

## Fire Department Staffing Questions for June 11 Meeting

### GENERAL QUESTIONS/COMMENTS

1) The opening comments state, "This report helps align the organization and secures the future..." Is this a short or long-term fix? Is there an estimate on how many years will be considered "future"? **The staffing is considered to be an immediate fix to help alleviate the current run response numbers, and should allow for an adequate number of personnel for the next 5 years. At the fifth year of implementation, there should be an evaluation of our performance to forecast any additional needs. The station renovations will be designed to accommodate the needs of the department for the next 20 years.**

2) Are there other standards being used besides NFPA 1710? **No. The NFPA creates and maintains private, copyrighted, standards and codes for usage and adoption by local governments. However in assisting with the creating of the Staffing and Facilities report, the last ISO Rating Classification for the City of Rochester Hills was reviewed (2011). This analysis identified that out of a maximum credit of 15 for personnel, the department received a 2.34 credit.**

3) Due diligence suggests approximately 73% of all fire departments in the country are comprised of volunteers. What are the differences between POC and volunteer departments, besides the obvious pay aspect? **Pay is the only difference. Paid on-call refers to the fact that a volunteer firefighter is compensated for incidents and training. True "volunteer" firefighters most likely do not receive any type of compensation Rochester Hills Paid on-call firefighters receive a pay rate that is hourly based and does not qualify for volunteer status under FLSA. In addition, Rochester Hills paid on-call firefighters receive their hourly rate for training, administrative tasks, equipment maintenance, and public education events.**

It should be noted 15% of all fire departments are all or mostly career organizations but protect 66% of the U.S. population, while 85% of the fire departments are all or mostly volunteer organizations and protect 35% of the population. According to a survey done by the NFPA in 2012, cities with a population of between 50,000 and 99,999, are protected by an all or mostly career organization 89.2% of the time, with 10.8% being protected by a mostly volunteer organization.

Type of Department (Percent)

Population Protected	All Career	Mostly Career	Mostly Volunteer	All Volunteer	Total
1,000,000 or more	81.8%	18.2%	0.0%	0.0%	100.0%
500,000 to 999,999	71.4	21.4	7.1	0.0	100.0
250,000 to 499,999	85.3	11.8	2.9	0.0	100.0
100,000 to 249,999	81.8	18.2	0.0	0.0	100.0
50,000 to 99,999	70.3	18.9	10.8	0.0	100.0
25,000 to 49,999	47.1	24.2	24.5	4.2	100.0
10,000 to 24,999	23.2	26.3	37.4	13.0	100.0
5,000 to 9,999	5.9	6.7	41.6	45.7	100.0
2,500 to 4,999	1.3	2.6	21.1	75.0	100.0
Under 2,500	1.0	0.9	4.8	93.3	100.0
All Departments	8.7	6.6	18.1	66.6	100.0

**FIREFIGHTER STAFFING**

1) There are a number of times where 'general terms' were used and it would seem that specifics would be appropriate. Examples include, "Most likely" and "adequate cadre". What is adequate staffing? **It is the goal of the department to rely on mutual aid organizations on a less consistent basis as well as being able to meet the objectives outlined in the NFPA 1710 standard. Most notably the department would like to strive to meet the Structure Fire Response of fifteen (15) members on scene within eight (8) minutes. The department would strive to meet this goal with the additional hiring of personnel and adjusting our automatic aid with neighboring communities.**

2) Has an O/T cost comparison to hiring F/T personnel been done? What has been the trend in O/T costs? **The department currently budgets approximately 75 hours of overtime per suppression member per year.**

3) When POCs are called for an incident, are they paid a minimum hourly rate (e.g. paid a 3 hr flat rate, even if the call was 2 hr in duration)? **Paid on-call members receive a minimum of one (1) hour worth of pay for an incident with additional compensation being in fifteen (15) minute increments.**

4) What is the pay scale for POC staff? Does it vary for EMT's or Paramedics? Is there a minimum POC salary/payment even if there are no calls? What benefits are included for POCs? How does our benefits & pay scale compare with other cities? **Since the Paid on-call members are unionized all benefits and wages are determined through negotiations and governed by a Collective bargaining agreement. Representation by the City Labor Attorney, Fire Department Leadership, Michigan Association of Firefighters (MAFF), and the Rochester Hills MAFF Local 50 bargain in good faith for employment conditions. Current benefits for Paid on-call members include: Life Insurance, uniforms, Deferred Compensation, Personal Property Replacement, Holiday Pay and Tuition Reimbursement. A copy of the current wage agreement is attached below as well as comparables utilized during the last contract negotiations in the appendix. (See Attachment 1)**

Rank	Hourly Rate
Probationary POC Fire Fighter	\$8.68
POC Fire Fighter I and II	\$13.51
POC EMS Only	\$13.51
POC Fire Fighter I and II with EMT Cert.	\$14.03
POC Lieutenant/EMT	\$15.10
POC Captain/EMT	\$16.22

5) What, if any, impact would increasing full time staffing at the "Central Station" have on improving response times/staffing levels for all Rochester Hills Fire Stations? **Since the "Central" Fire Station is strategically located within the center of the city, deployment to the outlying stations is about equal, however adding additional staff only at the Central Station would not lower the response times to those areas. The Central Fire Station would**

be the location of a devoted "staffed" fire apparatus that would respond along with the outlying stations on fire responses to provide the needed level of staffing.

