

**I-70 Truck-Only Lanes Project
Cost Estimate (2008 Dollars)**

Note: MoDOT has left the ultimate mileage and location of the I-70 Truck-Only Lanes Project flexible to allow for project delivery innovations within the design-build phase. MoDOT is committed to delivering the project within a set budget of \$240 million, as proposed within the TIGER Grant Application.	Adjusted Quantities				Practical Design			
	Length		29.867		Length		29.867	
					U.I.P. I-70 Lanes and Shldrs			
Item	Unit	\$/unit or % Const. (2008)	Segment Quantity	Segment Cost	Segment Quantity	Segment Cost		
Pavement & Base								
Mainline I-70								
- Mainline - 11" on 4" Perm on 4" Agg Base	Sq. Yd.	\$ 46.50	981,231	\$ 45,627,219	490,615	\$ 22,813,609		
- Mainline - 8" on 4" Agg	Sq. Yd.	\$ 29.50	455,571	\$ 13,439,354	595,747	\$ 17,574,539		
- A2 Shoulder	Sq. Yd.	\$ 15.00	806,011	\$ 12,090,162	455,571	\$ 6,833,570		
- Median Barrier	Lin. Ft.	\$ 35.00	157,698	\$ 5,519,422	157,698	\$ 5,519,422		
Cross Roads								
- Medium Duty - No. Interchange* 7,111 sq yd	Sq. Yd.	\$ 29.50	35,555	\$ 1,048,873	94,219	\$ 2,779,461		
- Medium Duty - No. Crossover * 3,111 sq yd	Sq. Yd.	\$ 29.50	12,444	\$ 367,098	12,444	\$ 367,098		
Outer Roadway								
- Light Duty - Rural	Sq. Yd.	\$ 29.50	357,869	\$ 10,557,136	343,605	\$ 10,136,348		
General								
- Existing I-70 Pavement Removal	Sq. Yd.	\$ 3.50	665,835	\$ 2,330,422	0	\$ -		
- Existing Outer Road Pavement Removal	Sq. Yd.	\$ 2.25	318,444	\$ 716,499	318,444	\$ 716,499		
TOTAL PAVEMENT & BASE				\$ 91,696,183		\$ 66,740,545		
Interchanges								
General Purpose								
- Ramps (Grading)	Each	\$ 1,250,000	0	\$ -	0	\$ -		
- Ramp Pavement	Sq. Yd.	\$ 29.50	96,515	\$ 2,847,193	96,515	\$ 2,847,193		
- Illumination, Signing and Signalization	Lump Sum	2471198	1	\$ 2,471,198	1	\$ 2,471,198		
Truck Only (US-65)								
- Ramps (Grading)	Lin. Ft.	\$ 500	5,575	\$ 2,787,500	5,575	\$ 2,787,500		
- Ramp Pavement	Sq. Yd.	\$ 35.50	18,550	\$ 658,525	18,550	\$ 658,525		
- Additional Truck Interchange Bridges	Sq. Ft.	\$ 112.50	0	\$ -	0	\$ -		
- Additional Retaining Walls	Sq. Ft.	\$ 45.00	113,713	\$ 5,117,085	113,713	\$ 5,117,085		
Slip Ramps								
- Slip Ramps Rural (Includes 4 Ramps)	Each	\$ 875,000	3	\$ 2,625,000	3	\$ 2,625,000		
TOTAL INTERCHANGES				\$ 16,506,501		\$ 16,506,501		
Bridges								
Mainline								
- I-70 over Road or Drainage	Sq. Ft.	\$ 120	208,821	\$ 25,058,520	190,477	\$ 22,857,240		
- Bridge Removal	Sq. Ft.	\$ 20	11,893	\$ 237,860	11,893	\$ 237,860		
Cross Roads								
- Over I-70 - 4-Span Open End	Sq. Ft.	\$ 100	102,604	\$ 10,260,400	56,880	\$ 5,688,000		
- Bridge Removal	Sq. Ft.	\$ 20	43,354	\$ 867,080	43,354	\$ 867,080		
- Bridge Rehab	Sq. Ft.	\$ 20	0	\$ -	0	\$ -		
Retaining Walls								
- MSE Walls	Sq. Ft.	\$ 45	49,184	\$ 2,213,280	49,184	\$ 2,213,280		
TOTAL BRIDGES				\$ 38,637,140		\$ 31,863,460		
Grading & Drainage								
- Clearing and Grubbing	Acre	\$ 2,000	1,266	\$ 2,532,000	1,266	\$ 2,532,000		
- Unclassified Excavation	Cu. Yd.	\$ 3.75	7,527,945	\$ 28,229,794	7,527,945	\$ 28,229,794		
- Compaction	Cu. Yd.	\$ 0.50	8,733,839	\$ 4,366,920	8,733,839	\$ 4,366,920		
- Borrow	Cu. Yd.	\$ 6.50	1,519,505	\$ 9,876,783	1,519,505	\$ 9,876,783		
- Outer roadways -- Grading	Mile	\$ 300,000	30.50	\$ 9,150,000	23.03	\$ 6,909,000		
- Incidental Drainage - Freeway	Mile	\$ 250,000	24.55	\$ 6,137,500	29.867	\$ 7,466,750		
- Incidental Drainage - Local Road	Mile	\$ 100,000	30.50	\$ 3,050,000	23.03	\$ 2,303,000		
- Erosion Control	Mile	\$ 200,000	24.55	\$ 4,910,000	29.867	\$ 5,973,400		
- Drainage Structures	Sq. Ft./lin. ft.	\$ 9.00	337,400	\$ 3,036,600	428,800	\$ 3,859,200		
- Fence	Lin. Ft.	\$ 7.50	130,286	\$ 977,145	130,286	\$ 977,145		
TOTAL GRADING & DRAINAGE				\$ 72,266,741		\$ 72,493,991		
Right of Way Acquisition								
- Land - Agricultural (Vacant)	Acre	\$ 2,500	647	\$ 1,617,418	647	\$ 1,617,418		
- Land - Rural Residential Acreage	Acre	\$ 5,000	39	\$ 195,492	39	\$ 195,492		
- Improvements - Rural Residential	Lump Sum	\$ 100,000	28	\$ 2,754,098	28	\$ 2,754,098		
- Land & Improvement - Urban/Sub Residential	Lump Sum	\$ 150,000	3	\$ 516,393	3	\$ 516,393		
- Land - Rural Industrial Acreage (vacant)	Acre	\$ 10,000	18	\$ 179,016	18	\$ 179,016		
- Comm. Bus. (not at Interchange) Rural/Sub	Lump Sum	Varies	3	\$ 497,696	3	\$ 497,696		
- Land - Rural Interchange (undeveloped)	Acre	\$ 20,000	8	\$ 167,213	8	\$ 167,213		
- Land - Developed Interchange	Sq. Ft.	\$ 8	1,236,104	\$ 9,888,830	1,236,104	\$ 9,888,830		
- Improvements - Developed Interchange	Lump Sum	\$ 100,000	19	\$ 1,935,484	19	\$ 1,935,484		
- Hazardous Materials Removal	Per Site	\$ 100,000	11	\$ 1,105,991	11	\$ 1,105,991		
- Outdoor Advertising Removal	Each	\$ 50,000	31	\$ 1,549,180	31	\$ 1,549,180		
- Acquisition and Relocation (Includes Condemnation Costs)	% ROW	25%	\$29,116,490	\$ 7,279,122	\$29,116,490	\$ 7,279,122		
- Relocation Contingency	% Improv	25%	\$14,608,841	\$ 3,652,210	\$14,608,841	\$ 3,652,210		
TOTAL RIGHT OF WAY				\$ 31,338,145		\$ 31,338,145		
Utility Relocations								
- Along Existing Alignment	Mile	\$ 354,900	29.867	\$ 10,599,798	29.867	\$ 8,479,839		
- ITS	Lump Sum	1		\$ 250,000		\$ 250,000		
- Major Utility	L.S. Each	1		\$ -		\$ -		
TOTAL UTILITY RELOCATIONS				\$ 10,849,798		\$ 8,729,839		
Miscellaneous Costs								
- Mobilization	% Const.	2%	\$ 261,294,507	\$ 5,225,890	\$ 227,672,479	\$ 4,553,450		
- Traffic Control	% Const.	2%	\$ 261,294,507	\$ 5,225,890	\$ 227,672,479	\$ 4,553,450		
- Maintenance of Traffic During Construction	% Const.	4%	\$ 261,294,507	\$ 10,451,780	\$ 227,672,479	\$ -		
- Construction Management	% Const.	6%	\$ 261,294,507	\$ 15,677,670	\$ 227,672,479	\$ 13,660,349		
- Miscellaneous Construction	% Const.	2.5%	\$ 261,294,507	\$ 6,532,363	\$ 227,672,479	\$ 5,691,812		
- Engineering Design	% Const.	6%	\$ 261,294,507	\$ 15,677,670	\$ 227,672,479	\$ 13,660,349		
- Program Management and Administration	% Const.	2%	\$ 261,294,507	\$ 5,225,890	\$ 227,672,479	\$ 4,553,450		
- Contingency	% Const.	5.5%	\$ 261,294,507	\$ 7,185,599	\$ 227,672,479	\$ 6,260,993		
			\$ 261,294,507	\$ 7,185,599	\$ 227,672,479	\$ 6,260,993		
- Corridor Enhancements	% Const.	4%	\$ 261,294,507	\$ 10,451,780	\$ -	\$ -		
TOTAL MISCELLANEOUS COSTS				\$ 88,840,132		\$ 59,194,845		
Range of Potential Design-Build Options:								
TOTAL (2008 Dollars)				\$ 350,134,640	Build 29.867 miles	\$ 286,867,324		
Subtract 3.05 miles (Rte M to Rte 135)			\$ 26,701,934		Build 26.817 miles	\$ 260,165,390		
Subtract 4.55 miles (Lamine River to Rte 135)			\$ 47,264,208		Build 25.317 miles	\$ 239,603,116		
Subtract 7.80 miles (Rte K to Rte 135)			\$ 75,413,124		Build 22.067 miles	\$ 211,454,201		

