

# THE MECHANICAL INSPECTOR



Joseph Michael Shaltz accepting the Carl Adamko Inspector of the Year Award from Past President John Smith.

## CARL ADAMKO AWARD

Each year at the MIAM Spring Conference the Board of Directors presents the Carl Adamko Award to the "Inspector of the Year." This year Michael Joseph Shaltz is the well deserved and gracious 14th recipient of the Carl Adamko Award.

Our honoree is currently serving as Vice President of MIAM and is a director for Houghton County Region 1 & 2. He began his career in the family business owned and operated by his father and mother (Joseph and Barbara) from 1972 to 1986 - Shaltz Plumbing and Heating, Laurium, MI. Everyone calls him Mike because his dad was Joe.

Mike's career includes 26 years on the Laurium Fire Department – the last 10 years as Fire Chief. He is still on the roster of the Laurium Fire Department and holds Firefighter II classification in the State of Michigan.

He has been a plumbing and mechanical inspector for Houghton County, Keweenaw County, and Delta County and is currently 1<sup>st</sup> director for PIAM and will be president in 2007.

Mike is a Past member of the International Association of Fire Chiefs, Michigan State Firemen's Association, UP Firemen's Association, Copper Country Firemen's Association, UP Fire Chief Association and was voted Copper Country Firefighter of the Year in 1999.

For 15 years Mike also proctored the written and practical exams required by the State of Michigan for Firefighter I & II certification in the Copper Country Firemen's Association. He attended the National Fire Academy in Maryland for certification in Arson Investigation

Mike is married to Jeanne and they have three children. He loves to hunt and fish and has two yellow labs (Lennon & Mia) to keep him company while doing so.

Congratulations on all of your achievements.

MIAM Spring Conference highlights inside...

April 2006



### NEW MMIA Members

#### ACTIVE

- Mazen Halabi  
Dearborn
- Scott Herzberg  
Flint

#### ASSOCIATE

- Nathaniel Hall  
Exclusive Htg. & Clg.
- Robert F. Hutchison, Jr.  
Accu-Temp Heating
- William Roan  
Flo-Co Supply

### NEW MIAM Members

#### ACTIVE

- Mark Booth  
Shiawassee County
- Shelley Burton  
Overisel Township
- Mark Grattafiori  
Montague
- Scott Herzberg  
Flint

#### CONTRIBUTING

- H. Edward Bartram  
Diversified Htg & Clg

**We Are Glad To Have You**

### THIS ISSUE

- ↪ Presidents Corner
- ↪ MIAM Elections
- ↪ MIAM Spring Conference Highlights
- ↪ NFPA
- ↪ Education Committee Update
- ↪ Legislative Updates
- ↪ Member Updates
- ↪ Inspector Education

Maintain  
Improve  
And  
Monitor



**MMIA, Inc.**

Better Enforcement  
Today  
for a Safer  
Tomorrow

### REMINDER

The publishing deadlines for the echanical Inspector magazine are as follows:

- Jan 1 deadline for Jan 15 mailing
- Apr 1 deadline for Apr 15 mailing
- Jul 1 deadline for Jul 15 mailing
- Oct 1 deadline for Oct 15 mailing

Anyone is welcome to submit articles, but the Education committee will decide publishing priority.

**AN ASSOCIATION NEWSLETTER IS GOOD ONLY BECAUSE OF ITS MEMBERS!!!**

# Presidents' Corner

## MIAM President Robert Logan



What a conference! The Education Committee did a fantastic job. They put a lot of time and effort into this conference. I would like to thank them for all their hard work.

I would also like to thank all the members for voting me in as this year's President. It is an honor and I thank all of you very much. I would like to take a moment to thank John Smith for the great job he did as President of MIAM. I look forward to leading this group for the upcoming year. The conference was great and I believe everyone had a good time.

I would like to thank the Conference Committee and the staff for the fine job setting this conference up for all of us. Your hard work was much appreciated.

There will be a great effort made to get more people involved in the leadership of this fine organization and one proposal I am making is to invite the entire board to attend the Education Committee meeting, Friday, July 14, 2006, Hotel Doherty, 11:00 am. Gentlemen we need your input!

If you have any concerns please feel free to contact me. I look forward to seeing you all at the Fall Conference, scheduled at the Hotel Doherty, Clare, MI. September 14-16, 2006. There will be excellent classes and celebrations commemorating the 20th Anniversary of MIAM. Many things have changed in the past twenty years, but the dedication of MIAM to the advancement of principles and practices to promote safety in the industry has remained steadfast.