## **POC RETENTION**

1) What other dynamics possibly contribute to the attrition? **Some additional issues that contribute to attrition include: (\*identified by the National Volunteer Fire Council)**

- a. More households have become two income households and with family life requirements leave little if no time available. \*
- b. Many younger people moved away for college or a job.
- c. Training requirements are stringent and time-consuming, discouraging potential newcomers. \*
- d. With the economy improving many public service agencies are beginning to hire taking already trained members from Paid on-call and volunteer ranks.
- e. Change in attitudes among the public such as less focus on volunteering, loss of community pride or feeling that one should give back, employers less willing to let employees off to run calls, etc.\*
- f. While the number of volunteer firefighters is declining, the age of volunteer firefighters is increasing.\*
- g. Fire department call volume has nearly tripled in the last 25 years, mainly due to a sharp increase in the number of EMS calls and false alarms. (NFPA, *Fire Loss in the United States 2012*)\*

2) Is there a national average on turnover within POC ranks in other agencies, locally, statewide, nationally? **According to the National Volunteer Fire Council, "Many fire departments across the Nation today are experiencing more difficulty with recruiting and retaining members than ever before. Although there has been a decline in the number of active volunteer firefighters nationally from a high of 897,750 in 1984, the trend has changed in the last few years. The number of volunteers dipped to a low of 770,100 volunteers in 1989. While the number has increased since then, the problem of recruitment and retention is still serious in many areas." Long-time members say that the fire service "just isn't what it used to be." The fire service has gone through significant changes to adapt to improved requirements and increased demands. Emergency service providers are required to take more training, and the public is calling more and demanding a broader range of services. This combination has made it more difficult for fire departments. (Information from Michigan Fire Chief Association)**

3) What, if anything, could be done to minimize the availability issues for POC personnel? **In 2010 the Rochester Hills Fire Department changed the way we utilized Paid on-call members by not requiring them to respond from home to the station for EMS incidents. However with the growing number of incidents the need to utilize the Paid on-call members has increased. As it currently stands today (2014) most Rochester Hills Paid on-call members commit to 24-hours of shift coverage per week, 25 hours of log-in coverage (standby coverage) per week and three (3) hours of training per week.**

4) Were exit interviews conducted? If so, what were the conclusions obtained from the interviews? **Currently at this time exit interviews are not being done with Paid on-call members. The city Human Resource Department only completes exit interviews with full-time members that leave.**

5) What is the annual cost of training POC members? **That information has not been tracked.**

6) Are there employment contracts when signing on POC members? **No. The Paid on-call members are unionized and are represented by the Michigan Association of Firefighters Local 50 and are governed by a collective bargaining agreement.**

7) "... the sheer time spent responding to the increased call volume is a major burden to POC members." (p2) What are the expectations of POC members when coming on board? **Paid on-call members attend a mandatory pre-employment meeting that outlines training requirements and expectations prior to conducting testing processes and employee physicals. Additionally, a four (4) hour orientation is held with the city Human Resources Department and Fire Department that outlines specific expectations and requirements, as well as highlights of the information within the collective bargaining agreement.**

8) What changes/updates to the recruitment hiring model need to be considered to reflect the changing POC behavior? **The department is evaluating moving away from a Paid on-call system to a more defined part-time system with members having assigned shifts and hours working in conjunction with full-time personnel.**

9) What does a POC profile look like? **Paid on-call members looking to join the organization must live within a mile of the city border. POC members are of all ages and walks of life.**

10) With respect to the 24 POC members that left in 2013, has there been a higher than average hiring trend in surrounding areas leading to the attrition, or is this a fairly consistent trend? **As the economy improved fire and EMS organizations began hiring and filling vacant positions. This in turn pulled qualified volunteer and Paid on-call members from other organizations to fill those positions. According to a report completed by the Michigan Fire Chief's Association; recent research indicates there is no single reason for the decline in volunteers in most departments. However, there is a universal consensus that skilled department leadership is a key to resolving the problems. Retention and recruitment problems usually can be traced to several underlying factors: more demands on people's time in a hectic modern society; more stringent training requirements; population shifts from smaller towns to urban centers; changes in the nature of small town industry and farming; internal leadership problems; and a decline in the sense of civic responsibility, among other factors. Although some regions are more affected than others, and the problems and solutions vary across regions, even within states and counties, volunteer retention and recruitment is a problem nationwide.**

