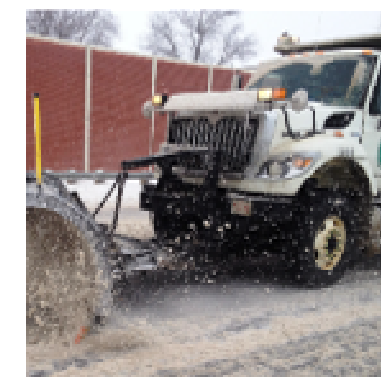
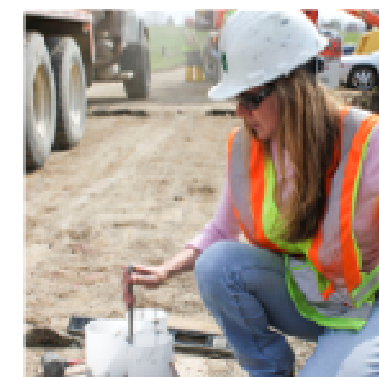
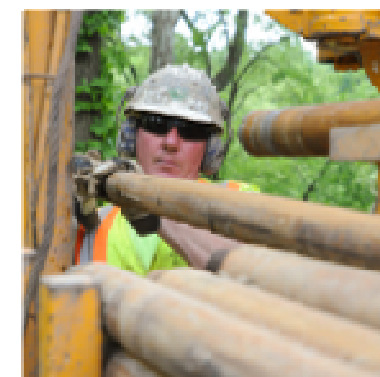
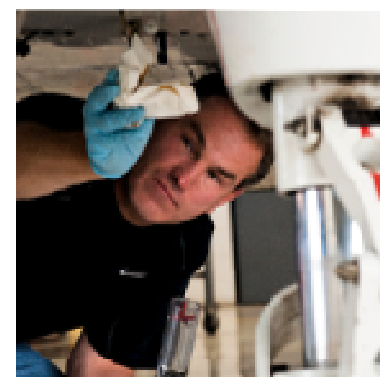
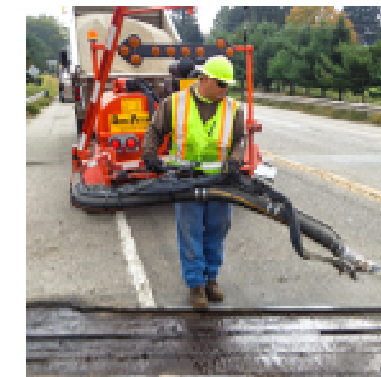
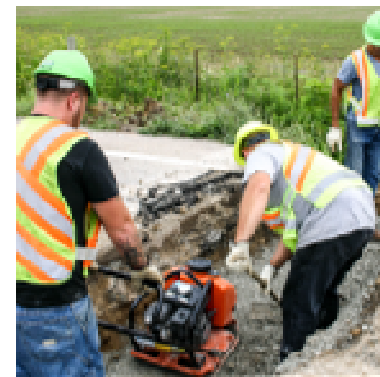
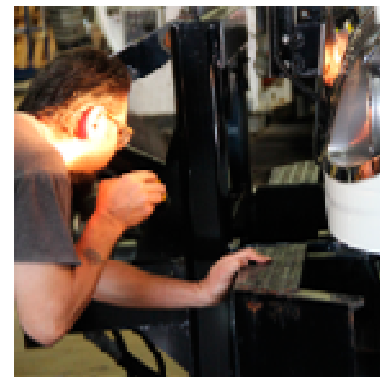


HAN/WYA-SR15/US23/US30

PID 92261 - LONG TERM CORRIDOR ACCESS STUDY



OHIO DEPARTMENT OF
TRANSPORTATION

JULY 2, 2018

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I. Executive Summary

SR-15, US-68, US-23, and US-30 are currently four-lane, divided highways with multiple at-grade intersections. The posted speed limit is currently 65 mph. The purpose of this study was to investigate the 26 at-grade intersections along the corridor between Hancock and Wyandot Counties and determine a long term access report.

By utilizing the recommendations in this report the corridor could be converted to a fully controlled access highway. Several contributing factors went into consideration when determining the proper conversion of each at-grade intersection. These included ODOT standards for interchange spacing, traffic volumes, crash data, stakeholder input, etc. The final recommendations are shown below and displayed in Table 1:

Cul-de-Sac

- | | | |
|----------------------|-----------------------|----------------------|
| 1. County Road 8 | 8. Township Road 95 | 15. County Road 121 |
| 2. Township Road 240 | 9. County Road 97 | 16. County Road 62 |
| 3. Township Road 190 | 10. Township Road 98 | 17. Township Road 65 |
| 4. Township Road 196 | 11. Township Road 103 | 18. Township Road 72 |
| 5. County Road 169 | 12. County Road 42 | 19. County Road 74 |
| 6. Township Road 198 | 13. County Road 44 | 20. Township Road 68 |
| 7. Township Road 21 | 14. County Road 50 | |

Overpass

21. Western Avenue
22. County Road 180
23. County Road 193
24. County Road 113

Interchange

25. County Road 4
26. State Route 294

While the conversion of these intersections to remove at-grade access to SR-15, US-23, and US-30 will improve safety along the entire corridor, the information contained within this report is largely intended for use at the local level as a tool to help guide economic development decisions as they relate to potential access changes in the future.

A summary of long-term cross road access findings and recommendations in tabular and graphical formats is included Appendix A. Depending upon the timing of implementation and future changes in traffic demand due to growth and land development, these recommendations should be verified to determine whether characteristics have changed substantially to warrant an alternate access scheme. Spacing considerations will, however, remain a primary factor regardless of changes in traffic demand.

Long Term Recommendations

County Route	Intersecting Route	Condition	Access Type			
			RCUT	Cul-de-Sac	Overpass	Interchange
Wyandot US-23	TR-68	At Grade Crossing		✓		
	CR-74	At Grade Crossing		✓		
	TR-72	At Grade Crossing		✓		
	SR-294	At Grade Crossing	✧			✓
	CR 113/TR-124	At Grade Crossing	✧		✓	
	TR-65	At Grade Crossing		✓		
	CR-62/TR-62	At Grade Crossing		✓		
	CR-121/TR-121	At Grade Crossing		✓		
	CR-50	At Grade Crossing		✓		
	CR-44/TR-44	At Grade Crossing		✓		
	CR-42/TR-42	At Grade Crossing		✓		
	CR-4	At Grade Crossing	✧			✓
	TR-103	At Grade Crossing		✓		
	TR-98	At Grade Crossing		✓		
	CR-97	At Grade Crossing		✓		
	TR-95	At Grade Crossing		✓		
	TR-21	At Grade Crossing		✓		
Hancock SR-15	TR-198	At Grade Crossing		✓		
	CR-169	At Grade Crossing		✓		
	TR-196	At Grade Crossing		✓		
	CR-193	At Grade Crossing	✧		✓	
	TR-190	At Grade Crossing		✓		
	TR-240	At Grade Crossing		✓		
	CR-8	At Grade Crossing		✓		
CR-180	At Grade Crossing	✧		✓		
Hancock US-68	TR-81/TR-77 Western Ave.	Right-In/Right-Out	✧		✓	

