

## TH169 and CSAH 4 Interchange 30% Estimate

Sherburne County

11/30/2022

Item	Unit	Total Qty	Unit Price	Total Cost
<b>MAJOR ROADWAY ITEMS (NOTES 1-3)</b>				
REMOVE BITUMINOUS PAVEMENT	SY	81,000	\$ 6.00	\$ 486,000
REMOVE CONCRETE MEDIAN	SF	12,200	\$ 2.00	\$ 24,400
REMOVE CURB AND GUTTER	LF	14,400	\$ 7.00	\$ 100,800
EXCAVATION - COMMON	CY	38,700	\$ 12.00	\$ 464,400
COMMON EMBANKMENT (CV)	CY	147,600	\$ 8.00	\$ 1,180,800
AGGREGATE BASE (CV) CLASS 5	CY	37,200	\$ 35.00	\$ 1,302,000
SELECT GRANULAR EMBANKMENT (CV)	CY	85,200	\$ 15.00	\$ 1,278,000
TYPE SP 9.5 WEARING COURSE MIX (4,F)	TONS	1,100	\$ 102.00	\$ 112,200
TYPE SP 12.5 WEARING COURSE MIX (4,F)	TONS	59,400	\$ 102.00	\$ 6,058,800
CURB AND GUTTER B424	LF	1,100	\$ 30.00	\$ 33,000
CURB AND GUTTER B612	LF	6,100	\$ 25.00	\$ 152,500
CURB AND GUTTER B618	LF	5,200	\$ 28.00	\$ 145,600
CURB AND GUTTER B624	LF	16,100	\$ 40.00	\$ 644,000
CURB AND GUTTER D424	LF	9,900	\$ 30.00	\$ 297,000
CURB AND GUTTER R424	LF	1,100	\$ 30.00	\$ 33,000
CURB AND GUTTER S524	LF	1,800	\$ 35.00	\$ 63,000
CONCRETE MEDIAN BARRIER	LF	3,400	\$ 150.00	\$ 510,000
6" CONCRETE WALK	SF	4,800	\$ 45.00	\$ 216,000
4" CONCRETE WALK	SF	28,300	\$ 20.00	\$ 566,000
4" CONCRETE MEDIAN	SF	51,200	\$ 20.00	\$ 1,024,000
GUARDRAIL	LF	2,800	\$ 67.00	\$ 187,600
<b>Subtotal</b>				\$ 14,879,000
<b>STRUCTURAL ITEMS</b>				
STRUCTURAL CONCRETE	CY	900	\$ 1,100.00	\$ 990,000
MOD S 36" BARRIER	LF	3,200	\$ 150.00	\$ 480,000
REINFORCEMENT BARS	LBS	270,700	\$ 3.00	\$ 812,100
MODULAR BLOCK RETAINING WALL	SF	3,800	\$ 100.00	\$ 380,000
MECHANICALLY STABILIZED EARTH WALL	SF	44,500	\$ 85.00	\$ 3,782,500
BRIDGE	SF	9,500	\$ 265.00	\$ 2,517,500
<b>Subtotal</b>				\$ 8,962,000
<b>All Roadway Construction Subtotal</b>				
				<b>\$ 23,841,000</b>
<b>SPECIAL LUMP SUM CONSTRUCTION ITEMS</b>				
REMOVE SIGNAL SYSTEM	LS	1	\$ 20,000.00	\$ 20,000
UTILITY RELOCATIONS (WATERMAIN & SANITARY)	LS	1	\$ 375,000.00	\$ 375,000
CITY UTILITIES (WATERMAIN)	LS	1	\$ 370,000.00	\$ 370,000
CITY UTILITIES (SANITARY)	LS	1	\$ 280,000.00	\$ 280,000
(4) LIGHTING	LS	1	\$ 510,000.00	\$ 510,000
(5) URBAN DRAINAGE	LS	1	\$ 4,770,000.00	\$ 4,770,000
(6) MUCK EXCAVATION	LS	1	\$ 500,000.00	\$ 500,000
<b>Subtotal</b>				\$ 6,825,000
<b>PERCENTAGE ITEMS</b>				
MOBILIZATION		5%	of all roadway	\$ 1,192,100
MISC REMOVALS (CURB, SIGNS, TREES, ETC.)		2%	of all roadway	\$ 357,700
SIGNING & PAVEMENT MARKINGS		3%	of all roadway	\$ 715,300
TURF ESTABLISHMENT AND EROSION CONTROL		5%	of all roadway	\$ 1,192,100
LANDSCAPING/STREETSCAPE		3%	of all roadway	\$ 596,100
TRAFFIC CONTROL/STAGING		5%	of all roadway	\$ 1,192,100
CONTINGENCY FOR MISSING ITEMS		20%	of all roadway	\$ 4,768,200
<b>Subtotal</b>				\$ 10,014,000
Construction Cost (2024 Dollars)				\$ 40,700,000
Anticipated Right-of-Way/Easement Cost (2024 Dollars)				\$ 1,800,000
Engineering Cost (2024 Dollars)				\$ 7,200,000
<b>Total Cost (2024 Dollars)</b>				<b>\$ 49,700,000</b>

## Notes:

- Highway pavement section assumed is 10 inch bituminous pavement, 12 inch aggregate base, and 24 inch sand.
- County road pavement section assumed is 10 inch bituminous pavement, 12 inch aggregate base, and 24 inch sand.
- Local road pavement section assumed is 4 inch bituminous pavement, 6 inch aggregate base, and 24 inch sand.
- Trail pavement section assumed is 3 inch bituminous pavement and 4 inch aggregate base
- Includes wire, conduit, source of power, base, etc. Assuming MnDOT's LED-40 foot standard poles
- Storm sewer cost is 20% of roadway construction cost
- Geotechnical investigation and analysis is not yet complete, therefore the muck excavation cost required at the interchange is unknown.

Item	Unit	Total Qty	Unit Price	Total Cost	Zimmerman	Sherburne County	MnDOT	Zimmerman	Sherburne County	MnDOT
<b>MAJOR ROADWAY ITEMS (NOTES 1-3)</b>										
REMOVE BITUMINOUS PAVEMENT	SY	81,000	\$ 6.00	\$ 486,000	29%	7%	64%	\$ 141,010	\$ 32,860	\$ 312,120
REMOVE CONCRETE MEDIAN	SF	12,200	\$ 2.00	\$ 24,400	0%	36%	64%	\$ -	\$ 8,730	\$ 15,670
REMOVE CURB AND GUTTER	LF	14,400	\$ 7.00	\$ 100,800	13%	76%	11%	\$ 12,720	\$ 76,880	\$ 11,190
EXCAVATION - COMMON	CY	38,700	\$ 12.00	\$ 464,400	62%	12%	26%	\$ 286,020	\$ 55,310	\$ 123,060
COMMON EMBANKMENT (CV)	CY	147,600	\$ 8.00	\$ 1,180,800	4%	5%	91%	\$ 49,510	\$ 53,230	\$ 1,078,050
AGGREGATE BASE (CV) CLASS 5	CY	37,200	\$ 35.00	\$ 1,302,000	29%	7%	64%	\$ 377,780	\$ 88,040	\$ 836,190
SELECT GRANULAR EMBANKMENT (CV)	CY	85,200	\$ 15.00	\$ 1,278,000	29%	7%	64%	\$ 370,810	\$ 86,420	\$ 820,770
TYPE SP 9.5 WEARING COURSE MIX (4,F)	TONS	1,100	\$ 102.00	\$ 112,200	100%			\$ 112,200	\$ -	\$ -
TYPE SP 12.5 WEARING COURSE MIX (4,F)	TONS	59,400	\$ 102.00	\$ 6,058,800	29%	7%	64%	\$ 1,757,960	\$ 409,680	\$ 3,891,160
CURB AND GUTTER B424	LF	1,100	\$ 30.00	\$ 33,000	29%	7%	64%	\$ 9,570	\$ 2,230	\$ 21,190
CURB AND GUTTER B612	LF	6,100	\$ 25.00	\$ 152,500	29%	7%	64%	\$ 44,250	\$ 10,310	\$ 97,940
CURB AND GUTTER B618	LF	5,200	\$ 28.00	\$ 145,600	100%	0%	0%	\$ 145,600	\$ -	\$ -
CURB AND GUTTER B624	LF	16,100	\$ 40.00	\$ 644,000	29%	7%	64%	\$ 186,860	\$ 43,550	\$ 413,600
CURB AND GUTTER D424	LF	9,900	\$ 30.00	\$ 297,000	0%	0%	100%	\$ -	\$ -	\$ 297,000
CURB AND GUTTER R424	LF	1,100	\$ 30.00	\$ 33,000	0%	100%	0%	\$ -	\$ 33,000	\$ -
CURB AND GUTTER S524	LF	1,800	\$ 35.00	\$ 63,000	0%	100%	0%	\$ -	\$ 63,000	\$ -
CONCRETE MEDIAN BARRIER	LF	3,400	\$ 150.00	\$ 510,000	0%	0%	100%	\$ -	\$ -	\$ 510,000
6" CONCRETE WALK	SF	4,800	\$ 45.00	\$ 216,000	15%	46%	39%	\$ 31,450	\$ 99,330	\$ 85,220
4" CONCRETE WALK	SF	28,300	\$ 20.00	\$ 566,000	15%	46%	39%	\$ 82,420	\$ 260,270	\$ 223,310
4" CONCRETE MEDIAN	SF	51,200	\$ 20.00	\$ 1,024,000	29%	7%	64%	\$ 297,110	\$ 69,240	\$ 657,650
GUARDRAIL	LF	2,800	\$ 67.00	\$ 187,600	0%	0%	100%	\$ -	\$ -	\$ 187,600
<b>Subtotal</b>				\$ 14,879,000				\$ 3,905,000	\$ 1,392,000	\$ 9,582,000
<b>STRUCTURAL ITEMS</b>										
STRUCTURAL CONCRETE	CY	900	\$ 1,100.00	\$ 990,000	0%	0%	100%	\$ -	\$ -	\$ 990,000
MOD S 36" BARRIER	LF	3,200	\$ 150.00	\$ 480,000	0%	0%	100%	\$ -	\$ -	\$ 480,000
REINFORCEMENT BARS	LBS	270,700	\$ 3.00	\$ 812,100	0%	0%	100%	\$ -	\$ -	\$ 812,100
MODULAR BLOCK RETAINING WALL	SF	3,800	\$ 100.00	\$ 380,000	50%	50%	0%	\$ 190,000	\$ 190,000	\$ -
MECHANICALLY STABILIZED EARTH WALL	SF	44,500	\$ 85.00	\$ 3,782,500	0%	0%	100%	\$ -	\$ -	\$ 3,782,500
BRIDGE	SF	9,500	\$ 265.00	\$ 2,517,500	0%	0%	100%	\$ -	\$ -	\$ 2,517,500
<b>Subtotal</b>				\$ 8,962,000				\$ 190,000	\$ 190,000	\$ 8,582,000
<b>All Roadway Construction Subtotal</b>								\$ 4,095,000	\$ 1,582,000	\$ 18,164,000
<b>SPECIAL LUMP SUM CONSTRUCTION ITEMS</b>										
REMOVE SIGNAL SYSTEM	LS	1	\$ 20,000.00	\$ 20,000	0%	50%	50%	\$ -	\$ 10,000	\$ 10,000
UTILITY RELOCATIONS (WATERMAIN & SANITARY)	LS	1	\$ 375,000.00	\$ 375,000	0%	0%	100%	\$ -	\$ -	\$ 375,000
CITY UTILITIES (WATERMAIN)	LS	1	\$ 370,000.00	\$ 370,000	100%	0%	0%	\$ 370,000	\$ -	\$ -
CITY UTILITIES (SANITARY)	LS	1	\$ 280,000.00	\$ 280,000	100%	0%	0%	\$ 280,000	\$ -	\$ -
(4) LIGHTING	LS	1	\$ 510,000.00	\$ 510,000	25%	0%	75%	\$ 130,000	\$ -	\$ 380,000
(5) URBAN DRAINAGE	LS	1	\$ 4,770,000.00	\$ 4,770,000	32%	3%	64%	\$ 1,545,283	\$ 161,269	\$ 3,063,448
(6) MUCK EXCAVATION	LS	1	\$ 500,000.00	\$ 500,000	0%	0%	100%	\$ -	\$ -	\$ 500,000
<b>Subtotal</b>				\$ 6,825,000				\$ 2,325,000	\$ 171,000	\$ 4,328,000
<b>PERCENTAGE ITEMS</b>										
MOBILIZATION	5%	of all roadway		\$ 1,192,100	17%	7%	76%	\$ 204,759	\$ 79,103	\$ 908,238
MISC REMOVALS (CURB, SIGNS, TREES, ETC.)	2%	of all roadway		\$ 357,700	0%	24%	76%	\$ -	\$ 85,175	\$ 272,525
SIGNING & PAVEMENT MARKINGS	3%	of all roadway		\$ 715,300	17%	7%	76%	\$ 122,862	\$ 47,465	\$ 544,973
TURF ESTABLISHMENT AND EROSION CONTROL	5%	of all roadway		\$ 1,192,100	0%	24%	76%	\$ -	\$ 283,862	\$ 908,238
LANDSCAPING/STREETSCAPE	3%	of all roadway		\$ 596,100	100%	0%	0%	\$ 596,100	\$ -	\$ -
TRAFFIC CONTROL/STAGING	5%	of all roadway		\$ 1,192,100	17%	7%	76%	\$ 204,759	\$ 79,103	\$ 908,238
CONTINGENCY FOR MISSING ITEMS	20%	of all roadway		\$ 4,768,200	17%	7%	76%	\$ 819,000	\$ 316,400	\$ 3,632,800
<b>Subtotal</b>				\$ 10,014,200				\$ 1,947,000	\$ 891,000	\$ 7,175,000
Construction Cost (2024 Dollars)				\$ 40,700,000				\$ 8,400,000	\$ 2,600,000	\$ 29,700,000
Anticipated Right-of-Way/Easement Cost (2024 Dollars)				\$ 1,800,000	44%	56%		\$ 798,500	\$ 1,001,500	\$ -
Engineering Cost (2024 Dollars)				\$ 7,200,000	22%	6%	72%	\$ 1,563,200	\$ 452,900	\$ 5,173,500
<b>Total Cost (2024 Dollars)</b>				<b>\$ 49,700,000</b>				<b>\$ 10,761,700</b>	<b>\$ 4,054,400</b>	<b>\$ 34,873,500</b>

## Notes:

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