

**Project:** KY 177 Butler

*Construction Costs rounded from detailed calculations to reflect reasonable level of precision*

<b>Initial Concepts</b>	Teal	White	Orange	Yellow	Pink Grade-Separated	Purple	Green	Pink At-Grade
D	\$4,000,000	\$2,000,000	\$7,000,000	\$2,000,000	\$2,000,000	\$8,000,000	\$7,000,000	\$1,000,000
R	\$3,000,000	\$1,500,000	\$1,500,000	\$5,000,000	\$5,000,000	\$3,000,000	\$3,000,000	\$1,500,000
U	\$2,500,000	\$2,000,000	\$2,000,000	\$6,000,000	\$1,500,000	\$3,000,000	\$3,000,000	\$2,000,000
C	\$40,000,000	\$20,000,000	\$70,000,000	\$20,000,000	\$25,000,000	\$80,000,000	\$70,000,000	\$16,000,000
<b>TOTAL</b>	<b>\$49,500,000</b>	<b>\$25,500,000</b>	<b>\$80,500,000</b>	<b>\$33,000,000</b>	<b>\$33,500,000</b>	<b>\$94,000,000</b>	<b>\$83,000,000</b>	<b>\$20,500,000</b>

<b>Detailed Study</b>	Yellow Base	Yellow + Tail	Yellow/Teal Hybrid	KY 177/KY 3185 Int.
D	\$2,000,000	\$4,000,000	\$3,000,000	\$200,000
R	\$5,000,000	\$5,500,000	\$9,000,000	\$200,000
U	\$6,000,000	\$6,000,000	\$7,500,000	\$100,000
C	\$20,000,000	\$40,000,000	\$30,000,000	\$1,300,000
<b>TOTAL</b>	<b>\$33,000,000</b>	<b>\$55,500,000</b>	<b>\$49,500,000</b>	<b>\$1,800,000</b>

**Project:** KY 177 Butler  
**Date:** 2/24/2024

Unit Price Assumptions

Category	Item	Unit Price	Per	Notes/Source
Modeled	2200 Roadway Excavation(<400k CY)	\$18	CY	BidX
Modeled	2200 Roadway Excavation(>1.0M CY)	\$6	CY	BidX
	2230 Embankment in Place (>100k CY)	\$6	CY	BidX
	001 DGA	\$35	Ton	BidX; 115 lbs/SY
	212 Asphalt Base	\$62	Ton	BidX; 110 lbs/SY
	301 Asphalt Surface	\$105	Ton	BidX; 110 lbs/SY
	1810 Curb & Gutter	\$26	LF	BidX; Quantity
	2720 Concrete Sidewalk	\$55	SY	BidX; Quantity
	Structure	\$300	SF	FHWA Range \$100-300/sf
Railroad	Flagger	\$1,500	Day	Boyd County US 60
Parametric	Mob/Demob	3%		
	Drainage	20%		
	MOT	3%		New Routes
	Misc	25%		
From District	ROW	-		
	Utilities	-		
Contingency	-	30%		
Escalation	-	0%		2023 dollars per D6

**Bid Tab Analysis Search**

<b>Item:</b> <input type="text" value="Any"/>	<b>Date Range:</b> From: <input type="text" value="01/01/2021"/> To: <input type="text" value="01/08/2024"/>
<input checked="" type="checkbox"/> Smart Item Search	
<b>Description:</b> <input type="text" value="embankment"/>	<b>Quantity Range:</b> From: <input type="text" value="8000"/> To: <input type="text" value="5000000"/>
<b>Proposal Items:</b> <input type="text" value="Any"/>	<b>Price Range:</b> From: <input type="text" value="Any"/> To: <input type="text" value="Any"/>
<b>County:</b> <input type="text" value="Pendleton, Boone, Kenton, Campbell, Grant, Bracken, Harrison"/>	
<b>Unit:</b> <input type="text" value="Any"/>	
<b>Low Bidders:</b> <input type="text" value="Any"/>	
<input type="button" value="Search"/> <input type="button" value="Clear"/>	

