design 10%					\$ 180
Total Segment Cost					\$ 2,250

**18<sup>TH</sup> STREET: SEGMENT B**

**Segment Length = 0.33 Miles**

**Existing Conditions**

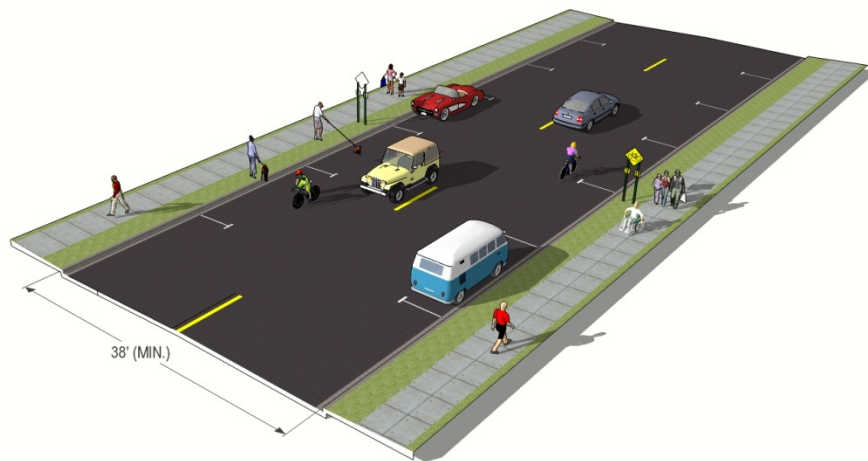
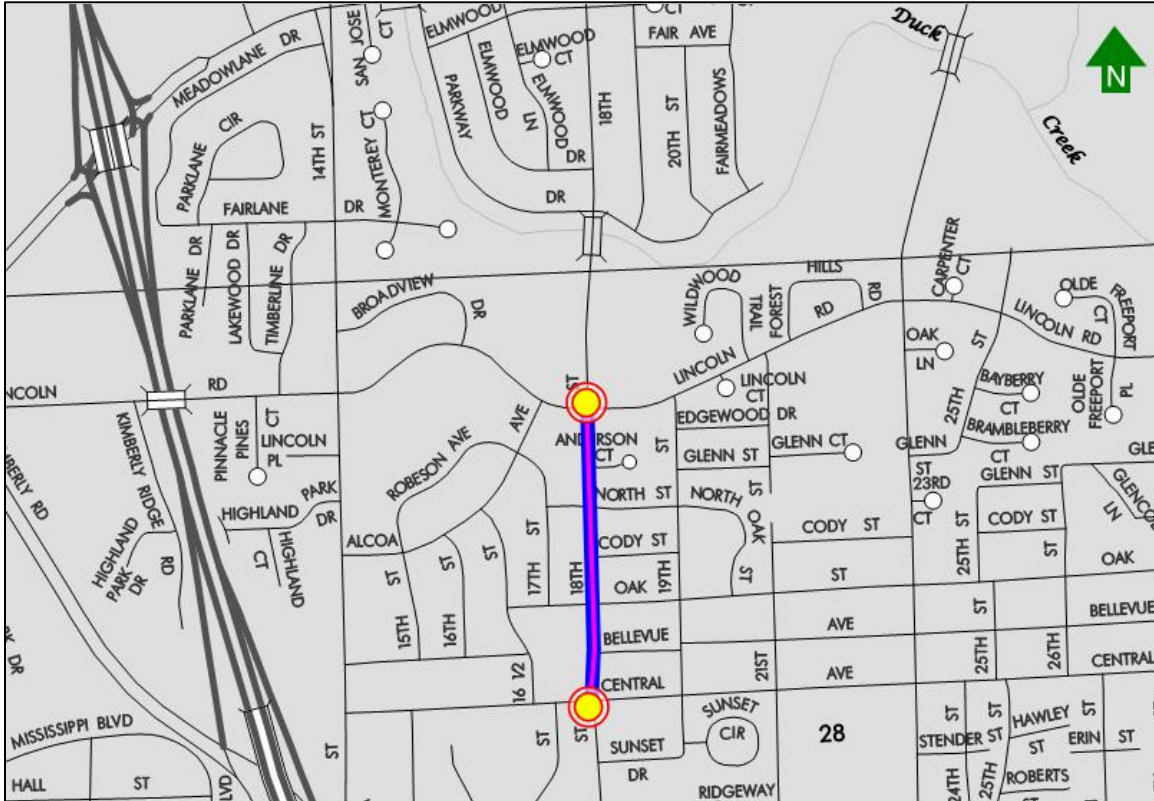
In this segment, 18<sup>th</sup> Street is 38-foot wide with 2-lanes and parking on both sides. It is classified as a minor arterial. The existing right-of-way is 65 feet. The posted speed limit is 30 mph and the segment serves approximately 2700 vehicles per day. The land usage is traditional residential, with many drives and alleys accessing the right-of-way on both sides. There is a retaining wall at the edge of right-of-way on the east side at Lincoln Road.



**Recommended Improvements**

Due to on-street parking and limited right-of-way there are limited options for bicycle facilities in this segment. The recommendation for 18<sup>th</sup> Street segment B is to define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.

**18<sup>TH</sup> STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.33	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	38'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 20'/RT	
23	Traffic Volume (ADT)	2740	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	11	8
	Number of Rail Crossings	0	0
	Number of Intersections	3	3
	Number of Fire Hydrants	0	5
	Number of Power poles	5	12
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	BUS ROUTES, LINCOLN ROAD, CENTRAL TRAILS	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,400.00	1	\$ 1,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,400
Construction Contingency 15%					\$ 210
Engineering Design 10%					\$ 140
Total Segment Cost					\$ 1,750

**18<sup>TH</sup> STREET: SEGMENT C**

**Segment Length = 0.57 Miles**

**Existing Conditions**

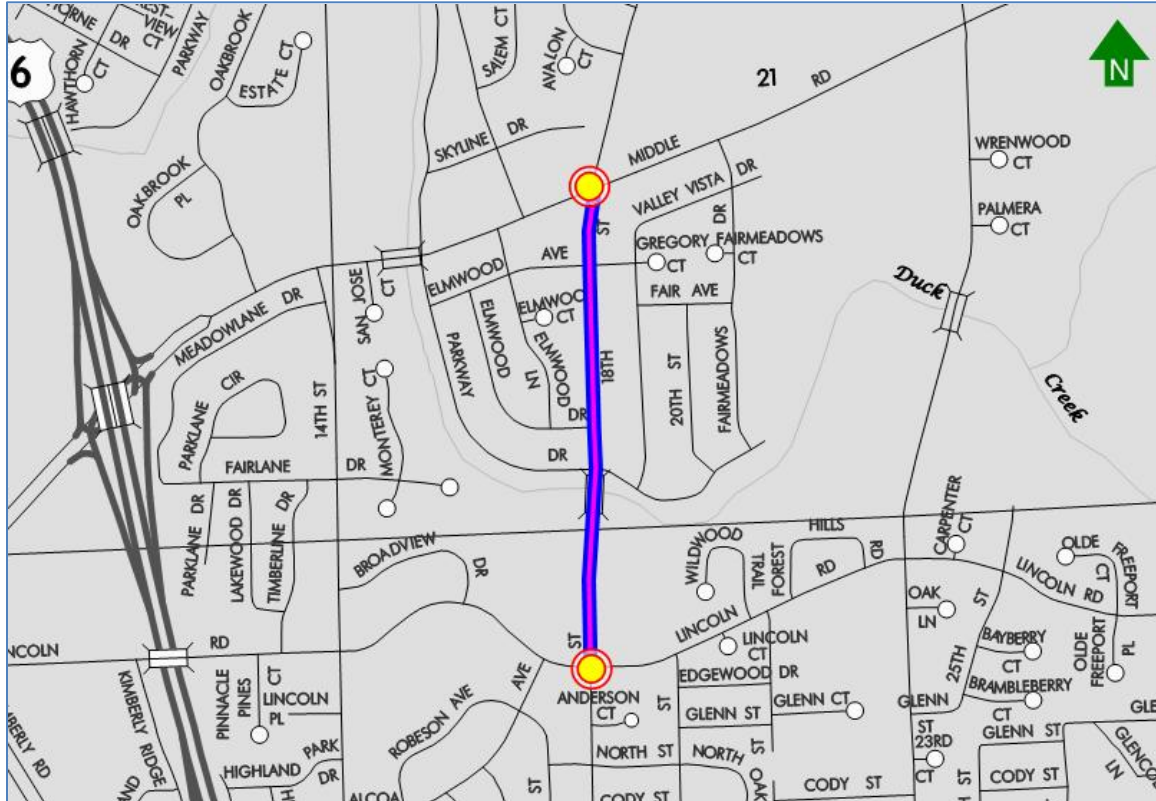
18<sup>th</sup> Street is a 38-foot wide 2-lane road in segment C. There is parking on both sides of the street. It is classified as a minor arterial. The existing right-of-way is 80 feet. There is a bridge at Duck Creek with narrow sidewalks. Sidewalks exist on both sides of the street. The posted speed limit is 30 mph. The segment serves approximately 2700 vehicles per day. Land usage in this segment is a mix of school, traditional residential and office. There are numerous drives and alleys accessing the right-of-way.



**Recommended Improvements**

Due to the high number of driveways and utility poles, as well as pavement width restrictions the current recommendation is to designate the usage as "Share the Road" utilizing signage and improving education of motorists for traveling near or within bicycle facilities. When the segment is improved, we recommend incorporating separate bicycle lanes into the new design.

**18<sup>TH</sup> STREET: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.57	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	38'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'-6'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR AERTERIAL	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 40'/RT	
23	Traffic Volume (ADT)	2740	
24	Land Use Types	I, TR, OT, R	
25	Physical Barriers	Left	Right
	Number of Drives	19	19
	Number of Rail Crossings	0	0
	Number of Intersections	4	4
	Number of Fire Hydrants	3	2
	Number of Power poles	16	6
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	DUCK CREEK TRAIL, SCHOOL, MIDDLE ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,400
Construction Contingency 15%					\$ 360
Engineering Design 10%					\$ 240
Total Segment Cost					\$ 3,000

**18<sup>TH</sup> STREET: SEGMENT D**

**Segment Length = 0.43 Miles**

**Existing Conditions**

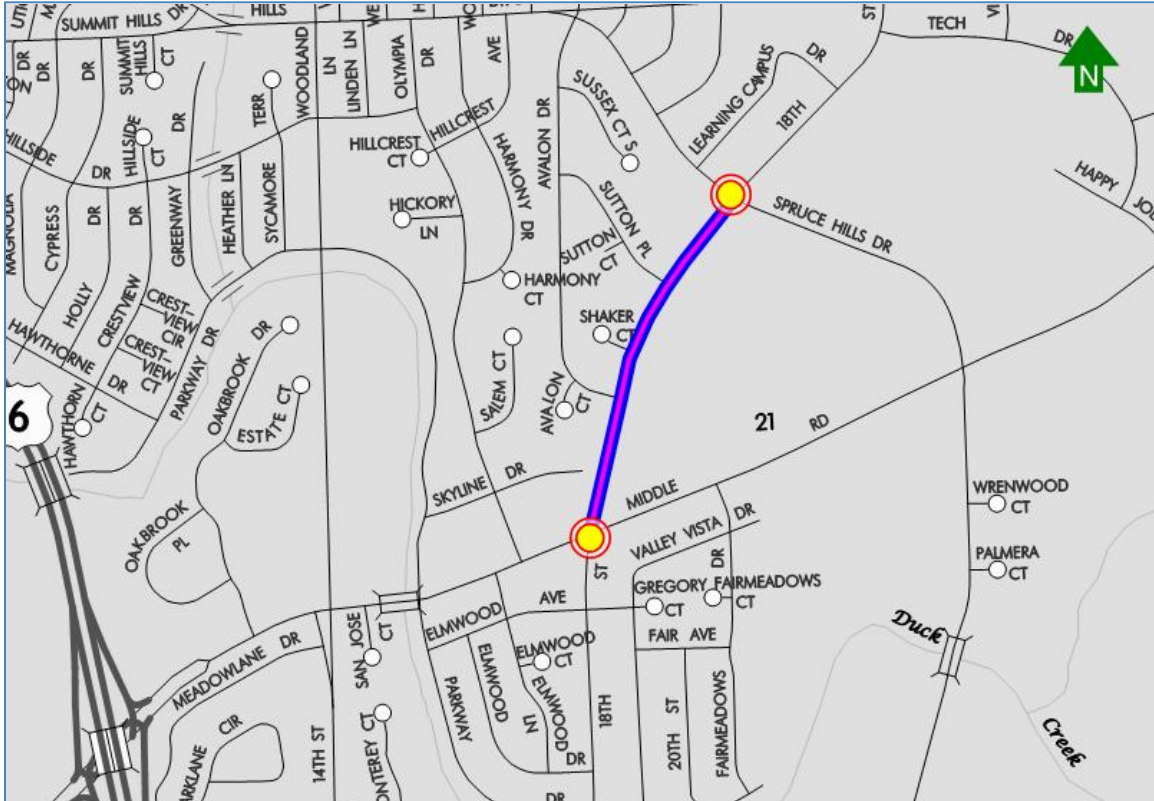
18<sup>th</sup> Street between Middle Road and Spruce Hills Drive is a 3-lane, 40 foot wide section. It is classified as a minor arterial. There are existing sidewalks on both sides of the road. The right-of-way is 100 feet through this segment. The posted speed limit is 30 mph. Land use through this segment is a mix of traditional residential near Middle Road, changing to commercial / office usage near Spruce Hills Road. This segment serves approximately 10,000 vehicles per day. There are many driveways and landscaping / obstructions in the right-of-way.



**Recommended Improvements**

Due to the number of driveways and obstructions in the right-of-way, opportunities are limited in this segment. The current recommendation is to designate the segment as "Share the Road", utilizing signage and improving education of motorists for traveling near or within bicycle facilities. When this segment is improved, we recommend incorporating separate bicycle lanes into the new design.

**18<sup>TH</sup> STREET: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.43	
7	Number of Traffic Lanes	3,4	
8	Total Pavement Width (Ft.)	40'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	LT	
20	Roadway Classification	MAJOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT, 60'/RT	
23	Traffic Volume (ADT)	2740, 10700	
24	Land Use Types	TR, OT, C	
25	Physical Barriers	Left	Right
	Number of Drives	12	20
	Number of Rail Crossings	0	0
	Number of Intersections	3	1
	Number of Fire Hydrants	3	1
	Number of Power poles	8	3
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	IMPROVEMENT PER TRANSPORTATION PLAN	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	MIDDLE ROAD; SPRUCE HILLS; SCHOOLS	
Recommendations			
	Recommended Facility	Bike Lanes	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
			Construction Subtotal		\$ 1,800
			Construction Contingency 15%		\$ 270
			Engineering Design 10%		\$ 180
			Total Segment Cost		\$ 2,250

**18<sup>TH</sup> STREET: SEGMENT E**

**Segment Length = 0.48 Miles**

**Existing Conditions**

18<sup>th</sup> Street segment E (Spruce Hills Drive to Maplecrest Road) is a 4-lane, 45-foot wide section. The surface is PCC. There are sidewalks on both sides of the roadway. The road is classified as a minor arterial and serves approximately 10,700 vehicles per day. The existing right-of-way is 100 feet. The posted speed limit is 30 mph. Land use along this segment is a mix of traditional residential, commercial / office and institutional. There are many drives that cross the right-of-way, with many trees and obstructions.

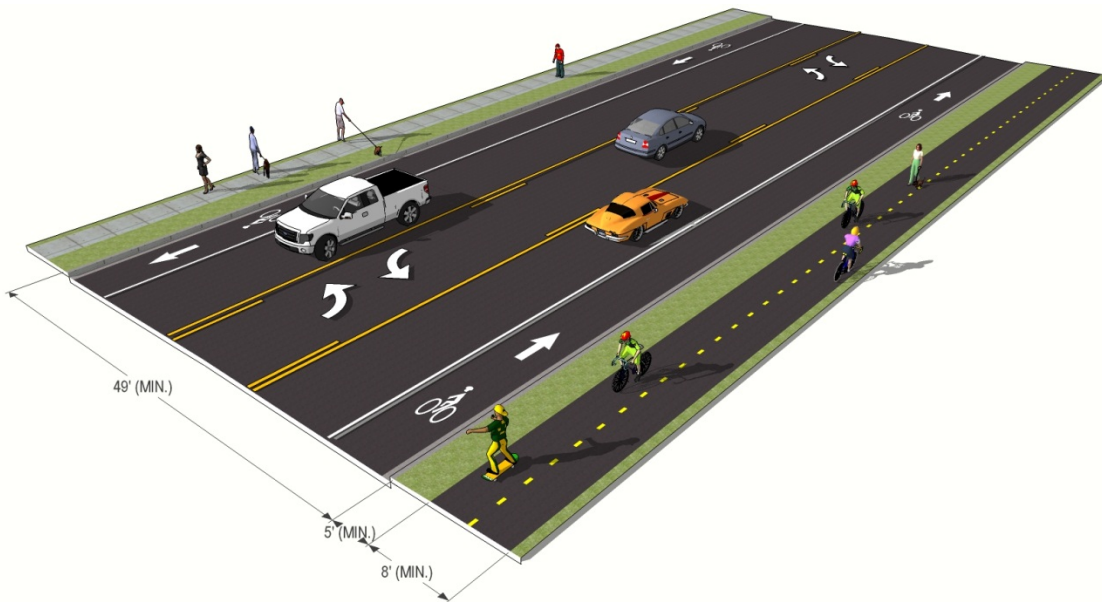
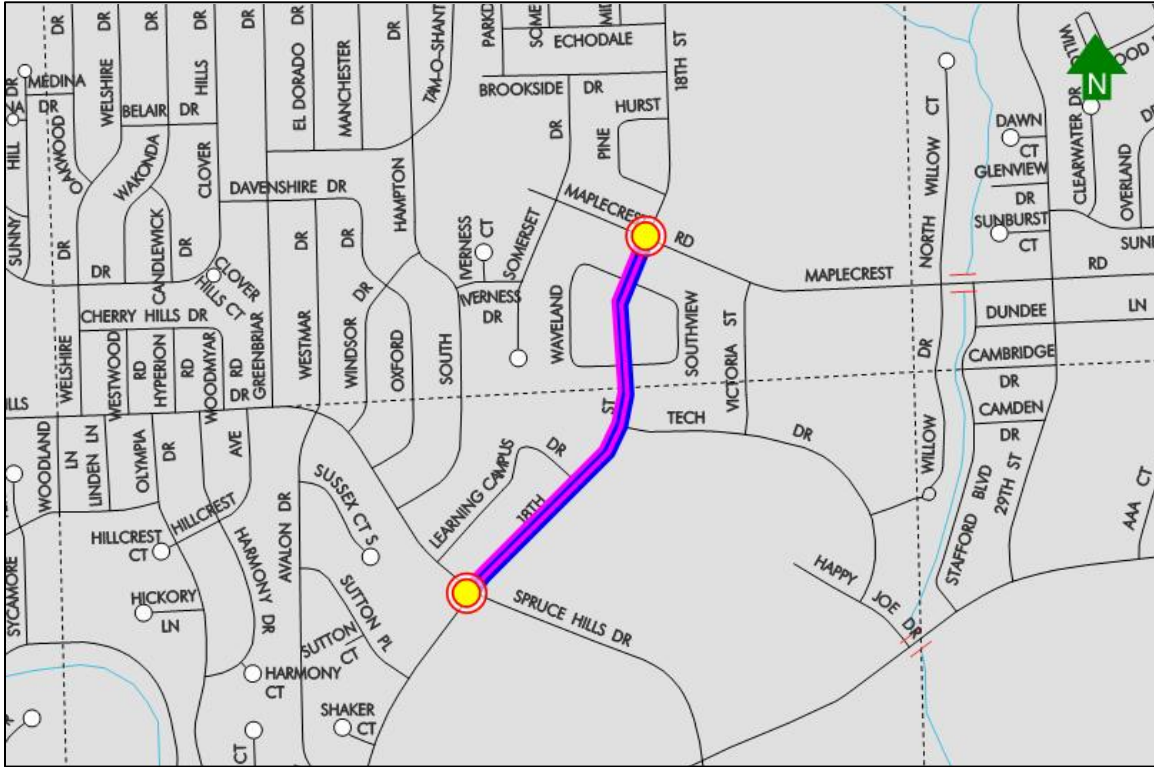


**Recommended Improvements**

Until the roadway is improved, we recommend posting signage as "Share the Road" along this segment. In addition, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend incorporating separate bicycle lanes in each direction and a separated trail on the west side of 18<sup>th</sup> Street.

**18<sup>TH</sup> STREET: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.48	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	45'	
9	Surface Type	PCC	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume (ADT)	10700	
24	Land Use Types	C, I, TR, OT	
25	Physical Barriers	Left	Right
	Number of Drives	13	12
	Number of Rail Crossings	0	0
	Number of Intersections	3	5
	Number of Fire Hydrants	4	0
	Number of Power poles	6	9
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	SUGGESTED IMPROVEMENTS PER TRANSPORTATION PLAN	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MUSEUMS, SCHOOLS, SPRUCE HILLS DRIVE, MAPLECREST ROAD	
Recommendations			
	Recommended Facility	BIKE LANES; SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,000.00	1	\$ 2,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
				Construction Subtotal	\$ 2,000
				Construction Contingency 15%	\$ 300
				Engineering Design 10%	\$ 200
				<b>Total Segment Cost</b>	<b>\$ 2,500</b>

**18<sup>TH</sup> STREET: SEGMENT F**

**Segment Length = 0.33 Miles**

**Existing Conditions**

18<sup>th</sup> Street from Maplecrest Road to Tanglefoot Lane is a 4-lane, 44-foot wide, PCC section of roadway. There are sidewalks on both sides of the roadway. It is classified as a minor arterial, and serves approximately 10,500 vehicles per day. The right-of-way is 100 feet in this segment. The area surrounding this segment is traditional residential and institutional. There are many driveways on the west side of the road and many utility poles are on the east side of the roadway.

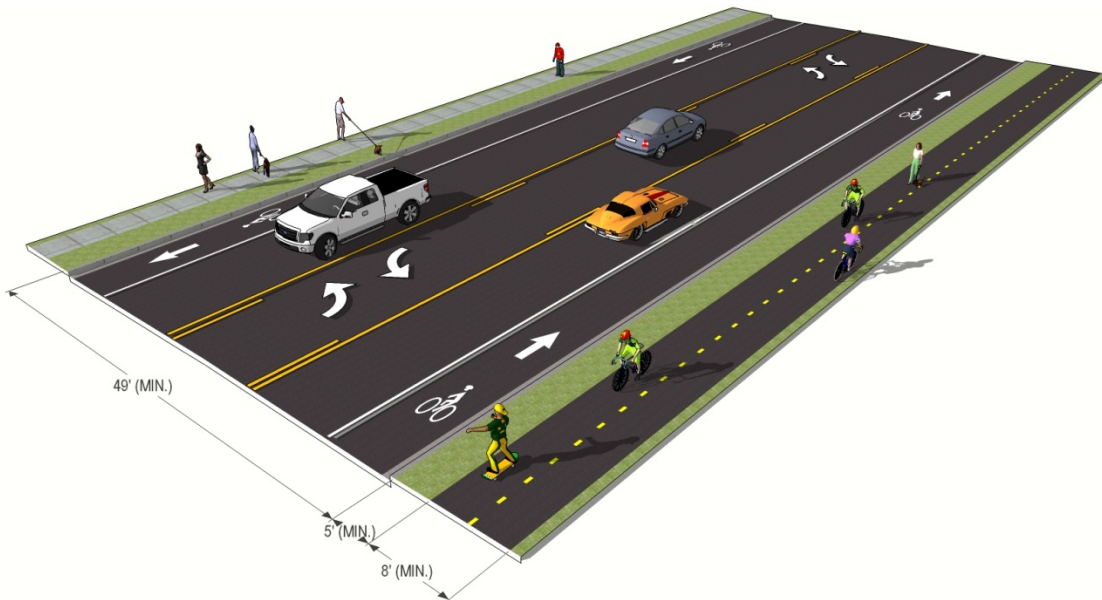
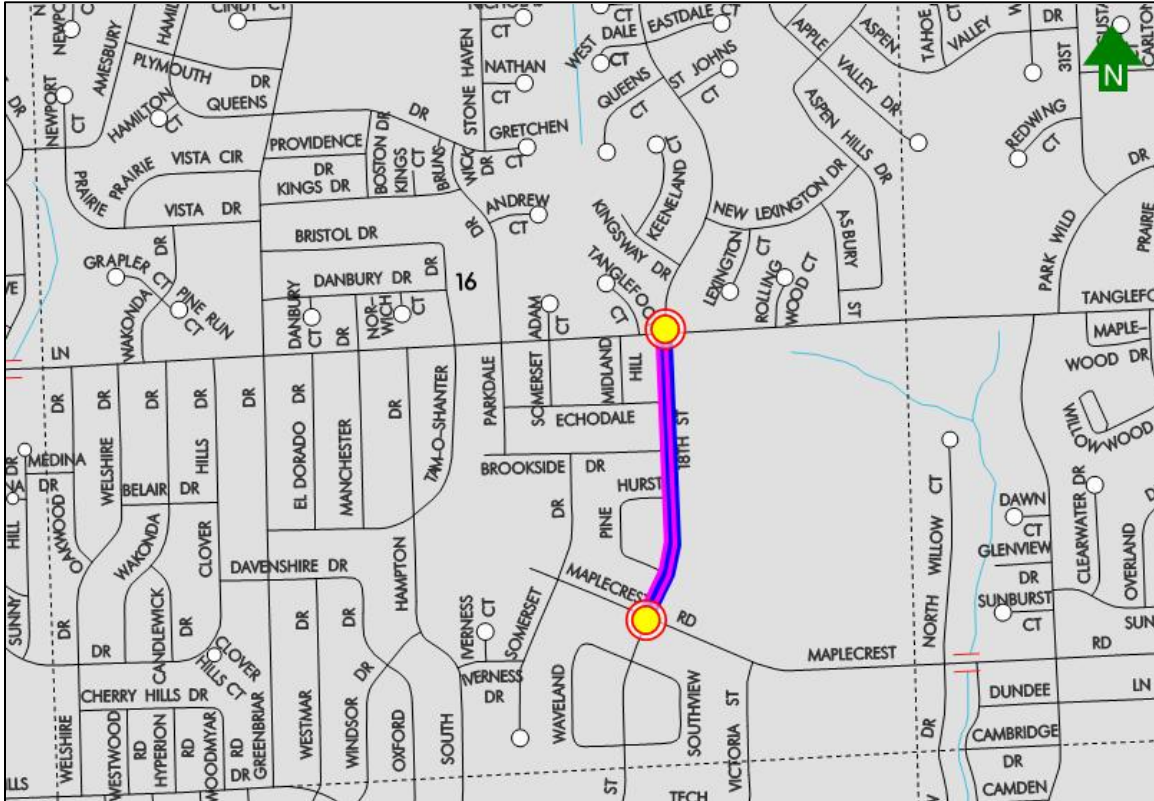


**Recommended Improvements**

Until the roadway is improved, we recommend designating "Share the Road" posting signage and educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Upon improvement of the roadway, it is recommended to incorporate separate bicycle lanes and a separated trail on the west side of 18<sup>th</sup> Street.

**18<sup>TH</sup> STREET: SEGMENT F**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	F	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.33	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	44	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)		
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MAJOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume (ADT)	10700	
24	Land Use Types	TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	14	4
	Number of Rail Crossings	0	0
	Number of Intersections	4	1
	Number of Fire Hydrants	3	0
	Number of Power poles	3	11
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	SCHOOLS, MAPLECREST ROAD; TANGLEFOOT LANE	
Recommendations			
	Recommended Facility	BIKE LANES; SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,400.00	1	\$ 1,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,400
Construction Contingency 15%					\$ 210
Engineering Design 10%					\$ 140
Total Segment Cost					\$ 1,750

**18<sup>TH</sup> STREET: SEGMENT G**

**Segment Length = 0.57 Miles**

**Existing Conditions**

18<sup>th</sup> Street between Tanglefoot Lane and Crow Creek Road is a 4-lane, 48-foot wide PCC section with a 100 foot right-of-way. The posted speed limit in this segment is 30 mph. It is classified as a minor arterial and serves approximately 4500 vehicles per day. The area around the segment is mostly traditional residential, with some institutional use. There are sidewalks on both sides of the roadway. There are many driveways and obstructions in the right-of-way.

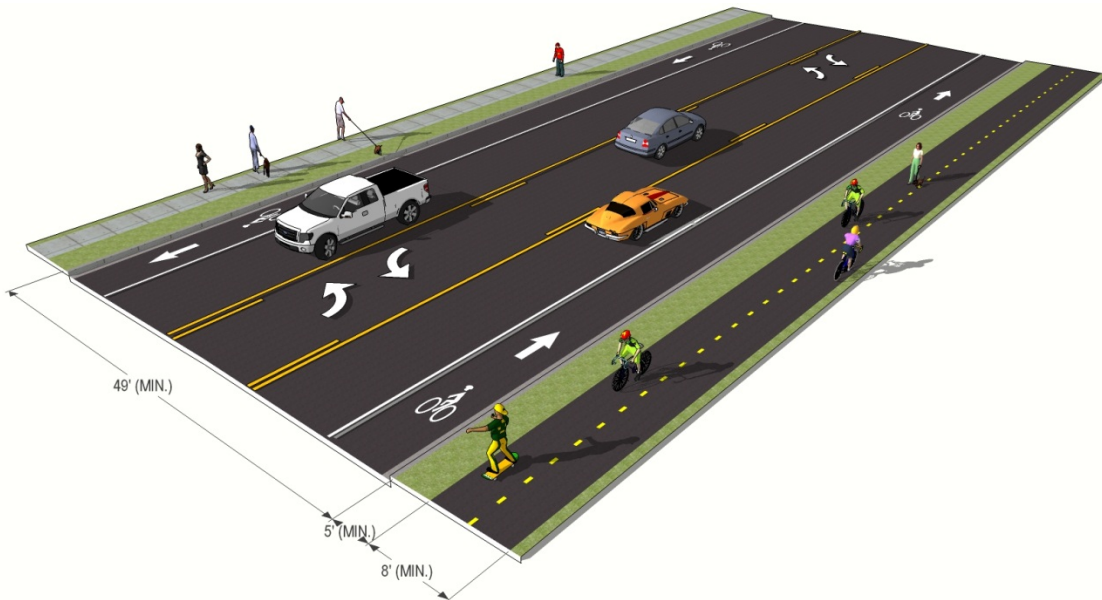
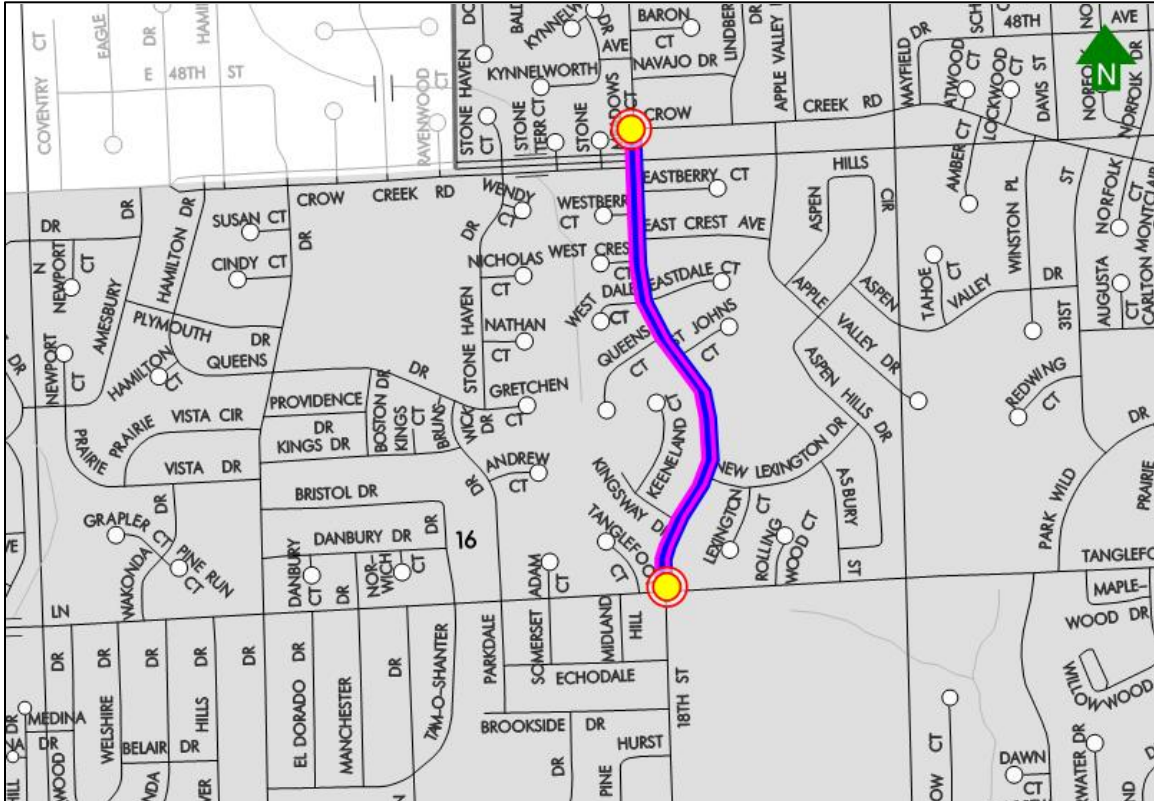


**Recommended Improvements**

Until the roadway is improved, we recommend "Share the Road" designation, posting signage and educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Upon improvement of the roadway, it is recommended to incorporate separate bicycle lanes and a separated trail on the west side of 18<sup>th</sup> Street.

**18<sup>TH</sup> STREET: SEGMENT G**



INVENTORY DATA

Existing			
1	Roadway Name	18TH ST	
2	Segment	G	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.57	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	0	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume (ADT)	4570	
24	Land Use Types	TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	16	12
	Number of Rail Crossings	0	0
	Number of Intersections	5	5
	Number of Fire Hydrants	5	1
	Number of Power poles	4	14
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	TANGLEFOOT LANE / CROW CREEK ROAD	
Recommendations			
	Recommended Facility	BIKE LANES; SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,400
Construction Contingency 15%					\$ 360
Engineering Design 10%					\$ 240
Total Segment Cost					\$ 3,000

**18<sup>TH</sup> STREET: SEGMENT H**

**Segment Length = 0.5 Miles**

**Existing Conditions**

18<sup>th</sup> Street between Crow Creek Road and 53<sup>rd</sup> Avenue is a 4-lane, 48-foot wide PCC section. The right-of-way is 100 feet. The posted speed limit is 35 mph, and the segment serves approximately 5800 vehicles per day. It is classified as a minor arterial. There are few driveways accessing the right-of-way. The land use is mostly traditional residential with commercial use near the 53<sup>rd</sup> Avenue intersection. There are sidewalks on both sides of the roadway. There are many trees planted in the right-of-way.

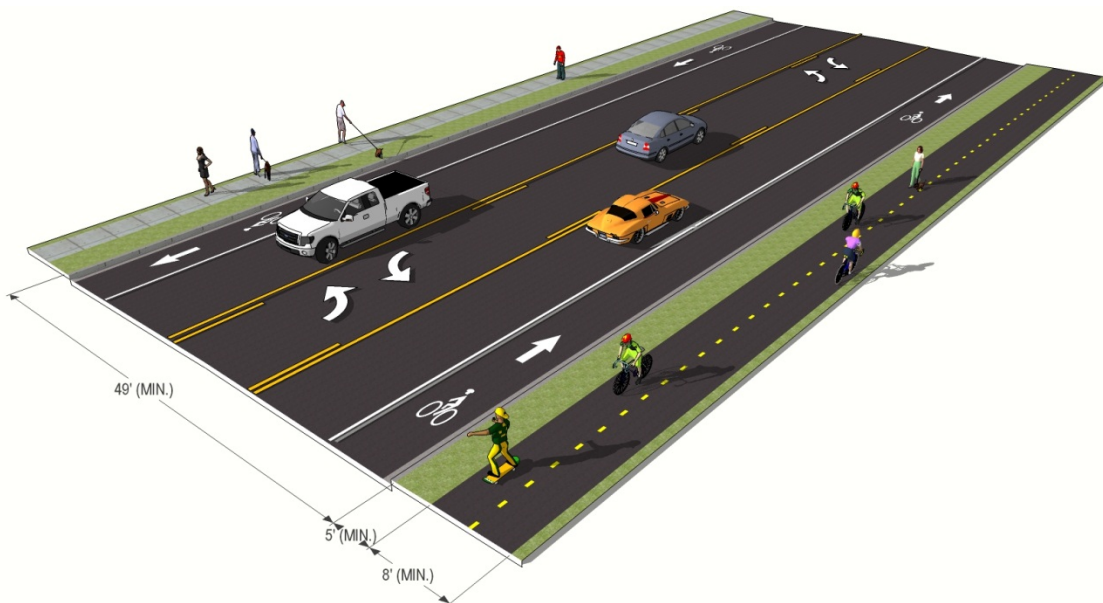
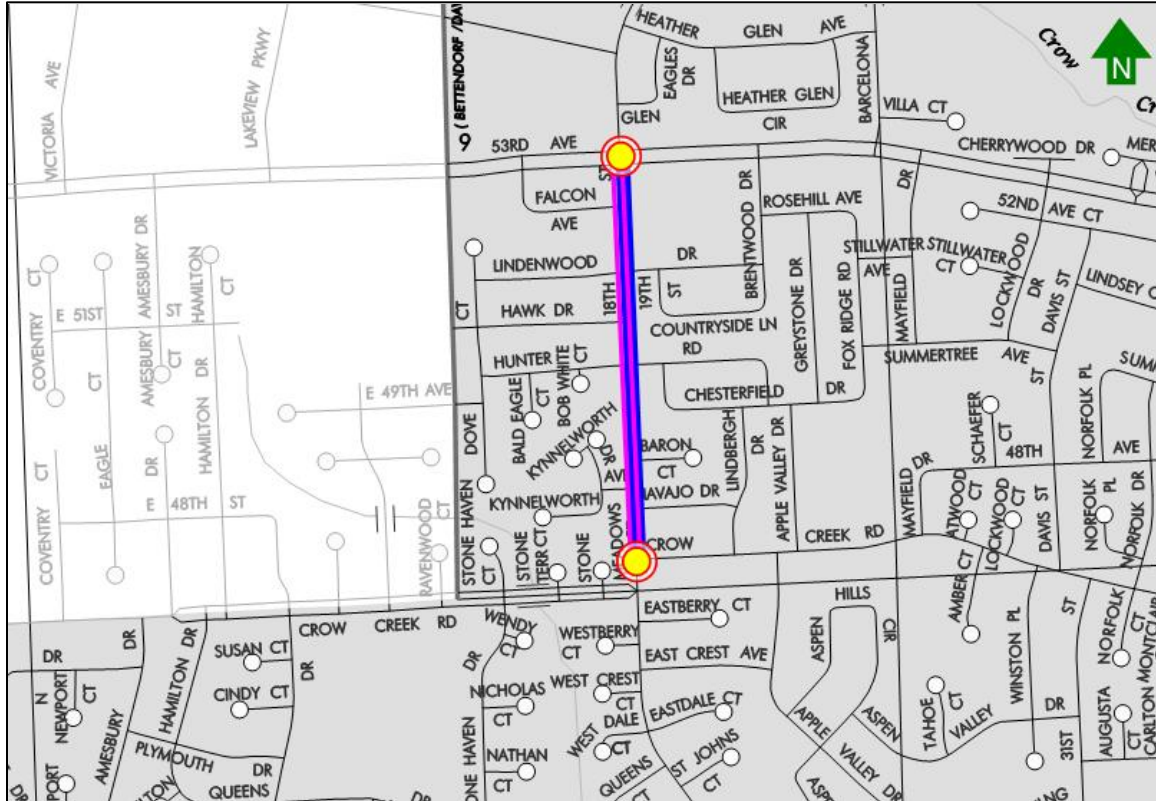


**Recommended Improvements**

Until the roadway is improved, we recommend designating the road as "Share the Road", posting signage and educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Upon improvement of the roadway, it is recommended to incorporate separate bicycle lanes and a separated trail on the west side of 18<sup>th</sup> Street.

18<sup>TH</sup> STREET: SEGMENT H



INVENTORY DATA

Existing			
1	Roadway Name	18TH ST	
2	Segment	H	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48	
9	Surface Type	PCC	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	NA/	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)		
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50/LT, 50/RT	
23	Traffic Volume (ADT)	4900, 5800	
24	Land Use Types	TR, C	
25	Physical Barriers	Left	Right
	Number of Drives	0	1
	Number of Rail Crossings	0	0
	Number of Intersections	5	8
	Number of Fire Hydrants	5	1
	Number of Power poles	1	19
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	FEW DRIVEWAYS	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	53RD AVENUE / CROW CREEK ROAD	
Recommendations			
	Recommended Facility	BIKE LANES; SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,100.00	1	\$ 2,100
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,100
Construction Contingency 15%					\$ 315
Engineering Design 10%					\$ 210
Total Segment Cost					\$ 2,625

**18<sup>TH</sup> STREET: SEGMENT I**

**Segment Length = 0.3 Miles**

**Existing Conditions**

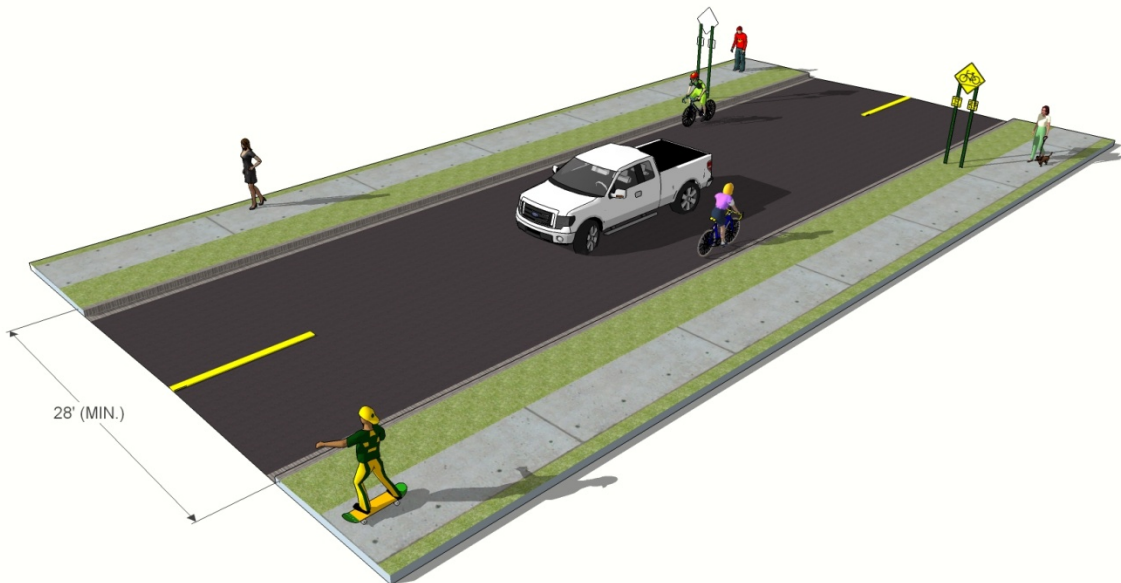
18<sup>th</sup> Street segment I is a 2-lane, 46-foot wide road with parking on both sides. There are sidewalks on both sides of the street. The posted speed limit is 25 mph, and it is classified as a local road. The road serves approximately 2100 vehicles per day. The land use is mostly traditional residential, with some commercial at the intersection with 53<sup>rd</sup> Avenue. It has a 100 foot right-of-way with few obstructions in the right-of-way.



**Recommended Improvements**

Due to this segment being classified as a local road it will function most efficiently as a "Share the Road". Posting signage and educating the public on the concepts of integrating bicycle facilities into the motor vehicle system is recommended.

**18<sup>TH</sup> STREET: SEGMENT I**



INVENTORY DATA

Existing			
1	Roadway Name	18TH STREET	
2	Segment	I	
3	Existing Trail	NO	
4	Existing Bike Lanes	0	
5	Bike Lane Width	0	
6	Segment Length (Miles)	0.3	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	46	
9	Surface Type	PCC	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)		
12	Shoulder Width (Ft.)		
13	Shoulder Surface Type (Ft.)		
14	On-Street Parking	YES	
15	Sidewalk Width (Ft.)		
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	YES	
18	Ditch		
19	Bus Stop		
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT,55'/RT	
23	Traffic Volume (ADT)	2140	
24	Land Use Types	TR,C	
25	Physical Barriers	Left	Right
	Number of Drives	0	6
	Number of Rail Crossings	0	0
	Number of Intersections	3	4
	Number of Fire Hydrants	1	1
	Number of Power poles	3	2
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	LOCAL	
	Convenient Connections	53RD AVENUE	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements	NO	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,300.00	1	\$ 1,300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,300
Construction Contingency 15%					\$ 195
Engineering Design 10%					\$ 130
Total Segment Cost					\$ 1,625

## **220<sup>TH</sup> STREET**

### **SUMMARY**

220<sup>th</sup> Street is a future collector that runs east – west, connecting the west City limits (near Utica Ridge Road) to the east at Wells Ferry Road. This corridor is divided into three (3) segments that total approximately 3 miles. Segment A is approximately 0.5 miles from west City limits to a point where the future extension of Devils Glen Road will connect; segment B is approximately 1.5 miles from said Devils Glen Road to a future connection with Middle Road; and segment C is approximately 1.0 miles from said Middle Road to Wells Ferry Road on the east.

**220<sup>TH</sup> STREET: SEGMENT A**

**Segment Length = 0.5 Miles**

**Existing Conditions**

220<sup>th</sup> Street is a 2-lane, gravel roadway in this segment. Projected as a collector in the 2012 Transportation Plan, it has a current right-of-way width of 66 feet. The posted speed limit is 45 mph and serves local traffic only. This segment is undeveloped on both sides, as it serves the agricultural community and farms nearby.

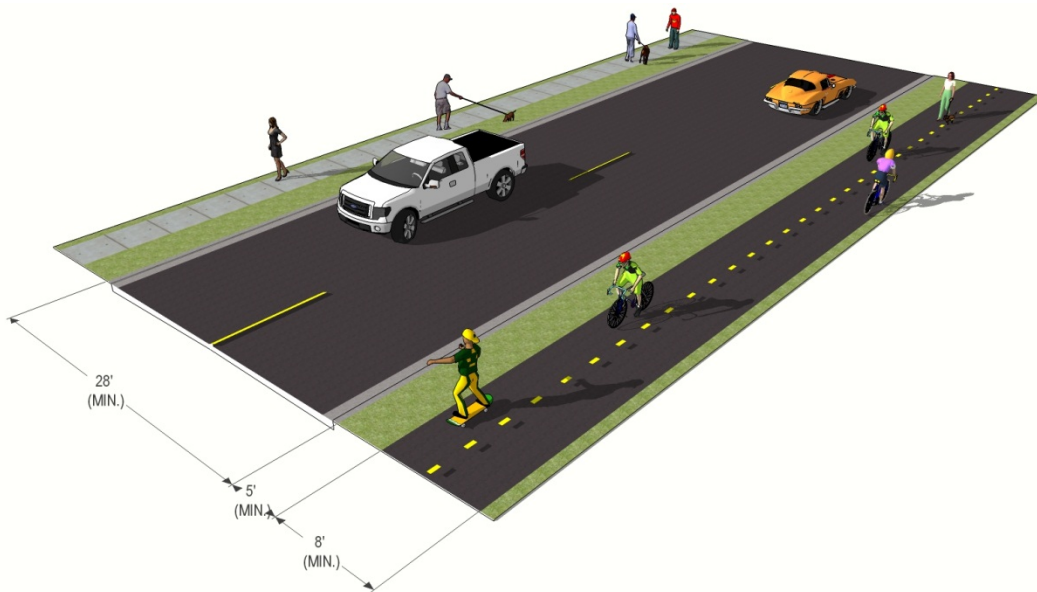
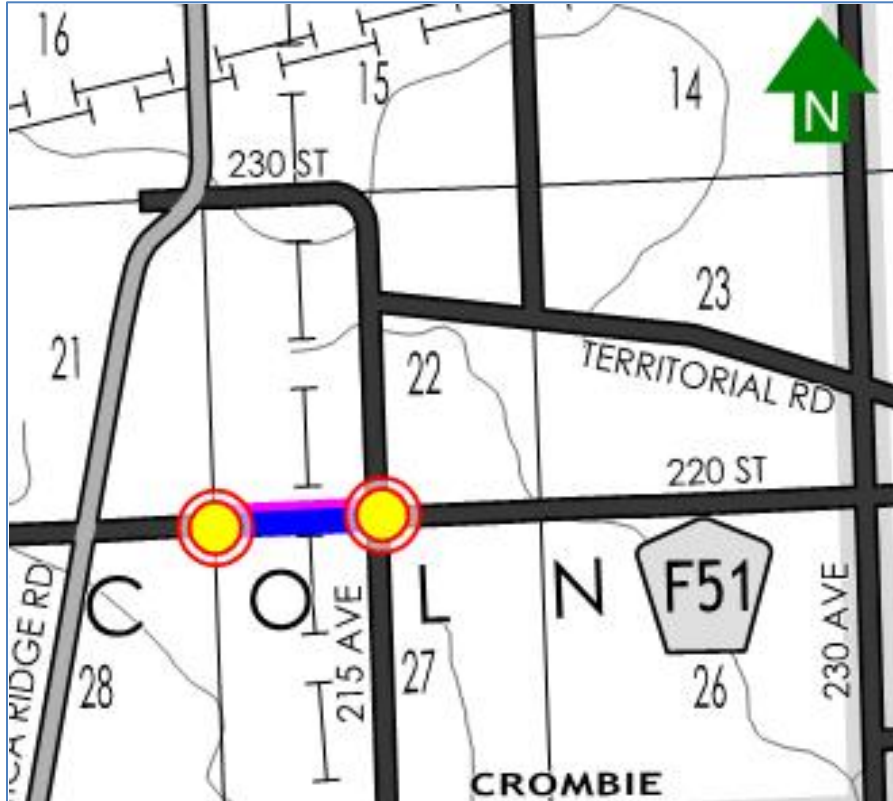


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we do not recommend utilizing this segment for bicycle facilities, due to poor surface quality.

Once the roadway is improved, we recommend placing a separated trail on the north side of the road.

**220<sup>TH</sup> STREET: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	220TH STREET	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	GRAVEL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	4'/LT, 4'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	NOT LISTED	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	70'/LT, 50'/RT	
23	Traffic Volume (ADT)	NOT LISTED	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	3	3
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	0
	Number of Power poles	1	27
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$ 1,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 265,200
Construction Contingency 15%					\$ 39,865
Engineering Design 10%					\$ 26,520
Total Segment Cost					\$ 331,585

**220<sup>TH</sup> STREET: SEGMENT B**

**Segment Length = 1.5 Miles**

**Existing Conditions**

220<sup>th</sup> Street is a 2-lane, gravel roadway in this segment. Projected as a collector in the 2012 Transportation Plan, it has a current right-of-way width of 66 feet. The posted speed limit is 45 mph and serves local traffic only. This segment is undeveloped on both sides, as it serves the agricultural community and farms nearby.

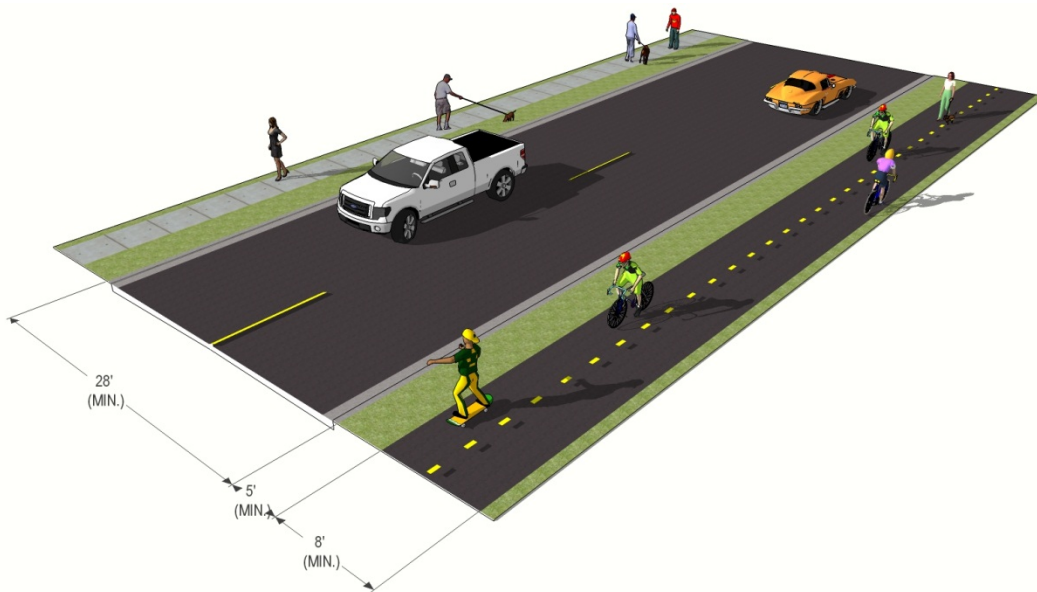
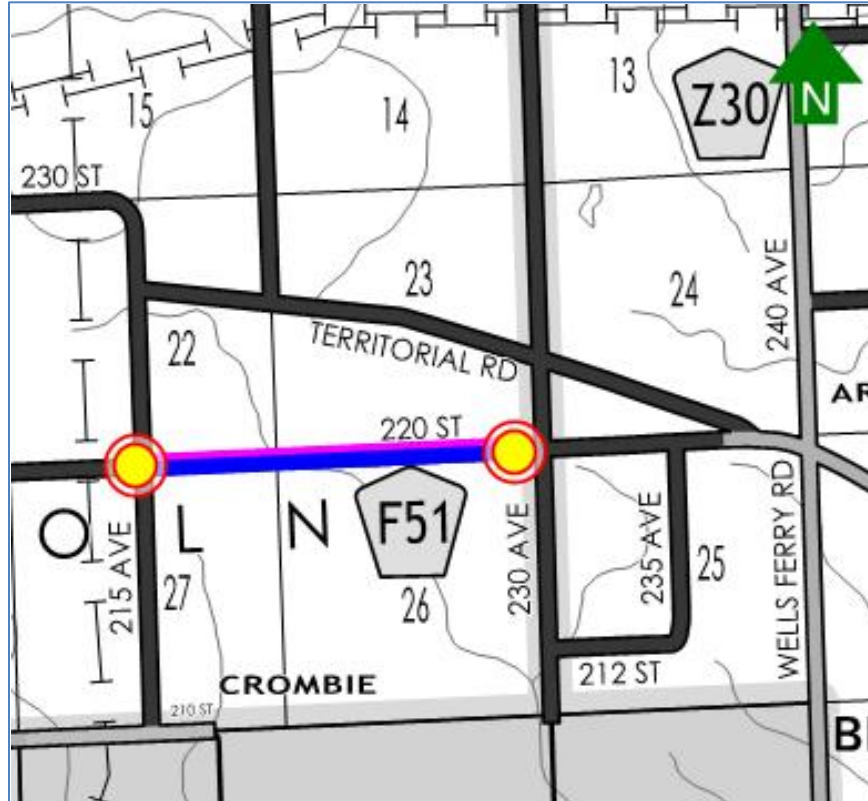


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we do not recommend utilizing this segment for bicycle facilities, due to poor surface quality.

Once the roadway is improved, we recommend placing a separated trail on the north side of the road.

**220<sup>TH</sup> STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	220TH STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.5	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	GRAVEL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	4'/LT, 4'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	NOT LISTED	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	35'/LT, 70'/RT	
23	Traffic Volume (ADT)	NOT LISTED	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	7	3
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	0	45
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FUTURE DEVILS GLEN ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	7920	\$ 792,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,600.00	1	\$ 3,600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 795,600
Construction Contingency 15%					\$ 119,340
Engineering Design 10%					\$ 79,560
Total Segment Cost					\$ 994,500

**220<sup>TH</sup> STREET: SEGMENT C**

**Segment Length = 1.0 Miles**

**Existing Conditions**

220<sup>th</sup> Street is a 2-lane, gravel roadway in this segment. Projected as a collector in the 2012 Transportation Plan, it has a current right-of-way width of 66 feet. The posted speed limit is 45 mph and serves local traffic only. This segment is undeveloped on both sides, as it serves the agricultural community and farms nearby.

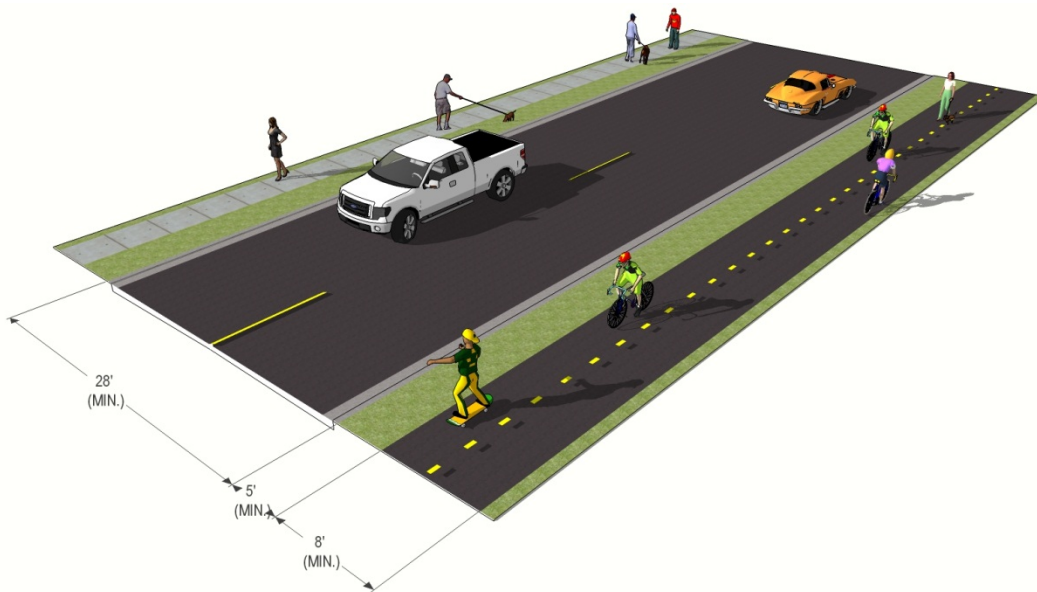
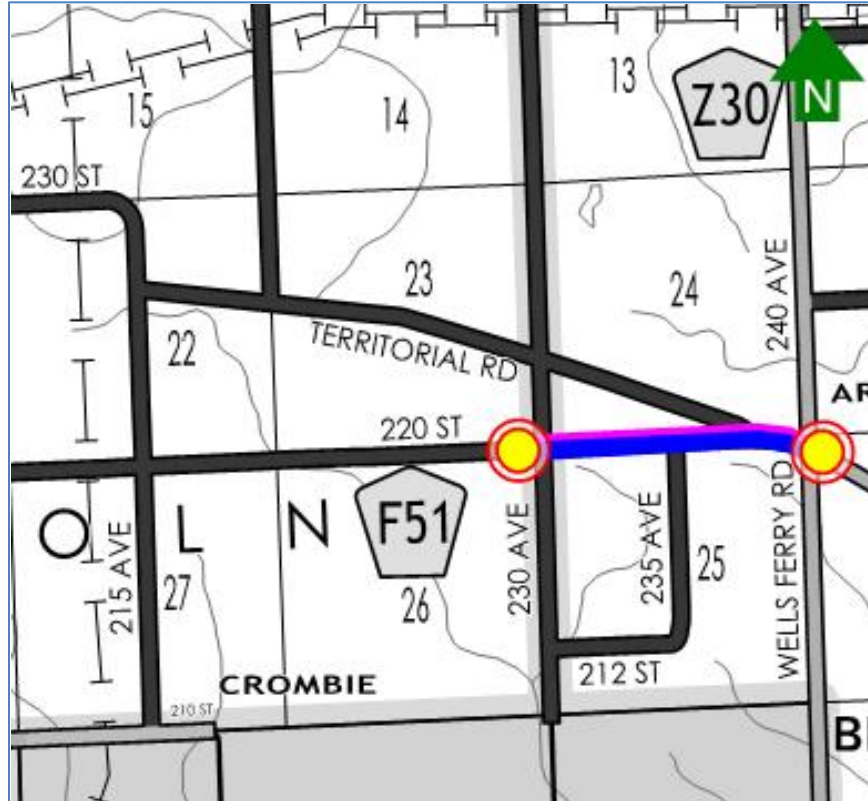


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we do not recommend utilizing this segment for bicycle facilities, due to poor surface quality.

Once the roadway is improved, we recommend placing a separated trail on the north side of the road.

**220<sup>TH</sup> STREET: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	220TH STREET	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	AGG/ASPHALT	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	5'/LT, 5'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	NOT LISTED	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	55'/LT, 20'/RT	
23	Traffic Volume (ADT)	NOT LISTED	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	6	9
	Number of Rail Crossings	0	0
	Number of Intersections	2	1
	Number of Fire Hydrants	0	0
	Number of Power poles	0	19
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FUTURE MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	5280	\$ 528,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 530,400
Construction Contingency 15%					\$ 79,560
Engineering Design 10%					\$ 53,040
Total Segment Cost					\$ 663,000

## **23<sup>rd</sup> STREET**

### **SUMMARY**

23<sup>rd</sup> Street is a minor arterial that runs north – south connecting Grant Street downtown to Middle Road. This corridor is divided into three (3) segments; with segment A being approximately 0.4 miles from Grant Street to Central Avenue; segment B is approximately 0.44 miles from Central Avenue to Lincoln Way; segment C is approximately 0.63 miles from Lincoln Way to Middle Road.

