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April 14, 2008

Mayor Bryan Barnett
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

Re: Final Report Submission

Dear Mayor Barnett,

We are pleased to attach our final report for the Rochester Hills 911 Communications Project.

So we can be prepared to address Council's questions and comments on May 12, 2008, we would like to "meet" with Representatives of Council via a telephone conference prior to our presentation.

Please provide us with a choice of dates/times that would be convenient within the next two weeks and we will confirm the date and time that coordinates with our schedule.

If Captain Smith or Chief Crowell has additional information that they would like to provide, we would encourage them to forward it to us so we can address it in the appropriate manner.

It's been a pleasure working with you and the City of Rochester Hills. We look forward to scheduling the teleconference with the Council Representatives and to our presentation on May 12, 2008.

Sincerely,

Lisa Weinthal
Vice President

City of Rochester Hills, MI

Final Report Submission for: 911 PSAP & Emergency Communication Center Services

Prepared by:



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I. EXECUTIVE SUMMARY

A. Background And Project Objectives

The City of Rochester Hills has retained the services of Intertech Associates, an independent professional consulting firm, to objectively evaluate the City's 911 PSAP and emergency communication center services and determine the best method to provide its residents with the most effective and cost efficient emergency call answering and dispatch services.

As wireless call volume has exploded across the country, the impact is directly felt within Public Safety Answering Points (PSAP's). According to the FCC, of the estimated 240+ million calls that were made to 9-1-1 in 2006, at least 42% of them were made by wireless telephone users. This is a huge increase from nearly ten years ago, and it is anticipated that the number will continue to rise. *(Taken from NENA website (www.nena.org) based upon data on January 30, 2008)*

In Rochester Hills, a unique call answering arrangement exists between the City and Oakland County. The County answers all wireless E911 calls and the City answers all land-line E911 calls, retaining the dispatching for fire and medical calls for service.

The City's stated objective became the basis for our inquiries and investigation.

B. Procedural Approach

Our team conducted a detailed review and analysis of documentation describing the evolution of 911 services in Rochester Hills and Oakland County. We conducted a series of conference calls, on-site interviews and follow-up discussions with the Rochester Hills Communications Center (RHCC), RHCC staff, Rochester Hills Fire Chief, Chief Ron Crowell, Mayor Bryan Barnett, Oakland County Communications Center (OCCC), Oakland County Sheriff's Office (OCSO), Oakland Township Fire Chief as well as several City Departments that rely on the City's Communications Center to act as the 'nerve center' for their operations.

We evaluated:

- The current 911 Communication Center services provided to the community
- Effectiveness and efficiency of utilizing functions of both Rochester Hills and Oakland County, with potential integration of functionality and operations.

We prepared:

- Comparison and analysis of Rochester Hills' needs and resources against public safety best practices to determine if there are opportunities for revisions and improvements.

- Analysis of technology and procedures to identify any missed opportunities to improve effectiveness or efficiency of overall services to the community.

To understand the process, it is important to note that both the County and City distinguish between emergency *call answering* and emergency *dispatch* within their own Centers. National Standards organizations including APCO (Association of Public Safety Officials) and NENA (National Emergency Number Association) have developed standards and specialized training criteria for each of the first responder *dispatcher* functions: police, fire and medical. Minimum training requirements have been established for telecommunicators who perform *call answering*, as well.

C. Predominant Options

In order to determine the strategic direction for Rochester Hills Communications Center, we identified four possible options against which relevant factors were compared and evaluated. Included is an option to split the two functions of call answering and dispatch between the two Centers without impacting service delivery to first responders or residents. This is based on our conclusion that both Centers have incorporated the standards into their programs, resulting in highly credible, functional and capable first responder organizations.

Option 1: Maintain Current Configuration

RHCC: All landline 911 Calls, City Services and Oakland Twp.,

OCCC: All wireless 911 Calls

Option 2: All Call Answering from RHCC with Dispatch remaining the same:

OCCC: Police dispatch

RHCC: Fire/Medical dispatch

Option 3: All E911 Call Answering and Dispatch by OCCC

- Disband Rochester Hills Dispatch Center

Option 4: OCCC Call Answering for all E911 calls

OCCC: Police Dispatch

RHCC: Fire/Medical and City Services Dispatch

We used these options as the basis on which to judge the capabilities, services and facilities of the two centers throughout our evaluations:

We openly shared these options with the stakeholders so we could gauge their acceptance or resistance and concerns. This approach promoted open discussion and provided optimal insight into a subject that has many layers, not the least of which is 'people' driven.

D. Recommendations:

1. Call Answering and Dispatch Recommendations

Option 4: OCCC Call Answering for all E911 calls

We recommend **Option 4** as it best meets the stated requirements, satisfies a 'best practices' on a local and national basis and maintains the City's standards for excellent service.

a. Benefits:

Efficiency: Most productive use of resources and meets 'best practices' for E911 calls to be answered within a single center.

Stakeholder Support: County and City stakeholders expressed support for this option. Both parties agree that *formalized*, regularly scheduled meetings must resume in order to achieve the highest level of service. See item 2 under 'Additional Initiatives'.

Current Service Levels:

Service levels would not be impacted in any of the first responder communities or City agencies. In fact, response times may improve due to a single entity providing coordination of call answering and dispatch activities.

Financial:

- No additional cost to the Rochester Hills as the City already pays for all 911 call answering services through its contract for police services with the County.
- Rochester Hills will continue to see revenue in the amount of approximately \$50,000 annually from Oakland Township.

Service Benchmark:

- OCCC currently provides call answering services for Oakland Township in addition to a combination of call answering and dispatch services for 5 other police departments & 13 additional fire departments.
- Rochester Hills wireless calls which account for 80-85% of the City's emergency traffic, are already being answered by OCCC. Fire and Medical calls now transferred to RHCC have been within the proper time frame for service.

b. Drawbacks:

- If RHCC becomes a secondary PSAP, there may be a loss of 911 surcharges funding which is now used for dispatcher training. The funding received from the State of Michigan in 2007 was \$7972.00 and \$8,649 in 2006.
- There are no other identified negative impacts to this configuration

2. Technical Review Advisory Committee (TRAC)

This recommendation is a condition to successfully maintaining the highest level of quality service.