✧ - Short Term Solution
✓ - Long Term Solution

Table 1

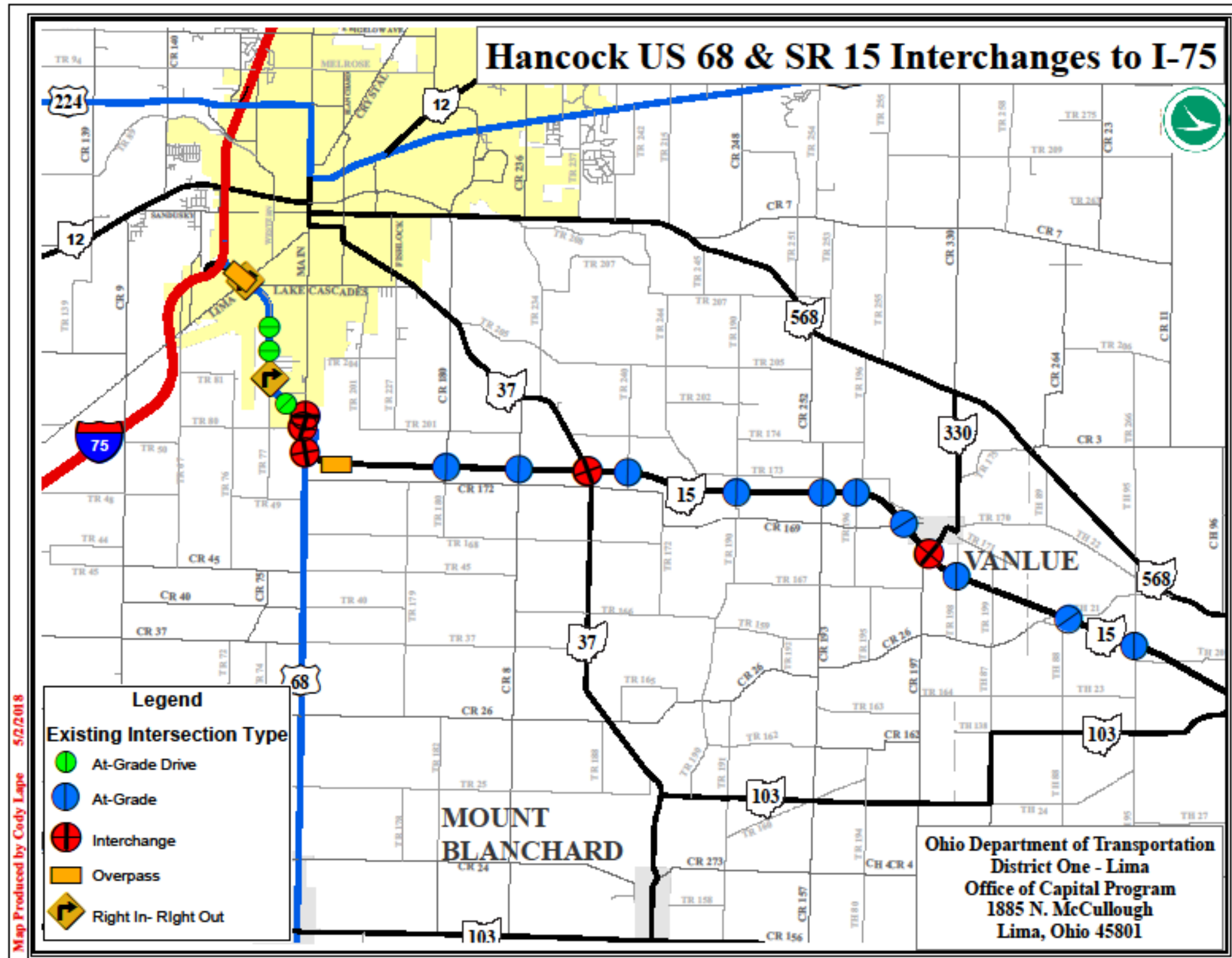


Figure 1 – Study Corridor Hancock County

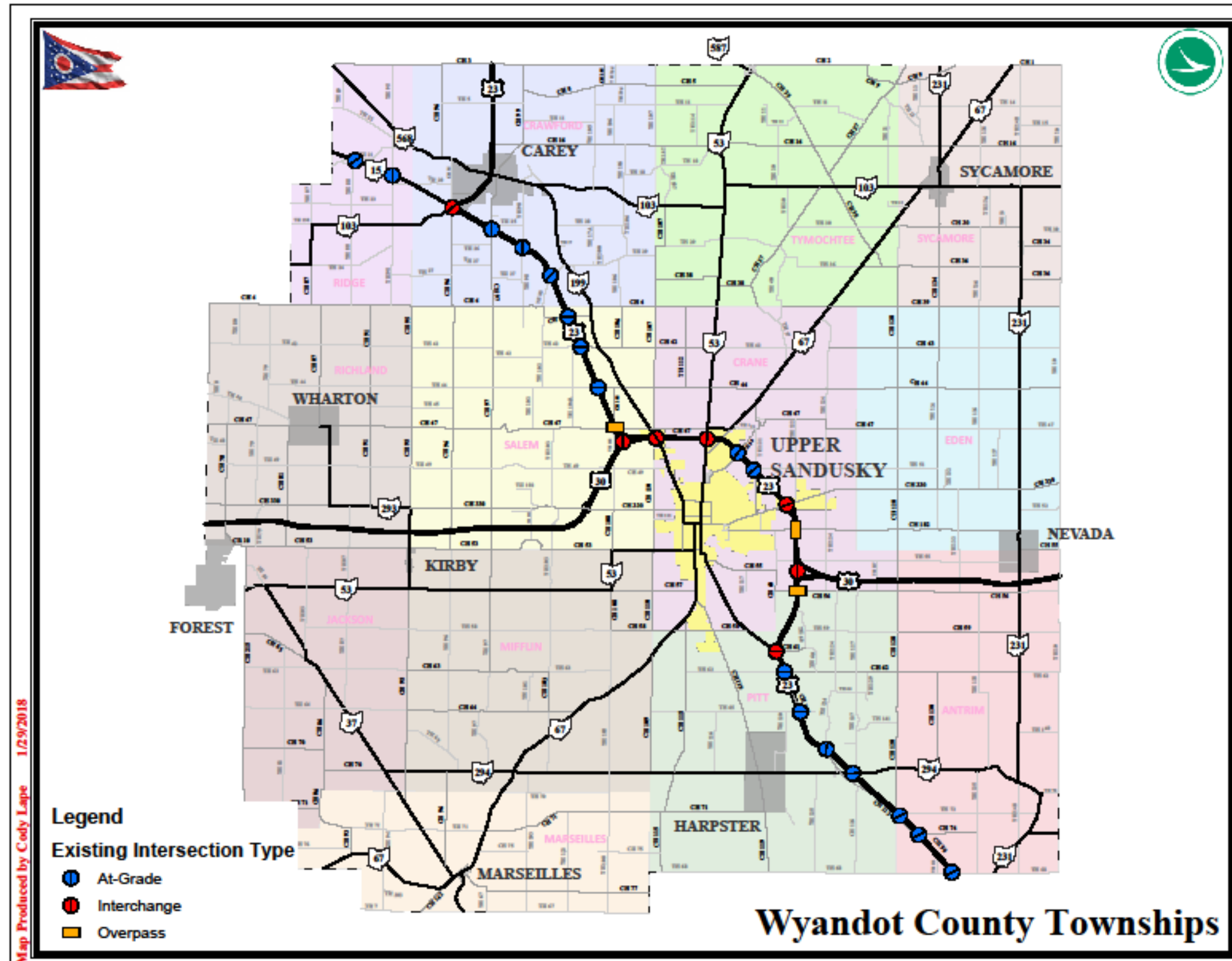


Figure 2 – Study Corridor Wyandot County

II. Background

The Ohio Department of Transportation conducted the corridor access study as part of a long range, District-wide access management plan. District One has approximately 164 miles of expressway along US-24, US-30, US-68, and SR-15. Previously, studies have been done for US-24 in Paulding and Defiance Counties, and for US-30 in Van Wert County. This current report investigated approximately 41 miles of SR-15/US-68 and US-23/US-30 between Hancock and Wyandot Counties. Figure 1 displays a map view of the project location.

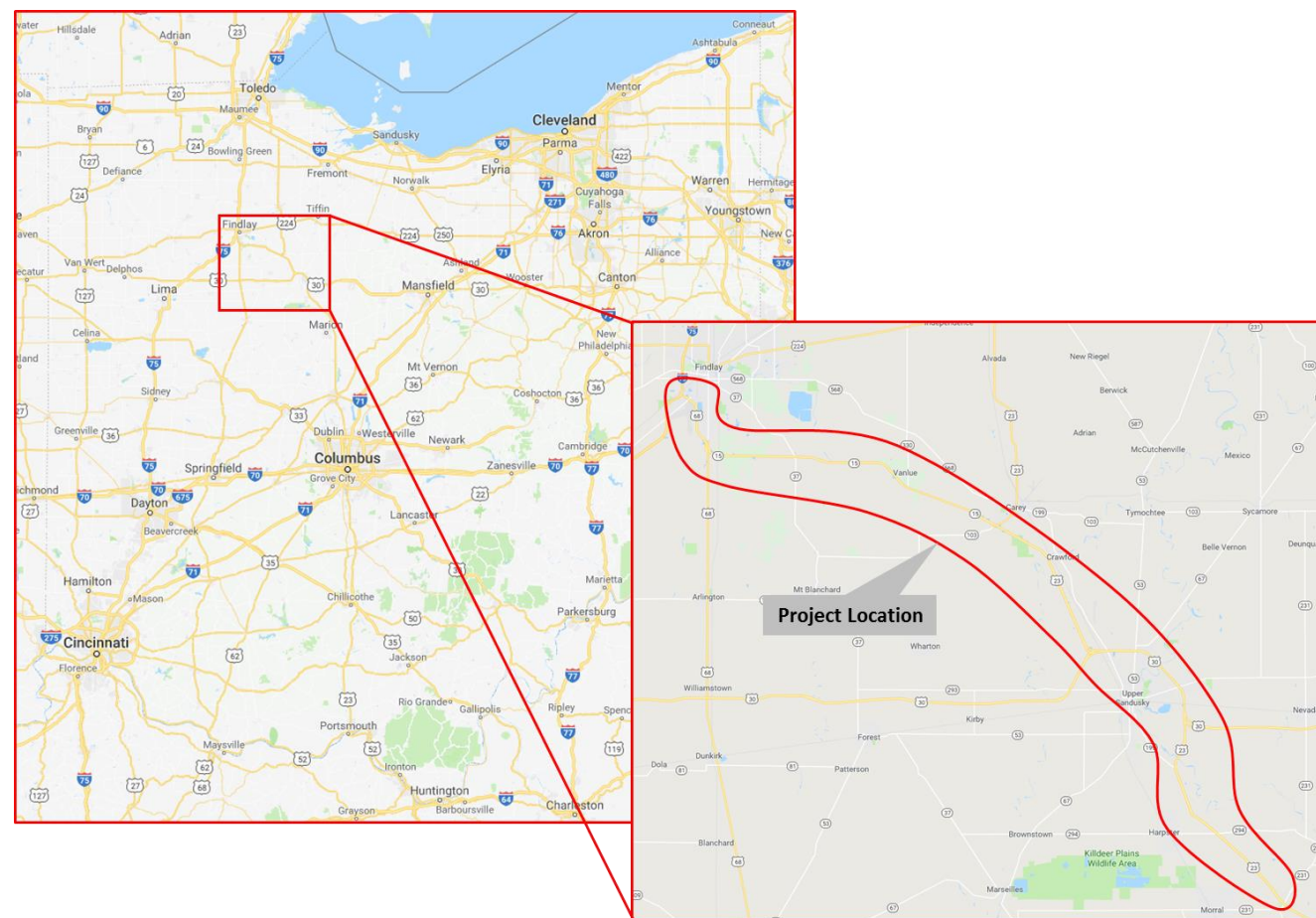


Figure 3 – General Location Map

The entire four-lane divided highway is designated as Expressway and has a posted speed limit of 65 mph. The study included (traveling southbound) 2.9 miles of US-68 and 11.3 miles of SR-15 in Hancock County as well as 3.5 miles of SR-15 and 23.0 miles of US-23 in Wyandot County. Along with the 26 at-grade intersections, the corridor includes nine grade separated interchanges, two system-to-system interchanges, and three overpasses.

III. Existing Conditions

Traffic Volumes

Traffic data for the mainline expressway was collected through the ODOT Transportation Information Mapping System. Traffic counts for the at-grade intersection approaches were acquired through the ODOT Division of Technical Services in the spring of 2018. A complete list of traffic data collected and aerial maps of the 24-hour counts can be found in Appendix B. Table 1, shown below, gives a summary of the traffic volumes.

Minor Road	Total Crashes (2011-2018)	Serious Crashes*	Fatal Crashes	Approach**	Approach ADT (2018)	US 23/SR15 ADT (2016)	US 23/SR15 Trucks	US 23/SR15 Truck %
TR-68	1	0	0	W/E	106/106	17,845	4,461	25%
CR-74	4	0	0	W/E	89/73			
TR-72	3	1	0	W/E	165/183			
SR-294	14	2	0	W/E	662/336	16,493	4,781	29%
CR 113/TR-124	5	1	0	W/E	200/174			
TR-65	1	0	0	W/E	70/107			
CR-62/TR-62	3	0	0	W/E	129/459	26,284	9,953	38%
CR-121/TR-121	7	1	1	S/N	640/390			
CR-50	10	1	1	S/N	156/897			
CR-44/TR-44	5	0	1	W/E	189/542	14,398	4,276	30%
CR-42/TR-42	4	1	1	W/E	84/200			
CR-4	4	0	0	W/E	200/381			
TR-103	3	0	0	W/E	80/206	14,180	3,878	27%
TR-98	2	0	0	S/N	159/321			
CR-97	13	2	1	S/N	369/855			
TR-95	2	1	0	S/N	255/619	14,726	3,921	27%
TR-21	3	1	0	S/N	201/191			
TR-198	4	0	0	S/N	63/284			
CR-169	1	1	0	S/N	106/194	15,867	3,454	22%
TR-196	1	0	0	S/N	56/117			
CR-193	1	0	0	S/N	199/188			
TR-190	3	0	0	S/N	80/112	15,195	3,485	23%
TR-240	0	0	0	S/N	30/48			
CR-8	8	1	0	S/N	653/491			
CR-180	23	3	1	S/N	1141/1752	19,601	4,237	22%
TR-81/TR-77 Western Ave.	8	0	0	W/E	471/933			
Corridor Totals	133	16	6					

* Serious Crashes involve incapacitating injuries

** W/E = West/East

S/N = South/North

Table 2 – Crash Data & 2018 Traffic Volumes

Crash Data

The crash data analyzed in this report included all crashes at the at-grade intersections along the corridor from 2010 through mid-2018. A summary of the crashes can be found in Table 1 and aerial maps of the crash data at the respective intersections can be found in Appendix B.

IV. Long Term Access Recommendations

The long term recommendations for the 26 intersections which were evaluated along the HAN/WYA SR-15/US-68/23/30 corridor are presented in this section. The recommendations have been broken into three categories.

- Cul-de-sac / Local Road Tie-in
 - Removes all at-grade access to the expressway
- Overpasses
 - Removes all at-grade access to the expressway
 - Maintains the through movement on a new bridge over the expressway
- Interchanges
 - Maintains full access through grade separation and high speed ramps

In determining the recommendation at each location, many contributing factors have been evaluated. A primary factor, which determines the overall access to a corridor such as this, is ODOT’s Location and Design Manual, Volume 1. In section 502.3, ODOT requires an average interchange spacing of 8 miles in rural areas with a minimum distance of 3 miles.

While traffic volumes were taken into account, in the study area, the volumes on the cross roads were very low. The rerouting of traffic due to access changes will not result in capacity concerns on the system of nearby roads affected by these recommendations. Therefore, traffic volumes alone were not a deciding factor in this study. In addition to ODOT standards and traffic volumes, crash data and other intersection specific factors were also considered. These included emergency response vehicle traffic, farming access and several others which are discussed in a later section of this report.

The recommendations included in this report are based on the current status of each intersection and the information available at the time of this report. Further studies will be needed at a later time to evaluate each location in more detail to assess factors such as pavement condition, traffic volumes, etc., to determine if these recommendations are still the best options at each location. While multiple travel routes may be available for a given origin and destination near each location, generalized travel paths have been highlighted in the associated text and figures below to route traffic to the nearest interchange. Please see Table 2 on page 13 for a complete list of recommendations. A table summarizing the following recommendations is also available in Appendix A along with a map of the corridor illustrating the recommended intersection treatment at each location.

Cul-de-Sac

County Road 8, Township Road 240, Township Road 190

The recommendation for CR-8, TR-240, and TR-190 is to remove access to SR-15. The intersections are too close (<3 miles) to the SR-37 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross SR-15 by utilizing the alternate routes displayed in **Figure 4**. The alternate route lengths in distance and time are as follows:

CR-8:	South 1.3 miles, 2 minutes	North 2.4 miles, 3 minutes
TR-240:	South 0.8 miles, 3 minutes	North 1.8 miles, 3 minutes
TR-190:	South 3.0 miles, 7 minutes	North 3.3 miles, 6 minutes

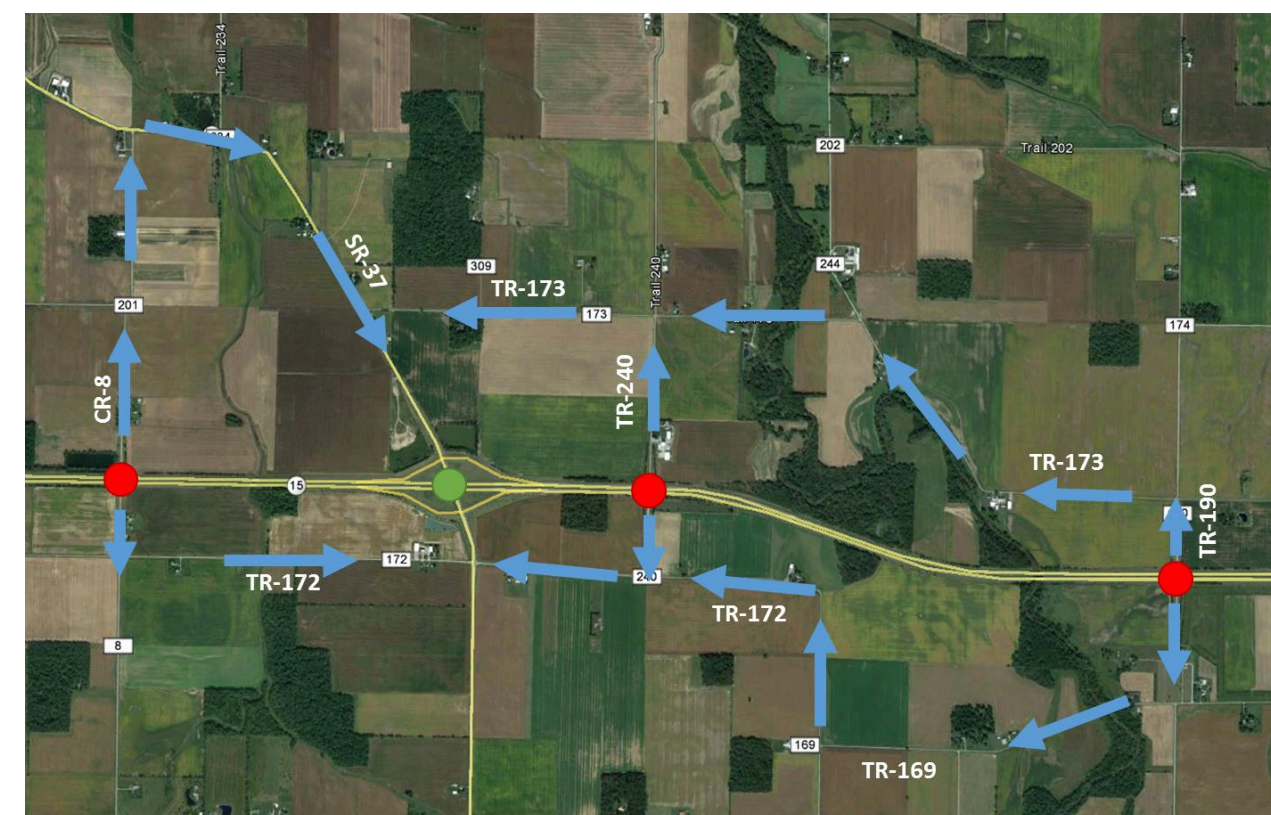


Figure 4

Township Road 196, County Road 169

The recommendation for TR-196, and CR-169 is to remove access to SR-15. The intersection is too close (<2 miles) to the SR-330 interchange to meet ODOT's minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross SR-15 by utilizing the alternate routes displayed in **Figure 5**. The alternate route lengths in distance and time are as follows:

TR-196:	South 2.6 miles, 5 minutes	North 2.2 miles, 6 minutes
CR-169:	South 2.8 miles, 6 minutes	North 0.9 miles, 3 minutes

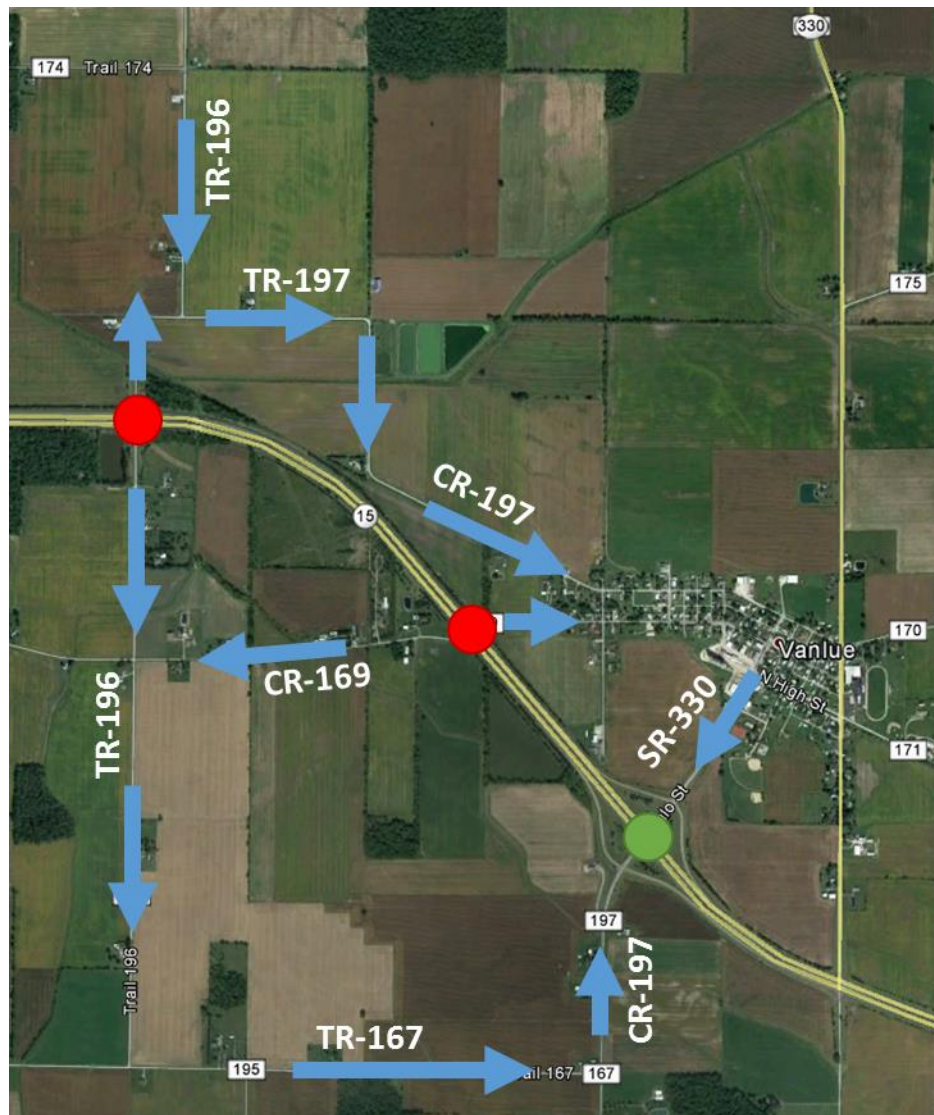


Figure 5

Township Road 198

The recommendation for TR-198 is to remove access to SR-15. The intersection is too close (0.50 miles) to the SR-330 interchange to meet ODOT's minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross SR-15 by utilizing the alternate routes displayed in **Figure 6**. The south route is 2.4 miles (4 minutes) long and the north trip is 1.0 miles (3 minutes) long.



Figure 6

Township Road 21, Township Road 95

The recommendation for TR-21 and TR-95 is to remove access to SR-15. The intersections are too close (2.7 miles) to the SR-103 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross SR-15 by utilizing the alternate routes displayed in **Figure 7**. The alternate route lengths in distance and time are as follows:

- | | | |
|--------|----------------------------|----------------------------|
| TR-21: | South 4.0 miles, 7 minutes | North 3.8 miles, 7 minutes |
| TR-95: | South 2.7 miles, 4 minutes | North 2.3 miles, 4 minutes |

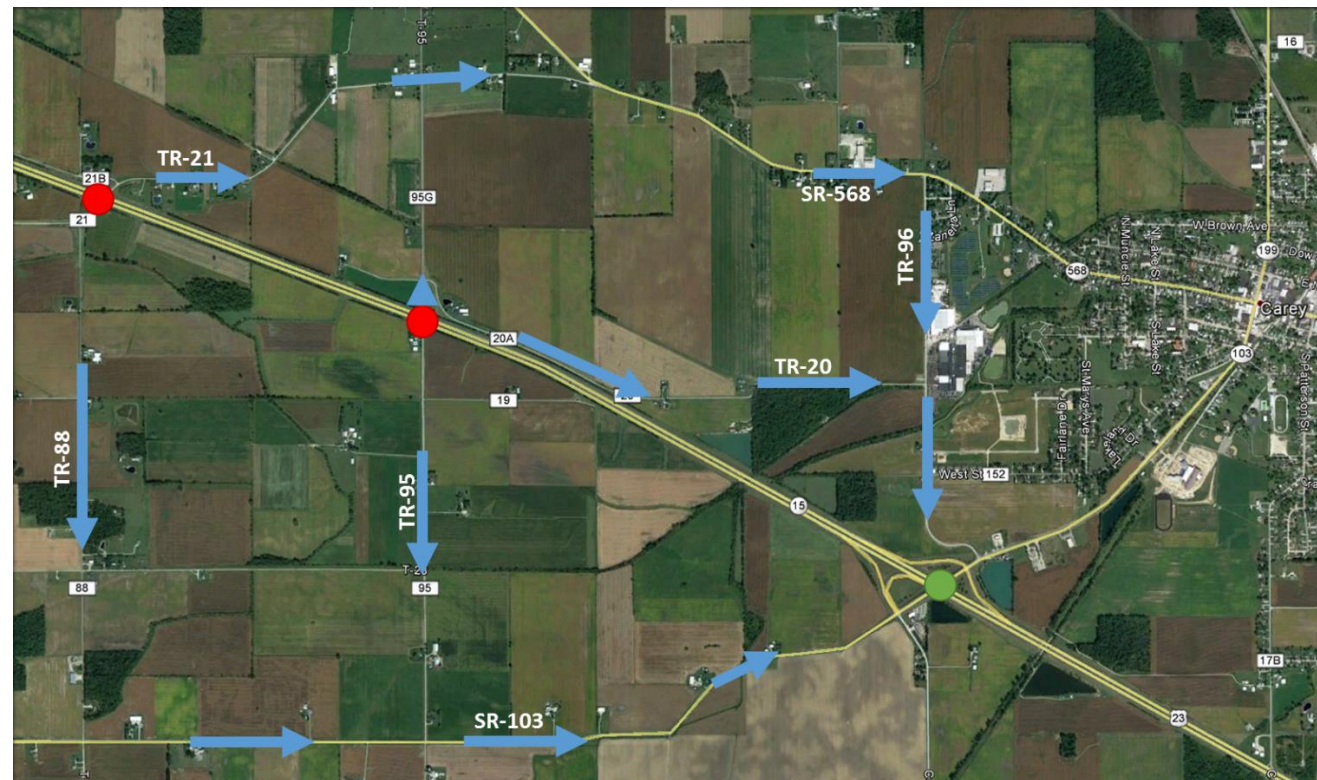


Figure 7

County Road 97, Township Road 98, Township Road 103

The recommendation for CR-97, TR 98, and TR 103 is to remove access to US-23. The intersection is too close (1.2 miles) to SR-103 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 8**. The alternate route lengths in distance and time are as follows:

- | | | |
|---------|----------------------------|-----------------------------|
| CR-97: | South 2.3 miles, 6 minutes | North 2.8 miles, 7 minutes |
| TR-98: | South 4.3 miles, 9 minutes | North 3.6 miles, 8 minutes |
| TR-103: | South 5.5 miles, 9 minutes | North 5.0 miles, 10 minutes |

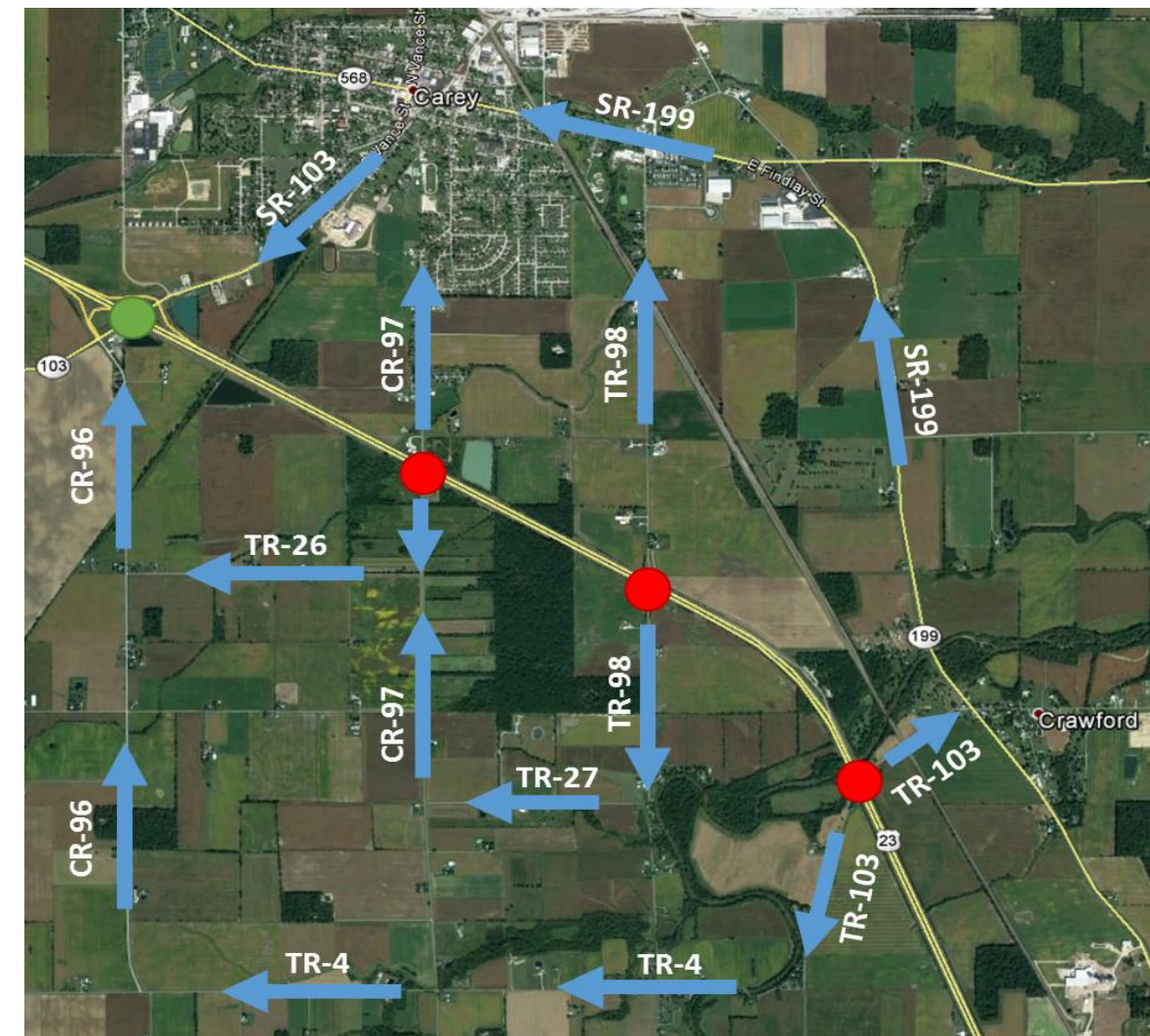


Figure 8

County Road 42, County Road 44

The recommendation for CR-42, and CR-44 is to remove access to US-23. The intersection is too close (1.4 miles) to US-23 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 9**. The alternate route lengths in distance and time are as follows:

- CR-42: East 3.0 miles, 4 minutes West 4.3 miles, 8 minutes
- CR-44: East 2.1 miles, 3 minutes West 3.7 miles, 7 minutes

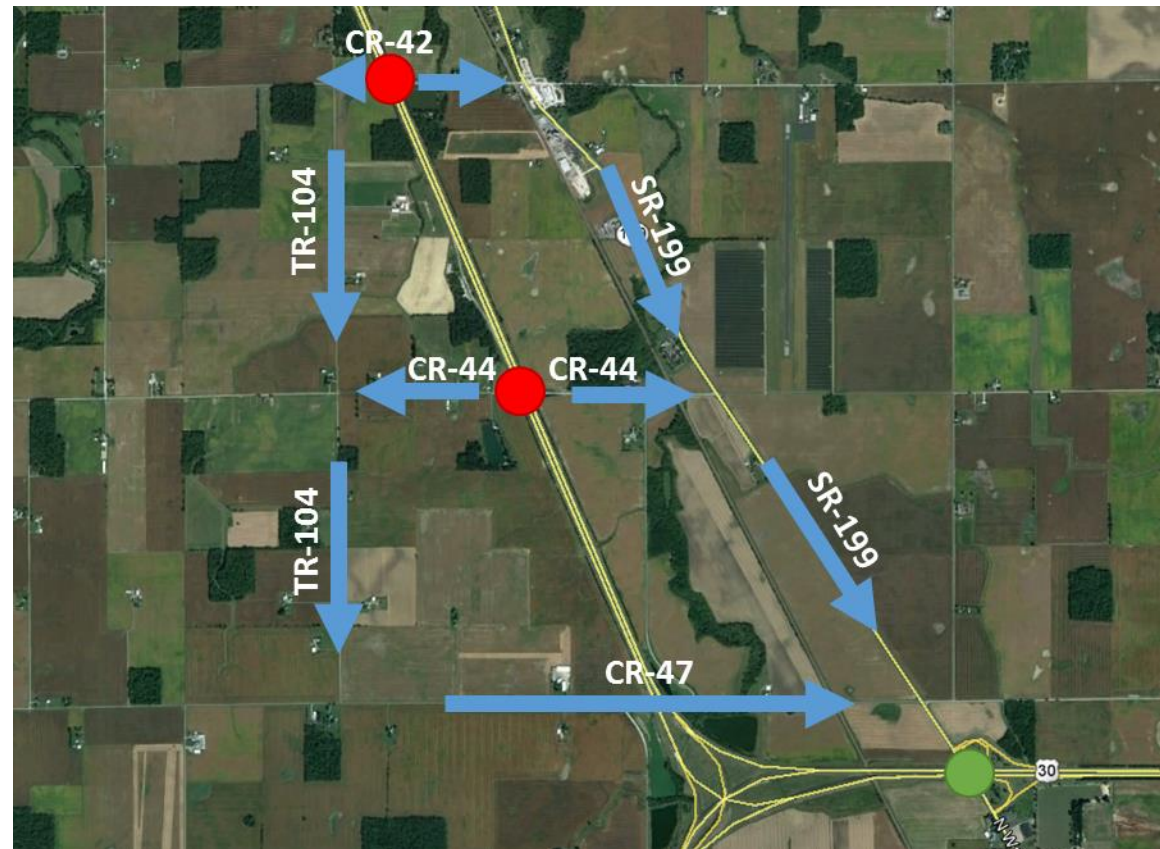


Figure 9

County Road 50

The recommendation for CR-50 is to remove access to US-23. The intersection is too close (0.9 miles) to SR-53 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 10**. The south route is 1.3 miles (3 minutes) long and the north trip is 2.1 miles (4 minutes) long.

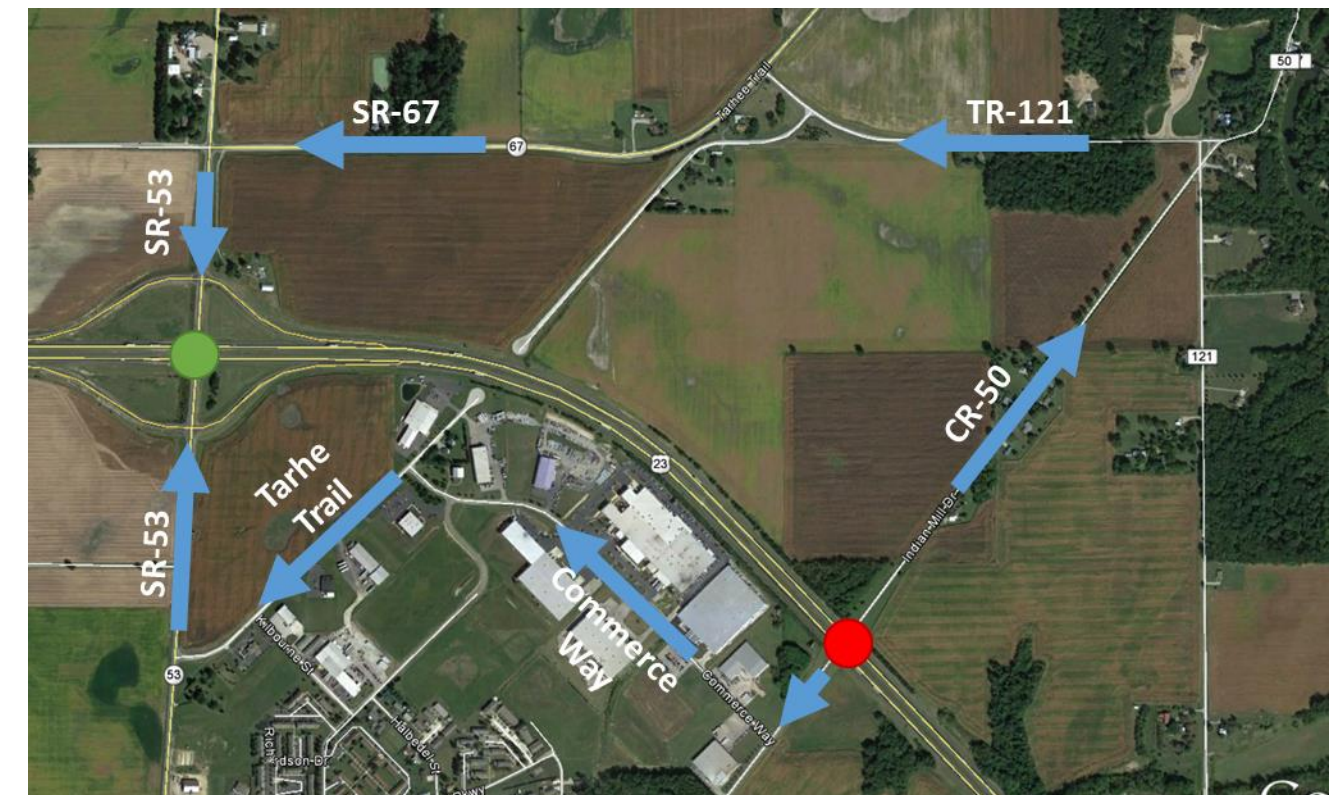


Figure 10

County Road 121

The recommendation for CR-121 is to remove access to US-30. The intersection is too close (1.1 miles) to Wyandot Ave. interchange to meet ODOT's minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-30 by utilizing the alternate routes displayed in **Figure 11**. The west route is 1.7 miles (3 minutes) long and the east trip is 2.0 miles (5 minutes) long.

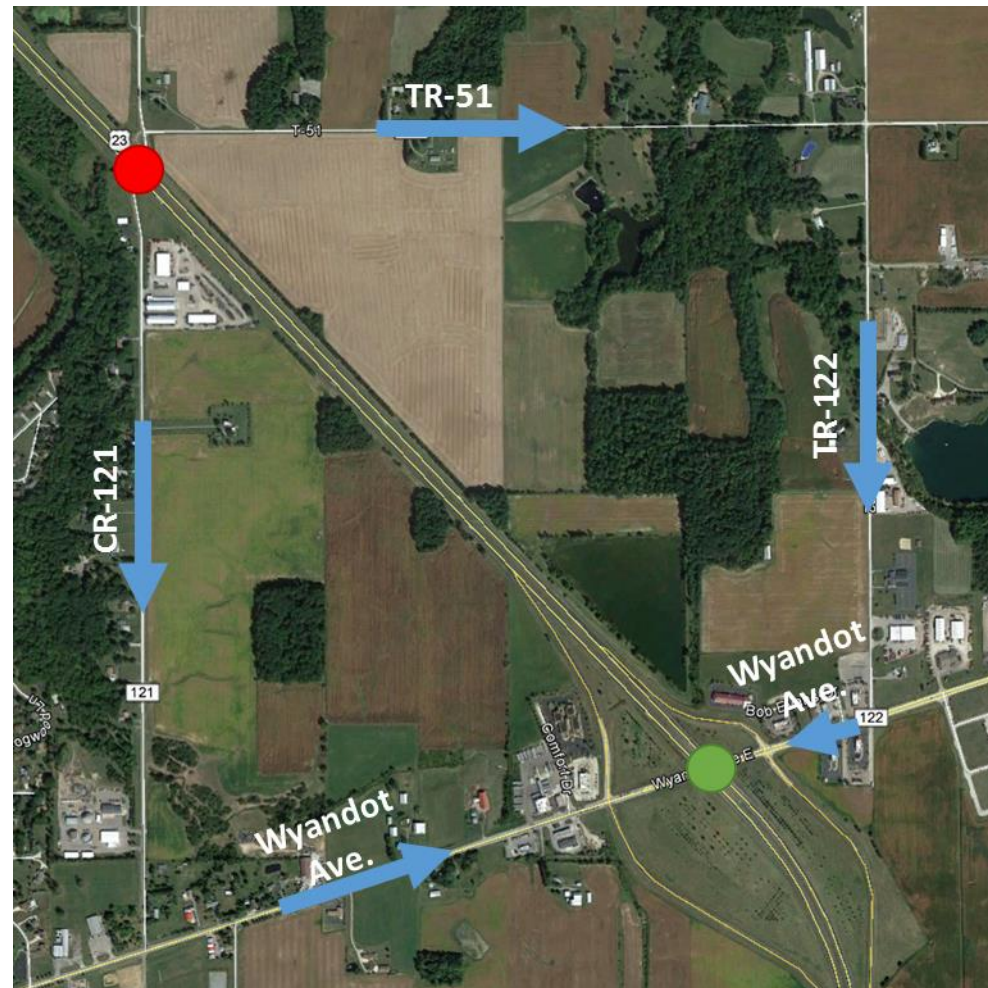


Figure 11

County Road 62, Township Road 65

The recommendation for CR-62 and TR-65 is to remove access to US-23. The intersections are too close (<3 miles) to SR-199 interchange to meet ODOT's minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 12**. The alternate route lengths in distance and time are as follows:

CR-62:	West 4.1 miles, 6 minutes	East 0.8 miles, 2 minutes
TR-65:	West 5.2 miles, 8 minutes	East 1.9 miles, 4 minutes



Figure 12

Township Road 72

The recommendation for TR-72 is to remove access to US-23. The intersection would be too close (1.6 miles) to the recommended SR-294 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 13**. The west route is 2.2 miles (6 minutes) long and the east trip is 2.4 miles (4 min.) long.



Figure 13

County Road 74, Township Road 68

The recommendation for CR 74 and TR-68 is to remove access to US-23. The intersection is too close (1.0 miles) to the SR-231 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. An overpass is not recommended due to the neighboring interchange proximity and the profile adjustment for an overpass would require unnecessary impacts to the surrounding land.

Vehicles would be able to access and cross US-23 by utilizing the alternate routes displayed in **Figure 14**. The alternate route lengths in distance and time are as follows:

- CR-74: West 2.6 miles, 5 minutes East 2.6 miles, 5 minutes
- TR-68: West 1.3 miles, 3 minutes East 1.4 miles, 4 minutes



Figure 14

Overpass

Western Avenue

The recommendation for Western Ave. is to remove access to US-68 and provide an overpass to connect the east and west sides of the highway (Figure 15.) The intersection is too close (0.98 miles) to the SR-15/US-68 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. The intersection had the 2nd highest approach traffic for the corridor.

