

# Tuscarawas I-77 / US 250 / SR 39 Feasibility Study

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## Appendix H: Conceptual Estimates



Interchange Feasibility Study TUS-77

System - WB to SB, FLYOVER  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202	Pavement Removed		2,900	SQ YD	\$8.00	\$23,200
609	Type D Barrier		1,000	FT	\$100.00	\$100,000
202	Guardrail Removed		500	FT	\$4.00	\$2,000
606	Guardrail		3,000	FT	\$25.00	\$75,000
203	Excavation		16,000	CU YD	\$15.00	\$240,000
203	Embankment		70,000	CU YD	\$12.00	\$840,000
<b>ROADWAY SUBTOTAL</b>						<b>\$1,280,200</b>
<b>DRAINAGE</b>						
670	Drainage		1	LUMP	\$200,000.00	\$200,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$200,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670	Erosion Control		1	LUMP	\$75,000.00	\$75,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$75,000</b>
<b>PAVEMENT</b>						
<i>FULL DEPTH PAVEMENT - ASPHALT</i>						
441	Asphalt Pavement Build-up		8,589	SQ YD	\$90.00	\$773,000
<i>FULL DEPTH PAVEMENT - CONCRETE</i>						
451	Concrete Pavement Build-up		6,789	SQ YD	\$120.00	\$814,667
<i>RESURFACING - ASPHALT</i>						
251	Asphalt Resurfacing		1,011	SQ YD	\$18.00	\$18,200
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,605,900</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614	MOT		1	LUMP	\$100,000.00	\$100,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$100,000</b>
<b>TRAFFIC CONTROL</b>						
640	Traffic Control		1	LUMP	\$150,000.00	\$150,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$150,000</b>
<b>LIGHTING</b>						
625	Lighting		1	LUMP	\$100,000.00	\$100,000
<b>LIGHTING SUBTOTAL</b>						<b>\$100,000</b>
<b>STRUCTURES</b>						
511	Retaining Walls		15,000	SQ FT	\$200.00	\$3,000,000
500	Flyover Bridge		1	LUMP	\$12,000,000.00	\$12,000,000
500	Bridge SB77 over creek		1	LUMP	\$300,000.00	\$300,000
<b>STRUCTURES SUBTOTAL</b>						<b>\$15,300,000</b>
<b>CONSTRUCTION MISC.</b>						
619	Field Office, Type C		24	MONTH	\$2,500.00	\$60,000
623	Construction Layout Stakes (0.75% of Total)		1	LUMP	\$141,083.25	\$141,083
624	Mobilization		1	LUMP	\$400,000.00	\$400,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$601,100</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$19,412,200</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$5,823,660</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$25,236,000</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$6,687,540
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$31,924,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

System - WB to SB, TEXAS U-TURN  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202	Pavement Removed		8,933	SQ YD	\$8.00	\$71,467
609	Type D Barrier		600	FT	\$100.00	\$60,000
202	Guardrail Removed		600	FT	\$4.00	\$2,400
606	Guardrail		1,500	FT	\$25.00	\$37,500
203	Excavation		30,000	CU YD	\$15.00	\$450,000
203	Embankment		22,000	CU YD	\$12.00	\$264,000
<b>ROADWAY SUBTOTAL</b>						<b>\$885,400</b>
<b>DRAINAGE</b>						
670	Drainage		1	LUMP	\$88,540.00	\$88,540
<b>DRAINAGE SUBTOTAL</b>						<b>\$88,600</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670	Erosion Control		1	LUMP	\$25,000.00	\$25,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$25,000</b>
<b>PAVEMENT</b>						
<i>FULL DEPTH PAVEMENT - ASPHALT</i>						
441	Asphalt Pavement Build-up		11,144	SQ YD	\$90.00	\$1,003,000
<i>FULL DEPTH PAVEMENT - CONCRETE</i>						
