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Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
Alternative B – Kentucky	9TH STREET ON-RAMP to I-71/I-75 NB	Horizontal Alignment	Radius	P.V.I. STA. 14+17.32	AASHTO	660 ft	97 ft	45 mph	15 mph	These curves are limited by the distance between Bullock Street and Jillian's Way.
	I-71 SB OFF-RAMP to 5TH STREET	Horizontal Alignment	Radius	P.V.I. STA. 15+25.38	AASHTO	660 ft	131 ft	45 mph	20 mph	
Alternative B – Ohio	I-71 NB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 21+11.70	202-2E	4^15' max	5^24'19"	60 mph	55 mph	These curves are limited by the distance from the Fort Washington Way trench to the new Queensgate Alignment Bridge and the length of curve requiring a 60 mph design speed.
	I-71 NB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 39+17.26	202-2E	4^15' max	6^42'09"	60 mph	50 mph	
	I-71 NB	Vertical Alignment	Maximum Grade	P.V. I STA. 17+88.63	203-1E	4%	6.0%	60 mph	50 mph	Matches existing grade (Fort Washington Way)
	I-71 SB	Vertical Alignment	Maximum Grade	P.V. I. STA. 18+00.00	203-1E	4%	5.64%	60 mph	50 mph	Matches existing grade (Fort Washington Way)
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 7+77.01	202-2E	4^15' max	5^24'19"	60 mph	55 mph	These curves are limited by the distance from the Fort Washington Way trench to the new Queensgate Alignment Bridge and the length of curve requiring a 60 mph design speed.
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 65+39.54	202-2E	4^15' max	6^27'08"	60 mph	50 mph	
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 53+57.59	202-2E	4^15' max	6^36'31"	60 mph	50 mph	
Alternative C – Kentucky	9TH STREET ON-RAMP to I-71 NB	Horizontal Alignment	Radius	P.V.I. STA. 15+46.65	AASHTO	660 ft	131 ft	45 mph	20 mph	This curve is limited by the distance between Bullock Street and Jillian's Way.
Alternative C – Ohio	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 12+05.66	202-2E	4^15' max	4^58'26"	60 mph	55 mph	This alignment was used to show the impact of a single curve from Fort Washington Way westbound to I-71 southbound (rather than a reverse curve to the north first). This limited the location and degree of curve.
	I-71 SB	K-values	Crest Vertical Curve	P.V.I. STA. 2+61.09	203-3E	151	84	60 mph	50 mph	This can be corrected by lengthening the curve.
	I-71 SB	K-values	Crest Vertical Curve	P.V.I. STA. 14+88.86	203-3E	151	84	60 mph	50 mph	The curve is a result of meeting clearance requirements of the other structures below, then tying into existing Fort Washington Way in a short distance.
	I-71 SB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 14+88.86	201-1E	570 ft	425.8 ft	60 mph	50 mph	
	I-71 SB	Vertical Alignment	Maximum Grade	14+88.86 to 25+52.16	203-1E	4%	-6.9%	60 mph	50 mph	The 6.9% grade was required to achieve clearing the structures below I-71 southbound, and meet existing Fort Washington Way grade and elevation requirements.

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	I-71 SB	K-values	Sag Vertical Curve	P.V.I. STA. 25+52.16	203-6E	136	96	60 mph	50 mph	This can be corrected by lengthening the curve.
	I-71 SB	Vertical Alignment	Maximum Grade	P.V.I. STA. 25+52.16	203-1E	4%	-6.2%	60 mph	50 mph	This grade matches existing (Fort Washington Way).
	MAINLINE I-75	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 12+25.46	202-2E	4^15' max	4^17'12"	60 mph	55 mph	This can be corrected by flattening the curve. With the combination of Alternative C and D this is possible.
	MAINLINE I-75	Vertical Alignment	Maximum Grade	5+15.68 to 18+27.95	203-1E	4%	4.2%	60 mph	55 mph	These grades were a result of clearing the structure above, then I-71 southbound below, then OH 5th Street above.
	MAINLINE I-75	Vertical Alignment	Maximum Grade	18+27.95 to 38+19.59	203-1E	4%	-5.2%	60 mph	55 mph	
	EB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA 12+74.08	202-2E	4^15' max	9^00'00"	60 mph	45 mph	Both of these curves are restricted by location, number of converging roadways and tying into existing Fort Washington Way eastbound.
	EB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA 28+23.95	202-2E	4^15' max	6^39'21"	60 mph	50 mph	
	EB US-50	K-values	Crest Vertical Curve	P.V.I. STA 5+16.66	203-3E	151	114	60 mph	55 mph	The length of curve was limited by the location of the gore/tie-in to the west and meeting the grades of three converging roadways.
	EB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 5+16.66	201-1E	570 ft	496 ft	60 mph	55 mph	
	EB US-50	K-values	Sag Vertical Curve	P.V.I. STA 16+41.09	203-6E	136	115	60 mph	55 mph	This can be corrected by lengthening the curve.
	EB US-50	K-values	Crest Vertical Curve	P.V.I. STA 35+15.15	203-3E	151	114	60 mph	55 mph	The length of curve was limited by the meeting the grades of two converging roadways.
	EB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 35+15.15	203-1E	570 ft	496 ft	60 mph	55 mph	
	EB US-50	Vertical Alignment	Maximum Grade	P.V.I. STA 35+15.15	203-1E	4%	-5.77%	60 mph	55 mph	This grade matches existing (Fort Washington Way).
	WB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA 18+35.95	202-2E	4^15' max	9^00'00"	60 mph	45 mph	This curve is restricted by the location of the tie-in to existing Fort Washington Way and the converging roadways.
	WB US-50	K-values	Crest Vertical Curve	P.V.I. STA 6+57.08	203-3E	151	114	60 mph	55 mph	The length of curve was limited by the location of the gore/tie-in to the west and meeting the grades of three converging roadways.

Geometric Design Exceptions

	Alignment	Design Exception – General	Design Exception – Specific	Station Location	Criteria[1]	Criteria Requirement	Criteria as Designed	Required Design Speed	Designed Design Speed	Comments
	WB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 6+57.08	201-1E	570 ft	496 ft	60 mph	55 mph	
	WB US-50	K-values	Sag Vertical Curve	P.V.I STA 18+15.59	203-6E	136	115	60 mph	55 mph	This can be corrected by lengthening the curve.
	WB US-50	K-values	Crest Vertical Curve	P.V.I. STA 35+90.84	203-3E	151	114	60 mph	55 mph	The length of curve was limited by meeting the grades of two converging roadways.
	WB US-50	Vertical Alignment	Maximum Grade	P.V.I. STA 35+90.84	203-1E	4%	-5.98%	60 mph	55 mph	This grade matches existing (Fort Washington Way).
	EZZARD CH to C-D SB (COVINGTON)	K-values	Crest Vertical Curve	P.V.I. STA 0+27.22	203-3E	19	12	30 mph	25 mph	This vertical design was restricted by C-D southbound being configured in the center (horizontally), creating steep grades necessary to meet clearances and match existing.
	EZZARD CH to C-D SB (COVINGTON)	K-values	Sag Vertical Curve	P.V.I. STA 3+88.90	203-6E	37	26	30 mph	25 mph	
	NB I-75 to WB US-50	K-values	Sag Vertical Curve	P.V.I. STA 3+19.86	203-6E	79	49	45 mph	35 mph	The curve is a result of matching the northbound service drive grade, then OH 5th Street underclearance, then westbound US 50 ramp underclearance, all within 600 feet.
	NB I-75 to WB US-50	K-values	Crest Vertical Curve	P.V.I. STA 21+69.74	203-3E	61	44	45 mph	40 mph	This can be corrected by lengthening the curve.
	NB I-75 to WB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 21+69.74	201-1E	360 ft	333 ft	45 mph	40 mph	This can be corrected by lengthening the curve.
	C-D SB (LOCAL)	K-values	Crest Vertical Curve	P.V.I. STA 57+61.44	203-3E	61	44	45 mph	40 mph	These curves are the result of the C-D southbound roadway being configured in the center (horizontally), creating steep grades necessary to meet underclearance and match existing Fort Washington Way.
	C-D SB (LOCAL)	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 57+61.44	201-1E	360 ft	308 ft	45 mph	40 mph	
	C-D SB (LOCAL)	K-values	Sag Vertical Curve	P.V.I. STA 66+30.00	203-6E	79	64	45 mph	40 mph	
	RAILROAD	Vertical Alignment	Clearance	17+93.30	302-1E	23'	19.3'	N/A	N/A	This can be corrected by adjusting the grades.
Alternative D – Kentucky	-	-	-	-	-	-	-	-	-	-
Alternative D – Ohio	SB I-71	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 12+05.66	202-2E	4^15' max	4^58'26"	60 mph	55 mph	This alignment was used to show the impact of a single curve from Fort Washington Way westbound to I-71 southbound (rather than a reverse curve to the north first). This limited the location and degree of curve.

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	SB I-71	K-values	Crest Vertical Curve	P.V.I. STA. 2+61.09	203-3E	151	114	60 mph	55 mph	This curve was restricted by the existing bridge grades and maintaining underclearance from the overhead parallel structure.
	SB I-71	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 2+61.09	201-1E	570 ft	532 ft	60 mph	55 mph	
	SB I-71	K-values	Sag Vertical Curve	P.V.I. STA. 8+20.63	203-6E	136	96	60 mph	50 mph	This curve was restricted by the adjacent vertical alignment and maintaining the underclearance of the overhead parallel structure.
	SB I-71	K-values	Crest Vertical Curve	P.V.I. STA. 15+74.24	203-3E	151	84	60 mph	50 mph	The curve was restricted by maintaining clearance of structures underneath and the steep grade required to match existing Fort Washington Way.
	SB I-71	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 15+74.24	201-1E	570 ft	425.8 ft	60 mph	50 mph	
	SB I-71	Vertical Alignment	Maximum Grade	15+74.24 to 25+52.16	203-1E	4%	-7.5%	60 mph	45 mph	This grade was required to meet underclearance requirements of crossing roadways and tie into existing Fort Washington Way.
	SB I-71	K-values	Sag Vertical Curve	P.V.I. STA. 25+52.16	203-6E	136	115	60 mph	55 mph	This curve was restricted by the steep grade and matching existing Fort Washington Way.
	SB I-71	Vertical Alignment	Maximum Grade	P.V.I. STA. 25+52.16	203-1E	4%	-6.2%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	EB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 12+05.50	202-2E	4^15' max	8^30'03"	60 mph	45 mph	Both of these curves are restricted by location, number of converging roadways and tying into existing Fort Washington Way.
	EB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 20+90.88	202-2E	4^15' max	4^54'47"	60 mph	55 mph	
	EB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 28+36.93	202-2E	4^15' max	6^39'19"	60 mph	50 mph	
	EB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 1+66.31	203-3E	151	114	60 mph	55 mph	This vertical curve was restricted to matching/following a proposed grade for another roadway.
	EB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 6+62.03	203-3E	151	114	60 mph	55 mph	This grade was restricted by matching a previous grade. Moving the curve forward creates a conflict with adjacent roadways.
	EB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 6+62.03	201-1E	570 ft	497 ft	60 mph	55 mph	
	EB US-50	K-values	Sag Vertical Curve	P.V.I. STA. 14+03.09	203-6E	136	115	60 mph	55 mph	This can be correctable by lengthening the curve.

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	EB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 34+94.06	203-3E	151	114	60 mph	55 mph	The length of curve was limited by the meeting the grades of two converging roadways.
	EB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 34+94.06	201-1E	570 ft	496 ft	60 mph	55 mph	
	EB US-50	Vertical Alignment	Maximum Grade	P.V.I. STA. 34+94.06	203-1E	4%	-5.29%	60 mph	55 mph	Matches existing grade (Fort Washington Way).
	WB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 14+17.68	202-2E	4^15' max	8^30'03"	60 mph	45 mph	Both of these curves are restricted by location, number of converging roadways and tying into existing Fort Washington Way.
	WB US-50	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 29+19.10	202-2E	4^15' max	7^03'39"	60 mph	45 mph	
	WB US-50 to NB I-75	K-values	Crest Vertical Curve	P.V.I. STA. 19+33.46	203-3E	61	44	45 mph	40 mph	This curve was restricted by the proximity of adjacent ramps, OH 5th Street, maintaining I-75 underclearance, and then matching existing Fort Washington Way.
	WB US-50 to NB I-75	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 19+33.46	201-1E	360 ft	308 ft	45 mph	40 mph	
	WB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 2+03.12	203-3E	151	84	60 mph	50 mph	This curve is restricted by the location of the tie-in to existing and the converging roadways.
	WB US-50	K-values	Sag Vertical Curve	P.V.I. STA. 7+24.82	203-6E	136	96	60 mph	50 mph	This can be corrected by lengthening the curve.
	WB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 12+32.28	203-3E	151	84	60 mph	50 mph	This curve/tangent/curve combination was restricted by the southbound I-75 underclearance (over) and making the OH 5th Street underclearance, and matching adjacent roadway grades for merging.
	WB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 12+32.28	201-1E	570 ft	425.8 ft	60 mph	50 mph	
	WB US-50	Vertical Alignment	Maximum Grade	12+32.28 to 20+38.06	203-1E	4%	-5.6%	60 mph	50 mph	
	WB US-50	K-values	Sag Vertical Curve	P.V.I. STA. 20+38.06	203-6E	136	96	60 mph	50 mph	
	WB US-50	K-values	Crest Vertical Curve	P.V.I. STA. 34+24.13	203-3E	151	84	60 mph	50 mph	The length of curve was limited by the meeting the grades of two converging roadways.
	WB US-50	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 34+24.13	201-1E	570 ft	425.8 ft	60 mph	50 mph	

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	WB US-50	Vertical Alignment	Maximum Grade	P.V.I. STA. 34+24.13	203-1E	4%	-5.79%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	RAILROAD	Vertical Alignment	Clearance	2+51.34 (2nd St)	302-1E	23'	21.2'	N/A	N/A	This can be corrected by adjusting the profile.
	RAILROAD	Vertical Alignment	Clearance	12+00.15 (5th Ramp)	302-1E	23'	18.0'	N/A	N/A	
	RAILROAD	Vertical Alignment	Clearance	17+78.05 (NB Loc)	302-1E	23'	18.9'	N/A	N/A	
Alternative E – Kentucky	5TH STREET to I-71 NB	Horizontal Alignment	Radius	P.I.STA. 13+82.58	AASHTO	660 ft	185 ft	45 mph	25 mph	This curve is limited by the location of the retaining wall at Goebel Park.
Alternative E – Ohio	WB FWW to I-75 NB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 13+80.65	202-2E	4^00'	6^22'35"	60 mph	50 mph	Both of these curves are restricted by the location of adjacent roadways and proposed structures.
	WB FWW to I-75 NB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 24+80.77	202-2E	4^00'	5^18'30"	60 mph	55 mph	
	WB FWW to I-75 NB	K-values	Crest Vertical Curve	P.V.I. STA. 6+92.14	203-3E	151	114	60 mph	55 mph	This can be corrected by adjusting the clearance and vertical profile.
	WB FWW to I-75 NB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 6+92.14	201-1E	570 ft	495 ft	60 mph	55 mph	
	WB FWW to I-75 NB	Vertical Alignment	Maximum Grade	P.V.I. STA. 6+92.14	203-1E	-4%	-5.9%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	SB C/D to 7TH STREET	K-values	Crest Vertical Curve	P.V.I. STA. 37+25.94	203-3E	151	84	60 mph	50 mph	This curve is limited by the intersection of OH 8th Street and the southbound C-D Roadway to the existing Brent Spence Bridge. Can be corrected by adjusting clearance and the vertical profile.
	SB C/D to 7TH STREET	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 37+25.94	201-1E	570 ft	425 ft	60 mph	50 mph	
	I-75 SB to EB FWW	Vertical Alignment	Maximum Grade	P.V.I. STA. 33+92.58	203-1E	-4%	-6.0%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	WB FWW to US 50	Vertical Alignment	Maximum Grade	P.V.I. STA. 6+86.15	203-1E	-4%	-5.9%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	SB C/D to SB BSB	K-values	Sag Vertical Curve	P.V.I. STA. 35+83.35	203-3E	96	79	50 mph	45 mph	These curves are limited as a result of meeting clearance requirements under US 50 and then tying into existing OH 8th Street – all within 400 feet.

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	SB C/D to SB BSB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 35+83.35	201-1E	425 ft	360 ft	50 mph	45 mph	Can be corrected by adjusting clearance and vertical profile.
	SB C/D to SB BSB	K-values	Crest Vertical Curve	P.V.I. STA. 43+65.83	203-3E	84	61	50 mph	45 mph	
	SB C/D to SB BSB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 43+65.83	201-1E	425 ft	360 ft	50 mph	45 mph	
	I-71 SB	Vertical Alignment	Maximum Grade	P.V.I. STA. 21+47.78	203-1E	-4%	-6.0%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 33+82.36	202-2E	4^00'	8^00'08"	60 mph	45 mph	These curves are restricted by clearances from the existing Brent Spence Bridge, I-71 northbound ramp and grade requirements.
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 26+04.49	202-2E	4^00'	8^59'41"	60 mph	45 mph	
	I-71 NB	Vertical Alignment	Maximum Grade	P.V.I. STA. 17+83.27	203-1E	-4%	-6.0%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	I-71 NB	K-values	Sag Vertical Curve	P.V.I. STA 6+34.94	203-3E	136	115	60 mph	55 mph	Can be corrected by adjusting clearances and vertical profile.
	I-71 NB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA 6+34.94	201-1E	570 ft	495 ft	60 mph	55 mph	
	I-71 NB	Horizontal Alignment	max degree of curve	P.I. STA 21+02.37	202-2E	4^00'	8^00'08"	60 mph	45 mph	These curves are restricted by clearances from the existing Brent Spence Bridge, grade requirements, and meeting the proposed Ohio River Bridge connections.
	I-71 NB	Horizontal Alignment	max degree of curve	P.I. STA 29+37.36	202-2E	4^00'	8^59'41"	60 mph	45 mph	
	SB BSB to 2ND STREET	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 12+76.92	202-2E	9^00'	10^43'46"	45 mph	40 mph	Curve was limited to meeting underclearance requirements as well as tying into existing ramps from the southbound C-D roadway to OH 2nd Street.
Alternative G – Kentucky	I-71 SB to 5TH STREET	Horizontal Alignment	Radius	P.I. STA. 23+79.13	AASHTO	660 ft	153 ft	45 mph	20 mph	This curve was restricted by the potential impact to Crescent Avenue and the hillside and then tying into the southbound C-D KY 5th Street exit.
Alternative G – Ohio	I-71 NB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA. 16+02.92	202-2E	4^00'	6^30'00"	60 mph	50 mph	This curve is restricted by tying into the existing Brent Spence Bridge at the diverging point of two roadways and then matching the converging point of another roadway as it ties into the Fort Washington Way trench.
	I-71 NB	Vertical Alignment	Maximum Grade	P.V.I. STA 27+00.00	203-1E	-4%	-6.0%	60 mph	50 mph	Matches existing grade (Fort Washington Way).

Geometric Design Exceptions										
	Alignment	**Design Exception – General**	**Design Exception – Specific**	**Station Location**	**Criteria[1]**	**Criteria Requirement**	**Criteria as Designed**	**Required Design Speed**	**Designed Design Speed**	**Comments**
	I-71 SB	K-values	Crest Vertical Curve	P.V.I. STA. 16+75.00	203-3E	151	61	60 mph	45 mph	This curve is limited by meeting the clearance requirements of the Railroad Bridge and matching the existing Brent Spence Bridge.
	I-71 SB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 16+75.00	201-1E	570 ft	360 ft	60 mph	45 mph	
	I-71 SB	K-values	Crest Vertical Curve	P.V.I. STA. 28+75.00	203-3E	151	84	60 mph	50 mph	This curve can be corrected by lengthening the curve.
	I-71 SB	Vertical Alignment	Stopping Sight Distance	P.V.I. STA. 28+75.00	201-1E	570 ft	425 ft	60 mph	50 mph	
	I-71 SB	Vertical Alignment	Maximum Grade	P.V.I. STA. 28+75.00	203-1E	-4%	-5.9%	60 mph	50 mph	Matches existing grade (Fort Washington Way).
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA 23+71.01	202-2E	4^00'	8^30'00"	60 mph	45 mph	These curves are limited by the location of the OH 3rd Street on-ramp, meeting clearance requirements and tying into the new Ohio River Bridge.
	I-71 SB	Horizontal Alignment	Maximum Degree of Curve	P.I. STA 32+48.17	202-2E	4^00'	8^00'00"	60 mph	45 mph	
	C-D NB to I-71 NB	Shoulder Width	Shoulder Width	STA. 29+00	301-4E	12’	8’	NA	NA	Required to avoid impacting the flood wall at Plum Street.
	US 50 EB	Vertical Alignment	Maximum Grade	P.V.I. STA. 59+25.00	203-1E	-4%	-6.63%	60 mph	50 mph	These grades can be corrected by adjusting the vertical profiles and clearances from OH 5th Street and the southbound C-D roadway.
	US 50 WB	Vertical Alignment	Maximum Grade	P.V.I. STA. 50+00.00	203-1E	-4%	-7.0%	60 mph	50 mph	

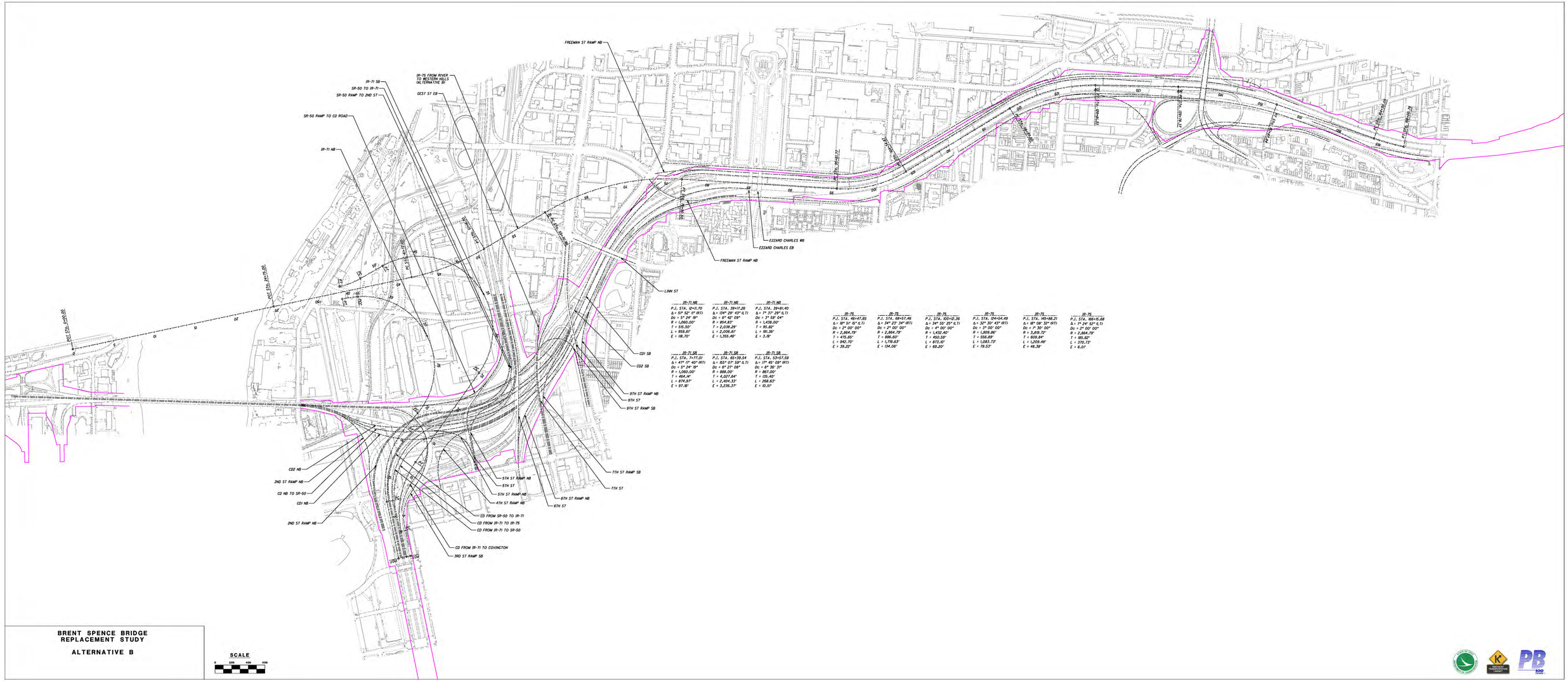
1. *Ohio geometric design criteria provided in the current ODOT Location and Design Manual, Volume 1.*
   Kentucky geometric design criteria provided in the current American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide and the AASHTO “Green Book” (A Policy on Geometric Design of Highways and Streets, Fourth Edition).

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B

SCALE

0 200 400 800



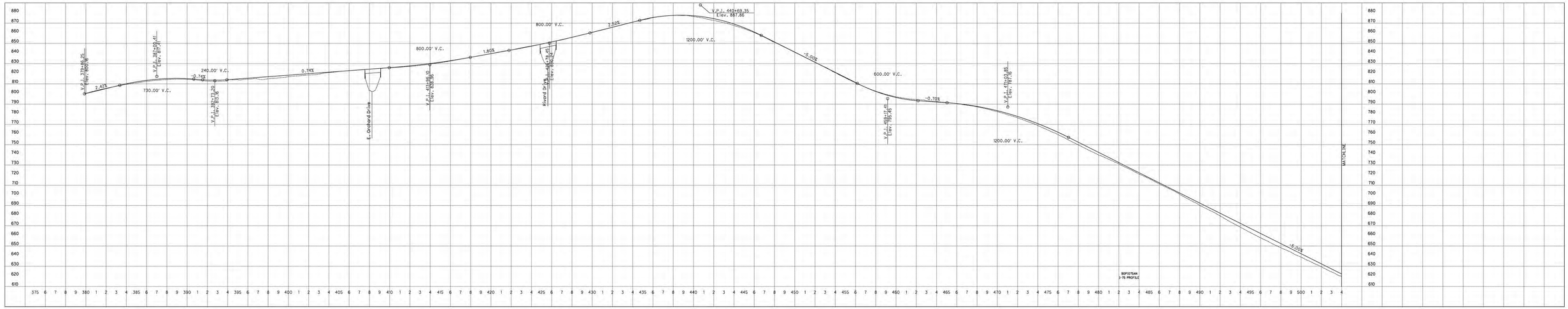
IR-71 NB	IR-71 NB	IR-71 NB
P.I. STA. 12+11.70	P.I. STA. 39+17.26	P.I. STA. 39+81.40
Δ = 51° 52' 11" (RT)	Δ = 134° 29' 43" (LT)	Δ = 7° 37' 29" (LT)
Dc = 5° 24' 19"	Dc = 6° 42' 09"	Dc = 3° 59' 04"
R = 1,060.00'	R = 854.83'	R = 1,438.00'
T = 515.50'	T = 2,038.29'	T = 95.82'
L = 959.61'	L = 2,006.61'	L = 191.36'
E = 118.70'	E = 1,355.46'	E = 3.19'

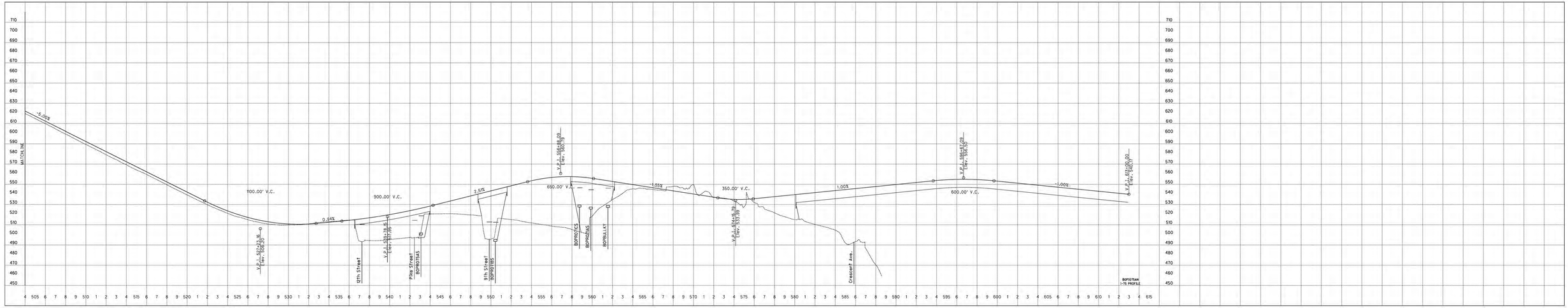
IR-71 SB	IR-71 SB	IR-71 SB
P.I. STA. 7+71.01	P.I. STA. 65+39.54	P.I. STA. 53+57.59
Δ = 47° 17' 40" (RT)	Δ = 155° 07' 59" (LT)	Δ = 17° 45' 09" (RT)
Dc = 5° 24' 19"	Dc = 6° 27' 08"	Dc = 6° 36' 37"
R = 1,060.00'	R = 888.00'	R = 867.00'
T = 464.14'	T = 4,027.64'	T = 135.40'
L = 874.97'	L = 2,404.33'	L = 268.63'
E = 97.18'	E = 3,236.37'	E = 10.51'

IR-75	IR-75	IR-75	IR-75	IR-75	IR-75
P.I. STA. 46+47.65	P.I. STA. 68+57.46	P.I. STA. 100+12.36	P.I. STA. 124+54.49	P.I. STA. 145+88.21	P.I. STA. 160+15.68
Δ = 18° 51' 15" (LT)	Δ = 34° 23' 34" (RT)	Δ = 34° 55' 25" (LT)	Δ = 32° 30' 43" (RT)	Δ = 18° 08' 32" (RT)	Δ = 7° 24' 52" (LT)
Dc = 2° 00' 00"	Dc = 2° 00' 00"	Dc = 4° 00' 00"	Dc = 3° 00' 00"	Dc = 7° 30' 00"	Dc = 2° 00' 00"
R = 2,864.79'	R = 2,864.79'	R = 1,432.40'	R = 1,909.86'	R = 3,819.72'	R = 2,864.79'
T = 475.65'	T = 886.60'	T = 450.59'	T = 556.89'	T = 609.84'	T = 185.62'
L = 942.70'	L = 1,719.83'	L = 873.10'	L = 1,083.73'	L = 1,209.48'	L = 370.73'
E = 39.22'	E = 134.06'	E = 69.20'	E = 79.53'	E = 48.38'	E = 6.01'

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B





BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B

B0PI075AN

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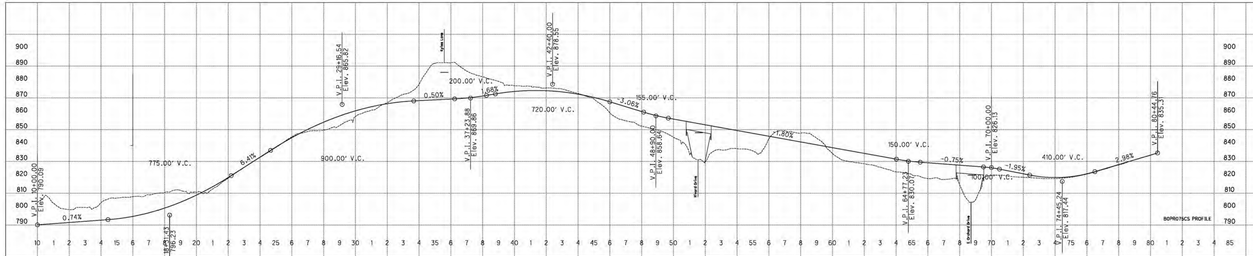
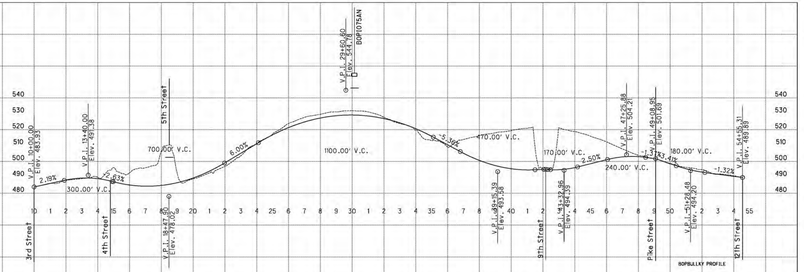
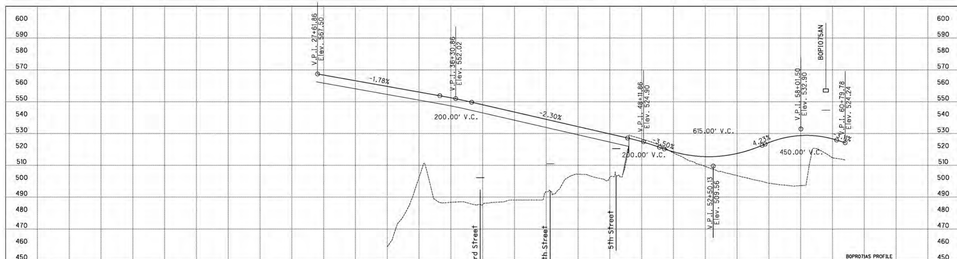
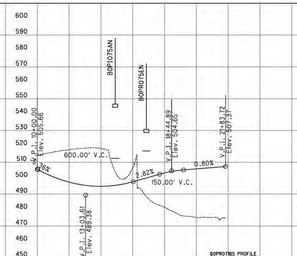
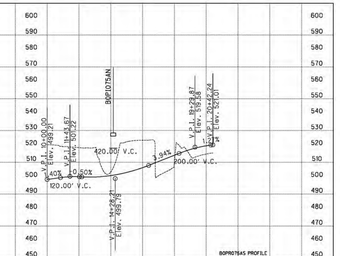










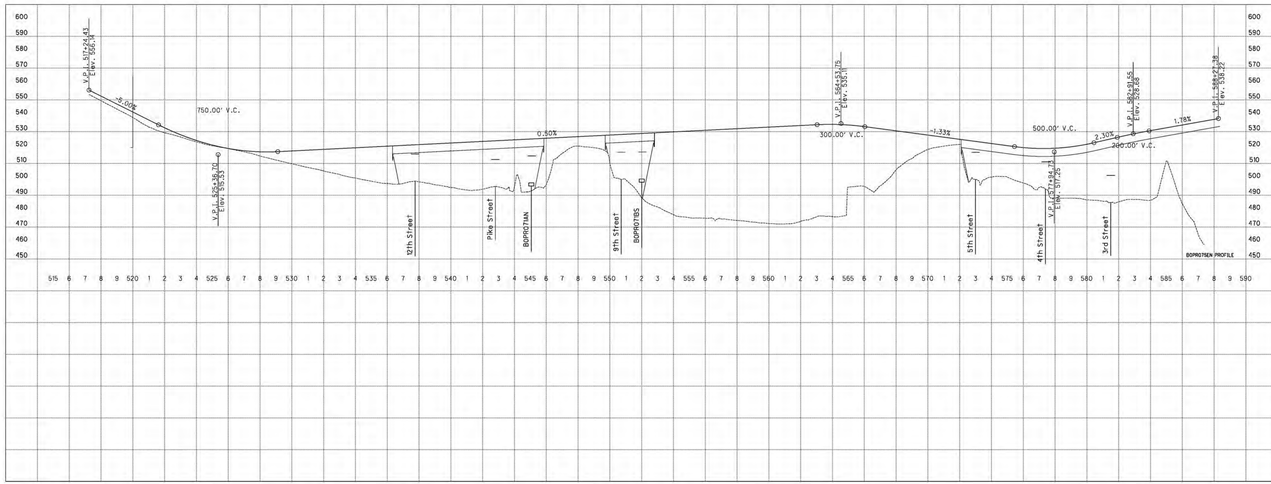
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

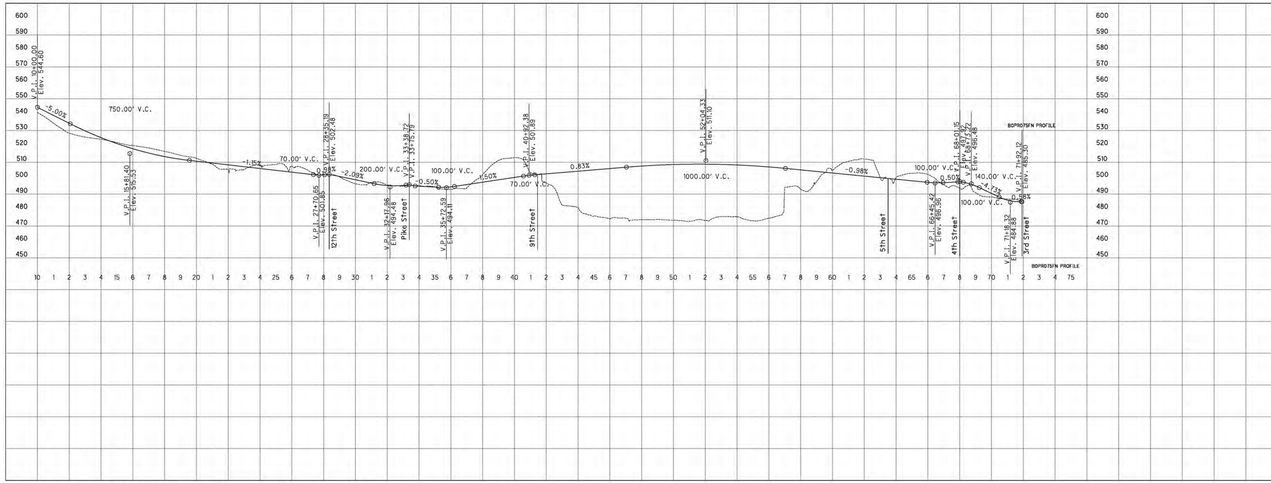
ALTERNATIVE B

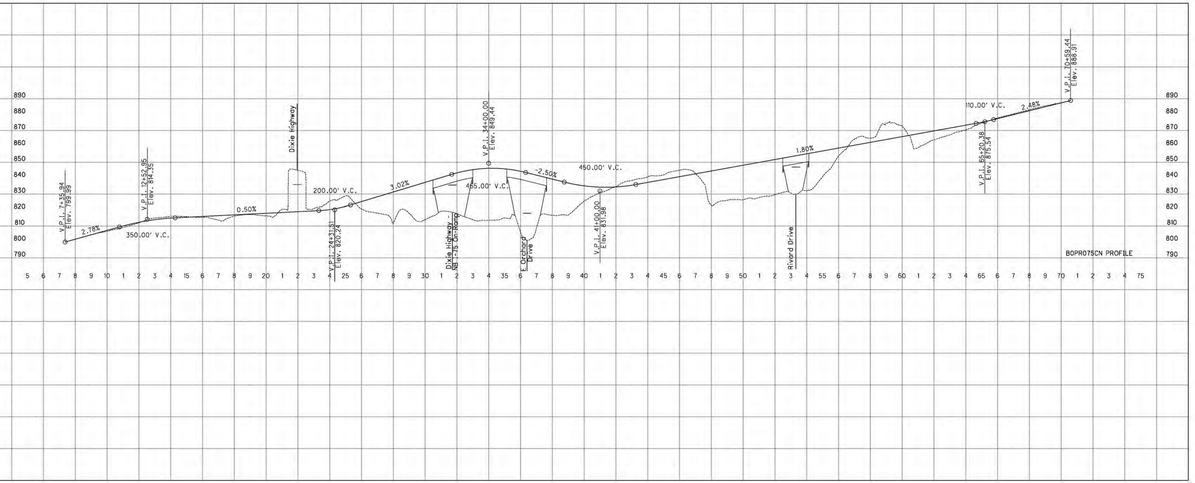
BOPR075CS, BOPBULLKY, BOPR071AS, BOPR071BS, & BOPR075AS

SCALE

0 200 400 600







BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B

BOPR075EN, BOPR075FN, & BOPR075CN

SCALE

0 200 400 600

LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
SCALE
N
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE B
SIGNAGE PLAN

LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
SCALE
N
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE C
SIGNAGE PLAN
UPPER DECK
LOWER DECK
UPPER DECK
LOWER DECK
Hopple St
Univ Of Cincinnati Cincl State College NEXT RIGHT
Harrison Ave
Central Pkwy
Harrison Avenue
Hopple St 1 MILE
Harrison Ave 1/2 MILE
Dayton
Ezzard Charles Dr Liberty St
Harrison Ave 1 1/2 MILES
River Rd
Fifth St
EXIT ONLY
Covington Newport
Second St Downtown Riverfront NEXT RIGHT
Columbus
Western Hills Second St
Fifth St
12th Street
Cincinnati Covington Newport
12th Street Pike Street Covington NEXT RIGHT
Louisville Lexington
Fort Wright Park Hills
Covington Newport
Seventh St
Downtown
To Covington Freeman Ave
Harrison Avenue
Ezzard Charles Dr
Findlay St
Museum Ctr Music Hall 1 MILE
Freedom Center 2 1/2 MILES
Bilbaim Arena 1 1/2 MILES
Stadium
Harrison Avenue

LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
N
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE D
SIGNAGE PLAN
Univ Of Cincinnati Cinci State College NEXT RIGHT
Hopple St
Indianapolis 1 1/2 MILES
Hopple St 1/2 MILE
Harrison Ave
Central Pkwy
Harrison Avenue
Indianapolis 2 1/2 MILES
Hopple St 1 MILE
Harrison Ave 1/2 MILE
Dayton
Ezzard Charles Dr Liberty St
Harrison Ave 1 1/2 MILES
Covington Newport
Fifth St
EXIT ONLY
River Rd
Second St Downtown Riverfront NEXT RIGHT
Western Hills
Fifth St
Western Hills Second St
UPPER DECK
LOWER DECK
Columbus
Louisville Lexington
Seventh St
LEFT 1/4 MILE
LEFT 1/2 MILE
TO 50 WEST Freeman Ave
TO 50 WEST Freeman Ave 1/2 MILE
Ezzard Charles Dr Findlay St
Freedom Center 2 1/2 MILES
Ballpark Stadium 1 1/2 MILES
Museum Ctr Music Hall 1 MILE
Hopple Street Overpass
Fort Wright Park Hills
Covington Cincinnati
Pike Street Covington
12th Street Covington
Sth Street Covington Newport
Downtown Covington Cincinnati
Dixie Highway Fort Wright
Dixie Highway Park Hills
Dixie Highway Covington
Dixie Highway Fort Mitchell
Dixie Highway Lakeside Park
Dixie Highway Crestview Hills
Dixie Highway Fort Wright
Dixie Highway Park Hills
Dixie Highway Covington
Dixie Highway Fort Mitchell
Dixie Highway Lakeside Park
Dixie Highway Crestview Hills
Dixie Highway Fort Wright
Dixie Highway Park Hills
Dixie Highway Covington
Dixie Highway Fort Mitchell
Dixie Highway Lakeside Park
Dixie Highway Crestview Hills
Dixie Highway Fort Wright
Dixie Highway Park Hills
Dixie Highway Covington
Dixie Highway Fort Mitchell
Dixie Highway Lakeside Park
Dixie Highway Crestview Hills

Ezzard Charles Dr
Findlay St
Freeman Ave
SECOND RIGHT
Harrison Avenue
EXIT XX
Freedom Center
2 1/2 MILES
Stadium
Ballpark
Arena
1 1/2 MILES
Museum Ctr
Music Hall
1 MILE
Univ Of Cincinnati
Cinci State College
NEXT RIGHT
Hopple St
Indianapolis
1 1/2 MILES
Hopple St
1/2 MILE
Harrison Ave
Central Ave
Harrison Ave
Central Ave
Indianapolis
2 1/2 MILES
Western Hills
Harrison Ave
Hopple St
1 MILE
Western Hills
Central Park
1/2 MILE
75 NORTH
Dayton
Liberty St
75 NORTH
Dayton
75 NORTH
Dayton
Central Ave
1 1/2 MILES
Ezzard Charles Dr
Liberty St
75 NORTH
Dayton
Ezzard Charles Dr
Liberty St
Next Right
Eighth St
71 NORTH
75 NORTH
Dayton
50 WEST
River Rd
75 NORTH
Dayton
Western Hills
Fifth St
Second St
Downtown
Riverfront
71 NORTH
75 NORTH
Dayton
50 WEST
Sixth St
1/2 MILE
75 NORTH
Dayton
71 NORTH
Columbus
12th Street
Cincinnati
Covington
Newport
75 NORTH
Dayton
71 NORTH
Columbus
12th Street
Covington
NEXT RIGHT
71 75 SOUTH
Louisville
Lexington
71 75 SOUTH
Louisville
Lexington
Ninth St
9th Street
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Newport
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Covington
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Second St
Covington
Fifth St
71 75 SOUTH
Louisville
Lexington
50 WEST
27
71 NORTH
Seventh St
Fifth St
Covington
71 75 SOUTH
Louisville
Lexington
50 WEST
27
71 NORTH
Seventh St
1/4 MILE
LEFT
71 75 SOUTH
Louisville
Lexington
LEFT 3 LANES
50 WEST
27
71 NORTH
EXIT XX
EXIT ONLY
Seventh St
1/4 MILE
LEFT
TO 50 WEST
Freeman Ave
1/4 MILE
71 NORTH
Seventh St
1 MILE
71 75 SOUTH
Louisville
Lexington
LEFT 3 LANES
TO 50 WEST
Freeman Ave
1/2 MILE
50 WEST
27
71 NORTH
Downtown
2 MILES
71 75 SOUTH
Louisville
Lexington
LEFT 3 LANES
50 WEST
27
71 NORTH
EXIT XX
EXIT ONLY
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
12th Street
Park Street
Covington
12th Street
Park Street
Covington
12th Street
Park Street
Covington
EXIT XX
EXIT ONLY
EXIT XX
EXIT XX
EXIT XX

Univ Of Cincinnati
Cinci State College
NEXT RIGHT
Hopple St
Indianapolis
Hopple St
1/2 MILE
Harrison Ave
Central Pkwy
Harrison Ave
Central Pkwy
Indianapolis
Harrison Ave
1/2 MILE
Hopple St
1 MILE
Harrison Ave
1 MILE
Dayton
Liberty St
Dayton
Dayton
Ezzard Charles Dr
Liberty St
Harrison Ave
Central Pkwy
1 1/2 MILES
Ezzard Charles Dr
Liberty St
Ezzard Charles Dr
Liberty St
Covington
Newport
Covington
Newport
River Rd
Western Hills
Fifth St
EXIT ONLY
Dayton
Columbus
UPPER DECK
Dayton
Fifth St
Western Hills
Second Street
Downtown
Riverfront
LOWER DECK
Columbus
UPPER DECK
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Fifth St
Western Hills
Second St
Second St
Downtown
Riverfront
NEXT RIGHT
LOWER DECK
Dayton
Columbus
Louisville
Lexington
Second St
Louisville
Lexington
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Second St
Fifth St
Covington
Louisville
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Lexington
Pike Street
9th Street
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Newport
NEXT LEFT
Louisville
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9th Street
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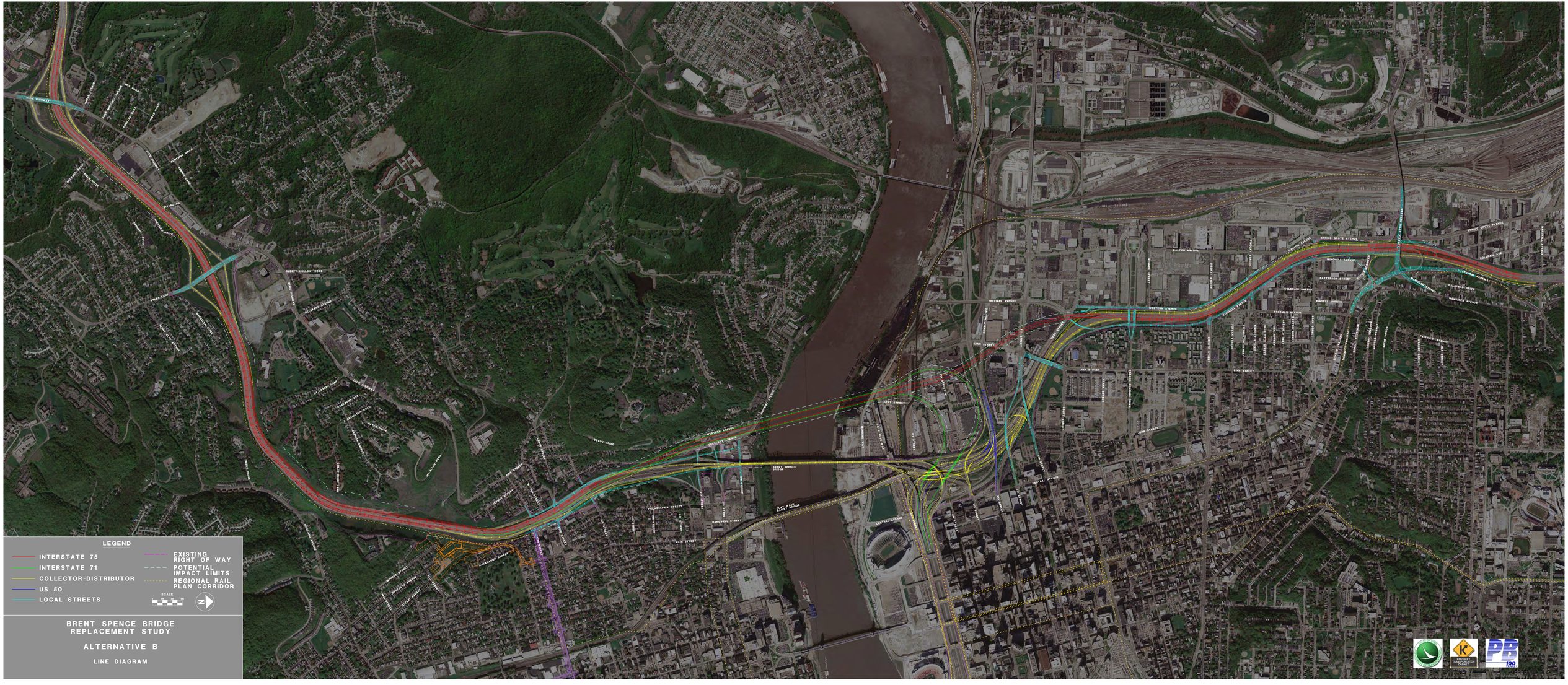
Louisville
Lexington
5th Street
Covington
Newport
Dayton
Columbus
Louisville
Lexington
Fort Wright
Park Hills
1 MILE
Louisville
Lexington
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
12th Street
Pike Street
Covington
NEXT RIGHT
Pike Street
Covington
Newport
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
Fort Wright
Park Hills
LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
IMPACT LIMITS
N
SCALE
BRENT SPENCE BRIDGE
REPLACEMENT STUDY
ALTERNATIVE G
SIGNAGE PLAN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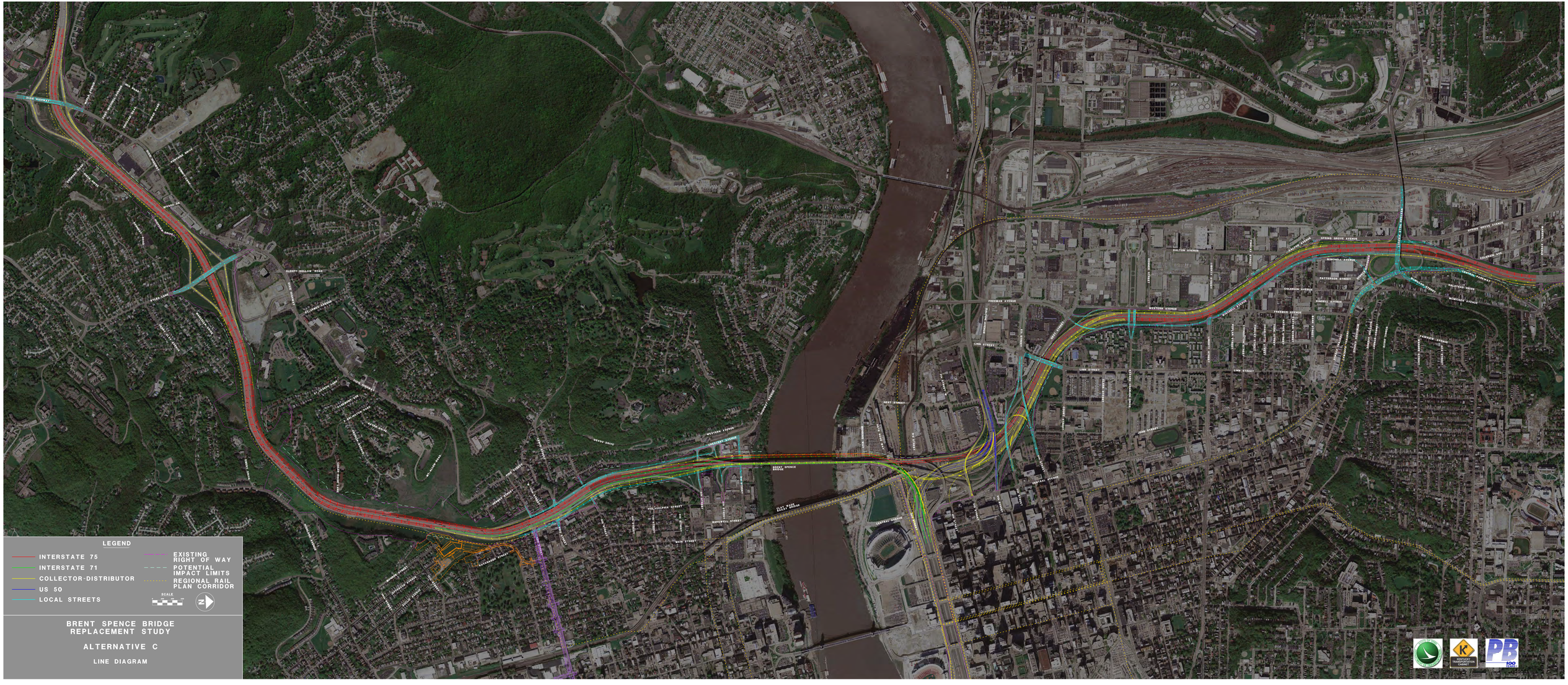
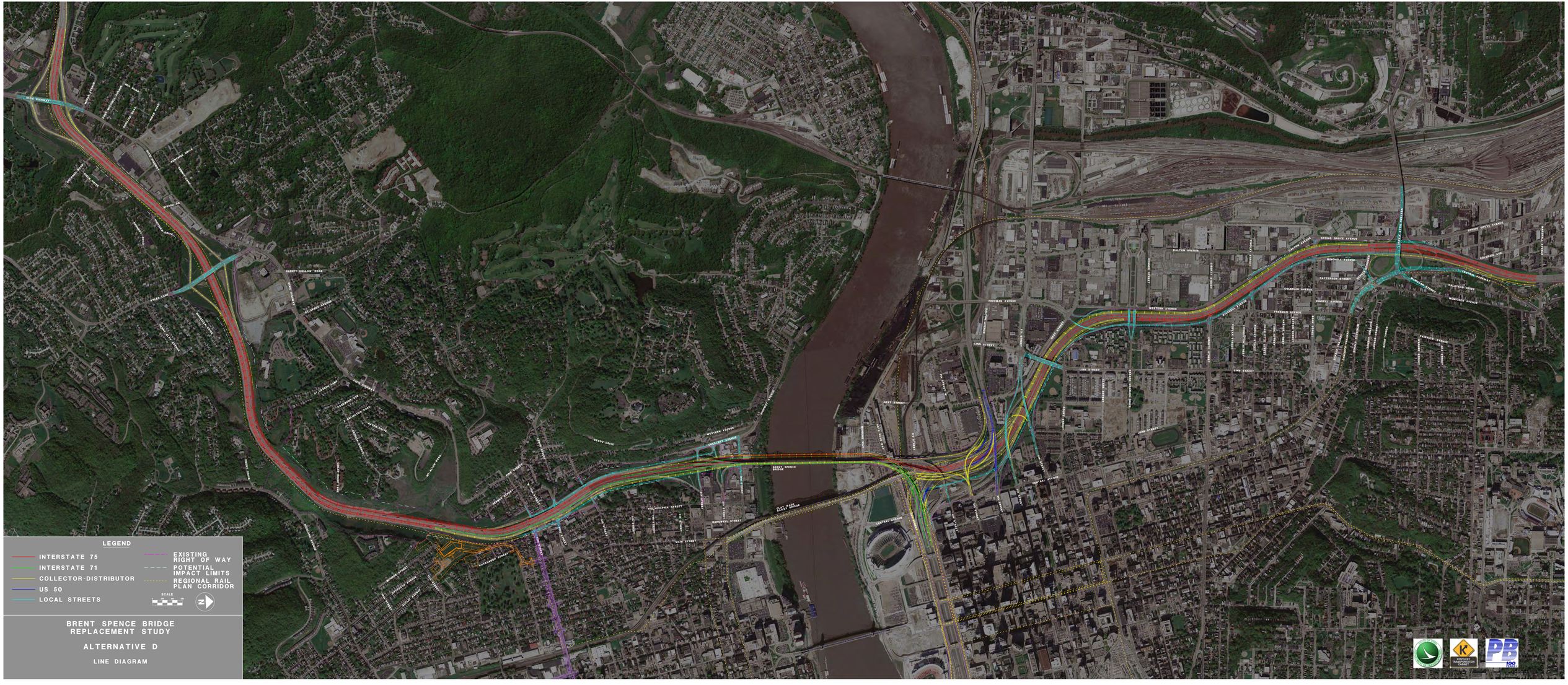
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
REGIONAL RAIL PLAN CORRIDOR
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE B
LINE DIAGRAM


LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
REGIONAL RAIL PLAN CORRIDOR
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE C
LINE DIAGRAM


LEGEND
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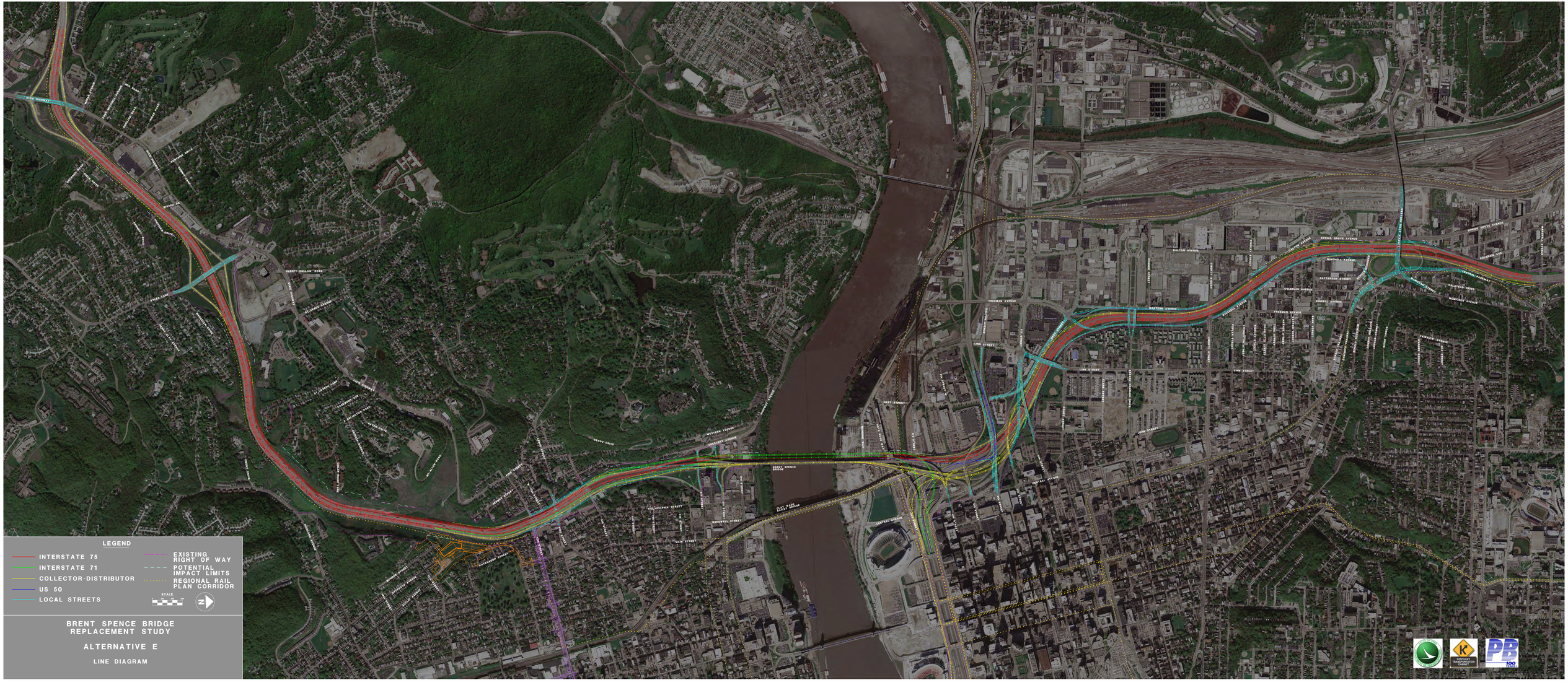
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
REGIONAL RAIL PLAN CORRIDOR
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE D
LINE DIAGRAM


LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
REGIONAL RAIL PLAN CORRIDOR
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE E
LINE DIAGRAM

LEGEND
INTERSTATE 75
INTERSTATE 71
COLLECTOR-DISTRIBUTOR
US 50
LOCAL STREETS
EXISTING RIGHT OF WAY
POTENTIAL IMPACT LIMITS
REGIONAL RAIL PLAN CORRIDOR
SCALE
BRENT SPENCE BRIDGE REPLACEMENT STUDY
ALTERNATIVE G
LINE DIAGRAM

IR-75 FROM RIVER TO WESTERN HILLS (ALTERNATIVE B)

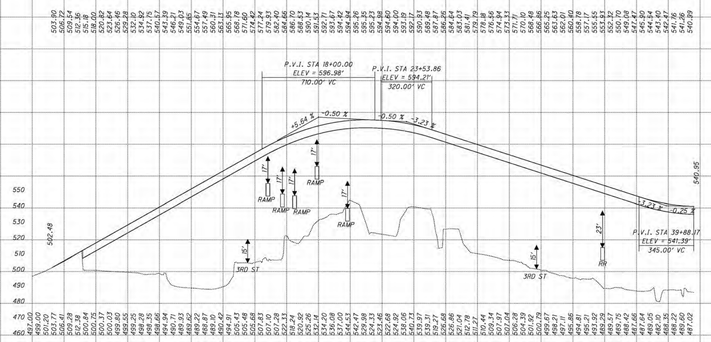
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B
IR-75

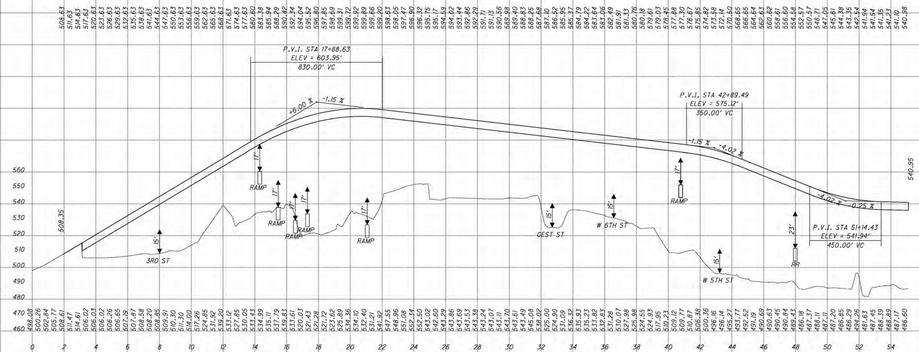
SCALE

0 200 400 600

IR-71 NB



IR-71 SB



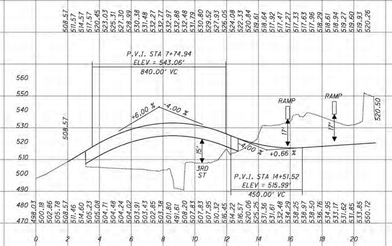
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B
IR-71 NORTHBOUND & SOUTHBOUND

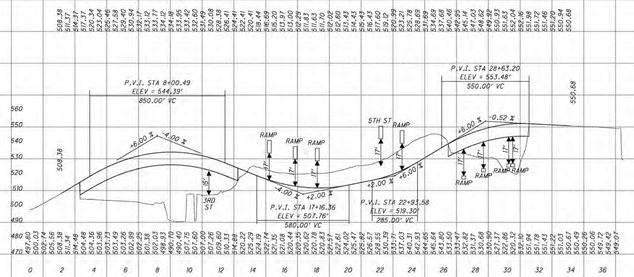
SCALE

0 200 400 600

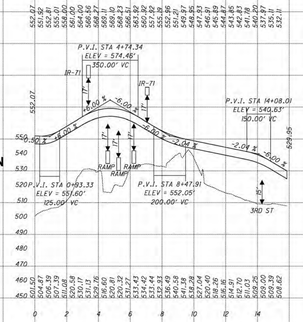
CD FROM IR-71 TO IR-75



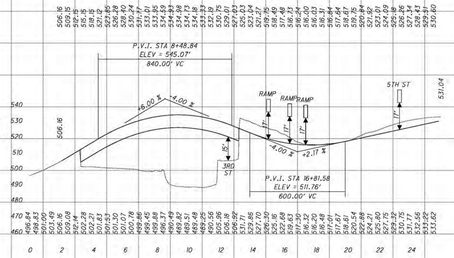
CD FROM IR-71 TO SR-50



CD FROM IR-71 TO COVINGTON



CD FROM SR-50 TO IR-71

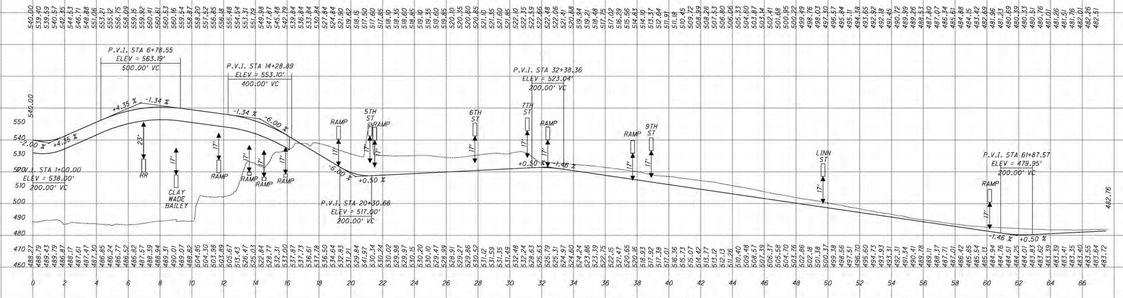


BRENT SPENCE BRIDGE REPLACEMENT STUDY

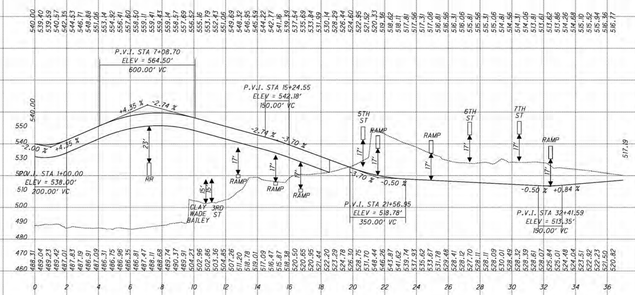
ALTERNATIVE B
CD ROADS TO AND FROM IR-71

SCALE
0 200 400 600

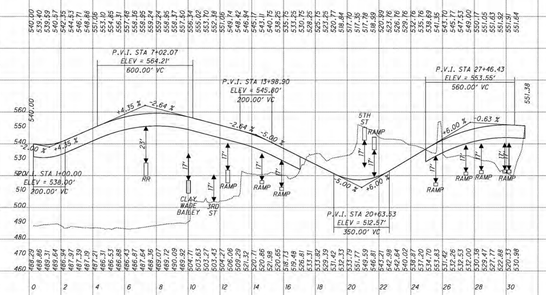
CD1 NB



CD2 NB



CD NB TO SR-50

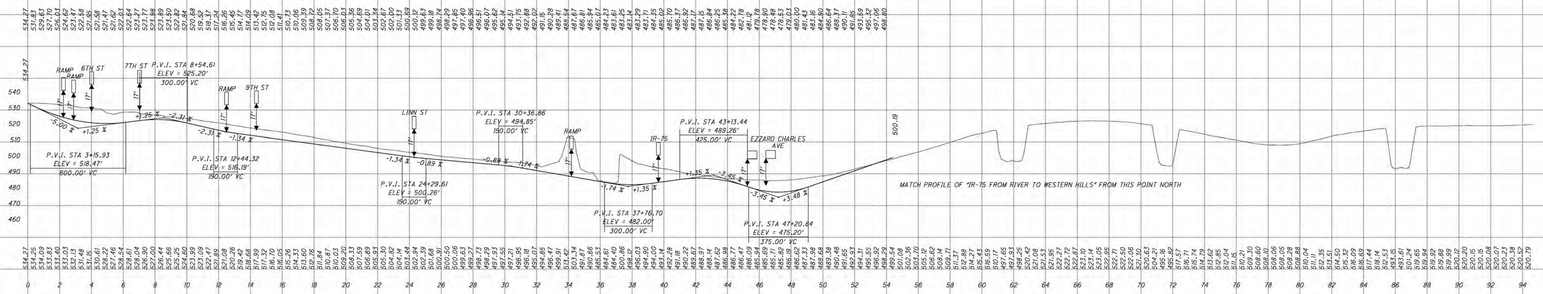


BRENT SPENCE BRIDGE REPLACEMENT STUDY

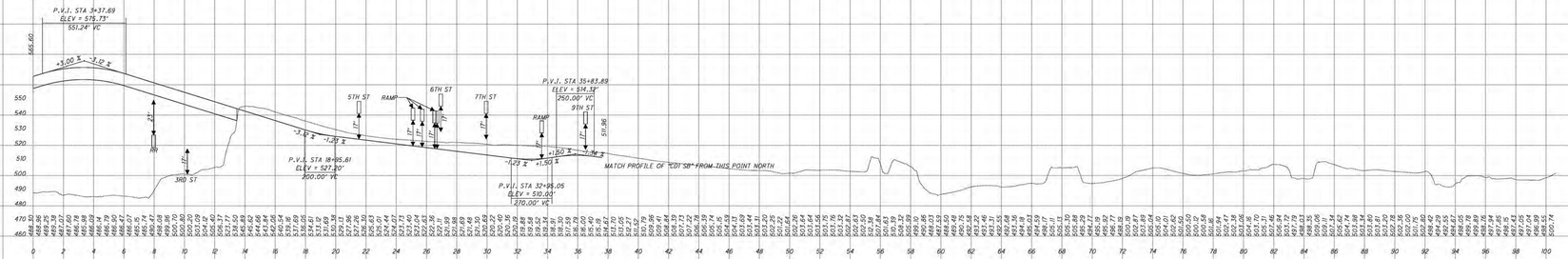
ALTERNATIVE B
CD ROADS NORTHBOUND

SCALE
0 200 400 600

CD1 SB



CD2 SB

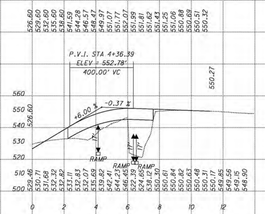


BRENT SPENCE BRIDGE REPLACEMENT STUDY

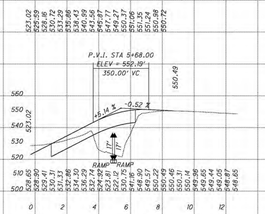
ALTERNATIVE B
CD ROADS SOUTHBOUND

SCALE
0 200 400 600

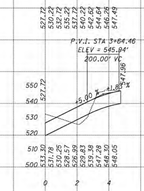
SR-50 TO IR-71



SR-50 RAMP TO 2ND ST



SR-50 RAMP TO CD ROAD



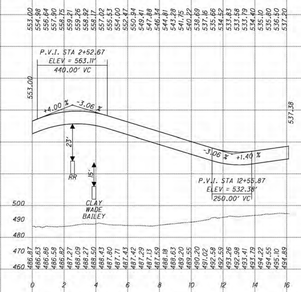
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE B
RAMPS FROM SR-50

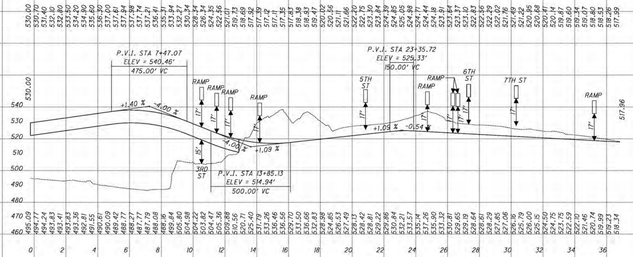
SCALE

0 200 400 800

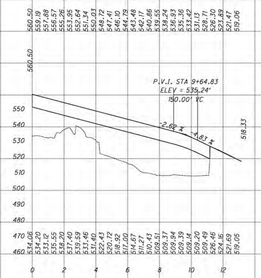
2ND ST RAMP NB



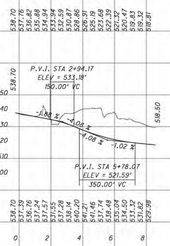
2ND ST RAMP SB



3RD ST RAMP SB



4TH ST RAMP NB

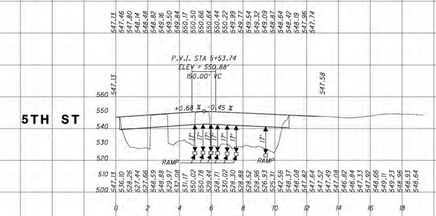


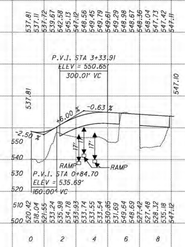
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

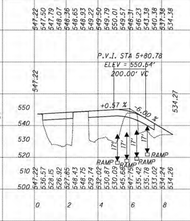
ALTERNATIVE B
2ND, 3RD & 4TH ST RAMPS

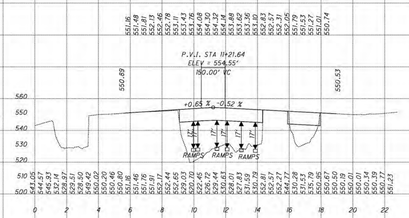
SCALE

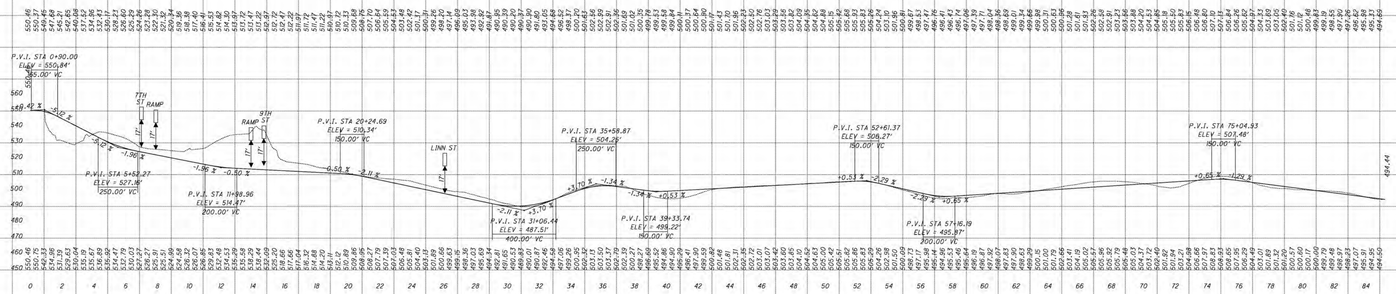
0 200 400 600











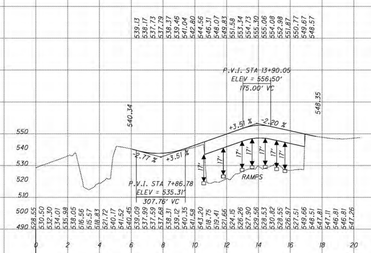
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B
5TH & 6TH ST RAMPS

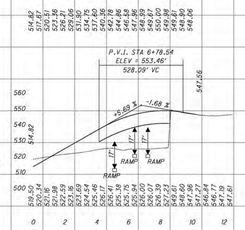
SCALE

0 200 400 600

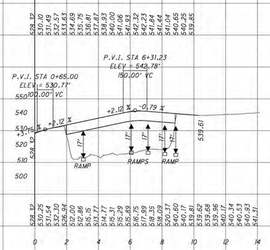
7TH ST



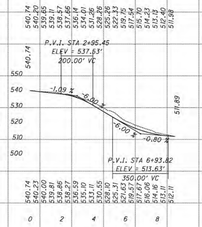
7TH ST RAMP SB



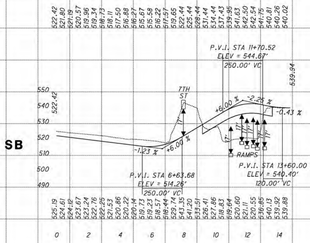
9TH ST



9TH ST RAMP NB



9TH ST RAMP SB



BRENT SPENCE BRIDGE REPLACEMENT STUDY

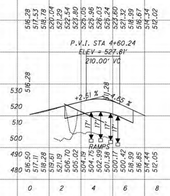
ALTERNATIVE B
7TH & 9TH ST RAMPS

SCALE
0 200 400 600

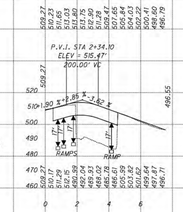
EZZARD CHARLES EB

EZZARD CHARLES WB

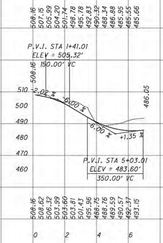
LINN ST



FREEMAN ST RAMP NB



FREEMAN ST RAMP SB



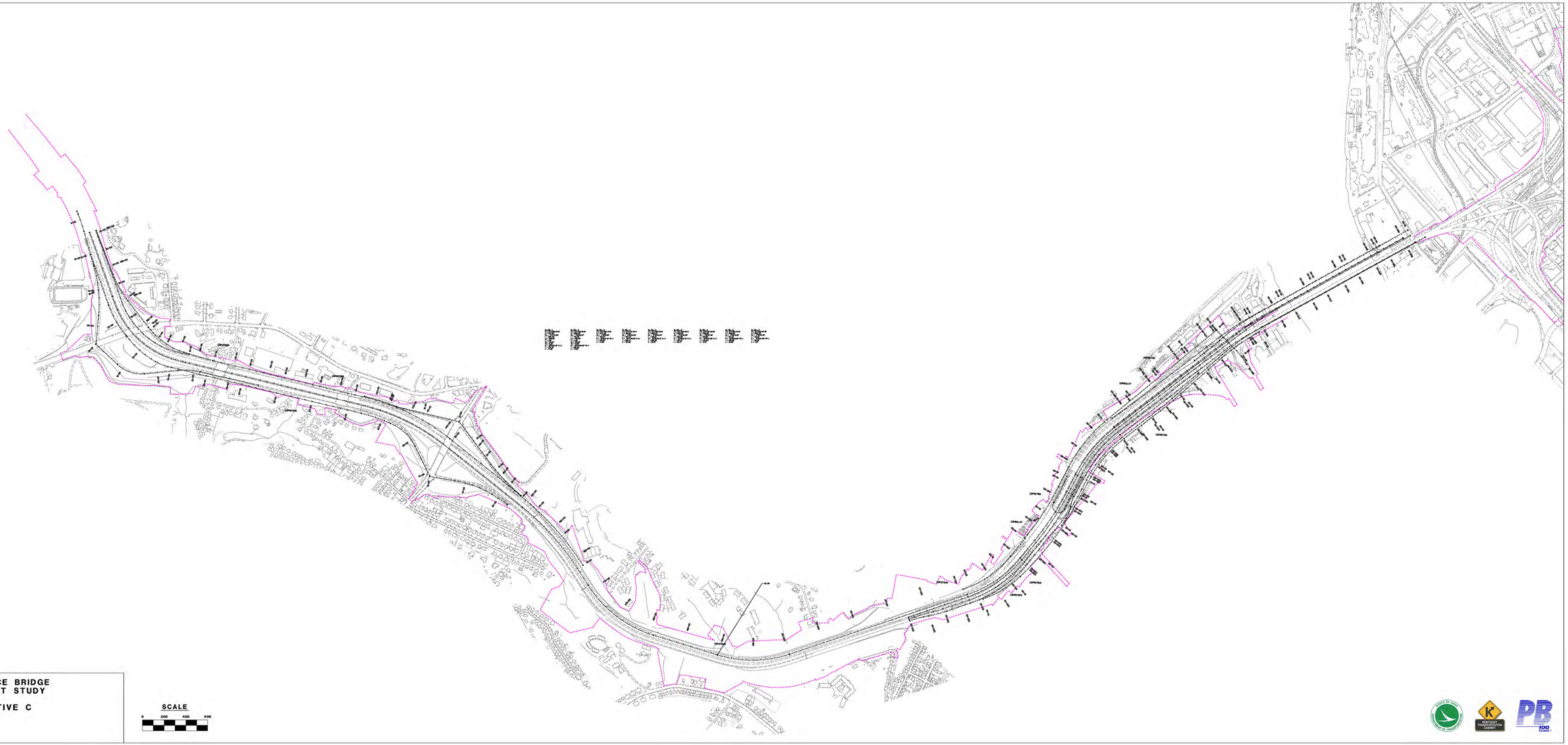
GEST ST EB

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE B
OTHER STREETS

SCALE

0 200 400 600



BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

SCALE

0 200 400 800

5TH ST - 1
P.I. STA. 7+23.06
Δ = 48° 40' 37" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 287.95'
L = 540.84'
E = 62.09'

5TH ST - 2
P.I. STA. 15+65.35
Δ = 47° 10' 46" (LT)
Dc = 15° 00' 00"
R = 381.97'
T = 166.80'
L = 314.53'
E = 34.83'

6TH ST - 1
P.I. STA. 8+43.49
Δ = 13° 31' 43" (RT)
Dc = 2° 16' 18"
R = 2,522.23'
T = 306.61'
L = 610.22'
E = 18.57'

6TH ST - 2
P.I. STA. 19+93.29
Δ = 3° 22' 04" (LT)
Dc = 2° 42' 23"
R = 2,117.14'
T = 62.24'
L = 124.45'
E = 0.91'

7TH ST - 1
P.I. STA. 6+36.55
Δ = 22° 01' 07" (RT)
Dc = 4° 08' 59"
R = 1,380.76'
T = 268.63'
L = 530.62'
E = 25.89'

7TH ST - 2
P.I. STA. 12+66.83
Δ = 22° 08' 50" (LT)
Dc = 6° 38' 03"
R = 863.64'
T = 169.03'
L = 333.83'
E = 16.39'

7TH ST - 3
P.I. STA. 17+11.65
Δ = 15° 02' 59" (LT)
Dc = 2° 42' 10"
R = 2,119.79'
T = 280.01'
L = 556.80'
E = 18.41'

9TH ST - 1
P.I. STA. 6+60.22
Δ = 15° 39' 53" (LT)
Dc = 2° 53' 30"
R = 1,981.42'
T = 272.56'
L = 541.73'
E = 18.66'

9TH SB SVC - 1
P.I. STA. 1+39.88
Δ = 12° 32' 19" (LT)
Dc = 4° 30' 00"
R = 1,273.24'
T = 139.88'
L = 278.63'
E = 7.56'

9TH SB SVC - 2
P.I. STA. 8+15.54
Δ = 122° 46' 33" (RT)
Dc = 24° 45' 00"
R = 231.50'
T = 424.39'
L = 498.06'
E = 251.92'

9TH SB SVC - 3
P.I. STA. 9+47.43
Δ = 12° 00' 00" (RT)
Dc = 10° 00' 00"
R = 572.96'
T = 60.22'
L = 120.00'
E = 3.16'

EZCH NB SVC -1
P.I. STA. 4+23.83
Δ = 64° 19' 01" (LT)
Dc = 8° 29' 58"
R = 674.11'
T = 423.83'
L = 756.72'
E = 122.17'

EZCH NB SVC -2
P.I. STA. 9+89.41
Δ = 13° 38' 24" (RT)
Dc = 4° 15' 56"
R = 1,343.21'
T = 160.64'
L = 319.77'
E = 9.57'

EZCH SB SVC -1
P.I. STA. 2+24.43
Δ = 37° 15' 46" (LT)
Dc = 8° 36' 25"
R = 665.68'
T = 224.43'
L = 432.93'
E = 36.82'

SB TO EZCH -1
P.I. STA. 1+98.23
Δ = 30° 56' 32" (LT)
Dc = 8° 00' 00"
R = 716.20'
T = 198.23'
L = 386.78'
E = 26.93'

ML I75 - 1
P.I. STA. 12+25.46
Δ = 20° 21' 22" (RT)
Dc = 4° 17' 12"
R = 1,336.64'
T = 239.97'
L = 474.68'
E = 21.37'

ML I75 - 2
P.I. STA. 15+19.82
Δ = 4° 50' 24" (LT)
Dc = 4° 04' 24"
R = 1,406.64'
T = 59.45'
L = 118.83'
E = 1.26'

ML I75 - 3
P.I. STA. 18+20.96
Δ = 19° 30' 18" (LT)
Dc = 4° 04' 24"
R = 1,406.64'
T = 241.77'
L = 478.86'
E = 20.63'

ML I75 - 4
P.I. STA. 38+12.27
Δ = 58° 46' 35" (LT)
Dc = 2° 58' 10"
R = 1,929.44'
T = 1,086.66'
L = 1,979.30'
E = 284.96'

ML I75 - 5
P.I. STA. 60+36.45
Δ = 25° 30' 39" (RT)
Dc = 3° 36' 49"
R = 1,585.50'
T = 358.92'
L = 705.94'
E = 40.12'

ML I75 - 6
P.I. STA. 70+13.60
Δ = 39° 03' 25" (RT)
Dc = 4° 02' 21"
R = 1,418.50'
T = 503.11'
L = 966.96'
E = 86.58'

SB I71 -1
P.I. STA. 12+05.66
Δ = 76° 21' 01" (RT)
Dc = 4° 58' 26"
R = 1,151.92'
T = 905.66'
L = 1,535.00'
E = 313.39'

NB LOCAL-1
P.I. STA. 13+22.85
Δ = 18° 28' 56" (RT)
Dc = 4° 10' 32"
R = 1,372.14'
T = 223.25'
L = 442.52'
E = 18.04'

NB LOCAL-2
P.I. STA. 16+79.91
Δ = 11° 27' 38" (RT)
Dc = 4° 10' 32"
R = 1,372.14'
T = 137.69'
L = 274.46'
E = 6.89'

NB LOCAL-3
P.I. STA. 18+76.54
Δ = 5° 10' 36" (LT)
Dc = 4° 10' 37"
R = 1,324.14'
T = 59.86'
L = 119.63'
E = 1.35'

NB LOCAL-4
P.I. STA. 20+41.37
Δ = 9° 04' 21" (LT)
Dc = 4° 19' 37"
R = 1,324.14'
T = 105.05'
L = 209.67'
E = 4.16'

NB LOCAL-5
P.I. STA. 25+73.03
Δ = 35° 44' 58" (LT)
Dc = 4° 19' 37"
R = 1,324.14'
T = 427.04'
L = 826.19'
E = 67.16'

NB LOCAL-6
P.I. STA. 41+18.74
Δ = 43° 52' 01" (LT)
Dc = 3° 06' 32"
R = 1,842.30'
T = 742.09'
L = 1,410.87'
E = 143.80'

NB LOCAL-7
P.I. STA. 54+36.19
Δ = 1° 07' 42" (RT)
Dc = 3° 56' 07"
R = 1,456.00'
T = 14.34'
L = 28.68'
E = 0.07'

NB LOCAL-8
P.I. STA. 63+26.61
Δ = 25° 30' 39" (RT)
Dc = 3° 56' 07"
R = 1,456.00'
T = 329.60'
L = 648.28'
E = 36.84'

NB LOCAL-9
P.I. STA. 73+43.75
Δ = 39° 03' 25" (RT)
Dc = 3° 58' 04"
R = 1,444.00'
T = 512.16'
L = 984.34'
E = 88.14'

SB LOCAL - 1
P.I. STA. 14+56.80
Δ = 94° 09' 44" (RT)
Dc = 61° 45' 00"
R = 848.83'
T = 912.84'
L = 1,395.00'
E = 397.68'

SB LOCAL - 2
P.I. STA. 20+47.92
Δ = 6° 29' 25" (LT)
Dc = 2° 58' 53"
R = 1,921.86'
T = 108.97'
L = 217.70'
E = 3.09'

SB LOCAL - 3
P.I. STA. 29+91.58
Δ = 46° 57' 06" (LT)
Dc = 2° 58' 50"
R = 1,922.40'
T = 834.92'
L = 1,575.33'
E = 173.48'

SB LOCAL - 4
P.I. STA. 51+52.42
Δ = 25° 30' 39" (RT)
Dc = 3° 48' 07"
R = 1,507.00'
T = 341.15'
L = 670.39'
E = 38.13'

SB LOCAL - 5
P.I. STA. 63+24.19
Δ = 39° 03' 25" (RT)
Dc = 3° 58' 04"
R = 1,444.00'
T = 512.16'
L = 984.34'
E = 88.14'

6TH ST NB SVC -1
P.I. STA. 2+05.39
Δ = 11° 12' 30" (RT)
Dc = 2° 44' 14"
R = 2,093.14'
T = 205.39'
L = 409.47'
E = 10.05'

6TH ST NB SVC -2
P.I. STA. 6+48.08
Δ = 35° 28' 52" (RT)
Dc = 7° 00' 56"
R = 745.83'
T = 238.61'
L = 461.87'
E = 37.24'

6TH ST NB SVC -3
P.I. STA. 12+78.89
Δ = 16° 12' 54" (LT)
Dc = 3° 00' 45"
R = 1,901.90'
T = 270.93'
L = 538.25'
E = 19.20'

6TH ST NB SVC -4
P.I. STA. 30+70.68
Δ = 25° 30' 39" (RT)
Dc = 4° 06' 05"
R = 1,397.00'
T = 316.25'
L = 622.01'
E = 35.35'

6TH ST NB SVC -5
P.I. STA. 37+33.11
Δ = 23° 25' 34" (RT)
Dc = 6° 31' 16"
R = 878.63'
T = 182.17'
L = 359.24'
E = 18.69'

6TH ST NB SVC -6
P.I. STA. 42+98.94
Δ = 13° 38' 24" (RT)
Dc = 4° 18' 15"
R = 1,331.21'
T = 159.21'
L = 316.91'
E = 9.49'

SB SVC - 1
P.I. STA. 2+26.62
Δ = 18° 02' 43" (RT)
Dc = 4° 00' 53"
R = 1,427.19'
T = 226.62'
L = 449.50'
E = 17.88'

SB SVC - 2
P.I. STA. 7+11.19
Δ = 22° 02' 04" (LT)
Dc = 4° 15' 46"
R = 1,344.14'
T = 261.69'
L = 516.92'
E = 25.24'

SB SVC - 3
P.I. STA. 23+86.78
Δ = 43° 55' 17" (LT)
Dc = 3° 04' 08"
R = 1,866.94'
T = 752.80'
L = 1,431.15'
E = 146.06'

SB SVC - 4
P.I. STA. 33+08.50
Δ = 14° 51' 18" (LT)
Dc = 3° 04' 08"
R = 1,866.94'
T = 243.38'
L = 484.24'
E = 15.80'

SB SVC - 5
P.I. STA. 48+94.85
Δ = 25° 30' 39" (RT)
Dc = 3° 28' 36"
R = 1,648.00'
T = 373.07'
L = 733.77'
E = 41.70'

SB SVC - 6
P.I. STA. 59+98.30
Δ = 39° 03' 25" (RT)
Dc = 4° 06' 07"
R = 1,396.79'
T = 495.41'
L = 952.15'
E = 85.25'

EB USSO - 1
P.I. STA. 12+74.08
Δ = 87° 41' 47" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 611.51'
L = 974.39'
E = 246.12'