- Establish a committee on the Executive level to be led by a City official, directly accountable to the Mayor. While it is required by contract that Oakland County and City Communications Centers are obligated to engage periodically, this practice has been abandoned.
- Appoint the Mayor's representative, to act in the role of facilitator/mediator. This representative would have access to City resources and other City/County professionals, as needed.
- Give the Committee responsibility to develop and resolve issues regarding Public Safety procedures, process and 'best practices'.
- TRAC must establish guidelines to include procedural, operational, technical and conflict resolution
- TRAC members to include: ranking officials of the County, Rochester Hills Communications Center Supervisors and Quality Assurance staff for each Center.
- Agree to regularly scheduled, formalized meetings that clearly outline agenda items and areas to be discussed that impact procedures, operations and expectations.

We believe the following two items should also be under the Mayors Office as well:

3. Coordinated Incident Reporting

The City and County utilize the same CAD equipment which can provide a significant benefit that is not being realized today. By 'networking' both CAD systems over a data network, both County and City can achieve coordinated incident reporting procedures with minimal investment by either party. *We recommend the City consider developing a coordinated incident tracking function so that any future emergency call event can be tracked from end-to-end using one set of identifiers.*

4. Non-Emergency Call Analysis

Since approximately 67% of all incoming calls were identified by the Rochester Hills Communications Center as 'non-emergency administrative and operations' calls, through the Office of the Mayor we requested the RHCC initiate a one month call tally to provide directional data on the type and frequency of calls answered by the Communications Center on behalf of City departments and other emergency related events.

Annualizing the results of the one month study, we found that approximately 60% of 'non-emergency administrative' calls are in fact directly related to emergency tasks; leaving 40% of the calls and tasks directly attributable to City-related services.

The city requires these services and values the quality of life benefits that the Communications Center affords its residents, however, an impact of the severe financial downturn which is plaguing the State economy, the City may want to further examine the services being offered.

This may be an opportunity for the City to explore incremental steps towards migrating functions now provided by RHCC to the County beginning with the call answering function, and then evaluate the impact of each step on quality of life benefits now provided by the RHCC.

5. Additional Initiatives:

The following recommendations are offered to provide optimal utilization of staff, facilities, and resources, and to develop services that will have a positive financial impact on the budget:

a. Regional Dispatch for Fire & Medical

RHCC has the technology, staffing capability and *credibility* within the community to become a Regional Dispatch Center for fire and medical services. However, further analysis needs to be conducted to develop a competitive market-based approach and pricing model to effectively attract and contract its fire dispatch services with other community's departments.

In addition to a competitive and creative price structure, a well defined marketing program and business plan should address the cost of service, the cost of value added services and the anecdotal and quantifiable advantages offered through Rochester Hills Center as compared to other options in the Region.

b. Communications Center Operational Analysis

A more detailed staffing and operational analysis would validate the service delivery processes and procedures used by Dispatch staff in RHCC as the standard of response. In conjunction with this more detailed analysis, the City may wish to research the impact of staff realignment through an attrition program and/or migration of the least busy shift to the County for dispatch support.

We believe the focus should be on implementing the Recommendations described above, which will enhance center operations and create both value and optimal utilization of staff and facilities.

IIA. CURRENT DISPATCH OPERATIONS: ROCHESTER HILLS

Our charge is to identify the inherent inefficiencies and strengths to help the City of Rochester Hills achieve the most efficient and effective first responder services for its residents.

History of Rochester Hills Communications Center (RHCC)

The Rochester Hills Fire Department provides fire and medical services to the community. In addition to these services, the Department offers public safety programs, building safety inspections, and emergency call answering and dispatch communications.

The department is divided into four divisions: the Communications Division, EMS Division, Fire Suppression Division and the Fire Prevention Division.

Since 1984, the Rochester Hills Communications Center (RHCC) has been the City's primary Public Safety Answering Point (PSAP), providing traditional 911 and Emergency Call Response (10-digit emergency numbers) call answering and dispatch services. As technology changed and evolved into Enhanced 911 (E-911), the Communications Center has continued to provide primary answering and dispatch services for fire and medical response. E-911 calls requiring a coordinated Police response are handled directly through the Call Center's telecommunicators.

Police service and response has traditionally been provided through a contract with the Oakland County Sheriff's Office, which provides round-the-clock coverage with 60 officers assigned to the Rochester Hills sub-station of the Oakland County Sheriff's Office. Dispatch for police has been provided through the Oakland County Communications Center – a division of the Oakland County Sheriff's Office.

As recently as 2000, the Rochester Hills Communications Center handled **all** 911 calls generated within the City of Rochester Hills. However, with the significant increase in wireless cell phones, there was a corresponding increase in wireless 911 call volume. Wireless 911 calls were directed to the Oakland County Communications Center but often lacked the call detail of land line 911 calls as deployment of the technology to provide the additional information was not yet available from wireless carriers. Phase 2 wireless-911 service changed this and enabled Communications Centers to identify the location of a wireless E911 call. In 2003, these changes in technology required upgrades to Communications Center hardware, which the Oakland County Communications Center implemented in anticipation of Phase 2 Wireless E-911 service becoming available in Southeastern Michigan.

The City of Rochester Hills Communications Center followed closely behind in implementing the necessary hardware and software systems for wireless E-911 compliance. However, as a matter of expediency and with the sharp increase in wireless usage, it was

determined in 2005 that all *wireless* E-911 calls would continue to be answered by Oakland County Communications Center and all *land line* 911 calls would continue to be answered at the Rochester Hills Communications Center.

Rochester Hills would continue to provide primary call answering for wireline calls and dispatching for fire and medical services for the City as well as Oakland Township. The RHCC plays a vital role in providing call answering and dispatch support for City Public Works, after hours service and emergency calls, alarm calls and 10-digit emergency numbers. Although not as common as police dispatch centers, RHCC offers competent staff trained in the requirements of emergency fire and medical dispatch.

Thus, for the past several years, a "tandem" answering configuration has been in use: wireless E-911 calls answered by the Oakland County Communications Center and land line E-911 calls answered by the Rochester Hills Communications Center. Although this "tandem configuration" does not seem to have impacted local residents' perception of service, it does create innate inefficiencies that result in duplication of service requests and redundancy in dispatch efforts which may be negatively impacting response times by both police and fire, coordination issues between agencies, and procedural mis-steps.

Findings

The Rochester Hills Communications Center is fully staffed and equipped to serve its multiple objectives:

- Primary PSAP
- Regional fire/medical dispatch provider
- Communications hub for all non-emergency, informational calls as well as dispatch for City Department of Public Service, Parks and Buildings Department

The duplication of function between Oakland County and the City have raised the need to determine the most efficient and effective method of handling emergency 911 services.

Current Environment

The City of Rochester Hills, while 'young' in years, is approximately 92% built out. With population growth expected to remain constant for the foreseeable future, Rochester Hills is investigating opportunities to increase its tax base to support the changing needs of its aging population.

