



# CITY of NOVI CITY COUNCIL

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**Agenda Item 6  
November 13, 2007**

**SUBJECT:** Consideration of award of a construction contract for the 2007 Traffic Signal Upgrades project (13 Mile and Meadowbrook and 14 Mile and Novi Road) to Metropolitan Power & Lighting, Inc., the lowest responsive bidder, in the amount of \$135,933.

**SUBMITTING DEPARTMENT:** Engineering *Rnt*

**CITY MANAGER APPROVAL:** *[Signature]*

<b>EXPENDITURE REQUIRED</b>	\$114,939.30 (13 Mile/Meadowbrook) \$129,010.35 (14 Mile/Novi) (Both amounts include anticipated fees for RCOC and Detroit Edison work)
<b>AMOUNT BUDGETED</b>	\$75,000 (13 Mile/Meadowbrook) \$50,000 (14 Mile/Novi)
<b>APPROPRIATION REQUIRED</b>	\$83,927.73 (13 Mile/Meadowbrook) \$59,885.44 (14 Mile/Novi)
<b>LINE ITEM NUMBER</b>	204-204.00-863.013 (13 Mile/Meadowbrook) 204-204.00-863.100 (14 Mile/Novi)

### BACKGROUND INFORMATION:

This project includes the upgrade of the existing traffic signals at two intersections 1) Thirteen Mile Road and Meadowbrook Road, and 2) Fourteen Mile Road and Novi Road. While the existing intersections have left turn lanes in place, they lack a left turn signal for the westbound Thirteen Mile to southbound Meadowbrook turning movement, the westbound Fourteen Mile Road to southbound Novi, and the eastbound Fourteen Mile Road to northbound Decker Road turning movements (see enclosed maps and photos).

The Fourteen Mile project is a carryover from the 2006-07 budget and the Thirteen Mile project is included in the 2007-08 budget. The two projects are being combined in anticipation of receiving lower construction bids. The Thirteen Mile intersection is completely within Novi's jurisdiction. The Fourteen Mile project is within the jurisdiction of the City of Novi, City of Walled Lake and the Road Commission for Oakland County. (While Tri-Party funding would be a way to fund a project of this type, Novi's Tri-Party funding has recently been allocated for other projects within the City, such as the Novi Road link project.) The City of Walled Lake has decided not to participate in the Fourteen Mile Road project; therefore, both projects would be funded entirely by the City.

The original budget for the project was determined using the design criteria at that time, which would have allowed for the additional of a left turn signal to the existing single span wire configuration. However, the design standard from the Road Commission for Oakland County has since changed requiring both signals to be reconstructed from the existing diagonal span wire configuration to the new standard box span configuration. Because RCOC maintains the City's signals, the new standard is applicable to both projects. The new standard has added substantial costs to the projects in the amount of \$144,000. However, there is \$100,000 that was previously allocated for the Twelve Mile Road/West Park Drive signal upgrade (project was completed by RCOC) that can be re-allocated to this project. The additional approximate \$44,000 will be included in the second quarter budget amendment, and will result from the interest earned on the

funds that are currently allocated for the Novi Road link project, which will not be constructed until 2009.

The above expenditure amounts represent not only the cost of the construction contract to be awarded (\$68,266 for Meadowbrook/Thirteen Mile, and \$67,667 for Fourteen Mile/Novi Road), but also includes force account work through Road Commission for Oakland County (RCOC) in the amounts of \$41,000 and \$55,000, respectively; and, electrical and contingency costs for the work. The force account work through RCOC is an estimated amount that will not be known until construction is complete and includes the following items:

- Traffic Signal Inspection Fees (Full time during actual construction)
- Road Construction Inspection Fees (Full time during actual construction)
- Traffic Signal Controller/Cabinet Programming and Configuration Fees
- Vehicle Detection Camera (Autoscope) Purchase and Programming Costs (Actual field installation will be by the contractor on the City's project)

Because RCOC will be performing full time inspection on the traffic signals, the construction phase fee for the City's consulting engineer on this project, URS, will be reduced accordingly.