11) Does average tenure vary between EMT's & Paramedics? **This information has not been tracked within the Rochester Hills Fire Department. A study on turnover and cost of turnover for EMS (*The longitudinal study on turnover and cost of turnover on EMS*) identified that the average annual rate of turnover for agencies with a mix of paid and volunteer staff, and agencies with all volunteer staff, are slightly higher (12.3% and 12.%) when compared to the average annual rate of turnover among agencies with all paid staffing (10.2%). EMS employment needs are projected to grow by 23% over the next few years as identified by the US Bureau of Labor Statistics.**

12) Are all full time fire fighters also trained as EMT's or Paramedics? **All full-time suppression members are dual trained as Firefighters and Paramedics.**

### **EMS SERVICE DELIVERY DEPLOYMENT**

1) ALS vs. BLS comparisons? Cost differential – one vs. the other. Are there advantages, disadvantages? What is the department breakdown of ALS staff vs. BLS? **Advantages vs. Disadvantages: Basic life support can respond to a variety of medical and traumatic emergencies, but are limited in how much care they can provide. Basic EMT's can care for most basic needs of patient's and start care. Basic EMT training takes 194 hours of classroom and clinical time. To maintain their license level the EMT basic must obtain 30 hours of continuing education in a three-year period including CPR certification every two years. Paramedic's expand on the care started by EMT's and exceed care including Advanced airway management, Cardiac monitoring and electric therapy, Expanded pharmacology, 12 lead EKG monitoring and telemetry, Advanced Assessment skills, Advanced shock treatment including intravenous fluid therapy, and maintenance of advanced medical treatment including central venous line placement. Paramedic training takes 1,042 hours including classroom and clinical time. To maintain their license level a Paramedic must obtain 45 hours of continuing education in a three-year period including CPR and Advanced Cardiac Life Support (ACLS) certification every two years. Due to their expanded level of education, Paramedic's need more training and stay current with medical therapies that change sometime on a yearly basis.**

**Departmental breakdown of EMS for Rochester Hills Fire Department:**

- a. Full-time (career) personnel: 24 Paramedic /Firefighters**
- b. Paid-on-call personnel: 47 Basic EMT/Firefighters**

2) To clarify types of responses, what is the breakdown of medical calls differentiated among – medical – trauma – time-life – transfer incidents? **Types of medical responses by the Rochester Hills Fire Department for 2013 include:**

- Medical Emergencies – 1074**
- Traumatic Emergencies – 3441**
- Transfer Incidents - 508**

3) In evaluating contributing factors to response time, there were no comps of distances to trauma centers. Is this a factor? **No. The response time is from the time the unit leaves the station until the unit arrives on-scene. Hospital destination is determined by the status of the patient, which in turn determines the transport method.**

4) Assuming determinant responses can also affect response times, are each of the responses (Delta, Echo, Bravo) factored into the response times? **Yes**

5) Are transfers also factored in response times? **No. The information provided was for emergency or "priority" incidents only.**

6) What are the rules governing what kind and how many people will respond to an emergency situation? **Oakland County Medical Control dictates that Advanced Life Support (ALS) Ambulances must have two (2) paramedics per unit. However a serious incident would dictate additional personnel. The NFPA 1710 standard identifies the number of personnel needed on Fire and EMS incidents as well as acceptable response parameters. OSHA also identifies minimum staffing in the 1910.134 Respiratory Protection Standard for operating in a IDLH atmosphere.**

7) How is the fee for EMS calls established? When were the fees last revised? **Certain fees are established by the Center for Medicare and Medicaid Services which identifies a reasonable reimbursement rate for services delivered. However each agency has the ability to set their rates for service as long as they are not below the established Medicare rates. This does not limit or prevent the department from setting a higher fee for service understanding that any amount above the allowable reimbursed fee would be wrote off for Medicare and Medicaid patients. Patients with commercial insurance would be billed the same amount but reimbursed at a higher reimbursable rate, but unlike Medicare and Medicaid insured patients, commercially insured patients can be billed directly for any remaining balance. RHFD last revised our rates in 2008, but in a follow-up conversation with our Medical Billing Company, found that our current established rates for the service coincide with today's market. (see chart)**

