

# **Presentation on Radar Speed Display Project**

RFP-RH-10-014

J. Ranck Electrical, Inc.  
Hubbell, Roth & Clark,  
Inc.  
Carrier & Gable, Inc.  
3M

## **City of Rochester Hills**

1000 Rochester Hills Drive  
Rochester Hills, Michigan 48309

April 20, 2010

**RADAR SPEED DISPLAY**

## **J. Ranck Electric, Inc.**

- 25 years in business
- 105 field employees
- 50 office and warehouse employees
- Projects throughout Michigan and USA
- Public and private sector clients
- Annual sales exceed \$30 million



**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

## Hubbell, Roth & Clark, Inc.

- Founded in 1915
- Multi-disciplined engineering firm
- Consulting engineers to over 80 municipal, industrial and private clients
- Award winning designs
- Experience with speed signs



**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

## **Carrier & Gable, Inc.**

- Established in 1945
- Premier distributor of
  - Traffic products
  - Lighting
  - Highway safety products
- Knowledgeable sales and technical staff
- Free training classes



**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

# City of Rochester Hills Proposal for Radar Speed Displays Projects



J. Ranck Electric, Inc. (J. Ranck)  
Hubbell, Roth & Clark, Inc. (HRC)  
Carrier & Gable, Inc.



City of Rochester Hills

Rob Hentkowski (J. Ranck)  
Prime Vendor/Project Manager

QA/QC  
Richard Beaubien, P.E., PTOE (HRC)  
Associate  
Transportation Department Head

Traffic Consultant/Engineering  
Peter T. Roth, P.E. (HRC)  
Principal-in-Charge

DTE Energy

Traffic Consultant/Engineering  
Colleen Hill, P.E., PTOE (HRC)  
David Kelley (HRC)

Sign/Post Vendor  
Carrier & Gable, Inc.

Installation  
Dale Berkholz (J. Ranck)

**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

## Work Plan

- Phase 1 – Pre-Studies and Design
- Phase 2 - Installation

Pre-Implementation Report  
Outside Agency/Government Meetings  
Site Location Determinations  
Design Engineering  
DTE Coordination  
Permit Applications  
Product Approval

Sign Installation  
Final Permit Approvals  
DTE Service Application  
Software Licenses & Training

**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

## Work Plan

- Phase 3 – Post Studies

Sign Inventory Update  
Quality Control Inspection  
Speed Studies (Pre & Post Installation)  
Evaluation Study – Intermediate Report  
Evaluation Study – Final Report



**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

## Deliverables

- Traffic Engineer

Site Evaluation Report  
Pre-Installation Traffic Evaluation Study  
Maintenance of Traffic Plans  
Sign Inventory in GBA File Format  
Post-Installation Traffic Evaluation Study  
Final Traffic Evaluation Study  
Meeting Minutes  
Monthly Progress Reports  
  
Sign Shop Drawings  
Sample Radar Sign Demonstration  
Utility Applications for Service  
Warranties & Extended Service Plan  
Operations & Maintenance Manuals  
Software License

- Electrical Contractor

**RADAR SPEED DISPLAY**

**CITY OF ROCHESTER HILLS**

# Software

## Summary Report

- By Location
- By Date
- By Time Interval
- Speeds

DFS Reporter - Reports and Plots

Select a Tab to View Report or Plot:

Volume vs. Time	Average Speed with 85th Percentile	Speed Distribution	Mean Speed vs. Time
Summary Report	Cumulative Speed	Non-Cumulative Speed	Speeding Vehicles

Title Location: lademo      Measurement Period: 4/27/2009 2:57:00 PM to 4/28/2009 3:28:00 PM  
 Sign Address: 3091110847      Reporting Period: 4/27/2009 2:57:00 PM to 4/28/2009 3:28:00 PM  
 Posted Speed Limit: 10 MPH

Time	% Above Speed Limit	# Above Speed Limit	0 - 7	8 - 10	11 - 13	14 - 16	17 - 19	20 - 22	23 - 25	26 - 28	29 - 31	Above 32	Total Vehicles
04/27/2009 14:57	29	6	13	2	4	0	2	0	0	0	0	0	21
04/27/2009 15:12	55	28	8	15	22	4	0	2	0	0	0	0	51
04/27/2009 15:27	50	18	6	12	15	1	2	0	0	0	0	0	36
04/27/2009 15:42	56	36	5	24	34	1	1	0	0	0	0	0	65
04/27/2009 15:57	53	20	10	8	15	5	0	0	0	0	0	0	38
04/27/2009 16:12	95	32	3	24	35	13	4	0	0	0	0	0	79
04/27/2009 16:27	52	24	5	18	14	5	5	0	0	0	0	0	47
04/27/2009 16:42	58	36	12	15	25	10	1	0	0	0	0	0	63
04/27/2009 16:57	71	17	1	6	8	4	3	1	0	1	0	0	24
04/27/2009 17:12	72	30	3	9	20	3	3	3	1	0	0	0	42
04/27/2009 17:27	60	21	10	4	15	3	3	0	0	0	0	0	35
			1414	1039	838	194	82	18	3	1	0	0	

Total Number of Vehicles: 3589      Average Speed: 10 MPH  
 Lowest Log Speed Setting: 5 MPH      25th Percentile Speed: N/A MPH  
 Highest Log Speed Setting: 35 MPH      50th Percentile Speed: 8 MPH  
 85th Percentile Speed: 12 MPH

Print      Start Over      Finish

RADAR SPEED DISPLAY

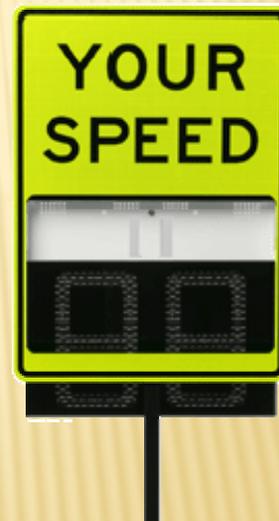
CITY OF ROCHESTER HILLS



## Radars Speed Display

### Average Cost Per Sign

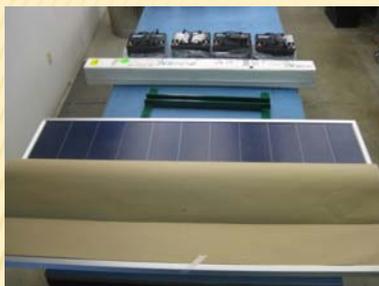
- DTE Energy Power = \$12,552
- Solar Power = \$10,605



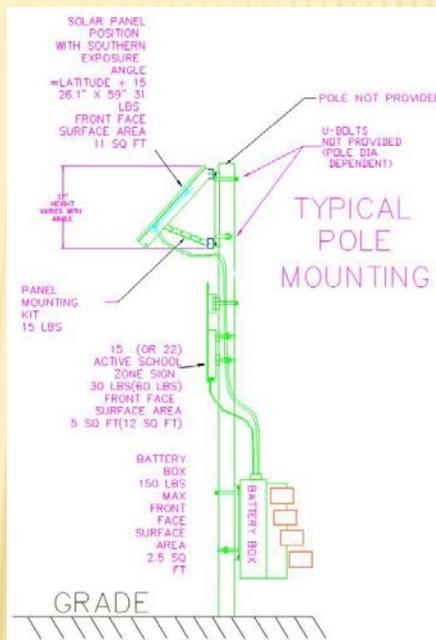
**RADAR SPEED DISPLAY**

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# Solar Kit Installation



**RADAR SPEED DISPLAY**



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