451	Concrete Pavement Build-up		4,178	SQ YD	\$120.00	\$501,333
<i>RESURFACING - ASPHALT</i>						
251	Asphalt Resurfacing		8,622	SQ YD	\$18.00	\$155,200
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,659,600</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614	MOT		1	LUMP	\$150,000.00	\$150,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$150,000</b>
<b>TRAFFIC CONTROL</b>						
640	Traffic Control		1	LUMP	\$150,000.00	\$150,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$150,000</b>
<b>LIGHTING</b>						
625	Lighting		1	LUMP	\$150,000.00	\$150,000
<b>LIGHTING SUBTOTAL</b>						<b>\$150,000</b>
<b>STRUCTURES</b>						
511	Retaining Walls		18,750	SQ FT	\$200.00	\$3,750,000
500	Bridge Widening NB250		1	LUMP	\$2,000,000.00	\$2,000,000
500	Bridge SB77		1	LUMP	\$2,500,000.00	\$2,500,000
500	Bridge NB77		1	LUMP	\$3,700,000.00	\$3,700,000
500	Structure Removed NB77		1	LUMP	\$339,000.00	\$339,000
500	Structure Removed SB77		1	LUMP	\$294,000.00	\$294,000
<b>STRUCTURES SUBTOTAL</b>						<b>\$12,583,000</b>
<b>CONSTRUCTION MISC.</b>						
619	Field Office, Type C		24	MONTH	\$2,500.00	\$60,000
623	Construction Layout Stakes (0.75% of Total)		1	LUMP	\$117,687.00	\$117,687
624	Mobilization		1	LUMP	\$400,000.00	\$400,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$577,700</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$16,269,300</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$4,880,790</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$21,151,000</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$5,605,015
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$26,757,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

System - WB to SB, LOOP RAMP  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
202	ROADWAY	Pavement Removed	10,044	SQ YD	\$8.00	\$80,356
609		Curb		FT	\$20.00	\$0
609		Type D Barrier	1,600	FT	\$100.00	\$160,000
202		Guardrail Removed	1,000	FT	\$4.00	\$4,000
606		Guardrail	8,000	FT	\$25.00	\$200,000
203		Excavation	35,000	CU YD	\$15.00	\$525,000
203		Embankment	92,000	CU YD	\$12.00	\$1,104,000
		<b>ROADWAY SUBTOTAL</b>			<b>\$60,000.00</b>	<b>\$2,073,400</b>
670	<b>DRAINAGE</b>					
		Drainage	1	LUMP	\$0.00	\$0
		<b>DRAINAGE SUBTOTAL</b>				<b>\$0</b>
670	<b>EROSION CONTROL &amp; BMP ELEMENTS</b>					
		Erosion Control	1	LUMP	\$25,000.00	\$25,000
		<b>EROSION CONTROL SUBTOTAL</b>				<b>\$25,000</b>
441	<b>PAVEMENT</b>					
		FULL DEPTH PAVEMENT - ASPHALT				
		Asphalt Pavement Build-up	19,733	SQ YD	\$90.00	\$1,776,000
451		FULL DEPTH PAVEMENT - CONCRETE				
		Concrete Pavement Build-up	10,967	SQ YD	\$120.00	\$1,316,000
251		RESURFACING - ASPHALT				
		Asphalt Resurfacing	9,633	SQ YD	\$18.00	\$173,400
		<b>PAVEMENT SUBTOTAL</b>				<b>\$3,265,400</b>
614	<b>MAINTENANCE OF TRAFFIC</b>					
		MOT	1	LUMP	\$0.00	\$0
		<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>				<b>\$0</b>
640	<b>TRAFFIC CONTROL</b>					
		Traffic Control	1	LUMP	\$0.00	\$0
		<b>TRAFFIC CONTROL SUBTOTAL</b>				<b>\$0</b>
625	<b>LIGHTING</b>					
		Lighting	1	LUMP	\$0.00	\$0
		<b>LIGHTING SUBTOTAL</b>				<b>\$0</b>
511	<b>STRUCTURES</b>					
		Retaining Walls	33,750	SQ FT	\$200.00	\$6,750,000
500		Bridge	1	LUMP	\$26,500,000.00	\$26,500,000
202		Structure Removed SR250 to NB77	1	LUMP	\$217,000.00	\$217,000
		<b>STRUCTURES SUBTOTAL</b>				<b>\$33,467,000</b>
619	<b>CONSTRUCTION MISC.</b>					
		Field Office, Type C	24	MONTH	\$2,500.00	\$60,000
