

# **APPENDIX H: COST ESTIMATION SHEETS**

## Cost Estimation Detail - Corridor 4A

### Corridor Information

Route	KY 4
From	US 25 (Richmond Road)
To	KY 922 (Newtown Pike)
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4
Median	Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	9	\$16.2	\$58.5	\$13.5	\$108.0	\$196.2
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section from Versailles Road to Richmond Road.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	3	\$11.3	\$37.5	\$9.4	\$75.0	\$133.1
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvements are proposed for 3 interchanges.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	136,006	\$6.8	\$3.4	\$1.4	\$40.8	\$52.4

Note
Rehab/widening is recommended for a total of 21 bridges

## Summary of Total Cost (\$M)

Design	\$34.3
ROW	\$99.4
Utility	\$24.2
Construction	\$223.8
<b>TOTAL</b>	<b>\$381.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 4B

### Corridor Information

Route	KY 4
From	KY 922 (Newtown Pike)
To	US 25 (Richmond Road)
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4-6
Median	Divided
Posted Speed	45 mph/55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	6	\$10.8	\$39.0	\$9.0	\$72.0	\$130.8
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section throughout the entire segment.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	11	\$6.6	\$24.2	\$5.5	\$44.0	\$80.3
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 11 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	33,847	\$1.7	\$0.8	\$0.3	\$10.2	\$13.0

Note
Rehab/widening is recommended for a total of 3 bridges

## Railroad Bridge

Railroad Bridge	7		-	-	-	\$21.5	\$21.5
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Note
RJ Corman RR over Broadway and over Todds Road needs to be widened for the 6 lanes and requires shoofly to keep the railroad operating

## Summary of Total Cost (\$M)

Design	\$19.1
ROW	\$64.0
Utility	\$14.8
Construction	\$147.7
<b>TOTAL</b>	<b>\$245.6</b>

### Additional Notes:

- The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
- Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
- The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
- Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
- Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
- Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
- If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.
- The railroad bridge widening costs are based on the following costs that are based on research of similar projects:

#### RR Bridge at Broadway:

Permanent RR Bridge: \$25K/track feet x 150 TF = \$3.75M x 2 bridges = \$7.5M  
 Temporary RR Bridge: \$13K/track feet x 150 TF = \$1.95M x 2 bridges = \$3.9M  
 Shoo Fly Temp. Track: \$500/track ft. x 1,000 TF = \$500K  
 Permanent Track: \$500/track ft. x 1,000 TF = \$500K  
 Miscellaneous (e.g., clearing/grubbing, earthwork, MOT, mobilization/demobilization, additional costs, etc.) = \$3.1M

#### RR Bridge north of Young Drive

RR Bridge: \$25K/track feet x 120 TF = \$3M  
 Retaining Walls, Temporary Shoring, Earthwork, Other = \$1.5M  
 Shoo Fly Temp. Track: \$500/track ft. x 1,000 TF = \$500K  
 Miscellaneous (e.g., clearing/grubbing, earthwork, MOT, mobilization/demobilization, additional costs, etc.) = \$1M

## Cost Estimation Detail - Corridor 5

### Corridor Information

Route	Man O' War Boulevard
From	US 60 (West) in Lexington
To	I-75 in Lexington
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4 or 6
Median	Undivided
Posted Speed	45 – 50 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	16	\$28.8	\$104.0	\$24.0	\$192.0	\$348.8
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section throughout the entire segment.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvements are proposed for the existing interchange at I-75.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	27	\$16.2	\$59.4	\$13.5	\$108.0	\$197.1
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 27 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	8,281	\$0.4	\$0.2	\$0.1	\$2.5	\$3.2

Note
There are two bridges along the corridor in need of rehab.

## Summary of Total Cost (\$M)

Design	\$49.2
ROW	\$176.1
Utility	\$40.7
Construction	\$327.5
<b>TOTAL</b>	<b>\$593.5</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 6A

### Corridor Information

Route	US 60
From	I-64 in Louisville
To	Ky 1848 in Simpsonville
Highway District	5

### Characteristics

Functional Class	Minor Arterial/Principal Arterial
Lanes	2-8
Median	None/Raised
Posted Speed	35-45 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	5	3.1	\$5.6	\$20.2	\$4.7	\$37.2	\$67.6
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane typical section from Evergreen Road to Bircham Road

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	5	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for interchanges at I-264.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5	21	\$12.6	\$46.2	\$10.5	\$84.0	\$153.3
< 4 Lanes in Both Directions	5	3	\$1.1	\$4.1	\$0.9	\$7.5	\$13.7

Note
Spot improvements at 21 intersections.
Spot improvements at 3 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$23.1
ROW	\$83.0
Utility	\$19.2
Construction	\$153.7
<b>TOTAL</b>	<b>\$278.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 6B

### Corridor Information

Route	US 60
From	KY 1848 in Simpsonville
To	US 62 in Versailles
Highway District	5, 7

### Characteristics

Functional Class	Minor Arterial/Principal Arterial
Lanes	2-4
Median	Undivided
Posted Speed	25 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	5	2	\$3.6	\$13.0	\$3.0	\$24.0	\$43.6
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 5-lane facility (with a TWLTL) from KY 53/KY 55 to 2 miles east of KY 53/KY 55 in Shelby Co.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	5	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-64.

