



# American Institute of Professional Geologists

## Michigan Section

August 2012

### From the President's Desk

As the summer winds down and "back to school" season begins, I hope this edition of the newsletter finds you all happy and healthy! The last half of 2012 will prove to be eventful and rewarding. Beginning with a search for an executive committee member, I encourage anyone who is interested in getting involved to submit a biography and petition for a seat on the executive committee. The support of the remaining committee members is tremendous and the task is not overly exhausting. The benefits will out-weigh the commitment.

The Executive Committee has been working hard and we have several exciting events planned for the rest of 2012. Please read through the newsletter and put a few of them on your calendar! September 13th is our next section meeting. Hal Fitch will be presenting "Hydraulic Fracturing – The Facts behind the Controversy." The national meeting is planned for September 22 through 26 in Rapid City, South Dakota. I have had the opportunity to visit this part of the country. I definitely recommend it for those who have never seen the Black Hills. The executive committee is also researching the possibility of adding a technical information meeting in late October and will include a regulatory update provided by MDEQ. Finally, our annual awards dinner is planned for November 29, in Howell, MI. I hope to see you at these upcoming events.

K-12 education and University student chapters have always been a focus for us. A goal we have for the Section is to increase participation amongst the members and to participate in public education. We can't forget that students are the future of the profession. That being said, please reach out to the students and teachers you know in our profession. We are once again hosting a \$500 student poster contest and providing a \$500 grant for public education teachers at our annual meeting to be held in Howell, MI. I have confidence that AIPG, as an organization, will continue to grow and that Section

members will step up each year to volunteer for leadership roles and support the profession.

Dawn Prell, CPG – 2012 Michigan Section President

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### Section Officers Reports

President: Information presented in the "From the President's Desk" article above.

Vice President: See article below regarding scholarship award to teachers for MDNR Academy.

Treasurer: The transactions associated with the May 2012 Golf Outing and the July LNAPL Workshop are now complete, leaving the Section account with a balance of \$34,720.80 as of July 30, 2012. This is about \$13,000 more than our account held at the same time last year, following the completion of transactions associated with the In-Situ Workshop. The CD's held by the Section will be rolled over at the end of the year.

Secretary: *This information was also included in the June edition of the newsletter...* **June 5, 2012**

**Executive Committee meeting minutes are as follows:**

- I. 1. Call to Order: 10:00 AM
  - Attendees: Dawn Prell, John Barkach, Craig Savage, Don Conway, Adam Heft, Kevin Lund, and Tim Cullen;
  - The Executive Committee meeting was held via conference call because the May 3rd Section Meeting was cancelled due to low registration;
  - There were no minutes from the previous Executive Committee meeting presented for review/approval.
- II. Treasurer's Report (Craig Savage)
  - The Michigan Section balance is running around \$52,800;

- The account is in a noticeable state of flux due to significant cash flow into the account from the LNAPL Workshop and Golf Outing;
- The account activity is expected to stabilize later in the summer after the workshop and golf outing expenses are resolved;
- At that time the committee will consider opening an additional CD.

### III. AIPG National Update

- John Barkach (Section VP) will attend the national meeting held Sept. 22-25 in Rapid City, SD;
- Adam Heft said he also plans to attend.

### IV. 2012 Meeting Schedule & Speakers (Open)

- March 1st @ Kellogg Center, Lansing, MI  
Speaker: Anne Couture, MDEQ;
- May 3rd @ Fetzer Center at WMU, Kalamazoo, MI (CANCELLED)
- September 13th @ Mt. Pleasant, MI (co-sponsored with CMU Student Section)  
Location/Speaker – Jim Olsen (tentative) to speak about environmental impacts resulting from Hydrofracturing;
- November 29th @ Howell, MI (venue is being vetted further due to cost) Speaker: Joyce Dunkin to speak about Offshore Coring Feasibility Studies – Geotechnical Investigations to Support a Potential Large Water Intake.