EB USSO - 2
P.I. STA. 17+67.79
Δ = 7° 50' 14" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 130.83'
L = 261.24'
E = 4.48'

EB USSO - 3
P.I. STA. 28+23.95
Δ = 94° 09' 44" (LT)
Dc = 6° 39' 21"
R = 860.83'
T = 825.75'
L = 1,414.72'
E = 403.31'

WB USSO-1
P.I. STA. 6+66.51
Δ = 5° 56' 25" (RT)
Dc = 2° 17' 36"
R = 2,498.23'
T = 129.62'
L = 259.01'
E = 3.36'

WB USSO-2
P.I. STA. 13+20.68
Δ = 78° 59' 59" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 524.79'
L = 877.77'
E = 188.42'

WB USSO-3
P.I. STA. 18+35.95
Δ = 9° 42' 48" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 162.28'
L = 323.78'
E = 6.88'

WB USSO-4
P.I. STA. 28+98.85
Δ = 93° 26' 27" (LT)
Dc = 6° 45' 00"
R = 848.83'
T = 901.40'
L = 1,384.31'
E = 389.33'

EBSO TO 2ND ST - 1
P.I. STA. 12+36.10
Δ = 88° 47' 28" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 623.33'
L = 986.57'
E = 294.35'

EBSO TO 2ND ST - 2
P.I. STA. 17+16.10
Δ = 6° 52' 38" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 114.76'
L = 229.24'
E = 3.44'

EBSO TO 2ND ST - 3
P.I. STA. 29+80.54
Δ = 98° 04' 18" (LT)
Dc = 5° 44' 20"
R = 998.37'
T = 1,149.95'
L = 1,708.89'
E = 524.50'

WB USSO TO NB75 - 1
P.I. STA. 13+70.74
Δ = 93° 26' 27" (RT)
Dc = 6° 50' 48"
R = 836.83'
T = 888.65'
L = 1,364.74'
E = 383.62'

WB USSO TO NB75 - 2
P.I. STA. 20+75.81
Δ = 9° 07' 08" (LT)
Dc = 6° 21' 58"
R = 900.00'
T = 71.77'
L = 143.24'
E = 2.86'

WB USSO TO NB75 - 3
P.I. STA. 29+68.89
Δ = 46° 00' 48" (LT)
Dc = 3° 39' 06"
R = 1,568.98'
T = 666.21'
L = 1,260.02'
E = 135.58'

NB TO 2ND -1
P.I. STA. 4+54.21
Δ = 71° 00' 49" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 454.21'
L = 788.04'
E = 145.42'

NB TO 2ND -2
P.I. STA. 9+87.92
Δ = 16° 47' 02" (LT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 198.88'
L = 394.91'
E = 14.59'

NB TO 5TH -1
P.I. STA. 1+35.28
Δ = 11° 27' 38" (RT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 135.28'
L = 269.66'
E = 6.77'

NB TO 5TH -2
P.I. STA. 8+75.68
Δ = 48° 24' 37" (LT)
Dc = 4° 15' 00"
R = 1,348.14'
T = 606.02'
L = 1,139.06'
E = 129.95'

NB TO 5TH -3
P.I. STA. 16+73.96
Δ = 95° 04' 43" (RT)
Dc = 23° 36' 24"
R = 242.71'
T = 265.24'
L = 402.76'
E = 116.82'

NB TO EB USSO-1
P.I. STA. 13+12.62
Δ = 76° 30' 49" (RT)
Dc = 6° 45' 00"
R = 848.83'
T = 669.32'
L = 1,133.53'
E = 232.15'

NB TO WB USSO-1
P.I. STA. 9+13.11
Δ = 76° 48' 12" (LT)
Dc = 9° 00' 32"
R = 636.00'
T = 504.12'
L = 852.54'
E = 175.56'

NB TO WB USSO-2
P.I. STA. 14+37.77
Δ = 8° 01' 56" (LT)
Dc = 2° 16' 37"
R = 2,510.23'
T = 176.24'
L = 351.91'
E = 6.18'

SB TO 5TH -1
P.I. STA. 3+43.41
Δ = 20° 08' 20" (RT)
Dc = 2° 57' 46"
R = 1,933.86'
T = 343.41'
L = 679.73'
E = 30.25'

SB TO 5TH -2
P.I. STA. 9+64.98
Δ = 79° 38' 56" (LT)
Dc = 16° 45' 00"
R = 342.06'
T = 285.25'
L = 475.52'
E = 103.33'

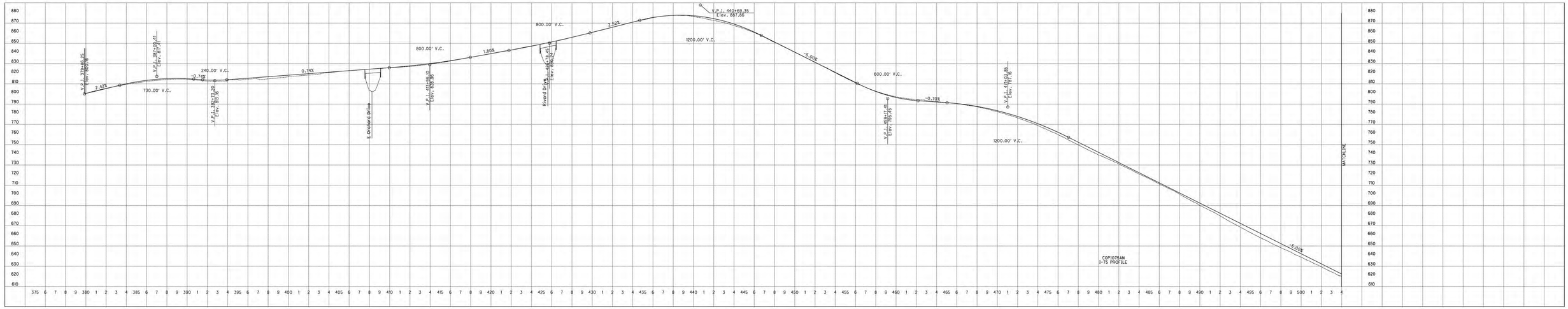
3RD ST TO SB - 1
P.I. STA. 12+20.85
Δ = 74° 10' 24" (RT)
Dc = 4° 42' 36"
R = 1,216.48'
T = 918.57'
L = 1,574.82'
E = 308.46'

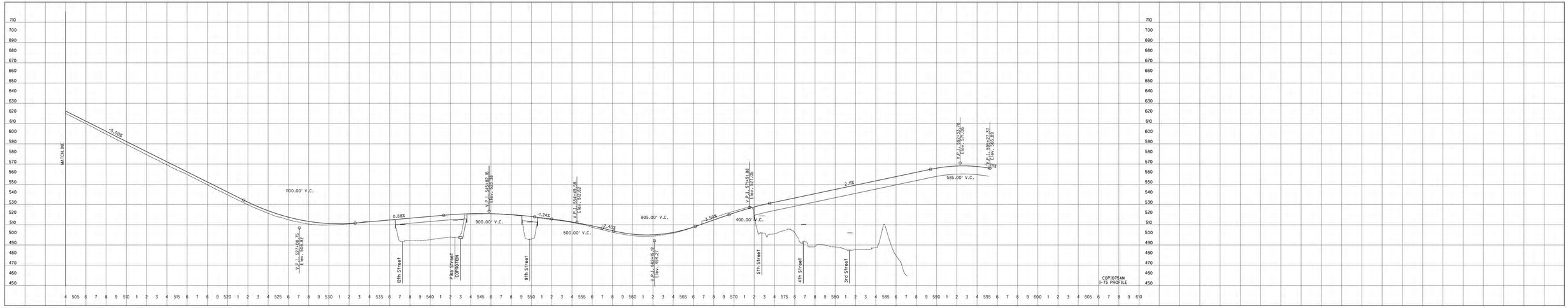
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

SCALE

0 200 400 800





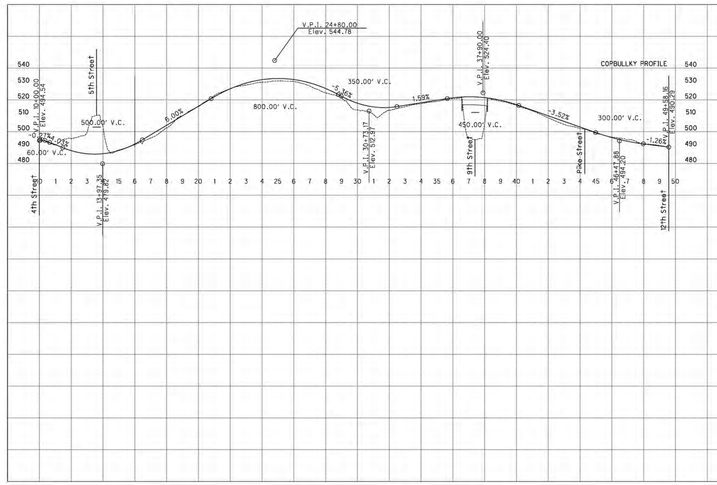
BRENT SPENCE BRIDGE REPLACEMENT STUDY

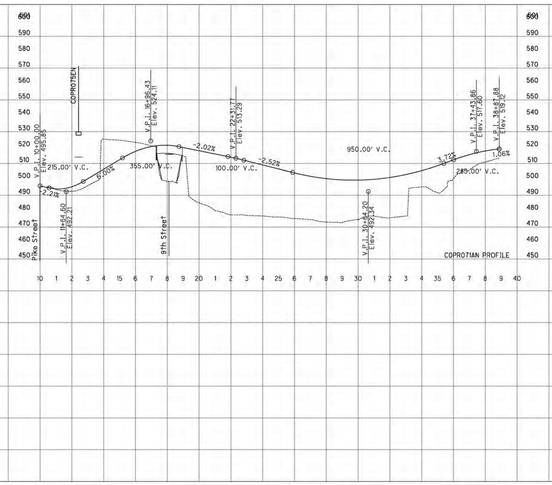
ALTERNATIVE C

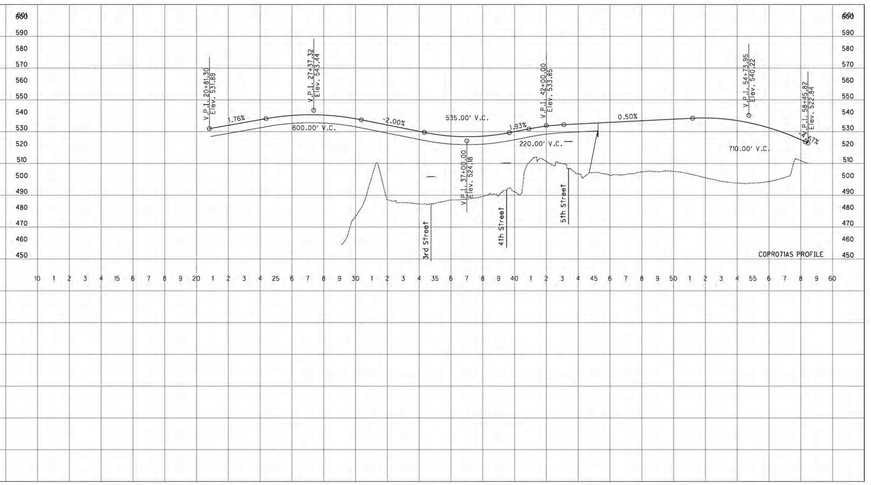
COPI075AN

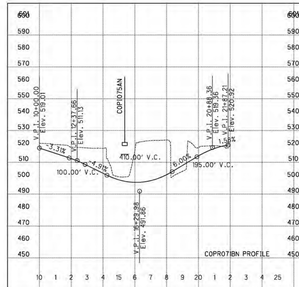
SCALE

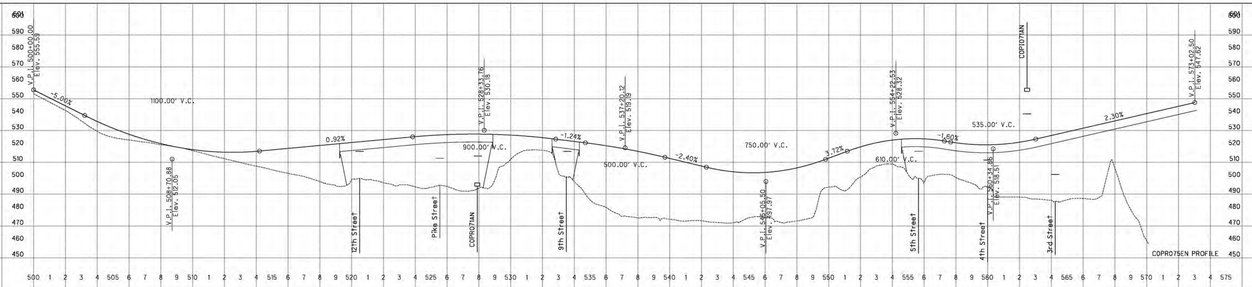
0 200 400 600











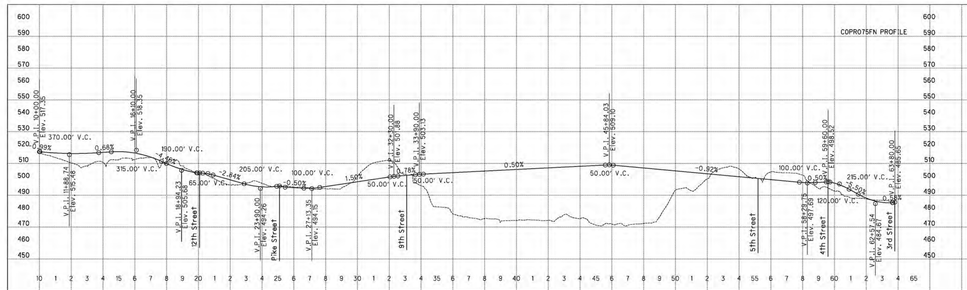
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

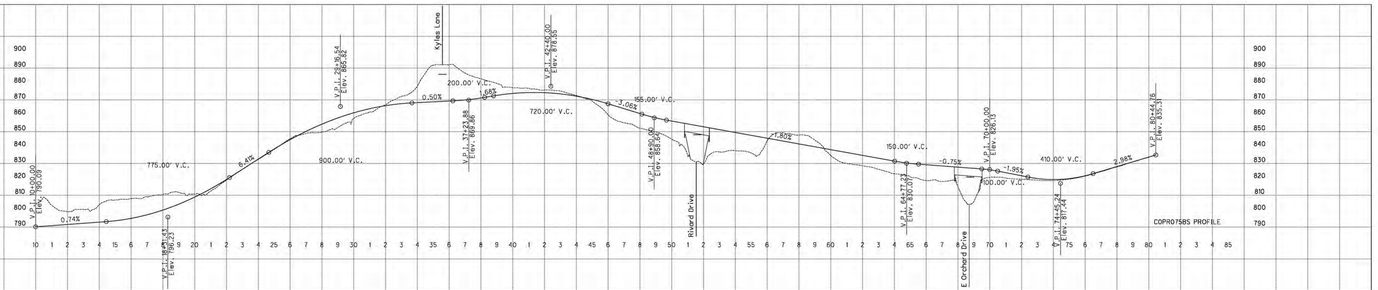
ALTERNATIVE C

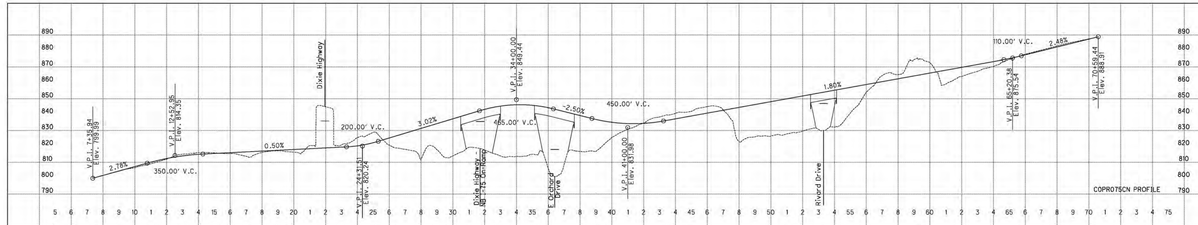
COPBULLKY, COPRO71AN, COPRO71AS, COPRO71BN, & COPRO75EN

SCALE

0 200 400 600







BRENT SPENCE BRIDGE REPLACEMENT STUDY

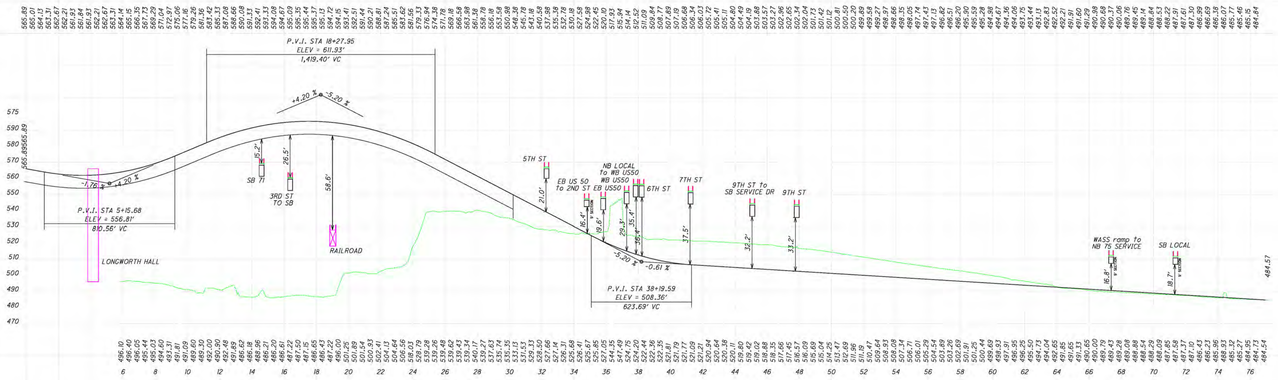
ALTERNATIVE C

COPR075FN, COPR075BS, & COPR075CN

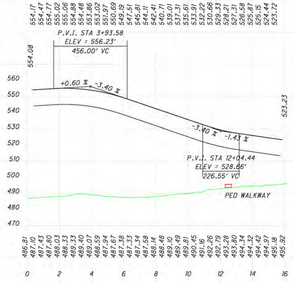
SCALE

0 200 400 600

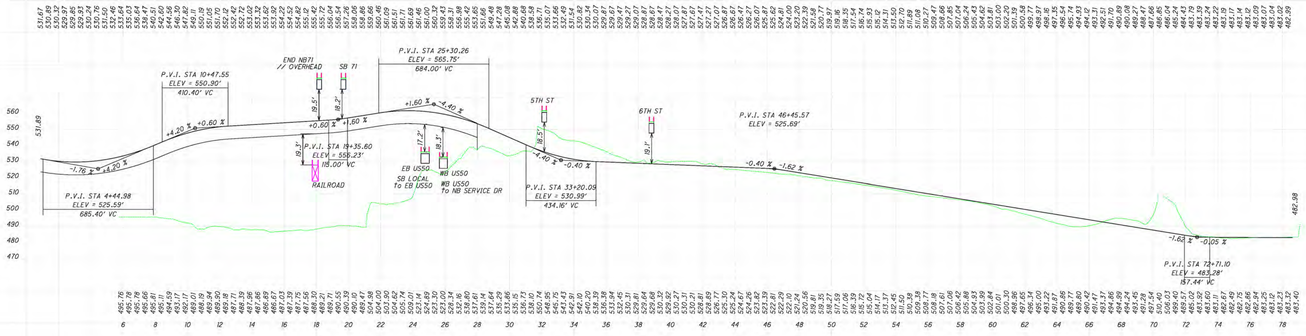
MAINLINE I-75 (ALTERNATIVE C)



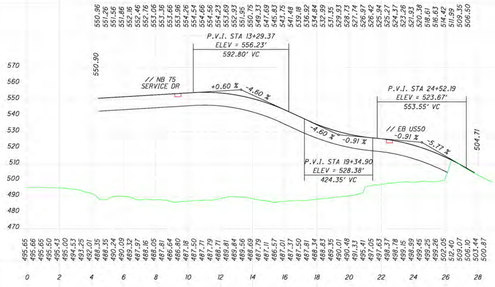
NORTHBOUND I-75 RAMP TO 2ND ST



NORTHBOUND LOCAL I-75



NORTHBOUND I-75 TO EASTBOUND US 50



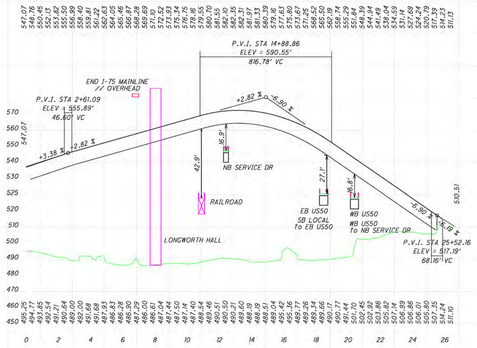
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

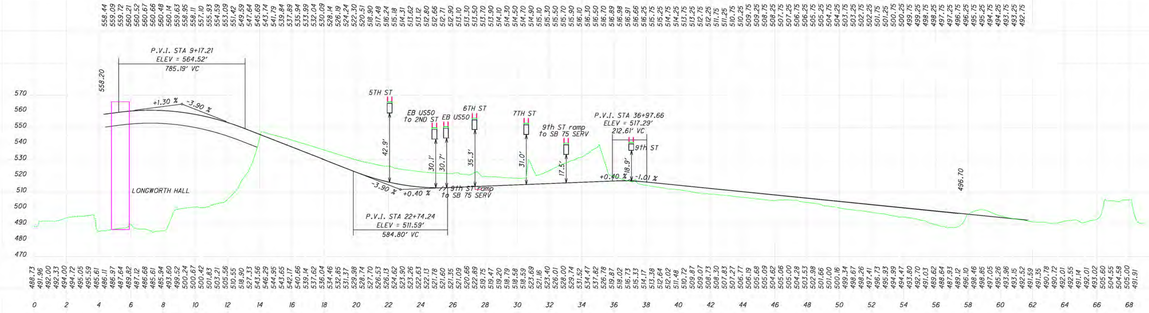
SCALE

0 200 400 800

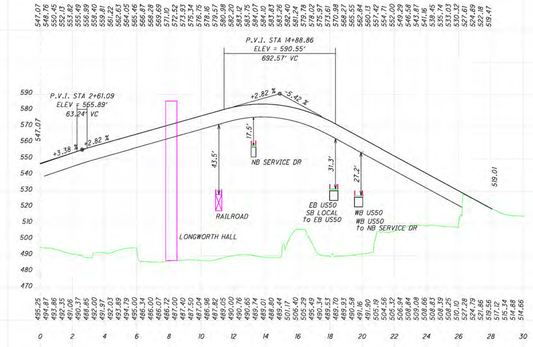
SOUTHBOUND I-71



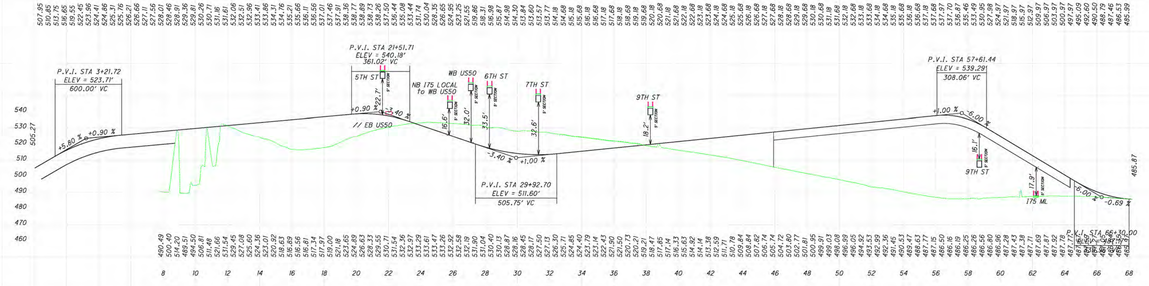
SOUTHBOUND I-75 SERVICE DRIVE



3RD ST RAMP TO SOUTHBOUND I-71/I-75



SOUTHBOUND I-75 LOCAL ACCESS



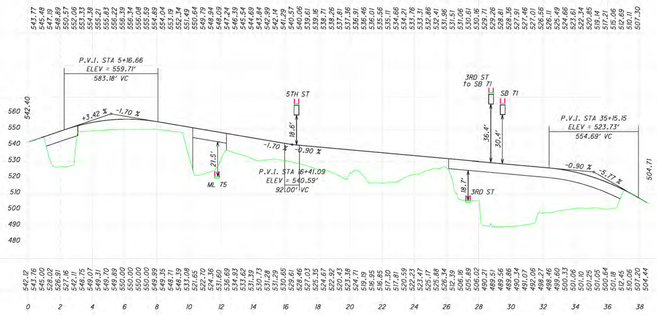
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

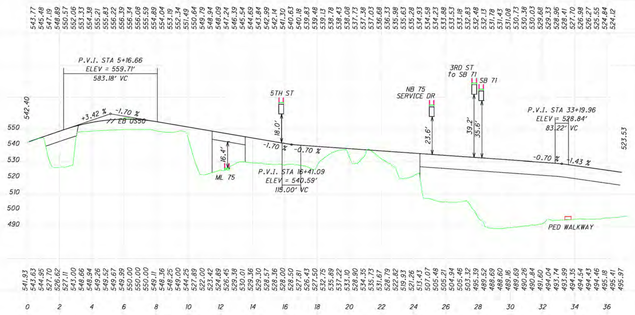
SCALE

0 200 400 800

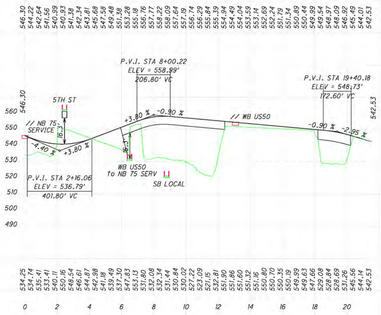
EASTBOUND US 50



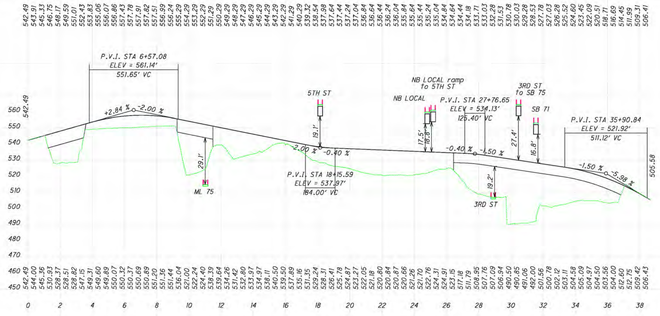
EASTBOUND US 50 RAMP TO 2ND ST



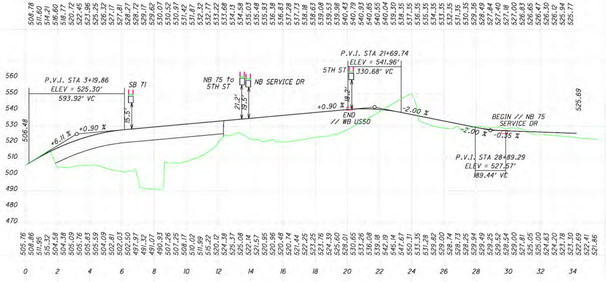
NORTHBOUND I-75 RAMP TO WESTBOUND US 50



WESTBOUND US 50



WESTBOUND US 50 RAMP TO NORTHBOUND I-75



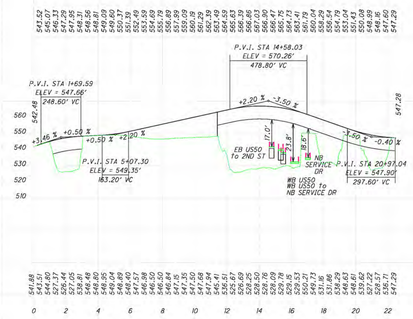
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

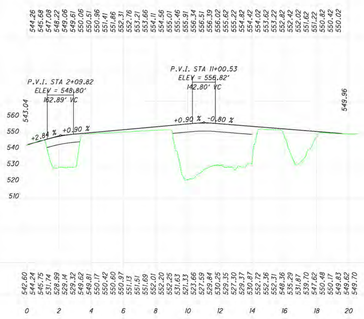
SCALE

0 200 400 800

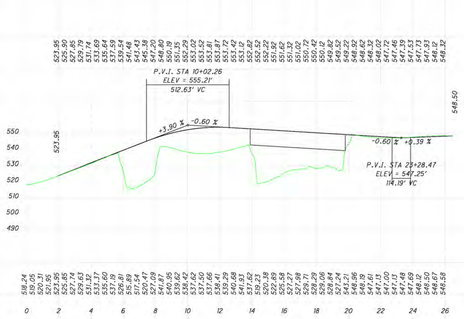
5TH ST



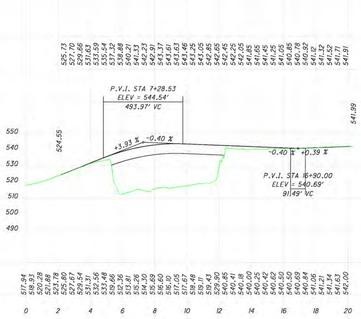
6TH ST



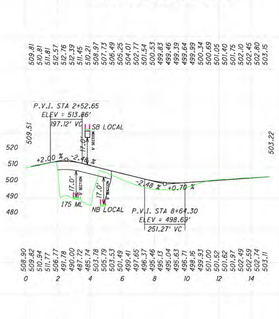
7TH ST

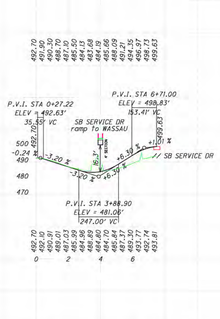


9TH ST

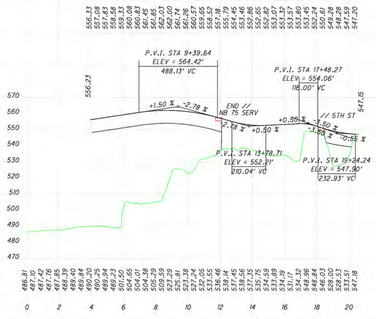


WASSAU RAMP TO NORTHBOUND I-75 SERVICE DR

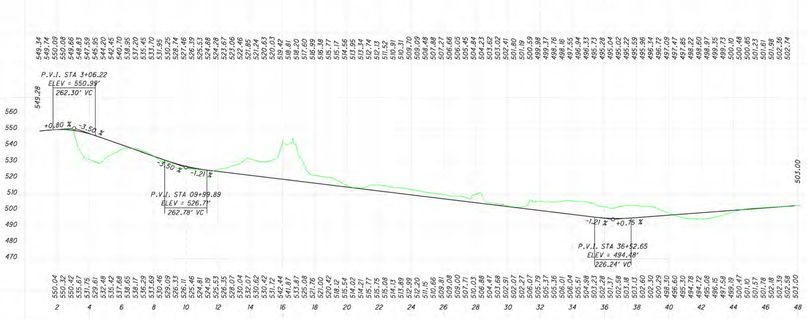




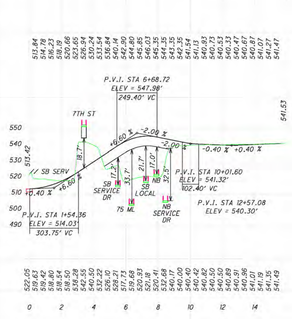
EZZARD CHARLES RAMP TO SOUTHBOUND I-75 SERVICE DR



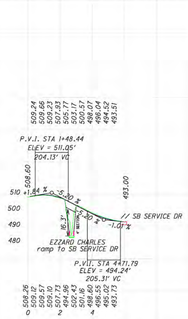
NORTHBOUND I-75 RAMP TO 5TH ST



6TH ST RAMP TO NORTHBOUND I-75 SERVICE DR



9TH ST RAMP TO SOUTHBOUND I-75 SERVICE DR



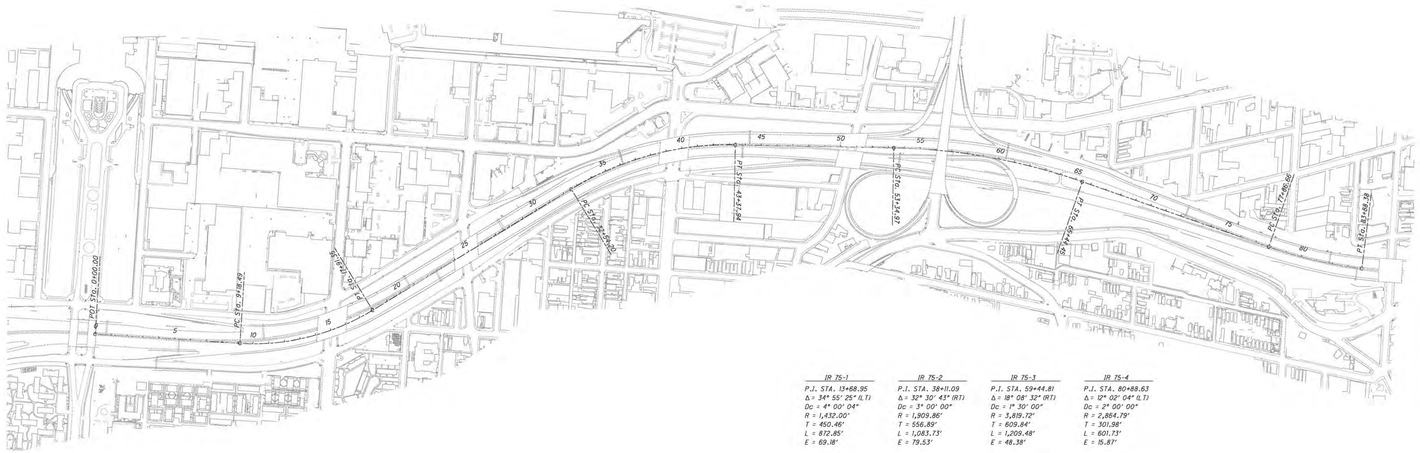
SOUTHBOUND I-75 RAMP TO WASSAU DR

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C

SCALE

0 200 400 800



IR 75-1	IR 75-2	IR 75-3	IR 75-4
P.I. STA. 13+68.95	P.I. STA. 38+11.09	P.I. STA. 59+44.81	P.I. STA. 80+88.63
Δ = 34° 55' 25" (LT)	Δ = 32° 30' 43" (RT)	Δ = 18° 08' 32" (RT)	Δ = 12° 02' 04" (LT)
Dc = 4° 00' 04"	Dc = 3° 00' 00"	Dc = 1° 30' 00"	Dc = 2° 00' 00"
R = 1,432.00'	R = 1,909.86'	R = 3,819.72'	R = 2,864.79'
T = 450.46'	T = 556.89'	T = 609.84'	T = 301.98'
L = 872.85'	L = 1,083.73'	L = 1,209.48'	L = 601.73'
E = 69.18'	E = 79.53'	E = 48.38'	E = 15.87'

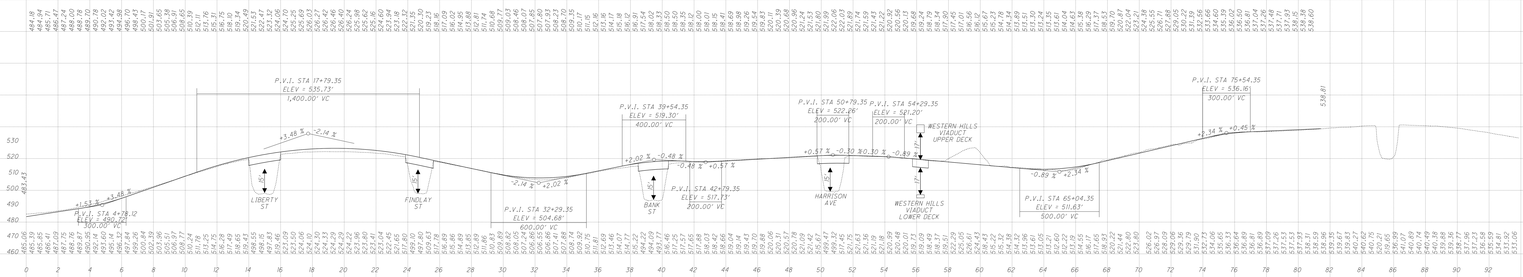
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE C

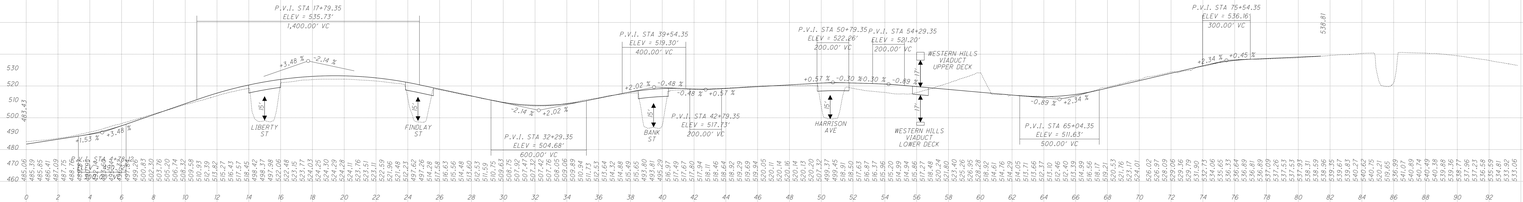
SCALE

0 200 400 800

IR-75 NORTH OF EZZARD CHARLES (ALTERNATIVE C & D)



IR-75 NORTH OF EZZARD CHARLES (ALTERNATIVE E)



BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE C, D & E NORTH OF EZZARD CHARLES

SCALE

0 200 400 600

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

SCALE

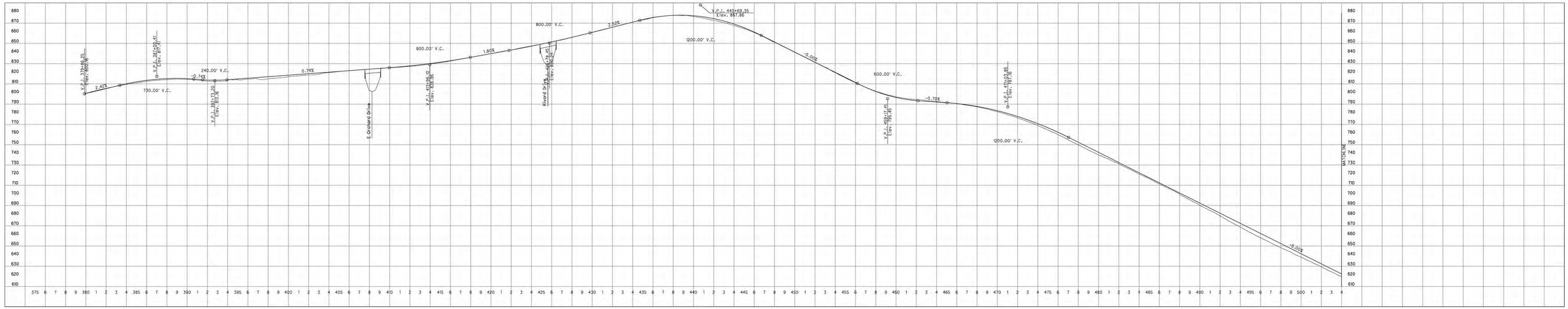
0 200 400 800

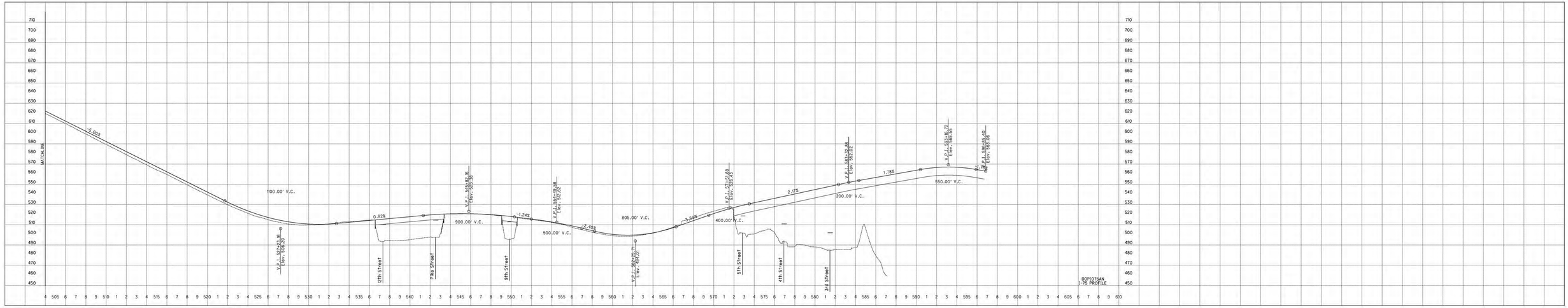
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

SCALE

0 200 400 800





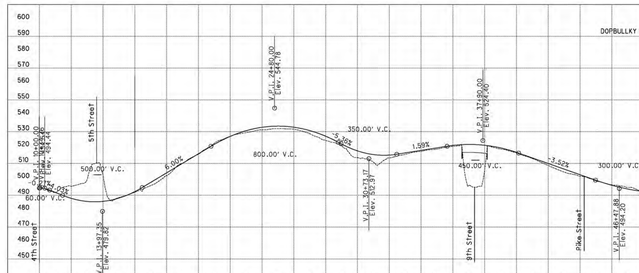
BRENT SPENCE BRIDGE REPLACEMENT STUDY

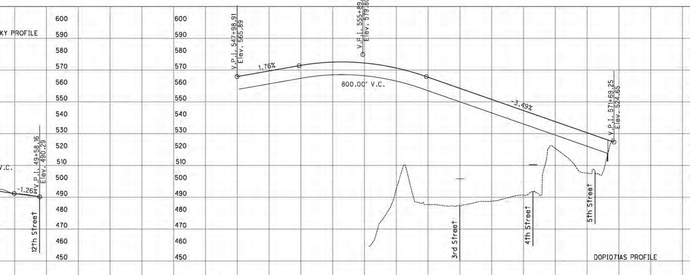
ALTERNATIVE D

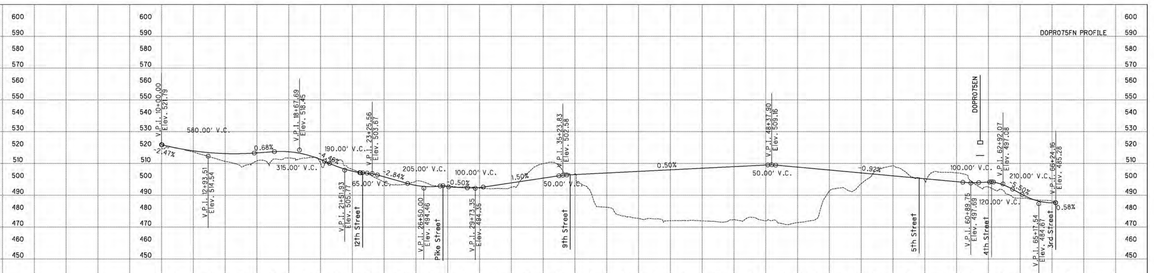
DOPI075AN

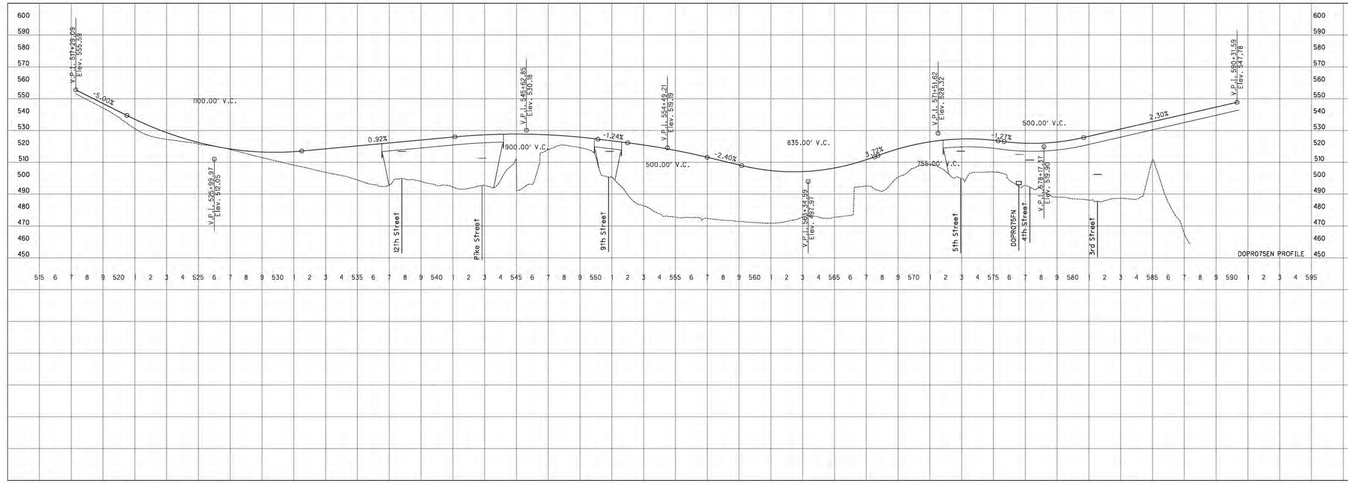
SCALE

0 200 400 600









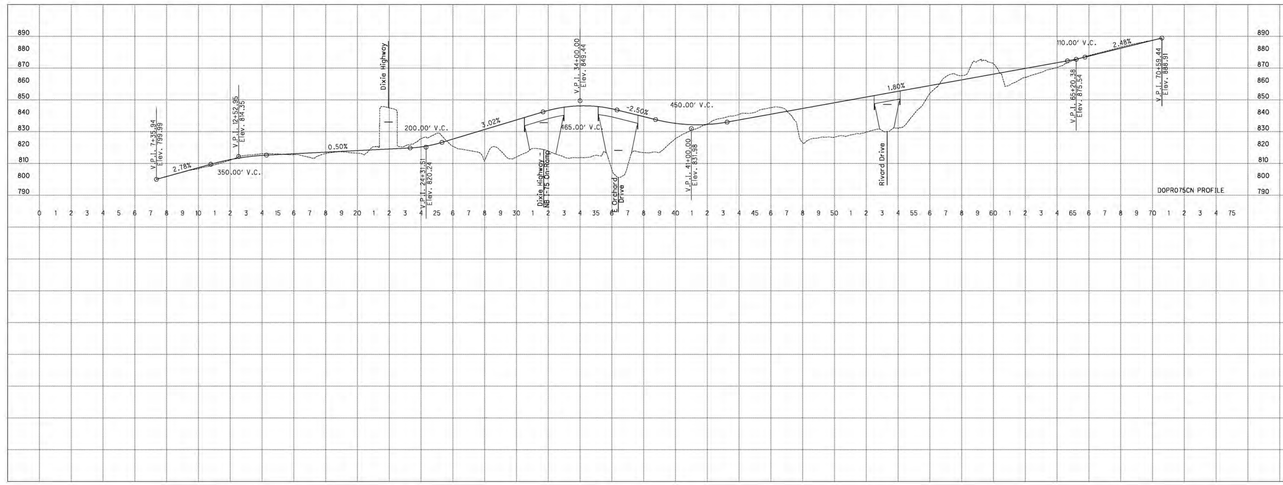
BRENT SPENCE BRIDGE REPLACEMENT STUDY

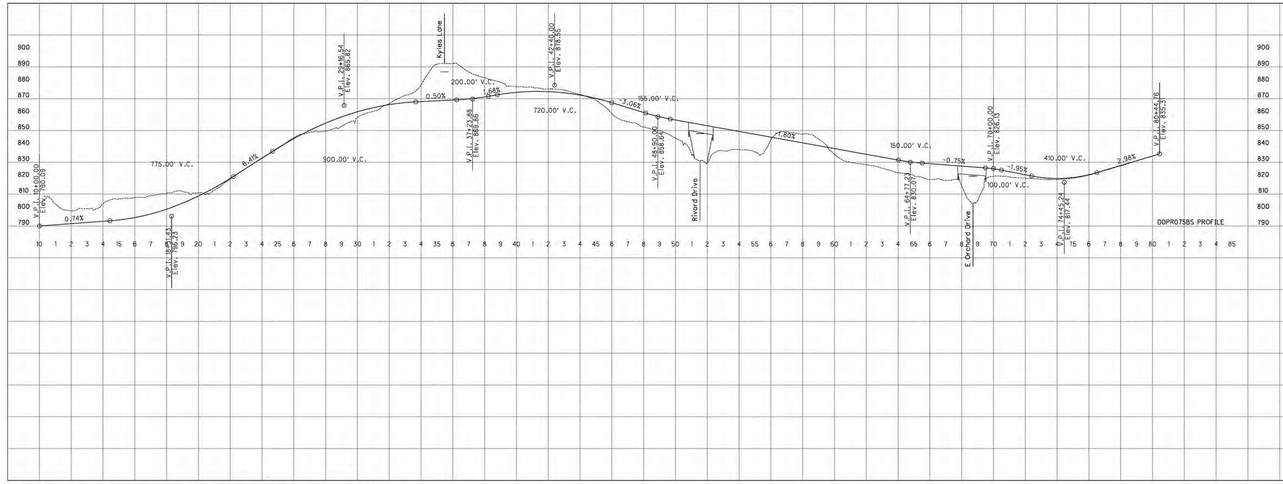
ALTERNATIVE D

DOPBULLKY, DOPI071AS, DOPR075FN, & DOPR075EN

SCALE

0 200 400 600





BRENT SPENCE BRIDGE REPLACEMENT STUDY

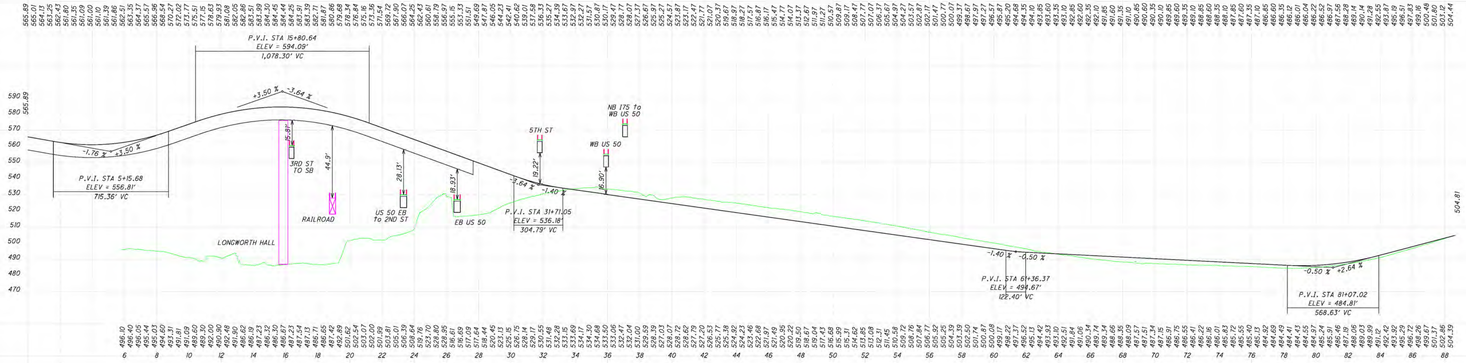
ALTERNATIVE D

DOPR075CN & DOPR075BS

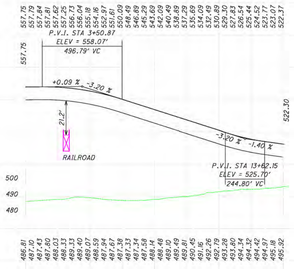
SCALE

0 200 400 600

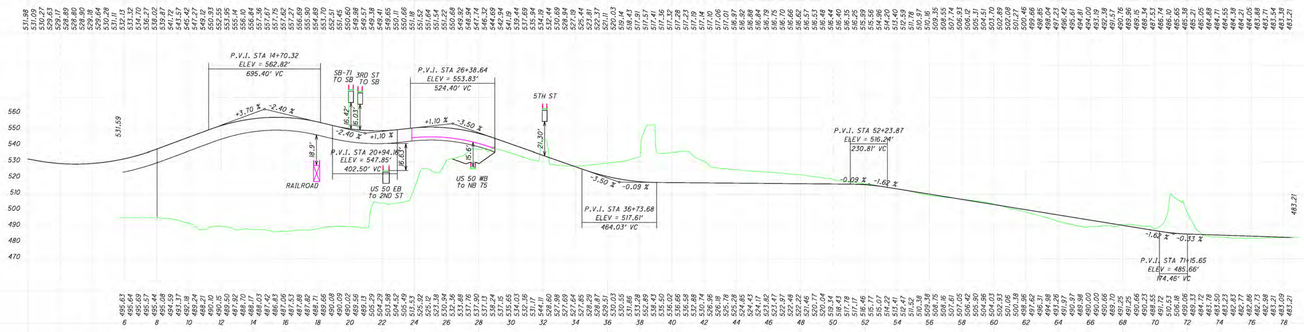
MAINLINE I-75 (ALTERNATIVE C)



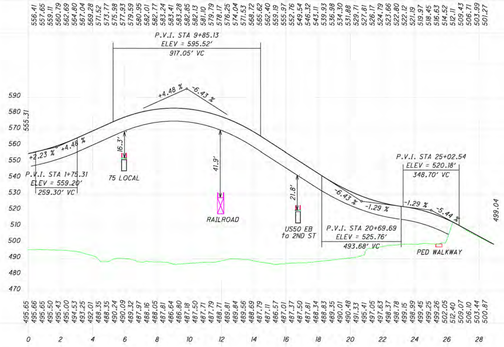
NORTHBOUND I-75 RAMP TO 2ND ST



NORTHBOUND LOCAL I-75



NORTHBOUND I-75 TO EASTBOUND US 50



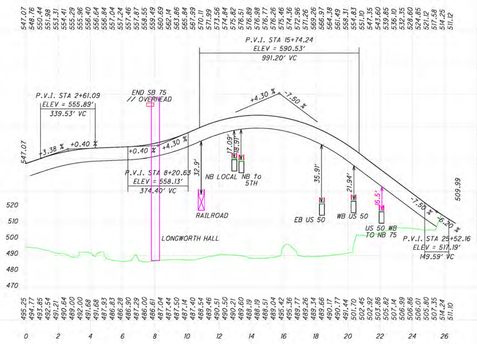
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

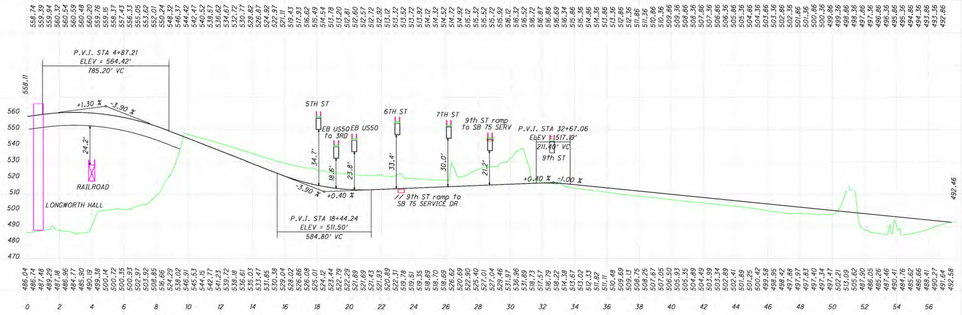
SCALE

0 200 400 800

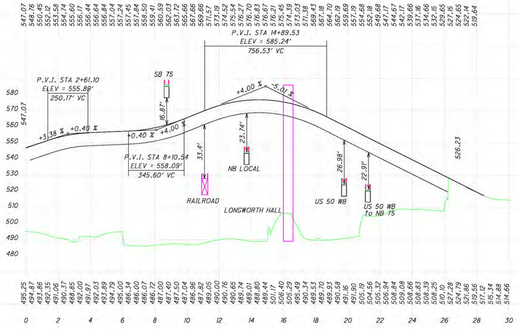
SOUTHBOUND I-71



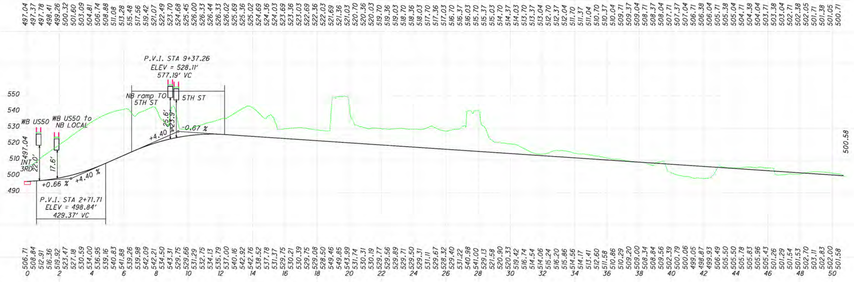
SOUTHBOUND I-75 SERVICE DRIVE



3RD ST RAMP TO SOUTHBOUND I-71/I-75



SOUTHBOUND I-75 LOCAL ACCESS



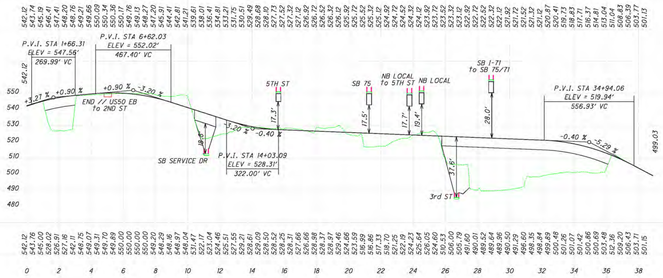
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

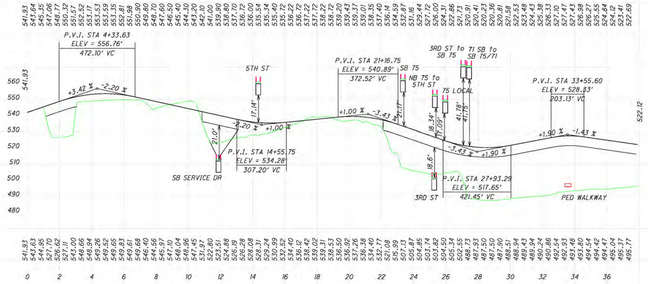
SCALE

0 200 400 600

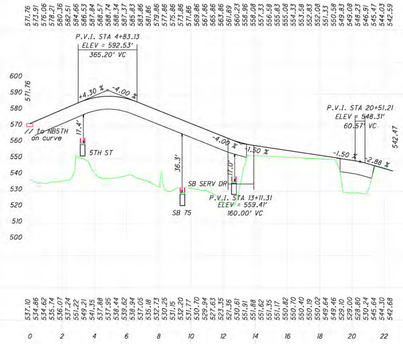
EASTBOUND US 50



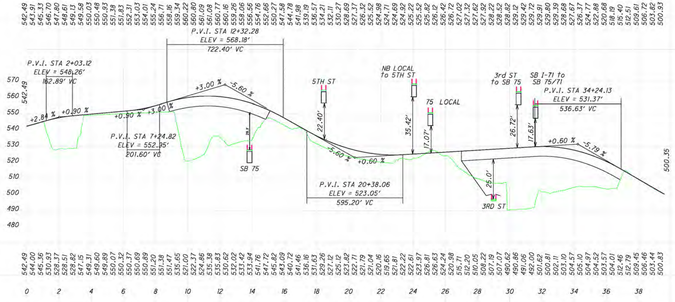
EASTBOUND US 50 RAMP TO 2ND ST



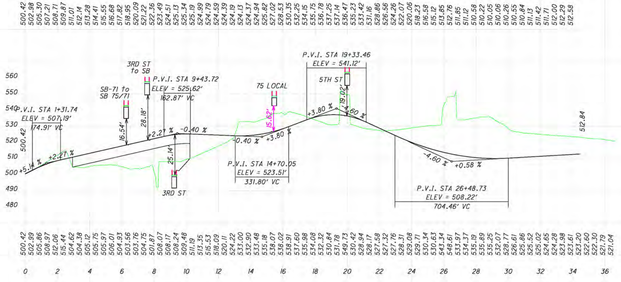
NORTHBOUND I-75 RAMP TO WESTBOUND US 50



WESTBOUND US 50



WESTBOUND US 50 RAMP TO NORTHBOUND I-75



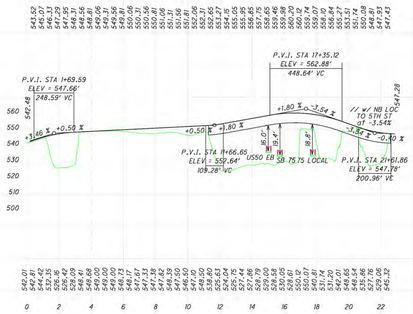
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

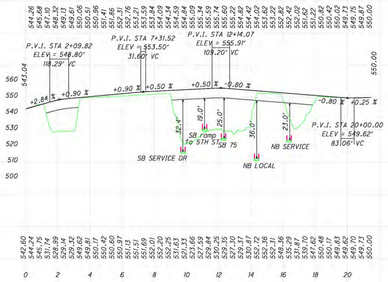
SCALE

0 200 400 600

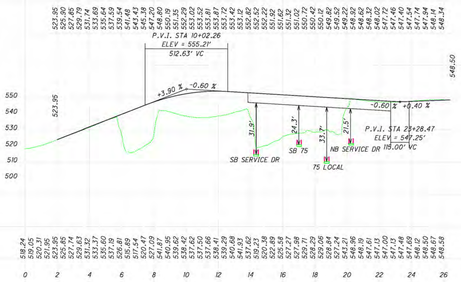
5TH ST



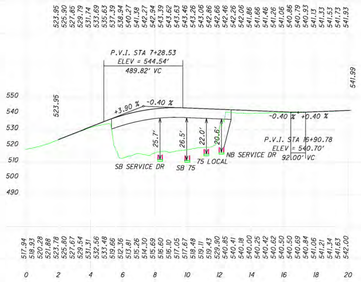
6TH ST



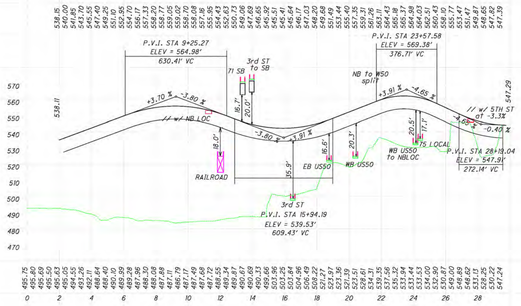
7TH ST



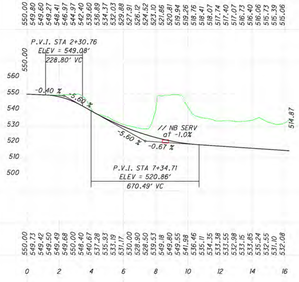
9TH ST



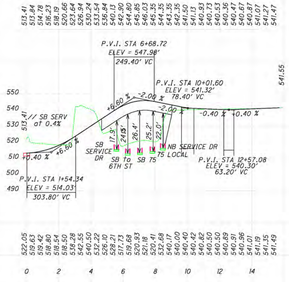
NORTHBOUND I-75 RAMP TO 5TH ST



6TH ST RAMP TO NORTHBOUND I-75 SERVICE DR



9TH ST RAMP TO SOUTHBOUND I-75 SERVICE DR

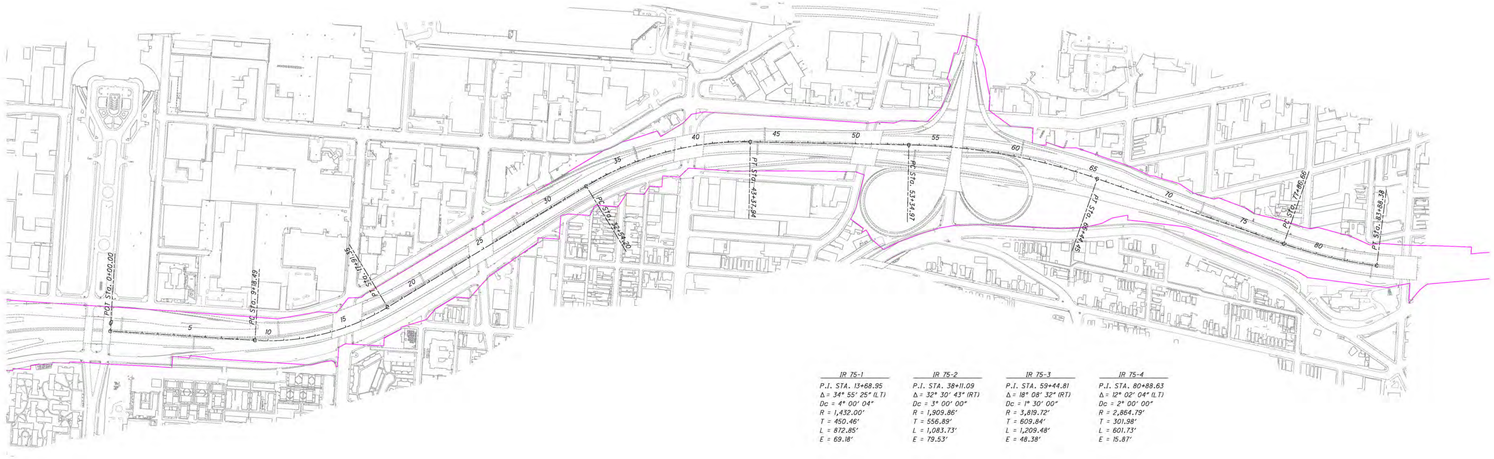


BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE D

SCALE

0 200 400 800



IR 75-1	IR 75-2	IR 75-3	IR 75-4
P.I. STA. 13+68.95	P.I. STA. 38+11.09	P.I. STA. 59+44.81	P.I. STA. 80+88.63
Δ = 34° 55' 25" (LT)	Δ = 32° 30' 43" (RT)	Δ = 18° 08' 32" (RT)	Δ = 12° 02' 04" (LT)
Dc = 4° 00' 04"	Dc = 3° 00' 00"	Dc = 1° 30' 00"	Dc = 2° 00' 00"
R = 1,432.00'	R = 1,909.86'	R = 3,819.72'	R = 2,864.79'
T = 450.46'	T = 556.89'	T = 609.84'	T = 301.98'
L = 872.85'	L = 1,083.73'	L = 1,209.48'	L = 601.73'
E = 69.18'	E = 79.53'	E = 48.38'	E = 15.87'

BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE D

SCALE

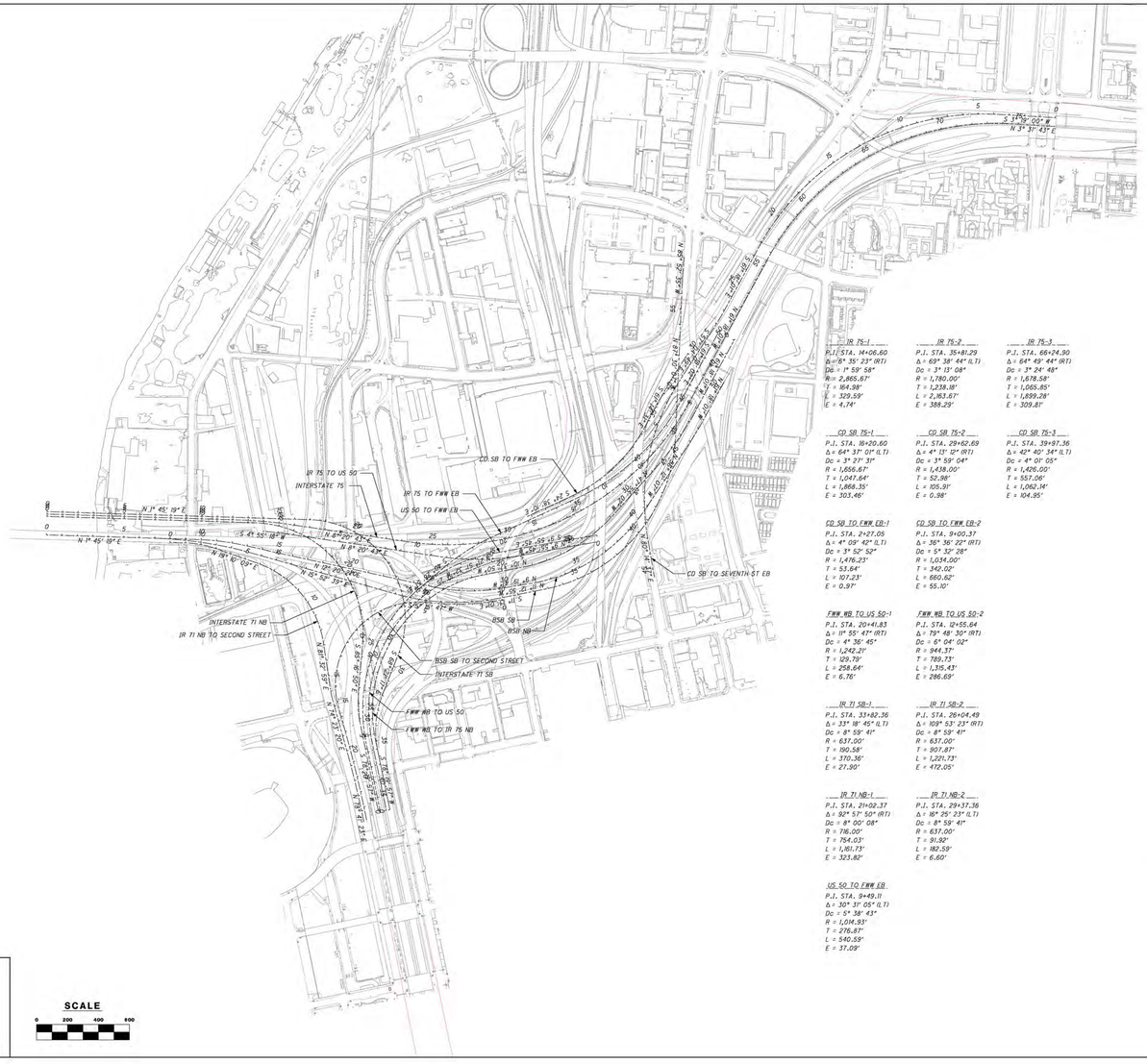
0 200 400 600

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE E

SCALE

0 200 400 800



IR 75-1
P.I. STA. 14+06.60
Δ= 61° 35' 23" (RT)
Dc = 1° 59' 58"
R= 2,865.67'
T = 164.98'
L = 329.59'
E = 4.74'

IR 75-2
P.I. STA. 35+81.29
Δ = 69° 38' 44" (LT)
Dc = 3° 13' 08"
R = 1,780.00'
T = 1,238.18'
L = 2,163.67'
E = 388.29'

IR 75-3
P.I. STA. 66+24.90
Δ = 64° 49' 44" (RT)
Dc = 3° 24' 48"
R = 1,678.58'
T = 1,065.85'
L = 1,899.28'
E = 309.81'

IR 75 NB TO US 50-1
P.I. STA. 0+83.74
Δ = 3° 25' 24" (RT)
Dc = 2° 02' 41"
R = 2,802.11'
T = 83.74'
L = 167.42'
E = 1.25'

IR 75 NB TO US 50-2
P.I. STA. 14+19.17
Δ = 18° 16' 28" (LT)
Dc = 3° 39' 15"
R = 1,568.00'
T = 252.70'
L = 500.11'
E = 20.15'

CD SB 75-1
P.I. STA. 18+20.60
Δ = 64° 37' 01" (LT)
Dc = 3° 27' 31"
R = 1,656.67'
T = 1,047.64'
L = 1,868.35'
E = 303.46'

CD SB 75-2
P.I. STA. 29+62.69
Δ = 4° 13' 12" (RT)
Dc = 3° 59' 04"
R = 1,438.00'
T = 52.98'
L = 105.91'
E = 0.98'

CD SB 75-3
P.I. STA. 39+97.36
Δ = 42° 40' 34" (LT)
Dc = 4° 01' 05"
R = 1,426.00'
T = 557.06'
L = 1,062.14'
E = 104.95'

FWW WB TO IR 75 NB-1
P.I. STA. 13+80.65
Δ = 91° 02' 12" (RT)
Dc = 6° 22' 35"
R = 898.57'
T = 914.98'
L = 1,427.73'
E = 383.85'

FWW WB TO IR 75 NB-2
P.I. STA. 24+80.77
Δ = 37° 17' 12" (LT)
Dc = 5° 18' 30"
R = 1,078.33'
T = 364.14'
L = 702.40'
E = 59.77'

FWW WB TO IR 75 NB-3
P.I. STA. 34+38.77
Δ = 13° 22' 59" (LT)
Dc = 2° 46' 41"
R = 2,062.49'
T = 241.98'
L = 481.75'
E = 14.15'

CD SB TO FWW EB-1
P.I. STA. 2+27.05
Δ = 4° 09' 42" (LT)
Dc = 3° 52' 52"
R = 1,476.23'
T = 53.64'
L = 107.23'
E = 0.97'

CD SB TO FWW EB-2
P.I. STA. 9+00.37
Δ = 36° 36' 22" (RT)
Dc = 5° 32' 28"
R = 1,034.00'
T = 342.02'
L = 660.62'
E = 55.10'

IR 75 SB TO FWW EB-1
P.I. STA. 10+03.50
Δ = 36° 39' 51" (RT)
Dc = 3° 53' 24"
R = 1,472.94'
T = 488.04'
L = 942.55'
E = 78.75'

IR 75 SB TO FWW EB-2
P.I. STA. 22+50.89
Δ = 15° 48' 41" (LT)
Dc = 4° 01' 52"
R = 1,370.35'
T = 190.29'
L = 378.16'
E = 13.15'

IR 75 SB TO FWW EB-3
P.I. STA. 32+47.06
Δ = 61° 13' 12" (LT)
Dc = 5° 34' 37"
R = 1,027.37'
T = 607.83'
L = 1,097.74'
E = 166.34'

FWW WB TO US 50-1
P.I. STA. 20+41.83
Δ = 11° 55' 47" (RT)
Dc = 4° 36' 45"
R = 1,242.21'
T = 129.79'
L = 258.64'
E = 6.76'

FWW WB TO US 50-2
P.I. STA. 12+55.64
Δ = 79° 48' 30" (RT)
Dc = 6° 04' 02"
R = 944.37'
T = 789.73'
L = 1,315.43'
E = 286.69'

CD SB TO BSB SB-1
P.I. STA. 10+31.07
Δ = 14° 07' 20" (RT)
Dc = 2° 05' 23"
R = 2,741.83'
T = 339.62'
L = 675.80'
E = 20.95'

CD SB TO BSB SB-2
P.I. STA. 26+46.61
Δ = 27° 05' 34" (LT)
Dc = 3° 59' 04"
R = 1,438.00'
T = 346.47'
L = 679.97'
E = 41.15'

CD SB TO BSB SB-3
P.I. STA. 56+49.17
Δ = 1° 37' 32" (RT)
Dc = 2° 15' 26"
R = 2,538.23'
T = 36.01'
L = 72.01'
E = 0.26'

CD SB TO BSB SB-4
P.I. STA. 41+02.64
Δ = 76° 17' 12" (LT)
Dc = 5° 27' 24"
R = 1,050.00'
T = 824.59'
L = 1,398.03'
E = 285.08'

IR 71 SB-1
P.I. STA. 33+82.36
Δ = 33° 18' 45" (LT)
Dc = 8° 59' 41"
R = 637.00'
T = 190.58'
L = 370.36'
E = 27.90'

IR 71 SB-2
P.I. STA. 26+04.49
Δ = 109° 53' 23" (RT)
Dc = 8° 59' 41"
R = 637.00'
T = 907.87'
L = 1,221.73'
E = 472.05'

BSB NB TO CD NB-1
P.I. STA. 11+29.08
Δ = 10° 35' 01" (RT)
Dc = 3° 32' 55"
R = 1,614.64'
T = 149.55'
L = 298.26'
E = 6.91'

BSB NB TO CD NB-2
P.I. STA. 27+48.90
Δ = 21° 40' 01" (LT)
Dc = 5° 00' 35"
R = 1,143.71'
T = 218.87'
L = 432.51'
E = 20.15'

BSB NB TO CD NB-3
P.I. STA. 36+44.75
Δ = 46° 52' 26" (LT)
Dc = 5° 12' 31"
R = 1,100.00'
T = 476.86'
L = 899.92'
E = 98.91'

BSB NB TO CD NB-4
P.I. STA. 46+63.83
Δ = 5° 05' 54" (LT)
Dc = 2° 40' 17"
R = 2,144.88'
T = 95.49'
L = 190.86'
E = 2.12'

IR 71 NB-1
P.I. STA. 21+02.37
Δ = 92° 57' 50" (RT)
Dc = 8° 00' 08"
R = 716.00'
T = 754.03'
L = 1,161.73'
E = 323.82'

IR 71 NB-2
P.I. STA. 29+37.36
Δ = 16° 25' 23" (LT)
Dc = 8° 59' 41"
R = 637.00'
T = 91.92'
L = 182.59'
E = 6.60'

BSB SB TO 2ND ST-1
P.I. STA. 2+28.45
Δ = 16° 28' 48" (RT)
Dc = 3° 57' 05"
R = 1,450.00'
T = 209.98'
L = 417.06'
E = 15.13'

BSB SB TO 2ND ST-2
P.I. STA. 12+76.92
Δ = 110° 52' 27" (LT)
Dc = 10° 43' 46"
R = 534.00'
T = 775.15'
L = 1,033.35'
E = 407.28'

BSB SB TO 2ND ST-3
P.I. STA. 20+03.46
Δ = 4° 18' 03" (RT)
Dc = 0° 43' 49"
R = 1,846.46'
T = 294.62'
L = 588.97'
E = 5.53'

US 50 TO FWW EB
P.I. STA. 9+49.11
Δ = 30° 31' 05" (LT)
Dc = 5° 38' 43"
R = 1,014.93'
T = 276.87'
L = 540.59'
E = 37.09'

BSB NB TO 2ND ST-1
P.I. STA. 1+99.86
Δ = 17° 24' 49" (RT)
Dc = 8° 46' 27"
R = 653.00'
T = 100.00'
L = 198.46'
E = 7.61'

BSB NB TO 2ND ST-2
P.I. STA. 9+75.47
Δ = 62° 22' 51" (RT)
Dc = 8° 46' 27"
R = 653.00'
T = 395.32'
L = 710.95'
E = 110.34'

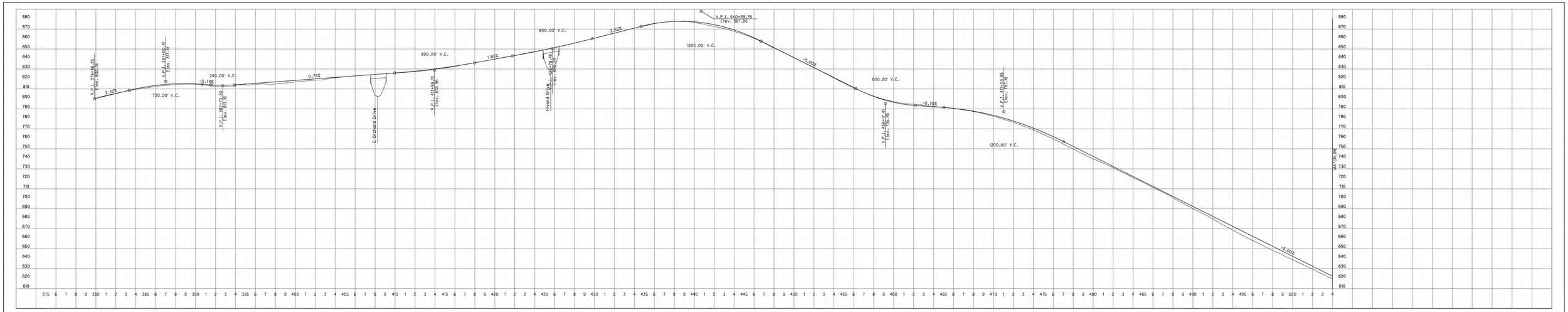
BSB NB TO 2ND ST-3
P.I. STA. 16+22.30
Δ = 7° 09' 39" (LT)
Dc = 8° 46' 27"
R = 653.00'
T = 40.86'
L = 81.61'
E = 1.28'

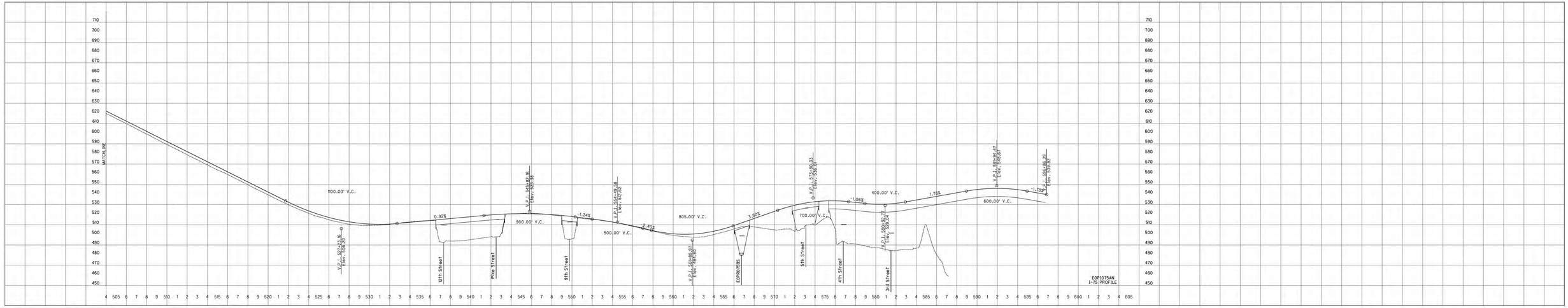
BSB NB TO 2ND ST-4
P.I. STA. 22+33.93
Δ = 4° 18' 04" (RT)
Dc = 0° 53' 40"
R = 6,406.21'
T = 240.56'
L = 480.90'
E = 4.52'

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE E

SCALE
0 200 400 800





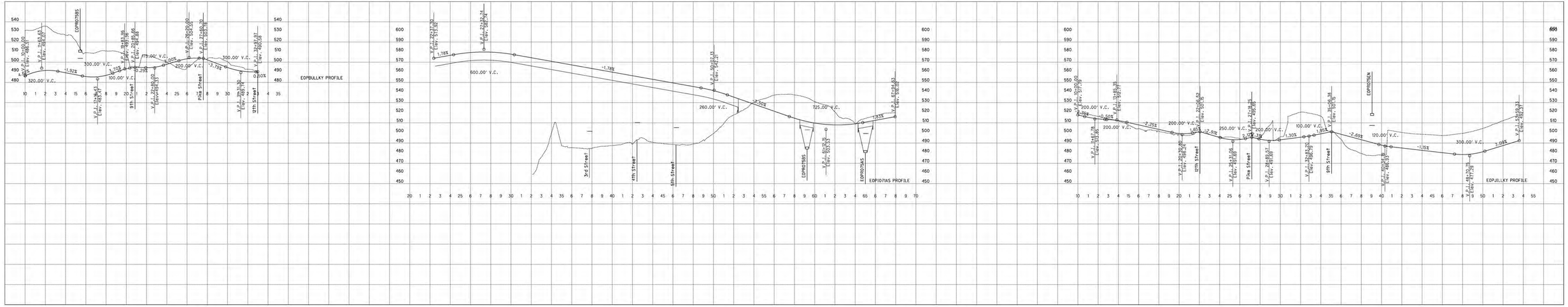
BRENT SPENCE BRIDGE REPLACEMENT STUDY

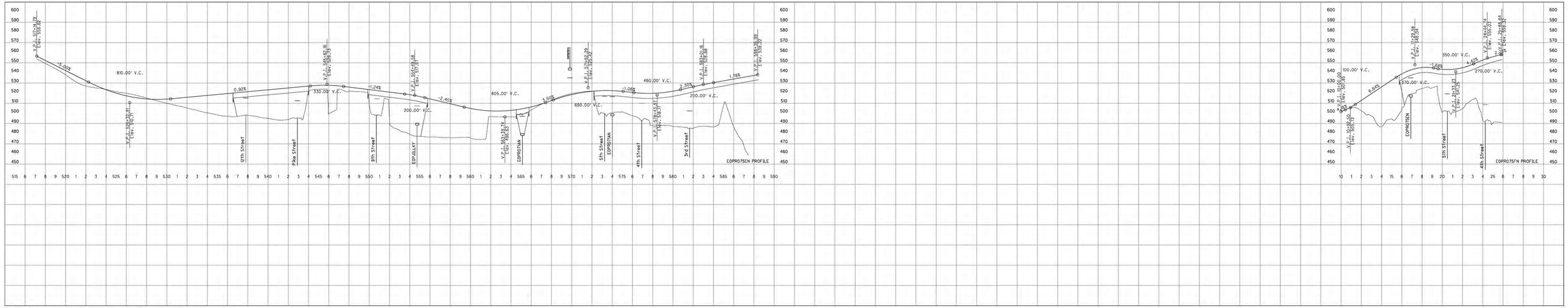
ALTERNATIVE E

EOPI075AN

SCALE

0 200 400 600





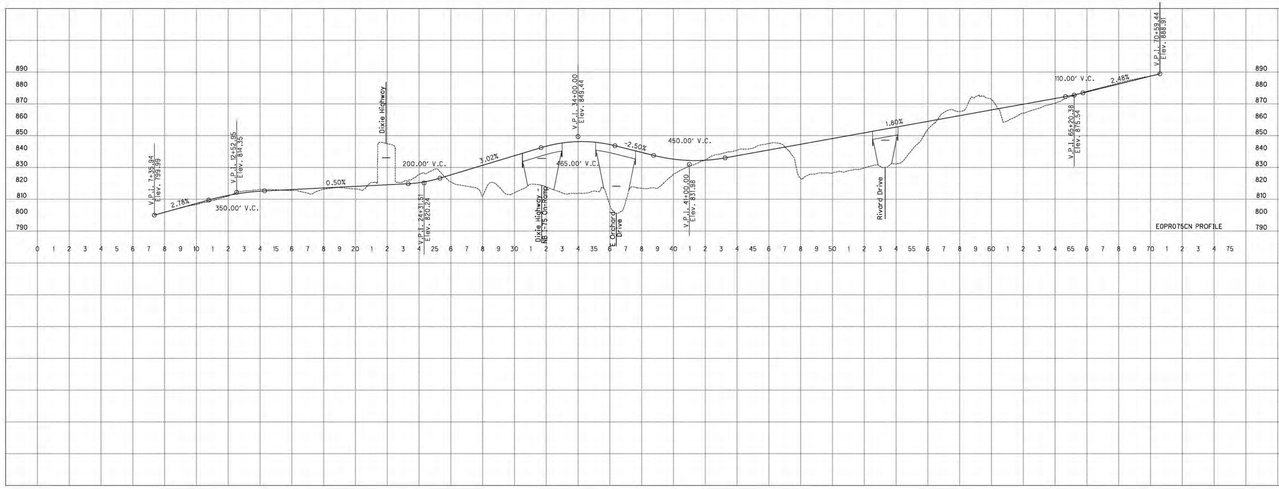
BRENT SPENCE BRIDGE REPLACEMENT STUDY

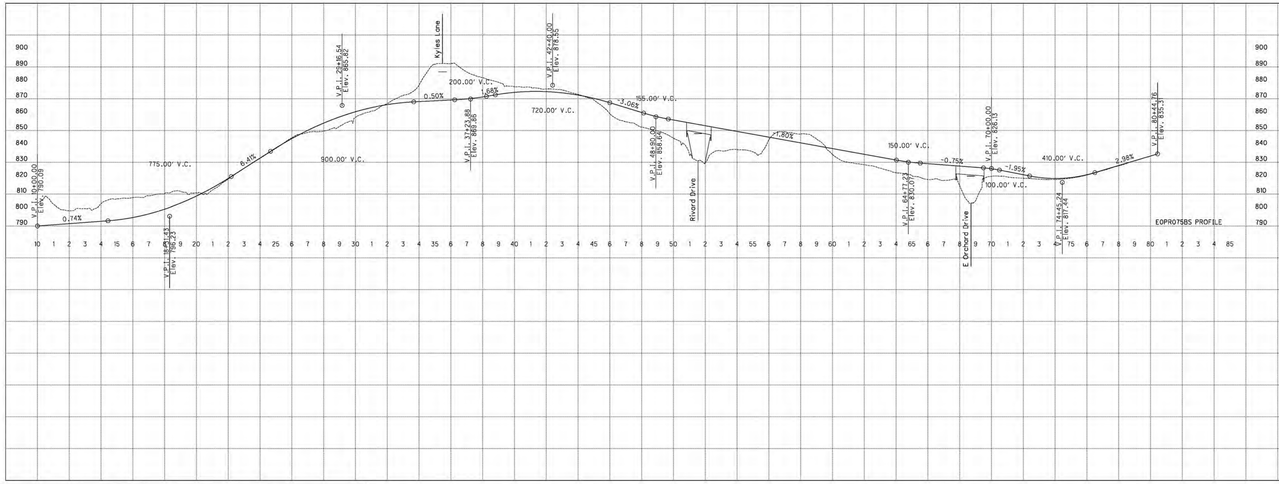
ALTERNATIVE E

EOPBULLKY, EOP1071AS, EOPJILLKY, EOPR075EN, & EOPR075FN

SCALE

0 200 400 600





BRENT SPENCE BRIDGE REPLACEMENT STUDY

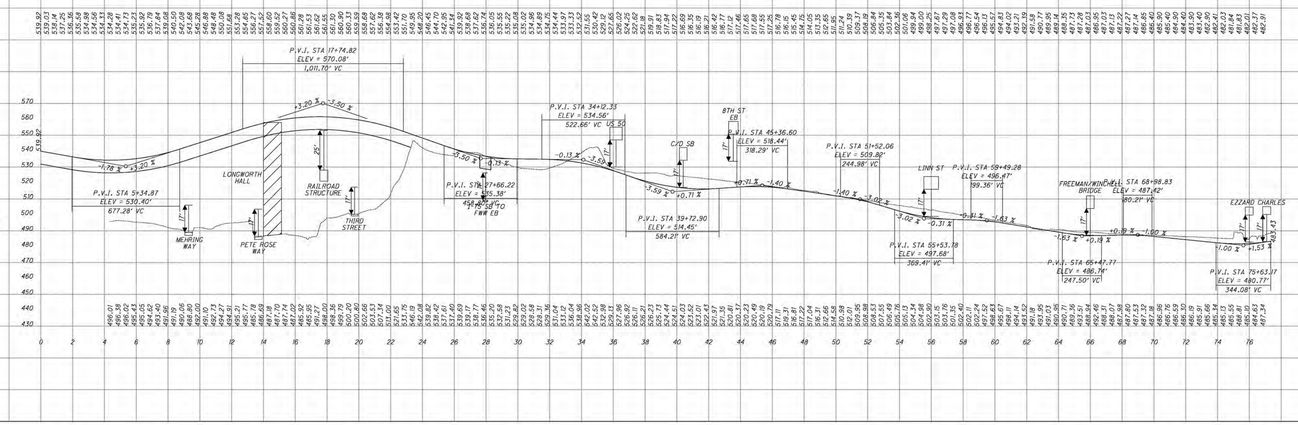
ALTERNATIVE E

EOPR075CN & EOPR075BS

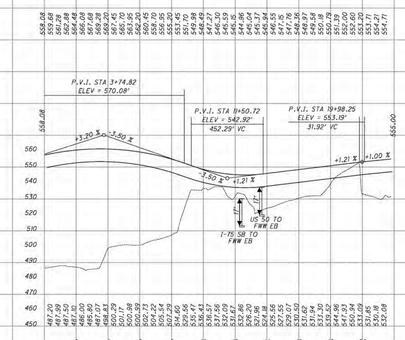
SCALE

0 200 400 600

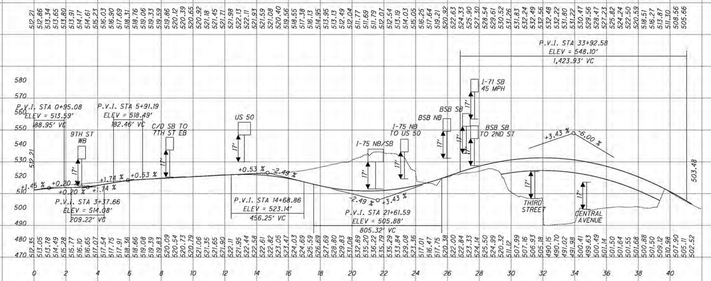
IR-75 FROM OHIO RIVER TO WESTERN HILLS (ALTERNATIVE E)