# STATEWIDE CORRIDOR PLAN



## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5/7	24	\$14.4	\$52.8	\$12.0	\$96.0	\$175.2
< 4 Lanes in Both Directions	5	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6

Note
Spot improvements at 24 intersections.
Spot improvements at 1 intersection.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$21.4
ROW	\$77.2
Utility	\$17.8
Construction	\$142.5
<b>TOTAL</b>	<b>\$258.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 6C

### Corridor Information

Route	US 60
From	US 62 in Versailles
To	I-75 in Lexington
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4-6
Median	Undivided
Posted Speed	35 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	7	8.7	\$8.7	\$17.4	\$3.5	\$87.0	\$116.6
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided facility from US 62 in Versailles to 0.7 mile west of Bluegrass Pkwy & from 0.7 mile east of Bluegrass Pkwy to New Circle Road.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Bluegrass Pkwy interchange would need to be modified if the gap to I-64 is ever closed.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	37	\$22.2	\$81.4	\$18.5	\$148.0	\$270.1
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 37 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	46,469	\$2.3	\$1.2	\$0.5	\$13.9	\$17.9

Note
2 bridges for rehab/widening.

## Summary of Total Cost (\$M)

Design	\$37.0
ROW	\$112.5
Utility	\$25.6
Construction	\$273.9
<b>TOTAL</b>	<b>\$448.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 9

### Corridor Information

Route	KY 9 (AA Highway)
From	I-275
To	I-64 near Grayson
Highway District	6, 9

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	45 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	6	7.6	\$7.6	\$15.2	\$3.0	\$76.0	\$101.8
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided section from I-275 to KY 547 (Four Mile Rd) in Alexandria .

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	6	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-275.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	6 & 9	11	\$6.4	\$22.5	\$5.4	\$43.5	\$77.7
< 4 Lanes in Both Directions	6	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6

Note
Spot improvements at 11 intersections.
Spot improvement at 1 intersection.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	6	24,488	\$1.2	\$0.6	\$0.2	\$7.3	\$9.4

Note
Rehab/widen KY 547 & 4 MI Creek Bridge.

## Summary of Total Cost (\$M)

Design	\$18.5
ROW	\$49.7
Utility	\$11.4
Construction	\$149.3
<b>TOTAL</b>	<b>\$229.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 10

### Corridor Information

Route	US 79 / KY 100
From	Tennessee State Line
To	I-65 near Franklin
Highway District	3

### Characteristics

Functional Class	Principal Arterial/Minor Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)	3	5	\$5.5	\$3.0	\$2.5	\$20.0	\$31.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 2+1 lane section (MP 0-3 in Todd County) and a 4-lane divided section (from US 431 to KY 100).

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	3	1	\$0.1	\$0.2	\$0.3	\$4.0	\$4.6
< 4 Lanes in Both Directions	3	6	\$0.6	\$0.6	\$0.6	\$12.0	\$13.8

Note
Spot improvement at 1 intersection.
Spot improvements at 6 intersection.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	3	3382	\$0.1	\$0.0	\$0.0	\$1.0	\$1.1

Note

## Summary of Total Cost (\$M)

Design	\$6.3
ROW	\$3.8
Utility	\$3.4
Construction	\$37.0
<b>TOTAL</b>	<b>\$50.5</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 12

### Corridor Information

Route	KY 922/US 25
From	US 68 in Lexington
To	I-64/I-75 in Lexington
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	35-55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	1.8	\$3.2	\$11.7	\$2.7	\$21.6	\$39.2
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided section with access management from New Circle Road to I-75.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	2	\$7.5	\$25.0	\$6.3	\$50.0	\$88.8
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvements are proposed for interchanges at KY 4 and I-75.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	13	\$7.8	\$28.6	\$6.5	\$52.0	\$94.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 13 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	34,713	\$1.7	\$0.9	\$0.3	\$10.4	\$13.4

Note
Widening is recommended for one bridge

## Summary of Total Cost (\$M)

Design	\$20.3
ROW	\$66.2
Utility	\$15.8
Construction	\$134.0
<b>TOTAL</b>	<b>\$236.3</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 15

### Corridor Information

Route	KY 15, KY 7, KY 155, KY 30
From	Mountain Pkwy
To	US 119
Highway District	10, 12

### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	10,12	7	\$2.5	\$3.5	\$2.5	\$24.5	\$32.9
< 4 Lanes in Both Directions	10	1	\$0.3	\$0.4	\$0.3	\$2.0	\$2.9

Note
Spot improvements at 7 intersections.
Spot improvement at 1 intersection.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$2.7
ROW	\$3.9
Utility	\$2.7
Construction	\$26.5
<b>TOTAL</b>	<b>\$35.8</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 18A

