

LOCATION INFORMATION



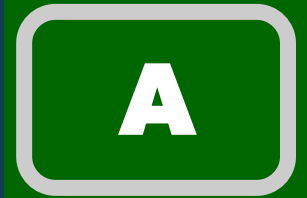
KY 9 looking westbound

Features

- 3-Lane (WB Truck Climbing Lane)
- 12' Lane Width
- 10' Shoulder Width
- Lighting on Side Street
- 19.4% Truck Traffic
- T-Intersection

Issues

The westbound truck climbing lane ends near the intersection approximately 100' west at MP 0.315, and there are no turn lanes. There were two comments associated with this spot by local officials and stakeholders mainly regarding a transition issue with the truck climbing lane.



SPOT

PROJECT PRIORITY

Low

LOCATION

Pendleton County
 KY 9 at KY 159 (New Hope Road)
 MP 0.296

DATA

2020 AADT: 7,800
 2045 AADT: 8,900
 Crash Data:
 CRF: N/A
 Crashes: 5
 CHAF ID: IP20080380
 Improve Intersection
 (Un-sponsored)

DESCRIPTION

Improve intersection by modifying truck climbing lane, adding a turn lane, and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Concept 1:

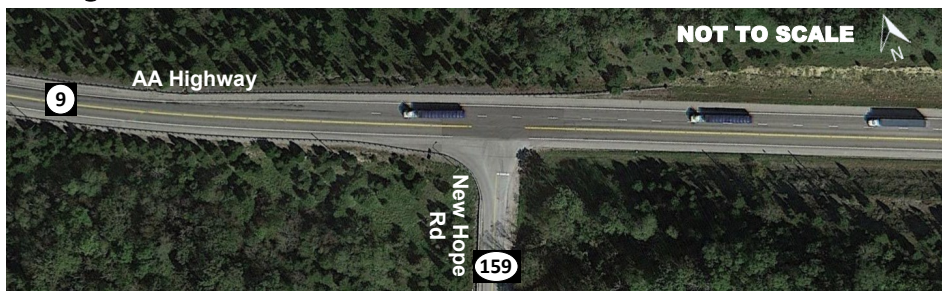
Design: \$70,000
 ROW: \$10,000
 Utilities: \$0
 Const.: \$460,000
Total: \$540,000

Concept 2:

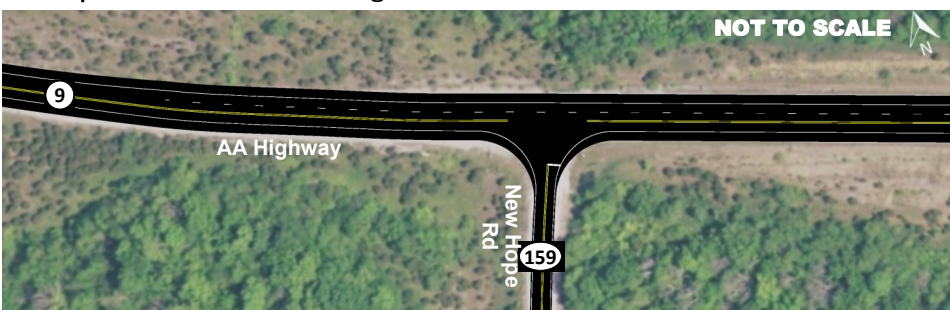
Design: \$5,000
 ROW: \$ N/A
 Utilities: \$ N/A
 Const.: \$10,000
Total: \$15,000

IMPROVEMENT CONCEPT

Existing



Concept 1—Extend truck climbing lane to the west.



Concept 2—End the truck climbing lane before the intersection and use the extra width as a westbound left turn lane.



LOCATION INFORMATION



KY 9 looking northbound Iler Rd

Features

- 3-Lane (WB Truck Climbing Lane)
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Street
- 19.4% Truck Traffic
- T-Intersection
- KYTC is Acquiring Iler Road

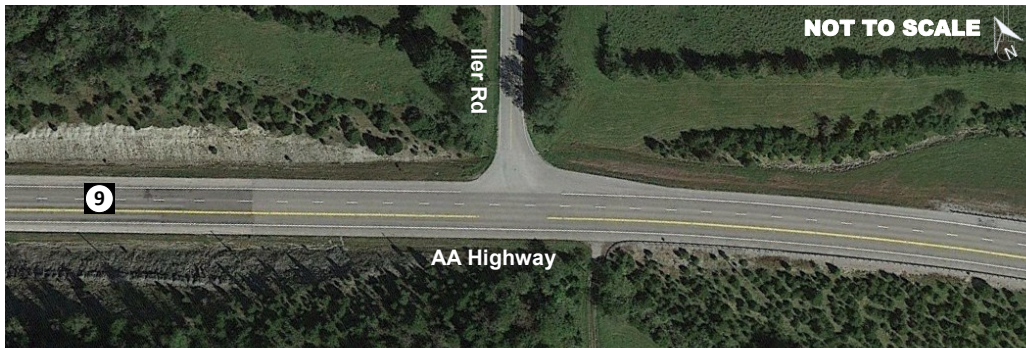
Issues

The westbound truck climbing lane ends near the intersection approximately 2000' west at MP 0.315 (Pendleton County), and there are no turn lanes. Iler Road sees heavy truck use due to the Bulk Transit Corporation being at the northern intersection of Iler Road at KY 8. There were three injury crashes (43%). There were two comments associated with this spot by local officials and stakeholders regarding the need for turn lanes and that this is a major traffic generator.

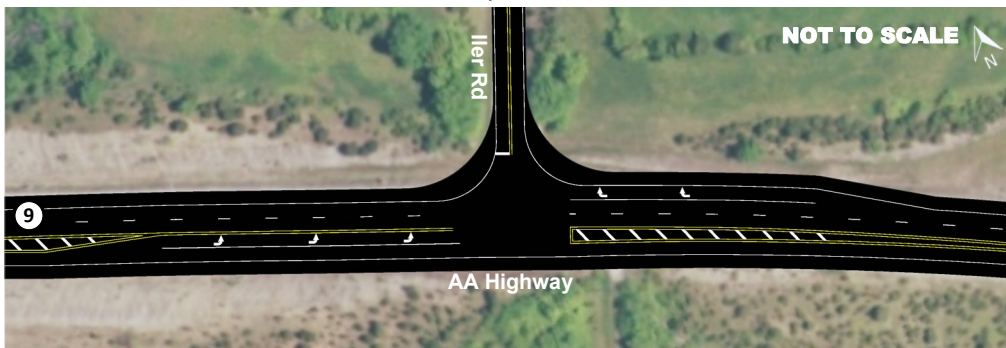
IMPROVEMENT CONCEPT

- Add eastbound left turn lane (warranted based on 2045 volumes) and westbound right turn lane to improve safety.
- Add advanced intersection warning signage.

Existing



Proposed



B

SPOT

PROJECT PRIORITY

Medium

LOCATION

Bracken County
KY 9 at Iler Road
MP 19.804

DATA

2020 AADT: 7,300

2045 AADT: 8,200

Crash Data:

CRF: N/A

Crashes: 7

CHAF ID: IP20190008

Improve Intersection
(Un-sponsored)

DESCRIPTION

Improve intersection by adding turn lanes and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$85,000

ROW: \$10,000

Utilities: \$0

Const.: \$850,000

Total: \$945,000

LOCATION INFORMATION



Features

- 3-Lane (EB Truck Climbing Lane)
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 19.4% Truck Traffic



KY 1019 looking westbound

Issues

The eastbound truck climbing lane ends near the intersection approximately 750' east at MP 16.715. There were five injury (100%) and four angle (80%) crashes.

C

SPOT

PROJECT PRIORITY

Medium

LOCATION

Bracken County
 KY 9 at KY 1019—
 Lenoxsburg Foster Road
 MP 16.856

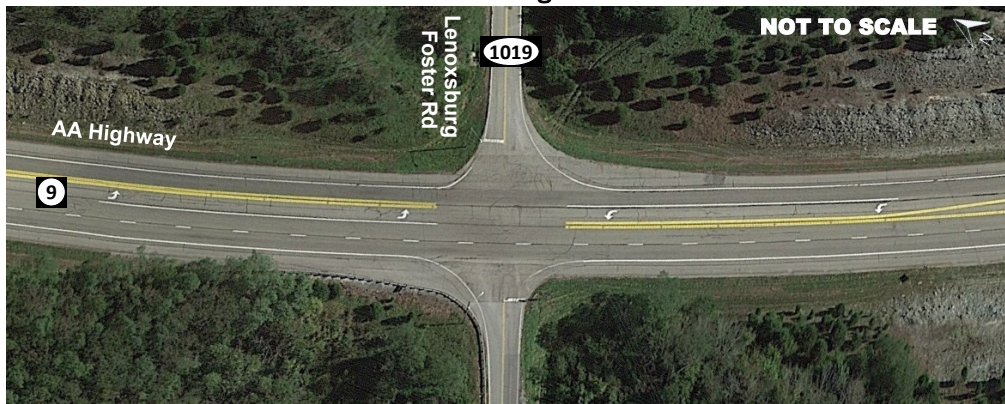
DATA

2020 AADT: 7,300
 2045 AADT: 8,200
 Crash Data:
 CRF: 1.18
 Crashes: 5
 CHAF ID: IP20080279

IMPROVEMENT CONCEPT

- Add advanced intersection warning signage.
- Offset KY 9 left turn lanes in the positive direction.

Existing



Proposed



DESCRIPTION

Improve intersection by modifying the turn lanes and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$45,000
 ROW: \$10,000
 Utilities: \$55,000
 Const.: \$430,000
Total: \$540,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 19.4% Truck Traffic
- No-Passing Zone
- Bridge over Goose Creek—MP 10.400

Issues

There were nine wet/snow/ice crashes (69%). There are no bridge drains present according to plan archives which may be causing excess water on bridge and roadway.

IMPROVEMENT CONCEPT

- Add advance intersection warning signage.
- Add advance bridge warning and “Bridge Ices Before Road” signage.
- Add drains to bridge.

Existing



D

SEGMENT

PROJECT PRIORITY

Short-term

LOCATION

Bracken County

KY 9

MP 10.259–10.559
(Intersects KY 1159 MP 7.795)

DATA

2020 AADT: 5,500–6,400

2045 AADT: 6,300–7,300

Crash Data:

CRF: 1.77

Crashes: 13

CHAF ID: N/A

DESCRIPTION

Improve KY 9 between MP 10.259 to MP 10.559 by improving bridge drainage, bridge signing, and intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$7,500

Total: \$12,500

LOCATION INFORMATION



KY 9 looking westbound

Features

- 3-Lane (EB Truck Climbing Lane)
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 19.4% Truck Traffic

Issues

The eastbound truck climbing lane ends near the intersection approximately 1060' east at MP 7.550. There were three angle crashes (100%). There are no turn lanes, and the guardrail radii along the southbound leg of the intersection is tight for trucks when turning. There were two comments associated with this spot by local officials and stakeholders regarding the need for turn lanes and there being a tight guardrail radius.

IMPROVEMENT CONCEPT

- Improve southbound approach guardrail radius.
- Re-stripe eastbound truck climbing lane as eastbound and westbound left turn lanes to improve safety.
- Add advanced intersection warning signage.

