

APPENDIX S

Year 2028 & Year 2048 Improvements' Cost Estimate Sheets

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	USH 41 & WIS 96/Wisconsin Ave		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2028
Start Preliminary Design	2020	End Construction	2028
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	4,200	\$ 5.00	\$21,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Beamguard	LF	2,107	\$ 30.00	\$63,000	
Curb and Gutter	LF	2,500	\$ 16.00	\$40,000	
Beamguard EAT	EACH	2	\$ 3,000.00	\$6,000	
Earthwork					
Common	CY	5,700	\$ 10.00	\$57,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	1,400	\$ 45.00	\$63,000	
Cross Road	SY	3,200	\$ 40.00	\$128,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	Assumed 5" depth
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	1,100	\$ 30.00	\$33,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	1,400	\$ 8.00	\$11,000	
Cross Road	SY	3,200	\$ 8.00	\$26,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	1,100	\$ 8.00	\$9,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	1,400	\$ 12.00	\$17,000	
Cross Road	SY	3,200	\$ 10.00	\$32,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	1,100	\$ 12.00	\$13,000	
Major Roadway Subtotal (MRS)				\$519,000	
ALLOWANCE ITEMS					
DRAINAGE		% of MRS	2.0%	\$10,000	
EROSION CONTROL & RESTORATION		% of MRS	2.0%	\$10,000	
ROADWAY INCIDENTALS		% of MRS	10.0%	\$52,000	
SIGNING/MARKING		% of MRS	2.0%	\$10,000	
TRAFFIC CONTROL & STAGING		% of MRS	10.0%	\$52,000	
Allowance Subtotal				\$134,000	

STRUCTURES					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
Slope Paving Removal	EACH	1	\$ 10,000.00	\$10,000	
Sign Bridge Removal	EACH	1	\$ 5,000.00	\$5,000	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	1,900	\$ 70.00	\$133,000	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	40	\$ 2,300.00	\$92,000	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	1	\$ 60,000.00	\$60,000	
Structure Incidentals		% of Structures	10%	\$30,000	
Structure SubTotal				\$330,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Temporary Bridges		-	\$ -	\$0	
Temporary Roadways		-	\$ -	\$0	
Environment Mitigation		-	\$ -	\$0	
Community Sensitive Design		-	\$ -	\$0	
Hazardous Materials		-	\$ -	\$0	
Bypass / Alternate Routes		-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$983,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item CCE	7.2%	\$71,000	
FINAL ENGINEERING		% of Item CCE	5.4%	\$53,000	
CONSTRUCTION ENGINEERING		% of Item CCE	9.2%	\$90,000	
Delivery Allowance Subtotal				\$214,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES		% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS		% of Item CCE	0.0%	\$0	
External Costs Subtotal				\$0	
Base Project Cost Estimate				\$1,197,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$1,197,000	

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	USH 41 & WIS 15/Northland Ave Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2028
Start Preliminary Design	2020	End Construction	2028
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	5,675	\$ 5.00	\$28,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Beamguard	LF	1,506	\$ 30.00	\$45,000	
Curb and Gutter	LF	1,900	\$ 16.00	\$30,000	
Beamguard EAT	EACH	6	\$ 3,000.00	\$18,000	
Earthwork					
Common	CY	8,710	\$ 10.00	\$87,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	1,515	\$ 45.00	\$68,000	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	2,300	\$ 45.00	\$104,000	
Cross Road	SY	1,600	\$ 40.00	\$64,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	Assumed 5" depth
Mainline Shoulders	SY	1,515	\$ 30.00	\$45,000	Assumed 5" depth
Ramp Shoulders	SY	700	\$ 30.00	\$21,000	Assumed 5" depth
Cross Road Shoulders	SY	1,076	\$ 30.00	\$32,000	Assumed 5" depth
Base					
Mainline	SY	1,515	\$ 8.00	\$12,000	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	2,300	\$ 8.00	\$18,000	
Cross Road	SY	1,600	\$ 8.00	\$13,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	1,515	\$ 8.00	\$12,000	
Ramp Shoulders	SY	700	\$ 8.00	\$6,000	
Cross Road Shoulders	SY	1,076	\$ 8.00	\$9,000	
Subbase					
Mainline	SY	1,515	\$ 12.00	\$18,000	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	2,300	\$ 12.00	\$28,000	
Cross Road	SY	1,600	\$ 10.00	\$16,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	1,515	\$ 12.00	\$18,000	
Ramp Shoulders	SY	700	\$ 12.00	\$8,000	
Cross Road Shoulders	SY	1,076	\$ 12.00	\$13,000	
Major Roadway Subtotal (MRS)				\$713,000	
ALLOWANCE ITEMS					
DRAINAGE		% of MRS	2.0%	\$14,000	
EROSION CONTROL & RESTORATION		% of MRS	2.0%	\$14,000	
ROADWAY INCIDENTALS		% of MRS	10.0%	\$71,000	

SIGNING/MARKING	% of MRS	2.0%	\$14,000
TRAFFIC CONTROL & STAGING	% of MRS	10.0%	\$71,000
Allowance Subtotal			\$184,000

STRUCTURES	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	

SPECIAL CONSTRUCTION ELEMENTS	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Temporary Bridges		-	\$ -	\$0	
Temporary Roadways		-	\$ -	\$0	
Environment Mitigation		-	\$ -	\$0	
Community Sensitive Design		-	\$ -	\$0	
Hazardous Materials		-	\$ -	\$0	
Bypass / Alternate Routes		-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	

Construction Costs Estimate (CCE)	\$897,000
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PROJECT DELIVERY ALLOWANCE ITEMS			
PRELIMINARY ENGINEERING	% of Item CCE	7.2%	\$65,000
FINAL ENGINEERING	% of Item CCE	5.4%	\$48,000
CONSTRUCTION ENGINEERING	% of Item CCE	9.2%	\$83,000
Delivery Allowance Subtotal			\$196,000

EXTERNAL COSTS				NOTES
REAL ESTATE	% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES	% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS	% of Item CCE	0.0%	\$0	
External Costs Subtotal			\$0	

Base Project Cost Estimate	\$1,093,000
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RISK ADJUSTMENTS				NOTES
Risk Item A		\$0	\$0	
Risk Item B		\$0	\$0	
Risk Item C		\$0	\$0	
Risk Adjustment Subtotal			\$0	

ESTIMATE UNCERTAINTY				NOTES
Uncertainty Item A		\$0	\$0	
Uncertainty Item B		\$0	\$0	
Uncertainty Item C		\$0	\$0	
Estimate Uncertainty Subtotal			\$0	

Current Year Total Project Cost Estimate	\$1,093,000
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Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co.)		
Project Limits	USH 41 & CTH E/Ballard Road Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-graine ▼
Current Year	2019	Start Construction	2028
Start Preliminary Design	2020	End Construction	2028
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	2,000	\$ 5.00	\$10,000	
Barrier Wall	LF	1,160	\$ 110.00	\$128,000	
Curb & Gutter	LF	2,700	\$ 16.00	\$43,000	
Beamguard	LF	360	\$ 25.00	\$9,000	
Beamguard EAT	EACH	2	\$ 3,000.00	\$6,000	
Sidewalk	SF	360	\$ 20.00	\$7,000	
Earthwork					
Common	CY	4,313	\$ 10.00	\$43,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	8,200	\$ 45.00	\$369,000	
Cross Road	SY	-	\$ 40.00	\$0	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	Assumed 6" depth
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 6" depth
Ramp Shoulders	SY	4,300	\$ 30.00	\$129,000	Assumed 6" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	8,200	\$ 8.00	\$66,000	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	4,300	\$ 8.00	\$34,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	8,200	\$ 12.00	\$98,000	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	4,300	\$ 12.00	\$52,000	
Major Roadway Subtotal (MRS)				\$994,000	
ALLOWANCE ITEMS					
DRAINAGE		% of MRS	2.0%	\$20,000	
EROSION CONTROL & RESTORATION		% of MRS	2.0%	\$20,000	
ROADWAY INCIDENTALS		% of MRS	10.0%	\$99,000	
TRAFFIC CONTROL & STAGING		% of MRS	5.0%	\$50,000	
Allowance Subtotal				\$189,000	

STRUCTURES					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Temporary Bridges		-	\$ -	\$0	
Temporary Roadways		-	\$ -	\$0	
Environment Mitigation		-	\$ -	\$0	
Community Sensitive Design		-	\$ -	\$0	
Hazardous Materials		-	\$ -	\$0	
Bypass / Alternate Routes		-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$1,183,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item CCE	7.2%	\$85,000	
FINAL ENGINEERING		% of Item CCE	5.4%	\$64,000	
CONSTRUCTION ENGINEERING		% of Item CCE	9.2%	\$109,000	
Delivery Allowance Subtotal				\$258,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES		% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS		% of Item CCE	0.0%	\$0	
External Costs Subtotal				\$0	
Base Project Cost Estimate				\$1,441,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$1,441,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co.)		
Project Limits	USH 41 & WIS 47 Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2028
Start Preliminary Design	2020	End Construction	2028
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	2,347	\$ 10.00	\$23,000	
Barrier Wall	LF	-	\$ 150.00	\$0	
Curb & Gutter	LF	-	\$ 25.00	\$0	
Beamguard	LF	591	\$ 30.00	\$18,000	
Beamguard EAT	EACH	1	\$ 3,000.00	\$3,000	
Box Culvert	EACH	-	\$ 100,000.00	\$0	
Earthwork					
Common	CY	3,615	\$ 12.00	\$43,000	
Marsh	CY	-	\$ -	\$0	
Rock	CY	-	\$ -	\$0	
Borrow	CY	-	\$ -	\$0	
EBS	CY	-	\$ -	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	1,906	\$ 50.00	\$95,000	
System Ramps	SY	-	\$ 50.00	\$0	
Service Ramps	SY	-	\$ 50.00	\$0	
Cross Road	SY	-	\$ 45.00	\$0	
Frontage Roads	SY	-	\$ 45.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	1,709	\$ 30.00	\$51,000	Assumed 5" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Base					
Mainline	SY	1,906	\$ 8.00	\$15,000	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	1,709	\$ 8.00	\$14,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	1,906	\$ 12.00	\$23,000	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	1,709	\$ 12.00	\$21,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$306,000	
ALLOWANCE ITEMS					
DRAINAGE		% of MRS	2.0%	\$6,000	
EROSION CONTROL & RESTORATION		% of MRS	2.0%	\$6,000	
ROADWAY INCIDENTALS		% of MRS	10.0%	\$31,000	
TRAFFIC CONTROL & STAGING		% of MRS	10.0%	\$31,000	
Allowance Subtotal				\$74,000	

STRUCTURES					NOTES
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$380,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item CCE	7.2%	\$27,000	
FINAL ENGINEERING		% of Item CCE	5.4%	\$21,000	
CONSTRUCTION ENGINEERING		% of Item CCE	9.2%	\$35,000	
Delivery Allowance Subtotal				\$83,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES		% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS		% of Item CCE	0.0%	\$0	
External Costs Subtotal				\$0	
Base Project Cost Estimate				\$463,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$463,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co.)		
Project Limits	USH 41 & CTH N Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2028
Start Preliminary Design	2020	End Construction	2028
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	1,300	\$ 10.00	\$13,000	
Barrier Wall	LF	350	\$ 150.00	\$53,000	
Curb & Gutter	LF	3	\$ 25.00	\$0	
Beamguard	LF	350	\$ 30.00	\$11,000	
Beamguard EAT	EACH	3	\$ 3,000.00	\$9,000	
Box Culvert	EACH	1	\$ 100,000.00	\$100,000	
Earthwork					
Common	CY	2,282	\$ 12.00	\$27,000	
Marsh	CY	-	\$ -	\$0	
Rock	CY	-	\$ -	\$0	
Borrow	CY	-	\$ -	\$0	
EBS	CY	-	\$ -	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 50.00	\$0	
System Ramps	SY	-	\$ 50.00	\$0	
Service Ramps	SY	3,924	\$ 50.00	\$196,000	
Cross Road	SY	-	\$ 45.00	\$0	
Frontage Roads	SY	-	\$ 45.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	2,500	\$ 30.00	\$75,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	6,380	\$ 8.00	\$51,000	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	6,380	\$ 12.00	\$77,000	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$612,000	
ALLOWANCE ITEMS					
DRAINAGE		% of MRS	2.0%	\$12,000	
EROSION CONTROL & RESTORATION		% of MRS	2.0%	\$12,000	
ROADWAY INCIDENTALS		% of MRS	10.0%	\$61,000	
TRAFFIC CONTROL & STAGING		% of MRS	10.0%	\$61,000	
Allowance Subtotal				\$146,000	

