

# Appendix D

## Cost Estimates

- Recommended Facility Plan (Based on Alternate A: Road Diet)
- Alternate B: Trail Reorientation to Arlington Road Signal
- Alternate C: Pedestrian Bridge

## APPENDIX D COST ESTIMATES

### CAPITAL CRESCENT TRAIL - RECOMMENDED FACILITY PLAN - 30% DESIGN

ITEM	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
<b>CATEGORY 1 - PRELIMINARY</b>						
		MOBILIZATION AND MAINTENANCE OF TRAFFIC	LS	1	\$59,000.00	\$59,000
		EROSION AND SEDIMENT CONTROLS	LS	1	\$36,500.00	\$36,500
<b>CATEGORY 2 - GRADING</b>						
		CLASS 1 EXCAVATION	CY	400	\$35.00	\$14,000
		REMOVAL OF EXISTING COMBINATION CURB & GUTTER	LF	650	\$15.00	\$9,750
		REMOVAL OF EXISTING PAVEMENT	CY	3,450	\$25.00	\$86,250
		TREE CLEARING AND DEMOLITION	SY	25	\$125.00	\$3,125
<b>CATEGORY 3 - DRAINAGE</b>						
		ROAD/TRAIL DRAINAGE, LFP CULVERT REPLACEMENT, POOL TRENCH DRAIN REPLACEMENT; % OF CAT. 2,4,5,6			15%	\$39,030
		STORMWATER MANAGEMENT - BIOSWALE ~1300 CF	LS	1	\$49,520.00	\$49,520
<b>CATEGORY 4 - STRUCTURES</b>						
	N/A	N/A	-			\$0
<b>CATEGORY 5 - PAVING</b>						
		5 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	200	\$3.50	\$700
		5 INCH YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	2,000	\$3.50	\$7,000
		24 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	570	\$20.00	\$11,400
		2 INCH SUPERPAVE ASPHALT MIX FOR SURFACE	TON	200	\$150.00	\$30,000
		2" SURFACE MILLING	SY	3,450	\$6.00	\$20,700
		4 INCH GRADED AGGREGATE BASE COURSE	SY	1,100	\$15.00	\$16,500
		<b>TRAFFIC CALMING: HILLANDALE ROAD NARROWING, ALL INCLUSIVE</b>	<b>LUMP</b>	<b>1</b>	<b>\$200,000.00</b>	<b>\$200,000</b>
<b>CATEGORY 6 - SHOULDER</b>						
		ASPHALT SPEED HUMP	Lump	2	\$5,000.00	\$10,000
		ADA RAMP	EA	8	\$1,250.00	\$10,000
		TYPE A CURB AND GUTTER	LF	1,300	\$25.00	\$32,500
		5 INCH CONCRETE SIDEWALK	SF	800	\$8.00	\$6,400
		Partial Guardrail Removal & Disposal	Lump	1	\$5,000.00	\$5,000
<b>CATEGORY 7 - LANDSCAPING</b>						
		<b>ESTIMATED LIMIT OF DISTURBANCE AND FOREST IMPACTS; FIXED</b>			-	\$52,250
<b>CATEGORY 8 - TRAFFIC</b>						
		APS PEDESTRIAN SIGNAL ASSEMBLY	EA	6	\$8,000.00	\$48,000

## APPENDIX D COST ESTIMATES

	RELOCATE SIGNAL POLES AND MAST ARMS	LUMP	1	\$150,000.00	\$150,000
	SQUARE PERFORATED TUBULAR STEEL SIGN POST	EA	10	\$100.00	\$1,000
	SQUARE PERFORATED TUBULAR STEEL ANCHOR BASES	EA	10	\$100.00	\$1,000
	SHEET ALUMINUM SIGNS	SF	65	\$50.00	\$3,250
	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	125	\$10.00	\$1,250
	RELOCATE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	25	\$35.00	\$875
<b>CONSTRUCTION SUBTOTAL:</b>					<b>\$905,000</b>
	GENERAL CONTRACTOR OVERHEAD AND PROFIT			8%	\$72,400
	CONSTRUCTION CONTINGENCY			15%	\$135,750
<b>CONSTRUCTION TOTAL :</b>					<b>\$1,113,150</b>
	Detailed (100%) Design and Permitting				\$181,000
	Staff Construction Management and Inspections				\$39,000
	Staff Chargebacks for Detailed Design				\$44,500
<b>Total Project Cost in 2019 Dollars</b>					<b>\$1,378,000</b>