## MIAM Past President John Smith

Greetings to you all and a happy spring. Warmer weather is just around the corner and with spring finally here, let the outdoor fun begin. I would like to take this opportunity to thank all the members and the officers for all of the support given to me during my year as President of MIAM, especially, Sharon, Sue and Charlene; without them it would have been a circus. I enjoyed working with all of you. I hope everyone will give the same support to our new president Bob Logan. I look forward to seeing you all this coming year at the meetings and conferences. My congratulations again to my good friend Joe Shaltz, a worthy recipient of the Inspector of the Year Award.



### **THE MECHANICAL INSPECTOR**

is published quarterly at  
3221 West Big Beaver Road,  
Suite 305  
Troy, MI 48084-2812  
Phone: (248) 649-5443  
Fax: (248) 649-2024

#### **Committee:**

Sam Bouhanna, Phil Brummel, Bill Miller, Scott Paddock, Vernon Pappas, William Paquette, Mark Riley, Keith Rosen, John Wolter, Co-Chairs, Guy Mitchell, William Moy,

*MIAM President Robert Logan*  
*MMIA President Eugene Burke*

#### **Ask the Committee:**

Send your questions about Mechanical Code enforcement to the Education Committee for discussion and research. As space permits, they will be answered in this Newsletter. The address is:

#### **EDUCATION COMMITTEE**

3221 W. BIG BEAVER RD.  
SUITE 305  
TROY, MI 48084-2896  
PHONE: (248)-649-5443  
FAX: (248)-649-2024  
EMAIL: mechinspect@bignet.net

#### **Inform the Committee:**

These articles are directed to membership participation. We welcome you to please submit your comments and answers.

## MMIA President Eugene Burke

Now that the Spring Conference for MIAM is over, which was very good, I am hoping for a good turn out at our monthly classes.

There is an issue I would like to touch on brought up at the last Inspector/Contractor Review Board meeting in February 2006. The meeting was attended by a few area inspectors, some contractors and Tension Barry. Bubble wrap was discussed. When installed horizontally the product has an R-value of 4.0, however, when installed vertically the R-value is 1.3. In most cases it is in the outside walls. The RMC, SEC, 1601.3.4 requires R-8 in outside walls. The conclusion is bubble wrap is not approved for vertical insulation. Even if you use several layers it still only has an R value of 1.3 because of the vapor barrier on both sides. **INSPECTORS WHO ARE STILL APPROVING IT - THINK ABOUT IT!**

MECHANICAL INSPECTOR ASSOCIATION OF MICHIGAN INSPECTOR/CONTRACTOR REVIEW BOARD  
HOWELL, MI FEBRUARY 2006 ISSUES

Bubble wrap - horizontally installed, product has R value of 4.0, vertically installed only R value of 1.3.

Duct insulation - ducts located within conditioned space do not require sealing for leaks. Ducts in unconditioned space must be sealed. Also return air ducts must be sealed (this requirement is in ACCA, Manual D, Chap. 13). Substantially air tight - term used in the code means a normal SMACNA Joint is sufficient for use in conditioned space without additional sealing.

Crawl spaces - supply register is allowed, but no return from crawl space is permitted.

Vent Kits - as an alternative to chimney liners, it is important to follow manufactures instructions carefully.

Therm-O-Plan - ICC evaluation report is in conflict with the manufacturer's installation and operating instructions.

ASHRAE Standard 62 (Indoor Air Quality) - not applicable to buildings with tobacco smokers.

Space Pac - code required R value of 5 or 6 is not carried by most suppliers, they stocked 4.2 which is not up to code.

Inspector Reapplications - Scott Fisher is contact at BCC for address changes and other questions.

## MIAM Election Results Are In

MIAM held its election of officers at the Spring Conference in Clare and your new MIAM Officers are...



Robert Logan  
President

Guy Mitchell  
Sr. Vice President



Joseph Shaltz  
Vice President

Carl Janson  
Secretary



John Smith  
Treasurer



Joe Otis -  
NFPA Liaison

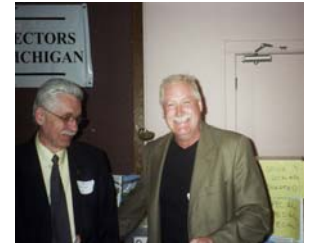


Vern Pappas, Walled Lake



Bob Logan welcomes Phil Brummel to the Education Committee. Volunteering makes everybody happy!