STRUCTURES					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$758,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item CCE	7.2%	\$55,000	
FINAL ENGINEERING		% of Item CCE	5.4%	\$41,000	
CONSTRUCTION ENGINEERING		% of Item CCE	9.2%	\$70,000	
Delivery Allowance Subtotal				\$166,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES		% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS		% of Item CCE	0.0%	\$0	
External Costs Subtotal				\$0	
Base Project Cost Estimate				\$924,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$924,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00			
Highway	US 41			
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)			
Project Limits	Segment 7: County S Interchange			
Project Type	Urban	▼	Topography	Moderate ▼
Project Duration	Multi		Soil Type	Coarse-grained ▼
Current Year	2019		Start Construction	2028
Start Preliminary Design	2020		End Construction	2028
Alternative #:	Planning Study			

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	2,222	\$ 10.00	\$22,000	
Barrier Wall	LF	-	\$ 150.00	\$0	
Curb & Gutter	LF	-	\$ 25.00	\$0	
Beamguard	LF	660	\$ 30.00	\$20,000	
Beamguard EAT	EACH	1	\$ 3,500.00	\$3,500	
Earthwork					
Common	CY	3,428	\$ 12.00	\$41,000	
Marsh	CY	-	\$ -	\$0	
Rock	CY	-	\$ -	\$0	
Borrow	CY	-	\$ -	\$0	
EBS	CY	-	\$ -	\$0	
Signalized Intersections	EACH	2	\$ 250,000.00	\$500,000	
Pavement					
Mainline	SY	1,143	\$ 50.00	\$57,000	
System Ramps	SY	-	\$ 50.00	\$0	
Service Ramps	SY	911	\$ 50.00	\$46,000	
Cross Road	SY	-	\$ 45.00	\$0	
Frontage Roads	SY	-	\$ 45.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	Assumed 6" depth
Mainline Shoulders	SY	831	\$ 30.00	\$25,000	Assumed 6" depth
Ramp Shoulders	SY	543	\$ 30.00	\$16,000	Assumed 6" depth
Base					
Mainline	SY	1,143	\$ 8.00	\$9,000	Assumed 12" depth
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	911	\$ 8.00	\$7,000	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	831	\$ 8.00	\$7,000	
Ramp Shoulders	SY	543	\$ 8.00	\$4,000	
Subbase					
Mainline	SY	1,143	\$ 12.00	\$14,000	Assumed 12" depth
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	911	\$ 12.00	\$11,000	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	831	\$ 12.00	\$10,000	
Ramp Shoulders	SY	543	\$ 12.00	\$7,000	
Major Roadway Subtotal (MRS)				\$800,000	

ALLOWANCE ITEMS				
DRAINAGE		% of MRS	2.0%	\$16,000
ROADWAY INCIDENTALS		% of MRS	10.0%	\$80,000
TRAFFIC CONTROL & STAGING		% of MRS	10.0%	\$80,000
Allowance Subtotal				\$176,000

STRUCTURES (see STRUCTURE tab)	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	

SPECIAL CONSTRUCTION ELEMENTS	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	

Construction Costs Estimate (CCE)	\$976,000
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PROJECT DELIVERY ALLOWANCE ITEMS				
PRELIMINARY ENGINEERING		% of Item CCE	7.2%	\$70,000
FINAL ENGINEERING		% of Item CCE	5.4%	\$53,000
CONSTRUCTION ENGINEERING		% of Item CCE	9.2%	\$90,000
Delivery Allowance Subtotal				\$213,000

EXTERNAL COSTS					NOTES
REAL ESTATE		% of Item CCE	0.0%	\$0	
COMPENSABLE UTILITIES		% of Item CCE	0.0%	\$0	
JURISDICTIONAL TRANSFERS		% of Item CCE	0.0%	\$0	
External Costs Subtotal				\$0	

Base Project Cost Estimate	\$1,189,000
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RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	

ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	

Current Year Total Project Cost Estimate	\$1,189,000
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Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	USH 41 & CTH BB Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	55,900	\$ 5.00	\$280,000	
Barrier Wall	LF	2,300	\$ 110.00	\$253,000	
Curb & Gutter	LF	24,200	\$ 16.00	\$387,000	
Earthwork					
Common	CY	57,500	\$ 10.00	\$575,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	11,200	\$ 45.00	\$504,000	
Cross Road	SY	32,400	\$ 40.00	\$1,296,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	12,300	\$ 30.00	\$369,000	Assumed 6" depth
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 6" depth
Ramp Shoulders	SY	2,200	\$ 30.00	\$66,000	Assumed 6" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	11,200	\$ 8.00	\$90,000	
Cross Road	SY	32,400	\$ 8.00	\$259,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	12,300	\$ 8.00	\$98,000	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	2,200	\$ 8.00	\$18,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	11,200	\$ 12.00	\$134,000	
Cross Road	SY	32,400	\$ 10.00	\$324,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	12,300	\$ 10.00	\$123,000	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	2,200	\$ 12.00	\$26,000	
Major Roadway Subtotal (MRS)				\$4,802,000	
ALLOWANCE ITEMS					
DRAINAGE	% of MRS	11.4%		\$548,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$444,000	
LIGHTING	% of MRS	1.4%		\$68,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$1,385,000	
SIGNING/MARKING	% of MRS	3.0%		\$145,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$231,000	
ITS/ FTMS	% of MRS	1.0%		\$48,000	
Allowance Subtotal				\$2,869,000	

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	EACH	1	\$ 65,000.00	\$65,000	Box culverts under USH 41 ramps are included in mainline estimate.
New Bridge (Single Level Interchange)	SF	2,800	\$ 120.00	\$336,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	571	\$ 2,300.00	\$1,313,000	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals	% of Structures		10%	\$171,000	
Structure SubTotal				\$1,885,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$9,556,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS	% of Item CCE		5%	\$478,000	
Base Construction Costs Estimate (BCCE)				\$10,034,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE		24%	\$2,408,000	
Estimated Const. Let Amount (ECLA)				\$12,442,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING	% of Item BCCE		7.2%	\$896,000	
FINAL ENGINEERING	% of Item BCCE		5.4%	\$672,000	
CONSTRUCTION ENGINEERING	% of Item BCCE		9.2%	\$1,145,000	
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE		10.4%	\$1,294,000	
TRAFFIC MITIGATION	% of Item BCCE		1.5%	\$187,000	
PUBLIC INVOLVEMENT	% of Item BCCE		1.0%	\$124,000	
Delivery Allowance Subtotal				\$4,318,000	
EXTERNAL COSTS					NOTES
REAL ESTATE	8% of Item BCCE		\$803,000	\$803,000	
COMPENSABLE UTILITIES	3% of Item BCCE		\$301,000	\$301,000	
JURISDICTIONAL TRANSFERS			\$0	\$0	
Other			\$0	\$0	
Other			\$0	\$0	
Other			\$0	\$0	
Other			\$0	\$0	
Other			\$0	\$0	
External Costs Subtotal				\$1,104,000	
Base Project Cost Estimate				\$17,864,000	
RISK ADJUSTMENTS					NOTES
Roundabout Risk	10% of Item BCCE		\$1,003,000	\$1,003,000	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$1,003,000	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$18,867,000	

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	US 41 & WIS 125/College Ave Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	112,400	\$ 5.00	\$562,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	41,500	\$ 16.00	\$664,000	
Earthwork					
Common	CY	125,200	\$ 10.00	\$1,252,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	4	\$ 250,000.00	\$1,000,000	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	14,800	\$ 45.00	\$666,000	
Cross Road	SY	63,400	\$ 40.00	\$2,536,000	
Frontage Roads	SY	10,300	\$ 40.00	\$412,000	
Local Roads	SY	40,000	\$ 30.00	\$1,200,000	Assumed 6" depth
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 6" depth
Ramp Shoulders	SY	5,000	\$ 30.00	\$150,000	Assumed 6" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	14,800	\$ 8.00	\$118,000	
Cross Road	SY	63,400	\$ 8.00	\$507,000	
Frontage Roads	SY	10,300	\$ 8.00	\$82,000	
Local Roads	SY	40,000	\$ 8.00	\$320,000	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	5,000	\$ 8.00	\$40,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	14,800	\$ 12.00	\$178,000	
Cross Road	SY	63,400	\$ 10.00	\$634,000	
Frontage Roads	SY	10,300	\$ 10.00	\$103,000	
Local Roads	SY	40,000	\$ 10.00	\$400,000	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	5,000	\$ 12.00	\$60,000	
Major Roadway Subtotal (MRS)				\$10,884,000	
ALLOWANCE ITEMS					
DRAINAGE	% of MRS	11.4%		\$1,242,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$1,007,000	
LIGHTING	% of MRS	1.4%		\$154,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$3,140,000	
SIGNING/MARKING	% of MRS	3.0%		\$330,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$524,000	
ITS/ FTMS	% of MRS	1.0%		\$109,000	
Allowance Subtotal				\$6,506,000	

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
New Bridge (Multi-level Interchange)	Insert	-	\$ -	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
Retaining Wall Removal	Insert	-	\$ -	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	1,030	\$ 2,300.00	\$2,369,000	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
MSE Walls	Insert	-	\$ -	\$0	
Secant Walls	Insert	-	\$ -	\$0	
Structure Incidentals		% of Structures	10%	\$237,000	
Structure SubTotal				\$2,606,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Reconfiguration of WIS 125/Casaloma Dr.	EACH	1	\$ 5,000,000.00	\$5,000,000	
Special Construction Elements Subtotal				\$5,000,000	
Construction Costs Estimate (CCE)				\$24,996,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$1,250,000	
Base Construction Costs Estimate (BCCE)				\$26,246,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$6,299,000	
Estimated Const. Let Amount (ECLA)				\$32,545,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$2,343,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$1,757,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$2,994,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$3,385,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$488,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$325,000	
Delivery Allowance Subtotal				\$11,292,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$2,100,000	\$2,100,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$787,000	\$787,000	
JURISDICTIONAL TRANSFERS			\$0	\$0	
External Costs Subtotal				\$2,887,000	
Base Project Cost Estimate				\$46,724,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$46,724,000	

Conceptual Cost Estimate
SUMMARY
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Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	USH 41 & WIS 96/Wisconsin Ave Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	86,500	\$ 5.00	\$433,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	33,900	\$ 16.00	\$542,000	
Earthwork					
Common	CY	87,500	\$ 10.00	\$875,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	4	\$ 250,000.00	\$1,000,000	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	12,000	\$ 45.00	\$540,000	
Cross Road	SY	46,800	\$ 40.00	\$1,872,000	
Frontage Roads	SY	4,700	\$ 40.00	\$188,000	
Local Roads	SY	24,200	\$ 30.00	\$726,000	Assumed 6" depth
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 6" depth
Ramp Shoulders	SY	4,600	\$ 30.00	\$138,000	Assumed 6" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	12,000	\$ 8.00	\$96,000	
Cross Road	SY	46,800	\$ 8.00	\$374,000	
Frontage Roads	SY	4,700	\$ 8.00	\$38,000	
Local Roads	SY	24,200	\$ 8.00	\$194,000	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	4,600	\$ 8.00	\$37,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	Assumed 12" depth
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	12,000	\$ 12.00	\$144,000	
Cross Road	SY	46,800	\$ 10.00	\$468,000	
Frontage Roads	SY	4,700	\$ 10.00	\$47,000	
Local Roads	SY	24,200	\$ 10.00	\$242,000	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	4,600	\$ 12.00	\$55,000	
Major Roadway Subtotal (MRS)				\$8,009,000	
ALLOWANCE ITEMS					
DRAINAGE	% of MRS	11.4%		\$914,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$741,000	
LIGHTING	% of MRS	1.4%		\$113,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$2,311,000	
SIGNING/MARKING	% of MRS	3.0%		\$243,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$386,000	
ITS/ FTMS	% of MRS	1.0%		\$80,000	
Allowance Subtotal				\$4,788,000	