Cost - Route K to Route M (Including Rte K Interchange) (4.75 miles)				
Item	Unit	\$/unit or % Const. (2008)	Segment Quantity	Segment Cost
Pavement & Base				
Mainline I-70				
- Mainline - 11" on 4" Perm on 4" Agg Base	Sq. Yd.	\$ 46.50	78,089	\$ 3,631,139
- Mainline - 8" on 4" Agg	Sq. Yd.	\$ 29.50	72,511	\$ 2,139,075
- A2 Shoulder	Sq. Yd.	\$ 15.00	94,822	\$ 1,422,330
- Median Barrier	Lin. Ft.	\$ 35.00	25,100	\$ 878,500
Cross Roads				
- Medium Duty - No. Interchange* 7,111 sq yd	Sq. Yd.	\$ 29.50	7,111	\$ 209,775
Outer Roadway				
- Light Duty - Rural	Sq. Yd.	\$ 29.50	22,414	\$ 661,213
General				
- Existing I-70 Pavement Removal	Sq. Yd.	\$ 3.50	0	\$ -
- Existing Outer Road Pavement Removal	Sq. Yd.	\$ 2.25	22,040	\$ 49,590
TOTAL PAVEMENT & BASE				\$ 8,991,621
Interchanges				
General Purpose				
- Ramps (Grading)	Each	\$ 1,250,000	1	\$ 1,250,000
- Ramp Pavement	Sq. Yd.	\$ 29.50	19,924	\$ 587,758
- Illumination, Signing and Signalization	Lump Sum	\$ 2,471,198.00	25%	\$ 617,800
TOTAL INTERCHANGES				\$ 2,455,558
Bridges				
Mainline				
- I-70 over Road or Drainage	Sq. Ft.	\$ 120	65,364	\$ 7,843,680
- Bridge Removal	Sq. Ft.	\$ 20	0	\$ -
Cross Roads				
- Over I-70 - 4-Span Open End	Sq. Ft.	\$ 100	7,110	\$ 711,000
- Bridge Removal	Sq. Ft.	\$ 20	6,294	\$ 125,880
- Bridge Rehab	Sq. Ft.	\$ 20	0	\$ -
Retaining Walls				
- MSE Walls	Sq. Ft.	\$ 45	6,148	\$ 276,660
TOTAL BRIDGES				\$ 8,957,220
Grading & Drainage				
- Clearing and Grubbing	Acre	\$ 2,000	201	\$ 402,685
- Unclassified Excavation	Cu. Yd.	\$ 3.75	1,197,232	\$ 4,489,621
- Compaction	Cu. Yd.	\$ 0.50	1,389,016	\$ 694,508
- Borrow	Cu. Yd.	\$ 6.50	241,660	\$ 1,570,788
- Outer roadways -- Grading	Mile	\$ 300,000	2.28	\$ 684,000
- Incidental Drainage - Freeway	Mile	\$ 250,000	4.75	\$ 1,187,500
- Incidental Drainage - Local Road	Mile	\$ 100,000	2.28	\$ 228,000
- Erosion Control	Mile	\$ 200,000	4.75	\$ 950,000
- Drainage Structures	Sq. Ft./lin. ft.	\$ 9.00	68,196	\$ 613,761
- Fence	Lin. Ft.	\$ 7.50	25,100	\$ 188,250
TOTAL GRADING & DRAINAGE				\$ 11,009,113
Right of Way Acquisition				
- Land - Agricultural (Vacant)	Acre	\$ 2,500	103	\$ 257,232
- Land - Rural Residential Acreage	Acre	\$ 5,000	6	\$ 31,091
- Improvements - Rural Residential	Lump Sum	\$ 100,000	4	\$ 438,007
- Land & Improvement - Urban/Sub Residential	Lump Sum	\$ 150,000	1	\$ 82,126
- Land - Rural Industrial Acreage (vacant)	Acre	\$ 10,000	3	\$ 28,470
- Comm. Bus. (not at Interchange) Rural/Sub	Lump Sum	Varies	0	\$ 497,696
- Land - Rural Interchange (undeveloped)	Acre	\$ 20,000	1	\$ 26,593
- Land - Developed Interchange	Sq. Ft.	\$ 8	196,588	\$ 1,572,704
- Improvements - Developed Interchange	Lump Sum	\$ 100,000	3	\$ 307,816
- Hazardous Materials Removal	Per Site	\$ 100,000	2	\$ 175,895
- Outdoor Advertising Removal	Each	\$ 50,000	5	\$ 246,379
- Acquisition and Relocation (Includes Condemnation Costs)	% ROW	25%	\$4,630,640	\$ 1,157,660
- Relocation Contingency	% Improv	25%	\$2,323,367	\$ 580,842
TOTAL RIGHT OF WAY				\$ 5,402,512
Utility Relocations				
- Along Existing Alignment	Mile	\$ 354,900	4.750	\$ 1,685,775
- ITS	Lump Sum	0		\$ -
- Major Utility	L.S. Each	0		\$ -
TOTAL UTILITY RELOCATIONS				\$ 1,685,775
Miscellaneous Costs				
- Mobilization	% Const.	2%	\$ 31,413,511	\$ 628,270
- Traffic Control	% Const.	2%	\$ 31,413,511	\$ 628,270
- Maintenance of Traffic During Construction	% Const.	4%	\$ 31,413,511	\$ 1,256,540
- Construction Management	% Const.	6%	\$ 31,413,511	\$ 1,884,811
- Miscellaneous Construction	% Const.	2.5%	\$ 31,413,511	\$ 785,338
- Engineering Design	% Const.	6%	\$ 31,413,511	\$ 1,884,811
- Program Management and Administration	% Const.	2%	\$ 31,413,511	\$ 628,270
- Contingency	% Const.	8%	\$ 31,413,511	\$ 2,513,081
- Corridor Enhancements	% Const.	4%	\$ -	\$ -
TOTAL MISCELLANEOUS COSTS				\$ 10,209,391
TOTAL (2008 Dollars)				\$ 48,711,189