### Corridor Information

Route	US 31 W / KY 61
From	Columbia
To	I-65 near Elizabethtown
Highway District	4, 8

### Characteristics

Functional Class	Minor Arterial/Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	35-70 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	4	2	\$0.2	\$0.4	\$0.6	\$8.0	\$9.2
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 2 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\* Proposed improvement of widening shoulders to 6' or more from US 31E to KY 88

## Summary of Total Cost (\$M)

Design	\$0.2
ROW	\$0.4
Utility	\$0.6
Construction	\$8.0
<b>TOTAL</b>	<b>\$9.2</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 18B

### Corridor Information

Route	US 31 W / KY 9001
From	I-65
To	I-265 in Louisville
Highway District	4, 5

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	5, 4	26.1	\$36.4	\$23.5	\$12.5	\$138.0	\$210.3
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 44 (Stites Station Rd) to KY 841 (Gene Snyder Freeway) in Louisville. Add auxiliary lane from Western Kentucky Pkwy to KY 1638 (Old Mill Rd) in Muldraugh.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)	4	2	\$2.8	\$2.0	\$1.6	\$17.0	\$23.4
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
New interchanges are proposed at KY 1357 and US 60.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	4,5	21	\$2.6	\$6.2	\$6.5	\$84.0	\$99.3
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 21 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	5	34,992	\$1.7	\$0.9	\$0.3	\$10.5	\$13.5

Note
Rehab/widening is recommended for a total of two bridges.

## Summary of Total Cost (\$M)

Design	\$43.5
ROW	\$32.6
Utility	\$20.9
Construction	\$249.5
<b>TOTAL</b>	<b>\$346.5</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 18C

### Corridor Information

Route	US 31 W / US 150
From	I-265 in Louisville
To	I-64 in Louisville
Highway District	5

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided
Posted Speed	Typically 35 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5	24	\$14.4	\$52.8	\$12.0	\$96.0	\$175.2
< 4 Lanes in Both Directions	5	3	\$1.1	\$4.1	\$0.9	\$7.5	\$13.7

Note
Spot improvements at 24 intersections.
Spot improvements at 3 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\* Propose Access Management and Complete Streets throughout segment.

## Summary of Total Cost (\$M)

Design	\$15.5
ROW	\$56.9
Utility	\$12.9
Construction	\$103.5
<b>TOTAL</b>	<b>\$188.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 19

### Corridor Information

Route	US 119 / US 25 E / US 23
From	I-75
To	West Virginia State Border
Highway District	11, 12

### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	10,12	17	\$6.0	\$8.5	\$6.0	\$59.5	\$79.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 17 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\* Propose Improve shoulders and widen lanes to match the upgraded section between Harlan and Oven Fork, and spot improvements.

## Summary of Total Cost (\$M)

Design	\$6.0
ROW	\$8.5
Utility	\$6.0
Construction	\$59.5
<b>TOTAL</b>	<b>\$79.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 23

### Corridor Information

Route	US 23
From	Ohio State Line
To	US 119 near Pikeville
Highway District	9, 12

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Divided/Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	9	5	\$7.5	\$3.0	\$2.5	\$20.0	\$33.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided section with access management from Winchester Ave in Ashland to KY 207 (Argillite Rd) in Flatwoods.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	9,12	31	\$5.9	\$9.5	\$9.9	\$118.5	\$143.7
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 33 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	9	37,005	\$0.9	\$0.0	\$0.0	\$11.1	\$12.0

Note
Rehab/widening is recommended for a total of two bridges.

## Summary of Total Cost (\$M)

Design	\$14.3
ROW	\$12.5
Utility	\$12.4
Construction	\$149.6
<b>TOTAL</b>	<b>\$188.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 27A

### Corridor Information

Route	US 27
From	US 421 in Lexington
To	US 27/ US 68 Split in Paris
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4
Median	Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	12	\$7.2	\$26.4	\$6.0	\$48.0	\$87.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 12 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\*Proposed Complete Streets and Access Management from US 421 (Main Street) to I-64/I-75.

## Summary of Total Cost (\$M)

Design	\$7.2
ROW	\$26.4
Utility	\$6.0
Construction	\$48.0
<b>TOTAL</b>	<b>\$87.6</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 27B

### Corridor Information

Route	US 27
From	US 27/ US 68 Split in Paris
To	KY 9 (AA Highway) in Campbell County
Highway District	6, 7

### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Undivided/Divided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	6,7	3.7	\$3.7	\$7.4	\$1.5	\$37.0	\$49.6
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 10 (E. Main Street) to KY 9 (AA Highway) near Alexandria.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	6	5	\$3.0	\$11.0	\$2.5	\$20.0	\$36.5
< 4 Lanes in Both Directions	6	2	\$0.8	\$2.8	\$0.6	\$5.0	\$9.1

Note
Spot improvements at 5 intersections.
Spot improvements at 2 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\*From 0.4 mile north of KY 1893 to 0.5 mile south of US 62 improve shoulders.

