

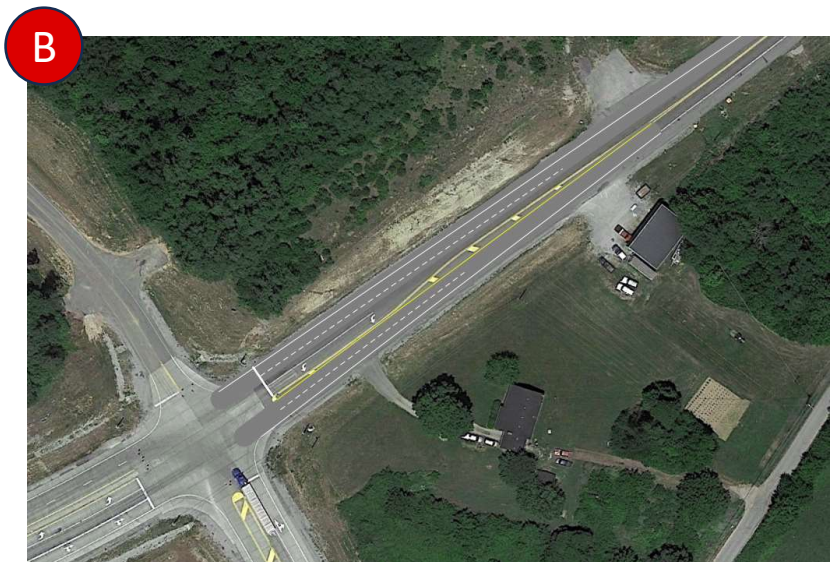
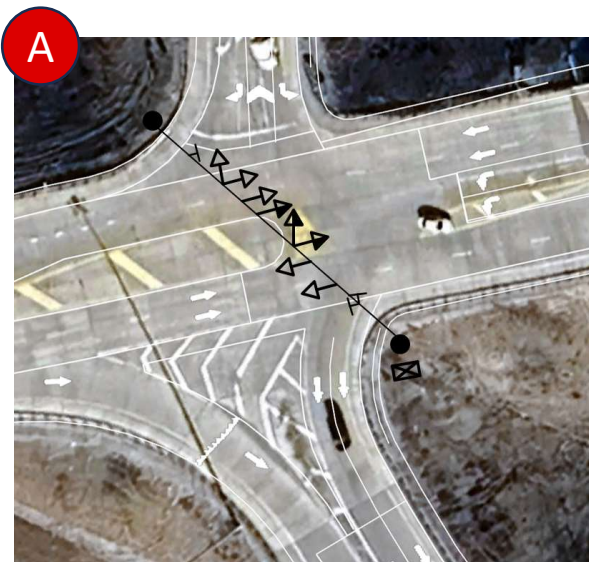
High Priority

I-75/KY 627 Interchange Area (Exit 95)
KY 627 MP 0.0-0.5

Description:
Add signal at southbound ramps, restripe for dual lefts to SB on-ramp, widen thru lanes past Simpson Lane

D	R	U	C	Total
\$300k	\$12k	\$500k	\$3.0M	\$3.8M

- Needs:
- Without signal and dual lefts, SB ramps intersection operates at LOS F in PM peak hour carrying detour traffic. With signal and dual lefts, improves to LOS A with no queue concerns.
 - With existing signal timing/phasing at NB ramps, intersection operates at LOS F in both peak. Adjusting timing phasing, improves to LOS D or better.
 - With existing single thru lanes, KY 2878/Simpson Lane intersection operates at LOS F in both peaks with mile-long queues EB and WB. Adding dual thru lanes, improves to LOS B with <700 ft queues.



Low Priority

KY 627 near KY River: MP 5.75-5.85

Description:
Widen/stripe to create northbound left turn bay for quarry traffic

D	R	U	C	Total
\$200k	-	\$700k	\$700k	\$1.6M

- Needs:
- Driveway located at the bottom of 6% grade; intended to provide refuge for trucks waiting to turn against increased southbound traffic
 - Existing pavement is approximately 46 feet wide (12 ft lanes + 11 ft paved shoulders) so minimal widening needed