**23<sup>RD</sup> STREET: SEGMENT A**

**Segment Length = 0.4 Miles**

**Existing Conditions**

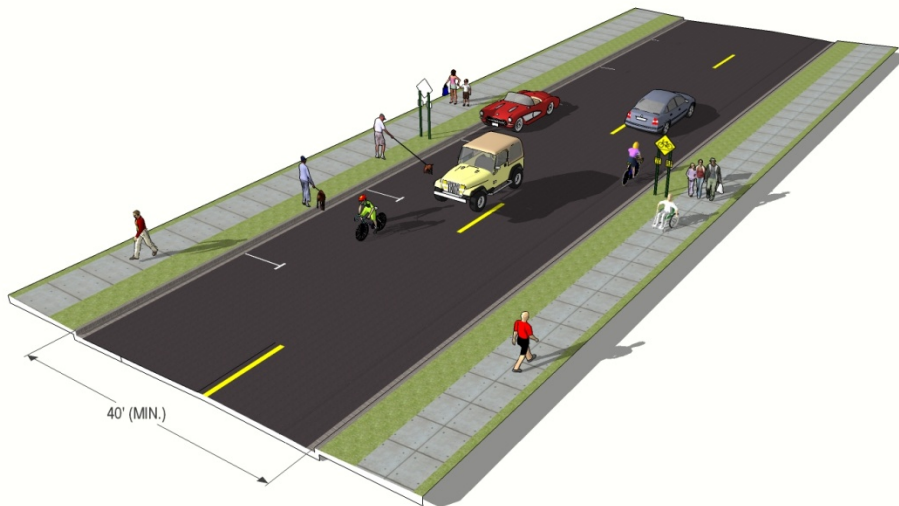
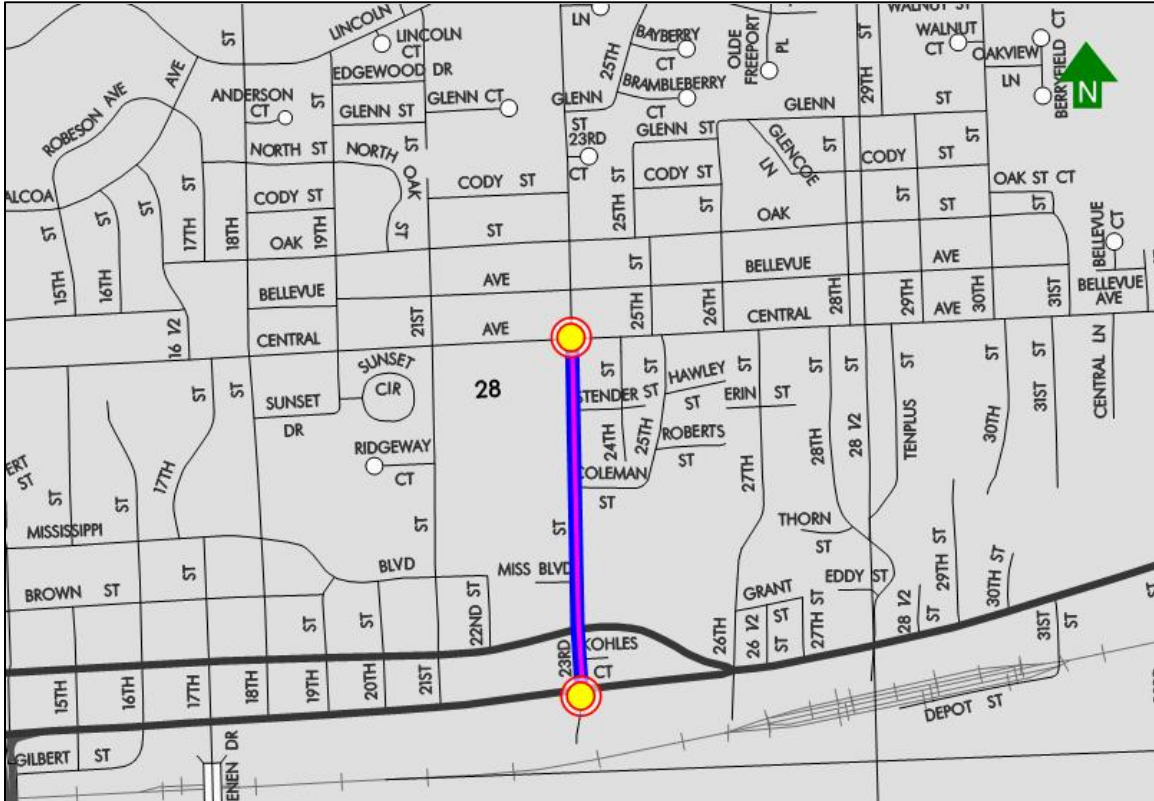
23<sup>rd</sup> Street is a 2-lane roadway in this segment, with parking on one side of the street. It is classified as a minor arterial that is 30-foot wide from back-of-curb to back-of-curb with a 45-foot right-of-way. The posted speed limit is 25 mph and serves close to 2600 vehicles per day. This segment serves the downtown commercial area as well as residential up the hill to Central Avenue.



**Recommended Improvements**

On this limited width roadway section, we recommend posting signage as "Share the Road". In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**23<sup>RD</sup> STREET: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	23RD STREET	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.44	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	RT	
15	Sidewalk Width (Ft.)	4/LT, 4/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch		
19	Bus Stop		
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	45'	
22	Proximity of Roadway to Buildings (Ft.)	20/LT, 15/RT	
23	Traffic Volume (ADT)	2590	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	20	19
	Number of Rail Crossings	0	0
	Number of Intersections	4	6
	Number of Fire Hydrants	3	0
	Number of Power poles	20	8
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	GRANT STREET / CENTRAL AVENUE	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,800
Construction Contingency 15%					\$ 270
Engineering Design 10%					\$ 180
Total Segment Cost					\$ 2,250

**23<sup>RD</sup> STREET: SEGMENT B**

**Segment Length = 0.44 Miles**

**Existing Conditions**

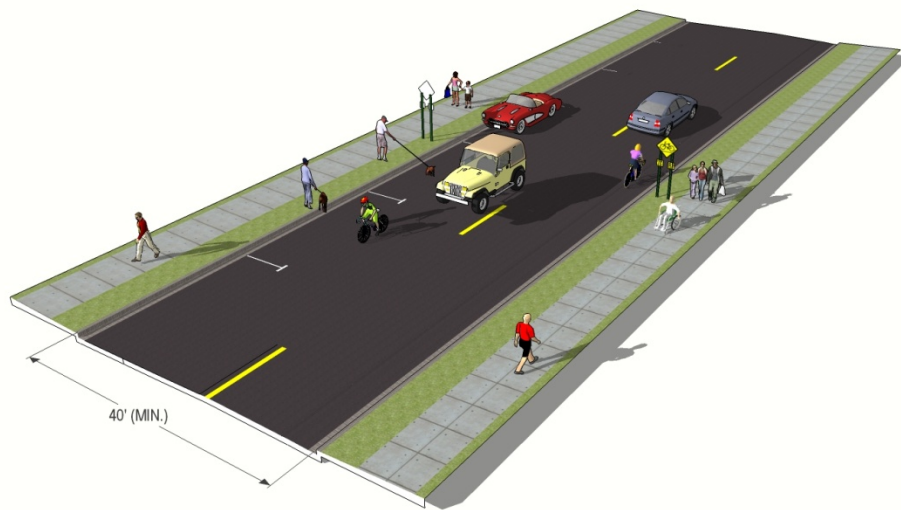
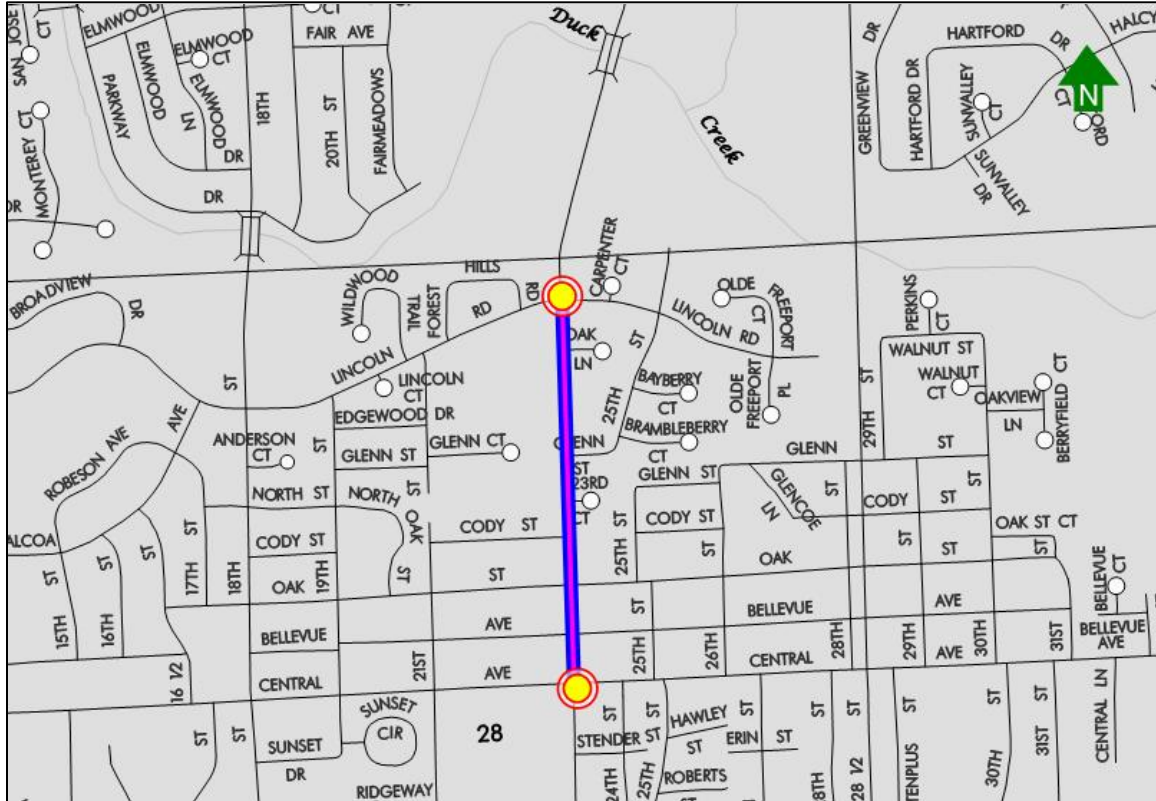
23<sup>rd</sup> Street is a 2-lane roadway in this segment, with parking on one side of the street. It is classified as a minor arterial that is 30-foot wide from back-of-curb to back-of-curb with a 45-foot right-of-way. The posted speed limit is 25 mph and serves close to 2600 vehicles per day.



**Recommended Improvements**

On this limited width roadway section, we recommend posting signage as "Share the Road". In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**23<sup>RD</sup> STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	23RD STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.44	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch		
19	Bus Stop		
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	45'	
22	Proximity of Roadway to Buildings (Ft.)	20'/LT, 15'/RT	
23	Traffic Volume (ADT)	2590	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	20	19
	Number of Rail Crossings	0	0
	Number of Intersections	4	6
	Number of Fire Hydrants	3	0
	Number of Power poles	20	8
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	CENTRAL AVENUE / LINCOLN WAY	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,800
Construction Contingency 15%					\$ 270
Engineering Design 10%					\$ 180
Total Segment Cost					\$ 2,250

**23<sup>RD</sup> STREET: SEGMENT C**

**Segment Length = 0.63 Miles**

**Existing Conditions**

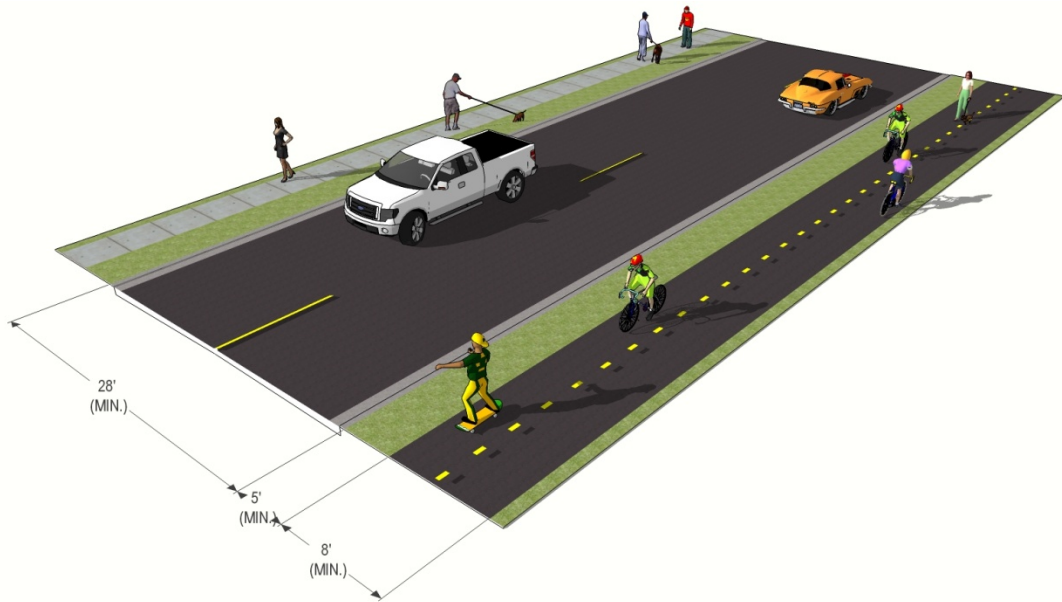
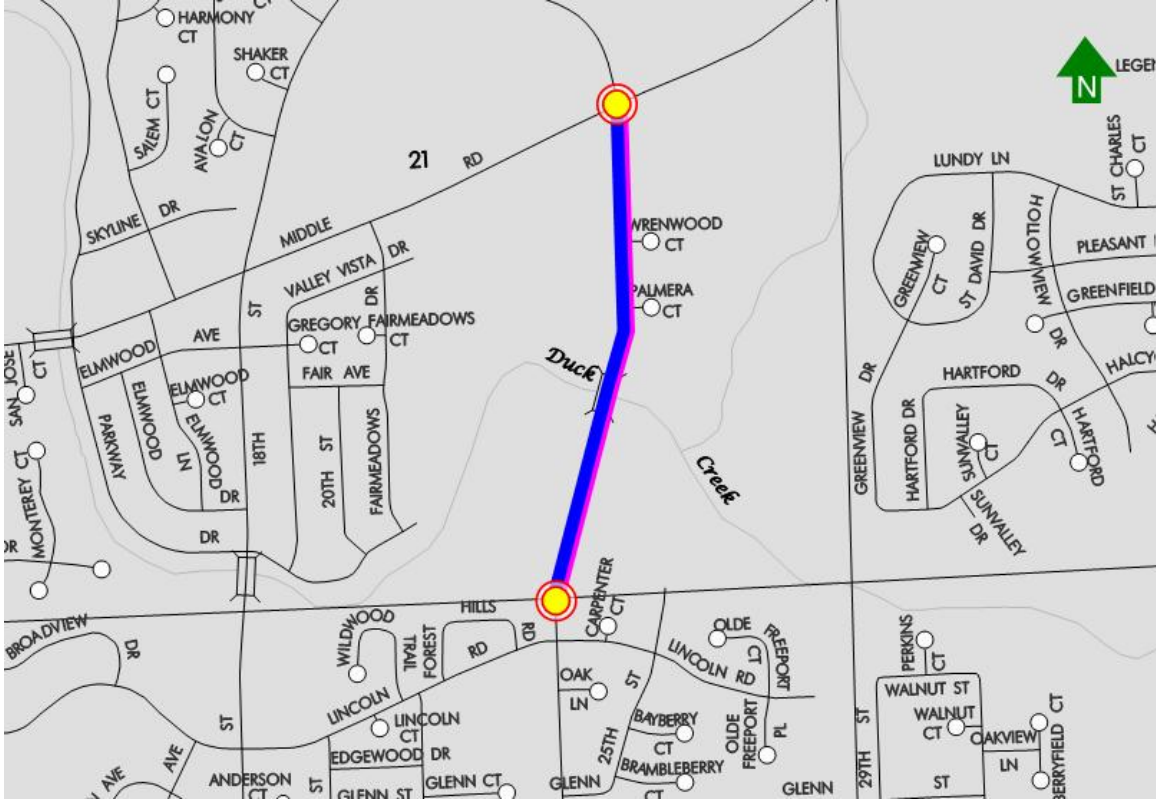
23<sup>rd</sup> Street has two (2) 14-foot lanes in this segment. The existing right-of-way is approximately 80 feet, containing sidewalks on both sides of the street. The posted speed limit is 35 mph and serves approximately 7400 vehicles per day.



**Recommended Improvements**

The current conditions of this roadway lend itself nicely to a "Share the Road" condition. We recommend installing signage and improving education of motorists for traveling near or within bicycle facilities. When the segment is improved, we recommend installing a separated trail on the east side of 23<sup>rd</sup> Street. This would include the widening of the bridge over Duck Creek.

**23<sup>RD</sup> STREET: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	23RD STREET	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.63	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28	
9	Surface Type	PCC	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4/LT, 4/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	45'	
23	Traffic Volume (ADT)	7400	
24	Land Use Types	TR, R	
25	Physical Barriers	Left	Right
	Number of Drives	4	4
	Number of Rail Crossings	0	0
	Number of Intersections	1	4
	Number of Fire Hydrants	2	0
	Number of Power poles	20	1
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	RIGHT-OF-WAY WIDTH	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD / DUCK CREEK	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,700.00	1	\$ 2,700
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,700
Construction Contingency 15%					\$ 405
Engineering Design 10%					\$ 270
Total Segment Cost					\$ 3,375

## 29<sup>TH</sup> STREET

### SUMMARY

29<sup>th</sup> Street is a collector street that runs north – south connecting Middle Road to Tanglefoot Lane. This corridor is divided into two (2) segments; one north and one south of Maplecrest Road. Segment A is approximately 0.3 miles in length that is from Middle Road to Maplecrest Road; segment B is approximately 0.46 miles from Maplecrest Road to Tanglefoot Lane.

**29<sup>TH</sup> STREET: SEGMENT A**

**Segment Length = 0.3 Miles**

**Existing Conditions**

29<sup>th</sup> Street has two (2) 22-foot wide lanes in this segment that allow for parking on both sides of the roadway. The existing right-of-way is approximately 80 feet; containing sidewalks on both sides of the street. The posted speed limit is 25 mph and serves approximately 2600 vehicles per day. In this residential neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists.



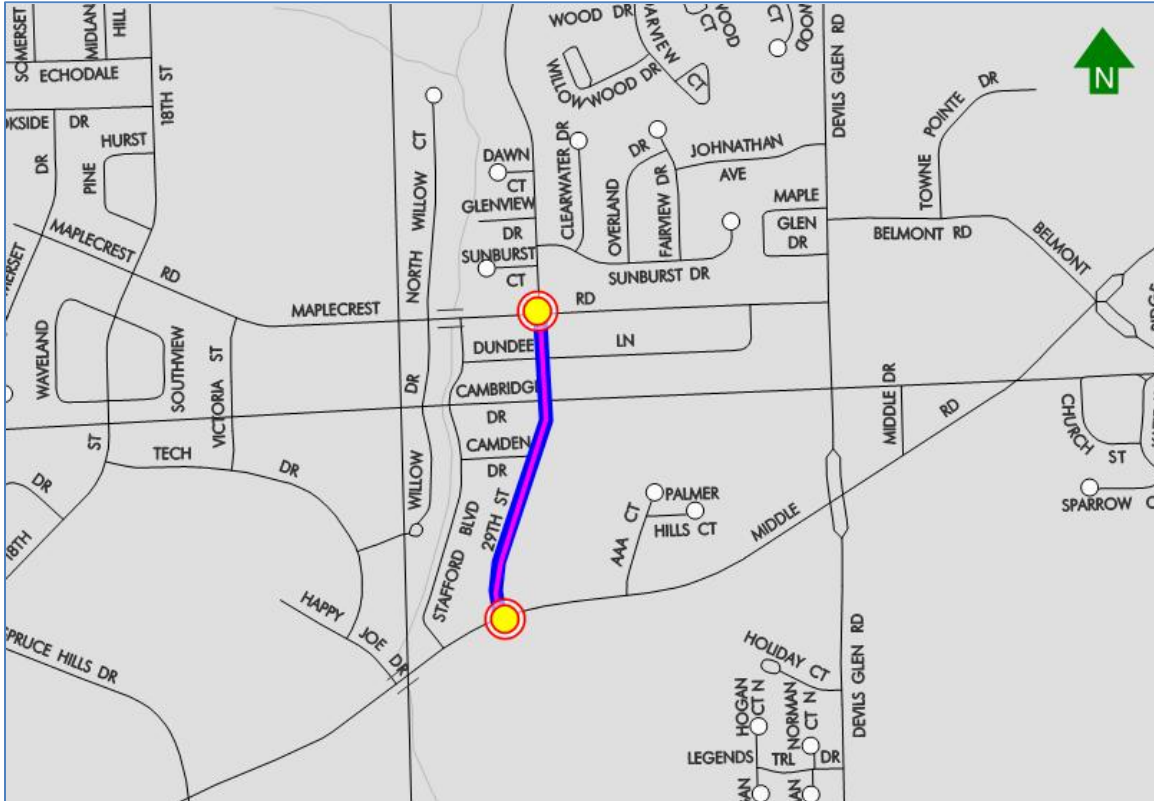
**Recommended Improvements**

The immediate opportunities for incorporating bicycle facilities are very limited on this segment of 29<sup>th</sup> Street due to parking and several driveways on both sides of the street. The current width of the street will not accommodate striped bicycle lanes, as the numerous driveways deter from installing a separated trail on either side.

The recommended solutions for 29<sup>th</sup> Street are the following:

- Option 1: Incorporate striped bike lanes by widening the pavement section to 52 feet, while still accommodating parking lanes on both sides of the street. This option will be more costly than Option 2, but creates a needed connection from Middle Road to Tanglefoot Lane.
- Option 2: Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.

**29<sup>TH</sup> STREET: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	29TH STREET	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.3	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	44	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'-5'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 45'/RT	
23	Traffic Volume (ADT)	2630	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	14	3
	Number of Rail Crossings	0	0
	Number of Intersections	3	1
	Number of Fire Hydrants	2	0
	Number of Power poles	5	1
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	HI	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	BIKE LANES	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,200.00	1	\$ 3,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 3,200
Construction Contingency 15%					\$ 480
Engineering Design 10%					\$ 320
Total Segment Cost					\$ 4,000

**29<sup>TH</sup> STREET: SEGMENT B**

**Segment Length = 0.46 Miles**

**Existing Conditions**

29<sup>th</sup> Street has two (2) 18-foot wide lanes in this segment that allow for parking on both sides of the roadway. The existing right-of-way is approximately 80 feet; containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 2600 vehicles per day. In this residential neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists.



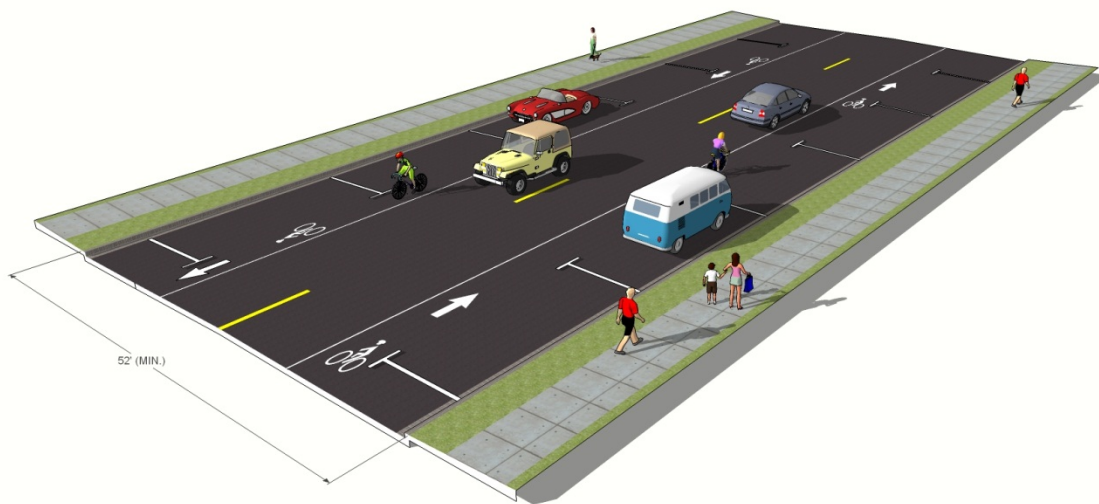
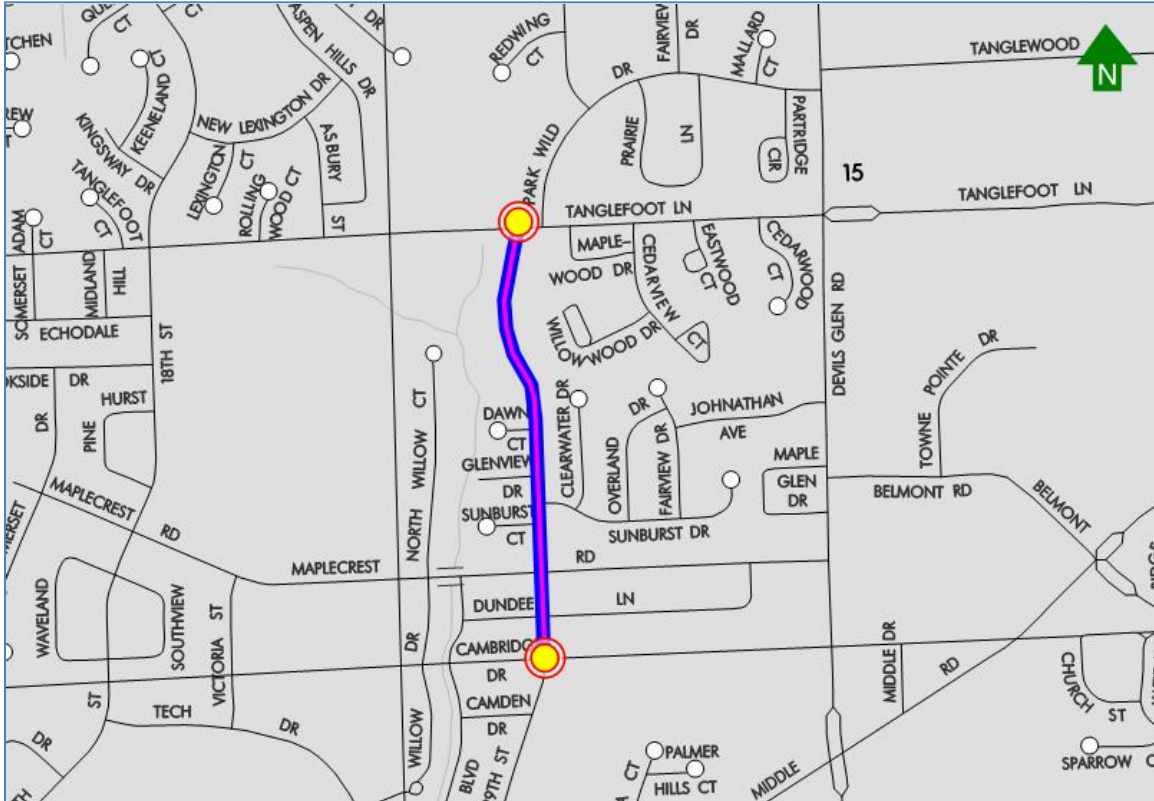
**Recommended Improvements**

The immediate opportunities for incorporating bicycle facilities are very limited on this segment of 29<sup>th</sup> Street due to parking and several driveways on both sides of the street. The current width of the street will not accommodate striped bicycle lanes, as the numerous driveways deter from installing a separated trail on either side.

The recommended solutions for 29<sup>th</sup> Street are the following:

- Option 1: Incorporate striped bike lanes by widening the pavement section to 52 feet, while still accommodating parking lanes on both sides of the street. This option will be more costly than Option 2, but creates a needed connection from Middle Road to Tanglefoot Lane.
- Option 2: Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.

**29<sup>TH</sup> STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	29TH STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.46	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	36	
9	Surface Type	PCC, ASPHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	45'/LT, 45'/RT	
23	Traffic Volume (ADT)	2630	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	25	27
	Number of Rail Crossings	0	0
	Number of Intersections	5	3
	Number of Fire Hydrants	3	0
	Number of Power poles	1	7
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	HI	
	Convenient Connections	TANGLEFOOT	
Recommendations			
	Recommended Facility	BIKE LANES	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		0
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		0
3	Pavement Marking & Signage	LS	\$4,800.00	1	4800
4	Traffic Signal Modifications	LS			0
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		0
6	Storm Sewer Modifications	LS			0
Construction Subtotal					4800
Construction Contingency 15%					720
Engineering Design 10%					480
Total Segment Cost					6000



## **53RD AVENUE**

### **Summary**

53rd Avenue is a minor arterial corridor that runs east-west connecting the Interstate 80 traffic on the west to the residential subdivision on the east. This corridor is divided into three (3) segments. Segment A is approximately 0.17 miles in length that serves 18th Street from the west city limits; segment B is approximately 0.80 miles from 18th Street to Devils Glen Road while a trail exists from Devils Glen to Middle Road; segment C begins at Middle Road and continues to the east and will eventually connect to a future arterial that will follow Pigeon Creek.

**53<sup>RD</sup> AVENUE: SEGMENT A**

**Segment Length = 0.17 Miles**

**Existing Conditions**

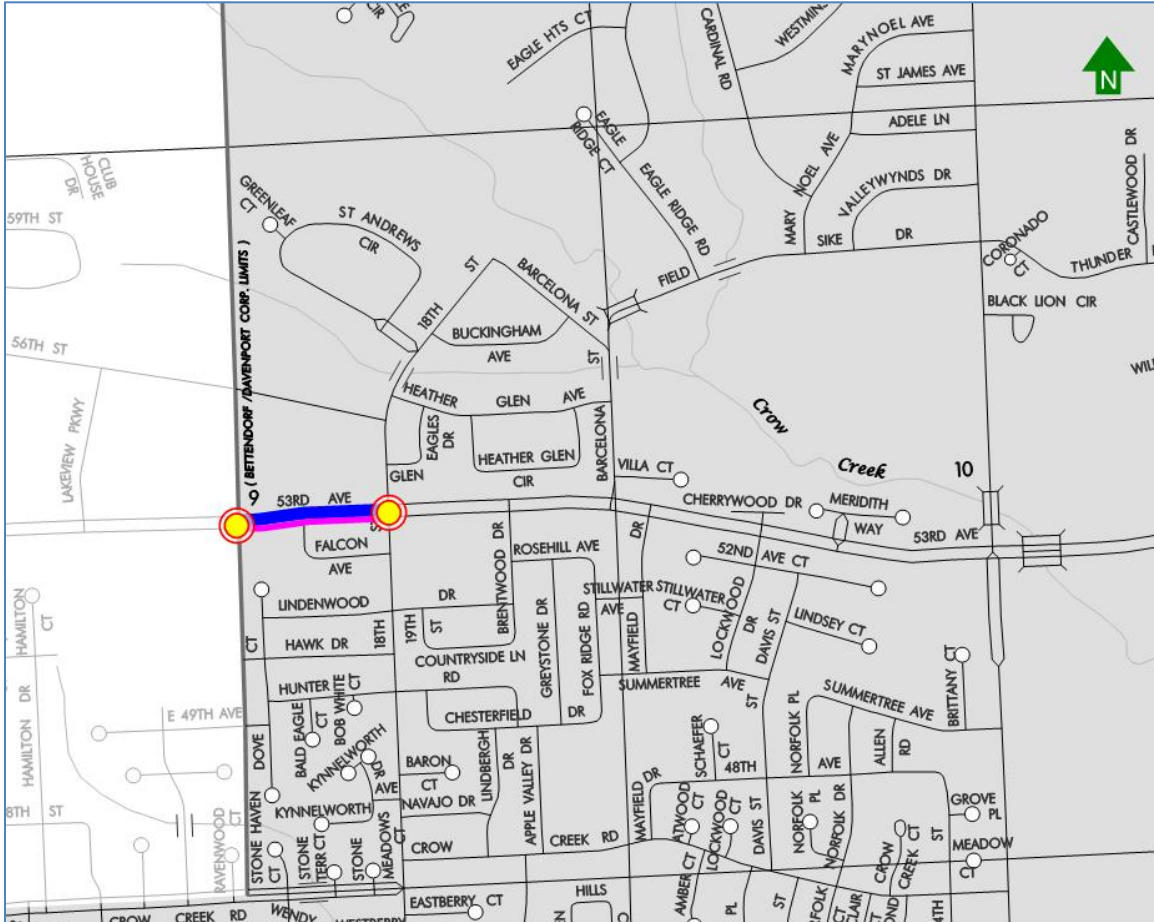
53<sup>rd</sup> Avenue currently is a 4-lane, divided highway in this segment. It is classified as a minor arterial that is 70-foot wide from back-of-curb to back-of-curb (including a 15-foot wide median/boulevard). The existing right-of-way is approximately 150 feet, containing sidewalks on both sides of the street. The posted speed limit is 45 mph and serves approximately 18,000 vehicles per day. This commercial area is partially built-out however, 53<sup>rd</sup> serves as a heavily traveled thoroughfare west of this segment.



**Recommended Improvements**

Due to safety (traffic speed and volume) the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the south side of 53<sup>rd</sup> Avenue, better serving . The south side has no sidewalk in this segment. Future connectivity with Davenport will be better served by locating the trail on the south side. Minor obstacles (traffic signal equipment) may need to be avoided or relocated to accomplish this placement. There will need to be a trail crossing at 18<sup>th</sup> Street (east end of Segment A) to connect to a trail that exists on the north side east of 18<sup>th</sup> Street.

**53<sup>RD</sup> AVENUE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	53RD AVENUE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.17	
7	Number of Traffic Lanes	4,5	
8	Total Pavement Width (Ft.)	70'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5'	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	6'/LT, 6'/RT	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	150'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume	18100	
24	Land Use Types	C	
25	Physical Barriers	Left	Right
	Number of Drives	0	0
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	2	1
	Number of Power poles	1	6
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	BUSINESSES	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	898	\$89,800.00
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0.00
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$1,000.00
4	Traffic Signal Modifications	LS	\$0.00	0	\$0.00
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	250	\$18,750.00
6	Storm Sewer Modifications	LS	\$0.00	0	\$0.00
Construction Subtotal					\$109,550.00
Construction Contingency 15%					\$16,432.50
Engineering Design 10%					\$12,598.25
Total Segment Cost					\$138,580.75

**53<sup>RD</sup> AVENUE: SEGMENT B**

**Segment Length = 0.80 Miles**

**Existing Conditions**

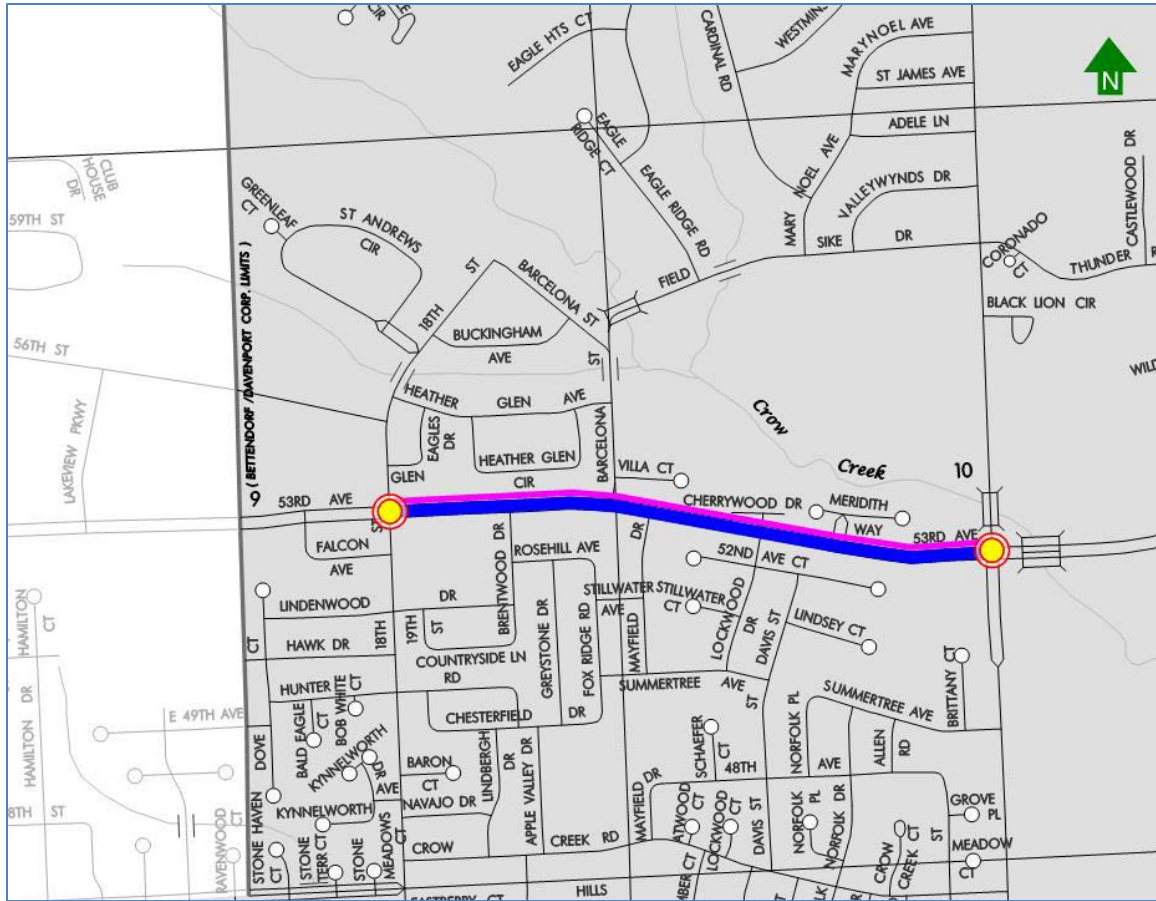
53<sup>rd</sup> Avenue currently is a 4-lane, divided highway in this segment. It is classified as a minor arterial that is 70-foot wide from back-of-curb to back-of-curb (including a 20-foot wide median/boulevard). The existing right-of-way is approximately 150 feet, which includes a 6-foot sidewalk on both sides of the road. The posted speed limit is 45 mph and serves approximately 14,000 vehicles per day. This traditional residential area is mostly built-out on the West end of the segment and sparsely populated on the east end, however 53<sup>rd</sup> serves as a major thoroughfare.



**Recommended Improvements**

Due to safety (traffic speed and volume) the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the north side of 53<sup>rd</sup> Avenue where the existing sidewalk is currently, due to connectivity of the trail that exists to the east between this segment and segment C. Obstacles, such as a traffic signal controller box at Devil's Glen Road, will need to be relocated or avoided if possible.

**53<sup>RD</sup> AVENUE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	53RD AVENUE	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.8	
7	Number of Traffic Lanes	4/5	
8	Total Pavement Width (Ft.)	70'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5'	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	6'/LT, 6'/RT	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	150'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT, 70'/RT	
23	Traffic Volume	13800, 13500, 11300	
24	Land Use Types	TR,OT	
25	Physical Barriers	Left	Right
	Number of Drives	2	4
	Number of Rail Crossings	0	0
	Number of Intersections	3	2
	Number of Fire Hydrants	5	1
	Number of Power poles	3	16
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	ADEQUATE R.O.W.	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	18TH ST/DEVILS GLEN ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

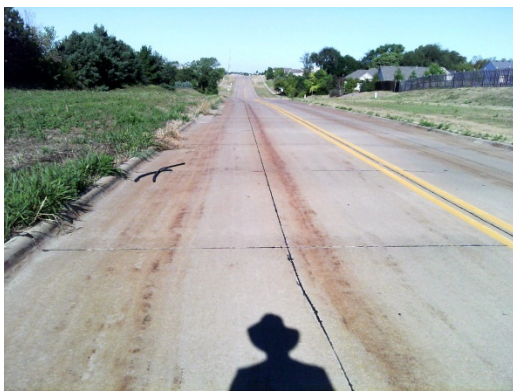
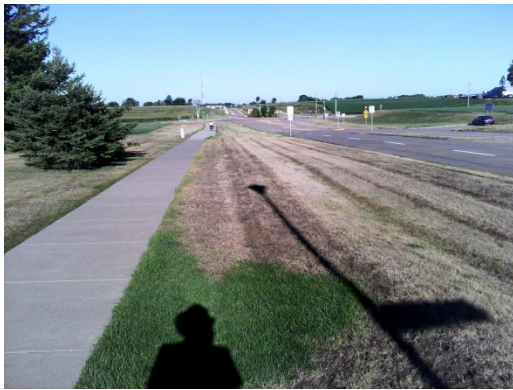
Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	4225	\$ 422,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$ -
3	Pavement Marking & Signage	LS	\$1,920.00	1	\$ 1,920
4	Traffic Signal Modifications	LS	\$0.00	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	375	\$ 28,125
6	Storm Sewer Modifications	LS	\$0.00	0	\$ -
				Construction Subtotal	\$ 452,545
				Construction Contingency 15%	\$ 67,880
				Engineering Design 10%	\$ 50,045
				<b>Total Segment Cost</b>	<b>\$ 570,470</b>

**53<sup>RD</sup> AVENUE: SEGMENT C**

**Segment Length = 0.75 Miles**

**Existing Conditions**

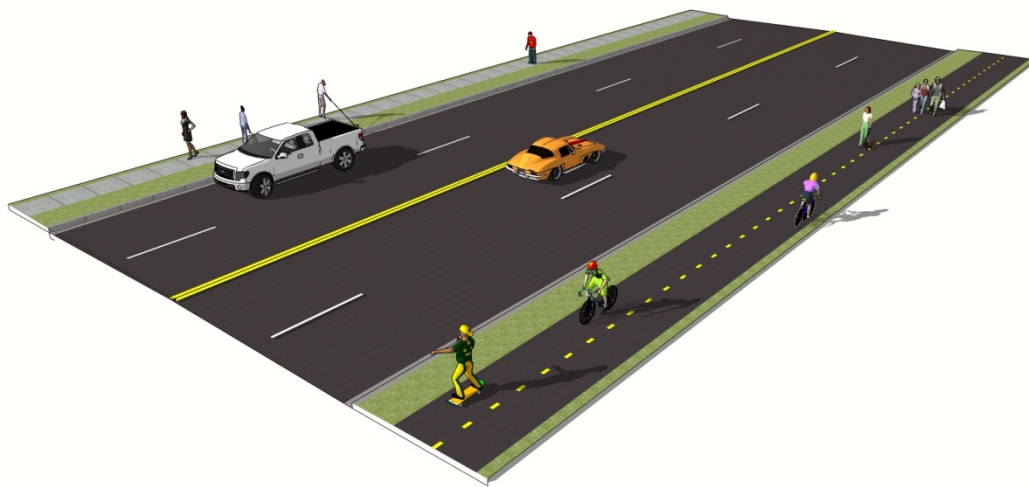
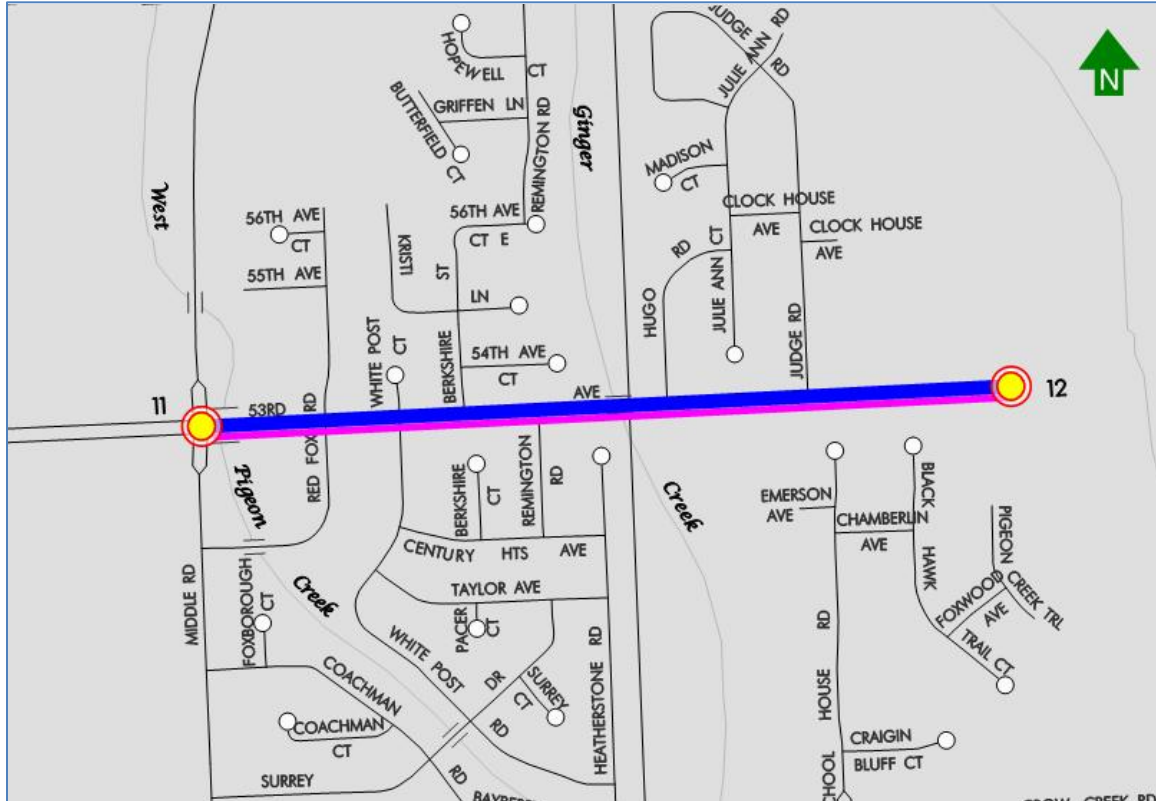
53<sup>rd</sup> Avenue currently is a 4-lane highway in this segment, with the area from Judge Road to the east connection being an undeveloped field. The developed portion of this segment is mostly 50 foot from back-of-curb to back-of-curb. The existing right-of-way is approximately 150 feet, which includes a 6-foot sidewalk on the north side of the road and a 6-foot sidewalk partially on the south side. The posted speed limit is 35 mph and serves strictly residential traffic from the subdivisions east of Middle Road. Aside from the undeveloped eastern portion (farm field) of the segment, the area is developed residentially.



**Recommended Improvements**

The north and south sides of the road would be ideal for accommodation of a separated trail, but due to the connection at Middle Road being on the southeast quadrant of the round-a-bout, the recommendation is to continue the trail along the south side. Beyond the developed roadway and to the east, additional right-of-way will need to be acquired as records show that only half the area is acquired for a future roadway extension and separated trail.

**53<sup>RD</sup> AVENUE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	53RD AVENUE	
2	Segment	C	
3	Existing Trail	NO/LT, 400'/RT	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.75	
7	Number of Traffic Lanes	4,5	
8	Total Pavement Width (Ft.)	70'/50'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	6'/LT, 0'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	74' AT ROUNDABOUT, 150'	
22	Proximity of Roadway to Buildings (Ft.)	70'/LT, 70'/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	O,C,TR	
25	Physical Barriers	Left	Right
	Number of Drives	1	0
	Number of Rail Crossings	0	0
	Number of Intersections	5	4
	Number of Fire Hydrants	1	2
	Number of Power poles	6	3
	Landscaping in or near ROW	YES	NO
Evaluation			
	Segment Benefits	ADEQUATE R.O.W.	
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3960	\$396,000.00
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0.00
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$1,800.00
4	Traffic Signal Modifications	LS	\$0.00	0	\$0.00
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	225	\$16,875.00
6	Storm Sewer Modifications	LS	\$0.00	0	\$0.00
Construction Subtotal					\$414,675.00
Construction Contingency 15%					\$62,200.00
Engineering Design 10%					\$67,690.00
Total Segment Cost					\$544,565.00



## 6<sup>TH</sup> STREET

### SUMMARY

Located in the southwest, 6<sup>th</sup> Street is a local roadway that is only one segment. Segment A is approximately 0.63 miles from River Drive (State Street) to the north City limit.

**6<sup>TH</sup> STREET: SEGMENT A**

**Segment Length = 0.63 Miles**

**Existing Conditions**

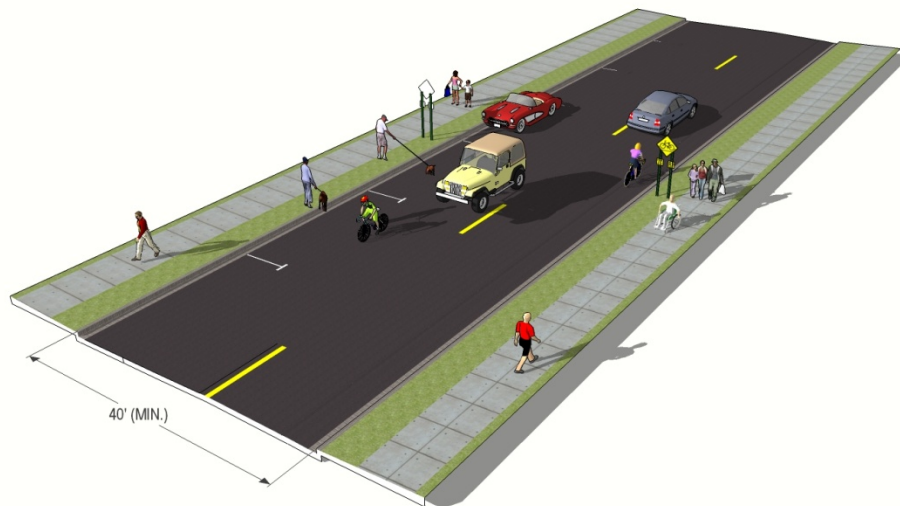
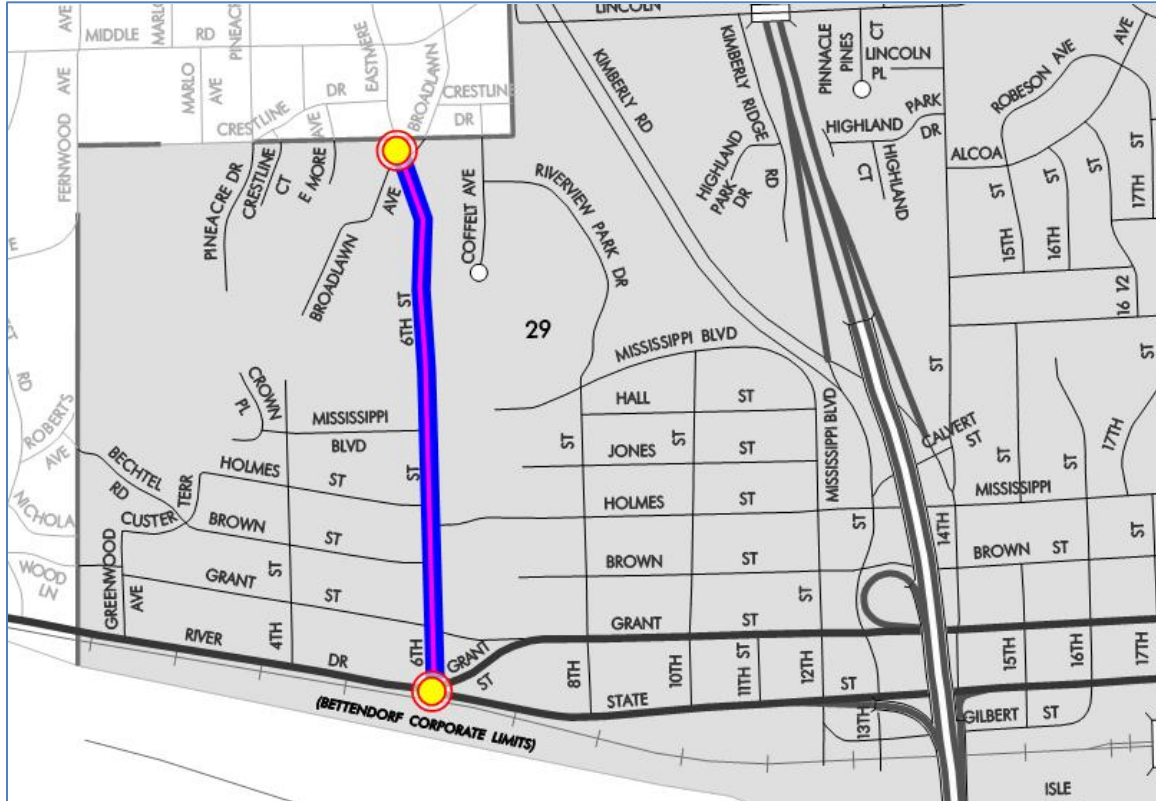
6<sup>th</sup> Street is a local street that is 30-foot back-of-curb to back-of-curb in this segment. It provides 2-lanes of travel and one parking lane on the west side of the street. The existing right-of-way is 60-feet, containing sidewalks on both sides. The posted speed limit is 30 mph and serves approximately 660 vehicles per day. In this residential neighborhood, the sidewalks and parking lane are used regularly by pedestrians and motorists.



**Recommended Improvements**

Define the usage as "Share the Road" by utilizing signage and improving education of motorists traveling near or within bicycle facilities.

**6<sup>TH</sup> STREET: SEGMENT A**



Existing			
1	Roadway Name	6TH STREET	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.63	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	35'/LT, 25'/RT	
23	Traffic Volume (ADT)	660	
24	Land Use Types	TR, RC	
25	Physical Barriers	Left	Right
	Number of Drives	22	5
	Number of Rail Crossings	0	0
	Number of Intersections	6	3
	Number of Fire Hydrants	5	1
	Number of Power poles	29	41
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	NEIGHBORHOOD	
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	RIVER DRIVE	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,650.00	1	\$ 2,650
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,650
Construction Contingency 15%					\$ 400
Engineering Design 10%					\$ 265
Total Segment Cost					\$ 3,315

## **BELMONT ROAD**

### **SUMMARY**

Belmont Road is mainly a collector that runs east-west, connecting Devils Glen Road to Valley Drive. The portion from Pleasant Valley High School is not part of this study, as a separated trail exists. This corridor is divided into two (2) segments, totaling approximately 1.04 miles. Segment A is approximately 0.35 miles from Devils Glen Road to Middle Road and Segment B is approximately 0.69 miles from Middle Road to the Scott Community College entrance.

**BELMONT ROAD: SEGMENT A**

**Segment Length = 0.35 Miles**

**Existing Conditions**

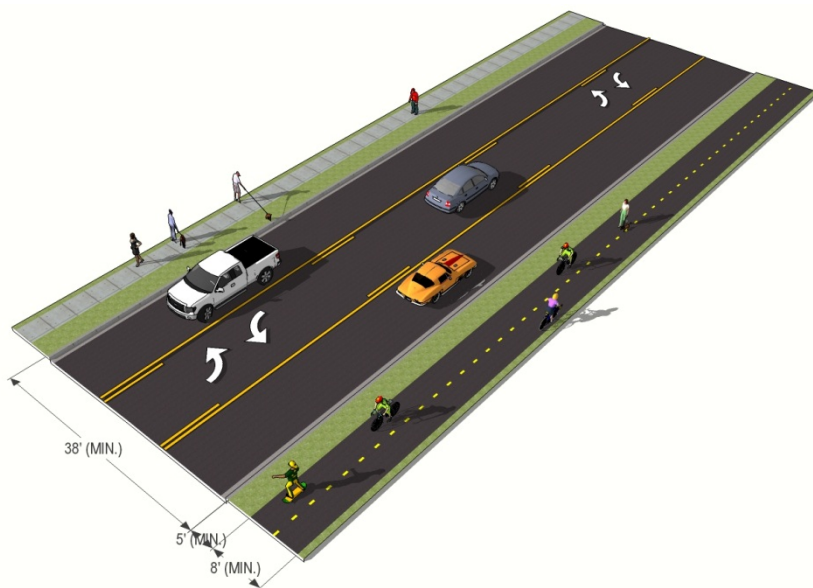
Belmont Road is a 3-lane, undivided roadway in this segment. It is classified as a local road that is 38-foot wide from back-of-curb to back-of-curb with the third center lane being an "opposing left" turn lane. The existing right-of-way is approximately 80 feet, containing a sidewalk on the north side. The posted speed limit is 35 mph and serves minimal traffic from Devils Glen Road to the west end. There are commercially developed areas on the north side of Belmont Road, while the south side is undeveloped.



**Recommended Improvements**

The undeveloped south side and adequate right-of-way lends itself to a separated trail. The trail should be on the south side along the right-of-way line for connectivity for a future trail around Pleasant Valley High School. Given limited traffic volume and speeds, this segment could also provide a "Share the Road" recommendation as another option. Signage would need to be posted, as well as educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**BELMONT ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	BELMONT ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.35	
7	Number of Traffic Lanes	3	
8	Total Pavement Width (Ft.)	38'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	100'/LT	
23	Traffic Volume (ADT)	NOT LISTED	
24	Land Use Types	C	
25	Physical Barriers	Left	Right
	Number of Drives	6	0
	Number of Rail Crossings	0	0
	Number of Intersections	2	1
	Number of Fire Hydrants	0	3
	Number of Power poles	9	0
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	BUSINESSES (NORTH SIDE)	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1850	\$185,000.00
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0.00
3	Pavement Marking & Signage	LS	\$850.00	1	\$850.00
4	Traffic Signal Modifications	LS	\$0.00	0	\$0.00
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	0	\$0.00
6	Storm Sewer Modifications	LS	\$0.00	0	\$0.00
Construction Subtotal					\$185,850.00
Construction Contingency 15%					\$27,880.00
Engineering Design 10%					\$18,585.00
Total Segment Cost					\$232,315.00

**BELMONT ROAD: SEGMENT B**

**Segment Length = 0.69 Miles**

**Existing Conditions**

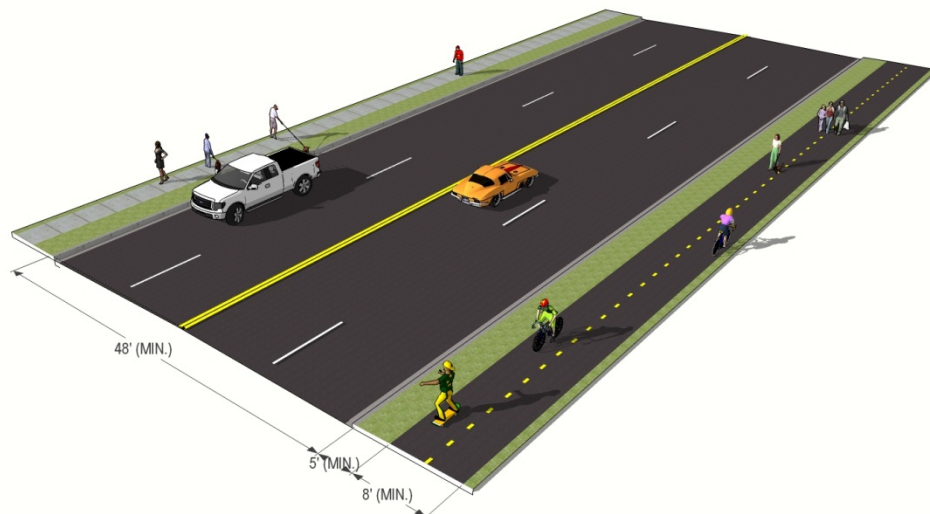
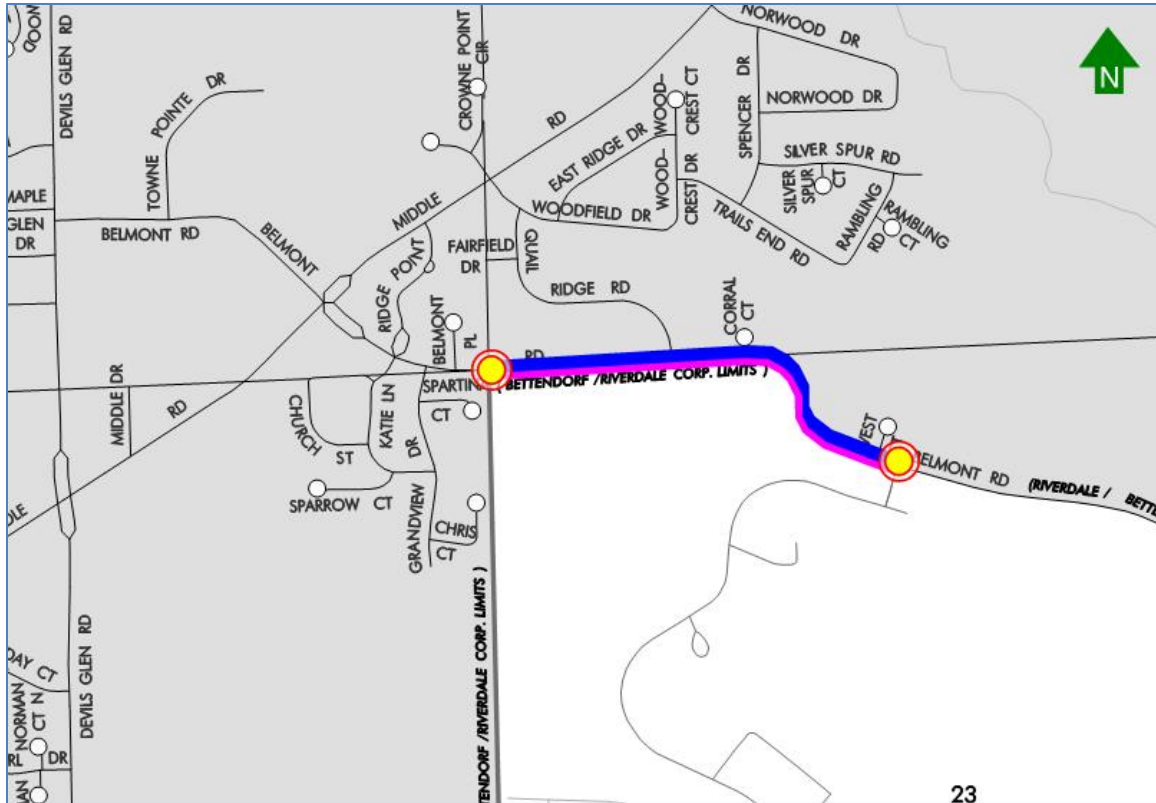
Belmont Road is a 4-lane, undivided roadway in this segment. It is classified as a collector that is 52-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 80 feet. The posted speed limit is 35 mph and serves approximately 3800 vehicles per day. This segment is directly adjacent to Pleasant Valley High School and service school traffic during the weekdays and sporting events otherwise.



**Recommended Improvements**

The first part of the segment to the west is undeveloped on the south side and there is an existing trail on the east end of the segment, near Pleasant Valley High school. It is recommended that a separated trail be placed on the south side of Belmont Road to be contiguous with the recommendation in Segment A and also with Pleasant Valley high School. The trail would follow Belmont Road only to Pleasant Valley High School and continue to said east end of the segment. Additional right-of-way will be necessary from Middle Road to Pleasant Valley High School. The trail would most likely be constructed where the existing sidewalk is currently and some power poles may need to be relocated to support a trail.