### V. Golf Outing/LNAPL Training Workshop Update (Kevin Lund)

- The annual golf outing was held on May 15th at the Lyon Oaks Golf Course, Oakland County;
  - Approximately 78 golfers participated;
  - Kevin Lund and Bob Reichenbach were instrumental in planning, organizing and overseeing the day's activities.
- The LNAPL Training Workshop will be offered over a two day schedule on June 20th – 21st at the Ralph A. MacMullan (RAM) Conference Center, Roscommon, MI on Higgins Lake.
  - 170 attendees have registered, there is room for several more;
  - Registration fees will be as follows:
    - AIPG Members - \$275;
    - Non-members - \$400;
    - MDEQ - \$200;

- Sponsors are urged to contact Tim Cullen (trcullen@umich.edu) for information concerning the various sponsor opportunities that are available.

### VI. Student Chapters (John Barkach, Dawn Prell)

- A Student Chapter is in the process of forming at Wayne State;
- It has been slowed by student turnover but is expected to move forward in the Fall;
- An announcement concerning the Student Poster competition to be held in conjunction with the November Section meeting will appear in the June 29th Newsletter.

### VII. Field Trips (Adam Heft for Sara Pearson)

- Tentatively scheduled for Mackinac Island or Beaver Island in early August.

### VIII. Newsletter Dates to Remember (Adam Heft)

- Issue Date: March 23<sup>rd</sup>, Articles Due: March 16<sup>th</sup>
- Issue Date: June 29<sup>th</sup>, Articles Due: June 22<sup>nd</sup>
- Issue Date: August 17<sup>th</sup>, Articles Due: August 10<sup>th</sup>
- Issue Date: October 19<sup>th</sup>, Articles Due: October 12<sup>th</sup>

### IX. Other Business

- AIPG National has requested information from the membership regarding the history of the Section in conjunction with the Michigan Section 50th Anniversary (2013);
  - The Executive Committee is seeking input from the membership;
  - Compilation of information is expected to be completed by November and sent to National.
- March 1st Meeting Breakdown (not on the Ex Comm Meeting Agenda):
  - 89 Registrants
  - Nine students
  - Two no shows

### X. Next Executive Committee Meeting

- Scheduled for September 13<sup>th</sup> in Mt. Pleasant prior to the Section Meeting.

### XI. Adjournment: 11:00 AM

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## Coming Events

**September 12, 2012:** Michigan Basin Geological Society membership meeting will be held at Michigan State University, Natural Science building at 7:00 pm in room 204. The speaker is Kathleen C. Benison, Associate Professor of Geology, Department of Geology and Geography, West Virginia University presenting "Redbeds of Michigan's Lower Peninsula: Two new formations?" No charge for this meeting.

**September 13, 2012:** Michigan Section AIPG section meeting. Hal Fitch of the MDEQ will be presenting "Hydraulic Fracturing – The Facts Behind the Controversy."

Location: The Kellogg Center, Michigan State University, East Lansing.

Dinner: Pecan Crusted Chicken w/Asiago Cheese and brown butter sauce; Macadamia Crusted Lake Superior White Fish w/mango butter sauce with citrus pilaf; Flat Iron Steak w/wild mushroom hash and smoky bourbon sauce. All entrees include chef selection of potato/rice, fresh vegetables, rolls and butter, and chocolate chip cheesecake.

Schedule: Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM.

Cost: Students free, Members \$35.00, Non-members \$40.00.

**RSVP by September 11, 2012:** RSVP to Tim Cullen at [trcullen@umich.edu](mailto:trcullen@umich.edu). Please remember to include your meal choice. Notice by e-mail is preferred, and please include AIPG Section Meeting in the subject line. Tim can also be reached at (734) 763-5267.

**September 22-25, 2012:** AIPG Annual Meeting, Best Western Ramkota Rapid City Hotel & Conference Center, Rapid City, South Dakota. <http://www.aipg.org>.

**October 13-14, 2012:** MBGS Recreational Caving Trip in Sullivan Cave, Bedford, Indiana - no fee for the trip but each participant will be responsible for their food, lodging and to assist in fuel costs. Must be a MBGS member. Space is limited. For more information, contact Mark Wollensak at [wollensak@att.net](mailto:wollensak@att.net).