Rochester Hills FD	Tax ID:
<b>Charge</b>	
RHLS ALS Emergency	\$600.00
RHLS ALS II Emergency	\$750.00
RHLS ALS Non Emergency	\$600.00
RHLS BLS Emergency	\$425.00
RHLS BLS Non Emergency	\$425.00
RHLS Defibrillation	\$50.00
RHLS Extrication	\$250.00
RHLS Mileage	\$10.00
RHLS Noncovered Mileage	\$10.00
RHLS Oxygen	\$40.00
RHLS Response Fee/Treat No Tra	\$150.00
RHLS Returned Check Fee	\$30.00

Payer Mix

	2010	2011	2012	To Date
Medicare	57%	62%	61%	58%
Medicaid	7%	6%	7%	5%
Commercial	28%	24%	24%	28%
Self Pay	8%	8%	8%	9%

8) How do other surrounding communities compare in their medical call volumes during the time period used? **As identified in a report by the Department of Homeland Security- US Fire Administration, overall 55% of all incidents types are EMS. This is not just a local trend but a national trend (see figure 1). This report also identified the timeframe for which responses are at their highest to be from 07:00 to 22:00 (see figure 2). This again is not just a local trend but a national trend. Information for these graphs was obtained through the National Fire Reporting Information System, which most fire department report their statistical information through. Fire Departments nationally and throughout Michigan are encountering the same issues.**

Figure 1. Fire Department Overall Runs by Incident Type (percent of runs, 2004)

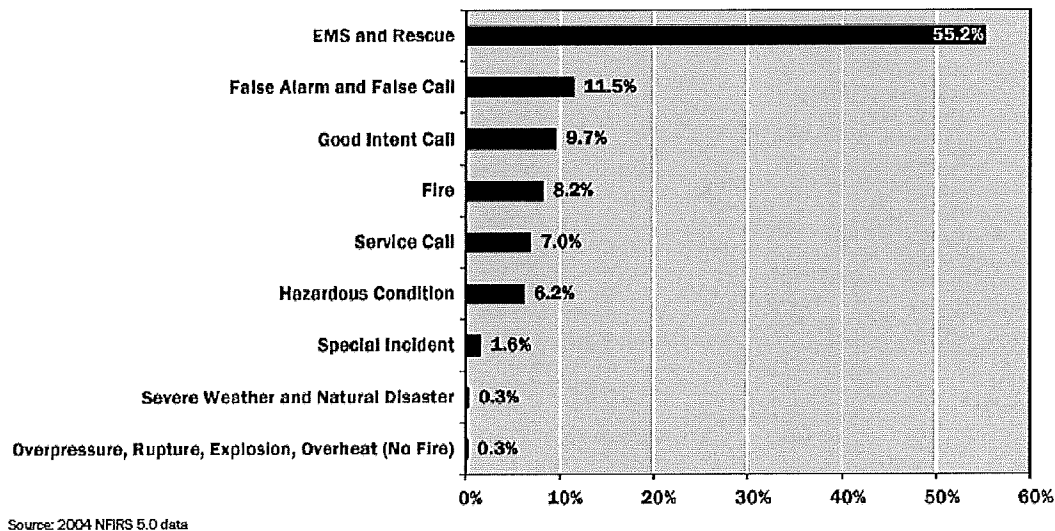
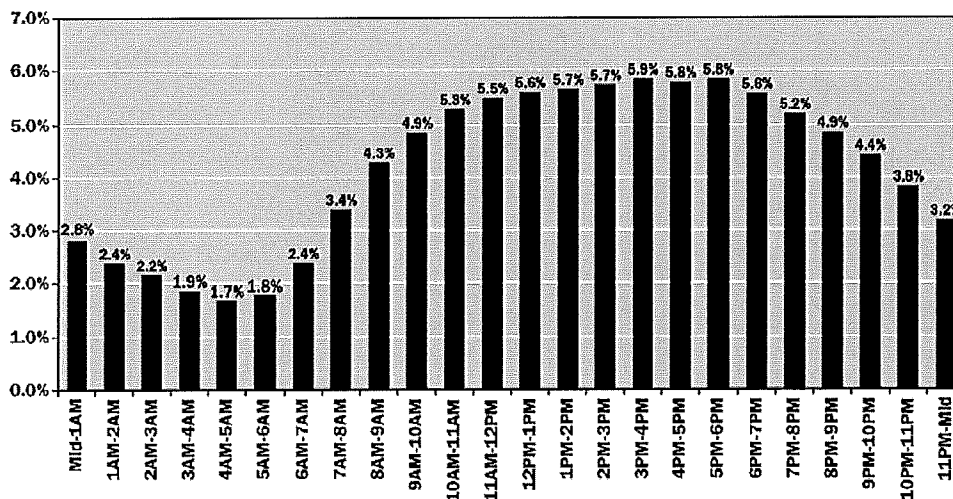


Figure 2. Fire Department Overall Runs by Time of Day (percent of runs, 2004)



