

Michigan Prosperity Initiative

Sponsored by Michigan State University

Meet and learn from people who are proving that businesses, communities, cities and regions can reinvent themselves to be prosperous and sustainable in the global economy. NE (New Economy) courses offered in Southwestern Michigan address the underutilized economic analysis tools and how to apply them to concrete actions needed to improve prosperity in Michigan. The training programs are all FREE! Register online at www.landpolicy.msu.edu/MPI.

New Economy 101: Fundamentals of the New Economy (2-hours)

This program will describe how Michigan's present economic circumstances developed, and emphasize that because Michigan has many assets there is good reason to be hopeful about our economic future. This program is open to all audiences.

New Economy 201: Place-Based Regional Economic Planning (4-hours)

This program will focus on a simple common vision and basic goals for prosperity; it will describe in detail Michigan's critical assets and then identify place-based strategies to help us create new prosperity on a regional basis. This program is intended for those that attended New Economy 101, and professionals and representatives of key stakeholder groups.

New Economy 301: Strategies to Bridge the Gap (6-hours)

This program will address detailed economic analyses that can be performed to help inform regional strategic growth plans and the key strategies necessary to implement those plans. This program is intended for those that attended the first two programs, and planning and economic development professionals. ■

Location	Date	Time	Program	Instructor(s)	Facility
Benton Harbor	4/27/2010	6:30-8:30PM	NE 101	Neumann	Michigan Works 499 W. Main Street
South Haven	4/29/2010	6-8PM	NE 101	Pioch	Lake Michigan College- South Haven Campus 125 Veterans Blvd.
Benton Harbor	5/13/2010	8:30AM - 12:30PM	NE 201	Neumann/Pioch	Michigan Works 499 W. Main Street
Benton Harbor	6/9/2010	9-12 & 1-4PM	NE 301	Wyckoff/Neumann/Pioch	Michigan Works 499 W. Main Street

We Are Expanding Into the Kalamazoo/Battle Creek Area

We are now offering a broader range of municipal and private project experience to the Kalamazoo and Battle Creek area by consolidating with our affiliate office, Wightman Ward, in Portage Michigan. Our two companies have been affiliated since 1993 and have worked together on projects throughout the years. This opportunity offers our clients and new clients in the area many more services and a much larger staff than were available in the past.

The Portage branch office will have a dedicated engineering and architectural staff in order to provide a one-stop source for virtually all of client project needs.

In addition to the survey and site design services offered previously, WAI will offer municipal engineering services for transportation, water and sewer projects; commercial and residential architectural services; and energy auditing.

Joining us from the Wightman Ward staff will be Gary D. Hahn, P.S., Survey Manager, Troy Root, survey technician, and Mindy Kline, office administrator. Gary also serves as the Kalamazoo County Surveyor.

Engineers, Steve Carlisle, PE. and Alan Smaka, PE., will join the Portage office to provide municipal engineering services. Architect, Andy Mollison, A.I.A, will provide architectural services and energy audits.

Please join us for an open house celebration
May 6th, 4 - 6 p.m. ■



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Benton Harbor, MI 49022

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TRAFFIC ENGINEERING

STREETScape DESIGN

SUSTAINABLE DESIGN

INSIDE No Dig Big Sewer

2 Energy Audits

ICE Funding

Village of
Eau Claire
Funding Success

3 People

Projects

4 Michigan Prosperity Initiative, NE Classes Offered

WAI Expansion

Hickory Creek is one of those winding, picturesque creeks flowing through miles of a ravine system in Lincoln and St. Joseph Charter Townships, Berrien County not unlike many found in our state. In the early 1970's before the stricter environmental regulations were put in place, an interceptor sanitary sewer system was installed along the bottomlands adjacent to Hickory Creek.

The weak native soils, consisting mainly of peat and muck, did not allow for the use of conventional pipe materials or methods of construction. Concrete pipe, used in the early stages of construction, sunk into the weak soils so the majority of the system was constructed using lightweight corrugated metal pipe (CMP) and manholes with a bitumastic lining with many segments supported by piles. Large diameter plastic pipe was not available at the time.