If access to the highway were to be removed, vehicles would need to access US-68 by utilizing the alternate routes displayed in Figure 16. The south route is 3.2 miles (6 minutes) long and the north trip is 1.0 miles (2 minutes) long.

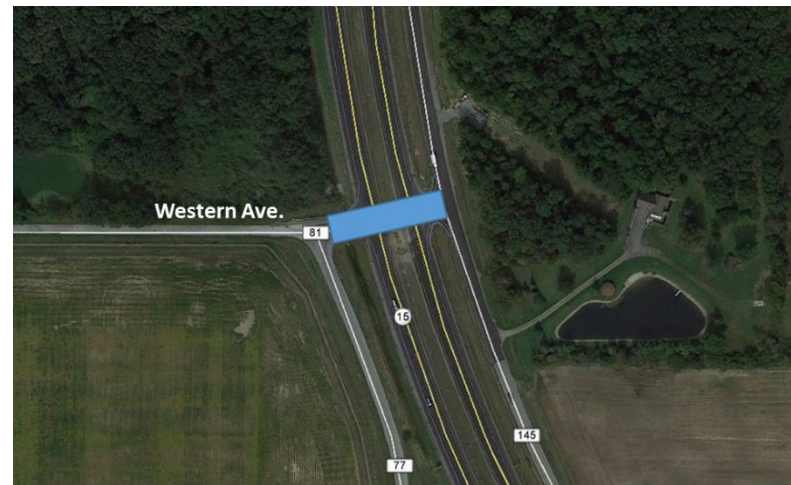


Figure 15



Figure 16

County Road 180

The recommendation for CR-180 is to remove access to SR-15 and provide an overpass to connect the north and south sides of the highway (Figure 17.) The intersection is too close (2.0 miles) to the SR-37 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. The intersection had the highest approach traffic and the most crashes for the corridor.

If access to the highway were to be removed, vehicles would need to access SR-15 by utilizing the alternate routes displayed in Figure 18. The south route is 2.3 miles (5 minutes) long and the north trip is 3.4 miles (6 minutes) long.

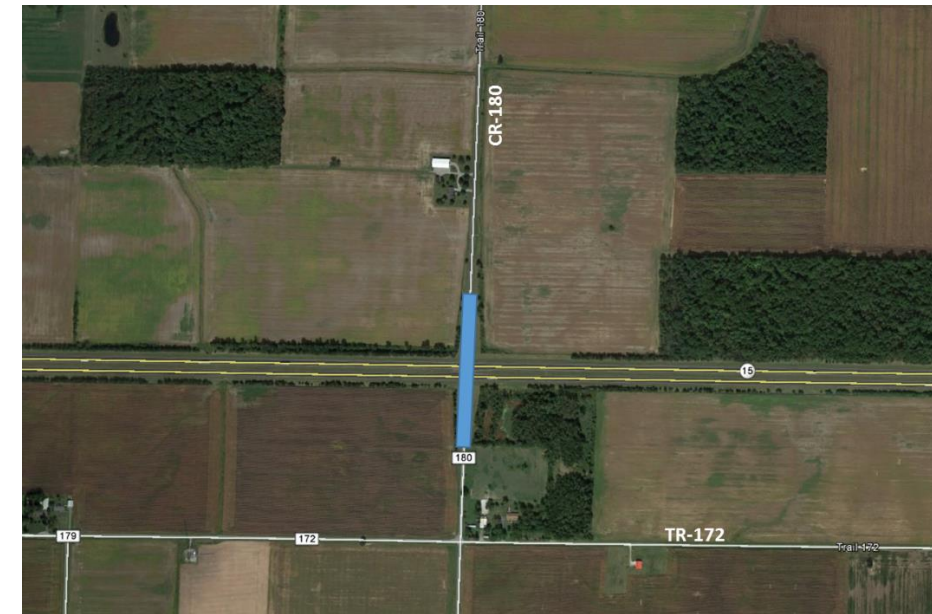


Figure 17



Figure 18

County Road 193

The recommendation for CR-193 is to remove access to SR-15 and provide an overpass to connect the north and south sides of the highway (**Figure 19.**) The intersection is too close (1.8 miles) to the SR-330 interchange to meet ODOT’s minimum rural interchange spacing standard of 3 miles. The intersection had the 14th highest approach traffic for the corridor. The overpass would allow for vehicles to avoid entering Vanlue when needing to cross the highway.

If access to the highway were to be removed, vehicles would need to access SR-15 by utilizing the alternate routes displayed in **Figure 20.** The south route is 3.1 miles (5 minutes) long and the north trip is 3.7 miles (9 minutes) long.

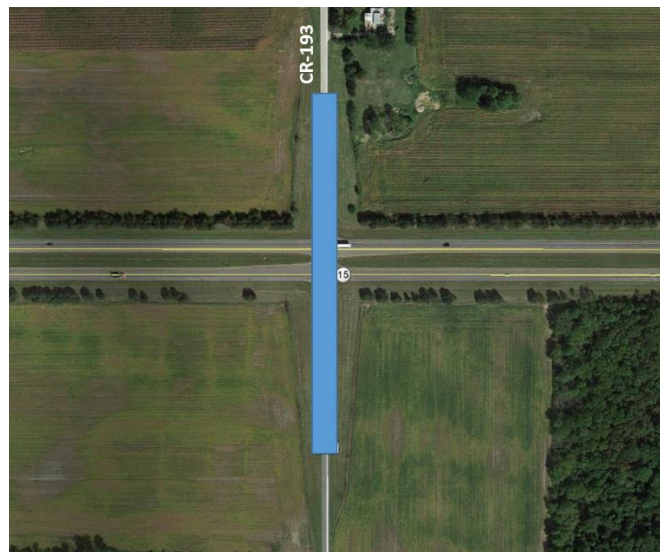


Figure 19



Figure 20

County Road 113

The recommendation for CR-113 is to remove access to US-23 and provide an overpass to connect the north and south sides of the highway (**Figure 21.**) The intersection is too close (2.8 miles) to the SR-199 interchange and would be less than one mile from a potential interchange at SR-294 to meet ODOT’s minimum rural interchange spacing standard of 3 miles. The intersection had the 15th highest approach traffic for the corridor. The lengthy detour and knowledge of access issues during flood events suggests allowing connectivity through the overpass.

If access to the highway were to be removed, vehicles would need to access SR-15 by utilizing the alternate routes displayed in **Figure 22.** The south route is 1.0 miles (2 minutes) long and the north trip is 3.1 miles (7 minutes) long.

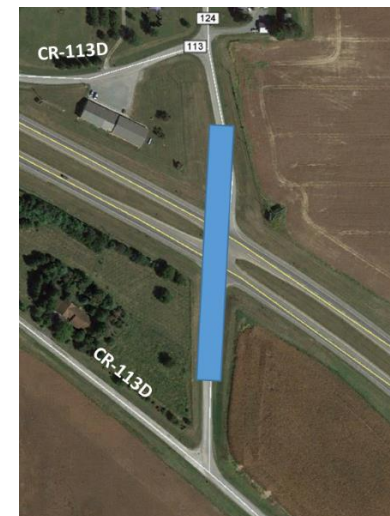


Figure 21



Figure 22

Interchange

County Road 4

The recommendation for CR-4 is for a full access interchange to be constructed (**Figure 23.**) If access were to be removed from the CR-97, TR-98, TR-103, CR-4, CR-42, and CR-44 intersections there would be no way of accessing US-23 for between the SR-103 and SR-199 interchanges, approximately 8.2 miles apart. Though CR-4 does not have the highest amount of approach traffic for the intersections in this section, it halfway between the two interchanges.

There was a considerable amount of stakeholder comments requesting an interchange to be implemented. The proximity of Kalmbach Feeds and the County Environmental Landfill were given as reasons for continued access as these are traffic drivers. An interchange would also allow for connectivity of the east and west sides of the corridor for farmers, emergency services, school buses, etc. A full interchange justification study would be needed prior to implementation to determine appropriate design.

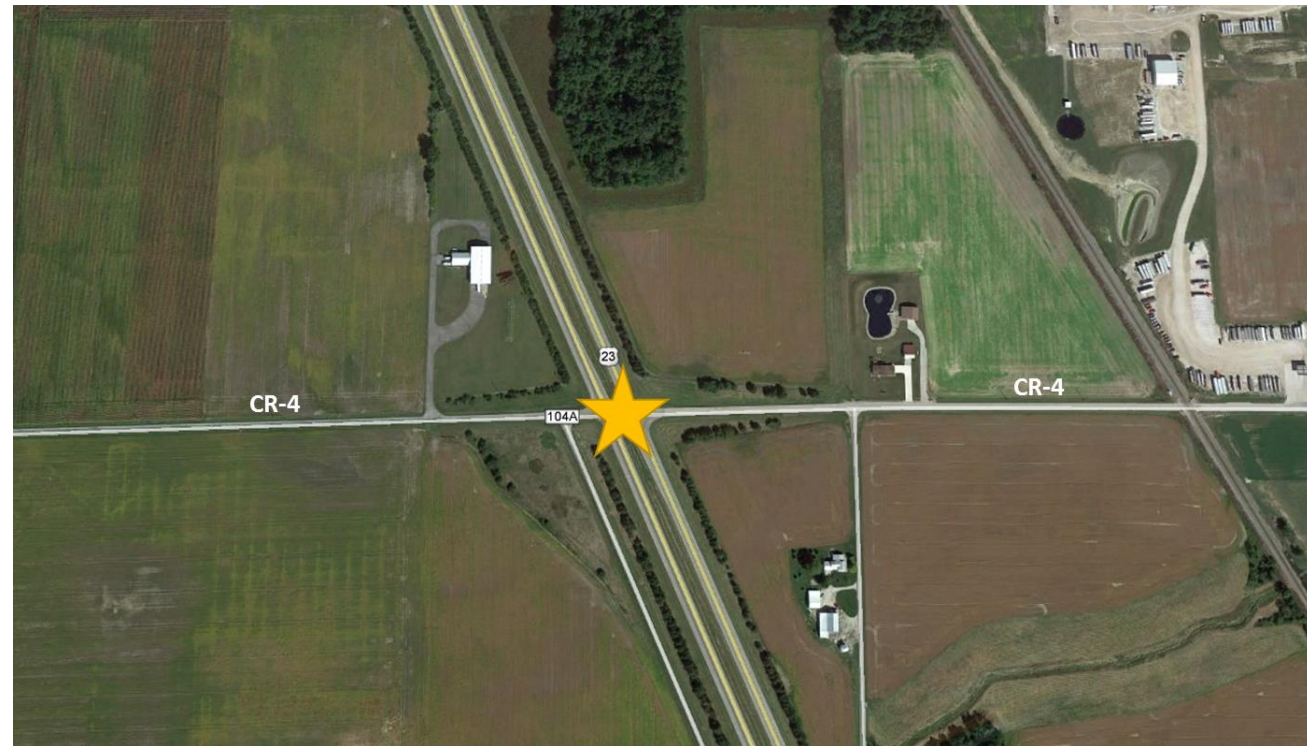


Figure 23

State Route 294

The recommendation for SR-294 is for a full access interchange to be constructed (**Figure 24.**) The intersection is the only State to U.S. Route in the corridor that does not currently have a full interchange. The intersection had the third highest approach volumes for all locations in the study. If access is removed at the neighboring intersections as recommended in this report, the nearest points of access US-23 would be the SR-199 interchange which is located 3.7 miles north, and SR-231 interchange located 4.5 miles south. The intersection could also be considered for an overpass, depending on changes in traffic patterns. While an overpass would remove access to US-23, there would still be connectivity to either side of SR-294. A full interchange justification study would be needed prior to implementation to determine appropriate design.