Five bids were received and opened on October 11, 2007 following a public bid solicitation period. The lowest responsive bid was received from Metropolitan Power and Lighting, Inc. Metropolitan's bid is recommended as being in the best interest of the City as it is responsive (i.e., Metropolitan has complied with all requirements of the bidding instructions) and it is the lowest price. (URS's award recommendation letter dated October 12, 2007 is attached). A summary of the bids is as follows:

Bidder	Project 1 (13 Mile)	Project 2 (14 Mile)	Total Bid
<b>Metropolitan Power</b>	<b>\$68,266.00</b>	<b>\$67,667.00</b>	<b>\$135,933.00</b>
Alpha Electric	\$76,330.00	\$77,479.50	\$153,809.50
Motor City Electric	\$87,429.25	\$85,074.55	\$172,503.80
Posen Construction	\$87,890.00	\$88,590.00	\$176,480.00
Rauhorn Electric	\$89,592.47	\$88,550.66	\$178,143.13

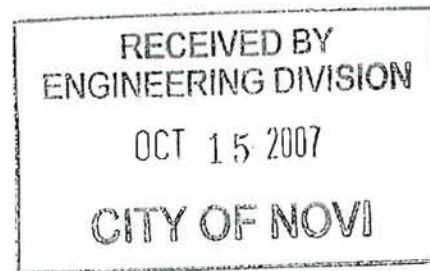
Construction is scheduled to begin in December 2007 with a contract completion date of 90 days thereafter.

**RECOMMENDED ACTION:** Approval to award a construction contract for the 2007 Traffic Signal Upgrades project (13 Mile and Meadowbrook and 14 Mile and Novi Road) to Metropolitan Power & Lighting, Inc., the lowest responsive bidder, in the amount of \$135,933.

	1	2	Y	N
<b>Mayor Landry</b>				
<b>Mayor Pro Tem Capello</b>				
<b>Council Member Crawford</b>				
<b>Council Member Gatt</b>				

	1	2	Y	N
<b>Council Member Margolis</b>				
<b>Council Member Mutch</b>				
<b>Council Member Staudt</b>				





October 12, 2007

Mr. Brian Coburn, PE  
City of Novi  
Engineering Department  
45175 W. Ten Mile Road  
Novi, MI 48375-3024

Reference: Bid Analysis and Contract Award Recommendation  
2007 Signal Improvements Project  
URS Project Number 12940637 and 12940687  
City of Novi Contract Number 076-100 and 076-013 ALTERNATE

Dear Mr. Coburn:

Attached is the Bid Tabulation for the above referenced project. Five (5) bids were received. Competition appears to have been adequate. All bids appeared to be balanced and there were no irregularities noted in the bids.

Metropolitan Power and Lighting, Inc. is the low bidder for this project. We also reviewed the Bidders Qualifications and Experience Statements as submitted. Metropolitan Power and Lighting, Inc. has performed traffic signal installation work for RCOC as well as many other local agencies.

We therefore recommend award of the contract amount shown in **bold** below to the low bidder, Metropolitan Power and Lighting, Inc.

**Project #1**

13 Mile at Meadowbrook - **\$68,266.00** (plus RCOC Force Account est. \$41,000, DTE est. \$200, and 5% Contingency est. \$5473.30)

13 Mile at Meadowbrook – Estimated total cost to City of Novi = \$114,939.30

**Project #2**

14 Mile at Novi/Decker ALTERNATE - **\$67,667.00** (plus RCOC Force Account est. \$55,000, DTE est. \$200, and 5% Contingency est. \$6,143.35)

14 Mile at Novi/Decker ALTERNATE – Estimated total cost to City of Novi = \$129,010.35

If you have any further questions or comments, please feel free to contact me.

Sincerely,

Matthew G. Klawon, P.E.  
URS Project Manager

cc: Carol Kalinovic, City of Novi

City of Novi - 2007 Signal Improvements Project  
 ALTERNATE - Project #2 - Job #076-013 (14 Mile at Novi)

