

DRAFT – 05/16/14

Rochester Hills Fire Department



Facilities Improvement and
Personnel Staffing Report

On behalf of the men and women of the Rochester Hills Fire Department, it is my pleasure to present to you our Facilities Improvement and Personnel Staffing Report. The purpose of the report is to focus on the concerns as related to departmental staffing and facilities that will enhance the levels of service to the citizens of Rochester Hills and the employees who deliver those services. This report helps align the organization and secures the future for fire and emergency services for our city to the level of quality and competence that is deserved and expected by our community. The goal of this report is to provide a medium for the development and implementation of visionary emergency services delivery to meet and exceed the expectations of our citizens, our department, and even ourselves in fulfilling the Mission of the organization. I would like to thank all members that assisted in putting this information together.

Respectfully,

Sean Canto
Chief of Fire and Emergency Services

History (excerpts taken from "History" by Captain Pat McKay)

In 1975, the Brooklands and Avondale Fire Departments merged to create the Avon Township Fire Department. Additional stations were built in the north end of Avon Township to further protect our community and neighboring Oakland Township. The Meadowbrook Station was built in 1976 at Walton and Adams Road, and the Stoney Creek Station was built in 1981 at Rochester and Tienken Roads. The final fire station, Station No. 1 on Horizon Court, was built in the center of our community in 1988. The Avon Township Fire Department became the Rochester Hills Fire Department in November 1984 when our community officially changed names and government style from a Township to a City. The five stations located in the City still bear the historic names of the areas they represent. In 1975, the Avon Township Fire Department responded to a total of 174 incidents of which 14 were medical emergencies (***see Appendix - Fire Department Call Volume 1975-1997***). Today almost 39 years later, the department responded to 6,152 incidents of which 4,504 were medical emergencies in 2013. At the time of the April 2014 Monthly report, the department has seen an increase of 266 runs from 2013, for a year to date total of 2,306 incidents. In the last thirteen (13) years the department has been through numerous significant changes. (***see Appendix- Significant Events***)

Firefighter Staffing

The Rochester Hills Fire Department currently has a full-time career staffing of eight (8) members per shift. However, the department has a minimum staffing goal of maintaining at least two (2) firefighters on duty at all Rochester Hills Fire Stations 1, 2, and 4, 24-hours a day, seven days a week. Having all eight (8) career members on-duty rarely happens due to the usage of annual and vacation leave. Statistics for 2013 have shown that only 27% of the time the department has a staffing of eight (8) career members. For the remaining times the department has a staffing of six (6) members 39.5% of the time and seven (7) members 33.5% of the time. The department has found that staffing with six (6) members most likely occurs during the months of April, May, August, and November. (***see Appendix - 2013 Full-Time Staffing Levels***)

Currently, full-time career personnel are supplemented by two (2) Paid-on-Call members staffing Rochester Hills Fire Station No. 3 24-hours a day, seven (7) days a week, and two (2) Paid-on-Call members at Station No. 5 from 15:00 to 23:00 Monday through Thursday, and 0600-2300 Friday, Saturday, and Sunday. This Station was staffed 24 hours a day with a combination of full-time EMT and POC personnel, however the midnight shift was eliminated due to inadequate number of Paid-on-Call personnel to cover the midnight shifts. In the last 12 months, there have times when this Station has not been staffed due to lack of coverage. The department also has two (2) forty (40) hour EMT-Basics that are mainly responsible for non-emergency Basic Life Support Inter-facility Transports from the Crittenton Hospital to the Cancer Center located on Starr Batt Court. These members operate out of Station 5.

The department has also tried to maintain an adequate cadre of Paid-on-Call (POC) members. Like many departments across the country the Rochester Hills Fire Department struggles to recruit and retain POC members, as most newer members look to join a fire department like Rochester Hills as a

stepping stone for a position as a Career Firefighter. Another major reason for the decline in POC membership and recruitment is that members once had more time to meet the training and response requirements, but now find themselves with additional family and work life demands that limit their availability. As the call volume continues to rise the resources of the POC system is stretched thin. First and foremost, the sheer time spent responding to the increased call volume is a major burden to POC members. Juggling the stresses of incident response, other department operations, regular employment, and family life can push POC members to reconsidering their participation level.

The Rochester Hills Fire Department currently has a Paid-on-Call (POC) roster of 49 active members. **(see Appendix - Rochester Hills Fire Department Staffing Levels)**. This number continues to decline as the department had 71 POC members in 2010. The department has tracked since 2010 that a new POC member historically stays with the department approximately 14 months. **(see Appendix - POC Status 2010-2013)** The department lost 24 POC members in the year 2013 with 15 excepting a full-time job elsewhere in fire and emergency services delivery. **(see Appendix - POC Status 2013)** In the last few years the Rochester Hills Fire Department, like many fire department across the county, have encountered a sharp increase in medical calls for service along with the decline of Paid-on-Call recruitment and retention. Overall, call volume is a major factor in the transitioning to hiring additional career staff. In review of our on-duty staffing, as well as the decreased membership of Paid on Call members, we measured our resources against established national standards for emergency response capabilities.

Because of staffing shortages, primarily due to increased call volume and decline in Paid on Call membership and participation, the department has found it necessary to use over-time to maintain our staffing levels. The National Fire Protection Association (NFPA) 1710 *Standard for the Organization of Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments* 2004 edition was used as a benchmark for current national firefighter and EMS staffing standards. The standard was the first organized approach to defining levels of service, deployment capabilities and staffing levels for fire departments. This standard contains minimum requirements recognized by the International Association of Fire Chiefs (IAFC) and the International Association of Professional Fire Fighters (IAFF) as the rule of measurement for fire department emergency operations staffing levels. The creation of this standard was also done in conjunction with representatives from the National League of Cities, US Department of Homeland Security, and the Center for Public Safety Excellence. This standard has also been endorsed by the American National Standards Institute (ANSI).

These reasons led to NFPA 1710 being the primary source and guideline used for comparison against current Rochester Hills Fire Department staffing levels. NFPA standards are widely accepted as fire service standards of behavior and it is expected that departments that do not comply with 1710 will face questions about their noncompliance if an injury or death occurs of a suppression member or a medical emergency of a citizen resulted in a less than good outcome. The following NFPA 1710 standards are specific to a Department's responsibility for organizational structure and staffing:

4.1 Fire Department Organization Structure

4.1.2 The fire department organizational structure shall provide service delivery objectives, including specific time objectives for each major service delivery component (fire and EMS) and objectives for the percentage of responses that meet the time objectives.

4.1.2.1 The fire department shall establish the following objectives:

1. Alarm handling time to be completed in accordance with 4.1.2.3
2. **80 seconds** for turnout time for fire and special operations response and **60 seconds** turnout time for EMS response.
3. **240 seconds or less** travel time for the arrival of first arriving engine company at a fire suppression incident and **480 seconds or less** of travel time for the deployment of an initial full alarm assignment at a fire suppression incident.
4. **240 seconds or less** travel time for the arrival of a unit with first responder with an automatic external defibrillator (AED) or higher level capability at an emergency medical incident.
5. **480 seconds or less** travel time for the arrival of an advanced life support (ALS) unit at an emergency medical incident, where this service is provided by the fire department *providing a first responder with an AED or basic life support (BLS) unit arrived in 240 seconds or less travel time.*

5.2 Fire Suppression Services

5.2.2 Staffing. On-duty fire suppression personnel shall be of the numbers necessary for fire-fighting performance relative to the expected fire-fighting conditions.

5.2.2.1 These numbers shall be determined through task analyses that take the following factors into consideration:

- (1) Life hazard to the populace protected
- (2) Provisions of safe and effective fire-fighting performance conditions for the fire fighters
- (3) Potential property loss
- (4) Nature, configuration, hazards, and internal protection of the properties involved
- (5) Types of fire ground tactics and evolutions employed as standard procedure, type of apparatus used, and results expected to be obtained at the fire scene

5.2.3.1 Fire companies whose primary functions are to pump and deliver water and perform basic fire fighting at fires, including search and rescue, shall be known as engine companies.

5.2.3.2 Fire companies whose primary functions are to perform the variety of services associated with truck work, such as forcible entry, ventilation, search and rescue, aerial operations for water delivery and rescue, utility control, illumination, overhaul, and salvage work shall be known as ladder or truck companies.

5.2.3.2.1 These companies shall be staffed with a minimum of four on-duty personnel.

5.2.4.1.1 The fire department's fire suppression resources shall be deployed to provide for an arrival of an engine company within a ***240-second travel time to 90 percent*** of the incidents.

5.2.4.2.1 The fire department shall have the capability to deploy an initial full alarm assignment within a ***480 second travel time to 90 percent*** of the incidents.

