



CITY of NOVI CITY COUNCIL

Agenda Item 3
April 7, 2014

SUBJECT: Approval to award a construction contract for the 2014 Signal Improvements Project to Rauhorn Electric, Inc., the low bidder, in the amount of \$342,122; and approval of an additional appropriation in the amount of \$20,887.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *BTC*

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	\$ 39,434.76 (Nine Mile-Haggerty) \$ 133,830.83 (Meadowbrook-Eight Mile) <u>\$ 168,856.47 (Wixom-Glenwood)</u> \$ 342,122.06 Total
AMOUNT BUDGETED	\$ 73,420 (Nine Mile-Haggerty) \$ 145,000 (Meadowbrook-Eight Mile) <u>\$ 161,200 (Wixom-Glenwood)</u> \$ 379,620 Total
APPROPRIATION REQUIRED	\$ 3,831 (Meadowbrook-Eight Mile) <u>\$ 17,056 (Wixom-Glenwood)</u> \$ 20,887 Total
LINE ITEM NUMBER	204-204.00-974.439 (Nine Mile-Haggerty) 204-204.00-863.506 (Meadowbrook-Eight Mile) 204-204.00-863.504 (Wixom-Glenwood)

BACKGROUND INFORMATION:

This project includes traffic signal improvements to three intersections, including:

- Reconstruction and modernization of the existing traffic signal at the intersection of Meadowbrook Road and Eight Mile Road, to include a left turn signal to be added for eastbound Eight Mile at Meadowbrook Road.
- Construction of a new pathway connection crossing the north leg of the Haggerty Road and Nine Mile Road intersection, to include the addition of pedestrian crossing signals and controls.
- Construction of a new traffic signal at the intersection of Wixom Road and Glenwood Drive to improve traffic operations and to facilitate pedestrian crossing of Wixom Road at Deerfield Elementary School and Novi Middle School.

Americans with Disabilities Act (ADA) improvements will be completed for all sidewalk ramps at the intersections where appropriate.

A new traffic signal for the intersection of Cabot Drive and 13 Mile Road has also been designed and was included in the construction bid package. The construction of this proposed traffic signal is not funded in the current fiscal year. However, it was included in the bid package with the anticipation that the project could be added to the construction contract after July 1, 2014 if the new signal is approved in the FY14-15 budget. The City bid documents require that the bidder hold bid prices for 120 days.

Two (2) bids were received and opened on March 26, 2014 following a public bid solicitation period. A third bid was received but did not meet the requirements of the Invitation to Bid, and is therefore considered non-responsive. The lowest bidder is Rauhorn Electric (Rauhorn). Rauhorn's bid is recommended as being in the best interest of the City as it is responsive (i.e. Rauhorn has complied with all requirements of the bidding instructions) and it is the lowest price. (OHM's award recommendation letter including the bid tabulation dated March 31, 2014 is attached.) A summary of the two responsive bids is as follows:

Contractor	Bid Price All 4 Divisions (including Crew Days)⁽¹⁾⁽²⁾	Bid Price (Divisions 1-3) Excluding Division 4 (including Crew Days)⁽¹⁾⁽²⁾
Rauhorn Electric	\$583,234.61	\$374,122.06
J. Ranck Electric	\$621,130.25	\$399,924.30

(1)Crew Days are included to compare bids, but are not included in the award.

(2)Total for all four intersections were included to compare bids (includes Cabot-13 Mile)

The construction budget for Division 1—Nine Mile and Haggerty is \$73,420, of which \$39,434.76 is being recommended for award, \$3,300 is being reserved for work by Road Commission for Oakland County on the pedestrian signal, and \$9,000 is being reserved for work by Buckeye Pipeline to relocate an above ground testing station (a reduction from previous estimates), for a total expected construction cost of \$51,735 (leaving \$21,685 remaining in the budget).

The construction budget for Division 2—Meadowbrook and Eight Mile Road is \$145,000, of which \$133,830.83 is being recommended for award and \$15,000 is being reserved for work by Wayne County Department of Public Services required to put the signal into operation, for a total expected construction cost of \$148,831 (requiring an appropriation of \$3,831 for this budget line item).

The construction budget for Division 3—Wixom and Glenwood is \$161,200, of which \$168,856.47 is being recommended for award and \$9,400 is being reserved for work by Road Commission for Oakland County Services required to put the signal into operation, for a total expected construction cost of \$178,256 (requiring an appropriation of \$17,056 for this budget line item).

A budget amendment is required to reallocate funds based on the bid prices that were received and the budget requirements for each division of the project. The proposed budget amendment is summarized below.

Budget Line Item	Description	Amount
204-204.00-863.506	Meadowbrook-8 Mile Construction	\$3,831
204-204.00-863.504	Wixom Glenwood Signal	\$17,056
204-204.00-974.439	Haggerty-Nine Mile Intersection	<u>(\$20,887)</u>
		\$0

It is anticipated that this project will be completed this this summer, excluding the Cabot-13 Mile intersection which will be awarded and constructed after July 1, 2014, if approved in the FY14-15 budget.

RECOMMENDED ACTION: Approval to award a construction contract for the 2014 Signal Improvements Project to Rauhorn Electric, Inc., the low bidder, in the amount of \$342,132; and approval of an additional appropriation in the amount of \$20,887.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Markham				
Council Member Mutch				
Council Member Wrobel				



ARCHITECTS. ENGINEERS. PLANNERS.

