

APPENDIX S

Cost Estimates

Corridor-wide Improvement Alternatives

Alternative 1 - Revert to Old Striping				
Item Description	Unit	Quantity	Unit Cost	Cost
HMA Milling, 3" or Less	SY	31,470	\$ 3.00	\$ 94,410.00
Hot Mix Asphalt Pavement	Ton	3,690	\$ 95.00	\$ 350,550.00
Traffic Stripes/Markings	LF	13,275	\$ 3.50	\$ 46,462.50
Overall Project Items/Contingency:				\$ 403,000.00
Subtotal:				\$ 894,500.00

Alternative 2 - No-Build (Existing, partial road diet)				
Item Description	Unit	Quantity	Unit Cost	Cost
Subtotal				\$ -

Alternative 3 - Basic Road Diet (3 lanes Striped Shoulder)				
Item Description	Unit	Quantity	Unit Cost	Cost
HMA Milling, 3" or Less	SY	60,610	\$ 3.00	\$ 181,830.00
Hot Mix Asphalt Pavement	Ton	7,100	\$ 95.00	\$ 674,500.00
Traffic Stripes/Markings	LF	48,080	\$ 3.50	\$ 168,280.00
Overall Project Items/Contingency:				\$ 840,190.00
Subtotal:				\$ 1,864,800.00

Alternative 4 - Enhanced Road Diet (3 lanes with bike lanes)				
Item Description	Unit	Quantity	Unit Cost	Cost
HMA Milling, 3" or Less	SY	60,610	\$ 3.00	\$ 181,830.00
Hot Mix Asphalt Pavement	Ton	7,100	\$ 95.00	\$ 674,500.00
Traffic Stripes/Markings	LF	59,880	\$ 3.50	\$ 209,580.00
Overall Project Items/Contingency:				\$ 874,050.00
Subtotal:				\$ 1,940,000.00

Alternative 5 - Narrow Roadway + Shared Use Paths				
Item Description	Unit	Quantity	Unit Cost	Cost
HMA Milling, 3" or Less	SY	57,990	\$ 3.00	\$ 173,970.00
Pavement Removal	SY	2,630	\$ 40.00	\$ 105,200.00
Hot Mix Asphalt Pavement	Ton	6,790	\$ 95.00	\$ 645,050.00
Traffic Stripes/Markings	LF	48,080	\$ 3.50	\$ 168,280.00
Concrete Curb	LF	11,800	\$ 35.00	\$ 413,000.00
SUP Hot Mix Asphalt Pavement	Ton	3,682	\$ 75.00	\$ 276,120.00
SUP DGA	SY	10,490	\$ 15.00	\$ 157,350.00
SUP Curb Ramps	U	60	\$ 2,000.00	\$ 120,000.00
Overall Project Items/Contingency:				\$ 1,688,360.00
Subtotal:				\$ 3,747,400.00

Intersection Improvement Options

Scotch Road - Alternate A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	5,070	\$ 47.00	\$ 238,290.00
Hot Mix Asphalt Pavement	Ton	590	\$ 95.00	\$ 56,050.00
Traffic Stripes/Markings	LF	2,000	\$ 3.50	\$ 7,000.00
Concrete Curb	LF	2,760	\$ 35.00	\$ 96,600.00
Concrete Island	SY	390	\$ 135.00	\$ 52,650.00
Truck Apron	SY	560	\$ 70.00	\$ 39,200.00
Concrete Sidewalk	SY	950	\$ 100.00	\$ 95,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	1,830	\$ 15.00	\$ 27,450.00
ROW Impacts	LS	1	\$ 100,000.00	\$ 100,000.00
Overall Project Items/Contingency:				\$ 597,160.00
Subtotal:				\$ 1,325,400.00

Overall Project Items/Contingency Assumptions	
MPT	12%
Utilities	12%
Project Setup Items	18%
ROW	10%
Construction Engineering	10%
Contingency	20%
Total:	82%