5.2.4.2.2 The initial full alarm assignment to a structure fire in a typical 2000 sq. ft, two story single family dwelling without basement and with no exposures shall provide for the following:

1. Establishment of incident command outside the hazard area for overall coordination and direction of units- one (1) member;
2. Establishment of uninterrupted water supply maintained by Apparatus Operator- one (1) member;
3. Establishment of an effective water flow application from two (2) handlines flowing a minimum of 100gpm- two (2) members per line for four (4) total;
4. Provision of one support person to provide hydrant hook-up, assist in laying attack lines, utility control and forcible entry- two (2) members;
5. Provision of at least one victim search and rescue team- two (2) members;
6. Provisions of at least one team to raise ground ladders and perform ventilation- two (2) members;
7. If an aerial device is used, one (1) member to function as the aerial operator;
8. Establishment of an IRIC consisting of a minimum of two (2) properly trained members.

Total of 15 members on scene with eight (8) minutes

5.3 Emergency Medical Services

5.3.1.1 EMS operations shall be organized to ensure that the fire department's emergency medical capability includes personnel, equipment, and resources to deploy the initial arriving company and additional alarm assignments.

5.3.2 EMS Staffing

5.3.3.2.1 On-duty EMS Units shall be staffed with minimum personnel necessary for emergency medical care relative to the level of EMS provided by the fire department.

5.3.3.3 EMS Service Delivery Deployment

5.3.3.3.1 The fire department shall adopt service delivery objectives based on time standards for the deployment of each service component for which it is responsible.

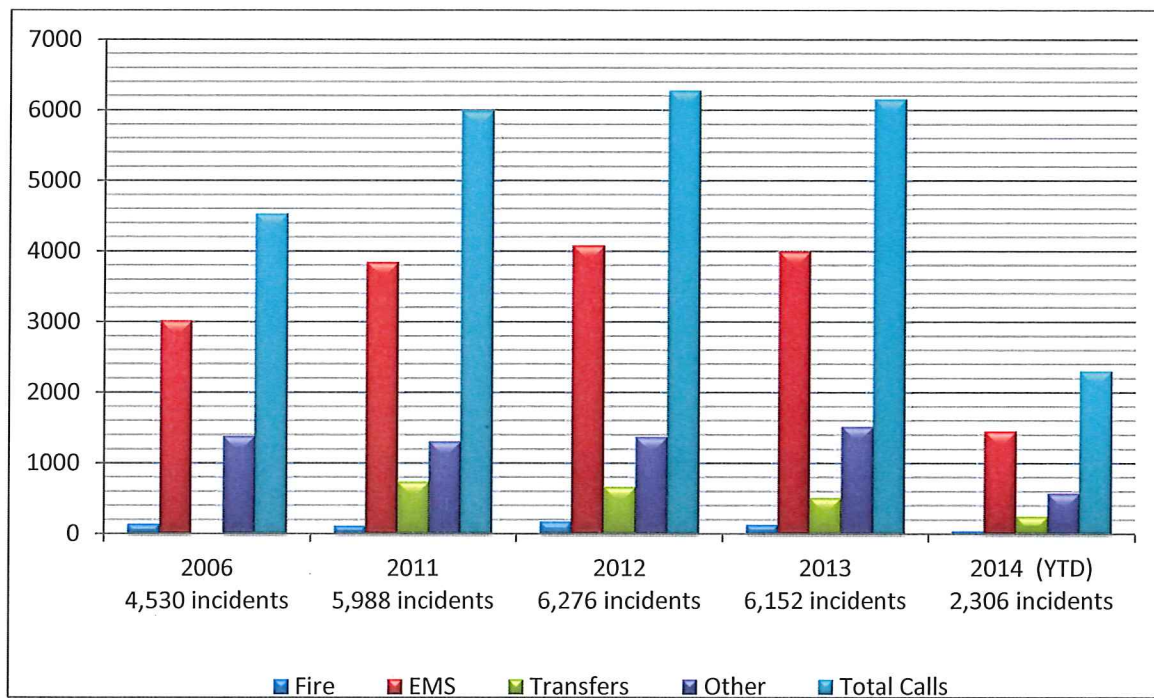
5.3.3.3.3 When provided, the fire department's EMS for providing Advanced Life Support (ALS) shall be deployed to provide for the arrival of an ALS company with in **480-second travel time to 90-percent of the incidents provided with a first responder with an AED or BLS unit arrived in 240 seconds or less of travel time.**

5.3.3.3.4 Personnel deployed to Advanced Life Support (ALS) shall include a minimum of two (2) members trained at the emergency medical technician- paramedic level and two (2) members trained at the emergency medical technician- basic level arriving on the scene within the established time-frame.

A complete review of department staffing, current run volume, expected run volume, and current response times to priority and overall incidents was completed. This review also looked at neighboring community comparisons as related to run volume, staffing configurations, and population served.

The Rochester Hills Fire Department (RHFD) has responded to 2,306 incidents as of May 8, 2014. At this rate of run response, it is conceivable that for the first time in RHFD history the department may come close to 7,000 incidents. In 2013, the RHFD responded to 6,152 incidents with a break down of 129 fire incidents, 3,996 EMS incidents, 508 transfers, and 1,519 other calls for service. In comparison to our current numbers the RHFD has already completed 246 transfers, and 1,451 EMS incidents at the time of this report. *(see chart – 2006, 2011 to 2014 Incident Count)*

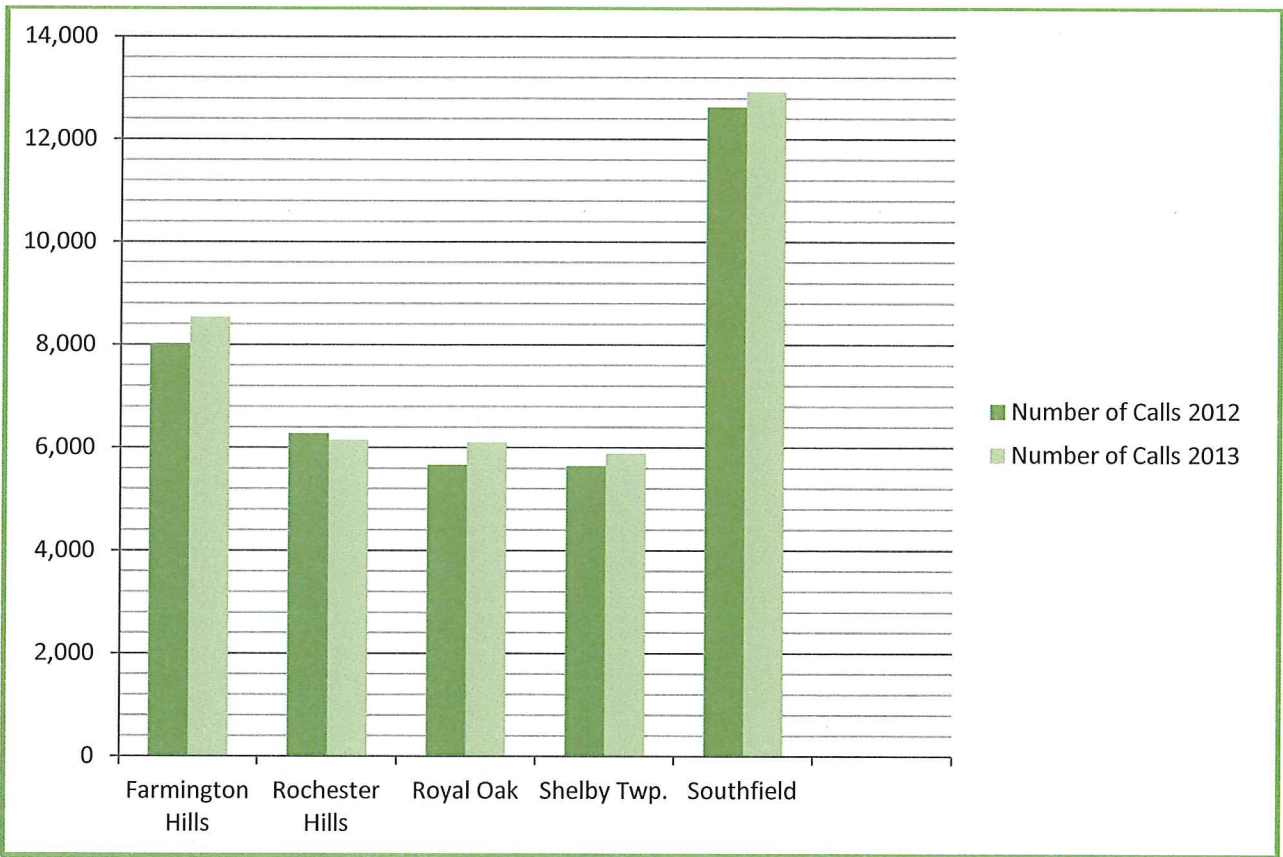
Incident Count 2006, 2011 – 2014 (YTD)



Year	Fire	EMS	Medical Transfers	Other	Total Incidents
2006	136	3,014	0	1,380	4,530
2011	110	3,840	732	1,306	5,988
2012	172	4,076	661	1,367	6,276
2013	129	3,996	508	1,519	6,152
2014 (YTD)	39	1,451	246	570	2,306

These increased requests for services are being delivered with the current staffing configuration. In comparison to neighboring Oakland and Macomb County communities that are similar in population, demographic, and department structure, the Rochester Hills Fire Department call volume has increased however, the number of on-duty career personnel has remained the same and the number of POC members has decreased as well. *(see charts- Community Comparison and Staffing Comparison)*

Community Comparison and Staffing Comparison



Department	Staffing Levels	Number of Calls 2012	Number of Calls 2013
Farmington Hills	39 Full-Time / 88 Paid-on-Call	8,003	8,539
Rochester Hills	24 Full-Time / 49 Paid-on-Call	6,276	6,152
Royal Oak	60 Full-Time	5,665	6,100
Shelby Twp.	59 Full-Time	5,650	5,891
Southfield	96 Full-Time	12,631	12,926

1. Farmington Hills Fire Department - 39 full-time suppression members and 88 POC members
 - a. Population 79,740
 - b. Fire and EMS Transport Services
 - c. 2013 Incidents 8,539.