9) Only 2 of the 5 agencies (including Roch Hills) used in the comparables utilize a POC structure. Please elaborate on the relevance of the department comparisons relative to Rochester Hills. **While the chart only compared two (2) departments utilizing the Paid on-call approach, it was designed to show that organizations similar to Rochester Hills in size and run volume fall more in line with an all or mostly career department protecting a city with a similar population. This chart helped to show the number of career suppression members in other cities that are comparable to Rochester Hills. (See question 3)**

10) What are the financial comparables to run agencies used in chart vs Roch Hills? **(See Attachment 2)**

11) What other agencies in surrounding communities utilize a POC mixed approach?  
**All Oakland County Fire Departments north of M-59 utilize Paid on-call members at a certain level. (Fire vs. EMS).**

12) Are false runs accounted for in these statistics? **Yes. However, a false alarm is not a false incident until a Rochester Hills unit arrives and confirms it is indeed false. While a sounding fire alarm at a residence can be caused by burnt food, it can also be caused by a grease fire from unattended cooking.**

13) With regards to transfers – what is the percentage of the call volume? What is the personnel requirement? **In 2013, transfers equated to 8% of the run volume. Medical transfers require two (2) personnel to transport.**

#### **RESPONSE TIMES COMMENTS/QUESTIONS**

1) What's the national average of cities response times less than or equal to national measurement? **There is no method to accurately pull this information. Contact to the United States Fire Administration was made, and after a brief discussion with a representative from the National Fire Incident Reporting System, found that this information is not accurately tracked on a national level to provide a consistent number. In 2005 the Boston Globe published an article identifying this issue. The article stated:**

***"The National Fire Protection Association's national panel of fire chiefs, firefighters and technical specialists has adopted a standard urging communities with full-time fire departments to adopt a standard of 1 minute for dispatch time, 1 minute for response time, and 4 minutes for drive time. The federal database does not capture each of these times: just the receipt of the alarm and the arrival."***

***"Because this is apparently the first time that these public records have been used to study response times -- although state and federal officials have collected the times since the mid-1980s -- data quality issues have not received much scrutiny. Fire departments may vary in how scrupulously they record times."***



2) What are the call volume statistics per station? How are resources allocated per station?

**2013 Mutual Aid Given- 69 Incidents**

**Rochester Hills Station 1**

**Assigned- Engine 1, Ladder 1, Alpha 21, Battalion 1  
2013: 1611 Incidents (1256 EMS)**

**Rochester Hills Station 2**

**Assigned- Engine 2, Ladder 2, Rescue 2, Alpha 22  
2013: 1428 Incidents (979 EMS)**

**Rochester Hills Station 3**

**Assigned- Engine 3, Ladder 3, Bravo 23  
2013: 1391 Incidents (1044 EMS)**

**Rochester Hills Station 4**

**Assigned- Engine 4, Ladder 4, Alpha 24  
2013: 1108 Incidents (795 EMS)**

**Rochester Hills Station 5**

**Assigned- Ladder 5, Bravo 25, Air Tender 5  
2013: 543 Incidents (416 EMS)**

**CONCURRENT CALLS**

1) How often does Rochester Hills respond to other agency's calls (mutual response numbers)? Are those response times also included in the average response time? **Yes they are included. In 2013 Rochester Hills provided mutual aid 69 times to neighboring organizations. However the incident dictates the number of personnel needed. The Mutual Aid Box Alarm System (MABAS) 3201 requires four (4) members on an apparatus when responding to a structure fire. With current staffing configurations it is difficult to muster that many members in a timely manner without affecting coverage within the City of Rochester Hills.**

2) Does the chart showing concurrent calls refer to other agencies responding to our CFS (calls for service) or does it include our own stations responding to CFS out of their respective sections or both? **This chart represents both. The city currently has three (3) ALS Ambulances and one (1) BLS Ambulance staffed 24 hours a day. Additionally the city has one (1) BLS Ambulance from 06:00 to 23:00. Depending on the number and type of runs the city can run out of units with as little as three (3) incidents concurrently .**

3) How are other communities dealing with the increased medical workload of nursing and assisted living homes? **There is no concrete information available that denotes one approach or another.**

In a 2008 article published in Science Daily, John W. Rowe, MD, Committee Chair of the Gerontological Society of America (GSA) stated: *"The combination of the aging of the Baby Boom generation and the increase in life expectancy is going to yield a doubling of the numbers of older people," he said. "And it's important to understand that older people themselves account for a disproportionate amount of the utilization of health care resources."* Furthermore, nationally recognized emergency medical service expert, Gary Ludwig, clarifies the issue in a 2008 article by stating: *"First, as people grow older, their demands for health care increase. As demands for health care increase, so will demands on EMS systems" Fire and EMS services across the U.S. have been experiencing a regular and steady increase in the number of EMS calls for service. As Baby Boomers become older, the EMS systems will become even more strained. Additional call volume requires the addition of EMS resources, ambulances, equipment and paramedics. By not adding resources to a growing system has and will result in slow response times and poor patient outcomes.*