Traffic Signal Quantities			
MDOT Item Code	Units	Description	Total Quantities
8200020	Ea	Case Sign, Rem	5
8200030	Ea	Controller and Cabinet, Rem	1
8200046	Ea	Controller Fdn, Rem	1
8200106	Ea	Pedestal Fdn, Rem	2
8200110	Ea	Pedestal, Rem	2
8200122	Ea	Pushbutton, Rem	8
8207050	Ea	Pushbutton Sign, Rem	8
8207050	Ea	Pushbutton Support Post, Rem	
8200136	Ea	Serv Disconnect, Rem	1
8200141	Ea	Span Wire, Rem	1
8200175	Ea	TS, Bracket Arm Mtd, Rem	2
8200180	Ea	TS, Pedestrian, Bracket Arm Mtd, Rem	2
8200181	Ea	TS, Pedestrian, Pedestal Mtd, Rem	2
8200182	Ea	TS, Span Wire Mtd, Rem	5
8197050	Ea	Autoscope Camera, Rem	0
8197050	Ea	Bracket Arm, Rem	0
8190505	Ea	Wood Pole, Rem	0
2040013	Syd	Sidewalk, Rem	68
8120077	Ft	Pavt Mrlg, Longit, 6 inch or Less Width, Rem	405
8207050	Ea	Controller and Cabinet, Solid State Actuated, Modified	1
8207050	Ea	Controller and Cabinet, Solid State Actuated, Delivered, Modified	1
8200045	Ea	Controller Fdn, Base Mount	1
8200100	Ea	Pedestal, Alum	0
8200105	Ea	Pedestal, Fdn	0
8200121	Ea	Pushbutton and Sign	4
8207050	Ea	Pushbutton Support Post	3
8200135	Ea	Serv Disconnect	1
8207050	Ea	Strain Pole, Steel, Anchor Base, 30 foot, Modified	2
8207050	Ea	Strain Pole, Steel, Anchor Fdn	2
8207050	Ea	Span Wire, Box	1
8200313	Ea	TS, One Way Span Wire Mtd (LED)	5
8200315	Ea	TS, One Way Span Wire Mtd, Five Sect (LED)	3
8207050	Ea	TS, One Way Span Wire Mtd, Four Sect (LED)	4
8200336	Ea	TS, Pedestrian, One Way Bracket Arm Mtd (LED) Countdown	2
8200339	Ea	TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	1
8200345	Ea	TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	0
8190261	Ea	Hh, Square	1
8197050	Ea	Autoscope Camera (Solo Pro)	5
8197050	Ea	Bracket Arm, 18 feet	4
8190026	Ft	Conduit, DB, 1, 1 1/4 inch	104
8190029	Ft	Conduit, DB, 1, 3 inch	21
8190032	Ft	Conduit, DB, 2, 3 inch	21
8190036	Ft	Conduit, DB, 3, 4 inch	5
8190495	Ea	Wood Pole, Fit Up, Sec Cable Pole	0
8190500	Ea	Wood Pole, Fit Up, TS and Sec Cable Pole	1
8190501	Ea	Wood Pole, Fit Up, TS Cable Pole	1
8197001	Ft	Cable, Sec 600V, 1, 2/C#4 w/#6 Ground	50
8030011	Sft	Sidewalk Ramp, ADA	280
8030002	Sft	Sidewalk, Conc, 4 inch	375
3010003	Cyd	Subbase, LM	6
8167011	Syd	Slope Restoration (Seeding)	20
8110035	Ft	Pavt Mrlg, Ovlv Cold Plastic, 6 inch, Crosswalk	270
8127051	LS	Maintenance of Traffic	1
1000001	LS	Mobilization, Max.	1
	Dir	RCOC Force Account Fees	1
8200115	Dir	Power Co. (Est. Cost to Contractor)	1
		5% Contingency	