Demographics of the area indicate that during the next 10 years, over one third of the population will be over 55, which is already impacting the type of residential housing the City will be building i.e. Senior Living and Assisted living communities. Approximately 420 units are being developed according to the Planning and Development Department.

The challenge facing the City is being able to forecast and meet the need for increased emergency services without raising taxes. This primarily residential community is researching ways to 'reinvent' itself through creative approaches to retail and commercial spaces, as well as opportunities for medical technology, hospitals and technology innovation zones.

The Planning and Development Department anticipates development and construction of the Crittenton Hospital Medical Center expansion to include medical support facilities and a rehabilitation center within the next 5-8 years. It is expected that these development plans will have a great impact on emergency City services.

As part of the rich diversity of services available in Rochester Hills, the City offers a range of active and varied recreational facilities. The City Parks and Recreation Master Plan (2006 – 2010) identifies a park and recreation infrastructure of 950 acres that includes developed and undeveloped parks, trails and bike paths; again, this creates a potential impact on emergency medical response and service.

Interestingly, the very age demographics that the Planning and Development Department is reviewing for the development of senior living facilities reflect recent trends indicating that "...Quality of Life' issues, including healthy living and recreational opportunities, will play a major role in where people choose to raise families and retire. ...further, the age structure of the City of Rochester Hills also indicates that the greatest immediate need is for recreation facilities that serve all ages." (*The City of Rochester Hills Parks and Recreation Master Plan, 2006 – 2010 Rochester Hills, Michigan Adopted: March 15, 2006, Page 4*)

Findings

With the increased trend towards recreational opportunities at every age level, the City will need to maintain or increase its current level of medical rescue response. According to the Parks and Forestry Department, 911 calls are frequently made via cellular phones, unbeknownst to Park Rangers, and answered at the Oakland County Communications Center, where they are triaged and transferred to the Rochester Hills Communications Center for dispatch.

Parks and Forestry comment that through feedback and observation, most of the calls that require EMS response are 'typically excellent,' demonstrating the service level provided through the collaborative efforts of Oakland County Communications Center as the primary PSAP and Rochester Hills as the secondary PSAP dispatching medical support in response to a call for service.

Call Volumes

The Rochester Hills Communications Center is the primary answering position for all E-911 calls made from land line phones, which requires triaging the call and transferring any calls requiring police response to Oakland County while initiating dispatch procedures for medical/fire events.

In addition to its primary function of providing dispatch services for the City's Fire/Medical and the Oakland Township Fire Department, the Rochester Hills Communications Center provides 24x7 services to the City by answering and responding to all buildings and grounds alarms and alarms for Crittenton Hospital Medical Center. In addition, the Communications Center is the "after hours" default for the City's phone system if a citizen calls for a city service or information and other non-emergency land line calls.

Rochester Hills Communications Center Call Volume Statistics Table 1

	Total-2000	Total-2001	Total-2002	Total-2003*	Total-2004**	Total-2005	Total-2006	Total to Date: Sept.30, 2007
911 Trunks	9,790	9,371	8,913	8,838	8,673	8,751	8,114	6,206.00
10 Digit Emergency Incoming Trunks-1	2,964	2,334	2,919	3,079	2,557	2,326	2,520	1,893
10 Digit Emergency Outgoing Trunks-1	74	21	21	49	101	32	5	11
Non Emergency Incoming Trunks-2	23,300	21,000	21,282	26,172	25,749	23,871	21,556	13,696
Non Emergency Outgoing Trunks-2	18,373	17,745	16,164	14,261	15,426	15,176	12,157	8,510
Total Incoming Calls	36,054	32,705	33,114	38,089*	36,979**	34,948	32,190	21,795

Although data was provided from 2000 through present, we have used 2006 *End of Year actuals* rather than projected 2007 data for accuracy and consistency across dispatch centers. 2003 marked the first year that Oakland County Sheriff's Office provided Phase 1 wireless E-911 call answering services to Rochester Hills; all cellular E-911 calls were routed to the Oakland

County Communications Center for all or part of that year, and 2004 marked the first *full year* of Phase 2 compliant cellular E-911 calls to the County.

Phase 2 compliance at the PSAP level is an important capability of the Center as it enables the telecommunicators to identify a caller's location information through V&H (vertical and horizontal) coordinates and regular 'rebidding' (checking) as a caller moves while on the cell phone (as in a car). Rochester Hills became Phase 2 compliant shortly after Oakland County, enabling them to react with the same information as Oakland County.

All of Rochester Hills' emergency calls are generated by land line E-911, 10-digit emergency calls from city offices, other PSAPS and hospitals, and fire or medical calls from the Oakland County Communications Center. Rochester Hills Communications Center received **10,634 emergency calls** in the baseline year of 2006 (8,114 E-911 calls and 2,520 alarm calls). Of these, approximately 1,926 calls (18%) were transferred back to Oakland County as police related.

An additional **21,556** calls received by the Communications Center were related to calls from city offices, i.e. public works, road service, and emergency communications from other PSAPS and Crittenton Hospital Medical Center, as well as from City residents on a 24x7 basis from non-emergency numbers.

Due to the type of equipment, trunk configurations, and type of information that can be provided by the wireless carriers, the data presented in this report utilizes 'best estimates' in several places to address total wireless call volume and description of 'non-emergency' calls.

In order to validate these 'best estimates' provided by Oakland County and Rochester Hills, we recommended a short term call tally analysis at Rochester Hills to confirm quantity, time, and call type for each call answered on the non-emergency trunks in the Communications Center. The results of this study have been incorporated into our findings.

Table 2: 2006 Call Data Breakdown by Trunk Type

<u>Trunk Description</u>	<u># of Calls</u>	<u>% of Total Calls</u>
911 Trunks (1-4):	8,114	25%
0911 } 0912 } Emergency Alarms and other PSAPS: 2,520 (8% of 32,190 – Total)		
Wireless 1, 2 and 3 – Back up for emergency internal and o/g call service		
4725 } 4726 } PBX City extensions		
4650, 51 } 4655 } Main Listed #; Business Listing		21,556 (67% of total 32,190)
4620 } Dispatch Line		
OSCO } Internal employee extension		
CRITT } County Ringdown		
	Hospital	

Non Emergency Call Tracking

Through the Office of the Mayor, we requested the Rochester Hills Communications Center initiate a one month call tally to provide directional data on the type and frequency of calls answered by the Communications Center on behalf of City departments and other emergency related events.