2. Royal Oak Fire Department - 60 full-time suppression members (no POC members)
 - a. Population 57,236
 - b. Fire and EMS Transport Services
 - c. 2013 Incidents 6,100

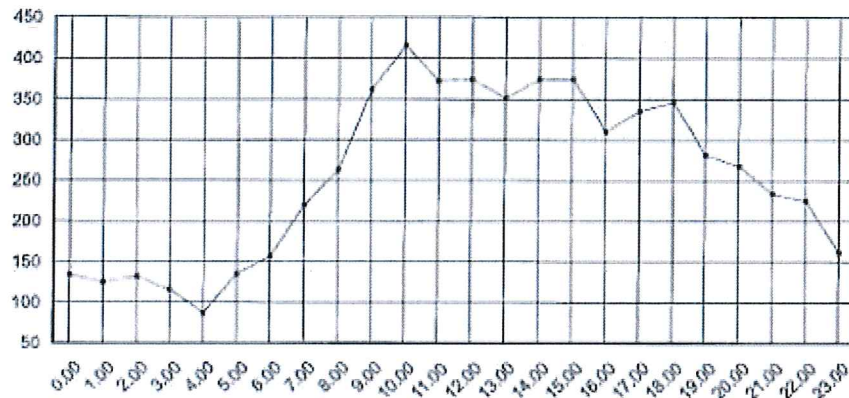
3. Rochester Hills Fire Department - 24 full-time suppression members and 49 POC members
 - a. Population 70,995
 - b. Fire and EMS Transport
 - c. EMS Inter-facility Transfers
 - d. 2013 Incidents 6,152

Incident numbers and response time information was obtained through the Oakland County CLEMIS Fire Records and Reporting System for the Rochester Hills Fire Department. Incident information was categorized by:

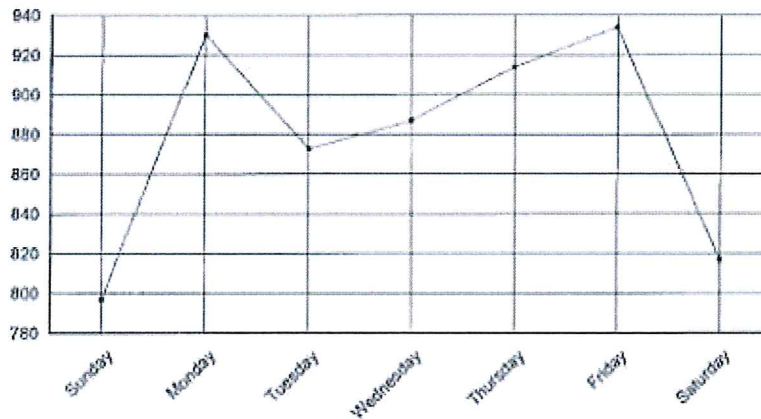
- a. Time of day (2011-2014 YTD)
- b. Day of week (2011-2014 YTD)
- c. Average responders by hour
- d. Response times to ***Priority*** incidents (2011-2014 YTD)
- e. Response times to ***All*** incidents (2011-2014 YTD)
- f. Response times to Structural Fires (2011-2014 YTD)
- g. Cardiac Arrests by time of day (2012 and 2013)

The Rochester Hills Fire Department (RHFD) has found that most calls for service (Inter-facility Transfers and 911 incidents) occur during the weekdays (Monday through Friday) from 07:00 to 20:00. ***(see charts- Incidents by Time of Day and Incidents by Day of week)*** This is also the time-frame where our staffing is at its lowest because the majority of our Paid-on-Call members are working at their full-time employment. ***(see chart- Average Responders by Hour)*** In 2013, approximately 75% of the incidents that RHFD responded to were between the hours of 07:00 and 20:00, while 73% were during the weekdays (Monday through Friday). Additionally in 2013, the department had an average of 3.25 personnel to respond to these incidents, which includes both full-time and POC personnel. For comparison, in 2010 the department had an average of 4.35 personnel, whereas in 2007, the average was 6.44 personnel.