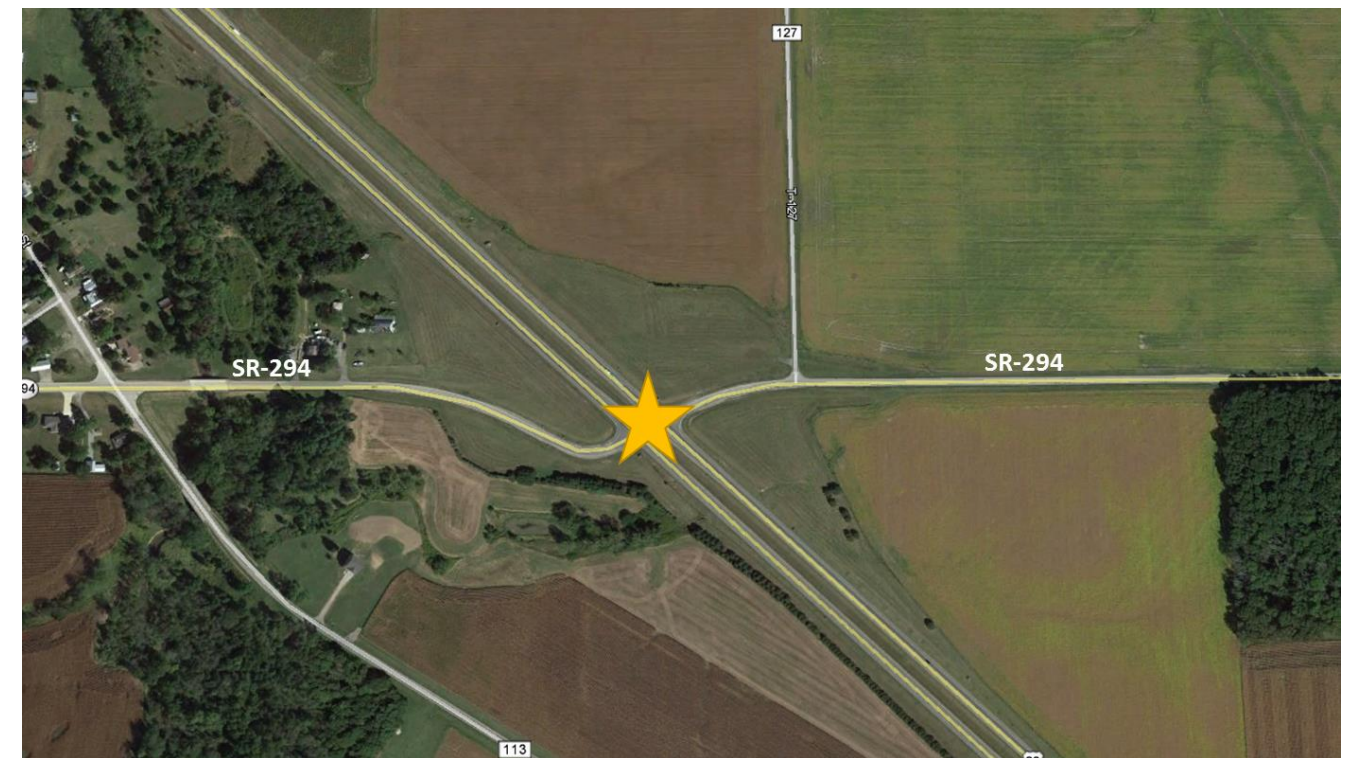


Figure 24

V. Short Term Access Recommendations

A Restricted Crossing U-Turn (RCUT), also known as a J-Turns or superstreet, is a variation of the Michigan Left. The removal of the direct median crossing results in fewer conflict points. Traffic from the minor street approaches must turn right and then make a U-turn in order to continue straight or make a “left” turn. A diagram of a simple design is shown in **Figure 25**.

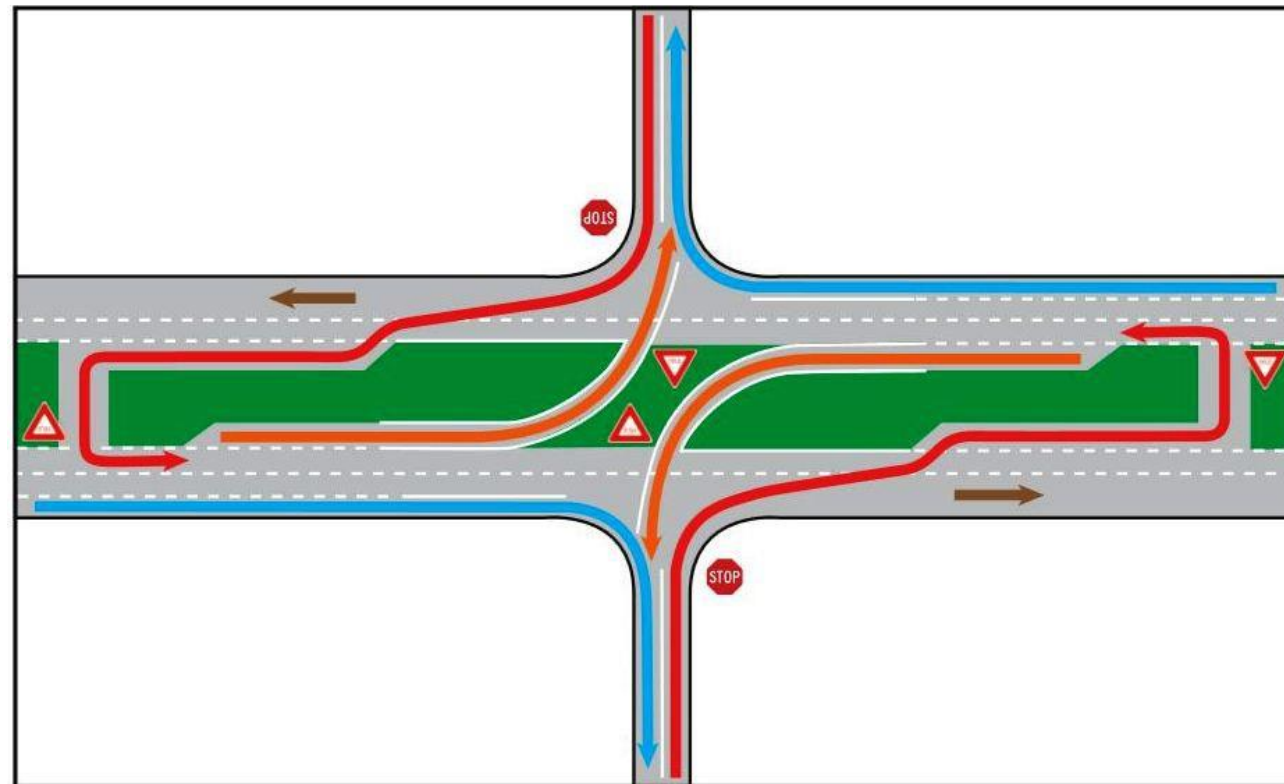


Figure 25

J-Turns have proven to improve the operational performance as well. There are multiple intersections along the study corridor that could benefit through redesign from conventional to a J-Turn. **Table 1** shows the intersections recommended. As there would still be direct access to the mainline by way of an at-grade intersection, these reconstructions would not result in the creation of a fully-controlled freeway and therefore should be seen as short- to mid-range access recommendations. Several factors were researched for the locations of suggested J-Turns. The factors considered in the previous study were all included, but focus was placed in crash data, detour lengths, traffic volumes, and stakeholder input.

The conventional four-approach intersection has 42 conflict points, 24 of which are crossing points which often result in the most serious of accidents. J-Turns lower the conflict points to 24, only four of which are crossing. **Figure 26** shows a detail of the reduction of conflict points.

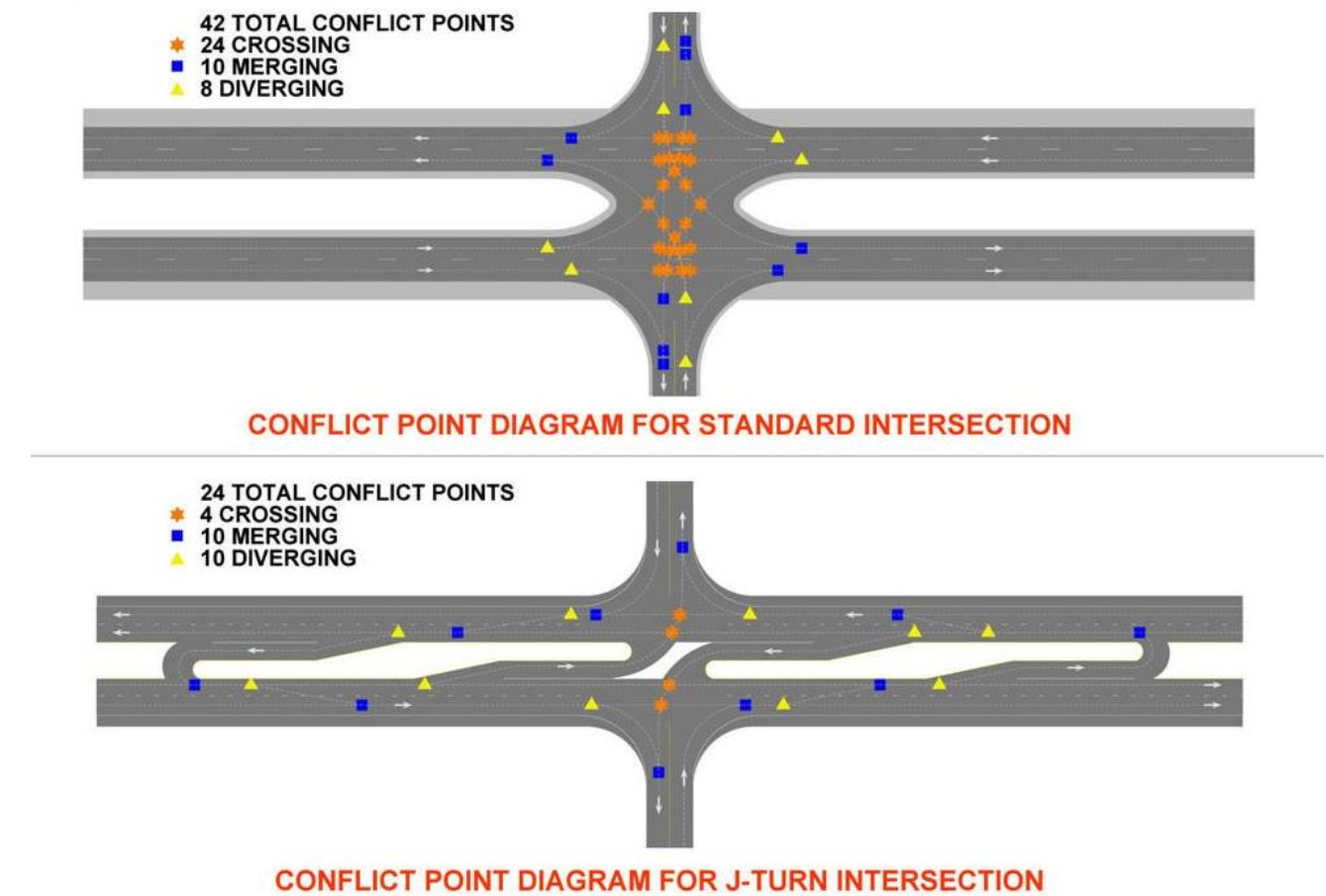


Figure 26

Locations considered for J-Turns are as follows: Western Avenue, CR-180, CR-193, CR-4, CR-113, and SR-294. These intersections would retain access to SR-15/US23 and would create a simpler transition to the long range recommended overpasses and interchanges. Each J-Turn would need to be evaluated further to determine the most appropriate design based on traffic numbers and turning movements. Such restricted crossings should be evaluated after implementation in order to determine usage when looking at modifying to fully controlled access.

VI. Alternative Recommendation – Factors Considered

In addition to traffic volumes and crash data, as described in a previous section, many different factors have been considered when determining what type of modification is the best fit for each location. Geometry of the existing road and the proposed solutions in addition to current ODOT standards must also be taken into account. ODOT's L&D Manual, Volume 1, provides the standards for interchange spacing, geometry, vertical clearance for structures, etc. In rural areas such as this study area, additional factors considered include those which affect everyday life for the residents who live in the area to be impacted. These include but are not limited to:

- Fire and EMS operations
- School District boundaries
- Access for agricultural traffic
- Stakeholder input
- Railroad constraints
- Right of way impacts
- Travel time / Rerouting traffic

Fire / EMS

Several service area boundaries cross the corridor and it is imperative that emergency access across SR-15, US-23, and US-30 is maintained in the final condition. The departments impacted are Antwerp Fire/EMS, Paulding Fire/EMS, Cecil Fire, Jewell Fire/EMS, Napoleon Fire/EMS and Liberty Center Fire/EMS – Wyandot East Fire/EMS, Pitt Fire, Upper Sandusky Fire/EMS, Carey Fire/EMS, Vanlue Fire, Arlington Fire, Liberty Fire, Findlay Fire/EMS and Hancock County EMS.

Throughout the study area one interchange will be added while access will be completely removed from twenty-five intersections. The longest distance between crossings will be 7.16 miles if the corridor is fully controlled. This would be between Upper Sandusky and Carey, which have their own fire and EMS departments. SR-199 runs parallel to US-23 in this section and would provide easy access for emergency services. Aerial maps showing the different EMS and fire service areas in the study area may be found in Appendix A and Appendix B.

Schools

Several school districts span the corridor. Bus routes are an important consideration to take into account when discussing cutting off access to a main arterial route. Intersections will be closed in each of the districts. However, there are existing interchanges within each district which will facilitate traffic needing to cross the highway. The school districts affected would be Ridgedale, Upper Sandusky, Carey, Vanlue, Riverdale, Arlington, Liberty Benton, and Findlay. An aerial map showing the different school districts in the area of the project may be found in Appendix C.

Farm Traffic

Due to land usage along the corridor study area being largely agricultural, maintaining crossings of the highway for farmers in order to access farms is important. There are businesses that own farm land on both sides of the corridor. Multiple comments were made from local farmers, the most of which mentioned the SR-294

intersection being the most heavily travelled by farm machinery. Another commonly noted intersection was CR-4. It is being recommended that SR-294 be converted to a full interchange in order to better accommodate the farmers by giving them a shorter and safer route to cross the highway. CR-4 will have access from SR-199 which runs parallel to US-23 and has a full interchange north of Upper Sandusky.

In addition to access and connectivity as it relates to farming activities, another consideration during the design phase will be the physical width of bridges and roadways, and the design of intersections. It will be important to ensure that the physical features of each road connection and bridge are designed to accommodate farm machinery.