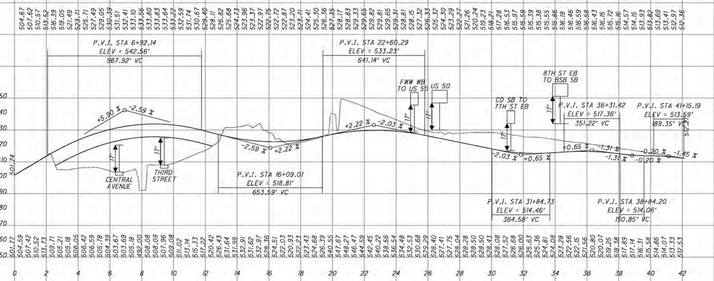
IR-75 NORTHBOUND TO US 50 (ALTERNATIVE E)



IR-75 SOUTHBOUND TO FWW EASTBOUND (ALTERNATIVE E)



FWW WESTBOUND TO I-75 NORTHBOUND (ALTERNATIVE E)



BRENT SPENCE BRIDGE REPLACEMENT STUDY

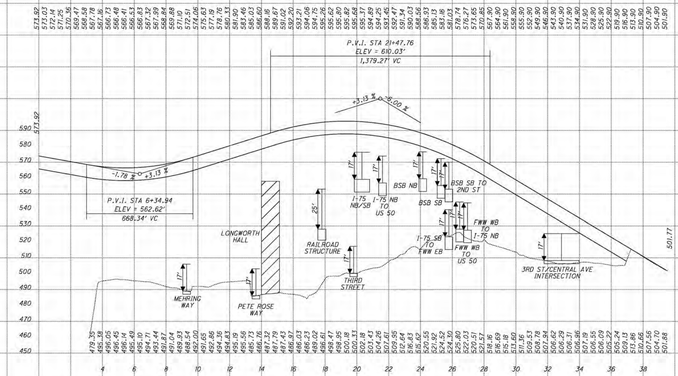
ALTERNATIVE E

INTERSTATE 75

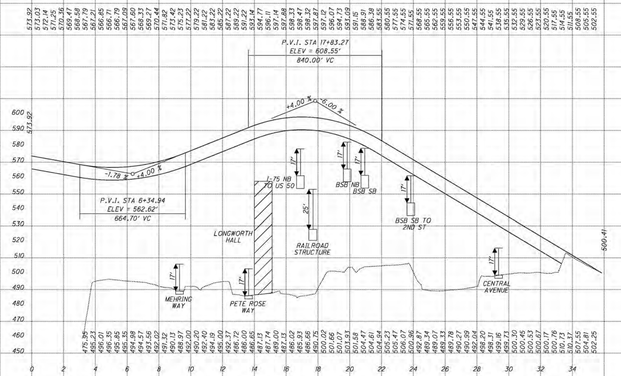
SCALE

0 200 400 600

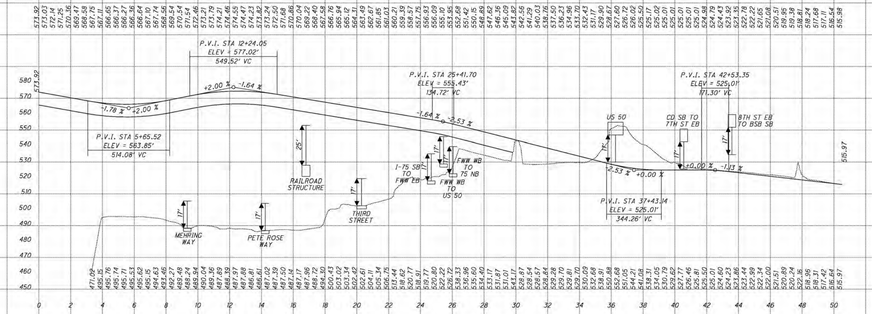
I-71 SOUTHBOUND 45 MPH DESIGN SPEED (ALTERNATIVE E)



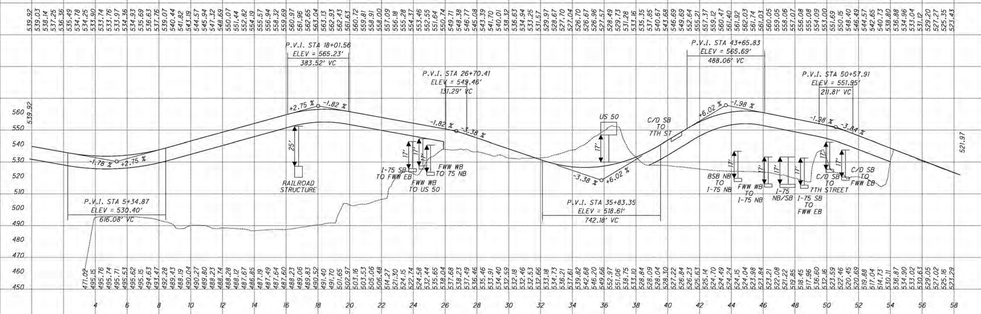
I-71 NORTHBOUND 45 MPH DESIGN SPEED (ALTERNATIVE E)



BSB NORTHBOUND TO C/D NORTHBOUND (ALTERNATIVE E)



COLLECTOR-DISTRIBUTOR SB TO BRENT SPENCE BRIDGE SB (ALTERNATIVE E)



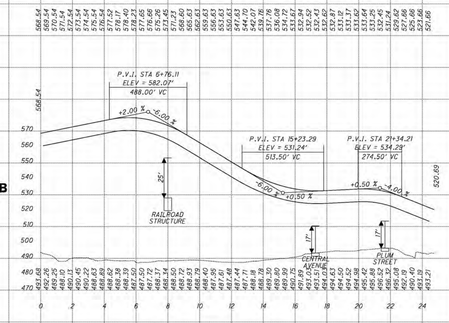
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE E

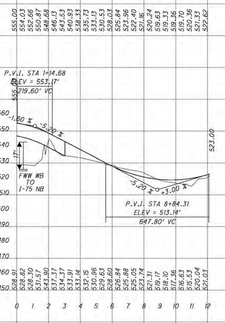
I-71 NB/SB
BRENT SPENCE BRIDGE NB/SB

SCALE
0 200 400 600

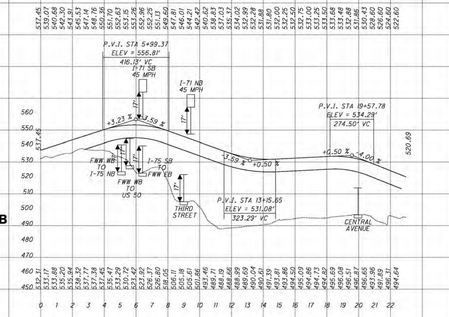
BRENT SPENCE BRIDGE NB TO SECOND STREET (ALTERNATIVE E)



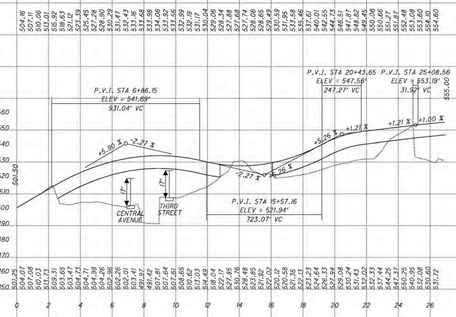
US 50 TO FWW EB (ALTERNATIVE E)



BRENT SPENCE BRIDGE SB TO SECOND STREET (ALTERNATIVE E)



FWW WB TO US 50 (ALTERNATIVE E)



BRENT SPENCE BRIDGE REPLACEMENT STUDY

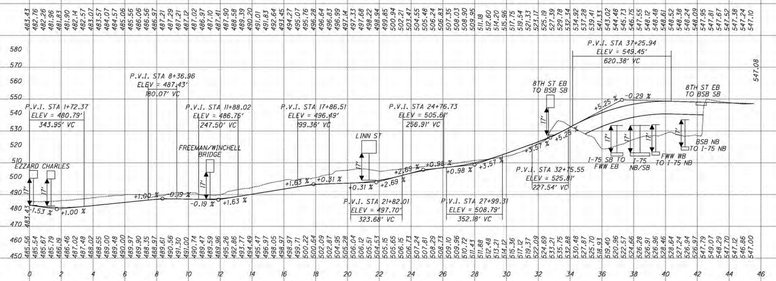
ALTERNATIVE E

US 50 RAMPS
SECOND STREET RAMPS

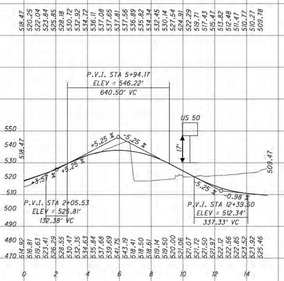
SCALE

0 200 400 600

COLLECTOR-DISTRIBUTOR SB TO SEVENTH STREET EB (ALTERNATIVE E)



COLLECTOR-DISTRIBUTOR SB TO FWW EB (ALTERNATIVE E)



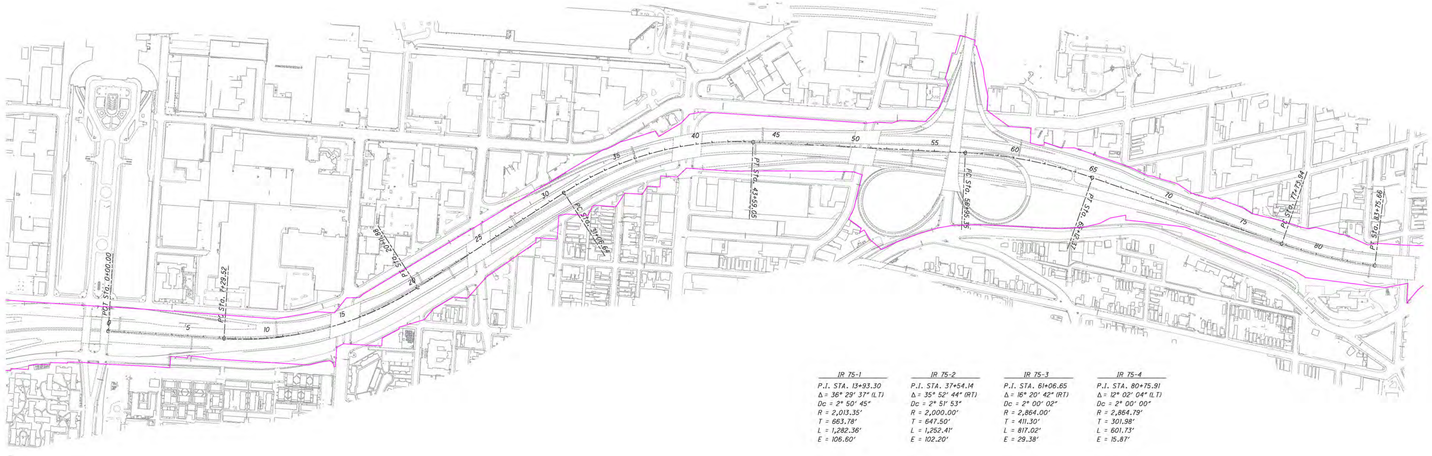
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE E

COLLECTOR-DISTRIBUTOR ROAD

SCALE

0 200 400 600



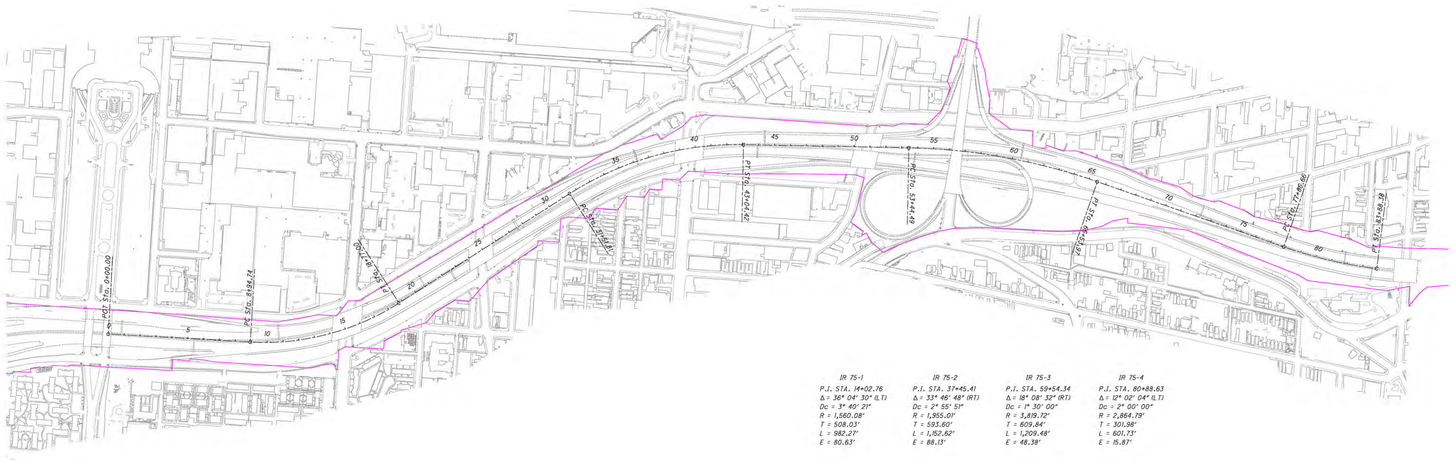
IR 75-1	IR 75-2	IR 75-3	IR 75-4
P.I. STA. 13+93.30	P.I. STA. 37+54.14	P.I. STA. 61+06.65	P.I. STA. 80+75.91
Δ = 36° 29' 37" (L.T.)	Δ = 35° 52' 44" (RT)	Δ = 16° 20' 42" (RT)	Δ = 12° 03' 04" (L.T.)
Dc = 2° 50' 45"	Dc = 2° 51' 53"	Dc = 2° 00' 02"	Dc = 2° 00' 00"
R = 2,013.35'	R = 2,000.00'	R = 2,864.00'	R = 2,864.79'
T = 663.78'	T = 647.50'	T = 411.30'	T = 301.98'
L = 1,282.36'	L = 1,252.41'	L = 817.02'	L = 601.73'
E = 106.60'	E = 102.20'	E = 29.38'	E = 15.87'

BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE E

SCALE

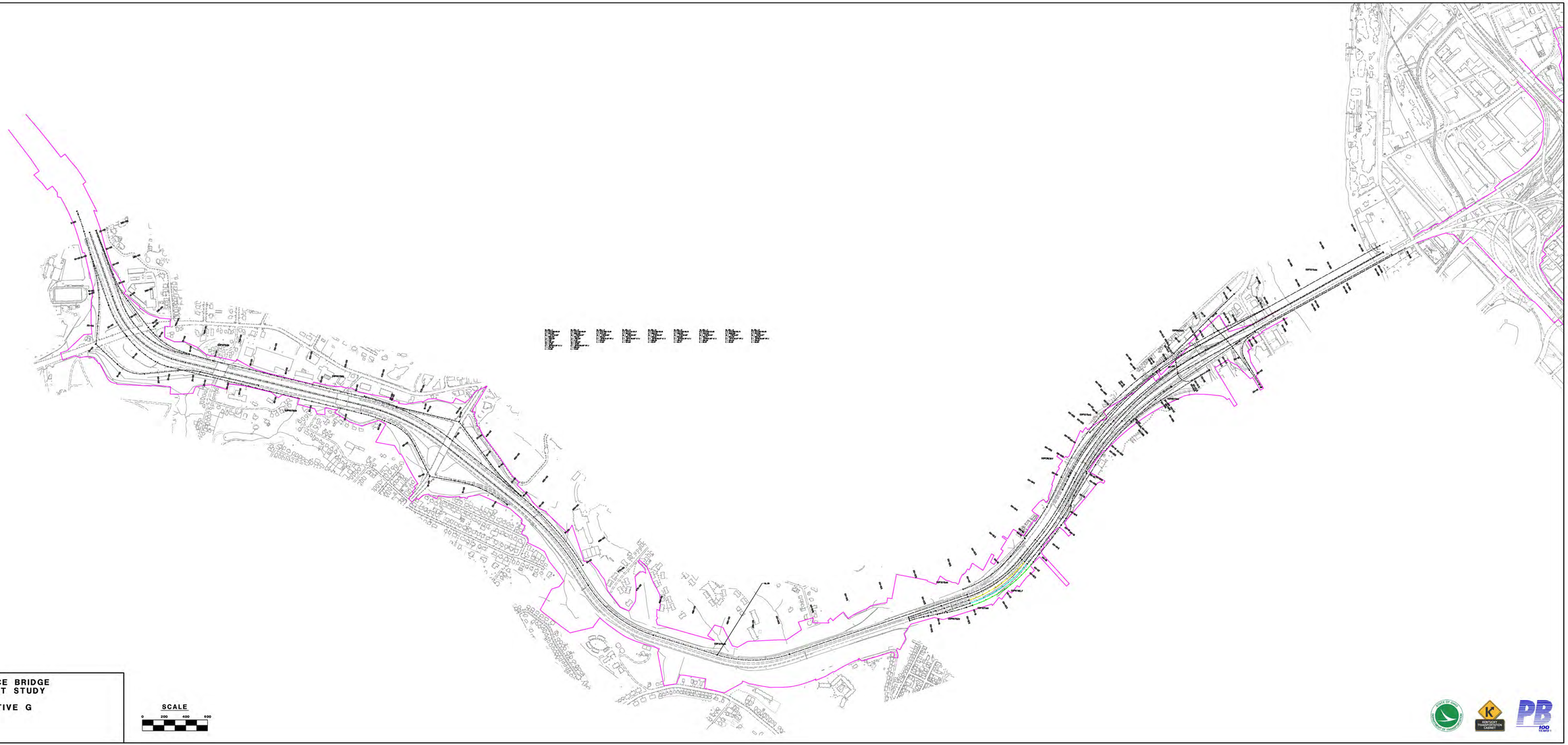
0 200 400 800



IR 75-1	IR 75-2	IR 75-3	IR 75-4
P.I. STA. 14+02.76	P.I. STA. 37+45.41	P.I. STA. 59+54.34	P.I. STA. 80+88.63
Δ = 36° 04' 30" (L.T)	Δ = 33° 46' 48" (RT)	Δ = 18° 08' 32" (RT)	Δ = 12° 02' 04" (L.T)
Dc = 3° 40' 21"	Dc = 2° 55' 51"	Dc = 1° 30' 00"	Dc = 2° 00' 00"
R = 1,560.08'	R = 1,955.01'	R = 3,819.72'	R = 2,864.79'
T = 508.03'	T = 593.60'	T = 609.84'	T = 301.98'
L = 982.27'	L = 1,152.62'	L = 1,209.48'	L = 601.73'
E = 80.63'	E = 88.13'	E = 48.38'	E = 15.87'

BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE G



BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

SCALE

0 200 400 800

EB 5TH ST - 1
P.I. STA. 4+90.02
Δ = 31° 18' 37" (LT)
Dc = 11° 00' 00"
R = 520.87'
T = 145.97'
L = 284.64'
E = 20.07'

EB 5TH ST - 2
P.I. STA. 8+74.26
Δ = 36° 33' 19" (RT)
Dc = 13° 00' 00"
R = 440.74'
T = 145.57'
L = 281.20'
E = 23.42'

GEST ST - 1
P.I. STA. 104+27.50
Δ = 12° 29' 57" (RT)
Dc = 4° 59' 59"
R = 1,146.00'
T = 125.50'
L = 250.00'
E = 6.85'

GEST ST - 2
P.I. STA. 106+75.03
Δ = 20° 41' 21" (RT)
Dc = 8° 30' 03"
R = 674.00'
T = 123.03'
L = 243.38'
E = 11.14'

GEST ST - 3
P.I. STA. 112+65.55
Δ = 3° 30' 20" (RT)
Dc = 2° 30' 00"
R = 2,291.83'
T = 70.13'
L = 140.22'
E = 1.07'

GEST ST - 4
P.I. STA. 116+21.82
Δ = 8° 53' 19" (LT)
Dc = 2° 30' 00"
R = 2,291.83'
T = 178.13'
L = 355.55'
E = 6.91'

GEST ST - 5
P.I. STA. 127+53.57
Δ = 49° 09' 48" (RT)
Dc = 10° 00' 00"
R = 572.96'
T = 262.10'
L = 491.63'
E = 57.10'

NB I71 - 1
P.I. STA. 7+65.60
Δ = 6° 30' 00" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 325.35'
L = 650.00'
E = 9.23'

NB I71 - 2
P.I. STA. 16+02.92
Δ = 60° 21' 52" (RT)
Dc = 6° 30' 00"
R = 881.47'
T = 512.66'
L = 928.68'
E = 138.24'

SB I71 - 1
P.I. STA. 11+63.29
Δ = 10° 16' 03" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
Ls = 300.00'
θs = 2° 15' 00"
LT = 200.02'
ST = 100.01'
x = 299.95'
y = 3.93'
k = 149.99'
p = 0.98'
Δc = 5° 46' 03" (RT)
Lc = 384.50'
Ts = 493.25'
Es = 16.37'

SB I71 - 2
P.I. STA. 23+71.01
Δ = 92° 26' 38" (RT)
Dc = 8° 30' 00"
R = 674.07'
Δc = 80° 45' 23" (RT)
Lc = 950.08'
Es = 303.59'

SB I71 - 3
P.I. STA. 32+48.17
Δ = 26° 09' 46" (LT)
Dc = 8° 00' 00"
R = 716.20'
T = 166.42'
L = 327.03'
E = 19.08'

ML I75 - 1
P.I. STA. 11+11.59
Δ = 10° 16' 03" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
Ls = 300.00'
θs = 2° 15' 00"
LT = 200.02'
ST = 100.01'
x = 299.95'
y = 3.93'
k = 149.99'
p = 0.98'
Δc = 5° 46' 03" (RT)
Lc = 384.50'
Ts = 493.25'
Es = 16.37'

ML I75 - 2
P.I. STA. 34+50.72
Δ = 73° 58' 02" (LT)
Dc = 3° 15' 00"
R = 1,762.95'
Ls = 475.00'
θs = 7° 43' 07"
LT = 316.97'
ST = 158.61'
x = 474.14'
y = 21.30'
k = 237.36'
p = 5.33'
Δc = 58° 31' 47" (LT)
Lc = 1,800.91'
Ts = 1,569.05'
Es = 450.70'

ML I75 - 3
P.I. STA. 65+92.36
Δ = 65° 30' 08" (RT)
Dc = 3° 30' 00"
R = 1,637.02'
Ls = 650.00'
θs = 11° 22' 30"
LT = 434.23'
ST = 217.48'
x = 647.44'
y = 42.89'
k = 324.57'
p = 10.74'
Δc = 42° 45' 08" (RT)
Lc = 1,221.49'
Ts = 1,384.49'
Es = 322.20'

LINN ST - 1
P.I. STA. 22+36.47
Δ = 17° 01' 17" (LT)
Dc = 5° 45' 00"
R = 996.45'
T = 149.11'
L = 296.02'
E = 11.09'

9TH ST - 1
P.I. STA. 20+75.20
Δ = 15° 48' 50" (LT)
Dc = 3° 00' 00"
R = 1,909.87'
T = 265.25'
L = 527.13'
E = 18.33'

9TH ST - 2
P.I. STA. 35+53.79
Δ = 10° 48' 15" (LT)
Dc = 4° 30' 00"
R = 1,273.24'
T = 120.40'
L = 240.10'
E = 5.68'

9TH ST - 3
P.I. STA. 39+70.51
Δ = 10° 35' 55" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 66.43'
L = 132.48'
E = 3.07'

EB US50 SB LOC -1
P.I. STA. 50+09.90
Δ = 86° 25' 06" (RT)
Dc = 9° 00' 00"
R = 636.62'
θ
Δc = 66° 10' 06" (RT)
Lc = 735.20'
Es = 241.42'

EB US50 SB LOC -2
P.I. STA. 59+52.22
Δ = 25° 00' 40" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
θ
Δc = 16° 00' 40" (RT)
Lc = 400.28'
Es = 36.34'

WB US50 TO GEST -1
P.I. STA. 48+68.41
Δ = 18° 00' 00" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 151.25'
L = 300.00'
E = 11.90'

WB US50 TO GEST -2
P.I. STA. 51+29.59
Δ = 26° 29' 57" (RT)
Dc = 12° 00' 00"
R = 477.46'
T = 112.42'
L = 220.83'
E = 13.06'

EB US50 3RD/5TH -1
P.I. STA. 49+63.92
Δ = 80° 29' 46" (RT)
Dc = 12° 00' 00"
R = 477.46'
θ
Δc = 56° 29' 46" (RT)
Lc = 470.80'
Es = 157.28'

EB US50 3RD/5TH -2
P.I. STA. 55+34.40
Δ = 5° 55' 19" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 74.09'
L = 148.05'
E = 1.91'

EB US50 3RD/5TH -3
P.I. STA. 58+57.69
Δ = 13° 19' 25" (LT)
Dc = 8° 00' 00"
R = 716.20'
T = 83.65'
L = 166.54'
E = 4.87'

EB US50 3RD/5TH -4
P.I. STA. 62+09.07
Δ = 18° 47' 19" (RT)
Dc = 8° 00' 00"
R = 716.20'
T = 118.49'
L = 234.86'
E = 9.74'

EB US50 TO 2ND -1
P.I. STA. 4+27.85
Δ = 65° 14' 59" (RT)
Dc = 12° 00' 00"
R = 477.46'
θ
Δc = 50° 14' 59" (RT)
Lc = 418.75'
Es = 92.70'

EB US50 TO 2ND -2
P.I. STA. 10+44.86
Δ = 21° 39' 40" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 274.04'
L = 541.53'
E = 25.98'

SB LOC TO 2ND -1
P.I. STA. 17+05.11
Δ = 84° 44' 41" (RT)
Dc = 11° 45' 00"
R = 487.62'
T = 444.83'
L = 721.23'
E = 172.41'

SB LOC TO 2ND -2
P.I. STA. 23+04.03
Δ = 4° 52' 16" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 81.24'
L = 162.37'
E = 1.73'

SB LOC TO 2ND -3
P.I. STA. 29+55.18
Δ = 21° 39' 40" (LT)
Dc = 3° 30' 00"
R = 1,637.02'
Ls = 225.00'
θs = 3° 56' 15"
LT = 150.04'
ST = 75.03'
x = 224.89'
y = 5.15'
k = 112.48'
p = 1.29'
Δc = 13° 47' 10" (LT)
Lc = 393.89'
Ts = 425.91'
Es = 31.00'

9TH TO SB LOC -1
P.I. STA. 9+70.03
Δ = 18° 51' 36" (LT)
Dc = 5° 30' 00"
R = 1,041.74'
T = 173.02'
L = 342.91'
E = 14.27'

9TH TO SB LOC -2
P.I. STA. 27+58.27
Δ = 103° 49' 24" (RT)
Dc = 22° 00' 00"
R = 260.44'
T = 332.29'
L = 471.92'
E = 161.75'

9TH TO SB LOC -3
P.I. STA. 34+75.62
Δ = 4° 18' 15" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 43.06'
L = 86.09'
E = 0.81'

9TH TO SB LOC -4
P.I. STA. 35+68.70
Δ = 6° 30' 00" (LT)
Dc = 6° 30' 00"
R = 881.47'
T = 50.05'
L = 100.00'
E = 1.42'

SB CD GEST/FR - 1
P.I. STA. 63+01.26
Δ = 44° 13' 52" (LT)
Dc = 12° 00' 00"
R = 477.46'
T = 194.03'
L = 368.59'
E = 37.92'

SB CD GEST/FR - 2
P.I. STA. 70+52.62
Δ = 13° 45' 00" (RT)
Dc = 2° 30' 00"
R = 2,291.83'
T = 276.33'
L = 550.00'
E = 16.60'

SB CD GEST/FR - 3
P.I. STA. 73+69.65
Δ = 3° 02' 03" (RT)
Dc = 3° 30' 00"
R = 1,637.02'
T = 43.36'
L = 86.69'
E = 0.57'

SB CD GEST/FR - 4
P.I. STA. 77+23.11
Δ = 4° 06' 53" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
Δc = 2° 06' 53" (LT)
Lc = 105.74'
Es = 2.15'

EB 50 TO NB 71 -1
P.I. STA. 28+22.43
Δ = 14° 30' 02" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 364.46'
L = 725.02'
E = 23.09'

EB 50 TO NB 71 -2
P.I. STA. 38+21.24
Δ = 3° 06' 11" (LT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 155.19'
L = 310.31'
E = 2.10'

EB 50 TO NB 71 -3
P.I. STA. 53+16.00
Δ = 84° 05' 34" (RT)
Dc = 9° 00' 00"
R = 636.62'
Ls = 275.00'
θs = 12° 22' 30"
LT = 183.78'
ST = 92.08'
x = 273.72'
y = 19.73'
k = 137.29'
p = 4.94'
Δc = 59° 20' 34" (RT)
Lc = 659.36'
Ts = 715.89'
Es = 227.32'

EB 50 TO NB 71 -4
P.I. STA. 68+86.40
Δ = 82° 47' 56" (LT)
Dc = 9° 00' 00"
R = 636.62'
Ls = 275.00'
θs = 12° 22' 30"
LT = 183.78'
ST = 92.08'
x = 273.72'
y = 19.73'
k = 137.29'
p = 4.94'
Δc = 58° 02' 56" (LT)
Lc = 644.99'
Ts = 702.89'
Es = 218.66'

SB LOC 3RD/5TH -1
P.I. STA. 33+93.88
Δ = 11° 25' 53" (LT)
Dc = 3° 15' 00"
R = 1,762.95'
T = 176.46'
L = 351.74'
E = 8.81'

SB LOC 3RD/5TH -2
P.I. STA. 40+20.92
Δ = 21° 35' 33" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 273.15'
L = 539.81'
E = 25.81'

7TH ST - 1
P.I. STA. 19+89.78
Δ = 20° 04' 43" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 253.58'
L = 501.97'
E = 22.27'

7TH ST - 2
P.I. STA. 28+94.62
Δ = 35° 21' 01" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 456.45'
L = 883.76'
E = 70.97'

NB 71CD WIN/EZ - 1
P.I. STA. 41+61.72
Δ = 3° 34' 34" (RT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 89.43'
L = 178.80'
E = 1.40'

NB 71CD WIN/EZ - 2
P.I. STA. 44+92.36
Δ = 3° 38' 58" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 91.27'
L = 182.48'
E = 1.45'

NB 71CD WIN/EZ - 3
P.I. STA. 49+75.95
Δ = 1° 13' 17" (RT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 61.07'
L = 122.13'
E = 0.33'

NB 71CD WIN/EZ - 4
P.I. STA. 55+26.55
Δ = 5° 25' 00" (RT)
Dc = 1° 05' 00"
R = 5,288.84'
T = 250.19'
L = 500.00'
E = 5.91'

NB 71CD WIN/EZ - 5
P.I. STA. 62+65.47
Δ = 44° 08' 39" (RT)
Dc = 4° 45' 00"
R = 1,206.23'
T = 489.11'
L = 929.35'
E = 95.39'

NB 71CD WIN/EZ - 6
P.I. STA. 71+79.43
Δ = 15° 38' 57" (RT)
Dc = 5° 30' 00"
R = 1,041.74'
T = 143.16'
L = 284.53'
E = 9.79'

NB LOC TO 2ND -1
P.I. STA. 17+90.55
Δ = 46° 09' 38" (RT)
Dc = 7° 30' 00"
R = 763.94'
T = 325.54'
L = 615.47'
E = 66.47'

NB LOC TO 2ND -2
P.I. STA. 27+50.51
Δ = 5° 27' 52" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 68.36'
L = 136.61'
E = 1.63'

NB LOC TO 5TH -1
P.I. STA. 16+67.91
Δ = 9° 45' 43" (RT)
Dc = 3° 30' 00"
R = 1,637.02'
T = 139.79'
L = 278.91'
E = 5.96'

NB LOC TO 5TH -2
P.I. STA. 20+31.51
Δ = 2° 58' 43" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 74.48'
L = 148.93'
E = 0.97'

NB LOC TO 5TH -3
P.I. STA. 29+93.89
Δ = 60° 30' 10" (RT)
Dc = 16° 30' 00"
R = 347.25'
T = 202.52'
L = 366.68'
E = 54.74'

3RD TO SB LOC -1
P.I. STA. 26+41.31
Δ = 37° 06' 47" (RT)
Dc = 7° 00' 00"
R = 818.51'
T = 274.77'
L = 530.19'
E = 44.89'

3RD TO SB LOC -2
P.I. STA. 33+54.62
Δ = 27° 06' 51" (LT)
Dc = 8° 45' 00"
R = 654.81'
T = 157.90'
L = 309.88'
E = 18.77'

NB LOC WB US50 -1
P.I. STA. 14+58.79
Δ = 16° 27' 50" (RT)
Dc = 2° 00' 00"
R = 2,864.79'
Ls = 350.00'
θs = 3° 30' 00"
LT = 233.38'
ST = 116.71'
x = 349.87'
y = 7.12'
k = 174.98'
p = 1.78'
Δc = 9° 27' 50" (RT)
Lc = 473.19'
Ts = 589.69'
Es = 31.62'

NB LOC WB US50 -2
P.I. STA. 27+63.67
Δ = 38° 30' 00" (LT)
Dc = 5° 30' 00"
R = 1,041.74'
T = 363.79'
L = 700.00'
E = 61.69'

NB LOC WB US50 -3
P.I. STA. 35+82.58
Δ = 70° 08' 36" (LT)
Dc = 8° 20' 00"
R = 687.55'
T = 482.71'
L = 841.72'
E = 152.53'

SB 71 TO SB LOC -1
P.I. STA. 10+58.81
Δ = 10° 16' 03" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
Ls = 300.00'
θs = 2° 15' 00"
LT = 200.02'
ST = 100.01'
x = 299.95'
y = 3.93'
k = 149.99'
p = 0.98'
Δc = 5° 46' 03" (RT)
Lc = 384.50'
Ts = 493.25'
Es = 16.37'

SB 71 TO SB LOC -2
P.I. STA. 22+89.05
Δ = 81° 28' 30" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 548.30'
L = 905.28'
E = 203.57'

SB 71 TO SB LOC-3
P.I. STA. 27+53.68
Δ = 7° 31' 30" (RT)
Dc = 3° 30' 00"
R = 1,637.02'
T = 107.65'
L = 215.00'
E = 3.54'

NB LOC TO NB 75 -1
P.I. STA. 24+85.11
Δ = 13° 43' 33" (LT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 229.87'
L = 457.53'
E = 13.78'

NB LOC TO NB 75 -2
P.I. STA. 32+01.22
Δ = 63° 26' 15" (LT)
Dc = 7° 15' 00"
R = 790.29'
T = 488.45'
L = 875.00'
E = 138.76'

SB 71 TO NB 75 -1
P.I. STA. 13+62.10
Δ = 9° 27' 38" (RT)
Dc = 6° 30' 00"
R = 881.47'
T = 72.94'
L = 145.55'
E = 3.01'

SB 71 TO NB 75 -2
P.I. STA. 18+82.53
Δ = 78° 45' 00" (RT)
Dc = 10° 30' 00"
R = 545.67'
T = 447.82'
L = 750.00'
E = 160.23'

SB 71 TO NB 75 -3
P.I. STA. 31+85.63
Δ = 56° 35' 02" (LT)
Dc = 7° 00' 00"
R = 818.51'
Ls = 200.00'
θs = 7° 00' 00"
LT = 133.44'
ST = 66.76'
x = 199.70'
y = 8.14'
k = 99.95'
p = 2.04'
Δc = 42° 35' 02" (LT)
Lc = 608.34'
Ts = 541.62'
Es = 113.35'

NB LOC TO NB 71-1
P.I. STA. 4+98.23
Δ = 9° 16' 40" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 92.98'
L = 185.56'
E = 3.77'

NB LOC TO NB 71-2
P.I. STA. 7+37.08
Δ = 4° 37' 28" (LT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 46.27'
L = 92.49'
E = 0.93'

NB LOC TO NB 71-3
P.I. STA. 12+91.51
Δ = 30° 26' 25" (RT)
Dc = 7° 00' 00"
R = 818.51'
θ
Δc = 20° 48' 55" (RT)
Lc = 297.36'
Es = 31.78'

4TH ST TO NB CD -1
P.I. STA. 24+67.15
Δ = 82° 30' 03" (RT)
Dc = 20° 00' 00"
R = 286.48'
Ls = 150.00'
θs = 15° 00' 00"
LT = 100.36'
ST = 50.33'
x = 148.98'
y = 13.03'
k = 74.83'
p = 3.26'
Δc = 52° 30' 03" (RT)
Lc = 262.50'
Ts = 328.93'
Es = 98.90'

SB LOC TO NB 71 -1
P.I. STA. 27+93.09
Δ = 18° 50' 35" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
Ls = 200.00'
θs = 4° 00' 00"
LT = 133.37'
ST = 66.70'
x = 199.90'
y = 4.65'
k = 99.98'
p = 1.16'
Δc = 10° 50' 35" (LT)
Lc = 271.08'
Ts = 337.86'
Es = 20.77'

SB LOC TO NB 71 -2
P.I. STA. 40+75.71
Δ = 24° 16' 11" (LT)
Dc = 3° 30' 00"
R = 1,637.02'
Ls = 475.00'
θs = 8° 18' 45"
LT = 317.02'
ST = 158.65'
x = 474.00'
y = 22.94'
k = 237.33'
p = 5.74'
Δc = 7° 38' 41" (LT)
Lc = 218.42'
Ts = 590.56'
Es = 43.28'

SB LOC TO NB 71 -3
P.I. STA. 65+60.10
Δ = 65° 30' 08" (RT)
Dc = 3° 24' 00"
R = 1,685.17'
Ls = 650.00'
θs = 11° 03' 00"
LT = 434.18'
ST = 217.44'
x = 647.59'
y = 41.68'
k = 324.60'
p = 10.43'
Δc = 43° 24' 08" (RT)
Lc = 1,276.53'
Ts = 1,415.29'
Es = 330.93'

6TH TO NB LOC -1
P.I. STA. 34+24.62
Δ = 36° 35' 22" (RT)
Dc = 8° 30' 00"
R = 674.07'
θ
Δc = 30° 12' 52" (RT)
Lc = 355.47'
Es = 36.62'

6TH TO NB LOC -2
P.I. STA. 38+99.59
Δ = 10° 34' 52" (LT)
Dc = 4° 30' 00"
R = 1,273.24'
Δc = 7° 12' 22" (LT)
Lc = 160.14'
Es = 5.82'

SB LOC OH TO KY -1
P.I. STA. 17+27.71
Δ = 3° 31' 04" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 87.97'
L = 175.89'
E = 1.35'

SB LOC OH TO KY -2
P.I. STA. 20+53.61
Δ = 3° 31' 04" (RT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 87.97'
L = 175.89'
E = 1.35'

SB LOC OH TO KY -3
P.I. STA. 24+70.64
Δ = 28° 31' 44" (LT)
Dc = 6° 00' 00"
R = 954.93'
Ls = 150.00'
θs = 4° 30' 00"
LT = 100.03'
ST = 50.03'
x = 149.91'
y = 3.93'
k = 74.98'
p = 0.98'
Δc = 19° 31' 44" (LT)
Lc = 325.48'
Ts = 318.01'
Es = 31.39'

SB LOC OH TO KY -4
P.I. STA. 33+37.43
Δ = 22° 30' 00" (LT)
Dc = 2° 30' 00"
R = 2,291.83'
T = 455.87'
L = 900.00'
E = 44.90'

SB LOC OH TO KY -5
P.I. STA. 40+61.78
Δ = 18° 03' 48" (LT)
Dc = 3° 15' 00"
R = 1,762.95'
T = 280.22'
L = 555.79'
E = 22.13'

3RD TO NB 75 - 1
P.I. STA. 19+42.46
Δ = 37° 35' 06" (LT)
Dc = 58° 00' 00"
R = 98.79'
T = 33.62'
L = 64.80'
E = 5.56'

3RD TO NB 75 - 2
P.I. STA. 22+00.26
Δ = 30° 31' 45" (RT)
Dc = 9° 30' 00"
R = 603.11'
T = 164.59'
L = 321.36'
E = 22.06'

3RD TO NB 75 - 3
P.I. STA. 35+73.44
Δ = 38° 14' 17" (LT)
Dc = 3° 15' 00"
R = 1,762.95'
θ
Δc = 33° 21' 47" (LT)
Lc = 1,026.56'
Es = 104.05'

3RD TO NB 75 - 4
P.I. STA. 63+92.99
Δ = 53° 44' 53" (RT)
Dc = 3° 37' 00"
R = 1,584.22'
θ
Δc = 41° 59' 38" (RT)
Lc = 1,161.12'
Es = 198.07'

9TH TO WINC - 1
P.I. STA. 101+15.75
Δ = 20° 36' 36" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 115.75'
L = 229.00'
E = 10.44'

9TH TO WINC - 2
P.I. STA. 105+37.84
Δ = 15° 20' 58" (RT)
Dc = 2° 30' 00"
R = 2,291.83'
T = 308.84'
L = 613.98'
E = 20.72'

9TH TO WINC - 3
P.I. STA. 109+68.03
Δ = 3° 45' 00" (RT)
Dc = 1° 30' 00"
R = 3,819.72'
T = 125.04'
L = 250.00'
E = 2.05'

SB LOC TO 7TH - 1
P.I. STA. 41+69.75
Δ = 29° 48' 33" (RT)
Dc = 6° 00' 00"
R = 954.93'
T = 254.17'
L = 496.82'
E = 33.25'

SB LOC TO 7TH - 2
P.I. STA. 51+35.57
Δ = 3° 43' 33" (LT)
Dc = 0° 36' 00"
R = 9,549.30'
T = 310.60'
L = 620.98'
E = 5.05'

SB 71 TO WB 50 -1
P.I. STA. 29+09.80
Δ = 17° 54' 09" (LT)
Dc = 2° 00' 00"
R = 2,864.79'
T = 451.24'
L = 895.13'
E = 35.32'

SB 71 TO WB 50 -2
P.I. STA. 53+21.09
Δ = 84° 05' 34" (RT)
Dc = 9° 00' 00"
R = 636.62'
Ls = 275.00'
θs = 12° 22' 30"
LT = 183.78'
ST = 92.08'
x = 273.72'
y = 19.73'
k = 137.29'
p = 4.94'
Δc = 59° 20' 34" (RT)
Lc = 659.36'
Ts = 715.89'
Es = 227.32'

SB 71 TO WB 50 -3
P.I. STA. 69+16.73
Δ = 82° 51' 52" (LT)
Dc = 9° 00' 00"
R = 636.62'
Ls = 275.00'
θs = 12° 22' 30"
LT = 183.78'
ST = 92.08'
x = 273.72'
y = 19.73'
k = 137.29'
p = 4.94'
Δc = 58° 06' 52" (LT)
Lc = 645.72'
Ts = 703.54'
Es = 219.09'

6TH TO WB 50 -1
P.I. STA. 19+30.79
Δ = 14° 58' 17" (RT)
Dc = 5° 00' 00"
R = 1,145.92'
T = 150.57'
L = 299.43'
E = 9.85'

6TH TO WB 50 -2
P.I. STA. 31+16.45
Δ = 13° 18' 15" (LT)
Dc = 10° 30' 00"
R = 545.68'
T = 63.64'
L = 126.71'
E = 3.70'

WSTRN TO SB LOC -1
P.I. STA. 65+06.47
Δ = 1° 54' 16" (LT)
Dc = 1° 00' 00"
R = 5,729.58'
T = 95.22'
L = 190.43'
E = 0.79'

WSTRN TO SB LOC -2
P.I. STA. 69+81.67
Δ = 35° 41' 49" (RT)
Dc = 9° 00' 00"
R = 636.62'
T = 204.99'
L = 396.63'
E = 32.19'

GEST/FR TO WINC -1
P.I. STA. 124+10.93
Δ = 48° 58' 44" (LT)
Dc = 10° 00' 00"
R = 572.96'
T = 260.99'
L = 489.79'
E = 56.64'

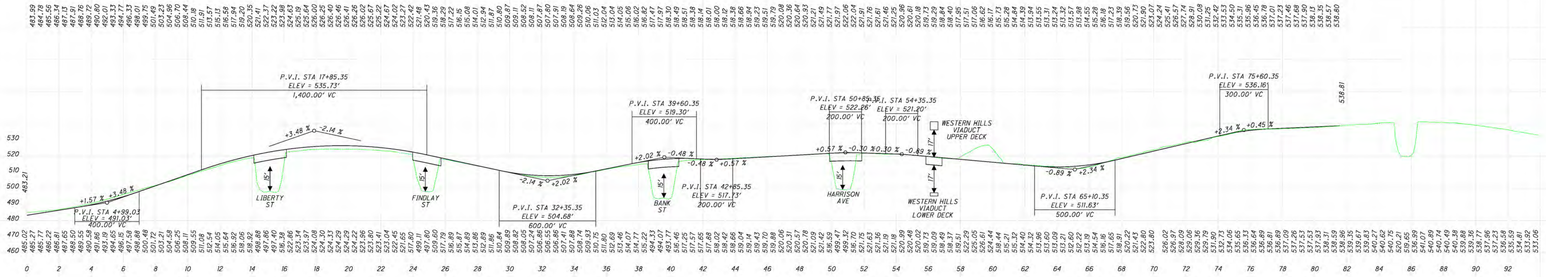
GEST/FR TO WINC -2
P.I. STA. 127+52.47
Δ = 9° 00' 00" (LT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 112.73'
L = 225.00'
E = 4.43'

BRENT SPENCE BRIDGE REPLACEMENT STUDY

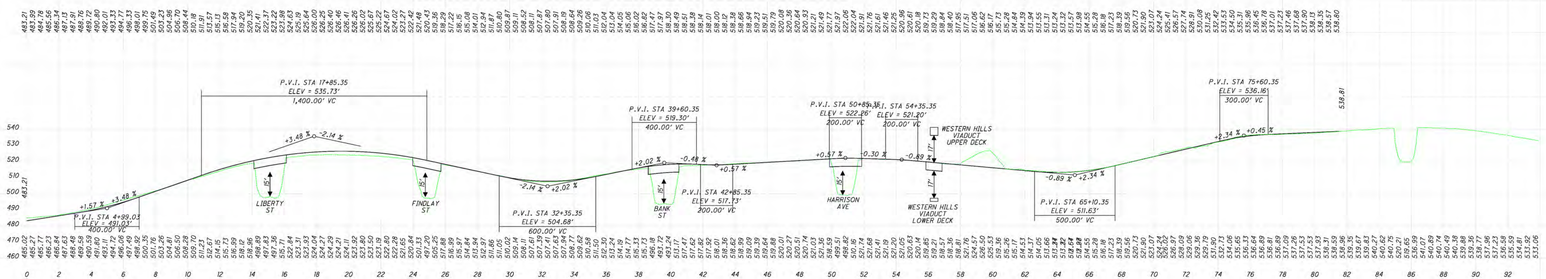
ALTERNATIVE G

SCALE
0 200 400 800

IR-75 NORTH OF EZZARD CHARLES (ALTERNATIVE F)



IR-75 NORTH OF EZZARD CHARLES (ALTERNATIVE G)



BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G NORTH OF EZZARD CHARLES

SCALE

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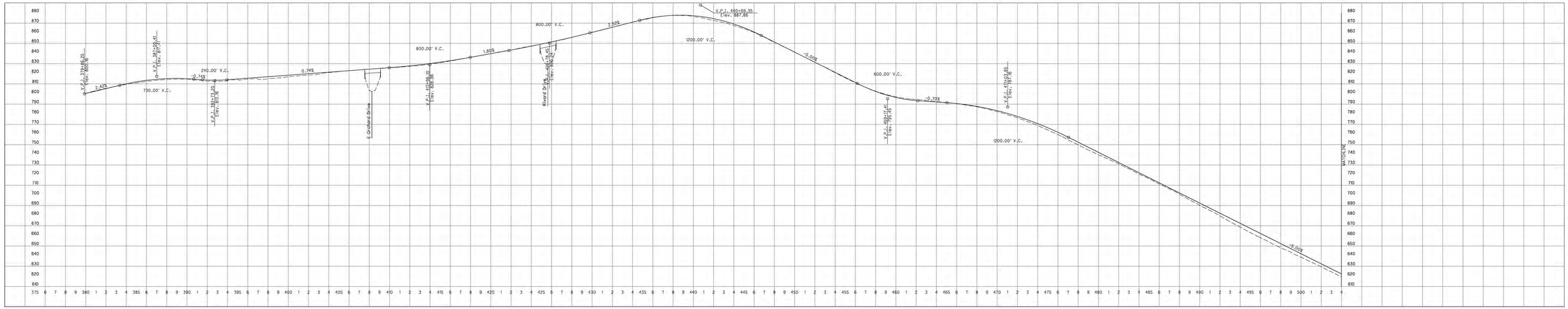
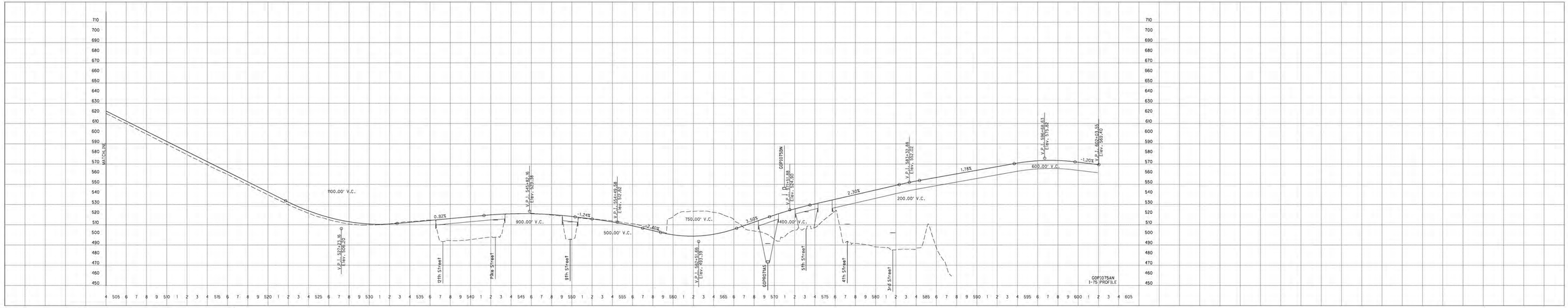




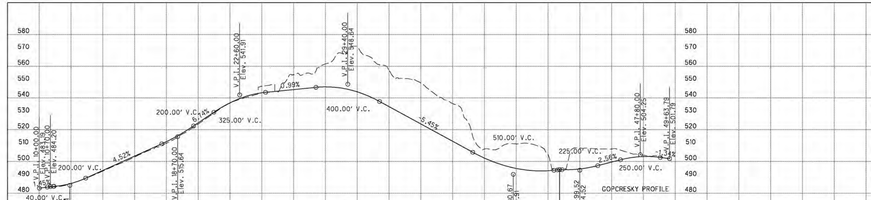
BRENT SPENCE BRIDGE REPLACEMENT STUDY

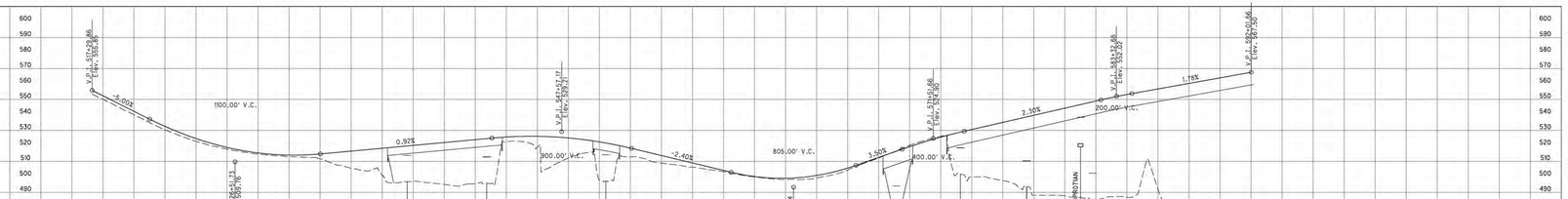
ALTERNATIVE G

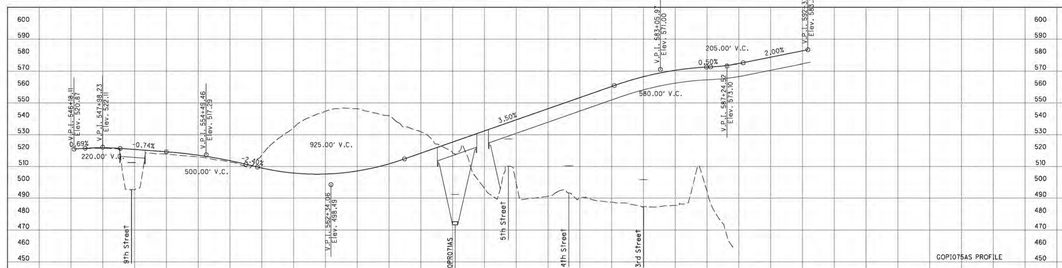
GOPI075AN

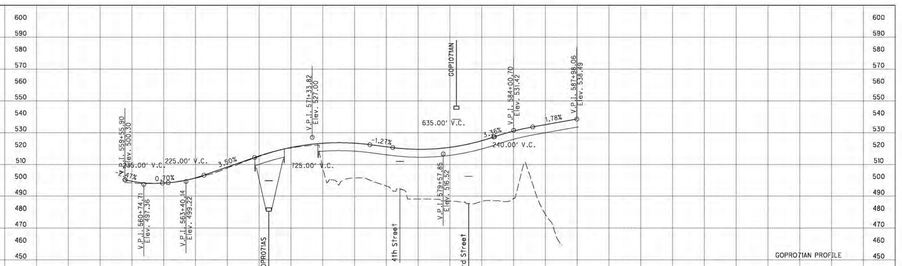
SCALE

0 200 400 800









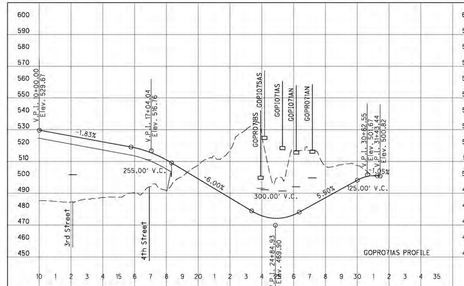
BRENT SPENCE BRIDGE REPLACEMENT STUDY

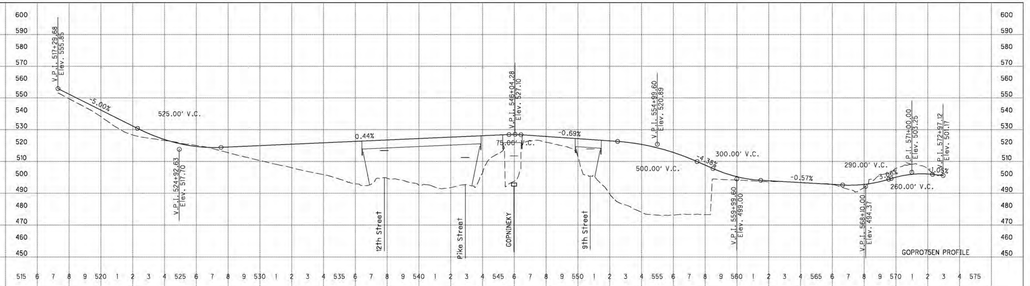
ALTERNATIVE G

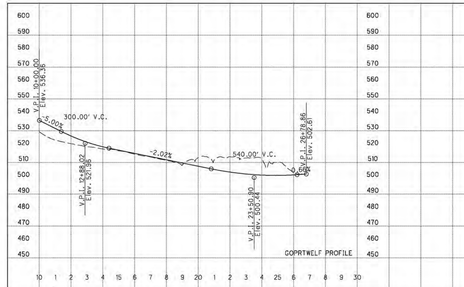
GOPCRESKY, GOPIO71AN, GOPIO75AS, & GOPRO71AN

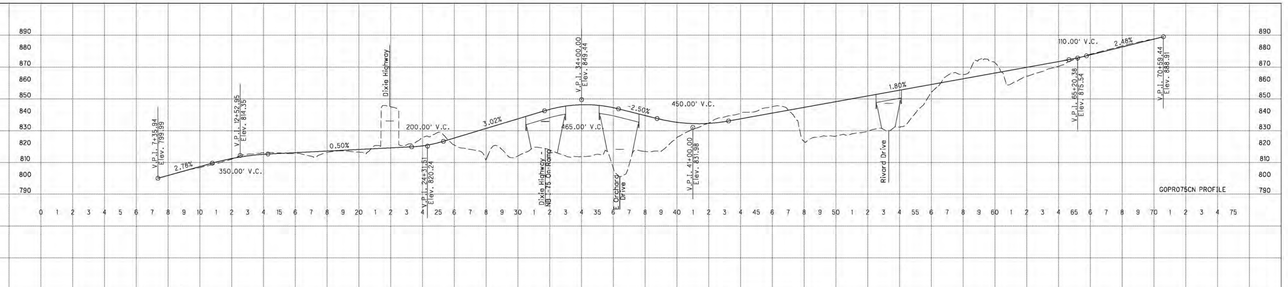
SCALE

0 200 400 600









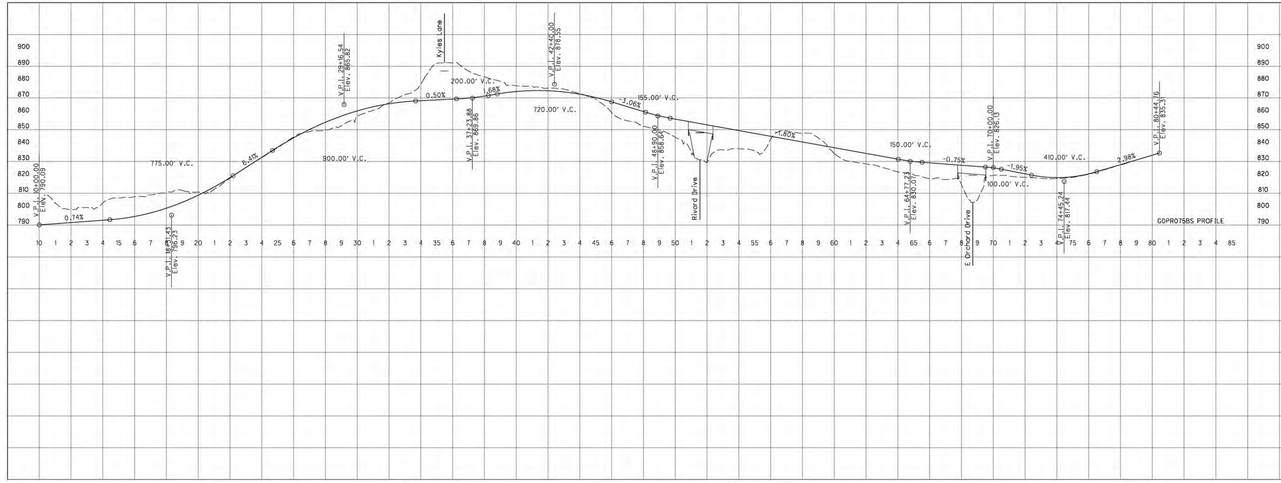
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

ALTERNATIVE G

GOPRO71AS, GOPRO75EN,
GOPRTWELF, & GOPRO75CN

SCALE

0 200 400 600



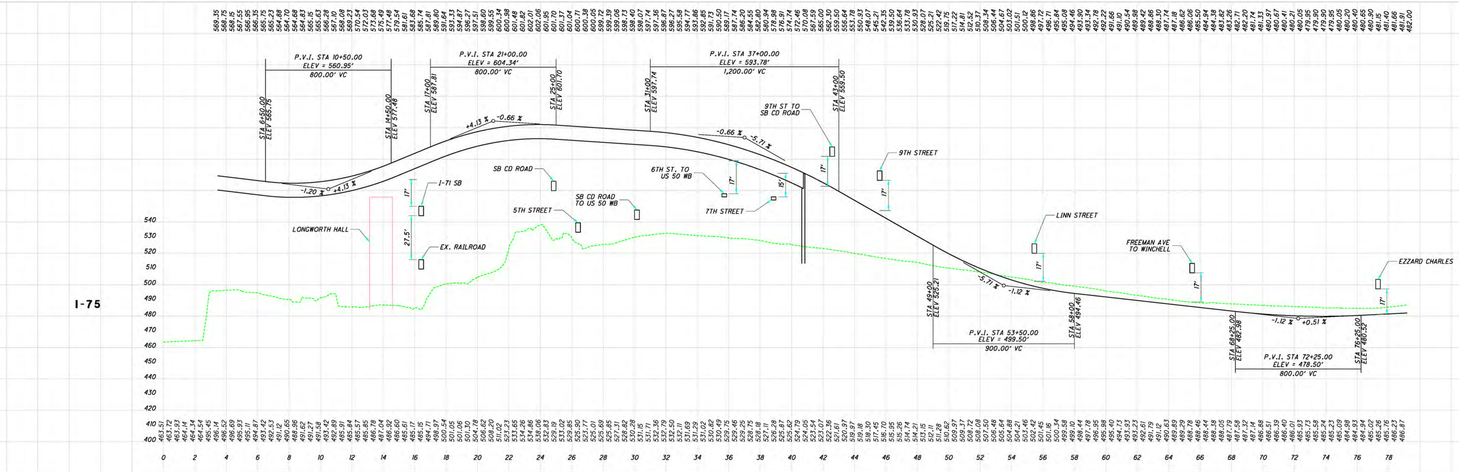
BRENT SPENCE BRIDGE
REPLACEMENT STUDY

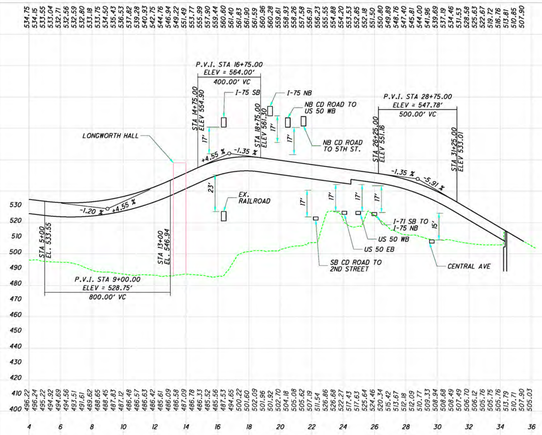
ALTERNATIVE G

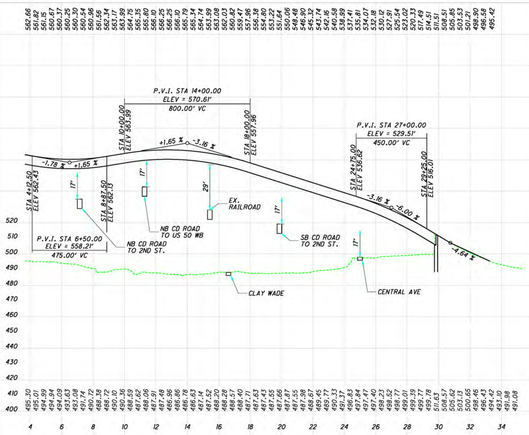
GOPR075BS

SCALE

0 200 400 600







BRENT SPENCE BRIDGE REPLACEMENT STUDY

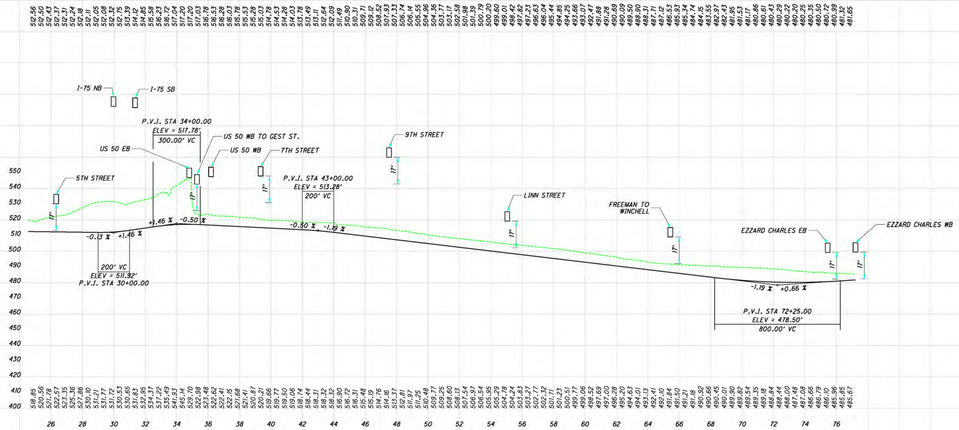
ALTERNATIVE G

I-71/I-75/US 50 INTERCHANGE

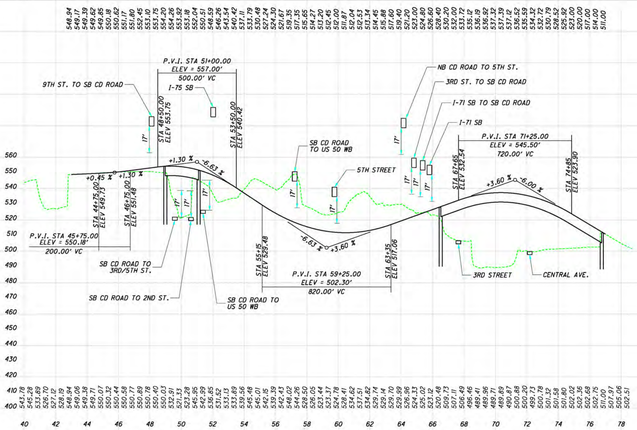
SCALE

0 200 400 800

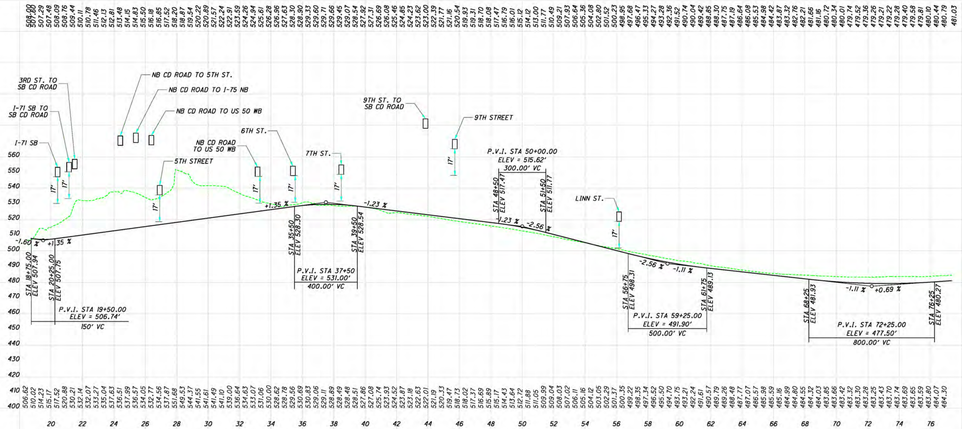
I-75 SB TO SB CD ROAD



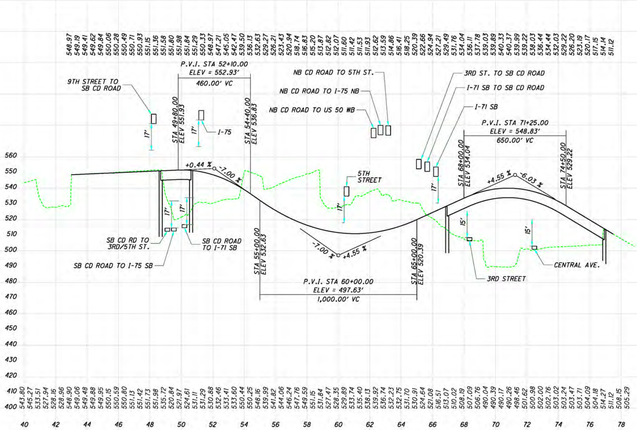
US 50 EB



NB CD ROAD TO I-75 NB



US 50 WB



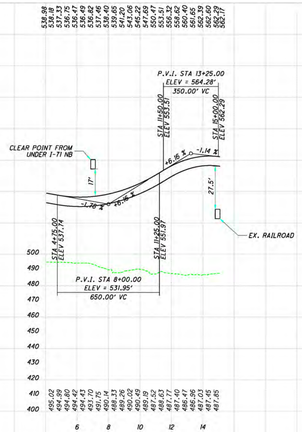
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

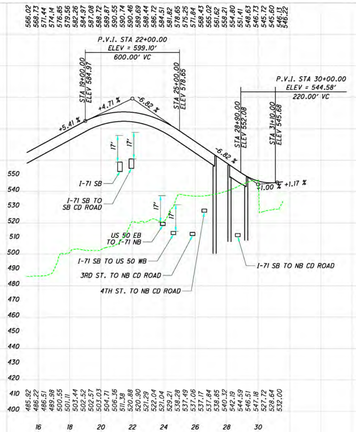
I-71/I-75/US 50 INTERCHANGE

SCALE

0 200 400 800



NB CD ROAD
TO I-71 NB



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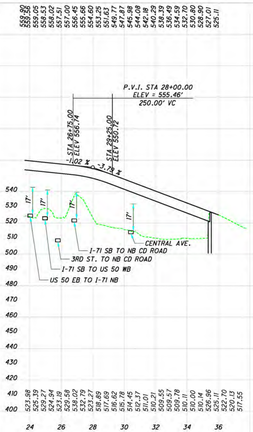
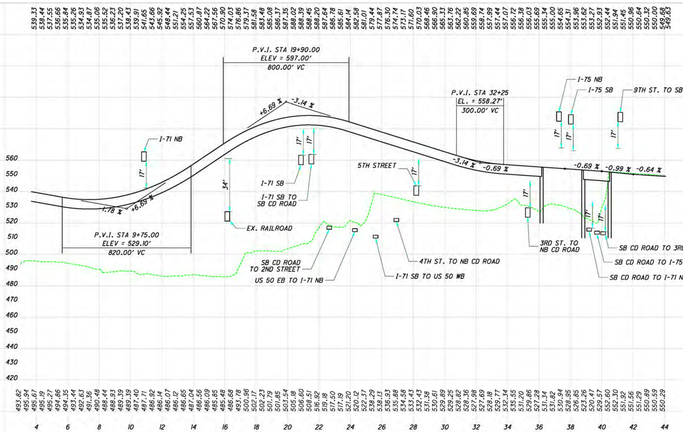
TO 5TH ST.



3RD ST. TO
SB CD ROAD



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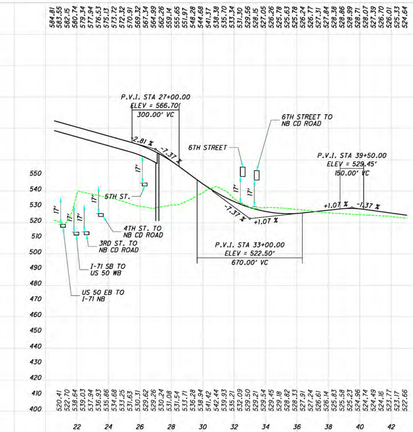
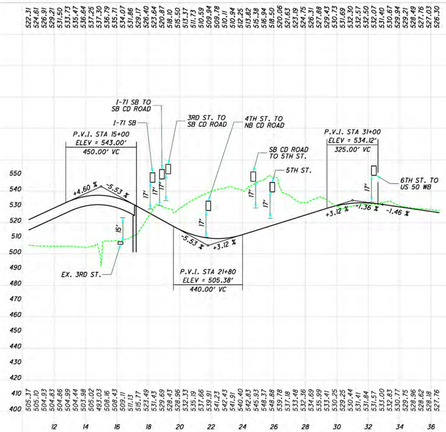
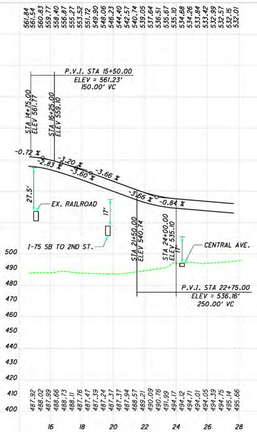
TO US 50 WB



NB CD ROAD
TO I-75 NB



I-71 SB TO
NB CD ROAD



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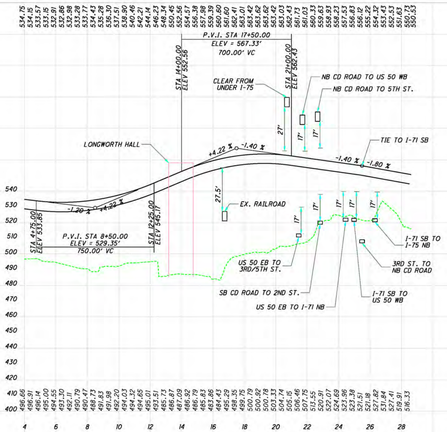
TO 2ND ST.



I-71 SB TO
SB CD ROAD

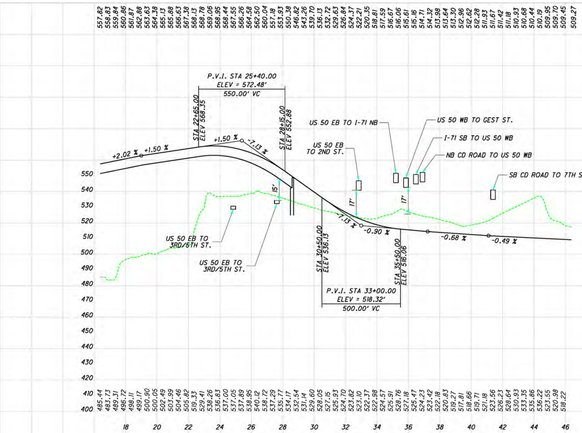
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

I-71/I-75/US 50 INTERCHANGE

SCALE

0 200 400 800



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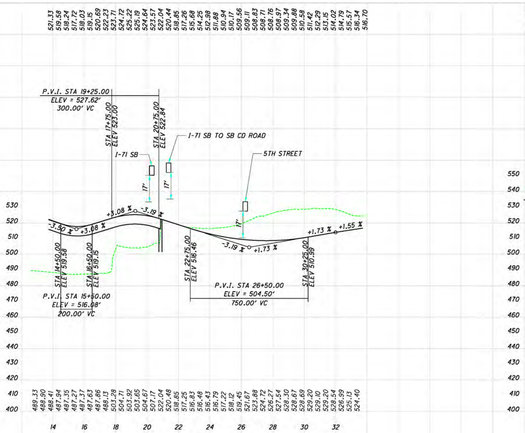
TO KENTUCKY



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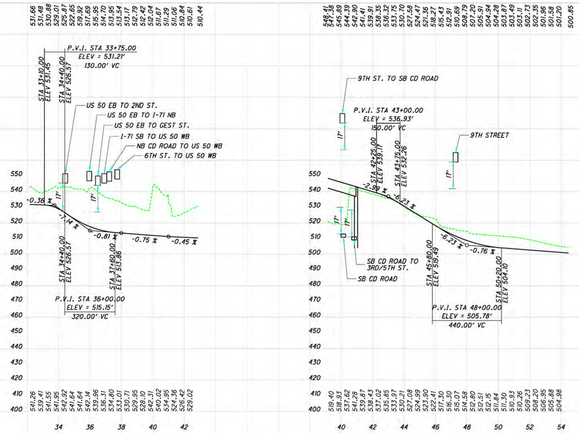
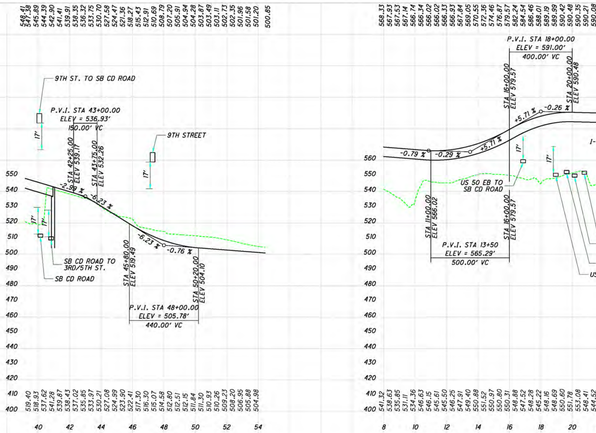
TO 2ND ST.



SB CD ROAD
TO 3RD & 5TH ST.



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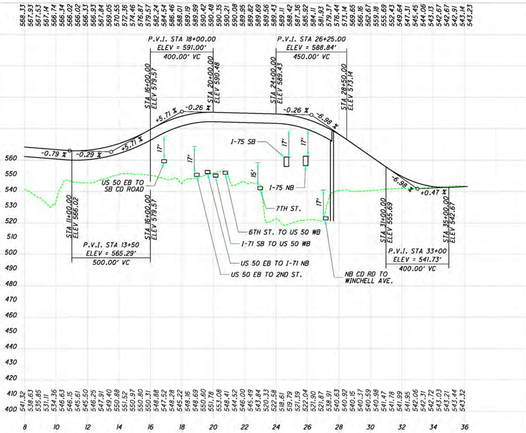
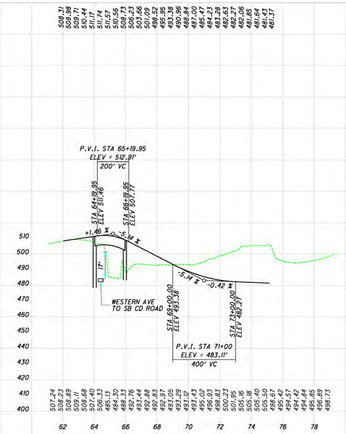
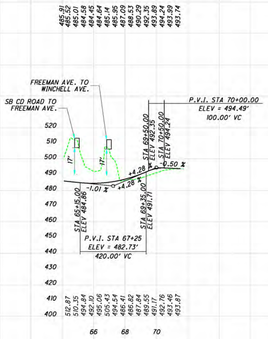
TO 7TH ST.



9TH ST. TO
SB CD ROAD



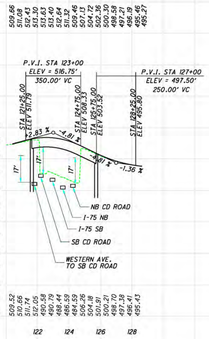
SB CD ROAD TO
GEST/FREEMAN AVE.



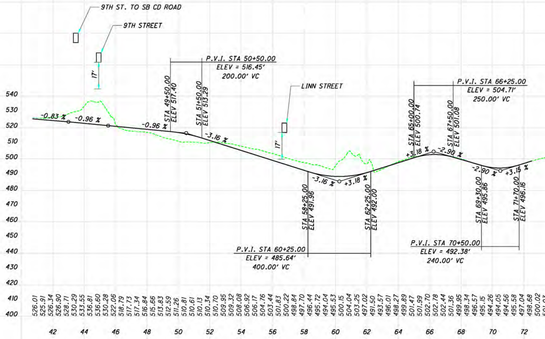
WESTERN AVE TO
SB CD ROAD

4TH ST. TO
NB CD ROAD

6TH ST. TO
NB CD ROAD



GEST/FREEMAN AVE.
TO WINCHELL AVE.



NB CD ROAD TO
WINCHELL AVE./EZZARD CHARLES

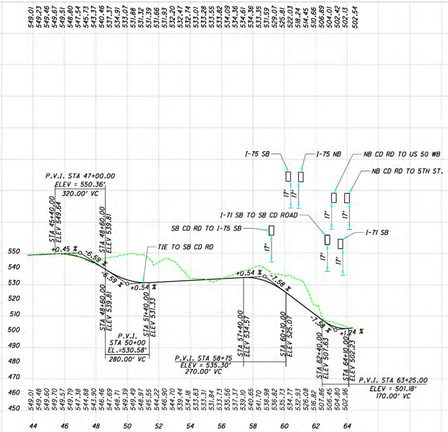
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

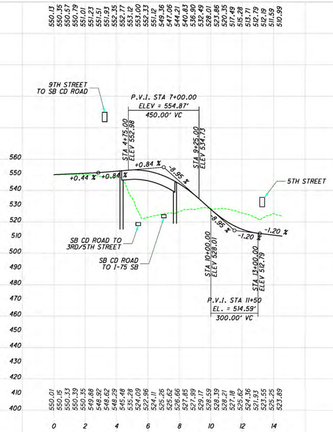
I-71/I-75/US 50 INTERCHANGE

SCALE

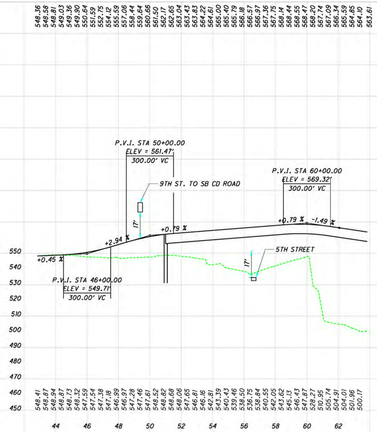
0 200 400 800



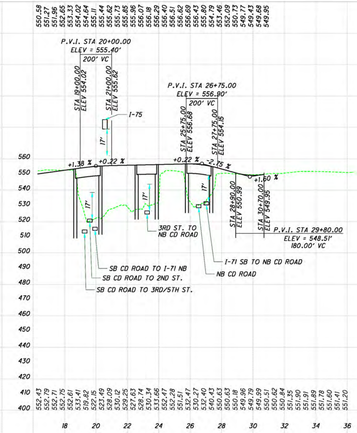
US 50 EB TO
3RD/5TH ST.



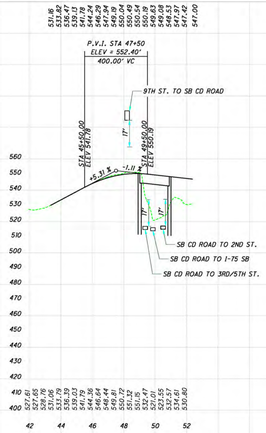
US 50 EB
TO 2ND ST.



US 50 EB TO
SB CD ROAD



6TH ST. TO
US 50 WB



US 50 WB
TO GEST ST.

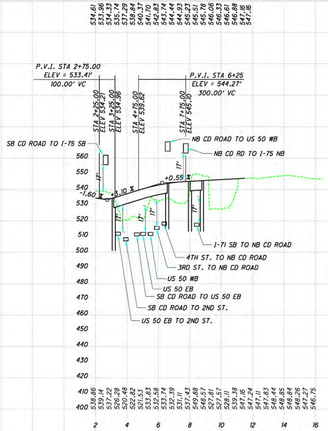
BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

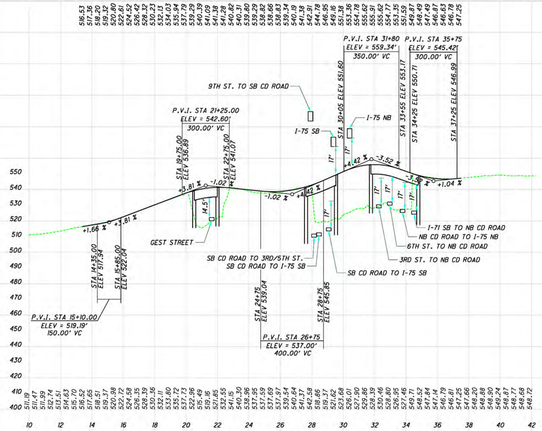
I-71/I-75/US 50 INTERCHANGE

SCALE

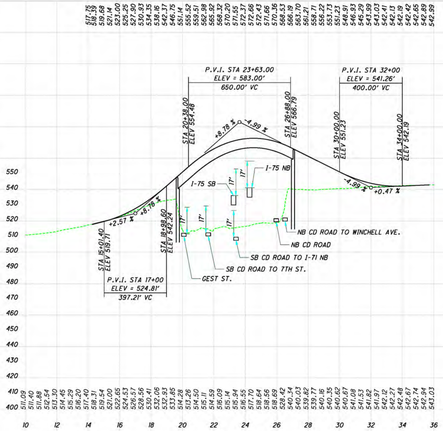
0 200 400 800



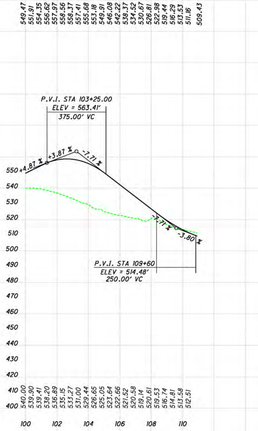
FIFTH ST.



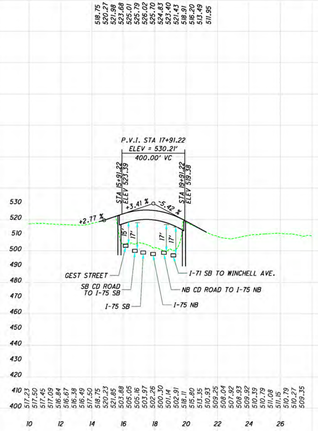
SEVENTH ST.



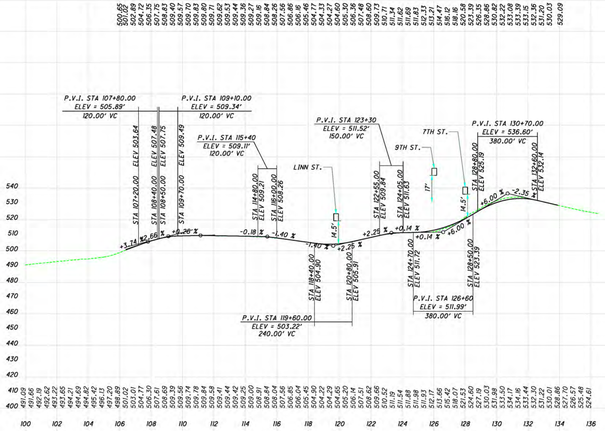
NINETH ST.



9TH ST. TO WINCHELL



LINN ST.



GEST ST.