Cost - Lamine River Bridge (Including Bridge) to Route M (1.50 miles)				
Item	Unit	\$/unit or % Const.	Segment Quantity	Segment Cost
Pavement & Base				
<i>Mainline I-70</i>				
- Mainline - 11" on 4" Perm on 4" Agg Base	Sq. Yd.	\$ 46.50	24,578	\$ 1,142,877
- Mainline - 8" on 4" Agg	Sq. Yd.	\$ 29.50	22,822	\$ 673,249
- A2 Shoulder	Sq. Yd.	\$ 15.00	29,844	\$ 447,660
- Median Barrier	Lin. Ft.	\$ 35.00	7,900	\$ 276,500
TOTAL PAVEMENT & BASE				\$ 2,540,286
Bridges				
<i>Mainline</i>				
- I-70 over Road or Drainage	Sq. Ft.	\$ 120	65,364	\$ 7,843,680
- Bridge Removal	Sq. Ft.	\$ 20	0	\$ -
TOTAL BRIDGES				\$ 7,843,680
Grading & Drainage				
- Clearing and Grubbing	Acre	\$ 2,000	64	\$ 127,164
- Unclassified Excavation	Cu. Yd.	\$ 3.75	378,073	\$ 1,417,775
- Compaction	Cu. Yd.	\$ 0.50	438,637	\$ 219,318
- Borrow	Cu. Yd.	\$ 6.50	76,314	\$ 496,038
- Incidental Drainage - Freeway	Mile	\$ 250,000	1.50	\$ 375,000
- Erosion Control	Mile	\$ 200,000	1.50	\$ 300,000
- Drainage Structures	Sq. Ft./lin. ft.	\$ 9.00	21,535	\$ 193,819
- Fence	Lin. Ft.	\$ 7.50	7,900	\$ 59,250
TOTAL GRADING & DRAINAGE				\$ 3,188,365
Right of Way Acquisition				
- Land - Agricultural (Vacant)	Acre	\$ 2,500	32	\$ 81,231
- Land - Rural Residential Acreage	Acre	\$ 5,000	2	\$ 9,818
- Improvements - Rural Residential	Lump Sum	\$ 100,000	1	\$ 138,318
- Land & Improvement - Urban/Sub Residential	Lump Sum	\$ 150,000	0	\$ 25,935
- Land - Rural Industrial Acreage (vacant)	Acre	\$ 10,000	1	\$ 8,991
- Comm. Bus. (not at Interchange) Rural/Sub	Lump Sum	Varies	0	\$ 497,696
- Land - Rural Interchange (undeveloped)	Acre	\$ 20,000	0	\$ 8,398
- Land - Developed Interchange	Sq. Ft.	\$ 8	62,080	\$ 496,643
- Improvements - Developed Interchange	Lump Sum	\$ 100,000	1	\$ 97,205
- Hazardous Materials Removal	Per Site	\$ 100,000	1	\$ 55,546
- Outdoor Advertising Removal	Each	\$ 50,000	2	\$ 77,804
- Acquisition and Relocation (Includes Condemnation Costs)	% ROW	25%	\$1,462,307	\$ 365,577
- Relocation Contingency	% Improv	25%	\$733,695	\$ 183,424
TOTAL RIGHT OF WAY				\$ 2,046,585
Utility Relocations				
- Along Existing Alignment	Mile	\$ 354,900	1.50	\$ 532,350
- ITS	Lump Sum	0		\$ -
- Major Utility	L.S. Each	0		\$ -
TOTAL UTILITY RELOCATIONS				\$ 532,350
Miscellaneous Costs				
- Mobilization	% Const.	2%	\$ 13,572,331	\$ 271,447
- Traffic Control	% Const.	2%	\$ 13,572,331	\$ 271,447
- Maintenance of Traffic During Construction	% Const.	4%	\$ 13,572,331	\$ 542,893
- Construction Management	% Const.	6%	\$ 13,572,331	\$ 814,340
- Miscellaneous Construction	% Const.	2.5%	\$ 13,572,331	\$ 339,308
- Engineering Design	% Const.	6%	\$ 13,572,331	\$ 814,340
- Program Management and Administration	% Const.	2%	\$ 13,572,331	\$ 271,447
- Contingency	% Const.	8%	\$ 13,572,331	\$ 1,085,786
- Corridor Enhancements	% Const.	4%	\$ -	\$ -
TOTAL MISCELLANEOUS COSTS				\$ 4,411,007
TOTAL (2008 Dollars)				\$ 20,562,273

Cost - Rte M to Rte 135 (3.05 miles)				
Item	Unit	\$/unit or % Const.	Segment Quantity	Segment Cost
Pavement & Base				
Mainline I-70				
- Mainline - 11" on 4" Perm on 4" Agg Base	Sq. Yd.	\$ 46.50	50,101	\$ 2,329,697
- Mainline - 8" on 4" Agg	Sq. Yd.	\$ 29.50	46,523	\$ 1,372,429
- A2 Shoulder	Sq. Yd.	\$ 15.00	60,837	\$ 912,555
- Median Barrier	Lin. Ft.	\$ 35.00	16,104	\$ 563,640
Cross Roads				
- Medium Duty - No. Crossover * 3,111 sq yd	Sq. Yd.	\$ 29.50	3,111	\$ 91,775
Outer Roadway				
- Light Duty - Rural	Sq. Yd.	\$ 29.50	52,624	\$ 1,552,408
General				
- Existing I-70 Pavement Removal	Sq. Yd.	\$ 3.50	0	\$ -
- Existing Outer Road Pavement Removal	Sq. Yd.	\$ 2.25	31,539	\$ 70,963
TOTAL PAVEMENT & BASE				\$ 6,893,465
Bridges				
Mainline				
- I-70 over Road or Drainage	Sq. Ft.	\$ 120	25,192	\$ 3,023,040
- Bridge Removal	Sq. Ft.	\$ 20	0	\$ -
Cross Roads				
- Over I-70 - 4-Span Open End	Sq. Ft.	\$ 100	7,110	\$ 711,000
- Bridge Removal	Sq. Ft.	\$ 20	4,693	\$ 93,860
- Bridge Rehab	Sq. Ft.	\$ 20	0	\$ -
Retaining Walls				
- MSE Walls	Sq. Ft.	\$ 45	6,148	\$ 276,660
TOTAL BRIDGES				\$ 4,104,560
Grading & Drainage				
- Clearing and Grubbing	Acre	\$ 2,000	129	\$ 257,719
- Unclassified Excavation	Cu. Yd.	\$ 3.75	766,229	\$ 2,873,358
- Compaction	Cu. Yd.	\$ 0.50	888,970	\$ 444,485
- Borrow	Cu. Yd.	\$ 6.50	154,662	\$ 1,005,304
- Outer roadways -- Grading	Mile	\$ 300,000	2.24	\$ 672,000
- Incidental Drainage - Freeway	Mile	\$ 250,000	2.24	\$ 560,000
- Incidental Drainage - Local Road	Mile	\$ 100,000	2.24	\$ 224,000
- Erosion Control	Mile	\$ 200,000	2.24	\$ 448,000
- Drainage Structures	Sq. Ft./lin. ft.	\$ 9.00	43,645	\$ 392,807
- Fence	Lin. Ft.	\$ 7.50	13,261	\$ 99,458
TOTAL GRADING & DRAINAGE				\$ 6,977,131
Right of Way Acquisition				
- Land - Agricultural (Vacant)	Acre	\$ 2,500	66	\$ 164,628
- Land - Rural Residential Acreage	Acre	\$ 5,000	4	\$ 19,898
- Improvements - Rural Residential	Lump Sum	\$ 100,000	3	\$ 280,325
- Land & Improvement - Urban/Sub Residential	Lump Sum	\$ 150,000	0	\$ 52,561
- Land - Rural Industrial Acreage (vacant)	Acre	\$ 10,000	2	\$ 18,221
- Comm. Bus. (not at Interchange) Rural/Sub	Lump Sum	Varies	0	\$ -
- Land - Rural Interchange (undeveloped)	Acre	\$ 20,000	0	\$ -
- Land - Developed Interchange	Sq. Ft.	\$ 8	0	\$ -
- Improvements - Developed Interchange	Lump Sum	\$ 100,000	0	\$ -
- Hazardous Materials Removal	Per Site	\$ 100,000	0	\$ -
- Outdoor Advertising Removal	Each	\$ 50,000	3	\$ 157,683
- Acquisition and Relocation (Includes Condemnation Costs)	% ROW	25%	\$2,963,610	\$ 740,902
- Relocation Contingency	% Improv	25%	\$1,486,955	\$ 371,739
TOTAL RIGHT OF WAY				\$ 1,805,957
Utility Relocations				
- Along Existing Alignment	Mile	\$ 354,900	3.040	\$ 1,078,896
- ITS	Lump Sum	0		\$ -
- Major Utility	L.S. Each	0	0	\$ -
TOTAL UTILITY RELOCATIONS				\$ 1,078,896
Miscellaneous Costs				
- Mobilization	% Const.	2%	\$ 17,975,156	\$ 359,503
- Traffic Control	% Const.	2%	\$ 17,975,156	\$ 359,503
- Maintenance of Traffic During Construction	% Const.	4%	\$ 17,975,156	\$ 719,006
- Construction Management	% Const.	6%	\$ 17,975,156	\$ 1,078,509
- Miscellaneous Construction	% Const.	2.5%	\$ 17,975,156	\$ 449,379
- Engineering Design	% Const.	6%	\$ 17,975,156	\$ 1,078,509
- Program Management and Administration	% Const.	2%	\$ 17,975,156	\$ 359,503
- Contingency	% Const.	8%	\$ 17,975,156	\$ 1,438,012
- Corridor Enhancements	% Const.	4%	\$ -	\$ -
TOTAL MISCELLANEOUS COSTS				\$ 5,841,926
TOTAL (2008 Dollars)				\$ 26,701,934