**November 29, 2012:** Michigan Section AIPG Annual Meeting, Cleary College, Howell. "Offshore Coring Feasibility Studies – Geotechnical Investigations to Support a Potential Large Water Intake" by Joyce Dunkin.

**October 23-26, 2013:** AIPG 50<sup>th</sup> Annual Meeting, Omni Interlocken Resort, Broomfield, Colorado. <http://www.aipg.org>.

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## Annual Field Trip Takes Geologists and their Families Back to the Silurian

I am thrilled to report that the annual field trip was held on August 11 and 12, 2012 with no rain! This is the first trip where we have not been rained on at least one of the days during the trip. A total of twenty five people including geologists and their families hiked or biked around Mackinac Island observing the geological features and rich history of

the island on Saturday led by Delta College geology professor, Tim Clarey, Ph.D.



Field Trip attendees pose for a group photograph on Mackinac Island. Photograph courtesy of Sara Pearson.

Our first stop was Arch Rock to see the breccia limestone arch that was at one time a solid mass that stood 100 feet above the lake level. The lake erosion dissolved the softer limestone that was in the center of the arch. As we walked and biked around the island, we saw the Sugarloaf Stack formation, which is another example of the breccia limestone features in the Mackinac Island and St. Ignace area of the erosion resistant stacks. We climbed to the highest elevation on the island, which is referred to as the Ancient Island where we took a group photo. We observed the features cut by the former Lakes Nipissing and Algonquin. We also visited skull cave, the cave in the woods, and the crack in the island. The cave in the woods is a feature that represents the level of former Lake Algonquin.



Dr. Clarey providing information about the Sugar Loaf Formation. Photograph courtesy of Sara Pearson.

We finished Saturday with some free time on the island to enjoy some fudge, shopping, and a cold ale or two. Those of us who were not too tired from



touring the island enjoyed a great fireworks display over the bay in St. Ignace on Saturday night.



A view of Arch Rock on Mackinac Island. Photograph courtesy of Sara Pearson.

Sunday morning was kicked off with a stop in St. Ignace to see the limestone breccia stacks including the Castle Rock tourist attraction just off I-75. We collected from an outcrop of the Pointe Aux Chenes Shale in St. Ignace before traveling to the quarries in the Trout Lake area. We stopped at the Ozark Quarry and former Fiborn and Scott Lake quarries to see the Silurian age limestone and dolomite deposits. Approximately 15 feet of Engadine Dolomite is exposed at the Ozark Quarry. The Fiborn Quarry was purchased in 1987 by the Michigan Karst Society. As a karst preserve, fossil collecting was not allowed, but we did enjoy trails and seeing the entrance to the Hendrie River Water Cave, longest cave in Michigan. Before heading to the former Scott Quarry, Tim turned the tour over to geologist John Esch to see the disappearing Biscuit Creek. Unfortunately, the creek bed was dry, but Robbie Austin, Larry Austin's son, made the most of it discovering some great fossils in the creek bed.

We finished the trip collecting fossils from the Cordell Dolomite at the abandoned Scott Quarry. The specimen included corals, brachiopods, and stromatoporoids.



The abandoned Scott Quarry was the last stop of the second day. Trip participants collected fossils from the Cordell Limestone found in the quarry which included corals, brachiopods, and stromatoporoids. Photograph courtesy of Sara Pearson.

I would like to thank everyone who joined us for the trip and Tim Clarey for making the trip fun and a great success!

Sara Pearson, CPG

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## Welcome New Members

The Michigan Section is continuing to grow. Please welcome the following new CPGs, Professional Members, Young Professional Members, Associate Members, and Students:

Jim Sova, Carolyn Powrozek, Christopher Goeddeke, Casey Miller Adam Mulling, Zachary Simpson, Abraham Abduslam, and Christa Powell.

To each of our new members, the Michigan Section Executive Committee would like to welcome you to our Section, and encourage you to attend Section meetings and other events. You are also welcome to provide information for the Member's Corner articles.