STRUCTURES		UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	1	\$	65,000.00	\$65,000	Railroad bridge Railroad bridge
New Bridge (Single Level Interchange)	SF	5,900	\$	120.00	\$708,000	
Bridge Redecking	SF	-	\$	70.00	\$0	
Bridge Widening	SF	-	\$	140.00	\$0	
New Retaining Wall	SF	-	\$	70.00	\$0	
Noise Wall Removal	EACH	-	\$	75,000.00	\$0	
New Noise Walls	SF	-	\$	50.00	\$0	
New Box Culvert/Extension	LF	190	\$	2,300.00	\$437,000	
Sign Bridge - Cantilever	EACH	-	\$	30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$	60,000.00	\$0	
Structure Incidentals	% of Structures		10%		\$121,000	
Structure SubTotal					\$1,331,000	
SPECIAL CONSTRUCTION ELEMENTS		UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Temporary Bridges	Insert	-	\$	-	\$0	Need temporary bridge for RR?
Temporary Roadways	Insert	-	\$	-	\$0	
Environment Mitigation	Insert	-	\$	-	\$0	
Community Sensitive Design	Insert	-	\$	-	\$0	
Hazardous Materials	Insert	-	\$	-	\$0	
Bypass / Alternate Routes	Insert	-	\$	-	\$0	
Special Construction Elements Subtotal					\$0	
Construction Costs Estimate (CCE)					\$14,128,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)						
CSS	% of Item CCE			5%	\$706,000	
Base Construction Costs Estimate (BCCE)					\$14,834,000	
SCOPE CHANGE ALLOWANCE ITEMS						
PROJECT SCOPE INCREASE ALLOWANCE			% of Item BCCE		24%	\$3,560,000
Estimated Const. Let Amount (ECLA)					\$18,394,000	
PROJECT DELIVERY ALLOWANCE ITEMS						
PRELIMINARY ENGINEERING	% of Item BCCE			7.2%	\$1,324,000	
FINAL ENGINEERING	% of Item BCCE			5.4%	\$993,000	
CONSTRUCTION ENGINEERING	% of Item BCCE			9.2%	\$1,692,000	
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE			10.4%	\$1,913,000	
TRAFFIC MITIGATION	% of Item BCCE			1.5%	\$276,000	
PUBLIC INVOLVEMENT	% of Item BCCE			1.0%	\$184,000	
Delivery Allowance Subtotal					\$6,382,000	
EXTERNAL COSTS						NOTES
REAL ESTATE	8% of Item BCCE			\$1,187,000	\$1,187,000	
COMPENSABLE UTILITIES	3% of Item BCCE			\$445,000	\$445,000	
JURISDICTIONAL TRANSFERS				\$0	\$0	
External Costs Subtotal					\$1,632,000	
Base Project Cost Estimate					\$26,408,000	
RISK ADJUSTMENTS						NOTES
Risk Item A				\$0	\$0	
Risk Item B				\$0	\$0	
Risk Item C				\$0	\$0	
Risk Adjustment Subtotal					\$0	
ESTIMATE UNCERTAINTY						NOTES
Uncertainty Item A				\$0	\$0	
Uncertainty Item B				\$0	\$0	
Uncertainty Item C				\$0	\$0	
Estimate Uncertainty Subtotal					\$0	
Current Year Total Project Cost Estimate					\$26,408,000	

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00
Highway	US 41
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)
Project Limits	USH 41 & WIS 47/Richmond St Interchange

Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	1,800	\$ 5.00	\$9,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	1,700	\$ 16.00	\$27,000	
Sidewalk	SF	2,976	\$ 10.00	\$30,000	
Earthwork					
Common	CY	1,500	\$ 10.00	\$15,000	
Marsh	Insert	-	\$ 10.00	\$0	
Rock	Insert	-	\$ 10.00	\$0	
Borrow	Insert	-	\$ 10.00	\$0	
EBS	Insert	-	\$ 10.00	\$0	
Signalized Intersections	EACH		\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	1,500	\$ 40.00	\$60,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	-	\$ 30.00	\$0	
Ramp Shoulders	SY	-	\$ 30.00	\$0	
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	1,500	\$ 8.00	\$12,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	1,500	\$ 10.00	\$15,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$168,000	

ALLOWANCE ITEMS**Certainty Factor**

DRAINAGE	% of MRS	11.41%	\$19,000
EROSION CONTROL & RESTORATION	% of MRS	9.25%	\$16,000
LIGHTING	% of MRS	1.41%	\$2,000
ROADWAY INCIDENTALS	% of MRS	28.85%	\$48,000
SIGNING/MARKING	% of MRS	3.03%	\$5,000
TRAFFIC CONTROL & STAGING	% of MRS	4.81%	\$8,000
ITS/ FTMS	% of MRS	1.00%	\$2,000
Allowance Subtotal			\$100,000

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	EACH	2	\$ 65,000.00	\$130,000	
New Bridge (Single Level Interchange)	SF	24,500	\$ 120.00	\$2,940,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$307,000	
Structure SubTotal				\$3,377,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert		\$ 5,000,000.00	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$3,645,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$182,000	
Base Construction Costs Estimate (BCCE)				\$3,827,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$918,000	
Estimated Const. Let Amount (ECLA)				\$4,745,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$342,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$256,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$437,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$493,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$71,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$47,000	
Delivery Allowance Subtotal				\$1,646,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$ 306,000.00	\$306,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 115,000.00	\$115,000	
JURISDICTIONAL TRANSFERS			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
External Costs Subtotal				\$421,000	
Base Project Cost Estimate				\$6,812,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$ -	\$0	
Risk Item B			\$ -	\$0	
Risk Item C			\$ -	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$ -	\$0	
Uncertainty Item B			\$ -	\$0	
Uncertainty Item C			\$ -	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$6,812,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co)		
Project Limits	USH 41 & WIS 15/Northland Ave Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	131,000	\$ 5.00	\$655,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	62,000	\$ 16.00	\$992,000	
Earthwork					
Common	CY	166,100	\$ 10.00	\$1,661,000	
Marsh	Insert	-	\$ 10.00	\$0	
Rock	Insert	-	\$ 10.00	\$0	
Borrow	Insert	-	\$ 10.00	\$0	
EBS	Insert	-	\$ 10.00	\$0	
Signalized Intersections	EACH	5	\$ 250,000.00	\$1,250,000	Includes Bluemound/Glenpark
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	18,000	\$ 45.00	\$810,000	
Cross Road	SY	95,200	\$ 40.00	\$3,808,000	
Frontage Roads	SY	4,100	\$ 40.00	\$164,000	
Local Roads	SY	50,300	\$ 30.00	\$1,509,000	
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	7,500	\$ 30.00	\$225,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	18,000	\$ 8.00	\$144,000	
Cross Road	SY	95,200	\$ 8.00	\$762,000	
Frontage Roads	SY	4,100	\$ 8.00	\$33,000	
Local Roads	SY	50,300	\$ 8.00	\$402,000	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	7,500	\$ 8.00	\$60,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	18,000	\$ 12.00	\$216,000	
Cross Road	SY	95,200	\$ 10.00	\$952,000	
Frontage Roads	SY	4,100	\$ 10.00	\$41,000	
Local Roads	SY	50,300	\$ 10.00	\$503,000	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	7,500	\$ 12.00	\$90,000	
Major Roadway Subtotal (MRS)				\$14,277,000	
ALLOWANCE ITEMS					
Certainty Factor					
DRAINAGE	% of MRS	11.41%		\$1,630,000	
EROSION CONTROL & RESTORATION	% of MRS	9.25%		\$1,321,000	
LIGHTING	% of MRS	1.41%		\$202,000	
ROADWAY INCIDENTALS	% of MRS	28.85%		\$4,119,000	
SIGNING/MARKING	% of MRS	3.03%		\$432,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.81%		\$687,000	
ITS/ FTMS	% of MRS	1.00%		\$143,000	
Allowance Subtotal				\$8,534,000	

STRUCTURES (see STRUCTURE tab)					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Bridge Removal	EACH	2	\$ 65,000.00	\$130,000	
New Bridge (Single Level Interchange)	SF	33,700	\$ 120.00	\$4,044,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	185	\$ 2,300.00	\$426,000	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$460,000	
Structure SubTotal				\$5,060,000	

SPECIAL CONSTRUCTION ELEMENTS					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	1	\$ 5,000,000.00	\$5,000,000	Traffic mitigation at Casaloma
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$5,000,000	

Construction Costs Estimate (CCE)	\$32,871,000
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CONTEXT SENSITIVE SOLUTIONS (CSS)			
CSS	% of Item CCE	5%	\$1,644,000
Base Construction Costs Estimate (BCCE)			\$34,515,000

SCOPE CHANGE ALLOWANCE ITEMS			
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE	24%	\$8,284,000
Estimated Const. Let Amount (ECLA)			\$42,799,000

PROJECT DELIVERY ALLOWANCE ITEMS			
PRELIMINARY ENGINEERING	% of Item BCCE	7.2%	\$3,082,000
FINAL ENGINEERING	% of Item BCCE	5.4%	\$2,311,000
CONSTRUCTION ENGINEERING	% of Item BCCE	9.2%	\$3,938,000
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE	10.4%	\$4,451,000
TRAFFIC MITIGATION	% of Item BCCE	1.5%	\$642,000
PUBLIC INVOLVEMENT	% of Item BCCE	1.0%	\$428,000
Delivery Allowance Subtotal			\$14,852,000

EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$ 2,761,000.00	\$2,761,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 1,035,000.00	\$1,035,000	
JURISDICTIONAL TRANSFERS			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
External Costs Subtotal				\$3,796,000	

Base Project Cost Estimate	\$61,447,000
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RISK ADJUSTMENTS				NOTES
Risk Item A		\$ -	\$0	
Risk Item B		\$ -	\$0	
Risk Item C		\$ -	\$0	
Risk Adjustment Subtotal			\$0	

ESTIMATE UNCERTAINTY				NOTES
Uncertainty Item A		\$ -	\$0	
Uncertainty Item B		\$ -	\$0	
Uncertainty Item C		\$ -	\$0	
Estimate Uncertainty Subtotal			\$0	

Current Year Total Project Cost Estimate	\$61,447,000
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Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co.)		
Project Limits	USH 41 & CTH E/Ballard Road Interchange		
Project Type	Urban	Topography	Moderate
Project Duration	Multi	Soil Type	Coarse-grained
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

[Project Scope](#)
[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	67,200	\$ 5.00	\$336,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	33,200	\$ 16.00	\$531,000	
Earthwork					
Common	CY	94,300	\$ 10.00	\$943,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	4	\$ 250,000.00	\$1,000,000	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	13,400	\$ 45.00	\$603,000	
Cross Road	SY	56,200	\$ 40.00	\$2,248,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	24,000	\$ 30.00	\$720,000	
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	4,700	\$ 30.00	\$141,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	13,400	\$ 8.00	\$107,000	
Cross Road	SY	56,200	\$ 8.00	\$450,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	24,000	\$ 8.00	\$192,000	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	4,700	\$ 8.00	\$38,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	13,400	\$ 12.00	\$161,000	
Cross Road	SY	56,200	\$ 10.00	\$562,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	24,000	\$ 10.00	\$240,000	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	4,700	\$ 12.00	\$56,000	
Major Roadway Subtotal (MRS)				\$8,328,000	
ALLOWANCE ITEMS					
Certainty Factor					
DRAINAGE	% of MRS	11.4%		\$951,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$770,000	
LIGHTING	% of MRS	1.4%		\$118,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$2,403,000	
SIGNING/MARKING	% of MRS	3.0%		\$252,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$401,000	
ITS/ FTMS	% of MRS	1.0%		\$83,000	
Allowance Subtotal				\$4,978,000	