Existing



Proposed



E

SPOT

PROJECT PRIORITY

Low

LOCATION

Bracken County

KY 9 at KY 875—Mt. Zion Road

MP 7.751

DATA

2020 AADT: 5,500

2045 AADT: 6,300

Crash Data:

CRF: N/A

Crashes: 3

CHAF ID: IP20150014

Improve Intersection
(Un-sponsored)

DESCRIPTION

Improve intersection by adding turn lanes and improving guardrail, striping, and intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$10,000

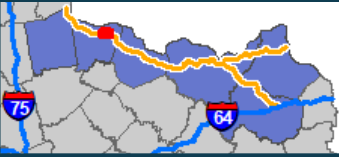
ROW: \$10,000

Utilities: \$85,000

Const.: \$120,000

Total: \$225,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 19.4% Truck Traffic
- Park and Pool Location
- Overhead Caution Lights



KY 19 looking southbound

Issues

There were six angle (50%) and four injury (33%) crashes.

IMPROVEMENT CONCEPT

- Add advanced intersection warning signage.
- Add oversized dual stop signs.
- Offset KY 9 left turn lanes in the positive direction.

Existing



Proposed



F

SPOT

PROJECT PRIORITY

High

LOCATION

Bracken County
KY 9 at KY 19—Augusta
Chatham Road
MP 5.546

DATA

2020 AADT: 5,500—
6,200
2045 AADT: 6,300—
7,100

Crash Data:

CRF: 2.03

Crashes: 12

CHAF ID: N/A

DESCRIPTION

Improve intersection by modifying the turn lanes and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$30,000

ROW: \$10,000

Utilities: \$ N/A

Const.: \$280,000

Total: \$320,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 4-Lane
- 12' Lane Width
- 10' Shoulder Width
- 14' Flush Median
- Lighting on Side Streets
- 10.6% Truck Traffic
- Recently Reconstructed as Part of a Widening Project Ending in 2018.

Issues

This roadway section was recently reconstructed to a four-lane. In evaluation of the post-construction crashes, there is still an interpolated high CRF for this intersection. There were 4 crashes in the post-construction period between Sept. 2017 and Oct. 2019. Three were wet/snow/ice (75%). All crashes occurred in the eastbound direction.

IMPROVEMENT CONCEPT

- Add wet roadway condition warning signs.
- Evaluate drainage further at this intersection. Surveying will be required to determine areas that need to be addressed further.
- Add open graded high skid-resistance overlay.

Existing



G

SPOT

PROJECT PRIORITY

Short-term

LOCATION

Mason County
KY 9 at KY 435
MP 17.049

DATA

2020 AADT: 5,800—6,400
2045 AADT: 6,600—7,300
Crash Data:
CRF: 1.30
Crashes: 4 (post-construction)
CHAF ID: N/A

DESCRIPTION

Improve intersection by evaluating drainage, adding signage, and increasing surface friction.

COST ESTIMATE

2020 Dollars

Design: \$25,000
ROW: \$ N/A
Utilities: \$ N/A
Const.: \$60,000
Total: \$85,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 4-Lane
- 12' Lane Width
- 10' Shoulder Width
- 14' Flush Median
- Urban / Rural Location
- Lighting on Side Streets and High-Mast Interchange Lighting.
- 10.6% Truck Traffic
- Dual Red Signal Heads

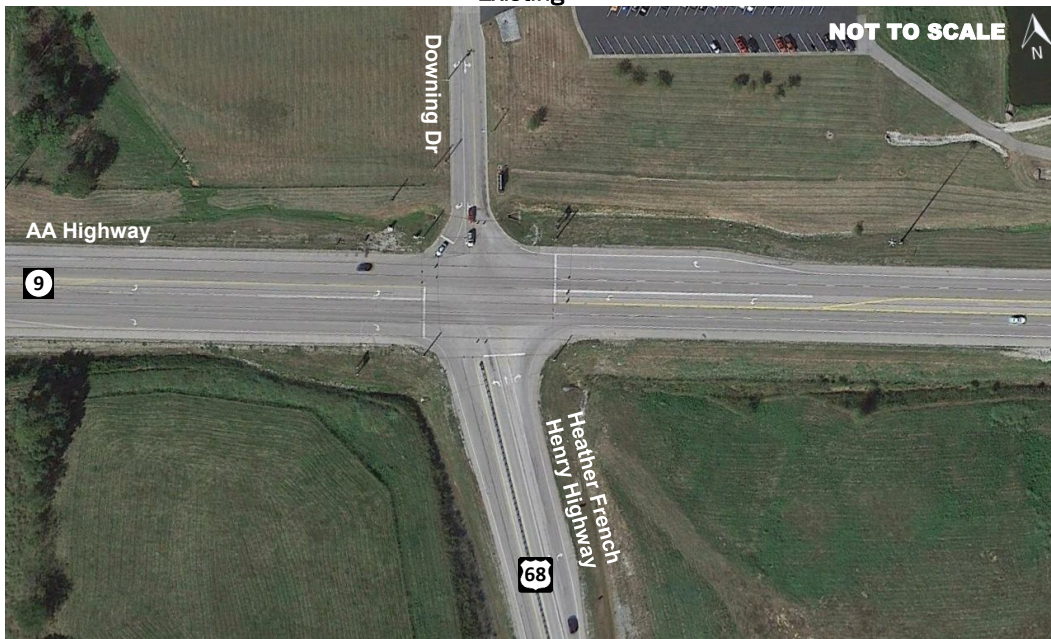
Issues

This intersection has high turning movement volumes compared to the mainline due to being a US 68 ramp and an entrance to the WM. R. Shugars Commerce Park. There were eight rear end (62%) and four angle (31%) crashes. The southbound through movement currently operates with a delay of 58 seconds and a Level of Service (LOS) E.

IMPROVEMENT CONCEPT

- Evaluate and improve signal timing and phasing.
- Add advance intersection signage.
- This intersection is included in concept AB which lowers the speed limit to 45 mph just west of this intersection.

Existing



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Mason County

KY 9 at Downing Drive

MP 12.620

DATA

2020 AADT: 9,200

2045 AADT: 10,400

Crash Data:

CRF: 1.76

Crashes: 13

CHAF ID: N/A

DESCRIPTION

Improve intersection by improving signal timing and intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$5,000

Total: \$10,000

LOCATION INFORMATION



Features

- 4-Lane
- 12' Lane Width
- 2' Shoulder Width
- 14' Continuous Left Turn Lane
- Urban Area
- Lighting On Side Street
- 13.7% Truck Traffic
- Culvert over Lawrence Creek — MP 10.830



Kenton Station Drive looking southbound

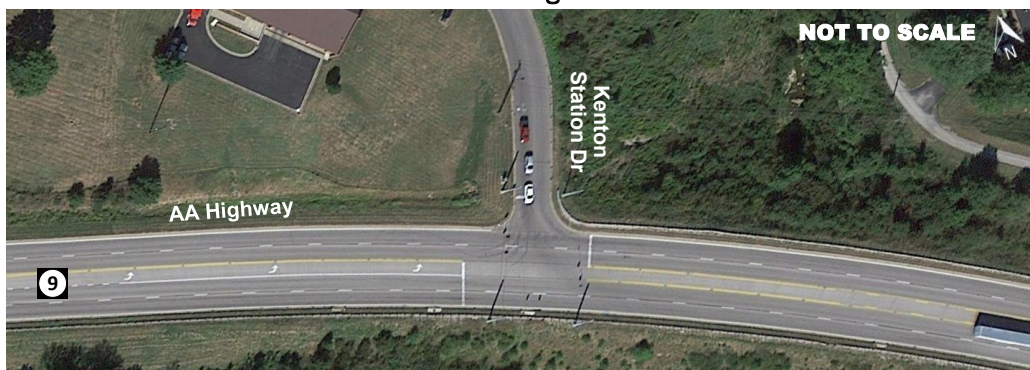
Issues

There were nine rear end (47%) six injury or fatality crashes (32%). There was an angle manner fatality. There is no westbound right turn lane. The southbound left turn operates with a delay of 64 seconds and LOS E. There were three comments associated with this spot by local officials and stakeholders regarding the need for a westbound right turn lane into Kenton Station Drive and issues related to intersection awareness and traffic queuing. It is the entrance to critical facilities such as the regional hospital, fire station, and other medical buildings.

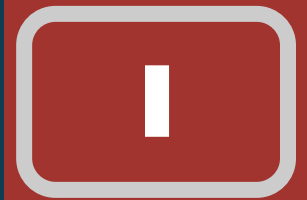
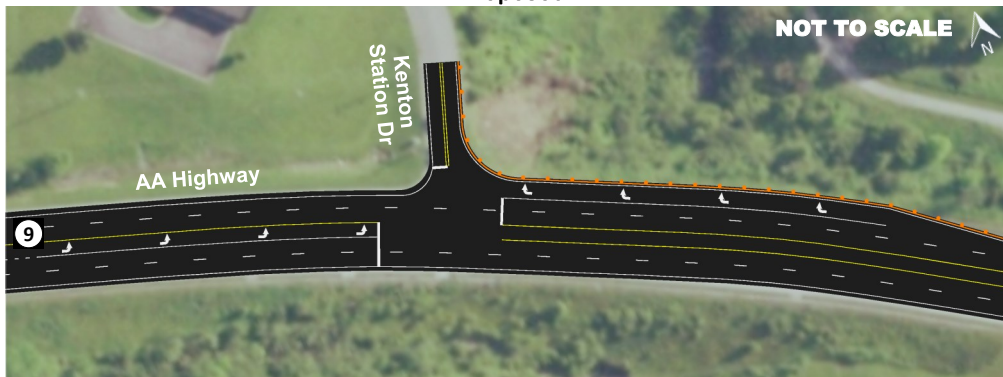
IMPROVEMENT CONCEPT

- Construct westbound right turn lane for Kenton Station Drive. (Warranted for 2020 volumes)
- Evaluate and improve signal timing.
- Improve intersection awareness through the use of advanced signing.
- Widening the roadway and the reconstruction of the roadside ditch could result in significant impacts. This would need to be evaluated further with surveying.
- Consider addition of overhead lighting.
- This intersection is included in concept AB which would lower the speed limit to 45 mph.

Existing



Proposed



SPOT

PROJECT PRIORITY

High

LOCATION

Mason County

KY 9 at Kenton Station Drive

MP 10.861

DATA

2020 AADT: 12,400

2045 AADT: 14,100

Crash Data:

CRF: 1.16

Crashes: 19

CHAF ID: IP20160298

Construct Right Turn Lane
(Sponsored, 31.8 Score)

DESCRIPTION

Add a westbound right turn lane. Improve intersection signal timing, awareness and lighting.