**BELMONT ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	BELMONT ROAD	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.69	
7	Number of Traffic Lanes	2, 4	
8	Total Pavement Width (Ft.)	26', 52'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	PARTIAL 4'/LT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume (ADT)	3870, 3710, 2780	
24	Land Use Types	OT, TR	
25	Physical Barriers	Left	Right
	Number of Drives	10	11
	Number of Rail Crossings	0	0
	Number of Intersections	4	2
	Number of Fire Hydrants	4	1
	Number of Power poles	10	14
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	PLEASANT VALLEY HIGH SCHOOL	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3650	\$ 365,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$ -
3	Pavement Marking & Signage	LS	\$1,650.00	1	\$ 1,650
4	Traffic Signal Modifications	LS	\$0.00	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	835	\$ 62,625
6	Storm Sewer Modifications	LS	\$0.00	0	\$ -
Construction Subtotal					\$ 429,275
Construction Contingency 15%					\$ 64,390
Engineering Design 10%					\$ 42,935
Total Segment Cost					\$ 536,600

## CENTRAL AVENUE

### SUMMARY

Central Avenue is a minor arterial that runs east – west connecting 14<sup>th</sup> Street to Devils Glen Road. This corridor is divided into three (3) segments. Segment A is approximately 0.28 miles in length that runs from 14<sup>th</sup> Street to 18<sup>th</sup> Street; segment B is approximately 0.37 miles in length from 18<sup>th</sup> Street to 23<sup>rd</sup> Street; segment C is approximately 0.9 miles from 23<sup>rd</sup> Street to Devils Glen Road.

**CENTRAL AVENUE: SEGMENT A**

**Segment Length = 0.37 Miles**

**Existing Conditions**

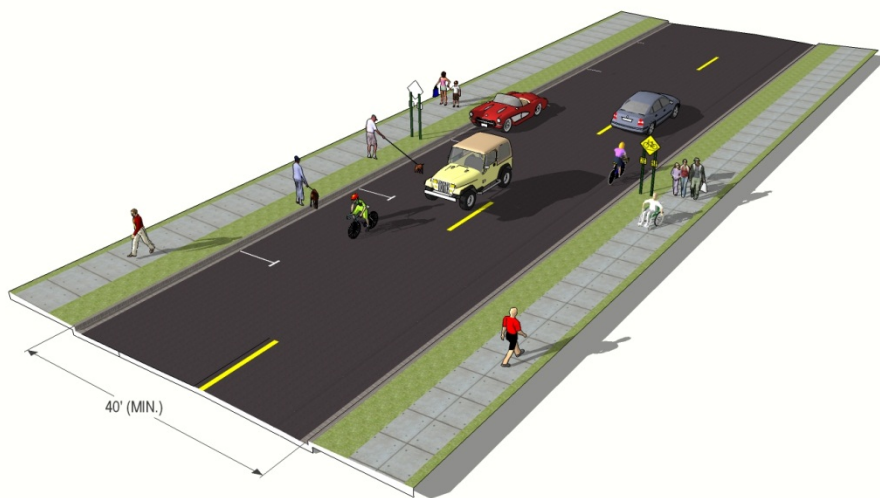
Central Avenue is a 2-lane, undivided roadway in this segment. It is federally classified as a minor arterial that ranges from a 34-foot t asphalt roadway with curb and gutter. The existing right-of-way is approximately 60 feet, containing sidewalks on both sides of the roadway. The posted speed limit is 25 mph and serves approximately 3200 vehicles per day. This traditional residential area has parking on the north side as well as some driveways on the north and south sides.



**Recommended Improvements**

Due to the developed residential areas on the north and south, and limited right-of-way availability, we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**CENTRAL AVENUE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	CENTRAL AVENUE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.28	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	34	
9	Surface Type	ASPHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT	
15	Sidewalk Width (Ft.)	YES/LT, 4' PARTIAL/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 30'/RT	
23	Traffic Volume (ADT)	3180	
24	Land Use Types	TR, C, HDR	
25	Physical Barriers	Left	Right
	Number of Drives	14	12
	Number of Rail Crossings	0	0
	Number of Intersections	3	4
	Number of Fire Hydrants	1	0
	Number of Power poles	2	12
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	18TH STREET	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements	INLET GRATES	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$ 1,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS	\$1,000.00	1	\$ 1,000
			Construction Subtotal		\$ 2,200
			Construction Contingency 15%		\$ 330
			Engineering Design 10%		\$ 200
			Total Segment Cost		\$ 2,730

**CENTRAL AVENUE: SEGMENT B**

**Segment Length = 0.37 Miles**

**Existing Conditions**

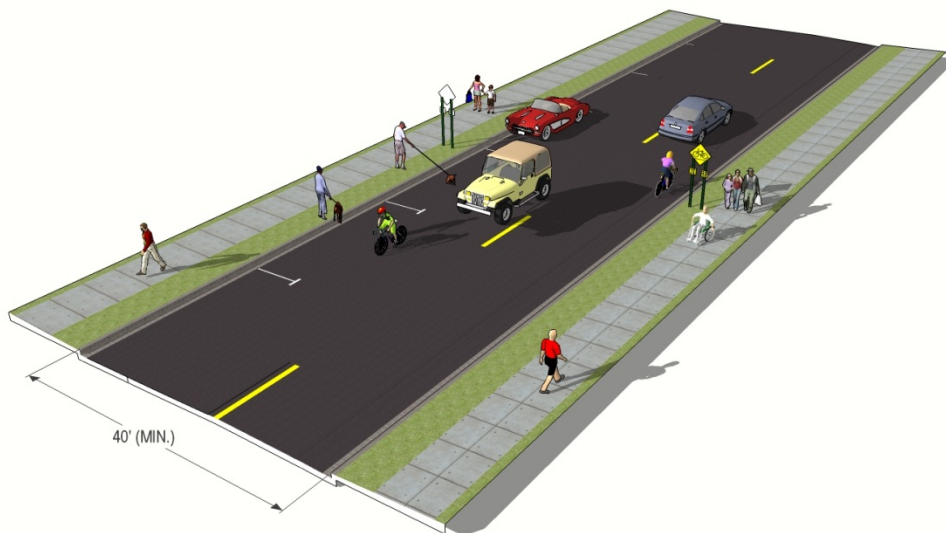
Central Avenue is a 2-lane, undivided roadway in this segment. It is federally classified as a minor arterial that ranges from a 24-foot to 34-foot asphalt roadway with curb and gutter. The existing right-of-way ranges approximately 40 feet to 50 feet, containing sidewalks mostly on both sides of the roadway. The posted speed limit is 25 mph and serves approximately 4700 vehicles per day. This residential area has parking on the north side as well as some driveways on the north and south sides.



**Recommended Improvements**

Due to the developed residential areas on the north and south, and limited right-of-way availability, we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**CENTRAL AVENUE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	CENTRAL AVENUE	
2	Segment	B	
3	Existing Trail	0	
4	Existing Bike Lanes	0	
5	Bike Lane Width	0	
6	Segment Length (Miles)	0.37	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24', 34'	
9	Surface Type	ASPHALT	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)		
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT	
15	Sidewalk Width (Ft.)	4'/LT, PARTIAL 4'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	40', 50'	
22	Proximity of Roadway to Buildings (Ft.)	25'/LT, 25'/RT	
23	Traffic Volume (ADT)	4690	
24	Land Use Types	TR, MDR	
25	Physical Barriers	Left	Right
	Number of Drives	8	2
	Number of Rail Crossings	0	0
	Number of Intersections	3	3
	Number of Fire Hydrants	1	1
	Number of Power poles	4	7
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	18TH STREET & 23RD STREET	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements	INLET GRATES	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,500.00	1	\$ 1,500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS	\$1,000.00	1	\$ 1,000
Construction Subtotal					\$ 2,500
Construction Contingency 15%					\$ 375
Engineering Design 10%					\$ 250
Total Segment Cost					\$ 3,125

**CENTRAL AVENUE: SEGMENT C**

**Segment Length = 0.9 Miles**

**Existing Conditions**

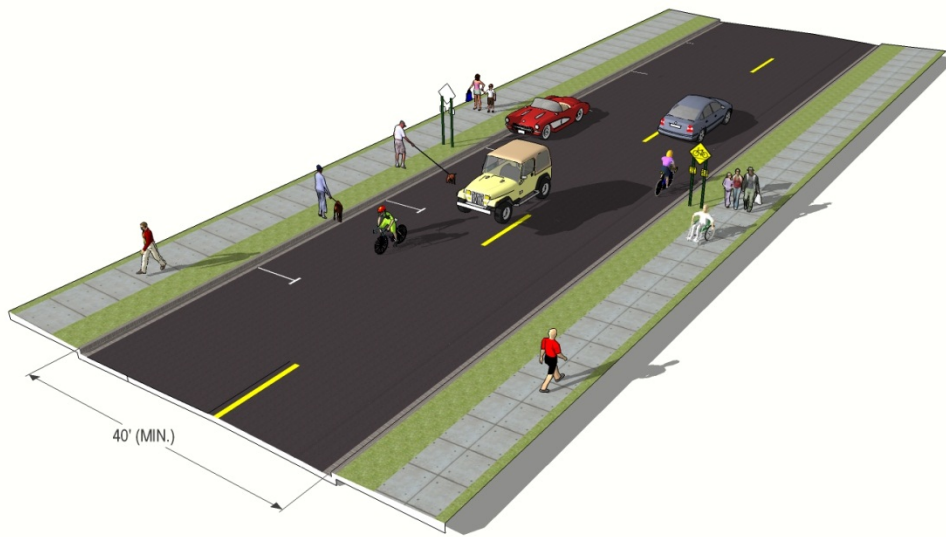
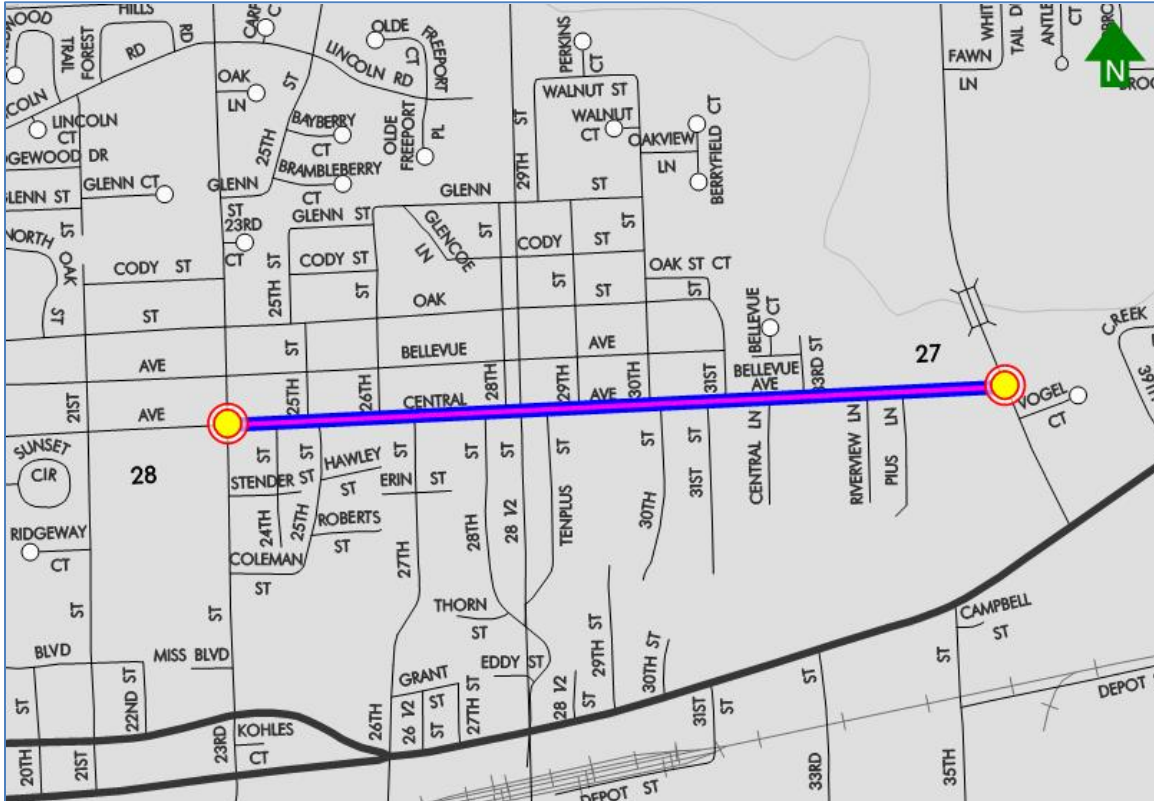
Central Avenue is a 2-lane, roadway in this segment. It is federally classified as a minor arterial that is a 34-foot asphalt roadway with curb and gutter. The existing right-of-way averages approximately 45 feet, containing sidewalks on both sides. The posted speed limit is 25 mph and serves approximately 3700 vehicles per day. This residential area has parking on the north side as well as some driveways on the north and south.



**Recommended Improvements**

Due to the developed residential areas on the north and south, and limited right-of-way availability, we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**CENTRAL AVENUE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	CENTRAL AVENUE	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.9	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	34	
9	Surface Type	ASPHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT	
15	Sidewalk Width (Ft.)	4/LT, 4/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	40',50'	
22	Proximity of Roadway to Buildings (Ft.)	15/LT, 15/RT	
23	Traffic Volume (ADT)	3730	
24	Land Use Types	MDR, TR, C, I	
25	Physical Barriers	Left	Right
	Number of Drives	23	35
	Number of Rail Crossings	0	0
	Number of Intersections	7	12
	Number of Fire Hydrants	4	0
	Number of Power poles	4	38
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	HI	
	Convenient Connections	DEVILS GLEN ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements	INLET GRATES	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,800.00	1	\$ 3,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS	\$1,000.00	1	\$ 1,000
Construction Subtotal					\$ 4,800
Construction Contingency 15%					\$ 720
Engineering Design 10%					\$ 480
Total Segment Cost					\$ 6,000

## **CRISWELL STREET**

### **SUMMARY**

Criswell Street is a collector that runs north – south from Valley Drive to Forest Grove Road. This corridor is broken into four (4) segments of which A and D are dedicated to newly constructed segments. Segment A will connect Valley Drive to the Great River Road (approximately 0.25 miles) and D will connect Forest Grove Road to Wells Ferry Road (approximately 0.50 miles). Segment B is approximately 0.9 miles in length and connects Valley Drive to future Hopewell extension; Segment C is approximately 0.53 miles in length, from future Hopewell to Forest Grove Road.

**CRISWELL STREET: SEGMENT A**

**Segment Length = \*0.25 Miles**

**Existing Conditions**

This segment of Criswell is planned to be newly constructed from the Great River Road to Valley Drive in accordance with the October 12, 2012 Bettendorf Transportation Plan. It is planned to be a 3-lane/5-lane collector roadway with a 6 foot sidewalk along one side and a 10 foot separated trail on the other. The right-of-way will be 120 feet with a rural section roadway.

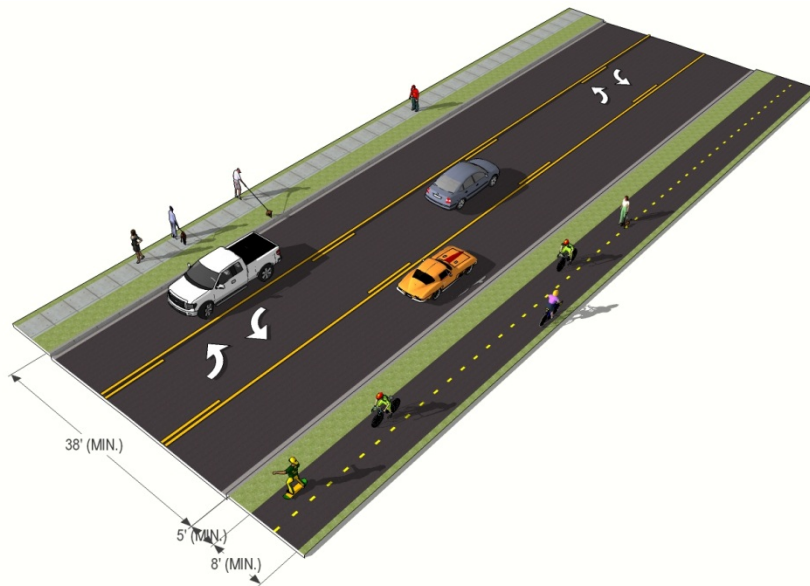


**Recommended Improvements**

We recommend placing a separated trail on the east side in accordance with the October 4, 2012 Bettendorf Transportation Plan. This alignment and recommendation shall continue north into segments B, C, and D.

\*Future connection

**CRISWELL STREET: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	CRISWELL STREET	
2	Segment	A	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	N/A	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	0	0
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	0	0
	Landscaping in or near ROW	0	0
Evaluation			
	Segment Benefits	NEW CONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	GREAT RIVER ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	1320	\$ 132,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 600	1	\$ 600
4	Traffic Signal Modifications	LS		0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	0	\$ -
6	Storm Sewer Modifications	LS		0	\$ -
Construction Subtotal					\$ 132,600
Construction Contingency 15%					\$ 19,890
Engineering Design 10%					\$ 13,260
Total Segment Cost					\$ 165,750

**CRISWELL STREET: SEGMENT B**

**Segment Length = 0.9 Miles**

**Existing Conditions**

Criswell Street is a 2-lane, chip and seal roadway with gravel shoulders in this segment. It is classified as a collector that is 28-foot wide with a 65 foot right-of-way. The posted speed limit is 45 mph and serves close to 1200 vehicles per day. The segment is divided from traditional residential at the south end and agricultural land use at the north end.

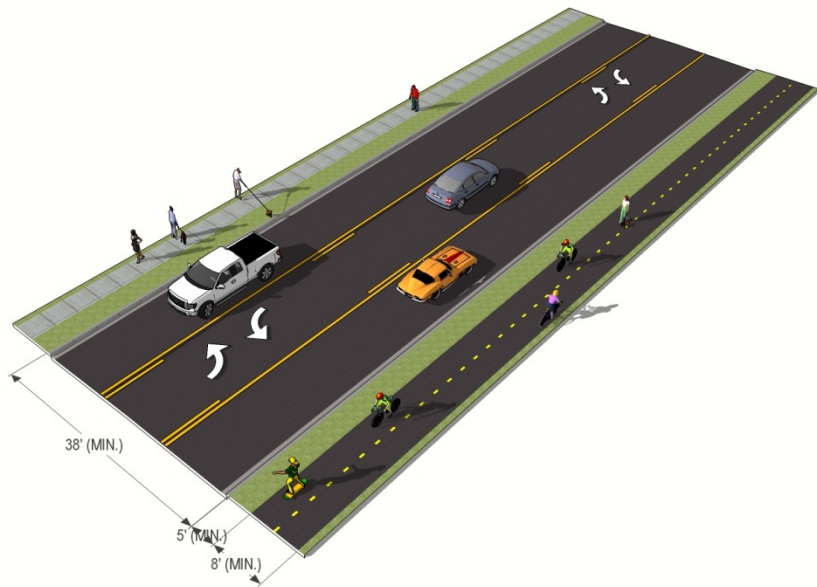
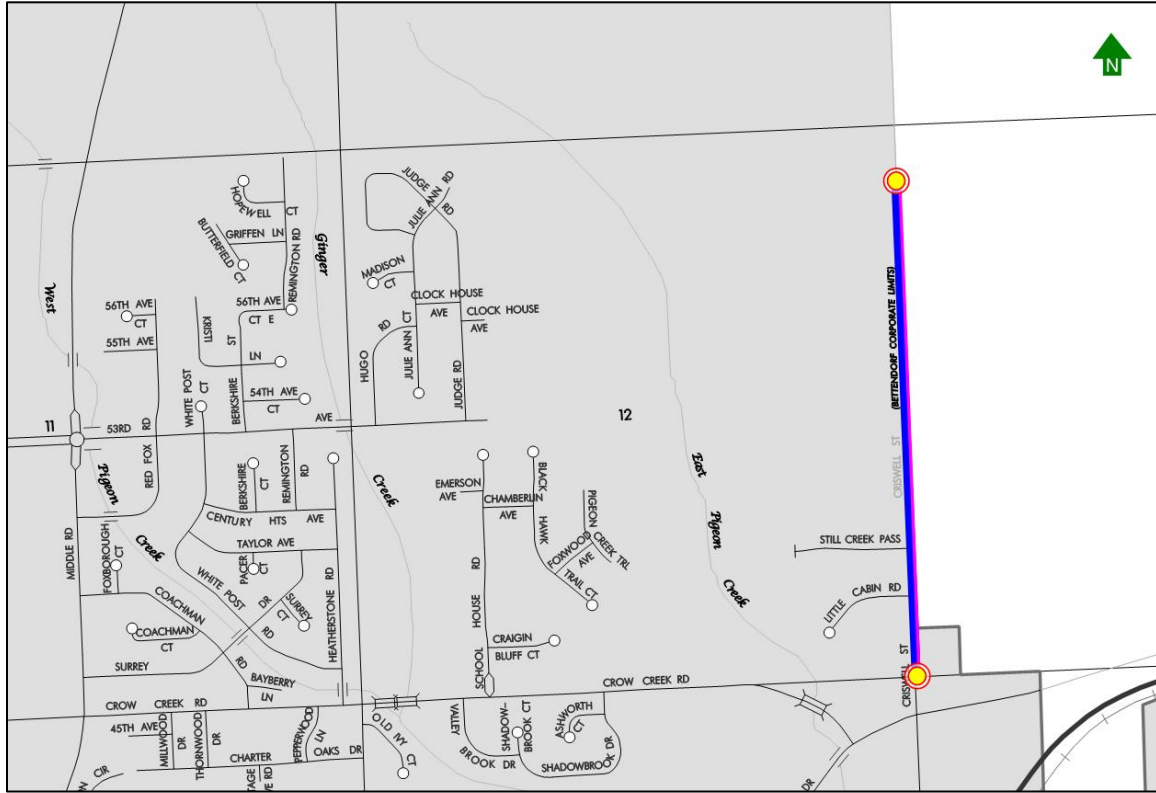


**Recommended Improvements**

Until the roadway is improved, as suggested in the "2012 Transportation Plan", we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concept of integrating bicycle facilities into the motor vehicle system.

- Option 1: Separated trail on east side of this segment.
- Option 2: Separated trail on the west side of this segment.

**CRISWELL STREET: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	CRISWELL STREET	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.9	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	2'/LT, 2'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	10'-30'/LT, 30'/RT	
23	Traffic Volume (ADT)	1180	
24	Land Use Types	TR, AE	
25	Physical Barriers	Left	Right
	Number of Drives	8	13
	Number of Rail Crossings	0	0
	Number of Intersections	3	3
	Number of Fire Hydrants	0	2
	Number of Power poles	22	3
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	VALLEY DRIVE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	4750	\$475,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0
3	Pavement Marking & Signage	LS	\$2,200.00	1	\$2,200
4	Traffic Signal Modifications	LS			\$0
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	575	\$43,125
6	Storm Sewer Modifications	LS			\$0
Construction Subtotal					\$520,325
Construction Contingency 15%					\$78,050
Engineering Design 10%					\$52,030
Total Segment Cost					\$650,410

**CRISWELL STREET: SEGMENT C**

**Segment Length = 0.53 Miles**

**Existing Conditions**

Criswell Street is a 2-lane, chip and seal roadway with gravel shoulders in this segment. It is classified as a collector that is 28-foot wide with a 65 foot right-of-way. The posted speed limit is 45 mph and serves close to 450 vehicles per day. The segment is primarily agricultural land use.

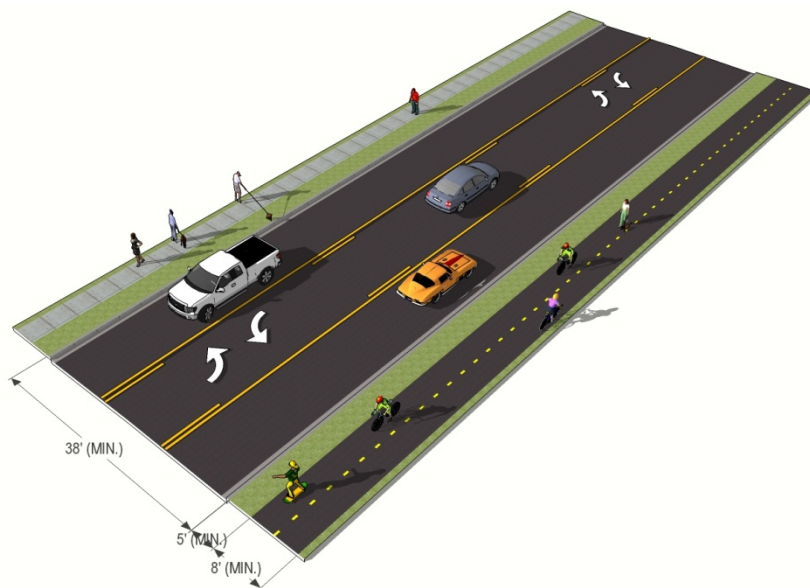
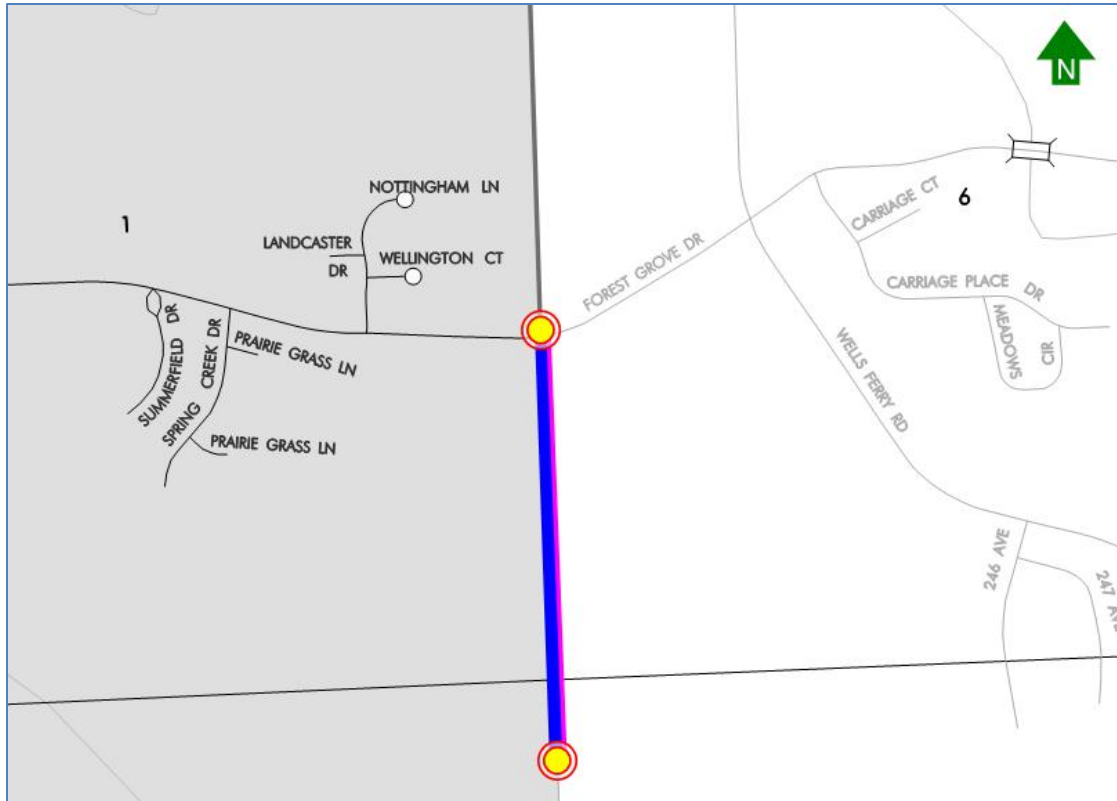


**Recommended Improvements**

Until the roadway is improved, as suggested in the "2012 Transportation Plan", we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concept of integrating bicycle facilities into the motor vehicle system.

- Option 1: Separated trail on east side of this segment.
- Option 2: Separated trail on the west side of this segment.

**CRISWELL STREET: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	CRISWELL STREET	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.53	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	2'/LT, 2'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 25'/RT	
23	Traffic Volume (ADT)	430	
24	Land Use Types	OT, TR, AO, C	
25	Physical Barriers	Left	Right
	Number of Drives	1	7
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	1	0
	Number of Power poles	14	1
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FUTURE HOPEWELL/FOREST GROVE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2800	\$280,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$0
3	Pavement Marking & Signage	LS	\$1,300.00	1	\$1,300
4	Traffic Signal Modifications	LS			\$0
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	310	\$23,250
6	Storm Sewer Modifications	LS			\$0
Construction Subtotal					\$304,550
Construction Contingency 15%					\$45,680
Engineering Design 10%					\$30,460
Total Segment Cost					\$380,690

**CRISWELL STREET: SEGMENT D**

**Segment Length = \*0.5 Miles**

**Existing Conditions**

This segment of Criswell is planned to be newly constructed from Forest Grove Road to Wells Ferry Road in accordance with the October 4, 2012 Bettendorf Transportation Plan. It is planned to be a 3-lane/5-lane collector roadway with a 6' sidewalk along one side and a 10' separated trail on the other. The right-of-way will be 120-feet with a rural section roadway.

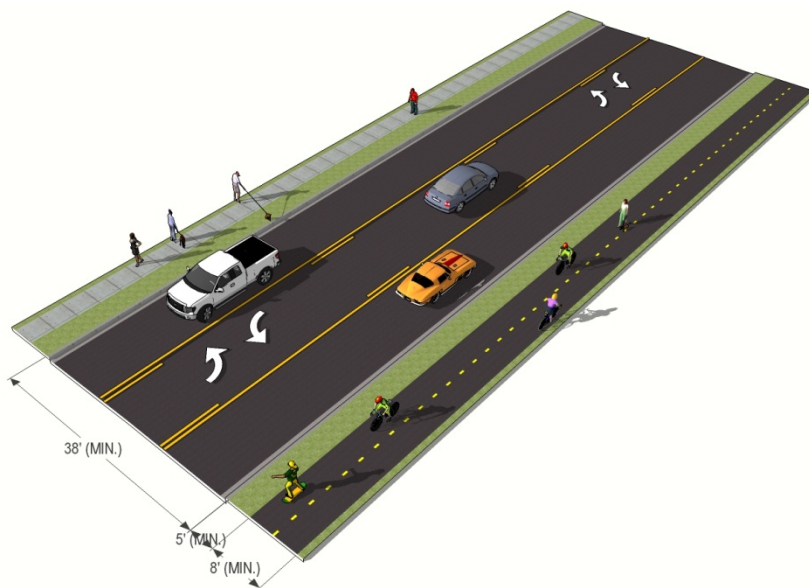
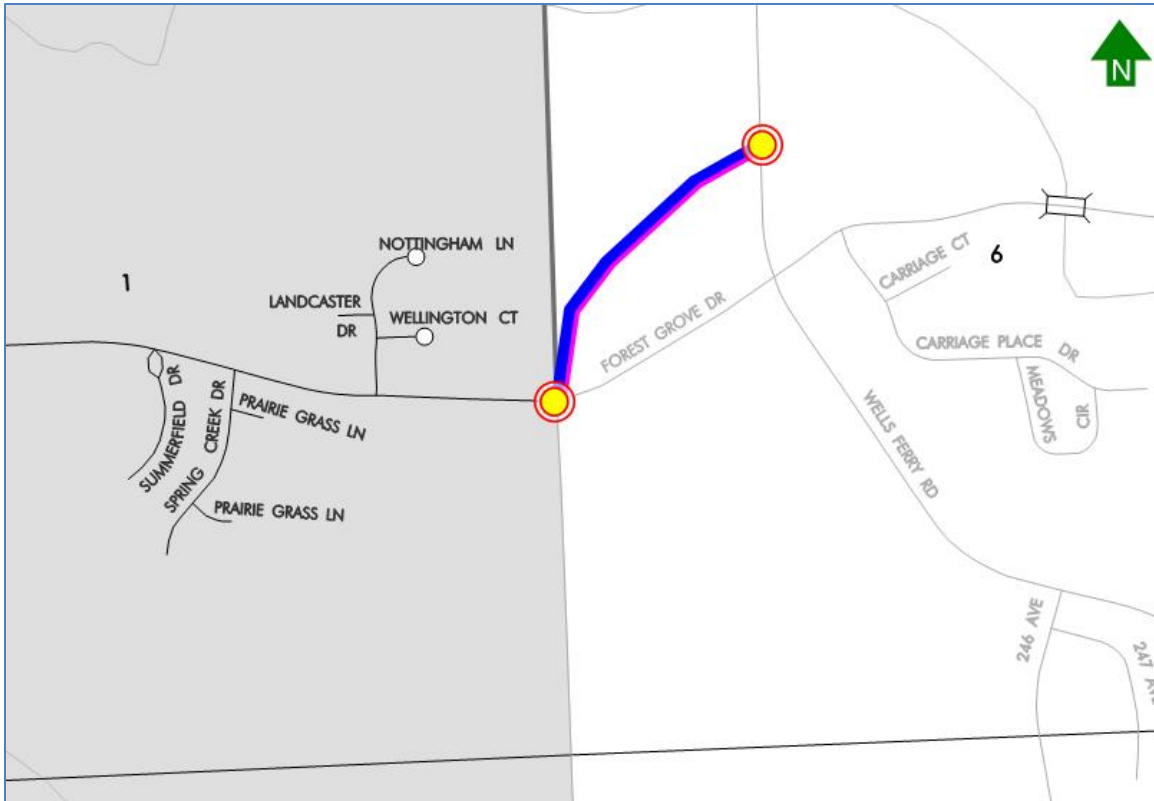


**Recommended Improvements**

We recommend placing a separated trail on the east side as in Segments A, B, and C.

\*Future segment

**CRISWELL STREET: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	CRISWELL STREET	
2	Segment	D	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	N/A	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	NEW CONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FOREST GROVE/WELLS FERRY	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$1,200
4	Traffic Signal Modifications	LS			\$0
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$0
6	Storm Sewer Modifications	LS			\$0
Construction Subtotal					\$265,200
Construction Contingency 15%					\$39,780
Engineering Design 10%					\$26,520
Total Segment Cost					\$331,500

## **CROW CREEK ROAD**

### **SUMMARY**

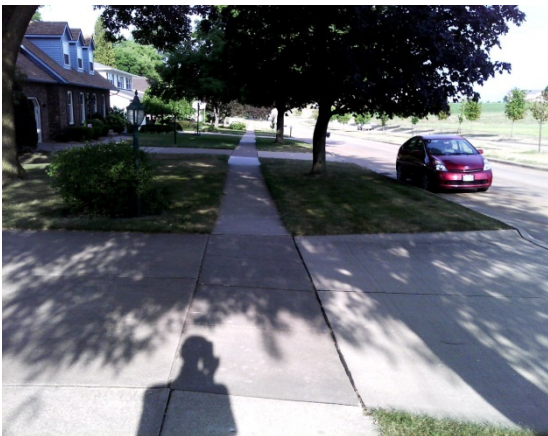
Crow Creek Road is a collector street that runs east-west connecting Utica Ridge Road to Devils Glen Road and Middle Road to Valley drive. This corridor is divided into five (5) segments. Segment A and B are approximately 0.94 miles in length from Utica Ridge Road to 18<sup>th</sup> Street; segment C is approximately 0.82 miles from 18<sup>th</sup> Street to Devils Glen Road; segment D and E are approximately 1.42 miles from Middle Road to Valley Drive to the east.

**CROW CREEK ROAD: SEGMENT A**

**Segment Length = 0.53 Miles**

**Existing Conditions**

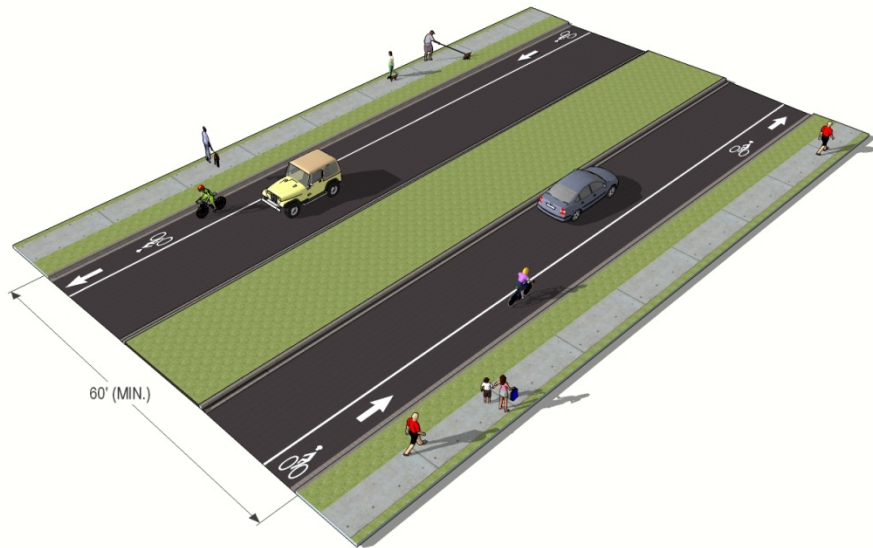
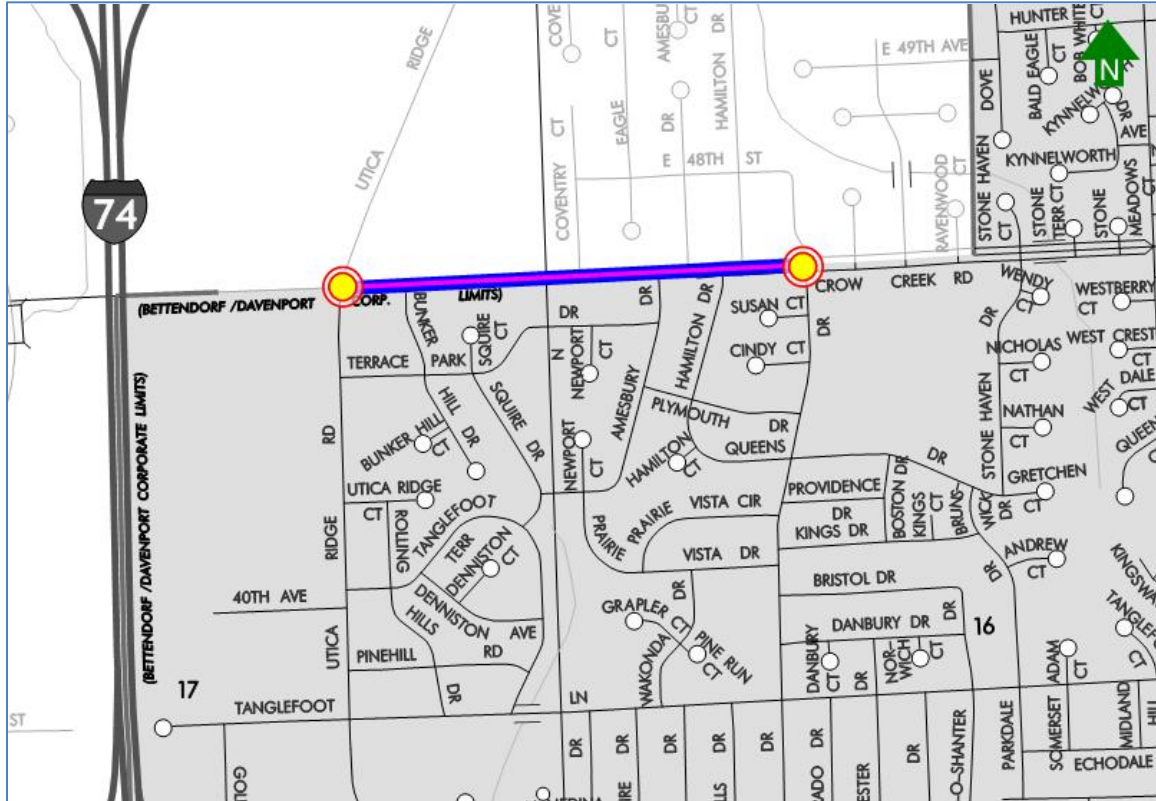
Crow Creek Road has two (2) 20-foot wide lanes in this segment that is divided by a 20-foot wide median/boulevard. The existing right-of-way is approximately 90 feet, containing sidewalks on both sides of the street. The posted speed limit is 25 mph and serves approximately 2900 vehicles per day. Each lane provides directional traffic and a parking lane on each side.



**Recommended Improvements**

With limited utilization of the parking lanes and adequate width of roadway, incorporating bike lanes would serve this segment very well. There may be a need to upgrade the storm inlet grates to safely accommodate bicycles. If parking availability is deemed a priority, then "Share the Road" signage could be posted, to allow for bicycle traffic to incorporate into vehicular traffic along this segment.

**CROW CREEK ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	CROW CREEK ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.53	
7	Number of Traffic Lanes	2, 3	
8	Total Pavement Width (Ft.)	60'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	90'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 40'/RT	
23	Traffic Volume (ADT)	2890	
24	Land Use Types	C, MDR, TR	
25	Physical Barriers	Left	Right
	Number of Drives	4	23
	Number of Rail Crossings	0	0
	Number of Intersections	4	4
	Number of Fire Hydrants	0	4
	Number of Power poles	0	0
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	MEDIAN/BOULEVARD	
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	BIKE LANES	
	Need Bicycle Surface Improvements	STORM INLET GRATES	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$5,600.00	1	\$ 5,600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS	\$5,600.00	1	\$ 5,600
				Construction Subtotal	\$ 11,200
				Construction Contingency 15%	\$ 1,680
				Engineering Design 10%	\$ 1,120
				<b>Total Segment Cost</b>	<b>\$ 14,000</b>

**CROW CREEK ROAD: SEGMENT B**

**Segment Length = 0.41 Miles**

**Existing Conditions**

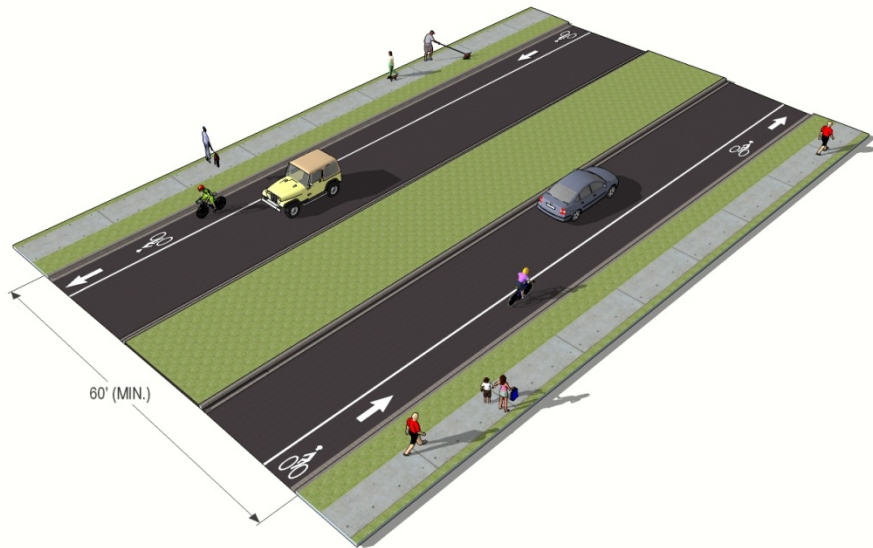
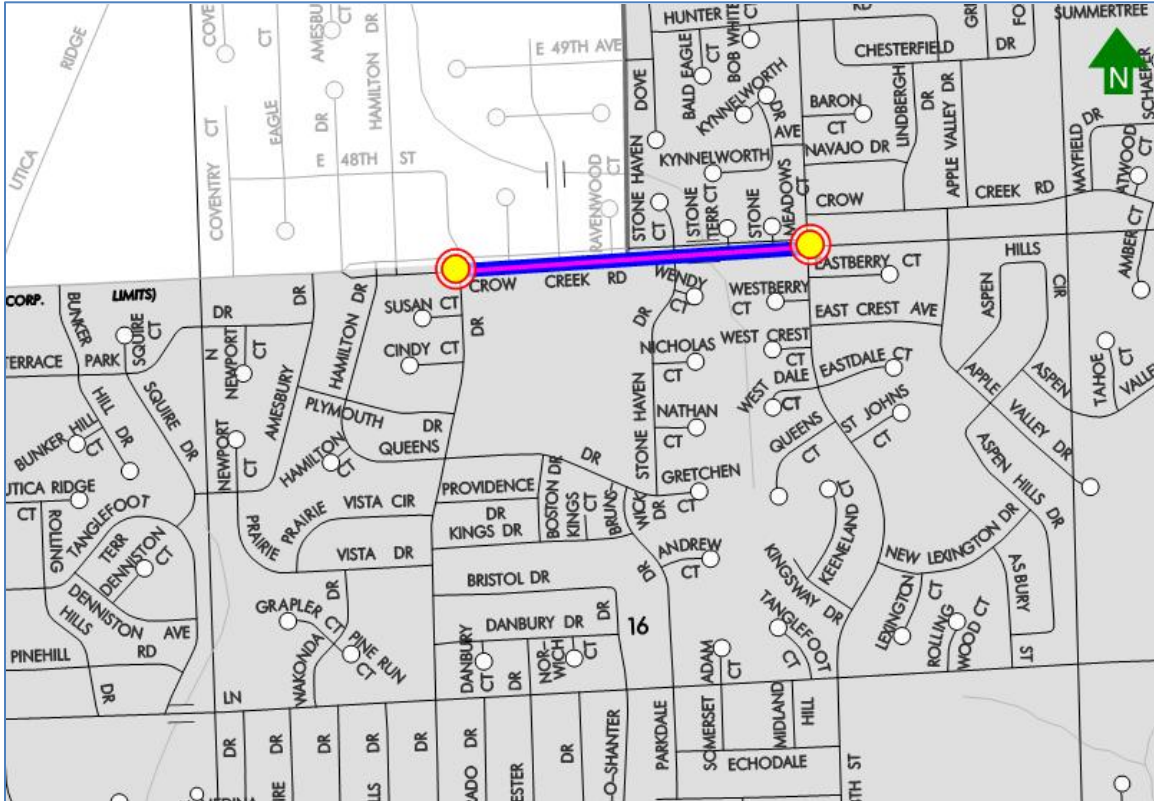
Crow Creek Road has two (2) 20-foot wide lanes in this segment that is divided by a 20-foot wide median/boulevard. The existing right-of-way is approximately 90 feet, containing sidewalks on both sides of the street. The posted speed limit is 25 mph and serves approximately 2900 vehicles per day. East lane provides directional traffic and a parking lane on each side.



**Recommended Improvements**

With limited utilization of the parking lanes and adequate width of roadway, incorporating bike lanes would serve this segment very well. There may be a need to upgrade the storm inlet grates to safely accommodate bicycles. If parking availability is deemed a priority, then "Share the Road" signage could be posted, to allow for bicycle traffic to incorporate into vehicular traffic along this segment.

**CROW CREEK ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	CROW CREEK ROAD	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.41	
7	Number of Traffic Lanes	2, 3	
8	Total Pavement Width (Ft.)	60'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	90'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 40'/RT	
23	Traffic Volume (ADT)	2890	
24	Land Use Types	TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	4	12
	Number of Rail Crossings	0	0
	Number of Intersections	7	2
	Number of Fire Hydrants	3	2
	Number of Power poles	3	0
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	MEDIAN/BOULEVARD	
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	18TH STREET	
Recommendations			
	Recommended Facility	BIKE LANES	
	Need Bicycle Surface Improvements	STORM INLET GRATES	
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$4,300.00	1	\$ 4,300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS	\$4,350.00	1	\$ 4,350
Construction Subtotal					\$ 8,650
Construction Contingency 15%					\$ 1,300
Engineering Design 10%					\$ 865
Total Segment Cost					\$ 10,815

**CROW CREEK ROAD: SEGMENT C**

**Segment Length = 0.82 Miles**

**Existing Conditions**

Crow Creek Road is 38-foot back-of-curb to back-of-curb in this segment. The existing right-of-way is approximately 80 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 2700 vehicles per day. In a residential neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists.

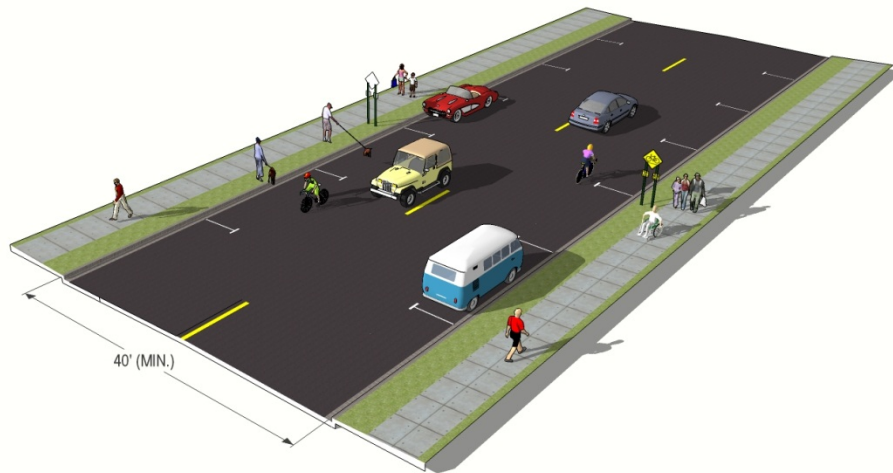
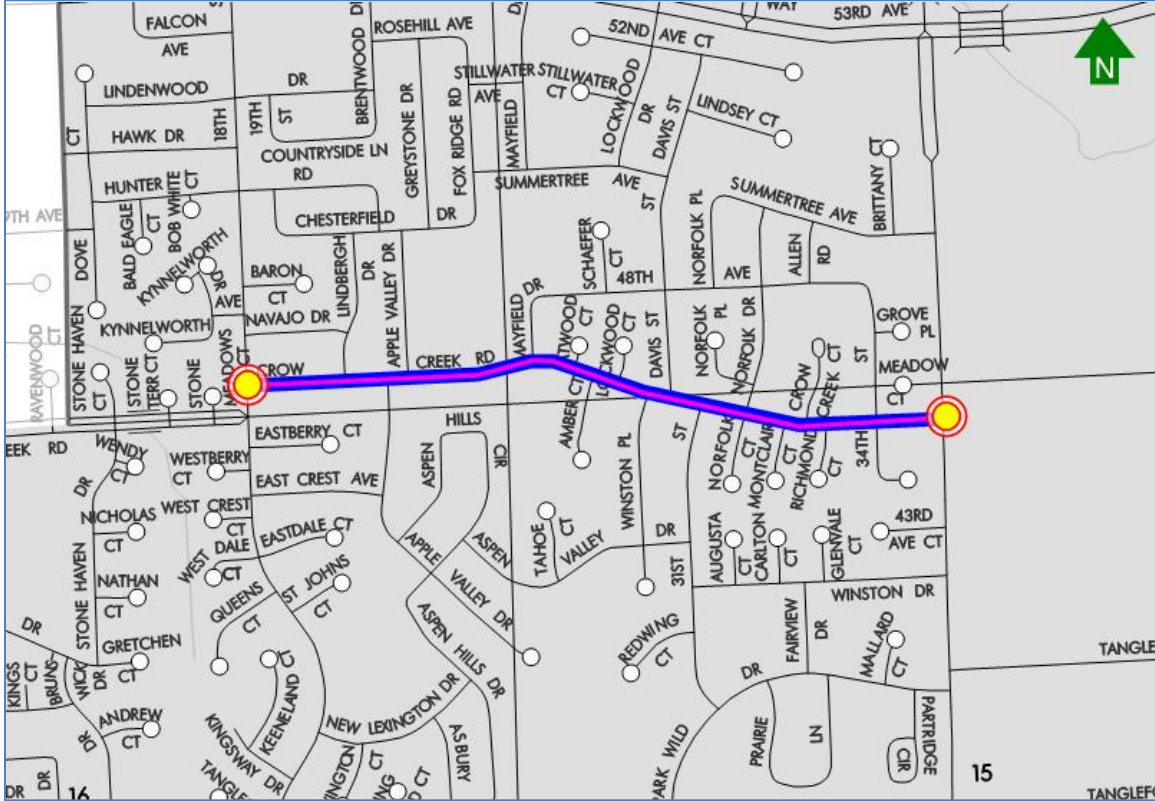


**Recommended Improvements**

The recommended solutions for Crow Creek, segment C are as follows:

- Option 1: Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.
- Option 2: Incorporate striped bike lanes by eliminating the parking lanes on both sides.

**CROW CREEK ROAD: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	CROW CREEK ROAD	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.82	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	38'	
9	Surface Type	PCC	
10	Curb & Gutter	LTRT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	LT/RT	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 40'/RT	
23	Traffic Volume (ADT)	2690/2650	
24	Land Use Types	TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	12	21
	Number of Rail Crossings	0	0
	Number of Intersections	11	9
	Number of Fire Hydrants	0	6
	Number of Power poles	3	6
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	VERY GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	DEVILS GLEN ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,400.00	1	\$ 3,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 3,400
Construction Contingency 15%					\$ 510
Engineering Design 10%					\$ 340
Total Segment Cost					\$ 4,250

**CROW CREEK ROAD: SEGMENT D**

**Segment Length = 1.18 Miles**

**Existing Conditions**

Crow Creek Road is a two-lane roadway in this segment. It is classified as a collector that is 30 feet wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 75 feet, containing sidewalks on both sides of the street. The posted speed limit is 35 mph and serves approximately 5600 vehicles per day.

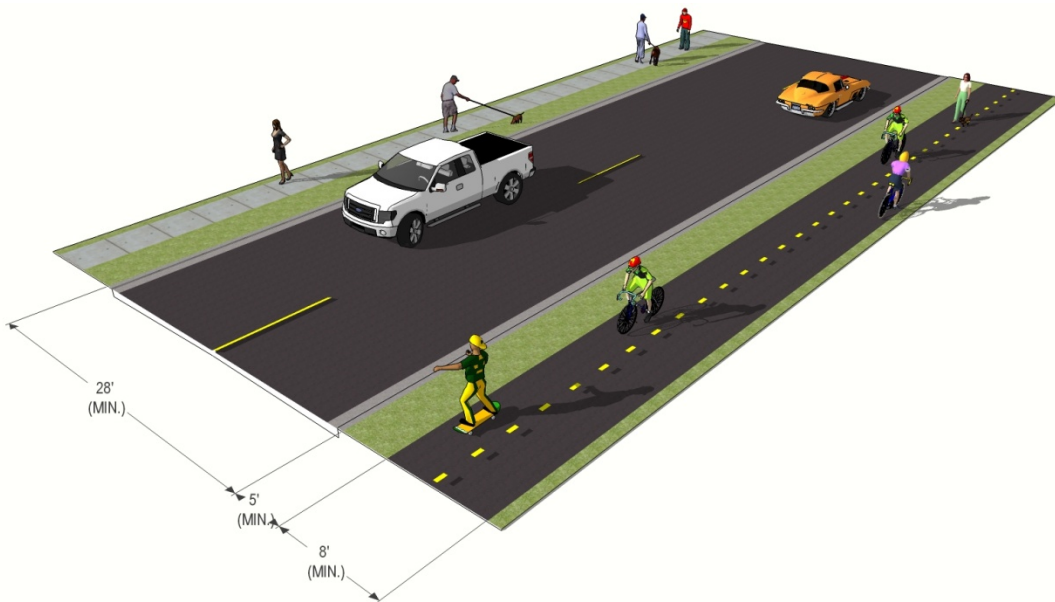
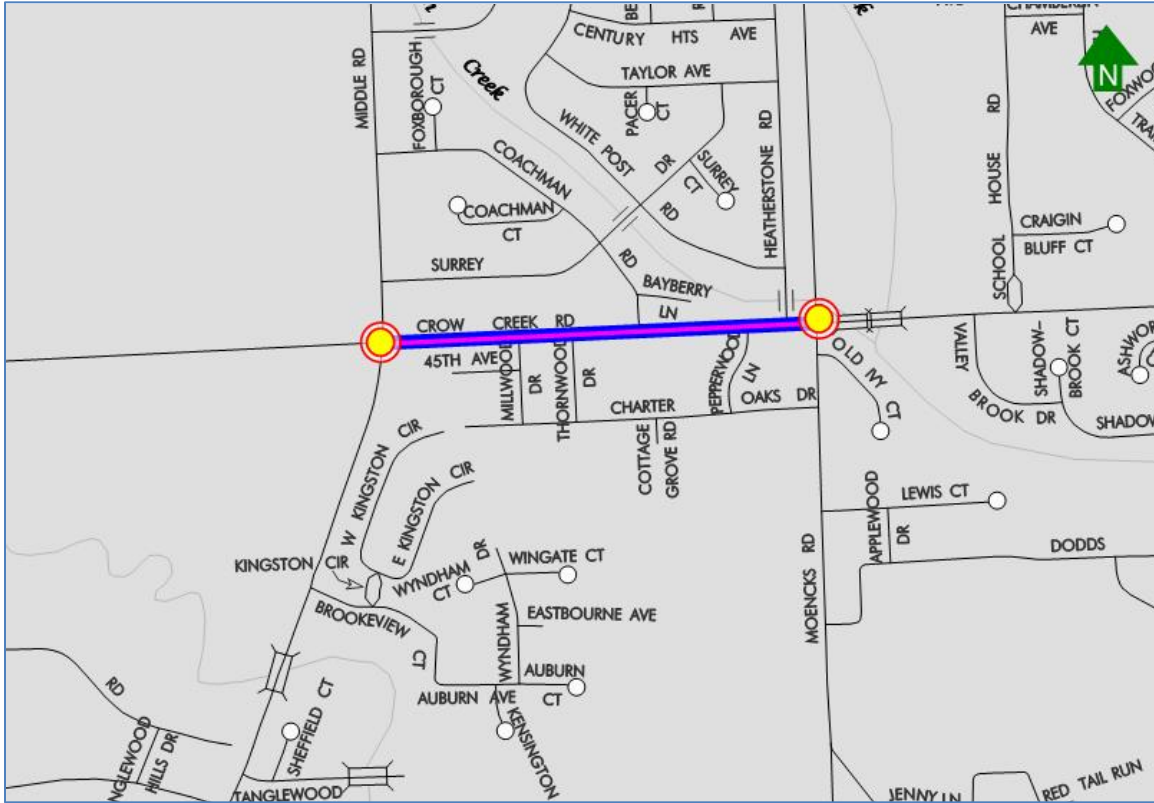


**Recommended Improvements**

The recommended solutions for this segment of Crow Creek Road are the following:

- Option 1: Separated trail on north side.
- Option 2: Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.

**CROW CREEK ROAD: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	CROW CREEK ROAD	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.18	
7	Number of Traffic Lanes	2, 3	
8	Total Pavement Width (Ft.)	30', 40'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	YES	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	75'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 50'/RT	
23	Traffic Volume (ADT)	5600	
24	Land Use Types	RC, TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	18	7
	Number of Rail Crossings	0	0
	Number of Intersections	5	9
	Number of Fire Hydrants	0	11
	Number of Power poles	7	29
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$5,000.00	1	\$ 5,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 5,000
Construction Contingency 15%					\$ 750
Engineering Design 10%					\$ 500
Total Segment Cost					\$ 6,250

**CROW CREEK ROAD: SEGMENT E**

**Segment Length = 0.24 Miles**

**Existing Conditions**

Crow Creek Road is a two-lane roadway in this segment. It is classified as a collector that is 30 feet wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 75 feet, containing sidewalks on both sides of the street. The posted speed limit is 35 mph and serves approximately 2900 vehicles per day.

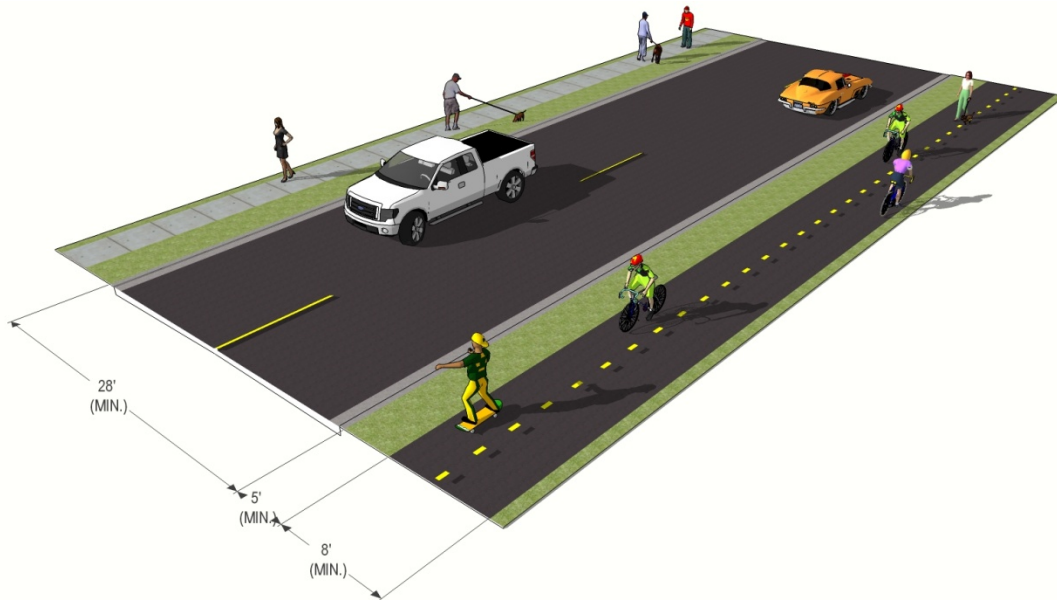
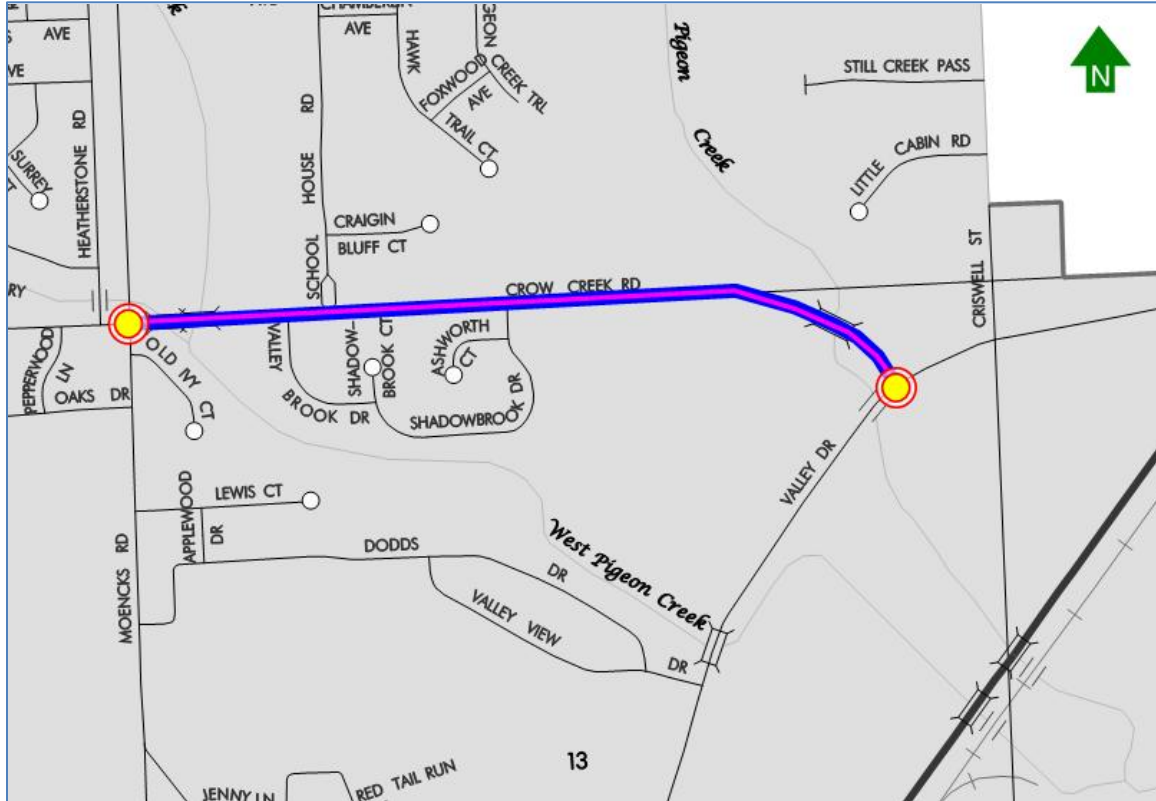


**Recommended Improvements**

The recommended solutions for this segment of Crow Creek Road are the following:

- Option 1: Separated trail on the north side.
- Option 2: Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.