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	EACH	1	\$ 65,000.00	\$65,000	
New Bridge (Single Level Interchange)	SF	37,900	\$ 120.00	\$4,548,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	160	\$ 2,300.00	\$368,000	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$498,000	
Structure SubTotal				\$5,479,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$18,785,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$939,000	
Base Construction Costs Estimate (BCCE)				\$19,724,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$4,734,000	
Estimated Const. Let Amount (ECLA)				\$24,458,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$1,761,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$1,321,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$2,250,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$2,544,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$367,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$245,000	
Delivery Allowance Subtotal				\$8,488,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$ 1,578,000.00	\$1,578,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 592,000.00	\$592,000	
JURISDICTIONAL TRANSFERS			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
External Costs Subtotal				\$2,170,000	
Base Project Cost Estimate				\$35,116,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$ -	\$0	
Risk Item B			\$ -	\$0	
Risk Item C			\$ -	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$ -	\$0	
Uncertainty Item B			\$ -	\$0	
Uncertainty Item C			\$ -	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$35,116,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Co.)		
Project Limits	USH 41 & CTH N Interchange		
Project Type	Urban	Topography	Moderate
Project Duration	Multi	Soil Type	Coarse-grained
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	39,300	\$ 5.00	\$197,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	25,400	\$ 16.00	\$406,000	
Earthwork					
Common	CY	39,111	\$ 10.00	\$391,000	
Marsh	Insert	-	\$ 10.00	\$0	
Rock	Insert	-	\$ 10.00	\$0	
Borrow	Insert	-	\$ 10.00	\$0	
EBS	Insert	-	\$ 10.00	\$0	
Signalized Intersections	EACH	3	\$ 250,000.00	\$750,000	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	7,111	\$ 45.00	\$320,000	
Cross Road	SY	29,600	\$ 40.00	\$1,184,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	2,400	\$ 30.00	\$72,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	11,149	\$ 8.00	\$89,000	
Cross Road	SY	32,153	\$ 8.00	\$257,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	-	\$ 8.00	\$0	Basecourse for ramp shoulders is grouped in with line 37
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	11,149	\$ 12.00	\$134,000	
Cross Road	SY	32,153	\$ 10.00	\$322,000	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	-	\$ 12.00	\$0	Subbase for ramp shoulders is grouped in with line 46
Major Roadway Subtotal (MRS)				\$4,122,000	

ALLOWANCE ITEMS**Certainty Factor**

DRAINAGE	% of MRS	11.4%	\$470,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$381,000
LIGHTING	% of MRS	1.4%	\$58,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$1,189,000
SIGNING/MARKING	% of MRS	3.0%	\$125,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$198,000
ITS/FTMS	% of MRS	1.0%	\$41,000

Allowance SubTotal

\$2,462,000

STRUCTURES (see STRUCTURE tab)	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	2,700	\$ 120.00	\$324,000	
Bridge Redecking	SF	22,600	\$ 70.00	\$1,582,000	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals	% of Structures	10%		\$191,000	
Structure SubTotal				\$2,097,000	

SPECIAL CONSTRUCTION ELEMENTS					NOTES	
Temporary Bridges	Insert	-	\$	-	\$0	For traffic circulation mitigation on Moasis
Temporary Roadways	Insert	-	\$	-	\$0	
Environment Mitigation	Insert	-	\$	-	\$0	
Community Sensitive Design	Insert	-	\$	-	\$0	
Hazardous Materials	Insert	-	\$	-	\$0	
Bypass / Alternate Routes	Insert	-	\$	-	\$0	
Other	Insert	1	\$	1,000,000.00	\$1,000,000	
Other	Insert	-	\$	-	\$0	
Other	Insert	-	\$	-	\$0	
Other	Insert	-	\$	-	\$0	
Special Construction Elements Subtotal					\$1,000,000	
Construction Costs Estimate (CCE)					\$9,681,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)						
CSS	% of Item CCE		5%	\$484,000		
Base Construction Costs Estimate (BCCE)					\$10,165,000	
SCOPE CHANGE ALLOWANCE ITEMS						
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE		24%	\$2,440,000		
Estimated Const. Let Amount (ECLA)					\$12,605,000	
PROJECT DELIVERY ALLOWANCE ITEMS						
PRELIMINARY ENGINEERING	% of Item BCCE		7.2%	\$908,000		
FINAL ENGINEERING	% of Item BCCE		5.4%	\$681,000		
CONSTRUCTION ENGINEERING	% of Item BCCE		9.2%	\$1,160,000		
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE		10.4%	\$1,311,000		
TRAFFIC MITIGATION	% of Item BCCE		1.5%	\$189,000		
PUBLIC INVOLVEMENT	% of Item BCCE		1.0%	\$126,000		
Delivery Allowance Subtotal					\$4,375,000	
EXTERNAL COSTS						NOTES
REAL ESTATE	8% of Item BCCE	\$	813,000.00	\$813,000		
COMPENSABLE UTILITIES	3% of Item BCCE	\$	305,000.00	\$305,000		
JURISDICTIONAL TRANSFERS		\$	-	\$0		
Other		\$	-	\$0		
Other		\$	-	\$0		
Other		\$	-	\$0		
Other		\$	-	\$0		
Other		\$	-	\$0		
External Costs Subtotal					\$1,118,000	
Base Project Cost Estimate					\$18,098,000	
RISK ADJUSTMENTS						NOTES
Risk Item A		\$	-	\$0		
Risk Item B		\$	-	\$0		
Risk Item C		\$	-	\$0		
Risk Adjustment Subtotal					\$0	
ESTIMATE UNCERTAINTY						NOTES
Uncertainty Item A		\$	-	\$0		
Uncertainty Item B		\$	-	\$0		
Uncertainty Item C		\$	-	\$0		
Estimate Uncertainty Subtotal					\$0	
Current Year Total Project Cost Estimate					\$18,098,000	

Wisconsin Department of Transportation

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 7: CTH J Interchange		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total
MAJOR ROADWAY ITEMS				
Removing Pavement	SY	4,950	\$ 5.00	\$25,000
Barrier Wall	LF	-	\$ 110.00	\$0
Curb & Gutter	LF	2,698	\$ 16.00	\$43,000
Sidewalk	SF	2,590	\$ 10.00	\$26,000
Earthwork				
Common	CY	11,362	\$ 10.00	\$114,000
Marsh	CY	-	\$ 10.00	\$0
Rock	CY	-	\$ 10.00	\$0
Borrow	CY	-	\$ 10.00	\$0
EBS	CY	-	\$ 10.00	\$0
Signalized Intersections	EACH	-	\$ 250,000.00	\$0
Pavement				
Mainline	SY	-	\$ 45.00	\$0
System Ramps	SY	-	\$ 45.00	\$0
Service Ramps	SY	5,925	\$ 45.00	\$267,000
Cross Road	SY	2,738	\$ 40.00	\$110,000
Frontage Roads	SY	-	\$ 40.00	\$0
Local Roads	SY	300	\$ 30.00	\$9,000
Mainline Shoulders	SY	-	\$ 30.00	\$0
Ramp Shoulders	SY	2,400	\$ 30.00	\$72,000
Base				
Mainline	SY	-	\$ 8.00	\$0
System Ramps	SY	-	\$ 8.00	\$0
Service Ramps	SY	5,925	\$ 8.00	\$47,000
Cross Road	SY	2,738	\$ 8.00	\$22,000
Frontage Roads	SY	-	\$ 8.00	\$0
Local Roads	Insert	300	\$ 8.00	\$2,000
Mainline Shoulders	SY	-	\$ 8.00	\$0
Ramp Shoulders	SY	2,400	\$ 8.00	\$19,000
Subbase				
Mainline	SY	-	\$ 12.00	\$0
System Ramps	SY	-	\$ 12.00	\$0
Service Ramps	SY	5,925	\$ 12.00	\$71,000
Cross Road	SY	2,738	\$ 10.00	\$27,000
Frontage Roads	SY	-	\$ 10.00	\$0
Local Roads	Insert	300	\$ 10.00	\$3,000
Mainline Shoulders	SY	-	\$ 12.00	\$0
Ramp Shoulders	SY	2,400	\$ 12.00	\$29,000
Major Roadway Subtotal (MRS)				\$886,000

ALLOWANCE ITEMS

DRAINAGE	% of MRS	11.4%	\$101,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$82,000
LIGHTING	% of MRS	1.4%	\$13,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$256,000
SIGNING/MARKING	% of MRS	3.0%	\$27,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$43,000
ITS/ FTMS	% of MRS	1.0%	\$9,000

Allowance Subtotal

\$531,000

STRUCTURES

	UNIT	QUANTITY	UNIT PRICE	Total
Bridge Removal	EACH	1	\$ 65,000.00	\$65,000
New Bridge (Single Level Interchange)	SF	13,734	\$ 120.00	\$1,648,000
Bridge Redecking	SF	-	\$ 70.00	\$0
Bridge Widening	SF	-	\$ 140.00	\$0
New Retaining Wall	SF	-	\$ 70.00	\$0
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0
New Noise Walls	SF	-	\$ 50.00	\$0
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0
Structure Incidentals	% of Structures	10%		\$171,000

Structure SubTotal

\$1,884,000

SPECIAL CONSTRUCTION ELEMENTS

	UNIT	QUANTITY	UNIT PRICE	Total
Temporary Bridges	Insert	-	\$ -	\$0
Temporary Roadways	Insert	-	\$ -	\$0
Environment Mitigation	Insert	-	\$ -	\$0
Community Sensitive Design	Insert	-	\$ -	\$0
Hazardous Materials	Insert	-	\$ -	\$0
Bypass / Alternate Routes	Insert	-	\$ -	\$0

Special Construction Elements Subtotal

\$0

Construction Costs Estimate (CCE)

\$3,301,000

CONTEXT SENSITIVE SOLUTIONS (CSS)

CSS	% of Item CCE	5%	\$165,000
Base Construction Costs Estimate (BCCE)			\$3,466,000

SCOPE CHANGE ALLOWANCE ITEMS

PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE	24%	\$832,000
Estimated Const. Let Amount (ECLA)			\$4,298,000

PROJECT DELIVERY ALLOWANCE ITEMS

PRELIMINARY ENGINEERING	% of Item BCCE	7.2%	\$309,000
FINAL ENGINEERING	% of Item BCCE	5.4%	\$232,000
CONSTRUCTION ENGINEERING	% of Item BCCE	9.2%	\$395,000
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE	10.4%	\$447,000
TRAFFIC MITIGATION	% of Item BCCE	1.5%	\$64,000
PUBLIC INVOLVEMENT	% of Item BCCE	1.0%	\$43,000
Delivery Allowance Subtotal			\$1,490,000

EXTERNAL COSTS

REAL ESTATE	8% of Item BCCE	\$277,000	\$277,000
COMPENSABLE UTILITIES	3% of Item BCCE	\$104,000	\$104,000
JURISDICTIONAL TRANSFERS		\$0	\$0
External Costs Subtotal			\$381,000