## APPENDIX D COST ESTIMATES

### CAPITAL CRESCENT TRAIL - ALTERNATE B: DIVERT TRAIL TO ARLINGTON ROAD SIGNAL - CONCEPT

ITEM	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
<b>CATEGORY 1 - PRELIMINARY</b>						
<b>MOBILIZATION, SEDIMENT CONTROLS, MAINTENANCE OF TRAFFIC</b>				<b>% OF CAT. 2, 5, 6</b>	<b>20%</b>	<b>\$110,370</b>
<b>CATEGORY 2 - GRADING</b>						
		CLASS 1 EXCAVATION	CY	400	\$35.00	\$14,000
		REMOVAL OF EXISTING COMBINATION CURB & GUTTER	LF	650	\$15.00	\$9,750
		REMOVAL OF EXISTING PAVEMENT	CY	4,000	\$25.00	\$100,000
		TREE CLEARING AND DEMOLITION	SY	800	\$125.00	\$100,000
<b>CATEGORY 3 - DRAINAGE</b>						
<b>ROAD/TRAIL DRAINAGE, LFP CULVERT REPLACEMENT, POOL TRENCH DRAIN REPLACEMENT; % OF CAT. 2,4,5,6</b>					<b>15%</b>	<b>\$52,778</b>
		STORMWATER MANAGEMENT - BIOSWALES	LS	1	\$90,000.00	\$90,000
<b>CATEGORY 4 - STRUCTURES</b>						
	N/A	N/A	-			\$0
<b>CATEGORY 5 - PAVING</b>						
		5 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	200	\$3.50	\$700
		5 INCH YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	2,000	\$3.50	\$7,000
		24 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	570	\$20.00	\$11,400
		2 INCH SUPERPAVE ASPHALT MIX FOR SURFACE	TON	350	\$150.00	\$52,500
		2" Surface Milling	SY	3,600	\$6.00	\$21,600
		4 INCH GRADED AGGREGATE BASE COURSE	SY	2,900	\$15.00	\$43,500
		<b>TRAFFIC CALMING: HILLANDALE ROAD NARROWING, ALL INCLUSIVE</b>	<b>LUMP</b>	<b>1</b>	<b>\$200,000.00</b>	<b>\$200,000</b>
<b>CATEGORY 6 - SHOULDER</b>						
		ASPHALT SPEED HUMP	Lump	1	\$5,000.00	\$5,000
		ADA RAMP	EA	8	\$1,250.00	\$10,000
		TYPE A CURB AND GUTTER	LF	2,600	\$25.00	\$65,000
		5 INCH CONCRETE SIDEWALK	SF	800	\$8.00	\$6,400
		Partial Guardrail Removal & Disposal	Lump	1	\$5,000.00	\$5,000
		Stone Walls or Barriers (Divert to intersection)	LF	200	\$200.00	\$40,000
<b>CATEGORY 7 - LANDSCAPING</b>						
<b>ESTIMATED LIMIT OF DISTURBANCE AND FOREST IMPACTS; FIXED</b>					<b>-</b>	<b>\$150,000</b>
<b>CATEGORY 8 - TRAFFIC</b>						
		APS PEDESTRIAN SIGNAL ASSEMBLY	EA	8	\$8,000.00	\$64,000

## APPENDIX D COST ESTIMATES

	RELOCATE SIGNAL POLES AND MAST ARMS	LUMP	1	\$210,000.00	\$210,000
	SQUARE PERFORATED TUBULAR STEEL SIGN POST	EA	10	\$100.00	\$1,000
	SQUARE PERFORATED TUBULAR STEEL ANCHOR BASES	EA	10	\$100.00	\$1,000
	SHEET ALUMINUM SIGNS	SF	65	\$50.00	\$3,250
	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	125	\$10.00	\$1,250
	RELOCATE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	25	\$35.00	\$875
<b>CONSTRUCTION SUBTOTAL:</b>					<b>\$1,376,373</b>
GENERAL CONTRACTOR OVERHEAD AND PROFIT				8%	\$110,110
CONSTRUCTION CONTINGENCY				15%	\$206,456
<b>CONSTRUCTION TOTAL :</b>					<b>\$1,692,938</b>
Detailed (100%) Design and Permitting					\$195,445
Staff Construction Management and Inspections					\$50,788
Staff Chargebacks for Detailed Design					\$48,861
<b>Total Project Cost in 2019 Dollars</b>					<b>\$1,990,000</b>