March 31, 2014

City of Novi DPS – Engineering Division

26300 Lee BeGole Drive
Novi, MI 48375

Attention: Ben Croy, P.E., Engineer
Regarding: City of Novi – 2014 Traffic Signal Improvements
Recommendation of Award
OHM Job # 0163-13-0010, 0163-13-0040, 0163-13-0080, 0163-13-0140

Dear Mr. Croy:

Sealed bids for the 2014 Traffic Signal Improvements project were received and publicly read aloud on Wednesday, March 26, 2014. Proposals were received from three (3) bidders. One of the bidders, Dan’s Excavating, Inc., failed to recognize the addendum. Therefore, their bid was not considered complete. The two (2) remaining bidders and their bid amounts are summarized below and in the attached bid tabulation. The Engineer’s Opinion of Construction Cost for this project was estimated to be \$582,157.50.

Contractor	Amount
Rauhorn Electric, Inc.	\$583,234.61
J. Ranck Electric, Inc.	\$621,130.25

The project scope consists of improvements at four locations throughout the City. The improvements at Nine Mile and Haggerty consist of a pedestrian crossing on Haggerty along with associated pedestrian signals, pushbuttons, and retaining wall. The improvements at 8 Mile and Haggerty, Wixom and Glenwood, and 13 Mile and Cabot consist of installation of a new traffic signal along with upgrading the pedestrian crossings, pushbuttons and pedestrian signals. 13 Mile and Cabot also includes some minor roadway improvements.

The work to be done under this Contract includes the furnishing of materials, equipment, and labor necessary to complete the proposed work, as well as all necessary restoration in accordance with the specifications.

Rauhorn Electric, Inc., located in Macomb, Michigan, is the low bidder. They have positive references and have successfully completed work within the City of Novi in the past. Based on our findings and discussions with City Staff, we recommend award of the 2014 Traffic Signal Improvements project to Rauhorn Electric, Inc. in the amount of **\$535,874.61** (\$583,234.61 - \$47,360.00 crew days), per the unit prices bid for the project.

If you have any questions please do not hesitate to give our office a call at (734) 522-6711.