The survey ran from February 13 through March 10. Dispatchers manually tallied each incoming call on the lines identified as Administrative and Operations during each of the three shifts for a 30 day period. The results for the one month call tally are:

Table 3: Non Emergency Call Tracking (February/March 2008 data)

FD Staff Calls	FD Business Calls	OTFD Calls	DPS Calls	City General Calls	Walk In's	Misc.
816	150	89	56	29	226	30

- FD Staff Calls are the result of manpower requests and back in service calls
- FD Business Calls are defined as business related and incident response calls
- OTFD are Oakland Township Fire Department calls generated from Oakland Township
- DPS (Department of Public Service) for emergency, SCADA alarms and other related services
- City General
- Walk-in's are residents seeking burn permits or other administrative fire support
- Miscellaneous

Annualizing these results, approximately 60% of 'non-emergency administrative' calls are in fact directly related to emergency tasks; leaving *40% of the calls and tasks directly attributable to City-related services.*

We believe this preliminary study properly addresses the call frequency and type of calls the Center handles on a routine basis. The Center is sufficiently staffed to cover the volume of emergency related calls as well as City-related service calls. The larger, more substantive issue is to determine the best method to provide City residents with the most effective and cost efficient call answering and emergency dispatch services. Call answering is not the problem as it should be accomplished at one Center and we are recommending that the County take this function. However, dispatch services are under-utilized; we recommend the options of staff realignment as a result of attrition and/or transferring the least busy shift to the County.

Center Staffing

National Dispatch Statistics, which are only recently available through NENA and the National Department of Labor statistics, indicate that most Fire Communications Centers

have an estimated dispatch staff of 9 dispatchers. (911 Dispatch Monthly;
http://www.911dispatch.com/info/fact_figures.html)

This statistic is consistent with the call taker/dispatch staffing at the Rochester Hills Communications Center. Using commonly accepted staffing formulas, which do not account for work time, call answer time, or call volumes, and the NFPA 1221 7.3.2 requirement to maintain two telecommunicators on duty at all times in a Fire Dispatch environment, Rochester Hills Communications Center is staffed appropriately to achieve the current service levels required by the City.

However, further maximization of function and efficiency can be considered through a formal staffing and resource analysis, which will take into account the individual tasks, functions, in-between work time, turn out time, and other call center metrics for emergency and non-emergency functions.

In lieu of this, the Communications Center has identified a creative method to achieving the current level of support through the creation of a 'super swing' shift person who fills in, as needed, across each of the three shifts, resulting in three dispatchers on during busier shifts.

The Center is staffed by a minimum of two dispatchers working each of the three 8-hour shifts. A Communications Supervisor is on duty during the day shift. A Communications Coordinator is on duty during the afternoon shift, who also acts as Quality Assurance supervisor.

The Center has two dispatch stations that are always staffed, plus a third station available for emergencies or other dedicated functions.

During a fire emergency, the Center dedicates one dispatcher to the incident; the other dispatcher on duty will respond to all other incoming calls. Dispatchers monitor the incident, calling the incident commander every 20 minutes to provide an update on the passage of time and changes that may have occurred. This protocol is extremely important to the firefighters.

Dispatchers receive on-going training and certifications as required through 911 surcharge funding dispensed through the State of Michigan to primary PSAPs. These include dispatch and technology related training.

Call Volume and Staffing

Using the baseline year of 2006 with a call volume of 32,190 emergency, non-emergency and outbound calls, our evaluation includes a high-level staffing review to identify

where the City might be impacted by a reduction in resources. This portion of our review does not include a full staffing study or resource allocation recommendation.

We used national benchmarks and a recent New Jersey Department of Law and Public Safety study as reference points for our assumptions on busiest shift within a 24 hour period. The Rochester Hills Communications Center uses an 8 hour shift (the actual used in our benchmarks are an hour off, which is still relevant for our purposes.)

The busy hour schedule of Rochester Hills Communications Center is consistent with the New Jersey Department of Law and Public Safety. The study results are listed below.

Table 4: Busy Hours Schedule

New Jersey Dept of Law & Public Safety Benchmark	% of Work Effort per Shift	Rochester Hills 8-Hour shift
Midnight -8 a.m. shift	23% of the work effort	11 p.m. – 7 a.m.
8 a.m. - 4 p.m.	31% of the work effort	7 a.m. – 3 p.m.
4 p.m. - midnight * (busy shift)	46% of the work effort	3 p.m. – 11 p.m.

Based upon these reference points, each shift would receive the following average call volume:

- 7,404 calls for the midnight shift (32,190 divided by 23%)
- 9,979 calls for the day shift (32,190 divided by 31%)
- 14,807 calls for the busiest afternoon shift (32,190 divided by 46%)

The Communications Center is staffed as follows:

- Midnight Shift: 11P-7A – 2 Dispatchers (2 staff)
- Day Shift: 7A-3p: 2 Dispatchers and Supervisor (3 staff)
- Evening 3P-11P: 2 Dispatchers, Coordinator and Super Swing Staff (up to 4 staff)

It should be noted that when a dispatcher calls out, the Coordinator and Supervisor supplement dispatch as required by call volume.

Staffing and call volume impacts are as follows:

Table 5: Staffing and Call Volume Impacts

	Calls per 8-Hour Day	Calls Per Hour	Minutes Between Calls	Calls/Hour/ Dispatcher
Midnight Shift	20.28 (7404/365)	2.5 (20.28/8 hours)	24 (60/2.5)	1.25 (2.5/2 dispatchers)
Day Shift	27.3 (9979/365)	3.4 (27.3/8)	17.6 (60/3.4)	1.7 (3.4/2 dispatchers) or 1.3 (3.4/3 dispatchers)
Afternoon Shift *	40.56 (14,807/365)	5.7 (40.56/8)	10.5 (60/5.7)	2.85 (5.7/2 dispatchers) or 1.9 (5.7/3 dispatchers)

Findings

While this data illustrates the breakdown of calls and work time between calls, it does not go to the detailed level of evaluating efficiency of work flow and specific call type as that was not the objective of our study. What we can surmise is the following:

- The Center is sufficiently staffed to handle current E-911 emergency and non-emergency work load and call volume
- The Center is capable of handling approximately 12 calls per hour during their peak busy afternoon shift* (*Extrapolating data from the US Department of Justice Call Taker-Erlang Chart assuming a 3 minute work effort per call* Peak busy shift based upon New Jersey Department of Law and Public Safety's recent study; Us Department of Justice Minimum Call Taker Staffing Matrix*)
- The Center could support 100% more call volume than is currently being handled
- A further staffing and operational analysis may be warranted to confirm this information
- By using the February/March 2008 non-emergency call tally as a directional tool to evaluate the 2006 call data, a substantial portion of the 21,556 calls in this category are directly related to emergency dispatch services bringing the total call volume for emergency service related calls to 73%. City service calls account for the balance of 27% of the volume.
- There may be operational and procedural efficiencies available that can reduce costs. These can include staff realignment as a result of attrition and transferring the least busy shift to the County for dispatch support.
- A Communications Center staff reduction should not be considered unless and until a Staffing and Operational Audit is performed to evaluate and assess the actual functions, staffing models, task time and efficiency of supporting the Communications Center with the current staff.