## APPENDIX D COST ESTIMATES

### CAPITAL CRESCENT TRAIL - ALTERNATE C: INSTALL PEDESTRIAN BRIDGE - CONCEPT

ITEM	ITEM CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
<b>CATEGORY 1 - PRELIMINARY</b>						
		UTILIZATION, SEDIMENT CONTROLS, MAINTENANCE OF TRAFFIC, TEMP. TRAIL DIVERT	% OF CAT. 2, 5, 6		28%	\$320,925
<b>CATEGORY 2 - GRADING</b>						
		CLASS 1 EXCAVATION	CY	400	\$35.00	\$14,000
		REMOVAL OF EXISTING COMBINATION CURB & GUTTER	LF	650	\$15.00	\$9,750
		REMOVAL OF EXISTING PAVEMENT	CY	3,450	\$25.00	\$86,250
		TREE CLEARING AND DEMOLITION	SY	2,400	\$125.00	\$300,000
<b>CATEGORY 3 - DRAINAGE</b>						
		RAMP DRAINAGE, LFP CULVERT REPLACEMENT, POOL TRENCH DRAIN REPLACEMENT; % OF CAT. 2,4,5,6			15%	\$142,088
		STORMWATER MANAGEMENT - BIOSWALES AND BIORETENTIONS	LS	1	\$150,000.00	\$150,000
<b>CATEGORY 4 - STRUCTURES</b>						
		PEDESTRIAN BRIDGE - TRAFFIC RATED	SF	2,000	\$300.00	\$600,000
		RETAINING WALL AND BRIDGE RAMPS	SF	13,000	\$120.00	\$1,560,000
		TRAFFIC RATED CONCRETE BRIDGE ABUTMENTS	EA	2	\$100,000.00	\$200,000
<b>CATEGORY 5 - PAVING</b>						
		5 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	200	\$3.50	\$700
		5 INCH YELLOW REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	2,000	\$3.50	\$7,000
		24 INCH WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING	LF	570	\$20.00	\$11,400
		2 INCH SUPERPAVE ASPHALT MIX FOR SURFACE	TON	500	\$150.00	\$75,000
		2" SURFACE MILLING	SY	4,500	\$6.00	\$27,000
		4 INCH GRADED AGGREGATE BASE COURSE	SY	3,500	\$15.00	\$52,500
		<b>TRAFFIC CALMING: HILLANDALE ROAD NARROWING, ALL INCLUSIVE</b>	<b>LUMP</b>	<b>1</b>	<b>\$200,000.00</b>	<b>\$200,000</b>
<b>CATEGORY 6 - SHOULDER</b>						
		ASPHALT SPEED HUMP	Lump	1	\$5,000.00	\$5,000
		ADA RAMP	EA	12	\$1,250.00	\$15,000
		TYPE A CURB AND GUTTER	LF	1,300	\$40.00	\$52,000
		5 INCH CONCRETE SIDEWALK	SF	800	\$8.00	\$6,400
		Partial Guardrail Removal & Disposal	Lump	1	\$5,000.00	\$5,000
<b>CATEGORY 7 - LANDSCAPING</b>						

## APPENDIX D COST ESTIMATES

ESTIMATED LIMIT OF DISTURBANCE, WETLAND MITIGATION, STREAM REMEDIATION, AND FOREST IMPACT						\$375,000	
<b>CATEGORY 8 - TRAFFIC</b>							
		APS PEDESTRIAN SIGNAL ASSEMBLY	EA	10	\$8,000.00	\$80,000	
		RELOCATE SIGNAL POLES AND MAST ARMS	LUMP	1	\$150,000.00	\$150,000	
		SQUARE PERFORATED TUBULAR STEEL SIGN POST	EA	10	\$100.00	\$1,000	
		SQUARE PERFORATED TUBULAR STEEL ANCHOR BASES	EA	10	\$100.00	\$1,000	
		SHEET ALUMINUM SIGNS	SF	65	\$50.00	\$3,250	
		REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	125	\$10.00	\$1,250	
		RELOCATE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS	SF	25	\$35.00	\$875	
<b>CONSTRUCTION SUBTOTAL:</b>							<b>\$4,131,463</b>
GENERAL CONTRACTOR OVERHEAD AND PROFIT					8%	\$330,517	
CONSTRUCTION CONTINGENCY					15%	\$619,719	
<b>CONSTRUCTION TOTAL :</b>							<b>\$5,081,699</b>
Detailed (100%) Design and Permitting						\$475,118	
Staff Construction Management and Inspections						\$127,042	
Staff Chargebacks for Detailed Design						\$104,526	
<b>Total Project Cost in 2019 Dollars</b>						<b>\$5,790,000</b>	