Sincerely,
OHM Advisors

James C. Stevens P.E.
Client Representative

Jacob Rushlow, P.E.
Project Manager

Enclosures: Bid Tabulation
Cc: File

Item No.	Description	Estimated Quantity	Unit	Price	Amount	Unit		Unit	
						Price	Amount	Price	Amount
DIVISION 1 -9 Mile & Haggerty									
1)	Mobilization, Max 10% - D1	1	LS	\$2,620.00	\$2,620.00	\$2,500.00	\$2,500.00	\$4,000.00	\$4,000.00
2)	Digital Video Route Survey - D1	1	LS	\$1,000.00	\$1,000.00	\$400.00	\$400.00	\$500.00	\$500.00
3)	Traffic Maintenance and Control - D1	1	LS	\$2,000.00	\$2,000.00	\$952.00	\$952.00	\$1,500.00	\$1,500.00
4)	Modular Block Retaining Wall, Salvage and Reset	80	Sft	\$50.00	\$4,000.00	\$32.00	\$2,560.00	\$32.85	\$2,628.00
5)	Curb and Gutter, Rem	43	Ft	\$10.00	\$430.00	\$12.00	\$516.00	\$13.35	\$574.05
6)	Pavt, Rem	11	Syd	\$12.00	\$132.00	\$18.00	\$198.00	\$8.60	\$94.60
7)	Sidewalk, Rem	10	Syd	\$9.00	\$90.00	\$12.00	\$120.00	\$25.00	\$250.00
8)	Erosion Control, Inlet Protection, Fabric Drop	2	Ea	\$125.00	\$250.00	\$120.00	\$240.00	\$80.00	\$160.00
9)	Erosion Control, Silt Fence	20	Ft	\$4.00	\$80.00	\$5.00	\$100.00	\$1.55	\$31.00
10)	Modular Block Retaining Wall	190	Sft	\$20.00	\$3,800.00	\$38.00	\$7,220.00	\$35.60	\$6,764.00
11)	Hand Patching	3	Ton	\$140.00	\$420.00	\$300.00	\$900.00	\$234.00	\$702.00
12)	Curb and Gutter, Conc, Det F6	43	Ft	\$35.00	\$1,505.00	\$28.00	\$1,204.00	\$29.75	\$1,279.25
13)	Detectable Warning Surface	13	Ft	\$33.00	\$429.00	\$60.00	\$780.00	\$48.00	\$624.00
14)	Sidewalk Ramp, Conc, 6 inch	153	Sft	\$5.00	\$765.00	\$6.00	\$918.00	\$5.20	\$795.60
15)	Sidewalk, Conc, 4 inch	82	Sft	\$5.00	\$410.00	\$6.00	\$492.00	\$4.55	\$373.10
16)	Sidewalk, Conc, 6 inch	264	Sft	\$7.00	\$1,848.00	\$6.00	\$1,584.00	\$7.00	\$1,848.00
17)	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	112	Ft	\$5.00	\$560.00	\$3.00	\$336.00	\$8.00	\$896.00
18)	Relocate Sign	3	Ea	\$50.00	\$150.00	\$400.00	\$1,200.00	\$300.00	\$900.00
19)	Topsoil, Seed and Mulch, 3 inch	62	Syd	\$5.00	\$310.00	\$20.00	\$1,240.00	\$20.00	\$1,240.00
20)	Conduit, DB, 1, 1 1/4 inch	100	Ft	\$11.00	\$1,100.00	\$6.30	\$630.00	\$8.00	\$800.00
21)	Conduit, DB, 1, 3 inch	65	Ft	\$13.00	\$845.00	\$25.30	\$1,644.50	\$12.00	\$780.00
22)	Hh, Rem	1	Ea	\$150.00	\$150.00	\$179.00	\$179.00	\$150.00	\$150.00
23)	Hh, Round	2	Ea	\$900.00	\$1,800.00	\$941.00	\$1,882.00	\$900.00	\$1,800.00
24)	Wood Pole, Fit Up, TS Cable Pole	1	Ea	\$400.00	\$400.00	\$423.00	\$423.00	\$500.00	\$500.00
25)	Pedestal, Alum	2	Ea	\$700.00	\$1,400.00	\$564.00	\$1,128.00	\$750.00	\$1,500.00
26)	Pedestal, Alum, Salv	1	Ea	\$300.00	\$300.00	\$176.00	\$176.00	\$350.00	\$350.00
27)	Pedestal, Fdn	3	Ea	\$600.00	\$1,800.00	\$1,382.00	\$4,146.00	\$800.00	\$2,400.00
28)	Pedestal Fdn, Rem	1	Ea	\$100.00	\$100.00	\$223.00	\$223.00	\$200.00	\$200.00
29)	Pedestal, Rem	1	Ea	\$100.00	\$100.00	\$87.42	\$87.42	\$100.00	\$100.00
30)	Pushbutton and Sign	2	Ea	\$400.00	\$800.00	\$596.00	\$1,192.00	\$700.00	\$1,400.00
31)	Pushbutton, Rem	1	Ea	\$75.00	\$75.00	\$60.63	\$60.63	\$100.00	\$100.00
32)	Pushbutton and Sign, Salv	1	Ea	\$200.00	\$200.00	\$606.00	\$606.00	\$400.00	\$400.00
33)	TS, Pedestrian, Pedestal Mtd, Rem	1	Ea	\$100.00	\$100.00	\$68.21	\$68.21	\$150.00	\$150.00