Bridges - Adjusted Quantities by D2 MoDOT

Description	Mile	Type	CR Rural Area (sqft)**	ML Over Area (sqft)	CR - Existing Removal (sqft)*	ML - Existing Removal (sqft)*	Comments
Interchange w/ K/EE	71	CR Rural	7,110		5,334		
Interchange w/ YY	75	CR Rural	7,110		5,521		
Blackwater River	77	ML Over		59,378			2 New Bridges/2 Exist Bridges
Interchange w/ 65	78	ML Over		40,543		11,893	
C.R. 211	82	CR Rural	7,110		5,334		
Interchange w/ J	85	CR Rural	7,110		5,787		
C.R. 225	86	CR Rural	7,110		5,334		
C.R. Z	87	CR Rural	7,110		5,057		
Interchange w/ K	91	CR Rural	7,110		6,294		
Lamine River	93	ML Over		65,364			2 New Bridges/2 Exist Bridges
C.R. M	94	CR Rural	7,110		4,693		
Chouteau Creek	95	ML Over		25,192			2 New Bridges/2 Exist Bridges
Total			56,880	190,477	43,354	11,893	

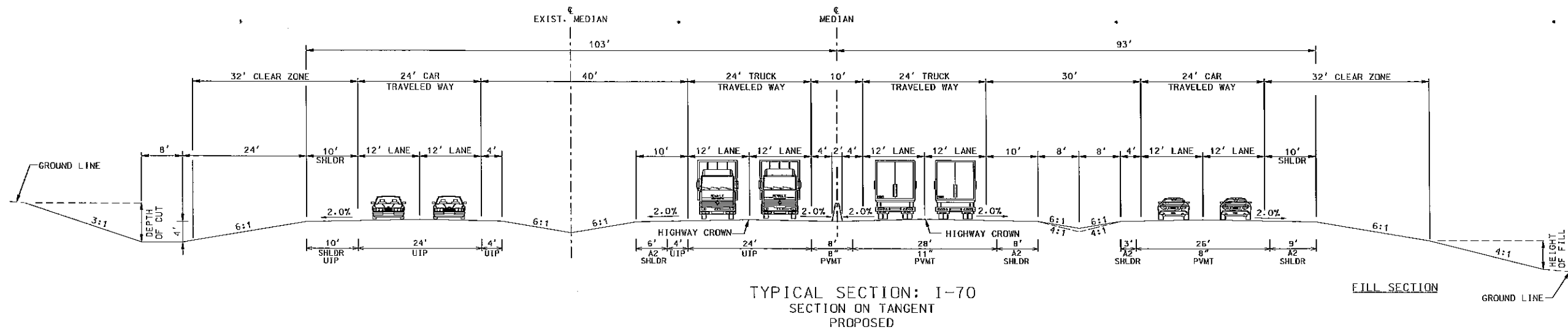
*Removal quantities from 'I-70 corridor Short Term Improvements Bridge List'

**Bridge Approach Slabs were Removed from Bridge Quantities and added into Pavement Quantities

Cross Road Pavement

Description	Mile	Type	Area (sqyd)*
K/EE	71	CR Rural	18,749
YY	75	CR Rural	17,990
65	78	ML Over	18,604
J	85	CR Rural	19,782
K	91	CR Rural	19,094
Total			94,219

* Includes Bridge Approach Slabs



TYPICAL SECTION: I-70
SECTION ON TANGENT
PROPOSED

FILL SECTION

District 4 - Lafayette County

Incident occurs between Exit 49 (mm 49.4 Route 13) and Exit 52 (mm 52.8 Route T)
 Primary Detour Route: Use Exit 49 to Route 13 north to Business 13 east to Route T south to I-70.

Incident occurs between Exit 52 (mm 52.8 Route T) and Exit 58 (mm 58.6 Route 23)
 Primary Detour Route: Use Exit 52 to south outer road east to Route KK north to south outer road east to Route 23 north to I-70.

Incident occurs between Exit 58 (mm 58.6 Route 23) and Exit 62 (mm 62.8 Route Y)
 Primary Detour Route: Use Exit 58 to Route 23 south to south outer road east to Route Y north to I-70.

District 2 - Saline County

Incident occurs between Exit 62 (mm 62.8 Route Y) and Exit 66 (mm 66.9 Route 127)
 Primary Detour Route: Use Exit 62 to SOR to Route 127 to I-70

Incident occurs between Exit 66 (mm 66.9 Route 127) and Exit 71 (mm 71.4 Route K)
 Primary Detour Route: Use Exit 66 to SOR to Route K to I-70

Incident occurs between Exit 71 (mm 71.4 Route K) and Exit 74 (mm 74.6 Route YY)
 Primary Detour Route: Use Exit 71 to SOR to Route YY to I-70

Incident occurs between Exit 74 (mm 74.6 Route YY) and Exit 78 (mm 78.2 Route 65)
 Primary Detour Route: Use Exit 74 to Route YY North to Route 65 South to I-70

*Note: Route YY has two one-lane bridges posted: Trucks over 19 Tons 15 mph on Bridge. (Not load limited.)

Incident occurs between Exit 78 (mm 78.2 Route 65) and Exit 84 (mm 84.6 Route J)
 Primary Detour Route: Use Exit 78 to SOR to NOR to Route J to I-70

Incident occurs between Exit 84 (mm 84.6 Route J) and Exit 89 (mm 89.9 Route K, Cooper Co.)
 Primary Detour Route: Use Exit 84 to Route AE East to Route Z to Route K to I-70

District 5 - Cooper County

Incident between Exit 89 (mm 89.9 Route K) and Exit 98 (mm 98 Route 135)
 *No direct link between these exits.
 Primary Detour Route: Exit 78 (Route 65) South to Route 50, Route 50 East to Route 63.