Existing Streetview looking south up hill



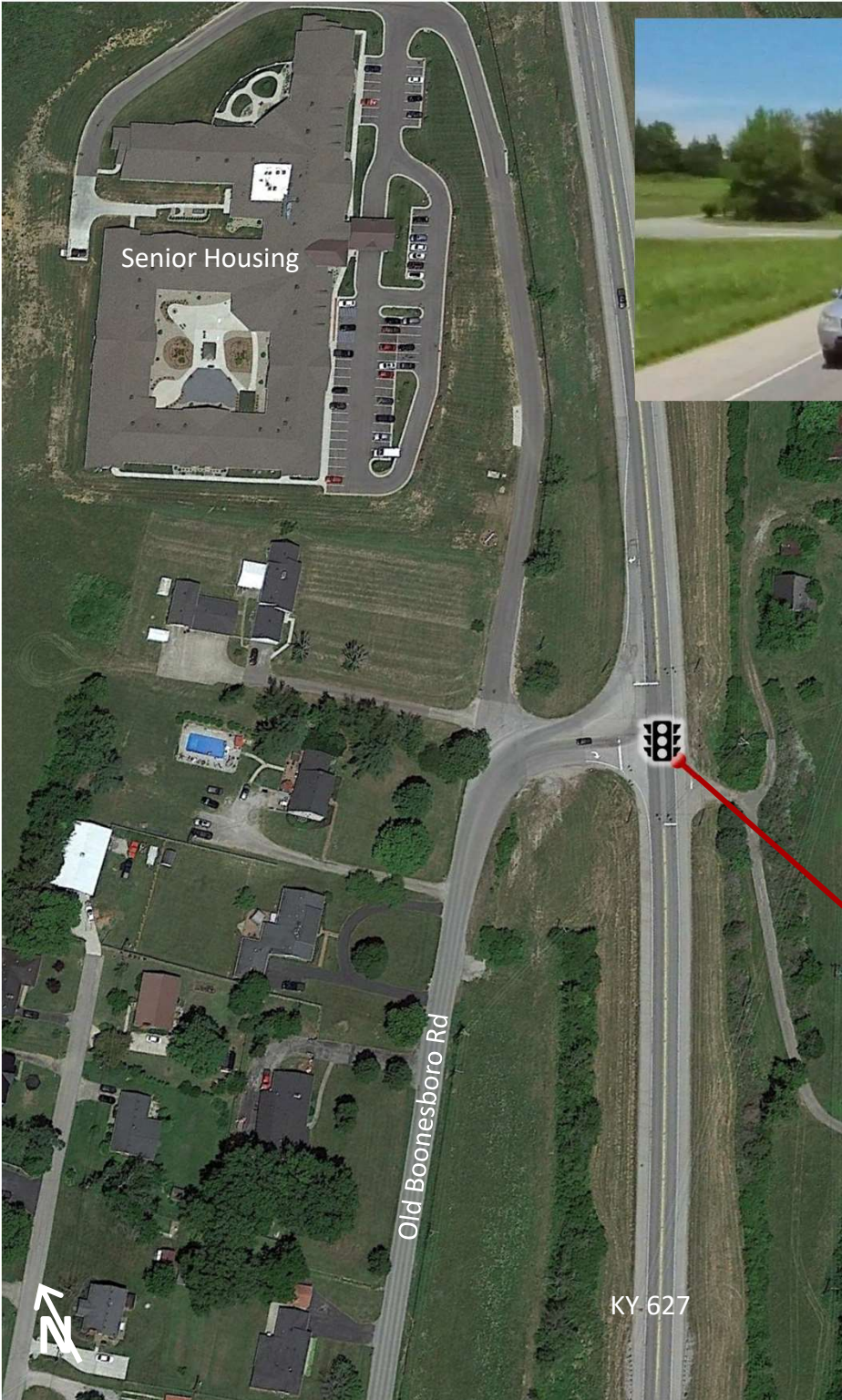
Medium Priority

KY 627 at Old Boonesboro Road (MP 5.8-5.9)

Description:
Widen/stripe to create northbound left turn bay for Old Boonesboro Road traffic

D	R	U	C	Total
\$100k	-	\$650k	\$1.0M	\$1.8M

- Needs:
- Existing pavement is approximately 46 feet wide (12 ft lanes + 11 ft paved shoulders) so minimal widening needed
 - Old Boonesboro Road provides access to numerous large subdivisions with additional residential developments likely to occur in future



Existing Streetview looking north



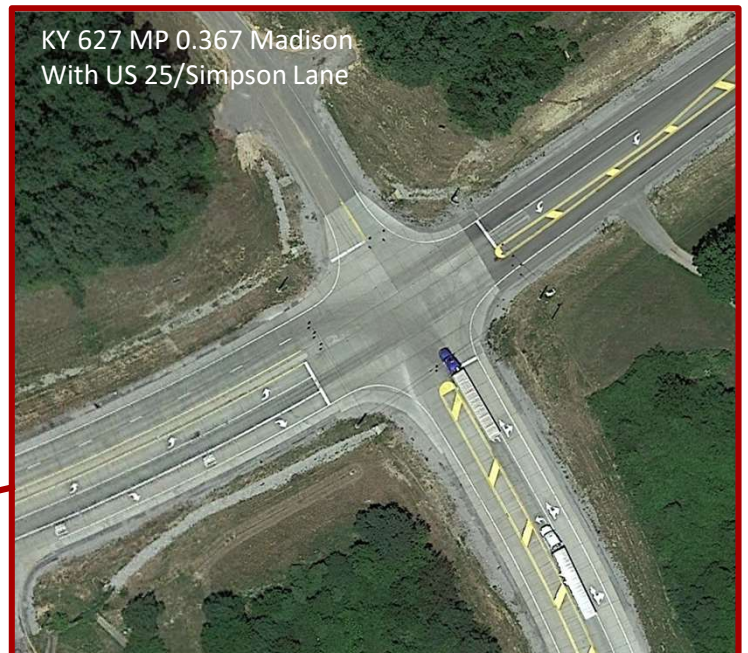
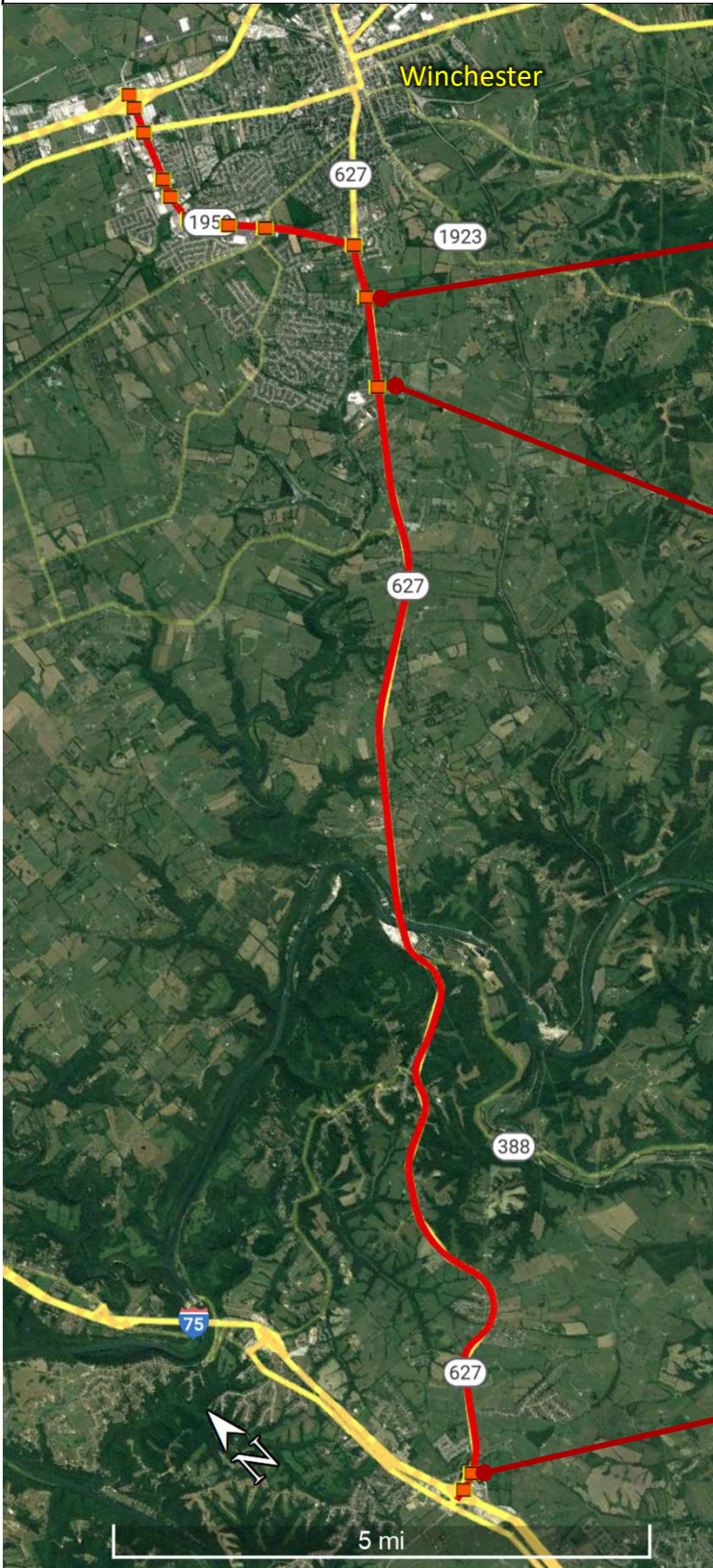
High Priority