623		Construction Layout Stakes (0.75% of Total)	1	LUMP	\$291,231.00	\$291,231
624		Mobilization	1	LUMP	\$800,000.00	\$800,000
		<b>CONSTRUCTION MISC. SUBTOTAL</b>				<b>\$1,151,300</b>
		<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>				<b>\$39,992,100</b>
		<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>				<b>\$11,994,630</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$13,773,905
		<b>CONSTRUCTION COST, 2029 DOLLARS</b>				<b>\$65,751,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

System - NB to EB  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
202	ROADWAY	Pavement Removed	2,900	SQ YD	\$8.00	\$23,200
609		Type D Barrier	800	FT	\$100.00	\$80,000
202		Guardrail Removed	200	FT	\$4.00	\$800
606		Guardrail	2,000	FT	\$25.00	\$50,000
203		Excavation	125,000	CU YD	\$15.00	\$1,875,000
203		Embankment	180,000	CU YD	\$12.00	\$2,160,000
		<b>ROADWAY SUBTOTAL</b>				<b>\$4,189,000</b>
670	<b>DRAINAGE</b>					
		Drainage	1	LUMP	\$200,000.00	\$200,000
		<b>DRAINAGE SUBTOTAL</b>				<b>\$200,000</b>
670	<b>EROSION CONTROL &amp; BMP ELEMENTS</b>					
		Erosion Control	1	LUMP	\$75,000.00	\$75,000
		<b>EROSION CONTROL SUBTOTAL</b>				<b>\$75,000</b>
441	<b>PAVEMENT</b>					
		FULL DEPTH PAVEMENT - ASPHALT				
		Asphalt Pavement Build-up	5,966	SQ YD	\$90.00	\$536,000
451		FULL DEPTH PAVEMENT - CONCRETE				
		Concrete Pavement Build-up	5,711	SQ YD	\$120.00	\$685,333
251		RESURFACING - ASPHALT				
		Asphalt Resurfacing	478	SQ YD	\$18.00	\$8,600
		<b>PAVEMENT SUBTOTAL</b>				<b>\$1,230,000</b>
614	<b>MAINTENANCE OF TRAFFIC</b>					
		MOT	1	LUMP	\$80,000.00	\$80,000
		<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>				<b>\$80,000</b>
640	<b>TRAFFIC CONTROL</b>					
		Traffic Control	1	LUMP	\$150,000.00	\$150,000
		<b>TRAFFIC CONTROL SUBTOTAL</b>				<b>\$150,000</b>
625	<b>LIGHTING</b>					
		Lighting	1	LUMP	\$150,000.00	\$150,000
		<b>LIGHTING SUBTOTAL</b>				<b>\$150,000</b>
511	<b>STRUCTURES</b>					
		Retaining Walls	35,000	SQ FT	\$200.00	\$7,000,000
500		Bridge over Stone Creek	1	LUMP	\$1,800,000.00	\$1,800,000
202		Structure Removed	1	LUMP	\$0.00	\$0
		<b>STRUCTURES SUBTOTAL</b>				<b>\$8,800,000</b>
619	<b>CONSTRUCTION MISC.</b>					
		Field Office, Type C	24	MONTH	\$2,500.00	\$60,000
623		Construction Layout Stakes (0.75% of Total)	1	LUMP	\$111,555.00	\$111,555
624		Mobilization	1	LUMP	\$400,000.00	\$400,000
		<b>CONSTRUCTION MISC. SUBTOTAL</b>				<b>\$571,600</b>
		<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>				<b>\$4,633,680</b>
		<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>				<b>\$20,080,000</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$5,321,200
		<b>CONSTRUCTION COST, 2029 DOLLARS</b>				<b>\$25,402,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / STONECREEK ROAD SIGNALIZED INTERSECTION + I-77 SB  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202	Pavement Removed		23,589	SQ YD	\$8.00	\$188,711
609	Curb			FT	\$20.00	\$0
609	Curb & Gutter		3,100	FT	\$30.00	\$93,000
609	Type D Barrier		400	FT	\$100.00	\$40,000
202	Guardrail Removed		3,400	FT	\$4.00	\$13,600
606	Guardrail		2,100	FT	\$25.00	\$52,500
201	Clearing and Grubbing		1	LUMP	\$5,000.00	\$5,000
203	Excavation		2,500	CU YD	\$15.00	\$37,500
203	Embankment		7,500	CU YD	\$12.00	\$90,000
<b>ROADWAY SUBTOTAL</b>						<b>\$520,400</b>
<b>DRAINAGE</b>						
670	Drainage		1	LUMP	\$50,000.00	\$50,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$50,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670	Erosion Control		1	LUMP	\$30,000.00	\$30,000