Communications Center Technology

On January 8-9, 2008, Intertech Associates visited the Rochester Hills Communications Center and reviewed systems and operations. Our technical team observed the operation of a 3-position console system used for call answering and radio dispatching for First Responder teams, Fire and EMS, as well as forwarding wireline E-911 calls for Police response to the Oakland County Communications Center. Based on our discussions with the Rochester Hills Communications Center Supervisor, Vince Foisy and Coordinator Maria Reiser, the Center answers other 10-digit incoming lines and distributes these calls and/or information to other municipal functions.

Each console position is equipped with screen displays providing E-911 caller ALI/ANI on a Positron Lifeline system. The information is integrated into a Motorola Print-Trak CAD screen for creation of incident records. The Center has Mapping software and display for vehicle location and other GPS tracking. Each position has recently been equipped with new radio console equipment to access the new County MA-COM trunked radio system. This is in addition to the current Motorola Centracom equipment used for paging and direct communication with Fire and EMS personnel and vehicles, as well as Oakland Township Fire and EMS.

The Motorola Centracom Console system, while fully operational, is approaching the end of its useful life due to unavailability of replacement parts; the County is providing a new MA-COM Open Sky system, imminently due to be cutover.

Rochester Hills utilizes a networked version of the Print-Trak CAD system which is a 'node' off of the County CAD server. The Print-Trak application provides a mechanism for single incident tracking and entry for multiple agency responses included in both the County and Rochester Hills versions of the software. This feature enables Rochester Hills to track an end-to-end call from initial answer at the County through transfer and dispatched service response at Rochester Hills. It can become a powerful management tool to validate response times, eliminate redundant response and provide an accurate means for public safety reporting.

A portion of the Communications Center's service is to provide SCADA monitoring of City infrastructure. This includes water and sewer monitors, power, HVAC and elevator conditions for all Building Department systems as well as 24x7 coverage for the Department of Public Service. Dispatchers provide Building Department support by alerting required staff when alarms are generated and clearing those alarms as required.

Additional services provided to fire/medical response teams through the dispatch systems in Rochester Hills include pictometry systems that provide 3-D images of buildings and structures within the City as well as GIS data for hydrants, water pipes, sewer and other City infrastructure.

The GIS data is mapped into the pictometry data providing a fully integrated 3-D tool for dispatchers and first responders. Further, this fully mapped data is also used by the Tax Assessors' office.

Findings

The Rochester Hills Communications Center is fully capable of acting as a full service call answering/dispatch communications center for all City services and emergency calls. Based upon the type of staffing and technology within the Center, Rochester Hills is *capable of offering* a similar level of call taking service as the County offers.

The current systems and equipment are fully capable of integrating with the new County MA-COM radio system. The Print-Trak CAD system, used to initiate public safety calls for service, maintains the status of responding resources in the field, and as a node off of the County network, offers a unique opportunity to utilize a built-in feature for end-to-end incident tracking. This feature is not being utilized at Rochester Hills due to procedural and operational differences in incident nomenclature between themselves and the County. We believe this can be resolved through joint meetings with CLEMIS, (the oversight committee responsible for county-wide public safety technology) and our proposed TRAC committee (which will have the capacity to offer procedural, technological and operational coordination between the two Centers).

The Center utilizes a Positron E-911 system, which includes a feature that enables incoming E-911 calls to be itemized as either 'police calls for service' or 'abandoned call'. Dispatchers are able to tag and classify the response to E-911 calls; however, the same functionality is not available for non-emergency incoming call tracking.

The current Motorola Centracom Console system, while fully operational, is approaching its end of useful life due to a replacement part issue, but the new radio console being provided by the County will offer all of the capabilities needed to continue operations.

The Rochester Hills Communications Center is well equipped to provide W/E-911 answering, Fire/EMS dispatch and City services support. However, we are recommending technological improvements that will enhance the efficiency of the Center.

- We recommend the City consider implementing a coordinated incident tracking procedure between the two Print-Trak nodes so that all incident data can be tracked from end-to-end using a common procedure. To our knowledge no additional equipment or software is required to accomplish this.

IIB. Current Dispatch Operations: Oakland County

History of Oakland County Communications Center

The City of Rochester Hill's long history of contracting for public safety services with Oakland County Sheriff's Department goes back to its inception as a City in 1984. The officers at the Rochester Hills substation function as the 'local police authority' to local residents.

The City is unique in that most communities the size of Rochester Hills have established their own Police Departments. However, due to the outstanding resources and service levels offered by the County Sheriff's Department, it would be financially impractical to consider changing this relationship.

The City has an agreement with Oakland County to provide E-911 call answering for *both* wireless (cellular) and land line calls. Currently, the County is only answering wireless E-911 calls, since the landline calls are answered by the Rochester Hills Communications Center. All Police-related calls are dispatched directly to the Oakland County Sheriff via data transmission to MDTs and radio. Any fire or medical event for either Rochester Hills or Oakland Township is transferred back to the Rochester Hills Communications Center for dispatch.

The County Communications Center is staffed to dispatch Sheriff's Department officers in communities in which the County provides policing services. The County also dispatches for several fire departments. Rochester Hills and Oakland County assume that Oakland County will continue to provide primary dispatch for its Sheriff's officers.

Current Staffing and Operational Environment

The Oakland County Communications Center supports all divisions of the Sheriff's Office and provides call answering and dispatch services for five police departments and 13 fire departments.

The Unit is made up of a Chief of Communications, a Quality Assurance Supervisor, six Dispatch Specialist Shift Leaders, 36 Dispatch Specialists, and one Office Assistant. A uniformed law enforcement supervisor trained in police, fire and EMS protocols monitors the call takers and dispatchers, alternating between positions on a scheduled rotation.

The Oakland Communications Center provides dispatch service for the Oakland County Sheriff's Department as well as contracted services for Clarkston Police, Lake Angelus Police, Oakland Community College Public Safety, and Wixom Police.