POSEN CONSTRUCTION

MOTOR CITY ELECTRIC

METROPOLITAN POWER

ALPHA ELECTRIC

RAUHORN

Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost		
\$50.00	\$250.00	\$90.00	\$450.00	\$50.00	\$250.00	\$190.00	\$950.00	\$97.00	\$485.00		
\$100.00	\$100.00	\$265.00	\$265.00	\$50.00	\$50.00	\$140.00	\$140.00	\$160.00	\$160.00		
\$125.00	\$125.00	\$210.00	\$210.00	\$200.00	\$200.00	\$340.00	\$340.00	\$295.00	\$295.00		
\$125.00	\$250.00	\$210.00	\$420.00	\$100.00	\$200.00	\$220.00	\$440.00	\$243.00	\$486.00		
\$100.00	\$200.00	\$90.00	\$180.00	\$50.00	\$100.00	\$195.00	\$390.00	\$114.00	\$228.00		
\$50.00	\$400.00	\$50.00	\$400.00	\$50.00	\$400.00	\$180.00	\$1,440.00	\$64.00	\$512.00		
\$50.00	\$400.00	\$20.00	\$160.00	\$50.00	\$400.00	\$200.00	\$1,600.00	\$64.00	\$512.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
\$100.00	\$100.00	\$175.00	\$175.00	\$50.00	\$50.00	\$90.00	\$90.00	\$83.00	\$83.00		
\$50.00	\$50.00	\$235.00	\$235.00	\$100.00	\$100.00	\$120.00	\$120.00	\$194.00	\$194.00		
\$50.00	\$100.00	\$135.00	\$270.00	\$50.00	\$100.00	\$95.00	\$190.00	\$105.00	\$210.00		
\$50.00	\$100.00	\$135.00	\$270.00	\$50.00	\$100.00	\$95.00	\$190.00	\$88.00	\$176.00		
\$50.00	\$100.00	\$135.00	\$270.00	\$50.00	\$100.00	\$80.00	\$160.00	\$88.00	\$176.00		
\$50.00	\$250.00	\$135.00	\$675.00	\$50.00	\$250.00	\$195.00	\$975.00	\$75.00	\$375.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
\$7.00	\$476.00	\$6.00	\$408.00	\$10.00	\$580.00	\$9.00	\$612.00	\$9.90	\$673.20		
\$1.00	\$405.00	\$0.95	\$384.75	\$1.00	\$405.00	\$1.00	\$405.00	\$1.14	\$461.70		
\$500.00	\$500.00	\$950.00	\$950.00	\$500.00	\$500.00	\$460.00	\$460.00	\$945.00	\$945.00		
\$13,500.00	\$13,500.00	\$14,280.00	\$14,280.00	\$11,500.00	\$11,500.00	\$12,990.00	\$12,990.00	\$13,624.00	\$13,624.00		
\$900.00	\$900.00	\$1,140.00	\$1,140.00	\$800.00	\$800.00	\$995.00	\$995.00	\$1,351.00	\$1,351.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
\$250.00	\$1,000.00	\$690.00	\$2,760.00	\$300.00	\$1,200.00	\$500.00	\$2,000.00	\$765.00	\$3,060.00		
\$175.00	\$525.00	\$400.00	\$1,200.00	\$400.00	\$1,200.00	\$445.00	\$1,335.00	\$218.00	\$654.00		
\$1,000.00	\$1,000.00	\$850.00	\$850.00	\$800.00	\$800.00	\$790.00	\$790.00	\$1,605.00	\$1,605.00		
\$4,000.00	\$8,000.00	\$3,900.00	\$7,800.00	\$3,200.00	\$6,400.00	\$3,290.00	\$6,580.00	\$4,165.00	\$8,330.00		
\$3,400.00	\$6,800.00	\$2,616.50	\$5,233.00	\$2,600.00	\$5,200.00	\$3,200.00	\$6,400.00	\$2,406.00	\$4,812.00		
\$2,400.00	\$2,400.00	\$600.00	\$900.00	\$2,000.00	\$2,000.00	\$640.00	\$640.00	\$1,348.00	\$1,348.00		
