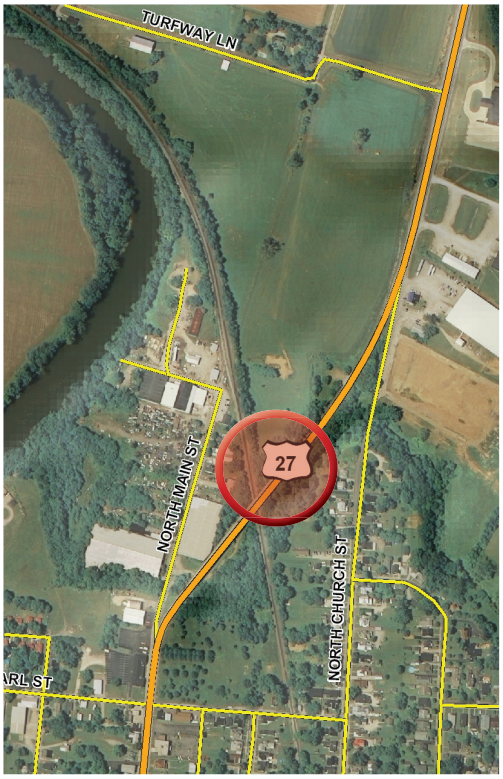
5.1 KYTC SHORT-TERM PROJECTS

Rank 1

Church Street at US 27 Bridge, looking south

Main Street and US 27 Bridge looking north



US 27 Bridge Detour Signage

Background: The US 27 Bridge over the CSX railroad is scheduled to be replaced due to deterioration (KYTC Item No. 06-1053.00 in the KYTC 2008 Highway Plan). In the interim, a weight restriction has been placed on the bridge until it can be replaced. The current weight restriction on this bridge necessitates a truck detour, which is insufficiently signed, causing much confusion for truckers.

Existing Conditions and Issues:

- Lane Width < 11'
- LOS = D

Proposed Project:: Install additional truck detour signage due to weight restrictions on the US 27 Bridge over the CSX railroad until the bridge can be replaced. Sufficient signage needs to be placed in the southern end of town on US 27 to provide adequate direction to inbound trucks from the south.

Project Type: Signage

Planning Cost Estimates: < $10,000

Notes:

Project 16

Rank 2

US 27 and US 62

US 62 and US 27 Intersection Signal

Background: Significant traffic congestion occurs at this intersection due to the heavy traffic volumes experienced during shift changes at the Toyota factory in Georgetown. Traffic queues are extensive on eastbound US 62 approaching US 27.

Existing Conditions and Issues:

- Volume/Service Flow > 0.7
- Adequacy Rating < 20th Percentile
- LOS = D-E

Proposed Project: Reevaluate the signal timing at the intersection of US 62 and US 27 to reduce congestion on US 62.

Project Type: Signal Timing

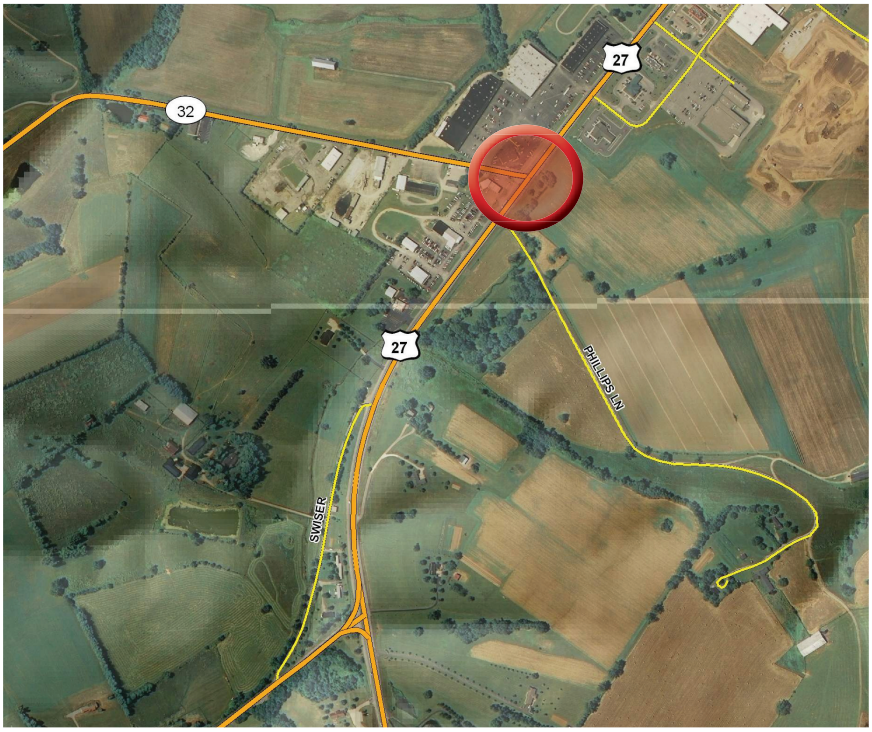
Planning Cost Estimates: **<$10,000**

Notes:

Project 1

Rank 3

Above and Below Images:
US 27 at KY 32



US 27 and KY 32 Intersection Signal

Background: Significant traffic congestion occurs at this intersection due to the heavy traffic volumes experienced partially due to the shift changes at the Toyota factory in Georgetown. Traffic congestion on this narrow roadway results in a high crash rate for this vicinity.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Lane width < 11'
- Adequacy Rating < 20th Percentile
- LOS = E

Proposed Project: Reevaluate the signal timing at the intersection of KY 32 and US 27 to reduce congestion on US 27 and KY 32.

Project Type: Signal Timing

Planning Cost Estimates: <$10,000

Notes:

Project 2

Rank 4

Commercial driveway opposite Ladish Road

Ladish Road and US 27 looking at Commercial driveway

Ladish Road and US 27 Intersection Improvements

Background: The intersection turning lane striping of the commercial driveway and Ladish Road is offset, resulting in a confusing situation in a congested, high crash area. There is currently no crosswalk available to facilitate pedestrian movements.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- LOS = D

Proposed Project: Conduct a signal warrant analysis at the Ladish Road and US 27 intersection to consider a dedicated left turn and combined through-right lanes. The offset commercial driveway lanes should also be aligned opposite Ladish Road, to reduce driver confusion. Consideration may also be given to a split phase signal. Also consider crosswalks to allow pedestrian access across US 27

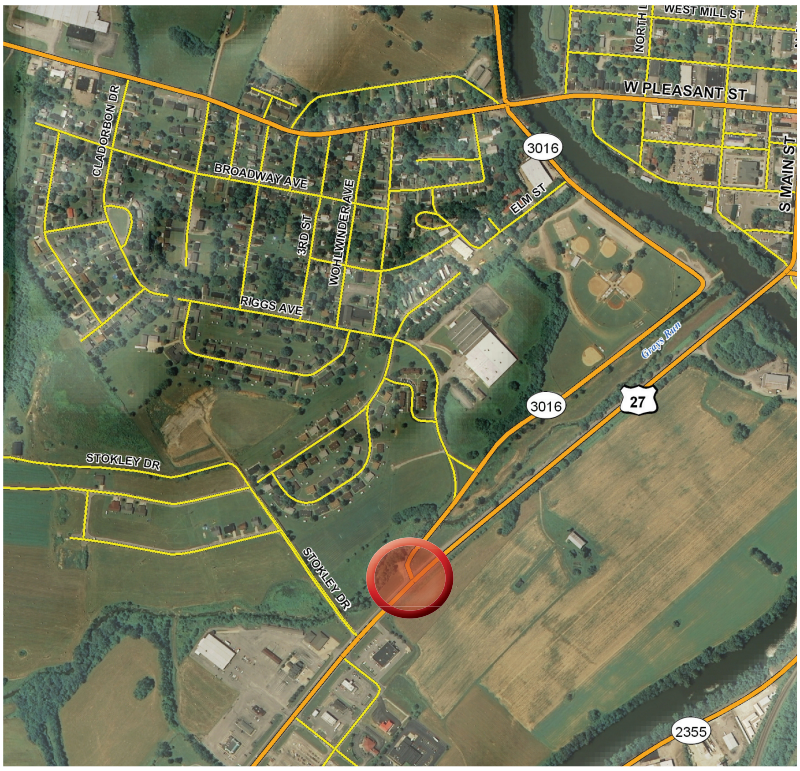
Project Type: Signal Warrant Analysis

Planning Cost Estimates: $<10,000

Notes:

Project 5A

Above and Below Images: US 27 at KY 3016



US 27 and KY 3016 Intersection Improvements

Background: Traffic has much difficulty turning left from US 27 on to KY 3016 as well as traffic turning left from KY 3016 onto US 27, resulting in long traffic queues. Preliminary signal warrant analysis illustrates the justification for a signal at this location.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Volume/Service Flow > 0.7
- LOS = D - E

Proposed Project: Install a signal at the intersection of US 27 and KY 3016 due to the difficulty of the left-turn movement from KY 3016 to northbound KY 27, and the left turn from US 27 to KY 3016. *(See the following page for signal warrant analysis.)*