## Summary of Total Cost (\$M)

Design	\$7.5
ROW	\$21.2
Utility	\$4.6
Construction	\$62.0
<b>TOTAL</b>	<b>\$95.2</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 27C

### Corridor Information

Route	US 27
From	AA Highway (KY 9)
To	Ohio State Line (Cincinnati)
Highway District	6

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided
Posted Speed	25-45 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	6	3	\$5.4	\$19.5	\$4.5	\$36.0	\$65.4
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from AA Highway to Alexandria Pike on its existing alignment. Access Management and CAV/BRT Corridor.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	6	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-471.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	6	13	\$7.8	\$28.6	\$6.5	\$52.0	\$94.9
< 4 Lanes in Both Directions	6	9	\$3.4	\$12.4	\$2.8	\$22.5	\$41.1

Note
Spot improvements at 13 intersections.
Spot improvements at 9 intersections.

## Major Structure

Proposed Concept	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\*Propose road diet from Highland Avenue to Carothers Street Road per the US 27 Traffic Analysis for the City of Newport.

Propose a 3-lane section with 2 northbound lane and 1 southbound lane from 11th Street to Carothers Street per the US 27 Traffic Analysis for the City of Newport

## Summary of Total Cost (\$M)

Design	\$20.3
ROW	\$73.0
Utility	\$16.9
Construction	\$135.5
<b>TOTAL</b>	<b>\$245.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 28A

### Corridor Information

Route	US 68
From	Man o' War Blvd
To	I-64/I-75 Interchange
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4-6
Median	Undivided/Divided
Posted Speed	Typically 45 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	3.4	\$6.1	\$22.1	\$5.1	\$40.8	\$74.1
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Man O' War Boulevard to Waller Avenue widen to 6 lanes.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	22	\$13.2	\$48.4	\$11.0	\$88.0	\$160.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	1,210	\$0.1	\$0.0	\$0.0	\$0.4	\$0.5

Note
Rehab/widening is recommended for 1 bridge.

## Summary of Total Cost (\$M)

Design	\$19.4
ROW	\$70.5
Utility	\$16.1
Construction	\$129.2
<b>TOTAL</b>	<b>\$235.2</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 28B

### Corridor Information

Route	US 68 / US 27
From	I-64/ I-75 in Fayette County
To	Ohio State Line – Mason County
Highway District	6, 7, 9

### Characteristics

Functional Class	Principal Arterial
Lanes	2-4
Median	Undivided/Divided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	5	\$3.0	\$11.0	\$2.5	\$20.0	\$36.5
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 5 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

\* Improve shoulders from Millersburg Bypass to KY 1244.

## Summary of Total Cost (\$M)

Design	\$3.0
ROW	\$11.0
Utility	\$2.5
Construction	\$20.0
<b>TOTAL</b>	<b>\$36.5</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 30A

### Corridor Information

Route	US 27
From	Tennessee State Line
To	US 27 Bypass near Nicholasville
Highway District	7, 8

### Characteristics

Functional Class	Principal Arterial
Lanes	2-6
Median	Undivided/Divided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway	7	3.28	\$4.9	\$6.6	\$1.3	\$32.8	\$45.6
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
A new western bypass around Lancaster

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	3	\$5.4	\$19.5	\$4.5	\$36.0	\$65.4
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided facility from Wichita Drive to US 27 Bus (north) in Nicholasville.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7,8	22	\$6.2	\$20.4	\$8.2	\$88.0	\$122.8
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 22 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	28,034	\$1.4	\$0.7	\$0.3	\$8.4	\$10.8

Note
1 bridge for rehab/widening.

\*KY 70 (near Eubank) to KY 78 (in Stanford) & KY 590 (in Stanford) to KY 39 (in Lancaster) improve shoulders.

## Summary of Total Cost (\$M)

Design	\$13.0
ROW	\$40.6
Utility	\$13.0
Construction	\$132.4
<b>TOTAL</b>	<b>\$199.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 30B

### Corridor Information

Route	US 27
From	US 27 Bypass/US 27 Business/S. Main Street in Nicholasville
To	E. Main Street/US 25 in Lexington
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4-10
Median	Undivided
Posted Speed	35-55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	7	1.8	\$1.8	\$3.6	\$0.7	\$18.0	\$24.1
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to 6-lane divided section from KY 1980 to Man O' War Boulevard

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)	7	1	\$1.5	\$3.0	\$0.6	\$15.0	\$20.1
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
New interchange north of the existing US 27 and US 27 bypass intersection.
Improvement is proposed for the interchange at KY 4.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	26	\$15.6	\$57.2	\$13.0	\$104.0	\$189.8
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 26 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$22.7
ROW	\$76.3
Utility	\$17.4
Construction	\$162.0
<b>TOTAL</b>	<b>\$278.4</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 31A

### Corridor Information

Route	US 31 E / US 150
From	Bluegrass Pkwy
To	I-265 in Louisville
Highway District	4, 5

### Characteristics

Functional Class	Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	35 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	5	6.9	\$6.9	\$13.8	\$2.8	\$69.0	\$92.5
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 44 in Mt. Washington to I-265.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)	4	2	\$2.2	\$1.2	\$0.8	\$8.0	\$12.2
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 4-lane undivided arterial from Bluegrass Pkwy to US 62 in Bardstown.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	5	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-265.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	4,5	9	\$3.4	\$11.8	\$3.7	\$36.0	\$54.9
< 4 Lanes in Both Directions	4	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 9 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	4,5	65,527	\$2.6	\$0.9	\$0.4	\$19.7	\$23.5

Note
Rehab/widening is recommended for a total of 4 bridges.

## Summary of Total Cost (\$M)

Design	\$19.2
ROW	\$40.6
Utility	\$11.1
Construction	\$165.7
<b>TOTAL</b>	<b>\$236.6</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 32

### Corridor Information

Route	KY 11 / KY 32 / US 460
From	AA Highway
To	US 23 in Paintsville
Highway District	9, 10, 12

### Characteristics

Functional Class	Minor Arterial
Lanes	2-4
Median	Undivided
Posted Speed	Typically 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	9	2.8	\$4.2	\$1.7	\$1.4	\$11.2	\$18.5
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided section with access management from I-64 to US 60.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)	9	0.5	\$0.8	\$0.6	\$0.4	\$2.6	\$4.3

Note
Widen to a 4-lane divided section with turn lanes at intersections from KY 32 to KY 519.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	9	1	\$0.6	\$1.2	\$0.3	\$7.2	\$9.3
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-64.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	9,10	13	\$1.6	\$2.9	\$4.0	\$51.5	\$59.9
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 13 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$7.1
ROW	\$6.4
Utility	\$6.0
Construction	\$72.5
<b>TOTAL</b>	<b>\$92.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 33A

### Corridor Information

Route	US 127
From	TN State Line
To	I-64 near Frankfort
Highway District	5, 7, 8

### Characteristics

Functional Class	Principal Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)	7	1.5	\$1.5	\$3.0	\$0.6	\$15.0	\$20.1
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from 0.7 mile south of US 62 to KY 44 in Lawrenceburg.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5, 7	15	\$9.0	\$33.0	\$7.5	\$60.0	\$109.5
< 4 Lanes in Both Directions	8	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 15 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$10.9
ROW	\$36.4
Utility	\$8.5
Construction	\$83.0
<b>TOTAL</b>	<b>\$138.8</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 33B

### Corridor Information

Route	US 127
From	I-64 near Frankfort
To	I-71
Highway District	5, 6

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5	2	\$1.2	\$4.4	\$1.0	\$8.0	\$14.6
< 4 Lanes in Both Directions	6	2	\$0.8	\$2.8	\$0.6	\$5.0	\$9.1

Note
Spot improvements at 2 intersections.
Spot improvements at 2 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$2.0
ROW	\$7.2
Utility	\$1.6
Construction	\$13.0
<b>TOTAL</b>	<b>\$23.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 35A

### Corridor Information

Route	US 231/US 31 E
From	TN State Line
To	Natcher Parkway (South of Bowling Green)
Highway District	3

### Characteristics

Functional Class	Principal Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 or 65 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)	3	1.2	\$1.3	\$0.7	\$0.5	\$4.8	\$7.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 3-lane facility with TWLT From KY 100 to KY 980 in Scottsville.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	3	1	\$0.1	\$0.2	\$0.3	\$4.0	\$4.6
< 4 Lanes in Both Directions	3	2	\$0.2	\$0.2	\$0.2	\$4.0	\$4.6

Note
Spot improvements at 1 intersection.
Spot improvements at 2 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$1.6
ROW	\$1.1
Utility	\$1.0
Construction	\$12.8
<b>TOTAL</b>	<b>\$16.5</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 35B

### Corridor Information

Route	US 231
From	Natcher Parkway (South of Bowling Green)
To	US 68 in Bowling Green
Highway District	3

### Characteristics

Functional Class	Principal Arterial
Lanes	4
Median	Divided
Posted Speed	45 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	3	6.1	\$6.1	\$7.3	\$4.9	\$31.7	\$50.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 622 (Plano Rd) to US 68 in Bowling Green.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	3	8	\$0.8	\$1.6	\$2.4	\$32.0	\$36.8
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 8 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	3	14,109	\$0.4	\$0.0	\$0.0	\$4.2	\$4.6

Note
Rehab/widening is recommended for one bridges.

## Summary of Total Cost (\$M)

Design	\$7.3
ROW	\$8.9
Utility	\$7.3
Construction	\$68.0
<b>TOTAL</b>	<b>\$91.4</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 36A

### Corridor Information

Route	KY 536
From	US 42 in Union
To	KY 17
Highway District	6

### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	35 or 45 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)	6	5.2	\$5.2	\$10.4	\$2.1	\$52.0	\$69.7
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 5-lane divided arterial from US 25 to KY 17. Do not include the widening projects from US 42 to US 25, which are currently under construction.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	6	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note
Spot improvements at 5 intersections from US 25 to KY 17. Do not include improvements at intersections from US 42 to US 25, which are currently under construction.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	6	32,120	\$1.6	\$0.8	\$0.3	\$9.6	\$12.4

Note
Rehab/widening is recommended for a total of 2 bridges.

## Summary of Total Cost (\$M)

Design	\$8.7
ROW	\$18.1
Utility	\$4.0
Construction	\$74.1
<b>TOTAL</b>	<b>\$104.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 36B

### Corridor Information

Route	KY 536
From	KY 17
To	US 27 near Alexandria
Highway District	6

### Characteristics

Functional Class	Major Collector
Lanes	2
Median	Undivided
Posted Speed	45 or 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway	6	0.4	\$0.5	\$0.6	\$0.1	\$3.0	\$4.2

Note
Construct a new 2-lane undivided facility nearby in south to bypass the overlapped KY 536/KY 16 section.

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	6	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note
Spot improvements at 5 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$2.3
ROW	\$7.5
Utility	\$1.7
Construction	\$15.5
<b>TOTAL</b>	<b>\$27.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 38

### Corridor Information

Route	US 431
From	TN State Line
To	US 60 in Owensboro
Highway District	2,3

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	2,3	5	\$0.5	\$1.0	\$1.5	\$20.0	\$23.0
< 4 Lanes in Both Directions	2,3	3	\$0.3	\$0.3	\$0.3	\$6.0	\$6.9

Note
Spot improvements at 5 intersections.
Spot improvements at 3 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$0.8
ROW	\$1.3
Utility	\$1.8
Construction	\$26.0
<b>TOTAL</b>	<b>\$29.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 39

### Corridor Information

Route	KY 100/US 31E/KY 90
From	I-65 Exit 6
To	US 27 near Somerset
Highway District	3, 8

### Characteristics

Functional Class	Minor Arterial or Minor Collector
Lanes	2 or 4
Median	Undivided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)	3	0.9	\$1.0	\$0.5	\$0.5	\$3.6	\$5.6
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 4-lane divided arterial from Dockery Heights Rd to Cumberland Pkwy in Glasgow.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)	3	1.2	\$1.3	\$0.7	\$0.5	\$4.8	\$7.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 3-lane facility with TWLT From KY 100 to KY 980 in Scottsville.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	3, 8	8	\$0.8	\$0.8	\$0.8	\$16.0	\$18.4

Note
Spot improvements at 8 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$3.1
ROW	\$2.1
Utility	\$1.7
Construction	\$24.4
<b>TOTAL</b>	<b>\$31.3</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 40

### Corridor Information

Route	US 641
From	Tennessee State Line
To	US 60 in Marion
Highway District	1, 2

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 or 65 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Do not include a new 4-lane divided facility parallel to US 641 near TN State line (the project is funded by BUILD grant with construction starting in fall 2020).

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)	1, 2	8.6	\$9.5	\$5.2	\$4.3	\$34.4	\$53.3
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 4-lane divided facility from Eddyville north to Fredonia (the project is in KYTC's SYP).

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	1	1	\$0.6	\$1.2	\$0.3	\$7.2	\$9.3
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-24.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	1	10	\$1.0	\$2.0	\$3.0	\$40.0	\$46.0
< 4 Lanes in Both Directions	1, 2	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 10 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	1, 2	9,538	\$0.2	\$0.0	\$0.0	\$2.9	\$3.1

Note
Rehab/widening is recommended for a total of 4 bridges.

## Summary of Total Cost (\$M)

Design	\$11.7
ROW	\$8.8
Utility	\$8.0
Construction	\$92.5
<b>TOTAL</b>	<b>\$120.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 41A

### Corridor Information

Route	US 421 (Leestown Rd)
From	US 27 in Lexington
To	KY 341 (I-64 Exit 65)
Highway District	7

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	35 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	2	\$3.6	\$13.0	\$3.0	\$24.0	\$43.6
2 Lane to 4 Lane (Rural)	7	8.2	\$8.2	\$16.4	\$3.3	\$82.0	\$109.9
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from KY 4 (New Circle Rd) to Ruffian Way.
Widen to a 4-lane divided arterial from Ruffian Way to KY 341 (I-64 Exit 65).

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)	7	0.5	\$0.9	\$3.3	\$0.8	\$6.0	\$10.9

Note
Widen to a 4-lane undivided arterial from Forbes Road to KY 4 (New Circle Rd).

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	6	\$3.6	\$13.2	\$3.0	\$24.0	\$43.8
< 4 Lanes in Both Directions	7	4	\$1.5	\$5.5	\$1.3	\$10.0	\$18.3

Note
Spot improvements at 6 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	7	18,134	\$0.9	\$0.5	\$0.2	\$5.4	\$7.0

Note
Rehab/widening is recommended for a total of 3 bridges.