\$1,210.00	\$6,050.00	\$1,250.00	\$6,250.00	\$1,000.00	\$5,000.00	\$980.00	\$4,900.00	\$1,309.00	\$6,545.00		
\$1,665.00	\$4,995.00	\$1,940.00	\$5,820.00	\$1,400.00	\$4,200.00	\$1,520.00	\$4,560.00	\$1,833.00	\$5,499.00		
\$1,175.00	\$4,700.00	\$1,195.00	\$4,780.00	\$1,100.00	\$4,400.00	\$1,160.00	\$4,640.00	\$1,616.00	\$6,464.00		
\$1,245.00	\$2,490.00	\$1,300.00	\$2,600.00	\$1,000.00	\$2,000.00	\$995.00	\$1,990.00	\$2,104.00	\$4,208.00		
\$1,825.00	\$1,825.00	\$2,025.00	\$2,025.00	\$1,400.00	\$1,400.00	\$1,520.00	\$1,520.00	\$2,119.00	\$2,119.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
\$1,500.00	\$1,500.00	\$1,530.00	\$1,530.00	\$1,400.00	\$1,400.00	\$1,600.00	\$1,600.00	\$1,704.00	\$1,704.00		
\$800.00	\$4,000.00	\$800.00	\$4,000.00	\$300.00	\$1,500.00	\$760.00	\$3,800.00	\$671.00	\$3,355.00		
\$1,400.00	\$5,600.00	\$890.00	\$3,560.00	\$700.00	\$2,800.00	\$950.00	\$3,800.00	\$763.00	\$3,052.00		
\$12.00	\$1,248.00	\$12.50	\$1,300.00	\$12.00	\$1,248.00	\$8.00	\$832.00	\$9.56	\$994.24		
\$15.00	\$315.00	\$25.00	\$525.00	\$17.00	\$357.00	\$12.00	\$252.00	\$15.55	\$326.55		
\$24.00	\$504.00	\$23.50	\$493.50	\$20.00	\$420.00	\$18.00	\$378.00	\$20.57	\$431.97		
\$30.00	\$150.00	\$37.50	\$187.50	\$100.00	\$500.00	\$30.00	\$150.00	\$67.79	\$338.95		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
\$350.00	\$350.00	\$1,000.00	\$1,000.00	\$300.00	\$300.00	\$385.00	\$385.00	\$375.00	\$375.00		
\$350.00	\$350.00	\$1,000.00	\$1,000.00	\$300.00	\$300.00	\$385.00	\$385.00	\$375.00	\$375.00		
\$6.00	\$300.00	\$5.00	\$250.00	\$6.00	\$300.00	\$5.00	\$250.00	\$4.92	\$246.00		
\$8.00	\$2,400.00	\$10.00	\$2,800.00	\$10.00	\$2,800.00	\$7.00	\$1,960.00	\$9.63	\$2,696.40		
\$5.00	\$1,875.00	\$3.00	\$1,125.00	\$5.00	\$1,875.00	\$3.90	\$1,462.50	\$9.63	\$3,611.25		
\$10.00	\$60.00	\$18.75	\$112.50	\$10.00	\$60.00	\$25.00	\$150.00	\$1.00	\$6.00		
\$6.00	\$120.00	\$20.00	\$400.00	\$10.00	\$200.00	\$30.00	\$600.00	\$1.00	\$20.00		
\$5.50	\$1,485.00	\$5.29	\$1,428.30	\$6.00	\$1,620.00	\$5.30	\$1,431.00	\$5.82	\$1,571.40		
\$5,250.00	\$5,250.00	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$500.00	\$500.00	\$1.00	\$1.00		
\$5,250.00	\$5,250.00	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$1,700.00	\$1,700.00	\$3,850.00	\$3,850.00		
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00		
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00		
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		
<b>Total</b>		<b>Total</b>	<b>\$88,590.00</b>	<b>Total</b>	<b>\$85,074.55</b>	<b>Total</b>	<b>\$67,667.00</b>	<b>Total</b>	<b>\$77,479.50</b>	<b>Total</b>	<b>\$88,550.66</b>



