PHONE 248-871-2430 FAX 248-871-2431

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### **Request for Proposals**

RFP: #RFP-FH-08-09-1430

ITEM: Technical Energy Analysis (TEA) & Performance Contracting

DEADLINE: Friday, December 5, 2008 10:00 a.m., local time

PREBID MEETING: N/A

### 1. SUBMISSION AND RECEIPT OF REQUEST FOR PROPOSALS(RFP)

RFP's to receive consideration shall be received prior to the specified time of opening as designated herein. NO LATE PROPOSALS WILL BE ACCEPTED. The City reserves the right to postpone the RFP opening for its own convenience. Vendors shall use the RFP documents furnished as none other may be accepted. RFP's are considered received when in the possession of the City Clerk. All proposals shall be labeled with the RFP # and RFP Item as well as the aforementioned bid opening date/time on the outside of the envelope. Proposals shall be sealed when submitted. Separate RFP's shall be submitted on each RFP number and RFP's shall be typewritten or written in ink and legibly prepared. Proposals having any erasures or corrections thereon may be rejected unless explained or initialed by the vendor. If you are submitting a "No Response", do not follow the above directions but send an e-mail or letter to the Purchasing Division indicating your desire to be kept on the bid list. Bids shall be mailed or delivered to City of Farmington Hills, City Clerk's Office, 31555 Eleven Mile Road, Farmington Hills, MI 48336-1165 before the stated deadline. No faxed or electronic responses will be accepted.

### 2. RESPONSIVE PROPOSALS

All pages and the information requested herein shall be furnished completely in compliance with instructions. The manner and format of submission is essential to permit prompt evaluation of all RFP's on a fair and uniform basis. Unless otherwise specified, the City reserves the right to accept any item in the proposal. Vendors may submit proposals on any item or group of items, provided however, that the unit prices are shown as required. Accordingly, the City reserves the right to declare as non-responsive, and reject any incomplete RFP if material information requested is not furnished, or where indirect or incomplete answers or information is provided. Alterations to the written requirements will negate any response.

#### 3. OFFICIAL DOCUMENTS

The City of Farmington Hills shall accept NO CHANGES to the bid document made by the Vendor unless those changes are set out in the "Exceptions" provision of the Authorized Version of the bid document. It is Vendor's responsibility to acquire knowledge of any change, modifications or additions to the Authorized Version of the bid document. Any Vendor who submits a bid and later claims it had no knowledge of any change, modifications or additions made by the City of Farmington Hills to the Authorized Version of the bid document, shall be bound by the bid, including any changes, modifications or additions to the Authorized Version. If a bid is awarded to a Vendor who claims that it had no knowledge of changes, modifications or additions made by the City of Farmington Hills to the Authorized Version of the bid, and that Vendor fails to accept the bid award, the City of Farmington Hills may pursue costs and expenses to re-bid the item from that Vendor. The Authorized Version of the bid document shall be that bid document appearing on the MITN with amendments and updates.

The City of Farmington Hills officially distributes bid documents from the Purchasing Division or through the

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Michigan Intergovernmental Trade Network (MITN). **Copies of bid documents obtained from any other source are <u>not</u> considered official copies.** Only those vendors who obtain bid documents from either the Purchasing Division or the MITN system are guaranteed access to receive addendum information, if such information is issued. If you obtained this document from a source other than the sources indicated, it is recommended that you register on the MITN site, <u>www.mitn.info</u> and obtain an official copy.

### 4. INTERPRETATION OF BID AND/OR CONTRACT DOCUMENTS

Any interpretation to a bidder regarding the Bid and/or Contract Documents or any part thereof is valid only if given by the City's Purchasing Division staff. Any information given by departmental contacts is unofficial. Interpretations may or may not be given orally (may be written) dependent upon the nature of the inquiry. Interpretations that could affect other bidders will be in writing and issued by the Purchasing Division. All inquiries shall be made within reasonable time prior to the stated deadline in order that a written response in the form of an addendum, if required, can be processed before bids are opened. Inquires received that are not made in a timely fashion may or may not be considered.

#### 5. CHANGES AND ADDENDA TO BID DOCUMENTS

Each change or addendum issued in relation to this bid will be on file in the Purchasing Division and issued on the MITN system. It shall be the bidder's responsibility to make inquiry as to the changes or addenda issued by monitoring the MITN system. All such changes or addenda shall become part of the contract and all bidders shall be bound by such changes or addenda.

### 6. SPECIFICATIONS

Unless otherwise stated by bidder, the bids will be considered as being in strict accordance with the City's applicable standard specifications, and any special specifications outlined in the bid document. Reference to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City, and should not be construed as excluding bids on other types or materials, equipment and supplies unless otherwise stated. However, the bidder, if awarded the contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. The City reserves the right to determine if equipment/product or service being bid is equal to the specified equipment/product or service requested.

### 7. ALTERNATE BIDS

Vendors are cautioned that any alternate proposal, unless requested by Purchasing, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements or this proposal, may be considered non-responsive, and at the opinion of the City, may result in rejection of the proposal.

### 8. PRICING

Prices shall be stated in units of quantity specified in the RFP Document. In case of a discrepancy in computing the amount of the proposal, the unit price bid will govern.

### 9. QUANTITIES

All quantities stated, unless indicated otherwise are estimates and the City reserves the right to increase or decrease the quantity at the unit price bid as best fits its needs.

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### 10. DELIVERY

Proposals shall include all charges for delivery, packing, crating, etc., unless otherwise stated in the RFP document. All deliveries will be FOB: Delivered. General delivery hours are 8:30 a.m. to 3 p.m. Monday-Friday.

### 11. TAXES, TERMS AND CONDITIONS

The City of Farmington Hills is exempt from Federal Excise and State Sales Tax. Please review The State of Michigan's REVENUE ADMINISTRATIVE BULLETIN 1999 – 2 for clarification <a href="http://www.treas.state.mi.us/lawrules/rabs/1999/rab9902.htm">http://www.treas.state.mi.us/lawrules/rabs/1999/rab9902.htm</a> The City's tax number is 38-6006902. Payment terms are Net 30 days upon receipt and acceptance. Other members will provide their tax-exempt status if required by the awarded vendor

#### 12. AWARD

The proposal will be awarded to that responsible, responsive bidder whose response conforming to this solicitation will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all proposals, in part or whole and to waive informalities and minor irregularities in proposals received. Unless otherwise specified in the RFP document the City reserves the right to accept any item in the RFP on an individual basis. Bidders may submit proposals on any item or groups of items provided unit prices are clearly shown and a notation is made on the RFP document clearly indicating proposer's intent.