COST ESTIMATE

2020 Dollars

Design: \$70,000

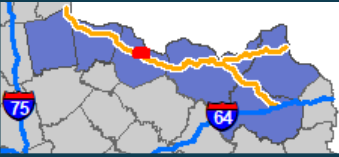
ROW: \$5,000

Utilities: \$110,000

Const.: \$460,000

Total: \$645,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 4-Lane
- 12' Lane Width
- 1'-2' Shoulder Width
- 14' Continuous Left Turn Lane
- 45 mph Speed Limit
- Urban Area
- Lighting on Side Streets
- 13.7% – 14.2% Truck Traffic

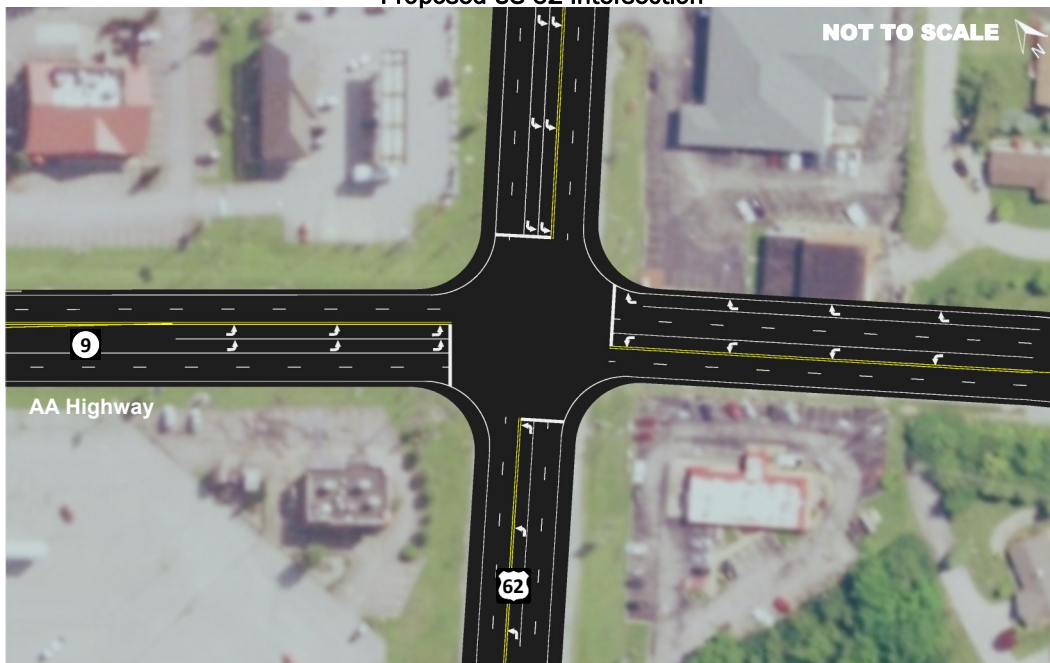
Issues

The intersection with US 62 has congestion due to the limited space for adequate lane configuration and corresponding signal phasing. It operates with an overall delay of 79 seconds and LOS E, and reaches as high as 114 seconds delay and LOS F (westbound through). Most of the crashes that have occurred at the intersection along this segment have been rear ends (32), but a significant amount of sideswipes (11) have occurred as well. There have been mostly angle collisions along the eastbound approach (24). There are four access locations along the eastbound approach that may be contributing to these crashes. There is an item number (9-80107.00) for the intersection of US 62 which involves adding turn lanes.

IMPROVEMENT CONCEPT

- Narrow lane widths and add an extra lane in the eastbound, westbound, and southbound approaches so that the signal phasing can be optimized for the amount of traffic. This includes a dedicated westbound right turn and dedicated left turns for the eastbound and southbound approaches. The northbound did not warrant an extra lane.
- Continue to monitor access control issues after intersection improvement, or consider converting entrances as right-in, right-out only.

Proposed US 62 Intersection



SEGMENT

PROJECT PRIORITY

High

LOCATION

Mason County

KY 9

MP 10.180–10.567
(Intersects US 62 MP
10.256)

DATA

2020 AADT: 13,400–
13,900

2045 AADT: 15,200–
15,800

Crash Data:

CRF: 2.85–3.89

Crashes: 112

CHAF ID: IP20170079

Improve Intersection
(Sponsored–75.6 Score)

DESCRIPTION

Mitigate high volume of crashes at the intersection, approaches, and eastbound approach access points at KY 9 and US 62 through the addition / modification of turn lanes.

COST ESTIMATE

2020 Dollars

Design: \$180,000

ROW: \$525,000

Utilities: \$95,000

Const.: \$1,775,000

Total: \$2,575,000

LOCATION INFORMATION



Market Square Drive looking northbound

Features

- 4-Lane
- 12' Lane Width
- 10' Shoulder Width
- 15' Mountable Median
- 45 mph Speed Limit
- Urban Area
- Lighting on Side Streets
- 14.2% Truck Traffic

Issues

Most of the crashes along this section of KY 9 which includes the intersections of Market Square Drive, Tucker Drive, and both Walmart Way Entrances were rear ends (30–55%) and angle crashes (14–25%). Future development plans may increase safety issues in this area if they are not addressed. The northbound lefts at Tucker Drive, and both the signalized and unsignalized Walmart way entrances have poor delays and LOS—Respectively: 41 sec / E in 2020 and 69 sec / F in 2045, 61 sec / E in 2045, and 39 sec / E in 2020 and 52 sec / F in 2045. There was one comment associated with this segment by local officials / stakeholders regarding future planned development.

IMPROVEMENT CONCEPT

- Widen KY 9 to allow for a landscaped median through this four lane section as an access management and traffic calming measure.
 - This improvement would extend past this segment, through the intersection of KY 1448, and end approximately 0.5 mile east to include potential future development entrances.
- Construct a right-in, right-out approach at the unsignalized intersections of Tucker Drive and Walmart Way. Construct positive separation to deter vehicles from making left turns at these locations.
- Construct dual left turn lanes at the signalized intersection with Walmart Way.
- Eliminate two field entrances at the Walmart Way intersections.
- Evaluate and improve signal timing.
- Consider adding overhead street lighting where necessary.

Proposed (Full Length Landscape Median and Right-In, Right-Outs)



Proposed Landscape Median Typical



Continues on next page

K

SEGMENT

PROJECT PRIORITY

Medium

LOCATION

Mason County

KY 9

MP 9.250-10.000

DATA

2020 AADT: 13,400

2045 AADT: 15,200

Crash Data:

CRF: 0.90–1.52

Crashes: 55

CHAF ID: N/A

DESCRIPTION

Mitigate the high volume of crashes occurring at Market Square Dr., Tucker Dr., and Walmart Way entrances with a landscaped median and modifications to access.

COST ESTIMATE

2020 Dollars

Design: \$875,000

ROW: \$350,000*

Utilities: \$325,000

Const.: \$5,835,000

Total: \$7,385,000

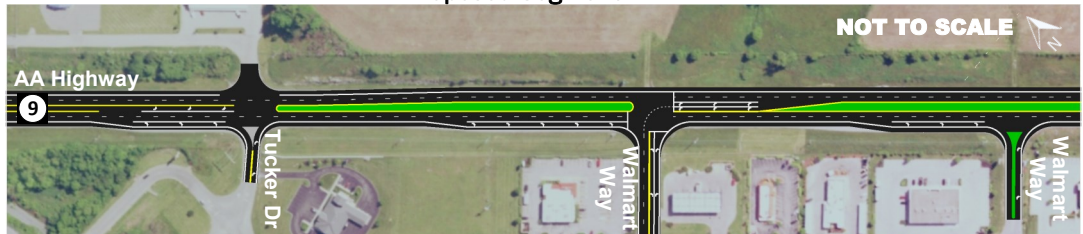
*ROW Note: ROW Cost is subject to considerable variability based on the field entrance closings.

IMPROVEMENT CONCEPTS

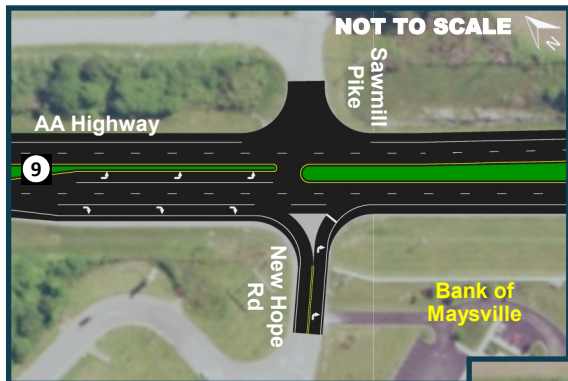
Existing Segment



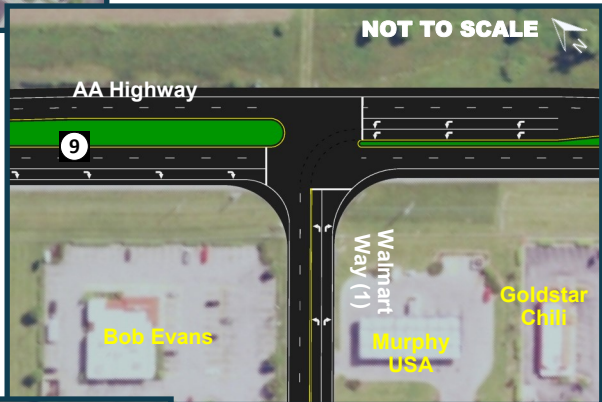
Proposed Segment



Proposed Tucker Drive Right-In / Right-Out



Proposed Walmart Way 1
Dual Westbound Left Turns



Proposed Walmart Way 2
Right-In / Right-Out



SEGMENT

PROJECT PRIORITY
Medium

LOCATION
Mason County
KY 9
MP 9.250-10.000

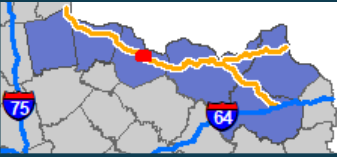
DATA
2020 AADT: 13,400
2045 AADT: 15,200
Crash Data:
CRF: 0.90–1.52
Crashes: 55
CHAF ID: N/A

DESCRIPTION
Mitigate the high volume of crashes occurring at Market Square Dr., Tucker Dr., and Walmart Way entrances with a landscaped median and modifications to access.

COST ESTIMATE
2020 Dollars
Design: \$875,000
ROW: \$350,000*
Utilities: \$325,000
Const.: \$5,835,000
Total: \$7,385,000

*ROW Note: ROW Cost is subject to considerable variability based on the field entrance closings.

LOCATION INFORMATION



KY 9 looking westbound

Features

- 4-Lane
- 12' Lane Width
- 10' Shoulder Width
- 15' Mountable Median
- Urban Area
- Lighting on Side Streets
- 14.2% Truck Traffic

Issues

Most of the crashes at the intersection were rear ends (23–72%). Further evaluation of crash reports showed that red-light running due to driver inattention was the leading cause of crashes.

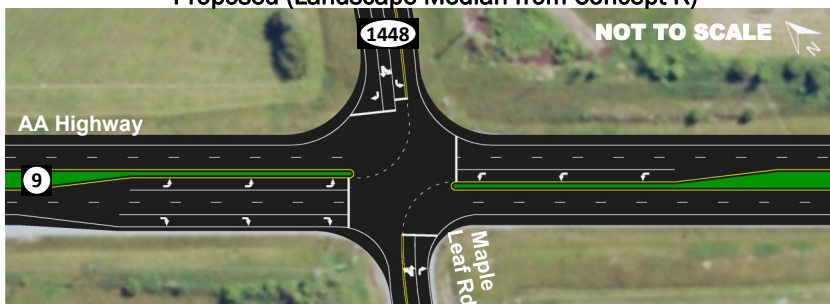
IMPROVEMENT CONCEPT

- The widening improvement for concept K extends through this intersection.
- Add advanced intersection warning signage.
- This intersection is included in concept AB which would lower the speed limit to 45 mph.
- Add dual red signal heads.

Existing



Proposed (Landscape Median from Concept K)



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Mason County

KY 9 at 1448–Maple Leaf Road

MP 8.969

DATA

2020 AADT: 12,000–13,400

2045 AADT: 13,600–15,200

Crash Data:

CRF: 2.08

Crashes: 32

CHAF ID: N/A

DESCRIPTION

Improve intersection by improving intersection awareness, optimizing signal timing, and re-striping.