The CMP system was estimated to have a 20 year life span. Almost 40 years later, the Hickory Creek interceptor to our knowledge is the only CMP sanitary sewer system still in use in Michigan. The corrosive nature of the sewage and the native soils has deteriorated the system to a very serious degree. During past flooding events of Hickory Creek, the interceptor line has experienced excessive infiltration and inflow.

Twice in the last few years, a manhole lid was removed and left off. The creek rose beyond its banks and approximately 9,000 gallons per minute of creek water entered into the interceptor to make its way to the Joint Wastewater Treatment Plant resulting in increased operation costs. One of the events resulted in an overflow discharge at the treatment plant.



The WAI team, at the request of the Southwest Michigan Regional Sanitary Sewer and Water Authority (SMRSS&WA), has investigated various options to improve the system. These options were limited by the environmentally sensitive location of the sanitary sewer due to enhanced regulations of wetlands and floodplains.

For instance, traditional open cut construction would have required hundreds of acres of wetland mitigation. The options explored were abandonment of the interceptor with construction of a new forcemain and pump system and several trenchless technologies for in situ replacement. The alternatives were compared based on a 20 year present worth analysis, environmental effects, and construction costs. The most cost effective, non-invasive option was found to be structural cured in place pipe (CIPP) relining.



CIPP is a jointless, seamless, pipe-within-a-pipe with the capability to rehabilitate pipelines ranging in diameter from 6" to 96" and to negotiate bends. Prior to installation, the existing interceptor sewer will be thoroughly cleaned. Then at existing manhole access points, the liner – a resin-saturated felt tube made of polyester – is affixed around the end of the pipe section to be lined and is inverted into the pipe and pressed firmly along the inner wall using compressed air or water pressure. Hot water is circulated through the section being relined, thermo-setting the epoxy resin to form a tight-fitting, jointless and corrosion-resistant replacement pipe. The rehabilitated pipe is then inspected by closed-circuit television to ensure the final product has the proper shape and that a continuous, consistent pipe liner was formed.

The final product is a liner that is smooth, hard and strong, with a chemically inert interior surface closely following the contours of the host pipe. The CMP manholes will be lined with fiberglass pipe and all manholes will be fitted with watertight, hinged covers with locking capabilities. Bypass pumping of interceptor flows will be required during construction, which is scheduled to begin May 1, 2010.

Stay tuned for more updates on this exciting project. ■



Blower Door Test

Learn How to Reduce Your Utility Bills by 10% to 40%

Now more than ever people are trying to find ways to tighten their belts by reducing unnecessary expenses. Energy audits are a great way to do just that. By investing a few dollars in hiring a professional to audit your energy usage you can learn how to save significantly on your utility bills.

Wightman & Associates, Inc. can inspect, test, and analyze homes, businesses, and other

facilities to determine where energy is being wasted and how to stop it. Our audits have recommendations on energy conservation measures with estimated energy savings, implementation costs, and payback periods. You'll have all the tools you need to make an

informed decision on where best to invest your resources to achieve a maximum return on energy efficiency upgrades.

With Wightman & Associates' help, Lake Charter Township received a \$50,000 grant from the Michigan Department of Energy, Labor, and Economic Growth through an Energy Efficiency and Conservation Block Grant. This grant will be used for two purposes. First, the Township will upgrade security lighting at the water treatment plant to more efficient light fixtures which is expected to reduce their electric bill by \$8,000 per year. Second, customers of the water treatment plant will be offered a 50% subsidy on the cost of a residential energy audit. These audits can often save homeowners over 30% on their utility bills.

Home owners can also receive tax credits and rebates through the Tax Incentives Assistance Project and the American Recovery and Reinvestment Act to help finance energy upgrades.