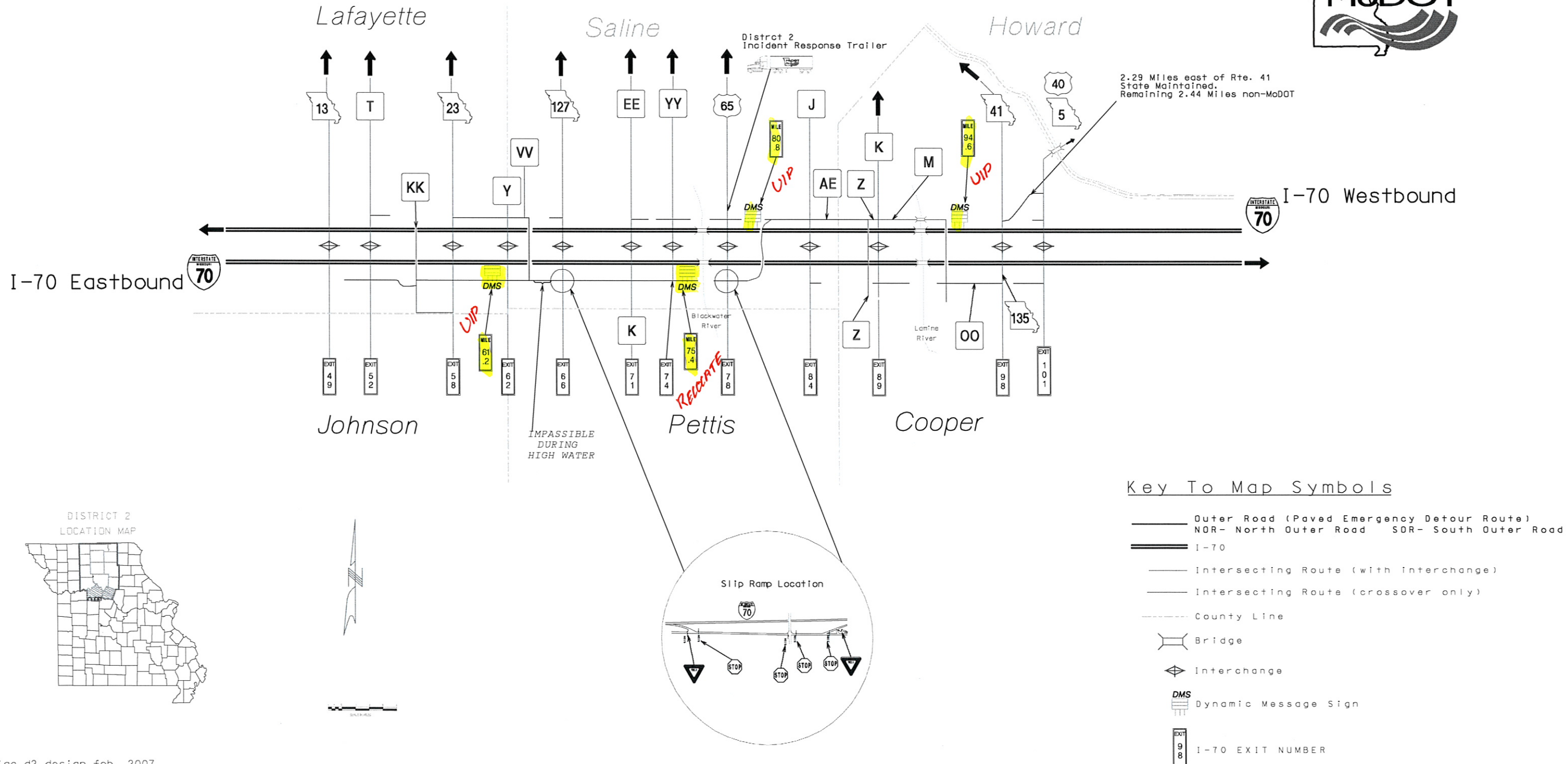
Incident between Exit 98 (mm 98 Route 135/41) and Exit 101 (Route 5)
 *No direct link between these exits.
 Primary Detour Route: Exit 78 (Route 65), South to Route 50, Route 50 East or Route 54 North.

I-70 Corridor Outer Roads Alternate Route Map

District 2 Incident Response



*Source- IMM-D2 rev.doc



Key To Map Symbols

- Outer Road (Paved Emergency Detour Route)
- NOR- North Outer Road SOR- South Outer Road
- == I-70
- Intersecting Route (with interchange)
- Intersecting Route (crossover only)
- - - County Line
- ⌢ Bridge
- ◊ Interchange
- DMS Dynamic Message Sign
- EXIT 98 I-70 EXIT NUMBER



Truck Only Lane Estimate Explanation & Assumptions:

Use in place all existing I-70 lanes and bridges.

Design all new pavement and bridges to the current legal limit for semi-trucks.

All pay item costs are based on Design – Bid – Build history.

All Design – Build costs are included in the Miscellaneous Costs.

Assumed that the grading quantities from the original EIS (six lane I-70 typical section) are valid for the TOL typical section.

D2 modified the unit cost that we received from the Bridge Division to remove the Design – Build costs that are included in the Miscellaneous Costs.

Reduced all cross road pavement and bridges from three lanes to two lanes.

Measured exact length of outer roads from drawings provided by HNTB.

Reduced the general purpose ramp grading based on the Rural Preliminary Design from the EPG.

Reduced the prorated amount of Retaining Walls due to all the walls being site specific at Rte 65.

Eliminated 1 set of Slip Ramps due to Rte YY & EE sharing one set of Slip Ramps.

Refined the Utility cost based on a one-call survey of utilities in the corridor.

Avoid Panhandle Eastern Gas Pipelines (2-24" & 2-30") at MM 97.

Eliminated the Maintenance of Traffic During Construction cost due to closing of minor bridges and schedule of work reducing the traffic control issues.

Eliminated the Corridor Enhancements due to no weigh stations or rest areas planned for this corridor.

Explanation of D2 Practical Design Estimate Quantities I-70 30 mile Segment Truck Only Lanes

Pavement and Base

- Mainline – 11” on 4” Perm on 4” Agg. Base

The existing I-70 Lanes were used-in-place for this item. This reduced the S.Y. quantity of this item by about ½. This results in a total pavement width of 28’. (28’ x 29.867 miles = 490,615 Sq. Yds.)

- Mainline – 8” on 4” Agg. Base

This pavement item was used for the new multipurpose lanes and in the median between the Truck Only Lanes (TOL). The median area was added for the median barrier to be placed on. Two lanes of pavement and the median result in a width for the pavement of 34’. (34’ x 29.867 miles = 595,747 Sq. Yds.)

- A2 Shoulder

New A2 shoulders are used on both sides of the new multipurpose lanes and on the outsides of the TOL. The existing 4’ shoulder of the westbound TOL will be used-in-place with an additional 6’ of A2 shoulder being added to make the shoulder a full 10’ wide. No A2 shoulder will be placed in the median between the eastbound and westbound TOL. This area will receive 8” pavement. The total width of new A2 shoulders is 26’. (26’ x 29.867 miles = 455,571 Sq. Yds.)

- Median Barrier

- Medium Duty – Interchange 7,111 sq yd

The areas for cross roads at interchanges were measured from drawings provided by HNTB. The turn lanes were then subtracted from the areas resulting in 94,219 Sq. Yds.

- Medium Duty – Crossover 3,111 sq yd

The estimate of 3,111 sq yds of pavement per crossover (without and interchange) was used. There are four crossovers in this section. (3,111 x 4 = 12,444 Sq. Yds.)

Outer Roadway

- Light Duty – Rural

Moving the tie-in points of the outer roads closer to the interchanges reduced the area of outer roads by 14,264 Sq. Yds. The difference made for a total of 343,605 Sq. Yds. of outer road pavement.

General

- Existing I-70 Pavement Removal

By using the existing I-70 lanes in-place removal of I-70 lanes is now zero.

- Existing Outer Road Pavement Removal

The quantity of outer road removal prorated from the 20-mile estimate was used for this item.

General Purpose Interchanges

- Ramps (Grading)

Ramp Grading is included in the Grading and Drainage Quantities.

- Ramps Pavement

Areas of ramp pavement were tabulated from HNTB interchange data. (96,515 Sq. Yds.)

- Illumination, Signing and signalization

The prorated estimate for illumination, signing and signalization from the 20-mile estimate was used for this item.

Truck Only Interchange (US-65)

- ***Ramps (Grading)***
5,575 Lin. Ft. of grading from HNTB data was used for this item.
- ***Ramps Pavement***
18,550 Sq. Yds. of ramp pavement from HNTB data was used for this item.
- ***Additional Truck Interchange Bridges***
There are no additional bridges required beyond what is tabulated in the bridges quantities.
- ***Additional Retaining Walls***
Retaining wall quantities were calculated from HNTB data. They were based on 9097 Lin. Ft. of wall with an average height of 12.5'. (113,713 Sq. Ft.)
- ***Slip Ramps Rural (Includes 4 Ramps)***
There are 4 interchanges in the estimate segment. The interchanges at Routes YY and EE will share ramps due to their close proximity with each other. This makes a total of 3 sets of ramps.

Bridges

- ***Mainline – I-70 over Road or Drainage***
The areas from HNTB's data were reduced to reflect utilizing the existing bridges in-place and only building bridges for the new lanes. (190,477 Sq. Ft.)
- ***Mainline – Bridge Removal***
The only bridge on the mainline that will require removal will be the one at the Route 65 interchange. (11,893 Sq. Ft.)
- ***Cross Roads – Over I-70 – 4-Span Open End***
HNTB bridge widths were reduced from 3-lane to 2-lane (28.67' wide x 248' long). (7110 Sq. Ft. per Bridge x 8 bridges = 56,880 Sq. Ft.)
- ***Bridge Removal***
43,354 Sq. Ft. of bridge removal as per HNTB calculations.
- ***Bridge Rehab***
No bridge rehab.
- ***Retaining Walls – MSE Walls***
6,148 Sq. Ft. of MSE walls estimated for each bridge. (6,148 Sq. Ft. x 8 bridges = 49,184 Sq. Ft.)

Grading and Drainage

- ***Clearing and Grubbing***
Acreage is tabulated from HNTB cost estimate. (1266 acres)
- ***Unclassified Excavation***
Tabulated from HNTB cost estimate. (7,527,945 Cu. Yds.)
- ***Compaction***
Tabulated from HNTB cost estimate. (8,733,839 Cu. Yds.)
- ***Borrow***
Tabulated from HNTB cost estimate. (1,519,505 Cu. Yds.)
- ***Outer Roadway Grading***
Mileage was measured from EIS drawing provided by HNTB. (23.03 miles)
- ***Incidental Drainage - Freeway***
Length of the project limits. (29.867 miles)
- ***Incidental Drainage – Local Road***

Mileage was measured from EIS drawing provided by HNTB. (23.03 miles)

- Erosion Control

Length of the project limits. (29.867 miles)

- Drainage Structures

Tabulated from HNTB cost estimate. (428,800 Sq. Ft./ Lin. Ft.)

- Fence

Tabulated from HNTB cost estimate. (130,286 Lin. Ft.)

Right of Way

Right of way quantities are from previous MoDOT 30 mile estimate.

Utility Relocations

- Along Existing Alignment

Length of the project limits. (29.867 miles)

- ITS

ITS costs are for relocating DMS at MM 75.4 (1 Lump Sum)

- Major Utility

By avoiding the Panhandle Eastern Gas Pipelines at mile marker 77 (2-24" and 2-30" lines) no known major utility work is required.

Miscellaneous Cost

- Mobilization

2% of construction cost

- Traffic Control

2% of construction cost

- Maintenance of Traffic During Construction

Not needed. A method of construction, like closing of minor interchanges, minimizing the required traffic control.

- Construction Management

6% of construction cost

- Miscellaneous Construction

2.5% of construction cost. Includes temporary erosion control, seeding and mulching, pavement marking and removals.

- Engineering Design

6% of construction cost

- Program Management and Administration

2% of construction cost

- Contingency

5.5% of construction cost

- Corridor Enhancements

No rest areas or weigh stations planned for the estimate area.

Section Description		1.0 ml E/O Rte. 65 to 1.0 ml E/O Rte. 41/135		1.0 ml E/O Rte. 65 to 0.5 ml W/O Rte. 41/135		0.7 ml W/O Rte. 65 to 1 ml E/O Rte. 41/135		
End Log Mile		89.00		87.50		89.00		
Begin Log Mile		79.00		79.00		77.30		
Length		20.00		18.50		21.70		
Transition Length 2 @ 0.4 miles		0.80		0.80		0.80		
Length of Usable Truck Lanes		19.20		17.70		20.90		
Number of Interchanges - Shared Use		3		2		3		
Number of Interchanges - Truck Separated		0		0		1		
Number of Crossovers - Grade Separation		4		4		4		
Major Stream Crossings		1		1		1		
Item	Unit	Unit or % Const. (2008)	Segment Quantity	Segment Cost	Segment Quantity	Segment Cost	Segment Quantity	Segment Cost
Pavement & Base								
Mainline I-70								
- Mainline - 11' on 4' Perm on 4' Agg Base	Sq. Yd.	\$ 48.50	657,067	\$ 30,553,800	607,787	\$ 28,282,080	712,917	\$ 33,150,656
- Mainline - 8' on 4' Agg	Sq. Yd.	\$ 29.50	305,067	\$ 8,995,467	282,187	\$ 8,324,507	330,897	\$ 9,764,421
- A2 Shoulder	Sq. Yd.	\$ 20.00	539,733	\$ 10,794,667	499,253	\$ 9,985,067	585,611	\$ 11,712,213
- Median Barrier	Ln. Ft.	\$ 50.00	105,800	\$ 5,280,000	97,680	\$ 4,884,000	114,578	\$ 5,728,000
Cross Roads								
- Medium Duty - No. Interchange* 7,111 sq yd	Sq. Yd.	\$ 33.50	21,333	\$ 714,656	14,222	\$ 476,437	21,333	\$ 714,656
- Medium Duty - No. Crossover* 3,111 sq yd	Sq. Yd.	\$ 33.50	12,444	\$ 416,874	12,444	\$ 416,874	12,444	\$ 416,874
Outer Roadway								
- Light Duty - Rural	Sq. Yd.	\$ 33.50	154,622	\$ 5,178,844	154,622	\$ 5,178,844	172,044	\$ 5,763,488
General								
- Existing I-70 Pavement Removal	Sq. Yd.	\$ 3.50	445,867	\$ 1,560,533	412,427	\$ 1,443,493	483,765	\$ 1,693,178
- Existing Outer Road Pavement Removal	Sq. Yd.	\$ 2.25	206,513	\$ 464,654	206,513	\$ 464,654	230,341	\$ 518,268
TOTAL PAVEMENT & BASE				\$ 63,964,295		\$ 58,436,958		\$ 69,462,656
Interchanges								
General Purpose								
- Ramps (Grading)	Lin. Ft.	\$ 500	21,255	\$ 10,627,250	14,170	\$ 7,084,833	21,255	\$ 10,627,250
- Ramp Pavement	Sq. Yd.	\$ 32.50	66,206	\$ 2,151,679	44,137	\$ 1,434,453	66,206	\$ 2,151,679
- Illumination, Signing and Signalization	Lump Sum	1	\$1,787,500	\$ 1,787,500	\$1,191,667	\$ 1,191,667	\$1,787,500	\$ 1,787,500
Truck Only (US-65)								
- Ramps (Grading)	Lin. Ft.	\$ 500	0	\$ -	0	\$ -	5,575	\$ 2,787,500
- Ramp Pavement	Sq. Yd.	\$ 35.50	0	\$ -	0	\$ -	18,550	\$ 658,525
- Additional Truck Interchange Bridges	Sq. Ft.	\$ 112.50	0	\$ -	0	\$ -	0	\$ -
- Additional Retaining Walls	Sq. Ft.	\$ 45.00	0	\$ -	0	\$ -	113,713	\$ 5,117,085
- Slip Ramps								
- Slip Ramps Rural (Includes 4 Ramps)	Each	\$ 875,000	2	\$ 1,750,000	1	\$ 1,750,000	2	\$ 3,500,000
TOTAL INTERCHANGES				\$ 16,316,429		\$ 11,469,953		\$ 26,629,539
Bridges								
Mainline								
- I-70 over Road or Drainage	Sq. Ft.	\$ 130	111,800	\$ 14,508,000	111,800	\$ 14,508,000	148,800	\$ 19,344,000
- Bridge Removal	Sq. Ft.	\$ 20	36,000	\$ 720,000	36,000	\$ 720,000	36,000	\$ 720,000
Cross Roads								
- Over I-70 - 4-Span Open End	Sq. Ft.	\$ 130	83,200	\$ 10,816,000	70,400	\$ 9,152,000	83,200	\$ 10,816,000
- Bridge Removal	Sq. Ft.	\$ 20	42,000	\$ 840,000	42,000	\$ 840,000	42,000	\$ 840,000
- Bridge Rehab	Sq. Ft.	\$ 20	0	\$ -	0	\$ -	0	\$ -
- MSE Walls	Sq. Ft.	\$ 45	5,964	\$ 268,377	5,517	\$ 248,249	6,471	\$ 291,189
TOTAL BRIDGES				\$27,162,377		\$25,468,249		\$32,011,168
Grading & Drainage								
- Clearing and Grubbing	Acre	\$ 2,000	820	\$ 1,640,000	759	\$ 1,517,807	890	\$ 1,780,111
- Unclassified Excavation	Cu. Yd.	\$ 3.75	4,686,537	\$ 17,574,516	4,335,047	\$ 16,256,427	4,771,977	\$ 17,894,912
- Compaction	Cu. Yd.	\$ 0.50	4,323,391	\$ 2,161,695	3,099,187	\$ 1,549,593	4,990,879	\$ 2,495,440
- Borrow	Cu. Yd.	\$ 6.50	498,198	\$ 3,238,288	460,833	\$ 2,995,418	540,545	\$ 3,513,544
- Outer roadways - Grading	Mile	\$ 300,000	11.31	\$ 3,392,045	10.93	\$ 3,278,408	12.37	\$ 3,710,227
- Incidental Drainage - Freeway	Mile	\$ 250,000	20.00	\$ 5,000,000	18.50	\$ 4,625,000	21.70	\$ 5,425,000
- Incidental Drainage - Local Road	Mile	\$ 100,000	11.31	\$ 1,130,882	10.93	\$ 1,092,803	12.37	\$ 1,238,742
- Drainage Structures	Sq. Ft./Lin. Ft.	\$ 9.00	373,060	\$ 3,357,543	345,081	\$ 3,105,727	404,770	\$ 3,642,934
- Fence	Lin. Ft.	\$ 7.50	121,440	\$ 910,800	108,240	\$ 811,800	130,416	\$ 978,120
TOTAL GRADING & DRAINAGE				\$ 38,408,226		\$ 35,882,798		\$ 40,527,031
Right of Way Acquisition								
- Land - Agricultural (Vacant)	Acre	\$ 2,500	491.3114754	\$ 1,228,279	398.9831148	\$ 997,408	467.9729508	\$ 1,169,932
- Land - Rural Residential Acreage	Acre	\$ 5,000	28.06557377	\$ 140,328	24.11065574	\$ 120,553	28.28114754	\$ 141,406
- Improvements - Rural Residential	Lump Sum	\$ 100,000	18.38065574	\$ 1,838,066	16.98380656	\$ 1,698,381	19.92131148	\$ 1,992,131
- Land & Improvement - Urban/Sub Residential	Lump Sum	\$ 150,000	2.295081967	\$ 344,282	2.12295082	\$ 318,443	2.480163034	\$ 372,525
- Land - Rural Industrial Acreage (vacant)	Acre	\$ 10,000	11.93442823	\$ 119,344	11.03934426	\$ 110,393	12.94885246	\$ 129,489
- Comm. Bus. (not at Interchange) Rural/Sub	Lump Sum	Varies	2	\$ 360,000	2	\$ 360,000	2	\$ 360,000
- Land - Rural Interchange (undeveloped)	Acre	\$ 20,000	5.573770492	\$ 111,475	5.155737705	\$ 103,115	6.047540984	\$ 120,951
- Land - Developed Interchange	Sq. Ft.	\$ 8	824,068.1803	\$ 6,592,553	762,263.8918	\$ 6,098,112	894,116.0607	\$ 7,152,920
- Improvements - Developed Interchange	Lump Sum	\$ 100,000	14	\$ 1,400,000	14	\$ 1,400,000	14	\$ 1,400,000
- Hazardous Materials Removal	Per Site	\$ 100,000	8	\$ 800,000	2	\$ 200,000	8	\$ 800,000
- Outdoor Advertising Removal	Each	\$ 50,000	20.6557377	\$ 1,032,787	19.10655738	\$ 955,328	22.41147541	\$ 1,120,574
- Acquisition and Relocation (Includes Condemnation Costs)	% ROW	25%	\$20,105,094	\$ 5,026,274	\$12,611,712	\$ 3,152,928	\$21,080,927	\$ 5,285,232
- Relocation Contingency	% Improv	25%	\$10,370,656	\$ 2,592,664	\$4,147,357	\$ 1,036,839	\$10,587,061	\$ 2,641,765
TOTAL RIGHT OF WAY				\$ 27,724,032		\$ 16,801,480		\$ 24,967,925
Utility Relocations								
- Along Existing Alignment	Mile	\$ 225,000	20.00	\$ 4,500,000	18.50	\$ 4,162,500	21.70	\$ 4,882,500
- ITS	Lump Sum	1	\$2,458,738	\$ 2,458,738	\$2,458,557	\$ 2,456,557	\$2,458,738	\$ 2,458,738
- Major Utility	L.S. Each	1	\$0	\$ -	\$0	\$ -	\$0	\$ -
TOTAL UTILITY RELOCATIONS				\$ 7,158,738		\$ 6,619,057		\$ 7,341,238
Miscellaneous Costs								
- Mobilization	% Const.	2%	\$180,719,098	\$ 3,614,382	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Traffic Control	% Const.	2%	\$180,719,098	\$ 3,614,382	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Maintenance of Traffic During Construction	% Const.	4%	\$180,719,098	\$ 7,228,764	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Construction Management	% Const.	6%	\$180,719,098	\$ 10,843,146	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Miscellaneous Construction	% Const.	2%	\$180,719,098	\$ 3,614,382	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Engineering Design	% Const.	6%	\$180,719,098	\$ 10,843,146	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Program Management and Administration	% Const.	2%	\$180,719,098	\$ 3,614,382	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Contingency	% Const.	10%	\$180,719,098	\$ 18,071,910	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
- Corridor Enhancements	% Const.	4%	\$180,719,098	\$ 7,228,764	\$159,083,835	\$ 3,181,677	\$208,318,154	\$ 4,166,363
TOTAL MISCELLANEOUS COSTS				\$ 68,576,852		\$ 61,247,276		\$ 80,202,498
TOTAL (2008 Dollars)				\$ 250,295,948		\$ 216,716,730		\$ 285,338,956