Bill Paquette thinks education is great.



Each year Sheet Metal Workers Local Union #80 holds an Apprentice Orientation program for its 9th and 10th period apprentices to help make them ready for the "real" world of construction. The program provides speakers from the industry, from labor and management to present both perspectives and what it required and expected of a graduate journeyman on the job site. We are proud to inform you that Troy Inspector Mark Riley was a featured speaker at this highly regarded function and was able to impart his wisdom and knowledge concerning code interpretations, SMACNA standards and specifications and the differences between them and manufacturers' installation procedures. Mr. Riley's expertise is known throughout the industry.

NFPA 13 is one of the industry's most followed and influential documents. The standard, NFPA's first, provides the minimum requirements for the design and installation of automatic sprinkler systems. In a sort of testament to the documents significance to the world of fire protection engineering, the various NFPA 13 Technical Committees tasked with the development of the standard, processed 840 proposals in preparation of the 2007 edition.

The 2002 edition of NFPA 13 underwent many style formatting and technical revisions, now the 2007 edition will be even more in line with NFPA's *Manual of Style* and to reorganize many of the requirements in 13 into unique chapters.

The Technical Committee members believe the new proposed standard delivers significant improvements and increases the standard of life-safety protection.

**Outside/fresh air requirements**, if introduced through the HVAC systems MAY pose a challenge to the equipment manufacturers listing, specifications and WARRANTIES if used in excess of the manufacturers limitations. In researching the different manufacturers guidelines, regarding the amount of fresh air that is allowable, against the ventilation requirements in MMC 403.3, it seems each manufacturer has a different specified amount depending on the style of equipment. Residential style furnaces are much different than the packaged rooftop units. I've found various mixed air temperature limits from 53 degrees (F) to 62 (F) on residential units and amounts for rooftops from 59 degrees (F) to as low as 45 degrees (F).

This information is provided in the manufacturers warranty card in each piece of equipment installed. It is found under the exclusions section of the warranty. They all have a maximum mixed air temperature listed (but not less than) and if the mixed air temperature has exceeded this amount the warranty is VOID on the heat exchanger.

This can be critical on the residential units where contractors attempt to bring in make up air through the return for the high exhaust rates when using kitchen exhaust coupled with the requirement of .35 each.

The effect on commercial rooftop equipment can be just as critical even though these seem to have a wider tolerance than the residential units.

The following sample formulas may assist in determining required versus allowable fresh air per the manufacturer. Different cfm rates can be plugged in to achieve the end result.

\*Note\* the following example uses Pontiac as the design temperature of 4 degrees. Other areas may be lower/higher.

$$T_{mix} = (CFM1 \times T1 + CFM2 \times T2) / (CFM1 + CFM2)$$

Example, Furnace moves 1200 CFM, 1100 CFM return at 68F, 100cfm Outside air at 4F

$$T_{mix} = (1100 \times 68 + 100 \times 4) / 1200 \quad T_{mix} = 75200 / 1200 \quad T_{mix} = 62.7F$$

$$\text{Another example: } 20\% \text{ outside air at } 4F, 80\% \text{ return at } 68 \quad T_{mix} = 0.2 \times 4 + 0.8 \times 68 \quad T_{mix} = 55.2F$$



# MIAM Spring Conference



The Friday night banquet was a big hit. The changing of the officers, the Carl Adamko Award and last but not least the drawing of the prizes. Improving your odds of winning the prize you want is lots of fun.



John Smith and Bob Logan past and president President of MIAM.



John Smith and Carl Adamko Award winner, Joseph Michael Shultz



Just what I wanted



Bob's favorite, the E2E Flashlight! Had to have them as a prize.



Winning is so much fun !!



A big thanks to Carol Swanstrom for donating her time, energy, and knowledge for a great activity for the ladies. Everyone enjoys trying something new, but more than that, the sound of laughing at the challenge of being crafty and catching up with old friends is a good time.

The pool was the site of water aerobics on Thursday night and Friday morning for a few exercise fans. The water was great and sharing tips for the best workout was good. Water aerobics will be available at the next conference, hope to see all of you there.