Anyone interested in having an energy audit performed on their home can pick up an informational brochure at the Lake Charter Township Hall, our Benton Harbor office, or our Portage office. Or they can simply call us at (269) 927-0100.

Municipal clients have access to low cost financing options through the Michigan Municipal Bond Authority through the Bureau of Energy's Rebuild Michigan Program. Wightman & Associates, Inc. is one of the registered Technical Consultants qualified to perform the required Technical Energy Analysis, which is another form of Energy Audit.

Commercial clients have just as many reasons to pursue an audit as municipal and residential clients. Everyone can benefit from reduced utility bills. Call our office today if you'd like us to help you find ways to reduce your facility's operating expenses. ■

Ice is Nice

The City of Springfield secured grant funding through the Michigan Economic Development Corporation Community Development Block Grant Program Infrastructure Capacity Enhancement. Commonly referred to as ICE funding, it is funding that is



available on a competitive basis to many communities.

Springfield put their funding to good use by paving 4.25 miles of city streets

and replacing 8 gate valves on their water system. WAI developed the contract

documents and project specifications as well as provided project assistance and guidance when needed.

Many southwest Michigan communities have been able to take advantage of the available MEDC grant funds. If you think that your community is eligible, give us a call and let WAI help you through the process. ■

More Birds, One Stone

In early 2009, the Village of Eau Claire submitted a funding application to secure funding through the United States Department of Agriculture, Rural Development to replace its two sanitary sewer lift stations. The Village wanted to replace their aging lift stations to avoid costly repairs and improvements required by state regulation. Later they discovered that 100% grant funds were becoming available for road resurfacing from the American Recovery & Reinvestment Act through the MDOT Local Agency Program.

Now the Village could have new lift stations and improved roads. But new roadwork would pave over the existing old, problematic water infrastructure. Considering the economy and the Village officials' sensitivity to placing any further burden on ratepayers, we looked at the water improvements that were needed during the design phase and strategically selected those that would replace only the most vulnerable water main. This also required amending the previously submitted

funding application.

As the details of the ARRA continued to evolve and with the introduction of the Build America Bond program in mid-late 2009 (the program provides a 35% annual rebate on interest payments for the life of a bond), the Village once again chose to take advantage of available funding opportunities by adding repainting of its water tower



to the USDA-RD project scope. With the rebate, it was determined the end cost to the user remained virtually the same while adding a much needed repair to the Village water tower.

One of our core values at Wightman & Associates is *Expend our clients resources as if they were our own*. And we all like to get the most bang for our buck. So we take the years of municipal engineer experience and constant research for funding opportunities to make the maximum budget available to solve the most needs. Sometimes this means adapting our services, schedules, funding applications, and coordinating the work associated with different funding sources. Staying flexible is important.

In this case, instead of two birds, the Village got three birds with one stone! ■

Great Things are Happening People



Jamie Harmon received her Professional Engineering license. She also is LEED AP certified. Jamie is a project engineer and is the WAI source for grant research and for writing applications. Her project work includes road, water system, storm sewer, and site designs. Jamie prepares community recreation and capital improvement plans. She has a Bachelor's degree in Civil Engineering from Western Michigan University.



Matt Davis, P.E., LEED AP recently wrote an article for the April edition of the *Michigan Township Association Magazine*. His article, "The Benefits of Inter-municipal Utility Services", provides insights into how communities can make decisions that will be in the best long-term interest of all the customers and result in an agreement that will be successful. If you would like to read this article, go to www.wightman-assoc.com.



Now staffing the WAI Portage Office Gary Hahn, P.S. is the survey manager in the Portage office and most recently was the president of Wightman Ward before the consolidation with WAI. He also is the elected Kalamazoo County Surveyor. Gary graduated from Ferris State University with a B.S. in Land Surveying and Mapping.



Troy Root began his surveying career in 1997. His project work includes boundary surveys, topographic surveys, and ALTA/ACSM Land Title Surveys. Troy also provides CAD services preparing construction drawings for numerous site plans, condominiums and plats. A Gaylord native, Troy graduated with a double major in Mathematics and Computer Science from Northern Michigan University.