Concept: **Teal**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 7920  
**1.5 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
Bridge(s)	814	40	
Maintain Existing Bridge	650	30	
Mainline/Paved	7106	36	
Full Depth Pavement	7106	24	
Shoulder Depth Pavement	7106	12	
Surface	7106	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 4,138,554</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00		\$ -
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00	520,500	\$ 3,123,000
1	DGA Base	TON	\$ 35.00	6,538	\$ 228,813
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	7,295	\$ 452,321
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	2,084	\$ 129,234
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	1,954	\$ 205,186
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 16,068,000</b>
	Structure	SF	\$ 300.00	32,560	\$ 9,768,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Maintain Existing Bridge	SF	\$ 300.00	19,500	\$ 5,850,000
<b>Parametric</b>					<b>\$ 9,699,146</b>
	DRAINAGE	LS	20%		\$ 4,041,311
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 606,197
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 5,051,638
<b>Contingency</b>					<b>\$ 8,971,710</b>
	Contingency	LS	30%		\$ 8,971,710
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 38,877,410</b>

Concept: **White**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 6336  
**1.2 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)			
Maintain Existing Bridge	650	30	
Mainline/Paved	6336	36	
Full Depth Pavement	6336	24	
Shoulder Depth Pavement	6336	12	
Surface	6336	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 5,105,509</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 6.00	700,000	\$ 4,200,000
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	5,829	\$ 204,019
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	6,505	\$ 403,308
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,859	\$ 115,231
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	1,742	\$ 182,952
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 6,075,000</b>
	New Structure	SF	\$ 300.00		\$ -
	RR Flagger	Day	\$ 1,500.00	150	\$ 225,000
	Maintain Existing Bridge	SF	\$ 300.00	19,500	\$ 5,850,000
<b>Parametric</b>					<b>\$ 5,366,645</b>
	DRAINAGE	LS	20%		\$ 2,236,102
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 335,415
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 2,795,127
<b>Contingency</b>					<b>\$ 4,964,146</b>
	Contingency	LS	30%		\$ 4,964,146
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 21,511,300</b>

Concept: **Orange**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 6864  
**1.3 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)	125	36	
Maintain Existing Bridge	650	30	
Mainline/Paved	6739	36	
Full Depth Pavement	6739	24	
Shoulder Depth Pavement	6739	12	
Surface	6739	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 30,963,104</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 6.00	5,000,000	\$ 30,000,000
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	6,200	\$ 216,996
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	6,919	\$ 428,960
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,977	\$ 122,560
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	1,853	\$ 194,589
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 7,650,000</b>
	New Structure	SF	\$ 300.00	4,500	\$ 1,350,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Maintain Existing Bridge	SF	\$ 300.00	19,500	\$ 5,850,000
<b>Parametric</b>					<b>\$ 18,534,290</b>
	DRAINAGE	LS	20%		\$ 7,722,621
2569	MOBILIZATION/DEMOLITION	LS	3%		\$ 1,158,393
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 9,653,276
<b>Contingency</b>					<b>\$ 17,144,218</b>
	Contingency	LS	30%		\$ 17,144,218
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 74,291,612</b>

Concept: **Purple**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 10032  
**1.9 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)	1010	40	
Maintain Existing Bridge	650	30	
Mainline/Paved	9022	36	
Full Depth Pavement	9022	24	
Shoulder Depth Pavement	9022	12	
Surface	9022	36	
Curb/Gutter			2 sides
Sidewalk			2 sides