City of Novi - 2007 Signal Improvements Project  
 Project #1 - Job #076-100 (13 Mile at Meadowbrook)

Traffic Signal Quantities			
MDOT Item Code	Units	Description	Total Quantities
8200020	Ea	Case Sign, Rem	1
8200030	Ea	Controller and Cabinet, Rem	1
8200046	Ea	Controller Fdn, Rem	0
8200106	Ea	Pedestal Fdn, Rem	0
8200110	Ea	Pedestal, Rem	0
8200122	Ea	Pushbutton, Rem	4
8207050	Ea	Pushbutton Sign, Rem	4
8207050	Ea	Pushbutton, Support Post, Rem	1
8200136	Ea	Serv Disconnect, Rem	1
8200141	Ea	Span Wire, Rem	1
8200175	Ea	TS, Bracket Arm Mtd, Rem	0
8200180	Ea	TS, Pedestrian, Bracket Arm Mtd, Rem	3
8200181	Ea	TS, Pedestrian, Pedestal Mtd, Rem	0
8200182	Ea	TS, Span Wire Mtd, Rem	2
8197050	Ea	Autoscope Camera, Rem	3
8197050	Ea	Bracket Arm, Rem	1
8190505	Ea	Wood Pole, Rem	1
2040013	Syd	Sidewalk, Rem	75
8120077	Ft	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	0
8207050	Ea	Controller and Cabinet, Solid State Actuated, Modified	1
8207050	Ea	Controller and Cabinet, Solid State Actuated, Delivered, Modified	1
8200045	Ea	Controller Fdn, Base Mount	1
8200100	Ea	Pedestal Alum	2
8200105	Ea	Pedestal Fdn	2
8200121	Ea	Pushbutton and Sign	4
8207050	Ea	Pushbutton Support Post	3
8200135	Ea	Serv Disconnect	1
8207050	Ea	Strain Pole, Steel, Anchor Base, 30 foot, Modified	3
8207050	Ea	Strain Pole, Steel, Anchor Fdn	3
8207050	Ea	Span Wire, Box	1
8200313	Ea	TS, One Way Span Wire Mtd (LED)	4
8200315	Ea	TS, One Way Span Wire Mtd, Five Sect (LED)	2
8207050	Ea	TS, One Way Span Wire Mtd, Four Sect (LED)	1
8200336	Ea	TS, Pedestrian, One Way Bracket Arm Mtd (LED) Countdown	0
8200339	Ea	TS, Pedestrian, Two Way Bracket Arm Mtd (LED) Countdown	1
8200345	Ea	TS, Pedestrian, One Way Pedestal Mtd (LED) Countdown	2
8190261	Ea	Hh, Square	3
8197050	Ea	Autoscope Camera (Solo Pro)	3
8197050	Ea	Bracket Arm, 18 feet	1
8190026	Ft	Conduit, DB, 1, 1 1/4 inch	117
8190029	Ft	Conduit, DB, 1, 3 inch	67
8190032	Ft	Conduit, DB, 2, 3 inch	15
8190036	Ft	Conduit, DB, 3, 4 inch	5
8190495	Ea	Wood Pole, Fit Up, Sec Cable Pole	1
8190500	Ea	Wood Pole, Fit Up, TS and Sec Cable Pole	0
8190501	Ea	Wood Pole, Fit Up, TS Cable Pole	2
8197001	Ft	Cable, Sec, 600V, 1, 2/C#4 w/#6 Ground	50
8030011	Sfr	Sidewalk Ramp, ADA	270
8030002	Sfr	Sidewalk, Conc, 4 inch	520
3010003	Cyd	Subbase, LM	7
8167011	Syd	Slope Restoration (Seeding)	9
8110035	Ft	Pavt Mrkg, Ovlly Cold Plastic, 6 inch, Crosswalk	0
8127051	LS	Maintenance of Traffic	1
1000001	LS	Mobilization, Max.	1
	Dir	RCOC Force Account Fees	1
8200115	Dir	Power Co. (Est. Cost to Contractor)	1
		5% Contingency	