Bingo, Bingo, Bingo. What can we say. This activity is a hit with all ages! Maybe for our big 20th Anniversary we'll let the inspectors play too.





## EDUCATION COMMITTEE REPORT

By Guy Mitchell, Co-Chairman

I hope everyone that attended the Spring Conference at the Doherty Hotel had an enjoyable time. This conference ran several classes concurrently to provide a wide variety of programs to the membership.

We have almost completed the current inspector's registration cycle which will end on September 17, 2006. You must have completed *all* your educational requirements before September 17, 2006. There will be *no* clemency for anyone that has not completed his or her credits prior to the deadline.

The MIAM fall conference will be held on September 14, 15 and 16, 2006. This is before the deadline date. I have received confirmation from the Office of Local Government and Consumer Services, that you will receive full credit for all classes attended during the fall conference.

Extra credits from this cycle may not be transferred to the next cycle beginning September 17, 2006 per the State.

Also, any inspectors that fall short on educational credits or turn in a late registration application will lose his or her inspector's registration. This would result in a loss of your job. So, be sure you have all your credits and turn in your renewal application before the deadline date.

MIAM has provided more than the required amount of classes to receive your renewal. If you find yourself short on credits, the fall conference will help. In addition, several local mechanical inspectors' organizations throughout the state will have numerous classes you could attend to receive full credit and renew your registration. Online classes are also available.

Remember that this is your registration and your responsibility. The state will not allow any exceptions to the deadline date. Check your credits and file your renewal application early to keep your registration active. You cannot work without a current registration.

Please contact the association offices, 248-649-5443, if you need a classes added to the MIAM fall conference schedule and check this Newsletter for other classes offered throughout the state.



## Legislative Report — Lynn Briggs, Legislative Agent

At the annual Spring Conference, Professor Martin Sirowatka gave an excellent presentation on ACCA's Manual J for Residential Load Calculation. I believe it is important to clarify the various Manual J's which are in publication from the Air Conditioning Contractors of America.

The original Manual J, Seventh Edition has been around since 1986 and is the load calculation manual most often included in codes around the country. This is the Manual which Sirowatka used in his presentation. With step-by-step examples, Manual J7 shows you how to calculate the heating and cooling loads of single family detached homes, mobile homes, condos, townhouses and apartment buildings. Users need to purchase Manual J-7 Hand Calculation Forms (Form J-1).

Around 2002 ACCA issued Manual J 8th Edition. The most recent fifth printing is dated May 2004. MJ8 produces equipment sizing loads for single family detached homes, small multi-unit structures, condominiums, town houses and manufactured homes. These procedures are also compatible with different types of comfort systems and applications such as:

- A central single-zone comfort system
- A central multi-zone system
- A distributed multi-zone system
- Dwellings that have limited exposure or no exposure diversity.

MJ-8 also accommodates homes that have exceptional architectural features and life style accessories such as:

- Homes with large south-facing glass area or rooms with unusually large glass area
- A thermally isolated solarium
- Customized internal load estimates

MJ-8 is sensitive to an increased variety of issues related to construction materials and methods including:

- Fenestration loads for glass rated by the National Fenestration Rating Council (NFRC)
- Improved duct load models
- Improved methods for estimating the effect of internal and external shading devices, including insect screens
- Infiltration estimated based upon blower door test
- Sensitivity to latitude and altitude
- Sensitivity to skylight glazing material, curb construction and light shaft construction
- Heat gain sensitivity to roofing material, roof color and the use of radiant barrier
- Heat loss and gain for log walls, concrete walls, structural foam panels, aerated autoclaved concrete block, insulated form concrete panels, brick walls, concrete walls, wood foundation walls, and many other types of walls and insulation options.

SOFTWARE: Each copy of MJ-8 includes a CD with a spreadsheet to facilitate the MJ-8 load calculations.

The most recent publication from ACCA is Manual J-8 Abridged Edition (AE) for Residential Load Calculation. MJ8-AE is an abridged version of the Eighth Edition of Manual J and provides complete instructions for estimating heat loss and heat gain for residential structures. MJ8-AE is sufficient for learning the Manual J procedures and for undertaking hand calculations on a varied number of home applications. New homes, homes that had significant upgrades/modifications, or homes that have non-standard design elements (such as NFRC labeled glass, large glass areas, atriums, excessive internal loads, heat recovery systems, etc.) should use the comprehensive procedures of the unabridged version of Manual J-8.