Project Type: Signal

Planning Cost Estimates: **$75,000**

Notes:

US 27 @ KY 3016 Signal Warrant Analysis

Warrant 1	Condition A		Condition B	
Hour	Major Street	Minor Street	Major Street	Minor Street
1	119	13	119	13
2	68	8	68	8
3	107	6	107	6
4	104	10	104	10
5	120	38	120	38
6	344	149	344	149
7	463	172	463	172
8	727	216	727	216
9	906	153	906	153
10	832	161	832	161
11	771	114	771	114
12	672	115	672	115
13	775	106	775	106
14	1143	168	1143	168
15	1123	175	1123	175
16	1323	230	1323	230
17	1565	183	1565	183
18	1484	168	1484	168
19	1126	108	1126	108
20	811	79	811	79
21	598	69	598	69
22	441	56	441	56
23	301	28	301	28
24	177	21	177	21
minimum volume	**350**	**140**	**525**	**70**

Warrant 1, Eight – Hour Vehicular Volume

Condition A: for application where a large volume of intersecting traffic is the principal reason to consider installing a traffic signal.

Condition B: for application where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

The highlighted blocks indicate traffic volumes that are higher than the minimum volume required to warrant a signal. A signal is warranted if eight or more hours of traffic volume exist that are greater than the minimum volume required to warrant a signal.
Therefore, both conditions A and B warrant the installation of a signal at this intersection.

Rank 6

Main Street at Pleasant Street

Main Street and W. Pleasant Street Turn Lane

Background: Main Street (US 27) exhibits high crash conditions in the downtown area. There is a large traffic movement from northbound Main Street (US 27) to West Pleasant Street.

Planning Cost Estimates: **$75,000**

Existing Conditions and Issues:

- Critical Rate Factor > 1

Proposed Project: Construct a left- turn lane on Main Street (US 27) at West Pleasant Street (KY 356). This will require an analysis for a split phase signal and possible restriping on US 27.

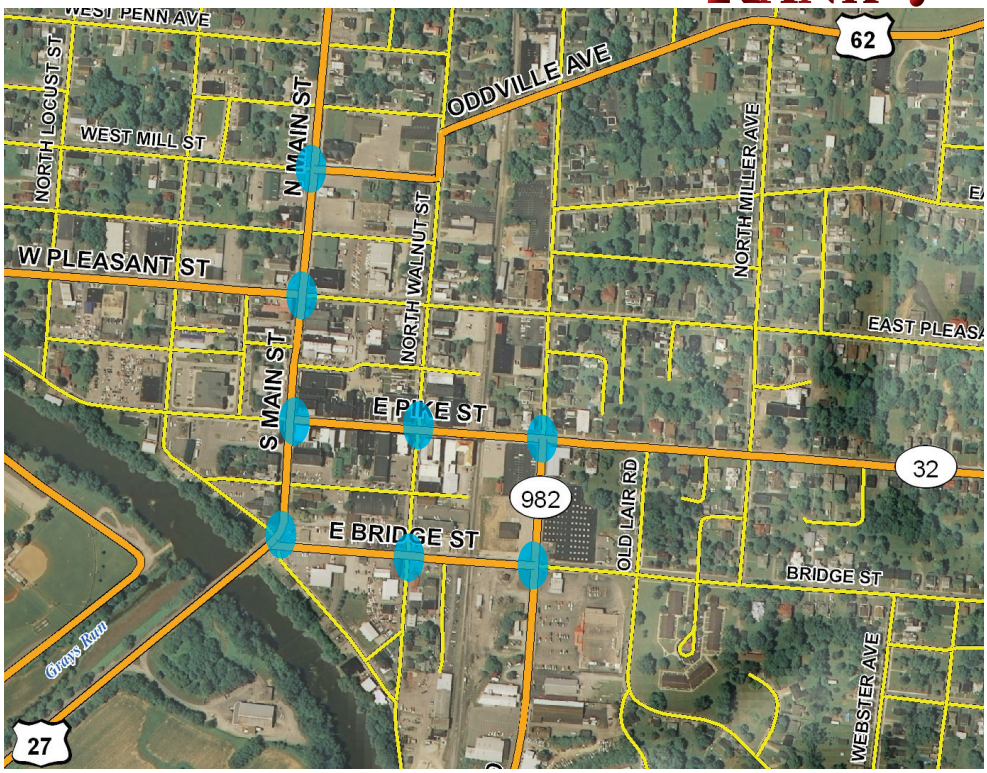
Project Type: Reconstruction/Signal Analysis

Notes:

Rank 7

Main Street at the Courthouse

Main Street at Pleasant Street



Signal Timing & Intersection Analysis on Major Downtown Streets

Background: Due to congestion, high crash rates, and narrow roadways in various parts of the downtown area, public support has been expressed for reevaluation of signal timing at major downtown intersections.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Lane Width < 11'

Proposed Project: Due to congestion, conduct intersection signal timing analysis on downtown streets to verify most efficient performance. This project requires local initiation as a request to KYTC. *Major intersections are highlighted in blue in the map above.*

Project Type: Signal Analysis

Planning Cost Estimates: < $10,000

Notes:

Project 40

Rank 8

KY 356 Bridge looking east

KY 356 Bridge looking west

W. Pleasant Street (KY 356) Bridge Pedestrian Improvements

Background: The sidewalks along the W. Pleasant Street (KY 356) Bridge are currently in a deteriorated state with degrading concrete. The substandard condition of the bridge's pedestrian facility proposes a safety concern for pedestrians, especially disabled individuals.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Lane Width < 11'
- Adequacy Rating < 20th Percentile

Proposed Project: Address sidewalk deterioration on the W. Pleasant Street (KY 356) Bridge to improve safety for pedestrians.

Project Type: Maintenance/Pedestrian

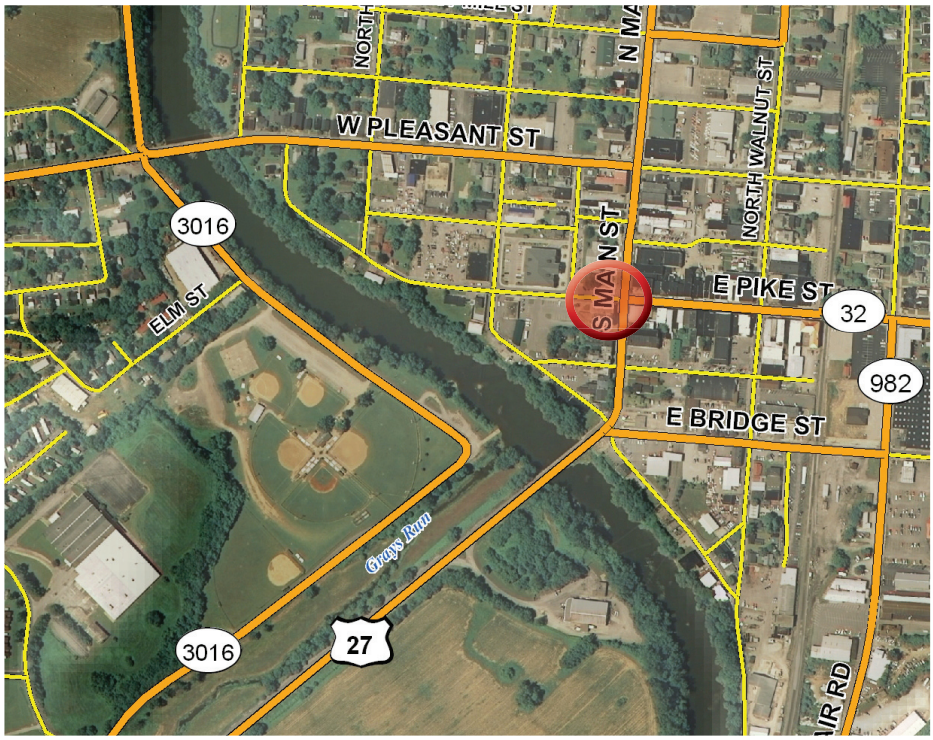
Planning Cost Estimates: < $10,000

Notes:

Project 13

Rank 9

Top and Bottom Images: Directional signage partially obscured by signal at Main Street looking west from Pike Street



Main Street and Pike Street Intersection Signage

Background: Currently, the existing signage for Main Street and Pike Street is mounted at a height that is out of the field of vision of some motorists and consequently may not be as easily noticeable and beneficial as intended.

Existing Conditions and Issues:

- Critical Rate Factor > 1

Proposed Project: Relocate the street signage at the intersection of Main Street (US 27) and Pike Street (KY 32) to a more visible location to reduce driver confusion.

Project Type: Signage

Planning Cost Estimates: <$10,000

Notes:

Rank 10

Top and Bottom Images:
White Oak (Spruce Drive) at KY 356

KY 356 and Spruce Drive Sight Distance

Background: Sight distance restrictions exist for traffic entering KY 356 from Spruce Drive (across from Westside Elementary). To the west, the embankment may cause a sight restriction for lower vehicles. To the east, a sight restriction is caused by vegetation. These conditions exacerbate the sight distance deficiencies at this spot where KY 356 exhibits vertical curves.