4) Do we have any agreements in place (aside from Mutual Response/Aid) with Oakland Twp. and Rochester Departments? **There is a mutual aid agreement between all Oakland County Fire Departments. Rochester Hills also has a mutual aid agreement with Shelby Township Fire Department in Macomb County.**

5) If Rochester Hills hired more full time personnel could that help surrounding cities, and would they contribute? **Hiring more full-time personnel would benefit the entire community, but Rochester Hills requests mutual aid from neighboring communities more than they request mutual aid from our city. I do not foresee any neighboring community contributing to the cost of our personnel.**

### **MISCELLANEOUS**

1) What are the population and demographics projections for Rochester Hills? **This information has been provided by the City of Rochester Hills Planning Department. (See Attachment 3)**

2) As part of the demographics comparables, is it possible to obtain a breakdown of commercial vs. residential as compared to other cities? This helps to understand the population shifts during the course of a workday. Cities like Auburn Hills have a more transient population because of their commercial residential mix. **(See Attachment 3)**

3) How would the Fire/EMS personnel configuration change as a result of new Rochester Hills demographics (e.g. aging population)? **The department would be staffed by a full-time and part-time system.**

4) With OCSD also responding to each medical and fire incident, and those CFS included in their stats, how many people show up on the scene of a medical call? **Depending if an Oakland County Sheriff's Deputy is available, the Sheriff's Office will send one (1) deputy. If the incident involves a traffic accident, domestic situation, or act of violence they may send more, however they are there to control the scene and perform law enforcement activities such as arrests and investigations. Calls for service in which the Sheriff's Office responds to assist the Fire Department are included in their stats.**

5) Are OCSD officer's vehicles equipped with AED's and are all officers certified to use the equipment? **Currently the Sheriff's Office has one (1) AED per quadrant in the City of Rochester Hills. These AED's only recognize two (2) heart rhythms- Pulse less Ventricular Fibrillation and Pulse less Ventricular Tachycardia, while the cardiac monitors utilized by the Fire Department recognize several additional rhythms and can only be utilized by advanced care providers such as Paramedics. It should be noted that quick defibrillation is only one component in the total system. Additional advanced life support measures and a timely transport to a definitive care facility is imperative.**

6) It was stated that we arrived at 40 of 43 incidents of structure fires outside of an acceptable response criteria and 9 of them took 8 minutes or longer. Were there extenuating circumstances, i.e. weather, time of day? Were we responding to another agency's call? **The report does not detail any extenuating circumstances, but obviously variables like weather, traffic and time of day affect response times. Also these numbers do include requests for mutual aid. The MABAS Mutual Aid agreement dictates that four (4) members are on an apparatus when responding to a structure fire. With current staffing configurations it is difficult to muster that many members in a timely manner, which affects the time frame in how fast we can provide help to our neighbor, while trying to maintain coverage within the City of Rochester Hills.**

7) What is the classification of each of the RHFD stations (i.e., Engine Company; Ladder/Truck Company)? **There is no specific classification in the fire service for stations. However the following is a overview of the equipment located at each station.**

- **Rochester Hills Station 1- Assigned- Engine 1, Ladder 1, Alpha 21, Battalion 1**
- **Rochester Hills Station 2- Assigned- Engine 2, Ladder 2, Rescue 2, Alpha 22**
- **Rochester Hills Station 3- Assigned- Engine 3, Ladder 3, Bravo 23 2013:**
- **Rochester Hills Station 4- Assigned- Engine 4, Ladder 4, Alpha 24**
- **Rochester Hills Station 5- Assigned- Ladder 5, Bravo 25, Air Tender 5**

8) What is the significance of how many responders there are on medical runs? **This depends on the severity of the incident.**

9) What is the distribution of calls by area/location within Rochester Hills? What trends are driving the area/location distribution?