Stakeholder Input

Two separate stakeholder meetings were held during the development of this access study, one each for Hancock and Wyandot County representatives. ODOT representatives met with Hancock County on February 1st, 2017 and with Wyandot County on January 30th, 2018. Those in attendance were County Engineers, County Commissioners, Township Trustees and other community administrators such as emergency medical personnel and local law enforcement. These attendees were presented with information that covered intersection related crash statistics, traffic counts, emergency service and school districts, and ODOT design standards. Comment sheets were supplied and requested to be returned throughout the month following the respective meetings. Sign-in sheets from these meetings may be found in Appendix D.

Suggestions were made for interchanges to be constructed as well as several closures of access to the mainline. Interchange suggestions were generally due to a sense of large traffic volumes and the high percentage of farm traffic. Overpasses were suggested at locations to provide crossings for emergency services as well as to existing businesses.

Full public involvement for the corridor will be part of the evaluation of the projects in the future prior to final design. At that time, the corridor will be further studied and broken into smaller, buildable sections which will follow the traditional project development process. As part of this process, the general public will be given an opportunity to provide input pertaining to the proposed changes in access along the SR-15, US-23, and US-30 corridors.

Railroads

The study corridor includes three grade separated railroad crossings. There is also a section of railway that runs parallel to US-23 between Carey and Upper Sandusky. Future changes to the railroad, whether that be increased or decreased usage, may factor into the future evaluation and implementation of the recommendations provided herein as well as the actual design of certain features to address vertical clearance requirements and to maintain and provide access to nearby private property.

Right of Way

The proximity of residences and buildings to SR-15, US-23, and US-30 have been noted at each individual intersection described in this report. The recommendations have been made while attempting to minimize right of way required to build the final recommended configuration. Given the preliminary nature of this study, additional assessment of right of way impacts will be needed to further quantify and confirm impacts to properties, structures and access drives associated with the individual improvements needed at each cross road location.

Travel Time / Rerouting Traffic

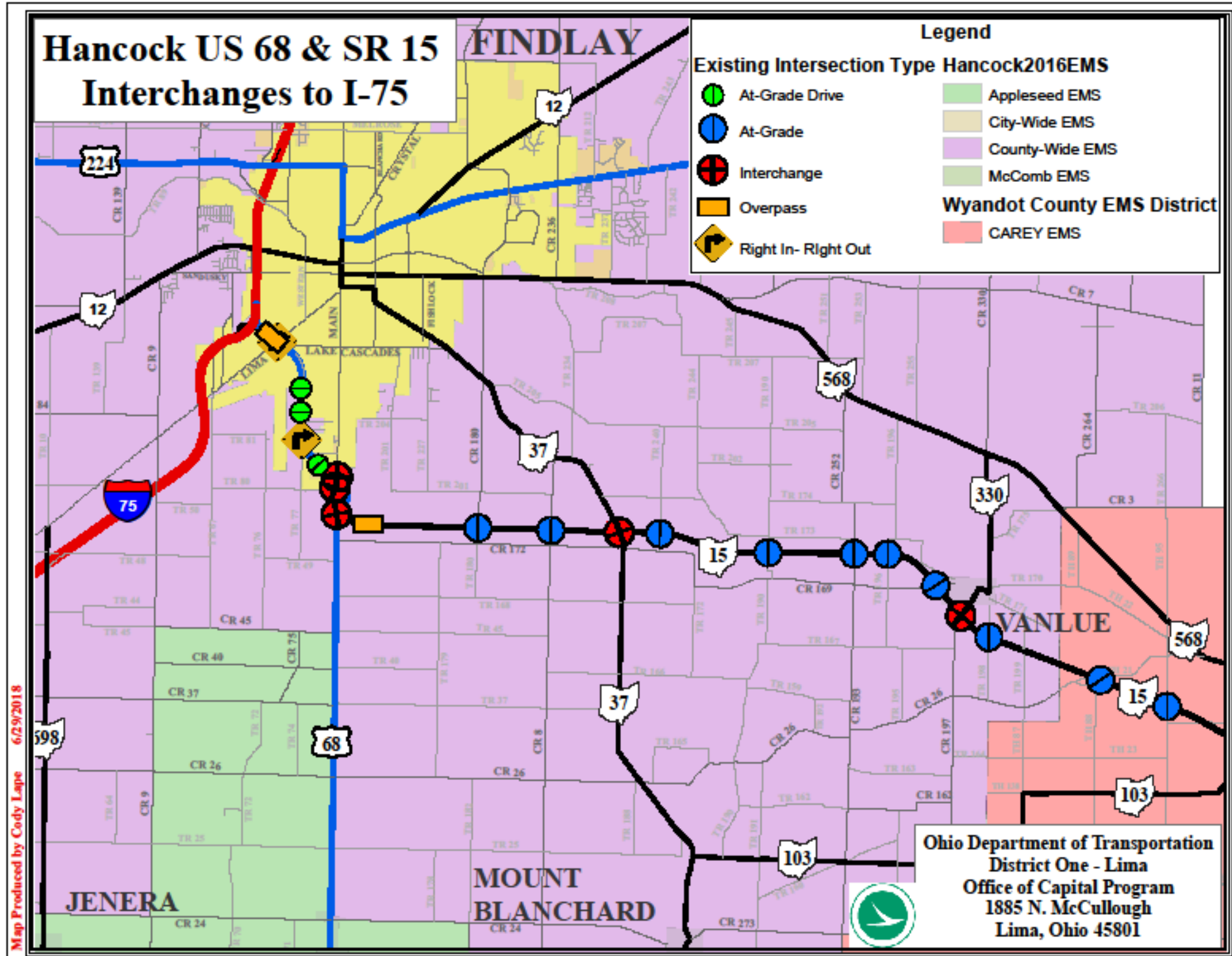
At each intersection, the possible routes to cross SR-15, US-23, and US-30 at an existing or proposed grade separated road were evaluated. Additionally, the distance and time required to reach the nearest interchange were taken into account. This information has been presented with the recommendation at each intersection in a previous section of this report.

VII. Conclusions

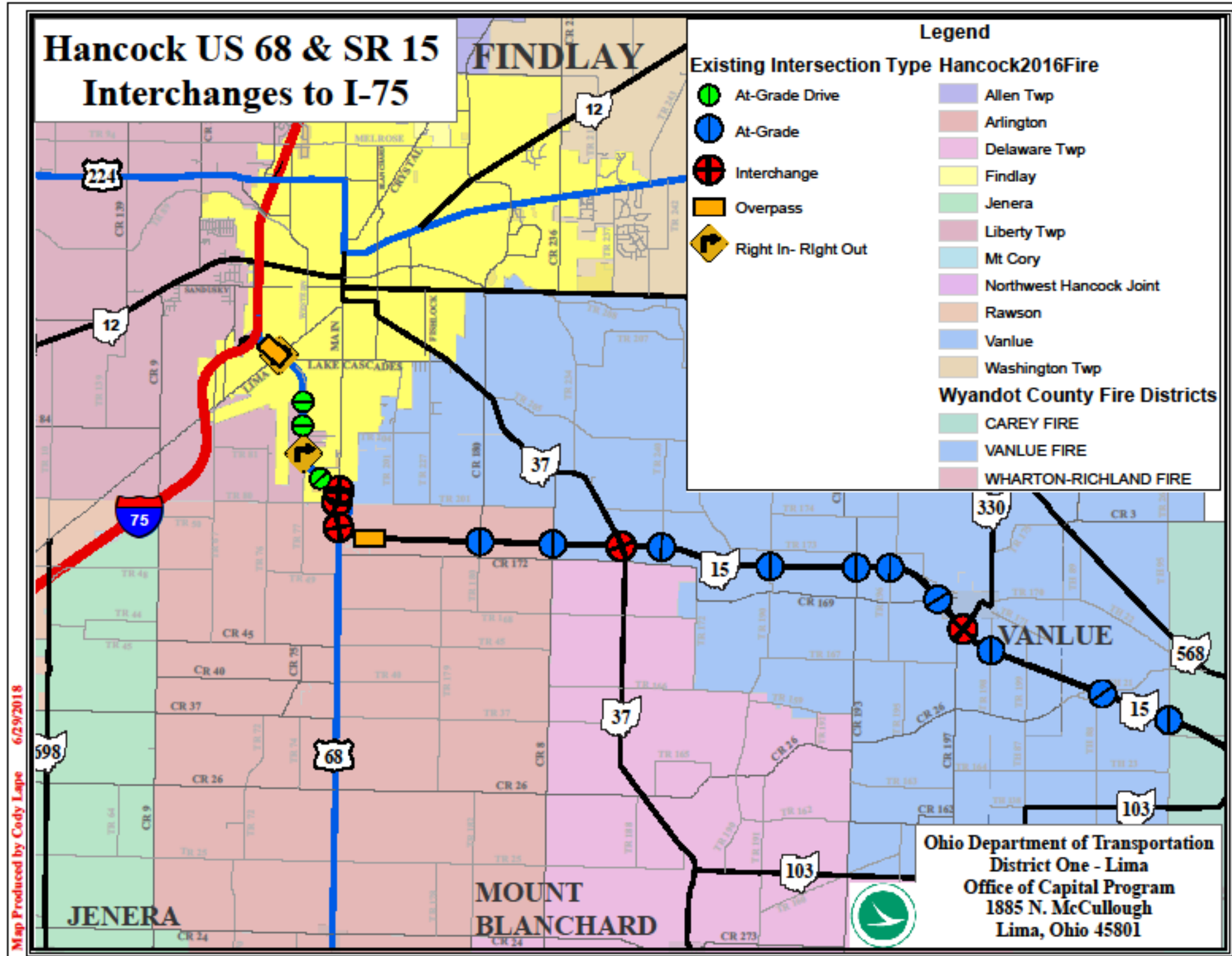
In conclusion, this study recommends long term access configurations for all the current at-grade intersections on SR-15, US-23, and US-30 from IR-75 in Hancock County to Township Road-68 near the Wyandot-Marion County line. Of the 26 intersections, 25 of them are recommended to be converted to cul-de-sacs, with 1 location recommended to be converted to a full diamond interchange. A summary of the intersection types may be found in Appendix A.

This study is intended to be used as a tool for economic development for Hancock and Wyandot Counties to appropriately plan for or discourage development in areas where access may one day not be available. As there is currently no funding for the changes recommended within this report, it will be necessary to revisit traffic volumes and patterns along with any changes made to the existing intersections or railroad tracks between now and the time of final design. ODOT's project development process will be followed to ensure that further refinement and evaluation of the recommended improvements is undertaken ahead of commencing final design and that input from the general public is solicited through a formal public involvement process. It should also be known that the recommendations in this report are for creating a fully controlled access freeway. Any short term alterations, such as restricted crossing U-turn intersections (RCUTs), would require additional research prior to implementation.