BRENT SPENCE BRIDGE REPLACEMENT STUDY

ALTERNATIVE G

I-71/I-75/US 50 INTERCHANGE

SCALE

0 200 400 600

Appendix D
Cost Estimates

Estimate BSB Section 1

Estimated Cost: $122,377,502.56

Contingency: 59.50%

Estimated Total: $195,192,116.58

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	250,942.00	SY	$8.00000	$2,007,536.00

Total for Group 0001: $2,007,536.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	348,000.00	CY	$30.00000	$10,440,000.00

Total for Group 0002: $10,440,000.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	531,000.00	CY	$8.00000	$4,248,000.00

Total for Group 0003: $4,248,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	879,000.00	CY	$6.00000	$5,274,000.00

Total for Group 0005: $5,274,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	26,193.00	FT	$110.00000	$2,881,230.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $2,881,230.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	348,729.00	SY	$2.50000	$871,822.50

Total for Group 0010: $871,822.50

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	23,267.00	FT	$14.00000	$325,738.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $325,738.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	326,611.00	SY	$1.00000	$326,611.00
0512		0.00		$0.00000	$0.00

Total for Group 0013: $326,611.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	132.00	CY	$75.00000	$9,900.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $9,900.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	72,227.00	FT	$8.00000	$577,816.00

Total for Group 0018: $577,816.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	752.00	FT	$350.00000	$263,200.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	10.00	EACH	$1,500.00000	$15,000.00

Total for Group 0019: $278,200.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	49.00	FT	$550.00000	$26,950.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	1.00	EACH	$1,500.00000	$1,500.00

Total for Group 0021: $28,450.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	6,602.00	FT	$150.00000	$990,300.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	22.00	EACH	$5,000.00000	$110,000.00

Total for Group 0023: $1,100,300.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	4,777.00	FT	$215.00000	$1,027,055.00
0492	C-MC-DRNG Closed Storm System B	883.00	FT	$290.00000	$256,070.00
0493	C-MC-DRNG Closed Storm System C	1,521.00	FT	$365.00000	$555,165.00

Total for Group 0025: $1,838,290.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	185,019.00	SY	$68.00000	$12,581,292.00

Total for Group 0027: $12,581,292.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	37,267.00	SY	$59.00000	$2,198,753.00

Total for Group 0028: $2,198,753.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	41,882.00	SY	$59.00000	$2,471,038.00

Total for Group 0030: $2,471,038.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	74,285.00	SY	$68.00000	$5,051,380.00

Total for Group 0031: $5,051,380.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	10,276.00	SY	$40.00000	$411,040.00

Total for Group 0032: $411,040.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, WATER LINE				
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	2.00	EACH	$469,000.00000	$938,000.00

Total for Group 0044: $938,000.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	13,783.00	FT	$138.00000	$1,902,054.00

Total for Group 0046: $1,902,054.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	2.86	MILE	$250,000.00000	$715,000.00

Total for Group 0049: $715,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, TRAFFIC CONTROL				
0502	644E00100 EDGE LINE	19.19	MILE	$3,000.00000	$57,570.00
0503	644E00200 LANE LINE	20.22	MILE	$2,000.00000	$40,440.00

Total for Group 0050: $98,010.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	17,534.00	SF	$135.00000	$2,367,090.00

Total for Group 0055: $2,367,090.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	765.00	LS	$400.00000	$306,000.00

Total for Group 0058: $306,000.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures to 25' Height	122,155.00	SF	$125.00000	$15,269,375.00
0507	R-MC-STRC Removal of Existing Structures non-complex	0.00	SF	$17.00000	$0.00
0509		0.00		$0.00000	$0.00
0513	R-MC-STRC Tier 2 Structures 25' to 50' Height	0.00	SF	$150.00000	$0.00
0514		0.00		$0.00000	$0.00
0515	R-MC-STRC Removal of Existing Structures above average complex	118,627.00	SF	$22.00000	$2,609,794.00
0516		0.00		$0.00000	$0.00

Total for Group 0060: $17,879,169.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	2.86	MILE	$5,000,000.00000	$14,300,000.00

Total for Group 0070: $14,300,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300	0.00	LS	$10,000.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE				
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$4,588,835.98000	$4,588,835.98
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$458,883.60000	$458,883.60
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$458,883.60000	$458,883.60

Total for Group 0072: $7,656,603.18

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$22,944,179.88000	$22,944,179.88
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $22,944,179.88

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect2AltB

Estimated Cost: $267,716,427.84

Contingency: 59.50%

Estimated Total: $427,007,702.40

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	109,427.00	SY	$8.00000	$875,416.00

Total for Group 0001: $875,416.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	125,000.00	CY	$30.00000	$3,750,000.00

Total for Group 0002: $3,750,000.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	86,000.00	CY	$8.00000	$688,000.00

Total for Group 0003: $688,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	371,000.00	CY	$6.00000	$2,226,000.00

Total for Group 0005: $2,226,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	160,000.00	CY	$8.00000	$1,280,000.00

Total for Group 0007: $1,280,000.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	12,065.00	FT	$110.00000	$1,327,150.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $1,327,150.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	108,320.00	SY	$2.50000	$270,800.00

Total for Group 0010: $270,800.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	1,222.00	FT	$14.00000	$17,108.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $17,108.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	208,764.00	SY	$1.00000	$208,764.00

Total for Group 0013: $208,764.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	24.00	CY	$75.00000	$1,800.00

Total for Group 0014: $1,800.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	14,106.00	FT	$8.00000	$112,848.00

Total for Group 0018: $112,848.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	350.00	FT	$350.00000	$122,500.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	2.00	EACH	$1,500.00000	$3,000.00

Total for Group 0019: $125,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	1,004.00	FT	$215.00000	$215,860.00
0492	C-MC-DRNG Closed Storm System B	603.00	FT	$290.00000	$174,870.00
0493	C-MC-DRNG Closed Storm System C	1,742.00	FT	$365.00000	$635,830.00

Total for Group 0025: $1,026,560.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE *Willow Run relocation*	1.00	LS	$7,500,000.00000	$7,500,000.00

Total for Group 0026: $7,500,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	17,190.00	SY	$68.00000	$1,168,920.00

Total for Group 0027: $1,168,920.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	2,633.00	LS	$59.00000	$155,347.00

Total for Group 0028: $155,347.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	6,053.00	SY	$59.00000	$357,127.00

Total for Group 0030: $357,127.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	30,505.00	SY	$68.00000	$2,074,340.00

Total for Group 0031: $2,074,340.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	51,939.00	SY	$40.00000	$2,077,560.00

Total for Group 0032: $2,077,560.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	17,281.00	FT	$138.00000	$2,384,778.00

Total for Group 0046: $2,384,778.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.35	MILE	$250,000.00000	$337,500.00

Total for Group 0049: $337,500.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	15.05	MILE	$3,000.00000	$45,150.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0503	644E00200 LANE LINE	16.09	MILE	$2,000.00000	$32,180.00

Total for Group 0050: $77,330.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	11,070.00	SF	$135.00000	$1,494,450.00

Total for Group 0055: $1,494,450.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	649,536.00	SF	$125.00000	$81,192,000.00
0507	R-MC-STRC Removal of Existing Structures non-complex	43,609.00	SF	$17.00000	$741,353.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	522,970.00	SF	$150.00000	$78,445,500.00
0512	R-MC-STRC Removal of Existing Structures above average complex	105,862.00	SF	$22.00000	$2,328,964.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	125,087.00	SF	$27.00000	$3,377,349.00

Total for Group 0060: $166,085,166.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.35	MILE	$5,000,000.00000	$6,750,000.00

Total for Group 0070: $6,750,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$10,136,123.20000	$10,136,123.20
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000	1.00	LS	$1,013,612.32000	$1,013,612.32

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONSTRUCTION LAYOUT STAKES *0.5%*				
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,013,612.32000	$1,013,612.32

Total for Group 0072: $14,313,347.84

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$50,680,616.00000	$50,680,616.00
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $50,680,616.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect2AltC-D

Estimated Cost: $273,671,184.80

Contingency: 59.50%

Estimated Total: $436,505,539.76

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	109,427.00	SY	$8.00000	$875,416.00

Total for Group 0001: $875,416.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	41,000.00	CY	$30.00000	$1,230,000.00

Total for Group 0002: $1,230,000.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	118,000.00	CY	$8.00000	$944,000.00

Total for Group 0003: $944,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	319,000.00	CY	$6.00000	$1,914,000.00

Total for Group 0005: $1,914,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	160,000.00	CY	$8.00000	$1,280,000.00

Total for Group 0007: $1,280,000.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	11,915.00	FT	$110.00000	$1,310,650.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $1,310,650.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	118,898.00	SY	$2.50000	$297,245.00

Total for Group 0010: $297,245.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	1,771.00	FT	$14.00000	$24,794.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $24,794.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	176,614.00	SY	$1.00000	$176,614.00

Total for Group 0013: $176,614.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	24.00	CY	$75.00000	$1,800.00

Total for Group 0014: $1,800.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	15,108.00	FT	$8.00000	$120,864.00

Total for Group 0018: $120,864.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	350.00	FT	$350.00000	$122,500.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	2.00	EACH	$1,500.00000	$3,000.00

Total for Group 0019: $125,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	2,049.00	FT	$215.00000	$440,535.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	1,889.00	FT	$365.00000	$689,485.00

Total for Group 0025: $1,130,020.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE *Willow Run relocation*	1.00	LS	$7,500,000.00000	$7,500,000.00

Total for Group 0026: $7,500,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	18,599.00	SY	$68.00000	$1,264,732.00

Total for Group 0027: $1,264,732.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	5,997.00	LS	$59.00000	$353,823.00

Total for Group 0028: $353,823.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	5,118.00	SY	$59.00000	$301,962.00

Total for Group 0030: $301,962.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	33,244.00	SY	$68.00000	$2,260,592.00

Total for Group 0031: $2,260,592.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	55,940.00	SY	$40.00000	$2,237,600.00

Total for Group 0032: $2,237,600.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	18,629.00	FT	$138.00000	$2,570,802.00

Total for Group 0046: $2,570,802.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.35	MILE	$250,000.00000	$337,500.00

Total for Group 0049: $337,500.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	13.37	MILE	$3,000.00000	$40,110.00
0503	644E00200 LANE LINE	19.83	MILE	$2,000.00000	$39,660.00

Total for Group 0050: $79,770.00

Group 0051: Other Traffic Control Costs

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	13,658.00	SF	$135.00000	$1,843,830.00

Total for Group 0055: $1,843,830.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	973,940.00	SF	$125.00000	$121,742,500.00
0507	R-MC-STRC Removal of Existing Structures non-complex	43,609.00	SF	$17.00000	$741,353.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	291,976.00	SF	$150.00000	$43,796,400.00
0512	R-MC-STRC Removal of Existing Structures above average complex	105,862.00	SF	$22.00000	$2,328,964.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	125,087.00	SF	$27.00000	$3,377,349.00

Total for Group 0060: $171,986,566.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC *0*	1.35	LS	$5,000,000.00000	$6,750,000.00

Total for Group 0070: $6,750,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$10,363,404.00000	$10,363,404.00
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,036,340.40000	$1,036,340.40
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000	1.00	LS	$1,036,340.40000	$1,036,340.40

Line #	Item Number	Quantity	Units	Unit Price	Extension
	Description				
	Supplemental Description				
	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*				

Total for Group 0072: $14,586,084.80

Group 0073: Design Contingency Costs

0242	V-MC-CNTG	1.00	LS	$51,817,020.00000	$51,817,020.00
	MAJOR COST DRIVERS, CONTINGENCY COSTS				
0243	V-OC-CNTG	1.00	LS	$0.00000	$0.00
	OTHER COSTS, CONTINGENCY COSTS				

Total for Group 0073: $51,817,020.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG	0.00	LS	$0.00000	$0.00
	OTHER COSTS, CONTINGENCY COSTS				

Total for Group 0074: $0.00

Estimate BSB Sect2AltE

Estimated Cost: $320,248,007.15

Contingency: 59.50%

Estimated Total: $510,795,571.40

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	109,427.00	SY	$8.00000	$875,416.00

Total for Group 0001: $875,416.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	287,000.00	CY	$30.00000	$8,610,000.00

Total for Group 0002: $8,610,000.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	544,000.00	CY	$8.00000	$4,352,000.00

Total for Group 0003: $4,352,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	831,000.00	CY	$6.00000	$4,986,000.00

Total for Group 0005: $4,986,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	11,034.00	FT	$110.00000	$1,213,740.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $1,213,740.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	110,818.00	SY	$2.50000	$277,045.00

Total for Group 0010: $277,045.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	4,028.00	FT	$14.00000	$56,392.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $56,392.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	176,614.00	SY	$1.00000	$176,614.00

Total for Group 0013: $176,614.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	24.00	CY	$75.00000	$1,800.00

Total for Group 0014: $1,800.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	16,528.00	FT	$8.00000	$132,224.00

Total for Group 0018: $132,224.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	350.00	FT	$350.00000	$122,500.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	2.00	EACH	$1,500.00000	$3,000.00

Total for Group 0019: $125,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	1,188.00	FT	$215.00000	$255,420.00
0492	C-MC-DRNG Closed Storm System B	914.00	FT	$290.00000	$265,060.00
0493	C-MC-DRNG Closed Storm System C	1,880.00	FT	$365.00000	$686,200.00

Total for Group 0025: $1,206,680.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE *Willow Run relocation*	1.00	LS	$7,500,000.00000	$7,500,000.00

Total for Group 0026: $7,500,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	23,073.00	SY	$68.00000	$1,568,964.00

Total for Group 0027: $1,568,964.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	2,849.00	LS	$59.00000	$168,091.00

Total for Group 0028: $168,091.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	6,489.00	SY	$59.00000	$382,851.00

Total for Group 0030: $382,851.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	49,592.00	SY	$68.00000	$3,372,256.00

Total for Group 0031: $3,372,256.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	28,815.00	SY	$40.00000	$1,152,600.00

Total for Group 0032: $1,152,600.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	21,742.00	FT	$138.00000	$3,000,396.00

Total for Group 0046: $3,000,396.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.35	MILE	$250,000.00000	$337,500.00

Total for Group 0049: $337,500.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	14.90	MILE	$1,863.58405	$27,767.40

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0503	644E00200 LANE LINE	17.25	MILE	$974.42494	$16,808.83

Total for Group 0050: $44,576.23

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	16,402.00	SF	$135.00000	$2,214,270.00

Total for Group 0055: $2,214,270.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	1,055,283.00	SF	$125.00000	$131,910,375.00
0507	R-MC-STRC Removal of Existing Structures non-complex	43,609.00	SF	$17.00000	$741,353.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	370,733.00	SF	$150.00000	$55,609,950.00
0512	R-MC-STRC Removal of Existing Structures above average complex	105,862.00	SF	$22.00000	$2,328,964.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	125,087.00	SF	$27.00000	$3,377,349.00

Total for Group 0060: $193,967,991.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.35	MILE	$5,000,000.00000	$6,750,000.00

Total for Group 0070: $6,750,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$12,141,145.31000	$12,141,145.31
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000	1.00	LS	$1,214,114.53000	$1,214,114.53

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONSTRUCTION LAYOUT STAKES *0.5%*				
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,214,114.53000	$1,214,114.53

Total for Group 0072: $16,719,374.37

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$60,705,726.55000	$60,705,726.55
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $60,705,726.55

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect2AltF&G

Estimated Cost: $301,846,306.50

Contingency: 59.50%

Estimated Total: $481,444,858.87

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	109,427.00	SY	$8.00000	$875,416.00

Total for Group 0001: $875,416.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	164,000.00	CY	$30.00000	$4,920,000.00

Total for Group 0002: $4,920,000.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	607,500.00	CY	$8.00000	$4,860,000.00

Total for Group 0003: $4,860,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0347	203E20000 EMBANKMENT	771,500.00	CY	$6.00000	$4,629,000.00

Total for Group 0005: $4,629,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0349	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060 CONCRETE BARRIER, SINGLE SLOPE, TYPE B	12,990.00	FT	$110.00000	$1,428,900.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0008: $1,428,900.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0350	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0351	206E10300 LIME	0.00	TON		$0.00
0353	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0355	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	108,701.00	SY	$2.50000	$271,752.50

Total for Group 0010: $271,752.50

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100 CATCH BASIN REMOVED	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	5,876.00	FT	$14.00000	$82,264.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $82,264.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	176,614.00	SY	$1.00000	$176,614.00

Total for Group 0013: $176,614.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	24.00	CY	$75.00000	$1,800.00

Total for Group 0014: $1,800.00

Group 0016: Erosion Control - Item 832

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	18,665.00	FT	$8.00000	$149,320.00

Total for Group 0018: $149,320.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	350.00	FT	$350.00000	$122,500.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	2.00	EACH	$1,500.00000	$3,000.00

Total for Group 0019: $125,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG	0.00	FT	$550.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*				
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	3,769.00	FT	$215.00000	$810,335.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	1,880.00	FT	$365.00000	$686,200.00

Total for Group 0025: $1,496,535.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE *Willow Run relocation*	1.00	LS	$7,500,000.00000	$7,500,000.00

Total for Group 0026: $7,500,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0027: Mainline - Travel Lanes					
0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	18,011.00	SY	$68.00000	$1,224,748.00
				Total for Group 0027:	$1,224,748.00
Group 0028: Mainline - Outside Shoulder					
0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	5,816.00	LS	$59.00000	$343,144.00
				Total for Group 0028:	$343,144.00
Group 0030: Mainline - Inside Shoulder					
0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	4,596.00	SY	$59.00000	$271,164.00
				Total for Group 0030:	$271,164.00
Group 0031: Ramps					
0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	46,015.00	SY	$68.00000	$3,129,020.00
				Total for Group 0031:	$3,129,020.00
Group 0032: Non - Mainline Lanes					
0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	33,903.00	SY	$40.00000	$1,356,120.00
				Total for Group 0032:	$1,356,120.00
Group 0041: Other Pavement Costs					
0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00
				Total for Group 0041:	$0.00
Group 0042: Water Works					
0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	23,007.00	FT	$138.00000	$3,174,966.00

Total for Group 0046: $3,174,966.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.35	MILE	$250,000.00000	$337,500.00

Total for Group 0049: $337,500.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	11.74	MILE	$3,000.00000	$35,220.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0503	644E00200 LANE LINE	20.58	MILE	$2,000.00000	$41,160.00

Total for Group 0050: $76,380.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	38,268.00	SF	$135.00000	$5,166,180.00

Total for Group 0055: $5,166,180.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	968,433.00	SF	$125.00000	$121,054,125.00
0507	R-MC-STRC Removal of Existing Structures non-complex	43,609.00	SF	$17.00000	$741,353.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	350,521.00	SF	$150.00000	$52,578,150.00
0512	R-MC-STRC Removal of Existing Structures above average complex	105,862.00	SF	$22.00000	$2,328,964.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	125,087.00	SF	$27.00000	$3,377,349.00

Total for Group 0060: $180,079,941.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.35	MILE	$5,000,000.00000	$6,750,000.00

Total for Group 0070: $6,750,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$11,438,313.23000	$11,438,313.23
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000	1.00	LS	$1,143,831.32000	$1,143,831.32

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONSTRUCTION LAYOUT STAKES *0.5%*				
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,143,831.32000	$1,143,831.32

Total for Group 0072: $15,875,975.87

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$57,194,066.13000	$57,194,066.13
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $57,194,066.13

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 3AltB

Estimated Cost: $541,209,707.60

Contingency: 59.50%

Estimated Total: $863,229,483.62

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	0.00	SY	$8.00000	$0.00

Total for Group 0001: $0.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	0.00	CY	$8.00000	$0.00

Total for Group 0003: $0.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment(includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	0.00	CY	$6.00000	$0.00

Total for Group 0005: $0.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	0.00	FT	$110.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $0.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	SY	$2.50000	$0.00

Total for Group 0010: $0.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5 *Large quantity incl teem/anchor assemblies*	0.00	FT	$14.00000	$0.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $0.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	0.00	SY	$1.00000	$0.00

Total for Group 0013: $0.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $0.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	0.00	EACH	$50,000.00000	$0.00
0471	832E20000 EROSION CONTROL	0.00	LS	$1.00000	$0.00

Total for Group 0016: $0.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	0.00	FT	$8.00000	$0.00

Total for Group 0018: $0.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	0.00	FT	$215.00000	$0.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	0.00	FT	$365.00000	$0.00

Total for Group 0025: $0.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0027: $0.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0028: $0.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0030: $0.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0031: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0032: Non - Mainline Lanes					
0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	0.00	SY	$40.00000	$0.00
				Total for Group 0032:	$0.00
Group 0041: Other Pavement Costs					
0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00
				Total for Group 0041:	$0.00
Group 0042: Water Works					
0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00
				Total for Group 0042:	$0.00
Group 0043: Sanitary Line					
0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00
				Total for Group 0043:	$0.00
Group 0044: Lighting - Full Interchange					
0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00
				Total for Group 0044:	$0.00
Group 0045: Lighting - Partial Interchange					
0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00
				Total for Group 0045:	$0.00
Group 0046: Lighting - Continuous Roadway					
0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	0.00	FT	$138.00000	$0.00
				Total for Group 0046:	$0.00
Group 0047: Other Lighting Costs					
0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	0.00	MILE	$250,000.00000	$0.00

Total for Group 0049: $0.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	0.00	MILE	$3,000.00000	$0.00
0503	644E00200 LANE LINE	0.00	MILE	$2,000.00000	$0.00
0515		0.00		$0.00000	$0.00

Total for Group 0050: $0.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, RETAINING WALLS				
0504	M-MC-WALL Retaining Walls	0.00	SF	$135.00000	$0.00

Total for Group 0055: $0.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0514	R-MC-STRC Bridge - main river crossing	501,600.00	SF	$800.00000	$401,280,000.00

Total for Group 0060: $401,280,000.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES *New deck on existing beams. Includes steel/conc rail, bearing work, painting and etc.*	170,266.00	SF	$60.00000	$10,215,960.00

Total for Group 0061: $10,215,960.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	0.00	MILE	$5,000,000.00000	$0.00

Total for Group 0070: $0.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$20,574,798.00000	$20,574,798.00
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$2,057,479.80000	$2,057,479.80
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$2,057,479.80000	$2,057,479.80

Total for Group 0072: $26,839,757.60

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$102,873,990.00000	$102,873,990.00
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $102,873,990.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect3CDFG

Estimated Cost: $394,171,115.60

Contingency: 59.50%

Estimated Total: $628,702,929.38

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	0.00	SY	$8.00000	$0.00

Total for Group 0001: $0.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	0.00	CY	$8.00000	$0.00

Total for Group 0003: $0.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment(includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	0.00	CY	$6.00000	$0.00

Total for Group 0005: $0.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	0.00	FT	$110.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $0.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	SY	$2.50000	$0.00

Total for Group 0010: $0.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5 *Large quantity incl teem/anchor assemblies*	0.00	FT	$14.00000	$0.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $0.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	0.00	SY	$1.00000	$0.00

Total for Group 0013: $0.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $0.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	0.00	EACH	$50,000.00000	$0.00
0471	832E20000 EROSION CONTROL	0.00	LS	$1.00000	$0.00

Total for Group 0016: $0.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	0.00	FT	$8.00000	$0.00

Total for Group 0018: $0.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	0.00	FT	$215.00000	$0.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	0.00	FT	$365.00000	$0.00

Total for Group 0025: $0.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0027: $0.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0028: $0.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0030: $0.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0031: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	0.00	SY	$40.00000	$0.00

Total for Group 0032: $0.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	0.00	FT	$138.00000	$0.00

Total for Group 0046: $0.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	0.00	MILE	$250,000.00000	$0.00

Total for Group 0049: $0.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	0.00	MILE	$3,000.00000	$0.00
0503	644E00200 LANE LINE	0.00	MILE	$2,000.00000	$0.00
0515		0.00		$0.00000	$0.00

Total for Group 0050: $0.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, RETAINING WALLS				
0504	M-MC-WALL Retaining Walls	0.00	SF	$135.00000	$0.00

Total for Group 0055: $0.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0514	R-MC-STRC Bridge - main river crossing	361,296.00	SF	$800.00000	$289,036,800.00

Total for Group 0060: $289,036,800.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES *New deck on existing beams. Includes steel/conc rail, bearing work, painting and etc.*	170,266.00	SF	$60.00000	$10,215,960.00

Total for Group 0061: $10,215,960.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	0.00	MILE	$5,000,000.00000	$0.00

Total for Group 0070: $0.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$14,962,638.00000	$14,962,638.00
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,496,263.80000	$1,496,263.80
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,496,263.80000	$1,496,263.80

Total for Group 0072: $20,105,165.60

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$74,813,190.00000	$74,813,190.00
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $74,813,190.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 3 AltE

Estimated Cost: $481,549,163.60

Contingency: 59.50%

Estimated Total: $768,070,915.94

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0001: Pavement Removal					
0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	0.00	SY	$8.00000	$0.00
				Total for Group 0001:	$0.00
Group 0002: Excavation - Rock					
0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00
				Total for Group 0002:	$0.00
Group 0003: Excavation - Soil					
0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	0.00	CY	$8.00000	$0.00
				Total for Group 0003:	$0.00
Group 0004: Excavation - Hazardous					
0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
				Total for Group 0004:	$0.00
Group 0005: Fill - Embankment(includes wasting excess excavation)					
0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	0.00	CY	$6.00000	$0.00
				Total for Group 0005:	$0.00
Group 0006: Fill - Lime Modified Soil					
0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00
				Total for Group 0006:	$0.00
Group 0007: Fill - Borrow					
0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00
				Total for Group 0007:	$0.00
Group 0008: Concrete Barrier					
0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	0.00	FT	$110.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $0.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	SY	$2.50000	$0.00

Total for Group 0010: $0.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5 *Large quantity incl teem/anchor assemblies*	0.00	FT	$14.00000	$0.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $0.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	0.00	SY	$1.00000	$0.00

Total for Group 0013: $0.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $0.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	0.00	EACH	$50,000.00000	$0.00
0471	832E20000 EROSION CONTROL	0.00	LS	$1.00000	$0.00

Total for Group 0016: $0.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	0.00	FT	$8.00000	$0.00

Total for Group 0018: $0.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	0.00	FT	$215.00000	$0.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	0.00	FT	$365.00000	$0.00

Total for Group 0025: $0.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0027: $0.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0028: $0.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$59.00000	$0.00

Total for Group 0030: $0.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	0.00	SY	$68.00000	$0.00

Total for Group 0031: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0032: Non - Mainline Lanes					
0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	0.00	SY	$40.00000	$0.00
				Total for Group 0032:	$0.00
Group 0041: Other Pavement Costs					
0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00
				Total for Group 0041:	$0.00
Group 0042: Water Works					
0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00
				Total for Group 0042:	$0.00
Group 0043: Sanitary Line					
0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00
				Total for Group 0043:	$0.00
Group 0044: Lighting - Full Interchange					
0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00
				Total for Group 0044:	$0.00
Group 0045: Lighting - Partial Interchange					
0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00
				Total for Group 0045:	$0.00
Group 0046: Lighting - Continuous Roadway					
0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	0.00	FT	$138.00000	$0.00
				Total for Group 0046:	$0.00
Group 0047: Other Lighting Costs					
0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	0.00	MILE	$250,000.00000	$0.00

Total for Group 0049: $0.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	0.00	MILE	$3,000.00000	$0.00
0503	644E00200 LANE LINE	0.00	MILE	$2,000.00000	$0.00
0515		0.00		$0.00000	$0.00

Total for Group 0050: $0.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, RETAINING WALLS				
0504	M-MC-WALL Retaining Walls	0.00	SF	$135.00000	$0.00

Total for Group 0055: $0.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0514	R-MC-STRC Bridge - main river crossing	444,672.00	SF	$800.00000	$355,737,600.00

Total for Group 0060: $355,737,600.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES *New deck on existing beams. Includes steel/conc rail, bearing work, painting and etc.*	170,266.00	SF	$60.00000	$10,215,960.00

Total for Group 0061: $10,215,960.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	0.00	MILE	$5,000,000.00000	$0.00

Total for Group 0070: $0.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$18,297,678.00000	$18,297,678.00
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,829,767.80000	$1,829,767.80
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,829,767.80000	$1,829,767.80

Total for Group 0072: $24,107,213.60

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$91,488,390.00000	$91,488,390.00
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $91,488,390.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect4AltB

Estimated Cost: $417,253,824.12

Contingency: 59.50%

Estimated Total: $665,519,849.47

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	188,301.00	SY	$8.00000	$1,506,408.00

Total for Group 0001: $1,506,408.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	1,339,752.00	CY	$8.00000	$10,718,016.00

Total for Group 0003: $10,718,016.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	1,339,752.00	CY	$6.00000	$8,038,512.00

Total for Group 0005: $8,038,512.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	38,484.00	FT	$110.00000	$4,233,240.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $4,233,240.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$2.50000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0015	206E10000 LIME STABILIZED SUBGRADE	144,932.00	SY	$2.50000	$362,330.00
0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	SY	$2.50000	$0.00

Total for Group 0010: $362,330.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MANHOLE REMOVED				
0032	202E58100 CATCH BASIN REMOVED	0.00	EACH		$0.00
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	4,954.00	FT	$14.00000	$69,356.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $69,356.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	123,740.00	SY	$1.00000	$123,740.00

Total for Group 0013: $123,740.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $0.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	29,494.00	FT	$8.00000	$235,952.00

Total for Group 0018: $235,952.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	692.00	FT	$215.00000	$148,780.00
0492	C-MC-DRNG Closed Storm System B	1,820.00	FT	$290.00000	$527,800.00
0493	C-MC-DRNG Closed Storm System C	5,836.00	FT	$365.00000	$2,130,140.00

Total for Group 0025: $2,806,720.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	2,341.00	SY	$68.00000	$159,188.00

Total for Group 0027: $159,188.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	780.00	SY	$59.00000	$46,020.00

Total for Group 0028: $46,020.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	558.00	SY	$59.00000	$32,922.00

Total for Group 0030: $32,922.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	108,227.00	SY	$68.00000	$7,359,436.00

Total for Group 0031: $7,359,436.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	33,026.00	SY	$40.00000	$1,321,040.00

Total for Group 0032: $1,321,040.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	17,658.00	FT	$138.00000	$2,436,804.00

Total for Group 0046: $2,436,804.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.80	MILE	$250,000.00000	$450,000.00

Total for Group 0049: $450,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	11.23	MILE	$3,000.00000	$33,690.00
0503	644E00200 LANE LINE	26.31	MILE	$2,000.00000	$52,620.00

Total for Group 0050: $86,310.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0504	M-MC-WALL Retaining Walls	63,177.00	SF	$135.00000	$8,528,895.00

Total for Group 0055: $8,528,895.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	654,384.00	SF	$125.00000	$81,798,000.00
0507	R-MC-STRC Removal of Existing Structures non-complex	20,232.00	SF	$17.00000	$343,944.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	558,931.00	SF	$150.00000	$83,839,650.00
0512	R-MC-STRC Removal of Existing Structures above average complex	654,803.00	SF	$22.00000	$14,405,666.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	253,916.00	SF	$27.00000	$6,855,732.00
0514	R-MC-STRC Tier 3 Structures 50' to 75 Height	410,000.00	SF	$175.00000	$71,750,000.00
0515		0.00		$0.00000	$0.00

Total for Group 0060: $258,992,992.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC	1.80	MILE	$5,000,000.00000	$9,000,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, MAINTENANCE OF TRAFFIC				

Total for Group 0070: $9,000,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	2.00	LS	$10,000.00000	$20,000.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$15,842,894.05000	$15,842,894.05
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,584,289.41000	$1,584,289.41
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,584,289.41000	$1,584,289.41

Total for Group 0072: $21,181,472.87

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$79,214,470.25000	$79,214,470.25
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $79,214,470.25

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect4AltC&D

Estimated Cost: $338,813,186.16

Contingency: 59.50%

Estimated Total: $540,407,031.93

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	203,969.00	SY	$8.00000	$1,631,752.00

Total for Group 0001: $1,631,752.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	277,763.00	CY	$8.00000	$2,222,104.00

Total for Group 0003: $2,222,104.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	348,644.00	CY	$6.00000	$2,091,864.00

Total for Group 0005: $2,091,864.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	70,881.00	CY	$8.00000	$567,048.00

Total for Group 0007: $567,048.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	45,986.00	FT	$110.00000	$5,058,460.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $5,058,460.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$2.50000	$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	191,036.00	SY	$2.50000	$477,590.00

Total for Group 0010: $477,590.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100 CATCH BASIN REMOVED	0.00	EACH		$0.00
0033	202E75000	0.00	FT		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	FENCE REMOVED				
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	7,208.00	FT	$14.00000	$100,912.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $100,912.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	123,740.00	SY	$1.00000	$123,740.00

Total for Group 0013: $123,740.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Total for Group 0014: $0.00

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, EROSION CONTROL				
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	47,284.00	FT	$8.00000	$378,272.00

Total for Group 0018: $378,272.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	FT	$550.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"				
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	0.00	FT	$215.00000	$0.00
0492	C-MC-DRNG Closed Storm System B	1,820.00	FT	$290.00000	$527,800.00
0493	C-MC-DRNG Closed Storm System C	5,559.00	FT	$365.00000	$2,029,035.00

Total for Group 0025: $2,556,835.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000	0.00	CY		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER				
0082	601E32100	0.00	CY		$0.00
	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER				
0083	601E32200	0.00	CY		$0.00
	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER				
0084	602E20000	0.00	CY		$0.00
	CONCRETE MASONRY				
0090	604E34500	0.00	EACH		$0.00
	MANHOLE ADJUSTED TO GRADE				
0091	604E36600	0.00	EACH		$0.00
	PRECAST REINFORCED CONCRETE OUTLET				
0092	605E31100	0.00	FT	$5.40000	$0.00
	AGGREGATE DRAINS				

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT	1.00	LS	$0.00000	$0.00
	MAJOR COST DRIVERS, PAVEMENT				
0494	D-MC-PVMT	28,884.00	SY	$68.00000	$1,964,112.00
	13" Reinforced Concrete Pavement				
	Includes 6" Agg Base and Subgrade Compaction				

Total for Group 0027: $1,964,112.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT	1.00	LS	$0.00000	$0.00
	MAJOR COST DRIVERS, PAVEMENT				
0495	D-MC-PVMT	16,254.00	SY	$59.00000	$958,986.00
	13" Reinforced Concrete Pavement				
	Includes 6" Agg base and Subgrade Compaction				

Total for Group 0028: $958,986.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT	1.00	LS	$0.00000	$0.00
	MAJOR COST DRIVERS, PAVEMENT				
0496	D-MC-PVMT	7,110.00	SY	$59.00000	$419,490.00
	13" Reinforced Concrete Pavement				
	Includes 6" Agg base and Subgrade Compaction				

Total for Group 0030: $419,490.00

Group 0031: Ramps

0122	D-MC-PVMT	1.00	LS	$0.00000	$0.00
	MAJOR COST DRIVERS, PAVEMENT				
0497	D-MC-PVMT	108,766.00	SY	$68.00000	$7,396,088.00
	13" Reinforced Concrete Pavement				
	Includes 6" Agg base and Subgrade Compaction				

Total for Group 0031: $7,396,088.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT	1.00	LS	$0.00000	$0.00
	MAJOR COST DRIVERS, PAVEMENT				
0498	D-MC-PVMT	30,022.00	SY	$40.00000	$1,200,880.00
	Asphalt				

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction				

Total for Group 0032: $1,200,880.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	11,760.00	FT	$138.00000	$1,622,880.00

Total for Group 0046: $1,622,880.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.80	MILE	$250,000.00000	$450,000.00

Total for Group 0049: $450,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	12.89	MILE	$3,000.00000	$38,670.00
0503	644E00200 LANE LINE	25.95	MILE	$2,000.00000	$51,900.00

Total for Group 0050: $90,570.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	45,469.00	SF	$135.00000	$6,138,315.00

Total for Group 0055: $6,138,315.00

Group 0056: Other Retaining Wall Costs

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	754,107.00	SF	$125.00000	$94,263,375.00
0507	R-MC-STRC Removal of Existing Structures non-complex	20,232.00	SF	$17.00000	$343,944.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	423,782.00	SF	$150.00000	$63,567,300.00
0512	R-MC-STRC Removal of Existing Structures above average complex	654,803.00	SF	$22.00000	$14,405,666.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	253,916.00	SF	$27.00000	$6,855,732.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	187,150.00	SF	$175.00000	$32,751,250.00

Total for Group 0060: $212,187,267.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.80	MILE	$5,000,000.00000	$9,000,000.00

Total for Group 0070: $9,000,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	1.00	LS	$10,000.00000	$10,000.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$12,849,358.25000	$12,849,358.25
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,284,935.83000	$1,284,935.83
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,284,935.83000	$1,284,935.83

Total for Group 0072: $17,579,229.91

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$64,246,791.25000	$64,246,791.25
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $64,246,791.25

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect4AltE

Estimated Cost: $370,469,484.84

Contingency: 59.50%

Estimated Total: $590,898,828.32

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	203,969.00	SY	$8.00000	$1,631,752.00

Total for Group 0001: $1,631,752.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	912,417.00	CY	$8.00000	$7,299,336.00

Total for Group 0003: $7,299,336.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	912,417.00	CY	$6.00000	$5,474,502.00

Total for Group 0005: $5,474,502.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	45,183.00	FT	$110.00000	$4,970,130.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $4,970,130.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	221,035.00	SY	$2.50000	$552,587.50

Total for Group 0010: $552,587.50

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	1,978.00	FT	$14.00000	$27,692.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $27,692.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	123,740.00	SY	$1.00000	$123,740.00

Total for Group 0013: $123,740.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Total for Group 0014: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0016: Erosion Control - Item 832					
0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00
				Total for Group 0016:	$350,000.00
Group 0017: Other Erosion Control Costs					
0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00
				Total for Group 0017:	$0.00
Group 0018: Underdrains					
0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	39,550.00	FT	$8.00000	$316,400.00
				Total for Group 0018:	$316,400.00
Group 0019: Culverts - Type A: < 5'					
0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00
				Total for Group 0019:	$0.00
Group 0021: Culverts, Type A: 5' - 10'					
0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	0.00	FT	$215.00000	$0.00
0492	C-MC-DRNG Closed Storm System B	1,024.00	FT	$290.00000	$296,960.00
0493	C-MC-DRNG Closed Storm System C	7,090.00	FT	$365.00000	$2,587,850.00

Total for Group 0025: $2,884,810.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100	0.00	FT	$7.16000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	AGGREGATE DRAINS				
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	57,500.00	SY	$68.00000	$3,910,000.00

Total for Group 0027: $3,910,000.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	11,586.00	SY	$59.00000	$683,574.00

Total for Group 0028: $683,574.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	13,728.00	SY	$59.00000	$809,952.00

Total for Group 0030: $809,952.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	95,563.00	SY	$68.00000	$6,498,284.00

Total for Group 0031: $6,498,284.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	41,863.00	SY	$40.00000	$1,674,520.00

Total for Group 0032: $1,674,520.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	12,269.00	FT	$138.00000	$1,693,122.00

Total for Group 0046: $1,693,122.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, TRAFFIC SURVEILLANCE				

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.80	MILE	$250,000.00000	$450,000.00

Total for Group 0049: $450,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	14.83	MILE	$3,000.00000	$44,490.00
0503	644E00200 LANE LINE	19.35	MILE	$2,000.00000	$38,700.00

Total for Group 0050: $83,190.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	78,057.00	SF	$135.00000	$10,537,695.00

Total for Group 0055: $10,537,695.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	670,330.00	SF	$125.00000	$83,791,250.00
0507	R-MC-STRC Removal of Existing Structures non-complex	20,232.00	SF	$17.00000	$343,944.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	377,836.00	SF	$150.00000	$56,675,400.00
0512	R-MC-STRC Removal of Existing Structures above average complex	654,803.00	SF	$22.00000	$14,405,666.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	253,916.00	SF	$27.00000	$6,855,732.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	343,480.00	SF	$175.00000	$60,109,000.00

Total for Group 0060: $222,180,992.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, STRUCTURES *Contingency*				

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.80	MILE	$5,000,000.00000	$9,000,000.00

Total for Group 0070: $9,000,000.00

Group 0071: Wetland Construction

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	1.00	LS	$10,000.00000	$10,000.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$14,057,613.93000	$14,057,613.93
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$1,405,761.39000	$1,405,761.39
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$1,405,761.39000	$1,405,761.39

Total for Group 0072: $19,029,136.71

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$70,288,069.63000	$70,288,069.63
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $70,288,069.63

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect4AltF&G

Estimated Cost: $540,569,214.00

Contingency: 59.50%

Estimated Total: $862,207,896.33

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	203,969.00	SY	$8.00000	$1,631,752.00

Total for Group 0001: $1,631,752.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	4,770,102.00	CY	$8.00000	$38,160,816.00

Total for Group 0003: $38,160,816.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	4,770,102.00	CY	$6.00000	$28,620,612.00

Total for Group 0005: $28,620,612.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	70,881.00	CY	$8.00000	$567,048.00

Total for Group 0007: $567,048.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	49,508.00	FT	$110.00000	$5,445,880.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $5,445,880.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$2.50000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	191,022.00	SY	$2.50000	$477,555.00

Total for Group 0010: $477,555.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	1,566.00	FT	$14.00000	$21,924.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $21,924.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	123,740.00	SY	$1.00000	$123,740.00

Total for Group 0013: $123,740.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00

Total for Group 0014: $0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	46,908.00	FT	$8.00000	$375,264.00

Total for Group 0018: $375,264.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0019: $0.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	0.00	FT	$150.00000	$0.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $0.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	1,348.00	FT	$215.00000	$289,820.00
0492	C-MC-DRNG Closed Storm System B	1,749.00	FT	$290.00000	$507,210.00
0493	C-MC-DRNG Closed Storm System C	5,177.00	FT	$365.00000	$1,889,605.00

Total for Group 0025: $2,686,635.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100	0.00	FT	$7.16000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	AGGREGATE DRAINS				
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY		$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	14,586.00	SY	$68.00000	$991,848.00

Total for Group 0027: $991,848.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	7,293.00	SY	$59.00000	$430,287.00

Total for Group 0028: $430,287.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	8,253.00	SY	$59.00000	$486,927.00

Total for Group 0030: $486,927.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	107,080.00	SY	$68.00000	$7,281,440.00

Total for Group 0031: $7,281,440.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	39,841.00	SY	$40.00000	$1,593,640.00

Total for Group 0032: $1,593,640.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	EACH	$469,000.00000	$0.00

Total for Group 0044: $0.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	18,000.00	FT	$138.00000	$2,484,000.00

Total for Group 0046: $2,484,000.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, TRAFFIC SURVEILLANCE				

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.80	MILE	$250,000.00000	$450,000.00

Total for Group 0049: $450,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	11.76	MILE	$3,000.00000	$35,280.00
0503	644E00200 LANE LINE	22.15	MILE	$2,000.00000	$44,300.00

Total for Group 0050: $79,580.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	84,646.00	SF	$135.00000	$11,427,210.00

Total for Group 0055: $11,427,210.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	889,518.00	SF	$125.00000	$111,189,750.00
0507	R-MC-STRC Removal of Existing Structures non-complex	20,232.00	SF	$17.00000	$343,944.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	375,242.00	SF	$150.00000	$56,286,300.00
0512	R-MC-STRC Removal of Existing Structures above average complex	654,803.00	SF	$22.00000	$14,405,666.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	253,916.00	SF	$27.00000	$6,855,732.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	624,182.00	SF	$175.00000	$109,231,850.00

Total for Group 0060: $298,313,242.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, STRUCTURES *Contingency*				

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.80	MILE	$5,000,000.00000	$9,000,000.00

Total for Group 0070: $9,000,000.00

Group 0071: Wetland Construction

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	1.00	LS	$10,000.00000	$10,000.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$20,549,970.00000	$20,549,970.00
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$2,054,997.00000	$2,054,997.00
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$2,054,997.00000	$2,054,997.00

Total for Group 0072: $26,819,964.00

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$102,749,850.00000	$102,749,850.00
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $102,749,850.00

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 5 AltB

Estimated Cost: $134,849,565.40

Contingency: 59.50%

Estimated Total: $215,085,056.81

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	188,069.00	SY	$8.00000	$1,504,552.00

Total for Group 0001: $1,504,552.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	280,000.00	CY	$8.00000	$2,240,000.00

Total for Group 0003: $2,240,000.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment (includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	280,000.00	CY	$6.00000	$1,680,000.00

Total for Group 0005: $1,680,000.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	33,383.00	FT	$110.00000	$3,672,130.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $3,672,130.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	254,246.00	SY	$2.50000	$635,615.00

Total for Group 0010: $635,615.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	8,516.00	FT	$14.00000	$119,224.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $119,224.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	81,500.00	SY	$1.00000	$81,500.00

Total for Group 0013: $81,500.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	36.00	CY	$77.33807	$2,784.17

Total for Group 0014: $2,784.17

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	44,610.00	FT	$8.00000	$356,880.00

Total for Group 0018: $356,880.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	3.00	EACH	$1,500.00000	$4,500.00

Total for Group 0019: $4,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	1,113.00	FT	$150.00000	$166,950.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $166,950.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	576.00	FT	$215.00000	$123,840.00
0492	C-MC-DRNG Closed Storm System B	2,383.00	FT	$290.00000	$691,070.00
0493	C-MC-DRNG Closed Storm System C	4,394.00	FT	$365.00000	$1,603,810.00

Total for Group 0025: $2,418,720.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100	0.00	FT	$7.16000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	AGGREGATE DRAINS				
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY	$92.71008	$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	87,609.00	SY	$68.00000	$5,957,412.00

Total for Group 0027: $5,957,412.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	21,790.00	SY	$59.00000	$1,285,610.00

Total for Group 0028: $1,285,610.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	19,825.00	SY	$59.00000	$1,169,675.00

Total for Group 0030: $1,169,675.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	59,916.00	SY	$68.00000	$4,074,288.00

Total for Group 0031: $4,074,288.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	71,106.00	SY	$40.00000	$2,844,240.00

Total for Group 0032: $2,844,240.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	2.00	EACH	$469,000.00000	$938,000.00

Total for Group 0044: $938,000.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	8,470.00	FT	$138.00000	$1,168,860.00

Total for Group 0046: $1,168,860.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, TRAFFIC SURVEILLANCE				

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.60	MILE	$250,000.00000	$400,000.00

Total for Group 0049: $400,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	11.39	MILE	$3,000.00000	$34,170.00
0503	644E00200 LANE LINE	15.26	MILE	$2,000.00000	$30,520.00

Total for Group 0050: $64,690.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	98,851.00	SF	$135.00000	$13,344,885.00

Total for Group 0055: $13,344,885.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	279,399.00	SF	$125.00000	$34,924,875.00
0507	R-MC-STRC Removal of Existing Structures non-complex	0.00	SF	$17.00000	$0.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	68,475.00	SF	$150.00000	$10,271,250.00
0512	R-MC-STRC Removal of Existing Structures above average complex	164,579.00	SF	$22.00000	$3,620,738.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	0.00	SF	$27.00000	$0.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	0.00	SF	$175.00000	$0.00
0515		0.00		$0.00000	$0.00

Total for Group 0060: $48,816,863.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.60	MILE	$5,000,000.00000	$8,000,000.00

Total for Group 0070: $8,000,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$5,064,868.91000	$5,064,868.91
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$506,486.89000	$506,486.89
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$506,486.89000	$506,486.89

Total for Group 0072: $8,227,842.69

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$25,324,344.54000	$25,324,344.54
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $25,324,344.54

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 5AltCD

Estimated Cost: $132,669,574.76

Contingency: 59.50%

Estimated Total: $211,607,971.74

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	188,069.00	SY	$8.00000	$1,504,552.00

Total for Group 0001: $1,504,552.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	279,511.00	CY	$8.00000	$2,236,088.00

Total for Group 0003: $2,236,088.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment(includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	279,511.00	CY	$6.00000	$1,677,066.00

Total for Group 0005: $1,677,066.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	31,278.00	FT	$110.00000	$3,440,580.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $3,440,580.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	249,740.00	SY	$2.50000	$624,350.00

Total for Group 0010: $624,350.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	7,602.00	FT	$14.00000	$106,428.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $106,428.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	81,500.00	SY	$1.00000	$81,500.00

Total for Group 0013: $81,500.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	36.00	CY	$77.33807	$2,784.17

Total for Group 0014: $2,784.17

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	33,151.00	FT	$8.00000	$265,208.00

Total for Group 0018: $265,208.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	3.00	EACH	$1,500.00000	$4,500.00

Total for Group 0019: $4,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	1,113.00	FT	$150.00000	$166,950.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $166,950.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	576.00	FT	$215.00000	$123,840.00
0492	C-MC-DRNG Closed Storm System B	2,383.00	FT	$290.00000	$691,070.00
0493	C-MC-DRNG Closed Storm System C	4,394.00	FT	$365.00000	$1,603,810.00

Total for Group 0025: $2,418,720.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100	0.00	FT	$7.16000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	AGGREGATE DRAINS				
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY	$92.71008	$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	88,730.00	SY	$68.00000	$6,033,640.00

Total for Group 0027: $6,033,640.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	21,791.00	SY	$59.00000	$1,285,669.00

Total for Group 0028: $1,285,669.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	19,852.00	SY	$59.00000	$1,171,268.00

Total for Group 0030: $1,171,268.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	49,289.00	SY	$68.00000	$3,351,652.00

Total for Group 0031: $3,351,652.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	70,078.00	SY	$40.00000	$2,803,120.00

Total for Group 0032: $2,803,120.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	2.00	EACH	$469,000.00000	$938,000.00

Total for Group 0044: $938,000.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	8,470.00	FT	$138.00000	$1,168,860.00

Total for Group 0046: $1,168,860.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, TRAFFIC SURVEILLANCE				

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.60	MILE	$250,000.00000	$400,000.00

Total for Group 0049: $400,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	8.07	MILE	$3,000.00000	$24,210.00
0503	644E00200 LANE LINE	13.34	MILE	$2,000.00000	$26,680.00

Total for Group 0050: $50,890.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	110,260.00	SF	$135.00000	$14,885,100.00

Total for Group 0055: $14,885,100.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	300,110.00	SF	$125.00000	$37,513,750.00
0507	R-MC-STRC Removal of Existing Structures non-complex	0.00	SF	$17.00000	$0.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	36,879.00	SF	$150.00000	$5,531,850.00
0512	R-MC-STRC Removal of Existing Structures above average complex	164,579.00	SF	$22.00000	$3,620,738.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	0.00	SF	$27.00000	$0.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	0.00	SF	$175.00000	$0.00

Total for Group 0060: $46,666,338.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, STRUCTURES *Contingency*				

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.60	MILE	$5,000,000.00000	$8,000,000.00

Total for Group 0070: $8,000,000.00

Group 0071: Wetland Construction

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$4,981,663.16000	$4,981,663.16
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$498,166.32000	$498,166.32
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$498,166.32000	$498,166.32

Total for Group 0072: $8,127,995.80

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$24,908,315.79000	$24,908,315.79
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $24,908,315.79

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 5Alt E

Estimated Cost: $136,968,144.56

Contingency: 59.50%

Estimated Total: $218,464,190.57

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	188,069.00	SY	$8.00000	$1,504,552.00

Total for Group 0001: $1,504,552.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$30.00000	$0.00

Total for Group 0002: $0.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	287,400.00	CY	$8.00000	$2,299,200.00

Total for Group 0003: $2,299,200.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	417,023.00	CY	$6.00000	$2,502,138.00

Total for Group 0005: $2,502,138.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	129,623.00	CY	$8.00000	$1,036,984.00

Total for Group 0007: $1,036,984.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	26,553.00	FT	$110.00000	$2,920,830.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $2,920,830.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	248,196.00	SY	$2.50000	$620,490.00

Total for Group 0010: $620,490.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5	5,221.00	FT	$14.00000	$73,094.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $73,094.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	81,500.00	SY	$1.00000	$81,500.00

Total for Group 0013: $81,500.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	36.00	CY	$77.33807	$2,784.17

Total for Group 0014: $2,784.17

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	36,492.00	FT	$8.00000	$291,936.00

Total for Group 0018: $291,936.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	3.00	EACH	$1,500.00000	$4,500.00

Total for Group 0019: $4,500.00

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	814.00	FT	$150.00000	$122,100.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $122,100.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	2,446.00	FT	$215.00000	$525,890.00
0492	C-MC-DRNG Closed Storm System B	1,976.00	FT	$290.00000	$573,040.00
0493	C-MC-DRNG Closed Storm System C	3,225.00	FT	$365.00000	$1,177,125.00

Total for Group 0025: $2,276,055.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG OTHER COSTS, DRAINAGE	0.00	LS	$0.00000	$0.00
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100	0.00	FT	$7.16000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	AGGREGATE DRAINS				
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY	$92.71008	$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	111,820.00	SY	$68.00000	$7,603,760.00

Total for Group 0027: $7,603,760.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	19,346.00	SY	$59.00000	$1,141,414.00

Total for Group 0028: $1,141,414.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	23,407.00	SY	$59.00000	$1,381,013.00

Total for Group 0030: $1,381,013.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	22,722.00	SY	$68.00000	$1,545,096.00

Total for Group 0031: $1,545,096.00

Group 0032: Non - Mainline Lanes

0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	78,851.00	SY	$40.00000	$3,154,040.00

Total for Group 0032: $3,154,040.00

Group 0041: Other Pavement Costs

0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00

Total for Group 0041: $0.00

Group 0042: Water Works

0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00

Total for Group 0042: $0.00

Group 0043: Sanitary Line

0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00

Total for Group 0043: $0.00

Group 0044: Lighting - Full Interchange

0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	2.00	EACH	$469,000.00000	$938,000.00

Total for Group 0044: $938,000.00

Group 0045: Lighting - Partial Interchange

0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0045: $0.00

Group 0046: Lighting - Continuous Roadway

0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	8,470.00	FT	$138.00000	$1,168,860.00

Total for Group 0046: $1,168,860.00

Group 0047: Other Lighting Costs

0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, TRAFFIC SURVEILLANCE				

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.60	MILE	$250,000.00000	$400,000.00

Total for Group 0049: $400,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	7.38	MILE	$3,000.00000	$22,140.00
0503	644E00200 LANE LINE	14.90	MILE	$2,000.00000	$29,800.00

Total for Group 0050: $51,940.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125+$10/FT for caps barriers and testing

0216	M-MC-WALL MAJOR COST DRIVERS, RETAINING WALLS	1.00	LS	$0.00000	$0.00
0504	M-MC-WALL Retaining Walls	106,524.00	SF	$135.00000	$14,380,740.00

Total for Group 0055: $14,380,740.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	319,288.00	SF	$125.00000	$39,911,000.00
0507	R-MC-STRC Removal of Existing Structures non-complex	0.00	SF	$17.00000	$0.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	36,879.00	SF	$150.00000	$5,531,850.00
0512	R-MC-STRC Removal of Existing Structures above average complex	164,579.00	SF	$22.00000	$3,620,738.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	0.00	SF	$27.00000	$0.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	0.00	SF	$175.00000	$0.00

Total for Group 0060: $49,063,588.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, STRUCTURES *Contingency*				

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.60	MILE	$5,000,000.00000	$8,000,000.00

Total for Group 0070: $8,000,000.00

Group 0071: Wetland Construction

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC *5%*	1.00	LS	$5,145,730.71000	$5,145,730.71
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5%*	1.00	LS	$514,573.07000	$514,573.07
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND *0.5%*	1.00	LS	$514,573.07000	$514,573.07

Total for Group 0072: $8,324,876.85

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$25,728,653.54000	$25,728,653.54
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $25,728,653.54

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Estimate BSB Sect 5AltFG

Estimated Cost: $136,151,590.12

Contingency: 59.50%

Estimated Total: $217,161,786.24

Letting Date: 01/01/15

Spec Year: 05

Unit System: E

Work Type: GEN CONST: INVLVS 2 OR MOR MAJ WRK TYPE

Highway Type: 451

Urban/Rural Type: URBAN CLASS

Season: SUMMER

County: HAMILTON

Estimate Type: C1

Prepared by Parsons Brinckerhoff on 11/05/08

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0001: Pavement Removal

0001	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	LS	$0.00000	$0.00
0343	202E23000 PAVEMENT REMOVED	188,069.00	SY	$8.00000	$1,504,552.00

Total for Group 0001: $1,504,552.00

Group 0002: Excavation - Rock

0003	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	CY	$30.00000	$30.00

Total for Group 0002: $30.00

Group 0003: Excavation - Soil

0004	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0344	203E10000 EXCAVATION	282,783.00	CY	$8.00000	$2,262,264.00

Total for Group 0003: $2,262,264.00

Group 0004: Excavation - Hazardous

0006	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0004: $0.00

Group 0005: Fill - Embankment(includes wasting excess excavation)

0007	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0345	203E20000 EMBANKMENT	282,783.00	CY	$6.00000	$1,696,698.00

Total for Group 0005: $1,696,698.00

Group 0006: Fill - Lime Modified Soil

0010	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0346	205E10050 LIME STABILIZED EMBANKMENT	0.00	CY	$7.00000	$0.00
0347	205E10300 LIME	0.00	TON		$0.00

Total for Group 0006: $0.00

Group 0007: Fill - Borrow

0011	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	0.00	CY	$8.00000	$0.00

Total for Group 0007: $0.00

Group 0008: Concrete Barrier

0012	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0465	622E10060	31,428.00	FT	$110.00000	$3,457,080.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CONCRETE BARRIER, SINGLE SLOPE, TYPE B				

Total for Group 0008: $3,457,080.00

Group 0009: Subgrade Treatment - Lime

0014	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00
0348	206E10000 LIME STABILIZED SUBGRADE	0.00	SY	$1.85000	$0.00
0349	206E10300 LIME	0.00	TON		$0.00
0350	206E11000 CURING COAT	0.00	SY	$1.00000	$0.00
0351	206E20000 TEST ROLLING	0.00	HOUR		$0.00

Total for Group 0009: $0.00

Group 0010: Subgrade Treatment - Cement

0016	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	254,966.00	SY	$2.50000	$637,415.00

Total for Group 0010: $637,415.00

Group 0011: Subgrade Treatment - Undercut & Backfill

0017	A-MC-RDWY MAJOR COST DRIVERS, ROADWAY	1.00	LS	$0.00000	$0.00

Total for Group 0011: $0.00

Group 0012: Other Roadway Costs

0019	A-OC-RDWY OTHER COSTS, ROADWAY *Contingency*	0.00	LS	$0.00000	$0.00
0020	201E11000 CLEARING AND GRUBBING	0.00	LS	$856,500.00000	$0.00
0021	201E21800 TREE REMOVED, 18" SIZE	0.00	EACH	$250.00000	$0.00
0022	201E23000 TREE REMOVED, 30" SIZE	0.00	EACH	$405.00000	$0.00
0023	201E24800 TREE REMOVED, 48" SIZE	0.00	EACH	$772.00000	$0.00
0024	201E26500 STUMP REMOVED, 18" SIZE	0.00	EACH		$0.00
0026	202E11000 STRUCTURE REMOVED	0.00	LS	$9,310.13000	$0.00
0027	202E35100 PIPE REMOVED, 24" AND UNDER	0.00	FT		$0.00
0028	202E35200 PIPE REMOVED, OVER 24"	0.00	FT		$0.00
0029	202E38000 GUARDRAIL REMOVED	0.00	FT		$0.00
0030	202E42206 ANCHOR ASSEMBLY REMOVED	0.00	EACH		$0.00
0031	202E58000 MANHOLE REMOVED	0.00	EACH		$0.00
0032	202E58100	0.00	EACH		$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	CATCH BASIN REMOVED				
0033	202E75000 FENCE REMOVED	0.00	FT		$0.00
0034	204E45000 PROOF ROLLING	0.00	HOUR	$126.59000	$0.00
0035	204E10000 SUBGRADE COMPACTION	0.00	SY	$0.81000	$0.00
0036	451E30000 SPECIAL - PRESSURE RELIEF JOINT, TYPE A	0.00	FT		$0.00
0037	606E13000 GUARDRAIL, TYPE 5 *Large quantity incl teem/anchor assemblies*	6,326.00	FT	$14.00000	$88,564.00
0038	606E22000 ANCHOR ASSEMBLY, TYPE B-98	0.00	EACH		$0.00
0039	606E22010 ANCHOR ASSEMBLY, TYPE E-98	0.00	EACH		$0.00
0040	606E26500 ANCHOR ASSEMBLY, TYPE T	0.00	EACH		$0.00
0041	606E35000 BRIDGE TERMINAL ASSEMBLY, TYPE 1	0.00	EACH		$0.00
0042	606E35100 BRIDGE TERMINAL ASSEMBLY, TYPE 2	0.00	EACH		$0.00
0043	606E60010 IMPACT ATTENUATOR, TYPE 1-98 (BIDIRECTIONAL)	0.00	EACH		$0.00
0044	607E15000 FENCE, TYPE 47 *For Fencing*	0.00	FT		$0.00
0423	304E20000 AGGREGATE BASE *For Fencing*	0.00	CY		$0.00
0424	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER *For Fencing*	0.00	CY		$0.00
0425	607E40500 GATE, TYPE 47 *For Fencing*	0.00	EACH		$0.00
0426	625E32000 GROUND ROD *For Fencing*	0.00	EACH		$0.00
0466		0.00		$0.00000	$0.00

Total for Group 0012: $88,564.00

Group 0013: Seeding & Mulching / Sodding

0045	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0467	659E10000 SEEDING AND MULCHING	81,500.00	SY	$1.00000	$81,500.00

Total for Group 0013: $81,500.00

Group 0014: Rock Channel Protection

0047	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0469	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	36.00	CY	$77.33807	$2,784.17

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0014: $2,784.17

Group 0016: Erosion Control - Item 832

0048	B-MC-ERCO MAJOR COST DRIVERS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0470	832E10000 STORM WATER POLLUTION PREVENTION PLAN	1.00	EACH	$50,000.00000	$50,000.00
0471	832E20000 EROSION CONTROL	300,000.00	LS	$1.00000	$300,000.00

Total for Group 0016: $350,000.00

Group 0017: Other Erosion Control Costs

0049	670E00700 DITCH EROSION PROTECTION	0.00	SY		$0.00
0050	B-OC-ERCO OTHER COSTS, EROSION CONTROL	1.00	LS	$0.00000	$0.00
0051	659E00100 SOIL ANALYSIS TEST	0.00	EACH	$0.00000	$0.00
0052	659E00300 TOPSOIL	0.00	CY		$0.00
0053	659E14000 REPAIR SEEDING AND MULCHING	0.00	SY		$0.00
0054	659E15000 INTER-SEEDING	0.00	SY	$0.71000	$0.00
0055	659E20000 COMMERCIAL FERTILIZER	0.00	TON		$0.00
0056	659E31000 LIME	0.00	ACRE	$0.00000	$0.00
0057	659E35000 WATER	0.00	MGAL	$5.00000	$0.00
0058	659E40000 MOWING	0.00	MSF	$0.00000	$0.00

Total for Group 0017: $0.00

Group 0018: Underdrains

0059	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0062	605E05100 4" SHALLOW PIPE UNDERDRAINS	33,026.00	FT	$8.00000	$264,208.00

Total for Group 0018: $264,208.00

Group 0019: Culverts - Type A: < 5'

0474	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0480	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe up to 60"*	0.00	FT	$350.00000	$0.00
0481	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	3.00	EACH	$1,500.00000	$4,500.00

Total for Group 0019: $4,500.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Group 0021: Culverts, Type A: 5' - 10'

0067	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0476	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete 5'-10' 66" to 78"*	0.00	FT	$550.00000	$0.00
0477	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete - Headwalls/wingwalls*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0021: $0.00

Group 0022: Culverts, Type A: 10' - 20'

0486	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0487	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Pipe Structures - Reinforced Concrete Pipe 10'-20'*	0.00	FT	$1,400.00000	$0.00
0488	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE *Concrete Masonry*	0.00	EACH	$1,500.00000	$0.00

Total for Group 0022: $0.00

Group 0023: Median Drainage

0075	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	0.00	LS	$0.00000	$0.00
0489	C-MC-DRNG Median Drainage	1,232.00	FT	$150.00000	$184,800.00
0490	C-MC-DRNG Barrier median Inlet, Single Slope *based upon inlets every 300'*	0.00	EACH	$5,000.00000	$0.00

Total for Group 0023: $184,800.00

Group 0024: BMP's

0076	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00

Total for Group 0024: $0.00

Group 0025: Closed Storm System Std $215/ft price adjusted for complexity of systems

0077	C-MC-DRNG MAJOR COST DRIVERS, DRAINAGE	1.00	LS	$0.00000	$0.00
0491	C-MC-DRNG Closed Storm System A	772.00	FT	$215.00000	$165,980.00
0492	C-MC-DRNG Closed Storm System B	0.00	FT	$290.00000	$0.00
0493	C-MC-DRNG Closed Storm System C	6,477.00	FT	$365.00000	$2,364,105.00

Total for Group 0025: $2,530,085.00

Group 0026: Other Drainage Costs

0078	C-OC-DRNG	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, DRAINAGE				
0079	601E11000 RIPRAP USING 6" REINFORCED CONCRETE SLAB	0.00	SY		$0.00
0080	605E31100 AGGREGATE DRAINS	0.00	FT	$7.16000	$0.00
0081	601E32000 ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	0.00	CY	$92.71008	$0.00
0082	601E32100 ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	0.00	CY		$0.00
0083	601E32200 ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	0.00	CY		$0.00
0084	602E20000 CONCRETE MASONRY	0.00	CY		$0.00
0090	604E34500 MANHOLE ADJUSTED TO GRADE	0.00	EACH		$0.00
0091	604E36600 PRECAST REINFORCED CONCRETE OUTLET	0.00	EACH		$0.00
0092	605E31100 AGGREGATE DRAINS	0.00	FT	$5.40000	$0.00

Total for Group 0026: $0.00

Group 0027: Mainline - Travel Lanes

0095	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0494	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg Base and Subgrade Compaction*	86,255.00	SY	$68.00000	$5,865,340.00

Total for Group 0027: $5,865,340.00

Group 0028: Mainline - Outside Shoulder

0100	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0495	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	17,345.00	SY	$59.00000	$1,023,355.00

Total for Group 0028: $1,023,355.00

Group 0030: Mainline - Inside Shoulder

0115	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0496	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	19,113.00	SY	$59.00000	$1,127,667.00

Total for Group 0030: $1,127,667.00

Group 0031: Ramps

0122	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0497	D-MC-PVMT 13" Reinforced Concrete Pavement *Includes 6" Agg base and Subgrade Compaction*	62,175.00	SY	$68.00000	$4,227,900.00

Total for Group 0031: $4,227,900.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
Group 0032: Non - Mainline Lanes					
0132	D-MC-PVMT MAJOR COST DRIVERS, PAVEMENT	1.00	LS	$0.00000	$0.00
0498	D-MC-PVMT Asphalt *Includes 3" 448, 9" 301, 6" Agg base and Subgrade Compaction*	70,078.00	SY	$40.00000	$2,803,120.00
				Total for Group 0032:	$2,803,120.00
Group 0041: Other Pavement Costs					
0163	D-OC-PVMT OTHER COSTS, PAVEMENT	1.00	LS	$0.00000	$0.00
				Total for Group 0041:	$0.00
Group 0042: Water Works					
0164	E-MC-WATR MAJOR COST DRIVERS, WATER LINE	0.00	LS	$0.00000	$0.00
0165	E-OC-WATR OTHER COSTS, WATER LINE	0.00	LS	$0.00000	$0.00
				Total for Group 0042:	$0.00
Group 0043: Sanitary Line					
0170	F-MC-SANI MAJOR COST DRIVERS, SANITARY SEWER	0.00	LS	$0.00000	$0.00
				Total for Group 0043:	$0.00
Group 0044: Lighting - Full Interchange					
0173	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0499	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	2.00	EACH	$469,000.00000	$938,000.00
				Total for Group 0044:	$938,000.00
Group 0045: Lighting - Partial Interchange					
0288	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	0.00	LS	$0.00000	$0.00
				Total for Group 0045:	$0.00
Group 0046: Lighting - Continuous Roadway					
0176	G-MC-LTNG MAJOR COST DRIVERS, LIGHTING	1.00	LS	$0.00000	$0.00
0500	G-MC-LTNG Lighting - Continuous	8,470.00	FT	$138.00000	$1,168,860.00
				Total for Group 0046:	$1,168,860.00
Group 0047: Other Lighting Costs					
0177	G-OC-LTNG OTHER COSTS, LIGHTING	0.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0047: $0.00

Group 0048: Traffic Surveillance

0178	H-OC-SURV OTHER COSTS, TRAFFIC SURVEILLANCE	0.00	LS	$0.00000	$0.00

Total for Group 0048: $0.00

Group 0049: Signs

0179	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0501	J-MC-TRAF Signs	1.60	MILE	$250,000.00000	$400,000.00

Total for Group 0049: $400,000.00

Group 0050: Pavement Marking

0200	J-MC-TRAF MAJOR COST DRIVERS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00
0502	644E00100 EDGE LINE	10.02	MILE	$3,000.00000	$30,060.00
0503	644E00200 LANE LINE	18.86	MILE	$2,000.00000	$37,720.00
0515		0.00		$0.00000	$0.00

Total for Group 0050: $67,780.00

Group 0051: Other Traffic Control Costs

0208	J-OC-TRAF OTHER COSTS, TRAFFIC CONTROL	1.00	LS	$0.00000	$0.00

Total for Group 0051: $0.00

Group 0052: Signals - Intersections

0212	K-MC-SGNL MAJOR COST DRIVERS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0052: $0.00

Group 0053: Other Traffic Signal Costs

0213	K-OC-SGNL OTHER COSTS, SIGNALS	1.00	LS	$0.00000	$0.00

Total for Group 0053: $0.00

Group 0054: Landscaping

0214	L-MC-LSCP MAJOR COST DRIVERS, LANDSCAPING	1.00	LS	$0.00000	$0.00
0215	L-OC-LSCP OTHER COSTS, LANDSCAPING	1.00	LS	$0.00000	$0.00

Total for Group 0054: $0.00

Group 0055: Retaining Walls $125 + $10/ft for caps, barriers and testing

0216	M-MC-WALL	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	MAJOR COST DRIVERS, RETAINING WALLS				
0504	M-MC-WALL Retaining Walls	111,370.00	SF	$135.00000	$15,034,950.00

Total for Group 0055: $15,034,950.00

Group 0056: Other Retaining Wall Costs

0217	M-OC-WALL OTHER COSTS, RETAINING WALLS	1.00	LS	$0.00000	$0.00

Total for Group 0056: $0.00

Group 0057: Building Demolition

0218	N-MC-DEMO MAJOR COST DRIVERS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00
0219	N-OC-DEMO OTHER COSTS, BUILDING DEMOLITION	1.00	LS	$0.00000	$0.00

Total for Group 0057: $0.00

Group 0058: Noise Barrier

0220	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0505	P-MC-NSBR Noise Barrier	0.00	LF	$400.00000	$0.00

Total for Group 0058: $0.00

Group 0059: Other Noise Barrier Costs

0221	P-OC-NSBR OTHER COSTS, NOISE BARRIER	1.00	LS	$0.00000	$0.00
0368	P-MC-NSBR MAJOR COST DRIVERS, NOISE BARRIER	0.00	LS	$0.00000	$0.00

Total for Group 0059: $0.00

Group 0060: New Structures

0222	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00
0506	R-MC-STRC Tier 1 Structures 25' max Height	315,338.00	SF	$125.00000	$39,417,250.00
0507	R-MC-STRC Removal of Existing Structures non-complex	0.00	SF	$17.00000	$0.00
0508	R-MC-STRC Tier 2 Structures 25' to 50' Height	36,879.00	SF	$150.00000	$5,531,850.00
0512	R-MC-STRC Removal of Existing Structures above average complex	164,579.00	SF	$22.00000	$3,620,738.00
0513	R-MC-STRC Removal of Existing Structures complex to very complex	0.00	SF	$27.00000	$0.00
0514	R-MC-STRC Tier 3 Structures 50 to 75' Height	0.00	SF	$175.00000	$0.00

Total for Group 0060: $48,569,838.00

Group 0061: Rehabilitated Structures

0223	R-MC-STRC MAJOR COST DRIVERS, STRUCTURES	1.00	LS	$0.00000	$0.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension

Total for Group 0061: $0.00

Group 0062: Other Structure Costs

0224	R-OC-STRC OTHER COSTS, STRUCTURES *Contingency*	0.00	LS	$0.00000	$0.00

Total for Group 0062: $0.00

Group 0063: Temporary Road and Pavement Costs

0225	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0063: $0.00

Group 0064: Portable Concrete Barrier (PCB)

0226	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0064: $0.00

Group 0065: Impact Attenuators

0227	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0065: $0.00

Group 0066: Sheeting

0229	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00

Total for Group 0066: $0.00

Group 0067: Temporary Signals

0230	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0067: $0.00

Group 0068: Work Zone Lighting

0231	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0068: $0.00

Group 0069: Innovative Contracting Incentatives

0232	S-MC-MNTC MAJOR COST DRIVERS, MAINTENANCE OF TRAFFIC	0.00	LS	$0.00000	$0.00

Total for Group 0069: $0.00

Group 0070: Other MOT Costs

0233	S-OC-MNTC OTHER COSTS, MAINTENANCE OF TRAFFIC	1.00	LS	$0.00000	$0.00
0511	S-OC-MNTC	1.60	MILE	$5,000,000.00000	$8,000,000.00

Line #	Item Number / Description / *Supplemental Description*	Quantity	Units	Unit Price	Extension
	OTHER COSTS, MAINTENANCE OF TRAFFIC				

Total for Group 0070: $8,000,000.00

Group 0071: Wetland Construction

0234	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00
0360	T-MC-WTLD MAJOR COST DRIVERS, WETLAND CONSTRUCTION	0.00	LS	$0.00000	$0.00

Total for Group 0071: $0.00

Group 0072: Misc. Costs

0235	U-MC-MISC MAJOR COST DRIVERS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0236	U-OC-MISC OTHER COSTS, MISCELLANEOUS COSTS	0.00	LS	$0.00000	$0.00
0237	100E00300 SPECIAL - PREMIUM ON RAILROADS' PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE	0.00	LS	$10,000.00000	$0.00
0238	614E11000 MAINTAINING TRAFFIC	1.00	LS	$5,114,564.51000	$5,114,564.51
0239	619E16020 FIELD OFFICE, TYPE C	60.00	MNTH	$2,500.00000	$150,000.00
0240	623E10000 CONSTRUCTION LAYOUT STAKES *0.5% of 60,000,000*	1.00	LS	$511,456.45000	$511,456.45
0241	624E10000 MOBILIZATION	1.00	LS	$2,000,000.00000	$2,000,000.00
0510	103E05000 PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	1.00	LS	$511,456.45000	$511,456.45

Total for Group 0072: $8,287,477.41

Group 0073: Design Contingency Costs

0242	V-MC-CNTG MAJOR COST DRIVERS, CONTINGENCY COSTS	1.00	LS	$25,572,822.54000	$25,572,822.54
0243	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	1.00	LS	$0.00000	$0.00

Total for Group 0073: $25,572,822.54

Group 0074: Inflation Contingency

0244	V-OC-CNTG OTHER COSTS, CONTINGENCY COSTS	0.00	LS	$0.00000	$0.00

Total for Group 0074: $0.00

Parcel ID #	Owner	Property Address	City	Business Name	Land Use	Alternative Impact	Land Value	Improve Value	Total Assessed Value	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Kentucky														
040-34-02-005.00	Gateway Hotel	202-04 Crescent Ave.	Covington	Hampton Inn	Business- Hotel	b	1,555,500	4,444,500	6,000,000	6,000,000				
040-34-01-001.00	Willie's of N. Kentucky INC	401-A Crescent Ave.	Covington		Parking lot	b	104,500	50,000	154,500	154,500				
040-34-01-001.02	Willie's of N. Kentucky INC	401 Crescent Ave.	Covington	Willie's Sports Café	Commercial	b	710,000	900,000	1,610,000	1,610,000				
040-34-03-004.00	Corken Steel Products	680 4th St W	Covington	Corken Steel Products	Industrial - Commercial	b	493,000	143,500	636,500	636,500				
040-34-01-001.05	Lawrence Callahan	526 Western Ave	Covington		Residential	b	30,000	150,000	180,000	180,000				
040-34-01-001.06	Larry D Jenkins	524 Western Ave	Covington		Residential	b	30,000	185,000	215,000	215,000				
040-34-01-001.03	Richard Kessler & Kimberly	522 Western Ave	Covington		Residential	b	20,000	150,000	170,000	170,000				
040-34-01-001.04	Raymond & Deborah Reinhart	520 Western Ave	Covington		Residential	b	30,000	160,000	190,000	190,000				
040-34-01-001.07	Jason R Merrill	518 Western Ave.	Covington		Residential	b	30,000	200,000	230,000	230,000				
040-34-01-001.08	Audrey Blair-Gentry	516 Western Ave.	Covington		Residential	b	30,000	225,000	255,000	255,000				
040-34-01-001.09	Brent Bleh jr.	514 Western Ave.	Covington		Residential	b	30,000	179,000	209,000	209,000				
040-34-01-001.10	Jeffrey & Leslie Hendricks	512 Western Ave.	Covington		Residential	b	30,000	170,000	200,000	200,000				
040-34-01-001.11	John Taylor	510 Western Ave.	Covington		Residential	b	30,000	325,000	355,000	355,000				
040-34-01-001.12	Danny R & Neva J Francis	508 Western Ave.	Covington		Residential	b	30,000	290,000	320,000	320,000				
040-34-01-001.01	Lawrence W Grouse	504 Western Ave	Covington		Residential - Vacant?	b	30,000	270,000	300,000	300,000				
040-34-01-001.15	Ben Herndon	506 Western Ave	Covington		Residential	b	30,000	335,000	365,000	365,000				
040-30-00-073.01	OBANION NORMAN & CATHERI	801 Highway Ave	Covington		Commercial	b	15,000	40,000	55,000	55,000				
040-30-01-173.00	ROWLAND CHARLES W	203 Western Ave	Covington		Residential	b	10,000	50,000	60,000	60,000				
040-30-01-174.00	Michael Frazier	205 Western Ave	Covington		Residential	b	10,000	55,000	65,000	65,000				
040-30-00-002.00	Huntington Properties	213 Western Ave	Covington		Residential	b	40,000	45,000	85,000	85,000				
040-30-00-027.01	Julius Trammer	223-25 Western Ave	Covington		Residential	b	10,000	117,000	127,000	127,000				
040-30-00-010.00	Rinzy & Kim Nocero	227 Western Ave	Covington		Residential	b	10,000	65,000	75,000	75,000				
040-30-00-026.00	Covington Heights HOA	227-A Western Ave	Covington		Residential	b	0	0	0	0				
040-30-00-013.00	Jessica Kupper	233 Western Ave	Covington		Residential	b	10,000	102,500	112,500	112,500				
040-30-00-015.00	January Durban	237 Western Ave	Covington		Residential	b	10,000	85,000	95,000	95,000				
040-30-00-021.00	Chris Rice	311 Western Ave	Covington		Residential	b	10,000	65,000	75,000	75,000				
040-30-00-022.00	Jennifer Gunning	313 Western Ave	Covington		Residential	b	10,000	86,800	96,800	96,800				
040-30-00-025.00	Donald Pulsfort & Willena B	319 Western Ave	Covington		Residential	b	10,000	45,500	55,500	55,500				
040-41-11-013.00	Jeffery Altenaw	429 Western Ave	Covington		Residential	b	30,000	105,000	135,000	135,000				
040-41-11-014.00	Kristen Schmidt	431 Western Ave	Covington		Residential	b	25,000	248,000	273,000	273,000				
040-41-11-015.01	Deborah Bramlage	501 Western Ave	Covington		Residential	b	10,000	15,000	25,000	25,000				
040-41-11-023.00	Clifford Riverview Properties	604 Western Ave	Covington		Residential	b	15,000	75,000	90,000	90,000				
040-43-02-029.00	Harry & Teresa Stadtlander	606 Western Ave	Covington		Residential	b	6,000	59,000	65,000	65,000				
040-43-02-028.00	Harry & Teresa Stadtlander	608-10 Western Ave	Covington		Vacant	b	4,000	0	4,000	4,000				
040-43-02-027.00	James Nelson	616 Western Ave	Covington		Residential	b	10,000	75,000	85,000	85,000				
040-41-11-028.00	Bedd Scenic View LLC	619 Western Ave	Covington		Residential	b	10,000	95,000	105,000	105,000				
040-43-02-025.00	Thomas McMurray	622 Western Ave	Covington		Residential	b	5,000	50,000	55,000	55,000				
040-43-02-023.00	Michael McQuery & Deborah	628 Western Ave	Covington		Residential - Garage	b	2,800	200	3,000	3,000				
040-43-02-022.00	Bedd Scenic View LLC	630 Western Ave	Covington		Residential	b	5,000	50,000	55,000	55,000				
040-43-02-021.00	Michael McQuery & Deborah	632-34 Western Ave	Covington		Residential	b	5,000	60,000	65,000	65,000				
040-43-02-020.00	Peter Thornton & Trula	636 Western Ave	Covington		Residential	b	5,000	45,000	50,000	50,000				
040-30-01-175.00	Michael Frazier	207 Western Ave	Covington		Residential	b- parcel	10,000	60,000	70,000					
040-30-01-176-00	Michael Frazier	209 Western Ave	Covington		Residential	b- parcel	10,000	60,000	70,000					
040-30-01-177.00	Michael Frazier	211 Western Ave	Covington		Residential	b- parcel	10,000	65,000	75,000					
040-41-11-002.00	Jeff Perholtz & Misty	327-31 Western Ave	Covington		Vacant	b- parcel	20,000	0	20,000					
040-41-11-003.00	Jeff Perholtz	333 Western Ave	Covington		Residential	b- parcel	10,000	106,500	116,500					
040-41-11-005.00	Andrew Salach	405 Western Ave	Covington		Residential	b- parcel	10,000	173,000	183,000					
040-41-11-006.00	Michael Camp Jr	407 Western Ave	Covington		Residential	b- parcel	20,000	124,500	144,500					
040-41-11-007.00	Stacy Slade	409 Western Ave	Covington		Residential	b- parcel	10,000	113,000	123,000					
040-41-11-008.00	Jason Abdalla	411 Western Ave	Covington		Residential	b- parcel	10,000	147,000	157,000					
040-41-11-009.00	George Perry Jr & Janice	413 Western Ave	Covington		Residential	b- parcel	10,000	90,000	100,000					
040-41-11-010.00	George Hammerle Jr.	417 Western Ave	Covington		Residential	b- parcel	10,000	240,000	250,000					
040-41-11-011.00	George Hammerle Jr.	419 Western Ave	Covington		Vacant	b- parcel	15,000	0	15,000					
040-41-11-012.00	David Vorherr	421-23 Western Ave	Covington		Vacant	b- parcel	10,000	0	10,000					
040-43-03-024.00	Jamie J Wurzelbacher	624 Crescent Ave.	Covington		Vacant	b, c, d, e, g	4,000	0	4,000	4,000	4,000	4,000	4,000	4,000
040-34-03-005.00	City of Covington	670 4th St W	Covington		Commercial - Auto Service	b, c, d, e, g	850,000	200,000	Exempt					
040-44-19-004.00	Pike Pro LLC	555 Pike St	Covington	Bill's Auto Sales and Service Center	Commercial - Auto Dealership	b, c, d, e, g	105,000	112,000	217,000	217,000	217,000	217,000	217,000	217,000
040-44-19-013.00	Columbia Sussex Corp	Jillian's Way	Covington	Vacant	Commercial - Vacant	b, c, d, e, g - parcel	1,000,000	3,200,000	4,200,000					
040-44-04-002.00	Pinnacle Realty Partners	804 Crescent Ave	Covington		Residential	b, c, d, e, g								
040-44-04-003.00	Melody L Walls & Patricia M Bed	806-08 Crescent Ave	Covington		Residential	b, c, d, e, g								
040-44-04-007.00	Pinnacle Realty Partners	812 Crescent	Covington		Residential	b, c, d, e, g	4,000	66,000	70,000	70,000	70,000	70,000	70,000	70,000
040-44-04-011.00	Jeremy R Wallace	822 Crescent	Covington		Residential	b, c, d, e, g								
040-44-04-012.00	Pan Yong	824 Crescent	Covington		Residential	b, c, d, e, g								

Parcel ID #	Owner	Property Address	City	Business Name	Land Use	Alternative Impact	Land Value	Improve Value	Total Assessed Value	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Kentucky														
040-44-09-020.00	Jeffery Grefer & Lori	605 11th St.	Covington		Residential	b, c, d, e, g	5,000	24,000	29,000	29,000	29,000	29,000	29,000	29,000
041-40-00-001.04	Daniel G Wachs	502 St. Joseph Ln	Covington		Residential	b, c, d, e, g - parcel								
041-20-00-001.00	Sisters of Notre Dame	1601 Dixie Hwy	Covington	Notre Dame Academy	Institutional - school	b, c, d, e, g - parcel	1,890,000	50,500,000	52,390,000					
028-30-10-001.00	Central Church of the Nazarene	2006 Pieck Dr.	Fort Wright	Central Church of the Nazarene	Church	b, c, d, e, g - parcel	301,000	700,000	1,001,000					
028-30-10-001.02	Central Church of the Nazarene	2006-A Pieck Dr.	Fort Wright	Central Church of the Nazarene	Church	b, c, d, e, g - parcel	60,000	248,000	308,000					
028-30-12-006.00	Sam Properties LLC	1971 Pieck Dr.	Fort Wright		Residential	b, c, d, e, g	40,000	140,000	180,000	180,000	180,000	180,000	180,000	180,000
041-20-00-151.02	Susam & William Osterhage	45 Rivard Dr.	Fort Wright		Residential	b, c, d, e, g	30,000	150,000	180,000	180,000	180,000	180,000	180,000	180,000
041-20-00-080.02	Nenad Kalapsev	15 Highview Dr.	Fort Wright		Residential	b, c, d, e, g - parcel	30,000	118,000	148,000					
041-20-00-002.00	Hospitality Association of Fort W	1945 Dixie Hwy	Fort Wright		Motel	b, c, d, e, g - parcel	415,000	1,443,500	1,858,500					
027-40-15-009.00	Tappan Properties	1949-2001 Dixie Hwy	Fort Wright		Commercial	b, c, d, e, g - parcel	2,000,000	4,750,000	6,750,000					
040-44-08-017.01	Joseph Finan	606 11th St.	Covington		Residential	b, c, d, e, g	5,000	29,000	34,000	34,000	34,000	34,000	34,000	34,000
040-44-09-023.00	Charlotte Froelicher & Marie	604 12th St.	Covington		Residential	b, c, d, e, g	5,000	50,000	55,000	55,000	55,000	55,000	55,000	55,000
040-34-04-006.00	BRE/ESA PROPERTIES LLC	640-50 3rd St W	Covington	Extended Stay	Commercial - Hotel	b, c, d - parcel	1,525,000	3,223,000	4,748,000					
040-44-20-007.01	Robbie Zornes	540 Watkins St.	Covington		Residential	b, c, d, g - parcel	5,000	80,000	85,000					
		608 11th St.	Covington		Residential	b, c, d, g								
040-34-03-002.00	THIRD STREET, LLC	673-75 3rd St W	Covington		Commercial	b, f, g	250,000	50,000	300,000	300,000				300,000
040-43-02-002.00	I-75 PKG Liquors & Wines INC	431-529 Crescent Ave.	Covington	Cork N Bottle Wine Liquor	Commercial	b, g	320,000	552,000	872,000	872,000				872,000
040-43-03-028.00	I-75 PKG Liquors & Wines INC	502 Crescent Ave.	Covington		Paved lot	g - parcel	43,000	15,000	58,000					58,000
040-34-02-011.00	City of Covington	689 2nd St W	Covington		Vacant	c, d, e, g	100,000	0	Exempt					
040-34-02-012.00	City of Covington	687 2nd St W	Covington		Vacant	c, d, e, g	35,000	0	Exempt					
040-44-04-008.00	Louis Estes & Sandra	816 Crescent	Covington		Residential	c, d, e, g	5,000	30,000	35,000		35,000	35,000	35,000	35,000
040-44-04-009.00	Charles Johnson & Lillian	818 Crescent	Covington		Residential	c, d, e, g	5,000	35,000	40,000		40,000	40,000	40,000	40,000
040-44-12-001.00	Bruce Krone TRUSTEE	550 Pike St.	Covington	Kerry Toyota	Commercial	c, d, g - parcel								
040-34-03-003.00	COVINGTON CITY OF	669-71 3rd St W	Covington	Liquor Direct/Discount Tobacco	Commercial	c, d, e, g	1,000,000	112,000	Exempt					
040-34-02-001.00	RUSK HEATING & AIR COND INC	664-66 3rd St W	Covington	Rusk Heating and Cooling	Commercial - Warehouse	c, d, e, g	475,000	215,000	690,000		690,000	690,000	690,000	690,000
040-44-04-010.01	Felecia Claxton	820 Crescent	Covington		Residential	e, g	5,000	35,000	40,000		40,000			40,000
040-43-02-003.00	Kelly L. Wagoner	601-03 Crescent Ave.	Covington		Residential	g	5,000	94,200	99,200					99,200
040-43-02-004.00	Connie Roberts	605 Crescent Ave.	Covington		Residential	g	5,000	50,000	55,000					55,000
040-43-02-005.00	Jack Readnour	607 Crescent Ave.	Covington		Residential	g	6,000	0	6,000					6,000
040-43-02-006.00	Kelly S. Mattingly & Micheal Kra	609 Crescent Ave.	Covington		Residential	g	5,000	60,000	65,000					65,000
040-43-02-007.00	Mark R. Hanauer	611-13 Crescent Ave.	Covington		Residential	g	20,000	40,000	60,000					60,000
040-43-02-008.00	Tony Saberton	615-17 Crescent Ave.	Covington		Residential	g	20,000	36,900	56,900					56,900
040-43-02-009.02	Kelly S. Mattingly	621 Crescent Ave.	Covington		Residential	g	5,000	40,000	45,000					45,000
040-43-02-009.01	Kelly S. Mattingly	619 Crescent Ave.	Covington		Residential		5,000	40,000	45,000	45,000	45,000	45,000	45,000	45,000
040-43-02-009.03	Kelly S. Mattingly	623 Crescent Ave.	Covington		Vacant	g	5,000	0	5,000					5,000
040-43-02-009.4	Joseph W & Norma Cotton	625 Crescent Ave.	Covington		Residential	g	5,000	20,000	25,000					25,000
404-43-02-009.05	Axut Building LLC	627-33 Crescent Ave.	Covington		Vacant	g	52,000	0	52,000					52,000
040-43-03-023.00	Jamie J Wurzelbacher	628 Crescent Ave.	Covington		Vacant	g	9,000	0	9,000					9,000
040-43-03-022.00	Clement L Bezold jr.	630 Crescent Ave.	Covington		Vacant	g	1,000	0	1,000					1,000
040-43-02-010.00	David Johnson	635 Crescent Ave.	Covington		Residential	g	10,000	20,000	30,000					30,000
040-43-02-011.00	Axut Building LLC	637-39 Crescent Ave.	Covington		Vacant	g	10,000	0	10,000					10,000
040-43-02-012.00	Robert J & Julie Mann	641 Crescent Ave.	Covington		Residential	g	5,000	55,000	60,000					60,000
040-43-02-014.00	VISIONS DEVELOPMENT GROUP LLC	725 Crescent Ave	Covington		Residential	g								
040-43-02-014.03	VISIONS DEVELOPMENT GROUP LLC	729 Crescent Ave	Covington		Residential	g								
040-43-02-014.00	VISIONS DEVELOPMENT GROUP LLC	731 Crescent Ave	Covington		Residential	g								
040-41-11-019.00	Harry & Teresa Stadtlander	521 Western Ave	Covington		Residential	b	20,000	80,000	100,000	100,000				
040-41-11-016.00	Deborah Bramlage	507 Western Ave	Covington		Residential	b, c, d, e, g	15,000	95,000	110,000	110,000	110,000	110,000	110,000	110,000
040-41-11-017.00	Michael McQuery & Deborah	509-13 Western Ave	Covington		Residential	b, c, d, e, g	35,000	75,000	110,000	110,000	110,000	110,000	110,000	110,000
040-41-11-018.00	Michael Vojas	515-17 Western Ave	Covington		Residential	b, c, d, e, g	30,000	90,000	120,000	120,000	120,000	120,000	120,000	120,000
040-43-02-019.00	Donald Martin	638 Western Ave	Covington		Residential	b, c, d, e, g	5,000	50,000	55,000	55,000	55,000	55,000	55,000	55,000
040-43-02-018.00	Arthur Scneider & Donna	640 Western Ave	Covington		Residential	b, c, d, e, g	5,000	45,000	50,000	50,000	50,000	50,000	50,000	50,000
040-43-02-017.00	Arthur Scneider & Donna	644 Western Ave	Covington		Vacant	b, c, d, e, g	8,000	0	8,000	8,000	8,000	8,000	8,000	8,000
040-44-04-013.00	City of Covington	826 Crescent	Covington		Vacant	b, c, d, e, g	3,000	0	3,000	3,000	3,000	3,000	3,000	3,000
040-44-04-014.00	TLC Properties	826 Crescent	Covington		Vacant	b, c, d, e, g	20,000	0	20,000	20,000	20,000	20,000	20,000	20,000
040-44-04-017.00	Ralph Hasenbein & Elva	834 Crescent	Covington		Residential	b, g	4,000	31,000	35,000	35,000	35,000	35,000	35,000	35,000

Source: Kenton County Property Valuation Administrator Website (Nov 2008)

	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Total	**$15,898,800.00**	**$2,130,000.00**	**$2,090,000.00**	**$2,090,000.00**	**$3,939,100.00**
Plus 15.8% for Consumer Price Index	**$18,410,810.40**	**$2,466,540.00**	**$2,420,220.00**	**$2,420,220.00**	**$4,561,477.80**

Parcel ID #	Owner	Property Address	City	Business Name	Land Use	Alternative Impact	Land Value	Improve Value	Total Assessed Value	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Kentucky														

Parcel ID #	Property Address	Property Owner	Land Use	Business Name	Alternative Impact	Land Value	Improve Value	Total Market Value	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Ohio													
139-0003-0242-00	900 W EIGHTH ST	FULLER PROPERTIES LLC	Automobile sales and service	Fuller Ford	Alt B	1,041,600	1,221,400	2,263,000	2,263,000				
138-0005-0031-00	909 EIGHTH ST	QUINCY & MARLOWE ENTERPRISES LLC	Office bldgs - 1 and 2 stories	Zone Communications	Alt. B	34,800	185,180	219,980	219,980				
136-0001-0114-00	844 W SEVENTH ST	GOODMAN RONALD TR	Automotive service station	Various - Sunoco; Subway; Krispy Kreme	Alt. B	517,400	142,900	660,300	660,300				
138-0005-0059-00	717 LINN ST	PROVIDENT BANK THE	Full service bank	Provident Bank	Alt. B	94,300	315,000	409,300	409,300				
138-0005-0058-00	645 LINN ST	BUDIG REALTY LLC	Light Manufacturing and assembly	George Fern Company	Alt. B	738,000	2,880,500	3,618,500	3,618,500				
136-0001-0234-00	644 LINN ST	PREMIER OFFICE PARK LLC	Office Building	Various businesses	Alt. B - parking lot only	1,323,000	7,062,800	8,385,800	8,385,800				
136-0003-0231-00	635 W SEVENTH ST	TAPPAN PROPERTIES	Office bldgs	Fox 19 TV Station	Alt. G - parking structure	766,800	2,933,200	3,700,000					3,700,000
136-0004-0241-00	500 GEST ST	CALDWELL REALTY CO	Industrial warehouse	UPS	Alt. B, G	874,300	1,347,400	2,221,700	2,221,700				2,221,700
147-0007-0133	602 W. Fourth St.	City of Cincinnati	Office Bldgs	ARTIMIS	All alternatives		0	0					
147-0007-0258-00	GEST ST	DUKE ENERGY OHIO INC	Commercial / Utility	Duke Energy	Alt. B	1,058,700	3,083,900	4,142,600	4,142,600				
137-0001-0040-00	747 W FIFTH ST	INTERSTATE BRANDS CORPORATION	Food and drink proc plants and storage	Butternut Bread	Alt. B	286,500	528,500	815,000	815,000				
137-0001-0015-00	805 W FIFTH ST	INTERSTATE BRANDS CORPORATION	Food and drink proc plants and storage	Butternut Bread Store	Alt. B	252,400	0	252,400	252,400				
147-0004-0201-00	800 W FIFTH ST	KMJ INVESTORS LIMITED PARTNERSHIP	Food and drink proc plants and storage	Cincinnati Bulk Terminal	Alt. B	187,700	635,100	822,800	822,800				
136-0004-0149-00	516 [528] LINN ST	CCA PROPERTIES OF AMERICA LLC	Other commercial structures	Hamilton County Jail	Alt. B	111,300	3,483,500	3,594,800	3,594,800				
136-0004-0243-00	801 W SIXTH ST	HUDEPOHL SQUARE LLC	Other industrial structures	Vacant	Alt. B	111,600	10,000	121,600	121,600				
136-0004-0242-00	840 W FIFTH ST	WEST FIFTH LOFTS LLC	Food and drink proc plants and storage		Alt. B	79,200	45,800	125,000	125,000				
147-0004-0001-00	865 CARLISLE AVE	CCA PROPERTIES OF AMERICA LLC	Other industrial structures	Hamilton County Jail	Alt. B	104,300	20,300	124,600	124,600				
136-0004-0154-00	737 W SIXTH ST	BELTING CO OF CINCINNATI	Industrial warehouse	CBT Solutions on Demand	Alt. B	154,700	902,700	1,057,400	1,057,400				
136-0004-0185-00	555 GEST ST	QUEENSGATE DEVELOPMENT LLC	Other industrial structures	K4 Architecture LLC	Alt. B	195,700	816,800	1,012,500	1,012,500				
137-0002-0075-00	GEST ST/700 W. Pete R	LONGWORTH HALL LLC	Other commercial structures	Various	Alt. B - parcel boundary; Alt. C, D, E, G	132,900	0	132,900		132,900	132,900	132,900	132,900
				Whiskey Dicks bar/restaurant									
				Storage									
				Marvin Lews Community Fund									
				SubCon Trak									
				Railhouse Entertainment									
				On Demand									
				Newtown Fill Inc.									
				Game Day Communications									
				CPS Graphics									
				First Responder Training Center									
				Premier Mortgage									
				Baumgartner Commercial Group									
				United Financial Mortgage									
				Homeland Defense Solutions									
				Cher/Pak LLc/Nvey U.S.A.									
				Cristofoli Keeling Inc.									
				Foresight Engineering and Survey									
				Nevermore Productions									
				Cincinnati Fire Bureau									
				Digital Wizardy Audio and Video									
				Rick Lisak Productions									
				Madison Park Productions									
				Laswell Steel Service System Support - moved									
137-0002-0039-00	237 GEST ST	KUHR FAMILY LTD PTNSHP	Other industrial structures		Alt. B	78,700	51,800	130,500	130,500				
185-0006-0116-00	1850 DALTON AVE	MPEMR LLC	Light Manufacturing and assembly		Alt. E; Parcel only Alt. C, G	49,600	299,000	348,600		348,600		348,600	348,600

Parcel ID #	Property Address	Property Owner	Land Use	Business Name	Alternative Impact	Land Value	Improve Value	Total Market Value	Alt. B	Alt. C	Alt. D	Alt. E	Alt. G
Ohio													
185-0006-0003-00	1830 DALTON AVE	LOFTSPRING HARRIS & MARJORIE FAMILY	Other retail structures		Alt. E; Parcel only Alt. C, G	51,000	278,100	329,100		329,100		329,100	329,100
185-0006-0021-00	2022 WESTERN AVE	LEIN LLC	Drive-in restaurant or food service	Gold Star Chili	Alt. B, C, E, G; Alt D - parcel only	67,300	170,100	237,400	237,400	237,400	237,400	237,400	237,400
184-0006-0115-00	1155 HARRISON AVE	BIG CAT FAMILY LIMITED PARTNERSHIP	Industrial warehouse		All alts	35,500	233,100	268,600	268,600	268,600	268,600	268,600	268,600
187-0007-0097-00	1136 HARRISON AVE	BS COMPANY	Light Manufacturing and assembly		All alts	24,400	56,300	80,700	80,700	80,700	80,700	80,700	80,700
187-0007-0205-00	1120 HARRISON AVE	HIGH CRAFT PRINTING CO	Small shop		Parcel only	16,000	10,700	26,700	26,700	26,700	26,700	26,700	26,700
097-0001-0011-00	2351 W MCMICKEN AV	GRAPHIC COMMUNICATIONS	Office bldgs		All alts - Property only	26,200	171,500	197,700	197,700	197,700	197,700	197,700	197,700
097-0001-0208-00	2405 W MCMICKEN AV	BAILEY LINDA & ROBERT OBERDING	Single family Dwlg - Residential		All alts	20,600	84,600	105,200	105,200	105,200	105,200	105,200	105,200
097-0001-0207-00	2407 W MCMICKEN AV	BORCHERS RICHARD T	Apts - Residential		All alts	17,800	50,400	68,200	68,200	68,200	68,200	68,200	68,200
098-0005-0116-00	2409 W MCMICKEN AV	SCHULTE GERHARD B	Two family Dwlg - Residential		All alts	8,400	35,000	43,400	43,400	43,400	43,400	43,400	43,400
098-0005-0078-00	2411 W MCMICKEN AV	SCHUCK HAROLD A	Apts - Residential		All alts	11,500	70,100	81,600	81,600	81,600	81,600	81,600	81,600
098-0005-0114-00	2413 W MCMICKEN AV	ELEMIDE OLUROTIMI T	Single family Dwlg - Residential		All alts	9,190	4,940	14,130	14,130	14,130	14,130	14,130	14,130
145-0004-0123-00	444 W THIRD ST	444 WEST THIRD LLC	Commercial warehouse		Alt. B, C	1,281,500	968,500	2,250,000	2,250,000	2,250,000			
145-0004-0110	426 W. Fourth St	City of Cincinnati	Warehouse		Alt. B, D, E, G		0	0					
097-0001-0223-00	2310 CENTRAL Parkway	JASIN INC	Retail - gas station		All alternatives	20,660	14,560	35,220	35,220	35,220	35,220	35,220	35,220
097-0001-0010-00	2355 W MCMICKEN AVE	BURNS ERNESTINE & DEBORAH	Single family Dwlg - Residential		All alts - parcel	14,800	90,000	104,800	104,800	104,800	104,800	104,800	104,800
097-0001-0009-00	2359 W MCMICKEN AVE	FRANCE MAUREEN &ANTHONY WALSH	Single family Dwlg - Residential		All alts - parcel	20,500	80,400	100,900	100,900	100,900	100,900	100,900	100,900
097-0001-0008-00	2361 W MCMICKEN AVE	HOWARD WILBERT & MARILYN	Single family Dwlg - Residential		All alts - parcel	17,400	60,000	77,400	77,400	77,400	77,400	77,400	77,400
097-0001-0007-00	2365 W MCMICKEN AVE	CONTRERAS SERGIO	Two family Dwlg - Residential		All alts - parcel	16,200	12,900	29,100	29,100	29,100	29,100	29,100	29,100
097-0001-0006-00	2403 W MCMICKEN AVE	OBERDING ROBERT & LINDA A BAILEY	Two family Dwlg - Residential		All alts - parcel	25,700	112,100	137,800	137,800	137,800	137,800	137,800	137,800
137-0003-0070-00	FRONT ST	DUKE ENERGY OHIO INC	Utility/Commercial	Duke Energy	Alt. C, D, E, G	919,000	1,041,800	1,960,800		1,960,800	1,960,800	1,960,800	1,960,800
137-0003-0020-00	646 MEHRING WY	DUKE ENERGY OHIO INC	Utility/Commercial - parking lot	Duke Energy	Alt. C, D, E, G	464,200	671,100	1,135,300		1,135,300	1,135,300	1,135,300	1,135,300
137-0003-0044-00	603 W PETE ROSE WY	CORMAN ROBERT	Commercial - restaurant	??	Alt. E, G	102,500	33,100	135,600				135,600	135,600
137-0002-0095-00	W PETE ROSE WY	T K F INC	Industrial vacant land	??	Alt. B - parcel	106,400	0	106,400	106,400				
134-0006-0323-00	817 W COURT ST	PHOENIX GRAPHIX INC	Office bldgs - 1 and 2 stories		Alt. C, D	40,300	249,700	290,000		290,000	290,000		
137-0003-0059-00	612 MEHRING WY	HILLTOP CONCRETE CORP	Other industrial structures		Alt. E, G	90,300	0	90,300				90,300	90,300
147-0007-0040-00	360 GEST ST	TOWNVIEW 56TH STREET LLC	Office bldgs - 1 and 2 stories		Parcel only	1,103,700	4,096,300	5,200,000	5,200,000	5,200,000	5,200,000	5,200,000	5,200,000
137-0002-0152-00	857 MEHRING WY	CINCINNATI CITY OF	Other industrial structures		Alt. B	536,200	416,700	952,900	952,900				
184-0005-0171-00	1116 YORK ST	MARTIN MEDIA	Single family Dwlg - Residential		Alt. E, G	11,300	74,800	86,100				86,100	86,100
184-0005-0219-00	1101 YORK ST	WEGMAN INVESTMENTS LTD	Industrial warehouse		Alt. E, G	41,300	98,000	139,300				139,300	139,300
184-0005-0125-00	1127 DAYTON ST	ALLEN TERRY & MARK	Two family Dwlg - Residential		No impact	14,800	35,300	50,100					
187-0008-0069-00	2408 SPRING GROVE AVE	BLACKBURN-IVEY KAREN L	Commercial - Restaurant; cafeteria and/or bar		Alt. B, C, D, E, G	18,900	73,800	92,700	92,700	92,700	92,700	92,700	92,700
189-0019-0125-00	2721 CENTRAL PW	EGC DEVELOPMENT LLC	Commercial - banking		parcel only - parking lot	376,400	740,800	1,117,200					
					Total				**$40,188,630**	**$13,348,250**	**$10,420,550**	**$11,259,550**	**$17,181,250**
					Plus 15.8% for Consumer Price Index				**$46,538,433.54**	**$15,457,273.50**	**$12,066,996.90**	**$13,038,558.90**	**$19,895,887.50**

Source: Hamilton Count y Auditor Website (Nov 2008)

Appendix E
Public Involvement Activities and Coordination

Summary of Public Meetings
Concurrence Point #1

Brent Spence Bridge Replacement/Rehabilitation Project
Public Involvement Meetings Summary

May 2, 2006
Cincinnati Museum Center
1301 Western Avenue
Cincinnati, Ohio
3:00pm to 8:00pm

May 4, 2006
Gardens of Park Hills
1622 Dixie Highway
Park Hills, Kentucky
3:00pm to 8:00pm

Meeting Purpose and Displays

A series of public involvement meetings for the Brent Spence Bridge Replacement / Rehabilitation Project were held for Concurrence Point #1 to present work completed in Steps 1 through 4 of the ODOT Project Development Process. The purpose of the meetings was to inform the public about the project purpose and need, secondary source data collected, project goals and measures of success, and conceptual alternatives recommended for further development and study.