## Summary of Total Cost (\$M)

Design	\$18.7
ROW	\$51.8
Utility	\$11.5
Construction	\$151.4
<b>TOTAL</b>	<b>\$233.4</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 41B

### Corridor Information

Route	US 421 (Leestown Rd)
From	KY 341 (I-64 Exit 65)
To	Indiana State Line
Highway District	5, 7

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5	7	\$4.2	\$15.4	\$3.5	\$28.0	\$51.1
< 4 Lanes in Both Directions	5, 7	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note
Spot improvements at 7 intersections.
Spot improvements at 5 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$6.1
ROW	\$22.3
Utility	\$5.1
Construction	\$40.5
<b>TOTAL</b>	<b>\$73.9</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 42A

### Corridor Information

Route	US 421
From	Virginia State Line
To	I-75 (Igo Rd) north of Richmond
Highway District	7, 8, 11

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-75 in Richmond.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7, 11	8	\$4.3	\$14.2	\$3.7	\$31.0	\$53.2
< 4 Lanes in Both Directions	7, 11	7	\$1.9	\$3.5	\$1.8	\$14.5	\$21.7

Note
Spot improvements at 8 intersections.
Spot improvements at 7 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$9.9
ROW	\$30.2
Utility	\$8.6
Construction	\$70.5
<b>TOTAL</b>	<b>\$119.2</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 42B

### Corridor Information

Route	US 421 (Richmond Rd)
From	I-75 (Exit 104) in Lexington
To	US 27 in Lexington
Highway District	7

### Characteristics

Functional Class	Principal Arterial
Lanes	4 or 6
Median	Undivided / Divided
Posted Speed	35 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)	7	1.8	\$3.2	\$11.7	\$2.7	\$21.6	\$39.2
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 6-lane divided arterial from Hays Blvd to Man O War Blvd.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)	7	1	\$3.8	\$12.5	\$3.1	\$25.0	\$44.4
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Improvement is proposed for the interchange at I-75 in Lexington.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7	18	\$10.8	\$39.6	\$9.0	\$72.0	\$131.4
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 18 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$17.8
ROW	\$63.8
Utility	\$14.8
Construction	\$118.6
<b>TOTAL</b>	<b>\$215.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 44A

### Corridor Information

Route	KY 44
From	I-65
To	KY 1319
Highway District	5

### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	45 or 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway	5	7.9	\$11.9	\$15.8	\$3.2	\$79.0	\$109.8
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

Propose a 4-lane divided arterial connector on a new alignment starting west of Mt. Washington. Alignment of the new connector concept is preliminary.

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)	5	7	\$8.4	\$11.2	\$2.2	\$56.0	\$77.8
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

Upgrade KY 44 to a 3-lane arterial facility with a TWLTL or an alternating passing lane from I-65 to west of Mt. Washington.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)	5	1	\$3.0	\$10.0	\$2.5	\$20.0	\$35.5
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

Improvement is proposed for the interchange at I-65.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	5	1	\$0.6	\$2.2	\$0.5	\$4.0	\$7.3
< 4 Lanes in Both Directions	5	5	\$1.9	\$6.9	\$1.6	\$12.5	\$22.8

Note
Spot improvements at 1 intersection.
Spot improvements at 5 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation	5	14,112	\$0.7	\$0.4	\$0.1	\$4.2	\$5.4

Note
Rehab/widening is recommended for one bridge.

## Summary of Total Cost (\$M)

Design	\$26.4
ROW	\$46.4
Utility	\$10.1
Construction	\$175.7
<b>TOTAL</b>	<b>\$258.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 44B

### Corridor Information

Route	KY 44
From	KY 1319
To	KY 55
Highway District	5

### Characteristics

Functional Class	Minor Arterial
Lanes	2
Median	Undivided
Posted Speed	35 - 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway	5	3.8	\$5.7	\$7.6	\$1.5	\$38.0	\$52.8
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

Construction of a 4-lane divided arterial on a new alignment is part of the proposed connector between KY 44 and KY 55.

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)	5	2.7	\$2.7	\$5.4	\$1.1	\$27.0	\$36.2
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

Upgrade of the existing KY 1169 to a 4-lane divided arterial is part of the proposed connector between KY 44 and KY 55.

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

### Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
< 4 Lanes in Both Directions	5	1	\$0.4	\$1.4	\$0.3	\$2.5	\$4.6

Note
Spot improvements at 1 intersection.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$8.8
ROW	\$14.4
Utility	\$2.9
Construction	\$67.5
<b>TOTAL</b>	<b>\$93.6</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 46A

### Corridor Information

Route	KY 245
From	I-65 in Clermont
To	Bluegrass Parkway
Highway District	4, 5

### Characteristics

Functional Class	Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)	4, 5	D4: 3.3 D5: 1.7	\$5.7	\$4.7	\$1.9	\$26.8	\$39.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Widen to a 3-lane facility from I-65 to CR 1135 (Happy Hollow Rd) and from Deatsville to 1 mile east of Samuels.