COST ESTIMATE

2020 Dollars

Design: \$5,000

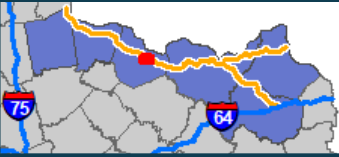
ROW: \$ N/A

Utilities: \$ N/A

Const.: \$15,000

Total: \$20,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 4-Lane
- 12' Lane Width
- 10' Shoulder Width
- 15' Mountable Median
- Urban Area
- Lighting on Side Streets
- 13.4% – 14.2% Truck Traffic

Issues

Most of the crashes at the intersection were rear ends (22–58%) and angle crashes (8–21%). There is a heavy amount of peak-hour eastbound right turns (270–20%), but it is only a shared through/right turn lane. The intersection is operating at an overall delay of 49 seconds / LOS D. The eastbound left and northbound left still operate at a LOS E in 2045 after optimizing signal timing.

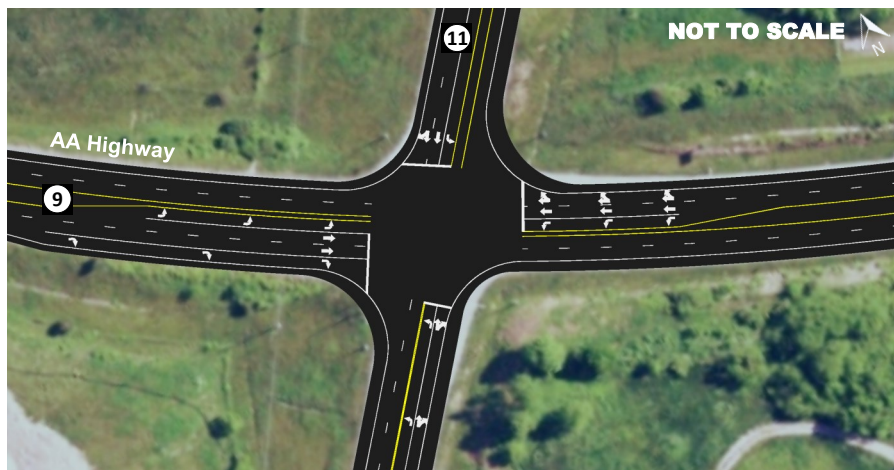
IMPROVEMENT CONCEPT

- Construct dedicated eastbound right turn lane to improve safety and meet vehicular traffic. (Warranted for 2020 volumes)
- Consider the addition of a second northbound left turn lane to improve operations and meet vehicular demand.
- Improve signal timing.
- This intersection is included in concept AB which would lower the speed limit to 45 mph.
- Add advanced intersection warning signage.

Existing



Proposed



M

SPOT

PROJECT PRIORITY

High

LOCATION

Mason County

KY 9 at KY 11

MP 7.560

DATA

2020 AADT: 8,200–12,000

2045 AADT: 9,300–13,600

Crash Data:

CRF: 2.83

Crashes: 38

CHAF ID: N/A

DESCRIPTION

Improve intersection by adding a right turn lane, improving signal timing, and intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$65,000

ROW: \$10,000

Utilities: \$550,000

Const.: \$370,000

Total: \$995,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 10' Shoulder Width
- No Lighting
- 13.4% Truck Traffic
- Railroad Bridge—MP 6.210



KY 9 looking westbound

Issues

Many of the crashes were rear ends (6–50%). There are no painted stop bars at the side-street approaches and no turn lanes. There is an entrance to a field by MP 6.032 that has crashes associated with it.

IMPROVEMENT CONCEPT

- Construct eastbound right turn lane to improve safety.
- Improve intersection signage.
- Add stop bars on side street.
- Consider addition of lighting.

Existing



Proposed (Eastbound Right Turn)



N

SEGMENT

PROJECT PRIORITY

High

LOCATION

Mason County

KY 9

MP 5.900–6.230
(Intersects Knoweshaw
Road MP 5.931)

DATA

2020 AADT: 8,200

2045 AADT: 9,300

Crash Data:

CRF: 1.02–1.36

Crashes: 12

CHAF ID: N/A

DESCRIPTION

Improve intersection by improving intersection awareness, adding a turn lane, and adding stop bars.

COST ESTIMATE

2020 Dollars

Design: \$50,000

ROW: \$ N/A

Utilities: \$100,000

Const.: \$300,000

Total: \$450,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 10' Shoulder Width
- No Lighting
- 13.4% Truck Traffic



KY 9 looking westbound

Issues

There are no turn lanes for trucks accessing a landfill on Clarkson Sherman Road. There are no stop bars on the Clarkson Sherman Road approaches. There was one comment associated with this spot by local officials and stakeholders regarding the need for turn lanes to accommodate landfill truck traffic. Traffic counts were conducted at this intersection to evaluate the need for turn lanes into the landfill.

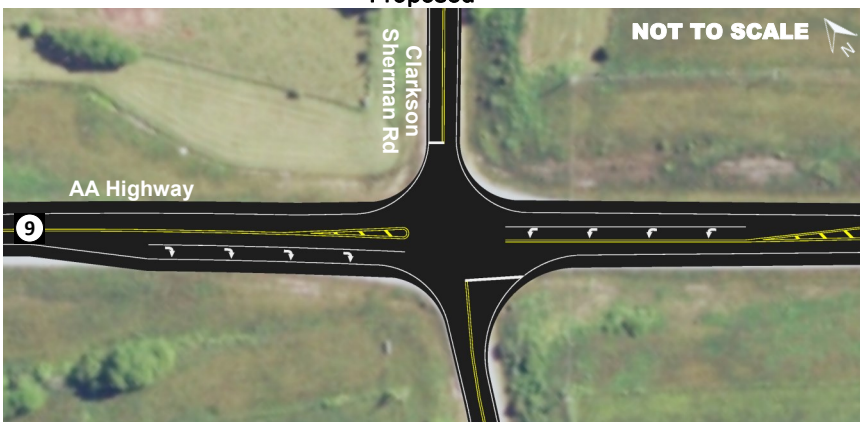
IMPROVEMENT CONCEPT

- Construct eastbound right turn lane and westbound left turn lane to improve safety.
- Add stop bars at approaches.

Existing



Proposed



0

SPOT

PROJECT PRIORITY

Medium

LOCATION

Mason County
 KY 9 at Clarkson
 Sherman Road
 MP 4.740

DATA

2020 AADT: 8,200
 2045 AADT: 9,300
 Crash Data:
 CRF: N/A
 Crashes: 2
 CHAF ID: IP 20150186
 Construct Right Turn Lane
 (Sponsored, 40.0 Score)

DESCRIPTION

Improve intersection by adding turn lanes and stop bars, and improving intersection awareness.

COST ESTIMATE

2020 Dollars
 Design: \$60,000
 ROW: \$ N/A
 Utilities: \$0
 Const.: \$465,000
Total: \$525,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 2-Lane
- 12' Lane Width
- 10' Shoulder Width
- Lighting on Side Streets
- 13.4% Truck Traffic

Issues

Six crashes were injury or fatality (55%) with the fatality being a rear end manner of collision. Four were angle manner of collision crashes (36%).

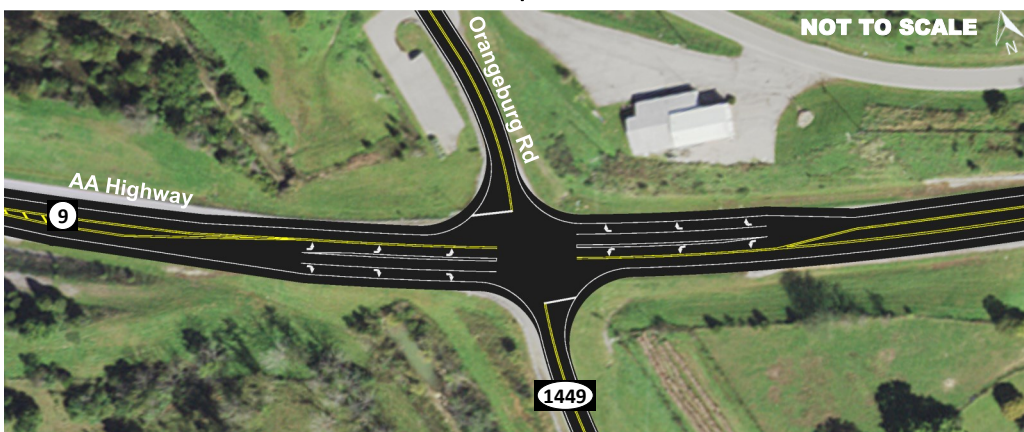
IMPROVEMENT CONCEPT

- Add advanced intersection warning signs.
- Construct right turn lanes and positive offsets for left turn lanes to improve safety.

Existing



Proposed



P

SPOT

PROJECT PRIORITY

High

LOCATION

Mason County

KY 9 at KY 1449—

Orangeburg Road

MP 3.781

DATA

2020 AADT: 6,100

2045 AADT: 6,900

Crash Data:

CRF: 1.58

Crashes: 11

CHAF ID: N/A

DESCRIPTION

Improve intersection by adding turn lanes and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$45,000

ROW: \$ N/A

Utilities: \$0

Const.: \$445,000

Total: \$490,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 10' Shoulder Width
- No Lighting
- 13.4% Truck Traffic



KY 9 looking westbound

Issues

Most of the crashes are rear end collisions (71%) and many were injury crashes (4–57%). There are no stop bars on the side streets. There was one comment associated with this spot by local officials and stakeholders regarding an issue with the edge line paint in this area.

Q

SPOT

PROJECT PRIORITY

Medium

LOCATION

Mason County

KY 9 at Marathon Gas Station—Vaughn Lane

MP 2.960

DATA

2020 AADT: 6,100

2045 AADT: 6,900

Crash Data:

CRF: 1.11

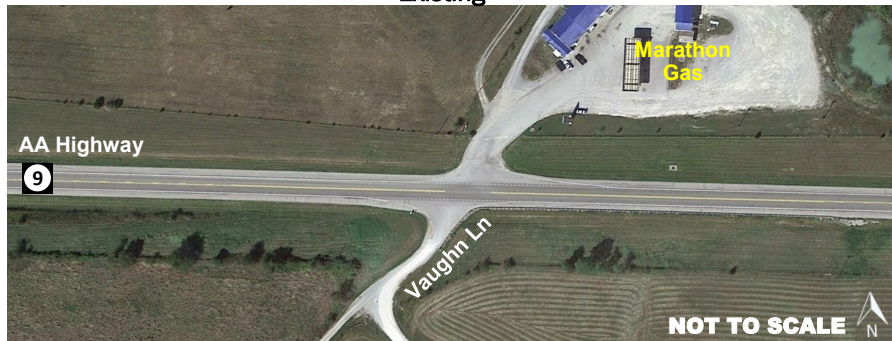
Crashes: 7

CHAF ID: N/A

IMPROVEMENT CONCEPT

- Construct an eastbound left turn lane to improve safety.
- Add stop bars at approaches.