The meetings were held on May 2, 2006 at the Cincinnati Museum Center (Losantiville Café), 1301 Western Avenue, Cincinnati, Ohio and on May 4, 2006 at the Gardens of Park Hills (Vista Room), 1622 Dixie Highway, Park Hills, Kentucky. Both meetings were held from 3:00 pm to 8:00 pm. The meetings were in an open house format that allowed participants to review information at their own pace. No formal presentation was given. Project team representatives were available to answer questions and take comments. Approximately 100 people (excluding the project team) attended the first meeting held in Ohio. Approximately 220 people attended the second meeting held in Kentucky.

Exhibits displayed included project background; existing traffic data; environmental resources; the evaluation matrix for all alternatives considered; and conceptual alternative solutions considered and dismissed. Copies of technical studies completed to date were also available for review. Comment sheets, a project informational handout, and the current project newsletter were provided.

Summary of Formal (Written) Comments

Comment sheets and a tape recorder were available to provide comments to the project team. A two-week comment period followed the meetings. Comments were submitted either through the project website, electronic mail, in writing or on the project hotline. A total of 58 comments were received during the comment period. All comments received have been recorded and summarized.

Based on the public comments received, there was a general consensus that improvements were needed in the I-71/I-75 corridor. The following summarizes primary public comments from Concurrence Point #1:

- It was suggested that transit alternatives be considered instead of only roadway solutions.
- The potential for displacements and affects on property were expressed concerns.
- The potential of increased traffic noise resulting from the addition of lanes was expressed as a concern.
- All of the alternatives were desirable for various reasons, none were recommended for elimination.
- The project team was praised for the information presented.
- Several questions were raised about the schedule for right-of-way acquisitions and construction.
- It was noted that Alternatives 1 and 2 would disturb several properties due to the new bridge being separate from the existing bridge, which would require more right-of-way (along Western Ave in Covington and the Queensgate community in Cincinnati).
- Alternatives 1 and 2 were preferred by several citizens because they separate through traffic from local traffic and would help solve problems of congestion.
- It was recommended that the project team keep design features in mind as the bridge is an aesthetic feature that has the potential to add benefit to the cities.
- Concern was expressed about the affect of the project on existing exits (i.e. KY 5th Street and KY 12th Street) due to the changes in access associated with Alternatives 1 and 2.
- Quality of life and viewshed issues were raised as the new structure could impact existing neighborhoods in Covington and change the view across the Ohio River from Kentucky.
- Residential and commercial property owners would like to be kept informed of study progress; several people requested that they be added to the mailing list.

Public Comments Received

Public Comments Received
(non-website submittals)
August 28, 2006

Name	Comment	Response
John Jay Fossett City Manager Covington, KY	1. The Central Area Loop Study completed in December 2001 addressed several issues with the existing and projected traffic patterns along Fourth and Fifth Streets (KY. Route 8) in Covington. Of particular concerns are those areas in the west end of the corridor from Main Street to the I-75 ramps. A variety of recommendations have been presented in the report ranging from geometric modifications at the Fourth Street/Main Street/Clay Wade Bailey Bridge intersection to widening near the entrance and exit ramps of I-75. We are concerned with the alternatives that would direct additional traffic onto the Clay Wade Bailey Bridge without specifically addressing the geometric and level of service deficiencies with the existing Fourth and Fifth Streets configurations. We would recommend that corridor-wide impacts be considered and addressed along Route 8 as the project moves forward. 2. Although the current alternatives preserve the current access to Fourth and Fifth Street, additional consideration should be given to improving the safety and geometry of the proposed entrance and exit ramps. In addition, these are gateways to our city and communities and consideration should be given to improving the existing visual clutter, as well as the confusing local road cross connections. Both of these improvements would create an aesthetically appealing and safe entryway into our City. 3. The Queensgate alternatives will potential impact areas along Crescent and Western Avenue in Covington. Given the current and proposed development in this area, the city would object to encroachment within these areas. 4. Goebel Park, located east of the existing Fifth Street exit ramp, would potentially be impacted due to the widening required for the additional I-71/I-75 traffic lanes. We would request that impact to this important park be minimized. 5. Development plans are underway for the Saint Elizabeth medical complex south of 12th Street adjacent to the existing 12th and Pike Street exit ramp. We would request that encroachments and impacts to this site be minimized. 6. We ask that residential concerns and business impacts be considered during constructability reviews so as to minimize disruption to the neighborhoods and business communities during and after construction. 7. With the ever increasing population of the tri-state area, efficient and viable transportation becomes increasingly important. We encourage and promote improvements to local traffic between neighboring communities within the entire corridor.	At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, more design details and the possibility of specific local roadway improvements will be considered. Queensgate alignments have either been dismissed or not recommended for further study due to community impact and cost issues. These alignments also met with public opposition due to the significant impact to residential neighborhoods in Covington and to the business community in Cincinnati. Our study indicated that the mainline alternatives being recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. At this stage of project development, all alternatives being carried forward will have some impact to Goebel Park. Members of the project team met with City officials on September 30, 2008 to discuss these potential impacts. At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, more design details can be developed to better assess the potential for impacts to this site. The project team will continually try to minimize any project impacts to the extent possible as the project develops. This project will improve and fundamentally change access between the freeway system and the urban areas of Covington and Cincinnati. By providing a system of local C-D road connections, access between Covington, Cincinnati and other communities adjacent to this project will also improve.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
James Justin Mercier, PE 518 Academy Drive Austin, Texas 78704 (512) 416-2346 jmercie@dot.state.tx.us	My selections are either Alignment 1 or 2 because either one provides an alternate route for through traffic which will reduce the congestion on the collectors (the old alignment). Reducing the congestion there will reduce crashes and other conflicts. The collectors will also allow traffic to assume the pattern before merging into the main lanes with less or no disturbance. The separate bridges also allow a way for traffic to bypass the scene of an incident (crash, stall) which is more likely to occur on the collector (existing) bridge.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. All alternatives currently being considered involve the separation of local and regional traffic. This configuration would eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network.
Karla Ruth 523 Elizabeth St Cincinnati, OH 45203 (513) 721-3393	Options 1 and 2 are too problematic for communities and low income areas in Cincinnati. Our city cannot rebuild these communities if highways are built through them. Option 3 seems to be the best alternative. Let's not build more bridges away from existing ones. It is worth the money to address hazardous material issues.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Sybil Ortego 816 Dayton St Cincinnati, OH 45214 Stortego@fuse.net	Alternatives 1 and 2 disturb too much of West End properties. Alternative 3 seems the least disruptive with Alternative 4 running second. Alternative 5 I don't care for.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Alternative H (formerly Alternative #5) was also eliminated from further consideration. The mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
E. Davis Downtown Cincinnati, OH 45203	The roundabout seems cool conceptually, but I couldn't get my mind around the concept. Taxpayers will be happy with exits and interchanges staying the same, but if you plan around the businesses and keep them here we'll understand. The double-decker is the worst idea, still needs emergency lanes. Moving 75 and leaving 71 seems to work best with improvements to existing structure, but improvements needed for current bridge aesthetically.	All roundabouts have been removed from further consideration. All alternatives currently being considered involve the separation of local and regional traffic. This configuration would eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network. At this point in project development, ODOT and KYTC are working to determine a general project alignment to be designed in more detail as the project moves forward. A determination of the specific type of bridge will be made at that time.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Eric Alto 5750 Glengate Lane Cincinnati, OH 45212 Eric.alto@ge.com	• Public forum well received and excellent support. • Timing/funding appears to be concern. • What about other loop alternatives for by-passing truck thoroughfare. • Alt 1 and 2 had excellent lay-outs; efficiency looked to be very evident. • Bridges in Cincinnati are aesthetic feature of city that adds benefit; keep design features in mind as project evolves with regard to growing city to businesses, people and transport.	Though construction funding has not yet been identified, this project is considered to be the highest transportation priority in the region by the local communities involved, by both states and by the regional transportation agency, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI). Regarding the potential for a truck ban, OKI performed a Truck Ban Study that was completed in 2007. Essentially, it concluded that a truck ban would not be effective in terms of providing either congestion relief or safety improvements. The study further estimated that a truck ban would have a detrimental impact to the local economy given the amount of deliveries that are made within the I-275 beltway. Please refer to www.oki.org for information on that study. Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Regarding the type of bridge to be designed and built, those decisions will be considered in more detail as the project moves forward. At this point in project development, ODOT and KYTC are working to determine a general project alignment to be designed.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Joe Vogel City of Cincinnati DOT&E (513) 352-1523	Comments reflect personal views only Consultants, ODOT and KYTC are doing a great job on this difficult project. Keep up the good work. Supportive of current alternatives moving forward. Two specific comments: 1) Western Hills Viaduct modifications should be cautious about affecting anything west of the existing right-of-way of I-75 because the WHV is a historic structure and the arch over Spring Grove Avenue is majestic. 2) Sub-Alt 3 – Street grid extension – strongly favor this but would like to see the exist 75 in a trench with elevated collector-distributors like Fort Washington Way/2nd St/3rd St. I know much effort has gone into this so far but if ramp speeds were lowered and they were looked at more like city streets, I think this would be even better.	The potential for future improvements to the Western Hills Viaduct are being considered in this project. Its historic status is a consideration in developing improvement options for this structure. All of the alternatives moving forward include a system of collector-distributor roads that will provide access between local and regional traffic.
Mary Jo Bazely P.O. Box 5096 Cincinnati, OH 45205 maryjob@fuse.net Price Hill Civic	• Very concerned about entering and exiting I-75 north and southbound. • Want to improve ease of exiting and entering from US 50. • Likes sub-alternative 2 for US 50.	All of the alternatives moving forward include a system of collector-distributor roads that will provide access between local and regional traffic. US 50 ramp connections to I-75 in sub-alternative two have been eliminated form further consideration because of the very difficult geometric issues presented and the associated cost when compared to the projected traffic that would use these facilities.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Margo Warminski 342 W. 4th St Cincinnati, OH 45202 (513)721-4506 Cincinnati Preservation Association	Alternatives 1 and 2, the Queensgate Alignments, appear to have the least impact on the B&O Freight Terminal (Longworth Hall), an important cultural resource. They could also provide an additional public benefit by directing more truck traffic out of the downtown core.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Chris Moran 2859 Gilna Court Cincinnati, OH 45211 (513)481-6058	Prefer Alternative 3 as being least obstructive and taking a smaller footprint. Maintaining some traffic flow across the river during construction is important and some improvement to approach to the bridge from southbound 71 would help. Please ensure some capacity on bridge across the river for transit, specifically rail.	All alternatives currently recommended for further study are adjacent to the existing alignment, similar to the former Alternative #3. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Current rail transportation plans within the region have identified a potential Ohio River crossing adjacent to the Clay Wade Bailey bridge.
Debbie Reinhart 520 Western Ave Covington, KY 41011 Ray_Reinhart@yahoo.com	We are concerned about being "left" more so than being taken. Because: Noise and increased traffic will impact quality of living…noise already significant with current bridges; View – if bridge elevation is higher, will ruin view and property value; resale opportunities already compromised by speculation. All in all, my preference as well as my neighbor's would be to take the property so we may move on and the sooner we know this we can begin to make plans.	This contact has been added to the project list. Specific impacts to Western Avenue in Covington are not known at this time. More about these impacts will be known as the project develops and specific alignments are recommended for further study. Issues such as noise, traffic and view areas are considered in the evaluation of all alternatives.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Pat O'Callaghan, Jr. 619 Linn St Cincinnati, OH 45203 (513) 721-5503 Queensgate Food Service	Both Alternatives 1 and 2 would be far too disruptive to the longstanding businesses of Queensgate. I really hope you can find a less destructive way of fixing traffic issues.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Michael Schweitzer 700 W. Pete Rose Way Cincinnati, OH 45203 (513) 721-6000 Longworth Hall	My primary concern is the impact the construction will have on Longworth Hall. I am worried that such a large project surrounding our building will reduce occupancy to such a degree that our building is no longer commercially viable. Further, if Longworth is "squeezed" between two bridges, our property's value may decrease. Is there a chance federal monies can be made available to purchase Longworth Hall at fair market value?	The project study area includes many historic structures, including Longworth Hall. The project has studied several alternatives to date and potential impacts to historical properties have been a major concern. It is likely that all alternatives being recommended for further study would have minimal impact to Longworth Hall.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Adrienne Carmichael 1639 Sycamore St. A Cincinnati, OH 45202 ucurchin@hotmail.com	Alternative 3 is the 2nd best alternative in my opinion – a double-decker bridge will take up less space and renovating the existing bridge is better than tearing it down and starting somewhere else. Building a bridge should consider the option which will cause the least amount of destruction of the environment, business and buildings. I am also concerned that bicycles and pedestrian's pathways are improved in the process. Also, all non-local truck and semi traffic should be routed around the city and not through downtown. Of course the #1 option is the No Build alternative. If we can find solutions without building new development, this is best. Development is expensive, destructive to the environment and to the flow already created. Not building at all should be given the most consideration with global warming creating extreme environmental problems people should be driving less. We should not plan for more cars to drive through our area but rather plan for less and create more and more options like light rail and better and more bus and train services so people can drive cars less and yet still get around easily. This should be our concern and the idea of our engineering plans. Use email only – no mail please.	All alternatives currently being carried forward include alignments similar to those mentioned in this comment (adjacent to the existing alignment). Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area. In addition, a Regional Rail Plan is in place and would not be precluded by this project.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
John Carmichael 1639 Sycamore St Cincinnati, OH 45202	The option for a new bridge should be chosen first and foremost by which option creates the least destruction of environment, infrastructure, businesses, homes to buildings in Ohio to Kentucky. The old bridge should definitely be rehabbed. All possible consideration should be given to maintaining and improving pedestrian and bicycling access and corridors which go through the areas in Cincinnati and Covington. Don't allow this project to end up making things worse. Remember: better, not worse. Also, give great consideration to how this project could be created to improve bus and other mass transit in southwest Ohio/Northern Kentucky. In order to help relieve congestion non-local truck and semi traffic should in the future be re-routed off of this problematic I-75, I-71 corridor and should instead be sent around I-275. I support first the no-build option. Instead, we should be focusing on how to improve the environment, quality of life, car and truck congestion, business, etc. by creating better transportation alternatives – light rail, commuter rail, improved bus systems (especially connecting through Ohio to Kentucky), cycling and pedestrian. Thriving cities such as Portland, OR are more and more using no-build options combined with improved (and much used) alternative transportation options of all of these types. Our future quality of life and future environmental quality depend on getting off of oil dependency and switching to alternatives. In the near future, passenger train service through our region to other destinations should be increased and improved so there would be less need for people to travel so much and so ineffectively by interstate car travel. Likewise for freight – more materials moving by freight rail means fewer 80,000 pound semis damaging our roads and bridges. Fuel wise, freight rail is also about 10 times more efficient than freight on semis. If something ends up being built, option 3 seems at this point to contain the least destruction and damage.	Our study indicated that the mainline alternatives recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Direct impacts are taken into consideration in the evaluation of each alternative. Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area. In addition, a Regional Rail Plan is in place that would utilize the Clay Wade Bailey Bridge. That plan would not be precluded by this project.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Charles S. Tappan 1150 W. 8th St Cincinnati, OH 45203 chiptappan@aol.com Tappan Properties	After studying all 5 alternatives closely, we would probably favor Alternative 2. • Separates local traffic from through traffic for both I-75 and I-71. • Best preserves access via existing bridge, ramps and U.S. 50 to our buildings at 1150 W. 8th St and 19 Broadcast Plaza. Concerns • Overall impact on Queensgate area once done. • Disruption in Queensgate area during construction.	Alternative B (formerly Alternative #2) is recommended for elimination from further study. This alignment has met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of this alignment. Constructability and maintenance of traffic during construction are considerations for each alternative during the evaluation process. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Randy Merten 1150 West 8th St Cincinnati, OH 45203 rpmerten@fuse.net Tappan Properties	Would prefer to endure pain up front to reap the benefits for the future. Alternative 2 looks as if it would be more city (CBD) friendly. Regional traffic would flow away from commuters going into downtown and Queensgate, Western Hills, etc. The impact on the community would be the question. Would the elevated ramps from I-71 create needed parking for CBD?	Alternative B (formerly Alternative #2) is recommended for elimination from further study. This alignment has met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of this alignment. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Ramps connecting I-71 to the new Brent Spence Bridge facility would be elevated in all alternatives being considered.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Georgia W. Crowell 10001 Brehm Road Cincinnati, OH 45252 aimsbooks@fuse.net	I prefer Alternative 1 since it seemed the simplest and the construction would cause the least disruption with existing traffic. Since I only go downtown or to Kentucky a few times a month, the exits and lane changes are confusing and I am sure they are even more so for anyone coming through for the first time. All the other alternatives seem to make it even more confusing. I strongly suggest that you put in HOV lanes. I asked about this and was given several reasons why it was impractical for Cincinnati, but it should be a requirement for any new construction, especially with so many commuters going back and forth to Kentucky and the necessity of getting good reliable transportation (taxis, shuttles and hopefully, eventually buses) to the airport. Why are you even thinking about light rail when there is not even a bus there now? I was in Boston recently and found HOV lanes convenient. Anyone who is stuck in traffic and looks over to see the HOV lane moving will definitely consider either carpooling or taking public transportation. Anything that encourages saving gasoline should now be essential.	Alternative A (formerly Alternative #1) has been dismissed from further study. This alignment has met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of this alignment. HOV lanes are not currently being considered for this project. Previous studies on this corridor concluded that HOV lanes would not provide better travel efficiency or reduce congestion in this corridor.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Bill Burwinkel, CEO National Marketshare Group, Inc. 2155 West Eighth Street Cincinnati, OH 45204 www.nmsg.com	Alternate 1 and Alternate 2 would result in a catastrophic negative impact from an economic point of view to Queensgate. Situating the bridge as described in either one of these options would precipitate loss of jobs, business opportunity and impact the region with loss of earnings and property taxes. Alternates 3, 4, and 5 warrant closer observation as they are developed and we would like to see the following considerations: • It is difficult to see what is actually happening to US 50. Would it be possible to see existing and new routes in a 3-D format? • We would like to see clear exit opportunity for traffic from northbound and southbound traffic to Ezzard Charles. This is the main exit for the Cincinnati Museum Center and Music Hall. • Create a second clear exit south of Ezzard Charles Drive to Queensgate. This could be a Freedom Center and Stadium exit and benefit the south end of Queensgate. • We also believe it is important for there to be clear access from Queensgate to Fort Washington Way and I-71 North. Presently, traffic must cross four lanes of traffic from Ezzard Charles to make this exit. • We believe consideration should be made to minimize/eliminate truck traffic on State Street.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Our study indicated that the mainline alternatives (similar to former alternatives 3, 4, and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Regarding US 50, all existing connections to the freeway system will be maintained in this project. While this project will change several local entrance and exit ramp configurations, access to Ezzard Charles Drive will be maintained through a system of local collector-distributor roads. This new system will improve and fundamentally change access between the freeway system and the urban areas of Covington and Cincinnati. It will eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network. State Avenue is not within the study limits of this project.
Leo Taske 3643 Shortridge Circle Cincinnati, OH 45247 Leotaske1@aol.com	When coming north thru the bridge at night with a truck on both sides, my wife goes crazy. If they need to make it two decks, make sure it is well lighted.	Safety is a major consideration in the Brent Spence Bridge project.

Public Involvement Meeting Comments Received
May 2, 2006 – Cincinnati Museum Center, Cincinnati, Ohio

Name/Address	Comment	Response
Mike Emerine 2535 Spring Grove Avenue Cincinnati, OH 45214 Mike.emerine@kaobrands.com	None of the proposed Western Hills Viaduct sub-alternatives provide for vehicle access to Spring Grove Avenue. Can this be added to a new sub-alternative? Reason: there is significant truck volume to/from our business and other manufacturing sites along Spring Grove Avenue that now exits I-75 at Hopple Street or US 50 W to Dalton Avenue. Access to Spring Grove Avenue at Western Hills Viaduct would alleviate much of this traffic through adjacent neighborhoods.	Access between Spring Grove Avenue and the Western Hills Viaduct is currently being evaluated. It is anticipated that this access will be maintained by the Brent Spence Bridge project.
Laura H. Chapman 2159 Colerain Avenue Cincinnati, OH 4521	Extremely helpful in depicting and explaining the options. I had questions about the assumptions – • Increments in our nation's dependency on oil and automotive transport. • Not much progress on public transport by other means. Staff well-prepared to answer questions. Clear visuals at various levels of detail.	Currently, the City of Cincinnati and other communities in the region are considering new transit options to serve their needs. The Brent Spence Bridge project will closely coordinate with these plans so that they can be carried forward in a consistent manner.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Louis Wartman 1572 St. Anthony Circle Ft Wright, KY 41011 (859) 578-9096	My major concern is the noise that will be generated by this project. I realize that noise studies will be conducted. I would like to volunteer my property for one of these studies. I would like to know about property acquisition and noise abatement.	A preliminary noise screening study has been completed for the project. At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process.
Nancy Hampel 1997 Pieck Dr Ft Wright, KY 41011	What about sound barriers on the KY side, like Ohio has done on I-71? It seems that staying as close as possible to the current configuration for the bridges is the least disruptive to areas of Northern Kentucky. I believe the effort to maintain neighborhoods is very important.	A preliminary noise screening study has been completed for the project. At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process. All alternatives recommended for further study include alignments adjacent to the current freeway configuration. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Marc R Rulli 4551 Elderberry Court Burlington, KY 41005 (859) 743-0477 MRulli@fuse.net Gold Star Chili, Covington, KY	The options that move the thru traffic off of the existing bridge (option 1, 2, 3), I think would negatively impact the traffic flow around the 5th Street exit. I was told there are 155,000 vehicles moving across the current bridge. I was also told 75% of the 155,000 vehicles are thru-traffic. I can not give an exact count of my guests that are thru-traffic guests, but 90,000 less people accessing 5th Street and 12th Street in Covington would be significantly less vehicles in Downtown/Riverfront Covington. The 5th Street exit is the only food and gas exit when traveling south for a significant amount of miles/time. Please understand the value that the 5th Street exit provides to the local community and the people passing thru. I need to be aware and want to be an active participant in the project.	While this project will change several local entrance and exit ramp configurations, access to KY 5th Street in Covington will be maintained through a system of local collector-distributor roads. This new system will improve and fundamentally change access between the freeway system and the urban areas of Covington and Cincinnati. It will eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Jeffrey Reser 1203 Highway Ave West Covington, KY 41011	West Covington is upwardly mobile on a socio-economic scale. Much is being re-gentrified and there is a growing interest in the picturesque community with beautiful river views/city views. Bridge alternatives 1 and 2 would adversely affect the quality of life in West Covington by placing a larger, noisier bridge twice as close to the residences. Our family and neighbors are in favor of options 3, 4 and 5 which keep the new bridge about where it currently is now. Please consider the opportunity cost to our community.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. Our study indicated that the mainline alternatives (more similar to alternatives 3, 4 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. A preliminary noise screening study has been completed for the project. At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process.
Dora Vorchern 1103 Ridgeway Court Covington, KY 41011 (513) 379-0779	Options 3, 4 and 5 are the best. They will disrupt least number of citizens. From a sustainability point of view, these options also re-use more of the existing infrastructure.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. Our study indicated that the mainline alternatives (more similar to alternatives 3, 4 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Rebecca Weber 730 Lewis St Covington, KY 41011 (859) 491-5073 rweber@huff.com Lewisburg Neighborhood	The Advisory Committee has a city employee listed as a representative for the Lewisburg Neighborhood Association. While I feel city representation is essential to this project, I feel concerned citizens from Lewisburg should be included on the committee. Also there should be representation from the West Covington Neighborhood. I appreciate the opportunity to see the plans and hope that more public forums will continue.	Contact information has been added to the project list. Input from members of the general public is encouraged at all times. The project website stays current with the most recent project information. Any official requests for Advisory Committee membership will be forwarded to KYTC for consideration.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Dawn Ramsey 837 Perry St Covington, KY 41011 (859) 291-2412 Dawn.ramsey@insight.bb.com	• Please add me to the mailing list. • 2 – Please add large portions of city residents to mailing list, i.e. all of Mainstrasse. • 3 – Recognize that hazardous waste removal, while expensive, may be of benefit to the community. How about having a positive impact (beside just improved traffic flow)? • 4 – Engage neighborhood coalitions – the Center for Great Neighborhoods in Covington has an active community organizing program. Most neighborhoods in Covington have a neighborhood association. They will provide major info on what's happening "on the ground." • 5 – Expand project study area (east/west) – it is very unrealistic at the moment. It doesn't even include all of Philadelphia St in Covington. Philadelphia parallels the interstate and all homes will be impacted by any construction. • 6 – Prefer alternative which includes separate (7 lane?) bridge for 71/75 and leaves existing Brent Spence for local traffic only (Alternative 2). • 7 – Prefer alternative which would improve entrance to Clay Wade Bailey Bridge. Bridge very under utilized currently. Good bridge which should be used more.	Contact information added to mailing list. KYTC has been very active in presenting the project details to neighborhood groups and the city government structure in Covington. The study area limits have been set based on federal guidelines. Acquisition of residential property on Philadelphia Street is not being considered at the present time. All alternatives currently being carried forward include alignments similar to those mentioned in this comment (adjacent to the existing alignment). None of the alternatives recommended for further study improves the entrance to the Clay Wade Bailey Bridge.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Bernie Wagner 10955 Arcaro Union, KY 41091 (859) 384-0481	There are 3 checkpoints on I-75: the I-74/75 interchange; the bridge itself; I-275 off of I-75/71 south there is not enough distance for trucks to get out of the far right lane before the I-275 exit comes. Also, the trucks can't get over from I-71, drivers won't allow them. Consequently, the trucks heading south going up the hill in the far left lane – this is slowing all traffic. As to the 5 alternatives: The politicians will most likely support #5 because it looks to be the least costly and disruptive. However, in my opinion Alternative 2 appears to be the best long-term solution. Alternatives 2, 3, 4 don't appear to solve the main problem – but they do get rid of left-hand exits. I go for Alternative 2 – separate I-75 and I-71 traffic.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. Our study indicated that the mainline alternatives (more similar to alternatives 3, 4 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. The new project is intended to include signage to direct truck traffic into the appropriate lanes. However, compliance with these signs will rely on how this policy is enforced, similar to the situation as it exists today.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
David Vorherr 1103 Ridgeway Court/421 Western Ave Covington, KY 41011 (513) 385-2411	I prefer options 3 and 5. I do not want to see Crescent Ave. cut up by option 4 if that is the case. The Western Ave. neighborhood has seen a dramatic increase in property value and desirability over the last twenty years. No neighborhoods have been improved by being cut up or seen their proximity to an enlarge highway make them more desirable. Look at what Cincinnati did to protect and preserve Mt. Adams with the highway threatened that hillside and its desirable homes and businesses. I drive I-75 every day to go to and from work and I would rather find an alternative route for several years to allow the Brent Spence Bridge to stay more or less in the same place. It would be bad to loose the Kentucky businesses on either side of the bridge but it would be worse and expensive to loose the homes and people. Once gone they are gone forever! No property taxes, no income taxes and no patrons to the business in Mainstrasse, Covington, etc.	Neighborhood impacts are expected for Western and Crescent avenues in all alternatives being recommended for further study. These impacts are taken into consideration as each project alternative is evaluated. Our study indicated that the mainline alternatives (more similar to alternatives 3 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Leslie Hendricks 512 Western Ave Covington, KY 41011 Leslie.hendricks@cbre.com	I live at 512 Western Ave and love it. Please don't do Alternative 1 or 2.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. Neighborhood impacts are expected for Western and Crescent avenues in all alternatives being recommended for further study. These impacts are taken into consideration as each project alternative is evaluated.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Jeff Hendricks 512 Western Ave Covington, KY 41011 Jeff.hendricks@fuse.net	1 and 2 take our place. I think I prefer 3, 4, or 5.	Alternative A (formerly Alternative #1) has been dismissed from further study due to community impact and cost issues. Alternative B (formerly Alternative #2) is being recommended for elimination from further study for the same reasons. Neighborhood impacts are expected for Western and Crescent avenues in all alternatives being recommended for further study. These impacts are taken into consideration as each project alternative is evaluated. Our study indicated that the mainline alternatives (more similar to #s 3 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Steve Morrison 666 W. 3rd Street Covington, KY 41011 (859) 431-4040 Smorrison@docrusk.com	I am concerned about the property that I own and operate my business Rusk Heating and Cooling, Inc. from. Please keep me informed of all plans that would effect me and my business. This includes: 1 - Will I have to relocate with one or all five plans? No one can tell me how I will be affected with either plan. 2 – If I am able to stay will I be able to work during construction. 3 – If I stay will it effect my property value and if so how will I be compensated? 4 – Do I need a lawyer? 5 – Option 3 concerns me if all traffic directed away from downtown, this will effect all property value around me.	Specific impacts on most individual properties are not yet known at this time. Currently, the project team is working to identify a basic project alignment. Further details in regard to specific properties will be known as the project progresses. Given its location, it is likely that the alternatives being advanced will have some impact to this business.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Richard B.L. Fowler 13 Observatory Point Drive Wilder, KY 41076 (859) 441-5348 OASIS, Inc.	In my judgment, Alternate 2 seems the most workable in spite of the industrial impact in Cincinnati and the residential impact in Covington. The wetland study is of concern south of 12th Street in Covington. Drainage from the west is worse by experience. Keeping the current bridge with reduced traffic yet maintaining 3 to 4 lanes is a must. This is especially important during the construction phase of the new bridge. Diverting I-75 traffic as a "bypass" looks good. Having I-71 provide local traffic looks workable if the interchanges have enough distance for thinking and planning while driving. How about the light rail corridor and planning for the rapid transit system?	Alternative B (formerly Alternative #2) is being recommended for elimination from further study due to community impact and cost issues. At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, other design details such as designing an appropriate drainage system will be developed. Detailed maintenance of traffic plans will also be developed to handle traffic during construction of this project. Regarding transit projects, a Regional Rail Plan is in place and would not be precluded by this project.
Charles D. King Box 852 Covington, KY 41012 (859) 491-3608 Covington Urban Design Review Board	Alternate 3 – least disruptive to Covington and its businesses 12th ramp alternative 2 – most interesting but one probably needed earlier	Our study indicated that the mainline alternatives (more similar to alternatives 3 and 5) recommended for further study provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. While this project will change several entrance and exit ramp configurations, all local access will be maintained through a system of local collector-distributor roads. This new system will improve and fundamentally change access between the freeway system and the urban areas of Covington and Cincinnati. It will eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Joe Stratman 3 Highview Dr Ft. Wright, KY 41011 (859)344-1434 Strats10@fuse.net	Are there plans to erect sound barriers as far south as River Drive in Fort Wright. Sound is annoying now and will only get worse with increased traffic. This has been very informative. The representatives were very well versed and were extremely helpful and professional.	A preliminary noise screening study has been completed for the project. At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process.
James Lewis Vaughan Sr. 647 Dalton St Covington, KY 41011 (859) 431-5613 Puff_1964@yahoo.com	Are there going to be noise barriers installed to keep noise and dust down to a minimum? Will home owners be notified before plans are initiated? Will home owners be kept up to date on future meetings?	At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process. There will be several opportunities for formal public input as the project moves forward. Informal input in the form of letters, e-mails or questions submitted via the project website are encouraged at any time (www.brentspencebridgecorridor.com)
Gayle and Ray Laible 913 Highway Ave Covington, KY 41017 laible@fuse.net	Prefer Alternatives 3, 4 or 5 on Interstate 71/75	Comment noted.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Kathy Rowland 1509 Kavanaugh Street Covington, KY 41011 581-3036	Worried about noise level behind my home. Already get the noise but will this make it greater. Barriers would be nice.	A preliminary noise screening study has been completed for the project. At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process.
Edwin E. Bales 906 Highland Ave Ft. Wright, KY 41011 (513) 226-0349	When the present 75/71/Cut in the Hill the water runs off in to houses and it destroys the street or avenue. Water comes into houses.	At this stage of development, we are working to define the basic alignment for the project. Once this is known, more detailed design efforts will begin, including project drainage issues.
Bob Beatrice 211 Grandview Dr. Ft. Mitchell, KY 41017 331-3232 Gold Star Chili, Covington	As a property owner at 4th and Bakewell in Covington, Kentucky this project will have tremendous impact on my business. Options 1-3 appear to have the greatest impact in this area. It will have impact not only on by business but all businesses in that area. Any option that directs a significant flow of traffic away or prohibits the ease of access to the area will be devastating. All the options require decisions to be made to stop at the 5th Street exit in Covington well in advance to approaching the area. Adequate signage along the interstate to both sides of the river will be important to the business community.	All alternatives currently being carried forward include alignments similar to those mentioned in this comment (adjacent to the existing alignment). Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. In addition, the alternatives moving forward include a system of collector-distributor roads that will provide access between local and regional traffic. Specific ramp locations will be further evaluated as the project moves forward in the project development process. A detailed signage plan was developed for each of the alternatives recommended for further study.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Michael A Thornton 9268 Tranquility Drive Florence, KY 41042 253-0974	Logically, Alternative 1 seems the most likely solution, facilitating a quicker north-south transition of I-75 traffic, as well as providing a secondary means of transit over the refurbished Brent Spence/I-71 bridge. P.S. Skip the environmental studies; there's already a bridge there! The catfish(??) won't mind another.	Alternative A (formerly Alternative #1) has been dismissed from further study impacts to Longworth Hall. The process by which projects are planned is open and transparent as mandated by federal law and by law in both the State of Ohio and the Commonwealth of Kentucky. This kind of process guarantees standing to all individuals who have some stake in how the project is developed. The open process is also necessary to ensure that those directly impacted by the project are aware of it and the potential for impact. Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area.
Mr. and Mrs. Phillip Landwehr 3061 Winding Trails Dr Edgewood, KY 41017 (859) 331-3498	Thanks for very good, informative and well put on sessions. We appreciate everything you all have and are doing in this project. Comments: No particular preference as to alternates.	Comment noted.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Jeff Perholtz 333 Western Ave Covington, KY 41011 jperholtz@insight.bb.com	Strongly oppose to Alternatives 1 and 2 As a small business owner and proud resident of Western Avenue I am deeply concerned about several of the proposed plans. My wife and I have quite a determination to beautify this area and make it an even more wonderful place to live. We are quite proud and protective of our "country-fied" city paradise. The quality of new housing and relentless rehabilitation efforts up and down our street clearly reflect a universal determination to better out community. It would be an indescribable insult to squander the progress we have made and supporting a majority of these plans would an uncharacteristically "corporate/big business" move for a historically docile community like Covington. I am concerned with the following: - The possible destruction of our home and the thought of relocating elsewhere. - Noise. The thought of waking up every five minutes to the sound horns and jake-brakes. The drone of traffic on the Brent Spence is for the most part tolerable, but I could not imagine it any closer. - The loss of our wonderful view of downtown. - The repercussions of a closer freeway will have on our property value - The loss of privacy With all of that being said, we are realists and understand that something must be done. However, we will do everything in our power to protect our community from being destroyed. I can only hope that this great city will stand shoulder to shoulder with its citizens, most of who would conservatively like to see the least amount of change. Is it not true that our way of life is more important than the destruction of a Cinergy power plant on the other side of the river? I'm sure the threatened citizens of Cincinnati would agree.	Alternative A (formerly Alternative #1) has been dismissed from further study impacts to Longworth Hall. Alternative B (formerly Alternative #2) is recommended for elimination from further study. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, detailed noise analysis will be undertaken. Sound barriers will be thoroughly evaluated for this project as it moves forward in the project development process. Other design details such as bridge type will also be addressed at a later time. In addition, the project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built. Contact information has been added to the project list.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Nancy L. and Jerry J. Spivey 1576 St. Anthony Drive Fort Wright, KY 41011 nlspivey@netzero.net	The presentation was very well illustrated. A major concern is the use of taxpayer money to prepare the different alternatives, hold the meeting, etc., since this project is slated for 2015 and many different courses of action can come up in the meantime, like lack of funding.	The process by which projects are planned is open and transparent as mandated by federal law and by law in both the State of Ohio and the Commonwealth of Kentucky. This kind of process guarantees standing to all individuals who have some stake in how the project is developed. The open process is also necessary to ensure that those directly impacted by the project are aware of it and the potential for impact.
George Schuhmacher 307 W 21 Street Covington, KY 41014-1113	Overall a good presentation. Many informed people who could answer question and were on-site available. Think Plan 1 is best. Traffic needs an additional way out and in, especially traffic going through. Need separate way for I-71/I-75. #1 would avoid all local congestions and hopefully relieve present “jam-ups.” New Queensgate way would have to be well marked.	Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

Public Involvement Meeting Comments Received
May 4, 2006 – Gardens of Park Hills, Park Hills, Kentucky

Name /Address	Comment	Response
Ruth Crider 6209 Kingsgate Drive Burlington, KY 41005	I just read 'Bridge plans bring worries.' What a negative headline! Why not consider a bridge (one of the three proposed) at the end of Route 237 in Hebron, KY. Boone County is growing not only business-wise but also residential. Boone County owns land on Route 8 which Route 237 flows into. I traveled from Burlington to Cincinnati for years since I worked downtown. I always wondered why a bridge was not constructed near the Greater Cincinnati/Northern Kentucky airport to accommodate Ohioans who travel I-71/I-75 to Routes 237 to the airport and also Northern Kentuckians who travel/work in Ohio. I believe if the airport was contacted, they would realize the convenience for not only travelers but, also, their employees. Help get the traffic load off the dangerous I-75 hill. Maybe the Cincinnati Enquirer's headline would read: 'Airport and Boone Co. citizens thrilled with bridge plans!"	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of other new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path. The alternative discussed in this comment would virtually eliminate all current rail freight traffic in the heavily used Queensgate Rail Yard. In addition, it would have severe impacts to the business and residential communities in several Cincinnati neighborhoods west of the Mill Creek (South Cumminsville, North Fairmont, Camp Washington and South Fairmont). In Northern Kentucky, similar impacts would be felt in the communities of Ludlow, Fort Mitchell and potentially to Devou Park.

Public Involvement Meeting Comments Received
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Name /Address	Comment	Response
Mike Delmonaco 1132 Cedar Ridge Lane #3 Park Hills, KY 41011	I don't like looping junction, space utilization causes a need for them, expand width from standard 12 feet to 16 feet lanes. Divert truck traffic southbound onto I-275, Ronald Reagan and Norwood Lateral (through). Option, for US 50 westbound, too much infrastructure centralized.	The standard 12 foot lane width is mandated by federal design standards and is consistent with freeway facilities throughout the region and country. Regarding the potential for a truck ban, OKI performed a Truck Ban Study that was completed in 2007. It concluded that a truck ban would not be effective in terms of providing either congestion relief or safety improvements. The study further estimated that a truck ban would have a detrimental impact to the local economy given the amount of deliveries that are made within the I-275 beltway. Please refer to www.oki.org for information on that study.

Website Comment/Feedback Forms
March 2006 - July 2007

Name	Comments	Responses
John Compton Johncompton88@msn.com	Speaking as a member of the general public that DOES NOT live in the Cincinnati area, but drives thru several times a month.....may I suggest that the new bridge be located to the west of the new one, this way the curves could be straitened out (downtown Cincinnati). Also I would like to suggest the 71/75 split should be in Kentucky with 71 still on the Brent Spence bridge. I also believe the new bridge should be a very majestic structure; with enough versatility to be able easily be expandable to handle future traffic needs.	All alternatives currently being carried forward include alignments adjacent to the existing I-71/I-75 corridor. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, other design details such as bridge type will be addressed. The project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built.
Mary Sutton msutton@clearchannel.com 513-470-6809 513-241-0358 (f)	The purpose of contact info is to be on the list to stay informed.	Contact information has been added to the project list.

Website Comment/Feedback Forms
March 2006 - July 2007

Name	Comments	Responses
Jeff Perholtz jperholtz@insightbb.com 859-431-3069	As a small business owner and proud resident of Western Avenue I am deeply concerned about several of the proposed plans. Along with countless other residents of Western, my wife and I have quite a determination to beautify this area and make it an even more wonderful place to live. We are quite proud and protective of our "country-fied" city paradise. The quality of new housing and relentless rehabilitation efforts up and down our street clearly reflect a universal determination to better out community. It would be an indescribable insult to squander the progress we have made and supporting a majority of these plans would an uncharacteristically "corporate/big business" move for a historically docile community like Covington. I am mainly concerned with the following: - The possible destruction of our home and the thought of relocating elsewhere. - Noise. The thought of waking up every five minutes to the sound horns and jake-brakes. The drone of traffic on the Brent Spence is for the most part tolerable, but I could not imagine it any closer. - The loss of our wonderful view of downtown. - The repercussions of a closer freeway will have on our property value - The loss of privacy With all of that being said, we are realists and understand that something must be done. However, we will do everything in our power to protect our community from being destroyed. I can only hope that this great city will stand shoulder to shoulder with its citizens, most of who would conservatively like to see the least amount of change. Is it not thrue that our way of life is more important than the destruction of a Cinergy power plant on the other side of the river? I'm sure the threatened citizens of Cincinnati would agree. We would like to take an active roll in fighting for an appropriate alternative. Please let us know what we can do to participate.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is being recommended for elimination from further study. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, more detailed noise analysis will be undertaken. Sound barriers will be more thoroughly evaluated for this project as it moves forward in the project development process. Other design details such as bridge type will also be addressed at a later time. In addition, the project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built. Contact information has been added to the project list.
Ryan Vose voserw@gmail.com	I just read the article today regarding the possible ideas for the bridge. The article quoted Jim Olman complaining about a new bridge possibly hurting Queensgate businesses. I hope that your committee looks past these small business interests and design the most efficient bridge regardless of what businesses you might have to tear down. This bridge is a vital link in I-75 and takes precedence of local business. I understand the individual business's concern, but for the greater good of the Cincinnati area the bridge must be top priority.	All alternatives currently being carried forward include alignments similar to those mentioned in this comment (adjacent to the existing I-71/I-75 corridor). Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

Website Comment/Feedback Forms
March 2006 - July 2007

Name	Comments	Responses
Ryan Ziemba rziemba@cinci.rr.com 513-289-5093	I'm disappointed and curious why you abandoned project #3. It had the most promise for many reasons. One reason is to demolish the old bridge. If you keep the existing structure and add yet another bridge then all we do is clutter up the river! The other thing this project does is open up the river bank for even more development! Do we want people to come downtown or not? Let's give people a reason to. I sure as well don't care if I come downtown, unless it's for a baseball game maybe three times a year.	This comment has been documented. One of the reasons that the Queensgate alignments were carried forward is to separate local, I-71, and I-75 traffic to provide capacity and safety across the bridge. The disadvantage of the Queensgate alignments is that they take additional land for right of way that is currently planned for redevelopment, irrespective of whether the existing bridge is retained or not.
Nick Azbell boiiinng@hotmail.com	I would hope that when this is all said and done that signs are posted ordering all trucks to stay to the right/left or whatever becomes necessary when going up the cut in the hill. That's the main problem right now, trucks are not warned ahead of time that they need to move over, and when the steepness of the hill forces them to slow down, it causes widespread backup.	That problem has been noted. Enforcement of the existing signs and new ones is needed. Also, additional truck climbing lanes are proposed for consideration.

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Name	Comments	Responses
Mitchell Landwehr m.landwehr@insightbb.com 859-586-5170	I think this project is going to be one of the most important and influential undertakings that the Northern Kentucky community will receive in decades. The current traffic situation during rush hour in the morning and evening hours has a demoralizing effect on the Northern Kentucky workforce commuting to and from Cincinnati. The amount of time and stress level during this time reduces workforce productivity. Fatigue from having to leave home/work earlier causes more wrecks and increases speeding. The current traffic system between the Buttermilk Pike exit extending over the I-75 bridge has been improved over the years, but the main bottleneck is the bridge and the lanes leading into and out of the bridge. Many lanes are converging into the bridge entrance lanes from Covington. Once onto the bridge, more crossing traffic patterns converge from the Covington entrance ramps. If you are in the left hand lane northbound on the bridge, you must cross these converging traffic patterns to get to the I-71 exit ramp. This is very dangerous and slows the already bottlenecked flow even more adding to the problem backing up all the way up the cut-in-the-hill. This does not include what happens when there are wrecks or flashing police lights for minor fender benders. Please put up signs that say "Minor fender benders must, by penalty of law, pull of the road into emergency lanes." My next and final point is the need for special hazard lanes for police to use during traffic stops and the wrecks. There must be a way to include these on the bridge itself and the I-75 cut-in-the-hill. When people see flashing police lights they slow down and change lanes, as the law requires. Please add hazard lanes or zones to the bridge to provide uninterrupted emergency resolution while allowing continuous traffic flow. If this is not considered, all of your hard work will be a waste because small traffic stops like these foil the traffic flow model with the human rubber neck element.	All alternatives currently being carried forward include alignments adjacent to the existing Brent Spence Bridge structure. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. In addition, the alternatives moving forward include a system of collector-distributor roads that will provide access between local and regional traffic. Specific ramp locations will be further evaluated as the project moves forward. It is anticipated that the mainline of I-71/75 will be widened to six lanes in each direction through the cut-in-the-hill section. The project will also feature full width shoulders on either side of the mainline freeway and the new bridge structure. This will allow for better mobility for incident responders.

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Name	Comments	Responses
Jeffrey Reser Jeffrey_reser@earthlink.net 859-491-4555	My young family of four lives in West Covington along river where we enjoy a spectacular view of the River and Cincinnati. Any plans to build a new bridge much northwestward of the current bridge would only disrupt the upward evolution of our neighborhood in its current socio-economic trajectory. West Covington holds great promise and is becoming an attractive bedroom community centrally located, green and just far enough away from the bridge to be picturesque. The bridge noise is not overwhelming at present. Move the bridge and all that could change -- putting the neighborhood back into a downward spiral from which it may never recover. Additionally, the quality of Devou Park would be somewhat compromised. We are in favor of a larger (and BTW, more beautiful) bridge to be constructed right next to and in the space of the current bridge. Thank you for considering the opportunity cost to the emerging upscale West Covington community.	Public meetings will be held in April. Please plan to come and make your opinion known. Your comments will be included in the project documentation.
John Schlagetter jschlagetter@yahoo.com	Alternate 1 appears to reclaim the most high value Downtown and West End real estate. Would be helpful to see farther north where the new alignment ties in to the existing roadway. I assume the Freeman Avenue exit goes away? It appears a Route 50 West exit is feasible. How does each Alternate align/coordinate with thinking on the Sixth Street Viaduct re-do?	All alternatives currently being carried forward include alignments adjacent to the existing Brent Spence Bridge structure. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. In addition, the alternatives moving forward include a system of collector-distributor roads that will provide access between local and regional traffic. Specific ramp locations will be further evaluated as the project moves forward.

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Name	Comments	Responses
Mike King mking@altaquip.com 513-674-6411 513-674-6469 (f) Colerain Township	Everyone involved has done a great job in looking at alternatives and presenting them to the general public. This is a tough challenge. However, I was curious if anyone has ever looked at a tunnel as an alternative to a bridge. This idea crossed my mind as I was passing through a tunnel in Baltimore a few months ago. I know tunnels are very expensive, but it could mean less disruption to the bridge during the construction process. I was just wondering because I had not seen it addressed in any of the alternatives.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path. The specific alternative discussed in this comment was eliminated from further study due to cost. All alternatives currently being carried forward include alignments adjacent to the existing Brent Spence Bridge structure. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Tim Coffey tcoffey@wondergroup.com 513-357-2950 513-621-1162	I hope that we will not adopt a patchwork approach. This bridge will define the aesthetic of the city and the region for decades. We can do something bold and exciting or add to the industrial sprawl that is typical of a rustbelt city. Either approach will make a statement about who we are as a region.	All alternatives currently being carried forward include alignments adjacent to the existing Brent Spence Bridge structure. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

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Name	Comments	Responses
Scott Macmann scmacmann@mac.com 513-702-2341	My thoughts: 1. Queensgate Alternatives. As attractive as it might seem, putting a couple of miles of interstate highway right through an urban industrial and commercial area will cost several fortunes and cause huge disruptions of business. This seems very very wasteful and destructive. 2. I think alternative 5 is the best of the choices. But I would put I-75 entirely on the west side and I-71 entirely on the east side (side byside) which would maximize keeping the traffic separated. 3. The Brent Spence is not only ugly, but being 40 years old... is it really going to be safe? Our engineering today is so much more advanced than it was 40 yrs ago. We should tear it down.	Alignments through the Queensgate area have been dismissed from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop land parcels in the path of these alignments. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Numerous studies have been completed on the structural sufficiency of the existing Brent Spence Bridge. Most recently, the Engineering Feasibility Study conducted by KYTC concluded that the structure is sound and could be maintained for several years by replacing the bridge deck when necessary. The most vital issues on this project are congestion and traffic safety. The Engineering Feasibility Study can be found on the project website (www.brentspencebridgecorridor.com). Inspection reports for the bridge can also be found by contacting KYTC at (859) 341-2700, or at www.transportation.ky.gov/D6/D6.asp. At this stage of project development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, design details such as bridge type will also be addressed. In addition, the project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built.

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Name	Comments	Responses
Greg Riley gjr@ssastructural.com	As a structural engineer, I would like to see a cable-stayed bridge. It would be a nice contrast to the existing truss-bridges and compliment the Roebling very well.	At this stage of development, ODOT and KYTC are working to define the basic alignment for the project. Once this is known, design details such as bridge type will also be addressed. In addition, the project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built.
Lawrence Turner lwtur@aol.com 513-251-5179	I prefer choice #2. It separates the fast through traffic from local traffic, saves the Brent Spence Bridge for local traffic and only requires building one bridge.	Alignments through the Queensgate area have been dismissed from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of these alignments. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Paul Spencer spencepd@gmail.com Mt. Lookout	I think the only way to improve the terrible congestion through downtown I-75 is to use Alternate 1 or 2. Building a straight stretch of highway along with a new bridge designed for a high volume of traffic seems to be the right way to get this project completed. The other solutions only patch up the problem and we will always have continued accidents and congestion in the downtown area. That would be a shame since we all have to live with this decision for many years to come. I like Alternate 2 because it gets all of our traffic out of our city. But only if we can somehow regain the land of the current I-75 system. Simplifying that stretch of road (removing lanes, exit ramps, etc) broadens our land within Cincinnati for development. It could also connect a large plot of land to the west of the current I-75 with the downtown of Cincinnati. If this is not possible, then lets save the west side land and not build those 71/75 entry ramps, and just use Alternate 1. Thanks for listening.	Alignments through the Queensgate area have been dismissed from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of these alignments. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.

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Name	Comments	Responses
John Stein Jstein2@fuse.net 859-635-7960 Alexandria City Councilman	Please view this site in Charleston SC http://ravenelbridge.net The Ravenel Bridge replaced 2 large bridges that crossed two large rivers. I hope your dept. can come up with nice design, unlike the Taylor Southgate erector set bridge.	Your comments will be included in the project record. ODOT and KYTC will hold public meetings in late April and your participation is encouraged ODOT and KYTC will not be choosing the bridge type or final location for about 18 months. There is an Aesthetics Committee led by Michael Moore, the City Architect for the City of Cincinnati. A number of local officials and experienced design professionals are involved.
Jim Hungler Jimmy9@fuse.net 513-315-4644	I would encourage NO TRUCK TRAFFIC, except local routes, inside of the 275 beltway on southbound 75. Instead, I would suggest, detouring via westbound 275 and have Kentucky build a bypass thru the western countryside that will connect back with 75 in the area south of Richwood/Mt. Zion.	Regarding the potential for a truck ban, OKI performed a Truck Ban Study that was completed in 2007. Essentially, it concluded that a truck ban would not effective in terms of providing either congestion relief or safety improvements. The study further estimated that a truck ban would have a detrimental impact to the local economy given the amount of deliveries that are made within the I-275 beltway. Please refer to www.oki.org for information on that study.

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Name	Comments	Responses
Paul Martin Paul.martin@earthlink.net 937-207-8435	I drive I-75 to Cincinnati from the Dayton area daily, and regularly see the type of traffic on the Brent Spence bridge and the entire I-75 corridor through Cincinnati, and experience the congestion the traffic brings. The congestion is a huge waste of time and gasoline, and alternatives need to be implemented much sooner than the 2015-2020 time frame. It seems to me that about 15% of the traffic consists of semi trucks, most of which appear to be through traffic. If the bridge (and I-75 through town in general) is currently carrying twice the design traffic load, why is the bypass (I-275) not required for through trucks, especially at rush hours (6-9 am and 3-6 pm)? Requiring trucks with no commercial purpose inside of the I-275 loop to use the bypass, if only during high volume periods, would significantly reduce the traffic flow on the bridge and other traffic bottlenecks (i.e., the Reagan merge / Lockland split issue). Traffic on the bridge and the I-75 corridor is always heavy, but the only real congestion issues occur in the rush hour periods. Another alternative for the bridge issue could be to route I-71 concurrently with I-471 / I-275, eliminating the I-71 traffic across the Brent Spence bridge. Has this been considered?	Some of the trucks have origins or destinations within the 275 corridor, so these must use the system as is. Enforcing a truck diversion has been tried here and elsewhere and found difficult to implement. It is against FHWA policy to forcibly divert trucks, who pay considerable road use and fuel taxes, from using any part of the roadway system, except for hazardous cargo routes. Diverting trucks into other communities also runs into opposition. Diverting trucks also adds one hour to their trip time through the region, increasing the number of miles they must travel, and increases the number of lane miles affected by the heavy trucks' wear and tear. Since drivers' shifts are limited to 8-10 hrs, this reduces by 60 miles or more, the distance that a driver can drive in a shift. This shifts an economic burden on the truck industry which they have resisted. However, truck bans occurred during construction projects such as Fort Washington Way. Enforcement is critical to catch and prosecute "blockade running". 3500 tickets were written during that three year project and caught only a fraction of the truck diversion violators. About 30 percent of the trucks ran through the diversion. Resheilding the I-71/I-471 routes has been discussed. Cars would use 275 to connect to I-471 to I-71 over the Daniel Carter Beard Bridge (Big Mac) instead of using Fort Washington Way. This shifts the wear and tear to the very robust Brent Spence Bridge to a lower capacity bridge. I-471 has capacity problems as well which this concept worsens. It works for cars but just moves the truck problem as I-471 is steeper than 75 and has a lower capacity interchange at 275 in Kentucky.

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Name	Comments	Responses
Alan Burke The CAPlan Group, Inc. alanburke@caplan-group.com 859-991-4049	Have you considered a 71/75 option to tunnel under the Ohio River to provide the following... A) More usable land mass on each side of the river, B) Less 'pinch points' and exchanges/intersections on each side of the river, C) A tunnel would provide a much needed 'attraction' for the Greater Cincinnati Area, D) Possible cost reduction, E) Improved river traffic flow, F) Improved environmental/aesthetics. We would be willing to complete this study.	A tunnel was one of the alternatives initially considered. It was eliminated from further consideration due to cost concerns. The interchange at the north end of the bridge is too large and complex for a tunnel and connections to Fort Washington Way and Covington would have to be eliminated. Grades and connections were evaluated from south of Kyles Lane to Ezzard Charles and found to be too steep to connect. The tunnel needs 20-30 feet of cover under the river to avoid shipping damage. Even at the maximum grade, the tunnel would be more than 1.5 miles long and cost more than $1Billion. It was considered in detail and not recommended for further study.

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Name	Comments	Responses
Matthew D. Birck birckmd@muohio.edu	After reading the proposed alternatives for the Brent Spence Bridge project, I was curious to know why a tunnel was not included among the alternatives. Understandably a tunnel would be more costly, but certainly that should not be a deciding factor in the preliminary stage of a feasibility study for its omission from consideration. I'm also assuming that it is not geologically infeasible, considering that the Water Works has an 8-ft diameter pipe running directly beneath the Ohio River. I'd appreciate if someone could send me a reasonable explanation for the exclusion of a traffic tunnel as one of the functional alternatives for this critical project. Thank you.	A tunnel was considered and a conceptual alternative developed. The tunnel portal began well south of Kyles Lane and daylighted at Ezzard Charles Drive for the mainline of I-75. The tunnel needs to be 4 lanes in each direction plus shoulders for emergencies given the current and future needs of I-75, assuming the tunnel does not carry I-71 as well (see below). This makes each tunnel, if circular in cross section, nearly 80 feet outside diameter. It needs at least 20 feet of cover under the River so the invert of the tunnel is nearly 100 feet lower than the bottom of the Ohio River. Chasing the grades at a maximum of six percent set the tunnel portal locations and the tunnel length. The tunnel could not carry both I-71 and I-75 due to the interchange at US50, I-71 and I-75 southeast of downtown Cincinnati. The interchange with Fort Washington way cannot be underground due to breadth and grade separation required for local access etc. Because of these complications and the Purpose and Need requirements (laneage, local and through access, cost) the tunnel was not carried forward.

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Name	Comments	Responses
Jim Pan 824 Crescent Av Covington, KY 41011 PJ11022002@yahoo.com 859-291-2841	I would not be able to make it to Thursday's public hearing due to a business trip. Here are my initial thoughts on the alternatives: Alternative 1 and 2 have 1) Major negative impact on the surrounding areas in Covington. There has been a condo booming in the area along the hill (Western, Crescent, Pike). The new queen city bridge would ruin all the development. It would be costly as acquiring these properties would not be cheap. 2) Eliminating the exit of I-75 on 5th in Covington would have a big negative impact in the economic development of Covington river front. 3) The bridge really needs to be well designed to be a signature of the region and a symbol and image for the progressive region for the further The old, ugly Brent Spence bridge would make it really hard. Alternative 4 and 5 are better in those regards. But it still has some negative impact on the neighborhood on the west side of the highway in Covington as the highway will be much closer to those houses (I am one of the owners). Structured buffers and landscaping are necessary to reduce these negative impacts.	The impacts to Western and Crescent avenues in Covington are being documented and others brought these up. The right of way costs in Kentucky and Queensgate will be quantified to help with decision making. The 4th and 5th street ramps will be replaced with alternative access points for Covington intended to improve access. Current ramps are very short tight radii which have resulted in a number of crashes. The urban design of the roadway near your property and the aesthetic designs of the bridge are noted concerns. These will be considered in the next phase of work.
Mike Frazier mfrazier@cinci.rr.com 513-351-6636	I own seven houses on Wright St and Western Ave in Covington and like to know how this will affect my property. Who and what contact information can you give? Hi Fred Craig. Thank you for your prompt response!!!!! The property I own since the early 80s are as follows: 205 Western Ave., 207 Western Ave., 209 Western Ave., 211 Western Ave. I also own 210 and 212 Wright St. and 214 Wright St. all Covington KY 41011.How will this effect the value of said property. May I have your direct telephone number, again?	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is being recommended for elimination from further study. Neighborhood impacts are expected for Western and Crescent avenues in all alternatives being recommended for further study. These impacts are taken into consideration as each project alternative is evaluated.

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Name	Comments	Responses
John and Jennifer Stein Jstein2@fuse.net 859-635-7960	Please consider the serious impacts to the hillside neighborhoods and the approach to Devou Park. A lot of people depend on that route to their home and the park. There are also hillside issues, excavation, damage to hillside homes, due to possible use of explosives and auguring to loosen the earthworks. Why not build it up against the east side of the existing bridge? The cut over would seem much easier to manage from the east. There are no homes in that area. Noise would be tremendous if it were built to the west. It also keeps you away from the West End Electric substation network grid. Also please build us a bridge that is pleasing to the eye, not an erector set. Consider Charleston S.C. Ravenel Bridge design or the Maysville, KY bridge. Thank You	ODOT and KYTC will consider noise, geotechnical and construction impacts during the next phase of the work and will make that information available on the project web site. The bridges on the east side of the existing bridge would have substandard geometry or require reconstruction of part of Fort Washington Way. Bridges on the west of the existing have community impacts and would have to miss or move the substation. There is an Aesthetics Committee that will provide input on the bridge design. PB designed the Ravenal Bridge and the Owensboro bridge which is like the Maysville bridge. The bridge type and design will be considered in the next phase.
Linda Jones lkj@djj.com 859-331-8971 513-419-6235 (f)	You can't possibly consider closing the interstate bridge to replace it! There is too much traffic everyday that would clog other arteries to and from the two states. Build another bridge and open it and then rehab the current bridge. I know that takes time and money, but not only does it help the current travelers, but it's a better long range plane.	Although specific construction details have not been worked out as yet, maintenance of traffic during construction will be one of the highest priorities for both ODOT and KyTC.
Rex Goon Rw41042@fuse.net	Cincinnati voted down mass transit but it is obvious that we will someday need to build some form of mass transit train system across the Ohio river. Why not look ahead to the future and include that into the new bridge. Someday we will finally come to the realization that we need mass transit it will cost a fortune later to add a bridge for that purpose.	Current rail transportation plans within the region have identified a potential Ohio River crossing adjacent to the Clay Wade Bailey bridge.
William Holiday Wp_doc_holiday@fuse.net 859-468-2871 859-341-4924 (f)	How long can you keep building new bridges and winding roads? Let us get real and build a light rail system or a subway system and get these cars off the road.	Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area. Contact was referred to the City for more specific information.
Dennis Andrew Gordon, Exec Dir dgordon@nkapc.org 859-331-8980 859-331-8987 (f)	Your list of Advisory Committee Members includes Keith Logsdon of my staff. I would appreciate it if you would identify him as a representative of: N KY Area Planning Commission; or, simply NKAPC. Listing him as a representative of "Northern Kentucky" is pretty vague and indescriptive of our agency. Thank you for your attention to this matter.	the correction will be made.

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Name	Comments	Responses
Mary Christina Stadtlander tin.stadtlander@nlrb.gov 859-261-8016	I attended the May 4 presentation in Park Hills and would like to express my comments as follows: I am not in favor of any bridge proposal that would involve the disruption of my current living conditions, especially Proposals 1 and 2. I do not want a bridge or expressway any closer than it already is. We have lived here at 606 Western Avenue since 1980. I love the location and love my home. We have put our blood, sweat and tears into making it a wonderful place that we enjoy coming home to. I do not want to be displaced by "Eminent Domain," which, in my opinion, should never have been passed by the Supreme Court! I am fearful of this.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. Alternative B (formerly Alternative #2) is being recommended for elimination from further study. These alignments have met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of these alignments. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Brendan Weaver weaverbo@email.uc.edu 513-207-4344	In an era of raising gas prices and increased environmental concern, isn't it about time for a sustainable solution? Rail would be a great start and make fiscal sense in the long run.	Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area. Contact was referred to the City for more specific information.

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Name	Comments	Response
Diana (Jones) Darden didarden@hotmail.com 469-233-3477	I am a native of Ohio now living in Texas. Lately I have been discovering the "art" of our covered bridges and so, ran on to this site. This is very interesting to me, as I have crossed this bridge many times, I'm sure I will follow the progress. The planning and efficiency of the whole thing just amazed me! Ohio is so great (God's country). I miss it after 30 years away. Even so it did cross my mind that the plans are so detailed some evil-doer may use these plans in some hateful manner. I couldn't help but think of 911 when I saw how public the plans are made. Please assure me you have thought of this, as I'm sure you have. While it's no wonder Ohio has always been recognized for this type of business, I would give up being able to view all these mind-blowing and incredible plans for the safety of my beloved home and its people. I grew up around Waverly, Ohio and spent many days in the beautiful Ohio State Forestry (between Chillicothe and Waverly off Hwy 23). My grandparents lived in Louisville, Kentucky. We passed over the bridges to Kentucky about twice a year. Recently I discovered a beautiful painting in an antique art magazine of "The Old Covered Bridge," named just that. You must see the painting.	The process by which projects are planned is open and transparent as mandated by federal law and by law in both the State of Ohio and the Commonwealth of Kentucky. This kind of process guarantees standing to all individuals who have some stake in how the project is developed. The open process is also necessary to ensure that those directly impacted by the project are aware of it and the potential for impact. Special consideration will be given to security issues during planning, design and construction of this new facility. In addition, the design team for this project has received specific guidance on how to evaluate and minimize damage caused by potential terrorist attacks. Critical design elements of this bridge are continually evaluated in this manner.

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Name	Comments	Response
Thomas F. Von Hoene Tlvonhoene3@current.net 513-922-5541	I suggest that the replacement bridge be built approximately one mile west of the current bridge where the railroad bridge crosses to Ludlow. Access would be from U.S. 50 on the Ohio side and in Kentucky, a new road parallel to the existing railroad up the hill connecting to I-75 at the top of the hill. This would be similar to the I-471 bridge and road on the east side of downtown. I would further suggest a new road from the I-74/I-75 interchange along the railroad tracks behind Union Terminal to the new bridge location. This plan provides quick access to the airport from downtown, alleviates congestion in the immediate downtown area from I-75 traffic, and eliminates the cut in the hill problem on I-75 in Northern Kentucky.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of other new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path. The alternative discussed in this comment would virtually eliminate all current rail freight traffic in the heavily used Queensgate Rail Yard. In addition, it would have severe impacts to the business and residential communities in several Cincinnati neighborhoods west of the Mill Creek (South Cumminsville, North Fairmont, Camp Washington and South Fairmont). In Northern Kentucky, similar impacts would be felt in the communities of Ludlow, Fort Mitchell and potentially to Devou Park.

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Name	Comments	Response
Joe Creaghead jhcreaghead@yahoo.com 859-341-8663	Has anyone looked at the alternative of constructing a new and separate I-71 from the intersection with I-75 near Walton to I-275/471 near the AA highway? This would allow all I-71 traffic to bypass the Brent Spence Bridge (along with other if they choose). Although the cost of building such a connector would not be inexpensive, it must be a competitive alternative to the $3.0 billion price tag now being talked about. The road would be approximately 18-20 miles in length with perhaps no large bridges unless crossing the Licking before joining I-275 was chosen. In 1996 the weighted average cost per mile to construct interstate highways was just under $21 million. By 2012 that number may be closer to $40 million. Still, for 20 miles, that is $800 million, a far cry from the $3.0 billion being discussed. Further, such a road would open up Southern Kenton and Campbell counties to growth, the type of which we now see in Boone County and in Northeastern Cincinnati. While this would not eliminate the need to maintain the Brent Spence Bridge, it would certainly lower the cost while creating significant economic benefit to the Southeastern portion of Greater Cincinnati.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path.
Brian Lamm Brian5475E@yahoo.com	I feel that even though a bridge at Anderson Ferry was turned down, it needs to be built. People in NKY and Westside Cincinnati have to go all the downtown just to cross into NKY. Both communities are losing out in business revenue created by such a bridge. It would relieve a lot of traffic from the Brent Spence Bridge. Cincinnati Westside residents are moving out of the area because it is “locked in”. We need to build this solution, and make our communities grow with a new bridge at Anderson Ferry.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. In the case of a new structure west of downtown, this alternative was specifically addressed in an Engineering Feasibility Study completed by the Kentucky Transportation Cabinet prior to work on this project. This alternative was eliminated due to a number of factors including cost and the relatively low volume of traffic served.
Dawn M. Bell Dawn.bell@insightbb.com	I would like to receive updates on this project.	Contact information was added to the project contact list.

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Name	Comments	Response
Tom Emmert fclef@zoomtown.com	The study seems very narrowly focused on maintaining all the present and planned I-75 traffic volume (local plus interstate) within the present downtown Cincinnati-Covington corridor. A very significant portion of this traffic is in fact trying to traverse Dayton and Cincinnati metro areas, with no particular reason to enter either city. Why has not a "beeline" bypass been publicly considered? One possible routing might be from the Troy-Piqua area to Miamitown, and another short segment passing west of Greater Cincinnati-Northern Kentucky Airport to the Walton area. Advantages: 1) A virtually straight-line road, without the tortuous serpentine routing of I-75 in Dayton and Cincinnati. Obviously a preferable route on the map. 2) Diverting through traffic (noise, emissions, congestion, wear & tear) from the Dayton and Cincinnati metro areas. 3) Relief of present I-75 facilities including the Brent Spence Bridge, permitting upgrade or replacement without such extensive temporary workarounds.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path.

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Name	Comments	Response
Ken Stratman stratmkf@ucmail.uc.edu	I haven't had time to review this information since the talks began. Why hasn't anyone considered re-routing the interstate along the railroad line to the west of the interstate? It could start between Buttermilk Pike and Dixie Highway Exits in NKY by cutting westward to meet the tracks and follow them through to Ludlow KY. This would bypass the HUGE traffic annoyance of the "cut in the hill". Then across the river near the existing railroad bridge into the Mill Creek Valley and rail yards. Then this can follow up the Mill Creek and meet somewhere south of Western Hills Viaduct and the current 75 corridor, or follow northward to 74 so you can start with a clean slate on that portion of the interstate? Just a suggestion.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path. The alternative discussed in this comment would virtually eliminate all current rail freight traffic in the heavily used Queensgate Rail Yard. In addition, it would have severe impacts to the business and residential communities in several Cincinnati neighborhoods west of the Mill Creek (South Cumminsville, North Fairmont, Camp Washington and South Fairmont). In Northern Kentucky, similar impacts would be felt in the communities of Ludlow, Fort Mitchell and potentially to Devou Park.

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Name	Comments	Response
James A. Thompson jasat43@msn.com	Build a tunnel from just south of 275 along the 75 corridor, to the 75 71 split. Give truck traffic mandated direction to travel thru the tunnel. Automobile and local traffic on the surface. Rehab the current BSB. Charge a toll with EZ passes for the trucks.	Several options to improve the Brent Spence Bridge have been studied over the years. At the outset of this project, a total of 27 separate alternatives were evaluated against a set of criteria including safety, congestion, cost and community impacts. The alternatives being advanced at this stage of study represent the best mix of these selection criteria. A series of new roadway and alignment options have been evaluated in this study. However, these alternatives have been eliminated from further consideration, mostly due to cost and adverse impact to the communities in their path. The specific alternative discussed in this comment was eliminated from further study due to cost.
Mike Turcotte mpt64@yahoo.com	What designs for the new bridge are on the boards at this time? Also, is general input allowed to submit designs?	The project website (www.brentspencebridgecorridor.com) includes project documents and all of the alternatives currently being considered. As always, public input is welcomed and encouraged at any time during project development.
Tony Taylor sll1alt@ups.com	In looking at the conceptual designs, I noticed that some come very close to the UPS building on Gest Street, even going through the property. Will the designs be above the UPS property, or would eminent domain take effect in the situation that UPS's property be needed? To my eye only 1 of the considered designs would affect UPS. Is this a correct statement?	It is correct that alignments through the Queensgate area would have a direct impact on the UPS facility on Gest Street. The extent of this impact would be determined at a later time if such an alignment were pursued and when more details are developed.
Roger Titkemeyer rtitkemeyer@redi-rockstructures.com	Redi-Rock would like to be considered for this project. We are a large block (up to 2500 pounds) retaining wall product currently under application for ODOT approval. Our look is second to none and is being specified on projects throughout the Greater Cincinnati area. Please visit www.redi-rock.com for a closer look.	Decisions regarding specific materials to be used in construction are yet to be considered. At this point in project development, ODOT and KYTC are working to determine a general project alignment to be designed in more detail as the project moves forward in the project development process.

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Name	Comments	Response
Joseph L, Giesey, Jr. gieseyjl@fuse.net	I suggest that you adopt Alternative # 1 for the best overall end results, because the future traffic will not lessen in numbers, but grow more in size and this plan will help to alleviate a future condition similar to what we are experiencing at the present time.	Alternative A (former Alternative #1) was eliminated from further consideration due to impacts to Longworth Hall.
Brett malcolm coldiron brettcoldion@hotmail.com	I own a lot of property in the probable right of way (Wright street). I need to know as soon as possible if this property will be taken by the state for the project. No sense in building houses if they are to be torn down. When can I expect to know this? Hopefully before 2010.	Alignments that would potentially impact this property have been dismissed from further study.
GREG DEPENBROCK DEP@ZOOMTOWN.COM	Business owner at 670 West Third, requesting any and all information concerning our property and planning of new bridge, thanks	Information has been sent to this contact as well as adding this information to our contact list.
Ruth L. Fitzgerald (859) 581-0504	Please keep residents informed as you progress on the project as some are highly concerned about whether their home will be acquired to make way for the project. My Mom lives at 532 West 13th Street, Covington KY 41011. She is two houses up from I-75. Please place her on any mailing list. She has no e-mail.	Contact information has been added to the project list.
Gregory Gibbs ggibbs@cbtcompany.com	Hello, Could I please get on the mailing list for public meetings and updates. Thank You.	Contact information has been added to the project list.
Dianna Spang dspang54@aol.com	I live on Western Ave. and would like to know when the final decisions will be made. I can't find a schedule anywhere. I think it's unfair to all of us who may be impacted by this project to keep us waiting to find out if we are going to have to move. A schedule letting us knows what to expect and when to expect it would be nice. If it's here and I've missed it, my apologies.	Contact information has been added to the project list and the project schedule has been updated on the project website.
Bruce Biser biserb@ties2.net	In researching prior work on this bridge, did you uncover any information about concrete repairs to the decks performed in the mid-1970s by Gast Construction? I worked for the company for two summers, the first summer spent in a valley with a concrete saw cutting forklift notches in "jersey" barriers because foam blocks melted in the forms. I'm writing a murder-mystery and any information about that project (especially timelines) or Gast Construction would be appreciated. Thanks and best wishes in improving this bridge (I'm also a former Minnesota DOT employee).	Contact was directed to KYTC for specific response to question regarding original bridge construction.

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Name	Comments	Response
Bobby mechanicalmidget@yahoo.com	Redesigning Brent Spence is great. A striking new bridge would be awesome, But all I've heard is the gigantic traffic stories that will definitely become a reality. It takes some 15 years for a bridge to finally be approved and built? There is relief and it's a major suggestion. This city is in talks to use those rail lines connected to Union Terminal and other rail lines for a mass-transit train system. They even plan to build a station connecting to UT. Having this before the bridge is built would benefit the construction greatly because people who work downtown and in Newport would use the trains to get there instead of driving. This is why it's so vital to have a mass transit system because Cincinnati is growing rapidly with more people moving down there. If it's in your power, talk to whoever you can about getting those trains going. Even the street cars we USED TO HAVE! good luck.	At this point in project development, ODOT and KYTC are working to determine a general project alignment to be designed in more detail as the project moves forward in the project development process. A determination of the specific type of bridge will be made at that time. In addition, the project has formed an Aesthetics Committee representing many community interests to provide further input on the type and style of structure to be built. Regarding transit projects, the City of Cincinnati is currently in the early stages of advancing a street car project to serve the downtown area. Contact was referred to the City for more specific information.
James G. Cornetet cornetet@adelphia.net	Do we have to wait until our bridge crashes into the Ohio River like Interstate 35W bridge before we act? How can Sen. Ted Stevens get a $250 million bridge built to "NOWHERE" and I have been waiting for 20 years and nothing and I am told it might be another 10 to 20 years. SAD....	The federally approved project development process for this project seeks to very thoroughly study alternatives that best fit the need, while minimizing impact to the community and environment. It also assures involvement with individuals who are potentially impacted. In addition, funds for this project have not yet been identified at federal, state or local levels. Structural studies of the existing Brent Spence Bridge have indicated that it is sound and has many years of structural life left. The issue with this project is related to congestion and driver safety more than it is with the structural integrity of the Brent Spence Bridge.

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Name	Comments	Response
Jonathan Sherry jsherry@cinci.rr.com	I've been looking over the designs and one thought keeps coming back to me over and over again. These designs don't put in enough lanes to account for future growth. By the time its completed the traffic will undoubtedly have increased beyond expectations, and then it will be right back to the drawing board and the public's coffers for the next big thing. I think one extra lane each way in every design would be much wiser in the long run. Also, with regard to plans such as Mainline 1 where the Brent Spence is kept and rehabbed, I think its ludicrous to bring it down to 2 lanes each way since I-71 traffic will only increase. 3 would be fine with an outside safety lane. Personally I like Mainline 1 best as it requires the least amount of reconfiguration of Fort Washington Way. Especially since it wasn't that long ago that project was completed. And the fact that it makes I-75 almost completely skirt downtown seems like it would speed things up considerably. However, I STRONGLY oppose the idea of making the bridge a tollway to recoup the costs. That would essentially wipe out any congestion savings and anger motorists. We're not on the scale of some place like Chicago where we need tollways, and there's no easy alternative to I-75 to avoid a tollway either. So you've basically got a captive population who wouldn't have much choice but either pay the toll or crowd local roads to get to other bridges. Perhaps the better plan would be to bring down the costs by finding contractors that won't pad their pockets quite so much. I can't see why the whole project couldn't be done for under $500 million, and in far less time. And while I know you can't ban trucks from passing through town, it would still be nice if ODOT and KYDOT would put up signs SUGGESTING BOTH commercial vehicles and motorists traveling through to bypass on I-275. Just try driving I-75 through Cincinnati on a holiday weekend, such as the upcoming Labor Day weekend, and watch how many Ontario and Michigan license plates you see clogging already congested roadways, particularly the Brent Spence.	This project will be designed to accommodate traffic projected into the year 2035. In addition, communities in the region are working to develop alternative transportation options that could also reduce the vehicle demand in the project area. It should be noted that widening the existing freeway approaches significantly could greatly impact the communities that currently border I-71 and I-75. Alternative #1 (Alternative A) has been recommended for elimination from further consideration due to impacts to Longworth Hall. Any decisions relative to building the new bridge as a toll facility will be considered later in project development. At the current time, this project is not being constructed as a toll facility.

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Name	Comments	Response
Diane Codner dgcodner@bellsouth.net	Given the collapse of the I-35 bridge crossing the Mississippi into Minneapolis, where can I locate the current deficiency status on the Brent Spence Bridge?	Numerous studies have been done on the structural sufficiency of the existing Brent Spence Bridge. Most recently, the Engineering Feasibility Study conducted by KYTC concluded that the structure is sound and could be maintained for several years by replacing the bridge deck when necessary. The most vital issues on this project are congestion and traffic safety. The Engineering Feasibility Study can be found on the project website (www.brentspencebridgecorridor.com). Inspection reports for the bridge can also be found by contacting KYTC at (859) 341-2700, or at www.transportation.ky.gov/D6/D6.asp.
Maria Werle mjwerle@fuse.net	Thanks for NOT taking this informative site down in the wake of the Minneapolis tragedy. Many other sites are mysteriously down for reconstruction. I'd love more information on the timeline of this project and to understand better why construction will not begin until 2015, if it is considered a "priority" and has been considered dangerous since 1986 (no shoulder). The bridge I cross daily has been unsafe since I was 10? I've grown up crossing this bridge. Travel between the states and commerce is very important to Cincinnati and Northern Kentucky. I hope the new structure is not a double decker, a concept that makes me nervous upon every northbound travel across the river, since we are on a fault line too.	At this point in project development, ODODT and KYTC are working to determine a general project alignment to be designed in more detail as the project moves forward. A determination of the specific type of bridge will be made at that time.
Kelly Bossong Gymshoe565@hotmail.com	In regards to recent events...Is the rebuilding of the Brent Spence Bridge going to be reevaluated for a time frame a little sooner than 2015?	The federally approved project development process for the Brent Spence Bridge project seeks to very thoroughly study alternatives that best fit the need, while minimizing impacts to the community and environment. It also assures involvement with individuals who are potentially impacted.

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Name	Comments	Response
Moss powershield@fuse.net	Comment on the article in the Cincinnati Enquirer Monday 8/13/07 on the Brent Spence Bridge (BSB). The following two items at a minimum should be done now until 2040: 1. Trucks should be diverted to 275 (both ends) during rush hour traffic: 6 to 9 am and 4 to 7 pm. 2. The left lane on 71 or 75 should be truck prohibitive when there are more than two lanes. I live in Florence and work off Mason/Montgomery Rd. and travel 75/71 every day since January 1996. I have to cross the BSB by 6:30 am in the mornings to miss the delays. Try to leave work before 4:50 pm to try to keep the drive under an hour. Under normal traffic it is a 35 to 40 minute drive. Traffic and problems could be 75 to 90 minutes or even 8.5 hours one day Dec 05. Issues: 1. Trucks in the left lane slow traffic down. If the lane stops a truck gets way behind. 2. The south bound lanes in Kentucky from the BSB to top of hill. There is no enforcement of the truck lane restriction to keep them in the right two lanes. From 5 pm to 6:30 pm it is a crawl to get up the hill (backs up both 71 & 75 north on the south bound lane for at least two miles). All lanes are full and trucks are in the left center lane and once an awhile a truck is in the left lane. At the top of the hill speeds are back to 60 mph. The new BSB WILL NOT FIX THIS PROBLEM SOUTH BOUND UP THE HILL!!! The present idea is to drop 6 to 8 lanes going south across the BSB onto 4 lanes going up the hill.	The Ohio-Kentucky-Indiana Regional Council of Governments performed a Truck Ban Study that was completed in 2007. It concluded that a truck ban would not be effective in terms of providing either congestion relief or safety improvements. The study further estimated that a truck ban would have a detrimental impact to the local economy given the amount of deliveries that are made within the I-275 beltway. Please refer to www.oki.org for information on that study. The new project is intended to include signage to direct truck traffic into the appropriate lanes. However, compliance with these signs will rely on how this policy is enforced, similar to the situation as it exists today.
Elizabeth	As a concerned Ohio resident, I support you fully in this planning. I am a commuting student at a college in Northern Kentucky and I cross over the Brent Spence Bridge everyday. It is such a dangerous section of road, and there have been several times I have been in near-accidents on the Brent Spence Bridge, especially with semi-trucks. Thank you for working so hard at this project.	Thanks for the comment. More information on the project can be found at www.brentspencebridgecorridor.com
John Compton johncompton88@msn.com	I would like to suggest... 1. Split 71/75 in KY 2. Curve US 50 along the river to join directly up with IR71 (as if continuing on 71 you will exit at the REPLACEMENT Brent Spence Bridge) if you do not exit; you will be on US 50 (new Alignment) I could make a map if you would like.	Alternatives to provide new alignments for both I-71 in Kentucky and US 50 in Ohio have been studied as part of this project. However these alternatives have been eliminated from further consideration due to factors such as community impact, cost and projected travel demand.