Preliminary Preferred Alternative Totals		
PPA	Alt Selected	Totals
Corridor-wide	Alt 4	\$ 1,940,000.00
Scotch Road	NA	\$ -
Lower Ferry Road	Alt A	\$ 1,253,500.00
Farrell Avenue	Alt B	\$ 587,000.00
Olden Avenue	Alt A	\$ 1,637,500.00
Parkside Avenue	Alt A	\$ 517,000.00
Pennington Road	NA	\$ -
Ewing High School	RFFB	\$ 25,000.00
TOTAL PROJECT COST		\$ 5,960,000.00
SAY		\$ 6,000,000.00

Scotch Road - Alternate B				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	5,060	\$ 47.00	\$ 237,820.00
Hot Mix Asphalt Pavement	Ton	780	\$ 95.00	\$ 74,100.00
Traffic Stripes/Markings	LF	10,000	\$ 3.50	\$ 35,000.00
Concrete Curb	LF	3,170	\$ 35.00	\$ 110,950.00
Concrete Island	SY	620	\$ 135.00	\$ 83,700.00
Truck Apron	SY	560	\$ 70.00	\$ 39,200.00
Concrete Sidewalk	SY	1,000	\$ 100.00	\$ 100,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	2,230	\$ 15.00	\$ 33,450.00
ROW Impacts	LS	1	\$ 100,000.00	\$ 100,000.00
Overall Project Items/Contingency:				\$ 680,790.00
Subtotal:				\$ 1,511,100.00

Scotch Road - Alternate C				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	1,690	\$ 47.00	\$ 79,430.00
Hot Mix Asphalt Pavement	Ton	80	\$ 95.00	\$ 7,600.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	480	\$ 35.00	\$ 16,800.00
Concrete Sidewalk	SY	270	\$ 100.00	\$ 27,000.00
Curb Ramps	U	8	\$ 1,000.00	\$ 8,000.00
DGA	SY	160	\$ 15.00	\$ 2,400.00
Traffic Signal	LS	1	\$ 150,000.00	\$ 150,000.00
Overall Project Items/Contingency:				\$ 153,670.00
Subtotal:				\$ 458,900.00

Lower Ferry Road - Alternate A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	3,740	\$ 47.00	\$ 175,780.00
Hot Mix Asphalt Pavement	Ton	620	\$ 95.00	\$ 58,900.00
Traffic Stripes/Markings	LF	10,000	\$ 3.50	\$ 35,000.00
Concrete Curb	LF	2,450	\$ 35.00	\$ 85,750.00
Concrete Island	SY	300	\$ 135.00	\$ 40,500.00
Truck Apron	SY	210	\$ 70.00	\$ 14,700.00
Concrete Sidewalk	SY	890	\$ 100.00	\$ 89,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	1,540	\$ 15.00	\$ 23,100.00
ROW Impacts	LS	1	\$ 150,000.00	\$ 150,000.00
Overall Project Items/Contingency:				\$ 564,760.00
Subtotal:				\$ 1,253,500.00

Lower Ferry Road - Alternate B				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	840	\$ 47.00	\$ 39,480.00
Hot Mix Asphalt Pavement	Ton	80	\$ 95.00	\$ 7,600.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	450	\$ 35.00	\$ 15,750.00
Concrete Sidewalk	SY	400	\$ 100.00	\$ 40,000.00
Curb Ramps	U	8	\$ 1,000.00	\$ 8,000.00
DGA	SY	150	\$ 15.00	\$ 2,250.00
Traffic Signal	LS	1	\$ 200,000.00	\$ 200,000.00
Overall Project Items/Contingency:				\$ 268,210.00
Subtotal:				\$ 595,300.00