**CROW CREEK ROAD: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	CROW CREEK ROAD	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.24	
7	Number of Traffic Lanes	2, 3	
8	Total Pavement Width (Ft.)	30', 40'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	2.5'	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	75'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 50'/RT	
23	Traffic Volume (ADT)	2880	
24	Land Use Types	TR, AE	
25	Physical Barriers	Left	Right
	Number of Drives	5	4
	Number of Rail Crossings	0	0
	Number of Intersections	1	2
	Number of Fire Hydrants	0	2
	Number of Power poles	0	7
	Landscaping in or near ROW	YES	NO
Evaluation			
	Segment Benefits	RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	VALLEY DRIVE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$600.00	1	\$ 600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 600
Construction Contingency 15%					\$ 90
Engineering Design 10%					\$ 60
Total Segment Cost					\$ 750

## **DEVILS GLEN ROAD**

### **SUMMARY**

Devils Glen Road is a minor arterial that runs north – south connecting U.S. 67 to Forest Grove Road. It then starts again north of Interstate 80 where it continues north to the City limits at 220<sup>th</sup> Street. This corridor is divided into eight (8) segments. Starting at U.S. 67, segment A is approximately 0.18 miles from State Street (U.S. 67) to Central Avenue; segment B is 1.37 miles from Central Avenue to Middle Road; segment C is approximately 0.4 miles from Maplecrest Drive to Tanglefoot Lane; segment D is approximately 0.46 miles from Tanglefoot Lane to Crow Creek Road; segment E is approximately 0.3 miles from Crow Creek Road to the trail stub just south of 53<sup>rd</sup> Avenue; future segment F is approximately 0.75 miles from Forest Grove Road to Spencer Creek; future segment G is approximately 0.75 miles from Spencer Creek to 210<sup>th</sup> Street (Indiana Avenue); and segment H is approximately 1.0 mile from 210<sup>th</sup> Street to 220<sup>th</sup> Street.

**DEVILS GLEN ROAD: SEGMENT A**

**Segment Length = 0.18 Miles**

**Existing Conditions**

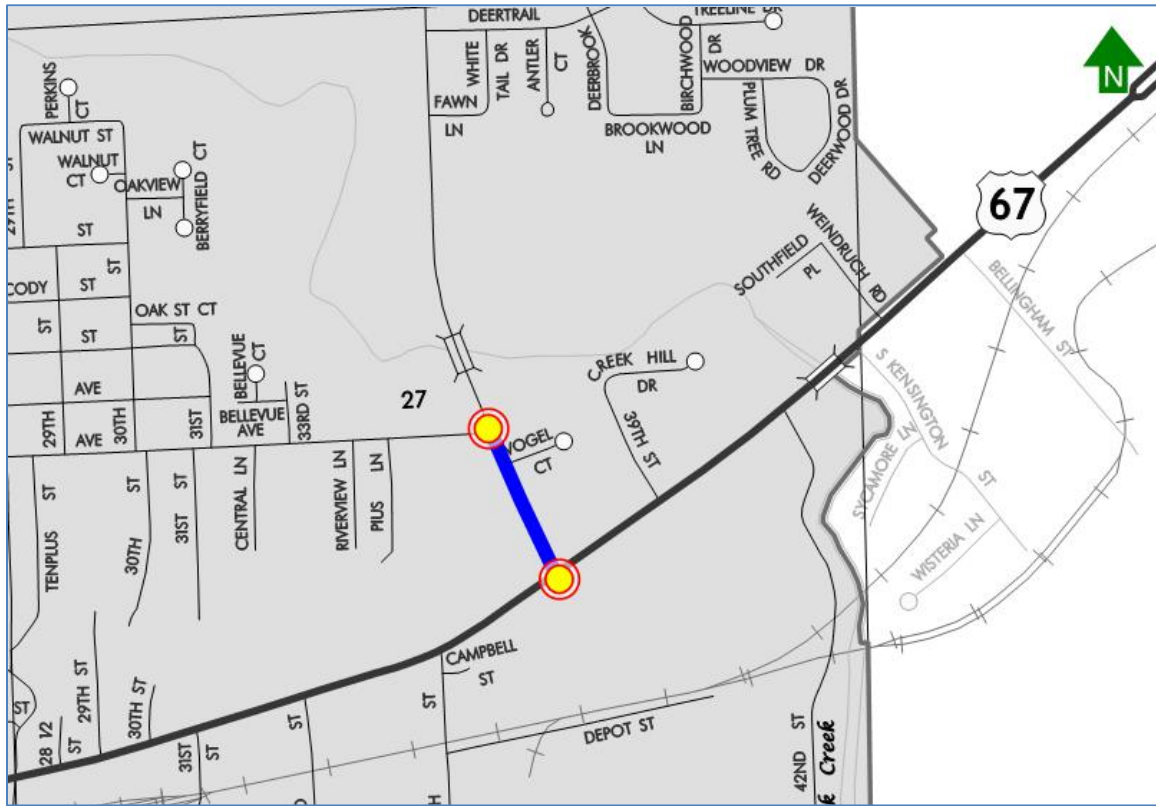
Devils Glen Road is a 4-lane, undivided highway that connects into U.S. 67. It is classified as a minor arterial that is 50-foot back-of-curb to back-of-curb. The existing right-of-way is approximately 75 feet, containing a continuous sidewalk along the west side. The posted speed limit is 35 mph and serves approximately 10,000 vehicles per day. This commercial area is built-out and Devils Glen Road serves as a heavily traveled thoroughfare.



**Recommended Improvements**

Due to traffic volume, a bicycle accommodation is not recommended in this segment.

**DEVILS GLEN ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.18	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48',50'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, PARTIAL 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	75'	
22	Proximity of Roadway to Buildings (Ft.)	45'/LT, 30'/RT	
23	Traffic Volume (ADT)	10200	
24	Land Use Types	MDR, C, TR	
25	Physical Barriers	Left	Right
	Number of Drives	5	6
	Number of Rail Crossings	0	0
	Number of Intersections	2	2
	Number of Fire Hydrants	1	0
	Number of Power poles	6	7
	Landscaping in or near ROW	NO	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	U.S. 67 / DUCK CREEK TRAIL	
Recommendations			
	Recommended Facility	NONE	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS			\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ -
Construction Contingency 15%					\$ -
Engineering Design 10%					\$ -
Total Segment Cost					\$ -

**DEVILS GLEN ROAD: SEGMENT B**

**Segment Length = 1.37 Miles**

**Existing Conditions**

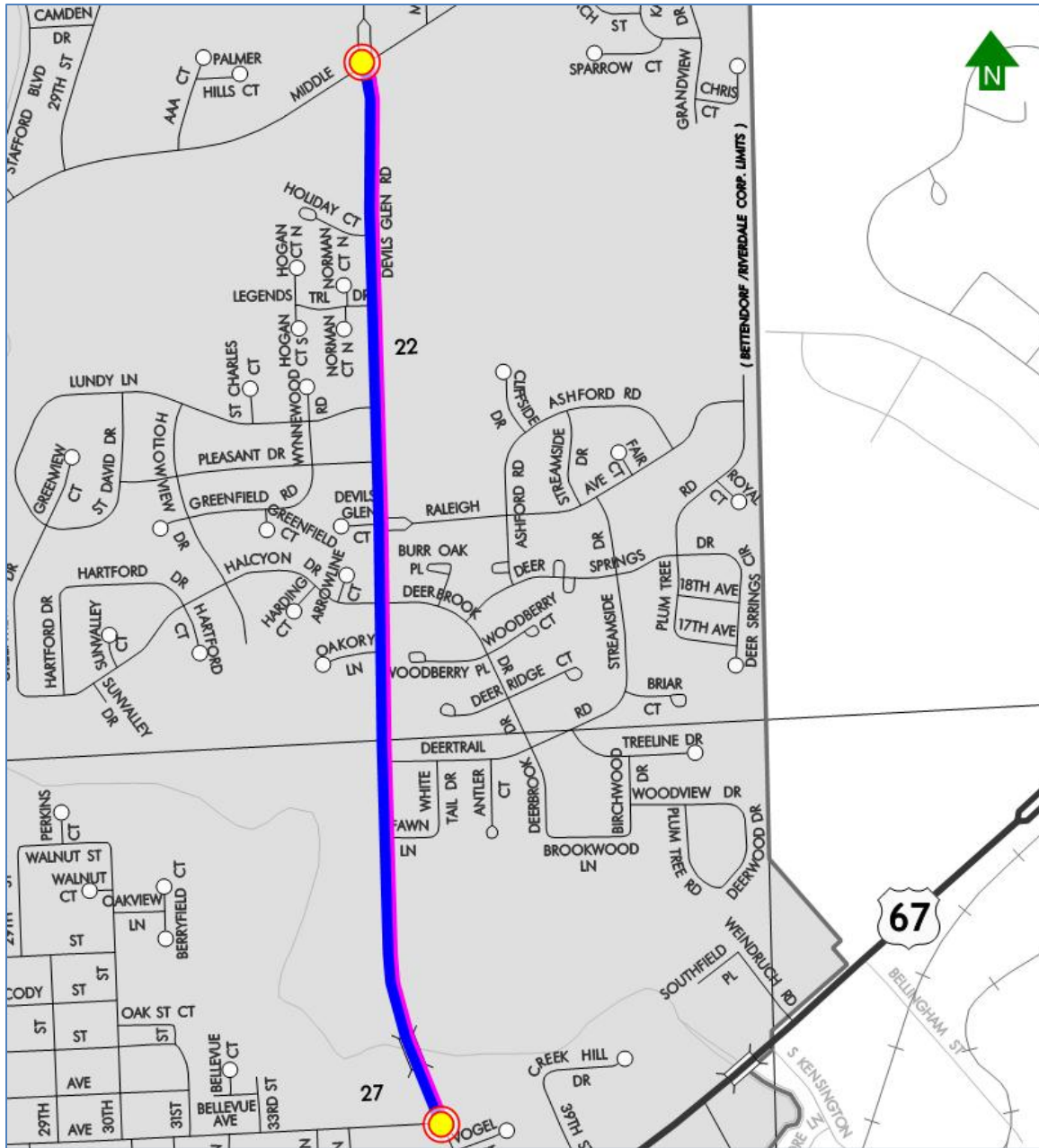
Devils Glen Road is a 4-lane, undivided highway in this segment. It is classified as a minor arterial that is 50 feet wide from back-of-curb to back-of-curb. The existing right-of-way width is approximately 80 feet, containing a sidewalk on the west side and a separated trail on the right. The construction of this trail is taking place at the time of this report. The posted speed limit is 35 mph and serves approximately 12,000 vehicles per day.



**Recommended Improvements**

A separated trail is under construction on the east side at the time of this report/inventory.

**DEVILS GLEN ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	B	
3	Existing Trail	10'/RT	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.37	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	50'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	0	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, PARTIAL 5'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 50'/RT	
23	Traffic Volume (ADT)	10200, 11800	
24	Land Use Types	MDR, RHT, TR, I, O, MD, HD	
25	Physical Barriers	Left	Right
	Number of Drives	25	24
	Number of Rail Crossings	0	0
	Number of Intersections	8	6
	Number of Fire Hydrants	11	2
	Number of Power poles	35	42
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	SEPARATED TRAIL	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	DUCK CREEK / MIDDLE ROAD	
Recommendations			
	Recommended Facility	NONE	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS			\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
			Construction Subtotal		\$ -
			Construction Contingency 15%		\$ -
			Engineering Design 10%		\$ -
			Total Segment Cost		\$ -

**DEVILS GLEN ROAD: SEGMENT C**

**Segment Length = 0.4 Miles**

**Existing Conditions**

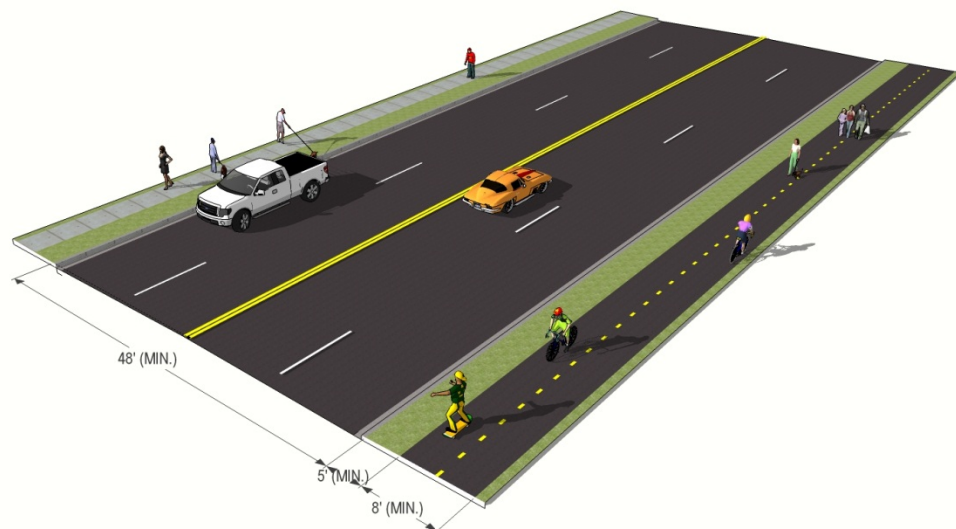
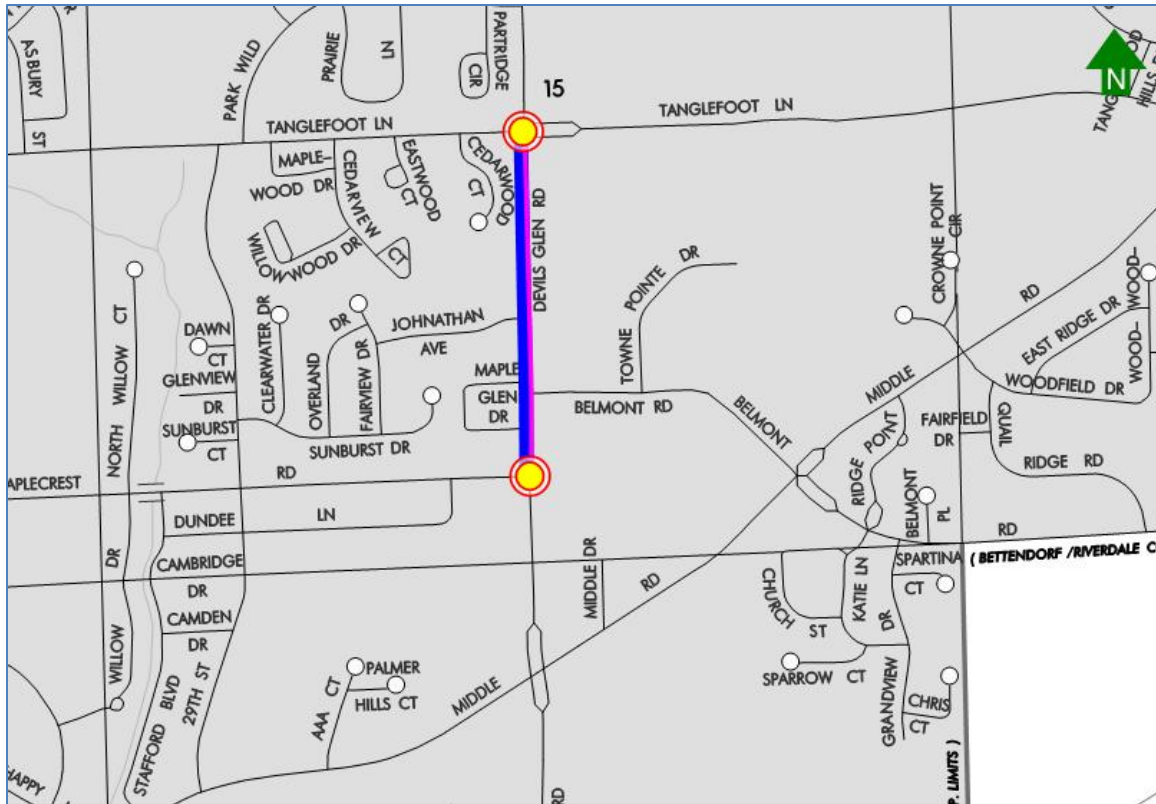
Devils Glen Road is a 5-lane highway (4-lane with opposing left turn lane in center) that is approximately 60-feet wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 100 feet, containing sidewalks on both sides of the road. The posted speed limit is 35 mph and serves nearly 16,000 vehicles per day.



**Recommended Improvements**

Due to traffic volume, the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the east side for connectivity and continuity with the trail located south of here.

**DEVILS GLEN ROAD: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.4	
7	Number of Traffic Lanes	5	
8	Total Pavement Width (Ft.)	60'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 6'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	N	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 35'/RT	
23	Traffic Volume (ADT)	15700	
24	Land Use Types	OT, C, MDR	
25	Physical Barriers	Left	Right
	Number of Drives	1	5
	Number of Rail Crossings	0	0
	Number of Intersections	5	3
	Number of Fire Hydrants	2	1
	Number of Power poles	3	12
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	MAPLECREST ROAD/TANGLEFOOT LANE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2125	\$ 212,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$ 1,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	270	\$ 20,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 233,750
Construction Contingency 15%					\$ 35,100
Engineering Design 10%					\$ 23,375
Total Segment Cost					\$ 292,225

**DEVILS GLEN ROAD: SEGMENT D**

**Segment Length = 0.46 Miles**

**Existing Conditions**

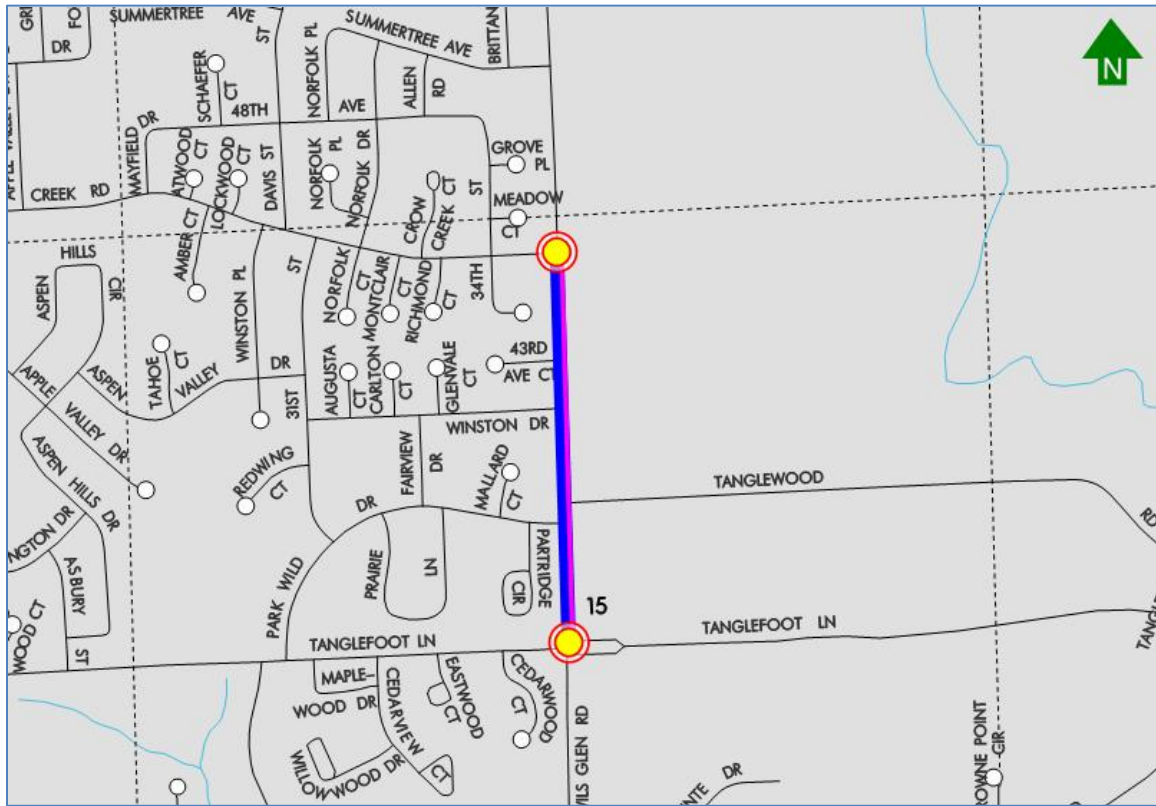
Devils Glen Road is a 4-lane roadway in this segment. It is classified as a minor arterial that is approximately 50-feet from back-of-curb to back-of-curb. The right-of-way is approximately 100 feet and contains sidewalk on the west side and sidewalk partially on the east side. The posted speed limit is 35 mph and serves approximately 12,000 vehicles per day.



**Recommended Improvements**

Due to traffic volume, the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the east side for connectivity and continuity with the trail located south of here.

**DEVILS GLEN ROAD: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.46	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	52'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, PARTIAL 6' RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	55'/LT, 70'/RT	
23	Traffic Volume (ADT)	12000	
24	Land Use Types	I, MDR, TR, OT	
25	Physical Barriers	Left	Right
	Number of Drives	0	2
	Number of Rail Crossings	0	0
	Number of Intersections	5	3
	Number of Fire Hydrants	3	0
	Number of Power poles	8	17
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	RIGHT-OF-WAY WIDTH	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	TANGLEFOOT LANE / CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2430	\$ 243,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,100.00	1	\$ 1,100
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	110	\$ 8,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 252,350
Construction Contingency 15%					\$ 37,850
Engineering Design 10%					\$ 25,235
Total Segment Cost					\$ 315,435

**DEVILS GLEN ROAD: SEGMENT E**

**Segment Length = 0.3 Miles**

**Existing Conditions**

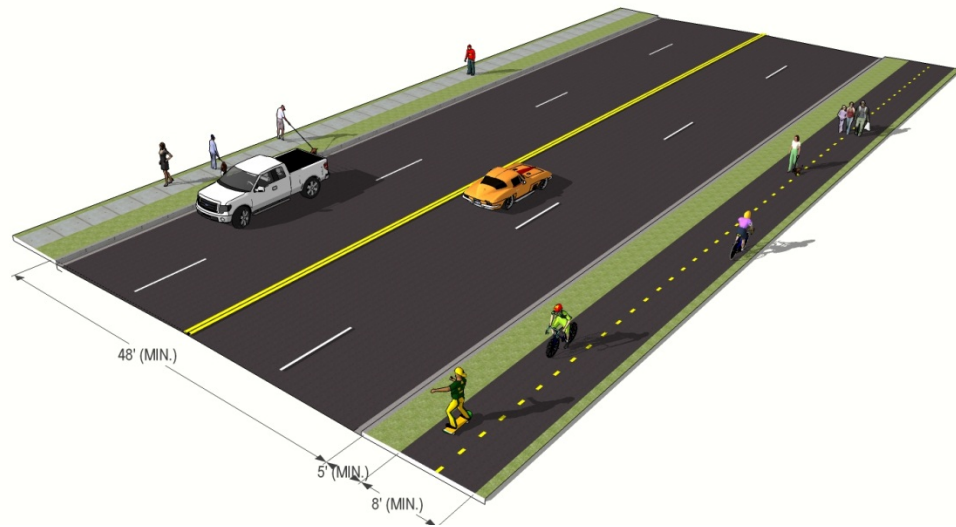
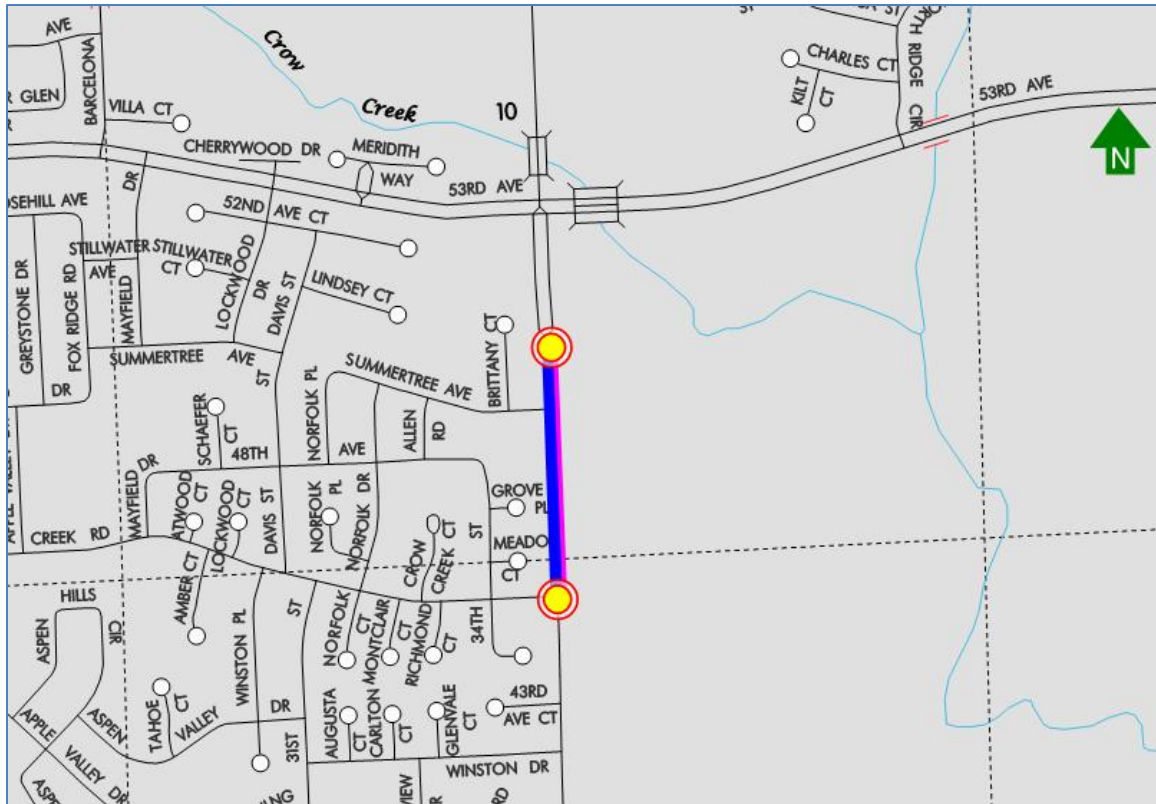
Devils Glen Road is a 4-lane roadway in this segment. It is classified as a minor arterial that is approximately 50-feet from back-of-curb to back-of-curb. The right-of-way is approximately 100 feet and contains sidewalk on the west side and sidewalk partially on the east side. The posted speed limit is 35 mph and serves approximately 9600 vehicles per day.



**Recommended Improvements**

Due to traffic volume, the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the east side for connectivity and continuity with the trail located south of here.

**DEVILS GLEN ROAD: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.3	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	50'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'-6'-8'/LT, 6'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	45'/LT	
23	Traffic Volume (ADT)	9600	
24	Land Use Types	TR, RC	
25	Physical Barriers	Left	Right
	Number of Drives	1	4
	Number of Rail Crossings	0	0
	Number of Intersections	3	0
	Number of Fire Hydrants	0	0
	Number of Power poles	3	11
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	RIGHT-OF-WAY WIDTH	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1590	\$ 159,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$800.00	1	\$ 800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	215	\$ 16,125
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 175,925
Construction Contingency 15%					\$ 26,400
Engineering Design 10%					\$ 17,600
Total Segment Cost					\$ 219,925

**DEVILS GLEN ROAD: SEGMENT F**

**Segment Length = 0.75 Miles**

**Existing Conditions**

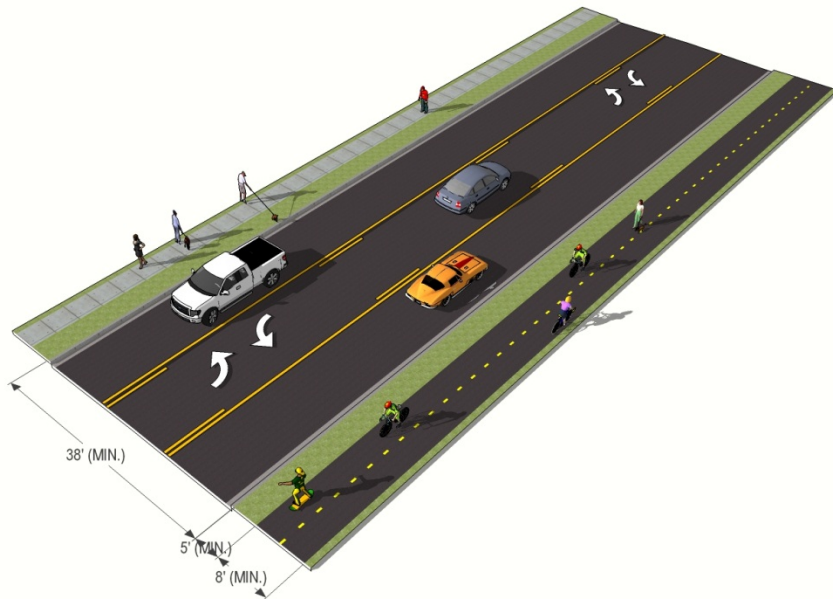
This segment of Devils Glen Road is a 24-foot wide gravel road through an open field.



**Recommended Improvements**

New construction is planned in this segment, per the Interstate 80 North Transportation Development Strategy. It is recommended to incorporate a separated trail on the east side of the roadway.

**DEVILS GLEN ROAD: SEGMENT F**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	F	
3	Existing Trail	NO	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.75	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24	
9	Surface Type	GRAVEL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	N/A	
18	Ditch	LT/RT	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	0	0
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	6	0
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FOREST GROVE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3960	\$ 396,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 397,800
Construction Contingency 15%					\$ 59,670
Engineering Design 10%					\$ 39,780
Total Segment Cost					\$ 497,250

**DEVILS GLEN ROAD: SEGMENT G**

**Segment Length = 0.75 Miles**

**Existing Conditions**

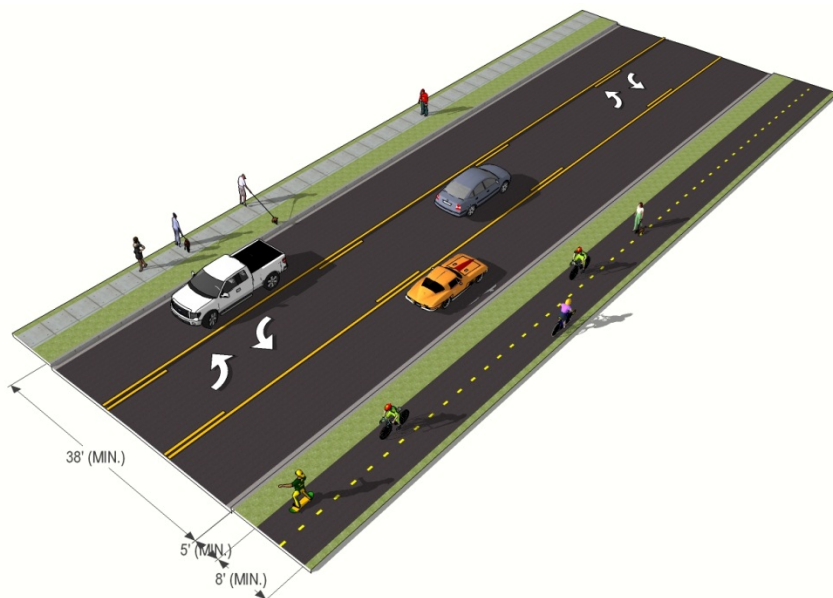
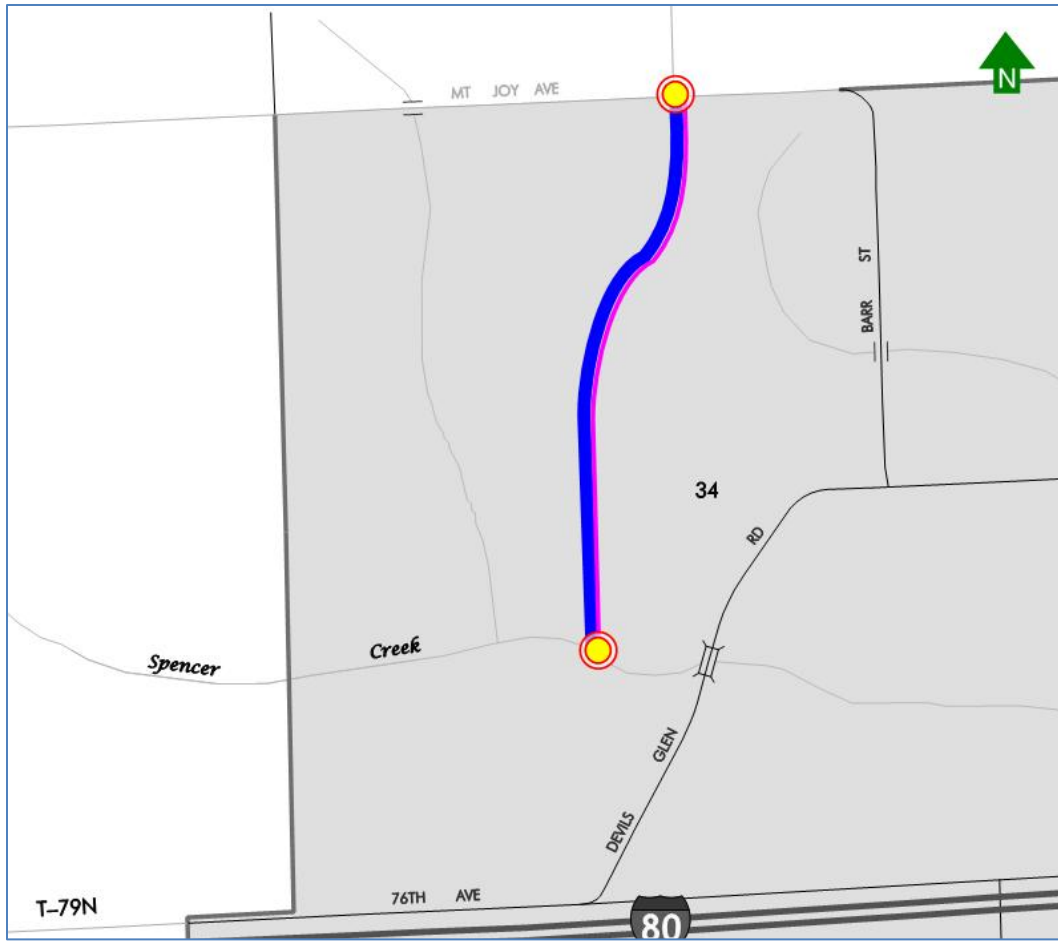
This segment of Devils Glen Road is located in an undeveloped field.



**Recommended Improvements**

New construction is planned in this segment, per the Interstate 80 North Transportation Development Strategy. It is recommended to incorporate a separated trail on the east side of the roadway.

**DEVILS GLEN ROAD: SEGMENT G**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	G	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.75	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	210TH STREET	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3960	\$ 396,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 397,800
Construction Contingency 15%					\$ 59,670
Engineering Design 10%					\$ 39,780
Total Segment Cost					\$ 497,250

**DEVILS GLEN ROAD: SEGMENT H**

**Segment Length = 1.0 Miles**

**Existing Conditions**

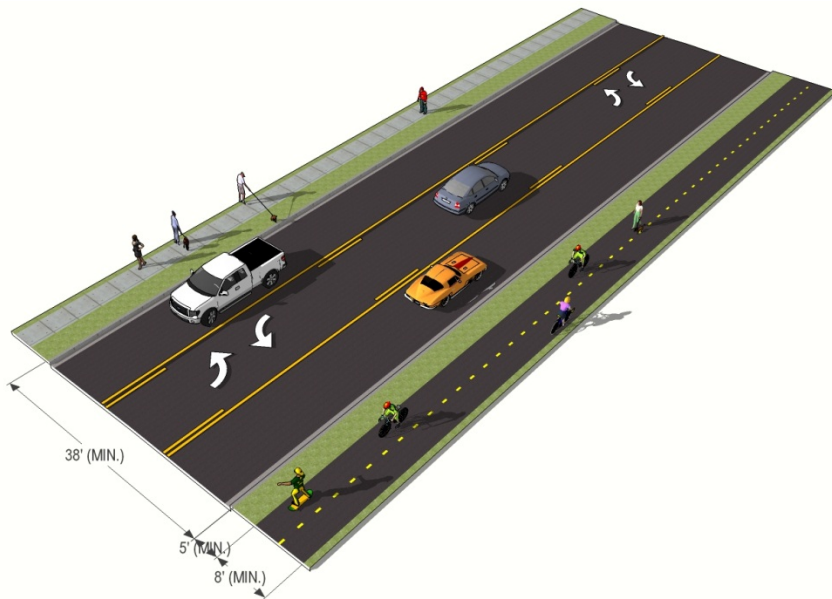
This segment of Devils Glen Road is a 24-foot wide gravel road through an open field.



**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we do not recommend this segment for a bicycle facility (gravel surface). Once developed, we recommend a separated trail on the east side of this segment.

**DEVILS GLEN ROAD: SEGMENT H**



INVENTORY DATA

Existing			
1	Roadway Name	DEVILS GLEN ROAD	
2	Segment	H	
3	Existing Trail	NO	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.0	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	22	
9	Surface Type	GRAVEL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume (ADT)	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	1	2
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	0	15
	Landscaping in or near ROW	0	0
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	220TH STREET	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	5280	\$ 528,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 530,400
Construction Contingency 15%					\$ 79,560
Engineering Design 10%					\$ 53,040
Total Segment Cost					\$ 663,000

## **FOREST GROVE DRIVE**

### **SUMMARY**

Forest Grove Drive is a collector that runs east-west, connecting the western city limits to Wells Ferry Road to the east. This corridor is divided into five (5) segments, totaling approximately 3.9 miles from the west city limits to Eagle Ridge Road where it will connect with a future spur of the Crow Creek trail. Segment B is approximately 0.59 miles from Eagle Ridge Road, east to Devils Glen Road; segment C is approximately 1.20 miles from Devils Glen Road to Middle Road. Segment D is approximately 1.30 miles from Middle Road to Criswell Street and segment E is from Criswell Street to Wells Ferry Road which is approximately 0.34 miles.

## **FOREST GROVE DRIVE: SEGMENT A**

**Segment Length = 0.47 Miles**

### **Existing Conditions**

Forest Grove Drive is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 24-foot wide with a 74-foot wide right-of-way. The posted speed limit is 35 mph and serves close to 2700 vehicles per day. This segment is residentially developed on the South side of the road, while the North side remains undeveloped, agricultural land.



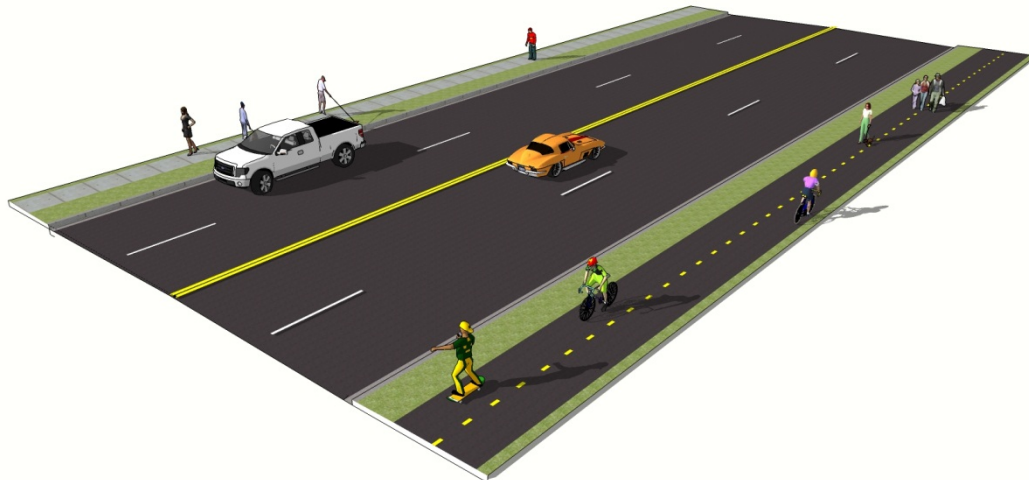
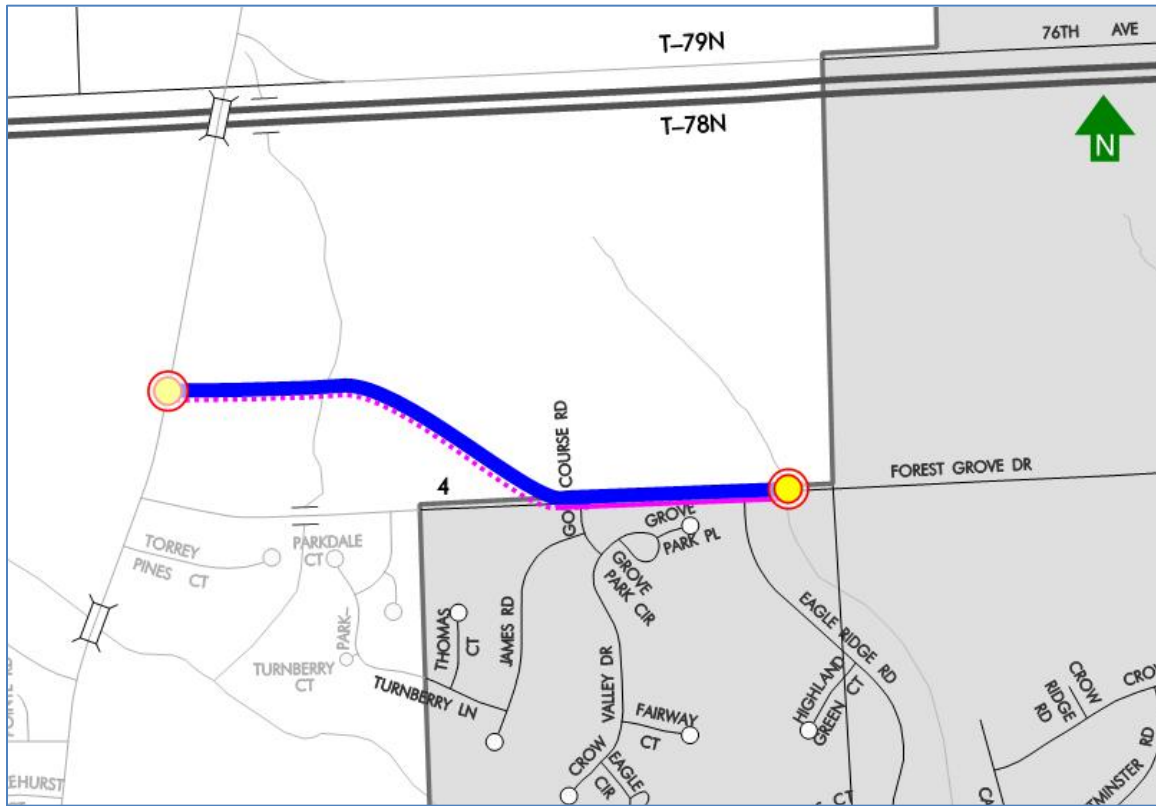
### **Recommended Improvements**

Until the roadway is improved, as suggested in the “Interstate 80 North Transportation Development Strategy”, we recommend posting signage as “Share the Road” along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the South side of this segment due to the connectivity to the existing residential neighborhoods. This option will have a culvert extension on the South side to accommodate a trail crossing over the drainage way. Shift roadway alignment north to accommodate separated trail on south side.
- Option 2: Separated trail on the North side of this segment, as the land is currently undeveloped and has greater potential for right-of-way acquisition.

**FOREST GROVE DRIVE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	FOREST GROVE DRIVE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.47	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	74'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume	2740	
24	Land Use Types	TR	
25	Physical Barriers		
		Left	Right
	Number of Drives	3	2
	Number of Rail Crossings	0	0
	Number of Intersections	0	3
	Number of Fire Hydrants	0	1
	Number of Power poles	2	15
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED AREA	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	2485	\$ 248,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 1,100	1	\$ 1,100
4	Traffic Signal Modifications	LS	\$ -	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	100	\$ 7,500
6	Storm Sewer Modifications	LS	\$ -	0	\$ -
				Construction Subtotal	\$ 257,100
				Construction Contingency 15%	\$ 38,565
				Engineering Design 10%	\$ 29,570
				Total Segment Cost	\$ 325,235

## **FOREST GROVE DRIVE: SEGMENT B**

**Segment Length = 0.59 Miles**

### **Existing Conditions**

Forest Grove Drive is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 24-foot wide with a 74-foot wide right-of-way. The posted speed limit is 35 mph and serves close to 1600 vehicles per day. This segment remains undeveloped, agricultural land. The recent I-80 TDS identifies Forest Grove Drive as a 3 to 5-lane reconstructed collector roadway with a 122-foot right-of-way.



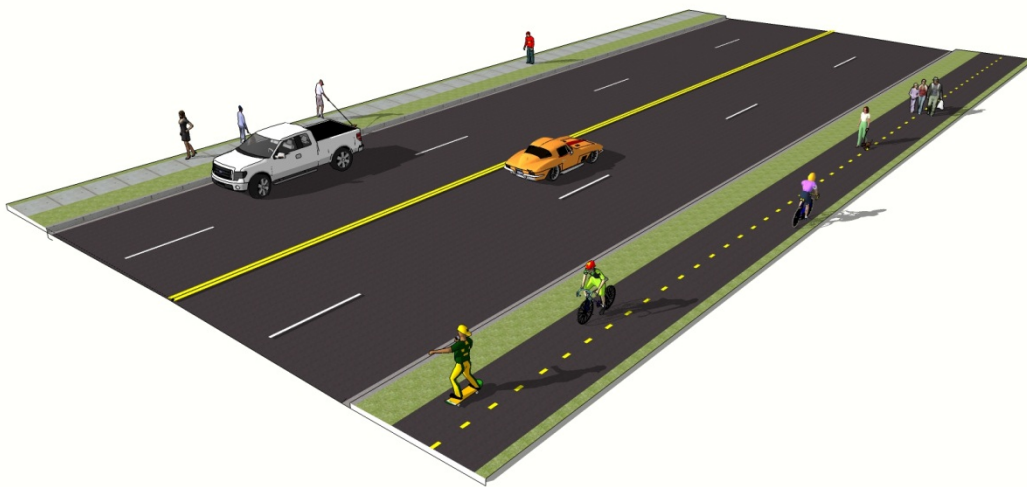
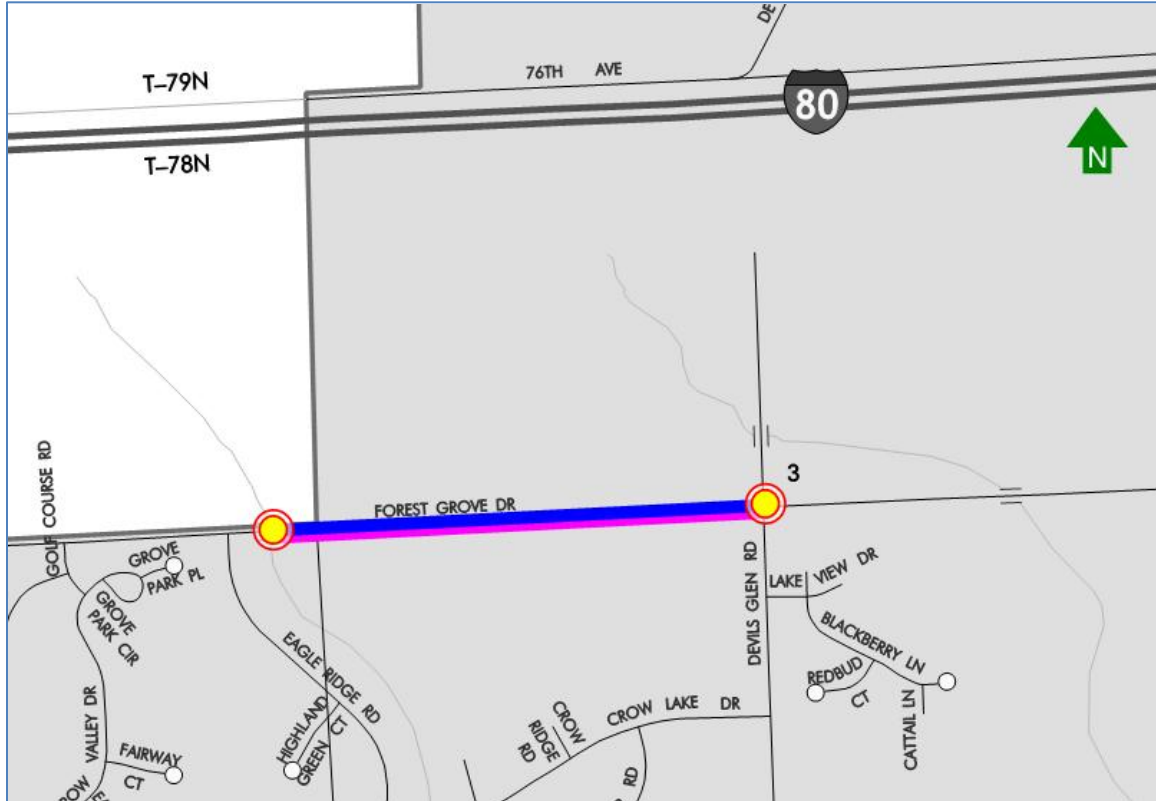
### **Recommended Improvements**

Until the roadway is improved, as suggested in the “Interstate 80 North Transportation Development Strategy”, we recommend posting signage as “Share the Road” along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the South side of this segment due to the connectivity to the existing residential neighborhoods. This option will have a culvert extension on the South side to accommodate a trail crossing over the drainage way. Shift roadway alignment north to accommodate separated trail on south side.
- Option 2: Separated trail on the North side of this segment, as the land is currently undeveloped and has greater potential for right-of-way acquisition.

**FOREST GROVE DRIVE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	FOREST GROVE DRIVE	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.59	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	50/LT,50/RT	
23	Traffic Volume (ADT)	1580	
24	Land Use Types	OT, TR, C	
25	Physical Barriers		
		Left	Right
	Number of Drives	4	0
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	2
	Number of Power poles	1	18
	Landscaping in or near ROW	YES	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	FAIR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	DEVIL'S GLEN ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	3125	\$ 312,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 1,400	1	\$ 1,400
4	Traffic Signal Modifications	LS		0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	200	\$ 15,000
6	Storm Sewer Modifications	LS		0	\$ -
				Construction Subtotal	\$ 328,900
				Construction Contingency 15%	\$ 49,335
				Engineering Design 10%	\$ 37,825
				Total Segment Cost	\$ 416,060

## **FOREST GROVE DRIVE: SEGMENT C**

**Segment Length = 1.20 Miles**

### **Existing Conditions**

Forest Grove Drive is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 24-foot wide with a 74-foot wide right-of-way. The posted speed limit is 35 mph and serves close to 1600 vehicles per day. This segment remains undeveloped, agricultural land. The recent I-80 TDS identifies Forest Grove Drive as a 3 to 5-lane reconstructed collector roadway with a 122-foot right-of-way.



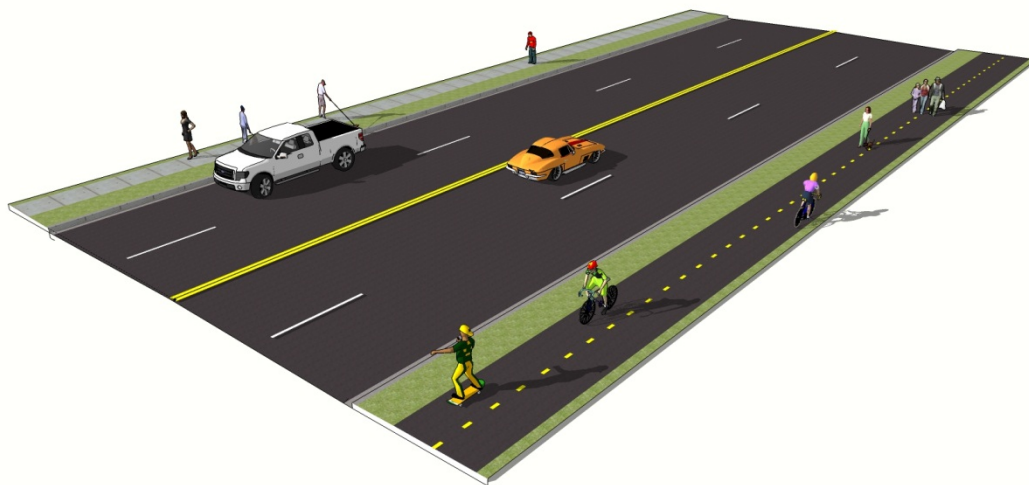
### **Recommended Improvements**

Until the roadway is improved, as suggested in the “Interstate 80 North Transportation Development Strategy”, we recommend posting signage as “Share the Road” along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the South side of this segment due to the connectivity to the existing residential neighborhoods. This option will have a culvert extension on the South side to accommodate a trail crossing over the drainage way. Shift roadway alignment north to accommodate separated trail on south side.
- Option 2: Separated trail on the North side of this segment, as the land is currently undeveloped and has greater potential for right-of-way acquisition.

**FOREST GROVE DRIVE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	FOREST GROVE DRIVE	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.2	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume	1600	
24	Land Use Types	RC, C, MDR, OT, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	8	5
	Number of Rail Crossings	0	0
	Number of Intersections	1	3
	Number of Fire Hydrants	1	5
	Number of Power poles	19	29
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	DEVIL'S GLEN ROAD/MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	6350	\$ 635,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 2,900	1	\$ 2,900
4	Traffic Signal Modifications	LS	\$ -	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	150	\$ 11,250
6	Storm Sewer Modifications	LS	\$ -	0	\$ -
				Construction Subtotal	\$ 649,150
				Construction Contingency 15%	\$ 97,370
				Engineering Design 10%	\$ 74,650
				Total Segment Cost	\$ 821,170

## **FOREST GROVE DRIVE: SEGMENT D**

**Segment Length = 1.30 Miles**

### **Existing Conditions**

Forest Grove Drive is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 24-foot wide with a 66-foot wide right-of-way. The posted speed limit is 45 mph and serves close to 1600 vehicles per day. This segment remains undeveloped, agricultural land. The recent I-80 TDS identifies Forest Grove Drive as a 3 to 5-lane reconstructed collector roadway with a 122-foot right-of-way.



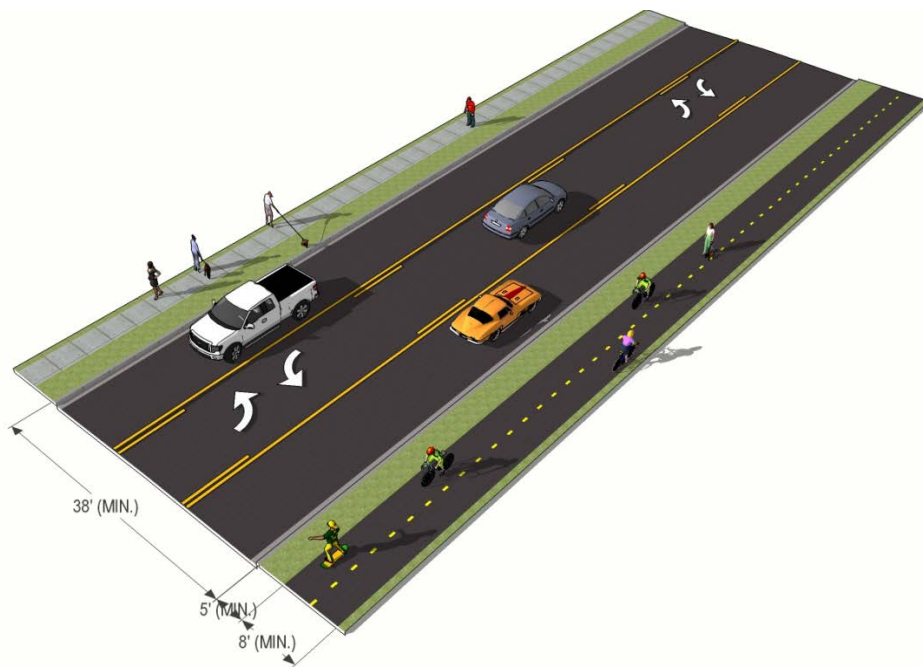
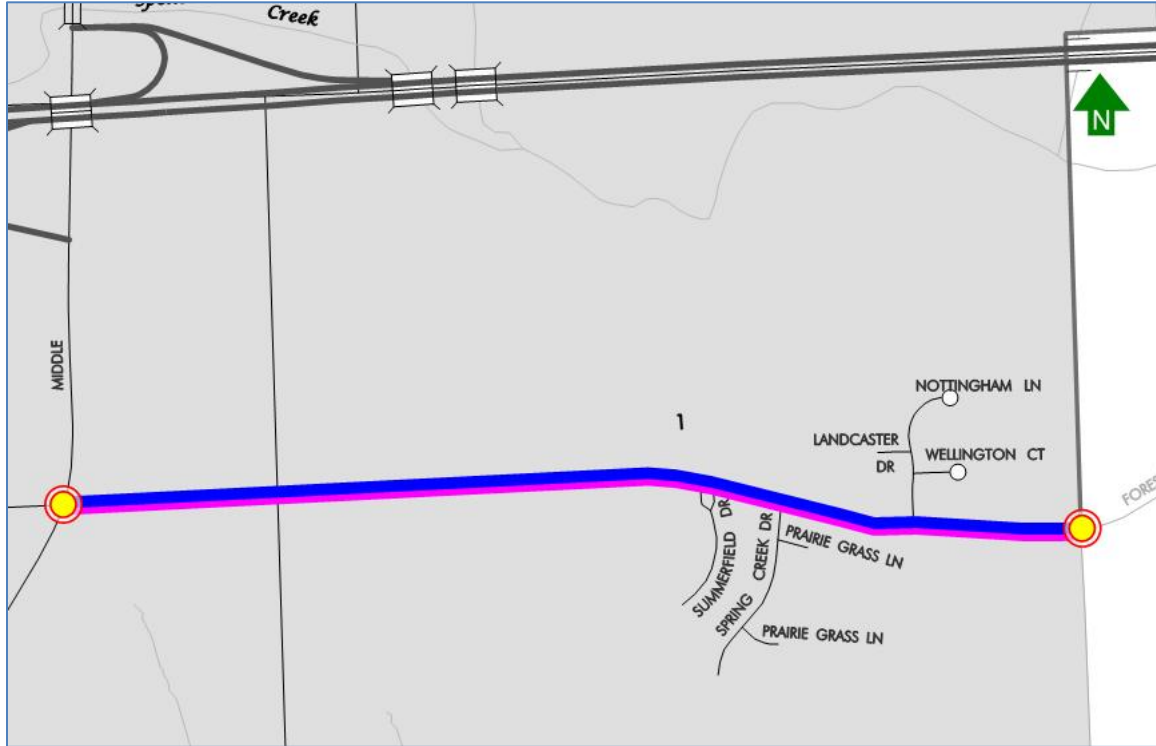
### **Recommended Improvements**

Until the roadway is improved, as suggested in the “Interstate 80 North Transportation Development Strategy”, we recommend posting signage as “Share the Road” along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the South side of this segment due to the connectivity to the existing residential neighborhoods. This option will have a culvert extension on the South side to accommodate a trail crossing over the drainage way. Shift roadway alignment north to accommodate separated trail on the south side.
- Option 2: Separated trail on the North side of this segment, as the land is currently undeveloped and has greater potential for right-of-way acquisition.

**FOREST GROVE DRIVE: SEGMENT D**



**INVENTORY DATA**

Existing			
1	Roadway Name	FOREST GROVE DRIVE	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.3	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	C, ORC, MDR, OT, RHT	
25	Physical Barriers	Left	Right
	Number of Drives	6	6
	Number of Rail Crossings	0	0
	Number of Intersections	2	3
	Number of Fire Hydrants	1	5
	Number of Power poles	15	26
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

**ENGINEER'S OPINION OF PROBABLE COST**

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	6865	\$ 686,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 6,000	1	\$ 6,000
4	Traffic Signal Modifications	LS	\$ -	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	300	\$ 22,500
6	Storm Sewer Modifications	LS	\$ -	0	\$ -
				Construction Subtotal	\$ 715,000
				Construction Contingency 15%	\$ 107,250
				Engineering Design 10%	\$ 71,500
				<b>Total Segment Cost</b>	<b>\$ 893,750</b>

## **FOREST GROVE DRIVE: SEGMENT E**

**Segment Length = 0.29 Miles**

### **Existing Conditions**

Forest Grove Drive is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 24-foot wide with a 66-foot wide right-of-way. The posted speed limit is 45 mph and serves close to 1600 vehicles per day. This segment remains undeveloped, agricultural land. The recent I-80 TDS identifies Forest Grove Drive as a 3 to 5-lane reconstructed collector roadway with a 122-foot right-of-way.