Base Project Cost Estimate

\$6,169,000

Today: 8/20/19 9:41 AM

Wisconsin Department of Transportation				
Conceptual Cost Estimate SUMMARY Version 2.0	Project I.D.	1130-31-00		
	Highway	US 41		
	Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
	Project Limits	Segment 7: CTH U Interchange		
	Project Type	Urban	Topography	Moderate
	Project Duration	Multi	Soil Type	Coarse-grained
	Current Year	2019	Start Construction	2048
	Start Preliminary Design	2043	End Construction	2052
	Alternative #:	Planning Study		
ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total
MAJOR ROADWAY ITEMS				
Removing Pavement	SY	10,100	\$ 5.00	\$51,000
Barrier Wall	LF	-	\$ 110.00	\$0
Curb & Gutter	LF	2,500	\$ 16.00	\$40,000
Earthwork				
Common	CY	17,533	\$ 10.00	\$175,000
Marsh	CY	-	\$ 10.00	\$0
Rock	CY	-	\$ 10.00	\$0
Borrow	CY	-	\$ 10.00	\$0
EBS	CY	-	\$ 10.00	\$0
Signalized Intersections	EACH	-	\$ 250,000.00	\$0
Pavement				
Mainline	SY	-	\$ 45.00	\$0
System Ramps	SY	-	\$ 45.00	\$0
Service Ramps	SY	6,600	\$ 45.00	\$297,000
Cross Road	SY	7,000	\$ 40.00	\$280,000
Frontage Roads	SY	-	\$ 40.00	\$0
Local Roads	SY	-	\$ 30.00	\$0
Mainline Shoulders	SY	-	\$ 30.00	\$0
Ramp Shoulders	SY	3,600	\$ 30.00	\$108,000
Base				
Mainline	SY	-	\$ 8.00	\$0
System Ramps	SY	-	\$ 8.00	\$0
Service Ramps	SY	6,600	\$ 8.00	\$53,000
Cross Road	SY	7,000	\$ 8.00	\$56,000
Frontage Roads	SY	-	\$ 8.00	\$0
Local Roads	SY	-	\$ 8.00	\$0
Mainline Shoulders	SY	-	\$ 8.00	\$0
Ramp Shoulders	SY	3,600	\$ 8.00	\$29,000
Subbase				
Mainline	SY	-	\$ 12.00	\$0
System Ramps	SY	-	\$ 12.00	\$0
Service Ramps	SY	6,600	\$ 12.00	\$79,000
Cross Road	SY	-	\$ 10.00	\$0
Frontage Roads	SY	-	\$ 10.00	\$0
Local Roads	SY	-	\$ 10.00	\$0
Mainline Shoulders	SY	-	\$ 12.00	\$0
Ramp Shoulders	SY	3,600	\$ 12.00	\$43,000
Major Roadway Subtotal (MRS)				\$1,211,000
ALLOWANCE ITEMS				
DRAINAGE	% of MRS	11.4%		\$138,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$112,000
LIGHTING	% of MRS	1.4%		\$17,000
ROADWAY INCIDENTALS	% of MRS	28.9%		\$349,000
SIGNING/MARKING	% of MRS	3.0%		\$37,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$58,000
ITS/ FTMS	% of MRS	1.0%		\$12,000
Allowance Subtotal				\$723,000

Assumed 5" depth
Assumed 5" depth

STRUCTURES					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Bridge Removal	EACH	-	\$ 65,000.00	\$0	
New Bridge (Single Level Interchange)	SF	-	\$ 120.00	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$0	
Structure SubTotal				\$0	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
	UNIT	QUANTITY	UNIT PRICE	Total	
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$1,934,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$97,000	
Base Construction Costs Estimate (BCCE)				\$2,031,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$487,000	
Estimated Const. Let Amount (ECLA)				\$2,518,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$181,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$136,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$232,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$262,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$38,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$25,000	
Delivery Allowance Subtotal				\$874,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$162,000	\$162,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$61,000	\$61,000	
JURISDICTIONAL TRANSFERS			\$0	\$0	
External Costs Subtotal				\$223,000	
Base Project Cost Estimate				\$3,615,000	

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 7: County S Interchange		
Project Type	Urban	Topography	Moderate
Project Duration	Multi	Soil Type	Coarse grained
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	23,400	\$ 5.00	\$117,000	
Barrier Wall	LF	-	\$ 110.00	\$0	
Curb & Gutter	LF	-	\$ 16.00	\$0	
Earthwork					
Common	CY	15,500	\$ 10.00	\$155,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	-	\$ 45.00	\$0	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	7,250	\$ 45.00	\$326,000	
Cross Road	SY	10,550	\$ 40.00	\$422,000	
Frontage Roads	SY	16,400	\$ 40.00	\$656,000	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Ramp Shoulders	SY	4,550	\$ 30.00	\$137,000	Assumed 5" depth
Base					
Mainline	SY	-	\$ 8.00	\$0	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	7,250	\$ 8.00	\$58,000	
Cross Road	SY	10,550	\$ 8.00	\$84,000	
Frontage Roads	SY	16,400	\$ 8.00	\$131,000	
Local Roads	Insert	-	\$ 8.00	\$0	
Mainline Shoulders	SY	-	\$ 8.00	\$0	
Ramp Shoulders	SY	4,550	\$ 8.00	\$36,000	
Subbase					
Mainline	SY	-	\$ 12.00	\$0	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	7,250	\$ 12.00	\$87,000	
Cross Road	Insert	-	\$ 10.00	\$0	
Frontage Roads	SY	16,400	\$ 10.00	\$164,000	
Local Roads	Insert	-	\$ 10.00	\$0	
Mainline Shoulders	SY	-	\$ 12.00	\$0	
Ramp Shoulders	SY	4,550	\$ 12.00	\$55,000	
Major Roadway Subtotal (MRS)				\$2,428,000	

ALLOWANCE ITEMS**Certainty Factor**

DRAINAGE	% of MRS	11.4%	\$277,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$225,000
LIGHTING	% of MRS	1.4%	\$34,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$701,000
SIGNING/MARKING	% of MRS	3.0%	\$74,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$117,000
ITS/ FTMS	% of MRS	1.0%	\$24,000
Allowance Subtotal			\$1,452,000

STRUCTURES (see STRUCTURE tab)	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	1	\$ 65,000.00	\$65,000	
New Bridge (Single Level Interchange)	SF	18,671	\$ 120.00	\$2,241,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals	% of Structures		10.0%	\$231,000	
Structure SubTotal				\$2,537,000	

SPECIAL CONSTRUCTION ELEMENTS				NOTES
Temporary Bridges	Insert	-	\$ -	\$0
Temporary Roadways	Insert	-	\$ -	\$0
Environment Mitigation	Insert	-	\$ -	\$0
Community Sensitive Design	Insert	-	\$ -	\$0
Hazardous Materials	Insert	-	\$ -	\$0
Bypass / Alternate Routes	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Special Construction Elements Subtotal				\$0
Construction Costs Estimate (CCE)				\$6,417,000
CONTEXT SENSITIVE SOLUTIONS (CSS)				
CSS	% of Item CCE		5%	\$321,000
Base Construction Costs Estimate (BCCE)				\$6,738,000
SCOPE CHANGE ALLOWANCE ITEMS				
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE		24%	\$1,617,000
Estimated Const. Let Amount (ECLA)				\$8,355,000
PROJECT DELIVERY ALLOWANCE ITEMS				
PRELIMINARY ENGINEERING	% of Item BCCE		7.2%	\$602,000
FINAL ENGINEERING	% of Item BCCE		5.4%	\$451,000
CONSTRUCTION ENGINEERING	% of Item BCCE		9.2%	\$769,000
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE		10.4%	\$869,000
TRAFFIC MITIGATION	% of Item BCCE		1.5%	\$125,000
PUBLIC INVOLVEMENT	% of Item BCCE		1.0%	\$84,000
Delivery Allowance Subtotal				\$2,900,000
EXTERNAL COSTS				
REAL ESTATE	8% of Item BCCE	\$	539,000.00	\$539,000
COMPENSABLE UTILITIES	3% of Item BCCE	\$	202,000.00	\$202,000
JURISDICTIONAL TRANSFERS		\$	-	\$0
Other		\$	-	\$0
Other		\$	-	\$0
Other		\$	-	\$0
Other		\$	-	\$0
Other		\$	-	\$0
External Costs Subtotal				\$741,000
Base Project Cost Estimate				\$11,996,000

Conceptual Cost Estimate SUMMARY Version 2.0

Project I.D.	1130-31-00
Highway	US 41
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)
Project Limits	Segment 2: CTH BB - WIS 96 (10,149 LF) MAINLINE ONLY

Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:			

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	153,749	\$ 5.00	\$769,000	
Barrier Wall	LF	34,036	\$ 110.00	\$3,744,000	
Curb & Gutter	LF	8,201	\$ 16.00	\$131,000	
Earthwork					
Common	CY	220,412	\$ 10.00	\$2,204,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	118,956	\$ 45.00	\$5,353,000	
System Ramps	SY	9,382	\$ 45.00	\$422,000	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	1,168	\$ 40.00	\$47,000	
Frontage Roads	SY	9,511	\$ 40.00	\$380,000	
Local Roads	SY	-	\$ 30.00	\$0	Assumed 6" depth
Mainline Shoulders	SY	66,191	\$ 30.00	\$1,986,000	Assumed 6" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 6" depth
Base					
Mainline	SY	118,956	\$ 8.00	\$952,000	Assumed 12" depth
System Ramps	SY	9,382	\$ 8.00	\$75,000	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	9,511	\$ 8.00	\$76,000	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	66,191	\$ 8.00	\$530,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	118,956	\$ 12.00	\$1,427,000	Assumed 12" depth
System Ramps	SY	9,382	\$ 12.00	\$113,000	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	9,511	\$ 10.00	\$95,000	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	66,191	\$ 12.00	\$794,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$19,098,000	
ALLOWANCE ITEMS					
DRAINAGE	% of MRS	11.4%		\$2,180,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$1,767,000	
LIGHTING	% of MRS	1.4%		\$270,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$5,510,000	
SIGNING/MARKING	% of MRS	3.0%		\$579,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$919,000	
ITS/ FTMS	% of MRS	1.0%		\$191,000	
Allowance Subtotal				\$11,416,000	

STRUCTURES					NOTES
Bridge Removal	EACH	8	\$ 65,000.00	\$520,000	
New Bridge (Single Level Interchange)	SF	165,376	\$ 120.00	\$19,845,000	
New Bridge (Multi-level Interchange)	Insert	-	\$ -	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
Retaining Wall Removal	Insert	-	\$ -	\$0	
New Retaining Wall	SF	44,990	\$ 70.00	\$3,149,000	
Noise Wall Removal	Insert	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	Insert	955	\$ 2,300.00	\$2,197,000	
Sign Bridge - Cantilever	EACH	4	\$ 30,000.00	\$120,000	
Sign Bridge - Single Span	EACH	4	\$ 60,000.00	\$240,000	
MSE Walls	Insert	-	\$ -	\$0	
Secant Walls	Insert	-	\$ -	\$0	
Structure Incidentals		% of Structures	10%	\$2,607,000	
Structure SubTotal				\$28,678,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$59,192,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$2,960,000	
Base Construction Costs Estimate (BCCE)				\$62,152,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$14,916,000	
Estimated Const. Let Amount (ECLA)				\$77,068,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$5,549,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$4,162,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$7,090,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$8,015,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$1,156,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$771,000	
Delivery Allowance Subtotal				\$26,743,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$4,972,000	\$4,972,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$1,865,000	\$1,865,000	
JURISDICTIONAL TRANSFERS			\$0	\$0	
External Costs Subtotal				\$6,837,000	
Base Project Cost Estimate				\$110,648,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$0	\$0	
Risk Item B			\$0	\$0	
Risk Item C			\$0	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$0	\$0	
Uncertainty Item B			\$0	\$0	
Uncertainty Item C			\$0	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$110,648,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 3: WIS 96 - CTH OO (5,095 LF) MAINLINE ONLY		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:			

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	67,044	\$ 5.00	\$335,000	
Barrier Wall	LF	16,080	\$ 110.00	\$1,769,000	
Curb & Gutter	LF	-	\$ 16.00	\$0	
Earthwork					
Common	CY	98,677	\$ 10.00	\$987,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	59,239	\$ 45.00	\$2,666,000	
System Ramps	SY	2,340	\$ 45.00	\$105,000	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	-	\$ 40.00	\$0	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	33,250	\$ 30.00	\$997,000	Assumed 5" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Base					
Mainline	SY	59,239	\$ 8.00	\$474,000	
System Ramps	SY	2,340	\$ 8.00	\$19,000	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	33,250	\$ 8.00	\$266,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	59,239	\$ 12.00	\$711,000	
System Ramps	SY	2,340	\$ 12.00	\$28,000	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	33,250	\$ 12.00	\$399,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$8,756,000	