Lower Ferry Road - Alternate C				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	1,140	\$ 47.00	\$ 53,580.00
Hot Mix Asphalt Pavement	Ton	140	\$ 95.00	\$ 13,300.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	490	\$ 35.00	\$ 17,150.00
Concrete Sidewalk	SY	440	\$ 100.00	\$ 44,000.00
Curb Ramps	U	8	\$ 1,000.00	\$ 8,000.00
DGA	SY	300	\$ 15.00	\$ 4,500.00
Traffic Signal	LS	1	\$ 200,000.00	\$ 200,000.00
Overall Project Items/Contingency:				\$ 290,720.00
Subtotal:				\$ 645,300.00

Farrell Avenue Roundabout - Alternative A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	3,540	\$ 47.00	\$ 166,380.00
Hot Mix Asphalt Pavement	Ton	620	\$ 95.00	\$ 58,900.00
Traffic Stripes/Markings	LF	7,500	\$ 3.50	\$ 26,250.00
Concrete Curb	LF	2,450	\$ 35.00	\$ 85,750.00
Concrete Island	SY	290	\$ 135.00	\$ 39,150.00
Truck Apron	SY	190	\$ 70.00	\$ 13,300.00
Concrete Sidewalk	SY	890	\$ 100.00	\$ 89,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	1,520	\$ 15.00	\$ 22,800.00
ROW Impacts	LS	1	\$ -	\$ -
Overall Project Items/Contingency:				\$ 424,380.00
Subtotal:				\$ 942,000.00

Farrell Avenue Signalized - Alternate B				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	1,330	\$ 47.00	\$ 62,510.00
Hot Mix Asphalt Pavement	Ton	90	\$ 95.00	\$ 8,550.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	535	\$ 35.00	\$ 18,725.00
Concrete Sidewalk	SY	300	\$ 100.00	\$ 30,000.00
Curb Ramps	U	8	\$ 1,000.00	\$ 8,000.00
DGA	SY	180	\$ 15.00	\$ 2,700.00
Traffic Signal	LS	1	\$ 178,000.00	\$ 178,000.00
Overall Project Items/Contingency:				\$ 264,440.00
Subtotal:				\$ 587,000.00

North Olden Avenue - Alternate A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	5,070	\$ 47.00	\$ 238,290.00
Hot Mix Asphalt Pavement	Ton	960	\$ 95.00	\$ 91,200.00
Traffic Stripes/Markings	LF	14,000	\$ 3.50	\$ 49,000.00
Concrete Curb	LF	3,600	\$ 35.00	\$ 126,000.00
Concrete Island	SY	620	\$ 135.00	\$ 83,700.00
Truck Apron	SY	560	\$ 70.00	\$ 39,200.00
Concrete Sidewalk	SY	1,170	\$ 100.00	\$ 117,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	2,620	\$ 15.00	\$ 39,300.00
ROW Impacts	LS	1	\$ 100,000.00	\$ 100,000.00
Overall Project Items/Contingency:				\$ 737,750.00
Subtotal:				\$ 1,637,500.00

North Olden Avenue - Alternate B				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	1,090	\$ 47.00	\$ 51,230.00
Hot Mix Asphalt Pavement	Ton	90	\$ 95.00	\$ 8,550.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	565	\$ 35.00	\$ 19,775.00
Concrete Sidewalk	SY	320	\$ 100.00	\$ 32,000.00
Curb Ramps	U	12	\$ 1,000.00	\$ 12,000.00
DGA	SY	190	\$ 15.00	\$ 2,850.00
Traffic Signal	LS	1	\$ 202,000.00	\$ 202,000.00
Overall Project Items/Contingency:				\$ 280,780.00
Subtotal:				\$ 623,200.00

Parkside Avenue - Alternate A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	460	\$ 47.00	\$ 21,620.00
Hot Mix Asphalt Pavement	Ton	110	\$ 95.00	\$ 10,450.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	325	\$ 35.00	\$ 11,375.00
Concrete Sidewalk	SY	190	\$ 100.00	\$ 19,000.00
Curb Ramps	U	8	\$ 1,000.00	\$ 8,000.00
DGA	SY	240	\$ 15.00	\$ 3,600.00
Traffic Signal	LS	1	\$ 196,000.00	\$ 196,000.00
Overall Project Items/Contingency:				\$ 232,920.00
Subtotal:				\$ 517,000.00