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 22,289,379</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 6.00	3,500,000	\$ 21,000,000
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	8,300	\$ 290,508
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	9,263	\$ 574,280
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	2,646	\$ 164,080
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	2,481	\$ 260,510
<b>Concrete</b>					<b>\$ -</b>
1810	Curb & Gutter	LF	\$ 26.00		\$ -
2720	Concrete Sidewalk	SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 18,420,000</b>
	New Structure	SF	\$ 300.00	40,400	\$ 12,120,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Maintain Existing Bridge	SF	\$ 300.00	19,500	\$ 5,850,000
<b>Parametric</b>					<b>\$ 19,540,502</b>
	DRAINAGE	LS	20%		\$ 8,141,876
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 1,221,281
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 10,177,345
<b>Contingency</b>					<b>\$ 18,074,964</b>
	Contingency	LS	30%		\$ 18,074,964
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 78,324,845</b>

Concept: **Green**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 6864  
**1.3 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)	990	40	
Maintain Existing Bridge	650	30	
Mainline/Paved	5874	36	
Full Depth Pavement	5874	24	
Shoulder Depth Pavement	5874	12	
Surface	5874	36	
Curb/Gutter			2 sides
Sidewalk			2 sides

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 17,639,483</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 6.00		\$ -
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00	2,800,000	\$ 16,800,000
1	DGA Base	TON	\$ 35.00	5,404	\$ 189,143
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	6,031	\$ 373,900
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,723	\$ 106,828
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	1,615	\$ 169,612
<b>Concrete</b>					<b>\$ -</b>
1810	Curb & Gutter	LF	\$ 26.00		\$ -
2720	Concrete Sidewalk	SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 18,180,000</b>
	New Structure	SF	\$ 300.00	39,600	\$ 11,880,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Maintain Existing Bridge	SF	\$ 300.00	19,500	\$ 5,850,000
<b>Parametric</b>					<b>\$ 17,193,352</b>
	DRAINAGE	LS	20%		\$ 7,163,897
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 1,074,584
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 8,954,871
<b>Contingency</b>					<b>\$ 15,903,850</b>
	Contingency	LS	30%		\$ 15,903,850
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 68,916,685</b>

Concept: **Pink At-Grade**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 3696  
**0.7 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)		36	
Replace Existing Bridge	650	36	
Mainline/Paved	3046	36	
Full Depth Pavement	3046	24	
Shoulder Depth Pavement	3046	12	
Surface	3046	36	
Curb/Gutter	1375	2	2 sides
Sidewalk	1375	5	2 sides

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 705,319</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00	15,000	\$ 270,000
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	2,802	\$ 98,081
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	3,127	\$ 193,888
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	893	\$ 55,397
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	838	\$ 87,953
<b>Concrete</b>					<b>\$ 155,528</b>
1810	Curb & Gutter	LF	\$ 26.00	2,750	\$ 71,500
2720	Concrete Sidewalk	SY	\$ 55.00	1,528	\$ 84,028
<b>Other</b>					<b>\$ 7,155,000</b>
	New Structure	SF	\$ 300.00		\$ -
	RR Flagger	Day	\$ 1,500.00	90	\$ 135,000
	Existing Structure Replacement	SF	\$ 300.00	23,400	\$ 7,020,000
<b>Parametric</b>					<b>\$ 4,088,082</b>
	DRAINAGE	LS	20%		\$ 1,603,169
2569	MOBILIZATION/DEMOBILIZATION	LS	3%		\$ 240,475
2650	MAINTAIN & CONTROL TRAFFIC	LS	3%		\$ 240,475
	MISCELLANEOUS	LS	25%		\$ 2,003,962
<b>Contingency</b>					<b>\$ 3,631,179</b>
	Contingency	LS	30%		\$ 3,631,179
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 15,735,107</b>

Concept: **Pink Grade-Separated**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 4224  
**0.8 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)	150	36	
Replace Existing Bridge	550	36	
Mainline/Paved	3524	36	
Full Depth Pavement	3524	24	
Shoulder Depth Pavement	3524	12	
Surface	3524	36	
Curb/Gutter	1550	2	2 sides
Sidewalk	1550	5	2 sides