Existing



Proposed



DESCRIPTION

Improve intersection by constructing a left turn lane, restriping, and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$45,000

ROW: \$ N/A

Utilities: \$65,000

Const.: \$440,000

Total: \$550,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 2-Lane
- 12' Lane Width
- 10' Shoulder Width
- No Lighting
- 13.4% Truck Traffic

Issues

There is an intersection (KY 1237—Bridgeport Rd) located approximately 750' east of the intersection. That intersection has an eastbound left turn lane which has a taper that extends back to the KY 1234 intersection. The striping taper and an extra 6' of pavement width is causing westbound travelers to confuse this intersection for having a left-turn lane. An eastbound truck climbing lane also begins at the intersection of KY 1237—MP 0.598. There were two comments associated with this spot by local officials and stakeholders regarding a roadway width issue causing drivers to expect there to be a turn lane when there is not, and they noted that there are several near-miss collisions. The one crash was an animal collision.

IMPROVEMENT CONCEPT

- Concept 1—Add hatch striping to clarify that there is no turn lane.
- Concept 2—Construct a westbound left-turn lane to improve safety.
- Add advanced intersection warning signage.

Existing



Concept 1—Hatch striping for better visibility and clarification of no westbound left turn lane.



Concept 2—Use extra width as a westbound left turn lane.



R

SPOT

PROJECT PRIORITY

Low

LOCATION

Mason County
KY 9 at KY 1234
MP 0.742

DATA

2020 AADT: 6,100
2045 AADT: 6,900
Crash Data:
CRF: N/A
Crashes: 1
CHAF ID: N/A

DESCRIPTION

Improve intersection by modifying striping or constructing a westbound left turn lane and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Concept 1:

Design: \$5,000
ROW: \$ N/A
Utilities: \$ N/A
Const.: \$10,000
Total: \$15,000

Concept 2:

Design: \$50,000
ROW: \$ N/A
Utilities: \$ N/A
Const.: \$265,000
Total: \$ 315,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- No Lighting
- 15.2% Truck Traffic



KY 9 looking westbound

Issues

Through traffic is passing during this straight stretch which has led to conflict with vehicles stopped at the intersection to make a left turn. There were two comments associated with this spot by local officials and stakeholders regarding issues with the passing zone location. The crash was a rear end collision

IMPROVEMENT CONCEPT

- Modify striping to double yellow to restrict passing eastbound from MP 30.700 to MP 30.075 and westbound form MP 29.900 to Garrard Road.
- Install “No Passing” signage.
- Add advanced intersection warning signage.

Existing



Proposed



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Lewis County
 KY 9 at Garrard Road
 MP 30.360

DATA

2020 AADT: 5,000
 2045 AADT: 5,700
 Crash Data:
 CRF: N/A
 Crashes: 1
 CHAF ID: N/A

DESCRIPTION

Improve intersection by modifying striping, adding “No Passing” signs, and improving intersection awareness.

COST ESTIMATE

2020 Dollars
 Design: \$5,000
 ROW: \$ N/A
 Utilities: \$ N/A
 Const.: \$5,000
Total: \$10,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets.
- 15.2% – 15.5% Truck Traffic
- Intersects with SYP Project No. 9-8807.00 (Reconstruct KY 57)



KY 9 looking westbound

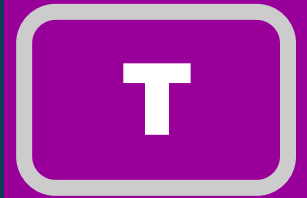
Issues

Four of the crashes were injury crashes (36%) and four were angle crashes (36%). Further evaluation of crash reports showed that red light running was the main cause. Plans for SYP Project No. 9-8807.00 were reviewed and do not include this intersection.

IMPROVEMENT CONCEPT

- Add flashing yellow arrow for KY 9 left turn movements.
- Add advanced intersection warning signage for KY 57 vehicles.
- Adjust signal timing.

Existing



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Lewis County

KY 9 at KY 57

MP 28.380

DATA

2020 AADT: 4,900–5,000

2045 AADT: 5,600–5,700

Crash Data:

CRF: 1.88

Crashes: 11

CHAF ID: N/A

DESCRIPTION

Improve intersection by modifying signal timing and intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$20,000

Total: \$25,000

LOCATION INFORMATION



KY 9 looking northbound

Features

- 3-Lane (EB Truck Climbing Lane)
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 15.5% – 19.2% Truck Traffic
- Culvert over Dry Run Creek—MP 11.240
- Overhead Warning Flashers

Issues

Most of the crashes at this intersection were angle crashes (5–83%) and three were injury crashes (3–50%). An eastbound truck climbing lane begins at the intersection. The intersection is near a deficient horizontal curve approximately 1000' south at MP 10.8.

IMPROVEMENT CONCEPT

- Add advanced warning signage.
- Add Intersection Collision Warning System (ICWS) "Traffic Entering When Flashing" Signs on KY 9 to alert drivers there is traffic present.

Existing



ICWS



U

SPOT

PROJECT PRIORITY

Short-term

LOCATION

Lewis County
KY 9 at KY 59—Fairlane Drive
MP 11.205

DATA

2020 AADT: 5,000–5,100
2045 AADT: 5,700–5,800
Crash Data:
CRF: 1.20
Crashes: 6
CHAF ID: IP20110103
Reconstruct KY 9
(Un-sponsored)

DESCRIPTION

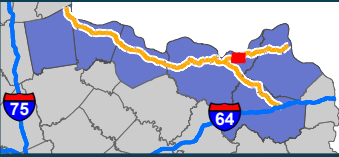
Improve intersection by improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000
ROW: \$ N/A
Utilities: \$ N/A
Const.: \$30,000
Total: \$35,000

LOCATION INFORMATION



KY 10 looking eastbound

Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- No Lighting
- 9.9% Truck Traffic
- Bridge over Kinniconick Creek—MP 12.210

Issues

Five of the crashes occurred at the intersection of KY 1306, and three occurred west of the intersection which were all fixed object crashes. Five of the crashes were injury or fatal crashes, with one fatal crash (fixed object at MP 11.89). The fatality involved a roadway departure hitting a mailbox and trees. There is a driveway within a curve.

IMPROVEMENT CONCEPT

- Add advanced warning signage.
- Add dual stop signs on KY 1306 approaches.
- Evaluate clear zone along the northern side of KY 10 between MP 11.800 and MP 11.900 and clear trees or add guardrail.
- Add eastbound and westbound left turn lanes to improve safety.
- Consider addition of lighting.

Existing



Proposed



V

SEGMENT

PROJECT PRIORITY

High

LOCATION

Lewis County

KY 10

MP 11.805—MP 12.105
(Intersects KY 1306—
Kinney Road MP 12.086)

DATA

2020 AADT: 2,600—
4,600

2045 AADT: 3,000—
5,200

Crash Data:

CRF: 1.85

Crashes: 8

CHAF ID: N/A

DESCRIPTION

Improve intersection by adding turn lanes, improving intersection awareness and clear zone.

COST ESTIMATE

2020 Dollars

Design: \$55,000

ROW: \$ N/A

Utilities: \$55,000

Const.: \$560,000

Total: \$670,000

LOCATION INFORMATION



KY 10 looking westbound

Features

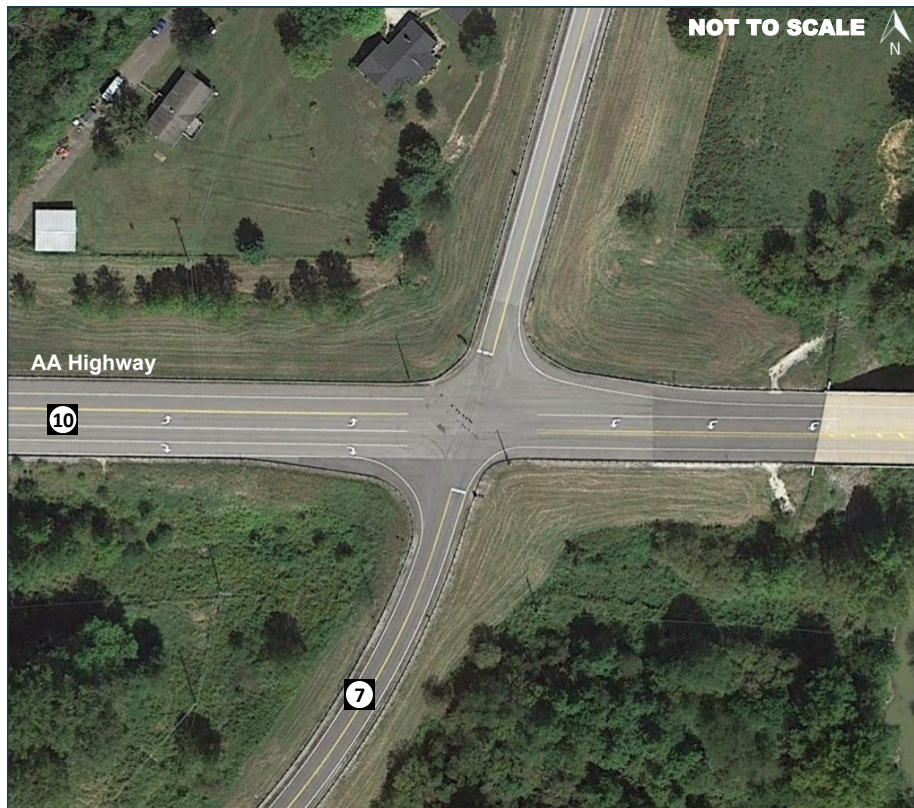
- 2-Lane
- 12' Lane Width
- 12' Shoulder Width
- No Lighting
- 9.6% Truck Traffic
- Overhead Caution Lights
- Bridge over Tygarts Creek—MP 8.380

Issues

All six crashes were angle crashes (100%) and three were injury crashes (50%). After further evaluation of crash reports, all crashes involved vehicles turning from KY 7 onto KY 10 and could not see the approaching vehicle. Three animal crashes were also recorded nearby. Only one was in dark conditions. A westbound truck climbing lane begins near the intersection approximately 940' west at MP 8.111. There was one comment associated with this spot by local officials and stakeholders regarding the amount of crashes even though it has overhead caution lights. Sight distance was evaluated and was adequate.

IMPROVEMENT CONCEPT

- Add advanced warning signage.
- Add oversized dual stop signs on side street approaches.
- Add Intersection Collision Warning System (ICWS) "Traffic Entering When Flashing" Signs on KY 10 to alert drivers there is traffic present.
- Consider addition overhead lighting.