670	BMPs		1	LUMP	\$50,000.00	\$50,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$80,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441	Asphalt Pavement Build-up		18,300	SQ YD	\$90.00	\$1,647,000
<b>FULL DEPTH PAVEMENT - CONCRETE</b>						
451	Concrete Pavement Build-up		7,967	SQ YD	\$120.00	\$956,000
<b>CONCRETE WALK</b>						
608	Concrete Walk		8,000	SQ FT	\$13.00	\$104,000
<b>PAVEMENT SUBTOTAL</b>						<b>\$2,707,000</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614	MOT		1	LUMP	\$420,000.00	\$420,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$420,000</b>
<b>TRAFFIC CONTROL</b>						
640	Traffic Control		1	LUMP	\$70,000.00	\$70,000
640	Rectangular Rapid Flashing Beacon		2	EACH	\$15,000.00	\$30,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$100,000</b>
<b>LIGHTING</b>						
625	Lighting		1	LUMP	\$100,000.00	\$100,000
<b>LIGHTING SUBTOTAL</b>						<b>\$100,000</b>
<b>CONSTRUCTION MISC.</b>						
619	Field Office, Type C		3	MONTH	\$2,100.00	\$6,300
623	Construction Layout Stakes (0.75% of Total)		1	LUMP	\$29,830.50	\$29,831
624	Mobilization		1	LUMP	\$100,000.00	\$100,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$136,200</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$4,113,600</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$5,348,000</b>
Construction Cost Inflation Rate (2023 to 2029)						\$1,417,220
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$6,766,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / SB I-77 / EB US 250 / STONECREEK ROAD PEANUT ROUNDABOUT  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202	Pavement Removed		16,400	SQ YD	\$8.00	\$131,200
609	Curb			FT	\$20.00	\$0
609	Curb & Gutter		2,500	FT	\$30.00	\$75,000
609	Type D Barrier		400	FT	\$100.00	\$40,000
202	Guardrail Removed		700	FT	\$4.00	\$2,800
606	Guardrail		700	FT	\$25.00	\$17,500
201	Clearing and Grubbing		1	LUMP	\$5,000.00	\$5,000
666	Tree Trimming		1	LUMP	\$0.00	\$0
203	Excavation		5,000	CU YD	\$15.00	\$75,000
203	Embankment		15,000	CU YD	\$12.00	\$180,000
606	Truck Island		856	SQ YD	\$185.00	\$158,278
<b>ROADWAY SUBTOTAL</b>						<b>\$684,800</b>
<b>DRAINAGE</b>						
670	Drainage		1	LUMP	\$40,000.00	\$40,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$40,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670	Erosion Control		1	LUMP	\$25,000.00	\$25,000
670	BMPs		1	LUMP	\$50,000.00	\$50,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$75,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441	Asphalt Pavement Build-up		11,478	SQ YD	\$90.00	\$1,033,000
<b>FULL DEPTH PAVEMENT - CONCRETE</b>						
451	Concrete Pavement Build-up		5,578	SQ YD	\$120.00	\$669,333
<b>CONCRETE WALK</b>						
608	Concrete Walk		9,000	SQ FT	\$13.00	\$117,000
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,819,400</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614	MOT		1	LUMP	\$340,000.00	\$340,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$340,000</b>
<b>TRAFFIC CONTROL</b>						
640	Traffic Control		1	LUMP	\$60,000.00	\$60,000
640	Rectangular Rapid Flashing Beacon		2	EACH	\$15,000.00	\$30,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$90,000</b>
<b>LIGHTING</b>						
625	Lighting		1	LUMP	\$150,000.00	\$150,000
<b>LIGHTING SUBTOTAL</b>						<b>\$150,000</b>
<b>STRUCTURES</b>						
640	Rectangular Rapid Flashing Beacon		1	LUMP	\$50,000.00	\$50,000