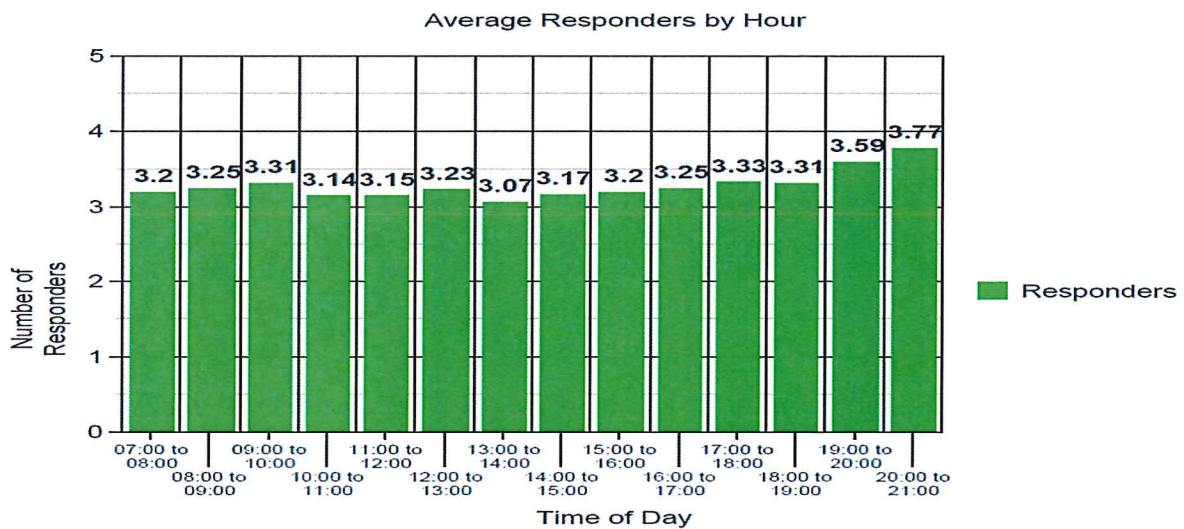
Incidents by Time of Day



Incidents by Day of the Week

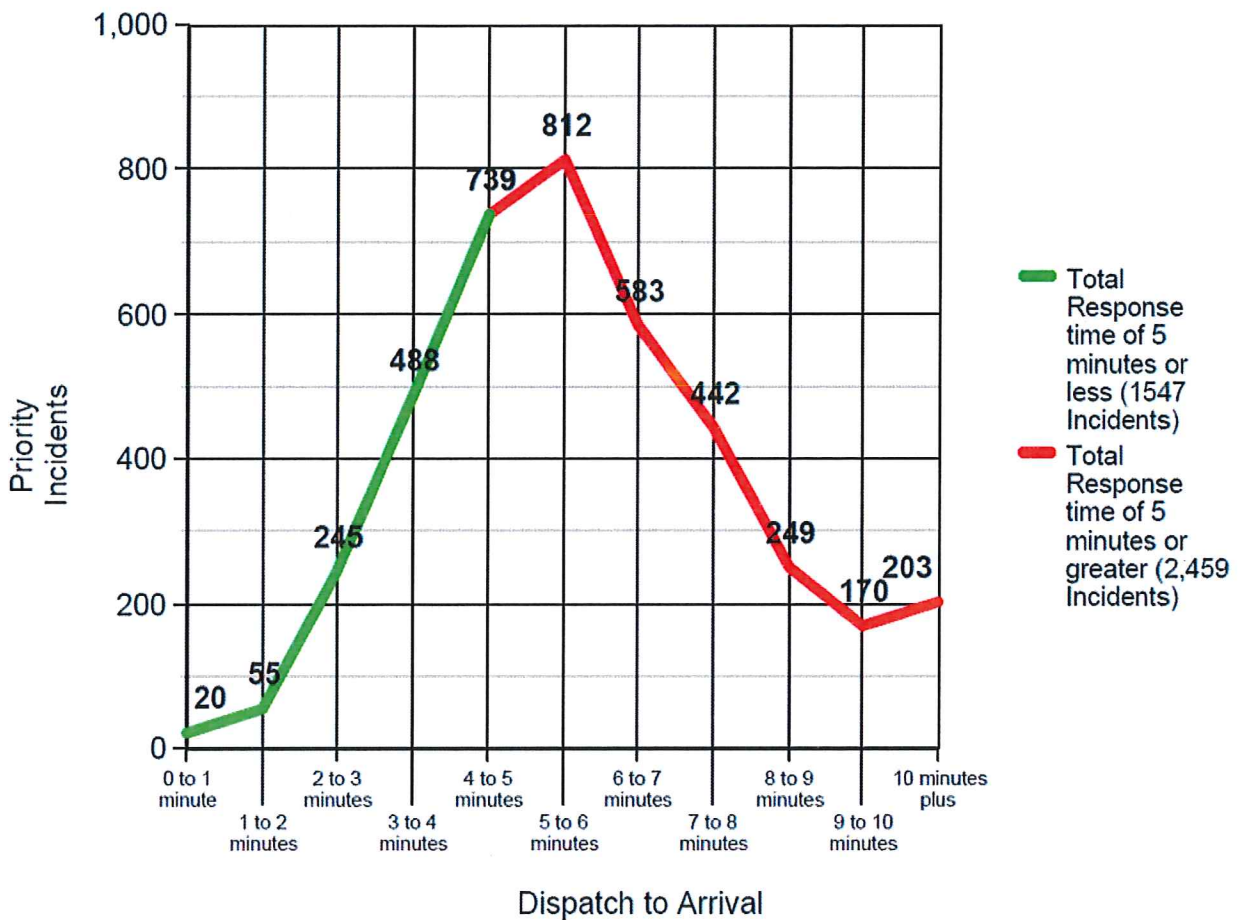


Average Responders by Hour (07:00 – 21:00)



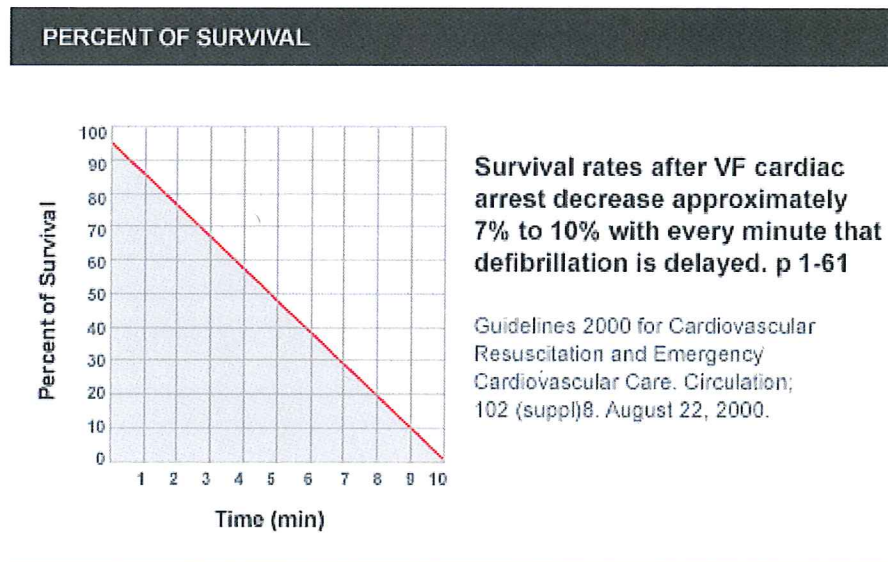
After reviewing the above information, the actual time of response was reviewed (time the incident is dispatched until a RHFD unit arrives on-scene). This information was retrieved through the Oakland County CLEMIS Fire Records and Reporting System for the Rochester Hills Fire Department (RHFD) and measured RHFD against the established National response time criteria of 240 seconds or 4 minutes or less. In 2013, the RHFD had an average response time (leaving station to arriving on-scene) of 5 minutes and 47 seconds. However, an all inclusive approach was taken to complete a comprehensive focused review of total response times (dispatch to arrival). Through this approach it was found that out of the 4,006 priority incidents RHFD responded to in 2013, that 61% of the time RHFD total response (dispatch to arrival) time exceeded five (5) minutes (*see chart- Priority Response Times 2013*)

Rochester Hills FD Priority 2013 Response Times



Reports for 2011 and 2012 (*see Appendix - 2011 and 2012 Priority Response Times*) were also retrieved and found that in those years the RHFD also was above the nationally established response time criteria for priority incidents. This information confirms that fact that the Rochester Hills Fire Department has been understaffed which in turn affects the response times of our units responding to calls for service. Since the start of 2014, the RHFD has only met the National response criteria 41% of the time, leaving 59% of our responses with an undesirable response time.

According to this chart from the American Heart Association, survival rates after Ventricular Fibrillation cardiac arrest decreases approximately seven (7) to 10 (ten) percent with every minute that defibrillation is delayed. The chance of survival is also reduced without timely Advanced Life Support (ALS) interventions performed by paramedics. Patients that receive timely defibrillation, ALS care, and immediate transport to a definitive care facility have a more likely chance of survival.



A Cardiac Arrest Analysis report for 2012 and 2013 (*see chart- Cardiac Arrest Analysis 2012 and 2013*) of the Rochester Hills Fire Department (RHFD) was reviewed. This information was obtained through our electronic reporting system from The AccuMed Group. These reports showed the majority of the Cardiac Arrest incidents that RHFD responded to occurred between the hours of 08:00 to 21:00. Again, this being the time frame in which the RHFD receives its largest number of calls for service. Through the information gathered to include time of day and response time criteria, the RHFD statistically takes greater than four (4) minutes to arrive on-scene, giving the patient a 50% chance or less of a positive outcome.

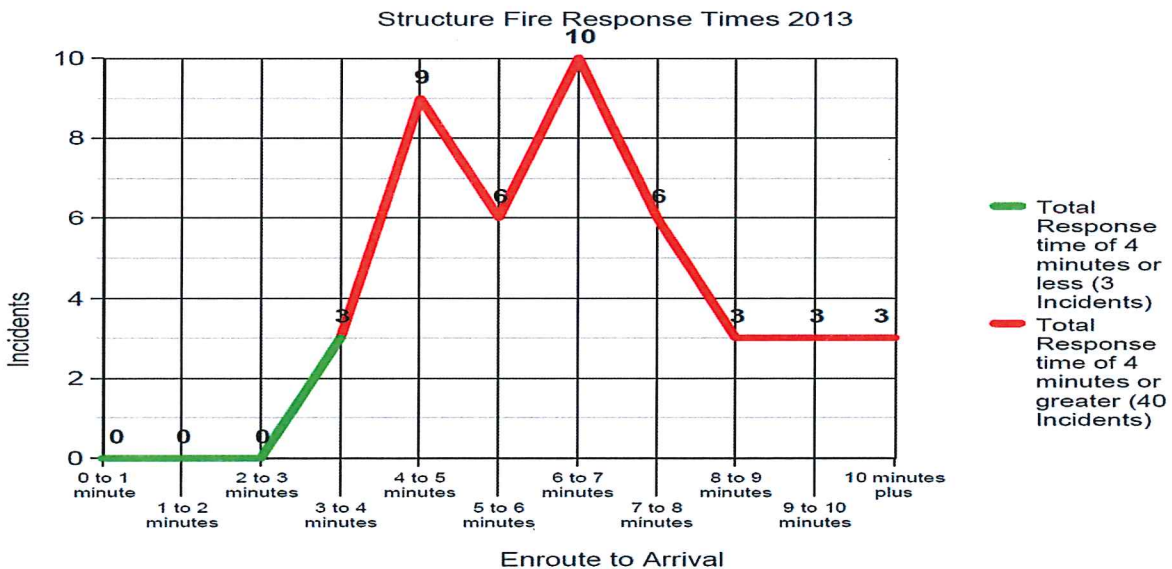
Cardiac Arrest Analysis 2012

Time Of Day	Number Of Incidents	Pct Of Total
00:00 - 03:59	6	9.68
04:00 - 07:59	6	9.68
08:00 - 12:59	18	29.03
13:00 - 16:59	10	16.13
17:00 - 20:59	16	25.81
21:00 - 23:59	6	9.68

Cardiac Arrest Analysis 2013

Time Of Day	Number Of Incidents	Pct Of Total
00:00 - 03:59	4	5.71
04:00 - 07:59	7	10.00
08:00 - 12:59	21	30.00
13:00 - 16:59	15	21.43
17:00 - 20:59	15	21.43
21:00 - 23:59	8	11.43

Further gathering of information began to look at the Rochester Hills Fire Department (RHFD) response times to structural fires. Again, this information was gathered through the Oakland County CLEMIS Fire Records and Reporting System. Information was reviewed for 2011, 2012, 2013, and year-to-date for 2014. In 2013, the Rochester Hills Fire Department (RHFD) responded to 43 reported structure fires. Out of those 43 incidents, the (RHFD) arrived at 40 incidents outside of the acceptable response criteria. (see chart- Structure Fire 2013)



National Standard Response Times of 240 seconds (4 minutes) or less

Out of the 40 incidents, nine (9) incidents took eight (8) minutes or longer. The chart below provided by the National Fire Protection Association shows that once a fire has burned uncontrolled for eight (8) minutes or longer the destruction of property becomes 50% or greater.