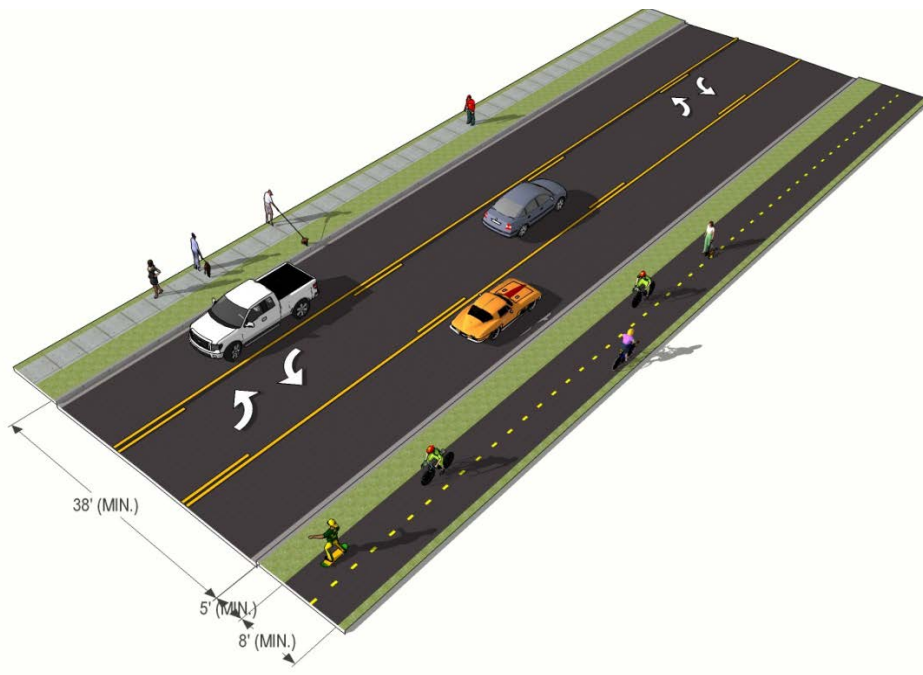
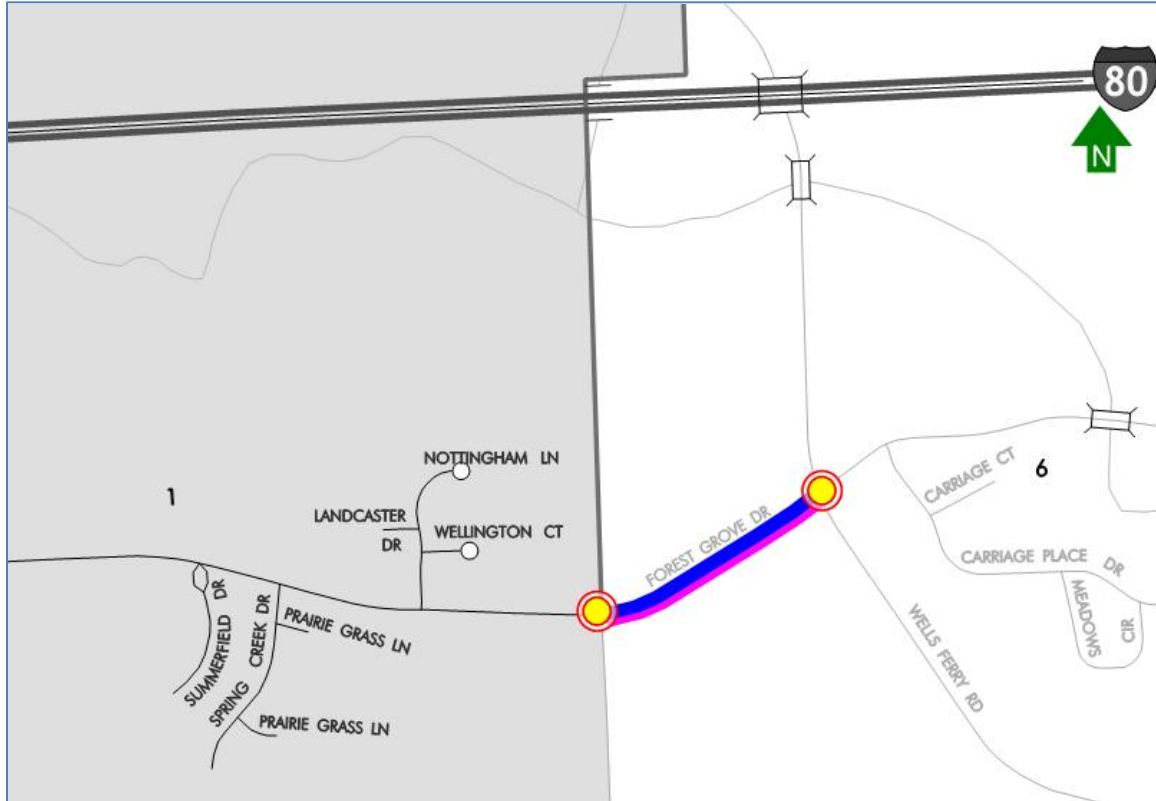
### **Recommended Improvements**

Until the roadway is improved, as suggested in the “Interstate 80 North Transportation Development Strategy”, we recommend posting signage as “Share the Road” along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the South side of this segment due to the connectivity to the existing residential neighborhoods. This option will have a culvert extension on the South side to accommodate a trail crossing over the drainage way. Shift roadway alignment north to accommodate separated trail.
- Option 2: Separated trail on the North side of this segment, as the land is currently undeveloped and has greater potential for right-of-way acquisition.

**FOREST GROVE DRIVE: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	FOREST GROVE DRIVE	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.29	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	66'	
22	Proximity of Roadway to Buildings (Ft.)	50/LT, 50/RT	
23	Traffic Volume	1160	
24	Land Use Types	RC, TR	
25	Physical Barriers	Left	Right
	Number of Drives	0	2
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	3	1
	Number of Power poles	4	1
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CRISWELL/WELLS FERRY ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements	-	
	Need Pedestrian Surface Improvements	-	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100	1530	\$ 153,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130	0	\$ -
3	Pavement Marking & Signage	LS	\$ 700	1	\$ 700
4	Traffic Signal Modifications	LS	\$ -	0	\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75	150	\$ 11,250
6	Storm Sewer Modifications	LS	\$ -	0	\$ -
				Construction Subtotal	\$ 164,950
				Construction Contingency 15%	\$ 24,725
				Engineering Design 10%	\$ 16,495
				Total Segment Cost	\$ 206,170

## **GREENBRIER DRIVE**

### **SUMMARY**

Greenbrier Drive is a collector/local road that runs north – south connecting Spruce Hills Drive and Crow Creek Road. This corridor is divided into two (2) segments. Segment A is approximately 0.5 miles from Spruce Hills Drive to Tanglefoot; segment B is approximately 0.57 miles from Tanglefoot to Crow Creek Road.

**GREENBRIER DRIVE: SEGMENT A**

**Segment Length = 0.5 Miles**

**Existing Conditions**

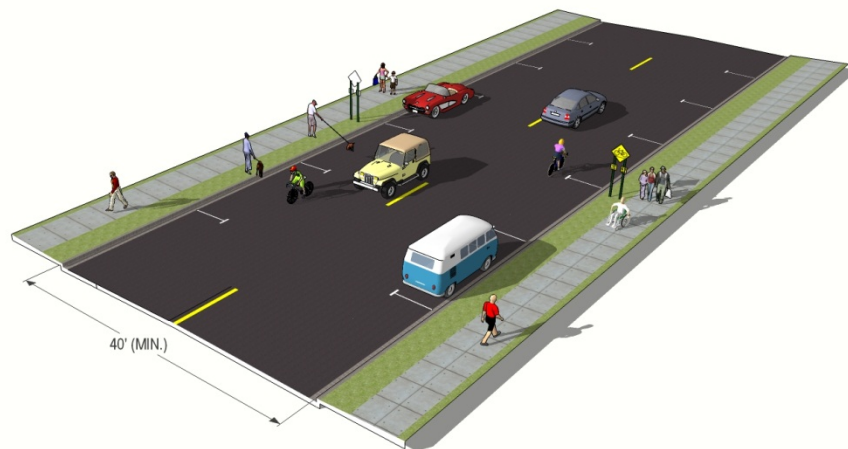
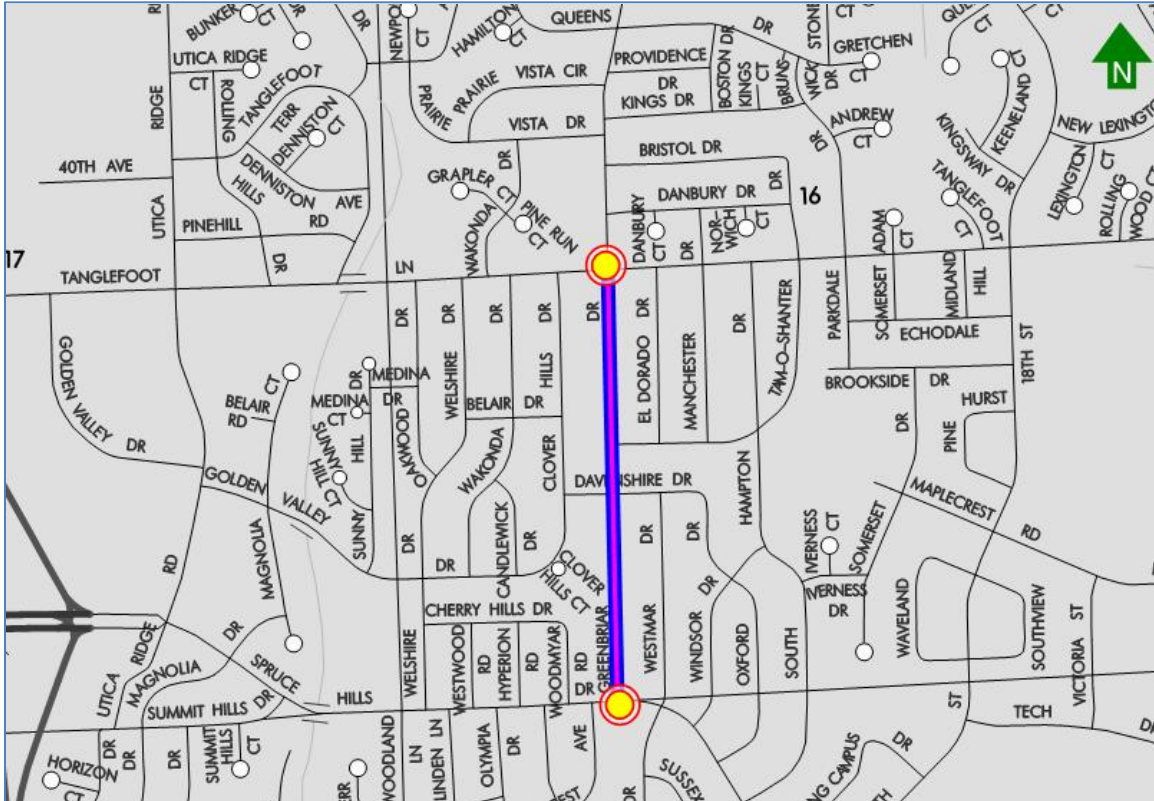
Greenbrier Drive has two (2) 19 foot lanes in this segment that allows space for parking on both sides of the roadway. The existing right-of-way is approximately 60 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves residential traffic on this collector roadway. In this neighborhood, the sidewalks and parking lanes are used regularly by pedestrian and motorists.



**Recommended Improvements**

Due to parking and several driveways on both sides of the street, the opportunity for bicycle facilities are limited on this segment of Greenbrier Drive. The current width of the street will not accommodate striped bicycle lanes, and the numerous driveways and limited right-of-way deter from installing a separated trail on either side. The recommendation is to define the usage as "Share the Road" by utilizing signage and improving education of motorists from traveling near or within bicycle facilities.

**GREENBRIER DRIVE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	GREENBRIER	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	36	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	YES	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	N/A	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 35'/RT	
23	Traffic Volume (ADT)	N/A	
24	Land Use Types	TR	
25	Physical Barriers	Left	Right
	Number of Drives	38	35
	Number of Rail Crossings	0	0
	Number of Intersections	2	4
	Number of Fire Hydrants	3	0
	Number of Power poles	4	2
	Landscaping in or near ROW	NO	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	HI	
	Convenient Connections	SPRUCE HILLS/TANGLEFOOT	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130		\$ -
3	Pavement Marking & Signage	LS	\$ 2,100	1	\$ 2,100
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,100
Construction Contingency 15%					\$ 315
Engineering Design 10%					\$ 210
Total Segment Cost					\$ 2,625

**GREENBRIER DRIVE: SEGMENT B**

**Segment Length = 0.57 Miles**

**Existing Conditions**

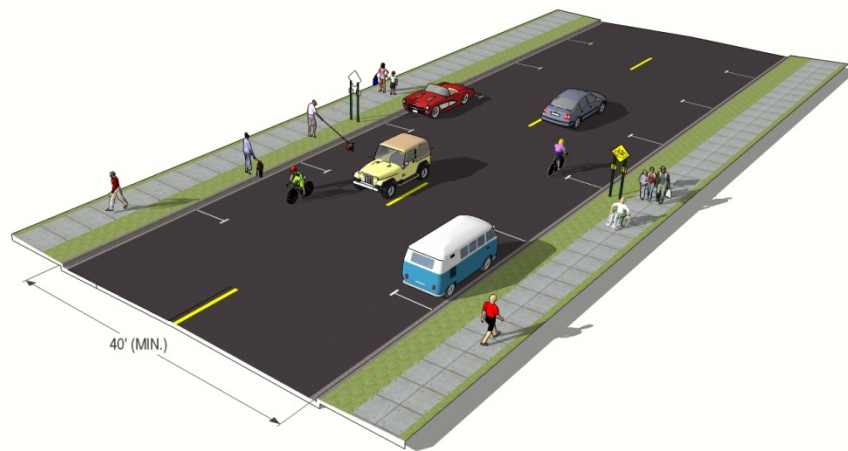
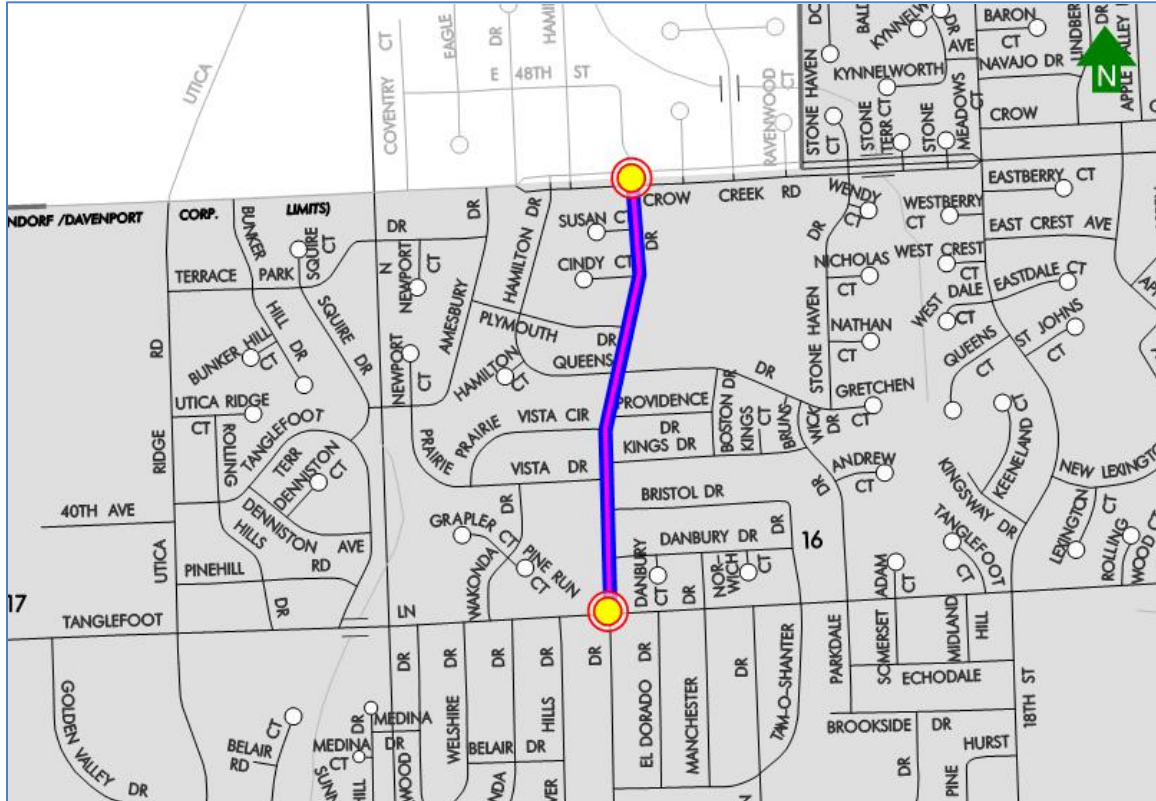
Greenbrier has two (2) 22 foot lanes in this segment that allows space for parking on both sides of the roadway. The existing right-of-way is approximately 80 feet, containing sidewalks on both sides of the street. The posted speed limit is 25 mph and serves residential traffic on this collector roadway. In this neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists.



**Recommended Improvements**

Due to parking and several driveways on both sides of the street, the opportunity for bicycle facilities are limited on this segment of Greenbrier Drive. The current width of the street will not accommodate striped bicycle lanes, as the numerous driveways and limited right-of-way deter from installing a separated trail on either side. The recommendation is to define the usage as "Share the Road" by utilizing signage and improving education of motorists from traveling near or within bicycle facilities.

**GREENBRIER DRIVE: SEGMENT B**



INVENTORY DATA

Existing		
1	Roadway Name	GREENBRIER DRIVE
2	Segment	B
3	Existing Trail	NO
4	Existing Bike Lanes	NO
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.57
7	Number of Traffic Lanes	2
8	Total Pavement Width (Ft.)	44
9	Surface Type	PCC
10	Curb & Gutter	LT/RT
11	Width of Curb/Flag (Ft.)	N/A
12	Shoulder Width (Ft.)	N/A
13	Shoulder Surface Type (Ft.)	N/A
14	On-Street Parking	LT/RT
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT
16	Posted Speed Limit (MPH)	25
17	Storm Sewer	LT/RT
18	Ditch	NO
19	Bus Stop	NO
20	Roadway Classification	COLLECTOR
21	R.O.W. Width (Ft.)	80
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 35'/RT
23	Traffic Volume (ADT)	NOT LISTED
24	Land Use Types	TR
25	Physical Barriers	Left Right
	Number of Drives	3 12
	Number of Rail Crossings	0 0
	Number of Intersections	7 5
	Number of Fire Hydrants	2 4
	Number of Power poles	12 4
	Landscaping in or near ROW	YES YES
Evaluation		
	Segment Benefits	KIWANIS PARK
	Neighborhood Accessibility	EXCELLENT
	Residential Density (Hi-Med-Lo)	MED
	Convenient Connections	TANGLEFOOT/CROW CREEK ROAD
Recommendations		
	Recommended Facility	SHARE THE ROAD
	Need Bicycle Surface Improvements	
	Need Pedestrian Surface Improvements	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$ 100		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$ 130		\$ -
3	Pavement Marking & Signage	LS	\$ 2,400	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$ 75		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,400
Construction Contingency 15%					\$ 360
Engineering Design 10%					\$ 240
Total Segment Cost					\$ 3,000



## **HAWTHORNE HILLS NEIGHBORHOOD**

### **SUMMARY**

Hawthorne Drive is a local residential street that meanders southeast to northwest along the I-74 corridor near Utica Ridge Road and Spruce Hills Drive. The corridor is approximately 0.71 miles as it runs from the Duck Creek Trail northerly to Spruce Hills Drive at Utica Ridge.

**HAWTHORNE HILLS NEIGHBORHOOD: SEGMENT A**

**Segment Length = 0.71 Miles**

**Existing Conditions**

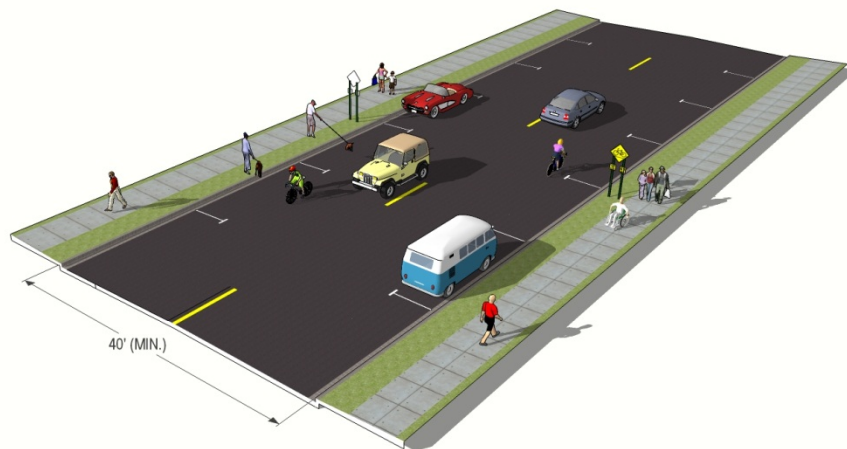
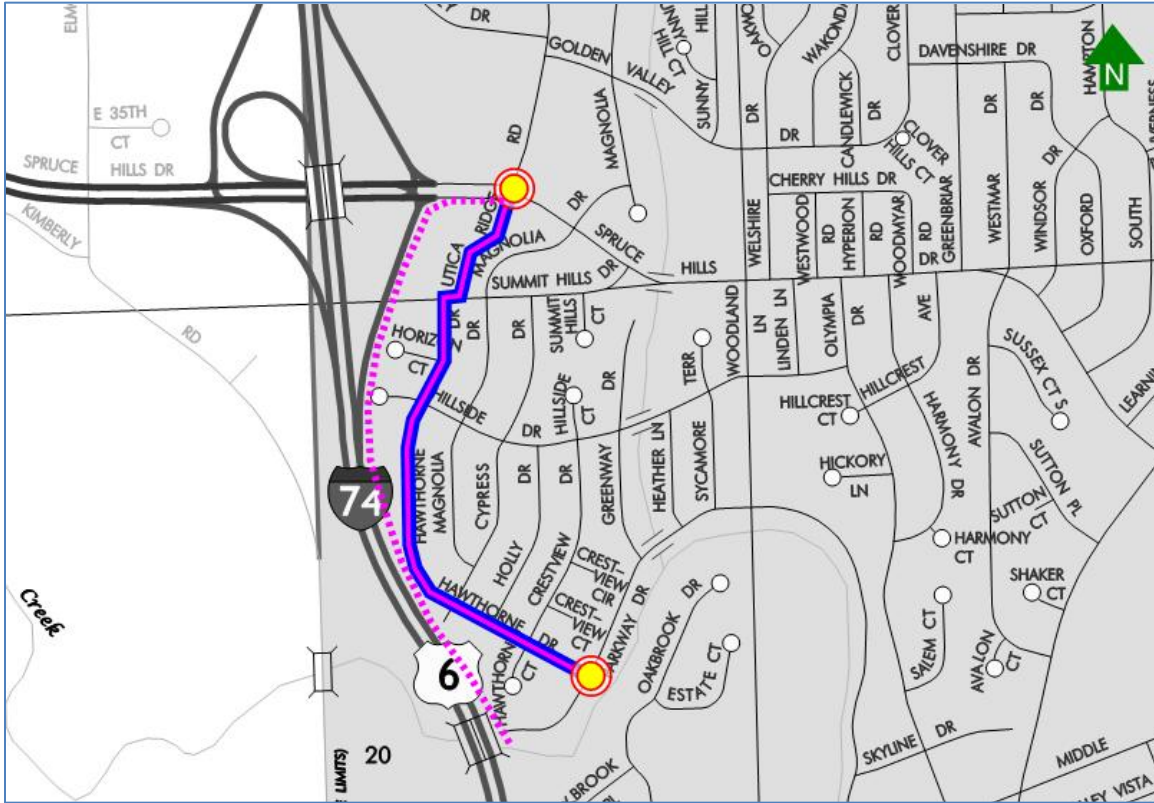
Hawthorne Drive is a residential street that is 28 feet back-of-curb to back-of-curb. The existing right-of-way is approximately 45 feet with no sidewalks on either side of the road. The posted speed limit is 25 mph and serves residential/local traffic.



**Recommended Improvements**

Define the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities. The City should continue discussions with the Iowa Department of Transportation concerning a separated trail following the I-74 right-of-way. A separated trail through this area would require the acquisition of additional right-of-way but would provide a much safer route for users in the area.

**HAWTHORNE HILLS NEIGHBORHOOD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	HAWTHORNE HILLS NEIGHBORHOOD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.71	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28	
9	Surface Type	APSHALT	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	PARTIAL LT/PARTIAL RT	
15	Sidewalk Width (Ft.)	PARTIAL 4'/LT	
16	Posted Speed Limit (MPH)	25	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	1/LT	
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	45'	
22	Proximity of Roadway to Buildings (Ft.)	25'/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	C, TR, MDR, HDR	
25	Physical Barriers	Left	Right
	Number of Drives	20	32
	Number of Rail Crossings	0	0
	Number of Intersections	5	6
	Number of Fire Hydrants	2	0
	Number of Power poles	7	13
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	RESIDENTIAL	
	Neighborhood Accessibility	EXCELLENT	
	Residential Density (Hi-Med-Lo)	HI	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,000.00	1	\$ 3,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 3,000
Construction Contingency 15%					\$ 450
Engineering Design 10%					\$ 300
Total Segment Cost					\$ 3,750

## **HOPEWELL AVENUE**

### **SUMMARY**

Hopewell Avenue is a local roadway projected to be a minor arterial in the future. This corridor runs approximately one (1) mile east – west from Devils Glen Road to Middle Road with a projected 3-lane extension to Criswell Street. The entire corridor would become approximately 2.55 miles, of which approximately 1.5 miles would be a newly constructed arterial.

**HOPEWELL AVENUE: SEGMENT A**

**Segment Length = 1.04 Miles**

**Existing Conditions**

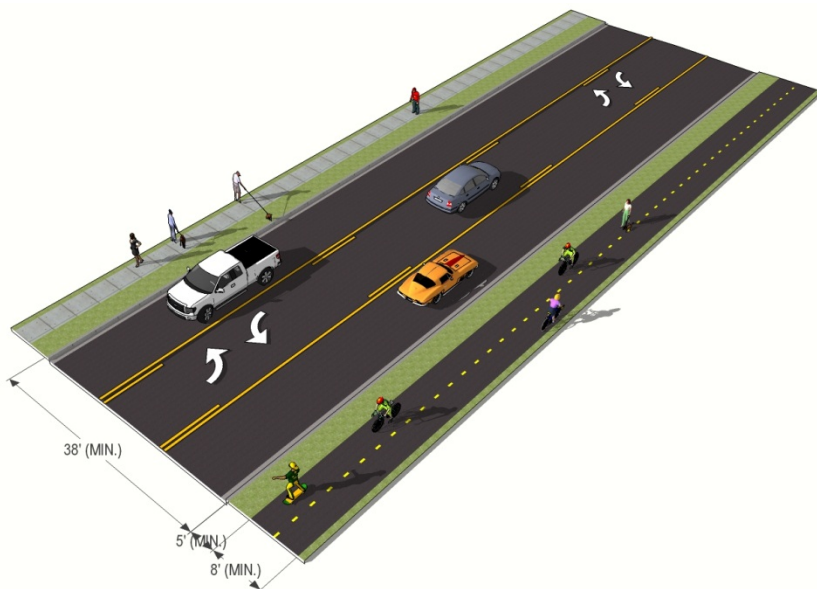
Hopewell Avenue has been recently improved in this segment. A 10-foot separated trail has been incorporated on the north side of this 2-lane undivided roadway that spans 38 feet. The existing right-of-way is approximately 100 feet containing a sidewalk on the south and said trail on the north. The posted speed limit is 30 mph and serves local traffic.



**Recommended Improvements**

Recent improvements are adequate for bicycle and pedestrian facilities. No recommendation is needed for future development.

**HOPEWELL AVENUE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	HOPEWELL AVENUE	
2	Segment	A	
3	Existing Trail	YES	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.04	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	28'-30'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch		
19	Bus Stop	NO	
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	25'/LT, 50'/RT	
23	Traffic Volume	NONE LISTED	
24	Land Use Types	ORC, TR, I	
25	Physical Barriers	Left	Right
	Number of Drives	7	3
	Number of Rail Crossings	0	0
	Number of Intersections	3	2
	Number of Fire Hydrants	0	0
	Number of Power poles	3	27
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	RECENT RECONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LOCAL	
	Convenient Connections	DEVILS GLEN/MIDDLE ROAD	
Recommendations			
	Recommended Facility	NONE	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS			\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ -
Construction Contingency 15%					\$ -
Engineering Design 10%					\$ -
Total Segment Cost					\$ -

**HOPEWELL AVENUE: SEGMENT B**

**Segment Length = 1.08 Miles**

**Existing Conditions**

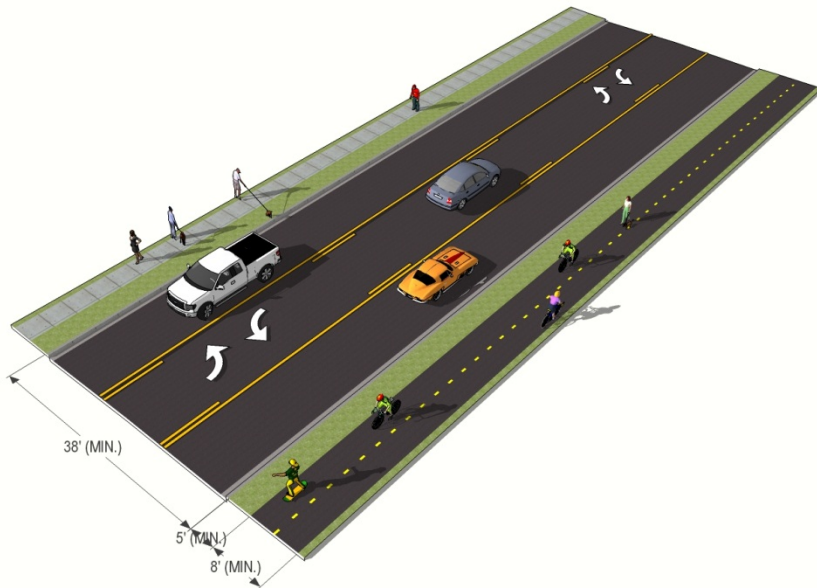
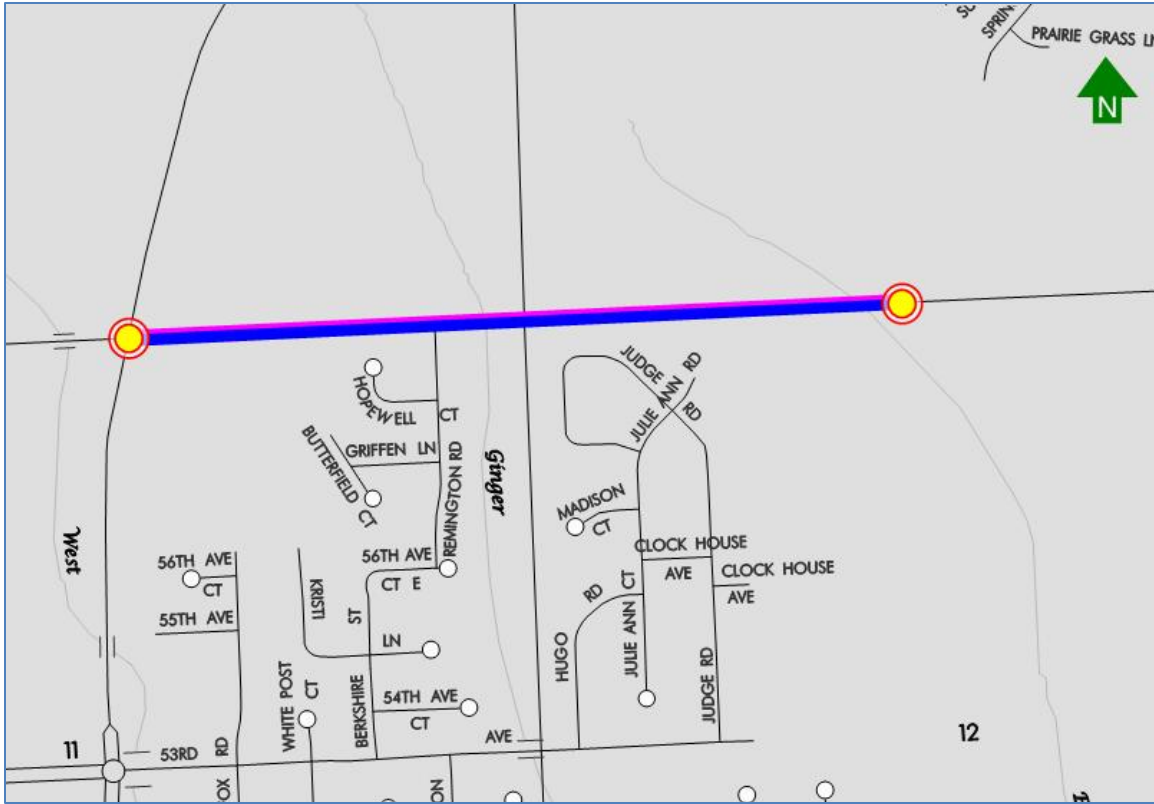
This future segment of Hopewell Avenue is located in an undeveloped field.



**Recommended Improvements**

When the roadway is constructed as projected in the 2012 Transportation Plan, a 3-lane roadway will be utilized on this segment. A separated trail is recommended to continue along the north side to stay contiguous with the already constructed trail in Segment A.

**HOPEWELL AVENUE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	HOPEWELL AVENUE	
2	Segment	B	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.08	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	FIELD	
21	R.O.W. Width (Ft.)	40'	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	RC, ORC, TR	
25	Physical Barriers		
		Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	5700	\$ 570,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,600.00	1	\$ 2,600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 572,600
Construction Contingency 15%					\$ 85,890
Engineering Design 10%					\$ 57,260
Total Segment Cost					\$ 715,750

**HOPEWELL AVENUE: SEGMENT C**

**Segment Length = 0.43 Miles**

**Existing Conditions**

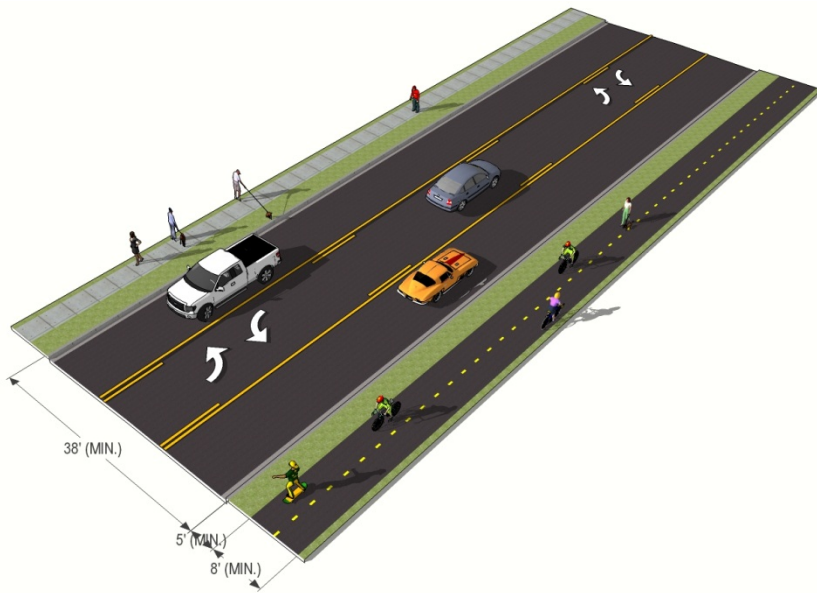
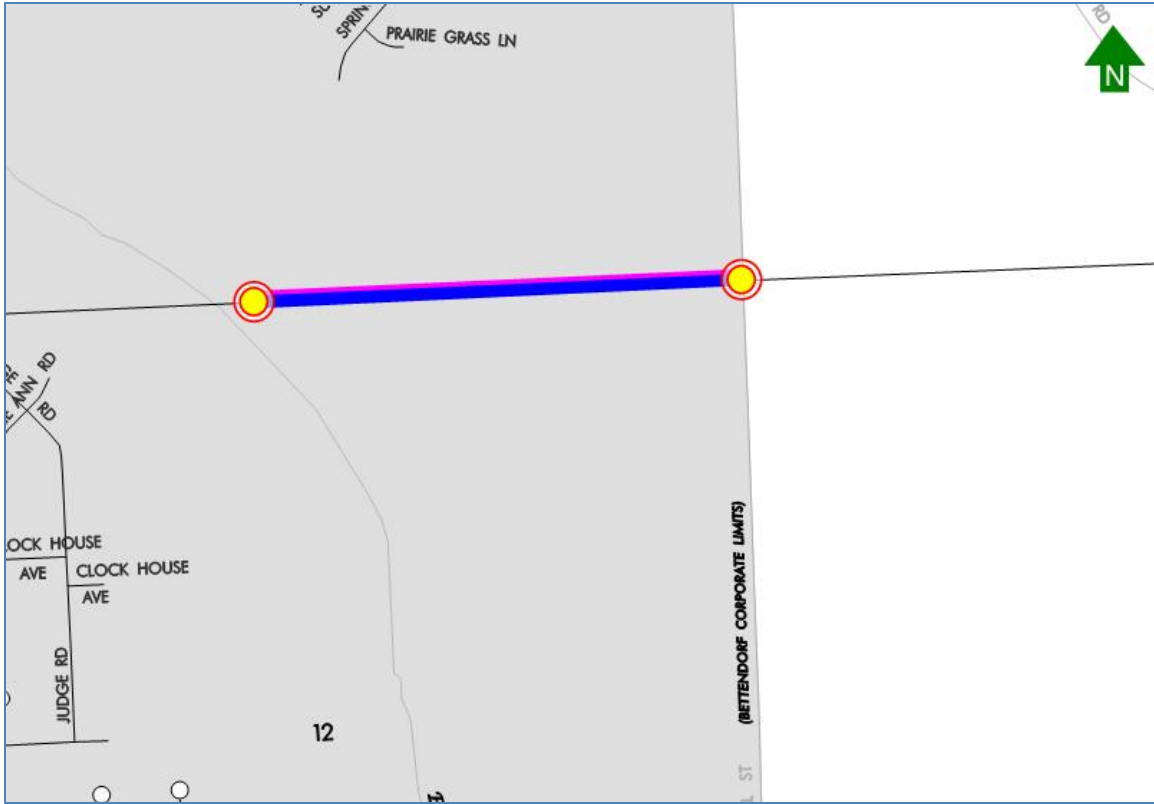
This future segment of Hopewell Avenue is located in as undeveloped field.



**Recommended Improvements**

When the roadway is constructed, as projected in the 2012 Transportation Plan, a 3-lane roadway will be utilized on this segment. A separated trail is recommended to continue along the north side to stay contiguous with the already constructed trail in Segment A, and recommended in segment B.

**HOPEWELL AVENUE: SEGMENT C**



INVENTORY DATA

Existing		
1	Roadway Name	HOPEWELL AVENUE
2	Segment	C
3	Existing Trail	N/A
4	Existing Bike Lanes	N/A
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.43
7	Number of Traffic Lanes	N/A
8	Total Pavement Width (Ft.)	N/A
9	Surface Type	N/A
10	Curb & Gutter	N/A
11	Width of Curb/Flag (Ft.)	N/A
12	Shoulder Width (Ft.)	N/A
13	Shoulder Surface Type (Ft.)	N/A
14	On-Street Parking	N/A
15	Sidewalk Width (Ft.)	N/A
16	Posted Speed Limit (MPH)	N/A
17	Storm Sewer	N/A
18	Ditch	N/A
19	Bus Stop	N/A
20	Roadway Classification	FIELD
21	R.O.W. Width (Ft.)	40'
22	Proximity of Roadway to Buildings (Ft.)	N/A
23	Traffic Volume	N/A
24	Land Use Types	RC, ORC, TR
25	Physical Barriers	Left Right
	Number of Drives	N/A N/A
	Number of Rail Crossings	N/A N/A
	Number of Intersections	N/A N/A
	Number of Fire Hydrants	N/A N/A
	Number of Power poles	N/A N/A
	Landscaping in or near ROW	N/A N/A
Evaluation		
	Segment Benefits	UNDEVELOPED
	Neighborhood Accessibility	POOR
	Residential Density (Hi-Med-Lo)	LO
	Convenient Connections	
Recommendations		
	Recommended Facility	SEPARATED TRAIL
	Need Bicycle Surface Improvements	
	Need Pedestrian Surface Improvements	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2270	\$ 227,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$ 1,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 228,000
Construction Contingency 15%					\$ 34,200
Engineering Design 10%					\$ 22,800
Total Segment Cost					\$ 285,000

## INDIANA AVENUE

### SUMMARY

Indiana Avenue is a local road projected to be a minor arterial that runs east – west from the west City limits (210<sup>th</sup> Street) to Wells Ferry Road on the east limits. This corridor is divided into four (4) segments, totaling approximately 2.9 miles. The projected realignment will produce different mileage as it aligns southeasterly through the open fields. Segment A is approximately 0.5 miles from the west city limits to the future Devils Glen Road extension; segment B is approximately 1.33 miles from said extension to Middle Road; segment C is approximately 0.12 miles from Middle Road to the creek and segment D is approximately 0.93 miles from the creek to Wells Ferry Road.

**INDIANA AVENUE: SEGMENT A**

**Segment Length = 0.5 Miles**

**Existing Conditions**

Indiana Avenue is a 2-lane roadway in this segment. It is classified as a local road, however it is projected to be a minor arterial upon reconstruction and subsequent development. The existing roadway is a 24-foot wide chip and seal with gravel shoulders. The existing right-of-way is approximately 65 feet containing ditches on both sides of the roadway. The posted speed limit is 45 mph and serves approximately 400 vehicles per day. Each side of Indiana is undeveloped agricultural land.



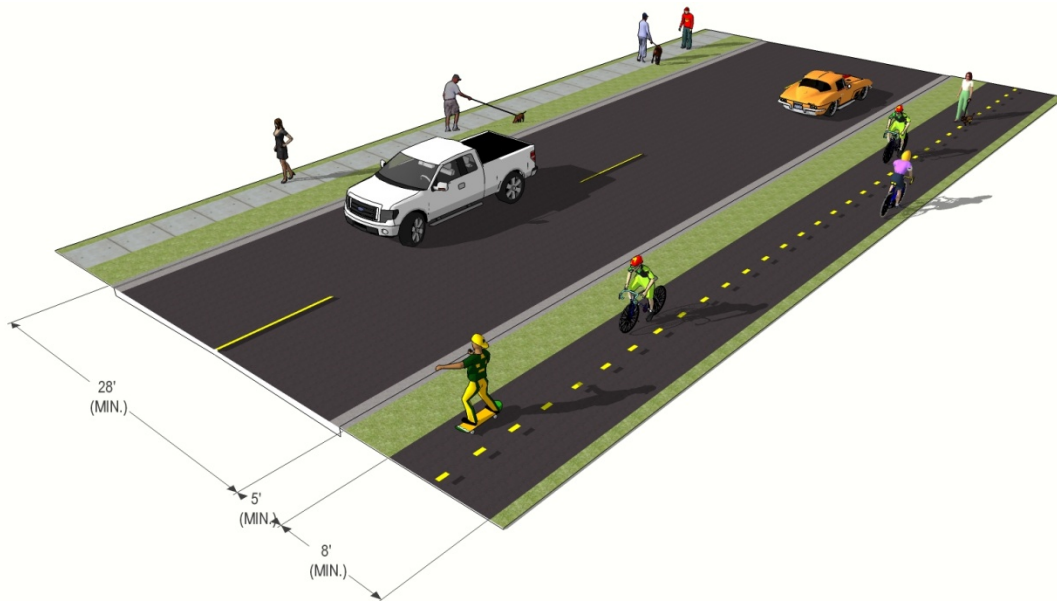
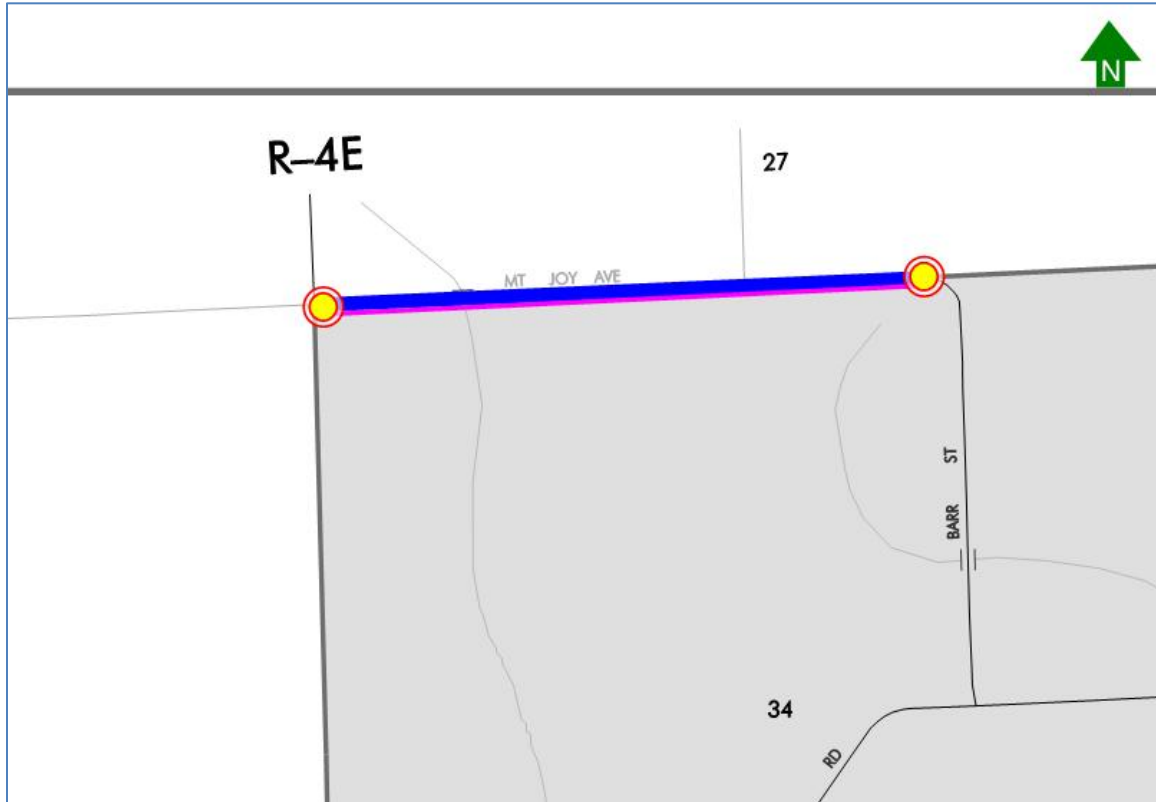
**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy and the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the south side of this segment, as the power poles are located on the north.
- Option 2: Separated trail on the north side.

**INDIANA AVENUE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	INDIANA AVENUE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	2'-3'/LT, 2'-3'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	LOCAL	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	100'/LT, 50'/RT	
23	Traffic Volume (ADT)	400	
24	Land Use Types	TR, RC	
25	Physical Barriers	Left	Right
	Number of Drives	2	4
	Number of Rail Crossings	0	0
	Number of Intersections	1	0
	Number of Fire Hydrants	0	0
	Number of Power poles	15	1
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	DEVILS GLEN ROAD (FUTURE)	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$ 1,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 265,200
Construction Contingency 15%					\$ 39,780
Engineering Design 10%					\$ 26,520
Total Segment Cost					\$ 331,500

**INDIANA AVENUE: SEGMENT B**

**Segment Length = 1.33 Miles**

**Existing Conditions**

Indiana Avenue is a 2-lane roadway in this segment. It is classified as a local road, however, it is projected to be a minor arterial upon reconstruction and subsequent development. The existing roadway is a 24-foot wide chip and seal with gravel shoulders. The existing right-of-way is approximately 65-feet containing ditches on both sides of the roadway. The posted speed limit is 45 mph and serves approximately 400 vehicles per day. Each side of Indiana Avenue is undeveloped agricultural land.



**Recommended Improvements**

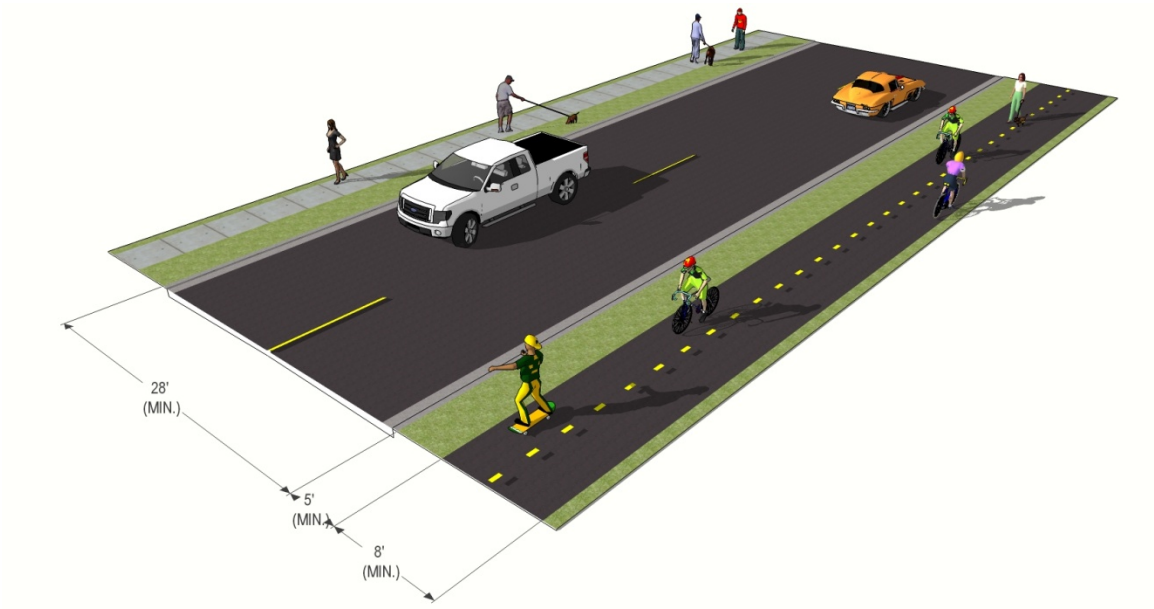
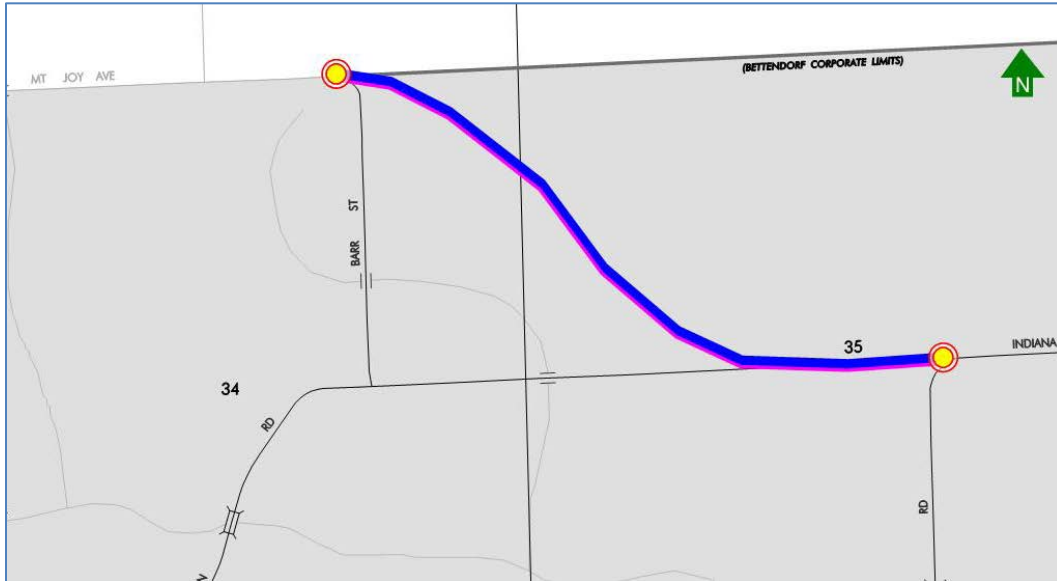
Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy" and the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved and re-aligned, we recommend the following options.

Option 1: Separated trail on the south side of the segment.

Option 2: Separated trail on the north side.

**INDIANA AVENUE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	INDIANA AVENUE	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.33	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	2'/LT, 2'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	NOT LISTED	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume (ADT)	NOT LISTED	
24	Land Use Types	C, MDR, TR, HDR	
25	Physical Barriers	Left	Right
	Number of Drives	2	2
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	18	0
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED/REALIGNMENT	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	7025	\$ 702,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$3,200.00	1	\$ 3,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 705,700
Construction Contingency 15%					\$ 105,855
Engineering Design 10%					\$ 70,570
Total Segment Cost					\$ 882,125

**INDIANA AVENUE: SEGMENT C**

**Segment Length = 0.12 Miles**

**Existing Conditions**

Indiana Avenue is a 2-lane roadway in this segment. It is classified as a local road, however, it is projected to be a minor arterial upon reconstruction and subsequent development. The existing roadway is a 24-foot wide chip and seal with gravel shoulders. The existing right-of-way is approximately 65-feet containing ditches on both sides of the roadway. The posted speed limit is 45 mph and serves approximately 1300 vehicles per day. Each side of Indiana Avenue is undeveloped agricultural land.



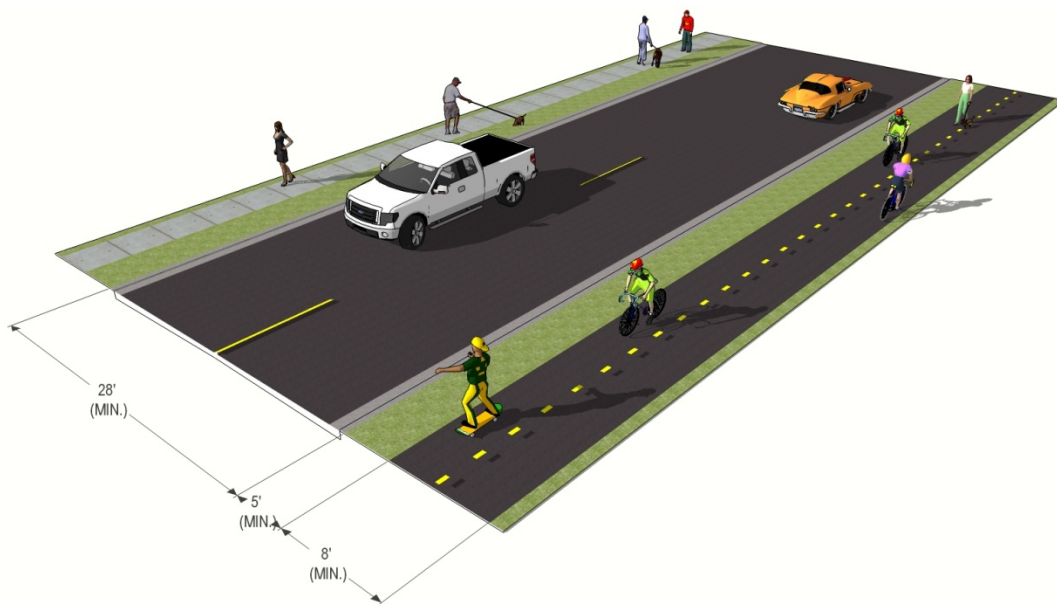
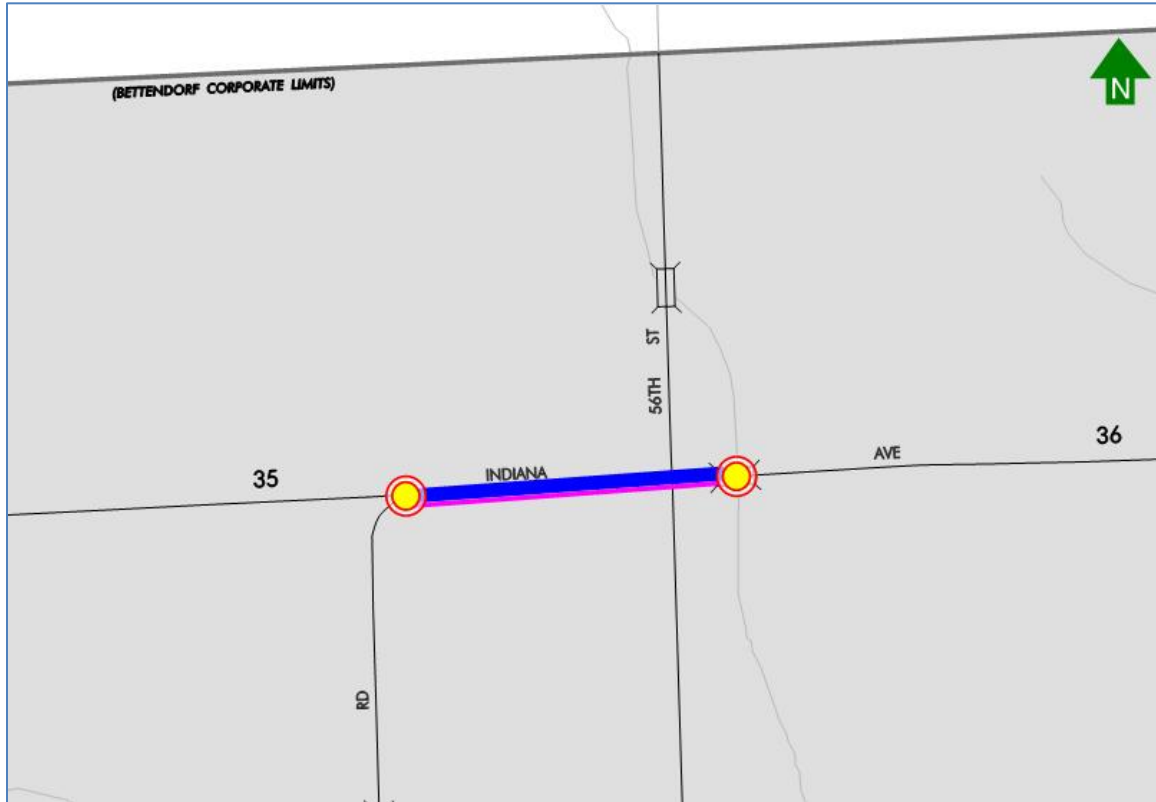
**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy" and the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1        Separated trail on the south side of this segment, as the power poles are located on the north.
  
- Option 2:       Separated trail on the north side.

**INDIANA AVENUE: SEGMENT C**



INVENTORY DATA

Existing		
1	Roadway Name	INDIANA AVENUE
2	Segment	C
3	Existing Trail	NO
4	Existing Bike Lanes	NO
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.12
7	Number of Traffic Lanes	2
8	Total Pavement Width (Ft.)	24'
9	Surface Type	CHIP & SEAL
10	Curb & Gutter	NO
11	Width of Curb/Flag (Ft.)	N/A
12	Shoulder Width (Ft.)	3'/LT, 3'/RT
13	Shoulder Surface Type (Ft.)	OTHER
14	On-Street Parking	NO
15	Sidewalk Width (Ft.)	NO
16	Posted Speed Limit (MPH)	45
17	Storm Sewer	NO
18	Ditch	LT/RT
19	Bus Stop	NO
20	Roadway Classification	LOCAL
21	R.O.W. Width (Ft.)	65'
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT
23	Traffic Volume (ADT)	1310
24	Land Use Types	ORC, MDR
25	Physical Barriers	Left Right
	Number of Drives	2 3
	Number of Rail Crossings	0 0
	Number of Intersections	1 1
	Number of Fire Hydrants	0 0
	Number of Power poles	13 3
	Landscaping in or near ROW	NO NO
Evaluation		
	Segment Benefits	UNDEVELOPED
	Neighborhood Accessibility	POOR
	Residential Density (Hi-Med-Lo)	LO
	Convenient Connections	MIDDLE ROAD
Recommendations		
	Recommended Facility	SEPARATED TRAIL
	Need Bicycle Surface Improvements	
	Need Pedestrian Surface Improvements	

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	650	\$ 65,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$300.00	1	\$ 300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 65,300
Construction Contingency 15%					\$ 9,795
Engineering Design 10%					\$ 6,530
Total Segment Cost					\$ 81,625

**INDIANA AVENUE: SEGMENT D**

**Segment Length = 0.93 Miles**

**Existing Conditions**

Indiana Avenue is a 2-lane roadway in this segment. It is classified as a local road, however, it is projected to be a minor arterial upon reconstruction and subsequent development. The existing roadway is a 24-foot wide chip and seal with gravel shoulders. The existing right-of-way is approximately 65-feet containing ditches on both sides of the roadway. The posted speed limit is 45 mph and serves approximately 1300 vehicles per day. Each side of Indiana Avenue is undeveloped agricultural land.