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Name	Comments	Response
Michael K Jones mjones19@cinci.rr.com	I think we have a bunch of wimpy don't do a lot politicians representing us in Washington. The Greater Cincinnati/Southwest Ohio, and Northern Ky. elected Federal Congressmen and US Senators need to make this bridge project a top priority issue. I'm tired of hearing about our "fiscally conservative" reps. trying to keep government spending down, yet they vote for the biggest federal budgets and deficits that increase every year. They seem to speak about eliminating "pork barrel spending," but maybe they should be a little bit for it, and obtain the funds needed to get this job done. I think the last I heard is we are spending $12 billion a month in Iraq. In my opinion we need politicians in Washington who are going to fight to obtain federal monies for us like some of the other "pork barrel spenders ". For example Stevens in Alaska, Byrd WVA. What have Steve Chabot and John Boehner gotten for SW Ohio? These guys need to get the funding for this project! In the meantime put a truck ban into effect. Make the trucks drop their trailers north of Cincinnati and south of Florence, load them on railroad cars and pick them up at the North or South drop off/ pick up points.	Though construction funding has not yet been identified, this project is considered to be the highest transportation priority in the region by the local communities involved, by both states and by the regional transportation agency, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI). Regarding the potential for a truck ban, OKI performed a Truck Ban Study that was completed in 2007. Essentially, it concluded that a truck ban would not effective in terms of providing either congestion relief or safety improvements. The study further estimated that a truck ban would have a detrimental impact to the local economy given the amount of deliveries that are made within the I-275 beltway. Please refer to www.oki.org for information on that study.
Zach feinze@email.uc.edu	I noticed that the membership list still lists the University of Cincinnati architecture space as "TBD." I was curious as to what the status is on that position.	Ron Kull is representing the University of Cincinnati on the Project Aesthetics Committee
Jason Reser jreser@reserbicycle.com	It's important to save Longworth Hall, as it is truly one of a kind and one of the only remaining vestiges of our railroad past. Building a new bridge and keeping the old one to split the traffic makes a lot of sense to me.	The project study area includes many historic structures, including Longworth Hall. The project has studied several alternatives to date and potential impacts to historical properties have been a major concern. It is likely that the alternatives being advanced would all have minimal impact to Longworth Hall.

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Name	Comments	Response
Richard Folden carolynfolden@aol.com	My house is located on the east edge of Winchell Ave, about fifty-seventy-five feet from the freeway. I would like to know what effects the plans will have on my home. At this time I get a lot of freeway noise as it is, what additional problems will this cause me in the future, I have both noise and vibration problems now. I have learned to live with it now but the extra lanes will increase the levels I am now forced to live with, will the question be answered at the April 1, 2008, meeting at Lincoln center. I want to do some remodeling to my home and yard, but if the freeway plans conflicts with them it would be a waste of my time and investment. These are just a few of my concerns.	It is anticipated that improvements made to I-75 in the downtown Cincinnati area will be made largely within existing rights-of-way. In addition, all of the alternatives begin carried forward call for the conversion of Winchell Avenue into an access road to connect local traffic to I-75 northbound. This is not a major functional change from the existing condition.
Andrew Salach andy.salach@xtek.com	I own the property at 405 Western Avenue in Covington. I'd like to be updated on any future developments especially since two of the alternatives would be going through my street. When will the final plan be chosen?	Contact information has been added to the project list. Specific impacts to Western Avenue in Covington are not known at this time. More about these impacts will be known as the project develops and specific alignments are recommended for further study.
Steve Moss powershield@fues.net	From KY- Travel the 75/71 and 71 every weekday, Florence to Mason. Continuous complaint is to keep the TRUCKS out of the one or two left lane, period. Now- with the delays (years not months) in just the planning phase the cost will be 1.5 to 2 time any current construction estimate. At this point there are TOO many alternatives. The construction was to start in 2015 and the design (if I remember correctly) was based on the year 2020. With the delays, the bridge will be at or over capacity again by the time it is built. If you have a toll and you project the gas cost no one will be traveling over the bridge. Get the work moving faster. What ever the Feds want just get it done ASAP.	The new project is intended to include signage to direct truck traffic into the appropriate lanes. However, compliance with these signs will rely on how this policy is enforced, similar to the situation as it exists today. As the project develops, only the alternatives that best meet the evaluation criteria will be advanced. This criteria includes congestion, safety and community impacts among other factors.
John Matthews Email : jmatthews@optiviausa.com	Website was very informative. Keep up the good work!	Comment noted.

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Name	Comments	Response
Robert P. Harder bharder@ups.com	United Parcel Service, Inc. concurs with the City of Cincinnati on their opposition to Alternatives One and Two. Both alternatives appear to impact our ability to operate our business.	Alternative A (formerly Alternative #1) has currently been dismissed from further study. Alternative B (formerly Alternative #2) has been recommended for elimination from further study due to cost and community impact issues.
LH Chapman chapmanLH@aol.com	Please do not UNDO the huge city investments in the West End and Queensgate by putting more ramps into this community. Also, I see no point in the roundabout planned for the Western Hills Viaduct. The volume and flow of traffic at this intersection is not that much of a problem. The roundabout will cause accidents that will lead to long backups of traffic.	Specific alignments mentioned in this comment have either been dismissed or recommended for elimination from further study due to community impact and cost issues. Alternatives A and B have been met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities. Regarding the Western Hills Viaduct, all alternatives including roundabouts have also been removed from further consideration.

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Name	Comments	Response
Russ Bauer Email : russb@fuse.net	I would support the first alternative for the new bridge through the Queensgate area. Planners must consider the BIG picture here. This concept moves the interstate out away from the city center through a predominately industrial area and will free up land for development by the city that currently is concrete roadway. It also would allow traffic to continue through the corridor during most of the construction which will be years. It also addresses fixing the current I-75 mess of highway from Union Terminal to the river by streamlining the flow by straightening sections out. I just hope cost does not become the driver for this project. This is as important to our region as the "BIG DIG" was to Boston. If it costs a billion dollars, then that's what it costs.	Alternative A (formerly Alternative #1) has been dismissed from further study due to impacts to Longworth Hall. The Queensgate alternatives would not eliminate the existing I-75 roadway. The alternatives would move I-75 traffic onto a new alignment while the existing roadway network would be converted to serve local traffic. These alignments have also met with public opposition due to the significant impact to the business community. In addition, the City of Cincinnati is currently working to develop vacant land in the path of Alternative B. Our study indicated that the mainline alternatives being advanced provide similar or improved levels of safety and congestion relief, while having significantly less impact to local communities.
Ralph Lodewick	As I understand it, the Ohio River is part of KY. I am sick and tired of seeing one report after another regarding how great KY's business environment is. To see ODOT involved in this project bugs me. Let the KYTC figure this out, it's their bridge after all. They have to give as much as they get. They can suburbanize the Newport Riverfront with strip malls, etc...but when the going gets tough (Brent Spence) who do they turn to? Ohio, Ohio, Ohio. Let's quit giving away the store. We should see if KY can become more than a parasite.	The study area for the project is 7.3 miles in length and runs from Dixie Highway on the south to the Western Hills viaduct on the north. The approach work necessary to complete this project on this Ohio side is every bit as complicated as work on the actual bridge structure. Given the nature of this project, and the customers using it to access the region, it is essential that both states work together so that the project provides the best possible traffic efficiency and safety given its numerous constraints.

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Name	Comments	Response
Steve Pillion ppcofc@hotmail.com	I chose "others", as this idea kind of crosses all borders. Have there been any suggestions of implementing either solar panels, or wind turbines on the top of the bridge? This idea may be aesthetically appealing if implemented with a design in the turbine. With the river being in a valley wind turbines should catch plenty of wind to generate energy. Solar panels would capture the rays on any sunny day (obviously). If implemented correctly, none of this should be a distraction to drivers. Other than generating "green power", this could possibly generate funding to pay for the bridge. Since you are generating power and not necessarily using any, other than lights at night and such, the electric company would be supplying refunds for the bridge power and thus paying for at least a portion of the bridge itself. Once the bridge is paid off, the money could then go to the State government, or better yet the Cincinnati and Covington governments to pay for future road repairs, or general government funding. Any way, that is my idea, so thanks for reading it.	At this point in project development, ODOT and KYTC are working to determine a general project alignment to be designed in more detail as the project moves forward in the project development process. A determination of the specific type of bridge will be made at that time. Similarly, any specifics about bridge design and innovative funding alternatives of this nature will be considered at a later time in project development. Public and community input is encouraged in all phases of project development as it moves forward.
Robert Fox rfox738@yahoo.com	Consider separating the highway (75, 71) into separate lanes for trucks and separate lanes for cars. If 2 bridges are used, one for trucks and one for cars. This will contribute to safety, as well as improve traffic flow across the bridge.	Separating traffic as discussed in this comment would be very costly in terms of providing two parallel roadways that essentially serve traffic for similar destinations. Costs and the potential for community would increase as duplicate exit ramps, requiring more land would be needed. The alternatives currently being considered involve the separation of local and regional traffic. This configuration would eliminate lane weaving and allow for more efficient flow of traffic, while keeping local access points consistent with those available in the existing roadway network.

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Name	Comments	Response
Adam Curry adamcurry@gmail.com	As a concerned citizen that lives in Cincinnati and who is always thinking of better ways to handle situations, has anyone given the proposed the idea of extending the light railway across the either the new bridge, or the existing BSB? I know that that project is also a ways away from completion, but as for someone who lives close to downtown, it would be quite a treat for tourism and shopping if we could freely travel from one side of the river to the other without driving. Also, as a Bengals season ticket holder, I know that many people park on the other side of the river and walk over, it could help business on both sides of the river if there was an easy method of travel.	Current rail transportation plans within the region have identified a potential Ohio River crossing adjacent to the Clay Wade Bailey bridge.

QUEENSGATE AREA ISSUES, CONSIDERATIONS AND RECOMMENDATIONS

FOR IMPLEMENTATION OF THE BRENT SPENCE BRIDGE PROJECT (HAM-71/7S-0.00/0.22)

Submitted to the Ohio Department of Transportation and the Federal Highway Administration

September 23, 2008

By the

CITY OF CINCINNATI
Mark Mallory, Mayor
Milton Dohoney, City Manager

October 8, 2008

Mr. Rob Hans
Chief District Engineer
KYTC District 6
P.O. Box 17130
Covington, Kentucky 41017

RE: Brent Spence Bridge

Dear Mr. Hans:

Please accept this letter as the City of Covington's evaluation of the economic impact of the various Alternatives currently under consideration to replace the Brent Spence Bridge between Covington, Kentucky, and Cincinnati, Ohio.

Direct Economic Loss

Covington City staff have carefully examined the various Brent Spence Bridge replacement alternatives and assessed the Direct Economic Loss of each. From that analysis, Alternative B, the "Queensgate Alternative" reduces the City's property and payroll tax revenue by 1.5 to 3 times the amount of Alternatives C, D, F, and G, and 8 times the amount of Alternative E, the sub-Alternative 3-1-2 of which is also the City's stated preference. As you are aware, Alternative B has a larger footprint than all other Alternatives, which explains the proportionately greater economic loss.

In addition, the total loss in property value and property tax revenue for all other taxing jurisdictions is outlined below. The purpose of including this information in our analysis is to demonstrate the permanent negative economic impact of the various Alternatives to property tax revenue for all other taxing jurisdictions, including the Commonwealth of Kentucky, Kenton County, Covington School District, Kenton County Library District, Northern Kentucky District Health District, and other special taxing districts.

Alternative	Property Value Loss (in millions)	Annual Property Tax Revenue Loss
B	$ 22.5	$ 383,000
C	$ 15.6	$ 296,000
D	$ 15.7	$ 267,000
E	$ 14.5	$ 248,000
F	$ 19.0	$ 324,000
G	$ 19.2	$ 328,000

Indirect Economic Loss

The Indirect Economic Loss of each Alternative, in terms of reduced southbound access to Covington and its businesses and other destination points, is more difficult to quantify. However, since Alternatives B, C, D, F, and G do not provide direct southbound access from I-71 and I-75 to Covington, which the current southbound access configuration provides, it is reasonable to assume that these Alternatives have greater Indirect Economic Loss than the Direct Economic Loss outlined above.

Southbound travelers, prompted to exit at Covington for tourism, shopping, lodging, fuel, food, etc, by sight of the Ohio River and the Covington riverfront, will have already missed that opportunity with no direct access provided by Alternatives B, C, D, F, and G. As you are aware, the southbound access from I-71 and I-75 in Alternatives B, C, D, F, and G requires drivers to make the decision to exit to Covington some three miles north of the Ohio River and the City of Covington, completely out of sight of the City and its riverfront area. Only Alternative E, sub-Alternative 3-1-2, provides direct southbound access to Covington from I-71 and I-75.

The City of Covington greatly appreciates the work and cooperation exhibited to date by all parties to the Brent Spence Bridge replacement project, and requests that serious consideration and weight be given to the City's concerns outlined herein.

As always, thank you for your time and consideration.

Jay Fossett
City Manager

Cc: Mayor and City Commissioners
Mr. Mark Policinski, OKI
Larry Klein, Assistant City Manager

Comments Received at Public Hearing Held by City of Cincinnati on June 24, 2008

APPENDIX B

Written Testimony Received at June 24, 2008 Public Hearing

June 24, 2008

Thanks for having this meeting for the Brent Spence Corridor section. 200800856

My name is Jenny Edwards and I emphasize my role as a private citizen more than representing a group. However, my service in this community is as both the elected Corresponding Secretary for the West End Community Council and the presiding officer of the Dayton Street Neighborhood Association. In the former capacity my chairmanship is of the Safety Committee. Both the WECC representation of Section 106 (Historical) Consulting Parties group. and the Advisory Committee are now part of my work for the council. Mr. Norman Kattelman also serves on the Historical Consulting parties.

We are seated in an area here on the edge of The West End and of the Queensgate area.
While West End provides people power and clients with buying power to the economy of the Queensgate area, Queensgates reciprocates with daily basic needed business like gasoline dealers, banking, credit unions, auto dealers, several restaurants, an employment opportunities through 40 plus employers across the street in the, I believe it's the 644 Linn Building. We do not take for granted their placement, as, in the West End, it seems like we are heartened to hear we have business districts, only to be told that there is really not way to activate them in such a "tired" group as the West Endies, or households with lower economic impact. Much of that thought will change in the next 2-3 years.

We are glad to see that city council has taken a stand against the first two routings that seem to take aim at the majority of power businesses that have a positive reciprocal relationship to the West End Neighbors. We hope that the other 5 ideas can be designed to avoid our business base along the local freeway.

The final matter of design I would like to address is that, because we have so many access points into and out of the West End we often seem like the easiest entrance and exit community for dealers in matters associated with crime. Our neighborhood of the West End features too many "quick visitors" to the West End bearing Kentucky and Indiana License plates to score matters that do not allow the community to prosper.

If the designers that be can pair with out local District One and Capt. Theresa Theegte and Chief Thomas Streicher, Local Sheriff's department directed by Sheriff Simon Leis,
And the state's of Ohio and Kentucky's Highway patrols to look at these matters to pinch off some of these easier routings, perhaps some of the traffic of "illegal trafficking" be lessened.

Again, we greatly appreciate Councilmember Qualls and her team, along with all officials gathered here this evening for giving us an ear for these matters.

Sincerely,

Jenny Edwards
818 Dayton Street #1W
Cincinnati, Ohio 45214-2293 cell 513-374-0463

City of Cincinnati

Department of City Planning

Two Centennial Plaza
Suite 700
805 Central Avenue
Cincinnati, Ohio 45202
Phone (513) 352-4861
Fax (513) 352-4853

Charles C. Graves III
Director of City Planning

June 24, 2008

Brent Spence Bridge Alternatives

Comments:

See attached,
Speaking comments will be
briefer,

Contact Information: Name/Address/Phone/e-mail:

Jerry Edwards
818 Dayton Street #1 Cinti OH 45214-2293
513-381-4856 1374-0463

Send comments to: **Steve Briggs**
Senior City Planner
City Planning Department
Centennial Plaza Two
805 Central Avenue, Suite 700
Cincinnati, Ohio 45202

513-352-4840
513-352-4853 [FAX]
steve.briggs@cincinnati-oh.gov

QUEENSGATE
FOODSERVICE

619 Linn Street • Cincinnati, OH 45203
(513) 721-5503 • (513) 721-5519 Fax

200800857

June 13, 2008

Roxanne Qualls
Cincinnati City Council
801 Plum Street
Cincinnati OH 45202

RE: Brent Spence Bridge
Access Route Proposals # 1 and #2

Dear Council Member Qualls,

Hello. My name is Pat O'Callaghan, Jr., and I am the president of Queensgate Foodservice, an employee-owned, Cincinnati-based, independent foodservice distributor. We have approximately 90 employee/owners, some of whom also live within the "Empowerment Zone." Thank you for giving me the opportunity to offer input in to this important decision, which will have profound ramifications for me and my partners.

As a $50-million distributor, we are a seven-day-a-week operation, and on any given morning we have from 15 to 25 full trucks and vans leaving our facility, en route to the finest restaurants, hotels, caterers, country clubs, and other operations in Ohio, Kentucky, and Indiana. Additionally, we have 15 salespeople who are constantly driving from between our facility and their customers throughout Greater Cincinnati.

I have personally worked in Queensgate since the early nineties, and I am therefore very familiar with the neighborhood. That is why we chose our current location when we founded the company in 1999, despite having other, potentially more financially lucrative opportunities to locate in the suburbs or Northern Kentucky. We even proudly named our company after the neighborhood. The centrality of our location, as well as our quick and easy, 24/7 access to major highways, makes us uniquely suited to serve our hundreds of wonderful customers in all directions from downtown Cincinnati.

This easy access to the highways is absolutely essential to the feasibility of our operation, particularly in the era of $4-plus gas prices. Access Route Proposals #1 and #2 would cause major disruption to our operations. These options would add significant costs to our operations, putting us at a competitive disadvantage to larger competitors located away from the center of the city, and eventually endangering the viability of our employee-owned company.

There are several other businesses in Queensgate who have relatively similar operations, and who will surely experience similar difficulties as a result of the proposed changes in alternatives #1 and #2. The employee/owners of Queensgate Foodservice are opposed to Access Route Proposals #1 and #2, and we ask that you consider less harmful proposals.

Thank you again for allowing our input in to this matter. We look forward to continuing this discussion, in order to find a healthy long-term plan for the placement of the bridge.

Sincerely,

Pat O'Callaghan, Jr.
CEO
Queensgate Foodservice
513.476.1000 (cell)

Management Group, Ltd.
710 Mt. Hope Ave., No. 4, Cincinnati, OH 45204-1420
Phone. (513) 251-9444
Fax: (513) 786-8300

June 20, 2008

200800858

Roxanne Qualls
Cincinnati City Council
801 Plum Street
Cincinnati OH 45202

RE: Brent Spence Bridge Access Route Proposals # 1 and #2

Dear Council Member Qualls,

As a property owner in Lower Price Hill, I'd like to express my concerns regarding Access Route Proposals #1 and #2.

The I-75/I-71 corridor through Cincinnati and Northern Kentucky serves as a primary commercial artery moving people and goods and generating economic benefit for Queensgate. In the planning for reconstruction and potential realignment of the Brent Spence Bridge, there are two alternatives—#1 and #2—with which we take issue.

We suspect it is very likely that no "ideal" alternative exists that can deliver the greatest access, convenience and safety without any changes that would impact our businesses. However, these two alternatives fail minimal tests of maintaining or enhancing current access to Queensgate and Lower Price Hill.

It is the combination of impacts represented by Alternatives #1 and #2 that inform my opposition:

a) the two alternatives reduce number and position of off-ramps to Queensgate and Lower Price Hill, impeding accessibility, positioning of ramps could impact property owners and impede future development of their property.

b) with fewer direct access points to I-75, traffic (especially truck traffic) would clog surface streets for longer distances, slowing local traffic, contributing to pollution from exhaust at slow or idling speeds, and discouraging pedestrian traffic.

c) in business, time is money; with more time required to exit off the expressway and arrive at the destination for business transactions, productivity suffers.

These two alternatives should be permanently removed from consideration for their negative impact on both current and future economic development in Queensgate and Lower Price Hill.

We urge the City of Cincinnati to continue work on identifying an optimal solution that maintains and enhances mobility, access and safety in support of Queensgate's and Lower Price Hill's economic development.

Sincerely,

William J Borwinkel
Managing Member
Management Group, LLC
513-265-6083

cc: Holly Childs, Director Dept of Economic Development
Milton Dohoney, City Manager
Honorable Mark Mallory, Mayor
Chris Bortz, Chair Economic Development Committee
Eileen Enahnit, Director Dept of Transportation & Engineering

NATIONAL MARKETSHARE GROUP inc.

200800859

June 20, 2008

Roxanne Qualls
Cincinnati City Council
801 Plum Street
Cincinnati OH 45202

RE: Brent Spence Bridge Access Route Proposals # 1 and #2

Dear Council Member Qualls:

As President of National Marketshare Group inc I'd like to express my concerns regarding Route Proposals #1 and # 2. The I-75/I-71 corridor through Cincinnati and Northern Kentucky serves as a primary commercial artery moving people and goods and generating economic benefit for Queensgate lower Price Hill. In the planning for reconstruction and potential realignment of the Brent Spence Bridge, there are two alternatives—#1 and #2—with which we take issue.

We respect it is very likely that no "ideal" alternative exists that can deliver the greatest access, convenience and safety without any changes that would impact our businesses. However, these two alternatives fail minimal tests of maintaining or enhancing current access to Queensgate and Lower Price Hill.

From our viewpoint-- it is the combination of impacts represented by Alternatives #1 and #2 that cause our opposition:

a) the two alternatives reduce number and position of off-ramps to Queensgate and Lower Price Hill, impeding accessibility positioning of ramps could impact property owners and impede future development of our Business and property

b) with fewer direct access points to I-75, traffic (especially truck traffic) would clog surface streets for longer distances, slowing local traffic, contributing to pollution from exhaust at slow or idling speeds, and discouraging pedestrian traffic.

c) in business, time is money. with more time required to exit off the expressway and arrive at the destination for business transactions, productivity suffers.

These two alternatives should be permanently removed from consideration for their negative impact on both current and future economic development in Queensgate and Lower Price Hill.

We urge the City of Cincinnati to continue work on identifying an optimal solution that maintains and enhances mobility, access and safety in support of Queensgate's and Lower Price Hill's economic development.

Sincerely,

Thomas Koopman
President
Tomk@nmsg.com
513-244-8049

cc: Holly Childs, Director Dept of Economic Development
Milton Dohoney, City Manager
Honorable Mark Mallory, Mayor
Chris Bortz, Chair Economic Development Committee
Eileen Enabnit, Director Dept of Transportation & Engineering

Cincinnati USA
Regional Chamber

Cincinnati USA Regional Chamber
Comments on the Proposed Alternatives for the Brent Spence Bridge
Presented to
The Transportation and Infrastructure Subcommittee
Cincinnati City Council

200800660

These Comments Presented By:

Tom Ewing
Sr. Legislative & Policy Analyst
Cincinnati USA Regional Chamber
June 24, 2008

Councilmember Roxanne Qualls and Members of the Transportation and Infrastructure Subcommittee:

Good evening.

My name is Tom Ewing and on behalf of the Cincinnati USA Regional Chamber I appreciate the opportunity to participate in this evening's hearing and to comment on some of the critical topics inherent in the right-of-way (ROW) decisions for the I-75/Brent Spence Bridge project.

The Cincinnati USA Regional Chamber is the region's largest business organization. The Chamber has over 5500 private and public sector members. The functioning of the Brent Spence Bridge and the I-75/I-71 interstate corridors are critical to thousands of the Chamber's business members, from small one-person shops to some of our nation's largest corporations, such as Toyota, UPS and GE Aircraft Engines.

In addition, the development and redevelopment of the cities of Cincinnati and Covington are imperatives for our Chamber. This is a region with a great riverfront and great riverfront development. That infrastructure is important for the success of everyone who lives and works here. Therefore, the decisions and progress with the Brent Spence Bridge must complement and enhance the special aesthetics that characterize great river cities and the opportunities for older American cities to change and grow and remain vibrant and attractive in a modern world economy.

These complicated urban interests form a complex context for an interstate bridge project. We have to take full advantage of new opportunities while retaining and strengthening our unique local attributes. We appreciate your awareness of these challenges and your close attention to making the best possible decisions – decisions that enhance and improve local and regional transportation as well as more proximate, but nevertheless critical, issues pertaining to urban development, economies and quality of life.

For reasons detailed below, the Cincinnati USA Regional Chamber supports the City of Cincinnati's request to forego further analysis of Brent Spence Bridge Right-of-Way Alternatives 1 and 2 – sometimes referred to as the "Queensgate bridge" alternatives. Our support for the City's request is based on the following observations:

- A "Queensgate bridge" would split Queensgate in two.
- The Queensgate alignments (1 & 2) are projected to impact 183 businesses and residences. Conversely, Alternatives 3 and 4 are projected to affect 123 and 133 commercial and residential properties, respectively. This is a part of our City due for new development and opportunity. We want to keep those opportunities intact.
- It's likely that a "Queensgate bridge" is more costly than Alternatives 3 & 4.
- A "Queensgate bridge" raises the unacceptable prospect of a second Interstate right-of-way adjacent to downtown, since the original ROW would remain in use.
- The idea of an elevated, interstate structure in a dense urban landscape is a throwback to transportation "solutions" that communities all across the country are struggling to replace. This project can remain in the existing ROW.

A decision to end additional work on two of four Alternatives raises questions as to whether the two remaining Alternatives can meet the project's official Purpose and Need, which are listed below:

- Improve traffic flow and level of service;
- Improve safety;
- Correct geometric deficiencies; and,
- Enhance connections to key regional and national transportation corridors.

A review of the "Alternatives Comparison Matrix" in Appendix D of the Brent Spence Bridge Planning Study Report (September 2006) shows that Project and Need are not compromised nor reduced by a decision to exclude Alternatives 1 & 2. Alternatives 3 & 4 can provide the required transportation benefits pertaining to "congestion mitigation", "safety" and "engineering." It's also important to point out that Alternatives 3 & 4 have more favorable construction cost estimates than Alternatives 1 & 2.

In conclusion –

- This project needs to stay within the existing ROW, a location with fewest impacts.
- The aesthetic, human-scale impacts of a Queensgate bridge are reasons enough to end further analysis of Alternatives 1 and 2.
- Alternatives 1 and 2 do not present outstanding benefits for congestion mitigation, safety or cost.
- This project's Purpose and Need can be met with Alternatives 3 & 4.

On behalf of the Chamber I appreciate the chance to comment. We hope that by excluding two Alternatives this process can move more quickly and that limited planning resources can be used most efficiently. I would be happy to respond to any questions about the Chamber's comments and priorities.

(end)

WXIX · CINCINNATI

FOX 19

19 Broadcast Plaza
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Cincinnati, Ohio 45203

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www.FOX19.com

200800861

June 19, 2008

Roxanne Qualls
Cincinnati City Council
801 Plum Street
Cincinnati OH 45202

RE: Brent Spence Bridge Access Route Proposals # 1 and #2

Dear Council Member Qualls,

My name is John Long, and I am the Vice President and General Manager of FOX19. As a broadcast television station and news operation located in the Queensgate Area, in the Historic Stowe School Building, FOX19 has a major interest in the continued strength and development of the Queensgate section of Cincinnati.

The I-75/I-71 corridor through Cincinnati and Northern Kentucky serves as a primary commercial artery moving people and goods and generating economic benefit for Queensgate. In the planning for reconstruction and potential realignment of the Brent Spence Bridge, there are two alternatives- #1 and #2 - with which we take issue.

We respect it is very likely that no "ideal" alternative exists that can deliver the greatest access, convenience and safety without any changes that would impact our businesses. However, these two alternatives fail minimal tests of maintaining or enhancing current access to Queensgate.

The I-75/I-71 Corridor is a major artery for the news professionals at FOX19. Alternatives #1 and #2 reduce number and position of off-ramps to Queensgate, which would limit the ability of FOX19's news crews to access major parts of the Cincinnati area on which they report, and would increase the amount of time required for news people to reach breaking news locations.

With fewer direct access points to I-75, traffic (especially truck traffic) would clog surface streets for longer distances, slowing local traffic, contributing to pollution from exhaust at slow or idling speeds, and discouraging pedestrian traffic. This increased traffic could also negatively impact the safety of both pedestrians and drivers in the Queensgate area.

As you are aware, in business, time is money, with more time required to exit off the expressway and arrive at the destination for business transactions, productivity suffers. It could also negatively impact client relationships, so vital to the television business, if FOX19's location is more difficult and time consuming to reach.

These two alternatives should be permanently removed from consideration for their negative impact on both current and future economic development in Queensgate.

RECYCLE

We urge the City of Cincinnati to continue work on identifying an optimal solution that maintains and enhances mobility, access and safety in support of Queensgate's economic development.

Sincerely,

John Long
VP/General Manager
FOX19

2 00800862

QUEENSGATE
BUSINESS ALLIANCE

COMMENTS BY JIM OLMAN, BOARD CHAIR--QUEENSGATE BUSINESS ALLIANCE

6/24/08 PUBLIC HEARING ON BRENT SPENCE BRIDGE ACCESS

+My name is Jim Olman. I'm a real estate broker and developer, representing Olman & Company and Queensgate South; and I appear in my capacity as board chair for the Queensgate Business Alliance.

+Queensgate Business Alliance represents over 40 entities active in Queensgate--businesses that have chosen Queensgate as their business address for, among other attributes, its easy access to I-75.

+For Queensgate, what these Alternative Access Routes #1 and #2 boil down to is FLOW.

+It's about traffic flow-- constant, free of congestion, safe, well-lighted and well-marked, properly maintained thoroughfares that contribute to commercial activity. These two Alternatives would significantly reduce the number of on-off ramps, which reduces accessability, forces more traffic to idle on surface streets, slowing things down and causing congestion. This is not good for the second element of our FLOW--cash flow.

+Traffic flow generates cash flow--whether it's customers to the Frisch's on Eighth & Freeman, to the Ramada which is the site of this hearing, or to the Dalton Ave. Post Office, or visitors to the Museum Center, or Butternut Bread Trucks or Queensgate FoodService semis making their deliveries--it's about commerce, customers, dollars and cents. And how much 'sense' would it make to take away multiple access points and slow down the flow of traffic? Then you slow down and even eliminate cash flow and that's bad for business.

We do not want businesses, employees, customers and traffic to leave Queensgate because getting here is just too difficult due to restrictions to traffic flow. There are other alternatives under review that would maintain or enhance traffic flow AND cash flow.

+These other alternatives should be considered for how they enhance access and traffic flow without increasing congestion and impeding commerce. These alternatives deserve our attention

+In Queensgate, our motto is "Business Done Here." Business is all we are and all we do. Restricting traffic flow restricts our cash flow, and the only alternatives worthy of serious consideration for I-75 access are those that help more business 'get done here'.

Thank you!

CINCINNATI
MUSEUM CENTER
AT UNION TERMINAL

20090086-2

Written Statement to the City of Cincinnati
Subcommittee on Transportation and Infrastructure
Regarding Brent Spence Bridge Project Alternatives

Presented by Sandra Shipley
Vice President of Exhibits and Museum Planning

June 24, 2008

Chairwoman Qualls and members of the Subcommittee, thank you for the opportunity to present Cincinnati Museum Center's views and position on the Brent Spence Bridge Project, specifically regarding Alternatives #1 and #2. We respectfully request that this written statement be accepted into the record.

Over the past several years, Cincinnati Museum Center at Union Terminal (CMC) has drawn 1 to 1.2 million visitors to Queensgate annually – in fact, Museum Center's visitorship exceeds that of any other museum in the State of Ohio. In 2002, an economic impact study conducted by the University of Cincinnati rated Museum Center with a total economic impact (in 2001 dollars) of $75.6 million annually, which generated $25.7 million in household income and supported 1,121 full- and part-time jobs regionally. Cincinnati Museum Center directly employs 165 FTE's and 135 PPE's (32 hrs or less per week), and each year has more than 67,892.40 volunteer hours donated by more than 750 active volunteers to the institution. Additionally, Museum Center's activities generated more than $1.9 million (in 2001 dollars), annually, in income, property, and sales tax revenues for Hamilton county, the City of Cincinnati and other taxing jurisdictions within the county.

Cincinnati Museum Center is an important year-round employer and visitor destination for the City and region. For purposes of the Brent Spence Project Alternatives discussion, it is important to review current access, and its challenges, to the institution. Current access to Museum Center from I-75 is hampered in the following ways:

- North Bound, I-75: No direct access to Ezzard Charles Drive or Western Avenue. Patrons are instructed to exit on St. Rt. 50 and then to Linn Street, travelers must then wind their way through Queensgate to our entrance on Western Avenue.
- South Bound, I-75: Signed access to Western Avenue is direct, however, a more direct (and dangerous) access point is the Ezzard Charles Drive exit, which some patrons use.

Understanding that there are no perfect solutions for the I-75 Brent Spence Bridge redevelopment project, after carefully reviewing all the alternatives presented, Cincinnati Museum Center supports those plans that (overall):

- Improve access to Ezzard Charles Drive, to and from North and South bound I-75;
- Utilize the collector/distributor system to provide more direct and safer access to Union Terminal, Queensgate and the West End. This is an important necessity for Museum Center's patrons, as well as for other area businesses and residents; and
- Facilitate the use of clear signage for all Downtown Cincinnati exits, including to major arts, cultural and other "destinations".

Given this criteria, Cincinnati Museum Center supports project Alternative #4, with Arterial Improvements Sub-Alt #2. The new Collector/Distributors provide more direct and safer access for our visitors from both North and South on I-75. This is an important necessity for CMC's patrons as well as those businesses and residents located in Queensgate and the West End. This access is more direct and eliminates the current circuitous access through Queensgate for North Bound traffic.

Cincinnati Museum Center has deep concerns and reservations about Alternatives #1 and #2. We do not support pursuing these Alternatives, as they would result in catastrophic negative impacts for both Queensgate and Cincinnati Museum Center. Situating a bridge, as described in these options, would precipitate the loss of jobs, business opportunities and impact the region with loss of earnings and property taxes. Furthermore, Cincinnati Museum Center's Geier Collections and Research facility is located at 5th and Gest Streets – this area would be most impacted by the new bridge construction that Alternates #1 and #2 proposes. This facility was identified in the *Red Flag Summary Report* and, while not historic, it is a vital part Museum Center's operation.

While bridge construction itself is many years away, it is difficult to assess how the planning and future development of the Queensgate area will evolve. However, certain assumptions can be made through current operations and initiatives in the region. For example, Union Terminal is currently the hub for Cincinnati's AMTRAK traffic on the Cardinal (DC to Chicago) line. While this traffic is currently limited, the plans for future increased use of passenger rail should be an important consideration (from the aspect of access points along the I-75 corridor).

In Summary, Cincinnati Museum Center is opposed to the continued consideration of Brent Spence Bridge Alternates #1 and #2. The proposed Alternate that most meets Museum Center's needs is Alternate #4, with Arterial Improvements Sub-Alt #2, because of it's improved access to Ezzard Charles Drive and Queensgate from both North and South bound I-75.

Media Inquiries:
Rodger Pille, Director of Media Relations
(513) 287-7054

June 24, 2008

200800864

Chairwoman Qualls and Members of the Subcommittee:

Good evening, I am Chip Wood, Vice President Business and Community Relations for Duke Energy Ohio and Duke Energy Kentucky. Thank you for the opportunity to provide input regarding the replacement of the Brent Spence Bridge to the City of Cincinnati Transportation and Infrastructure Subcommittee.

Duke Energy recently completed an analysis of the impact that each bridge alternative might have on the electric and gas infrastructure serving Greater Cincinnati. While all of the alternatives being considered will have significant impact on Duke Energy's existing infrastructure, the construction and relocation costs and reliability risks associated with the Queensgate alternatives (1 and 2) are significantly higher than the other alternatives

For these reasons, Duke Energy opposes Alternatives 1 and 2.

Duke Energy currently has four transmission lines that cross the Ohio River into the Queensgate area These lines are critical for Duke Energy to provide reliable electric service to downtown Cincinnati and Northern Kentucky. Alternatives 1 and 2 will require the relocation of these transmission lines which will add millions to the bridge replacement project. In addition, we do not see any clear options as to how we can reroute the lines during the construction period in a way that will ensure reliable service for the area.

I would like to share a few highlights of the incremental costs associated with the Queensgate alternatives.

- Alternative 1 requires the relocation of four transmission lines currently crossing the Ohio River and two additional spans that connect these lines to the West End substation located adjacent to the existing Brent Spence Bridge. In addition, this alternative requires the relocation of the West End Substation. The cost difference for Alternative 1 versus Alternatives 3 or 4 is estimated to be $20MM if the lines are replaced with overhead lines but could escalate to approximately $65MM if these transmission lines are either buried or attached to the bridge for aesthetic reasons.

- Alternative 2 requires the relocation of four transmission lines crossing the river, but does not require the relocation of West End Substation. The cost difference for Alternative 2 versus Alternatives 3 or 4 is approximately $2MM if the lines remain overhead and escalates to $45MM if the lines are buried or attached to the bridge for aesthetic reasons.

In conclusion, I ask on behalf of Duke Energy that these costs and impact to reliability be considered when determining a final alternative for the Brent Spence Bridge project. I have included in each of your packets an Appendix of the required work and preliminary cost estimates for each of the alternatives, a map of our gas and electric facilities currently in use in Queensgate and adjacent to the existing Brent Spence Bridge and a letter outlining our position.

Thank you again for the opportunity to speak on this matter. We look forward to working closely with all stakeholders as this project progresses.

Respectfully submitted,

Barry W. (Chip) Wood, Jr.
VP, Business and Community Relations
Duke Energy OH & KY

Duke Energy.

BARRY W. (CHIP) WOOD
Vice President
Business and Community Relations

Duke Energy Ohio
Duke Energy Kentucky
139 East Fourth Street
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June 24, 2008

Transportation and Infrastructure Subcommittee
Cincinnati City Council
801 Plum St., Rm 352
Cincinnati, OH 45202

Chairwoman Qualls and Members of the Committee

Duke Energy appreciates the opportunity to provide input to the City of Cincinnati regarding the Brent Spence Bridge Alternatives. Duke Energy recently completed an initial assessment of the cost and reliability impact for each of the various alternatives still under consideration. While all four of the alternatives being considered will have significant impact on Duke Energy's existing infrastructure, the incremental costs and reliability risks associated with the Queensgate Alternatives (Alternatives 1 and 2) are significantly higher. For these reasons, Duke Energy opposes Brent Spence Bridge Alternatives 1 and 2.

I have included an overview of the impact each alternative would have on Duke Energy's infrastructure so it may be considered when determining a final alternative. A map of our gas and electric facilities currently in use in Queensgate and adjacent to the existing Brent Spence Bridge is included. We have also provided an overview of the required work and preliminary cost estimate to relocate these facilities in kind. These have been prepared for each of the alternatives being considered (Appendixes A, B, C and D) using customary and ordinary replacement in kind. No betterments or improvements are included, nor are any right of way costs. Attachments that provide a visual representation of how the alternatives affect Duke Energy are also included.

In summary, Duke Energy estimates the costs associated with the various alternatives to be:

Alternative 1: $42,000,000 to $87,000,000
Low end assumes:
Queensgate Bridge; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

High end assumes:
Queensgate Bridge; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River;
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Alternative 2: $24,000,000 to $67,000,000
Low end assumes:
Queensgate Bridge; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.

High end assumes:
Queensgate Bridge; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River;

Other:
Alternative 2 has an exit ramp going over the south car port, vehicle garage and parking lot at Duke Energy's Queensgate facility.

Alternative 3: $22,500,000
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Alternative 4: $22,500,000
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Please note that these estimates are based on 2008 construction costs and are not based on detailed engineering plans or actual construction bids. Our historical escalation rates over the past three years have been 30% per year and we anticipate future escalation rates to be 15% per year.

We sincerely appreciate the opportunity to be involved in this process of finding a proposed alternative for the Brent Spence Bridge. Duke Energy looks forward to working in partnership with ODOT, KyTC and the local governmental entities in Ohio, Kentucky and at the federal level. Our goal is to work with our community leaders to develop the best alternative for this important project. We welcome the opportunity to review the various alternatives and assist in finding solutions that can work best for all stakeholders. Should you need any additional details, please contact me at 513-419-5450.

Sincerely,

Barry W. Wood, Jr.

Barry W. (Chip) Wood, Jr.
Vice President, Business and Community Relations
Duke Energy Ohio and Duke Energy Kentucky

Attachments

Alternative 1:
New Bridge built through Queensgate and a new bridge just west of the existing Brent Spence Bridge
See Attachments
Drawing Option 1A: Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 1B: Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 1C: Transmission lines cross Ohio River underground

All the above Options also include relocating Duke Energy's West End Substation adjacent to the existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) on our existing property. This will allow the room required for the new bridge adjacent to the Brent Spence Bridge.

Impact to Duke Energy:

- All substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction
- Duke Energy looses existing property for future expansion relocating the West End Substation.

Transmission:
Option 1A: Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** ; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.
- **New bridge adjacent to the Brent Spence Bridge**: four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Option 1B: Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weigh and safety requirements must be added into the bridge design.
- **New bridge adjacent to the Brent Spence Bridge**; four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Option 1C: Transmission lines cross Ohio River underground

- **Queensgate Bridge** , four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River.
- **New bridge adjacent to the Brent Spence Bridge**; four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Distribution:

- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development.
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.
- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge.

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs.

Option 1A.	Transmission lines overhead crossing over new Queensgate Bridge	$42,000,000
Option 1B:	Transmission lines in conduit attached to new Queensgate Bridge	$72,000,000
Option 1C	Transmission lines cross Ohio River underground	$87,000,000

Appendix B

Alternative 2:
New bridge built through the Queensgate area

See Attachments
Drawing Option 2A: Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 2B: Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 2C: Transmission lines cross Ohio River underground

Impact to Duke Energy:

- All substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Alternative 2 has an exit ramp going over the south car port, vehicle garage and parking lot at Duke Energy's Queensgate facility.

Transmission:
Option 2A: Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** ; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.

Option 2B: Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weigh and safety requirements must be added into the bridge design.

Option 2C: Transmission lines cross Ohio River underground
Queensgate Bridge ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River.

Distribution:

- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development.
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area

Substations

- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge.

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs:

Option 2A:	Transmission lines overhead crossing over new Queensgate Bridge	$22,000,000
Option 2B:	Transmission lines in conduit attached to new Queensgate Bridge	$52,000,000
Option 2C:	Transmission lines cross Ohio River underground	$87,000,000

Alternative 3:
New bridge built just west of the existing Brent Spence Bridge (Sub-alternatives 3.1, 3.2 and 3.3 each impact Duke Energy and the existing West End substation similarly).

Impact to Duke Energy:

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy loses existing property for future expansion relocating the West End Substation.

Transmission:

- Existing transmission line crossings spanning the Ohio River will not be impacted.
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charles to Duke Energy's West End substation) will need to be relocated

Distribution:

- Minimal impact to existing distribution system

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs:

Alternative 3.	Relocate existing West End substation and transmission lines	$22,500,000

Alternative 4:
New bridge built just west of the existing Brent Spence Bridge. Rehab existing Brent Spence Bridge. (Sub-alternatives 4.1 and 4.2 each impact Duke Energy and the existing West End substation similarly).

Impact to Duke Energy:

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation.

Transmission:

- Existing transmission line crossings spanning the Ohio River will not be impacted.
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charlee to Duke Energy's West End substation) will need to be relocated.

Distribution:

- Minimal impact to existing distribution system.

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width

Estimated Costs:

Alternative 4:	Relocate existing West End substation and transmission lines	$22,500,000

City of Cincinnati

200800865

Department of City Planning

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Fax (513) 352-4853

Charles C. Graves III
Director of City Planning

June 24, 2008

Brent Spence Bridge Alternatives

Comments:

THE CITY OF COVINGTON, KENTUCKY'S MOST PREFERRED ALTERNATIVE IS #3, SUB ALT 3, 1, 2

OUR LEAST PREFERRED ALTERNATIVES ARE #1 + #2, THE "QUEENSGATE" ALTERNATIVES.

ALT #3 IS THE ONLY ONE OF THE ALTERNATIVES THAT PROVIDES FOR SOUTHBOUND I 75 MAINLINE ACCESS TO COVINGTON, ALL OTHER ALTERNATIVES REQUIRE DRIVER DECISION TO EXIT TO COVINGTON, NEAR WESTERN HILLS.

Contact Information: Name/Address/Phone/e-mail:

LARRY KLEIN, ASST CITY MANAGER, CITY OF COVINGTON
638 MADISON AVENUE, COV KY 41011
859 292 2160
lklein@covingtonkyg.gov

Send comments to: **Steve Briggs**
Senior City Planner
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Charles C. Graves III
Director of City Planning

June 24, 2008

Brent Spence Bridge Alternatives

Comments:

CPA holds a historic preservation easement on Longworth Hall which is also listed in the National Register of Historic Places. It is important to us that bridge alternatives minimize encroachment upon this important historic structure.

Contact Information: Name/Address/Phone/e-mail:

Margo Warminski, Cincinnati Preservation Assn, 342 W 4th St 45202
mwarm@cincinnatipreservation.org

Send comments to: **Steve Briggs**
Senior City Planner
City Planning Department
Centennial Plaza Two
805 Central Avenue, Suite 700
Cincinnati, Ohio 45202

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513-352-4853 [FAX]
steve.briggs@cincinnati-oh.gov

Wahl, Ron

entered into record

20080874

From: J Fay (jdfayotr@gmail.com)
Sent: Wednesday, June 25, 2008 12:13 AM
To: Qualls, Roxanne
Cc: Bortz, Chris; Berding, Jeff; Monzel, Chris; Crowley, David; Cranley, John; Thomas, Cecil; Ghiz, Leslie; Cole, Lakeia; Mallory, Mark, Dohoney, Milton; david.pepper@hamilton-county.gov; todd.portune@hamilton-co.gov, pat.dewine@hamilton-co.gov
Subject: Demand Minimum Footprint for Brent-Spence

Roxanne,
I had another engagement, but came to the Ramada Inn shortly before 9 p.m., but just missed you.

Though I have not seen all of the proposed alternatives, I think we should retain a MINIMUM FOOTPRINT for the interstate bridge.

The benefit of the I-75 to our Downtown and nearby neighborhoods is minimal as most of the proposed revamps of I-75 reduce or entirely eliminate entrances/exits from the river out to Hopple Street. Why, then, would we even consider tearing down buildings and losing businesses to widen a route to carry trucks and vehicles through our city on the way from Michigan to Florida...with many of those truck depots/distribution centers in the state of Kentucky or in counties to our north. Our valuable real-estate adjacent to downtown only benefits those areas, and is given up for their increased jobs, while our tacx base continues to be eroded. We can't/won't give up ANY businesses!

Additionally, I-71 should be redirected to coincide with I-471 across the river and I-275 around the south loop to I-75 in Kentucky. This would reduce some of the thru traffic currently dirctel over the Brent Spence. Fort Washington Way should NOT be part of the I-71 expressway.

Thanks for your interest in this important topic, and thanks for listening.

Julie Fay
513-260-8434
jdfayotr@gmail.com

Wahl, Ron

From:	Tom & Mary Croft [croftplace@cinci.rr.com]
Sent:	Friday, June 27, 2008 11:41 PM
To:	Qualls, Roxanne
Cc:	'Zelman, David'; 'Tom & Mary Croft'; 'Cornell, Matt'; 'Bill Burwinkel'; 'Mary Ann Miller'; 'Pam Zelman'; 'Howard Stafford'; 'Tom Gamel'; 'Michael Wigle'. marmstrong@zoomtown.com; 'Jack Degano'; 'Bob FitzPatrick'; 'Richard W. Devine'; Kelly, Martha
Subject:	Brent Spence Alternatives

200800275

Roxanne -

Thank you for hosting the June 24 City Council Transportation and Infrastructure Committee hearing on alternatives to increase I-75 traffic capacity via the Brent Spence bridge. The deficiencies of alternatives that would require a new bridge to the west of the Brent Spence, cutting through the established Queensgate business district, were very evident. These alternatives, referred to as Alternatives #1 and #2, are destructive of existing productive business enterprise, disruptive of local traffic patterns and neighborhood life, significantly more costly than other alternatives, and provide no more capacity than other alternatives.

Following the hearing, I examined the exhibits showing the alternatives superimposed on maps of the existing roadways. This revealed an additional important aspect of the plans that was not raised in the hearing statements, i.e., the connectivity of U.S. 50 (Waldvogel Viaduct and River Road) to I-75. The linkage of US 50 to I-75 via Freeman Avenue is extremely important to the West Side and should not be degraded. Most of the alternatives move the ramp from Freeman Avenue onto I-75 northbound significantly to the north of its current location, reducing access of U.S. 50 to I-75. This is not consistent with the importance of U.S. 50 as an arterial link between the West Side and the rest of the City.

I discussed this with the Martha Kelly after the hearing. She told me that her department had also noticed this issue. They addressed it by incorporating an entry ramp from Freeman onto I-75 that closely matches the current alignment, which was included in one of the exhibits on display that she walked me through. Looking at the packet of alternatives available to attendees at the hearing, I believe that "Figure 5", which I assume corresponds to Alternative #5, is the one we discussed. This linkage should be incorporated into the final design for I-75's improvement.

I will be discussing this with the leadership of East Price Hill Improvement Association, Price Hill Civic Club, Lower Price Hill Community Council, and River West Working Group, who I am quite certain share this interest. In the mean time, please have this email put into the record of the hearing.

Thank you.

Tom Croft

Project Newsletters

www.brentspencebridgecorridor.com

E-Newsletter

Issue 1
June 2007

Project Update
Environmental, traffic, and engineering studies have continued since the last Brent Spence Bridge Advisory Committee Meeting in July of 2006. At that time, the project team was just finishing up with Step 4 of the ODOT Project Development Process, which ends the planning process and initiates the environmental and preliminary engineering work.

At that time five preliminary alternatives were advanced for further study. These included a series of sub-alternatives relating to each alternative. In the past several months, the project team has performed a more detailed analysis of each alternative. A more detailed analysis of overall system performance has also been conducted.

The project has moved into Step 5 of the ODOT Project Development Process. This step involves more detailed environmental work and field studies. Preliminary engineering for each alternative is continuing. These efforts will be documented in a Conceptual Alternatives Study (CAS) that will be completed and presented to the public in the Fall.

Conceptual Alternatives Study
The next major deliverable from the project team will be the Conceptual Alternatives Study. The CAS will present specific evaluation criteria applied to the remaining alternatives and a comparative analysis of the alignments. This analysis will include advantages and disadvantages of each alignment and their associated environmental and community impacts. Some of the alignments may be eliminated during this phase if they do not conform to the Project's Purpose and Need or if greater potential for negative impacts is identified.

In addition to the environmental field work and reports that are to be included in the CAS, engineering/ design characteristics will be included for each alternative. The CAS will document legal and design speeds, functional classification, projected traffic volumes, number of lanes, lane widths, and curve data for each alternative. Contact with present utility providers for collection of utility information will also be documented.

The comparison matrix developed during Steps 1-4 will be updated for the alternatives, and will be included in the CAS report. The matrix will show the comparative cost, impacts, advantages and disadvantages for each of the alternatives, as well as some aesthetic evaluation.

Environmental Field Studies
Leading up to preparation of the CAS report, the project team has made a number of environmental report submissions. These include:

- **Phase I Historical/Archaeological Survey.** This report is complete and has been approved by both ODOT and KYTC. It is currently being reviewed by State Historic Preservation Offices (SHPO) in both states.
- **Phase I Ecological Report.** This report documents the evaluation of potential impact of the presented alternatives to water resources, plant and animal species, habitat and farmland. This report is complete and has been approved by both ODOT and KYTC.

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District 6
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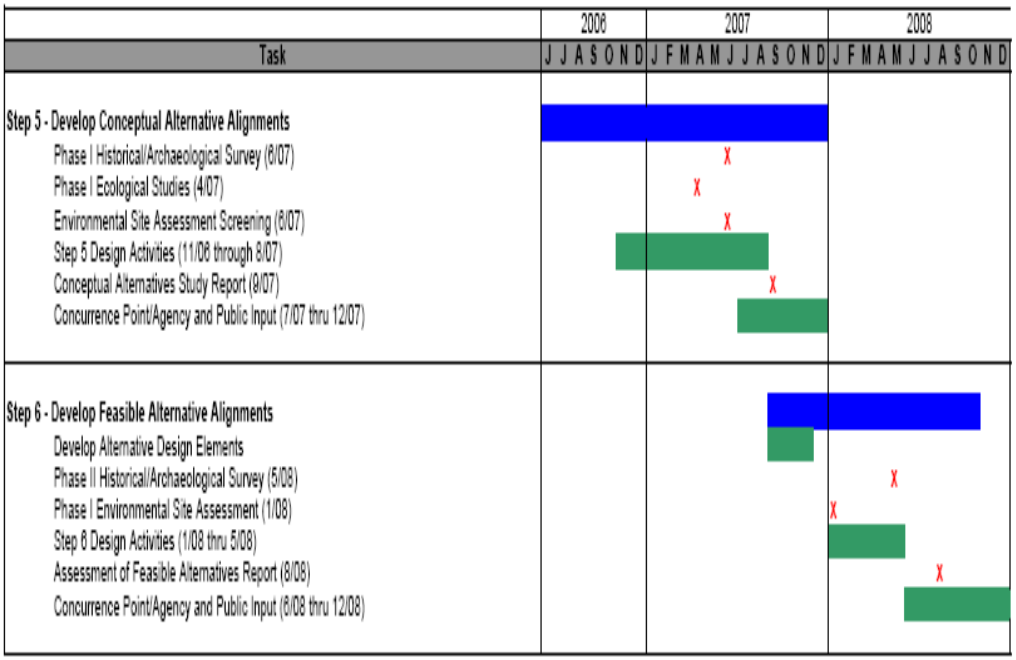
- **Environmental Site Assessment Screening**. This report documents the existence of hazardous waste sites and landfills within the alternative corridors. This report is being reviewed by both states.
- **Socio-Economic Report**. This report identified environmental justice and Civil rights Act issues in the current community. It has been completed and will be submitted to KYTC and ODOT as part of the Conceptual Alternatives Study.
- **Relocation Assistance Program Survey.** This survey identified residential and business relocations that have been associated with each of the alternatives. This report is complete and approved.

Schedule:



Upcoming Meetings:
The current schedule calls for upcoming project meetings, based on the progress of conceptual engineering work. These meetings are anticipated as follows:

- An Aesthetics Committee meeting is proposed for late August, 2007.
- A Project Advisory Team meeting will be held in early September, 2007.
- Public meetings are tentatively scheduled for October 2007.

Future Communications:
The project team will communicate with the Advisory and Aesthetics Committees through the E-Newsletter on a regular basis for the remainder of the study. This newsletter is a supplement of the project newsletter that is widely distributed as part of the Public Involvement process.

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E-Newsletter

Issue 2
August 2007

Project Update
Environmental, traffic, and engineering studies have continued over the past year. The Brent Spence Bridge project is currently in Step 5 of the ODOT Project Development Process. The project team has performed a detailed analysis of each alternative that was advanced for further study. A more detailed analysis of overall system performance has also been conducted and documented in a Travel Lane Evaluation Study. Detailed environmental work and field studies for this step are wrapping up and being documented in the Conceptual Alternatives Study (CAS) that will be completed and presented to the public in the Fall of 2007. Concurrence Point #2 will mark the end of Step 5.

Conceptual Alternatives Study
Progress has continued on the Conceptual Alternatives Study. The CAS is the culmination of environmental and engineering work completed throughout Step 5 of the Project Development Process. The CAS will present specific evaluation criteria applied to the alternatives and a comparative analysis of the alignments carried through from Step 4. This analysis will include advantages and disadvantages of each alignment and their associated environmental and community impacts. Some of the alignments may be eliminated during this phase if they do not conform to the Project's Purpose and Need or if greater potential for negative impacts is identified. The CAS will include a comparison matrix showing the comparative cost, impacts, advantages and disadvantages for each of the alternatives, as well as some aesthetic evaluation.

Environmental field work and reports that will be included in the CAS are: Phase I Historical/Archaeological Survey, Phase I Ecological Report, Environmental Site Assessment Screening, Socio-Economics, and Relocation Assistance Program Survey/Conceptual Stage Relocation Report. In addition to the environmental field work and reports that are to be included in the CAS, engineering/ design characteristics will be included for each alternative. The CAS will document legal and design speeds, functional classification, projected traffic volumes, number of lanes, lane widths, and curve data for each alternative.

The CAS is scheduled to be delivered to ODOT and KYTC at the beginning of September 2007.

Travel Lane Evaluation Study
The Travel Lane Evaluation Study report has been approved by ODOT and KYTC and will be documented in the CAS. The report documents the analysis of how four, five, six, and seven travel lanes would affect traffic levels and the level of service in the corridor. It further discusses existing constraints at the termini of the project such as existing number of lanes and how other projects, such as the Mill Creek Expressway and Thru the Valley projects, affect the traffic flow and levels of service for the Brent Spence Bridge project.

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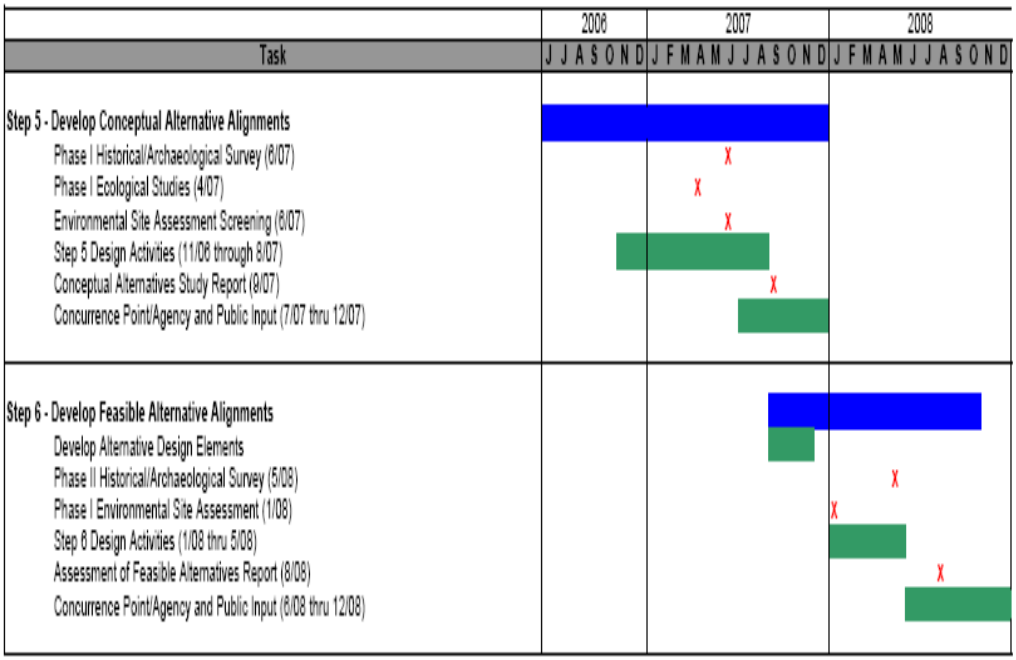
Schedule



Upcoming Meetings

The current schedule calls for upcoming project meetings, based on the progress of conceptual engineering work. These meetings are anticipated as follows:

- An Aesthetics Committee meeting is planned for late August 2007. Items to cover will include review of evaluation design criteria and a case study example.
- A Project Advisory Team meeting will be held in early September 2007. Items to cover include results of environmental field studies, design work, results of the lane evaluation study, and alternative recommendations.
- Public meetings are tentatively scheduled for October 2007. The public will have the opportunity to comment on the results of the CAS and alternative recommendations.

Future Communications

The project team will continue to communicate with the Advisory and Aesthetics Committees through the E-Newsletter on a regular basis for the remainder of the study. This newsletter is a supplement of the project newsletter that is widely distributed as part of the Public Involvement process.

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Section 106

Section 106 of the National Historic Preservation Act (NHPA) establishes a program to preserve the historical and cultural foundation of the nation as a living part of community life. It requires consideration of historic preservation in many Federal actions nationwide. Section 106 requires coordination between the Department of Transportation, local historians and public officials on the inventory of the historical properties and the potential impacts of projects. The historians and local officials are known as consulting parties in the Section 106 process.

For further information regarding the Section 106 process, please visit the Advisory Council on Historic Preservation (ACHP) Web site: *www.achp.gov/citizensguide.html.*

As part of the Brent Spence Bridge Replacement/Rehabilitation project, consideration must be given to any potentially affected properties or sites listed, or eligible for listing, on the National Register of Historic Places (NRHP). An inventory of buildings over 50 years of age in the study area has been completed. The inventory identifies properties eligible for listing on the NRHP. The information contained in the inventory must be reviewed and accepted by the Ohio Department of Transportation and the Kentucky Transportation Cabinet as well as the State Historic Preservation Office (SHPO) of both states. Upon its acceptance by all parties, the information will be mapped and used to refine the proposed alignments of the new or rehabilitated Brent Spence Bridge.

If you desire consulting party status, you may write a letter to KYTC or ODOT. Your letter should explain why your participation would be valuable to the successful resolution of issues. Consulting party status provides an opportunity to share views, offer ideas, and recommend solutions with the Ohio Department of Transportation, Kentucky Transportation Cabinet and other consulting parties. Consulting Party status and Section 106 Review apply only to the cultural and historic resources component of the study.

The list of consulting parties and an application for consulting party status are available on the project Web site: *www.brentspencebridgecorridor.com/public.html*

What's New?

Five Build alternatives and the No Build alternative are being studied in greater detail. Evaluations of environmental, community and cultural resources are being conducted to determine impacts from each of the alternatives.

A Relocation Assistance Program (RAP), which is known as a Conceptual Stage Relocation Report (CSRR) in Kentucky, is in draft form. The report considers the social and economic resources in the study area. It provides estimates of the number and characteristics of the residential and business properties within a specified area that could be affected by the project. Numbers vary for each of the six alternatives. At this time the RAP is preliminary. The number of potential displacements will be adjusted, and possibly reduced, as alternatives and the impact area are revised and refined.

Federal and state laws require the study of ecological resources within the study area. Field investigations have identified the existing conditions. Evaluation of the potential impacts of each of the alternatives on the aquatic and terrestrial ecology, streams, wetlands, and threatened and endangered species will continue through the process. The environmental and engineering teams will continue to work together to consider impacts on natural resources as the alternatives are refined. Additional ecological surveys may be necessary once decisions are made about pier locations along or in the Ohio River.

The study of potential contamination from hazardous materials is called an Environmental Site Assessment (ESA). Sites have been identified using historic maps, historic aerial photographs, and Sanborn Fire Insurance maps. The sites will be investigated in greater detail as alternatives are refined and a preferred alternative is selected.

Concurrent to the evaluations of environmental impacts, the design elements of the five Build alternatives and proposed sub-alternatives continue to be refined. Design details include horizontal and vertical alignments, lane capacity, ramp configurations, and connections to local communities. In addition to the main bridge span that crosses the Ohio River, there are over 50 structures in the study. This includes overpass bridges and entrance and exit ramps. Detailed designs must be developed for each structure. The main span has special considerations. Vertical clearance over the navigation channel of the Ohio River must satisfy the requirements of the US Coast Guard. The Coast Guard has jurisdiction over the Ohio River as a navigable waterway.

As the study progresses and detailed information is developed, the number of alternatives will be refined and reduced until one final preferred alternative is determined.

Stay Connected

The best way to stay informed about the Brent Spence Bridge Rehabilitation/Replacement project is to visit the project Web site: *www.brentspencebridgecorridor.com*

The project Web site is updated regularly and provides more detailed information relative to the project's history, schedule and its development. In addition, more detailed information on each alternative is available. Feedback forms are also available on the web site for easy submission to the project team.

Another way to stay connected is the Project Hotline telephone number: (513)639-2172.

Official project contacts for ODOT and KYTC are as follows:

Stefan Spinosa, PE, Technical Services Engineer
ODOT, District 8
505 South SR 741
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E-mail: [illegible]

Robert Hans, PE, Transportation Engineering Branch Manager-Planning
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Status Update – Where are we now?

Originally opened in 1963, the Brent Spence Bridge and its approaches are key elements of the nation's Interstate Highway System. The Bridge carries local, I-71, and I-75 traffic through the Greater Cincinnati/Northern Kentucky region. This important river crossing is vital to state, national and international commerce. It is a major thoroughfare for local and regional mobility. This section of interstate highway currently supports a level of traffic that far exceeds its original design. Traffic congestion, safety concerns, visibility and design deficiencies are all major factors in the need for this project.

The project study area is located along a six and one-half mile segment of I-75 between Kyles Lane in Kentucky and the Western Hills Viaduct in Ohio. The original design capacity was 80,000 vehicles per day. Current traffic volumes reach 150,000 vehicles daily and are projected to increase to 200,000 vehicles per day by 2025.

To date, environmental red flags have been identified, existing traffic and safety data have been analyzed, and specific goals for the project have been developed. From this data evaluation effort, six conceptual project alternatives have been identified as possible solutions including the No Build alternative. The No Build alternative will not make any changes in the current configuration except for minor safety improvements and existing and committed maintenance projects. The five Build alternatives have been selected for further study from a total of 25 developed through this project and previous study efforts. The alternatives for further study are described in more detail in the Alternatives to be Carried Forward section of this newsletter.

The importance of the Brent Spence Bridge project to the local community was emphasized at a series of public open house meetings held in early May 2006. The meetings were attended by more than 300 interested citizens.

Alternatives to be Carried Forward

A total of 25 conceptual alternatives, including the No Build alternative, were initially studied and evaluated for the Brent Spence Bridge Replacement/Rehabilitation Project. These alternatives were evaluated in a two-step screening process.

Evaluation criteria included congestion mitigation, safety, engineering, environmental resource impacts, access/accessibility, construction cost, and constructability. The comparison matrix is available for viewing at the project Web site: www.brentspencebridgecorridor.com

Stakeholders reviewed, evaluated, and provided input on which alternatives meet the goals of the project. Based its ability to meet the project and need and stakeholders' goals and measures of success, alternatives were either dismissed or advanced. A total of six alternatives, including the No Build alternative, and twelve sub-alternatives were advanced for further development and study.

Conceptual Alternatives Carried Forward for Further Development and Study

No Build Alternative: Minor, short-term safety improvements

I-75 Mainline Alternatives:

- **Alternative 1 - Queensgate Alignment for I-75:** Construct a new bridge (2x5 lanes) for I-75 traffic only through Queensgate and rehab the existing bridge (2x2 lanes) for I-71 and local traffic
- **Alternative 2 - Queensgate Alignment for I-75 and I-71:** Construct a new bridge (2x7 lanes) for I-75 and I-71 traffic through Queensgate and rehab the existing bridge (2x2 lanes) for local traffic only
- **Alternative 3 - New Bridge West of Existing Bridge for I-75:** Construct a new double-deck bridge (2x5 lanes) just west of the existing bridge for I-75 traffic only and new/rehab the existing bridge (2x2 lanes) for I-71 and local traffic
- **Alternative 4 - New Bridge West of Existing Bridge for all Traffic:** Construct a new double-deck bridge (2x5 lanes on top) for I-75 and (2x3 lanes on bottom) for I-71 and local traffic just west of the existing bridge and remove the existing bridge
- **Alternative 5 - New Bridges for I-75:** Construct new bridges (2x5 lanes) for I-75 traffic on both sides of the existing bridge and rehab the existing bridge (2x3 lanes) for I-71 and local traffic

Sub-Alternatives:

- **I-75 northbound at KY 12th Street Ramp:** Provides access to a proposed development south of Linden Grove Cemetery
- **I-71/US 50 Interchange (for Queensgate Alignments):** Eliminates left hand entrances and exits and simplifies navigation and access of roadway
- **I-71/I-75/US 50 Interchange:** Eliminates left hand entrances and exits and provides adequate interchange traffic between I-75, I-71, US 50, and downtown Cincinnati
- **I-75 Ohio Collector:** Improves local traffic flow with the construction of a new distributor road and arterial improvements
- **Western Hills Viaduct Interchange:** Eliminates left-hand exits from northbound I-75 and provides full movement at the interchange

Alternative 1

ALTERNATIVE NO. 1 - QUEENSGATE ALIGNMENT FOR I-75

RECOMMENDED FOR FURTHER DEVELOPMENT

Alternative 2

ALTERNATIVE NO. 2 - QUEENSGATE ALIGNMENT FOR I-71 AND I-75

RECOMMENDED FOR FURTHER DEVELOPMENT

Alternative 3

ALTERNATIVE NO. 3 - NEW BRIDGE JUST WEST FOR I-75

RECOMMENDED FOR FURTHER DEVELOPMENT

Alternative 4

ALTERNATIVE NO. 4 - NEW BRIDGE JUST WEST FOR ALL TRAFFIC

RECOMMENDED FOR FURTHER DEVELOPMENT

Alternative 5

ALTERNATIVE NO. 5 - CONSTRUCT NEW BRIDGES FOR I-75

RECOMMENDED FOR FURTHER DEVELOPMENT

Existing Conditions

EXISTING AERIAL PHOTOGRAPH

PB PARSONS BRINCKERHOFF INC.
312 Elm Street, Suite 2500
Cincinnati, OH 45202

U.S. Department of Transportation
Federal Highway Administration

www.brentspencebridgecorridor.com

Background

The Brent Spence Bridge corridor is a pivotal section of one of our nation's most important highway systems. Spanning hundreds of miles from Miami to Canada, Interstate 75 (I-75) is among our longest and busiest interstate transportation routes. The Brent Spence Bridge is a vital link on the I-75 corridor, enabling the highway to cross the Ohio River. In our community, the Brent Spence Bridge corridor is a major thoroughfare for local and regional travel. The Bridge itself is an interstate connection for both I-71 and I-75 traffic.

Currently, the Brent Spence Bridge and the corridor support a level of use that far exceeds its original design. Specific problems include growing traffic congestion, safety concerns, and design deficiencies. These issues threaten the overall efficiency of moving people and goods within the region. The Ohio Department of Transportation (ODOT) and the Kentucky Transportation Cabinet (KYTC) have initiated the study of the rehabilitation of the Interstate 71/75 corridor, including the Brent Spence Bridge, to increase capacity and improve safety in this critical transportation corridor.

This is the first in a series of newsletters designed to communicate with those interested in the project. Other vehicles for communication are highlighted throughout the newsletter. Your input is valuable to the project and you are encouraged to stay engaged in this important process as it proceeds. The improvements in this corridor will make it easier to travel safely throughout the region.

www.brentspencebridgecorridor.com

For more information about the Brent Spence Bridge Replacement/Rehabilitation project, visit www.brentspencebridgecorridor.com. The Brent Spence Bridge project web site is updated regularly and provides more detailed information about:

- The project's history
- The Advisory and Aesthetic committees
- The project schedule
- Related studies and study documents
- Project alternatives
- The project approach (the ODOT Project Development Process)
- Project contacts

Feedback Forms are also available on the web site for you to submit any comments, questions or suggestions related to the Brent Spence Bridge project. Your input is welcome and we look forward to hearing what you have to say!

Project Purpose

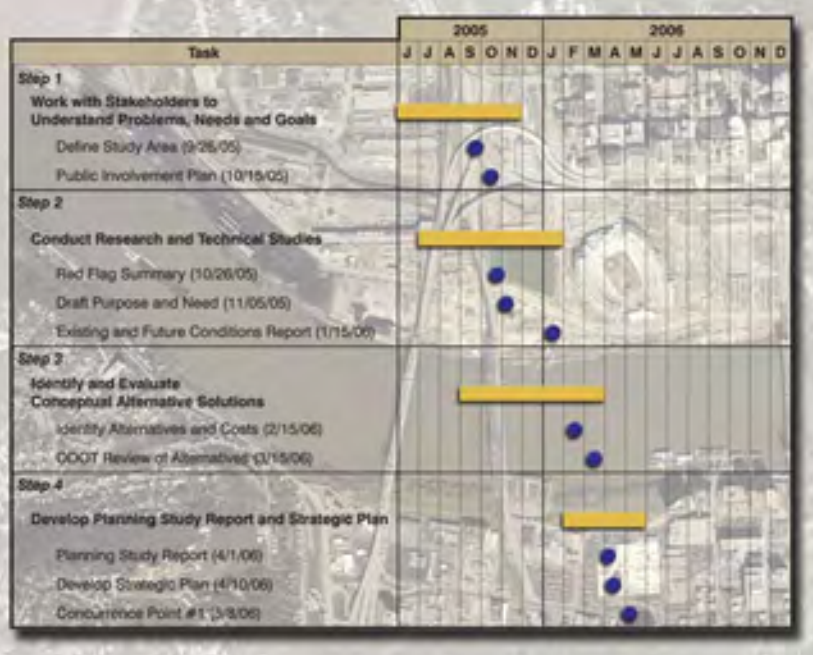
The purpose of the Brent Spence Bridge Replacement/Rehabilitation project is to increase capacity and improve safety along this vital transportation corridor. The project aims to:

- Improve traffic flow and level of service
- Improve safety
- Correct design deficiencies
- Maintain connections to regional and national transportation corridors

Following ODOT's Project Development Process, the initial phase will identify and study a series of feasible alternatives. The preferred solution should be affordable, functional, aesthetically pleasing and ultimately constructible. Ideally, it would maximize the use of existing rights of way; minimize major disruptions to traffic, businesses and neighborhoods, and respect the areas natural and cultural resources.

The Project Schedule

The rehabilitation of the Brent Spence Bridge corridor is one of the largest infrastructure projects currently being undertaken by the two states. Before construction can begin, a tremendous effort must go into examining the issues and problems in the corridor, identifying conceptual and preferred alternative solutions, conducting necessary environmental and socio-economic studies, designing the project, managing land acquisition and right-of-way issues. The schedule below outlines the project and study process.



Advisory Committee Provides Community Perspective

An Advisory Committee has been formed to ensure the Brent Spence Bridge project meets local and regional needs. This committee works closely with ODOT and KYTC to make certain that the Brent Spence Bridge project team clearly understands community issues, needs and goals. It represents the community's interests as it identifies and evaluates conceptual alternative solutions, and develops a Strategic Plan for implementing the project.

The Brent Spence Bridge Advisory Committee meets regularly and reviews various project components. Committee members act as liaisons between their respective groups and the project team, and are asked to disseminate information among their organizations.

Advisory Committee members represent the following organizations:

3CDC
ARTIMIS
Boone County Fiscal Court
Campbell County Fiscal Court
Cincinnati Bengals
Cincinnati Bulk Terminals, LLC
Cincinnati Business Committee
Cincinnati Park Board
Cincinnati Reds
Cincinnati USA Regional Chamber
Cincinnati/Northern Kentucky International Airport
Cinergy Electric
Citizens for Civic Renewal
City of Cincinnati
City of Covington
City of Ft. Wright, Kentucky
City of Park Hills, Kentucky
Federal Highway Administration (FHWA)
Hamilton County
Kenton County
Lewisburg Neighborhood Association
National Underground Railroad Freedom Center
Northern Kentucky University
Northern Kentucky Chamber of Commerce
Ohio-Kentucky-Indiana Regional Council of Governments (OKI)
Port of Greater Cincinnati Development Authority
Sierra Club
SouthBank Partners
Southwest Ohio Regional Transit Authority (SORTA)
Transit Authority of Northern Kentucky (TANK)
UPS, Kentucky District
West End Community Council

U.S. Department of Transportation
Federal Highway Administration

Brent Spence Bridge
Replacement/Rehabilitation Project

KENTUCKY TRANSPORTATION CABINET

PROJECT STUDY AREA

The Study Area

The Brent Spence Bridge project corridor extends between Northern Kentucky and Cincinnati, Ohio. The study area:

- Is 6.5 miles long
- Encompasses a total of 2.82 square miles
- Begins just south of the I-75/Kyles Lane interchange in Kentucky
- Ends just north of the Western Hills Viaduct interchange on I-75 in Cincinnati, Ohio

Potential Employment and Property Impact Survey
January 2009

www.brentspencebridgecorridor.com

January 26, 2009

CPS Graphics
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for CPS Graphics at 700 W. Pete Rose Way?

   8

2. If the final alternative selected would require CPS Graphics to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan G. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Madison Park Productions
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Madison Park Productions at 700 W. Pete Rose Way? 4
2. If the final alternative selected would require Madison Park Productions to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan E. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Hamilton Co. Sheriff's Office
644 Linn St. Suite 301
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 301 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Hamilton Co. Sheriff's Office at 644 Linn St. Suite 301? 20

2. If the final alternative selected would require Hamilton Co. Sheriff's Office to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Provest Lawriter
644 Linn St. Suite 700
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 700 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Provest Lawriter at 644 Linn St. Suite 700? 60

2. If the final alternative selected would require Provest Lawriter to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio ✓

   Out of the Greater Cincinnati Region ✓

   Business Would Close ____

   May Consolidate Operations to our Tampa FL Corp. Office if this Building were to close.

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan E. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Wymore Associated
644 Linn St. Suite 802
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 802 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Wymore Associated at 644 Linn St. Suite 802? 6
2. If the final alternative selected would require Wymore Associated to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Feb 09 09 01:32p Wymore & Associ. 513 621 7577 p.1

www.brentspencebridgecorridor.com

January 26, 2009

Phoenix Graphis, Inc.
817 W. Court St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 817 W. Court St. is potentially impacted by Alternative(s) C & D currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Phoenix Graphis, Inc. at 817 W. Court St.? 8

2. If the final alternative selected would require Phoenix Graphis, Inc. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio _____

   Out of the Greater Cincinnati Region _____

   Business Would Close _____

   Relocate in Cinti

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Cincinnati Bulk Terminals, LLC

895 West Mehring Way • Cincinnati, OH 45203
(513) 621-4800 • Fax (513) 621-5182

February 6, 2009

Ohio Department of Transportation District 8
505 South SR 741
Lebanon, OH 45036
Attn: Stefan Spinosa

RE: Brent Spence Bridge Project

Dear Mr. Spinosa,

Cincinnati Bulk Terminals, LLC (CBT) is in receipt of your letter dated January 26, requesting potential employment and property impact information at 800 W. Fifth St. CBT no longer has operations at this address. However, CBT and its subsidiary, Port of Cincinnati, LLC (POC), operate four river terminals located between the Duke Power transfer station and the Mill Creek that may be impacted by the Brent Spence Bridge project. CBT and POC currently employ over 60 people. Additionally, numerous truck drivers operate from our facility on a daily basis. While these employees and contractors rely on us directly for employment, CBT and POC also have a regional effect by providing many of the raw materials utilized by local companies including but not limited to the coal that they rely on to supply their power. Our customers include Procter & Gamble, Duke Energy, AK Steel, University Hospital, Northstar-Bluescope Steel and many others.

Relocating to another location would be very difficult for both companies. There are many permitting, space and logistical issues that would have to be addressed in order to relocate. Please realize that CBT and POC currently operate on just over a mile of river front property which has access to CSX and Rail America rail lines. In order to provide the same services CBT and POC would have to find similar property with easy access to the railroad and highway systems. Finding such a location that is not in a bend of the river would be very difficult if not impossible in the Cincinnati area.

CBT would welcome the opportunity to discuss this project and its effect on our operation in more detail. Please contact me should you need additional information or if you would like to meet with me in order to discuss this project in more detail.

Sincerely,

Cincinnati Bulk Terminals, LLC

Jack Weiss
President

www.brentspencebridgecorridor.com

January 26, 2009

Down Syndrome Association
644 Linn St. Suite 1128
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 1128 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Down Syndrome Association at 644 Linn St. Suite 1128? 10

2. If the final alternative selected would require Down Syndrome Association to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

SubCon Trak
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for SubCon Trak at 700 W. Pete Rose Way? 1

2. If the final alternative selected would require SubCon Trak to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio _____

   Out of the Greater Cincinnati Region _____

   Business Would Close _____

   None would apply.

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-8639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan E. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-8639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Fox 19 TV Station
635 W. Seventh St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 635 W. Seventh St. is potentially impacted by Alternative(s) F, G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Fox 19 TV Station at 635 W. Seventh St.? 121

2. If the final alternative selected would require Fox 19 TV Station to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio ✓

   Out of the Greater Cincinnati Region ____

   Business Would Close ____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan G. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Duke Energy
644 Linn St. Suite 101
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 101 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Duke Energy at 644 Linn St. Suite 101?
   40

2. If the final alternative selected would require Duke Energy to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan S. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 28, 2009

Alzheimer's Disease Association
644 Linn St. Suite 1026
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 1026 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Alzheimer's Disease Association at 644 Linn St. Suite 1026? 20

2. If the final alternative selected would require Alzheimer's Disease Association to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan S. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

BS Company
1136 Harrison Ave.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 1136 Harrison Ave. is potentially impacted by Alternative(s) B,C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for ~~BS Company~~ NOBLE FINISHING CO. at 1136 Harrison Ave.?
   3

2. If the final alternative selected would require BS Company to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan S. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 28, 2009

GOP Limited
644 Linn St. Suite 936
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 936 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for GOP Limited at 644 Linn St. Suite 936? 13

2. If the final alternative selected would require GOP Limited to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio____

   Out of the Greater Cincinnati Region____

   Business Would Close ?

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan G. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Samuel Boulmetis Architectural
644 Linn St. Suite 1212
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 1212 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Samuel Boulmetis Architectural at 644 Linn St. Suite 1212? 3
2. If the final alternative selected would require Samuel Boulmetis Architectural to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Zoellner Garten & Co.
644 Linn St. Suite 634
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 634 is potentially impacted by Alternative(s) 8 currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Zoellner Garten & Co. at 644 Linn St. Suite 634? 4-5

2. If the final alternative selected would require Zoellner Garten & Co. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati POSSIBLE

   Out of the State of Ohio POSSIBLE

   Out of the Greater Cincinnati Region NO

   Business Would Close NO

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

George Fern Co.
645 Linn St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 645 Linn St. is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for George Fern Co. at 645 Linn St.? 40
2. If the final alternative selected would require George Fern Co. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio X

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Ed FYI

www.brentspencebridgecorridor.com

January 28, 2009

Loftspring Harris & Marjorie Family
1630 Dalton Ave.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 1630 Dalton Ave. is potentially impacted by Alternative(s) C, F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Loftspring Harris & Marjorie Family at 1630 Dalton Ave.? 13

2. If the final alternative selected would require Loftspring Harris & Marjorie Family to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati maybe

   Out of the State of Ohio maybe

   Out of the Greater Cincinnati Region____

   Business Would Close____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Stefan Spinosa /Production /D08/ODOT
02/02/2009 02:09 PM

To "Amy Donovan" <adonovan@laswellsteel.com>
cc craig@pbworld.com
bcc
Subject Re: Impact Survey

Thank you for the information.

Stefan C. Spinosa, P.E., Technical Services Engineer
Ohio Department of Transportation, District 8
505 South SR 741, Lebanon, OH 45036
Phone: 513-933-6639 FAX: 513-933-8252
stefan.spinosa@dot.state.oh.us
"Amy Donovan" <adonovan@laswellsteel.com>

"Amy Donovan" <adonovan @laswellsteel .com>

02/02/2009 01:29 PM

To <stefan.spinosa@dot.state.oh.us>
cc
Subject Impact Survey

Stefan,

Laswell Steel Services no longer has office space at Longworth Hall 700 Pete Rose Way.

Thank you,

Amy Donovan
Business Manager
Laswell Steel Services, LLC
Newport, Ky Office
ph: 859-814-8775
fx: 859-814-8776
Adonovan@laswellsteel.com

www.brentspencebridgecorridor.com

January 26, 2009

Cincinnati Fire Bureau
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Cincinnati Fire Bureau at 700 W. Pete Rose Way? 19
2. If the final alternative selected would require Cincinnati Fire Bureau to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

   No Impact ✓

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Butternut Bread
747 W. Fifth St.
Cincinnati, Ohio 45202

RECEIVED JAN 27 2009

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 747 W. Fifth St. is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Butternut Bread at 747 W. Fifth St.?
   200

2. If the final alternative selected would require Butternut Bread to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio ✓

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan S. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

High Craft Printing Co.
1120 Harrison Ave.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 1120 Harrison Ave. is potentially impacted by Alternative(s) Parcel Only currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for High Craft Printing Co. at 1120 Harrison Ave.? 2
2. If the final alternative selected would require High Craft Printing Co. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

High-Craft Printing
1120 Harrison Avenue
Cincinnati, Ohio 45214

www.brentspencebridgecorridor.com

January 26, 2009

K4 Architecture LLC
555 Gest St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 555 Gest St. is potentially impacted by Alternative(s) b currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for K4 Architecture LLC at 555 Gest St.?
   45
2. If the final alternative selected would require K4 Architecture LLC to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

   Within City of Cincinnati

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan G. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Cristofoli Keeling Inc.
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Cristofoli Keeling Inc. at 700 W. Pete Rose Way? 3-10

2. If the final alternative selected would require Cristofoli Keeling Inc. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati X

   Out of the State of Ohio X - possibly

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan G. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

MPEMR LLC
1850 Dalton Ave.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 1850 Dalton Ave. is potentially impacted by Alternative(s) C, E,& G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for MPEMR LLC at 1850 Dalton Ave.?
   18

2. If the final alternative selected would require MPEMR LLC to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati X

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Fuller Ford
900 W. Eighth St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 900 W. Eighth St. is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Fuller Ford at 900 W. Eighth St.? 60

2. If the final alternative selected would require Fuller Ford to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close ✓

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

UPS
500 Gest St.
Cincinnati, Ohio 45203

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 500 Gest St. is potentially impacted by Alternative(s) B, F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for UPS at 500 Gest St.? 919
2. If the final alternative selected would require UPS to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati X

   Out of the State of Ohio X

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

CBT Solutions on Demand
737 W. Sixth St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 737 W. Sixth St. is potentially impacted by Alternative(s) b currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for CBT Solutions on Demand at 737 W. Sixth St.? 105
2. If the final alternative selected would require CBT Solutions on Demand to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati X

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-8839 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Wegman Investments LTD
1101 York St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway Interchange in Kentucky and the Western Hills Viaduct Interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 1101 York St. is potentially impacted by Alternative(s) E & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Wegman Investments LTD at 1101 York St.? 20

2. If the final alternative selected would require Wegman Investments LTD to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
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Kentucky Transportation Cabinet
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Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

American Diabetes Assoc
644 Linn St. Suite 304
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 304 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for American Diabetes Assoc. at 644 Linn St. Suite 304? 10
2. If the final alternative selected would require American Diabetes Assoc. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ✓

   Out of the State of Ohio____

   Out of the Greater Cincinnati Region____

   Business Would Close____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-6252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Junior Achievement
644 Linn St. Suite 1024
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 644 Linn St. Suite 1024 is potentially impacted by Alternative(s) B currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Junior Achievement at 644 Linn St. Suite 1024? 8

2. If the final alternative selected would require Junior Achievement to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati ____

   Out of the State of Ohio ____

   Out of the Greater Cincinnati Region ____

   Business Would Close ____

   We would stay in the City of Cinti.

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY

Kentucky Transportation Cabinet
District 6

www.brentspencebridgecorridor.com

January 26, 2009

Railhouse Entertainment
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Railhouse Entertainment at 700 W. Pete Rose Way? 12

2. If the final alternative selected would require Railhouse Entertainment to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
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Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Whiskey Dicks
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Whiskey Dicks at 700 W. Pete Rose Way?
   32

2. If the final alternative selected would require Whiskey Dicks to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio _____

   Out of the Greater Cincinnati Region _____

   Business Would Close _____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

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421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

Newtown Fill Inc.
700 W. Pete Rose Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 700 W. Pete Rose Way is potentially impacted by Alternative(s) C,D,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Newtown Fill Inc. at 700 W. Pete Rose Way? 9

2. If the final alternative selected would require Newtown Fill Inc. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

www.brentspencebridgecorridor.com

January 26, 2009

RECEIVED
JAN 30 2009
By

Hilltop Concrete Corp.
612 Mehring Way
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at 612 Mehring Way is potentially impacted by Alternative(s) E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for Hilltop Concrete Corp. at 612 Mehring Way?
   100+

2. If the final alternative selected would require Hilltop Concrete Corp. to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati _____

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close X - If business could not be relocated to riverfront property within the city of Cincinnati, it would likely be forced to close and all jobs eliminated

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

Survey completed by
Kevin M Shechan
President
Hilltop Basic Resources Inc.
(513)-684-8251

Ohio Dept. of Transportation
District 8
505 South SR 741
Lebanon, OH 45036
513-933-6639

Kentucky Transportation Cabinet
District 6
421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Not Interested
No Survey

www.brentspencebridgecorridor.com

January 26, 2009

ARTIMIS
~~602 W. Fourth St.~~ 508 W. Third St.
Cincinnati, Ohio 45202

Re: Potential Employment and Property Impact Survey

Dear Sir:

The Ohio Department of Transportation and the Kentucky Transportation Cabinet are in the process of evaluating six conceptual alternatives for the rehabilitation of the Interstate 75 corridor between the Dixie Highway interchange in Kentucky and the Western Hills Viaduct interchange in Ohio as part of the Brent Spence Bridge project. As part of our evaluation we are attempting to quantify the potential employment and business impacts associated with each alternative.

The business located at ~~602 W. Fourth St. is~~ 508 West Third ST potentially impacted by Alternative(s) B,C,E,F, & G currently under consideration. The conceptual drawings for the alternatives can be viewed on the project website at the following address:

http://www.brentspencebridgecorridor.com/Alternatives-Preliminary5.html

We are requesting your assistance in our evaluation of the alternatives by providing answers to the following questions:

1. What is the current number of employees working for ARTIMIS at ~~602 W. Fourth St.~~ 508 W. Third ST? 18
2. If the final alternative selected would require ARTIMIS to be relocated, would the relocation most likely be (check all that apply)

   Out of the City of Cincinnati X

   Out of the State of Ohio_____

   Out of the Greater Cincinnati Region_____

   Business Would Close_____

We appreciate your assistance in our evaluation and ask that you fax your answers back to The Ohio Department of Transportation, District 8 at 513-933-8252 by February 4, 2009. Responses can also be mailed back to Stefan Spinosa, Ohio Department of Transportation, District 8, 505 S. SR 741, Lebanon, Ohio 45036. Your responses will be used to determine an accurate assessment of potential impacts as a result of this project.

If you have any questions or concerns, please contact me at 513-933-6639 or by electronic mail at Stefan.spinosa@dot.state.oh.us

Respectfully,

Stefan C. Spinosa
Project Manager
The Ohio Department of Transportation

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Kentucky Transportation Cabinet
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421 Buttermilk Pike
Covington, KY 41017
859-341-2700

Appendix F Previous Reports

ODOT/KYTC
Brent Spence Bridge
HAM-71/75-0.00/0.22 PID 75119
KYTC Project Item No. 6-17

Origin-Destination Study

March 17, 2006

Submitted to:

Parsons Brinckerhoff Quade and Douglas, Inc.
312 Elm Street, Suite 2500
Cincinnati, Ohio 4202
Phone: (513) 639-2120
Fax: (513) 421-1040
www.pbworld.com

Prepared for:

Prepared by:

Wilbur Smith Associates

In association with:

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Executive Overview

An Origin Destination (OD) Study was performed to establish travel patterns and travel times of cars and trucks using the Brent Spence Bridge (BSB) during the morning, mid-day, and evening peak periods. Video cameras were used to simultaneously capture and match license plate data for vehicles passing through the northbound and southbound lanes of the I-75/I-71 Brent Spence Bridge, I-75/I-275 interchange in Ohio and the northbound and southbound lanes of the I-471 Daniel Beard Bridge. All data was collected during a typical weekday in early December 2005 to avoid holiday variances in travel patterns. License plate capture rates of the passing traffic for cars and trucks averaged to 68% and 35% respectively. Accepted statistical analysis methods were used to extrapolate the data to arrive at the findings of this study.

The primary purpose of the analysis was to assess the travel patterns between the Brent Spence Bridge and the following two locations:

- I-75/I-275 interchange in Ohio via I-75; and
- I-471 at Daniel Beard Bridge (DBB) via Fort Washington Way.

The study findings indicate:

- During the morning, mid-day, and evening peak periods that were observed, vehicles crossing the Brent Spence Bridge and having origins or destinations at the I-75/I-275 Interchange in Ohio range from 5% to 10% for automobiles and from 45% to 70% for trucks.
- During the morning, mid-day, and evening peak periods that were observed, vehicles crossing the Brent Spence Bridge and using Fort Washington Way and the Daniel Beard Bridge as a bypass traveling through alternative routes in Northern Kentucky ranged from 3% to 7% for automobiles and from 1% to 8% for trucks.
- The remaining vehicles using Brent Spence Bridge have other origins or destinations north of the Ohio River.