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	4	3	\$0.3	\$0.6	\$0.9	\$12.0	\$13.8
< 4 Lanes in Both Directions	4	3	\$0.3	\$0.3	\$0.3	\$6.0	\$6.9

Note
Spot improvements at 3 intersections.
Spot improvements at 3 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$6.3
ROW	\$5.6
Utility	\$3.1
Construction	\$44.8
<b>TOTAL</b>	<b>\$59.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 46B

### Corridor Information

Route	US 150
From	Bluegrass Parkway
To	I-75
Highway District	4, 7, 8

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Do not include the interchange modification at I-75 Exit 59, which is currently under construction as part of a KYTC I-75 widening project.

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	7, 8	4	\$1.9	\$6.8	\$1.8	\$16.0	\$26.5
< 4 Lanes in Both Directions	4, 8	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 4 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$2.3
ROW	\$7.2
Utility	\$2.2
Construction	\$24.0
<b>TOTAL</b>	<b>\$35.7</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 50A

### Corridor Information

Route	US 60
From	Illinois State Line
To	KY 425 BYP in Henderson
Highway District	1, 2

### Characteristics

Functional Class	Principal Arterial or Minor Arterial
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	1	18	\$1.8	\$3.6	\$5.4	\$72.0	\$82.8
< 4 Lanes in Both Directions	1, 2	4	\$0.4	\$0.4	\$0.4	\$8.0	\$9.2

Note
Spot improvements at 18 intersections.
Spot improvements at 4 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$2.2
ROW	\$4.0
Utility	\$5.8
Construction	\$80.0
<b>TOTAL</b>	<b>\$92.0</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 50B

### Corridor Information

Route	US 60
From	KY 425 BYP in Henderson
To	Natcher Parkway in Owensboro
Highway District	2

### Characteristics

Functional Class	Principal Arterial or Minor Arterial or Other Frwy/Expwy
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	45 or 55 or 65 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	2	6	\$0.6	\$1.2	\$1.8	\$24.0	\$27.6
< 4 Lanes in Both Directions			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note
Spot improvements at 6 intersections.

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$0.6
ROW	\$1.2
Utility	\$1.8
Construction	\$24.0
<b>TOTAL</b>	<b>\$27.6</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
4. Major structure costs only include bridges that are within the corridor sections for proposed widening improvements.
5. Cost estimation does not account for KYTC projects that are included in the proposed improvement concepts and are already under construction.
6. Shoulder widening is not included in the cost estimation, as it is a relatively minor cost.
7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.

## Cost Estimation Detail - Corridor 50C

### Corridor Information

Route	US 60
From	Natcher Parkway in Owensboro
To	US 31 W north of Radcliff
Highway District	2, 4

### Characteristics

Functional Class	Principal Arterial or Minor Arterial or Other Frwy/Expwy
Lanes	2 or 4
Median	Undivided / Divided
Posted Speed	55 or 65 mph

### New Roadways

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
New 4 Lane Expressway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Super 2 Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New 2 Lane Highway			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Major Widening (Divided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
4 Lane to 6 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
4 Lane to 6 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Minor Widening (Undivided Road)

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
2 Lane to 4 Lane (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2 Lane to 4 Lane (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Upgrade Arterial to Parkway/Expressway

Proposed Concept	Highway District	Mileage	Project Cost (\$M)				
			D	R	U	C	Total
Upgrade with Pavement Reconstruction			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Upgrade with Pavement Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

### Grade Separation / New Interchange Access

Proposed Concept	Highway District	# of Interchange	Project Cost (\$M)				
			D	R	U	C	Total
New Service Interchange (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
New Service Interchange (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Rural)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Interchange Modification (Urban)			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Grade Separation Only			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Major Intersection Improvement

Existing Facility	Highway District	# of Intersection	Project Cost (\$M)				
			D	R	U	C	Total
>= 4 Lanes in Both Directions	2, 4	3	\$0.3	\$0.6	\$0.9	\$12.0	\$13.8
< 4 Lanes in Both Directions	2, 4	2	\$0.2	\$0.2	\$0.2	\$4.0	\$4.6

Note
Spot improvements at 3 intersections
Spot improvements at 2 intersections

## Major Structure

Proposed Concept	Highway District	Deck Area (sq ft)	Project Cost (\$M)				
			D	R	U	C	Total
Bridge - Replacement			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Bridge - Rehabilitation			\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

Note

## Summary of Total Cost (\$M)

Design	\$0.5
ROW	\$0.8
Utility	\$1.1
Construction	\$16.0
<b>TOTAL</b>	<b>\$18.4</b>

### Additional Notes:

1. The cost estimation may not include additional costs to address the potential impacts of major utilities (e.g., gas line, major water supplier, transmission line) within the proximity of the corridor, due to the lack of data when the report was prepared. Further investigation is recommended in future studies.
2. Cost estimation was based on 2020 dollars. There is a 1-3% inflation rate. Estimated cost could vary -50% to +250% of the actual number (as a rule of thumb).
3. The widening of a 2-lane facility to a 3-lane facility (with TWLTL or alternating passing lane) is considered as "Minor Widening (Undivided Road) - 2 Lane to 4 Lane".
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7. If multiple improvement concepts are recommended for the corridor, only the cost of the larger-scale improvement concept is estimated.