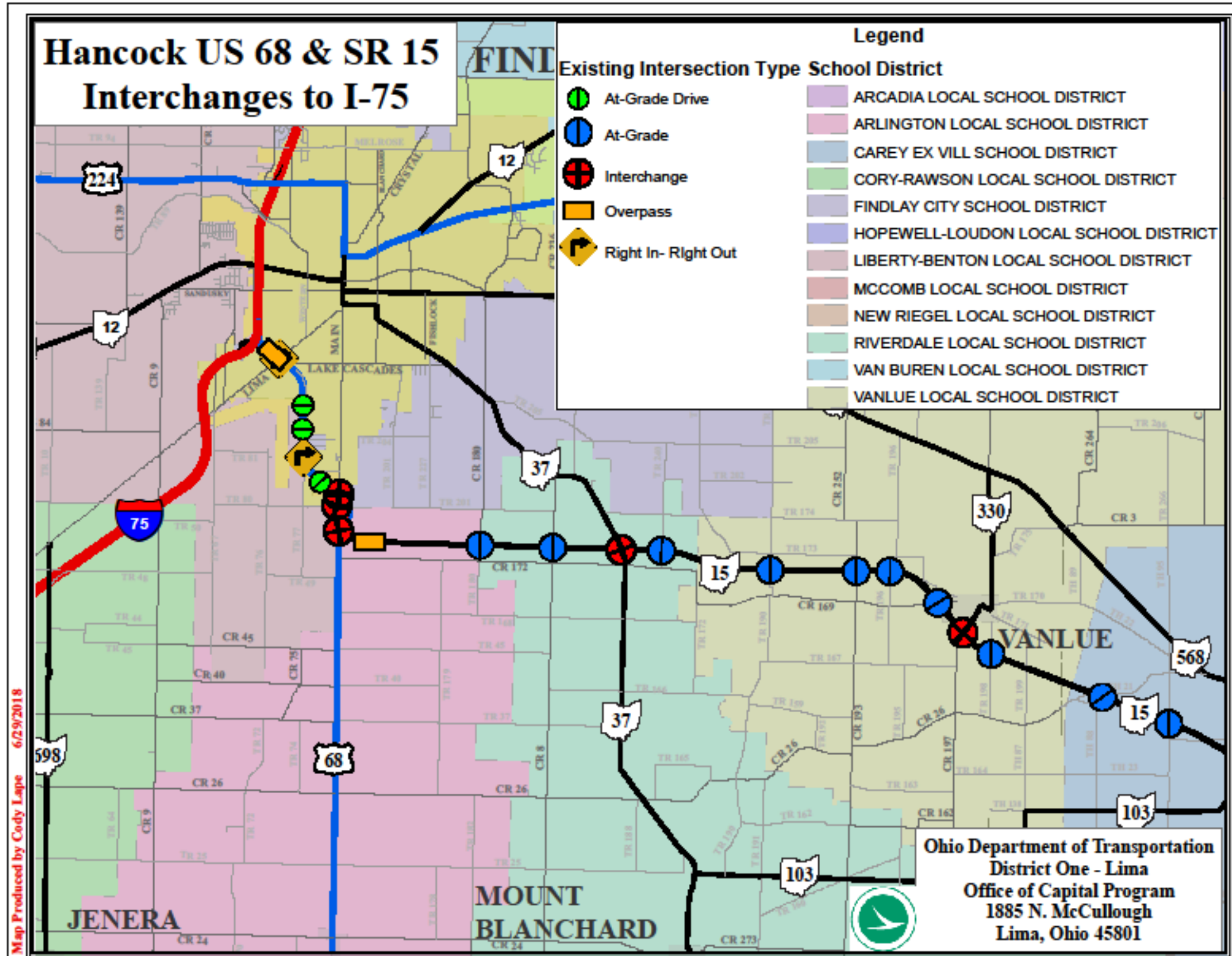
Appendix A



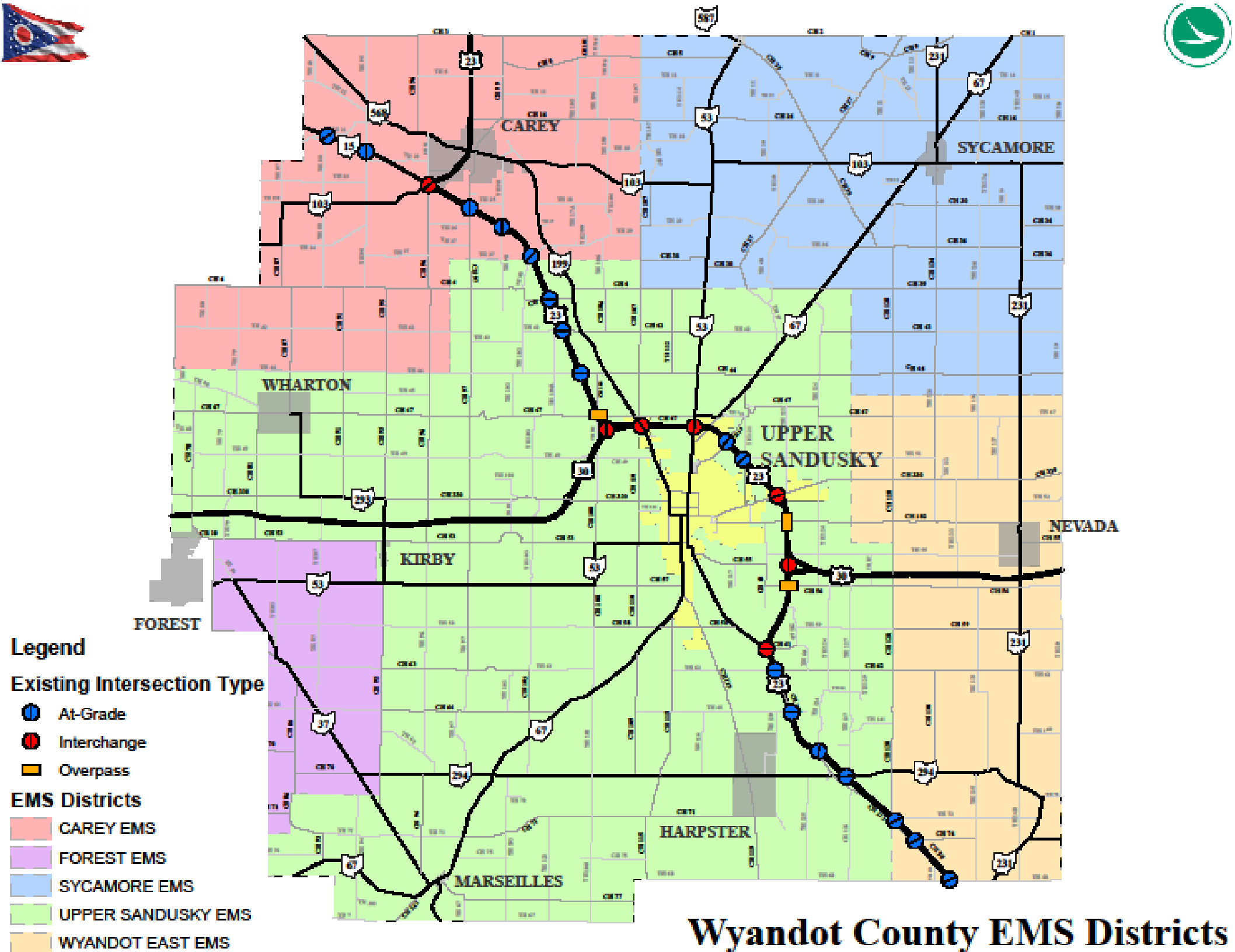
Appendix A



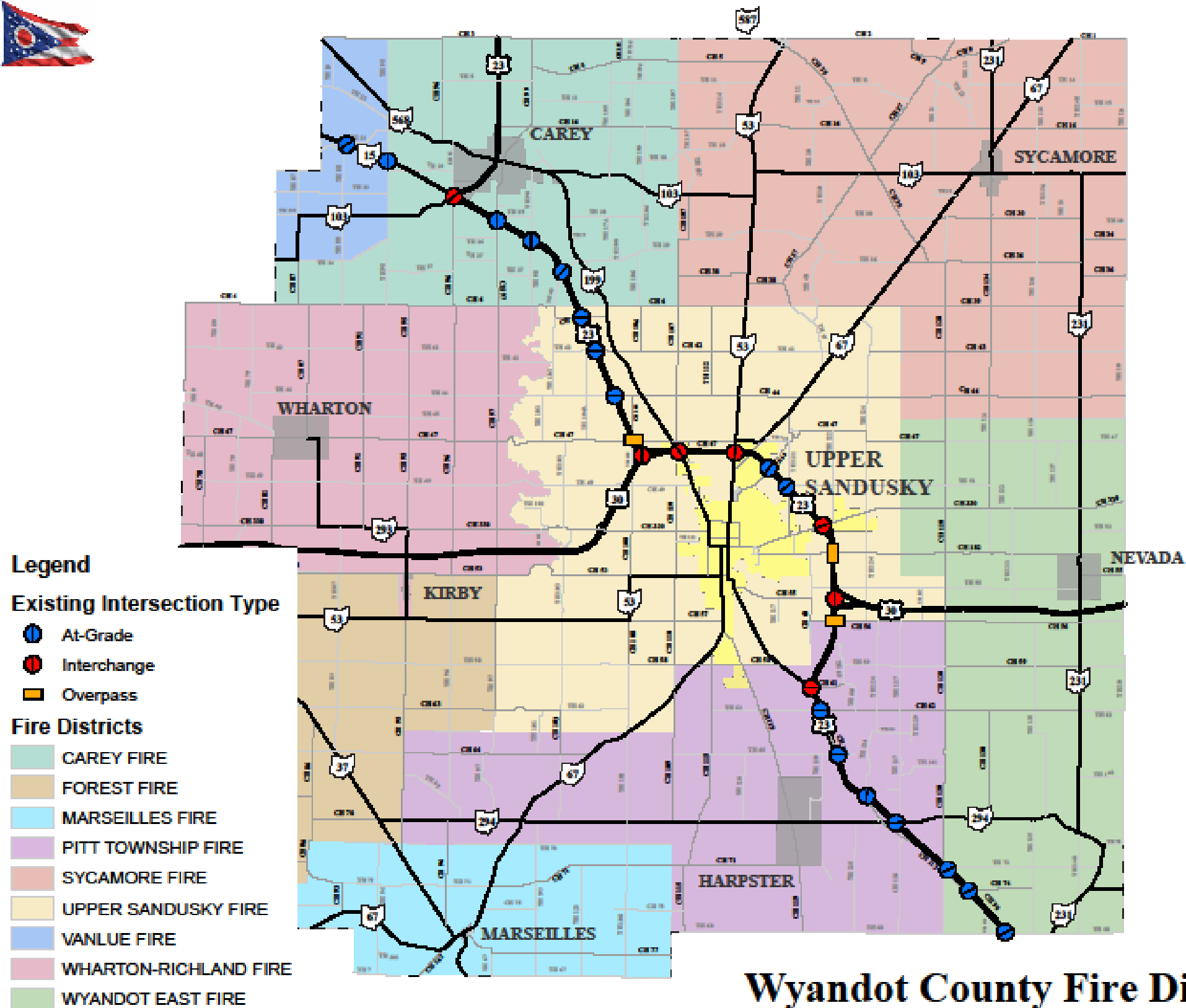
Appendix A



Appendix B

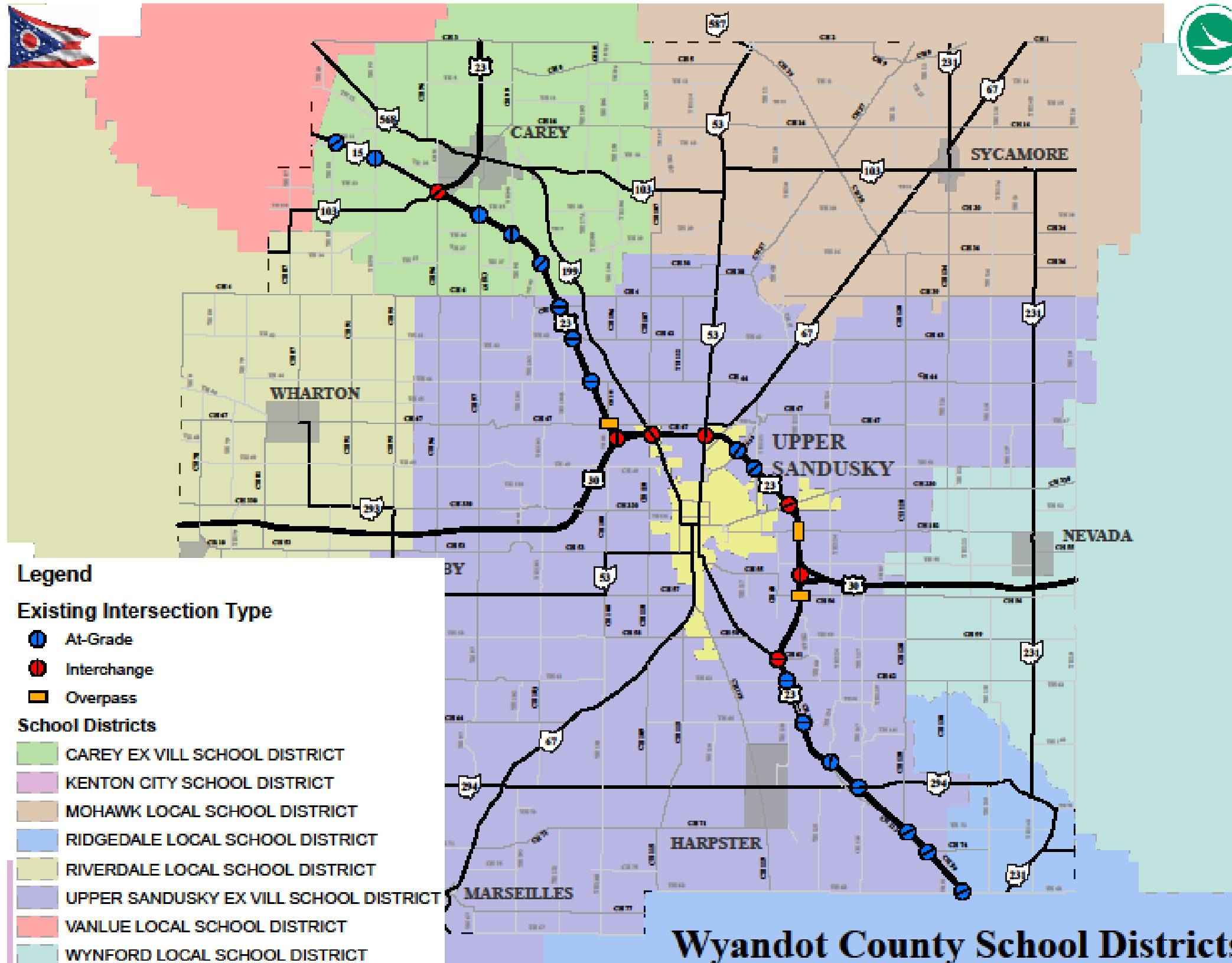


Appendix B



Wyandot County Fire Districts

Appendix B



SIGN-IN Sheet
 US 23/SR 15/US 68 Corridor Access Study
 January 30, 2018 6:30 PM Wyandot County Stakeholder Meeting
 Wyandot County EMS/EMA Building

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Philip Passet	Richland Township		419-310-2128
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Wendy - Dem	Tymochtee Twp		419 981 2001
Steve Heinlen	Antrim Township	antrimtp@comcast.net	419-294-8218