



January 24, 2014

Attn: Jeff O'Brien
 Road Commission for Oakland County
 31001 Lahser Road
 Beverly Hills, MI 48025

Re: City of Rochester Hills – Tienken & Livernois Roundabout

We have completed our review of your request and have prepared a cost estimate to install street lighting at the Tienken & Livernois Roundabout. The proposed equipment style is 20-single luminaire North Yorkshire posts with a single 183 watt Type III LED and 5-double luminaire North Yorkshire posts with dual 183 watt Type III LED luminaires. All posts are to be mounted on concrete foundations with breakaway couplings to insure safety in the event of vehicle contact. The four single posts that lead into the roundabout will each be equipped with two banner arms. Please note that per the manufacturer's specifications, twin luminaire assemblies cannot support a banner, only single luminaire posts will support standard banner arms. Attached is the photometric layout and design sketch showing the road crossings.

Customer's contractor will install conduit per DTE specifications and guidance at the agreed to road crossings and feeds to lighting locations. Customer's contractor will provide all necessary materials and labor. DTE will install foundations and cable.

The costs are based on the Option 1 Streetlight rate, where DTE Energy installs, owns, and maintains the lighting system. The rate requires a portion of the construction cost be paid by the customer, which is determined by the following formula.

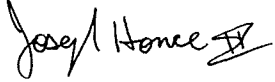
Tienken & Livernois Roundabout

Cost to construct	\$137,019.40
Annual Operating Cost	\$9,280.20
Three year revenue credit	(\$27,840.60)
Contribution from Customer	\$109,178.80

The price quoted shall be in effect for a period of six months from the date of the letter, after which these costs will no longer be valid. After installation, the total cost for additional modification, relocation or removal will be the responsibility of the requesting party. Payment of the customer contribution must be made prior to the actual start of construction.

Please contact me for a Street Lighting Agreement if you would like to proceed with the above installation. If you have questions please call me at 734-397-4188.

Regards,

A handwritten signature in black ink that reads "Joe Honce" with a stylized flourish at the end.

Joe Honce
Principal Account Manager
DTE Energy - Community Lighting

Cc: Marc Matich

Exhibit A to Master Agreement

Purchase Agreement

This Purchase Agreement (this "Agreement") is dated as of January 24, 2014 between The Detroit Edison Company ("Company") and City of Rochester Hills ("Customer").

This Agreement is a "Purchase Agreement" as referenced in the Master Agreement for Municipal Street Lighting dated March 31, 2013 (the "Master Agreement") between Company and Customer. All of the terms of the Master Agreement are incorporated herein by reference. In the event of an inconsistency between this Agreement and the Master Agreement, the terms of this Agreement shall control.

Customer requests the Company to furnish, install, operate and maintain street lighting equipment as set forth below:

1. DTE Work Order Number:	34476366	
2. Location where Equipment will be installed:	Tienken and Livernois Roundabout, as more fully described on the map attached hereto as <u>Attachment 1</u> .	
3. Total number of lights to be installed:	30	
4. Description of Equipment to be installed (the " <u>Equipment</u> "):	Install 20-single luminaire North Yorkshire posts with a single 183 watt Type III LED and 5-double luminaire North Yorkshire posts with dual 183 watt Type III LED luminaires. All posts are to be mounted on concrete foundations with breakaway couplings to insure safety in the event of vehicle contact. The four single posts that lead into the roundabout will each be equipped with two banner arms.	
5. Estimated Total Annual Lamp Charges	\$9,280.20	
6. Computation of Contribution in aid of Construction (" <u>CIAC Amount</u> ")	Total estimated construction cost, including labor, materials, and overhead:	\$137,019.40
	Credit for 3 years of lamp charges:	\$27,840.60
	CIAC Amount (cost minus revenue)	\$109,178.80
7. Payment of CIAC Amount:	CIAC Amount to be paid by Road Commission for Oakland County (RCOC). Ongoing Lamp Charges to be paid by City of Rochester Hills. PO Terms 270 days.	
8. Term of Agreement	5 years. Upon expiration of the initial term, this Agreement shall continue on a month-to-month basis until terminated by mutual written consent of the parties or by either party with thirty (30) days prior written notice to the other party.	
9. Does the requested Customer lighting design meet IESNA recommended practices?	(Check One) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "No", Customer must sign below and acknowledge that the lighting design does not meet IESNA recommended practices _____	
10. Customer Address for Notices:	City of Rochester Hills 1000 Rochester Hills Drive Rochester Hills, MI 48309 Attn: Marc Matich / Paul Shumejko	

11. Special Order Material Terms:

All or a portion of the Equipment consists of special order material: (check one) YES NO

If "Yes" is checked, Customer and Company agree to the following additional terms.