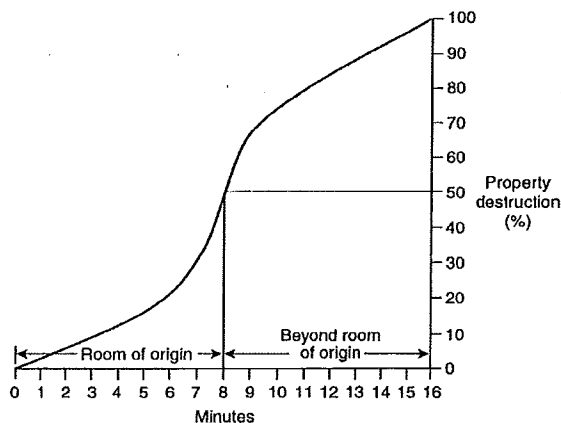
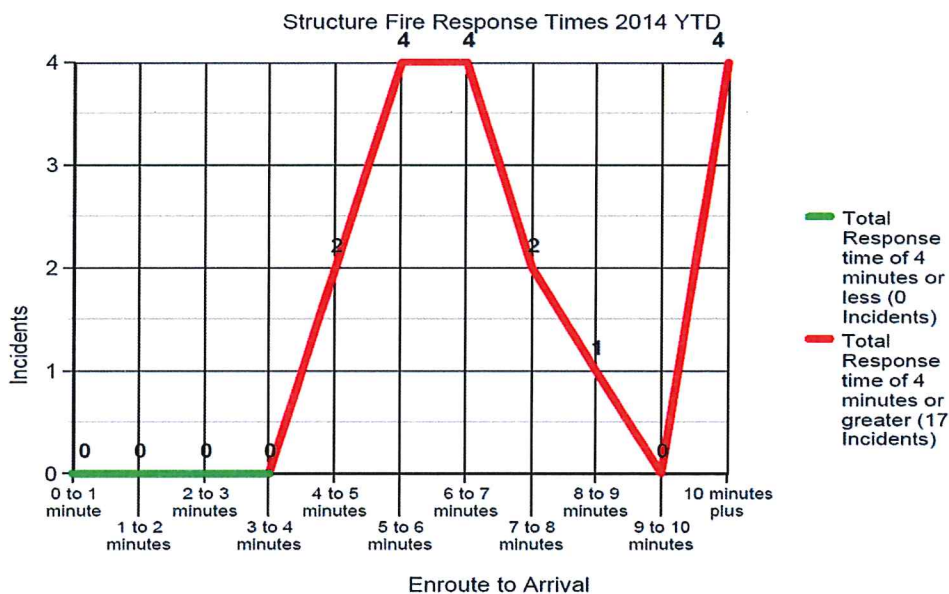


FIGURE A.5.2.2.2.1 Fire Propagation Curve.

Given that, the progress of a structure fire to the point of rapid fire spread generally occurs within less than 10 minutes due to today's furnishing materials, heavier fire loads, and building construction. Two of the most important elements in limiting fire spread are quick arrival of sufficient number of fire suppression personnel and equipment to attack and extinguish the fire as close to the point or room of origin as possible. The ability of adequate fire suppression forces greatly influence the outcome of a structure fire is undeniable and predictable.

According to the National Fire Smoke Coalition, residential fires are the third leading cause of fatal injury in the United States and the fifth most common cause of unintentional injury death. An estimated 50% - 80% of fire deaths are the result of smoke inhalation injuries rather than burns. Smoke inhalation accounts for the majority of deaths in home fires. Children under age 11 and adults over age 70 are most vulnerable to the effects of smoke inhalation. A fire can produce compounds that do damage by interfering with the body's oxygen use. Carbon monoxide, hydrogen cyanide, and hydrogen sulfide are all examples of chemicals produced in fires that interfere with the use of oxygen by the body. If either the delivery of oxygen or the use of oxygen is inhibited, cells will die. Carbon monoxide poisoning has been found to be the leading cause of death in smoke inhalation.

Since the beginning of this year (2014), the Rochester Hills Fire Department (RHFD) has responded to 17 reported structure fires. Out of those 17 reported structure fires, the RHFD arrived at all 17 of those incidents outside of the four (4) minutes or less criteria. Of those 17 incidents, five (5) of those took eight (8) minutes or longer. (see *chart- Structure Fires 2014*)



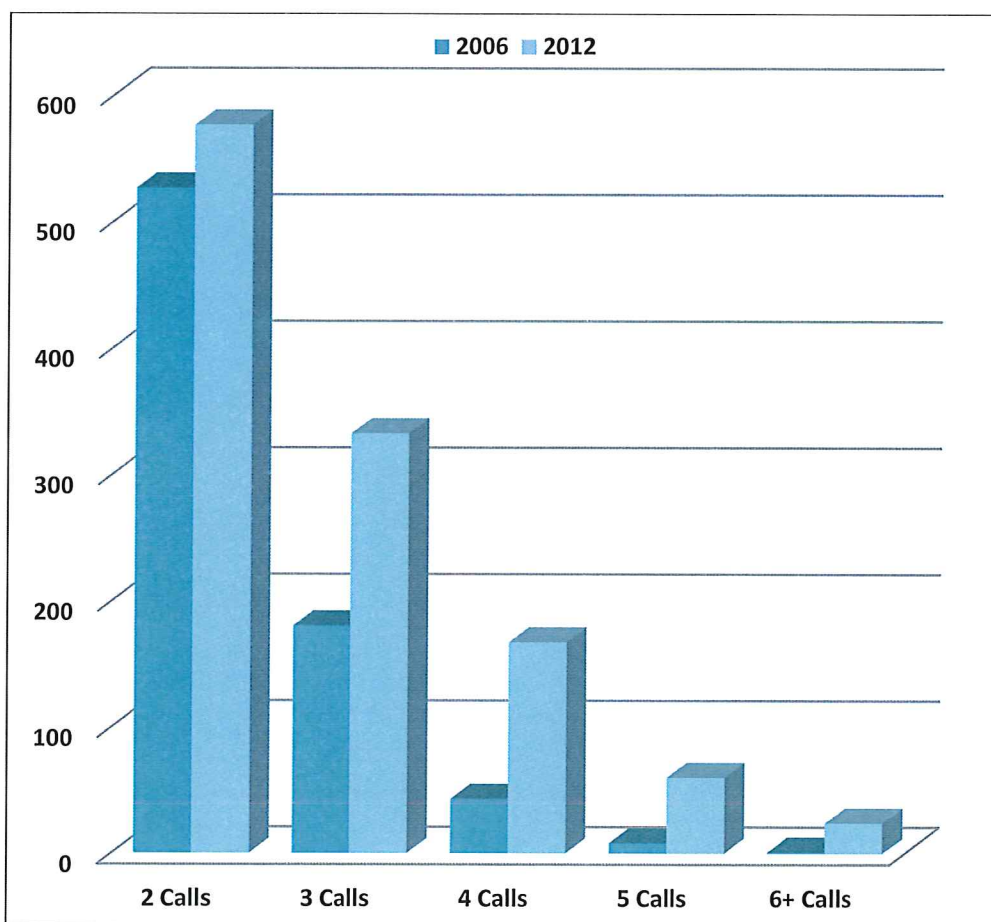
National Standard Response Times of 240 seconds (4 minutes) or less

The current staffing model of the Rochester Hills Fire Department needs an infusion of additional staffing to address the increasing call volume as well as to align our response times closer with nationally established response time criteria. This can include a mixture of hiring additional full-time Firefighter/Paramedics and part-time Firefighter/EMTs, while still utilizing our Paid-on-Call members. This model would address the needs of the community and keep our members safe. The incident volume of the Rochester Hills Fire Department continues to grow and with the addition of other nursing and assisting living facilities, this number will grow even higher. For example, in 2013 the twelve (12) nursing and assisted living facilities already within the boundaries of Rochester Hills, accounted for 25% of the total incidents for the year (see *Appendix- Run Volume at Assisted and Nursing Facilities*) (see *Appendix – Number of Beds at Assisted and Nursing Facilities*). With the current number of beds already within these facilities, the department estimated that for each current bed (1456 total) the RHFD responded to 1.025 incidents per bed for a total of 1498 incidents in 2013. Through this information, the department projects that additional facilities and their bed configurations would account for approximately one (1) additional incident per bed. With the planned addition of similar facilities, the influx of additional runs will tax an already taxed system.