Pennington Road - Alternate A				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	4,420	\$ 47.00	\$ 207,740.00
Hot Mix Asphalt Pavement	Ton	660	\$ 95.00	\$ 62,700.00
Traffic Stripes/Markings	LF	8,000	\$ 3.50	\$ 28,000.00
Concrete Curb	LF	3,690	\$ 35.00	\$ 129,150.00
Concrete Island	SY	360	\$ 70.00	\$ 25,200.00
Truck Apron	SY	540	\$ 70.00	\$ 37,800.00
Concrete Sidewalk	SY	1,390	\$ 100.00	\$ 139,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	1,960	\$ 15.00	\$ 29,400.00
ROW Impacts	LS	1	\$ 40,000.00	\$ 40,000.00
Overall Project Items/Contingency:				\$ 586,300.00
Subtotal:				\$ 1,301,300.00

Pennington Road - Alternate B				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	7,140	\$ 47.00	\$ 335,580.00
Hot Mix Asphalt Pavement	Ton	1,110	\$ 95.00	\$ 105,450.00
Traffic Stripes/Markings	LF	5,000	\$ 3.50	\$ 17,500.00
Concrete Curb	LF	4,445	\$ 35.00	\$ 155,575.00
Concrete Island	SY	600	\$ 70.00	\$ 42,000.00
Truck Apron	SY	500	\$ 70.00	\$ 35,000.00
Concrete Sidewalk	SY	1,730	\$ 100.00	\$ 173,000.00
Curb Ramps	U	16	\$ 1,000.00	\$ 16,000.00
DGA	SY	2,880	\$ 15.00	\$ 43,200.00
ROW Impacts	LS	1	\$ 70,000.00	\$ 70,000.00
Overall Project Items/Contingency:				\$ 814,520.00
Subtotal:				\$ 1,807,900.00

Pennington Road - Alternate C				
Item Description	Unit	Quantity	Unit Cost	Cost
Pavement Removal/Excavation	SY	190	\$ 47.00	\$ 8,930.00
Hot Mix Asphalt Pavement	Ton	20	\$ 95.00	\$ 1,900.00
Traffic Stripes/Markings	LF	4,000	\$ 3.50	\$ 14,000.00
Concrete Curb	LF	115	\$ 35.00	\$ 4,025.00
Concrete Sidewalk	SY	70	\$ 100.00	\$ 7,000.00
Curb Ramps	U	10	\$ 1,000.00	\$ 10,000.00
DGA	SY	40	\$ 15.00	\$ 600.00
Traffic Signal	LS	1	\$ 212,000.00	\$ 212,000.00
			Overall Project Items/Contingency:	\$ 211,940.00
			Subtotal:	\$ 470,400.00

Device	Quantity	Unit Cost	Total Cost	Assumptions
Pedestian Crossing Sign (36" x 36")	18 SF	\$37.50	\$675 SF	
Down Arrow Sign (24" x 12")	4 SF	\$37.50	\$150 SF	
Rapid Fire Flashing Beacon (RFFB)	4 U	\$600.00	\$2400 U	Cost is half of a traditional signal head
Push Button	2 U	\$340.00	\$680 U	
Traffic Signal Pole, Aluminum	2 U	\$2,800.00	\$5600 U	
Foundation, Type SFT	2 U	\$2,000.00	\$4000 U	
3" RMC	50 LF	\$47.00	\$2350 LF	Existing conduits will be reused to the controller
10/C	100 LF	\$3.30	\$330 LF	
2/C	100 LF	\$2.25	\$225 LF	

\$16,410

25% Contingency \$4,103

Say \$ 25,000.00