34)	TS, Pedestrian, One Way Pedestal Mtd, Salv	1	Ea	\$350.00	\$350.00	\$645.00	\$645.00	\$500.00	\$500.00
35)	TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	2	Ea	\$900.00	\$1,800.00	\$996.00	\$1,992.00	\$900.00	\$1,800.00
36)	_ Pushbutton Support Post, RCOC	1	Ea	\$500.00	\$500.00	\$760.00	\$760.00	\$400.00	\$400.00
37)	_ Support Post, Rem, RCOC	1	Ea	\$100.00	\$100.00	\$132.00	\$132.00	\$100.00	\$100.00
38)	Crew Days - D1	640	\$/day	20	\$12,800.00	12	\$7,680.00	12	\$7,680.00
TOTAL DIVISION 1:						<u>\$45,519.00</u>	<u>\$47,114.76</u>	<u>\$46,269.60</u>	
DIVISION 2 -8 Mile & Meadowbrook									
1)	Mobilization, Max 10% - D2	1	LS	\$13,230.00	\$13,230.00	\$10,550.00	\$10,550.00	\$14,000.00	\$14,000.00
2)	Digital Video Route Survey - D2	1	LS	\$1,000.00	\$1,000.00	\$400.00	\$400.00	\$500.00	\$500.00
3)	Traffic Maintenance and Control - D2	1	LS	\$5,000.00	\$5,000.00	\$1,962.00	\$1,962.00	\$2,000.00	\$2,000.00
4)	Curb and Gutter, Rem	52	Ft	\$10.00	\$520.00	\$12.00	\$624.00	\$13.35	\$694.20
5)	Sidewalk, Rem	37	Syd	\$9.00	\$333.00	\$12.00	\$444.00	\$8.60	\$318.20
6)	Erosion Control, Inlet Protection, Fabric Drop	2	Ea	\$125.00	\$250.00	\$120.00	\$240.00	\$80.00	\$160.00
7)	Aggregate Base, 6 inch	29	Syd	\$8.00	\$232.00	\$12.00	\$348.00	\$10.00	\$290.00
8)	Curb, Conc, Det E4	21	Ft	\$20.00	\$420.00	\$35.00	\$735.00	\$39.00	\$819.00
9)	Curb and Gutter, Conc, Det F4	52	Ft	\$22.00	\$1,144.00	\$28.00	\$1,456.00	\$29.75	\$1,547.00
10)	Detectable Warning Surface	16	Ft	\$33.00	\$528.00	\$60.00	\$960.00	\$48.00	\$768.00
11)	Sidewalk Ramp, Conc, 6 inch	62	Sft	\$5.00	\$310.00	\$6.00	\$372.00	\$5.20	\$322.40
12)	Sidewalk, Conc, 4 inch	191	Sft	\$5.00	\$955.00	\$6.00	\$1,146.00	\$4.55	\$869.05
13)	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	133	Ft	\$5.00	\$665.00	\$3.00	\$399.00	\$3.00	\$399.00
14)	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	37	Ft	\$9.00	\$333.00	\$12.00	\$444.00	\$12.00	\$444.00
15)	Rem Spec Mrkg	135	Sft	\$2.50	\$337.50	\$1.50	\$202.50	\$1.50	\$202.50
16)	Cable Pole, TS, Disman	1	Ea	\$50.00	\$50.00	\$97.55	\$97.55	\$150.00	\$150.00
17)	Cable, Intercn, Rem	1700	Ft	\$0.75	\$1,275.00	\$0.53	\$901.00	\$0.25	\$425.00
18)	Conduit, DB, 1, 1 1/2 inch	50	Ft	\$11.00	\$550.00	\$8.46	\$423.00	\$10.00	\$500.00
19)	Conduit, DB, 1, 3 inch	75	Ft	\$13.00	\$975.00	\$12.26	\$919.50	\$12.00	\$900.00
20)	Conduit, DB, 2, 3 inch	40	Ft	\$15.00	\$600.00	\$16.85	\$674.00	\$15.00	\$600.00
21)	Conduit, DB, 3, 3 inch	10	Ft	\$17.00	\$170.00	\$31.66	\$316.60	\$25.00	\$250.00
22)	Hh, Rem	2	Ea	\$150.00	\$300.00	\$179.00	\$358.00	\$150.00	\$300.00
23)	Hh, Round	4	Ea	\$900.00	\$3,600.00	\$941.00	\$3,764.00	\$900.00	\$3,600.00
24)	Cable, Sec, 600V, 1, 3/C#6	90	Ft	\$5.00	\$450.00	\$4.85	\$436.50	\$5.00	\$450.00
25)	Wood Pole, Fit Up, Sec Cable Pole	1	Ea	\$400.00	\$400.00	\$423.00	\$423.00	\$500.00	\$500.00
26)	Case Sign, Rem	1	Ea	\$100.00	\$100.00	\$105.00	\$105.00	\$150.00	\$150.00
27)	Controller and Cabinet, Rem	1	Ea	\$200.00	\$200.00	\$142.00	\$142.00	\$150.00	\$150.00
28)	Controller and Cabinet, Digital Type	1	Ea	\$15,000.00	\$15,000.00	\$15,315.00	\$15,315.00	\$20,000.00	\$20,000.00