Topics include:

- Basic principles of heat transfer, R-values, U-values, and heat transfer multipliers
- Step by step example of a single-zone, single-family, detached calculation for a whole house and room by room
- Focuses on MJ-8 protocols for providing accurate load calculations
- Provides numerous examples for calculating component (such as wall, windows, ceiling, etc.) heat loss and heat gain
- Details the steps in the design procedure (after the loads are determined).

Users will need to purchase Manual J8-AE Hand Calculation Forms.

All three of these manuals are available for purchase from the MIAM office or from the Michigan Chapter ACCA, 5025 W. Saginaw, Suite 7, Lansing, Michigan 48917 (517) 323-2824.



# THANK YOU SPONSORS

We asked and you came though. Your continued support will make the vision of MIAM move through the next twenty years.

**AIR HANDLERS CORPORATION HEATING & COOLING**  
**FLAME FURNACE COMPANY HEATING & COOLING**  
**HOTEL DOHERTY**  
**JANSON ASSOCIATES, INC.**  
**OAKLAND PLUMBING COMPANY**  
**SMACNA**  
**SHEET METAL WORKERS LOCAL UNION #80**  
**UNICO**  
**W. MICHIGAN MECHANICAL INSPECTORS ASSOCIATION**  
**W. MICHIGAN PLUMBERS, FITTERS & SERVICE TRADES LOCAL UNION 174**



MIAM has launched a new sponsorship program for its conferences, and we need help from our members. Help your association gather sponsors at the upcoming Fall Conference. Cut this Sponsorship Form out and circulate it among your industry contacts. If you would like more information or want more forms please contact the association office. Help MIAM make its conferences the best they can be.

## MIAM CONFERENCE SPONSOR FORM

Company / Organization: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

**YES**, I will sponsor one of the following MIAM conference events:

Seminar Breaks:

- \$250 - One Seminar Break     \$750 - Three Seminar Breaks  
 \$500 - Two Seminar Breaks     \$1,000 - Four Seminar Breaks

Full Sponsorship

- \$1,000 - Hospitality Room  
 \$2,500 - Membership Meeting Luncheon  
 \$5,500 - Dinner and Reception  
 \$1,000 - Ladies Events  
 \$1,000 - Speaker Sponsorship  
 \$1,000 - Ladies Events  
 \$1,000 - Raffle Gift Funds

Partial Sponsorship

- In the amount of \$ \_\_\_\_\_  
 In the amount of \$ \_\_\_\_\_  
 In the amount of \$ \_\_\_\_\_  
 In the amount of \$ \_\_\_\_\_  
 In the amount of \$ \_\_\_\_\_  
 In the amount of \$ \_\_\_\_\_

or  
Raffle Gift (s) \_\_\_\_\_  
Please Name Gift

- YES**, I will supply promotional items for the conference.  
We expect 180 in attendance

PLEASE MAKE CHECKS PAYABLE TO:  
**Mechanical Inspectors Association of Michigan**  
3221 West Big Beaver, Suite 305  
Troy, MI 48084

**MIAM WOULD LIKE TO THANK YOU FOR YOUR SUPPORT  
AND RECOGNIZE YOUR EFFORTS.**

Your sponsorship information will be displayed at the MIAM Conference and spotlighted in a special section of our "Mechanical Inspector" Newsletter.

# INSPECTOR EDUCATION

MMIA and MIAM would like to thank the speakers who volunteer their knowledge and time for a great cause! A special **THANK YOU** to...



**Ted Brown, Bob Foster, Arthur Grace, Guy Mitchell, Mark Riley, Martin Sirowatka, Jim Schifiliti, and John Wolter** for your contributions to the *MIAM Spring Conference*. We could not have done it without you. Excellent job all! **Doug Cryer, Bill Moy, and Tennison Barry** MMIA always appreciate the time you donate to the association.