	0.7 ml W/O Rte. 65 to 1 ml E/O Rte. 41/135 Segment Prorated to 30 Mile length	30 Mile Segment Prorated to Final Cost
Length	30	30
Multiplier for Length	138.25%	N/A
Cost Factor	N/A	60.840%
Pavement & Base		
Mainline I-70		
- Mainline - 11' on 4' Perm on 4' Agg Base	\$ 45,830,400	\$ 27,883,178
- Mainline - 8' on 4' Agg	\$ 13,499,200	\$ 8,212,903
- A2 Shoulder	\$ 16,192,000	\$ 9,851,200
- Median Barrier	\$ 7,920,000	\$ 4,815,522
Cross Roads		
- Medium Duty - No. Interchange* 7,111 sq yd	\$ 988,003	\$ 601,100
- Medium Duty - No. Crossover * 3,111 sq yd	\$ 576,324	\$ 350,635
Outer Roadway		
General		
- Existing I-70 Pavement Removal	\$ 2,340,800	\$ 1,424,141
- Existing Outer Road Pavement Removal	\$ 716,500	\$ 435,918
TOTAL PAVEMENT & BASE	\$ 96,031,184	\$ 58,425,265
Interchanges		
General Purpose		
- Ramps (Grading)	\$ 14,692,051	\$ 8,938,632
- Ramp Pavement	\$ 2,974,711	\$ 1,809,788
- Illumination, Signing and Signalization	\$ 2,471,198	\$ 1,503,475
Truck Only (US-65)		
- Ramps (Grading)	\$ 3,853,667	\$ 2,344,580
- Ramp Pavement	\$ 810,403	\$ 503,868
- Additional Truck Interchange Bridges	\$ -	\$ -
- Additional Retaining Walls	\$ 7,074,311	\$ 4,304,005
- Slip Ramps		
- Slip Ramps Rural (Includes 4 Ramps)	\$ 4,838,710	\$ 2,943,867
TOTAL INTERCHANGES	\$ 38,815,031	\$ 22,388,235
Bridges		
Mainline		
- I-70 over Road or Drainage	\$ 26,742,857	\$ 16,270,333
- Bridge Removal	\$ 995,392	\$ 605,596
Cross Roads		
- Over I-70 - 4-Span Open End	\$ 14,952,985	\$ 9,097,380
- Bridge Removal	\$ 840,000	\$ 506,528
- Bridge Rehab	\$ -	\$ -
- MSE Walls	\$ 402,566	\$ 244,921
TOTAL BRIDGES	\$ 44,265,100	\$ 27,620,758
Grading & Drainage		
- Clearing and Grubbing	\$ 2,460,984	\$ 1,497,280
- Unclassified Excavation	\$ 24,739,510	\$ 15,051,496
- Compaction	\$ 3,242,543	\$ 1,972,761
- Borrow	\$ 4,857,434	\$ 2,955,258
- Outer roadways - Grading	\$ 3,120,690	\$ 1,929,346
- Incidental Drainage - Freeway	\$ 7,600,000	\$ 4,662,990
- Incidental Drainage - Local Road	\$ 1,709,782	\$ 1,040,234
- Drainage Structures	\$ 3,642,934	\$ 2,222,000
- Fence	\$ 978,120	\$ 596,314
TOTAL GRADING & DRAINAGE	\$ 56,028,153	\$ 34,067,484
Right of Way Acquisition		
- Land - Agricultural (Vacant)	\$ 1,228,279	\$ 749,032
- Land - Rural Residential Acreage	\$ 140,328	\$ 85,037
- Improvements - Rural Residential	\$ 1,838,066	\$ 1,118,937
- Land & Improvement - Urban/Sub Residential	\$ 344,282	\$ 210,581
- Land - Rural Industrial Acreage (vacant)	\$ 119,344	\$ 72,823
- Comm. Bus. (not at Interchange) Rural/Sub	\$ 360,000	\$ 218,400
- Land - Rural Interchange (undeveloped)	\$ 111,475	\$ 67,665
- Land - Developed Interchange	\$ 6,592,553	\$ 3,954,312
- Improvements - Developed Interchange	\$ 1,400,000	\$ 840,000
- Hazardous Materials Removal	\$ 800,000	\$ 480,000
- Outdoor Advertising Removal	\$ 1,032,787	\$ 619,667
- Acquisition and Relocation (Includes Condemnation Costs)	\$ 5,026,274	\$ 3,015,762
- Relocation Contingency	\$ 2,592,664	\$ 1,557,191
TOTAL RIGHT OF WAY	\$ 27,724,032	\$ 16,801,480
Utility Relocations		
- Along Existing Alignment	\$ 4,500,000	\$ 2,700,000
- ITS	\$ 2,458,738	\$ 1,475,243
- Major Utility	\$ -	\$ -
TOTAL UTILITY RELOCATIONS	\$ 6,958,738	\$ 4,175,243
Miscellaneous Costs		
- Mobilization	\$ 3,614,382	\$ 2,168,629
- Traffic Control	\$ 3,614,382	\$ 2,168,629
- Maintenance of Traffic During Construction	\$ 7,228,764	\$ 4,337,258
- Construction Management	\$	