Three Intersections along KY 627

Description:
Upgrade signal controllers to 2070-style at three intersections

D	R	U	C	Total
\$50k	-	-	\$130k	\$0.2M

- Needs:
- Ten of thirteen signalized intersections along Red detour have 2070-style controllers with radar detection that can be adjusted remotely



High Priority

KY 1958 Bypass/US 60 Intersection
KY 627 MP 4.6-5.0 | US 60 MP 4.5-4.9

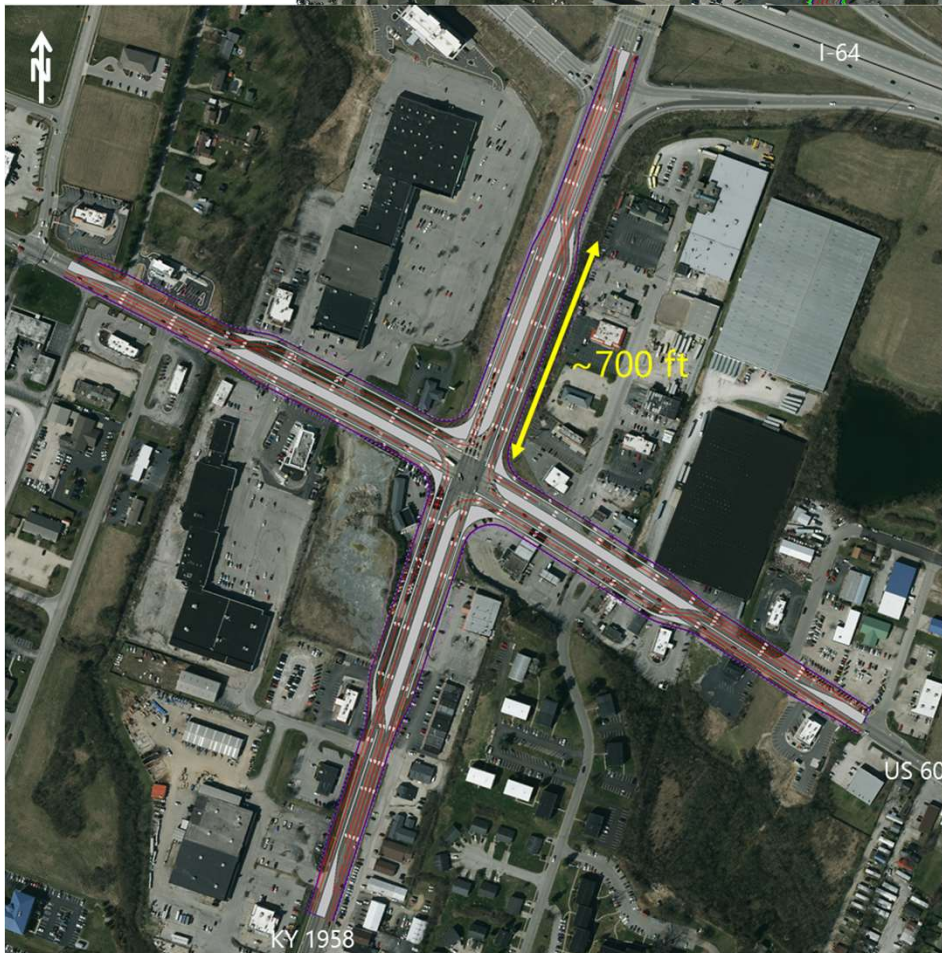
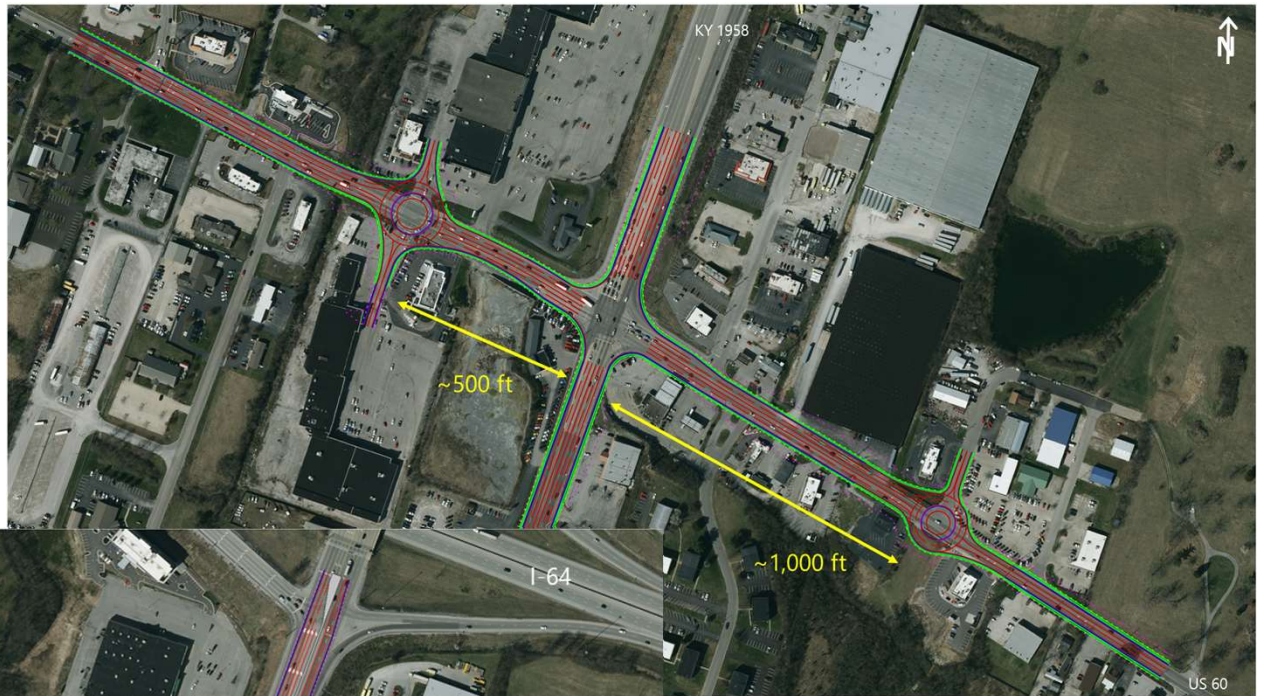
Description:
Reconstruct intersection to improve capacity
Further Study Recommended