Of the 13 fire departments for which the County provides service, Rochester Hills is unique in that it is the *only* fire agency that acts as primary PSAP for land line calls and dispatches its own fire and medical services. The twelve other communities have local police as primary call answering, with the County providing fire dispatch as required.

The County Communications Center is available to provide all or part of the emergency call answering and dispatch function. Based upon our interviews in January 2008, management of the

Oakland County Communications Center would be open to addressing procedural dispatch requirements for Rochester Hills within the boundaries of its existing operations.

During our interviews and in follow up conversations with Captain Johnson from the County Communications Center, an estimate for dispatch services was discussed. Dispatching service for Rochester Hills may range from \$100,000 based upon a 'calls for service approach' managed by County dispatchers or \$350,000 for a dedicated position to Rochester Hills.

Findings

Oakland County Communications Center offers complete call answering services today and is available and capable of providing fire and medical dispatch services for the City of Rochester Hills. They also expressed a willingness to accommodate the City in any way they can to include technological improvements such as GIS and pictometry as well as providing coverage for City service calls or selected shifts. They offer a 'standardized' package of services that does not reflect Rochester Hills' unique procedures, systems, or City services, however, they are willing to work with the City to accommodate technology and staffing as required. Estimated costs for dispatch coverage range from \$100,000 to \$350,000 to be negotiated.

Call Volume and Statistics

Oakland County reflects the national trend in E-911 wireless emergency calls.

Of 240+ million 911 calls that were made in 2006, at least 100 million of them were placed by wireless telephone users. Just 10 years ago, the number of wireless E-911 calls was 4.3 million. It is anticipated that the number will continue to rise, due to cellular and IP-based WiFi and WiMAX forms of wireless service. (*NENA website www.nena.org based upon data on January 30, 2008.*)

The call data we requested from the Oakland County Communications Center is not available from the wireless carriers. In its place we received data regarding 'calls for service,' which incorporates all wireless calls to Rochester Hills as the police respond to all calls for service. Again, for the sake of approximating total calls, we determined that the County receives two calls for every 'call for service' dispatched. Call data for 2006 and 2007 is shown below; 2007 shows a marked increase from 2006.

Table 6: Oakland County Communications Center Call Statistics

OCCC Call Statistics	2007	2006
Calls for Service from Rochester Hills	29,706	26,738
Estimated Incoming Calls	59,400	43,476
Calls Transferred Back to RHCC (Fire/Medical Dispatch)	4,100	2,341

Findings

Oakland County Communications Center has the technology, staff, training, expertise and capacity to handle the additional call answering *and* dispatch functions now being provided by Rochester Hills Communications Center. However, Rochester Hill's first responders would experience less procedural and operational impact if only the call answering function were transferred to the County Communications Center. We arrived at this conclusion from two perspectives:

- Oakland County Police, by contract, are required to respond to *every* call for service. It is not prudent to have Rochester Hills Communications Center answer calls for the County, since it would require a 'double touch' on 85% of the calls.
- Procedurally, the OCCC call answering arrangement works effectively today for all Oakland Township fire and medical calls and all *wireless* calls for Rochester Hills and other communities.
- Migrating all land line and wireless E-911 calls to Oakland County creates an inherent efficiency for police dispatch and a more uniform response for fire and medical as this is an industry accepted standard.

Oakland County Communications Center Technology

The Oakland County Communications Center is a modern facility adding new equipment, technology and dispatching stations. This will increase its ability to provide state-of-the-art communications support to County first responder agencies as well as enhance current operations with dedicated fire and major incident support.

The Center is configured with call takers functionally separate from dispatchers. The call takers respond to E-911 callers, both land line and wireless from municipalities across the County. These individuals are dedicated to responding to E-911 calls only. The dispatchers are specialists in Fire, EMS or Police Dispatch. These individuals do not, as a rule, speak with the incoming caller. Their function is to dispatch the emergency service team. They are backed by a Supervisory position, who in an overload situation, can be redistributed to the call taking or dispatching function.

The Communications Center is equipped with Motorola Centracom radio consoles, Print-trak CAD and Positron 911 terminals. The Motorola Centracom radio consoles are functional but no longer supported by the manufacturer. The Mapping system is integrated with a Motorola Print-Trak CAD system and provides re-bidding for Phase II wireless 911 callers.

The call taking functions are handled by five positions including Supervisors, while dispatch is dedicated to three positions plus supervisors as needed. All dispatch positions have telephone, CAD, and Mapping capabilities.

The Center is undergoing renovations and expansion to install new systems and equipment, as well as additional positions. The new systems are designed to support internal IP-based communications enabling the County to communicate across radio bands in the VHF, UHF and 800 spectrum with the MA-COM Open Sky system. The Center is acquiring a new IP 911 telephone system from either Plant or IPC. New technology is being installed that will allow images from the County helicopter to be downloaded onto a large screen for dispatchers to monitor events as they unfold.

Additional Systems and Equipment

GIS and Pictometry Systems

The County Center follows uniform standards applied to each community it supports. Communities that require 'specialized' equipment or procedures may not be able to have them incorporated into the County's dispatch service, although the County indicated its willingness to work with Rochester Hills in that regard.

Relative to Rochester Hills, the Oakland County Communications Center would be capable of supporting the pictometry and GIS applications based upon the level of technology available in the current and expanded Center; however, procedural and technology adjustments would be required.

Coordinated Incident Tracking

The Print-Trak CAD system, used to initiate public safety calls for service, maintains the status of responding resources in the field. It is networked with the CAD server at Rochester Hills. This offers a unique opportunity to utilize a built-in feature for end-to-end incident tracking that is currently available and in use now by Oakland County. However, this functionality is not being utilized at Rochester Hills due to procedural and operational differences in incident nomenclature between themselves and the County. We believe this can be resolved through joint meetings with CLEMIS, (the oversight committee responsible for county-wide public safety technology) and our proposed TRAC committee (which will have the capacity to offer procedural, technological and operational coordination between the two Centers).

Findings

With its expansion and equipment upgrades, the County Communications Center is fully capable of handling the increase in volume of land line and wireless E-911 calls now answered by Rochester Hills.

The City would need to further define its specific needs relative to staffing, technology and procedures for the County to respond with a solution. However, by all indications, the County is amenable to reaching a mutually agreeable arrangement with the City.

As an initial step, we recommend that Oakland County Communications Center become the primary call answering provider for all wired and wireless E911 calls and that coordinated incident tracking be initiated as a cost neutral effort.