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## MDEQ Listserver Note

In the Department of Environmental Quality's (MDEQ) Remediation Division's June 29, 2012 listserv note we had identified that the groundwater venting to surface water amendments to [Part 201](#) were signed by Governor Snyder on June 14, 2012 as [P.A. 190 of 2012](#). This note is to provide further information regarding these amendments.

The act amends [Section 20120e](#) of Part 201 and rescinds the groundwater/surface water interface (GSI) rule (R 299.5716) pertaining to the cleanup criteria for contaminated groundwater. The amendments provide additional clarity for existing options and allow for more flexibility in selecting alternatives to evaluate and achieve compliance for

the GSI pathway. The available alternatives (singly or in combination) include the following:

- Meet Generic GSI Criteria
- Apply for variance from the surface water quality standards
- Request a mixing zones determination
- Propose alternative monitoring points
- Develop site-specific criteria (may include biological criteria)
- Perform an ecological demonstration
- Perform a modeling demonstration
- Demonstrate that the pathway is not relevant
- Demonstrate De Minimis effect on a surface water body
- Demonstrate technical impracticability
- Demonstrate facility specific evidence of natural attenuation

The amendments include self-implementation options for evaluation and response activities that rely on GSI monitoring wells and alternative monitoring points to demonstrate compliance with generic criteria. The amendments also expand the self-implementation options for non-liable parties undertaking response activities to meet generic criteria. Reliance upon alternative monitoring points to demonstrate compliance with generic criteria requires a 30 day notice to the MDEQ. MDEQ approval is necessary in most cases for response activities including variances, mixing zones, proposed alternative monitoring points, site-specific criteria, ecological demonstrations, modeling demonstrations, and technical impracticability waivers. The MDEQ must be notified of de minimis effect determinations and has 90 days to disapprove the determination or it is otherwise approved.

The amendments also move the point of compliance in storm sewers to the outfall where the storm water discharges to waters of the state. The act also allows for demonstrations of the “tightness” of storm sewers using industry standards. The amendments may be applied retroactively.

In addition to the GSI amendments, the MDEQ also issued DEQ [Policy and Procedure Number 09-014](#): Evaluating Mercury in Groundwater Plumes Relative to the Groundwater/Surface Water Interface (GSI) Pursuant to Part 201 on June 20, 2012. This policy establishes 200 ng/L as the action level for mercury allowing for the use of United States Environmental Protection Agency (U.S. EPA) Method 245.1 to quantify the level of mercury in groundwater that is

venting to surface water. If concentrations greater than 200 ng/l are found, the policy states that a sequence of activities will occur to determine if the data are correct and what is the source of mercury. Providing the data are representative, response actions would be required and the compliance goal is the Water Quality Standard of 1.3 ng/l. If facilities have mercury concentrations between 1.3 ng/l and 200 ng/l, no further response action is required.

The MDEQ is currently in the process of identifying, preparing and reviewing policies and procedures to further assist with the implementation of the GSI amendments.

For general GSI questions, please contact Sara Pearson, CPG, Senior Geologist, Remediation Division, MDEQ, 616-356-0253, e-mail [pearsons@michigan.gov](mailto:pearsons@michigan.gov). For site specific questions, please contact the respective [Remediation Division district office](#).

For website and listserver questions, please contact Susan Norton, Remediation Division, MDEQ, 517-373-2113, e-mail [nortons1@michigan.gov](mailto:nortons1@michigan.gov).

Sara Pearson, CPG, MDEQ RD Senior Geologist, Grand Rapids District

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## AIPG Michigan Section Contributes Scholarships to the MDNR's Academy

The AIPG-Michigan Section contributed 12 scholarships for Michigan teachers to participate in the MDNR's Academy of Natural Resources. The Academy was held this July 15-20th at the MDNR's conference center at Higgins Lake. The MDNR's Academy, now in its 5th year, is open to all Michigan educators who wish to learn more about natural resources in this week long mixture of classroom and field experiences that are taught by a variety of professionals. The Academy is recommended for middle school and high school teachers because most of the material covered is higher level science.