Mindy Kline will continue as office administrator, a position she has held for over 10 years. Mindy also assists in new business development for the Portage branch. She and her family live in Mendon.



Jose Rios recently joined WAI as a drafter. He is attending Lake Michigan College to get a degree in drafting. Jose previously was an excavator for Triple D. Excavators.

You may have seen us.

WAI staff and families participated in the I-94 Adopt-A-Highway pick-up program in April. We cleaned between mile markers 34 and 36 and are always surprised at what we find. ■



Great Things are Happening Projects

City of Bridgman

- MDOT enhancement & ARRA funded streetscape & street improvements
- Site plan and bidding documents for Weko Beach Play Area parking lot addition

SMRSS&WA

- Hickory Creek Interceptor Improvements funded with local bonds sold through the Build American Bond Program

Pokagon Band of Potawatomi Indians

- Demonstration kitchen design for communities program
- Storage building design at Tribal Headquarters property
- Site & Architectural design for Community Center that will be Silver LEED Certified & incorporating passive & active solar technologies

Nottawaseppi Huron Band of Potawatomi Indians

- Master plan for 86 AC mixed use property & design for the initial phase of development

Andrews University

- Storage building design
- Site grading plan & site utility plan for Burman Hall addition

New Buffalo Township

- Design & admin for USDA RD funded water main upgrades on US-12 & Behner Road, & sanitary sewer improvements on Kinst Road
- Design & construction engineering Maudlin & Hoder Road water main & sanitary sewer

Berrien County Drain Commissioner

- Preliminary engineering & surveying for Eaman Drain

Village of Three Oaks

- Application for USDA funding of various water system improvements

Meeks Construction

- Layout & a 3-D model of a proposed pond & adjacent housing

Village of Three Oaks

- Bidding documents & assistance for repaving of various streets

City of Gobles

- MEDC application, project design, bidding, & construction engineering for a water main improvements project.

Covert Township

- USDA-RD Pre-development Grant for waste water system. Completed I&I study & USDA pre-engineering report.

Cass County

- Phase I design & construction engineering & Phase II design for MGZ Non-motorized Pathway

Water Service Joint Operations Board

- Update procedures for water main construction

City of New Buffalo

- Scour protection design - Harbor Pointe to bridge

Village of Baroda

- 2010 Routine Bridge Inspection
- Design & construction engineering for Hills Road
- Church Street scour action plan

Gravel Lake Residents

- LOMA Application for numerous homeowners around Gravel Lake

St. Joseph Charter Township

- Preliminary design, construction & administrative architectural services for renovations to soccer pavilion funded by MDNRE Trust Fund & private donors

AEP

- Topographic survey & easements for Concord Northwest Elkhart 69KV line

Berrien County GIS

- Condensing descriptions for the tax description program

Southwestern Michigan College

- Design & construction documents for reconstruction of an existing parking lot

Keeler Township

- 5-year Community Park & Recreation Plan including an action plan consisting trail projects in & around the Sister Lakes area

Baroda Township

- Michigan Natural Resources Trust Fund application to MDNRE for improvements for a pavilion with bathrooms & kitchen, paved pathways around the park, fishing pier, playground equipment, & picnic tables.

Lake Charter Township

- Energy Efficiency & Conservation Block Grant to upgrade water plant lighting & provide for residential energy audits.

Four Winds Casino Resort

- Design for a new laundry room, gifting center, & new coat check. Renovated cashier cage

Ward Residence

- Renovation & restoration of historic home

Buchanan Area Senior Center

- Survey, site engineering & structural peer review for new center

Leco

- Site & new building design

Chemical Bank - Hagar Shores

- Replacement of pressurized septic system

Private

- Eckert Drive duplex septic system design

Portage Public Schools

- Phase II design and bidding for 1300 ft pathway