III. RECOMMENDATIONS AND CORE INITIATIVES

A. Call Answering and Dispatch Recommendations

In order to determine the strategic direction for Rochester Hills Communications Center, we identified four possible options against which relevant factors were compared and evaluated. Included is an option to split the two functions of *call answering* and *dispatch* between the two Centers without impacting service delivery of first responders to residents. This is based on our conclusion that both Centers have incorporated the standards of each service into their programs, resulting in highly credible, functional and capable first responder organizations each in their own right.

Based upon the operational, staffing and functional expertise we found in both Centers, we have identified four options for consideration:

1. Maintain status quo
2. Rochester Hills to retain *all* emergency call answering for police, fire and medical
3. Oakland County to provide *all* emergency call answering *and* police, fire and medical dispatch *as well as* City services dispatch
4. Oakland County to provide *all* W/E 911 call answering

We considered the following benefits and drawbacks for each option and upon evaluation, determined that Option 4 is the most efficient, cost effective option to maintain the highest level of service for Rochester Hills.

The following Analysis of Options provides specific service, financial and efficiency service level benefits and vulnerabilities:

Table 7: Analysis of Options			RHCC:			OCCC:		
Option 1:								
Maintain Status Quo (Current Configuration)			Call Answer: All Landline 911 Calls City Services Oakland Township			Call Answer: All Wireless 911 Calls		
			Dispatch: Fire, Medical, City Services and Oakland Twp.			Dispatch: Police		
Benefits			Drawbacks					
Service Level	Financial	Efficiency	Service Level	Financial	Inefficiency			
<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> "Counter" to benchmarks Best practice: all E911 calls answered centrally 	<ul style="list-style-type: none"> Duplication – City is already paying for call answering function (contract for Police Services) City not getting full value, with call answering function performed in two Centers 	<ul style="list-style-type: none"> Events create duplicate, unnecessary dispatch response Same event reported to both Centers by wired and wireless callers 			
Option 2:			RHCC:			OCCC:		
RHCC Provides All W/E911 Call Answering; Dispatch Remains As Is			Call Answer: All 911 Calls (Landline and wireless)			Call Answer: None for the City		
			Dispatch: Fire, Medical, City Services & Oakland Twp.			Dispatch: Police		
Benefits			Drawbacks					
Service Level	Financial	Efficiency	Service Level	Financial	Inefficiency			
<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> RHCC continues to receive State funded W/E911 dispatcher training \$8,649 in FY 2007 	<ul style="list-style-type: none"> RHCC retains status as primary dispatch center 	<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> RHCC would see 260% increase in E911 call volume Requires RHCC to make significant financial investment in expansion, staffing, other areas 	<ul style="list-style-type: none"> 85% of all 911 calls that are for Police would be double processed RHCC answers first, then transfer over to County dispatch (85% of police calls) 			

Option 3:			RHCC:		OCCC:	
All W/E911 Call Answering and Dispatch by OCCC			<i>Call Answer:</i> City Services		<i>Call Answer:</i> All 911 Calls (Landline and wireless)	
			<i>Dispatch:</i> Fire, Medical, City Services and Oakland Twp.		<i>Dispatch:</i> Police	
Benefits			Drawbacks			
<i>Service Level</i>	<i>Financial</i>	<i>Efficiency</i>	<i>Service Level</i>	<i>Financial</i>	<i>Inefficiency</i>	
<ul style="list-style-type: none"> Increased call volume would not impact svc. Possibility of 'dedicated' City team County has sufficient staff to support City needs 	<ul style="list-style-type: none"> Duplication – City is already paying for <i>call answering</i> function (contract for Police Services) City would receive full value for call answering 	<ul style="list-style-type: none"> Single call answering and dispatch function provides 'best practice' Calls are answered and dispatched within same facility offers control of process 	<ul style="list-style-type: none"> OCCC provides services to towns with smaller populations than Rochester Hills There is familiarity of function, procedure resulting in a service level difficult to duplicate 	<ul style="list-style-type: none"> 59% of RH calls require City Services. These calls would still need to be serviced. Dispatch service would cost Rochester Hills 'several hundred thousand of dollars' Estimated revenue loss of approx. \$50,000/yr from Oakland Twp. 	<ul style="list-style-type: none"> City services still need to be answered OCCC will require a 'ramp-up' period to become familiar with function, procedure. 	

Option 4:			RHCC:		OCCC:	
RECOMMENDED: OCCC provide Call Answering for W/E 911 Calls			<i>Call Answer:</i> City Services		<i>Call Answer:</i> All W/E Rochester Hills 911 Calls	
			<i>Dispatch:</i> Fire, Medical, City Services & Oakland Twp.		<i>Dispatch:</i> Police	
Benefits			Drawbacks			
<i>Service Level</i>	<i>Financial</i>	<i>Efficiency</i>	<i>Service Level</i>	<i>Financial</i>	<i>Inefficiency</i>	
<ul style="list-style-type: none"> Service response time may decrease due to coordination of call answering activities City and County stakeholders believe this configuration has merit 	<ul style="list-style-type: none"> No additional cost as City already pays for 911 call answering through its contract with the County Rochester Hills will continue to rec'v revenue from Oakland Twp 	<ul style="list-style-type: none"> Most productive use of resources and meets 'best practices' for E911 calls to be answered in a single center OCCC is currently providing call answering services for other communities including Oakland Twp. 	<ul style="list-style-type: none"> None identified 	<ul style="list-style-type: none"> There may be a loss of 911 surcharge funding which is now used for dispatcher training. Funding received for the FY 2007 was \$8,649. 	<ul style="list-style-type: none"> None identified 	

Based upon our observations and analysis of both Centers' operations, and feedback from both Centers' stakeholders, we recommend that Oakland County become the primary call answering point for *all* W/E 911 calls, with Rochester Hills continuing to dispatch all fire and medical events for Rochester Hills and Oakland Township.

We arrived at this conclusion using the following data, 'best practice' standards and operational requirements:

- Oakland County Police responded to 26,738 calls for police service in 2006. Their Communications Center estimates that this equates to approximately 53, 496 actual calls – 2 calls for each dispatch of service.
- Oakland County Police, by contract, are required to respond to *every* call for service. It would not be prudent to have Rochester Hills Communications Center answer calls for the County as it would require a 'double touch' on 85% of the calls.
- Rochester Hills and Oakland County both regard the function of call answering and dispatch as two discrete services and currently offer the communities they support variations of contracted services.
- Rochester Hills is already paying Oakland County for *all* W/E 911 call answering services to in its contract for Police support
- City and First Responder services must not be adversely impacted

Technical Review Advisory Committee (TRAC)

One of the challenges the City and County Communications Centers face is that their regularly scheduled meetings no longer occur. As a result, there have been procedural and technical gaps in the joint dispatch process.