Other Pertinent Travel Pattern Findings

Additional analysis was performed to determine travel patterns for vehicles crossing the Brent Spence Bridge and having origins and destinations at the two other monitored sites which included:

- I-71 Southbound and Northbound at Oak St. Overpass; and
- US-50 Eastbound and West bound from I-71/I-471 at East of I-471.

The study findings indicate that:

- During the morning, mid-day, and evening peak periods, vehicles crossing the Brent Spence Bridge and having origins or destinations at the I-71 at Oak Street Overpass in Ohio range from 20% to 25% for automobiles and from 20% to 30% for trucks.
- During the morning, mid-day, and evening peak periods, vehicles crossing the Brent Spence Bridge and having origins or destinations at the US 50 Ramps to/from I-71/I-75/I-471 in Ohio range from 1% to 5% for automobiles and from 1% to 5% for trucks.

Pertinent Travel Time Findings

The average travel time for automobiles traveling between the Brent Spence Bridge and I-75 at the Crescentville Overpass during the three peak periods monitored were the longest for all the OD locations studied, ranging from approximately 17 minutes to 23 minutes. The average travel times were similar in both directions and were on the higher end of the range during the morning and evening peak periods. During the mid-day, they were on the lower end of the range. Trucks traveling between the Brent Spence Bridge and I-75 at the Crescentville Overpass had average travel times ranging from approximately 18 to 24 minutes.

Between the Brent Spence Bridge and the Daniel Beard Bridge via Fort Washington Way, the average travel time for automobiles ranged between approximately 5.5 and 8 minutes during the three peak periods monitored. Average travel times for trucks traveling between the Brent Spence Bridge and the Daniel Beard Bridge ramps could not be determined from the count data due to the low number of license plate matches.

The average travel time for automobiles traveling between the Brent Spence Bridge and I-71 at the Oak Street Overpass during the three peak periods ranged between approximately 4.5 and 6 minutes. Trucks traveling between the Brent Spence Bridge and I-71 at the Oak Street Overpass had average travel times ranging from approximately 4.5 to 5.5 minutes.

The average travel time for automobiles traveling between the Brent Spence Bridge and US 50 Ramps during the three peak periods ranged between approximately 3 and 4.5 minutes. The average for travel for automobiles from the Brent Spence Bridge to the US 50 Ramps was approximately 16.5 minutes during the morning peak period. Average travel times for trucks traveling between the Brent Spence Bridge and the US 50 Ramps could not be determined due to the low number of license plate matches.

Overview

This Origin-Destination (O-D) Study was conducted as part of the Brent Spence Bridge project with two objectives in mind:

1. To determine the travel patterns of vehicles, and
2. To determine the travel times of vehicles.

Each of the objectives was for two different vehicle types – cars and trucks – as well as for three different time periods: 6:00 AM to 10:00 AM; 11:00 AM to 2:00 PM; and 4:00 PM to 7:00 PM.

This report is a summary of the locations included in the study, the processes used in obtaining relevant data, analyses done on the collected data, and results obtained from the study.

Study Area

Five locations were identified for collecting traffic-related data as part of this O-D study. At each location both directions of traffic flow were included in the data collection process. The locations of the O-D sites are shown in Figure 1 on the following page and are listed below:

- Site 1A: I-75/I-71 Southbound at Brent Spence Bridge (BSB)
- Site 1B: I-75/I-71 Northbound at Brent Spence Bridge (BSB)
- Site 2A: I-471 Southbound at Daniel Beard Bridge (DBB)
- Site 2B: I-471 Northbound at Daniel Beard Bridge (DBB)
- Site 3A: US-50 Eastbound from I-71/I-471 at East of I-471
- Site 3B: US-50 Westbound towards I-71/I-75 at East of I-471
- Site 4A: I-71 Southbound at Oak Street Overpass
- Site 4B: I-71 Northbound at Oak Street Overpass
- Site 5A: I-75 Southbound at Crescentville Road Overpass
- Site 5B: I-75 Northbound at Crescentville Road Overpass

Data was collected simultaneously at each of the sites in the form of traffic volume counts and capture of license plates of all vehicles. Data collection was conducted on Tuesday, December 6, 2005 from 6:00 AM to 7:00 PM.

All analysis was performed to determine two particular situations:

1. Destination of vehicles originating at Site 1B: I-75/I-71 Northbound at Brent Spence Bridge; and
2. Origin of vehicles with Site 1A: I-75/I-71 Southbound at Brent Spence Bridge as their destination in the study area.

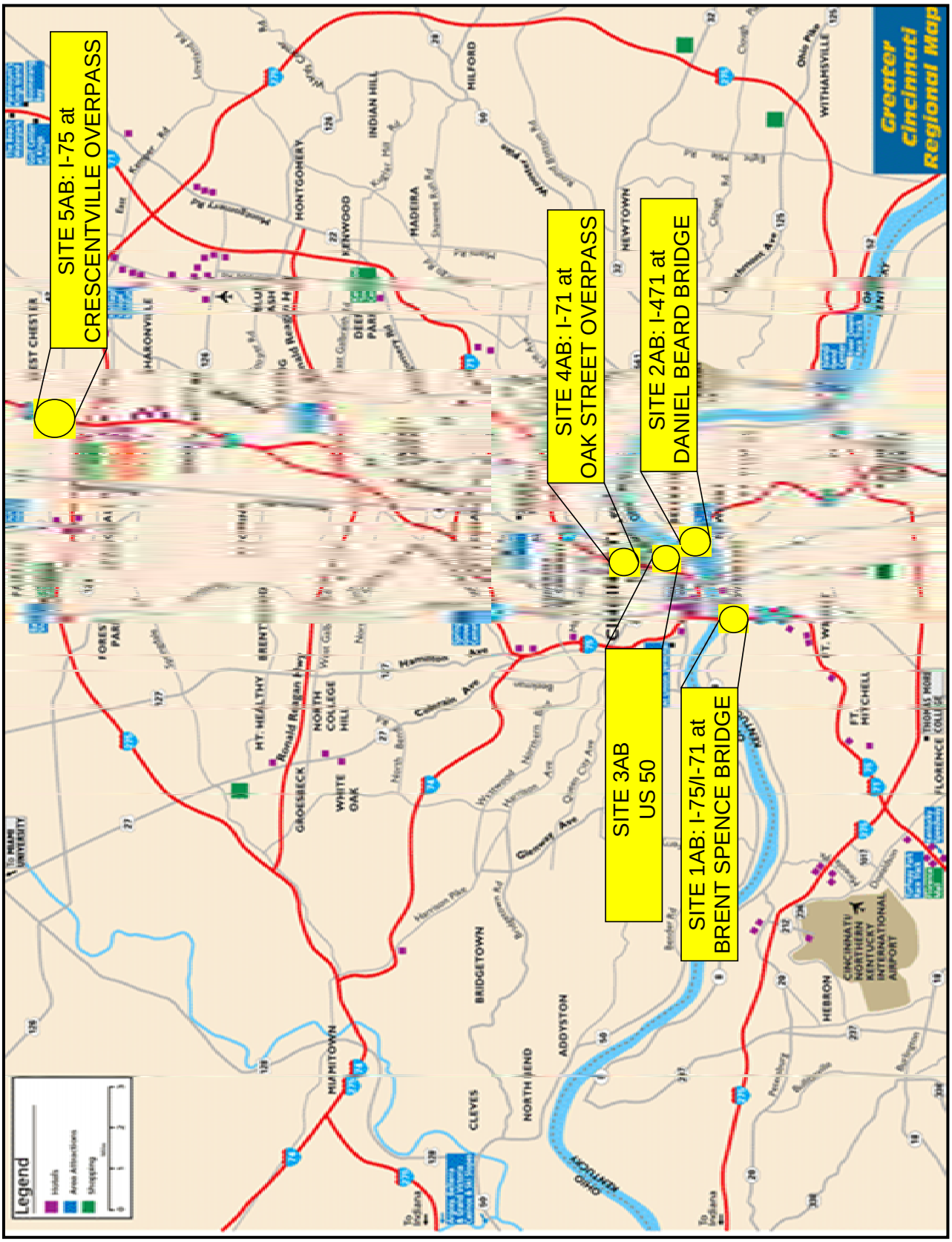

Figure 1: Location of Origin-Destination Sites.

Methodology

There are two traditional ways of conducting an OD study. One method is stop vehicles at each OD location site, ask questions of vehicle drivers from an appropriately designed questionnaire, record the driver's responses, and analyze the results to get an estimate of the travel patterns and travel times in the study area. Another method involves handing out survey cards to drivers at each location and relying on them to accurately complete and return the survey cards. In addition to other advantages and disadvantages of such methods, both of these methods can cause a major inconvenience by disrupting traffic flow at survey locations. This is especially true on major freeways during peak hours of traffic.

To overcome the drawbacks of these two traditional methods, a state-of-the-art method was proposed for this current project. Using multiple cameras placed at locations unobtrusive and unknown to drivers, license plates of vehicles were recorded simultaneously at all survey locations. Using modern optical character recognition methods, license plate numbers and time stamps were extracted from the recordings and then used in the analysis. The major steps undertaken in this OD study are shown in Figure 2 and a brief explanation of each step follows.

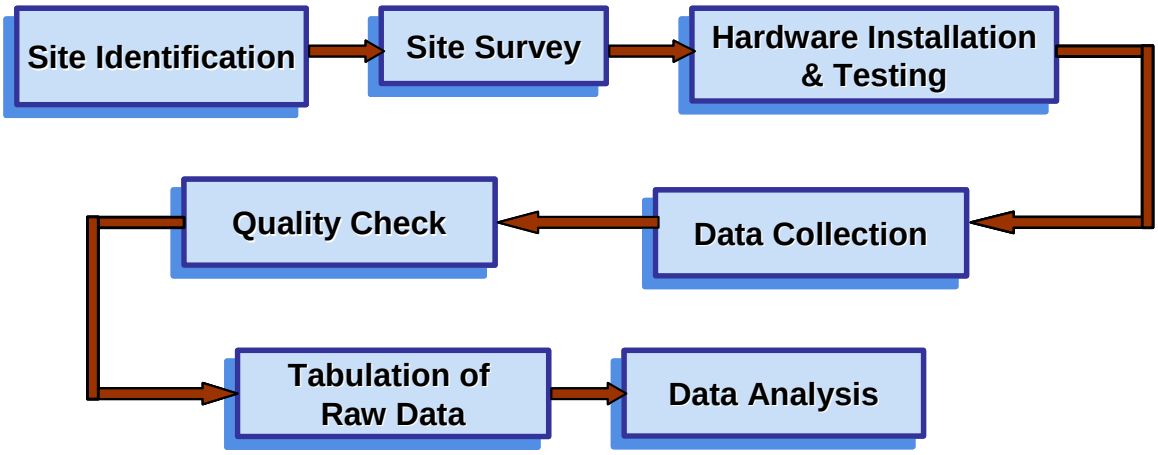

Figure 2: Methodology Followed in this OD Study.

- **Site Identification**: The five sites shown in Figure 1 were identified in the scope of services for this project and include BSB as well as four other locations along major freeways in the vicinity.
- **Site Survey**: This step enabled the selection of specific physical locations for mounting cameras and other equipment. In this step suitable gantries or bridges or other existing structures were identified in the vicinity of each site.
- **Hardware Installation & Testing**: Once suitable locations were identified by a site survey, cameras were installed, tested, and calibrated well in advance of the actual survey date.
- **Data Collection**: On the pre-determined survey date (a typical weekday, in this case Tuesday, December 6th, 2005), recording of license plates took place from 6 AM to 7 PM at all locations. Recordings were directly stored at on-site laptop computers. The process was

constantly monitored by survey staff. Along with the video recordings, volume counts were also undertaken simultaneously at every site as a cross check for vehicle type and traffic volumes for comparison with the video-recorded data. During data collection, traffic monitoring was undertaken by ARTIMIS for crashes or other incidents that could adversely impact the travel patterns. It was confirmed with ARTIMIS that there were no incidents during data collection that would have affected the travel patterns in the study area.

- **Quality Check**: The video recordings obtained in the field were subjected to rigorous quality check processes which are further discussed in the following sections of this report.
- **Tabulation of Raw Data**: After the data passes the quality check, it was tabulated in a form that was the most appropriate for this particular study. This tabulation involved the listing of vehicle records, including data such as location, vehicle type, license number, and time.
- **Data Analysis**: Tabulated raw data was then subjected to a matching process across OD pairs at the boundaries of the study area, i.e., matching the license plate number at one location (entry point for a trip) to the same license number at another location (intermediate point or exit point for the trip). This was used to determine both travel patterns and travel times for each of the trips. These methods and results are documented in the following sections of this report.

Field Hardware

In the days preceding the study, PIPS personnel (acting as a sub-consultant to Wilbur Smith Associates) installed and calibrated the equipment at each of the five sites. PIPS' Automatic License Plate Recognition (ALPR) cameras and processors are designed for use in harsh roadside environments so, once properly configured, can be left in place for extended periods of time without further adjustments. To minimize the effects of cars and trucks which have license plates mounted on their extreme left or right (and to avoid traveling in the center of the lane), two ALPR cameras per lane were allocated to provide 10 feet of coverage within each lane. The cameras were mounted on bridge overpasses and sign gantries to avoid interference with vehicle traffic. Independent verification of PIPS system capture rates and counts were accomplished by recording the actual traffic with day/night CCTV cameras and digital video recorders.

The PIPS system is an infrared-based system. The reason for using infrared (IR) illumination is that most plates, at the time of manufacture, are given a special reflective coating that is highly visible within the IR spectrum. The primary benefit of using an IR lens and IR illumination is that it does not rely on the presence of visible light, nor is it hindered by the presence of other forms of visible light. This allows for accurate image capture under adverse conditions, such as darkness, oncoming headlights, low sunlight, sun glare, rain, and snow.

Data Processing

Technology

The IR cameras used in the study had a wavelength of 810 nanometers (nm). This particular wavelength camera was chosen to provide the best illumination for both local (Ohio, Kentucky, and Indiana) and non-local traffic. The system was capable of capturing and processing images with speeds up to 100 miles per hour. PIPS has developed and patented innovative techniques to overcome many of the problems traditionally associated with ALPR systems including:

- Internal triggering;
- A hardware platefinder that ensures high-performance ALPR is maintained for high-speed traffic; and
- The use of 'triple flash' to resolve problems with plate-to-plate variability in reflectance

PIPS Technology's proprietary ALPR platefinder and "optical character recognition" (OCR) engine is one of the highest accuracy ALPR engines on the market today. It is very tolerant of image size and orientation, and capable of reading a large number of varying plate types. As the camera records up to 60 images per second, each with a different amount of illumination, the platefinder locates the license plate within the IR image. The platefinder then analyzes multiple images of the same plate to identify the IR image with the greatest black/white contrast to insure a high degree of accuracy when the OCR translation occurs. The system then uses an OCR engine specifically tuned for Ohio, Kentucky, and Indiana to convert the image into text.

Figure 3: Sample of a Captured License Plate.

Quality Check

Without verification, all data is subjective and hence open to challenge. The following Quality Control Process was implemented by PIPS.

Actual traffic counts were based on using video recordings. This allowed PIPS personnel to perform the counts not at a remote location exposed to poor lighting and bad weather, but in a climate-controlled office, with continuous supervision. As the count was conducted, the counter could slow down or repeat sections when traffic volume was heavy.

With the PIPS-captured license plate information, independent confirmation of the plate number and vehicle class were conducted. All plate images and text derived from the PIPS OCR process were visually verified for license plate accuracy as well as vehicle classification before any travel time calculations were performed.

When calculating the travel time events it was important to minimize any human transcription errors. Visually certain characters (e.g., 0/O/Q, B/8, etc.) can be interpreted incorrectly. These characters were normalized prior to determining travel time matches. As well as requiring an exact match, travel times between any two sites had to occur within one hour.

Data Tabulation

Capture Rates

As described in "Field Hardware" above, license plate information of vehicles passing each survey site was captured using video cameras. For various reasons, it is not always possible to identify the license plate identification number of every vehicle. Capture Rate is the percentage of vehicles with license plates identifiable for further analysis. Typically, capture rates are

higher for cars and lower for trucks. For example, two of the major reasons are (1) no standard/common

location or size for license plate displays on large trucks and (2) unclean or obscure plates. Table 1 summarizes the capture rates for cars and trucks at each location for the three time periods.

Table 1: License Plate Capture Rates for Cars and Trucks.

		Site 1A - SB BSB	Site 1B - NB BSB	Site 2A - SB DBB	Site 2B - NB DBB	Site 3A - EB US 50	Site 3B - WB US 50	Site 4A - SB I-71	Site 4B - NB I-75	Site 5A - SB I-75	Site 5B - NB I-75
Cars	06:00 AM - 10:00 AM	77%	83%	76%	82%	42%	70%	74%	73%	81%	81%
	11:00 AM - 02:00 PM	46%	83%	69%	62%	47%	67%	74%	82%	63%	70%
	04:00 PM - 07:00 PM	58%	85%	81%	71%	34%	11%	75%	79%	66%	84%
Trucks	06:00 AM - 10:00 AM	47%	52%	58%	20%	50%	17%	59%	76%	35%	24%
	11:00 AM - 02:00 PM	26%	51%	59%	12%	4%	0%	49%	64%	34%	22%
	04:00 PM - 07:00 PM	31%	40%	69%	17%	0%	0%	40%	47%	26%	24%

Sample Rates

For many varied reasons, it is not practical, economical, nor feasible to survey all vehicles at every site in the study area. However, to estimate travel patterns and travel times for the entire population of vehicles, a minimum number of vehicles needs to be sampled for the results to be statistically valid.

Traffic volume counts conducted along I-75/I-71 in the vicinity of Brent Spence Bridge in October 2005 as part of this study, indicates an ADT in the range of 60,000 to 90,000. Hence, the minimum required sample rate is set at 3% for this study.

Table 2 shows the achieved sample rates for the time periods of interest.

Table 2: Achieved Sample Rates for Cars & Trucks.

6:00 AM to 10:00 AM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			63.22%	30.49%	34.98%	26.09%	60.26%	39.87%	67.15%	12.50%
I-471 at DBB	62.75%	9.45%								
US-50 to/towards I-71/I-471 at East of I-471	53.50%	7.91%								
I-71 at Oak St. Overpass	57.22%	27.90%								
I-75 at Crescentville Rd. Overpass	62.67%	16.63%								

11:00 AM to 2:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			57.80%	30.01%	39.62%	2.20%	68.57%	32.13%	58.47%	10.88%
I-471 at DBB	28.35%	3.15%								
US-50 to/towards I-71/I-471 at East of I-471	30.50%	0.00%								
I-71 at Oak St. Overpass	33.91%	12.53%								
I-75 at Crescentville Rd. Overpass	28.77%	8.73%								

4:00 PM to 7:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			68.65%	27.57%	28.83%	0.00%	66.48%	18.86%	71.43%	9.57%
I-471 at DBB	40.90%	5.31%								
US-50 to/towards I-71/I-471 at East of I-471	6.47%	0.00%								
I-71 at Oak St. Overpass	43.06%	12.18%								
I-75 at Crescentville Rd. Overpass	37.79%	8.03%								

Indicates OD Pairs relevant to current BSB project.

Indicates that target sample rate of 3% was not achieved due to low volume of trucks recorded at the US 50 site.

Indicates OD Pairs where raw data is available but the anlaysis is not part of current BSB project.

No analysis for OD Pairs where O and D are same.

Summary of Matched License Plates

License plate matching was conducted to get a distribution of vehicles either originating (Site 1B) or with a destination (Site 1A) at Brent Spence Bridge. In other words, the license plate of a vehicle entering the study area at Site 1B was checked to see if it left the study area at any other location studied (Sites 2A, 3A, 4B and 5B). Similarly, the license plate of a vehicle entering the study area at either of Sites 2B, 3B, 4A and 5A was checked to see if it exited the study area at Site 1A.

Table 3 on the following page shows the summarized results of the license plates that matched. A license plate was considered to be a match only if it was an exact or a 100% match, i.e., partial matches (e.g., if only the last 3, 4 or 5 characters matched, but the others did not) were not counted as a match.

Table 3: Summary of Matched License Plates for Cars & Trucks.

6:00 AM to 10:00 AM

Origin	Destination: I-75/I-71 at BSB				I-471 at DBB				US-50 to/from I-71/I-471 at East of I-471				I-71 at Oak St. Overpass				I-75 at Crescentville Rd. Overpass				Unknown				Total			
	Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I-75/I-71 at BSB					370	2.31%	10	1.03%	60	0.37%	2	0.21%	2,460	15.37%	152	15.72%	658	4.11%	131	13.55%	12,456	77.83%	672	69.49%	16,004	100.00%	967	100.00%
I-471 at DBB	352	3.95%	0	0.00%																								
US-50 to/towards I-71/I-471 at East of I-471	299	3.36%	0	0.00%																								
I-71 at Oak St. Overpass	1,420	15.94%	103	13.14%																								
I-75 at Crescentville Rd. Overpass	772	8.66%	121	15.43%																								
Unknown	6,068	68.10%	560	71.43%																								
Total	8,911	100.00%	784	100.00%																								

11:00 AM to 2:00 PM

Origin	Destination: I-75/I-71 at BSB				I-471 at DBB				US-50 to/from I-71/I-471 at East of I-471				I-71 at Oak St. Overpass				I-75 at Crescentville Rd. Overpass				Unknown				Total			
	Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I-75/I-71 at BSB					370	4.76%	6	0.55%	146	1.88%	1	0.09%	1,322	17.01%	182	16.68%	430	5.53%	144	13.20%	5,502	70.81%	758	69.48%	7,770	100.00%	1,091	100.00%
I-471 at DBB	130	3.15%	1	0.15%																								
US-50 to/towards I-71/I-471 at East of I-471	104	2.52%	0	0.00%																								
I-71 at Oak St. Overpass	585	14.20%	54	8.31%																								
I-75 at Crescentville Rd. Overpass	271	6.58%	100	15.38%																								
Unknown	3,031	73.55%	495	76.15%																								
Total	4,121	100.00%	650	100.00%																								

4:00 PM to 7:00 PM

Origin	Destination: I-75/I-71 at BSB				I-471 at DBB				US-50 to/from I-71/I-471 at East of I-471				I-71 at Oak St. Overpass				I-75 at Crescentville Rd. Overpass				Unknown				Total			
	Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I-75/I-71 at BSB					530	5.36%	3	0.48%	171	1.73%	1	0.16%	1,683	17.01%	91	14.49%	560	5.66%	101	16.08%	6,953	70.25%	432	68.79%	9,897	100.00%	628	100.00%
I-471 at DBB	205	2.32%	0	0.00%																								
US-50 to/towards I-71/I-471 at East of I-471	37	0.42%	0	0.00%																								
I-71 at Oak St. Overpass	1,755	19.83%	49	7.97%																								
I-75 at Crescentville Rd. Overpass	290	3.28%	79	12.85%																								
Unknown	6,562	74.16%	487	79.19%																								
Total	8,849	100.00%	615	100.00%																								

Indicates OD Pairs relevant to current BSB project.

Indicates OD Pairs where raw data is available but the anlaysis is not part of current BSB project.

No analysis for OD Pairs where O and D are same.

Expansion Factors

Since the Capture Rates for cars and trucks are different at each site, an expansion factor was computed by factoring in the capture rates at both the origin and destination. Because the site at Brent Spence Bridge (Site 1) is of primary concern in this study, expansion factors were computed for two cases – the first with Site 1 as the origin and all other sites as the destination; and the second with Site 1 as the destination and all other sites as the origin. These factors were computed separately for each of the three time periods for both cars and trucks. Table 4 shows the expansion factors thus obtained.

Table 4: Expansion Factors for Cars & Trucks.

6:00 AM to 10:00 AM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			1.58	3.28	2.86	3.83	1.66	2.51	1.49	8.00
I-471 at DBB	1.59	10.58								
US-50 to/towards I-71/I-471 at East of I-471	1.87	12.64								
I-71 at Oak St. Overpass	1.75	3.58								
I-75 at Crescentville Rd. Overpass	1.60	6.01								

11:00 AM to 2:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			1.73	3.33	2.52	45.52	1.46	3.11	1.71	9.19
I-471 at DBB	3.53	31.72								
US-50 to/towards I-71/I-471 at East of I-471	3.28	0.00								
I-71 at Oak St. Overpass	2.95	7.98								
I-75 at Crescentville Rd. Overpass	3.48	11.46								

4:00 PM to 7:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			1.46	3.63	3.47	0.00	1.50	5.30	1.40	10.45
I-471 at DBB	2.45	18.85								
US-50 to/towards I-71/I-471 at East of I-471	15.47	0.00								
I-71 at Oak St. Overpass	2.32	8.21								
I-75 at Crescentville Rd. Overpass	2.65	12.46								

Indicates OD Pairs relevant to current BSB project.

Indicates OD Pairs where raw data is available but the anlaysis is not part of current BSB project.

No analysis for OD Pairs where O and D are same.

Conclusions/Findings

Expected Travel Patterns

Using the expansion factors (Table 4) with the summary of matched license plates (Table 3), expected travel patterns of vehicles using the Brent Spence Bridge were derived. These travel distribution patterns are shown in Table 5. All percentages shown in the Tables represent traffic observed at the Brent Spence Bridge location. A summary of the findings are presented below:

Northbound traffic through BSB

- During the morning, mid-day, and evening peak periods 3% to 7% of the automobiles and 1% to 2% of the trucks crossing the Brent Spence Bridge, and traveling northbound, were then observed traveling along I-471 at the Daniel Beard Bridge (DBB).
- During the morning, mid-day, and evening peak periods 1% to 5% of the automobiles and 1% to 2% of the trucks crossing the Brent Spence Bridge, and traveling northbound, were then observed traveling along the US 50 ramps east of DBB.
- During the morning, mid-day, and evening peak periods 21% to 22% of the automobiles and 21% to 31% of the trucks crossing the Brent Spence Bridge, and traveling northbound, were then observed traveling along I-71 at the Oak Street overpass.
- During the morning, mid-day, and evening peak periods 5% to 8% of the automobiles and 57% to 67% of the trucks crossing the Brent Spence Bridge, and traveling northbound, were then observed traveling along I-75 at the Crescentville overpass.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 58% to 70%; and the remaining trucks, ranging from 1% to 20%; crossing the Brent Spence Bridge are expected to be going to other unknown locations.

Southbound traffic through BSB

- During the morning, mid-day, and evening peak periods 3% to 5% of the automobiles and 1% to 2% of the trucks crossing the Brent Spence Bridge, and traveling southbound, were previously observed traveling along I-471 at Daniel Beard Bridge (DBB).
- During the morning, mid-day, and evening peak periods 4% to 5% of the automobiles and 1% of the trucks crossing the Brent Spence Bridge, and traveling southbound, were previously observed traveling along US 50 ramps east of DBB.
- During the morning, mid-day, and evening peak periods 19% to 27% of the automobiles and 17% to 22% of the trucks crossing the Brent Spence Bridge, and traveling southbound, were previously observed traveling along I-71 at the Oak Street overpass.
- During the morning, mid-day, and evening peak periods 5% to 10% of the automobiles and 44% to 49% of the trucks crossing the Brent Spence Bridge, and traveling southbound, were previously observed traveling along I-75 at Crescentville overpass.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 58% to 69%; and the remaining trucks, ranging from 26% to 37%; crossing the Brent Spence Bridge are expected to be coming from other unknown locations.

Table 5: Expected Travel Patterns for Cars & Trucks.

6:00 AM to 10:00 AM

Origin	Destination: I-75/I-71 at BSB	I-471 at DBB	US-50 to/from I-71/I-471 at East of I-471	I-71 at Oak St. Overpass	I-75 at Crescentville Rd. Overpass	Unknown	Total
I-75/I-71 at BSB							
I-471 at DBB	561 (4.84%) / 0 (0.00%)	585 (3.03%) / 33 (1.78%)					
US-50 to/towards I-71/I-471 at East of I-471	559 (4.83%) / 0 (0.00%)						
I-71 at Oak St. Overpass	2,482 (21.43%) / 369 (22.34%)						
I-75 at Crescentville Rd. Overpass	1,232 (10.64%) / 728 (44.07%)						
Unknown	6,749 (58.27%) / 555 (33.60%)						
Total	11,583 (100.00%) / 1,652 (100.00%)						

11:00 AM to 2:00 PM

Origin	Destination: I-75/I-71 at BSB	I-471 at DBB	US-50 to/from I-71/I-471 at East of I-471	I-71 at Oak St. Overpass	I-75 at Crescentville Rd. Overpass	Unknown	Total
I-75/I-71 at BSB							
I-471 at DBB	459 (5.07%) / 32 (1.26%)	640 (6.87%) / 20 (0.93%)					
US-50 to/towards I-71/I-471 at East of I-471	341 (3.77%) / 0 (0.00%)						
I-71 at Oak St. Overpass	1,725 (19.05%) / 431 (17.03%)		369 (3.96%) / 46 (2.13%)				
I-75 at Crescentville Rd. Overpass	942 (10.40%) / 1146 (45.28%)			1,928 (20.70%) / 566 (26.22%)			
Unknown	5,587 (61.71%) / 922 (36.43%)				735 (7.89%) / 1,323 (61.28%)	5,641 (60.57%) / 204 (9.45%)	
Total	9,054 (100.00%) / 2,531 (100.00%)						

4:00 PM to 7:00 PM

Origin	Destination: I-75/I-71 at BSB	I-471 at DBB	US-50 to/from I-71/I-471 at East of I-471	I-71 at Oak St. Overpass	I-75 at Crescentville Rd. Overpass	Unknown	Total
I-75/I-71 at BSB							
I-471 at DBB	501 (3.26%) / 0 (0.00%)	772 (6.60%) / 11 (0.70%)					
US-50 to/towards I-71/I-471 at East of I-471	572 (3.73%) / 0 (0.00%)		593 (5.07%) / 0 (0.00%)				
I-71 at Oak St. Overpass	4,075 (26.55%) / 402 (19.98%)			2,532 (21.64%) / 482 (30.76%)			
I-75 at Crescentville Rd. Overpass	767 (5.00%) / 984 (48.91%)				784 (6.70%) / 1,055 (67.33%)	7,020 (59.99%) / 19 (1.21%)	
Unknown	9,434 (61.46%) / 626 (31.11%)						
Total	15,349 (100.00%) / 2,012 (100.00%)						

Indicates OD Pairs relevant to current BSB project.

Indicates that target sample rate of 3% was not achieved due to low volume of trucks recorded at the US 50 site.

Indicates OD Pairs where raw data is available but the anlaysis is not part of current BSB project.

No analysis for OD Pairs where O and D are same.

Summary of Travel Times

Using the video recordings, the travel time of the vehicle was tracked and recorded for every matched license plate between an O-D pair (data shown in Tables 3 thorough 6). For each O-D pair, the travel times were tabulated by vehicle type (car or truck) and by time period. Table 6 on the following page provides a summary of this data.

The average travel time for cars traveling between the Brent Spence Bridge and I-75 at the Crescentville Overpass were the longest amongst all OD pairs studied and ranged from 17 minutes to 23 minutes. The average travel times were similar in both directions and were on the higher end of the range during the morning and evening peak periods, while during the mid-day, they were on the lower end of the range.

Average travel time for cars traveling between the Brent Spence Bridge and I-71 at Oak Street overpass ranged between 4.25 and 5.57 minutes. Between the Brent Spence Bridge and the Daniel Beard Bridge, the average travel time for a car ranged between 5.30 and 8.25 minutes.

Although the average travel time for cars traveling between the Brent Spence Bridge and the US 50 Ramps ranged between 2.92 and 4.43 minutes, the average travel time from the Brent Spence Bridge to the US 50 Ramps during the morning peak period was 16.62 minutes.

Trucks traveling between during the morning peak period and I-71 at Oak Street overpass had average travel times ranging from 4.45 to 5.58 minutes, while trucks traveling between during the morning peak period and I-75 at Crescentville Overpass had average travel times ranging from 18.18 to 23.75 minutes. Due to low volumes of trucks and/or low number of license plate matches, average travel time of trucks traveling between the Brent Spence Bridge and the Daniel Beard Bridge, and between the Brent Spence Bridge and the US 50 Ramps, provided unrealistic results and could not be considered representative.

Table 6: Average Travel Times (in minutes) for Cars & Trucks.

6:00 AM to 10:00 AM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			6.27	3.07	16.62	13.78	4.65	4.62	20.93	22.38
I-471 at DBB	7.43	-								
US-50 to/towards I-71/I-471 at East of I-471	2.92	-								
I-71 at Oak St. Overpass	4.25	4.67								
I-75 at Crescentville Rd. Overpass	22.12	23.72								

11:00 AM to 2:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			7.00	10.92	3.40	2.73	4.88	5.23	18.08	18.15
I-471 at DBB	8.25	3.97								
US-50 to/towards I-71/I-471 at East of I-471	2.93	-								
I-71 at Oak St. Overpass	4.80	4.45								
I-75 at Crescentville Rd. Overpass	17.23	18.18								

4:00 PM to 7:00 PM	Destination									
	I-75/I-71 at BSB		I-471 at DBB		US-50 to/from I-71/I-471 at East of I-471		I-71 at Oak St. Overpass		I-75 at Crescentville Rd. Overpass	
Origin	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75/I-71 at BSB			5.30	10.17	3.03	2.40	4.83	4.72	23.55	23.75
I-471 at DBB	6.10	-								
US-50 to/towards I-71/I-471 at East of I-471	4.43	-								
I-71 at Oak St. Overpass	5.57	5.58								
I-75 at Crescentville Rd. Overpass	22.12	23.13								

Indicates OD Pairs relevant to current BSB project.

Indicates a sample with less than 8 matched vehicles, not considered a representative sample

Indicates OD Pairs where raw data is available but the anlaysis is not part of current BSB project.

No analysis for OD Pairs where O and D are same.

U.S. Department of Transportation
Federal Highway Administration

Brent Spence Bridge
Replacement/Rehabilitation Project

Kentucky

I-75/US-50 Origin-Destination Study

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1.0 Executive Overview

An Origin Destination (OD) Study was performed to establish travel patterns of cars and trucks between I-75 and US-50, using Freeman Avenue, during the morning, mid-day, and evening peak periods. Video cameras were used to simultaneously capture and match license plate data for vehicles passing through I-75 Southbound Offramp and US-50 Westbound Onramp, US-50 Eastbound Offramp and I-75 Northbound Onramp. All data was collected during typical weekdays (Wednesday and Thursday) in September 2006. License plate capture rates of the passing traffic were over 90% for automobiles and over 80% for trucks. Accepted statistical analysis methods were used to extrapolate the data to arrive at the findings of this study.

The study findings indicate:

I-75 Southbound Off ramp to US-50 Westbound On ramp

- During the morning, mid-day and evening peak periods 19% to 52% of automobiles leaving I-75 Southbound Off ramp enter US-50 Westbound On ramp through Freeman Avenue.
- During the morning, mid-day and evening peak periods 23% to 29% of trucks leaving I-75 Southbound Off ramp enter US-50 Westbound On ramp through Freeman Avenue.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 48% to 81% and the remaining trucks, ranging from 71% to 77% leave I-75 Southbound Off ramp to other locations.

US-50 Eastbound Off ramp to I-75 Northbound On ramp

- During the morning, mid-day and evening peak periods 62% to 74% of automobiles leaving US-50 Eastbound Off ramp enter I-75 Northbound On ramp through Freeman Avenue.
- During the morning, mid-day and evening peak periods 85% to 100% of trucks leaving US-50 Eastbound Off ramp enter I-75 Northbound On ramp through Freeman Avenue.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 26% to 38% and the remaining trucks, ranging from 0% to 15% leave US-50 Eastbound Off ramp to other locations.

2.0 Introduction

Interstate 75 (I-75) within the Greater Cincinnati/Northern Kentucky region is a major thoroughfare for local and regional mobility. Locally, it connects to I-71, I-74 and US Route 50. The Brent Spence Bridge provides an interstate connection over the Ohio River and carries both I-71 and I-75 traffic. The bridge also facilitates local travel by providing access to downtown Cincinnati, Ohio and Covington, Kentucky. Safety, congestion and geometric problems exist on the structure and its approaches. The Brent Spence Bridge, which opened to traffic in 1963, was designed to carry 80,000 vehicles per day. Currently, approximately 150,000 vehicles per day use the Brent Spence Bridge and traffic volumes are projected to increase to 200,000 vehicles per day in 2025.

The I-75 corridor within the Greater Cincinnati/Northern Kentucky region is experiencing problems, which threaten the overall efficiency and flexibility of this vital trade corridor. Areas of concern include, but are not limited to, growing demand and congestion, land use pressures, environmental concerns, adequate safety margins, and maintaining linkage in key mobility, trade, and national defense highways.

The I-75 corridor has been the subject of numerous planning and engineering studies over the years and is a strategic link in the region's and the nation's highway network. As such, the Ohio Department of Transportation (ODOT) and the Kentucky Transportation Cabinet (KYTC), in cooperation with the Federal Highway Administration (FHWA), are proposing to improve the operational characteristics of I-75 and the Brent Spence Bridge in the Greater Cincinnati/Northern Kentucky region through a major transportation project.

2.1 Purpose and Need

The Brent Spence Bridge Replacement/Rehabilitation Project is intended to improve the operational characteristics within the I-71/I-75 corridor for both local and through traffic. In the Greater Cincinnati/Northern Kentucky region, the I-71/I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. The purpose of this project is to:

- improve traffic flow and level of service,
- improve safety,
- correct geometric deficiencies, and
- enhance connections to key regional and national transportation corridors.

2.2 Study Area

The project study area is located along a 6.5-mile segment of I-75 within the Commonwealth of Kentucky (state line mile 188.0) and the State of Ohio (state line mile 2.7). The southern limit of the project is 2,800 feet south of the midpoint of the Kyles Lane Interchange on I-71/I-75 in Fort Wright, south of Covington, Kentucky. The northern limit of the project is 1,500 feet north of the midpoint of the Western Hills Viaduct interchange on I-75 in Cincinnati, Ohio. The eastern and western limits of the study area generally follow the existing alignment of I-75.

2.3 Purpose of Report

This Origin-Destination (O-D) Study was conducted as part of the ongoing Brent Spence Bridge project. The objective of this study is to determine the travel patterns between I-75 and US-50 through Freeman Avenue in Cincinnati, Ohio. This report is a summary of the locations included in the study, the processes used in obtaining relevant data, analyses done on the collected data, and results obtained from the study.

2.3.1 Study Area for O-D Study

The four ramp locations from/to I-75 and US-50 identified for this study are listed below and shown in Figure 1.

- Site 1: I-75 Southbound Offramp to Freeman Avenue
- Site 2: US-50 Westbound Onramp from Freeman Avenue
- Site 3: US-50 Eastbound Offramp to Freeman Avenue
- Site 4: I-75 Northbound Onramp from Freeman Avenue

This OD study was conducted to capture traffic movements from Site 1 to Site 2 and Site 3 to Site 4. The traffic movements were captured for two vehicle types- cars and trucks and during three different time periods: 6:00 AM to 10:00 AM; 11:00 AM to 2:00 PM; and 4:00 PM to 7:00 PM.

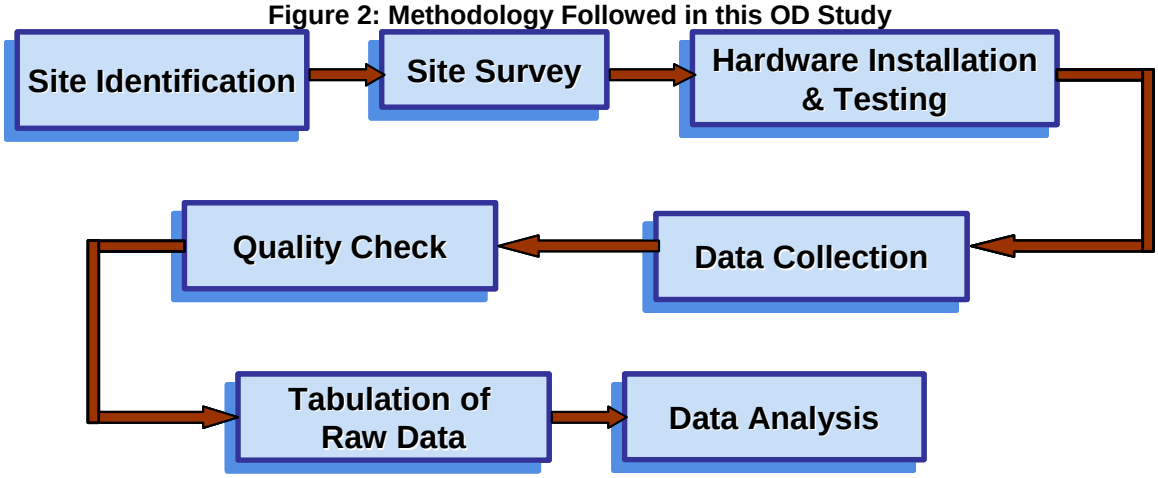
Figure 1: Origin-Destination Study Site Locations

3.0 Methodology

There are two traditional ways of conducting an OD study. One method is stop vehicles at each OD location site, ask questions of vehicle drivers from an appropriately designed questionnaire, record the driver's responses, and analyze the results to get an estimate of the travel patterns and travel times in the study area. Another method involves handing out survey cards to drivers at each location and relying on them to accurately complete and return the survey cards. In addition to other advantages and disadvantages of such methods, both of these methods can cause a major inconvenience by disrupting traffic flow at survey locations. This is especially true on major highways during peak hours of traffic.

To overcome the drawbacks of these two traditional methods, a state-of-the-art method was proposed for this current project. Using multiple cameras placed at locations unobtrusive and unknown to drivers, license plates of vehicles were recorded simultaneously at all survey locations. Using modern optical character recognition methods, license plate numbers and time stamps were extracted from the recordings and then used in the analysis. The major steps undertaken in this OD study are shown in Figure 2 and a brief explanation of each step follows.

Figure 2: Methodology Followed in this OD Study



- **Site Identification:** The four sites shown in Figure 1 were identified in the scope of services for this project.
- **Site Survey:** This step enabled the selection of specific physical locations for mounting cameras and other equipment. In this step suitable existing structures were identified in the vicinity of each site.
- **Hardware Installation & Testing:** Once suitable locations were identified by a site survey, cameras were installed, tested, and calibrated well in advance of the actual survey date.
- **Data Collection:** On the pre-determined survey dates (typical weekdays, in this case Sites 3&4 on Wednesday, September 13th, 2006 and Sites 1&2 on Thursday, September 14th, 2006), recording of license plates took place from 6 AM to 7 PM at all locations. Recordings were directly stored at on-site laptop

computers. The process was constantly monitored by survey staff. Along with the video recordings, volume counts were also undertaken simultaneously at every site as a cross check for vehicle type and traffic volumes for comparison with the video-recorded data

- **Quality Check:** The video recordings obtained in the field were subjected to rigorous quality check processes which are further discussed in the following sections of this report.
- **Tabulation of Raw Data:** After the data passes the quality check, it was tabulated in a form that was the most appropriate for this particular study. This tabulation involved the listing of vehicle records, including data such as location, vehicle type, license number, and time.
- **Data Analysis:** Tabulated raw data was then subjected to a matching process across OD pairs i.e., matching the license plate number at one location to the same license number at another location. This was used to determine travel patterns for each of the trips. These methods and results are documented in the following sections of this report.

4.0 Field Hardware

In the days preceding the study, PIPS personnel (acting as a sub-consultant to Wilbur Smith Associates) installed and calibrated the equipment at each of the four sites. PIPS' Automatic License Plate Recognition (ALPR) cameras and processors are designed for use in harsh roadside environments so, once properly configured, can be left in place for extended periods of time without further adjustments. To minimize the effects of cars and trucks which have license plates mounted on their extreme left or right (and to avoid traveling in the center of the lane), two ALPR cameras per lane were allocated to provide 10 feet of coverage within each lane. The cameras were mounted on bridge overpasses and sign gantries to avoid interference with vehicle traffic. Independent verification of PIPS system capture rates and counts were accomplished by recording the actual traffic with day/night CCTV cameras and digital video recorders.

The PIPS system is an infrared-based system. The reason for using infrared (IR) illumination is that most plates, at the time of manufacture, are given a special reflective coating that is highly visible within the IR spectrum. The primary benefit of using an IR lens and IR illumination is that it does not rely on the presence of visible light, nor is it hindered by the presence of other forms of visible light. This allows for accurate image capture under adverse conditions, such as darkness, oncoming headlights, low sunlight, sun glare, rain, and snow.

5.0 Data Processing

5.1 Technology

The IR cameras used in the study had a wavelength of 810 nanometers (nm). This particular wavelength camera was chosen to provide the best illumination for both local (Ohio, Kentucky, and Indiana) and non-local traffic. The system was capable of capturing and processing images with speeds up to 100 miles per hour. PIPS has developed and patented innovative techniques to overcome many of the problems traditionally associated with ALPR systems including:

- Internal triggering;
- A hardware platefinder that ensures high-performance ALPR is maintained for high-speed traffic; and

The use of 'triple flash' to resolve problems with plate-to-plate variability in reflectance

Figure 3: Sample of a Captured License Plate

PIPS Technology's proprietary ALPR platefinder and "optical character recognition" (OCR) engine is one of the highest accuracy ALPR engines on the market today. It is very tolerant of image size and orientation, and capable of reading a large number of varying plate types. As the camera records up to 60 images per second, each with a different amount of illumination, the platefinder locates the license plate within the IR image. The platefinder then analyzes multiple images of the same plate to identify the IR image with the greatest black/white contrast to insure a high degree of accuracy when the OCR translation occurs. The system then uses an OCR engine specifically tuned for Ohio, Kentucky, and Indiana to convert the image into text.

5.2 Quality Check

Without verification, all data is subjective and hence open to challenge. The following Quality Control Process was implemented by PIPS.

Actual traffic counts were based on using video recordings. This allowed PIPS personnel to perform the counts not at a remote location exposed to poor lighting and bad weather, but in a climate-controlled office, with continuous supervision. As the count was conducted, the counter could slow down or repeat sections when traffic volume was heavy.

With the PIPS-captured license plate information, independent confirmation of the plate number and vehicle class were conducted. All plate images and text derived from the PIPS OCR process were visually verified and refined, if necessary, for license plate accuracy as well as vehicle classification before any travel time calculations were performed.

6.0 Data Tabulation

6.1 Capture Rates

As described in "Field Hardware" above, license plate information of vehicles passing each survey site was captured using video cameras. For various reasons, it is not always possible to identify the license plate identification number of every vehicle. Capture Rate is the percentage of vehicles with license plates identifiable for further analysis. Typically, capture rates are higher for cars and lower for trucks. For example, two of the major reasons are (1) no standard/common location or size for license plate displays on large trucks and (2) unclean or obscure plates. Table 1 summarizes the capture rates for cars and trucks at each location for the three time periods.

Table 1: License Plate Capture Rates for Cars and Trucks

		Site 1 – I-75 SB	Site 2 – US 50 WB	Site 3 – US 50 EB	Site 4 – I-75 NB
Cars	06:00 AM - 10:00 AM	95%	91%	99%	91%
	11:00 AM - 02:00 PM	92%	93%	97%	92%
	04:00 PM - 07:00 PM	96%	97%	96%	98%
Trucks	06:00 AM - 10:00 AM	84%	82%	90%	89%
	11:00 AM - 02:00 PM	91%	82%	88%	98%
	04:00 PM - 07:00 PM	84%	94%	92%	90%

6.2 Sample Rates

Since the Capture Rates for cars and trucks are different at each site, sample rates for each origin-destination pair was computed by factoring capture rates at both origin and destination. These rates were computed for each of the three time periods for both cars and trucks as shown in Table 2. For example the achieved sample rate of 86% for cars from I-75 SB Off ramp (Site 1) to US 50 WB On ramp (Site 2), during the time period 6:00 AM – 10:00 AM, was computed by multiplying license plate capture rates at Site 1 and Site 2.

Table 2: Achieved Sample Rates for Cars & Trucks

		6:00 AM - 10:00 AM		11:00 AM - 2:00 PM		4:00 PM - 7:00 PM	
Origin	**Destination**	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75 SB Off Ramp	**US-50 WB On Ramp**	86%	69%	86%	75%	93%	79%
US-50 EB Off Ramp	**I-75 NB On Ramp**	90%	80%	89%	86%	94%	83%

6.3 Expansion Factors

Using the achieved sample rates, expansion factors were computed for each origin-destination pair as shown in Table 3. For example the expansion factor of 1.16 for cars from I-75 SB Off ramp (Site 1) to US 50 WB On ramp (Site 2), during the time period 6:00 AM – 10:00 AM, was computed as inverse of achieved sample rate from Site 1 to Site 2.

Table 3: Expansion Factors for Cars & Trucks

		6:00 AM - 10:00 AM		11:00 AM - 2:00 PM		4:00 PM - 7:00 PM	
Origin	**Destination**	Cars	Trucks	Cars	Trucks	Cars	Trucks
I-75 SB Off Ramp	**US-50 WB On Ramp**	1.16	1.45	1.17	1.34	1.07	1.27
US-50 EB Off Ramp	**I-75 NB On Ramp**	1.11	1.25	1.12	1.16	1.06	1.21

6.4 Summary of Matched License Plates

License plate matching was conducted to get a distribution of vehicles originating at Site 1 with destination as Site 2 or originating at Site 3 with destination as Site 4. Table 4 on the following page shows the summarized results of the license plates that matched with Site 1 as origin and Site 2 as destination. Table 5 shows the summarized results of license plates that matched with Site 3 as origin and Site 4 as destination. A license plate was considered to be a match only if it was an exact or a 100% match, i.e., partial matches (e.g., if only the last 3, 4 or 5 characters matched, but the others did not) were not counted as a match.

Table 4: Summary of Matched License Plates for Cars & Trucks from Site 1 to Site 2

6:00 AM to 10:00 AM		**Destination**			
		Site 2 US-50 WB On ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	301	62%	35	88%
	Other	187	38%	5	13%
	Total	**488**	**100%**	**40**	**100%**

11:00 AM to 2:00 PM		**Destination**			
		Site 2 US-50 WB On ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	296	59%	42	91%
	Other	206	41%	4	9%
	Total	**502**	**100%**	**46**	**100%**

4:00 PM to 7:00 PM		**Destination**			
		Site 2 US-50 WB On ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	629	48%	18	60%
	Other	692	52%	12	40%
	Total	**1,321**	**100%**	**30**	**100%**

Table 5: Summary of Matched License Plates for Cars & Trucks from Site 3 to Site 4

6:00 AM to 10:00 AM		Destination			
		Site 4 I-75 NB On Ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	813	50%	44	24%
	Other	800	50%	142	76%
	Total	**1,613**	**100%**	**186**	**100%**

11:00 AM to 2:00 PM		Destination			
		Site 4 I-75 NB On Ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	322	28%	55	28%
	Other	847	72%	142	72%
	Total	**1,169**	**100%**	**197**	**100%**

4:00 PM to 7:00 PM		Destination			
		Site 4 I-75 NB On Ramp from Freeman Avenue			
		Cars		Trucks	
		Matched Vehicles	%	Matched Vehicles	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	392	21%	42	31%
	Other	1,470	79%	95	69%
	Total	**1,862**	**100%**	**137**	**100%**

6.5 Expected Travel Patterns

Using the expansion factors (Table 3) with the summary of matched license plates (Table 4 and Table 5), expected travel pattern of vehicles from Site 1 to Site 2 and Site 3 to Site 4 were developed. Table 6 summarizes the travel patterns for cars and trucks traveling from Site 1 to Site 2 as percentages by origin during the three time periods. Table 7 summarizes the travel patterns for cars and trucks traveling from Site 1 to Site 2 as percentages by destination. Table 8 summarizes the travel patterns for cars and trucks traveling from Site 3 to Site 4 as percentages by origin during the three time periods. Table 9 summarizes the travel patterns for cars and trucks traveling from Site 3 to Site 4 as percentages by destination.

Table 6: Expected Travel Patterns for Cars & Trucks from Site 1 to Site 2 (Percentages by Origin)

6:00 AM to 10:00 AM	Destination											
	Site 2 US-50 WB On ramp from Freeman Avenue				Other				**Total**			
	Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	348	19%	49	23%	1,530	81%	168	77%	**1,878**	**100%**	**217**	**100%**
	Other	186	100%	0	100%					**186**	**100%**	**0**	**100%**

11:00 AM to 2:00 PM	Destination											
	Site 2 US-50 WB On ramp from Freeman Avenue				Other				**Total**			
	Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	346	24%	56	29%	1,069	76%	138	71%	**1,415**	**100%**	**194**	**100%**
	Other	193	100%	0	100%					**193**	**100%**	**0**	**100%**

4:00 PM to 7:00 PM	Destination											
	Site 2 US-50 WB On ramp from Freeman Avenue				Other				**Total**			
	Cars		Trucks		Cars		Trucks		Cars		Trucks	
	#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	675	52%	23	24%	623	48%	72	76%	**1,298**	**100%**	**95**	**100%**
	Other	683	100%	9	100%					**683**	**100%**	**9**	**100%**

Table 7: Expected Travel Patterns for Cars & Trucks from Site 1 to Site 2 (Percentages by Destination)

6:00 AM to 10:00 AM		**Destination**							
		Site 2 US-50 WB On ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	348	65%	49	100%	1,530	100%	168	100%
	Other	186	35%	0	0%				
	Total	**534**	**100%**	**49**	**100%**	**1,530**	**100%**	**168**	**100%**

11:00 AM to 2:00 PM		**Destination**							
		Site 2 US-50 WB On ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	346	64%	56	100%	1,069	100%	138	100%
	Other	193	36%	0	0%				
	Total	**539**	**100%**	**56**	**100%**	**1,069**	**100%**	**138**	**100%**

4:00 PM to 7:00 PM		**Destination**							
		Site 2 US-50 WB On ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 1** I-75 SB Off Ramp to Freeman Avenue	675	50%	23	71%	623	100%	72	100%
	Other	683	50%	9	28%				
	Total	**1,358**	**100%**	**32**	**100%**	**623**	**100%**	**72**	**100%**

Table 8: Expected Travel Patterns for Cars & Trucks from Site 3 to Site 4 (Percentages by Origin)

6:00 AM to 10:00 AM

		Destination											
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other				**Total**			
		Cars		Trucks		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	902	67%	55	93%	444	33%	4	7%	**1,346**	**100%**	**59**	**100%**
	Other	871	100%	154	100%					**871**	**100%**	**154**	**100%**

11:00 AM to 2:00 PM

		Destination											
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other				**Total**			
		Cars		Trucks		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	361	74%	64	85%	125	26%	11	15%	**486**	**100%**	**75**	**100%**
	Other	915	100%	137	100%					**915**	**100%**	**137**	**100%**

4:00 PM to 7:00 PM

		Destination											
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other				**Total**			
		Cars		Trucks		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	417	62%	50	100%	251	38%	0	0%	**668**	**100%**	**50**	**100%**
	Other	1,487	100%	102	100%					**1,487**	**100%**	**102**	**100%**

Table 9: Expected Travel Patterns for Cars & Trucks from Site 3 to Site 4 (Percentages by Destination)

6:00 AM to 10:00 AM		Destination							
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	902	51%	55	26%	444	100%	4	100%
	Other	871	49%	154	74%				
	Total	**1,773**	**100%**	**209**	**100%**	**444**	**100%**	**4**	**100%**

11:00 AM to 2:00 PM		Destination							
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	361	28%	64	32%	125	100%	11	100%
	Other	915	72%	137	68%				
	Total	**1,276**	**100%**	**201**	**100%**	**125**	**100%**	**11**	**100%**

4:00 PM to 7:00 PM		Destination							
		Site 4 I-75 NB On Ramp from Freeman Avenue				Other			
		Cars		Trucks		Cars		Trucks	
		#	%	#	%	#	%	#	%
Origin	**Site 3** US-50 EB Off Ramp to Freeman Avenue	417	22%	50	33%	251	100%	0	100%
	Other	1,487	78%	102	67%				
	Total	**1,904**	**100%**	**152**	**100%**	**251**	**100%**	**0**	**100%**

7.0 Conclusions/Findings

I-75 Southbound Off ramp to US-50 Westbound On ramp (Site 1 to Site 2)

- During the morning, mid-day and evening peak periods 19% to 52% of automobiles leaving I-75 Southbound Off ramp enter US-50 Westbound On ramp through Freeman Avenue.
- During the morning, mid-day and evening peak periods 23% to 29% of trucks leaving I-75 Southbound Off ramp enter US-50 Westbound On ramp through Freeman Avenue.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 48% to 81% and the remaining trucks, ranging from 71% to 77% leave I-75 Southbound Off ramp to other locations.

US-50 Eastbound Off ramp to I-75 Northbound On ramp (Site 3 to Site 4)

- During the morning, mid-day and evening peak periods 62% to 74% of automobiles leaving US-50 Eastbound Off ramp enter I-75 Northbound On ramp through Freeman Avenue.
- During the morning, mid-day and evening peak periods 85% to 100% of trucks leaving US-50 Eastbound Off ramp enter I-75 Northbound On ramp through Freeman Avenue.

During the morning, mid-day, and evening peak periods the remaining automobiles, ranging from 26% to 38% and the remaining trucks, ranging from 0% to 15% leave US-50 Eastbound Off ramp to other locations.

Appendix G
Utility Coordination

Jones, Steven

From: Jeffrey Ballinger [jballinger2@cinci.rr.com]
Sent: Monday, April 28, 2008 10:17 AM
To: Jones, Steven
Subject: Re: Brent Spence Bridge Project - HAM 71/75-1.00/0.22
Attachments: I75 Brent Spence Bridge.pptx

Steve
Attached is a power point drawing of AT&T fiber and conduit
We will have more fiber going in 2008 and 2009 But it is in the planning phase now
Any Question give me a call 614-216-1160
Thanks Jeff

----- Original Message -----
From: Jones, Steven
To: jballinger2@cinci.rr.com
Sent: Tuesday, April 22, 2008 9:52 AM
Subject: Brent Spence Bridge Project - HAM 71/75-1.00/0.22

Jeff:

Per our conversation of 4/22/08 attached is an 8-1/2" x 11" plan of project study area

As we discussed, in this phase of the project we are looking to identify major utility conflicts which may impact costs and/or alignment selection. The attached PDF file indicates the project area. We would appreciate your assistance in furnishing record plans and otherwise indicating what AT&T considers major facilities in the project area.

We have larger scale plans I can forward to you by mail if they would be helpful to you.

Again, thank you for your assistance in these matters. Should you have any questions or comments please call or email me at your convenience

Regards,

Steven A. Jones
Senior Engineer

PB
312 Elm Street, Suite 2500
Cincinnati, OH 45202
Direct: 513-639-2140
Fax: 513-421-1040
E-mail: jonesst@pbworld.com

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this message, delete this message and all copies from your e-mail system and destroy any printed copies.

Cincinnati, OH

08/27/2006
Pg. 140

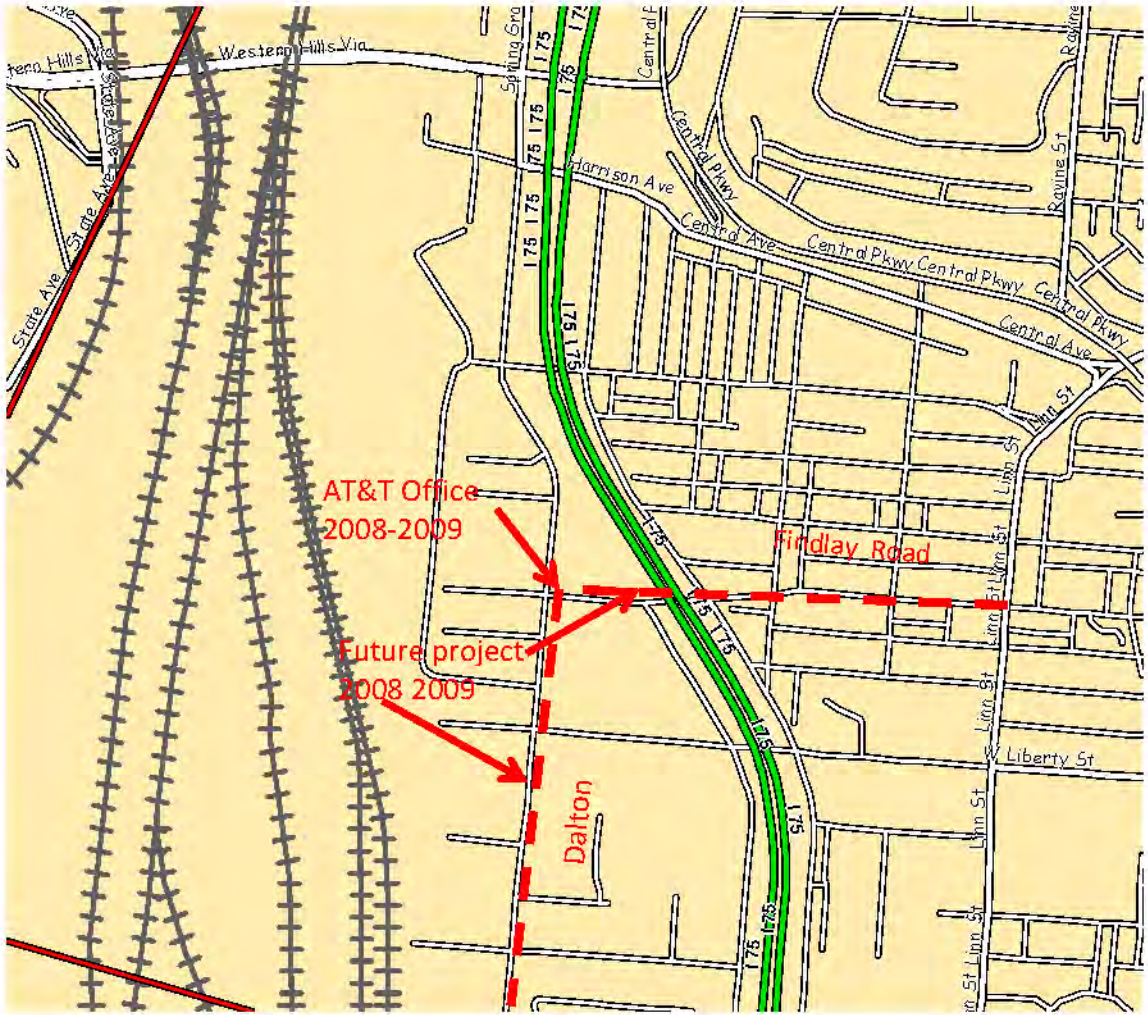
0 0.15 0.3 0.6 Miles

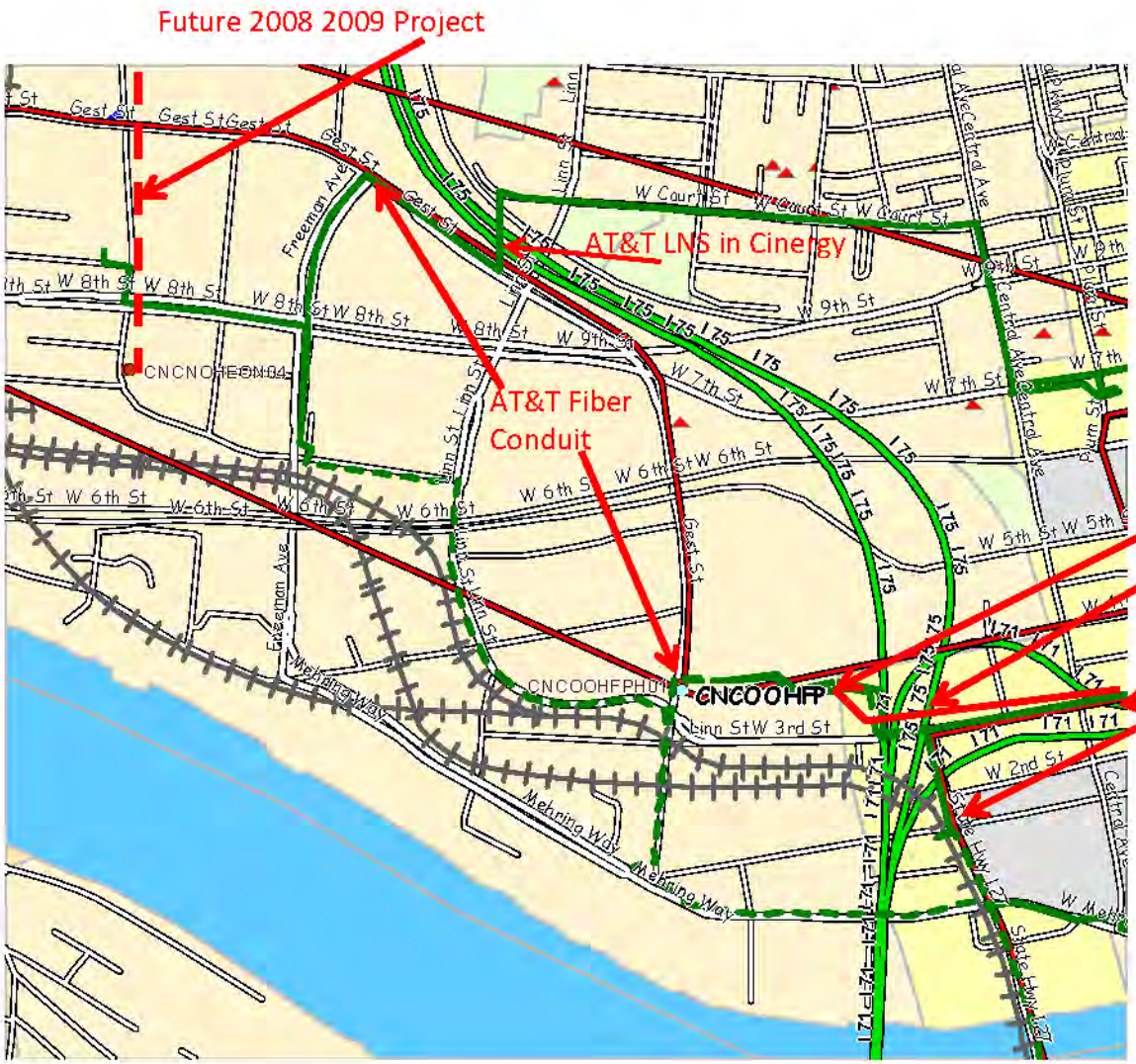
LH Facility
Pop / Metro CO
ILEC Collo
Level 3 On-net Bldg

Level 3 Metro
Level 3 Metro Expansion
Level 3 Limited Availability
Level 3 Intercity
Level 3 Intercity Expansion
Transoceanic Backhaul

Level(3)

Confidential & Proprietary


AT&T Office
2008-2009
Future project
2008 2009
Findlay Road
Dalton
Western Hills Via
State Ave
Harrison Ave
Central Ave
Central Pkwy
Linn St
W Liberty St
Ravine St
I 75

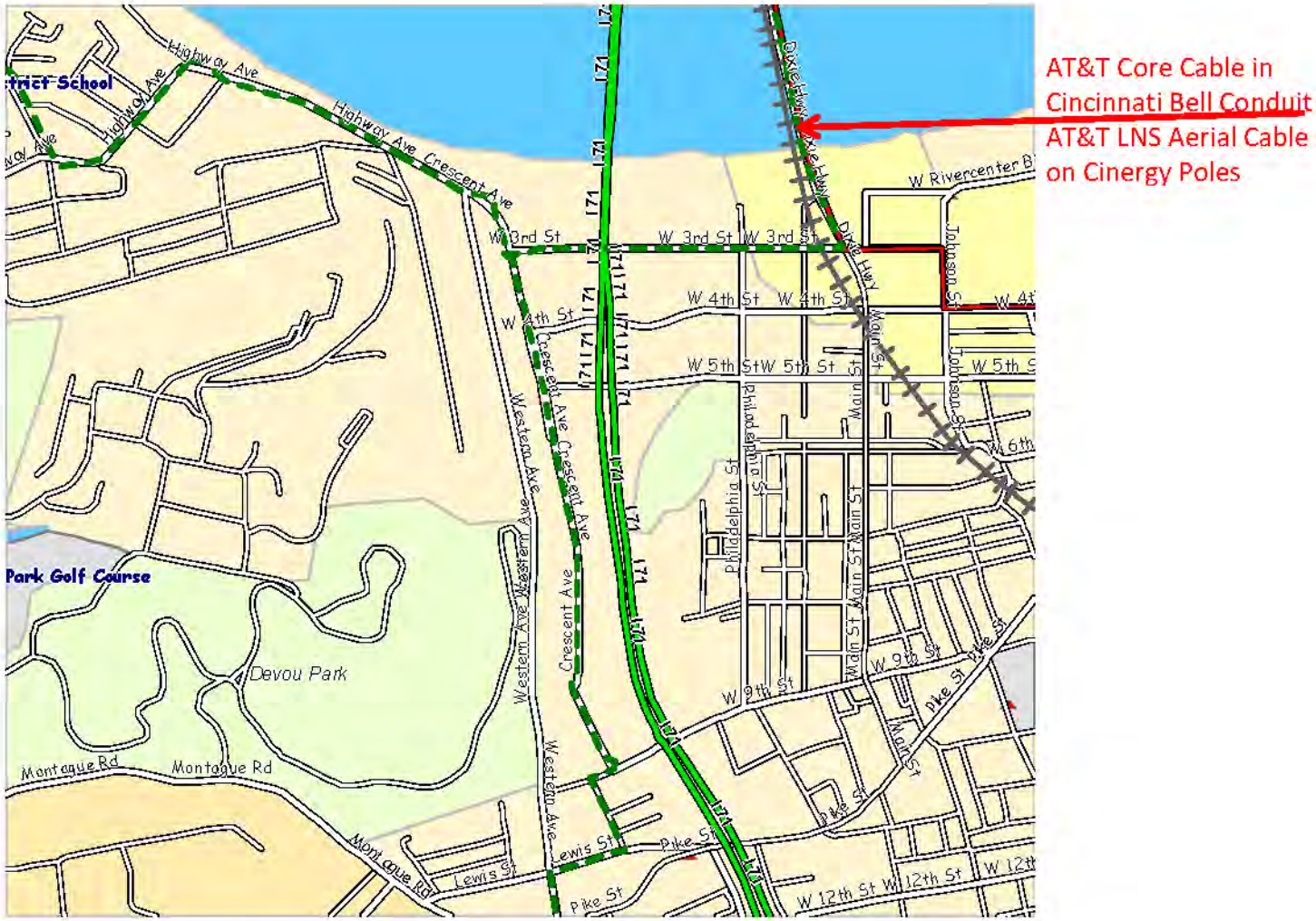


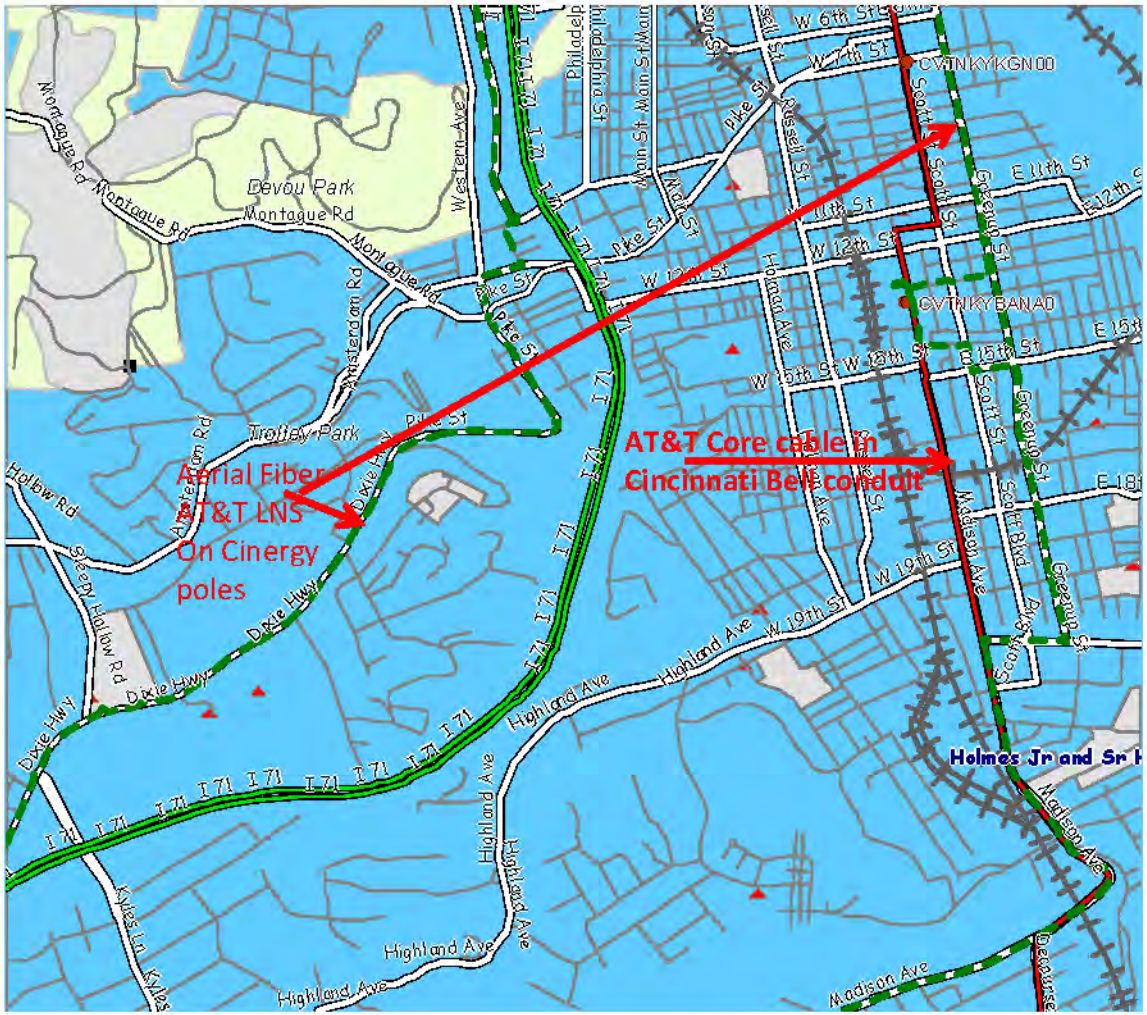
Total of three existing cables under I 75 2008-2009 a 4th cable Could be placed

AT&T Core Conduit and fiber

AT&T Core in CBT Conduit

AT&T LNS in Cinergy Conduit


AT&T Core Cable in
Cincinnati Bell Conduit
AT&T LNS Aerial Cable
on Cinergy Poles
Highway Ave
Crescent Ave
W 3rd St
W 4th St
W 5th St
W 9th St
W 12th St
W Rivercenter B
Dixie Hwy
Johnson St
Main St
Philadelphia St
Western Ave
Crescent Ave
Pike St
Lewis St
Montague Rd
Devou Park
Park Golf Course
I 71



Aerial Fiber
AT&T LNS
On Cinergy
poles
AT&T Core cable in
Cincinnati Bell conduit
CVTNKYKGN00
CVTNKYBANA0
Holmes Jr and Sr
Devou Park
Trolley Park
Montague Rd
Western Ave
Pike St
Dixie Hwy
Highland Ave
Madison Ave
Scott St
Greenup St
Russell St
Holman Ave
Main St
Philadelphia St
Amsterdam Rd
Hollow Rd
Sleepy Hollow Rd
Kyles Ln
W 6th St
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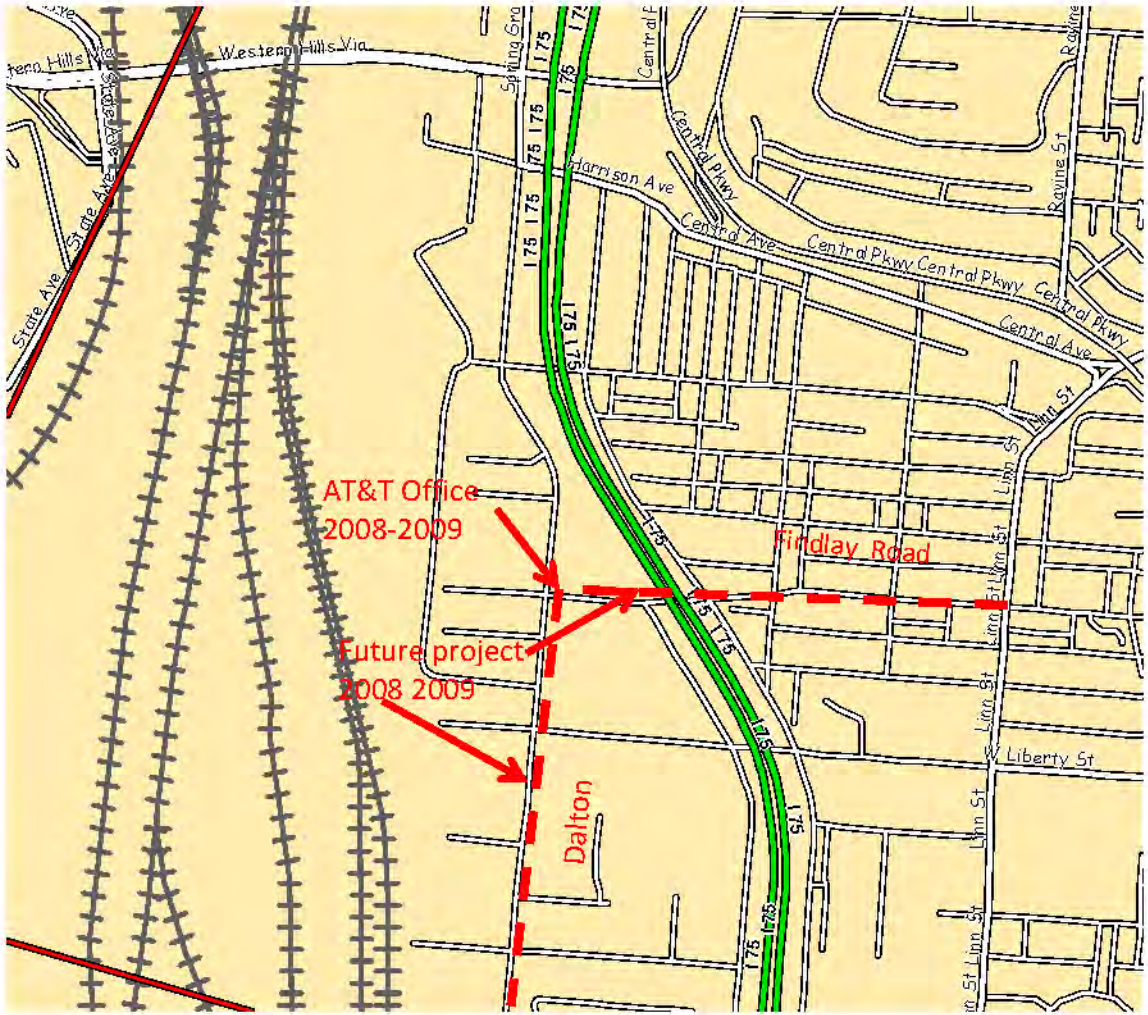
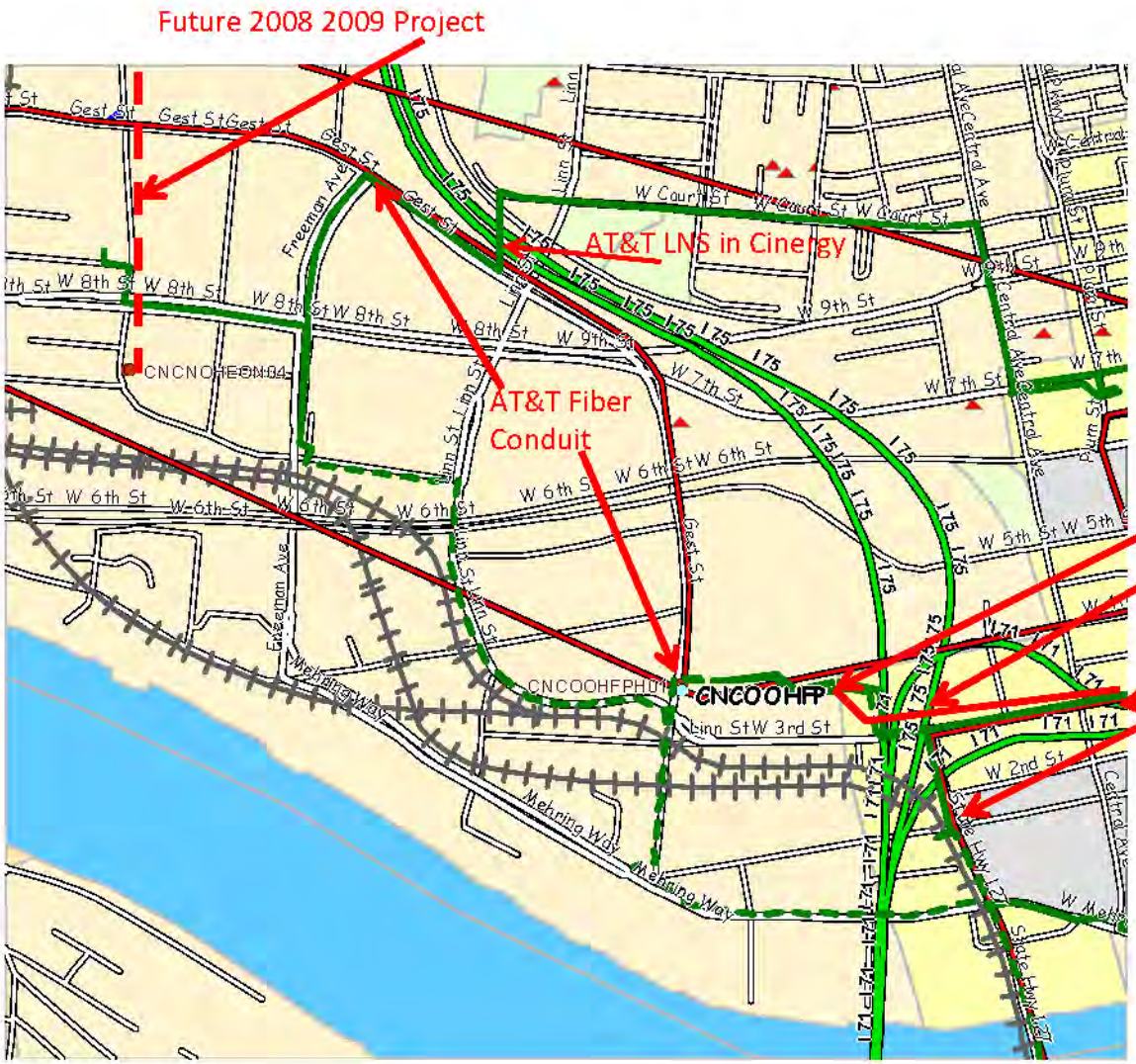
W 15th St
E 15th St
W 19th St
I 71


AT&T Office
2008-2009
Future project
2008 2009
Findlay Road
Dalton
Western Hills Via
State Ave
Harrison Ave
Central Ave
Central Pkwy
Linn St
W Liberty St
Ravine St
I 75

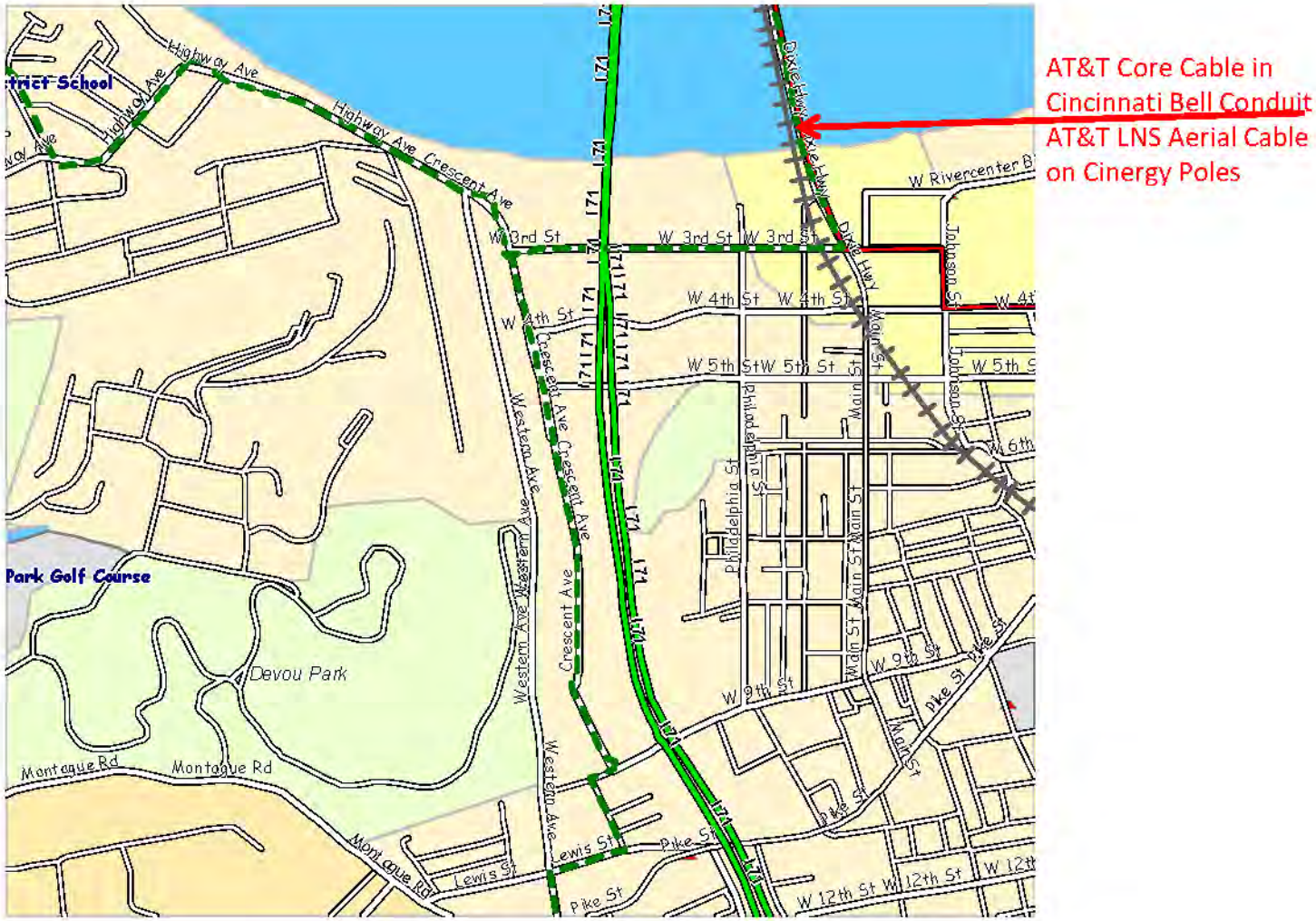


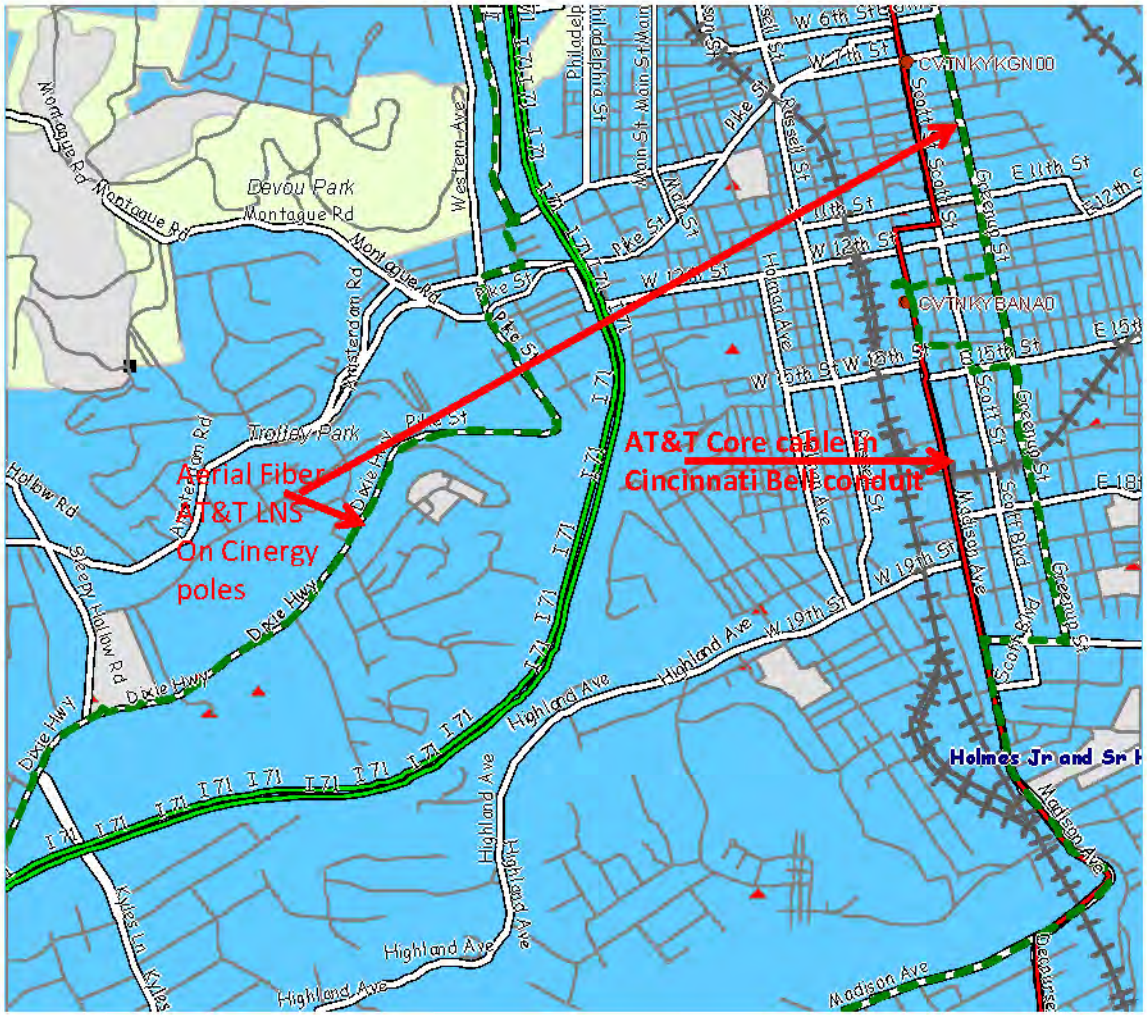
Total of three existing cables under I 75 2008-2009 a 4th cable Could be placed

AT&T Core Conduit and fiber

AT&T Core in CBT Conduit

AT&T LNS in Cinergy Conduit


AT&T Core Cable in
Cincinnati Bell Conduit
AT&T LNS Aerial Cable
on Cinergy Poles
Highway Ave
Crescent Ave
W 3rd St
W 4th St
W 5th St
W 9th St
W 12th St
W Rivercenter B
Dixie Hwy
Johnson St
Main St
Philadelphia St
Western Ave
Crescent Ave
Pike St
Lewis St
Montague Rd
Devou Park
Park Golf Course
I 71



Aerial Fiber
AT&T LNS
On Cinergy
poles
AT&T Core cable in
Cincinnati Bell conduit
CVTNKYKGN00
CVTNKYBANA0
Holmes Jr and Sr
Devou Park
Trolley Park
Montague Rd
Western Ave
Pike St
Dixie Hwy
Highland Ave
Madison Ave
Scott St
Greenup St
Russell St
Holman Ave
Main St
Philadelphia St
Amsterdam Rd
Hollow Rd
Sleepy Hollow Rd
Kyles Ln
W 6th St
W 7th St
E 11th St
W 12th St
W 15th St
E 15th St
W 19th St
I 71

CINERGY
05/09/07

PARSONS BRINKERHOFF
312 ELM STREET
CINCINNATI, OHIO 45202

RE: BRENT SPENCE BRIDGE PROJECT HAM 71/75-1.00/0.22

ATTN: STEVE JONES

In response to your request for information about The Cincinnati Gas & Electric Company's (CG&E) electric facilities, the Company underground electric records have been reviewed and information is supplied as noted below.