29)	Controller Fdn, Base Mount	1	Ea	\$2,000.00	\$2,000.00	\$1,368.00	\$1,368.00	\$1,500.00	\$1,500.00
30)	Pedestal, Fdn	2	Ea	\$600.00	\$1,200.00	\$1,382.00	\$2,764.00	\$800.00	\$1,600.00
31)	Pedestal Fdn, Rem	2	Ea	\$100.00	\$200.00	\$223.00	\$446.00	\$200.00	\$400.00
32)	Pedestal, Rem	2	Ea	\$100.00	\$200.00	\$87.93	\$175.86	\$100.00	\$200.00
33)	Pushbutton and Sign	2	Ea	\$400.00	\$800.00	\$530.00	\$1,060.00	\$700.00	\$1,400.00
34)	Pushbutton Pedestal, Alum	2	Ea	\$500.00	\$1,000.00	\$385.00	\$770.00	\$700.00	\$1,400.00
35)	Serv Disconnect	1	Ea	\$900.00	\$900.00	\$923.00	\$923.00	\$800.00	\$800.00
36)	Span Wire	3	Ea	\$300.00	\$900.00	\$444.00	\$1,332.00	\$700.00	\$2,100.00
37)	Span Wire, Rem	1	Ea	\$200.00	\$200.00	\$158.00	\$158.00	\$200.00	\$200.00
38)	TS, Pedestrian, Bracket Arm Mtd, Rem	1	Ea	\$100.00	\$100.00	\$70.08	\$70.08	\$150.00	\$150.00
39)	TS, Pedestrian, Pedestal Mtd, Rem	2	Ea	\$100.00	\$200.00	\$68.24	\$136.48	\$150.00	\$300.00
40)	TS, Span Wire Mtd, Rem	2	Ea	\$150.00	\$300.00	\$81.38	\$162.76	\$150.00	\$300.00
41)	TS, One Way Span Wire Mtd (LED)	6	Ea	\$900.00	\$5,400.00	\$798.00	\$4,788.00	\$900.00	\$5,400.00
42)	TS, One Way Span Wire Mtd, FYA (LED)	1	Ea	\$1,000.00	\$1,000.00	\$935.00	\$935.00	\$1,200.00	\$1,200.00
43)	TS, Pedestrian, One Way Bracket Arm Mtd (LED) Countdown	2	Ea	\$900.00	\$1,800.00	\$886.00	\$1,772.00	\$900.00	\$1,800.00
44)	TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	1	Ea	\$1,200.00	\$1,200.00	\$1,314.00	\$1,314.00	\$1,300.00	\$1,300.00
45)	Bracket, Truss, With 18 Foot Arm	2	Ea	\$1,000.00	\$2,000.00	\$571.00	\$1,142.00	\$700.00	\$1,400.00
46)	Video Traffic Detection System	1	Ea	\$12,000.00	\$12,000.00	\$8,341.00	\$8,341.00	\$7,500.00	\$7,500.00
47)	Video Traffic Detection Camera	2	Ea	\$3,500.00	\$7,000.00	\$2,550.00	\$5,100.00	\$3,000.00	\$6,000.00
48)	Wireless, Intercn, Closed Loop, Master	1	Ea	\$2,500.00	\$2,500.00	\$3,967.00	\$3,967.00	\$4,000.00	\$4,000.00
49)	Wireless, Intercn, Closed Loop, Remote	1	Ea	\$2,500.00	\$2,500.00	\$2,700.00	\$2,700.00	\$3,500.00	\$3,500.00
50)	Strain Pole, Steel, 6 bolt, 30 foot	4	Ea	\$5,000.00	\$20,000.00	\$4,820.00	\$19,280.00	\$5,500.00	\$22,000.00
51)	Strain Pole Fdn, 6 Bolt	60	Ft	\$325.00	\$19,500.00	\$328.00	\$19,680.00	\$400.00	\$24,000.00
52)	Casing	31	Ft	\$200.00	\$6,200.00	\$152.00	\$4,712.00	\$140.00	\$4,340.00
53)	_ Optical Priority Control System, RCOC	1	Ea	\$5,500.00	\$5,500.00	\$4,616.00	\$4,616.00	\$4,000.00	\$4,000.00
54)	_ Span Wire, Box, WCDPS	1	Ea	\$2,000.00	\$2,000.00	\$1,960.00	\$1,960.00	\$2,000.00	\$2,000.00
55)	Crew Days - D2	640	\$/day	20	\$12,800.00	18	\$11,520.00	14	\$8,960.00
TOTAL DIVISION 2:						<u>\$158,327.50</u>	<u>\$145,350.83</u>	<u>\$159,058.35</u>	
DIVISION 3 -Wixom & Glenwood									
1)	Mobilization, Max 10% - D3	1	LS	\$12,180.00	\$12,180.00	\$8,616.00	\$8,616.00	\$17,000.00	\$17,000.00
2)	Digital Video Route Survey - D3	1	LS	\$1,000.00	\$1,000.00	\$400.00	\$400.00	\$500.00	\$500.00
3)	Traffic Maintenance and Control - D3	1	LS	\$5,000.00	\$5,000.00	\$1,962.00	\$1,962.00	\$2,000.00	\$2,000.00
4)	Curb and Gutter, Rem	212	Ft	\$10.00	\$2,120.00	\$12.00	\$2,544.00	\$13.35	\$2,830.20

5) Pavt, Rem	176 Syd	\$12.00	\$2,112.00	\$18.00	\$3,168.00	\$8.60	\$1,513.60
6) Sidewalk, Rem	19 Syd	\$9.00	\$171.00	\$12.00	\$228.00	\$8.60	\$163.40
7) Erosion Control, Inlet Protection, Fabric Drop	2 Ea	\$125.00	\$250.00	\$120.00	\$240.00	\$80.00	\$160.00
8) Erosion Control, Silt Fence	71 Ft	\$4.00	\$284.00	\$5.00	\$355.00	\$1.55	\$110.05
9) Aggregate Base, 6 inch	257 Syd	\$8.00	\$2,056.00	\$12.00	\$3,084.00	\$10.00	\$2,570.00
10) Hand Patching	9 Ton	\$140.00	\$1,260.00	\$300.00	\$2,700.00	\$234.00	\$2,106.00
11) Curb and Gutter, Conc, Det F4	212 Ft	\$22.00	\$4,664.00	\$28.00	\$5,936.00	\$29.75	\$6,307.00
12) Detectable Warning Surface	83 Ft	\$33.00	\$2,739.00	\$60.00	\$4,980.00	\$48.00	\$3,984.00
13) Sidewalk Ramp, Conc, 6 inch	539 Sft	\$5.00	\$2,695.00	\$6.00	\$3,234.00	\$5.20	\$2,802.80
14) Sidewalk, Conc, 4 inch	1356 Sft	\$5.00	\$6,780.00	\$6.00	\$8,136.00	\$4.55	\$6,169.80
15) Sign, Type III, Rem	2 Ea	\$20.00	\$40.00	\$100.00	\$200.00	\$75.00	\$150.00
16) Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	471 Ft	\$5.00	\$2,355.00	\$3.00	\$1,413.00	\$3.00	\$1,413.00
17) Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	115 Ft	\$9.00	\$1,035.00	\$12.00	\$1,380.00	\$12.00	\$1,380.00
18) Rem Spec Mrkg	851 Sft	\$2.50	\$2,127.50	\$1.50	\$1,276.50	\$1.50	\$1,276.50
19) Conduit, DB, 1, 1 1/4 inch	90 Ft	\$11.00	\$990.00	\$16.02	\$1,441.80	\$8.00	\$720.00
20) Conduit, DB, 1, 3 inch	40 Ft	\$13.00	\$520.00	\$12.26	\$490.40	\$12.00	\$480.00
21) Conduit, DB, 2, 3 inch	40 Ft	\$15.00	\$600.00	\$16.85	\$674.00	\$15.00	\$600.00
22) Conduit, DB, 3, 4 inch	10 Ft	\$19.00	\$190.00	\$89.35	\$893.50	\$30.00	\$300.00
23) Hh, Round	3 Ea	\$900.00	\$2,700.00	\$941.00	\$2,823.00	\$900.00	\$2,700.00
24) Wood Pole, Fit Up, Sec Cable Pole	1 Ea	\$400.00	\$400.00	\$431.00	\$431.00	\$500.00	\$500.00
25) _ Cable, Sec, 600V, 1, 2/C#4, #6 Ground, RCOC	75 Ft	\$5.00	\$375.00	\$6.31	\$473.25	\$4.00	\$300.00
26) _ Hh, Square, RCOC	1 Ea	\$1,300.00	\$1,300.00	\$1,730.00	\$1,730.00	\$3,500.00	\$3,500.00
27) Controller Fdn, Base Mount	1 Ea	\$2,000.00	\$2,000.00	\$1,368.00	\$1,368.00	\$1,500.00	\$1,500.00
28) Pushbutton and Sign	4 Ea	\$400.00	\$1,600.00	\$414.00	\$1,656.00	\$700.00	\$2,800.00
29) Serv Disconnect	1 Ea	\$900.00	\$900.00	\$923.00	\$923.00	\$800.00	\$800.00
30) TS, One Way Span Wire Mtd (LED)	8 Ea	\$900.00	\$7,200.00	\$902.00	\$7,216.00	\$900.00	\$7,200.00
31) TS, One Way Span Wire Mtd, FYA (LED)	2 Ea	\$1,000.00	\$2,000.00	\$1,046.00	\$2,092.00	\$1,200.00	\$2,400.00
32) TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	4 Ea	\$1,200.00	\$4,800.00	\$1,344.00	\$5,376.00	\$1,300.00	\$5,200.00
33) _ Bottom Tether Wire, RCOC	1 Ea	\$1,500.00	\$1,500.00	\$2,007.00	\$2,007.00	\$2,000.00	\$2,000.00
34) _ Bracket Arm, 18 foot, RCOC	4 Ea	\$1,000.00	\$4,000.00	\$539.00	\$2,156.00	\$700.00	\$2,800.00
35) _ Case Sign, One Way, 24 inch by 30 inch, Non-Illuminated, RCOC	2 Ea	\$1,000.00	\$2,000.00	\$0.01	\$0.02	\$1,500.00	\$3,000.00
36) _ Controller and Cabinet, Digital Type, Delivered, RCOC	1 Ea	\$2,500.00	\$2,500.00	\$15,695.00	\$15,695.00	\$20,000.00	\$20,000.00
37) _ Controller and Cabinet, Digital Type, RCOC	1 Ea	\$14,000.00	\$14,000.00	\$746.00	\$746.00	\$800.00	\$800.00
38) _ Optical Priority Control System, RCOC	1 Ea	\$5,500.00	\$5,500.00	\$4,616.00	\$4,616.00	\$4,000.00	\$4,000.00
39) _ Pushbutton Support Post, RCOC	4 Ea	\$500.00	\$2,000.00	\$760.00	\$3,040.00	\$400.00	\$1,600.00
40) _ Span Wire, Box, RCOC	1 Ea	\$2,000.00	\$2,000.00	\$2,463.00	\$2,463.00	\$2,000.00	\$2,000.00
41) _ Strain Pole, Steel, Anchor Base, 30 foot, RCOC	4 Ea	\$4,000.00	\$16,000.00	\$3,650.00	\$14,600.00	\$4,500.00	\$18,000.00
42) _ Strain Pole, Steel, Anchor Fdn, RCOC	4 Ea	\$2,500.00	\$10,000.00	\$2,879.00	\$11,516.00	\$3,250.00	\$13,000.00
43) _ Thermal Detection Camera, RCOC	4 Ea	\$5,000.00	\$20,000.00	\$5,218.00	\$20,872.00	\$6,000.00	\$24,000.00
44) _ Thermal Detection System (MVP), RCOC	1 Ea	\$12,000.00	\$12,000.00	\$13,705.00	\$13,705.00	\$13,000.00	\$13,000.00
45) Crew Days - D3	640 \$/day	20	\$12,800.00	20	\$12,800.00	14	\$8,960.00