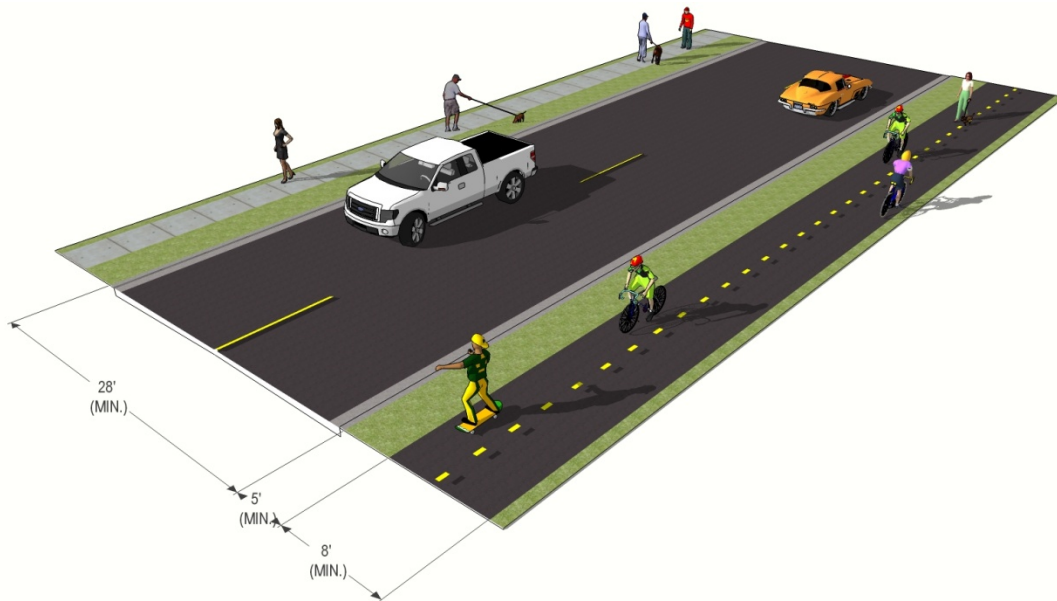
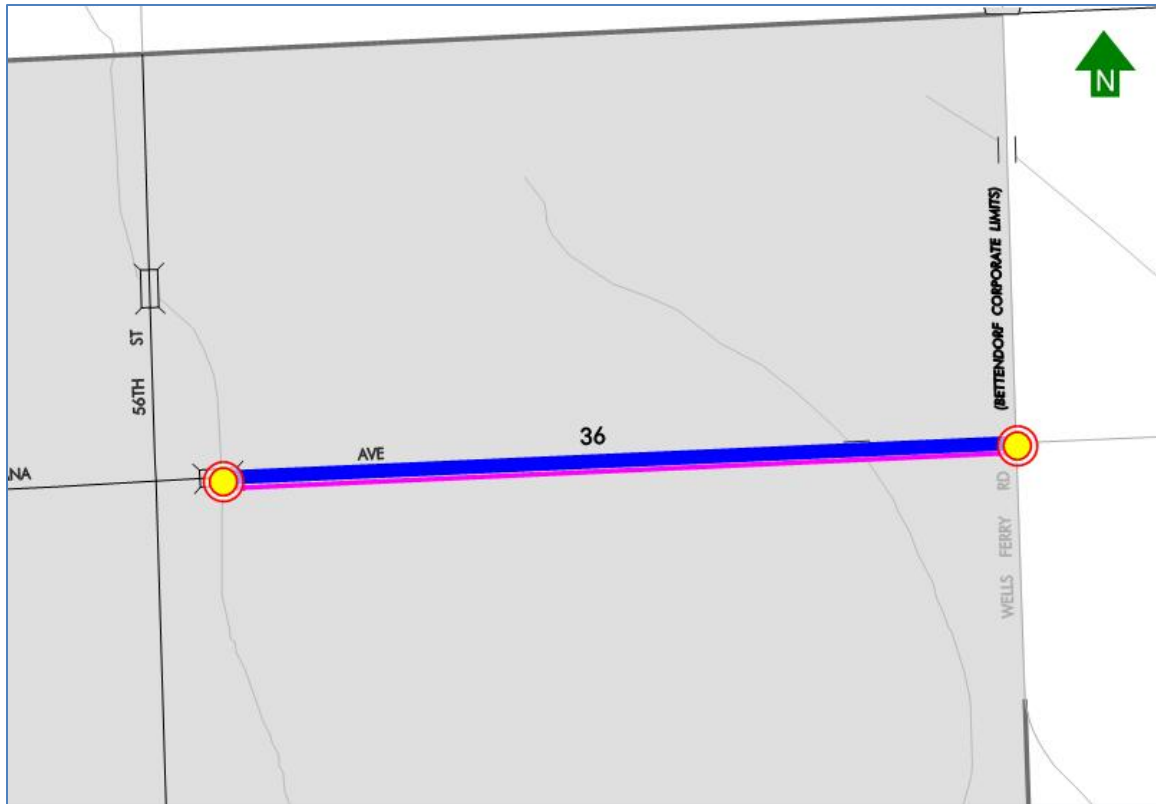
**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy" and the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1        Separated trail on the south side of this segment, as the power poles are located on the north.
  
- Option 2:       Separated trail on the north side.

**INDIANA AVENUE: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	INDIANA AVENUE	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.93	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3/LT, 3/T	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	NOT LISTED	
21	R.O.W. Width (Ft.)	65'	
22	Proximity of Roadway to Buildings (Ft.)	50/LT, 50/RT	
23	Traffic Volume (ADT)	1310	
24	Land Use Types	ORC, MDR	
25	Physical Barriers	Left	Right
	Number of Drives	3	9
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	13	19
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	WELLS FERRY ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	4910	\$ 491,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,250.00	1	\$ 2,250
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 493,250
Construction Contingency 15%					\$ 74,000
Engineering Design 10%					\$ 49,325
Total Segment Cost					\$ 616,575

## **KIMBERLY ROAD**

### **SUMMARY**

Kimberly Road is a minor arterial that runs north – south connecting the Interstate 74 interchange at the south to Middle Road at the north end. Kimberly Road lanes (northbound and southbound) split at the interchange and will be realigned parallel to each other upon the Interstate 74 bridge realignment. This corridor is broken into two (2) segments where segment A is approximately 0.91 miles from Grant Street to Lincoln Road and segment B is approximately 0.1 miles from Lincoln Road to Middle Road near the Duck Creek trail.

**KIMBERLY ROAD: SEGMENT A**

**Segment Length = 0.91 Miles**

**Existing Conditions**

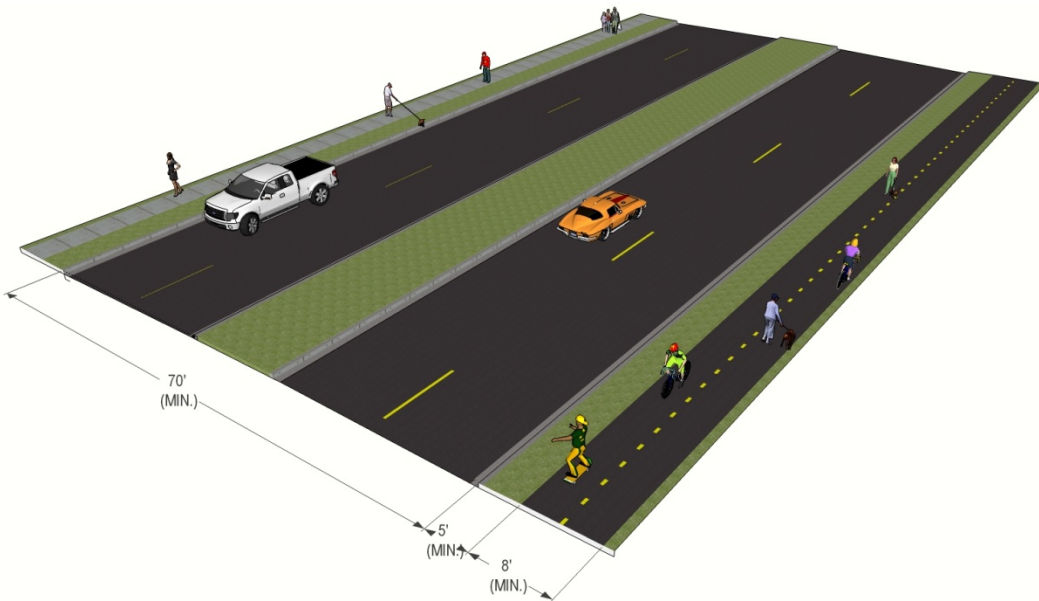
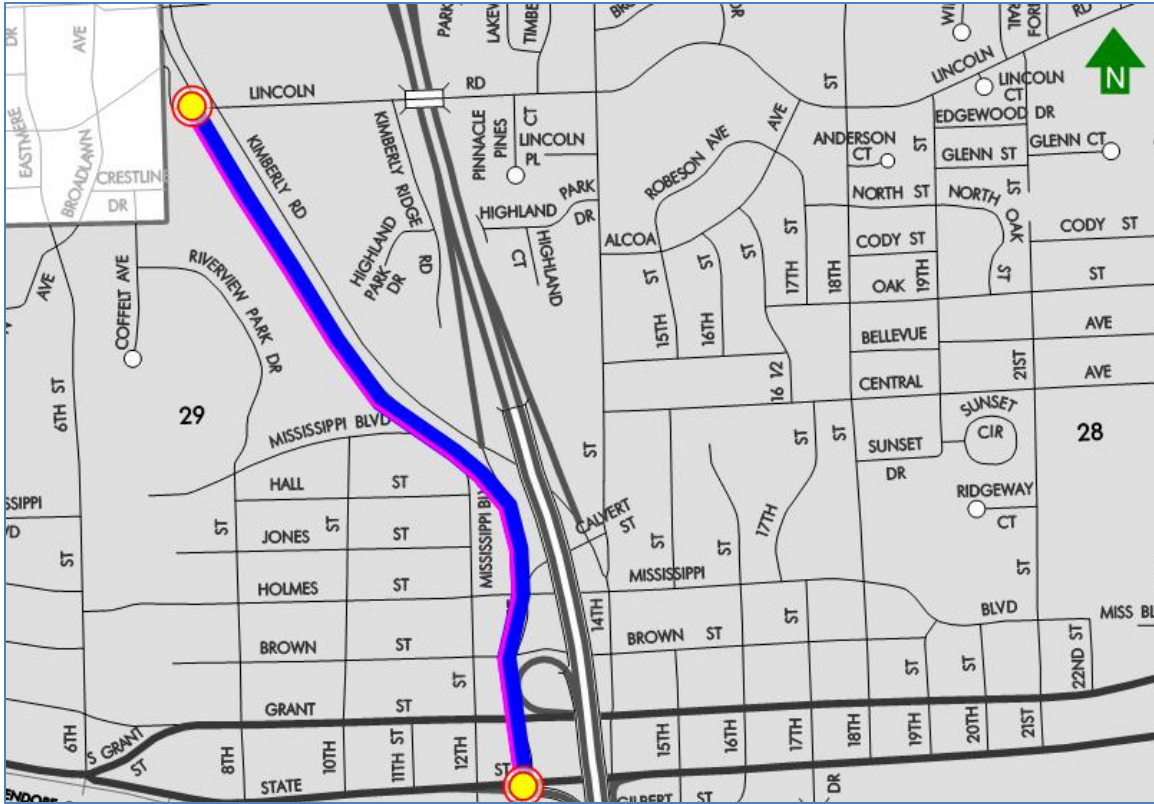
Kimberly Road is a 4-lane, divided highway in this segment. It is classified as a minor arterial that is 60-foot wide from back-of-curb to back-of-curb for the areas where northbound and southbound parallel each other. The right-of-way averages between 120 to 200 feet in this parallel section and only 60 feet in the areas where the southbound and northbound separate, such as downtown. The posted speed limit is 35 mph and serves approximately 6500 vehicles per day.



**Recommended Improvements**

Upon reconstruction of the Interstate 74 bridge and interchange the northbound Kimberly Road leg will be re-routing west of the interstate along the existing southbound legs. During this re-alignment, it is recommended that a separated trail be incorporated along the southbound leg until it reaches downtown, where the trail could terminate at the Grant Street bicycle accommodations.

**KIMBERLY ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	KIMBERLY ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.91	
7	Number of Traffic Lanes	3, 4	
8	Total Pavement Width (Ft.)	60'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	PARTIAL 4'/LT, PARTIAL 4'RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT,RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	60_100' to 200'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 20'/RT	
23	Traffic Volume	6500	
24	Land Use Types	RC, I, OT	
25	Physical Barriers	Left	Right
	Number of Drives	5	8
	Number of Rail Crossings	0	0
	Number of Intersections	4	5
	Number of Fire Hydrants	2	1
	Number of Power poles	7	10
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	REALIGNMENT IN FUTURE	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	GRANT STREET / LINCOLN ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	4800	\$ 480,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,200.00	1	\$ 2,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	270	\$ 20,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 502,450
Construction Contingency 15%					\$ 75,370
Engineering Design 10%					\$ 50,245
Total Segment Cost					\$ 628,065

**KIMBERLY ROAD: SEGMENT B**

**Segment Length = 0.1 Miles**

**Existing Conditions**

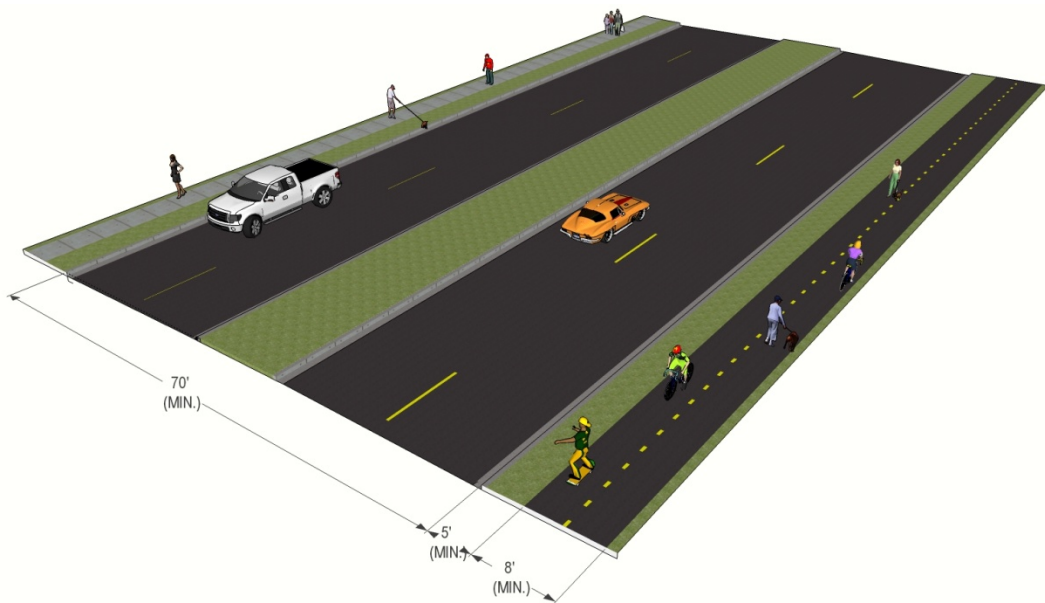
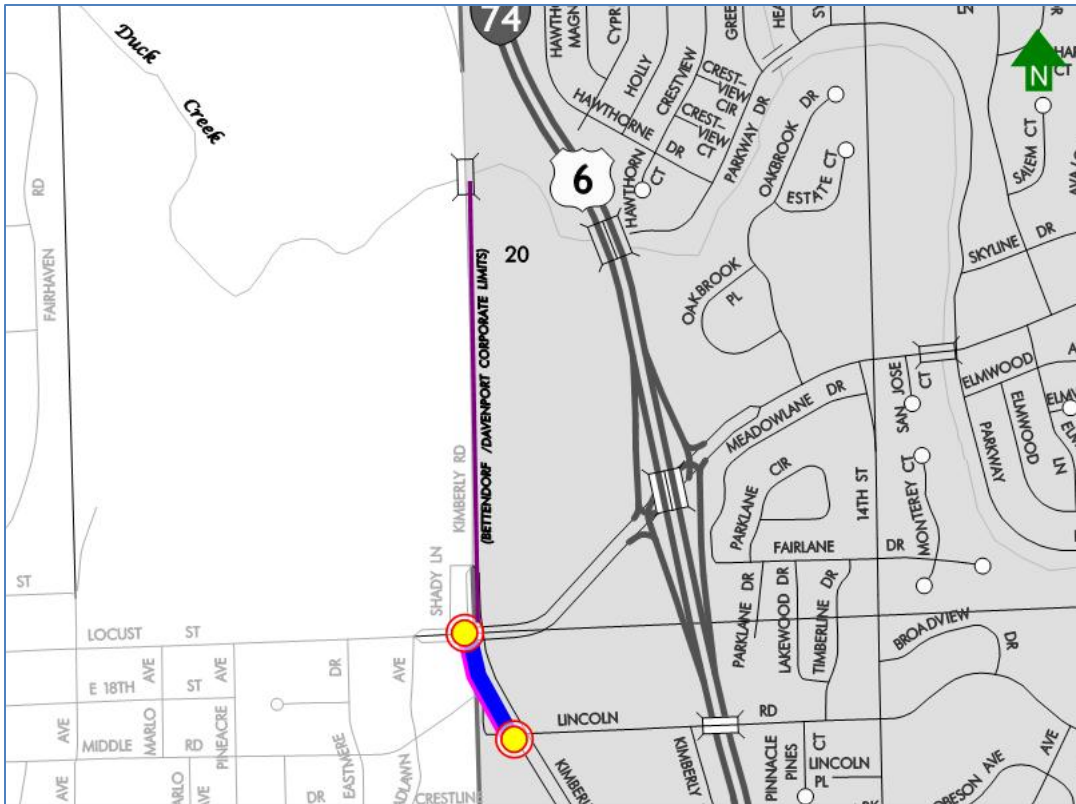
Kimberly Road is a 4-lane, divided highway in this segment. It is classified as a minor arterial that is 50-foot wide from back-of-curb to back-of-curb. The right-of-way averages approximately 140 feet and serves approximately 10,500 vehicles per day. The posted speed limit is 35 mph.



**Recommended Improvements**

Upon reconstruction of the Interstate 74 bridge and interchange the northbound Kimberly Road leg will be re-routing west of the interstate along the existing southbound legs. During this re-alignment, it is recommended that a separated trail be incorporated along the southbound leg until it reaches downtown, where the trail could terminate at the Grant Street bicycle accommodations.

**KIMBERLY ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	KIMBERLY ROAD	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.1	
7	Number of Traffic Lanes	4, 5	
8	Total Pavement Width (Ft.)	50', 62'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	PARTIAL 4'/LT, 4'-6'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	CENTER MEDIAN	
19	Bus Stop	1/LT	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	140'	
22	Proximity of Roadway to Buildings (Ft.)	35'/LT, 60'/RT	
23	Traffic Volume	10500	
24	Land Use Types	C, OT	
25	Physical Barriers	Left	Right
	Number of Drives	0	3
	Number of Rail Crossings	0	0
	Number of Intersections	1	2
	Number of Fire Hydrants	1	2
	Number of Power poles	4	6
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	RIGHT-OF-WAY WIDTH	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	LINCOLN ROAD / MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	530	\$ 53,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$300.00	1	\$ 300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 53,300
Construction Contingency 15%					\$ 7,995
Engineering Design 10%					\$ 5,330
Total Segment Cost					\$ 66,625

## **MAPLECREST ROAD**

### **SUMMARY**

Maplecrest Road is a collector street that runs east-west connecting 18<sup>th</sup> Street to Devils Glen Road. This corridor is divided into two (2) segments; one east and one west of 29<sup>th</sup> Street. Segment A is approximately 0.48 miles in length that serves Bettendorf High School, while segment B is approximately 0.34 miles that serves Devils Glen Road from the west.

**MAPLECREST ROAD: SEGMENT A**

**Segment Length = 0.45 Miles**

**Existing Conditions**

Maplecrest Road currently has two 22-foot wide lanes in this segment that allows space for parking on both sides of the roadway. The existing right-of-way is approximately 80 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 3200 vehicles per day. In a residential neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists.



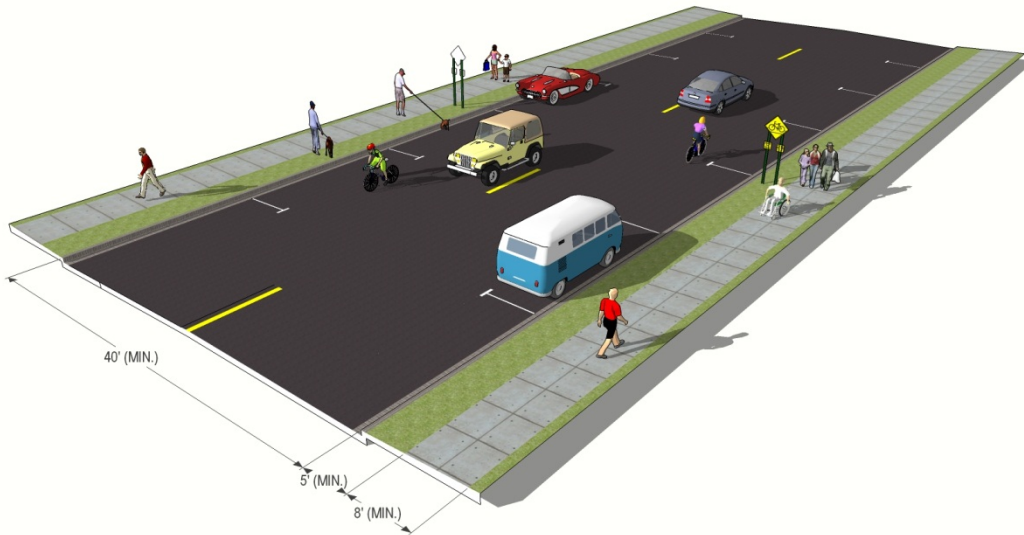
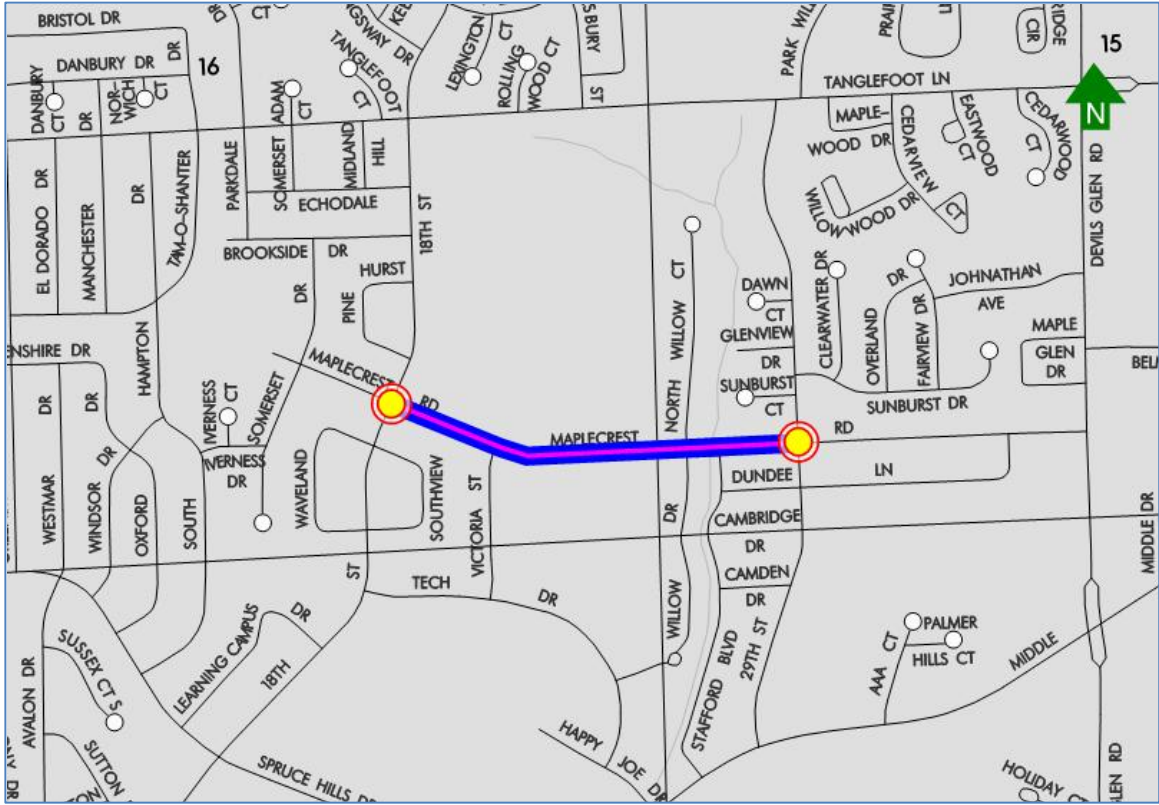
**Recommended Improvements**

The immediate opportunities for incorporating bicycle facilities are very limited on this segment of Maplecrest, due to parking and several driveways on both sides of the street. The current width of the street will not accommodate striped bicycle lanes, as the numerous driveways deter from installing a separated trail on either side.

The recommended solutions for Maplecrest, Segment A are the following:

- Option 1: Define the usage as “Share the Road” by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.
- Option 2: Incorporate striped bike lanes by widening the pavement section to 52 feet, while still accommodating parking lanes on both sides of the street. This option will be substantially more costly than Option 1 and will obtain essentially the same effectiveness as the “Share the Road” recommendation.

**MAPLECREST ROAD: SEGMENT A**



INVENTORY DATA

Existing		
1	Roadway Name	MAPLECREST ROAD
2	Segment	A
3	Existing Trail	NO
4	Existing Bike Lanes	N/A
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.48
7	Number of Traffic Lanes	2
8	Total Pavement Width (Ft.)	44'
9	Surface Type	PCC
10	Curb & Gutter	LT/RT
11	Width of Curb/Flag (Ft.)	N/A
12	Shoulder Width (Ft.)	N/A
13	Shoulder Surface Type (Ft.)	N/A
14	On-Street Parking	LT/RT
15	Sidewalk Width (Ft.)	4'-6'/LT, 4'/RT
16	Posted Speed Limit (MPH)	30 MPH
17	Storm Sewer	LT/RT
18	Ditch	NO
19	Bus Stop	1
20	Roadway Classification	COLLECTOR
21	R.O.W. Width (Ft.)	80'
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 40'/RT
23	Traffic Volume (ADT)	3160
24	Land Use Types	TR, OT, I
25	Physical Barriers	Left Right
	Number of Drives	10 11
	Number of Rail Crossings	0 0
	Number of Intersections	2 4
	Number of Fire Hydrants	0 1
	Number of Power poles	9 5
	Landscaping in or near ROW	YES YES
Evaluation		
	Segment Benefits	PAVEMENT CONDITION
	Neighborhood Accessibility	GOOD
	Residential Density (Hi-Med-Lo)	MED
	Convenient Connections	BETTENDORF H.S. & GENESIS
Recommendations		
	Recommended Facility	"SHARE THE ROAD"
	Need Bicycle Surface Improvements	-
	Need Pedestrian Surface Improvements	-

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	0	\$0.00
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0.00
3	Pavement Marking & Signage	LS	\$2,000.00	1	\$2,000.00
4	Traffic Signal Modifications	LS	\$0.00	0	\$0.00
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	0	\$0.00
6	Storm Sewer Modifications	LS	\$0.00	0	\$0.00
Construction Subtotal					\$2,000.00
Construction Contingency 15%					\$300.00
Engineering Design 10%					\$200.00
Total Segment Cost					\$2,500.00

**MAPLECREST ROAD: SEGMENT B**

**Segment Length = 0.34 Miles**

**Existing Conditions**

Maplecrest Road currently has two 19-foot wide lanes in this segment that allows space for parking on both sides of the roadway. The existing right-of-way is approximately 80 feet, containing sidewalks on both sides of the street. The posted speed limit is 35 mph and serves approximately 2900 vehicles per day. In this residential neighborhood, the sidewalks and parking lanes are used regularly by pedestrians and motorists. Many trees are well established within the boulevard area between the curb and sidewalk.



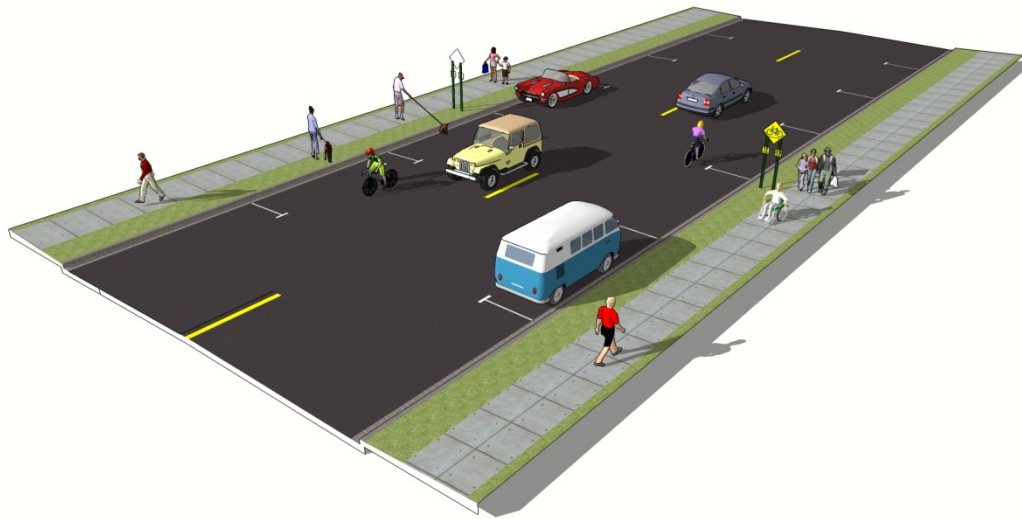
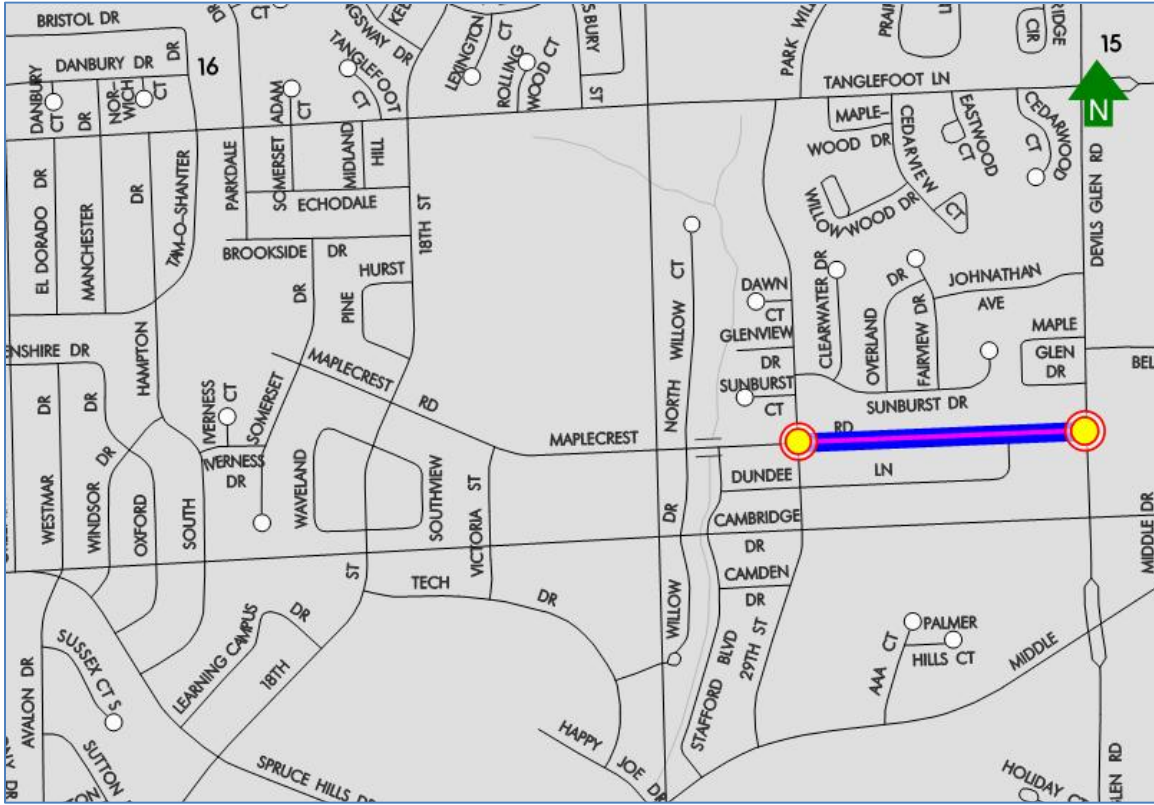
**Recommended Improvements**

The immediate opportunities for incorporating bicycle facilities are very limited on this segment of Maplecrest, due to parking and several driveways on both sides of the street. The current width of the street will not accommodate striped bicycle lanes, as the numerous driveways deter from installing a separated trail on either side.

The recommended solutions for Maplecrest, Segment B are the following:

- Option 1: Define the usage as “Share the Road” by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.
- Option 2: Incorporate striped bike lanes by widening the pavement section to 52 feet, while still accommodating parking lanes on both sides of the street. This option will be substantially more costly than Option 1 and will obtain essentially the same effectiveness as the “Share the Road” recommendation.

**MAPLECREST ROAD: SEGMENT B**



INVENTORY DATA

Existing		
1	Roadway Name	MAPLECREST ROAD
2	Segment	B
3	Existing Trail	NO
4	Existing Bike Lanes	NO
5	Bike Lane Width	N/A
6	Segment Length (Miles)	0.34
7	Number of Traffic Lanes	2
8	Total Pavement Width (FT)	38'
9	Surface Type	PCC
10	Curb & Gutter	LT/RT
11	Width of Curb/Flag (FT)	N/A
12	Shoulder Width (FT)	N/A
13	Shoulder Surface Type (FT)	N/A
14	On-Street Parking	LT/RT
15	Sidewalk Width (FT)	4'-6'/LT, 4'/RT
16	Posted Speed Limit (MPH)	35
17	Storm Sewer	LT/RT
18	Ditch	NO
19	Bus Stop	1/RT
20	Roadway Classification	COLLECTOR
21	R.O.W. Width (FT)	80'
22	Proximity of Roadway to Buildings (FT)	45'/LT, 50'/RT
23	Traffic Volume	2880
24	Land Use Types	TR, MDR, HDR
25	Physical Barriers	Left Right
	Number of Drives	23 17
	Number of Rail Crossings	0 0
	Number of Intersections	1 3
	Number of Fire Hydrants	2 3
	Number of Power poles	1 5
	Landscaping in or near ROW	NO NO
Evaluation		
	Segment Benefits	PAVEMENT CONDITION
	Neighborhood Accessibility	GOOD
	Residential Density (Hi-Med-Lo)	MED
	Convenient Connections	DEVIL'S GLEN ROAD
Recommendations		
	Recommended Facility	"SHARE THE ROAD"
	Need Bicycle Surface Improvements	-
	Need Pedestrian Surface Improvements	-

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	0	\$0.00
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00	0	\$0.00
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$1,000.00
4	Traffic Signal Modifications	LS	\$0.00	0	\$0.00
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	0	\$0.00
6	Storm Sewer Modifications	LS	\$0.00	0	\$0.00
Construction Subtotal					\$1,000.00
Construction Contingency 15%					\$150.00
Engineering Design 10%					\$115.00
Total Segment Cost					\$1,265.00

## MIDDLE ROAD

### SUMMARY

Middle Road is a minor arterial corridor that runs from the Southwest to the Northeast. This corridor is broken into seven (7) segments. Segment A is approximately 0.73 miles from Kimberly Road to the Duck Creek Path where there is a planned or constructed separated trail that runs from Duck Creek northeast to 53<sup>rd</sup> Avenue where segment B begins. Segment B is approximately 0.51 miles from 53<sup>rd</sup> Avenue to Hopewell; segment C is approximately 0.54 miles from Hopewell to Forest Grove Road; segment D is approximately 0.6 miles from Forest Grove Road to the Interstate 80 overpass; segment E is approximately 0.41 miles from the Interstate 80 overpass to Indiana Avenue; segment F is a new construction segment from Indiana Avenue to another future east – west constructed roadway; and segment G is a new construction segment from said future east – west roadway to 220<sup>th</sup> Street.

**MIDDLE ROAD: SEGMENT A**

**Segment Length = 0.73 Miles**

**Existing Conditions**

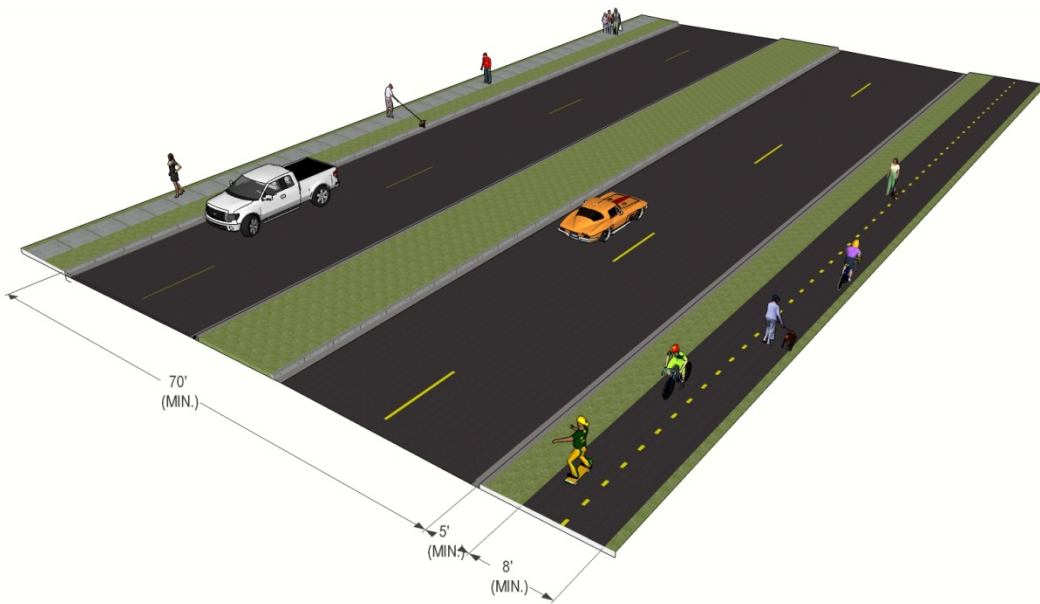
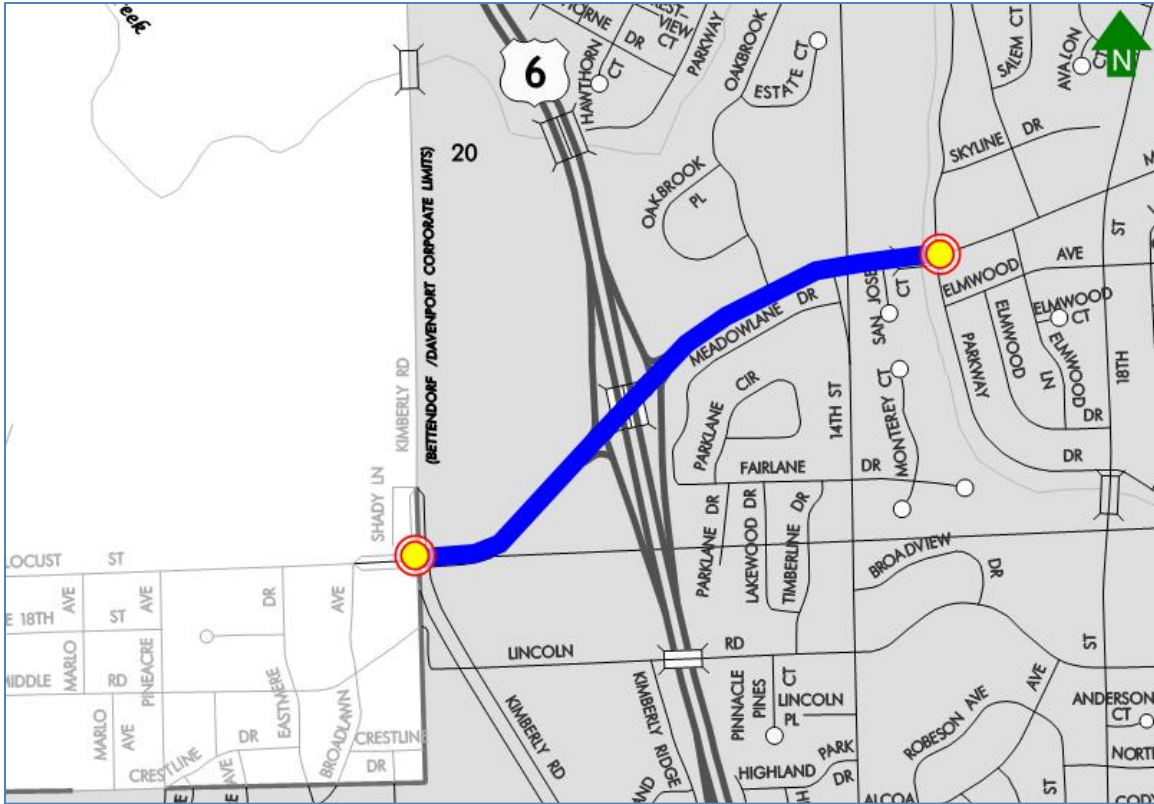
Middle Road is a 4-lane, divided highway in this segment. It is classified as a minor arterial that is 75-foot wide on the average from back-of-curb to back-of-curb (including turn lanes and a median of varying width). The existing right-of-way is approximately 100 feet, which includes a 6-foot sidewalk on both sides of the road. The posted speed limit is 35 mph and serves approximately 17,200 vehicles per day. This commercial area is fully developed as it serves as a major thoroughfare.



**Recommended Improvements**

Due to limited right-of-way availability and retaining wall/terrain limitations, a separated trail currently cannot be accommodated. The high capacity of traffic flow makes the number of lanes a necessity and due to the said limitations, widening for bike lanes is not a possibility at this time. Due to traffic volumes and many turn lane movements, this segment is not recommended for a bicycle facility in its current state. Discussions with the Iowa Department of Transportation concerning extending the span are recommended. Once this is accomplished a separate trail on the north side is recommended.

**MIDDLE ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.73	
7	Number of Traffic Lanes	4,5	
8	Total Pavement Width (Ft.)	48', 65', 75', 100'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'-5'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100	
22	Proximity of Roadway to Buildings (Ft.)	25'/LT, 40'/RT	
23	Traffic Volume	17200	
24	Land Use Types	I, C, TR	
25	Physical Barriers	Left	Right
	Number of Drives	5	4
	Number of Rail Crossings	0	0
	Number of Intersections	4	5
	Number of Fire Hydrants	1	1
	Number of Power poles	18	39
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	COMMERCIAL	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	KIMBERLY ROAD / DUCK CREEK ROAD	
Recommendations			
	Recommended Facility	NOT RECOMMENDED	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,000.00		\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ -
Construction Contingency 15%					
Engineering Design 10%					
Total Segment Cost					\$ -

**MIDDLE ROAD: SEGMENT B**

**Segment Length = 0.51 Miles**

**Existing Conditions**

Middle Road is a 2-lane roadway in this segment that is 24-feet edge of pavement to edge of pavement. The right-of-way width is approximately 100 feet and has no sidewalks on either side. The posted speed limit on this rural section is 35 and 45 mph and serves approximately 6100 vehicles per day.



**Recommended Improvements**

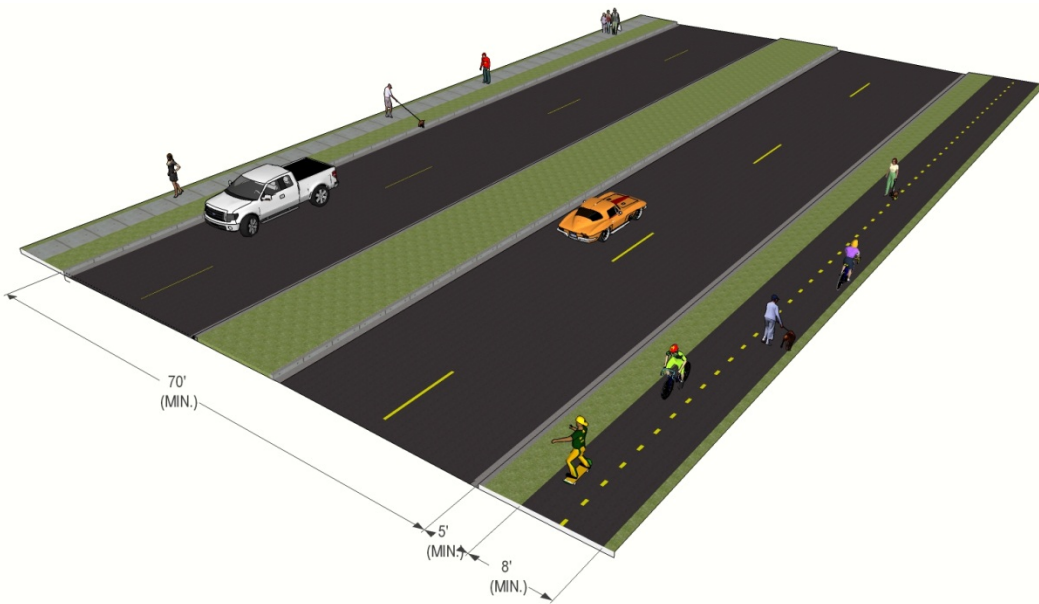
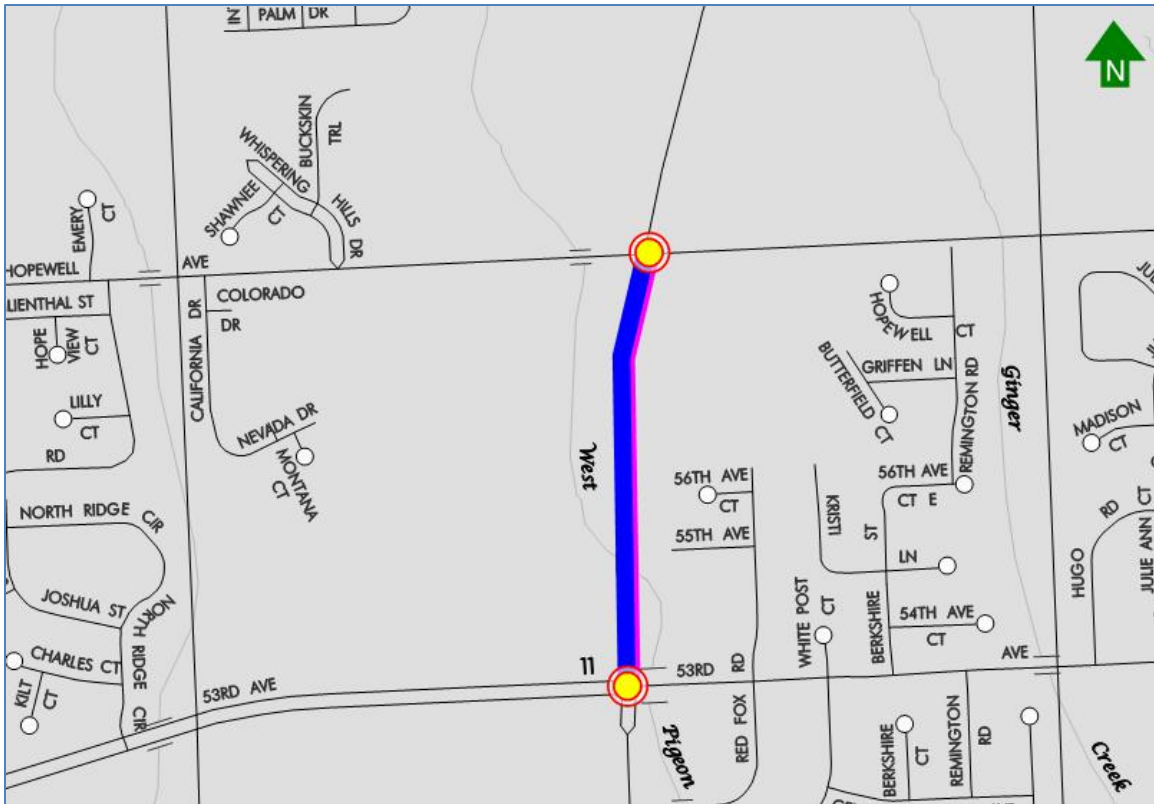
Until the roadway is improved, as suggested in the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along this segment. In addition to the signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1: Separated trail on the east side of this segment away from the power poles and contiguous with the trail found on the same side south of 53<sup>rd</sup> Avenue round-a-bout.
- Option 2: Separated trail on the west side.

Both options will require a crossing at the round-a-bout to keep the trail contiguous.

**MIDDLE ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.51	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	PCC	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	8'/LT, 8'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35,45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100	
22	Proximity of Roadway to Buildings (Ft.)	100'/LT, 120'/RT	
23	Traffic Volume	6100	
24	Land Use Types	C, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	2	2
	Number of Rail Crossings	0	0
	Number of Intersections	1	0
	Number of Fire Hydrants	0	0
	Number of Power poles	11	1
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	53RD AVNUE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2700	\$ 270,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,300.00	1	\$ 1,300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	110	\$ 8,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 279,550
Construction Contingency 15%					\$ 41,935
Engineering Design 10%					\$ 27,955
Total Segment Cost					\$ 349,440

**MIDDLE ROAD: SEGMENT C**

**Segment Length = 0.54 Miles**

**Existing Conditions**

Middle Road is a 2-lane roadway in this segment that is 24-feet wide. The right-of-way is approximately 90 feet and has no sidewalks on either side. The posted speed limit is 45 mph and serves approximately 660 vehicles per day. This rural section roadway is undeveloped on both sides of this corridor.



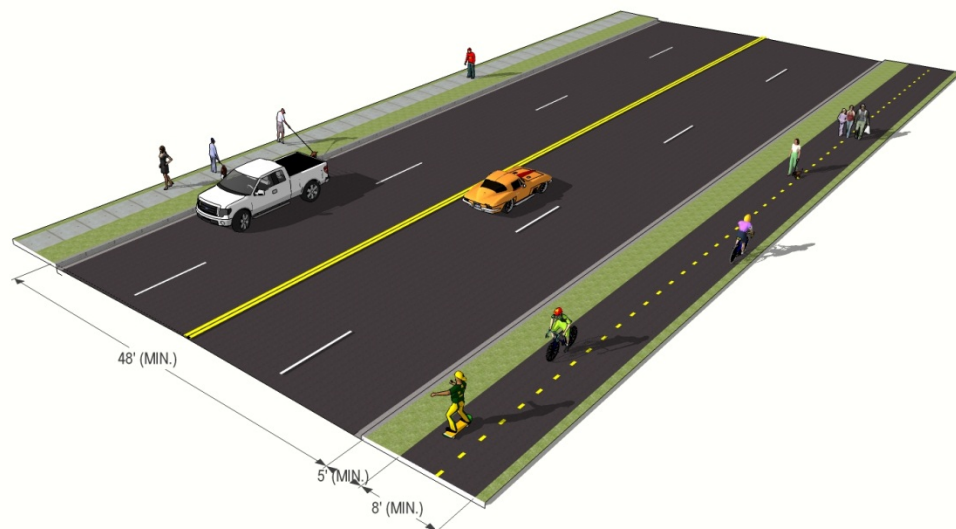
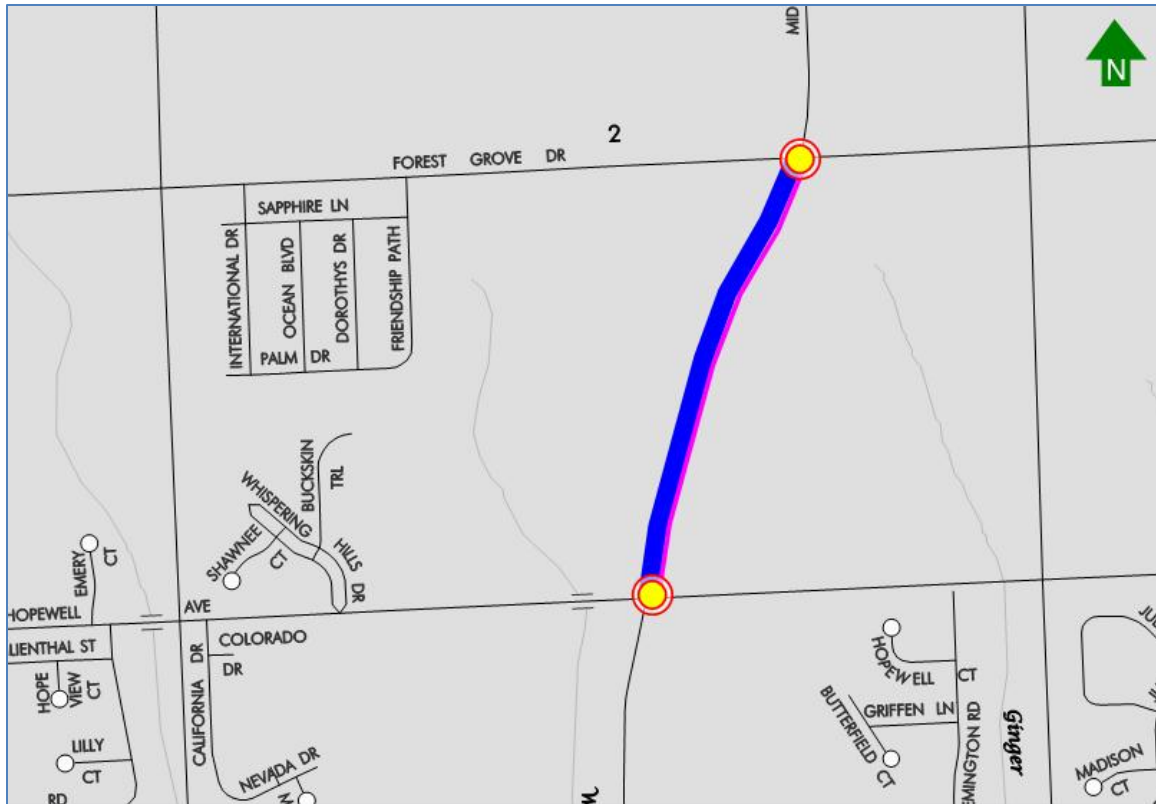
**Recommended Improvements**

Until the roadway is improved, as suggested in the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along this segment. In addition to the signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1: Separated trail on the east side of this segment away from the power poles and contiguous with the trail found in segment B.
- Option 2: Separated trail on the west side.

**MIDDLE ROAD: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.54	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	ASPHALT	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	0	
12	Shoulder Width (Ft.)	8'/LT, 8'/RT	
13	Shoulder Surface Type (Ft.)	OTHER	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	90'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 50'/RT	
23	Traffic Volume	6100	
24	Land Use Types	C, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	4	5
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	0
	Number of Power poles	16	5
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	HOPEWELL / FOREST GROVE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2850	\$ 285,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,300.00	1	\$ 1,300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	270	\$ 20,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 306,550
Construction Contingency 15%					\$ 46,000
Engineering Design 10%					\$ 30,660
Total Segment Cost					\$ 383,210

**MIDDLE ROAD: SEGMENT D**

**Segment Length = 0.6 Miles**

**Existing Conditions**

Middle Road is a 2-lane roadway in this segment that is 24-feet wide. The right-of-way is approximately 90 feet and has no sidewalks on either side. The posted speed limit is 45 mph and serves approximately 660 vehicles per day. This rural section roadway is undeveloped on both sides of this corridor.



**Recommended Improvements**

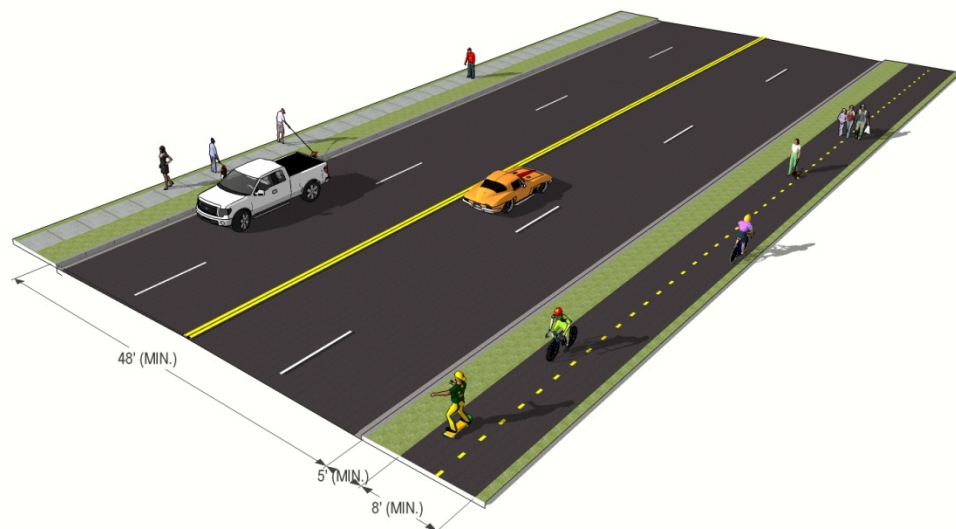
Until the roadway is improved, as suggested in the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along this segment. In addition to the signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1: Separated trail on the east side of this segment away from the power poles and contiguous with the trail found in segment C.
- Option 2: Separated trail on the west side.

Both options will require special consideration and design on the Interstate 80 overpass to adhere to AASHTO guidelines / clearance requirements.

**MIDDLE ROAD: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.6	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	PCC	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	8'/LT, 8'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	90'	
22	Proximity of Roadway to Buildings (Ft.)	280'/LT, NONE/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	RC, ORC, C	
25	Physical Barriers	Left	Right
	Number of Drives	1	0
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	1	0
	Number of Power poles	5	2
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FOREST GROVE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3170	\$ 317,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,500.00	1	\$ 1,500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 318,500
Construction Contingency 15%					\$ 47,775
Engineering Design 10%					\$ 31,850
Total Segment Cost					\$ 398,125

**MIDDLE ROAD: SEGMENT E**

**Segment Length = 0.41 Miles**

**Existing Conditions**

Middle Road is a 2-lane roadway in this segment that is 24-feet wide. The right-of-way is approximately 90 feet and has no sidewalks on either side. The posted speed limit is 45 mph and serves approximately 660 vehicles per day. This rural section roadway is undeveloped on both sides of this corridor.



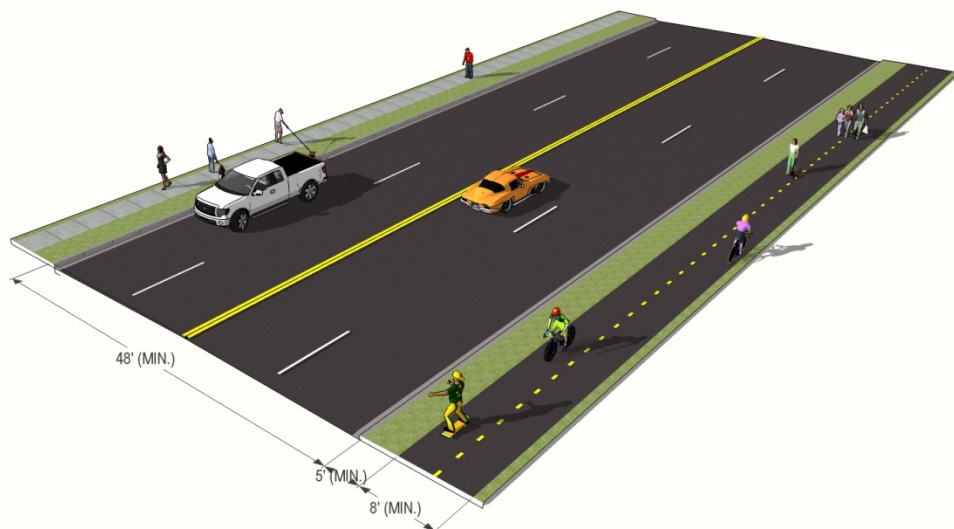
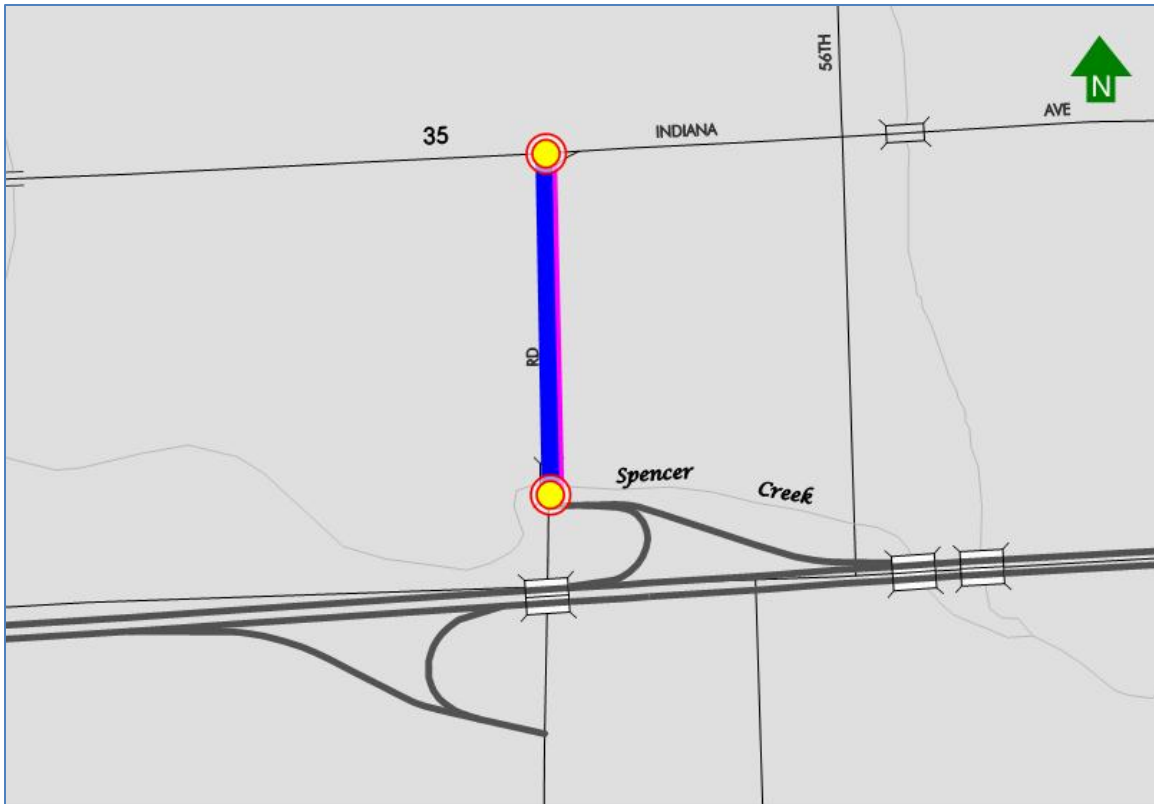
**Recommended Improvements**

Until the roadway is improved, as suggested in the 2012 Transportation Plan, we recommend posting signage as "Share the Road" along this segment. In addition to the signage, we also recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following:

- Option 1: Separated trail on the east side of this segment away from the power poles and contiguous with the trail found in segment B.
- Option 2: Separated trail on the west side.