<b>STRUCTURES SUBTOTAL</b>						<b>\$50,000</b>
<b>CONSTRUCTION MISC.</b>						
619	Field Office, Type B		9	MONTH	\$1,500.00	\$13,500
623	Construction Layout Stakes (0.75% of Total)		1	LUMP	\$24,369.00	\$24,369
624	Mobilization		1	LUMP	\$100,000.00	\$100,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$137,900</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$3,387,100</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$4,404,000</b>
Construction Cost Inflation Rate (2023 to 2029)						\$1,167,060
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$5,572,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / BLUEBELL BACKAGE ROADS  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202		Pavement Removed	7,989	SQ YD	\$8.00	\$63,911
609		Curb		FT	\$20.00	\$0
609		Curb & Gutter	900	FT	\$30.00	\$27,000
609		Type D Barrier		FT	\$100.00	\$0
202		Guardrail Removed		FT	\$4.00	\$0
606		Guardrail		FT	\$25.00	\$0
201		Clearing and Grubbing	1	LUMP	\$20,000.00	\$20,000
203		Excavation	2,500	CU YD	\$15.00	\$37,500
203		Embankment	2,500	CU YD	\$12.00	\$30,000
606		Truck Island	67	SQ YD	\$185.00	\$12,333
<b>ROADWAY SUBTOTAL</b>						<b>\$190,800</b>
<b>DRAINAGE</b>						
670		Drainage	1	LUMP	\$40,000.00	\$40,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$40,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670		Erosion Control	1	LUMP	\$25,000.00	\$25,000
670		BMPs	1	LUMP	\$40,000.00	\$40,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$65,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441		Asphalt Pavement Build-up	11,500	SQ YD	\$90.00	\$1,035,000
<b>CONCRETE WALK</b>						
608		Concrete Walk	4,800	SQ FT	\$13.00	\$62,400
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,097,400</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614		MOT	1	LUMP	\$170,000.00	\$170,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$170,000</b>
<b>TRAFFIC CONTROL</b>						
640		Traffic Control	1	LUMP	\$20,000.00	\$20,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$20,000</b>
<b>LIGHTING</b>						
625		Lighting	1	LUMP	\$10,000.00	\$10,000
<b>LIGHTING SUBTOTAL</b>						<b>\$10,000</b>
<b>CONSTRUCTION MISC.</b>						
16020		Field Office, Type B	3	MONTH	\$1,500.00	\$4,500
623		Construction Layout Stakes (0.75% of Total)	1	LUMP	\$11,949.00	\$11,949
624		Mobilization	1	LUMP	\$40,000.00	\$40,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$56,500</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$1,649,700</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$494,910</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$2,145,000</b>
<b>CONSTRUCTION Cost Inflation Rate (2023 to 2029)</b>						
			26.5%			\$568,425
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$2,714,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / SB I-77 / EB US 250 / STONECREEK ROAD DOUBLE ROUNDABOUT  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202		Pavement Removed	41,400	SQ YD	\$8.00	\$331,200
609		Curb	900	FT	\$20.00	\$18,000
609		Curb & Gutter	2,700	FT	\$30.00	\$81,000
609		Type D Barrier	400	FT	\$100.00	\$40,000
202		Guardrail Removed	6,100	FT	\$4.00	\$24,400
606		Guardrail	5,100	FT	\$25.00	\$127,500
201		Clearing and Grubbing	1	LUMP	\$10,000.00	\$10,000
203		Excavation	10,000	CU YD	\$15.00	\$150,000
203		Embankment	30,000	CU YD	\$12.00	\$360,000
606		Truck Island	1,289	SQ YD	\$185.00	\$238,444
<b>ROADWAY SUBTOTAL</b>						<b>\$1,380,600</b>