The department has also seen more incidents being dispatched concurrently, which means RHFHD resources are depleted very quickly. This forces us to rely more frequently on neighboring departments, which then depletes resources for an entire 36-mile area. This causes several issues:

1. The burden of our lack of staffing creates a ripple effect through other organizations and their ability to provide service to their customers.
2. The response time to a priority incident can be increased since the resources are responding outside the Rochester Hills boundaries.
3. Their resources could already be utilized for an incident in their area.
4. Our neighbors are already encountering issues within their own staffing and response times *(see chart - Concurrent Emergency Calls)*

Concurrent Emergency Calls



To accomplish this staffing model the need to address current Rochester Hills Fire Department (RHFHD) facilities is necessary. The majority of the facilities were designed for a department that had the members responding from home to the station. With the growth of the city as well as the department, the stations have not been renovated to accommodate full-time staffing, nor has an updated plan for the future needs of the community and department been projected.

Fire Station Projects

The City of Rochester Hills is a 32.2 square mile suburban area that has witnessed steady growth over the past 10 years in size as well as economic development. The Rochester Hills Fire Department provides a full range of fire, EMS, rescue, and other services out of five (5) fire stations, serving the 70,995 residents of the city. Over time, changes in demographics, land use, and transportation system patterns, have resulted in certain stations becoming virtually ineffective with their current design. Therefore, some of the current resources of the department are no longer meeting the needs of the organization or the community as desired. To meet the current requirements of the community, and to plan for future needs and service delivery, the department needs to have all facilities capable of housing and sleeping five (5) personnel. Although the current plans are not to house five personnel on a regular basis, in the event of unplanned emergencies and/or future growth, the facilities will already be equipped to accommodate the extra personnel.

The largest single issue facing the department with station design is the critical need to renovate older, outdated and antiquated fire stations. These stations: No. 2, 3, 4, and 5 due to size, location, landlocked and limited construction features, multiple emergency response units, lack of work out facilities, inadequate office space, lack of sleeping facilities, and lack of men/women separate facilities where sleeping facilities do exist, are our primary concerns. Pictured below is Fire Station No. 4 on Walton Blvd. This station is landlocked on all sides, has no separate men/women facilities, and houses an engine, ladder, support vehicle, and medic unit running from two tight apparatus bays. Additionally, there are certain apparatus within our fleet that do not fit in this station due to current configuration of the apparatus bays, which limits our ability to reassign apparatus as needed. The quarters of this station are so inadequate that the limited workout equipment that is available at this station is located in the kitchen area, which does not provide for a sanitary environment.



Additionally, growth of the city's population and development of undeveloped areas, today has the fire department protecting an even larger developed land area and population. This poses the challenge of maintaining service levels in the face of increased demand over a larger area. For example, with the current number and scheduled addition of several assisted living and nursing facilities within the city boundaries, the department projects an increase to the run volume we encounter. Paramount to our current efforts, as well as future fire station renovation / replacement planning, is to view the total response jurisdiction. This means looking at the whole city with the understanding that every station must be viewed in its relationship to all adjacent stations and how these relationships equate to total city coverage. The Rochester Hills Fire Department, along with those in many other cities, has been evolving from its original purpose of fighting fires to its current much wider mission of providing a range of sophisticated fire and public safety services. The largest category of fire department activity today is for emergency medical responses. Over the last few years, the Rochester Hills Fire Department has struggled to meet the rising demand of calls for service and historically only meets the National Standard Response Time of 240 seconds (4 minutes) fifty (50) percent of the time.

Demand projections indicate that the need for emergency services will continue to increase in accordance with historic trends at a rate of approximately 10% per year. Response times will degrade as call volume increases simply because more units will be unavailable for responses. Currently for 2014, the Rochester Hills Fire Department has responded to 2,306 incidents year to date (YTD). With this projected rate of call volume, it is conceivable that the fire department may encounter their first year in which total responses may reach 7,000 incidents. Response times will also degrade as the result of longer drive times due to continued population shifts and development of undeveloped areas. The intent of staffing resources is to maximize the use of units to get the best first-due response times, and also to provide robust second and third unit response for major emergencies

As the City has grown, development patterns have not always coincided with existing fire department facilities. Also, older facilities may be limited in terms of their size and ability to house modern fire apparatus, which has grown larger over the years. As a result of these and other circumstances, adjustment of existing resources can result in improved service. Although the Fire Department started updating and improving the conditions at our fire stations, we have not addressed the lack of limited construction features, lack of work out facilities, inadequate office space, lack of sleeping facilities, and lack of men/women separate facilities where sleeping facilities do exist. The department needs keep growing therefore the renovation and/or replacement of our facilities was recommended prior to the start of any scheduled Capital Improvement Projects beginning in 2014.

Some of the department stations are now more than 30 years old with just a single dorm room that was converted from closet or office space and one restroom and shower facility. The addition of female firefighting personnel requires the stations to be remodeled with separate sleeping quarters and additional restroom facilities. These older stations have struggled to keep up with a modern fire department and the services we provide. The department is developing a plan to remodel (3) three fire stations and rebuilding a fourth (4th) station if land lock issues prevent renovations. Currently, the fire department and building department are working with the City's contracted architect to evaluate Stations No. 2, 3, 4, and 5 and is in the process of completing design plans and cost projections for support of a funding initiative on the November 2014 ballot.

Closing

This report identifies concerns with the current staffing of the Rochester Hills Fire Department and department facilities. Through this report, we will begin to address the needs of the department as well as the growing needs of the community, which is evident with our increased call volume. The fire department facilities have lacked the ability to keep up with a growing organization and renovations are an immediate necessity. As other city departments grow due to the increased demand for service (roads, building inspectors, etc.) so is the need for the fire department to grow to keep pace with the expectations of community. Support from the council and city administration is crucial to our efficiency in this regard. The information presented in this report is to ensure the future success of the organization.

Appendix



RHFD Call Volume

1975 - 1997

Year	Medicals	Fires	False Alarms	Other Calls	TOTAL CALLS	Yearly Percentage Change Total Calls	Yearly Percentage Change Medicals
1975	14	106	8	46	174		
1976	65	124	14	123	326	+87%	+364%
1977	71	209	12	94	386	+18%	+9%
1978	257	240	22	193	712	+84%	+261%
1979	476	278	13	205	972	+36%	+85%
1980	424	244	22	288	978	0%	-10%
1981	496	269	11	279	1055	+7%	+16%
1982	515	192	21	279	1007	-4%	+3%
1983	588	246	9	393	1236	+22%	+14%
1984	757	300	6	419	1482	+19%	+28%
1985	844	332	7	454	1637	+10%	+11%
1986	905	336	1	452	1694	+3%	+7%
1987	1001	369	5	401	1776	+4%	+10%
1988	1131	414	6	479	2030	+14%	+12%
1989	1266	354	53	522	2195	+8%	+11%
1990	1528	328	5	511	2372	+8%	+20%
1991	1584	314	5	522	2425	+2%	+3%
1992	1621	231	0	475	2337	-4%	+2%
1993	1668	229	15	669	2611	+11%	+2%
1994	1689	244	29	903	2865	+9%	+1%
1995	1776	218	236	698	2928	+2%	+5%
1996	1872	174	319	697	3062	+4%	+5%
1997	2094	160	303	600	3157	+3%	+11%

Significant Events:

07/27/98 - (1) Civilian Dispatcher and (1) FT Firefighter per dispatch shift.

09/01/00 - Expanded full-time coverage; from five 10-hour shifts Monday thru Friday (07:00 - 17:00 hours) to seven 12-hour shifts (06:00 - 18:00 hours).

02/25/01 - Last day for FT firefighters in Dispatch; Complete civilianized dispatch

06/01/01 - Expanded full-time coverage to seven day, 24-hour service working 12-hour shifts; 0600-1800 with 4 personnel, and 1800-0600 with 2 personnel.

04/08/01 - Full 24-hour shifts begin with a staff of 18 full-time Firefighters, with 6 personnel per shift.

06/24/02 - BLS transport of Alpha calls begins. All Firefighters are licensed Paramedic's.

09/01/02 - EMS Billing begins.

10/25/02 - ALS transport service begins.

01/01/03 - POC personnel divided into separate divisions: Fire and EMS

04/01/06 - Hired additional 6 Firefighter/Paramedics (Oakland County protocol). Full-time staff of 24 Firefighter/Paramedics.

06/01/07 - Staffed Station No. 4 with 2 Firefighter/Paramedics 12-hour shift. (24-hour shift beginning in 2008).

03/01/10 - (Approx. date) Stopped running Engines to medical calls.

06/02/10 - EMS Change-over. Station 2 staffed w/ FT EMT's and POC's 0500-2300. Station 3 staffed 24/7 with POC FF/EMT's.

06/14/10 - B-22 moved from Station 2 to Station 5 for staffing medical response 0500 - 2300.

06/2010 - Began EMS non-emergency Transfers.

07/14/10 - Rochester Hills Dispatch Center closed. Dispatch services transferred to Oakland County.

10/24/11 - Staffed Station No. 2 with 2 Firefighter/Paramedics 12-hour shifts, 07:00 - 19:00 hours (Trial)

04/09/12 - Staffed Station No. 2 with 2 Firefighter/Paramedics 24-hour shifts.

10/25/12 - 10-year anniversary of ALS and BLS transports.

02/11/13 - Deputy Chief step-down (Jim Bradford). Starts as Fire Inspector.