POSEN CONSTRUCTION

MOTOR CITY ELECTRIC

METROPOLITAN POWER

ALPHA ELECTRIC

RAUHORN

Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost
\$50.00	\$50.00	\$90.00	\$90.00	\$50.00	\$50.00	\$90.00	\$90.00	\$124.00	\$124.00
\$100.00	\$100.00	\$265.00	\$265.00	\$100.00	\$100.00	\$160.00	\$160.00	\$160.00	\$160.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$50.00	\$200.00	\$50.00	\$200.00	\$50.00	\$200.00	\$80.00	\$320.00	\$66.00	\$264.00
\$50.00	\$200.00	\$20.00	\$80.00	\$50.00	\$200.00	\$220.00	\$880.00	\$66.00	\$264.00
\$50.00	\$50.00	\$90.00	\$90.00	\$50.00	\$50.00	\$120.00	\$120.00	\$140.00	\$140.00
\$100.00	\$100.00	\$175.00	\$175.00	\$100.00	\$100.00	\$80.00	\$80.00	\$83.00	\$83.00
\$50.00	\$50.00	\$235.00	\$235.00	\$50.00	\$50.00	\$120.00	\$120.00	\$194.00	\$194.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$50.00	\$150.00	\$135.00	\$405.00	\$50.00	\$150.00	\$195.00	\$585.00	\$64.00	\$192.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$50.00	\$100.00	\$135.00	\$270.00	\$50.00	\$100.00	\$195.00	\$390.00	\$78.00	\$156.00
\$50.00	\$150.00	\$135.00	\$405.00	\$50.00	\$150.00	\$195.00	\$585.00	\$46.00	\$138.00
\$50.00	\$50.00	\$90.00	\$90.00	\$50.00	\$50.00	\$95.00	\$95.00	\$97.00	\$97.00
\$225.00	\$225.00	\$175.00	\$175.00	\$200.00	\$200.00	\$260.00	\$260.00	\$276.00	\$276.00
\$7.00	\$525.00	\$5.00	\$375.00	\$10.00	\$75.00	\$9.00	\$675.00	\$9.90	\$742.50
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$500.00	\$500.00	\$950.00	\$950.00	\$500.00	\$500.00	\$460.00	\$460.00	\$945.00	\$945.00
\$13,500.00	\$13,500.00	\$14,280.00	\$14,280.00	\$11,500.00	\$11,500.00	\$12,990.00	\$12,990.00	\$13,624.00	\$13,624.00
\$900.00	\$900.00	\$1,140.00	\$1,140.00	\$800.00	\$800.00	\$995.00	\$995.00	\$1,381.00	\$1,381.00
\$650.00	\$1,300.00	\$570.00	\$1,140.00	\$600.00	\$1,200.00	\$690.00	\$1,380.00	\$455.00	\$910.00
\$500.00	\$1,000.00	\$465.00	\$930.00	\$600.00	\$1,200.00	\$690.00	\$1,380.00	\$586.00	\$1,172.00
\$250.00	\$1,000.00	\$725.00	\$2,900.00	\$300.00	\$1,200.00	\$500.00	\$2,000.00	\$712.00	\$2,848.00
\$175.00	\$525.00	\$400.00	\$1,200.00	\$300.00	\$900.00	\$445.00	\$1,335.00	\$245.00	\$735.00
\$1,000.00	\$1,000.00	\$850.00	\$850.00	\$800.00	\$800.00	\$790.00	\$790.00	\$2,284.00	\$2,284.00
\$4,000.00	\$12,000.00	\$3,900.00	\$11,700.00	\$3,200.00	\$9,600.00	\$3,490.00	\$10,470.00	\$4,165.00	\$12,495.00
\$3,400.00	\$10,200.00	\$2,616.50	\$7,849.50	\$2,600.00	\$7,800.00	\$3,100.00	\$9,300.00	\$2,611.00	\$7,833.00
\$2,400.00	\$2,400.00	\$800.00	\$800.00	\$2,000.00	\$2,000.00	\$660.00	\$660.00	\$1,158.00	\$1,158.00
\$1,210.00	\$4,840.00	\$1,260.00	\$5,040.00	\$1,000.00	\$4,000.00	\$980.00	\$3,920.00	\$1,342.00	\$5,368.00
\$1,665.00	\$3,330.00	\$1,640.00	\$3,280.00	\$1,400.00	\$2,800.00	\$1,525.00	\$3,050.00	\$2,197.00	\$4,394.00
\$1,175.00	\$1,175.00	\$1,585.00	\$1,585.00	\$1,000.00	\$1,000.00	\$1,060.00	\$1,060.00	\$1,820.00	\$1,820.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$1,825.00	\$1,825.00	\$2,015.00	\$2,015.00	\$1,400.00	\$1,400.00	\$1,520.00	\$1,520.00	\$2,250.00	\$2,250.00
\$1,245.00	\$2,490.00	\$1,375.00	\$2,750.00	\$1,000.00	\$2,000.00	\$995.00	\$1,990.00	\$1,501.00	\$3,002.00
\$1,500.00	\$4,500.00	\$1,530.00	\$4,590.00	\$1,400.00	\$4,200.00	\$1,800.00	\$5,400.00	\$1,598.00	\$4,794.00
\$800.00	\$2,400.00	\$815.00	\$2,445.00	\$300.00	\$900.00	\$760.00	\$2,280.00	\$806.00	\$2,418.00
\$1,400.00	\$1,400.00	\$875.00	\$875.00	\$700.00	\$700.00	\$850.00	\$850.00	\$812.00	\$812.00
\$12.00	\$1,404.00	\$24.50	\$2,866.50	\$15.00	\$1,755.00	\$8.00	\$936.00	\$9.69	\$1,133.73
\$15.00	\$1,005.00	\$35.00	\$2,345.00	\$17.00	\$1,139.00	\$12.00	\$804.00	\$10.17	\$681.29
\$24.00	\$360.00	\$32.50	\$487.50	\$20.00	\$300.00	\$18.00	\$270.00	\$22.08	\$331.20
\$30.00	\$150.00	\$46.50	\$232.50	\$100.00	\$500.00	\$30.00	\$150.00	\$67.79	\$338.95
\$350.00	\$350.00	\$1,000.00	\$1,000.00	\$300.00	\$300.00	\$385.00	\$385.00	\$375.00	\$375.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$350.00	\$700.00	\$1,000.00	\$2,000.00	\$300.00	\$600.00	\$385.00	\$770.00	\$375.00	\$750.00
\$6.00	\$300.00	\$5.00	\$250.00	\$6.00	\$300.00	\$5.00	\$250.00	\$5.66	\$283.00
\$8.00	\$2,160.00	\$10.00	\$2,700.00	\$10.00	\$2,700.00	\$7.00	\$1,890.00	\$9.63	\$2,600.10
\$5.00	\$2,600.00	\$3.00	\$1,800.00	\$5.00	\$2,600.00	\$3.90	\$2,028.00	\$9.63	\$5,007.60
\$10.00	\$70.00	\$18.75	\$131.25	\$10.00	\$70.00	\$25.00	\$175.00	\$1.00	\$7.00
\$6.00	\$54.00	\$20.00	\$180.00	\$10.00	\$90.00	\$30.00	\$270.00	\$1.00	\$9.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
\$5,250.00	\$5,250.00	\$2,000.00	\$2,000.00	\$560.00	\$560.00	\$500.00	\$500.00	\$500.00	\$500.00
\$5,250.00	\$5,250.00	\$2,500.00	\$2,500.00	\$700.00	\$700.00	\$1,700.00	\$1,700.00	\$4,500.00	\$4,500.00
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00
<b>Total</b>		<b>\$87,890.00</b>		<b>Total</b>	<b>\$87,429.25</b>	<b>Total</b>	<b>\$68,266.00</b>	<b>Total</b>	<b>\$76,330.00</b>
								<b>Total</b>	<b>\$89,592.47</b>