ALLOWANCE ITEMS

Certainty Factor

DRAINAGE	% of MRS	11.4%	\$999,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$810,000
LIGHTING	% of MRS	1.4%	\$124,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$2,526,000
SIGNING/MARKING	% of MRS	3.0%	\$265,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$422,000
ITS/ FTMS	% of MRS	1.0%	\$88,000

Allowance Subtotal

\$5,234,000

STRUCTURES (see STRUCTURE tab)	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	2	\$ 65,000.00	\$130,000	
New Bridge (Single Level Interchange)	SF	35,557	\$ 120.00	\$4,267,000	
New Bridge (Multi-level Interchange)	Insert	-	\$ -	\$0	
Bridge Redecking	SF	3,327	\$ 70.00	\$233,000	
Bridge Widening	SF	-	\$ 140.00	\$0	
Retaining Wall Removal	Insert	-	\$ -	\$0	
New Retaining Wall	SF	55,758	\$ 70.00	\$3,903,000	
Noise Wall Removal	Insert	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	Insert	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	4	\$ 30,000.00	\$120,000	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
MSE Walls	Insert	-	\$ -	\$0	
Secant Walls	Insert	-	\$ -	\$0	
Structure Incidentals	% of Structures	10%		\$865,000	
Structure SubTotal				\$9,518,000	

SPECIAL CONSTRUCTION ELEMENTS	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	

Construction Costs Estimate (CCE)	\$23,508,000
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CONTEXT SENSITIVE SOLUTIONS (CSS)			
CSS	% of Item CCE	5%	\$1,175,000
Base Construction Costs Estimate (BCCE)			\$24,683,000

SCOPE CHANGE ALLOWANCE ITEMS			
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE	24%	\$5,924,000
Estimated Const. Let Amount (ECLA)			\$30,607,000

PROJECT DELIVERY ALLOWANCE ITEMS			
PRELIMINARY ENGINEERING	% of Item BCCE	7%	\$2,204,000
FINAL ENGINEERING	% of Item BCCE	5%	\$1,653,000
CONSTRUCTION ENGINEERING	% of Item BCCE	9%	\$2,816,000
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE	10%	\$3,183,000
TRAFFIC MITIGATION	% of Item BCCE	2%	\$459,000
PUBLIC INVOLVEMENT	% of Item BCCE	1%	\$306,000
Delivery Allowance Subtotal			\$10,621,000

EXTERNAL COSTS				NOTES
REAL ESTATE	8% of Item BCCE	\$ 1,975,000.00	\$1,975,000	
COMPENSABLE UTILITIES	3% of Item BCCE	\$ 740,000.00	\$740,000	
JURISDICTIONAL TRANSFERS		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
External Costs Subtotal			\$2,715,000	
Base Project Cost Estimate			\$43,943,000	

RISK ADJUSTMENTS				NOTES
Risk Item A		\$ -	\$0	
Risk Item B		\$ -	\$0	
Risk Item C		\$ -	\$0	
Risk Adjustment Subtotal			\$0	

ESTIMATE UNCERTAINTY				NOTES
Uncertainty Item A		\$ -	\$0	
Uncertainty Item B		\$ -	\$0	
Uncertainty Item C		\$ -	\$0	
Estimate Uncertainty Subtotal			\$0	

Current Year Total Project Cost Estimate	\$43,943,000
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Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 4: CTH OO - CTH E (26,294 LF) MAINLINE ONLY		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:			

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	241,964	\$ 5.00	\$1,210,000	
Barrier Wall	LF	88,073	\$ 110.00	\$9,688,000	
Curb & Gutter	LF	-	\$ 16.00	\$0	
Earthwork					
Common	CY	465,210	\$ 10.00	\$4,652,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	260,184	\$ 45.00	\$11,708,000	
System Ramps	SY	4,842	\$ 45.00	\$218,000	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	-	\$ 40.00	\$0	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	187,926	\$ 30.00	\$5,638,000	Assumed 5" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Base					
Mainline	SY	260,184	\$ 8.00	\$2,081,000	
System Ramps	SY	4,842	\$ 8.00	\$39,000	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	187,926	\$ 8.00	\$1,503,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	260,184	\$ 12.00	\$3,122,000	
System Ramps	SY	4,842	\$ 12.00	\$58,000	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	187,926	\$ 12.00	\$2,255,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$42,172,000	
ALLOWANCE ITEMS					
Certainty Factor					
DRAINAGE	% of MRS	11.4%		\$4,814,000	
EROSION CONTROL & RESTORATION	% of MRS	9.3%		\$3,901,000	
LIGHTING	% of MRS	1.4%		\$595,000	
ROADWAY INCIDENTALS	% of MRS	28.9%		\$12,167,000	
SIGNING/MARKING	% of MRS	3.0%		\$1,278,000	
TRAFFIC CONTROL & STAGING	% of MRS	4.8%		\$2,030,000	
ITS/ FTMS	% of MRS	1.0%		\$422,000	
Allowance Subtotal				\$25,207,000	

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	Insert	5	\$ 65,000.00	\$325,000	
New Bridge (Single Level Interchange)	SF	43,520	\$ 120.00	\$5,222,000	
New Bridge (Multi-level Interchange)	Insert	-	\$ -	\$0	
Bridge Redecking	SF	57,733	\$ 70.00	\$4,041,000	
Bridge Widening	SF	5,641	\$ 140.00	\$790,000	
Retaining Wall Removal	Insert	-	\$ -	\$0	
New Retaining Wall	SF	10,808	\$ 70.00	\$757,000	
Noise Wall Removal	Insert	-	\$ 75,000.00	\$0	
New Noise Walls	SF	233,172	\$ 50.00	\$11,659,000	
New Box Culvert/Extension	Insert	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	2	\$ 30,000.00	\$60,000	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
MSE Walls	Insert	-	\$ -	\$0	
Secant Walls	Insert	-	\$ -	\$0	
Structure Incidentals		% of Structures	10%	\$2,285,000	
Structure SubTotal				\$25,139,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$92,518,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$4,626,000	
Base Construction Costs Estimate (BCCE)				\$97,144,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$23,315,000	
Estimated Const. Let. Amount (ECLA)				\$120,459,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$8,673,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$6,505,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$11,082,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$12,528,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$1,807,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$1,205,000	
Delivery Allowance Subtotal				\$41,800,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$ 7,772,000.00	\$7,772,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 2,914,000.00	\$2,914,000	
JURISDICTIONAL TRANSFERS			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
External Costs Subtotal				\$10,686,000	
Base Project Cost Estimate				\$172,945,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$ -	\$0	
Risk Item B			\$ -	\$0	
Risk Item C			\$ -	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$ -	\$0	
Uncertainty Item B			\$ -	\$0	
Uncertainty Item C			\$ -	\$0	
Estimate Uncertainty Subtotal				\$0	

Current Year Total Project Cost Estimate	\$172,945,000
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Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 5: CTH E - CTH N (21,060 LF) MAINLINE ONLY		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grained ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:			

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	272,974	\$ 5.00	\$1,365,000	
Barrier Wall	LF	76,281	\$ 110.00	\$8,391,000	
Curb & Gutter	LF	12,335	\$ 16.00	\$197,000	
Earthwork					
Common	CY	432,432	\$ 10.00	\$4,324,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	179,028	\$ 45.00	\$8,056,000	
System Ramps	SY	28,151	\$ 45.00	\$1,267,000	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	-	\$ 40.00	\$0	
Frontage Roads	SY	34,752	\$ 40.00	\$1,390,000	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	144,372	\$ 30.00	\$4,331,000	Assumed 5" depth
Ramp Shoulders	SY	21,693	\$ 30.00	\$651,000	Assumed 5" depth
Base					
Mainline	SY	179,028	\$ 8.00	\$1,432,000	
System Ramps	SY	28,151	\$ 8.00	\$225,000	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	34,752	\$ 8.00	\$278,000	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	144,372	\$ 8.00	\$1,155,000	
Ramp Shoulders	SY	21,693	\$ 8.00	\$174,000	
Subbase					
Mainline	SY	179,028	\$ 12.00	\$2,148,000	
System Ramps	SY	28,151	\$ 12.00	\$338,000	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	34,752	\$ 10.00	\$348,000	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	144,372	\$ 12.00	\$1,732,000	
Ramp Shoulders	SY	21,693	\$ 12.00	\$260,000	
Major Roadway Subtotal (MRS)				\$38,062,000	

ALLOWANCE ITEMS

Certainty Factor

DRAINAGE	% of MRS	11.4%	\$4,344,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$3,521,000
LIGHTING	% of MRS	1.4%	\$537,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$10,981,000
SIGNING/MARKING	% of MRS	3.0%	\$1,153,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$1,833,000
ITS/ FTMS	% of MRS	1.0%	\$381,000

Allowance Subtotal

\$22,750,000

STRUCTURES (see STRUCTURE tab)				NOTES
Bridge Removal	Insert	7	\$ 65,000.00	\$455,000
New Bridge (Single Level Interchange)	SF	103,778	\$ 120.00	\$12,453,000
New Bridge (Multi-level Interchange)	Insert	74,849	\$ 120.00	\$8,982,000
Bridge Redecking	SF	-	\$ 70.00	\$0
Bridge Widening	SF	-	\$ 140.00	\$0
Retaining Wall Removal	Insert	-	\$ -	\$0
New Retaining Wall	SF	130,052	\$ 70.00	\$9,104,000
Noise Wall Removal	Insert	-	\$ 75,000.00	\$0
New Noise Walls	SF	-	\$ 50.00	\$0
New Box Culvert/Extension	Insert	850	\$ 2,300.00	\$1,955,000
Sign Bridge - Cantilever	EACH	4	\$ 30,000.00	\$120,000
Sign Bridge - Single Span	EACH	2	\$ 60,000.00	\$120,000
MSE Walls	Insert	-	\$ -	\$0
Secant Walls	Insert	-	\$ -	\$0
Structure Incidentals		% of Structures	10%	\$3,319,000
Structure SubTotal				\$36,508,000
SPECIAL CONSTRUCTION ELEMENTS				NOTES
Temporary Bridges	Insert	-	\$ -	\$0
Temporary Roadways	Insert	-	\$ -	\$0
Environment Mitigation	Insert	-	\$ -	\$0
Community Sensitive Design	Insert	-	\$ -	\$0
Hazardous Materials	Insert	-	\$ -	\$0
Bypass / Alternate Routes	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Other	Insert	-	\$ -	\$0
Special Construction Elements Subtotal				\$0
Construction Costs Estimate (CCE)				\$97,320,000
CONTEXT SENSITIVE SOLUTIONS (CSS)				
CSS		% of Item CCE	5%	\$4,866,000
Base Construction Costs Estimate (BCCE)				\$102,186,000
SCOPE CHANGE ALLOWANCE ITEMS				
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$24,525,000
Estimated Const. Let Amount (ECLA)				\$126,711,000
PROJECT DELIVERY ALLOWANCE ITEMS				
PRELIMINARY ENGINEERING		% of Item BCCE	7%	\$9,123,000
FINAL ENGINEERING		% of Item BCCE	5%	\$6,842,000
CONSTRUCTION ENGINEERING		% of Item BCCE	9%	\$11,657,000
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10%	\$13,178,000
TRAFFIC MITIGATION		% of Item BCCE	2%	\$1,901,000
PUBLIC INVOLVEMENT		% of Item BCCE	1%	\$1,267,000
Delivery Allowance Subtotal				\$43,968,000
EXTERNAL COSTS				NOTES
REAL ESTATE		8% of Item BCCE	\$ 8,175,000.00	\$8,175,000
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 3,066,000.00	\$3,066,000
JURISDICTIONAL TRANSFERS			\$ -	\$0
Other			\$ -	\$0
Other			\$ -	\$0
Other			\$ -	\$0
Other			\$ -	\$0
Other			\$ -	\$0
Other			\$ -	\$0
External Costs Subtotal				\$11,241,000
Base Project Cost Estimate				\$181,920,000
RISK ADJUSTMENTS				NOTES
Risk Item A			\$ -	\$0
Risk Item B			\$ -	\$0
Risk Item C			\$ -	\$0
Risk Adjustment Subtotal				\$0
ESTIMATE UNCERTAINTY				NOTES
Uncertainty Item A			\$ -	\$0
Uncertainty Item B			\$ -	\$0
Uncertainty Item C			\$ -	\$0
Estimate Uncertainty Subtotal				\$0
Current Year Total Project Cost Estimate				\$181,920,000

**Conceptual Cost Estimate
SUMMARY
Version 2.0**

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	US 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 6: CTH N - E Line Rd (15,590 LF) MAINLINE ONLY		
Project Type	Urban	Topography	Moderate
Project Duration	Multi	Soil Type	Coarse-grained
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:			

[Project Scope](#)[Project Assumptions](#)

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS	Bid Express Inst.	Estimator Inst.			
Removing Pavement	SY	160,582	\$ 5.00	\$803,000	
Barrier Wall	LF	33,337	\$ 110.00	\$3,667,000	
Curb & Gutter	LF	-	\$ 16.00	\$0	
Earthwork					
Common	CY	241,251	\$ 10.00	\$2,413,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	133,701	\$ 45.00	\$6,017,000	
System Ramps	SY	4,759	\$ 45.00	\$214,000	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	-	\$ 40.00	\$0	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	99,331	\$ 30.00	\$2,980,000	Assumed 5" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Base					
Mainline	SY	133,701	\$ 8.00	\$1,070,000	
System Ramps	SY	4,759	\$ 8.00	\$38,000	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	-	\$ 8.00	\$0	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	99,331	\$ 8.00	\$795,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	133,701	\$ 12.00	\$1,604,000	
System Ramps	SY	4,759	\$ 12.00	\$57,000	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	99,331	\$ 12.00	\$1,192,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$20,850,000	

ALLOWANCE ITEMS**Certainty Factor**

DRAINAGE	% of MRS	11.4%	\$2,380,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$1,929,000
LIGHTING	% of MRS	1.4%	\$294,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$6,015,000
SIGNING/MARKING	% of MRS	3.0%	\$632,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$1,004,000
ITS/ FTMS	% of MRS	1.0%	\$209,000
Allowance Subtotal			\$12,463,000

STRUCTURES (see STRUCTURE tab)					NOTES
Bridge Removal	Insert	6	\$ 65,000.00	\$390,000	
New Bridge (Single Level Interchange)	SF	46,977	\$ 120.00	\$5,637,000	
New Bridge (Multi-level Interchange)	Insert	-	\$ -	\$0	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
Retaining Wall Removal	Insert	-	\$ -	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	Insert	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	Insert	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
MSE Walls	Insert	-	\$ -	\$0	
Secant Walls	Insert	-	\$ -	\$0	
Structure Incidentals		% of Structures	10%	\$603,000	
Structure SubTotal				\$6,630,000	
SPECIAL CONSTRUCTION ELEMENTS					NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	
Construction Costs Estimate (CCE)				\$39,943,000	
CONTEXT SENSITIVE SOLUTIONS (CSS)					
CSS		% of Item CCE	5%	\$1,997,000	
Base Construction Costs Estimate (BCCE)				\$41,940,000	
SCOPE CHANGE ALLOWANCE ITEMS					
PROJECT SCOPE INCREASE ALLOWANCE		% of Item BCCE	24%	\$10,066,000	
Estimated Const. Let Amount (ECLA)				\$52,006,000	
PROJECT DELIVERY ALLOWANCE ITEMS					
PRELIMINARY ENGINEERING		% of Item BCCE	7.2%	\$3,744,000	
FINAL ENGINEERING		% of Item BCCE	5.4%	\$2,808,000	
CONSTRUCTION ENGINEERING		% of Item BCCE	9.2%	\$4,785,000	
CONST CHANGE ORDERS & CLAIMS		% of Item BCCE	10.4%	\$5,409,000	
TRAFFIC MITIGATION		% of Item BCCE	1.5%	\$780,000	
PUBLIC INVOLVEMENT		% of Item BCCE	1.0%	\$520,000	
Delivery Allowance Subtotal				\$18,046,000	
EXTERNAL COSTS					NOTES
REAL ESTATE		8% of Item BCCE	\$ 3,355,000.00	\$3,355,000	
COMPENSABLE UTILITIES		3% of Item BCCE	\$ 1,258,000.00	\$1,258,000	
JURISDICTIONAL TRANSFERS			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
Other			\$ -	\$0	
External Costs Subtotal				\$4,613,000	
Base Project Cost Estimate				\$74,665,000	
RISK ADJUSTMENTS					NOTES
Risk Item A			\$ -	\$0	
Risk Item B			\$ -	\$0	
Risk Item C			\$ -	\$0	
Risk Adjustment Subtotal				\$0	
ESTIMATE UNCERTAINTY					NOTES
Uncertainty Item A			\$ -	\$0	
Uncertainty Item B			\$ -	\$0	
Uncertainty Item C			\$ -	\$0	
Estimate Uncertainty Subtotal				\$0	
Current Year Total Project Cost Estimate				\$74,665,000	

Conceptual Cost Estimate
SUMMARY
Version 2.0

Project I.D.	1130-31-00		
Highway	US 41		
Project Title	JS 41 Expansion (Winnebago, Outagamie, and Brown Counties)		
Project Limits	Segment 7: CTH J - Orange Lane (54,595 LF) Mainline only		
Project Type	Urban ▼	Topography	Moderate ▼
Project Duration	Multi	Soil Type	Coarse-grain ▼
Current Year	2019	Start Construction	2048
Start Preliminary Design	2043	End Construction	2052
Alternative #:	Planning Study		

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
MAJOR ROADWAY ITEMS					
Removing Pavement	SY	505,991	\$ 5.00	\$2,530,000	
Barrier Wall	LF	177,051	\$ 110.00	\$19,476,000	
Curb & Gutter	LF	-	\$ 16.00	\$0	
Sidewalk	SY	624	\$ 20.00	\$12,000	
Earthwork					
Common	CY	745,145	\$ 10.00	\$7,451,000	
Marsh	CY	-	\$ 10.00	\$0	
Rock	CY	-	\$ 10.00	\$0	
Borrow	CY	-	\$ 10.00	\$0	
EBS	CY	-	\$ 10.00	\$0	
Signalized Intersections	EACH	-	\$ 250,000.00	\$0	
Pavement					
Mainline	SY	465,591	\$ 45.00	\$20,952,000	
System Ramps	SY	-	\$ 45.00	\$0	
Service Ramps	SY	-	\$ 45.00	\$0	
Cross Road	SY	2,700	\$ 40.00	\$108,000	
Frontage Roads	SY	-	\$ 40.00	\$0	
Local Roads	SY	-	\$ 30.00	\$0	
Mainline Shoulders	SY	236,914	\$ 30.00	\$7,107,000	Assumed 5" depth
Ramp Shoulders	SY	-	\$ 30.00	\$0	Assumed 5" depth
Base					
Mainline	SY	465,591	\$ 8.00	\$3,725,000	
System Ramps	SY	-	\$ 8.00	\$0	
Service Ramps	SY	-	\$ 8.00	\$0	
Cross Road	SY	2,700	\$ 8.00	\$22,000	
Frontage Roads	SY	-	\$ 8.00	\$0	
Local Roads	SY	-	\$ 8.00	\$0	
Mainline Shoulders	SY	236,914	\$ 8.00	\$1,895,000	
Ramp Shoulders	SY	-	\$ 8.00	\$0	
Subbase					
Mainline	SY	465,591	\$ 12.00	\$5,587,000	
System Ramps	SY	-	\$ 12.00	\$0	
Service Ramps	SY	-	\$ 12.00	\$0	
Cross Road	SY	-	\$ 10.00	\$0	
Frontage Roads	SY	-	\$ 10.00	\$0	
Local Roads	SY	-	\$ 10.00	\$0	
Mainline Shoulders	SY	236,914	\$ 12.00	\$2,843,000	
Ramp Shoulders	SY	-	\$ 12.00	\$0	
Major Roadway Subtotal (MRS)				\$71,708,000	

ALLOWANCE ITEMS**Certainty Factor**

DRAINAGE	% of MRS	11.4%	\$8,185,000
EROSION CONTROL & RESTORATION	% of MRS	9.3%	\$6,633,000
LIGHTING	% of MRS	1.4%	\$1,012,000
ROADWAY INCIDENTALS	% of MRS	28.9%	\$20,689,000
SIGNING/MARKING	% of MRS	3.0%	\$2,172,000
TRAFFIC CONTROL & STAGING	% of MRS	4.8%	\$3,452,000
ITS/ FTMS	% of MRS	1.0%	\$717,000

Allowance Subtotal	\$42,860,000
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STRUCTURES (see STRUCTURE tab)	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Bridge Removal	EACH	10	\$ 65,000.00	\$650,000	
New Bridge (Single Level Interchange)	SF	115,644	\$ 120.00	\$13,877,000	
Bridge Redecking	SF	-	\$ 70.00	\$0	
Bridge Widening	SF	-	\$ 140.00	\$0	
New Retaining Wall	SF	-	\$ 70.00	\$0	
Noise Wall Removal	EACH	-	\$ 75,000.00	\$0	
New Noise Walls	SF	-	\$ 50.00	\$0	
New Box Culvert/Extension	LF	-	\$ 2,300.00	\$0	
Sign Bridge - Cantilever	EACH	-	\$ 30,000.00	\$0	
Sign Bridge - Single Span	EACH	-	\$ 60,000.00	\$0	
Structure Incidentals		% of Structures	10%	\$1,453,000	
Structure SubTotal				\$15,980,000	

SPECIAL CONSTRUCTION ELEMENTS	UNIT	QUANTITY	UNIT PRICE	Total	NOTES
Temporary Bridges	Insert	-	\$ -	\$0	
Temporary Roadways	Insert	-	\$ -	\$0	
Environment Mitigation	Insert	-	\$ -	\$0	
Community Sensitive Design	Insert	-	\$ -	\$0	
Hazardous Materials	Insert	-	\$ -	\$0	
Bypass / Alternate Routes	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Other	Insert	-	\$ -	\$0	
Special Construction Elements Subtotal				\$0	

Construction Costs Estimate (CCE)	\$130,548,000
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CONTEXT SENSITIVE SOLUTIONS (CSS)			
CSS	% of Item CCE	5%	\$6,527,000
Base Construction Costs Estimate (BCCE)			\$137,075,000

SCOPE CHANGE ALLOWANCE ITEMS			
PROJECT SCOPE INCREASE ALLOWANCE	% of Item BCCE	24%	\$32,898,000
Estimated Const. Let Amount (ECLA)			\$169,973,000

PROJECT DELIVERY ALLOWANCE ITEMS			
PRELIMINARY ENGINEERING	% of Item BCCE	7.2%	\$12,238,000
FINAL ENGINEERING	% of Item BCCE	5.4%	\$9,179,000
CONSTRUCTION ENGINEERING	% of Item BCCE	9.2%	\$15,638,000
CONST CHANGE ORDERS & CLAIMS	% of Item BCCE	10.4%	\$17,677,000
TRAFFIC MITIGATION	% of Item BCCE	1.5%	\$2,550,000
PUBLIC INVOLVEMENT	% of Item BCCE	1.0%	\$1,700,000
Delivery Allowance Subtotal			\$58,982,000