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Greenup County
KY 10 at KY 7
MP 8.289

DATA

2020 AADT: 1,800—
2,900
2045 AADT: 2,000—
3,300
Crash Data:
CRF: 2.11
Crashes: 6
CHAF ID: N/A

DESCRIPTION

Improve intersection by improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000
ROW: \$ N/A
Utilities: \$ N/A
Const.: \$35,000
Total: \$40,000

LOCATION INFORMATION



Features

- 3-Lane
- 12' Lane Width
- 12' Shoulder Width
- Lighting Except EB Approach
- 9.6% – 11.4% Truck Traffic



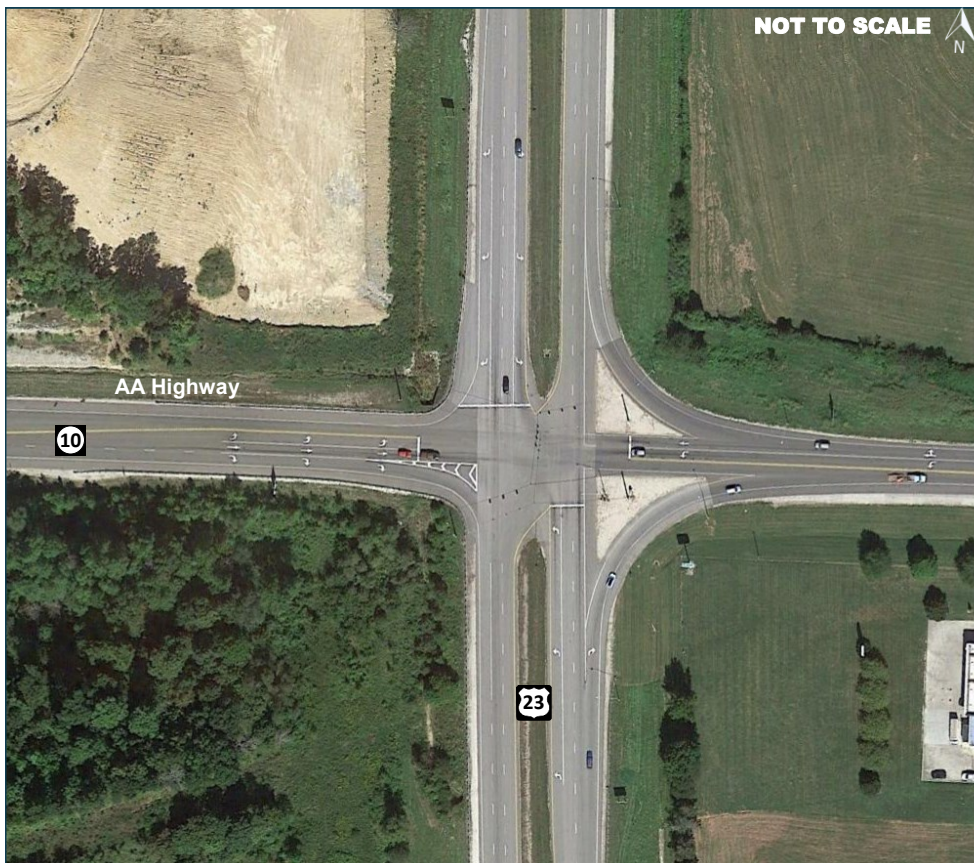
KY 10 looking westbound

Issues

Most of the crashes at the intersection were either angle crashes (8–42%) or rear end crashes (7–37%). A westbound truck climbing lane begins near the intersection approximately 640' west at MP 11.461. Most of the rear ends were on the westbound approach. There was one comment associated with this spot by local officials and stakeholders regarding excess fog and the need for better intersection awareness signage.

IMPROVEMENT CONCEPT

- Add backplates to signals.
- Add dual-red signal heads.
- Improve signal timing.
- Add fog warning signage.



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Greenup County

KY 10 at US 23

MP 11.582

DATA

2020 AADT: 2,900–6,700

2045 AADT: 3,300–7,600

Crash Data:

CRF: 2.94

Crashes: 19

CHAF ID: N/A

DESCRIPTION

Improve intersection by modifying signal timings and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$25,000

Total: \$30,000

LOCATION INFORMATION



KY 9 looking eastbound

Features

- 2-Lane
- 12' Lane Width
- 12' Shoulder Width
- No Lighting
- 15.9% Truck Traffic
- T-Intersection

Issues

The intersection lies in the middle of a curve, yet the intersection is near passing zones. There were two comments associated with this spot by local officials and stakeholders regarding issues of sight distance, passing zone location, grade, and the lack of turn lanes. Turning Movement Counts were conducted at this intersection, and no turn lanes were warranted based on peak hour turning movements. Sight distance was evaluated and was determined to be adequate.

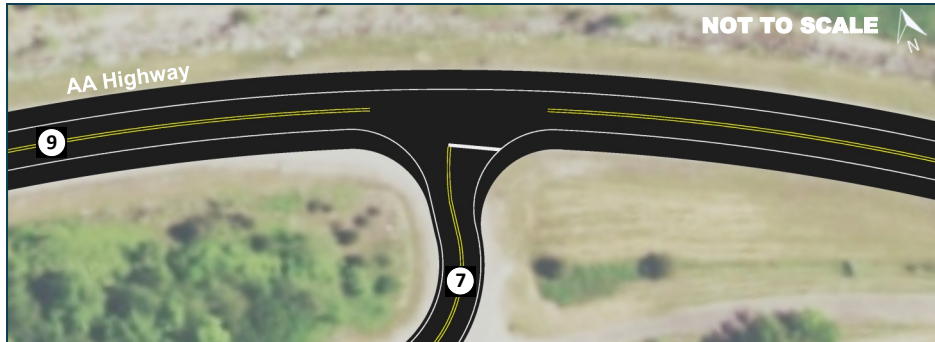
IMPROVEMENT CONCEPT

- Add stop bar on KY 7.
- Add advance intersection warning signage.
- Stripe a No Passing Zone through the intersection. Install "No Passing" signage.
- Consider addition of overhead lighting.

Existing



Proposed



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Carter County

KY 9 at KY 7—North
Intersection

MP 6.498

DATA

2020 AADT: 3,000

2045 AADT: 3,400

Crash Data:

CRF: N/A

Crashes: 3

CHAF ID: N/A

DESCRIPTION

Improve intersection by making a no passing zone and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$5,000

Total: \$10,000

LOCATION INFORMATION



KY 9 looking eastbound KY 7

Features

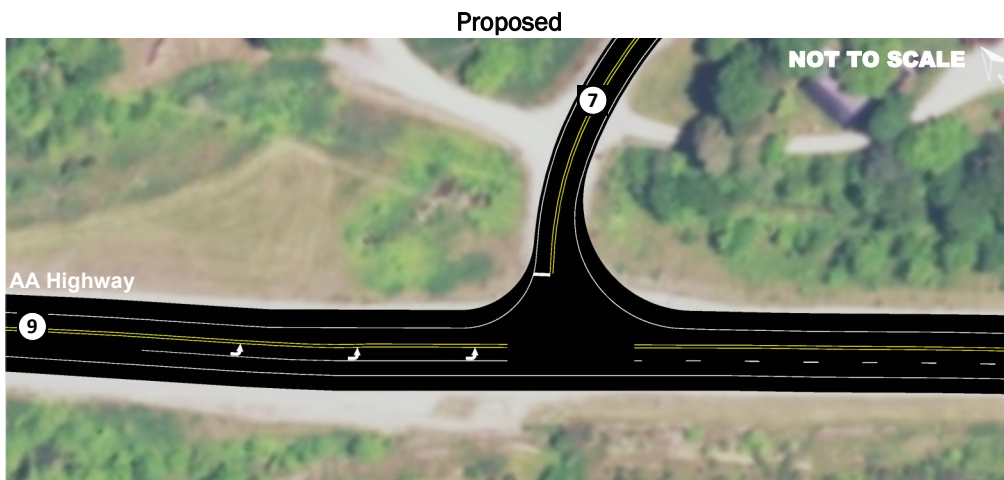
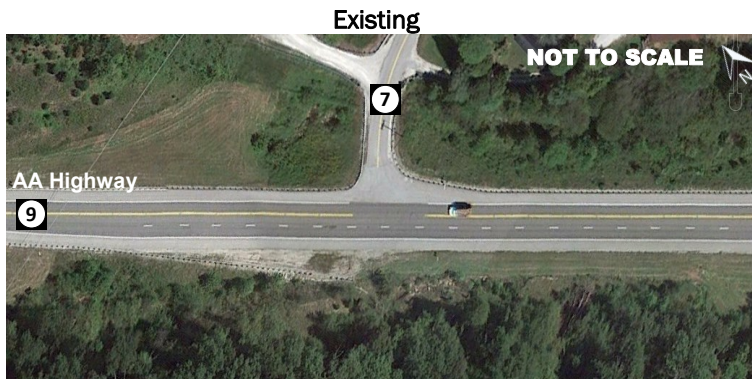
- 3-Lane (EB Truck Climbing Lane)
- 12' Lane Width
- 12' Shoulder Width
- No Lighting
- 15.9% Truck Traffic
- T-Intersection

Issues

The eastbound truck climbing lane begins near the intersection approximately 290' west at MP 5.541. The southbound passing lane starts right before intersection. There are very few turning movements to or from KY 7 (maximum peak hour turns onto KY 7 is four vehicles, and maximum peak hour turns exiting KY 7 is nine vehicles). There was one comment associated with this spot by local officials and stakeholders regarding an issue with the truck climbing lane transition. The crash was an animal collision. Turning Movement Counts were conducted at this intersection, and no turn lanes were warranted based on peak hour turning movements.

IMPROVEMENT CONCEPT

- Begin the eastbound truck climbing lane after the intersection, and convert the existing climbing lane to eastbound left turn lane.



Z

SPOT

PROJECT PRIORITY

Short-term

LOCATION

Carter County

KY 9 at KY 7—South
Intersection

MP 5.486

DATA

2020 AADT: 3,000—
4,000

2045 AADT: 3,400—
4,500

Crash Data:

CRF: N/A

Crashes: 1

CHAF ID: N/A

DESCRIPTION

Improve intersection by
modifying lane configura-
tion/intersection layout.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$5,000

Total: \$10,000

LOCATION INFORMATION



KY 9 looking westbound

Features

- 2-Lane
- 12' Lane Width
- 12' Shoulder Width
- No Lighting
- 19.9% Truck Traffic

Issues

A westbound truck climbing lane ends near the intersection approximately 1170' east at MP 0.856. However, the pavement width remains constant until the intersection. The crash was an angle collision, but there is also a sideswipe nearby at MP 0.990. There was one comment associated with this spot by local officials and stakeholders regarding an issue with the transition of the truck climbing lane, the lack of lighting, and the lack of caution lights. Turning Movement Counts were conducted at this intersection, and no turn lanes were warranted based on peak hour turning movements.

IMPROVEMENT CONCEPT

- Add advanced warning signage for the westbound truck climbing lane drop.
- Enhance median striping to help clarify the westbound truck climbing lane has ended and the westbound left turn lane begins.

Existing



SPOT

PROJECT PRIORITY

Short-term

LOCATION

Carter County
KY 9 at KY 1959
MP 1.078

DATA

2020 AADT: 4,000–4,600
2045 AADT: 4,500–5,200

Crash Data:

CRF: N/A

Crashes: 1

CHAF ID: IP20080529
Improve Intersection
(Un-sponsored)

DESCRIPTION

Improve intersection by modifying striping and improving intersection awareness.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$5,000

Total: \$10,000

LOCATION INFORMATION



KY 9 looking northbound

Features

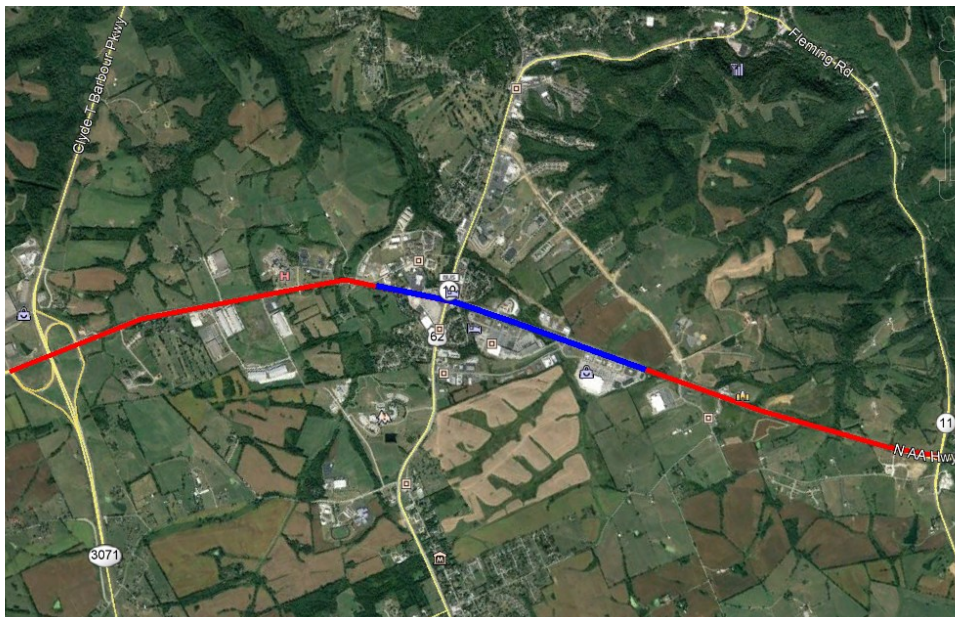
- 4-Lane
- 12-foot Lane Width
- 2' - 10' Shoulder Width
- 14' - 15' Median Width (Mountable, Flush, and TWLTL)
- 55 MPH Speed Limit
- 10.6% – 14.2% Truck Traffic

Issues

There are five high crash 0.3 mile segments throughout these sections of KY 9. A portion of the section has curb and gutter and low shoulder widths which are not desirable for speed limits greater than 45 mph, and there are several access points throughout. Higher speeds can result in more serious injuries. There was a comment by local officials and stakeholders to reduce the speed limit to 45 mph.