### 13. WITHDRAWL OF BIDS

Proposals may be withdrawn in person by a vendor, or authorized representative, provided their identity is made known and a receipt is signed for the proposal, but <u>only</u> if the withdrawal is made prior to the stated deadline. No proposal may be withdrawn for at least 90 days after RFP opening except the successful company whose prices shall remain firm for the entire contract period. In case of error by the vendor in making up a proposal, the Purchasing Division staff may, by discretion, reject such a proposal upon presentation of a letter by the vendor which sets forth the error, the cause thereof, and sufficient evidence to substantiate the claim.

### 14. **DEFAULT CONDITIONS**

In case of default by the vendor, the City of Farmington Hills may procure the articles or services from other sources and hold the vendor responsible for any excess cost occasioned thereby. In case of error by the vendor relating to a Contract, the Purchasing Division may, by discretion, upon presentation of a written explanation by the vendor substantiating the error, reject the Contract and award to the next qualified vendor; such error may be subject to default conditions.

### 15. INFRINGEMENTS AND INDEMNIFICATIONS

The vendor, if awarded a contract, agrees to protect, defend, and save the City and the cooperative members listed herein, its officials, employees, departments and agents harmless against; any demand for payment for the use of any patented material, process, or device that may enter into the manufacture, construction, or from a part of the work covered by either order or contract; and from suits or a charge of every nature and description brought against if for, or on account of, any injuries or damages received or sustained by the parties by or from any of the facts of the contractor, the contractor's employees, or agents; from all liability claims, demands, judgments and expenses to persons or property occasioned, wholly, or in part, by the acts or omissions of the bidder, contractor, agents or employee.

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# 16. INSURANCE (REQUIRED FOR WORK ON OR WITHIN CITY PROPERTY/FACILITIES)

The awarded Consultant furnishing labor in/on City/public premises agrees to hold the City of Farmington Hills and cooperative members harmless from liability loss and will maintain minimum coverage outline below. An Acord form outlining coverage will be returned with the proposal documents.

15.1. General Liability \$1,000,000.00 15.2. Automobile Liability - Any Auto \$1,000,000.00 15.3. Excess Liability \$1,000,000.00

15.4. Workers' Compensation and Employers Liability per State statute.

Thirty days written notice of cancellation/reduction or material change will be provided. All documents will be forwarded to the City of Farmington Hills, Purchasing Division, 31555 Eleven Mile Road, Farmington Hills, MI 48336-1165.

### 17. PROJECT SCOPE

The City of Farmington Hills, a participant in the Michigan Rebuild Michigan Program, is accepting proposals from Energy Service Companies (ESCOs) for a Technical Energy Analysis (TEA) and Performance Contracting. The TEA will be performed in accordance with the *Rebuild Michigan Technical Energy Analysis (TEA) Guidelines*, as required by the State of Michigan Energy Office, Department of Labor and Economic Growth (hereafter referred to as State Energy Office).

A description of the buildings to be included in the TEA is provided on the following pages (where applicable) and the type of TEA required (Comprehensive or Limited Component) has been indicated. The Summary of Energy Conservation Opportunities and individual Energy Consumption Profiles from our Rebuild Michigan Introductory Energy Evaluation (IEE) are attached. Nicholas Evans of the State Energy Office performed the IEE and can be contacted at (517) 241-6228 if you have any questions regarding his assessment.

The successful bidder shall correct any deficiencies in the TEA as identified by the review conducted by the State Energy Office. The City of Farmington Hills reserves the right to hold payment for services until the TEA is reviewed and approved by the State Energy Office. ESCOs must demonstrate the ability to staff the project with personnel possessing expertise in the field of energy management, energy efficient design, project/construction management and other applicable fields.

Your proposal *must* include, but is not limited to, the following:

- 1) Your company's qualifications and services offered(standard AIA Form acceptable);
- 2) The project team and their professional qualifications, resumes and work experience.
- 3) Project references from five similar clients (prefer municipal). Include company name, contact person and phone number and date of project completion and project type (ie. HVAC, roofing, windows, lighting, etc.)
- 4) One lump sum price for the TEA project –all time, materials, labor, travel, etc. included;
- 5) Itemized price for each building listed –all time, materials, labor, travel, etc. included;
- 6) Itemized price list for all fees associated with a performance contract—all time, materials, labor, travel, project management, finance charges (most current at time of bid submittal), etc. included:

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- 7) Time frame date you can begin work, date the TEA will be completed, and date performance contract could (base on a start date of January 3, 2008);
- 8) Certificates of insurance –Professional Liability and Workers' Disability Compensation as outlined in Section 15.
- 9) Provide name of company used for financing project and explain how rates are determined.
- 10) Provide a detailed explanation on how price quotes or bids are obtained for recommendations.

Your proposal must include an additional, <u>separate</u> cost for engineering design services, development of bidding and construction documents, construction oversight for implementation of the project and finance fees. All applicable construction codes, energy code and fire safety requirements shall be followed.

The type of TEA to be performed on the individual building(s) listed below has been indicated by  $\boxtimes$  in the third column. If a CTEA is indicated, the ECOs in the Summary of Recommendations and any other cost-effective measures determined by your staff on site need to be evaluated for that building. In addition to Rebuild Michigan's allowable paybacks of up to 8 years, the City of Farmington Hills is interested in identifying additional projects with "reasonable" project specific paybacks.