TOTAL DIVISION 3: \$178,743.50 \$181,656.47¹ \$194,596.35

DIVISION 4 -13 Mile & Cabot

1) Mobilization, Max 10% - D4	1 LS	\$15,890.00	\$15,890.00	\$10,000.00	\$10,000.00	\$20,000.00	\$20,000.00
2) Digital Video Route Survey - D4	1 LS	\$1,000.00	\$1,000.00	\$400.00	\$400.00	\$500.00	\$500.00
3) Traffic Maintenance and Control - D4	1 LS	\$5,000.00	\$5,000.00	\$1,962.00	\$1,962.00	\$2,000.00	\$2,000.00
4) Curb and Gutter, Rem	195 Ft	\$10.00	\$1,950.00	\$12.00	\$2,340.00	\$13.35	\$2,603.25
5) Pavt, Rem	99 Syd	\$12.00	\$1,188.00	\$18.00	\$1,782.00	\$14.00	\$1,386.00
6) Sidewalk, Rem	132 Syd	\$9.00	\$1,188.00	\$12.00	\$1,584.00	\$8.60	\$1,135.20
7) Erosion Control, Silt Fence	145 Ft	\$4.00	\$580.00	\$5.00	\$725.00	\$1.55	\$224.75
8) Aggregate Base, 6 inch	151 Syd	\$8.00	\$1,208.00	\$12.00	\$1,812.00	\$10.00	\$1,510.00
9) Aggregate Base, 8 inch	36 Syd	\$0.00	\$0.00	\$14.00	\$504.00	\$12.00	\$432.00
10) Sprinkler Head, Rem and Reset	4 Ea	\$1.00	\$4.00	\$200.00	\$800.00	\$79.00	\$316.00
11) Conc Pavt, Nonrein, 9 inch	125 Syd	\$48.00	\$6,000.00	\$60.00	\$7,500.00	\$65.00	\$8,125.00
12) Curb and Gutter, Conc, Det F4	210 Ft	\$22.00	\$4,620.00	\$28.00	\$5,880.00	\$29.75	\$6,247.50
13) Gate Well, Cover, Adj, Add Depth	1 Ft	\$150.00	\$150.00	\$200.00	\$200.00	\$290.00	\$290.00
14) Gate Well, Cover, Adj	2 Ea	\$300.00	\$600.00	\$650.00	\$1,300.00	\$333.00	\$666.00
15) Detectable Warning Surface	71 Ft	\$33.00	\$2,343.00	\$60.00	\$4,260.00	\$48.00	\$3,408.00
16) Sidewalk Ramp, Conc, 6 inch	488 Sft	\$5.00	\$2,440.00	\$6.00	\$2,928.00	\$5.20	\$2,537.60
17) Sidewalk, Conc, 4 inch	813 Sft	\$5.00	\$4,065.00	\$6.00	\$4,878.00	\$4.55	\$3,699.15
18) Sign, Type III, Rem	3 Ea	\$20.00	\$60.00	\$100.00	\$300.00	\$75.00	\$225.00
19) Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	543 Ft	\$5.00	\$2,715.00	\$3.00	\$1,629.00	\$3.00	\$1,629.00
20) Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	146 Ft	\$9.00	\$1,314.00	\$12.00	\$1,752.00	\$12.00	\$1,752.00
21) Pavt Mrkg, Polyurea, 4 inch, White	80 Ft	\$5.00	\$400.00	\$3.00	\$240.00	\$3.00	\$240.00
22) Rem Spec Mrkg	753 Sft	\$2.50	\$1,882.50	\$1.50	\$1,129.50	\$1.50	\$1,129.50
23) Relocate Sign	1 Ea	\$50.00	\$50.00	\$400.00	\$400.00	\$300.00	\$300.00
24) Conduit, DB, 1, 1 1/4 inch	75 Ft	\$11.00	\$825.00	\$13.47	\$1,010.25	\$8.00	\$600.00
25) Conduit, DB, 1, 3 inch	320 Ft	\$13.00	\$4,160.00	\$9.71	\$3,107.20	\$12.00	\$3,840.00
26) Conduit, DB, 2, 3 inch	40 Ft	\$15.00	\$600.00	\$16.85	\$674.00	\$15.00	\$600.00
27) Conduit, DB, 3, 4 inch	15 Ft	\$19.00	\$285.00	\$63.86	\$957.90	\$30.00	\$450.00
28) Hh, Round	6 Ea	\$900.00	\$5,400.00	\$941.00	\$5,646.00	\$900.00	\$5,400.00
29) Wood Pole, Fit Up, Sec Cable Pole	1 Ea	\$400.00	\$400.00	\$431.00	\$431.00	\$500.00	\$500.00
30) Conduit, Directional Bore, 1, 3 inch	40 Ft	\$25.00	\$1,000.00	\$44.83	\$1,793.20	\$40.00	\$1,600.00
31) Conduit, Directional Bore, 1, 4 inch	100 Ft	\$30.00	\$3,000.00	\$32.65	\$3,265.00	\$45.00	\$4,500.00
32) _ Cable, Sec, 600V, 1, 2/C#4, #6 Ground, RCOC	550 Ft	\$5.00	\$2,750.00	\$6.31	\$3,470.50	\$4.00	\$2,200.00
33) _ Hh, Square, RCOC	1 Ea	\$1,300.00	\$1,300.00	\$1,730.00	\$1,730.00	\$3,500.00	\$3,500.00
34) Controller Fdn, Base Mount	1 Ea	\$2,000.00	\$2,000.00	\$1,368.00	\$1,368.00	\$1,500.00	\$1,500.00
35) Pushbutton and Sign	4 Ea	\$400.00	\$1,600.00	\$427.00	\$1,708.00	\$700.00	\$2,800.00
36) Serv Disconnect	1 Ea	\$900.00	\$900.00	\$923.00	\$923.00	\$800.00	\$800.00
37) TS, One Way Span Wire Mtd (LED)	6 Ea	\$900.00	\$5,400.00	\$912.00	\$5,472.00	\$900.00	\$5,400.00
38) TS, One Way Span Wire Mtd, FYA (LED)	2 Ea	\$1,000.00	\$2,000.00	\$1,076.00	\$2,152.00	\$1,200.00	\$2,400.00
39) TS, One Way Span Wire Mtd, Five Sect (LED)	2 Ea	\$1,100.00	\$2,200.00	\$1,371.00	\$2,742.00	\$1,200.00	\$2,400.00
40) TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	4 Ea	\$1,200.00	\$4,800.00	\$1,355.00	\$5,420.00	\$1,300.00	\$5,200.00
41) _ Bottom Tether Wire, RCOC	1 Ea	\$1,500.00	\$1,500.00	\$1,772.00	\$1,772.00	\$2,000.00	\$2,000.00
42) _ Bracket Arm, 18 foot, RCOC	4 Ea	\$1,000.00	\$4,000.00	\$539.00	\$2,156.00	\$700.00	\$2,800.00
43) _ Case Sign, One Way, 24 inch by 30 inch, Non-Illuminated, RCOC	2 Ea	\$1,000.00	\$2,000.00	\$1,028.00	\$2,056.00	\$1,500.00	\$3,000.00
44) _ Controller and Cabinet, Digital Type, Delivered, RCOC	1 Ea	\$2,500.00	\$2,500.00	\$15,695.00	\$15,695.00	\$20,000.00	\$20,000.00
45) _ Controller and Cabinet, Digital Type, RCOC	1 Ea	\$14,000.00	\$14,000.00	\$746.00	\$746.00	\$800.00	\$800.00
46) _ Optical Priority Control System, RCOC	1 Ea	\$5,500.00	\$5,500.00	\$4,616.00	\$4,616.00	\$4,000.00	\$4,000.00
47) _ Pushbutton Support Post, RCOC	4 Ea	\$500.00	\$2,000.00	\$760.00	\$3,040.00	\$400.00	\$1,600.00
48) _ Span Wire, Box, RCOC	1 Ea	\$2,000.00	\$2,000.00	\$2,083.00	\$2,083.00	\$2,000.00	\$2,000.00
49) _ Strain Pole, Steel, Anchor Base, 40 foot, RCOC	4 Ea	\$4,500.00	\$18,000.00	\$4,305.00	\$17,220.00	\$5,500.00	\$22,000.00
50) _ Strain Pole, Steel, Anchor Fdn, RCOC	4 Ea	\$2,500.00	\$10,000.00	\$3,404.00	\$13,616.00	\$3,250.00	\$13,000.00
51) _ Thermal Detection Camera, RCOC	4 Ea	\$5,000.00	\$20,000.00	\$5,218.00	\$20,872.00	\$6,000.00	\$24,000.00
52) _ Thermal Detection System (MVP), RCOC	1 Ea	\$12,000.00	\$12,000.00	\$13,705.00	\$13,705.00	\$13,000.00	\$13,000.00
53) Crew Days - D4	640 \$/day	20	\$12,800.00	24	\$15,360.00	14	\$8,960.00

TOTAL DIVISION 4: \$199,567.50 \$209,112.55 \$221,205.95

TOTAL BID AMOUNT: \$582,157.50 \$583,234.61 \$621,130.25

ADDITIONAL BIDDERS

Dan's Excavating, Inc. (Bidder submitted incomplete bid)

CORRECTIONS

¹ Bidder's summation error was corrected

Coburn, Brian

From: Todd Underhill <TUnderhill@rauhornelec.com>
Sent: Monday, March 31, 2014 4:51 PM
To: Pringle, Jennifer
Subject: City of Novi Traffic Signal Bid Clarification

Jennifer,

On page #21 of the bid form, Item #22 for Conduit, DB, 3, 4 inch should have been \$89.35 in lue of \$893.35 for and extension price of \$893.50 for the 10 feet indicated.