02/11/13 - Minimum full-time staffing changed from 6 to 7 personnel, Monday - Friday, 0700-1500 hours. 101 and 105 taking vehicles home as needed.

02/03/13 - Started midnight POC shift at Station No. 5, 23:00 - 06:00.

06/29/13 - Stopped midnight POC shift at Station No. 5 due to low manpower.

03/24/14 - New Fire Chief hired (Sean Canto). Ron Crowell starts as Deputy Chief.

2013 Full-Time Staffing Levels			
Month	6 On-Duty	7 On-Duty	8 On-Duty
January	4	16	11
February	7	8	13
March	12	14	5
April	17	7	6
May	16	10	5
June	11	8	11
July	12	14	5
August	15	9	7
September	11	9	10
October	13	10	8
November	14	8	8
December	12	9	10
Total Shifts	144	122	99
Shift Percentage	39.50%	33.50%	27%

**Rochester Hills Fire Department
Staffing Levels**

Year	Admin.	Clerical	Fire Prev. Bureau	Full-Time Firefighter	Training Coord.	Dispatcher	Full-time EMT	EMS Coord.	POC Station 1	POC Station 2	POC Station 3	POC Station 4	POC Station 5	Total POC's
1991	2	2	3	8	N/A	N/A	N/A	N/A	18	23	19	14	19	93
1992	2	2	3	8	N/A	N/A	N/A	N/A	21	21	19	18	20	99
1993	2	2	4	8	N/A	N/A	N/A	N/A	19	18	16	17	18	88
1994	2	2	4	8	N/A	N/A	N/A	N/A	20	18	20	17	14	89
1995	3	2	3	8	N/A	N/A	N/A	N/A	15	18	17	19	14	83
1996	3	2	3	8	N/A	N/A	N/A	N/A	17	20	22	25	13	97
1997	3	2	4	8	1	1	N/A	N/A	15	15	20	16	10	76
1998	3	2	4	8	1	5	N/A	N/A	16	18	16	18	11	79
1999	3	2	4	8	1	5	N/A	N/A	15	19	15	14	10	73
2000	3	2	4	12	1	5	N/A	N/A	12	18	16	11	10	67
2001	4	2	4	16	1	10	N/A	N/A	9	16	10	10	8	53
2002	2	2	4	18	1	10	N/A	N/A	10	17	12	11	11	61
2003	2	2	4	18	1	10	N/A	N/A	13	16	14	13	7	63
2004	2	2	5	18	1	10	N/A	N/A	14	20	14	10	6	64
2005	2	2	6	18	1	11	2	N/A	13	17	16	13	8	67
2006	2	2-FT/1 PT	6	24	1	11	2	1	13	17	16	13	8	67
2007	2	2-FT/1 PT	6	24	1	11	2	1	16	19	14	20	5	74
2008	2	2-FT/1 PT	6	24	1	11	2	1	17	20	14	15	6	72
2009	2	2-FT/1 PT	6	24	1	11	2	1	16	20	12	14	8	70
2010	2	2-FT/1 PT	6	24	1	11	2	1	14	16	12	19	10	71
2011	2	1-FT/1 PT	5	24	1	0	2	1	12	13	12	16	9	62
2012	2	1-FT/2 PT	5	24	1	0	2	1	13	14	13	19	6	65
2013	1	1-FT/2 PT	5	24	1	0	2	1	7	15	9	15	5	51
2014	2	1-FT/2 PT	5	24	1	0	2	1	7	13	9	15	5	49

POC Staffing Levels 2010 - 2013

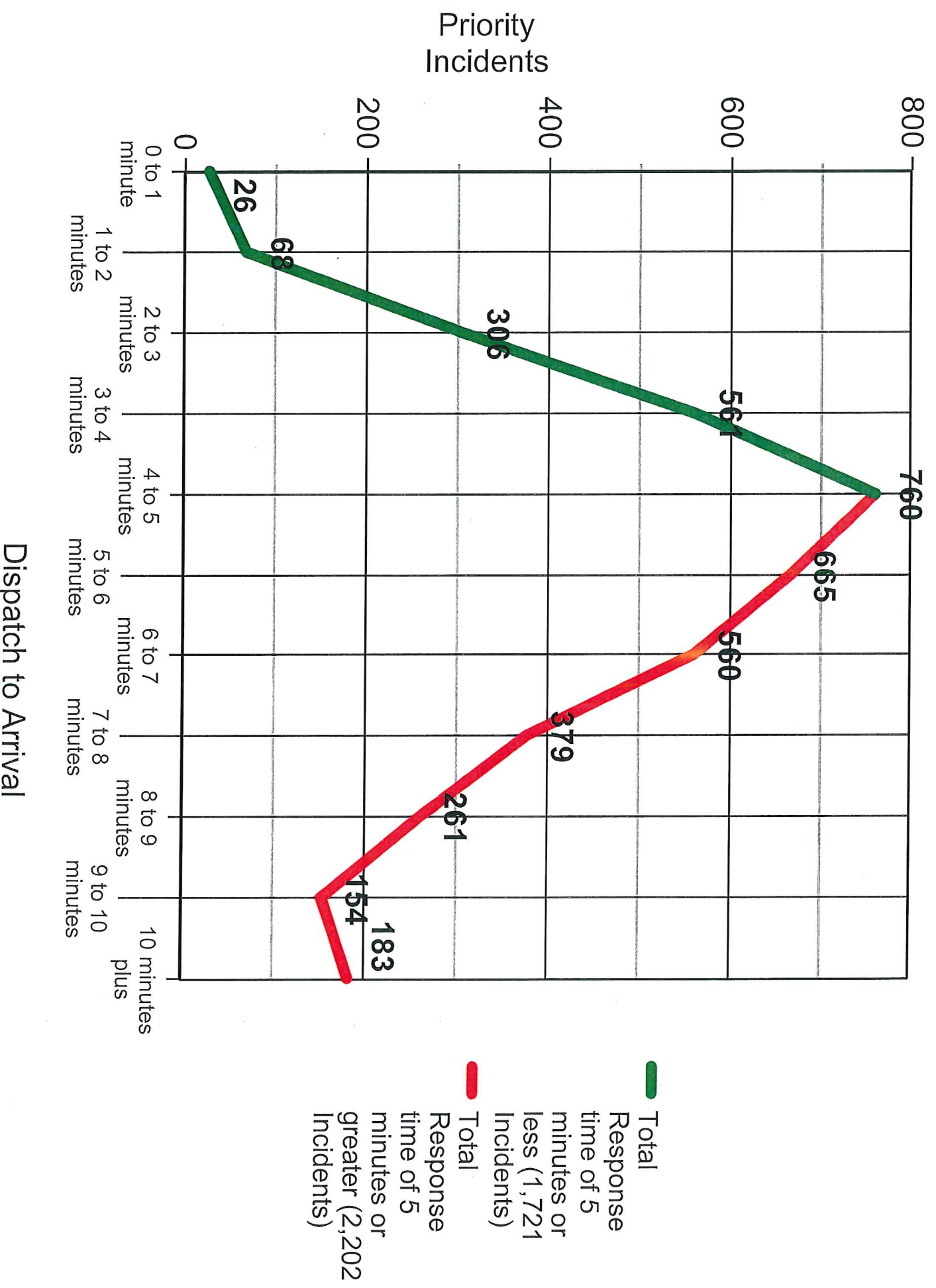
Hire Date	Term Date	LOA/Resign	Time	Notes
06/24/10	06/02/11	Resigned	1.0	
06/24/10	10/16/13	Resigned	3.25	Resigned - Full time FF
06/24/10	12/31/13	Resigned	2.75	Moved out of area
06/24/10	Active	Active		
06/24/10	Active	Active		
06/24/10	Active	Active		
06/24/10	Active	Active		
06/24/10	Active	Active		
06/24/10	01/12/12	Resigned	1.5	
06/24/10	12/23/10	Resigned	.50	Failed EMT
06/24/10	Active	Active		
06/24/10	12/20/12	Resigned	2.5	
06/24/10	Active	Active		
07/14/10	09/12/13	Resigned	3.25	FT employment - busy schedule
07/21/10	05/01/13	Resigned	2.75	Retirement
05/11/11	06/01/13	LOA	2.0	Moved out of area
05/11/11	09/13/11	Resigned	.5	
05/11/11	05/02/13	LOA	2.0	Taking Paramedic class - MAFF issues
05/11/11	09/17/11	Resigned	.5	
05/11/11	05/21/12	Resigned	1.0	
05/11/11	Active	Active		
05/11/11	02/16/12	Resigned	.75	
05/11/11	Active	Active		
05/11/11	08/22/11	Resigned	.25	
05/11/11	09/01/12	Resigned	1.5	
05/11/11	09/17/11	Resigned	.5	
12/14/11	Active	Active		
04/11/12	07/25/13	LOA	1.25	FT position with private ambulance co.
04/11/12	09/24/12	Resigned	1.5	
04/11/12	Active	Active		
04/11/12	12/07/12	Resigned	.75	
04/11/12	11/01/12	Resigned	.5	
04/11/12	08/24/12	Resigned	.5	
04/11/12	Active	Active		
04/11/12	09/25/13	Resigned	1.5	
04/11/12	Active	Active		
04/11/12	Active	Active		
04/11/12	Active	Active		
04/11/12	05/10/13	Resigned	1.0	FT position with private ambulance co.
12/04/12	Active	Active		
12/04/12	Active	Active		
12/04/12	07/12/13	Resigned	.5	FT position with Waterford F.D.
12/04/12	06/10/13	Resigned	.5	
12/04/12	Active	Active		
12/04/12	Active	Active		
07/24/13	Active	Active		