Bridges							
Description	Mile	Type	CR Rural Area (sqft)	ML Over Area (sqft)	CR - Existing Removal (sqft)*	ML - Existing Removal (sqft)*	Comments
Interchange w/ M/O Rte. E	41 44	CR Rural ML Over	19,199		5,705		
Interchange w/ H	45	CR Rural	19,204	13,351	5,307		
Interchange w/ 13 Davis Creek	49 50	CR Rural ML Over	19,200	22,668	15,631		
C.R. 353	51	CR Rural	8,399		5,627		
Interchange w/ T Mulkey Creek	53 54	CR Rural ML Over	19,204	10,692	5,414		
C.R. 263/KK	55	CR Rural	8,389		5,414		
C.R. 268	57	CR Rural	8,389		5,414		
Interchange w/ 23	59	ML Over		54,534		11,920	
Interchange w/ VV/Y C.R. Frontage	63 64	CR Rural CR Rural	19,198 7,798		5,521 5,414		Removal estimated from aerial
Davis Creek	66	ML Over		40,868			
Interchange 127	67	CR Rural	19,202		6,349		
Interchange w/ K/EE	71	CR Rural	18,602		5,334		
Interchange w/ YY Blackwater River	75 77	CR Rural ML Over	16,803	64,970	5,521		
Interchange w/ 65 C.R. 211	78 82	ML Over CR Rural		44,768		11,893	
Interchange w/ J	85	CR Rural	8,404		5,334		
C.R. 225	86	CR Rural	18,001		5,787		
C.R. Z	87	CR Rural	7,795		5,334		
Interchange w/ K Lamine River	91 93	CR Rural ML Over	18,596	71,520	6,294		
C.R. M	94	CR Rural	6,600		4,693		
Chouteau Creek	95	ML Over		27,563			
Interchange 135 Dunkles Dr.	98 100	CR Rural CR Rural	18,000 14,408		5,734 5,334		
Total			283,194	350,934	120,218	23,813	

*Removal quantities from 'I-70 corridor Short Term Improvements Bridge List'

Bridge Rehab

Description	Mile	Type	ML Rehab Area (sqft)
Rte. E	44	ML Over	6,054
Davis Creek	50	ML Over	20,050
Mulkey Creek	54	ML Over	9,338
Davis Creek	66	ML Over	36,669
Blackwater River	77	ML Over	57,974
Lamine River	93	ML Over	51,094
Chouteau Creek	95	ML Over	22,498
Total			203,677

*Rehab quantities from 'I-70 corridor Short Term Improvements Bridge

Mainline 8 Lane Rural Pavement

Begin	End	Length	Area (sqyd)
Begin SIU2	Rte. E Bridge	26,283	484,775
Rte. E Bridge	Davis Creek Bridge	33,763	622,740
Davis Creek Bridge	Mulkey Creek Bridge	20,391	376,101
Mulkey Creek Bridge	Interchange w/ 23	22,170	408,913
Interchange w/ 23	Davis Creek Bridge	37,140	685,027
Davis Creek Bridge	Blackwater River Bridge	59,951	1,105,763
Blackwater River Bridge	Interchange w/ 65	4,952	91,337
Interchange w/ 65	Lamine River Bridge	77,092	1,421,919
Lamine River Bridge	Chouteau Creek Bridge	11,093	204,604
Chouteau Creek Bridge	End SIU2	24,582	453,401
Total		317,417	5,854,580

Barrier

Begin	End	Length (ft)
Begin SIU2	Rte. E Bridge	26,283
Rte. E Bridge	Davis Creek Bridge	33,763
Davis Creek Bridge	Mulkey Creek Bridge	20,391
Mulkey Creek Bridge	Interchange w/ 23	22,170
Interchange w/ 23	Davis Creek Bridge	37,140
Davis Creek Bridge	Blackwater River Bridge	59,951
Blackwater River Bridge	Interchange w/ 65	4,952
Interchange w/ 65	Lamine River Bridge	77,092
Lamine River Bridge	Chouteau Creek Bridge	11,093
Chouteau Creek Bridge	End SIU2	24,582
Total		317,417

Ramp Pavement

Description	Mile	Type	Area (sqyd)	Area (sqyd)
Interchange w/ M/O	41	CR Rural	19,586	
Interchange w/ H	45	CR Rural	19,639	
Interchange w/ 13	49	CR Rural	21,833	
Interchange w/ T	53	CR Rural	19,551	
Interchange w/ 23	59	ML Over	23,962	
Interchange w/ VV/Y	63	CR Rural	19,580	
Interchange 127	67	CR Rural	21,546	
Interchange w/ K/EE	71	CR Rural	19,608	
Interchange w/ YY	75	CR Rural	18,936	
Interchange w/ 65	78	ML Over	18,655	
TOL Interchange w/65	78	ML Over		18,550
Interchange w/ J	85	CR Rural	19,392	
Interchange w/ K	91	CR Rural	19,924	
Interchange 135	98	CR Rural	22,610	
Total			264,822	18,550

Cross Road Pavement

Description	Mile	Type	Area (sqyd)
M/O	41	CR Rural	21,634
H	45	CR Rural	22,651
13	49	CR Rural	26,666
T	53	CR Rural	21,400
23	59	ML Over	25,927
VV/Y	63	CR Rural	24,036
127	67	CR Rural	20,945
K/EE	71	CR Rural	21,775
YY	75	CR Rural	21,035
65	78	ML Over	17,170
J	85	CR Rural	23,161
K	91	CR Rural	22,271
135	98	CR Rural	21,264
Total			289,935

Outer Road Pavement

Begin	End	Area (sqyd)
Begin SIU2	M/O	39,726
M/O	H	77,611
H	13	75,808
13	T	41,251
T	23	74,541
23	VV/Y	76,693
VV/Y	127	88,363
127	K/EE	108,134
K/EE	YY	56,496
YY	65	29,412
65	J	43,022
J	K	45,767
K	135	75,038
135	End SIU2	15,614
Total		847,476

Ramp Grading

Description	Mile	Length(Lin. Ft.)	Length (Lin. Ft.)
Interchange w/ M/O	41	6,365	
Interchange w/ H	45	6,382	
Interchange w/ 13	49	6,977	
Interchange w/ T	53	6,355	
Interchange w/ 23	59	6,518	
Interchange w/ VV/Y	63	6,419	
Interchange 127	67	6,788	
Interchange w/ K/EE	71	6,369	
Interchange w/ YY	75	6,147	
Interchange w/ 65	78	6,875	
TOL Interchange w/ 65	78		5,575
Interchange w/ J	85	6,276	
Interchange w/ K	91	6,389	
Interchange 135	98	7,158	
Total		85,018	5,575

*Calculated from intersection of CR to halfway down accel lane (vice versa)

Retaining Walls

Description	Mile	Type	Area (sqft)
Interchange w/ 65	78	ML Over	113,713
Total			113,713

*Retaining Wall quantities Calculated based on 9097 ft w/ average height of 12.5 ft.