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 3,419,632</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00	162,000	\$ 2,916,000
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	3,242	\$ 113,473
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	3,618	\$ 224,314
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,034	\$ 64,090
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	969	\$ 101,756
<b>Concrete</b>					<b>\$ 175,322</b>
1810	Curb & Gutter	LF	\$ 26.00	3,100	\$ 80,600
2720	Concrete Sidewalk	SY	\$ 55.00	1,722	\$ 94,722
<b>Other</b>					<b>\$ 7,860,000</b>
	New Structure	SF	\$ 300.00	5,400	\$ 1,620,000
	RR Flagger	Day	\$ 1,500.00	200	\$ 300,000
	Existing Structure Replacement	SF	\$ 300.00	19,800	\$ 5,940,000
<b>Parametric</b>					<b>\$ 5,842,027</b>
	DRAINAGE	LS	20%		\$ 2,290,991
2569	MOBILIZATION/DEMOBILIZATION	LS	3%		\$ 343,649
2650	MAINTAIN & CONTROL TRAFFIC	LS	3%		\$ 343,649
	MISCELLANEOUS	LS	25%		\$ 2,863,739
<b>Contingency</b>					<b>\$ 5,189,094</b>
	Contingency	LS	30%		\$ 5,189,094
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 22,486,076</b>

Concept: **Yellow**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 3696  
**0.7 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
New Bridge(s)	212	36	
Replace Existing Bridge	520	36	
Mainline/Paved	2964	36	
Full Depth Pavement	3176	24	
Shoulder Depth Pavement	3176	12	
Surface	3176	36	
Curb/Gutter	1375	2	2 sides
Sidewalk	1375	5	2 sides
Railroad Relocation	1 Mile		

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 1,171,607</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00		
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00	119,618	\$ 717,709
1	DGA Base	TON	\$ 35.00	2,922	\$ 102,267
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	3,261	\$ 202,163
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	932	\$ 57,761
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	873	\$ 91,707
<b>Concrete</b>					<b>\$ 155,528</b>
1810	Curb & Gutter	LF	\$ 26.00	2,750	\$ 71,500
2720	Concrete Sidewalk	SY	\$ 55.00	1,528	\$ 84,028
<b>Other</b>					<b>\$ 8,205,600</b>
	New Structure	SF	\$ 300.00	7,632	\$ 2,289,600
	RR Flagger	Day	\$ 1,500.00	200	\$ 300,000
	Existing Structure Replacement	SF	\$ 300.00	18,720	\$ 5,616,000
<b>Parametric</b>					<b>\$ 4,861,695</b>
	DRAINAGE	LS	20%		\$ 1,906,547
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 285,982
2650	MAINTAIN & CONTROL TRAFFIC	LS	3%		\$ 285,982
	MISCELLANEOUS	LS	25%		\$ 2,383,184
<b>Contingency</b>					<b>\$ 4,318,329</b>
	Contingency	LS	30%		\$ 4,318,329
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 18,712,759</b>

Concept: **Yellow + Tail**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 5913.6  
**1.12 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
Bridge(s)	244	40	
Replace Existing Bridge	524	36	
Mainline/Paved	5669.6	36	
Full Depth Pavement	5669.6	24	
Shoulder Depth Pavement	5669.6	12	
Surface	5669.6	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 13,207,966</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00	688,761	\$ 12,397,695
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	5,216	\$ 182,561
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	5,821	\$ 360,889
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,663	\$ 103,111
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	1,559	\$ 163,710
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 9,037,200</b>
	Structure	SF	\$ 300.00	9,760	\$ 2,928,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Existing Structure Replacement	SF	\$ 300.00	18,864	\$ 5,659,200
<b>Parametric</b>					<b>\$ 11,345,035</b>
	DRAINAGE	LS	20%		\$ 4,449,033
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 667,355
2650	MAINTAIN & CONTROL TRAFFIC	LS	3%		\$ 667,355
	MISCELLANEOUS	LS	25%		\$ 5,561,291
<b>Contingency</b>					<b>\$ 10,077,060</b>
	Contingency	LS	30%		\$ 10,077,060
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 43,667,260</b>