07/24/13	Active	Active		
07/24/13	Active	Active		
07/24/13	Active	Active		
07/24/13	09/20/13	Resigned	.25	
07/24/13	08/16/13	Resigned	0	Could not use his Medic license here

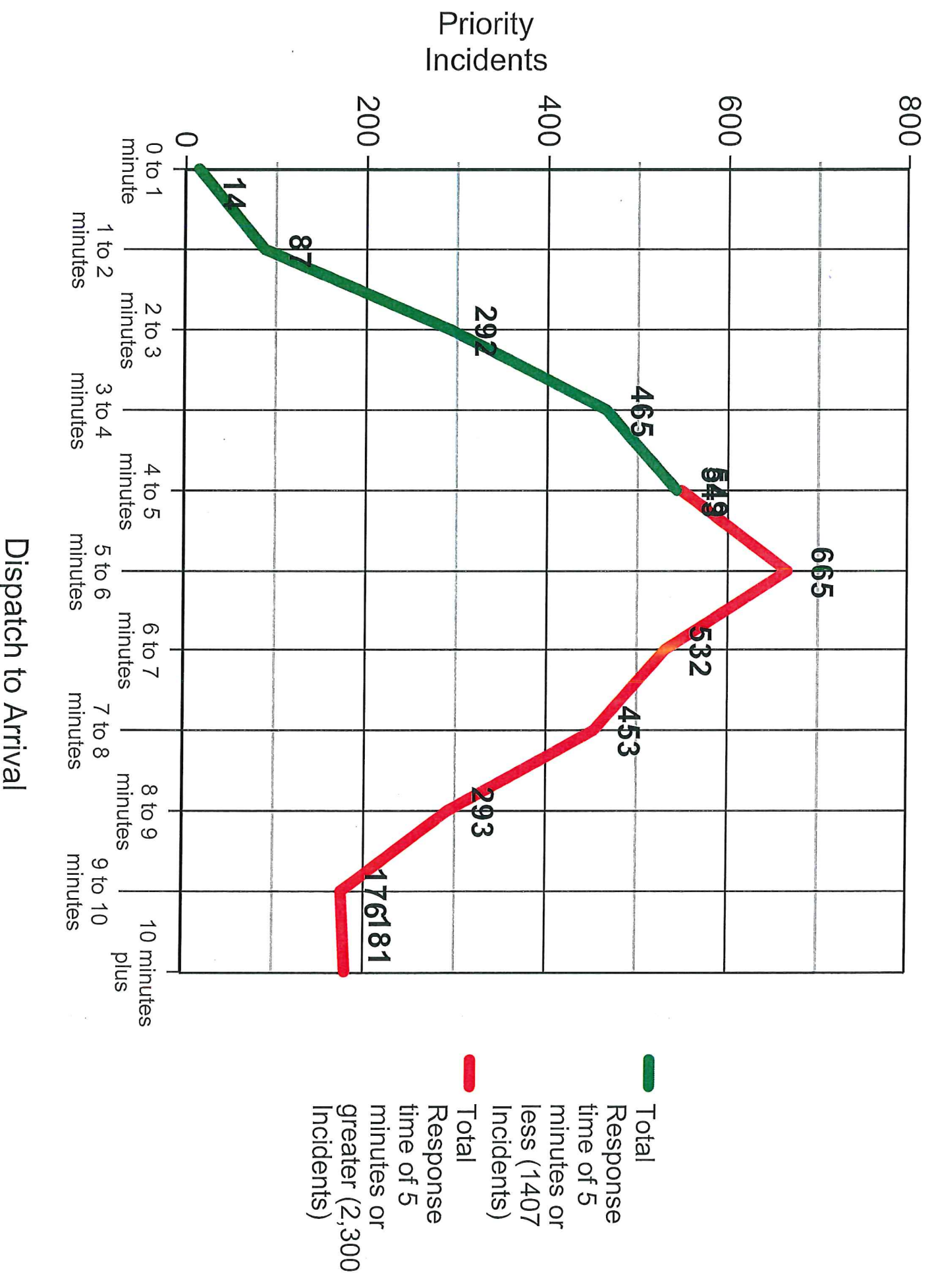
POC Status 2013

Status	Leave Date	Reason
Resign	01/22/13	Retirement
LOA	03/18/13	Moved out of area
Resign	03/29/13	Retirement
LOA/Resign	04/08/13	FT employment with Waterford then Birmingham Fire Dept
Resign	05/01/13	Retirement
LOA	06/01/13	Moved out of area
Active	06/01/13	FT employment - Zero bravo staffing hours since June 1st
Active	06/01/13	FT employment with OCSO - reduced/zero bravo hours
Resign	06/10/13	Unsure
Resign	06/20/13	FT employment with Quicken Loans and Border Patrol
LOA	07/25/13	Full-time position with private amb. co and Paramedic class
Resign	07/17/13	Moved out of area
LOA/Resign	07/29/13	Paramedic class - MAFF dues issue
Resign	07/12/13	FT employment as FF/Paramedic with Waterford Fire Dept.
Resign	08/16/13	Employment elsewhere - unable to use Medic skills here
LOA/Resign	08/20/13	FT employment with private amb. Co. and MAFF dues issue
LOA/Resign	08/26/13	Unsure
LOA	11/22/13	FT employment with private Amb. Co - reduced/zero hours
Resign	09/10/13	FT employment as FF/Paramedic with Hazel Park
LOA/Resign	09/12/13	Employment elsewhere / busy schedule
Resign	09/20/13	Unsure
Resign	09/25/13	Too many hours with FT job
Resign	10/21/13	FT employment as FF/Paramedic with Waterford Fire Dept.
LOA	11/05/13	Moved out of area
LOA	11/08/13	Full-time FF/Paramedic with Redford Fire Dept.
Active	11/04/13	Full-time EMT with MedStar - Greatly reduced bravo hours
Active	11/18/13	Full-time EMT with MedStar - Greatly reduced bravo hours
LOA	12/09/13	FT employment with Canton Fire Dept - start date 12/12/13

Rochester Hills FD Priority 2012 Response Times



Rochester Hills FD Priority 2011 Response Times



Number of Incidents

FACILITY	2011	2012	2013
All Seasons 175 E. Nawakwa	220	220	195
Medi Lodge 1480 Walton Blvd.	64	67	41
Mercy Bellbrook 875 W. Avon	100	94	100
Mercy Bellbrook 873 W. Avon	92	81	84
Boulevard Health 3500 South Blvd.	51	62	101
Danish Village 2566 Walton Blvd.	132	97	115
Avon Towers 435 S. Livernois	120	109	112
Waltonwood 1401 N. Rochester	162	158	124
Waltonwood 3250 Walton Blvd.	117	135	143
Waltonwood 3280 Walton Blvd.	82	105	102
American House 2251 W. Auburn	61	99	93
American House - Adams All buildings	264	228	288
TOTALS	1465	1455	1498

Number of Units

*****SENIORS*****				
<i>Name</i>	<i>Address</i>	<i>Units</i>	<i>Expansion</i>	<i>Notes</i>
Waltonwood	3250 Walton	120	No	
Waltonwood	3280 Walton	41	No	
Waltonwood	1401 N. Rochester	105	No	
Danish Village	2566 Walton	150	Yes	
Avon Towers	435 S. Livernois	125	No	
Boulevard Hills	3500 W. South Blvd.	83	Current	186 beds
Mercy Bellbrook	873 W. Avon	120	Possible	
Mercy Bellbrook	875 W. Avon	153	Possible	
All Seasons	175 Nawakwa	144	No	
Medilodge	1480 Walton	85	Possible	166 beds - 111 residents
American House	2251 W. Auburn	63	No	
American House	3601 S. Adams	34	Yes	
American House	3617 S. Adams	35	Yes	
American House	3633 S. Adams	34	Yes	
American House	3741 S. Adams	55	Yes	
American House	3743 S. Adams	28	Yes	
American House	3487-3497 S. Adams	33		
American House	3459-3473 S. Adams			
American House	3511-3525 S. Adams			
American House	3645-3667 S. Adams			
Wexford Way	902-988 Wexford Way	48		

Last Updated:

January 16, 2014

by: Inspector Bradford

I:\FIR\FPB\YEARLY INSPECTIONS\MISCELLANEOUS LISTS\Retirement-Assisted Living Facilities1.xls