A. Customer acknowledges that all or a portion of the Equipment is special order materials ("SOM") and not Company's standard stock. Customer will purchase and stock replacement SOM and spare parts. When replacement equipment or spare parts are installed from Customer's inventory, the Company will credit Customer in the amount of the then current material cost of Company standard street lighting equipment.

B. Customer will maintain an initial inventory of at least 3 complete post assemblies and 4 luminaires and any other materials agreed to by Company and Customer, and will replenish the stock as the same are drawn from inventory. Costs of initial inventory are included in this Agreement. The Customer agrees to work with the Company to adjust inventory levels from time to time to correspond to actual replacement material needs. If Customer fails to maintain the required inventory, Company, after 30 days' notice to Customer, may (but is not required to) order replacement SOM and Customer will reimburse Company for such costs. Customer's acknowledges that failure to maintain required inventory could result in extended outages due to SOM lead times.

C. The inventory will be stored at City of Rochester Hills DPW Yard. Access to the Customers inventory site must be provided between the hours of 9:00 am to 4:00 pm, Monday through Friday with the exceptions of federal Holidays. Customer shall name an authorized representative to contact regarding inventory: levels, access, usage, transactions, and provide the following contact information to the Company:

Name: Marc Matich Title: Traffic Engineering Division
Phone Number: 248-841-2494 Email: matichm@rochesterhills.org

The Customer will notify the Company of any changes in the Authorized Customer Representative. The Customer must comply with SOM manufacturer's recommended inventory storage guidelines and practices. Damaged SOM will not be installed by the Company.

D. In the event that SOM is damaged by a third party, the Company may (but is not required to) pursue a damage claim against such third party for collection of all labor and stock replacement value associated with the damage claim. Company will promptly notify Customer as to whether Company will pursue such claim.

E. In the event that SOM becomes obsolete or no longer manufactured, the Customer will be allowed to select new alternate SOM that is compatible with the Company's existing infrastructure.

F. Should the Customer experience excessive LED equipment failures, not supported by LED manufacturer warrantees, the Company will replace the LED equipment with other Company supported Solid State or High Intensity Discharge luminaires at the Company's discretion. The full cost to complete these replacements to standard street lighting equipment will be the responsibility of the Customer.

12. Experimental Emerging Lighting Technology ("EELT") Terms:

All or a portion of the Equipment consists of EELT: (check one) YES NO

If "Yes" is checked, Customer and Company agree to the following additional terms.

A. The annual billing lamp charges for the EELT equipment has been calculated by the Company are based upon the estimated energy and maintenance cost expected with the Customer's specific pilot project EELT equipment. .

B. Upon the approval of any future MPSC Option I tariff for EELT street lighting equipment, the approved rate schedules will automatically apply for service continuation to the Customer under Option 1 Municipal Street Lighting Rate, as approved by the MPSC. The terms of this paragraph B replace in its entirety Section 7 of the Master Agreement with respect to any EELT equipment purchased under this Agreement.

Company and Customer have executed this Purchase Agreement as of the date first written above.

Company:

The Detroit Edison Company

By: _____

Name: _____

Title: _____

Customer:

City of Rochester Hills

By: _____

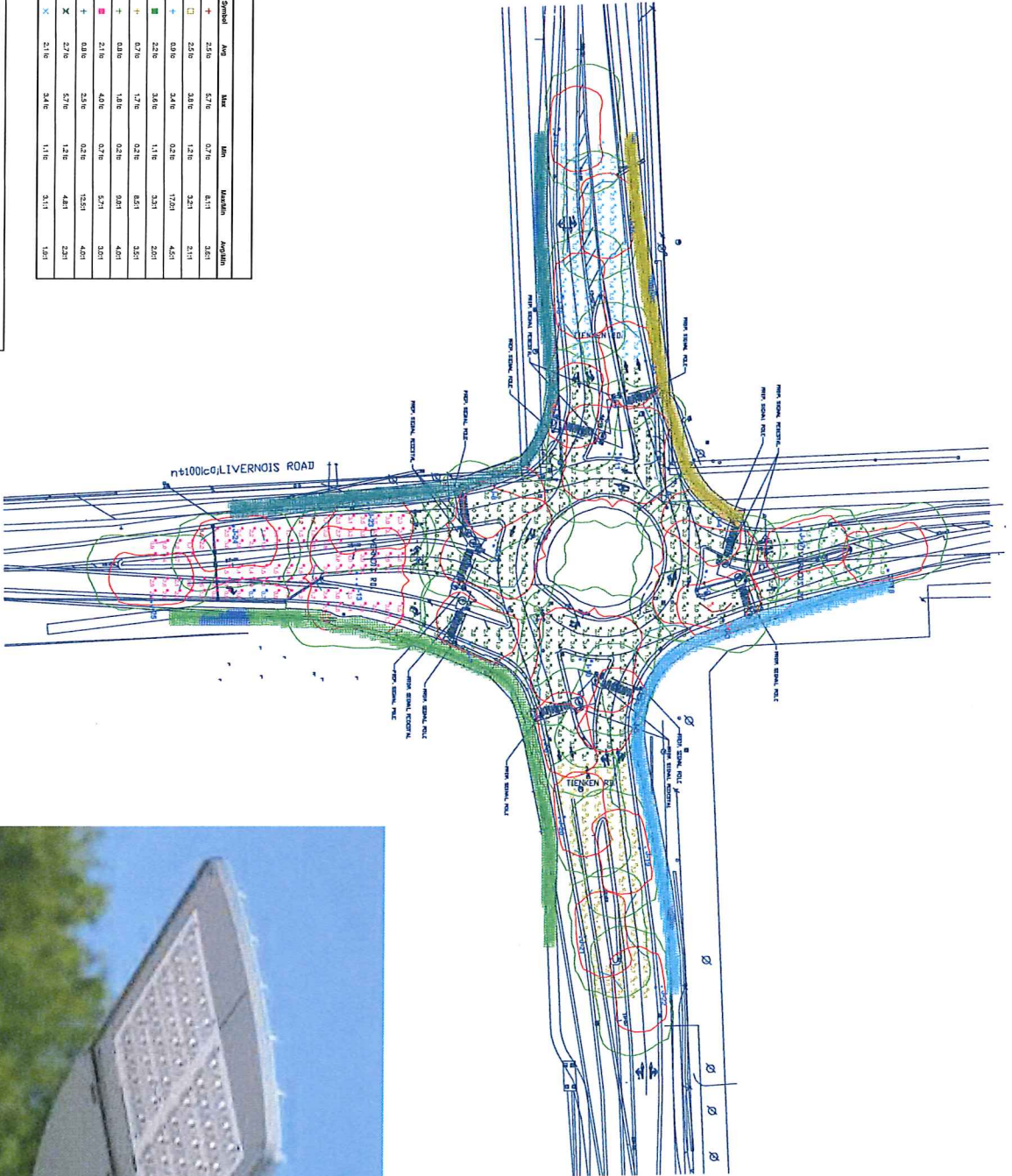
Name: _____

Title: _____

Attachment 1 to Purchase Agreement

Map of Location

[To be attached]



STATISTICS

Description	Symbol	Avg	Max	Min	Max/min	Asym/Min
Calc Zone #1	+	2.5 fc	5.7 fc	0.7 fc	8.1 fc	3.6 fc
East Livernois Approach	□	2.5 fc	3.8 fc	1.2 fc	3.2 fc	2.1 fc
West Livernois Approach	+	2.5 fc	3.4 fc	0.2 fc	1.7 fc	4.6 fc
North Tienken Approach	+	2.2 fc	3.8 fc	1.1 fc	3.3 fc	2.6 fc
South Tienken Approach	+	2.2 fc	1.7 fc	0.2 fc	0.5 fc	3.6 fc
South Road Approach	+	0.8 fc	1.8 fc	0.2 fc	0.8 fc	4.8 fc
South Livernois Approach	+	2.1 fc	4.0 fc	0.7 fc	5.7 fc	3.6 fc
South West Sidewalk	+	0.8 fc	2.3 fc	0.2 fc	1.5 fc	4.6 fc
Roundabout Livernois Approach	X	2.7 fc	5.7 fc	1.2 fc	4.8 fc	2.6 fc
West Tienken Approach	X	2.1 fc	3.4 fc	1.1 fc	3.1 fc	1.8 fc

LUMINAIRE SCHEDULE

Symbol	Label	City	Catalog Number	Description	Lamp	File	Luminaire LFL	Notes
1	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
2	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
3	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
4	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
5	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
6	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
7	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
8	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
9	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
10	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
11	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
12	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
13	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
14	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
15	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
16	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
17	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
18	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
19	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000
20	5	ATLANTA, GA	2000A	ATLANTA, GA	LED	ATLANTA, GA	Model: 030	3000



City of Rochester Hills
Tienken & Livernois Roundabout Photometrics
183w LED Autobahn

Designer: Joe Horne
Date: Jan. 17th, 2014
Scale:

Drawing No.:

