

**MOUND ROAD RECONSTRUCTION
I-696 to M-59
MACOMB COUNTY DEPARTMENT OF ROADS**

ITEM	% OF BUDGET	BUDGET AMOUNT	BUDGET AMOUNT PER MILE										INFRA GRANT	MACOMB COUNTY DEPT. OF ROADS FUNDS	CITY OF WARREN FUNDS	CITY OF STERLING HEIGHTS FUNDS	
			I-696 to 12 Mile	12 Mile to 13 Mile	13 Mile to 14 Mile	14 Mile to 15 Mile	15 Mile to 16 Mile	16 Mile to 17 Mile	17 Mile to 18 Mile	18 Mile to 19 Mile	19 Mile to M-59						
Mobilization	4.6%	\$ 10,000,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,111,000	\$ 1,112,000	\$ 6,000,000	\$ 2,000,000	\$ 660,000	\$ 1,340,000
Earthwork	6.0%	\$ 13,000,000	\$ 1,313,000	\$ 1,334,000	\$ 1,426,000	\$ 1,355,000	\$ 1,355,000	\$ 1,377,000	\$ 1,599,000	\$ 1,550,000	\$ 1,691,000	\$ 1,691,000	\$ 1,691,000	\$ 7,800,000	\$ 2,600,000	\$ 858,000	\$ 1,742,000
Pavement Base	9.2%	\$ 20,000,000	\$ 2,020,000	\$ 2,053,000	\$ 2,194,000	\$ 2,086,000	\$ 2,086,000	\$ 2,119,000	\$ 2,461,000	\$ 2,384,000	\$ 2,597,000	\$ 2,597,000	\$ 2,597,000	\$ 12,000,000	\$ 4,000,000	\$ 1,320,000	\$ 2,680,000
Drainage	6.9%	\$ 15,000,000	\$ 1,515,000	\$ 1,539,000	\$ 1,645,000	\$ 1,564,000	\$ 1,564,000	\$ 1,589,000	\$ 1,845,000	\$ 1,788,000	\$ 1,951,000	\$ 1,951,000	\$ 1,951,000	\$ 9,000,000	\$ 3,000,000	\$ 990,000	\$ 2,010,000
Curb & Gutter and Driveways	2.1%	\$ 4,500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,700,000	\$ 900,000	\$ 297,000	\$ 603,000
Concrete Pavement	21.2%	\$ 46,000,000	\$ 4,646,800	\$ 4,722,400	\$ 5,046,300	\$ 4,798,100	\$ 4,798,100	\$ 4,873,700	\$ 5,660,500	\$ 5,484,800	\$ 5,969,300	\$ 5,969,300	\$ 5,969,300	\$ 27,600,000	\$ 9,200,000	\$ 3,036,000	\$ 6,164,000
Temporary Traffic Control	3.2%	\$ 7,000,000	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,775	\$ 777,800	\$ 4,200,000	\$ 1,400,000	\$ 462,000	\$ 938,000
Restoration & Landscaping	2.1%	\$ 4,500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,700,000	\$ 900,000	\$ 297,000	\$ 603,000
Non-Motorized Multi-Use Path	1.0%	\$ 2,100,000	\$ 209,000	\$ 249,000	\$ 249,000	\$ 224,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 219,000	\$ 209,000	\$ 323,000	\$ 323,000	\$ 1,260,000	\$ 420,000	\$ 138,600	\$ 281,400
Pedestrian Bridge (2 locations)	4.6%	\$ 10,000,000	\$ -	\$ 5,000,000	\$ -	\$ -	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000	\$ 2,000,000	\$ 660,000	\$ 1,340,000
Signal Modernizations	5.2%	\$ 11,300,000	\$ 2,900,000	\$ 1,400,000	\$ 1,900,000	\$ 1,100,000	\$ 400,000	\$ 800,000	\$ 800,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 6,780,000	\$ 2,260,000	\$ 745,800	\$ 1,514,200
Connected Vehicle Technology	0.7%	\$ 1,500,000	\$ 1,100,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 900,000	\$ 300,000	\$ 99,000	\$ 201,000
Fiber Optic Communication	0.6%	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 720,000	\$ 240,000	\$ 79,200	\$ 160,800
ITS Technology	0.8%	\$ 1,800,000	\$ 800,000	\$ 200,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,080,000	\$ 360,000	\$ 118,800	\$ 241,200
Fixed Automated Spray Technology with Weather Station	0.6%	\$ 1,300,000	\$ -	\$ -	\$ 542,500	\$ 282,500	\$ 192,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 282,500	\$ 780,000	\$ 260,000	\$ 85,800	\$ 174,200
Electrical and Lighting	0.6%	\$ 1,200,000	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,330	\$ 133,360	\$ 133,360	\$ 720,000	\$ 240,000	\$ 79,200	\$ 160,800
Traffic Signs	1.8%	\$ 4,000,000	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,440	\$ 444,480	\$ 444,480	\$ 2,400,000	\$ 800,000	\$ 264,000	\$ 536,000
Permanent Pavement Markings	0.2%	\$ 500,000	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,550	\$ 55,600	\$ 55,600	\$ 300,000	\$ 100,000	\$ 33,000	\$ 67,000
Construction Costs		\$ 154,900,000	\$ 18,225,895	\$ 20,269,495	\$ 16,974,895	\$ 15,181,695	\$ 19,376,695	\$ 14,739,795	\$ 16,356,595	\$ 16,187,895	\$ 17,587,040	\$ 17,587,040	\$ 17,587,040	\$ 92,940,000	\$ 30,980,000	\$ 10,223,400	\$ 20,756,600
Contingencies @ 15% of Construction Costs	10.7%	\$ 23,235,000	\$ 2,733,884	\$ 3,040,424	\$ 2,546,234	\$ 2,277,254	\$ 2,906,504	\$ 2,210,969	\$ 2,453,489	\$ 2,428,184	\$ 2,638,058	\$ 2,638,058	\$ 2,638,058	\$ 13,941,000	\$ 4,647,000	\$ 1,533,510	\$ 3,113,490
Engineering @ 13% of Construction Costs	9.3%	\$ 20,137,000	\$ 2,369,366	\$ 2,635,034	\$ 2,206,736	\$ 1,973,620	\$ 2,518,970	\$ 1,916,173	\$ 2,126,357	\$ 2,104,426	\$ 2,286,318	\$ 2,286,318	\$ 2,286,318	\$ 12,082,200	\$ 4,027,400	\$ 1,329,042	\$ 2,698,358
Construction Engineering @ 12% of Construction Costs	8.6%	\$ 18,588,000	\$ 2,187,107	\$ 2,432,339	\$ 2,036,987	\$ 1,821,803	\$ 2,325,203	\$ 1,768,775	\$ 1,962,791	\$ 1,942,547	\$ 2,110,448	\$ 2,110,448	\$ 2,110,448	\$ 11,152,800	\$ 3,717,600	\$ 1,226,808	\$ 2,490,792
TOTAL BUDGET	100%	\$ 216,860,000	\$ 25,516,252	\$ 28,377,292	\$ 23,764,852	\$ 21,254,372	\$ 27,127,372	\$ 20,635,712	\$ 22,899,232	\$ 22,663,052	\$ 24,621,864	\$ 24,621,864	\$ 24,621,864	\$ 130,116,000	\$ 43,372,000	\$ 14,312,760	\$ 29,059,240
														60%	20%	6.6%	13.4%



Prepared By:
Hubbell, Roth & Clark, Inc.
555 Hulet Drive
Bloomfield Hills, Michigan 48302
HRC JOB NO. 20160800