Please use this as my official clarification statement for the actual bid tabs for record.

Thanks you,

Todd J. Underhill

Lead Estimator

D- (586) 232-2402

F - (586) 232-2452

<http://www.rauhorselectric.com>



In the interests of the environment, please print only if necessary and recycle

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Nine Mile Haggerty Intersection Improvements

Location Map



Map Author: Croy
Date: 3/31/14
Project: Nine/Haggerty
Version #: v1.0

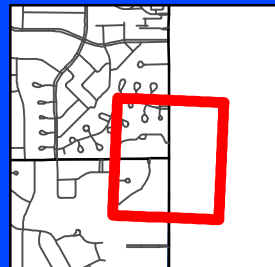
MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



Feet
0 50 100 200 300

1 inch = 250 feet

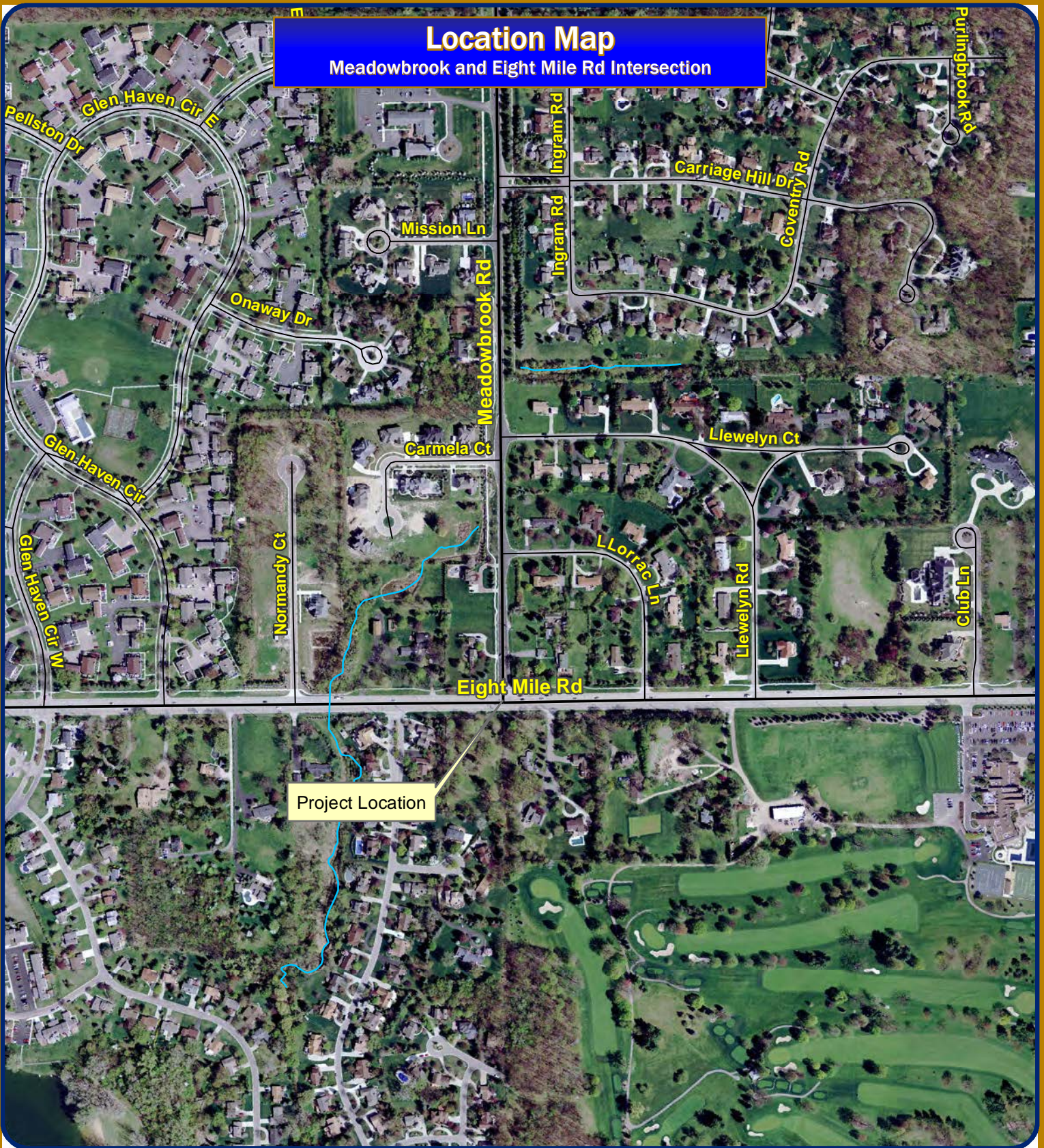


City of Novi

Engineering Division
Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org

Location Map

Meadowbrook and Eight Mile Rd Intersection



Map Author: Brian Coburn
Date: 5/24/13
Project:
Version #:

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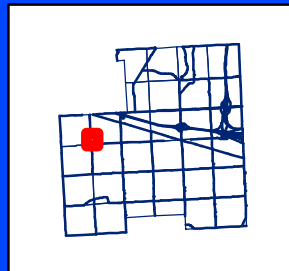
1 inch = 500 feet

Wxom Road and Glenwood Drive Signal

Location Map



Map Author: Croy
Date: 8/2/13
Project: Wxom Rd. and Glenwood Dr. Signal
Version #: v2.0



City of Novi

Engineering Division
Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org



1 inch = 250 feet

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