Underground service conductors (Service Laterals) are located between our poles or underground facilities and the metering facilities on the customers premise. The customer furnishes, installs, and maintains all of the customer owned underground service laterals on our system. We have no records as to the size, type of conductor, depth or exact location. Therefore, it is essential that you identify any of the customer-owned service laterals and make arrangements for their relocation with the responsible party. Subsequent relocation of our facilities for highway improvements or the installation of other utilities may require the customer to replace, relocate or reconstruct the service lateral at their expense. Above ground electric facilities can be determined by field survey.

Based upon Ohio Revised Code Section 153.64, it is the responsibility of the public authority sponsoring the public improvement to plot overhead and/or underground facilities on their plans and to notify the respective utility of any conflicts.

To secure the locating and marking of underground electric facilities in the project area, call Ohio Utilities Protection Service 1-800-362-2764 at least 2 working days prior to date required.

This response applies to electric facilities only. For gas facilities, please call 287-1264.

Please include a copy of the enclosed "Electric Utility Notes" in your specifications and with your instructions to your Construction Department or Contractor, if there are any CG&E electric facilities in the project area.
If you have any questions, please call the Electric Underground Records Team @ 287-2454.

Sincerely,

Harvey Kowal / HDK# 844
Cinergy Corp.
139 E. Fourth St., Rm.467A
Cincinnati, Ohio 45202

Enclosures:
Electric Utility Notes
Underground Electric Record Copies
YES LETTER

Revision: 9-29-00

Duke Energy

BARRY W. (CHIP) IPGOD
Vice President
Business and Community Relations

Duke Energy Ohio
Duke Energy Kentucky
139 East Fourth Street
Cincinnati, OH 45202

513 419 5450
513 419 5442 fax
513 706 3407 cell
barry@duke-energy.com

January 30, 2009

Mr. Rob Hans, P.E.
Executive Director
Kentucky Department of Highways, D-6
P.O. Box 17130
Covington, KY 41017

Mr. Stefan C. Spinosa
P.E., Technical Services Engineer
Ohio Department of Transportation, District 8
505 South S.R. 741
Lebanon, OH 45036

Dear Messrs. Hans and Spinosa

Below are the additional issues Duke Energy will be facing if the new bridge is built in the Queensgate corridor

- Duke Energy would expect that the existing six high voltage circuits (four 138KV & two 69KV) would have to be relocated underground otherwise all six high voltage circuits will run across the new bridge.
- Property (approx. five acres) would need to be purchased on the Ohio side, west of the new bridge to build a new substation to transition these six high voltage circuits from overhead to underground cable.
- ROW would then need to be purchased to run the underground circuits/cables to Duke Energy's existing West End Substation
- Two high voltage circuits (one 138KV & one 69KV) will run parallel with the new bridge to the new substation. If this is not acceptable, they will need to be run (cable in conduit) under the Ohio River
  1. This would require ROW/Permit to put them in conduit under the Ohio River
  2. This would require sixteen 8 to 10 inch conduits installed/directional bored under the Ohio River. Eight conduits to be used now and eight for future cable failure spares.
  3. This would require a temporary construction/ay down area directly behind these conduits on the Ohio and Kentucky sides of the river. One of the areas would need to be approximately 1700 feet long and cleared, to build and lay down the conduit
  4. Property (1 to 2 acres) would need to be purchased on the Kentucky side, west of the new bridge to build a new substation to transition the two high voltage circuits from overhead to underground.
     - On the Kentucky side a 69KV circuit consisting of 10 poles and a 138KV circuit consisting of 11 poles with distribution underbuild on both of them will need to be relocated. Due to lack of property to relocate them, they most likely would need to be placed underground in the road ROW
     - It would take a minimum of approximately 24 months (start to finish) for these high voltage lines to be relocated from this corridor. This is based on ROW being obtained by DOT in a very timely manner
     - We have never placed high voltage cables under the Ohio River before; this would be something totally new for Duke Energy.
     - We would anticipate the costs excluding ROW to be close to $100 million dollars to complete all of the above

As you can see, a new bridge built in the Queensgate corridor would have a major impact to Duke Energy's system

Sincerely,

June 24, 2008

Chairwoman Qualls and Members of the Subcommittee:

Good evening, I am Chip Wood, Vice President Business and Community Relations for Duke Energy Ohio and Duke Energy Kentucky. Thank you for the opportunity to provide input regarding the replacement of the Brent Spence Bridge to the City of Cincinnati Transportation and Infrastructure Subcommittee.

Duke Energy recently completed an analysis of the impact that each bridge alternative might have on the electric and gas infrastructure serving Greater Cincinnati. While all of the alternatives being considered will have significant impact on Duke Energy's existing infrastructure, the construction and relocation costs and reliability risks associated with the Queensgate alternatives (1 and 2) are significantly higher than the other alternatives

For these reasons, Duke Energy opposes Alternatives 1 and 2

Duke Energy currently has four transmission lines that cross the Ohio River into the Queensgate area These lines are critical for Duke Energy to provide reliable electric service to downtown Cincinnati and Northern Kentucky. Alternatives 1 and 2 will require the relocation of these transmission lines which will add millions to the bridge replacement project. In addition, we do not see any clear options as to how we can reroute the lines during the construction period in a way that will ensure reliable service for the area.

I would like to share a few highlights of the incremental costs associated with the Queensgate alternatives.

- Alternative 1 requires the relocation of four transmission lines currently crossing the Ohio River and two additional spans that connect these lines to the West End substation located adjacent to the existing Brent Spence Bridge. In addition, this alternative requires the relocation of the West End Substation. The cost difference for Alternative 1 versus Alternatives 3 or 4 is estimated to be $20MM if the lines are replaced with overhead lines but could escalate to approximately $65MM if these transmission lines are either buried or attached to the bridge for aesthetic reasons.

- Alternative 2 requires the relocation of four transmission lines crossing the river, but does not require the relocation of West End Substation. The cost difference for Alternative 2 versus Alternatives 3 or 4 is approximately $2MM if the lines remain overhead and escalates to $45MM if the lines are buried or attached to the bridge for aesthetic reasons.

In conclusion, I ask on behalf of Duke Energy that these costs and impact to reliability be considered when determining a final alternative for the Brent Spence Bridge project. I have included in each of your packets an Appendix of the required work and preliminary cost estimates for each of the alternatives, a map of our gas and electric facilities currently in use in Queensgate and adjacent to the existing Brent Spence Bridge and a letter outlining our position.

Thank you again for the opportunity to speak on this matter. We look forward to working closely with all stakeholders as this project progresses.

Respectfully submitted,

Barry W. (Chip) Wood, Jr.
VP, Business and Community Relations
Duke Energy OH & KY

BARRY W. (CHIP) WOOD
Vice President
Business and Community Relations

Duke Energy Ohio
Duke Energy Kentucky
139 East Fourth Street
Cincinnati, OH 45202

513 419 3532
513 419 5443 fax
513 700 8407 cell
www.duke-energy.com

June 24, 2008

Transportation and Infrastructure Subcommittee
Cincinnati City Council
801 Plum St Rm 352
Cincinnati, OH 45202

Chairwoman Qualls and Members of the Committee:

Duke Energy appreciates the opportunity to provide input to the City of Cincinnati regarding the Brent Spence Bridge Alternatives. Duke Energy recently completed an initial assessment of the cost and reliability impact for each of the various alternatives still under consideration. While all four of the alternatives being considered will have significant impact on Duke Energy's existing infrastructure, the incremental costs and reliability risks associated with the Queensgate Alternatives (Alternatives 1 and 2) are significantly higher. For these reasons, Duke Energy opposes Brent Spence Bridge Alternatives 1 and 2

I have included an overview of the impact each alternative would have on Duke Energy's infrastructure so it may be considered when determining a final alternative. A map of our gas and electric facilities currently in use in Queensgate and adjacent to the existing Brent Spence Bridge is included. We have also provided an overview of the required work and preliminary cost estimate to relocate these facilities in kind. These have been prepared for each of the alternatives being considered (Appendixes A, B, C and D) using customary and ordinary replacement in kind. No betterments or improvements are included, nor are any right of way costs. Attachments that provide a visual representation of how the alternatives affect Duke Energy are also included

In summary, Duke Energy estimates the costs associated with the various alternatives to be.

Alternative 1: $42,000,000 to $87,000,000
Low end assumes
Queensgate Bridge; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.
New bridge adjacent to the Brent Spence Bridge, West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

High end assumes,
Queensgate Bridge; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River.
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Alternative 2: $24,000,000 to $67,000,000
Low end assumes:
Queensgate Bridge; four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.

High end assumes:
Queensgate Bridge; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River;

Other:
Alternative 2 has an exit ramp going over the south car port, vehicle garage and parking lot at Duke Energy's Queensgate facility.

Alternative 3: $22,500,000
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Alternative 4: $22,500,000
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

Please note that these estimates are based on 2008 construction costs and are not based on detailed engineering plans or actual construction bids. Our historical escalation rates over the past three years have been 30% per year and we anticipate future escalation rates to be 15% per year.

We sincerely appreciate the opportunity to be involved in this process of finding a proposed alternative for the Brent Spence Bridge. Duke Energy looks forward to working in partnership with ODOT, KyTC and the local governmental entities in Ohio, Kentucky and at the federal level. Our goal is to work with our community leaders to develop the best alternative for this important project. We welcome the opportunity to review the various alternatives and assist in finding solutions that can work best for all stakeholders. Should you need any additional details, please contact me at 513-419-5450.

Sincerely,

Barry W. (Chip) Wood, Jr.
Vice President, Business and Community Relations
Duke Energy Ohio and Duke Energy Kentucky

Attachments

Appendix A

Alternative 1:
New Bridge built through Queensgate and a new bridge just west of the existing Brent Spence Bridge
See Attachments
Drawing Option 1A: Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 1B: Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 1C: Transmission lines cross Ohio River underground

All the above Options also include relocating Duke Energy's West End Substation adjacent to the existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) on our existing property. This will allow the room required for the new bridge adjacent to the Brent Spence Bridge.

Impact to Duke Energy:

- All substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation.

Transmission:
Option 1A: Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** : four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.
- **New bridge adjacent to the Brent Spence Bridge**; four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Option 1B: Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weigh and safety requirements must be added into the bridge design.
- **New bridge adjacent to the Brent Spence Bridge**; four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Option 1C: Transmission lines cross Ohio River underground

- **Queensgate Bridge** ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River;
- **New bridge adjacent to the Brent Spence Bridge**; four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Distribution:

- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development.
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area.

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.
- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge.

Right-of-Way

- The estimates do not include right of way, and acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs:

Option 1A:	Transmission lines overhead crossing over new Queensgate Bridge	$42,000,000
Option 1B:	Transmission lines in conduit attached to new Queensgate Bridge	$72,000,000
Option 1C	Transmission lines cross Ohio River underground	$87,000,000

Appendix B

Alternative 2:
New bridge built through the Queensgate area.

See Attachments
Drawing Option 2A: Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 2B: Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 2C: Transmission lines cross Ohio River underground

Impact to Duke Energy

- All substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Alternative 2 has an exit ramp going over the south car port, vehicle garage and parking lot at Duke Energy's Queensgate facility

Transmission:
Option 2A: Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** : four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.

Option 2B: Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** : four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weight and safety requirements must be added into the bridge design.

Option 2C: Transmission lines cross Ohio River underground
Queensgate Bridge : four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River.

Distribution:

- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development.
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area

Substations

- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge

Right-of-Way

- The estimates do not include right of way, land acquisition costs or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs:

Option 2A:	Transmission lines overhead crossing over new Queensgate Bridge	$22,000,000
Option 2B:	Transmission lines in conduit attached to new Queensgate Bridge	$52,000,000
Option 2C	Transmission lines cross Ohio River underground	$67,000,000

Appendix C

Alternative 3:
New bridge built just west of the existing Brent Spence Bridge (Sub-alternatives 3.1, 3.2 and 3.3 each impact Duke Energy and the existing West End substation similarly)

Impact to Duke Energy:

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation.

Transmission:

- Existing transmission line crossings spanning the Ohio River will not be impacted.
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charles to Duke Energy's West End substation) will need to be relocated.

Distribution:

- Minimal impact to existing distribution system

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs

Alternative 3.	Relocate existing West End substation and transmission lines	$22,500,000

Alternative 4:
New bridge built just west of the existing Brent Spence Bridge. Rehab existing Brent Spence Bridge (Sub-alternatives 4.1 and 4.2 each impact Duke Energy and the existing West End substation similarly).

Impact to Duke Energy

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation.

Transmission:

- Existing transmission line crossings spanning the Ohio River will not be impacted.
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charles to Duke Energy's West End substation) will need to be relocated.

Distribution

- Minimal impact to existing distribution system

Substations

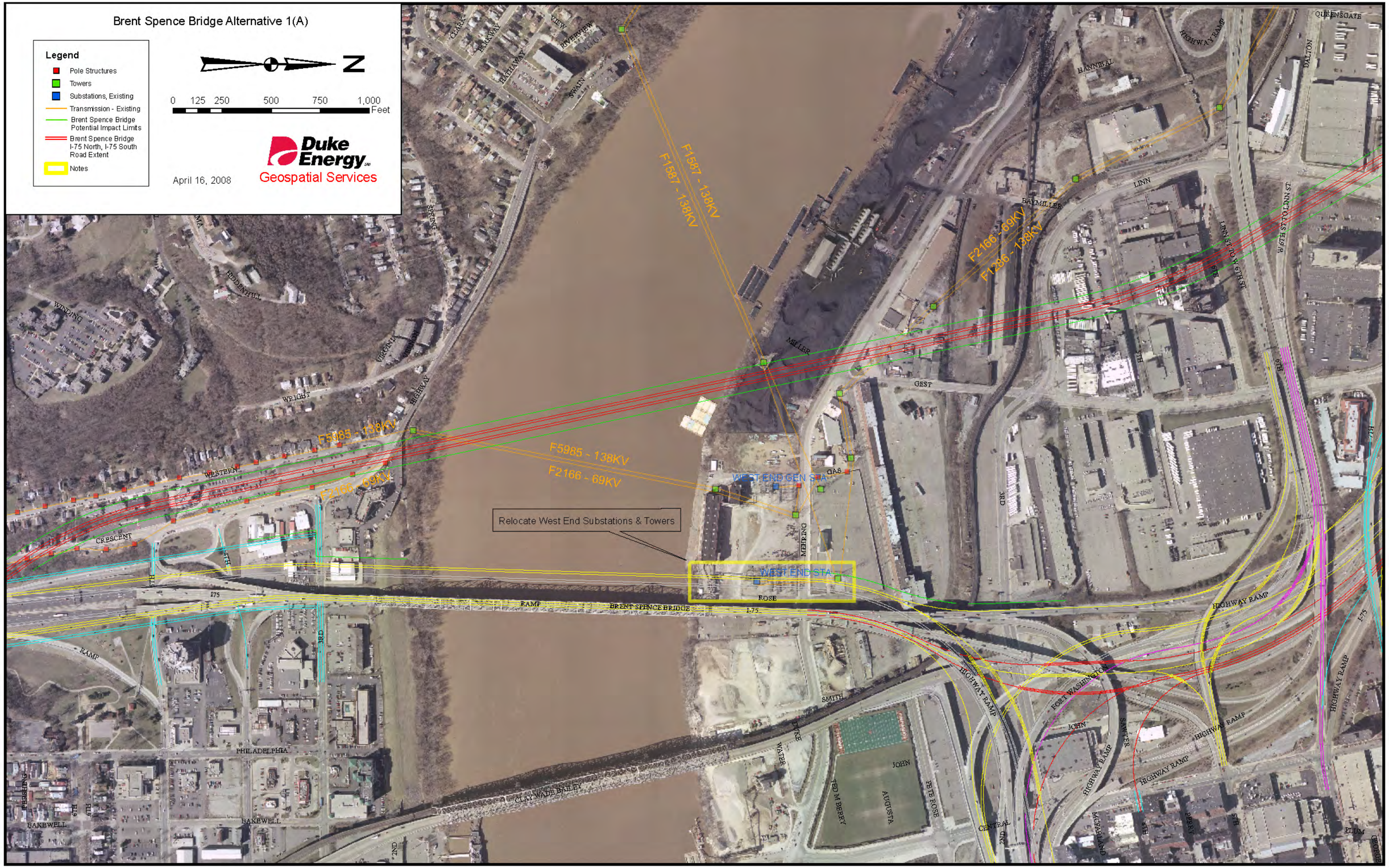
- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width

Estimated Costs:

Alternative 4	Relocate existing West End substation and transmission lines	$22,500,000



Brent Spence Bridge Alternative 1(A)
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Notes
N
0 125 250 500 750 1,000 Feet
April 16, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
F5985 - 138KV
F2166 - 69KV
F5985 - 138KV
F2166 - 69KV
WEST END GEN STA
WEST END STA
Relocate West End Substations & Towers
BRENT SPENCE BRIDGE
I-75
RAMP
ROSE
HIGHWAY RAMP
CLAY WADE BAILEY
PHILADELPHIA
BAKEWELL
WESTERN
CRESCENT
WRIGHT
HIDDENHILL
WINDING
VIRGINIA
HIGHWAY
SPRING
SWAIN
RIVERVIEW
HATHAWAY
PARKWAY
CLARK
HANNIBAL
BAYMILLER
LINN
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SMITH
DUKE
WATER
JOHN
AUGUSTA
TED M BERRY
PETE ROSE
FORT WASHINGTON
SAWYER
CENTRAL
MCFARLAND
PERRY
PLUM
QUEENSGATE
DALTON
HIGHWAY RAMP
LINN ST TO W 6TH ST
W 6TH ST TO LINN ST

Brent Spence Bridge Alternative 1(B)
Conduit Attached to Bridge
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Conduit
Proposed Overhead
Substations, Proposed
Notes
N
0 125 250 500 750 1,000 Feet
April 16, 2008
Duke Energy
Geospatial Services
(3) 138KV Circuits
(1) 69KV Circuit
Relocate West End Substations & Towers
F1587 - 138KV
F1586 - 69KV
F1286 - 138KV
F5985 - 138KV
F2186 - 69KV
BRENT SPENCE BRIDGE
I-75
RAMP
ROSE
CRESCENT
WESTERN
WRIGHT
HIGHWAY
MILLER
GEST
GAS
MEHRING
SMITH
DUKE
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AUGUSTA
PETE ROSE
TED M BERRY
CLAY WADE BAILEY
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BAKEWELL
PERSHING
HIDDENHILL
WINDING
VIRGINIA
SPRING
HANNIBAL
BAYMILLER
LINN
HIGHWAY RAMP
FORT WASHINGTON
SAWYER
MCFARLAND
PERRY
PLUM
QUEENSGATE
DALTON
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LINN ST TO W 6TH ST
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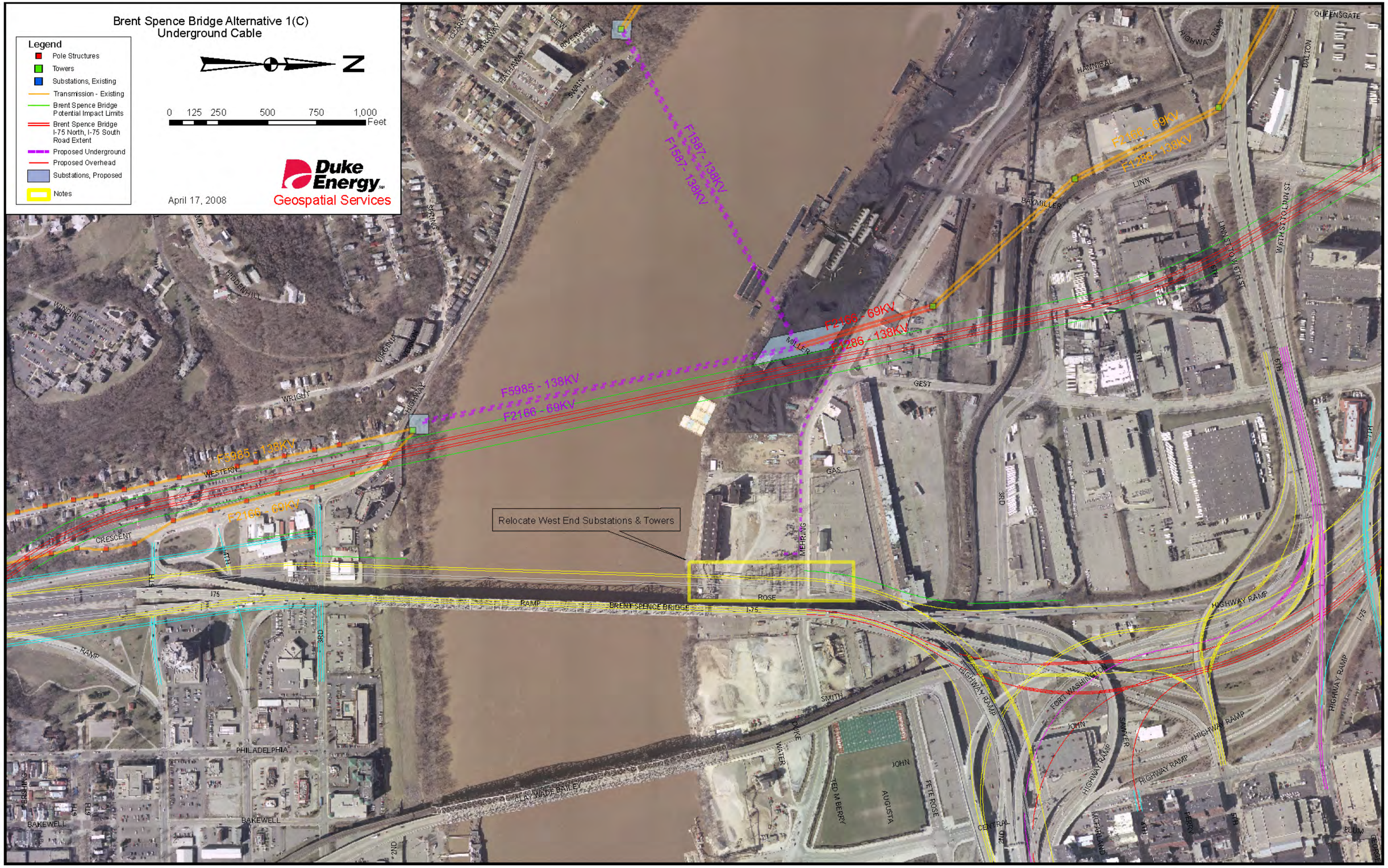
3RD
2ND



Brent Spence Bridge Alternative 1(C)
Underground Cable
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Overhead
Substations, Proposed
Notes
N
0 125 250 500 750 1,000 Feet
April 17, 2008
Duke Energy
Geospatial Services
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F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
F5985 - 138KV
F2166 - 69KV
F5985 - 138KV
F2166 - 69KV
Relocate West End Substations & Towers
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I-75
RAMP
ROSE
HIGHWAY RAMP
CLAY WADE BAILEY
PHILADELPHIA
BAKEWELL
WESTERN
CRESCENT
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PETE ROSE
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BAYMILLER
LINN
LINN ST TO W 6TH ST
W 6TH ST TO LINN ST
QUEENSGATE
DALTON
FORT WASHINGTON
SAWYER
MCFARLAND
PERRY
PLUM
GEORGE

Brent Spence Bridge Alternative 2(A)

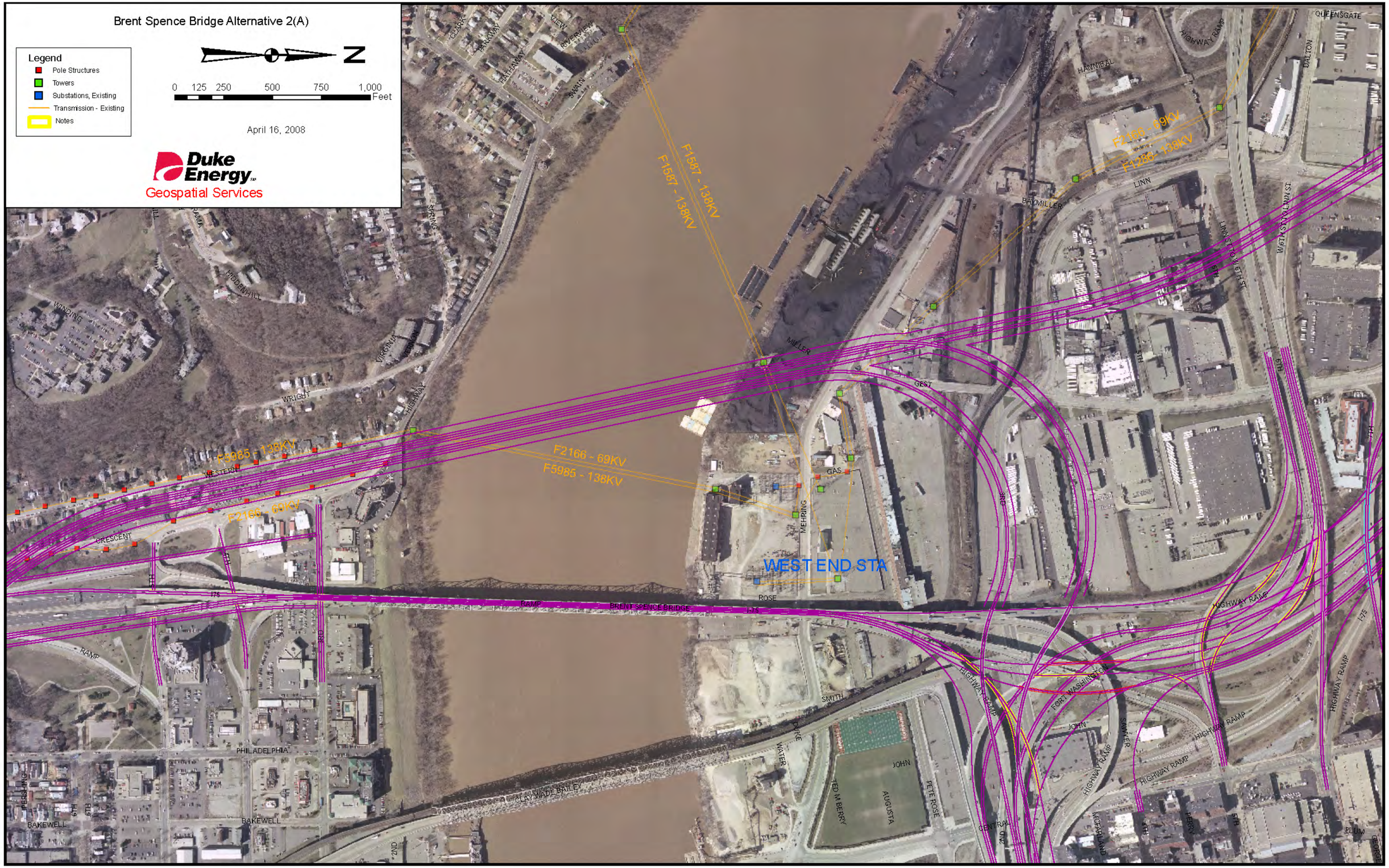
Legend
- Pole Structures
- Towers
- Substations, Existing
- Transmission - Existing
- Notes

N

0 125 250 500 750 1,000 Feet

April 16, 2008

Duke Energy
Geospatial Services



Brent Spence Bridge Alternative 2(B)
Conduit Attached to Bridge

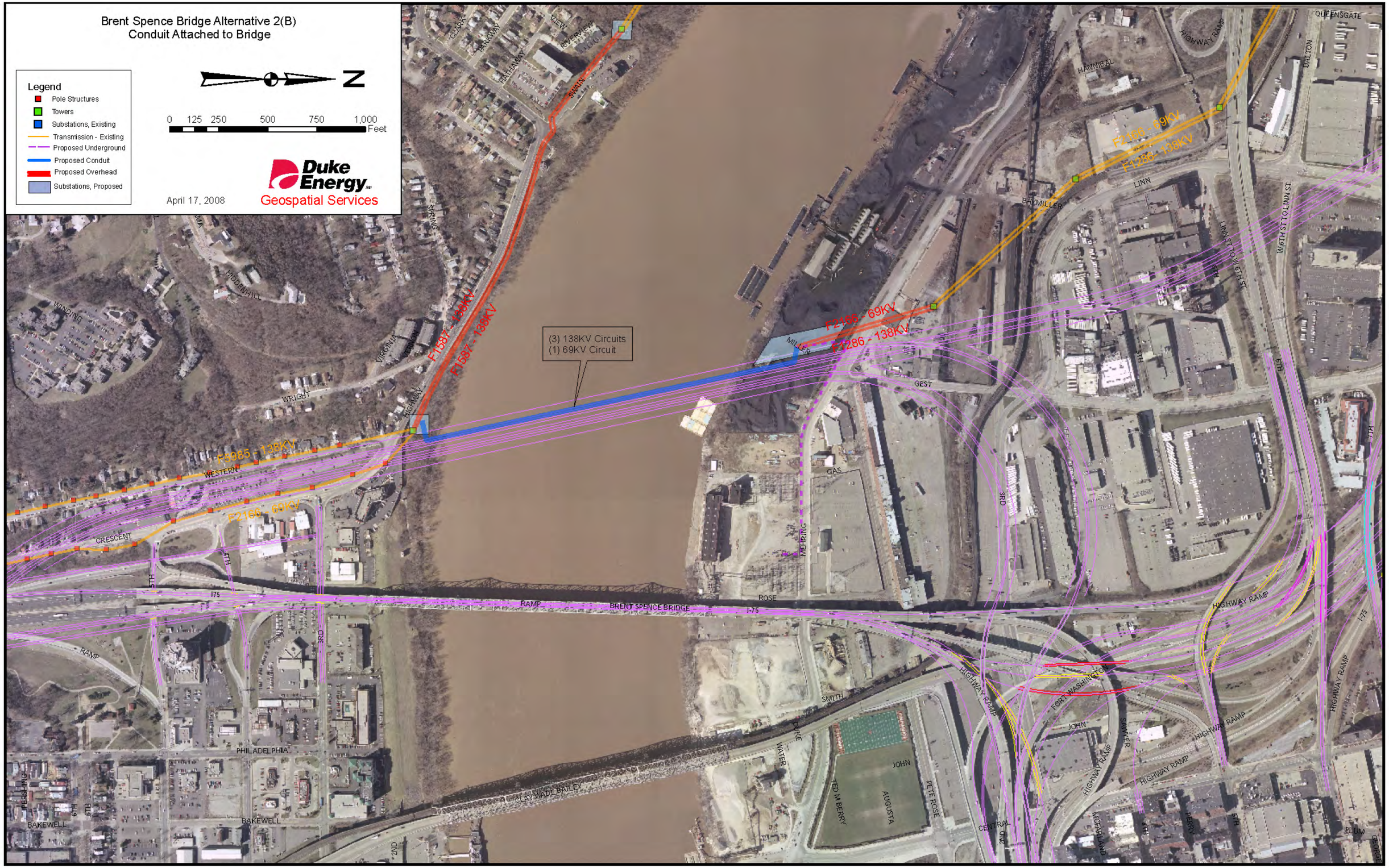
Legend
- Pole Structures
- Towers
- Substations, Existing
- Transmission - Existing
- Proposed Underground
- Proposed Conduit
- Proposed Overhead
- Substations, Proposed

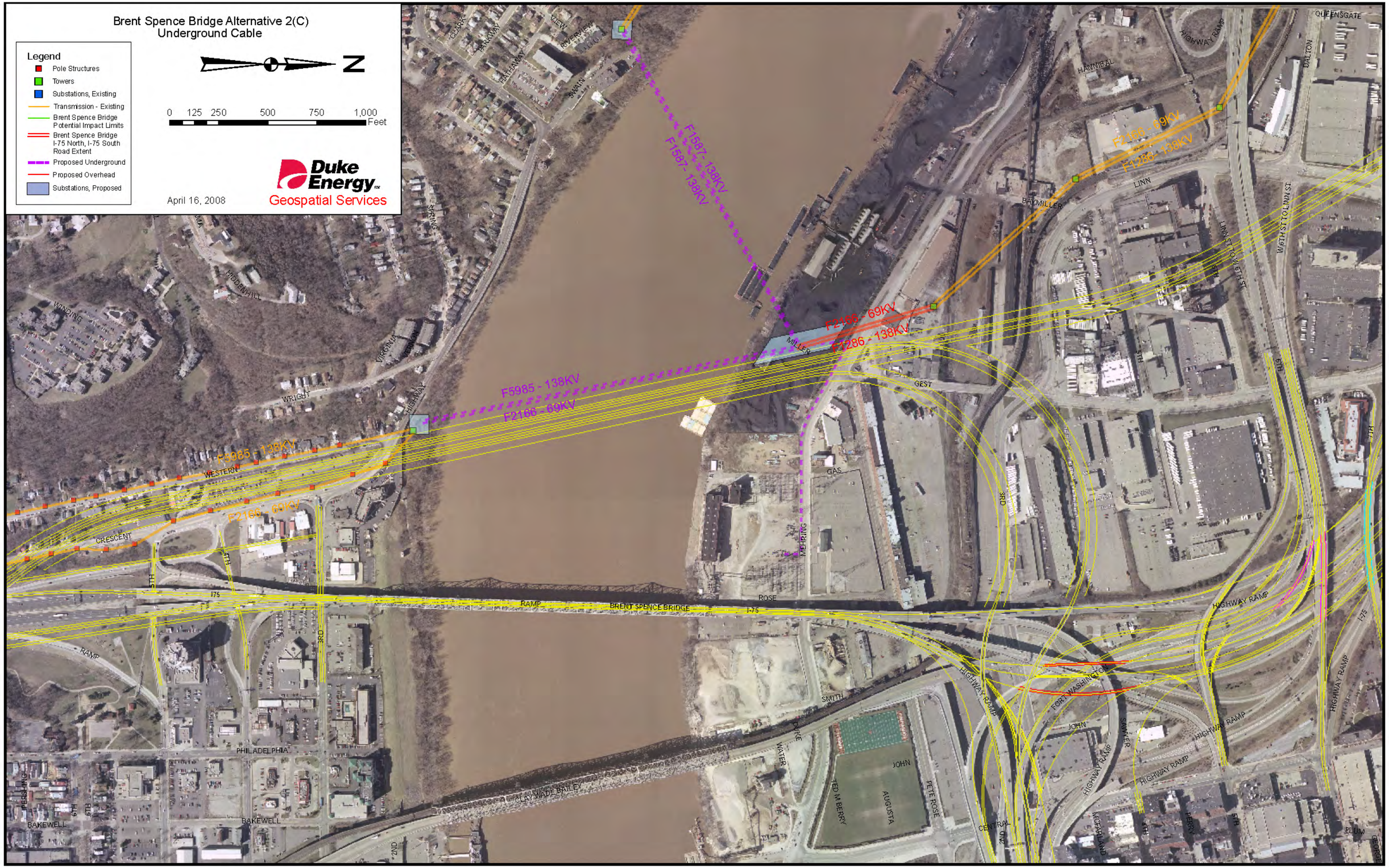
N

0 125 250 500 750 1,000 Feet

Duke Energy
Geospatial Services

April 17, 2008




Brent Spence Bridge Alternative 2(C)
Underground Cable
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Overhead
Substations, Proposed
N
0 125 250 500 750 1,000 Feet
April 16, 2008
Duke Energy
Geospatial Services
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F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
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BRENT SPENCE BRIDGE
I-75
RAMP
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W 6TH ST TO LINN ST
LINN ST TO W 6TH ST

Brent Spence Bridge Alternative 3
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Notes
N
0 125 250 500 750 1,000
Feet
April 16, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
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F2166 - 69KV
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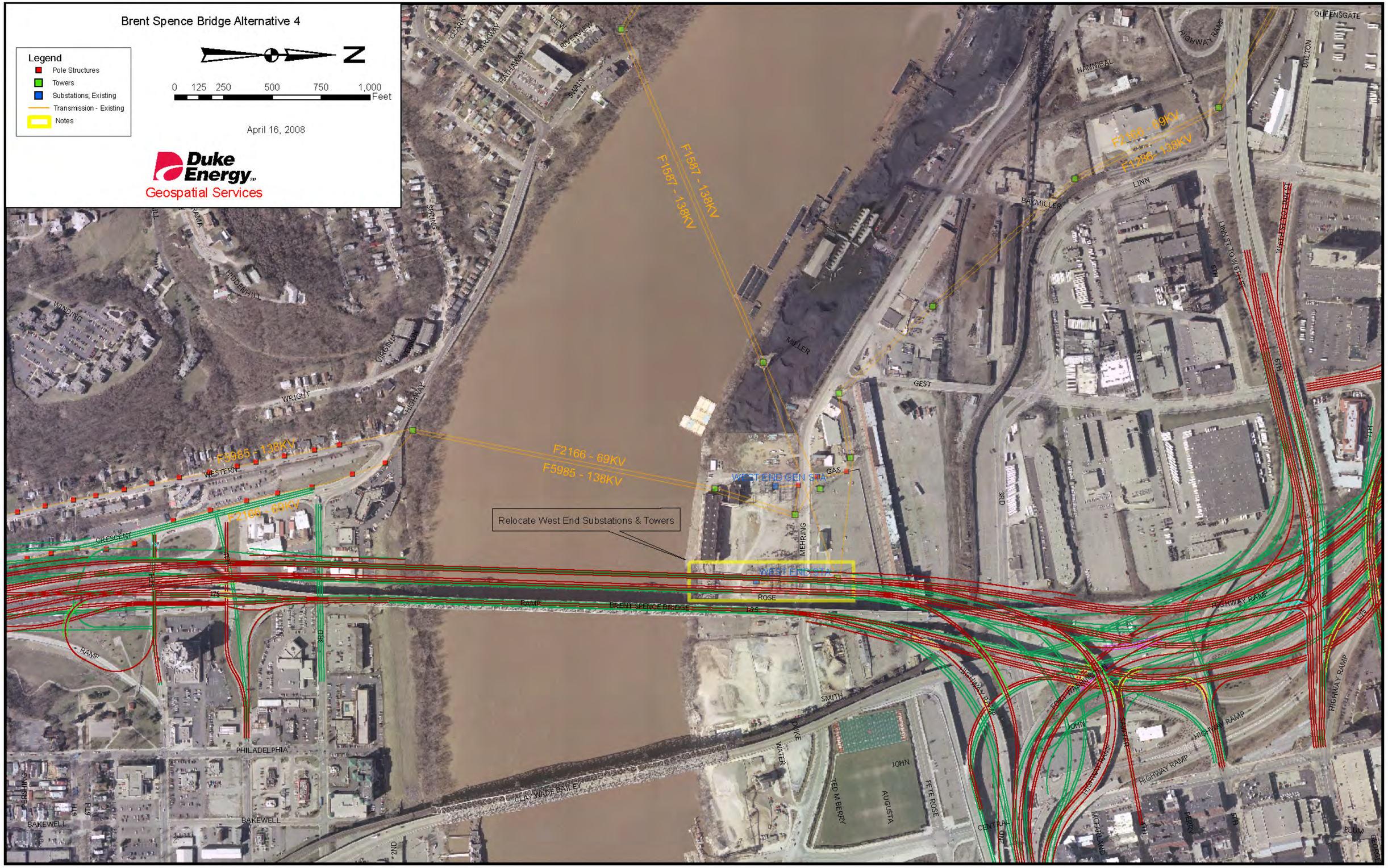
Relocate West End Substations & Towers
WEST END GEN STA
WEST END STA
BRENT SPENCE BRIDGE
HIGHWAY RAMP
CLAY WADE BAILEY


Brent Spence Bridge Alternative 4
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Notes
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April 16, 2008
Duke Energy
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Relocate West End Substations & Towers
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Duke Energy.

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Duke Energy Kentucky
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Cincinnati, OH 45202

513 419 5450

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bwwood@duke-energy.com

April 11, 2008

Mr. Stefan Spinosa
Ohio Department of Transportation

Mr. Robert Hans
Kentucky Transportation Cabinet

Mr. Fred Craig
PB Americas, Inc.
312 Elm St., Suite 2500
Cincinnati, OH 45202

Dear Gentlemen

Duke Energy appreciates the opportunity to be a member of the Brent Spence Advisory Committee. At your last meeting on February 25, 2008, the project team provided an overview of various alternatives still under consideration and outlined the process for reaching a final alternative. Each alternative being considered will have a significant impact on existing Duke Energy infrastructure.

I am writing on behalf of Duke Energy to provide an overview of the impact each alternative will have on Duke Energy so the impacts may be considered when determining a final alternative. A map of our gas and electric facilities currently in use in Queensgate and adjacent to the existing Brent Spence Bridge has been sent to you in electronic format. We have also provided an overview of the required work and preliminary cost estimate to relocate these facilities in kind. These have been prepared for each of the alternatives being considered (Appendixes A, B, C and D) using customary and ordinary replacement in kind. No betterments or improvements are included, nor are any right of way costs. We assume that you are in a better position to calculate right of way impacts. Attachments 1A, 1B, 1C, 2A, 2B, 2C, 3 and 4 are being sent to give you a visual representation of how the alternatives affect Duke Energy.

In summary, Duke Energy estimates the costs associated with the various alternatives to be:

Alternative 1: $42,000,000 to $87,000,000

Low end assumes:
Queensgate Bridge : four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio.
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

High end assumes:
Queensgate Bridge , four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River.
New bridge adjacent to the Brent Spence Bridge; West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Alternative 2: $24,000,000 to $67,000,000

Low end assumes
Queensgate Bridge, four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio

High end assumes
Queensgate Bridge four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge or buried in conduit under the Ohio River.

Other
Alternative 2 has an exit ramp going over the south car pool, vehicle garage and parking lot at Duke Energy's Queensgate facility.

Alternative 3: $22,500,000

New bridge adjacent to the Brent Spence Bridge. West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

Alternative 4: $22,500,000

New bridge adjacent to the Brent Spence Bridge: West End Substation adjacent to existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated.

Please note that these estimates are based on 2008 construction costs and have not been based on detailed engineering plans or actual construction bids. Our historical escalation rates have been 30% per year the past three years and we anticipate future escalation rates to be 15% per year

Duke Energy looks forward to working in partnership with ODOT, KyTC and PB, the local governmental entities in Ohio, Kentucky and at the federal level. Our goal is to work with our community leaders to develop the best alternative for this important project. We welcome the opportunity to review the various alternatives and their impact on Duke Energy at your convenience. Should you need any additional details, please contact me at 513-419-5460

Sincerely,

cc: John Farley, Duke Energy
Russ Campbell, Duke Energy

Appendix A

Alternative 1:
New Bridge built through Queensgate and a new bridge just west of the existing Brent Spence Bridge
.
See Attachments
Drawing Option 1A Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 1B Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 1C Transmission lines cross Ohio River underground

All the above Options also include relocating Duke Energy's West End Substation adjacent to the existing Brent Spence Bridge and four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) on our existing property. This will allow the room required for the new bridge adjacent to the Brent Spence Bridge

Impact to Duke Energy

- A substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction
- Duke Energy looses existing property for future expansion relocating the West End Substation

Transmission
Option 1A Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** : four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio
- **New bridge adjacent to the Brent Spence Bridge**: four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

Option 1B Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** , four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weigh and safety requirements must be added into the bridge design
- **New bridge adjacent to the Brent Spence Bridge**, four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

Option 1C Transmission lines cross Ohio River underground

- **Queensgate Bridge** ; four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River.
- **New bridge adjacent to the Brent Spence Bridge** four (4) transmission lines (consisting of two (2) overhead 138KV circuits & two (2) underground 138KV circuits) will need to be relocated

Distribution
- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.
- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge.

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width.

Estimated Costs:

Option 1A:	Transmission lines overhead crossing over new Queensgate Bridge	$42,000,000
Option 1B:	Transmission lines in conduit attached to new Queensgate Bridge	$72,000,000
Option 1C	Transmission lines cross Ohio River underground	$87,000,000

Appendix B

Alternative 2:
New bridge built through the Queensgate area

See Attachments
Drawing Option 2A Transmission lines overhead crossing over new Queensgate Bridge
Drawing Option 2B Transmission lines in conduit attached to new Queensgate Bridge
Drawing Option 2C Transmission lines cross Ohio River underground

Impact to Duke Energy

- All substation and transmission line work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction
- Alternative 2 has an exit ramp going over the south carport, vehicle garage and parking lot at Duke Energy's Queensgate facility

Transmission
Option 2A Transmission lines overhead crossing over new Queensgate Bridge

- **Queensgate Bridge** : four (4) overhead transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will cross over the new Queensgate bridge at various locations over the Ohio River and two (2) transmission lines (consisting of one (1) 138KV circuit & one (1) 69KV circuit) will cross over new Queensgate bridge in Ohio

Option 2B. Transmission lines in conduit attached to new Queensgate Bridge

- **Queensgate Bridge** : four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be placed in conduit attached to the new Queensgate bridge. The conduit design and additional weigh and safety requirements must be added into the bridge design

Option 2C. Transmission lines cross Ohio River underground
Queensgate Bridge : four (4) transmission lines (consisting of three (3) 138KV circuits & one (1) 69KV circuit) will be buried in conduit under the Ohio River

Distribution.

- Approximately 21 transmission/distribution poles will need to be relocated on Crescent and Western on the Kentucky side of the Ohio River. There does not appear to be a place to relocate these lines due to existing development
- Approximately 12 transmission/distribution poles will need to be relocated in the Queensgate area

Substations

- Additional overhead to underground substations will be required if transmission lines are not allowed to cross over the new Queensgate bridge

Right-of-Way

- The estimates do not include right of way, land acquisition costs or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width

Estimated Costs:

Option 2A:	Transmission lines overhead crossing over new Queensgate Bridge	$24,000,000
Option 2B:	Transmission lines in conduit attached to new Queensgate Bridge	$52,000,000
Option 2C	Transmission lines cross Ohio River underground	$67,000,000

Appendix C

Alternative 3:
New bridge built just west of the existing Brent Spence Bridge (Sub-alternatives 3.1, 3.2 and 3.3 each impact Duke Energy and the existing West End substation similarly).

Impact to Duke Energy

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation

Transmission

- Existing transmission line crossings spanning the Ohio River will not be impacted
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charles to Duke Energy's West End substation) will need to be relocated

Distribution

- Minimal impact to existing distribution system

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge

Right-of-Way

- The estimates do not include right of way, land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width

Estimated Costs.

Alternative 3:	Relocate existing West End substation and transmission lines	$22,500,000

Appendix D

Alternative 4:
New bridge built just west of the existing Brent Spence Bridge. Rehab existing Brent Spence Bridge (Sub-alternatives 4.1 and 4.2 each impact Duke Energy and the existing West End substation similarly)

Impact to Duke Energy.

- All substation and transmission circuit work will need to be completed before bridge construction can start. Project duration will be 24 to 30 months for engineering, procurement of materials and construction.
- Duke Energy looses existing property for future expansion relocating the West End Substation

Transmission.

- Existing transmission line crossings spanning the Ohio River will not be impacted.
- Four (4) transmission lines (consisting of two (2) overhead 138KV circuits from Queensgate and Crescent & two (2) underground 138KV circuits from Charles to Duke Energy's West End substation) will need to be relocated

Distribution

- Minimal impact to existing distribution system

Substations

- The existing West End substation adjacent to the Brent Spence Bridge will need to be relocated west on Duke Energy's property to accommodate the new bridge to be built just west of the existing bridge.

Right-of-Way

- The estimates do not include right of way land acquisition costs, or temporary access during construction. Duke Energy will required dedicate right of way under its transmission lines as well as access on public rights of way for utility poles and cable. See attachments for right of way requirements. Transmission right of way requires 150' width

Estimated Costs

Alternative 4: Relocate existing West End substation and transmission lines $22,500,000

Brent Spence Bridge Alternative 1(A)

Legend

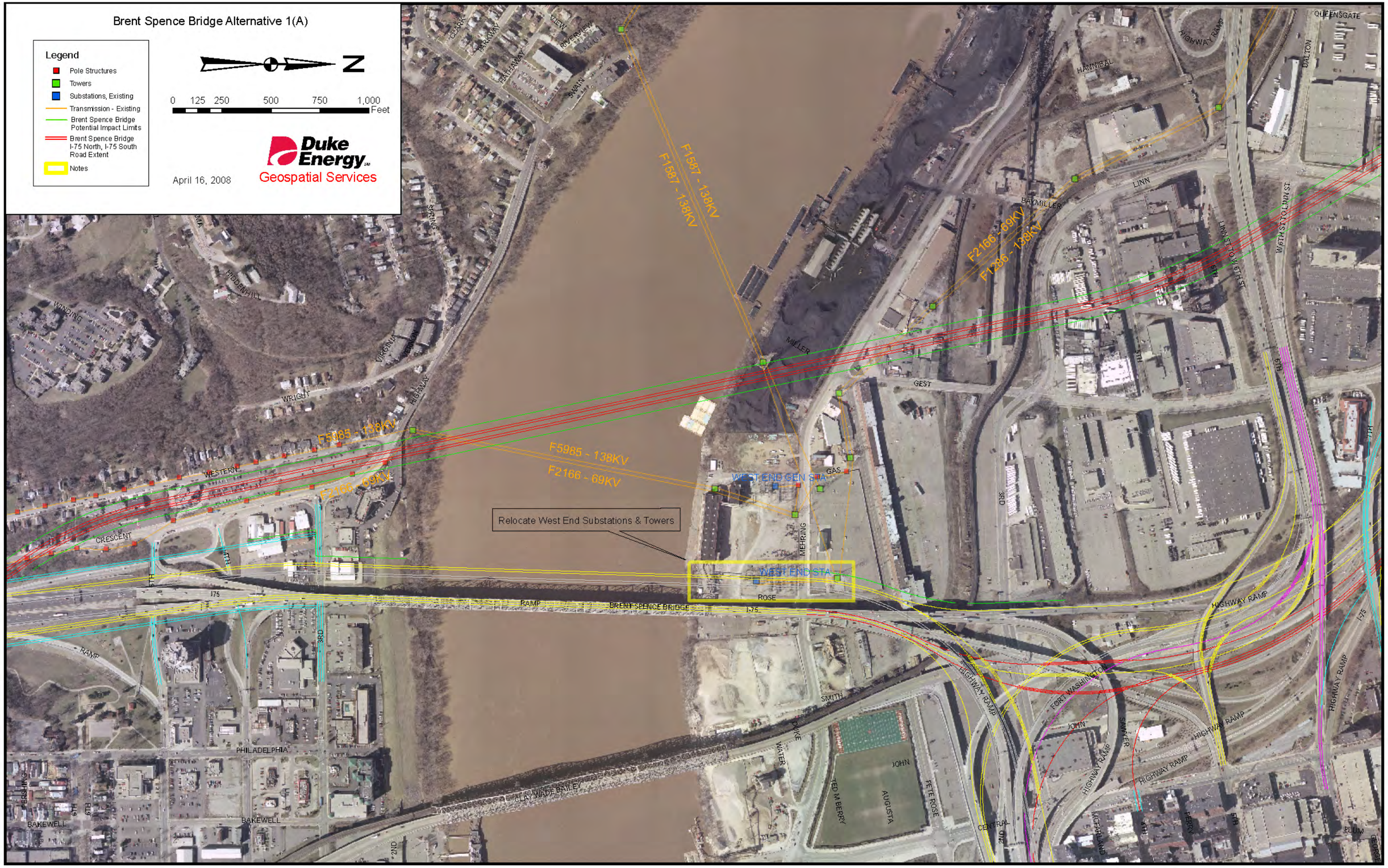
- Pole Structures
- Towers
- Substations, Existing
- Transmission - Existing
- Brent Spence Bridge Potential Impact Limits
- Brent Spence Bridge I-75 North, I-75 South Road Extent
- Notes

N

0 125 250 500 750 1,000 Feet

April 16, 2008

Duke Energy
Geospatial Services



Brent Spence Bridge Alternative 1(B)
Conduit Attached to Bridge
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Conduit
Proposed Overhead
Substations, Proposed
Notes
N
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April 16, 2008
Duke Energy
Geospatial Services
(3) 138KV Circuits
(1) 69KV Circuit
Relocate West End Substations & Towers
F1587 - 138KV
F1586 - 69KV
F1286 - 138KV
F5985 - 138KV
F2186 - 69KV
BRENT SPENCE BRIDGE
I-75
RAMP
ROSE
CRESCENT
WESTERN
WRIGHT
HIGHWAY
MILLER
GEST
GAS
MEHRING
SMITH
DUKE
WATER
JOHN
AUGUSTA
PETE ROSE
TED M BERRY
CLAY WADE BAILEY
PHILADELPHIA
BAKEWELL
PERSHING
HIDDENHILL
WINDING
VIRGINIA
SPRING
HANNIBAL
BAYMILLER
LINN
HIGHWAY RAMP
FORT WASHINGTON
SAWYER
MCFARLAND
PERRY
PLUM
QUEENSGATE
DALTON
W 6TH ST TO LINN ST
LINN ST TO W 6TH ST
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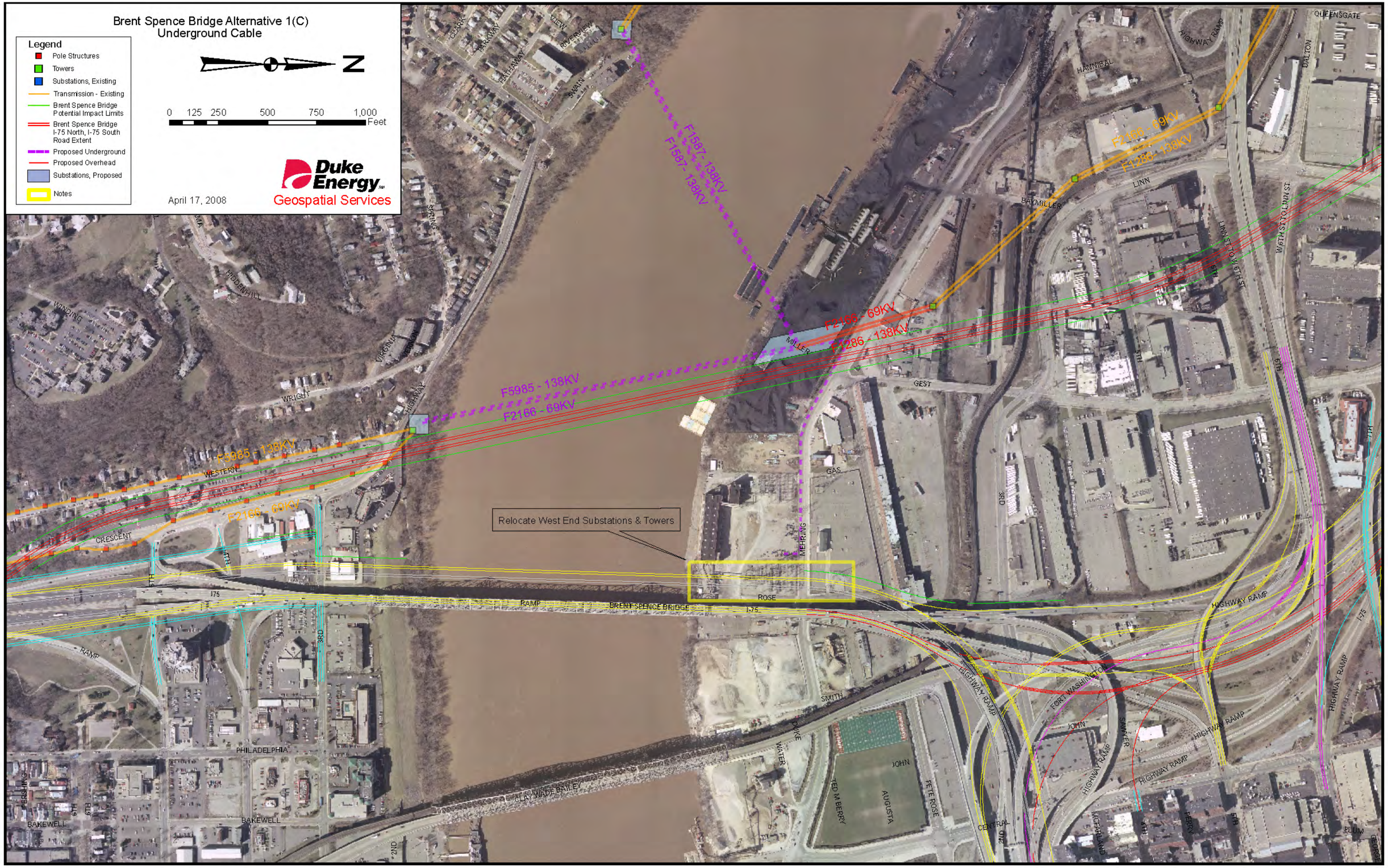
7TH
3RD
2ND



Brent Spence Bridge Alternative 1(C)
Underground Cable
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Overhead
Substations, Proposed
Notes
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0 125 250 500 750 1,000 Feet
April 17, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
F5985 - 138KV
F2166 - 69KV
F5985 - 138KV
F2166 - 69KV
Relocate West End Substations & Towers
BRENT SPENCE BRIDGE
I-75
RAMP
ROSE
HIGHWAY RAMP
CLAY WADE BAILEY
PHILADELPHIA
BAKEWELL
WESTERN
CRESCENT
WRIGHT
HIDDENHILL
WINDING
VIRGINIA
SPRING
HIGHWAY
MILLER
GEST
GAS
MEHRING
SMITH
DUKE
WATER
JOHN
AUGUSTA
TED M BERRY
PETE ROSE
CENTRAL
2ND
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5TH
6TH
7TH
HANNIBAL
BAYMILLER
LINN
LINN ST TO W 6TH ST
W 6TH ST TO LINN ST
QUEENSGATE
DALTON
FORT WASHINGTON
SAWYER
MCFARLAND
PERRY
PLUM
GEORGE

Brent Spence Bridge Alternative 2(A)

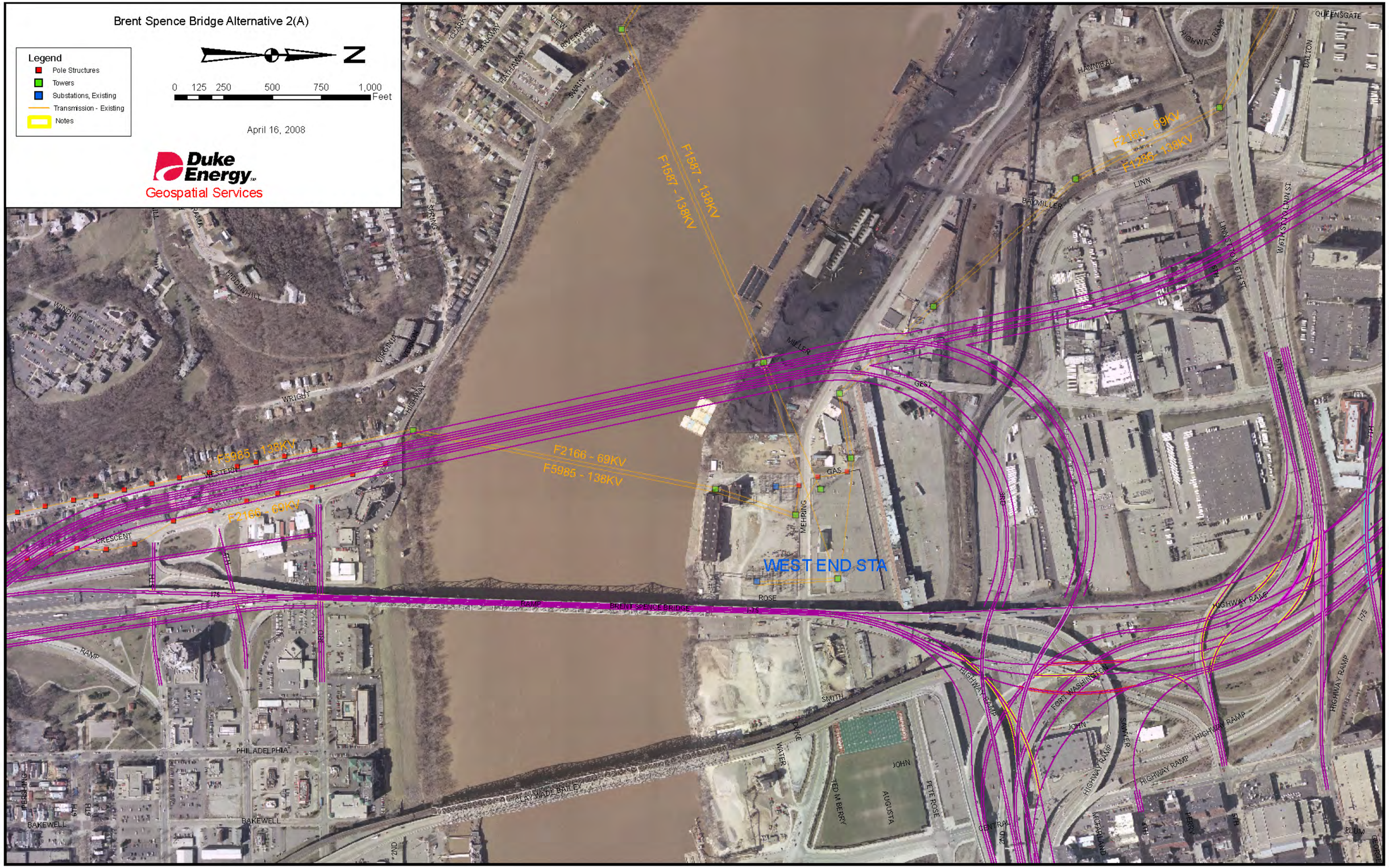
Legend
- Pole Structures
- Towers
- Substations, Existing
- Transmission - Existing
- Notes

N

0 125 250 500 750 1,000 Feet

April 16, 2008

Duke Energy
Geospatial Services



Brent Spence Bridge Alternative 2(B)
Conduit Attached to Bridge

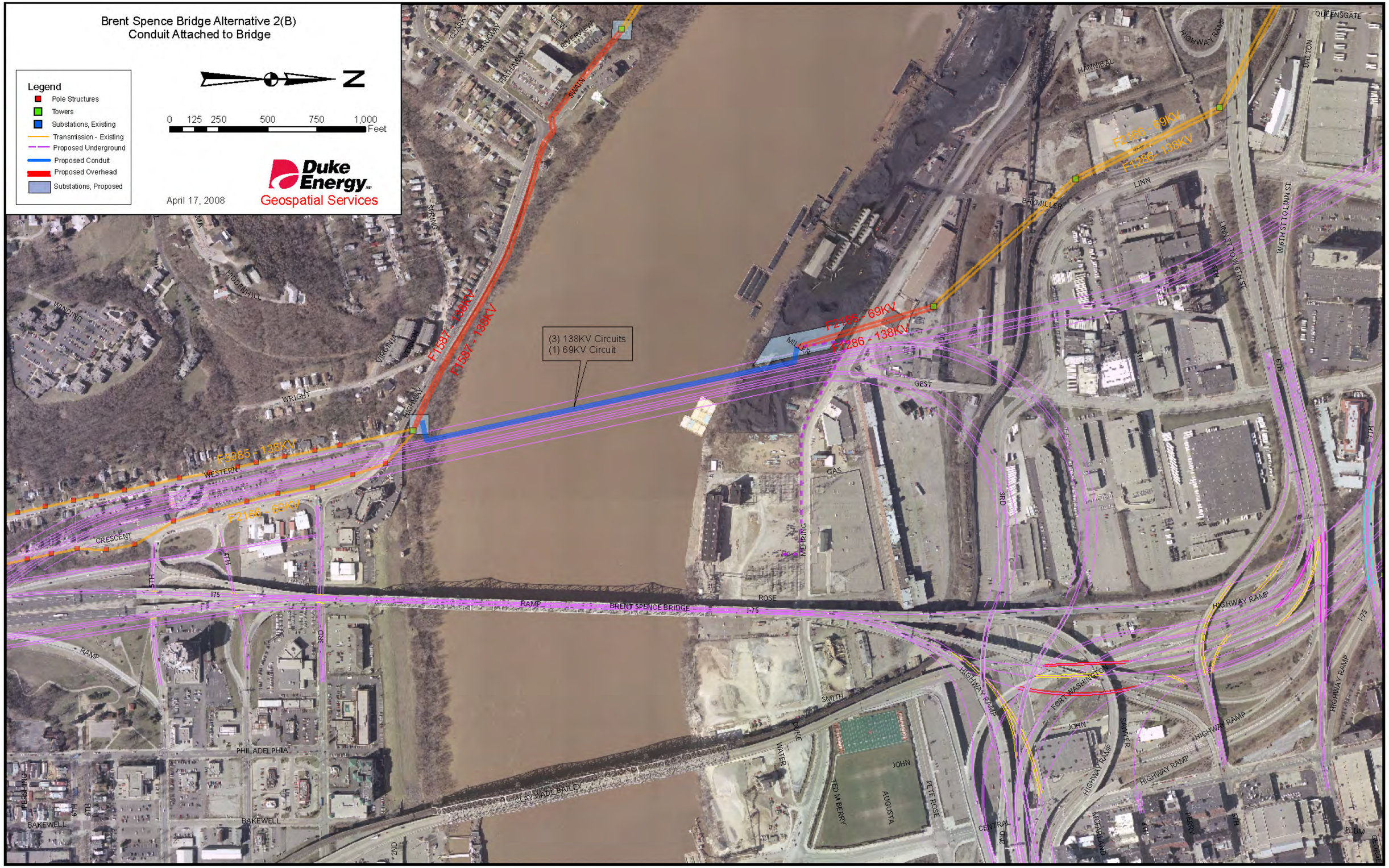
Legend
- Pole Structures
- Towers
- Substations, Existing
- Transmission - Existing
- Proposed Underground
- Proposed Conduit
- Proposed Overhead
- Substations, Proposed

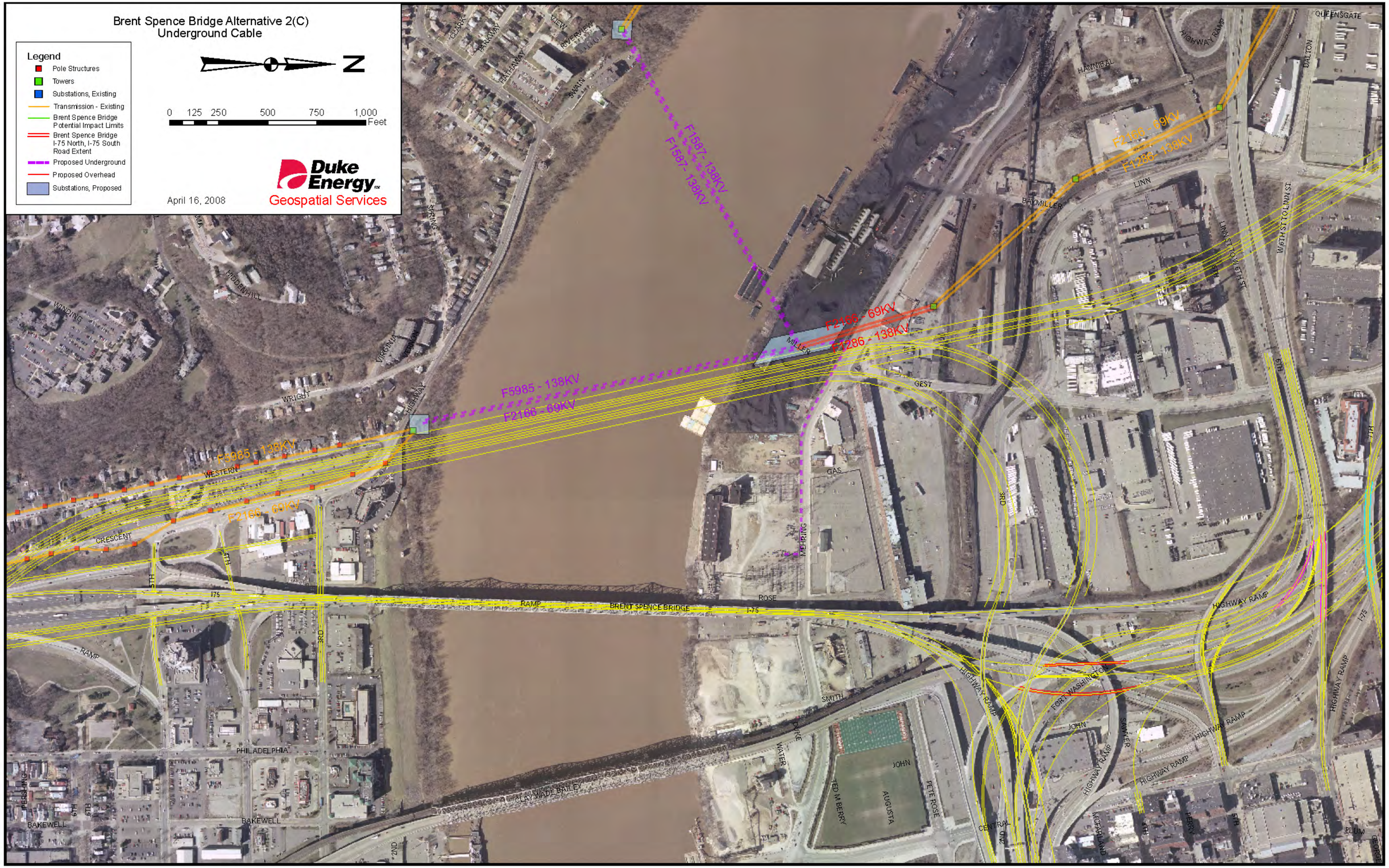
N

0 125 250 500 750 1,000 Feet

Duke Energy
Geospatial Services

April 17, 2008




Brent Spence Bridge Alternative 2(C)
Underground Cable
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Brent Spence Bridge Potential Impact Limits
Brent Spence Bridge I-75 North, I-75 South Road Extent
Proposed Underground
Proposed Overhead
Substations, Proposed
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April 16, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
F2166 - 69KV
F1286 - 138KV
F5985 - 138KV
F2166 - 69KV
F5985 - 138KV
F2166 - 69KV
BRENT SPENCE BRIDGE
I-75
RAMP
ROSE
CRESCENT
WESTERN
WRIGHT
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BAYMILLER
HANNIBAL
QUEENSGATE
DALTON
HIGHWAY RAMP
FORT WASHINGTON
JOHN
SAWYER
SMITH
DUKE
WATER
TED M BERRY
AUGUSTA
PETE ROSE
CENTRAL
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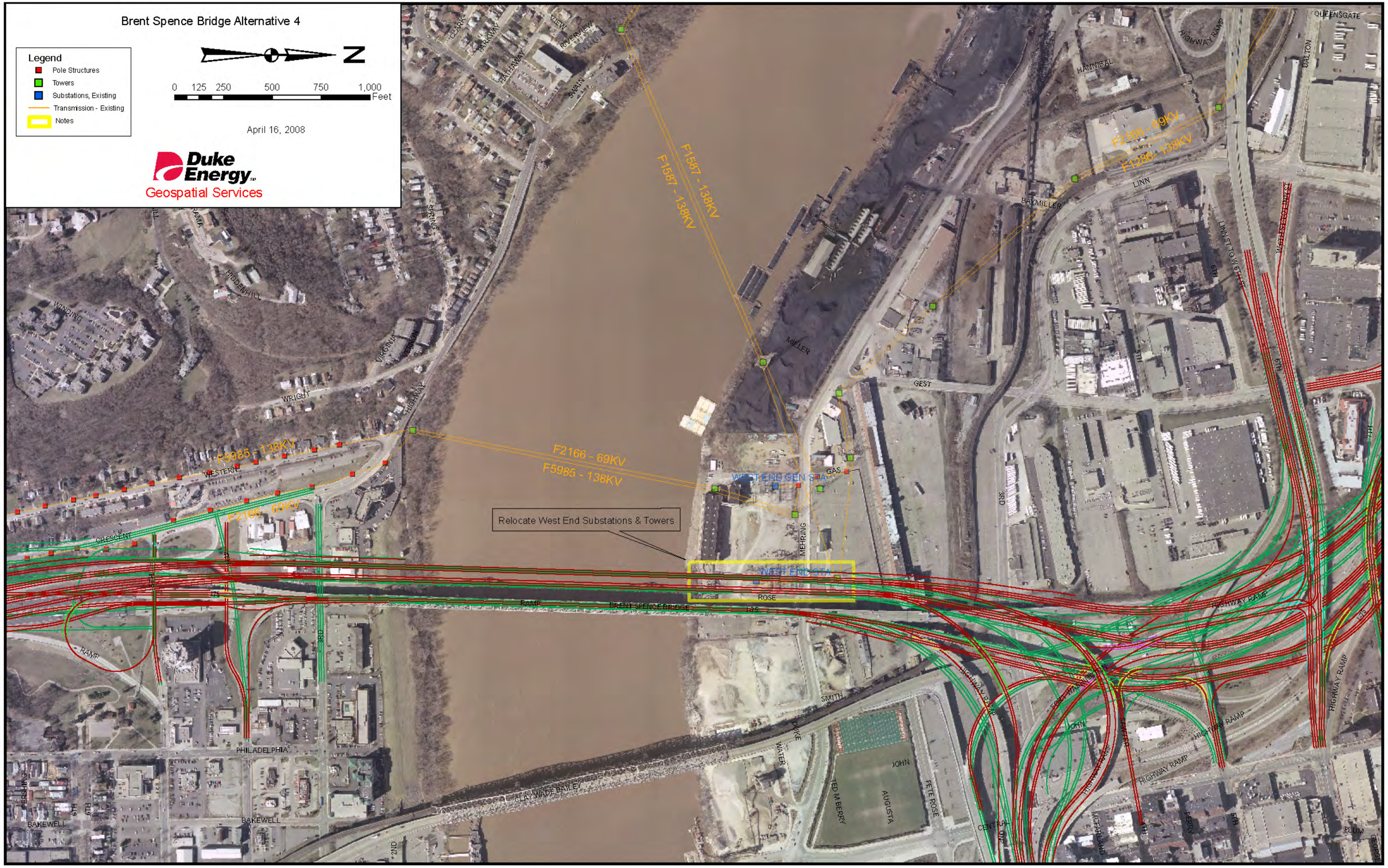
Brent Spence Bridge Alternative 3
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Notes
N
0 125 250 500 750 1,000
Feet
April 16, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F1286 - 138KV
F2166 - 69KV
F5985 - 138KV
F2166 - 69KV
F5985 - 138KV
Relocate West End Substations & Towers
WEST END GEN STA
WEST END STA
BRENT SPENCE BRIDGE
HIGHWAY RAMP
CLAY WADE BAILEY


Brent Spence Bridge Alternative 4
Legend
Pole Structures
Towers
Substations, Existing
Transmission - Existing
Notes
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April 16, 2008
Duke Energy
Geospatial Services
F1587 - 138KV
F1587 - 138KV
F2166 - 69KV
F5985 - 138KV
F5985 - 138KV
F2166 - 69KV
F2166 - 69KV
F5286 - 138KV
Relocate West End Substations & Towers
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WEST END STA
BRENT SPENCE BRIDGE
OLAY WADE BAILEY
PHILADELPHIA
BAKEWELL
WESTERN
CRESCENT
WRIGHT
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VIRGINIA
VERNON
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Phelps, Duane F.

From: Brian Pickering [Brian.Pickering@gcww.cincinnati-oh.gov]
Sent: Tuesday, March 28, 2006 1:56 PM
To: Phelps, Duane F.
Cc: Ken Culpin
Subject: Brent Spence Project
Follow Up Flag: Follow up
Due By: Tuesday, April 04, 2006 12:00 AM
Flag Status: Completed

We are designing a new 48" water main to extend from Central and Pete Rose Way to River Road at Evans Street.

The alignment near the I-75 corridor is as follows from Pete Rose Way at Central

1) North Thru the former Crosset Parking lot to 50' south of Third street right of way (near John Street)
2) Go west, 50' south of Third Street right of way
3) Continue under the Clay Wade Bailey approach (40' south of Third Street right of way)
4) Continue west 40' south of Third Street right of way until Rose Street
5) At Rose Street and Third continue west under the Third Street South sidewalk
6) On Third Street, East of Linn Street alignment follows pavement and goes from under south sidewalk of Third to near the middle of the street through the Third/Gest/Linn intersection
7) Continue west/northwest in the Linn Street pavement to Dalton Street and continue west on Dalton street etc

We will provide additional information after the design is completed. If this is confusing, please call me at 591-6856.

Thanks

Phelps, Duane F.

From: Taylor, Timothy [Timothy.Taylor@Level3.com]
Sent: Tuesday, June 10, 2008 1:09 PM
To: Jones, Steven
Subject: Brent Spence Bridge Project
Attachments: OH_Cincinnati.pdf

Mr. Jones,

After reviewing the rather large scope of work under the study area, I decided that a single overview of our interests would be easier than many, many single maps.
Let me know if this will suffice.

Thank you,

Tim Taylor
OSP Engineer
Field Services Gateway
Level 3 Communications, LLC
400 Pike Street
Cincinnati, OH 45202
o: 513-632-1806
c: 513-317-2127
fx: 513-632-1850
e:timothy.taylor@level3.com

Cincinnati, OH

08/27/2006
Pg. 140

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LH Facility
Pop / Metro CO
ILEC Collo
Level 3 On-net Bldg

Level 3 Metro
Level 3 Metro Expansion
Level 3 Limited Availability
Level 3 Intercity
Level 3 Intercity Expansion
Transoceanic Backhaul

Level(3)

Confidential & Proprietary

Phelps, Duane F.

From: Ferren, Drew [Drew.Ferren@Level3.com]
Sent: Wednesday, April 23, 2008 3:01 PM
To: Jones, Steven
Subject: RE: Brent Spence Bridge Project - HAM 71/75-1.00/0.22

Steven,
We have found a few conflicts with respect to the I-75 project. Am going to send this out the field to determine exactly where our facilities are. They will be getting back to you after they are finished to possibly set up a meeting. I am requesting that you forward the larger scale plans to Keith Kiyota, Interlocken 3000 – 31C-416, 1025 Eldorado Blvd, Broomfield, Colorado, 80021. Please let me know if you have any questions. Thank you.

Drew Ferren
NIS Intern

Level (3) Communications, LLC
1025 Eldorado Blvd., 33A-222
Broomfield, CO 80021
P: (720) 888-1561
F: (720) 567-2780
E: Drew.Ferren@Level3.com

From: Jones, Steven [mailto:JonesSt@pbworld.com]
Sent: Wednesday, April 23, 2008 11:11 AM
To: Ferren, Drew
Subject: Brent Spence Bridge Project - HAM 71/75-1.00/0.22

Drew,

Per our conversation of 4/23/08 attached is an 8-1/2" x 11" plan of project study area. This project will impact Interstate 75 in Ohio and Kentucky within the attached study area.

As we discussed, in this phase of the project we are looking to identify major utility conflicts which may impact costs and/or alignment selection. The attached PDF file indicates the project area. We would appreciate your assistance in furnishing record plans and otherwise indicating what AT&T considers major facilities in the project area.

We have larger scale plans I can forward to you by mail if they would be helpful to you.

Again, thank you for your assistance in these matters. Should you have any questions or comments please call or email me at your convenience.

Regards,

Steven A. Jones
Senior Engineer

PB
312 Elm Street, Suite 2500
Cincinnati, OH 45202
Direct: 513-639-2140
Fax: 513-421-1040
E-mail: jonesst@pbworld.com

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this message, delete this message and all copies from your e-mail system and destroy any printed copies.

Phelps, Duane F.

From: Brandon Vatter [bvatter@sd1.org]
Sent: Wednesday, April 30, 2008 5:32 PM
To: Jones, Steven
Cc: Mike Denham; Bob Gerrety
Subject: Willow Run Flood PS Operating Levels

Steve, I received your voicemail. I am still in the process of tracking down the wetwell operating elevations of the flood pump station. The operating elevations have been modified over the years by us to fit actual operation and minimize flooding in Gobel Park under flood operation. It is going to take our operation folks physically performing some measurements from the top slab (known elevation) down to the on/off levels (bubbler) to confirm elevations in mean sea level. I spoke to our staff last week and as you know we are a pretty lean and mean group. They have it on their list to do however there have been some other more pressing issues that they have had to deal with. I will forward this info as soon as I receive it.

Our staff did tell me however that the pumps require significant suction head to operate properly and this does result in a backup in Gobel Park under our current operation when it rains and the river level is up. I just can't give you specific elevations until I receive the operating levels based on a known reference elevation.

I apologize for the delay.

Sincerely,

Brandon C. Vatter, P.E.
Program Manager
Capital Improvements Program
NKSD1
1045 Eaton Drive
Fort Wright, KY 41017
PH: 859-578-6756
bvatter@sd1.org

Jones, Steven

From: Strayer, Christopher [Christopher.Strayer@qwest.com]
Sent: Friday, October 05, 2007 9:26 PM
To: Jones, Steven
Subject: Brent Spence Bridge Project

Dear Mr. Jones,

I have received and reviewed the map and utility survey information you sent to me for HAM 71/75-1.00/0/22. Qwest Communications Corporation does not own or maintain any facilities within the study area. While Qwest currently leases some fiber-optic lines in cables owned by Cincinnati Bell or Cinergy (now Duke Energy or DukeNet) within the study area, it is incumbent on those utility owners to maintain, protect and relocate those cables. I do not even have as-built records for the facilities that Qwest leases.

Please feel free to continue to contact me by email or phone if you have questions about the location of Qwest facilities witrh regard to this or other projects.

Sincerely,
Chris

Christopher R. Strayer
Lead Technical Project Manager
Qwest Communications Corporation
phone: 303-886-1299

This communication is the property of Qwest and may contain confidential or privileged information. Unauthorized use of this communication is strictly prohibited and may be unlawful. If you have received this communication in error, please immediately notify the sender by reply e-mail and destroy all copies of the communication and any attachments.

120 Ravine Street
Akron, Ohio 44303
330-253-8267
Fax 918-562-7014
allan.guest@verizonbusiness.com

September 27, 2007

Steven A. Jones
PB Americas, Inc.
312 Elm St.
Ste 2500
Cincinnati, Ohio 45202

RE: Brent Spence Bridge Project
BAM71/75-1.00/0.22

Dear Mr. Jones:

Verizon Business (formerly MCI) is in receipt of your letter and drawings dated August 14, 2007 for the above referenced project. Per your request, please find enclosed mapping indicating the location of VzB's existing facilities at the above referenced location.

Please direct any future correspondence concerning your project to me at the above address. If you have any questions, feel free to contact me at 330-253-8267.

Sincerely,

Al Guest
Construction Manager
Verizon Business

Appendix H
Constructibility
Workshop

Inter-Office Communication
Office of Traffic Engineering

To : Stefan Spinosa, District 8 Production Administrator

From : David L. Holstein, Administrator, Office of Traffic Engineering

Date : February 26, 2009

Subj. : Write up for Brent Spence

Per your request the Office of Traffic Engineering has evaluated the constructability and Maintenance of Traffic implications of Alternate B (Queensgate) versus those of Alternate E (and the other similar proposed alignment alternatives).

We have reviewed the information provided in the CAS as well as the information provided by the National Constructor's Group. Of particular interest was the conceptual maintenance of traffic strategies proposed by the consultant. In addition we began our normal work zone planning analysis. As you know we have now successfully planned major reconstruction/capacity additions in virtually every major urban center in Ohio.

As part of our analysis we looked at the following:

1. Determining number of lanes that must be maintained;
2. Evaluation of physical and geometric constraints to providing those lanes;
3. Evaluation of demand management strategies (example – closing ramps, diversions, etc)
4. Replacing lost capacity on other facilities;
5. Contractor space, storage, staging limitations;
6. Providing adequate ingress/egress from the CBD

The following is a summary of our observations and analysis. In short we believe Alternate E has several advantages over the Queensgate Alternative.

National Constructor's Group (NCG)

The Office of Traffic Engineering has NCG under contract to provide constructability/MOT planning support services. NCG is uniquely qualified based upon their extensive experience in the heavy construction industry. We have read their opinion and agree with their concerns and conclusions. In addition, I would like to further stress the utility risks associated with the Queensgate Alternative. The relocation of the high power lines would seem to have significant cost and schedule risks associated with them due to the extremely difficult and specialized nature of the required work. In addition, I feel compelled to further stress the

potential geotechnical risks created by the Queensgate Alternative cutting through the hill side on the southern end of the proposed bridge. While I am not a geotechnical expert, it would seem that unforeseen problems caused by a shale hill side could potentially extend the time and costs of the project completion. Even the best planned work zones cause some hardship and extending the project duration because of unforeseen geotechnical problems would be potentially harmful.

Consultant Team Preliminary Plan

The consultant team is proposing a strategy very similar to what we are planning for the $1.6B reconstruction of I-70/I-71 in downtown Columbus. Specifically, they are proposing to build the collector distributor system on the north end of the project as a very early phase of construction. We could not agree more as this offers several major advantages. First, its completion will allow us to provide access/egress from the CBD for traffic coming/going from the north. Completion of the collector/distributor system will also allow us to remove existing accesses which in turn will create a significant amount of room for traffic to be maintained as well as for the contractor to perform his work.

This benefit is available to both the Queensgate Alternative and Alternative E. It is relevant in support of forthcoming conclusions.

OTE Analysis

Our analysis indicates that two lanes (north and south bound) for I-75 would be sufficient with proper demand management. To accomplish this we have proposed a multi-point plan that will provide the necessary capacity as well as providing access in and out of the CBD.

Step 1. – All I-75 traffic (north and south bound) would share the upper bridge deck. North bound traffic would be crossed over to south bound side in a profile conform area south of the existing bridge. Northbound traffic that is destined for I-71 north would remain on the lower bridge as they do today. This creates a tremendous MOT/constructability advantage due to the fact that all I-75 traffic (both NB and SB) would be on the same relatively narrow alignment. This "MOT corridor" for I-75 would be very easy to maintain through the project limits while giving the contractor a maximum amount of space for staging and construction.

Step 2. – This will require the loss of the I-71 SB traffic on the existing bridge. This lost capacity would be replaced by literally striping in an additional lane of capacity on I-471 SB. The I-471 SB bridge over the Ohio River has 4 lanes – with the outside lane immediately dropping at an interchange on the south side. This plan would continue the 4 lane section for the length of I-471 SB all the way to IR-275 in Kentucky. We have analyzed this route and there are no apparent physical impediments. In fact, it appears to us that the extra "temporary

lane" could be continued up onto I-275 by simply widening the existing ramp. This "temporary capacity" would replace the lost I-71SB capacity on the existing Brent Spence Bridge. In addition, the added mileage of this alternate route is very minimal and wouldn't cause undue hardship to its users. ODOT is using a similar strategy on the I-90 Cleveland Innerbelt project.

Step 3. – The "spaghetti bowl" on the north end of the existing bridge (I-71/I-75/US-50 area) has the potential to be the most problematic area of the project in Alternate E. Reducing the I-75 NB/SB traffic to a single 50' corridor through the project makes the project constructability and MOT relatively easy. A review of the project plan view shows that the existing R/W in the spaghetti bowl is approximately 1000' wide in some spots. The existing R/W will provide more than ample room to maintain the I-75 corridor and any temporary local accesses deemed necessary while still giving the contractor more than ample room to complete his work as quickly and inexpensively as possible. It is well known that contractor productivity (and therefore his costs) can be affected by the MOT. The Alternate E concept described above will allow a high degree of contractor productivity.

Summary

From a purely Maintenance of Traffic standpoint I think it is obvious that building off line has advantages (as in the Queensgate Alternative). I don't believe, however, that from a constructability stand point that the Queensgate Alternative is superior, in fact, I believe it is far inferior. I believe the NCG comments adequately explain this. I believe from a constructability standpoint Alternate E is clearly superior due to the potential contamination, unknown conditions, utilities and geotechnical issues associated with the Queensgate Alternative.

For Maintenance of Traffic (the ability to provide the number of lanes required) I believe that the conceptual plan developed by the consultant team coupled with the "temporary capacity" developed by this office will make the MOT for Alternate E no harder than that of the Queensgate Alternative.

In summary, we view the MOT of both alternatives to be relatively equal while the constructability strongly favors Alternate E.

DLH:dlj

c: K. Swearingen - J. Gallagher - Reading File

The National Constructor's Group

635 Chaparral Circle
P.O. Box 2890
Napa, California 94558-0537
707.257.8994

MEMORANDUM

TO: Ohio Department of Transportation
Kentucky Transportation Cabinet

FROM: The National Constructor's Group

DATE: February 16, 2009

REF: General Comments from the Review of Conceptual Alternative Study

Observations that may prove to be beneficial are:

(1) Southbound I-75 in Kentucky provides for two clearly divided "only" truck lanes, thus avoiding the backup of automobiles caused by trucks often occupying three full lanes.

(2) Consider relocating the 12-inch gas lines crossing the river. Discuss with River Power the possibility of relocating the transformer yard.

Subsequently develop a construction sequence wherein the bridges crossing the river are one level, including the segmental replacement of the existing double deck truss.

While it might appear expensive at first, it may simplify the interchange geometry to meet the future traffic needs with minimum design exceptions.

JPS/srm

The National Constructor's Group

635 Chaparral Circle
P.O. Box 2890
Napa, California 94558-0537
707.257.8994

TECHNICAL MEMORANDUM

TO: Ohio Department of Transportation
Kentucky Transportation Cabinet

PREPARED BY: The National Constructor's Group

DATE: February 2009

REF: Brent Spence Bridge Replacement/Rehabilitation Project within the Greater Cincinnati/Northern Kentucky Region. Comparison of Alternative B Queensgate Alignment and Alternative E from a Constructability Program Costs and Risk Assessment Perspective

Introduction

The Ohio Department of Transportation authorizes The National Constructors Group to assess Alternative B, the Queensgate offset alignment and Alternative E, closely adhering to the existing I-71/I-75 alignments in both Ohio and Kentucky.

The Department provided the following documents to NCG: The Conceptual Alternatives Study and Alternative Profiles as prepared by Parsons Brinckerhoff.

A conference was conducted at the Parsons Brinckerhoff office in Cincinnati on Thursday, February 12, 2009. In lieu of a specific site visit, a majority of the proposed alignments could be observed from the Parsons Brinckerhoff offices.

Alternative E Assessment

Alternative E follows closely in the footprint of the existing interstate right-of-way. Access and logistics concerns have been raised relating to space for construction contractors to operate efficiently.

The conceptual construction staging/traffic phasing plan limits the area of concern to the interchange area of I-71/I-75, Washington Way, and US 50. A traffic phasing plan presented at the conference by ODOTs traffic engineering team reduces transportation elements to "open" areas for construction access during construction. The plan includes the relocation of an ODOT traffic communication facility.

The general material handling aspect of a contractor's operation will require additional craft labor and construction equipment for this area. It is estimated not to exceed $5 million.

From a construction risk standpoint of manmade buried objects, utilities, differing site conditions, and hazardous materials, the footprint is relatively clear when compared to Alternative B Queensgate, due the fact that prior transportation facilities have been constructed in the corridor.

Alternative B Queensgate Assessment

Alternative B Queensgate from the Kentucky side of the river, moves the alignment for I-71/I-75 to the west, as well as the river bridge and the Ohio approach to a point of intersection with existing I-75 near Ezzard Charles Drive.

Once the right-of-way is cleared and ample transverse right-of-way is available for construction, access and logistics along this 4,800-foot corridor would be improved compared to Alternative E. However, one must consider the affect on access and logistics for constructing the I-71 connector ramps to the new bridge alignment.

Nonetheless, Alternative B creates constructability issues relative to disruption and potential delays when considering the greater possibility of encountering manmade buried objects, hazardous materials (old railroad yard), contaminated water, differing site conditions, and unknown utilities, compared to Alternative E.

Further considerations include the procurement of right-of-way, social justice (loss of jobs), relocations and mitigation, and the unknowns of demolition including asbestos removal from industrial buildings.

The Duke Power negotiations for realignment of transmission lines could also add to the project cost and increase delays in completion.

The roadway cut on the south side of the river may be a cause of added costs if slopes are determined to be unstable, thus requiring ground support or additional excavation to provide stability.

To summarize, it is the recommendation of The National Constructors Group that the known costs and the great potential for added costs and delays (risk) during construction clearly identify that, when compared to Alternative E, Alternative B Queensgate is not a reasonable alternative to be carried forward for further study and should therefore be eliminated as a potential alternative.

JPS/srm