- **Rochester Hills Station 1**- This station covers the largest structure in the city (Crittenton Hospital), has two (2) nursing and assisted living facilities, and also covers Rochester College.  
2013: 1611 Incidents (1256 EMS)
- **Rochester Hills Station 2**- This station covers the majority of our population and has only one (1) nursing and assisted living facility.  
2013: 1428 Incidents (979 EMS)
- **Rochester Hills Station 3** - This station covers the majority of our commercial facilities and has three (3) nursing and assisted living facility.  
2013: 1391 Incidents (1044 EMS)
- **Rochester Hills Station 4**- This station covers the majority of our retail facilities with a mix of residential area. This covers three (3) nursing and assisted living facilities.  
2013: 1108 Incidents (795 EMS)
- **Rochester Hills Station 5**- This station has the highest expansion of new residential homes and is located at the furthest part of our district. This station covers one (1) nursing and assisted living facility.  
2013: 543 Incidents (416 EMS)

## Paid-On-Call Wages -- March 2012

	Call-back / Emergency Response (per hr)				Shift Work (per hr)			
	Start		Max. (After x yrs.)		Start		Max. (After x yrs.)	
	FF/EMT-B	FF/EMT-P	FF/EMT-B	FF/EMT-P	FF/EMT-B	FF/EMT-P	FF/EMT-B	FF/EMT-P
Addison	\$9.18	\$9.18	\$16.54 (1) \$17.04 (5)	\$19.86 (1) \$20.36 (5)	\$9.18	\$9.18	\$9.18	\$15.00 (1)
Almont	\$13.00	\$13.00	\$13.00	\$13.00	N/A	N/A	N/A	N/A
Armada	\$14.95	\$14.95	\$16.01 (1)	\$16.01 (1)	\$9.00	\$10.00	\$9.00	\$10.00
Bruce-Romeo	\$20.00	\$20.00	\$20.00	\$20.00	N/A	N/A	N/A	N/A
Chesterfield	\$15.00	\$15.00	\$26.72 (1)	\$26.72 (1)	\$12.00	\$12.00	\$17.81 (1)	\$17.81 (1)
Lenox	\$16.25	\$16.25	\$17.00 (5)	\$17.00 (5)	N/A	N/A	N/A	N/A
Macomb	\$15.00	\$15.00	\$25.00 (1.5)	\$25.00 (1.5)	\$17.50	\$17.50	\$17.50	\$17.50
New Baltimore	\$15.00	\$15.00	\$22.00 (1)	\$22.00 (1)	N/A	N/A	N/A	N/A
New Haven	\$13.00	\$13.00	\$14.00 (1)	\$14.00 (1)	N/A	N/A	N/A	N/A
Oakland	\$11.00	\$11.00	\$11.00	\$11.00	\$8.00	\$8.00	\$8.00	\$8.00
Ray	\$14.35	\$14.35	\$18.52 (1)	\$18.52 (1)	N/A	N/A	N/A	N/A
Richmond	\$14.00/call	\$14.00/call	\$14.00/call	\$14.00/call	N/A	N/A	N/A	N/A
Rochester Hills	\$8.68	\$8.68	\$14.03 (1)	\$14.03 (1)	\$8.68	\$8.68	\$13.51 (1)	\$13.51 (1)
Washington	\$18.04	\$18.85	\$24.04 (1)	\$25.13 (1)	N/A	N/A	N/A	N/A

*Information obtained by Rochester Hills Human Resources Department during MAFF contract negotiations*

COMPARISON OF LOCAL MUNICIPAL FIRE DEPARTMENTS

Organization	Population	Population Density	Fire Millage Rate	Avg. Household Income	Tax Base	Residential Parcels	Commercial/Industrial Properties	Commercial/Industrial Tax Base
Rochester Hills	72,283	2,163/Sq. mile	1.9564	\$69,209	\$3,013,812,340	24,292	1,057	\$528,107,790
Shelby Twp.	73,804	1878/Sq. mile	3.2575	\$63,349	\$2,981,701,500			\$556,386,600
Auburn Hills	21,614	1,289/Sq. mile	1.7604	\$51,376	\$1,619,087,020	5,679	840	\$928,617,260
Independence Twp.	34,681	960/Sq. mile	3.6188	\$74,993	\$1,329,347,780	12,969	456	\$187,125,870
Washington Twp.	25,131	531/Sq. mile	3.7485	\$66,794	\$1,191,550,670			\$27,788,100
Oakland Twp	16,779	460/Sq. mile	1	\$102,034	\$1,051,982,310	7,130	75	\$25,067,190
Oxford	20,562	580/Sq. mile	2.5	\$63,494	\$688,957,040	7,502	442	\$101,889,070
Bruce/Romeo	11,754	271/Sq. mile	5.53	\$65,469	\$436,103,586			\$62,247,260
Brandon Twp.	15,175	420/Sq. mile	4.1095	\$66,458	\$434,457,450	5,841	209	\$30,225,310
Addison Twp.	6,351	170/Sq. mile	2.25	\$69,266	\$281,833,030	2,978	70	\$7,016,350
Groveland Twp.	5,476	150/Sq. mile	3.5	\$72,188	\$186,175,780	2,304	107	\$18,203,230
Rochester City	12,889	3,318/Sq. mile		\$72,086	\$642,686,450	4,516	419	\$135,821,780
Orion Twp.	35,394	990/Sq. mile	0.9916	\$71,844	\$1,344,350,200	13,684	628	\$224,311,490
								These figures are already included in the Tax Base