Cost Estimate

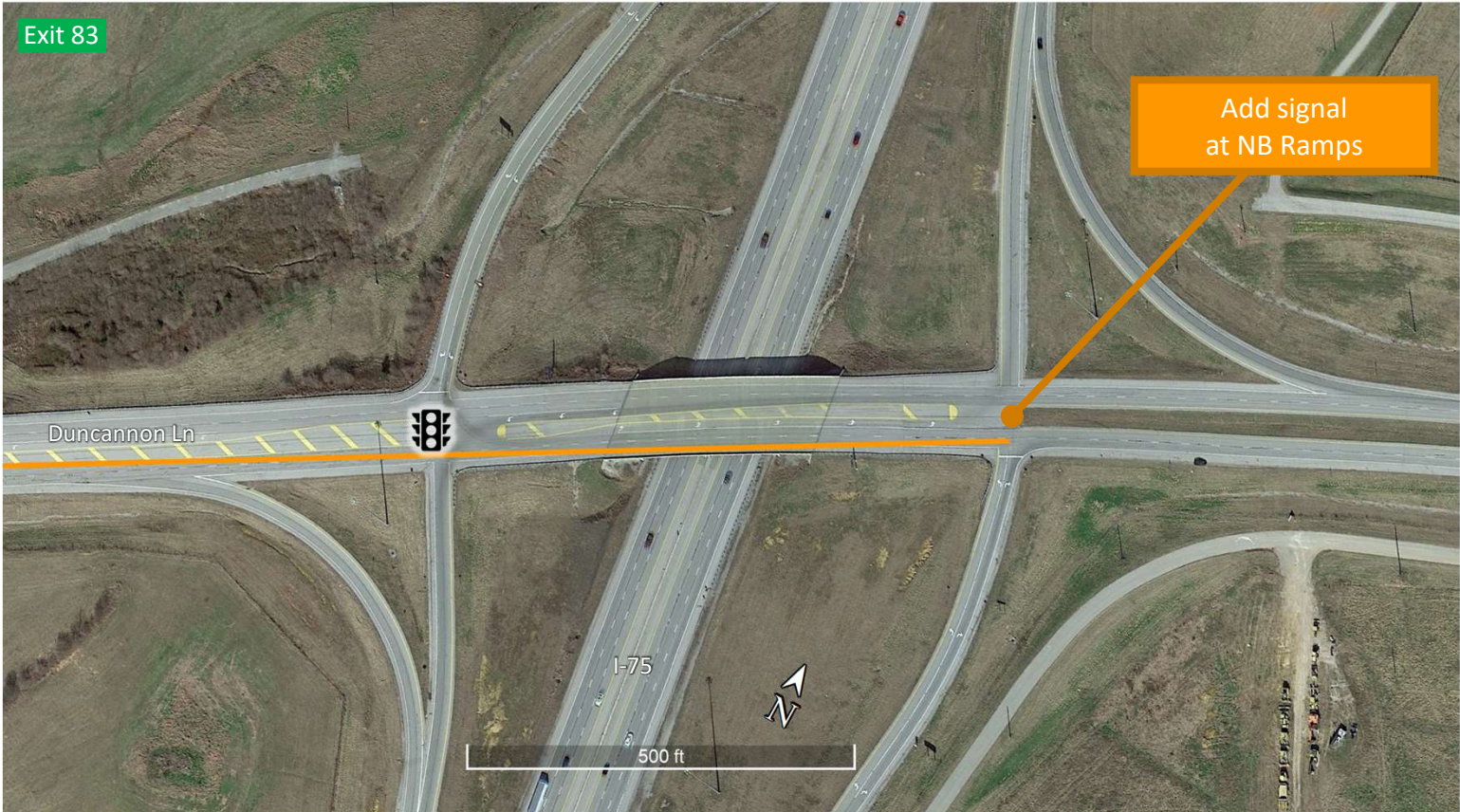
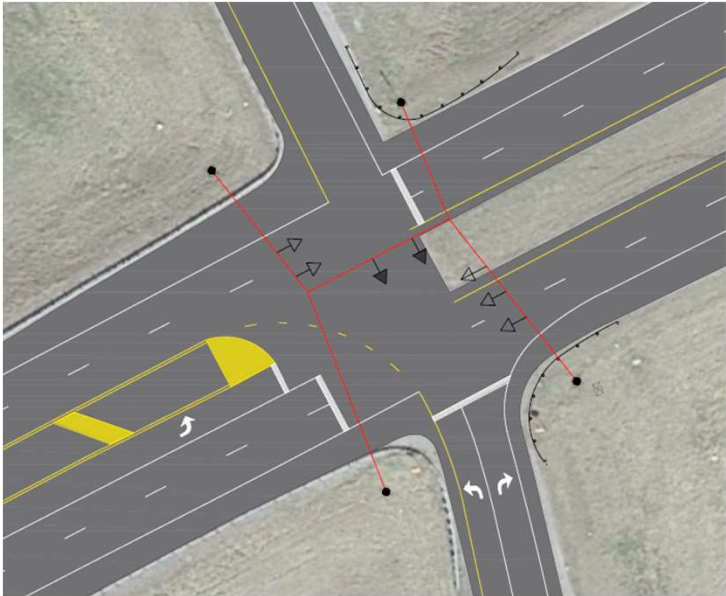
\$500,000 (Planning)