Although the City and County are obligated to one another by contract to identify on-going methods of coordinating joint activities and response between the two centers, from our interviews, we understand that these meetings have 'atrophied' due to several factors.

In our professional opinion, regularly scheduled inter-agency meetings, for the specific intent of establishing, refining and resolving procedural, operational and functional issues *is mandatory* to create a mutually efficient working environment.

To the residents of Rochester Hills, the E911 'tandem' calling process is seamless – callers expect to see a coordinated emergency response between each of the first responder agencies involved in the incident. For that level of service to continue, there needs to be an

objective evaluation to improve the coordination, process and procedures, starting with the call taker through the supervisory chain of command.

We recommend the development of a Technical Advisory Committee (TRAC) to implement all future procedural and administrative changes. Below we highlight the primary tasks and objectives of the Committee.

Table 8: TRAC Tasks and Objectives

Technical Review Advisory Committee Tasks	Purpose/Objective
1. Commission a multi-agency, on-going committee within the Mayor's Office	Provide oversight, guidance and a conduit for constructive feedback to each first responder agency and dispatch organization.
2. Develop and implement on-going technical strategies	Establish tools to help achieve a more seamless joint response.
3. Prepare an internal evaluation of the roles and responsibilities for the Call Center	Be able to address community and City expectations for service.
4. Determine necessity of performing additional studies to quantify staffing and operational requirements in the Center, based on internal review	Perform studies, as required, to more fully assess staffing, organizational functions, call processing times, and other functions in the Center.
5. Create a project plan for migrating all E911 calls (wired and wireless) to the OCCC, including the "go-live" strategy and procedures	Ensure a seamless "go-live" and cutover process
6. Solicit and act upon input from both Agencies (RHCC and OCCC), under direction of the Mayor's Office	Implement procedural and advisory changes as necessary

For TRAC to be effective, we strongly believe that the responsibility for on-going development of direction and accountability of tasks and focus remain within the Mayor's Office. Further, the Mayor's office representative provides the vital role of facilitator to ensure that stakeholders are equal participants and to mediate issues that come to impasse. The objective of these meetings should not be 'gripe sessions' but formally constructed events so that important organizational, operational, procedural requirements can be addressed in a manner that is conducive to mutual success.

C. Coordinated Incident Reporting

By far, the most important reason to migrate W/E 911 call answering to one location is to provide a coordinated dispatch response between agencies. In the recent past, a single event has been known to generate a dispatch response from both Centers without either Center being aware of the duplication in effort until after the dispatch!

Certainly, migrating the call answering function to one Center – Oakland County Communications Center – would most likely resolve this particular inefficiency. However, this scenario highlights another gap: the current lack of coordinated incident reporting between the Centers.

A coordinated incident reporting mechanism can offer both Centers the ability to track discrete time intervals from initial call answering through final dispatch response. This would require no additional hardware or software in either Center as:

- CAD servers are already networked
- RHCC is already receiving the required data from the County

A method to accomplish this *cost neutral* recommendation is for both Centers to work through the procedural matters which currently incorporates police incident identifiers on the CAD record and does not allow modification of that field by Fire Dispatchers. By working through the TRAC committee and CLEMIS to address the minor programming adjustments and procedural issues which may be associated with this change, the Print-Trak CAD application can then be used as an end-to-end reporting tool that enables *both Centers to track discrete time intervals and overall response statistics.*

D. Non-Emergency Call Analysis

Non-Emergency administrative calls represent the single largest call type based upon data classification provided by the Rochester Hills Communications Center EOY 2006 reports. As this information required a more detailed analysis, through the Office of the Mayor, we requested the RHCC initiate a one month call tally to provide directional data on the type and frequency of calls answered by the Communications Center on behalf of City departments and other emergency related events.

Annualizing the results of the one month study, we found that approximately 60% of 'non-emergency administrative' calls are in fact directly related to emergency tasks; leaving *40% of the calls and tasks directly attributable to City-related services.*

The city requires these services and values the quality of life benefits that the Communications Center affords its residents, however, an impact of the severe financial downturn which is plaguing the State economy, the City may want to further examine the services being offered.

This may be an opportunity for the City to explore incremental steps towards migrating functions now provided by RHCC to the County beginning with the call

answering function, and then evaluate the impact of each step on quality of life benefits now provided by the RHCC.

E. Additional Initiatives:

1. Regional Dispatch for Fire & Medical

Migrating the *dispatch* function to Oakland County would not necessarily reduce costs. At the time of this writing, the cost for Oakland County to provide *call answering only* for all wired and wireless 911 calls as well as police dispatch is included in the various agreements the City has with Oakland County for police services. Therefore, migrating call answering of all E-911 calls to Oakland County becomes *cost neutral*.

Conversely, if the objective is to migrate *all dispatch related activities* (fire/medical and city services) to the County, there is an anticipated increase in costs to Rochester Hills.

Call answering by the County can also be viewed as a marketing opportunity for the City to generate a revenue stream through its dispatch center. With the robust level of technology, expertise and services already in place within the Center, the City can maximize its investment by marketing to other communities. Various creative marketing programs may need to be developed to distinguish the value proposition available through the technology resources of the City Communications Center as compared to other W/E 911 service providers.

An example of this might include offering 'free' dispatch service up to a certain level and charges beyond that.

2. Communications Center Operational Analysis

A more detailed staffing and operational analysis would validate the service delivery processes and procedures used by Dispatch staff in RHCC as the standard of response. In conjunction with this more detailed analysis, the City may wish to research the impact of staff realignment through an attrition program and/or migration of the least busy shift to the County for dispatch support.

F. Summary of Recommendations

To recap, we are recommending the following changes to improve effectiveness and efficiency:

- Transition all call answering to OCCC for wired and wireless E911 calls

- Form a Technical Advisory Review Committee to re-establish procedural requirements and improve and maintain an effective working relationship between RHCC and OCCC
- Implement a coordinated incident tracking procedure which will take advantage of the existing network of CAD servers and review of current dispatch recording procedures
- Research feasibility of establishing RHCC as a regional fire and medical dispatch facility for surrounding communities
- An operational and staffing analysis will confirm that further steps beyond migrating the call answering function may be warranted to evaluate the impact of staff realignment through an attrition program and/or migrating the least busy shift to the County for dispatch support.

We believe the focus should be on implementing the Recommendations described above, which will enhance center operations and create both value and optimal utilization of staff and facilities.