Rochester Hills Population projections  
 Source: Southeast Michigan Council of Governments (SEMCOG)

June 10, 2014

2010	70,995
2020	72,067
2030	72,072
2040	73,528

US Census 2012 American Community Survey (ACS is considered more accurate for current numbers but they do not provide future projections)

2012	72,288
------	--------

I would offer that the ACS is the better number to base your projections on. Given the pace of new housing that is being built and processed for approvals I would suggest that we'll hit 75,000 by 2020 and then we'll taper off quickly due to no land being available. I think our persons per household will average the same with young families moving in and the strong desire of those wishing to age in place (meaning the seniors won't be moving out)

#### Jobs forecast

Our daytime population increases as employees travel here to work be it office, medical, industrial or retail. SEMCOG predicts that the biggest gains will be in healthcare and private education and IT services with slight declines in manufacturing and retail trade.

Daytime employment numbers from SEMCOG are:











2010	35,756
2015	38,298
2010	38,818
2025	39,347
2030	40,127
2035	40,828
2040	41,179

Following are 6 land use tables from 2008 for Rochester Hills and 5 nearby communities. Note that residential, multi-family, retail and industrial are the only "taxable" uses. The others are not and typically require 40-45% of a community's land area.











This info is also from SEMCOG

[Note: the color banding has no significance. It is merely a glitch in how the information was copied and pasted from the SEMCOG site.]






### City of Rochester Hills

SEMCOG 2008 Land Use	Acres	Percent
 Agricultural	0	0.0%
 Single-family residential	11,559	54.8%
 Multiple-family residential	587	2.8%
 Commercial	1,138	5.4%
 Industrial	926	4.4%
 Governmental/Institutional	1,686	8.0%
 Park, recreation, and open space	1,926	9.1%
 Airport	0	0.0%
 Transportation, Communication, and Utility	3,107	14.7%
 Water	168	0.8%
Total Acres	21,097	100.0%






### City of Troy

SEMCOG 2008 Land Use	Acres	Percent
 Agricultural	4	0.0%
 Single-family residential	10,270	47.7%
 Multiple-family residential	470	2.2%
 Commercial	2,229	10.4%
 Industrial	1,637	7.6%
 Governmental/Institutional	1,788	8.3%
 Park, recreation, and open space	1,017	4.7%
 Airport	64	0.3%
 Transportation, Communication, and Utility	3,839	17.8%
 Water	201	0.9%
Total Acres	21,520	100.0%

### City of Auburn Hills











SEMCOG 2008 Land Use	Acres	Percent
 Agricultural	0	0.0%
 Single-family residential	3,143	29.5%
 Multiple-family residential	406	3.8%
 Commercial	1,328	12.5%
 Industrial	2,581	24.2%













	Governmental/Institutional	981	9.2%
	Park, recreation, and open space	566	5.3%
	Airport	0	0.0%
	Transportation, Communication, and Utility	1,589	14.9%
	Water	50	0.5%

Total Acres	10,644	100.0%
-------------	--------	--------


Shelby Township










SEMCOG 2008 Land Use	Acres	Percent	
	Agricultural	0	0.0%
	Single-family residential	11,850	52.2%
	Multiple-family residential	582	2.6%
	Commercial	1,733	7.6%
	Industrial	1,963	8.6%
	Governmental/Institutional	745	3.3%
	Park, recreation, and open space	1,847	8.1%
	Airport	0	0.0%
	Transportation, Communication, and Utility	3,409	15.0%
	Water	588	2.6%
Total Acres	22,716	100.0%	

City of Sterling Heights

SEMCOG 2008 Land Use	Acres	Percent	
	Agricultural	0	0.0%
	Single-family residential	10,257	43.6%
	Multiple-family residential	665	2.8%
	Commercial	2,101	8.9%
	Industrial	2,511	10.7%
	Governmental/Institutional	1,652	7.0%
	Park, recreation, and open space	1,514	6.4%
	Airport	0	0.0%
	Transportation, Communication, and Utility	4,689	19.9%
	Water	158	0.7%
Total Acres	23,547	100.0%	

Oakland Township

SEMCOG 2008 Land Use	Acres	Percent	
	Agricultural	257	1.1%

	Single-family residential	16,314	69.5%
	Multiple-family residential	0	0.0%
	Commercial	164	0.7%
	Industrial	356	1.5%
	Governmental/Institutional	525	2.2%
	Park, recreation, and open space	4,481	19.1%
	Airport	0	0.0%
	Transportation, Communication, and Utility	990	4.2%
	Water	390	1.7%
Total Acres		23,478	100.0%