Name / Location of Building	Building Area (square feet)	TEA Type (denoted by ⊠)	Limit of ECOs to be evaluated by an LCTEA (only if indicated)
Police HQ	35,000	ĭ CTEA	
31655 Eleven Mile Road		☐ LCTEA	
Fire HQ	16,488	ĭ CTEA	
31455 Eleven Mile Road		☐ LCTEA	
Fire Station #1	6,220	ĭ CTEA	
35725 Nine Mile Road		□ LCTEA	
Fire Station #2	7,670	ĭ CTEA	
28225 Middlebelt Road		□ LCTEA	
Fire Station #4	15,100	ĭ CTEA	
28711 Drake Road		□ LCTEA	
Costick Activities Center	68,000	ĭ CTEA	
28600 Eleven Mile Road		□ LCTEA	
Department of Public Works	68,772	ĭ CTEA	
27245 Halsted Road		□ LCTEA	
Ice Arena	64,014	ĭ CTEA	
35500 Eight Mile Road		☐ LCTEA	
Longacre House (1869)	5,600	ĭ CTEA	
24705 Farmington Road		☐ LCTEA	

CITY OF FARMINGTON HILLS	PHONE 248-871-2430
DEPARTMENT OF CENTRAL SERVICES	FAX 248-871-2431
PURCHASING DIVISION	·
31555 ELEVEN MILE ROAD	Pg 6 of 20
FARMINGTON HILLS, MI 48336-1165	-8
www.fhgov.com	

2,673	⊠ CTEA
	☐ LCTEA
6,925	⊠ CTEA
	☐ LCTEA
2,993	⊠ CTEA
	☐ LCTEA
10,527	⊠ CTEA
	☐ LCTEA
46,300	⊠ CTEA
	☐ LCTEA
46,300	⊠ CTEA
	□ LCTEA
	6,925 2,993 10,527 46,300

Buildings in italics not included in IEE

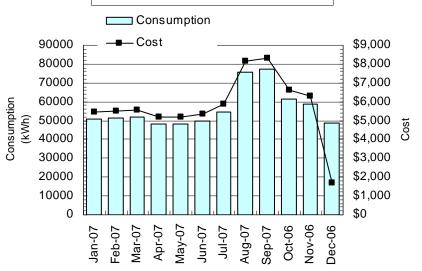
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# **Police Headquarters**

31655 W. Eleven Rd Farmington Hills, MI 48336

Square Ft	35,000	Wall Construction	Brick and Block	Heating	Boiler
Year Built	1985	<b>Roof Construction</b>	Flat	Cooling	Direct Expansion
Additions		Windows	Double Pane	Distribution	Rooftop units
DHW	Tank	Interior Lighting	T12	Temp Cont.	pneumatic thermostats
		Exterior Lighting	HID	Other	

# **Electricity Consumption Profile**



Month	kWh	Cost
Jan-07	50,803	\$5,471
Feb-07	51,311	\$5,526
Mar-07	51,824	\$5,581
Apr-07	48,313	\$5,204
May-07	48,318	\$5,204
Jun-07	49,611	\$5,343
Jul-07	54,782	\$5,899
Aug-07	75,629	\$8,141
Sep-07	77,083	\$8,297
Oct-06	61,669	\$6,640
Nov-06	58,638	\$6,314
Dec-06	48,608	\$1,675
Totals:	676,589	\$69,294

Cost/sq.ft.: \$1.98 per sq.ft./yr. **Elec EUI: 65,977 BTU/sq.ft.**Avg. Cost: \$0.102 /kWh

Month	CCF	Cost
Jan-07	2,474	\$2,315
Feb-07	3,592	\$3,319
Mar-07	2,178	\$2,034
Apr-07	1,583	\$1,557
May-07	858	\$858
Jun-07	370	\$382
Jul-07	202	\$217
Aug-07	172	\$180
Sep-07	419	\$414
Oct-07	720	\$694
Nov-07	1,677	\$1,602
Dec-06	2,262	\$2,117
Totals:	16,507	\$15,689

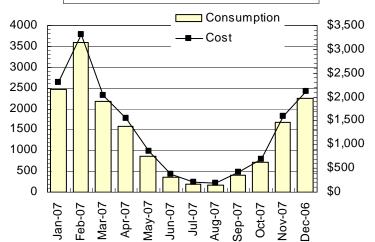
 Totals:
 16,507
 \$15,689

 Cost/sq.ft.:
 \$0.45 per sq.ft./yr.

 Gas EUI:
 48,578 BTU/sq.ft.

 Avg. Cost:
 \$0.950 / CCF

# **Natural Gas Consumption Profile**





Annual Utility Cost = \$84,983 Total Cost / sq.ft. = \$2.43 Combined EUI = 114,555

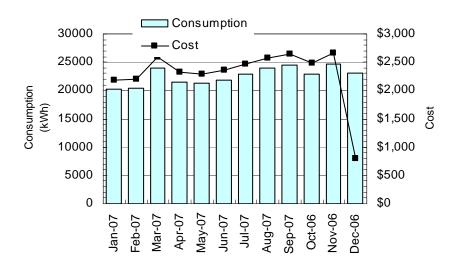
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# Fire Headquarters

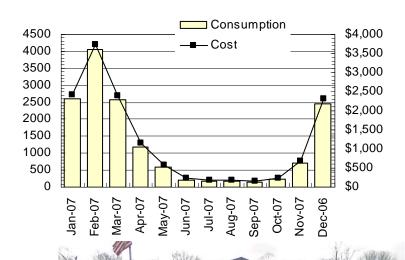
31455 W. Eleven Mile Rd Farmington Hills, MI 48336

Square Ft	16,488	Wall Construction	Brick and Block	Heating	Boiler
Year Built	1996	<b>Roof Construction</b>	Flat	Cooling	Direct Expansion
Additions		Windows	Double Pane	Distribution	Rooftop HVAC units
DHW	Tank	Interior Lighting	T8, metal halide	Temp Cont.	EMS
		<b>Exterior Lighting</b>	HID	Other	

# **Electricity Consumption Profile**



# **Natural Gas Consumption Profile**



Month	kWh	Cost
Jan-07	20,200	\$2,181
Feb-07	20,402	\$2,202
Mar-07	23,998	\$2,589
Apr-07	21,493	\$2,320
May-07	21,250	\$2,294
Jun-07	21,897	\$2,363
Jul-07	22,866	\$2,467
Aug-07	23,917	\$2,580
Sep-07	24,482	\$2,641
Oct-06	22,969	\$2,479
Nov-06	24,610	\$2,655
Dec-06	23,024	\$798
Totals:	271,108	\$27,569

Cost/sq.ft.: \$1.67 per sq.ft./yr. **Elec EUI: 56,119 BTU/sq.ft.**Avg. Cost: \$0.102 /kWh

Month	CCF	Cost
Jan-07	2,594	\$2,424
Feb-07	4,052	\$3,742
Mar-07	2,575	\$2,402
Apr-07	1,180	\$1,165
May-07	579	\$585
Jun-07	220	\$234
Jul-07	167	\$182
Aug-07	163	\$171
Sep-07	148	\$157
Oct-07	229	\$232
Nov-07	706	\$684
Dec-06	2,467	\$2,307
Totals:	15,080	\$14,284

Cost/sq.ft.: \$0.87 per sq.ft./yr. **Gas EUI: 94,204 BTU/sq.ft.**Avg. Cost: \$0.947 / CCF

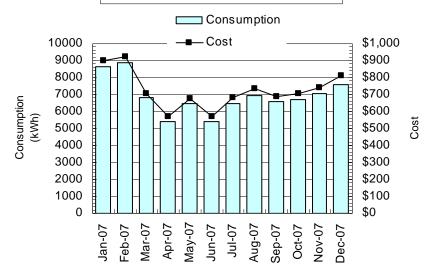
Annual Utility Cost = \$41,853 Total Cost / sq.ft. = \$2.54 Combined EUI = 150,323

# Fire Station #1

35725 Nine Mile Rd Farmington Hills, MI 48336

Square Ft	6,220	Wall Construction	Brick and Block	Heating	(2) Std eff Furnaces
Year Built	1989	Roof Construction	Pitched Shingle, Ins	Cooling	Direct Expansion
Additions		Windows	Double Pane	Distribution	Forced Air
DHW	(2) Tank	Interior Lighting	T12, inc	Temp Cont.	Manual and Prog thermostats
		Exterior Lighting	Metal Halide	Other	_

# **Electricity Consumption Profile**



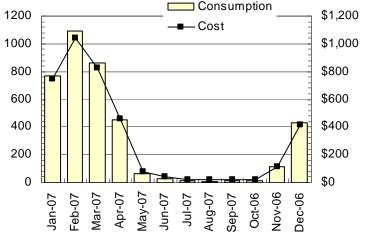
Month	kWh	Cost
Jan-07	8,640	\$902
Feb-07	8,880	\$925
Mar-07	6,800	\$708
Apr-07	5,440	\$568
May-07	6,480	\$676
Jun-07	5,440	\$571
Jul-07	6,480	\$684
Aug-07	6,960	\$733
Sep-07	6,560	\$691
Oct-07	6,720	\$708
Nov-07	7,040	\$741
Dec-07	7,600	\$814
Totals:	83,040	\$8,721

Cost/sq.ft.: \$1.40 per sq.ft./yr. **Elec EUI: 45,565 BTU/sq.ft.**Avg. Cost: \$0.105 /kWh

Month	CCF	Cost
Jan-07	772	\$746
Feb-07	1,095	\$1,045
Mar-07	861	\$829
Apr-07	450	\$458
May-07	68	\$77
Jun-07	31	\$40
Jul-07	11	\$20
Aug-07	10	\$18
Sep-07	11	\$20
Oct-06	15	\$25
Nov-06	112	\$118
Dec-06	432	\$420
Totals:	3,868	\$3,816

Cost/sq.ft.: \$0.61 per sq.ft./yr. **Gas EUI: 64,052 BTU/sq.ft.**Avg. Cost: \$0.987 / CCF

# **Natural Gas Consumption Profile**







Annual Utility Cost = \$12,537 Total Cost / sq.ft. = \$2.02 Combined EUI = 109,617

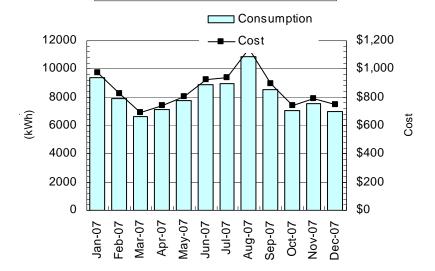
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# Fire Station #2

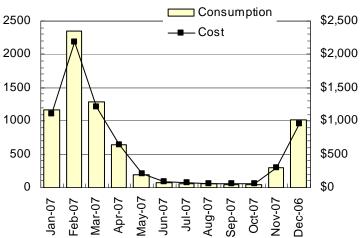
28225 Middlebelt Rd Farmington Hills, MI 48336

Square Ft	7,670	Wall Construction	Brick and Block	Heating	(3) Hi eff Furnaces
Year Built	1983	<b>Roof Construction</b>	Pitched Shingle	Cooling	Direct Expansion
Additions	1994	Windows	Single Pane	Distribution	Forced air
DHW	Tank	Interior Lighting	T12, Incandescent	Temp Cont.	Programmable Thermostats
		Exterior Lighting	MH, HPS	Other	-

# **Electricity Consumption Profile**



Natural Gas Consumption Profile





Month	kWh	Cost
Jan-07	9,360	\$975
Feb-07	7,920	\$826
Mar-07	6,640	\$692
Apr-07	7,120	\$741
May-07	7,760	\$808
Jun-07	8,880	\$927
Jul-07	8,960	\$941
Aug-07	10,880	\$1,140
Sep-07	8,560	\$899
Oct-07	7,040	\$741
Nov-07	7,520	\$791
Dec-07	6,960	\$747
Totals:	97,600	\$10,228

Cost/sq.ft.: \$1.33 per sq.ft./yr.

Elec EUI: 43,430 BTU/sq.ft.

Avg. Cost: \$0.105 /kWh

Month	CCF	Cost
Jan-07	1,168	\$1,102
Feb-07	2,354	\$2,181
Mar-07	1,283	\$1,205
Apr-07	642	\$642
May-07	196	\$209
Jun-07	68	\$84
Jul-07	66	\$82
Aug-07	53	\$67
Sep-07	49	\$63
Oct-07	50	\$63
Nov-07	303	\$303
Dec-06	1,017	\$959
Totals:	7,249	\$6,961

Cost/sq.ft.: \$0.91 per sq.ft./yr. **Gas EUI:** 97,346 BTU/sq.ft.

Avg. Cost: \$0.960 / CCF

Annual Utility Cost = \$17,189 Total Cost / sq.ft. = \$2.24 Combined EUI = 140,777

# Fire Station #4

28711 Drake Rd Farmington Hills, MI 48336

Square Ft	15,100	Wall Construction	Brick and Block	Heating	(5) std eff furnaces
Year Built	2000	Roof Construction	Insulated	Cooling	Direct Expansion- 4/5 furn
Additions		Windows	Single Pane	Distribution	Forced Air
DHW	Tank	Interior Lighting	Inc, T12, fluorescent	Temp Cont.	Programmable Thermostats
		Exterior Lighting	HID	Other	_

#### **Electricity Consumption Profile** Consumption – Cost 10000 \$1,200 9000 \$1,000 8000 7000 Consumption (kWh) \$800 6000 Cost \$600 5000 4000 \$400 3000 2000 \$200 1000 \$0 Apr-07 May-07 Jun-07 Jul-07 Aug-07 Sep-07

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**Natural Gas Consumption Profile** 



Month	kWh	Cost
Jan-07	6,565	\$715
Feb-07	6,631	\$722
Mar-07	6,697	\$729
Apr-07	6,949	\$756
May-07	6,949	\$756
Jun-07	6,302	\$686
Jul-07	6,868	\$747
Aug-07	9,373	\$1,017
Sep-07	7,757	\$843
Oct-06	7,730	\$840
Nov-06	8,689	\$943
Dec-06	8,016	\$284
Totals:	88,526	\$9,037

Cost/sq.ft.: \$0.60 per sq.ft./yr.

Elec EUI: 20,009 BTU/sq.ft.

Avg. Cost: \$0.102 /kWh

Month	CCF	Cost
Jan-07	1,302	\$1,227
Feb-07	2,123	\$1,969
Mar-07	2,102	\$1,964
Apr-07	893	\$886
May-07	106	\$120
Jun-07	35	\$51
Jul-07	39	\$56
Aug-07	23	\$38
Sep-07	24	\$39
Oct-07	45	\$59
Nov-07	305	\$305
Dec-06	1,111	\$1,045
Totals:	8,108	\$7,758

Cost/sq.ft.: \$0.51 per sq.ft./yr. **Gas EUI:** 55,306 BTU/sq.ft.

Avg. Cost: \$0.957 / CCF

Annual Utility Cost = \$16,795 Total Cost / sq.ft. = \$1.11 Combined EUI = 75,315

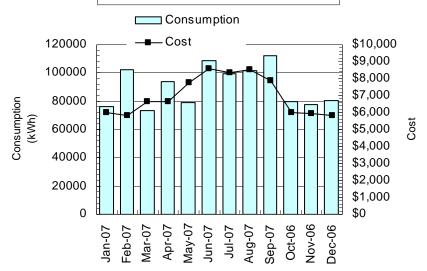
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# **Costick Center**

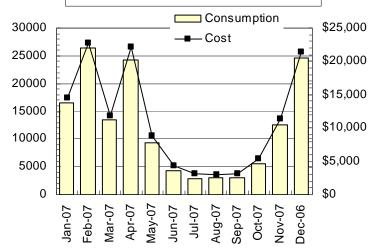
28600 Eleven Mile Rd Farmington Hills, MI 48336

Square Ft	68,000	Wall Construction	Brick and Block	Heating	Boilers
Year Built	1963	<b>Roof Construction</b>	Flat	Cooling	Direct Expansion, Chillers
Additions		Windows	Single Pane	Distribution	Air Handlers, HVAC units
DHW	(5) Tanks	Interior Lighting	Inc, T8, T12, MH	Temp Cont.	
		<b>Exterior Lighting</b>	HID	Other	

# **Electricity Consumption Profile**



# **Natural Gas Consumption Profile**





	,	,
Month	kWh	Cost
Jan-07	76,199	\$6,008
Feb-07	102,293	\$5,801
Mar-07	73,512	\$6,621
Apr-07	94,061	\$6,675
May-07	78,798	\$7,737
Jun-07	108,854	\$8,614
Jul-07	99,360	\$8,366
Aug-07	101,917	\$8,507
Sep-07	112,407	\$7,893
Oct-06	79,833	\$6,013
Nov-06	77,402	\$5,917
Dec-06	80,733	\$5,812
Totals:	1,085,369	\$83,964

Cost/sq.ft.: \$1.23 per sq.ft./yr. **Elec EUI:** 54,476 BTU/sq.ft.

Avg. Cost: \$0.077 /kWh

Month	CCF	Cost
Jan-07	16,483	\$14,536
Feb-07	26,446	\$22,807
Mar-07	13,388	\$11,845
Apr-07	24,179	\$22,182
May-07	9,321	\$8,884
Jun-07	4,364	\$4,407
Jul-07	2,951	\$3,130
Aug-07	3,020	\$3,062
Sep-07	3,035	\$3,104
Oct-07	5,654	\$5,333
Nov-07	12,662	\$11,422
Dec-06	24,584	\$21,438
Totals:	146,087	\$132,150

Cost/sq.ft.: \$1.94 per sq.ft./yr. **Gas EUI:** 221,279 BTU/sq.ft.

Avg. Cost: \$0.905 / CCF

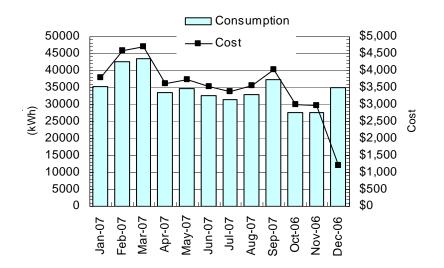
Annual Utility Cost = \$216,114 Total Cost / sq.ft. = \$3.18 Combined EUI = 275,755

# **DPW**

27245 Halsted Rd Farmington Hills, MI 48336

Square Ft	68,772	Wall Construction	Brick and Block	Heating	Rooftop & garage HVAC units
Year Built	1995	Roof Construction	Flat	Cooling	Direct Expansion
Additions	1996	Windows	Double Pane	Distribution	Forced Air
DHW	Hi-eff Tank	Interior Lighting	MH, T12	Temp Cont.	Programmble Thermostats
		<b>Exterior Lighting</b>	Metal Halide	Other	

### **Electricity Consumption Profile**



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10000 9000 8000 7000 6000 5000 4000 3000 2000 1000							Con		nptio	n		\$9,000 \$8,000 \$7,000 \$6,000 \$5,000 \$4,000 \$3,000 \$2,000 \$1,000
0 F	Jan-07 -eb-07	Mar-07	Apr-07	May-07	0-un	Jul-07	4ug-07	Sep-07	Oct-07	10-vov	90-၁əc	\$0

Month	kWh	Cost
Jan-07	35,148	\$3,788
Feb-07	42,501	\$4,579
Mar-07	43,632	\$4,700
Apr-07	33,451	\$3,606
May-07	34,582	\$3,727
Jun-07	32,643	\$3,519
Jul-07	31,512	\$3,397
Aug-07	32,966	\$3,553
Sep-07	37,330	\$4,023
Oct-06	27,758	\$2,993
Nov-06	27,616	\$2,978
Dec-06	34,880	\$1,204
Totals:	414,019	\$42,067

Cost/sq.ft.: \$0.61 per sq.ft./yr. **Elec EUI: 20,547 BTU/sq.ft.**Avg. Cost: \$0.102 /kWh

Month	CCF	Cost
Jan-07	9,446	\$6,720
Feb-07	8,397	\$7,793
Mar-07	5,751	\$5,612
Apr-07	1,093	\$1,089
May-07	86	\$102
Jun-07	31	\$48
Jul-07	25	\$41
Aug-07	29	\$44
Sep-07	119	\$128
Oct-07	1,645	\$1,572
Nov-07	5,347	\$5,075
Dec-06	5,086	\$2,908
Totals:	37,055	\$31,131

Cost/sq.ft.: \$0.45 per sq.ft./yr. **Gas EUI:** 55,497 BTU/sq.ft.

Avg. Cost: \$0.840 / CCF





Annual Utility Cost = \$73,198 Total Cost / sq.ft. = \$1.06 Combined EUI = 76,044

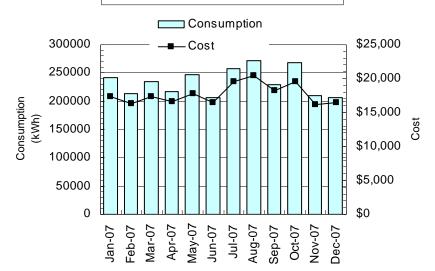
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# Ice Arena

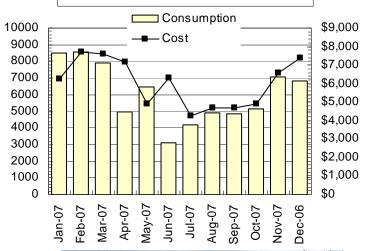
35500 Eight Mile Rd Farmington Hills, MI 48336

Square Ft	64,014	Wall Construction	Brick and Block	Heating	Gas unit heaters
Year Built	1995	<b>Roof Construction</b>	Insulated	Cooling	(2) Chillers
Additions		Windows	Single Pane	Distribution	Air handlers
DHW	(2) Tanks	Interior Lighting	MH, T12, flourescent	Temp Cont.	EMS
		Exterior Lighting	Metal Halide	Other	(6) Compressors

# **Electricity Consumption Profile**



# **Natural Gas Consumption Profile**





Month	kWh	Cost
Jan-07	241,570	\$17,292
Feb-07	213,010	\$16,346
Mar-07	235,550	\$17,417
Apr-07	216,720	\$16,581
May-07	246,190	\$17,810
Jun-07	206,430	\$16,492
Jul-07	257,740	\$19,609
Aug-07	271,950	\$20,502
Sep-07	229,180	\$18,243
Oct-07	268,450	\$19,548
Nov-07	210,210	\$16,133
Dec-07	206,290	\$16,427
Totals:	2,803,290	\$212,401

Cost/sq.ft.: \$3.32 per sq.ft./yr.

Elec EUI: 149,462 BTU/sq.ft.

Avg. Cost: \$0.076 /kWh

Month	CCF	Cost
Jan-07	8,506	\$6,276
Feb-07	8,574	\$7,707
Mar-07	7,904	\$7,619
Apr-07	4,970	\$7,167
May-07	6,496	\$4,897
Jun-07	3,136	\$6,320
Jul-07	4,194	\$4,269
Aug-07	4,892	\$4,706
Sep-07	4,866	\$4,700
Oct-07	5,142	\$4,893
Nov-07	7,087	\$6,599
Dec-06	6,834	\$7,384
Totals:	72,601	\$72,537

Cost/sq.ft.: \$1.13 per sq.ft./yr. **Gas EUI:** 116,817 BTU/sq.ft.

Avg. Cost: \$0.999 / CCF

Annual Utility Cost = \$284,938 Total Cost / sq.ft. = \$4.45 Combined EUI = 266,278

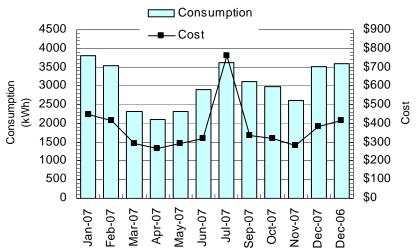
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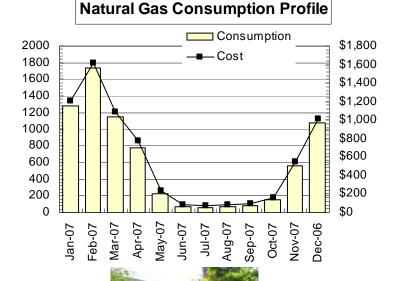
# Longacre

24705 Farmington Rd Farmington Hills, MI 48336

Square Ft	5,600	Wall Construction	Insulated	Heating	(2) Boilers, electric heat
Year Built	1869	Roof Construction	Pitched Shingle, Ins	Cooling	Unit coolers, window AC units
Additions		Windows	Single Pane	Distribution	Radiant
DHW	Tank	Interior Lighting	Inc, T12	Temp Cont.	Manual Thermostats
		<b>Exterior Lighting</b>	N/A	Other	

# **Electricity Consumption Profile**





Month	kWh	Cost
Jan-07	3,818	\$446
Feb-07	3,535	\$416
Mar-07	2,323	\$290
Apr-07	2,110	\$268
May-07	2,325	\$291
Jun-07	2,901	\$320
Jul-07	3,609	\$763
Sep-07	3,121	\$335
Oct-07	2,979	\$320
Nov-07	2,616	\$282
Dec-07	3,503	\$382
Dec-06	3,593	\$414
Totals:	36,433	\$4,527

Cost/sq.ft.: \$0.81 per sq.ft./yr. 22,205 BTU/sq.ft. Elec EUI: \$0.124 /kWh Avg. Cost:

Month	CCF	Cost
Jan-07	1,285	\$1,211
Feb-07	1,739	\$1,616
Mar-07	1,153	\$1,085
Apr-07	783	\$779
May-07	227	\$240
Jun-07	72	\$88
Jul-07	60	\$76
Aug-07	73	\$86
Sep-07	85	\$97
Oct-07	156	\$163
Nov-07	563	\$549
Dec-06	1,073	\$1,011
Totals:	7,269	\$6,999

Cost/sq.ft.: \$1.25 per sq.ft./yr. Gas EUI: 133,698 BTU/sq.ft. Avg. Cost: \$0.963 / CCF

Annual Utility Cost = \$11,526 Total Cost / sq.ft. = \$2.06**Combined EUI = 155,902** 

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# **Summary of Energy Conservation Opportunities**

En	ergy Conservation Opportunity (ECO)	Applicable Building	ECO Additional Benefits
1)	High Efficiency Fluorescent Lighting Systems Replace/retrofit standard T12 fluorescent light fixtures with T8 fluorescent fixtures. A minimum savings of 30% on lighting could be achieved.	Police HQ, Fires 1, 2, 4, Costick, DPW, Ice Arena, Longacre	Improve visual acuity; often can <i>increase</i> lighting levels; improve productivity.
2)	LED Exit Sign Lighting Replace compact fluorescent exit signs with LED units.	Police HQ, Fire 2	Reduce maintenance LED exit signs and retrofit lamps have 20-year life cycles.
3)	Compact Fluorescent Lamps (CFLs) Replace incandescent light bulbs / R-lamps with compact fluorescent lamps.	All Buildings	Reduce maintenance CFLs outlast 4-12 incandescent lamps (depending on lamp).
4)	High / Low Bay Light Fixtures Replace the metal halide lighting with T8 high bay / low bay light fixtures.	Fire HQ, Costick, DPW, Ice Arena	Reduce maintenance; raise long-term light level.
5)	Occupancy Sensors Use occupancy sensors to control lighting. Rooms with irregular use, restrooms, storage areas and offices are usually the best possibilities.	All Buildings	
6)	Water Heater Tank and Pipe Insulation Add insulation jacket to water heater tank and all accessible DHW pipes in the room where the water heater is located.	All Buildings	
7)	Timer for Water Heating Circulator Pump Install timer on circulator pump to shut off water heating loop during unoccupied building hours.	Costick, DPW, Ice Arena	Reduce pump motor maintenance.
8)	Water Conservation Replace tank and bowl toilets with 1.6-gallon models to save over 50%. Retrofit toilet and urinal flush valves to save 20-50%. Replace showerheads with 1.5-gpm units to reduce water flow by 30-40% and save on water/sewer <i>and</i> water heating costs. Replace faucet aerators with 1.0-gpm moderators to save at least 50%.	All Buildings	Water heating system size can be reduced; shower quality often improved.
9)	Adjust Heating Temperature  Consider a review of current heating temperatures in comparison to recommended levels. Substantial energy savings can often be achieved (for <i>FREE</i> ) by adjusting thermostats or energy management systems.	All Buildings	
10)		All Buildings	

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11)	Programmable Thermostats Replace thermostats with programmable units to allow overnight setback now operating at constant temperature 24 hours/day.	Longacre	Building temp can be raised to a comfort level before the first person arrives each day.
12)	Tune / Calibrate Heating and Ventilating System Inspect and tune/calibrate pneumatic temperature control system, air handlers and unit ventilators.	Police	Improve comfort, control, air quality and ventilation.
13)	Steam Trap Maintenance Inspect and repair/replace any faulty steam traps in boiler system.	Costick, Longacre	Improve comfort and heating system control.
14)	Carbon Dioxide Sensors to Control Ventilation Consider utilizing carbon dioxide sensors to control ventilation in the larger open areas and office.	Costick	Improve comfort and control air quality.
15)	Variable Frequency Drives (VFDs)  Consider variable frequency drives (VFDs) for large pumps and air handler motors to vary speed according to required flow or building occupancy schedules.	Costick, DPW, Ice Arena	Extend motor life.
16)	Steam Boiler Replacement Consider replacement of steam boiler system with a high efficiency system.	Longacre	More even heating improve comfort.
17)	Mechanical Dehumidifier Install a mechanical dehumidifier to control water heating, space heating and ventilation for indoor pool.	Costick	Improve comfort; prevent structural moisture damage.
18)	Cogged V-Belts Replace standard v-belts with cogged v-belts for HVAC air handlers and air compressors.	Costick	
19)	Control Pop Machine Energy Use Disconnect lamps and ballasts inside pop machine, or consider installing power controllers activated by occupancy sensors.	All Buildings EXCEPT Longacre	Reduce pop machine cooling load; extend equipment life.
20)	<b>Drinking Fountain Timers</b> Control plug-in drinking fountain operation with a 24-hour plug-in timer.	All Buildings	Extend equipment life.
21)	Enable Computer Power-Down Feature Check your computers to make sure the power-down feature is activated. Specify new computer equipment with U.S. EPA ENERGY STAR rating.	All Buildings	Extend equipment life.
*	ENERGY STAR Appliances, Computers, Office Equip. Be sure to specify new appliances, computers and office equipment with U.S. EPA ENERGY STAR rating.	All Buildings	
*	Premium Efficiency Motors When replacing pump, air handler fan or other motors, be sure to specify premium efficiency motors any additional cost will be recovered in energy savings.	All Buildings	Improve power quality.
*	High Efficiency Boiler System  Consider replacement of boiler system with a high efficiency system.	Police, Fire HQ, Costick	More even heating improve comfort.

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*	Upgrade Windows When upgrading older windows, be sure to consider low-e high performance glazing the additional cost will usually be paid for in energy savings in less than ten years.	Fire 2, 4, Costick	Improve comfort.
*	Roof Insulation When roof replacement becomes necessary, be sure to specify two-inches (minimum) rigid foam insulation additional cost will be recovered in energy savings.	All Buildings	Improve comfort.

<sup>\*</sup> ECO for future consideration when replacement is necessary... paybacks are generally longer for these measures.

### 18. PERFORMANCE CONTRACTING OVERVIEW

The City of Farmington Hills seeks to maximize energy cost savings and related costs in order to pay for facility upgrades and services.

Services and capital improvements will be financed through an energy performance contract which:

- Incurs no initial capital costs (with option for Farmington Hills to provide initial capital if desired)
- Achieves significant long-term cost savings
- Achieves a guarantee for cost savings
- Maintains consistent and reasonable levels of occupant comfort
- Maintains consistent levels of building functionality
- Captures additional benefits that may directly result from energy-related services and capital
  improvements, such as environmental protection, hazardous materials disposal or recycling,
  improved occupant comfort, reduced maintenance needs, improved indoor air quality, additional
  building improvements, etc.

The RFP and contracting process has four phases:

- <u>RFP Phase</u>: Through this RFP, an ESCO will be selected based on written proposals, interviews with top candidates and a final reference check.
- <u>Audit and Project Development Phase</u>: A Comprehensive Technical Energy Audit and Project Development Contract will be developed with the selected ESCO to define the project scope, cost and financial terms.
- <u>Construction/Implementation/Financing Phase</u>: Upon <u>satisfactory</u> results of the Technical Energy Audit, an Energy Performance Contract will be developed to implement the negotiated and recommended projects.
- <u>Commissioning/Guarantee/Monitoring Phase</u>: Upon completion of construction, the ESCO will offer a variety of services to ensure savings are met, such as a savings guarantee, staff training, follow-up monitoring, and contract maintenance services.

### 19. ESCO SERVICES

ESCOs responding to this RFP must have the demonstrated capability in engineering and management to provide a broad range of services. Services may include but are not limited to the following:

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### Audit and Project Development Phase

- Technical energy audit to evaluate costs and savings of a variety of energy-saving measures
- Project development plan including financial analysis

### Construction/Implementation/Financing Phase

- Design services
- Equipment procurement and purchasing
- Construction management
- Hazardous waste disposal or recycling
- Financing capability or ability to help find financing.

### Commissioning/Guarantee/Monitoring Phase

- Commissioning
- Continuing operations and maintenance for all improvements
- Staff training on routine maintenance and operation of systems
- Training of occupants
- Performance and cost guarantee of savings
- Monitoring and verification for measurement and reporting of the performance and savings from improvements
- Analysis and application for Energy Star Label
- Monitoring and reporting of emissions reductions
- Maintaining long-term, high-efficiency performance of buildings

ESCOs must have the technical capability to address a broad range of systems including, but not limited to:

- Mechanical Systems: Heating, ventilating and air conditioning (HVAC) systems (including Ground Heat Exchange Systems), energy management and control systems, domestic hot water systems, distribution systems, etc.
- Lighting systems: Indoor and outdoor lighting systems, lighting controls, daylighting strategies
- <u>Building envelope systems</u>: Windows, insulation, weatherization, etc. (It is recognized that window replacements are rarely cost-effective, but could be considered as part of a comprehensive plan.)
- <u>Specialty Systems</u>: laundry equipment, kitchen equipment, pool systems, ice arena systems, renewable energy systems, etc.
- <u>Water and Sewage Systems:</u> automatic controls, low-flow faucet aerators, low-flow toilets, cooling tower modifications, pool covers, and irrigation system controls or modifications

### 20. CONSTRUCTION, IMPLEMENTATION, & FINANCING

Following the <u>successful</u> completion of the Technical Energy Audits as described in Section 17, a Project Development and Energy Performance Contract will be negotiated to implement the projects.

NOTE: The City reserves the right not to proceed with project development and or a performance contract with the selected ESCO. Any or all performance contract agreements may be denied.

### 21. EVALUATION CRITERIA

The criteria listed below will be used to evaluate written proposals and the subsequent interviews. These criteria will be applied and interpreted solely at the discretion of the City. Proposals should include all necessary information that is pertinent to these evaluation criteria. Additional information required for proper assessment of proposals may be requested from the ESCO at the discretion of the City. The following list is not meant to represent an order of importance.

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- Qualifications and capability
- Experience and expertise
- Technical approach
- Performance contracting approach
- Cost and pricing

### 22. CONSTRUCTION AND EQUIPMENT BIDS

Provide a brief summary of your ESCO's equipment and construction procurement process as it will be applied to the City of Farmington Hills project. Further, demonstrate the willingness of your ESCO to participate in Open Book Pricing. If Open Book Pricing is not available please provide an explanation.

### 23. SUBMITAL REQUIREMENTS

The City of Farmington Hills would encourage responses to the RFP be submitted on recycled paper and printed on both sides.

Submit one (1) original, two (2) copies, and one (1) CD-ROM of all required documents described below. Each bound volume shall be in 8 ½" x 11", vertical format. Binding type is at the discretion of the Proposer. Each bound volume should be tabbed and include a table of contents. *Do not* submit in a looseleaf, three-ring, hard cover binder. To be responsive, each bound volume must include all items as described above.

### 24. **QUESTIONS**

Questions may be directed to Michael Lasley, Director of Central Services at 248-871-2425 or mlasley@fhgov.com