IMPROVEMENT CONCEPT

- Reduce existing 55 mph speed limit (In Red) to 45 mph along KY 9 between just east of KY 11 and just west of Downing Dr. Increase law enforcement or add traffic calming measures such as “Your Speed” signs, transverse rumble strips, painted warnings, speed tables, or other measures.
 - The existing 45 mph speed limit (In Blue) extends from near the Walmart Way entrance at MP 9.179 to near Parker Road at MP 10.545. The curb and gutter ends near Golf Manor Drive at approximately MP 11.700.
- This countermeasure would also benefit the other intersections throughout this segment and identified improvement locations including H,I,J,K,L, and M.



AB

SEGMENT

PROJECT PRIORITY

Other

LOCATION

Mason County

KY 9

MP 7.560–9.179, MP
10.545–12.620

DATA

2020 AADT: 8,200–
13,900

2045 AADT: 9,300–
15,800

Crash Data:

CRF: 1.16–2.85

Crashes: 164

CHAF ID: N/A

DESCRIPTION

Improve safety along KY 9 between KY 11 and Downing Drive by reducing speeds.

COST ESTIMATE

2020 Dollars

Design: \$5,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$10,000

Total: \$15,000

LOCATION INFORMATION

Features

- 12' Lane Width
- 46 Truck Climbing Locations
- 22 Eastbound; 24 Westbound
- ~43.2 Miles (1/3 of Study Area)



KY 9 looking eastbound

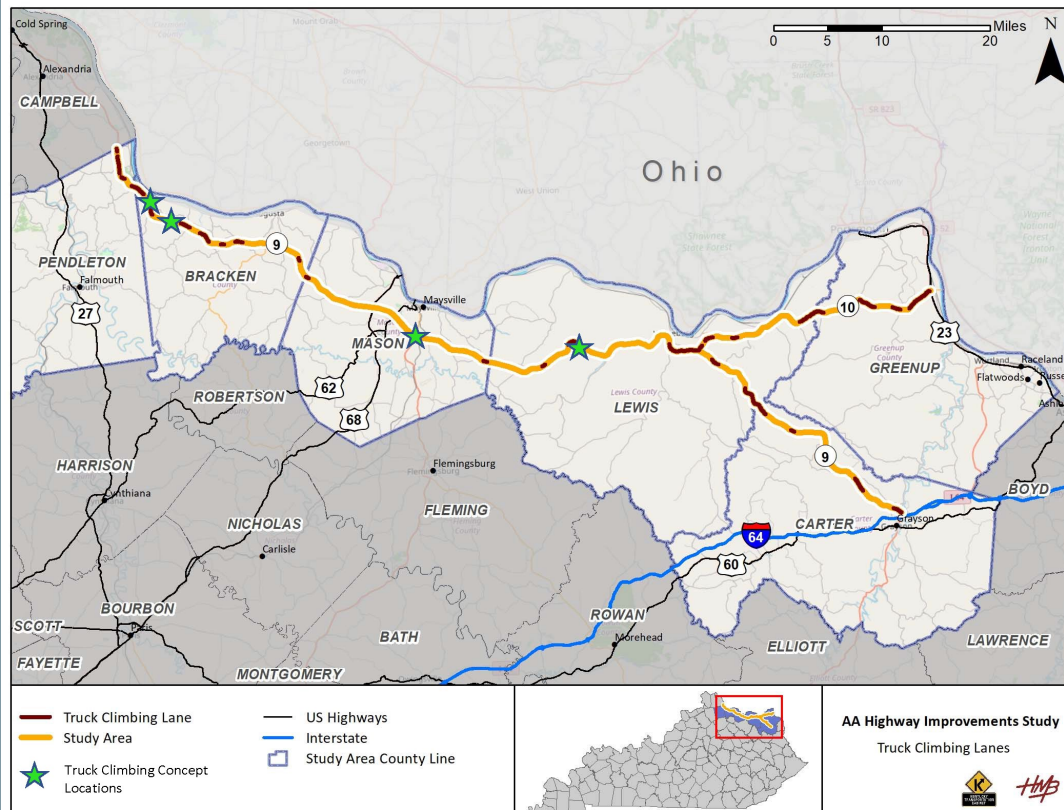
Issues

Transitions or lengths of truck climbing lanes, especially at intersections and major curves could contribute to identified sideswipe, head-on, or other collisions. Areas with crashes that may be contributed to truck climbing lanes, or the lack thereof, as well as locations identified by local officials or stakeholders are identified below for future evaluation.

IMPROVEMENT CONCEPT

Locations with a truck climbing lane and additional intersection issues were considered to be spot improvements and evaluated on an individual basis. Additional locations that had crashes potentially related to truck climbing lane issues and were not included in the intersection analysis are included in this corridor-wide improvement concept. The following should continue to be evaluated to potentially add or modify truck climbing lanes:

- KY 9, Bracken County, MP 16.800–18.400, CRF of 0.98
- KY 9, Bracken County, MP 14.800–16.200, CRF of 0.98 including one fatality
- KY 9, Mason County, MP 6.900–7.500, CRF of 1.02
- KY 9, Lewis County, MP 22.100 (Local official / stakeholder comment location)



AC

CORRIDOR WIDE

PROJECT PRIORITY

Other

LOCATION

All Counties

DATA

2020 AADT: 1,100–13,900

2045 AADT: 1,300–15,800

Crash Data:

CRF: 0.98 -1.02

Crashes: N/A

CHAF ID: N/A

DESCRIPTION

Evaluate existing truck climbing lane locations to determine if modifications are recommended; determine if additional truck climbing lanes are needed.

COST ESTIMATE

2020 Dollars

Design: \$ TBD

ROW: \$ TBD

Utilities: \$ TBD

Const.: \$ TBD

Total: \$ TBD

LOCATION INFORMATION

Features

- KY 9 (Grayson Spur) in Carter Co. repaved summer 2019
- KY 9 in Lewis Co. from MP 15.800 to MP 21.000 listed for Preventative Maintenance funds year 2022 in 2018 Enacted Highway Plan
- KY 9 in Lewis Co. from KY 10 intersection to Carter Co. line scheduled for Preventative Maintenance funds year 2020 per District 9



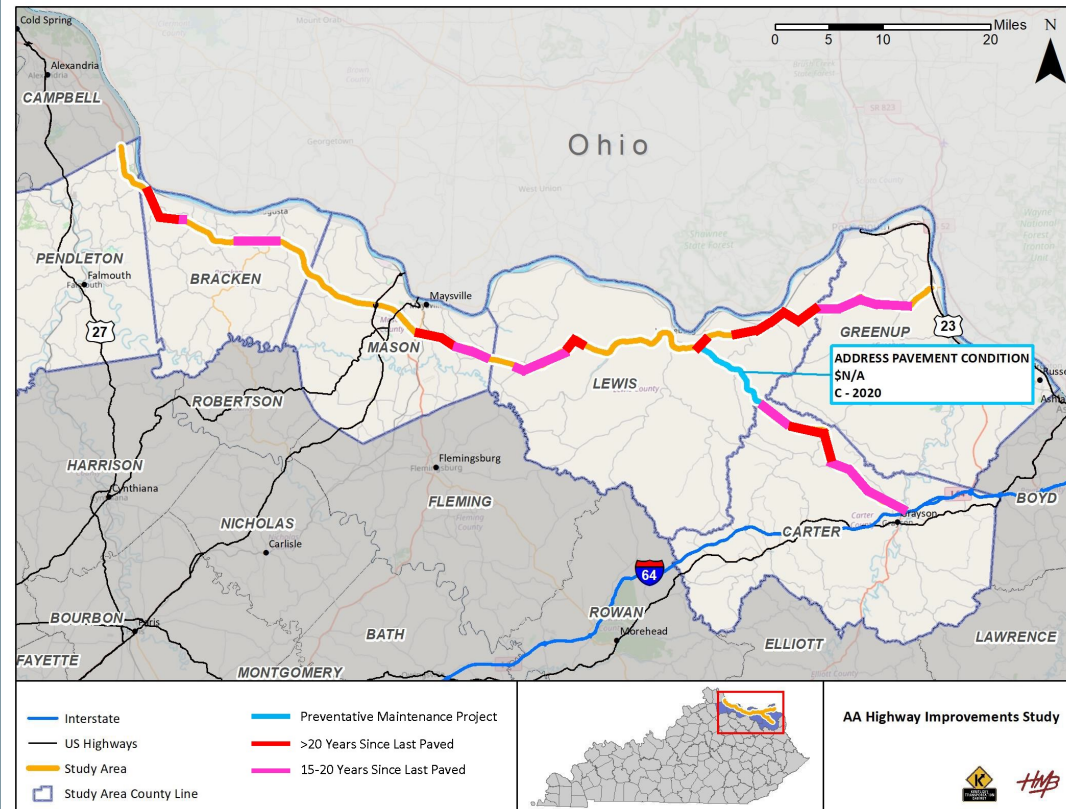
KY 9 looking eastbound

Issues

Sections of the AA Highway that have not recently been repaved have sealant obscuring lane and edge lines. Two comments were made by local officials / stakeholders with regard to pavement issues.

IMPROVEMENT CONCEPT

- Identify, evaluate, and prioritize routes needing pavement reconstruction or rehabilitation.
- Replace existing 4" striping with 6" spray thermo striping in conjunction with pavement reconstruction or rehabilitation projects or as needed.



AD

CORRIDOR WIDE

PROJECT PRIORITY

Other

LOCATION

All Counties

DATA

2020 AADT: 1,100–13,900

2045 AADT: 1,300–15,800

Crash Data:

CRF: N/A

Crashes: N/A

CHAF ID: N/A

DESCRIPTION

Identify and prioritize Preventative Maintenance Funds for portions of AA Highway that have not recently been repaved.

COST ESTIMATE

2020 Dollars

Re-paving:

(Average/mile):

Design: \$ 80,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$ 550,000

Total: \$630,000

Re-striping

(Average/mile):

Design: \$1,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$6,500

Total: \$7,500

LOCATION INFORMATION

Features

- Multiple Intersecting Streets
- No Horizontal or Vertical Curve Deficiencies Identified



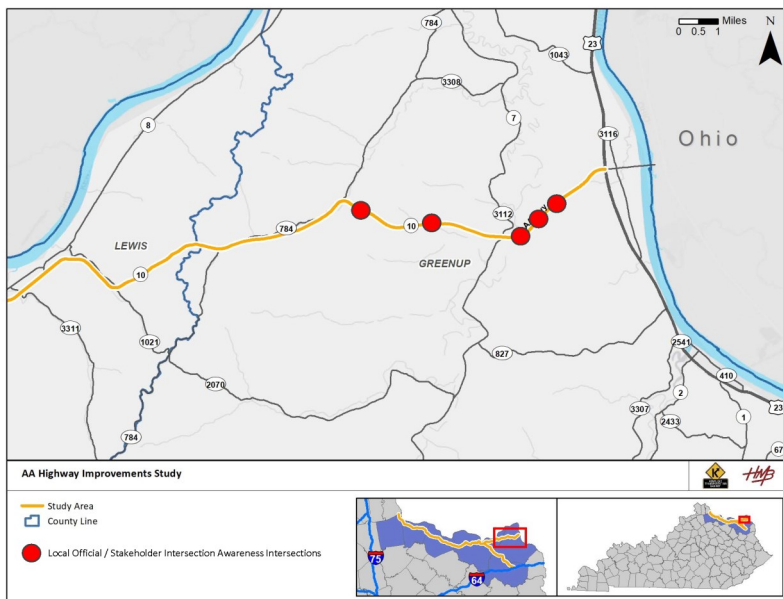
KY 10 looking eastbound

Issues

Within this section of the corridor, there is a lack of signage and advanced warning for intersecting streets. Five intersections were identified where this is an issue from local official / stakeholder input: Howland Hill Rd, Blackbird Rd, Tygart's Creek Rd, East Tygart's Creek Rd, and Graysbranch Rd. Other intersections near the area were evaluated based on crash history, geometric deficiencies, and sight distance issues.

IMPROVEMENT CONCEPT

- Evaluate side streets and install stop signs and stop bars.
- Add advanced intersection warning signs.
- For intersections with identified crashes or in curves, consider addition of flashing warning beacon.
- Consider addition of street name to intersection warning signs.



AE

CORRIDOR-WIDE

PROJECT PRIORITY

Other

LOCATION

Lewis / Greenup County

KY 10

MP 6.800 (KY 9/10 Split)
to MP 11.600 (US 23)

DATA

2020 AADT: 1,100–4,600

2045 AADT: 1,300–5,200

Crash Data:

CRF: N/A

Crashes: N/A

CHAF ID: N/A

DESCRIPTION

Intersection awareness; signage, striping, and identification of side streets.

COST ESTIMATE

2020 Dollars

Design: \$5,000

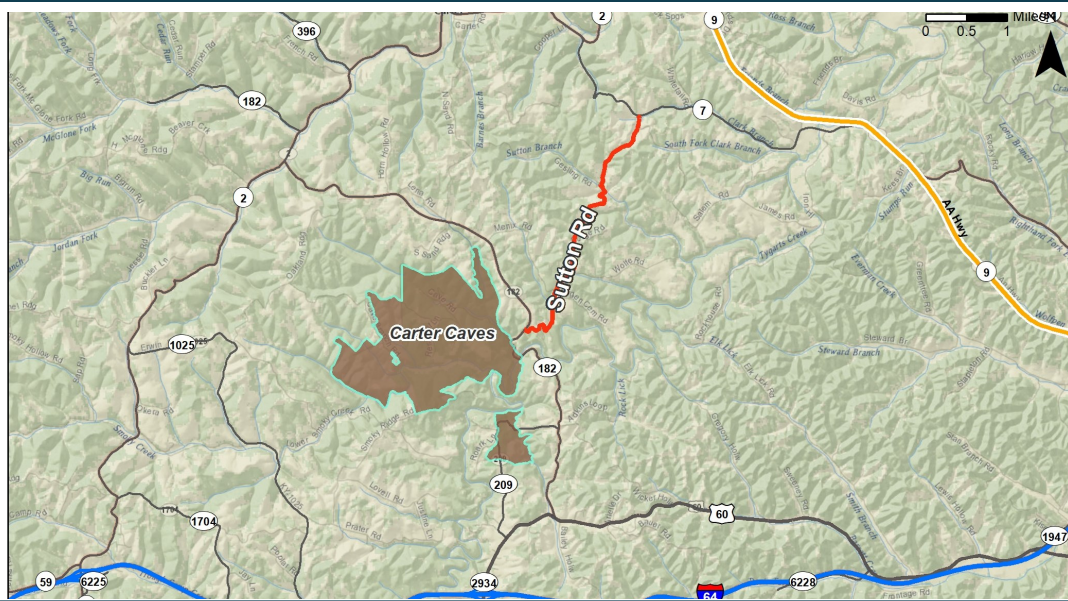
ROW: \$ N/A

Utilities: \$ N/A

Const.: \$15,000

Total: \$20,000

LOCATION INFORMATION



AF

CORRIDOR WIDE

PROJECT PRIORITY

Other

LOCATION

Carter County

DATA

2020 AADT: N/A

2045 AADT: N/A

Crash Data:

CRF: N/A

Crashes: N/A

CHAF ID: N/A

Issues

Directional navigation through GPS and wayfinding utilizes a more hazardous local road (Sutton Road—CR 1418) instead of following KY 7 / KY 2 / KY 182 from KY 9 (Grayson Spur). Attendees at the Local Officials / Stakeholder Meeting No. 1 presented this issue as input to the study.

IMPROVEMENT CONCEPT

- Evaluate routes leading to / from KY 9 and Carter Caves State Resort Park.
- Provide recommendations to navigation guidance for any proposed modifications.

DESCRIPTION

Evaluate routes and functional classifications for roadways connecting from AA Highway to Carter Caves State Resort Park. Route vehicles in GPS.

COST ESTIMATE

2020 Dollars

Design: \$ N/A

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$ N/A

Total: \$ N/A

LOCATION INFORMATION

Features

- Posted Speed Limit - 55 mph (45 mph in Maysville)
- 85th percentile speed average in Pendleton / Bracken / Mason Counties at 63 mph (generally 8 mph above posted speed limit)



KY 9 looking eastbound

Issues

Speeds higher than the posted speed limit of 55 were found from speed data provided by KYTC from 2015–2017.

IMPROVEMENT CONCEPT

- Targeted enforcement of speeding with increased presence of police.
- Increased use of portable speed monitors to reinforce speed limit.



AG

CORRIDOR WIDE

PROJECT PRIORITY

Other

LOCATION

Pendleton / Bracken /
Mason Counties

DATA

2020 AADT: 1,100–
13,900

2045 AADT: 1,300–
15,800

Crash Data:

CRF: N/A

Crashes: N/A

CHAF ID: N/A

DESCRIPTION

Add speed reduction measures to lower the 85th percentile speed closer to 55 and 45 mph speed limit.

COST ESTIMATE

2020 Dollars

Design: \$ N/A

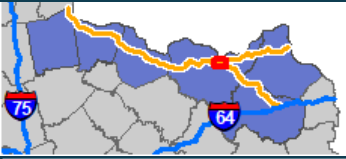
ROW: \$ N/A

Utilities: \$ N/A

Const.: \$ N/A

Total: \$ N/A

LOCATION INFORMATION



Features

- Design Speed: 55 MPH
- Three horizontally deficient curves (shown as red circles in map below)



KY 9 looking westbound

Issues

Horizontal and vertical curves were evaluated for the entire study area. There were 10 horizontally deficient curves identified and zero vertically deficient curves identified. The horizontal curves were deemed deficient because the radii do not meet the design speed based on the existing superelevations as identified in the as-built plans. Three of the curves had crashes that would support mitigating the curves. An eastbound / westbound truck climbing lane transition occurs near a curve from approximately MP 9.050–9.350. The two eastern deficient curves are in an S-curve. Three of the crashes were ran-off roadway crashes (38%), three were fixed object crashes (38%), and four were injury or fatality crashes (50%) with the fatality being a head-on crash at MP 9.750.

IMPROVEMENT CONCEPT

- Mitigate surface drainage issues throughout segment.
- Improve friction surface issue by implementing high skid resistance surface or improve superelevation with milling / paving.
- Add curve warning signage.



CORRIDOR WIDE

PROJECT PRIORITY

?????

LOCATION

Lewis County

KY 9

MP 9.553–MP 11.133

DATA

2020 AADT: 1,100–13,900

2045 AADT: 1,300–15,800

Crash Data:

CRF: 1.19

Crashes: 18

CHAF ID: N/A

DESCRIPTION

Mitigate crashes relating to deficient horizontal curves.

COST ESTIMATE

2020 Dollars

High Friction Surface Option:

Design: \$30,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$300,000

Total: \$330,000

Superelevation Correction Option:

Design: \$50,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$480,000

Total: \$530,000

LOCATION INFORMATION



Features

- 2-Lane
- 12' Lane Width
- 11' Shoulder Width
- Lighting on Side Streets
- 15.451% Truck Traffic
- Overhead Caution Lights
- School Zone—Reduced Speed of 35 mph during school traffic



KY 9 looking westbound

Issues

There were comments associated with this spot by local officials and stakeholders regarding the potential danger of this intersection—specifically since it is used heavily by younger, less experienced drivers going to and from Lewis County High School. The intersection sits between two curves.

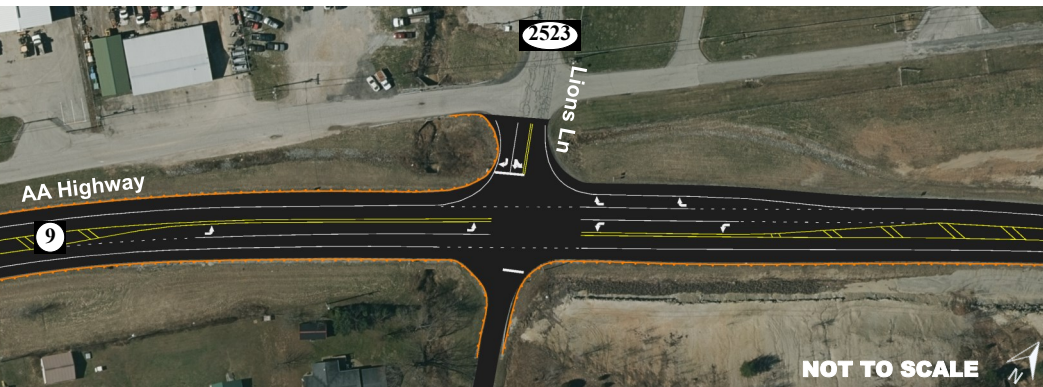
IMPROVEMENT CONCEPT

Existing



Proposed

Add a second southbound lane on Lions Lane and “Do Not Block Intersection” signage.



AI

SPOT

PROJECT PRIORITY

Short-term

LOCATION

Lewis County

KY 9 at KY 2523 (Lions Lane)

MP 12.749

DATA

2020 AADT: 5,000

2045 AADT: 5,700

Crash Data:

CRF: N/A

Crashes: 0

CHAF ID: N/A

DESCRIPTION

Improve intersection by adding a second lane to the southbound Lions Lane approach.

COST ESTIMATE

2020 Dollars

Design: \$10,000

ROW: \$ N/A

Utilities: \$ N/A

Const.: \$55,000

Total: \$65,000