<b>DRAINAGE</b>						
670		Drainage	1	LUMP	\$90,000.00	\$90,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$90,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670		Erosion Control	1	LUMP	\$50,000.00	\$50,000
670		BMPs	1	LUMP	\$50,000.00	\$50,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$100,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441		Asphalt Pavement Build-up	25,867	SQ YD	\$90.00	\$2,310,000
<b>CONCRETE WALK</b>						
451		Concrete Pavement Build-up	20,811	SQ YD	\$120.00	\$2,497,333
<b>CONCRETE WALK</b>						
608		Concrete Walk	15,200	SQ FT	\$13.00	\$197,600
<b>PAVEMENT SUBTOTAL</b>						<b>\$5,005,000</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614		MOT	1	LUMP	\$1,150,000.00	\$1,150,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$1,150,000</b>
<b>TRAFFIC CONTROL</b>						
640		Traffic Control	1	LUMP	\$60,000.00	\$60,000
640		Rectangular Rapid Flashing Beacon	2	EACH	\$15,000.00	\$30,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$90,000</b>
<b>LIGHTING</b>						
625		Lighting	1	LUMP	\$250,000.00	\$250,000
<b>LIGHTING SUBTOTAL</b>						<b>\$250,000</b>
<b>STRUCTURES</b>						
500		Structures	1	LUMP	\$2,600,000.00	\$2,600,000
500		Structure Removed	1	LUMP	\$300,000.00	\$300,000
640		Rectangular Rapid Flashing Beacon	1	LUMP	\$50,000.00	\$50,000
<b>STRUCTURES SUBTOTAL</b>						<b>\$2,950,000</b>
<b>CONSTRUCTION MISC.</b>						
619	16020	Field Office, Type C	12	MONTH	\$2,100.00	\$25,200
623	10000	Construction Layout Stakes (0.75% of Total)	1	LUMP	\$82,617.00	\$82,617
624	10000	Mobilization	1	LUMP	\$400,000.00	\$400,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$507,900</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$11,523,500</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						<b>\$3,457,050</b>
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$14,981,000</b>
<b>CONSTRUCTION Cost Inflation Rate (2023 to 2029)</b>						
			26.5%			\$3,969,965
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$18,951,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / BLUEBELL ROUNDABOUT  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202		Pavement Removed	9,344	SQ YD	\$8.00	\$74,756
609		Curb	400	FT	\$20.00	\$8,000
609		Curb & Gutter	1,700	FT	\$30.00	\$51,000
609		Type D Barrier		FT	\$100.00	\$0
202		Guardrail Removed		FT	\$4.00	\$0
606		Guardrail		FT	\$25.00	\$0
201		Clearing and Grubbing	1	LUMP	\$5,000.00	\$5,000
203		Excavation	1,000	CU YD	\$15.00	\$15,000
203		Embankment	1,000	CU YD	\$12.00	\$12,000
606		Truck Island	533	SQ YD	\$185.00	\$98,667
<b>ROADWAY SUBTOTAL</b>						<b>\$264,500</b>
<b>DRAINAGE</b>						
670		Drainage	1	LUMP	\$60,000.00	\$60,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$60,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670		Erosion Control	1	LUMP	\$30,000.00	\$30,000
670		BMPs	1	LUMP	\$50,000.00	\$50,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$80,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441		Asphalt Pavement Build-up	10,622	SQ YD	\$90.00	\$956,000
<b>FULL DEPTH PAVEMENT - CONCRETE</b>						
451		Concrete Pavement Build-up	589	SQ YD	\$120.00	\$70,667
<b>CONCRETE WALK</b>						
608		Concrete Walk	7,700	SQ FT	\$13.00	\$100,100
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,126,800</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614		MOT	1	LUMP	\$230,000.00	\$230,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$230,000</b>