For more information about the Academy, access the following website [www.michigan.gov/anr](http://www.michigan.gov/anr) or contact the MDNR's Academy of Natural Resources coordinator Kevin Frailey at (517) 373-7306 or [fraileyk@michigan.gov](mailto:fraileyk@michigan.gov).

John Barkach, CPG

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## Newsletter Notice via E-mail

Please be sure that you continue to receive the Section newsletters and other announcements. Submit an updated e-mail address to Adam Heft at [heft@pbworld.com](mailto:heft@pbworld.com). If you move or change places of employment, don't forget to send your new contact information to both the Section and to National. If you are not receiving announcements directly from the Editor, it is because your email address is not up to date.

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## Section Website Reminders

As you may have noticed, the Michigan Section is working on building a database of geologic photographs on our website. We would like to continue building this collection. Please submit photographs that you are willing to share to Adam Heft at [heft@pbworld.com](mailto:heft@pbworld.com). Don't forget to include your name and a short explanation of what the photograph depicts. The photographs will be periodically uploaded to the website once several have been received.

You will also note that the Section website now has a history page. Currently, it includes information on Douglas Houghton, Michigan's first State Geologist. We will be including information on the Section's officers in the near future. If you have suggestions on other items that should be included on this page, please let a member of the Section Executive Committee know.

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## Member's Corner

*The Member's Corner includes information about the Section's membership. This is your chance to provide information on where you are and what you are doing. Simply send the information to the Editor for inclusion in this section.*

No Member's Corner articles were received for this edition of the newsletter.

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## Employment Opportunities/Seeking Employment

*To serve our members, and provide added value, the Michigan Section Executive Committee has decided to allow ads for employment opportunities to be posted in the Section newsletters. Employment ads will run for one edition unless renewed. There is no cost to our members or sponsors for this service. Send your employment opportunities to the Editor.*

No employment opportunities were received for this edition of the newsletter.



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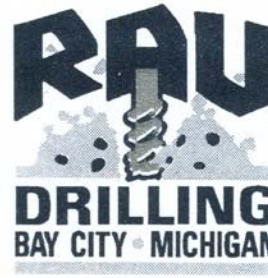
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**Michigan Chapter  
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MEETING ANNOUNCEMENT**

**September 13, 2012**

**HYDRAULIC FRACTURING – THE FACTS BEHIND THE  
CONTROVERSY**

Featured Speaker:

[Hal Fitch](#)

**Location:** Kellogg Center, Michigan State University, East Lansing, MI (Map attached)

**Cost:** Students Free, Members \$35.00, Non-members \$40.00. Parking passes will be provided to attendees as they sign in at the door. **Registration is payable at the door by cash or check; however, prepayment is preferred and speeds up the check-in process at the door. Please note: Cancellations made within 24 hours of the meeting and/or “No Shows” will be charged and expected to pay the registration fee.**

**Dinner:** Choice of: Pecan Crusted Chicken w/Asiago Cheese and brown butter sauce; Macadamia Crusted Lake Superior White Fish w/mango butter sauce with citrus pilaf; Flat Iron Steak w/wild mushroom hash and smoky bourbon sauce. All entrees include chef selection of potato/rice, fresh vegetables, rolls and butter, and chocolate chip cheesecake.

**Time:** Cash Bar 5:30-6:30 PM, Dinner 6:30 PM, and Speaker 7:30-9:00 PM

**RSVP:** Tim Cullen, at [trcullen@umich.edu](mailto:trcullen@umich.edu) or 734-763-5267 no later than September 10, 2012 and include your meal choice! Please include “AIPG Section Meeting” in the subject line. Checks may be mailed to Tim at this address: 21857 Parklane St., Farmington Hills, MI 48335. Payment may also be made at the door.

Hal Fitch has served as Director of the Office of Oil, Gas, and Minerals (OOGM) of the Michigan Department of Environmental Quality since 1996. The OOGM regulates oil, gas, and brine wells and facilities; underground disposal wells; mineral exploration test wells; and surface and underground mines.