**MIDDLE ROAD: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.41	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	24'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'-8"/LT, 3'-8"/RT	
13	Shoulder Surface Type (Ft.)	PAVED	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	85	
22	Proximity of Roadway to Buildings (Ft.)	175'/LT, NONE/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	RC, C, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	1	1
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	0
	Number of Power poles	13	2
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	INDIANA AVENUE	
Recommendations			
	Recommended Facility	SPEARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2165	\$ 216,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$ 1,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	55	\$ 4,125
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 221,625
Construction Contingency 15%					\$ 33,245
Engineering Design 10%					\$ 22,165
Total Segment Cost					\$ 277,035

**MIDDLE ROAD: SEGMENT F**

**Segment Length = 1.00 Miles**

**Existing Conditions**

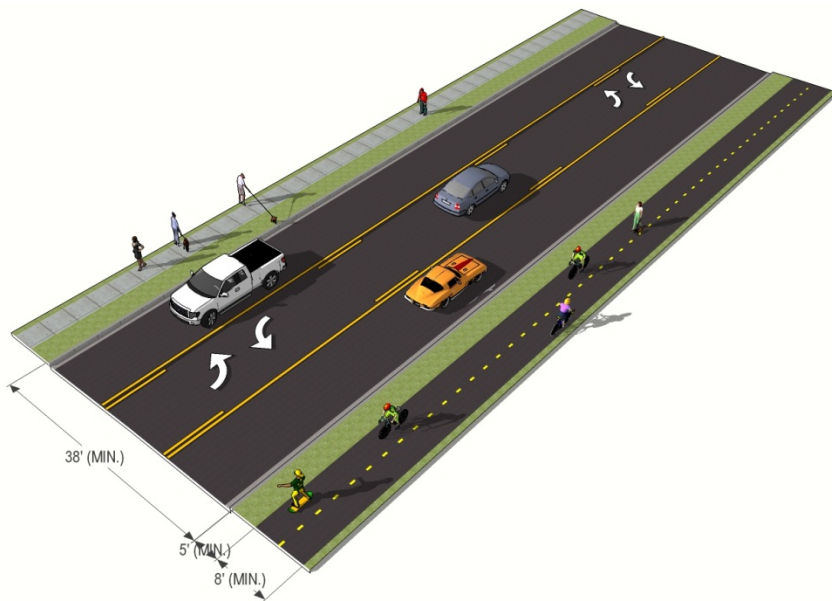
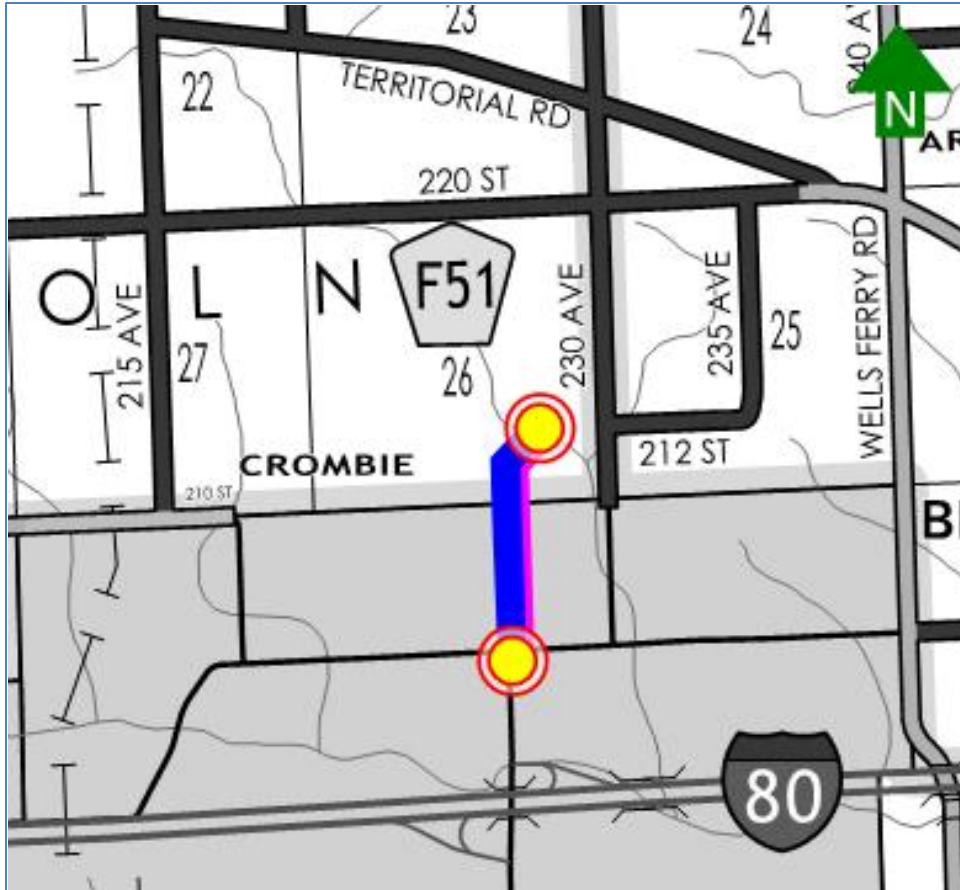
This future segment of Middle Road is located in an undeveloped field.



**Recommended Improvements**

When the roadway is constructed as projected in the "I-80 North Transportation Development Strategy", a 3-lane/5-lane roadway will be utilized on this segment. A separated trail is recommended to continue along the east side to stay contiguous with the recommended trail in segments A-E. A separated trail on the west side could also serve as another option, however, the recommended trail side in segment A-E should be adjusted accordingly.

**MIDDLE ROAD: SEGMENT F**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	F	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1	
7	Number of Traffic Lanes	0	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/S	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	0	0
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	0	0
	Landscaping in or near ROW	0	0
Evaluation			
	Segment Benefits	UNDEVELOPED / NEW CONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	INDIANA AVENUE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	5280	\$ 528,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 530,400
Construction Contingency 15%					\$ 79,560
Engineering Design 10%					\$ 53,040
Total Segment Cost					\$ 663,000

**MIDDLE ROAD: SEGMENT G**

**Segment Length = 1.00 Miles**

**Existing Conditions**

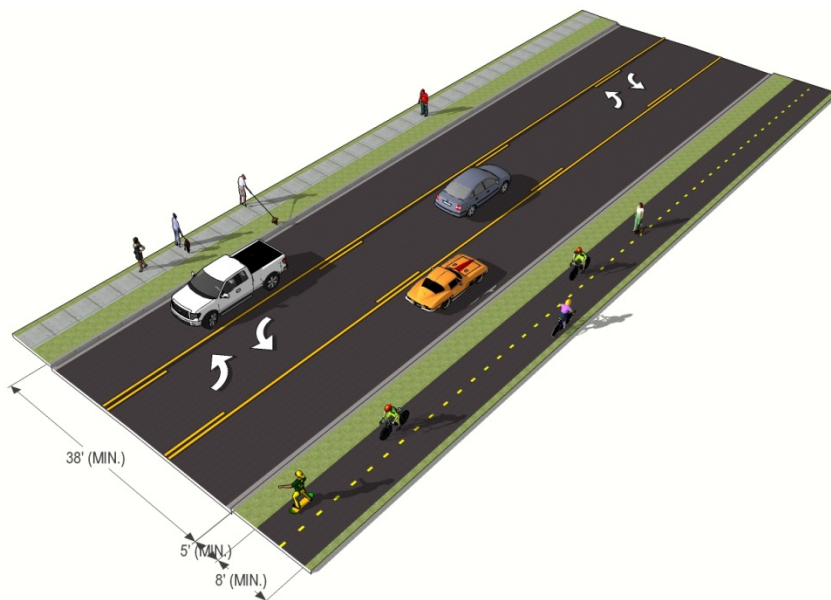
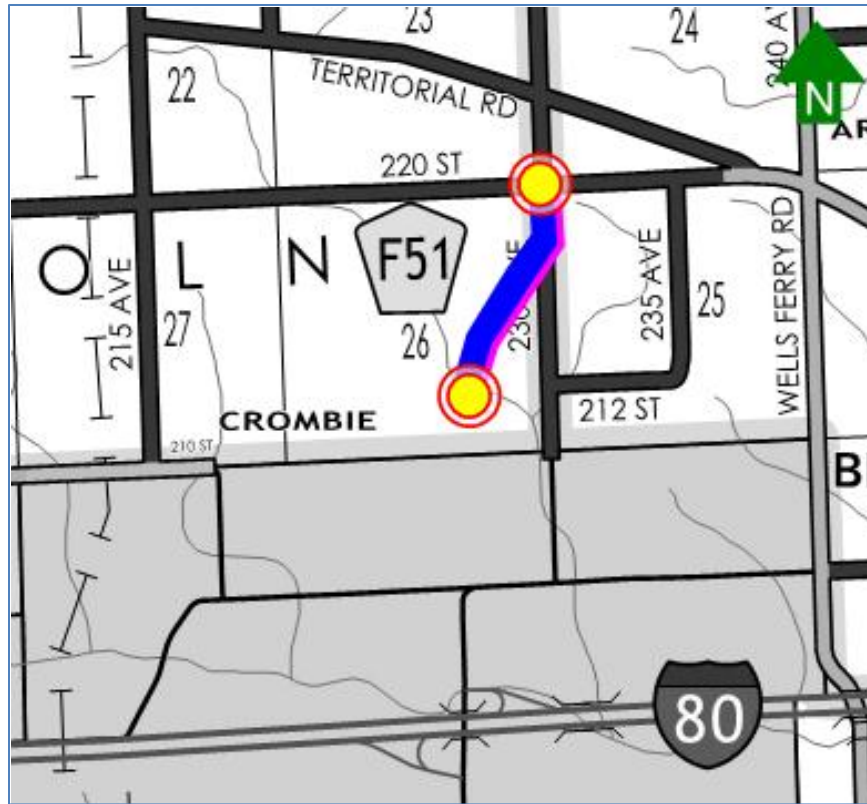
This future segment of Middle Road is located in an undeveloped field.



**Recommended Improvements**

When the roadway is constructed as projected in the "I-80 North Transportation Development Strategy", a 3-lane/5-lane roadway will be utilized on this segment. A separated trail is recommended to continue along the east side to stay contiguous with the recommended trail in segments A-E. A separated trail on the west side could also serve as another option, however, the recommended trail side in segment A-E should be adjusted accordingly.

**MIDDLE ROAD: SEGMENT G**



INVENTORY DATA

Existing			
1	Roadway Name	MIDDLE ROAD	
2	Segment	G	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1.0	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	220TH STREET	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	5280	\$ 528,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,400.00	1	\$ 2,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 530,400
Construction Contingency 15%					\$ 79,560
Engineering Design 10%					\$ 53,040
Total Segment Cost					\$ 663,000

## **SPRUCE HILLS DRIVE**

### **SUMMARY**

Spruce Hills Drive is a minor arterial that runs east – west connecting the west city limits (at Kimberly Road) to Middle Road. This corridor is divided into four (4) segments. Segment A is approximately 0.49 miles in length and runs through the Interstate 74 interchange area from Kimberly Road (Davenport) to Utica Ridge Road. Segment B is approximately 0.55 miles from Utica Ridge Road to Greenbrier Drive; segment C is approximately 0.34 miles from Greenbrier Drive to 18<sup>th</sup> Street; and segment D is approximately 0.35 miles from 18<sup>th</sup> Street to Middle Road.

**SPRUCE HILLS DRIVE: SEGMENT A**

**Segment Length = 0.49 Miles**

**Existing Conditions**

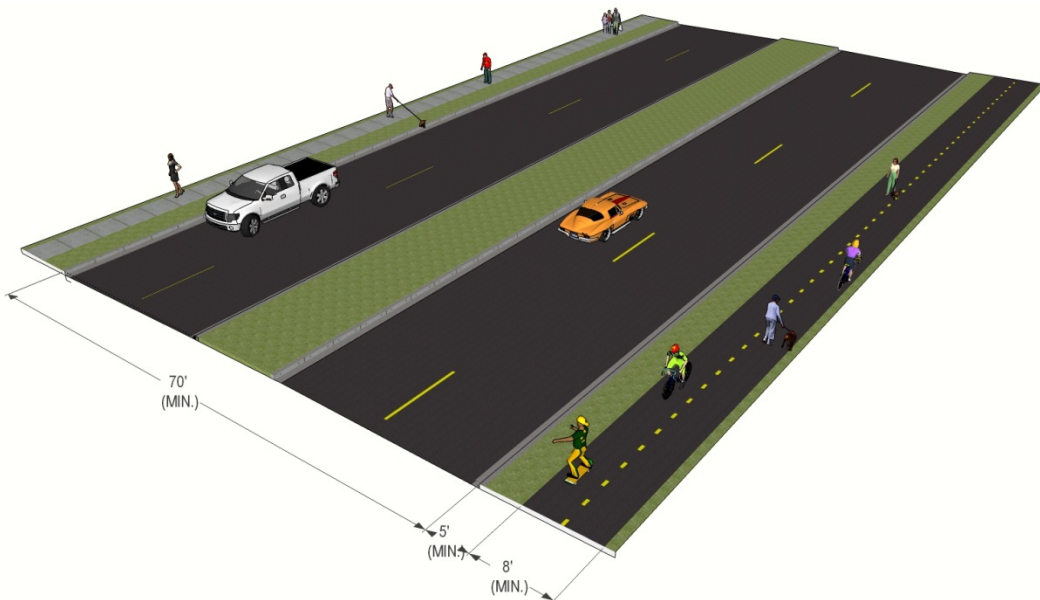
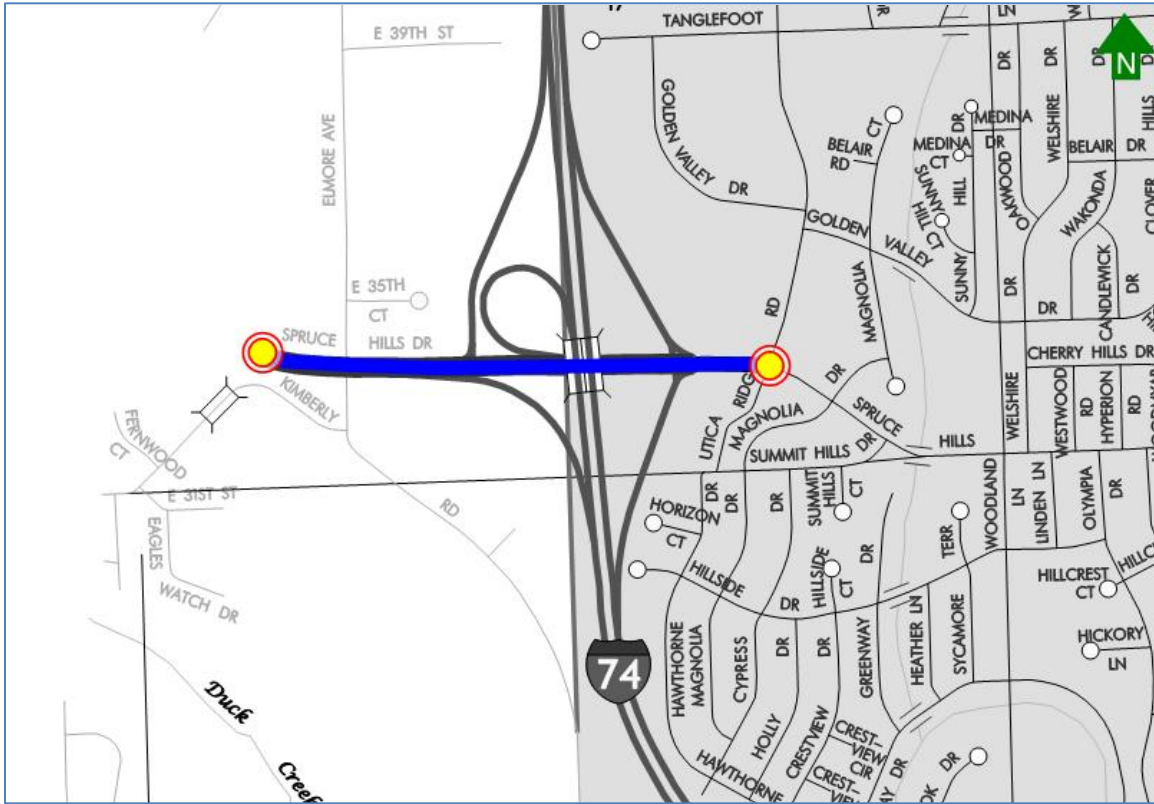
Spruce Hills Drive in this segment is 6-lanes wide with an earthen median and serves the Interstate 74 interchange ramps. The existing right-of-way is 200 feet wide. There are no sidewalks present along this segment. The posted speed limit is 40 mph and serves approximately 27,000 vehicles per day. This commercial area is fully built out and this segment is heavily traveled as a major thoroughfare.



**Recommended Improvements**

Due to limited right-of-way availability and retaining wall/terrain limitations, a separated trail currently cannot be accommodated. The high capacity of traffic flow makes the number of lanes a necessity and due to the said limitations, widening for bike lanes is not a possibility at this time. Due to traffic volumes and many turn lane movements, this segment is not recommended for a bicycle facility in its current state. Discussions with the Iowa Department of Transportation concerning extending the span are recommended. Once this is accomplished a separate trail on the north side is recommended.

**SPRUCE HILLS DRIVE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	SPRUCE HILLS DRIVE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.49	
7	Number of Traffic Lanes	6	
8	Total Pavement Width (Ft.)	85'	
9	Surface Type	PCC	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	8'/LT, 11'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	40	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	200'	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	26800	
24	Land Use Types	C, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	0	0
	Number of Rail Crossings	0	0
	Number of Intersections	4	4
	Number of Fire Hydrants	0	0
	Number of Power poles	7	7
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	INTERCHANGE	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	KIMBERLY ROAD / UTICA RIGDE ROAD/DAVENPORT	
Recommendations			
	Recommended Facility	NOT RECOMMENDED	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS			\$ -
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
			Construction Subtotal		\$ -
			Construction Contingency 15%		\$ -
			Engineering Design 10%		\$ -
			Total Segment Cost		\$ -

**SPRUCE HILLS DRIVE: SEGMENT B**

**Segment Length = 0.55 Miles**

**Existing Conditions**

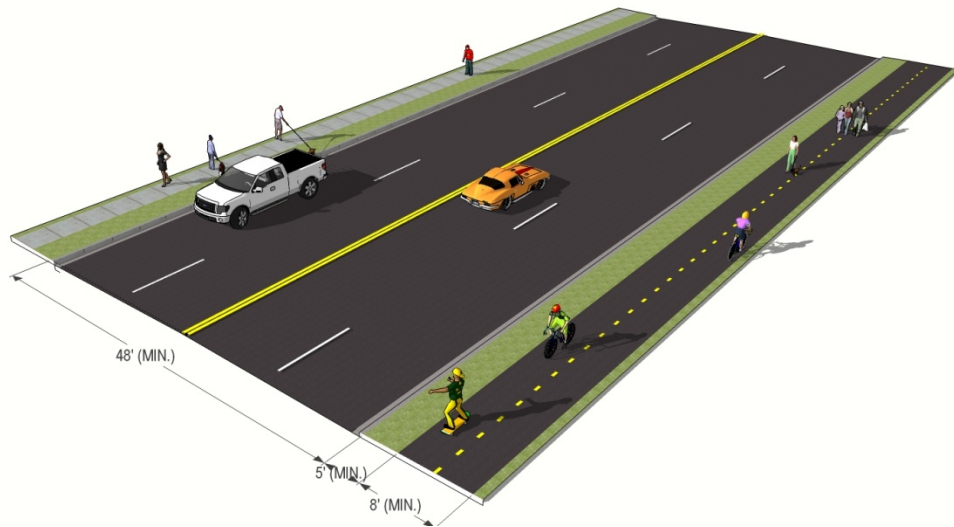
Spruce Hills Drive is a 4-lane, undivided highway in this segment. It is classified as a minor arterial that is 48-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 100 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 12, 200 vehicles per day.



**Recommended Improvements**

The construction of a separated trail is recommended on the south side of this segment. Although it appears there are no major obstacles, the number of driveways needs to be considered.

**SPRUCE HILLS DRIVE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	SPRUCE HILLS DRIVE	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.55	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 50'/RT	
23	Traffic Volume	12200	
24	Land Use Types	I, C, OT, TR	
25	Physical Barriers	Left	Right
	Number of Drives	22	11
	Number of Rail Crossings	0	0
	Number of Intersections	6	7
	Number of Fire Hydrants	3	1
	Number of Power poles	10	13
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	ADEQUATE RIGHT-OF-WAY	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2900	\$ 290,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,400.00	1	\$ 1,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	590	\$ 44,250
6	Storm Sewer Modifications	LS			\$ -
				Construction Subtotal	\$ 335,650
				Construction Contingency 15%	\$ 50,350
				Engineering Design 10%	\$ 33,565
				<b>Total Segment Cost</b>	<b>\$ 419,565</b>

**SPRUCE HILLS DRIVE: SEGMENT C**

**Segment Length = 0.34 Miles**

**Existing Conditions**

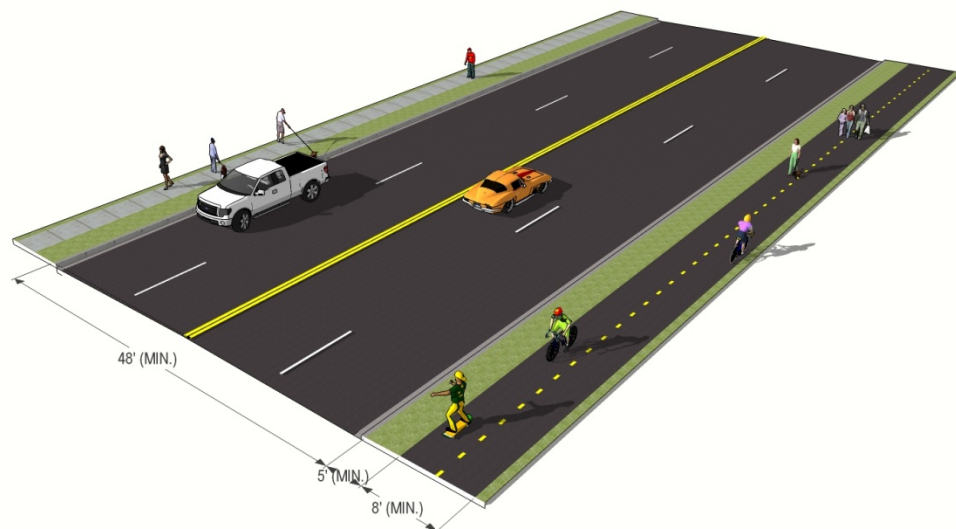
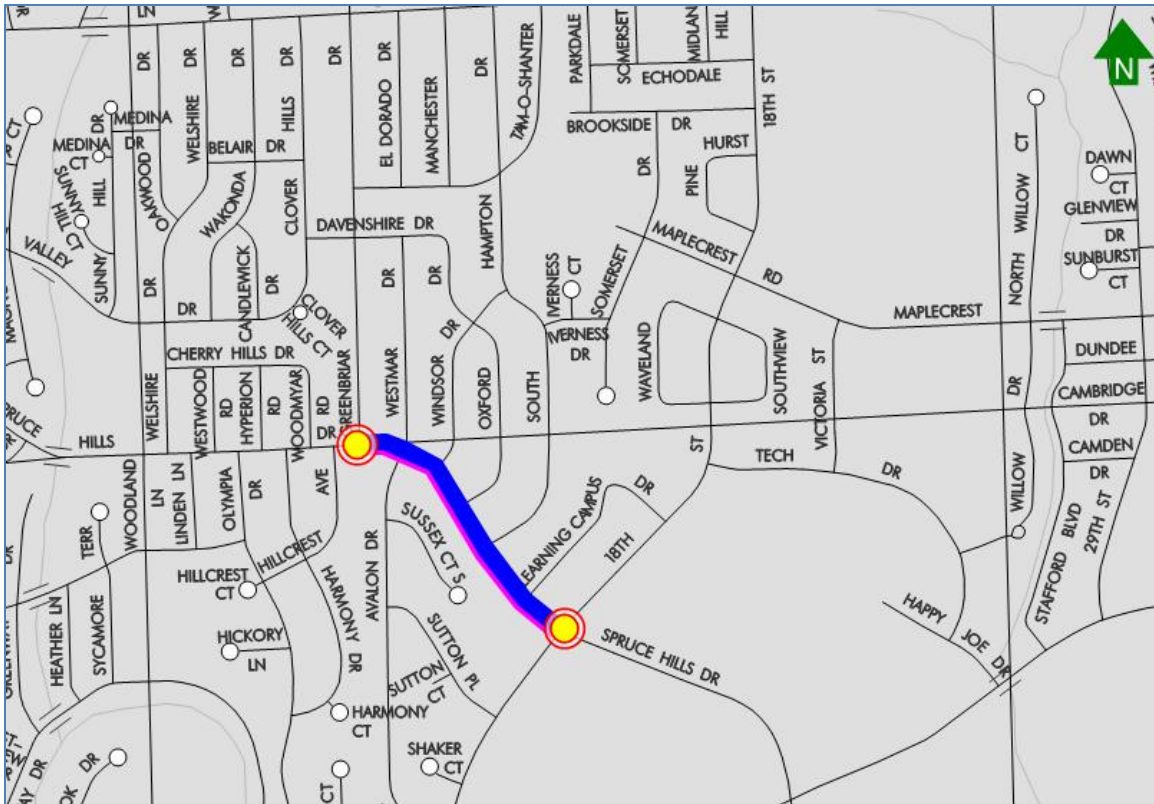
Spruce Hills Drive is a 4-lane, undivided highway in this segment. It is classified as a minor arterial that is 48-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 100 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 12, 200 vehicles per day.



**Recommended Improvements**

The construction of a separated trail is recommended on the south side of this segment. Although it appears there are no major obstacles, the number of driveways needs to be considered.

**SPRUCE HILLS DRIVE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	SPRUCE HILLS DRIVE	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.34	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 30'/RT	
23	Traffic Volume	12100	
24	Land Use Types	TR, I, C, OT	
25	Physical Barriers	Left	Right
	Number of Drives	4	15
	Number of Rail Crossings	0	0
	Number of Intersections	5	1
	Number of Fire Hydrants	3	1
	Number of Power poles	4	6
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	BUSINESS	
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	18TH STREET	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1800	\$ 180,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$900.00	1	\$ 900
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	800	\$ 60,000
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 240,900
Construction Contingency 15%					\$ 36,135
Engineering Design 10%					\$ 24,090
Total Segment Cost					\$ 301,125

**SPRUCE HILLS DRIVE: SEGMENT D**

**Segment Length = 0.35 Miles**

**Existing Conditions**

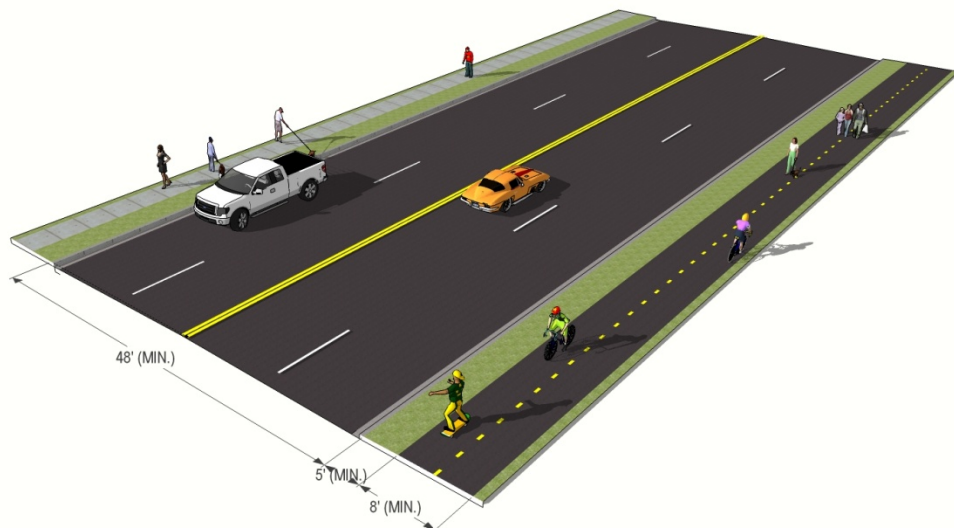
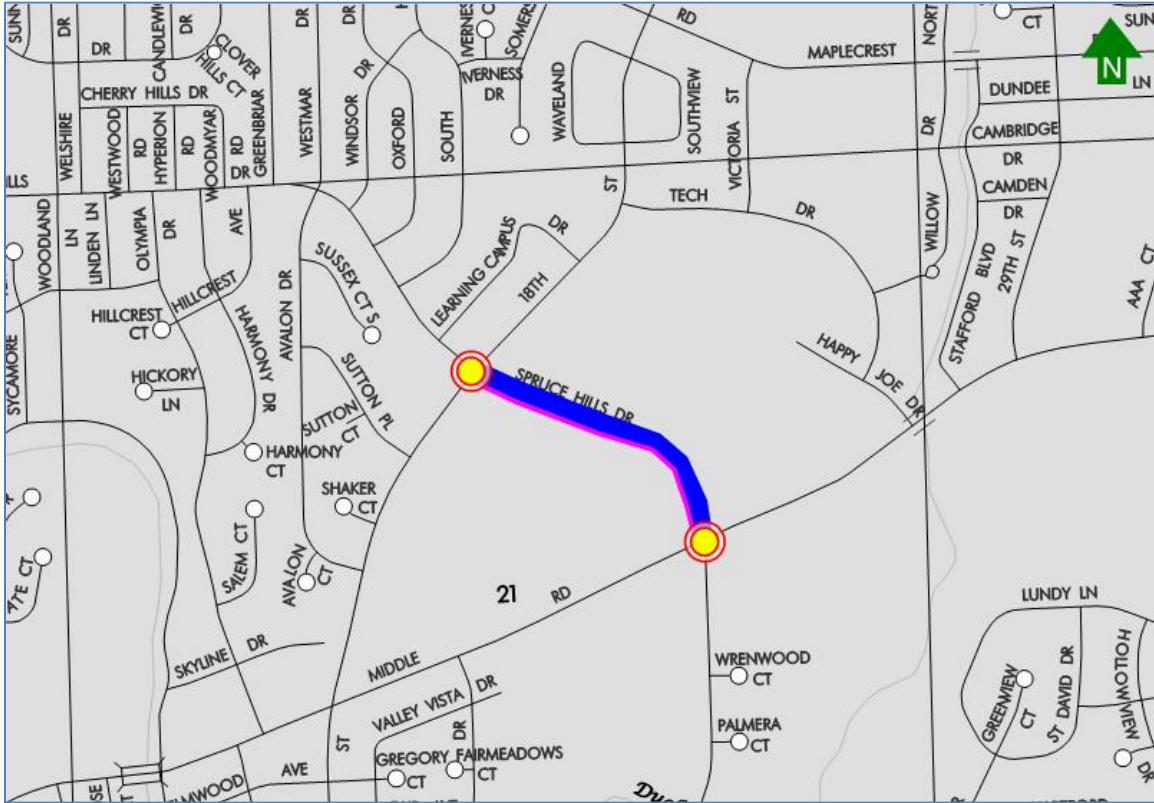
Spruce Hills Drive is a 4-lane, undivided highway in this segment. It is classified as a minor arterial that is 48-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 100 feet, containing sidewalks on both sides of the street. The posted speed limit is 30 mph and serves approximately 12, 200 vehicles per day.



**Recommended Improvements**

The construction of a separated trail is recommended on the south side of this segment. Although it appears there are no major obstacles, the number of driveways needs to be considered.

**SPRUCE HILLS DRIVE: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	SPRUCE HILLS DRIVE	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.35	
7	Number of Traffic Lanes	4	
8	Total Pavement Width (Ft.)	48'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	4'/LT, 4'-5'-6'/RT	
16	Posted Speed Limit (MPH)	30	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, 30'/RT	
23	Traffic Volume	12100	
24	Land Use Types	C, OT, I	
25	Physical Barriers	Left	Right
	Number of Drives	6	5
	Number of Rail Crossings	0	0
	Number of Intersections	1	0
	Number of Fire Hydrants	4	0
	Number of Power poles	13	3
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	GOOD	
	Residential Density (Hi-Med-Lo)	MED	
	Convenient Connections	BETTENDORF MIDDLE SCHOOL	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1850	\$ 185,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$900.00	1	\$ 900
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	270	\$ 20,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 206,150
Construction Contingency 15%					\$ 30,940
Engineering Design 10%					\$ 20,615
Total Segment Cost					\$ 257,705

## **TANGLEFOOT LANE**

### **SUMMARY**

Tanglefoot Lane is a minor arterial that extends from Interstate 74 to Middle Road, where a projected future connection will connect Middle Road to the Great River Road. This corridor is divided into four (4) segments. Segment A extends from a dead end at the Interstate 74 corridor to Utica Ridge Road approximately 0.22 miles; while segment B, C and D are future extension segments from Middle Road to Crow Creek, to Valley Drive, and then to Great River Road.

**TANGLEFOOT LANE: SEGMENT A**

**Segment Length = 0.22 Miles**

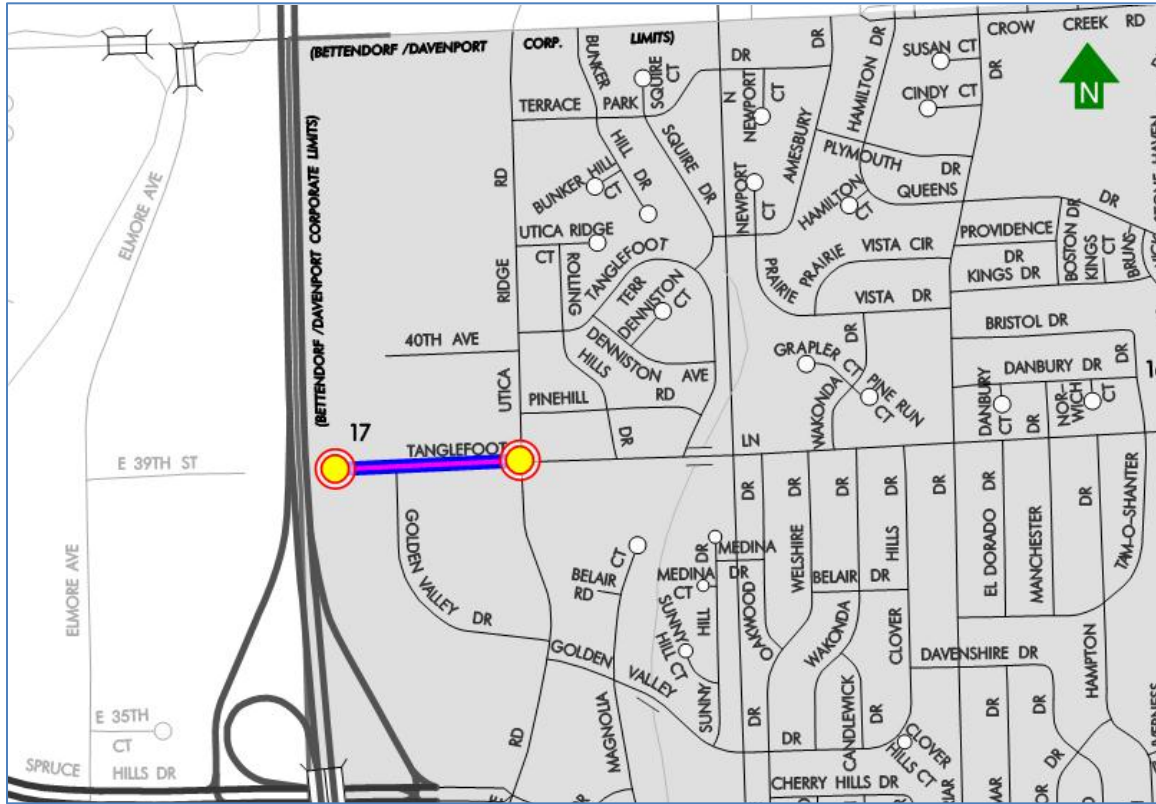
**Existing Conditions**

Tanglefoot Lane has two (2) 17-foot wide lanes in this segment. The existing right-of-way is approximately 80 feet. There are no sidewalks along this segment. The posted speed limit is 35 mph and serves approximately 2700 vehicles per day. This segment "dead-ends" at Interstate 74.



**Recommended Improvements**

We recommend defining the usage as "Share the Road" by utilizing signage and improving education of motorists for traveling near or within bicycle facilities.



INVENTORY DATA

Existing			
1	Roadway Name	TANGLEFOOT LANE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.22	
7	Number of Traffic Lanes	2,3	
8	Total Pavement Width (Ft.)	32'	
9	Surface Type	PCC	
10	Curb & Gutter	LT/RT	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	PARTIAL/RT	
15	Sidewalk Width (Ft.)	PARTIAL 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	80'	
22	Proximity of Roadway to Buildings (Ft.)	80'/LT, 80'/RT	
23	Traffic Volume	2720	
24	Land Use Types	OFC	
25	Physical Barriers	Left	Right
	Number of Drives	3	5
	Number of Rail Crossings	0	0
	Number of Intersections	0	2
	Number of Fire Hydrants	2	0
	Number of Power poles	1	13
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	UTICA RIDGE ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$ 1,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,000
Construction Contingency 15%					\$ 150
Engineering Design 10%					\$ 100
Total Segment Cost					\$ 1,250

**TANGLEFOOT LANE: SEGMENT B**

**Segment Length = 0.1 Miles**

**Existing Conditions**

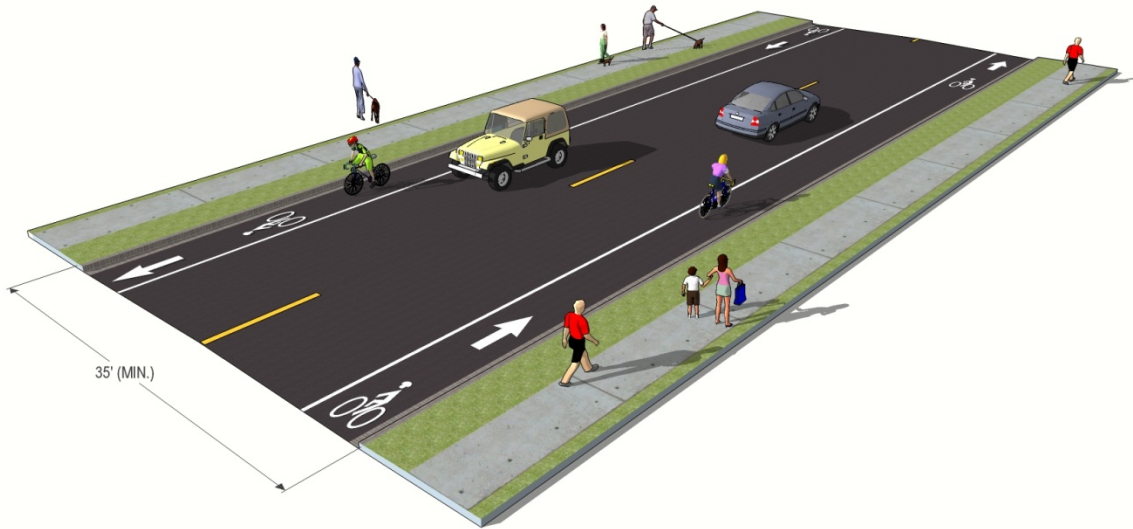
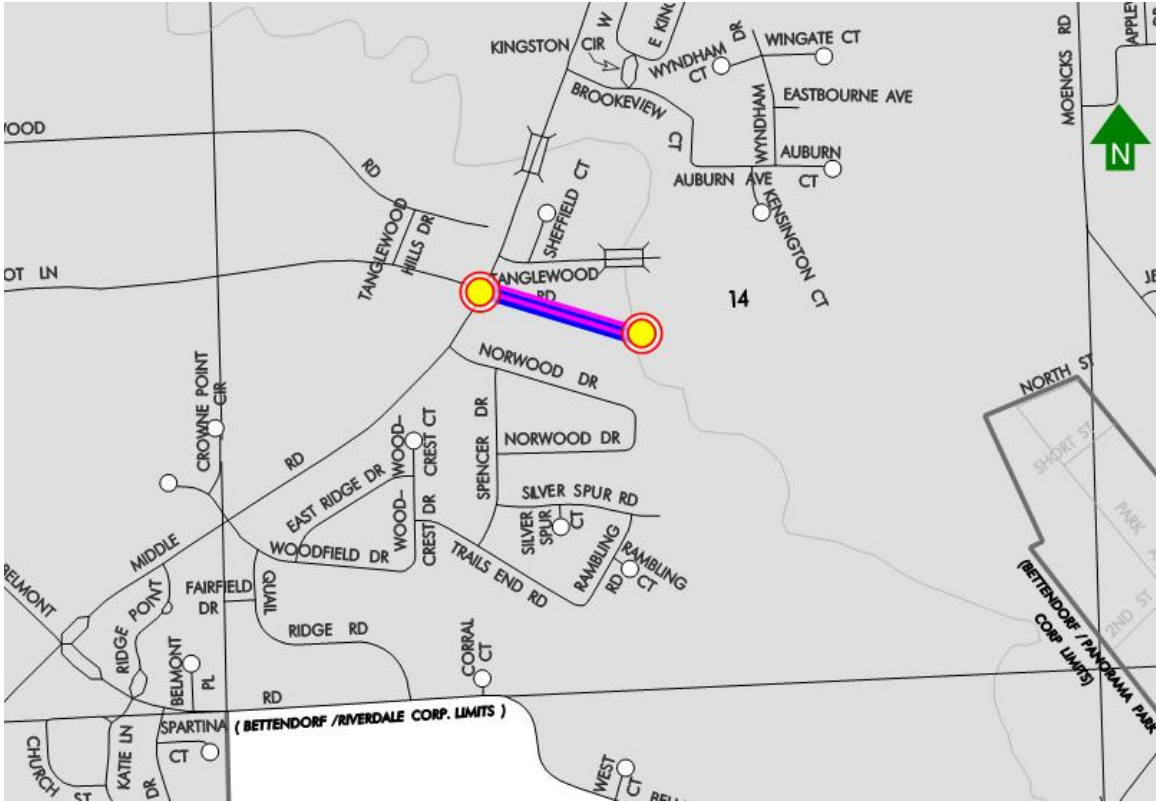
This future segment of Tanglefoot Lane is located in an undeveloped field.



**Recommended Improvements**

Being contiguous with the existing bicycle facilities on the current Tanglefoot Lane, we recommend placing a separated trail on the north side of the future extension, as well as bicycle lanes incorporated alongside the traffic lanes.

**TANGLEFOOT LANE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	TANGLEFOOT LANE	
2	Segment	B	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.1	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD / CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL / BIKE LANES	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	530	\$ 53,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage*	LS	\$1,300.00	1	\$ 1,300
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
				Construction Subtotal	\$ 54,300
				Construction Contingency 15%	\$ 8,145
				Engineering Design 10%	\$ 5,430
				Total Segment Cost	\$ 67,875

\*It was assumed that striping for bike lanes will be paid for under the construction of the roadway.

**TANGLEFOOT LANE: SEGMENT C**

**Segment Length = 0.5 Miles**

**Existing Conditions**

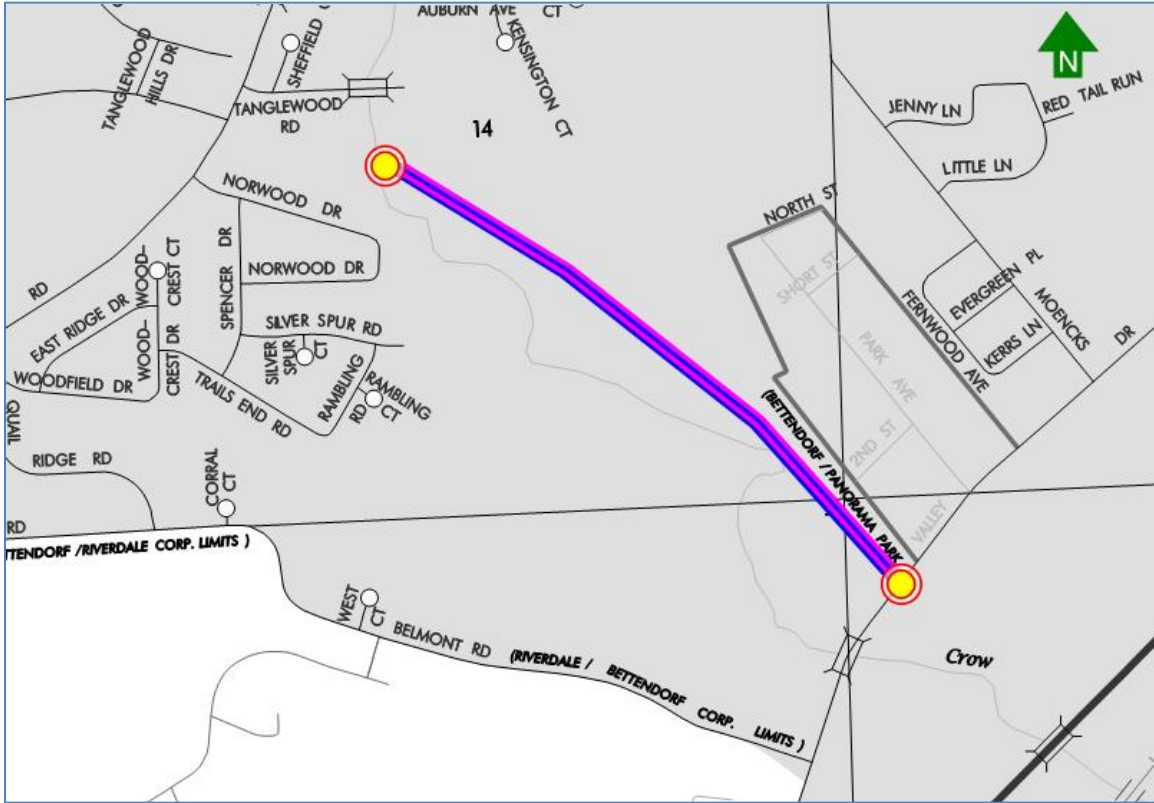
This future segment of Tanglefoot Lane is located in an undeveloped field.



**Recommended Improvements**

Being contiguous with the existing bicycle facilities on the current Tanglefoot Lane, we recommend placing a separated trail on the north side of the future extension, as well as bicycle lanes incorporated alongside the traffic lanes.

**TANGLEFOOT LANE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	TANGLEFOOT LANE	
2	Segment	C	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CROW CREEK ROAD / VALLEY DRIVE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL / BIKE LANES	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage*	LS	\$6,500.00	1	\$ 6,500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 270,500
Construction Contingency 15%					\$ 39,800
Engineering Design 10%					\$ 27,050
Total Segment Cost					\$ 337,350

\*It was assumed that striping for bike lanes will be paid for under the construction of the roadway.

**TANGLEFOOT LANE: SEGMENT D**

**Segment Length = 0.5 Miles**

**Existing Conditions**

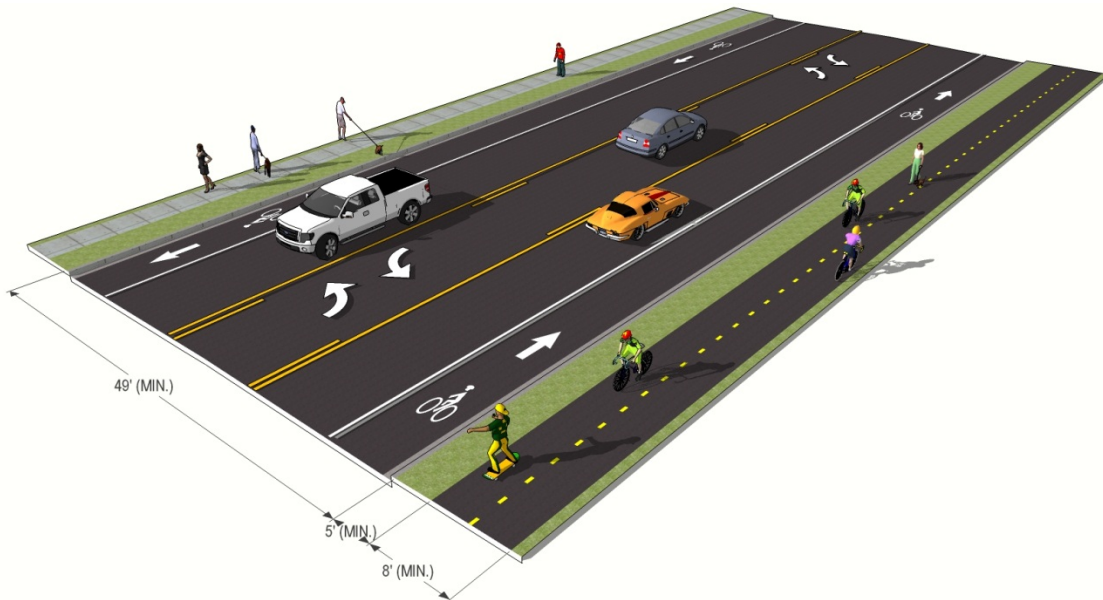
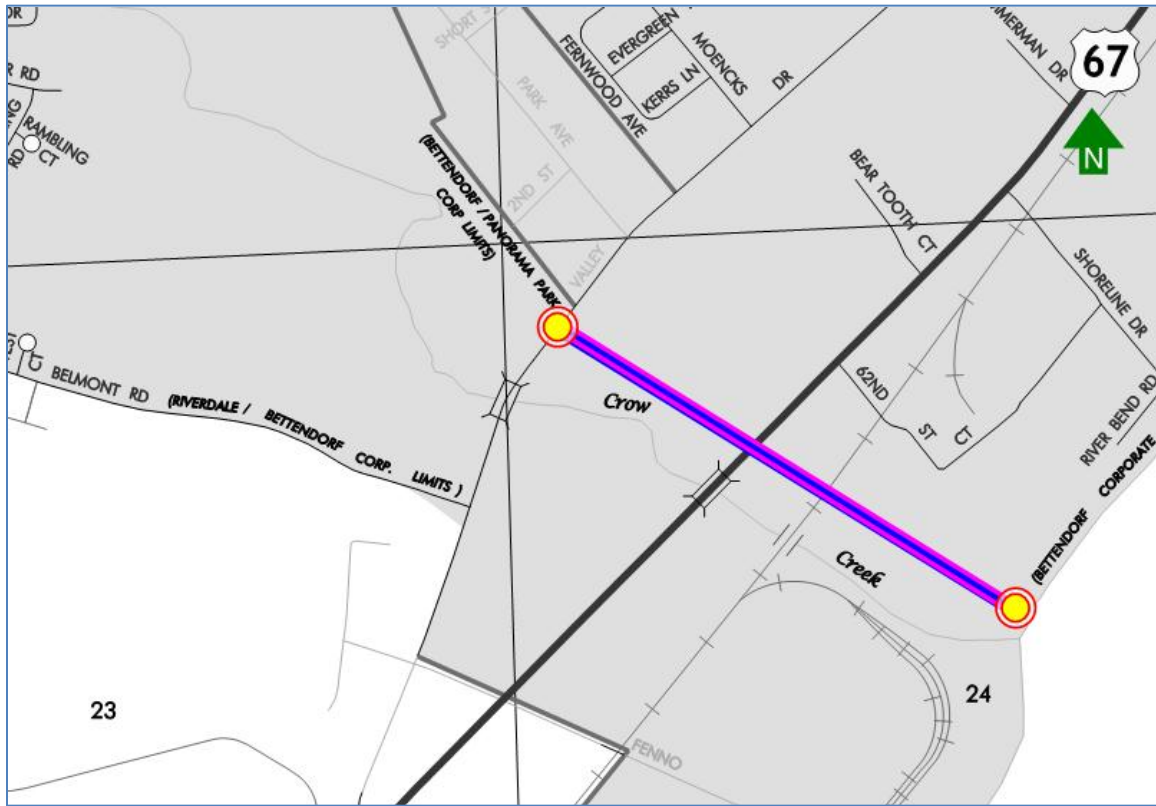
This future segment of Tanglefoot Lane is located in an undeveloped field.



**Recommended Improvements**

Being contiguous with the existing bicycle facilities on the current Tanglefoot Lane, we recommend placing a separated trail on the north side of the future extension, as well as bicycle lanes incorporated alongside the traffic lanes.

**TANGLEFOOT LANE: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	TANGLEFOOT LANE	
2	Segment	D	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	VALLEY DRIVE / GREAT RIVER ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL / BIKE LANES	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage*	LS	\$6,500.00	1	\$ 6,500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 270,500
Construction Contingency 15%					\$ 40,575
Engineering Design 10%					\$ 27,050
Total Segment Cost					\$ 338,125

\*It is assumed that the striping for the bike lanes will be paid for under the construction of the roadway.



## **UNNAMED EAST – WEST ARTERIAL**

### **SUMMARY**

This future unnamed minor arterial runs east – west from Middle Road to Wells Ferry Road approximately 1.0 miles in length. This corridor is broken into two (2) segments.

**UNNAMED EAST-WEST ARTERIAL: SEGMENT A**

**Segment Length = 0.25 Miles**

**Existing Conditions**

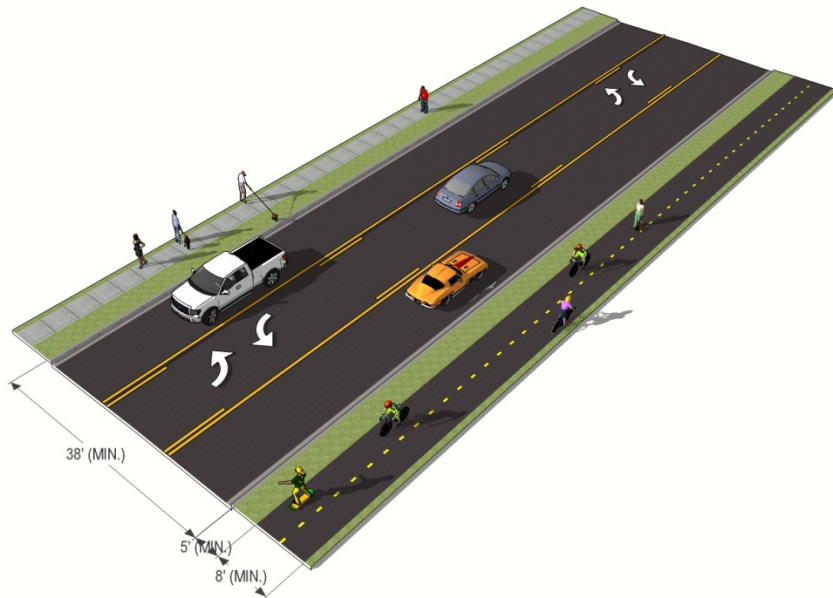
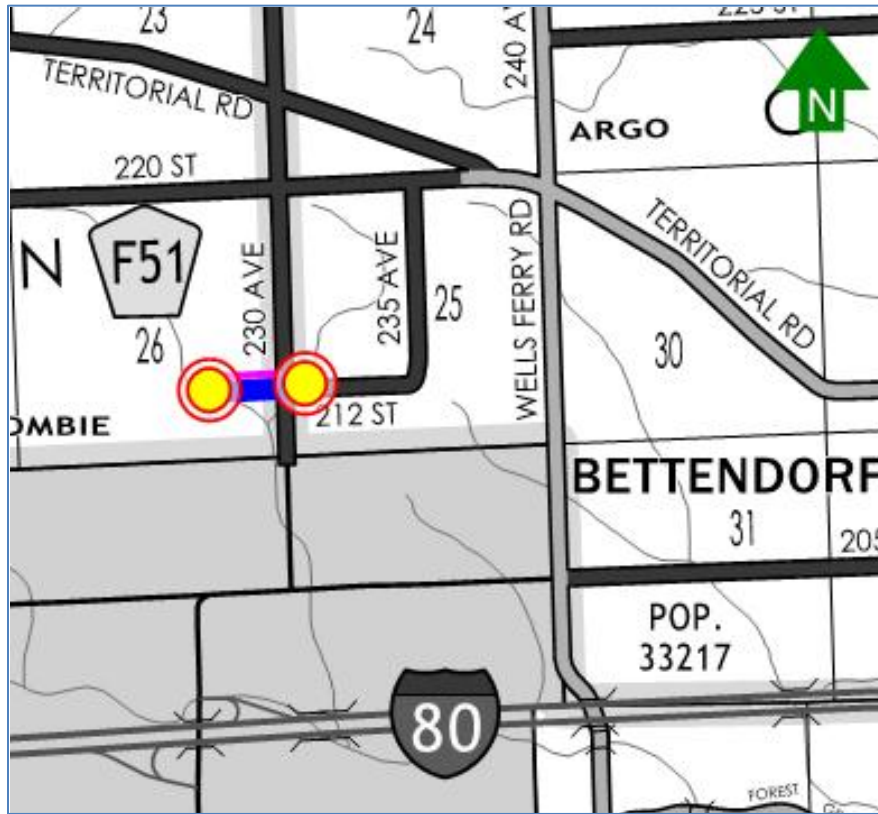
This future segment of this unnamed arterial is located in an undeveloped field.



**Recommended Improvements**

As suggested in the "Interstate 80 North Transportation Development Strategy", we recommend constructing a separated trail on the north or south side of this future 3 to 5-lane arterial from Middle Road to Wells Ferry Road.

**UNNAMED EAST-WEST ARTERIAL: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	UNNAMED EAST-WEST ARTERIAL	
2	Segment	A	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.25	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MIDDLE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1320	\$ 132,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$600.00	1	\$ 600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 132,600
Construction Contingency 15%					\$ 19,925
Engineering Design 10%					\$ 13,260
Total Segment Cost					\$ 165,785

**UNNAMED EAST-WEST ARTERIAL: SEGMENT B**

**Segment Length = 0.75 Miles**

**Existing Conditions**

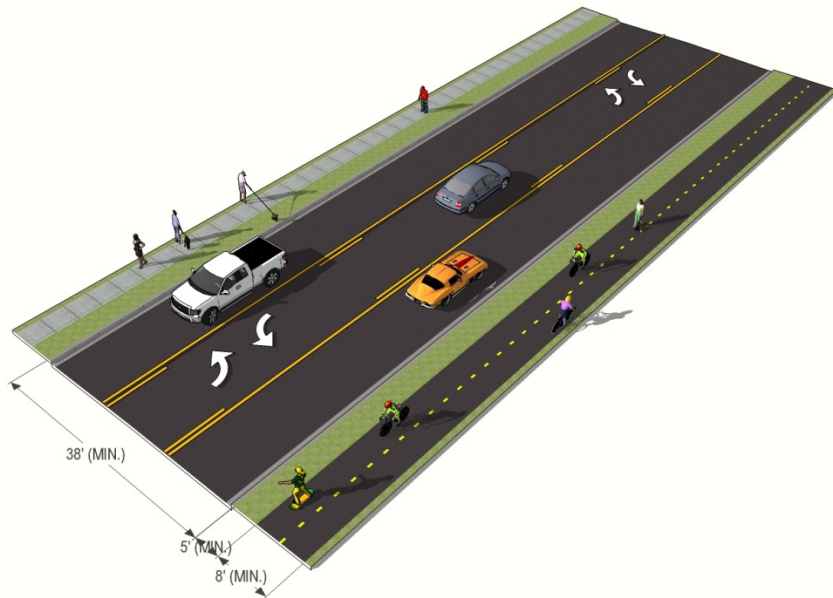
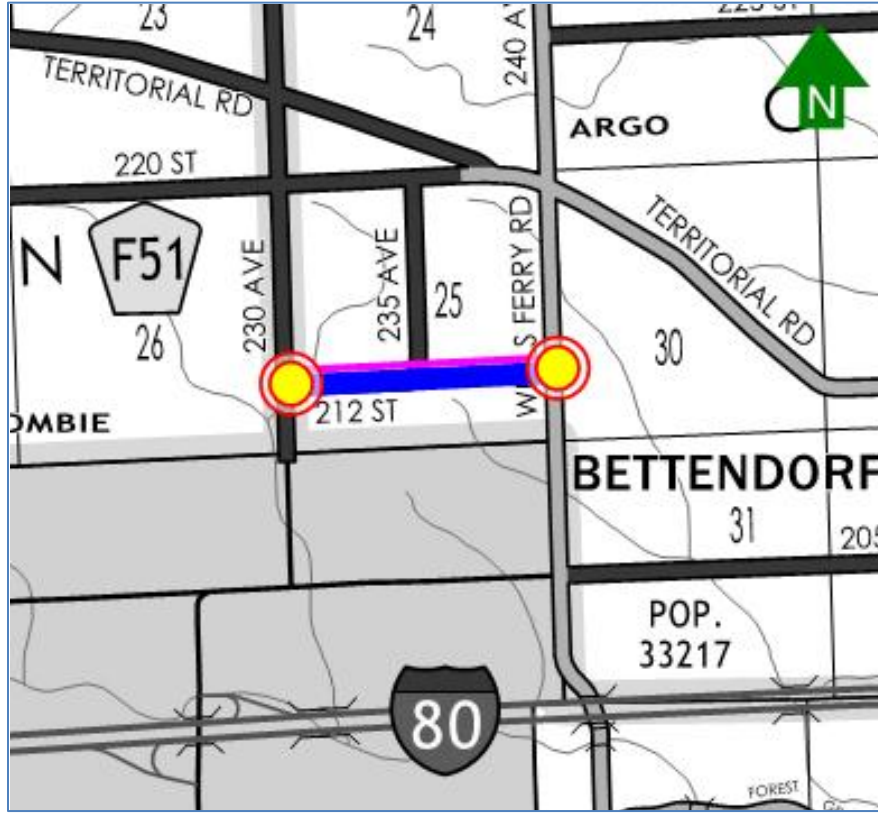
This future segment of this unnamed arterial is located in an undeveloped field.



**Recommended Improvements**

As suggested in the "Interstate 80 North Transportation Development Strategy", we recommend constructing a separated trail on the north or south side of this future 3 to 5-lane arterial from Middle Road to Wells Ferry Road.

**UNNAMED EAST-WEST ARTERIAL: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	UNNAMED EAST-WEST ARTERIAL	
2	Segment	B	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.75	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	WELLS FERRY ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3960	\$ 396,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 397,800
Construction Contingency 15%					\$ 59,670
Engineering Design 10%					\$ 39,780
Total Segment Cost					\$ 497,250

## **UNNAMED NORTH-SOUTH ARTERIAL**

### **SUMMARY**

This unnamed arterial is projected to be a minor arterial, 3-lane corridor that connects Crow Creek to Hopewell Avenue. This corridor is divided into two (2) segments that total 0.9 miles. Segment A is approximately 0.5 miles from Crow Creek Road to the future 53<sup>rd</sup> Avenue extension. Segment B is from this extension to the Hopewell Avenue extension at 0.4 miles in length.