<b>TRAFFIC CONTROL</b>						
640		Traffic Control	1	LUMP	\$40,000.00	\$40,000
640		Rectangular Rapid Flashing Beacon	4	EACH	\$15,000.00	\$60,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$100,000</b>
<b>LIGHTING</b>						
625		Lighting	1	LUMP	\$150,000.00	\$150,000
<b>LIGHTING SUBTOTAL</b>						<b>\$150,000</b>
<b>STRUCTURES</b>						
630		Overhead Signage Removal	1	LUMP	\$100,000.00	\$100,000
500		Structure Removed	1	LUMP	\$20,000.00	\$20,000
<b>STRUCTURES SUBTOTAL</b>						<b>\$120,000</b>
<b>CONSTRUCTION MISC.</b>						
619	16020	Field Office, Type B	6	MONTH	\$1,500.00	\$9,000
623	10000	Construction Layout Stakes (0.75% of Total)	1	LUMP	\$15,984.75	\$15,985
624	10000	Mobilization	1	LUMP	\$100,000.00	\$100,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$125,000</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$2,256,300</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$2,934,000</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$777,510
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$3,712,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						

Interchange Feasibility Study TUS-77

Intersection - SR-39 / BLUEBELL SIGNALIZED INTERSECTION TURN LANES  
02/05/24

ITEM	ITEM EXTENSION	DESCRIPTION	TOTAL QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE (2023 dollars)
<b>ROADWAY</b>						
202		Pavement Removed	15,011	SQ YD	\$8.00	\$120,089
609		Curb		FT	\$20.00	\$0
609		Curb & Gutter	4,200	FT	\$30.00	\$126,000
609		Type D Barrier		FT	\$100.00	\$0
202		Guardrail Removed		FT	\$4.00	\$0
606		Guardrail		FT	\$25.00	\$0
201		Clearing and Grubbing	1	LUMP	\$5,000.00	\$5,000
203		Excavation	500	CU YD	\$15.00	\$7,500
203		Embankment	500	CU YD	\$12.00	\$6,000
606		Truck Island	400	SQ YD	\$185.00	\$74,000
<b>ROADWAY SUBTOTAL</b>						<b>\$338,600</b>
<b>DRAINAGE</b>						
670		Drainage	1	LUMP	\$30,000.00	\$30,000
<b>DRAINAGE SUBTOTAL</b>						<b>\$30,000</b>
<b>EROSION CONTROL &amp; BMP ELEMENTS</b>						
670		Erosion Control	1	LUMP	\$10,000.00	\$10,000
670		BMPs	1	LUMP	\$20,000.00	\$20,000
<b>EROSION CONTROL SUBTOTAL</b>						<b>\$30,000</b>
<b>PAVEMENT</b>						
<b>FULL DEPTH PAVEMENT - ASPHALT</b>						
441		Asphalt Pavement Build-up	15,200	SQ YD	\$90.00	\$1,368,000
<b>CONCRETE WALK</b>						
608		Concrete Walk	10,000	SQ FT	\$13.00	\$130,000
<b>PAVEMENT SUBTOTAL</b>						<b>\$1,498,000</b>
<b>MAINTENANCE OF TRAFFIC</b>						
614		MOT	1	LUMP	\$240,000.00	\$240,000
<b>MAINTENANCE OF TRAFFIC SUBTOTAL</b>						<b>\$240,000</b>
<b>TRAFFIC CONTROL</b>						
640		Traffic Control	1	LUMP	\$50,000.00	\$50,000
<b>TRAFFIC CONTROL SUBTOTAL</b>						<b>\$50,000</b>
<b>LIGHTING</b>						
625		Lighting	1	LUMP	\$10,000.00	\$10,000
<b>LIGHTING SUBTOTAL</b>						<b>\$10,000</b>
<b>CONSTRUCTION MISC.</b>						
619	16020	Field Office, Type B	3	MONTH	\$1,500.00	\$4,500
623	10000	Construction Layout Stakes (0.75% of Total)	1	LUMP	\$16,474.50	\$16,475
624	10000	Mobilization	1	LUMP	\$100,000.00	\$100,000
<b>CONSTRUCTION MISC. SUBTOTAL</b>						<b>\$121,000</b>
<b>CONSTRUCTION COST SUBTOTAL</b>						<b>\$2,317,600</b>
<b>COST CONTINGENCY - PRELIMINARY ENGINEERING (30%)</b>						
<b>TOTAL CONSTRUCTION COST, 2023 DOLLARS</b>						<b>\$3,013,000</b>
		Construction Cost Inflation Rate (2023 to 2029)	26.5%			\$798,445
<b>CONSTRUCTION COST, 2029 DOLLARS</b>						<b>\$3,812,000</b>
- ESTIMATE DOES NOT INCLUDE COSTS FOR RIGHT OF WAY ACQUISITIONS OR UTILITY RELOCATIONS.						