Hal earned a Bachelor of Science degree in Geology from Michigan Technological University in 1972. He began his career as a geologist with the U.S. Geological Survey in Denver, Colorado, where he spent two years doing geologic mapping and resource evaluation. He then returned to his home state and joined the Geological Survey Division, predecessor of the OOGM. He has been with the OOGM since 1974 except for a two-year break to do graduate work in hydrology at the University of Arizona. Prior to his appointment as Director of the OOGM, Hal worked as a field inspector, ground water specialist, and district supervisor, and was stationed at several field offices in northern Michigan as well as at Lansing.

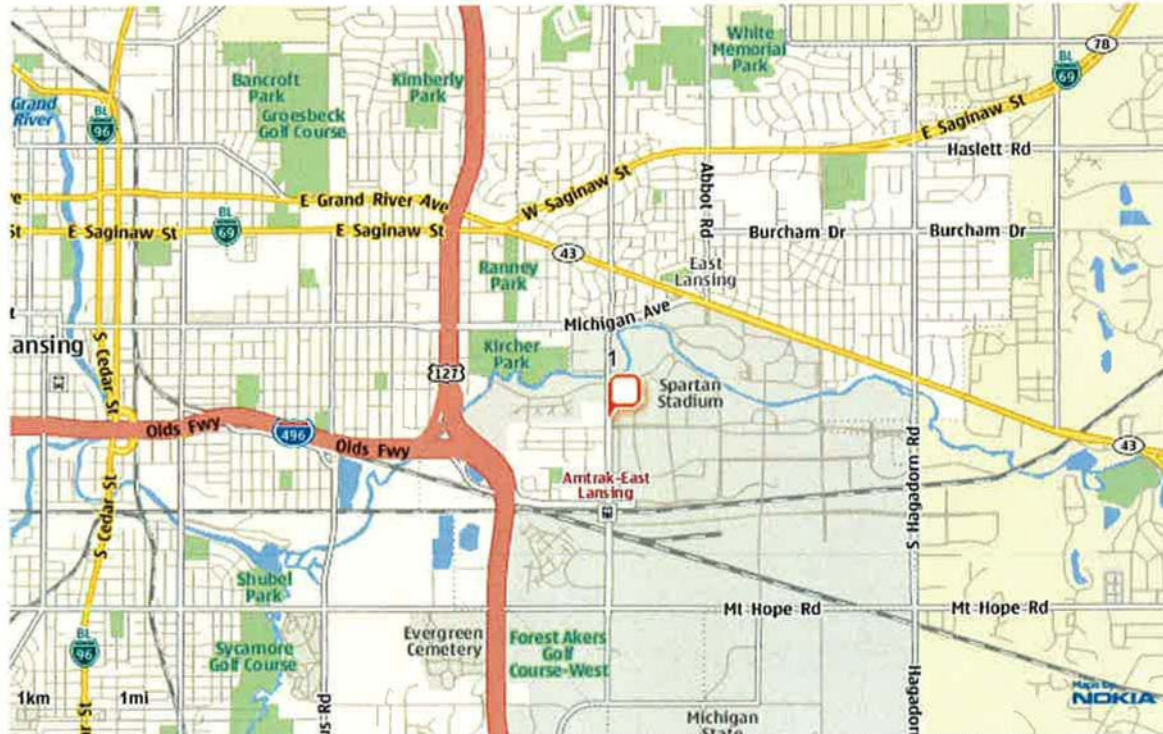
# AIPG Section Meeting September 13, 2012

## Kellogg Center, East Lansing

**YAHOO! MAPS**

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Kellogg Ctr, East Lansing, MI 48824



When using any driving directions or map, its a good idea to double check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning

**From the East - I-96 West, to US-127 (exit 106) North (3.1 miles) to Trowbridge Road exit East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the Southwest - I-94 East to I-69 North, to I-496 East; East (5 miles) to Trowbridge Road (exit 9) East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the West - East on I-96 to I-496 (exit 95) East (9.7 miles) to Trowbridge Road (exit 9) East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**

**From the North - South on US-27 to US-127 South (8.5 miles) to Trowbridge Road exit East (.5 miles) to Harrison Avenue; turn left North approximately 1 mile on the right (four traffic lights up).**