Existing Conditions and Issues:

- Lane width < 11'
- LOS = D

Proposed Project: Trim or remove the tree that causes sight distance restrictions to the east and reduce the elevation of the embankment to the west of the intersection.

Project Type: Maintenance

Planning Cost Estimates: $<10,000

Notes:

Project 4

Rank 11

Cladorbon Drive

KY 356 & Cladorbon Dr. Intersection Signage

Background: A sight distance deficiency exists for traffic entering KY 356 (MP 14.120) from Cladorbon Drive.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Lane Width < 11'
- LOS = D

Proposed Project: Install signage on KY 356 to address sight distance deficiencies for traffic entering KY 356 from Cladorbon Drive (MP 14.124) with the addition of warning signage.

Project Type: Signage

Planning Cost Estimates: < $10,000

Notes:

Rank 12

US 62 at Republican Pike (KY 392) looking west

US 62 approaching KY 392 from the east

US 62 & KY 392 Intersection Improvements

Background: A slight sight distance deficiency exists for traffic entering US 62 (MP 10.500) from Republican Pike (KY 392).

Planning Cost Estimates: < $10,000

Existing Conditions and Issues:

- Lane Width < 11'
- LOS = D

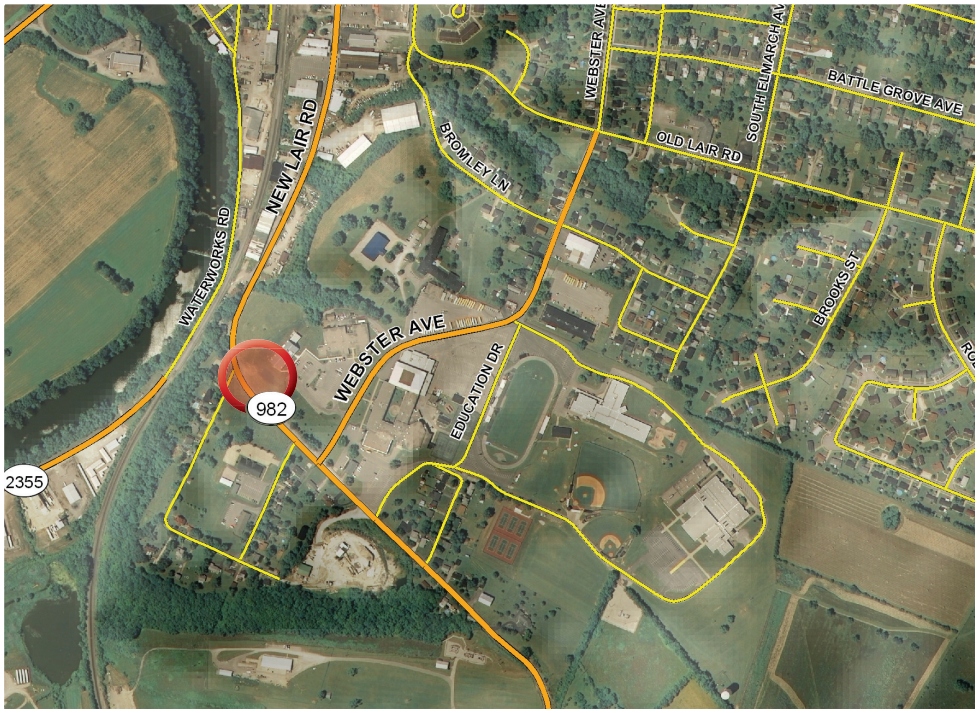
Proposed Project:: Address sight distance deficiencies for traffic entering US 62 (MP 10.500) from Republican Pike (KY 392) with signage and maintained vegetation.

Project Type: Signage/Maintenance

Notes:

Rank 13

Embankment at the curve in New Lair Road



New Lair Road Embankment Reduction

Background: Currently, in the horizontal curve on New Lair Road (KY 982) (approx. MP 5.520), a steep embankment and lack of shoulder causes poor sight distance and does not provide space for future sidewalk construction. The need to improve safety and level of service conditions on New Lair Road (KY 982) from the CSX Railroad Crossing to KY 32 has been identified previously with PIF Project # D0982.109.00.

Existing Conditions and Issues:

- Critical Rate Factor > 1
- Lane Width < 11'
- Adequacy Rating < 20th Percentile

Proposed Project: Cut back the embankment at the curve (approx. MP 5.520) on New Lair Road (KY 982) to improve sight distance and improve drainage. This would be a part of PIF Project # D0982.109.00. *This Project Identification Form can be found in Appendix E of this report.*

Project Type: Reconstruction

Planning Cost Estimates: **$50,000**

Notes:

Project 28