Figure 1. Meadowbrook Road looking north to Thirteen Mile Road



Figure 2. Thirteen Mile Road looking west at Meadowbrook Road





Figure 3. Fourteen Mile looking west toward Novi/Decker

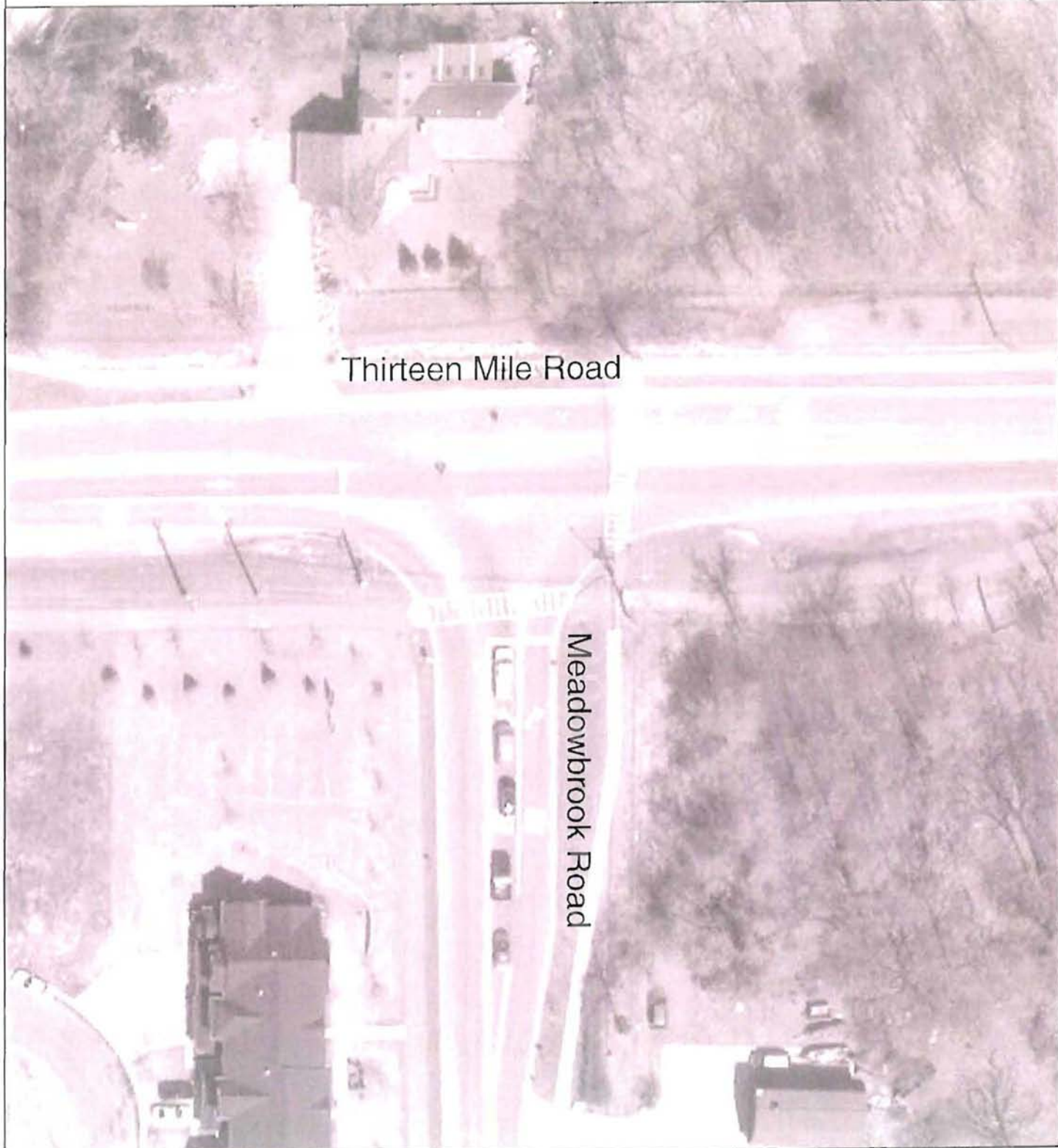


Figure 4. Novi Road looking North toward Fourteen Mile Road

# Existing Lane Markings

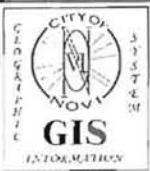
## Meadowbrook Road and 13 Mile Road

Map Publication Date: 06/21/07

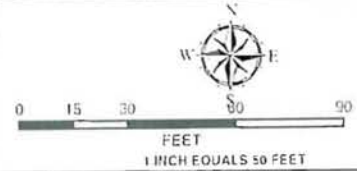


Thirteen Mile Road

Meadowbrook Road



**CITY OF NOVI**  
 Engineering Department  
 NOWI CITY HALL - CIVIC CENTER  
 45175 W. TEN MILE ROAD  
 NOVI, MI 48375-3024  
 (248) 347-0154  
 WWW.CITYOFNOVI.ORG  
 MAP AUTHOR: Brian Coburn, P.E.



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