- Needs:
- No-Build (Bridge Closed) traffic shows northbound thru in the AM peak operates at LOS F, with a 1.3 v/c and 1,400-foot queue. The southbound thru in the PM peak operates at LOS F, with a 2.6 v/c and 2,400-foot queue.
 - Options to improve capacity were considered, including a “bowtie” median U-turn (MUT) configuration or displaced left turn intersection. A closer look planning effort is recommended to assess benefits to everyday traffic flows and balance costs/impacts.

Build concepts considered to improve traffic flow based on forecast Bridge Closed traffic derived from third-party turning movement count data



District 7	Madison Co.				
High Priority	I-75/Duncannon Ln Interchange Area (Exit 83) KY 2872 MP 0.6-0.8				
Description: Add signal at intersection with NB ramps	D	R	U	C	Total
	\$50k	-	-	\$0.3M	\$0.4M
Needs:					
<ul style="list-style-type: none"> Without signal, stop-control NB ramp operates at LOS F in PM peak hour carrying detour traffic: 1.8 v/c for northbound left with 400 seconds delay per vehicle. With a signal, improves to LOS B overall with 30 seconds delay for northbound left. 					
<i>Traffic projections developed based on 2021 StreetLight data, 2020 Traffic Impact Study for Buc-ee's Travel Center, and 2015 KYTC forecast for completed 7-235 reconstruction of KY 52.</i>					



Short-Term Option during closure	US 27 MP 3.0-3.2 KY 52 MP 5.0-5.2				
---	-------------------------------------	--	--	--	--

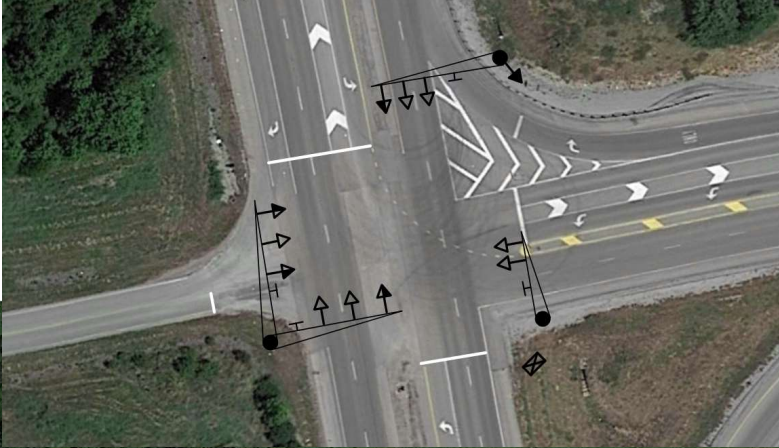
Description: Restripe existing pavement and adjust signal heads. Remove on-street parking east approach. NE quad of public square or local Campbell Street to serve as one-way shortcut for northbound detour. <b style="color: red;">Further Study/Local Coordination Needed	D	R	U	C	Total
	\$50k	-	-	\$0.3M	\$0.4M

- Needs:
- Detour traffic at the US 27/KY 52 intersection in downtown Lancaster is driven by heavy westbound right turns in the morning (3.7 v/c and mile-long queue with existing timing) and southbound left turns in the afternoon (6.1 v/c with mile-long max queue)
 - Adjusting phasing to run split phases on each approach with a right turn overlap for the detour moves improves morning WBR to LOS F (1.3 v/c with 1,800-foot queue) and afternoon SBL to LOS F (1.6 v/c with 2,000-foot queue).
 - Running north/south approaches on split phase with MOT striping solution shown below improves afternoon SBL to LOS F (1.1 v/c and 1,100-foot queue). The WBR move is shifted away from the main intersection and can likely be striped as a free-flow lane add.

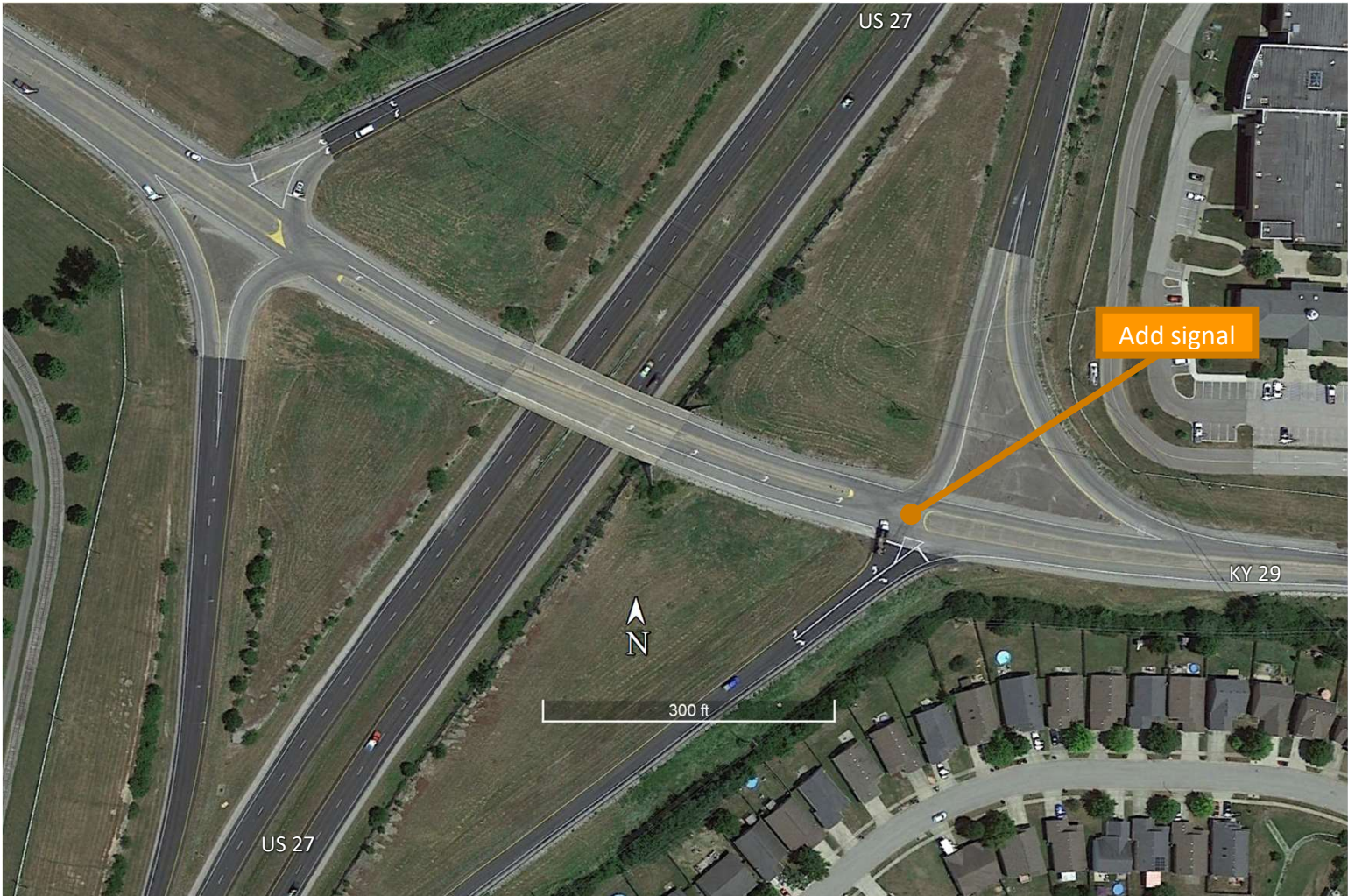


Build concepts based on forecast Bridge Closed traffic derived from third-party turning movement count data. Analyses did not examine impacts to local street network. No coordination with local stakeholders conducted to date. Long term, construction of Item No. 7-196.2 shifts US 27/KY 52 intersection west beyond downtown limits, addressing capacity concerns at current site.

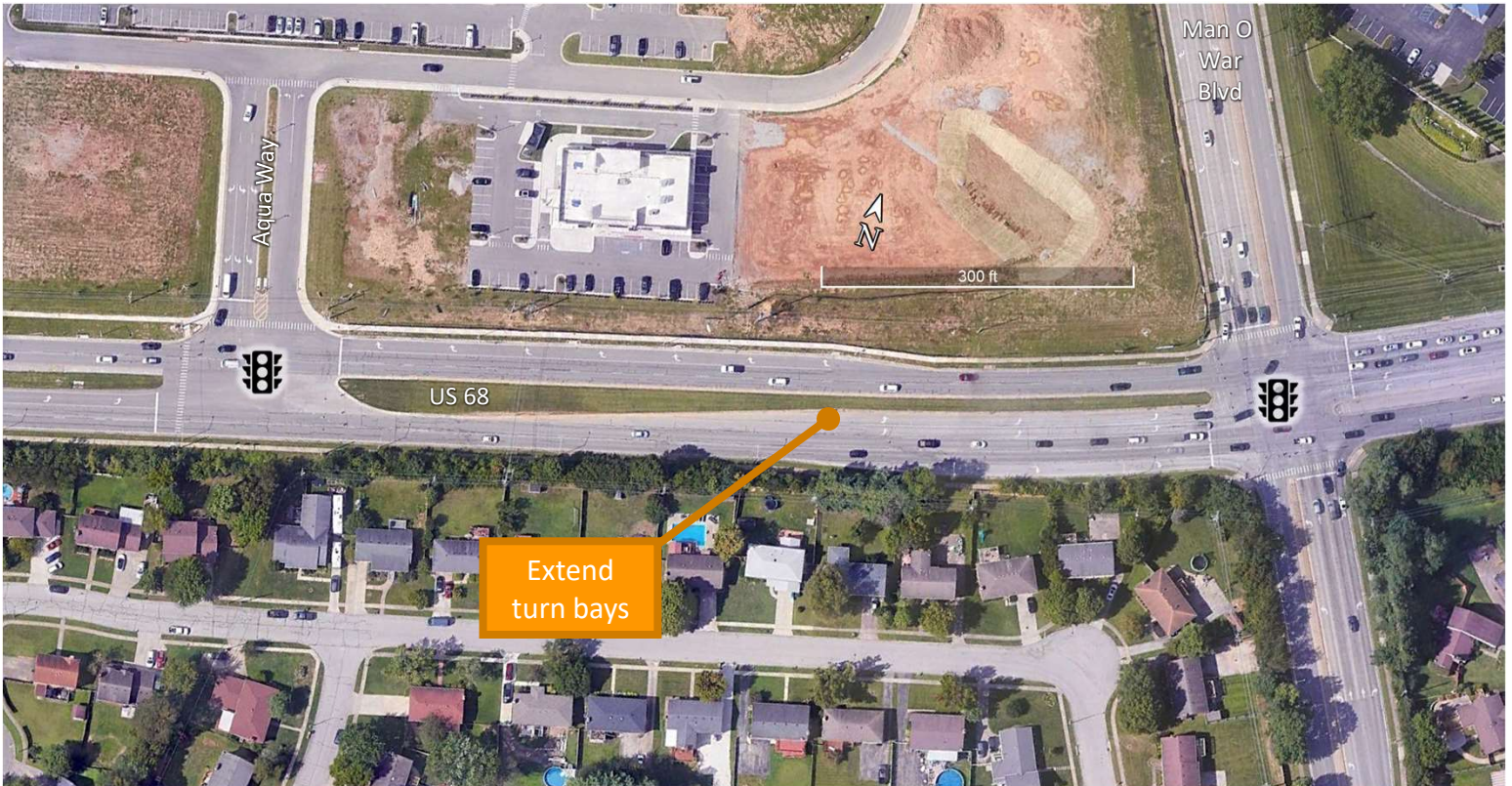
District 7	Jessamine Co.				
Medium Priority	US 27 MP 5.5-5.6				
Description: Add signal at US 27/East Nicholasville Bypass	D	R	U	C	Total
	\$50k	-	-	\$0.3M	\$0.4M
Needs:					
<ul style="list-style-type: none"> While detour traffic avoids the eastern bypass approach, increased mainline traffic provides fewer gaps for westbound left turn moves. If left unsignalized, the westbound left turn to US 27 operates at LOS F carrying 1.9 to 8.4 times its available traffic during peak hours. Adding a signal improves overall intersection operations to LOS A-B during both peak hours. 					