EXTERNAL COSTS				NOTES
REAL ESTATE	8% of Item BCCE	\$ 10,966,000.00	\$10,966,000	
COMPENSABLE UTILITIES	3% of Item BCCE	\$ 4,112,000.00	\$4,112,000	
JURISDICTIONAL TRANSFERS		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
Other		\$ -	\$0	
External Costs Subtotal			\$15,078,000	

Base Project Cost Estimate	\$244,033,000
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Barrier Wall Cost Estimate (Optional - Not Included)	37,080 LF	\$12,182,000
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Segment	Mainline Segment Limits / Interchanges Location	Representative Conceptual Improvement	IH 41 & WIS 441 Short-term Cost			IH 41 / WIS 441 Long-term Cost			Exhibit No.	Discussion
			2012 Study *	2019 Update **	Increase	2012 Study *	2019 Update **	Increase		
Segment 1	MAINLINE IH 41 North of Breezewood Lane to South of County BB	Long-term improvement: Reconstruction to 8 lanes from Breezewood to US 10/WIS 441	--	--	--	\$206,400,000	N/A	N/A		Segment 1 is not subject to re-evaluation at this time.
	WIS 114/County JJ (Winneconne Avenue) Interchange	Short-term improvement (Alternative 1): Merge and diverge ramp improvements	\$616,000	N/A	N/A	--	--	--		
	WIS 114/County JJ (Winneconne Avenue) Interchange	Long-term improvement (Alternative 4): Traditional signalized intersections	--	--	--	\$13,583,000	N/A	N/A		
	Oakridge Road/Main Street Interchange	Short-term improvement (Alternative 1): Partial implementation of ramp terminal intersection improvements	\$167,000	N/A	N/A	--	--	--		
	Oakridge Road/Main Street Interchange	Long-term improvement (Alternative 5): Reconstruction with wider roadway median	--	--	--	\$7,950,000	N/A	N/A		
	County II (Winchester Road) Interchange	Long-term improvement (Alternative 4): Reconstruction with roundabout intersection improvements	--	--	--	\$11,852,000	N/A	N/A		
Segment 2	MAINLINE IH 41 South of County BB to North of WIS 96 Structures	Long-term improvement: Reconstruction to 8 lanes from South of County BB thru WIS 96	--	--	--	\$91,203,000	\$110,648,000	21% ↑		2019 update includes new unit costs
	County BB (West Prospect Avenue) Interchange	Short-term improvement (Alternative 1): Extended on-ramp acceleration lanes	\$276,000	N/A	N/A	--	--	--		2019 study removes the need for short term improvements at the County BB interchange.
	County BB (West Prospect Avenue) Interchange	Long-term improvement (Alternative 6): Reconstruction with roundabout intersection improvements	--	--	--	\$15,367,000	\$18,867,000	23% ↑		2019 update includes new unit costs
	WIS 125 (West College Avenue) Interchange	Long-term improvement (Alternative 4): Traditional signalized intersections	--	--	--	\$40,127,000	\$46,724,000	16% ↑		2019 update includes new unit costs
	WIS 96 (West Wisconsin Avenue) Interchange	Short Term Improvement	--	\$1,197,000	N/A	--	--	--		2019 update includes new unit costs, additional NB offramp right turn lane, additional SB offramp right turn lane, and additional WB thru lane.
	WIS 96 (West Wisconsin Avenue) Interchange	Long-term improvement (Alternative 4): Traditional signalized intersections	--	--	--	\$21,276,000	\$26,408,000	24% ↑		2019 update includes new unit costs and added an additional WB to SB left turn lane and EB to NB left turn lane onto the IH-41 on-ramps.
Segment 3	MAINLINE IH 41 North of WIS 96 Structures to South of WIS 15 Structures	Long-term improvement: Reconstruction to 8 lanes from WIS 96 to WIS 15	--	--	--	\$35,502,000	\$43,943,000	24% ↑		2019 update includes new unit costs
Segment 4	MAINLINE IH 41 South of WIS 15 Structures to West of County E	Long-term improvement: Reconstruction to 6 lanes from WIS 15 to County E	--	--	--	\$133,582,000	\$172,945,000	29% ↑		2019 update includes new unit costs, addition of a second CD lane WB between WIS 47 and CTH E, and widening of the bridge over WIS 47 due to additional NB left turn lane.
	WIS 15/County OO (West Northland Avenue) Interchange	Short-term improvement (Alternative 1): Off-ramp improvements	\$321,000	\$1,093,000	240% ↑	--	--	--		2019 geometric improvements align with separate study completed in 2018. Differences in comparisson to the original 2012 study include: additional EB to NB left turn lane and re-building the NB onramp accepting lanes, lengthing WB to NB right turn lane, adding a third WB thru lane across the WIS15 bridge, and extending the NB onramp merge lane.
	WIS 15/County OO (West Northland Avenue) Interchange	Long-term improvement (Alternative 6): Traditional signalized intersections with high efficiency intersection at WIS 15/Casaloma Drive Intersection.	--	--	--	\$52,365,000	\$61,447,000	17% ↑		2019 update includes new unit costs
	WIS 47 (Richmond Street) Interchange	Short Term Improvement	--	\$463,000	N/A	--	--	--		2019 update includes new unit costs and extension of SB onramp lane.
	WIS 47 (Richmond Street) Interchange	Long-term improvement: Interchange planned for construction in 2013. Minor lump sum rehabilitation cost included.	--	--	--	\$10,000,000	\$6,812,000	-32% ↓		2019 update includes new unit costs, bridge replacement, and reduced roadway units due to recent interchange reconstruction.
Segment 5	MAINLINE IH 41 West of County E to West of County N (Includes US41/WIS 441 North System Interchange) & WIS 441: Fox River Bridge to IH 41	Long-term improvement: Reconstruction to 6 lanes from WIS E to County N with new system flyover interchange configuration with IH 41 SB C-D Road improvements	--	--	--	\$147,938,000	\$181,920,000	23% ↑		2019 update includes new unit costs and 1/2 mile extension of a second CD lane WB east of the 41/441 interchange.
	County E (Ballard Road) Interchange	Short-term improvement (Alternative 2): Off-ramp improvements with deceleration lanes. Look ahead left turn lanes along County E NB and SB.	\$702,000	\$1,441,000	105% ↑	--	--	--		2019 update includes new unit costs, additional pavement replacement for the NB offramp, added quantity of concrete barrier wall, and added quantity of beamguard to protect steep slopes.
	County E (Ballard Road) Interchange	Long-term improvement (Alternative 5): Traditional signalized intersections with additional capacity along County E from Capitol Drive to West Evergreen Drive	--	--	--	\$29,405,000	\$35,116,000	19% ↑		2019 update includes new unit costs
	WIS 441/County OO (East Northland Avenue) Interchange	Short-term improvement (Alternative 1): Improve off-ramps	\$603,000	N/A	N/A	--	--	--		2019 study does not include this interchange at WIS441
	WIS 441/County OO (East Northland Avenue) Interchange	Long-term improvement (Alternative 7): Provide WIS 441 NB on-ramp access from County OO as a loop ramp in the SE quadrant and WIS 441 NB off-ramp connection to County OO near French Road. Relocate French Road intersection further to the east on County OO.	--	--	--	\$28,279,000	N/A	N/A		2019 study does not include this interchange
Segment 6	MAINLINE IH 41 West of County N to West of County J	Long-term improvement: Reconstruction to 6 lanes from County N to County J	--	--	--	\$59,417,000	\$74,665,000	26% ↑		2019 update includes new unit costs
	County N (Freedom Road) Interchange	Short-term improvement (Alternative 1): Improve on-ramp acceleration length	\$699,000	\$924,000	32% ↑	-	--	--		2019 update includes new unit costs and extending an existing box culvert adjacent to the SB onramp
	County N (Freedom Road) Interchange	Long-term improvement (Alternative 4): Traditional signalized intersections.	--	--	--	\$14,987,000	\$18,098,000	21% ↑		2019 update includes new unit costs
	WIS 55 (Delanglade Street) Interchange	Long-term improvement: Interchange planned for construction in 2013. Minor lump sum rehabilitation cost included.	--	--	-	\$10,000,000	\$12,500,000	25% ↑		2019 update includes new unit costs
Segment 7	MAINLINE IH 41 West of County J to Orange Lane	Long-term improvement: Reconstruction to 6 lanes from County J to Orange Lane	--	--	--	\$182,717,000	\$244,033,000	34% ↑		2019 update includes new unit costs
	MAINLINE IH 41 West of County J to Orange Lane	Long-term improvement optional barrier costs (Not included in base cost)	--	--	--	\$0	\$12,182,000	N/A		2019 update includes optional costs for additional barrier wall not included in base cost.
	County J (Lawe Street) Interchange	Long-term improvement: Interchange recently constructed. Minor lump sum rehabilitation cost included.	--	--	--	\$4,880,000	\$6,169,000	26% ↑		2019 update includes new unit costs and addition of SB to WB and EB to SB ramp partial bypass lanes around the roundabout.
	County U (South County Line Road) Interchange	Long-term improvement (Alternative 2): Add weight in motion interface and other vehicle identification equipment. Add acceleration lane from weigh station on IH 41 NB. Complete street improvement along County U.	--	--	--	\$3,034,000	\$3,615,000	19% ↑		2019 update includes new unit costs
	County S (Freedom Road) Interchange	Short-term Improvement (Alternative 2): Improve off-ramps along with County S turn lane improvements	\$706,000	\$1,189,000	68% ↑	-	--	--		2019 update includes unit cost adjustment and adding guardrail to protect existing slopes
	County S (Freedom Road) Interchange	Long-term improvement (Alternative 4): Relocate frontage roads from ramp locations to improve intersection spacing. Widen County S structures and roadway.	--	--	--	\$10,117,000	\$11,996,000	19% ↑		2019 update includes new unit costs
Segment 8	MAINLINE WIS 441 East of US 10 to South of US41/WIS 441 North System Interchange	Long-term improvement: Reconstruction to 6 lanes from US 10 to IH 41/WIS 441 North System Interchange	--	--	--	\$198,739,000	N/A	N/A		Segment 8 is not subject to re-evaluation at this time.
	County KK Interchange	Long-term improvement (Alternative 7): Traditional signalized intersections.	--	--	--	\$27,543,000				
	County CE Interchange	Long-term improvement (Alternative 5): Traditional signalized intersections.	--	--	--	\$18,113,000				
Total	Long Term Improvements comparing all recommendations from the 2012 study with the updated recommendations with the 2019 study. Includes \$0 costs associated with 2019 updated recommendation at County OO. Includes \$0 costs associated with Segments 1 & 8 which are outside the project study limits with the 2019 update. Does not include optional costs for concrete barrier on Mainline IH 41 from West of County J to Orange Lane		--	--	--	\$1,374,376,000	\$1,075,906,000	-22% ↓		
Total	Long Term Improvements comparing total costs for only those interchanges and mainline segments identified with the 2019 study. Excludes costs for County OO and mainline segments 1 & 8. Does not include optional costs for concrete barrier on Mainline IH 41 from West of County J to Orange Lane		--	--	--	\$861,917,000	\$1,075,906,000	25% ↑		
Total	Short Term Improvements comparing all recommendations from the 2012 study with the updated recommendations with the 2019 study. Includes \$0 costs associated with 2019 updated recommendations at County BB and County OO. Includes \$0 costs associated with County JJ and Oakridge Interchanges which are outside the project study limits with the 2019 update. Includes \$1,197,000 associated with WIS 96 interchange for 2019 update. Original study did not include costs at this interchange.		\$4,090,000	\$6,307,000	54% ↑	--	--	--		
Total	Short Term Improvements comparing total costs for only those interchanges identified with the 2019 study. County OO, WIS 47, County E, County N, & County S. Does not include WIS 96 costs from 2019 update as this interchange did not have any improvements included in 2012 study. Unit cost adjustments account for approximately 30 percent of the cost increase.		\$2,428,000	\$5,110,000	110% ↑	--	--	--		

* Project costs shown are in 2013 dollars and not adjusted for inflation

** Project costs shown are in 2019 dollars and not adjusted for inflation