## MMIA CLASS AND CREDIT UPDATE

MMIA—SEPTEMBER 18, 2002 THRU SEPTEMBER 17, 2006

REQUIRED		Totals to date (03-16-06)	
Administration	5	Administration	7
Technical	32	Technical	24
Communications	2	Communication	4
Specialty	24	Specialty	27
Plan Review**	16	Plan Review**	16
Total	79	Total	78

\*\* Not a Mechanical requirement

- April 20, 2006  
Tennison Barry Codes Changes 3T
- May 18, 2006  
Paul Joliat Listed UL #710 Hoods Wall Island & Self Compensating 3S
- June 15, 2006  
Mark Moran IFGC Special Appliances 3T

## MIAM September 18, 2002 Thru September 17, 2006

REQUIRED		TOTALS TO DATE (03-25-06)	
Administration	5 Chrs	Administration	11 Chrs
Technical	32	Technical	66
Communication	2	Communication	4
Specialty	24	Specialty	38
Plan Review	16	Plan Review	20
Total	79	Total	139



## IAEI SEMINAR SCHEDULE

December 7-8, 2006 Gaylord

Contact IAEI Secretary Darrick Whitaker 313-235-7751  
MAIM/IAEI Liaison Ed Harris 269-966-3382

## CIT Certified Inspectors Training

Hotel Doherty, Clare  
June 5-8, 2006

Classes for inspectors include:

- Plumbing - June 5**
- Mechanical - June 6**
- Building - June 7**
- Electrical - June 8**

For more information contact:

Curtis Stowe  
248-624-0570 (office)  
248-436-0450 (cell phone)

**NEED A SUB?** Are you going on vacation? Planning to take time off your job? Too much work and not enough staff? Check this listing for a substitute inspector to give you a hand when you're not in the office or over worked.

The following people may be available to sub for you:

**Ed Barnes 248-224-3357, Eugene Burke 810-964-8964  
Ed Durbin Vern Pappas 248-343-8830**

If you would like to be added to this list, please call the **Association offices at 248-649-5443**. We need many subs throughout the state to help fill in during on vacations, illnesses and breaks.

## ATTENTION INSPECTORS BCC & FS ACT 54 APPROVED ADMINISTRATIVE & COMMUNICATION SEMINARS

AVAILABLE NOW

Thursday, May 4, 2006 Flint Charter Township

CONTACT **AL ARENS, Life Enhancing Programs**  
989-466-2851 for more information



**INSPECTORS EDUCATION FUND**  
3221 West Big Beaver Road  
Suite 305

Troy, MI 48084-2812  
Phone 248-649-5443 Fax 248-649-2024  
mechaninspect@bignet.net mechanicalinspector.com

**MIAM OFFICERS**

**President**  
**Robert Logan**  
SCMCCI, Region 8  
**Sr. Vice President**  
**Guy Mitchell**  
Royal Oak, Region 9  
**Vice President**  
**Joseph M. Shultz**  
Houghton County, Region 1&2  
**Secretary**  
**Carl Janson**  
Blackman Twp., Region 8  
**Treasurer**  
**John E. Smith**  
Walker City, Region 5 & 7  
**MIAM DIRECTORS**  
**Wayne Blosssey**  
SCMCCI, Region 8  
**Harold Callender**  
Muskegon, Region 5  
**Allan Grabowski**  
Kimball Twp., Region 6  
**William Hiller**  
Kalkaska County, Region 3 & 4  
**William Moy**  
Canton Twp., Region 9  
**Jerry Payne**  
Wyoming, Region 7  
**Joseph M. Shultz**  
Houghton County, Region 1&2

**MIAM ADVISORY**

**Tennison Barry**  
BCC-Chief of Mechanical Div.  
**David Bishop**  
Bishop Heating Company  
**Lynn Briggs**  
MIA/CCA Legislative Consultant  
**Terrance Carolan**  
Emmet County, IFGC Liaison  
**Richard Coules**  
Westminster Chimney  
**Ed Harris**  
Battle Creek, IAEL Liaison  
**Joseph Otis**  
Certified Inspections,  
NFPA Liaison  
**Mark Riley**  
Troy, ICC Liaison  
Bd of Mechanical Rules  
**John Sedine**  
Engineered Htg & Ctg  
**Stephen Wylie**  
Consumers Energy

**MMA OFFICERS**

**President**  
**Eugene Burke**  
G&C Enterprises  
**Vice President**  
**Vernon Pappas**  
Walked Lake  
**Secretary**  
**William Paquette**  
Farmington Hills  
**Treasurer**  
**Guy Mitchell**  
Royal Oak

**MMA DIRECTORS**

**Sam Bouthanna**  
Dearborn  
**Bill Miller**  
Redford Township  
**Keth Rosen**  
Southfield / Bingham Farms  
**MMA ADVISORY**  
**Michael Diegel**  
Detroit  
**John Wolter**  
Consumers Energy