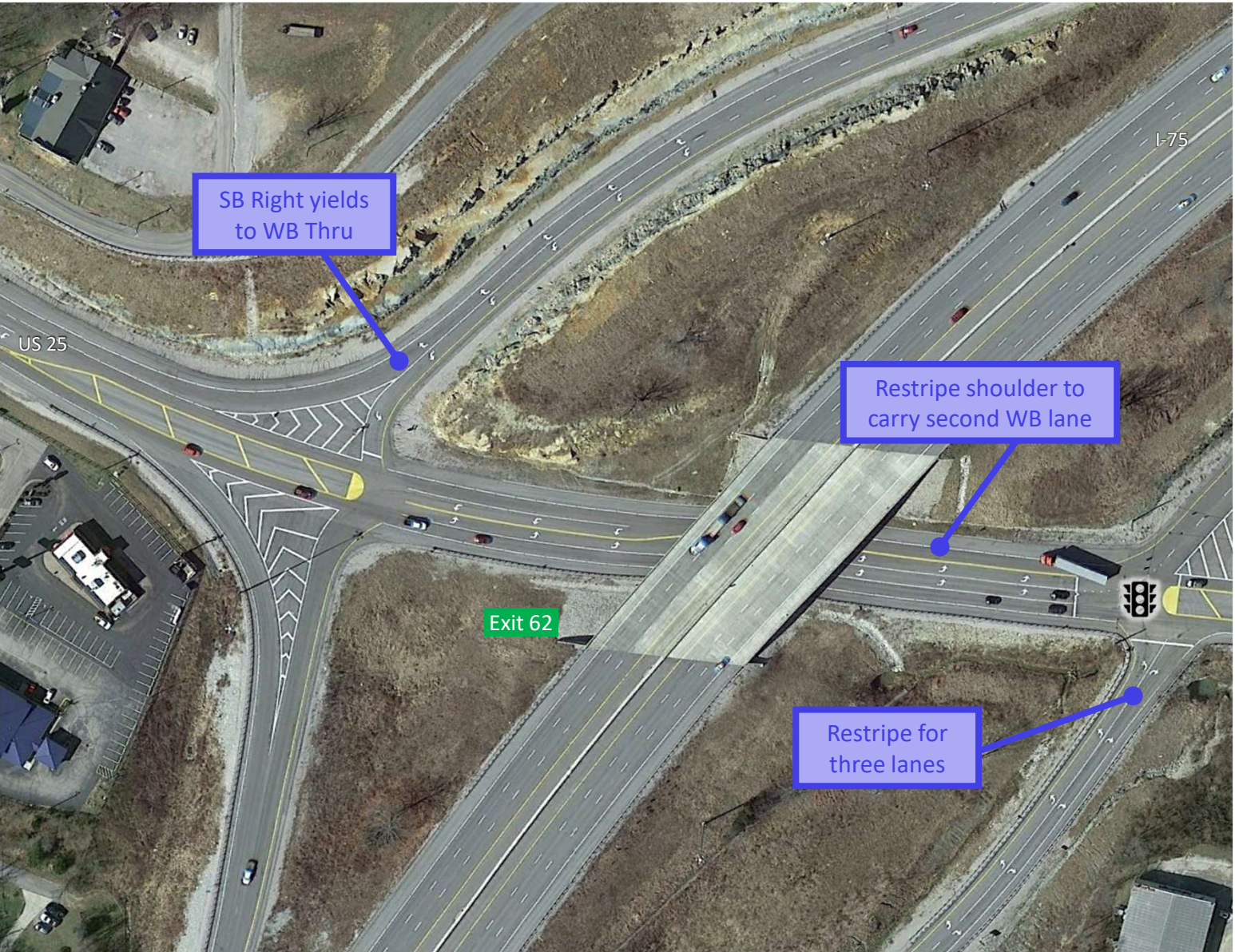
District 7	Jessamine Co.				
High Priority	KY 29 MP 9.4-9.5				
Description: Add signal at intersection with NB ramps	D	R	U	C	Total
	\$50k	-	-	\$0.3M	\$0.4M
Needs:					
<ul style="list-style-type: none"> • Stop-controlled, the NBL from the US 27 off-ramp is triple its available capacity, with 1,800-foot max queues during the AM peak hours versus 1,520 feet of available ramp storage. • With a signal, the overall intersection and NBL operate at LOS B in both peak hours. The max NBL queue length is 350 feet. 					