**UNNAMED NORTH-SOUTH ARTERIAL: SEGMENT A**

**Segment Length = 0.5 Miles**

**Existing Conditions**

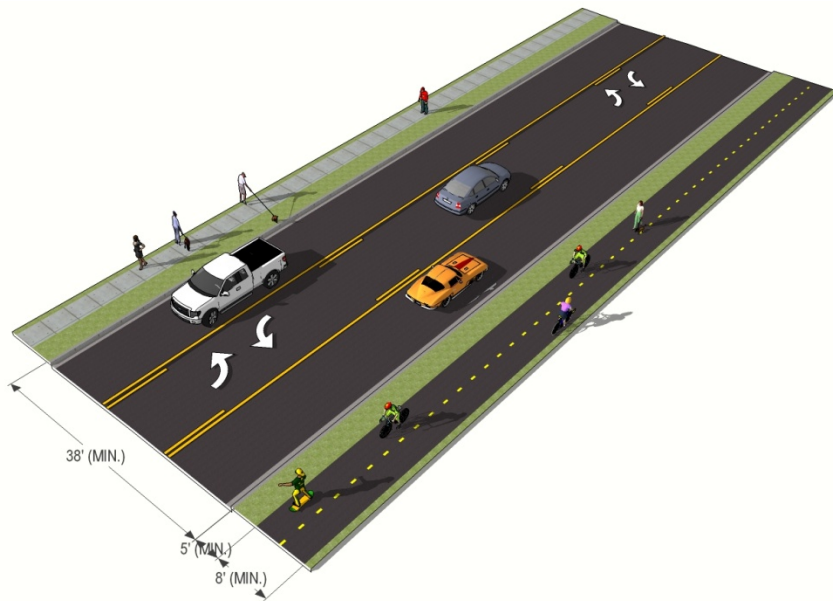
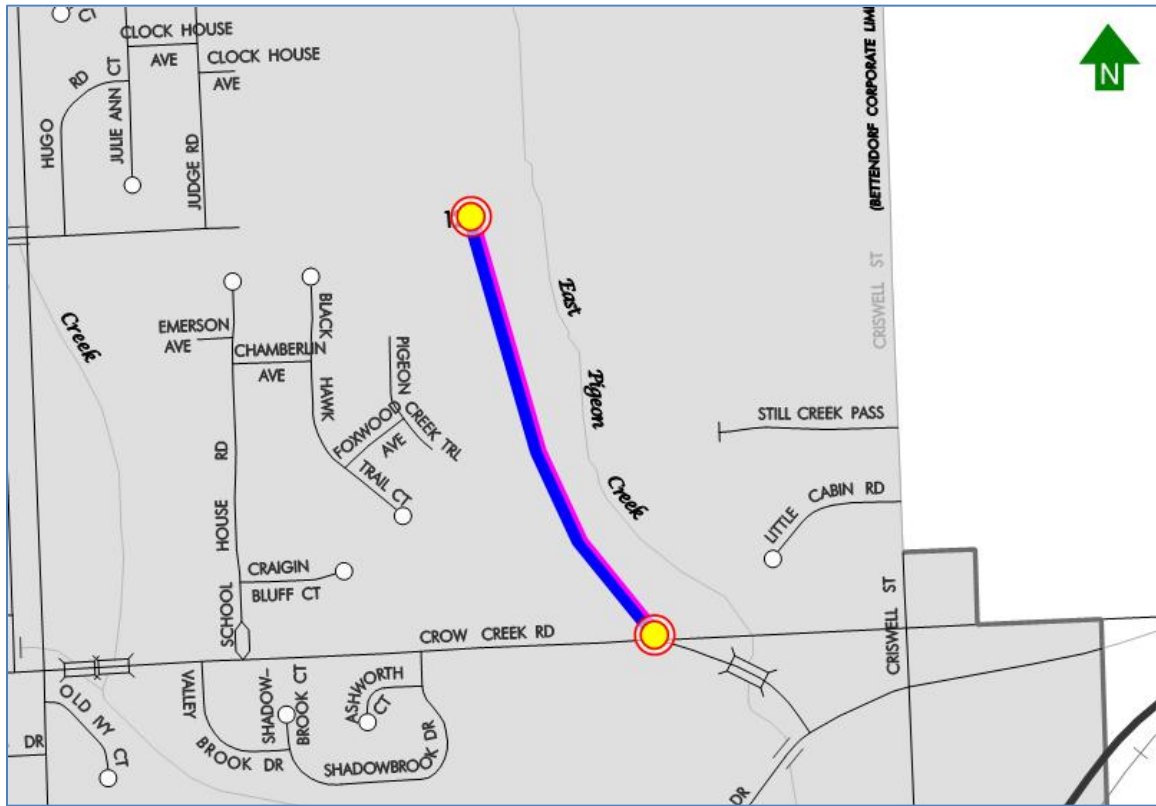
This future segment of this unnamed arterial is located in an undeveloped field.



**Recommended Improvements**

As suggested in the 2012 Transportation Plan, this unnamed arterial will be a newly constructed 3-lane roadway from Crow Creek Road to Hopewell Avenue. It will intersect the 53<sup>rd</sup> Avenue extension. We recommend a separated trail on the east side for Option 1 and the west side as Option 2. The benefits of new construction is the opportunity to develop either side with infrastructure, thus the options are interchangeable.

**UNNAMED NORTH-SOUTH ARTERIAL: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	UNNAMED NORTH-SOUTH ARTERIAL	
2	Segment	A	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	NEW CONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$ 1,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 265,200
Construction Contingency 15%					\$ 39,800
Engineering Design 10%					\$ 26,520
Total Segment Cost					\$ 331,520

**UNNAMED NORTH-SOUTH ARTERIAL: SEGMENT B**

**Segment Length = 0.4 Miles**

**Existing Conditions**

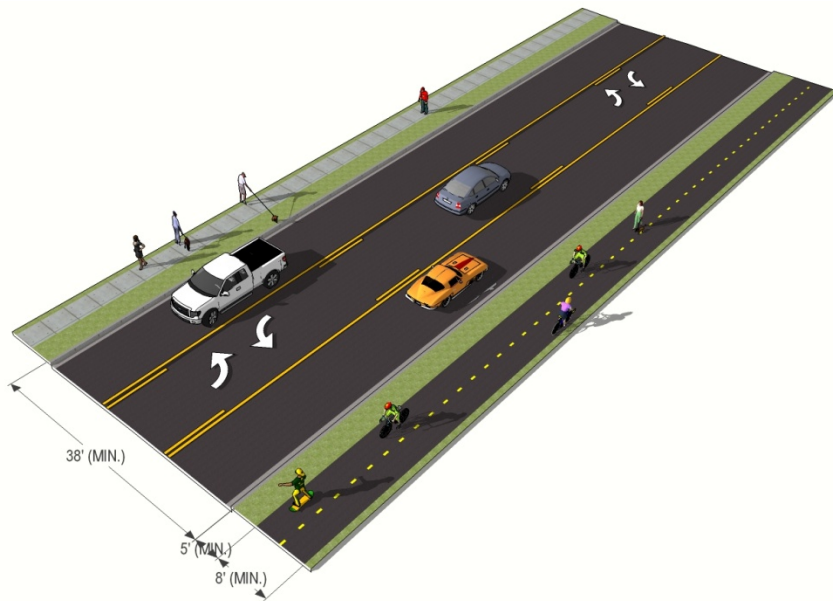
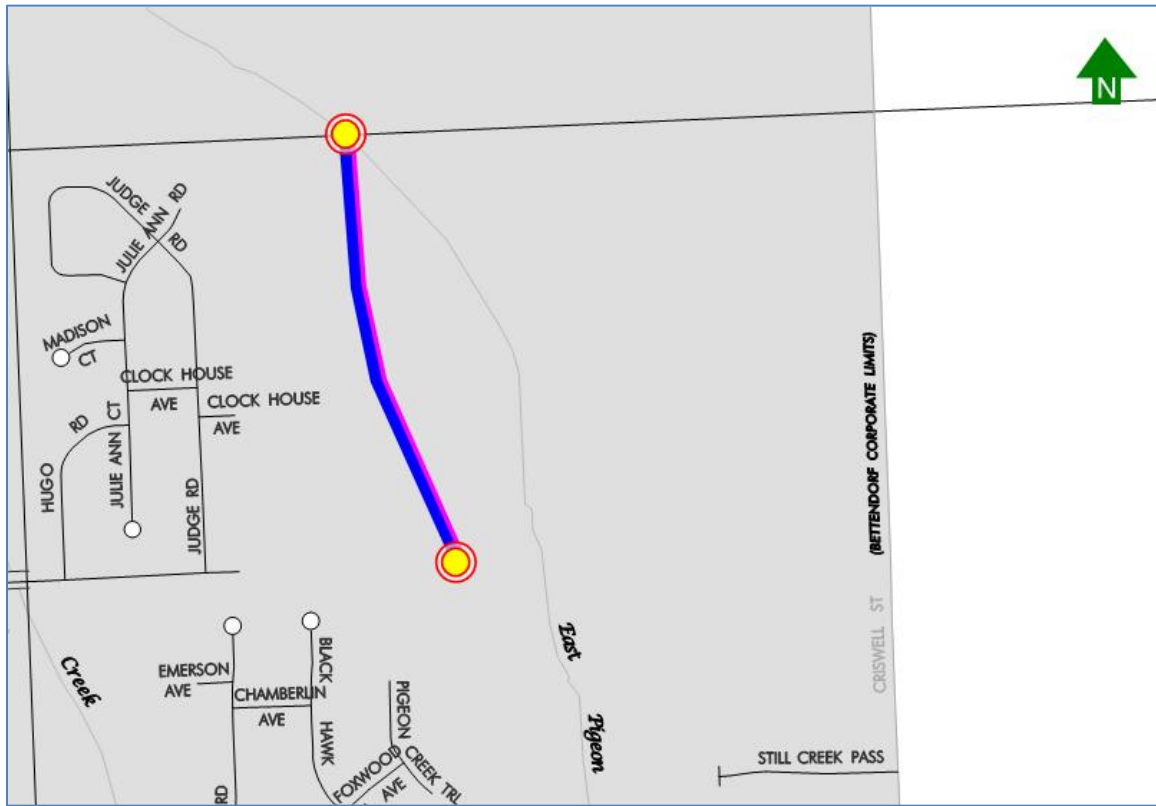
This future segment of this unnamed arterial is located in an undeveloped field.



**Recommended Improvements**

As suggested in the 2012 Transportation Plan, this unnamed arterial will be a newly constructed 3-lane roadway from Crow Creek Road to Hopewell Avenue. It will intersect the 53<sup>rd</sup> Avenue extension. We recommend a separated trail on the east side for Option 1 and the west side as Option 2. The benefits of new construction is the opportunity to develop either side with infrastructure, thus the options are interchangeable.

**UNNAMED NORTH-SOUTH ARTERIAL: SEGMENT B**



DATA INVENTORY

Existing			
1	Roadway Name	UNNAMED NORTH-SOUTH ARTERIAL	
2	Segment	B	
3	Existing Trail	N/A	
4	Existing Bike Lanes	N/A	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.4	
7	Number of Traffic Lanes	N/A	
8	Total Pavement Width (Ft.)	N/A	
9	Surface Type	N/A	
10	Curb & Gutter	N/A	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	N/A	
15	Sidewalk Width (Ft.)	N/A	
16	Posted Speed Limit (MPH)	N/A	
17	Storm Sewer	N/A	
18	Ditch	N/A	
19	Bus Stop	N/A	
20	Roadway Classification	N/A	
21	R.O.W. Width (Ft.)	N/A	
22	Proximity of Roadway to Buildings (Ft.)	N/A	
23	Traffic Volume	N/A	
24	Land Use Types	N/A	
25	Physical Barriers	Left	Right
	Number of Drives	N/A	N/A
	Number of Rail Crossings	N/A	N/A
	Number of Intersections	N/A	N/A
	Number of Fire Hydrants	N/A	N/A
	Number of Power poles	N/A	N/A
	Landscaping in or near ROW	N/A	N/A
Evaluation			
	Segment Benefits	NEW CONSTRUCTION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,000.00	1	\$ 1,000
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 265,000
Construction Contingency 15%					\$ 39,800
Engineering Design 10%					\$ 26,500
Total Segment Cost					\$ 331,300

## **UTICA RIDGE ROAD**

### **SUMMARY**

Utica Ridge Road is a minor arterial that runs north – south from Spruce Hills Drive to Crow Creek Road. This corridor is just one segment of 0.5 miles that runs from Tanglefoot Lane to Crow Creek Road. The portion of Utica Ridge Road from Spruce Hills Drive to Tanglefoot Lane is in design currently and not made part of this study.

**UTICA RIDGE ROAD: SEGMENT A**

**Segment Length = 0.5 Miles**

**Existing Conditions**

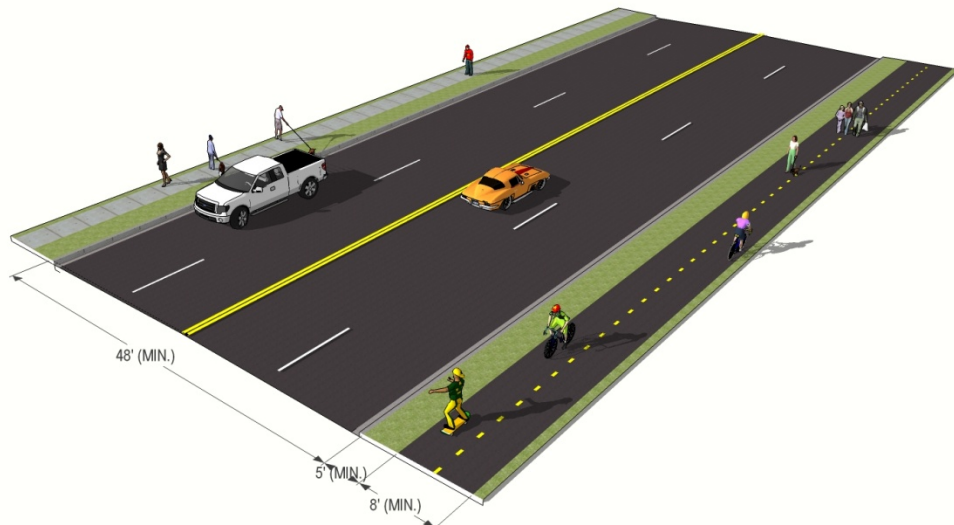
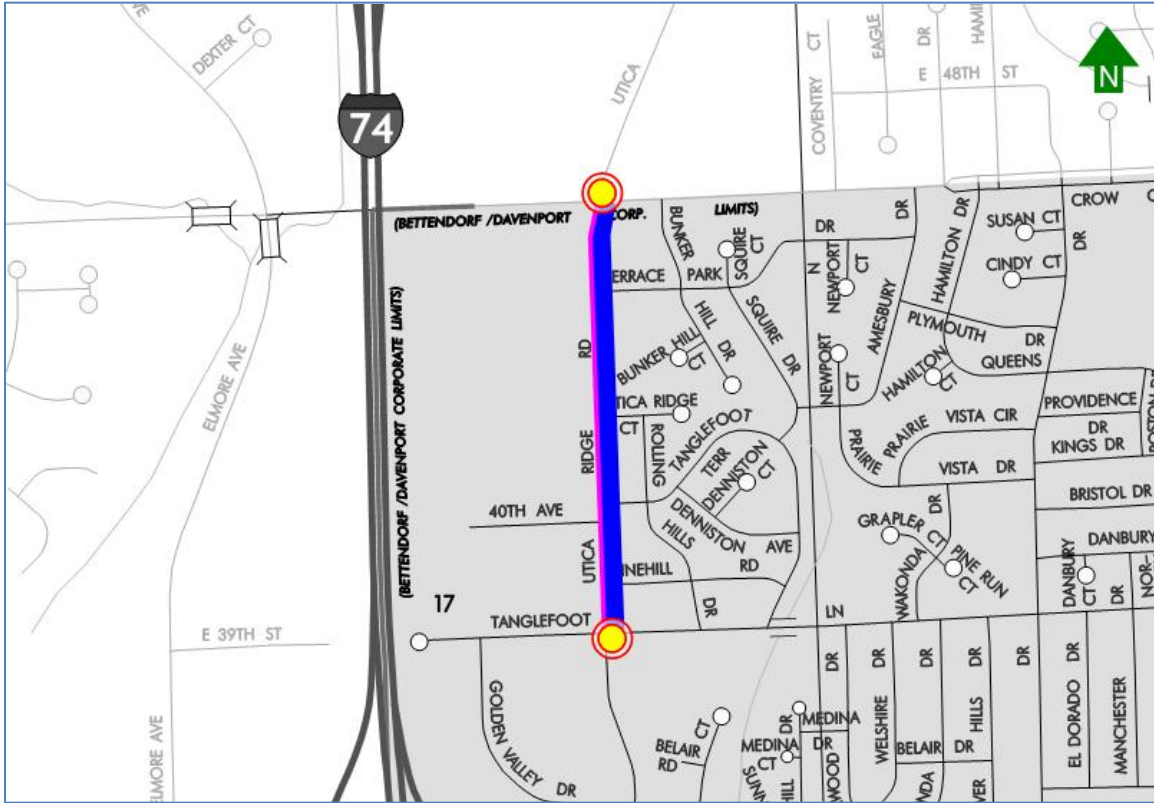
Utica Ridge Road is a 4-lane undivided highway that is 50-foot back-of-curb to back-of-curb. The existing tight-of-way is approximately 100 feet wide, containing sidewalks on both sides of the street. The posted speed limit is 35 mph and serves approximately 13,500 vehicles per day.



**Recommended Improvements**

Due to safety (traffic volume) the solution for a bicycle facility within this segment would be best utilized as a separated trail. The trail should be located on the west side of Utica Ridge Road.

**UTICA RIDGE ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	UTICA RIDGE ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.5	
7	Number of Traffic Lanes	4_5	
8	Total Pavement Width (Ft.)	50'-62'	
9	Surface Type	PCC	
10	Curb & Gutter	YES	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	N/A	
13	Shoulder Surface Type (Ft.)	N/A	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	PARTIAL 4'/LT, 4'/RT	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	LT/RT	
18	Ditch	NO	
19	Bus Stop	NO	
20	Roadway Classification	MINOR ARTERIAL	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	50'/LT, 40'/RT	
23	Traffic Volume	13500	
24	Land Use Types	C, TR, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	3	11
	Number of Rail Crossings	0	0
	Number of Intersections	1	5
	Number of Fire Hydrants	0	3
	Number of Power poles	18	3
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	HOSPITAL	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	TANGLEFOOT LANE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	2640	\$ 264,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,200.00	1	\$ 1,200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	160	\$ 12,000
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 277,200
Construction Contingency 15%					\$ 41,580
Engineering Design 10%					\$ 27,720
Total Segment Cost					\$ 346,500

## VALLEY DRIVE

### SUMMARY

Valley Drive is a collector that runs east – west, connecting Belmont Road to Criswell Street. This corridor is divided into six (6) segments, totaling approximately 2.57 miles. Segment A is approximately 0.39 miles from U.S. 67 to Belmont Road; segment B is approximately 0.15 miles from Belmont Road to Crow Creek; segment C is approximately 0.11 miles from Crow Creek to future Tanglefoot Lane; segment D is approximately 0.32 miles from future Tanglefoot Lane to Moencks Road; segment E is approximately 1.0 miles from Moencks road to Crow Creek Road; and segment F is approximately 0.6 miles from Crow Creek Road to Criswell Street.

**VALLEY DRIVE: SEGMENT A**

**Segment Length = 0.39 Miles**

**Existing Conditions**

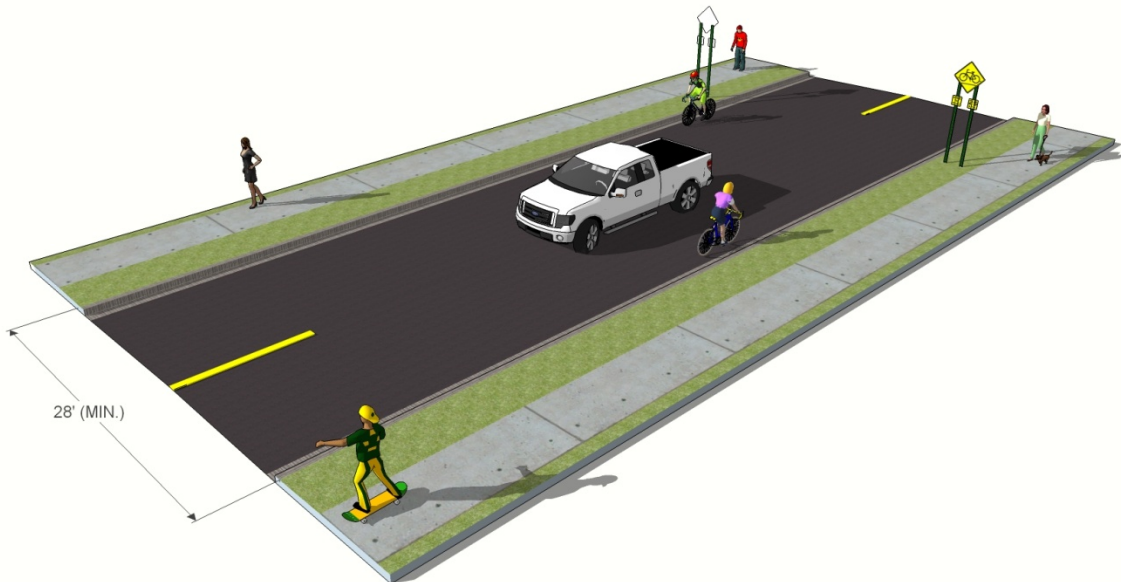
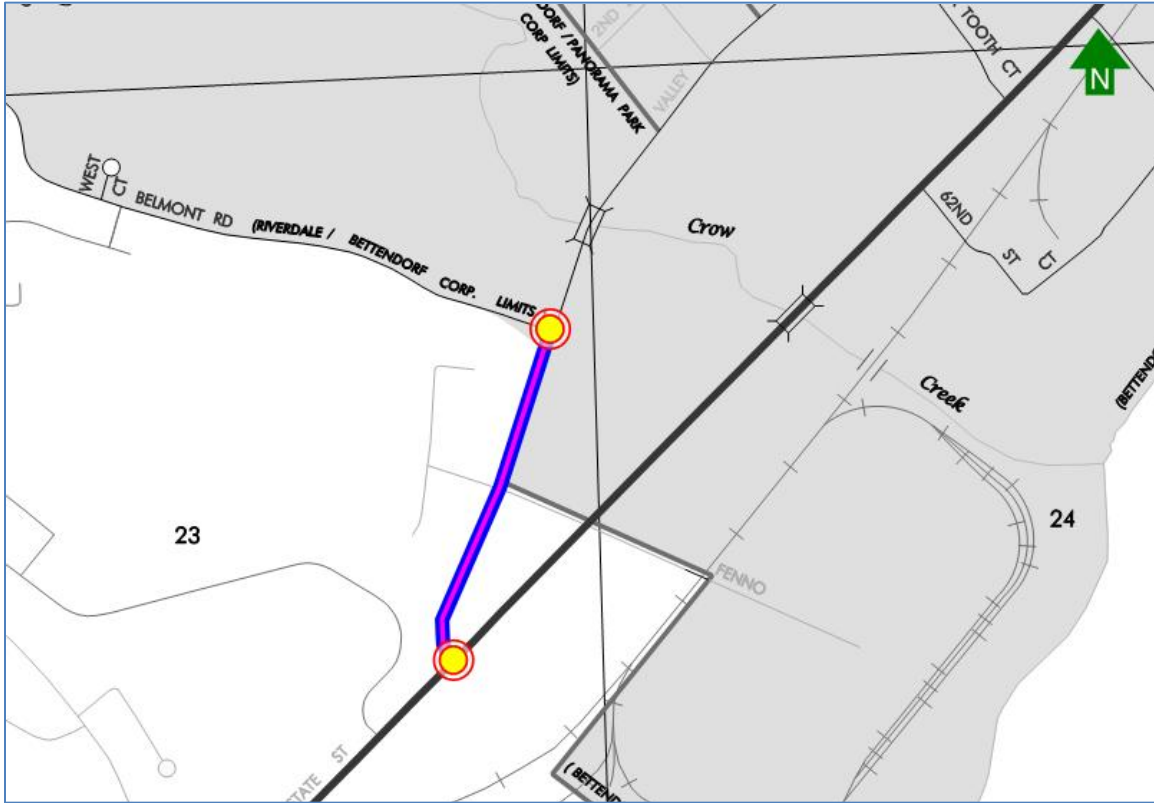
Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 2200 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.39	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	PARTIAL/LT, PARTIAL/RT	
11	Width of Curb/Flag (Ft.)	3'/LT, 3'/RT	
12	Shoulder Width (Ft.)	PARTIAL 3'/LT, PARTIAL 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	40'/LT, 35'/RT	
23	Traffic Volume	2000, 2200	
24	Land Use Types	AE, HDR, OT	
25	Physical Barriers	Left	Right
	Number of Drives	3	5
	Number of Rail Crossings	0	0
	Number of Intersections	2	1
	Number of Fire Hydrants	1	3
	Number of Power poles	17	11
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	U.S. 67 / BELMONT ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,600.00	1	\$ 1,600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,600
Construction Contingency 15%					\$ 240
Engineering Design 10%					\$ 160
Total Segment Cost					\$ 2,000

**VALLEY DRIVE: SEGMENT B**

**Segment Length = 0.15 Miles**

**Existing Conditions**

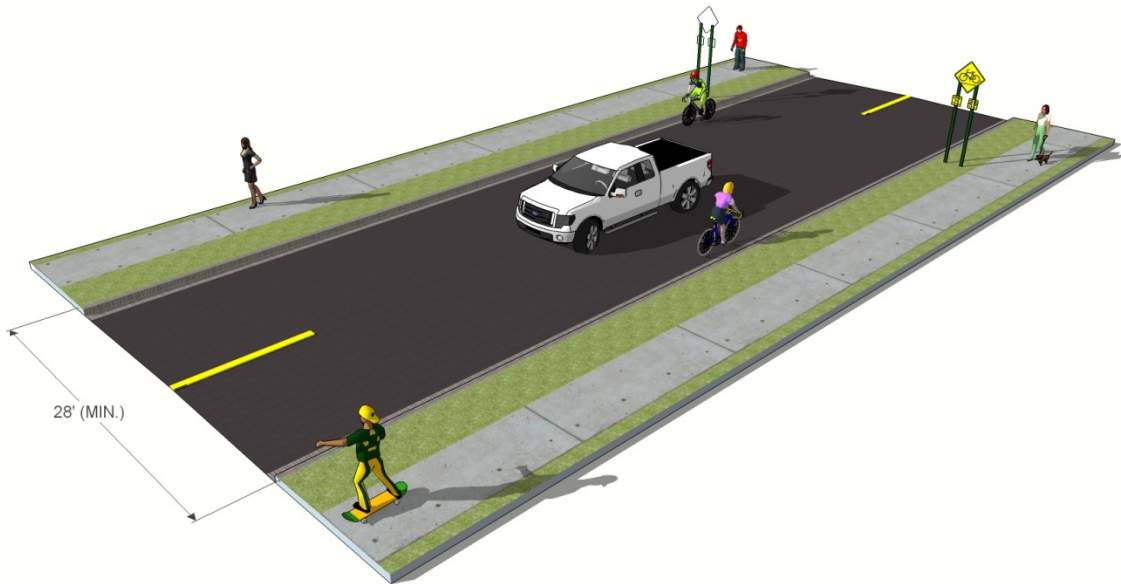
Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 1970 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.15	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'/LT, 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	NONE/LT, 30'/RT	
23	Traffic Volume	1970	
24	Land Use Types	AE, OT	
25	Physical Barriers	Left	Right
	Number of Drives	0	4
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	2
	Number of Power poles	5	4
	Landscaping in or near ROW	NO	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	BELMONT ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$600.00	1	\$ 600
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 600
Construction Contingency 15%					\$ 90
Engineering Design 10%					\$ 60
Total Segment Cost					\$ 750

**VALLEY DRIVE: SEGMENT C**

**Segment Length = 0.11 Miles**

**Existing Conditions**

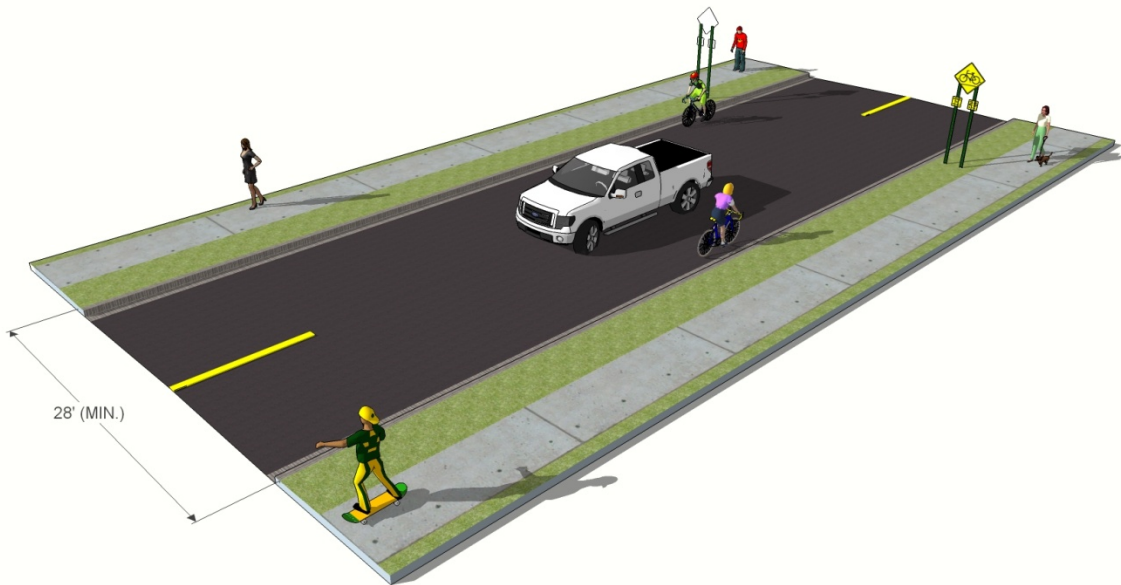
Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from back-of-curb to back-of-curb. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 1970 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.11	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	3'/LT, 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT, 80'/RT	
23	Traffic Volume	1970	
24	Land Use Types	AE, OT	
25	Physical Barriers	Left	Right
	Number of Drives	2	0
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	2	3
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CROW CREEK TRAIL	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$500.00	1	\$ 500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 500
Construction Contingency 15%					\$ 75
Engineering Design 10%					\$ 50
Total Segment Cost					\$ 625

**VALLEY DRIVE: SEGMENT D**

**Segment Length = 0.32 Miles**

**Existing Conditions**

Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from edge of pavement to edge of pavement. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 1970 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.32	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	PARTIAL/LT, PARTIAL/RT	
11	Width of Curb/Flag (Ft.)	3'	
12	Shoulder Width (Ft.)	PARTIAL 3'/LT, PARTIAL 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT, 45'/RT	
23	Traffic Volume	1970	
24	Land Use Types	AE, OT, TR	
25	Physical Barriers	Left	Right
	Number of Drives	12	2
	Number of Rail Crossings	0	0
	Number of Intersections	2	0
	Number of Fire Hydrants	1	2
	Number of Power poles	5	12
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FUTURE TANGLEFOOT / MOENCKS	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,400.00	1	\$ 1,400
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 1,400
Construction Contingency 15%					\$ 210
Engineering Design 10%					\$ 140
Total Segment Cost					\$ 1,750

**VALLEY DRIVE: SEGMENT E**

**Segment Length = 1.0 Miles**

**Existing Conditions**

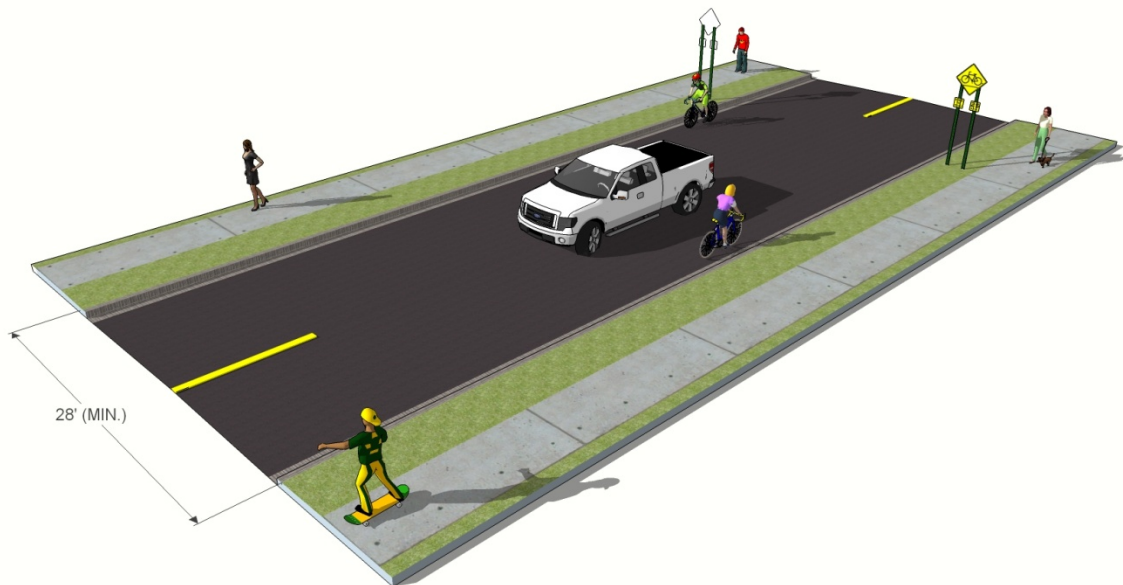
Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from edge of pavement to edge of pavement. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 2970 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT E**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	E	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	1	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	PARTIAL/LT, PARTIAL/RT	
11	Width of Curb/Flag (Ft.)	3'	
12	Shoulder Width (Ft.)	PARTIAL 3'/LT, PARTIAL 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	60'/LT, 40'/RT	
23	Traffic Volume	2970	
24	Land Use Types	RC, AE, OT, TR	
25	Physical Barriers	Left	Right
	Number of Drives	15	13
	Number of Rail Crossings	0	0
	Number of Intersections	3	0
	Number of Fire Hydrants	4	5
	Number of Power poles	7	34
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits	PAVEMENT CONDITION	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	MOENCKS / CROW CREEK ROAD	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$200.00	1	\$ 200
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 200
Construction Contingency 15%					\$ 30
Engineering Design 10%					\$ 20
Total Segment Cost					\$ 250

**VALLEY DRIVE: SEGMENT F**

**Segment Length = 0.6 Miles**

**Existing Conditions**

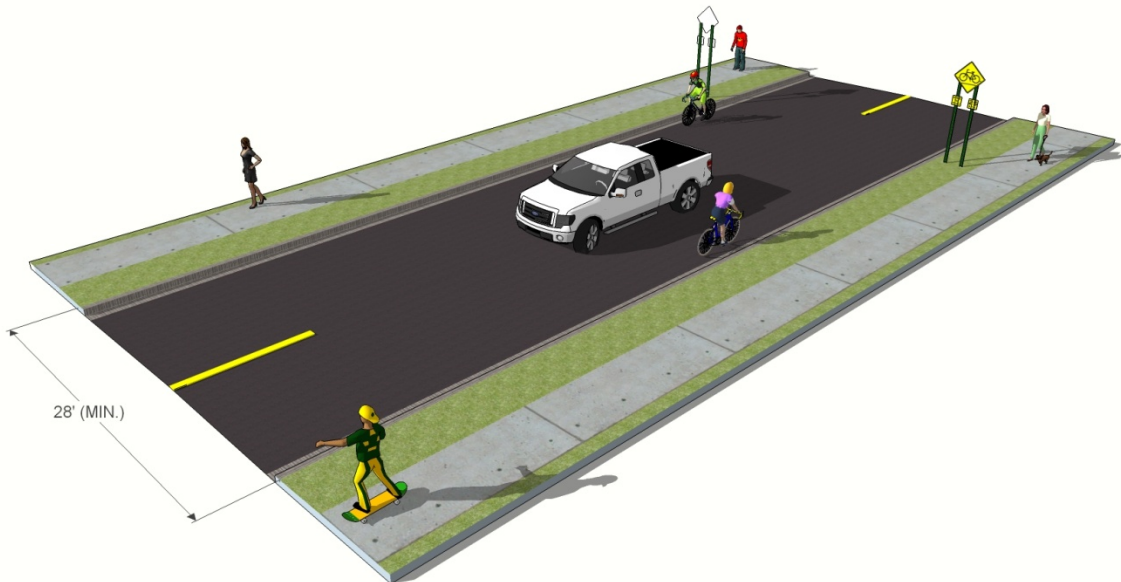
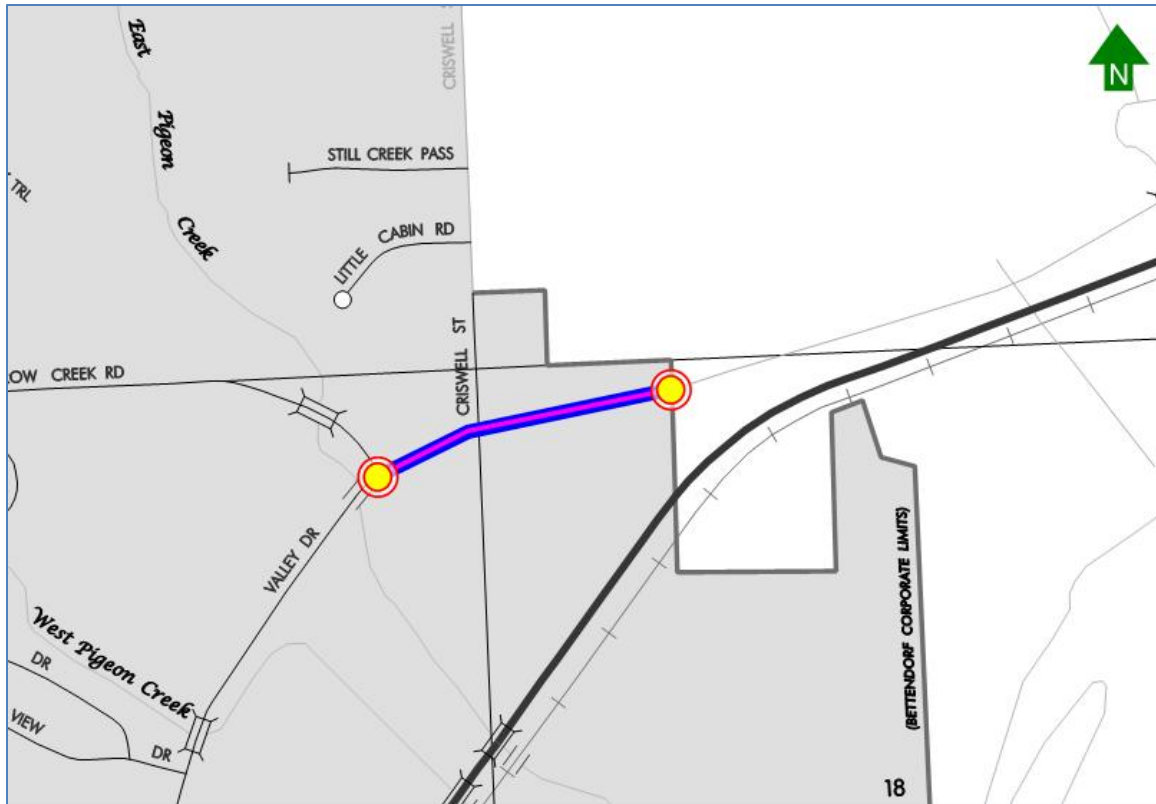
Valley Drive is a 2-lane, undivided highway in this segment. It is classified as a collector that is 30-foot wide from edge of pavement to edge of pavement. The existing right-of-way is approximately 60 feet, containing no sidewalks on either side. The posted speed limit is 35 mph and serves approximately 2970 vehicles per day.



**Recommended Improvements**

Due to limited right-of-way availability and current width of this newly constructed pavement section, we would recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

**VALLEY DRIVE: SEGMENT F**



INVENTORY DATA

Existing			
1	Roadway Name	VALLEY DRIVE	
2	Segment	F	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.6	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	30'	
9	Surface Type	PCC	
10	Curb & Gutter	PARTIAL/LT, PARTIAL/RT	
11	Width of Curb/Flag (Ft.)	3'	
12	Shoulder Width (Ft.)	PARTIAL 3'/LT, PARTIAL 3'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	35	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	60'	
22	Proximity of Roadway to Buildings (Ft.)	45'/LT, 30'/RT	
23	Traffic Volume	2970	
24	Land Use Types	AE, C	
25	Physical Barriers	Left	Right
	Number of Drives	12	11
	Number of Rail Crossings	0	0
	Number of Intersections	1	0
	Number of Fire Hydrants	5	0
	Number of Power poles	9	25
	Landscaping in or near ROW	YES	YES
Evaluation			
	Segment Benefits		
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	CRISWELL	
Recommendations			
	Recommended Facility	SHARE THE ROAD	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00		\$ -
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$2,500.00	1	\$ 2,500
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00		\$ -
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 2,500
Construction Contingency 15%					\$ 375
Engineering Design 10%					\$ 250
Total Segment Cost					\$ 3,125

## WELLS FERRY ROAD

### SUMMARY

Wells Ferry Road is a collector that runs north – south, connecting Forest Grove Road to 220<sup>th</sup> Avenue. This corridor is divided into four (4) segments, totaling approximately 2.45 miles. Segment A is approximately 0.26 miles from Forest Grove Road to Spencer Creek; segment B is approximately 0.75 miles from Spencer Creek to Indiana Avenue; segment C is approximately 0.74 miles from Indiana Avenue to a future east – west connector; segment D is approximately 0.70 miles from the future connector to 220<sup>th</sup> Avenue.

**WELLS FERRY ROAD: SEGMENT A**

**Segment Length = 0.26 Miles**

**Existing Conditions**

Wells Ferry Road is a 2-lane, chip and seal roadway with gravel shoulders. It is classified as a collector that is 20-foot wide with a 110-foot wide right-of-way. The posted speed limit is 45 mph and serves approximately 620 vehicles per day. This segment is mildly developed residentially on the east side, while the west side remains undeveloped. There is a bridge crossing located over Spencer Creek at the north end of this segment.



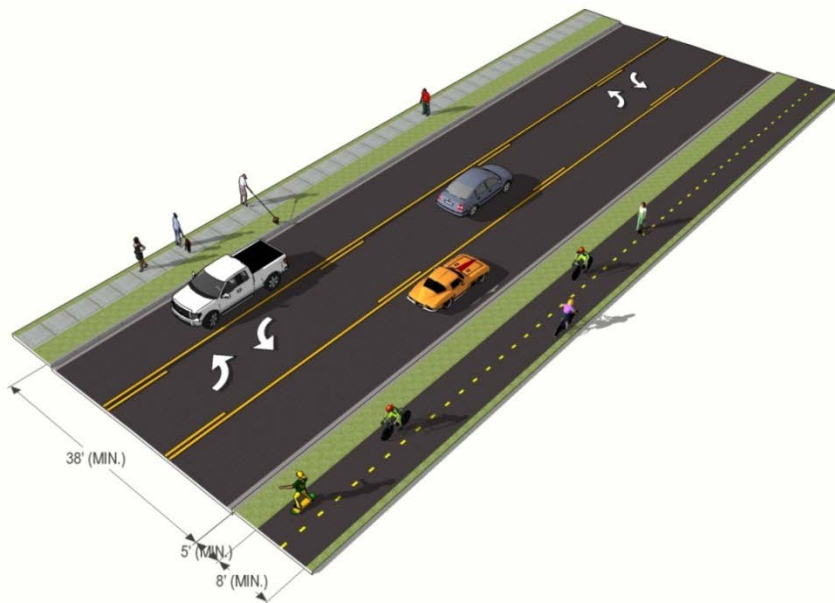
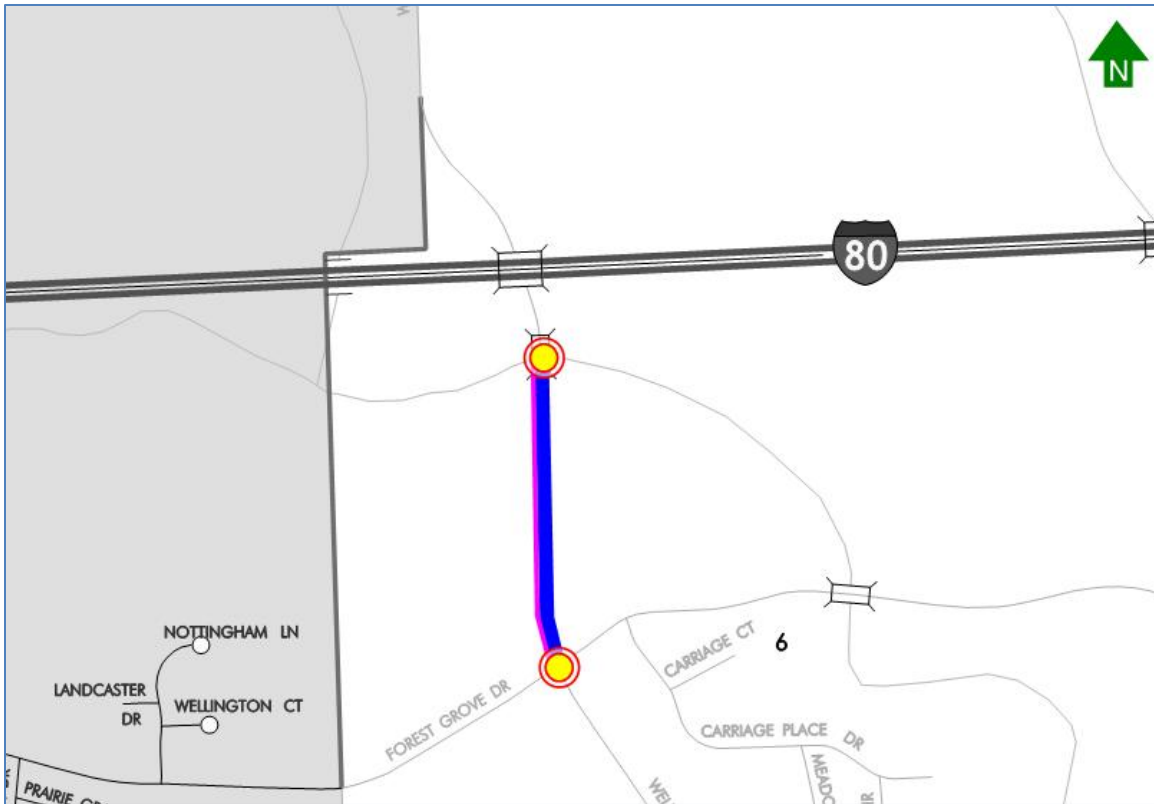
**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we recommend posting signage as "Share the Road" along this segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend the following options:

- Option 1: Separated trail on the west side of this segment, as the land is currently undeveloped.
- Option 2: Separated trail on the east side of this segment due to the connectivity to the existing residential neighborhoods.

**WELLS FERRY ROAD: SEGMENT A**



INVENTORY DATA

Existing			
1	Roadway Name	WELLS FERRY ROAD	
2	Segment	A	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.26	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	20'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	5'/LT, 5'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	110'	
22	Proximity of Roadway to Buildings (Ft.)	NONE/LT, 90'/RT	
23	Traffic Volume	620	
24	Land Use Types	ORC, AO, RC	
25	Physical Barriers	Left	Right
	Number of Drives	1	6
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	9	12
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	FOREST GROVE ROAD	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	1375	\$ 137,500
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$700.00	1	\$ 700
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	55	\$ 4,125
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 142,325
Construction Contingency 15%					\$ 21,395
Engineering Design 10%					\$ 14,230
Total Segment Cost					\$ 177,950

**WELLS FERRY ROAD: SEGMENT B**

**Segment Length = 0.75 Miles**

**Existing Conditions**

Wells Ferry Road is a 2-lane, chip and seal roadway in this segment with gravel shoulders. It is classified as a collector that is 20-foot wide with a 120-foot wide right-of-way. The posted speed limit is 45 mph and serves close to 1700 vehicles per day. This segment is undeveloped on both sides of the road.

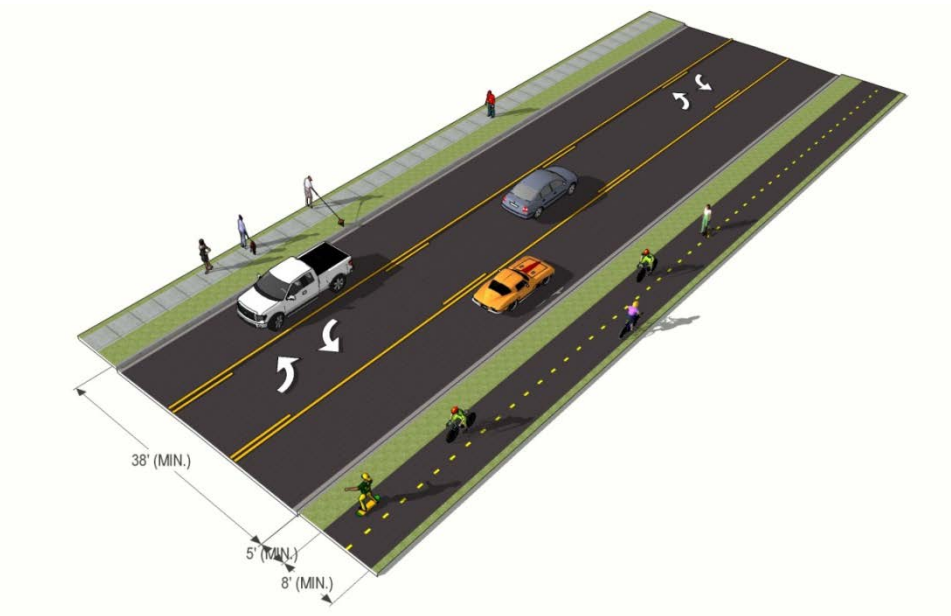
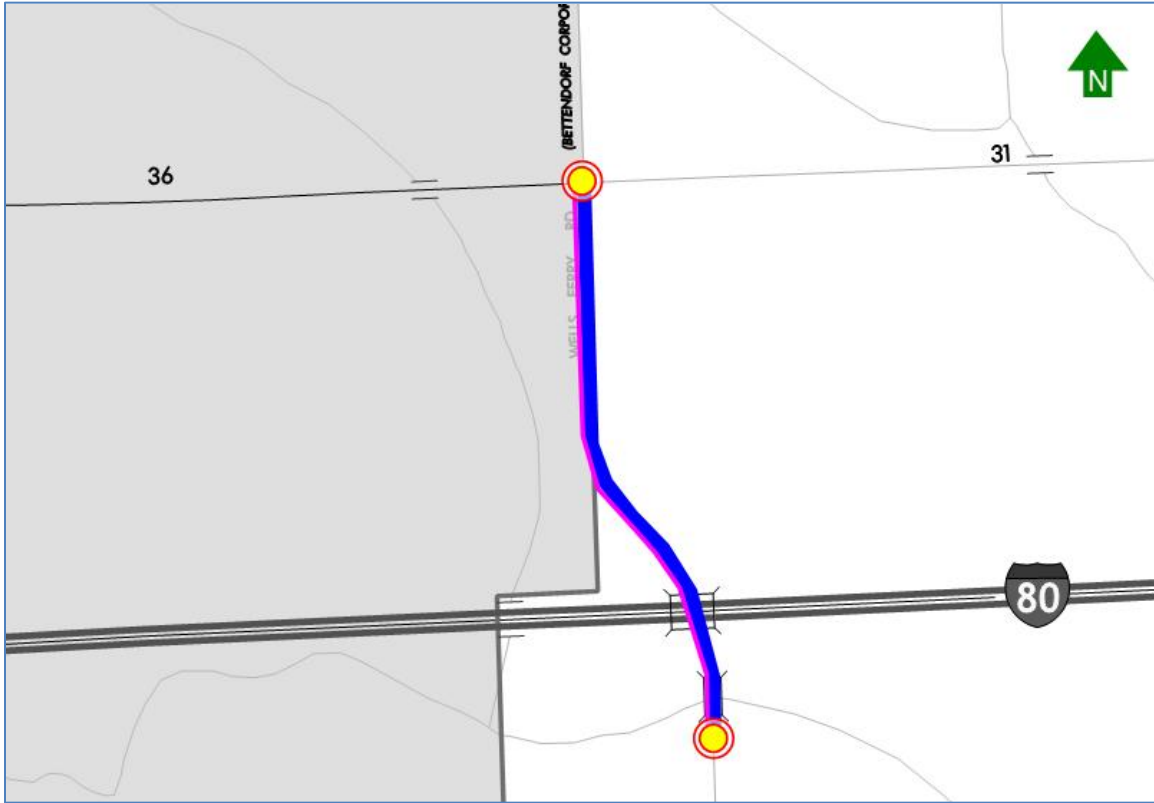


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend placing a separated trail on the west side.

**WELLS FERRY ROAD: SEGMENT B**



INVENTORY DATA

Existing			
1	Roadway Name	WELLS FERRY ROAD	
2	Segment	B	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.75	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	20'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	5'/LT, 5'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	120'	
22	Proximity of Roadway to Buildings (Ft.)	NONE/LT, 90'/RT	
23	Traffic Volume	1690	
24	Land Use Types	AO, ORC	
25	Physical Barriers	Left	Right
	Number of Drives	2	4
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	0
	Number of Power poles	5	8
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	INDIANA AVENUE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3960	\$ 396,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	110	\$ 8,250
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 406,050
Construction Contingency 15%					\$ 60,940
Engineering Design 10%					\$ 40,605
Total Segment Cost					\$ 507,595

**WELLS FERRY ROAD: SEGMENT C**

**Segment Length = 0.74 Miles**

**Existing Conditions**

Wells Ferry Road is a 2-lane, chip and seal roadway in this segment with gravel shoulders. It is classified as a collector that is 20-foot wide with a 100-foot wide right-of-way. The posted speed limit is 45 mph and serves close to 1700 vehicles per day. This segment is undeveloped on both sides of the road.

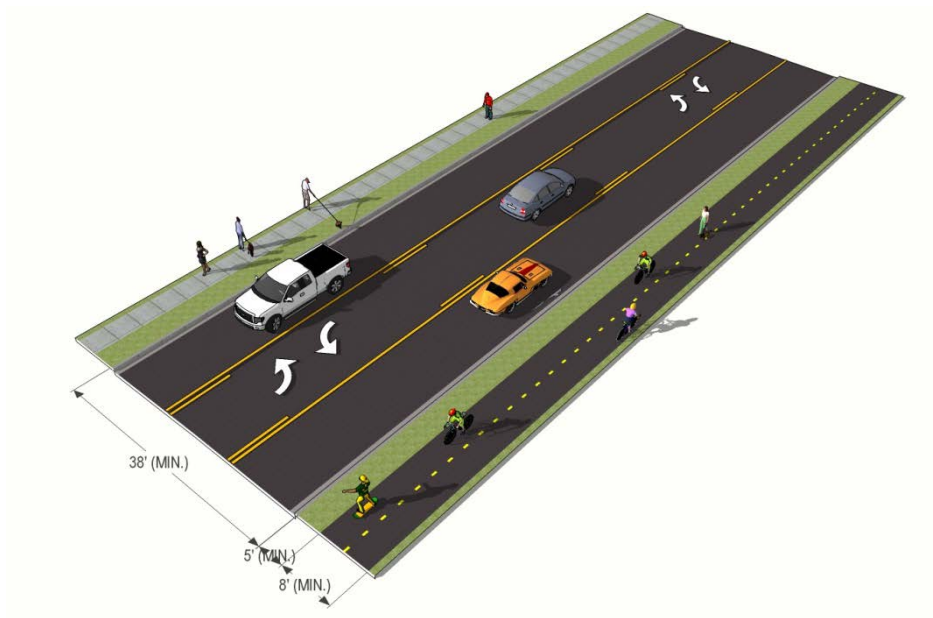
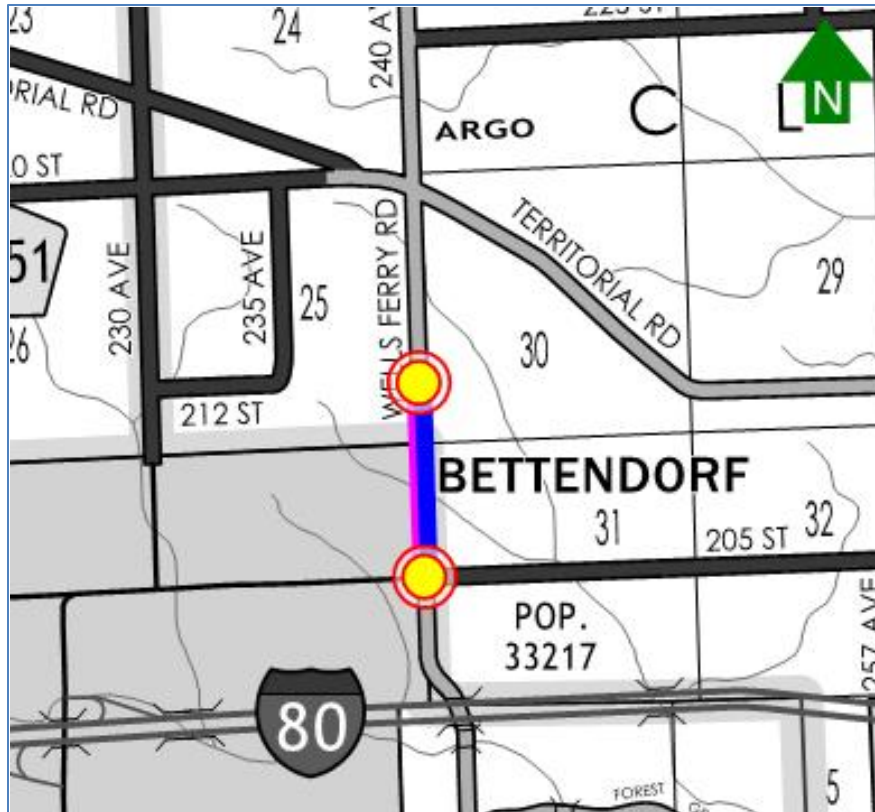


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend placing a separated trail on the west side.

**WELLS FERRY ROAD: SEGMENT C**



INVENTORY DATA

Existing			
1	Roadway Name	WELLS FERRY ROAD	
2	Segment	C	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.74	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	20'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	6'-8'/LT, 6'-8'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	70'/LT, NONE/RT	
23	Traffic Volume	1690	
24	Land Use Types	AO, MDR, TR	
25	Physical Barriers	Left	Right
	Number of Drives	4	3
	Number of Rail Crossings	0	0
	Number of Intersections	0	0
	Number of Fire Hydrants	0	0
	Number of Power poles	4	14
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	INDIANA AVENUE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3910	\$ 391,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,800.00	1	\$ 1,800
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	215	\$ 16,125
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 408,925
Construction Contingency 15%					\$ 61,370
Engineering Design 10%					\$ 40,915
Total Segment Cost					\$ 511,210

**WELLS FERRY ROAD: SEGMENT D**

**Segment Length = 0.7 Miles**

**Existing Conditions**

Wells Ferry Road is a 2-lane, chip and seal roadway in this segment with gravel shoulders. It is classified as a collector that is 20-foot wide with a 100-foot wide right-of-way. The posted speed limit is 45 mph and serves close to 1700 vehicles per day. This segment is undeveloped on both sides of the road.

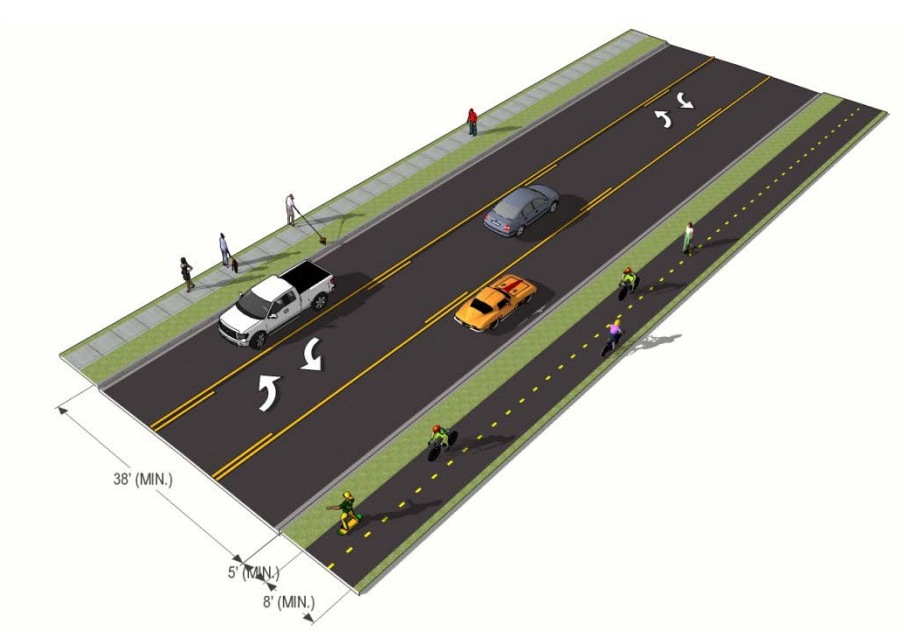


**Recommended Improvements**

Until the roadway is improved, as suggested in the "Interstate 80 North Transportation Development Strategy", we recommend posting signage as "Share the Road" along with segment. In addition to this signage, we recommend educating the public on the concepts of integrating bicycle facilities into the motor vehicle system.

Once the roadway is improved, we recommend placing a separated trail on the west side.

**WELLS FERRY ROAD: SEGMENT D**



INVENTORY DATA

Existing			
1	Roadway Name	WELLS FERRY ROAD	
2	Segment	D	
3	Existing Trail	NO	
4	Existing Bike Lanes	NO	
5	Bike Lane Width	N/A	
6	Segment Length (Miles)	0.7	
7	Number of Traffic Lanes	2	
8	Total Pavement Width (Ft.)	20'	
9	Surface Type	CHIP & SEAL	
10	Curb & Gutter	NO	
11	Width of Curb/Flag (Ft.)	N/A	
12	Shoulder Width (Ft.)	5'-8'/LT, 5'-8'/RT	
13	Shoulder Surface Type (Ft.)	GRAVEL	
14	On-Street Parking	NO	
15	Sidewalk Width (Ft.)	NO	
16	Posted Speed Limit (MPH)	45	
17	Storm Sewer	NO	
18	Ditch	LT/RT	
19	Bus Stop	NO	
20	Roadway Classification	COLLECTOR	
21	R.O.W. Width (Ft.)	100'	
22	Proximity of Roadway to Buildings (Ft.)	30'/LT, NONE/RT	
23	Traffic Volume	NOT LISTED	
24	Land Use Types	NOT LISTED	
25	Physical Barriers	Left	Right
	Number of Drives	4	3
	Number of Rail Crossings	0	0
	Number of Intersections	1	1
	Number of Fire Hydrants	0	0
	Number of Power poles	3	1
	Landscaping in or near ROW	NO	NO
Evaluation			
	Segment Benefits	UNDEVELOPED	
	Neighborhood Accessibility	POOR	
	Residential Density (Hi-Med-Lo)	LO	
	Convenient Connections	220TH AVENUE	
Recommendations			
	Recommended Facility	SEPARATED TRAIL	
	Need Bicycle Surface Improvements		
	Need Pedestrian Surface Improvements		

ENGINEER'S OPINION OF PROBABLE COST

Item	Item Description	Unit	Unit Cost	Quantity	Extended Cost
1	Path Pavement (5" PCC Pvt, 6" Agg Base, 4" Subdrain, Exc, Surf Rest)	LF	\$100.00	3700	\$ 370,000
2	Pavement Widening (C&G Rem, Exc, 6" Agg Base, PCC Pvt, & Surf Rest)	SY	\$130.00		\$ -
3	Pavement Marking & Signage	LS	\$1,700.00	1	\$ 1,700
4	Traffic Signal Modifications	LS			\$ -
5	Sidewalk & Driveway Reconstruction (Rem, Exc & PCC Pvt)	SY	\$75.00	215	\$ 16,125
6	Storm Sewer Modifications	LS			\$ -
Construction Subtotal					\$ 387,825
Construction Contingency 15%					\$ 58,220
Engineering Design 10%					\$ 38,815
Total Segment Cost					\$ 484,860