Concept: **Yellow/Teal Hybrid**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 10032  
**1.9 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
Bridge(s)	1027	40	
Replace Existing Bridge		30	
Mainline/Paved	9005	36	
Full Depth Pavement	9005	24	
Shoulder Depth Pavement	9005	12	
Surface	9005	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 4,432,249</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00		\$ -
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00	524,216	\$ 3,145,299
1	DGA Base	TON	\$ 35.00	8,285	\$ 289,961
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	9,245	\$ 573,198
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	2,641	\$ 163,771
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	2,476	\$ 260,019
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ 12,774,000</b>
	Structure	SF	\$ 300.00	41,080	\$ 12,324,000
	RR Flagger	Day	\$ 1,500.00	300	\$ 450,000
	Existing Structure Replacement	SF	\$ 300.00		\$ -
<b>Parametric</b>					<b>\$ 8,258,999</b>
	DRAINAGE	LS	20%		\$ 3,441,250
2569	MOBILIZATION/DEMOBILIZATION	LS	3%		\$ 516,187
2650	MAINTAIN & CONTROL TRAFFIC	LS			\$ -
	MISCELLANEOUS	LS	25%		\$ 4,301,562
<b>Contingency</b>					<b>\$ 7,639,574</b>
	Contingency	LS	30%		\$ 7,639,574
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 33,104,822</b>

Concept: **KY 177/KY 3185 Int.**  
 Description: 2-12 ft lanes with 8-ft shoulders/6 paved

BMP:  
 EMP:  
 Length (ft): 1108.8  
**0.21 Miles**

	<u>Length</u>	<u>Width (PR)</u>	<u>Notes</u>
Bridge(s)		40	
Replace Existing Bridge		30	
Mainline/Paved	1108.8	36	
Full Depth Pavement	1108.8	24	
Shoulder Depth Pavement	1108.8	12	
Surface	1108.8	36	
Curb/Gutter			
Sidewalk			

**Calculations**

Item	Unit	Unit Cost	Quantity	Cost	Totals
<b>Mainline Pavement</b>					<b>\$ 667,068</b>
2200	ROADWAY EXCAVATION (modeled)	CY	\$ 18.00	28,256	\$ 508,604
2230	EMBANKMENT IN PLACE (modeled)	CY	\$ 6.00		\$ -
1	DGA Base	TON	\$ 35.00	1,020	\$ 35,703
212 (Full Depth)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	1,138	\$ 70,579
212 (Shoulder)	CL2 ASPH BASE 1.00D PG64-22	TON	\$ 62.00	325	\$ 20,165
301	CL2 ASPH SURF 0.38D PG64-22	TON	\$ 105.00	305	\$ 32,017
<b>Concrete</b>					<b>\$ -</b>
		LF	\$ 26.00		\$ -
		EA	\$ -		\$ -
		SY	\$ 55.00		\$ -
<b>Other</b>					<b>\$ -</b>
	Structure	SF	\$ 300.00		\$ -
	RR Flagger	Day	\$ 1,500.00		\$ -
	Existing Structure Replacement	SF	\$ 300.00		\$ -
<b>Parametric</b>					<b>\$ 340,205</b>
	DRAINAGE	LS	20%		\$ 133,414
2569	MOBILIZATION/DEMobilIZATION	LS	3%		\$ 20,012
2650	MAINTAIN & CONTROL TRAFFIC	LS	3%		\$ 20,012
	MISCELLANEOUS	LS	25%		\$ 166,767
<b>Contingency</b>					<b>\$ 302,182</b>
	Contingency	LS	30%		\$ 302,182
<b>Escalation</b>					<b>\$ -</b>
	Factored for Future Implementation	LS			\$ -
<b>Construction</b>					<b>\$ 1,309,455</b>