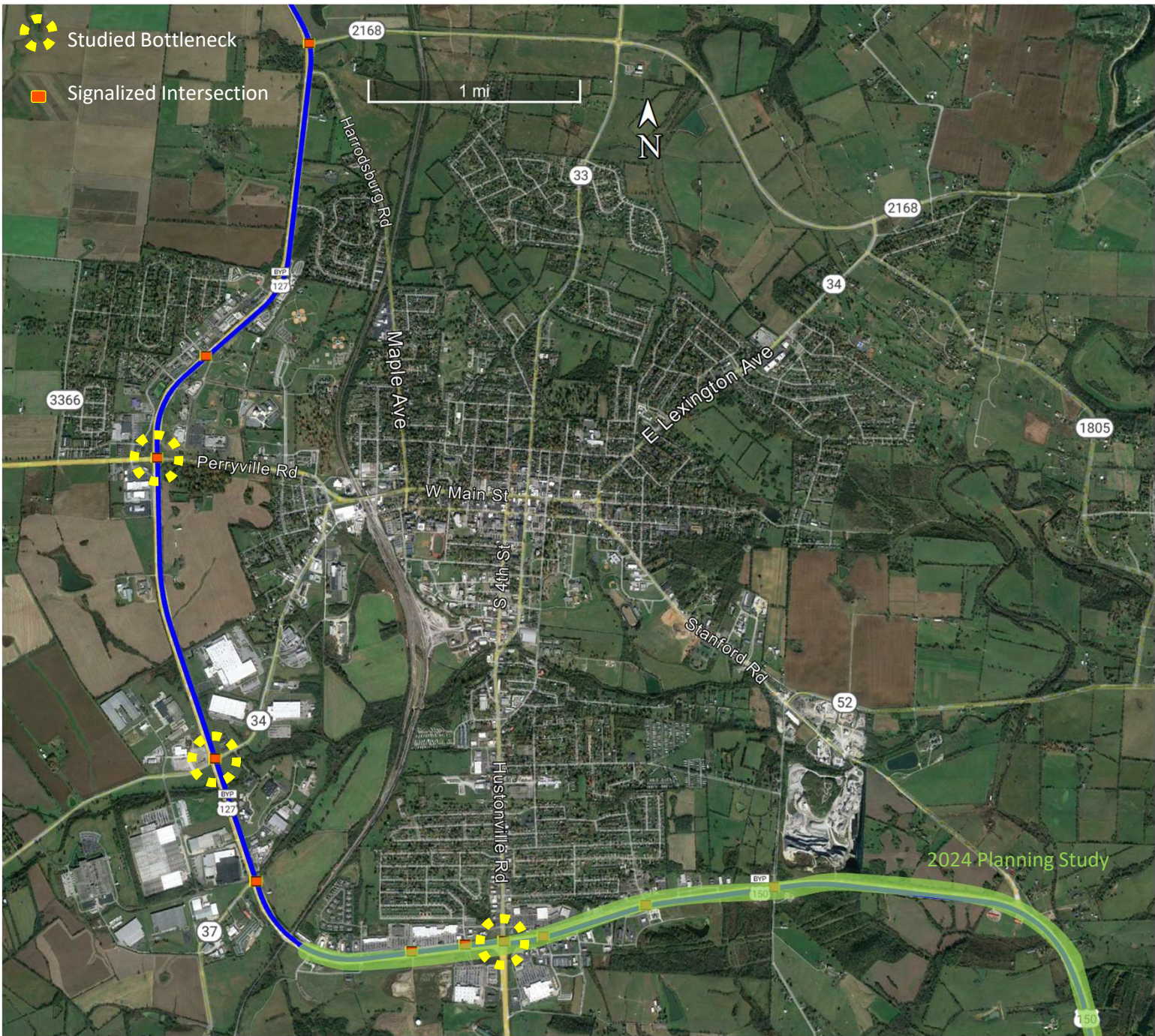
District 7	Fayette Co.				
Medium Priority	US 68 MP 1.5-1.7				
Description: Extend left turn bays to increase storage	D	R	U	C	Total
	\$100k	-	-	\$200k	\$300k
Needs:					
<ul style="list-style-type: none"> Existing dual turn bays are approximately 330 feet long today versus projected peak hour queue lengths around 2,000 feet. 					



District 8	Rockcastle Co.				
Short-Term Option during closure	I-75/US 25 Mt Vernon Interchange Area (Exit 62) US 25 MP 15.6-15.9				
Description: Restriping for dual lefts from I-75 northbound off-ramp	D	R	U	C	Total
	\$50k	-	-	\$200k	\$250k
Needs: <ul style="list-style-type: none"> No-Build (Bridge Closed) northbound left turn from the off-ramp is at LOS F with a 1.1 v/c and 1,700-foot max queue length during the AM peak. With restriping shown below, northbound off-ramp operates at LOS D in the AM peak hour, with a 0.9 v/c and 500-foot max queue. The southbound right yielding from the southbound off-ramp goes from free-flow today to LOS F in the PM peak with a 1.0 v/c and 400-foot max queue. 					



District 7	Boyle Co.
Medium Priority	Danville Bypass US 150B MP 0.0-2.3 US 127B MP 0.0-8.5
Description: Reconstruct intersection(s) to improve capacity Further Study Recommended	Cost Estimate \$500,000 (Planning)
Needs: <ul style="list-style-type: none"> • Detour routing near Danville follows the four-lane divided bypass; three of 11 signals in this stretch were identified as bottlenecks for this study. Each shows v/c for detour moves less than 1.2 however, other turn movements are over capacity with poor LOS. • A planning study to look at everyday traffic operations in additional to detour routing is recommended, with an emphasis on coordination with local leaders and consistency for drivers. • An ongoing 2024 planning study examines access control along US 150 continuing south towards Stanford. 	



District 5, 7, 8, 11	Various Counties				
Medium Priority	I-64 & I-75				
Description: Install CCTV cameras to monitor traffic queues and VMS	D	R	U	C	Total
	\$100k	-	-	\$500k	\$600k
Notes:					
<ul style="list-style-type: none"> Basic installation for one CCTV system (i.e., pole, camera, and cabinet) costs around \$80,000 in 2023 dollars; more advanced cameras are available to automatically alert the traffic management center of backups onto the freeway. Mounting cameras on existing high mast lighting provides ideal height/visibility with minimal added costs, though a step-down transformer may be necessary to reduce wattage. A portable camera/trailer option could also be considered. Nine locations recommended, listed below 					

Interchange/Intersection	Cross-Street	Mounting
I-75 Exit 11 Williamsburg	KY 92	High Mast Lighting
I-75 Exit 62 Mt Vernon	US 25	Signal Pole or High Mast Lighting
I-75 Exit 76 Madison Co.	KY 21	Signal Pole or High Mast Lighting
I-75 Exit 83 Berea	KY 52	Signal Pole
I-64 Exit 94 Winchester	KY 1958	High Mast Lighting
I-75 Exit 115 Lexington	KY 922	High Mast Lighting
I-64 Exit 58 Frankfort	US 60	High Mast Lighting or Underpass
I-64 Exit 53 Frankfort	US 127	High Mast Lighting
I-64 Exit 48 Franklin Co.	KY 151	High Mast Lighting
KY 1958 Winchester Bypass signal	US 60	Signal Pole
KY 1958 Winchester Bypass signal	KY 627	Signal Pole

